Afbeelding met Lettertype, ontwerp, wit, logo

Door AI gegenereerde inhoud is mogelijk onjuist. Afbeelding met tekst, Lettertype, schermopname, logo

Door AI gegenereerde inhoud is mogelijk onjuist.

# CGI

# Change History

|  |  |
| --- | --- |
| date | Modifications |
| 20160317 | Add EncoderType URL when getting HTTP tunnel video |
| 20160317 | Added description of encoderType constant in stream configuration |
| 20160322 | Add the legitimacy description of username and password |
| 20160615 | Update the description of the arrowID URL in the OSDCanvas function |
| 20161201 | HTTP method to request video with AudioFlag flag |
| 20161216 | Update PTZ modules supported by Fisheye devices |
| 20170221 | 1. Updated the alarm status value description in Table 3.7.1 (3).  2.2.6.4.1.3 Modify the Example URL.  3.2.5.8.1 Remove the speed URL. |
| 20170309 | Added 2.4.3.2 alarm output manual control function |
| 20170519 | Added 2.10 to get real-time audio |
| 20170711 | 1. Add OSDBlinkFlag and OSDBlinkInterval URL in OSDCanvas of 2.6.2.9.1; 2. Change the setOSDCanvas method in 2.6.2.9.3. It originally only supports setting one canvas at a time. Now it is changed to setting multiple canvases in a loop. In each canvas, multiple OSDInfo are set in a loop. |
| 20170718 | Corrected 2.5 PTZ function Example URL |
| 20170818 | Modify the alarm status URL and description in 2.4.3.1 manual alarm (manualAlarm) |
| 20171016 | Add LPR configuration and retrieval |
| 20171107 | Added Fisheye correction parameters and installation mode settings |
| 20180621 | CGI thermal imaging function |
| 20180627 | 3D positioning function |
| 20180918 | Update OSDCanvas function description, improve 3D positioning function description, and add disk status |
| 20181215 | Add and modify user functions and add user functions |
| 20181228 | Added zoom focus function |
| 20191020 | Add AI thermal imaging related functions, Refer to 2.6.13  Added infrared light 2.8.9, white light 2.8.10, wiper 2.5.12, lens flushing 2.5.13 control functions |
| 20200518 | Added people counting related functions, Refer to 2.6.9.13.1 |
| 20210730 | Added the ability to set and get multi-target parameters |
| 20230626 | New interfaces:  Audio output, system, pseudo color settings, FFC control, smoking detection, fire spot detection, fireworks detection, entering area, leaving area, network alarm, message push, maskinging area, 802.1X, port mapping, FTP, IP filtering, SNMP, QOS, platform access, CMS configuration, multicast parameters, scheduled restart.  New URL:  Device information: ubootVersion, kerneVersion, networkCardNum ;  AI Multi-target: FilterStaticEnable;  Device port: sslPort;  Recording strategy: PreRecordTime;  Motion detection alarm: motionDetectStreamEnable;  Protocol information: rtspRule, rtspExample , onvifUuid;  Alarm email: anonymousSendEnable;  Reset: keepIpAddresses . |
| 20230801 | New interfaces:  Some advanced intelligent analysis capabilities, intelligent analysis capabilities  Revise:  Improve some advanced intelligent analysis and intelligent analysis interfaces, and Return URL based on capabilities |
| 20230825 | Add and modify interfaces:  Capture, solution, mode, day and night, time zone capability, camera, OSD capability, audio capability, Voice denoise, PTZ capability, motion detection capability, Audio alarm output, infrared thermal imaging capability, ambient temperature, temperature measurement area, alarm output, deployment linkage, manual recording, privacy masking capability, go to privacy masking, DDNS, SMTP test, FTP test, alarm service center test, SNMP security level capability, delete user, get all users, get all groups, get specified user permissions, get specified group permissions, BonjourService, P2P, QRCode, LED light control parameters |
| 20231009 | Added:  Image, import and export configuration |
| 20231110 | Added:  ROI capability, ROI, white balance, exposure, AI multi-target capability, SVCStream capability, SVCStream , advanced capability, advanced  Revise:  Image enhancement, intelligent analysis supports preset mode, human body temperature measurement parameters, image calibration, intelligent tracking, day and night |
| 20240328 | Added:  Merge The lite series documents and NVR documents; support three devices for setting instructions; |
| 20240430 | Added:  Remove plaintext checksum; |
| 20240606 | Updated catalogue and title levels and updated lite series names |
| 20240709 | Added:  Day night switch alarm; IPC Flashlight alarm; Play audio alarm |
| 20240801 | Added:  PTZ setHome, restoreHome; Heating command; NVR event log and Smart motion detection |
| 20240908 | Added:  NVR video upload multiplier control |
| 20240923 | Added:  PC calibration time, new NAS, FTP, video control interfaces |
| 20240928 | Added:  Hard hat; safety jacket |
| 20240930 | Added:  Security services; list events |
| 20241218 | Added:  Intelligent Analysis Extension 1 Alarm Subtype and Advanced Intelligent Analysis Description |
| 20241226 | Added:  Low power; analog signal; zoom focus |
| 20250126 | Added:  Get online user(IPC The lite series) Record Control (IPC The lite series) |

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# Introduction to CGI

CGI (Common Gateway Interface) is a suit of interfaces based on HTTP which used between IP Camera and NVR. Client program can operate devices via CGI command.

## Description of the main CGI modules

Table 1-1

|  |  |
| --- | --- |
| **Module Name** | **Description** |
| **video.cgi** | Live Video |
| **record.cgi** | Video |
| **image.cgi** | Snapshot |
| **alarm.cgi** | Call the police |
| **ptz.cgi** | PTZ Operation |
| **param.cgi** | Get and configure device parameters |
| **operate.cgi** | Device operations, such as restart, reset, etc. |
| **sensor.cgi** | Front-end configuration |
| **audio.cgi** | Real-time audio |

## User Authentication

Any visit to CGI needs to be Authenticated by username and password for security. Device gives visitor corresponding permission by authorizing username and password.

There are two authentication mechanisms: Basic Authentication in HTTP, attach username and password to parameter of CGI program.

## Access to CGI

CGI programs support URL access and form access. Different URLs accessed by users correspond to different CGI programs. When users use CGI programs through forms, they should ensure that the URL used to access the CGI program is consistent with the corresponding parameters of the CGI program to be accessed. The encoding format of the URL is UTF8 and must comply with the RFC\_3986 standard. Other encoding formats may cause exceptions.

Note: In the following two Examples of accessing CGI programs, the test machine IP used is: 192.168.1.121

The account and password to access the machine are admin and admin respectively

### Sample of Form Access to CGI

Example code:

|  |
| --- |
| <form action="http://<servername>/cgi-bin/param.cgi">  <input name=”userName”>  <input name=”password”>  <input name=”operate”>  <input name=”type”>  <input type=submit value=”ok”>  </form> |

### Sample of URL Access to CGI

|  |
| --- |
| http://<servername>/cgi-bin/param.cgi?action=get&type=deviceInfo |

## Return of CGI

Depending on the operation type, CGI Return types are divided into the following categories: general response, plain document, text string, image data body and URL string, MJPEG stream data, and alarm data.

### General Response

Successful:

|  |
| --- |
| HTTP Code: 200 OK  Content-Type: text/plain  OK |

failed :

|  |
| --- |
| HTTP Code: 200 OK  Content-Type: text/plain  *<error message>* |

*<error message>The error message usually was Returned by format “error, Return=%d”, the %d in the string is the error code. The meaning of the error code can refer to* [3.3 Error Constant](#ErrorConstant)

### Plain Text

Usually the device status or parameters are Returned by format plain text, the specific format of this text includes HTTP Code, Content-Type of text, Content-Length and body.

**Example** :

|  |
| --- |
| HTTP Code: 200 OK  Content-Type: text/plain  Content-Length: <body size>  <body>  <parameter>=<value>  <parameter>=<value>  ... |

**Note:**

1. If operation fails, the body is the Returned error code, the details can refer to [3.3 Error Constant](#_错误常量).
2. If operation successful, the loop part is composed of ‘**Begin---next\_URL---End**’, **Begin** indicates the start of first segment in list; **next\_URL** indicates the end of last segment and the beginning of the next segment; **End** indicates the end of all the segments. The details can refer to [**­­3.1 Context Format Rule**](#ContextFormatRule)

### String Text

Usually the results of the operation are Returned by format String text, the specific format of this text includes HTTP Code, Content-Type of image, Content-Length and body.

|  |
| --- |
| HTTP Code: 200 OK  Content-Type: text/plain  Content-Length: < body size>  < message > |

### image data body

The captured image data will be Returned in image format. The specific format of the data body is HTTP protocol version , Returned image data type, image data body length and data body.

**Example** :

|  |
| --- |
| HTTP Code: 200 OK  Content-Type: image/jpeg  Content-Length: <image size>  <image data> |

### URL text string

The URL string format generally Returns the RTSP access address in the format of protocol type, IP port, and related code

**Example** :

rtsp://192.168.250.27:554/snl/live/1/1

### H264 stream data

The H264 stream data is Returned when request H.264 stream, the specific format of this data includes HTTP Code, Connections, Content-Type of image, and Content-Length, stream data

**Example** :

|  |
| --- |
| HTTP Code: 200 OK  Date: <Date>  Pragma: no-cache  Cache-Control: no-cache  Content-Type: multipart/x-mixed-replace; boundary=myboundary  --myboundary  HTTP Code: 200 OK  Content-Type: video/h264  Content-Length: <data len>  < data len>  …  --myboundary  HTTP Code: 200 OK  Content-Type: image/jpeg  Content-Length: <data len>  < data len> |

### MJPEG stream data

MJPEG encoding is used to pull streams, the data is Returned in this format. The specific format of the data body is the HTTP protocol version , connection mode, Returned image data type, image data body length, and data body.

**Example** :

|  |
| --- |
| HTTP Code: 200 OK  Date: <Date>  Pragma: no-cache  Cache-Control: no-cache  Content-Type: multipart/x-mixed-replace; boundary=myboundary  --myboundary  HTTP Code: 200 OK  Content-Type: image/jpeg  Content-Length: <image size>  <image data>  …  --myboundary  HTTP Code: 200 OK  Content-Type: image/jpeg  Content-Length: <image size>  <image data> |

### Alarm data

The alarm information is Returned by this format. the specific format of this data includes HTTP Code, Connections, Content-Type of plain, and Content-Length, alarm data

**Example** :

|  |
| --- |
| HTTP Code: 200 OK  Date: <Date>  Pragma: no-cache  Cache-Control: no-cache  Content-Type: multipart/x-mixed-replace; boundary=myboundary  --myboundary  HTTP Code: 200 OK  Content-Type: text/plain  Content-Length: <body size>  <body data>  …  --myboundary  HTTP Code: 200 OK  Content-Type: text/plain  Content-Length: <body size>  <body data> |

### Description of application of the product series

**This document supports the following products:**

**IPC, NVR, IPC (Excluding the lite series), IPC (The lite series)**

**IPC: indicates our IPC products**

**NVR: indicates our company's NVR products**

**IPC (The lite series): specifically refers to The lite series series IPC products.**

**IPC (Excluding the lite series): specifically refers to Excluding the lite series series IPC products**

**Thermal: specifically refers to products with functions related to thermal temperature measurement;**

**LPR: specifically refers to products that include LPR-related functions;**

**If there is no special description, it proves that this instruction normally supports three devices; if the above markings are carried, they are only applicable to specific series of products.**

# CGI Commands

## Live Video (video.cgi)

Real-time video supports the RTSP protocol [RFC 2326] and HTTP protocol; the RTSP method Returns the RTSP URL, and the HTTP method Returns the video data.

### H.264, H.265, MJPEG real-time video

#### Get RTSP URL (RTSP method)

RTSP mode: If the device firmware supports RTSP, obtain the RTSP URL through CGI, and then use this URL to pull the RTSP real-time video;

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/video.cgi?type=RTSP&cameraID=<cameraID>&streamID=<streamID> |
| **Description** | Refer to [Live Video Input Common Parameters](#_实时视频输入通用参数) |
| **Example** | http://192.168.1.121/cgi-bin/video.cgi?type=RTSP&cameraID=1&streamID=1 |
| **Return** | rtsp://192.168.1.121:554/snl/live/1/1  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Get Live Video Stream via HTTP (HTTP) ( IPC )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/video.cgi?type=HTTP&cameraID=<cameraID>&streamID=<streamID>& AudioFlag =< AudioFlag > |
| **Description** | Refer to [the general parameters of real-time video input](#_实时视频输入通用参数) (IPC (The lite series) and NVR do not support playback for the time being) |
| **Example** | http://192.168.1.121/cgi-bin/video.cgi?type=HTTP&cameraID=1&streamID=1 |
| **Return** | --myboundary  Content-Type: video/h264  Content-Length: 139936  ….  --myboundary  Content-Type: video/h264  Content-Length: 25789  ….  (For other responses, Refer to [General Response](#_通用应答) ) |

### General Parameters for Live Video Streaming

At least 4 parameters needed when using video.cgi, that is **userName(user name of user), password(password of user), type(protocol type to be used)**, **cameraID(index of channel), streamed(index of stream).** UserName and password must be the first and the second URL**.**

The corresponding information of each string of general parameters in video.cgi refer to below:

video.cgi Parameters Table:

Table 2-1-2

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **userName** | <string> | username |
| **password** | <string> | password |
| **type** | <string>{RTSP,HTTP} | RTSP: RTSP video stream  HTTP: HTTP video streaming  not case sensitive. |
| **cameraID** | <int>[0,n] | The supported channel ID of the device, related to ability of the device, by default is 1 |
| **streamID** | <int>[0,n] | The supported stream ID of the device, related to stream ability of the device |
| **mjpegplay** | <int>[0,1] | 0: Normal steam  1: MJPEG stream (currently only supports MJPEG stream access) |
| **AudioFlag** | <int>0,1 | When request video:  0: Without audio;  1: With audio;  Note: Only used via HTTP, default as 1 when omitted. |

## Recording (record.cgi)

### Recording Query

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/record.cgi? action=query&cameraID=<cameraID>&startTime=<startTime>&endTime=<endTime> |
| **Description** | Refer to Recording Parameters |
| **Example** | http://192.168.1.121/cgi-bin/record.cgi?action=query&cameraID=1&startTime=20180912170410&endTime=20180912170450 |
| **Return** | resultCount=2  resultBegin=1  startTime=20180912170410  endTime=20180912170420  dataLength=2554168  resultNext = 2  startTime=20180912170430  endTime=20180912170440  dataLenth=2553268  resultEnd=1  (Others refer to the General Response) |

### Recording Playback

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/record.cgi?action=playBack&startTime=<startTime>&endTime=<endTime> |
| **Description** | Refer to Recording Parameters |
| **Example** | http://192.168.1.121/cgi-bin/record.cgi?action=playBack&cameraID=1 &streamID=1 &startTime=20170215163000&endTime= 20170215163500 |
| **Return** | --myboundary  Content-Type: video/h264  Content-Length: 139936  ….  --myboundary  Content-Type: video/h264  Content-Length: 25789  ….  (Others refer to the General Response) |

### Recording Parameters

Explanation of parameters refer to Recording Parameters

Recording Parameters

Table 2-2-4

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Data** | **Description** |
| **userName** | <string> | username |
| **password** | <string> | password |
| **action** | <string> | query: video query  playBack: video playback  download: video download |
| **cameraID** | <int>[1,n] | Device channel ID |
| **startTime** | <string> | Start time of record  Format(YYYYMMDDHHMMSS)Note:minimum value≥1971010101000000 |
| **endTime** | <string> | End time of record  Format(YYYYMMDDHHMMSS)Note:minimum value≥1971010101000000 |
| **dataLength** | <unsigned long>[0,n] | Video data length |
| **resultCount** | <int>[1,n] | Query the total number of record time periods within the time (if no record exists, Return resultCount=0) |
| **resultBegin** | <unsigned long>{1} | Mark the start of the record period |
| **resultNext** | <int>[2,n] | The next record period is marked |
| **resultEnd** | <unsigned long>[1,n] | Mark the end of the record period |
| **multiplesTime** | <int>1-5 | Video multiplier upload, you can control the video upload speed,  Increase sequentially by 1-5 times |

## Snapshot (image.cgi)

### Get snapshot image

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/image.cgi?cameraID=<cameraID>&quality=<quality> |
| **Description** | Refer to Snapshot Parameters |
| **Example** | http://192.168.1.121/cgi-bin/image.cgi?cameraID=1&quality=5  NVR/the lite series  http://192.168.0.123/cgi-bin/image.cgi?type=snap&cameraID=1&streamID=1&quality=5 |
| **Return** | HTTP/1.1 200 OK  Date: Fri, 31 Dec 1999 18:45:11 GMT  Cache-Control: no-cache  Contact: no-cache  Connection: close  Server: test  Content-Type: image/jpeg  Content-Length: 16063  …  (For other responses, Refer to [General Response](#_通用应答) ) |

### Snapshot Parameters

**Snapshot parameter table:**

Table 2-3-2

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **cameraID** | <int>[1,n] | Device channel ID |
| **quality** | <int>[1,9] | Image quality: (1 is the worst, 9 is the best) Required parameter |
| **StreamID​** | <int>[1,n] | Stream ID supported by the device, optional parameter |

## Alarm information (alarm.cgi)

### Alarm Status (alarmStatus)

#### Get current alarm status (getCurrentAlarmStatus)

|  |  |
| --- | --- |
| **URL** | http ://<servername>/cgi-bin/alarm.cgi?action=get&type=currentAlarmStatus |
| **Description** | Refer to [Alarm Information parameters](#_Alarm Information parameters) |
| **Example** | http://192.168.1.121/cgi-bin/alarm.cgi?action=get&type=currentAlarmStatus |
| **Return** | alarmInfoBegin=1  alarmMajorType=1  alarmMinorType=2  sourceID=1  alarmFlag=0  alarmTime=2018-9-21 15:26:50  …  next\_alarmInfoURL =4  alarmMajorType=1  alarmMinorType=2  sourceID=1  alarmFlag=1  alarmTime=2018-9-21 15:26:56  alarmInfoEnd=4  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Get alarm status in attach mode (attach) (IPC)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/alarm.cgi?action=attach |
| **Description** | Refer to [Alarm Information parameters](#_Alarm Information parameters). When an alarm message is received, plain text will be Returned. Otherwise, it will always display "Connecting, waiting for alarm message". |
| **Example** | http://192.168.1.121/cgi-bin/alarm.cgi?action=attach |
| **Return** | --myboundary  Content-Type: text/plain  Content-Length: 238  alarmInfoBegin=1  alarmMajorType=1  alarmMinorType=2  sourceID=1  alarmFlag=1  alarmTime=2018-9-21 15:34:22  next\_alarmInfoURL =2  alarmMajorType=1  alarmMinorType=2  sourceID=1  alarmFlag=1  alarmTime=2018-9-21 15:34:22  alarmInfoEnd=2  (Others refer to the General Response) |

### Alarm Action (IPC excluding the lite series/NVR)

#### Manual Alarm

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/alarm.cgi?action=manual&alarmInID=<alarmInID>&alarmFlag=1&AlarmSourceType=1 |
| **Description** | Refer to Alarm Information parameters and Manual Alarm in Parameters |
| **Example** | http://192.168.1.121/cgi-bin/alarm.cgi?action=manual&alarmInID=1&alarmFlag=1&AlarmSourceType=1 |
| **Return** | OK (Others refer to the General Response) |

**Manual Alarm in Parameters**

|  |  |  |
| --- | --- | --- |
| **parameter** | **type of data** | **Remark** |
| **alarmInID** | <int>[1,n] | Alarm input channel ID |
| **AlarmSourceType** | <int>[1,6] | Alarm input source type:  1:IO alarm  2:motion alarm  3:disk alarm  4:record alarm  5:network alarm  6:video loss alarm |
| alarmFlag | <int>{1,2} | Alarm status:  1:alarm start(note:record and disk alarm only alarm trigger, no end state)  2:alarm stop |

#### Manual alarm output control (manualAlarmOutControl)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/alarm.cgi?action=manualControl&alarmOutID=1&controlFlag=1 |
| **Description** | Refer to Alarm Information parameters and The Manual Alarm Out Control Parameters |
| **Example** | http://192.168.1.121/cgi-bin/alarm.cgi?action= manualControl&alarmOutID=1&controlFlag=1 |
| **Return** | OK(Others refer to the General Response) |

**The Manual Alarm Out Contro**l **Parameters**:

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| alarmOutID | <int>[1,n] | Alarm output channel id |
| controlFlag | <int>{0,1} | Control output status:  1:start  0:stop |

### Alarm information general parameters

In the alarm .cgi program, enter at least three parameters, namely user name **userName,** password **password, and** operation type **action** . **(userName and password must be in the first and second positions of the parameter)**

The corresponding information of each string of general parameters in alarm.cgi refer to Table **2-4-3-1**

Table 2-4-3-1

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Data type** | **Note** |
| **userName** | <string> | Account of login device |
| **password** | <string> | Password of login device |
| **action** | <string> | Get:get  attach:connect  manual:manual  manualControl:manual control |
| **type** | <string> | When Action is attach, manual,it can be no Type.  Type, Refer to specific meanings table 2-4-3-2 |

**Table 2-4-3-2** shows the information corresponding to the get behavior subtype string in the alarm.cgi program

Table 2-4-3-2

|  |  |
| --- | --- |
| **Parameter** | **Description** |
| **currentAlarmStatus** | Current alarm status |

The corresponding information of each string of common parameters in alarm.cgi refer to Table 2-4-3-3

Table 2-4-3-3

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Data Type** | **Description** |
| **sourceID** | <int>[1,n] | When the alarm is IO, it indicates the alarm input ID, and the rest indicates the camera ID |
| **alarmInfoCount** | <int>[1,n] | Total number of alarm messages |
| **alarmInfoBegin** | <int>1 | Alarm message start flag |
| **next\_alarmInfoURL** | <int>[1,n] | The sign indicating the end of the previous alarm message and the beginning of the next alarm message |
| **alarmFlag** | <int>{0,1} | Alarm mark,  0: Stop alarm  1: Alarm is being issued |
| **alarmTime** | <string> | Alarm time |
| **alarmInfoEnd** | <int>[1,n] | Alarm message end mark |

Table 2-4-3-4

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| alarmMajorType | <int>{1,4,5,6} | Alarm main type, refer to [main type :](#_主类型：) |
| alarmMinorType | <int>[1,n] | Alarm subtype, determined by the main type, refer to [the subtype:](#_次类型：) |

## PTZ (ptz.cgi) (Supports PTZ devices)

### PTZ Input General Parameters

In the ptz.cgi program, enter at least 4 parameters, namely **userName, password, cameraID and action . (userName and password must be in the first and second positions of the parameter)**

The following table shows the information corresponding to each string in the general parameters of the ptz.cgi program:

**ptz.cgi program general parameter table**

Table 2-5-1-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **username** | <string> | Login Username |
| **password** | <string> | login password |
| **cameraID** | <int> | Channel number, default is 1 |
| **action** | <string> | PTZ Action  For specific meanings, Refer to Table 2-5-1-2 |
| **PTZID** | <int>[1,n] | PTZID is an optional parameter. It is effective in single-channel mode of Fisheye device. Otherwise, PTZID parameter is invalid. |

**Action type meaning table**

Table 2-5-1-2

|  |  |
| --- | --- |
| **action** | **Description** |
| **stop** | stop |
| **rotate** | position operation |
| **zoom** | Zoom in, zoom out |
| **focusFar** | Far Focus |
| **focusNear** | near Focus |
| **runAutoFocus** | Auto Focus |
| **irisIncrease** | Larger aperture |
| **irisDecrease** | Smaller aperture |
| **runAutoIris** | Automatic aperture (IPC) |
| **presetAdd** | Preset point addition |
| **presetInvoke** | Preset point call |
| **presetDelete** | Preset point deletion |
| **listPrest** | Get preset points |
| **trackAddBegin** | Track Add Start |
| **trackAddEnd** | End of track addition |
| **trackInvoke** | Track call |
| **trackDelete** | Track Deletion |
| **listTrack** | Get track |
| **scanAddBegin** | Scan Add Start |
| **scanAddEnd** | Scan Add End |
| **scanInvoke** | Scan call |
| **scanDelete** | Scan to delete |
| **listScan** | Get Scan |
| **tourAdd** | Parade Added |
| **tourAddBegin** | Parade Add Start |
| **tourAddPreset** | Add preset points during tour |
| **tourAddEnd** | End of tour addition |
| **tourRun** | Tour call |
| **tourStop** | Parade Stop |
| **tourDelete** | Parade Delete |
| **listTour** | Get a Tour |
| **keeperSet** | Guard position setting |
| **keeperRun** | Guard bit call |
| **getPosition** | Get directions |
| **setPosition** | Set direction |
| **setNorthPosition** | Set the current position to true north |
| **3DPosition** | 3D Positioning |
| **restoreHome** | Reset the origin |
| **goHome** | Back to square one |
| **setHome** | Set the origin |

Among them, stop, zoom, FocusFar, FocusNear, irisIncrease, irisDecrease, and setNorthPosition commands do not carry parameters.

### PTZ Capability (ptzCap)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?action=get&type=ptzCap&cameraID=<cameraID> |
| **Description** | Refer to [PTZ input general parameters](#_PTZ输入通用参数_2) |
| **Example** | http://192.168.1.88:80/cgi-bin/ptz.cgi?action=get&type=ptzCap&cameraID=1​​​ |
| **Return** | presetMaxNum=16  tourMaxNum=4  tourPresetMaxNum=12  scanMaxNum=12 |

**2.5.2.1 Meaning of PTZ capability parameters**

**PTZ capability command parameter meaning table:**

Table 2-5-2-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| p tz Support | <int> | Support pzt |
| presetMaxNum | <int> | Maximum number of preset points |
| tourMaxNum | <int> | Maximum number of tour points |
| tourPresetMaxNum | <int> | Maximum number of patrol scanning points |
| scanMaxNum | <int> | Maximum number of scanning points |

### PTZ operation commands

#### Pan/tilt zoom operation command (zoom) (IPC)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=zoom&pan=<pan>&[PTZID=<PTZID>] |
| **Description** | Refer to [the PTZ input general parameters](#_PTZ输入通用参数_2) and [the meaning of the PTZ zoom in and zoom out parameters table.](#云台拉近拉远参数) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?action=zoom&cameraID=1&pan=1 |
| **Return** | OK  (Others Refer to General Response) |

Meaning table of PTZ zoom in and zoom out parameters :

Table 2-5-2-1

|  |  |  |
| --- | --- | --- |
| **Argument** | **data** | **Description** |
| **pan** | <int>{-1,1} | -1: indicates zooming out  1: Indicates zooming in |

#### PTZ Commands (IPC/NVR/the lite series)

stop, focusFar, focusNear, irisIncrease, irisDecrease, setNorthPosition , runAutoFocus, runAutoIris, setHome, restoreHome

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=<action>&[PTZID=<PTZID>] |
| **Description** | Refer to [PTZ input general parameters](#_PTZ输入通用参数_2) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin &cameraID=1&action=stop |
| **Return** | OK(Others Refer to General Response) |

#### PTZ position command rotate (IPC/NVR/the lite series)

##### PTZ left command (rotate)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=rotate&pan=-60&tilt=0&[PTZID=<PTZID>] |
| **Description** | Refer to the table of [PTZ input common parameters](#_PTZ输入通用参数_2) and [position command parameter meanings.](#方位命令参数定义表) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?cameraID =1&action=rotate&pan=60&tilt=0 |
| **Return** | OK(Others Refer to General Response) |

##### Meaning of PTZ command parameters

**Position command parameter meaning table :**

Table 2-5-4-2-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **pan** | <int>[-63,63] | Horizontal speed:  The positive and negative signs indicate the direction of rotation, with positive on the right and negative on the left;  The value represents the rotation speed, where 0 means no rotation in this direction; |
| **tilt** | <int>[-63,63] | Vertical Speed:  The positive and negative signs indicate the direction of rotation, with positive at the top and negative at the bottom;  The value represents the rotation speed, where 0 means no rotation in this direction; |
| **Speed (NVR)** | <int>[0,9] | Speed, 4.\* New |

**The positive and negative signs indicate the direction of rotation, right is positive, left is negative, top is positive, bottom is negative; for Example, (-30,25) rotates at the speed of the upper left.**

### PTZ preset points (Preset)

#### Add PTZ preset point (presetAdd)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=presetAdd&presetID=<presetID>&presetName=<presetName>&[PTZID=<PTZID>] |
| **Description** | Refer to [PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ preset point parameters](#_云台预置点参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?action=presetAdd&cameraID=1&presetID=1&presetName=001 |
| **Return** | OK(Others Refer to General Response) |

#### Calling PTZ preset points (presetInvoke)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=presetInvoke&presetID=<preset ID>&[PTZID=<PTZID>] |
| **Description** | Refer to [PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ preset point parameters](#_云台预置点参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?cameraID=1&action=presetInvoke&presetID=1 |
| **Return** | OK  (Others Refer to General Response) |

#### Delete PTZ preset point (presetDelete)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=presetDelete&presetID=<presetID>&[PTZID=<PTZID>] |
| **Description** | Refer to [PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ preset point parameters](#_云台预置点参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?cameraID=1&action=presetDelete&presetID=1 |
| **Return** | OK(Others Refer to General Response) |

#### Get PTZ preset points (listPreset)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=listPreset&[PTZID=<PTZID>] |
| **Description** | Refer to [PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ preset point parameters](#_云台预置点参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?cameraID=1&action=listPreset |
| **Return** | presetBegin=1  presetID=1  presetName=A  next\_presetURL=2  presetID=2  presetName=sd  next\_presetURL=3  presetID=3  presetName=fd  presetEnd=3  (Others Refer to General Response) |

#### Meaning of PTZ preset point parameters

**PTZ preset point parameter meaning table** :

Table 2-5-5-5-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **presetID** | < int >[1,400] | Preset point number.  Range: 1-400 |
| **PTZID** | <int>[1,n] | PTZ ID: Fisheye single channel mode, there are multiple PTZ IDs (1-n), such as  1 Fisheye + 7 PTZ mode, there are 7 PTZIDs (1-7) |
| **presetCount** | < int > | Number of PTZ preset points |
| **presetName** | <string> | Preset point name |
| **presetBegin** | <int>{1} | Preset point loop body start mark |
| **next\_presetURL** | <int>[2,n] | Next preset URL |
| **presetEnd** | <int>[1,n] | Preset point loop body end mark |

### PTZ Track

#### Add PTZ track (trackAdd)

|  |  |
| --- | --- |
| **URL** | Add a track start point:  http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=trackAddBegin&trackID=<trackID>  Add a track end point:  http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=trackAddEnd&trackID=<trackID>&trackName=<trackName> |
| **Description** | Refer to [PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ trajectory parameters table](#_云台轨迹参数含义) |
| **Example (adding a starting point)** | http://192.168.1.121/cgi-bin/ptz.cgi?action=trackAddBegin&cameraID=1&trackID=1 |
| **Return** | OK(Others Refer to General Response) |
| **Example (adding an end point)** | http://192.168.1.121/cgi-bin/ptz.cgi?action=trackAddEnd&cameraID=1&trackID=1&trackName=test1 |
| **Return** | OK(Others Refer to General Response) |

#### Calling the PTZ track (trackInvoke)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=trackInvoke&trackID=<trackID> |
| **Description** | Refer to [PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ trajectory parameters table](#_云台轨迹参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?cameraID=1&action=trackInvoke&trackID=1 |
| **Return** | OK(Others Refer to General Response) |

#### Delete the PTZ track (trackDelete)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=trackDelete&trackID=< trackID > |
| **Description** | Refer to [PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ trajectory parameters table](#_云台轨迹参数含义) NVR carries & camera ID |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?cameraID=1&action=trackDelete&trackID=1 &cameraID=1 |
| **Return** | OK(Others Refer to General Response) |

#### Get PTZ tracks (listTrack) (IPC)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?userName=admin&password=<password>&cameraID =<cameraID>&action= listTrack |
| **Description** | Refer to [PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ trajectory parameters table](#_云台轨迹参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?cameraID=1&action=listTrack |
| **Return** | trackBegin=1  trackID=0  trackName=sd  next\_trackURL=2  trackID=1  trackName=cd  trackEnd=2  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Meaning of PTZ trajectory parameters

**Meaning table of PTZ trajectory parameters:**

Table 2-5-6-5-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **trackCount** | < int >[1,n] | Number of PTZ tracks |
| **trackID** | < int >[1,n] | Track number |
| **trackName** | <string> | Track Name |
| **trackBegin** | < int >1 | Track loop body start mark |
| **next\_trackURL** | < int >[2,n] | Next track start sign |
| **trackEnd** | < int >[1,n] | Track loop end mark |

### PTZ Scan

#### Add PTZ scan (scanAdd)

|  |  |
| --- | --- |
| **URL** | Add a scan start point:  http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=scanAddBegin&scanID=<scanID>  Add a scan end point:  http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=scanAddEnd&scanID=<scanID>&sanName =<scanName> |
| **Description** | Refer to [PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ scanning parameters table](#_云台扫描参数含义) |
| **Example (adding a starting point)** | http://192.168.1.121/cgi-bin/ptz.cgi?action=scanAddBegin &cameraID=1& scanID=1 |
| **Return** | OK(Others Refer to General Response) |
| **Example (adding an end point)** | http://192.168.1.121/cgi-bin/ptz.cgi?action=scanAddEnd&cameraID=1& scanID =1& scanName =test1 |
| **Return** | OK(Others Refer to General Response) |

#### Call PTZ scan (scanInvoke)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=scanInvoke&scanID=<scanID> |
| **Description** | Refer to [PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ scanning parameters table](#_云台扫描参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?cameraID=1&action=scanInvoke&scanID=1 |
| **Return** | OK(Others Refer to General Response) |

#### Delete PTZ scan (scanDelete)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=scanDelete&scanID=<scanID> |
| **Description** | Refer to [PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ scanning parameters table](#_云台扫描参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?cameraID=1&action=scanDelete&scanID=1 |
| **Return** | OK(Others Refer to General Response) |

#### Get PTZ scan (listScan)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=listScan |
| **Description** | Refer to [PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ scanning parameters table](#_云台扫描参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?cameraID=1&action=listScan |
| **Return** | scanBegin=1  scanID=0  scanName=dsf  next\_scanURL=2  scanID=1  scanName=bgm  scanEnd=2  OK(Others Refer to General Response) |

#### Meaning of PTZ scanning parameters

**PTZ scanning parameter meaning table:**

Table 2-5-7-5-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **scanCount** | < int >[1,n] | PTZ scanning number |
| **scanID** | < int >[1,n] | Scan ID |
| **scanName** | <string> | Scan Name |
| **scanaBegin** | < int >{1} | Scan loop body start mark |
| **next\_scanURL** | < int >[2,n] | Next scan start mark |
| **scanEnd** | < int >[1,n] | Scan loop body end mark |

### PTZ Tour

#### Add PTZ tour (tourAdd)

|  |  |
| --- | --- |
| **URL** | Add a tour start point:  http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=tourAddBegin&tourID=<tourID >  Add a tour preset point:  http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=tourAddPreset&presetID=<presetID >&time=<time> **[&speed=<speed>]**  Add a tour end point:  http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=tourAddEnd&tourID=<tourID>& tourName=<tourName> |
| **Description** | Refer to [PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ tour parameters table](#_云台巡游参数含义) |
| **Example (adding a starting point)** | http://192.168.1.121/cgi-bin/ptz.cgi?action= tourAddBegin &cameraID=1& tourID =1 |
| **Return** | OK(Others Refer to General Response) |
| **Example (adding a tour preset point)** | http://192.168.1.121/cgi-bin/ptz.cgi?action= tourAddPreset&cameraID=1&presetID =1&time=10&speed=1 |
| **Return** | OK(Others Refer to General Response) |
| **Example (adding an end point)** | http://192.168.1.121/cgi-bin/ptz.cgi?action= tourAddEnd&cameraID=1& tourID =1& tourName =test1 |
| **Return** | OK(Others Refer to General Response) |

#### Calling PTZ Tour (tourRun)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=tourRun&tourID=<tourID> |
| **Description** | Refer to [PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ tour parameters table](#_云台巡游参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?action= tourRun&cameraID=1& tourID =1 |
| **Return** | OK(Others Refer to General Response) |

#### Delete PTZ tour (tourDelete)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=tourDelete&tourID=<tourID> |
| **Description** | Refer to [PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ tour parameters table](#_云台巡游参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?action= tourDelete &cameraID=1& tourID =1 |
| **Return** | OK(Others Refer to General Response) |

#### Get the PTZ tour (listTour)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=listTour |
| **Description** | Refer to [PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ tour parameters table](#_云台巡游参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?action=listTour&cameraID=1 |
| **Return** | tourBegin=1  tourID=0  tourName=sdf  presetBegin=1  presetID=1  time=5  speed=1  presetEnd=1  next\_tourURL=2  tourID=1  tourName=bt  presetBegin=1  presetID=1  time=5  presetEnd=1  tourEnd=2  (Others Refer to General Response) |

#### Meaning of PTZ cruise parameters

**Meaning table of PTZ cruise parameters:**

Table 2-5-8-5-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **tourCount** | < int >[1,n] | Number of pan/tilt tours |
| **tourID** | < int >[1,n] | Parade Number |
| **tourName** | <string> | Parade Name |
| **tourBegin** | < int >{1} | Tour loop start sign |
| **next\_tourURL** | < int >[2,n] | Next Cruise |
| **tourEnd** | < int >[1,n] | End of the tour loop |
| **presetID** | < int >[1,400] | Preset point number.  When adding a tour, the corresponding preset point must exist |
| **time** | < int >[1,255] | time.  Range: 1-255 seconds |
| **speed** | <int>[1,7] | speed:  Range: 1-8 |
| **presetBegin** | < int >[1,400] | Preset point loop body start mark |
| **next\_presetURL** | < int >[2,n] | Next preset URL |
| **presetEnd** | < int >[1,n] | Preset point loop body end mark |

### PTZ keeper

#### Set the PTZ keeper position (keeperSet)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=keeperSet&keeperType=<keeperType>&keeperID=<keeperID>&time=<time> |
| **Description** | Refer to [the PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ guard position parameter table](#_云台看守位参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?action=keeperSet&cameraID=1&keeperType=1&keeperID=1&time=1 |
| **Return** | OK Others Refer to General Response |

#### Get the PTZ keeper position (getkeeper) (IPC)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=getKeeper |
| **Description** | Refer to [the PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ guard position parameter table](#_云台看守位参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?action=getKeeper&cameraID=1 |
| **Return** | keeperType=2  keeperID=1  StatusId=2  time=12  (Others Refer to General Response) |

#### Execute PTZ keeper (keeperRun) (IPC)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=keeperRun&StatusId=2 |
| **Description** | Refer to [the PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ guard position parameter table](#_云台看守位参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin&action=keeperRun&cameraID=1&StatusId=2 |
| **Return** | OK (Others Refer to General Response) |

#### Meaning of PTZ guard position parameters

**PTZ guard position parameter meaning table:**

Table 2-5-9-4-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **keeperType** | < int >{1,2,3,4} | Guard Type:  1: Preset position,  2: Scan,  3: Self-learning,  4: Parade  6: original position |
| **keeperID** | < int >[1,n] | When action=keeperSet, this is the number corresponding to keeperType.  When action=keeperRun, keeperID: 0 means stop, 2 means start keeper |
| **time** | < int >[1,240] | Execution guard time, range: 1-240 minutes |
| **StatusId** | < int >{1,2} | Status ID number,  0x00: Disable the watchdog bit  0x02: Enable the watchdog bit |

### PTZ position control (Position)

#### PTZ Position (IPC)

##### Get the PTZ position (getPosition)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=getPosition |
| **Description** | Refer to [the PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ position parameters table](#_云台位置参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?action=getPosition&cameraID=1 |
| **Return** | pan=45.000000  tilt=30.000000  zoom=3.000000  (Others Refer to General Response) |

##### Set the PTZ position (setPosition)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=setPosition&pan=  <pan>&tilt=<tilt>&zoom=<zoom> |
| **Description** | Refer to [the PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ position parameters table](#_云台位置参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?action=setPosition& pan=45.5&tilt=30.1  &zoom=3&cameraID=1 |
| **Return** | OK (Others Refer to General Response) |

##### Set the north position of the PTZ (setNorthPosition)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=setNorthPosition |
| **Description** | Refer to [the PTZ input general parameters](#_PTZ输入通用参数_2) and [PTZ position parameters table](#_云台位置参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?action= setNorthPosition&cameraID=1 |
| **Return** | OK (Others Refer to General Response) |

##### Meaning of PTZ position parameters

**Meaning table of PTZ position parameters:**

Table 2-5-10-4-1

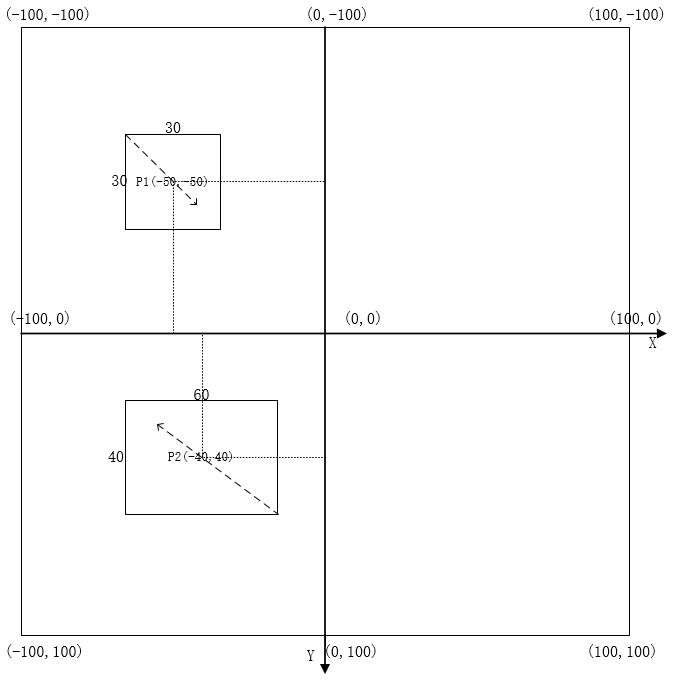
|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **pan** | <float>[0.0,360.0] | Horizontal angle,  Range: 0-360 |
| **tilt** | <float>[0.0,90.0] | Vertical angle,  Range: 0-90 |
| **zoom** | <float>[0.0,n] | Zoom, determined by device capabilities |
| **focus** | <int> | Focal length, determined by device capabilities |

#### 3D Positioning (3DPosition) (IPC)

**3D positioning description:**

3D positioning is to move the specified position to the center and then zoom in or out the image. The entire image can be marked with a Cartesian coordinate system, with the center of the image as the origin, the horizontal x-axis, negative on the left and positive on the right; the vertical y-axis, negative on the top and positive on the bottom; the range of x and y values is [-100, 100].

**3D positioning diagram:**



Example 1: 3D zoom. Take area P1 as an Example, drag the mouse from the upper left to the lower right, and set ZoomRate to a positive value. After the center point (-50, -50) of area P1 is moved to the center position, the image is enlarged.

PontX = -50

PontY = -50

ZoomRate = (200\*200)/(30\*30)

Example 2: 3D zoom out. Take area P2 as an Example, drag the mouse from the lower right to the upper left, and set ZoomRate to a negative value. After the center point (-40, 40) of area P2 is moved to the center position, the image is zoomed out.

PontX = -40

PontY = 40

ZoomRate = -(200\*200)/(40\*60)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&action=3DPosition&PontX=<PontX>&PontY=<PontY>&ZoomRate=<ZoomRate> |
| **Description** | Refer to [the PTZ input general parameters](#_PTZ输入通用参数_2) and [3D positioning parameter meaning table](#定位参数含义表) |
| **Example** | http://192.168.1.121/cgi-bin/ptz.cgi?cameraID=1&action=3DPosition&PontX=20&PontY=30&ZoomRate=2​ |
| **Return** | OK (Others Refer to General Response) |

**3D positioning parameter meaning table :**

Table 2-5-11-1

|  |  |  |
| --- | --- | --- |
| **parameter** | type of data | Remark |
| **PontX** | <int>[-100,100] | X coordinate of the center point of the positioning area |
| **PontY** | <int>[-100,100] | The Y coordinate of the center point of the positioning area |
| **ZoomRate** | <float>[1,n] | ZoomRate = the area of the entire screen / the area of the positioning area, which is determined by the device capabilities |

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID> &action=setRelativePosition ... |
| **Description** | Refer to relative motion parameters table |
| **Example** | http://192.168.110.101/cgi-bin/ptz.cgi?action=setRelativePosition&pan=320&tilt=3&zoom=3&cameraID=1 |
| **Return** | Ok​  (Others Refer to General Response) |

#### PTZ relative motion ( setRelativePosition ) (IPC)

##### Relative motion setting ( setRelativePosition )

##### Relative motion setting meaning

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description (movement relative to current position)** |
| **pan** | <float>[0.0,360.0] | Horizontal angle,  Range: 0-360 |
| **tilt** | <float>[0.0,90.0] | Vertical angle,  Range: 0-90 |
| **zoom** | <float>[0.0,n] | Zoom, determined by device capabilities |

#### PTZ position range ( getPositionRange ) (IPC)

##### Get Position Range ( getPositionRange )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID> & getPositionRange&cameraID=1 ... |
| **Description** | Refer to relative motion parameters table |
| **Example** | http://192.168.110.101/cgi-bin/ptz.cgi?action=getPositionRange&cameraID=1 |
| **Return** | **P anmax=360**  **P anmin = 0**  **T iltmax=100**  **T iltmax=0**  **Zoom =0**  **Zoom =90**  (Others Refer to General Response) |

### PTZ wiper control ( Wiper )( NVR is not supported)

#### Open the wiper ( openWiper )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>& type=Wiper&action=open |
| **Description** | Refer to wiper parameter table |
| **Example** | http://192.168.1.205/cgi-bin/ptz.cgi?type=Wiper&action=open |
| **Return** | OK (Others Refer to General Response) |

#### Close Wiper​

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>& type=Wiper&action= close |
| **Description** | Refer to wiper parameter table |
| **Example** | http://192.168.1.205/cgi-bin/ptz.cgi?type=Wiper&action= close |
| **Return** | OK (Others Refer to General Response) |

#### Wiper parameter meaning

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **Action​** | < string >  [open, close] | open, enable the wiper function  close, disable the wiper function |

### PTZ WiperParam(WiperParam)(NVR is not supported)

#### Get WiperParam

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&type=WiperParam&action=get |
| **Description** | Refer to WiperParam table |
| **Example** | http://192.168.1.205/cgi-bin/ptz.cgi?type=WiperParam&action=get |
| **Return** | OK (Others Refer to General Response) |

#### Set WiperParam

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>&type=WiperParam&action=set |
| **Description** | Refer to WiperParam table |
| **Example** | http://192.168.1.205/cgi-bin/ptz.cgi?type=WiperParam&action=set&**WipeMode=1&Sensitivity=1&IntervalTime=30** |
| **Return** | OK (Others Refer to General Response) |

#### Parameter Meaning

|  |  |  |
| --- | --- | --- |
| **Parameter** | **data** | **Description** |
| **WipeMode** | < int>  [0,1,2] | 0, Manual  1, Automatic  2, Timomh |
| **Sensitivity** | < int>  [0,1,2] | 0, Slow  1, Middle  2, Fast  WipeMode takes effect only when WipeMode is 1 |
| **IntervalTime** | < int> | Interval time in min  Range [1,60] min  WipeMode takes effect only when WipeMode is 1 |
| **DurationTime** | < int> | Duration in seconds  WipeMode takes effect only when WipeMode is 2 |
| **BeginTime** | < string >  a:b  a Range [1,23]  bRange[0,59] | Start time  WipeMode takes effect only when WipeMode is 2 |

### PTZ lens washing control ( Wash )( NVR is not supported)

#### Open the wiper ( openWash )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>& type= W ash &action=open |
| **Description** | Refer to flushing parameters table |
| **Example** | http://192.168.1.205/cgi-bin/ptz.cgi?type=W ash &action= open |
| **Return** | OK (Others Refer to General Response) |

#### Wiper parameter meaning

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **Action​** | < string >  [open] | open, turn on the flushing function  Lens flushing, the operation lasts for 5 seconds and then stops |

### PTZ Heating

#### PTZ Heating command

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ptz.cgi?cameraID=<cameraID>& action=heating&HeatingSwitch=1 |
| **Description** | Refer to flushing parameters table |
| **Example** | http://192.168.1.205/cgi-bin/ptz.cgi? cameraID=1&action=heating&HeatingSwitch=1 |
| **Return** | OK  (Others Refer to General Response) |

#### Parameter Meaning

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Data** | **Description** |
| HeatingSwitch | < int>  [0,1] | 0 close  1 open |

## Device configuration (param.cgi)

**In the param.cgi program, enter at least 4 parameters, namely user name, password, action, and program subtype. (user Name and password must be in the first and second positions of the parameter)**



### Device-related configuration

#### Device Information (deviceInfo)

##### Get device information (getDeviceInfo)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?&action=get&type= **deviceInfo** |
| **Description** | Refer to [the device information parameter table](#设备信息参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=deviceInfo |
| **Return** | deviceID=159356  deviceName=  deviceType=1  productModel=IPV57/41CLDR/Z/13  manufacturerID=003  manufacturerName=IPCamera  MACAddress=00:1C:27:15:93:56  hardwareVer=V060101\_1  softwareVer=v3.5.0804.1003.3.0.27.4.0  channelNum=1  alarmInNum=1  alarmOutNum=1  RS485Num=0  ubootVersion=v1.0\_20221109  kerneVersion=v1.0\_20221122  networkCardNum=1  (Others refer to the General Response) |

##### Set the device name (setDeviceName)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **deviceName** [&deviceName=<deviceName>] |
| **Description** | Carrying the device name parameter indicates setting, and not carrying the parameter does not change the original device name;  For parameters, Refer to [the device information parameter table.](#设备信息参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action= set&type=deviceName&deviceName=test |
| **Return** | OK (Others refer to the General Response) |

##### Device Information Parameters

Device information parameters table:

Table 2-6-1-1-3-1

|  |  |  |
| --- | --- | --- |
| **Parameter** | **data** | **Description** |
| **deviceID** | <string> | Device ID  Unique device identifier |
| **deviceName** | <string> | Device Name  Cannot contain the following English characters  < > % & \ " / ,' ; = | + |
| **deviceType** | <int>{1,5} | Device type:  IPCamera (default is 1)  NVR (default is 5) |
| **productModel** | <string> | Manufacturer ID |
| **manufacturerName** | <string> | Trade Names |
| **manufacturerID** | <string> | Device Model  The corresponding ID is 001 |
| **MACAddress** | <string> | MAC Address |
| **hardwareVer** | <string> | hardware version |
| **softwareVer** | <string> | Software version |
| **channelNum** | <unsigned int>[0,n] | Number of cameras |
| **alarmInNum** | <unsigned int>[0,n] | Number of alarm inputs |
| **alarmOutNum** | <unsigned int>[0,n] | Number of alarm outputs |
| **RS485Num** | <unsigned int>[0,n] | RS485 serial port number |
| **ubootVersion** | <string> | uboot version |
| **kerneVersion** | <string> | Kernel version |
| **networkCardNum** | <string> | Number of network cards |

#### local network

##### Get local network parameters (getNetwork)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **localNetwork** &IPProtoVer=<IPProtoVer>[&netCardId=<netCardId>] |
| **Description** | 1. IPProtoVer is mandatory. When IPProtoVer is 1, get designated information of netcard if with netCardId, get information of all netcard if without it. When IPProtoVer is 2, netCardId is mandatory, otherwise will Return parameters error;   2．NVR only support get the IPV4 information of netcard now, IPV6 is not supported yet; still Returns IPV4 information of netcard when IPProtoVer = 2 (IPV6).  Refer to [network parameter information table](#网络参数信息表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action= get&type=localNetwork&IPProtoVer=1&netCardId=1 |
| **Return** | localNetworkBegin=1 (IPC)  IPProtoVer=1  netCardId=1  IPAddress=192.168.32.151  subNetmask=255.255.0.0  subGetway=192.168.1.1  preferredDNS=  alternateDNS=  autoGetIPFlag=1  localNetworkEnd=1(IPC)  mtu=1500 (IPC)  (Others Refer to General Response) |

##### Set local network parameters (setNetwork)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **localNetwork** &netCardId=<netCardId>&IPProtoVer=<IPProtoVer>[&<argument>=<value>...] |
| **Description** | netCardId and IPProtoVer are required parameters, and the rest are optional parameters;  For parameters, Refer to [the network parameter information table.](#网络参数信息表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=localNetwork&netCardId=1&IPProtoVer=1&IPAddress=192.168.32.21&subNetmask=255.255.255.0&subGetway=192.168.32.1&preferredDNS=128.0.0.1&alternateDNS=128.0.0.2&mtu=1500 |
| **Return** | OK (Others Refer to General Response) |

##### Local Network Parameters

**Network parameter information table**

Table 2-6-1-2-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **IPProtoVer** | <int>{1, 2} | IP Version  1: IP V4  2: IP V6  Mandatory |
| **IPAddress** | <string> | Device IP |
| **subNetmask** | <string> | Subnet Mask |
| **subGetway** | <string> | Device Gateway |
| **preferredDNS** | <string> | Primary DNS |
| **alternateDNS** | <string> | Alternative DNS |
| autoGetDNSFlag | <int>{0,1} | Automatically obtain DNS flag  0: Manual  1: Automatic |
| **autoGetIPFlag** | <int>{0,1} | Automatically obtain IP flag  0: Manual  1: Automatic |
| **netCardId** | <int>{1,2} | Network card number  1: Network card 1  2: Network card 2  It is an optional parameter when getting. Carrying this parameter means obtaining the specified network card information. Not carrying this parameter means obtaining all network card information. It is a required parameter when setting. |
| **mtu** | <int> | MTU |
| **localNetworkBegin** | <string> | Network information start mark (NVR/The lite series only supports one network card, so this parameter is not available for the time being) |
| **localNetworkNextFlag** | <string> | Next network card information mark  Start from 2. If the value is 2, it means the following parameter is the second one. |
| **localNetworkEnd** | <string> | End of network information |

#### ADSL Network (IPC excluding the lite series)

##### Get ADSL network parameters (getADSLNetwork)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **ADSLNetwork** &IPProtoVer=<IPProtoVer> |
| **Description** | For parameter description, Refer to ADSL network parameter table. |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=ADSLNetwork&IPProtoVer=1 |
| **Return** | IPProtoVer=1  IPAddress=  (For other responses, Refer to [General Response](#_通用应答) ) |

##### ADSL network parameters meaning

**ADSL Network Parameters Table**

Table 2-6-1-3-2-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **IPAddress** | <string> | IP address |
| **IPProtoVer** | <int>{1,2} | IP Version  1: IP V4  2: IP V6  Required parameter; |

#### Device Port (devicePort)

##### Get device port parameters (getDevicePort)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **devicePort** |
| **Description** | Refer to [the device port parameter table](#设备端口参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=devicePort |
| **Return** | controlPort=30001  httpPort=80  rtspPort=554  rtmpPort=8080  httpsPort=443  sslPort=20001(IPC)  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set device port parameters (setDevicePort)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **devicePort** [&<argument>=<value>] |
| **Description** | Carrying port parameters means setting, and not carrying them means no change;  For parameters, Refer to [the device port parameter table.](#设备端口参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=devicePort&controlPort=30001&httpPort=80&rtspPort=554&rtmpPort=8080&httpsPort=443&sslPort=20001 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of device port parameters

**Device port parameter table**

Table 2-6-1-4-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **controlPort** | <unsigned short>[0,n] | Control Port  Signaling control, audio and video end, optional parameter when setting |
| **httpPort** | <unsigned short>[0,n] | HTTP Port  As an optional parameter when setting |
| **rtspPort** | <unsigned short>[0,n] | RTSP connection port  As an optional parameter when setting |
| **rtmpPort** | <unsigned short>[0,n] | RTMP connection port  As an optional parameter when setting |
| **sslPort** | <unsigned short>[0,n] | SSL Port Control Port (IPC) |
| **httpsPort** | <unsigned short>[0,n] | HTTPS Port |

#### Channel device information parameters ( channelInfo ) ( NVR )

##### Get channel device information (get ChannelInfo )

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type= channelInfo |
| **Description** | Refer to [channel device information parameter table](#通道信息参数表) |
| **Example** | http://192.168.2.193/cgi-bin/ param .cgi?action=get&type= channelInfo |
| **Return** | channelNum=16  channelBinded=2  channelBegin=1  channelId=1  channelName=Device  channelModel=SN-Q204M-B  channelFirmware=t4.4.1207.1004.0.0.2.12.0  channelHardware=120704101  channelStatus=5  channelProtocol=2  channelType=1  streamNum=2  streamBegin=1  streamId=1  streamEncoder=1  streamWidth=2560  streamHeight=1440  next\_streamURL=2  streamId=2  streamEncoder=1  streamWidth=704  streamHeight=576  streamEnd=2  next\_channelURL=2  channelId=2  channelName=Channel01  channelModel=IPR57/20UKDN/Z/13  channelFirmware=v3.5.0804.1004.3.0.33.7.0  channelHardware=V060391\_1  channelStatus=5  channelProtocol=2  channelType=1  streamNum=2  streamBegin=1  streamId=1  streamEncoder=1  streamWidth=1920  streamHeight=1080  next\_streamURL=2  streamId=2  streamEncoder=1  streamWidth=704  streamHeight=576  streamEnd=2  channelEnd=2  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Channel device information parameters

**Channel device information parameter table**

Table 2-6-1-5-2-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **channelNum** | <int>[0, n] | Total number of channels |
| **channelBinded** | <int>[0, n] | The number of channel devices currently bound |
| **channelId** | <int>[0, n] | Channel ID |
| **channelName** | <string> | Channel device name |
| **channelModel** | <string> | Channel model |
| **channelFirmware** | <string> | Channel device firmware version |
| **channelHardware** | <string> | Channel device hardware version |
| **channelStatus** | <int>[1,4] | Channel device status:  0, device not bound  1. Network connection failed  2. Username or password is incorrect  3. Access Denied  4. process denied  5. The device is online normally  6. The maximum number of cameras connected has been reached  7. Encoding parameters are not supported |
| **channelProtocol** | <int> | Channel Device Protocol:  0, unknown  1.onvif  2. Private3. lcoal101, Custom Protocol |
| **channelType** | <int> | Channel device type:  Channel device type:  1, Network camera  2, Digital video recorder  3, Digital video server  4, IP High speed PTZ  5, NVR  6, Onvif device  7, Encode device   1. LPR camera 2. Fisheye   10, Digital video recorder  11, Panorama camera  13, Thermal  14, Body temperature  15, face detection  16, LPR (domestic)  17, Dual light thermal  18, AI multi-object  100, HK DVR  101, AL DVR  102, DH DVR |
| **streamNum** | <int>[1,n] | Total number of channel device video streams |
| **streamId** | <int>[1,n] | Video stream ID |
| **streamEncoder** | <int>[1,2] | Encoding type:   1. H264 2. H265 |
| **streamWidth** | <int> | Resolution width |
| **streamHeight** | <int> | Resolution height |
| **streamBegin** | <int>1 | Stream begin flag |
| **next\_streamURL** | <int>[0, n] | Next stream flag |
| **streamEnd** | <int>[2, n] | Stream end flag |
| **cameraBegin** | <int>1 | Camera begin flag |
| **cameraEnd** | <int>[2, n] | Camera end flag |
| **next\_cameraURL** | <int>[0, n] | Next device tag |

#### Channel information parameters (cameraInfo)

##### Get the channel name (getCameraName)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type=cameraInfo [&cameraID = **<cameraID>** ] |
| **Description** | Refer to [channel information parameter table](#通道信息参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=cameraInfo&cameraID=1 |
| **Return** | cameraName=OEM  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set the channel name (setCameraName)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **cameraInfo** &cameraID=<cameraID>[&cameraName =<cameraName>] |
| **Description** | Carrying the channel name parameter indicates setting, and not carrying it indicates not making changes;  For parameters, Refer to [the channel information parameter table.](#通道信息参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=cameraInfo&cameraID=1&cameraName=asd |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Channel Information Parameter Table

Table 2-6-1-5-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **cameraID** | <int>[0,n] | Channel Number  The channel number is unique in the device. This parameter is optional. If you bring cameraID when getting, it means getting the channel name of a single channel. Without this parameter, it means getting the names of all channels. This parameter is required when setting. |
| **cameraName** | <string> | Channel Name  Optional parameter. Without it, the existing name will not be changed. |

#### Device time (dateTime)

##### Get device time parameters (getDateTime)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **dateTime** |
| **Description** | Refer to [equipment time parameter table](#设备时间参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=dateTime |
| **Return** | year=2018  month=9  day=25  hour=14  minute=5  second=20  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set device time parameters (setDateTime)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **dateTime** [&<argument>=<value>] |
| **Description** | For parameters, Refer to [the equipment time parameter table.](#设备时间参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=dateTime&year=2018&month=9&day=25&hour=14&minute=10&second=10 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of device time parameters

**Equipment time parameter table**

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **Datefmt (IPC The lite series, NVR)** | I nt[0,5] | Date format: (optional parameter for Set)  0: YY/MM/DD hh:mm:ss  1: hh:mm:ss YY/MM/DD  2: MM/DD/YY hh:mm:ss  3: hh:mm:ss MM/DD/YY  4: DD/MM/YY hh:mm:ss  5: hh:mm:ss DD/MM/YY  Note: IPC can be set in the OSD canvas |
| **Timefmt (IPC The lite series, NVR)** | I nt[0,1] | Time format: (optional parameter for Set)  0: 12H  1: 24H  Note: IPC can be set in the OSD canvas |
| **month** | <unsigned short>[1,12] | moon  Optional parameter for Set |
| **day** | <unsigned short>[1,31] | day  Optional parameter for Set |
| **hour** | <unsigned short>[0,23] | hour  Optional parameter for Set |
| **minute** | <unsigned short>[0,59] | point  Optional parameter for Set |
| **second** | <unsigned short>[0,59] | Second  Optional parameter for Set |
| **syncPC** | Int[0,1] | Synchronize IPC time  Optional parameter for Set  0: disenable  1: enable |

Table 2-6-1-6-3-1

#### Time zone capabilities

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= timeZoneAbility &languageId=1 |
| **Description** | Refer to [the device time zone parameter table](#设备时区参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=timeZone &languageId=1 |
| **Return** | timeZoneCount=76  timeZoneBegin=1  timeZoneName=(GMT-12:00) International Date Line West  next\_TimeZoneURL=2  timeZoneName=(GMT-11:00) Midway Island, Samoa  next\_TimeZoneURL=3  timeZoneName=(GMT-10:00) Hawaii  next\_TimeZoneURL=4  timeZoneName=(GMT-09:00) Alaska  next\_TimeZoneURL=5  timeZoneName=(GMT-08:00) Pacific Time (US Canada)  next\_TimeZoneURL=6  timeZoneName=(GMT-08:00) Tijuana, Baja California  next\_TimeZoneURL=7  timeZoneName=(GMT-07:00) Mountain Time (US Canada)  next\_TimeZoneURL=8  timeZoneName=(GMT-07:00) Chihuahua, La Paz, Mazatlan  next\_TimeZoneURL=9  timeZoneName=(GMT-07:00) Arizona  next\_TimeZoneURL=10  timeZoneName=(GMT-06:00) Central Time (US Canada)  next\_TimeZoneURL=11  timeZoneName=(GMT-06:00) Saskatchewan  next\_TimeZoneURL=12  timeZoneName=(GMT-06:00) Guadalajara, Mexico City, Monterrey  next\_TimeZoneURL=13  timeZoneName=(GMT-06:00) Central America  next\_TimeZoneURL=14  timeZoneName=(GMT-05:00) Eastern Time (US Canada)  next\_TimeZoneURL=15  timeZoneName=(GMT-05:00) Indiana (East)  next\_TimeZoneURL=16  timeZoneName=(GMT-05:00) Bogota, Lima, Quito  next\_TimeZoneURL=17  timeZoneName=(GMT-04:30) Caracas  next\_TimeZoneURL=18  timeZoneName=(GMT-04:00) Atlantic Time (Canada)  next\_TimeZoneURL=19  timeZoneName=(GMT-04:00) Santiago  next\_TimeZoneURL=20  timeZoneName=(GMT-03:30) Newfoundland  next\_TimeZoneURL=21  timeZoneName=(GMT-03:00) Brasilia  next\_TimeZoneURL=22  timeZoneName=(GMT-03:00) Buenos Aires  next\_TimeZoneURL=23  timeZoneName=(GMT-03:00) Greenland  next\_TimeZoneURL=24  timeZoneName=(GMT-02:00) Mid-Atlantic  next\_TimeZoneURL=25  timeZoneName=(GMT-01:00) Azores  next\_TimeZoneURL=26  timeZoneName=(GMT-01:00) Cape Verde Is.  next\_TimeZoneURL=27  timeZoneName=(GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London  next\_TimeZoneURL=28  timeZoneName=(GMT) Casablanca, Monrovia  next\_TimeZoneURL=29  timeZoneName=(GMT+01:00) Belgrade, Bratislava, Budapest, Ljubljana, Prague  next\_TimeZoneURL=30  timeZoneName=(GMT+01:00) Sarajevo, Skopje, Warsaw, Zagreb  next\_TimeZoneURL=31  timeZoneName=(GMT+01:00) Brussels, Copenhagen, Madrid, Paris  next\_TimeZoneURL=32  timeZoneName=(GMT+01:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna  next\_TimeZoneURL=33  timeZoneName=(GMT+01:00) West Central Africa  next\_TimeZoneURL=34  timeZoneName=(GMT+02:00) Bucharest  next\_TimeZoneURL=35  timeZoneName=(GMT+02:00) Cairo  next\_TimeZoneURL=36  timeZoneName=(GMT+02:00) Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius  next\_TimeZoneURL=37  timeZoneName=(GMT+02:00) Athens, Beirut, Istanbul, Minsk  next\_TimeZoneURL=38  timeZoneName=(GMT+02:00) Jerusalem  next\_TimeZoneURL=39  timeZoneName=(GMT+02:00) Harare, Pretoria  next\_TimeZoneURL=40  timeZoneName=(GMT+03:00) Moscow, St. Petersburg, Volgograd  next\_TimeZoneURL=41  timeZoneName=(GMT+03:00) Kuwait, Riyadh  next\_TimeZoneURL=42  timeZoneName=(GMT+03:00) Nairobi  next\_TimeZoneURL=43  timeZoneName=(GMT+03:00) Baghdad  next\_TimeZoneURL=44  timeZoneName=(GMT+03:30) Tehran  next\_TimeZoneURL=45  timeZoneName=(GMT+04:00) Abu Dhabi, Muscat  next\_TimeZoneURL=46  timeZoneName=(GMT+04:00) Baku, Tbilisi, Yerevan  next\_TimeZoneURL=47  timeZoneName=(GMT+04:30) Kabul  next\_TimeZoneURL=48  timeZoneName=(GMT+05:00) Ekaterinburg  next\_TimeZoneURL=49  timeZoneName=(GMT+05:00) Islamabad, Karachi, Tashkent  next\_TimeZoneURL=50  timeZoneName=(GMT+05:30) Chennai, Kolkata, Mumbai, New Delhi  next\_TimeZoneURL=51  timeZoneName=(GMT+05:30) Sri Jayawardenepura  next\_TimeZoneURL=52  timeZoneName=(GMT+05:45) Kathmandu  next\_TimeZoneURL=53  timeZoneName=(GMT+06:00) Astana, Dhaka  next\_TimeZoneURL=54  timeZoneName=(GMT+06:30) Rangoon  next\_TimeZoneURL=55  timeZoneName=(GMT+07:00) Novosibirsk  next\_TimeZoneURL=56  timeZoneName=(GMT+07:00) Bangkok, Hanoi, Jakarta  next\_TimeZoneURL=57  timeZoneName=(GMT+07:00) Krasnoyarsk  next\_TimeZoneURL=58  timeZoneName=(GMT+08:00) Beijing, Chongqing, Hong Kong, Urumqi  next\_TimeZoneURL=59  timeZoneName=(GMT+08:00) Kuala Lumpur, Singapore  next\_TimeZoneURL=60  timeZoneName=(GMT+08:00) Taipei  next\_TimeZoneURL=61  timeZoneName=(GMT+08:00) Perth  next\_TimeZoneURL=62  timeZoneName=(GMT+08:00) Irkutsk  next\_TimeZoneURL=63  timeZoneName=(GMT+09:00) Seoul  next\_TimeZoneURL=64  timeZoneName=(GMT+09:00) Osaka, Sapporo, Tokyo  next\_TimeZoneURL=65  timeZoneName=(GMT+09:00) Yakutsk  next\_TimeZoneURL=66  timeZoneName=(GMT+09:30) Darwin  next\_TimeZoneURL=67  timeZoneName=(GMT+09:30) Adelaide  next\_TimeZoneURL=68  timeZoneName=(GMT+10:00) Canberra, Melbourne, Sydney  next\_TimeZoneURL=69  timeZoneName=(GMT+10:00) Brisbane  next\_TimeZoneURL=70  timeZoneName=(GMT+10:00) Hobart  next\_TimeZoneURL=71  timeZoneName=(GMT+10:00) Vladivostok  next\_TimeZoneURL=72  timeZoneName=(GMT+10:00) Guam, Port Moresby  next\_TimeZoneURL=73  timeZoneName=(GMT+11:00) Solomon Is., New Caledonia  next\_TimeZoneURL=74  timeZoneName=(GMT+12:00) Fiji, Kamchatka, Marshall Is.  next\_TimeZoneURL=75  timeZoneName=(GMT+12:00) Auckland, Wellington  next\_TimeZoneURL=76  timeZoneName=(GMT+13:00) Nuku'alofa  timeZoneEnd=1 |

##### Meaning of time zone capability parameters (IPC excluding the lite series)

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **languageId** | language  1: English  2: Simplified Chinese  3: Russian  4. French  7: Spanish  8: Portuguese  9: Polish  16: Czech  25 : Hungarian  26: Italian |  | int |
| **timeZoneCount** | Number of time zones |  | int |
| **timeZoneBegin** | Time zone start indicator |  | int |
| **timeZoneName** | Time zone name |  | int |
| **next\_TimeZoneURL** | Next time zone start mark |  | int |
| **timeZoneEnd** | Time zone end marker |  | int |

##### Get device time zone parameters (getTimeZone)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **timeZone** |
| **Description** | Refer to [the device time zone parameter table](#设备时区参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=timeZone |
| **Return** | timeZone=85  DSTOpenFlag=0  beginMonth=3  beginWeekly=5  beginWeekDays=0  beginTime=60  endMonth=10  endWeekly=5  endWeekDays=0  endTime=120  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set device time zone parameters (setTimeZone)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **timeZone** [&<argument>=<value>...] |
| **Description** | When DSTOpenFlag = 1 (open daylight saving time), the start time must be less than the end time  DSTOpenFlag = 0 (close daylight saving time), no strict verification is performed on the time parameters.  For parameters, Refer to [the device time zone parameter table.](#设备时区参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=timeZone&timeZone=85&DSTOpenFlag=1&beginMonth=3&beginWeekly=1&beginWeekDays=1&beginTime=600&endMonth=10&endWeekly=2&endWeekDays=0&endTime=1200 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of device time zone parameters

**Device time zone parameter table**

Table 2-6-1-7-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **timeZone** | <int>[0, 300] | Time zone id  0-300 represents different time zones |
| **DSTOpenFlag** | <int>{0, 1} | Daylight saving time enable flag  0: Disable 1: Enable |
| **beginMonth** | <int>[1,12] | Daylight saving time starts in the month |
| **beginWeekly** | <int>[1,5] | Daylight Saving Time starts week  Indicates the week number in January |
| **beginWeekDays** | <int>[0,6] | Daylight saving time starts  0 means Sunday |
| **beginTime** | <int>[0, 1440] | Daylight saving time starts  The number of minutes from 00:00 to the current time  Note: The time must be an integer multiple of 30 |
| **endMonth** | <int>[1, 12] | Daylight saving time ends month |
| **endWeekly** | <int>[1, 5] | Daylight Saving Time Ends Week  Indicates the week number in January |
| **endWeekDays** | <int>[0, 6] | Daylight saving time ends  0 means Sunday |
|  |  |  |
| **endTime** | <int>[0, 1440] | Daylight saving time ends  The number of minutes from 00:00 to the current time  Note: The time must be an integer multiple of 30 |
| **Offset (NVR)** | <int>{30, 60} | Offset  Note: Only 30 or 60 |

#### Camera ( IPC excluding the lite series )

##### Get camera capabilities

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **videoSystemAbility** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= videoSystemAbility |
| **Description** | Refer to [URL Descriptions](#_摄像机能力参数含义) |
| **Return** | videoFormatCount=2  videoFormatBegin=1  videoFormat=1  frequencyCount=1  frequencyBegin=1  frequency=50  frequencyEnd=1  next\_FormatURL=2  videoFormat=0  frequencyCount=1  frequencyBegin=1  frequency=60  frequencyEnd=1  videoFormatEnd=1 |

##### Camera capability parameters meaning

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **videoFormatCount** | Number of video formats |  | int |
| **videoFormatBegin** | Video format start mark |  | int |
| **videoFormat** | Video format  0: NTSC  1: PAL |  | int |
| **frequencyCount** | Video refresh rate |  | int |
| **frequencyBegin** | Video refresh rate start mark |  | int |
| **frequency** | Video refresh rate |  | int |
| **next\_FreqURL** | Video refresh rate next mark |  | int |
| **frequencyEnd** | Video refresh rate end mark |  | int |
| **next\_FormatURL** | Next format start mark |  | int |
| **videoFormatEnd** | Video format end mark |  | int |

##### Get camera parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **videoSystem** &cameraID=1 |
| **Description** | Refer to [URL Descriptions](#_摄像机参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=videoSystem &cameraID=1 |
| **Return** | videoFormat=0  frequency=60 (IPC) |

##### Set camera parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **videoSystem** &cameraID=1&videoFormat=0&frequency=60 |
| **Description** | Refer to [URL Descriptions](#_摄像机参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type= videoSystem&cameraID=1&videoFormat=0&frequency=60 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Camera parameter meaning

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **videoFormat** | Video format  0: NTSC  1: PAL | 0-1 | int |
| **Frequency (IPC)** | Video refresh rate |  |  |

#### Watermark (OSD) (IPC excluding the lite series)

##### Get OSD capabilities

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **OSDAbility** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= OSDAbility |
| **Description** | Refer to [URL Descriptions](#_OSD能力参数含义) |
| **Return** | maxCanvasProperNum=8  maxOSDNum=1  osdTypeCount=5  osdTypeBegin=1  osdType=1  next\_OSDTypeURL=2  osdType=2  next\_OSDTypeURL=3  osdType=3  next\_OSDTypeURL=4  osdType=4  next\_OSDTypeURL=5  osdType=5  osdTypeEnd=1  fontSizeCount=3  fontSizeBegin=1  fontSize=3  next\_FontSizeURL=2  fontSize=2  next\_FontSizeURL=3  fontSize=1  fontSizeEnd=1  timeFormatCount=6  timeFormatBegin=1  timeFormat=YYYY-MM-DDhh:mm:ssww  next\_TimeURL=2  timeFormat=hh:mm:ssYYYY-MM-DDww  next\_TimeURL=3  timeFormat=MM/DD/YYYYhh:mm:ssww  next\_TimeURL=4  timeFormat=hh:mm:ssMM/DD/YYYYww  next\_TimeURL=5  timeFormat=DD/MM/YYYYhh:mm:ssww  next\_TimeURL=6  timeFormat=hh:mm:ssDD/MM/YYYYww  timeFormatEnd=1  fontAlphaCount=4  fontAlphaBegin=1  fontAlpha=1  next\_AlphaURL=2  fontAlpha=2  next\_AlphaURL=3  fontAlpha=3  next\_AlphaURL=4  fontAlpha=4  fontAlphaEnd=1  supportFontColor=1  allFontColor=1  supportFontInverse=0 |

##### OSD capability parameter meaning

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **maxCanvasProperNum** | Maximum number of canvases |  | int |
| **maxOSDNum** | Maximum number of OSDs |  | int |
| **osdTypeCount** | Number of OSD types |  | int |
| **osdTypeBegin** | OSD type start mark |  | int |
| **osdType** | OSD Type  1: Device name  2: Camera number  3: Camera name  4: Time watermark  5: Text watermark  6: PTZ position operation watermark  7: PTZ behavior operation watermark  8: PTZ temperature  10: Focused status |  | int |
| **next\_OSDTypeURL** | Next OSD type start mark |  | int |
| **osdTypeEnd** | OSD type end marker |  | int |
| **fontSizeCount** | Font size number |  | int |
| **fontSizeBegin** | Font size start mark |  | int |
| **fontSize** | font size |  | int |
| **next\_FontSizeURL** | Next font size start mark |  | int |
| **fontSizeEnd** | Font size end marker |  | int |
| **timeFormatCount** | Number of time formats |  | int |
| **timeFormatBegin** | Time format start mark |  | int |
| **timeFormat** | Time format |  | string |
| **next\_TimeURL** | Next time format start mark |  | int |
| **timeFormatEnd** | Time format end mark |  | int |
| **fontAlphaCount** | Font transparency number |  | int |
| **fontAlphaBegin** | Font transparency start mark |  | int |
| **fontAlpha** | Font transparency |  | int |
| **next\_AlphaURL** | Next Font transparency start mark |  | int |
| **fontAlphaEnd** | Font transparency end marker |  | int |
| **supportFontColor** | font color  0: Not supported  1: Support |  | int |
| **allFontColor** | All font colors  0: Not supported  1: Support |  | int |
| **fontColorCount** | Font Color Number |  | int |
| **fontColorBegin** | Font color start mark |  | int |
| **fontColor** | font color |  | int |
| **next\_FontColorURL** | Next item font color start mark |  | int |
| **fontColorEnd** | Font color end mark |  | int |
| **supportFontInverse** | Invert font  0: Not supported  1: Support |  | int |
| **allFontInverseColor** | Invert all fonts  0: Not supported  1: Support |  | int |
| **fontInverseColorCount** | Number of inverted fonts |  | int |
| **fontInverseColorBegin** | Inverted font start mark |  | int |
| **fontInverseColor** | Invert font color |  | int |
| **next\_InverseURL** | Next item font inverted color starts marking |  | int |
| **fontInverseColorEnd** | End mark with inverted font |  | int |

##### Setting all parameters

###### Get OSD parameters (getOSD) (IPC)

|  |  |  |
| --- | --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **OSD** &cameraID=<cameraID> | |
| **Description** | Refer to [OSD Global Parameters Table](#_OSD全局参数含义) | |
| **Example** | [http://192.168.32.151/cgi-bin/param.cgi?action=get&type=OSD&cameraID=1](http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=OSD&cameraID=1) | |
| **Return** | (IPC)  fontColor=2  inverseFlag=1  alpha=4  TwelveHoursFlag=0  WeekFlag=0  (For other responses, Refer to [General Response](#_通用应答) ) | (NVR/the lite series)  red=0  green=0  blue=0  alpha=0  inverseFlag=0  frontWidth=32  frontHeight=32 |

###### Set OSD parameters (setOSD) (IPC)

|  |  |  |
| --- | --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **OSD** &cameraID=<cameraID>[&<argument>=<value>...] | |
| **Description** | For parameters, Refer to [OSD Global Parameters Table](#_OSD全局参数含义) | |
| **Example** | (IPC excluding the lite series)  http://192.168.32.151/cgi-bin/param.cgi?action=set&type=OSD&cameraID=1&fontColor=7&inverseFlag=1&alpha=2&TwelveHoursFlag=1&WeekFlag=0 | (IPC The lite series)  http://192.168.2.193/cgi-bin/sensor.cgi?action=set&type=OSD&cameraID=1&red = 2&green=3&blue=1 &inverseFlag= 1 &alpha= 3&frontWidth=28&frontHeigth=30 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) | |

###### OSD parameter meaning

**OSD Parameters Table**

Table 2-6-1-8-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **IPC** | | |
| **timeFormat** | <int> | Time format |
| **cameraID** | <int>[0,n] | Camera ID |
| **fontColor** | <unsigned int>[0, 9] | font color  0: Other  1: White  2: Black  3: Red  4: Orange  5: Yellow  6: Green  7: Blue  8: Blue  9: Purple |
| **inverseFlag** | <unsigned char>{0, 1} | Invert Enable Flag  0: Disable  1: Enable |
| **inverseColor** | <int>[0, 9] | font color  0: Other  1: White  2: Black  3: Red  4: Orange  5: Yellow  6: Green  7: Blue  8: Blue  9: Purple |
| **alpha** | <unsigned int>[0, 4] | transparency  0: Other  1: Transparent  2: Translucent  3: Semi-translucent  4: Opaque  0 indicates transparency other than transparent, translucent, sub-translucent, and opaque. It is valid when getting and an invalid parameter when setting. |
| **TwelveHoursFlag** | <unsigned char>{0, 1} | 12 hour switch enable flag  0: Disable  1: Enable |
| **WeekFlag** | <unsigned char>{0, 1} | Week switch enable flag  0: Disable  1: Enable |
| **FocusStatus** | <unsigned char>{0, 1} | Week switch enable flag  0: Disable  1: Enable |
| **[font](javascript:void(0);)S[ize](javascript:void(0);)** | <int>[0, 3] | Font size  0: Others  1: large  2: middle  3: small  0 indicates the font size other than large, medium, and small, which is valid when obtained, and is an illegal parameter when set, and returns -8 |
| **NVR/the lite series** | | |
| **cameraID** | <int>[0,n] | Camera ID |
| **red** | <int>[0, 255] | Red (font color RGB) |
| **green** | < int >[0, 255] | Green (font color RGB) |
| **blue** | < int >[0, 255] | Blue (font color RGB) |
| **frontWidth** | <int> | Font width |
| **frontHeigth** | <int> | Font height |
| **inverseFlag** | <unsigned char>{0, 1} | Invert Enable Flag  0: Disable  1: Enable |
| **alpha** | <unsigned int>[0, 4] | transparency  0: Other  1: Transparent  2: Translucent  3: Semi-translucent  4: Opaque  0 indicates transparency other than transparent, translucent, sub-translucent, and opaque. It is valid when getting and an invalid parameter when setting. |

##### Canvas (OSDCanvas) (IPC excluding the lite series)

###### Get OSDCanvas parameters (getOSDCanvas)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **OSDCanvas** &cameraID=<cameraID>&canvasID =<canvasID> |
| **Description** | canvasID is an optional parameter. Without it, it means to obtain all canvas information of the channel device.  Refer to [OSDCanvas parameter table](#_OSDCanvas参数含义_1) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=OSDCanvas&cameraID=1&canvasID=1 |
| **Return** | topX=67  topY=19  fontSize=2  alignMode=0  OSDInfoCount=1  OSDInfoBegin=1  arrowID=0  OSDEnableFlag=1  OSDType=4  info=YYYY-MM-DDhh:mm:ssww  OSDInfoEnd=1  (For other responses, Refer to [General Response](#_通用应答) ) |

###### Set OSDCanvas parameters (setOSDCanvas)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **OSDCanvas** &cameraID=<cameraID>[&<argument>=<value>...] |
| **Description** | Each canvas can only set one OSDinfo  The arrowID of each OSDinfo can only be set to 0  Time watermark can only be set on the first canvas  OSDCanvasBegin and OSDCanvasEnd must be set, OSDInfoBegin and OSDInfoEnd must also be set  For parameters, Refer to [OSDCanvas parameter table](#_OSDCanvas参数含义_1) |
| **Example** | [http://192.168.32.245/cgi-bin/param.cgi?action=set&type=OSDCanvas&cameraID=1&OSDCanvasBegin=1&canvasID=2&topX=0&topY=50&fontSize=2&alignMode=1&OSDInfoAction=add&OSDInfoBegin=1&arrowID=0&OSDEnableFlag=1&OSDType=5&info=YYYY-MM-DD %20hh:mm:ss%20ww&OSDInfoEnd=1&next\_OSDCanvasURL=2&canvasID=1&topX=0&topY=50&fontSize=2&alignMode=1&OSDInfoAction=add&OSDInfoBegin=1&arrowID=0&OSDEnableFlag=1&OSDType=4&info=YYYY-MM-DD%20hh:mm:ss%20ww&OSDInfoEnd=1&OSDCanvasEnd=1](http://192.168.32.245/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=OSDCanvas&cameraID=1&OSDCanvasBegin=1&canvasID=2&topX=0&topY=50&fontSize=2&alignMode=1&OSDInfoAction=add&OSDInfoBegin=1&arrowID=0&OSDEnableFlag=1&OSDType=5&info=YYYY-MM-DD%20hh:mm:ss%20ww&OSDInfoEnd=1&next_OSDCanvasURL=2&canvasID=1&topX=0&topY=50&fontSize=2&alignMode=1&OSDInfoAction=add&OSDInfoBegin=1&arrowID=0&OSDEnableFlag=1&OSDType=4&info=YYYY-MM-DD%20hh:mm:ss%20ww&OSDInfoEnd=1&OSDCanvasEnd=1) |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

###### OSDCanvas parameter meaning

**OSDCanvas Parameter Table**

Table 2-6-1-8-4-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **cameraID** | <int>[0,n] | Camera ID |
| **OSDCanvasCount** | <unsigned int>[0,n] | Number of OSD canvases |
| **OSDCanvasBegin** | <unsigned int>1 | OSDCanvas start sign  Can only be 1 |
| **canvasID** | <int>[1, 8] | Canvas Number  When getting canvas information, you do not need to enter the canvas number, which means getting all canvas information of the specified channel. |
| **topX** | <int>[0, 100] | x-coordinate  The x coordinate of the upper left corner of the area as a percentage of the total video area width |
| **topY** | <int>[0, 100] | y coordinate  The y coordinate of the upper left corner of the area as a percentage of the total video area height |
| [**font**](javascript:void(0);) **size**[**​**](javascript:void(0);) | <int>[0, 3] | font size  0: Other  1: Large  2: Medium  3: Small  Setting other values is invalid and Returns -8 (parameter error).  0 means font size other than large, medium or small. It is valid when getting, but it is an illegal parameter when setting, and Returns -8 |
| **alignMode** | <int>{0, 1} | Alignment Mode  0: Left alignment  1: Right-aligned |
| **OSDInfoCount** | <int>1 | OSD information number  Currently, each canvas can only set one OSDInfo, which can only be 1 |
| **OSDInfoAction** | <string>  {cover, add, remove} | OSDInfo loop operation behavior  cover  add  remove  When the operation behavior is set, if this behavior flag is not carried, the default operation behavior is add:.  When the operation behavior is cover and add, OSDInfo must input ArrowI, OSDEnableFlag and OSDType, otherwise the parameters are considered invalid and -8 is Returned.  When the operation behavior is add, if the line number already exists, the line will be overwritten.  Regardless of the operation, arrowID must be entered, otherwise the parameter is considered invalid and -8 is Returned. |
| **OSDInfoBegin** | <unsigned int>1 | OSD information start mark  Can only be 1 |
| **arrowID** | <int>0 | Line Number  ArrowID must be entered and can only be set to 0; |
| **OSDEnableFlag** | <unsigned char>{0, 1} | OSD enable flag  0: Disable  1: Enable |
| **OSDBlinkFlag** | <unsigned char>{0, 1} | OSD flashing logo  Optional parameters  0: Disable  1: Enable |
| **OSDBlinkInterval** | <unsigned char>[1, n] | OSD flashing interval  Optional parameters  Integer starting from 1,  The unit is temporarily set to seconds. |
| **OSDType** | <int>[1, 8] | OSD Type  1: Device name  2: Camera number  3: Camera name  4: Time watermark  5: Text watermark  6: PTZ position operation watermark  7: PTZ behavior operation watermark  8: PTZ temperature  Setting other values is invalid and Returns -8 (parameter error).  Some devices only support watermark types 1 to 5.  There can be only one time watermark |
| **info** | <string> | Watermark information  Currently, only text watermarks and time watermarks can set info information. Setting info for other watermark types is invalid.  When the watermark type is a text watermark, it cannot contain English characters "< > % & \" / , ' ; = | +" and the number of characters cannot be greater than 256, otherwise -8 is Returned ( parameter error).  It does not make sense to include spaces, and space characters will be removed.  When the watermark type is time watermark, it includes the following four types:  YYYY-MM-DD hh:mm:ss ww:  hh:mm:ss YYYY-MM-DD ww  MM/DD/YYYY hh:mm:ss ww  hh:mm:ss MM/DD/YYYY ww  (Spaces in the time format are not valid in info, but there are spaces in the actual time display)  Setting other values is invalid, but no error is Returned and the time format is not changed |
| **next\_OSDInfoURL** | <unsigned int>[2, n] | The next OSD message starts  Start from 2. If the value is 2, it means the following parameter is the second one. (Since each canvas can only set one OSDinfo at present, this parameter can no longer be used) |
| **OSDInfoEnd** | <unsigned int>[1, n] | OSD information end mark  Indicates the number of OSDInfo |
| **next\_OSDCanvasURL** | <unsigned int>[2, n] | The next OSDCanvas message starts  Start from 2. If the value is 2, it means the following parameter is the second one. |
| **OSDCanvas End** | <unsigned int>[1, n] | OSDCanvas end flag  Indicates the number of canvases |

##### Watermark information (OSDInfo) (IPC The lite series/NVR)

###### Get OSDInfo parameters (getOSDInfo)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/sensor.cgi?action=get&type= **OSDInfo** &cameraID=<cameraID>&osdinfoID =<osdinfoID> |
| **Description** | osdinfoID is an optional parameter. Without it, all canvas information of the channel device will be obtained.  Refer to [OSDInfo parameter table](#_OSDCanvas参数含义_1) |
| **Example** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type=OSDInfo&cameraID=1& OSDInfoID =1 |
| **Return** | Type=1  Open=1  Token=osdToken\_cam1\_osdId1  X=0  Y=0  Customstr= (For other responses, Refer to [General Response](#_通用应答) ) |

###### Set OSDInfo parameters (setOSDInfo)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/sensor.cgi?action=set&type=**OSDInfo** &cameraID=<cameraID>[&<argument>=<value>...] |
| **Description** | For parameters, Refer to [OSDInfo parameter table](#_OSDCanvas参数含义_1) |
| **Example** | [http://192.168.2.193/cgi-bin/sensor.cgi?action=set&type=OSDInfo&cameraID=1& OSDInfoID =1&Type=1&Open=1&X=800&Y=700&Customstr=cxy3](http://192.168.2.193/cgi-bin/sensor.cgi?action=set&type=OSDInfo&cameraID=1&%20OSDInfoID%20=1&Type=1&Open=1&X=800&Y=700&Customstr=cxy3) |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

###### OSDInfo parameter meaning

OSDInfo Parameter Table

Table 2-6-1-7-2-3

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **cameraID** | <int>[0,n] | Camera ID |
| **OSDInfoID** | <int> | OSD information ID, currently only 1 and 2  1 represents time; 2 represents channel name |
| **X** | <int>[100,8300] | x-coordinate |
| **Y** | <int>[100.9400] | y coordinate |
| **Open** | <int> | Open Tag  0: Off  1: Open |
| **Type** | <int> | OSD Type  1: Time (time can only set x, y coordinates and switches)  2: Channel name (time and device name cannot be modified ) |
| **Token** | <string> | describe  The default description of time type is: time and cannot be modified |
| **Customstr** | <string> | Channel name (display content) |
| **OSDInfoCoun t** | <unsigned int>[0, n] | OSD information number |
| **OSDInfoBegin** | <unsigned int>1 | Start flag, can only be 1 |
| **next\_OSDInfoURL** | <unsigned int>[2, n] | Next message mark |
| **OSDInfoEnd** | <unsigned int>[0, n] | OSD information end mark |

#### Audio capability (IPC excluding the lite series)

##### Get audio capability parameters

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **audioAbility&cameraID=1** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= audioAbility&cameraID=1 |
| **Description** | Refer to [URL Descriptions](#_音频能力参数含义) |
| **Return** | audioInCount=1  audioInBegin=1  audioInType=3  audioInEnd=1  audioOutCount=1  audioOutBegin=1  audioOutType=0  audioOutEnd=1  audioVolumeMin=0  audioVolumeMax=100 |

##### Audio capability parameter meaning

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **audioInCount** | Number of audio input types |  | int |
| **audioInBegin** | Audio input type start mark |  | int |
| **audioInType** | Audio input type  1: Built-in  2: External  3: Line input  4: Differential line input  5: Dual input |  | int |
| **next\_AudioInURL** | Next audio input type starts marking |  | int |
| **audioInEnd** | Audio input type end marker |  | int |
| **audioOutCount** | Number of audio output types |  | int |
| **audioOutBegin** | Audio output type start mark |  | int |
| **audioOutType** | Audio output type  0: Automatic  1: External  2: Built-in |  | int |
| **next\_AudioOutURL** | Next audio output type start mark |  | int |
| **audioOutEnd** | Audio output type end mark |  | int |
| **audioVolumeMin** | Minimum volume |  | int |
| **audioVolumeMax** | Maximum volume |  | int |

#### Microphone

##### Microphone parameter meaning

**Microphone parameter table**

Table 2-6-1-9-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **cameraID** | <int> | Channel Number |
| **toneArmEnableFlag** | <unsigned char>{0, 1} | Whether to enable the microphone  0: Disable  1: Enable |
| **toneArmType** | <int>[1, 5] | Microphone Type  1: Built-in  2: External  3: Line input  4: Differential line input  5: Dual input  (Different devices may support different types) |
| **volume** | <int>[0, 100] | volume  When the volume is greater than 100, it is set to 100 |

##### Get Microphone Parameters (getMicrophone)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **microphone** [&cameraID=<cameraID>] |
| **Description** | Refer to [microphone parameter table](#_麦克风参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=microphone&cameraID=1 |
| **Return** | cameraID=1  toneArmEnableFlag=1  toneArmType=1  volume=50  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set Microphone Parameters (setMicrophone)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **microphone** &cameraID=<cameraID>[&<argument>=<value>...] |
| **Description** | When the microphone type is not supported by the device, -8 is Returned. The microphone type depends on the device's own capabilities and can be obtained from the type drop-down menu on the web: Device->Microphone page.  Parameters of Parametric Microphones |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=microphone&cameraID=1&toneArmEnableFlag=1&toneArmType=3&volume=100 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Audio Output (AudioOutputParam ) (IPC)

##### Get audio output parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **AudioOutputParam** |
| **Description** | Refer to [parameter meaning](#_音频输出参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=AudioOutputParam |
| **Return** | audioOutputEnable=1  audioOutputType=0  audioOutputVolume=80  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set audio output parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **AudioOutputParam** &audioOutputEnable=true&audioOutputType=0&audioOutputVolume=50 |
| **Description** | Refer to [parameter meaning](#_音频输出参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=AudioOutputParam&audioOutputEnable= 1 &audioOutputType=0&audioOutputVolume=50 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Audio output parameter meaning

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **audioOutputEnable** | <int> | Audio output  0: Off  1: On |
| **audioOutputType** | <int> | Audio Type  1: External  2: Built-in |
| **audioOutputVolume** | <int>[1, 5] | Audio output volume (0-100) |

#### Voice denoise (IPC excluding the lite series)

##### Get Voice denoise parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **voiceDenoise** |
| **Description** | Refer to [URL Descriptions](#_摄像机参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=voiceDenoise |
| **Return** | voiceDenoiRefer tonable=0 |

##### Set the Voice denoise parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **voiceDenoise&voiceDenoiRefer tonable=0** |
| **Description** | Refer to [URL Descriptions](#_摄像机参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type= voiceDenoise&voiceDenoiRefer tonable=0 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of Voice denoise parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **videoFormat** | Video format  0: NTSC  1: PAL | 0-1 | int |

#### High-speed dome PTZ ID (IPC excluding the lite series)

##### Get the high-speed dome PTZ ID (getIPDomePTZID)

|  |  |
| --- | --- |
| **URL** | http://<servername> /cgi-bin/param.cgi?action=get&type=IPDomePTZID&cameraID= **<cameraID>** |
| **Description** | Device not supported, Returns -506  Refer to [the high-speed dome head ID parameter table](#_高速球云台ID参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=IPDomePTZID&cameraID=1 |
| **Return** | domePTZId=213  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set the high-speed dome PTZ ID (setIPDomePTZID)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=IPDomePTZID **&** cameraID=<cameraID>[&domePTZId=<domePTZId>] |
| **Description** | domePTZId is an optional parameter. If it is included, the value will be changed. If it is not included, the existing value will not be changed.  For parameters, Refer to [the High Speed dome PTZ ID Parameter Table](#_高速球云台ID参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=IPDomePTZID&cameraID=1&domePTZId=20 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### High-speed dome PTZ ID parameter meaning

**High-speed dome PTZ ID parameter table**

Table 2-6-1-10-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **domePTZId** | <int>[0, 255] | High-speed dome head ID  As an optional parameter in Set |
| **cameraID** | <int> | Channel ID  Required parameters for get and set |

#### PTZTimer (IPC excluding the lite series)

##### Get PTZ timer parameters (getPTZTimer)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **PTZTimer** &cameraID=<cameraID> |
| **Description** | Refer to [PTZ timer parameter table](#_云台定时器参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=PTZTimer&cameraID=1 |
| **Return** | cameraID=1  mode=1  enableFlag=1  year=2018  month=3  day=2  hour=3  minute=2  second=1  timerBegin=1  timeSegmentBegin=1111  timeSegmentEnd=2222  operatorType=16  operatorValue=1  timerEnd=1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set PTZ timer parameters (setPTZTimer) (IPC)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **PTZTimer** &cameraID=<cameraID>[&<argument>=<value>] |
| **Description** | Refer to [PTZ timer parameter table](#_云台定时器参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=PTZTimer&cameraID=1&enableFlag=1&mode=1&timerAction=cover&year=2018&month=3&day=2&hour=3&minute=2&second=1&timerBegin=1&operatorType=16&operatorValue=1&timeSegmentBegin=1111&timeSegmentEnd=2222&timerEnd=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of PTZ timer parameters

**PTZ timer parameter table**

Table 2-6-1-12-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **cameraID** | <int> | Channel ID |
| **enableFlag** | <unsigned char>{0, 1} | Whether to enable the PTZ timer flag  0: Disable  1: On |
| **mode** | <int>{1, 2} | Timer Mode  1:1 times  2: Daily cycle |
| **year** | <unsigned short> | Year |
| **month** | <unsigned short>[1, 12] | moon |
| **day** | <unsigned short>[1, 31] | day |
| **hour** | <unsigned short>[0, 59] | hour |
| **minute** | <unsigned short>[0, 59] | point |
| **second** | <unsigned short>[0, 59] | Second |
| **timerAction** | <string> | PTZ timer loop operation behavior  When the configuration behavior is set, if this behavior flag is not carried, the default is to add the loop body.  cover:cover |
| **timeSegmentBegin** | <int> | PTZ timer start flag  When the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value |
| **nextTimeSegmentFlag** | <int> | The next PTZ timer time period starts.  Start from 2. If the value is 2, it means that the following parameter is the second item. When the configuration behavior is set and the number of planned times is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **timeSegmentEnd** | <int> | PTZ timer end flag  Indicates the number of settings. When the configuration behavior is set and the number of planned times is greater than 1, its value is the same as the last nextFlag, except for one with n=1. |
| **timerBegin** | <unsigned long>[0, 86400] | Starting time  Range: 0-86400 |
| **timerEnd** | <unsigned long>[0, 86400] | End Time  Range: 0-86400 |
| **operatorType** | <int>{16, 28, 21, 34} | PTZ operation type  16: Preset position call  28 : Track call  21: Scan  34: Parade  Web currently supports setting timers for the above four types of PTZ |
| **operatorValue** | <int> | PTZ operation value |

#### Face configuration (faceDetectParam) (IPC excluding the lite series)

##### Get face parameters (getfaceDetectParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get &type= faceDetectParam |
| **Description** | For parameter meanings, Refer to [the face parameter configuration table .](#_人脸参数配置表) |
| **Example** | http://192.168.32.121/cgi-bin/param.cgi?action=get&type=faceDetectParam​​ |
| **Return** | faceDetectEnable=1  upBodyEnable=1  fullBodyEnable=0  displayTraceInfo=0  confidenceCoefficient=High  smallestPixel=40  imageMatQuality=High  snapshotMode=1  uploadInterval=6  yawDegree=80  tiltDegree=60  ftpUploadImageMat=0  ftpUploadWholeImage=0  detectAreaBegin=1  pointX1=9.090909  pointY1=25.384617  pointX2=29.268291  pointY2=18.846153  pointX3=47.450111  pointY3=16.538462  pointX4=65.853661  pointY4=30.000002  pointX5=81.374725  pointY5=58.076923  pointX6=72.949005  pointY6=81.153847  pointX7=64.079819  pointY7=91.538460  pointX8=49.223946  pointY8=93.846153  nextDetectArea=2  pointX1=62.084259  pointY1=10.769231  pointX2=68.957870  pointY2=9.615385  pointX3=78.713974  pointY3=14.615385  pointX4=86.696228  pointY4=21.538462  pointX5=90.243896  pointY5=30.384615  pointX6=90.687363  pointY6=49.230770  pointX7=94.456764  pointY7=75.769234  pointX8=88.470062  pointY8=84.230766  detectAreaEnd=2  weekDayBegin=1  weekDay=2  startTime1=0  endTime1=30600  startTime2=32400  endTime2=86400  next\_weekDayURL= 2  weekDay=4  startTime1=0  endTime1=86400  weekDayEnd= 2 |

##### Set face parameters (setfaceDetectParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=faceDetectParam&faceDetectEnable=< faceDetectEnable >&upBodyEnable=<upBodyEnable>&fullBodyEnable=<fullBodyEnable>&displayTraceInfo=<displayTraceInfo>&confidenceCoefficient=<confidenceCoefficient>&smallestPixel=<smallestPixel>&imageMatQuality=<imageMatQuality>&snapshotMode=<snapshotMode>&uploadInterval=<uploadInterval>&yawDegree=<yawDegree>&tiltDegree=<tiltDegree>&ftpUploadImageMat=<ftpUploadImageMat>&ftpUploadWholeImage=<ftpUploadWholeImage>&weekDayBegin=1&weekDay=<weekDay>&startTime1=< startTime1>&endTime1=< endTime1>&next\_weekDayURL=2…&weekDayEnd=2&detectAreaBegin=1&pointX1=20&pointY1=10&pointX2=30&pointY2=40&pointX3=20&pointY3=40…&nextDetectArea=2…&detectAreaEnd=2 |
| **Description** | For parameter meanings, Refer to [the face parameter configuration table.](#_人脸参数配置表) |
| **Example** | http://192.168.32.121/cgi-bin/param.cgi?action=set&type=faceDetectParam&faceDetectEnable=1&upBodyEnable=1&fullBodyEnable=0&displayTraceInfo=0&confidenceCoefficient=High&smallestPixel=40&imageMatQuality=High&snapshotMode=1&uploadInterval=6&yawDegree=80&tiltDegree=60&ftpUploadImageMat=0&ftpUploadWholeImage=0&weekDayBegin=1&weekDay= ​0&startTime1=0&endTime1 =86400&next\_weekDayURL=2&weekDay=1&startTime1=0&endTime1=3600&startTime2=3600&endTime2=5400&startTime3=600&endTime3=800&weekDayEnd=2&detectAreaBegin=1&pointX1=20&pointY1=10&pointX2=30&pointY2=40&pointX3=20&pointY3=40&nextDetectArea=2&pointX1=50&pointY1=50&pointX2=60&pointY2=60&pointX3=80&pointY3=50&detectAreaEnd=2 |
| **Return** | OK |

##### Face parameter configuration table

|  |  |  |
| --- | --- | --- |
| **parameter** | **type of data** | **Remark** |
| **faceDetectEnable** | int<0, 1> | Face recognition enabled  1: Enable  0: Off |
| **upBodyEnable** | int<0, 1> | Upper body recognition enabled  1: Enable  0: Off |
| **fullBodyEnable** | int<0, 1> | Full body recognition enabled  1: Enable  0: Off |
| **displayTraceInfo** | int<0, 1> | Overlay tracking information  1: Enable  0: Off |
| **confidenceCoefficient** | string {Low,Mid,High} | Confidence  Low: Low  Mid:  High: |
| **smallestPixel** | int<30,300> | Minimum pixel for face recognition |
| **imageMatQuality** | string {Low,Mid,High} | Cutout quality  Low: Low  Mid:  High: |
| **snapshotMode** | int<0,1> | Snapshot mode  1: Timing  1: Optimal |
| **uploadInterval** | int<1, 10> | Upload picture interval (only needs to be set when the snapshot mode is timed) |
| **yawDegree** | int<0,90> | Side Angle |
| **tiltDegree** | int<0,90> | bevel |
| **ftpUploadImageMat** | int<0,1> | FTP send cutout  1: Enable  0: Off |
| **ftpUploadWholeImage** | int<0,1> | FTP send panorama  1: Enable  0: Off |
| **detectAreaBegin** | int<1> | Area start mark |
| **pointX (1..8)** | float<0.0,99.99> | X coordinate of point n constituting the detection area (up to 8 points can be set for each area) |
| **pointY (1..8)** | float<0.0,99.99> | The Y coordinate of point n that constitutes the detection area (each area can have up to 8 points) |
| **nextDetectArea** | int<2,n> | Next area sign |
| **detectAreaEnd** | int<1,n> | End of area sign |
| **weekDayBegin** | int<1> | Arming time start flag |
| **weekDay** | int<0,6> | which day  0 is Sunday |
| **startTime (1..n)** | <long>[0, 86400] | Arming start time |
| **endTime n(1..n)** | <long>[0, 86400] | Arming end time |
| **weekDayEnd** | int<1,n> | Arming time end flag |

#### System ( SystemParam) (IPC excluding the lite series/NVR)

##### Get system parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **SystemParam** |
| **Description** | Refer to [parameter meaning](#_系统参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=SystemParam |
| **Return** | language=1  webModel = 1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set system parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **SystemParam** &language=0&webModel=0 |
| **Description** | Refer to [parameter meaning](#_系统参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=SystemParam&language=0&webModel=0 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### System parameter meaning

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **language** | <int> | language  1: English  2: Simplified Chinese  3: Russian  4. French  7: Spanish  8: Portuguese  9: Polish  16: Czech  25: Hungarian  26: Italian |
| **webModel** | <int> | Web Mode  1: HTTP  2 https and http ; (IPC)  3: HTTPS |

#### MultiCamera (IPC excluding the lite series)

##### Get system parameters

|  |  |
| --- | --- |
| **URL** | http://192.168.2.68/cgi-bin/param.cgi?action=get&type=multiCameraAbility |
| **Description** | Refer to [parameter meaning](#_系统参数含义) |
| **Example** | http://192.168.2.68/cgi-bin/param.cgi?action=get&type=multiCameraAbility |
| **Return** | MultiCameraEnable=true  MultiCameraButDisSupport=true  MultiCameraWorkModeSupport=true (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of multi-camera capability parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| MultiCameraEnable | Whether the multi-Refer to capability is enabled |  | Bool​ |
| MultiCameraButDisSupport | Multi-Refer to mode support |  | Bool​ |
| MultiCameraWorkModeSupport | Multi-camera support |  | Bool​ |

##### Get multi-camera parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get &type=multiCamera |
| **Description** | Refer to [URL Descriptions](#_摄像机参数含义) |
| **Example** | h http://192.168.2.68/cgi-bin/param.cgi?action=get&type=multiCamera |
| **Return** | videoFormat=0  frequency=60 |

##### Set the multi-camera parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= multiCamera & MultiCameraMode &ButtingDistance=6 |
| **Description** | Refer to [URL Descriptions](#_摄像机参数含义) |
| **Example** | http://192.168.2.68/cgi-bin/param.cgi?action=set&type=multiCamera&MultiCameraMode=0&ButtingDistance=6 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Multi-camera parameter meaning

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **ChannelNum** | Camera Channel |  | int |
| **ButtingDistance** | Splicing distance | 2-200m | int |
| **MultiCameraMode** | Multi-Refer to mode | 0 , multi-channel 1 , splicing mode | Int​ |

#### White light manual control ( WhiteLedManualControl ) (IPC)

##### Get white light mode (get WhiteLedManualControl )

|  |  |
| --- | --- |
| **URL** | : //<servername>/cgi-bin/sensor.cgi?action=get&type= WhiteLedManualControl |
| **Description** | [white light parameters](#_白灯参数含义) |
| **Example** | http://192.168.2.126/cgi-bin/param.cgi?action=get&type=WhiteLedManualControl&cameraID=1 |
| **Return** | WhiteLedManualMode=0  WhiteLedManualDuration=10 (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set white light parameters (set WhiteLamp )

|  |  |
| --- | --- |
| **URL** | cameraID [http://192.168.32.95/cgi-bin/sensor.cgi?action=set&type= WhiteLedManualControl & cameraID=](http://192.168.32.95/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=%20WhileLedManualControl%20&cameraID=) = < RedBuleLampMode >... |
| **Description** | [White light lamp parameters meaning](#_白灯参数含义) |
| **Example** | http://192.168.2.126/cgi-bin/param.cgi?action=set&type=WhiteLedManualControl&cameraID=1&WhiteLedManualMode=1&WhiteLedManualDuration=10 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of white light parameters

Table 2-8-10-3-1

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **WhiteLampMode** | Consecration  0: Off  1: Open | 0-1 | int |
| **WhiteManualDuration** | Manual control duration | Unit: s | int |

#### White light manual control ( WhiteLedManualControl ) (IPC)

##### Get white light mode (get WhiteLedManualControl )

|  |  |
| --- | --- |
| **URL** | [http://192.168.32.95/cgi-bin/sensor.cgi?action=set&type= WhiteLedAlarmParam & cameraID](http://192.168.32.95/cgi-bin/sensor.cgi?action=set&type=%20WhiteLedAlarmParam%20&%20cameraID%20) =< cameraID >... |
| **Description** | [white light parameters](#_白灯参数含义) |
| **Example** | http://192.168.2.126/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=WhiteLedAlarmParam&cameraID=1&WhiteDisplayMode=1&WhiteFlickerDuration=15&weekDayCount=7&weekDayBegin=1&weekDay=0&startTime=0&endTime=86400&next\_weekDayURL=2&weekDay=1&startTime=0&endTime=86400&next\_weekDayURL=3&weekDay=2&startTime=0&endTime=86400&next\_weekDayURL=4&weekDay=3&startTime=0&endTime=86400&next\_weekDayURL=5&weekDay=4&startTime=0&endTime=86400&next\_weekDayURL=6&weekDay=5&startTime=0&endTime=86400&next\_weekDayURL=7&weekDay=6&startTime=0&endTime=86400&weekDayEnd=7 |
| **Return** | WhiteLedManualMode=0  WhiteLedManualDuration=10 (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set white light parameters (set WhiteLamp )

|  |  |
| --- | --- |
| **URL** | cameraID [http://192.168.32.95/cgi-bin/sensor.cgi?action=set&type= WhiteLedManualControl & cameraID=](http://192.168.32.95/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=%20WhileLedManualControl%20&cameraID=) = < RedBuleLampMode >... |
| **Description** | [White light lamp parameters meaning](#_白灯参数含义) |
| **Example** | http://192.168.2.126/cgi-bin/param.cgi?action=set&type=WhiteLedManualControl&cameraID=1&WhiteLedManualMode=1&WhiteLedManualDuration=10 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of white light parameters

Table 2-8-10-3-1

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **WhiteLampMode** | Consecration  0: Off  1: Open | 0-1 | int |
| **WhiteManualDuration** | Manual control duration | Unit: s | int |

#### White light alarm control ( WhiteLedAlarmParam ) (IPC)

##### Get white light alarm control (get WhiteLedAlarmParam ）

|  |  |
| --- | --- |
| **URL** | : //<servername>/cgi-bin/sensor.cgi?action=get&type= WhiteLedAlarmParam |
| **Description** | [white light alarm control parameters](#_白灯参数含义) |
| **Example** | [http://192.168.2.126/cgi-bin/param.cgi?action=get&type=WhiteLedAlarmParam&cameraID=1](http://192.168.2.126/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=WhileLedAlarmParam&cameraID=1) |
| **Return** | WhiteLampMode=0  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set white light alarm control parameters (set WhiteLamp )

|  |  |
| --- | --- |
| **URL** | [http://192.168.32.95/cgi-bin/sensor.cgi?action=set&type= WhiteLedAlarmParam & cameraID](http://192.168.32.95/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=RedBuleLamp&RedBuleLampMode) = < cameraID >... |
| **Description** | [white light alarm control parameters](#_白灯参数含义) |
| **Example** | http://192.168.2.126/cgi-bin/param.cgi?action=set&type=WhiteLedAlarmParam&cameraID=1&WhiteFlickerDuration=30000&weekDayCount=7&weekDayBegin=1&weekDay=0&startTime=0&endTime=86400&next\_weekDayURL=2&weekDay=1&startTime=0&endTime=86400&next\_weekDayURL=3&weekDay =2&startTime=0&endTime=86400&next\_weekDayURL=4&weekDay=3&startTime=0&endTime=86400&next\_weekDayURL=5&weekDay=4&startTime=0&endTime=86400&next\_weekDayURL=6&weekDay=5&startTime=0&endTime=86400&next\_weekDayURL=7&weekDay=6&startTime=0&endTime=86400&weekDayEnd=7 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of white light alarm control parameters

Table 2-8-10-3-1

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **WhiteFlickerDuration** | Alarm duration | 1s-60s | int |
| **flickerMode** | Flashing mode | 0: flashing  1: Solid on | int |
| **flickerInterval** | Flashing interval | 0ms-5000ms | int |
| **weekDayCount** | Number of defenses |  | int |
| **weekDayBegin** | Arming start indicator |  | int |
| **weekday** | which day | 0-6 | int |
| **startTime** | Arming start time (seconds) |  | int |
| **endTime** | Arming end time (seconds) |  | int |
| **next\_weekDayURL** | Next arming time start mark |  | int |
| **weekDayEnd** | Arming end mark |  | int |

#### Synchronize camera time (NVR)

##### Get the syncTime parameter (get syncTime )

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/system.cgi?action=get&type= **syncTime** |
| **Description** | Refer to syncTime center parameter table |
| **Example** | http://192.168.2.162/cgi-bin/param.cgi?action=get&type=syncTime |
| **Return** | syncTimeEnable=0  waitTime=3600 (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set the syncTime parameter (setNTPParam)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/system.cgi?action=set&type= syncTime [&<argument>=<value>...] |
| **Description** | Refer to syncTime center parameter table |
| **Example** | http://192.168.2.162/cgi-bin/param.cgi?action=set&type=syncTime&syncTimeEnable=0&waitTime=3600 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### syncTime parameter meaning

**NTP Center Parameters Table**

Table 2-6-5-2-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| syncTimeEnable | <int> | Is it enabled? |
| waitTime | <int> | Synchronize time and frequency |

#### Get basic system settings parameters (NVR)

##### Get basic system settings parameters (get systemParam )

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/system.cgi?action=get&type= BasicSettings |
| **Description** | Refer to [SystemParam Central Parameter Table](#_NTP参数含义) |
| **Example** | http://192.168.2.162/cgi-bin/param.cgi?action=get&type=BasicSettings​ |
| **Return** | systemTemperatureUnit=1  systemOriginalScale=0  systemName=Device  systemLanguage=english (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set system basic settings parameters (set systemParam )

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/system.cgi?action=set&type= BasicSettings [&<argument>=<value>...] |
| **Description** | SystemParam Central Parameter Table |
| **Example** | http://192.168.2.162/cgi-bin/param.cgi?action=set&type= BasicSettings &systemTemperatureUnit=1&systemOriginalScale=0&systemName=Device |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of system basic setting parameters

systemParam **parameter table**

Table 2-6-5-2-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **systemTemperatureUnit** | <int>[1, 2] | 1. Celsius  2. Fahrenheit |
| **systemOriginalScale** | <int>[0 1] | Whether to open the original ratio: 0 off 1 on |
| **systemName** | <string> | Device Name |
| **systemLanguage** | <string> | Device language (cannot be changed) |

#### Security services

##### Get Security services Parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/system.cgi?action=get&type= securityParam |
| **Description** | Refer to [securityParam table](file:///C:\Users\Administrator\Desktop\Inview2016%20CGI_Chinese_v3.0_吕凯.doc#音视频流参数表) |
| **Example** | http://192.168.2.162/cgi-bin/param.cgi?action=get&type= securityParam |
| **Return** | accountsLockEnableFlag=0  errorCount=5  lockTime=15  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set Security services Parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/system.cgi?action=set&type= securityParam [&<argument>=<value>...] |
| **Description** | Refer to [securityParam table](file:///C:\Users\Administrator\Desktop\Inview2016%20CGI_Chinese_v3.0_吕凯.doc#音视频流参数表) |
| **Example** | http://192.168.2.162/cgi-bin/param.cgi?action=set&type= securityParam&accountsLockEnableFlag=1&errorCount=21&lockTime=22 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### parameter meaning

|  |  |  |
| --- | --- | --- |
| **参数** | **数据** | **说明** |
| **accountsLockEnableFlag** | <int>[0，1] | Illegal logins lock switch  0: Disable  1: Enable |
| **errorCount** | <int>[1，30] | Error Attempts |
| **lockTime** | <int>[1，30] | Lock Time |

### Stream Configuration

#### Basic Stream

##### Get the current video stream parameters (getAVStream)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type=AVStream &cameraID **=** <cameraID>&streamID=<streamID> |
| **Description** | Refer to [audio and video stream parameter table](file:///C:\Users\Administrator\Desktop\Inview2016%20CGI_Chinese_v3.0_吕凯.doc#音视频流参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=AVStream&cameraID=1&streamID=1 |
| **Return** | streamName=stream1(IPC excluding the lite series)  videoEncoderType=4  audioEncoderType=102  resolution=1920\*1080  frameRate=15  iFrameInterval=50  bitRateType=2  bitRate=2048  quality=5  streamEncoderFlag = 0  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set the current video stream parameters (setAVStream) (IPC / NVR)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=AVStream &cameraID=<cameraID>&streamID=<streamID>[&<argument>=<value> **]** |
| **Description** | For parameters, Refer to [the audio and video stream parameter table.](#_流参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=AVStream&cameraID=1&streamID=1&streamName=tangtang&videoEncoderType=1&audioEncoderType=108&resolution=1280\*720&frameRate=5&iFrameInterval=5&bitRateType=2&bitRate=5000&quality=9& streamEncoderFlag = 1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Get video stream capability (getAVStreamAbility) (IPC / NVR)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= streamAbility&cameraID=<cameraID> |
| **Description** | If streamID is included, the capability of the corresponding StreamID will be Returned. If streamID is not included, all stream capabilities of the CameraID will be Returned. Refer to [the audio and video stream parameter table.](#_流参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=streamAbility&cameraID=1 |
| **Return** | IPC:  AVStreamCount=3  AVStreamBegin=1  streamID=1  AVStreamEncoderAbilityCount=5  AVStreamEncoderAbilityBegin=1  streamEncoderType=8  videoResolutionCount =5  videoResolutionBegin=1  audioEncoderType=102 (NVR)  audioEncoderType=103 (NVR)  resolution=2592\*1520  resolution=1280\*720  minFrameRate=1  maxFrameRate=25  minBit=200  maxBit=4096  ... resolution cycle  next\_videoResolutionURL=5  resolution=1280\*720  videoResolutionEnd=5  …  ... Stream encoding capabilities  next\_AVStreamEncoderAbilityURL=5  streamEncoderType=2  videoResolutionCount =5  videoResolutionBegin=1  resolution=2592\*1520 stream ID  ... Resolution Cycle  next\_videoResolutionURL=5  resolution=1280\*720  videoResolutionEnd=5  AVStreamEncoderAbilityEnd=5  …  next\_AVStreamURL=3  streamID=3  AVStreamEncoderAbilityCount=5  AVStreamEncoderAbilityBegin=1  streamEncoderType=8  videoResolutionCount =3  videoResolutionBegin=1  resolution=640\*480  … resolution cycle  next\_videoResolutionURL=3  resolution=320\*240  videoResolutionEnd=3  …  next\_AVStreamEncoderAbilityURL=5  streamEncoderType=2  videoResolutionCount =3  videoResolutionBegin=1  resolution=640\*480  … Resolution Cycle Stream Encoding Capability Stream ID  next\_videoResolutionURL=3  resolution=320\*240  videoResolutionEnd=3  AVStreamEncoderAbilityEnd=5  AVStreamEnd=3  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Stream parameter meaning

**Audio and video stream parameter table**

Table 2-6-2-4-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **streamName** | <string> | Stream Name |
| **videoEncoderType** | <int>{1,2,4,5,8} | Video encoding type  1: H264  2: MJPEG  4: H264\_MAIN  5: H264\_HIGH  8: H265\_MAIN |
| **videoEncoderLevel** | <int> | 1: Low  2: Medium  3: High |
| **audioEncoderType** | <int>{102,103,107,108,109} | Audio encoding type  102:G711\_Alaw  103:G711\_Ulaw  107:ARM  108:PCM  109:NONE |
| **resolution** | <string> | Resolution  2592\*1520  2560\*1440  1304\*1296  1920\*1080  1280\*720  704\*576  640\*480  640\*368  Different devices support different code streams with different resolutions, which can be obtained by obtaining capabilities |
| **frameRate** | <int> | Frame rate (fps)  Range: Varies depending on the camera, generally 1-25  Note: The maximum frame rate supported by MJPEG is smaller than that of H264. |
| **iFrameInterval** | <int>[1,45] | I-frame interval  In frames, the range depends on the resolution: between 1-45 |
| **bitRateType** | <int>{1,2} | Bitrate Type  1: CBR fixed  2: VBR dynamic |
| **bitRate** | <int> | Bit rate (kbps)  The bit rate is related to the resolution.  When the resolution is 1920\*1080, the bit rate range is: (500-12000) kbps  When the resolution is less than 704×576, the bit rate range is: (100-6000) kbps  When the resolution is 1280\*720, the bit rate range is: (200-8000) kbps  When the resolution is 352\*288, the bit rate range is: (100-1500) kbps  The specific bit rate capability range is subject to the obtained |
| **quality** | <int>{1, 2, 3, 4, 5, 6, 7, 8, 9} | quality  Range: 1-9, 9 is the best |
| **streamEncoderFlag** | <int> | Intelligent coding switch  0: Off  1: Open |
| **AVStreamEncoderAbilityCount** | <int> | The number of encoding capabilities supported by the stream |
| **AVStreamEncoderAbilityBegin** | <int> | Flow capacity loop body start mark  This flag indicates the start of the stream's capabilities. This flag appears only when multiple stream capabilities are Returned and can only be 1. |
| **streamEncoderType** | <int>{1,2,4,5,8} | Stream encoding type  The encoding types supported by the stream are:  1: H264  2: MJPEG  4: H264\_MAIN  5: H264\_HIGH  8: H265\_MAIN |
| **videoResolutionCount** | <int> | The number of resolutions supported by this encoding type |
| **videoResolutionBegin** | <int> | Resolution loop body start marker  This flag indicates the start of the supported resolution. This flag will only appear when multiple resolutions are supported and can only be 1. |
| **next\_videoResolutionURL** | <int> | Next resolution URL flag  Indicates that the next resolution is the nth supported |
| **videoResolutionEnd** | <int> | Resolution loop body end mark  This flag corresponds to the corresponding Begin flag and indicates the number of resolutions |
| **next\_AVStreamEncoderURL** | <int> | The next encoding capability URL for this stream ID  Indicates that the next stream capability is the nth supported |
| **next\_AVStreamURL** | <int> | Next stream capability URL  Indicates that the next stream capability is the nth supported |
| **AVStreamEncoderAbilityEnd** | <int> | End mark of the flow loop  This flag corresponds to the corresponding Begin flag and indicates the number of flow capabilities. |
| **audioEncoderType（NVR）** | <int>{102,103,107,108,109} | Audio encoding type  102:G711\_Alaw  103:G711\_Ulaw  107:ARM  108:PCM  109:NONE  Note: The specific bit rate capability range is subject to the obtained bit rate capability range |
| **min Frame Rate​​** | int | Minimum frame rate (1) |
| **max Frame Rate​​** | int | Maximum frame rate (25/30) |
| **min B it** | int | Minimum bit rate (kbps) |
| **max B it** | int | Maximum bit rate (kbps) |

#### Snapshot ( IPC excluding the lite series)

##### Acquisition of capabilities

Note: The lite series's capture capability is the same as the stream capability of channel 1. When the stream is configured as 1080p, The lite series's capture resolution cannot be modified.

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **snapshot Ability&cameraID=1** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= snapshot Ability |
| **Description** | Refer to [URL Descriptions](#_能力参数说明_13)  The resolution of IPC capture is the full configuration item of the resolution of device stream 1 and stream 2;  The lite series's capture resolution is consistent with the resolution of the device and device stream 1. It cannot be changed according to the interface, but can only be modified by modifying the encoding format;  If you need to Refer to it, you can directly Refer to the flow configuration capability to obtain it |
| **Return** | resolutionCount=2  resolutionBegin=1  resolution=640x512  next\_ResolutionURL=2  resolution=CIF  resolutionEnd=1  qualityCount=3  qualityBegin=1  quality=1  next\_QualityURL=2  quality=5  next\_QualityURL=3  quality=9  qualityEnd=1 |

Capability Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **resolutionCount** | Resolution quantity |  | int |
| **resolutionBegin** | Resolution start mark |  | int |
| **resolution** | Resolution  640x512  1280x720  CIF  D1 |  | string |
| **next\_ResolutionURL** | Next resolution start mark |  | int |
| **resolutionEnd** | Resolution end marker |  | int |
| **qualityCount** | Quality Quantity |  | int |
| **qualityBegin** | Quality Start Mark |  | int |
| **quality** | quality  1: Low  5: Medium  9: High |  | int |
| **next\_QualityURL** | Next articleQuality start mark |  | int |
| **qualityEnd** | Quality end mark |  |  |

##### Get snapshot parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **snapshot** &cameraID=1 &streamID=1 |
| **Description** | Refer to [URL Descriptions](#_抓拍参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type= snapshot &cameraID=1 &streamID=1 |
| **Return** | ChannelID=1  SnapshotResolution=640x512  SnapshotQuality=5 |

##### Set capture parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **snapshot** &cameraID=1 &streamID=1 |
| **Description** | Refer to [URL Descriptions](#_抓拍参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=snapshot&cameraID=1&streamID=1&SnapshotResolution=1280x720&SnapshotQuality=1​​​​​​ |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of snapshot parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **ChannelID** | Channel Number |  | int |
| **SnapshotResolution** | Resolution quantity  1280x720  1280x1024  640x512 |  | string |
| **SnapshotQuality** | Capture quality  1: Low  5: Medium  9: High |  | int |

#### ROI

##### ROI capability (IPC excluding the lite series)

|  |  |
| --- | --- |
| **URL** | **http** ://<ip>/cgi-bin/param.cgi?action=get&type=ROIAblity |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=ROIAblity**​** |
| **Description** | Refer to [URL Descriptions](#_能力参数说明_10) |
| **Return** | supportROI=1  maxNum=8  maxScale=50  levelCount=5  levelBegin=1  level=1  next\_levelURL=1  level=2  next\_levelURL=1  level=3  next\_levelURL=1  level=4  next\_levelURL=1  level=5  levelEnd=1 |

##### Capability Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| Support ROI | ROI  0: Not supported  1: Support | 0-1 | int |
| maxNum | Maximum number of regions |  | int |
| maxScale | Maximum area ratio |  | int |
| levelCount | Number of levels |  | int |
| levelBegin | Level start mark |  | int |
| level | grade |  | int |
| next\_levelURL | Next level start mark |  | int |
| levelEnd | Level end mark |  | int |

##### Get ROI parameters (IPC/NVR)

|  |  |
| --- | --- |
| **URL** | http: // <servername> **/cgi-bin/param.cgi?action=get&type=ROI&cameraID=1&streamID=1** |
| **Description** | Refer to [URL Descriptions](#_抓拍参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=ROI&cameraID=1&streamID=1​​​ |
| **Return** | areaCount=8  areaBegin=1  areaID=1  enable=0  level=4  areaName=area1  topX=31.00  topY=27.00  width=60.00  height=49.00  next\_areaURL=1  areaID=2  enable=0  level=5  areaName=  topX=0.00  topY=0.00  width=0.00  height=0.00  next\_areaURL=1  areaID=3  enable=0  level=5  areaName=  topX=0.00  topY=0.00  width=0.00  height=0.00  next\_areaURL=1  areaID=4  enable=0  level=5  areaName=  topX=0.00  topY=0.00  width=0.00  height=0.00  next\_areaURL=1  areaID=5  enable=0  level=5  areaName=  topX=0.00  topY=0.00  width=0.00  height=0.00  next\_areaURL=1  areaID=6  enable=0  level=5  areaName=  topX=0.00  topY=0.00  width=0.00  height=0.00  next\_areaURL=1  areaID=7  enable=0  level=5  areaName=  topX=0.00  topY=0.00  width=0.00  height=0.00  next\_areaURL=1  areaID=8  enable=0  level=5  areaName=  topX=0.00  topY=0.00  width=0.00  height=0.00  areaEnd=1 |

##### Set ROI parameters (IPC/NVR)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=**ROI**&cameraID=1&streamID=1&areaCount=8&areaBegin=1&areaID=1&enable=1&level=5&areaName=area1&topX=10.00&topY=12.00&width=40.00&height=36.00&next\_areaURL=1&areaID=2&enable=1&level=3&areaName=area88&topX=66.00&topY=3.00&width=22.00&height=30.00&next\_areaURL=1&areaID=3&enable=0&level=5&areaName=area3&topX=0.00&topY=0.00&width=0.00&height=0.00&next\_areaURL=1&areaID=4&enable=0&level=5&areaName=area4&topX=0.00&topY=0.00&width=0.00&height=0.00&next\_areaURL=1&areaID=5&enable=0&level=5&areaName=area5&topX=0.00&topY=0.00&width=0.00&height=0.00&next\_areaURL=1&areaID=6&enable=0&level=5&areaName=area6&topX=0.00&topY=0.00&width=0.00&height=0.00&next\_areaURL=1&areaID=7&enable=0&level=5&areaName=area7&topX=0.00&topY=0.00&width=0.00&height=0.00&next\_areaURL=1&areaID=8&enable=1&level=3&areaName=area8&topX=10&topY=20&width=30&height=40&areaEnd=1 |
| **Description** | Refer to [URL Descriptions](#_抓拍参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=ROI&cameraID=1&streamID=1&areaCount=8&areaBegin=1&areaID=1&enable=1&level=5&areaName=area1&topX=10.00&topY=12.00&width=40.00&height=36.00&next\_areaURL=1&areaID=2&enable=1&level=3&areaName=area88&topX=66.00&topY=3.00&width=22.00&height=30.00&next\_areaURL=1&areaID=3&enable=0&level=5&areaName=area3&topX=0.00&topY=0.00&width=0.00&height=0.00&next\_areaURL=1&areaID=4&enable=0&level=5&areaName=area4&topX=0.00&topY=0.00&width=0.00&height=0.00&next\_areaURL=1&areaID=5&enable=0&level=5&areaName=area5&topX=0.00&topY=0.00&width=0.00&height=0.00&next\_areaURL=1&areaID=6&enable=0&level=5&areaName=area6&topX=0.00&topY=0.00&width=0.00&height=0.00&next\_areaURL=1&areaID=7&enable=0&level=5&areaName=area7&topX=0.00&topY=0.00&width=0.00&height=0.00&next\_areaURL=1&areaID=8&enable=1&level=3&areaName=area8&topX=10&topY=20&width=30&height=40&areaEnd=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### ROI parameter meaning (IPC/NVR)

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| areaCount | Number of regions |  | int |
| areaBegin | Area start mark |  | int |
| areaID | Region ID |  | int |
| enable | Enable  0: Off  1: On | 0-1 | int |
| level | grade |  | int |
| areaName | Region Name |  | int |
| topX | X coordinate |  | float |
| topY | Y coordinate |  | float |
| width | Width |  | float |
| height | high |  | float |
| next\_areaURL | Next area start mark |  | int |
| areaEnd | Zone ends |  | int |

#### SVCStream (IPC excluding the lite series)

##### SVCStream capability

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **SVCStreamAbility** &cameraID=1&StreamID=1 |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= **SVCStreamAbility** &cameraID=1&StreamID=1 |
| **Description** | Refer to [URL Descriptions](#_能力参数说明_2) |
| **Return** | sourceStreamIdCount=2  sourceStreamIdBegin=1  sourceStreamId=1  next\_sourceStreamIdURL=2  sourceStreamId=2  sourceStreamIdEnd=1  PFrameIntervalCount=4  PFrameIntervalBegin=1  PFrameInterval=1  next\_PFrameIntervalURL=2  PFrameInterval=2  next\_PFrameIntervalURL=3  PFrameInterval=3  next\_PFrameIntervalURL=4  PFrameInterval=4  PFrameIntervalEnd=1 |

##### Capability Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| sourceStreamIdCount | Number of elementary stream IDs |  | int |
| sourceStreamIdBegin | Elementary stream ID start marker |  | int |
| sourceStreamId | Elementary Stream ID |  | int |
| next\_sourceStreamIdURL | Next basic stream ID starts marking |  | Int |
| sourceStreamIdEnd | End of elementary stream ID |  | int |
| PFrameIntervalCount | P frame ratio |  | int |
| PFrameIntervalBegin | P frame ratio start mark |  | int |
| PFrameInterval | P-frame ratio  1:1/2  2:1/3  3:1/4  4:1/5 |  | int |
| next\_PFrameIntervalURL | The next P frame starts marking |  | int |
| PFrameIntervalEnd | P frame ratio end marker |  | int |

##### Get the accompanying stream parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **SVCStream** &cameraID=1 &streamID=1 |
| **Description** | Refer to [URL Descriptions](#_伴随流参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type= **SVCStream** &cameraID=1 &streamID=1 |
| **Return** | SVCStreamID=4  SVCStreamName=stream70  sourceStreamID=2  PFrameInterval=2 |

##### Set the SVCStream parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **SVCStream** &cameraID=1 &streamID=1&SVCStreamID=4&SVCStreamName=stream70&sourceStreamID=2&PFrameInterval=2 |
| **Description** | Refer to [URL Descriptions](#_伴随流参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action= set &type= **SVCStream** &cameraID=1 &streamID=1&SVCStreamID=4&SVCStreamName=stream70&sourceStreamID=2&PFrameInterval=2 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of SVCStream parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| SVCStreamID | Companion stream ID |  | int |
| SVCStreamName | Companion stream name |  | int |
| sourceStreamID | Elementary Stream ID |  | int |
| PFrameInterval | P- frame interval |  | int |

### Video recording configuration

#### Recording Policy (recordPolicy)

##### Get recording policy parameters (getRecordPolicy)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **recordPolicy** &cameraID=<cameraID> |
| **Description** | Refer to [the corresponding table of recording strategy parameters](#_录像策略参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=recordPolicy&cameraID=1 |
| **Return** | cameraID=1  RecordOpenFlag=0  RecordGeneralOpen=0 (the lite series)  RecordMontionOpen=0 (the lite series)  RecordAlarmOpen=0 (the lite series)  SaveDays=7  StreamId=1  AudioOpenFlag=1  DiskGroupId=1  weekDayBegin=1  weekDay=2  startTime1=0  endTime1=86400  weekDayEnd=1  PreRecordTime = 10  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set recording policy parameters (setRecordPolicy)

|  |  |  |
| --- | --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **recordPolicy** &cameraID=<cameraID>&StreamId=<StreamId>&DiskGroupId =<DiskGroupId >[&<argument>=<value>...] | |
| **Description** | cameraID, StreamId, DiskGroupId are required URL  For parameters, Refer to [the corresponding table of recording strategy parameters.](#_录像策略参数含义) | |
| **Example** | IPC:  http://192.168.32.151/cgi-bin/param.cgi?action=set&type=recordPolicy&cameraID=1&RecordOpenFlag=0&SaveDays=7&StreamId=1&AudioOpenFlag=1&DiskGroupId=1&weekDayBegin=1&weekDay=2&startTime1=0&endTime1=86400&weekDayEnd=1&scheduleTimeAction=cover&PreRecordTime=10 | NVR/the lite series:  http://192.168.2.193/cgi-bin/ param .cgi?action=set&type=recordPolicy&cameraID=1&RecordOpenFlag=1&AudioOpenFlag=0&AnrOpenFlag=0&recordType=6&scheduleTimeAction=add&weekDayBegin=1&weekDay=0&startTime=0&endTime=86400&next\_weekDayURL=2&weekDay=1&startTime=0&endTime=86400&next\_weekDayURL= 3&weekDa y=2&startTime=0&endTime=86400&next\_weekDayURL=4&weekDay=3&startTime=0&endTime=86400&next\_weekDayURL=5&weekDay=4&startTime=0&endTime=86400&next\_weekDayURL=6&weekDay=5&startTime=0&endTime=86400&next\_weekDayURL=7&weekDay=6&startTime=0&endTime=86400&weekDayEnd=7 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) | |

##### Meaning of recording strategy parameters

**Recording strategy parameter correspondence table**

Table 2-6-3-1-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **RecordOpenFlag** | <int>{0,1} | Planned video start sign  0: Disable  1: Enable |
| **cameraID** | <int> | aisle |
| **StreamId** | <int> | Stream ID |
| **SaveDays** | <int> | Number of days to save |
| **AudioOpenFlag** | <int> {0,1} | Is the video audio enabled?  0: Disable  1: Enable |
| **AnrOpenFlag(NVR)** | <int>{0,1} | Is the video loop writing enabled?  0: Disable  1: Enable |
| **Record Type (NVR)** | <int>[1,6] | Recording type (NOTE: IPC does not have this parameter)  1: Timing 2: Alarm 3: Motion detection 4: I/O 5: Motion detection or I/O 6: Motion detection and I/O  Note: You can only set one type at a time. If you pass multiple types, the last one will prevail. You don't need to pass types for remove and clean. |
| **SaveDays(the lite series)** | <int>[1,90] | The number of days to save the video. If AnrOpenFlag is 0, this parameter must be set (NOTE: NVR does not have this parameter) |
| **RecordGeneralOpen** (the lite series) | <int>{0,1} | Is the regular recording switch turned on?  0: Disable  1: Enable |
| **RecordMontionOpen** (the lite series) | <int>{0,1} | Is the motion detection recording switch turned on?  0: Disable  1: Enable |
|  |  |  |
| **DiskGroupId** | <int> | Disk Group ID  This item must be consistent with the video directory |
| **PreRecordTime** | <int> | Alarm recording duration |
| **planning time** | | |
| **weekDayCount** | <int> | Deployment days  Maximum 7 |
| **scheduleTimeAction** | <string> | Planning time behavior  When the configuration behavior is set, if this behavior flag is not carried, the default is to add the loop body.  cover:cover |
| **weekDayBegin** | <int> | The flag of the defense days cycle starts  When the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value |
| **weekDay** | <int> [0,6] | which day  0-6,0 for Sunday |
| **startTime** | <long> [0,86400] | Arming start time  Unit: Seconds |
| **endTime(1..3)** | <long>[0,86400] | Arming end time |
| **next\_weekDayURL** | <int>[2,n] | Next scheduled time URL start mark  Start from 2. If the value is 2, it means that the following parameter is the second item. When the configuration behavior is set and the number of planned times is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **weekDayEnd** | <int> | End flag of the loop of defense days  When the configuration behavior is set, this flag must be carried. For the value, set the number of days |

#### Recording directory (recordDirInfo)

##### Get recording directory parameters (getRecordDirInfo)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **recordDirInfo** [&diskId=<diskId>] |
| **Description** | Carrying diskId means obtaining the corresponding disk directory information, and not carrying it means obtaining all disk information  Refer to [the video directory parameter corresponding table](#_录像目录参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=recordDirInfo |
| **Return** | recordDirInfoBegin=1  recordDirInfoBegin=1  diskName=SD0001  diskPath=SD0001  diskWholePath=SD0001  enableFlag=1  alarmThreshold=90  attribute=1 video directory parameter loop body  diskType=2  freeSpace=0 Video directory  groupID=2  status=1  usableSpace=0  channel=1 (TBD: New nvr parameter, channel number)  hostId=1 (TBD: New nvr parameter, number)  module=windows (TBD: Added nvr parameter, type)  SN=sn 1 (TBD: Newly added nvr parameter, serial number)  fileSystemFormat=8  …  recordDirInfoNextURL=2  ...  recordDirInfoEnd=2  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set recording directory parameters (setRecordDirInfo)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **recordDirInfo** &diskId=<diskId>[&<argument>=<value>...] |
| **Description** | cameraID, StreamId, DiskGroupId are required URL  ( TBD: nvr currently does not support disk directory settings )  1. When setting the recording directory parameters, the parameters that can be changed are fileSystemFormat, groupID, enableFlag, diskName, and alarmThreshold . If the disk type is an SD card, setting fileSystemFormat is invalid, and it will take effect for other disk types;  2. diskId is a required parameter. fileSystemFormat, groupID, enableFlag, diskName, alarmThreshold are all optional parameters, and the remaining parameters cannot be changed;  3. When the device does not support multi-channel, the default groupID is 1. When setting the group ID of the recording directory, it must be consistent with the group ID of the recording strategy, otherwise it will affect the recording.  For parameters, Refer to [the corresponding table of video catalog parameters.](#_录像目录参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=recordDirInfo&diskId=1&diskName=SD0001&enableFlag=1&groupID=2 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of video directory parameters

**Video directory parameter correspondence table**

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **diskId** | <int> | Disk ID  It is an optional parameter when getting. If you carry this parameter, you can get the corresponding disk directory information. Otherwise, you can get all the disk directory information. It is a required parameter when setting. |
| **recordDirInfoCount** | <int> | Number of video directories |
| **recordDirInfoBegin** | <int> | Video directory loop body start mark |
| **recordDirInfoNextURL** | <int>[2,n] | Next video directory URL start mark  Start from 2. If the value is 2, it means that the following parameter is the second item. When the configuration behavior is set and the number of video directories is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **recordDirInfoEnd** | <int> | Video directory loop end mark |
| **diskName** | <string> | Disk Name |
| **diskPath** | <string> | Disk Path |
| **diskWholePath** | <string> | Disk Path |
| **alarmThreshold** | <int> | Alarm threshold |
| **attribute** | <int> | User Available Disk Properties  The default is 1.  Network shared disk: 0 means read-only, 1 means writable, 2 means redundant  SD card: 1 for normal recording (readable and writable), 2 for temporary storage when network disk connection fails (redundant), 11 (N/A)  Local disk: Read-write (1) Read-only (0) Redundant (2) |
| **enableFlag** | <int>{0,1} | Whether to enable  0: Disable  1: Enable |
| **diskType** | <int>[1, 4] | Disk Type  Local disk (1), SD (2), FTP disk (3), network shared disk (4) |
| **freeSpace** | <int> | Remaining disk space  The unit is M |
| **groupID** | <int> | Disk group number of the directory  The default value is 1. |
| **status** | <int> | Disk Status  Network shared disk: normal (0), connection failed (1) FTP disk: normal (0), connection failed (1) SD: unformatted (2), normal (0), read-only (3), abnormal (4), no card inserted (5)  Local disk: unformatted (2), normal (0), abnormal (4), sleep (6) |
| **usableSpace** | <int> | Used disk space |
| **fileSystemFormat** | <int> | File system format  (When action=set, this URL is required except when the disk type is SD card)  SD Card:  1: Customized SDCard file system  2: Fat32 file system  3:Ext2  4:Ext3  netdisc:  5: CIFS file system  0: Unknown file system  Local Disk:  2: Fat32 file system |
| **diskaccount** | <string> | User Name |
| **diskpassword** | <int> | Password |
| **ftpSecurityEnable** | <int> | FTP Mode  0: FTP  1: FTPS |
| **totalspace** | <int>[2048,n] | Total space(>=2048) |
| **Channel(NVR )** | <int> | Channel id (physical location) (TBD: new nvr parameter) |
| **hostId(NVR)** | <int> | Master ID (physical location) (TBD: Added nvr parameter) |
| **module(NVR)** | <string> | Model (TBD: Added nvr parameter) |
| **SN(NVR)** | <string> | Disk serial number (TBD: new nvr parameter) |

#### Manual recording ( IPC excluding the lite series )

##### Start manual recording

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action= **start** &type= **manualRecord** &cameraID=1 |
| **Description** |  |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=start&type=manualRecord &cameraID=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Stop manual recording

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action= **stop** &type= **manualRecord** &cameraID=1 |
| **Description** |  |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action= stop &type=manualRecord &cameraID=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Device Disk Information (deviceDiskInfo)

##### Get device disk information (getDeviceDiskInfo)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **deviceDiskInfo** |
| **Description** | For parameters, Refer to the device [disk information parameter table](#_设备磁盘信息参数含义) ; |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=deviceDiskInfo |
| **Return** | diskInfoBegin=1  diskID=1  diskTotalSize=14912  diskFreeSize=64  diskStatus=1  next\_diskInfoURL=2  diskID=2  diskTotalSize=0  diskFreeSize=0  diskStatus=0  diskInfoEnd=2  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Format device disk (resetDeviceDiskInfo) (IPC)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/ record .cgi ?action= format & diskID= < diskID > |
| **Description** | For parameters, Refer to the device [disk information parameter table](#_设备磁盘信息参数含义) ; |
| **Example** | http://192.168.2.193/cgi-bin/record.cgi?action=format&diskID=0​​​​​​ |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of device disk information parameters

**Device disk information parameter table**

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **diskInfoCount** | <int>[0, n] | Disk information number |
| **diskInfoBegin** | <int>1 | Disk information start mark  Can only be 1 |
| **diskID** | <int>[0, n] | Disk Number |
| **diskTotalSize** | <int>[0, n] | Total disk space |
| **diskFreeSize** | <int>[0, n] | Remaining disk space |
| **diskStatus** | <int>[-1, 24] | Disk Status  1: Normal state  2: Abnormal state  3: The disk does not exist  4: Disk write protection  5: The disk is not formatted  6: The disk is being formatted (Refer to [Disk Status for details](#_3.4磁盘状态) ) |
| **next\_diskInfoURL** | <int>[2, n] | The next disk information starts  Start from 2. |
| **diskInfoEnd** | <int>[0, n] | End of disk information mark  Indicates the number of disk information |

Table 2-6-1-11-2-1

#### Record Control (IPC The lite series)

##### Get record Control parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **recordControl** |
| **Description** | Refer to [the disk info parameter table](#_报警输出设备参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type= recordControl |
| **Return** | RecordStreamId=0  RecordMaxLimit=64  RecordAudio=1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set record Control parameters

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/record.cgi?action=recordControl |
| **Description** | Refer to [the disk info parameter table](#_报警输出设备参数含义) |
| **Example** | http://192.168.2.193/cgi-bin/record.cgi? action=set&type=recordControl&RecordStreamId=1&RecordMaxLimit=48&RecordAudio=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of disk info parameters

|  |  |  |
| --- | --- | --- |
| **参数** | **数据** | **说明** |
| **RecordStreamId** | <int>[1, 2] | Video streaming  1: Main stream  2: Sub-streams |
| **RecordMaxLimit** | <int>[48-512] | Maximum Recording Limit  Int 48-512 |
| **RecordAudio** | <int>[0, 1] | Audio switch  1: Disable  2: Enable |

#### Disk NAS configuration (Nas) (IPC The lite series)

##### Get Disk NAS configuration parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **Nas** |
| **Description** | Refer to [the disk info parameter table](#_报警输出设备参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type= Nas |
| **Return** | recordType=1  snapRecordType=0  ftpEnable=1  mediaType=0  Path=192.168.2.123  Port=0  account=  Password=  directory=/2  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set Disk NAS configuration parameters

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/record.cgi?action=recordControl |
| **Description** | Refer to [the disk info parameter table](#_报警输出设备参数含义) |
| **Example** | http://192.168.2.193/cgi-bin/record.cgi? action=set&type=recordControl&RecordStreamId=1&RecordMaxLimit=48&RecordAudio=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of disk info parameters

|  |  |  |
| --- | --- | --- |
| **parameters** | **data** | **Description** |
| **recordType** | <int>[0, 1] | Recording type：  1.SdCard  2.FTP  3.NAS |
| **snapRecordType** | <int>[0, 1] | Recording type：  1.SdCard  2.FTP  3.NAS |
| **directory** | <string> | directory |
| **Path** | <string> | path |
| **Port** | <int> | Port |
| **Enable** | <int> | Enable:   1. Disable 2. Enable |

### Alarm Configuration

#### Alarm output (alarmOut) (IPC excluding the lite series/NVR)

##### Get alarm output device parameters (getAlarmOut)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **alarmOut** &alarmOutID=<alarmOutID> |
| **Description** | Refer to [the alarm output device parameter table](#_报警输出设备参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=alarmOut&alarmOutID=1 |
| **Return** | alarmOutID=1  alarmOutName=  alarmValidSignal=0  alarmMode=1  alarmTime=0  TimingEnable=1  weekDayCount=2  weekDayBegin=1  weekDay=1  startTime=3600  endTime=30600  next\_weekDayURL=2  weekDay=2  startTime=3600  endTime=30600  weekDayEnd=2 |

##### Set alarm output device parameters (setAlarmOut)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **alarmOut** [&<argument>=<value>...] |
| **Description** | For parameters, Refer to [the alarm output device parameter table.](#_报警输出设备参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=alarmOut&alarmOutID=1&alarmOutName=runFinish&alarmMode=2&alarmValidSignal=1&alarmOutFrequency=0.000000&alarmTime=0 &TimingEnable=1&weekDayCount=3&weekDayBegin=1&weekDay=3&startTime=14400&endTime=27000&next\_weekDayURL=2&weekDay=4&startTime=50400&endTime=63000&next\_weekDayURL=3&weekDay=5&startTime=50400&endTime=63000&weekDayEnd=3 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of alarm output device parameters

**Alarm output device parameter table**

Table 2-6-4-1-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **alarmOutName** | <string> | Alarm output name |
| **alalrmOutID** | <int> | Action ID |
| **alarmValidSignal** | <int>{0,1} | Alarm valid signal  1: Closed  0: Disconnect |
| **alarmMode** | <int>{1,2} | Alarm mode  1: Switch mode  2: Square wave mode |
| **alarmOutFrequency** | <float> | Alarm frequency |
| **alarmTime** | <int> | Alarm duration  In milliseconds |
| **TimingEnable** | <int> | Timing alarm output  0: Off  1: On |
| **weekDayCount** | <int> | Number of defenses |
| **weekDayBegin** | <int> | Arming start indicator |
| **weekDay** | <int> | Day of the week (0-6) |
| **startTime** | <int> | Arming start time (in seconds) |
| **endTime** | <int> | Arming end time (in seconds) |
| **next\_weekDayURL** | <int> | Next scheduled time URL start mark |
| **weekDayEnd** | <int> | End flag of the loop of defense days |

#### Alarm Center

##### Get alarm center parameters (getAlarmCenter) (IPC excluding the lite series)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **alarmCenter** &IPProtoVer=<IPProtoVer> |
| **Description** | Refer to [alarm center parameter table](#_报警中心参数) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=alarmCenter&IPProtoVer=1 |
| **Return** | IPProtoVer=1  alarmCenterServerIP=192.168.1.7  alarmCenterServerPort=65  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set alarm center parameters (setAlarmCenter) (IPC excluding the lite series)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **alarmCenter** &IPProtoVer=<IPProtoVer>[&<argument>=<value>...] |
| **Description** | For parameters, Refer to [the alarm center parameter table.](#_报警中心参数) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=alarmCenter&IPProtoVer=1&alarmCenterServerIP=192.168.1.7&alarmCenterServerPort=65 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Alarm center parameters

**Alarm center parameter table**

Table 2-6-4-2-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **alarmCenterServerIP** | <string> | Alarm center IP |
| **alarmCenterServerPort** | <unsigned short> | Alarm center port  When the input value is greater than the maximum value of unsigned short, 65535, the value is treated as 65535. |

#### Motion detection alarm (motionAlarm)

##### Acquisition capability (IPC excluding the lite series)

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **motionAlarmAbility** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= motionAlarmAbility |
| **Description** | Refer to [URL Descriptions](#_能力参数说明_12) |
| **Return** | maxWidthCellNumber=22  minWidthCellNumber=22  maxHeightCellNumber=18  minHeightCellNumber=18  minSensitivity=1  maxSensitivity=10  alarmOutCount=1  alarmLinkageCount=4  alarmLinkageBegin=1  actionType=2  next\_AlarmLinkageURL=2  actionType=4  next\_AlarmLinkageURL=3  actionType=7  next\_AlarmLinkageURL=4  actionType=10  alarmLinkageEnd=1 |

##### Capability Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **maxWidthCellNumber** | Maximum area width blocks |  | int |
| **minWidthCellNumber** | Minimum area width blocks |  | int |
| **maxHeightCellNumber** | Maximum number of high blocks in a region |  | int |
| **minHeightCellNumber** | Minimum area high block number |  | int |
| **alarmOutCount** | Number of alarm outputs |  | int |
| **alarmLinkageCount** | Number of linkage alarms |  | int |
| **alarmLinkageBegin** | Linkage alarm start mark |  | int |
| **actionType** | alarm type  1: Alarm output  2: Alarm email  3: Alarm PTZ  4: Alarm video  7: FTP upload  10: Audio alarm  11: LED alarm  14: White light alarm |  | int |
| **next\_AlarmLinkageURL** | Next linkage alarm start mark |  | int |
| **alarmLinkageEnd** | Linkage alarm end mark |  | int |

##### Get motion detection alarm linkage parameters (getMotionAlarm)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **motionAlarm** &cameraID=<cameraID> |
| **Description** | 1. When the value of weekDay is determined, the time period is also determined, and the format is startTime1, endTime1, startTime2, endTime2, startTime3, endTime3…  When weekday=2, it indicates that there are two time periods, and the parameters are startTime1, endTime1, startTime2, and endTime2.  When weekday = 1, it indicates that there is one time period, and the parameters are startTime1 and endTime1.  When weekday = 0, you need to fill in the time period parameter.  When there is no scheduled time period from Monday to Sunday, there is no scheduled time parameter loop body.  2. When motionDetectionEnableFlag=0, there is no motion detection loop.  3. When the alarm PTZ event is 0, there is no alarm PTZ loop.  Refer to Motion Detection Alarm Linkage Parameters for details. |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=motionAlarm&cameraID=1 |
| **Return** | motionDetectionEnableFlag=1  alarmInterval=10  sensitivity=3  motionDetectStreamEnable=0  alarmOut=0  alarmRecord=1  alarmSMTP=0  alarmFTP=1  alarmSound=1  alarmSoundType=4  motionDetectionAreaCount=1  motionDetectionAreaBegin=1  topX=152  topY=70  width=95  height=70  motionDetectionAreaEnd=1  weekDayCount=2  weekDayBegin=1  weekDay=1  startTime=21600  endTime=27000  next\_weekDayURL=2  weekDay=2  startTime=25200  endTime=27000  weekDayEnd=2 |

##### Set motion detection alarm linkage parameters (setMotionAlarm)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **motionAlarm** &cameraID=1[&<argument>=<value>...] |
| **Description** | For parameters, Refer to [Motion Detection Alarm Linkage Parameters.](#_移动侦测报警联动参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=motionAlarm&cameraID=1&motionDetectionEnableFlag=1&alarmInterval=10&sensitivity=3&motionDetectStreamEnable=0&motionDetectionAction=cover&motionDetectionAreaCount=3&motionDetectionAreaBegin=1&topX=342&topY=28&width=76&height=70&next\_motionDetectionAreaURL=2&topX=19&topY=56&width=114&height=70&next\_motionDetectionAreaURL=3&topX=190&topY=98&width=114&height=84&motionDetectionAreaEnd=3&weekDayCount=9&weekDayBegin=1&weekDay=0&startTime=10800&endTime=28800&next\_weekDayURL=2&weekDay=0&startTime=77400&endTime=79200&next\_weekDayURL=3&weekDay=1&startTime=77400&endTime=79200&next\_weekDayURL=4&weekDay=2&startTime=77400&endTime=79200&next\_weekDayURL=5&weekDay=3&startTime=77400&endTime=79200&next\_weekDayURL=6&weekDay=4&startTime=27000&endTime=50400&next\_weekDayURL=7&weekDay=4&startTime=77400&endTime=79200&next\_weekDayURL=8&weekDay=5&startTime=77400&endTime=79200&next\_weekDayURL=9&weekDay=6&startTime=77400&endTime=79200&weekDayEnd=9&alarmOut=0&alarmRecord=1&alarmSMTP=0&alarmFTP=1&alarmSound=1&alarmSoundType=4 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Motion detection alarm linkage parameter meaning (IPC)

**Motion detection alarm linkage parameter table (IPC)**

Table 2-6-4-3-3-1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **parameter** | | **data** | | **Description** |
| **motionDetectionEnableFlag** | | <unsigned char>{0,1} | | Motion detection on sign  0: Disable  1: Start |
| **sensitivity** | | <int> | | Sensitivity  The value range depends on the device capability. |
| **alarmInterval** | | <int>[1,1800] | | Alarm interval  Alarm interval (1-1800 seconds) |
| **cameraID** | | <int> | | Device Channel  This item is required during configuration. |
| **motionDetectStreamEnable** | | <int> | | Motion detection flow  0: Off  1: On |
| **alarmOut** | | int | | Alarm Output  0: Off  1: On |
| **alarmOut2** | | int | | Alarm 2 output  0: Off  1: On |
| **alarmRecord** | | int | | Alarm video  0: Off  1: On |
| **alarmSMTP** | | int | | Alarm Email  0: Off  1: On |
| **alarmFTP** | | int | | FTP Upload  0: Off  1: On |
| **alarmSound** | | int | | Sound detection alarm  0: Off  1: On |
| **alarmSoundType** | | int | | Audio alarm file (0-13) |
| **alarmLED** | | int | | LED Alarm  0: Off  1: On |
| **alarmWhiteLED** | | int | | White light alarm  0: Off  1: On |
| **Motion detection area** | | | | |
| **motionDetectionAreaCount** | | <int> | | Number of detection areas, start mark of motion detection loop |
| **motionDetectionAction** | | <int> | | Detection area loop operation behavior  When the configuration behavior is set, if this behavior flag is not carried, the default is to add in a loop.  cover:cover |
| **motionDetectionAreaBegin** | | <int> | | Detection area start mark  When the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value |
| **topX** | | <int> | | X coordinate  The x coordinate of the upper left corner of the detection area. Note: According to the 420×260 resolution standard, the area size is determined by the coordinates of the upper left point and the height and width of the detection area; |
| **topY** | | <int> | | Y coordinate  The y coordinate of the upper left corner of the detection area |
| **width** | | <int> | | width  Detection area width |
| **height** | | <int> | | high  Detection area height |
| **next\_motionDetectionAreaURL** | | <int> | | Next article Motion detection area identification  Start from 2. If the value is 2, it means that the following parameter is the second one. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **motionDetectionAreaEnd** | | <int> | | Motion detection loop end flag  When the configuration behavior is set, this flag must be carried. For values |
| **planning time** | | | | |
| **weekDayCount** | | <int> | | Deployment days  Maximum 7 |
| **weekDayBegin** | | <int> | | Arming time loop body start flag  When the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value |
| **scheduleTimeAction** | | <int> | | Schedule time loop operation  When the configuration behavior is set, if this behavior flag is not carried, the default is to add in a loop.  cover:cover  remove: remove |
| **weekDay** | | <int>[0, 6] | | which day  0-6,0 for Sunday |
| **startTime(1..3)** | | <long>[0, 86400] | | Arming start time  Range: 0-86400 |
| **endTime(1..3)** | | <long>[0, 86400] | | Arming end time  Range: 0-86400, must be matched with startTime |
| **next\_weekDayURL** | | <int> | | Next scheduled time URL  Starts from 1. If the value is 1, it means the following parameter is the second one. |
| **weekDayEnd** | | <int> | | End flag of the loop of defense days  When the configuration behavior is set, this flag must be carried for the number of value loop bodies |
| **Alarm PTZ events** | | | | |
| **alarmPTZActionCount** | <int> | | Number of alarm PTZ events  The number of alarm PTZ events allowed varies depending on the device. | |
| **alarmPTZActionBegin** | <int> | | Alarm PTZ event loop body start flag  When the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value | |
| **alarmPTZAction** | <string> | | Alarm PTZ event loop operation behavior  When the configuration behavior is set, if this behavior flag is not carried, the default is to add the loop body.  cover:cover | |
| **PTZChannelID** | <int> | | PTZ channel ID | |
| **PTZActionType** | <int> | | PTZ operation type  Operation type (preset position, track, etc.) | |
| **PTZActionID** | <int> | | Operation ID  Preset position ID, track ID, etc. previously set by the user | |
| **next\_PTZAcitonURL** | <int> | | Next alarm PTZ event ID  Start from 2. If the value is 2, it means that the following parameter is the second one. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. | |
| **alarmPTZActionEnd** | <int> | | PTZ loop ends  When the configuration behavior is set, this flag must be carried, and the value indicates the number of loop bodies | |

##### Motion detection alarm linkage parameter meaning (the lite series)

**Motion detection alarm linkage parameter table**

Table 2-6-4-2-3-1

|  |  |  |  |
| --- | --- | --- | --- |
| **parameter** | | **data** | **Description** |
| **motionDetectionEnableFlag** | | <unsigned char>{0,1} | Motion detection on sign  0: Disable  1: Start |
| **sensitivity** | | <int>[0,3] | Sensitivity  0: Low  1: Medium  2: High  3: Highest |
| **alarmInterval** | | <int>[1,1800] | Alarm interval  Alarm interval (1-1800 seconds)  ( TBD:nvr does not have this parameter, default Return is 10 ) |
| **cameraID** | | <int> | Device Channel  This item is required during configuration. |
| **Motion detection area** | | | |
| **motionDetectionAreaCount** | | <int> | Number of detection areas, start mark of motion detection loop |
| **areaParamAction** | | <string> | Detection area loop operation behavior  When the configuration behavior is set, if this behavior flag is not carried, the default is to add in a loop.  cover:cover  remove: remove |
| **motionDetectionAreaBegin** | | <int> | Detection area start mark  When the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value |
| **topX** | | <int> | X coordinate  The x coordinate of the upper left corner of the detection area. Note: According to the 420×260 resolution standard, the area size is determined by the coordinates of the upper left point and the height and width of the detection area; |
| **topY** | | <int> | Y coordinate  The y coordinate of the upper left corner of the detection area |
| **width** | | <int> | width  Detection area width |
| **height** | | <int> | high  Detection area height |
| **next\_motionDetectionAreaURL** | | <int> | Next article Motion detection area identification  Start from 2. If the value is 2, it means that the following parameter is the second one. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **motionDetectionAreaEnd** | | <int> | Motion detection loop end flag  When the configuration behavior is set, this flag must be carried. For values |
| **planning time** | | | |
| **weekDayCount** | | <int> | Deployment days  Maximum 7 |
| **weekDayBegin** | | <int> | Arming time loop body start flag  When the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value |
| **scheduleTimeAction** | | <string> | Schedule time loop operation  When the configuration behavior is set, if this behavior flag is not carried, the default is to add in a loop.  cover:cover  remove: remove  clean: Clear all |
| **weekDay** | | <int>[0, 6] | which day  0-6,0 for Sunday |
| **startTime(1..3)** | | <long>[0, 86400] | Arming start time  Range: 0-86400 |
| **endTime(1..3)** | | <long>[0, 86400] | Arming end time  Range: 0-86400, must be matched with startTime |
| **next\_weekDayURL** | | <int> | Next scheduled time URL  Starts from 1. If the value is 1, it means the following parameter is the second one. |
| **weekDayEnd** | | <int> | End flag of the loop of defense days  When the configuration behavior is set, this flag must be carried. For the number of value loop bodies |
| **Linkage Events** | | | |
| **AlarmLinkageCount** | <int> | | Number of linkages |
| **AlarmLinkageParam** | <string> | | Alarm linkage operation behavior  When the configuration behavior is set, if this behavior flag is not carried, the default is to add the loop body.  cover:cover  remove: remove  clean: Clear all |
| **ActionType** | <int>[1,12] | | Action Type  1: I/O  2: SMTP  3: PTZ  4: RECORD  5: Buzzer ( TBD: Added nvr parameter )  6: Message pop-up window ( TBD: Add nvr parameter )  7: Message push ( TBD: Add nvr parameter )  8: Attachment email ( TBD: Add nvr parameter )  9: Video pop-up ( TBD: Add nvr parameter )  10: FTP  11: Full screen event  12: Camera alarm output |
| relayTime | <int>[0,3600] | | I/O linkage related parameters:  Alarm time (seconds) (0 means alarm all the time) |
| relayPort1 | <int>{0,1} | | I/O linkage related parameters:  Alert Port Number 1  0: Off  1: On |
| relayPort 2 | <int>{0,1} | | I/O linkage related parameters:  Alert Port Number 2  0: Off  1: On |
| ptzChannel | <int>[1,16] | | PTZ linkage related parameters:  Channel Number |
| ptzPreset | <int>[1,16] | | PTZ linkage related parameters:  Preset |
| recordTime | <int>{30,40,50,60} | | Video linkage related parameters:  Video recording duration |
| triggerChannel | <string> | | Video linkage trigger channel collection string  Such as: ch1\_ch2\_ch3  Indicates linkage triggering of channel 1, channel 2, and channel 3  clean ：  Clear All |
| fullScreenTime | <int>[0,3600] | | Full screen event linkage related parameters:  Full screen time (seconds) |
| cameraPort1 | <int>{0,1} | | Camera alarm output linkage related parameters:  Alert Port Number 1  0: Off  1: On |
| cameraPort 2 | <int>{0,1} | | Camera alarm output linkage related parameters:  Alert Port Number 2  0: Off  1: On |
| **ActionID** | <int> | | Action ID  The number that identifies the alarm source. Each alarm source ID has a different meaning. For Example, IO alarm indicates the IO number, SMTP and PTZ indicate the channel number.  ( TBD: nvr does not have this parameter, and Returns 1 by default ) |
| **AlarmLinkageBegin** | <int> | | Loop body start mark |
| **next\_AlarmLinkageURL** | <int> | | Next alarm PTZ event ID  Start from 2. If the value is 2, it means that the following parameter is the second one. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **AlarmLinkageEnd** | <int> | | Alarm linkage end flag  When the configuration behavior is set, this flag must be carried, and the value is the number of loop bodies |

#### IO Alarm (IPC excluding the lite series/NVR)

##### Get I/O alarm linkage parameters (get IOalarmLinkage)

|  |  |
| --- | --- |
| **URL** | : //<servername> **/cgi-bin/param.cgi?action=get&type=IOalarmLinkage&alarmInID=1** |
| **Description** | When there is no planned time period from Monday to Sunday, there is no planned time parameter loop body  When alarmIOEnableFlag=0, there is no motion detection loop.  When the alarm output event is 0, there is no alarm output loop body  When the alarm PTZ event is 0, there is no alarm PTZ loop.  Refer to [I/O alarm linkage parameters](#_I/O报警联动参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=IOalarmLinkage&alarmInID=1 |
| **Return** | EnableFlag=0  ValidLevel=1  SourceName=scomputer  weekDayBegin=1  weekDay=1  startTime1=5400  endTime1=21600  …… planning time  weekDay=5  startTime1=41400  endTime1=43200  weekDayEnd=4  AlarmLinkageBegin=1  ActionID=1  ActionType=1  …  next\_AlarmLinkageURL=3 Alarm linkage  ActionID=1  ActionType=4  AlarmLinkageEnd=3  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set I/O alarm linkage parameters (set IOalarmLinkage)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=IOalarmLinkage **&** alarmInID=1[&<argument>=<value>...] |
| **Description** | For parameters, Refer to [I/O alarm linkage parameters](#_I/O报警联动参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=IOalarmLinkage&alarmInID=1&EnableFlag=0&ValidLevel=1&SourceName=scomputer&weekDayBegin=1&weekDay=1&startTime1=5400&endTime1=21600&next\_weekDayURL=1&weekDay=2&startTime1=5400&endTime1=21600&startTime2=32400&endTime2=63000&next\_ weekDayURL=2&weekDay=3&startTime1=32400&endTime1=63000&next\_weekDayURL=3&weekDay=5&startTime1=41400&endTime1=43200&weekDayEnd=4&AlarmLinkageBegin=1&ActionID=1&ActionType=1&next\_AlarmLinkageURL=2&ActionID=1&ActionType=2&next\_AlarmLinkageURL=3&ActionID=1&ActionType=4&AlarmLinkageEnd=3 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### I/O alarm linkage parameter meaning

**I/O alarm linkage parameter table**

Table 2-6-4-4-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **alarmInID** | <int> | Alarm input ID |
| **EnableFlag** | <unsigned char>{0,1} | Whether to start IO alarm  0: Disable  1: Start |
| **ValidLevel** | <int>{0,1} | Trigger Mode  0: Disconnect  1: Connect |
| **SourceName** | <string> | Source Name |
| **planning time** | | |
| **weekDay Count** | <int>[0, 7] | Deployment days  Maximum 7 |
| **weekDayBegin** | <int> | Planned time loop body start flag  When the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value |
| **scheduleTimeAction** | <int> | Schedule time loop operation  When the configuration behavior is set, if this behavior flag is not carried, the default is to add the loop body.  cover:cover |
| **weekDay** | <int>[0, 6] | which day  0-6,0 for Sunday |
| **startTime(1..3)** | <long>[0,86400] | Arming start time  Range: 0-86400 |
| **endTime(1..3)** | <long>[0,86400] | Arming end time  Range: 0-86400 |
| **next\_ weekDay URL** | <int> | Next scheduled time URL  Start from 2. If the value is 2, it means that the following parameter is the second one. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **weekDay End** | <int> | End flag of the loop of defense days  When the configuration behavior is set, this flag must be carried. For the number of value loop bodies |
| **Alarm PTZ events** | | |
| **alarmPTZActionCount** | <int> | Number of alarm PTZ events  The number of alarm PTZ events allowed varies depending on the device. |
| **alarmPTZActionBegin** | <int> | Alarm PTZ event loop body start flag  When the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value |
| **alarmPTZAction** | <string> | Alarm PTZ event loop operation behavior  When the configuration behavior is set, if this behavior flag is not carried, the default is to add the loop body.  cover:cover  remove: remove |
| **PTZChannelID** | <int> | PTZ channel ID |
| **PTZActionType** | <int> | PTZ operation type  Operation type (preset position, track, etc.) |
| **PTZActionID** | <int> | Operation ID  Preset position ID, track ID, etc. previously set by the user |
| **next\_PTZAcitonURL** | <int> | Next alarm PTZ event ID  Start from 2. If the value is 2, it means that the following parameter is the second one. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **alarmPTZActionEnd** | <int> | PTZ loop ends  When the configuration behavior is set, this flag must be carried, and the value indicates the number of loop bodies |
| **Linkage Events** | | |
| **AlarmLinkageCount** | <int> | Number of linkages |
| **AlarmLinkageParam** | <string> | Alarm linkage operation behavior  When the configuration behavior is set, if this behavior flag is not carried, the default is to add the loop body.  cover:cover |
| **ActionType** | <int>[1, 4] | Action Type  1: I/O  (id:1. Alarm output 1  id: 2. Alarm output 2)  2: SMTP  3: PTZ  4: RECORD  7: FTP  10.audio  11: LED |
| **ActionID** | <int> | Action ID  The number that identifies the alarm source. Each alarm source ID has a different meaning. For Example, IO alarm indicates the IO number, SMTP and PTZ indicate the channel number. |
| **AlarmLinkageBegin** | <int> | Loop body start mark |
| **next\_AlarmLinkageURL** | <int> | Next alarm PTZ event ID  Start from 2. If the value is 2, it means that the following parameter is the second one. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **AlarmLinkageEnd** | <int> | Alarm linkage end flag  When the configuration behavior is set, this flag must be carried, and the value indicates the number of loop bodies |

#### Disk Alarm (IPC excluding the lite series/NVR)

##### Get disk alarm parameters (getDiskAlarmParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **diskAlarm** &alarmInID=1 |
| **Description** | Refer to [Disk Alarm Parameters Table](#_磁盘报警参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=diskAlarm&alarmInID=1 |
| **Return** | diskFullAlarmCheckFlag=1  diskErrorAlarmCheckFlag=0  NoDiskAlarmEnableFlag=0  AlarmInterval=345  AlarmLinkageBegin=1  ActionID=1  ActionType=1  AlarmLinkageEnd=1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set disk alarm parameters (setDiskAlarmPram)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **diskAlarm** &alarmInID=1[&<argument>=<value>...] |
| **Description** | For parameters, Refer to [the disk alarm parameter table](#_磁盘报警参数含义) , and for responses, Refer to [the general response text.](file:///C:\Users\Administrator\Desktop\Inview2016%20CGI_Chinese_v3.0_吕凯.doc#通用应答文本字符串) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=diskAlarm&alarmInID=1&diskFullAlarmCheckFlag=1&diskErrorAlarmCheckFlag=0&NoDiskAlarmEnableFlag=0&AlarmInterval=345&AlarmLinkageBegin=1&ActionID=1&ActionType=1&AlarmLinkageEnd=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Disk alarm parameter meaning

**Disk alarm parameter table**

Table 2-6-4-5-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **diskFullAlarmCheckFlag** | <unsigned char>{0,1} | Disk full alarm detection flag  0: Disable  1: Start |
| **diskErrorAlarmCheckFlag** | <unsigned char>{0,1} | Disk error alarm detection flag  0: Disable  1: Start |
| **NoDiskAlarmEnableFlag** | <unsigned char>{0,1} | Enable the no disk alarm flag  0: Disable  1: Start |
| **AlarmInterval** | <int>[10, 86400] | Alarm interval  10-86400 seconds |
| **Alarm PTZ** | | |
| **alarmPTZActionCount** | <int> | Number of alarm PTZ events  The number of alarm PTZ events allowed varies depending on the device. |
| **alarmPTZActionBegin** | <int> | Alarm PTZ event loop body start flag  When the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value |
| **alarmPTZAction** | <string> | Alarm PTZ event loop operation behavior  When the configuration behavior is set, if this behavior flag is not carried, the default is to add the loop body.  cover:cover |
| **PTZChannelID** | <int> | PTZ channel ID |
| **PTZActionType** | <int> | PTZ operation type  Preset position, track, etc. |
| **PTZActionID** | <int> | Operation ID  Preset position ID, track ID, etc. previously set by the user |
| **next\_PTZAcitonURL** | <int> | Next alarm PTZ event ID  Start from 2. If the value is 2, it means that the following parameter is the second one. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **alarmPTZActionEnd** | <int> | PTZ loop ends  When the configuration behavior is set, this flag must be carried. For values that are the number of loop bodies |
| **Linkage Events** | | |
| **AlarmLinkageCount** | <int> | Number of linkages |
| **AlarmLinkageParam** | <string> | Alarm linkage operation behavior  When the configuration behavior is set, if this behavior flag is not carried, the default is to add in a loop.  cover:cover  remove: remove |
| **ActionType** | <int>[1, 4] | Action Type  1: I/O  (id:1. Alarm output 1  id: 2. Alarm output 2)  2: SMTP  3: PTZ  4: RECORD  7: FTP  10.audio  11: LED |
| **ActionID** | <int> | Action ID  The number that identifies the alarm source. Each alarm source ID has a different meaning. For Example, IO alarm indicates the IO number, SMTP and PTZ indicate the channel number. |
| **AlarmLinkageBegin** | <int> | Loop body start mark |
| **next\_AlarmLinkageURL** | <int> | Next alarm PTZ event ID  Start from 2. If the value is 2, it means that the following parameter is the second one. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **AlarmLinkageEnd** | <int> | Alarm linkage end flag  When the configuration behavior is set, this flag must be carried, and the value indicates the number of loop bodies |

#### Exception Alarm (NVR)

##### Get exception alarm input alarm parameters (get exceptionAlarm )

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type= exceptionAlarm &cameraID=<cameraID> |
| **Description** | 1. When the value of weekDay is determined, the time period is also determined, and the format is startTime1, endTime1, startTime2, endTime2, startTime3, endTime3…  When weekday=2, it indicates that there are two time periods, and the parameters are startTime1, endTime1, startTime2, and endTime2.  When weekday = 1, it indicates that there is one time period, and the parameters are startTime1 and endTime1.  When weekday = 0, you need to fill in the time period parameter.  When there is no scheduled time period from Monday to Sunday, there is no scheduled time parameter loop body.  For details, Refer to **Abnormal Alarm Input** Alarm Linkage Parameters |
| **Example** | http://192.168.2.162/cgi-bin/ param .cgi?action=get&type=exceptionAlarm |
| **Return** | exAlarmEnableFlag=1  exAlarmInterval=60  excTypeDisK=1  excTypeIPConfict=1  excTypeNetworkDisconnect=1  AlarmLinkageBegin=1  ActionID=1  ActionType=5  next\_AlarmLinkageURL=2  ActionID=1  ActionType=7  AlarmLinkageEnd=2 (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set exception alarm input alarm parameters ( set exceptionAlarm )

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=set&type= exceptionAlarm &channelId=1[&<argument>=<value>...] |
| **Description** | For parameters, Refer to [Abnormal Alarm Parameters](#alarm通用参数) |
| **Example** | http://192.168.2.162/cgi-bin/ param .cgi?action=set&type=exceptionAlarm&exAlarmEnableFlag=1&exAlarmInterval=60&excTypeDisK=1&excTypeIPConfict=1&excTypeNetworkDisconnect=1&AlarmLinkageBegin=1&ActionID=1&ActionType=5&next\_AlarmLinkageURL=2&ActionID=1&ActionType=7&AlarmLinkageEnd=2 |
| **Return** | OK  (For other responses, Refer to [General Response](file:///I:\luoxianwen\NVR_CGI\工程文件\CGI新增接口说明.docx#_通用应答) ) |

##### Abnormal alarm input linkage parameter table

Table 2-6-7-13-3

|  |  |  |  |
| --- | --- | --- | --- |
| **parameter** | | **data** | **Description** |
| exAlarmEnableFlag | | <unsigned char>{0,1} | Open sign  0: Disable  1: Start |
| exAlarmInterval | | <int> | Abnormal interval |
| excTypeDisK | | <int> <0,1> | Disk exception type is turned on  0: Disable  1: Start |
| excTypeIPConfict | | <int> <0,1> | IP conflict abnormal opening  0: Disable  1: Start |
| excTypeNetworkDisconnect | | <int> <0,1> | Network disconnect on  0: Disable  1: Start |
| **planning time** | | | |
| **weekDayCount** | | <int> | Deployment days  Maximum 7 |
| **weekDayBegin** | | <int> | Arming time loop body start flag  When the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value |
| **scheduleTimeAction** | | <string> | Schedule time loop operation  When the configuration behavior is set, if this behavior flag is not carried, the default is to add in a loop.  cover:cover  remove: remove  clean: Clear all |
| **weekDay** | | <int>[0, 6] | which day  0-6,0 for Sunday |
| **startTime(1..3)** | | <long>[0, 86400] | Arming start time  Range: 0-86400 |
| **endTime(1..3)** | | <long>[0, 86400] | Arming end time  Range: 0-86400, must be matched with startTime |
| **next\_weekDayURL** | | <int> | Next scheduled time URL  Starts from 1. If the value is 1, it means the following parameter is the second one. |
| **weekDayEnd** | | <int> | End flag of the loop of defense days  When the configuration behavior is set, this flag must be carried. For the number of value loop bodies |
| **Linkage Events** | | | |
| **AlarmLinkageCount** | <int> | | Number of linkages |
| **AlarmLinkageParam** | <string> | | Alarm linkage operation behavior  When the configuration behavior is set, if this behavior flag is not carried, the default is to add the loop body.  cover:cover  remove: remove  clean: Clear all |
| **ActionType** | <int>[1,12] | | Action Type  1: I/O  2: SMTP  3: PTZ  4: RECORD  5: Buzzer ( TBD: Added nvr parameter )  6: Message pop-up window ( TBD: Add nvr parameter )  7: Message push ( TBD: Add nvr parameter ) |
| relayTime | <int>[0,3600] | | I/O linkage related parameters:  Alarm time (seconds) (0 means alarm all the time) |
| relayPort1 | <int>{0,1} | | I/O linkage related parameters:  Alert Port Number 1  0: Off  1: On |
| relayPort 2 | <int>{0,1} | | I/O linkage related parameters:  Alert Port Number 2  0: Off  1: On |
| **ActionID** | <int> | | Action ID  The number that identifies the alarm source. Each alarm source ID has a different meaning. For Example, IO alarm indicates the IO number, SMTP and PTZ indicate the channel number.  ( TBD: nvr does not have this parameter, and Returns 1 by default ) |
| **AlarmLinkageBegin** | <int> | | Loop body start mark |
| **next\_AlarmLinkageURL** | <int> | | Next alarm PTZ event ID  Start from 2. If the value is 2, it means that the following parameter is the second one. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **AlarmLinkageEnd** | <int> | | Alarm linkage end flag  When the configuration behavior is set, this flag must be carried, and the value is the number of loop bodies |

#### Flash light alarm output ( ledOutput ) (NVR)

##### Get the flash light alarm input alarm parameters (get ledOutput ) ( NVR )

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type= ledOutput&cameraID &cameraID=<cameraID> |
| **Description** | 1. When the value of weekDay is determined, the time period is also determined, and the format is startTime1, endTime1, startTime2, endTime2, startTime3, endTime3…  When weekday=2, it indicates that there are two time periods, and the parameters are startTime1, endTime1, startTime2, and endTime2.  When weekday = 1, it indicates that there is one time period, and the parameters are startTime1 and endTime1.  When weekday = 0, you need to fill in the time period parameter.  When there is no scheduled time period from Monday to Sunday, there is no scheduled time parameter loop body.  Refer to Motion Detection Alarm Linkage Parameters for details. |
| **Example** | http://192.168.2.162/cgi-bin/ param .cgi?action=get&type=ledOutput&cameraID=1 |
| **Return** | ledAlarmTime=20  weekDayBegin=1  weekDay=1  startTime=21600  endTime=37800  next\_weekDayURL=2  weekDay=2  startTime=21600  endTime=37800  weekDayEnd=2  AlarmLinkageEnd=2 (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set the flash alarm input alarm parameters ( set exceptionAlarm ) ( NVR )

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=set&type= ledOutput &channelId=1[&<argument>=<value>...] |
| **Description** | Parameters Refer to [video parameters](file:///I:\luoxianwen\NVR_CGI\工程文件\CGI新增接口说明.docx#_隐私遮蔽参数含义) |
| **Example** | http://192.168.2.162/cgi-bin/ param .cgi?action=set&type=ledOutput&cameraID=1&ledAlarmTime=20&weekDayBegin=1&weekDay=1&startTime=21600&endTime=37800&next\_weekDayURL=2&weekDay=2&startTime=21600&endTime=37800&weekDayEnd=2 |
| **Return** | OK  (For other responses, Refer to [General Response](file:///I:\luoxianwen\NVR_CGI\工程文件\CGI新增接口说明.docx#_通用应答) ) |

##### Flash light alarm input linkage parameter table

Table 2-6-6-7-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| ledAlarmTime | Int​ | Alarm time |
| **planning time** | | |
| **weekDayCount** | <int> | Deployment days  Maximum 7 |
| **weekDayBegin** | <int> | Arming time loop body start flag  When the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value |
| **scheduleTimeAction** | <string> | Schedule time loop operation  When the configuration behavior is set, if this behavior flag is not carried, the default is to add in a loop.  cover:cover  remove: remove  clean: Clear all |
| **weekDay** | <int>[0, 6] | which day  0-6,0 for Sunday |
| **startTime(1..3)** | <long>[0, 86400] | Arming start time  Range: 0-86400 |
| **endTime(1..3)** | <long>[0, 86400] | Arming end time  Range: 0-86400, must be matched with startTime |
| **next\_weekDayURL** | <int> | Next scheduled time URL  Starts from 1. If the value is 1, it means the following parameter is the second one. |
| **weekDayEnd** | <int> | End flag of the loop of defense days  When the configuration behavior is set, this flag must be carried. For the number of value loop bodies |

#### Camera alarm input (cameraIO) (NVR)

##### Get camera alarm input alarm parameters (get cameraIO )

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type= cameraIO &cameraID=<cameraID> |
| **Description** | 1. When the value of weekDay is determined, the time period is also determined, and the format is startTime1, endTime1, startTime2, endTime2, startTime3, endTime3…  When weekday=2, it indicates that there are two time periods, and the parameters are startTime1, endTime1, startTime2, and endTime2.  When weekday = 1, it indicates that there is one time period, and the parameters are startTime1 and endTime1.  When weekday = 0, you need to fill in the time period parameter.  When there is no scheduled time period from Monday to Sunday, there is no scheduled time parameter loop body. |
| **Example** | http://192.168.2.162/cgi-bin/ param .cgi?action=get&type=cameraIO&cameraID=1 |
| **Return** | cameraIOEnableFlag=1  cameraIOSourceId=1  cameraIOValidLevel=0  triggerChannel=ch3  weekDayBegin=1  weekDay=0  startTime=3600  endTime=21600  next\_weekDayURL=2  weekDay=1  startTime=0  endTime=86400  weekDayEnd=2  AlarmLinkageBegin=1  ActionID=1  ActionType=6  next\_AlarmLinkageURL=2  ActionID=1  ActionType=5  AlarmLinkageEnd=2 (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set the camera alarm input alarm parameters

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=set&type= cameraIO &channelId=1[&<argument>=<value>...] |
| **Description** | For parameters, Refer to Camera Alarm Input Parameters |
| **Example** | http://192.168.2.162/cgi-bin/alarm.cgi?action=set&type=cameraIO&cameraID=3&cameraIOEnableFlag=1&AlarmLinkageCount=3&AlarmLinkageParam=cover&AlarmLinkageBegin=1&ActionID=1&ActionType=5&next\_AlarmLinkageURL=2&ActionID=2&ActionType=6&AlarmLinkageEnd=2&weekDayBegin=1&weekDay=0&startTime=3600&endTime=21600&next\_weekDayURL=2&weekDay=1&startTime=0&endTime=86400&weekDayEnd=2 |
| **Return** | OK  (For other responses, Refer to [General Response](file:///I:\luoxianwen\NVR_CGI\工程文件\CGI新增接口说明.docx#_通用应答) ) |

##### Camera alarm input linkage parameter table

Table 2-6-6-8-3-1

|  |  |  |  |
| --- | --- | --- | --- |
| **parameter** | | **data** | **Description** |
| cameraIOEnableFlag | | <unsigned char>{0,1} | Camera alarm input open flag  0: Disable  1: Start |
| **cameraID** | | <int> | Device Channel  This item is required during configuration. |
| **cameraIOId** | | <int> | Alarm input id |
| **cameraIOName** | | <string> | Name |
| **cameraIOValidLevel** | | <int> | Trigger Mode  0: Disconnect  1: Connect |
| **planning time** | | | |
| **weekDayCount** | | <int> | Deployment days  Maximum 7 |
| **weekDayBegin** | | <int> | Arming time loop body start flag  When the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value |
| **scheduleTimeAction** | | <string> | Schedule time loop operation  When the configuration behavior is set, if this behavior flag is not carried, the default is to add in a loop.  cover:cover  remove: remove  clean: Clear all |
| **weekDay** | | <int>[0, 6] | which day  0-6,0 for Sunday |
| **startTime(1..3)** | | <long>[0, 86400] | Arming start time  Range: 0-86400 |
| **endTime(1..3)** | | <long>[0, 86400] | Arming end time  Range: 0-86400, must be matched with startTime |
| **next\_weekDayURL** | | <int> | Next scheduled time URL  Starts from 1. If the value is 1, it means the following parameter is the second one. |
| **weekDayEnd** | | <int> | End flag of the loop of defense days  When the configuration behavior is set, this flag must be carried. For the number of value loop bodies |
| **Linkage Events** | | | |
| **AlarmLinkageCount** | <int> | | Number of linkages |
| **AlarmLinkageParam** | <string> | | Alarm linkage operation behavior  When the configuration behavior is set, if this behavior flag is not carried, the default is to add the loop body.  cover:cover  remove: remove  clean: Clear all |
| **ActionType** | | <int>[1,12] | Action Type  1: I/O  2: SMTP  3: PTZ  4: RECORD  5: Buzzer ( TBD: Added nvr parameter )  6: Message pop-up window ( TBD: Add nvr parameter )  7: Message push ( TBD: Add nvr parameter ) |
| relayTime | | <int>[0,3600] | I/O linkage related parameters:  Alarm time (seconds) (0 means alarm all the time) |
| relayPort1 | | <int>{0,1} | I/O linkage related parameters:  Alert Port Number 1  0: Off  1: On |
| relayPort 2 | | <int>{0,1} | I/O linkage related parameters:  Alert Port Number 2  0: Off  1: On |
| **ActionID** | | <int> | Action ID  The number that identifies the alarm source. Each alarm source ID has a different meaning. For Example, IO alarm indicates the IO number, SMTP and PTZ indicate the channel number.  ( TBD: nvr does not have this parameter, and Returns 1 by default ) |
| **AlarmLinkageBegin** | | <int> | Loop body start mark |
| **next\_AlarmLinkageURL** | | <int> | Next alarm PTZ event ID  Start from 2. If the value is 2, it means that the following parameter is the second one. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **AlarmLinkageEnd** | | <int> | Alarm linkage end flag  When the configuration behavior is set, this flag must be carried, and the value is the number of loop bodies |

#### Privacy maskinging alarm (shelterConfig) ( IPC lite series/NVR)

##### Get privacy maskinging alarm parameters ( getShelterConfig )

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type= **shelterConfig** &channelId =1 |
| **Description** | Refer to [Privacy Mask Configuration Parameters](file:///I:\luoxianwen\NVR_CGI\工程文件\CGI新增接口说明.docx#_隐私遮蔽参数含义) |
| **Example** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type=shelterConfig&channelId =1 |
| **Return** | triggerChannel=ch1  channelId=1  enableFlag=1  weekDayBegin=1  weekDay=0  startTime=0  endTime=86400  next\_weekDayURL=2  weekDay=1  startTime=0  endTime=86400  next\_weekDayURL=3  weekDay=2  startTime=0  endTime=86400  weekDayEnd=3  AlarmLinkageBegin=1  ActionID=1  ActionType=6  next\_AlarmLinkageURL=2  ActionID=1  ActionType=5  next\_AlarmLinkageURL=3  ActionID=1  ActionType=7  next\_AlarmLinkageURL=4  ActionID=1  ActionType=1  AlarmLinkageEnd=4  (For other responses, Refer to [General Response](file:///I:\luoxianwen\NVR_CGI\工程文件\CGI新增接口说明.docx#_通用应答) ) |

##### Set privacy masking alarm parameters ( setShelterConfig )

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=set&type=shelterConfig&channelId=1[&<argument>=<value>...] |
| **Description** | For parameters, Refer to [Privacy Mask Configuration Parameters.](file:///I:\luoxianwen\NVR_CGI\工程文件\CGI新增接口说明.docx#_隐私遮蔽参数含义) |
| **Example** | http://192.168.2.193/cgi-bin/param.cgi?action=set&type=shelterConfig&triggerChannel=ch1&channelId=1&enableFlag=1&weekDayBegin=1&weekDay=0&startTime=0&endTime=86400&next\_weekDayURL=2&weekDay=1&startTime=0&endTime=86400&next\_weekDayURL=3&weekDay=2&startTime=0&endTime=86400&next\_weekDayURL=4&weekDay=3&startTime=0&endTime=86400&next\_weekDayURL=5&weekDay =4&startTime=0&endTime=86400&next\_weekDayURL=6&weekDay=5&startTime=0&endTime=86400&next\_weekDayURL=7&weekDay=6&startTime=0&endTime=86400&weekDayEnd=7&AlarmLinkageBegin=1&ActionID=1&ActionType=6&next\_AlarmLinkageURL=2&ActionID=1&ActionType=5&next\_AlarmLinkageURL=3&ActionID=1&ActionType=7&next\_AlarmLinkageURL=4&ActionID=1&ActionType=1&AlarmLinkageEnd=4 |
| **Return** | OK  (For other responses, Refer to [General Response](file:///I:\luoxianwen\NVR_CGI\工程文件\CGI新增接口说明.docx#_通用应答) ) |

##### Privacy mask parameter meaning

**Privacy mask configuration parameter table**

Table 2-6-4-6-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **channelId** | <int> | Channel Number |
| **enableFlag** | [0, 1] | Mask configuration enable flag  1: Enable  0: Disable |
| **planning time** | | |
| **weekDayCount** | <int> | Deployment days  Maximum 7 |
| **weekDayBegin** | <int> | Arming time loop body start flag  When the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value |
| **scheduleTimeAction** | <int> | Schedule time loop operation  When the configuration behavior is set, if this behavior flag is not carried, the default is to add in a loop.  cover:cover  remove: remove  clean: Clear all |
| **weekDay** | <int>[0, 6] | which day  0-6,0 for Sunday |
| **startTime(1..3)** | <long>[0, 86400] | Arming start time  Range: 0-86400 |
| **endTime(1..3)** | <long>[0, 86400] | Arming end time  Range: 0-86400, must be matched with startTime |
| **next\_weekDayURL** | <int> | Next scheduled time URL  Starts from 1. If the value is 1, it means the following parameter is the second one. |
| **weekDayEnd** | <int> | End flag of the loop of defense days  When the configuration behavior is set, this flag must be carried. For the number of value loop bodies |
| **Linkage Events** | | |
| **AlarmLinkageCount** | <int> | Number of linkages |
| **AlarmLinkageParam** | <string> | Alarm linkage operation behavior  When the configuration behavior is set, if this behavior flag is not carried, the default is to add the loop body.  cover:cover  remove: remove  clean: Clear all |
| **ActionType** | <int>[1,9] | Action Type  1: I/O  2: SMTP  3: PTZ  4: RECORD  5: Buzzer ( TBD: Added nvr parameter )  6: Message pop-up window ( TBD: Add nvr parameter )  7: Message push ( TBD: Add nvr parameter )  8: Attachment email ( TBD: Add nvr parameter )  9: Video pop-up ( TBD: Add nvr parameter )  10: FTP  11: Full screen event  12: Camera alarm output |
| relayTime | <int>[0,3600] | I/O linkage related parameters:  Alarm time (seconds) (0 means alarm all the time) |
| relayPort1 | <int>{0,1} | I/O linkage related parameters:  Alert Port Number 1  0: Off  1: On |
| relayPort 2 | <int>{0,1} | I/O linkage related parameters:  Alert Port Number 2  0: Off  1: On |
| ptzChannel | <int>[1,16] | PTZ linkage related parameters:  Channel Number |
| ptzPreset | <int>[1,16] | PTZ linkage related parameters:  Preset |
| recordTime | <int>{30,40,50,60} | Video linkage related parameters:  Video recording duration |
| triggerChannel | <string> | Video linkage trigger channel collection string  Such as: ch1\_ch2\_ch3  Indicates linkage triggering of channel 1, channel 2, and channel 3  clean ：  Clear All |
| fullScreenTime | <int>[0,3600] | Full screen event linkage related parameters:  Full screen time (seconds) |
| cameraPort1 | <int>{0,1} | Camera alarm output linkage related parameters:  Alert Port Number 1  0: Off  1: On |
| cameraPort 2 | <int>{0,1} | Camera alarm output linkage related parameters:  Alert Port Number 2  0: Off  1: On |
| **ActionID** | <int> | Action ID  ( TBD: nvr does not have this parameter, and Returns 1 by default )  The number that identifies the alarm source. Each alarm source ID has a different meaning. For Example, IO alarm indicates the IO number, SMTP and PTZ indicate the channel number. |
| **AlarmLinkageBegin** | <int> | Loop body start mark |
| **next\_AlarmLinkageURL** | <int> | Next alarm PTZ event ID  Start from 2. If the value is 2, it means that the following parameter is the second one. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **AlarmLinkageEnd** | <int> | Alarm linkage end flag  When the configuration behavior is set, this flag must be carried, and the value is the number of loop bodies |

#### Video loss alarm ( videoLoss ) (NVR)

##### Get video loss alarm parameters (get videoLoss )

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type= videoLoss &cameraID=<cameraID> |
| **Description** | 1. When the value of weekDay is determined, the time period is also determined, and the format is startTime1, endTime1, startTime2, endTime2, startTime3, endTime3…  When weekday=2, it indicates that there are two time periods, and the parameters are startTime1, endTime1, startTime2, and endTime2.  When weekday = 1, it indicates that there is one time period, and the parameters are startTime1 and endTime1.  When weekday = 0, you need to fill in the time period parameter.  When there is no scheduled time period from Monday to Sunday, there is no scheduled time parameter loop body.  **Video Loss** Alarm Linkage Parameters for details. |
| **Example** | http://192.168.2.161/cgi-bin/param.cgi?action=get&type=videoLoss &cameraID=1 |
| **Return** | videoLossEnableFlag=1  triggerChannel=ch1  weekDayBegin=1  weekDay=0  startTime=3600  endTime=21600  next\_weekDayURL=2  weekDay=1  startTime=0  endTime=86400  weekDayEnd=2  AlarmLinkageBegin=1  ActionID=1  ActionType=6  next\_AlarmLinkageURL=2  ActionID=1  ActionType=5  next\_AlarmLinkageURL=3  ActionID=1  ActionType=7  next\_AlarmLinkageURL=4  ActionID=1  ActionType=3  ptzChannel=1  ptzPreset=1  next\_AlarmLinkageURL=5  ActionID=1  ActionType=4  recordTime=30  next\_AlarmLinkageURL=6  ActionID=1  ActionType=2  next\_AlarmLinkageURL=7  ActionID=1  ActionType=1  relayTime=0  relayPort1=0  relayPort2=0  AlarmLinkageEnd=7 (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set video loss alarm parameters ( set videoLoss )

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=set&type= videoLoss &channelId=1[&<argument>=<value>...] |
| **Description** | Parameters Refer to video parameters |
| **Example** | http://192.168.0.121/cgi-bin/param.cgi?action=set&type=videoLoss&cameraID=1&videoLossEnableFlag=1&AlarmLinkageCount=3&AlarmLinkageParam=cover&AlarmLinkageBegin=1&ActionID=1&ActionType=5&next\_AlarmLinkageURL=2&ActionID=2&ActionType=6&AlarmLinkageEnd=2&weekDayBegin=1&scheduleTimeAction=cover&weekDay=0&startTime=3600&endTime=21600&next\_weekDayURL=2&weekDay=1&startTime=0&endTime=86400&weekDayEnd=2 |
| **Return** | OK  (For other responses, Refer to [General Response](file:///I:\luoxianwen\NVR_CGI\工程文件\CGI新增接口说明.docx#_通用应答) ) |

##### Video loss alarm linkage parameter table

Table 2-11-17-3

|  |  |  |  |
| --- | --- | --- | --- |
| **parameter** | | **data** | **Description** |
| videoLossEnableFlag | | <unsigned char>{0,1} | Video loss on flag  0: Disable  1: Start |
| **cameraID** | | <int> | Device Channel  This item is required during configuration. |
| **planning time** | | | |
| **weekDayCount** | | <int> | Deployment days  Maximum 7 |
| **weekDayBegin** | | <int> | Arming time loop body start flag  When the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value |
| **scheduleTimeAction** | | <string> | Schedule time loop operation  When the configuration behavior is set, if this behavior flag is not carried, the default is to add in a loop.  cover:cover  remove: remove  clean: Clear all |
| **weekDay** | | <int>[0, 6] | which day  0-6,0 for Sunday |
| **startTime(1..3)** | | <long>[0, 86400] | Arming start time  Range: 0-86400 |
| **endTime(1..3)** | | <long>[0, 86400] | Arming end time  Range: 0-86400, must be matched with startTime |
| **next\_weekDayURL** | | <int> | Next scheduled time URL  Starts from 1. If the value is 1, it means the following parameter is the second one. |
| **weekDayEnd** | | <int> | End flag of the loop of defense days  When the configuration behavior is set, this flag must be carried. For the number of value loop bodies |
| **Linkage Events** | | | |
| **AlarmLinkageCount** | <int> | | Number of linkages |
| **AlarmLinkageParam** | <string> | | Alarm linkage operation behavior  When the configuration behavior is set, if this behavior flag is not carried, the default is to add the loop body.  cover:cover  remove: remove  clean: Clear all |
| **ActionType** | <int>[1,12] | | Action Type  1: I/O  2: SMTP  3: PTZ  4: RECORD  5: Buzzer ( TBD: Added nvr parameter )  6: Message pop-up window ( TBD: Add nvr parameter )  7: Message push ( TBD: Add nvr parameter ) |
| relayTime | <int>[0,3600] | | I/O linkage related parameters:  Alarm time (seconds) (0 means alarm all the time) |
| relayPort1 | <int>{0,1} | | I/O linkage related parameters:  Alert Port Number 1  0: Off  1: On |
| relayPort 2 | <int>{0,1} | | I/O linkage related parameters:  Alert Port Number 2  0: Off  1: On |
| **ActionID** | <int> | | Action ID  The number that identifies the alarm source. Each alarm source ID has a different meaning. For Example, IO alarm indicates the IO number, SMTP and PTZ indicate the channel number.  ( TBD: nvr does not have this parameter, and Returns 1 by default ) |
| **AlarmLinkageBegin** | <int> | | Loop body start mark |
| **next\_AlarmLinkageURL** | <int> | | Next alarm PTZ event ID  Start from 2. If the value is 2, it means that the following parameter is the second one. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **AlarmLinkageEnd** | <int> | | Alarm linkage end flag  When the configuration behavior is set, this flag must be carried, and the value is the number of loop bodies |

#### Day night switch alarm (IPC excluding the lite series)

##### Get Day night switch alarm parameters

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi? action=get&type=dayNightAlarm&cameraID=<cameraID> |
| **Description** | Once the value of weekDay is determined, the time periods are also determined, formatted as startTime1, endTime1, startTime2, endTime2, startTime3, endTime3, and so on  When weekday=2, it indicates that there are two time periods, with parameters startTime1, endTime1, startTime2, and endTime2. When weekday=1, it indicates that there is one time period, with parameters startTime1 and endTime1. When weekday=0, time period parameters need to be specified. If there are no scheduled time periods from Monday to Sunday, no schedule time parameters are required. For details, see the motion detection alarm linkage parameters. |
| **Example** | http://192.168.2.162/cgi-bin/param.cgi?action=get&type=dayNightAlarm&cameraID=1 |
| **Return** | dayNightAlarmEnableFlag=1  alarmOut=0  alarmRecord=0  alarmSMTP=0  alarmFTP=0  weekDayCount=2  weekDayBegin=1  weekDay=1  startTime=21600  endTime=37800  next\_weekDayURL=2  weekDay=2  startTime=21600  endTime=37800  weekDayEnd=2  (For other responses, Refer to [General Response](file:///I:\luoxianwen\NVR_CGI\工程文件\CGI新增接口说明.docx#_通用应答) ) |

##### Set Day night switch alarm parameters

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=set&type=ledOutput&channelId=1[&<argument>=<value>...] |
| **Description** | Parameters Refer to video parameters |
| **Example** | http://192.168.0.120/cgi-bin/param.cgi?action=set&type=dayNightAlarm&cameraID=1&dayNightAlarmEnableFlag=1&alarmOut=1&alarmOut2=0&alarmRecord=1&alarmSMTP=1&alarmFTP=1&weekDayCount=2&weekDayBegin=1&weekDay=1&startTime=21600&endTime=37800&next\_weekDayURL=2&weekDay=2&startTime=21600&endTime=37800&weekDayEnd=2 |
| **Return** | OK  (For other responses, Refer to [General Response](file:///I:\luoxianwen\NVR_CGI\工程文件\CGI新增接口说明.docx#_通用应答) ) |

##### Day night switch alarm linkage parameter table

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Data** | **Description** |
| **dayNightAlarmEnableFlag** | Int | Enable alarm |
| **alarmOut** | Alarm output  0：Off  1：On | 0-1 |
| **alarmOut2** | Alarm 2 output  0：Off  1：On | 0-1 |
| **alarmRecord** | Alarm record  0：Off  1：On | 0-1 |
| **alarmSMTP** | Alarm SMTP  0：Off  1：On | 0-1 |
| **alarmFTP** | FTP upload  0：Off  1：On | 0-1 |
| **Planning time** | | |
| **weekDayCount** | <int> | Deployment days  Maximum 7 |
| **weekDayBegin** | <int> | Arming time loop body start flagWhen the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value |
| **scheduleTimeAction** | <string> | Schedule time loop operationWhen the configuration behavior is set, if this behavior flag is not carried, the default is to add in a loop.  cover: cover  remove: remove  clean: clean |
| **weekDay** | <int>[0, 6] | Which day  0-6,0 for Sunday |
| **startTime(1..3)** | <long>[0, 86400] | Arming start time  Range：0-86400 |
| **endTime(1..3)** | <long>[0, 86400] | Arming end time  Range：0-86400，must be matched with startTime |
| **next\_weekDayURL** | <int> | Next scheduled time URL Starts from 1. If the value is 1, it means the following parameter is the second one |
| **weekDayEnd** | <int> | End flag of the loop of defense days  When the configuration behavior is set, this flag must be carried for the number of value loop bodies |

### Privacy mask (blindAreaAlarm)

#### Acquisition capability (IPC excluding the lite series)

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **blindAreaAbility** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= blindAreaAbility |
| **Description** | Refer to [URL Descriptions](#_goto隐私遮蔽参数含义) |
| **Return** | streamID=1  blindAreaRate=100  maxBlindAreaNum=4  blindTypeCount=1  blindTypeBegin=1  blindType=1  blindColorCount=9  blindColorBegin=1  blindColor=FFFFFF  next\_blindColorURL=2  blindColor=000000  next\_blindColorURL=3  blindColor=FF0000  next\_blindColorURL=4  blindColor=FF6400  next\_blindColorURL=5  blindColor=FFFF00  next\_blindColorURL=6  blindColor=00FF00  next\_blindColorURL=7  blindColor=00FFFF  next\_blindColorURL=8  blindColor=0000FF  next\_blindColorURL=9  blindColor=FF00FF  blindColorEnd=1  blindTypeEnd=1 |

#### Capability parameter meaning

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **streamID** | Stream ID |  | int |
| **blindAreaRate** | The percentage of the occluded area to the source resolution |  | int |
| **maxBlindAreaNum** | Maximum number of occlusion areas |  | int |
| **blindTypeCount** | Number of masking types |  | int |
| **blindTypeBegin** | Mask type start flag |  | int |
| **blindType** | Masking Type  1: Color block  2: Mosaic  3: Color block + mosaic |  | int |
| **blindColorCount** | Number of mask colors |  | int |
| **blindColorBegin** | Mask color start mark |  | int |
| **blindColor** | Mask color (hex) |  | string |
| **next\_blindColorURL** | Next mask color starts marking |  | int |
| **blindColorEnd** | Mask color end marker |  | int |
| **next\_blindTypeURL** | Next mask type start mark |  | int |
| **blindTypeEnd** | Mask type end marker |  | int |

#### go to privacy mask (IPC excluding the lite series)

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=go to&type= **blindArea** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action= go to &type= blindArea |
| **Description** | Refer to [URL Descriptions](#_goto隐私遮蔽参数含义) |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### go to privacy mask parameter meaning

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **cameraID** | Channel Number |  | int |
| **areaID** | Region ID |  | int |

#### Get the privacy masking parameters (getBlindArea)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **blindArea** &cameraID=1 |
| **Description** | Refer to [Privacy Mask Parameters](#_隐私遮蔽参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=blindArea&cameraID=1 |
| **Return** | BlindAreaParamBegin=1  areaID=4  enableFlag=1  topX=14  topY=22 Detection area parameters  height=31  width=27  BlindAreaName=PrivacyMask4  blindType=1  …  next\_areaParamURL=3  areaID=3  enableFlag=1  topX=10  topY=68 Detection area parameters  height=16  width=16  BlindAreaName=PrivacyMask3  blindType=1  BlindAreaParamEnd=3  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Set the privacy mask parameters (setBlindArea)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<  assword>&action=set&type=blindArea&cameraID=1[&<argument>=<value>...] |
| **Description** | For parameters, Refer to [Privacy Masking Parameters](#_隐私遮蔽参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=blindArea&cameraID=1&areaParamAction=add& BlindAreaParamCount= 3 &BlindAreaParamBegin=1&areaID=4&enableFlag=1&topX=14&topY=22&height=31&width=27&BlindAreaName=PrivacyMask4&blindType=1&next\_areaParamURL=2&areaID=2&enableFlag=1&topX=61&topY=39&height=49&width=17&BlindAreaName=PrivacyMask2&blindType=1&next\_areaParamURL=3&areaID=3&enableFlag=1&topX=10&topY=68&height=16&width=16&BlindAreaName=PrivacyMask3&blindType=1&BlindAreaParamEnd=3 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Delete the privacy mask parameter (deleteBlindArea)

|  |  |
| --- | --- |
| **URL** | http ://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>action=delete&type= **blindAre a** &cameraID=1[&<argument>=<value>...] |
| **Description** | Carrying the areaID URL means deleting the specified area, White not carrying the areaID URL means deleting all areas  For parameters, Refer to [Deleting Privacy Mask Parameters.](#_删除隐私遮蔽参数（deleteBlindArea）) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=delete&type=blindArea&cameraID=1&areaID=2 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Privacy mask parameter meaning

**Privacy Masking Parameters Table**

Table 2-6-4-6-4-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **BlindAreaParamCount** | <int> | Number of masked areas |
| **BlindAreaParamBegin** | <int> | Masked area start sign  When the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value |
| **next\_areaParamURL** | <int> | Next masked area URL start mark  Start from 2. If the value is 2, it means that the following parameter is the second one. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **BlindAreaParamEnd** | <int> | End of masked area  When the configuration behavior is set, this flag must be carried, and the value is the number of settings |
| **cameraID** | <int> | Channel ID |
| **areaID** | <int> | Region ID |
| **enableFlag** | <int>{0, 1} | Whether to enable masking  1: Start  0: Disable |
| **topX** | <int>[0, 100] | X coordinate  The x coordinate of the upper left corner of the area as a percentage of the total video area width (value range 0-100) |
| **topY** | <int>[0, 100] | Y coordinate  The y coordinate of the upper left corner of the area as a percentage of the total video area width (value range 0-100) |
| **width** | <int> | width  The percentage of the area width to the total width of the video area |
| **height** | <int> | high  The percentage of the area height to the total video area height |
| **BlindAreaName** | <string> | Mobile Area Name |
| **blindType** | <int>[1, 3] | Masking Type  1: Color block  2: Mosaic  3: Color block + mosaic  Support types vary depending on device capabilities |
| **blindColor** | <string> | RGB color (hexadecimal) |
| **areaParamAction** | <string> | Masking area loop operation behavior  When the configuration behavior is set, if this behavior flag is not carried, the default is to add the loop body.  cover: indicates coverage |

### Audio alarm output (IPC excluding the lite series)

#### Get the Audio alarm output parameters

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **audioAlarm&cameraID=1** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= audioAlarm&cameraID=1 |
| **Description** | Refer to [URL Descriptions](#_声音报警输出参数含义) |
| **Return** | audioAlarmCount=14  audioAlarmBegin=1  fileId=0  fileName=high\_temperature\_alarm.wav  cycle=1  next\_AudioAlarmURL=2  fileId=1  fileName=normal\_temperature.wav  cycle=1  next\_AudioAlarmURL=3  fileId=2  fileName=low\_temperature\_alarm.wav  cycle=1  next\_AudioAlarmURL=4  fileId=3  fileName=hello\_welcome.wav  cycle=1  next\_AudioAlarmURL=5  fileId=4  fileName=verification\_success.wav  cycle=1  next\_AudioAlarmURL=6  fileId=5  fileName=verification\_failed.wav  cycle=1  next\_AudioAlarmURL=7  fileId=6  fileName=temperature\_rise\_warning.wav  cycle=1  next\_AudioAlarmURL=8  fileId=7  fileName=temperature\_rise\_alarm.wav  cycle=1  next\_AudioAlarmURL=9  fileId=8  fileName=temperature\_range\_alarm.wav  cycle=1  next\_AudioAlarmURL=10  fileId=9  fileName=temperature\_diff\_alarm.wav  cycle=1  next\_AudioAlarmURL=11  fileId=10  fileName=temperature\_diff\_warning.wav  cycle=1  next\_AudioAlarmURL=12  fileId=11  fileName=high\_temperature\_warning.wav  cycle=1  next\_AudioAlarmURL=13  fileId=12  fileName=fire\_detected\_please\_process\_immediately.wav  cycle=1  next\_AudioAlarmURL=14  fileId=13  fileName=smoking\_is\_prohibited\_in\_this\_area.wav  cycle=1  audioAlarmEnd=1  weekDayCount=7  weekDayBegin=1  weekDay=0  startTime=0  endTime=86400  next\_weekDayURL=2  weekDay=1  startTime=0  endTime=86400  next\_weekDayURL=3  weekDay=2  startTime=0  endTime=86400  next\_weekDayURL=4  weekDay=3  startTime=0  endTime=86400  next\_weekDayURL=5  weekDay=4  startTime=0  endTime=86400  next\_weekDayURL=6  weekDay=5  startTime=0  endTime=86400  next\_weekDayURL=7  weekDay=6  startTime=0  endTime=86400  weekDayEnd=7 |

#### Set the Audio alarm output parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=**audioAlarm**&cameraID=1&audioAlarmCount=6&audioAlarmBegin=1&fileId=0&cycle=100&next\_AudioAlarmURL=2&fileId=1&cycle=2&next\_AudioAlarmURL=3&fileId=2&cycle=3&next\_AudioAlarmURL=4&fileId=3&cycle=4&next\_AudioAlarmURL=5&fileId=4&cycle=5&next\_AudioAlarmURL=6&fileId=5&cycle=6&audioAlarmEnd=1&weekDayCount=3&weekDayBegin=1&weekDay=0&startTime=12600&endTime=34200&next\_weekDayURL=2&weekDay=3&startTime=43200&endTime=57600&next\_weekDayURL=3&weekDay=5&startTime=66600&endTime=84600&weekDayEnd=3 |
| **Description** | 查看[字段Description](#_声音报警输出参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type= **audioAlarm** &cameraID=1&audioAlarmCount=6&audioAlarmBegin=1&fileId=0&cycle=100&next\_AudioAlarmURL=2&fileId=1&cycle=2&next\_AudioAlarmURL=3&fileId=2&cycle=3&next\_AudioAlarmURL=4&fileId=3&cycle=4&next\_AudioAlarmURL=5&fileId=4&cycle=5&next\_AudioAlarmURL RL=6&fileId=5&cycle=6&audioAlarmEnd=1&weekDayCount=3&weekDayBegin=1&weekDay=0&startTime=12600&endTime=34200&next\_weekDayURL=2&weekDay=3&startTime=43200&endTime=57600&next\_weekDayURL=3&weekDay=5&startTime=66600&endTime=84600&weekDayEnd=3 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Meaning of Audio alarm output parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **audioAlarmCount** | Number of Audio alarms |  | int |
| **audioAlarmBegin** | Audio alarm start indicator |  | int |
| **fileId** | File number |  | int |
| **fileName** | file name |  | string |
| **cycle** | Loop times (1-10) (100 loop playback) |  | int |
| **next\_AudioAlarmURL** | Next Audio alarm start mark |  | int |
| **audioAlarmEnd** | Audio alarm end mark |  | int |
| **weekDayCount** | Number of defenses |  | int |
| **weekDayBegin** | Arming start indicator |  | int |
| **weekDay** | which day | 0-6 | int |
| **startTime** | Arming start time (in seconds) |  | int |
| **endTime** | Arming end time (in seconds) |  | int |
| **next\_weekDayURL** | Next scheduled time URL start mark |  | int |
| **weekDayEnd** | End flag of the loop of defense days |  | int |

### Abnormal Audio Detection Alarm (AudioAbnormalAlarm) (IPC excluding the lite series)

#### Get Abnormal Audio detection alarm linkage parameters (get AudioAbnormalalarmLinkage)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **AudioAbnormal** |
| **Description** | When there is no planned time period from Monday to Sunday, there is no planned time parameter loop body  When AudioAbnormal EnableFlag = 0, there is no motion detection loop.  When the alarm output event is 0, there is no alarm output loop body  When the alarm PTZ event is 0, there is no alarm PTZ loop.  Refer to [**AudioAbnormal** alarm linkage parameters](#_I/O报警联动参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type= AudioAbnormal |
| **Return** | EnableFlag = 0  suddenRiRefer tonable =1  riseSensitivity=38  riseThreshold = 5 0  suddenDropEnable=1  dropSensitivity=38  dropThreshold=88  weekDayBegin=1  weekDay=1  startTime1=5400  endTime1=21600  …… planning time  weekDay=5  startTime1=41400  endTime1=43200  weekDayEnd=4  AlarmLinkageBegin=1  ActionID=1  ActionType=1  …  next\_AlarmLinkageURL=3 Alarm linkage  ActionID=1  ActionType=4  AlarmLinkageEnd=3  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Set the Abnormal Audio detection alarm linkage parameters (set AudioAbnormalalarmLinkage)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **AudioAbnormal** &alarmInID=1[&<argument>=<value>...] |
| **Description** | For parameters, Refer to [**AudioAbnormal** alarm linkage parameters.](#_I/O报警联动参数含义) |
| **Example** | http://192.168.2.81/cgi-bin/param.cgi?action=set&type=AudioAbnormal&EnableFlag=0&suddenRiRefer tonable=1&riseSensitivity=59&riseThreshold=29&suddenDropEnable=1&dropSensitivity=38&dropThreshold=88&weekDayBegin=1&weekDay=1&startTime1=5400&endTime1=21600&next\_weekDayURL=1&weekDay=2&startTime1=5400&endTime1=21600&startTi me2=32400&endTime2=63000&next\_weekDayURL=2&weekDay=3&startTime1=32400&endTime1=63000&next\_weekDayURL=3&weekDay=5&startTime1=41400&endTime1=43200&weekDayEnd=4&AlarmLinkageBegin=1&ActionID=1&ActionType=1&next\_AlarmLinkageURL=2&ActionID=1&ActionType=2&next\_AlarmLinkageURL=3&ActionID=1&ActionType=4&AlarmLinkageEnd=3 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Meaning of Abnormal Audioity detection alarm linkage parameters

Abnormal Audioity detection **alarm linkage parameter table**

Table 2-6-4-4-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **EnableFlag** | <unsigned char>{0,1} | Whether to start the Abnormal Audioity detection alarm  0: Disable  1: Start |
| suddenRiRefer tonable | <int>{0,1} | Whether to activate the sound intensity steep rise switch  0: Disable  1: Start |
| suddenDropEnable | <int>{0,1} | Whether to activate the sound intensity steep drop switch  0: Disable  1: Start |
| riseSensitivity | <int>{ 1 ,1 00 } | Rise sensitivity (only effective when the sound intensity rise switch is turned on) |
| riseThreshold | <int>{ 1 ,1 00 } | Rising threshold (only effective when the sound intensity rise switch is turned on) |
| dropSensitivity | <int>{ 1 ,1 00 } | Reduced sensitivity (only when the sound intensity drop is turned on  Switch effective) |
| dropThreshold | <int>{ 1 ,1 00 } | Falling threshold (only when the sound intensity drop is turned on  Switch effective) |
| **planning time** | | |
| **weekDay Count** | <int>[0, 7] | Deployment days  Maximum 7 |
| **weekDayBegin** | <int> | Planned time loop body start flag  When the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value |
| **scheduleTimeAction** | <int> | Schedule time loop operation  When the configuration behavior is set, if this behavior flag is not carried, the default is to add the loop body.  cover:cover |
| **weekDay** | <int>[0, 6] | which day  0-6,0 for Sunday |
| **startTime(1..3)** | <long>[0,86400] | Arming start time  Range: 0-86400 |
| **endTime(1..3)** | <long>[0,86400] | Arming end time  Range: 0-86400 |
| **next\_ weekDay URL** | <int> | Next scheduled time URL  Start from 2. If the value is 2, it means that the following parameter is the second one. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **weekDay End** | <int> | End flag of the loop of defense days  When the configuration behavior is set, this flag must be carried. For the number of value loop bodies |
| **Alarm PTZ events** | | |
| **alarmPTZActionCount** | <int> | Number of alarm PTZ events  The number of alarm PTZ events allowed varies depending on the device. |
| **alarmPTZActionBegin** | <int> | Alarm PTZ event loop body start flag  When the configuration behavior is set, this flag must be carried, and there is no specific requirement for the value |
| **alarmPTZAction** | <string> | Alarm PTZ event loop operation behavior  When the configuration behavior is set, if this behavior flag is not carried, the default is to add the loop body.  cover:cover |
| **PTZChannelID** | <int> | PTZ channel ID |
| **PTZActionType** | <int> | PTZ operation type  Operation type (preset position, track, etc.) |
| **PTZActionID** | <int> | Operation ID  Preset position ID, track ID, etc. previously set by the user |
| **next\_PTZAcitonURL** | <int> | Next alarm PTZ event ID  Start from 2. If the value is 2, it means that the following parameter is the second one. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **alarmPTZActionEnd** | <int> | PTZ loop ends  When the configuration behavior is set, this flag must be carried, and the value indicates the number of loop bodies |
| **Linkage Events** | | |
| **AlarmLinkageCount** | <int> | Number of linkages |
| **AlarmLinkageParam** | <string> | Alarm linkage operation behavior  When the configuration behavior is set, if this behavior flag is not carried, the default is to add the loop body.  cover:cover |
| **ActionType** | <int>[1, 4] | Action Type  1: I/O  (id:1. Alarm output 1  id: 2. Alarm output 2)  2: SMTP  3: PTZ  4: RECORD  7: FTP  10.audio  11: LED |
| **ActionID** | <int> | Action ID  The number that identifies the alarm source. Each alarm source ID has a different meaning. For Example, IO alarm indicates the IO number, SMTP and PTZ indicate the channel number. |
| **AlarmLinkageBegin** | <int> | Loop body start mark |
| **next\_AlarmLinkageURL** | <int> | Next alarm PTZ event ID  Start from 2. If the value is 2, it means that the following parameter is the second one. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. |
| **AlarmLinkageEnd** | <int> | Alarm linkage end flag  When the configuration behavior is set, this flag must be carried, and the value indicates the number of loop bodies |

### Network alarm ( networkAbnormalAlarm ) (IPC excluding the lite series )

#### Get network alarm parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **networkAbnormalAlarm** |
| **Description** | Refer to [parameter meaning](#_网络报警参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type= networkAbnormalAlarm |
| **Return** | networkCardId =1  networkAlarmEnable =0  alarmInterval =10  AlarmLinkageCount = 1  AlarmLinkageParam = 1  AlarmLinkageBegin = 1  ActionType=1  ActionID =1  AlarmLinkageEnd = 1  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Set network alarm parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **networkAbnormalAlarm** &networkCardId=1&networkAlarmEnable=1&alarmInterval=300&AlarmLinkageCount=1&AlarmLinkageBegin=1&ActionType=1&ActionID=10&AlarmLinkageEnd=1 |
| **Description** | Refer to [parameter meaning](#_网络报警参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=networkAbnormalAlarm&networkCardId=1&networkAlarmEnable=1&alarmInterval=300&AlarmLinkageCount=1&AlarmLinkageBegin=1&ActionType=1&ActionID=10&AlarmLinkageEnd=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Meaning of network alarm parameters

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **networkCardId** | <int> | Network card ID |
| **networkAlarmEnable** | <int> | Network abnormality alarm  0: Off  1: On |
| **alarmInterval** | <int> | Alarm interval (10-86400 seconds) |
| **AlarmLinkageCount** | <int> | Number of linkages |
| **AlarmLinkageParam** | <int> | Alarm linkage operation behavior |
| **AlarmLinkageBegin** | <int> | Loop body start mark |
| **ActionType** | <int> | Action Type  1: I/O  (id:1. Alarm output 1  id: 2. Alarm output 2)  2: SMTP  3: PTZ  4: RECORD  7: FTP  10.audio  11: LED |
| **ActionID** | <int> | Action ID  The number that identifies the alarm source. Each alarm source ID has a different meaning. For Example, IO alarm indicates the IO number, SMTP and PTZ indicate the channel number. |
| **next\_AlarmLinkageURL** | <int> | Next Linkage Alarm Alarm |
| **AlarmLinkageEnd** | <int> | Alarm linkage end flag |

### Message Push (messagePush) (IPC excluding the lite series)

#### Get message push parameters

|  |  |
| --- | --- |
| **URL** | **http** ://<servername>/cgi-bin/param.cgi?action=get&type=messagePush |
| **Description** | Refer to [parameter meaning](#_消息推送参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=messagePush​ |
| **Return** | messagePushEnable =1  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Set message push parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **messagePush** &messagePushEnable=1 |
| **Description** | Refer to [parameter meaning](#_消息推送参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type= messagePush&messagePushEnable=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Meaning of message push parameters

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **messagePushEnable** | <int> | Message push switch  0: Off  1: On |

### External device configuration

#### External PTZ

##### Get PTZ capability parameters

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **ptzDeviceAbility** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= ptzDeviceAbility |
| **Description** | Refer to [URL Descriptions](#_PTZ能力参数含义) |
| **Return** | ptzSerialPortCount=1  ptzSerialPortBegin=1  ptzSerialPort=1  ptzSerialPortEnd=1  ptzBaudRateCount=9  ptzBaudRateBegin=1  ptzBaudRate=300  next\_BaudRateURL=2  ptzBaudRate=1200  next\_BaudRateURL=3  ptzBaudRate=2400  next\_BaudRateURL=4  ptzBaudRate=4800  next\_BaudRateURL=5  ptzBaudRate=9600  next\_BaudRateURL=6  ptzBaudRate=19200  next\_BaudRateURL=7  ptzBaudRate=38400  next\_BaudRateURL=8  ptzBaudRate=57600  next\_BaudRateURL=9  ptzBaudRate=115200  ptzBaudRateEnd=1  ptzDataBitCount=5  ptzDataBitBegin=1  ptzDataBit=4  next\_DataBitURL=2  ptzDataBit=5  next\_DataBitURL=3  ptzDataBit=6  next\_DataBitURL=4  ptzDataBit=7  next\_DataBitURL=5  ptzDataBit=8  ptzDataBitEnd=1  ptzStopBitCount=3  ptzStopBitBegin=1  ptzStopBit=0  next\_StopBitURL=2  ptzStopBit=1  next\_StopBitURL=3  ptzStopBit=2  ptzStopBitEnd=1  ptzParityCount=5  ptzParityBegin=1  ptzParity=0  next\_ParityURL=2  ptzParity=1  next\_ParityURL=3  ptzParity=2  next\_ParityURL=4  ptzParity=3  next\_ParityURL=5  ptzParity=4  ptzParityEnd=1 |

##### PTZ capability parameter meaning

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **ptzSerialPortCount** | PTZ serial port quantity |  | int |
| **ptzSerialPortBegin** | PTZ serial port start mark |  | int |
| **ptzSerialPort** | PTZ serial port  1:COM1  2: COM2  3:COM3 |  | int |
| **next\_SerialPortURL** | Next PTZ serial port start mark |  | int |
| **ptzSerialPortEnd** | PTZ serial port end mark |  | int |
| **ptzBaudRateCount** | PTZ baud rate quantity |  | int |
| **ptzBaudRateBegin** | PTZ baud rate start mark |  | int |
| **ptzBaudRate** | PTZ baud rate |  | int |
| **next\_BaudRateURL** | Next PTZ baud rate start mark |  | int |
| **ptzBaudRateEnd** | PTZ baud rate end flag |  | int |
| **ptzDataBitCount** | PTZ data bit number |  | int |
| **ptzDataBitBegin** | PTZ data bit start mark |  | int |
| **ptzDataBit** | PTZ data bit |  | int |
| **next\_DataBitURL** | The next PTZ data position starts marking |  | int |
| **ptzDataBitEnd** | PTZ data bit end mark |  | int |
| **ptzStopBitCount** | Number of PTZ stop positions |  | int |
| **ptzStopBitBegin** | PTZ stop position start mark |  | int |
| **ptzStopBit** | PTZ stop position  0:1  1:1.5  2:2 |  | float |
| **next\_StopBitURL** | Next PTZ stop position start mark |  | int |
| **ptzStopBitEnd** | PTZ stop position end mark |  | int |
| **ptzParityCount** | PTZ parity number |  | int |
| **ptzParityBegin** | PTZ parity check start flag |  | int |
| **ptzParity** | PTZ parity check  0: None  1: Odd  2: Even  3: Mark  4: Space |  | int |
| **next\_ParityURL** | Next PTZ parity check start mark |  | int |
| **ptzParityEnd** | PTZ parity check end mark |  | int |

##### Get external PTZ parameters (getPTZParam) (IPC)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type=PTZ **&** cameraID=<cameraID> |
| **Description** | Refer to [the external PTZ parameter table](#_外接云台参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=PTZ&cameraID=1 |
| **Return** | PTZCount=1  PTZBegin=1  PTZType=0  PTZEnableFlag=0  PTZDeviceID=1  PTZProtocol=0  comID=1  baudRate=115200  dataBits=8  stopBits=0  parity=3  PTZEnd=1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set external PTZ parameters (setPTZParam) (IPC)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=PTZ **[** &<argument>=<value>...] |
| **Description** | Refer to [the external PTZ parameter table](#_外接云台参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=PTZ&cameraID=1&PTZBegin=1&PTZEnableFlag=1 &PTZDeviceID=1 &comID=1&PTZProtocol=0&baudRate=115200&dataBits=8&stopBits=0&parity=3&PTZEnd=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### External PTZ parameters meaning

**External PTZ Parameters**

Table 2-6-5-1-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **PTZCount** | <int> | Number of PTZ parameters |
| **PTZBegin** | <int> | PTZ parameter start marker  Indicates the start of PTZ information, can only be 1 |
| **PTZEnableFlag** | <unsigned char>{0,1} | Enable PTZ flag  0: Disable  1: Enable  Setting other values is invalid and Returns -8 (parameter error). |
| **cameraID** | <int> | Channel Number |
| **internalPTZID** | <int> | Built-in PTZ ID  The PTZ parameters of the built-in PTZ are fixed and can be changed by setting the PTZ ID. |
| **PTZ Type** | <int>{0, 1} | PTZ Type  0: Bolt  1: High-speed dome  PTZType is the inherent performance of the device, which can only be obtained but not set |
| **PTZDeviceID** | <int> | PTZ device address  PTZ ID |
| **PTZProtocol** | <int>{0, 1} | PTZ Protocol  0: PELCO\_D protocol  1: PELCO\_P protocol  Setting other values is invalid and Returns -8 (parameter error). |
| **comID** | <int> | Serial port ID of the PTZ connection  Serial port number |
| **baudRate** | <int>{300,1200,2400,4800,9600,19200,38400,57600,115200} | Bit rate  300  1200  2400  4800  9600  19200  38400  57600  115200  Currently only the above values are supported. Setting other values is invalid and Returns -8 (parameter error) |
| **dataBits** | <int>[4, 8] | Data bits  Range: (4-8)  Setting other values is invalid and Returns -8 (parameter error). |
| **stopBits** | <int>[0, 2] | Stop bits  0:1  1:1.5  2:2  Setting other values is invalid and Returns -8 (parameter error). |
| **parity** | <int>[0, 4] | Parity bit  0: No verification (None)  1: Odd parity  2: Even parity  3: Mark verification  4: Space check (Space)  Setting other values is invalid and Returns -8 (parameter error). |
| **next\_PTZURL** | <int> | Next PTZ parameter  Start from 2. If the value is 2, it means the following parameter is the second one. |
| **PTZEnd** | <int> | PTZ parameter end marker  Indicates the number of PTZ parameters |

#### PTZ Keyboard

##### Get PTZ keyboard parameters (getPTZ KeyboardParam) ( IPC )

|  |  |
| --- | --- |
| **URL** | **http** ://<servername>/cgi-bin/param.cgi?action=get&type=PTZ Keyboard |
| **Description** | Refer to [PTZ keyboard parameters](#_云台键盘参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=PTZ Keyboard |
| **Return** | enableFlag=1  interfaceType=1  comID=2  baudRate=1200  dataBits=8  stopBits=1  parity=4  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set PTZ keyboard parameters (setPTZ KeyboardParam) ( IPC )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **PTZ Keyboard** [&<argument>=<value>...] |
| **Description** | For parameters, Refer to [PTZ keyboard parameters](#_云台键盘参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=PTZ Keyboard&enableFlag=1&interfaceType=1&comID=2&baudRate=1200&dataBits=8&stopBits=1&parity=4 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of PTZ keyboard parameters

**PTZ Keyboard Parameters**

Table 2-6-5-2-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **interfaceType** | <int> | Interface Type  1: RS485 serial port type  Currently only RS485 is supported. Setting other values is invalid and Returns -8 |
| **baudRate** | <int>{300,1200,2400,4800,9600,19200,38400,57600,115200} | Bit rate  Currently only 300, 1200, 2400, 4800, 9600, 19200, 38400, 57600, and 115200 are supported. Setting other values is invalid. Otherwise, -8 is Returned. |
| **dataBits** | <int>[4, 8] | Data bits  Setting other values is invalid and Returns -8 |
| **stopBits** | <int>[0,2] | Stop bits  0:1  1:1.5  2:2  Setting other values is invalid and Returns -8 (parameter error). |
| **parity** | <int>[0,4] | Parity bit  0: No verification (None)  1: Odd parity  2: Even parity  3: Mark verification  4: Space check (Space)  Setting other values is invalid and Returns -8 (parameter error). |

### Internet service

#### SMTP Service

##### SMTP test (IPC excluding the lite series)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type=SMTPTest &serverAddr=smtp.163.com&serverPort=25&SMTPUserName=15082478237@163.com1&SMTPPassword=UNOXFYUFQZLOOGNQ1&senderEmailAddress=15082478237@163.com1&recipientEmailAddress1=2528200656@qq.com1&transportMode= **1** |
| **Description** | If no parameters are passed, the parameters are obtained from the device for testing. |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=SMTPTest &serverAddr=smtp.163.com&serverPort=25&SMTPUserName=15082478237@163.com1&SMTPPassword=UNOXFYUFQZLOOGNQ1&senderEmailAddress=15082478237@163.com1&recipientEmailAddress1=2528200656@qq.com1&transportMode= 1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Get SMTP service parameters (getSMTPParam)

|  |  |
| --- | --- |
| **URL** | **http** ://<servername>/cgi-bin/param.cgi?action=get&type=SMTP |
| **Description** | Refer to [SMTP service parameter table](#_SMTP服务参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=SMTP |
| **Return** | serverAddr =asdf  serverPort =2001  SMTPUserName=tang  SMTPPassword=tag  senderEmailAddress=tag  transportMode=0  attachmentImageQuality=2 (IPC)  recipientEmailAddress1=1  recipientEmailAddress2=  recipientEmailAddress3=  recipientEmailAddress4=heheh  recipientEmailAddress5=  anonymousSendEnable = 1 (IPC)  sendInterval =10(IPC)  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set SMTP service parameters (setSMTPParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=SMTP **[** &<argument>=<value>...] |
| **Description** | For parameters, Refer to [the SMTP service parameter table.](#_SMTP服务参数含义) |
| **Example** | (ipc)  http://192.168.32.151/cgi-bin/param.cgi?action=set&type=SMTP&serverAddr=smtp.163.com&serverPort=25&SMTPUserName=15082478237@163.com1&SMTPPassword=UNOXFYUFQZLOOGNQ1&senderEmailAddress=15082478237@163.com1&recipientEmailAddress1=2528200656@qq.com1&recipientEmailAddress2=2&recipientEmailAddress3=3&recipientEmailAddress4=4&recipientEmailAddress5=5&transportMode=1&attachmentImageQuality=3&anonymousSendEnable=1&sendInterval=51​​  (NVR/the lite series)  http://192.168.2.193/cgi-bin/param.cgi?action=set&type=SMTP&serverAddr=cxy&serverPort=9999&SMTPUserName=cxy&SMTPPassword=cxy&senderEmailAddress=98&transportMode=0&recipientEmailAddress1=cxy&recipientEmailAddress2=cxy2&recipientEmailAddress3=cxy3&sendInterval=99 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### SMTP service parameter meaning

**SMTP service parameter table**

Table 2-6-6-1-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **serverAddr** | <string> | SMTP server address  Cannot be empty, otherwise -8 is Returned (parameter error)  It does not make sense to include spaces, and space characters will be removed. |
| **serverPort** | <unsigned short>[0,65535] | SMTP server port  When the input value is greater than the maximum value of unsigned short, 65535, the value is treated as 65535. |
| **SMTPUserName** | <string> | Account  Cannot be empty and cannot contain English characters "< > % & \" / , ' ; = | +". The number of characters cannot be greater than 32, otherwise -8 is Returned.  It does not make sense to include spaces, and space characters will be removed. |
| **SMTPPassword** | <string> | password  Must be all English characters, cannot be empty and cannot contain English characters "< > % & \" / , ' ; = | +", the number of characters cannot be greater than 20, otherwise -8 is Returned (parameter error)  It does not make sense to include spaces, and space characters will be removed. |
| **senderEmailAddress** | <string> | Sender's address  Cannot be empty, the number of characters cannot be greater than 128, otherwise -8 is Returned (parameter error)  It does not make sense to include spaces, and space characters will be removed. |
| **transportMode** | <int>[0, 2] | Mail transfer mode  0: No encryption  1: SSL secure connection  2: Starttls command transmission  Setting other values is invalid and Returns -8 (parameter error). |
| **attachmentImageQuality** | <int>[1, 3] | Image quality of email attachments (IPC)  1: High  2: Medium  3: Low  Setting other values is invalid and Returns -8 (parameter error). |
| **recipientEmailAddress1** | <string> | Recipient Address 1  The first recipient address cannot be empty and the number of characters cannot be greater than 128, otherwise -8 is Returned (parameter error)  It does not make sense to include spaces, and space characters will be removed. |
| **recipientEmailAddress2** | <string> | Recipient Address 2  The number of characters cannot be greater than 128, otherwise -8 is Returned  It does not make sense to include spaces, and space characters will be removed. |
| **recipientEmailAddress3** | <string> | Recipient Address 3  The number of characters cannot be greater than 128, otherwise -8 is Returned  It does not make sense to include spaces, and space characters will be removed. |
| **recipientEmailAddress4** | <string> | Recipient Address 4  The number of characters cannot be greater than 128, otherwise -8 is Returned  It does not make sense to include spaces, and space characters will be removed. |
| **recipientEmailAddress5** | <string> | Recipient Address 5  The number of characters cannot be greater than 128, otherwise -8 is Returned  It does not make sense to include spaces, and space characters will be removed. |
| **AnonymousSendEnable (IPC)** | <int>[0, 1] | Anonymous Send Switch (IPC)  0: Off  1: On |
| **SendInterval (IPC)** | <int>[0, 60] | Sending interval (0-60 seconds) (IPC) |
| **ImageNum (IPC)** | <int>[0.1,5] | Number of images (IPC) |
| **ImageInterval (IPC)** | <int>[1,5] | Picture Interval (IPC) |

#### NTP parameters (NTPParam)

##### Get NTP parameters (getNTPParam)

|  |  |
| --- | --- |
| **URL** | **http** ://<servername>/cgi-bin/param.cgi?action=get&type=NTP |
| **Description** | Refer to [NTP center parameter table](#_NTP参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=NTP |
| **Return** | enableFlag=1  IPProtoVer=1  NTPIP=192.168.1.7  NTPPort=3  NTPCheckTime=3600  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set NTP parameters (setNTPParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=NTP **[** &<argument>=<value>...] |
| **Description** | NTP parameters currently only support IPV4, that is, IPProtover=1; if IPV6 information is set, the NTP enable switch will be in the off state; for parameters, Refer to [the NTP center parameter table](#_NTP参数含义) , and for responses, Refer to [the general response text](file:///C:\Users\Administrator\Desktop\Inview2016%20CGI_Chinese_v3.0_吕凯.doc#通用应答文本字符串) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=NTP&IPProtoVer=1&enableFlag=1&NTPIP=192.168.1.7&NTPPort=3 &NTPCheckTime=3600 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Test NTP parameters (testNTPParam) (the lite series)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/system.cgi?action=test&type=NTP **[** &<argument>=<value>...] |
| **Description** | NTP parameters currently only support IPV4. For parameters, Refer to [the NTP Center Parameters Table](#_NTP参数含义) . For responses, Refer to [the General Response Text](file:///C:\Users\Administrator\Desktop\Inview2016%20CGI_Chinese_v3.0_吕凯.doc#通用应答文本字符串) |
| **Example** | http://192.168.2.193/cgi-bin/system.cgi?action=test&type=NTP |
| **Return** | Success: The ntp test success!!  Failed: The ntp test failed!!  (For other responses, Refer to [General Response](#_通用应答) ) |



##### NTP parameter meaning

**NTP Center Parameters Table**

Table 2-6-6-2-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **NTPIP** | <string> | IP address of the NTP server  If the IP format does not match, -8 is Returned (parameter error). |
| **NTPPort** | <int>[0, 65535] | NTP server port  When the input value is greater than 65535, it is considered as 65535 |
| **enableFlag** | <unsigned char>{0,1} | Whether to enable NTP flag  0: Disable  1: Enable |
| **IPProtover** | <int>{1, 2} | Protocol Version  1:IPV4  2: IPV6 |
| NTPCheckTime | <int>{11,99999} | NTP verification interval (greater than 10s, Units are minutes[1,1440]) |
| NTPCheckTimeUnit | <int>{0,1} | NTP Verification Time Interval Unit (0 by default when it is not included, this field needs to be placed before the NTPCheckTime field when setting the minute value)  0: seconds  1: Minute |

#### DDNS Service

##### Acquisition Capability (IPC)

|  |  |  |
| --- | --- | --- |
| **URL** | (IPC)  **http** ://<ip>/cgi-bin/param.cgi?action=get&type=DDNSAbility | (NVR/the lite series)  http://192.168.2.193/cgi-bin/network.cgi?action=ability&type=DDNS**​** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=DDNSAbility​ | http://192.168.2.193/cgi-bin/param.cgi?action=ability&type=DDNS |
| **Description** | Refer to [URL Descriptions](#_能力参数说明_14) |  |
| **Return** | supportDDNS=0  DDNSAddress=  DDNSProviderCount=3  DDNSProviderBegin=1  DDNSProviderID=1  DDNSProviderName=3322\_ddns  DDNSProviderHostHostName=3322.org  next\_DDNSProviderURL=2  DDNSProviderID=2  DDNSProviderName=dyndns\_ddns  DDNSProviderHostHostName=dyndns.org  next\_DDNSProviderURL=3  DDNSProviderID=3  DDNSProviderName=no-ip\_ddns  DDNSProviderHostHostName=no-ip.com  DDNSProviderEnd=1  networkCardCount=1  networkCardBegin=1  networkCardName=eth0  networkCardEnd=1 | DDNSCount=1  DDNSBegin=1  enable=0  providerName=no\_ip  domainName=1234  DDNSAccounts=tang  DDNSPassword=1  DDNSEND=1 |

##### Capability Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **supportDDNS** | DDNS  0: Not supported  1: Support |  | int |
| **DDNSAddress** | DDNS server address |  | string |
| **DDNSProviderCount** | Number of DDNS providers |  | int |
| **DDNSProviderBegin** | DDNS provider starts identification |  | int |
| **DDNSProviderID** | DDNS Provider ID |  | int |
| **DDNSProviderName** | DDNS Provider Name |  | string |
| **DDNSProviderHostHostName** | DDNS provider hostname |  | string |
| **next\_DDNSProviderURL** | Next DDNS provider starts identification |  | int |
| **DDNSProviderEnd** | DDNS provider end mark |  | int |
| **networkCardCount** | Number of network cards |  | int |
| **networkCardBegin** | Network card start mark |  | int |
| **networkCardName** | Network card name |  | string |
| **next\_networkCardURL** | Next network card start mark |  | int |
| **networkCardEnd** | Network card end mark |  | int |

##### DDNS Test

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=test&type= **DDNS** &providerID=1&domainName=1234&DDNSAccounts=tang&DDNSPassword=1& DDNSNetworkCardName=eth0 |
| **Description** | If no parameters are transmitted, the parameters are obtained from the device for testing (NVR does not transmit parameters) |
| **Example** | [http://192.168.32.151/cgi-bin/param.cgi?action=get&type=DDNS&providerID=1&domainName=1234&DDNSAccounts=tang&DDNSPassword=1& DDNSNetworkCardName=eth0](http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=DDNSTest&providerID=1&domainName=1234&DDNSAccounts=tang&DDNSPassword=1&DDNSNetworkCardName=eth0) |
| **Return** | OK (For other responses, Refer to [General Responses](#_通用应答) ) |

##### Get DDNS service parameters (getDDNS) ( IPC )

|  |  |
| --- | --- |
| **URL** | **http** ://<servername>/cgi-bin/param.cgi?action=get&type=DDNS |
| **Description** | Refer to [DDNS service parameter table](file:///C:\Users\Administrator\Desktop\Inview2016%20CGI_Chinese_v3.0_吕凯.doc#DDNS服务参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=DDNS |
| **Return** | enableFlag=1  providerID=1 (IPC)  domainName=1234  DDNSAccounts=tang  DDNSPassword=1  DDNSNetworkCardName=eth0 (IPC)  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set DDNS service parameters (setDDNS) ( IPC )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **DDNS** [&<argument>=<value>...] |
| **Description** | For parameters, Refer to [the DDNS service parameter table](file:///C:\Users\Administrator\Desktop\Inview2016%20CGI_Chinese_v3.0_吕凯.doc#DDNS服务参数表) , and for responses, Refer to [the general response text.](file:///C:\Users\Administrator\Desktop\Inview2016%20CGI_Chinese_v3.0_吕凯.doc#通用应答文本字符串) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=DDNS&enableFlag=1&providerID=1&domainName=1234&DDNSAccounts=tang&DDNSPassword=1& DDNSNetworkCardName=eth0 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of DDNS service parameters

**DDNS Service Parameters Table**

Table 2-6-6-3-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **providerID** | <int>[0, 3] | Provider ID (IPC)  1:ddns\_3322  2: ddns\_dyndns  3: ddns\_noip |
| **domainName** | <string> | DDNS domain name  Cannot be empty and cannot contain English characters "< > % & \" / , ' ; = | +". The number of characters cannot be greater than 64, otherwise -8 is Returned.  It does not make sense to include spaces, and space characters will be removed. |
| **DDNSAccounts** | <string> | DDNS Account  Cannot be empty and cannot contain English characters "< > % & \" / , ' ; = | +". The number of characters cannot be greater than 32, otherwise -8 is Returned.  It does not make sense to include spaces, and space characters will be removed. |
| **DDNSPassword** | <string> | DDNS password  Must be all English characters, cannot be empty and cannot contain English characters "< > % & \" / , ' ; = | +", the number of characters cannot be greater than 32, otherwise -8 is Returned (parameter error)  It does not make sense to include spaces, and space characters will be removed. |
| **DDNSNetworkCardName** | <string> | DDNS network card name (IPC) |

#### PPPoE Service (PPPoE) (IPC)

##### Get PPPoE service parameters (getPPPoE) ( IPC )

|  |  |
| --- | --- |
| **URL** | **http** ://<servername>/cgi-bin/param.cgi?action=get&type=PPPoE |
| **Description** | Refer to [PPPoE service parameter table](#_PPPoE服务参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=PPPoE |
| **Return** | enableFlag=1  PPPoEUserName=tang  PPPoEPassword=1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set PPPoE service parameters (setPPPoE) ( IPC )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=PPPoE **[** &<argument>=<value>...] |
| **Description** | For parameters, Refer to [the PPPoE Service Parameters Table](#_PPPoE服务参数含义) , and for responses, Refer to [the General Response Text.](file:///C:\Users\Administrator\Desktop\Inview2016%20CGI_Chinese_v3.0_吕凯.doc#通用应答文本字符串) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=PPPoE&enableFlag=1&PPPoEUserName=tang&PPPoEPassword=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### PPPoE service parameter meaning

**PPPoE Service Parameters Table**

Table 2-6-6-4-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **PPPoEUserName** | <string> | PPPoE Username  It cannot be empty and cannot contain English characters "< > % & \" / , ' ; = | +". The number of characters cannot be greater than 32, otherwise -8 is Returned (parameter error)  It does not make sense to include spaces, and space characters will be removed. |
| **PPPoEPassword** | <string> | PPPoE Password  Must be all English characters, cannot be empty and cannot contain English characters "< > % & \" / , ' ; = | +", the number of characters cannot be greater than 32, otherwise -8 is Returned  It does not make sense to include spaces, and space characters will be removed. |

#### UPNP Service (UPNP) (IPC excluding the lite series )( Other devices are not developed)

##### Get UPNP service parameters (getUPNP) (IPC)

|  |  |
| --- | --- |
| **URL** | **http** ://<servername>/cgi-bin/param.cgi?action=get&type=UPNP |
| **Description** | Refer to [UPNP service parameters](#_UPNP服务参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=UPNP |
| **Return** | enableFlag=1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set UPNP service parameters (setUPNP) (IPC)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=UPNP **[** &<argument>=<value>...] |
| **Description** | For parameters, Refer to [UPNP service parameters](#_UPNP服务参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=UPNP&enableFlag=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### UPNP service parameter meaning

**UPNP Service Parameter Table**

Table 2-6-6-5-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **enableFlag** | <unsigned char>{0, 1} | Enable flag.  0: Disable  1: Enable  Setting other values is invalid and Returns -8 |

#### 802.1X ( ieee8021X ) (IPC)

##### Obtaining 802.1X Parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **ieee8021X** |
| **Description** | Refer to [parameter meaning](#_802.1X参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=ieee8021X |
| **Return** | ieee8021XEnable=1  eapMethod=0 (IPC)  account =username  ieee8021Password =password  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Setting 802.1X parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **ieee8021X** &ieee8021XEnable=1&eapMethod=0&account=username&ieee8021Password=pwd |
| **Description** | Refer to [parameter meaning](#_802.1X参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=ieee8021X&ieee8021XEnable=1&eapMethod=0&account=username&ieee8021Password=pwd |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### 802.1X Parameters

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **ieee8021XEnable** | <int> | 802.1X switch  0: Off  1: On |
| **eapMethod (IPC)** | <int> | EAP Method  0: EAP-MD5  1: EAP-TLS |
| **account** | <string> | account |
| **ieee8021Password** | <string> | password |

#### Port Mapping

##### Get port mapping parameters

|  |  |  |
| --- | --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **portMapping** | |
| **Description** | Refer to [parameter meaning](#_端口映射参数含义) | |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=portMapping | |
| **Return** | (IPC)  mapEnable=1  mapMethod=1  httpsEnable=1  httpsExternalPort=4431  httpsExternalIp=113.87.162.248  httpsStatus=0  sslEnable=1  sslExternalPort=20011  sslExternalIp=113.87.162.248  sslStatus=0  httpEnable=1  httpExternalPort=801  httpExternalIp=113.87.162.248  httpStatus=0  rtspEnable=1  rtspExternalPort=5542  rtspExternalIp=113.87.162.248  rtspStatus=0  controlEnable=1  controlExternalPort=30011  controlExternalIp=113.87.162.248  controlStatus=0  (For other responses, Refer to [General Response](#_通用应答) ) | (NVR/the lite series)  mapEnable=1  mapMethod=1  httpPort=1027  httpsPort=1327  dataPort=1127  clientPort=30003 |

##### Set port mapping parameters

|  |  |  |
| --- | --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **portMapping** &mapEnable=1&mapMethod=1&httpEnable=1&httpExternalPort=801&rtspEnable=0&rtspExternalPort=5542&controlEnable=1&controlExternalPort=30011&httpsEnable=0&httpsExternalPort=4431&sslEnable=1&sslExternalPort=20011 | |
| **Description** | Refer to [parameter meaning](#_端口映射参数含义) | |
| **Example** | (IPC)  http://192.168.2.21/cgi-bin/param.cgi?action=set&type=portMapping&mapEnable=1&mapMethod=1&httpEnable=1&httpExternalPort=801&rtspEnable=0&rtspExternalPort=5542&controlEnable=1&controlExternalPort=30011&httpsEnable=0&httpsExternalPort=4431&sslEnable=1&sslExternalPort=20011 | (NVR/the lite series)  http://192.168.2.193/cgi-bin/network.cgi?action=set&type=portMapping&mapEnable=1&mapMethod=1&clientPort=30003&httpPort=1027&dataPort=1127&httpsPort=1327 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) | |

##### Port mapping parameter meaning

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **mapEnable** | <int> | Mapping switch  0: Off  1: On |
| **mapMethod** | <int> | Mapping method  1: Automatic  2: Manual |
| **IPC** | | |
| **sslEnable** | <int> | SSL mapping switch  0: Off  1: On |
| **sslExternalPort** | <int> | External Ports |
| **sslExternalIp** | <string> | External IP address (cannot be set) |
| **sslStatus** | <int> | Status (not configurable)  0: Not effective  1: Effective |
| **httpEnable** | <int> | HTTP mapping switch  0: Off  1: On |
| **httpExternalPort** | <int> | External Ports |
| **httpExternalIp** | <string> | External IP address (cannot be set) |
| **httpStatus** | <int> | Status (not configurable)  0: Not effective  1: Effective |
| **rtspEnable** | <int> | RTSP mapping switch  0: Off  1: On |
| **rtspExternalPort** | <int> | External Ports |
| **rtspExternalIp** | <string> | External IP address (cannot be set) |
| **rtspStatus** | <int> | Status (not configurable)  0: Not effective  1: Effective |
| **controlEnable** | <int> | Control mapping switch  0: Off  1: On |
| **controlExternalPort** | <int> | External Ports |
| **controlExternalIp** | <string> | External IP address (cannot be set) |
| **controlStatus** | <int> | Status (not configurable)  0: Not effective  1: Effective |
| **httpsEnable** | <int> | HTTPS mapping switch  0: Off  1: On |
| **httpsExternalPort** | <int> | External Ports |
| **httpsExternalIp** | <string> | External IP address (cannot be set) |
| **httpsStatus** | <int> | Status (cannot be set)  0: Not effective  1: Effective |
| **(NVR/the lite series)** | | |
| **clientPort** | <int>[1025,65534] | As an optional parameter when set, it is invalid when auto is 0 |
| **httpPort** | <int>[1025,65534] | As an optional parameter when set, it is invalid when auto is 0 |
| **dataPort** | <int>[1025,65534] | Data (RTSP) connection port  As an optional parameter when set, it is invalid when auto is 0 |
| **httpsPort** | <int>[1025,65534] | As an optional parameter when set, it is invalid when auto is 0 |

#### FTP parameters (ftp) (IPC excluding the lite series/NVR)( Other devices are not developed)

##### FTP test (IPC excluding the lite series)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type=FTPTest **&** ftpAddress=192.168.2.189&ftpPort=21&account=account&ftpPassword=password&ftpPath=/path &ftpSecurityEnable=0 |
| **Description** | If no parameters are passed, the parameters are obtained from the device for testing. |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=FTPTest&ftpAddress=192.168.2.189&ftpPort=21&account=account&ftpPassword=password&ftpPath=/path&ftpSecurityEnable=0​​​ |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Get FTP parameters

|  |  |
| --- | --- |
| **URL** | **http** ://<servername>/cgi-bin/param.cgi?action=get&type=ftp |
| **Description** | Refer to [parameter meaning](#_FTP参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=ftp​ |
| **Return** | ftpEnable=1  ftpAddress=baidu.com  ftpPort=23  account=123  ftpPassword=321  ftpPath=path  mediaType=2  recordTime=6  ftpSecurityEnable=1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Setting FTP parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **ftp** &ftpEnable=1&ftpAddress=192.168.2.189&ftpPort=21&account=account&ftpPassword=password&ftpPath=/path |
| **Description** | Refer to [parameter meaning](#_FTP参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=ftp&ftpEnable=1&ftpAddress=192.168.2.189&ftpPort=21&account=account&ftpPassword=password&ftpPath=/path &mediaType=1&recordTime=5&ftpSecurityEnable=0 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### FTP parameter meaning

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **ftpEnable** | <int> | FTP switch  0: Off  1: On |
| **ftpAddress** | <string> | FTP Address |
| **ftpPort** | <int> | FTP Port |
| **account** | <string> | account |
| **ftpPassword** | <string> | password |
| **ftpPath** | <string> | FTP Path |
| **mediaTypeexcluding the lite series** | <int> | media type  1: Snapshot  2: Video Recording |
| **recordTime ( IPC )** | <int> | Video recording time (5-60 seconds) |
| **ftpSecurityEnable ( IPC excluding the lite series )** | <int> | FTP over SSL/TLS (FTPS)  0: Off  1: On |

#### IP Filtering

##### Get IP filtering parameters

|  |  |
| --- | --- |
| **URL** | **http** ://<servername>/cgi-bin/param.cgi?action=get&type=ipFilter |
| **Description** | Refer to [parameter meaning](#_IP过滤参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=ipFilter |
| **Return** | ipFilterEnable=0  ipFilterType = 1  blacklistCount=1  blacklistBegin=1  startIp=128.128.101.15  endIp=128.128.101.200  describe=testb (IPC)  blacklistEnd=1  whitelistCount=1  whitelistBegin=1  startIp=192.168.2.189  endIp=192.168.2.200  describe=testw (IPC)  whitelistEnd=1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set IP filtering parameters

|  |  |  |
| --- | --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **ipFilter** &ipFilterEnable=1&blacklistCount=1&blacklistBegin=1&startIp=128.128.1.1&endIp=128.128.1.3&describe=describe&blacklistEnd=1 | |
| **Description** | Refer to [parameter meaning](#_IP过滤参数含义) (enter the correct IP address) | |
| **Example** | (IPC)  http://192.168.2.21/cgi-bin/param.cgi?action=set &type=ipFilter&ipFilterEnable=1& ipFilterType =1&blacklistCount=1&blacklistBegin=1&startIp=128.128.101.15&endIp=128.128.101.200&describe=testb&blacklistEnd=1&whitelistCount=1&whitelistBegin=1&startIp=192.168.2.189&endIp=192.168.2.200&describe=testw&whitelistEnd=1 | (NVR/IPCexcluding the lite series)  Add：  http://192.168.2.193/cgi-bin/network.cgi?action=set&type=ipFilter&ipFilterEnable=1&ipFilterType=0&blackListCount=3&blackListBegin=1&startIp=128.128.101.15&endIp=128.128.101.200&next\_BlackListURL=2&startIp=128. 128.101.202&endIp=128.128.221.200&next\_BlackListURL=3&startIp=111.111.111.111&endIp=111.111.222.222&blackListEnd=3&whiteListCount=1&whiteListBegin=1&startIp=128.128.101.222&endIp=255.255.255.255&whiteListEnd=1  delete:  http://192.168.2.193/cgi-bin/network.cgi?action=set&type=ipFilter&ipFilterEnable=1&ipFilterType=0&ipFilterParamAction=remove&blackListCount=1&blackListBegin=1&startIp=128.128.101.202&endIp=128.128.221.200&blackListEnd=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) | |

##### IP filtering parameters meaning

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **ipFilterEnable** | <int> | IP filter switch  0: Off  1: On |
| **blacklistCount** | <int> | Blacklist quantity |
| **blacklistBegin** | <int> | Blacklist start mark |
| ipFilterType | <int> | Black and white list  1: Blacklist;  2: Whitelist |
| **RemoveIP (IPC excluding the lite series)** | <int> | Delete IP |
| **startIp** | <string> | Start IP |
| **endIp** | <string> | End IP |
| **Describe (IPC excluding the lite series)** | <string> | describe |
| **next\_BlacklistURL** | <int> | Next Blacklist |
| **blacklistEnd** | <string> | Blacklist end mark |
| **whitelistCount** | <int> | Number of whitelists |
| **whitelistBegin** | <int> | Whitelist start flag |
| **startIp** | <string> | Start IP |
| **endIp** | <string> | End IP |
| **Describe (IPC excluding the lite series)** | <string> | describe |
| **next\_WhitelistURL** | <int> | Next whitelist |
| **whitelistEnd** | <int> | Whitelist end marker |
| ipFilterParamAction (NVR) | <string> | Delete ip:remove |

#### SNMP​​​

##### SNMP security level capability ( IPC excluding the lite series )

|  |  |
| --- | --- |
| **URL** | **http** ://<ip>/cgi-bin/param.cgi?action=get&type=SNMPSecurityLevelAbility |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=SNMPSecurityLevelAbility​ |
| **Description** | Refer to [URL Descriptions](#_能力参数说明_15) |
| **Return** | securityLevelCount=3  securityLevelBegin=1  securityLevelID=1  securityLevelName=noauth  next\_securityLevelURL=2  securityLevelID=2  securityLevelName=auth  next\_securityLevelURL=3  securityLevelID=3  securityLevelName=priv  securityLevelEnd=1 |

##### Capability Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **securityLevelCount** | Number of security levels |  | int |
| **securityLevelBegin** | Security level start mark |  | int |
| **securityLevelID** | Security Level ID |  | int |
| **securityLevelName** | Security Level Name |  | string |
| **next\_securityLevelURL** | Next security level start mark |  | int |
| **securityLevelEnd** | Security level end indicator |  | int |

##### Get SNMP parameters

|  |  |
| --- | --- |
| **URL** | http ://<servername> **/cgi-bin/param.cgi?action=get&type=SNMP** |
| **Description** | Refer to [parameter meaning](#_SNMP参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=SNMP​ |
| **Return** | SNMPv1Enable=1  SNMPv2cEnable=1  writeCommunity=write  readCommunity=read  trapAddress=192.168.1.1  trapPort=1025  trapCommunity=communityname  SNMPv3Enable=1  readSecurityName=sread  readSecurityLevel=2  readAuthAlgorithm=2  readAuthPassword=authpassword1232312  readEncryptAlgorithm=0  readEncryptPassword=passwd  writeSecurityName=swrite  writeSecurityLevel=3  writeAuthAlgorithm=2  writeAuthPassword=authWrite213123231  writeEncryptAlgorithm=2  writeEncryptPassword=aesdasdafsfdfgd  SNMPPort=1026  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Setting SNMP parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=**SNMP**&SNMPv1Enable=1&SNMPv2cEnable=1&writeCommunity=writename&readCommunity=readname&trapAddress=128.128.1.1&trapPort=8848&trapCommunity=trapname&SNMPv3Enable=1&readSecurityName=rsname&readSecurityLevel=0&readAuthAlgorithm&=1&readAuthPassword=123&readEncryptAlgorithm=0&readEncryptPassword=321&writeSecurityName=wsname&writeSecurityLevel=1&writeAuthAlgorithm=1&writeAuthPassword=321123&writeEncryptAlgorithm1=1&writeEncryptPassword=345&SNMPPort=162 |
| **Description** | Refer to [parameter meaning](#_SNMP参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=SNMP&SNMPv1Enable=1&SNMPv2cEnable=1&writeCommunity=writename&readCommunity=readname&trapAddress=128.128.1.1&trapPort=8848&trapCommunity=trapname&SNMPv3Enable=1&readSecurityName=rsname&readSecurityLevel=0&readAuthAlgorithm=1&readAuthPassword=123&readEncryptAlgorithm=0&readEncryptPassword=321&writeSecurityName=wsname&writeSecurityLevel=1&writeAuthAlgorithm=1&writeAuthPassword=321123&writeEncryptAlgorithm1=1&writeEncryptPassword=345&SNMPPort=162 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of SNMP parameters

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **SNMPv1Enable** | <int> | SNMPv1 switch  0: Off  1: On |
| **SNMPv2cEnable** | <int> | SNMPv2c  0: Off  1: On |
| **writeCommunity** | <string> | Write the community name |
| **readCommunity** | <string> | Read the community name |
| **trapAddress** | <string> | Trap Address |
| **trapPort** | <int> | Trap Port |
| **trapCommunity** | <string> | Trap group name |
| **SNMPv3Enable** | <int> | SNMPv3  0: Off  1: On |
| **readSecurityName** | <string> | Read Security Name |
| **readSecurityLevel** | <int> | Read Security Level  -1: None  0: noauth  1: auth  2: priv |
| **readAuthAlgorithm** | <int> | Read Authentication Method  -1: None  0: MD5  1: SHA |
| **readAuthPassword** | <string> | Read authentication password |
| **readEncryptAlgorithm** | <int> | Read encryption method  -1: None  0: DES  1: AES |
| **readEncryptPassword** | <string> | Read Encrypted Password |
| **writeSecurityName** | <string> | Write Security Name |
| **writeSecurityLevel** | <int> | Write security level  - 1: none  0: noauth  1: auth  2: priv |
| **writeAuthAlgorithm** | <int> | Write authentication method  - 1: None  0: MD5  1: SHA |
| **writeAuthPassword** | <string> | Write authentication password |
| **writeEncryptAlgorithm** | <int> | Write encryption method  -1: None  0: DES  1: AES |
| **writeEncryptPassword** | <string> | Write encrypted password |
| **SNMPPort** | <int> | SNMP Port |

#### QOS (QOS) (IPC excluding the lite series)

##### Get QOS parameters

|  |  |
| --- | --- |
| **URL** | http ://<servername>/cgi-bin/param.cgi?action=get&type= **QOS** |
| **Description** | Refer to [parameter meaning](#_系统参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=QOS​ |
| **Return** | AVDscp=24  alarmDscp=25  ctrlDscp=26  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Setting QOS parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= [**QOS** &AVDscp=51&alarmDscp=51&ctrlDscp=53](http://192.168.2.21/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=QOS&AVDscp=51&alarmDscp=51&ctrlDscp=53) |
| **Description** | Refer to [parameter meaning](#_QOS参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=QOS&AVDscp=51&alarmDscp=51&ctrlDscp=53 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### QOS parameter meaning

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **AVDscp** | <int> | Audio/Video Dscp(0-63) |
| **alarmDscp** | <int> | Alarm Dscp(0-63) |
| **ctrlDscp** | <int> | Control Dscp(0-63) |

#### Platform Access ( IPC )

##### Get platform access parameters

|  |  |
| --- | --- |
| **URL** | http ://<servername> **/cgi-bin/param.cgi?action=get&type=platformAccess** |
| **Description** | Refer to [parameter meaning](#_QOS参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type= [platformAccess](http://192.168.2.21/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=platformAccess) |
| **Return** | platformAccessEnable=1  domainName=domainName  port=233  accessUsername=accessUsername  accessPassword=accessPassword  encryptionEnable=0  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set platform access parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= [**platformAccess** &domainName=https://baidu.com&port=443&accessUsername=username&accessPassword=password&encryptionEnable=0](http://192.168.2.21/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=platformAccess&domainName=https://baidu.com&port=443&accessUsername=username&accessPassword=password&encryptionEnable=0) |
| **Description** | Refer to [parameter meaning](#_平台接入参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type= [platformAccess & platformAccessEnable =1 &domainName=https://baidu.com&port=443&accessUsername=username&accessPassword=password&encryptionEnable=0](http://192.168.2.21/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=platformAccess&domainName=https://baidu.com&port=443&accessUsername=username&accessPassword=password&encryptionEnable=0) |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of platform access parameters

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **platformAccessEnable** | <int> | Platform access switch  0: Off  1: On |
| **domainName** | <string> | domain name |
| **port** | <int> | port |
| **accessUsername** | <string> | username |
| **accessPassword** | <string> | password |
| **encryptionEnable** | <int> | Encryption switch  0: Off  1: On |

#### BonjourService(IPC Excluding the lite series)

##### Get BonjourService

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **bonjourService** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=bonjourService​ |
| **Description** | Refer to [URL Descriptions](#_参数说明) |
| **Return** | enable=0 |

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=set&type= **bonjourService&enable=1** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=set&type= bonjourService&enable=1 |
| **Description** | Refer to [URL Descriptions](#_参数说明) |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Setting up BonjourService

##### Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **enable** | Bonjour service switch  0: Off  1: On |  | int |

#### P2P

##### Get P2P status

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **p2pStatus** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= p2pStatus |
| **Description** | Refer to [URL Descriptions](#_P2P状态参数说明) |
| **Return** | status = 0 |

##### P2P Status Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **status** | P2P Status  0: Offline  1: Online |  | int |

##### Get P2P parameters

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **p2pParam** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= p2pParam |
| **Description** | Refer to [URL Descriptions](#_P2P参数说明) |
| **Return** | enable=1  UUID=testuuid |

##### Setting P2P parameters

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=set&type= **p2pParam&enable=1 &UUID=testuuid** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=set&type= **p2pParam** &enable=1 &UUID=testuuid |
| **Description** | Refer to [URL Descriptions](#_P2P参数说明) |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### P2P Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **enable** | P2P service switch  0: Off  1: On |  | int |
| **UUID** | UUID |  | string |

#### QRCode(IPC excluding the lite series)

##### Get QR Code

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **QRCode** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= QRCode |
| **Description** | Refer to [URL Descriptions](#_QRCode参数说明) |
| **Return** | QRCode=iVBORw0KGgoAAAANSUhEUgAAABQAAAAUCAYAAACNiR0NA = |

##### QRCode Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | Parameter Description | **scope** | **type of data** |
| **QRC ode** | QR code image (base64) |  | string |

#### HTTPS (lite series /NVR)

##### Get HTTPS parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type=HTTPS |
| **Description** | For parameters, Refer to HTTPS parameter meanings. |
| **Example** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type=HTTPS |
| **Return** | httpsEnable=0 |

##### Setting up HTTPS

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ param .cgi?action=settype=HTTPS&httpsEnable=0 |
| **Description** | For parameters, Refer to HTTPS parameter meanings. |
| **Example** | http://192.168.2.193/cgi-bin/network.cgi?action=set&type=HTTPS&httpsEnable=0 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### HTTPS parameter meaning

**HTTPS parameter table**

Table 2-6-5-9-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **httpsEnable** | <int>{0,1} | https switch  0: Off  1: On  Entering other parameters Returns -5002 (parameter value exceeds the range) |

#### POE (NVR)

##### Get POE service parameters (getPOEParam)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type=POE**​** |
| **Description** | Refer to [POE service parameter table](#_SMTP服务参数含义) |
| **Example** | http://192.168.2.193/cgi-bin/ param .cgi?action=get&type=POE |
| **Return** | ip=169.254.10.121  netmask=255.255.0.0  geteway=169.254.10.1  autoPoe=1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set POE service parameters (setPOEParam)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/network.cgi?action=set&type=POE **[** &<argument>=<value>...] |
| **Description** | For parameters, Refer to [the POE service parameter table.](#_SMTP服务参数含义) |
| **Example** | http://192.168.2.193/cgi-bin/network.cgi?action=set&type=POE&ip=169.254.10.122&netmask=255.254.0.0&geteway=169.254.11.1&autoPoe=0 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### POE service parameter meaning

**POE Service Parameter Table**

Table 2-6-5-1-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **ip** | <string> | ip address |
| **netmask** | <string> | Mask |
| **geteway** | <string> | Gateway |
| **autoPoe** | <int>{0,1} | Automatic PoE switch |

#### natPort (NVR)

##### Get natPort service parameters (getNatPortParam)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/ param.cgi?action=get&type= **natPort** |
| **Description** | Refer to [natPort service parameter table](#_SMTP服务参数含义) |
| **Example** | http://192.168.2.193/cgi-bin/ param .cgi?action=get&type=natPort |
| **Return** | natStartPort=40001  natEndPort=40080  natPortNum=80  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set natPort service parameters (setNatPortParam)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/network.cgi?action=set&type=natPort [&<argument>=<value>...] |
| **Description** | For parameters, Refer to [the natPort service parameter table.](#_SMTP服务参数含义) |
| **Example** | http://192.168.2.193/cgi-bin/network.cgi?action=set&type=natPort&natStartPort=40002 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### natPort service parameter meaning

**natPort Service Parameters Table**

Table 2-6-5-1-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **natStartPort** | <int> | NAT start port |
| **natEndPort** | <int> | NAT end port (cannot be modified, controlled by the start port + port number) |
| **natPortNum** | <int> | NAT port number (cannot be modified) |

### protocol

#### Protocol Information (protocolInfo)

**E**xplain **:lite series** Configure together in CMS

##### Get protocol information parameters (getProtocolInfo) (IPC excluding the lite series/NVR)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **protocolInfo** |
| **Description** | Refer to [the protocol information parameter table](#_协议信息参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=protocolInfo |
| **Return** | protocolName=ONVIF  protocolVersion=v17.06  protocolSoftwareVersion=v17.06\_build000029  rtspRule = rtsp://ip:port/snl/live/cameraid/streamed  rtspExample=rtsp://192.168.2.21:554/snl/live/1/1  onvifUuid=4e043800-d3d9-122f-b19a-001c27561164  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Protocol information parameter meaning

**Protocol Information Parameter Table**

Table 2-6-7-1-2-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **type of data** | **Description** |
| **protocolName** | <string> | Protocol Name |
| **protocolVersion** | <string> | Protocol Version |
| **protocolSoftwareVersion** | <string> | Protocol software version |
| **rtspRule** | <string> | RTSP Rules |
| **rtspExample** | <string> | RTSP Example |
| **onvifUuid** | <string> | Onvif Uuid |

#### Protocol Security (IPC excluding the lite series)

##### Get protocol security parameters (getProtocolSecurity)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **protocolSecurity** |
| **Description** | Refer to [the protocol security parameter table](#_协议安全参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=protocolSecurity |
| **Return** | protocolSecurityFlag=1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set protocol security parameters (setProtocolSecurity)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **protocolSecurity** [&protocolSecurityFlag=<protocolSecurityFlag>] |
| **Description** | \*Note: Temporarily only applicable to Onvif protocol  For parameters, Refer to [the protocol security parameter table.](#_协议安全参数含义) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=protocolSecurity&protocolSecurityFlag=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of protocol security parameters

**Protocol Security Parameters Table**

Table 2-6-7-2-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **protocolSecurityFlag** | <unsigned char>{0, 1} | User Agreement Security Parameters  0: Disable  1: Enable  As an optional parameter in Set, carrying it means setting, and not carrying it means not making changes |

#### CMS Configuration ( [cmsConfigure](http://192.168.2.21/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=cmsConfigure) ) (IPC)

##### Get CMS configuration parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= [**cmsConfigure**](http://192.168.2.21/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=cmsConfigure) |
| **Description** | Refer to [parameter meaning](#_CMS配置参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type= [cmsConfigure](http://192.168.2.21/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=cmsConfigure) |
| **Return** | SupportPro =Onvif,cgi(the lite series)  runingPro=Onvif,cgi (the lite series)  protocolName=Onvif (the lite series)  protocolVersion=22.06(the lite series)  protocolUuid=dbb2a840-0d59-11e9-a04c-001ea400433d(the lite series)  OnvifEnable=0  ProfileGEnable=0  Media2Enable=0  MetadataStreamEnable=1  IntelligentAnalysisSwitchEnable=0  OnvifOnlyHttpsEnable=0 (IPC is excluding the lite series)  StreamOnlyHttpsEnable=0 (IPC excluding the lite series)  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Setting CMS configuration parameters

|  |  |  |
| --- | --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **cmsConfigure** &onvifEnable=1&profileGEnable=0&username=username&media2Enable=1&intelligentAnalysisEnable=0&onvifOnlyHttpsEnable=1&streamOnlyHttpsEnable=0 | |
| **Description** | Refer to [parameter meaning](#_CMS配置参数含义) | |
| **Example** | (IPC)  http://192.168.2.21/cgi-bin/param.cgi?action=set&type=cmsConfigure&OnvifEnable=1&ProfileGEnable=1&Media2Enable=1&IntelligentAnalysisSwitchEnable=1&OnvifOnlyHttpsEnable=1&StreamOnlyHttpsEnable=1 | (NVR)  http://192.168.2.193/cgi-bin/network.cgi?action=set&type= cmsConfigure &protocolName=Onvif&protocolEnable=1&extendListCount=5&extendListBegin=1&Onvif=true&next\_extendListURL=2&Profile\_G=true&next\_extendListURL=3&Media2=true&next\_extendListURL=4&Intelligent\_Analysis=true&next\_extendListURL=5&User\_Verification=false&extendListEnd=5 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) | |

##### CMS configuration parameter meaning

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **onvifEnable** | <int> | Onvif switch  0: Off  1: On |
| **profileGEnable** | <int> | Profile G switch  0: Off  1: On |
| **media2Enable** | <int> | Media2 switch  0: Off  1: On |
| **intelligentAnalysisEnable** | <int> | Intelligent Analysis Switch  0: Off  1: On |
| **onvifOnlyHttpsEnable** | <int> | Onvif Only Https switch  0: Off  1: On |
| **streamOnlyHttpsEnable** | <int> | Stream Only Https switch  0: Off  1: On |
| **MetadataStreamEnable** | <int> | MetadataStreamEnable switch:  0: Off  1: On |

#### Multicast parameters ( [multicastParameters](http://192.168.2.21/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=multicastParameters) ) ( IPC Excluding the lite series ) (Other equipment is not yet developed)

##### Get multicast parameters

|  |  |
| --- | --- |
| **URL** | **http** ://<servername>/cgi-bin/param.cgi?action=get&type=multicastParameters |
| **Description** | Refer to [parameter meaning](#_多播参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=multicastParameters​ |
| **Return** | channelCount=1  channelBegin=1  channelId=1  streamCount=2  streamBegin=1  streamId=1  videoAddress=238.255.255.254  videoPort=25331  audioAddress=238.255.255.254  audioPort=25431  sourceAddress=238.255.255.254  sourcePort=25531  next\_StreamURL=2  streamId=2  videoAddress=238.255.255.253  videoPort=25342  audioAddress=238.255.255.253  audioPort=25442  sourceAddress=238.255.255.253  sourcePort=25542  streamEnd=2  channelEnd=1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Setting multicast parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=multicastParameters& channelCount=1&channelBegin=1&channelId=1&streamCount=2&streamBegin=1&streamId=1&videoAddress=238.255.255.254&videoPort=25331&audioAddress=238.255.255.254&audioPort=25431&sourceAddress=238.255.255.254&sourcePort=25531&next\_StreamURL=2&streamId=2&videoAddress=238.255.255.253&videoPort=25342&audioAddress=238.255.255.253&audioPort=25442&sourceAddress=238.255.255.253&sourcePort=25542&streamEnd=2&channelEnd=1 |
| **Description** | Refer to [parameter meaning](#_多播参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=multicastParameters & channelCount=1&channelBegin=1&channelId=1&streamCount=2&streamBegin=1&streamId=1&videoAddress=238.255.255.254&videoPort=25331&audioAddress=238.255.255.254&audioPort=25431&sourceAddress=238.255.255.254&sourcePort=25531&next\_StreamURL=2&streamId=2&videoAddress=238.255.255.253&videoPort=25342&audioAddress=238.255.255.253&audioPort=25442&sourceAddress=238.255.255.253&sourcePort=25542&streamEnd=2&channelEnd=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of multicast parameters

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **channelCount** | <int> | Number of channels |
| **channelBegin** | <int> | Channel start mark |
| **channelId** | <int> | Channel ID |
| **streamCount** | <int> | Number of streams |
| **streamBegin** | <int> | Stream start indicator |
| **streamId** | <int> | Stream ID |
| **videoAddress** | <string> | Video URL |
| **videoPort** | <int> | Video Port |
| **audioAddress** | <string> | Audio Address |
| **audioPort** | <int> | Audio Ports |
| **sourceAddress** | <string> | source address |
| **sourcePort** | <int> | Source Port |
| **next\_StreamURL** | <int> | Next stream start marker |
| **streamEnd** | <int> | End of stream marker |
| **next\_ChannelURL** | <int> | Next channel indicator |
| **channelEnd** | <int> | Channel end mark |

#### Protocol Management (NVR )

##### Get protocol management parameters (get protocol Management

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type= **protocolManagement** [&cameraID=<cameraID>] |
| **Description** | Refer to Protocol Management Parameters |
| **Example** | http://192.168.2.162/cgi-bin/param.cgi?action=get&type=protocolManagement&protocolID=1 |
| **Return** | protocolID=1  protocolName=Custom 1  protocolMainStreamEnable=1  protocolMainPort=554  protocolMainPath=  protocolSubStreamEnable=0  protocolSubPort=554  protocolSubPath= (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set protocol management parameters (set protocol Management)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=set&type= protocol Management & protocolID =< protocolID >.. |
| **Description** | Refer to Protocol Management Parameters |
| **Example** | http://192.168.2.162/cgi-bin/param.cgi?action=set&type=protocolManagement&protocolID= 1 &protocolName=Custom 1&protocolMainStreamEnable=1&protocolMainPort=554&protocolMainPath=&protocolSubStreamEnable=1&protocolSubPort=554&protocolSubPath= |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of protocol management parameters

Protocol Management **Parameter Table**

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **protocolID** | <int> | Protocol channel number |
| **protocolName** | <string> | Protocol Name |
| **protocolMainStreamEnable** | <int> | Protocol stream main stream switch |
| **protocolMainPort** | <int>[0, 100] | Protocol main stream port |
| **protocolMainPath** | <string> | Protocol main stream path |
| **protocolSubStreamEnable** | <int> | Protocol stream sub-stream switch |
| **protocolSubPort** | <int>[0, 100] | Protocol substream port |
| **protocolSubPath** | <string> | Protocol substream path |

### LPR Configuration (LPR)

#### Black and white list

##### Get the number of black and white names (getPlateSize)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **PlateSize** |
| **Description** | For parameters, Refer to [the license plate information parameter table.](#_车牌信息参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=PlateSize |
| **Return** | PlateSize=2  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Get the blacklist and whitelist (getLprPlateNum)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **LprPlateNum** &BeginIndex=<BeginIndex>&EndIndex =< EndIndex > |
| **Description** | For parameters, Refer to [the license plate information parameter table.](#_车牌信息参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=LprPlateNum&BeginIndex=0&EndIndex=10 |
| **Return** | PlateParamBegin=1  PlateText=5MVL305  LprPlateType=1  StartTime=1540373771  EndTime=1540460171  NextUrl=2  PlateText=DD652  LprPlateType=0  StartTime=1540373771  EndTime=1540460171  PlateParamEnd=2  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Add blacklist and whitelist (addLprPlateNum)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=add&type= **LprPlateNum** [&<argument>=<value>...] |
| **Description** | For parameters, Refer to [the license plate information parameter table.](#_车牌信息参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=add&type=LprPlateNum&PlateParamBegin=1&PlateText=5MVL303&LprPlateType=1&StartTime=1540373771&EndTime=1540460171&NextUrl=2&PlateText=DD651&LprPlateType=0&StartTime=1540373771&EndTime=1540460171&PlateParamEnd=2 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Delete blacklist and whitelist (deleteLprPlateNum)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action= delete&type= **LprPlateNum** [&<argument>=<value>...] |
| **Description** | For parameters, Refer to [the license plate information parameter table.](#_车牌信息参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=delete&type=LprPlateNum&PlateParamBegin=1&PlateText=5MVL303&LprPlateType=1&StartTime=1540373771&EndTime=1540460171&NextUrl=2&PlateText=DD651&LprPlateType=0&StartTime=1540373771&EndTime=1540460171&PlateParamEnd=2 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Modify the blacklist and whitelist (modify LprPlateNum)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action= modify&type= **LprPlateNum** [&<argument>=<value>...] |
| **Description** | For parameters, Refer to [the license plate information parameter table.](#_车牌信息参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=modify&type=LprPlateNum&OldListBegin=1&PlateParamBegin=1&PlateText=5MVL303&LprPlateType=1&StartTime=1540373771&EndTime=1540460171&NextUrl=2&PlateText=DD651&LprPlateType=0&StartTime=1540373771&EndTime=1540 460171&PlateParamEnd=2&OldListEnd=1&NewListBegin=1&PlateParamBegin=1&PlateText=DD652&LprPlateType=0&StartTime=1540373771&EndTime=1540460171&NextUrl=2&PlateText=5MVL305&LprPlateType=1&StartTime=1540373771&EndTime=1540460171&PlateParamEnd=2&NewListEnd=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### License plate information parameter table

Table 2-6-8-1-6-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **PlateText** | <string> | License plate number |
| **Type** | <int>{0, 1} | License Plate Type  0: Blacklist,  1: White single name |
| **ListTimeMode** | <int>{0, 1} | Valid time  0: Always valid  1: Custom time |
| **StartTime** | <long> | Validity start time(If ListTimeMode is set to 0, it can be omitted) |
| **EndTime** | <long> | Validity deadline(If ListTimeMode is set to 0, it can be omitted) |
| **PlateSize** | <int> | Number of blacklists and whitelists |
| **BeginIndex** | <int> | Get the starting number of the license plate information |
| **EndIndex** | <int> | Get the license plate ending number |
| **Length** | <int64> | File Length  Unit Byte |

#### License plate configuration linkage information

##### Get license plate configuration linkage information (LprLinkParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **LprLinkParam** |
| **Description** | For parameters, Refer to [the license plate information parameter table.](#_车牌信息联参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=LprLinkParam |
| **Return** | BlackListUpload=0  BlackListOpen=0  BlackListSMTP=0  WhiteListUpload=0  WhiteListOpen=1  WhiteListSMTP=0  NoListUpload=0  NoListOpen=0  NoListSMTP=0  SnapshotUpload=0  OpenLevel=1  OpenBarrierDuration=20  OSD=0  OSDDuration=60  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set license plate configuration linkage information (LprLinkParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **LprLinkParam** [&<argument>=<value>...] |
| **Description** | For parameters, Refer to [the license plate information parameter table.](#_车牌信息联参数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=LprLinkParam&BlackListUpload=1&BlackListOpen=1&BlackListSMTP=1&WhiteListUpload=1&WhiteListOpen=0&WhiteListSMTP=1&NoListUpload=1&NoListOpen=1&NoListSMTP=1&SnapshotUpload=1&OpenLevel=0&OpenBarrierDuration=20&OSD=0&OSDDuration=80 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### License plate information link parameter table

Table 2-6-8-2-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **BlackListUpload** | <int>{0, 1} | Blacklist license plate screenshot FTP upload  0: Do not upload  1: Upload |
| **BlackListOpen** | <int>{0, 1} | Blacklist license plate opening  0: Do not open the gate  1: Open the gate |
| **BlackListSMTP** | <int>{0, 1} | Blacklist license plate email linkage  0: Do not upload  1: Upload |
| **WhiteListUpload** | <int>{0, 1} | Whitelist license plate screenshot FTP upload  0: Do not upload  1: Upload |
| **WhiteListOpen** | <int>{0, 1} | Whitelist license plate opening  0: Do not open the gate  1: Open the gate |
| **WhiteListSMTP** | <int>{0, 1} | Whitelist license plate email linkage  0: Do not upload  1: Upload |
| **NoListUpload** | <int>{0, 1} | Upload the screenshot of the license plate not on the list to FTP  0: Do not upload  1: Upload |
| **NoListOpen** | <int>{0, 1} | The gate is open for license plates not on the list  0: Do not open the gate  1: Open the gate |
| **NoListSMTP** | <int>{0, 1} | Email linkage for license plates not on the list  0: Do not upload  1: Upload |
| **SnapshotUpload** | <int>{0, 1} | Upload screenshots to FTP  0: Do not upload  1: Upload |
| **OpenLevel** | <int>{0, 1} | Opening level  0: Low  1: High |
| **OpenBarrierDuration** | <int> | Gate opening duration |
| **OSD** | <int>{0, 1} | License plate recognition information OSD display  0: Do not display  1: Display |
| **OSDDuration** | <int> | OSD display duration  (Zero is always displayed) |

#### License plate configuration information

##### Set license plate configuration information (LprConfigParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **LprConfigParam** [&<argument>=<value>...] |
| **Description** | For parameters, Refer to [the license plate configuration parameter table.](#_车牌配置参数数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=LprConfigParam&MinWidth=150&Credibility=0.850000&Angle=100&RoiTopX=50&RoiTopY=50&RoiWith=100&RoiHeight=100 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Get license plate configuration information (LprConfigParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **LprConfigParam** |
| **Description** | Refer to [the license plate configuration parameter table](#_车牌配置参数数表) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=LprConfigParam |
| **Return** | MinWidth=130  Credibility=0.650000  Angle=100  RoiTopX=0  RoiTopY=0  RoiWith=100  RoiHeight=100  (For other responses, Refer to [General Response](#_通用应答) ) |

##### License plate configuration parameter table

Table 2-6-8-3-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **MinWidth** | <int> | Minimum license plate width |
| **Credibility** | <float> | Credibility  Default is 0.5, reserved for future use |
| **Angle** | <int> | The angle of the car  Based on the video screen, with the horizontal right direction as the X-axis and the vertical downward direction as the Y-axis, the angle of intersection between the vehicle's route and the X-axis |
| **RoiTopX** | <int> | License plate recognition ROI area X value |
| **RoiTopY** | <int> | License plate recognition ROI area Y value |
| **RoiWith** | <int> | License plate recognition ROI area Width |
| **RoiHeight** | <int> | License plate recognition ROI area height |

#### License plate records (PlateInfo)

##### Current license plate retrieval (getPlateInfo)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **PlateInfo** |
| **Description** | Refer to [the license plate retrieval information parameter description](#_车牌检索信息参数说明) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=PlateInfo |
| **Return** | UID=1  Time=2018-10-24 11:36:13  PlateNUM=DD651  Country=ISL  Action=7  ListType=0  Direction=0  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Deleting license plate information (deletePlateInfo)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=delete&type= **PlateInfo** &Type=<Type>[&<argument>=<value>...] |
| **Description** | When Type=0, the loop body only needs to carry the UID loop part;  When Type=1, the loop body only needs to carry the PlateNum loop part.  Refer to [the license plate retrieval information parameter description](#_车牌检索信息参数说明) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=delete&type=PlateInfo&Type=1&PlateNumBegin=1&PlateNum=MVL303&PlateNumEnd=1  or  http://192.168.32.151/cgi-bin/param.cgi?action=delete&type=PlateInfo&Type=0&UIDBegin=1&UID=1&UIDEnd=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Searching for license plate records (queryPlateInfo)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action= **query** &type= **PlateInfo** &startTime=<startTime>&endTime=<endTime> &Country=<Country>&PlateText=<PlateText>&Direction=<Direction >& ListType=<ListType> |
| **Description** | Refer to [the license plate retrieval information parameter description](#_车牌记录信息参数说明) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=query&type=PlateInfo&startTime=20181024010100&endTime=20181025010100&Country=ALL&PlateText=DD651&Direction=4&ListType=3 |
| **Return** | PlateBegin  UID=4  Time=2018-10-24 06:25:53  PlateNUM=DD651  Country=ISL  Action=7  ListType=0  Direction=0  NextPlate  UID=2  Time=2018-10-24 05:55:47  PlateNUM=DD651  Country=ISL  Action=7  ListType=0  Direction=0  PlateEnd  (For other responses, Refer to [General Response](#_通用应答) ) |

##### License plate retrieval information parameter description

Table 2-6-8-4-4-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **userName** | <string> | Login Username |
| **password** | <string> | login password |
| **Action** | <string> | action  get Current license plate retrieval  delete Delete license plate record |
| **type** | <string> | type  License plate information |
| **UID** | <int> | Serial number |
| **Time** | <string> | License plate warning time  Time format yyyy--mm--dd hh:mm:ss |
| **PlateNUM** | <string> | License Plate |
| **Country** | <string> | License plate country  Value cannot be empty |
| **Action** | <int>[1, 3] | action  1: Open the gate;  2: FTP upload;  3: Open the gate, upload via FTP |
| **ListType** | <int>[0, 2] | List Type  0: blacklist;  1: Whitelist;  2: Non-list |
| **Direction** | <int>[0, 3] | Driving direction  0:Unknown;  1:Undefined;2:In(same direction);  3: Out (toward) |
| **ImageLen** | <int> | Retrieve the current image data length |
| **ImageData** | <string> | Retrieve the current image data |
| **Type** | <int>[0, 1] | License plate number type  0: sequence number;  1: License Plate |
| **UID** | <int> | Serial number |
| **UIDBegin** | <int> | UID list start mark  Value cannot be empty |
| **UIDNextUrl** | <int> | UID data separator  Value cannot be empty |
| **UID** | <int> | Number of license plate information lists  The value is the number of UID list data |
| **PlateNum** | <string> | License Plate  The license plate number to be deleted |
| **PlateNumBegin** | <int> | Start of license plate list  Value cannot be empty |
| **PlateNumEnd** | <int> | End of license plate list  The value is the number of PlateNum list data |
| **PlateNumNextUrl** | <int> | License plate list data separator  Value cannot be empty |

##### License plate record information parameter description

Table 2-6-8-4-5-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **action** | <string> | Operation Type  query search |
| **startTime** | <int> | Search start time  Format (YYYYMMDDHHMMSS)  Note: The minimum value cannot be less than 1971010101000000 |
| **endTime** | <string> | Search end time  Format (YYYYMMDDHHMMSS)  Note: The minimum value cannot be less than 1971010101000000 |
| **Country** | <string> | Search by country type  ALLAll countries |
| **PlateText** | <string> | Search by license plate number  number plate |
| **Direction** | <int>[0, 4] | Search by driving direction  0Unknown  1Undefined  2Same direction  3 Reverse  4 All |
| **ListType** | <int>[0, 3] | Search by blacklist or whitelist  0Blacklist  1 Whitelist  2 Not in the list  3 All |
| **NextPlate** | <string> | Delimited URL |
| **PlateBegin** | <string> | Return value start URL |
| **PlateEnd** | <string> | Return value end URL |

#### List Event

##### Get List Event paramters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type=**LprListEvent** |
| **Example** | Refer to List Event paramters table |
| **Description** | http://192.168.2.37/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=LprListEvent |
| **Return** | ListType=1  EnableFlag=1  alarmOut=1  alarmRecord=1  alarmSMTP=1  alarmFTP=1  alarmSound=1  alarmSoundType=3  ListType=2  EnableFlag=0  alarmOut=0  alarmRecord=0  alarmSMTP=0  alarmFTP=0  alarmSound=0  ListType=3  EnableFlag=1  alarmOut=1  alarmRecord=1  alarmSMTP=1  alarmFTP=1  alarmSound=1  alarmSoundType=3  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set List Event paramters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=**LprListEvent**[&<argument>=<value>...] |
| **Example** | Refer to List Event paramters table |
| **Description** | http://192.168.2.37/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=LprListEvent&ListType=1&EnableFlag=1&alarmOut=1&alarmOut2=0&alarmSound=1&alarmSoundType=3&alarmRecord=1&alarmSMTP=1&alarmFTP=1&weekDayCount=7&weekDayBegin=1&weekDay=0&startTime=0&endTime=86400&next\_weekDayURL=2&weekDay=1&startTime=0&endTime=86400&next\_weekDayURL=3&weekDay=2&startTime=0&endTime=86400&next\_weekDayURL=4&weekDay=3&startTime=0&endTime=86400&next\_weekDayURL=5&weekDay=4&startTime=0&endTime=86400&next\_weekDayURL=6&weekDay=5&startTime=0&endTime=86400&next\_weekDayURL=7&weekDay=6&startTime=0&endTime=86400&weekDayEnd=7 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of List Event param

|  |  |  |
| --- | --- | --- |
| **参数** | **数据** | **说明** |
| **ListType** | <int>{1，3} | List Mode  1：White List  2：Black List  3：Visit List |
| **EnableFlag** | <int>{0，1} | Swtich  0：Off  1：On |
| **alarmOut** | <int>{0，1} | Alarm Output  0：Off  1：On |
| **alarmOut2** | <int>{0，1} | Alarm Output 2  0：Off  1：On |
| **alarmSound** | <int>{0，1} | Sound detection alarm  0：Off  1：On |
| **alarmSoundType** | <int> | Audio alarm file |
| **alarmRecord** | <int>{0，1} | Alarm video  0: Off  1: On |
| **alarmSMTP** | <int>{0，1} | Alarm Email  0: Off  1: On |
| **alarmFTP** | <int>{0，1} | FTP Upload  0: Off  1: On |

### Advanced intelligent analysis

#### Smoke detection ( smokeParam ) ( IPC/NVR )

##### Acquisition of capabilities

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type=smoke **Param Ability &cameraID=1** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=smoke Param Ability **&cameraID=** 1 |
| **Description** | Refer to [URL Descriptions](#_能力参数说明_8) |
| **Return** | region=1  maxEdgeNum=8  maxRegionNum=8  dra w =1  alarmOutCount=1  alarmLinkageCount=4  alarmLinkageBegin=1  actionType=2  next\_AlarmLinkageURL=2  actionType=4  next\_AlarmLinkageURL=3  actionType=7  next\_AlarmLinkageURL=4  actionType=10  alarmLinkageEnd=1 |

##### Capability Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **region** | Area drawing  0: Not supported  1: Support | 0-1 | int |
| maxEdgeNum | Number of lines |  | int |
| maxRegionNum | Number of regions |  | int |
| **draw** | Video Stream Line Drawing  0: Not supported  1: Support |  | int |
| **alarmOutCount** | Number of alarm outputs |  | int |
| **alarmLinkageCount** | Number of linkage alarms |  | int |
| **alarmLinkageBegin** | Linkage alarm start mark |  | int |
| **actionType** | alarm type  1: Alarm output  2: Alarm email  3: Alarm PTZ  4: Alarm video  7: FTP upload  10: Audio alarm  11: LED alarm  14: White light alarm |  | int |
| **next\_AlarmLinkageURL** | Next linkage alarm start mark |  | int |
| **alarmLinkageEnd** | Linkage alarm end mark |  | int |

##### Get smoking detection parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type=smoke **Param** &cameraID= **1** |
| **Description** | Refer to [URL Descriptions](#_吸烟检测参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=smoke Param &cameraID=1 |
| **Return** | enableFlag=1  draw=1  sensitivity=3  alarmOut=1  alarmRecord=1  alarmSMTP=1  alarmFTP=1  alarmSound=1  alarmSoundType=7  regionCount=1  regionBegin=1  pointCount=3  pointBegin=1  pointX=36.124401  pointY=43.162392  next\_pointURL=2  pointX=37.559807  pointY=68.376068  next\_pointURL=3  pointX=51.196171  pointY=43.589745  pointEnd=3  regionEnd=1  weekDayCount=1  weekDayBegin=1  weekDay=0  startTime=0  endTime=1800  weekDayEnd=1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Setting up smoking detection parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=smoke **Param &** cameraID=1 & enableFlag=1&draw=1&sensitivity=5&alarmOut=1&alarmRecord=1&alarmSMTP=1&alarmFTP=1&alarmSound=1&alarmSoundType=0&regionCount=1&regionBegin=1&pointCount=3&pointBegin=1&pointX=36.124401&pointY=43.162392&next\_pointURL=2&pointX=37.559807&pointY=68.376068&next\_pointURL=3&pointX=51.196171&pointY=43.589745&pointEnd=3&regionEnd=1&weekDayCount=1&weekDayBegin=1&weekDay=0&startTime=0&endTime=1800&weekDayEnd=1 |
| **Description** | Refer to [URL Descriptions](#_吸烟检测参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=smoke Param &cameraID=1 &enableFlag=1&draw=1&sensitivity=5&alarmOut=1&alarmRecord=1&alarmSMTP=1&alarmFTP=1&alarmSound=1&alarmSoundType=0&regionCount=1&regionBegin=1&pointCount=3&pointBegin=1&pointX=36.124401&pointY=43.162392&next\_pointURL=2&pointX=37.559807&pointY=68.376068&next\_pointURL=3&pointX=51.196171&pointY=43.589745&pointEnd=3&regionEnd=1&weekDayCount=1&weekDayBegin=1&weekDay=0&startTime=0&endTime=1800&weekDayEnd=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of smoking detection parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **enableFlag** | switch  0: Off  1: On | 0-1 | int |
| **sensitivity** | Sensitivity |  | int |
| **AlarmLinkageParam** | Alarm linkage operation behavior  Clean:Clear all | clean | string |
| **alarmOut** | Alarm Output  0: Off  1: On |  | int |
| **alarmOut2** | Alarm 2 output  0: Off  1: On | 0-1 | int |
| **alarmRecord** | Alarm video  0: Off  1: On |  | int |
| **alarmRecordLinkChannel** | Alarm video linkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSMTP** | Alarm Email  0: Off  1: On |  | int |
| **alarmSMTPLinkChannel** | Alarm Email inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 |  | int |
| **alarmFTP** | FTP Upload  0: Off  1: On |  | int |
| **alarmFTPLinkChannel** | FTP Upload  inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 |  | int |
| **alarmSound** | Sound detection alarm  0: Off  1: On |  | int |
| **alarmSoundType** | Audio alarm file (0-13) |  | int |
| **alarmLED** | LED Alarm  0: Off  1: On | 0-1 | int |
| **alarmWhiteLED** | White light alarm  0: Off  1: On | 0-1 | int |
| **regionCount** | Number of regions |  | int |
| **regionBegin** | Area coordinates start mark |  | int |
| **pointCount** | Number of points |  | int |
| **pointBegin** | Point coordinates start mark |  | int |
| **pointX** | Horizontal coordinate value |  | int |
| **pointY** | Vertical coordinate value |  | int |
| **next\_pointURL** | The next point coordinate starts marking |  | int |
| **pointEnd** | Point coordinate end mark |  | int |
| **next\_regionURL** | Next area parameter start mark |  | int |
| **regionEnd** | Area coordinate end mark |  | int |
| **weekDayCount** | Number of defenses |  | int |
| **weekDayBegin** | Arming start indicator |  | int |
| **weekDay** | Day of the week (0-6) |  | int |
| **startTime** | Arming start time (in seconds) |  | int |
| **endTime** | Arming end time (in seconds) |  | int |
| **next\_weekDayURL** | Next scheduled time URL start mark |  | int |
| **weekDayEnd** | End flag of the loop of defense days |  | int |
| **draw** | Video Stream Line Drawing  0: Off  1: On | 0-1 | int |

#### Fire point detection (smallFireDetection)

##### Acquisition of capabilities

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= smallFireParamAbility  **&cameraID=1** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= smallFireParamAbility  **&cameraID=1** |
| **Description** | Refer to [URL Descriptions](#_能力参数说明_7) |
| **Return** | minSensitivity=1  maxSensitivity=100  alarmOutCount=1  alarmLinkageCount=4  alarmLinkageBegin=1  actionType=2  next\_AlarmLinkageURL=2  actionType=4  next\_AlarmLinkageURL=3  actionType=7  next\_AlarmLinkageURL=4  actionType=10  alarmLinkageEnd=1 |

##### Capability Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **minSensitivity** | Minimum sensitivity |  | int |
| **maxSensitivity** | Maximum sensitivity |  | int |
| **alarmOutCount** | Number of alarm outputs |  | int |
| **alarmLinkageCount** | Number of linkage alarms |  | int |
| **alarmLinkageBegin** | Linkage alarm start mark |  | int |
| **actionType** | alarm type  1: Alarm output  2: Alarm email  3: Alarm PTZ  4: Alarm video  7: FTP upload  10: Audio alarm  11: LED alarm  14: White light alarm |  | int |
| **next\_AlarmLinkageURL** | Next linkage alarm start mark |  | int |
| **alarmLinkageEnd** | Linkage alarm end mark |  | int |

##### Get the fire spot detection parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= smallFireParam  &cameraID=1 |
| **Description** | Refer to [URL Descriptions](#_火点检测参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type= smallFireParam &cameraID=1 |
| **Return** | enableFlag=0  sensitivity=90  alarmOut=0  alarmRecord=0  alarmSMTP=0  alarmFTP=0  regionCount=1  regionBegin=1  motionDetectionAreaCount=1  motionDetectionAreaBegin=1  topX=84  topY=125  width=174  height=75  motionDetectionAreaEnd=1  regionEnd=1  weekDayCount=0  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Setting fire detection parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=**smallFireParam**&cameraID=2&enableFlag=1&sensitivity=3&alarmOut=0&alarmOut2=1&alarmRecord=1&alarmSMTP=0&alarmLED=1&alarmFTP=1&alarmSound=1&alarmSoundType=1&regionCount=1&regionBegin=1&motionDetectionAction=cover&motionDetectionAreaCount=3&motionDetectionAreaBegin=1&topX=270&topY=55&width=36&height=50&next\_motionDetectionAreaURL=2&topX=24&topY=60&width=60&height=60&next\_motionDetectionAreaURL=3&topX=126&topY=75&width=60&height=75&motionDetectionAreaEnd=3&regionEnd=1&weekDayCount=13&weekDayBegin=1&weekDay=0&startTime=21600&endTime=43200&next\_weekDayURL=2&weekDay=0&startTime=52200&endTime=70200&next\_weekDayURL=3&weekDay=1&startTime=52200&endTime=54000&next\_weekDayURL=4&weekDay=2&startTime=41400&endTime=43200&next\_weekDayURL=5&weekDay=2&startTime=52200&endTime=54000&next\_weekDayURL=6&weekDay=3&startTime=34200&endTime=36000&next\_weekDayURL=7&weekDay=3&startTime=52200&endTime=70200&next\_weekDayURL=8&weekDay=4&startTime=52200&endTime=54000&next\_weekDayURL=9&weekDay=5&startTime=28800&endTime=30600&next\_weekDayURL=10&weekDay=5&startTime=52200&endTime=54000&next\_weekDayURL=11&weekDay=6&startTime=21600&endTime=23400&next\_weekDayURL=12&weekDay=6&startTime=25200&endTime=27000&next\_weekDayURL=13&weekDay=6&startTime=52200&endTime=70200&weekDayEnd=13 |
| **Description** | Refer to [URL Descriptions](#_火点检测参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=smallFireParam&cameraID=1&enableFlag=1&sensitivity=3&alarmOut=0&alarmOut2=1&alarmRecord=1&alarmSMTP=0&alarmLED=1&alarmFTP=1&alarmSound=1&alarmSoundType=1&regionCount=1&regionBegin=1&motionDetectionAction=cover&motionDetectionAreaCount=3&motionDetectionAreaBegin=1&topX=270&topY=55&width=36&height=50&next\_motionDetectionAreaURL=2&topX=24&topY=60&width=60&height=60&next\_motionDetectionAreaURL=3&topX=126&topY=75&width=60&height=75&motionDetectionAreaEnd=3&regionEnd=1&weekDayCount=13&weekDayBegin=1&weekDay=0&startTime=21600&endTime=43200&next\_weekDayURL=2&weekDay=0&startTime=52200&endTime=70200&next\_weekDayURL=3&weekDay=1&startTime=52200&endTime=54000&next\_weekDayURL=4&weekDay=2&startTime=41400&endTime=43200&next\_weekDayURL=5&weekDay=2&startTime=52200&endTime=54000&next\_weekDayURL=6&weekDay=3&startTime=34200&endTime=36000&next\_weekDayURL=7&weekDay=3&startTime=52200&endTime=70200&next\_weekDayURL=8&weekDay=4&startTime=52200&endTime=54000&next\_weekDayURL=9&weekDay=5&startTime=28800&endTime=30600&next\_weekDayURL=10&weekDay=5&startTime=52200&endTime=54000&next\_weekDayURL=11&weekDay=6&startTime=21600&endTime=23400&next\_weekDayURL=12&weekDay=6&startTime=25200&endTime=27000&next\_weekDayURL=13&weekDay=6&startTime=52200&endTime=70200&weekDayEnd=13 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Fire point detection parameters meaning

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **enableFlag** | switch  0: Off  1: On | 0-1 | int |
| **sensitivity** | Sensitivity |  | int |
| **AlarmLinkageParam** | Alarm linkage operation behavior  Clean:Clear all | clean | string |
| **alarmOut** | Alarm Output  0: Off  1: On |  | int |
| **alarmOut2** | Alarm 2 output  0: Off  1: On | 0-1 | int |
| **alarmRecord** | Alarm video  0: Off  1: On |  | int |
| **alarmRecordLinkChannel** | Alarm video linkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSMTP** | Alarm Email  0: Off  1: On |  | int |
| **alarmSMTPLinkChannel** | Alarm Email inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 |  | int |
| **alarmFTP** | FTP Upload  0: Off  1: On |  | int |
| **alarmFTPLinkChannel** | FTP Upload  inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 |  | int |
| **alarmSound** | Sound detection alarm  0: Off  1: On |  | int |
| **alarmSoundType** | Audio alarm file (0-13) |  | int |
| **alarmLED** | LED Alarm  0: Off  1: On | 0-1 | int |
| **alarmWhiteLED** | White light alarm  0: Off  1: On | 0-1 | int |
| **regionCount** | Number of regions |  | int |
| **regionBegin** | Area coordinates start mark |  | int |
| **motionDetectionAction** | Detection area behavior (default addition if not passed)  c over: overwrite |  | string |
| **motionDetectionAreaCount** | Number of detection areas |  | int |
| **motionDetectionAreaBegin** | Detection area start mark |  | int |
| **topX** | X coordinate |  | int |
| **topY** | Y coordinate |  | int |
| **width** | width |  | int |
| **height** | high |  | int |
| **next\_motionDetectionAreaURL** | Next detection area start mark |  | int |
| **motionDetectionAreaEnd** | Detection area end mark |  | int |
| **next\_regionURL** | Next area parameter start mark |  | int |
| **regionEnd** | Area coordinate end mark |  | int |
| **weekDayCount** | Number of defenses |  | int |
| **weekDayBegin** | Arming start indicator |  | int |
| **weekDay** | Day of the week (0-6) |  | int |
| **startTime** | Arming start time (in seconds) |  | int |
| **endTime** | Arming end time (in seconds) |  | int |
| **next\_weekDayURL** | Next scheduled time URL start mark |  | int |
| **weekDayEnd** | End flag of the loop of defense days |  | int |
| **draw** | Video Stream Line Drawing  0: Off  1: On | 0-1 | int |

#### Smoke and Flame Detection (IPC/NVR)

##### Acquisition Capability (IPC)

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **fireSmokeParamAbility&cameraID=1** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= fireSmokeParamAbility **&cameraID=1** |
| **Description** | Refer to [URL Descriptions](#_能力参数说明_9) |
| **Return** | region=1  maxEdgeNum=8  maxRegionNum=8  dra w =1  presetMode=1  alarmOutCount=1  alarmLinkageCount=4  alarmLinkageBegin=1  actionType=2  next\_AlarmLinkageURL=2  actionType=4  next\_AlarmLinkageURL=3  actionType=7  next\_AlarmLinkageURL=4  actionType=10  alarmLinkageEnd=1 |

##### Capability Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **Regin** | Area drawing  0: Not supported  1: Support | 0-1 | int |
| maxEdgeNum | Number of lines |  | int |
| maxRegionNum | Number of regions |  | int |
| **draw** | Video Stream Line Drawing  0: Not supported  1: Support |  | int |
| **presetMode** | Mode (PTZ device)  0: Not supported  1: Support | 0-1 | int |
| **alarmOutCount** | Number of alarm outputs |  | int |
| **alarmLinkageCount** | Number of linkage alarms |  | int |
| **alarmLinkageBegin** | Linkage alarm start mark |  | int |
| **actionType** | alarm type  1: Alarm output  2: Alarm email  3: Alarm PTZ  4: Alarm video  7: FTP upload  10: Audio alarm  11: LED alarm  14: White light alarm |  | int |
| **next\_AlarmLinkageURL** | Next linkage alarm start mark |  | int |
| **alarmLinkageEnd** | Linkage alarm end mark |  | int |

##### Get fire detection parameters (IPC/NVR)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **fireSmokeParam** &cameraID=1 |
| **Description** | Refer to [URL Descriptions](#_烟火检测参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type= **fireSmokeParam** &cameraID=1 |
| **Return** | enableFlag=1  draw=1  sensitivity=3  alarmOut=1  alarmRecord=1  alarmSMTP=1  alarmFTP=1  alarmSound=1  alarmSoundType=7  regionCount=1  regionBegin=1  pointCount=3  pointBegin=1  pointX=36.124401  pointY=43.162392  next\_pointURL=2  pointX=37.559807  pointY=68.376068  next\_pointURL=3  pointX=51.196171  pointY=43.589745  pointEnd=3  regionEnd=1  weekDayCount=1  weekDayBegin=1  weekDay=0  startTime=0  endTime=1800  weekDayEnd=1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Setting Fire and Smoke Detection Parameters (IPC/NVR)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **fireSmokeParam** &cameraID=1 & enableFlag=1&draw=1&sensitivity=5&alarmOut=1&alarmRecord=1&alarmSMTP=1&alarmFTP=1&alarmSound=1&alarmSoundType=0&regionCount=1&regionBegin=1&pointCount=3&pointBegin=1&pointX=36.124401&pointY=43.162392&next\_pointURL=2&pointX=37.559807&pointY=68.376068&next\_pointURL=3&pointX=51.196171&pointY=43.589745&pointEnd=3&regionEnd=1&weekDayCount=1&weekDayBegin=1&weekDay=0&startTime=0&endTime=1800&weekDayEnd=1 |
| **Description** | Refer to [URL Descriptions](#_烟火检测参数含义) |
| **Example** | (IPC)  http://192.168.2.21/cgi-bin/param.cgi?action=set&type= fireSmokeParam&cameraID=1 &enableFlag=1&draw=1&sensitivity=5&alarmOut=1&alarmRecord=1&alarmSMTP=1&alarmFTP=1&alarmSound=1&alarmSoundType=0&regionCount=1&regionBegin=1&pointCount=3&pointBegin=1&pointX=36.124401&pointY=43.162392&next\_pointURL=2&pointX=37.559807&pointY=68.376068&next\_pointURL=3&pointX=51.196171&pointY=43.589745&pointEnd=3&regionEnd=1&weekDayCount=1&weekDayBegin=1&weekDay=0&startTime=0&endTime=1800&weekDayEnd=1  Refer to IPC parameter table for details |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of Fireworks Detection Parameters

**IPC: Parameter list:**

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **presetMode** | Mode (PTZ device)  1: Normal mode  2: Preset point mode | 1-2 | int |
| **presetCount** | Number of preset positions (PTZ device) |  | i nt |
| **resetBegin​** | Preset position start mark (PTZ device) |  | i nt |
| **presetID** | Preset ID  - 1 : Get all preset positions  0: Get or set normal mode  > 0 : Get or set the specified preset position |  | i nt |
| **enableFlag** | switch  0: Off  1: On | 0-1 | int |
| **sensitivity** | Sensitivity |  | int |
| **AlarmLinkageParam** | Alarm linkage operation behavior  Clean:Clear all | clean | string |
| **alarmOut** | Alarm Output  0: Off  1: On |  | int |
| **alarmOut2** | Alarm 2 output  0: Off  1: On | 0-1 | int |
| **alarmRecord** | Alarm video  0: Off  1: On |  | int |
| **alarmRecordLinkChannel** | Alarm video linkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSMTP** | Alarm Email  0: Off  1: On |  | int |
| **alarmSMTPLinkChannel** | Alarm Email inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmFTP** | FTP Upload  0: Off  1: On |  | int |
| **alarmFTPLinkChannel** | FTP Upload  inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSound** | Sound detection alarm  0: Off  1: On |  | int |
| **alarmSoundType** | Audio alarm file (0-13) |  | int |
| **alarmLED** | LED Alarm  0: Off  1: On | 0-1 | int |
| **alarmWhiteLED** | White light alarm  0: Off  1: On | 0-1 | int |
| **regionCount** | Number of regions |  | int |
| **regionBegin** | Area coordinates start mark |  | int |
| **pointCount** | Number of points |  | int |
| **pointBegin** | Point coordinates start mark |  | int |
| **pointX** | Horizontal coordinate value |  | int |
| **pointY** | Vertical coordinate value |  | int |
| **next\_pointURL** | The next point coordinate starts marking |  | int |
| **pointEnd** | Point coordinate end mark |  | int |
| **next\_regionURL** | Next area parameter start mark |  | int |
| **regionEnd** | Area coordinate end mark |  | int |
| **weekDayCount** | Number of defenses |  | int |
| **weekDayBegin** | Arming start indicator |  | int |
| **weekDay** | Day of the week (0-6) |  | int |
| **startTime** | Arming start time (in seconds) |  | int |
| **endTime** | Arming end time (in seconds) |  | int |
| **next\_weekDayURL** | Next scheduled time URL start mark |  | int |
| **weekDayEnd** | End flag of the loop of defense days |  | int |
| **draw** | Video Stream Line Drawing  0: Off  1: On | 0-1 | int |
| **next\_PresetURL** | Next preset position start mark |  | i nt |
| **p resetEnd** | Preset end mark |  | i nt |

### Intelligent Analysis

#### Get the list of supported intelligent analysis

##### Get the parameters of the smart analysis list

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **getSupportIntelligences&cameraID=1** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= getSupportIntelligences **&cameraID=1** |
| **Description** | Refer to [URL Descriptions](#_智能分析列表参数含义) |
| **Return** | (IPC)  intelligenceAnalyseCount=11  intelligenceAnalyseBegin=1  intelligenceAnalyse=0  next\_intelligenceAnalyseURL=2  intelligenceAnalyse=1  next\_intelligenceAnalyseURL=3  intelligenceAnalyse=7  next\_intelligenceAnalyseURL=4  intelligenceAnalyse=8  next\_intelligenceAnalyseURL=5  intelligenceAnalyse=10  next\_intelligenceAnalyseURL=6  intelligenceAnalyse=14  next\_intelligenceAnalyseURL=7  intelligenceAnalyse=20  next\_intelligenceAnalyseURL=8  intelligenceAnalyse=21  next\_intelligenceAnalyseURL=9  intelligenceAnalyse=23  next\_intelligenceAnalyseURL=10  intelligenceAnalyse=29  intelligenceAnalyRefer tond=1 |

##### Meaning of parameters in the smart analysis list

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **intelligenceAnalyseCount** | Number of intelligent analyses | 0-1 | int |
| **intelligenceAnalyseBegin** | Smart analysis start mark |  | int |
| **intelligenceAnalyse** | Insight  0: Perimeter  1: Smart Motion Detection  2: Safety Hat  3. Safety Vest  4: PeriIntrusDetect  5: Queue length (QueueLenDetect)  6: Heat Map  7: TripWire  8: MultiTripWire  9: Loitering  10: MultiLoitering  11: ObjectLeft  12: ObjectMoved  13: Abnormal Speed  14: Converse  15: Noparking  16: Signal Bad  17: Fence  18: Intelligent Parking (IntellVehicleDetect)  19: Video Tamper  20: Enter Area  21: Leave Area  22: Intelligence Trace  23: People Counting  24: StatisticalQuery  25: Advanced Configuration  26: Boat detection (BoatDetectTrack)  27: MultiGather  2 8 ： SmokingDetect  29 : FireSmokeDetect  3 0 ： fire spot detection (SmallFireDetect) |  | int |
| **next\_intelligenceAnalyseURL** | Next smart analysis start mark |  | int |
| **intelligenceAnalyRefer tond** | Smart analysis end mark |  | int |

**­**

#### Perimeter

##### Acquisition capability ( IPC )

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **perimeterAbility** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= perimeterAbility &cameraID=1 |
| **Description** | Refer to [URL description](#_能力参数说明_10) (IPC (The lite series)carries & cameraID ) |
| **Return** | region=1  maxEdgeNum=8  maxRegionNum=8  uploadDetail=0  targetTypeConstrain=1  targetTypeConstrainMin=0  targetTypeConstrainMax=1  targetTypeCount=3  targetTypeBegin=1  targetType=0  next\_TargetTypeURL=2  targetType=1  next\_TargetTypeURL=3  targetType=2  targetTypeEnd=1  targetSizeConstrain=0  targetSizeConstrainMin=0  targetSizeConstrainMax=1  targetSizeConstrainUnit=  minTargetSize=0  minTargetSizeMin=0  minTargetSizeMax=1000000  minTargetSizeUnit=cm2  maxTargetSize=0  maxTargetSizeMin=0  maxTargetSizeMax=1000000  maxTargetSizeUnit=cm2  sensitivityCount=5  sensitivityBegin=1  sensitivity=1  next\_SensitivityURL=2  sensitivity=2  next\_SensitivityURL=3  sensitivity=3  next\_SensitivityURL=4  sensitivity=4  next\_SensitivityURL=5  sensitivity=5  sensitivityEnd=1  draw=1  presetMode=0  alarmOutCount=1  alarmLinkageCount=4  alarmLinkageBegin=1  actionType=2  next\_AlarmLinkageURL=2  actionType=4  next\_AlarmLinkageURL=3  actionType=7  next\_AlarmLinkageURL=4  actionType=10  alarmLinkageEnd=1 |

##### Capability Parameter Description (IPC)

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **region** | Area drawing  0: Not supported  1: Support | 0-1 | int |
| **maxEdgeNum** | Number of lines |  | int |
| **maxRegionNum** | Number of regions |  | int |
| **uploadDetail** | Upload Details  0: Not supported  1: Support | 0-1 | int |
| **targetTypeConstrain** | Limit upload types  0: Not supported  1: Support | 0-1 | int |
| **targetTypeConstrainMin** | Limit the minimum value of upload type |  | int |
| **targetTypeConstrainMax** | Limit the maximum value of upload type |  | int |
| **targetTypeCount** | Limit the number of target types |  | int |
| **targetTypeBegin** | Qualified target type start identifier |  | int |
| **targetType** | Target Type  0: person or car  1 person  2: Car | 0-2 | int |
| **next\_TargetTypeURL** | Next item defines the target type start mark |  | int |
| **targetTypeEnd** | Qualified target type end marker |  | int |
| **targetSizeConstrain** | Limit target size  0: Not supported  1: Support | 0-1 | int |
| **targetSizeConstrainMin** | Limit the minimum target size |  | int |
| **targetSizeConstrainMax** | Limit the maximum size of the target |  | int |
| **targetSizeConstrainUnit** | Limit target size units |  | string |
| **minTargetSize** | Minimum target size  0: Support  1: Not supported | 0-1 | int |
| **minTargetSizeMin** | Minimum target size |  | int |
| **minTargetSizeMax** | Minimum target maximum size |  | int |
| **minTargetSizeUnit** | Minimum target unit |  | string |
| **maxTargetSize** | Maximum target size  0: Not supported  1: Support | 0-1 | int |
| **maxTargetSizeMin** | Maximum target minimum size |  | int |
| **maxTargetSizeMax** | Maximum target size |  | int |
| **maxTargetSizeUnit** | Maximum target unit |  | string |
| **sensitivityCount** | Sensitivity number |  | int |
| **sensitivityBegin** | Sensitivity start mark |  | int |
| **sensitivity** | Sensitivity |  | int |
| **next\_SensitivityURL** | Next sensitivity start mark |  | int |
| **sensitivityEnd** | Sensitivity end mark |  | int |
| **draw** | Video Stream Line Drawing  0: Not supported  1: Support | 0-1 | int |
| **presetMode** | Mode (PTZ device)  0: Not supported  1: Support | 0-1 | int |
| **alarmOutCount** | Number of alarm outputs |  | int |
| **alarmLinkageCount** | Number of linkage alarms |  | int |
| **alarmLinkageBegin** | Linkage alarm start mark |  | int |
| **actionType** | alarm type  1: Alarm output  2: Alarm email  3: Alarm PTZ  4: Alarm video  7: FTP upload  10: Audio alarm  11: LED alarm  14: White light alarm |  | int |
| **next\_AlarmLinkageURL** | Next linkage alarm start mark |  | int |
| **alarmLinkageEnd** | Linkage alarm end mark |  | int |

##### Get intrusion detection parameters (getPerimeterParam)

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **perimeterParam** &cameraID=<cameraID> |
| **Description** | Refer to [URL Descriptions](#_入侵检测参数) |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=perimeterParam&cameraID=1 |
| **Return** | enableFlag=1  uploadDetail=1  draw=1  alarmOut=0  alarmRecord=1  alarmSMTP=1  alarmFTP=1  regionCount=1  regionBegin=1  sensitivity=5  targetTypeEnable=1  targetType=0  targetSizeEnable=1  targetMaxSize=100000  targetMinSize=1000  pointCount=3  pointBegin=1  pointX=23.325359  pointY=21.367521  next\_pointURL=2  …  next\_pointURL=3  pointX=47.488037  pointY=88.461540  pointEnd=3  regionEnd=1  weekDayCount=2  weekDayBegin=1  weekDay=0  startTime=19800  endTime=21600  next\_weekDayURL=2  weekDay=4  startTime=59400  endTime=61200  weekDayEnd=2 |

##### Set intrusion detection parameters (setPerimeterParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **perimeterParam** &cameraID=1[&<argument>=<value>...] |
| **Description** | ( IPC Refer to [URL description](#_入侵检测参数) ) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=perimeterParam&cameraID=1&enableFlag=1&draw=0&alarmOut=1&alarmRecord=1&alarmSMTP=0&alarmFTP=1&alarmSound=1&clearArea=0&alarmSoundType=0&regionCount=2&regionBegin=1&sensitivity=3&targetTypeEnable=1&targetType=1&pointCount=3&pointBegin=1&pointX=12.440191&pointY=49.145298&next\_pointURL=2&pointX=11.244020&pointY=68.803421&next\_pointURL=3&pointX=31.818182&pointY=61.538460&pointEnd=3&next\_regionURL=2&sensitivity=3&targetTypeEnable=1&targetType=1&pointCount=4&pointBegin=1&pointX=61.483253&pointY=42.735043&next\_pointURL=2&pointX=53.588516&pointY=94.017097&next\_pointURL=3&pointX=85.645935&pointY=78.205132&next\_pointURL=4&pointX=86.124405&pointY=50.000000&pointEnd=4&regionEnd=1&weekDayCount=12&weekDayBegin=1&weekDay=0&startTime=18000&endTime=19800&next\_weekDayURL=2&weekDay=1&startTime=48600&endTime=50400&next\_weekDayURL=3&weekDay=1&startTime=54000&endTime=55800&next\_weekDayURL=4&weekDay=2&startTime=21600&endTime=23400&next\_weekDayURL=5&weekDay=2&startTime=63000&endTime=64800&next\_weekDayURL=6&weekDay=3&startTime=43200&endTime=45000&next\_weekDayURL=7&weekDay=3&startTime=68400&endTime=70200&next\_weekDayURL=8&weekDay=4&startTime=23400&endTime=25200&next\_weekDayURL=9&weekDay=5&startTime=28800&endTime=30600&next\_weekDayURL=10&weekDay=5&startTime=36000&endTime=37800&next\_weekDayURL=11&weekDay=5&startTime=73800&endTime=75600&next\_weekDayURL=12&weekDay=6&startTime=32400&endTime=34200&weekDayEnd=12&targetSizeEnableV2=0&maxTargetWidth=6.000000&maxTargetHeight=6.000000&minTargetWidth=2.000000&minTargetHeight=2.000000 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Intrusion Detection Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **presetMode** | Mode (PTZ device)  1: Normal mode  2: Preset point mode | 1-2 | int |
| **presetCount** | Number of preset positions (PTZ device) |  | i nt |
| **resetBegin​** | Preset position start mark (PTZ device) |  | i nt |
| **presetID** | Preset ID  - 1 : Get all preset positions  0: Get or set normal mode  > 0 : Get or set the specified preset position |  | i nt |
| **enableFlag** | switch  0: Off  1: On | 0-1 | int |
| **draw** | Video Stream Line Drawing  0: Off  1: On | 0-1 | int |
| **uploadDetail** | Upload Details  0: Off  1: On | 0-1 | int |
| clearArea | Upload Details  0: Normal setting  1: Delete area  Need to turn off the switch before deleting | 0-1 | Int​ |
| **AlarmLinkageParam** | Alarm linkage operation behavior  Clean:Clear all | clean | string |
| **alarmOut** | Alarm Output  0: Off  1: On | 0-1 | int |
| **alarmOut2** | Alarm 2 output  0: Off  1: On | 0-1 | int |
| **alarmRecord** | Alarm video  0: Off  1: On | 0-1 | int |
| **alarmRecordLinkChannel** | Alarm video linkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSMTP** | Alarm Email  0: Off  1: On | 0-1 | int |
| **alarmSMTPLinkChannel** | Alarm Email inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmFTP** | FTP Upload  0: Off  1: On | 0-1 | int |
| **alarmFTPLinkChannel** | FTP Upload  inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSound** | Sound detection alarm  0: Off  1: On | 0-1 | int |
| **alarmSoundType** | Audio alarm file | 0-13 | int |
| **alarmLED** | LED Alarm  0: Off  1: On | 0-1 | int |
| **alarmWhiteLED** | White light alarm  0: Off  1: On | 0-1 | int |
| areaParamAction  (The lite series) | Regional loop operation behavior | cover:cover  remove: remove, you need to carry the area ID | Regional loop operation behavior  When the configuration behavior is set, if this behavior flag is not carried, the default is to add the loop body.  cover:cover  remove: remove, you need to carry the area ID |
| **sensitivity** | Sensitivity |  | int |
| **targetTypeEnable** | Limit target type  0: Off  1: On | 0-1 | int |
| **targetType** | Qualified Type  0: person or car  1 person  2: Car | 0-2 | int |
| **targetSizeEnable** | Limited size  0: Off  1: On | 0-1 | int |
| **targetMaxSize** | Limit the maximum size of the target |  | int |
| **targetMinSize** | Limit the minimum target size |  | int |
| **targetSizeEnableV2** | Limit target maximum and minimum switches  0: Off  1: On | 0-1 | Int |
| **maxTargetWidth** | Limit the maximum width of the target |  | float |
| **maxTargetHeight** | Limit target maximum height |  | float |
| **minTargetWidth** | Limit the minimum width of the target |  | float |
| **minTargetHeight** | Limit the minimum target height |  | float |
| **regionCount** | Number of regions |  | int |
| **regionBegin** | Area parameter start mark |  | int |
| **pointCount** | Number of coordinate points |  | int |
| **pointBegin** | Coordinate point start mark |  | int |
| **pointX** | Horizontal coordinate value |  | float |
| **pointY** | Vertical coordinate value |  | float |
| **next\_pointURL** | The next point coordinate starts marking |  | int |
| **pointEnd** | Point coordinate end mark |  | int |
| **next\_regionURL** | Next area parameter start mark |  | int |
| **regionEnd** | End of area parameters |  | int |
| **weekDayCount** | Number of defenses |  | int |
| **weekDayBegin** | Arming start indicator |  | int |
| **weekDay** | which day | 0-6 | int |
| **startTime** | Arming start time (seconds) |  | int |
| **endTime** | Arming end time (seconds) |  | int |
| **next\_weekDayURL** | Next arming time start mark |  | int |
| **weekDayEnd** | Arming end mark |  | int |
| **next\_PresetURL** | Next preset position start mark |  | i nt |
| **presetEnd** | Preset end mark |  | i nt |



#### Single Line Crossing

##### Acquisition capability (IPC/the lite series)

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **tripWireAbility** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= tripWireAbility |
| **Description** | Refer to [URL Descriptions](#_入侵检测参数) |
| **Return** | region=1  maxEdgeNum=8  maxRegionNum=8  uploadDetail=0  triggerDirection=1  bidirection=1  targetTypeConstrain=1  targetTypeConstrainMin=0  targetTypeConstrainMax=1  targetTypeCount=3  targetTypeBegin=1  targetType=0  next\_TargetTypeURL=2  targetType=1  next\_TargetTypeURL=3  targetType=2  targetTypeEnd=1  targetSizeConstrain=0  targetSizeConstrainMin=0  targetSizeConstrainMax=1  targetSizeConstrainUnit=  minTargetSize=0  minTargetSizeMin=0  minTargetSizeMax=1000000  minTargetSizeUnit=cm2  maxTargetSize=0  maxTargetSizeMin=0  maxTargetSizeMax=1000000  maxTargetSizeUnit=cm2  draw=1  presetMode=0  alarmOutCount=1  alarmLinkageCount=4  alarmLinkageBegin=1  actionType=2  next\_AlarmLinkageURL=2  actionType=4  next\_AlarmLinkageURL=3  actionType=7  next\_AlarmLinkageURL=4  actionType=10  alarmLinkageEnd=1 |

##### Capability Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **region** | Area drawing  0: Not supported  1: Support | 0-1 | int |
| **maxEdgeNum** | Number of lines |  | int |
| **maxRegionNum** | Number of regions |  | int |
| **uploadDetail** | Upload Details  0: Not supported  1: Support | 0-1 | int |
| **triggerDirection** | Trigger direction  0: Not supported  1: Support | 0-1 | int |
| **bidirection** | Bidirectional  0: Not supported  1: Support | 0-1 | int |
| **targetTypeConstrain** | Limit upload types  0: Not supported  1: Support | 0-1 | int |
| **targetTypeConstrainMin** | Limit the minimum value of upload type |  | int |
| **targetTypeConstrainMax** | Limit the maximum value of upload type |  | int |
| **targetTypeCount** | Limit the number of target types |  | int |
| **targetTypeBegin** | Qualified target type start identifier |  | int |
| **targetType** | Target Type  0: person or car  1 person  2: Car | 0-2 | int |
| **next\_TargetTypeURL** | Next item defines the target type start mark |  | int |
| **targetTypeEnd** | Qualified target type end marker |  | int |
| **targetSizeConstrain** | Limit target size  0: Not supported  1: Support | 0-1 | int |
| **targetSizeConstrainMin** | Limit the minimum target size |  | int |
| **targetSizeConstrainMax** | Limit the maximum size of the target |  | int |
| **targetSizeConstrainUnit** | Limit target size units |  | string |
| **minTargetSize** | Minimum target size  0: Support  1: Not supported | 0-1 | int |
| **minTargetSizeMin** | Minimum target size |  | int |
| **minTargetSizeMax** | Minimum target maximum size |  | int |
| **minTargetSizeUnit** | Minimum target unit |  | string |
| **maxTargetSize** | Maximum target size  0: Not supported  1: Support | 0-1 | int |
| **maxTargetSizeMin** | Maximum target minimum size |  | int |
| **maxTargetSizeMax** | Maximum target size |  | int |
| **maxTargetSizeUnit** | Maximum target unit |  | string |
| **draw** | Video Stream Line Drawing  0: Not supported  1: Support | 0-1 | int |
| **presetMode** | Mode (PTZ device)  0: Not supported  1: Support | 0-1 | int |
| **alarmOutCount** | Number of alarm outputs |  | int |
| **alarmLinkageCount** | Number of linkage alarms |  | int |
| **alarmLinkageBegin** | Linkage alarm start mark |  | int |
| **actionType** | alarm type  1: Alarm output  2: Alarm email  3: Alarm PTZ  4: Alarm video  7: FTP upload  10: Audio alarm  11: LED alarm  14: White light alarm |  | int |
| **next\_AlarmLinkageURL** | Next linkage alarm start mark |  | int |
| **alarmLinkageEnd** | Linkage alarm end mark |  | int |

##### Get TripWire Detection Parameters (getTripWireParam)

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **tripWireParam** &cameraID=<cameraID> |
| **Description** | Refer to [URL Descriptions](#_警戒线检测参数) |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= **tripWireParam** &cameraID=1 |
| **Return** | enableFlag=0  uploadDetail=0  draw=0  alarmOut=0  alarmRecord=0  alarmSMTP=0  alarmFTP=0  alarmSound=0  alarmSoundType=0  targetTypeEnable=0  targetType=2  targetSizeEnable=0  targetMaxSize=0  targetMinSize=0  regionCount=1  regionBegin=1  lineCrossStartX=18.000000  lineCrossStartY=63.000000  lineCrossEndX=55.000000  lineCrossEndY=37.000000  regionEnd=1  weekDayCount=1  weekDayBegin=1  weekDay=0  startTime=0  endTime=1800  weekDayEnd=1 |

##### Set TripWire Detection Parameters (setTripWireParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **tripWireParam** &cameraID=1[&<argument>=<value>...] |
| **Description** | Refer to [URL Descriptions](#_警戒线检测参数) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=tripWireParam&enableFlag=1&draw=0&alarmOut=1&alarmRecord=1&alarmSMTP=0&alarmFTP=1&alarmSound=0&alarmSoundType=0&regionCount=2&regionBegin=1&targetTypeEnable=0&targetType=1&lineCrossStartX=12.000000&lineCrossStartY=54.000000&lineCrossEndX=47.000000&lineCrossEndY=89.000000&next\_regionURL=2&targetTypeEnable=0&targetType=1&lineCrossStartX=88.000000&lineCrossStartY=54.000000&lineCrossEndX=44.000000&lineCrossEndY=15.000000&regionEnd=1&weekDayCount=30&weekDayBegin=1&weekDay=0&startTime=14400&endTime=16200&next\_weekDayURL=2&weekDay=0&startTime=27000&endTime=30600&next\_weekDayURL=3&weekDay=0&startTime=36000&endTime=48600&next\_weekDayURL=4&weekDay=1&startTime=14400&endTime=16200&next\_weekDayURL=5&weekDay=1&startTime=25200&endTime=27000&next\_weekDayURL=6&weekDay=1&startTime=28800&endTime=30600&next\_weekDayURL=7&weekDay=1&startTime=36000&endTime=37800&next\_weekDayURL=8&weekDay=1&startTime=46800&endTime=48600&next\_weekDayURL=9&weekDay=2&startTime=14400&endTime=16200&next\_weekDayURL=10&weekDay=2&startTime=23400&endTime=25200&next\_weekDayURL=11&weekDay=2&startTime=28800&endTime=30600&next\_weekDayURL=12&weekDay=2&startTime=36000&endTime=37800&next\_weekDayURL=13&weekDay=2&startTime=45000&endTime=48600&next\_weekDayURL=14&weekDay=3&startTime=14400&endTime=16200&next\_weekDayURL=15&weekDay=3&startTime=21600&endTime=23400&next\_weekDayURL=16&weekDay=3&startTime=28800&endTime=30600&next\_weekDayURL=17&weekDay=3&startTime=36000&endTime=45000&next\_weekDayURL=18&weekDay=4&startTime=14400&endTime=16200&next\_weekDayURL=19&weekDay=4&startTime=19800&endTime=21600&next\_weekDayURL=20&weekDay=4&startTime=28800&endTime=30600&next\_weekDayURL=21&weekDay=4&startTime=36000&endTime=37800&next\_weekDayURL=22&weekDay=4&startTime=45000&endTime=48600&next\_weekDayURL=23&weekDay=5&startTime=14400&endTime=16200&next\_weekDayURL=24&weekDay=5&startTime=18000&endTime=19800&next\_weekDayURL=25&weekDay=5&startTime=28800&endTime=30600&next\_weekDayURL=26&weekDay=5&startTime=36000&endTime=37800&next\_weekDayURL=27&weekDay=5&startTime=46800&endTime=48600&next\_weekDayURL=28&weekDay=6&startTime=14400&endTime=18000&next\_weekDayURL=29&weekDay=6&startTime=28800&endTime=30600&next\_weekDayURL=30&weekDay=6&startTime=36000&endTime=48600&weekDayEnd=30 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### IPC (Internal Protection Parameter)

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **presetMode** | Mode (PTZ device)  1: Normal mode  2: Preset point mode | 1-2 | int |
| **presetCount** | Number of preset positions (PTZ device) |  | i nt |
| **resetBegin​** | Preset position start mark (PTZ device) |  | i nt |
| **presetID** | Preset ID  - 1 : Get all preset positions  0: Get or set normal mode  > 0 : Get or set the specified preset position |  | i nt |
| **enableFlag** | switch  0: Off  1: On | 0-1 | int |
| **draw** | Video Stream Line Drawing  0: Off  1: On | 0-1 | int |
| **uploadDetail** | Upload Details  0: Off  1: On | 0-1 | int |
| **AlarmLinkageParam** | Alarm linkage operation behavior  Clean:Clear all | clean | string |
| **alarmOut** | Alarm Output  0: Off  1: On | 0-1 | int |
| **alarmOut2** | Alarm 2 output  0: Off  1: On | 0-1 | int |
| **alarmRecord** | Alarm video  0: Off  1: On | 0-1 | int |
| **alarmRecordLinkChannel** | Alarm video linkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSMTP** | Alarm Email  0: Off  1: On | 0-1 | int |
| **alarmSMTPLinkChannel** | Alarm Email inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmFTP** | FTP Upload  0: Off  1: On | 0-1 | int |
| **alarmFTPLinkChannel** | FTP Upload  inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSound** | Sound detection alarm  0: Off  1: On | 0-1 | int |
| **alarmSoundType** | Audio alarm file | 0-13 | int |
| **alarmLED** | LED Alarm  0: Off  1: On | 0-1 | int |
| **alarmWhiteLED** | White light alarm  0: Off  1: On | 0-1 | int |
| **regionCount** | Number of regions |  | int |
| **regionBegin** | Area parameter start mark |  | int |
| **targetTypeEnable** | Limit target type  0: Off  1: On | 0-1 | int |
| **targetType** | Qualified Type  0: person or car  1 person  2: Car | 0-2 | int |
| **targetSizeEnable** | Limited size  0: Off  1: On | 0-1 | int |
| **targetMaxSize** | Limit the maximum size of the target |  | int |
| **targetMinSize** | Limit the minimum target size |  | int |
| **isBidirection** | Bidirectional  0: Off  1: On | 0-1 | int |
| **triggerDirection** | Trigger direction  1: Reverse  2: Forward | 1-2 | int |
| **LineCrossStartX** | The X coordinate of the starting point of the reference line on the image screen, with the left vertex as the origin |  | float |
| **LineCrossStart Y** | Y coordinate of the starting point of the reference line on the image screen , with the left vertex as the origin |  | float |
| **LineCross End X** | The X coordinate of the end point of the reference line on the image screen, with the left vertex as the origin |  | float |
| **LineCross EndY** | The X coordinate of the focus position of the reference line on the image screen, with the left vertex as the origin |  | float |
| **next\_regionURL** | Next area parameter start mark |  | int |
| **regionEnd** | End of area parameters |  | int |
| **weekDayCount** | Number of defenses |  | int |
| **weekDayBegin** | Arming start indicator |  | int |
| **weekDay** | which day | 0-6 | int |
| **startTime** | Arming start time (seconds) |  | int |
| **endTime** | Arming end time (seconds) |  | int |
| **next\_weekDayURL** | Next arming time start mark |  | int |
| **weekDayEnd** | Arming end mark |  | int |
| **next\_PresetURL** | Next preset position start mark |  | i nt |
| **p resetEnd** | Preset end mark |  | i nt |

#### Double Virtual Fences

##### Acquisition Capability (IPC)

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **multiTripWireAbility** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= multiTripWireAbility |
| **Description** | Refer to [URL Descriptions](#_能力参数说明) |
| **Return** | region=0  maxEdgeNum=8  maxRegionNum=4  uploadDetail=0  triggerDirection=1  timeInterval=0  timeIntervalMin=1  timeIntervalMax=60  timeIntervalUnit=S  targetTypeConstrain=1  targetTypeConstrainMin=0  targetTypeConstrainMax=1  targetTypeCount=3  targetTypeBegin=1  targetType=0  next\_TargetTypeURL=2  targetType=1  next\_TargetTypeURL=3  targetType=2  targetTypeEnd=1  targetSizeConstrain=0  targetSizeConstrainMin=0  targetSizeConstrainMax=1  targetSizeConstrainUnit=  minTargetSize=0  minTargetSizeMin=0  minTargetSizeMax=1000000  minTargetSizeUnit=cm2  maxTargetSize=0  maxTargetSizeMin=0  maxTargetSizeMax=1000000  maxTargetSizeUnit=cm2  draw=1  presetMode=0  alarmOutCount=1  alarmLinkageCount=4  alarmLinkageBegin=1  actionType=2  next\_AlarmLinkageURL=2  actionType=4  next\_AlarmLinkageURL=3  actionType=7  next\_AlarmLinkageURL=4  actionType=10  alarmLinkageEnd=1 |

##### Description of capacity parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **region** | Area drawing  0: Not supported  1: Support | 0-1 | int |
| **maxEdgeNum** | Number of lines |  | int |
| **maxRegionNum** | Number of regions |  | int |
| **uploadDetail** | Upload Details  0: Not supported  1: Support | 0-1 | int |
| **triggerDirection** | Trigger direction  0: Not supported  1: Support | 0-1 | int |
| **timeInterval** | Trigger time interval  0: Not supported  1: Support | 0-1 | int |
| **timeIntervalMin** | Minimum trigger interval |  | int |
| **timeIntervalMax** | Trigger maximum interval |  | int |
| **timeIntervalUnit** | Time interval unit |  | string |
| **targetTypeConstrain** | Limit upload types  0: Not supported  1: Support | 0-1 | int |
| **targetTypeConstrainMin** | Limit the minimum value of upload type |  | int |
| **targetTypeConstrainMax** | Limit the maximum value of upload type |  | int |
| **targetTypeCount** | Limit the number of target types |  | int |
| **targetTypeBegin** | Qualified target type start identifier |  | int |
| **targetType** | Target Type  0: person or car  1 person  2: Car | 0-2 | int |
| **next\_TargetTypeURL** | Next item defines the target type start mark |  | int |
| **targetTypeEnd** | Qualified target type end marker |  | int |
| **targetSizeConstrain** | Limit target size  0: Not supported  1: Support | 0-1 | int |
| **targetSizeConstrainMin** | Limit the minimum target size |  | int |
| **targetSizeConstrainMax** | Limit the maximum size of the target |  | int |
| **targetSizeConstrainUnit** | Limit target size units |  | string |
| **minTargetSize** | Minimum target size  0: Support  1: Not supported | 0-1 | int |
| **minTargetSizeMin** | Minimum target size |  | int |
| **minTargetSizeMax** | Minimum target maximum size |  | int |
| **minTargetSizeUnit** | Minimum target unit |  | string |
| **maxTargetSize** | Maximum target size  0: Not supported  1: Support | 0-1 | int |
| **maxTargetSizeMin** | Maximum target minimum size |  | int |
| **maxTargetSizeMax** | Maximum target size |  | int |
| **maxTargetSizeUnit** | Maximum target unit |  | string |
| **draw** | Video Stream Line Drawing  0: Not supported  1: Support | 0-1 | int |
| **presetMode** | Mode (PTZ device)  0: Not supported  1: Support | 0-1 | int |
| **alarmOutCount** | Number of alarm outputs |  | int |
| **alarmLinkageCount** | Number of linkage alarms |  | int |
| **alarmLinkageBegin** | Linkage alarm start mark |  | int |
| **actionType** | alarm type  1: Alarm output  2: Alarm email  3: Alarm PTZ  4: Alarm video  7: FTP upload  10: Audio alarm  11: LED alarm  14: White light alarm |  | int |
| **next\_AlarmLinkageURL** | Next linkage alarm start mark |  | int |
| **alarmLinkageEnd** | Linkage alarm end mark |  | int |

##### Get MultiTripWireAbility

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= multiTripWireParam &cameraID=<cameraID> |
| **Description** | Refer to [URL Descriptions](#_双警戒线检测参数) |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= multiTripWireParam &cameraID=1 |
| **Return** | (IPC)  enableFlag=1  draw=0  alarmOut=1  alarmRecord=1  alarmSMTP=0  alarmFTP=1  alarmSound=0  alarmSoundType=0  regionCount=1  regionBegin=1  targetTypeEnable=0  targetType=0  triggerDirection=1  triggerDirection2=1  lineCrossStartX=38.000000  lineCrossStartY=39.000000  lineCrossEndX=37.000000  lineCrossEndY=77.000000  lineCrossStartX2=50.000000  lineCrossStartY2=39.000000  lineCrossEndX2=49.000000  lineCrossEndY2=77.000000  regionEnd=1  weekDayCount=1  weekDayBegin=1  weekDay=1  startTime=10800  endTime=12600  weekDayEnd=1 |

##### Set MultiTripWireParam

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **multiTripWireParam** &cameraID=1[&<argument>=<value>...] |
| **Description** | Refer to [URL Descriptions](#_双警戒线检测参数) |
| **Example** | http://192.168.0.250/cgi-bin/param.cgi?action=set&type=multiTripWireParam&cameraID=1&enableFlag=1&alarmOut=1&alarmRecord=1&alarmSMTP=1&alarmFTP=1&isGetDetail=false&multiTripWireRegionParamBegin=1&targetTypeConstrain=false&targetType=1&targetSizeConstrain=false&minTargetSize=1000&maxTargetSize=0&timeInterval=5&triggerDirection1=1&triggerDirection2= 1 &regionCount=1&regionBegin=1&LineCross1=1&lineCrossStartX=27.000000&lineCrossStartY=31.000000&lineCrossEndX=52.000000&lineCrossEndY=76.000000&LineCross2=2&lineCrossStartX2=39.000000&lineCrossStartY2=31.000000&lineCrossEndX2=63.000000&lineCrossEndY2=76.000000&multiTripWireRegionParamEnd=1&regionEnd=1&weekDayBegin=1&weekDay=1&startTime1=21600&endTime1=48600&weekDayEnd=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Double warning line detection parameters

**Double warning line detection parameters** **IPC**

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **presetMode** | Mode (PTZ device)  1: Normal mode  2: Preset point mode | 1-2 | int |
| **presetCount** | Number of preset positions (PTZ device) |  | i nt |
| **resetBegin​** | Preset position start mark (PTZ device) |  | i nt |
| **presetID** | Preset ID  - 1 : Get all preset positions  0: Get or set normal mode  > 0 : Get or set the specified preset position |  | i nt |
| **enableFlag** | switch  0: Off  1: On | 0-1 | int |
| **draw** | Video Stream Line Drawing  0: Off  1: On | 0-1 | int |
| **uploadDetail** | Upload Details  0: Off  1: On | 0-1 | int |
| **AlarmLinkageParam** | Alarm linkage operation behavior  Clean:Clear all | clean | string |
| **alarmOut** | Alarm Output  0: Off  1: On | 0-1 | int |
| **alarmOut2** | Alarm 2 output  0: Off  1: On | 0-1 | int |
| **alarmRecord** | Alarm video  0: Off  1: On | 0-1 | int |
| **alarmRecordLinkChannel** | Alarm video linkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSMTP** | Alarm Email  0: Off  1: On | 0-1 | int |
| **alarmSMTPLinkChannel** | Alarm Email inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmFTP** | FTP Upload  0: Off  1: On | 0-1 | int |
| **alarmFTPLinkChannel** | FTP Upload  inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSound** | Sound detection alarm  0: Off  1: On | 0-1 | int |
| **alarmSoundType** | Audio alarm file | 0-13 | int |
| **alarmLED** | LED Alarm  0: Off  1: On | 0-1 | int |
| **alarmWhiteLED** | White light alarm  0: Off  1: On | 0-1 | int |
| **regionCount** | Number of regions |  | int |
| **regionBegin** | Area parameter start mark |  | int |
| **targetTypeEnable** | Limit target type  0: Off  1: On | 0-1 | int |
| **targetType** | Qualified Type  0: person or car  1 person  2: Car | 0-2 | int |
| **targetSizeEnable** | Limited size  0: Off  1: On | 0-1 | int |
| **targetMaxSize** | Limit the maximum size of the target |  | int |
| **targetMinSize** | Limit the minimum target size |  | int |
| **timeInterval** | Maximum time interval between crossing two lines (seconds) |  | int |
| **triggerDirection** | Tripwire 1 trigger direction  1: Reverse  2: Forward | 1-2 | int |
| **triggerDirection 2** | Tripwire 2 trigger direction  1: Reverse  2: Forward | 1-2 | int |
| **LineCrossStartX** | Tripwire 1, the X coordinate of the starting point of the reference line on the image screen, with the left vertex as the origin |  | float |
| **LineCrossStart Y** | Tripwire 1, the Y coordinate of the starting point of the reference line on the image screen , with the left vertex as the origin |  | float |
| **LineCross End X** | Tripwire 1, the X coordinate of the end point of the reference line on the image screen, with the left vertex as the origin |  | float |
| **LineCross EndY** | Tripwire 1, the X coordinate of the focus position of the reference line on the image screen, with the left vertex as the origin |  | float |
| **LineCrossStartX 2** | Tripwire 2, the X coordinate of the starting point of the reference line on the image screen, with the left vertex as the origin |  | float |
| **LineCrossStart Y2** | Tripwire 2, the Y coordinate of the starting point of the reference line on the image screen , with the left vertex as the origin |  | float |
| **LineCross End X 2** | Tripwire 2, the X coordinate of the end point of the reference line on the image screen, with the left vertex as the origin |  | float |
| **LineCross EndY2** | Tripwire 2, the X coordinate of the focus position of the reference line on the image screen, with the left vertex as the origin |  | float |
| **next\_regionURL** | Next area parameter start mark |  | int |
| **regionEnd** | End of area parameters |  | int |
| **weekDayCount** | Number of defenses |  | int |
| **weekDayBegin** | Arming start indicator |  | int |
| **weekDay** | which day | 0-6 | int |
| **startTime** | Arming start time (seconds) |  | int |
| **endTime** | Arming end time (seconds) |  | int |
| **next\_weekDayURL** | Next arming time start mark |  | int |
| **weekDayEnd** | Arming end mark |  | int |
| **next\_PresetURL** | Next preset position start mark |  | i nt |
| **p resetEnd** | Preset end mark |  | i nt |

#### Loitering (TBD)

##### Get Loitering Detection Parameters (getLoiteringParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **LoiteringParam** &cameraID=<cameraID> |
| **Description** | Wandering includes [common parameters for intelligent analysis](#智能分析共用参数列表) and [wandering line detection](#_徘徊检测参数) parameters |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=LoiteringParam&cameraID=1 |
| **Return** | enableFlag=1  uploadDetail=1  draw=1  alarmOut=0  alarmRecord=1  alarmSMTP=1  alarmFTP=1  regionCount=1  regionBegin=1  targetTypeEnable=1  targetType=0  targetSizeEnable=1  targetMaxSize=100000  targetMinSize=1000  minLoiteringTime=10  pathAnalysis=1  pointCount=3  pointBegin=1  pointX=32.177032  pointY=25.213675  next\_pointURL=2  pointX=57.775120  pointY=32.905983  next\_pointURL=3  pointX=32.416267  pointY=73.076920  pointEnd=3  regionEnd=1  weekDayCount=2  weekDayBegin=1  weekDay=1  startTime=23400  endTime=25200  next\_weekDayURL=2  weekDay=3  startTime=48600  endTime=50400  weekDayEnd=2  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set Loitering Detection Parameters (setLoiteringParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **LoiteringParam** &cameraID=1[&<argument>=<value>...] |
| **Description** | Set parameters for reference [wandering detection](#_徘徊检测参数) |
| **Example** | [http://192.168.17.189/cgi-bin/param.cgi?action=set&type=LoiteringParam&cameraID=1&enableFlag=1&uploadDetail=1&draw=1&alarmOut=0&alarmRecord=1&alarmSMTP=1&alarmFTP=1&regionCount=1&regionBegin=1&targetTypeEnable=1&targetType=0&targetSizeEnable=1&targetMaxSize=100000&targetMinSize=1000&minLoiteringTime=10&pathAnalysis=1&point Count=3&pointBegin=1&pointX=32.177032&pointY=25.213675&next\_pointURL=2&pointX=57.775120&pointY=32.905983&next\_pointURL=3&pointX=32.416267&pointY=73.076920&pointEnd=3&regionEnd=1&weekDayCount=2&weekDayBegin=1&weekDay=1&startTime=23400&endTime=25200&next\_weekDayURL=2&weekDay=3&startTime=48600&endTime=50400&weekDayEnd=2](http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=loiterParam&cameraID=1&enableFlag=1&uploadDetail=1&draw=1&alarmOut=0&alarmRecord=1&alarmSMTP=1&alarmFTP=1&regionCount=1&regionBegin=1&targetTypeEnable=1&targetType=0&targetSizeEnable=1&targetMaxSize=100000&targetMinSize=1000&minLoiterTime=10&pathAnalysis=1&pointCount=3&pointBegin=1&pointX=32.177032&pointY=25.213675&next_pointURL=2&pointX=57.775120&pointY=32.905983&next_pointURL=3&pointX=32.416267&pointY=73.076920&pointEnd=3&regionEnd=1&weekDayCount=2&weekDayBegin=1&weekDay=1&startTime=23400&endTime=25200&next_weekDayURL=2&weekDay=3&startTime=48600&endTime=50400&weekDayEnd=2) |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Loiteringing Detection Parameters

Table 2-6-9-5-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **IntelligentCommonParam** | < [IntelligentCommonParam](#智能分析共用参数列表) > | Intelligent analysis of shared parameters.  For specific URL, Refer to [the list of common parameters for intelligent analysis.](#智能分析共用参数列表) |
| **uploadDetail** | <int>{0,1} | Whether to upload target details.  0: No (default)  1: Yes |
| **regionCount** | <int>[0,32] | Number of detection areas.  When setting, this flag must be carried to indicate the number of regions. For details, Refer to [the group text rules](#_组文本规则：) |
| **region Begin** | <int>{1} | The region loop body starts marking.  When setting, this flag must be included. There is no specific requirement for the value. For details, Refer to [the group text rules](#_组文本规则：) |
| **LoiteringRegionParam** | < [LoiteringRegionParam](#单个徘徊区域参数列表) > | Individual zone parameters.  For specific parameters, please Refer to: [Single wandering area parameter list](#单个徘徊区域参数列表) |
| **next\_ region URL** | <int>[2,32] | Next area identifier.  Start from 2. If the value is 2, it means that the following parameter is the second item. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. For details, Refer to [the group text rules](#_组文本规则：) |
| **region End** | <int>[1,32] | The region loop body ends.  When the configuration behavior is set, this flag must be carried, and the value is the number. For details, Refer to [Group Text Rules](#_组文本规则：) |

**Single wandering region parameter list LoiteringRegionParam:**

Table 2-6-9-5-3-2

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **targetTypeEnable** | <int>{0,1} | Whether to limit the target type.  0: No (default)  1: Yes |
| **targetType** | <int>{0,1,2} | The target qualification type.  0: person or car (default)  1 person  2: Car |
| **targetSizeEnable** | <int>{0,1} | Whether to limit the target size.  0: No (default)  1: Yes |
| **targetMaxSize** | <int>[0,1000000] | Limit the maximum target size (cm^2).  100000 (default) |
| **targetMinSize** | <int>[0, 1000000] | Limit the minimum target size (cm^2.  1000 (default) |
| **minLoiteringTime** | <int>[5,60] | Minimum hovering time (in seconds).  10 (default) |
| **pathAnalysis** | <int>{0,1} | Whether to enable wandering path analysis.  0: No  1: Yes (default) |
| **RegionParam** | < [RegionParam](#区域参数列表) > | Area parameters.  For detailed parameters, please Refer to: [Regional Parameters](#区域参数列表) |

#### Mutil Loitering

##### Acquisition Capability (IPC)

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **multiLoiteringAbility** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= multiLoiteringAbility |
| **Description** | Refer to [URL Descriptions](#_能力参数说明_1) |
| **Return** | region=1  maxEdgeNum=8  maxRegionNum=8  uploadDetail=0  pathAnalysis=0  pathAnalysisMin=0  pathAnalysisMax=1  pathAnalysisUnit=  targetSizeConstrain=0  targetSizeConstrainMin=0  targetSizeConstrainMax=1  targetSizeConstrainUnit=  minTargetSize=0  minTargetSizeMin=0  minTargetSizeMax=1000000  minTargetSizeUnit=cm2  maxTargetSize=0  maxTargetSizeMin=0  maxTargetSizeMax=1000000  maxTargetSizeUnit=cm2  minTime=1  minTimeMin=5  minTimeMax=60  minTimeUnit=S  forbiddenType=1  minimum=1  minimumMin=1  minimumMax=99999  minimumUnit=  maximum=1  maximumMin=1  maximumMax=99999  maximumUnit=  draw=1  presetMode=0  alarmOutCount=1  alarmLinkageCount=4  alarmLinkageBegin=1  actionType=2  next\_AlarmLinkageURL=2  actionType=4  next\_AlarmLinkageURL=3  actionType=7  next\_AlarmLinkageURL=4  actionType=10  alarmLinkageEnd=1 |

##### Capability Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **region** | Area drawing  0: Not supported  1: Support | 0-1 | int |
| **maxEdgeNum** | Number of lines |  | int |
| **maxRegionNum** | Number of regions |  | int |
| **uploadDetail** | Upload Details  0: Not supported  1: Support | 0-1 | int |
| **pathAnalysis** | Analysis Path  0: Not supported  1: Support | 0-1 | int |
| **pathAnalysisMin** | Analyze the minimum path |  | int |
| **pathAnalysisMax** | Analyze the maximum path |  |  |
| **pathAnalysisUnit** | Analysis Path Units |  | string |
| **targetSizeConstrain** | Limit target size  0: Not supported  1: Support | 0-1 | int |
| **targetSizeConstrainMin** | Limit the minimum target size |  | int |
| **targetSizeConstrainMax** | Limit the maximum size of the target |  | int |
| **targetSizeConstrainUnit** | Limit target size units |  | string |
| **minTargetSize** | Minimum target size  0: Support  1: Not supported | 0-1 | int |
| **minTargetSizeMin** | Minimum target size |  | int |
| **minTargetSizeMax** | Minimum target maximum size |  | int |
| **minTargetSizeUnit** | Minimum target unit |  | string |
| **maxTargetSize** | Maximum target size  0: Not supported  1: Support | 0-1 | int |
| **maxTargetSizeMin** | Maximum target minimum size |  | int |
| **maxTargetSizeMax** | Maximum target size |  | int |
| **maxTargetSizeUnit** | Maximum target unit |  | string |
| **minTime** | Minimum wandering time  0: Not supported  1: Support | 0-1 | int |
| **minTimeMin** | Minimum hovering time |  | int |
| **minTimeMax** | Minimum wandering time maximum |  | int |
| **minTimeUnit** | Minimum wandering time unit |  | string |
| **forbiddenType** | Limit the number of people  0: Not supported  1: Support | 0-1 | int |
| **minimum** | Minimum  0: Not supported  1: Support | 0-1 | int |
| **minimumMin** | Minimum value |  | int |
| **minimumMax** | Minimum Maximum |  | int |
| **minimumUnit** | Minimum unit |  | string |
| **maximum** | Maximum  0: Not supported  1: Support |  | int |
| **maximumMin** | Maximum value minimum |  | int |
| **maximumMax** | Maximum value |  | int |
| **maximumUnit** | Maximum value unit |  | string |
| **draw** | Video Stream Line Drawing  0: Not supported  1: Support | 0-1 | int |
| **presetMode** | Mode (PTZ device)  0: Not supported  1: Support | 0-1 | int |
| **alarmOutCount** | Number of alarm outputs |  | int |
| **alarmLinkageCount** | Number of linkage alarms |  | int |
| **alarmLinkageBegin** | Linkage alarm start mark |  | int |
| **actionType** | alarm type  1: Alarm output  2: Alarm email  3: Alarm PTZ  4: Alarm video  7: FTP upload  10: Audio alarm  11: LED alarm  14: White light alarm |  | int |
| **next\_AlarmLinkageURL** | Next linkage alarm start mark |  | int |
| **alarmLinkageEnd** | Linkage alarm end mark |  | int |

##### Get MultiLoitering Detection Parameters (getMultiLoiteringParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **multiLoiteringParam** &cameraID=<cameraID> |
| **Description** | Refer to [URL Descriptions](#_多人徘徊检测参数) |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=multiLoiteringParam&cameraID=1 |
| **Return** | enableFlag=1  uploadDetail=0  draw=0  alarmOut=0  alarmRecord=1  alarmSMTP=1  alarmFTP=1  forbiddenTypeEnable=1  minNum=1  maxNum=5  targetSizeEnable=1  targetMaxSize=100000  targetMinSize=1000  minLeftTime=10  pathAnalysis=1  regionCount=1  regionBegin=1  pointCount=3  pointBegin=1  pointX=31.220097  pointY=14.102564  next\_pointURL=2  pointX=86.722488  pointY=39.316238  next\_pointURL=3  pointX=31.220097  pointY=78.205132  pointEnd=3  regionEnd=1  weekDayCount=2  weekDayBegin=1  weekDay=1  startTime=25200  endTime=27000  next\_weekDayURL=2  weekDay=3  startTime=46800  endTime=48600  weekDayEnd=2 |

##### Set MultiLoiteringParam

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **multiLoiteringParam** &cameraID=1[&<argument>=<value>...] |
| **Description** | Refer to [URL Descriptions](#_多人徘徊检测参数) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=multiLoiteringParam&cameraID=1&enableFlag=1&draw=1&alarmOut=0&alarmRecord=0&alarmSMTP=1&alarmFTP=0&alarmSound=1&alarmSoundType=3&regionCount=2&regionBegin=1&minLoiteringTime=25&forbiddenTypeEnable=0&minNum=1&maxNum=5&pointCount=3&pointBegin=1&pointX=18.899521&pointY=32.051281&next\_pointURL=2&pointX=19.856459&pointY=71.367523&next\_pointURL=3&pointX=40.430622&pointY=23.504274&pointEnd=3&next\_regionURL=2&minLoiteringTime=25&forbiddenTypeEnable=0&minNum=1&maxNum=5&pointCount=3&pointBegin=1&pointX=45.454544&pointY=70.512817&next\_pointURL=2&pointX=59.569378&pointY=24.786325&next\_pointURL=3&pointX=82.296654&pointY=79.487183&pointEnd=3&regionEnd=1&weekDayCount=29&weekDayBegin=1&weekDay=0&startTime=21600&endTime=23400&next\_weekDayURL=2&weekDay=0&startTime=32400&endTime=36000&next\_weekDayURL=3&weekDay=0&startTime=45000&endTime=55800&next\_weekDayURL=4&weekDay=1&startTime=21600&endTime=23400&next\_weekDayURL=5&weekDay=1&startTime=30600&endTime=32400&next\_weekDayURL=6&weekDay=1&startTime=34200&endTime=36000&next\_weekDayURL=7&weekDay=1&startTime=45000&endTime=46800&next\_weekDayURL=8&weekDay=1&startTime=54000&endTime=55800&next\_weekDayURL=9&weekDay=2&startTime=21600&endTime=23400&next\_weekDayURL=10&weekDay=2&startTime=28800&endTime=30600&next\_weekDayURL=11&weekDay=2&startTime=34200&endTime=36000&next\_weekDayURL=12&weekDay=2&startTime=45000&endTime=46800&next\_weekDayURL=13&weekDay=2&startTime=54000&endTime=55800&next\_weekDayURL=14&weekDay=3&startTime=21600&endTime=23400&next\_weekDayURL=15&weekDay=3&startTime=27000&endTime=28800&next\_weekDayURL=16&weekDay=3&startTime=34200&endTime=36000&next\_weekDayURL=17&weekDay=3&startTime=45000&endTime=54000&next\_weekDayURL=18&weekDay=4&startTime=21600&endTime=23400&next\_weekDayURL=19&weekDay=4&startTime=25200&endTime=27000&next\_weekDayURL=20&weekDay=4&startTime=34200&endTime=36000&next\_weekDayURL=21&weekDay=4&startTime=45000&endTime=46800&next\_weekDayURL=22&weekDay=4&startTime=54000&endTime=55800&next\_weekDayURL=23&weekDay=5&startTime=21600&endTime=25200&next\_weekDayURL=24&weekDay=5&startTime=34200&endTime=36000&next\_weekDayURL=25&weekDay=5&startTime=45000&endTime=46800&next\_weekDayURL=26&weekDay=5&startTime=54000&endTime=55800&next\_weekDayURL=27&weekDay=6&startTime=21600&endTime=23400&next\_weekDayURL=28&weekDay=6&startTime=34200&endTime=36000&next\_weekDayURL=29&weekDay=6&startTime=45000&endTime=55800&weekDayEnd=29 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Loiteringing Detection Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **presetMode** | Mode (PTZ device)  1: Normal mode  2: Preset point mode | 1-2 | int |
| **presetCount** | Number of preset positions (PTZ device) |  | i nt |
| **resetBegin​** | Preset position start mark (PTZ device) |  | i nt |
| **presetID** | Preset ID  - 1 : Get all preset positions  0: Get or set normal mode  > 0 : Get or set the specified preset position |  | i nt |
| **enableFlag** | switch  0: Off  1: On | 0-1 | int |
| clearArea | Upload Details  0: Normal setting  1: Delete area | 0-1 | Int​ |
| **draw** | Video Stream Line Drawing  0: Off  1: On | 0-1 | int |
| **uploadDetail** | Upload Details  0: Off  1: On | 0-1 | int |
| **AlarmLinkageParam** | Alarm linkage operation behavior  Clean:Clear all | clean | string |
| **alarmOut** | Alarm Output  0: Off  1: On | 0-1 | int |
| **alarmOut2** | Alarm 2 output  0: Off  1: On | 0-1 | int |
| **alarmRecord** | Alarm video  0: Off  1: On | 0-1 | int |
| **alarmRecordLinkChannel** | Alarm video linkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSMTP** | Alarm Email  0: Off  1: On | 0-1 | int |
| **alarmSMTPLinkChannel** | Alarm Email inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmFTP** | FTP Upload  0: Off  1: On | 0-1 | int |
| **alarmFTPLinkChannel** | FTP Upload  inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSound** | Sound detection alarm  0: Off  1: On | 0-1 | int |
| **alarmSoundType** | Audio alarm file | 0-13 | int |
| **alarmLED** | LED Alarm  0: Off  1: On | 0-1 | int |
| **alarmWhiteLED** | White light alarm  0: Off  1: On | 0-1 | int |
| **targetSizeEnable** | Limited size  0: Off  1: On | 0-1 | int |
| **targetMaxSize** | Limit the maximum size of the target |  | int |
| **targetMinSize** | Limit the minimum target size |  | int |
| **targetSizeEnableV2** | Limit target maximum and minimum switches  0: Off  1: On | 0-1 | Int |
| **maxTargetWidth** | Limit the maximum width of the target |  | int |
| **maxTargetHeight** | Limit target maximum height |  | int |
| **minTargetWidth** | Limit the minimum width of the target |  | int |
| **minTargetHeight** | Limit the minimum target height |  | int |
| **minLoiteringTime** | Minimum hovering time (seconds) |  | int |
| **pathAnalysis** | Wandering Path Analysis  0: Off  1: On | 0-1 | int |
| **forbiddenTypeEnable** | Limit the number of people  0: Off  1: On | 0-1 | int |
| **minNum** | Minimum number of people |  | int |
| **maxNum** | Limit the number of people |  | int |
| **regionCount** | Number of regions |  | int |
| **regionBegin** | Area parameter start mark |  | int |
| **pointCount** | Number of coordinate points |  | int |
| **pointBegin** | Coordinate point start mark |  | int |
| **pointX** | Horizontal coordinate value |  | float |
| **pointY** | Vertical coordinate value |  | float |
| **next\_pointURL** | The next point coordinate starts marking |  | int |
| **pointEnd** | Point coordinate end mark |  | int |
| **next\_regionURL** | Next area parameter start mark |  | int |
| **regionEnd** | End of area parameters |  | int |
| **weekDayCount** | Number of defenses |  | int |
| **weekDayBegin** | Arming start indicator |  | int |
| **weekDay** | which day | 0-6 | int |
| **startTime** | Arming start time (seconds) |  | int |
| **endTime** | Arming end time (seconds) |  | int |
| **next\_weekDayURL** | Next arming time start mark |  | int |
| **weekDayEnd** | Arming end mark |  | int |
| **next\_PresetURL** | Next preset position start mark |  | i nt |
| **p resetEnd** | Preset end mark |  | i nt |

#### Object Left (To be determined)

##### Get object left detection parameters (getObjLeftParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **objLeftParam** &cameraID=<cameraID> |
| **Description** | Contains [common parameters for intelligent analysis](#智能分析共用参数列表) and [item legacy](#_物品遗留参数) parameters |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=objLeftParam&cameraID=1 |
| **Return** | (IPC)  enableFlag=1  uploadDetail=1  draw=1  alarmOut=0  alarmRecord=1  alarmSMTP=1  alarmFTP=1  regionCount=1  regionBegin=1  targetMaxSize=10000  targetMinSize=100  minLoiteringTime=5  pointCount=4  pointBegin=1  pointX=25.478470  pointY=25.641026  next\_pointURL=2  pointX=69.976074  pointY=27.777779  next\_pointURL=3  pointX=52.272728  pointY=70.940170  next\_pointURL=4  pointX=12.320574  pointY=45.726494  pointEnd=4  regionEnd=1  weekDayCount=2  weekDayBegin=1  weekDay=1  startTime=19800  endTime=21600  next\_weekDayURL=2  weekDay=2  startTime=46800  endTime=48600  weekDayEnd=2  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set object left detection parameters (setObjLeftParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **objLeftParam** &cameraID=1[&<argument>=<value>...] |
| **Description** | Set parameter reference [item legacy](#_物品遗留参数) |
| **Example** | [http://192.168.17.189/cgi-bin/param.cgi?action=set&type=objLeftParam&cameraID=1&enableFlag=1&uploadDetail=1&draw=1&alarmOut=0&alarmRecord=1&alarmSMTP=1&alarmFTP=1&regionCount=1&regionBegin=1&targetMaxSize=10000&targetMinSize=100&minLoiteringTime=5&pointCount=4&pointBegin=1&pointX=25.478470&pointY=25.641026&next \_pointURL=2&pointX=69.976074&pointY=27.777779&next\_pointURL=3&pointX=52.272728&pointY=70.940170&next\_pointURL=4&pointX=12.320574&pointY=45.726494&pointEnd=4&regionEnd=1&weekDayCount=2&weekDayBegin=1&weekDay=1&startTime=19800&endTime=21600&next\_weekDayURL=2&weekDay=2&startTime=46800&endTime=48600&weekDayEnd=2](http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=objLeftParam&cameraID=1&enableFlag=1&uploadDetail=1&draw=1&alarmOut=0&alarmRecord=1&alarmSMTP=1&alarmFTP=1&regionCount=1&regionBegin=1&targetMaxSize=10000&targetMinSize=100&minLoiterTime=5&pointCount=4&pointBegin=1&pointX=25.478470&pointY=25.641026&next_pointURL=2&pointX=69.976074&pointY=27.777779&next_pointURL=3&pointX=52.272728&pointY=70.940170&next_pointURL=4&pointX=12.320574&pointY=45.726494&pointEnd=4&regionEnd=1&weekDayCount=2&weekDayBegin=1&weekDay=1&startTime=19800&endTime=21600&next_weekDayURL=2&weekDay=2&startTime=46800&endTime=48600&weekDayEnd=2) |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Item left behind parameters

Table 2-6-9-7-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **IntelligentCommonParam** | < [IntelligentCommonParam](#智能分析共用参数列表) > | Intelligent analysis of shared parameters.  For specific URL, Refer to [the list of common parameters for intelligent analysis.](#智能分析共用参数列表) |
| **uploadDetail** | <int>{0,1} | Whether to upload target details.  0: No (default)  1: Yes |
| **regionCount** | <int>[0,32] | Number of detection areas.  When setting, this flag must be carried to indicate the number of regions. For details, Refer to [the group text rules](#_组文本规则：) |
| **region Begin** | <int>{1} | The region loop body starts marking.  When setting, this flag must be included. There is no specific requirement for the value. For details, Refer to [the group text rules](#_组文本规则：) |
| **ObjLeftRegionParam** | < [ObjLeftRegionParam](#物品遗留区域参数列表) > | Individual zone parameters.  For specific parameters, please Refer to: [Items Left Behind Area Parameter List](#物品遗留区域参数列表) |
| **next\_ region URL** | <int>{2,32} | Next area identifier.  Start from 2. If the value is 2, it means that the following parameter is the second item. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. For details, Refer to [the group text rules](#_组文本规则：) |
| **region End** | <int>[1,32] | The region loop body ends.  When the configuration behavior is set, this flag must be carried, and the value is the number. For details, Refer to [Group Text Rules](#_组文本规则：) |

**Item left area parameter list ObjLeftRegionParam:**

Table 2-6-9-7-3-2

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **targetMaxSize** | <int>[10,40000] | Maximum size of the item (cm^2).  10000 (default) |
| **targetMinSize** | <int>[10,40000] | Minimum item size (cm^2).  100 (default) |
| **minLeftTime** | <int>[5,60] | Minimum carryover time (s).  5 (default) |
| **RegionParam** | < [RegionParam](#区域参数列表) > | Area parameters.  For detailed parameters, please Refer to: [Regional Parameters](#区域参数列表) |

#### Object Removed (TBD)

##### Get object removal detection parameters (getObjMovedParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **objMovedParam** &cameraID=<cameraID> |
| **Description** | Contains [common parameters for intelligent analysis](#智能分析共用参数列表) and [object removal detection](#_物品移走检测参数) parameters |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=objMovedParam&cameraID=1 |
| **Return** | (IPC)  enableFlag=1  uploadDetail=1  draw=1  alarmOut=0  alarmRecord=1  alarmSMTP=1  alarmFTP=1  regionCount=1  regionBegin=1  targetMaxSize=10000  targetMinSize=100  minMovedTime=5  pointCount=3  pointBegin=1  pointX=35.047848  pointY=15.811966  next\_pointURL=2  pointX=78.588516  pointY=49.572651  next\_pointURL=3  pointX=14.952153  pointY=76.068375  pointEnd=3  regionEnd=1  weekDayCount=2  weekDayBegin=1  weekDay=0  startTime=25200  endTime=27000  next\_weekDayURL=2  weekDay=0  startTime=55800  endTime=57600  weekDayEnd=2  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set object removal detection parameters (setObjMovedParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **objMovedParam** &cameraID=1[&<argument>=<value>...] |
| **Description** | Set parameters as per [object removal detection](#_物品移走检测参数) |
| **Example** | [http://192.168.17.189/cgi-bin/param.cgi?action=set&type=objMovedParam&cameraID=1&enableFlag=1&uploadDetail=1&alarmOut=1&alarmRecord=1&alarmSMTP=1&alarmFTP=1&draw=1&regionCount=1&regionBegin=1&targetMaxSize=500&targetMinSize=50&minMovedTime=10&pointCount=4&pointBegin=1&pointX=4.4&pointY= 10.10&next\_pointURL=2&pointX=4.4&pointY=50.50&next\_pointURL=3&pointX=25.25&pointY=50.50&next\_pointURL=4&pointX=25.25&pointY=10.10&pointEnd=4&regionEnd=1&weekDayCount=2&weekDayBegin=1&weekDay=0&startTime=60&endTime=86400&next\_weekDayURL=2&weekDay=1&startTime=360&endTime=12800&weekDayEnd=2](http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=objMovedParam&cameraID=1&enableFlag=1&uploadDetail=1&alarmOut=1&alarmRecord=1&alarmSMTP=1&alarmFTP=1&draw=1&regionCount=1&regionBegin=1&targetMaxSize=500&targetMinSize=50&minMovedTime=10&pointCount=4&pointBegin=1&pointX=4.4&pointY=10.10&next_pointURL=2&pointX=4.4&pointY=50.50&next_pointURL=3&pointX=25.25&pointY=50.50&next_pointURL=4&pointX=25.25&pointY=10.10&pointEnd=4&regionEnd=1&weekDayCount=2&weekDayBegin=1&weekDay=0&startTime=60&endTime=86400&next_weekDayURL=2&weekDay=1&startTime=360&endTime=12800&weekDayEnd=2) |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Object removal detection parameters

Table 2-6-9-8-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **IntelligentCommonParam** | < [IntelligentCommonParam](#智能分析共用参数列表) > | Intelligent analysis of shared parameters.  For specific URL, Refer to [the list of common parameters for intelligent analysis.](#智能分析共用参数列表) |
| **uploadDetail** | <int>{0,1} | Whether to upload target details.  0: No (default)  1: Yes |
| **regionCount** | <int>[0,32] | Number of detection areas.  When setting, this flag must be carried to indicate the number of regions. For details, Refer to [the group text rules](#_组文本规则：) |
| **region Begin** | <int>{1} | The region loop body starts marking.  When setting, this flag must be included. There is no specific requirement for the value. For details, Refer to [the group text rules](#_组文本规则：) |
| **ObjMovedRegionParam** | < [ObjMovedRegionParam](#物品移走区域参数列表) > | Individual zone parameters.  For specific parameters, please Refer to: [Item removal area parameter list](#物品移走区域参数列表) |
| **next\_ region URL** | <int>[2,32] | Next area identifier.  Start from 2. If the value is 2, it means that the following parameter is the second item. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. For details, Refer to [the group text rules](#_组文本规则：) |
| **region End** | <int>[1,32] | The region loop body ends.  When the configuration behavior is set, this flag must be carried, and the value is the number. For details, Refer to [Group Text Rules](#_组文本规则：) |

**Object removal area parameter list ObjMovedRegionParam:**

Table 2-6-9-8-3-2

|  |  |  |
| --- | --- | --- |
| **parameter** | **type of data** | **Remark** |
| **targetMaxSize** | <int>[10,40000] | Maximum size of the item (cm^2).  10000 (default) |
| **targetMinSize** | <int>[10,40000] | Minimum item size (cm^2).  100 (default) |
| **minMovedTime** | <int>[5,60] | Minimum time to remove (s).  5 (default) |
| **RegionParam** | < [RegionParam](#区域参数列表) > | Area parameters.  For detailed parameters, please Refer to: [Regional Parameters](#区域参数列表) |

#### Abnormal Speed (TBD)

##### Get Abnormal Speed Detection Parameters (getAbnormalSpeedParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **abnormalSpeedParam** &cameraID=<cameraID> |
| **Description** | Contains [common parameters for intelligent analysis](#智能分析共用参数列表) and [abnormal speed detection](#_异常速度检测参数) parameters |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=abnormalSpeedParam&cameraID =1 |
| **Return** | (IPC)  enableFlag=1  uploadDetail=1  draw=1  alarmOut=0  alarmRecord=1  alarmSMTP=1  alarmFTP=1  regionCount=1  regionBegin=1  targetTypeEnable=1  targetType=1  targetSizeEnable=1  targetMaxSize=100000  targetMinSize=1000  minSpeed=0  maxSpeed=10  pointCount=3  pointBegin=1  pointX=17.822966  pointY=23.504274  next\_pointURL=2  pointX=82.655502  pointY=23.504274  next\_pointURL=3  pointX=41.746410  pointY=92.735046  pointEnd=3  regionEnd=1  weekDayCount=2  weekDayBegin=1  weekDay=2  startTime=21600  endTime=23400  next\_weekDayURL=2  weekDay=2  startTime=63000  endTime=64800  weekDayEnd=2  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set abnormal speed detection parameters (setAbnormalSpeedParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **abnormalSpeedParam** &cameraID=1[&<argument>=<value>...] |
| **Description** | Set parameters to refer to [abnormal speed detection](#_异常速度检测参数) |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=set&type=abnormalSpeedParam&cameraID=1&enableFlag=1&uploadDetail=1&draw=1&alarmOut=0&alarmRecord=1&alarmSMTP=1&alarmFTP=1&regionCount=1&regionBegin=1&targetTypeEnable=1&targetType=1&targetSizeEnable=1&targetMaxSize=100000&targetMinSize=1000&minSpeed=0&maxSpeed=10&pointC ount=3&pointBegin=1&pointX=17.822966&pointY=23.504274&next\_pointURL=2&pointX=82.655502&pointY=23.504274&next\_pointURL=3&pointX=41.746410&pointY=92.735046&pointEnd=3&regionEnd=1&weekDayCount=2&weekDayBegin=1&weekDay=2&startTime=21600&endTime=23400&next\_weekDayURL=2&weekDay=2&startTime=63000&endTime=64800&weekDayEnd=2 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Abnormal speed detection parameters

Table 2-6-9-9-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **IntelligentCommonParam** | < [IntelligentCommonParam](#智能分析共用参数列表) > | Intelligent analysis of shared parameters.  For details on the specific URL, Refer to: [List of](#智能分析共用参数列表) common parameters for intelligent analysis |
| **uploadDetail** | <int>{0,1} | Whether to upload target details.  0: No (default)  1: Yes |
| **regionCount** | <int>[0,32] | Number of detection areas.  When setting, this flag must be carried to indicate the number of regions. For details, Refer to [the group text rules](#_组文本规则：) |
| **region Begin** | <int>{1} | The region loop body starts marking.  When setting, this flag must be included. There is no specific requirement for the value. For details, Refer to [the group text rules](#_组文本规则：) |
| **AbnormalSpeed RegionParam** | < [AbnormalSpeed RegionParam](#异常速度区域参数列表) > | Individual zone parameters.  For specific parameters, please Refer to: [Abnormal speed area parameter list](#异常速度区域参数列表) |
| **next\_ region URL** | <int>[2,32] | Next area identifier.  Start from 2. If the value is 2, it means that the following parameter is the second item. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. For details, Refer to [the group text rules](#_组文本规则：) |
| **region End** | <int>[1,32] | The region loop body ends.  When the configuration behavior is set, this flag must be carried, and the value is the number. For details, Refer to [Group Text Rules](#_组文本规则：) |

**AbnormalSpeedRegionParam:**

Table 2-6-9-9-3-2

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **targetTypeEnable** | <int>{0,1} | Whether to limit the target type.  0: No (default)  1: Yes |
| **targetType** | <int>{0,1,2} | The target qualification type.  0: person or car (default)  1 person  2: Car |
| **targetSizeEnable** | <int>{0,1} | Whether to limit the target size.  0: No (default)  1: Yes |
| **targetMaxSize** | <int>[0,1000000] | Limit the maximum target size (cm^2).  100000 (default) |
| **targetMinSize** | <int>[0, 1000000] | Limit the minimum target size (cm^2).  1000 (default) |
| **minSpeed** | <int>[0,1000] | Minimum movement speed (m/s).  0 (default) |
| **maxSpeed** | <int>[0,1000] | Maximum movement speed (m/s).  10(default) |
| **RegionParam** | < [RegionParam](#区域参数列表) > | Area parameters.  For detailed parameters, please Refer to: [Regional Parameters](#区域参数列表) |

#### Converse

##### Acquisition Capability (IPC)

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **converseAbility** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= converseAbility |
| **Description** | Refer to [URL Descriptions](#_能力参数说明_2) |
| **Return** | region=1  maxEdgeNum=8  maxRegionNum=8  uploadDetail=0  targetTypeConstrain=1  targetTypeConstrainMin=0  targetTypeConstrainMax=1  targetTypeCount=3  targetTypeBegin=1  targetType=0  next\_TargetTypeURL=2  targetType=1  next\_TargetTypeURL=3  targetType=2  targetTypeEnd=1  targetSizeConstrain=0  targetSizeConstrainMin=0  targetSizeConstrainMax=1  targetSizeConstrainUnit=  minTargetSize=1  minTargetSizeMin=0  minTargetSizeMax=1000000  minTargetSizeUnit=cm2  maxTargetSize=1  maxTargetSizeMin=0  maxTargetSizeMax=1000000  maxTargetSizeUnit=cm2  converseAngle=1  converseAngleMin=0.000000  converseAngleMax=360.000000  converseAngleUnit=degree  draw=1  presetMode=0  alarmOutCount=1  alarmLinkageCount=4  alarmLinkageBegin=1  actionType=2  next\_AlarmLinkageURL=2  actionType=4  next\_AlarmLinkageURL=3  actionType=7  next\_AlarmLinkageURL=4  actionType=10  alarmLinkageEnd=1 |

##### Description of capacity parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **region** | Area drawing  0: Not supported  1: Support | 0-1 | int |
| **maxEdgeNum** | Number of lines |  | int |
| **maxRegionNum** | Number of regions |  | int |
| **uploadDetail** | Upload Details  0: Not supported  1: Support | 0-1 | int |
| **targetTypeConstrain** | Limit upload types  0: Not supported  1: Support | 0-1 | int |
| **targetTypeConstrainMin** | Limit the minimum value of upload type |  | int |
| **targetTypeConstrainMax** | Limit the maximum value of upload type |  | int |
| **targetTypeCount** | Limit the number of target types |  | int |
| **targetTypeBegin** | Qualified target type start identifier |  | int |
| **targetType** | Target Type  0: person or car  1 person  2: Car | 0-2 | int |
| **next\_TargetTypeURL** | Next item defines the target type start mark |  | int |
| **targetTypeEnd** | Qualified target type end marker |  | int |
| **targetSizeConstrain** | Limit target size  0: Not supported  1: Support | 0-1 | int |
| **targetSizeConstrainMin** | Limit the minimum target size |  | int |
| **targetSizeConstrainMax** | Limit the maximum size of the target |  | int |
| **targetSizeConstrainUnit** | Limit target size units |  | string |
| **minTargetSize** | Minimum target size  0: Support  1: Not supported | 0-1 | int |
| **minTargetSizeMin** | Minimum target size |  | int |
| **minTargetSizeMax** | Minimum target maximum size |  | int |
| **minTargetSizeUnit** | Minimum target unit |  | string |
| **maxTargetSize** | Maximum target size  0: Not supported  1: Support | 0-1 | int |
| **maxTargetSizeMin** | Maximum target minimum size |  | int |
| **maxTargetSizeMax** | Maximum target size |  | int |
| **maxTargetSizeUnit** | Maximum target unit |  | string |
| **converseAngle** | Retrograde Angle  0: Not supported  1: Support | 0-1 | int |
| **converseAngleMin** | Minimum retrograde angle |  | float |
| **converseAngleMax** | Maximum retrograde angle |  | float |
| **converseAngleUnit** | Retrograde angle unit |  | string |
| **draw** | Video Stream Line Drawing  0: Not supported  1: Support | 0-1 | int |
| **presetMode** | Mode (PTZ device)  0: Not supported  1: Support | 0-1 | int |
| **alarmOutCount** | Number of alarm outputs |  | int |
| **alarmLinkageCount** | Number of linkage alarms |  | int |
| **alarmLinkageBegin** | Linkage alarm start mark |  | int |
| **actionType** | alarm type  1: Alarm output  2: Alarm email  3: Alarm PTZ  4: Alarm video  7: FTP upload  10: Audio alarm  11: LED alarm  14: White light alarm |  | int |
| **next\_AlarmLinkageURL** | Next linkage alarm start mark |  | int |
| **alarmLinkageEnd** | Linkage alarm end mark |  | int |

##### Get Converse Detection Parameters (getConverseParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **converseParam** &cameraID =<cameraID> |
| **Description** | Refer to [URL Descriptions](#_逆行检测参数) |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=converseParam&cameraID=1 |
| **Return** | (IPC)  enableFlag=1  uploadDetail=1  draw=1  alarmOut=0  alarmRecord=1  alarmSMTP=1  alarmFTP=1  regionCount=1  regionBegin=1  targetTypeEnable=1  targetType=0  targetSizeEnable=1  targetMaxSize=100000  targetMinSize=1000  converseAngle=359.999939  pointCount=3  pointBegin=1  pointX=34.090908  pointY=25.213675  next\_pointURL=2  pointX=16.387560  pointY=64.102562  next\_pointURL=3  pointX=75.478470  pointY=21.367521  pointEnd=3  regionEnd=1  weekDayCount=2  weekDayBegin=1  weekDay=2  startTime=18000  endTime=19800  next\_weekDayURL=2  weekDay=2  startTime=41400  endTime=43200  weekDayEnd=2 |

##### Set Converse Detection Parameters (setConverseParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **converseParam** &cameraID=1[&<argument>=<value>...] |
| **Description** | Refer to [URL Descriptions](#_逆行检测参数) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=converseParam&cameraID=1&enableFlag=1&draw=0&alarmOut=1&alarmRecord=1&alarmSMTP=0&alarmFTP=1&alarmSound=0&alarmSoundType=0&regionCount=3&regionBegin=1&targetTypeEnable=0&targetType=1&targetMaxSize=100000&targetMinSize=1000&ConverseAngle=0.000000&pointCount=4&pointBegin=1&pointX=11.722488&pointY=37.179485&next\_pointURL=2&pointX=12.200957&pointY=78.205132&next\_pointURL=3&pointX=34.210526&pointY=73.931625&next\_pointURL=4&pointX=32.057415&pointY=39.743591&pointEnd=4&next\_regionURL=2&targetTypeEnable=0&targetType=1&targetMaxSize=100000&targetMinSize=1000&ConverseAngle=0.000000&pointCount=4&pointBegin=1&pointX=57.655502&pointY=29.059830&next\_pointURL=2&pointX=97.368423&pointY=33.760685&next\_pointURL=3&pointX=87.320572&pointY=88.888885&next\_pointURL=4&pointX=56.459332&pointY=77.777779&pointEnd=4&next\_regionURL=3&targetTypeEnable=0&targetType=1&targetMaxSize=100000&targetMinSize=1000&ConverseAngle=0.000000&pointCount=3&pointBegin=1&pointX=40.669857&pointY=16.239317&next\_pointURL=2&pointX=43.301434&pointY=40.598289&next\_pointURL=3&pointX=53.110046&pointY=6.837607&pointEnd=3&regionEnd=1&weekDayCount=14&weekDayBegin=1&weekDay=0&startTime=25200&endTime=43200&next\_weekDayURL=2&weekDay=0&startTime=50400&endTime=68400&next\_weekDayURL=3&weekDay=1&startTime=41400&endTime=43200&next\_weekDayURL=4&weekDay=1&startTime=66600&endTime=68400&next\_weekDayURL=5&weekDay=2&startTime=41400&endTime=43200&next\_weekDayURL=6&weekDay=2&startTime=64800&endTime=66600&next\_weekDayURL=7&weekDay=3&startTime=25200&endTime=43200&next\_weekDayURL=8&weekDay=3&startTime=59400&endTime=64800&next\_weekDayURL=9&weekDay=4&startTime=25200&endTime=27000&next\_weekDayURL=10&weekDay=4&startTime=54000&endTime=59400&next\_weekDayURL=11&weekDay=5&startTime=25200&endTime=27000&next\_weekDayURL=12&weekDay=5&startTime=50400&endTime=54000&next\_weekDayURL=13&weekDay=6&startTime=25200&endTime=43200&next\_weekDayURL=14&weekDay=6&startTime=50400&endTime=68400&weekDayEnd=14 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Retrograde detection parameters

**IPC**

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **presetMode** | Mode (PTZ device)  1: Normal mode  2: Preset point mode | 1-2 | int |
| **presetCount** | Number of preset positions (PTZ device) |  | i nt |
| **resetBegin​** | Preset position start mark (PTZ device) |  | i nt |
| **presetID** | Preset ID  - 1 : Get all preset positions  0: Get or set normal mode  > 0 : Get or set the specified preset position |  | i nt |
| **enableFlag** | switch  0: Off  1: On | 0-1 | int |
| clearArea | Upload Details  0: Normal setting  1: Delete area | 0-1 | Int​ |
| **draw** | Video Stream Line Drawing  0: Off  1: On | 0-1 | int |
| **uploadDetail** | Upload Details  0: Off  1: On | 0-1 | int |
| **AlarmLinkageParam** | Alarm linkage operation behavior  Clean:Clear all | clean | string |
| **alarmOut** | Alarm Output  0: Off  1: On | 0-1 | int |
| **alarmOut2** | Alarm 2 output  0: Off  1: On | 0-1 | int |
| **alarmRecord** | Alarm video  0: Off  1: On | 0-1 | int |
| **alarmRecordLinkChannel** | Alarm video linkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSMTP** | Alarm Email  0: Off  1: On | 0-1 | int |
| **alarmSMTPLinkChannel** | Alarm Email inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmFTP** | FTP Upload  0: Off  1: On | 0-1 | int |
| **alarmFTPLinkChannel** | FTP Upload  inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSound** | Sound detection alarm  0: Off  1: On | 0-1 | int |
| **alarmSoundType** | Audio alarm file | 0-13 | int |
| **alarmLED** | LED Alarm  0: Off  1: On | 0-1 | int |
| **alarmWhiteLED** | White light alarm  0: Off  1: On | 0-1 | int |
| **regionCount** | Number of regions |  | int |
| **regionBegin** | Area parameter start mark |  | int |
| **pointCount** | Number of coordinate points |  | int |
| **pointBegin** | Coordinate point start mark |  | int |
| **pointX** | Horizontal coordinate value |  | float |
| **pointY** | Vertical coordinate value |  | float |
| **next\_pointURL** | The next point coordinate starts marking |  | int |
| **pointEnd** | Point coordinate end mark |  | int |
| **next\_regionURL** | Next area parameter start mark |  | int |
| **targetTypeEnable** | Limit target type  0: Off  1: On | 0-1 | int |
| **targetType** | Qualified Type  0: person or car  1 person  2: Car | 0-2 | int |
| **targetSizeEnable** | Limited size  0: Off  1: On | 0-1 | int |
| **targetMaxSize** | Limit the maximum size of the target |  | int |
| **targetMinSize** | Limit the minimum target size |  | int |
| **targetSizeEnableV2** | Limit target maximum and minimum switches  0: Off  1: On | 0-1 | Int |
| **maxTargetWidth** | Limit the maximum width of the target |  | int |
| **maxTargetHeight** | Limit target maximum height |  | int |
| **minTargetWidth** | Limit the minimum width of the target |  | int |
| **minTargetHeight** | Limit the minimum target height |  | int |
| **ConverseAngle** | Retrograde Angle |  | float |
| **regionEnd** | End of area parameters |  | int |
| **weekDayCount** | Number of defenses |  | int |
| **weekDayBegin** | Arming start indicator |  | int |
| **weekDay** | which day | 0-6 | int |
| **startTime** | Arming start time (seconds) |  | int |
| **endTime** | Arming end time (seconds) |  | int |
| **next\_weekDayURL** | Next arming time start mark |  | int |
| **weekDayEnd** | Arming end mark |  | int |
| **next\_PresetURL** | Next preset position start mark |  | i nt |
| **p resetEnd** | Preset end mark |  | i nt |

#### Illegal Parking (pending)

##### Get illegal parking detection parameters (getNoParkingParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **noParkingParam** &cameraID=<cameraID> |
| **Description** | Contains [common parameters for intelligent analysis](#智能分析共用参数列表) and [illegal parking detection](#_非法停车参数) parameters |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=noParkingParam&cameraID=1 |
| **Return** | (NVR)  enableFlag=1  uploadDetail=1  draw=1  alarmOut=0  alarmRecord=1  alarmSMTP=1  alarmFTP=1  regionCount=1  regionBegin=1  targetTypeEnable=1  targetType=0  targetSizeEnable=1  targetMaxSize=100000  targetMinSize=1000  converseAngle=359.999939  pointCount=3  pointBegin=1  pointX=34.090908  pointY=25.213675  next\_pointURL=2  pointX=16.387560  pointY=64.102562  next\_pointURL=3  pointX=75.478470  pointY=21.367521  pointEnd=3  regionEnd=1  weekDayCount=2  weekDayBegin=1  weekDay=2  startTime=18000  endTime=19800  next\_weekDayURL=2  weekDay=2  startTime=41400  endTime=43200  weekDayEnd=2  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set illegal parking detection parameters (setNoParkingParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **noParkingParam** &cameraID=1[&<argument>=<value>...] |
| **Description** | Set parameters as per [Illegal Parking Detection](#_非法停车参数) |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=set&type=noParkingParam&cameraID=1&enableFlag=1&uploadDetail=1&draw=1&alarmOut=0&alarmRecord=1&alarmSMTP=1&alarmFTP=1&regionCount=1&regionBegin=1&targetMaxSize=1000000&targetMinSize=1000&minLeftTime=5&pointCount=3&pointBegin=1&pointX=23.0 86124&pointY=26.068377&next\_pointURL=2&pointX=79.784691&pointY=28.205128&next\_pointURL=3&pointX=36.483253&pointY=73.076920&pointEnd=3&regionEnd=1&weekDayCount=2&weekDayBegin=1&weekDay=1&startTime=12600&endTime=14400&next\_weekDayURL=2&weekDay=2&startTime=39600&endTime=41400&weekDayEnd=2 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Illegal parking parameters

Table 2-6-9-11-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **type of data** | **Remark** |
| **IntelligentCommonParam** | < [IntelligentCommonParam](#智能分析共用参数列表) > | Intelligent analysis of shared parameters.  For specific URL, Refer to: [List of common parameters for intelligent analysis](#智能分析共用参数列表) |
| **uploadDetail** | <int>{0,1} | Whether to upload target details.  0: No (default)  1: Yes |
| **regionCount** | <int>[0,32] | Number of detection areas.  When setting, this flag must be carried to indicate the number of regions. For details, Refer to [the group text rules](#_组文本规则：) |
| **region Begin** | <int>{1} | The region loop body starts marking.  When setting, this flag must be included. There is no specific requirement for the value. For details, Refer to [the group text rules](#_组文本规则：) |
| **NoParkingRegionParam** | < [NoParkingRegionParam](#非法停车区域参数列表) > | Individual zone parameters.  For specific parameters, please Refer to: [Illegal parking area parameter list](#非法停车区域参数列表) |
| **next\_ region URL** | <int>[2,32] | Next area identifier.  Start from 2. If the value is 2, it means that the following parameter is the second item. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. For details, Refer to [the group text rules](#_组文本规则：) |
| **region End** | <int>[1,32] | The region loop body ends.  When the configuration behavior is set, this flag must be carried, and the value is the number. For details, Refer to [Group Text Rules](#_组文本规则：) |

**Illegal parking area parameter list NoParkingRegionParam:**

Table 2-6-9-11-3-2

|  |  |  |
| --- | --- | --- |
| **parameter** | **type of data** | **Remark** |
| **targetMaxSize** | <int>[0,1000000] | Maximum size of the vehicle (cm^2).  100000 (default) |
| **targetMinSize** | <int>[0,1000000] | Minimum vehicle size (cm^2).  1000 (default) |
| **minLeftTime** | <int>[5,60] | Minimum vehicle dwell time (s).  5 (default) |
| **RegionParam** | < [RegionParam](#区域参数列表) > | Area parameters.  For detailed parameters, please Refer to: [Regional Parameters](#区域参数列表) |

#### Signal Bad (pending) (IPC)

##### Get video signal anomaly detection parameters (getSignalBadParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **signalBadParam** &cameraID=<cameraID> |
| **Description** | Contains [intelligent analysis of common parameters](#智能分析共用参数列表) and [signal anomaly](#_信号异常参数) parameters |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=signalBadParam&cameraID=1 |
| **Return** | enableFlag=1  alarmOut=0  alarmRecord=1  alarmSMTP=1  alarmFTP=1  weekDayCount=2  weekDayBegin=1  weekDay=0  startTime=25200  endTime=27000  next\_weekDayURL=2  weekDay=3  startTime=45000  endTime=46800  weekDayEnd=2  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set video signal anomaly detection parameters (setSignalBadParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **signalBadParam** &cameraID=1[&<argument>=<value>...] |
| **Description** | Setting parameter reference [signal abnormality](#_信号异常参数) |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=set&type=signalBadParam&cameraID=1&enableFlag=1&alarmOut=0&alarmRecord=1&alarmSMTP=1&alarmFTP=1&weekDayCount=2&weekDayBegin=1&weekDay=0&startTime=25200&endTime=27000&next\_weekDayURL=2&weekDay=3&startTime=45000&endTime=46800&weekDayEnd=2 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Signal abnormality parameters

Table 2-6-9-12-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **type of data** | **Remark** |
| **IntelligentCommonParam** | < [IntelligentCommonParam](#智能分析共用参数列表) > | Intelligent analysis of shared parameters.  For specific URL, Refer to: [List of common parameters for intelligent analysis](#智能分析共用参数列表) |
| **uploadDetail** | <int>{0,1} | Whether to upload target details.  0: No (default)  1: Yes |

#### People Counting (ipc excluding the lite series/NVR)

##### Acquisition Capability (IPC)

|  |  |
| --- | --- |
| **URL** | **http** ://<ip>/cgi-bin/param.cgi?action=get&type=statisticAbility |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=statisticAbility​ |
| **Description** | Refer to [URL Descriptions](#_能力参数说明_3) |
| **Return** | presetMode=0  regionTypeCount=1  regionTypeBegin=1  regionType=1  regionTypeEnd=1  alarmOutCount=1  alarmLinkageCount=4  alarmLinkageBegin=1  actionType=2  next\_AlarmLinkageURL=2  actionType=4  next\_AlarmLinkageURL=3  actionType=7  next\_AlarmLinkageURL=4  actionType=10  alarmLinkageEnd=1 |

##### Capability Parameter Description (IPC)

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **presetMode** | Mode (PTZ device)  0: Not supported  1: Support | 0-1 | int |
| **regionTypeCount** | Number of area types |  | int |
| **regionTypeBegin** | Area type start identifier |  | int |
| **regionType** | Area Type  1: Line  2: Rectangle |  | int |
| **next\_regionTypeURL** | Next area type start mark |  | int |
| **regionTypeEnd** | End of area type |  | int |
| **alarmOutCount** | Number of alarm outputs |  | int |
| **alarmLinkageCount** | Number of linkage alarms |  | int |
| **alarmLinkageBegin** | Linkage alarm start mark |  | int |
| **actionType** | alarm type  1: Alarm output  2: Alarm email  3: Alarm PTZ  4: Alarm video  7: FTP upload  10: Audio alarm  11: LED alarm  14: White light alarm |  | int |
| **next\_AlarmLinkageURL** | Next linkage alarm start mark |  | int |
| **alarmLinkageEnd** | Linkage alarm end mark |  | int |

##### Get people counting parameters (getStisticsParam )

|  |  |
| --- | --- |
| **URL** | http:// <servername> **/cgi-bin/param.cgi?action=get&type=getStatisticsCfg&cameraID= <cameraID>** |
| **Description** | Refer to [URL Descriptions](#_人数统计参数) |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=getStatisticsCfg&cameraID=1**​​**​ |
| **Return** | enableFlag=1  alarmOut=0  alarmRecord=0  alarmSMTP=1  alarmFTP=0  alarmSound=1  alarmSoundType=4  OSDEnable=0  ClearStatisticsInterval=6  CustomClearTime=05:12:00  RegionType=1  CorrectionEnable=1  CorrectionValue=35  AlarmEnable=0  AlarmThreshold=1008  lineCrossStartX=79.779999  lineCrossStartY=7.260000  lineCrossEndX=81.699997  lineCrossEndY=51.709999  weekDayCount=4  weekDayBegin=1  weekDay=0  startTime=7200  endTime=30600  next\_weekDayURL=2  weekDay=0  startTime=61200  endTime=75600  next\_weekDayURL=3  weekDay=6  startTime=18000  endTime=54000  next\_weekDayURL=4  weekDay=6  startTime=81000  endTime=86400  weekDayEnd=4  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set people counting parameters (setStisticsParam )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **setStatisticsCfg &** cameraID=<cameraID> [&<argument>=<value>...] |
| **Description** | Refer to [URL Descriptions](#_人数统计参数) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=setStatisticsCfg&cameraID=1&enableFlag=1&alarmOut=0&alarmRecord=0&alarmSMTP=1&alarmFTP=0&alarmSound=1&alarmSoundType=4& OSDEnable=0&ClearStatisticsInterval=6&CustomClearTime=05:12:00&RegionType=1&CorrectionEnable=1&CorrectionValue=35&AlarmEnable=0&AlarmThreshold=1008&lineCrossStartX=79.779999&lineCrossStartY=7.260000&lineCrossEndX=81.699997&lineCrossEndY=51.709999&weekDayCount=4&weekDayBegin=1&weekDay=0&startTime=7200&endTime=30600&next\_weekDayURL=2&weekDay=0&startTime=61200&endTime=75600&next\_weekDayURL=3&weekDay=6&startTime=18000&endTime=54000&next\_weekDayURL=4&weekDay=6&startTime=81000&endTime=86400&weekDayEnd=4 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### People counting parameters

**(IPC)**

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **presetMode** | Mode (PTZ device)  1: Normal mode  2: Preset point mode | 1-2 | int |
| **presetCount** | Number of preset positions (PTZ device) |  | i nt |
| **resetBegin​** | Preset position start mark (PTZ device) |  | i nt |
| **presetID** | Preset ID  - 1 : Get all preset positions  0: Get or set normal mode  > 0 : Get or set the specified preset position |  | i nt |
| **enableFlag** | switch  0: Off  1: On | 0-1 | int |
| **AlarmLinkageParam** | Alarm linkage operation behavior  Clean:Clear all | clean | string |
| **alarmOut** | Alarm Output  0: Off  1: On | 0-1 | int |
| **alarmOut2** | Alarm 2 output  0: Off  1: On | 0-1 | int |
| **alarmRecord** | Alarm video  0: Off  1: On | 0-1 | int |
| **alarmRecordLinkChannel** | Alarm video linkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSMTP** | Alarm Email  0: Off  1: On | 0-1 | int |
| **alarmSMTPLinkChannel** | Alarm Email inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmFTP** | FTP Upload  0: Off  1: On | 0-1 | int |
| **alarmFTPLinkChannel** | FTP Upload  inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSound** | Sound detection alarm  0: Off  1: On | 0-1 | int |
| **alarmSoundType** | Audio alarm file | 0-13 | int |
| **alarmLED** | LED Alarm  0: Off  1: On | 0-1 | int |
| **alarmWhiteLED** | White light alarm  0: Off  1: On | 0-1 | int |
| **OSDEnable** | Enable OSD  0: Off  1: On |  | int |
| **ClearStatisticsInterval** | People counting clear interval  1:10 minutes  2: Half an hour  3: 1 hour  4: 12 hours  5: One day  6: Custom time (HH:mm) |  | int |
| **CustomClearTime** | Custom clearing time ( ClearStatisticsInterval = 6 is effective) |  | string |
| **RegionType** | Area Type  1: Line  2: Rectangle | 1-2 | int |
| **CorrectionEnable** | Configuring Calibration Values  0: Off  1: On | 0-1 | int |
| **CorrectionValue** | Statistical calibration values |  | int |
| **AlarmEnable** | Overcrowding alarm  0: Off  1: On | 0-1 | int |
| **AlarmThreshold** | Alarm threshold |  | int |
| **A2BOSDInfo** | OSD Information |  | string |
| **regionCount** | Number of regions |  | int |
| **regionBegin** | Area parameter start mark |  | int |
| **LineCrossStartX** | Starting point X coordinate ( RegionType=1  efficient ) |  | float |
| **LineCrossStart Y** | Starting point Y coordinate (RegionType=1  efficient) |  | float |
| **LineCross End X** | End point X coordinate (RegionType=1  efficient) |  | float |
| **LineCross EndY** | End point Y coordinate ( RegionType=1  efficient ) |  | float |
| **pointCount** | Number of coordinate points (RegionType= 2  efficient) |  | int |
| **pointBegin** | Coordinate point start mark (RegionType= 2  efficient) |  | int |
| **pointX** | Horizontal coordinate value (RegionType= 2  efficient) |  | float |
| **pointY** | Vertical coordinate value (RegionType= 2  efficient) |  | float |
| **next\_pointURL** | The next point coordinate starts marking (RegionType= 2  efficient) |  | int |
| **pointEnd** | Point coordinate end mark (RegionType= 2  efficient) |  | int |
| **next\_regionURL** | Next area parameter start mark |  | int |
| **regionEnd** | End of area parameters |  | int |
| **weekDayCount** | Number of defenses |  | int |
| **weekDayBegin** | Arming start indicator |  | int |
| **weekDay** | which day | 0-6 | int |
| **startTime** | Arming start time (seconds) |  | int |
| **endTime** | Arming end time (seconds) |  | int |
| **next\_weekDayURL** | Next arming time start mark |  | int |
| **weekDayEnd** | Arming end mark |  | int |
| **next\_PresetURL** | Next preset position start mark |  | i nt |
| **p resetEnd** | Preset end mark |  | i nt |

**People counting parameters (NVR)**

|  |  |  |
| --- | --- | --- |
| **parameter** | **type of data** | **Remark** |
| **IntelligentCommonParam** | < [IntelligentCommonParam](#智能分析共用参数列表) > | Intelligent analysis of shared parameters.  For specific URL, Refer to: [List of common parameters for intelligent analysis](#智能分析共用参数列表) |
| enableFlag | <int>{0,1} | People counting function switch. 0: Off 1: On |
| OSDEnable | <int>{0,1} | Whether to display personnel statistics on the image screen  0: No 1: Yes |
| ClearStatisticsInterval | <int>{1,5} | The interval for clearing the people statistics data.  1: 10 minutes 2: 30 minutes 3: 1 hour  4: 12 hours 5: 24 hours |
| CorrectionEnable | <int>{0,1} | Whether to configure calibration value  0: No 1: Yes |
| CorrectionValue | <int>{ -10000 , 999999 } | Calibration value only affects the data displayed on the OSD, not the actual parameters |
| Detection area description | A( LineCrossStartX , LineCrossStart Y )  B( LineCross End X , LineCross End Y ) | A->B: outbound direction  A->B: Inbound direction |
| LineCrossStartX | < float >{0,100} | The X coordinate of the starting point of the reference line on the image screen, with the left vertex as the origin |
| LineCrossStart Y | < float >{0,100} | The Y coordinate of the starting point of the reference line on the image screen, with the left vertex as the origin |
| LineCross End X | < float >{0,100} | The X coordinate of the end point of the reference line on the image screen, with the left vertex as the origin |
| LineCross EndY | < float >{0,100} | The Y coordinate of the end point of the reference line on the image screen, with the left vertex as the origin |
| AlarmEnable | <int>{0,1} | Whether to enable overcrowding alarm  0: No 1: Yes |
| AlarmThreshold | <int>{ -10000 , 999999 } | Overcrowding alarm threshold |
| **weekDayBegin** | <int> | Scheduled time start sign |
| weekDay | <int>{0,6} | which day  0-6,0 for Sunday |
| startTime [1 … ] | <int>{0,86400} | Start time |
| endTime [1 … ] | <int>{0,86400} | End time point. There can be multiple time periods in a day, such as startTime 1, endTime 1, startTime 2, endTime 2 .... The time value must be a multiple of 1800, and the two time periods cannot be repeated. |
| next\_weekDayURL | <int>{2,7} | Next scheduled time URL  Starts from 1. If the value is 1, it means the following parameter is the second one. |
| weekDayEnd | <int>{1,7} | The planned time ends. Fill in the number of days for deployment. |

##### Get the result of the headcount statistics (getStisticsInfo ) (IPC excluding the lite series)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type=getStatistics **Info & cameraID** =<cameraID> [&<argument>=<value>...] |
| **Description** | Returns the result of the people counting. For parameters, Refer to [the parameters](#_人数统计结果参数) of the people counting result . |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=statisticsInfo&cameraID=1&QueryType=2&QueryTimeYear=2020&QueryTimeMon=5&QueryTimeDay=13​​​​ |
| **Return** | StatisticsNumber=2  StatisticsTime=2020-05-14 00:00:00  EnterNumber=47  OutNumber=53  StatisticsTime=2020-05-15 00:00:00  EnterNumber=337  OutNumber=543 |

##### Parameters of people counting results (IPC excluding the lite series)

Table 2-6-9-13-5

|  |  |  |
| --- | --- | --- |
| **parameter** | **type of data** | **Remark** |
| QueryType | <int>{1,4} | Query Type  1: Query by day. You need to enter the specific day. The Returned statistics are for each hour of the day, up to 24 records.  2. To query by month, you need to enter the specific month, and the Returned statistics are for each day of the month, up to 31 records.  3. To query by year, you need to enter a specific year, and the Returned statistics are for each month of that year, up to 12 records.  4. Real-time query, input the current time, and Return the statistical records of each hour from the device startup time to the current time point on that day, up to 24 records |
| QueryTimeYear | <int>{2000,3000} | Year of query |
| QueryTimeMon | <int>{1,12} | Query month |
| QueryTimeDay | <int>{1,31} | Query days |
| StatisticsNumber | <int>{0,50000} | Number of people counting records |
| StatisticsTime | <string> | Statistics Time  Example: 2020-05-14 0 8 :0 5 :0 9 |
| EnterNumber | <int> | Number of people entering |
| OutNumber | <int> | Number of people going out |

#### Enter Area Detection ( IPC excluding the lite series/NVR )

##### Acquisition Capability (IPC)

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **enterAreaAbility** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= enterAreaAbility |
| **Description** | Refer to [URL Descriptions](#_能力参数说明_4) |
| **Return** | region=1  maxEdgeNum=8  maxRegionNum=8  uploadDetail=0  targetTypeConstrain=1  targetTypeConstrainMin=0  targetTypeConstrainMax=1  targetTypeCount=3  targetTypeBegin=1  targetType=0  next\_TargetTypeURL=2  targetType=1  next\_TargetTypeURL=3  targetType=2  targetTypeEnd=1  targetSizeConstrain=0  targetSizeConstrainMin=0  targetSizeConstrainMax=1  targetSizeConstrainUnit=  minTargetSize=0  minTargetSizeMin=0  minTargetSizeMax=1000000  minTargetSizeUnit=cm2  maxTargetSize=0  maxTargetSizeMin=0  maxTargetSizeMax=1000000  maxTargetSizeUnit=cm2  sensitivityCount=5  sensitivityBegin=1  sensitivity=1  next\_SensitivityURL=2  sensitivity=2  next\_SensitivityURL=3  sensitivity=3  next\_SensitivityURL=4  sensitivity=4  next\_SensitivityURL=5  sensitivity=5  sensitivityEnd=1  draw=1  alarmOutCount=1  alarmLinkageCount=4  alarmLinkageBegin=1  actionType=2  next\_AlarmLinkageURL=2  actionType=4  next\_AlarmLinkageURL=3  actionType=7  next\_AlarmLinkageURL=4  actionType=10  alarmLinkageEnd=1 |

##### Capability Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **region** | Area drawing  0: Not supported  1: Support | 0-1 | int |
| **maxEdgeNum** | Number of lines |  | int |
| **maxRegionNum** | Number of regions |  | int |
| **uploadDetail** | Upload Details  0: Not supported  1: Support | 0-1 | int |
| **targetTypeConstrain** | Limit upload types  0: Not supported  1: Support | 0-1 | int |
| **targetTypeConstrainMin** | Limit the minimum value of upload type |  | int |
| **targetTypeConstrainMax** | Limit the maximum value of upload type |  | int |
| **targetTypeCount** | Limit the number of target types |  | int |
| **targetTypeBegin** | Qualified target type start identifier |  | int |
| **targetType** | Target Type  0: person or car  1 person  2: Car | 0-2 | int |
| **next\_TargetTypeURL** | Next item defines the target type start mark |  | int |
| **targetTypeEnd** | Qualified target type end marker |  | int |
| **targetSizeConstrain** | Limit target size  0: Not supported  1: Support | 0-1 | int |
| **targetSizeConstrainMin** | Limit the minimum target size |  | int |
| **targetSizeConstrainMax** | Limit the maximum size of the target |  | int |
| **targetSizeConstrainUnit** | Limit target size units |  | string |
| **minTargetSize** | Minimum target size  0: Support  1: Not supported | 0-1 | int |
| **minTargetSizeMin** | Minimum target size |  | int |
| **minTargetSizeMax** | Minimum target maximum size |  | int |
| **minTargetSizeUnit** | Minimum target unit |  | string |
| **maxTargetSize** | Maximum target size  0: Not supported  1: Support | 0-1 | int |
| **maxTargetSizeMin** | Maximum target minimum size |  | int |
| **maxTargetSizeMax** | Maximum target size |  | int |
| **maxTargetSizeUnit** | Maximum target unit |  | string |
| **sensitivityCount** | Sensitivity number |  | int |
| **sensitivityBegin** | Sensitivity start mark |  | int |
| **sensitivity** | Sensitivity |  | int |
| **next\_SensitivityURL** | Next sensitivity start mark |  | int |
| **sensitivityEnd** | Sensitivity end mark |  | int |
| **draw** | Video Stream Line Drawing  0: Not supported  1: Support | 0-1 | int |
| **alarmOutCount** | Number of alarm outputs |  | int |
| **alarmLinkageCount** | Number of linkage alarms |  | int |
| **alarmLinkageBegin** | Linkage alarm start mark |  | int |
| **actionType** | alarm type  1: Alarm output  2: Alarm email  3: Alarm PTZ  4: Alarm video  7: FTP upload  10: Audio alarm  11: LED alarm  14: White light alarm |  | int |
| **next\_AlarmLinkageURL** | Next linkage alarm start mark |  | int |
| **alarmLinkageEnd** | Linkage alarm end mark |  | int |

##### Get the parameters for entering the area

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **enterAreaParam** &cameraID=<cameraID> ( NVR must carry the channel number ) |
| **Description** | Refer to [URL Descriptions](#_进入区域参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=enterAreaParam&cameraID=2 |
| **Return** | enableFlag=1  draw=1  sensitivity=3  alarmOut=1  alarmRecord=1  alarmSMTP=1  alarmFTP=1  alarmSound=1  alarmSoundType=7  regionCount=1  regionBegin=1  pointCount=3  pointBegin=1  pointX=36.124401  pointY=43.162392  next\_pointURL=2  pointX=37.559807  pointY=68.376068  next\_pointURL=3  pointX=51.196171  pointY=43.589745  pointEnd=3  regionEnd=1  weekDayCount=1  weekDayBegin=1  weekDay=0  startTime=0  endTime=1800  weekDayEnd=1 |

##### Set entry area parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=enterAreaParam **&** cameraID=1 |
| **Description** | Refer to [URL Descriptions](#_进入区域参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=enterAreaParam& enableFlag=1&uploadDetail=0&draw=1&sensitivity=5&alarmOut=1&alarmRecord=1&alarmSMTP=1&alarmFTP=1&alarmSound=1&alarmSoundType=0&regionCount=1&regionBegin=1&targetTypeEnable=1&targetType=0&targetSizeEnable=0&targetMaxSize=100000&targetMinSize=1000&pointCount=3&pointBegin=1&pointX=36.961723&pointY=66.239319&next\_pointURL=2&pointX=36.483253&pointY=86.324783&next\_pointURL=3&pointX=50.358852&pointY=86.324783&pointEnd=3&regionEnd=1&weekDayCount=2&weekDayBegin=1&weekDay=0&startTime=0&endTime=1800&next\_weekDayURL=2&weekDay=1&startTime=1800&endTime=3600&weekDayEnd=2 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of entry area parameters

**(IPC)**

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **enableFlag** | switch  0: Off  1: On | 0-1 | int |
| **draw** | Video Stream Line Drawing  0: Off  1: On | 0-1 | int |
| clearArea（IPC） | Upload Details  0: Normal setting  1: Delete area | 0-1 | Int​ |
| **uploadDetail** | Upload Details  0: Off  1: On | 0-1 | int |
| **AlarmLinkageParam** | Alarm linkage operation behavior  Clean:Clear all | clean | string |
| **alarmOut** | Alarm Output  0: Off  1: On | 0-1 | int |
| **alarmOut2** | Alarm 2 output  0: Off  1: On | 0-1 | int |
| **alarmRecord** | Alarm video  0: Off  1: On | 0-1 | int |
| **alarmRecordLinkChannel** | Alarm video linkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSMTP** | Alarm Email  0: Off  1: On | 0-1 | int |
| **alarmSMTPLinkChannel** | Alarm Email inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmFTP** | FTP Upload  0: Off  1: On | 0-1 | int |
| **alarmFTPLinkChannel** | FTP Upload  inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSound** | Sound detection alarm  0: Off  1: On | 0-1 | int |
| **alarmSoundType** | Audio alarm file | 0-13 | int |
| **alarmLED** | LED Alarm  0: Off  1: On | 0-1 | int |
| **alarmWhiteLED** | White light alarm  0: Off  1: On | 0-1 | int |
| **sensitivity** | Sensitivity |  | int |
| **targetTypeEnable** | Limit target type  0: Off  1: On | 0-1 | int |
| **targetType** | Qualified Type  0: person or car  1 person  2: Car | 0-2 | int |
| **targetSizeEnable** | Limited size  0: Off  1: On | 0-1 | int |
| **targetMaxSize** | Limit the maximum size of the target |  | int |
| **targetMinSize** | Limit the minimum target size |  | int |
| **targetSizeEnableV2** | Limit target maximum and minimum switches  0: Off  1: On | 0-1 | Int |
| **maxTargetWidth** | Limit the maximum width of the target |  | int |
| **maxTargetHeight** | Limit target maximum height |  | int |
| **minTargetWidth** | Limit the minimum width of the target |  | int |
| **minTargetHeight** | Limit the minimum target height |  | int |
| **regionCount** | Number of regions |  | int |
| **regionBegin** | Area parameter start mark |  | int |
| **pointCount** | Number of coordinate points |  | int |
| **pointBegin** | Coordinate point start mark |  | int |
| **pointX** | Horizontal coordinate value |  | float |
| **pointY** | Vertical coordinate value |  | float |
| **next\_pointURL** | The next point coordinate starts marking |  | int |
| **pointEnd** | Point coordinate end mark |  | int |
| **next\_regionURL** | Next area parameter start mark |  | int |
| **regionEnd** | End of area parameters |  | int |
| **weekDayCount** | Number of defenses |  | int |
| **weekDayBegin** | Arming start indicator |  | int |
| **weekDay** | which day | 0-6 | int |
| **startTime** | Arming start time (seconds) |  | int |
| **endTime** | Arming end time (seconds) |  | int |
| **next\_weekDayURL** | Next arming time start mark |  | int |
| **weekDayEnd** | Arming end mark |  | int |

#### Leave Area Detection ( IPC excluding the lite series/NVR )

##### Acquisition Capability (IPC)

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **leaveAreaAbility** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= leaveAreaAbility |
| **Description** | Refer to [URL Descriptions](#_能力参数说明_5) |
| **Return** | region=1  maxEdgeNum=8  maxRegionNum=8  uploadDetail=0  targetTypeConstrain=1  targetTypeConstrainMin=0  targetTypeConstrainMax=1  targetTypeCount=3  targetTypeBegin=1  targetType=0  next\_TargetTypeURL=2  targetType=1  next\_TargetTypeURL=3  targetType=2  targetTypeEnd=1  targetSizeConstrain=0  targetSizeConstrainMin=0  targetSizeConstrainMax=1  targetSizeConstrainUnit=  minTargetSize=0  minTargetSizeMin=0  minTargetSizeMax=1000000  minTargetSizeUnit=cm2  maxTargetSize=0  maxTargetSizeMin=0  maxTargetSizeMax=1000000  maxTargetSizeUnit=cm2  sensitivityCount=5  sensitivityBegin=1  sensitivity=1  next\_SensitivityURL=2  sensitivity=2  next\_SensitivityURL=3  sensitivity=3  next\_SensitivityURL=4  sensitivity=4  next\_SensitivityURL=5  sensitivity=5  sensitivityEnd=1  draw=1  alarmOutCount=1  alarmLinkageCount=4  alarmLinkageBegin=1  actionType=2  next\_AlarmLinkageURL=2  actionType=4  next\_AlarmLinkageURL=3  actionType=7  next\_AlarmLinkageURL=4  actionType=10  alarmLinkageEnd=1 |

##### Capability Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **region** | Area drawing  0: Not supported  1: Support | 0-1 | int |
| **maxEdgeNum** | Number of lines |  | int |
| **maxRegionNum** | Number of regions |  | int |
| **uploadDetail** | Upload Details  0: Not supported  1: Support | 0-1 | int |
| **targetTypeConstrain** | Limit upload types  0: Not supported  1: Support | 0-1 | int |
| **targetTypeConstrainMin** | Limit the minimum value of upload type |  | int |
| **targetTypeConstrainMax** | Limit the maximum value of upload type |  | int |
| **targetTypeCount** | Limit the number of target types |  | int |
| **targetTypeBegin** | Qualified target type start identifier |  | int |
| **targetType** | Target Type  0: person or car  1 person  2: Car | 0-2 | int |
| **next\_TargetTypeURL** | Next item defines the target type start mark |  | int |
| **targetTypeEnd** | Qualified target type end marker |  | int |
| **targetSizeConstrain** | Limit target size  0: Not supported  1: Support | 0-1 | int |
| **targetSizeConstrainMin** | Limit the minimum target size |  | int |
| **targetSizeConstrainMax** | Limit the maximum size of the target |  | int |
| **targetSizeConstrainUnit** | Limit target size units |  | string |
| **minTargetSize** | Minimum target size  0: Support  1: Not supported | 0-1 | int |
| **minTargetSizeMin** | Minimum target size |  | int |
| **minTargetSizeMax** | Minimum target maximum size |  | int |
| **minTargetSizeUnit** | Minimum target unit |  | string |
| **maxTargetSize** | Maximum target size  0: Not supported  1: Support | 0-1 | int |
| **maxTargetSizeMin** | Maximum target minimum size |  | int |
| **maxTargetSizeMax** | Maximum target size |  | int |
| **maxTargetSizeUnit** | Maximum target unit |  | string |
| **sensitivityCount** | Sensitivity number |  | int |
| **sensitivityBegin** | Sensitivity start mark |  | int |
| **sensitivity** | Sensitivity |  | int |
| **next\_SensitivityURL** | Next sensitivity start mark |  | int |
| **sensitivityEnd** | Sensitivity end mark |  | int |
| **draw** | Video Stream Line Drawing  0: Not supported  1: Support | 0-1 | int |
| **alarmOutCount** | Number of alarm outputs |  | int |
| **alarmLinkageCount** | Number of linkage alarms |  | int |
| **alarmLinkageBegin** | Linkage alarm start mark |  | int |
| **actionType** | alarm type  1: Alarm output  2: Alarm email  3: Alarm PTZ  4: Alarm video  7: FTP upload  10: Audio alarm  11: LED alarm  14: White light alarm |  | int |
| **next\_AlarmLinkageURL** | Next linkage alarm start mark |  | int |
| **alarmLinkageEnd** | Linkage alarm end mark |  | int |

##### Get the parameters of the leaving area

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **leaveAreaParam** |
| **Description** | Refer to [URL Descriptions](#_离开区域参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type= leaveAreaParam |
| **Return** | enableFlag=1  draw=1  sensitivity=3  alarmOut=1  alarmRecord=1  alarmSMTP=1  alarmFTP=1  alarmSound=1  alarmSoundType=7  regionCount=1  regionBegin=1  pointCount=3  pointBegin=1  pointX=36.124401  pointY=43.162392  next\_pointURL=2  pointX=37.559807  pointY=68.376068  next\_pointURL=3  pointX=51.196171  pointY=43.589745  pointEnd=3  regionEnd=1  weekDayCount=1  weekDayBegin=1  weekDay=0  startTime=0  endTime=1800  weekDayEnd=1 |

##### Set the parameters for leaving the area

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= leaveAreaParam |
| **Description** | Refer to [URL Descriptions](#_离开区域参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type= leaveAreaParam& enableFlag=1&uploadDetail=0&draw=1&sensitivity=5&alarmOut=1&alarmRecord=1&alarmSMTP=1&alarmFTP=1&alarmSound=1&alarmSoundType=0&regionCount=1&regionBegin=1&targetTypeEnable=1&targetType=0&targetSizeEnable=0&targetMaxSize=100000&targetMinSize=1000&pointCount=3&pointBegin=1&pointX=63.755981&pointY=86.324783&next\_pointURL=2&pointX=59.449760&pointY=70.940170&next\_pointURL=3&pointX=76.196175&pointY=70.085472&pointEnd=3&regionEnd=1&weekDayCount=2&weekDayBegin=1&weekDay=1&startTime=1800&endTime=3600&next\_weekDayURL=2&weekDay=2&startTime=3600&endTime=5400&weekDayEnd=2 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Leave area parameter meaning

**IPC**

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **enableFlag** | switch  0: Off  1: On | 0-1 | int |
| **draw** | Video Stream Line Drawing  0: Off  1: On | 0-1 | int |
| clearArea | Upload Details  0: Normal setting  1: Delete area | 0-1 | Int​ |
| **uploadDetail** | Upload Details  0: Off  1: On | 0-1 | int |
| **AlarmLinkageParam** | Alarm linkage operation behavior  Clean:Clear all | clean | string |
| **alarmOut** | Alarm Output  0: Off  1: On | 0-1 | int |
| **alarmOut2** | Alarm 2 output  0: Off  1: On | 0-1 | int |
| **alarmRecord** | Alarm video  0: Off  1: On | 0-1 | int |
| **alarmRecordLinkChannel** | Alarm video linkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSMTP** | Alarm Email  0: Off  1: On | 0-1 | int |
| **alarmSMTPLinkChannel** | Alarm Email inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmFTP** | FTP Upload  0: Off  1: On | 0-1 | int |
| **alarmFTPLinkChannel** | FTP Upload  inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSound** | Sound detection alarm  0: Off  1: On | 0-1 | int |
| **alarmSoundType** | Audio alarm file | 0-13 | int |
| **alarmLED** | LED Alarm  0: Off  1: On | 0-1 | int |
| **alarmWhiteLED** | White light alarm  0: Off  1: On | 0-1 | int |
| **regionCount** | Number of regions |  | int |
| **regionBegin** | Area parameter start mark |  | int |
| **sensitivity** | Sensitivity |  | int |
| **targetTypeEnable** | Limit target type  0: Off  1: On | 0-1 | int |
| **targetType** | Qualified Type  0: person or car  1 person  2: Car | 0-2 | int |
| **targetSizeEnable** | Limited size  0: Off  1: On | 0-1 | int |
| **targetMaxSize** | Limit the maximum size of the target |  | int |
| **targetMinSize** | Limit the minimum target size |  | int |
| **targetSizeEnableV2** | Limit target maximum and minimum switches  0: Off  1: On | 0-1 | Int |
| **maxTargetWidth** | Limit the maximum width of the target |  | int |
| **maxTargetHeight** | Limit target maximum height |  | int |
| **minTargetWidth** | Limit the minimum width of the target |  | int |
| **minTargetHeight** | Limit the minimum target height |  | int |
| **pointCount** | Number of coordinate points |  | int |
| **pointBegin** | Coordinate point start mark |  | int |
| **pointX** | Horizontal coordinate value |  | float |
| **pointY** | Vertical coordinate value |  | float |
| **next\_pointURL** | The next point coordinate starts marking |  | int |
| **pointEnd** | Point coordinate end mark |  | int |
| **next\_regionURL** | Next area parameter start mark |  | int |
| **regionEnd** | End of area parameters |  | int |
| **weekDayCount** | Number of defenses |  | int |
| **weekDayBegin** | Arming start indicator |  | int |
| **weekDay** | which day | 0-6 | int |
| **startTime** | Arming start time (seconds) |  | int |
| **endTime** | Arming end time (seconds) |  | int |
| **next\_weekDayURL** | Next arming time start mark |  | int |
| **weekDayEnd** | Arming end mark |  | int |

#### smart motion detection

##### Acquisition of capabilities

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **smartMotionAbility** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= smartMotionAbility |
| **Description** | Refer to [URL Descriptions](#_能力参数说明_6) |
| **Return** | libId=1 (the lite series)  smartMotionAlarmAbilityEnable=1 (the lite series)  regionEnable=1 (the lite series)  edgeNum=8 (the lite series)  region=1  maxEdgeNum=8  maxRegionNum=8  uploadDetail=0  targetTypeConstrain=1  targetTypeConstrainMin=0  targetTypeConstrainMax=1  targetTypeCount=3  targetTypeBegin=1  targetType=0  next\_TargetTypeURL=2  targetType=1  next\_TargetTypeURL=3  targetType=2  targetTypeEnd=1  targetSizeConstrain=0  targetSizeConstrainMin=0  targetSizeConstrainMax=1  targetSizeConstrainUnit=  minTargetSize=0  minTargetSizeMin=0  minTargetSizeMax=1000000  minTargetSizeUnit=cm2  maxTargetSize=0  maxTargetSizeMin=0  maxTargetSizeMax=1000000  maxTargetSizeUnit=cm2  sensitivityCount=5  sensitivityBegin=1  sensitivity=1  next\_SensitivityURL=2  sensitivity=2  next\_SensitivityURL=3  sensitivity=3  next\_SensitivityURL=4  sensitivity=4  next\_SensitivityURL=5  sensitivity=5  sensitivityEnd=1  draw=1  presetMode=0  alarmOutCount=1  alarmLinkageCount=4  alarmLinkageBegin=1  actionType=2  next\_AlarmLinkageURL=2  actionType=4  next\_AlarmLinkageURL=3  actionType=7  next\_AlarmLinkageURL=4  actionType=10  alarmLinkageEnd=1 |

##### Capability Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **region** | Area drawing  0: Not supported  1: Support | 0-1 | int |
| **maxEdgeNum** | Number of lines |  | int |
| **maxRegionNum** | Number of regions |  | int |
| **uploadDetail** | Upload Details  0: Not supported  1: Support | 0-1 | int |
| **targetTypeConstrain** | Limit upload types  0: Not supported  1: Support | 0-1 | int |
| **targetTypeConstrainMin** | Limit the minimum value of upload type |  | int |
| **targetTypeConstrainMax** | Limit the maximum value of upload type |  | int |
| **targetTypeCount** | Limit the number of target types |  | int |
| **targetTypeBegin** | Qualified target type start identifier |  | int |
| **targetType** | Target Type  0: person or car  1 person  2: Car | 0-2 | int |
| **next\_TargetTypeURL** | Next item defines the target type start mark |  | int |
| **targetTypeEnd** | Qualified target type end marker |  | int |
| **targetSizeConstrain** | Limit target size  0: Not supported  1: Support | 0-1 | int |
| **targetSizeConstrainMin** | Limit the minimum target size |  | int |
| **targetSizeConstrainMax** | Limit the maximum size of the target |  | int |
| **targetSizeConstrainUnit** | Limit target size units |  | string |
| **minTargetSize** | Minimum target size  0: Support  1: Not supported | 0-1 | int |
| **minTargetSizeMin** | Minimum target size |  | int |
| **minTargetSizeMax** | Minimum target maximum size |  | int |
| **minTargetSizeUnit** | Minimum target unit |  | string |
| **maxTargetSize** | Maximum target size  0: Not supported  1: Support | 0-1 | int |
| **maxTargetSizeMin** | Maximum target minimum size |  | int |
| **maxTargetSizeMax** | Maximum target size |  | int |
| **maxTargetSizeUnit** | Maximum target unit |  | string |
| **sensitivityCount** | Sensitivity number |  | int |
| **sensitivityBegin** | Sensitivity start mark |  | int |
| **sensitivity** | Sensitivity |  | int |
| **next\_SensitivityURL** | Next sensitivity start mark |  | int |
| **sensitivityEnd** | Sensitivity end mark |  | int |
| **draw** | Video Stream Line Drawing  0: Not supported  1: Support | 0-1 | int |
| **alarmOutCount** | Number of alarm outputs |  | int |
| **alarmLinkageCount** | Number of linkage alarms |  | int |
| **alarmLinkageBegin** | Linkage alarm start mark |  | int |
| **actionType** | alarm type  1: Alarm output  2: Alarm email  3: Alarm PTZ  4: Alarm video  7: FTP upload  10: Audio alarm  11: LED alarm  14: White light alarm |  | int |
| **next\_AlarmLinkageURL** | Next linkage alarm start mark |  | int |
| **alarmLinkageEnd** | Linkage alarm end mark |  | int |

##### Get smart motion detection parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **smartMotionParam** |
| **Description** | Refer to [URL Descriptions](#_智能移动侦测参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=smartMotionParam |
| **Return** | enableFlag=1  draw=1  sensitivity=3  alarmOut=1  alarmRecord=1  alarmSMTP=1  alarmFTP=1  alarmSound=1  alarmSoundType=7  regionCount=1  regionBegin=1  pointCount=3  pointBegin=1  pointX=36.124401  pointY=43.162392  next\_pointURL=2  pointX=37.559807  pointY=68.376068  next\_pointURL=3  pointX=51.196171  pointY=43.589745  pointEnd=3  regionEnd=1  weekDayCount=1  weekDayBegin=1  weekDay=0  startTime=0  endTime=1800  weekDayEnd=1 |

##### Set smart motion detection parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **smartMotionParam** |
| **Description** | Refer to [URL Descriptions](#_智能移动侦测参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=smartMotionParam&cameraID=1&enableFlag=1&draw=0&alarmOut=0&alarmRecord=1&alarmSMTP=0&alarmFTP=1&alarmSound=0&alarmSoundType=0&regionCount=2&regionBegin=1&sensitivity=4&targetTypeEnable=1&targetType=0&pointCount=4&pointBegin=1&pointX=14.114833&pointY=36.752136&next\_pointURL=2&pointX=12.918660&pointY=79.059830&next\_pointURL=3&pointX=44.258373&pointY=76.923080&next\_pointURL=4&pointX=50.956940&pointY=34.188034&pointEnd=4&next\_regionURL=2&sensitivity=4&targetTypeEnable=1&targetType=0&pointCount=4&pointBegin=1&pointX=69.617226&pointY=20.512821&next\_pointURL=2&pointX=93.779907&pointY=17.521368&next\_pointURL=3&pointX=87.320572&pointY=70.940170&next\_pointURL=4&pointX=61.722488&pointY=71.367523&pointEnd=4&regionEnd=1&weekDayCount=6&weekDayBegin=1&weekDay=0&startTime=21600&endTime=41400&next\_weekDayURL=2&weekDay=0&startTime=82800&endTime=86400&next\_weekDayURL=3&weekDay=1&startTime=66600&endTime=81000&next\_weekDayURL=4&weekDay=3&startTime=9000&endTime=32400&next\_weekDayURL=5&weekDay=4&startTime=55800&endTime=68400&next\_weekDayURL=6&weekDay=5&startTime=37800&endTime=52200&weekDayEnd=6 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### smart motion detection parameter meaning

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **presetMode** | Mode (PTZ device)  1: Normal mode  2: Preset point mode | 1-2 | int |
| **presetCount** | Number of preset positions (PTZ device) |  | i nt |
| **resetBegin​** | Preset position start mark (PTZ device) |  | i nt |
| **presetID** | Preset ID  - 1 : Get all preset positions  0: Get or set normal mode  > 0 : Get or set the specified preset position |  | i nt |
| clearArea | Upload Details  0: Normal setting  1: Delete area | 0-1 | Int​ |
| **enableFlag** | switch  0: Off  1: On | 0-1 | int |
| **draw** | Video Stream Line Drawing  0: Off  1: On | 0-1 | int |
| **uploadDetail** | Upload Details  0: Off  1: On | 0-1 | int |
| **AlarmLinkageParam** | Alarm linkage operation behavior  Clean:Clear all | clean | string |
| **alarmOut** | Alarm Output  0: Off  1: On | 0-1 | int |
| **alarmOut2** | Alarm 2 output  0: Off  1: On | 0-1 | int |
| **alarmRecord** | Alarm video  0: Off  1: On | 0-1 | int |
| **alarmRecordLinkChannel** | Alarm video linkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSMTP** | Alarm Email  0: Off  1: On | 0-1 | int |
| **alarmSMTPLinkChannel** | Alarm Email inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmFTP** | FTP Upload  0: Off  1: On | 0-1 | int |
| **alarmFTPLinkChannel** | FTP Upload  inkage channel  0: None  1: Channel 1  2: Channel 2  3: Channel 1 + Channel 2 | 0-3 | int |
| **alarmSound** | Sound detection alarm  0: Off  1: On | 0-1 | int |
| **alarmSoundType** | Audio alarm file | 0-13 | int |
| **alarmLED** | LED Alarm  0: Off  1: On | 0-1 | int |
| **alarmWhiteLED** | White light alarm  0: Off  1: On | 0-1 | int |
| **regionCount** | Number of regions |  | int |
| **regionBegin** | Area parameter start mark |  | int |
| **sensitivity** | Sensitivity |  | int |
| **targetTypeEnable** | Limit target type  0: Off  1: On | 0-1 | int |
| **targetType** | Qualified Type  0: person or car  1 person  2: Car | 0-2 | int |
| **targetSizeEnable** | Limited size  0: Off  1: On | 0-1 | int |
| **targetMaxSize** | Limit the maximum size of the target |  | int |
| **targetMinSize** | Limit the minimum target size |  | int |
| **targetSizeEnableV2** | Limit target maximum and minimum switches  0: Off  1: On | 0-1 | Int |
| **maxTargetWidth** | Limit the maximum width of the target |  | int |
| **maxTargetHeight** | Limit target maximum height |  | int |
| **minTargetWidth** | Limit the minimum width of the target |  | int |
| **minTargetHeight** | Limit the minimum target height |  | int |
| **pointCount** | Number of coordinate points |  | int |
| **pointBegin** | Coordinate point start mark |  | int |
| **pointX** | Horizontal coordinate value |  | float |
| **pointY** | Vertical coordinate value |  | float |
| **next\_pointURL** | The next point coordinate starts marking |  | int |
| **pointEnd** | Point coordinate end mark |  | int |
| **next\_regionURL** | Next area parameter start mark |  | int |
| **regionEnd** | End of area parameters |  | int |
| **weekDayCount** | Number of defenses |  | int |
| **weekDayBegin** | Arming start indicator |  | int |
| **weekDay** | which day | 0-6 | int |
| **startTime** | Arming start time (seconds) |  | int |
| **endTime** | Arming end time (seconds) |  | int |
| **next\_weekDayURL** | Next arming time start mark |  | int |
| **weekDayEnd** | Arming end mark |  | int |
| **next\_PresetURL** | Next preset position start mark |  | i nt |
| **p resetEnd** | Preset end mark |  | i nt |

#### Advanced (IPC)

##### Acquisition of capabilities

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **advanceAbility** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= **advanceAbility** &cameraID=1 |
| **Description** | Refer to [URL Descriptions](#_能力参数说明_18) |
| **Return** | sceneEnable=1  heightEnable=0  angleEnable=0  FOVEnable=0  pixelToRealSizeEnable=1  realSizeEnable=1  lineDirectionEnable=1  lineEnable=1  cameraShake=0  highNoise=0  lowContrast=0  periodMotion=0  periodMotionTime=0  periodMotionTimeMin=1  periodMotionTimeMax=60 |

##### Capability Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **SceneEnable** | Scenes  0: Not supported  1: Support | 0-1 | int |
| **heightEnable** | Installation height  0: Not supported  1: Support | 0-1 | int |
| **angleEnable** | installation angle  0: Not supported  1: Support | 0-1 | int |
| **FOVEnable** | URL of Refer to  0: Not supported  1: Support | 0-1 | int |
| **pixelToRealSizeEnable** | Pixel to actual size  0: Not supported  1: Support | 0-1 | int |
| **realSizeEnable** | Actual size  0: Not supported  1: Support | 0-1 | int |
| **lineDirectionEnable** | Segment Direction  0: Not supported  1: Support | 0-1 | int |
| **lineEnable** | Draw a line segment  0: Not supported  1: Support | 0-1 | int |
| **cameraShake** | Camera Shake  0: Not supported  1: Support | 0-1 | int |
| **hightNoise** | High noise  0: Not supported  1: Support | 0-1 | int |
| **lowContrast** | Low contrast  0: Not supported  1: Support | 0-1 | int |
| **periodMotion** | Cycle motion background  0: Not supported  1: Support | 0-1 | int |
| **periodMotionTime** | Periodic motion background time  0: Not supported  1: Support | 0-1 | int |
| **periodMotionTimeMin** | Minimum periodic motion time |  | int |
| **periodMotionTimeMax** | Maximum cycle time |  | int |
| **filterEnable** | Filter Target  0: Not supported  1: Support | 0-1 | int |
| **filterTimeMin** | Minimum filtering time |  | int |
| **filterTimeMax** | Maximum filtering time |  | int |

##### Get advanced parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **advanceParam** &cameraID=1 |
| **Description** | Refer to [URL Descriptions](#_高级参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type= **advanceParam** &cameraID=1 |
| **Return** | scene=1  alarmInterval=88  pixelToRealCount=0 |

##### Setting Advanced Parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **advanceParam** &cameraID=1 |
| **Description** | Refer to [URL Descriptions](#_高级参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=advanceParam&cameraID=1&scene=1&alarmInterval=88​**​**​​ |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Advanced parameter meaning

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **scene** | Scenes  0: Indoor  1: Outdoor | 0-1 | int |
| **height** | Installation height |  | i nt |
| **angle** | installation angle |  | i nt |
| **FOV** | URL of Refer to |  | i nt |
| **cameraShake** | Camera Shake  0: Off  1: On | 0-1 | int |
| **highNoise** | High noise environment  0: Off  1: On | 0-1 | int |
| **lowContrast** | Low contrast  0: Off  1: On | 0-1 | int |
| **periodMotion** | Periodic motion background time |  | int |
| **alarmInTerminal** | Alarm interval |  | int |
| **filterEnable** | Filter Target  0: Off  1: On | 0-1 | int |
| **filterTime** | Filter time |  | int |
| **pixelToRealCount** | Pixel to actual number |  | int |
| **pixelToRealBegin** | Pixel to actual start mark |  | int |
| **realSize** | The actual length of the object |  | int |
| **lineDirection** | Segment Direction  0: Horizontal  1: Vertical | 0-1 | int |
| **lineCrossStartX** | Start X |  | float |
| **lineCrossStartY** | Start Y |  | float |
| **lineCrossEndX** | End X |  | float |
| **lineCrossEndY** | End Y |  | float |
| **next\_pixelToRealURL** | The next pixel turns into the actual start mark |  | int |
| **pixelToRealEnd** | Pixel to actual end mark |  | int |

#### Heat map (IPC Excluding the lite series)

##### Get the heat map parameters (getPerimeterParam)

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= HeatMapParam |
| **Description** | Refer to [URL Descriptions](#_入侵检测参数) |
| **Example** | http://192.168.2.161/cgi-bin/param.cgi?action=get&type=HeatMapParam |
| **Return** | Enable=1  HeatMapSaveMode=1  HeatMapAreaBase=AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABERERAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAEREREAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAREREQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABERERAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAEREREAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA= |

##### Set the heat map detection parameters (setPerimeterParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **type=HeatMapParam&Enable=1&HeatMapSaveMode=2&** **HeatMapAreaBase = < ... >** [&<argument>=<value>...] |
| **Description** | Refer to [URL Descriptions](#_入侵检测参数) |
| **Example** | [http://192.168.2.161/cgi-bin/param.cgi?action=set&type=HeatMapParam&Enable=1&HeatMapAreaBase=AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA](http://192.168.2.161/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=HeatMapParam&Enable=1&HeatMapAreaBase=AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA)  [A](http://192.168.2.161/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=HeatMapParam&Enable=1&HeatMapAreaBase=AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA)[AAAAAAAAAAA](http://192.168.2.161/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=HeatMapParam&Enable=1&HeatMapAreaBase=AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA)AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABERERAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  AAAEREREAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAREREQAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAABERERAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  EREREAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  AAA  ...  ​  ​  ​ |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Heatmap Configuration Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **Enable** | Whether to enable | 1-2 | int |
| **HeatMapSaveMode** | model:  1 hour  2 days |  | i nt |
| **HeatMapAreaBase** | The corresponding base code of the image in the area |  | Strring​ |

#### 2.6.15.19 Fence (NVR)

##### 2.6.15.19.1 Get Geo-Fence Detection Parameters (getFenceParam)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/alarm.cgi?action=get&type= **fenceParam** &cameraID=<cameraID> |
| **Description** | The Fence includes [intelligent analysis common parameters](#智能分析共用参数列表) and [Fence detection](#_徘徊检测参数) parameters |
| **Example** | http://192.168.2.193/cgi-bin/alarm.cgi?action=get&type=fenceParam&cameraID=1 |
| **Return** | cameraID=2  enableFlag=0  sensitivity=2  draw=1  targetTypeEnable=1  targetType=1  triggerChannel=ch1  weekDayBegin=1  weekDay=0  startTime=0  endTime=86400  next\_weekDayURL=2  weekDay=1  startTime=0  endTime=86400  next\_weekDayURL=3  weekDay=2  startTime=0  endTime=86400  next\_weekDayURL=4  weekDay=3  startTime=0  endTime=86400  next\_weekDayURL=5  weekDay=4  startTime=0  endTime=86400  next\_weekDayURL=6  weekDay=5  startTime=0  endTime=86400  next\_weekDayURL=7  weekDay=6  startTime=0  endTime=86400  weekDayEnd=7  AlarmLinkageBegin=1  ActionID=1  ActionType=6  next\_AlarmLinkageURL=2  ActionID=1  ActionType=7  next\_AlarmLinkageURL=3  ActionID=1  ActionType=1  relayTime=0  relayPort1=0  relayPort2=0  AlarmLinkageEnd=3  regionCount=3  regionBegin=1  pointCount=3  pointBegin=1  pointX=1  pointY=2  next\_pointURL=2  pointX=2  pointY=3  next\_pointURL=3  pointX=3  pointY=4  pointEnd=3  next\_regionURL=2  pointCount=3  pointBegin=1  pointX=4  pointY=5  next\_pointURL=2  pointX=5  pointY=6  next\_pointURL=3  pointX=6  pointY=7  pointEnd=3  next\_regionURL=3  pointCount=3  pointBegin=1  pointX=7  pointY=8  next\_pointURL=2  pointX=8  pointY=9  next\_pointURL=3  pointX=9  pointY=10  pointEnd=3  regionEnd=3  (For other responses, Refer to [General Response](#_通用应答) ) |

##### 2.6.15.19.2 Setting the Fence detection parameters (setFenceParam)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/alarm.cgi?action=set&type= **fenceParam** &cameraID=1[&<argument>=<value>...] |
| **Description** | Set the parameters according to [the Fence detection parameters](#_电子围栏检测参数) |
| **Example** | http://192.168.2.193/cgi-bin/alarm.cgi?action=set&type=fenceParam&cameraID=2&enableFlag=0&targetTypeEnable=1&targetType=1&sensitivity=2&triggerChannel=ch1&weekDayBegin=1&weekDay=0&startTime=0&endTime=86400&next\_weekDayURL=2&weekDay=1&startTime=0&endTime=86400&next\_weekDayURL=3&weekDay=2&startTime=0&endTime=86400&next\_weekDayURL=4&weekDay=3&startTime=0&endTime=86400&next\_weekDayURL=5&weekDay=4&startTime=0&endTime=86400&next\_weekDayURL=6&weekDay=5&startTime=0&endTime=86400&next\_weekDayURL=7&weekDay=6&startTime=0&endTime=86400&weekDayEnd=7&AlarmLinkageBegin=1&ActionID=1&ActionType=6&next\_AlarmLinkageURL=2&ActionID=1&ActionType=7&next\_AlarmLinkageURL=3&ActionID=1&ActionType=1&AlarmLinkageEnd=3&regionCount=3&regionBegin=1&pointCount=3&pointBegin=1&pointX=1&pointY=2&next\_pointURL=2&pointX=2&pointY=3&next\_pointURL=3&pointX=3&pointY=4&pointEnd=3&next\_regionURL=2&pointCount=3&pointBegin=1&pointX=4&pointY=5&next\_pointURL=2&pointX=5&pointY=6&next\_pointURL=3&pointX=6&pointY=7&pointEnd=3&next\_regionURL=3&pointCount=3&pointBegin=1&pointX=7&pointY=8&next\_pointURL=2&pointX=8&pointY=9&next\_pointURL=3&pointX=9&pointY=10&pointEnd=3&regionEnd=3&areaParamAction=cover |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### 2.6.15.19.3 Fence Detection Parameters

Table 2-6-6-10-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **IntelligentCommonParam** | < [IntelligentCommonParam](#智能分析共用参数列表) > | Intelligent analysis of shared parameters.  For specific URL, Refer to [the list of common parameters for intelligent analysis.](#智能分析共用参数列表) |
| **regionCount** | <int>[0,32] | Number of detection areas.  When setting, this flag must be carried to indicate the number of regions. For details, Refer to [the group text rules](#_组文本规则：) |
| **region Begin** | <int>{1} | The region loop body starts marking.  When setting, this flag must be included. There is no specific requirement for the value. For details, Refer to [the group text rules](#_组文本规则：) |
| **FenceRegionParam** | < [FenceReg i onParam](#单个电子围栏区域参数) > | Individual zone parameters.  For specific parameters, please Refer to: [Single Fence area parameter list](#单个电子围栏区域参数) |
| **next\_ region URL** | <int>[2,32] | Next area identifier.  Start from 2. If the value is 2, it means that the following parameter is the second item. When the configuration behavior is set and the number of loop bodies is greater than 1, this flag must be carried. There is no specific requirement for the value. For details, Refer to [the group text rules](#_组文本规则：) |
| **region End** | <int>[1,32] | The region loop body ends.  When the configuration behavior is set, this flag must be carried, and the value is the number. For details, Refer to [Group Text Rules](#_组文本规则：) |

**Single Fence area parameter list FenceRegionParam:**

Table 2-6-6-16-3-2

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **targetTypeEnable** | <int>{0,1} | Whether to limit the target type.  0: No (default)  1: Yes |
| **targetType** | <int>{0,1,2} | The target qualification type.  0: person or car (default)  1 person  2: Car |
| **sensitivity** | <int>[1,5] | Sensitivity  The value range depends on the device capability. |
| **RegionParam** | < [RegionParam](#区域参数列表) > | Area parameters.  For detailed parameters, please Refer to: [Regional Parameters](#区域参数列表) |

#### 2.6.15.20 Safety Hat

##### 2.6.15.20.1 Acquisition of capabilities

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **safetyHatAbility** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= safetyHatAbility |
| **Description** | Refer to [URL Descriptions](#_2.6.15.20.2 Capability Parameter Description) |
| **Return** | region=1  maxEdgeNum=8  maxRegionNum=8  uploadDetail=0  targetTypeConstrain=1  targetTypeConstrainMin=0  targetTypeConstrainMax=1  targetTypeCount=3  targetTypeBegin=1  targetType=0  next\_TargetTypeURL=2  targetType=1  next\_TargetTypeURL=3  targetType=2  targetTypeEnd=1  targetSizeConstrain=0  targetSizeConstrainMin=0  targetSizeConstrainMax=1  targetSizeConstrainUnit=  draw=1  presetMode=0  alarmOutCount=1  alarmLinkageCount=4  alarmLinkageBegin=1  actionType=2  next\_AlarmLinkageURL=2  actionType=4  next\_AlarmLinkageURL=3  actionType=7  next\_AlarmLinkageURL=4  actionType=10  alarmLinkageEnd=1 |

##### 2.6.15.20.2 Capability Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **region** | Area drawing  0: Not supported  1: Support | 0-1 | int |
| **maxEdgeNum** | Number of lines |  | int |
| **maxRegionNum** | Number of regions |  | int |
| **uploadDetail** | Upload Details  0: Not supported  1: Support | 0-1 | int |
| **targetTypeConstrain** | Limit upload types  0: Not supported  1: Support | 0-1 | int |
| **targetTypeConstrainMin** | Limit the minimum value of upload type |  | int |
| **targetTypeConstrainMax** | Limit the maximum value of upload type |  | int |
| **targetTypeCount** | Limit the number of target types |  | int |
| **targetTypeBegin** | Qualified target type start identifier |  | int |
| **targetType** | Target Type  0: person or car  1 person  2: Car | 0-2 | int |
| **next\_TargetTypeURL** | Next item defines the target type start mark |  | int |
| **targetTypeEnd** | Qualified target type end marker |  | int |
| **targetSizeConstrain** | Limit target size  0: Not supported  1: Support | 0-1 | int |
| **targetSizeConstrainMin** | Limit the minimum target size |  | int |
| **targetSizeConstrainMax** | Limit the maximum size of the target |  | int |
| **targetSizeConstrainUnit** | Limit target size units |  | string |
| **minTargetSize** | Minimum target size  0: Support  1: Not supported | 0-1 | int |
| **minTargetSizeMin** | Minimum target size |  | int |
| **minTargetSizeMax** | Minimum target maximum size |  | int |
| **minTargetSizeUnit** | Minimum target unit |  | string |
| **maxTargetSize** | Maximum target size  0: Not supported  1: Support | 0-1 | int |
| **maxTargetSizeMin** | Maximum target minimum size |  | int |
| **maxTargetSizeMax** | Maximum target size |  | int |
| **maxTargetSizeUnit** | Maximum target unit |  | string |
| **draw** | Video Stream Line Drawing  0: Not supported  1: Support | 0-1 | int |
| **presetMode** | Mode (PTZ device)  0: Not supported  1: Support | 0-1 | int |
| **alarmOutCount** | Number of alarm outputs |  | int |
| **alarmLinkageCount** | Number of linkage alarms |  | int |
| **alarmLinkageBegin** | Linkage alarm start mark |  | int |
| **actionType** | alarm type  1: Alarm output  2: Alarm email  3: Alarm PTZ  4: Alarm video  7: FTP upload  10: Audio alarm  11: LED alarm  14: White light alarm |  | int |
| **next\_AlarmLinkageURL** | Next linkage alarm start mark |  | int |
| **alarmLinkageEnd** | Linkage alarm end mark |  | int |

##### 2.6.15.20.3 Get the parameters of the Safety Hat

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **safetyHatParam**&cameraID =<cameraID> |
| **Description** | Refer to [URL Descriptions](#_2.6.15.20.5 Safety Hat parameter meaning) |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= safetyHatParam&cameraID=1 |
| **Return** | (IPC)  enableFlag=1  uploadDetail=1  draw=1  alarmOut=0  alarmRecord=1  alarmSMTP=1  alarmFTP=1  regionCount=1  regionBegin=1  targetTypeEnable=1  targetType=0  targetSizeEnable=1  targetMaxSize=100000  targetMinSize=1000  converseAngle=359.999939  pointCount=3  pointBegin=1  pointX=34.090908  pointY=25.213675  next\_pointURL=2  pointX=16.387560  pointY=64.102562  next\_pointURL=3  pointX=75.478470  pointY=21.367521  pointEnd=3  regionEnd=1  weekDayCount=2  weekDayBegin=1  weekDay=2  startTime=18000  endTime=19800  next\_weekDayURL=2  weekDay=2  startTime=41400  endTime=43200  weekDayEnd=2 |

##### 2.6.15.20.4 Set the parameters for Safety Hat

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **safetyHatParam** &cameraID=1[&<argument>=<value>...] |
| **Description** | Refer to [URL Descriptions](#_2.6.15.20.5 Safety Hat parameter meaning) |
| **Example** | http://192.168.31.151/cgi-bin/param.cgi?action=set&type=safetyHatParam&cameraID=1&enableFlag=0&draw=0&alarmOut=1&alarmRecord=1&alarmSMTP=1&alarmFTP=1&alarmSound=0&alarmSoundType=0&regionCount=1&regionBegin=1&targetTypeEnable=0&pointCount=4&pointBegin=1&pointX=11.722488&pointY=37.179485&next\_pointURL=2&pointX=12.200957&pointY=78.205132&next\_pointURL=3&pointX=34.210526&pointY=73.931625&next\_pointURL=4&pointX=32.057415&pointY=39.743591&pointEnd=4&regionEnd=1&weekDayCount=14&weekDayBegin=1&weekDay=0&startTime=25200&endTime=43200&next\_weekDayURL=2&weekDay=0&startTime=50400&endTime=68400&next\_weekDayURL=3&weekDay=1&startTime=41400&endTime=43200&next\_weekDayURL=4&weekDay=1&startTime=66600&endTime=68400&next\_weekDayURL=5&weekDay=2&startTime=41400&endTime=43200&next\_weekDayURL=6&weekDay=2&startTime=64800&endTime=66600&next\_weekDayURL=7&weekDay=3&startTime=25200&endTime=43200&next\_weekDayURL=8&weekDay=3&startTime=59400&endTime=64800&next\_weekDayURL=9&weekDay=4&startTime=25200&endTime=27000&next\_weekDayURL=10&weekDay=4&startTime=54000&endTime=59400&next\_weekDayURL=11&weekDay=5&startTime=25200&endTime=27000&next\_weekDayURL=12&weekDay=5&startTime=50400&endTime=54000&next\_weekDayURL=13&weekDay=6&startTime=25200&endTime=43200&next\_weekDayURL=14&weekDay=6&startTime=50400&endTime=68400&weekDayEnd=14 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### 2.6.15.20.5 Safety Hat parameter meaning

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **presetMode** | Mode (PTZ device)  1: Normal mode  2: Preset point mode | 1-2 | int |
| **presetCount** | Number of preset positions (PTZ device) |  | int |
| **presetBegin** | Preset position start mark (PTZ device) |  | int |
| **presetID** | Preset ID  - 1 : Get all preset positions  0: Get or set normal mode  > 0 : Get or set the specified preset position |  | int |
| **enableFlag** | switch  0: Off  1: On | 0-1 | int |
| clearArea | Upload Details  0: Normal setting  1: Delete area | 0-1 | Int |
| **draw** | Video Stream Line Drawing  0: Off  1: On | 0-1 | int |
| **uploadDetail** | Upload Details  0: Off  1: On | 0-1 | int |
| **alarmOut** | Alarm Output  0: Off  1: On | 0-1 | int |
| **alarmOut2** | Alarm 2 output  0: Off  1: On | 0-1 | int |
| **alarmRecord** | Alarm video  0: Off  1: On | 0-1 | int |
| **alarmSMTP** | Alarm Email  0: Off  1: On | 0-1 | int |
| **alarmFTP** | FTP Upload  0: Off  1: On | 0-1 | int |
| **alarmSound** | Sound detection alarm  0: Off  1: On | 0-1 | int |
| **alarmSoundType** | Audio alarm file | 0-13 | int |
| **alarmLED** | LED Alarm  0: Off  1: On | 0-1 | int |
| **alarmWhiteLED** | White light alarm  0: Off  1: On | 0-1 | int |
| **regionCount** | Number of regions |  | int（Only one region is supported） |
| **regionBegin** | Area parameter start mark |  | int |
| **pointCount** | Number of coordinate points |  | int |
| **pointBegin** | Coordinate point start mark |  | int |
| **pointX** | Horizontal coordinate value |  | float |
| **pointY** | Vertical coordinate value |  | float |
| **next\_pointURL** | The next point coordinate starts marking |  | int |
| **pointEnd** | Point coordinate end mark |  | int |
| **next\_regionURL** | Next area parameter start mark |  | int |
| **targetTypeEnable** | Limit target type  0: Off  1: On | 0-1 | int |
| **targetType** | Qualified Type  0: person or car  1 person  2: Car | 0-2 | int |
| **targetSizeEnable** | Limited size  0: Off  1: On | 0-1 | int |
| **targetMaxSize** | Limit the maximum size of the target |  | int |
| **targetMinSize** | Limit the minimum target size |  | int |
| **targetSizeEnableV2** | Limit target maximum and minimum switches  0: Off  1: On | 0-1 | Int |
| **regionEnd** | End of area parameters |  | int |
| **weekDayCount** | Number of defenses |  | int |
| **weekDayBegin** | Arming start indicator |  | int |
| **weekDay** | which day | 0-6 | int |
| **startTime** | Arming start time (seconds) |  | int |
| **endTime** | Arming end time (seconds) |  | int |
| **next\_weekDayURL** | Next arming time start mark |  | int |
| **weekDayEnd** | Arming end mark |  | int |
| **next\_PresetURL** | Next preset position start mark |  | int |
| **presetEnd** | Preset end mark |  | int |

#### 2.3.15.21 Safety Vest

##### 2.6.15.21.1 Acquisition of capabilities

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **safetyVestAbility** |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= safetyVestAbility |
| **Description** | Refer to [URL Descriptions](#_2.6.15.20.2 Capability Parameter Description) |
| **Return** | region=1  maxEdgeNum=8  maxRegionNum=8  uploadDetail=0  targetTypeConstrain=1  targetTypeConstrainMin=0  targetTypeConstrainMax=1  targetTypeCount=3  targetTypeBegin=1  targetType=0  next\_TargetTypeURL=2  targetType=1  next\_TargetTypeURL=3  targetType=2  targetTypeEnd=1  targetSizeConstrain=0  targetSizeConstrainMin=0  targetSizeConstrainMax=1  targetSizeConstrainUnit=  draw=1  presetMode=0  alarmOutCount=1  alarmLinkageCount=4  alarmLinkageBegin=1  actionType=2  next\_AlarmLinkageURL=2  actionType=4  next\_AlarmLinkageURL=3  actionType=7  next\_AlarmLinkageURL=4  actionType=10  alarmLinkageEnd=1 |

##### 2.6.15.21.2 Capability Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **region** | Area drawing  0: Not supported  1: Support | 0-1 | int |
| **maxEdgeNum** | Number of lines |  | int |
| **maxRegionNum** | Number of regions |  | int |
| **uploadDetail** | Upload Details  0: Not supported  1: Support | 0-1 | int |
| **targetTypeConstrain** | Limit upload types  0: Not supported  1: Support | 0-1 | int |
| **targetTypeConstrainMin** | Limit the minimum value of upload type |  | int |
| **targetTypeConstrainMax** | Limit the maximum value of upload type |  | int |
| **targetTypeCount** | Limit the number of target types |  | int |
| **targetTypeBegin** | Qualified target type start identifier |  | int |
| **targetType** | Target Type  0: person or car  1 person  2: Car | 0-2 | int |
| **next\_TargetTypeURL** | Next item defines the target type start mark |  | int |
| **targetTypeEnd** | Qualified target type end marker |  | int |
| **targetSizeConstrain** | Limit target size  0: Not supported  1: Support | 0-1 | int |
| **targetSizeConstrainMin** | Limit the minimum target size |  | int |
| **targetSizeConstrainMax** | Limit the maximum size of the target |  | int |
| **targetSizeConstrainUnit** | Limit target size units |  | string |
| **draw** | Video Stream Line Drawing  0: Not supported  1: Support | 0-1 | int |
| **presetMode** | Mode (PTZ device)  0: Not supported  1: Support | 0-1 | int |
| **alarmOutCount** | Number of alarm outputs |  | int |
| **alarmLinkageCount** | Number of linkage alarms |  | int |
| **alarmLinkageBegin** | Linkage alarm start mark |  | int |
| **actionType** | alarm type  1: Alarm output  2: Alarm email  3: Alarm PTZ  4: Alarm video  7: FTP upload  10: Audio alarm  11: LED alarm  14: White light alarm |  | int |
| **next\_AlarmLinkageURL** | Next linkage alarm start mark |  | int |
| **alarmLinkageEnd** | Linkage alarm end mark |  | int |

##### 2.6.15.21.3 Get the parameters of the Safety Vest

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= safetyVestParam &cameraID =<cameraID> |
| **Description** | Refer to [URL Descriptions](#_2.6.15.21.5 Safety Vest parameter meaning) |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=safetyVestParam&cameraID=1 |
| **Return** | (IPC)  enableFlag=1  alarmInterval=10  alarmOut=0  alarmRecord=0  alarmSMTP=0  alarmFTP=0  alarmSound=0  alarmLED=0  targetTypeEnable=0  targetType=0  regionCount=1  regionBegin=1  pointCount=3  pointBegin=1  pointX=51.000000  pointY=35.000000  next\_pointURL=2  pointX=45.000000  pointY=83.000000  next\_pointURL=3  pointX=69.000000  pointY=78.000000  pointEnd=3  regionEnd=1  weekDayCount=5  weekDayBegin=1  weekDay=0  startTime=0  endTime=81000  next\_weekDayURL=2  weekDay=1  startTime=0  endTime=81000  next\_weekDayURL=3  weekDay=2  startTime=0  endTime=81000  next\_weekDayURL=4  weekDay=3  startTime=0  endTime=81000  next\_weekDayURL=5  weekDay=4  startTime=0  endTime=81000  weekDayEnd=5 |

##### 2.6.15.21.4 Set the parameters of the Safety Vest

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=safetyVestParam&cameraID=1[&<argument>=<value>...] |
| **Description** | Refer to [URL Descriptions](#_2.6.15.21.5 Safety Vest parameter meaning) |
| **Example** | http://192.168.31.151/cgi-bin/param.cgi?action=set&type=safetyVestParam&cameraID=1&enableFlag=0&draw=0&alarmOut=1&alarmRecord=1&alarmSMTP=1&alarmFTP=1&alarmSound=0&alarmSoundType=0&regionCount=1&regionBegin=1&targetTypeEnable=0&pointCount=4&pointBegin=1&pointX=11.722488&pointY=37.179485&next\_pointURL=2&pointX=12.200957&pointY=78.205132&next\_pointURL=3&pointX=34.210526&pointY=73.931625&next\_pointURL=4&pointX=32.057415&pointY=39.743591&pointEnd=4&regionEnd=1&weekDayCount=14&weekDayBegin=1&weekDay=0&startTime=25200&endTime=43200&next\_weekDayURL=2&weekDay=0&startTime=50400&endTime=68400&next\_weekDayURL=3&weekDay=1&startTime=41400&endTime=43200&next\_weekDayURL=4&weekDay=1&startTime=66600&endTime=68400&next\_weekDayURL=5&weekDay=2&startTime=41400&endTime=43200&next\_weekDayURL=6&weekDay=2&startTime=64800&endTime=66600&next\_weekDayURL=7&weekDay=3&startTime=25200&endTime=43200&next\_weekDayURL=8&weekDay=3&startTime=59400&endTime=64800&next\_weekDayURL=9&weekDay=4&startTime=25200&endTime=27000&next\_weekDayURL=10&weekDay=4&startTime=54000&endTime=59400&next\_weekDayURL=11&weekDay=5&startTime=25200&endTime=27000&next\_weekDayURL=12&weekDay=5&startTime=50400&endTime=54000&next\_weekDayURL=13&weekDay=6&startTime=25200&endTime=43200&next\_weekDayURL=14&weekDay=6&startTime=50400&endTime=68400&weekDayEnd=14 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### 2.6.15.21.5 Safety Vest parameter meaning

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **presetMode** | Mode (PTZ device)  1: Normal mode  2: Preset point mode | 1-2 | int |
| **presetCount** | Number of preset positions (PTZ device) |  | int |
| **presetBegin** | Preset position start mark (PTZ device) |  | int |
| **presetID** | Preset ID  - 1 : Get all preset positions  0: Get or set normal mode  > 0 : Get or set the specified preset position |  | int |
| **enableFlag** | switch  0: Off  1: On | 0-1 | int |
| clearArea | Upload Details  0: Normal setting  1: Delete area | 0-1 | Int |
| **draw** | Video Stream Line Drawing  0: Off  1: On | 0-1 | int |
| **uploadDetail** | Upload Details  0: Off  1: On | 0-1 | int |
| **alarmOut** | Alarm Output  0: Off  1: On | 0-1 | int |
| **alarmOut2** | Alarm 2 output  0: Off  1: On | 0-1 | int |
| **alarmRecord** | Alarm video  0: Off  1: On | 0-1 | int |
| **alarmSMTP** | Alarm Email  0: Off  1: On | 0-1 | int |
| **alarmFTP** | FTP Upload  0: Off  1: On | 0-1 | int |
| **alarmSound** | Sound detection alarm  0: Off  1: On | 0-1 | int |
| **alarmSoundType** | Audio alarm file | 0-13 | int |
| **alarmLED** | LED Alarm  0: Off  1: On | 0-1 | int |
| **alarmWhiteLED** | White light alarm  0: Off  1: On | 0-1 | int |
| **regionCount** | Number of regions | 1 | Int（Only one region is supported） |
| **regionBegin** | Area parameter start mark |  | int |
| **pointCount** | Number of coordinate points |  | int |
| **pointBegin** | Coordinate point start mark |  | int |
| **pointX** | Horizontal coordinate value |  | float |
| **pointY** | Vertical coordinate value |  | float |
| **next\_pointURL** | The next point coordinate starts marking |  | int |
| **pointEnd** | Point coordinate end mark |  | int |
| **next\_regionURL** | Next area parameter start mark |  | int |
| **targetTypeEnable** | Limit target type  0: Off  1: On | 0-1 | int |
| **targetType** | Qualified Type  0: person or car  1 person  2: Car | 0-2 | int |
| **targetSizeEnable** | Limited size  0: Off  1: On | 0-1 | int |
| **targetMaxSize** | Limit the maximum size of the target |  | int |
| **targetMinSize** | Limit the minimum target size |  | int |
| **targetSizeEnableV2** | Limit target maximum and minimum switches  0: Off  1: On | 0-1 | Int |
| **regionEnd** | End of area parameters |  | int |
| **weekDayCount** | Number of defenses |  | int |
| **weekDayBegin** | Arming start indicator |  | int |
| **weekDay** | which day | 0-6 | int |
| **startTime** | Arming start time (seconds) |  | int |
| **endTime** | Arming end time (seconds) |  | int |
| **next\_weekDayURL** | Next arming time start mark |  | int |
| **weekDayEnd** | Arming end mark |  | int |
| **next\_PresetURL** | Next preset position start mark |  | int |
| **presetEnd** | Preset end mark |  | int |

### Fisheye

This section is only applicable to Fisheye devices, including obtaining Fisheye capabilities, obtaining Fisheye video layout modes, and Fisheye correction, installation and configuration functions.

#### Get Fisheye capability (getFisheyeAbility)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **FisheyeAbility** |
| **Description** | Refer to [the Fisheye parameter table for parameters](#_鱼眼参数配置) |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= FisheyeAbility |
| **Return** | enableFlag = < enableFlag >  mountTypeCount=< mountTypeCount >  mountTypeBegin  mountType = < FisheyeMountType >  next\_mountTypeURL=n  ……  mountType = < FisheyeMountType(n+1) >  mountTypeEnd  videoModeCount=< videoModeCount>  videoModeBegin  videoMode = < videoMode >  dewarpModeCount=< dewarpModeCount>  dewarpModeBegin  dewarpMode = < dewarpMode >  next\_dewarpModeURL=n  ……  dewarpMode = < dewarpMode(n+1) >  dewarpModeEnd  next\_videoModeURL=n  …  videoMode = < videoMode(n+1) >  dewarpModeCount=< dewarpModeCount>  dewarpModeBegin  dewarpMode = <dewarpMode>  next\_dewarpModeURL=n  …  dewarpMode = < dewarpMode(n+1) >  dewarpModeEnd  videoModeEnd  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Get Fisheye correction parameters (getDewarpParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **dewarpParam** &cameraID=<cameraID> |
| **Description** | Refer to [the Fisheye parameter table for parameters](#_鱼眼参数配置) |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=dewarpParam&cameraID=<cameraID> |
| **Return** | cameraID = <cameraID>  dewarpMode = <dewarpMode>  videoMode = < videoMode >  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Set Fisheye correction parameters (setDewarpParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **dewarpParam** &cameraID=<cameraID> &dewarpMode=< dewarpMode>&videoMode=<videoMode> |
| **Description** | Refer to [the Fisheye parameter table for parameters](#_鱼眼参数配置)  cameraID : device ID (device number)  dewarpMode: correction mode  videoMode: Fisheye video mode |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=set&type=dewarpParam&cameraID=<cameraID>&dewarpMode=< dewarpMode>&videoMode=<videoMode> |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Get the Fisheye installation mode (getMountparam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **mountParam** |
| **Description** | Refer to [the Fisheye parameter table for parameters](#_鱼眼参数配置)  Returns a text string parameter description: mountType : installation mode |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= mountParam |
| **Return** | mountType *=* <mountType>*​*  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Set Fisheye installation mode (setMountparam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **mountParam** &mountType=< mountType > |
| **Description** | Refer to [the Fisheye parameter table for parameters](#_鱼眼参数配置) |
| **Example** | http://<servername>/cgi-bin/param.cgi?action=set&type=mountParam&mountType=< mountType > |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Get the current Fisheye video layout (getVideoLayout)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **videoLayout** &cameraID=1 |
| **Description** | For parameters, Refer to [the Fisheye parameter table](#_鱼眼参数配置) .  This command only supports obtaining video layout parameters in single-channel mode. |
| **Example** | http://<servername>/cgi-bin/param.cgi?action=get&type= videoLayout&cameraID=1 |
| **Return** | DewarpMode = <dewarpMode>  VideoRectCount = n  VideoRectBegin = 1  VideoNum = <VideoNum>  StartX = < StartX >  StartY = < StartY >  Height = < Height >  Width = <Width>  next\_VideoRectURL = 2  VideoNum = <VideoNum>  StartX = < StartX >  StartY = < StartY >  Height = < Height >  Width = <Width>  next\_VideoRectURL = <next\_VideoRectURL>  ....  VideoRectEnd = n  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Fisheye parameter configuration

Table 2-6-10-7-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **CameraId** | <int>{1} | Channel number.  The default value of Fisheye IPC is 1; |
| **enableFlag** | <int>{0,1} | Whether to support Fisheye identification.  0: The device does not support Fisheye. Note: When the URL for obtaining Fisheye capability is 0, the response does not assemble other URL.  1: The device supports Fisheye. Note: When the URL for obtaining Fisheye capability is 1, the response assembles other capability URL. |
| **mountTypeCount** | <int>{n} | Number of installation options.  Installation method list size |
| **mountTypeBegin** | <int>{1} | Installation mode start sign. |
| **mountType** | <int>[0,2] | Installation method.  0: Wall Mount  1: Ceiling  2: Desktop |
| **next\_mountTypeURL** | <int>{2} | The next installation method starts.  Start from 2. If the value is 2, it means the following parameter is the second one. |
| **mountTypeEnd** | <int>{n} | Installation mode end mark |
| **videoModeCount** | <int>{n} | Number of video modes |
| **videoModeBegin** | <int>{1} | Video mode start flag |
| **videoMode** | <int>{0,1} | Fisheye video mode.  0: Single channel mode  1: Multi-channel mode (5 channels: 1 Fisheye + 1 panoramic + 3 PTZ modes)  Note: When switching video modes, the device will reboot |
| **dewarpModeCount** | <int>{n} | Number of correction modes |
| **dewarpModeBegin** | <int>{1} | Correction mode start flag |
| **dewarpMode** | <int>{0,2,4,5,6,8,9,10,11,12,13} | Correction mode.  0: Fisheye mode  2: Panorama mode  4:1 Fisheye + 3PTZ mode  5:1 Fisheye + 5PTZ mode  6:1 Fisheye + 7PTZ mode  8: 4PTZ mode  9: 1O 4PTZ mode  10: 180-degree panoramic Refer to  11: 1 Fisheye + 1 panoramic + 3PTZ  12: 2 Fisheye + 3PTZ  13: One Fisheye + 4PTZ |
| **next\_ dewarpModeURL** | <int>{2} | Next correction mode start mark.  Start from 2. If the value is 2, it means the following parameter is the second one. |
| **dewarpModeEnd** | <int>{n} | Correction mode end mark. |
| **next\_videoModeURL** | <int>{2} | Next video mode start mark.  Start from 2. If the value is 2, it means the following parameter is the second one. |
| **videoModeEnd** | <int>{n} | Video mode end flag |
| **VideoRectCount** | <int>{n} | The number of videos for the layout.  Number of lenses per channel |
| **VideoRectBegin** | <int>{1} | Video layout start sign.  Indicates the layout of the first shot |
| **VideoNum** | <int>{1} | Shot number.  0 is always Fisheye or panoramic video, others are ptz |
| **StartX** | <double> | The video starting point X coordinate.  Percentage (0~1) x100, precision is 2 decimal places |
| **StartY** | <double> | The Y coordinate of the video starting point.  Percentage (0~1) x100, precision is 2 decimal places |
| **Height** | <double> | Video height.  Percentage (0~1) x100, precision is 2 decimal places |
| **Width** | <double> | Video width.  Percentage (0~1) x100, precision is 2 decimal places |
| **next\_VideoRectURL** | <int>{2} | Next video layout start sign.  Starting from 2, if the value is 2, it means that the following is the layout of the second lens |
| **VideoRectEnd** | <int>{n} | Video layout end marker.  Indicates the end of the list of lens layouts |

### Infrared thermal imaging (Thermal)

#### Thermal imaging capability

##### Get Thermal Ability (getThermalAbility)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **thermalAbility&cameraID=1** |
| **Description** | Parameter URL Description |
| **Example** | http://192.168.0.127/cgi-bin/param.cgi?action=get&type=thermalAbility **&cameraID=1** |
| **Return** | IsThermal=true  maxAreaNum=20  maxPointNum=20  maxLineNum=20  polygonType=2  maxPolygonNum=20  maxmaskingNum=0  sensorResolutionWidth=640  sensorResolutionHeight=512  measureType=0  measureRangeCount=1  measureRangeBegin=1  measureRangeMax=150.000000  measureRangeOriMax=0.000000  measureRangeOriMin=0.000000  measureRangeEnd=1  drcModeCount=2  drcModeBegin=1  drcMode=1  drcModeEnd=1  sensorType=6  supportColorPalette=0  supportFaceAlgo=28  alarmRuleCount=3  alarmRuleBegin=1  alarmRule=1  next\_alarmRuleURL=2  alarmRule=2  next\_alarmRuleURL=3  alarmRule=3  alarmRuleEnd=1  mixStreamModeCount=1  mixStreamModeBegin=1  mixStreamMode=0  mixStreamModeEnd=1  mixRectCount=0  rawUploadIntervalCount=5  rawUploadIntervalBegin=1  rawUploadInterval=1  next\_rawUploadIntervalURL=2  rawUploadInterval=2  next\_rawUploadIntervalURL=3  rawUploadInterval=3  next\_rawUploadIntervalURL=4  rawUploadInterval=4  next\_rawUploadIntervalURL=5  rawUploadInterval=5  rawUploadIntervalEnd=1  blackBodyCorrectMode=0  ledSupportMode=0  ATKSupportMode=0  preventOverheatMode=1  audioActionMode=1  OSDDisableMode=0  visiOSDDisableMode=0  tempConsumeMode=1  ignoreObjectCount=4  ignoreObjectBegin=1  ignoreObject=0  next\_ignoreObjectURL=2  ignoreObject=1  next\_ignoreObjectURL=3  ignoreObject=2  next\_ignoreObjectURL=4  ignoreObject=3  next\_ignoreObjectURL=5  ignoreObject=1026575698  ignoreObjectEnd=1 |

##### Thermal imaging capability parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **IsThermal** | Thermal imaging equipment  false: not supported  true: support |  | string |
| **sensorResolutionWidth** | Detector resolution width |  | int |
| **sensorResolutionHeight** | Detector resolution height |  |  |
| **measureType** | Temperature measurement type  0: Regional temperature measurement  1: Face temperature measurement | 0-1 | int |
| **measureRangeCount** | Temperature measurement range quantity |  | int |
| **measureRangeBegin** | Temperature measurement range start mark |  | int |
| **measureRangeMax** | Maximum temperature range |  | int |
| **measureRangeMin** | Minimum temperature range |  | int |
| **measureRangeOriMax** | Maximum original temperature measurement range |  | int |
| **measureRangeOriMin** | Minimum original temperature measurement range |  | int |
| **next\_measureRangeURL** | Next temperature measurement range start mark |  | int |
| **measureRangeEnd** | Temperature measurement range end mark |  | int |
| **drcModeCount** | Number of dimming modes |  | int |
| **drcModeBegin** | Dimming mode start indicator |  | int |
| **drcMode** | Dimming Mode |  | int |
| **next\_drcModeURL** | Next dimming mode start mark |  | int |
| **drcModeEnd** | Dimming mode end mark |  | int |
| **sensorType** | Detector Type  -1: Undefined  0:GST417M  1: GST817M  2:LA6110  3: GST212M  4:RTD3172C  5: Tiny1B  6:GST612M |  | int |
| **supportColorPalette** | Color Palette  0: Not supported  1: Support | 0-1 | int |
| **supportFaceAlgo** | Face Algorithm  0: Not supported  1: Support |  | int |
| **alarmRuleCount** | Number of alarm rules |  | int |
| **alarmRuleBegin** | Alarm rule start flag |  | int |
| **alarmRule** | Alarm rules  0: Off  1: Automatic mode  2: High temperature greater than  3: High temperature less than  4: Low temperature greater than  5: Low temperature less than |  | int |
| **next\_alarmRuleURL** | The next alarm rule starts marking |  | int |
| **alarmRuleEnd** | Alarm rule end flag |  | int |
| **mixStreamModeCount** | Number of fusion flow modes |  | int |
| **mixStreamModeBegin** | Fusion flow mode start flag |  | int |
| **mixStreamMode** | Fusion Stream Mode |  | int |
| **next\_mixStreamModeURL** | Next fusion flow mode start mark |  | int |
| **mixStreamModeEnd** | End mark of fusion flow mode |  | int |
| **mixRectCount** | Number of fused sub-rectangles |  | int |
| **mixRectBegin** | Fusion sub-rectangle start mark |  | int |
| **mixRect** | Fusion sub-rectangle |  | int |
| **next\_mixRectURL** | Next fusion flow rectangle start mark |  | int |
| **mixRectEnd** | End mark of fused sub-rectangle |  | int |
| **rawUploadIntervalCount** | Number of raw data upload intervals |  | int |
| **rawUploadIntervalBegin** | Raw data upload interval start mark |  | int |
| **rawUploadInterval** | Raw data upload interval |  | int |
| **next\_rawUploadIntervalURL** | The next raw data upload interval starts. |  | int |
| **rawUploadIntervalEnd** | Original data upload interval end mark |  | int |
| **blackBodyCorrectMode** | Black Correction Mode  0: Not supported  1: Support | 0-1 | int |
| **ledSupportMode** | Led white light mode  0: Not supported  1: Fill light  2: Fill light (adjustable brightness) | 0-2 | int |
| **ATKSupportMode** | ATK Mode  0: Not supported  1: Support | 0-1 | int |
| **preventOverheatMode** | Anti-burn  0: Not supported  1: Support | 0-1 | int |
| **audioActionMode** | Sound linkage mode  0: Not supported  1: Support | 0-1 | int |
| **OSDDisableMode** | Thermal imaging OSD printing  0: Not supported  1: Support | 0-1 | int |
| **visiOSDDisableMode** | Visible light OSD printing  0: Not supported  1: Support | 0-1 | int |
| **tempConsumeMode** | Temperature consumption pattern  0: Not supported  1: Support | 0-1 | int |
| **ignoreObjectCount** | Filter target quantity |  | int |
| **ignoreObjectBegin** | Filter target start mark |  | int |
| **ignoreObject** | Filter Target  0: None  1: Humanoid  2: Vehicles  3: People or cars | 0-3 | int |
| **next\_ignoreObjectURL** | Next filter target start mark |  | int |
| **ignoreObjectEnd** | Filter target end mark |  | int |

#### Measurement Mode ( MeasureMode )

##### Get the measurement mode (get thermalMeasureMode )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **thermalMeasureMode** |
| **Description** | Refer to [Thermal Imaging Parameters Configuration](#_热成像参数配置) |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=thermalMeasureMode |
| **Return** | measureMode =1  measureID =1 |

##### Set the measurement mode (setThermalMeasureMode)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **thermalMeasureMode** &measureMode<measureMode>&measureID=<measureModeID> |
| **Description** | Setting the measurement mode |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=set&type=thermalMeasureMode&measureMode=1&measureID=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答_1) ) |

#### Temperature measurement parameters

##### Get thermal imaging temperature measurement parameters (getT hermalImagerConfigureParam )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= thermalImagerConfigureParam &cameraID=1 |
| **Description** | Get thermal imaging temperature measurement parameters, Refer to [temperature measurement parameters](#_测温参数) |
| **Example** | http://192.168.0.127/cgi-bin/param.cgi?action=get&type=thermalImagerConfigureParam&cameraID=1​​​ |
| **Return** | IsOpenTemperatureMeasure=true  TemperatureUnit=1  lengthUnit=0  EnvironmentTemperature=26.000000  CavityTemoperature=97.769997  Physicsinfo=31.000000  areaIdDisplayMode=1  tempConsumeMode=2  DisplayMode=3  OSDFontBorderEnable=true  CustomOSDColorEnable=true  OSDFontColor\_R=0  OSDFontColor\_G=0  OSDFontColor\_B=255  FontSizeMode=3  AreaFeatureTemprShowMode=2  ThermalMeasureMode=0  IsDisplayAlarmArea=true  AlarmInterval=100  AlarmDelay=10  TemperatureMax=302  TemperatureMin=-40  PreventOverheatMode=2  AutoMasking=12  DrcMode=2  DrcModeTemperatureMax=45  DrcModeTemperatureMin=20  LargeEnable=true  LargeTemperature=40.000000  LargeColor\_R=255  LargeColor\_G=0  LargeColor\_B=0  RangeEnable=true  RangeMinTemperature=34.000000  RangeMaxTemperature=37.000000  RangeColor\_R=255  RangeColor\_G=255  RangeColor\_B=255  SmallEnable=true  SmallTemperature=31.000000  SmallColor\_R=255  SmallColor\_G=0  SmallColor\_B=255  RawUploadInterval=5  MixStreamMode=0 |

##### Set thermal imaging temperature measurement parameters (setT hermalImagerConfigureParam )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= thermalImagerConfigureParam &cameraID=1 [&<argument>=<value>...] |
| **Description** | Set the thermal imaging temperature measurement parameters. For the parameters, Refer to [Temperature Measurement Parameters.](#_测温参数) |
| **Example** | http://192.168.0.127/cgi-bin/param.cgi?action=set&type=thermalImagerConfigureParam&cameraID=1&IsOpenTemperatureMeasure=true&TemperatureUnit=1&lengthUnit=0&EnvironmentTemperature=77.000000&selfAdaptiveEnvironmentTemperature=25.000000&Physicsinfo=0.000000&areaIdDisplayMode=1&tempConsumeMode=2&DisplayMode=2&OSDFontBor derEnable=false&FontSizeMode=2&AreaFeatureTemprShowMode=5&ThermalMeasureMode=0&IsDisplayAlarmArea=true&AlarmInterval=15&AlarmDelay=5&TemperatureMax=302&TemperatureMin=-40&PreventOverheatMode=2&AutoMasking=55&DrcMode=2&DrcModeTemperatureMax=36.060001&DrcModeTemperatureMin=33.000000&RawUploadInterval=2&MixStreamMode=0 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答_1) ) |

##### Temperature measurement parameters

Table 2-6-12-4-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **IsOpenTemperatureMeasure** | <bool> | Temperature measurement parameter configuration switch |
| **TemperatureUnit** | <int> | Temperature Units  0: Celsius  1: Fahrenheit |
| **lengthUnit** | <int> | Length Unit  0: Meter  1: Feet |
| **EnvironmentTemperature** | <float> | Ambient temperature |
| **CavityTemoperature** | <float> | Temperature inside the equipment cavity |
| **Physicsinfo** | <float> | Correction factor |
| **areaIdDisplayMode** | <int> | Area ID display mode  0: Region ID  1: Region name |
| **tempConsumeMode** | <int> | Temperature consumption pattern  0: Off  1: Temperature + Jpeg  2: Temperature value |
| **DisplayMode** | <int> | Zone temperature display mode  0: Hide the area and temperature prompts 1: Bottom left  2: Bottom right  3: Top right  4: Display area only  5: Follow Area |
| **OSDFontBorderEnable** | <bool> | Whether to display font border |
| **CustomOSDColorEnable** | <bool> | Whether to display font color |
| **OSDFontColor\_R** | <int> | Color RGB code |
| **OSDFontColor\_G** | <int> | Color RGB code |
| **OSDFontColor\_B** | <int> | Color RGB code |
| **FontSizeMode** | <int> | font size.  1: Small  2: Medium  3: Large |
| **AreaFeatureTemprShowMode** | <int> | Area temperature measurement type  0: Only display the highest temperature  2: Display the highest and lowest temperatures  5: Display the highest temperature, lowest temperature and average temperature |
| **ThermalMeasureMode** | <int> | Thermal imaging measurement mode:  0: Normal temperature measurement mode  1: Preset temperature measurement mode (supported by products with PTZ) Default is normal mode |
| **IsDisplayAlarmArea** | <bool> | Whether to display the alarm area |
| **AlarmInterval** | <int> | Alarm interval  Value range: 1-1800 seconds |
| **AlarmDelay** | <int> | Alarm delay  Value range: 0-10 |
| **TemperatureMax** | <int> | Temperature measurement range, maximum temperature (302) |
| **TemperatureMin** | <int> | Temperature measurement range, minimum temperature (-40) |
| **PreventOverheatMode** | <int> | Anti-burn mode  1: Close  2: Automatic  3: Manual |
| **ControlCover** | <int> | Control flap in manual mode  1: Close  2. Let go |
| **AutoMasking** | <int> | Blocking time in automatic mode  Value range: 5-60 |
| **MaptoOpticalMode** | <int> | Temperature measurement information maps visible light  0: Off  1: On |
| **DrcMode** | <int> | Dimming Mode  1: Automatic  2: Manual |
| **DrcModeTemperatureMax** | <float> | Maximum temperature range in manual dimming mode |
| **DrcModeTemperatureMin** | <float> | Minimum temperature range in manual dimming mode |
| **LargeEnable** | <bool> | When the temperature is greater than a certain value, the image switch is highlighted |
| **LargeTemperature** | <float> | Temperature value greater than |
| **LargeColor\_R** | <int> | Color rgb code |
| **LargeColor\_G** | <int> | Color rgb code |
| **LargeColor\_B** | <int> | Color rgb code |
| **RangeEnable** | <bool> | The temperature is in a certain range and the image switch is highlighted |
| **RangeMinTemperature** | <float> | Minimum value of interval range |
| **RangeMaxTemperature** | <float> | Maximum value of interval range |
| **RangeColor\_R** | <int> | Color rgb code |
| **RangeColor\_G** | <int> | Color rgb code |
| **RangeColor\_B** | <int> | Color rgb code |
| **SmallEnable** | <bool> | When the temperature is less than a certain value, the image switch is highlighted |
| **SmallTemperature** | <float> | Temperature value less than |
| **SmallColor\_R** | <int> | Color rgb code |
| **SmallColor\_ G** | <int> | Color rgb code |
| **SmallColor\_ B** | <int> | Color rgb code |
| **RawUploadInterval** | <int> | Upload raw data interval  Unit: Frames/second |
| **MixStreamMode** | <int> | Fusion stream mode, currently cannot be set, only the default value is 0 |

#### Ambient temperature

##### Get ambient temperature parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **environmentTemperature** &cameraID=1 |
| **Description** | Refer to [URL Descriptions](#_环境温度参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=environmentTemperature &cameraID=1 |
| **Return** | environmentTemperature=27.00  selfAdaptiveEnvironmentTemperature=28.62 |

##### Setting the ambient temperature parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **environmentTemperature** &cameraID=1&environmentTemperature=27.00 |
| **Description** | Refer to [URL Descriptions](#_吸烟检测参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=environmentTemperature&cameraID=1&environmentTemperature=27.00​ |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### ambient temperature parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **environmentTemperature** | Ambient temperature |  | float |
| **selfAdaptiveEnvironmentTemperature** | Adaptive temperature (get effective) |  | float |

#### Temperature measurement area

##### Get the temperature measurement area parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **temperAlarmParam** &cameraID=1&measureID=0&areaID=1 |
| **Description** | Refer to [the URL description](#_测温区域参数含义) . If areaID is not included , all areas will be obtained. |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=temperAlarmParam&cameraID=1&measureID=0&areaID=1 |
| **Return** | temperAlarmParamCount=1  temperAlarmParamStart=1  areaFlag=true  areaId=2  areaName=Area22  areaShapeType=4  alarmType=2  warningValue=48.000000  alarmValue=51.020000  alarmMaxValue=64.040001  timeDuration=1  emissivity=0.920000  targetSpace=5.000000  reflectTempEnable=0  reflectTempValue=54.540001  ignoreObjectMode=2  alarmFlag=1  maskEnable=1  groupId=4  SNPointCoordinateCount=4  SNPointCoordinateStart=1  PointX=10.431034  PointY=39.571430  SNPointCoordinateNext=2  PointX=10.603448  PointY=75.000000  SNPointCoordinateNext=3  PointX=41.637932  PointY=73.000000  SNPointCoordinateNext=4  PointX=52.500000  PointY=42.714287  SNPointCoordinateEnd=1  temperAlarmParamEnd=1 |

##### Set the temperature measurement area parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=**temperAlarmParam**&cameraID=1&measureID=0&temperAlarmParamCount=2&temperAlarmParamStart=1&areaFlag=true&areaId=1&areaName=Area12&areaShapeType=4&alarmType=2&warningValue=48.000000&alarmValue=51.020000&alarmMaxValue=64.040001&timeDuration=1&emissivity=0.920000&targetSpace=5.000000&reflectTempEnable=0&reflectTempValue=54.540001&ignoreObjectMode=2&alarmFlag=1&maskEnable=1&groupId=4&SNPointCoordinateCount=4&SNPointCoordinateStart=1&PointX=10.431034&PointY=39.571430&SNPointCoordinateNext=2&PointX=10.603448&PointY=75.000000&SNPointCoordinateNext=3&PointX=41.637932&PointY=73.000000&SNPointCoordinateNext=4&PointX=42.500000&PointY=32.714287&SNPointCoordinateEnd=1&next\_temperAlarmParamURL=2&areaFlag=true&areaId=2&areaName=Area22&areaShapeType=4&alarmType=2&warningValue=48.000000&alarmValue=51.020000&alarmMaxValue=64.040001&timeDuration=1&emissivity=0.920000&targetSpace=5.000000&reflectTempEnable=0&reflectTempValue=54.540001&ignoreObjectMode=2&alarmFlag=1&maskEnable=1&groupId=4&SNPointCoordinateCount=4&SNPointCoordinateStart=1&PointX=10.431034&PointY=39.571430&SNPointCoordinateNext=2&PointX=10.603448&PointY=75.000000&SNPointCoordinateNext=3&PointX=41.637932&PointY=73.000000&SNPointCoordinateNext=4&PointX=52.500000&PointY=42.714287&SNPointCoordinateEnd=1&temperAlarmParamEnd=1 |
| **Description** | Refer to [URL Descriptions](#_测温区域参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=temperAlarmParam&cameraID=1&measureID=0&temperAlarmParamCount=2&temperAlarmParamStart=1&areaFlag=true&areaId=1&areaName=Area12&areaShapeType=4&alarmType=2&warningValue=48.000000&alarmValue=51.020000&alarmMaxValue=64.040001&timeDuration=1&emissivity=0.920000&targetSpace=5.000000&reflectTempEnable=0&reflectTempValue=54.540001&ignoreObjectMode=2&alarmFlag=1&maskEnable=1&groupId=4&SNPointCoordinateCount=4&SNPointCoordinateStart=1&PointX=10.431034&PointY=39.571430&SNPointCoordinateNext=2&PointX=10.603448&PointY=75.000000&SNPointCoordinateNext=3&PointX=41.637932&PointY=73.000000&SNPointCoordinateNext=4&PointX=42.500000&PointY=32.714287&SNPointCoordinateEnd=1&next\_temperAlarmParamURL=2&areaFlag=true&areaId=2&areaName=Area22&areaShapeType=4&alarmType=2&warningValue=48.000000&alarmValue=51.020000&alarmMaxValue=64.040001&timeDuration=1&emissivity=0.920000&targetSpace=5.000000&reflectTempEnable=0&reflectTempValue=54.540001&ignoreObjectMode=2&alarmFlag=1&maskEnable=1&groupId=4&SNPointCoordinateCount=4&SNPointCoordinateStart=1&PointX=10.431034&PointY=39.571430&SNPointCoordinateNext=2&PointX=10.603448&PointY=75.000000&SNPointCoordinateNext=3&PointX=41.637932&PointY=73.000000&SNPointCoordinateNext=4&PointX=52.500000&PointY=42.714287&SNPointCoordinateEnd=1&temperAlarmParamEnd=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Temperature measurement area parameter meaning

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** | **Remark** |
| **temperAlarmParamCount** | Number of temperature measurement areas |  | float |  |
| **temperAlarmParamStart** | Temperature measurement area start mark |  | int |  |
| **areaFlag** | Temperature measurement area switch  false : off  true: on |  | string |  |
| **areaId** | Area No. |  | int |  |
| **areaName** | Region Name |  | int |  |
| **areaShapeType** | type  1 o'clock  2: Line  3: Rectangle  4: Polygon | 1-4 | int |  |
| **alarmType** | alarm type  0: Temperature difference alarm  1: Threshold alarm  2: Interval alarm  3: Temperature rise alarm | 0-3 | int |  |
| **warningValue** | Warning value |  | int | **alarmType=0 or 1 or 3 is valid** |
| **alarmValue** | Alarm value |  | int |  |
| **alarmMaxValue** | Maximum alarm value |  | int | **alarmType=2 is valid** |
| **timeDuration** | Duration (seconds) | 1-10 | int | **alarmType=3 is valid** |
| **emissivity** | Emissivity |  | int |  |
| **targetSpace** | Distance (m) |  | int |  |
| **reflectTempEnable** | Reflective temperature switch  0: Off  1: On | 0-1 | int |  |
| **reflectTempValue** | Reflected temperature |  | int |  |
| **ignoreObjectMode** | Filter heat source target  0: None  1: Humanoid  2: Vehicles  3: People or cars | 0-3 | int |  |
| **alarmFlag** | Alarm switch  0: Off  1: On | 0-1 | int |  |
| **maskEnable** | masking switch  0: Off  1: On | 0-1 | int |  |
| **groupId** | Group ID | 0-6 | int |  |
| **SNPointCoordinateCount** | Number of regions |  | int |  |
| **SNPointCoordinateStart** | Area start mark |  | int |  |
| **PointX** | X coordinate |  | float |  |
| **PointY** | Y coordinate |  | float |  |
| **SNPointCoordinateNext** | Next area start mark |  | int |  |
| **SNPointCoordinateEnd** | End of area marker |  | int |  |
| **next\_temperAlarmParamURL** | Next temperature measurement area starts marking |  | int |  |
| **temperAlarmParamEnd** | Temperature measurement area end mark |  | int |  |

#### Area temperature​

##### Get area characteristic temperature (getAreaTemperature)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type=areaTemperature&cameraID=1&areaID=0 |
| **Description** | 1. If the areaID parameter is not carried, all area parameters are obtained later.  2. Characteristic temperature includes maximum temperature, minimum temperature, average temperature |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type= areaTemperature&cameraID=1&areaID=0 |
| **Return** | areaTemperatureBegin=1  areaID=0  temperatureUnit=0  maxTemperatureX=703  maxTemperatureY=575  maxTemperature=0.000000  minTemperatureX=703  minTemperatureY=575  minTemperature=0.000000  aveTemperature=0.000000  areaTemperatureEnd  (For other responses, Refer to [General Response](#_通用应答_1) ) |

##### Get the temperature of any point in the full screen area (getAnyPointTemperature)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type=anyPointTemperature &cameraID=1 &PointX=<PointX>&PointY=<PointY> |
| **Description** | Get the temperature of any point in the full screen |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type=anyPointTemperature &cameraID=1 &PointX=20&PointY=10 |
| **Return** | temperatureUnit = 1  pointTemperature =36.00  (For other responses, Refer to [General Response](#_通用应答_1) ) |

##### Get the temperature of multiple points in the thermal imaging area (getpointTemperature)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type=pointTemperature &cameraID=1 & pointTemperatureBegin =1&PointX=<pointX>&PointY=<pointY>& pointTemperatureEnd =2&PointX=<pointX>&PointY=<pointY>&horizontal Num =<horizontal Num >&verticalNum=<verticalNum> |
| **Description** | Get the temperature of any point in the full screen. For parameters, Refer to [Thermal Imaging Parameter Configuration](#_热成像参数配置) |
| **Example** | http://192.168.32.121/cgi-bin/param.cgi? action=get&type = pointTemperature & cameraID=1 & biginPointX = 20& biginPointY = 10& endPointX= 89 & endPointY = 90 & horizontalNum = 10 & verticalNum = 10 |
| **Return** | pointTemperatureBegin =1  PointX=20.00  PointY=10.00  temperatureValue =20.00  temperatureUnit =0  pointTemperatureNext =2  PointX=10.00  PointY=20.00  temperatureValue =19.90  temperatureUnit =0  pointTemperatureEnd =2 |

#### Alarm linkage​

##### Get the thermal imaging temperature alarm deployment linkage parameters (getAlarmDeploymentParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type=alarmDeploymentParam &cameraID=1 |
| **Description** | Refer to [URL Descriptions](#_布防联动参数含义) |
| **Example** | http://192.168.0.127/cgi-bin/param.cgi?action=get&type=alarmDeploymentParam&cameraID=1 |
| **Return** | temperAlarmDeploymentParamCount=7  temperAlarmDeploymentParamStart=1  sourceType=31  AlarmLinkageCount=3  AlarmLinkageBegin=1  ActionID=1  ActionType=1  next\_AlarmLinkageURL=2  ActionID=1  ActionType=2  next\_AlarmLinkageURL=3  ActionID=3  ActionType=10  AlarmLinkageEnd=3  RecordActionParamCount=0  alarmOutActionCount=0  weekDayCount=1  weekDayBegin=1  weekDay=4  startTime1=5400  endTime1=18000  weekDayEnd=1  next\_temperAlarmDeploymentParamURL=2  sourceType=32  AlarmLinkageCount=0  RecordActionParamCount=0  alarmOutActionCount=0  weekDayCount=0  next\_temperAlarmDeploymentParamURL=3  sourceType=33  AlarmLinkageCount=2  AlarmLinkageBegin=1  ActionID=1  ActionType=4  next\_AlarmLinkageURL=2  ActionID=1  ActionType=7  AlarmLinkageEnd=2  RecordActionParamCount=0  alarmOutActionCount=0  weekDayCount=1  weekDayBegin=1  weekDay=3  startTime1=14400  endTime1=43200  weekDayEnd=1  next\_temperAlarmDeploymentParamURL=4  sourceType=34  AlarmLinkageCount=0  RecordActionParamCount=0  alarmOutActionCount=2  alarmOutActionCount=2  alarmOutActionBegin=1  alarmOutID=1  alarmOutFlag=1  next\_alarmOutActionURL=2  alarmOutID=2  alarmOutFlag=1  alarmOutActionEnd=1  weekDayCount=0  next\_temperAlarmDeploymentParamURL=5  sourceType=35  AlarmLinkageCount=0  RecordActionParamCount=0  alarmOutActionCount=2  alarmOutActionCount=2  alarmOutActionBegin=1  alarmOutID=1  alarmOutFlag=1  next\_alarmOutActionURL=2  alarmOutID=2  alarmOutFlag=1  alarmOutActionEnd=1  weekDayCount=0  next\_temperAlarmDeploymentParamURL=6  sourceType=49  AlarmLinkageCount=0  RecordActionParamCount=0  alarmOutActionCount=2  alarmOutActionCount=2  alarmOutActionBegin=1  alarmOutID=1  alarmOutFlag=1  next\_alarmOutActionURL=2  alarmOutID=2  alarmOutFlag=1  alarmOutActionEnd=1  weekDayCount=0  next\_temperAlarmDeploymentParamURL=7  sourceType=48  AlarmLinkageCount=0  RecordActionParamCount=0  alarmOutActionCount=2  alarmOutActionCount=2  alarmOutActionBegin=1  alarmOutID=1  alarmOutFlag=1  next\_alarmOutActionURL=2  alarmOutID=2  alarmOutFlag=1  alarmOutActionEnd=1  weekDayCount=0  temperAlarmDeploymentParamEnd=1 |

##### Set the thermal imaging temperature alarm deployment linkage (setAlarmDeploymentParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= alarmDeploymentParam[&<argument>=<value>...] |
| **Description** | Refer to [URL Descriptions](#_布防联动参数含义) |
| **Example** | [http://192.168.0.127/cgi-bin/param.cgi?action=set&type=alarmDeploymentParam &camearaID=1 &temperAlarmDeploymentParamCount=7&temperAlarmDeploymentParamStart=1&sourceType=31 &AlarmLinkageCount=3&AlarmLinkageBegin=1&ActionID=1&ActionType=1&next\_AlarmLinkageURL=2&ActionID=1&ActionType=2](http://192.168.0.127/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=alarmDeploymentParam&camearaID=1&temperAlarmDeploymentParamCount=7&temperAlarmDeploymentParamStart=1&sourceType=31&AlarmLinkageCount=3&AlarmLinkageBegin=1&ActionID=1&ActionType=1&next_AlarmLinkageURL=2&ActionID=1&ActionType=2)  &next\_AlarmLinkageURL=3&ActionID=3&ActionType=10&AlarmLinkageEnd=3&RecordActionParamCount=0&alarmOutActionCount=0&weekDayCount=1&weekDayBegin=1&weekDay=4&startTime1=5400&endTime1=18000&weekDayEnd=1&next\_temperAlarmDeploymentParamURL=2&sourceType=32&AlarmLinkageCount=0  &RecordActionParamCount=0&alarmOutActionCount=0&weekDayCount=0&next\_temperAlarmDeploymentParamURL=3&sourceType=33&AlarmLinkageCount=2&AlarmLinkageBegin=1&ActionID=1&ActionType=4&next\_AlarmLinkageURL=2&ActionID=1&ActionType=7&AlarmLinkageEnd=2&RecordActionParamCount=0  &alarmOutActionCount=0&weekDayCount=1&weekDayBegin=1&weekDay=3&startTime1=14400&endTime1=43200&weekDayEnd=1&next\_temperAlarmDeploymentParamURL=4&sourceType=34&AlarmLinkageCount=0&RecordActionParamCount=0&alarmOutActionCount=2&alarmOutActionCount=2&alarmOutActionBegin=1&alarmOutID=1&alarmOutFlag=1&next\_alarmOutActionURL=2&alarmOutID=2&alarmOutFlag=1&alarmOutActionEnd=1&weekDayCount=0&next\_temperAlarmDeploymentParamURL=5&sourceType=35&AlarmLinkageCount=0&RecordActionParamCount=0&alarmOutActionCount=2&alarmOutActionCount=2&alarmOutActionBegin=1&alarmOutID=1&alarmOutFlag=1&next\_alarmOutActionURL=2&alarmOutID=2&alarmOutFlag=1&alarmOutActionEnd=1&weekDayCount=0&next\_temperAlarmDeploymentParamURL=6&sourceType=49&AlarmLinkageCount=0&RecordActionParamCount=0&alarmOutActionCount=2&alarmOutActionCount=2&alarmOutActionBegin=1&alarmOutID=1&alarmOutFlag=1&next\_alarmOutActionURL=2&alarmOutID=2&alarmOutFlag=1&alarmOutActionEnd=1&weekDayCount=0&next\_temperAlarmDeploymentParamURL=7&sourceType=48&AlarmLinkageCount=0&RecordActionParamCount=0&alarmOutActionCount=2&alarmOutActionCount=2&alarmOutActionBegin=1&alarmOutID=1&alarmOutFlag=1&next\_alarmOutActionURL=2&alarmOutID=2&alarmOutFlag=1&alarmOutActionEnd=1&weekDayCount=0&temperAlarmDeploymentParamEnd=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答_1) ) |

##### Meaning of the arming linkage parameters

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** | **Remark** |
| **temperAlarmDeploymentParamCount** | Number of linkages |  | int |  |
| **temperAlarmDeploymentParamStart** | Arming linkage start mark |  |  |  |
| **sourceType** | Linkage Type  31: Threshold alarm  32: Threshold warning  33: Temperature difference alarm  34: Temperature difference warning  35: Temperature range alarm  48: Temperature rise warning  49: Temperature rise alarm |  |  |  |
| **alarmPTZActionCount** | PTZ alarm quantity |  |  |  |
| **alarmPTZActionBegin** | PTZ alarm start indicator |  |  |  |
| **alarmPTZAction** | PTZ alarm operation behavior  c over: overwrite |  |  | **set is valid** |
| **PTZChannelID** | PTZ channel ID |  |  |  |
| **PTZActionType** | PTZ operation type |  |  |  |
| **PTZActionID** | Operation ID |  |  |  |
| **next\_PTZAcitonURL** | Next PTZ alarm start mark |  |  |  |
| **alarmPTZActionEnd** | PTZ alarm end mark |  |  |  |
| **AlarmLinkageCount** | Number of linkages |  |  |  |
| **AlarmLinkageParam** | Alarm linkage operation behavior  c over: overwrite |  |  | **set is valid** |
| **AlarmLinkageBegin** | Loop body start mark |  |  |  |
| **ActionType** | Action Type  1: Alarm output  2: Alarm email  3: Alarm PTZ  4: Alarm video  7: FTP upload  10: Audio alarm  11: LED alarm  14: White light alarm |  |  |  |
| **ActionID** | Action ID |  |  |  |
| **next\\_AlarmLinkageURL** | Next Linkage Alarm Alarm |  |  |  |
| **AlarmLinkageEnd** | Alarm linkage end flag |  |  |  |
| **weekDayCount** | Number of defenses |  |  |  |
| **weekDayBegin** | Arming start indicator |  |  |  |
| **weekDay** | which day | 0-6 |  |  |
| **startTime** | Arming start time (in seconds) |  |  |  |
| **endTime** | Arming end time (in seconds) |  |  |  |
| **next\_weekDayURL** | Next scheduled time URL start mark |  |  |  |
| **weekDayEnd** | End flag of the loop of defense days |  |  |  |
| **next\_temperAlarmDeploymentParamURL** | Next arming linkage start mark |  |  |  |
| **temperAlarmDeploymentParamEnd** | Arming linkage end mark |  |  |  |

#### maskingArea​​

##### Get the maskinging area parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **maskingArea** &camearaID=1 |
| **Description** | Refer to [parameter meaning](#_屏蔽区域参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=maskingArea &camearaID=1 |
| **Return** | maskingEnable=1  showmaskingEnable=1  regionCount = 1  regionBegin=1  pointCount=3  pointBegin=1  pointX=17.755102  pointY=31.111111  next\_pointURL=2  pointX=6.530612  pointY=47.407406  next\_pointURL=3  pointX=37.346939  pointY=37.037037  pointEnd=3  regionEnd= 1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set maskinging area parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=**maskingArea**&camearaID=1maskingEnable=1&showmaskingEnable=1&regionCount=3&regionBegin=1&pointCount=3&pointBegin=1&pointX=17.755102&pointY=31.111111&next\_pointURL=2&pointX=6.530612&pointY=47.407406&next\_pointURL=3&pointX=37.346939&pointY=37.037037&pointEnd=3&next\_regionURL=2&pointCount=3&pointBegin=1&pointX=27.959183&pointY=87.407410&next\_pointURL=2&pointX=46.734695&pointY=56.296295&next\_pointURL=3&pointX=53.061226&pointY=79.259262&pointEnd=3&next\_regionURL=3&pointCount=3&pointBegin=1&pointX=68.571426&pointY=50.740742&next\_pointURL=2&pointX=61.428570&pointY=82.222221&next\_pointURL=3&pointX=82.857140&pointY=77.777779&pointEnd=3&regionEnd=3 |
| **Description** | Refer to [parameter meaning](#_屏蔽区域参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=maskingArea &camearaID=1 &areaId=1&areaEnable=1&areaName=areaTest&areaType=0&alarmType=1&warningValue=49.00&alarmValue=51.00&duration=1.00&targetEmissivity=0.96&distance=16.0&reflectionTempEnable=1&filterTarget=3&alarmEnable=1&areaMaskEnable=1&groupId=2&pointBegin=1&pointX=50.0&pointY=60.0&pointEnd=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of maskinging area parameters

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **maskingEnable** | <int> | maskinging area switch  0: Off  1: On |
| **showmaskingEnable** | <int> | Show maskinged area switch  0: Off  1: On |
| **PolygonAreaBegin** | <int> | Detection area start mark |
| **AreaPointBegin** | <int> | Area coordinates start mark |
| **pointX** | <int> | Horizontal coordinate value |
| **pointY** | <int> | Vertical coordinate value |
| **AreaPointEnd** | <int> | End of area sign |
| **nextPolygonArea** | <int> | Next area |
| **PolygonAreaEnd** | <int> | The region ends with n region values n |

#### Led lamp control parameters

##### Get LED light control parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type=ledControlParam&cameraID=1 |
| **Description** | Refer to [parameter meaning](#_Led灯控制参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type=ledControlParam&cameraID=1​ |
| **Return** | LedControlCount=1  LedControlBegin=1  ID=0  DisplayMode=2  Brightness=100  FlickerInterval=200  weekDayCount=7  weekDayBegin=1  weekDay=0  startTime=0  endTime=86400  next\_weekDayURL=2  weekDay=1  startTime=0  endTime=86400  next\_weekDayURL=3  weekDay=2  startTime=0  endTime=86400  next\_weekDayURL=4  weekDay=3  startTime=0  endTime=86400  next\_weekDayURL=5  weekDay=4  startTime=0  endTime=86400  next\_weekDayURL=6  weekDay=5  startTime=0  endTime=86400  next\_weekDayURL=7  weekDay=6  startTime=0  endTime=86400  weekDayEnd=7  LedControlEnd=1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set the LED light control parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type=**ledControlParam**&cameraID=1&LedControlCount=1&LedControlBegin=1&ID=0&DisplayMode=1&Brightness=100&FlickerInterval=700&weekDayCount=7&weekDayBegin=1&weekDay=0&startTime=0&endTime=86400&next\_weekDayURL=2&weekDay=1&startTime=0&endTime=86400&next\_weekDayURL=3&weekDay=2&startTime=0&endTime=86400&next\_weekDayURL=4&weekDay=3&startTime=0&endTime=86400&next\_weekDayURL=5&weekDay=4&startTime=0&endTime=86400&next\_weekDayURL=6&weekDay=5&startTime=0&endTime=86400&next\_weekDayURL=7&weekDay=6&startTime=0&endTime=86400&weekDayEnd=7&LedControlEnd=1 |
| **Description** | Refer to [parameter meaning](#_屏蔽区域参数含义) |
| **Description** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type= ledControlParam&cameraID=1&LedControlCount=1&LedControlBegin=1&ID=0&DisplayMode=1&Brightness=100&FlickerInterval=700&weekDayCount=7&weekDayBegin=1&weekDay=0&startTime=0&endTime=86400&next\_weekDayURL=2&weekDay=1&startTime= 0&endTime=86400&next\_weekDayURL=3&weekDay=2&st artTime=0&endTime=86400&next\_weekDayURL=4&weekDay=3&startTime=0&endTime=86400&next\_weekDayURL=5&weekDay=4&startTime=0&endTime=86400&next\_weekDayURL=6&weekDay=5&startTime=0&endTime=86400&next\_weekDayURL=7&weekDay=6&startTime=0&endTime=86400&weekDayEnd=7&LedControlEnd=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Led light control parameters meaning

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** | **Remark** |
| **LedControlCount** | Led light control parameters quantity |  | int |  |
| **LedControlBegin** | Led light control parameter start mark |  | int |  |
| **ID** | Serial number |  | int |  |
| **DisplayMode** | Display Mode  1: Open  2: Close  3: Flashing  4: Timing  8: Alarm constant |  | int |  |
| **Brightness** | brightness | 0-100 | int |  |
| **FlickerInterval** | Flashing interval | 100-10000 | int | DisplayMode=3 |
| **weekDayCount** | Number of defenses |  | int | DisplayMode=4 |
| **weekDayBegin** | Arming start indicator |  | int |  |
| **weekDay** | which day | 0-6 | int |  |
| **startTime** | Arming start time (seconds) |  | int |  |
| **endTime** | Arming end time (seconds) |  | int |  |
| **next\_weekDayURL** | Next arming time start mark |  | int |  |
| **weekDayEnd** | Arming end mark |  | int |  |

#### measurement dead pixels (same as AI thermal imaging)

##### Correct the bad point of human body temperature measurement (apply AIThermalBadPointCalibration )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=apply&type= AIThermalBadPointCalibration |
| **Description** | For parameters, Refer to [AI thermal imaging bad pixel correction parameters](#_AI热成像坏点校正参数)  Modify the bad point to a point where the temperature can be measured normally |
| **Example** | http:// 192.168.1.20 /cgi-bin/param.cgi?action=apply&type=AIThermalBadPointCalibration&BadPointList=50,50||80,80 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### AI thermal imaging bad pixel correction parameters

|  |  |  |
| --- | --- | --- |
| **parameter** | **type of data** | **Remark** |
| **BadPointList** | <string> | Bad point coordinate list: x1,y1 || x2,y2 || ...  Note: x, y are both float, and the number of points corresponds to the invisible light |

##### Reset human body temperature bad point (restore AIThermalBadPointCalibration )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=restore&type= AIThermalBadPointCalibration |
| **Description** | Reset the corrected points |
| **Example** | http:// 192.168.1.20 /cgi-bin/param.cgi?action= restore &type=AIThermalBadPointCalibration |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Save human body temperature measurement bad point calibration (save AIThermalBadPointCalibration )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=save&type= AIThermalBadPointCalibration |
| **Description** | Save the corrected points |
| **Example** | http:// 192.168.1.20 /cgi-bin/param.cgi?action= save &type=AIThermalBadPointCalibration |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Temperature measurement version (Same as AI thermal imaging)

##### Get the human body temperature measurement version information ( get AIThermalVersionInfo )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= AIThermalVersionInfo |
| **Description** | For parameters, Refer to [AI Thermal Imaging Version Information](#_AI热成像版本信息) |
| **Example** | http:// 192.168.1.20 /cgi-bin/param.cgi?action=get&type= AIThermalVersionInfo |
| **Return** | Version=20190723  Sequence=test-1 |

##### AI thermal imaging version information (not supported)

|  |  |  |
| --- | --- | --- |
| **parameter** | **type of data** | **Remark** |
| **Version** | <string> | Movement version |
| **Sequence** | <string> | Movement serial number |

#### Parameter configuration​

##### Thermal imaging parameter configuration

Table 2-6-11-11-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **CameraId** | <int>1 | Channel number.  ID: represents the channel number |
| **IsThermalenable** | <int>{0,1} | Whether to support identification.  0: The device does not support  1: The device supports |
| **maxAreaNum** | <int>{n} | Maximum number of supported measurement areas |
| **maxPointAreaNum** | <int>{n} | Maximum number of supported point measurement areas  0 means that point area temperature measurement is not supported |
| **maxLineAreaNum** | <int>{n} | Maximum number of supported line measurement areas  0 means line area temperature measurement is not supported |
| **supportPolygonType** | <int>[0,3] | Whether to support rectangular regions.  0 Not supported  1: Only supports rectangular areas  2: Only supports general polygonal areas  3: Support rectangular and general polygonal areas |
| **maxPolygonAreaNum** | <int>{n} | The maximum number of supported polygonal measurement areas.  0 means polygonal area temperature measurement is not supported |
| **maxmaskingAreaNum** | <int>{n} | The maximum number of temperature measurement areas that can be maskinged.  0 means regional temperature measurement maskinging is not supported |
| **measureMode** | <int>[0,2] | Temperature measurement mode.  0: normal mode;  1: Preset mode  2: Face temperature measurement mode |
| **measureID** | <int>{n} | Measurement ID |
| **areaID** | <int>[0,7] | Region ID.  Region ID (0-7) |
| **areaName** | <string> | Region Name |
| **alarmFlag** | <int>{0,1} | Area alarm switch |
| **alarmSourceType** | <int>{n} | Alarm source ID.  Source alarm type |
| **alarmType** | <int>{0,1} | Alarm subtype.  0: DiffAlarm  1:ThresholdAlarm |
| **alarmValue** | <int>{n} | Alarm threshold.  Alarm temperature value |
| **emissivity** | <float>[0.1,0.99] | Emissivity.  (0.1~0.99) |
| **targetSpace** | <float>{n} | Target distance.  Default 15m |
| **areaFlag** | <bool> | Zone open flag.  true: Enable  false: Disable |
| **areaShapeType** | <int>[0,3] | Region boundary shape type.  Point, line, rectangle, polygon, etc. |
| **X** | <float> | X coordinate |
| **Y** | <float> | Y coordinate |
| **temperatureUnit** | <int>{0,1} | Temperature unit.  0: Celsius  1: Fahrenheit |
| **maxTemperatureX** | <float> | Maximum temperature X value.  x-axis position |
| **maxTemperatureY** | <float> | Maximum temperature Y value.  Y-axis position |
| **maxTemperature** | <float> | Regional maximum temperature |
| **minTemperatureX** | <float> | Minimum temperature X value |
| **minTemperatureY** | <float> | Minimum temperature Y value |
| **minTemperature** | <float> | Minimum temperature in the area |
| **aveTemperature** | <float> | Average temperature of the area |
| **pointTemperature** | <float> | The temperature value at a point |
| **weekday** | <int>[0,6] | Day of the week.  0-6: Sunday to Saturday |
| **startTime** | <int> | Start time.  The start time of the day, in seconds |
| **endTime** | <int> | End Time.  End time of the day, in seconds |
| **actionID** | <int> | Action ID.  The number that identifies the alarm source. Each alarm source ID has a different meaning. For Example, IO alarm indicates the IO number, SMTP and PTZ indicate the channel number. |
| **actionType** | <int>[1,4] | Output type.  1: I/O  2: SMTP  3: PTZ  4: RECORD |
| **alarmOutID** | <int>{1,2} | Alarm output channel. 1: Channel 1  2: Channel 2 |
| **alarmOutFlag** | <int>{0,1} | Alarm output switch. 0: Off  1; Open |
| **begin PointX​** | float<0.0, 99.99> | The percentage of the X coordinate of the starting point to be obtained as a percentage of the resolution width |
| **begin PointY​** | float<0.0, 99.99> | The Y coordinate of the starting point to be obtained as a percentage of the resolution width |
| **endPointX** | float<0.0, 99.99> | The percentage of the X coordinate of the end point to be obtained as a percentage of the resolution width |
| **endPointX** | float<0.0, 99.99> | The Y coordinate of the end point to be obtained as a percentage of the resolution width |
| **horizontal Num** | int<1,n> | If begin PointX is equal to endPointX, horizontal Num can only be 1;  If beginning PointX is not equal to endPointX, horizontal Num shall be at least 2; |
| **verticalNum** | int<1,n> | If begin PointY is equal to endPointY, verticalNum can only be 1;  If beginPointY is not equal to endPointY, verticalNum is at least 2; |
| **pointTemperatureBegin** | int<1> | To get the start mark of the point |
| **PointX** | float<0.0, 99.99> | The X coordinate of the point is a percentage of the resolution width |
| **PointY** | float<0.0, 99.99> | The Y coordinate of the point as a percentage of the resolution height |
| **temperatureValue** | f loat | Temperature value of the coordinate point |
| **temperatureUnit** | int<0,1> | 0: Celsius  1: Fahrenheit |
| **pointTemperatureNext** | int<2,n> | n is equal to the total number of points you need to obtain |
| **pointTemperatureEnd** | int<n> | n is equal to the total number of points you need to obtain |

### AI thermal imaging (human body thermometer)

#### temperature measurement parameters

##### Get human body temperature measurement parameter configuration ( getAIThermalConfigureParam )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= AIThermalConfigureParam |
| **Description** | Parameters Refer to [human body temperature measurement parameters](#_获取人体测温参数) |
| **Example** | http:// 192.168.1.20 /cgi-bin/param.cgi?action=get&type=AIThermalConfigureParam |
| **Return** | FaceEnable=true  ShowObjectMode=1  ShowAreaEnable=true  Reliability=60  PictureQuality=60  SnapPictureMode=0  UploadInterval=5  PitchDegree=60  YawDegree=60  TiltDegree=30  FtpUploadEnable=false  FtpUploadFullRefer toEnable=false  PictureOSDEnable=false  FirmwareVer=V1.4.1.1  polygonAreaParamBegin=1  AreaId=1  FaceMinPixelWidth=70  FaceMaxPixelWidth=1000  AreaPointBegin=1  pointX1=0.00  pointY1=0.00  pointX2=0.00  pointY2=99.50  pointX3=99.50  pointY3=99.50  pointX4=99.50  pointY4=0.00  AreaPointEnd=1  nextPolygonAreaParam=1  AreaId=2  FaceMinPixelWidth=70  FaceMaxPixelWidth=1000  nextPolygonAreaParam=1  AreaId=3  FaceMinPixelWidth=70  FaceMaxPixelWidth=1000  nextPolygonAreaParam=1  AreaId=4  FaceMinPixelWidth=70  FaceMaxPixelWidth=1000  nextPolygonAreaParam=1  AreaId=5  FaceMinPixelWidth=70  FaceMaxPixelWidth=1000  nextPolygonAreaParam=1  AreaId=6  FaceMinPixelWidth=70  FaceMaxPixelWidth=1000  nextPolygonAreaParam=1  AreaId=7  FaceMinPixelWidth=70  FaceMaxPixelWidth=1000  nextPolygonAreaParam=1  AreaId=8  FaceMinPixelWidth=70  FaceMaxPixelWidth=1000  nextPolygonAreaParam=1  polygonAreaParamEnd=8  IsOpenTemperatureMeasure=true  TemperatureUnit=0  LengthUnit=0  EnvironmentTemperature=25.00  SelfAdaptiveEnvironmentTemp=28.77  CavityTemoperature=38.80  Physicsinfo=0.00  Distance=5.00  FaceColorEnable=false  AveTemperatureCorrection=false  AbnormalTemperatureFilter=false  TempAreaMode=0  MeasureMode=0  NormalTemperatureMin=36.00  NormalTemperatureMax=37.30  (For other responses, Refer to [General Response](#_通用应答_1) ) |

##### Human body temperature measurement parameters

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **Face detection parameters** | | |
| **FaceEnable** | <bool>{true,false} | Whether to enable face detection |
| **ShowObjectMode** | <int>{0: off, 1: mode 1, 2: mode 2} | Overlay tracking information |
| **ShowAreaEnable** | <bool>{true,false} | Display detection area |
| **Reliability** | <int>{0-100} | Confidence |
| **nPictureQuality** | <int[1,99] //High 80, medium 60, low 30 | Cutout quality |
| **SnapPictureMode** | <int>{0,1,4} | Capture mode ,  0: Timed snapshot  1: Optimal  4: Optimal timing |
| **SnapPictureNum** | <int> [1,5] | Number of snapshots in Optimal and Timed Optimal modes |
| **UploadInterval** | <int> [1, 10 ] | Snapshot interval in timer mode |
| **YawDegree** | <int> [0,90] | Side Angle |
| **TiltDegree** | <int> [0,90] | bevel |
| **Pitch Degree** | <int> [0,90] | Elevation |
| **FtpUploadEnable** | <bool>{true,false} | FTP send cutout |
| **FtpUploadFullRefer toEnable** | <bool>{true,false} | FTP send panorama |
| **PictureOSDEnable** | <bool>{true,false} | Whether to overlay OSD on the captured image |
| **FirmwareVer** | <string | Algorithm version |
| **Face detection area** | | |
| **polygonAreaParam Count** | int | Number of face detection areas |
| **polygonAreaParamBegin** | int<1> | Area parameter start mark |
| AreaId | int<1, 8> | Area ID, up to 8 areas |
| **FaceMinPixelWidth** | <int> [30,300] | Minimum pixel for face detection |
| **FaceMaxPixelWidth** | <int> [500,2000] | Maximum pixel for face detection |
| **AreaPointCount** | int | Number of regions |
| **AreaPointBegin** | int<1> | Area coordinate parameter start mark |
| **point X** | float | X coordinate of point n constituting the detection area (up to 8 points can be set for each area) |
| **pointY** | float | The Y coordinate of point n that constitutes the detection area (each area can have up to 8 points) |
| **nextAreaPointBegin** | int | Next area start mark |
| **AreaPoint End** | int<1> | End mark of area coordinate parameters |
| **nextPolygonAreaParam** | int<1> | Next area parameter start mark |
| **…** | … | … |
| **polygonAreaParamEnd** | int<1> | End of area parameters |
| **Temperature measurement parameters** | | |
| **IsOpenTemperatureMeasure** | <bool>{true,false} | Whether to enable temperature measurement |
| **TemperatureUnit** | <int>{0,1} | Temperature unit 0. Celsius 1. Fahrenheit |
| **LengthUnit** | <int>{0,1} | Length unit 0: meter 1: foot |
| **EnvironmentTemperature** | <float>[n] | Ambient temperature |
| **CavityTemoperature** | <float>[n] | Cavity temperature // read only |
| **SelfAdaptiveEnvironmentTemp** | <float>[n] | Adaptive ambient temperature // read only |
| **Physicsinfo** | <float>{n} | Correction factor |
| **Distance** | <int> | Installation distance |
| **FaceColorEnable** | <bool>{true,false} | Highlight the face |
| **AveTemperatureCorrection** | <bool>{true,false} | Environmental Adaptation |
| **AbnormalTemperatureFilter** | <bool>{true,false} | Abnormal temperature display |
| **TempAreaMode** | <int>{0,1} | Temperature measurement area mode  0: Mode 1  1: Mode 2 |
| **MeasureMode** | <int>{0,1} | Temperature measurement mode  0: Mode 1  1: Mode 2 |
| **NormalTemperatureMin** | <float>{n} | Normal temperature range minimum |
| **NormalTemperatureMax** | <float>{n} | Normal temperature range maximum |
| **FontSize** | int | font size  1: Small  2: Medium  3: Large |

##### Set the human body temperature measurement parameter configuration ( setAIThermalConfigureParam )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= AIThermalConfigureParam [&<argument>=<value>...] |
| **Description** | Set the temperature measurement parameters. All parameters are optional. At least one parameter must be set. For parameters, Refer to [Human Body Temperature Measurement Parameters](#_获取人体测温参数) |
| **Example** | http://192.168.1.252/cgi-bin/param.cgi?action=set&type=AIThermalConfigureParam&FaceEnable=false&ShowObjectMode=1&ShowAreaEnable=true&Reliability=30&PictureQuality=60&SnapPictureMode=1&SnapPictureNum=5&PitchDegree=60&YawDegree=60&TiltDegree=30&FtpUploadEnable=true&FtpUploadFullRefer toEnable=true&PictureOSDEnable=true&IsOpenTemperatureMeasure=true&TemperatureUnit=1&LengthUnit=1&EnvironmentTemperature=26&Physicsinfo=0&FaceColorEnable=true&AveTemperatureCorrection=true&AbnormalTemperatureFilter=true&TempAreaMode=0&MeasureMode=0&NormalTemperatureMin=32.00&NormalTemperatureMax=40.00&polygonAreaParamBegin=1&AreaId=1&FaceMinPixelWidth=70&FaceMaxPixelWidth=1000&AreaPointBegin=1&pointX1=0.00&pointY1=0.00&pointX2=0.00&pointY2=10.00&pointX3=10.00&pointY3=10.00&pointX4=10.00&pointY4=0.00&AreaPointEnd=1&nextPolygonAreaParam=1&AreaId=2&FaceMinPixelWidth=72&FaceMaxPixelWidth=1000&AreaPointBegin=1&pointX1=20.00&pointY1=0.00&pointX2=20.00&pointY2=40.00&pointX3=40.00&pointY3=40.00&pointX4=40.00&pointY4=0.00&AreaPointEnd=1&polygonAreaParamEnd=1 |
| **Return** | OK  (For other responses, Refer to [[General Response](#_通用应答_1)](#_通用应答) ) |

#### High temperature alarm

##### Get high temperature alarm parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= AIThermal High TemperatureAlarmLinkage |
| **Description** | For parameters, Refer to [temperature alarm parameters](#_温度报警参数) |
| **Example** | http:// 192.168.0.156 /cgi-bin/param.cgi?action=get&type= AIThermal High TemperatureAlarmLinkage |
| **Return** | HighTemperatureAlarmParamBegin=1  AreaId=1  AlarmEnable=true  AlarmInterval=5  AlarmIO1=true  AlarmIO2=false  AlarmFTP=true  AlarmSMTP=false  AlarmRecord=true  AlarmSound=true  AudioActionId=3  weekDayBegin=1  weekDay=0  startTime1=0  endTime1=86400  next\_weekDayURL=2  weekDay=1  startTime1=0  endTime1=86400  next\_weekDayURL=3  weekDay=2  startTime1=0  endTime1=86400  next\_weekDayURL=4  weekDay=3  startTime1=0  endTime1=86400  next\_weekDayURL=5  weekDay=4  startTime1=0  endTime1=86400  next\_weekDayURL=6  weekDay=5  startTime1=0  endTime1=86400  next\_weekDayURL=7  weekDay=6  startTime1=0  endTime1=86400  weekDayEnd=7  AreaId=2  AlarmEnable=true  AlarmInterval=10  AlarmIO1=true  AlarmIO2=true  AlarmFTP=true  AlarmSMTP=true  AlarmRecord=true  weekDayBegin=1  weekDay=0  startTime1=0  endTime1=86400  next\_weekDayURL=2  weekDay=1  startTime1=0  endTime1=86400  next\_weekDayURL=3  weekDay=2  startTime1=0  endTime1=86400  next\_weekDayURL=4  weekDay=3  startTime1=0  endTime1=86400  next\_weekDayURL=5  weekDay=4  startTime1=0  endTime1=86400  next\_weekDayURL=6  weekDay=5  startTime1=0  endTime1=86400  next\_weekDayURL=7  weekDay=6  startTime1=0  endTime1=86400  weekDayEnd=7  AreaId=3  AlarmEnable=false  AlarmInterval=1  AlarmIO1=false  AlarmIO2=false  AlarmFTP=false  AlarmSMTP=false  AlarmRecord=false  AreaId=4  AlarmEnable=false  AlarmInterval=1  AlarmIO1=false  AlarmIO2=false  AlarmFTP=false  AlarmSMTP=false  AlarmRecord=false  AreaId=5  AlarmEnable=false  AlarmInterval=1  AlarmIO1=false  AlarmIO2=false  AlarmFTP=false  AlarmSMTP=false  AlarmRecord=false  AreaId=6  AlarmEnable=false  AlarmInterval=1  AlarmIO1=false  AlarmIO2=false  AlarmFTP=false  AlarmSMTP=false  AlarmRecord=false  AreaId=7  AlarmEnable=false  AlarmInterval=1  AlarmIO1=false  AlarmIO2=false  AlarmFTP=false  AlarmSMTP=false  AlarmRecord=false  AreaId=8  AlarmEnable=false  AlarmInterval=1  AlarmIO1=false  AlarmIO2=false  AlarmFTP=false  AlarmSMTP=false  AlarmRecord=false  HighTemperatureAlarmParamEnd=1  (For other responses, Refer to [General Response](#_通用应答_1) ) |

##### Temperature alarm parameters

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **HighTemperatureAlarmParamBegin** | <int>[1] | High temperature alarm parameter start mark |
| **AreaAlarmParamBegin** | <int>[1] | Area parameter start mark |
| **AreaId** | <int>[1, 8] | Region ID |
| **AlarmEnable** | <bool>[true,false] | Alarm switch |
| **AlarmInterval** | <int>[1, 10] | Alarm interval |
| **AlarmIO1** | <bool>[true,false] | Alarm output 1 |
| **AlarmIO 2** | <bool>[true,false] | Alarm output 2 |
| **AlarmFTP** | <bool>[true,false] | Alarm upload FTP |
| **AlarmSMTP** | <bool>[true,false] | Send alarm email |
| **AlarmRecord** | <bool>[true,false] | Alarm video |
| AlarmSound | <bool>[true,false] | Audio alarm |
| AudioActionId | int<0,11> | Audio alarm ID |
| **Time List** |  |  |
| **weekDayBegin** | int<1> | Arming time start flag |
| **weekDay** | int<0,6> | which day  0 is Sunday |
| **startTime (1..n)** | <long>[0, 86400] | Arming start time |
| **endTime n(1..n)** | <long>[0, 86400] | Arming end time |
| **next\_weekDayURL** | int<1> | Next time |
| **weekDay** | int<0,6> | which day  0 is Sunday |
| **startTime (1..n)** | <long>[0, 86400] | Arming start time |
| **endTime n(1..n)** | <long>[0, 86400] | Arming end time |
| weekDayEnd | int<1> | Arming end flag |
| **AreaAlarmParam End** | int<1> | End of zone alarm parameters |
| **nextAreaAlarmParam** | int<1> | Next zone alarm parameters |
| **…** | … | … |
| **AreaAlarmParam End** | int<1> | End of area parameters |
| **HighTemperatureAlarmParam End** | int<1> | High temperature alarm parameters end |

##### Setting high temperature alarm parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= AIThermal High TemperatureAlarmLinkage |
| **Description** | For parameters, Refer to [temperature alarm parameters](#_温度报警参数) |
| **Example** | http://192.168.0.156/cgi-bin/param.cgi?action=set&type=AIThermalHighTemperatureAlarmLinkage&HighTemperatureAlarmParamBegin=1&AreaAlarmParamBegin=1&AreaId=1&AlarmEnable=true&AlarmInterval=5&AlarmIO1=true&AlarmIO2=false&AlarmFTP=true&AlarmSMTP=false&AlarmRecord=true&AlarmSound=true&AudioActionId=3&weekDayBegin=1&weekDay=0&startTime1=0&endTime1=86400&next\_weekDayURL=2&weekDay=1&startTime1=0&endTime1=86400&next\_weekDayURL=3&weekDay=2&startTime1=0&endTime1=86400&next\_weekDayURL=4&weekDay=3&startTime1=0&endTime1=86400&next\_weekDayURL=5&weekDay=4&startTime1=0&endTime1=86400&next\_weekDayURL=6&weekDay=5&startTime1=0&endTime1=86400&next\_weekDayURL=7&weekDay=6&startTime1=0&endTime1=86400&weekDayEnd=7&nextAreaAlarmParam=1&AreaId=2&AlarmEnable=true&AlarmInterval=10&AlarmIO1=true&AlarmIO2=true&AlarmFTP=true&AlarmSMTP=true&AlarmRecord=true&weekDayBegin=1&weekDay=0&startTime1=0&endTime1=86400&next\_weekDayURL=2&weekDay=1&startTime1=0&endTime1=86400&next\_weekDayURL=3&weekDay=2&startTime1=0&endTime1=86400&next\_weekDayURL=4&weekDay=3&startTime1=0&endTime1=86400&next\_weekDayURL=5&weekDay=4&startTime1=0&endTime1=86400&next\_weekDayURL=6&weekDay=5&startTime1=0&endTime1=86400&next\_weekDayURL=7&weekDay=6&startTime1=0&endTime1=86400&weekDayEnd=7&AreaAlarmParamEnd=1&HighTemperatureAlarmParamEnd=1 |
| **Return** | OK |

#### Normal temperature alarm

##### Get normal temperature alarm parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= AIThermal Normal TemperatureAlarmLinkage |
| **Description** | For parameters, Refer to [temperature alarm parameters](#_温度报警参数) |
| **Example** | http:// 192.168.0.156 /cgi-bin/param.cgi?action=get&type= AIThermal Normal TemperatureAlarmLinkage |
| **Return** | NormalTemperatureAlarmParamBegin=1  AreaId=1  AlarmEnable=false  AlarmInterval=5  AlarmIO1=true  AlarmIO2=false  AlarmFTP=true  AlarmSMTP=false  AlarmRecord=true  AlarmSound=true  AudioActionId=3  weekDayBegin=1  weekDay=0  startTime1=0  endTime1=86400  next\_weekDayURL=2  weekDay=1  startTime1=0  endTime1=86400  next\_weekDayURL=3  weekDay=2  startTime1=0  endTime1=86400  next\_weekDayURL=4  weekDay=3  startTime1=0  endTime1=86400  next\_weekDayURL=5  weekDay=4  startTime1=0  endTime1=86400  next\_weekDayURL=6  weekDay=5  startTime1=0  endTime1=86400  next\_weekDayURL=7  weekDay=6  startTime1=0  endTime1=86400  weekDayEnd=7  AreaId=2  AlarmEnable=true  AlarmInterval=10  AlarmIO1=true  AlarmIO2=true  AlarmFTP=true  AlarmSMTP=true  AlarmRecord=true  weekDayBegin=1  weekDay=0  startTime1=0  endTime1=86400  next\_weekDayURL=2  weekDay=1  startTime1=0  endTime1=86400  next\_weekDayURL=3  weekDay=2  startTime1=0  endTime1=86400  next\_weekDayURL=4  weekDay=3  startTime1=0  endTime1=86400  next\_weekDayURL=5  weekDay=4  startTime1=0  endTime1=86400  next\_weekDayURL=6  weekDay=5  startTime1=0  endTime1=86400  next\_weekDayURL=7  weekDay=6  startTime1=0  endTime1=86400  weekDayEnd=7  AreaId=3  AlarmEnable=false  AlarmInterval=10  AlarmIO1=false  AlarmIO2=false  AlarmFTP=false  AlarmSMTP=false  AlarmRecord=false  AreaId=4  AlarmEnable=false  AlarmInterval=10  AlarmIO1=false  AlarmIO2=false  AlarmFTP=false  AlarmSMTP=false  AlarmRecord=false  AreaId=5  AlarmEnable=false  AlarmInterval=10  AlarmIO1=false  AlarmIO2=false  AlarmFTP=false  AlarmSMTP=false  AlarmRecord=false  AreaId=6  AlarmEnable=false  AlarmInterval=10  AlarmIO1=false  AlarmIO2=false  AlarmFTP=false  AlarmSMTP=false  AlarmRecord=false  AreaId=7  AlarmEnable=false  AlarmInterval=10  AlarmIO1=false  AlarmIO2=false  AlarmFTP=false  AlarmSMTP=false  AlarmRecord=false  AreaId=8  AlarmEnable=false  AlarmInterval=10  AlarmIO1=false  AlarmIO2=false  AlarmFTP=false  AlarmSMTP=false  AlarmRecord=false  NormalTemperatureAlarmParamEnd=1  (For other responses, Refer to [General Response](#_通用应答_1) ) |

##### Set normal temperature alarm parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= AIThermal Normal TemperatureAlarmLinkage |
| **Description** | For parameters, Refer to [temperature alarm parameters](#_温度报警参数) |
| **Example** | http://192.168.0.156/cgi-bin/param.cgi?action=set&type=AIThermalNormalTemperatureAlarmLinkage&NormalTemperatureAlarmParamBegin=1&AreaAlarmParamBegin=1&AreaId=1&AlarmEnable=true&AlarmInterval=5&AlarmIO1=true&AlarmIO2=false&AlarmFTP=true&AlarmSMTP=false&AlarmRecord=true&AlarmSound=true&AudioActionId=3&weekDayBegin=1&weekDay=0&startTime1=0&endTime1=86400&next\_weekDayURL=2&weekDay=1&startTime1=0&endTime1=86400&next\_weekDayURL=3&weekDay=2&startTime1=0&endTime1=86400&next\_weekDayURL=4&weekDay=3&startTime1=0&endTime1=86400&next\_weekDayURL=5&weekDay=4&startTime1=0&endTime1=86400&next\_weekDayURL=6&weekDay=5&startTime1=0&endTime1=86400&next\_weekDayURL=7&weekDay=6&startTime1=0&endTime1=86400&weekDayEnd=7&nextAreaAlarmParam=1&AreaId=2&AlarmEnable=true&AlarmInterval=10&AlarmIO1=true&AlarmIO2=true&AlarmFTP=true&AlarmSMTP=true&AlarmRecord=true&weekDayBegin=1&weekDay=0&startTime1=0&endTime1=86400&next\_weekDayURL=2&weekDay=1&startTime1=0&endTime1=86400&next\_weekDayURL=3&weekDay=2&startTime1=0&endTime1=86400&next\_weekDayURL=4&weekDay=3&startTime1=0&endTime1=86400&next\_weekDayURL=5&weekDay=4&startTime1=0&endTime1=86400&next\_weekDayURL=6&weekDay=5&startTime1=0&endTime1=86400&next\_weekDayURL=7&weekDay=6&startTime1=0&endTime1=86400&weekDayEnd=7&AreaAlarmParamEnd=1&NormalTemperatureAlarmParamEnd=1 |
| **Return** | OK |

#### Low temperature alarm

##### Get low temperature alarm parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= AIThermal Low TemperatureAlarmLinkage |
| **Description** | For parameters, Refer to [temperature alarm parameters](#_温度报警参数) |
| **Example** | http:// 192.168.0.156 /cgi-bin/param.cgi?action=get&type= AIThermal Low TemperatureAlarmLinkage |
| **Return** | Low TemperatureAlarmParamBegin=1  AreaId=1  AlarmEnable=false  AlarmInterval=5  AlarmIO1=true  AlarmIO2=false  AlarmFTP=true  AlarmSMTP=false  AlarmRecord=true  AlarmSound=true  AudioActionId=3  weekDayBegin=1  weekDay=0  startTime1=0  endTime1=86400  next\_weekDayURL=2  weekDay=1  startTime1=0  endTime1=86400  next\_weekDayURL=3  weekDay=2  startTime1=0  endTime1=86400  next\_weekDayURL=4  weekDay=3  startTime1=0  endTime1=86400  next\_weekDayURL=5  weekDay=4  startTime1=0  endTime1=86400  next\_weekDayURL=6  weekDay=5  startTime1=0  endTime1=86400  next\_weekDayURL=7  weekDay=6  startTime1=0  endTime1=86400  weekDayEnd=7  AreaId=2  AlarmEnable=true  AlarmInterval=10  AlarmIO1=true  AlarmIO2=true  AlarmFTP=true  AlarmSMTP=true  AlarmRecord=true  weekDayBegin=1  weekDay=0  startTime1=0  endTime1=86400  next\_weekDayURL=2  weekDay=1  startTime1=0  endTime1=86400  next\_weekDayURL=3  weekDay=2  startTime1=0  endTime1=86400  next\_weekDayURL=4  weekDay=3  startTime1=0  endTime1=86400  next\_weekDayURL=5  weekDay=4  startTime1=0  endTime1=86400  next\_weekDayURL=6  weekDay=5  startTime1=0  endTime1=86400  next\_weekDayURL=7  weekDay=6  startTime1=0  endTime1=86400  weekDayEnd=7  AreaId=3  AlarmEnable=false  AlarmInterval=10  AlarmIO1=false  AlarmIO2=false  AlarmFTP=false  AlarmSMTP=false  AlarmRecord=false  AreaId=4  AlarmEnable=false  AlarmInterval=10  AlarmIO1=false  AlarmIO2=false  AlarmFTP=false  AlarmSMTP=false  AlarmRecord=false  AreaId=5  AlarmEnable=false  AlarmInterval=10  AlarmIO1=false  AlarmIO2=false  AlarmFTP=false  AlarmSMTP=false  AlarmRecord=false  AreaId=6  AlarmEnable=false  AlarmInterval=10  AlarmIO1=false  AlarmIO2=false  AlarmFTP=false  AlarmSMTP=false  AlarmRecord=false  AreaId=7  AlarmEnable=false  AlarmInterval=10  AlarmIO1=false  AlarmIO2=false  AlarmFTP=false  AlarmSMTP=false  AlarmRecord=false  AreaId=8  AlarmEnable=false  AlarmInterval=10  AlarmIO1=false  AlarmIO2=false  AlarmFTP=false  AlarmSMTP=false  AlarmRecord=false  Low TemperatureAlarmParamEnd=1  (For other responses, Refer to [General Response](#_通用应答_1) ) |

##### Setting the low temperature alarm

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= AIThermal Low TemperatureAlarmLinkage |
| **Description** | For parameters, Refer to [temperature alarm parameters](#_温度报警参数) |
| **Example** | http://192.168.0.156/cgi-bin/param.cgi?action=set&type=AIThermalLowTemperatureAlarmLinkage&LowTemperatureAlarmParamBegin=1&AreaAlarmParamBegin=1&AreaId=1&AlarmEnable=true&AlarmInterval=5&AlarmIO1=true&AlarmIO2=false&AlarmFTP=true&AlarmSMTP=false&AlarmRecord=true&AlarmSound=true&AudioActionId=3&weekDayBegin=1&weekDay=0&startTime1=0&endTime1=86400&next\_weekDayURL=2&weekDay=1&startTime1=0&endTime1=86400&next\_weekDayURL=3&weekDay=2&startTime1=0&endTime1=86400&next\_weekDayURL=4&weekDay=3&startTime1=0&endTime1=86400&next\_weekDayURL=5&weekDay=4&startTime1=0&endTime1=86400&next\_weekDayURL=6&weekDay=5&startTime1=0&endTime1=86400&next\_weekDayURL=7&weekDay=6&startTime1=0&endTime1=86400&weekDayEnd=7&nextAreaAlarmParam=1&AreaId=2&AlarmEnable=true&AlarmInterval=10&AlarmIO1=true&AlarmIO2=true&AlarmFTP=true&AlarmSMTP=true&AlarmRecord=true&weekDayBegin=1&weekDay=0&startTime1=0&endTime1=86400&next\_weekDayURL=2&weekDay=1&startTime1=0&endTime1=86400&next\_weekDayURL=3&weekDay=2&startTime1=0&endTime1=86400&next\_weekDayURL=4&weekDay=3&startTime1=0&endTime1=86400&next\_weekDayURL=5&weekDay=4&startTime1=0&endTime1=86400&next\_weekDayURL=6&weekDay=5&startTime1=0&endTime1=86400&next\_weekDayURL=7&weekDay=6&startTime1=0&endTime1=86400&weekDayEnd=7&AreaAlarmParamEnd=1&LowTemperatureAlarmParamEnd=1 |
| **Return** | OK |

#### Image calibration​

##### Get image calibration parameters ( getAIThermalMapping )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= AIThermalMapping&cameraID=1 |
| **Description** | For parameters, Refer to [AI thermal imaging image calibration parameters](#_AI热成像图像标定参数（可见光_与_不可见光的标定点一一对应）_1) |
| **Example** | http:// 192.168.1.20 /cgi-bin/param.cgi?action=get&type=AIThermalMapping &cameraID=1 |
| **Return** | SerialNumber=6  SceneDepth=5  RegionSrcBegin=1  SrcPointList=27.20,48.81||59.00,40.00||57.80,70.85  RegionSrcEnd=1  RegionDstBegin=1  DstPointList=17.00,45.08||47.00,28.81||55.00,56.95  RegionDstEnd=1  OffsetX=1.1  OffsetY=2.0 |

##### Set image calibration parameters ( setAIThermalMapping )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= AIThermalMapping [&<argument>=<value>...] |
| **Description** | For parameters, Refer to [AI thermal imaging image calibration parameters](#_AI热成像图像标定参数（可见光_与_不可见光的标定点一一对应）_1) |
| **Example** | http://192.168.1.252/cgi-bin/param.cgi?action=set&type=AIThermalMapping&SerialNumber=7&SceneDepth=6&RegionSrcBegin=1&SrcPointList=27.20,48.81||59.00,40.00||57.80,70.85&RegionSrcEnd=1&RegionDstBegin=1&DstPointList=17.00,45.08||47.00,28.81||55.00,56.95&RegionDstEnd=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### AI thermal imaging image calibration parameters (visible light and invisible light calibration points correspond one to one)

|  |  |  |
| --- | --- | --- |
| **parameter** | **type of data** | **Remark** |
| **SerialNumber** | int<1, 8> | Calibration serial number, up to 8 |
| **SceneDepth** | int | Depth of URL, the distance from the image to the camera. Unit: meter |
| **RegionSrcBegin** | int<1> | The visible light region starts |
| **SrcPointList** | <string> | Visible light area point coordinate list: x1,y1 || x2,y2 || x3,y3  Note: x, y are both float, and the number of points corresponds to the invisible light, ranging from 0-100 |
| **RegionSrcEnd** | int<1> | End of visible light region |
| **RegionDstBegin** | int<1> | Invisible light area start mark |
| **DstPointList** | <string> | Invisible light area point coordinate list: x1,y1 || x2,y2 ||x3,y3  Note: x, y are both float, ranging from 0 to 100 |
| **RegionDstEnd** | int<1> | End of invisible light zone |
| **OffsetX** | float | Horizontal offset |
| **OffsetY** | float | Vertical Offset |

#### measurement dead pixels (same as infrared thermal imaging)

##### Correct the bad point of human body temperature measurement (apply AIThermalBadPointCalibration )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=apply&type= AIThermalBadPointCalibration |
| **Description** | For parameters, Refer to [AI thermal imaging bad pixel correction parameters](#_AI热成像坏点校正参数)  Modify the bad point to a point where the temperature can be measured normally |
| **Example** | http:// 192.168.1.20 /cgi-bin/param.cgi?action=apply&type=AIThermalBadPointCalibration&BadPointList=50,50||80,80 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### AI thermal imaging bad pixel correction parameters

|  |  |  |
| --- | --- | --- |
| **parameter** | **type of data** | **Remark** |
| **BadPointList** | <string> | Bad point coordinate list: x1,y1 || x2,y2 || ...  Note: x, y are both float, and the number of points corresponds to the invisible light |

##### Reset human body temperature bad point (restore AIThermalBadPointCalibration )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=restore&type= AIThermalBadPointCalibration |
| **Description** | Reset the corrected points |
| **Example** | http:// 192.168.1.20 /cgi-bin/param.cgi?action= restore &type=AIThermalBadPointCalibration |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Save human body temperature measurement bad point calibration (save AIThermalBadPointCalibration )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=save&type= AIThermalBadPointCalibration |
| **Description** | Save the corrected points |
| **Example** | http:// 192.168.1.20 /cgi-bin/param.cgi?action= save &type=AIThermalBadPointCalibration |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Temperature calibration​

##### Get temperature calibration parameters ( get AIThermalCalibration )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= AI Thermal Calibration |
| **Description** | For parameters, Refer to [AI thermal imaging temperature measurement calibration parameters](#_AI热成像测温标定参数) |
| **Example** | http:// 192.168.1.20 /cgi-bin/param.cgi?action=get&type= AIThermalCalibration |
| **Return** | Enable=false  ShowObjectEnable=false  BlackBobyTemperature=40.10  Emissivity=0.50  TargetSpace=5000.00  CalibrationAreaBegin=1  PointList=20,28||75,28||75,82||20,82  CalibrationAreaEnd=1 |

##### Set temperature calibration parameters (set AIThermalCalibration )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= AIThermalCalibration [&<argument>=<value>...] |
| **Description** | For parameters, Refer to [AI thermal imaging temperature measurement calibration parameters](#_AI热成像测温标定参数) |
| **Example** | http://1 92.168.1.22 /cgi-bin/param.cgi?action=set&type=AIThermalCalibration&Enable=true&ShowObjectEnable=false&BlackBobyTemperature=28&Emissivity=0.5&TargetSpace=20&CalibrationAreaBegin=1&PointList=1,1||40,40&CalibrationAreaEnd=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### AI thermal imaging temperature measurement calibration parameters

|  |  |  |
| --- | --- | --- |
| **parameter** | **type of data** | **Remark** |
| **Enable** | <bool>{true,false} | Whether to enable test calibration |
| **ShowObjectEnable** | <bool>{true,false} | Whether to overlay regional information |
| **BlackBobyTemperature** | <float>[n] | Target temperature |
| **Emissivity** | <Float> [ 0.1,0.99 ] | Target emissivity |
| **TargetSpace** | <int>[n] | Distance M defaults to 15m |
| **CalibrationAreaBegin** | int<1> | Temperature measurement area start mark |
| **PointList** | <string> | Temperature measurement area point coordinate list: x1,y1 || x2,y2  Note: x, y are both float  Temperature measurement calibration only supports rectangles, so when setting, you only need to set the coordinates of the upper left corner and the lower right corner. The extra points will not be parsed, and only the first and second points in the list will be parsed. When obtaining, the coordinate points of the four corners of the rectangle will be Returned. |
| **CalibrationAreaEnd** | int<1> | Temperature measurement area end mark |

#### Metrology Test​​​

##### Get measurement test parameter configuration (get AIThermalMetrologyTest )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= AIThermalMetrologyTest |
| **Description** | Get the configuration parameters of the measurement test. For details, Refer to [AI thermal imaging measurement test parameters.](#_AI热成像计量测试参数配置) |
| **Example** | http://192.168.0.96/cgi-bin/param.cgi?action=get&type=AIThermalMetrologyTest |
| **Return** | Enable=true  AreaParamBegin=1  AreaId=1  Emissivity=0.10  TargetSpace=1.00  PointList=4,8||15,21  NextAreaParam=1  AreaId=2  Emissivity=0.20  TargetSpace=2.00  PointList=67,58||81,82  NextAreaParam=1  AreaId=3  Emissivity=0.30  TargetSpace=3.00  PointList=37,64||51,84  NextAreaParam=1  AreaId=4  Emissivity=0.40  TargetSpace=4.00  PointList=22,62||26,80  NextAreaParam=1  AreaId=5  Emissivity=0.50  TargetSpace=5.00  PointList=37,64||51,84  NextAreaParam=1  AreaId=6  Emissivity=0.60  TargetSpace=6.00  PointList=37,64||51,84  NextAreaParam=1  AreaId=7  Emissivity=0.70  TargetSpace=7.00  PointList=37,64||51,84  NextAreaParam=1  AreaId=8  Emissivity=0.80  TargetSpace=8.00  PointList=37,64||51,84  AreaParamEnd=1 |

##### Set the measurement test parameter configuration (set AIThermalMetrologyTest )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= AIThermalMetrologyTest [&<argument>=<value>...] |
| **Description** | Set the configuration parameters of the measurement test. For details, Refer to [AI Thermal Imaging Measurement Test Parameters](#_AI热成像计量测试参数配置) |
| **Example** | http://192.168.0.96/cgi-bin/param.cgi?action=set&type=AIThermalMetrologyTest&Enable=true&AreaParamBegin=1&AreaId=1&Emissivity=0.1&TargetSpace=1.00&PointList=4,8||15,21&NextAreaParam=1&AreaId=2&Emissivity=0.2&TargetSpace=2.00&PointList=67,58||81,82&NextAreaParam=1&AreaId=3&Emissivity=0.3&TargetSpace=3.00&PointList=37,64||51,84&NextAreaParam=1&AreaId=4&Emissivity=0.4&Tar getSpace=4.00&PointList=22,62||26,80&NextAreaParam=1&AreaId=5&Emissivity=0.5&TargetSpace=5.00&PointList=37,64||51,84&NextAreaParam=1&AreaId=6&Emissivity=0.6&TargetSpace=6.00&PointList=37,64||51,84&NextAreaParam=1&AreaId=7&Emissivity=0.7&TargetSpace=7.00&PointList=37,64||51,84&NextAreaParam=1&AreaId=8&Emissivity=0.8&TargetSpace=8.00&PointList=37,64||51,84&AreaParamEnd=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### AI thermal imaging metrology test parameter configuration

|  |  |  |
| --- | --- | --- |
| **parameter** | **type of data** | **Remark** |
| **Enable** | <bool>{true,false} | Whether to enable the metering test function |
| **AreaParamBegin** | int<1> | Area parameter start mark |
| **AreaId** | int<1, 8> | Region ID, up to 8 regions |
| **Emissivity** | <Float> [ 0.1,0.99 ] | Target emissivity |
| **TargetSpace** | <int>[n] | Distance M defaults to 15m |
| **PointList** | <string> | Temperature measurement area point coordinate list: x1,y1 || x2,y2  Note: x and y are both float, and the value range of the point is 0-100  The measurement test currently only supports rectangles, so when setting, you only need to set the coordinates of the upper left corner and the lower right corner. The extra points will not be analyzed, and only the first and second points in the list will be analyzed. |
| **NextAreaParam** | int<1> | Next area parameter flag |
| **AreaParamEnd** | int<1> | End of area parameters |

#### Temperature measurement version ( same as infrared thermal imaging)

##### Get the human body temperature measurement version information ( get AIThermalVersionInfo )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= AIThermalVersionInfo |
| **Description** | For parameters, Refer to [AI Thermal Imaging Version Information](#_AI热成像版本信息) |
| **Example** | http:// 192.168.1.20 /cgi-bin/param.cgi?action=get&type= AIThermalVersionInfo |
| **Return** | Version=20190723  Sequence=test-1 |

##### AI thermal imaging version information (not supported)

|  |  |  |
| --- | --- | --- |
| **parameter** | **type of data** | **Remark** |
| **Version** | <string> | Movement version |
| **Sequence** | <string> | Movement serial number |

#### Platform configuration​

##### Get the temperature measurement snapshot image upload platform configuration information ( getAIThermalPic )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= AIThermalPic |
| **Description** | For parameters, Refer to [AI thermal imaging image upload address configuration information](#_AI热成像图片上传地址配置信息)  Get the configuration information related to the snapshot image upload platform |
| **Example** | http://192.168.1.24/cgi-bin/param.cgi?action=get&type=AIThermalPic |
| **Return** | Returns when the address information configuration information is empty  PicStatus=close  Returned when the address information configuration is not empty  PicStatus=open  PlatAddress=192.168.1.20  PlatformPort=80  PlatUrl=/upload\_dir/  PlatUsername=admin  PlatPassword=admin |

##### AI thermal imaging image upload address configuration information

|  |  |  |
| --- | --- | --- |
| **parameter** | **type of data** | **Remark** |
| **PicStatus** | <string> | Is the image upload platform address configuration enabled? |
| **PlatAddress** | <string> | Upload server address (exists when enabled) |
| **PlatPort** | <string> | Upload server port (exists when enabled) |
| **PlatUrl** | <string> | The URL of the image upload server (exists when the function is enabled) |
| **PlatUsername** | <string> | Username of the upload server (exists if enabled) |
| **PlatPassword** | <string> | Password for the upload server (present when enabled) |

##### Configure the temperature measurement snapshot image upload platform information ( setAIThermalPic )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action= **open** &type= AIThermalPic  [&<argument>=<value>...] |
| **Description** | For parameters, Refer to [AI thermal imaging image upload platform configuration parameters](#_AI热成像图片上传平台配置参数)  After the configuration is completed, when there are captured pictures, [the picture data and attribute information will](#_人体测温抓拍图片上传格式及参数（POST）) be uploaded to the platform in the form of **HTTP POST** |
| **Example** | http://192.168.1.24/cgi-bin/param.cgi?action=open&type=AIThermalPic&PlatAddress=192.168.1.20&PlatPort= 1234&PlatUrl=/upload\_dir/ &PlatUsername=admin&PlatPassword=admin |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### AI thermal imaging image upload platform configuration parameters

|  |  |  |
| --- | --- | --- |
| **parameter** | **type of data** | **Remark** |
| **PlatAddress** | <string> | Upload server address |
| **PlatPort** | <string> | Upload server port |
| **PlatUrl** | <string> | Url of the image upload server  Note: This URL is used for the push address in the http POST header. It can be http:// **PlatAddress : PlatPort /Url/ or directly: /Url/. If no configuration is made, the default is '/'** |
| **PlatUsername** | <string> | Username used by the upload server |
| **PlatPassword** | <string> | Password used by the upload server |

##### Human body temperature measurement snapshot image upload format and parameters (POST)

|  |  |  |  |
| --- | --- | --- | --- |
| **Description** | **When the device is configured with the snapshot image upload platform information, the image will be uploaded to the platform in the following format:** | | |
| **HTTP POST**  **Format**  **(HTTP header + body)** | POST / upload\_dir/ HTTP/1.1  Host:192.168.1.106:1234  User-Agent: test  Content-length: 152100  Content-type: text/plain  Connection: Keep-Alive  AlarmTime=1570646447  FaceInfoBegin=1  Type=0  PointX=1210  PointY=422  Height=192  Width=160  Yaw=0  Tilt=0  Temperature=35.80  FaceInfoEnd=1  FacePictureDataLen=3442  FacePictureData=Picture data | | |
| **Upload image parameters and attribute description** | | | |
| **AlarmTime** | | <string> | Image capture time (s) |
| **FaceInfoBegin** | | < int >  [1, n] | A certain image attribute starts tag  A picture may have multiple face attributes, starting with |
| **Type** | | <string> | Capture thumbnail type, 0, face 1, body |
| **PointX** | | <string> | X coordinate of the upper left corner of the snapshot (pixel)  The full image resolution is 1920\*1080 |
| **PointY** | | <string> | X coordinate of the upper left corner of the snapshot (pixel)  The full image resolution is 1920\*1080 |
| **Height** | | <string> | Snapshot thumbnail height (pixels)  The full image resolution is 1920\*1080 |
| **Width** | | <string> | Snapshot thumbnail width (pixels)  The full image resolution is 1920\*1080 |
| **Yaw** | | <int> | Horizontal angle of the captured target |
| **Tilt** | | <int> | The vertical angle of the captured target |
| **Temperature** | | <float> | Snapshot target's current temperature (floating point type) |
| **FaceInfoNext** | | < int >  [2, n-1] | Next image attribute start tag |
| **FaceInfoEnd** | | < int >  [1, n] | End tag of a certain image attribute  A picture may have multiple face attributes, so end here |
| **FacePictureDataLen** | | <int> | Length of captured image data |
| **FacePictureData** | | <Image stream> | Captured image data (directly saved as an image) |

##### Delete the temperature measurement snapshot image upload platform information ( setAIThermalPic )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action= **close** &type= AIThermalPic |
| **Description** | After the configuration is completed, the platform configuration information will be cleared and the platform will no longer receive images and attribute information. |
| **Example** | http://192.168.1.24/cgi-bin/param.cgi?action= |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

### user

**Note: Use \_ to replace spaces.**

#### User Settings (IPC)

##### Get all users (IPC)

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action= **getAllUser** &type= User |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action= getAllUser &type=User |
| **Description** | Refer to [URL Descriptions](#_能力参数说明_14) |
| **Return** | userCount=2  userBegin=1  userName=admin  groupName=SuperAdmin  privilegeCount=16  privilegeBegin=1  privilege=0  next\_privilegeURL=2  privilege=1  next\_privilegeURL=3  privilege=2  next\_privilegeURL=4  privilege=3  next\_privilegeURL=5  privilege=4  next\_privilegeURL=6  privilege=5  next\_privilegeURL=7  privilege=6  next\_privilegeURL=8  privilege=7  next\_privilegeURL=9  privilege=8  next\_privilegeURL=10  privilege=10  next\_privilegeURL=11  privilege=11  next\_privilegeURL=12  privilege=12  next\_privilegeURL=13  privilege=13  next\_privilegeURL=14  privilege=14  next\_privilegeURL=15  privilege=15  next\_privilegeURL=16  privilege=16  privilegeEnd=1  next\_userURL=1  userName=test  groupName=Operator  privilegeCount=5  privilegeBegin=1  privilege=13  next\_privilegeURL=2  privilege=12  next\_privilegeURL=3  privilege=4  next\_privilegeURL=4  privilege=0  next\_privilegeURL=5  privilege=1  privilegeEnd=1  userEnd=1 |

##### Description of all user parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **userCount** | amount of users |  | int |
| **userBegin** | User start ID |  | int |
| **userName** | username |  | string |
| **groupName** | group name |  | Strring​ |
| **privilegeCount** | Number of permissions |  | int |
| **privilegeBegin** | Permission start mark |  | int |
| **privilege** | Permissions  0: Real-time video  1: Video Control  2: PTZ control  3: Audio  4: Video playback  5: Backup  6: Manual recording  7: Video recording strategy  8: Disk Management  9: Alarm retrieval  10: Device Management  11: Permission Management  12: Parameter configuration  13: Video maintenance  14: Log  15: Infrared thermal imaging  16: Intelligent Detection |  | int |
| **next\_privilegeURL** | Next permission start mark |  | int |
| **privilegeEnd** | End of permission mark |  | int |
| **next\_userURL** | Next user starts identification |  | int |
| **userEnd** | User end identifier |  | int |

##### Get all groups (IPC)

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action= **getAllGroup** &type= User |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action= getAllGroup &type=User |
| **Description** | Refer to [URL Descriptions](#_所有组参数说明) |
| **Return** | groupCount=3  groupBegin=1  groupName=Administrators  privilegeCount=16  privilegeBegin=1  privilege=0  next\_privilegeURL=2  privilege=1  next\_privilegeURL=3  privilege=2  next\_privilegeURL=4  privilege=3  next\_privilegeURL=5  privilege=4  next\_privilegeURL=6  privilege=5  next\_privilegeURL=7  privilege=6  next\_privilegeURL=8  privilege=7  next\_privilegeURL=9  privilege=8  next\_privilegeURL=10  privilege=10  next\_privilegeURL=11  privilege=11  next\_privilegeURL=12  privilege=12  next\_privilegeURL=13  privilege=13  next\_privilegeURL=14  privilege=14  next\_privilegeURL=15  privilege=15  next\_privilegeURL=16  privilege=16  privilegeEnd=1  next\_userURL=2  groupName=Operator  privilegeCount=5  privilegeBegin=1  privilege=13  next\_privilegeURL=2  privilege=12  next\_privilegeURL=3  privilege=4  next\_privilegeURL=4  privilege=0  next\_privilegeURL=5  privilege=1  privilegeEnd=1  next\_userURL=3  groupName=Media user  describe=Media user  privilegeCount=1  privilegeBegin=1  privilege=0  privilegeEnd=1  groupEnd=1 |

##### All group parameter descriptions

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **groupCount** | Number of groups |  | int |
| **groupBegin** | Group start flag |  | int |
| **groupName** | group name |  | string |
| **privilegeCount** | Number of permissions |  | int |
| **privilegeBegin** | Permission start mark |  | int |
| **privilege** | Permissions  0: Real-time video  1: Video Control  2: PTZ control  3: Audio  4: Video playback  5: Backup  6: Manual recording  7: Video recording strategy  8: Disk Management  9: Alarm retrieval  10: Device Management  11: Permission Management  12: Parameter configuration  13: Video maintenance  14: Log  15: Infrared thermal imaging  16: Intelligent Detection |  | int |
| **next\_privilegeURL** | Next permission start mark |  | int |
| **privilegeEnd** | End of permission mark |  | int |
| **next\_groupURL** | Next user starts identification |  | int |
| **groupEnd** | User end identifier |  | int |

##### Get specified user permissions (IPC)

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action= **getUserPrivileges** &type= User&user =kang |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action= getUserPrivileges &type=User & user =kang |
| **Description** | Refer to [URL Descriptions](#_用户权限参数说明) |
| **Return** | privilegeCount=16  privilegeBegin=1  privilege=0  next\_privilegeURL=2  privilege=1  next\_privilegeURL=3  privilege=2  next\_privilegeURL=4  privilege=3  next\_privilegeURL=5  privilege=4  next\_privilegeURL=6  privilege=5  next\_privilegeURL=7  privilege=6  next\_privilegeURL=8  privilege=7  next\_privilegeURL=9  privilege=8  next\_privilegeURL=10  privilege=10  next\_privilegeURL=11  privilege=11  next\_privilegeURL=12  privilege=12  next\_privilegeURL=13  privilege=13  next\_privilegeURL=14  privilege=14  next\_privilegeURL=15  privilege=15  next\_privilegeURL=16  privilege=16  privilegeEnd=1 |

##### User Permission Parameters Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **privilegeCount** | Number of groups |  | int |
| **privilegeBegin** | Permission start mark |  | int |
| **privilege** | Permissions  0: Real-time video  1: Video Control  2: PTZ control  3: Audio  4: Video playback  5: Backup  6: Manual recording  7: Video recording strategy  8: Disk Management  9: Alarm retrieval  10: Device Management  11: Permission Management  12: Parameter configuration  13: Video maintenance  14: Log  15: Infrared thermal imaging  16: Intelligent Detection |  | int |
| **next\_privilegeURL** | Next permission start mark |  | int |
| **privilegeEnd** | End of permission mark |  | int |

##### Get the specified group permissions (IPC)

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action= **getGroupPrivileges** &type= User& group=Media\_user |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action= getGroupPrivileges &type=User &group=Media\_user |
| **Description** | Refer to [URL Descriptions](#_获取指定组权限) |
| **Return** | privilegeCount=1  privilegeBegin=1  privilege=0  privilegeEnd=1 |

##### Group Permission Parameter Description

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **privilegeCount** | Number of groups |  | int |
| **privilegeBegin** | Permission start mark |  | int |
| **privilege** | Permissions  0: Real-time video  1: Video Control  2: PTZ control  3: Audio  4: Video playback  5: Backup  6: Manual recording  7: Video recording strategy  8: Disk Management  9: Alarm retrieval  10: Device Management  11: Permission Management  12: Parameter configuration  13: Video maintenance  14: Log  15: Infrared thermal imaging  16: Intelligent Detection |  | int |
| **next\_privilegeURL** | Next permission start mark |  | int |
| **privilegeEnd** | End of permission mark |  | int |

#### User Settings (NVR/the lite series)

##### Get User

|  |  |
| --- | --- |
| **URL** | <http://192.168.2.193/cgi-bin/param.cgi?action=get&type=User> |
| **Description** | For parameters, Refer to [User Parameter Configuration](#_用户参数配置) |
| **Example** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type=User |
| **Return** | userListCount=2  userListBegin=1  userName=admin  userPasswd=admin  userGroup=Super admin  userPrivilegeCount=8  userPrivilegeBegin=1  privilegeName=live\_video  next\_userPrivilegeURL=2  privilegeName=alarm\_manager  next\_userPrivilegeURL=3  privilegeName=video\_manager  next\_userPrivilegeURL=4  privilegeName=network\_manager  next\_userPrivilegeURL=5  privilegeName=device\_manager  next\_userPrivilegeURL=6  privilegeName=systerm\_config  next\_userPrivilegeURL=7  privilegeName=system\_maintenance  next\_userPrivilegeURL=8  privilegeName=playback  userPrivilegeEnd=8  next\_userListURL=2  userName=lishun  userPasswd=admin1234  userGroup=Media user  userPrivilegeCount=3  userPrivilegeBegin=1  privilegeName=live\_video  next\_userPrivilegeURL=2  privilegeName=video\_manager  next\_userPrivilegeURL=3  privilegeName=playback  userPrivilegeEnd=3  userListEnd=2 |

##### Get online User(IPC The lite series)

|  |  |
| --- | --- |
| **URL** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=onlineUser |
| **Description** | For parameters, Refer to [User Parameter Configuration](#_用户参数配置) |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=onlineUser |
| **Return** | userListCount=1  username=admin  userIP=192.168.2.156  userType=0  userTime=2019/1/1 00:02:25 |

##### User Password (NVR)

###### Modify User Password (modifyUserPassword)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=modify&type=UserPassword&newpassword=<newpasswd>&oldpassword=<oldpasswd> |
| **Description** | For parameters, Refer to [User Parameter Configuration](#_用户参数配置) |
| **Example** | http://192.168.2.193/cgi-bin/param.cgi?action=modify&type=UserPassword&oldpassword=admin&newpassword=admin123 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

###### User password parameter configuration

Table 2-6-8-4

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **oldpassword** | <string> | The old password of the current user |
| **newpassword** | <string> | New password for the current user  Note: The password cannot be pure numbers or letters, special characters are not supported, and the number of digits must be greater than 5 |

##### User Privilege (IPC/NVR)

###### Get User Privileges (getUserPrivilege)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type=UserPrivilege&user=[name] |
| **Description** | For parameters, Refer to the User Permission Parameters Table. |
| **Example** | http://192.168.2.193/cgi-bin/ param .cgi?action=get&type=UserPrivilege&user=test |
| **Return** | IPC:  userGroupCount=1  userGroupBegin=1  userGroup=Administrators  userPrivilegeCount=4  userPrivilegeBegin=1  privilegeName=live\_video  next\_userPrivilegeURL=2  privilegeName=video\_manager  next\_userPrivilegeURL=3  privilegeName=device\_manager  next\_userPrivilegeURL=4  privilegeName=playback  userPrivilegeEnd=4  userGroupEnd=1  NVR:  userGroup=Media user  userPrivilegeCount=3  userPrivilegeBegin=1  privilegeName=liveVideo  hasDeviceFlag=1  liveVideo-ch1=1  liveVideo-ch2=1  liveVideo-ch3=1  liveVideo-ch4=1  liveVideo-ch5=1  liveVideo-ch6=1  liveVideo-ch7=1  liveVideo-ch8=1  liveVideo-ch9=1  liveVideo-ch10=1  liveVideo-ch11=1  liveVideo-ch12=1  liveVideo-ch13=1  liveVideo-ch14=1  liveVideo-ch15=1  liveVideo-ch16=1  next\_userPrivilegeURL=2  privilegeName=playback  hasDeviceFlag=1  playback-ch1=1  playback-ch2=1  playback-ch3=1  playback-ch4=1  playback-ch5=1  playback-ch6=1  playback-ch7=1  playback-ch8=1  playback-ch9=1  playback-ch10=1  playback-ch11=1  playback-ch12=1  playback-ch13=1  playback-ch14=1  playback-ch15=1  playback-ch16=1  next\_userPrivilegeURL=3  privilegeName=backup  hasDeviceFlag=1  backup-ch1=1  backup-ch2=1  backup-ch3=1  backup-ch4=1  backup-ch5=1  backup-ch6=1  backup-ch7=1  backup-ch8=1  backup-ch9=1  backup-ch10=1  backup-ch11=1  backup-ch12=1  backup-ch13=1  backup-ch14=1  backup-ch15=1  backup-ch16=1  userPrivilegeEnd=3  (For other responses, Refer to [General Response](#_通用应答) ) |

###### Modify User Privileges (modifyUserPrivilege)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=modify&type=UserPrivilege&user=[name] |
| **Description** | For parameters, Refer to the User Permission Parameters Table. |
| **Example** | IPC:  http://192.168.2.193/cgi-bin/ param .cgi?action=modify&type=UserPrivilege&user=test&liveVideo=1&videoManager=1&alarmManager=1&deviceManager=1&systermConfig=1&playback=1&networkManager=1  NVR:  http://192.168.2.193/cgi-bin/ param .cgi?action=modify&type=UserPrivilege&user=test&liveVideo=1&liveVideo-ch1=0&liveVideo-ch15=0 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

###### Get User Privilege Ability

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=ability&type=UserPrivilege |
| **Description** | For parameters, Refer to the User Permission Parameters Table. |
| **Example** | http://192.168.2.193/cgi-bin/ param .cgi?action=ability&type=UserPrivilege |
| **Return** | userGroupCount=3  userGroupBegin=1  userGroup=Administrators  userPrivilegeCount=7  userPrivilegeBegin=1  privilegeName=liveVideo  next\_userPrivilegeURL=2  privilegeName=videoManager  next\_userPrivilegeURL=3  privilegeName=alarmManager  next\_userPrivilegeURL=4  privilegeName=networkManager  next\_userPrivilegeURL=5  privilegeName=deviceManager  next\_userPrivilegeURL=6  privilegeName=systermConfig  next\_userPrivilegeURL=7  privilegeName=playback  userPrivilegeEnd=7  next\_userGroupURL=2  userGroup=Operator  userPrivilegeCount=5  userPrivilegeBegin=1  privilegeName=liveVideo  next\_userPrivilegeURL=2  privilegeName=videoManager  next\_userPrivilegeURL=3  privilegeName=networkManager  next\_userPrivilegeURL=4  privilegeName=systermConfig  next\_userPrivilegeURL=5  privilegeName=playback  userPrivilegeEnd=5  next\_userGroupURL=3  userGroup=Media user  userPrivilegeCount=3  userPrivilegeBegin=1  privilegeName=liveVideo  next\_userPrivilegeURL=2  privilegeName=videoManager  next\_userPrivilegeURL=3  privilegeName=playback  userPrivilegeEnd=3  userGroupEnd=3  NVR:  userGroupCount=3  userGroupBegin=1  userGroup=Administrators  userPrivilegeCount=9  userPrivilegeBegin=1  privilegeName=liveVideo  next\_userPrivilegeURL=2  privilegeName=ptzControl  next\_userPrivilegeURL=3  privilegeName=playback  next\_userPrivilegeURL=4  privilegeName=channelManager  next\_userPrivilegeURL=5  privilegeName=deviceManager  next\_userPrivilegeURL=6  privilegeName=systermConfig  next\_userPrivilegeURL=7  privilegeName=faceRecognition  next\_userPrivilegeURL=8  privilegeName=thermal  next\_userPrivilegeURL=9  privilegeName=backup  userPrivilegeEnd=9  next\_userGroupURL=2  userGroup=Operator  userPrivilegeCount=5  userPrivilegeBegin=1  privilegeName=liveVideo  next\_userPrivilegeURL=2  privilegeName=ptzControl  next\_userPrivilegeURL=3  privilegeName=playback  next\_userPrivilegeURL=4  privilegeName=systermConfig  next\_userPrivilegeURL=5  privilegeName=backup  userPrivilegeEnd=5  next\_userGroupURL=3  userGroup=Media user  userPrivilegeCount=3  userPrivilegeBegin=1  privilegeName=liveVideo  next\_userPrivilegeURL=2  privilegeName=playback  next\_userPrivilegeURL=3  privilegeName=backup  userPrivilegeEnd=3  userGroupEnd=3  (For other responses, Refer to [General Response](#_通用应答) ) |

###### User authority parameter table

Table 2-6-8-4

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **userGroupCount** | <int>[0,n] | User Group Count |
| **userGroupBegin** | <int>{1} | User Group Start |
| **userGroup** | <string> | User Group Name |
| **userPrivilegeCount** | <int>[0,n] | User Permission Count |
| **userPrivilegeBegin** | <int>{1} | User rights count starts |
| **privilegeName** | <string> | User permission name |
| **next\_userPrivilegeURL** | <int>[2,n] | Next user permission count |
| **userPrivilegeEnd** | <int>[1,n] | End of user rights |
| **next\_userGroupURL** | <int>[2,n] | Next User Group Count |
| **userGroupEnd** | <int>[1,n] | End of user group |
| **hasDeviceFlag** | <int>{0,1} | Device channel flag  0: This permission has no device channel  1: This permission has device access  (note: IPC is not supported) |
| **Permission name -ch channel number**  **(note: playback-ch6)** | <int>{0,1} | Corresponding device channel permission switch  0: Off  1: Open  (note: IPC is not supported) |

#### Add User (addUser)

|  |  |  |
| --- | --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=add&type=User&newuser=<newuser>&newpasswd=<newpasswd>[&group=<groupname> ][&note=<note>] | |
| **Description** | For parameters, Refer to [User Parameter Configuration](#_用户参数配置) | |
| **Example** | IPC  http://192.168.32.120/cgi-bin/param.cgi?action=add&type=User&newuser=asdfg34&newpasswd=asdfg&group=Administrators&note=admin | NVR  http://192.168.2.193/cgi-bin/ param .cgi?action=add&type=User&newuser=test&newpassword=admin123&group=Administrators&note=admin&userPasswordTimeOut=1y&userPasswordExpireDate=86400 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答_1) ) | |

#### Modify User (modifyUser)

|  |  |  |
| --- | --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=modify&type=User&user=<username>&newpasswd=<newpasswd>[&group=<groupname>][&note=<note>] | |
| **Description** | For parameters, Refer to [User Parameter Configuration](#_用户参数配置) | |
| **Example** | IPC:  http://192.168.32.120/cgi-bin/param.cgi?action=modify&type=User&user=asdfg&newpasswd=12345&group=Administrators&note=admin | NVR:  http://192.168.2.193/cgi-bin/ param .cgi?action=modify&type=User&user=test&newpassword=a12345&group=Administrators&note=admin&userPasswordTimeOut=3d&userPasswordExpireDate=86400000 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答_1) ) | |

#### Delete User (IPC/NVR)

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?userName=<username>&password=<password> &action=delete&type=User&user=asdfg3 &action=delete&type=User&user=asdfg34 4 |
| **Example** | http://192.168.0.121/cgi-bin/param.cgi?action=delete&type=User&us &action=delete&type=User&user=asdfg34 |
| **Description** | Refer to [URL Descriptions](#_用户参数配置_1) |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答_1) ) |

#### User parameter configuration

Table 2-6-12-3

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **user** | <string> | User name of the operation target |
| **newuser** | <string> | Username of the new user |
| **newpasswd** | <string> | User password for the new user |
| **group** | <string> | Permission group. When the current user has super permissions, the group name must be included. |
| **note** | <string> | User Tags |
| **UserListCount (NVR)** | <int> | Have several users |
| **PrivilegeName (NVR)** | <string> | Permission Type |
| **UserPasswordTimeOut (NVR )** | <string>{0d,1d,2d,3d,1w,2w,3w,1m,2m,3m,6m,1y} | Password change frequency (in lowercase d/m/y)  (note: IPC is not supported) |
| **UsePasswordExpireDate​**  **(NVR)** | <unsigned int> | Password expiration date (expressed as a timestamp of seconds from 1970 to the expiration date, 0 means turning this feature off)  (note: IPC is not supported) |

#### Privacy settings (NVR)

##### Get Privacy Settings Parameters (getPrivacy)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type=privacy |
| **Description** | For parameters, Refer to the Privacy Settings Parameters Table. |
| **Example** | http://192.168.2.193/cgi-bin/ param .cgi?action=get&type=privacy |
| **Return** | doubleAuthEnable =1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set Privacy Settings Parameters (setPrivacy)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=modify&type=privacy |
| **Description** | For parameters, Refer to the Privacy Settings Parameters Table. |
| **Example** | http://192.168.2.193/cgi-bin/ param .cgi?action=modify&type=privacy&=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Privacy Settings Parameters Table

Table 2-6-8-4

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **doubleAuthEnable** | <int>{0,1} | Dual authentication switch  0: Off  1: Open |

#### Application Verification (appVerification) (NVR)

##### Get application verification parameters (getAppVerification)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type=appVerification |
| **Description** | For parameters, Refer to the Application Verification Parameters Table. |
| **Example** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type=appVerification |
| **Return** | enableFlag=1  appListCount=2  appListBegin=1  number=1234  state=0  remark=test1  next\_AppListURL=2  number=5678  state=0  remark=test2  appListEnd=2  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set application verification parameters (setAppVerification)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=modify&type=appVerification |
| **Description** | For parameters, Refer to the Application Verification Parameters Table. |
| **Example** | Add to:  http://192.168.2.193/cgi-bin/param.cgi?action=set&type=appVerification&appVerificationAction=add&appListCount=2&appListBegin=1&number=1234&remark=test1&next\_AppListURL=2&number=5678&remark=test2&appListEnd=2  Revise:  http://192.168.2.193/cgi-bin/ param .cgi?action=set&type=appVerification&appVerificationAction=cover&appListCount=2&appListBegin=1&number=1234&remark=test123&next\_AppListURL=2&number=5678&remark=test2233&appListEnd=2  Delete: http://192.168.2.193/cgi-bin/param.cgi?action=set&type=appVerification&appVerificationAction=remove&appListCount=1&appListBegin=1&number=1234&appListEnd=1  Clear:  http://192.168.2.193/cgi-bin/ params .cgi?action=set&type=appVerification&&appListCount=2&appVerificationAction=clean |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Application Verification Parameter Table

Table 2-6-8-4

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **enableFlag** | <int>{0,1} | Enable the whitelist switch  0: Off  1: Open |
| **appListCount** | <int>[0,n] | Whitelist count |
| **appListBegin** | <int>{1} | Whitelist count starts |
| **number** | string | security code  (note: can only be pure numbers) |
| **state** | int{0,1,2} | Status (note: cannot be modified)  0: Activate  1: Offline  2: Go online |
| **remark** | <string> | Remark |
| **next\_AppListURL** | <int>[2,n] | Whitelist next count |
| **appListEnd** | <int>[1,n] | Whitelist count ends |

#### Security Email (NVR)

##### Get Security Email Parameters (getSecurityEmail)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type=securityEmail |
| **Description** | For parameters, Refer to the secure mailbox parameter table. |
| **Example** | http://192.168.2.193/cgi-bin/ param .cgi?action=get&type=securityEmail |
| **Return** | securityEmailEnable=1  securityEmail=169.254.1.1@goolge.com  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set Security Email Parameters (setSecurityEmail)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=modify&type=securityEmail |
| **Description** | For parameters, Refer to the secure mailbox parameter table. |
| **Example** | http://192.168.2.193/cgi-bin/param.cgi?action=set&type=securityEmail&securityEmail=169.254.1.1@goolge.com |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Secure Mailbox Parameter Table

Table 2-6-8-4

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **securityEmailEnable** | <int>{0,1} | Is secure mailbox supported?  0: Not supported  1: Support |
| **securityEmail** | <string> | email address |

#### Security Question (NVR)

##### Get security question parameters (getSecurityQuestion)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/ param .cgi?action=get&type=securityQuestion |
| **Description** | For parameters, Refer to the Safety Issues Parameters Table. |
| **Example** | http://192.168.2.193/cgi-bin/ param .cgi?action=get&type=securityQuestion |
| **Return** | securityQuestionEnable=1  securityQuestion1=1  securityQuestion2=2  securityQuestion3=3  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set security question parameters (setSecurityQuestion)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=modify&type=securityQuestion |
| **Description** | For parameters, Refer to the Safety Issues Parameters Table. |
| **Example** | http://192.168.2.193/cgi-bin/param.cgi?action=set&type=securityQuestion&securityQuestion1=1&securityAnswer1=1&securityQuestion2=2&securityAnswer2=2&securityQuestion3=3&securityAnswer3=3 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Safety Question Parameter Table

Table 2-6-8-4

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **securityQuestionEnable** | <int>{0,1} | Support security questions  0: Not supported  1: Support |
| **securityQuestion[1-3]** | <int>[1,8] | Security Question Number  1: What is the brand and model of your favorite car?  2. Your favorite team  3. Your favorite city  4. Your favorite animal  5. The company name of your first job  6: The name of the first boy/girl you like  7. The worst security question you've ever Refer ton  8. The funniest/worst design you've ever Refer ton  (Note: There cannot be any duplication among the three questions) |
| **securityAnswer[1-3]** | string | Answers to security questions |

### Device logs

#### Obtaining device system logs (systemL ogInfo ) (IPC)

|  |  |
| --- | --- |
| **URL** | http : //<servername> /cgi-bin/param.cgi?action=get&type=systemLogInfo |
| **Description** | Refer to the input parameter table ( logType parameter is IPC-specific ) |
| **Example** | http://192.168.32.197/cgi-bin/param.cgi?action=get&type=systemLogInfo&startTime=20191226000000&endTime=20191226000010&logType=-1 |
| **Return** | SystemLogInfoCount=1  SystemLogInfoBegin=1  deviceId=  deviceIp=  channelId=0  userName=admin  majorType=4  minorType=6  time=2019-12-26 17:51:23  logData=StartVideoStream  oldParamInfo=  newParamInfo=  SystemLogInfoEnd=1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Input parameter table

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| Start Time | <string> | The recording start time.  Format (YYYYMMDDHHMMSS) Note: The minimum value cannot be less than 19710101010000 |
| endTime | < string > | The end time of the recording.  Format (YYYYMMDDHHMMSS) Note: The minimum value cannot be less than 19710101010000 |
| log Type | <int> | When the parameter is -1, all log types are queried by default.  When querying system logs, this parameter refers to [the subtype](#_次类型) |

##### System log output parameter table

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| deviceId | <string> | Device ID |
| deviceIp | <string> | Device IP |
| channelId | <int> | Channel Number |
| userName | <string> | username |
| majorType | <int> | Main Type |
| minorType | <int> | Subtype |
| time | <string> | Log time |
| logData | <string> | Log information |
| oldParamInfo | <string> | Old parameter information |
| newParamInfo | <string> | New parameter information |

#### Get device alarm log (alarmLogInfo ) (IPC)

|  |  |
| --- | --- |
| **URL** | http : // <servername>/cgi-bin/param.cgi?action=get&type=alarmLogInfo |
| **Description** | Refer to Input Parameters Table |
| **Example** | http://192.168.32.197/cgi-bin/param.cgi?action=get&type=alarmLogInfo&startTime=20191226000000&endTime=20191226000010&logType=-1 |
| **Return** | AlarmLogInfoCount=1  AlarmLogInfoBegin=1  deviceId=BB0120  deviceIp=  deviceType=0  sourceType=1  sourceId=1  majorType=1  minorType=1  description=  alarmStartTime=2019-12-13 1:59:19  alarmEndTime=2019-12-13 2:10:19  AlarmLogInfoEnd=1  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Input parameter table

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| Start Time | <string> | The recording start time.  Format (YYYYMMDDHHMMSS) Note: The minimum value cannot be less than 19710101010000 |
| endTime | < string > | The end time of the recording.  Format (YYYYMMDDHHMMSS) Note: The minimum value cannot be less than 19710101010000 |
| log Type | <int> | When the parameter is -1, all log types are queried by default.  When querying the alarm log, this parameter refers to [the main type](#_主类型) |

##### Alarm log output parameter table

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| deviceId | <string> | Device ID |
| deviceIp | <string> | Device IP |
| deviceType | <int> | Equipment type |
| sourceType | <int> | Alarm source type |
| sourceId | <int> | Alarm source ID |
| majorType | <int> | Alarm main type |
| minorType | <int> | Alarm subtype |
| description | <string> | describe |
| alarmStartTime | <string> | Alarm start time |
| alarmEndTime | <string> | Alarm end time |



#### NVR log acquisition (NVR)

##### Get systemLog parameters ( systemLog )

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type= systemLog |
| **Description** | Refer to SystemLog Parameters Table |
| **Example** | http://192.168.2.162/cgi-bin/param.cgi?action=get&type=systemLog&logType= 1 &logStartTime=21/12/2023 08:48:49&logEndTime=22/12/2023 09:48:49 |
| **Return** | logType = 1  logStartTime=21/12/2023 08:48:49  logEndTime=22/12/2023 09:48:49  logData=  Log Time:21/12/2023 09:12:29, loginfo: 001c27657657  Log Time:21/12/2023 09:21:32, loginfo: 001c27657657 |

##### Get eventLog

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=get&type=eventLog |
| **Description** | Refer to systemLog parameter table |
| **Example** | http://192.168.2.162/cgi-bin/param.cgi?action=get&type=eventLog&logType=1&logStartTime=2023/12/22 08:48:49&logEndTime=2023/12/22 09:48:49 |
| **Return** | logType=1  logStartTime=2023/12/22 08:48:49  logEndTime=2023/12/22 09:48:49  logData=  Log Time: 2023/12/22 09:12:29, loginfo: 001c27657657  Log Time: 2023/12/22 09:21:32, loginfo: 001c27657657 |

##### Meaning of systemLog parameters

SystemLog **Parameters Table**

Table 2-6-5-2-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| logType | <int>[1,2,3,4] | Log Type  1. Operation log 2. Abnormal log 3. Alarm log 4. System log |
| logStartTime | <string> | Query start time |
| logEndTime | <string> | Query end time |

### Multi-target parameters (IPC excluding the lite series)

#### Acquisition of capabilities

|  |  |
| --- | --- |
| **URL** | http://<ip>/cgi-bin/param.cgi?action=get&type= **AIMultiObjectDetectAbility** &cameraID=1 |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type= **AIMultiObjectDetectAbility** &cameraID=1 |
| **Description** | Refer to [URL Descriptions](#_能力参数说明_10) |
| **Return** | faceEnable=1  upBodyEnable=0  fullBodyEnable=1  plateEnable=0  vehicleEnable=1  boatEnable=0  showObjectEnable=1  showAreaEnable=1  confidenceEnable=1  pictureQualityEnable=1  ftpUploadEnable=1  ftpUploadFullRefer toEnable=1  faceMinPixelWidthEnable=1  faceMaxPixelWidthEnable=0  upBodyMinPixelWidthEnable=0  upBodyMaxPixelWidthEnable=0  humanMinPixelWidthEnable=1  humanMaxPixelWidthEnable=0  plateMinPixelWidthEnable=0  plateMaxPixelWidthEnable=0  vehicleMinPixelWidthEnable=1  vehicleMaxPixelWidthEnable=0  polygonAreaEnable=1  scheduleTimeParamEnable=1  pitchDegreesEnable=0  yawDegreesEnable=0  tiltDegreesEnable=0  snapPictureModeEnable=1  snapPictureModeCount=2  snapPictureModeBegin=1  snapPictureMode=0  next\_snapPictureModeURL=2  snapPictureMode=1  snapPictureModeEnd=1  AIObjectAttributeOutEnable=0  faceExposureEnable=0  filterEnable=0  displayTraceCount=4  displayTraceBegin=1  displayTraceInfo=0  next\_displayTraceURL=2  displayTraceInfo=1  next\_displayTraceURL=3  displayTraceInfo=2  next\_displayTraceURL=4  displayTraceInfo=6  displayTraceEnd=1 |

#### Capability parameter meaning

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| faceEnable | Face Detection  0: Not supported  1: Support | 0-1 | int |
| upBodyEnable | Upper body detection  0: Not supported  1: Support | 0-1 | int |
| fullBodyEnable | Full body test  0: Not supported  1: Support | 0-1 | int |
| plateEnable | License Plate Detection  0: Not supported  1: Support | 0-1 | int |
| vehicleEnable | Vehicle Detection  0: Not supported  1: Support | 0-1 | int |
| boatEnable | Ship detection  0: Not supported  1: Support | 0-1 | int |
| showObjectEnable | Display faces, bodies, and head-and-shoulder frames  0: Not supported  1: Support | 0-1 | int |
| showAreaEnable | Display detection area  0: Not supported  1: Support | 0-1 | int |
| confidenceEnable | Confidence  0: Not supported  1: Support | 0-1 | int |
| pictureQualityEnable | Cutout quality  0: Not supported  1: Support | 0-1 | int |
| ftpUploadEnable | FTP send cutout  0: Not supported  1: Support | 0-1 | int |
| ftpUploadFullRefer toEnable | FTP send panorama  0: Not supported  1: Support | 0-1 | int |
| faceMinPixelWidthEnable | Minimum pixel for face detection  0: Not supported  1: Support | 0-1 | int |
| faceMaxPixelWidthEnable | Maximum pixel for face detection  0: Not supported  1: Support | 0-1 | int |
| upBodyMinPixelWidthEnable | Minimum pixel for half-body detection  0: Not supported  1: Support | 0-1 | int |
| upBodyMaxPixelWidthEnable | Maximum pixel for half-body detection  0: Not supported  1: Support | 0-1 | int |
| humanMinPixelWidthEnable | Minimum pixel for human detection  0: Not supported  1: Support | 0-1 | int |
| humanMaxPixelWidthEnable | Maximum pixel for human detection  0: Not supported  1: Support | 0-1 | int |
| plateMinPixelWidthEnable | Minimum pixel for license plate detection  0: Not supported  1: Support | 0-1 | int |
| plateMaxPixelWidthEnable | Maximum pixel for license plate detection  0: Not supported  1: Support | 0-1 | int |
| vehicleMinPixelWidthEnable | Minimum pixel for vehicle detection  0: Not supported  1: Support | 0-1 | int |
| vehicleMaxPixelWidthEnable | Vehicle detection maximum pixel  0: Not supported  1: Support | 0-1 | int |
| polygonAreaEnable | Detection area  0: Not supported  1: Support | 0-1 | int |
| scheduleTimeParamEnable | Arming time  0: Not supported  1: Support | 0-1 | int |
| pitchDegreesEnable | Pitch angle  0: Not supported  1: Support | 0-1 | int |
| yawDegreesEnable | Yaw angle  0: Not supported  1: Support | 0-1 | int |
| tiltDegreesEnable | Tilt angle  0: Not supported  1: Support | 0-1 | int |
| snapPictureModeEnable | Snapshot mode  0: Not supported  1: Support | 0-1 | int |
| snapPictureModeCount | Number of capture modes |  | int |
| snapPictureModeBegin | Capture mode start mark |  |  |
| snapPictureMode | Snapshot mode  0: Timing  1: Optimal | 0-1 | int |
| next\_snapPictureModeURL | Next snapshot mode start mark | 0-1 | int |
| snapPictureModeEnable | Capture mode end mark | 0-1 | int |
| AIObjectAttributeOutEnable | AI multi-target attribute output  0: Not supported  1: Support | 0-1 | int |
| faceExposureEnable | Face exposure  0: Not supported  1: Support | 0-1 | int |
| filterEnable | Filter stationary objects  0: Not supported  1: Support | 0-1 | int |
| displayTraceCount | Number of superimposed tracking information |  | int |
| displayTraceBegin | Overlay tracking information start mark |  | int |
| displayTraceInfo | tracking information  0: Off  1: Mode 1  2: Mode 2  6: Mosaic |  | int |
| next\_displayTraceURL | Next tracking information indicator |  | int |
| displayTraceEnable | Overlay tracking information end mark |  | int |

#### Get AIMultiObjectDetectParam ( IPC/NVR)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action= get&type= AIMultiObjectDetectParam |
| **Description** | Refer to Input Parameters Table |
| **Example** | http://192.168.0.54/cgi-bin/param.cgi?action=get&type=AIMultiObjectDetectParam |
| **Return** | FaceEnable=true //Face switch  FullBodyEnable=true //Human body switch  VehicleEnable=true //Vehicle switch  ShowObjectMode=1 //Display mode  ShowAreaEnable=true //Show area switch  Reliability=10 //Confidence  PictureQuality=60 //Picture quality  SnapPictureMode=1 //Snap picture mode  FaceMinPixelWidth=30 //Minimum pixel width for face  **UploadInterval =1 (NVR) //Snapshot interval in timing mode**  HumanMinPixelWidth=30 (IPC) //Minimum pixel width for human body  **FullBodyMinPixelWidth //(NVR) //** Minimum pixel for human body detection  VehicleMinPixelWidth=30 //Minimum pixel width of the vehicle  SnapPictureMode=1 (IPC) //Snap picture mode  FtpUploadEnable=false //FTP upload switch  FtpUploadFullRefer toEnable=false //Full Refer to FTP upload switch  PictureOSDEnable=false //Not used yet  FirmwareVer=v1.0.0\_20210708 (IPC) //Algorithm library version  FilterStaticEnable = true (IPC)  PolygonAreaBegin=1 //Detection area  AreaId=1  AreaPointBegin=1  pointX1=0.00  pointY1=0.00  pointX2=0.00  pointY2=100.00  pointX3=100.00  pointY3=100.00  pointX4=100.00  pointY4=0.00  AreaPointEnd=1  nextPolygonArea=1  PolygonAreaEnd=1  weekDayBegin=1 //Time layout  weekDay=0  startTime1=0  endTime1=86400  next\_weekDayURL=2  weekDay=1  startTime1=0  endTime1=86400  next\_weekDayURL=3  weekDay=2  startTime1=0  endTime1=86400  next\_weekDayURL=4  weekDay=3  startTime1=0  endTime1=86400  next\_weekDayURL=5  weekDay=4  startTime1=0  endTime1=86400  next\_weekDayURL=6  weekDay=5  startTime1=0  endTime1=86400  next\_weekDayURL=7  weekDay=6  startTime1=0  endTime1=86400  weekDayEnd=7  (For other responses, Refer to [General Response](#_通用应答) ) |
|  |  |

#### Set multi-target parameters set AIMultiObjectDetectParam

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action= **set** &type= AIMultiObjectDetectParam  [&<argument>=<value>...] |
| **Description** | Setting multi-target parameters |
| **Example** | http://192.168.0.54/cgi-bin/param.cgi?action=set&type=AIMultiObjectDetectParam&FaceEnable=true&FullBodyEnable=true&VehicleEnable=true&ShowObjectMode=1&ShowAreaEnable=true&Reliability=10&PictureQuality=100&SnapPictureMode=1&FaceMinPixelWidth=30&HumanMinPixelWidth=30&VehicleMinPixelWidth=30&SnapPictureMode=1&FtpUploadEnable=false&FtpUploadFullRefer toEnable=false&PictureOSDEnable=false&FirmwareVer=v1.0.0\_20210708&PolygonAreaBegin=1&AreaId=1&AreaPointBegin=1&pointX1=0.00&pointY1=0.00&pointX2=0.00&pointY2=100.00&pointX3=100.00&pointY3=100.00&pointX4=100.00&pointY4=0.00&AreaPointEnd=1&PolygonAreaEnd=1&weekDayBegin=1&weekDay=0&startTime1=0&endTime1=86400&next\_weekDayURL=2&weekDay=1&startTime1=0&endTime1=86400&next\_weekDayURL=3&weekDay=2&startTime1=0&endTime1=86400&next\_weekDayURL=4&weekDay=3&startTime1=0&endTime1=86400&next\_weekDayURL=5&weekDay=4&startTime1=0&endTime1=86400&next\_weekDayURL=6&weekDay=5&startTime1=0&endTime1=86400&next\_weekDayURL=7&weekDay=6&startTime1=0&endTime1=86400&weekDayEnd=7&FilterStaticEnable=false |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Multi-objective parameter table

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| FaceEnable | <string> | Face switch: true to turn on. false to turn off |
| UpBodyEnable | <string> | Upper body switch: true is on. false is off |
| FullBodyEnable | <string> | Human switch: true is on. false is off |
| PlateEnable | <string> | License plate switch: true is on. false is off |
| VehicleEnable | <string> | Vehicle switch: true is on. false is off |
| ShowObjectMode | <int> | Display mode, 0 none, 1 mode 1, 2 mode 2 |
| ShowAreaEnable | < string > | Display area switch |
| Reliability | <int> | Confidence: 0 - 100 |
| PictureQuality | <int> | Image quality 0 - 100 |
| SnapPictureMode | < int > | Image capture mode 1: timed, 2: optimal |
| FaceMinPixelWidth | <int> | Minimum pixel for face detection (30-300) |
| FaceMaxPixelWidth | <int> | Maximum pixel for face detection (300-800) |
| HumanMinPixelWidth | <int> | Minimum pixel for human detection (30-300) |
| HumanMaxPixelWidth | <int> | Maximum pixel for human detection (300-800) |
| VehicleMinPixelWidth | <int> | Vehicle detection minimum pixels (30-300) |
| VehicleMaxPixelWidth | <int> | Vehicle detection maximum pixels (300-800) |
| PlateMinPixelWidth | <int> | Minimum pixel for license plate detection (30-300) |
| PlateMaxPixelWidth | <int> | Maximum pixel size for license plate detection (300-800) |
| FtpUploadEnable | <string> | FTP upload switch : true to turn on. false to turn off |
| FtpUploadFullRefer toEnable | <string> | Full image FTP upload switch : true to enable. false to disable |
| PictureOSDEnable | <string> | Not used yet |
| NotRegisterName | <string> | Unregistered List Name |
| Country | <string> | Country |
| Continent | <string> | Region |
| FirmwareVer | <string> | Algorithm version (IPC) |
| FilterStaticEnable | <string> | Filter stationary targets (IPC)  false: Off  true: On |
| FullBodyMinPixelWidth  (NVR) | int<30,300> | Minimum pixel for human detection |
| UploadInterval (NVR) | <int> [1, 10 ] | Snapshot interval in timer mode |
| FacePitch | <int> | Face pitch angle (0-90) |
| Face Yaw | <int> | Face yaw angle ( 0-90 ) |
| Face Tilt | <int> | Face tilt angle ( 0-90 ) |
| FaceExposureEnable | <int> | Face exposure switch : true to turn on. false to turn off |
| ReferBrightness | <int> | Reference brightness |
| ContinueTime | <int> | Exposure duration |
| PolygonArea Count | <int> | Number of detection areas |
| PolygonAreaBegin | <int> | Detection area start mark |
| AreaId | <int> | Region ID |
| pointCount | <int> | Number of area coordinates |
| pointBegin | < int > | Area coordinates start mark |
| pointX | <float> | Horizontal coordinate value |
| pointY | <float> | Vertical coordinate value |
| next\_pointURL | <int> | Next area coordinate start mark |
| pointEnd | < int > | End of area sign |
| nextPolygonArea | < int > | Next area |
| PolygonAreaEnd | < int > | The region ends with n region values n |
| weekDay | < int > | Week 0 - 6 |
| startTime | < int > | The start time of the day 0-86400 |
| endTime | < int > | End of day layout time 0-86400 |
| next\_weekDayURL | < int > | the next day |
| weekDayEnd | < int > | At the end of the week, the value of n regions is n |

### CGI Alarm Center Parameters (IPC)

#### Alarm center test ( IPC )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type= **CGIAlarmTest** |
| **Description** |  |
| **Example** | http://192.168.32.151/cgi-bin/param.cgi?action=get&type= CGIAlarmTest |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Get Alarm Center ( IPC )

|  |  |  |
| --- | --- | --- |
| **URL** | http://<servername>/cgi-bin/ alarm .cgi?action= get&type=alarmCenterService | |
| **Description** | Refer to Input Parameters Table | |
| **Example** | http://192.168.2.91/cgi-bin/alarm.cgi?action=get&type=alarmCenterService | |
| **Return** | (IPC)  CGIAlarmFlag=true  CGIName=  CGIType=1  CGIUrlStart=http://192.168.0.117:50234/MajorAlarmType&MinorAlarmType&SourceName&DeviceID&DeviceIP&AlarmTime&Description  CGIUrlEnd=http://169.254.10.50:8081/api/upload\_event/MajorAlarmType&MinorAlarmType&LicenseNumber&SerialNumber&Country&AlarmTime  CGIUserName1=admin  CGIPassword1=admin  CGIProxyFlag=true  CGIAddress=169.254.10.50  CGIPort=8081  CGIIVSType [= -1​](#_通用应答)​ | (the lite series)  cgiAlarmEnable=1  alarmType=1  alarmCenterName=alarmCenterName  protocolType=1  urlStart=alarmCenterUrlStart  urlEnd=alarmCenterUrlEnd  proxyEnable=1  alarmCenterServerIP=192.168.0.193  alarmCenterServerPort=9080  platformAccount=alarmCenterAccount  platformPassword=alarmCenterPassword |

#### Set alarm center parameters ( IPC )

|  |  |  |
| --- | --- | --- |
| **URL** | http://<servername>/cgi-bin/alarm.cgi?action=**set**&type=alarmCenterService&CGIAlarmFlag=<CGIAlarmFlag>&CGIName=<CGIName>&CGIType=<CGIType>&CGIUrlStart=<CGIUrlStart>&CGIUrlEnd=<CGIUrlEnd>CGIUserName1=<CGIUserName1>&CGIPasswd1=<CGIPasswd1>&CGIProxyFlag=true&CGIAddress=<CGIAddress>CGIPort=<CGIPort>&CGIIVSType=<CGIIVSType> | |
| **Description** | Setting multi-target parameters | |
| **Example** | (IPC)  http://192.168.0.121/cgi-bin/alarm.cgi?action=set&type=alarmCenterService&CGIAlarmFlag=true&CGIName=alarm&CGIType=1&CGIUrlStart=aHR0cDovLzE5Mi4xNjguMC4xMTc6NTAyMzQvTWFqb3JBbGFybVR5cGUmTWlub3JBbGFybVR5cGUmU291cmNlT mFtZSZEZXZpY2VJRCZEZXZpY2VJUCZBbGFybVRpbWUmRGVzY3JpcHRpb24=&CGIUrlEnd=aHR0cDovLzE5Mi4xNjguMC4xMTc6NTAyMzQvTWFqb3JBbGFybVR5cGUmTWlub3JBbGFybVR5cGUmU291cmNlTmFtZSZEZXZpY2VJRCZEZXZpY2VJUCZBbGFybVRpbWUmRGVzY3JpcHRpb24= | (the lite series)  http://192.168.2.193/cgi-bin/network.cgi?action=set&type= alarmCenterService &cgiAlarmEnable=1&alarmType=1&alarmCenterName=alarmCenterName&protocolType=1&urlStart=alarmCenterUrlStart&urlEnd=alarmCenterUrlEnd&proxyEnable=1&alarmCenterServerIP=192.168.0.193&alarmCenterServerPort=9080&platformAccount=alarmCenterAccount&platformPassword=alarmCenterPassword |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) | |

#### Alarm Center User Manual

##### 2.6.22.4.1 The alarm center is described as follows

1. CGI Alarm Service Center Configuration Page Description



The CGI alarm message pushed by the device will be assembled in the format following the IP address of the start and end URLs , and the assembled string will be sent to the CGI alarm server via the HTTP protocol.

1. URL start: indicates the alarm start point to send the URL, the format is as follows:

(A) The URL format of face recognition reporting information is as follows :

[http://192.168.35.74:80/ ( This URL is](http://192.168.35.74:80/) not actually used. If this URL is not set, clicking Apply will fail . )

(B) The URL format of common alarm information without face recognition is defined as follows:

http://192.168.35.74:80/MajorAlarmType&MinorAlarmType&SourceName&DeviceID&DeviceIP&AlarmTime&Description​​

Among them, 192.168.35.74 is the sending address IP, and 80 is the sending address port.

(2) URL End Alarm End Point sends a URL. The format is the same as the Start URL and will not be repeated here. The Start URL and End URL can be the same.

(3) Username: device username; Password: device password

(4) The proxy server device is a CGI alarm server (a server that receives facial information) to implement alarm forwarding, where the address is the forwarding address IP (for Example: 192.168.35.74); the port is the forwarding port (for Example: 80) .

(5) Platform username: forwarding server username (e.g. 123456); Platform password: forwarding server password (e.g. 123456)

(6) Test HTTP connection alarm center: used to test whether the device IPC and proxy server network are unobstructed. When you click the test button, if the device and proxy server network can be connected, it will show that the test is successful, otherwise it will show that the test failed.

(7) After completing the above information, click the Apply button to save the data.

(8) (9) Status ON

(10) The above (1), (2), (3), (4), (5), (8) cannot be empty

2. CGI alarm push diagram.



3. The bearer and sending method of alarm message.

**The CGI alarm message is sent in the HTTP message body URL and is sent to the CGI server via the HTTP protocol POST method. Therefore, if the user wants to connect to the CGI alarm, it is necessary to parse the HTTP body URL to obtain the alarm information.**

For face recognition

The corresponding alarm information is as follows :

POST HTTP/1.1

Host:

User-Agent:

Content-length: 0

Content-type: text/xml

Connection: Keep-Alive

strAlarmTime=

FaceInfoBegin=1

FacePictureDataLen=38918

FacePictureData=.....

/\* The BODY URL carries the alarm message content, which needs to be parsed by the server to obtain the alarm information \*/

The following packet capture is a CGI alarm packet capture with LPR alarm

strAlarmTime represents time

FaceInfoBegin indicates the number of pictures

FacePictureDataLen indicates the size of the face capture picture

FacePictureData represents picture data

The capture packet is as follows



##### 2.6.22.4.2 CGI full target recognition alarm center description ( applicable to face capture, license plate recognition, face temperature measurement, etc. )



If you want CGI to report face recognition information, you need to configure the relevant information on the CGI Alarm Center page:

1. Turn on the CGI alarm.
2. Proxy server settings address and port.

After setting the address and port, click the Test button to test whether the connection status is OK

The face recognition alarm message is sent as follows:

POST HTTP/1.1

Host:192.168.1.12

User-Agent:Mozilla/5.0 (Windows NT 6.1; WOW64; rv:47.0) Gecko/20100101 Firefox/47.0

Content-length: 3773

Content-type: text/xml

Connection: Keep-Alive

DeviceID=1422DF

AlarmType=0

AlarmTime=1567692473

Age=29

Gender=1

Organ=0

Confidence=62 // Confidence

TemperatureUnit=0 [\\ Temperature unit: 0 : Celsius](file:///\\温度单位：0：摄氏度) ; 1 : Fahrenheit;

FaceTemperature=37.919353

AIPictureDataLen=3670

AIPictureData=\*\*\*\* [\\ Picture data Base64](file:///\\图片数据Base64) encryption

The Body carries all target identification information . The following four URL are required for each alarm message. Other URL will be added based on the alarm.

Increase or decrease depending on the type .

AlarmType indicates the type of the current alarm, 0: face 2: body 3 : license plate 4: vehicle

AlarmTime indicates the time of capturing the image

AIPictureDataLen captured image data length

AIPictureData captured image data

When AlarmType is 0 ( face recognition )

The attributes of face recognition will be added to the data :

Age =29

Gender=1 1: Male 2: Female

Organ=0 //0: Face 1: Head and shoulders 2: Human figure 3: Upper body 4: Whole body 5: Palm 6: Human body

FaceX=1010 // Face coordinate X, with the upper left as the origin

FaceY=378 //Face coordinate Y, with the upper left as the origin

FaceWidth=352 //Face image width

FaceHeight=480 // Face image width

TemperatureUnit=0 \\ Temperature unit: 0 : Celsius; 1 : Fahrenheit;

FaceTemperature=37.919353 //Face temperature

Confidence=62 // Confidence

When AlarmType is 2 ( Human body recognition )

The attributes of human body recognition will be added to the data :

Age =29

Gender=1 1: Male 2: Female

RideBike=0 0 : Not riding a bike 1 : Riding a bike

FaceX=1010 //Human body coordinate X, with the upper left as the origin

FaceY=378 //Human body coordinate Y, with the upper left as the origin

FaceWidth=352 //Human body image width

FaceHeight=480 //Human body image width

Confidence=62 // Confidence

// AI Mulit-Target enable Fullbody Detection

BodyAttr\_Gender=1 //gender 0unknown 1male 2female

BodyAttr\_Age=1 //age 0 <16 1 16-45 2 45-60 3 >60 4 未知

BodyAttr\_IsBag=1 //Whether it is a backpack or not 0unknown 1yes 2no

BodyAttr\_BagCategory=1 //Package type 0unknown 1Backpack 2Shoulder bag/Crossbody bag 3handbag 4Trolley case

BodyAttr\_Opticals=1 //Whether or not you wear glasses 0unknown 1yes 2no

BodyAttr\_Hat=0 //Whether or not to wear a hat 0unknown 1yes 2no 3safety hat

BodyAttr\_TopsCategory=1 //Top type 0unknown 1Long sleeves 2Short sleeves

BodyAttr\_TopsColor=5 //Top color enum COLOR\_

BodyAttr\_BottomsCategory=0 //pants type 0未知 1trousers 2shorts 3Wearing a skirt is unknown 4 Wear a skirt 5not Wear a skirt

BodyAttr\_BottomsColor=50 //Pants colorenum COLOR\_

BodyAttr\_ReflectiveVest=2 //Whether or not to wear reflective clothing 0unknown 1yes 2no

When AlarmType is 3 ( license plate recognition )

The attributes of license plate recognition will be added to the data :

CarPlateNum= 12345678 license plate number

FaceX=1010 //License plate coordinate X, with the upper left as the origin

FaceY=378 //Human body coordinate Y, with the upper left as the origin

FaceWidth=352 //Human body image width

FaceHeight=480 //Human body image width

Confidence=62 // Confidence

//AI Mulit-Target enable Vehicle Detection

VehicleAttr\_CarType=1 //car type

VehicleAttr\_CarBrand=Audi //The brand of the vehicle

VehicleAttr\_CarColor=3 //car color enum COLOR\_

VehicleAttr\_CarOrientation//The direction of the vehicle //0 unknown 1 Forward-facing 2 Backwards 3 others

When AlarmType is 4 ( vehicle identification )

The attributes of vehicle identification will be added to the data :

CarColor=1

CarMode=0

FaceX=1010 //Human body coordinate X, with the upper left as the origin

FaceY=378 //Human body coordinate Y, with the upper left as the origin

FaceWidth=352 //Human body image width

FaceHeight=480 //Human body image width

Confidence=62 // Confidence

The following is the enumeration type corresponding to CarColor

enum COLOR\_

{

COLOR\_BLUE = 0,

COLOR\_YELLOW = 1,

COLOR\_BLACK = 2,

COLOR\_WHITE = 3,

COLOR\_GREEN = 4,

COLOR\_RED = 5,

COLOR\_GRAY = 6,

COLOR\_PURPLE = 7,

COLOR\_PINK = 8,

COLOR\_BROWN = 9,

COLOR\_CYAN = 10,

COLOR\_COLORFUL = 11,

};

The following is the enumeration type corresponding to CarModle

enum CAR\_MODLE\_

{

MODLE\_CAR = 0,

MODLE\_SUV = 1,

MODLE\_MICROBUS = 2,

MODLE\_MINIBUS = 3,

MODLE\_BUS = 4,

MODLE\_PICKUP = 5,

MODLE\_TRUCK = 6,};

### Configuration backup (IPC)

#### Import Configuration

##### ask

|  |  |  |
| --- | --- | --- |
| **URL** | http://<servername>/cgi-bin/param .cgi ?userName=<username>&password =  <password>&action=set&type= **importConfig** | |
| **Connection** | keep-alive | |
| **Content-Type** | multipart/form-data | |
| **parameter** | **parameter name** | **meaning** |
| uploadState | Upload Status  0: Send file  1: Sending completed (device will restart) |
| file | Configuration Files  by **exportConfig** has a maximum upload length of 10KB each time, and the file name suffix must be "bin" |

##### response

|  |  |
| --- | --- |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Export Configuration

##### ask

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param .cgi ?userName=<username >  &password=<password>&action=get&type= **exportConfig** |

##### response

**Note: Returns a binary file**

|  |  |
| --- | --- |
| **Content-Type** | application/octet-stream |
| **Return** | binary file |

### param Input common parameters

**Configuration general parameters table 2-6-13-1**

Table 2-6-13-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **userName** | <string> | Login machine account |
| **password** | <string> | Password to log in to the machine |
| **action** | <string>{set, get} | The type of operation.  get: Get  set: set |
| **type** | <string> | Configuration type.  Subtype in param.cgi.  For specific meanings, Refer to [Configuration General Parameters Table 2](#配置通用参数表2) |
| **cameraID** | <int>[1,n] | Camera ID.  The camera IDs supported by the device are related to the device capabilities. |
| **streamID** | <int>[1,n] | Stream ID.  Stream IDs supported by the device, related to the device capabilities |
| **cover** | <string>{ cover } | Loop body coverage.  Overwrite the original loop data |
| **alarmInID** | <int>[1,n] | Alarm input port number.  Determined by the alarmInID number obtained from the device information, starting from 1 and accumulating |
| **alarmOutID** | <int>[1,n] | Alarm output port number.  Determined by the alarmOutID number obtained from the device information, starting from 1 and accumulating |
| **enableFlag** | <unsigned char>{0 , 1} | Whether to enable the flag.  0: Disable  1: Enable  Setting other values is invalid and Returns -8 (parameter error). |
| **IPProtover** | <int>{1.2} | Protocol version.  1:IPV4  2: IPV6  Currently only supports IPV4 |
| **comID** | <int>{1} | Serial port ID.  Serial ports supported by the device, related to the device capabilities |
| **next\_paramURL** | <int>{2,n} | Next parameter information.  Start from 2 |

**Configuration general parameters table 2-6-13-2**

Table 2-6-13-2

|  |  |
| --- | --- |
| **type** | **Description** |
| **Equipment related** | |
| **deviceName** | Device Name |
| **deviceID** | Device ID |
| **deviceInfo** | Device Information |
| **localNetwork** | Local Network |
| **WI-FI** | WI-FI |
| **devicePort** | Device Port |
| **cameraInfo** | Channel parameters |
| **dateTime** | Date & Time |
| **OSD** | Watermark |
| **OSDCanvas** | Canvas Information |
| **microphone** | microphone |
| **protocolSecurity** | Protocol Security |
| **alarmParam** | Alarm parameters |
| **ADSL Network** | ADSL network |
| **protocolInfo** | Protocol Information |
| **deviceDiskInfo** | Device disk information |
| **PTZTimer** | PTZ Timer |
| **sourceResolution** | Source resolution |
| **IPDomePTZID** | High Speed Dome ID |
| **Stream Configuration** | |
| **streamAbility** | Flow Capacity |
| **AVStream** | flow |
| **Network service configuration** | |
| **PPPoE** | PPPoE |
| **DDNS** | DDNS |
| **UPNP** | UPNP Service |
| **Video recording configuration** | |
| **recordPolicy** | Video recording strategy |
| **recordDirInfo** | Video Catalog |
| **Alarm Configuration** | |
| **alarmIn** | Alarm input |
| **alarmOut** | Alarm Output |
| **motionAlarm** | Motion detection alarm |
| **IOalarmLinkage** | IO linkage |
| **diskAlarm** | Disk alarm |
| **blindArea** | Alarm area |
| **External device configuration** | |
| **PTZ Keyboard** | PTZ Keyboard |
| **PTZ** | External PTZ (not supported by high-speed dome cameras) |
| **RS485Device** | RS485 Devices |
| **Service Center** | |
| **SMTP** | SMTP Service |
| **alarmCenter** | Alarm Center |
| **NTP** | NTP Service |

## Device Operation (operate.cgi)



### Device Reset (deviceReset)

|  |  |
| --- | --- |
| **URL** | http : // <servername> /cgi-bin/operate.cgi?action=reset&keepIpAddress=1&cameraID=0​ |
| **Description** | Refer to the common [parameters](#_2.7.1_operate输入通用参数) for operator input  NVR: cameraID is 0, indicating resetting the device itself, and carries the access device that resets the specified channel (if cameraID = 0, it indicates the device itself ) |
| **Example** | http://192.168.1.121/cgi-bin/operate.cgi?action=reset& keepIpAddress =1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

### Device Restart (deviceRestart)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/operate.cgi?action=restart& cameraID =1 |
| **Description** | Refer to [the common parameters for](#_2.7.1_operate输入通用参数) operator input  NVR: cameraID is the access device that carries the information about restarting the specified channel (if cameraID = 0, it means the device itself ) |
| **Example** | http://192.168.1.121/cgi-bin/operate.cgi?action=restart |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

### Timing Restart​

#### IPC scheduled restart

##### Get scheduled restart parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ operate.cgi ?action=get&type= **timingRestart** |
| **Description** | Refer to [parameter meaning](#_定时重启参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=get&type= timingRestart |
| **Return** | autoRestartEnable=1  restartType=1  dayHour=9  dayMinute=17  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set the scheduled restart parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=set&type= **timingRestart** &autoRestartEnable=1&autoRestartEnable=1&restartType=1&weekCount=2&weekBegin=1&weekDay=0&next\_weekDayURL=2&weekDay=1&weekEnd=2&weekHour=7&weekMinute=15 |
| **Description** | Refer to [parameter meaning](#_定时重启参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/param.cgi?action=set&type=timingRestart&autoRestartEnable=1&autoRestartEnable=1&restartType=1&weekCount=2&weekBegin=1&weekDay=0&next\_weekDayURL=2&weekDay=1&weekEnd=2&weekHour=7&weekMinute=15​ |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Meaning of scheduled restart parameters

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **autoRestartEnable** | <int> | Auto Restart0  : Off1  : On |
| **restart Type** | <int> | Restart interval0  : Daily1  : Weekly2  : Monthly |
| **day Hour** | <int> | Daily restart time |
| **dayMinute** | <int> | Restart time every day |
| **weekCount** | <int> | Weekly quantity |
| **weekBegin** | <int> | Weekly start sign |
| **weekDay** | <int> | Week (0-6) |
| **next\_weekDayURL** | <int> | Next scheduled time URL start mark |
| **weekEnd** | <int> | End of Week Mark |
| **week Hour** | <int> | Weekly restart time |
| **weekMinute** | <int> | Weekly restart time |
| **monthDay** | <int> | Monthly restart date |
| **month Hour** | <int> | Monthly restart time |
| **monthMinute** | <int> | Monthly restart time |

#### NVR timed restart (timedRestart)

##### Get timed restart (getTimedRestart)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/system.cgi?action=get&type=timedRestart​**​​** |
| **Description** | Refer to the common parameters for [operator input](#_2.7.1_operate输入通用参数) |
| **Example** | http://192.168.2.193/cgi-bin/system.cgi?action=get&type=timedRestart​ |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set a timed restart (setTimedRestart)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/system.cgi?action=set &type= timedRestart |
| **Description** | Refer to the common parameters for [operator input](#_2.7.1_operate输入通用参数) |
| **Example** | http://192.168.2.193/cgi-bin/system.cgi?action=set&type=timedRestart&enable=1&interval=2&weekday=3&time=2:00​​ |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Scheduled restart parameters

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **enable** | int | Whether to enable scheduled restart  0: Off  1: Open |
| **interval** | int | 1: Every day  2: Weekly  3: Monthly |
| **weekday** | int | Empty / Monday ( 1-7 ) / 1st ( 1-30 ) |
| **time** | <string> | Specific time, format is 00:00  The time must be a multiple of 30 minutes |

### Disk formatting ( format )

|  |  |
| --- | --- |
| **URL** | : //<servername>/cgi-bin/operate.cgi?action=format&diskID=1 |
| **Description** | Refer to the common parameters for [operator input](#_2.7.1_operate输入通用参数) |
| **Example** | http://192.168.0.121/cgi-bin/operate.cgi?action=format&diskID=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

### operate Input common parameters

**Operation parameter table 2-7-3-1**

Table 2-7-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **userName** | <string> | Login machine account |
| **password** | <string> | Password to log in to the machine |
| **action** | <string>{reset,restart} | restart  reset  format |
| **keepIpAddress** | < in t > | Keep the set IP address  0: Off  1: On |
| diskID | <int> | Disk ID |

## Front-end configuration (sensor.cgi) (IPC)

Note: IPC (the lite series) and NVR only support solution 1; **IPC (The lite series)** supports optional solutions and recommends using the new framework (front-end configuration)

### Mode(IPC)

#### Get mode parameters (IPC)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=get&type= **sensorMode** &cameraID=1 |
| **Description** | Refer to [URL description](#_模式参数含义) (MVR/the lite series does not carry &schemeID ) |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi?action=get &type=sensorMode&cameraID=1 |
| **Return** | switchMode=0  beginHour=0  beginMinute=0  endHour=24  endMinute=0 |

#### Setting mode parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=set&type= **sensorMode** &cameraID=1 &schemeID=1&switchMode=1&beginHour=5&beginMinute=30&endHour=6&endMinute=10 |
| **Description** | Refer to [URL description](#_方案参数含义) (MVR/the lite series does not carry &schemeID ) |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi?action=set &type=sensorMode&cameraID=1 &schemeID=1&switchMode=1&beginHour=5&beginMinute=30&endHour=6&endMinute=10 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Mode parameter meaning

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **switchMode** | (IPC)  Switch mode  0: None  1: Time mode  (NVR)  Image Mode  0: Automatic  1: Timed conversion - daytime  2: Timed conversion - night | 0-2 | int |
| **beginHour** | Start time | 0-24 | int |
| **beginMinute** | Start time  0  10  20  30  40  50 |  | int |
| **endHour** | End time | 0-24 | int |
| **endMinute** | End time​  0  10  20  30  40  50 |  | int |

### Solution (IPC excluding the lite series)

#### Get solution parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=get&type= **sensorScheme** &cameraID=1 |
| **Description** | Refer to [URL description](#_方案参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi?action=get &type=sensorScheme&cameraID=1 |
| **Return** | schemeID=1  mode=0 |

#### Setting the scheme parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=set&type= **sensorScheme** &schemeID=2&mode=0&cameraID=1 |
| **Description** | Refer to [URL description](#_方案参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi?action=get &type=sensorScheme&schemeID=2&mode=0&cameraID=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Solution parameter meaning

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **schemeID** | plan  0: Option 1  1: Option 2  2: Option 3  3: Option 4 | 0-3 | int |
| **mode** | model  0: debug mode  1: Normal mode | 0-1 | int |

### image

#### Get image parameters

|  |  |
| --- | --- |
| URL | http://<servername>/cgi-bin/sensor.cgi?action=get&type= **imaging** &cameraID=<cameraID>&schemeID=<schemeID> |
| Description | Refer to [parameter meaning.](#_图像参数含义) NVR/the lite series does not need to carry SchemeID . |
| Example | http://192.168.1.121/cgi-bin/sensor.cgi?action=get&type=imaging **&** cameraID=1&schemeID=0 |
| Return | brightness=1  saturation=50  sharpness=30  contrast=6  (-1 means not supported, for other responses, Refer to [General Response](#_通用应答) ) |

#### Setting image parameters

|  |  |
| --- | --- |
| URL | http://<servername>/cgi-bin/sensor.cgi?action=set&type=imaging&cameraID=1&schemeID=0&brightness=1&saturation=5&sharpness=30&contrast=6 |
| Description | Refer to [parameter meaning.](#_图像参数含义) NV/the lite series does not need to carry S chemeID. |
| Example | http://192.168.2.21/cgi-bin/sensor.cgi?action=set&type=imaging&cameraID=1&schemeID=0&brightness=1&saturation=5&sharpness=30&contrast=6 |
| Return | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Image parameter meaning

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| URL | Parameter Description | scope | type of data | Remark |
| SchemeID (IPC) | plan  0: Option 1  1: Option 2  2: Option 3  3: Option 4 | 0-3 | int |  |
| brightness | brightness | 0-100 | int |  |
| saturation | saturation | 0-100 | int |  |
| sharpness | Sharpness | 0-100 | int |  |
| contrast | Contrast | 0-100 | int |  |
| detailreinforced | Detail Enhancement | 0-100 | int |  |

### Defogging

#### 2.8.4.1 Get Defogging parameter

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=get&type=Defogging &cameraID=<cameraID>&schemeID=<schemeID> |
| **Description** | Refer to [parameter meaning.](#_2.8.4.3 Defogging parameter meaning) NV/the lite series does not need to carry S chemeID. |
| **Example** | http://192.168.31.12/cgi-bin/sensor.cgi?action=get&type=Defogging&cameraID=1&SchemaId=1 |
| **Return** | defoggingSwitch=0  defoggingStrength=50 (-1 means not supported, for other responses, Refer to [General Response](#_通用应答) ) |

#### 2.8.4.2 Set Defogging parameter

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi? action=set&type=Defogging&cameraID=1&SchemaId=1&defoggingSwitch=1&defoggingStrength=50 |
| **Description** | Refer to [parameter meaning.](#_2.8.4.3 Defogging parameter meaning) NV/the lite series does not need to carry S chemeID. |
| **Example** | http://192.168.31.12/cgi-bin/sensor.cgi?action=set&type=Defogging&cameraID=1&SchemaId=1&defoggingSwitch=1&defoggingStrength=50 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### 2.8.4.3 Defogging parameter meaning

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| URL | Parameter Description | scope | type of data | Remark |
| SchemeID(IPC) | plan  0: Option 1  1: Option 2  2: Option 3  3: Option 4 | 0-3 | int |  |
| defoggingSwitch | swtich | 0，1 | int |  |
| defoggingStrength | scope | 0-100 | int |  |

### day and night

#### Get day and night parameters

|  |  |  |
| --- | --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi? action=get&type= **dayNight** &cameraID=<cameraID>&schemeID=<schemeID> | |
| **Description** | Refer to [parameter meaning](#_日夜参数含义) (NVR/the lite series does not need to carry schemeID ) | |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi? action=get&type=dayNight&cameraID=1&schemeID=0 | |
| **Return** | (IPC)  dayNightMode=0  dayToNightThreshold=70  nightToDayThreshold=30  dayNightSensitivity=48  delay=80  lightMode=2  infrared=2  infraredIntensity=80  white=2  whiteIntensity=51  (-1 means not supported, for other responses, Refer to [General Response](#_通用应答) ) | (NVR)  dayNightMode=3  DTNhour=18  DTNmin=0  NTDhour=6  NTDmin=0  delay=174  translDN=70  translND=30  sensitivity=50 |

#### Set day and night parameters

|  |  |  |
| --- | --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=set&type=dayNight&cameraID=<cameraID>&schemeID=<schemeID> | |
| **Description** | Refer to [parameter meaning](#_日夜参数含义) (NVR/the lite series does not need to carry schemeID ) | |
| **Example** | http://192.168.1.121 /cgi-bin/sensor.cgi?action=set&type=dayNight&cameraID=1&schemeID=0&dayNightMode=3&dayToNightThreshold=70&nightToDayThreshold=30&dayToNightTime=07:20&nightToDayTime=19:30&dayNightSensitivity=48&delay=80&lightMode=0&infrared=2&infraredIntensity=80&white=2&whiteIntensity=51 | http://192.168.2.193/cgi-bin/sensor.cgi?action=set&type=dayNight&cameraID=1&dnMode=3&DTNhour=22&DTNmin=10&NTDhour=22&NTDmin=20&delay=11 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) | |

#### Meaning of day and night parameters

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** | **Remark** |
| **IPC** | | | | |
| **schemeID** | plan  0: Option 1  1: Option 2  2: Option 3  3: Option 4 | 0-3 | int |  |
| **dayNightMode** | Day and night mode  0: Automatic  1: Day mode  2: Night mode  3: Timing | 0-3 | int |  |
| **dayToNightThreshold** | Day to night threshold | 0-100 | int |  |
| **nightToDayThreshold** | Night-to-day threshold | 0-100 | int |  |
| **dayNightSensitivity** | Day and night switching sensitivity | 0-100 | int | **dayNightMode=0** |
| **antiOverExposure** | Anti Overexposure  0: Off  1: On | 0-1 | int |  |
| **delay** | Delay (seconds) | 0-180 | int | **dayNightMode=0** |
| **dayToNightTime** | Day to night time (HH:mm) |  | string | **dayNightMode=3** |
| **nightToDayTime** | Night to day time (HH:mm) |  | string | **dayNightMode=3** |
| **lightMode** | Lighting control mode  0: Infrared light  1: White light  2: Intelligence  3: None | 0-3 | int |  |
| **infrared** | Infrared light  1: Automatic  2: Manual | 1-2 | int | **lightMode =0 or 2** |
| **infraredIntensity** | Infrared light intensity | 0-100 | int | **lightMode =0 or 2** |
| **white** | White light  1: Automatic  2: Manual | 1-2 | int | **lightMode =1 or 2** |
| **whiteIntensity** | White light intensity | 0-100 | int | **lightMode =1 or 2** |
| **NVR/the lite series** | | | | |
| **dnMode** | Day and night mode  0: Automatic 1: Day mode 2: Night mode 3: Timer |  | <int> |  |
| **DTNhour** | Day to night time (hours)  (Timer mode valid) 0-23 | [0,23] | <int> |  |
| **DTNmin** | Day to night time (minutes)  (Timer mode is effective) | {0,10,20,30,40,50} | <int> |  |
| **NTDhour** | Night to day time (hours)  (Timer mode is effective) | [0,23] | <int> |  |
| **NTDmin** | Night to day time (minutes)  (Timer mode is effective) | {0,10,20,30,40,50} | <int> |  |
| **delay** | Delay time  (Automatic mode is effective) | [0,180] | <int> |  |
| **translDN** | Day to night threshold  (Automatic mode is valid) (-1 means not supported) | [0,100] | <int> |  |
| **transLND** | Night-to-day threshold  (Automatic mode is valid) (-1 means not supported) | [0,100] | <int> |  |
| **sensitivity** | Sensitivity  (Automatic mode is effective) | [0,100] | <int> |  |
| **IRmode** | Infrared light  1: Automatic  2: Fixed  (-1 means not supported) | {1,2} | <int> |  |
| **IRstrength** | Infrared light intensity (infrared light fixed mode is valid, -1 means not supported) | [0,100] | <int> |  |

### Exposure (IPC excluding the lite series/NVR)

#### Get exposure parameters

|  |  |  |
| --- | --- | --- |
| URL | http://<servername>/cgi-bin/sensor.cgi?action=get&type=**Exposure** &cameraID=<cameraID>&schemeID=<schemeID> | |
| Description | Refer to [parameter meaning](#_图像参数含义) | |
| Example | http://192.168.1.121/cgi-bin/sensor.cgi?action=get&type=Exposure**​** &cameraID=1&schemeID=0 | |
| Return | (IPC)  exposureMode=0  shutter=7  meterArea=4  gain=50 (-1 means not supported, for other Returns, Refer to [general response](#_通用应答) ) | (NVR)  exposureMode=2  exposureTime = 2 |

#### Setting exposure parameters

|  |  |  |
| --- | --- | --- |
| URL | http://<servername>/cgi-bin/sensor.cgi?action=set&type=**Exposure**&cameraID=<cameraID>&schemeID=<schemeID> | |
| Description | Refer to [parameter meaning](#_图像参数含义) | |
| Example | (IPC)  http://192.168.1.121/cgi-bin/sensor.cgi?action=set&type=**Exposure**&cameraID=1&schemeID=0&mode=1&redGain=31&blueGain=58 | (NVR)  http://192.168.2.193/cgi-bin/sensor.cgi?action=set&type=exposure&cameraID=1&exposureMode=1&exposureTime=2 |
| Return | OK  (-1 means not supported, for other responses, Refer to [General Response](#_通用应答) ) | |

#### Exposure parameter meaning

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| URL | Parameter Description | scope | type of data | Remark |
| IPC | | | | |
| schemeID (IPC) | plan  0: Option 1  1: Option 2  2: Option 3  3: Option 4 | 0-3 | int |  |
| exposureMode | Exposure Mode  0: Automatic  1: Manual  2: Shutter priority | 0-2 | int |  |
| Shutter | shutter  2: 1/15  3: 1/10  4: 1/12.5  5: 1/15  6: 1/20  7: 1/25  9: 1/50  11: 1/100  13: 1/125  14: 1/150  15: 1/200  16: 1/250  17: 1/500  18: 1/1000  19: 1/2000  20: 1/5000  21: 1/10000  22: 1/20000 |  | int |  |
| meterArea | Metering area  4: Global  0: Center point  1: Central area |  |  |  |
| gain | Gain | 0-100 |  |  |
| NVR | | | | |
| exposureMode | Exposure Mode  IPC 1: Automatic 2: Manual  NVR 0: Automatic 1: Manual 2: Shutter Priority  3: Aperture Priority | <int> |  |  |
| exposureTime (the lite series)  maxShutter (NVR) | Exposure time/maximum shutter speed (effective in automatic exposure mode and aperture priority)  0 ：1/1， 1：1/2，2：1/5，3：1/10，4：1/12.5，  5: 1/15 , 6 : 1/20 , 7 : 1/25 , 8 : 1/30 , 9 : 1/50 , 10 ： 1/60 ，11： 1/100 ，12： 1/120 ，13： 1/125 ，14 : 1/150 , 15: 1/200 , 16 : 1/250 , 17 : 1/500 , 18 : 1/1000 , 19: 1/2000 , 20: 1/5000 , 1/10000 (NVR is 21, IPC is 24), 1/20000 (NVR is 22, IPC is 25), 23: 1/50000 , 24: 1/100000 , 25: 1/200000 | <int>[0,25] |  |  |
| meterArea | Metering area  0: Center Spot  1: Center Area  4: whole  -1: This configuration is not supported | int{0,1,4} |  |  |
| maxGain | Maximum Gain | <int>[0,100] |  |  |
| iris | aperture  0: fully open  1: auto  -1: This configuration is not supported | int{0,1} |  |  |
| irisSpeed | Aperture speed  -1: This configuration is not supported | int[0,100] |  |  |
| irisOpt  Note: When iris and isisSpeed are -1, it means this option is enabled. This option is turned on when testing the dome camera. | aperture  0: Off  1: F1.0  2: F1.1  3: F1.2  4: F1.3  5 : F1.4  6 : F1.6  7 : F1.7  8 ： F1.8  9 : F2.0​​  10 : F2.2​​  11 : F2.4​​  12 : F2.6  13 : F2.8  1 4：F 3 . 2  15 ：F 3 . 4  16 ：F 3 . 6  17 ：F 4 . 0  18 ：F 4 . 5  19 ：F 4 . 8  20 ：F 5 . 0  21 ：F 5 . 6  22 : F 6 . 3  23 : F 6 .8  2 4：F 7 . 1  25 : F 8 . 0  26 : F 9 . 0  27 : F 9 . 6  28 : F 10 . 0  29 : F 11 . 0  30 ：F1 3 .0  31 ： F1 4.0  32 ： F1 6.0  33 ： F1 8.0  34 ： F1 9.0  35 ： F 20.0  36 ： F 22.0  37 ： F2 5.0  38 ： F2 7.0  39 ： F2 9.0  40 ： F3 2.0  4 1 ：F3 6 .0  4 2 ：F3 8 .0  4 3 ：F 40 .0  4 4 ：F 45 .0  4 5 ：F5 2 .0  4 6 ：F5 4 .0  4 7 ：F5 8 .0  4 8 ：F 6 4.0 | int[0, 48] |  |  |

### Zoom Focus

#### Dome Camera (IPC excluding the lite series)

##### Set Zoom Focus (setZoomFocus)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=set&type=zoomFocus&digitalZoom=<digitalZoom>&focusMode=<focusMode>&focusSensitivity=<focusSensitivity>&leastFocusDistance=<leastFocusDistance>&focusSwitch=<focusSwitch> |
| **Description** | Refer to [the front-end configuration input general parameters](#_前端配置输入通用参数) and [the meaning of zoom and focus parameters.](#_变焦聚焦参数含义) |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi?action=set&type=zoomFocus&digitalZoom=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Get zoom focus (getZoomFocus)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=get&type= zoomFocus |
| **Description** | Refer to [the front-end configuration input general parameters](#_前端配置输入通用参数) and [the meaning of](#_变焦聚焦参数含义) zoom and focus parameters . |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi?action=get&type=zoomFocus |
| **Return** | digitalZoom=0  focusMode=0  focusSensitivity=30  leastFocusDistance=2  focusSwitch=1  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Non-dome camera (IPC/NVR/the lite series)

##### Set Zoom Focus (setZoomFocus)

|  |  |  |
| --- | --- | --- |
| **URL** | IPC | NVR/the lite series |
| http://<servername>/cgi-bin/sensor.cgi?action=set&type= zoomFocus &DNFocusSwitch=<DNFocusSwitch> | http://192.168.2.193/cgi-bin/sensor.cgi?action=set&type= **zoomFocus** &cameraID=<cameraID>[ ] |
| **Description** | Refer to [the front-end configuration input general parameters](#_前端配置输入通用参数) and the meaning of [zoom and focus parameters .](#_变焦聚焦参数含义) | |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi?action=set&type=zoomFocus&schemeID=1&DNFocusSwitch=0 | http://192.168.2.193/cgi-bin/sensor.cgi?action=set&type=zoomFocus&cameraID=1& zoomEnable= 1& zoomOut= 1& zoomIn= 1& farFocus= 1& nearFocus = 1& autoFocus = 1& init= 1& DNenable= 0& focusMode= 1& autoSensitivity= 33& leastDistance= 0 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) | |

##### Get zoom focus (getZoomFocus)

|  |  |  |
| --- | --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=get&type=zoomFocus | |
| **Description** | Refer to [the front-end configuration input general parameters](#_前端配置输入通用参数) and the meaning of [zoom and focus parameters](#_变焦聚焦参数含义) (IPC (The lite series)/NVR needs to carry &cameraID ) | |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi?action=get&type=zoomFocus &cameraID=1 | |
| **Return** | (IPC)  DNFocusSwitch=0  (For other responses, Refer to [General Response](#_通用应答) ) | (NVR/the lite series)  zoomEnable=0  zoomOut=0  zoomIn=0  farFocus=0  nearFocus=0  autoFocus=1  init=-1  DNenable=-1  focusMode=0  autoSensitivity=50  leastDistance=4 |

##### Initialize zoom focus (initZoomFocus) (IPC)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=init&type= zoomFocus |
| **Description** | Refer to [the front-end configuration input general parameters](#_前端配置输入通用参数) and [the meaning of](#_变焦聚焦参数含义) zoom and focus parameters. |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi?action=init&type=zoomFocus |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Auto Focus

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=set&type=zoomFocus&focusOnce=1 |
| **Description** | Refer to [the front-end configuration input general parameters](#_前端配置输入通用参数) and [the meaning of](#_变焦聚焦参数含义) zoom and focus parameters. |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi?action=set&type=zoomFocus&focusOnce=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### ZoomIn

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=set&type=zoomFocus&zoomIN=1&duration=1500 |
| **Description** | Refer to [the front-end configuration input general parameters](#_前端配置输入通用参数) and [the meaning of](#_变焦聚焦参数含义) zoom and focus parameters. |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi?action=set&type=zoomFocus&zoomIN=1&duration=1500 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### ZoomOut

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=set&type=zoomFocus&zoomOut=1&duration=1500 |
| **Description** | Refer to [the front-end configuration input general parameters](#_前端配置输入通用参数) and [the meaning of](#_变焦聚焦参数含义) zoom and focus parameters. |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi?action=set&type=zoomFocus&zoomOut=1&duration=1500 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Near Focus

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=set&type=zoomFocus&nearFocus=1&duration=1500 |
| **Description** | Refer to [the front-end configuration input general parameters](#_前端配置输入通用参数) and [the meaning of](#_变焦聚焦参数含义) zoom and focus parameters. |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi?action=set&type=zoomFocus&nearFocus=1&duration=1500 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Far Focus

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=set&type=zoomFocus&farFocus=1&duration=1500 |
| **Description** | Refer to [the front-end configuration input general parameters](#_前端配置输入通用参数) and [the meaning of](#_变焦聚焦参数含义) zoom and focus parameters. |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi?action=set&type=zoomFocus&farFocus=1&duration=1500 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Zoom focus parameter meaning

Table 2-8-8-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **IPC** | | |
| **digitalZoom** | <int>{0,1} | 0: Disable digital zoom  1: Turn on digital zoom |
| **focusMode** | <int>[0,2] | 0: Auto focus  1: Manual  2: Semi-automatic |
| **focusSensitivity** | <int>[0,100] |  |
| **leastFocusDistance** | <int>[0,6] | 0: Infinity  1: Empty  2:10m  3:6m  4:3m  5:2m  6:1.5m |
| **focusSwitch** | <int>{0,1} | 0: Day/night switch auto focus off  1: Day and night switch auto focus on |
| **DNFocusSwitch** | <int>{0,1} | 0: Day/night switch auto focus off  1: Day and night switch auto focus on |
| duration | <int>[0,3000] | The duration of the action in milliseconds |
| focusOnce | <int>{0,1} | 1: Autofocus once |
| zoomOut | <int>{0,1} | 1: Zoom out |
| zoomIn | <int>{0,1} | 1: Zoom In |
| nearFocus | <int>{0,1} | 1: NearFocus |
| farFocus | <int>{0,1} | 1: Far Focus |
| **NVR/the lite series** | | |
| **zoom E nable​** | <int> | Digital zoom switch  0: Off 1: On |
| **zoomOut​** | <int> | Wide Angle  1: start, 0: end |
| **zoomIn​** | <int> | Longhorn  1: start, 0: end |
| **earFocus​** | <int>[0,1] | A state change from 0 to 1 triggers close focus  1: start, 0: end |
| **farFocus​** | <int>[0,1] | A state change from 0 to 1 triggers far focus  1: start, 0: end |
| **a utoFocus** | <int>[0,1] | A state change from 0 to 1 triggers autofocus |
| **init** | <int>[0,1] | When the state changes from 0 to 1 or from 1 to 0, an initialization is triggered |
| **DN enable** | <int>[0,1] | Toggle focus switch for day and night  0: Off 1: On |
| **focus Mode​** | <int>[0,2] | Focus Mode  0 Automatic 1 Manual 2 Semi-automatic |
| **auto Sensitivity​** | <int>[0,100] | Auto focus sensitivity |
| **least Distance​** | <int>[0,6] | Shortest focusing distance  0 Infinity 2:10 m 3: 6m 4: 3m 5: 2m 6: 1.5m |

Note: The URL marked in red only support some devices. If you want to use ptz related operations, it is recommended to use the PTZ (ptz.cgi) module interface.

### IR Lamp ( IPC excluding the lite series )

#### Get infrared light parameters ( getInfraredLight )

|  |  |
| --- | --- |
| **URL** | : //<servername>/cgi-bin/sensor.cgi?action=get&type=infraredLig ht |
| **Description** | Refer to [the front-end configuration input general parameters](#_前端配置输入通用参数) and [infrared light parameter meanings](#_镜像参数含义（getMirror）) |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi?action=get&type=infraredLight​​ |
| **Return** | mode=1  brigthnessMode=1  far=50  near=50  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Set infrared light parameters (set InfraredLight )

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ sensor.cgi?action=set&type=infraredLight & mode=mode&brigthnessMode=brigthnessMode&far=far&middle=middle&near=near |
| **Description** | Refer to [the front-end configuration input general parameters](#_前端配置输入通用参数) and [infrared light parameter meanings](#_镜像参数含义（getMirror）) |
| **Example** | Example 1: Set all parameters of infrared light  http://192.168.1.121/cgi-bin/sensor.cgi?action=set&type=infraredLight&cameraID=1&mode=1&brigthnessMode=1&far=50&near=50​​  Example 2: Set to turn on the infrared light  http://192.168.1.121/cgi-bin/sensor.cgi?action=set&type=infraredLight&cameraID=1&mode=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Infrared light parameters meaning

Table 2-8-9-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **mode** | <int>{0,1} | Infrared light mode.  0: Off  1: Open |
| **brigthnessMode** | <int>{1,2} | Light Mode  1: Automatic  2: Manual |
| **far** | <int>[0,100] | High beam value |
| **near** | <int>[0,100] | Low beam value |

### SceneMode

#### Get the scene mode (getSceneMode)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi? action=get&type= SceneMode &cameraID=<cameraID> |
| **Description** | Refer to [Sensor Configuration Parameters](#_Sensor Configuration Parameters) and SceneMode Parameters  NVR/the lite series does not need to carry SchemeID |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi?action=get&type= SceneMode &cameraID=1 &schemeID=3 |
| **Return** | Scene =0  CorridorMode = 0  MirrorMode=3  (-1 Indicates not supported, Refer to [General Response](#_General Response) ) |

#### Set the scene mode (setSceneMode)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=set&type=SceneMode&cameraID=<cameraID>[ ] |
| **Description** | Refer to [Sensor Configuration Parameters](#_Sensor Configuration Parameters) and SceneMode Parameters |
| **Example** | http://192.168.0.199/cgi-bin/sensor.cgi?action=set&type=**SceneMode**&cameraID=1&schemeID=3&Scene=0&CorridorMode=0& MirrorMode=3 |
| **Return** | OK  (Refer to [General Response](#_General Response)) |

#### Scene mode parameter meaning

Table 2-8-3-3-1

|  |  |  |
| --- | --- | --- |
| **Parameter​** | **Data​** | **Description​** |
| Scenes | <int> | SceneMode  0: Indoor 1: Outdoor |
| Corridor Mode | <int> | CorridorMode  0: Close 1: Open |
| MirrorMode | <int> | Mirroring (NVR/IPC)  0: Normal  1: Horizontal  2: Vertical  3: Horizontal + Vertical |

### White balance parameters (WBMode)

#### Get white balance (getWBMode)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi? action=get&type=WBMode&cameraID=<cameraID> |
| **Description** | Refer to [Sensor Configuration Parameters](#_Sensor Configuration Parameters) and WBMode Parameters |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi?action=get&type=*WBMode*&cameraID=1 |
| **Return** | wbMode=0 (IPC)/rgbMode(The lite series)  redGain=50  blueGain=50  (-1 Indicates not supported, Refer to [General Response](#_General Response) ) |

#### Set White Balance (setWBMode)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=set&type= WBMode &cameraID=<cameraID>[ ] |
| **Description** | Refer to [Sensor Configuration Parameters](#_Sensor Configuration Parameters) and WBMode Parameters |
| **Example** | http://192.168.0.199/cgi-bin/sensor.cgi?action=set&type= **WBMode** &cameraID=1&wbMode=9&redGain=10&blueGain=20 |
| **Return** | OK  ( Refer to [General Response](#_General Response) ) |

#### Meaning of white balance parameters

Table 2-8-3-3-1

|  |  |  |
| --- | --- | --- |
| **Parameter​** | **Data​** | **Description​** |
| model | <int> | WBMode/ rgbMode  0: Auto 1: Tungsten 2: Fluorescent 3: Daylight 4: Shadow 9: Manual  (Refer to the Return value when obtaining) |
| Red Gain | <int> [0,100] | redGain ( WBMode manual mode active ) 0-100 |
| Blue Gain | <int> [0,100] | blueGain ( WBMode manual mode active ) 0-100 |

### Reset front-end parameters (ResetParameters) (IPC excluding the lite series)

#### Reset front-end parameters (setResetParameters)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=set&type= ResetParameters &cameraID=<cameraID>[ ] |
| **Description** | Refer to [Sensor Configuration Parameters](#_Sensor Configuration Parameters) and ResetParameters Parameters |
| **Example** | http://192.168.0.199/cgi-bin/sensor.cgi?action=set&type= ResetParameters &cameraID=1 |
| **Return** | OK  ( Refer to [General Response](#_General Response) ) |

#### Reset front-end parameter meaning

Table 2-8-3-3-1

|  |  |  |
| --- | --- | --- |
| **Parameter​** | **Data​** | **Description​** |
| Reset front-end parameters | < string > | Reset Parameters |

### Intelligent Tracking Parameters (IPC excluding the lite series)

#### Get smart tracking parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?action=get&type=IntelligentTracking&cameraID=<cameraID> |
| **Description** | Refer to [URL Descriptions](#_多人徘徊检测参数) |
| **Example** | http://192.168.17.189/cgi-bin/param.cgi?action=get&type=IntelligentTracking&cameraID=1 |
| **Return** | enable=1  calibrate=15  magnify=21  duration=56  startPointPresetID=2  trackType=3 |

#### Set Intelligent Tracking Parameters (setIntelligentTracking)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=set&type=IntelligentTracking&cameraID=<cameraID>[ ] |
| **Description** | Refer to [Smart Tracking Configuration to enter common parameters.](#_前端配置输入通用参数) |
| **Example** | http://192.168.0.96/cgi-bin/sensor.cgi?action=set&type=IntelligentTracking&cameraID=1&enable=1&calibrate=15&magnify=21&duration=56&startPointPresetID=3&trackType=3 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Smart Tracking Parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **enable** | switch  0: Off  1: On | 0-1 | int |
| **calibrate** | Calibration coefficient | 1-30 | int |
| **magnify** | Tracking magnification | 1-30 | int |
| **duration** | Duration (seconds) | 1-300 | int |
| **startPointPresetID** | Starting point (preset position ID) |  | int |
| **trackType** | Tracking Type  1: Humanoid  2: Vehicles  3: People or cars |  | int |

### Noise Reduction

#### Get Noise Reduction (getNoiseReduction)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=get&type= NoiseReduction &cameraID=<cameraID> &schemeID= <schemeID> |
| **Description** | Refer to [Sensor Configuration Parameters](#_Sensor Configuration Parameters) and NoiseReduction Parameters |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi?action=get&type=*NoiseReduction*&cameraID=1&schemeID=3 |
| **Return** | 2DNR=1  3DNR=0  2DNRMode=1  3DNRMode=2  2DNRMaxStrength=20  3DNRMaxStrength=66  2DNRFixedStrength=56  3DNRFixedStrength=88  (-1 Indicates not supported,Refer to [General Response](#_General Response)) |

#### Set Noise Reduction (setNoiseReduction)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=set&type=NoiseReduction & cameraID=<cameraID>[ ] &schemeID= <schemeID> |
| **Description** | Refer to [Sensor Configuration Parameters](#_Sensor Configuration Parameters) and NoiseReduction Parameters |
| **Example** | http://192.168.0.199/cgi-bin/sensor.cgi?action=set&type= NoiseReduction &cameraID=1&2DNR=1&3DNR=0&2DNRMode=1&3DNRMode=2&2DNRMaxStrength=20&3DNRMaxStrength=66&2DNRFixedStrength=56&3DNRFixedStrength=88 &schemeID=3 |
| **Return** | OK  ( Refer to [General Response](#_General Response) ) |

#### What are the noise reduction parameters?

Table 2-8-3-3-1

|  |  |  |
| --- | --- | --- |
| **Parameter​** | **Data​** | **Description​** |
| 2DNR | <int> [0,1] | 2DNR  0: close 1: open |
| 3DNR | <int> [0,1] | 3DNR  0: close 1: open |
| 2DNRMode | <int> [1,2] | 2DNRMode  1: Auto 2: Manual |
| 3DNRMode | <int>[1,2] | 3DNRMode  1：Auto 2：Manual |
| 2DNRMaxStrength | <int>[0,100] | 2DNRMaxStrength（2DNR auto mode active）0-100 |
| 3DNRMaxStrength | <int>[0,100] | 3DNRMaxStrength（3DNR auto mode active）0-100 |
| 2DNRFixedStrength | <int>[0,100] | 2DNRFixedStrength（2DNR manual mode active）0-100 |
| 3DNRFixedStrength | <int> [0,100] | 3DNRFixedStrength ( 3DNR manual mode active ) 0-100 |

### Image enhancement parameters (EnhanceImage)

#### Get Enhanced Image (getEnhanceImage)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=get&type= EnhanceImage &cameraID=<cameraID> |
| **Description** | Refer to [Sensor Configuration Parameters](#_Sensor Configuration Parameters) and EnhanceImage Parameters |
| **Example** | http://192.168.1.121/cgi-bin/sensor.cgi? action=get&type= EnhanceImage &cameraID=1 |
| **Return** | WDR=1  WDRvalue=23  HLC=1  HLCvalue=33  BLC=0  BLCvalue=1  AntiShake=1  Defog=0  Defogvalue=88  (-1 Indicates not supported, Refer to [General Response](#_General Response) ) |

#### Set image enhancement (setEnhanceImage)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=set&type= EnhanceImage &cameraID=<cameraID>[ ] |
| **Description** | Refer to [Sensor Configuration Parameters](#_Sensor Configuration Parameters) and EnhanceImage Parameters , Note: WDR, HLC, BLC cannot be enabled at the same time |
| **Example** | http://192.168.0.199/cgi-bin/sensor.cgi?action=set&type=EnhanceImage&cameraID=1&WDR=1&WDRvalue=23&HLC= 0 &HLCvalue=33&BLC=0&BLCvalue=1&AntiShake=1&Defog=0&Defogvalue=88 |
| **Return** | OK  ( Refer to [General Response](#_General Response) ) |

#### Image enhancement parameter meaning

Table 2-8-3-3-1

|  |  |  |
| --- | --- | --- |
| **Parameter​** | **Data** | **Description** |
| WDR | <int>[0,1] | WDR  0：close 1：open |
| HLC | <int>[0,1] | HLC  0：close 1：open  (only BLC close active) |
| BLC | <int>[0,1] | BLC  0：close 1：open  (only HLC close active) |
| AntiShake | <int>[0,1] | 电子防抖  0：关  1：开 |
| Defog | <int>[0,1] | Defog  0：close 1：open |
| WDRvalue | <int>[0,100] | WDRvalue（WDR open active）0-100 |
| HLCvalue | <int>[0,100] | HLCvalue（HLC open active）0-100 |
| BLCvalue | <int>[0,100] | BLCvalue（BLC open active）0-100 |
| Defogvalue | <int> [0,100] | Defog value ( Defog open active ) 0-100 |



### False Color Setting (falseColor) (IPC excluding the lite series)

#### Get pseudo color parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ sensor .cgi?action=get&type= **falseColor** &cameraID=1&schemeID=0 |
| **Description** | Refer to [parameter meaning](#_伪彩参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/sensor.cgi?action=get&type=falseColor&cameraID=1&schemeID=0 |
| **Return** | falseColorModel=5  temperatureBarEnable=2  mixStreamXOffset=91  mixStreamYOffset=92  mixStreamWidthScale=93  mixStreamHeightScale=94  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Set pseudo color parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ sensor .cgi?action=set&type= **falseColor** &cameraID=1&schemeID=0& falseColorModel=5&temperatureBarEnable=2&mixStreamXOffset=91&mixStreamYOffset=92&mixStreamWidthScale=93&mixStreamHeightScale=94 |
| **Description** | Refer to [parameter meaning](#_伪彩参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/sensor.cgi?action=set&type= falseColor&cameraID=1&schemeID=0& falseColorModel=5&temperatureBarEnable=2&mixStreamXOffset=91&mixStreamYOffset=92&mixStreamWidthScale=93&mixStreamHeightScale=94 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Meaning of pseudo color parameters

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **falseColorModel** | <int> | False Color Mode  0: White Hot  1: Black Hot  2: Rainbow  3: Iron Red  4: Amber  5: Bone China  6: Cold  7: Brass  8: Hot  9: Pink  10: Spring Flowers  11: Midsummer  12: Autumn Leaves  13: Midwinter  14: Purple Blue  15: Red Flame  16: Rose |
| **temperatureBarEnable** | <int> | Temperature bar display  1: On  2: Off |
| **mixStreamXOffset** | <int> | Blend X Offset |
| **mixStreamYOffset** | <int> | Blend Y Offset |
| **mixStreamWidthScale** | <int> | Fusion Wide Zoom |
| **mixStreamHeightScale** | <int> | Fusion High Zoom |

### FFC Control (ffcCtrl) (IPC excluding the lite series)

#### Get FFC control parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ sensor .cgi?action=get&type= **ffcCtrl** &cameraID=1&schemeID=0 |
| **Description** | Refer to [parameter meaning](#_FFC控制参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/sensor.cgi?action=get&type=ffcCtrl&cameraID=1&schemeID=0 |
| **Return** | ffcCtrlModel=1  ffcIntervalMinute= 5  ffcIntervalCelsius =2  shutterInitTrigger =1  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Setting FFC control parameters

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ sensor .cgi?action=set&type= **ffcCtrl** &cameraID=1&schemeID=0&ffcCtrlModel=0&ffcIntervalMinute=50&ffcIntervalCelsius=25&shutterAdjustTrigger=1&backgroundAdjustTrigger=1 |
| **Description** | Refer to [parameter meaning](#_伪彩参数含义) |
| **Example** | http://192.168.2.21/cgi-bin/sensor.cgi?action=set&type= ffcCtrl&cameraID=1&schemeID=0&ffcCtrlModel=0&ffcIntervalMinute=50&ffcIntervalCelsius=25&shutterAdjustTrigger=1&backgroundAdjustTrigger=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### FFC control parameter meaning

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **ffcCtrlModel** | <int> | FFC control mode  0: Automatic  1: Manual |
| **ffcIntervalMinute** | <int> | FFC interval (unit: minutes) (5-255) |
| **ffcIntervalCelsius** | <int> | FFC interval (unit: Celsius) (2-255) |
| **shutterAdjustTrigger** | <int> | Shutter Correction  1: Trigger |
| **backgroundAdjustTrigger** | <int> | Background Correction  1: Trigger |

### White balance

#### Get white balance parameters

|  |  |
| --- | --- |
| URL | http://<servername>/cgi-bin/sensor.cgi?action=get&type= **whiteBalance** &cameraID=<cameraID>&schemeID=<schemeID> |
| Description | Refer to [parameter meaning](#_图像参数含义) |
| Example | http://192.168.1.121/cgi-bin/sensor.cgi?action=get&type= **whiteBalance** &cameraID=1&schemeID=0 |
| Return | mode=0  redGain=0  blueGain=0  (-1 means not supported, for other responses, Refer to [General Response](#_通用应答) ) |

#### Set white balance parameters

|  |  |
| --- | --- |
| URL | http://<servername>/cgi-bin/sensor.cgi?action=set&type= **whiteBalance** &cameraID=<cameraID>&schemeID=<schemeID> |
| Description | Refer to [parameter meaning](#_图像参数含义) |
| Example | http://192.168.1.121/cgi-bin/sensor.cgi?action=set&type= **whiteBalance** &cameraID=1&schemeID=0&mode=1&redGain=31&blueGain=58 |
| Return | OK  (-1 means not supported, for other responses, Refer to [General Response](#_通用应答) ) |

#### Meaning of white balance parameters

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| URL | Parameter Description | scope | type of data | Remark |
| schemeID | plan  0: Option 1  1: Option 2  2: Option 3  3: Option 4 | 0-3 | int |  |
| redGain | Red Gain | 0-100 | int |  |
| blueGain | Blue Gain | 0-100 | int |  |

### Red and blue light (IPC excluding the lite series)

#### Get red and blue light parameters

|  |  |
| --- | --- |
| URL | : //<servername>/cgi-bin/sensor.cgi?action=get&type=RedBuleLamp |
| Description | Refer to [parameter meaning](#_红蓝灯参数含义) |
| Example | http://192.168.32.95/cgi-bin/sensor.cgi?action=get&type=RedBlueLamp |
| Return | mode=0  redGain=0  blueGain=0  (-1 means not supported, for other responses, Refer to [General Response](#_通用应答) ) |

#### Set red and blue light parameters

|  |  |
| --- | --- |
| URL | http://<servername>/cgi-bin/sensor.cgi?action=set&type= RedBlueLamp ... |
| Description | Refer to [red and blue lights](#_红蓝灯参数含义) |
| Example | [http://192.168.32.95/cgi-bin/sensor.cgi?action=set&type=RedBlueLamp&RedBlueLampMode=0&RedBlueManualDuration=31&RedBlueFlickerDuration=12](http://192.168.32.95/cgi-bin/sensor.cgi?action=set&type=RedBlueLamp&RedBlueLampMode=0&RedBlueManualDuration=31&RedBlueFlickerDuration=12 &RedBlueFlickerInterval=0 )  [&RedBlueFlickerInterval=0](http://192.168.32.95/cgi-bin/sensor.cgi?action=set&type=RedBlueLamp&RedBlueLampMode=0&RedBlueManualDuration=31&RedBlueFlickerDuration=12 &RedBlueFlickerInterval=0 ) &weekDayCount=2&weekDayBegin=1&weekDay=0&startTime=0&endTime=86400&next\_weekDayURL=2&weekDay=1&startTime=0&endTime=86400&weekDayEnd=2 |
| Return | OK  (-1 means not supported, for other responses, Refer to [General Response](#_通用应答) ) |

#### The meaning of red and blue light parameters

|  |  |  |  |
| --- | --- | --- | --- |
| **URL** | **Parameter Description** | **scope** | **type of data** |
| **RedBuleLampMode** | Consecration  0: Open  1: Off | 0-1 | int |
| **RedBlueManualDuration** | Manual control duration | Unit: s | int |
| **RedBlueFlickerDuration** | Alarm duration | 1s-60s | int |
| **RedBlueFlickerInterval** | Flashing frequency | 0 (low),  1 (medium),  2 (High) | Int​ |
| **weekDayCount** | Number of defenses |  | int |
| **weekDayBegin** | Arming start indicator |  | int |
| **weekDay** | which day | 0-6 | int |
| **startTime** | Arming start time (seconds) |  | int |
| **endTime** | Arming end time (seconds) |  | int |
| **next\_weekDayURL** | Next arming time start mark |  | int |
| **weekDayEnd** | Arming end mark |  | int |



### Front-end configuration parameters (sensorParam) IPC (The lite series)/NVR

#### Reset the front-end configuration parameters to factory settings (resetSensorParam)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/sensor.cgi?action=reset&type=sensorParam&cameraID=<cameraID> |
| **Description** | Refer to the image mode parameter meaning table |
| **Example** | http://192.168.2.193/cgi-bin/sensor.cgi?action=reset&type=sensorParam&cameraID=1 |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Front-end configuration parameter meaning

Front-end configuration parameter table

Table 2-8-1-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| cameraID | <int>[1] | Channel ID |

#### Front-end configuration capability (sensorAbility) (the lite series)

##### Get front-end configuration capabilities (getSensorAbility)

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/sensor.cgi?action=get&type= sensorAbility &cameraID=<cameraID> |
| **Description** | Refer to the meaning of the front-end configuration capability parameters. |
| **Example** | http://192.168.2.193/cgi-bin/sensor.cgi?action=get&type=sensorAbility&cameraID=1 |
| **Return** | maxGainSupport=0  exposureTimeCount=18  exposureTimeBegin=1  exposureTimeSupport\_1=1/5  exposureTimeSupport\_2=1/10  exposureTimeSupport\_3=1/12.5  exposureTimeSupport\_4=1/15  exposureTimeSupport\_5=1/20  exposureTimeSupport\_6=1/25  exposureTimeSupport\_7=1/50  exposureTimeSupport\_8=1/100  exposureTimeSupport\_9=1/125  exposureTimeSupport\_10=1/150  exposureTimeSupport\_11=1/200  exposureTimeSupport\_12=1/250  exposureTimeSupport\_13=1/500  exposureTimeSupport\_14=1/1000  exposureTimeSupport\_15=1/2000  exposureTimeSupport\_16=1/5000  exposureTimeSupport\_17=1/10000  exposureTimeSupport\_18=1/20000  exposureTimeEnd=18  (For other responses, Refer to [General Response](#_通用应答) ) |

##### Front-end configuration capability parameter meaning

Front-end configuration capability parameter **table**

Table 2-8-11-3-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| maxGainSupport | <int>{0,1} | Is the maximum gain supported?  0: Not supported 1: Supported |
| exposureTimeCount | <int>[0,n] | Exposure time capability |
| exposureTimeBegin | <int>{1} | Exposure time capability starts |
| exposureTimeSupport\_N | <string> | Exposure time capability |
| exposureTimeEnd | <int>[1,n] | Exposure time capability ends |

### Front-end configuration input common parameters

In the sensor .cgi program, at least 4 parameters are carried, namely user name **userName,** password **password,** operation type **action** and program subtype type **. (userName and password must be in the first and second positions of the parameter)**

**Front-end configuration general parameter table 2-8-10-1**

Table 2-8-10-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **userName** | <string> | Login machine account |
| **password** | <string> | Password to log in to the machine |
| **action** | <string>{get,set} | get  Set |
| **type** | <string> | For the specific meaning of Type, please refer to the table **Front-end Configuration General Parameters Table 2-8-10-2** |

**Front-end configuration general parameter table 2-8-10-2**

Table 2-8-10-2

|  |  |
| --- | --- |
| **type** | **Description** |
| **schemeID** | Solution ( IPC excluding the lite series/NVR does not need to be brought )  0: Option 1  1: Option 2  2: Option 3  3: Option 4 |
| **brightness** | brightness |
| **brightnessRange** | Brightness range |
| **contrast** | Contrast |
| **contrastRange** | Contrast range |
| **hue** | tone |
| **hueRange** | Tonal Range |
| **saturation** | saturation |
| **saturationRange** | Saturation range |
| **sharpness** | Sharpness |
| **sharpnessRange** | Sharpness range |
| **gamma** | Gamma |
| **gammaRange** | Gamma Range |
| **mirror** | Mirror Status |
| **zoomFocus** | Zoom focus |
| **infraredLight** | Infrared light |

## Real-time audio (audio.cgi) (IPC excluding the lite series) (Other equipment is not yet developed)

### G711, PCM, AMR real-time audio CGI

#### Get G711, PCM, AMR audio stream (HTTP G711, PCM, AMR, AudioStream)

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/audio.cgi?action=recv&cameraID=<cameraID>&streamID=<streamID>&EncoderType=<EncoderType> |
| **Description** | Refer to [Real-time Audio Input Common Parameters](#_实时音频输入通用参数) |
| **Example** | http://192.168.1.121/cgi-bin/audio.cgi?action=recv &cameraID=1&streamID=1&EncoderType= g711\_alaw |
| **Return** | --myboundary  Content-Type: audio/g711\_alaw  Content-Length: <audio size>  < audio data>  …  (For other responses, Refer to [General Response](#_通用应答) ) |

#### Real-time audio input common parameters

In the audio.cgi program, enter at least 4 parameters, namely user name **userName,** password **password,** channel ID **cameraID,** stream ID **streamID. (userName and password must be in the first and second positions of the parameter).**

The following table shows the information corresponding to each string in the general parameters of the audio.cgi program:

**audio.cgi parameter table:**

Table 2-10-1-2-1

|  |  |  |
| --- | --- | --- |
| **parameter** | **data** | **Description** |
| **userName** | <string> | username |
| **password** | <string> | password |
| **action** | <string>{recv,send} | recv receives audio data from the device  sendSend audio data to the device |
| **cameraID** | <int>[1,n] | Channel number, default 1, obtained from device capabilities; |
| **streamID** | <int>[1,n] | Stream ID, the value range is obtained from the device capabilities; |
| **EncoderType** | <string> | Encoding type (case-insensitive).  RAW\_PCM,  G711\_ALAW,  G711\_ULAW,  AAC,  AMR,  G7231,  G722,  G726,  G729 |

### CGI Voice Broadcast Protocol Access Instructions

#### CGI voice sending block diagram.

IPC Device

PC

( 1 ) post

(2) audio data

(3)audio end

1. The PC or platform establishes a link to the IPC device through the standard HTTP protocol POST method .
2. The PC or platform sends pure audio data over the established link ( 1 ), and the IPC plays the data after receiving it.
3. After ( 2 ) the audio data is sent, an end command is sent to inform the IPC device that the data transmission is complete.

#### POST request and audio stream data format

POST /cgi-bin/audio.cgi?action=play&cameraID=1&EncoderType=G711\_ALAW HTTP/1.1

Date: Fri, 31 Dec 1999 22:47:06 GMT

Cache-Control: no-cache

Contact: no-cache

Host:192.168.35.74 // IP address of the device . This is just an Example . Users need to fill it in.

Server: ServerName

Connection: keep\_alive

Content-Length:0

Content-Type:multipart/form-data;boundary= myboundary

// Blank line , must have

<Data>

<Data>

<Data>

-- myboundary --

POST sends audio data in the format of the sample data above. First, construct and send a standard POST request header , where userName=admin and password=admin are the user name and password of the device , which need to be filled in according to the user name and password of the actual device. There are spaces between POST and /cgi-bin/ , and between streamID=1 and HTTP/1.1 , which must be strictly followed.

**Note : When docking an IPC device , the frequency of sending audio data to the IPC device over the network should match the sampling rate of the audio data being sent !**

**For Example:** The audio of G711A is 8000 bytes per second, which can be sent 10 times in 1 second, with 800 bytes sent each time and 100 milliseconds

## Upgrade

### 2.10.1 Upgrade (IPC excluding the lite series)

#### Spatial query before upgrade

|  |  |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/ upgrade.cgi ?action=get&type= UpdateStatus&FlashSpace= < FlashSpace > |
| **Description** | FlashSpac indicates the upgrade package size in M |
| **Example** | [http://192.168.0.188/cgi-bin/upgrade.cgi?action=get&type=UpdateStatus&FlashSpace=26](http://192.168.0.188/cgi-bin/upgrade.cgi?userName=admin&password=admin&action=get&type=UpdateStatus&FlashSpace=26) |
| **Return** | If OK is Returned, it means there is enough space. |

#### Equipment upgrade (IPC)

##### ask

|  |  |  |
| --- | --- | --- |
| **URL** | http://<servername>/cgi-bin/param .cgi ?userName=<username>&password=<password >  &type= **UpdateData** | |
| **Connection** | keep-alive | |
| **Content-Type** | multipart/form-data | |
| **parameter** | **parameter name** | **meaning** |
| uploadState | Upload Status  0: Send file  1: Sending completed (device will restart) |
| file | a  The maximum length of each upload is 10KB |

##### response

|  |  |
| --- | --- |
| **Return** | OK  (For other responses, Refer to [General Response](#_通用应答) ) |

### Upgrade (IPC lite series / NVR )

#### Upgrade setting parameters ( UpdateStatus )

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=set&type= UpdateStatus |
| **Description** | Send channel number and file size Kb After the upgrade, the space size Returns OK and port number normally |
| **Example** | http://192.168.2.193/cgi-bin/param.cgi? action=set&type= UpdateStatus & channel\_id=0&FlashSpace= 89789872 |
| **Return** | OK prot: 32768 |
| **Example 2:** | Description: NVR upgrade multiple devices |
|  | 1.http://192.168.2.193/cgi-bin/param.cgi? action=set&type= UpdateStatus & channel\_num = 2 & FlashSpace = 89789872  Return OK port:32768  2.http://192.168.2.193/cgi-bin/param.cgi? action=set&type= UpdateIPC & channel 1=1& channel 2=2 |
| **Return** | Ok​ |

#### UpdateOver​​

|  |  |
| --- | --- |
| **URL** | http://192.168.2.193/cgi-bin/param.cgi?action=set&type= UpdateOver |
| **Description** | The file data is sent and the device is informed that it has ended. |
| **Example** | http://192.168.2.193/cgi-bin/param.cgi? action=set&type= UpdateOver |
| **Return** | Ok​ |

#### UpdateData​​

|  |  |  |
| --- | --- | --- |
| **URL** | **http** : // <servername>/cgi-bin/param.cgi?type=UpdateData | |
| **Connection** | keep-alive | |
| **Content-Type** | multipart/form-data | |
| **parameter** | **parameter name** | **meaning** |
| file | a  The maximum length of each upload is 50KB |

### CGI Upgrade Protocol Access Instructions

#### CGI upgrade sending block diagram.

IPC device

PC

(1) get

(2) Update data

1. The PC or platform establishes a link to the IPC device through the standard HTTP protocol get method .
2. The PC or platform sends the upgrade package data over the established link (1), and the IPC performs the upgrade after receiving the data.
3. After (2) the upgrade data is sent, an end command is sent to inform the IPC device that the data sending is complete.

Call before upgrading

[http://192.168.0.188/cgi-bin/upgrade.cgi?action=get&type=UpdateStatus&FlashSpace=26](http://192.168.0.188/cgi-bin/upgrade.cgi?userName=admin&password=admin&action=get&type=UpdateStatus&FlashSpace=26)

You need to check whether the device space is sufficient. If it Returns OK, it means there is enough space ( FlashSpace=26 means the upgrade package size in M)

#### Get request and upgrade package data format

GET /cgi-bin/ upgrade .cgi?action= update&type=UpdateData&UpdateData=data HTTP/1.1

Date: Fri, 31 Dec 1999 22:47:06 GMT

Cache-Control: no-cache

Contact: no-cache

Host:192.168.0.188 // IP address of the device . This is just an Example . Users need to fill it in.

Server: ServerName

Connection: keep\_alive

Content-Length:0

Content-Type:multipart/form-data;boundary= myboundary

// Blank line, must have

<Data>

<Data>

<Data>

The size of the data sent each time cannot exceed 10\*1024. Wait 100 milliseconds for each send.

Called after sending the upgrade package

[**http://192.168.0.188/cgi-bin/upgrade.cgi?action=get&type=UpdateOver**](http://192.168.0.188/cgi-bin/upgrade.cgi?userName=admin&password=admin&action=get&type=UpdateOver)

# CGI group text rules, common errors, disk status description

## ­­Group text rules

The specific Returned plain text, image data body and URL address are determined by different access requests:

1. Some operation requests need to Return image data bodies, such as snapshots and video streams under the HTTP protocol.

2. Device configuration, device operation and other related requests generally Return plain text.

3. Under the RTSP protocol, all relevant command requests Return URL addresses.

4. Alarm information and other related requests generally Return plain text. When requesting in attach mode, a plain list will be obtained.

**IO alarm list:**

Among them, the arguments involving lists are as follows:

|  |  |
| --- | --- |
| **planning time** | Action: scheduleTimeAction  Begin: weekDayBegin  Flag: next\_weekDayURL  End weekDayEnd |
| **Example** | &scheduleTimeAction=<action>  &weekDayBegin=1  &weekDay=1  &startTime1=<startTime1>  &endTime1=<endTime1>  …  &startTime3=<startTime3>  &endTime3=<endTime3>  &next\_weekDayURL=1  …  next\_weekDayURL=6  &weekDay=7  &startTime1=<startTime1>  &endTime1=<endTime1>  …  &startTime3=<startTime3>  &endTime3=<endTime3>  &weekDayEnd=n |

|  |  |
| --- | --- |
| **Alarm PTZ event** | Count: alarmPTZActionCount  Begin: alarmPTZActionBegin  Flag: next\_PTZAcitonURL  End: alarmPTZActionEnd |
| **Example** | &scheduleTimeAction=<action>  &weekDayBegin=1  &weekDay=1  &startTime1=<startTime1>  &endTime1=<endTime1>  …  &startTime3=<startTime3>  &endTime3=<endTime3>  &next\_weekDayURL=1  …  next\_weekDayURL=6  &weekDay=7  &startTime1=<startTime1>  &endTime1=<endTime1>  …  &startTime3=<startTime3>  &endTime3=<endTime3>  &weekDayEnd=n |

|  |  |
| --- | --- |
| **Linkage list** | Count: AlarmLinkageCount  Begin: AlarmLinkageBegin  Flag: next\_AlarmLinkageURL  End: AlarmLinkageEnd |
| **Example** | AlarmLinkageParam=<AlarmLinkageParam>  &AlarmLinkageBegin  &ActionID=<ActionID(1)>  &ActionType=<ActionType(1)>  &next\_AlarmLinkageURL=2  …  next\_AlarmLinkageURL=n  &ActionID=<ActionID(n)>  &ActionType=<ActionType(n)>  &AlarmLinkageEnd=n  (For other responses, Refer to [General Response](#_通用应答) ) |

**Modify the license plate black and white list:**

Among them, the arguments involving lists are as follows:

|  |  |
| --- | --- |
| **License plate information** | Begin: PlateParamBegin  Flag: NextUrl  End: PlateParamEnd |
| **Example** | & OldListBegin=1  &PlateParamBegin=1  &PlateText=< PlateText(1)>  &Type=<Type(1)>  &StartTime=< StartTime(1)>  &EndTime= <EndTime(1)>  &NextUrl=2  *……*  &NextUrl *=n*  &PlateText=< PlateText(n+1)>  &Type=<Type(n+1)>  &StartTime=< StartTime(n+1)>  &EndTime= <EndTime(n+1)>  &PlateParamEnd=n  &OldListEnd=1  &NewListBegin=1  &PlateParamBegin=1  &LprPlateText=< LprPlateText(1)>  &Type=<Type(1)>  &StartTime=< StartTime(1)>  &EndTime= <EndTime(1)>  &NextUrl=2  …  &NextUrl *=n*  &LprPlateText=< LprPlateText(n+1)>  &Type=< Type(n+1)>  &StartTime=< StartTime(n+1)>  &EndTime= <EndTime(n+1)>  &PlateParamEnd=n  &NewListEnd=1 |

## Error constants

General Errors

|  |  |
| --- | --- |
| **Error Number** | **describe** |
| -2 | Not enough memory available |
| -3 | Use of invalid handle |
| -4 | A NULL pointer was used |
| -5 | Invalid function call. |
| -6 | System environment error. |
| -7 | Format error White loading program. |
| -8 | Wrong parameters when loading the program. |
| -9 | The device or data is not ready. |
| -10 | The data length is incorrect. |
| -11 | The thread is already running. |
| -12 | Thread start failed |
| -13 | The queue is full. |
| -14 | The queue is empty |
| -15 | System timeout |
| -16 | not found |
| -17 | No SSL encryption required |
| -18 | SSL encryption required |
| -19 | ssl accpect timeout |
| -20 | ssl connect timeout |
| -twenty one | Cgi main program name error |
| -twenty two | Cgi subtype does not exist |
| -twenty three | Cgi parameter error |



### I/O Errors

This type of error mainly defines errors that occur during disk operations, such as disk access, file and path non-existence, serial port access, and audio device access.

|  |  |
| --- | --- |
| **Error Number** | **describe** |
| -101 | file does not exist |
| -102 | The file path does not exist |
| -103 | Error opening disk |
| -104 | Error reading disk |
| -105 | Error writing to disk |
| -106 | Error in Refer toking file position |
| -107 | Reading and writing disk to the end |
| -108 | Insufficient disk space or the disk is full |
| -109 | Disk does not exist |
| -110 | Disk write protection |
| -112 | Disk is not formatted |
| -113 | Disk Error |
| -150 | An error occurred White opening the serial port. |
| -151 | An error occurred White reading serial port (com) data |
| -152 | An error occurred White writing data to the serial port. |



### Network Error

Network errors are mainly defined for errors that occur during network transmission, including Socket transmission errors and packet assembly and unpacking errors.

|  |  |
| --- | --- |
| **Error Number** | **describe** |
| -201 | The network socket was not created |
| -202 | The network socket could not be created |
| -203 | Unable to bind (BIND) to the specified IP address and port, binding failed |
| -204 | Unable to connect to the specified IP address and port. Failed to connect to the server. |
| -205 | Timeout White connecting to the server |
| -206 | Unable to listen to the specified IP address and port. Listening failed. |
| -207 | Unable to accept the client's connection request. Failed to accept the connection. |
| -208 | Timeout when accepting the client's connection request |
| -209 | The network link has been disconnected |
| -210 | Network SOCKET sending failed |
| -211 | Timeout when sending data |
| -212 | An error occurred White receiving data |
| -213 | Timeout when receiving data |
| -214 | An error occurred White getting the socketaddr address. |
| -215 | An error occurred White getting the network socket option parameter. |
| -216 | Failed to obtain network socket option configuration |
| -217 | The network protocol used is not supported |
| -218 | The port is already occupied |
| -230 | Unable to create data package. Failed to create data package. |
| -231 | An error occurred White parsing the packet header. Packet header error |
| -232 | Unable to create data packet header. Failed to create data packet header. |
| -233 | An error occurred White analyzing the packet payload. The payload data is incorrect. |
| -234 | Unable to create packet payload data, error creating packet payload data |
| -235 | An error occurred White parsing the RPT packet extension URL. The RTP packet header is incorrect. |
| -236 | Communication compression failed |

### Database Error

This type of error mainly defines errors that occur when performing database operations, such as database opening, closing, transaction operations, adding, deleting, and modifying.

|  |  |
| --- | --- |
| **Error Number** | **describe** |
| -301 | An error occurred White opening the database. Access to the database failed. |
| -302 | An error occurred White closing the database |
| -303 | An error occurred White starting a database transaction |
| -304 | An error occurred White executing the database transaction rollback operation, and the database transaction operation failed. |
| -305 | An error occurred White executing the database transaction commit operation, and the database transaction operation failed. |
| -306 | An error occurred White executing the database insert operation and data insertion failed. |
| -307 | An error occurred White executing the database delete operation and data deletion failed. |
| -308 | An error occurred White executing the database update operation, and the data update failed. |
| -309 | An error occurred White executing the database query (select) operation, and the data query failed. |
| -310 | Database query condition error |
| -311 | The query result is empty. |

### Command Error

This type of error mainly defines the communication command errors that occur when communicating with network video devices, such as: command parsing failure, command load error, command version error, etc.

|  |  |
| --- | --- |
| **Error Number** | **describe** |
| -401 | Unknown command, |
| -402 | Command header parsing error. |
| -403 | Error creating command header. |
| -404 | Command payload parsing error. |
| -405 | Command payload creation error |
| -406 | The command version number is incorrect. |

### Business application error

This type of error mainly defines the errors that may occur when the application interacts with the network video device, such as: incorrect login username, incorrect login password, etc.

|  |  |
| --- | --- |
| **Error Number** | **describe** |
| -501 | The response received was not the one expected |
| -502 | Remote device processing data error |
| -503 | The device is not turned on |
| -504 | Device open failed |
| -505 | The device is occupied |
| -506 | Device not supported |
| -507 | Wrong login username. |
| -508 | The login password is incorrect. |
| -509 | ADSL network dial-up failed. |
| -510 | The serial port is exclusively used |
| -511 | The maximum number of connections has been reached |
| -512 | Insufficient permissions |
| -513 | Device not configured |
| -514 | The disk is in use and cannot be formatted |
| -515 | The logged-in user is locked |
| -517 | Duplicate logins |
| -518 | Insufficient equipment capacity |
| -519 | The verification code is incorrect |
| -520 | The number of users has reached its maximum |
| -521 | The user already exists |
| -522 | A permission group already exists |
| -523 | The password strength level is not enough |
| -524 | The password is not long enough |
| -525 | The username is not long enough |
| -526 | The username level is not enough |
| -527 | The user has entered the wrong password too many times and has been locked out |
| -528 | You need to create a login password |
| -529 | There is no need to create a login password |
| -530 | The password length exceeds the specified length |
| -531 | The username is longer than the specified length |
| -532 | You need to create an admin user to log in |
| -550 | The video session has been closed |
| -551 | The video chat thread has been closed |
| -552 | Failed to create Directshow video component. |
| -553 | Failed to create Directshow video component. |
| -555 | Insufficient decoding capabilities |
| -556 | Unsupported encoding types |
| -601 | The audio session has been closed. |
| -602 | The audio session thread has been closed. |
| -603 | Failed to create DirectShow audio component. |
| -604 | Operation of DirectShow audio component failed. |
| -605 | Failed to initialize the DirectDraw component. |
| -606 | Failed to initialize decoder. |
| -607 | Decoding failed. |
| -650 | The OSD line is out of bounds |
| -651 | The number of OSD characters is out of bounds |
| -652 | ONVIF error |
| -661 | Invalid arguments |
| -662 | Failed to save parameters |
| -663 | Parameter encryption failed |
| -664 | Parameter decryption failed |
| -665 | The output size is too small |
| -666 | The file already exists |
| -667 | The file does not exist |

## ­3.3 Disk Status Constants

|  |  |  |
| --- | --- | --- |
| **Macro** | **value** | **describe** |
| DISKSTATUS\_TIME\_OUT | -1, | Write file timeout |
| DISKSTATUS\_NOT\_RECOGNIZE | 0 | Device status not reported |
| DISKSTATUS\_OK | 1 | normal status­ |
| DISKSTATUS\_ERROR | 2 | Abnormal state |
| DISKSTATUS\_SD\_NOT\_EXISTENT | 3 | sd card does not exist |
| DISKSTATUS\_WRITE\_PROTECT | 4 | Disk write protection |
| DISKSTATUS\_NOT\_FORMAT | 5 | Disk is not formatted |
| DISKSTATUS\_FORMATTING | 6 | The disk is being formatted |
| DISKSTATUS\_HD\_NOT\_EXISTENT | 7 | Disk does not exist |
| DISKSTATUS\_HD\_SLEEP | 8 | Disk Hibernation |
| DISKSTATUS\_CONNECT\_FAILED | 9 | Connection failed |
| DISKSTATUS\_NAS\_NOT\_EXISTENT | 10 | NAS does not exist |
| DISKSTATUS\_NOT\_EXISTENT | 11 | NAS disk does not exist |
| DISKSTATUS\_NO\_PARTITION | 12 | Disk is not partitioned |
| DISKSTATUS\_DISCONNECT\_DEVICE | 13, | Disk not connected |
| DISKSTATUS\_DISK\_ISREPAIRING | 14 | Hard drive repairing |
| DISKSTATUS\_DISK\_REMOVED | 15 | Hard Drive Removed |
| DISKSTATUS\_WAIT\_FROMAT | 16 | Prepare to format |
| DISKSTATUS\_DISK\_ISREMOVING | 17 | Removing the hard drive |
| DISKSTATUS\_FORMAT\_SUCCEED | 18 | Format successfully |
| DISKSTATUS\_FORMAT\_FAILED | 19 | Format failed |
| DISKSTATUS\_WAIT\_REPAIR | 20 | Waiting for a fix |
| DISKSTATUS\_REPAIR\_SUCCEED | twenty one | Repair Success |
| DISKSTATUS\_REPAIR\_FAILED | twenty two | Repair failed |
| DISKSTATUS\_HD\_EXISTENT | twenty three | Disk storage |
| DISKSTATUS\_PYSICAL\_ERROR | twenty four | Disk physical failure |

# appendix

## System log type

### Main Type

|  |  |
| --- | --- |
| **Value (hexadecimal)** | **Description** |
| 0x2 | Exception log |
| 0x3 | Operation log |
| 0x4 | Operation Log v2 |

### Subtype

|  |  |
| --- | --- |
| **Value (hexadecimal)** | **Description** |
| 0x01 | User Management |
| 0x02 | system maintenance |
| 0x03 | Device Configuration |
| 0x04 | Video recording operation |
| 0x05 | Audio and video control |
| 0x06 | Audio and video on demand |
| 0x07 | Web access mode and SSL encryption configuration |
| 0x11 | NVR User Management |
| 0x12 | NVR Configuration |
| 0x13 | NVR Channel Management |
| 0x14 | Video recording operation |
| 0x15 | Audio and Video |
| 0x21 | Signal loss |
| 0x22 | Unauthorized access |
| 0x23 | Disk Full |
| 0x24 | Disk Error |
| 0x25 | MODEM disconnected |
| 0x26 | IP address conflicts |
| 0x27 | Disk does not exist |
| 0x28 | Disk write protection |
| 0x29 | Disk is not formatted |
| 0x30 | Alarm recording disk full |
| 0x31 | Scheduled recording disk is full |
| 0x32 | 7\*24 recording disk full |
| 0x41 | Power on |
| 0x42 | Shutdown |
| 0x43 | Illegal shutdown |
| 0x50 | Local login |
| 0x51 | Local logout |
| 0x52 | Local Configuration Parameters |
| 0x53 | Local playback by file |
| 0x54 | Local playback by time |
| 0x55 | Start recording locally |
| 0x56 | Stop local recording |
| 0x57 | Local PTZ control |
| 0x58 | Local PreRefer to |
| 0x59 | Local modification time |
| 0x5a | Local upgrade |
| 0x5b | Local backup files |
| 0x70 | Remote login |
| 0x71 | Remote Logout |
| 0x72 | Remotely start recording |
| 0x73 | Remotely stop recording |
| 0x74 | Start transparent transmission |
| 0x75 | Stop transparent transmission |
| 0x76 | Remotely obtain parameters |
| 0x77 | Remote Configuration Parameters |
| 0x78 | Remotely obtain status |
| 0x79 | Remote Arming |
| 0x7a | Remote disarming |
| 0x7b | Remote Reboot |
| 0x7c | Start voice intercom |
| 0x7d | Stop voice intercom |
| 0x7e | Remote upgrade |
| 0x7f | Remote playback by file |
| 0x80 | Remote playback by time |
| 0x81 | Remote PTZ control |
| 0x82 | Remotely start live video |
| 0x83 | Remotely stop live video |
| 0x84 | Remotely start live audio |
| 0x85 | Stop live audio remotely |
| 0x86 | Device storage format (SD card format) |

## Alarm log type

### Main Type

|  |  |
| --- | --- |
| **value** | **Description** |
| 1 | Security Alarm |
| 4 | Disk alarm |
| 5 | Video alarm |
| 6 | Intelligent analysis alarm |
| 7 | Temperature detection alarm |
| 9 | Intelligent analysis extends 1 alarms |

### Subtype

#### Security Alarm Subtype

|  |  |
| --- | --- |
| **value** | **Description** |
| 1 | I/O Alarm |
| 2 | Motion detection alarm |
| 3 | Camera blocking alarm |
| 4 | Video loss alarm |
| 5 | Network disconnection alarm |
| 9 | PIR Alarm |
| 10 | NVR channel I/O alarm |
| 11 | Day and night switching alarm |
| 12 | Audio anomaly report alarm |

#### Disk Alert Subtype

|  |  |
| --- | --- |
| **value** | **Description** |
| 1 | Disk status is normal |
| 2 | Disk read and write abnormality |
| 3 | Network disk connection failed |
| 4 | Disk Full |
| 5 | Disk does not exist |
| 6 | The disk space has reached the specified threshold. |
| 7 | Disk is not formatted |
| 8 | Insufficient device storage space |
| 9 | The data version is too low |
| 10 | Data version is too high |
| 11 | Disk access capability mismatch |

#### Video Alarm Subtype

|  |  |
| --- | --- |
| **value** | **Description** |
| 1 | Data source connection successful |
| 2 | The data source connection username and password is incorrect. |
| 3 | The data source connection does not have permission |
| 4 | The data source connection has reached the maximum number of connections |
| 5 | The data source has reached the maximum rate limit |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 | Storage failed |
| 10 | Start recording |
| 11 | Stop recording |
| 12 |  |
| 13 |  |
| 14 |  |
| 15 |  |

#### Smart Analysis Alarm Subtype

|  |  |
| --- | --- |
| **value** | **Description** |
| twenty one | Intelligent analysis tripwire detection alarm |
| twenty two | Intelligent analysis of mobile detection alarm |
| twenty three | Intelligent analysis and occlusion detection alarm |
| twenty four | Intelligent analysis of perimeter intrusion alarm |
| 25 | Intelligent analysis of double tripwire alarm |
| 26 | Intelligent analysis of wandering alarm |
| 27 | Intelligent analysis of multiple people wandering alarm |
| 28 | Intelligent analysis of item left behind alarm |
| 29 | Intelligent analysis of item removal alarm |
| 30 | Intelligent analysis of abnormal speed alarm |
| 31 | Intelligent analysis and reverse alarm |
| 32 | Intelligent analysis of illegal parking alarm |
| 33 | Intelligent analysis of camera displacement alarm |
| 34 | Intelligent analysis of video signal abnormality alarm |
| 35 |  |
| 37 | License plate recognition alarm |

#### Intelligent analysis extends 1 alarm subtype

|  |  |
| --- | --- |
| **value** | **Description** |
| 52 | Intelligent Analysis: smart Motion Detection Alarm |
| 55 | Intelligent Analysis: Safety Hat Alarm |
| 58 | Intelligent Analysis: Safety Vest Alarm |

#### Temperature detection alarm subtype

|  |  |
| --- | --- |
| **value** | **Description** |
| 0 | Temperature threshold warning |
| 1 | Temperature threshold alarm |
| 4 | Temperature difference warning |
| 5 | Temperature difference alarm |
| 6 | Face high temperature alarm |
| 7 | Temperature range alarm |
| 8 | Face alarm |
| 9 | Humanoid alarm |
| 10 | Vehicle alarm |
| 11 | Face low temperature alarm |
| 12 | Normal face temperature alarm |
| 13 | Temperature rise warning |
| 14 | Temperature rise alarm |
| 15 | Blackbody abnormality alarm |
| 16 | Intelligent analysis: smoking detection alarm |
| 17 | Intelligent analysis: smoke and flame detection alarm |
| 18 | Intelligent analysis: smoking spot detection alarm |