CGI

Updating Log

Date	Updated Contents
20160317	Add EncoderType field in request stream command via HTTP
20160317	Add specification of the constant EncoderType in stream configuration
20160322	Add specification of validity of username and password
20160615	Update the description of arrowID field in OSDCanvas
20161201	Add AudioFlag flag in request stream command via HTTP
20161216	Update PTZ service which fisheye device supported
20170221	1.Update description of Alarm state value in Table 3.7.1（3） 2.Modify url sample in 2.6.4.1.3 Delete Speed field in 2.5.8.1
20170309	Add Manual Alarm Output Control function in 2.4.3.2
20170519	Add getting Real-time audio function in 2.10
20170711	1. Add and OSDBlinkFlag and OSDBlinkInterval field in the OSDCanvas in 2.6.2.9.1； 2. Change the method for setting OSD Canvas (setOSDCanvas). Before only support one canvas at a time, after changing support set many canvas by loop, in each canvas support set many OSDInfo by loop.
20170718	Change the URL of the PTZ function in 2.5
20170818	Change the filed of alarm status and description of the Manual Alarm(manualAlarm) in 2.4.3.1
20171016	Add configuration and search function for LPR camera
20171107	Add fisheye dewarp parameters and support setting mount type
20180621	Add thermal camera CGI commands
20180627	Add commands for 3D Position function

20180918	Update OSDCanvas function description, Complete 3D Position description, Add disk status comments
20181215	Add modify user function and add new user function
20181228	Add zoom and focus function
20201218	Add format function

Contents

1 CGI Introduction

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.

1.1 Main CGI module Introduction

Table 1-1

Module name	Description
video.cgi	Live video
record.cgi	Record
image.cgi	Snapshot
alarm.cgi	Alarm
ptz.cgi	PTZ
param.cgi	Get and set parameters of device
operate.cgi	Device operation, for example: reset, reboot
sensor.cgi	Sensor setting
audio.cgi	Real-time audio

1.2 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.

1.3 Access to CGI

CGI program supports URL access and form access. The CGI program is different depends on the URL that client visited. Client must guarantee that the URL is the same as the corresponding

parameter in the CGI program that about to access by form. Encoding format of URL should be GB2312 or UTF-8, other format may cause an exception.

Ps: In the next two example of access to CGI, the IP of the device under test is 192.168.10.54, and the username and password is 'admin' and 'admin'.

1.3.1   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>
```

1.3.2   Sample of URL Access to CGI

Example code:

```
http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action
=get&type= deviceInfo
```

1.4   Responses of CGI

CGI has several kinds of responses: General responses, plain Text, String Text, image Data and URL string, MJPEG Stream Data, Alarm Data, which depends on the kind of operation.

1.4.1 General Response

Successful：

```
HTTP Code: 200 OK

Content-Type: text/plain

OK
```

Unsuccessful：

```
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 **3.2 Error Constant**

1.4.2   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.

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**

1.4.3   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.

Example:

```
HTTP Code: 200 OK

Content-Type: text/plain

Content-Length: < body size>

< message>
```

1.4.4   Image Data

The snapshot data is returned by format image, the specific format of the data body   includes HTTP Code, Content-Type of image, Content-Length and body.

Example：

```
HTTP Code: 200 OK

Content-Type: image/jpeg

Content-Length: <image size>

< image data>
```

1.4.5   URL String

The RTSP access address is returned by format URL string, The specific format of this string includes protocol type, IP address and port, encryption

Example：

rtsp://192.168.250.27:554/snl/live/1/1/Ux/sido=-Ux/sido=

1.4.6   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>
```

1.4.7   MJPEG Stream Data

The MJPEG stream data is returned when request MJPEG 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: image/jpeg

Content-Length: <image size>

< image data>

……

--myboundary

HTTP Code: 200 OK
```

```
Content-Type: image/jpeg

Content-Length: <image size>

< image data>
```

1.4.8   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>
```

2 CGI Commands

2.1 Live Video Streaming（video.cgi）

Live video stream supports RTSP and HTTP, according to [RFC 2326]. The RTSP method returns the URL of the RTSP, and the HTTP method returns the video data.

2.1.1 H.264,H.265,MJPEG Live Video Streaming

2.1.1.1 Get the RTSP URL (RTSP method)

RTSP mode, if the device firmware supports RTSP, obtain the RTSP URL through CGI, and then use this URL to get RTSP live video.

URL	http://<servername>/cgi-bin/video.cgi?userName=<userName>&password=<password>&type=RTSP&cameraID=<cameraID>&streamID=<streamID>EncoderType=<EncoderType>
Description	Refer to General Parameters for Live Video Streaming
Example	*HTTP://192.168.1.121/cgi-bin/video.cgi?userName=admin&password=admin&type=RTSP&cameraID=1&streamID=1&EncoderType=H264*
Return	rtsp://192.168. 1.121:554/snl/live/1/1/Ux/sido=-Ux/sido= (Others refer to the General Response)

2.1.1.2 Get Live Video Stream via HTTP（HTTP method）

URL	http://<servername>/cgi-bin/video.cgi?userName=<userName>&password=<password>&type=HTTP&cameraID=<cameraID>&streamID=<streamID>&EncoderType=<EncoderType>& AudioFlag =< AudioFlag >
Description	Refer to General Parameters for Live Video Streaming
Example	*HTTP://192.168.1.121/cgi-bin/video.cgi?userName=admin&password=admin&type=HTTP&cameraID=1&streamID=1&EncoderType=H264*
Return	--myboundary

	Content-Type: video/h264
	Content-Length: 139936
	….
	--myboundary
	Content-Type: video/h264
	Content-Length: 25789
	….
	(Others refer to the General Response)

2.1.2 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 field**.**

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 Type	Description
userName	<string>	User name
password	<string>	Password
type	<string>{RTSP,HTTP}	RTSP: RTSP stream HTTP:HTTP stream Field case-insensitive
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
EncoderType	<string>{H265,H264,MJPE	H265:H265 encode type stream

	G}	H264:H264encode type stream
		MJPEG: MJPEGencode type stream
		Field case-insensitive
AudioFlag	\<int\>0,1	When request video：
		0: Without audio;
		1: With audio；
		Note: Only used via HTTP, default as 1 when omitted

2.2 Recording (record.cgi)

2.2.1 Recording Query (IPC / NVR)

URL	http://\<servername\>/cgi-bin/record.cgi?userName=\<username\>&password=\<password\>&action=query&cameraID=\<cameraID\>&startTime=\<startTime\>&endTime=\<endTime\>
Description	Refer to <u>Recording Parameters</u>
Example	*HTTP://192.168.1.121/cgi-bin/record.cgi?userName=admin&password=admin&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 <u>General Response</u>)

2.2.2 Marked Recording Query（NVR）

URL	http://\<servername\>/cgi-bin/record.cgi?userName=\<username\>&password=\<password\>&action=query&type=bookmarkRecord&cameraID=\<cameraID\>&startTime=\<startTime\>&endTime=\<endTime\>
Description	Refer to Recording Parameters
Example	*http://192.168.1.121/cgi-bin/record.cgi?userName=admin&password=admin&action=query&type=bookmarkRecord&cameraID=1&startTime=20180912170410&endTime=20180912170450*
Return	resultCount=2 resultBegin=1 startTime=20180912170410 endTime=201809121704215 dataLength=1554168 resultNext = 2 startTime=20180912170430 endTime=20180912170435 dataLenth=1553268 resultEnd=1 (Others refer to the General Response)

2.2.3 Recording Playback(recordPlayback)

URL	http://\<servername\>/cgi-bin/record.cgi?userName=\<username\>&password=\<password\>&action=playBack&startTime=\<startTime\>&endTime=\<endTime\>
Description	Refer to Recording Parameters
Example	*http://192.168.1.121/cgi-bin/record.cgi?userName=admin&password=admin&action=playBack&cameraID=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)

2.2.4 Recording Parameters

Explanation of parameters refer to Recording Parameters,

Recording Parameters

Table 2-2-4

Parameter	Data Type	Description
userName	<string>	User name
password	<string>	Password
action	<string>	query：Query Recording playBack：Replay Recording download：Download Recording
cameraID	<int>[1,n]	ID of the device channel
startTime	<string>	Beginning time of recording, formatted as (YYYYMMDDHHMMSS) PS: least value must be greater than 1971010101000000
endTime	<string>	End time of recording, formatted as (YYYYMMDDHHMMSS) PS: least value must be greater than 1971010101000000
dataLenth	<unsigned long>[0,n]	Length of recording data

1

resultCount	<int>[1,n]	Query the sum of time segments of recording (If archive not exist, return resultCount=0)
resultBegin	<unsigned long>{1}	The start flag of the recording period
resultNext	<int>[2,n]	The start flag of the next recording period
resultEnd	<unsigned long>[1,n]	The end flag of the recording period

2.3 Snapshot(image.cgi）

2.3.1 Get Snapshot Image (IPC / NVR)

URL	http://<servername>/cgi-bin/image.cgi?userName=<username>&password=<password>&cameraID=<cameraID>&quality=<quality>
Description	Refer to Snapshot Parameters
Example	*http://192.168.1.121/cgi-bin/image.cgi?userName=admin&password=admin&cameraID=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 … (Others refer to the General Response)

2.3.2 Snapshot Parameters

Snapshot Parameters：

Table 2-3-1

Parameter	Data Type	Description
cameraID	\<int\>[1,n]	ID of the device channel
quality	\<int\>[1,9]	Image quality：Range: 1-9, (1 is worst, 9 is best) Mandatory

2.4 Alarm Information（alarm.cgi）

2.4.1 Alarm Status（alarmStatus）

2.4.1.1 Get Current Alarm Status（get CurrentAlarmStatus）

URL	http://\<servername\>/cgi-bin/alarm.cgi?userName=\<username\>&password=\<password\>&action=get&type=currentAlarmStatus
Description	Refer to Alarm Information Parameters
Example	*HTTP://192.168.1.121/cgi-bin/alarm.cgi?userName=admin&password=admin&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 (Others refer to the General Response)

2.4.1.2 Get Alarm Status for Attach Mode（attach）

URL	http://<servername>/cgi-bin/alarm.cgi?userName=<username>&password=<password>&action=attach
Description	Refer to Alarm Information Parameters
Example	*HTTP://192.168.1.121/cgi-bin/alarm.cgi?userName=admin&password=admin&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)

Returns plain text when received alarm notification(s), otherwise it will always show that it is connecting, and waiting for the alarm notification.

2.4.2 Alarm Action（alarmAction）

2.4.2.1 Manual Alarm（manualAlarm）

URL	http://<servername>/cgi-bin/alarm.cgi?userName=<username>&password=<password>&action=manual&alarmInID=<alarmInID>&alarmFlag=1&AlarmSourceType=1
Description	Refer to Alarm Information Parameters and Manual Alarm Parameters

Example	*HTTP://192.168.1.121/cgi-bin/alarm.cgi?userName=admin&password=admin&action=manual&alarmInID=1&alarmFlag=1&AlarmSourceType=1*
Return	OK (Others refer to the General Response)

Manual Alarm in Parameters

Parameter	Data Type	Note
alarmInID	\<int\>[1,n]	Alarm input channel ID
AlarmSourceType	\<int\>[1,6]	Alarm in source type： 1:IO alarm 2:Motion detection alarm 3:Disk alarm 4:Recording alarm 5:Network disconnect alarm 6:Video lost alarm
alarmFlag	\<int\>{1,2}	Alarm status:： 1:Alarm started(note: record alarm and disk alarm can be tirggered but no ending status involved.) 2:Alarm ended

2.4.2.2　Manual Alarm Out Control（manualAlarmOutControl）

URL	http://\<servername\>/cgi-bin/alarm.cgi?userName=\<username\>&password=\<password\>&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?userName=admin&password=admin&action= manualControl&alarmOutID=1&controlFlag=1*
Return	OK (Others refer to the General Response)

The Manual Alarm Out Control Parameters:

Parameter	Data Type	Description
alarmOutID	\<int\>[1,n]	Alarm output channel ID
controlFlag	\<int\>{0,1}	Control output status: 1: start 0: end

2.4.3 Alarm Information parameters

At least 3 parameters needed when using alarm.cgi, that is **userName(user name of user), password(password of user), action(operation type)**. UserName and password must be the first and the second field**.**

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	Description
userName	\<string\>	User name
password	\<string\>	Password
action	\<string\>	get: Acquiring attach: Connecting manual: Manual operating manualControl: Manually control
type	\<string\>	Could be omitted **type** when action is attach or manual. Specific values refer to Table 2-4-3-2

The corresponding information of string which the sub type of **get** action in alarm.cgi refer to Table 2-4-3-2

Table 2-4-3-2

Parameter	Description
currentAlarmStatus	Current status of alarm

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]	Indicates index of alarm input when IO alarm triggered, others indicates index of channel
alarmInfoCount	<int>[1,n]	Sum of alarm information
alarmInfoBegin	<int>1	Flag of beginning of the alarm information
next_alarmInfo URL	<int>[1,n]	End flag of the latest alarm notification and the start flag of the next alarm notification
alarmFlag	<int>{0,1}	Alarm flag: 0：Stop alarm 1：Is alarming
alarmTime	<string>	Alarm duration
alarmInfoEnd	<int>[1,n]	End flag of the alarm notification

Table 2-4-3-4

Parameter	Data Type	Description
alarmMajorType	<int>{1,4,5,6}	Alarm Mjor Type, Reference Main type
alarmMinorType	<int>[1,n]	Alarm Minor Type, depend on Major Type, Reference Sub type

2.5 PTZ（ptz.cgi）

2.5.1   PTZ General Parameters

At least 4 parameters needed when using ptz.cgi, that is **userName(user name of user), password(password of user), cameraID(Index of channel), action(operation type)**.

UserName and password must be the first and the second field**.**

The corresponding information of each string of general parameters in ptz.cgi refer to Table 2-5-1-1

Table 2-5-1-1

Parameter	Data type	Description
username	<string>	User name
password	<string>	Password
cameraID	<int>	Channel ID of the device, default as 1
action	<string>	PTZ Action Refer to Table 2-5-1-2
PTZID	<int>[1,n]	PTZID is an optional parameter, and it is valid in fisheye device one channel mode. Otherwise the PTZID parameter is invalid.

Action type Table

Table 2-5-1-2

action	Description
stop	Stop
rotate	Rotation operation
zoom	Zoom in/Zoom out
focusFar	Focus far
focusNear	Focus near
runAutoFocus	Auto focus
irisIncrease	Increase iris
irisDecrease	Decrease iris
runAutoIris	Auto iris
presetAdd	Set preset

presetInvoke	Goto preset
presetDelete	Delete preset
listPrest	Get preset(s)
trackAddBegin	Begin to add track
trackAddEnd	End to add track
trackInvoke	Invoke track
trackDelete	Delete track
listTrack	Get track(s)
scanAddBegin	Begin to add scan
scanAddEnd	End to add scan
scanInvoke	Invoke scan
scanDelete	Delete scan
listScan	Get scan(s)
tourAdd	Add tour
tourAddBegin	Begin to add tour
tourAddPreset	Add preset to tour
tourAddEnd	End to add tour
tourRun	Run tour
tourStop	Stop tour
tourDelete	Delete tour
listTour	Get tour(s)
keeperSet	Set keeper
keeperRun	Run keeper
getPosition	Get current position

setPosition	Set current position
setNorthPosition	Set current position as the North
3DPosition	3D position

Those commands don't need attached parameter: stop, zoom, FocusFar, FocusNear, irisIncrease, irisDecrease, setNorthPosition

2.5.2 ZoomIn/ZoomOut（zoom）

URL	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>&cameraID=<cameraID>&action=zoom&pan=<pan>&[PTZID=<PTZID>]
Description	Refer to PTZ General Parameters and ZoomIn/ZoomOut Parameters
Example	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin&action=zoom&cameraID=1& pan=1*
Return	OK (Others refer to the General Response)

ZoomIn/ZoomOut Parameters：

Table 2-5-2-1

Argument	Data Type	Description
pan	$<int>\{-1,1\}$	-1: Zoom out 1: Zoom in

2.5.3 Operation

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

URL	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>& cameraID =<cameraID>&action=<action>&[PTZID=<PTZID>]
Descripti on	Refer to PTZ General Parameters
Example	***http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin &cameraID=1&action=stop***
Return	OK (Others refer to the General Response)

2.5.4   Rotation

2.5.4.1   Rotate Left（rotate）

URL	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>&cameraID=<cameraID>&action=rotate&pan=-60&tilt=0&[PTZID=<PTZID>]
Descriptio n	Refer to PTZ General Parameters and PTZ Rotation Parameters
Example	***HTTP://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin &cameraID =1&action=rotate&pan=60&tilt=0***
Return	OK (Others refer to the General Response)

2.5.4.2   PTZ Rotation Parameters

Rotation parameters table:

Table 2-5-4-2-1

Parameter	Data Type	Description
pan	<int>[-63,63]	Horizontal rotation speed： Positive and negative signs indicate the direction of rotation, right-positive, left-negative The value indicate the rotational speed, where 0 is not rotated in this direction.

tilt	\<int\>[-63,63]	Vertical speed:
		Positive and negative signs indicate the direction of rotation, up-positive, down-negative.
		The value indicate the rotational speed, where 0 is not rotated in this direction.

Sign indicates the move direction, positive means right/up, negative means left/down. Such as (-30, 25) is left up

2.5.5 Preset

2.5.5.1 Add preset（presetAdd）

URL	http://\<servername\>/cgi-bin/ptz.cgi?userName=\<username\>&password=\<password\>&cameraID=\<cameraID\>&action=presetAdd&presetID=\<presetID\>&presetName=\<presetName\>&[PTZID=\<PTZID\>]
Description	Refer to <u>PTZ General Parameters</u> and <u>Preset Parameters</u>
Example	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin&action=presetAdd&cameraID=1&presetID=1&presetName=001*
Return	OK (Others refer to the <u>General Response</u>)

2.5.5.2 Invoke Preset（presetInvoke）

URL	http://\<servername\>/cgi-bin/ptz.cgi?userName=\<username\>&password=\<password\>& cameraID =\<cameraID\>&action= presetInvoke&presetID=\<presetID\>&[PTZID=\<PTZID\>]
Description	Refer to <u>PTZ General Parameters</u> and <u>Preset Parameters</u>
Example	*HTTP://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin&cameraID=1&action=presetInvoke&presetID=1*
Return	OK (Others refer to the <u>General Response</u>)

2.5.5.3   Delete Preset（presetDelete）

URL	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>&cameraID=<cameraID>&action=presetDelete&presetID=<presetID>&[PTZID=<PTZID>]
Description	Refer to PTZ General Parameters and Preset Parameters
Example	*HTTP://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin&cameraID=1&action=presetDelete&presetID=1*
Return	*OK* (Others refer to the General Response)

2.5.5.4   Get Preset（listPreset）

URL	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>& cameraID =<cameraID>&action=listPreset&[PTZID=<PTZID>]
Description	Refer to PTZ General Parameters and Preset Parameters
Example	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin&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 the General Response)

2.5.5.5   Preset Parameters

Preset parameters table:

Table 2-5-5-5-1

Parameter	**Data Type**	**Description**

presetID	< int >[1,400]	ID of preset. Range:1-400
PTZID	<int>[1,n]	PTZID: One channel mode for fisheye camera has several PTZs,e.g: 1 fisheye + 7 PTZ, which has 7 PTZID (1-7)
presetName	<string>	Name of preset
presetBegin	<int>{1}	Start flag for the preset loop.
next_presetURL	<int>[2,n]	URL for next preset
presetEnd	<int>[1,n]	End flag for the preset loop.

2.5.6   Track

2.5.6.1   Add Track（trackAdd）

URL	Add track starting point: http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>&cameraID=<cameraID>&action=trackAddBegin&trackID=<trackID> Add track end point: http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>&cameraID=<cameraID>&action=trackAddEnd&trackID=<trackID>&trackName=<trackName>
Description	Refer to PTZ General Parameters and Track Parameters
Example(add track starting point)	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin& action=trackAddBegin&cameraID=1&trackID=1*
Return	OK (Others refer to the General Response)
Example(add track end point)	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin& action=trackAddEnd&cameraID=1&trackID=1&trackName=test1*

Return	OK
	(Others refer to the General Response)

2.5.6.2　　　　Invoke Track（trackInvoke）

URL	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>&cameraID=<cameraID>&action=trackInvoke&trackID=<trackID>
Description	Refer to PTZ General Parameters and Track Parameters
Example	*HTTP://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin&cameraID=1&action=trackInvoke&trackID=1*
Return	OK
	(Others refer to the General Response)

2.5.6.3　　　　Delete Track（trackDelete）

URL	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>&cameraID=<cameraID>&action=trackDelete&trackID=< trackID >
Description	Refer to PTZ General Parameters and Track Parameters
Example	*HTTP://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin&cameraID=1&action=trackDelete&trackID=1*
Return	OK
	(Others refer to the General Response)

2.5.6.4　　　　Get Track（listTrack）

URL	http://<servername>/cgi-bin/ptz.cgi?userName=admin&password=<password>& cameraID =<cameraID>&action= listTrack
Description	Refer to PTZ General Parameters and Track Parameters
Example	*HTTP://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin&cameraID=1&action=listTrack*

Return	trackBegin=1
	trackID=0
	trackName=sd
	next_trackURL=2
	trackID=1
	trackName=cd
	trackEnd=2
	(Others refer to the General Response)

2.5.6.5 Track Parameters

Track parameters table:

<div align="center">Table 2-5-6-5-1</div>

Parameter	Data Type	Description
trackCount	< int >[1,n]	Count of track(s)
trackID	< int >[1,n]	ID of the track
trackName	<string>	Name of track
trackBegin	< int >1	Start flag for the track loop.
next_trackURL	< int >[2,n]	Start flag for the next track loop.
trackEnd	< int >[1,n]	End flag for the track loop.

2.5.7 Scan

2.5.7.1 Add Scan（scanAdd）

URL	Add scan starting point:
	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>& cameraID =<cameraID>&action= scanAddBegin & scanID =<scanID>
	Add scan end point:
	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>&cameraID=<cameraID>&action=scanAddEnd&scanID=<scanID> &sanName =<scanName>

Descriptio n	Refer to PTZ General Parameters and Scan Parameters
Example(add track starting point)	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin& action= scanAddBegin &cameraID=1& scanID =1*
Return	OK (Others refer to the General Response)
Example(add track end point)	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin& action=scanAddEnd&cameraID=1& scanID =1& scanName =test1*
Return	OK (Others refer to the General Response)

2.5.7.2 Invoke Scan（scanInvoke）

URL	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<pa ssword>&cameraID=<cameraID>&action=scanInvoke&scanID=<scanID>
Descriptio n	Refer to PTZ General Parameters and Scan Parameters
Example	*HTTP://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin &cameraID=1&action=scanInvoke&scanID=1*
Return	OK (Others refer to the General Response)

2.5.7.3 Delete Scan（scanDelete）

URL	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<pa ssword>&cameraID=<cameraID>&action=scanDelete&scanID=<scanID>
Descriptio n	Refer to PTZ General Parameters and Scan Parameters
Example	*HTTP://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin &cameraID=1&action=scanDelete&scanID=1*

Return	OK
	(Others refer to the General Response)

2.5.7.4   Get Scam（listScan）

URL	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>&cameraID=<cameraID>&action=listScan
Description	Refer to PTZ General Parameters and Scan Parameters
Example	*HTTP://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin&cameraID=1&action=listScan*
Return	scanBegin=1
	scanID=0
	scanName=dsf
	next_scanURL=2
	scanID=1
	scanName=bgm
	scanEnd=2
	(Others refer to the General Response)

2.5.7.5   Scan Parameters

Scan parameters table:

Table 2-5-7-5-1

Parameter	Data Type	Description
scanCount	< int >[1,n]	Count of scan(s)
scanID	< int >[1,n]	ID of scan
scanName	<string>	Name of scan
scanaBegin	< int >{1}	Start flag for the scan loop.
next_scanURL	< int >[2,n]	Start flag for the next scan loop.
scanEnd	< int >[1,n]	End flag for the scan loop.

2.5.8 Tour

2.5.8.1　　Add Tour（tourAdd）

URL	Add tour starting point: http://\<servername\>/cgi-bin/ptz.cgi?userName=\<username\>&password=\<password\>&cameraID=\<cameraID\>&action=tourAddBegin&tourID=\<tourID\>\ Add preset for tour: http://\<servername\>/cgi-bin/ptz.cgi?userName=\<username\>&password=\<password\>&cameraID=\<cameraID\>&action=tourAddPreset&presetID=\<presetID \>&time=\<time\> Add tour end point: http://\<servername\>/cgi-bin/ptz.cgi?userName=\<username\>&password=\<password\>&cameraID=\<cameraID\>&action=tourAddEnd&tourID=\<tourID\>&tourName=\<tourName\>
Description	Refer to PTZ General Parameters and Tour Parameters
Example(add track starting point)	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin&action= tourAddBegin &cameraID=1& tourID =1*
Return	OK (Others refer to the General Response)
Example(add preset for tour)	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin&action= tourAddPreset&cameraID=1 & presetID =1&time=10*
Return	OK (Others refer to the General Response)
Example （add track end point）	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin&action= tourAddEnd&cameraID=1& tourID =1& tourName =test1*
Return	OK (Others refer to the General Response)

2.5.8.2 Run Tour（tourRun）

URL	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>&cameraID=<cameraID>&action=tourRun&tourID=<tourID>
Description	Refer to PTZ General Parameters and Tour Parameters
Example	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin& action= tourRun&cameraID=1& tourID =1*
Return	OK (Others refer to the General Response)

2.5.8.3 Delete Tour（tourDelete）

URL	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>&cameraID=<cameraID>&action=tourDelete&tourID=<tourID>
Description	Refer to PTZ General Parameters and Tour Parameters
Example	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin& action= tourDelete &cameraID=1& tourID =1*
Return	OK (Others refer to the General Response)

2.5.8.4 Get Tour（listTour）

URL	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>&cameraID=<cameraID>&action=listTour
Description	Refer to PTZ General Parameters and Tour Parameters
Example	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin& action = listTour&cameraID=1*

Return	tourBegin=1
	tourID=0
	tourName=sdf
	presetBegin=1
	presetID=1
	time=5
	presetEnd=1
	next_tourURL=2
	tourID=1
	tourName=bt
	presetBegin=1
	presetID=1
	time=5
	presetEnd=1
	tourEnd=2
	(Others refer to the General Response)

2.5.8.5   Tour Parameters

Tour parameters table:

Table 2-5-8-5-1

Parameter	Data Type	Description
tourCount	< int >[1,n]	Count of tour
tourID	< int >[1,n]	ID of tour
tourName	<string>	Name of tour
tourBegin	< int >{1}	Start flag of tour loop
next_tourURL	< int >[2,n]	Start flag of the next tour loop
tourEnd	< int >[1,n]	End flag of the tour loop
presetID	< int >[1,400]	Preset ID When adding a tour, the corresponding preset should be exist.
Time	< int >[1,255]	Remain time Range: 1 – 255 seconds
presetBegin	< int >[1,400]	Start flag of the preset loop

next_presetURL	< int >[2,n]	Start flag of the next preset loop
presetEnd	< int >[1,n]	End flag of the preset loop

2.5.9 Keeper

2.5.9.1 Set Kepper（keeperSet）

URL	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>&cameraID=<cameraID>&action=keeperSet&keeperType=<keeperType>&keeperID=<keeperID>&time=<time>
Description	Refer to PTZ General Parameters and Keeper Parameters
Example	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin& action= keeperSet &cameraID=1& keeperType=1&keeperID=1& time=1*
Return	OK (Others refer to the General Response)

2.5.9.2 Get Keeper（getkeeper）

URL	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>&cameraID=<cameraID>&action=getKeeper
Description	Refer to PTZ General Parameters and Keeper Parameters
Example	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin& action= getKeeper&cameraID=1*
Return	keeperType=2 keeperID=1 StatusId=2 time=12 (Others refer to the General Response)

2.5.9.3 Run Keeper（keeperRun）

URL	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>&cameraID=<cameraID>&action=keeperRun&StatusId=2
Description	Refer to PTZ General Parameters and Keeper Parameters
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 the General Response)

2.5.9.4 Keeper Parameters

Keeper parameters table:

Table 2-5-9-4-1

Parameter	Data Type	Description
keeperType	< int >{1,2,3,4}	Type of keeper: 1：Preset 2：Scan 3：Auto study 4：Tour
keeperID	< int >[1,n]	As the corresponding number of keeperTypewhen action = keeperSet. 0 indicates stop keeper and 2 indicates start keeper when action = keeperRun.
Time	< int >[1,240]	Remain time of keeper Range: 1 – 240 minutes.
StatusId	< int >{1,2}	Status ID 0x00：Close keeper 0x02：Open keeper

2.5.10 Position

2.5.10.1   Get Position（getPosition）

URL	http://\<servername\>/cgi-bin/ptz.cgi?userName=\<username\>&password=\<password\>&cameraID=\<cameraID\>&action=getPosition
Description	Refer to PTZ General Parameters and Position Parameters
Example	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin& action= getPosition&cameraID=1*
Return	pan=45.000000 tilt=30.000000 zoom=3.000000 (Others refer to the General Response)

2.5.10.2   Set Position（setPosition）

URL	http://\<servername\>/cgi-bin/ptz.cgi?userName=\<username\>&password=\<password\>&cameraID=\<cameraID\>&action=setPosition&pan=\<pan\>&tilt=\<tilt\>&zoom=\<zoom\>
Description	Refer to PTZ General Parameters and Position Parameters
Example	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin& action=setPosition& pan=45.5&tilt=30.1&zoom=3&cameraID=1*
Return	OK (Others refer to the General Response)

2.5.10.3   Set North Position（setNorthPosition）

URL	http://\<servername\>/cgi-bin/ptz.cgi?userName=\<username\>&password=\<password\>& cameraID =\<cameraID\>&action= setNorthPosition
Description	Refer to PTZ General Parameters and Position Parameters
Example	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin& action= setNorthPosition&cameraID=1*

Return	OK (Others refer to the General Response)

2.5.10.4   Position Parameters

Position Parameters table:

Parameter	Data Type	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]	Relative the the camera max zoom

2.5.11 3D Position

3D Position Description：

3D position is to move the specified position to the center of the image and zoom in or zoom out the image. We can establish the Cartesian coordinate system on the entire image, the coordinate system takes the center of the image as the origin, the horizontal is the X-axis, the left is negative and the right is positive; the vertical is the Y-axis, the upper is positive, the lower is negative; the range of X and Y is [-100,100].

3D position diagram：
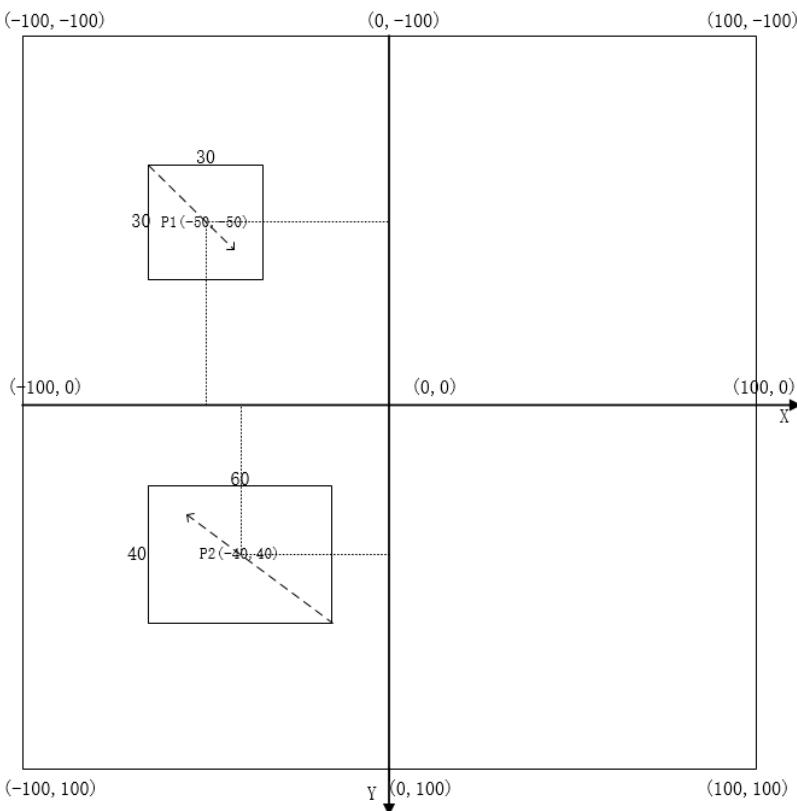
Example 1：3D zoom out. Taking area P1 as an example, the mouse pulls down the box from the top left to the right down, and ZoomRate is set to a positive value. After the center point P1(-50,50) of the area is moved to the center position, the image is zoomed out.

PontX = -50

PontY = -50

ZoomRate = （200*200）/（30*30）

Example 2：3D zoom in. Taking area P2 as an example, the mouse pulls up the box from the right down to top left, and ZoomRate is set to a positive value. After the center point P2(-40,40) of the area is moved to the center position, the image is zoomed in.

PontX = -40

PontY = 40

ZoomRate = -（200*200）/（40*60）

URL	http://\<servername\>/cgi-bin/ptz.cgi?userName=\<username\>&password=\<password\>&cameraID=\<cameraID\>&action=3DPosition&PontX=\<PontX\>&PontY=\<PontY\>&ZoomRate=\<ZoomRate\>
Descriptio	Refer to PTZ General Parameters and 3D Position Parameters

n	
Example	*http://192.168.1.121/cgi-bin/ptz.cgi?userName=admin&password=admin &action= setNorthPosition&cameraID=1*
Return	OK (Others refer to the General Response)

3D position Parameters:

Table 2-5-11-1

Argument	Data Type	Description
PontX	\<int>[-100,100]	The 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]	Zoom Rate: ZoomRate = area of the entire image / area of the positioning area, depending on the device ability

2.5.12 head wiper control（Wiper）

2.5.12.1　Turn on wipers（openWiper）

URL	http://\<servername>/cgi-bin/ptz.cgi?userName=\<username>&password=\<password>&cameraID=\<cameraID>&type=Wiper&action=open&IntervalTime=time
Description	See wiper parameter table
Example	*http://192.168.1.205/cgi-bin/ptz.cgi?userName=admin&password=admin&type=Wiper&action=open&IntervalTime=5*
Return	OK (Others refer to the General Response)

2.5.12.2　turn off the wiper（closeWiper）

URL	http://\<servername>/cgi-bin/ptz.cgi?userName=\<username>&password=\<password>&cameraID=\<cameraID>&type=Wiper&action=close

Description	See wiper parameter table
Example	***http://192.168.1.205/cgi-bin/ptz.cgi?userName=admin&password=admin&type=Wiper&action=close***
Return	OK (Others refer to the General Response)

2.5.12.3 Wiper parameter meaning

Parameter	Data	Explain
Action	〈 string 〉 [open, close]	open, Turn on the wiper function close, Turn off the wiper function
IntervalTime	〈 int 〉	Wiper swing time interval

2.5.13 head lens flushing control（Wash）

2.5.13.1 Turn on wipers（openWash）

URL	http://<servername>/cgi-bin/ptz.cgi?userName=<username>&password=<password>&cameraID=<cameraID>&type=Wash&action=open
Description	See flushing parameter table
Example	***http://192.168.1.205/cgi-bin/ptz.cgi?userName=admin&password=admin&type=Wash&action=open***
返 Return	OK (Others refer to the General Response)

2.5.13.2 wiper parameter meaning

Parameter	Data	Explain
Action	〈 string 〉 [open]	open, Turn on the flushing function Lens flushing, stop after 5 seconds

2.6 Device Management（param.cgi）

Need at least 4 parameters under param.cgi, userName, password, actiona nd type. (User name and password must be in 1st and 2nd position)

2.6.1 Device Configuration

2.6.1.1 Device Information（deviceInfo）

2.6.1.1.1 Get Device Information（getDeviceInfo）(IPC / NVR)

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**deviceInfo**
Description	Refer to Device Information Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&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

2.6.1.1.2 Set Dvice Name (setDeviceName)（IPC / NVR）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=set&type=**deviceName**[&deviceName=\<deviceName\>]
Description	The device name would not be modified if devicaName is not attached in command.

	Refer to <u>Device Information Parameters</u>
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin &action= set&type=deviceName&deviceName=test*
Return	OK or Error (Refer to <u>General Response</u>)

2.6.1.1.3   Device Information Parameters

Device information parameters table:

<p align="center">Table 2-6-1-1-3-1</p>

Parameters	Data type	Description
deviceID	\<string\>	Device ID Unique identifier of device
deviceName	\<string\>	Device name Below special characters are not allowed:\< \> % & \ " / ,' ; = | +
deviceType	\<int\>{1,5}	Device type: IPCamera (by default is 1) NVR(by default is 5)
productModel	\<string\>	Product model
manufacturerName	\<string\>	Manufacturer name
manufacturerID	\<string\>	Manufacturer ID manufacturer ID is 001
MACAddress	\<string\>	MAC address
hardwareVer	\<string\>	Hardware version
softwareVer	\<string\>	Software version
channelNum	\<unsigned int\>[0,n]	Amount of channels
alarmInNum	\<unsigned int\>[0,n]	Number of Alarm in
alarmOutNum	\<unsigned int\>[0,n]	Number of Alarm out

RS485Num	<unsigned int>[0,n]	Number of RS485

2.6.1.2 Local Network（localNetwork）

2.6.1.2.1 Get Loacal Network Parameters（getNetwork）（IPC / NVR）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&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 <u>Local Network Parameters</u>
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action= get&type=localNetwork&IPProtoVer=1&netCardId=1*
Return	localNetworkBegin=1 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

2.6.1.2.2 Set Local Network Parameters（setNetwork）(IPC)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**localNetwork**&netCardId=<netCardId>&IPProtoVer=<IPProtoVer>[&<argument>=<value>...]
Descripti	The netCardId and IPProtoVer are mandatory, all the others are optional

on	Refer to [Local Network Parameters](#)
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&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*
Return	OK or Error (Refer to [General Response](#))

2.6.1.2.3 Local Network Parameters

Network parameters information table:

<div align="center">Table 2-6-1-2-3-1</div>

Parameters	Data type	Description
IPProtoVer	\<int\>{1, 2}	IP version: 1：IP V4 2：IP V6 Mandatory
IPAddress	\<string\>	IP address of device
subNetmask	\<string\>	Subnet Mask
subGetway	\<string\>	Device Gateway
preferredDNS	\<string\>	Primary DNS
alternateDNS	\<string\>	Secondary DNS
autoGetIPFlag	\<int\>{0,1}	Automatically obtain IP flag: 0：Manual 1：Automatic
netCardId	\<int\>{1,2}	Network card ID: 1：Network card 1 2：Network card 2 This parameter is optional when **Get**, it mean get information of designated network card if with this parameters, if without this parameter it means get information of all network card.

		This parameter is mandatory when **Set**.
localNetworkBegin	\<string\>	The start flag of the network information
localNetworkNextFlag	\<string\>	The flag of next information of network card network card.
localNetworkEnd	\<string\>	The end flag of the network information

2.6.1.3 ADSL Network（ADSLNetwork）

2.6.1.3.1 Get ADSL Network Parameters（getADSLNetwork）（ IPC）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**ADSLNetwork**&IPProtoVer=\<IPProtoVer\>
Description	Refer to [ADSL Network Parameters](#)
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=ADSLNetwork&IPProtoVer=1*
Return	IPProtoVer=1 IPAddress=

2.6.1.3.2 ADSL Network Parameters

ADSL Network parameters table:

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

Parameters	Data type	Description
IPAddress	\<string\>	IP address
IPProtoVer	\<int\>{1,2}	IP version 1：IP V4 2：IP V6 Mandatory

4

2.6.1.4 Device Port（devicePort）

2.6.1.4.1 Get Device Port Parameters（getDevicePort）（ IPC / NVR）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**devicePort**
Description	Refer to <u>Device Port Parameters</u>
Example	***http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=devicePort***
Return	controlPort=30001 httpPort=80 rtspPort=554 rtmpPort=8080

2.6.1.4.2 Set Device Port Parameters（setDevicePort）（ IPC ）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**devicePort**[&<argument>=<value>]
Description	The port would not be modified if there is no value attached in command Refer to <u>Device Port Parameters</u>
Example	***http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=devicePort&controlPort=30001&httpPort=80&rtspPort=554&rtmpPort=8080***
Return	OK or Error (Refer to <u>General Response</u>)

2.6.1.4.3 Device Port Parameters

Device Port Parameters table:

<center>Table 2-6-1-4-3-1</center>

Parameters	Data type	Description
controlPort	<unsigned short>[0,n]	Control port: Signaling control, audio&video port, it is optional when **Set**

<center>4</center>

httpPort	<unsigned short>[0,n]	HTTP port:
		it is optional when **Set**
rtspPort	<unsigned short>[0,n]	RTSP port:
		it is optional when **Set**
rtmpPort	<unsigned short>[0,n]	RTMP port:
		it is optional when **Set**

2.6.1.5　Camera Information（cameraInfo）

2.6.1.5.1　Get Camera Name（getCameraName）（ IPC / NVR）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**cameraInfo**[& cameraID =<cameraID>]
Description	Refer to Camera Information Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=cameraInfo&cameraID=1*
Return	cameraName=OEM

2.6.1.5.2　Set Camera Name（setCameraName）（ IPC / NVR）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**cameraInfo**&cameraID=<cameraID>[&cameraName =<cameraName>]
Description	The camera name would not be modified if there is no value attached in command
	Refer to Camera Information Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=cameraInfo&cameraID=1&cameraName=asd*
Return	OK or Error (Refer to General Response)

2.6.1.5.3 Camera Information Parameters

Camera information parameters table:

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

Parameters	Data type	Description
cameraID	<int>[0,n]	Channel ID: This parameter is unique, it is optional when **Get**, it mean get channel ID of designated channel if with this parameters, if without this parameter it means get channel ID of all channels. This parameter is mandatory when **Set**.
cameraName	<string>	Channel name: The camera name is optional, it would not be modified if there is no value attached in command

2.6.1.6 Device Time（dateTime）

2.6.1.6.1 Get Device Time Parameters（getDateTime）（ IPC / NVR）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**dateTime**
Description	Refer to <u>Device Time Parameters</u>
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=dateTime*
Return	year=2018 month=9 day=25 hour=14 minute=5 second=20

2.6.1.6.2 Set Device Time Parameters（**setDateTime**）（ **IPC / NVR**）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**dateTime**[&<argument>=<value>]
Description	Refer to <u>Device Time Parameters</u>
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=dateTime&year=2018&month=9&day=25&hour=14&minute=10&second=10*
Return	OK or Error (Refer to <u>General Response</u>)

2.6.1.6.3 Device Time Parameters

Device time parameters table:

<p align="center">Table 2-6-1-6-3-1</p>

Parameters	Data type	Description
year	<unsigned short>[1970,2038]	Year It is optional when **Set**
month	<unsigned short>[1,12]	Month It is optional when **Set**
day	<unsigned short>[1,31]	Day It is optional when **Set**
hour	<unsigned short>[0,23]	Hour It is optional when **Set**
minute	<unsigned short>[0,59]	Minute It is optional when **Set**
second	<unsigned short>[0,59]	Second It is optional when **Set**

2.6.1.7 Time Zone（timeZone）

2.6.1.7.1 Get Time Zone Parameters（getTimeZone）(IPC/NVR)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**timeZone**
Description	Refer to Time Zone Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&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

2.6.1.7.2 Set Time Zone Parameters（setTimeZone）（NVR）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**timeZone**[&<argument>=<value>...]
Description	End time must be greater than beginning time if DSTOpenFlag () is 1. DSTOpenFlag=1(SDT enable), end time must be greater than beginning time if DSTOpenFlag is 1; DSTOpenFlag=0(SDT disable), do not strictly check the time parameters. Refer to Time Zone Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&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 or Error (Refer to General Response)

2.6.1.7.3 Time Zone Parameters

Time zone parameters table:

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

Parameters	Data type	Description
timeZone	<int>[0, 300]	Time zone ID: 0-300 indicates different time zone
DSTOpenFlag	<int>{0, 1}	DST enable flag: 0：Disable 1：Enable
beginMonth	<int>[1,12]	Start month for DST
beginWeekly	<int>[1,5]	Start week for DST Indicates the first few weeks of the month.
beginWeekDays	<int>[0,6]	Start day for DST 0 indicate Sunday
beginTime	<int>[0, 1440]	Start time for DST count of minutes from 00:00 to current time, such as 12:00 is 720, unit：minute PS: time must be integer multiple of 30
endMonth	<int>[1, 12]	End month for DST
endWeekly	<int>[1, 5]	End week for DST Indicates the first few weeks of the month.
endWeekDays	<int>[0, 6]	End day for DST 0 indicate Sunday
endTime	<int>[0, 1440]	End time for DST count of minutes from 00:00 to current time, such as 12:00 is 720, unit：minute

		PS: time must be integer multiple of 30

2.6.1.8　Watermark（OSD）

2.6.1.8.1　Set Global Parameters

2.6.1.8.1.1　Get OSD Parameters（getOSD）（ IPC ）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**OSD**&cameraID=<cameraID>
Description	Refer to OSD Global Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=OSD&cameraID=1*
Return	fontColor=2 inverseFlag=1 alpha=4 TwelveHoursFlag=0 WeekFlag=0

2.6.1.8.1.2　Set OSD Parameters（setOSD）（ IPC）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**OSD**&cameraID=<cameraID>[&<argument>=<value>...]
Description	Refer to OSD Global Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=OSD&cameraID=1&fontColor=7&inverseFlag=1&alpha=2*&TwelveHoursFlag=1&WeekFlag=0
Return	OK or Error (Refer to General Response)

2.6.1.8.2　Canvas（OSDCanvas）

2.6.1.8.2.1　Get OSD Canvas Parameters（getOSDCanvas）（ IPC ）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**OSDCanvas**&cameraID=\<cameraID\>&canvasID=\<canvasID\>
Description	canvasID is a optional parameter, get all canvas information if there is no value attached in command Refer to OSD Canvas Parameters
Example	*HTTP://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&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

2.6.1.8.2.2 Set OSDCanvas Parameters（setOSDCanvas）（ IPC ）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=set&type=**OSDCanvas**&cameraID=\<cameraID\>[&\<argument\>=\<value\>...]
Description	Only one OSDinfo can be set on each canvas, The arrowID of each OSDinfo can only be set to 0, Time watermark has and can only be set on the first canvas. OSDCanvasBegin and OSDCanvasEnd is mandatory, OSDInfoBegin and OSDInfoEnd is mandatory too. Refer to OSD Canvas Parameters
Example	*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 or Error (Refer to General Response)

2.6.1.8.3 OSD Global Parameters

OSD global parameters table:

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

Parameters	Data type	Description
cameraID	\<int\>[0,n]	Camera ID
fontColor	\<unsigned int\>[0, 9]	Font color 0：others 1：white 2：black 3：red 4：orange

		5：yellow
		6：green
		7：cyan
		8：blue
		9：purple
inverseFlag	<unsigned char>{0, 1}	Inverse enable flag:
		0：Disable
		1：Enable
alpha	<unsigned int>[0, 4]	Transparency:
		0：Other
		1：transparent
		2：translucent
		3：Sub-transparent
		4：opaque
		0 indicate the transparency besides the transparent, translucent, sub-transparent, opaque. It is valid when **Get**, and is invalid when **Set**.
TwelveHoursFlag	<unsigned char>{0, 1}	TwelveHours enable flag
		0：Disable
		1：Enable
WeekFlag	<unsigned char>{0, 1}	Week enable flag
		0：Disable
		1：Enable

2.6.1.8.4   OSDCanvas Parameters

OSDCanvas parameters table:

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

Parameters	Data type	Description
cameraID	<int>[0,n]	Camera ID

OSDCanvasCount	<unsigned int>[0,n]	OSD canvas count
OSDCanvasBegin	<unsigned int>1	OSDCanvas start flag Only can be 1
canvasID	<int>[1, 8]	Canvas ID When get canvas information, it's no need input canvas ID, this means get all of canvas information
topX	<int>[0, 100]	X coordinate: X coordinate of the area on top left corner as a percentage of the total video area width.
topY	<int>[0, 100]	Y coordinate: Y coordinate of the area on top left corner as a percentage of the total video area high.
fontSize	<int>[0, 3]	Font size 0：others 1：large 2：medium 3：small If set other invalid value, return -8 0 indicates size besides big, medium and small, It is valid when **Get**, and is invalid when **Set**. If set to the invalid parameter, than returns -8
alignMode	<int>{0, 1}	Align mode 0：left aligned 1：right aligned
OSDInfoCount	<int>1	OSD information count Currently only one OSDInfo can be set for each canvas. Only be 1.
OSDInfoAction	<string> {cover, add,remove}	OSDInfo Loop body operation: **cover**

		add
		remove
		When the operation is **Set**, and if there is not this parameter, the default operation is **add**.
		When the operation is **cover** and **add**, OSDInfo must input ArrowID, OSDEnableFlag and OSDType, otherwise it is considered invalid, return -8.
		When operation is **add**，if the ArrowID has existed, then the arrow would be covered.
		ArrowID is mandatory no matter what operation is, otherwise return -8
OSDInfoBegin	\<unsigned int\>1	OSD information start flag: Only can be set to 1
arrowID	\<int\>0	Arrow ID: The 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 blink enable flag: It is optional parameters, 0：Disable 1：Enable
OSDBlinkInterval	\<unsigned char\>[1, n]	OSD blink interval: It is optional parameter An integer starting at 1, The unit is seconds.
OSDType	\<int\>[1, 8]	OSD type: 1：device name 2：camera ID

		3：camera name
		4：time watermark
		5：text watermark
		6：PTZ position operation watermark
		7：PTZ behavior operation watermark
		8：PTZ temperature
		Returns -8 if set other value
		Some device just support 1 – 5 these five types
		There could be only one time watermark.
info	\<string\>	OSD information:
		Currently onky text and time watermark can be set info, other types of watermark settings info invalid.
		If watermark type is text watermark, can not contain English characters "\<\>% & \" /, '; = | + ", the number of characters is not larger than 256 -8 otherwise return -8
		Spaces are meaningless, space characters will be deleted.
		When the watermark type is time watermark, it has 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
		(The space in format of time is useless in info, but is actually displayed.)
		Other value is invalid, but neither returns error nor modifies time format.
next_OSDInfoURL	\<unsigned int\>[2, n]	Next OSD information start flag:
		From 2, if value is 2, this means next OSD is second (Because only one OSDinfo can be set on each canvas currently, this parameter can no longer be used)

OSDInfoEnd	<unsigned int>[1, n]	OSD information end flag: Indicates the number of OSDInfo
next_OSDCanvasURL	<unsigned int>[2, n]	Next OSDCanvas information start flag, From 2, if value is 2, this means next OSD is second.
OSDCanvas End	<unsigned int>[1, n]	OSDCanvas end flag Indicates the number canvas.

2.6.1.9 Microphone（microphone）

2.6.1.9.1 Get Microphone Parameters（getMicrophone）（IPC）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**microphone**[&cameraID=<cameraID>]
Description	Refer to Microphone Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=microphone&cameraID=1*
Return	cameraID=1 toneArmEnableFlag=1 toneArmType=1 volume=50

2.6.1.9.2 Set Microphone Parameters（setMicrophone）（IPC）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**microphone**&cameraID=<cameraID>[&<argument>=<value>...]
Description	Returns -8 if device dose not support the type, type of microphone depends on capability of device, could be found from the drop-down menu of web UI: Device->Microphone->Type. Refer to Microphone Parameters

Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin &action=set&type=microphone&cameraID=1&toneArmEnableFlag=1&tone ArmType=3&volume=100*
Return	OK or Error (Refer to <u>General Response</u>)

2.6.1.9.3   Microphone Parameters

Microphone parameters table:

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

Parameters	Data type	Description
cameraID	\<int\>	Channel ID
toneArmEnableFlag	\<unsigned char\>{0, 1}	Microphone enable flag: 0：disable 1：enable
toneArmType	\<int\>[1, 5]	Microphone type 1：built-in 2：external 3：line-input 4：differential line input 5：double input (different devices may support different types)
volume	\<int\>[0, 100]	volume Maximum is 100

2.6.1.10   PTZ Speed Dome ID

2.6.1.10.1   Get PTZ Speed Dome ID（getIPDomePTZID）（IPC）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<p assword\>&action=get&type=**IPDomePTZID**&cameraID=\< cameraID\>

Descripti on	If device not supported，return-506
	Refer to PTZ Speed Dome Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin &action=get&type=IPDomePTZID&cameraID=1*
Return	domePTZId=213

2.6.1.10.2 Set PTZ Speed Dome ID（setIPDomePTZID）（ IPC）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<p assword>&action=set&type=**IPDomePTZID**&cameraID=<cameraID>[&dome PTZId=<domePTZId>]
Descripti on	domePTZId is optional parameters, if in command without this parameter, the current value is not changed.
	Refer to PTZ Speed Dome Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin &action=set&type=IPDomePTZID&cameraID=1&domePTZId=20*
Return	OK or Error (Refer to General Response)

2.6.1.10.3   PTZ Speed Dome Parameters

PTZ speed dome parameters table:

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

Parameters	Data type	Description
domePTZId	<int>[0, 255]	PTZ speed Dome ID It's a optional parameter when **Set**
cameraID	<int>	Channel ID While **Get** and **Set**, it's Mandatory parameter

2.6.1.11 Device Disk Info（deviceDiskInfo）

2.6.1.11.1 Get Device Disk Info（getDeviceDiskInfo）（ IPC / NVR）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**deviceDiskInfo**
Description	Refer to <u>Device Disk Info Parameters</u>
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=deviceDiskInfo*
Return	diskInfoBegin=1 diskID=1 diskType=2 diskTotalSize=14912 diskFreeSize=64 diskUsedSize=14848 diskStatus=1 next_diskInfoURL=2 diskID=2 diskType=2 diskTotalSize=0 diskFreeSize=0 diskUsedSize=0 diskStatus=0 diskInfoEnd=2

2.6.1.11.2 Device Disk Info Parameters

Device disk info parameters table**:**

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

Parameters	Data type	Description
diskInfoCount	\<int\>[0, n]	Disk info count
diskInfoBegin	\<int\>1	Disk info start flag Only can be 1
diskID	\<int\>[0, n]	Disk ID
diskType	\<int\>{1,2,3,4,5,6,7,8}	Disk Type 1:harddisk 2:SD card 3:FTP 4:NAS 5:extern disk 6:remote extern disk 7:ESata 8:Rarn
diskTotalSize	\<int\>[0, n]	Disk total size
diskUsedSize	\<int\>[0, n]	Disk used size
diskFreeSize	\<int\>[0, n]	Disk free size
diskStatus	\<int\>[-1, 24]	Disk status 1:normal 2:abnormal 3:disk not exist 4:write protection 5:not formatted 6:being formatted (Refer to Disk Status)
next_diskInfoURL	\<int\>[2, n]	Next disk info start flag Start from 2
diskInfoEnd	\<int\>[0, n]	Disk info end flag The count of disk

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2.6.1.12　PTZ Timer（PTZTimer）

2.6.1.12.1　Get PTZ Timer Parameters（getPTZTimer）（IPC）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**PTZTimer**&cameraID=\<cameraID\>
Description	Refer to PTZ Timer Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&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

2.6.1.12.2　Set PTZ Timer Parameters（setPTZTimer）（IPC）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=set&type=**PTZTimer**&cameraID=\<cameraID\>[&\<argument\>=\<value\>]
Description	Refer to PTZ Timer Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&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=11*

	11&timeSegmentEnd=2222&timerEnd=1
Return	OK or Error (Refer to General Response)

2.6.1.12.3　PTZ Timer Parameters

PTZ timer parameters table:

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

Parameters	Data type	Description
cameraID	\<int\>	Channel ID
enableFlag	\<unsigned char\>{0, 1}	PTZ timer enable flag: 0: disable 1：enable
mode	\<int\>{1, 2}	Timer mode: 1:1 time 2:Everyday
year	\<unsigned short\>	year
month	\<unsigned short\>[1, 12]	month
day	\<unsigned short\>[1, 31]	day
hour	\<unsigned short\>[0, 59]	hour
minute	\<unsigned short\>[0, 59]	minute
second	\<unsigned short\>[0, 59]	second
timerAction	\<string\>	Operation for PTZ timer loop body: When the configuration behavior is **Set**, if this parameter is not carried, the loop body is added by default. cover: cover
timeSegmentBegin	\<int\>	PTZ timer start flag: When the configuration behavior is **Set**, this parameter must be carried, and there is not specific requirement

		for the value.
nextTimeSegmentF lag	\<int\>	The time period start flag of next PTZ timer: Start with 2. If the value is 2, it means that the followed parameter is the second. This flag must be carried when the configuration behavior is **Set** and the planned time is greater than 1. There is no specific requirement for the value.
timeSegmentEnd	\<int\>	PTZ timer end flag: It indicates number of PTZ timer. When the configuration behavior is Set, and the planned time is greater than 1, the value is same as value of last nextFlag. If only have one PTZ timer, the n=1.
timerBegin	\<unsigned long\>[0, 86400]	Start 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 invoke 28: track invoke 21: scan invoke 34：tour invoke Currently only support set the PTZ timer for above 4 types on Web
operatorValue	\<int\>	PTZ operation value

2.6.1.13 Face Detect Param

2.6.1.13.1 Get face Detect Param

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&passwo

	rd=<password>&action=get&type=faceDetectParam
Statement	Refer to Face Detect Param
Example	http://192.168.32.121/cgi-bin/param.cgi?userName=admin&password=admin&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

2.6.1.13.2 **Set face Detect Param）**

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&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
statement	Refer to <u>Face Detect Param</u>
example	http://192.168.32.121/cgi-bin/param.cgi?userName=admin&password=admin&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

2.6.1.13.3 Face Detect Param

Parameters	Data	Description

faceDetectEnable	int<0, 1>	Enable face detection 1: enable 0: disable
upBodyEnable	int<0, 1>	Enable upbody detection 1: enable 0: disable
fullBodyEnable	int<0, 1>	Enable fullbody detection 1: enable 0: disabel
displayTraceInfo	int<0, 1>	Display trance info 1: enable 0: disable
confidenceCoefficient	string{Low,Mid,High}	Confidence Coefficient Low: low Mid: mid High: high
smallestPixel	int<30,300>	Smallest Pixel
imageMatQuality	string{Low,Mid,High}	Image Matting Quality Low: low Mid: mid High: high
snapshotMode	int<0,1>	Snapshot Mode 1: timing 1: optimal
uploadInterval	int<1, 10>	Upload Image Interval(only applicable when the snapshot mode is set to timing)
yawDegree	int<0,90>	Yaw Degree
tiltDegree	int<0,90>	Tilt Degree

ftpUploadImageMat	int<0,1>	FTP Upload Image Matting 1：enable 0：disable
ftpUploadWholeImage	int<0,1>	FTP Upload Whole Image 1：enable 0：disable
detectAreaBegin	int<1>	Start flag of area begin
pointX(1..8)	float<0.0,99.99>	The x-coordinate of the point, which determines the area（max 8 points for each area）
pointY(1..8)	float<0.0,99.99>	The y-coordinate of the point, which determines the area（max 8 points for each area）
nextDetectArea	int<2,n>	Flag of the next area begin
detectAreaEnd	int<1,n>	Flag of the area ending
weekDayBegin	int<1>	Flag of the time schedule begin
weekDay	int<0,6>	Which day 0 means Sunday
startTime(1..n)	<long>[0, 86400]	Start time for the schedule
endTimen(1..n)	<long>[0, 86400]	End time for the schedule
weekDayEnd	int<1,n>	Flag of the time schedule ending

2.6.1.14 VideoOutput (VideoOutput)

2.6.1.14.1 getVideoOutput (getVideoOutput)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**VideoOutput**
Description	Refer to VideoOutput <u>Parameters</u>

Example	http://192.168.2.23/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=VideoOutput
Return	videoOutputEnable=0 OK or Error (Refer to General Response)

2.6.1.14.2 setVideoOutput（setVideoOutput）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**VideoOutput**[&videoOutputEnable=<0>]
Descripti on	Refer to VideoOutput Parameters
Example	http://192.168.2.23/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=VideoOutput&videoOutputEnable=0
Return	OK or Error (Refer to General Response)

2.6.1.14.3 VideoOutput **Parameters**

VideoOutput parameters table:

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

Parameters	Data type	Description
videoOutputEnable	<int>	0：open 1：close

2.6.2 Stream Configuration(base stream)

2.6.2.1 Get Audio/Video Stream Parameters（getAVStream）（ IPC / NVR）

URL	http://<servername>/cgi-bin/param.cgi?userName=<userName>&password=<password>&action=get&type=**AVStream**&cameraID=<cameraID>&streamID=<streamID>
Descripti	Refer to Audio/Video Stream Parameters

on	
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=AVStream&cameraID=1&streamID=1*
Return	streamName=stream1 videoEncoderType=4 audioEncoderType=102 resolution=1920*1080 frameRate=15 iFrameInterval=50 bitRateType=2 bitRate=2048 quality=5 `streamEncoderFlag=1`

2.6.2.2   Set Audio/Video Stream Parameters（setAVStream）（ IPC／NVR）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**AVStream**&cameraID=<cameraID>&streamID=<streamID>[&<argument>=<value>]
Description	Refer to <u>Audio/Video Stream Parameters</u>
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&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 or Error (Refer to <u>General Response</u>)

2.6.2.3   Get Audio/Video Stream Ability（getAVStreamAbility）（ IPC／ NVR）

URL	http://<servername>/cgi-bin/param.cgi?userName=<userName>&password=<password>&action=get&type=**AVStream**&cameraID=<cameraID>&streamID=<streamID>
Description	It will get all the stream ability of the camera if without streamID in command, if with streamID in command it will get corresponding stream ability. Refer to <u>Audio/Video Stream Parameters</u>
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=streamAbility&cameraID=1*

Return	AVStreamCount=3
	AVStreamBegin=1
	streamID=1
	AVStreamEncoderAbilityCount=5
	AVStreamEncoderAbilityBegin=1
	streamEncoderType=8
	videoResolutionCount =5
	videoResolutionBegin=1
	resolution=2592*1520
	……
	next_videoResolutionURL=5
	resolution=1280*720
	videoResolutionEnd=5
	……
	……
	next_AVStreamEncoderAbilityURL=5
	streamEncoderType=2
	videoResolutionCount =5
	videoResolutionBegin=1
	resolution=2592*1520
	……
	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
	…
	next_videoResolutionURL=3
	resolution=320*240
	videoResolutionEnd=3
	…
	next_AVStreamEncoderAbilityURL=5
	streamEncoderType=2
	videoResolutionCount =3
	videoResolutionBegin=1
	resolution=640*480

Resolution loop

Stream encode ability

Resolution loop

Stream ID

Stream encode ability

Resolution loop

Stream encode ability

	… Resolution loop StreamID
	next_videoResolutionURL=3 resolution=320*240 videoResolutionEnd=3 AVStreamEncoderAbilityEnd=5 AVStreamEnd=3

2.6.2.4 Audio/Video Stream Parameters

Audio/Video stream parameters table:

Table 2-6-2-4-1

Parameters	Data type	Description
streamName	<string>	Stream name
videoEncoderType	<int>{1,2,4,5,8}	Video encode type: 1：H264 2：MJPEG 4：H264_MAIN 5：H264_HIGH 8：H265_MAIN
audioEncoderType	<int>{102,103,107,108,109}	Audio encode 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
		The resolution of the different device support is not the same
frameRate	\<int\>	Frame rate(fps):
		Range: It's different depend on different device, generally is 1-25
		Note: Max frame rate that MJPEG supported is less than frame rate H264 supported
iFrameInterval	\<int\>[1,45]	I frame interval:
		Unit is frame, range depend on resolution: 1-45
bitRateType	\<int\>{1,2}	Bit rate type:
		1:CBR
		2:VBR
bitRate	\<int\>	Bit rate(kbps):
		Bit rate related to the resolution.
		When the resolution is 1920*1080, the bit rate range is:（500-12000）kbps;
		When the resolution is 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 range of the bit rate depend on the different device.
quality	\<int\>{1，2，3，4，5，6，7，8，9}	Quality:
		Range：1-9，9 means best
streamEncoderFlag	\<int\>{0，1}	**Stream smart encode flag**:
		Range：0：close； 1：open
AVStreamEncoderAbilityCount	\<int\>	The number of encoding ability supported by the stream

AVStreamEncoderAbilityBegin	\<int\>	Start flag for the stream ability loop: This flag indicates that the ability of the stream begins, and this flag only appears when the ability to return multiple streams is present, only 1 Only be 1
streamEncoderType	\<int\>{1,2,4,5,8}	Stream encoder type: 1：H264 2：MJPEG 4：H264_MAIN 5：H264_HIGH 8：H265_MAIN
videoResolutionCount	\<int\>	Video resolution type count
videoResolutionBegin	\<int\>	Resolution start flag: This flag indicates that the supported resolution starts. This flag only appears when multiple resolutions are supported. It can only be 1
next_videoResolutionURL	\<int\>	Next resolution URL flag Indicates that the next resolution is the supported nth
videoResolutionEnd	\<int\>	Resolution loop body end flag This flag corresponds to the corresponding Begin flag, indicating the number of resolutions.
next_AVStreamEncoderURL	\<int\>	The next encoding capability URL of the stream ID Indicates that the next stream capability is the supported nth
next_AVStreamURL	\<int\>	Next stream capability URL Indicates that the next stream

		capability is the supported nth
AVStreamEncoderAbilityEnd	<int>	Stream capability loop body end flag This flag corresponds to the corresponding Begin flag, indicating the number of stream capabilities.

2.6.3 Record Configuration

2.6.3.1 Record Policy(IPC/NVR)

2.6.3.1.1 Get Record Policy（getRecordPolicy）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**recordPolicy**&cameraID=<cameraID>
Description	Refer to Record Policy Parameters
Example	***http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=recordPolicy&cameraID=1***
Return	cameraID=1 RecordOpenFlag=0 SaveDays=7 StreamId=1 AudioOpenFlag=1 DiskGroupId=1 weekDayBegin=1 weekDay=2 startTime1=0 endTime1=86400 weekDayEnd=1

2.6.3.1.2 Set Record Policy（setRecordPolicy）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**recordPolicy**&cameraID=<cameraID>&StreamId=<StreamId>&DiskGroupId =<DiskGroupId >[&<argument>=<value>...]

Descripti on	cameraID、StreamId、DiskGroupId are mandatory items Refer to [Record Policy Parameters](#)
Example	***http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&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***
Return	OK or Error (Refer to [General Response](#))

2.6.3.1.3   Record Policy Parameter

Record policy parameters table:

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

Parameter	Data	Description
RecordOpenFlag	<int>{0,1}	Flag for schedule record: 0：Disable 1：Enable
cameraID	<int>	Channel ID
StreamId	<int>	Stream ID
SaveDays	<int>	Save Days
AudioOpenFlag	<int> {0,1}	Flag for record audio: 0：Disable 1：Enable
DiskGroupId	<int>	Disk group ID Must keep same catalog with record
Schedule time		
weekDayCount	<int>	Arming days Max up to 7
scheduleTimeAction	<string>	Schedule time Action When configure action to "set"without this

		action flag,and it would adapt default circulated body adding. cover:cover
weekDayBegin	\<int\>	Circulated body start Flag of arming days When configure action to "set"and must take this flag,No specific requirement for the value.
weekDay	\<int\> [0,6]	Weekday 0-6,0 indicates Sunday
startTime	\<long\> [0,86400]	Start time of arming Unit:second
endTime(1..3)	\<long\>[0,86400]	End time of arming
next_weekDayURL	\<int\>[2,n]	URL start flag of next schedule time Since from 2 。 If value is 2,it indicates following parameter is 2nd one ,when configured action is "set" and schedule time over than 1 hour must take this flag,no specific requirement for this value.
weekDayEnd	\<int\>	Circulated body end flag of arming days when configured action is "set",must take this flag, the value should be setting days.

2.6.3.2　　　Record Directory Information（recordDirInfo）(IPC)

2.6.3.2.1　　Get Record Directory Information (getRecordDirInfo）（ IPC）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**recordDirInfo**[&diskId=\<diskId\>]
Description	Carrying the diskId means getting the corresponding disk directory information，otherwise get all disk in formation. Refer to Record Directory Parameters
Example	***http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin &action=get&type=recordDirInfo***

Return	recordDirInfoBegin=1
	recordDirInfoBegin=1
	diskName=SD0001
	diskPath=SD0001
	diskWholePath=SD0001
	enableFlag=1
	alarmThreshold=90
	attribute=1 Parameter circulated body of record directory
	diskType=2
	freeSpace=0 Record Directory
	groupID=2
	status=1
	usableSpace=0
	fileSystemFormat=8
	…
	recordDirInfoNextURL=2
	...
	recordDirInfoEnd=2
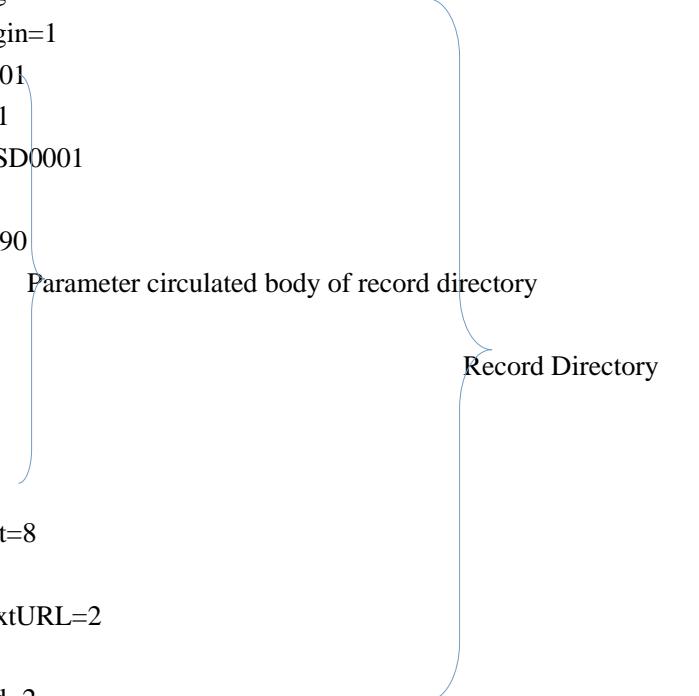
2.6.3.2.2   Set Record Directory Information (setRecordDirInfo)（ IPC ）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**recordDirInfo**&diskId=<diskId>[&<argument>=<value>...]
Description	cameraID、StreamId、DiskGroupId are mandatory items:
	1．When setting record directory parameters，below parameters can be changed:fileSystemFormat， groupID， enableFlag， diskName， alarmThreshold；if disk type is SD card , set fileSystemFormat to invalid and the remaining disk types will be valid.
	2． diskId is mandatory choose parameter。Below parameters are optional:fileSystemFormat， groupID， enableFlag， diskName， alarmThreshold，others parameters can't be changed；
	3．If device can't support multi channels,default value of groupID is 1。When setting group ID of record directory,must keep ID same to record policy,otherwise will affect record.
	Refer to Record Directory Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin*

	&action=set&type=recordDirInfo&diskId=1&diskName=SD0001&enableFlag=1&groupID=2
Return	OK or Error (Refer to [General Response](#))

2.6.3.2.3   Record Directory Parameters

Record directory parameters table:

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

Parameters	Data	Description
diskId	\<int\>	Disk ID Parameters is optional When "Get", if take this ,will get correspond disk directory information. otherwise will get all disk information,it is mandatory choose parameter when under "set".
recordDirInfoBegin	\<int\>	Circulated body start flag of record directory
recordDirInfoNextURL	\<int\>[2,n]	URL start flag of next record directory Since from 2 。If value is 2,it indicates following parameter is 2nd one ,when configured action is "set" and record directory number over than 1 hour must take this flag,no specific requirement for this value.
recordDirInfoEnd	\<int\>	Circulated body end flag of record directory
diskName	\<string\>	Disk name
diskPath	\<string\>	Disk path
diskWholePath	\<string\>	Disk path
alarmThreshold	\<int\>	Alarm threshold value
attribute	\<int\>	Available disk properties for user Default value 1. Network Shared disk：0 indicates read only，1 indicates write only ，2 indicates

		redundancy.
		SD card: 1 indicates record normally（RW），2 indicates temporary storage when network disk connection fails（redundancy）
		Local disk: support RW （1） read only （0） redundancy（2）
enableFlag	<int>{0,1}	Whether enable
		0：disable
		1：enable
diskType	<int>[1, 4]	Disk type
		Local disk(1),SD(2),FTP(3),Network Shared disk(4)
freeSpace	<int>	Free disk space
		Unit:M
groupID	<int>	Disk group ID number of directory
		Default value is 1.
status	<int>	Disk Status
		Network Shared disk：normal(0),connect failed（1） FTP disk :normal（0）,connect failed（1）SD : not format（2）、normal（0）、read only（3）、abnormal（4）、not insert card（5）
		Local disk：not format（2）、normal（0）、abnormal（4）、sleep（6）
usableSpace	<int>	Disk space used
fileSystemFormat	<int>	file system format
		（ when action=set，Required unless the disk type is SD card）
		SD card：
		1:Customized SD Card file system
		2:Fat32 file system
		3:Ext2
		4:Ext3
		Network disk：
		5:CIFS file system
		0:unknown file system
		Local disk：
		2:Fat32 file system

2.6.4 Alarm Configuration(IPC)

2.6.4.1   Alarm output（alarmOut）

2.6.4.1.1   Get Parameters Of Alarm Output(getAlarmOut）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**alarmOut**&alarmOutID=<alarmOutID>
Description	Refer to Alarm Output Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=alarmOut&alarmOutID=1*
Return	alarmOutID=1 alarmOutName=runFinish alarmValidSignal=1 alarmMode=2 alarmOutFrequency=0.000000 alarmTime=0

2.6.4.1.2   Set Device Parameters Of Alarm Output (setAlarmOut)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**alarmOut**[&<argument>=<value>...]
Description	Refer to Alarm Output Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=alarmOut&alarmOutID=1&alarmOutName=runFinish&alarmMode=2&alarmValidSignal=1&alarmOutFrequency=0.000000&alarmTime=0*
Return	OK or Error (Refer to General Response)

2.6.4.1.3   Alarm Output Parameters

Alarm output parameters table:

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

Parameter	Data	Description
alarmOutName	\<string\>	Alarm output name
alalrmOutID	\<int\>	Action ID
alarmValidSignal	\<int\>{0,1}	Effective alarm signal 1：close 0：open
alarmMode	\<int\>{1,2}	Alarm mode 1：switching mode 2：Square-wave Mode
alarmOutFrequency	\<float\>	Alarm frequency
alarmTime	\<int\>	Alarm duration unit : millisecond

2.6.4.2　　Alarm Center（alarmCenter）

2.6.4.2.1　Get Alarm Center Parameters（getAlarmCenter）（IPC）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**alarmCenter**&IPProtoVer=\<IPProtoVer\>
Description	Refer to Alarm Center Parameters
Example	***http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=alarmCenter&IPProtoVer=1***
Return	IPProtoVer=1 alarmCenterServerIP=192.168.1.7 alarmCenterServerPort=65

2.6.4.2.2　Set Alarm Center Parameters（setAlarmCenter）（IPC）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**alarmCenter**&IPProtoVer=<IPProtoVer>[&<argument>=<value>...]
Description	Refer to　Alarm Center Parameters
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=alarmCenter&IPProtoVer=1&alarmCenterServerIP=192.168.1.7&alarmCenterServerPort=65
Return	OK or Error (Refer to General Response)

2.6.4.2.3　Alarm Center Parameters

Alarm center parameters table:

<div align="center">Table 2-6-4-2-3-1</div>

Parameter	Data	description
alarmCenterServerIP	<string>	Alarm center IP
alarmCenterServerPort	<unsigned short>	Alarm center port When the input value is over than the max value 65535 of unsigned short，the value will regard as 65535

2.6.4.3　Motion Alarm（motionAlarm）

2.6.4.3.1　Get Motion Alarm Linkage Parameters（getMotionAlarm）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**motionAlarm**&cameraID=<cameraID>
Description	1．When weekDay value is determined，time segment also determined，format is below:startTime1、endTime1、startTime2、endTime2、startTime3、endTime3…

	While weekday=2，indicates have two time segment，Parameters is startTime1、endTime1、startTime2、endTime2。 While weekday =1，Indicates have 1time segment，parameters is startTime1、endTime1。 While weekday =0，Need to fill time segment parameters. When there is no schedule time period from Monday to Sunday, will no parameters lop body of no schedule. 2．When motionDetectionEnableFlag=0，will no loop body of motion detection. 3．When the alarm PTZ event is 0, there is no alarm cradle head loop body Refer to <u>Motion Alarm Linkage Parameters</u>
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=motionAlarm&cameraID=1*
Return	motionDetectionEnableFlag=1 alarmInterval=10 sensitivity=3 motionDetectionAreaBegin=1 topX=0 topY=0 width=95 height=70 ...... Detected area next_motionDetectionAreaURL=8 topX=152 topY=224 width=19 height=14 motionDetectionAreaEnd=8 weekDayBegin=1 weekDay=0 startTime1=0 endTime1=21600 startTime2=36000 endTime2=57600 ...... Detected time next_weekDayURL=7 weekDay=6 startTime1=36000 endTime1=59400 weekDayEnd=7 AlarmLinkageBegin=1

	ActionID=1
	ActionType=1
	AlarmLinkageEnd=1

2.6.4.3.2 Set Motion Alarm Linkage Parameters（setMotionAlarm）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=set&type=**motionAlarm**&cameraID=1[&\<argument\>=\<value\>...]
Description	Refer to Motion Alarm Linkage Parameters
Example	`http://192.168.2.44/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=motionAlarm&cameraID=1&motionDetectionEnableFlag=0&alarmInterval=10&sensitivity=3&motionDetectionAreaBegin=1&topX=95&topY=42&width=76&height=84&motionDetectionAreaEnd=1&motionDetectionAction=set&weekDayBegin=1&weekDay=0&startTime1=0&endTime1=86400&next_weekDayURL=2&weekDay=1&startTime1=0&endTime1=86400&weekDayEnd=2&AlarmLinkageBegin=1&ActionID=1&ActionType=1&AlarmLinkageEnd=1`
Return	OK or Error (Refer to General Response)

2.6.4.3.3 Motion Alarm Linkage Parameters

Motion alarm linkage parameters table:

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

Parameter	Data	description
motionDetectionEnableFlag	\<unsigned char\>{0,1}	Switch Flag of motion alarm 0：disable 1：enable
sensitivity	\<int\>	Sensitivity Value range according to equipment capability

alarmInterval	\<int\>[1,1800]	alarm interval alarm interval (1-1800 s)
cameraID	\<int\>	Device channel When configured, this item is required
Motion detected area		
motionDetectionAreaCount	\<int\>	Number of detection areas, loop body start flag of motion detected
motionDetectionAction	\<int\>	Loop body behavior of detected area When the behavior is configured as set, it is added in a loop by default if the behavior flag is not carried. cover:cover(`clear area need set cover`, `topX=0topY=0width=0height =0`)
motionDetectionAreaBegin	\<int\>	start flag of detected area This flag must be carried when configuring the behavior to be set, with no specific requirement for the value
topX	\<int\>	X coordinate Detects the coordinates of the upper-left x of the area .Note: according to the 420*260 resolution standard, the size of the detection area is determined by the upper left coordinate and the height and width of the detection area
topY	\<int\>	Y coordinate Detects the upper-left Y coordinate of the region
width	\<int\>	Width Width of Detected area
height	\<int\>	Height Height of detected area

next_motionDetectionAreaURL	<int>	Next motion detected area flag Since from 2.If value is 2,it indicates following parameter is 2nd one ,when configured action is "set" and loop body number over than 1 hour must take this flag,no specific requirement for this value.
motionDetectionAreaEnd	<int>	Loop end flag of motion detected This flag must be carried when the configuration behavior is set, and a number for values
Schedule time		
weekDayCount	<int>	Arming days Max up to 7 days
weekDayBegin	<int>	Loop body start flag of arming This flag must be carried when configuring the behavior to be set, with no specific requirement for the value
scheduleTimeAction	<int>	loop body operation of schedule When the behavior is configured as set, it is added in a loop by default if the behavior flag is not carried cover:cover
weekDay	<int>[0, 6]	Weekday 0-6,0 is Sunday
startTime(1..3)	<long>[0, 86400]	Start time of arming range：0-86400
endTime(1..3)	<long>[0, 86400]	End time of arming range：0-86400，must match with startTime
next_weekDayURL	<int>	Next scheduled time URL Start at 1. If the value is 1, the following

		parameter is clause 2
weekDayEnd	\<int\>	The end flag of the loop body When the configuration behavior is set, you must carry this flag for the number of loops for the value
Alarm PTZ event		
alarmPTZActionCount	\<int\>	Number of PTZ alarm events Depending on the equipment, the allowed number of PTZ alarm events is also different.
alarmPTZActionBegin	\<int\>	loop body start flag of alarm PTZ event. This flag must be carried when configuring the behavior to be set, with no specific requirement for the value.
alarmPTZAction	\<string\>	Loop body behavior of PTZ alarm event When the behavior is configured as set, if it is not carried with this behavior flag, it is added as the body of the loop by default. cover: cover
PTZChannelID	\<int\>	PTZ channel ID
PTZActionType	\<int\>	Type of PTZ operation Operation type（preset、track .etc）
PTZActionID	\<int\>	Operation ID The preset ID, track ID and so on set by the user before
next_PTZAcitonURL	\<int\>	Event flag of next PTZ alarm Since from 2.If value is 2,it indicates following parameter is 2nd one ,when configured action is "set" and loop body number over than 1 hour must take this flag,no specific requirement for this value.
alarmPTZActionEnd	\<int\>	Cycle End of PTZ When the configuration behavior is set,

			you must carry this flag, which represents the number of loops for a value.
		Linkage events	
AlarmLinkageCount	<int>		Linkage quantity
AlarmLinkageParam	<string>		Alarm linkage operation behavior When the behavior is configured as set, if it is not carried with this behavior flag, it is added as the body of the loop by default. cover:cover
ActionType	<int>[1,4]		Action Types 1：I/O 2：SMTP 3：PTZ 4：RECORD
ActionID	<int>		Action ID Identify the alarm source number. Each alarm source ID has a different meaning. For example, IO alarm indicates IO number, SMTP and PTZ indicate channel number
AlarmLinkageBegin	<int>		start flag of loop
next_AlarmLinkageURL	<int>		Event flag of next PTZ alarm Since from 2.If value is 2,it indicates following parameter is 2nd one ,when configured action is "set" and loop body number over than 1 hour must take this flag,no specific requirement for this value.
AlarmLinkageEnd	<int>		The end flag of alarm linkage When the configuration behavior is set, must carry this flag for the number of loops for the value

2.6.4.4 IO Alarm(IOAlarm)

2.6.4.4.1 Get I/O Alarm Linkage Parameters（get IOalarmLinkage）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**IOalarmLinkage**&alarmInID=1
description	When there is no schedule period from Monday to Sunday,no loop body of schedule parameters When alarmIOEnableFlag=0，No motion detection loop body. 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 body.。 Refer to I/O Alarm Linkage Parameters
Example	***http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=IOalarmLinkage&alarmInID=1***
Return	EnableFlag=0 ValidLevel=1 SourceName=scomputer weekDayBegin=1 weekDay=1 startTime1=5400 endTime1=21600 …… Schedule 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

2.6.4.4.2   Set I/O Alarm Linkage Parameters（set IOalarmLinkage）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**IOalarmLinkage**&alarmInID=1[&<argument>=<value>...]
Description	Refer to I/O Alarm Linkage Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&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 or Error (Refer to General Response)

2.6.4.4.3   I/O Alarm Linkage Parameters

I/O alarm linkage parameters table:

<p align="center">Table 2-6-4-4-3-1</p>

Parameter	Data	Description
alarmInID	<int>	ID of alarm input
EnableFlag	<unsigned char>{0,1}	I/o alarm witching 0：disable 1：enable
ValidLevel	<int>{0,1}	Trigger mode 0：open 1：close
SourceName	<string>	Source ID

schedule		
weekDayCount	\<int\>[0, 7]	Arming days Max up to 7 days
weekDayBegin	\<int\>	loop body operation of schedule This flag must be carried when configuring the behavior to be set, with no specific requirement for the value
scheduleTimeAction	\<int\>	loop body operation of schedule When the behavior is configured as set, it is added in a loop by default if the behavior flag is not carried。 cover:cover
weekDay	\<int\>[0, 6]	Weekday 0-6,0 is Sunday
startTime(1..3)	\<long\>[0,86400]	Start time of arming Range：0-86400
endTime(1..3)	\<long\>[0,86400]	End time of arming range：0-86400
next_weekDayURL	\<int\>	Next scheduled time URL Since from 2.If value is 2,it indicates following parameter is 2nd one ,when configured action is "set" and loop body number over than 1 hour must take this flag,no specific requirement for this value.
weekDayEnd	\<int\>	The end flag of thearming days loop body When the configuration behavior is set, you must carry this flag for the number of loops for the value
Alarm PTZ event		

alarmPTZActionCount	<int>	Number of PTZ alarm events Depending on the equipment, the allowed number of PTZ alarm events is also different
alarmPTZActionBegin	<int>	loop body start flag of alarm PTZ event. This flag must be carried when configuring the behavior to be set, with no specific requirement for the value.
alarmPTZAction	<string>	Loop body behavior of PTZ alarm event When the behavior is configured as set, if it is not carried with this behavior flag, it is added as the body of the loop by default. cover: cover
PTZChannelID	<int>	PTZ channel ID
PTZActionType	<int>	Type of PTZ operation Operation type（preset、track .etc）
PTZActionID	<int>	Operation ID The preset ID, track ID and so on set by the user before
next_PTZAcitonURL	<int>	Event flag of next PTZ alarm Since from 2.If value is 2,it indicates following parameter is 2nd one ,when configured action is "set" and loop body number over than 1 hour must take this flag,no specific requirement for this value.
alarmPTZActionEnd	<int>	Loop End of PTZ When the configuration behavior is set, you must carry this flag, which represents the number of loops for a

		value.
Linkage events		
AlarmLinkageCount	\<int\>	Linkage quantity
AlarmLinkageParam	\<string\>	Alarm linkage operation behavior When the behavior is configured as set, if it is not carried with this behavior flag, it is added as the body of the loop by default. cover:cover
ActionType	\<int\>[1, 4]	Action Types 1：I/O 2：SMTP 3：PTZ 4：RECORD
ActionID	\<int\>	Action ID Identify the alarm source number. Each alarm source ID has a different meaning. For example, IO alarm indicates IO number, SMTP and PTZ indicate channel number
AlarmLinkageBegin	\<int\>	start flag of loop
next_AlarmLinkageURL	\<int\>	Next scheduled time URL Since from 2.If value is 2,it indicates following parameter is 2nd one ,when configured action is "set" and loop body number over than 1 hour must take this flag,no specific requirement for this value.
AlarmLinkageEnd	\<int\>	The end flag of alarm linkage When the configuration behavior is set, must carry this flag for the number of loops for the value

2.6.4.5　　Disk Alarm(diskAlarm)

2.6.4.5.1　　Get Disk Alarm Parameters (getDiskAlarmParam）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**diskAlarm**&alarmInID=1
Description	Refer to Disk Alarm Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=diskAlarm&alarmInID=1*
Return	diskFullAlarmCheckFlag=1 diskErrorAlarmCheckFlag=0 NoDiskAlarmEnableFlag=0 AlarmInterval=345 AlarmLinkageBegin=1 ActionID=1 ActionType=1 AlarmLinkageEnd=1

2.6.4.5.2　　Set Disk Alarm Parameters (setDiskAlarmPram)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**diskAlarm**&alarmInID=1[&<argument>=<value>...]
Description	Refer to Disk Alarm Parameters，Refer to the General Response text for the response
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=diskAlarm&alarmInID=1&diskFullAlarmCheckFlag=1&diskErrorAlarmCheckFlag=0&NoDiskAlarmEnableFlag=0&AlarmInterval=345&AlarmLinkageBegin=1&ActionID=1&ActionType=1&AlarmLinkageEnd=1*
Rerurn	OK or Error (Refer to General Response)

2.6.4.5.3   Disk Alarm Parameters

Disk alarm parameter table:

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

Parameters	Data	Description
diskFullAlarmCheckFlag	<unsigned char>{0,1}	Detection flag of disk full alarm 0:Disable 1：Enable
diskErrorAlarmCheckFlag	<unsigned char>{0,1}	Detection flag of disk error alarm 0:Disable 1：Enable
NoDiskAlarmEnableFlag	<unsigned char>{0,1}	Enable diskless alarm flag 0:Disable 1：Enable
AlarmInterval	<int>[10, 86400]	Alarm interval 10-86400s
Alarm PTZ		
alarmPTZActionCount	<int>	Number of PTZ alarm events Depending on the equipment, the allowed number of PTZ alarm events is also different
alarmPTZActionBegin	<int>	loop body start flag of alarm PTZ event. This flag must be carried when configuring the behavior to be set, with no specific requirement for the value.
alarmPTZAction	<string>	Loop body behavior of PTZ alarm event When the behavior is configured as set, if it is not carried with this behavior flag, it is added as the

		body of the loop by default. cover: cover
PTZChannelID	\<int\>	PTZ channel ID
PTZActionType	\<int\>	Type of PTZ operation Operation type（preset、track .etc）
PTZActionID	\<int\>	Operation ID The preset ID, track ID and so on set by the user before
next_PTZAcitonURL	\<int\>	Event flag of next PTZ alarm Since from 2.If value is 2,it indicates following parameter is 2nd one ,when configured action is "set" and loop body number over than 1 hour must take this flag,no specific requirement for this value.
alarmPTZActionEnd	\<int\>	Loop End of PTZ When the configuration behavior is set, you must carry this flag, which represents the number of loops for a value.
Linkage events		
AlarmLinkageCount	\<int\>	Linkage quantity
AlarmLinkageParam	\<string\>	Alarm linkage operation behavior When the behavior is configured as set, if it is not carried with this behavior flag, it is added as the body of the loop by default. cover:cover
ActionType	\<int\>[1, 4]	Action Types 1：I/O 2：SMTP 3：PTZ 4：RECORD
ActionID	\<int\>	Action ID

		Identify the alarm source number. Each alarm source ID has a different meaning. For example, IO alarm indicates IO number, SMTP and PTZ indicate channel number
AlarmLinkageBegin	\<int\>	start flag of loop
next_AlarmLinkageURL	\<int\>	Next scheduled time URL Since from 2.If value is 2,it indicates following parameter is 2nd one ,when configured action is "set" and loop body number over than 1 hour must take this flag,no specific requirement for this value
AlarmLinkageEnd	\<int\>	The end flag of alarm linkage When the configuration behavior is set, must carry this flag for the number of loops for the value

2.6.4.6   Privacy Masking Alarm (blindAreaAlarm)

2.6.4.6.1   Get Privacy Masking Parameter（getBlindArea）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**blindArea**&cameraID=1
Description	Refer to <u>Privacy Masking Parameters</u>
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin &action=get&type=blindArea&cameraID=1*

Return	BlindAreaParamBegin=1	
	areaID=4	
	enableFlag=1	
	topX=14	
	topY=22	parameters of detected area
	height=31	
	width=27	
	BlindAreaName=PrivacyMask4	
	blindType=1	
	……	
	next_areaParamURL=3	
	areaID=3	
	enableFlag=1	
	topX=10	
	topY=68	parameters of detected area
	height=16	
	width=16	
	BlindAreaName=PrivacyMask3	
	blindType=1	
	BlindAreaParamEnd=3	

2.6.4.6.2 Set Privacy Masking Parameters（setBlindArea）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=blindArea&cameraID=1[&<argument>=<value>...]
Description	Refer to Privacy Masking Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=blindArea&cameraID=1&areaParamAction=add&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 or Error (Refer to General Response)

2.6.4.6.3　Delete Privacy Masking Parameter（deleteBlindArea）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>action=delete&type=**blindArea**&cameraID=1[&\<argument\>=\<value\>...]
Description	Carrying the areaID field means deleting the specified region, while not carrying the areaID field means deleting all regions Refer to Privacy Masking Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=delete&type=blindArea&cameraID=1&areaID=2*
Return	OK or Error (Refer to General Response)

2.6.4.6.4　Privacy Masking Parameters

Privacy masking parameters table:

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

Parameter	Data	Description
BlindAreaParamCount	\<int\>	masking area quantity
BlindAreaParamBegin	\<int\>	Start flag of masking area This flag must be carried when configuring the behavior to be set, with no specific requirement for the value
next_areaParamURL	\<int\>	Start flag of next masking area URL Since from 2.If value is 2,it indicates following parameter is 2nd one ,when configured action is "set" and loop body number over than 1 hour must take this flag,no specific requirement for this value.
BlindAreaParamEnd	\<int\>	End flag of masking area This flag must be carried when the configuration behavior is set, and the value is the number of Settings

cameraID	<int>	Channel ID
areaID	<int>	Area ID
enableFlag	<int>{0, 1}	Masking enable or not? 1：enable 0：disable
topX	<int>[0, 100]	X coordinate The percentage of the total width of the video region represented by the x coordinate of the upper left corner of the region（Values range from 0 to 100）
topY	<int>[0, 100]	Y coordinate The percentage of the total width of the video region represented by the y coordinate of the upper left corner of the region（Values range from 0 to 100）
width	<int>	Width The percentage of the region width to the total width of the video region
height	<int>	Height Region height as a percentage of total video region height
BlindAreaName	<string>	Move area name
blindType	<int>[1, 3]	Masking type 1: color blocks 2：mosaic 3: Color block + Mosaic Support types vary according to device capabilities
areaParamAction	<string>	Loop operation behavior of masking area When the behavior is configured as set, if it is not carried with this behavior flag, it is added as the body of the loop by

| | | default. |
| | | cover：cover |

2.6.4.7 AudioAbnormal Alarm(AudioAbnormalAlarm)

2.6.4.7.1 Get AudioAbnormal Alarm Linkage Parameters

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**AudioAbnormal**
description	When there is no schedule period from Monday to Sunday,no loop body of schedule parameters 　When AudioAbnormalEnableFlag=0，No motion detection loop body. 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 body.。 Refer to AudioAbnormal Alarm Linkage Parameters
Example	*http://192.168.2.81/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=AudioAbnormal*
Return	EnableFlag=0 suddenRiseEnable=1 riseSensitivity=38 riseThreshold=50 suddenDropEnable=1 dropSensitivity=38 dropThreshold=88 weekDayBegin=1 weekDay=1 startTime1=5400 endTime1=21600 ……　　　　　　　Schedule 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

2.6.4.7.2   Set AudioAbnormal Alarm Linkage Parameters

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**AudioAbnormal**&alarmInID=1[&<argument>=<value>...]
Description	Refer to <u>AudioAbnormal Alarm Linkage Parameters</u>
Example	*http://192.168.2.81/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=AudioAbnormal&EnableFlag=0&suddenRiseEnable=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&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 or Error (Refer to <u>General Response</u>)

2.6.4.7.3   AudioAbnormal Alarm Linkage Parameters

AudioAbnormal alarm linkage parameters table:

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

Parameter	Data	Description
EnableFlag	<unsigned char>{0,1}	AudioAbnormal alarm witching 0：disable 1：enable
suddenRiseEnable	<unsigned char>{0,1}	suddenRiseEnable alarm witching 0：disable

		1：enable
dropThreshold	<int>{1,100}	dropThreshold(only suddenDropEnable enable active)
riseSensitivity	<int>{1,100}	riseSensitivity(only suddenRiseEnable enable active)
riseThreshold	<int>{1,100}	riseThreshold(only suddenRiseEnable enable active)
suddenDropEnable	<unsigned char>{0,1}	suddenRiseEnable 0：disable 1：enable
dropSensitivity	<int>{1,100}	dropSensitivity (only suddenDropEnable enable active)
schedule		
weekDayCount	<int>[0, 7]	Arming days Max up to 7 days
weekDayBegin	<int>	loop body operation of schedule This flag must be carried when configuring the behavior to be set, with no specific requirement for the value
scheduleTimeAction	<int>	loop body operation of schedule When the behavior is configured as set, it is added in a loop by default if the behavior flag is not carried。 cover:cover
weekDay	<int>[0, 6]	Weekday 0-6,0 is Sunday
startTime(1..3)	<long>[0,86400]	Start time of arming Range：0-86400
endTime(1..3)	<long>[0,86400]	End time of arming range：0-86400

| next_weekDayURL | <int> | Next scheduled time URL

Since from 2.If value is 2,it indicates following parameter is 2nd one ,when configured action is "set" and loop body number over than 1 hour must take this flag,no specific requirement for this value. |
|---|---|---|
| weekDayEnd | <int> | The end flag of thearming days loop body

When the configuration behavior is set, you must carry this flag for the number of loops for the value |
| **Alarm PTZ event** | | |
| alarmPTZActionCount | <int> | Number of PTZ alarm events

Depending on the equipment, the allowed number of PTZ alarm events is also different |
| alarmPTZActionBegin | <int> | loop body start flag of alarm PTZ event.

This flag must be carried when configuring the behavior to be set, with no specific requirement for the value. |
| alarmPTZAction | <string> | Loop body behavior of PTZ alarm event

When the behavior is configured as set, if it is not carried with this behavior flag, it is added as the body of the loop by default.

cover: cover |
| PTZChannelID | <int> | PTZ channel ID |
| PTZActionType | <int> | Type of PTZ operation

Operation type（preset、track .etc） |
| PTZActionID | <int> | Operation ID |

		The preset ID, track ID and so on set by the user before
next_PTZAcitonURL	<int>	Event flag of next PTZ alarm Since from 2.If value is 2,it indicates following parameter is 2nd one ,when configured action is "set" and loop body number over than 1 hour must take this flag,no specific requirement for this value.
alarmPTZActionEnd	<int>	Loop End of PTZ When the configuration behavior is set, you must carry this flag, which represents the number of loops for a value.
Linkage events		
AlarmLinkageCount	<int>	Linkage quantity
AlarmLinkageParam	<string>	Alarm linkage operation behavior When the behavior is configured as set, if it is not carried with this behavior flag, it is added as the body of the loop by default. cover:cover
ActionType	<int>[1, 4]	Action Types 1：I/O 2：SMTP 3：PTZ 4：RECORD
ActionID	<int>	Action ID Identify the alarm source number. Each alarm source ID has a different meaning. For example, IO alarm indicates IO number, SMTP and PTZ indicate channel number
AlarmLinkageBegin	<int>	start flag of loop

next_AlarmLinkageURL	\<int\>	Next scheduled time URL Since from 2.If value is 2,it indicates following parameter is 2nd one ,when configured action is "set" and loop body number over than 1 hour must take this flag,no specific requirement for this value.
AlarmLinkageEnd	\<int\>	The end flag of alarm linkage When the configuration behavior is set, must carry this flag for the number of loops for the value

2.6.5   External Device Configration

2.6.5.1   External PTZ（PTZ）

2.6.5.1.1   Get External PTZ Parameters（getPTZParam）(IPC)

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**PTZ**&cameraID=\<cameraID\>
Description	Refer to [External PTZ Parameters](#)
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&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

2.6.5.1.2 Set External PTZ Parameters（setPTZParam）（IPC）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=set&type=**PTZ**[&\<argument\>=\<value\>...]
Descripti on	Refer to External PTZ Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=PTZ&cameraID=1&PTZBegin=1&PTZEnableFlag=1&comID=2&PTZProtocol=0&baudRate=115200&dataBits=8&stopBits=0&parity=3&PTZEnd=1*
Return	OK or Error(Refer to General Response)

2.6.5.1.3 External PTZ Parameters

External PTZ parameters table:

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

Parameter	Data	Description
PTZCount	\<int\>	PTZ parameters quantity
PTZBegin	\<int\>	Start flag of PTZ parameters Indicates the starting of PTZ information，only can be 1
PTZEnableFlag	\<unsigned char\>{0,1}	Enable the PTZ flag or not: 0：disable 1：enable Invalid setting of other values, return -8 (parameter error)
cameraID	\<int\>	Channel ID
internalPTZID	\<int\>	Built-in PTZ ID Parameters of Built-in PTZ is fixed，PTZ parameters can be changed by setting the PTZ ID
PTZType	\<int\>{0, 1}	PTZ type

		0：bullet camera
		1：Speed dome camera
		When PTZ Type, the inherent performance of the device can only be obtained but not set
PTZDeviceID	<int>	PTZ IP address
		PTZ ID
PTZProtocol	<int>{0, 1}	PTZ protocol
		0：PELCO_D protocol
		1：PELCO_P protocol
		Invalid setting of other values, return -8 (parameter error)
comID	<int>	PTZ serial port ID
		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，return -8 (parameter error)
dataBits	<int>[4, 8]	Data bits
		range：（4-8）
		Invalid setting of other values, return -8 (parameter error)
stopBits	<int>[0, 2]	Stop bits

		0：1
		1：1.5
		2：2
		Invalid setting of other values, return -8 (parameter error)
parity	\<int\>[0, 4]	parity check bit
		0：no parity（None）
		1：odd Parity Check（Odd）
		2：even parity check（Even）
		3：mark check（Mark）
		4：space check（Space）
		Invalid setting of other values, return -8 (parameter error)
next_PTZURL	\<int\>	Next PTZ parameter
		Start from 2. If the value is 2, the following parameter is clause 2.
PTZEnd	\<int\>	PTZ parameter end flag
		Indicates the number of PTZ parameters

2.6.5.2   PTZ Keyboard（PTZKeyboard）（IPC）

2.6.5.2.1   Get The PTZ Keyboard Parameters（getPTZKeyboardParam）（IPC）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**PTZKeyboard**
Description	Refer to PTZ Keyboard Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=PTZKeyboard*
Return	enableFlag=1 interfaceType=1 comID=2 baudRate=1200

	dataBits=8
	stopBits=1
	parity=4

2.6.5.2.2   Set PTZ Keyboard Parameters（setPTZKeyboardParam）(IPC)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**PTZKeyboard**[&<argument>=<value>...]
Description	Refer to PTZ Keyboard Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=PTZKeyboard&enableFlag=1&interfaceType=1&comID=2&baudRate=1200&dataBits=8&stopBits=1&parity=4*
Return	OK or Error (Refer to General Response)

2.6.5.2.3   PTZ Keyboard Parameters

PTZ keyboard parameter table:

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

Parameter	Data	Description
interfaceType	<int>	interface type 1:RS485 serial port type Currently only RS485 is supported. If the setting of other values is invalid, return -8
baudRate	<int>{300,1200,2400,4800,9600,19200,38400,57600,115200}	bit rate Currently only support 300，1200，2400，4800，9600，19200，38400，57600，115200，Set other values invalid, otherwise return -8
dataBits	<int>[4, 8]	Data bits Set other values invalid, otherwise return -8

stopBits	\<int\>[0,2]	Stop bits 0：1 1：1.5 2：2 Invalid setting of other values, return -8 (parameter error)
parity	\<int\>[0,4]	parity check bit 0：no parity（None） 1：odd Parity Check（Odd） 2：even parity check（Even） 3：mark check（Mark） 4：space check（Space） Invalid setting of other values, return -8 (parameter error)

2.6.6　Service Center Configration

2.6.6.1　SMTP Service (IPC)

2.6.6.1.1　Get SMTP Service Parameters（getSMTPParam）（IPC）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**SMTP**
Description	Refer to SMTP Service Parameters
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=SMTP
Return	serverAddr=asdf serverPort=2001 SMTPUserName=tang SMTPPassword=tag senderEmailAddress=tag transportMode=0 attachmentImageQuality=2 recipientEmailAddress1=1 recipientEmailAddress2=

	recipientEmailAddress3=
	recipientEmailAddress4=heheh
	recipientEmailAddress5=

2.6.6.1.2 Set SMTP Parameters（setSMTPParam）（IPC）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**SMTP** [&<argument>=<value>...]
Description	Refer to <u>SMTP Service Parameters</u>
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=alarmOut&alarmOutID=1&alarmOutName=runFinish&alarmMode=2&alarmValidSignal=1&alarmOutFrequency=0.000000&alarmTime=0
Return	OK or Error (Refer to <u>General Response</u>)

2.6.6.1.3 SMTP Service Parameters

SMTP service parameters table:

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

Parameter	Data	Description
serverAddr	<string>	**SMTP server address** Blank is no allowed, or will return -8 (wrong parameter), space included will be deleted
serverPort	<unsigned short>[0,65535]	**SMTP server port** If the value input is greater than the max value (65535) of unsigned short type range, it will be regraded as 65535
SMTPUserName	<string>	**User Name** Must be English character, no more than 32 characters, or it will return -8 (wrong parameter), space included will be deleted, blank and below special characters are not allowed: < > % & \" / ,

1

		' ; =	+
SMTPPassword	\<string\>	**Password** Must be English character, no more than 20 characters, or it will return -8 (wrong parameter), Space included will be deleted, blank and below special characters are not allowed: < > % & \" / , ' ; = | +
senderEmailAddress	\<string\>	**Sender Email Address** Must be English character, no more than 128 characters, or it will return -8 (wrong parameter), Space included will be deleted, blank is not allowed
transportMode	\<int\>[0, 2]	**Email Transport Mode** 0：No Encryption 1：SSL 2：Starttls Other values are invalid, will return -8 (wrong parameter)
attachmentImageQuality	\<int\>[1, 3]	**Image Quality in Email Attachment** 1：High 2：Middle 3：Low Other values are invalid, will return -8 (wrong parameter)
recipientEmailAddress1	\<string\>	**Recipient 1 Email Address** Blank is no allowed, no more than 128 characters, or will return -8 (wrong parameter), space included will be deleted
recipientEmailAddress2	\<string\>	**Recipient 2 Email Address** Blank is no allowed, no more than 128 characters, or will return -8 (wrong parameter), space included will be

		deleted
recipientEmailAddress3	<string>	**Recipient 3 Email Address** Blank is no allowed, no more than 128 characters, or will return -8 (wrong parameter), space included will be deleted
recipientEmailAddress4	<string>	**Recipient 4 Email Address** Blank is no allowed, no more than 128 characters, or will return -8 (wrong parameter), space included will be deleted
recipientEmailAddress5	<string>	**Recipient 5 Email Address** Blank is no allowed, no more than 128 characters, or will return -8 (wrong parameter), space included will be deleted

2.6.6.2　　NTP Parameters（NTPParam）(IPC/NVR)

2.6.6.2.1　　Get NTP Parameters（getNTPParam）（ IPC / NVR）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**NTP**
Description	Refer to NTP Parameters
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=NTP
Return	enableFlag=1 IPProtoVer=1 NTPIP=192.168.1.7 NTPPort=3 NTPCheckTime=3600

2.6.6.2.2　　Set NTP Parameters（setNTPParam）（ IPC / NVR）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<

	password>&action=set&type=**NTP**[&<argument>=<value>...]
Description	NTP parameters only supports IPV4 currently，that is to say IPProtover=1;If set to IPV6, NTP will be disabled; Refer to <u>NTP Center Parameters</u>
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin &action=set&type=NTP&IPProtoVer=1&enableFlag=1&NTPIP=192.168.1. 7&NTPPort=3&NTPCheckTime=3600
Return	OK or Error (Refer to <u>General Response</u>)

2.6.6.2.3   NTP Parameters

NTP center parameters table:

<div align="center">Table 2-6-6-2-3-1</div>

Parameter	Data	Description
NTPIP	<string>	**IP of NTP Server** If IP format is not right will return -8（wrong parameter）
NTPPort	<int>[0, 65535]	**Port of NTP Server** If the value is greater than 65535, it will be regarded as 65535
enableFlag	<unsigned char>{0,1}	**Flag of NTP Service Status** 0：Disabled 1：Enabled
IPProtoVer	<int>{1, 2}	**Version of IP** 1：IPV4 2：IPV6
NTPCheckTime	<int>{11,99999}	Check the time interval(greater than 10s)

2.6.6.3　DDNS Service（DDNS）(IPC)

2.6.6.3.1　Get DDNS Service Parameters　（getDDNS）（IPC）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**DDNS**
Description	Refer to DDNS Service Parameters
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=DDNS
Return	enableFlag=1 providerID=1 domainName=1234 DDNSAccounts=tang DDNSPassword=1

2.6.6.3.2　Set DDNS Service Parameters（setDDNS）（IPC）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**DDNS**[&<argument>=<value>...]
Description	Refer to DDNS Service Parameters
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=DDNS&enableFlag=1&providerID=1&domainName=1234&DDNSAccounts=tang&DDNSPassword=1
Return	OK or Error (Refer to General Response)

2.6.6.3.3　DDNS Service Parameters

DDNS parameters table:

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

Parameter	Data	Description

providerID	\<int\>[0, 3]	**ID of Provider** 1：ddns_3322 2：ddns_dyndns 3：ddns_noip
domainName	\<string\>	**DDNS Domain Name** No more than 64 characters, or will return -8 (wrong parameter), space included will be deleted, blank, and below special characters are not allowed: < > % & \" / , ' ; = | +
DDNSAccounts	\<string\>	**DDNS Account** No more than 32 characters, or will return -8 (wrong parameter), space included will be deleted, blank, and below special characters are not allowed: < > % & \" / , ' ; = | +
DDNSPassword	\<string\>	**DDNS Password** Must be English character，no more than 32 characters, or will return -8 (wrong parameter), space included will be deleted, blank, and below special characters are not allowed: < > % & \" / , ' ; = | +

2.6.6.4   PPPoE Service（PPPoE）(IPC)

2.6.6.4.1   Get PPPoE Service Parameters（getPPPoE）（IPC）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**PPPoE**
Description	Refer to PPPoE Service Parameters
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=PPPoE
Return	enableFlag=1 PPPoEUserName=tang PPPoEPassword=1

2.6.6.4.2 Set PPPoE Service Parameters（setPPPoE）（IPC）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**PPPoE**[&<argument>=<value>...]
Description	Refer to <u>PPPoE Service Parameters</u>
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=PPPoE&enableFlag=1&PPPoEUserName=tang&PPPoEPassword=1
Return	OK or Error (Refer to <u>General Response</u>)

2.6.6.4.3 PPPoE Service Parameters

PPPoE service parameters table:

<p align="center">Table 2-6-6-4-3-1</p>

Parameter	Data	Description
PPPoEUserName	<string>	**PPPoE Username** No more than 32 characters, or will return -8 (wrong parameter), space included will be deleted, blank, and below special characters are not allowed: < > % & \" / , ' ; = | +
PPPoEPassword	<string>	**PPPoE Password** Must be English character, no more than 32 characters, or will return -8 (wrong parameter), space included will be deleted, blank, and below special characters are not allowed: < > % & \" / , ' ; = | +

2.6.6.5 UPnP Service（UPnP）(IPC)

2.6.6.5.1 Get UPNP Service Parameters（getUPNP）（IPC）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**UPNP**
Descriptio	Refer to <u>UPnP Service Parameters</u>

n	
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin &action=get&type=UPNP
Return	enableFlag=1

2.6.6.5.2   Set UPnP setUPNP）（IPC)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=< password>&action=set&type=**UPNP**[&<argument>=<value>...]
Description n	Refer to <u>UPnP Service Parameters</u>
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin &action=set&type=UPNP&enableFlag=1
Return	OK or Error (Refer to <u>General Response</u>)

2.6.6.5.3   UPnP Service Parameters

UPnP service parameters table:

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

Parameter	**Data**	**Description**
enableFlag	<unsigned char>{0, 1}	0：Disabled 1：Enabled Other values are invalid, will return -8 (wrong parameter)

2.6.7   Protocol(IPC)

2.6.7.1   Protocol Information（protocolInfo）

2.6.7.1.1   Get Protocol Information Parameters（getProtocolInfo）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password= <password>&action=get&type= **protocolInfo**

Description	Refer to [Protocol Information Parameters](#)
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=protocolInfo
Return	protocolName=ONVIF protocolVersion=v17.06 protocolSoftwareVersion=v17.06_build000029

2.6.7.1.2 Protocol Information Parameters

Protocol information parameters table:

<div align="center">Table 2-6-7-1-2-1</div>

Parameter	Data	Description
protocolName	\<string\>	Protocol Name
protocolVersion	\<string\>	Protocol Version
protocolSoftwareVersion	\<string\>	Protocol Software Version

2.6.7.2   Protocol Security（**protocolSecurity**）

2.6.7.2.1   Get Protocol Security Parameters（**getProtocolSecurity**）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type= **protocolSecurity**
Description	Refer to [Protocol Security Parameters](#)
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=protocolSecurity
Return	protocolSecurityFlag=1

2.6.7.2.2   Set Protocol Security Parameters（**setProtocolSecurity**）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=set&type=**protocolSecurity**[&protocolSecurityFlag=\<pro

	tocolSecurityFlag>]
Description	*mark：only available for OnvifProtocol currently Refer to Protocol Security Parameters
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=protocolSecurity&protocolSecurityFlag=1
Return	OK or Error(Refer to General Response)

2.6.7.2.3　　Protocol Security Parameters

Protocol security parameters table:

<p align="center">Table 2-6-7-2-3-1</p>

Parameter	Data	Description
protocolSecurityFlag	<unsigned char>{0, 1}	**Flag of if enable Protocol Security** 0：Disabled 1：Enabled It is an optional parameter in **Set** command, will set it when with it, no change when without it

2.6.8　LPR Configuration (LPR IPC)

2.6.8.1　　Black/White List

2.6.8.1.1　　Get the Plate Number in Black/White List（getPlateSize）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**PlateSize**
Description	Refer to Plate Information Parameters
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=PlateSize
Return	PlateSize=2

2.6.8.1.2　Get Plate Information in Black/White List（getLprPlateNum）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**LprPlateNum**&BeginIndex=\<BeginIndex\>&EndIndex =\< EndIndex \>
Description	Refer to Plate Information Parameters
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=LprPlateNum&BeginIndex=0&EndIndex=10
Return	PlateParamBegin=1 PlateText=5MVL305 LprPlateType=1 StartTime=1540373771 EndTime=1540460171 NextUrl=2　　　　　　　　　　Plate Information PlateText=DD652 LprPlateType=0 StartTime=1540373771 EndTime=1540460171 PlateParamEnd=2
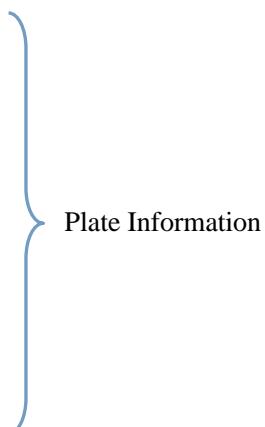
2.6.8.1.3　Add Plate to Black/White List（addLprPlateNum）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=add&type=**LprPlateNum**[&\<argument\>=\<value\>...]
Description	Refer to Plate Information Parameters
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=add&type=LprPlateNum&PlateParamBegin=1&PlateText=5MVL303&LprPlateType=1&StartTime=1640373771&EndTime=1640460171&NextUrl=2&PlateText=DD651&LprPlateType=0&StartTime=1640373771&EndTime=1640460171&PlateParamEnd=2
Return	OK or Error(Refer to General Response)

2.6.8.1.4　Delete Plate from Black/White List（deleteLprPlateNum）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<

	password>&action= delete&type=**LprPlateNum**[&<argument>=<value>...]
Descriptio n	Refer to Plate Information Parameters
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=delete&type=LprPlateNum&PlateParamBegin=1&PlateText=5MVL303&LprPlateType=1&StartTime=1640373771&EndTime=1640460171&NextUrl=2&PlateText=DD651&LprPlateType=0&StartTime=1640373771&EndTime=1640460171&PlateParamEnd=2
Return	OK or Error(Refer to General Response)

2.6.8.1.5 Modify Plate in Black/White List（modify LprPlateNum）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action= modify&type=**LprPlateNum**[&<argument>=<value>...]
Description	Refer to Plate Information Parameters
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=modify&type=LprPlateNum&OldListBegin=1&PlateParamBegin=1&PlateText=5MVL303&LprPlateType=1&StartTime=1640373771&EndTime=1640460171&NextUrl=2&PlateText=DD651&LprPlateType=0&StartTime=1640373771&EndTime=1640460171&PlateParamEnd=2&OldListEnd=1&NewListBegin=1&PlateParamBegin=1&PlateText=DD652&LprPlateType=0&StartTime=1640373771&EndTime=1640460171&NextUrl=2&PlateText=5MVL305&LprPlateType=1&StartTime=1640373771&EndTime=1640460171&PlateParamEnd=2&NewListEnd=1
Return	OK or Error(Refer to General Response)

2.6.8.1.6 Plate Information Parameters

Plate information parameters table:

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

Parameter	Data	Description
PlateText	<string>	**Plate Number**
Type	<int>{0, 1}	**List Type of the Plate Number**

		0: Black List
		1: White List
StartTime	\<long\>	**Start Time**
EndTime	\<long\>	**End Time**
PlateSize	\<int\>	**Number of Black/White List**
BeginIndex	\<int\>	**Begin Number of List**
EndIndex	\<int\>	**End Number of List**
Length	\<int64\>	**File Length** Byte is the unit

2.6.8.2 Plate Linkage Information

2.6.8.2.1 Get Plate Linkage Information（LprLinkParam）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**LprLinkParam**
Description	Refer to Plate Linkage Information
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&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

2.6.8.2.2 Set Plate Linkage (LprLinkParam）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**LprLinkParam**[&<argument>=<value>...]
Description	Refer to Plate Linkage Information
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&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 or Error(Refer to General Response)

2.6.8.2.3 Plate Linkage Parameters

Plate linkage parameters table:

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

Parameter	Data	Description
BlackListUpload	<int>{0, 1}	**Upload snapshot by FTP when detect plate in black list** 0: Do not upload 1: Upload
BlackListOpen	<int>{0, 1}	**Open barrier when detect plate in black list** 0: Do not open 1: open
BlackListSMTP	<int>{0, 1}	**Send Email when detect the plate in black list** 0: Do not send 1: Send
WhiteListUpload	<int>{0, 1}	**Upload snapshot by FTP when detect plate in black list**

		0: Do not upload
		1: Upload
WhiteListOpen	<int>{0, 1}	**Open barrier when detect plate in white list** 0: Do not open 1: open
WhiteListSMTP	<int>{0, 1}	**Send Email when detect plate in white list** 0: Do not send 1: Send
NoListUpload	<int>{0, 1}	**Upload snapshot when detect plate in white list by FTP** 0: Do not upload 1: Upload
NoListOpen	<int>{0, 1}	**Open barrier when detect plate not in list** 0: Do not open 1: Open
NoListSMTP	<int>{0, 1}	**Send Email when detect plate not in list** 0: Do not send 1: Send
SnapshotUpload	<int>{0, 1}	**Upload snapshot by FTP** 0: Do not upload 1: Upload
OpenLevel	<int>{0, 1}	**Electrical Level to open barrier** 0：Low 1：High
OpenBarrierDuration	<int>	Duration time of opening barrier
OSD	<int>{0, 1}	**Display plate information on OSD** 0: Do not display

		1: Display
OSDDuration	\<int\>	**Display duration time of OSD** (0 means always display)

2.6.8.3 Plate Configuration Information

2.6.8.3.1 Set Plate Configuration Parameters（LprConfigParam）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=set&type=**LprConfigParam**[&\<argument\>=\<value\>...]
Description	Refer to Plate Configuration Parameters
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=LprConfigParam&MinWidth=150&Credibility=0.850000&Angle=100&RoiTopX=50&RoiTopY=50&RoiWith=100&RoiHeight=100
Return	OK or Error(Refer to General Response)

2.6.8.3.2 Get Plate Configuration Parameters（LprConfigParam）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**LprConfigParam**
Description	Check Plate Configuration Parameters
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=LprConfigParam
Return	MinWidth=130 Credibility=0.650000 Angle=100 RoiTopX=0 RoiTopY=0 RoiWith=100 RoiHeight=100

2.6.8.3.3   Plate Configuration Parameters

Plate configuration parameters table:

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

Parameter	Data	Description
MinWidth	<int>	**Min width value of plate**
Credibility	<float>	**Credibility** Default 0.5，reserved for future use
Angle	<int>	**The angle that car coming from** Base on the camera image, horizontal right as X axis, vertical down as Y axis,the angle between the X axis and car's driving direction
RoiTopX	<int>	**X value of plate recognition area**
RoiTopY	<int>	**Y value of plate recognition area**
RoiWith	<int>	**Width of plate recognition area**
RoiHeight	<int>	**Height of of plate recognition area**

2.6.8.4   Plate Record（PlateInfo）

2.6.8.4.1   Query the Last Pate in Record (getPlateInfo)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**PlateInfo**
Description	Refer to Plate Information Query Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=PlateInfo*
Return	UID=1 Time=2018-10-24 11:36:13 PlateNUM=DD651 Country=ISL Action=7 ListType=0

	Direction=0

2.6.8.4.2   Delete Plate Information (deletePlateInfo)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=delete&type=**PlateInfo**&Type=<Type>[&<argument>=<value>...]
Description	If Type=0，only to take UID part along in loop body; If Type=1，only to take PlateNum part along in loop body. Refer to **Plate Information Query Parameters**
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=delete&type=PlateInfo&Type=1&PlateNumBegin=1&PlateNum=MVL303&PlateNumEnd=1 **OR** http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=delete&type=PlateInfo&Type=0&UIDBegin=1&UID=1&UIDEnd=1
Return	OK or Error(Refer to **General Response**)

2.6.8.4.3   Query Plate Information in Record (queryPlateInfo)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=**query**&type=**PlateInfo**&startTime=<startTime>&endTime=<endTime>&Country=<Country>&PlateText=<PlateText>&Direction=<Direction >& ListType=<ListType>
Description	Refer to **Plate Information Query Parameters**
Example	http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&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

2.6.8.4.4 Plate Information Query Parameters

Plate information query parameters table:

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

Parameter	Data	Description
userName	\<string>	**Username**
password	\<string>	**Password**
Action	\<string>	**Action** Get, Delete, or Query
type	\<string>	**Type** PlateInfo
UID	\<int>	**Serial Number**
Time	\<string>	**Time when plate is deteced** Time format: yyyy--mm--dd hh:mm:ss
PlateNUM	\<string>	**Plate Number**
Country	\<string>	**Corresponding country of plate** Can't be empty
Action	\<int>[1, 3]	**Action** 1: Open barrier; 2: Upload snapshot by FTP;

		3: Execute both 1&2
ListType	<int>[0, 2]	**List Type** 0: Black list 1: White list 2: No in list
Direction	<int>[0, 3]	**Driving Direction** 0: Unknow; 1:Undefined; 2:In; 3:Out
ImageLen	<int>	**Query data length of current image**
ImageData	<string>	**Query data of current image**
Type	<int>[0, 1]	**Plate Number Type** 0: Serial Number； 1: Plate Number
UID	<int>	**Serial Number**
UIDBegin	<int>	**Start Flag of UID List** Can't be empty
UIDNextUrl	<int>	**UID Data Delimiter** Can't be empty
UIDEnd	<int>	**Quantity of the data on UID List**
PlateNum	<string>	**Plate Number** Plate number need to be deleted
PlateNumBegin	<int>	**Start Flag of Plate Number List** Can't be empty
PlateNumEnd	<int>	**End Flag of Plate Number List** Quantity of the data on PlateNum list

Parameter	Data	Description
PlateNumNextUrl	<int>	**Plate List Data Delimiter** Can't be empty

2.6.8.4.5   Plate Information Record Parameters

Plate information record parameters table:

<center>Table 2-6-8-4-5-1</center>

Parameter	Data	Description
action	<string>	**Action** query
startTime	<int>	**Start Time of Query** Format（YYYYMMDDHHMMSS） Note：min value is 1971010101000000
endTime	<string>	**End Time of Query** Format（YYYYMMDDHHMMSS） Note：min value is 1971010101000000
Country	<string>	**Search according to Country** ALL
PlateText	<string>	**Search according to Plate Number** Plate Number
Direction	<int>[0, 4]	**Search according to Driving Direction** 0: Unknown 1: Undefined 2: Forwarding (in) 3: Reverse(out) 4: All
ListType	<int>[0, 3]	**Search according to B/W List** 0: Black List 1: White List

		2: Not in List 3: All
NextPlate	<string>	**Separating Field**
PlateBegin	<string>	**Start Field of Return Value**
PlateEnd	<string>	**End Field of Return Value**

2.6.9　Intelligent Analysis（IntelligenceAnalyse）

2.6.9.1　　Common Field Of Intelligent Analysis

Types of Intelligent Analysis

Table 2-6-9-1-1

perimeterParam	Perimeter
tripWireParam	Single Virtual Fence
multiTripWireParam	Double Virtual Fence
loiterParam	Loiter
multiLoiterParam	Multi Loiter
objLeftParam	Object Left
objMovedParam	Object Removed
abnormalSpeedParam	Abnormal Speed
converseParam	Converse
noParkingParam	Illegal Parking
signalBadParam	Signal Bad

URL Requisite Parameters

Table 2-6-9-1-2

Parameter	Data	Description

userName	<string>	Login username
password	<string>	Login password
action	<string>{get,set}	Operation: get: get set: set
type	<string>	Types of intelligent analysis Refer to Types of Intelligent Analysis
cameraID	<int>[0,n]	Supported camera ID, which is related to device capability.

Intelligent Analysis Common Parameters

Table 2-6-9-1-3

Parameter	Data	Description
enableFlag	<int>{0,1}	Enable flag 0：disabled 1：enabled
alarmOut	<int>{0,1}	Alarm out enable flag 0：disabled (default) 1：enabled
alarmRecord	<int>{0,1}	Enable flag of linkage record 0：disabled (default) 1：enabled
alarmSMTP	<int>{0,1}	Enable flag of linkage sending email 0：disabled (default) 1：enabled
alarmFTP	<int>{0,1}	Enable flag of linkage FTP uploading 0：disabled (default) 1：enabled

draw	<int>{0,1}	Enable flag of line drawing on video stream
		0：disabled (default)
		1：enabled
weekDayCount	<int>[0,7*24]	Number of the time period
		One day is divided to 24 time periods, so maximum 7*24 time periods can be set.
		Refer to Context Format Rule
weekDayBegin	<int>{1}	Enable flag of time period loop body
		This field is required if the operation is 'set', refer to Context Format Rule
weekDay	<int>[0,6]	Week day
		0：Sunday
		1：Monday
		2：Tuesday
		3：Wednesday
		4：Thursday
		5：Friday
		6：Saturday
startTime	<long>[0,86400]	Start time of the current loop body
		Range：0-86400, unit: s
endTime	<long>[0,86400]	End time of the current loop body
		Range：0-86400，unit: s
next_weekDayURL	<int>[2,7*24]	Enable flag of the next time period loop body
		Start from 2, and cannot be more than 7*24. This field is required if the operation is 'set' and the number of time period is more than 1
weekDayEnd	<int>[1,7*24]	End flag of time period loop body
		This field is required when the

		operation is 'set'. Refer to [Context Format Rule](#)

Region Parameters：

Table 2-6-9-1-3

Parameter	Data	Description
pointCount	\<int>[3,8]	The point number of the region This field is required if the operation is 'set', 3 means the region is a triangle. Refer to [Context Format Rule](#)
pointBegin	\<int>{1}	Enable flag of point loop body This field is required if the operation is 'set', refer to [Context Format Rule](#)
PointParam	\<PointParam>	Coordinate position Refer to [Context Format Rule](#)
next_pointURL	\<int>[2,8]	Enable flag of the next point loop body Start from 2, and cannot be more than 7*24. This field is required if the operation is 'set' and the number of point is more than 1, refer to [Context Format Rule](#)
pointEnd	\<int>[1,8]	End flags of point loop body Refer to [Context Format Rule](#)

Point Parameters：

Table 2-6-9-1-4

Parameter	Data	Description
pointX	\<float>[0.0,100.0]	The horizontal position

		This field is required if the operation is 'set'
pointY	\<float>[0.0,100.0]	The vertical position This field is required if the operation is 'set'

2.6.9.2　　Perimeter

2.6.9.2.1　　Get Perimeter Parameters（getPerimeterParam）

URL	http://\<ip>/cgi-bin/param.cgi?userName=\<username>&password=\<password>& action=get&type=**perimeterParam**&cameraID=\<cameraID>
Description	Refer to Intelligent Analysis Common Parameters and Perimeter Parameters
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin &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 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

2.6.9.2.2 Set Perimeter Parameters（setPerimeterParam）

URL	http://\<servername>/cgi-bin/param.cgi?userName=\<username>&password=\<password>&action=set&type=**perimeterParam**&cameraID=1[&\<argument>=\<value>...]
Description	Refer to [Perimeter Parameters](#)
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=perimeterParam&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&pointCount=3&pointBegin=1&pointX=23.325359&pointY=21.367521&next_pointURL=2&pointX=77.870811&pointY=25.213675&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*
Return	OK or Error （Refer to [General Response](#)）

2.6.9.2.3 Perimeter parameters

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

Parameter	Data	Description
IntelligentCommonParam	IntelligentCommonParam	Intelligent analysis Common Parameters Refer to [Intelligent Analysis Common](#)

uploadDetail	\<int\>{0,1}	Upload the detailed info 0: No (default) 1: Yes
regionCount	\<int\>[0,32]	Number of the region This field is required if the operation is 'set' Maximum support 32 regions，refer to Context Format Rule
regionBegin	\<int\>{1}	Enable flag of region loop body This field is required if the operation is 'set'. Refer to Context Format Rule
PerimeterRegionPa ram	PerimeterRegionParam	Parameter of each region Refer to Perimeter Region Parameters
next_regionURL	\<int\>[2,32]	Enable flag of the next region Start from 2, This field is required if the operation is 'set' and the number of region is more than 1 Refer to Context Format Rule
regionEnd	\<int\>[1,32]	End flag of region loop body This field is required if the operation is 'set'. Refer to Context Format Rule

Perimeter Region Parameters：

Tale 2-6-9-2-3-2

Parameter	Data	Description
targetTypeEnable	\<int\>{0,1}	Limit target type 0: No (default) 1: Yes
targetType	\<int\>{0,1,2}	Target type 0: human or car (default)

		1: human
		2: car
targetSizeEnable	<int>{0,1}	Limit target size
		0: No (default)
		1: Yes
targetMaxSize	<int>[0,1000000]	target maximum size（cm^2）。
		100000 (default)
		Maximum 1000000
targetMinSize	<int>[0, 1000000]	target minimum size（cm^2）。
		1000 (default)
		Minimum 0
RegionParam	<RegionParam>	Region parameters
		Refer to Region Parameters

2.6.9.3   Single Virtual Fence（Single Virtual Fence）

2.6.9.3.1   Get Single Virtual Fence Parameters（tripWireAbility）

URL	http://<ip>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**tripWireAbility**&cameraID=<cameraID>
Descripti on	Refer to Intelligent Analysis Common Parameters and Single Virtual Fence Parameters
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=tripWireAbility&cameraID=1*
Return	libId =1 regionEnable =1 edgeNum =1 maxRegionNum =0 bidirectionEnable =1 detailGetEnable =1 enable =1 maxTargetSizeEnable =1 maxTargetSizeMax =1 maxTargetSizeMin =1 minTargetSizeEnable=true

	minTargetSizeMax=1000000
	minTargetSizeMin=0
	targetSizeConstrainEnable=true
	targetSizeConstrainMax=1
	targetSizeConstrainMin=0
	targetTypeConstrainEnable=true
	targetTypeConstrainMax=1
	targetTypeConstrainMin=0
	targetTypeEnable=true
	targetTypeMax=2
	targetTypeMin=0
	triggerDirectionEnable=true
	maxTargetSizeUnit=cm2
	minTargetSizeUnit=cm2
	targetSizeConstrainUnit=0
	targetTypeConstrainUnit=0
	targetTypeUnit=0

2.6.9.3.2   Set Single Virtual Fence Parameters (setTripWireParam)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**tripWireParam**&cameraID=1[&<argument>=<value>...]
Description	Refer to Single Virtual Fence Parameters
Example	`http://192.168.1.30/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=tripWireParam&cameraID=1&enableFlag=1&alarmOut=1&alarmRecord=1&alarmSMTP=1&alarmFTP=1&isGetDetail=false&tripWireRegionParamBegin=1&targetTypeConstrain=false&targetType=1&targetSizeConstrain=false&minTargetSize=1000&maxTargetSize=100000&isBidirection=false&triggerDirection=1&lineCrossStartX=36&lineCrossStartY=36&lineCrossEndX=59&lineCrossEndY=52&tripWireRegionParamEnd=1&weekDayBegin=1&weekDay=1&startTime1=21600&endTime1=48600&weekDayEnd=1`
Return	OK or Error

2.6.9.3.3 Single Virtual Fence Parameters

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

Parameter	Data	Description
IntelligentCommonParam	\<IntelligentCommonParam>	Intelligent analysis Common Parameters Refer to Intelligent Analysis Common Parameters
tripWireRegionParamBegin	\<int>{1}	Enable flag of region loop body This field is required if the operation is **Set**
tripWireRegionParam	\<tripWireRegionParam>	Parameter of each region Refer to Single Virtual Fence Region Parameters
next_ regionURL	\<int>[2,32]	Enable flag of the next region Start from 2, This field is required if the operation is 'set' and the number of region is more than 1. Refer to Context Format Rule
tripWireRegionParamEnd	\<int>[0,32]	End flag of region loop body This field is required if the operation is **Set**. Refer to Context Format Rule

Single Virtual Fence Region Parameters：

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

Parameter	Data	Description
targetTypeConstr	\<int>{0,1}	Limit target type 0: No (default) 1: Yes
targetType	\<int>{0,1,2}	Target type 0: human or car (default) 1: human

		2: car
targetSizeConstrain	<int>{0,1}	Limit target size 0: No (default) 1: Yes
minTargetSize	<int>[0,1000000]	target minimum size（cm^2）。 10000(default) Minimum 0
maxTargetSize	<int>[0,1000000]	target maximum size（cm^2）。 100000 (default) Maximum 1000000
isBidirection	<int>{0,1}	Bidirection 0: No(default) 1: Yes
triggerDirection	<int>Undetermined	Direction
RegionParam	<u><RegionParam></u>	Region parameters Refer to <u>Region Parameters</u>

2.6.9.4　　　Double Virtual Fences（Double Virtual Fences）

2.6.9.4.1　　Get Double Virtual Fence Parameters（getMultiTripWireAbility）

URL	http://<ip>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**multiTripWireAbility**&cameraID=<cameraID>
Remrk	Refer to <u>Intelligent Analysis Common Parameters</u> and <u>Double Virtual Fence Parameters</u>
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=multiTripWireAbility&cameraID=1*
Return	libId=5 regionEnable=false edgeNum=8 maxRegionNum=4 detailGetEnable=true enable=true maxTargetSizeEnable=true

	maxTargetSizeMax=1000000
	maxTargetSizeMin=0
	minTargetSizeEnable=true
	minTargetSizeMax=1000000
	minTargetSizeMin=0
	targetSizeConstrainEnable=true
	targetSizeConstrainMax=1
	targetSizeConstrainMin=0
	targetTypeConstrainEnable=true
	targetTypeConstrainMax=1
	targetTypeConstrainMin=0
	targetTypeEnable=true
	targetTypeMax=2
	targetTypeMin=0
	timeIntervalEnable=true
	timeIntervalMin=1
	timeIntervalMax=60
	triggerDirectionEnable=true
	maxTargetSizeUnit=cm2
	minTargetSizeUnit=cm2
	targetSizeConstrainUnit=
	targetTypeConstrainUnit=
	targetTypeUnit=
	timeIntervalUnit=S

2.6.9.4.2   Set Double Virtual Fence Parameters（setMultiTripWireParam）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**multiTripWireParam**&cameraID=1[&<argument>=<value>...]
Description	Refer to <u>Double Virtual Fence Parameters</u>
Example	http://192.168.1.30/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=multiTripWireParam&cameraID=1&enableFlag=0&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&LineCross1=1&lineCrossStartX1=28&lineCrossStartY1=36&lineCrossEndX1=52&lineCrossEndY1=57&LineCross2=2&lineCrossStartX2=14&lineCrossStartY2=36&lineCrossEndX2=38&lineCrossEndY2=57&multiTripWireRegionParamEnd=1&weekDayBegin=1&weekDay

	=1&startTime1=21600&endTime1=48600&weekDayEnd=1
Return	OK or Error（refer to General Response）

2.6.9.4.3 Double Virtual Fence Parameters

Table 2-6-9-4-3-1

Parameter	Data	Description
IntelligentCommonParam	<IntelligentCommonParam>	Intelligent analysis Common Parameters Refer to Intelligent Analysis Common Parameters
tripWireRegionParamBegin	<int>[1,32]	Enable flag of region loop body This field is required if the operation is 'set'. Refer to Context Format Rule
multiTripWireRegionParam	<multiTripWireRegionParam>	Parameter of each region Refer to Double Virtual Fence Region Parameters
next_ regionURL	<int>[2,32]	Enable flag of next region loop body Start from 2, This field is required if the operation is 'set' and the number of region is more than 1. Refer to Context Format Rule
multiTripWireRegionParamEnd	<int>[0,32]	The end flag of region loop body. This field is required is the operation is 'set'. Refer to Context Format Rule

Double Virtual Fence Region Parameters：

Table 2-6-9-4-3-2

Parameter	Data	Description

targetTypeConstrain	\<int\>{0,1}	Limit target type 0: No (default) 1: Yes
targetType	\<int\>{0,1}	Target type: 0: People or car (default) 1: people 2: car
targetSizeConstrain	\<int\>{0,1}	Limit target size 0: No (default) 1: Yes
minTargetSize	\<int\>[0,1000000]	Target minimum size（cm^2） 10000(default) Minimum 0
maxTargetSize	\<int\>[0,1000000]	Target maximum size（cm^2）。 100000 (default) Maximum 1000000
isBidirection	\<int\>{0,1}	Bidirection 0: No(default) 1: Yes
triggerDirection	\<int\>{0,1}	Direction. Saved for later. Not used now.
RegionParam	\<RegionParam\>	Region parameters Refer to Region Parameters

2.6.9.5   Loiter

2.6.9.5.1   Get Loiter Parameter（getLoiterParam）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**loiterParam**&cameraID=\<cameraID\>

Description	Refer to [Intelligent Analysis Common Parameters](#) and [Loiter Parameters](#)
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=loiterParam&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 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

2.6.9.5.2 Set Loiter Parameter（setLoiterParam）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=set&type=**loiterParam**&cameraID=1[&\<argument\>=\<value\>...]
Descripti on	Refer to <u>Loiter Parameters</u>
Example	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 or Error（Refer to <u>Context Format Rule</u>）

2.6.9.5.3 Loiter Parameters

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

Parameter	Data	Description
IntelligentCommonParam	\<IntelligentCommonParam\>	Intelligent analysis Common Parameters Refer to <u>Intelligent Analysis Common Parameters</u>
uploadDetail	\<int\>{0,1}	Upload the detailed info 0: No (default) 1: Yes
regionCount	\<int\>[0,32]	The number of region This field is required if the operation is 'set' refer to <u>Context Format Rule</u>

regionBegin	\<int\>{1}	Enable flag of region loop body This field is required if the operation is 'set' refer to Context Format Rule
LoiterRegionParam	\<LoiterRegionParam\>	Parameter of each region Refer to Loiter Region Parameters
next_ regionURL	\<int\>[2,32]	Enable flag of the next region Start from 2, This field is required if the operation is 'set' and the number of region is more than 1 Refer to Context Format Rule
regionEnd	\<int\>[1,32]	End flag of region loop body This field is required if the operation is 'set'. Refer to Context Format Rule

Loiter Region Parameter：

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

Parameter	Data	Description
targetTypeEnable	\<int\>{0,1}	Limit target type 0: No (default) 1: Yes
targetType	\<int\>{0,1,2}	Target type 0: human or car(default) 1: human 2: car
targetSizeEnable	\<int\>{0,1}	Limit target size 0: No(default) 1: Yes
targetMaxSize	\<int\>[0,1000000]	Target maximum size（cm^2） 100000 (default)

targetMinSize	\<int\>[0, 1000000]	Target minimum size（cm^2） 1000 (default)
minLoiterTime	\<int\>[5,60]	Minimum loiter time（unit: s）。 10 (default)
pathAnalysis	\<int\>{0,1}	Enable the analysis of loitering path 0: No 1: Yes(default)
RegionParam	\<RegionParam\>	Region parameters Refer to Region Parameters

2.6.9.6 Muti Loiter

2.6.9.6.1 Get Multi-Loiter Parameters（getMultiLoiterParam）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**multiLoiterParam**&cameraID=\<cameraID\>
Description	Refer to Intelligent Analysis Common Parameters and Muti Loiter Parameters
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=multiLoiterParam&cameraID=1*
Return	enableFlag=1 uploadDetail=0 draw=0 alarmOut=0 alarmRecord=1 alarmSMTP=1 alarmFTP=1 regionCount=1 regionBegin=1 forbiddenTypeEnable=1 minNum=1 maxNum=5 targetSizeEnable=1 targetMaxSize=100000 targetMinSize=1000 minLeftTime=10

	pathAnalysis=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

2.6.9.6.2   Set Multi-Loiter Parameters（setMultiLoiterParam）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**multiLoiterParam**&cameraID=1[&<argument>=<value>...]
Description	Refer to Muti Loiter Parameters
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=multiLoiterParam&cameraID=1&enableFlag=1&uploadDetail=0&draw=0&alarmOut=0&alarmRecord=1&alarmSMTP=1&alarmFTP=1&regionCount=1&regionBegin=1&forbiddenTypeEnable=1&minNum=1&maxNum=5&targetSizeEnable=1&targetMaxSize=100000&targetMinSize=1000&minLeftTime=10&pathAnalysis=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&week*

	Day=1&startTime=25200&endTime=27000&next_weekDayURL=2&weekDay=3&startTime=46800&endTime=48600&weekDayEnd=2
Return	OK or Error（Refer to Context Format Rule）

2.6.9.6.3   Muti Loiter Parameters

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

Parameter	Data Type	Description
IntelligentCommonParam	<IntelligentCommonParam>	Common Intelligent analysis parameter. Please refer to Intelligent Analysis Common Parameters
uploadDetail	<int>{0,1}	Whether to upload target details。 0:no(default) 1:yes
regionCount	<int>[0,32]	Number of regions: If configuration behavior is **Set** , you must carry this flag to indicate the number of regions，Please refer to Context Format Rule
regionBegin	<int>{1}	The start flag for region loop: When configuration behavior is **Set** , you must carry this flag, there is not specific requirement for value. Details refer to Context Format Rule
MultiLoiterRegionParam	<MultiLoiterRegionParam>	Single region parameter: Details refer to Multi Loiter Region Parameters
next_ regionURL	<int>[2,32]	The flag for next region : Start from 2，if the value is 2, it means the following parameter is article 2. It must be carried when the configuration is **Set** and the

		number of loops is greater than 1. There is no specific requirement for the value. Details refer to Context Format Rule
regionEnd	\<int\>[1,32]	The end flag for region loop: The start flag for region loop: When configuration behavior is **Set** , you must carry this flag, value is numbers. Details refer to Context Format Rule

Multi Loiter Region Parameters:

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

Parameter	Data Type	Description
targetSizeEnable	\<int\>{0,1}	Whether to limit the target size。 0:No(default) 1:Yes
targetMaxSize	\<int\>[0,1000000]	Limit maximum size of target (cm^2) 100000 (default)
targetMinSize	\<int\>[0, 1000000]	Limit minimum size of target (cm^2) 1000 (default)
minLoiterTime	\<int\>[5,60]	Minimum loiter time (s) 10 (default)
pathAnalysis	\<int\>{0,1}	Enable flag for loiter path analysis: 0: No 1: Yes(default)
forbiddenTypeEnable	\<int\>{0,1}	Enable flag for limiting number of target people: 0: No(default) 1: Yes

minNum	<int>[1,99999]	Limit minimum number of the target people: 1（default）
maxNum	<int>[1,99999]	Limit maximum number of the target people: 5（default）
RegionParam	<RegionParam>	Region parameter Refer to Region Parameters

2.6.9.7 Object Left

2.6.9.7.1 Get Object Left Parameters（getObjLeftParam）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**objLeftParam**&cameraID=<cameraID>
Description on	Refer to Intelligent Analysis Common Parameters and Object Left Parameters
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=objLeftParam&cameraID=1*
Return	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

2.6.9.7.2　　Set Object Left Parameters（setObjLeftParam）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**objLeftParam**&cameraID=1[&<argument>=<value>...]
Description	Refer to Object Left Parameters
Example	*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 or Error （Refer to Context Format Rule）

2.6.9.7.3　Object Left Parameters

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

Parameter	Data Type	Description
IntelligentCommonParam	\<IntelligentCommonParam\>	Common Intelligent analysis parameter. Please refer to Intelligent Analysis Common Parameters
uploadDetail	\<int\>{0,1}	Whether to upload target details 0:no(default) 1:yes
regionCount	\<int\>[0,32]	Number of regions: If configuration behavior is **Set** , you must carry this flag to indicate the number of regions，Please refer to Context Format Rule
regionBegin	\<int\>{1}	The start flag for region loop: When configuration behavior is **Set** , you must carry this flag, there is not specific requirement for value. Details refer to Context Format Rule
ObjLeftRegionParam	\<ObjLeftRegionParam\>	Single region parameter: Details refer to Object Left Region Parameters
next_ regionURL	\<int\>{2,32}	The flag for next region : Start from 2，if the value is 2, it means the following parameter is article 2. It must be carried when the configuration is **Set** and the number of loops is greater than 1. There is no specific requirement for the value. Details refer to Context Format Rule
regionEnd	\<int\>[1,32]	The end flag for region loop: The start flag for region loop: When configuration behavior is **Set** , you must carry this flag, value is numbers.

		Details refer to Context Format Rule

Object Left Region Parameters:

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

Parameter	Data Type	Description
targetMaxSize	<int>[10,40000]	Maximum size of object (cm^2) 10000 (default)
targetMinSize	<int>[10,40000]	Minimum size of object (cm^2) 100 (default)
minLeftTime	<int>[5,60]	Minimum left object time 5 (default)
RegionParam	<RegionParam>	Region parameter Refer to Region Parameters

2.6.9.8 Object Removed

2.6.9.8.1 Get Object Removed Parameters（getObjMovedParam）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**objMovedParam**&cameraID=<cameraID>
Description	Refer to Intelligent Analysis Common Parameters and Object Removed Parameters
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=objMovedParam&cameraID=1*
Return	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

2.6.9.8.2   Set Object Removed Parameters（setObjMovedParam）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=set&type=**objMovedParam**&cameraID=1[&\<argument\>=\<value\>...]
Description	Refer to Object Removed Parameters
Example	*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 or Error（Refer to Context Format Rule）

2.6.9.8.3　Object Removed Parameters

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

Parameter	Data Type	Description
IntelligentCommonParam	\<IntelligentCommonParam>	Common Intelligent analysis parameter. Please refer to Intelligent Analysis Common Parameters
uploadDetail	\<int>{0,1}	Whether to upload target details 0:no(default) 1:yes
regionCount	\<int>[0,32]	Number of regions: If configuration behavior is **Set** , you must carry this flag to indicate the number of regions，Please refer to Context Format Rule
regionBegin	\<int>{1}	The start flag for region loop: When configuration behavior is **Set** , you must carry this flag, there is not specific requirement for value. Details refer to Context Format Rule
ObjMovedRegionParam	\<ObjMovedRegionParam>	Single region parameter: Details refer to Object Removed Region Parameters
next_ regionURL	\<int>[2,32]	The flag for next region : Start from 2，if the value is 2, it means the following parameter is article 2. It must be carried when the configuration is **Set** and the number of loops is greater than 1. There is no specific requirement

		for the value. Details refer to Context Format Rule
regionEnd	<int>[1,32]	The end flag for region loop: The start flag for region loop: When configuration behavior is **Set** , you must carry this flag, value is numbers. Details refer to Context Format Rule

Object Moved Region Parameters：

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

Parameter	Data Type	Description
targetMaxSize	<int>[10,40000]	Maximum size of object (cm^2) 10000 (default)
targetMinSize	<int>[10,40000]	Minimum size of object (cm^2) 100 (default)
minMovedTime	<int>[5,60]	Minimum removed object time 5 (default)
RegionParam	<RegionParam>	Region parameter Refer to Region Parameters

2.6.9.9   Abnormal Speed

2.6.9.9.1   Get Abnormal Speed Parameters（getAbnormalSpeedParam）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**abnormalSpeedParam**&cameraID=<cameraID>
Description on	Refer to Intelligent Analysis Common Parameters and Abnormal Speed Parameters
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=abnormalSpeedParam&cameraID =1*
Return	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

2.6.9.9.2   Set Abnormal Speed Parameters（setAbnormalSpeedParam）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=set&type=**abnormalSpeedParam**&cameraID=1[&\<argument\>=\<value\>...]

Description	Refer to <u>Abnormal Speed Parameters</u>
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&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&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*
Return	OK or Error（Refer to <u>Context Format Rule</u>）

2.6.9.9.3   Abnormal Speed Parameters

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

Parameter	Data Type	Description
IntelligentCommonParam	<<u>IntelligentCommonParam</u>>	Common Intelligent analysis parameter. Please refer to <u>Intelligent Analysis Common Parameters</u>
uploadDetail	\<int>{0,1}	Whether to upload target details 0:no(default) 1:yes
regionCount	\<int>[0,32]	Number of regions: If configuration behavior is **Set** , you must carry this flag to indicate the number of regions，Please refer to <u>Context Format Rule</u>
regionBegin	\<int>{1}	The start flag for region loop: When configuration behavior is **Set** , you must carry this flag, there is not specific requirement for value. Details refer to <u>Context Format Rule</u>

AbnormalSpeed RegionParam	<AbnormalSpeed RegionParam>	Single region parameter: Details refer to Abnormal Speed Region Parameters
next_ regionURL	<int>[2,32]	The flag for next region : Start from 2，if the value is 2, it means the following parameter is article 2. It must be carried when the configuration is **Set** and the number of loops is greater than 1. There is no specific requirement for the value. Details refer to Context Format Rule
regionEnd	<int>[1,32]	The end flag for region loop: The start flag for region loop: When configuration behavior is **Set** , you must carry this flag, value is numbers. Details refer to Context Format Rule

Abnormal Speed Region Parameters:

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

Parameter	Data Type	Description
targetTypeEnable	<int>{0,1}	Whether to limit the target type 0: No(default) 1: Yes
targetType	<int>{0,1,2}	Target type: 0: People or car (default) 1: people 2: car
targetSizeEnable	<int>{0,1}	Whether to limit the target size 0:No(default) 1:Yes
targetMaxSize	<int>[0,1000000]	Limit maximum size of the target(cm^2) 100000 (default)

targetMinSize	\<int\>[0, 1000000]	Limit minimum size of the target(cm^2) 1000 (default)
minSpeed	\<int\>[0,1000]	Minimum moving speed (m/s) 0(default)
maxSpeed	\<int\>[0,1000]	Maximum moving speed(m/s) 10(default)
RegionParam	\<RegionParam\>	Region parameter Refer to Region Parameters

2.6.9.10　　Converse

2.6.9.10.1　Get Converse Parameters（getConverseParam）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**converseParam**&cameraID =\<cameraID\>
Description	Refer to Intelligent Analysis Common Parameters and Converse Parameters
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=converseParam&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 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

2.6.9.10.2　Set Converse Parameters（setConverseParam）

URL	http://\<servername>/cgi-bin/param.cgi?userName=\<username>&password=\<password>&action=set&type=**converseParam**&cameraID=1[&\<argument>=\<value>...]
Description	Refer to Converse Parameters
Example	http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=converseParam&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&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
Return	OK or Error （Refer to Context Format Rule）

2.6.9.10.3 Converse Parameters

Tan;e 2-6-9-10-3-1

Parameter	Data Type	Description
IntelligentCommon Param	<<u>IntelligentCommonParam</u>>	Common Intelligent analysis parameter. Please refer to <u>Intelligent Analysis Common Parameters</u>
uploadDetail	<int>{0,1}	Whether to upload target details 0:no(default) 1:yes
regionCount	<int>[0,32]	Number of regions: If configuration behavior is **Set** , you must carry this flag to indicate the number of regions，Please refer to <u>Context Format Rule</u>
regionBegin	<int>{1}	The start flag for region loop: When configuration behavior is **Set** , you must carry this flag, there is not specific requirement for value. Details refer to <u>Context Format Rule</u>
ConverseRegionPa ram	<**Converse**RegionParam>	Single region parameter: Details refer to <u>Converse Region Parameters</u>
next_ regionURL	<int>[2,32]	The flag for next region : Start from 2，if the value is 2, it means the following parameter is article 2. It must be carried when the configuration is **Set** and the number of loops is greater than 1. There is no specific requirement for the value. Details refer to <u>Context Format Rule</u>
regionEnd	<int>[1,32]	The end flag for region loop: The start flag for region loop: When configuration behavior is **Set** ,

		you must carry this flag, value is numbers. Details refer to Context Format Rule

Converse Region Parameters：

Table 2-6-9-10-3-2

Parameter	Data Type	Description
targetTypeEnable	\<int\>{0,1}	Whether to limit the target type。 0:No(default) 1:Yes
targetType	\<int\>{0,1,2}	Target type: 0: People or car (default) 1: people 2: car
targetSizeEnable	\<int\>{0,1}	Whether to limit the target size 0:No(default) 1:Yes
targetMaxSize	\<int\>[0,1000000]	Limit maximum size of the target(cm^2) 100000 (default)
targetMinSize	\<int\>[0, 1000000]	Limit minimum size of the target(cm^2) 1000 (default)
ConverseAngle	\<float\>[0.0,360.0]	Converse angle 0.0（default）
RegionParam	\<RegionParam\>	Region parameter Refer to Region Parameters

2.6.9.11　　Illegal Parking

2.6.9.11.1　Get Illegal Parking Parameters（getNoParkingParam）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**noParkingParam**&cameraID=\<cameraID\>
Description	Refer to Intelligent Analysis Common Parameters and Illegal Parking Parameters
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=noParkingParam&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 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

2.6.9.11.2   Set Illegal Parking Parameters（setNoParkingParam）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=set&type=**noParkingParam**&cameraID=1[&\<argument\>=\<value\>...]
Description	Refer to Illegal Parking Parameters
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&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=23.086124&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 or Error（Refer to Context Format Rule）

2.6.9.11.3   Illegal Parking Parameters

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

Parameter	Data Type	Description
IntelligentCommonParam	\<IntelligentCommonParam\>	Common Intelligent analysis parameter. Please refer to Intelligent Analysis Common Parameters
uploadDetail	\<int\>{0,1}	Whether to upload target details 0:no(default) 1:yes

regionCount	\<int>[0,32]	Number of regions: If configuration behavior is **Set** , you must carry this flag to indicate the number of regions，Please refer to Context Format Rule
regionBegin	\<int>{1}	The start flag for region loop: When configuration behavior is **Set** , you must carry this flag, there is not specific requirement for value. Details refer to Context Format Rule
NoParkingRegionParam	\<NoParkingRegionParam>	Single region parameter: Details refer to Illegal Parking Region Parameters
next_ regionURL	\<int>[2,32]	The flag for next region : Start from 2，if the value is 2, it means the following parameter is article 2. It must be carried when the configuration is **Set** and the number of loops is greater than 1. There is no specific requirement for the value. Details refer to Context Format Rule
regionEnd	\<int>[1,32]	The end flag for region loop: The start flag for region loop: When configuration behavior is **Set** , you must carry this flag, value is numbers. Details refer to Context Format Rule

Illegal Parking Region Parameters：

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

Parameter	Data Type	Description
targetMaxSize	\<int>[0,1000000]	Maximum size of the car (cm^2) 100000 (default)
targetMinSize	\<int>[0, 1000000]	Minimum size of the car (cm^2)

		1000 (default)
minLeftTime	\<int\>[5,60]	Minimum stay time for car (s) 5 (default)
RegionParam	\<RegionParam\>	Region parameter Refer to Region Parameters

2.6.9.12　Signal Bad

2.6.9.12.1　Get Signal Bad Parameters（getSignalBadParam）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**signalBadParam**&cameraID=\<cameraID\>
Description	Refer to Intelligent Analysis Common Parameters and Signal Bad Parameters
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&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

2.6.9.12.2　Set Signal Bad Parameters（setSignalBadParam）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=set&type=**signalBadParam**&cameraID=1[&\<argument\>=\<value\>...]

Descripti on	Refer to Signal Bad Parameters
Example	***http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&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 or Error（Refer to Context Format Rule）

2.6.9.12.3   Signal Bad Parameters

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

Parameter	Data Type	Description
IntelligentCommon Param	<IntelligentCommonParam>	Common Intelligent analysis parameter. Please refer to Intelligent Analysis Common Parameters
uploadDetail	<int>{0,1}	Whether to upload target details 0:no(default) 1:yes

2.6.9.13 People Statistics

2.6.9.13.1   GetStisticsParam

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**getStatisticsCfg**&cameraID=<cameraID>
Descripti on	Return configuration parameters，Refer to People Statistics Param
Example	http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=**getStatisticsCfg**&cameraID=1
Return	StatisticsEnable=1 OSDEnable=1 ClearStatisticsInterval=5 CorrectionEnable=1

```
CorrectionValue=10
LineCrossStartX=43.000000
LineCrossStartY=92.000000
LineCrossEndX=42.000000
LineCrossEndY=12.999999
AlarmEnable=1
AlarmThreshold=100
AlarmIO=1
AlarmEmail=1
AlarmFTP=1
AlarmRecord=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
```

2.6.9.13.2   SetStisticsParam

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**setStatisticsCfg**&cameraID=<camera ID>[&<argument>=<value>...]
Descripti on	Set the configuration parameters of people statistics, One or more parameters can be set. Refer to <u>People Statistics Param</u>
Example	http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=**setStatisticsCfg**&cameraID=1&StatisticsEnable=1&OSDEnable=1&ClearStatisticsInterval=5&CorrectionEnable=0&CorrectionValue=10&LineCrossStartX=43.619049&LineCrossStartY=92.542374&LineCrossEndX=42.095238&LineCrossEndY=13.220339&AlarmEnable=0&AlarmThreshold=-93&AlarmIO=1&AlarmEmail=1&AlarmFTP=1&AlarmRecord=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
Return	OK

2.6.9.13.3   People Statistics Param

表 2-6-9-13-3-1

Parameter	Data Type	Description
StatisticsEnable	<int>{0,1}	People statistics function switch. 0: off 1: on
OSDEnable	<int>{0,1}	Display personnel statistics. 0: off 1: on
ClearStatisticsInterval	<int>{1,6}	Data clear interval. 1: 10 minutes 2: 30 minutes 3: 1 hour 4: 12 hours

		5: 24 hours 6: Manual reset (zero reset immediately)
CorrectionEnable	⟨int⟩{0, 1}	Configure calibration values. 0: off 1: on
CorrectionValue	⟨int⟩	Calibration value
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
LineCrossStartY	⟨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
LineCrossEndX	⟨float⟩{0, 100}	The X coordinate of the end position of the reference line on the image screen, with the left vertex as the origin
LineCrossEndY	⟨float⟩{0, 100}	The Y coordinate of the end position of the reference line on the image screen, with the left vertex as the origin
AlarmEnable	⟨int⟩{0, 1}	Whether to turn on the overrun alarm 0: off 1: on
AlarmThreshold	⟨int⟩	Overrun alarm threshold
AlarmIO	⟨int⟩{0, 1}	Whether to open the alarm output 0: No 1: Yes
AlarmEmail	⟨int⟩{0, 1}	Whether the alarm occurred 0: No 1: Yes

AlarmFTP	⟨int⟩{0,1}	Whether the alarm is uploaded to FTP 0: No 1: Yes
AlarmRecord	⟨int⟩{0,1}	Whether the alarm is recorded 0: No 1: Yes
weekDayBegin	⟨int⟩	Planned time start sign
weekDay	⟨int⟩{0,6}	which day. 0-6,0 is Sunday
startTime[1…]	⟨int⟩{0,86400}	Starting time
endTime[1…]	⟨int⟩{0,86400}	At the end time, there can be multiple time periods in a day, such as startTime1, endTime1, startTime2, endTime2…., The time value must be a multiple of 1800, the two time periods do not repeat
next_weekDayURL	⟨int⟩{2,7}	Next planned time URLStart at 1. If the value is 1, it means that the subsequent parameter is Article 2.
weekDayEnd	⟨int⟩{1,7}	The end of the planned time sign, there are a few days of arming time, just fill in here

2.6.9.13.4   GetStisticsInfo

URL	http://⟨servername⟩/cgi-bin/param.cgi?userName=⟨username⟩&password=⟨password⟩&action=get&type=**getStatisticsInfo**&cameraID=⟨cameraID⟩[&⟨argument⟩=⟨value⟩...]
Description	Return the statistics of the number of people，Refer to Statistics Info Param
Example	http://192.168.17.189/cgi-bin/param.cgi?userName=admin&password=admin&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

2.6.9.13.5　Statistics Info Param

Table 2-6-9-13-5

Parameter	Data Type	Description
QueryType	⟨int⟩{1,4}	Query type 1: Query by day, you need to pass in specific days, and return the statistical records for each hour of the day, up to 24. 2. Query by month, you need to pass in a specific month, and return the daily statistical records of the month, up to 31. 3. Query by year, you need to pass in a specific year, and return the statistical records of each month of the current year, up to 12 items. 4. Real-time query, the current time is passed in, and the return is the statistical records of each hour of the device starting time from the current time to the current time, up to 24
QueryTimeYear	⟨int⟩{2000,3000}	Query year
QueryTimeMon	⟨int⟩{1,12}	Query month
QueryTimeDay	⟨int⟩{1,31}	Query days
StatisticsNumber	⟨int⟩{0,50000}	Number of people statistics records

StatisticsTime	`<string>`	Statistics Time Example: 2020-05-14 08:05:09
EnterNumber	`<int>`	Number of people entering
OutNumber	`<int>`	Number of people going out

2.6.10 FishEye (FishEye)

This section applies only to fisheye equipment, including obtaining the fisheye operation, fisheye layout, fisheye dewarping and installation.

2.6.10.1 Get Fisheye Ability（getFisheyeAbility）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type= **fisheyeAbility**
Description	Refer to <u>Fisheye Configuration Parameter</u>
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=<username>&password=<password>&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

2.6.10.2   Get Fisheye Dewarping Paramters（getDewarpParam）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=**dewarpParam**&cameraID=<cameraID>
Description	Refer to Fisheye Configuration Parameter
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=dewarpParam&cameraID=<cameraID>*
Return	cameraID = < cameraID > dewarpMode = < dewarpMode > videoMode = < videoMode >

2.6.10.3   Set Dewarp Parameters（setDewarpParam）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**dewarpParam**&cameraID=<cameraID>&dewarpMode=< dewarpMode>&videoMode=<videoMode>
Description	Refer to Fisheye Configuration Parameter
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=dewarpParam&cameraID=<cameraID>&dewarpMode=< dewarpMode>&videoMode=<videoMode>*
Return	OK or Error (Refer to General Response)

2.6.10.4　　Get Mount Parameters（getMountparam）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type= **mountParam**
Description	Refer to Fisheye Configuration Parameter Return a text string parameter description：mountType
Example	*http://192.168.17.189/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type= mountParam*
Return	mountType = < mountType >

2.6.10.5　　Set Mount Parameters（setMountparam）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=**mountParam**&mountType=< mountType >
Description	Refer to Fisheye Configuration Parameter
Example	*http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=mountParam&mountType=< mountType >*
Return	OK or Error (Refer to General Response)

2.6.10.6　　Get Video Layout（getVideoLayout）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type= **videoLayout**&cameraID=1
Description	Refer to Fisheye Configuration Parameter The command can get video layout just for one-channel.
Example	*http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&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

2.6.10.7   Fisheye Configuration Parameters

Fisheye configuration parameters table:

Table 2-6-10-7-1

Parameters	Data	Description
CameraId	<int>{1}	Channel number Fisheye default ID is 1
enableFlag	<int>{0,1}	Support fisheye flag or not 0: Not support Fisheye；Note: when the field of fisheye ability is 0, the response does not assemble other fields; 1：Support Fisheye；Note: when the field of fisheye ability is 1, the other ability fields are assembled in response.
mountTypeCount	<int>{n}	Mount type count. Mount type list size
mountTypeBegin	<int>{1}	Mount type begin flag.
mountType	<int>[0,2]	Mount type 0: wall 1: ceiling 2: table
next_mountTypeURL	<int>{2}	The next mount type begin flag.

		Begin at 2. If the value is 2, the following parameter is second clause .
mountTypeEnd	\<int\>{n}	End flag of mount type
videoModeCount	\<int\>{n}	Video mode count
videoModeBegin	\<int\>{1}	Begin flag of video mode
videoMode	\<int\>{0,1}	Fisheye video mode 0: Single channel 1：Multi-Channel 5-Channel: 1 Fisheye + 1 Panorama + 3 PTZ) Note: during video mode conversion, the device will be restarted
dewarpModeCount	\<int\>{n}	Dewarp mode count
dewarpModeBegin	\<int\>{1}	Begin flag of dewarp mode
dewarpMode	\<int\>{0,2,4,5,6,8,9,10,11,12,13}	Dewarp mode 0: Fisheye mode 2: Panorama mode 4: 1 Fisheye + 3 PTZ mode 5: 1 Fisheye + 5 PTZ mode 6: 1 Fisheye + 7 PTZ mode 8: 4 PTZ mode 10: 180°Panorama mode 9： 1O 4PTZ mode 11：1 Fisheye+ 1 Panorama + 3PTZ 12：2 Fisheye + 3PTZ 13：1 Fisheye + 4 PTZ mode
next_ dewarpModeURL	\<int\>{2}	The next dewarp mode begin flag Begin at 2. If the value is 2, the following parameter is second clause .
dewarpModeEnd	\<int\>{n}	End of dewarp mode flag.
next_videoModeURL	\<int\>{2}	The next dewarp mode begin flag

		Begin at 2. If the value is 2, the following parameter is second clause .
videoModeEnd	\<int\>{n}	End of video mode flag
VideoRectCount	\<int\>{n}	Video count in the layout Lens count under single channel
VideoRectBegin	\<int\>{1}	Video layout bgin flag Indicates the layout of the first shot
VideoNum	\<int\>{1}	Shot nunmber 0 Always fisheye or panoramic video, others for PTZ
StartX	\<double\>	Video starting point X。 Percent: (0-1)*100%， The accuracy is two bits after a decimal point
StartY	\<double\>	Video starting point Y。 Percent: (0-1)*100%， The accuracy is two bits after a decimal point
Height	\<double\>	Video height Percent: (0-1)*100%， The accuracy is two bits after a decimal point
Width	\<double\>	Video widt Percent: (0-1)*100%， The accuracy is two bits after a decimal point
next_VideoRectURL	\<int\>{2}	The next video layout bdgin flag Starting at 2, a value of 2 indicates the following layout for the second shot
VideoRectEnd	\<int\>{n}	End of video layout flag End of list indicating shot layout

2.6.11 Thermal Camera Configuration

2.6.11.1   Thermal imaging capability

2.6.11.1.1 Get Thermal Camera's Ability

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**thermalAbility**
Description	Refer to Thermal Camera Configuration Parameters
Example	*http://192.168.0.127/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=thermalAbility*
Return	enable=true maxAreaNum=20 maxPointNum=20 maxLineNum=2 polygonType=2 maxPolygonNum=16 maxShieldNum=0

2.6.11.2   MeasureMode

2.6.11.2.1 Get Measure Mode of Thermal Camera(getThermalMeasureMode)

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=**thermalMeasureMode**
Description	Refer to Thermal Camera Configuration Parameters
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=thermalMeasureMode*
Return	measureMode=1 measureID=1

2.6.11.2.2 Set Measure Mode Of Thermal Camera (setThermalMeasureMode)

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=set&type=**thermalMeasureMode**&measureMode\<measureMode\>&measureID=\<measureModeID\>
Description	Refer to <u>Thermal Camera Configuration Parameters</u>
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=thermalMeasureMode&measureMode=1&measureID=1*
Return	OK or Error (Refer to <u>General Response</u>)

2.6.11.3 Temperature measurement parameters

2.6.11.3.1 Get temperature measurement parameters Of Thermal Camera （getThermalImagerConfigureParam）

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=thermalImagerConfigureParam
Description	Get temperature measurement parameters ， Refer to <u>Temperature measurement parameters</u>
Example	http://192.168.0.127/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=thermalImagerConfigureParam
Return	IsOpenTemperatureMeasure=true TemperatureUnit=1 EnvironmentTemperature=26.000000 CavityTemoperature=97.769997 Physicsinfo=31.000000 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

2.6.11.3.2 Set temperature measurement parameters Of Thermal Camera（setThermalImagerConfigureParam）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=thermalImagerConfigureParam>[&<argument>=<value>...]
Description	Set temperature measurement parameters, One or more parameters can be set. Refer to Temperature measurement parameters
Example	http://192.168.0.127/cgi-bin/param.cgi?userName=admin&password=a

	dmin&action=set&type=thermalImagerConfigureParam&IsOpenTemperatureMeasure=true&TemperatureUnit=1&EnvironmentTemperature=26&CavityTemoperature=45&Physicsinfo=31&DisplayMode=3&OSDFontBorderEnable=true&CustomOSDColorEnable=true&FontSizeMode=3&AreaFeatureTemprShowMode=2&OSDFontColor_R=86&OSDFontColor_G=104&OSDFontColor_B=205&IsDisplayAlarmArea=true&AlarmInterval=100&AlarmDelay=10&PreventOverheatMode=3&ControlCover=2&DrcMode=2&DrcModeTemperatureMin=20&DrcModeTemperatureMax=45&LargeEnable=true&LargeTemperature=40&LargeColor_R=100&LargeColor_G=101&LargeColor_B=102&RangeEnable=true&RangeMinTemperature=34&RangeMaxTemperature=37&RangeColor_R=121&RangeColor_G=122&RangeColor_B=123&SmallEnable=true&SmallTemperature=31&SmallColor_R=44&SmallColor_G=55&SmallColor_B=66&RawUploadInterval=5
Return	OK or Error (Refer to General Response)

2.6.11.3.3 Temperature measurement parameters

Table 2-6-12-4-1

Parameter	Data Type	Description
IsOpenTemperatureMeasure	\<bool\>	Temperature measurement parameter configuration switch. true or false
TemperatureUnit	\<int\>	Temperature unit 0: Celsius 1: Fahrenheit
EnvironmentTemperature	\<float\>	Ambient temperature
CavityTemoperature	\<float\>	Temperature in the equipment cavity
Physicsinfo	\<float\>	Correction factor
DisplayMode	\<int\>	Area temperature display mode. 0: Tips for hiding area and temperature 1: Lower left

		2: bottom right 3: upper right 4: Display area only 5: Follow area
OSDFontBorderEnable	\<bool\>	Whether to display the 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: big
AreaFeatureTemprShowMode	\<int\>	Type of regional temperature measurement 0: Only the highest temperature is displayed 2: Display the highest temperature and the lowest temperature 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 (product support with gimbal) The default is

		normal mode
IsDisplayAlarmArea	<bool>	Whether to display the alarm area. true or false
AlarmInterval	<int>	Alarm interval. Valuerange: 1-1800 seconds
AlarmDelay	<int>	Alarm delay. Value range: 0-10
TemperatureMax	<int>	Temperature measurement range, maximum temperature (302)
TemperatureMin	<int>	Temperature measurement range, the lowest temperature (-40)
PreventOverheatMode	<int>	Anti-burn mode 1: close 2: automatic 3: Manual
ControlCover	<int>	Control block in manual mode. 1: Collapse 2: put down
AutoMasking	<int>	Occlusion time in automatic mode. Value range: 5-60
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>	Highlight the image switch when the temperature is greater than a certain value
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 highlights the image switch in a certain interval
RangeMinTemperature	<float>	Minimum range
RangeMaxTemperature	<float>	Maximum range
RangeColor_R	<int>	Color RGB code
RangeColor_G	<int>	Color RGB code
RangeColor_B	<int>	Color RGB code
SmallEnable	<bool>	The temperature is less than a certain value to highlight the image switch
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: frame / second
MixStreamMode	⟨int⟩	Fusion streaming mode, currently unable to set only the default value of 0

2.6.11.4 Temperature alarm parameters

2.6.11.4.1 Get Temperature Alarm Parameters of Thermal Camera in the Measurement Mode (getTemperAlarmParam)

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=temperAlarmParam&measureMode=\<measureMode\>&measureID=\<measureID\>&areaID=\<areaID\>
Description	Refer to Thermal Camera Configuration Parameters Thermal imaging area parameters include area and related temperature alarm parameters **areaID=-1 means all area**
Example	http://192.168.2.27/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=temperAlarmParam&measureMode=0&measureID=0&areaID=0
Return	temperAlarmParamStart=1 areaId=0 areaName=Area0 shieldMeasureFlag=0 alarmFlag=0 alarmSourceType=0 alarmType=1 warningValue=48 alarmValue=50 emissivity=0.950000 targetSpace=15.000000 areaFlag=true areaShapeType=3 SNPointCoordinateStart=1 X0=0

	Y0=0
	SNPointCoordinateNext=1
	X0=719
	Y0=0
	SNPointCoordinateNext=1
	X0=719
	Y0=575
	SNPointCoordinateNext=1
	X0=0
	Y0=575
	SNPointCoordinateNext=1
	temperAlarmParamEnd=1
	(Others refer to the General Response)

2.6.11.4.2 Set Temperature Alarm Parameters of Thermal Camera in the Measurement Mode (setTemperAlarmParam)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=temperAlarmParam&measureMode=0&measureID=0[&<argument>=<value>...]
Description	Refer to Thermal Camera Configuration Parameters
Example	`http://192.168.2.27/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=temperAlarmParam&measureMode=0&measureID=0&temperAlarmParamStart=1&areaId=8&areaName=Area111&shieldMeasureFlag=1&alarmFlag=0&alarmSourceType=1&alarmType=1&alarmValue=51&warningValue=44&emissivity=0.95&targetSpace=15&areaFlag=true&areaShapeType=4&SNPointCoordinateStart=1&PointX=30&PointY=48&SNPointCoordinateNext=2&PointX=23&PointY=81&SNPointCoordinateNext=3&PointX=80&PointY=86&SNPointCoordinateNext=4&PointX=92&PointY=19&SNPointCoordinateEnd=4&next_temperAlarmParamURL=1&temperAlarmParamEnd=1`
Return	OK or Error (Refer to General Response)

Area parameters

Table 2-6-11-5-1

Parameters	data	Description
temperAlarmParamStart	{1}	Temperature alarm parameters start
temperAlarmParamURL	{n-1}	Next alarm parameter
temperAlarmParamEnd	{n}	End of alarm parameter
SNPointCoordinateStart	{1}	Select the start of the area
SNPointCoordinateNext	{n-1}	The next point
SNPointCoordinateEnd	{n}	End point
measureMode	<int>{0,1}	0: Normal mode 1: Preset mode
areaShapeType	<int>{1, 2,3,4}	Drawing area type 1: point 2: line 3: rectangle（only Area0 support） 4；polygon

2.6.11.5   Area temperature

2.6.11.5.1   Get Characteristic Temperature in Areas (getAreaTemperature)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=areaTemperature&AreaID=0
Description	1. Parameters that do not carry AreaID are all zone parameters that are acquired later. 2. Characteristic temperatures include maximum temperature, minimum temperature and average temperature
Example	*http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=areaTemperature&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
	(Others refer to the General Response)

2.6.11.5.2 Get Any Point Temperature in Full Screen Area（getAnyPointTemperature）

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=anyPointTemperature&PointX=<PointX>&PointY=<PointY>
Description	Get any point temperature in full screen area
Example	***http://192.168.32.151/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=anyPointTemperature&PointX=20&PointY=10***
Return	temperatureUnit = 1
	pointTemperature =36.00
	(Others refer to the General Response)

2.6.11.5.3 Get multi points temperature in temperature area（getpointTemperature）

URL	*http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=pointTemperature&pointTemperatureBegin=1&PointX=<pointX>&PointY=<pointY>&pointTemperatureEnd =2&PointX=<pointX>&PointY=<pointY>&horizontalNum=<horizontalNum> &verticalNum=<verticalNum>*
Description n	Get any multi-point temperature in the full screen

Example	*http://192.168.32.121/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=pointTemperature&beginPointX=20&beginPointY=10&endPointX=89&endPointY=90&horizontalNum=10&verticalNum=10*
Return	```
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
```
(Others refer to the General Response) |

## 2.6.11.6    Alarm linkage

### 2.6.11.6.1   Get Parameters of Temperature Alarm Arming and Temperature Alarm Linkage (getAlarmDeploymentParam)

| | |
|---|---|
| **URL** | http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=alarmDeploymentParam |
| **Description** | Refer to Thermal Camera Configuration Parameters |
| **Example** | *http://192.168.0.127/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=alarmDeploymentParam* |
| **Return** | temperAlarmDeploymentParamStart=1<br>sourceType=29<br>sourceID=29<br>alarmOutActionCount=2<br>alarmOutActionBegin<br>alarmOutID=1<br>alarmOutFlag=1<br>next_alarmOutActionURL=2<br>alarmOutID=2<br>alarmOutFlag=1<br>alarmOutActionEnd<br>RecordActionParamCount=0 |

| | next_temperAlarmDeploymentParamURL=1 |
| --- | --- |
| | sourceType=31 |
| | sourceID=31 |
| | alarmOutActionCount=2 |
| | alarmOutActionBegin |
| | alarmOutID=1 |
| | alarmOutFlag=1 |
| | next_alarmOutActionURL=2 |
| | alarmOutID=2 |
| | alarmOutFlag=1 |
| | alarmOutActionEnd |
| | RecordActionParamCount=0 |
| | next_temperAlarmDeploymentParamURL=2 |
| | sourceType=32 |
| | sourceID=32 |
| | alarmOutActionCount=2 |
| | alarmOutActionBegin |
| | alarmOutID=1 |
| | alarmOutFlag=1 |
| | next_alarmOutActionURL=2 |
| | alarmOutID=2 |
| | alarmOutFlag=1 |
| | alarmOutActionEnd |
| | RecordActionParamCount=0 |
| | next_temperAlarmDeploymentParamURL=3 |
| | sourceType=33 |
| | sourceID=33 |
| | alarmOutActionCount=2 |
| | alarmOutActionBegin |
| | alarmOutID=1 |
| | alarmOutFlag=1 |
| | next_alarmOutActionURL=2 |
| | alarmOutID=2 |
| | alarmOutFlag=1 |
| | alarmOutActionEnd |
| | RecordActionParamCount=0 |
| | next_temperAlarmDeploymentParamURL=4 |
| | sourceType=34 |
| | sourceID=34 |
| | alarmOutActionCount=2 |
| | alarmOutActionBegin |
| | alarmOutID=1 |
| | alarmOutFlag=1 |
| | next_alarmOutActionURL=2 |

| | alarmOutID=2 |
| --- | --- |
| | alarmOutFlag=1 |
| | alarmOutActionEnd |
| | RecordActionParamCount=0 |
| | temperAlarmDeploymentParamEnd=5 |
| | (Others refer to the General Response) |

### 2.6.11.6.2  Set Parameters Of Temperature Alarming And Temperature Alarm Linkage (setAlarmDeploymentParam)

| | |
| --- | --- |
| **URL** | http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=alarmDeploymentParam[&<argument>=<value>...] |
| **Description** | Refer to Thermal Camera Configuration Parameters |
| **Example** | *http://192.168.0.127/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=alarmDeploymentParam&temperAlarmDeploymentParamStart=1&sourceType=29&sourceID=29&alarmOutActionBegin=1&alarmOutID=1&alarmOutFlag=1&next_alarmOutActionURL=2&alarmOutID=2&alarmOutFlag=1&alarmOutActionEnd=2&next_temperAlarmDeploymentParamURL=2&sourceType=31&sourceID=31&weekDayBegin=1&weekDay=1&startTime1=12600&endTime1=27000&next_weekDayURL=2&weekDay=2&startTime1=12600&endTime1=27000&next_weekDayURL=3&weekDay=3&startTime1=12600&endTime1=27000&next_weekDayURL=4&weekDay=4&startTime1=12600&endTime1=27000&weekDayEnd=4&AlarmLinkageBegin=1&ActionID=1&ActionType=2&next_AlarmLinkageURL=2&ActionID=1&ActionType=4&next_AlarmLinkageURL=3&ActionID=1&ActionType=7&AlarmLinkageEnd=3&alarmOutActionCount=2&alarmOutActionBegin=1&alarmOutID=1&alarmOutFlag=1&next_alarmOutActionURL=2&alarmOutID=2&alarmOutFlag=1&alarmOutActionEnd=2&RecordActionParamCount=0&next_temperAlarmDeploymentParamURL=3&sourceType=32&sourceID=32&alarmOutActionCount=2&alarmOutActionBegin=1&alarmOutID=1&alarmOutFlag=1&next_alarmOutActionURL=2&alarmOutID=2&alarmOutFlag=1&alarmOutActionEnd=2&RecordActionParamCount=0&next_temperAlarmDeploymentParamURL=4&sourceType=33&sourceID=33&alarmOutActionCount=2&alarmOutActionBegin=1&alarmOutID=1&alarmOutFlag=1&next_alarmOutActionURL=2&alarmOutID=2&alarmOutFlag=1&alarmOutActionEnd=2&RecordActionParamCount=0&next_temperAlarmDeploymentParamURL=5&sourceType=34&sourceID=34&alarmOutActionCount* |

| | *=2&alarmOutActionBegin=1&alarmOutID=1&alarmOutFlag=1&next_alar mOutActionURL=2&alarmOutID=2&alarmOutFlag=1&alarmOutActionEn d=2&RecordActionParamCount=0&temperAlarmDeploymentParamEnd=5* |
|---|---|
| **Return** | OK or Error (Refer to <u>General Response</u>) |

## 2.6.11.7　　Parameter configuration

### 2.6.11.7.1　Thermal Camera Configuration Parameter

Thermal camera configuration parameters table:

<p align="center">Table 2-6-11-11-1</p>

| **Parameters** | **data** | **Description** |
|---|---|---|
| **CameraId** | \<int>1 | Channel Nunmber<br><br>ID：means channel No. |
| **enableFlag** | \<int>{0,1} | Support identification or not<br><br>0: The device isn't supported<br><br>1：The device is supported |
| **maxAreaNum** | \<int>{n} | Maximum number of measurement areas supported |
| **maxPointAreaNum** | \<int>{n} | Maximum number of support points to measure the area<br><br>0 means unsupport point temperature measurement area |
| **maxLineAreaNum** | \<int>{n} | Maximum number of support line measurement areas<br><br>0 means not support linear temperature measurement areas |
| **supportPolygonType** | \<int>[0,3] | Whether rectangular areas are supported.<br><br>0:Not support.<br><br>1: Only support rectangular areas<br><br>2: Only support common |

| | | polygonal areas 3: Support both rectangular and polygonal areas |
|---|---|---|
| **maxPolygonAreaNum** | &lt;int&gt;{n} | Maximun munber of polygons allowed to be measured 0 means not support polygonal temperature measurement areas |
| **maxShieldAreaNum** | &lt;int&gt;{n} | Maximum number of supported shielding temperature areas. 0 means not support temperature measurement shielding areas |
| **measureMode** | &lt;int&gt;[0,2] | Temperature measurement model 0: Normal mode； 1: Preset mode； 2: Face measurement mode |
| **measureID** | &lt;int&gt;{n} | Measurement ID |
| **areaID** | &lt;int&gt;[0,7] | Area ID Area ID(0-7) |
| **areaName** | &lt;string&gt; | Area name |
| **alarmFlag** | &lt;int&gt;{0,1} | Area alarm switch |
| **alarmSourceType** | &lt;int&gt;{n} | Alarm source ID Type of alarm source. |
| **alarmType** | &lt;int&gt;{0,1} | Alarm subtype 0: DiffAlarm 1:ThresholdAlarm |
| **alarmValue** | &lt;int&gt;{n} | Temperature threshold value Alarm temperature value |
| **emissivity** | &lt;float&gt;[0.1,0.99] | Emissivity （0.1~0.99） |
| **targetSpace** | &lt;float&gt;{n} | Target distance |

|  |  |  | Default 15m |
|---|---|---|---|
| **areaFlag** | <bool> |  | Area open flag<br>true：Open<br>false：Not open |
| **areaShapeType** | <int>[0,3] |  | Area boundary shape type<br>Point, line,rectangle,polygon |
| **X** | <float> |  | X coordinate |
| **Y** | <float> |  | Y coordinate |
| **temperatureUnit** | <int>{0,1} |  | temperature unit<br>0：celsius<br>1：Fahrenheit |
| **maxTemperatureX** | <float> |  | Highest temperature X<br>X axis location |
| **maxTemperatureY** | <float> |  | Highest temperature Y<br>Y axis location |
| **maxTemperature** | <float> |  | Area Highest temperature |
| **minTemperatureX** | <float> |  | The lowest temperature X value |
| **minTemperatureY** | <float> |  | The lowest temperature Y value |
| **minTemperature** | <float> |  | Area lowest temperature |
| **aveTemperature** | <float> |  | Area average temperature |
| **pointTemperature** | <float> |  | The temperature at a certain point |
| **weekday** | <int>[0,6] |  | Day of a week.<br>0-6：Sunday to Saturday |
| **startTime** | <int> |  | starting time<br>Start time in a day, unit is second |
| **endTime** | <int> |  | End of time<br>End time in a day, unit is |

| | | second |
|---|---|---|
| **actionID** | &lt;int&gt; | Action ID。<br><br>The number for identifying the alarm source. Each alarm source ID has different meanings. For example I/O alarm express I/O number, SMTP and PTZ express channel number |
| **actionType** | &lt;int&gt;[1,4] | Output tpye<br><br>1：I/O<br><br>2：SMTP<br><br>3：PTZ<br><br>4：RECORD |
| **alarmOutID** | &lt;int&gt;{1,2} | Alarm output channel<br><br>1：channel 1<br><br>2：channel 2 |
| **alarmOutFlag** | &lt;int&gt;{0,1} | Alarm output switch<br><br>0：close<br><br>1；open |

## 2.6.12  User Configuration

### 2.6.12.1  Add users

| URL | http://&lt;servername&gt;/cgi-bin/param.cgi?userName=&lt;username&gt;&password=&lt;password&gt;&action=add&type=User&newuser=&lt;newuser&gt;&newpasswd=&lt;newpasswd&gt;[&group=&lt;groupname&gt;][& note=&lt;note&gt;] |
|---|---|
| **Description** | Refer to User Configuration Parameters |
| **Example** | *http://192.168.32.120/cgi-bin/param.cgi?userName=admin&password=admin&action=add&type=User&newuser=asdfg34&newpasswd=asdfg&group=Administrators&note=admin* |

| Return | *OK* (Others refer to General Response) |
|---|---|

## 2.6.12.2    Modify User

| URL | http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=modify&type=User&user=<username>&newpasswd=<newpasswd>[&group=<groupname>][&note=<note>] |
|---|---|
| **Descripti on** | Refer to User Configuration Parameters |
| **Example** | *http://192.168.32.120/cgi-bin/param.cgi?userName=admin&password=admin&action=modify&type=User&user=asdfg&newpasswd=12345&group=Administrators&note=admin* |
| **Return** | *OK* (Others refer to General Response) |

## 2.6.12.3    User Configuration Parameters

User configuration parameters table:

Table 2-6-12-3

| Parameters | data | Description |
|---|---|---|
| **user** | <string> | The user name of the action operator |
| **newuser** | <string> | User name of the new user |
| **newpasswd** | <string> | Password for the new user |
| **group** | <string> | authorization groups,When the current user is super privileged, the group name must be present |
| **note** | <string> | User label |

## 2.6.13 AI thermal imaging (body thermometer)

### 2.6.13.1    Human temperature measurement parameters

#### 2.6.13.1.1  obtain the configuration of human body temperature measurement parameters (getAIThermalConfigureParam)

| URL | `http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type= AIThermalConfigureParam` |
|---|---|
| Description | See AI thermal imaging parameter configuration for parameters<br><br>Including AI configuration parameters and temperature related parameters. Parameters see <u>human temperature measurement parameters</u> |
| Example | http://192.168.1.20/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=AIThermalConfigureParam |
| Return | FaceEnable=true<br>ShowObjectMode=1<br>ShowAreaEnable=true<br>Reliability=60<br>PictureQuality=60<br>SnapPictureMode=0<br>UploadInterval=5<br>PitchDegree=60<br>YawDegree=60<br>TiltDegree=30<br>FtpUploadEnable=false<br>FtpUploadFullViewEnable=false<br>PictureOSDEnable=false<br>FirmwareVer=V1.4.1.1<br>polygonAreaParamBegin=1<br>AreaId=1<br>FaceMinPixelWidth=70<br>FaceMaxPixelWidth=1000<br>AreaPointBegin=1<br>pointX1=0.00<br>pointY1=0.00<br>pointX2=0.00<br>pointY2=99.50<br>pointX3=99.50<br>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`
	 (Others refer to General Response)

2.6.13.1.2 human body temperature measurement parameters

Parameter	Data	Explain
Face detection parameters		
FaceEnable	`<bool>{true,false}`	Enable face capture or not
ShowObjectMode	`<int>{0, off, 1, mode 1, currently only 0, 1} is supported`	Overlay tracking information
ShowAreaEnable	`<bool>{true,false}`	Display detection area
Reliability	`<int>{0-100}`	Confidence level
FaceMinPixelWidth	`<int>[30,300]`	Face detection minimum pixel
FaceMaxPixelWidth	`<int>[500,2000]`	Face detection Max pixel
nPictureQuality	`<int[1,99] //Take 60 out of 80 high and take 30 out of 30 low`	Cutout quality
SnapPictureMode	`<int>{0,1,4}`	Snap mode, 0: Timed snapshot 1: optimal 4: optimal timing
SnapPictureNum	`<int>[1,5]`	Number of snapshots in optimal and timing optimal mode
UploadInterval	`<int>[1,10]`	Capture interval in timer mode
YawDegree	`<int>[0,90]`	Side angle

TiltDegree	<int>[0,90]	Bevel angle
PitchDegree	<int>[0,90]	Elevation
FtpUploadEnable	<bool>{true,false}	FTP send matting
FtpUploadFullViewEnable	<bool>{true,false}	FTP send panorama
PictureOSDEnable	<bool>{true,false}	Whether to overlay OSD on the captured picture
FirmwareVer	<string	Algorithm version
Face detection area		
polygonAreaParamBegin	int<1>	Area Param start sign
AreaId	int<1, 8>	Area ID, up to 8 areas
FaceMinPixelWidth	<int>[30,300]	Face detection minimum pixels
FaceMaxPixelWidth	<int>[500,2000]	Maximum pixels for face detection
AreaPointBegin	int<1>	Area coordinate parameter start sign
pointX(1..8)	float<0.0,99.99>	X-coordinate of point n of detection area (up to 8 points can be set for each area)
pointY(1..8)	float<0.0,99.99>	Y coordinate of point n of detection area (up to 8 points can be set for each area)
AreaPointEnd	int<1>	Area coordinate parameter end flag
nextPolygonAreaParam	int<1>	Start parameter of next zone parameter
...	...	...
polygonAreaParamEnd	int<1>	Regional parameter end flag
Temperature measurement parameters		

IsOpenTemperatureMeasure	`<bool>{true,false}`	Whether to turn on 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 faces
AveTemperatureCorrection	`<bool>{true,false}`	Environment 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}`	Maximum normal temperature range

2.6.13.1.3 setting to obtain the configuration of human body temperature measurement parameters (setAIThermalConfigureParam)

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=set&type=AIThermalConfigureParam [&\<argument\>=\<value\>...]
Description	Set temperature measurement parameters, all parameters are optional parameters, at least one parameter when setting. Parameters see human temperature measurement parameters
Example	http://192.168.0.156/cgi-bin/param.cgi?userName=admin&password=admin&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&FtpUploadFullViewEnable=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 (Others refer to General Response)

2.6.13.2 High temperature alarm

2.6.13.2.1 Get high temperature alarm parameters

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=get&type=AIThermalHighTemperatureAlarmLinkage
Description	Get high temperature alarm parameters, See parameters Temperature alarm parameters

Example	http://192.168.0.156/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=AIThermalHighTemperatureAlarmLinkage
Return	HighTemperatureAlarmParamBegin=1 AreaId=1 AlarmEnable=true AlarmInterval=5 AlarmIO1=true AlarmIO2=false AlarmFTP=true AlarmSMTP=false 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=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
```
(Others refer to General Response)

2.6.13.2.2 Temperature alarm parameters

Parameter	Data	Explain
HighTemperatureAlarmParamBegin	<int>[1]	High temperature alarm parameter start sign
AreaAlarmParamBegin	<int>[1]	Regional parameter start sign
AreaId	<int>[1, 8]	Area ID
AlarmEnable	<bool>[true,false]	Alarm switch
AlarmInterval	<int>[1, 10]	Alarm interval
AlarmIO1	<bool>[true,false]	Alarm output 1
AlarmIO2	<bool>[true,false]	Alarm output 2
AlarmFTP	<bool>[true,false]	Alarm upload FTP
AlarmSMTP	<bool>[true,false]	Alarm send mail
AlarmRecord	<bool>[true,false]	Alarm recording
Time list		
weekDayBegin	<int>	Loop body start flag of arming This flag must be carried when configuring the behavior to be set, with no specific requirement for the value
weekDay	<int>[0, 6]	Weekday 0-6,0 is Sunday
startTime(1..3)	<long>[0, 86400]	Start time of arming range：0-86400
endTime(1..3)	<long>[0, 86400]	End time of arming range：0-86400，must

		match with startTime
next_weekDayURL	\<int\>	Next scheduled time URL Start at 1. If the value is 1, the following parameter is clause 2
weekDay	\<int\>[0, 6]	Weekday 0-6,0 is Sunday
startTime(1..3)	\<long\>[0, 86400]	Start time of arming range：0-86400
endTime(1..3)	\<long\>[0, 86400]	End time of arming range ： 0-86400 ， must match with startTime
weekDayEnd	\<int\>	The end flag of the loop body When the configuration behavior is set, you must carry this flag for the number of loops for the value
AreaAlarmParamEnd	int\<1\>	End of zone alarm parameters
nextAreaAlarmParam	int\<1\>	Alarm parameters for the next zone
...	...	...
AreaAlarmParamEnd	int\<1\>	Regional parameter end flag
HighTemperatureAlarmParamEnd	int\<1\>	High temperature alarm parameter ends

2.6.13.2.3 Set high temperature alarm parameters

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action=set&type=

	`AIThermalHighTemperatureAlarmLinkage`
Description	Set high temperature alarm parameters，See parameters <u>Temperature alarm parameters</u>
Example	`http://192.168.0.156/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=AIThermalHighTemperatureAlarmLinkage&HighTemperatureAlarmParamBegin=1&AreaAlarmParamBegin=1&AreaId=1&AlarmEnable=true&AlarmInterval=5&AlarmIO1=true&AlarmIO2=false&AlarmFTP=true&AlarmSMTP=false&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&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` (Others refer to <u>General Response</u>)

2.6.13.3　Normal temperature alarm

2.6.13.3.1　Get Normal temperature alarm parameters

URL	`http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=AIThermalNormalTemperatureAlarmLinkage`
Description	Get Normal temperature alarm parameters，See parameters <u>Temperature alarm parameters</u>
Example	`http://192.168.0.156/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=` `AIThermalNormalTemperatureAlarmLinkage`
Return	`NormalTemperatureAlarmParamBegin=1` `AreaId=1`

```
AlarmEnable=true
AlarmInterval=5
AlarmIO1=true
AlarmIO2=false
AlarmFTP=true
AlarmSMTP=false
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=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
	NormalTemperatureAlarmParamEnd=1
	(Others refer to General Response)

2.6.13.3.2 Set Normal temperature alarm parameters

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=AIThermalNormalTemperatureAlarmLinkage
Descripti	Set Normal temperature alarm parameters，See parameters Temperature

on	[alarm parameters](#)
Example	http://192.168.0.156/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=AIThermalNoramlTemperatureAlarmLinkage&NoramlTemperatureAlarmParamBegin=1&AreaAlarmParamBegin=1&AreaId=1&AlarmEnable=true&AlarmInterval=5&AlarmIO1=true&AlarmIO2=false&AlarmFTP=true&AlarmSMTP=false&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&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&NoramlTemperatureAlarmParamEnd=1
Return	Ok (Others refer to [General Response](#))

2.6.13.4   Low temperature alarm

2.6.13.4.1   Get Low temperature alarm parameters

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=AIThermalLowTemperatureAlarmLinkage
Description	Get Low temperature alarm parameters，See parameters [Temperature alarm parameters](#)
Example	http://192.168.0.156/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type= AIThermalLowTemperatureAlarmLinkage
Return	LowTemperatureAlarmParamBegin=1 AreaId=1 AlarmEnable=true AlarmInterval=5

```
AlarmIO1=true
AlarmIO2=false
AlarmFTP=true
AlarmSMTP=false
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=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 LowTemperatureAlarmParamEnd=1 (Others refer to General Response)

2.6.13.4.2 Set Low temperature alarm parameters

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=AIThermalLowTemperatureAlarmLinkage
Description	Set Low temperature alarm parameters, See parameters Temperature alarm parameters

Example	http://192.168.0.156/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=AIThermalLowTemperatureAlarmLinkage&LowTemperatureAlarmParamBegin=1&AreaAlarmParamBegin=1&AreaId=1&AlarmEnable=true&AlarmInterval=5&AlarmIO1=true&AlarmIO2=false&AlarmFTP=true&AlarmSMTP=false&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&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 (Others refer to General Response)

2.6.13.5   Image calibration

2.6.13.5.1   obtain image calibration parameters (getAIThermalMapping)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type= AIThermalMapping
Description	See AI thermal imaging image calibration parameters for parameters
Example	*http://192.168.1.20/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=AIThermalMapping*
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

2.6.13.5.2 Calibration parameters of AI thermal imaging image (the calibration points of visible light and invisible light correspond to each other)

parameter	data type	Remarks
SerialNumber	int<1, 8>	Calibration serial number, up to 8
SceneDepth	int	Depth of field, distance from image to camera. Unit: m
RegionSrcBegin	int<1>	Visible area start flag
SrcPointList	<string>	Coordinates list of visible light area points: x1, Y1 | X2, Y2 | X3, Y3 Note: X and y are float, and the number of points corresponds to invisible light
RegionSrcEnd	int<1>	Visible light area end flag
RegionDstBegin	int<1>	Invisible light area start flag
DstPointList	<string>	List of coordinates of points in invisible light area: x1, Y1 | X2, Y2 | X3, Y3 Note: X, y are float
RegionDstEnd	int<1>	Invisible light area end flag

2.6.13.5.3 setting image calibration parameters (setAIThermalMapping)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=AIThermalMapping

	[&<argument>=<value>...]
Description	See AI thermal imaging image calibration parameters for parameters
Example	http://192.168.1.252/cgi-bin/param.cgi?userName=admin&password=admin123&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 (Others refer to General Response)

2.6.13.6   temperature measurement dead pixels

2.6.13.6.1 Correction of bad points in human body temperature measurement (applyAIThermalBadPointCalibration)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=apply&type= AIThermalBadPointCalibration
Description	See thermal image calibration parameters for parameters Change the bad point to a point that can be measured normally
Example	*http://192.168.1.20/cgi-bin/param.cgi?userName=admin&password=admin&action=apply&type=AIThermalBadPointCalibration&BadPointList=50,50||80,80*
Return	OK (Others refer to General Response)

2.6.13.6.2 Bad point correction parameters of AI thermal imaging

parameter	data type	Remarks
BadPointList	<string>	List of bad point coordinates: x1, Y1 | X2, Y2 | Note: X and y are float, and the number of points corresponds to invisible light

2.6.13.6.3 reset the bad points of human body temperature measurement (restoreAIThermalBadPointCalibration)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=restore&type= AIThermalBadPointCalibration
Description	Reset corrected points
Example	*http://192.168.1.20/cgi-bin/param.cgi?userName=admin&password=admin&action=restore&type=AIThermalBadPointCalibration*
Return	OK (Others refer to General Response)

2.6.13.6.4 save the bad points of human body temperature measurement and correction (saveAIThermalBadPointCalibration)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=save&type= AIThermalBadPointCalibration
Description	Save corrected points
Example	*http://192.168.1.20/cgi-bin/param.cgi?userName=admin&password=admin&action=save&type=AIThermalBadPointCalibration*
Return	OK (Others refer to General Response)

2.6.13.7　Temperature calibration

2.6.13.7.1 obtaining temperature measurement calibration parameters (get AIThermalCalibration)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type= AIThermalCalibration

Description	See AI thermal imaging temperature measurement calibration parameters for parameters
Example	*http://192.168.1.20/cgi-bin/param.cgi?userName=admin&password=admin&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

2.6.13.7.2 AI thermal imaging temperature measurement calibration parameters

parameter	data type	Remarks
Enable	<bool>{true,false}	Is test calibration enabled
ShowObjectEnable	<bool>{true,false}	Overlay area information or not
BlackBobyTemperature	<float>[n]	Target temperature
Emissivity	<Float>[0.1,0.99]	Target emissivity
TargetSpace	<int>[n]	Distance m default 15m
CalibrationAreaBegin	int<1>	Start mark of temperature measurement area
PointList	<string>	Coordinate list of temperature measurement area points: x1, Y1 | X2, Y2 Note: X, y are float Temperature measurement calibration only supports rectangle, so when setting, only two point coordinates of the upper left corner and the lower right corner need to be set. The redundant points are not

		analyzed, only the first and second points in the list are analyzed. When obtained, the coordinate points of four corners of the rectangle will be returned
CalibrationAreaEnd	int<1>	End sign of temperature measurement area

2.6.13.7.3 setting temperature measurement calibration parameters (set AIThermalCalibration)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=AIThermalCalibration [&<argument>=<value>...]
Description	See AI thermal imaging image calibration parameters for parameters
Example	***http://192.168.1.22/cgi-bin/param.cgi?userName=admin&password=admin&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 (Others refer to General Response)

2.6.13.8 Metrology Test

2.6.13.8.1 Obtain measurement test parameter configuration (get AIThermalMetrologyTest)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type= AIThermalMetrologyTest
Description	Obtain the configuration parameters of the measurement test. For parameter details, see the parameter list below
Example	http://192.168.0.96/cgi-bin/param.cgi?userName=admin&password=admin&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
``` |

2.6.13.8.2 Thermal imaging measurement test parameter configuration

parameter	data type	Remarks
Enable	<bool>{true,false}	Whether to enable measurement test function
AreaParamBegin	int<1>	Regional parameter start sign
AreaId	int<1, 8>	Area ID, up to 8 areas
Emissivity	<Float>[0.1,0.99]	Target emissivity
TargetSpace	<int>[n]	Distance M default 15m
PointList	<string>	List of coordinate points of temperature measurement area: x1,y1 || x2,y2 Remarks: x,y is float, The value range of points is 0-100 The measurement test currently only supports rectangles, so when setting, you only need to set the coordinates of the two points in the upper left corner and the lower right corner. Excess points are not analyzed, only the first and second points of the list are analyzed。
NextAreaParam	int<1>	Next zone parameter flag
AreaParamEnd	int<1>	Regional parameter end flag

2.6.13.8.3 Setting measurement test parameter configuration (set AIThermalMetrologyTest)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=set&type=AIThermalMetrologyTest [&<argument>=<value>...]
Descripti	Set the configuration parameters of the metrology test. For the

on	parameter details, please refer to the AI thermal imaging metrology test parameter configuration
Example	http://192.168.0.96/cgi-bin/param.cgi?userName=admin&password=admin&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&TargetSpace=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 (Others refer to General Response)

2.6.13.9 Temperature measurement version

2.6.13.9.1 obtaining the version information of human body temperature measurement (get AIThermalVersionInfo)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type= AIThermalVersionInfo
Description	See AI thermal imaging version information for parameters
Example	*http://192.168.1.20/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type= AIThermalVersionInfo*
Return	Version=20190723 Sequence=test-1

2.6.13.9.2 AI thermal imaging version information (setting not supported)

parameter	data type	Remarks
Version	<string>	Movement version
Sequence	<string>	Movement serial number

2.6.13.10　Platform configuration

2.6.13.10.1 obtain configuration information of temperature measurement snapshot image upload platform (getAIThermalPic)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type= AIThermalPic
Description	See AI thermal imaging image upload address configuration information for parameters Obtain the configuration information related to the upload platform of the captured pictures
Example	*http://192.168.1.24/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=AIThermalPic*
Return	Return when the address information configuration information is empty: PicStatus=close Return when the address information configuration is not empty: PicStatus=open PlatAddress=192.168.1.20 PlatPort=80 PlatUrl=/upload_dir/ PlatUsername=admin PlatPassword=admin

2.6.13.10.2 AI thermal image upload address configuration information

parameter	data type	Remarks
PicStatus	<string>	Whether the address configuration of image upload platform is enabled or not
PlatAddress	<string>	Upload server address (when enabled)
PlatPort	<string>	Upload server port (when enabled)
PlatUrl	<string>	URL of image upload server (exists when it can be opened)
PlatUsername	<string>	Upload the user name of the server (when

		enabled)
PlatPassword	<string>	Upload the password of the server (when enabled)

2.6.13.10.3 configure temperature measurement snapshot picture upload platform information (setAIThermalPic)

URL	`http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=open&type= AIThermalPic`
	
	 `[&<argument>=<value>...]`

Description	See AI thermal imaging picture upload platform configuration parameters for parameters After the configuration is completed, when there is a snapshot image, the image data and attribute information will be uploaded to the platform in the form of HTTP post
Example	*http://192.168.1.24/cgi-bin/param.cgi?userName=admin&password=admin&action=open&type=AIThermalPic&PlatAddress=192.168.1.20&PlatPort=1234&PlatUrl=/upload_dir/&PlatUsername=admin&PlatPassword=admin*
Return	OK (Others refer to General Response)

2.6.13.10.4 Configuration parameters of AI thermal imaging image upload platform

parameter	data type	Remarks
PlatAddress	<string>	Upload server address
PlatPort	<string>	Upload server port
PlatUrl	<string>	URL of image upload server Note: this URL is used for push address in HTTP post header. It can be http：// plataddress: platport / URL / or directly: / URL /. If not configured, the default value is' / '
PlatUsername	<string>	User name of upload server

PlatPassword	〈string〉	Upload the password used by the server

2.6.13.10.5 Upload format and parameters of human body temperature measurement snapshot pictures（POST）

Explain	When the device is configured with the information of the capture image upload platform, 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=图片数据

Upload picture parameters and attribute description		
AlarmTime	〈string〉	Picture capture time (s)
FaceInfoBegin	〈int〉 [1, n]	A picture property start tag A picture may have more than one face attribute to start with
Type	〈string〉	Snapshot small picture type, 0, face 1, human body
PointX	〈string〉	The coordinate X (pixel) of the upper left corner of the

		snapshot All pixels in the whole picture are 1920 * 1080
PointY	<string>	The coordinate X (pixel) of the upper left corner of the snapshot All pixels in the whole picture are 1920 * 1080
Height	<string>	Height of small snapshot (pixel) All pixels in the whole picture are 1920 * 1080
Width	<string>	Capture small image width (pixels) All pixels in the whole picture are 1920 * 1080
Yaw	<int>	Horizontal angle of capture target
Tilt	<int>	Vertical angle of capture target
Temperature	<float>	Capture target current temperature (floating point)
FaceInfoNext	<int> [2, n-1]	Next picture property start tag
FaceInfoEnd	<int> [1, n]	A picture property end tag A picture may have more than one person's face attribute to end with

FacePictureDataLen	⟨int⟩	Capture image data length
FacePictureData	＜Picture flow ＞	Capture picture data (directly saved as picture)

2.6.13.10.6 Delete the temperature measurement snapshot picture upload platform information (setAIThermalPic)

URL	http://⟨servername⟩/cgi-bin/param.cgi?userName=⟨username⟩&password=⟨password⟩&action=**close**&type= AIThermalPic
Descripti on	After the configuration is completed, the platform configuration information will be cleared, and the platform will no longer receive the picture and property information
Example	*http://192.168.1.24/cgi-bin/param.cgi?userName=admin&password=admin& action=*
Return	OK (Others refer to General Response)

2.6.14 Acquisition of equipment system log（systemLogInfo）

（IPC）

URL	http://⟨servername⟩/cgi-bin/param.cgi?userName=⟨username⟩&password=⟨password⟩&action=get&type=systemLogInfo
Descriptio n	See input parameter table
Example	*http://192.168.32.197/cgi-bin/param.cgi?userName=admin&password=admin&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
	(Others refer to General Response)

2.6.14.1　Input parameter table

Parameter	Data	Explain
startTime	\<string\>	Video start time. Format (yyyymmddhhmmss) Note: the minimum value cannot be less than 197101010000
endTime	\< string \>	Recording end time. Format (yyyymmddhhmmss) Note: the minimum value cannot be less than 197101010000
logType	\<int\>	When the parameter is - 1, all types of logs of the log are queried by default. When querying the system log, this parameter references Sub type

2.6.14.2　System log output parameter table

Parameter	Data	Explain
deviceId	\<string\>	Device ID
deviceIp	\<string\>	Device IP
channelId	\<int\>	Channel number
userName	\<string\>	User name

majorType	<int>	Main type, Main type
minorType	<int>	Sub type, Sub type
time	<string>	Log time
logData	<string>	log information
oldParamInfo	<string>	Old parameter information
newParamInfo	<string>	New parameter information

2.6.15 Acquisition of equipment alarm log（alarmLogInfo）(IPC)

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=get&type=alarmLogInfo
Description	See input parameter table
Example	***http://192.168.32.197/cgi-bin/param.cgi?userName=admin&password=admin&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 (Others refer to General Response)

2.6.15.1　Input parameter table

Parameter	Data	Explain
startTime	<string>	Video start time. Format (yyyymmddhhmmss) Note: the minimum value cannot be less than 197101010000
endTime	< string >	Recording end time. Format (yyyymmddhhmmss) Note: the minimum value cannot be less than 197101010000
logType	<int>	When the parameter is - 1, all types of logs of the log are queried by default. When querying the alarm log, this parameter refers to Main type

2.6.15.2　Alarm log output parameter table

Parameter	Data	Explain
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, Main type
minorType	<int>	Alarm sub type, Sub type
description	<string>	describe
alarmStartTime	<string>	Alarm start time
alarmEndTime	<string>	Alarm end time

2.6.16 Multi-objective parameter

2.6.16.1　getAIMultiObjectDetectParam

URL	http://\<servername\>/cgi-bin/param.cgi?userName=\<username\>&password=\<password\>&action= get&type= AIMultiObjectDetectParam
Description	See input parameter table
Example	http://192.168.0.54/cgi-bin/param.cgi?userName=admin&password=admin&action=get&type=AIMultiObjectDetectParam
return	FaceEnable=true　　　　　　// FullBodyEnable=true　　　　// VehicleEnable=true　　　　// ShowObjectMode=1　　　　　// ShowAreaEnable=true　　　// Reliability=10　　　　　// PictureQuality=60　　　　// SnapPictureMode=1　　　　　// FaceMinPixelWidth=30　　　// HumanMinPixelWidth=30　　　// VehicleMinPixelWidth=30　　// SnapPictureMode=1　　　　　// FtpUploadEnable=false　　// FtpUploadFullViewEnable=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
	nextPolygonArea=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
	(Others refer to General Response)

2.6.16.2 setAIMultiObjectDetectParam

URL	http://<servername>/cgi-bin/param.cgi?userName=<username>&password=<password>&action=**set**&type= AIMultiObjectDetectParam [&<argument>=<value>...]
Description	See input parameter table
Example	http://192.168.0.54/cgi-bin/param.cgi?userName=admin&password=admin&action=set&type=AIMultiObjectDetectParam&FaceEnable=true&FullBodyEnable=true&VehicleEnable=true&ShowObjectMode=1&ShowAreaEnable=true&Reliability=10&PictureQuality=60&SnapPictureMode=1&FaceMinPixelWidth=30&HumanMinPixelWidth=30&VehicleMinPixelWidth=30&SnapPictureMode=1&FtpUploadEnable=false&FtpUploadFullViewEnable=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
return	OK (Others refer to General Response)

1.1.1.1 多目标参数表

参数	数据	说明

FaceEnable	⟨string⟩	Face enable:true,False
FullBodyEnable	⟨string⟩	Body enable:true ,False
VehicleEnable	⟨string⟩	Vehicle enable:true ,False
ShowObjectMode	⟨int⟩	Show mode,0,1 mode1,2 mode2
ShowAreaEnable	⟨ string ⟩	Show area enable
Reliability	⟨int⟩	0 - 100
PictureQuality	⟨int⟩	0 - 100
SnapPictureMode	⟨ int ⟩	1 timing,2 Optimal
FtpUploadEnable	⟨string⟩	ftp enable:true ,false
FtpUploadFullViewEnable	⟨string⟩	Full ftp enable:true ,False
PictureOSDEnable	⟨string⟩	no
FirmwareVer	⟨string⟩	Algorithms Library Version
PolygonAreaBegin	⟨int⟩	Polygon area begin
AreaId	⟨int⟩	Area id
AreaPointBegin	⟨ int ⟩	Area point begin
pointX	⟨float⟩	x
pointY	⟨float⟩	y
AreaPointEnd	⟨ int ⟩	Area point end
nextPolygonArea	⟨ int ⟩	next
PolygonAreaEnd	⟨ int ⟩	Polygon area end
weekDay	⟨ int ⟩	weekDay 0 - 6
startTime	⟨ int ⟩	0-86400
endTime	⟨ int ⟩	0-86400
next_weekDayURL	⟨ int ⟩	next

weekDayEnd	⟨ int ⟩	Weekday end

2.6.17 Alarm center parameters

2.6.17.1 Get alarm center parameters

URL	http://⟨servername⟩/cgi-bin/alarm.cgi?userName=⟨username⟩&password=⟨password⟩&action= get&type=alarmCenterService
Description	See input parameter table
Example	http://192.168.2.91/cgi-bin/alarm.cgi?userName=admin&password=admin&action=get&type=alarmCenterService
return	CGIAlarmFlag=true //CGI CGIName= // CGIType=1 //http CGIUrlStart=http://192.168.0.117:50234/MajorAlarmType&MinorAlarmType&SourceName&DeviceID&DeviceIP&AlarmTime&Description //URL start CGIUrlEnd=http://169.254.10.50:8081/api/sunell/upload_event/MajorAlarmType&MinorAlarmType&LicenseNumber&SerialNumber&Contry&AlarmTime //URL End CGIUserName1=admin // Proxy user name CGIPassword1=admin // Proxy password CGIProxyFlag=true // Proxy enable CGIAddress=169.254.10.50 // Proxy ip CGIPort=8081 // Proxy port CGIIVSType=-1 // (Others refer to General Response)

2.6.17.2 Set alarm center parameters

URL	http://⟨servername⟩/cgi-bin/alarm.cgi?userName=⟨username⟩&password=⟨password⟩&action=**set**&type=alarmCenterService&CGIAlarmFlag=⟨CGIAlarmFlag⟩&CGIName=⟨CGIName⟩&CGIType=⟨CGIType⟩&CGIUrlStart=⟨CG

	IUrlStart>&CGIUrlEnd=\<CGIUrlEnd>CGIUserName1=\<CGIUserName1>&CGIPasswd1=\<CGIPasswd1>&CGIProxyFlag=true&CGIAddress=\<CGIAddress>CGIPort=\<CGIPort>&CGIIVSType=\<CGIIVSType>
Description	设置多目标参数 CGIUrlStart 和 CGIUrlEnd 的值需要 base64 加密
Example	http://192.168.2.91/cgi-bin/alarm.cgi?userName=admin&password=admin&action=set&type=alarmCenterService&CGIAlarmFlag=true&CGIName=&CGIType=1&CGIUrlStart=aHR0cDovLzE5Mi4xNjguMC4xMTc6NTAyMzQvTWFqb3JBbGFybVR5cGUmTWlub3JBbGFybVR5cGUmU291cmNlTmFtZSZEZXZpY2VJRCZEZXZpY2VJUCZBbGFybVRpbWUmRGVzY3JpcHRpb24=
return	OK (Others refer to General Response)

2.6.18 General Parameters

General parameters table 1:

Table 2-6-13-1

Parameter	data	Description
userName	\<string>	Login to the advice account
password	\<string>	The password to log in the advice
action	\<string>{set，get}	Operation type get set
type	\<string>	Configuration Type Subtype in param.cgi Refer to General parameters table 2
cameraID	\<int>[1,n]	Camera ID he camera ID supported by the device，related to equipment capability.
streamID	\<int>[1,n]	Stream ID。 The stream ID supported by the device, related to equipment capability.

cover	\<string\>{ cover }	Cyclic coverage Overwrite the original loop body data
alarmInID	\<int\>[1,n]	Alarm input port number Determined by alarmInID gain from the device information,accumulation from 1
alarmOutID	\<int\>[1,n]	Alarm output port number Determined by alarmInID gain from the device information,accumulation from 1
enableFlag	\<unsigned char\>{0 , 1}	Enable or disable flags 0：disable 1：Enable Invalid setting of other values, return -8 (parameter error)
IPProtover	\<int\>{1.2}	Protocol version 1：IPV4 2：IPV6 IPV4 is currently only supported
comID	\<int\>{1}	serial port ID The serial port supported by the device, which is related to the device capability
next_paramURL	\<int\>{2,n}	Next parameter information Since 2

General parameters table 2:

Table 2-6-13-2

Type	Description
device-dependent	
deviceName	Device name
deviceID	Device ID

deviceInfo	Device information
localNetwork	Local network
WI-FI	WI-FI
devicePort	Device Port
cameraInfo	Channel parameter
dateTime	Date&time
OSD	Watermark
OSDCanvas	The canvas information
microphone	Microphone
protocolSecurity	Internet Protocol Security
alarmParam	Alarm parameters
ADSLNetwork	ADSL Network
protocolInfo	Protocol information
deviceDiskInfo	Device disk information
PTZTimer	PTZ timer
sourceResolution	Source resolution
IPDomePTZID	Speed dome camera ID
Stream configuration	
streamAbility	Stream ability
AVStream	Stream
Network service configuration	
PPPoE	PPPoE
DDNS	DDNS
UPNP	UPNP service

Video record configuration	
recordPolicy	Record Policy
recordDirInfo	Record contents
Alarm configuration	
alarmIn	Alarm input
alarmOut	Alarm output
motionAlarm	Motion Alarm
IOalarmLinkage	IO Linkage
diskAlarm	Disk alarm
blindArea	Alarm area
External equipment configuration	
PTZKeyboard	PTZ keyboard
PTZ	External PTZ (Speed Dome Camera not supported)
RS485Device	RS485 Device
Service Center	
SMTP	SMTP service
alarmCenter	Alarm center
NTP	NTP service

2.7 Device Operation（operate.cgi）

2.7.1 Device reset（deviceReset）（IPC）

URL	http://<servername>/cgi-bin/operate.cgi?userName=<username>&password=<password>&action=reset

Description	Refer to [Operation Parameters](#)
Example	***HTTP://192.168.1.121/cgi-bin/operate.cgi?userName=admin&password=admin&action=reset***
Return	OK or Error (Refer to [General Response](#))

2.7.2　Device Restart（deviceRestart）(IPC)

URL	http://<servername>/cgi-bin/operate.cgi?userName=<username>&password=<password>&action=restart
Description	Refer to [Operation Parameters](#)
Example	***HTTP://192.168.1.121/cgi-bin/operate.cgi?userName=admin&password=admin&action=restart***
Return	OK or Error (Refer to [General Response](#))

2.7.3　SD Format（format）(IPC)

URL	http://<servername>/cgi-bin/operate.cgi?userName=<username>&password=<password>&action=format&diskID=<diskID>
Description	Refer to [Operation Parameters](#)
Example	***HTTP://192.168.1.121/cgi-bin/operate.cgi?userName=admin&password=admin&action=format&diskID=1***
Return	OK or Error (Refer to [General Response](#))

2.7.4　Operation Parameters

Operation parameters table:

Table 2-7-3-1

2

Parameters	data	description
userName	\<string\>	Login to the advice account
password	\<string\>	The password to log in the advice
action	\<string\>{reset,restart, format}	restart reset format

2.8 Sensor Configuration（sensor.cgi）(IPC)

2.8.1   Brightness

2.8.1.1   Get Brightness Value（getBrightness）

URL	http://\<servername\>/cgi-bin/sensor.cgi?userName=\<username\>&password=\<password\>&action=get&type=brightness
Description	Refer to <u>Sensor Configuration Parameters</u>
Example	***HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type=brightness***
Return	value=100

2.8.1.2   Get Brightness Value Range（getBrightnessRange）

URL	http://\<servername\>/cgi-bin/sensor.cgi?userName=\<username\>&password=\<password\>&action=get&type=brightnessRange
Description	Refer to <u>Sensor Configuration Parameters</u>
Example	***HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type=brightnessRange***
Return	maxValue=100 minValue=0

2.8.1.3   Set Brightness Value（set **Brightness**）

URL	http://\<servername\>/cgi-bin/sensor.cgi?userName=\<username\>&password=\<password\>&action=set&type=brightness&value=\<value\>
Description	Refer to <u>Sensor Configuration Parameters</u>
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=brightness&value=100*
Return	OK or Error (Refer to <u>General Response</u>)

2.8.2   Contrast

2.8.2.1   Get Contrast Value（get **Contrast**）

URL	http://\<servername\>/cgi-bin/sensor.cgi?userName=\<username\>&password=\<password\>&action=get&type=contrast
Description	Refer to <u>Sensor Configuration Parameters</u>
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type=contrast*
Return	value=100

2.8.2.2   Get Contrast Values Range（get **Contrast Range**）

URL	http://\<servername\>/cgi-bin/sensor.cgi?userName=\<username\>&password=\<password\>&action=get&type=contrastRange
Description	Refer to <u>Sensor Configuration Parameters</u>
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type=contrastRange*

Return	maxValue=100
	minValue=0

2.8.2.3　　Set Contrast Value（set Contrast）

URL	http://\<servername\>/cgi-bin/sensor.cgi?userName=\<username\>&password=\<password\>&action=set&type=contrast&value=\<value\>
Description	Refer to <u>Sensor Configuration Parameters</u>
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=contrast&value=100*
Return	OK or Error (Refer to <u>General Response</u>)

2.8.3　Hue

2.8.3.1　　Get Hue Value（get Hue）

URL	http://\<servername\>/cgi-bin/sensor.cgi?userName=\<username\>&password=\<password\>&action=get&type=hue
Description	Refer to <u>Sensor Configuration Parameters</u>
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type=hue*
Return	value=100

2.8.3.2　　Get Hue Value Range（get HueRange）

URL	http://\<servername\>/cgi-bin/sensor.cgi?userName=\<username\>&password=\<password\>&action=get&type=hueRange
Description	Refer to <u>Sensor Configuration Parameters</u>
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type=hueRange*

Return	maxValue=100
	minValue=0

2.8.3.3   Set Hue Value（set Hue）

URL	http://\<servername>/cgi-bin/sensor.cgi?userName=\<username>&password=\<password>&action=set&type=hue&value=\<value>
Description	Refer to Sensor Configuration Parameters
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=hue&value=100*
Return	OK or Error (Refer to General Response)

2.8.4 Saturation

2.8.4.1   Get Saturation Value（getSaturation）

URL	http://\<servername>/cgi-bin/sensor.cgi?userName=\<username>&password=\<password>&action=get&type=saturation
Description	Refer to Sensor Configuration Parameters
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type=saturation*
Return	value=100

2.8.4.2   Get Saturation Value Range（get SaturationRange）

URL	http://\<servername>/cgi-bin/sensor.cgi?userName=\<username>&password=\<password>&action=get&type=saturationRange
Description	Refer to Sensor Configuration Parameters

Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type=saturationRange*
Return	maxValue=100 minValue=0

2.8.4.3　　Set Saturation Value（**setSaturation**）

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=set&type=saturation&value=<value>
Description	Refer to <u>Sensor Configuration Parameters</u>
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=saturation&value=100*
Return	OK or Error (Refer to <u>General Response</u>)

2.8.5　Sharpness

2.8.5.1　　Get Sharpness Value（**getSharpness**）

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=get&type=sharpness
Description	Refer to <u>Sensor Configuration Parameters</u>
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type=sharpness*
Return	*value=100*

2.8.5.2　　Get Sharpness Value Range（**getSharpnessRange**）

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=get&type=sharpnessRange
Description	Refer to <u>Sensor Configuration Parameters</u>

on	
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type=sharpnessRange*
Return	maxValue=100 minValue=0

2.8.5.3　　Set Sharpness Value（setSharpness）

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=set&type=sharpness&value=<value>
Description on	Refer to Sensor Configuration Parameters
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=sharpness&value=100*
Return	OK or Error (Refer to General Response)

2.8.6　Gamma

2.8.6.1　　Get Gamma Value（getGamma）

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=get&type=gamma
Description on	Refer to Sensor Configuration Parameters
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type=gamma*
Return	*value=100*

2.8.6.2　　Get Gamma Value Range（getGammaRange）

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=get&type=gammaRange

Description	Refer to Sensor Configuration Parameters
Example	***HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type=gammaRange***
Return	maxValue=100 minValue=0

2.8.6.3　　Set Gamma Value（setGamma）

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=set&type=gamma&value=<value>
Description	Refer to Sensor Configuration Parameters
Example	***HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=gamma&value=100***
Return	OK or Error (Refer to General Response)

2.8.7　Mirror

2.8.7.1　　Get Mirror State（getMirror）

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=get&type=mirror
Description	Refer to Sensor Configuration Parameters and Mirror Parameters
Example	***HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type=mirror***
Return	vertical=1 horizontal=1

2.8.7.2　　Set Mirror State（setMirror）

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<

	password>&action=set&type=mirror&vertical=<vertical>&horizontal=<horizontal>
Description	Refer to <u>Sensor Configuration Parameters</u> and <u>Mirror Parameters</u>
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=mirror&vertical=1&horizontal=1*
Return	OK or Error (Refer to <u>General Response</u>)

2.8.7.3 Mirror Parameters

Table 2-8-6-3-1

Parameters	data	description
vertical	<int>{0,1}	Vertical state descriptor 0：No 1：Yes When use Set command, must carry this parameter, Other return error.
horizontal	<int>{0,1}	Horizontal state descriptor0：No 1：Yes When use Set command, must carry this parameter, Other return error.

2.8.8 Zoom Focus

2.8.8.1 Speed Dome Camera

2.8.8.1.1 Set Zoom Focus (setZoomFocus)

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=set&type=zoomFocus&digitalZoom=<digitalZoom>&focusMode=<focusMode>&focusSensitivity=<focusSensitivity>&leastFocusDis

	tance=< leastFocusDistance >
Description	Refer to Sensor Configuration Parameters and Zoom Focus Parameters
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=zoomFocus&digitalZoom=1*
Return	OK or Error (Refer to General Response)

2.8.8.1.2   Get Zoom Focus (getZoomFocus)

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=get&type= zoomFocus
Description	Refer to Sensor Configuration Parameters and Zoom Focus Parameters
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type=zoomFocus*
Return	digitalZoom=0 focusMode=0 focusSensitivity=30 leastFocusDistance=2 （Refer to General Response）

2.8.8.2   Common Camera(Non Speed Dome camera)

2.8.8.2.1   Set Zoom Focus (setZoomFocus)

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=set&type=*zoomFocus&DNFocusSwitch=<DNFocusSwitch>*
Description	Refer to Sensor Configuration Parameters and Zoom Focus Parameters
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=ad*

	min&action=set&type=zoomFocus&DNFocusSwitch=0
Return	OK or Error (Refer to General Response)

2.8.8.2.2   Get Zoom Focus (getZoomFocus)

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=get&type= *zoomFocus*
Description	Refer to Sensor Configuration Parameters and Zoom Focus Parameters
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type=zoomFocus*
Return	DNFocusSwitch=0（Refer to General Response）

2.8.8.2.3   Zoom Focus Initialization (initZoomFocus)

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=init&type=*zoomFocus*
Description	Refer to Sensor Configuration Parameters and Zoom Focus Parameters
Example	*HTTP://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=init&type=zoomFocus*
Return	OK or Error (Refer to General Response)

2.8.8.3   Zoom Focus Parameters

Zoom focus parameters table:

Table 2-8-8-3-1

Parameters	data	description
digitalZoom	<int>{0,1}	0:Turn off Digital Zoom

		1:Open Digital Zoom
focusMode	\<int>[0,2]	0: Automatic focus 1: Manual 2: Semi-automatic
focusSensitivity	\<int>[0,100]	
leastFocusDistance	\<int>[0,6]	0：infinity 1：Non 2:10m 3:6m 4:3m 5:2m 6:1.5m

2.8.9 Infrared light

2.8.9.1 Get Infrared Light Parameters

URL	http://\<servername>/cgi-bin/sensor.cgi?userName=\<username>&password=\<password>&action=get&type=infraredLigth&cameraID=1
Description	Refer to Sensor Configuration Parameters and Infrared Light Parameters
Example	*http://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type=infraredLigth&cameraID=1*
Return	mode=1 brigthnessMode=1 middle=50 far=50 near=50 （Refer to General Response）

2.8.9.2 Set Infrared Light

URL	`http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=set&type=infraredLigth&cameraID=cameraID&mode=mode&brigthnessMode=brigthnessMode&far=far&middle=middle&near=near`
Description	Refer to Sensor Configuration Parameters and Infrared Light Parameters
Example	*Example 1: Set infrared light parameters* *http://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=infraredLigth&cameraID=1&mode=1&brigthnessMode=1&far=50&middle=50&near=50* *Example 2: Set turn on the infrared light* *http://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=infraredLigth&cameraID=1&mode=1*
Return	OK (Refer to General Response)

2.8.9.3 Infrared Parameters Meaning

Table 2-8-9-3-1

Parameter	Data	Description
mode	`<int>{0,1}`	Infrared mode 0：turn off 1：turn on
brigthnessMode	`<int>{1,2}`	Light mode 1：Automatic 2：Manually
middle	`<int>[0,100]`	Middle distance
far	`<int>[0,100]`	High light value
near	`<int>[0,100]`	Low light value

2.8.10 WhiteLamp(WhiteLamp)

2.8.10.1 Get WhiteLamp (getWhiteLamp)

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=get&type= WhiteLamp
Description	Refer to Sensor Configuration Parameters and WhiteLamp Parameters
Example	http://192.168.1.205/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type=WhiteLamp
Return	WhiteLampMode=0 (Refer to General Response)

2.8.10.2 Set WhiteLamp (setWhiteLamp)

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=set&type=WhiteLamp&WhiteLampMode=WhiteLampMode
Description	Refer to Sensor Configuration Parameters and WhiteLamp Parameters
Example	http://192.168.1.205/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=WhiteLamp&WhiteLampMode=1
Return	OK (Refer to General Response)

2.8.10.3 WhiteLamp **Parameters Meaning**

Table 2-8-10-3-1

Parameter	Data	Description
WhiteLampMode	<int>{0,1}	0：Close 1：Open

2.8.11 Day/Night Mode(DNMode)

2.8.11.1 Get DNModeList (getDNModeList)

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=get&type= DNModeList
Description	Refer to Sensor Configuration Parameters and DNMode Parameters
Example	http://192.168.1.205/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type= DNModeList
Return	resultCount=4 resultBegin=1 mode=0 resultNext =2 mode=1 resultNext =3 mode=2 resultNext =4 mode=2 resultEnd=4 （Refer to General Response）

2.8.11.2 Get DNMode (getDNMode)

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=get&type= DNMode
Description	Refer to Sensor Configuration Parameters and DNMode Parameters
Example	http://192.168.1.205/cgi-bin/sensor.cgi?userName=admin&password=admin&action=get&type=DNMode
Return	mode=0 （Refer to General Response）

2.8.11.3 Set DNMode（setDNMode）

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=set&type= DNMode
Description	Refer to <u>Sensor Configuration Parameters</u> and DNMode <u>Parameters</u>
Example	http://192.168.1.205/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=DNMode& mode=1
Return	OK （Refer to <u>General Response</u>）

2.8.11.4 DNMode Paramters Meaning

Parameter	Data	Description
mode	<int>{0,3}	Day/Night Mode. 0： Auto 1： Day Mode 2： Night Mode 3： Timing

2.8.12 Exposure

2.8.12.1 Get Exposure（getExposure）

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>& action=get&type=**Exposure**&cameraID=<cameraID>
Description	Refer to <u>Sensor Configuration Parameters</u> and Exposure <u>Parameters</u>
Example	*http://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin& action=get&type=Exposure&cameraID=1*
Return	exposureMode=0 meterArea=0 maxShutter=7 fixShutter=7

	maxGain=0
	fixGain=50
	irisOpt=6
	iris=-1
	irisSpeed=-1
	(-1 Indicates not supported, Refer to General Response)

2.8.12.2 Set Exposure（setExposure）

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=set&type=**Exposure**&cameraID=<cameraID>[ ]
Description	Refer to Sensor Configuration Parameters and Exposur Parameters
Example	*http://192.168.0.199/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=Exposure&cameraID=1&exposureMode=0&maxShutter=10&fixShutter=10&maxGain=10&fixGain=10&irisOpt=256&irisSpeed=0&iris=0&meterArea=0*
Return	OK (Refer to General Response)

2.8.12.3 Exposure **Parameters** **Meaning**

Table 2-8-3-3-1

Parameter	Data	Description
exposureMode	<int>	exposureMode 0：Auto 1：Manual 2：Shutter Priority 3：Iris Priority
meterArea	<int>	meterArea 0:Center Spot 1:Center Area 4:Whole
maxShutter	<int>	maxShutter (Exposure auto mode active) 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,

2

		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， 23： 1/50000, 24：1/100000, 25：1/200000
fixShutter	⟨int⟩	fixShutter (Exposure manual mode and shutter priority active),Same as the maximum shutter
maxGain	⟨int⟩[0,100]	maxGain （Exposure auto mode and shutter priority active），0~100
fixGain	⟨int⟩[0,100]	fixGain （Exposure manual mode active）, 0~100
iris	⟨int⟩	iris 0:Full Open 1:Auto
irisSpeed	⟨int⟩[0,100]	irisSpeed 0~100
irisOpt	⟨int⟩	irisOpt size 1048576: close; 256：F1.0; 257：F1.1; 258：F1.2; 259：F1.3；260：F1.4; 262：F1.6; 263：F1.7；264：F1.8；512：F2.0；514：F2.2；516：F2.4；518：F2.6；520：F2.8；770：F3.2；772：F3.4；774：F3.6；1024：F4.0；1029：F4.5；1032：F4.8; 1280：F5.0; 1286：F5.6；1539：F6.3；1544：F6.8; 1793：F7.1; 2048：F8.0；2304：F9.0; 2310：F9.6；4096：F10.0；4352：F11.0; 4864：F13.0；5120：F14.0; 5632：F16.0; 6144：F18.0；6400：F19.0; 8192：F20.0; 8704：F22.0；9472：F25.0；9984：F27.0；10496：F29.0 ；12800：F32.0；13824：F36.0; 14336：F38.0；16384：F40.0；17664：F45.0；20992：F52.0；21504：F54.0; 22528：F58.0；25600：F64.0;

2.8.13 SceneMode

2.8.13.1 Get SceneMode（getSceneMode）

URL	http://\<servername\>/cgi-bin/sensor.cgi?userName=\<username\>&password=\<password\>& action=get&type=SceneMode&cameraID=\<cameraID\>
Description	Refer to Sensor Configuration Parameters and SceneMode Parameters
Example	*http://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin& action=get&type*=SceneMode*&cameraID=1*
Return	Scene=0 CorridorMode=0 (-1 Indicates not supported, Refer to General Response)

2.8.13.2 Set SceneMode（setSceneMode）

URL	http://\<servername\>/cgi-bin/sensor.cgi?userName=\<username\>&password=\<password\>&action=set&type=SceneMode&cameraID=\<cameraID\>[ ]
Description	Refer to Sensor Configuration Parameters and SceneMode Parameters
Example	*http://192.168.0.199/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type*=SceneMode&cameraID=1&Scene=0&CorridorMode=0
Return	OK (Refer to General Response)

2.8.13.3   SceneMode **Parameters Meaning**

Table 2-8-3-3-1

Parameter	Data	Description
Scene	\<int\>	SceneMode 0：Indoor 1：Outdoor
CorridorMode	\<int\>	CorridorMode 0：close 1：Open

2.8.14 WBMode

2.8.14.1 Get WBMode (getWBMode)

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>& action=get&type=WBMode&cameraID=<cameraID>
Description	Refer to Sensor Configuration Parameters and WBMode Parameters
Example	http://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin& action=get&type=WBMode&cameraID=1
Return	wbMode=0 redGain=50 blueGain=50 (-1 Indicates not supported, Refer to General Response)

2.8.14.2 Set WBMode (setWBMode)

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=set&type=WBMode&cameraID=<cameraID>[ ]
Description	Refer to Sensor Configuration Parameters and WBMode Parameters
Example	http://192.168.0.199/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=WBMode&cameraID=1&wbMode=9&redGain=10&blueGain=20
Return	OK (Refer to General Response)

2.8.14.3   WBMode **Parameters Meaning**

Table 2-8-3-3-1

Parameter	Data	Description
wbMode	<int>	WBMode 0：Auto 1：Tungsten 2：Fluorescent 3：Daylight 4：Shadow 9：Manual
redGain	<int>[0,100]	redGain （ WBMode manual mode active）0-100

2

blueGain	<int>[0,100]	blueGain （ WBMode manual mode active） 0-100

2.8.15 ResetParameters

2.8.15.1 Set ResetParameters (setResetParameters)

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=set&type=ResetParameters&cameraID=<cameraID>[ ]
Description	Refer to Sensor Configuration Parameters and ResetParameters Parameters
Example	*http://192.168.0.199/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type*=ResetParameters&cameraID=1
Return	OK (Refer to General Response)

2.8.15.2 ResetParameters **Parameters Meaning**

Table 2-8-3-3-1

Parameter	Data	Description
ResetParameters	<string>	Reset Parameters

2.8.16 IntelligentTracking

2.8.16.1 Set IntelligentTracking (setIntelligentTracking)

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=set&type=IntelligentTracking&cameraID=<cameraID>[ ]
Description	Refer to IntelligentTracking Parameters
Example	http://192.168.0.96/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=IntelligentTracking&cameraID=1&IntelligentTrackingMode=1

2

Return	OK
	(Refer to General Response)

2.8.16.2 IntelligentTracking **Parameters Meaning**

Table 2-8-3-3-1

Parameter	Data	Description
IntelligentTrackingMode	<int>	IntelligentTrackingMode 0：Close 1：Open

2.8.17 NoiseReduction

2.8.17.1 Get NoiseReduction (getNoiseReduction)

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=get&type=NoiseReduction&cameraID=<cameraID>
Description	Refer to Sensor Configuration Parameters and NoiseReduction Parameters
Example	*http://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin& action=get&type*=NoiseReduction*&cameraID=1*
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)

2.8.17.2 Set NoiseReduction (setNoiseReduction)

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=set&type=NoiseReduction&cameraID=<cameraID>[ ]
Description	Refer to Sensor Configuration Parameters and NoiseReduction Parameters

Example	*http://192.168.0.199/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=*NoiseReduction&cameraID=1&2DNR=1&3DNR=0&2DNRMode=1&3DNRMode=2&2DNRMaxStrength=20&3DNRMaxStrength=66&2DNRFixedStrength=56&3DNRFixedStrength=88
Return	OK (Refer to General Response)

2.8.17.3 NoiseReduction **Parameters Meaning**

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

2.8.18 EnhanceImage

2.8.18.1 Get EnhanceImage（getEnhanceImage）

URL	http://\<servername\>/cgi-bin/sensor.cgi?userName=\<username\>&password=\<password\>&action=get&type=EnhanceImage&cameraID=\<camera

	ID>
Description	Refer to Sensor Configuration Parameters and EnhanceImage Parameters
Example	*http://192.168.1.121/cgi-bin/sensor.cgi?userName=admin&password=admin& action=get&type=EnhanceImage&cameraID=1*
Return	WDR=1 WDRvalue=23 HLC=1 HLCvalue=33 BLC=0 BLCvalue=1 Defog=0 Defogvalue=88 (-1 Indicates not supported, Refer to General Response)

2.8.18.2 Set EnhanceImage (setEnhanceImage)

URL	http://<servername>/cgi-bin/sensor.cgi?userName=<username>&password=<password>&action=set&type=EnhanceImage&cameraID=<camera ID>[ ]
Description	Refer to Sensor Configuration Parameters and WBMode Parameters
Example	*http://192.168.0.199/cgi-bin/sensor.cgi?userName=admin&password=admin&action=set&type=EnhanceImage&cameraID=1&WDR=1&WDRvalue=23&HLC=1&HLCvalue=33&BLC=0&BLCvalue=1&Defog=0&Defogvalue=88*
Return	OK (Refer to General Response)

2.8.18.3   EnhanceImage **Parameters 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)
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]	Defogvalue（Defog open active）0-100

2.8.19 Sensor Configuration Parameters

In sensor.cgi procedure, carry at least four parameters that the user name userame, password, then operating action and program sub-type type. **(UserName and Password must be in the first and the second position)**

Sensor configuration parameters table 2-8-10-1:

Table 2-8-10-1

Parameters	data	Description
userName	<string>	Login to the advice account
password	<string>	The password to log in the advice
action	<string>{get,set}	get set
type	<string>	Type The specific meaning of type is shown in the table Sensor Configuration Parameter table **2-8-10-2**

Sensor configuration parameters table 2-8-10-2:

Table 2-8-10-2

Tpye	Description
brightness	brightness
brightnessRange	brightness range
contrast	contrast
contrastRange	contrast range
hue	hue
hueRange	hue range
saturation	saturation
saturationRange	saturation range
sharpness	sharpness
sharpnessRange	sharpness range
gamma	gamma
gammaRange	gamma range
mirror	mirror state
zoomFocus	zoom focus
infraredLigth	infrared ligth

2.9 Alarm Notification (IPC /NVR)

2.10 Real-time Audio（audio.cgi）

2.10.1 G711,PCM,AMR Real-time Audio

2.10.1.1   Get G711,PCM,AMR Audio Stream (HTTP G711,PCM,AMR，AudioStream)

URL	http://\<servername>/cgi-bin/audio.cgi?userName=\<userName>&password=\<password>&action=recv&cameraID=\<cameraID>&streamID=\<streamID>&EncoderType=\<EncoderType>
Descripti on	Refer to Real-time Audio Parameters
Example	*HTTP://192.168.1.121/cgi-bin/audio.cgi?userName=admin&password=admin&action=recv &cameraID=1&streamID=1&EncoderType= g711_alaw*
Return	--myboundary Content-Type: audio/g711_alaw Content-Length: < audio size> < audio data> …… (Others Refer to General Response)

2.10.1.2   Real-time Audio Parameters

At least 4 parameters should be involved in audio.cgi procedure, including **username, password, cameraID, streamID. Username** and **password** must be written at the first and second positon.

Real-time audio parameters table:

Table 2-10-1-2-1

Parameter	Data type	Description
userName	\<string>	Username
password	\<string>	Password
action	\<string>{recv,send}	Recv- receive audio data from device

		Send- send audio data to device
cameraID	<int>[1,n]	Channel ID, by default is 1, related to device type
streamID	<int>[1,n]	Stream ID, the range of value related to device type
EncoderType	<string>	Encode type (Field case-insensitive) RAW_PCM， G711_ALAW， G711_ULAW， AAC， AMR， G7231， G722， G726， G729

3 Context Format Rule, General Error Description, HDD Status Description

3.1 Context Format Rule

The specific returned plain text、Image Data Volume and URL Address are decided by different requests:

1. For some Operation requests, it needs to return image data volume. For example, the snapshot, video stream on HTTP Protocol , etc .

2. For the requests of Device configuration, Device Operations, it normally returns plain text.

3.For the command requests on RTSP protocol, it returns URL address.

4.For the requests of alarm information, it normally returns plain text. When requested by "attach" mode, it will aquire plain list .

IO Alarm List：

Among them, the arguments of relative Lists are as follows:

Plan 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

Modify License Plate Black/White List:

Among them, the arguments of relative Lists are as follows :

License 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 2
	&NewListEnd=1

3.2 Error Constant

Conventional errors

Error No.	Description
-2	Not Enough RAM Memory Available
-3	Adopts Invalid Handle
-4	Adopts NULL Pointer
-5	Function Reference Invalid
-6	System Environment Error
-7	Format Error when Loading Program
-8	Parameters Error when Loading Program
-9	Device or Data are Unprepared
-10	Data Length Error
-11	Thread is On running
-12	Thread Initialization Error
-13	Queue is Full
-14	Queue is Empty
-15	System Timeout
-16	Not found
-17	SSL Encryption is not required
-18	Need SSL Encryption
-19	SSL Accept Timeout
-20	SSL connect timeout
-21	CGI Main Program Name Error

-22	CGI second type does not exist
-23	Cgi Parameters error

3.2.1 I/O Error

The type of Error mainly defines the errors of Disk visit, File、Directory Inexistent,Serial Port
Visit, Audio Device Visit,etc when doing operation on Disk.

Error No.	Description
-101	File does not exist
-102	File Directory does not exist
-103	Error when open Disk
-104	Error when read disk
-105	Error when write disk
-106	Error when seek file location
-107	Read/Write to the end of the Disk
-108	Disk space is not enough or Disk space is full
-109	Disk does not exist
-110	Disk write Protection
-112	Disk has not been formatted
-113	Disk Error
-150	Error when open Serial COM Port
-151	Error when read data from Serial COM Port
-152	Error when write data in Serial COM Port

3.2.2 Network Error

Network error mainly focus on definitions of Errors occurs in the process of Network Transmission, Including Socket Transmission Error, Group Packaging and Unpack Error.

Error No.	Description
-201	Network Socket Has not been built
-202	Network Socket Can't be built
-203	Unable to bind to the specific IP address and Port, Binding Failed
-204	Unable to connect to specific IP address and Port , Connect Server Failed .
-205	Link Server timeout
-206	Unable to listen to specific IP address and Port, Listen Failed .
-207	Unable to accept Link Requests from Client, Accept Link Failed
-208	Accept Client Link Request Timeout
-209	Network link has been disconnected
-210	Fail to send Network Socket
-211	Send data timeout
-212	An error occurred while receiving data
-213	Receiving data timeout
-214	error when acquiring socketaddr address
-215	Error when acquiring Network Option Parameters of Socket
-216	failing to acquire Network socket option configuration
-217	The used Network Protocols are not supported
-218	Port has been occupied
-230	Unable to create data package, Fail to create Data package

-231	error occurs when Analyzing of the data header, the packet header error
-232	Unable to create packet header, failed to create data header
-233	error occurred when analyzing the data packet load, load data error
-234	Unable to create a packet load data, create a packet load data errors
-235	An error occurred while Analyzing RTP Package extension field ,RPT package Error
-236	Communication compression failure

3.2.3 Database Error

This type of error defines a major mistake when performing database operations occurred database open, close, events operation, add, delete, modify, etc. error.

Error No.	Description
-301	Error occurs when opening database, Visit Database Failure
-302	Error occurs when closing Database
-303	Error occurs when Starting Executing Database transaction
-304	An error occurred when performing a database transaction rollback, the database transaction operation fails.
-305	An error occurred while submitting the operation to perform database transactions, database transaction operation fails
-306	An error occurred while performing database insert (insert) operation, data insertion fails.
-307	An error occurred Perform a database deleting (delete) operation, data deletion failed.
-308	An error occurred while (update) operations to perform database updates, data update fails。
-309	Errors occurred while performing a database query (select) operation, data query fails。

Error No.	Description
-310	Database query conditions error
-311	Query result is empty.

3.2.4 Command Error

This class defines a major error during a session with the network video equipment, communication commands that appear, such as: command parsing fails, the command load error and the wrong version of the command and so on.

Error No.	Description
-401	Unknown Command
-402	Command header Parsing error
-403	Command header Creating Error
-404	Command Load Parsing Error
-405	Command Load Creating Error
-406	Wrong Command Version No.

3.2.5 Business Application Error

This class defines a major mistake in the wrong application and network video equipment business interactions that may occur, such as: wrong username, login password errors.

Error No.	Description
-501	Received Response is not the expected response
-502	Remote device process data error
-503	Device is not open
-504	Device Open fails
-505	Device is occupied

-506	Device is not supported
-507	Login User name Error
-508	Login Command Error
-509	ADSL Network Dial-Up Failure
-510	Serial Port is Solely Occupied
-511	Linkage Number Reaches to Maximum
-512	Not Adequate Authority
-513	Devices are Unconfigured
-550	Video Conversation has beed closed
-551	Video Conversation Thread Has beed closed
-552	Create Directshow Video Component Fails
-553	Create Directshow Video Componet Fails
-601	Audio Conversation has been closed
-602	Audio conversation Thread has been closed
-603	Create Directshow Audio component Fails
-604	Operate Directshow Audio Component Fails
-605	Initialize DirectDraw Component Fails
-606	Initialize Decoder Fails
-607	Decoding Fails

3.3 Disk Status Constant

Macro	Value	Description
DISKSTATUS_TIME_OUT	-1,	Write File timeout

DISKSTATUS_NOT_RECOGNIZE	0	Device Status Unreported
DISKSTATUS_OK	1	Status is normal
DISKSTATUS_ERROR	2	Status is abnormal
DISKSTATUS_SD_NOT_EXISTENT	3	SD Card Does not exist
DISKSTATUS_WRITE_PROTECT	4	Disk Write Protection
DISKSTATUS_NOT_FORMAT	5	Disk has not beed formatted
DISKSTATUS_FORMATTING	6	Disk is formatting
DISKSTATUS_HD_NOT_EXISTENT	7	Disk does not exist
DISKSTATUS_HD_SLEEP	8	Disk is sleeping
DISKSTATUS_CONNECT_FAILED	9	Connect Fails
DISKSTATUS_NAS_NOT_EXISTENT	10	NAS does not exist
DISKSTATUS_NOT_EXISTENT	11	NAS disk does not exist
DISKSTATUS_NO_PARTITION	12	Disk has not been partitioned
DISKSTATUS_DISCONNECT_DEVICE	13,	Disk has not been connected
DISKSTATUS_DISK_ISREPAIRING	14	Disk is Reparing
DISKSTATUS_DISK_REMOVED	15	Disk has been removed
DISKSTATUS_WAIT_FROMAT	16	Preparing Formatting
DISKSTATUS_DISK_ISREMOVING	17	Is Removing HDD Disk
DISKSTATUS_FORMAT_SUCCEED	18	Formatting Success
DISKSTATUS_FORMAT_FAILED	19	Formatting Failure
DISKSTATUS_WAIT_REPAIR	20	Waiting for Reparing
DISKSTATUS_REPAIR_SUCCEED	21	Repair Success
DISKSTATUS_REPAIR_FAILED	22	Repair Failure
DISKSTATUS_HD_EXISTENT	23	Disk Storage

DISKSTATUS_PYSICAL_ERROR	24	Disk Physical Bad Block

4 Appendix

4.1 System log type

4.1.1 Main type

Value (HEX)	Explain
0x2	Abnormal log
0x3	Operation log
0x4	Operation log V2

4.1.2 Sub type

Value (HEX)	Explain
0x01	user management
0x02	system maintenance
0x03	Equipment configuration
0x04	Video 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 operation
0x15	Audio and video
0x21	Signal loss
0x22	Illegal access
0x23	Disk full
0x24	disk error
0x25	MODEM drop line
0x26	IP address conflict
0x27	Disk does not exist
0x28	disk write protected
0x29	Disk is not formatted
0x30	Alarm recording disk full
0x31	Scheduled recording disk full
0x32	7 * 24 recording disk full
0x41	Boot up
0x42	Shutdown
0x43	Illegal shutdown
0x50	Local landing
0x51	Log out locally
0x52	Local configuration parameters
0x53	Local playback by file
0x54	Local playback by time
0x55	Start recording locally
0x56	Stop recording locally

0x57	Local PTZ control
0x58	Local Preview
0x59	Local modification time
0x5a	Local upgrade
0x5b	Local backup files
0x70	Remote login
0x71	Remote logout login
0x72	Remote start recording
0x73	Remote stop recording
0x74	Start transparent transfer
0x75	Stop transparent transfer
0x76	Get parameters remotely
0x77	Remote configuration parameters
0x78	Get status remotely
0x79	Remote defense
0x7a	Remote withdrawal
0x7b	Remote Reboot
0x7c	Start voice talk
0x7d	Stop voice talk
0x7e	Remote upgrade
0x7f	Remote playback by file
0x80	Remote playback by time
0x81	Remote pan tilt control
0x82	Start live video remotely

0x83	Remote stop of real-time video
0x84	Remote start real time audio
0x85	Remote stop of real-time audio
0x86	Device storage format (SD card format)

4.2 Alarm log type

4.2.1 Main type

Value	Explain
1	Safety alarm
4	Disk alarm
5	Video alarm
6	Intelligent analysis alarm
7	Temperature detection alarm

4.2.2 Sub type

4.2.2.1 Safety alarm subtype

Value	Explain
1	I/O alarm
2	Motion detection alarm
3	Camera blocking alarm
4	Video loss alarm
5	Networkdisconnection alarm
9	PIR analysis police
10	NVR channel I / O alarm

4.2.2.2　　Disk alarm subtype

Value	Explain
1	Disk status OK
2	Disk read write exception
3	Network disk connection failed
4	Disk full
5	Disk does not exist
6	Disk used space reaches the specified threshold
7	Disk is not formatted
8	Insufficient storage space on device
9	Data version too low
10	Data version too high
11	Disk access mismatch

4.2.2.3　　Video alarm subtype

Value	Explain
1	Data source connection successful
2	Data source connection username and password error
3	Data source connection does not have permission
4	Data source connection reached the maximum number of connections
5	Data source reaches maximum limit rate
6	
7	
8	

Value	Explain
9	Storage failure
10	Startup video
11	Stop video
12	
13	
14	
15	

4.2.2.4　Intelligent analysis alarm subtype

Value	Explain
21	Intelligent analysis trip wire detection alarm
22	Intelligent analysis mobile detection alarm
23	Intelligent analysis occlusion detection alarm
24	Intelligent analysis perimeter intrusion alarm
25	Intelligent analysis of double trip wire alarm
26	Intelligent analysis wandering alarm
27	Intelligent analysis multi person wandering alarm
28	Intelligent analysis of items left behind alarm
29	Intelligent analysis goods removal alarm
30	Intelligent analysis of abnormal speed alarm
31	Intelligent analysis retrograde alarm
32	Intelligent analysis of illegal parking alarm
33	Intelligent analysis camera shift alarm
34	Intelligent analysis of video signal abnormal alarm

Value	Explain
35	
37	License plate recognition alarm

4.2.2.5   Temperature detection alarm subtype

Value	Explain
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	Face normal temperature alarm