**3D People Counter API Introduction\_EN\_V1.9**

**1.Protocol Description**

Data reporting adopts HTTP protocol and POST+ JSON mode

Function: heartbeat, data upload

Heartbeat mechanism, upload heartbeat data every 1 minute, content: SN, timestamp, status.

Upload frequency: set 0 for real-time transmission, set 1 for once every 1 minute, set 5 for once every 5 minutes, and set 60 for once every 60 minutes

Data upload content: SN, data timestamp, statistical start time, statistical end time, number of people entering, number of people leaving, number of people passing through.

Data upload mode: people flow data supports incremental and summary reporting (if there is no reply, it defaults to incremental reporting mode)

Support the command to obtain historical data: support to obtain historical data within 90 days

**2.Data reporting interface 2.1 Heartbeat interface**

Request mode：POST

Address XXXX XXXX XXXX:XX

：[http://XXXX /api/camera/heartBeat](http://XXXX.XXXX.XXXX.XXXX:XX%20/api/camera/heartBeat)

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| --- | --- | --- | --- |
| **Description of heartbeat report parameters** | | | |
| **Parameter name** | **Required** | **Type** | **Description** |
| sn | yes | string | Device serial number |
| time | yes | long | UNIX timestamp for time synchronizati on |
| **Sample of heartbeat report input parameter** | | | |
| Successful case：  {  "sn":"2010010000000000",  "time":1641434640  } | | | |

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| **Description of heartbeat response parameters** | | | |
| **Request parameters** | | | |
| **Parameter name** | **Required** | **Type** | **Description** |
| code | yes | int | Return code: 0: success, 1: SN does not exist; 2:  Other: failed |
| msg | yes | string | Return information |

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| **Description of heartbeat response parameters** | | | |
| **Request parameters** | | | |
| **Parameter name** | **Required** | **Type** | **Description** |
| code | yes | int | Return code: 0: success, 1: SN does not exist; 2:  Other: failed |
| msg | yes | string | Return information |
| data.sn | yes | string | Device serial number |
| data.dataStartTime | No | long | UNIX timestamp, statistics start time |
| data.dataEndTime | No | long | UNIX timestamp, statistics end time |
| data.uploadInterval | No | long | Data reporting interval (minutes) |
| data.dataMode | No | string | "Add" is incremental and "total" is summary |
| data.time | yes | long | UNIX timestamp, server time |
| data.timezone | No | long | GMT timezone |
| **Response results** | | | |
| Response success cases：  {  "code": 0,  "msg": "success",  "data": {  "sn": " 2010010000000000",  "dataStartTime": 1640995200,  "dataEndTime": 1641038400,  "timezone": -8,  "uploadInterval": 5,  "time": 1641434640  }  }  Response failure cases:  {  "code": 1,  "msg": " Return information,describing the error information ；"  } | | | |

**2.2 Data upload interface**

POST type

Adress：[http/ https:// XXXX.XXXX.XXXX.XXXX:XX /api/camera/dataUpload](file:///D:/25532/Desktop/http/%20https:/%20XXXX.XXXX.XXXX.XXXX:XX%20/api/camera/dataUpload)

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| **Real-time data report parameters** | | | |
| **Parameter name** | **Required** | **Type** | **Description** |
| sn | yes | string | Device serial number |
| len | No | string | Data article number |
| startTime | yes | long | UNIX timestamp, statistics start time |
| endTime | yes | long | UNIX timestamp, statistics end time |
| time | yes | long | UNIX timestamp, Used for time synchr onization |
| in | yes | int | Entry |
| out | yes | int | Exit |
| passby | yes | int | Passing through flow |
| turnback | yes | int | Turn back flow |
| avgStayTime | yes | int | The average stay time within the view o f the camera field.（unit: ms） |
| inAdult | no | int | Number of adults leaving the current u pload period |
| outAdult | no | int | Number of adults leaving the current u pload period |
| passbyAdult | no | int | Number of adults in the current upload period |
| turnbackAdult | no | int | Number of turn back adults in the curr ent upload period |
| inChild | no | int | Number of children entering the curre nt upload period |
| outChild | no | int | Number of children leaving during the current upload period |
| passbyChild | no | int | Number of children passing through th e current upload period |
| turnbackChild | no | int | Number of returned children in the cur rent upload period |
| total | no | int | Sum of all data types |

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| --- | --- | --- | --- |
| **Real-time data report parameters** | | | |
| **Parameter name** | **Required** | **Type** | **Description** |
|  |  |  |  |
| eventList.id | No | int | Event ID |
| eventList.timestamp | No | long | Event timestamp, unit: us |
| eventList.eventType | No | int | Event type [0: enter, 1: leave, 2: pass, 3: return]  100+x; corresponds to child mode, x is a normal event type |
| eventList.height | No | int | Person height |
| eventList.stayTime | No | long | stay time in the camera when people pas sing through under the camera, unit: ms |
| **Sample of real-time data reporting input parameters** | | | |
| Successful cases：  {  "code": 0,  "msg": "success",  "sn": "2010010000000000",  "startTime": 1640995200,  "endTime": 1641038400,  "time": 1641038400,  "in": 1,  "out": 3  " passby ": 1641038400,  " turnback ": 1,  " avgStayTime ": 3  "eventList": [{  "id": 1,  "timestamp": 161231947237000000,  "eventType": 0,  "height": 170,  "stayTime": 1000  },  {  "id": 2,  "timestamp": 161231947237000000, | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Real-time data report parameters** | | | |
| **Parameter name** | **Required** | **Type** | **Description** |
| "eventType": 1,  "height": 162,  "stayTime": 3000  }]  }  ]  } | | | |
| **Response parameter description** | | | |
| **Parameter name** | **Type** | **Description** | |
| code | int | Return code: 0: success, 1: SN does not exist; 2: Other: failed | |
| msg | string | Return information | |
| data.sn | string | Equipment serial number | |
| data.time | long | UNIX timestamp, server time | |
| **Response results** | | | |
| Successful cases：  {  "code":0,  "msg":" success "  "data":{  " sn":"2010010000000000"  " time":1648606824  }  }  Failure cases：  {  "code": 1,  "msg": "sn non-existent "  } | | | |

**3.Stay data push (this option is not required, please connect if needed)**

POST method

Address：[http/ https:// XXXX.XXXX.XXXX.XXXX:XX /api/camera/dataUpload](file:///D:\\25532\\Desktop\\http\\%20https:\\%20XXXX.XXXX.XXXX.XXXX:XX%20\\api\\camera\\dataUpload)

| **Real-time/non-real-time data reporting parameters** | | | |
| --- | --- | --- | --- |
| **parameter name** | **required** | **type** | **illustrate** |
| currentStay | Yes | long | Current number of residents |
| info.id | Yes | long | The internal ID of the resident person will not be repeated. The camera will reset to zero after restarting. |
| info.height | Yes | int | Personnel height |
| info.status | Yes | int | Camera internal information, resident status, platform does not need to be parsed |
| info.staytime | Yes | int | The length of time the person with the current ID has been staying |
| **Response result** | | | |
| success case:  {  "sn":"201000002209190025",  "time":1667802959，  "currentStay":2,  "info":[  {  "id": 1,  "height": 170,  "status": 1,  "staytime": 2000  },  {  "id": 2,  "height": 171,  "status": 1,  "staytime": 3000  }  ]  } | | | |
| **Response parameter description** | | | |
| **parameter name** | **type** | **illustrate** | |
| code | int | Return code: 0: Success, 1: SN does not exist; 2: Others: Failure | |
| msg | string | returned messages | |
| data.sn | string | devise serial number | |
| data.time | long | Unix timestamp, server time | |
| **response result** | | | |
| success case：  {  "code":0,  "msg":"Reported successfully"  "data":{  " sn":"2010010000000000"  " time":1648606824  }  }  失败案例：  {      "code": 1,      "msg": "sn does not exist"  } | | | |

**4.Historical data reporting (this option is optional, please contact us if needed)**

POST method

Address:[http/ https:// XXXX.XXXX.XXXX.XXXX:XX /api/camera/dataUpload](file:///D:\\25532\\Desktop\\http\\%20https:\\%20XXXX.XXXX.XXXX.XXXX:XX%20\\api\\camera\\dataUpload)

| **Historical data reporting parameters** | | | |
| --- | --- | --- | --- |
| **parameter name** | **required** | **type** | **illustrate** |
| sn | yes | string | devise serial number |
| len | yes | string | Number of data items |
| data.time | yes | long | Historical passenger flow data time |
| data.startTime | yes | long | The starting time of historical data |
| data.endTime | yes | long | End time of historical data |
| data.in | yes | int | The number of people entering during the current upload time period |
| data.out | yes | int | The number of people leaving during the current upload time period |
| data.passby | yes | int | The number of people passing by during the current upload time period |
| data.turnback | yes | int | The number of people returning during the current upload time period |
| data.avgStayTime | yes | int | The average stay time in the field of view of the passenger flow camera during the current upload time period (unit: ms) |
| **response result** | | | |
| success case：  {  "sn": "2010010000000000",  "len":2,  "data":[  {  "time": 1641038400,  "startTime": 1640995200,  "endTime": 1641038400,  "in": 1,  "out": 2,  "passby": 2,  "turnback": 3,  "avgStayTime": 2000  },  {  "time": 1641038400,  "startTime": 1640995200,  "endTime": 1641038400,  "in": 1,  "out": 2,  "passby": 2,  "turnback": 3,  "avgStayTime": 2000  }  ]  } | | | |
| **Response parameter description** | | | |
| **parameter name** | **type** | **illustrate** | |
| code | int | Return code: 0: Success, 1: SN does not exist; 2: Others: Failure | |
| msg | string | returned messages | |
| data.sn | string | devise serial number | |
| data.time | long | Unix timestamp, server time | |
| **response result** | | | |
| success case：  {  "code":0,  "msg":"Reported successfully"  "data":{  " sn":"2010010000000000"  " time":1648606824  }  }  Failure case：  {      "code": 1,      "msg": "sn does not exist"  } | | | |

**5.Version record**

Version：V1.0：

Date：2018/06/08

Description: first draft

Version：V1.2：

Date：2022/01/15

Description:

1. Add people flow data upload mode switching (increment, total),

2. Obtain historical passenger flow data within 90 years

Version：V1.3：

Description:

1 、 Data reporting support https

2 、 Increase personnel height data reporting

Version：V1.4

Date：2022/03/20

Modify: Correct sample format errors

Version：V1.5

Date： 2022/06/25

Modify: add timezone setting field to heartbeat interface

Version: V1.7

Time: 2022/12/8

Modify: The data upload interface adds statistics fields for adults and children

Version: V1.8

Time: 2023/9/5

Modify: Increase the number of residents and residence time

Version: V1.9

Time：2024/3/20

Modify:vOptimize content layout