Passenger Flow Counter Client Operation Manual

Version no.: V1.0.0

Versions

Version	Date	Describtion
V1.0.0	2022.11．09	The first version

Table of contents

1. Function Overview

Table 1-1 Function table

Category	Function	Description
Online device management	device search	Search for people counter devices connected to the same network
	device connection	Connecting People Counter Devices
Passenger flow parameter setting	Basic parameter setting	Set the installation height, filter height and rotation angle parameters
	Detection area setting	Setting up the work area for people counting
	Detection line setting	Set detection line position for people counting
	Detection direction setting	Set the direction of passenger flow
	Statistics Status Settings	Start, stop counting people
	Passenger flow data cleared	Clear passenger flow data
Passenger flow data management	Passenger flow data display	Data dimension display of entering, leaving, passing, staying, turning back, passenger flow, etc.
	Passenger flow data export	Export historical passenger flow data at specified time intervals
	Live image saving	Save the depth map and grayscale image in real time in the specified folder
Device information management	Check the basic information of the device	View basic information such as device software version, SN, and device type
	Shortcut button	Shortcut buttons for taking pictures of equipment, restoring passenger flow parameters and restarting equipment
	Device firmware upgrade	Upgrade to update the firmware of the device
	time zone setting	Set device time, device time zone and NTP address
	OSD display settings	Set the display items of rtsp video stream
	Http protocol settings	Set json mode and xml mode data push
	RS485 protocol setting	Set 485 protocol content, including protocol, address and baud rate
	Limit setting	Set current limiting protocol related data
	Authentication settings	Authentication opening, closing and changing password
	long range mode	Turn long range mode on or off
	Aisle mode	Turn aisle mode on or off
	Left image background check	Turn on or off the background verification mode of the left image
	polyline pattern	Turn polyline mode on or off
	LED on	Turn LED lights on or off
	reverse connection	Turn reverse connection on or off
	child mode	Turn Kid Mode on or off
	Number of stays	Enable or disable the data dimension upload of stay times
	exposure target	Set exposure target value
	grayscale threshold	Set grayscale threshold
	key frame interval	Set the keyframe interval
	IO delay	Set IO delay
	Network Information Settings	Set network connection information, including wired network and wireless network settings
Software mode setting	Debug mode settings	Turn debug mode on or off
	language switch	Switch software language, support Chinese and English languages

2. Function details

2.1. Online device management

2.1.1 Device Search

Open the customer flow counter client and click the “Online Device Search” button to search for devices connected to the network. The client interface is shown in Figure 2-1, and the search result example is shown in Figure 2-2.

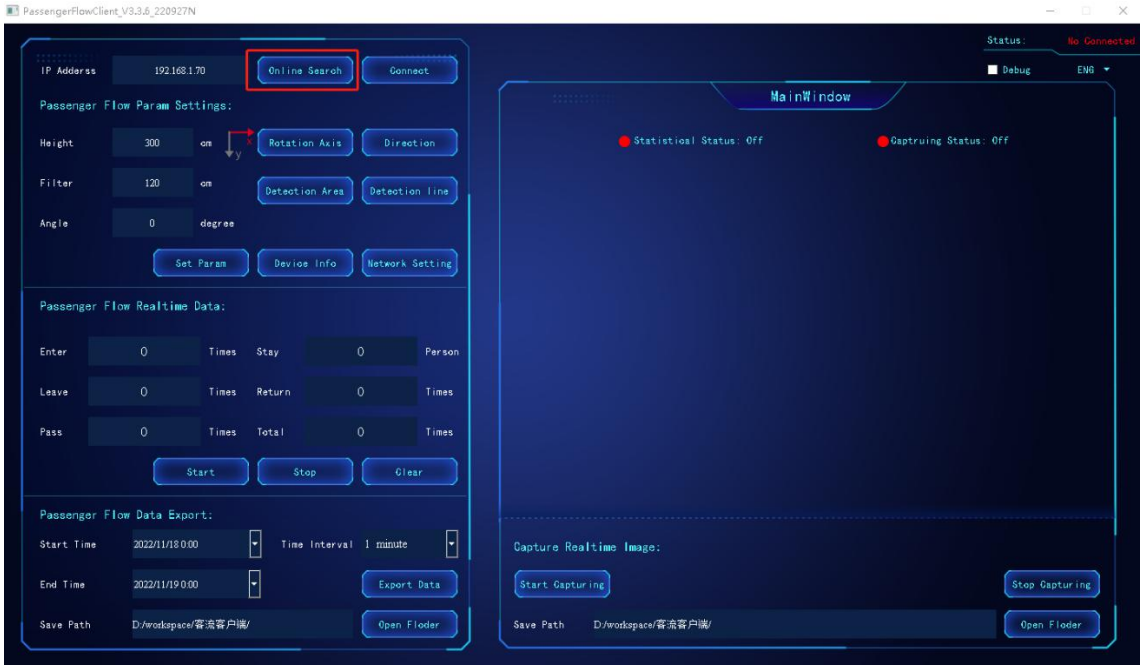


Figure 2-1 Example of online device search

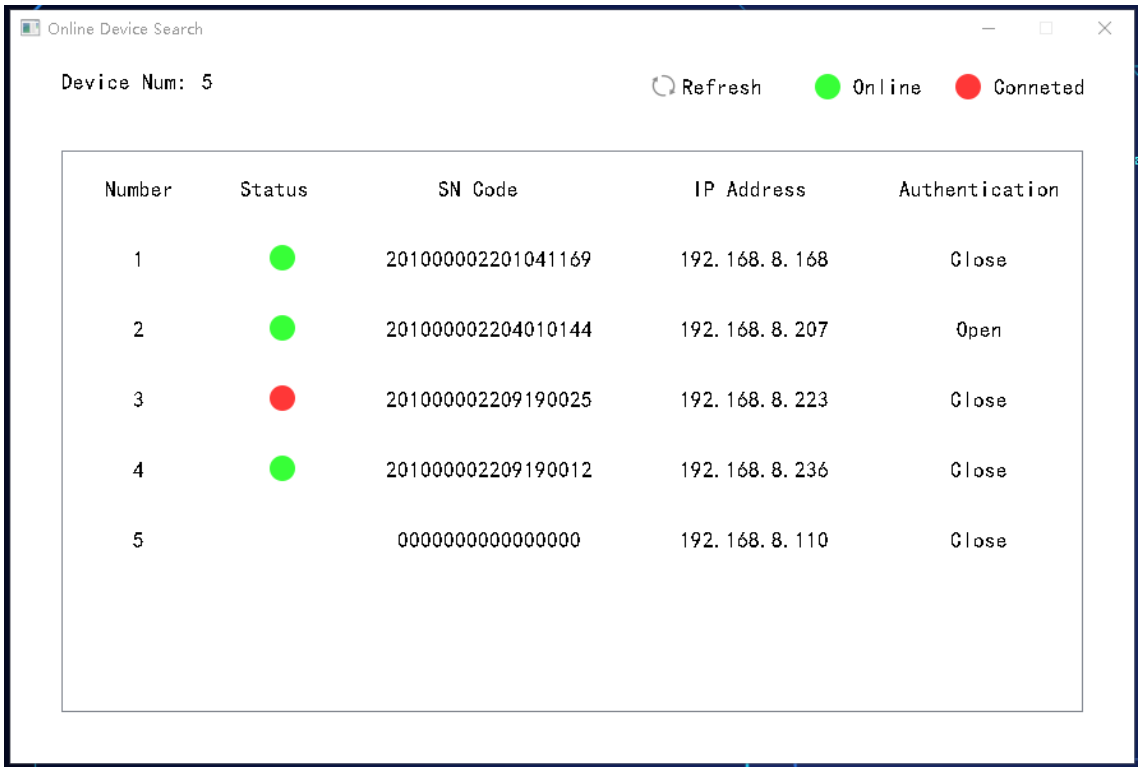


Figure 2-2 Example of device search results

The device search result list will list the passenger counting devices connected to the current network in detail, and the following information of the devices will be displayed:

(1) Status: the connection status of the current device

- Green circle ●: indicates that the device has been started and can be connected;
- Red circle ● indicates that the device has been started and connected by other clients. Since the device does not support multiple clients connecting at the same time, it cannot be connected in this state. Otherwise the connection will fail.

(2) SN code: the serial number of the device

• A non-zero number string: indicates that the device starts normally and is in the same network segment as the current client;

• Number string of all zeros: There are two possible reasons for this SN. The first is that the device startup is not completed. At this time, you need to wait for the device startup to complete, and then click the “Refresh” button. The second is that the device is not in the same network segment as the computer that currently opens the client. In this case, it is necessary to set the computer network segment to be in the same network segment as the device. After the setting is complete, click the “Refresh” button.

(3) IP address: IP address of the device

• The client software supports cross-network segment search, so devices connected to the same network but different network segments can be searched out. However, when connecting the device, the computer network segment and the device must be set in the same network segment before the connection can be made, otherwise the connection will fail.

(4) Authentication: divided into two states: on and off

• In the enabled state, you need to enter the authentication password when connecting to the device;

• In the closed state, the device can be directly connected without a password.

2.1.2 Device connection

Before the device is connected, enter the IP of the connected device. There are two ways of IP input:

(1) Manually input directly in the IP address edit box, as shown in Figure 2-3;

Figure 2-3 Example of manually entering IP

(2) Double-click any column in the device search list to select the device, and automatically write the IP of the device into the IP address box, as shown in Figure 2-4.

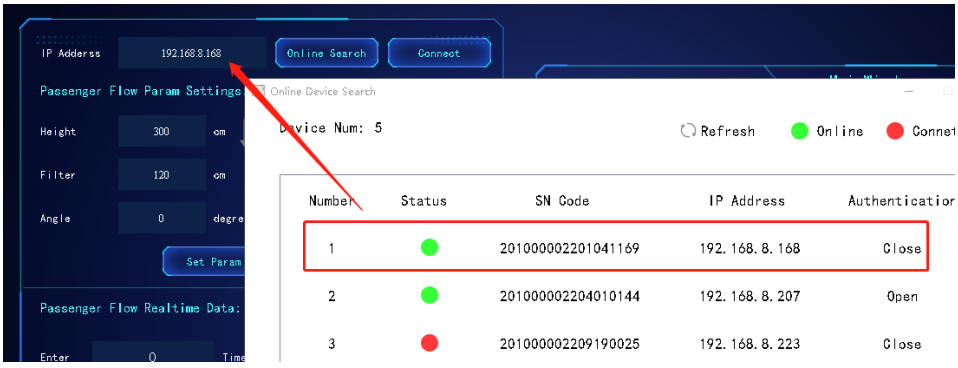


Figure 2-4 Example of automatic IP input

After entering the device IP address, click the “Connect Camera” button. If authentication is enabled on the device, the password of the connected device is required at this time. After entering the password correctly, the device can be connected, as shown in Figure 2-5. If authentication is not enabled, you can directly connect to the device without entering a password. After the device is successfully connected, the device connection status changes to Connected, as shown in Figure 2-6.

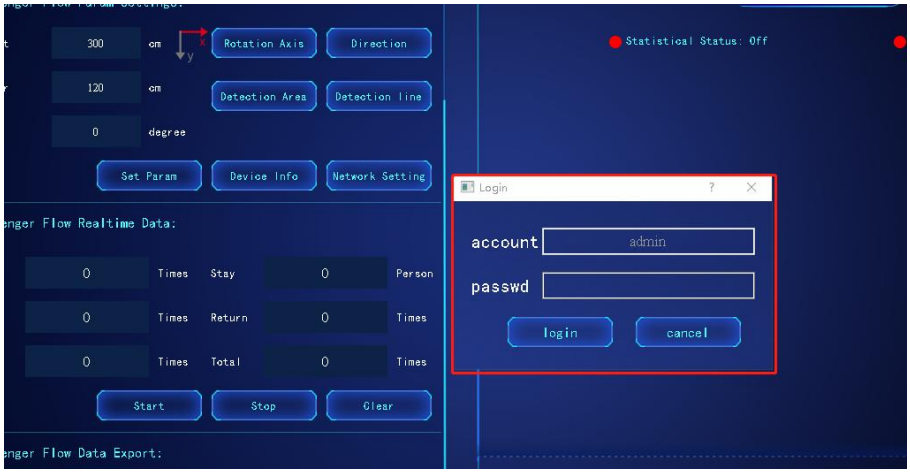


Figure 2-5 Authentication login example

Figure 2-6 Example of successful device connection

2.2 Passenger flow parameter setting

2.2.1 Basic parameter setting

After the equipment is installed in the working scene, the basic parameters of the equipment need to be configured. Correct parameter configuration is the key to accurate data, so it is necessary to ensure that the parameter settings are correct. The basic parameters include installation height, filter height and rotation angle, which are explained below.

(1) Installation height: refers to the height of the equipment from the ground, as shown in Figure 2-7. Whether the data is accurate is very important to the passenger flow data, so please be sure to set this parameter accurately;

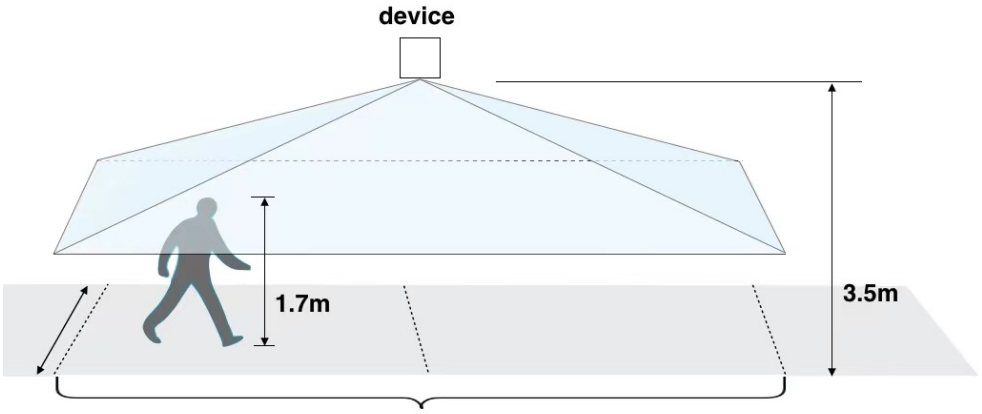


Figure 2-7 Example of equipment installation height

(2) Filtering height: refers to the passenger flow below this height will not be recorded in the passenger flow data;

(3) Rotation angle: The device supports rotation around the X-axis and Y-axis, as shown in Figure 2-8. According to the results of on-site installation, first determine which axis the device rotates around. If the angle is rotated around the X axis, you need to click the “Rotation Axis” button to select the X axis. At this time, the X axis of

the rotation axis icon is red, as shown in Figure 2-9. After the rotation axis is confirmed, input the rotation angle. If the device is installed vertically, just set the selection angle to 0.

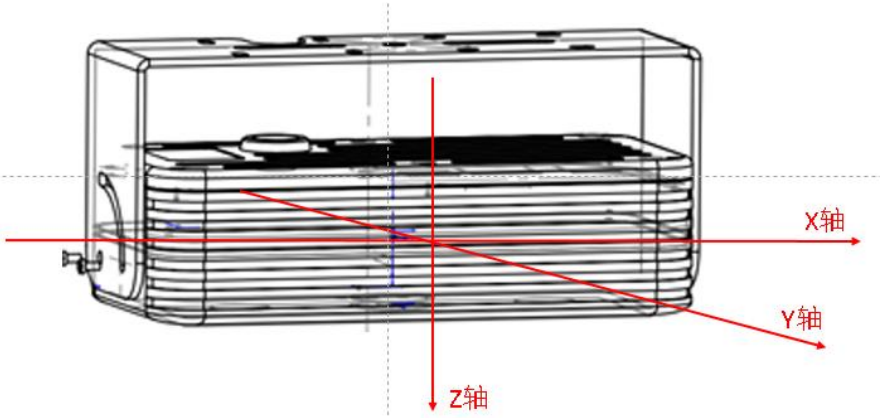


Figure 2-8 Example of equipment rotation axis

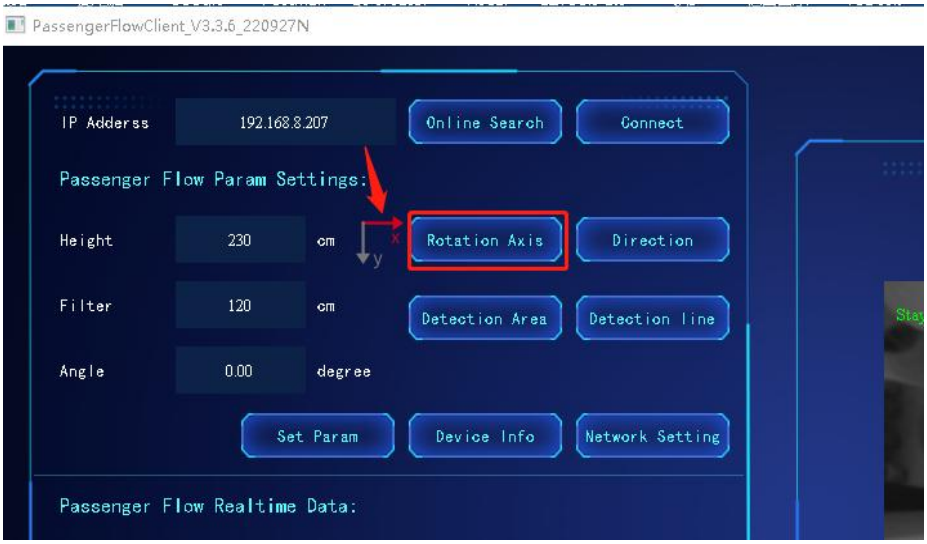


Figure 2-9 Example of X-axis rotation axis

After the client is correctly connected to the device, fill in the basic parameters correctly. Then click the “Parameter Setting” button to complete the basic parameter setting, as shown in Figure 2-10. If the prompt box of “Please stop the statistics before setting the height parameters” pops up, click the “Stop” button first, and then click the “Parameter Setting” button again.

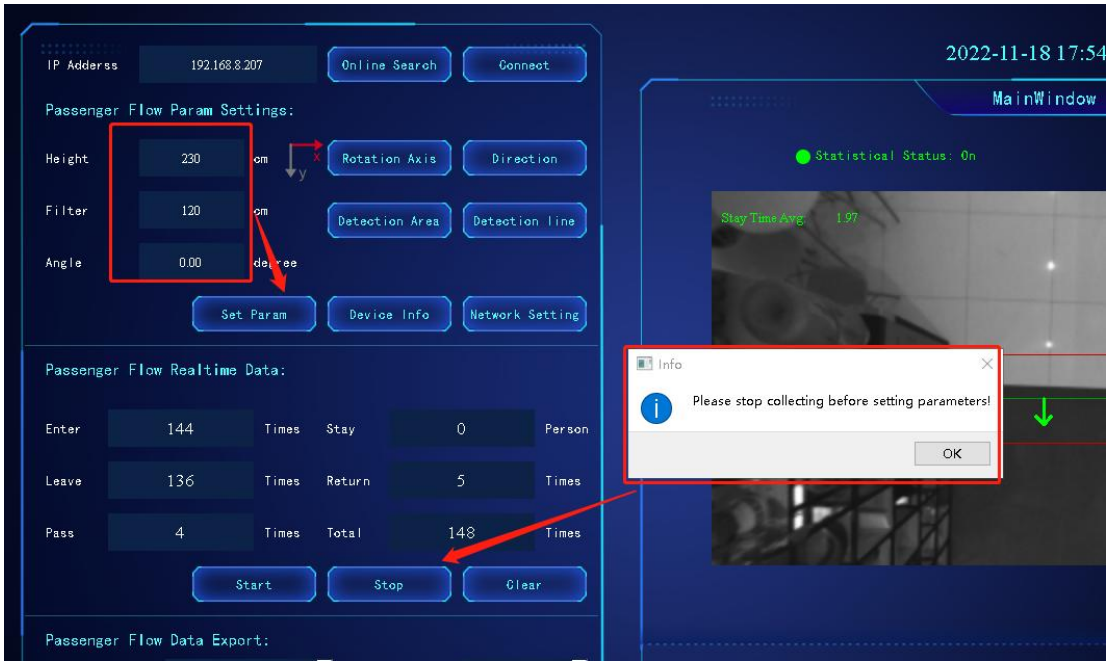


Figure 2-10 Basic parameter setting example

2.2.2 Detection area setting

The detection area refers to the working area of passenger flow counting. Correctly setting this area can improve the accuracy of passenger flow counting. The setting method is: click the “Detection Area Setting” button to enter the area setting mode. Drag the 4 corners of the red frame on the main interface image to draw the detection area. After drawing, click the “Save” button to save the detection area. If you do not want to save the current detection area, click the “Cancel” button. Figure 2-11 shows an example of detection area settings.

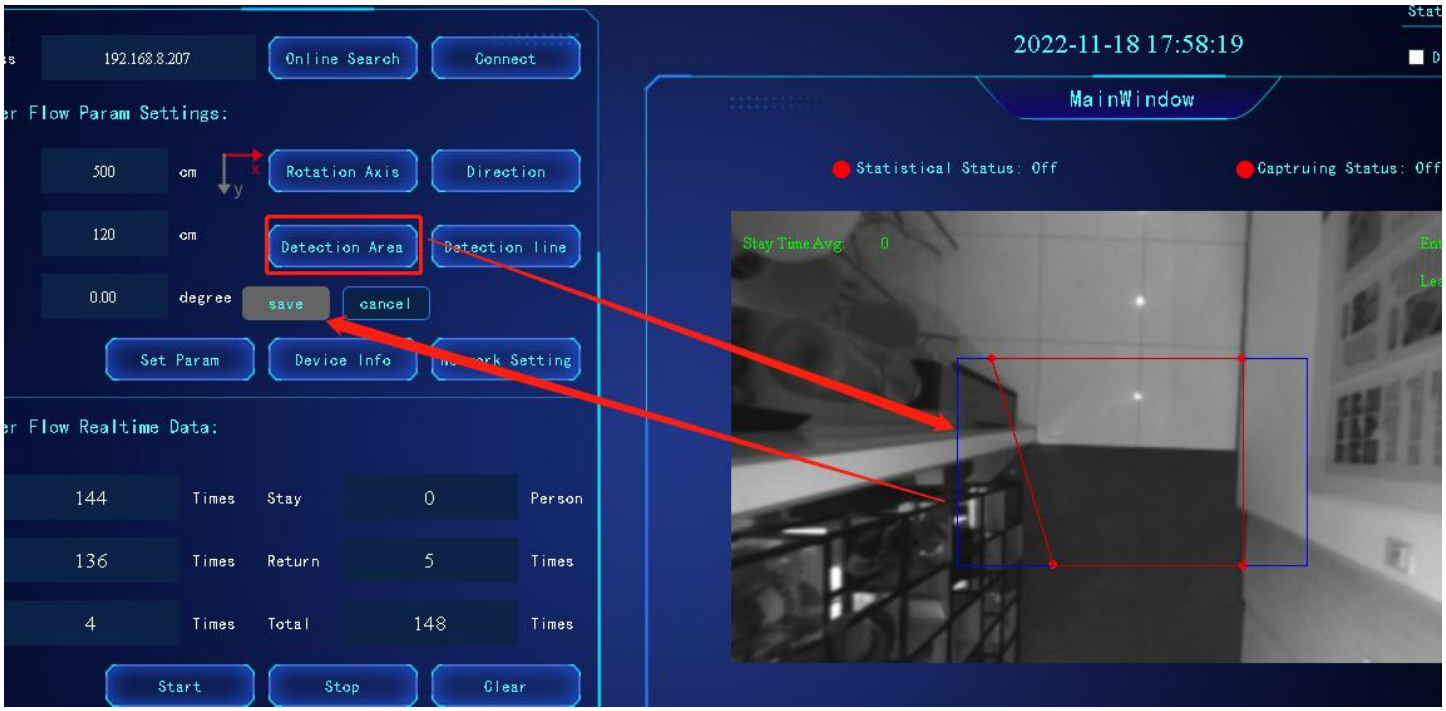


Figure 2-11 Example of detection area drawing

(1) Detection area description

The blue box in Figure 2-11 is the theoretically calculated maximum detection area, which is related to the installation height. The higher the installation height, the larger the detection area. The red box is the current detection area, the working area of real passenger flow counting. It should be noted that these two regions are relative to the ground. Passenger counting can be done when a person's feet are within the red zone.

(2) Detection area drawing principle

• The detection area should be slightly larger than or equal to the actual area to be covered, and there is no need to set the maximum detection area as the current detection area. This helps reduce interference from objects such as sundries or white walls on both sides, as shown in Figure 2-12.

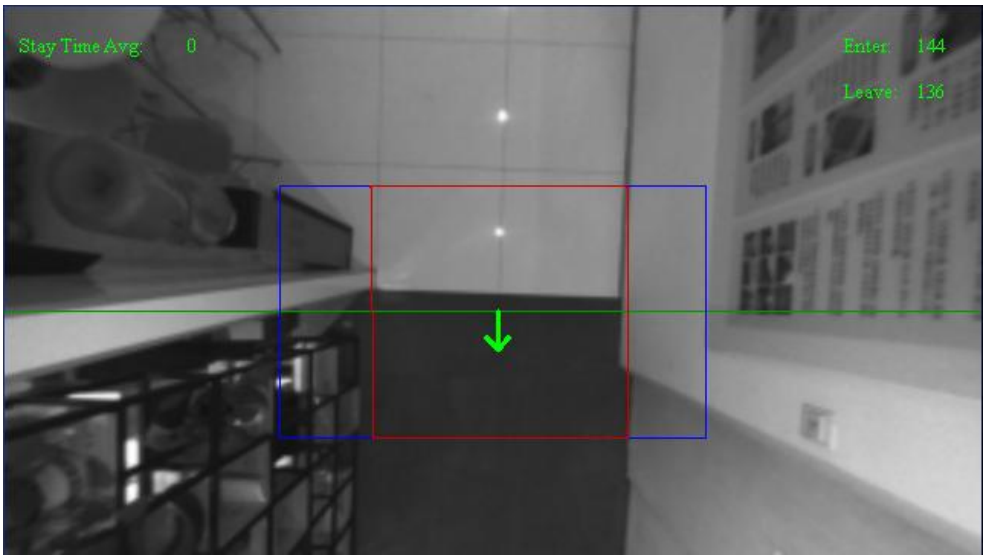


Figure 2-12 Example of detection area drawing

2.2.3 Detection line setting

The detection line is the baseline of passenger flow counting. Correctly setting the detection line can improve the accuracy of passenger flow counting. The setting method is: click the “Detection Line Setting” button to enter the detection line setting mode. Drag the yellow line on the main interface image to adjust the position of the detection line, and click the “Save” button after confirming the position. If there is no need to save, click the “Cancel” button, as shown in Figure 2-13.

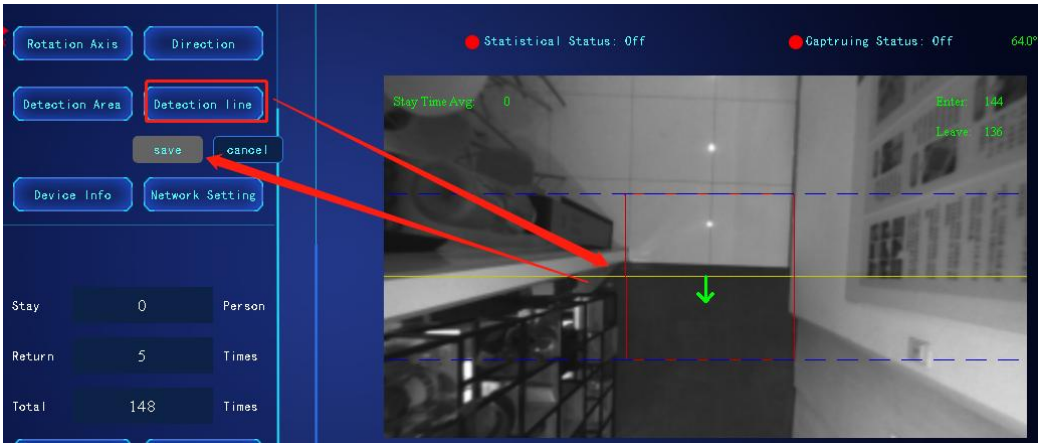


Figure 2-13 Example of detection line settings

2.2.4 Detection direction setting

The detection direction is the direction of passenger flow, and the setting of the detection direction will affect the entry and exit data. As shown in Figure 2-14, the green arrow indicates the direction of travel of the current passenger flow. If this direction is realistic, there is no need to set the detection direction. If the direction is opposite to the actual one, click the “Detect Direction” button to set the detection direction to the opposite direction.

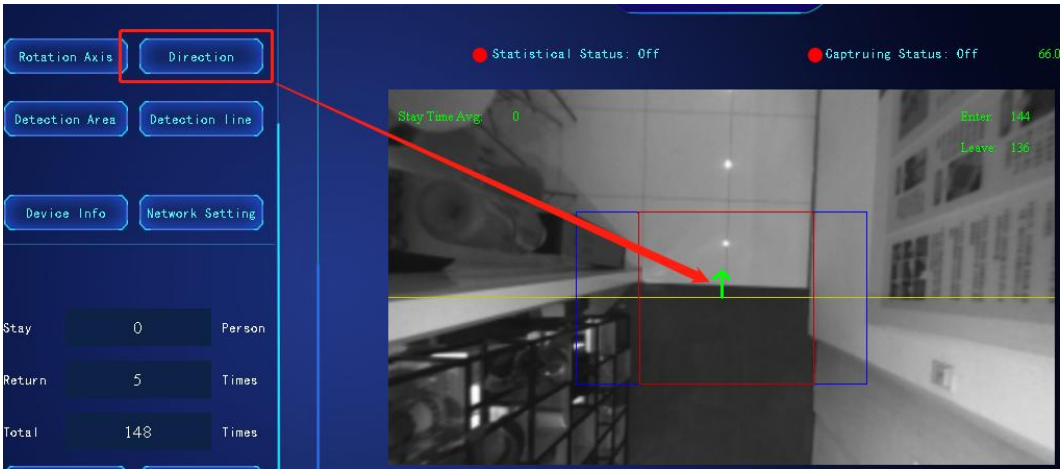


Figure 2-14 Example of detection direction setting

2.2.5 Statistics status setting

Statistical status settings include start and stop of passenger flow statistics. As shown in Figure 2-15, click the “Start” button, and the statistics status will change to “On”. Click the “Stop” button, and the statistical status becomes “closed”.

Figure 2-15 Example of statistics status setting

2.2.6 Clear passenger flow data

Clearing the passenger flow data refers to clearing all the current statistical results and restarting counting from 0. The setting method is: click the “Clear” button, as shown in Figure 2-16.

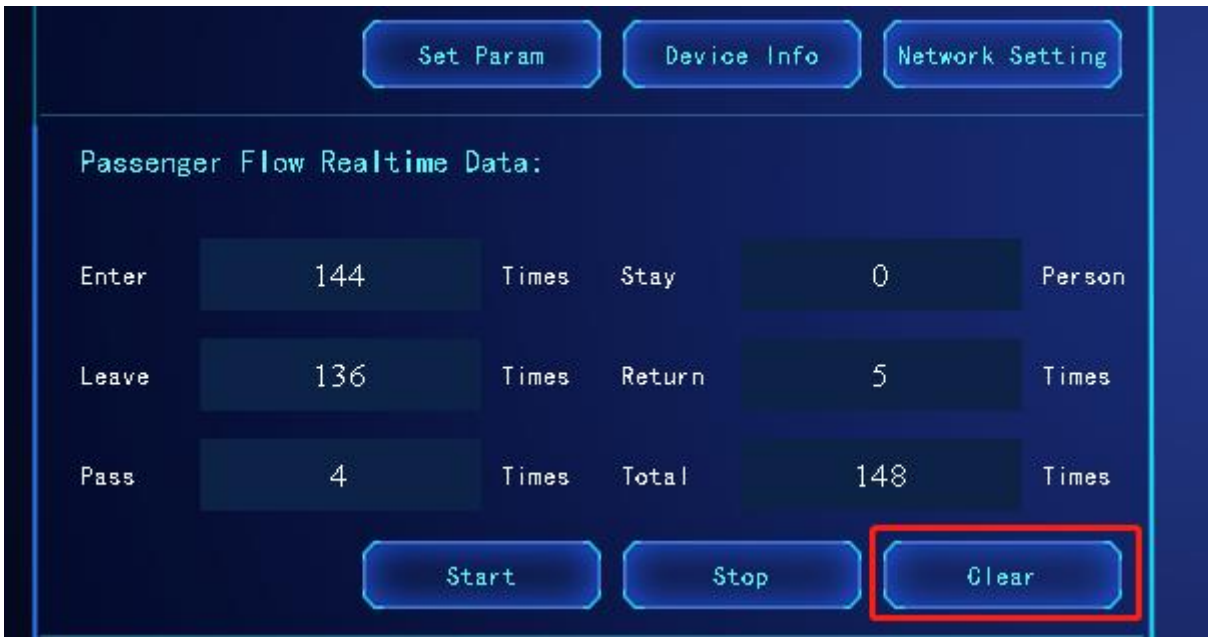


Figure 2-16 Example of clearing passenger flow data

2.3 Passenger Flow Data Management

2.3.1 Passenger Flow Data Display

The dimensions of passenger flow data display include entering, leaving, passing, staying, turning back and passenger flow, as shown in Figure 2-17. Wherein, the passenger flow dimension data is equal to the sum of the entering and passing dimension data. Other data dimensions are defined by detection area, detection line, and travel direction of passenger flow, as shown in Figure 2-18.

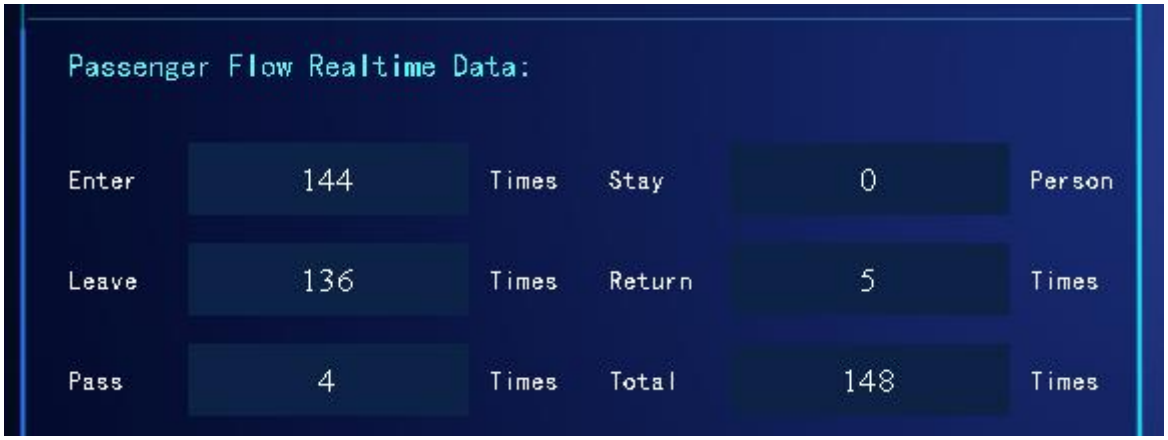


Figure 2-17 Example of customer flow data display

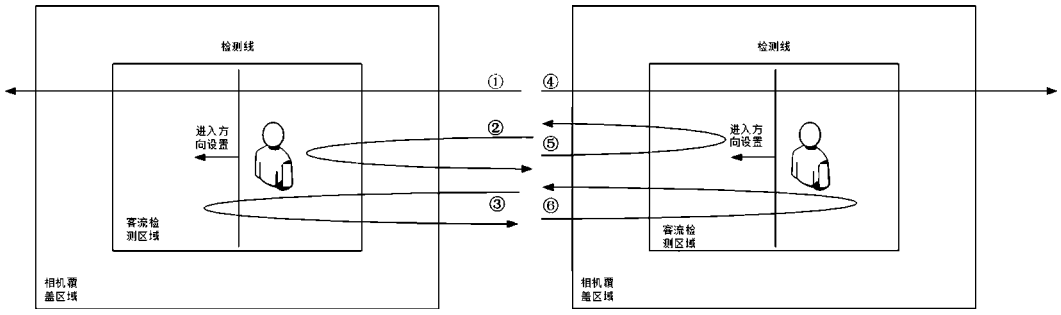


Figure 2-18 Passenger flow data definition

(1) Entry: entering the detection area from the direction of entry, crossing the detection line and exiting the detection area is counted as entry. As shown in the figure ①;

(2) Leaving: Entering the detection area from the opposite direction of entry, crossing the detection line and exiting the detection area is counted as leaving. Action as shown in the figure ④;

(3) Passing: Enter the detection area from the direction of entry, but do not go out of the detection area. Leaving the detection area from the area in the direction of entry is counted as passing. As shown in the figure ②③;

(4) Turnback: Enter the detection area from the opposite direction of entry, but do not go out of the detection area. Leaving the detection area from the area in the opposite direction is counted as turning back. As shown in the figure ⑤⑥;

(5) Residency: refers to the number of real-time residents in the current passenger flow detection area;

2.3.2 Passenger flow data export

Select the start time, end time and time interval for exporting data, and then click the “Export Data” button to export the passenger flow historical data of the specified time period in xlsx format. The exported file is named as: device SN_start time_end time_second time interval.xlsx. Click “Open Folder” to locate the folder where the data is saved, as shown in Figure 2-19.

Figure 2-19 Example of passenger flow data export

2.3.3 Real-time image saving

Save the depth map and grayscale image of the current device to the specified folder, which is used to improve the counting accuracy or assist in solving counting problems encountered in actual scenes. The setting method is: click the “Start Capture” button, enter the folder name to save the image, and then click the “OK” button to enter the capture mode. At this time, the image acquisition status is enabled. After the picture collection is completed, click the “End Picture Collection” button to end the picture collection mode. At this time, the image acquisition status is disabled, as shown in Figure 2-20. Click “Open Folder” to navigate to the directory where the images were collected.

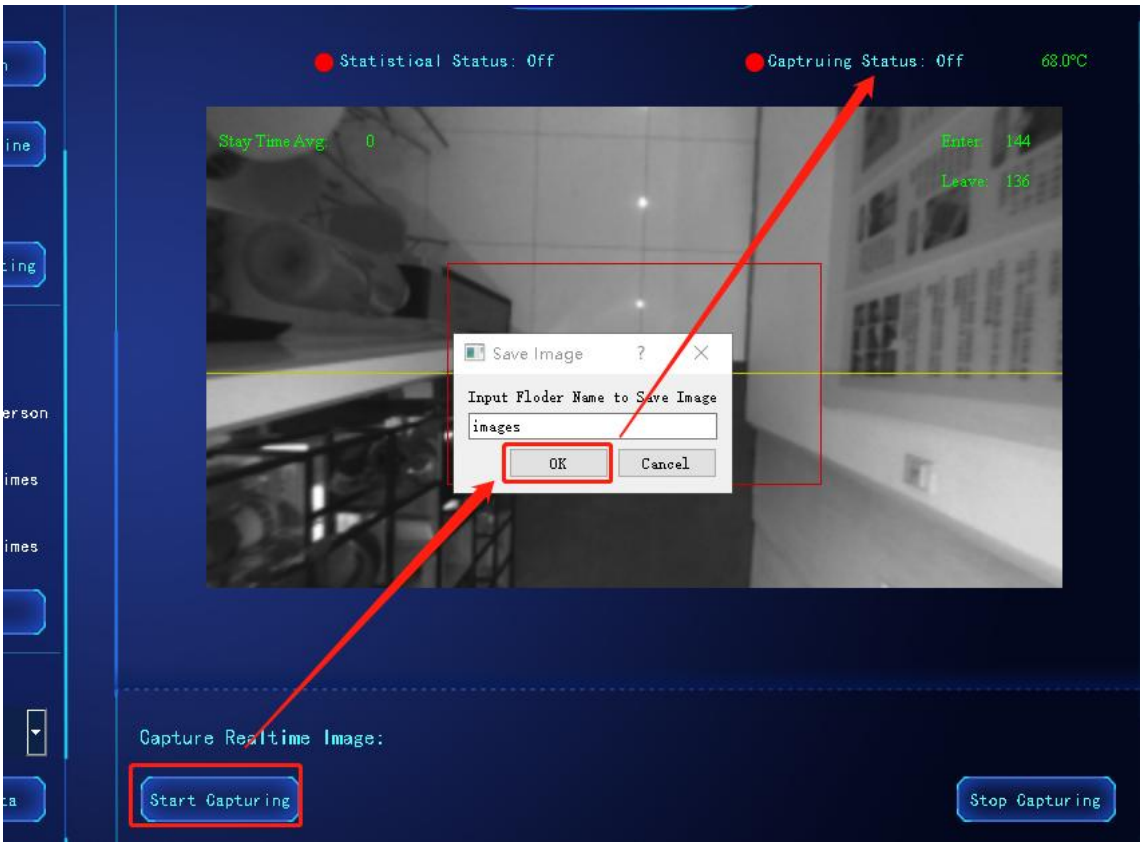


Figure 2-20 Example of real-time image saving

2.4 Equipment Information Management

2.4.1 Basic equipment information

Basic device information includes firmware version, algorithm version, FPGA version, kernel version, device SN, device MAC address, and device type. The viewing method is: click the “Device Information button” to open the Device Information Management dialog box, and then select the “Basic Information” tab, as shown in Figure 2-21.

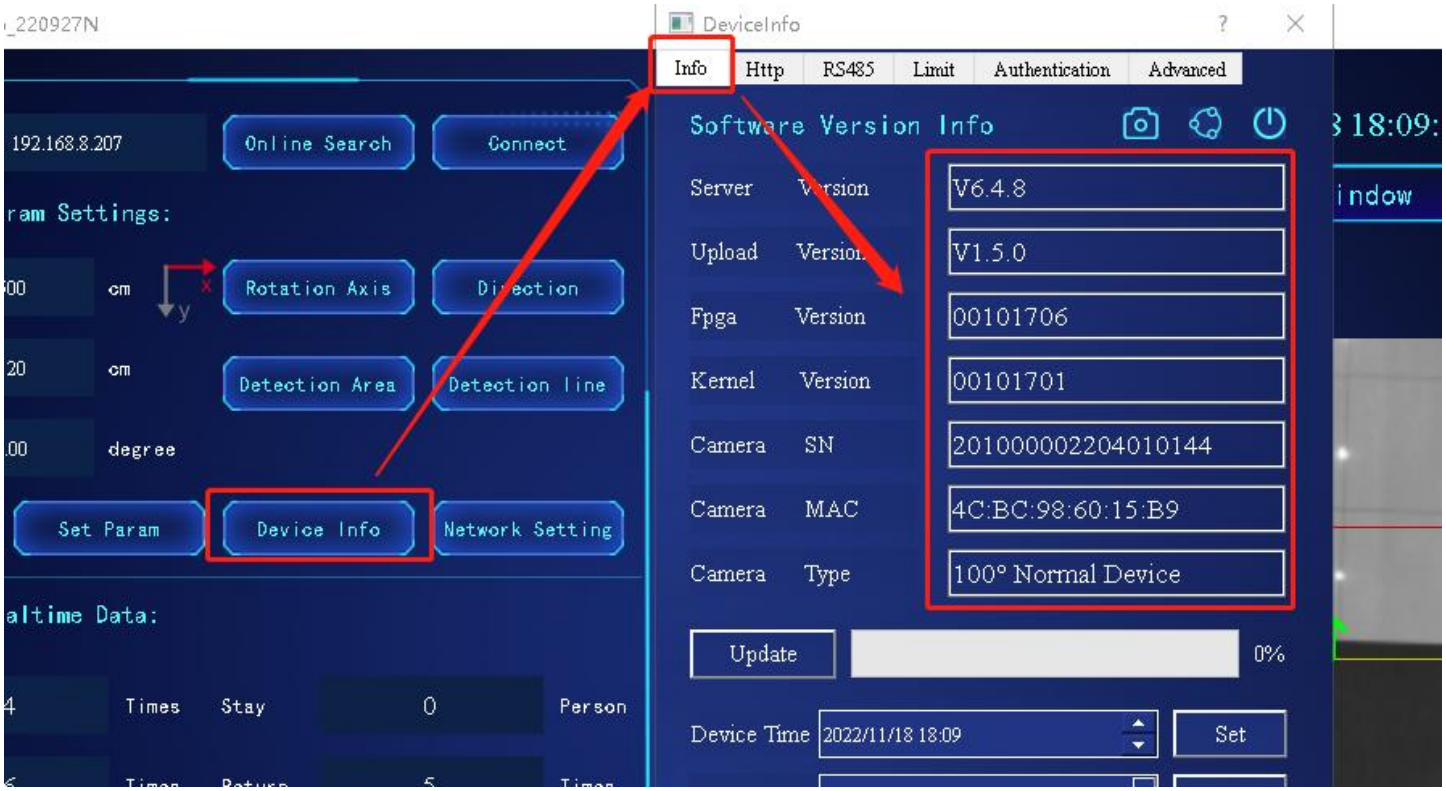


Figure 2-21 Example of viewing basic device information

2.4.2 Shortcut function buttons

The shortcut function buttons include taking pictures with the camera, restoring default parameters and

restarting the device, as shown in Figure 2-22. The descriptions of each function are as follows.

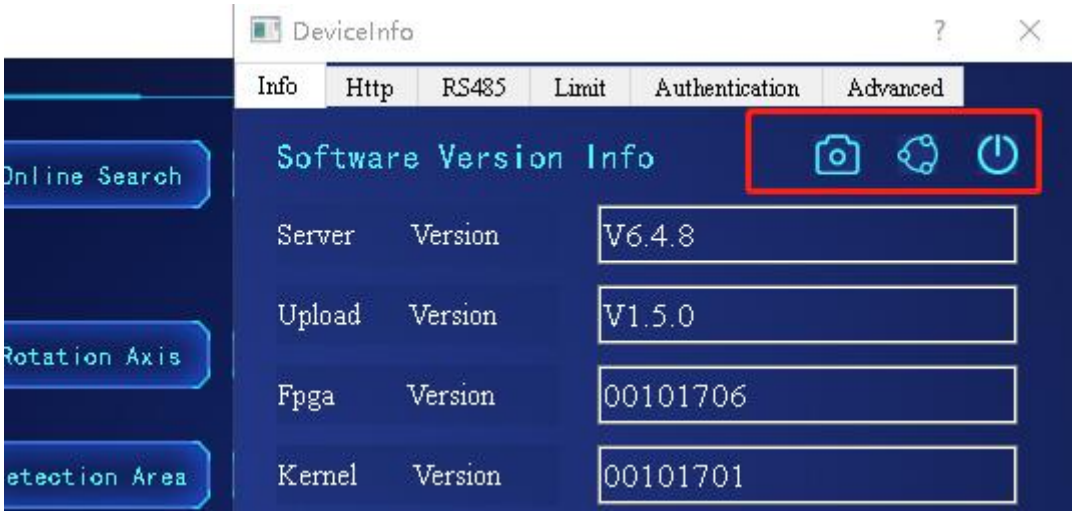


Figure 2-22 Shortcut function buttons

(1) Camera photo: After clicking this button, an image display window will pop up in a new window, as shown in Figure 2-23.

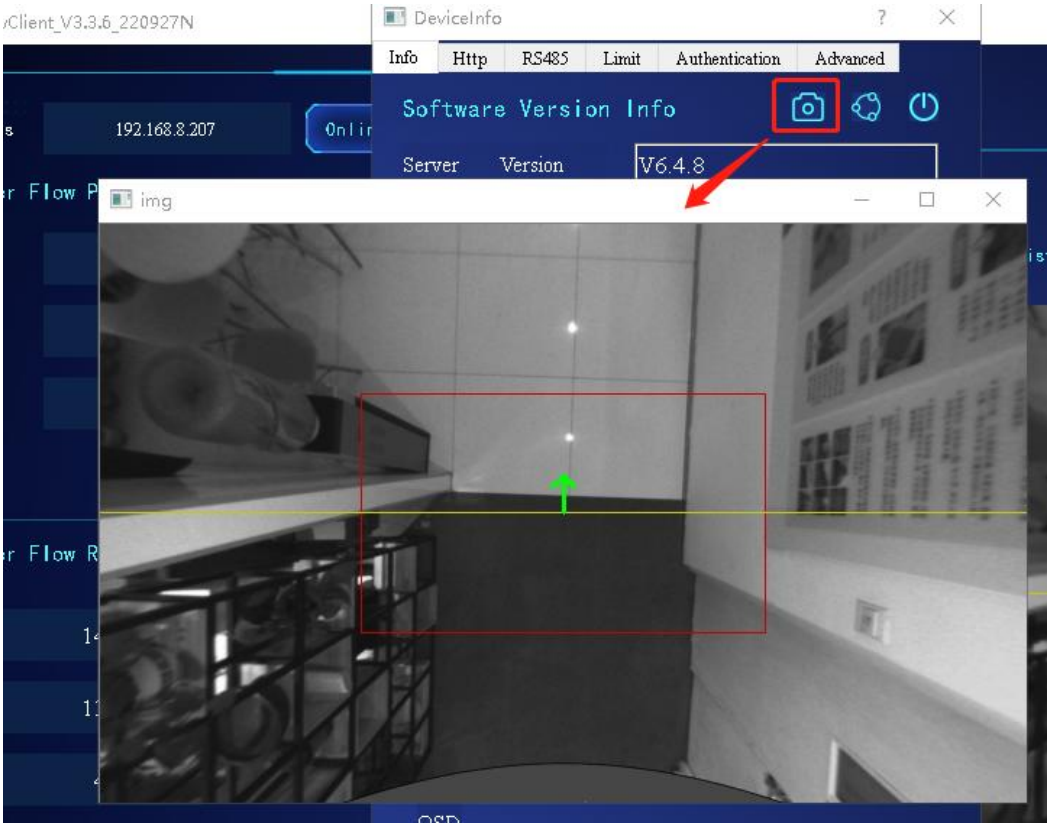


Figure 2-23 Camera shortcut function button

(2) Restore default parameters: After clicking this button, the basic passenger flow parameters will be restored to the installation height of 300cm, filtration height of 120cm, rotation angle of 0 degrees, and the rotation axis is the X axis. The detection area, detection line and detection direction are restored to default values.

(3) Device restart: After clicking this button, the device will restart, and it can only be connected again after the device startup is completed.

2.4.3 Device firmware upgrade

This function is used to update the software and firmware of the device to support new functions or fix device problems. The upgrade method is: click the “One-key upgrade” button, and a firmware selection dialog box will pop up. After selecting the upgrade package, wait for the upgrade to complete. After the upgrade is complete, the upgrade progress bar will display 100%. At the same time, a prompt box will pop up indicating that the upgrade is complete, and the device will restart. The process is shown in Figure 2-24.

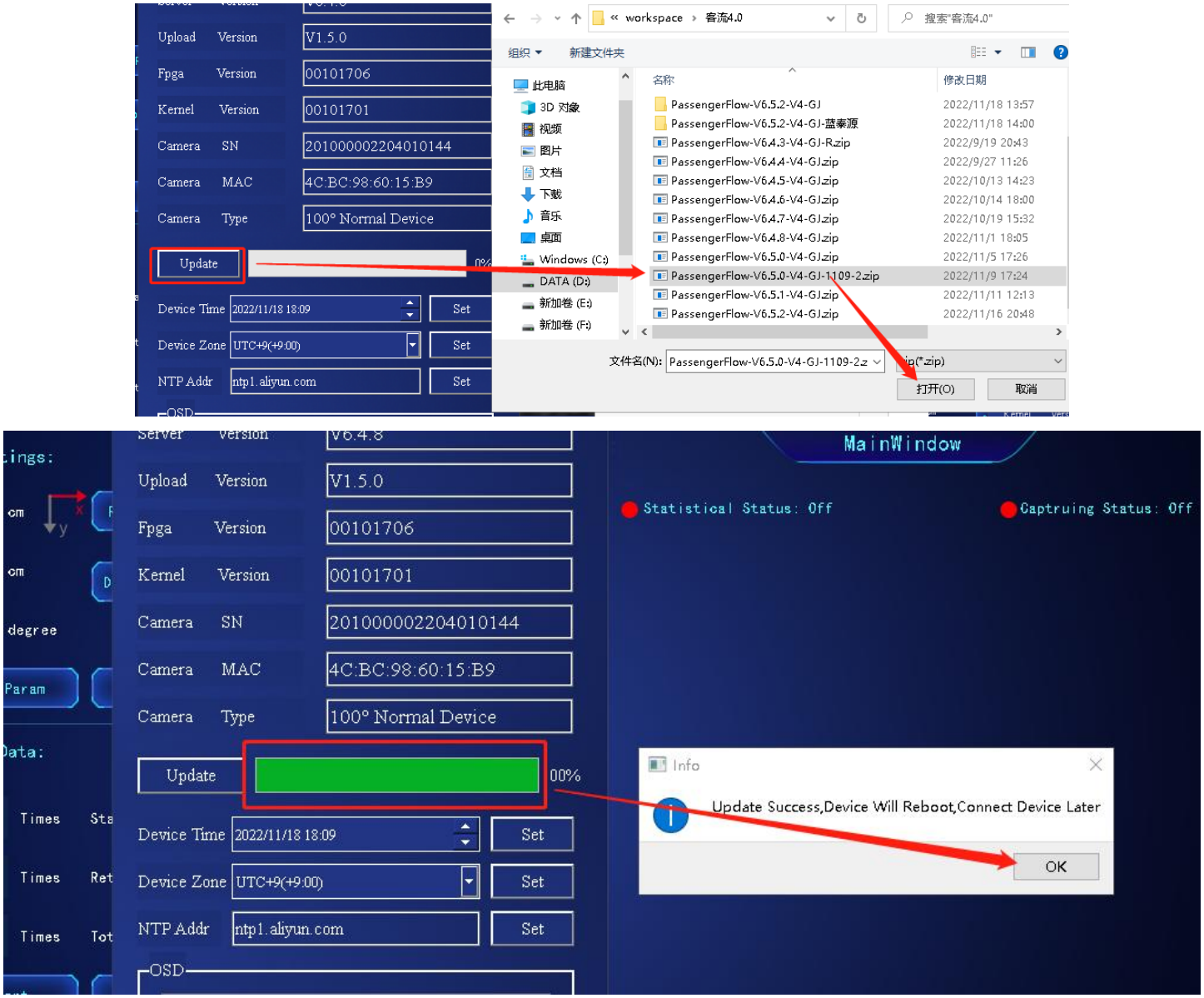


Figure 2-24 Example of device upgrade

2.4.4 Time zone setting

Time and time zone settings are used to set the time, time zone and NTP address of the device, which are described below.

(1) Time setting: Enter the time to be set in the time edit box, and click the “Setting” button to complete the time setting. The new time will be displayed on the main interface, as shown in Figure 2-25. What needs to be explained here is that the time displayed on the main interface is uploaded by the device to the software. Then the software parses the displayed time according to the time zone of the computer, regardless of the time zone of the device.

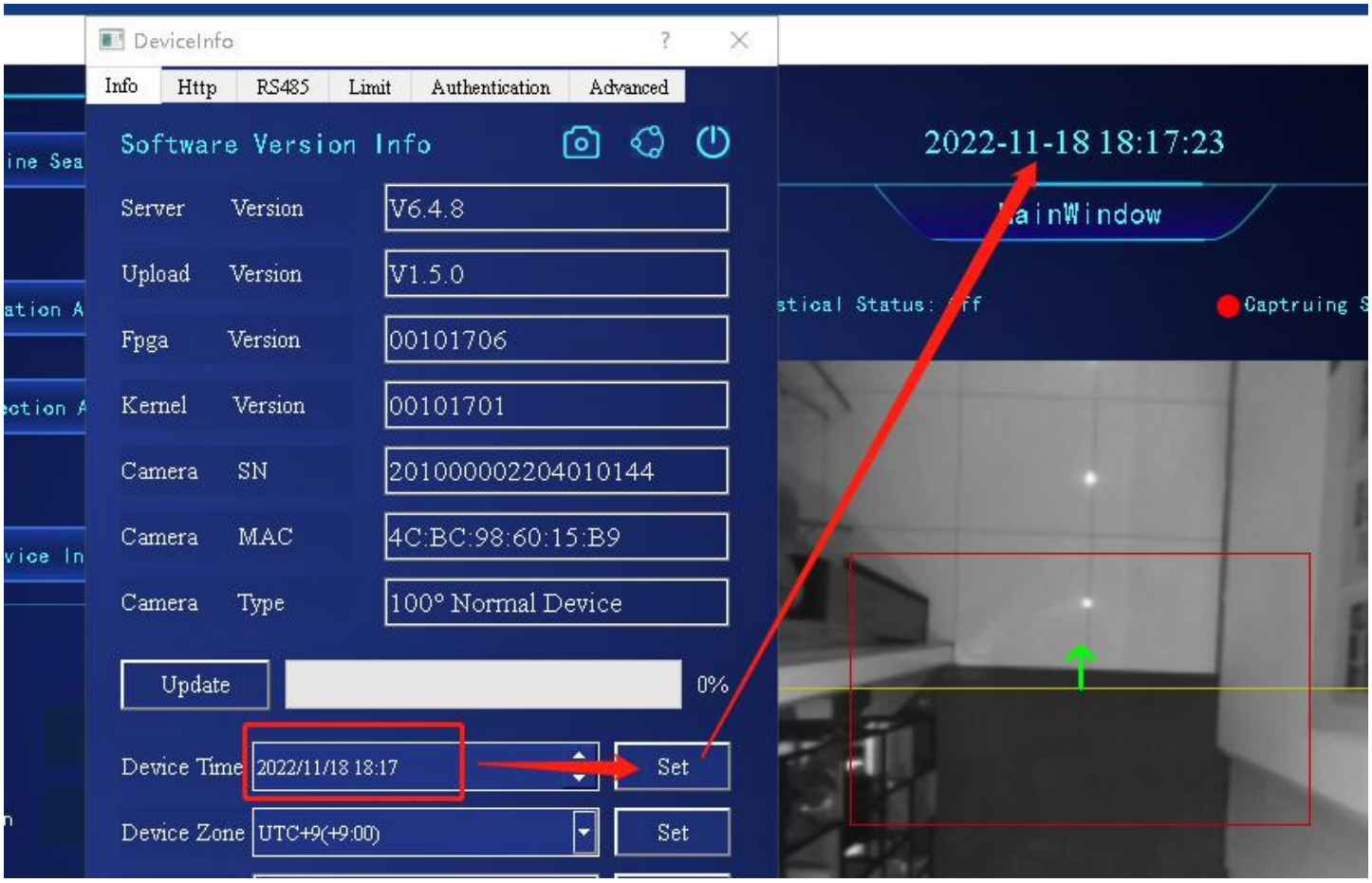


Figure 2-25 Time setting example

(2) Time zone setting: Select the time zone to be set in the time zone drop-down box, and click the “Setting” button to complete the time zone setting. After the time zone is set, the device will restart once to take effect, as shown in Figure 2-26.

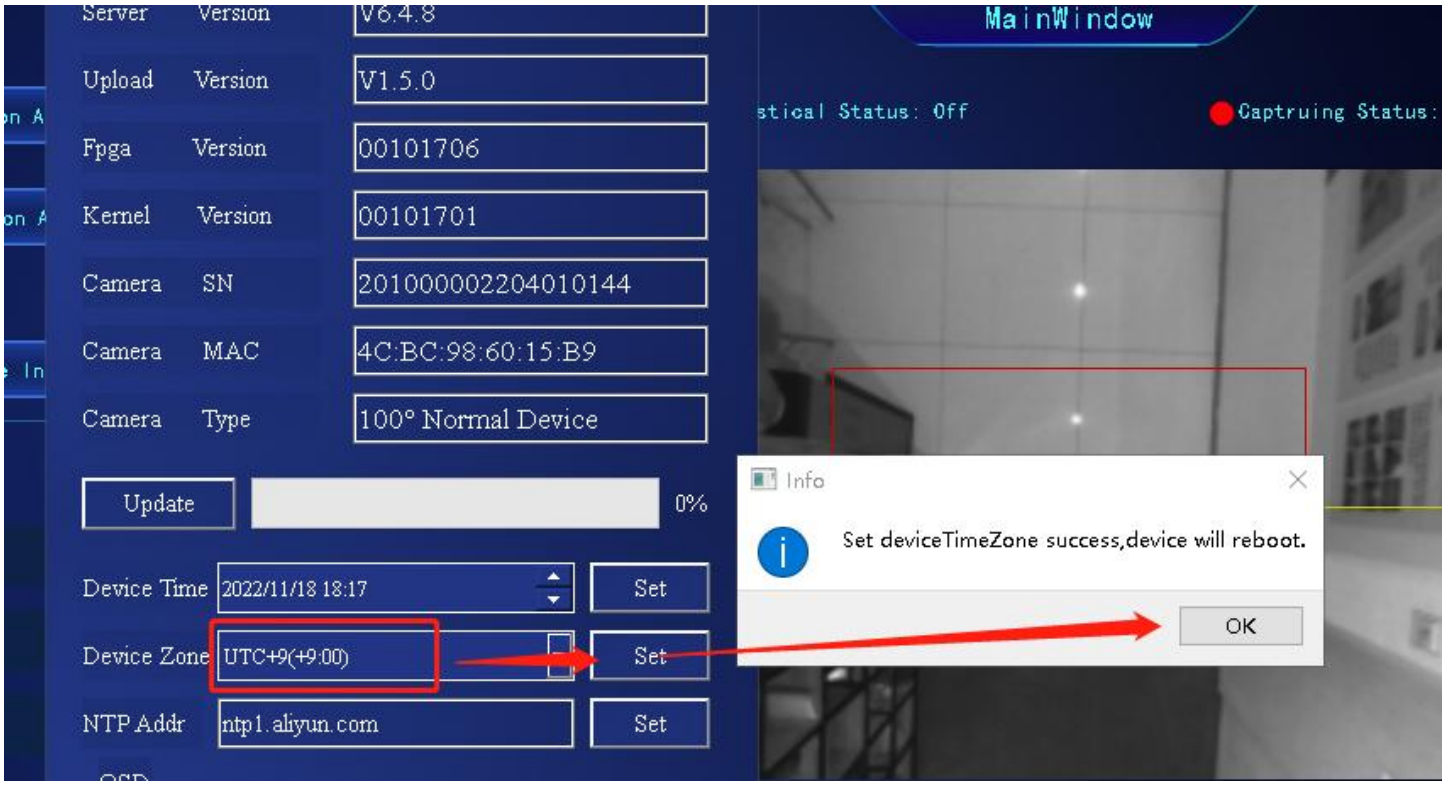


Figure 2-26 Example of time zone setting

(3) NTP address setting, used to set the address of the time synchronization server. After the device is connected to the network, it will actively synchronize the time of the NTP server to keep the device time accurate. The setting method is: in the ntp address edit box, enter the address of the time synchronization server. Click the

“Settings” button, as shown in Figure 2-27.

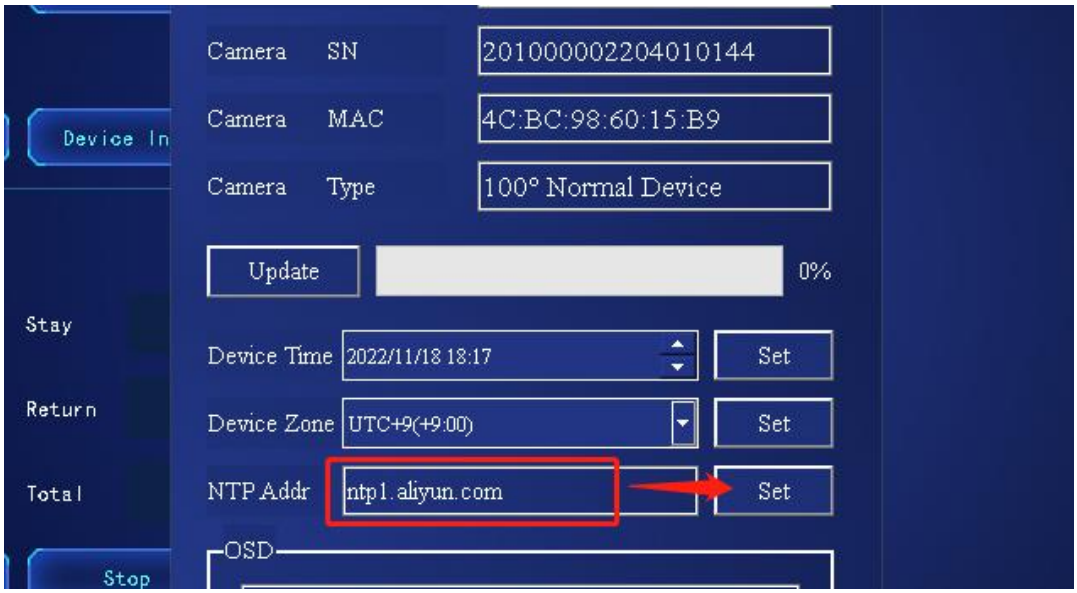


Figure 2-27 Example of NTP address setting

2.4.5 OSD Display Settings

The OSD display setting is used to control the display content of the rtsp video stream overlay, and the “display timestamp” is used to control whether to display the timestamp. “Display People Entrance and Exit Statistics” is used to control whether to superimpose passenger flow entry and exit data. “Display Device Name” is used to control whether to superimpose the device name. The device name edit box is used to input the device name. The contents corresponding to each control item are shown in Figure 2-28. OSD setting method: According to the video stream display requirements, check the content that needs to be superimposed, and click the “Setting” button.

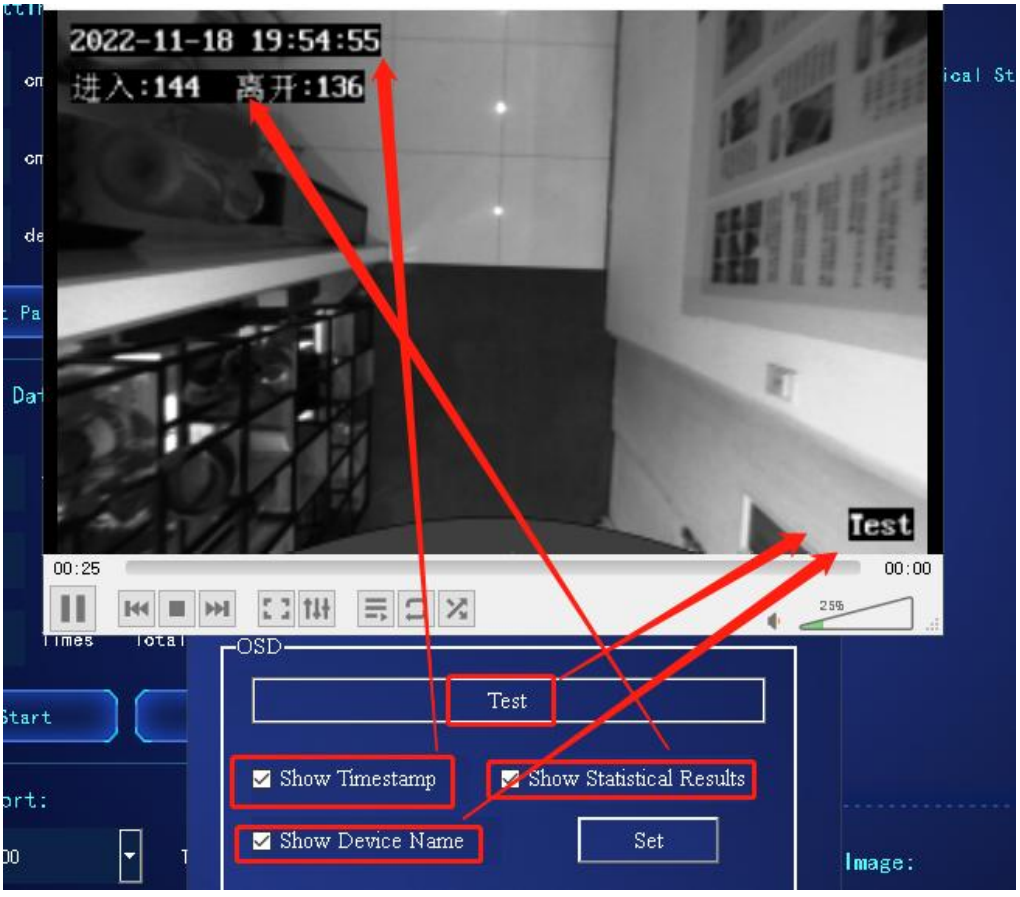


Figure 2-28 Example of OSD control settings

2.4.6 Http protocol settings

The http protocol is used to configure the device data upload method, and supports xml and json data format

uploads, as explained below.

(1) JSON mode

The json data upload mode can support uploading data to two servers at the same time, and the number of servers to be pushed can be selected according to actual needs. When setting the json format push, first select the http protocol tab, select the json mode, then select data push 1 or 2, and finally fill in the push information according to actual requirements, as shown in Figure 2-29 (a). The following describes the information that needs to be filled in for data push:

Server address

Data push supports http and https. If you use http push, you only need to fill in the server address, such as 192.168.1.10, as shown in Figure 2-29 (a). At this time, the device will generate the data push address and heartbeat push address by default, as follows.

Data push address: http://192.168.1.10:8086/api/camera/dataUpload

Heartbeat push address: http://192.168.1.10:8086/api/camera/heartBeat

If you use https push, you need to fill in the https prefix and the server address together, such as https://192.168.1.10, as shown in Figure 2-29 (b). At this time, the device will generate the data push address and heartbeat push address by default, as follows.

Data push address: https://192.168.1.10:8086/api/camera/dataUpload

Heartbeat push address: https://192.168.1.10:8086/api/camera/heartBeat

Note: At present, the URI suffix of the address pushed by the device does not support modification on the software side. If you have special needs, you can find the engineer to modify it.

• Port number

After the port of the data push server, it needs to be filled in accurately, otherwise the data cannot be pushed.

• Upload Interval

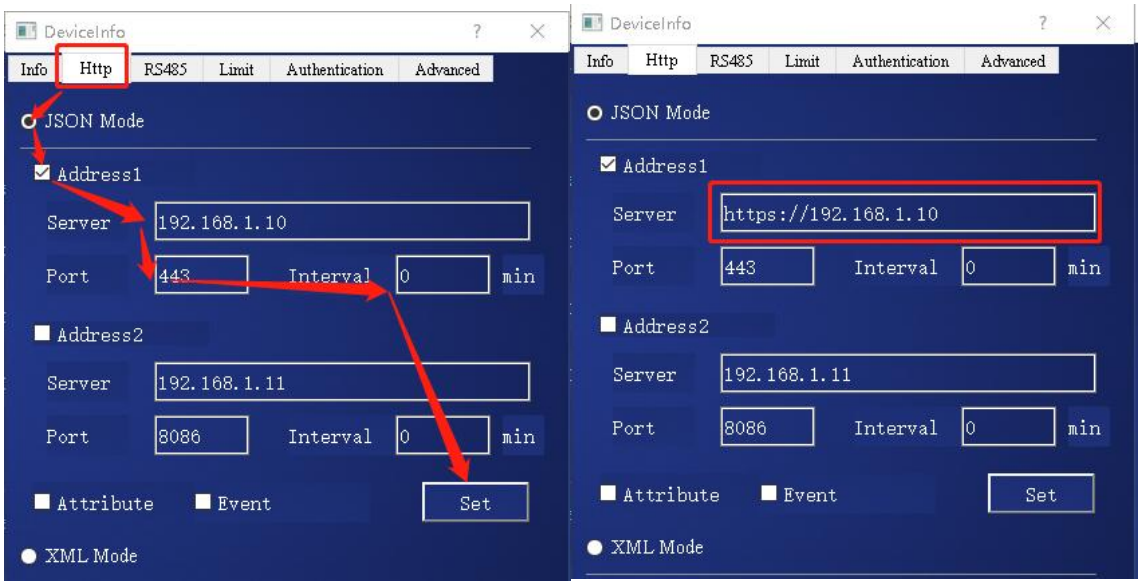
The device supports real-time push and interval push. When the upload interval is 0, it means real-time push. When the upload interval is greater than 0, it means interval push, and the interval unit is minutes. Note: In real-time mode, the interval of heartbeat push is 60s.

• Attribute information

Device attribute information, including device SN code, device mac address, device name, etc. After checking this option, the device will push the basic information of the device together when pushing data.

• Real-time events

The real-time event data of passenger flow, including the time when the passenger flow event occurs, the type of passenger flow event (entry, departure, passing, etc.) and other information. After checking this option, the device will push real-time events together when pushing data.



(a) http server example (b) https server example

Figure 2-29 Example of json mode setting

(2) xml mode

The xml data upload mode only supports uploading data to one server. When setting the xml format push, you need to select the xml mode first, and then fill in the push information according to the actual requirements, as shown in Figure 2-30. The following describes the information that needs to be filled in for data push:

• Interval upload

Data upload uses the interval upload mode, and the interval time is determined by the value set by Interval. In this mode, both data and heartbeat use the same push interval.

• Real-time upload

The data upload uses the real-time upload mode, and the data push in this mode will be pushed in real time. The heartbeat push is determined according to the value set by Interval.

• Post Url

Passenger flow data push complete URL address, support http and https, such as

http://47.103.117.31:8088/api/posttest

https://47.103.117.31:8088/api/posttest

• Heart Url

The heartbeat data pushes the complete URL address, supports http and https, such as:

http://47.103.117.31:8088/heartbea

https://47.103.117.31:8088/heartbeat

• Device ID

When Xml mode data is pushed, there is a DeviceID data item, and the content of this data item is set accordingly. The default is the SN of the device as the DeviceID.

• Interval

Data upload interval, in minutes.

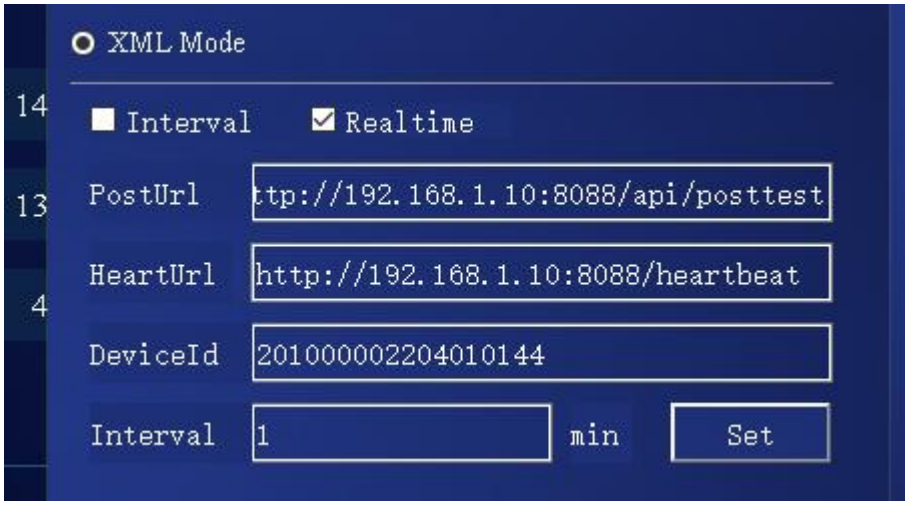


Figure 2-30 Example of xml mode setting

2.4.7 RS485 protocol setting

The passenger flow counting device supports the use of RS485 to read device-related data, including reading passenger flow data, clearing passenger flow data, and setting device time, etc. The supported protocols are the current-limiting LED protocol and the MODBUS protocol. Please read the relevant documents for specific protocol content. The RS485 setting method is: select the RS485 tab page, check the protocol type used, then select the baud rate and fill in the device address, and finally click the “Setting” button to take effect, as shown in Figure 2-31.

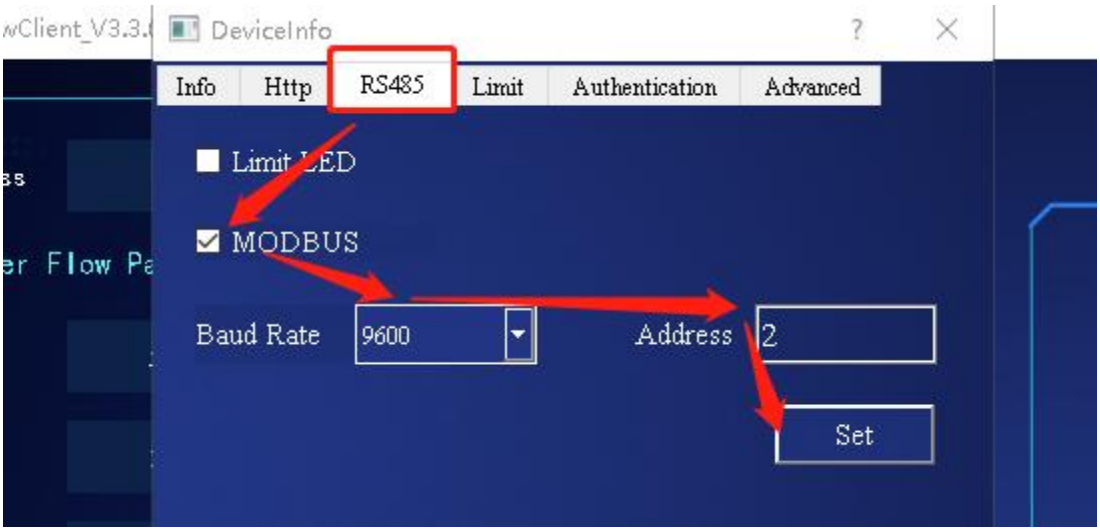


Figure 2-31 RS485 setting example

2.4.8 Current Limit Setting

The current limit setting is used to set the relevant data in the current limit LED protocol, including the limit number setting, adding one, subtracting one and clearing, etc., as shown in Figure 2-32. The following describes each setting. Note: When setting these parameters, you need to check the current-limiting LED protocol in the RS485 protocol.

(1) Number of limit setting: Set the upper limit of the number of people in the current limited space. "Current number of people" in the interface indicates the number of people currently residing in the current restricted space. If the current number of people exceeds the limit, the external RS485 display will display red and an alarm will be given.

(2) Plus one: manually adjust the current number of people to increase by 1

(3) Minus one: manually adjust the current number of people to decrease by 1

(4) Clear: Manually clear the current number of people

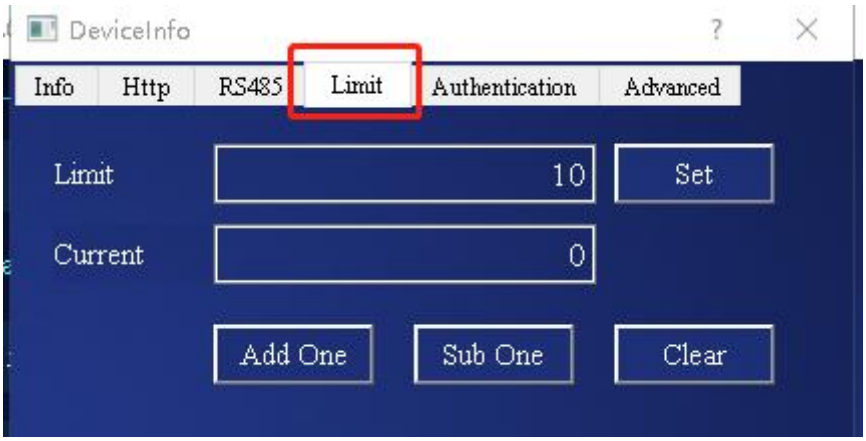


Figure 2-32 Example of current limit setting

2.4.9 Authentication settings

Authentication settings include settings such as enabling authentication, disabling authentication, and changing passwords, which are described below.

(1) Turn on authentication

The device is in the state of disabling authentication by default. The method to enable authentication is: select the Authentication tab, and check the "Function Enabled" checkbox in the authentication mode. Then enter the new password and confirm the password, and finally click the "Settings" button, as shown in Figure 2-33. Note: After the authentication is enabled, you need to enter the authentication password when connecting the device.

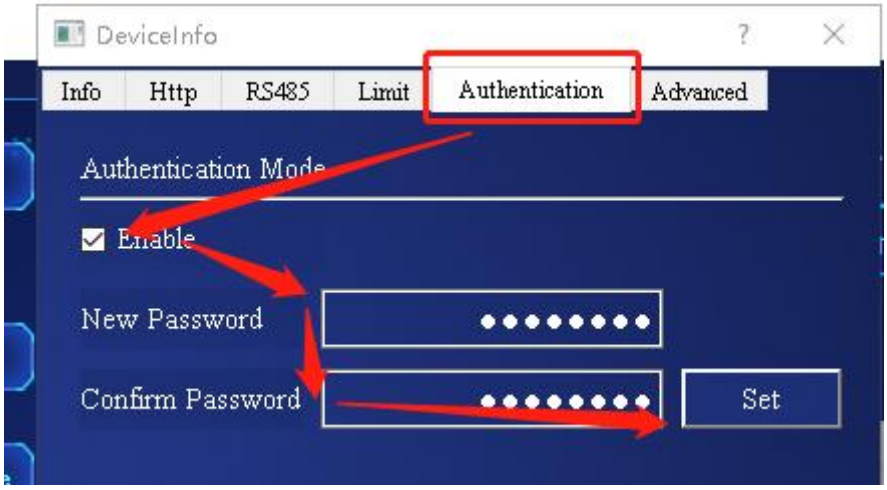


Figure 2-33 Example of enabling authentication

(2) Turn off authentication

Closing the authentication can only be done on the device that has enabled the authentication. The method of closing the authentication is: uncheck the “Function Enabled” check box in the authentication mode, enter the current authentication password, and finally click ” Click the “Settings” button, as shown in Figure 2-34.

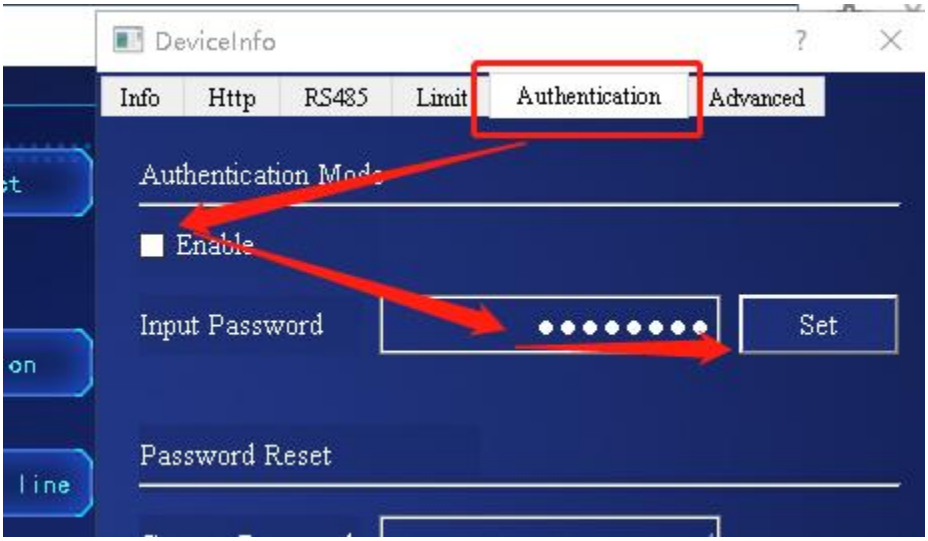


Figure 2-34 Example of disabling authentication

(3) Modify password

Changing the password can only be done on the device with authentication turned on. The method of changing the password is: enter the current password, enter the new password and confirm the new password, and click the “Settings” button, as shown in Figure 2-35.

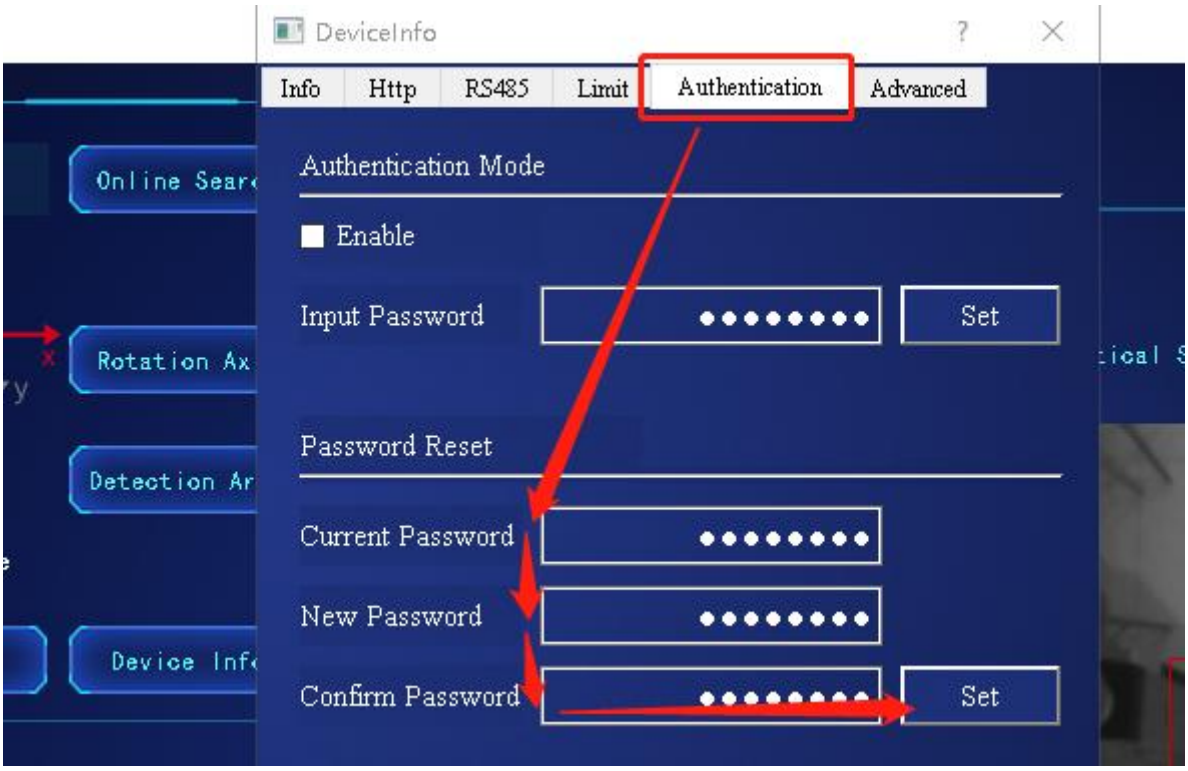


Figure 2-35 Example of changing the authentication password

2.4.10 Long distance mode setting

The device uses a height of 3.5 meters as the height for switching the distance mode. When it is less than 3.5m, the device works in the short-distance working mode. When the distance is greater than or equal to 3.5 meters, the device will switch to the long-distance working mode. By default, when setting altitude parameters, the device will automatically switch to the correct distance mode, no need to manually set again. If the current installation height is 3.0 meters, but you want the device to work in long-distance mode, you can manually set it. The setting method is: select the "Advanced Features" tab, check the "Long Distance Mode" check box, and click the "Settings" button, as shown in Figure 2-36. Note: When the distance mode is switched, the device will restart once.

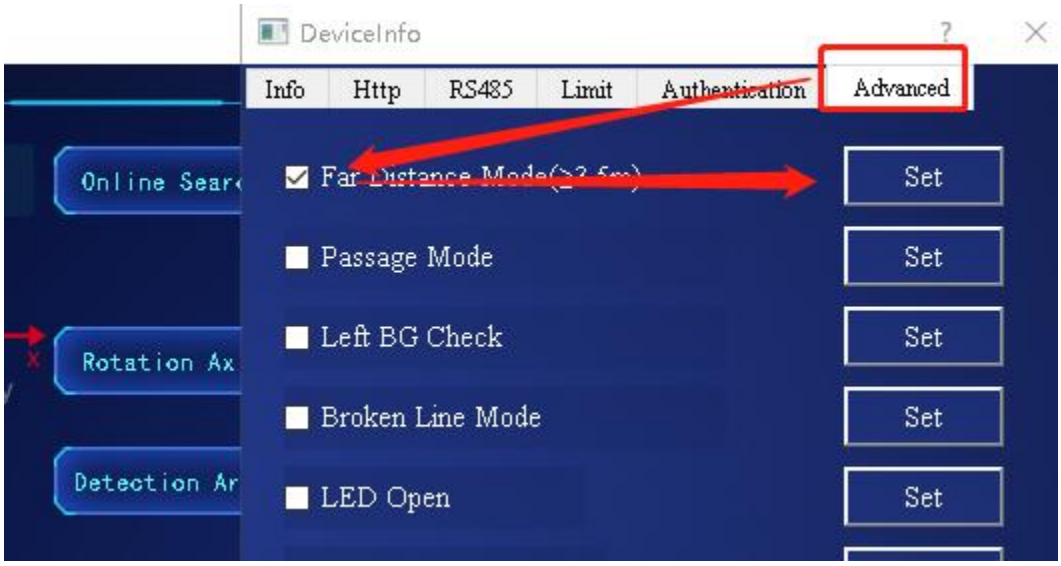


Figure 2-36 Example of long distance mode setting

2.4.11 Aisle mode setting

The aisle mode is to rotate the direction of passenger flow counting by 90°, which is related to the installation method of the equipment. The setting method is: select the "Advanced Features" tab. Check the "Aisle Mode" check box, and then click the "Settings" button, as shown in Figure 2-37. The comparison of normal mode and aisle mode is shown in Figure 2-38.

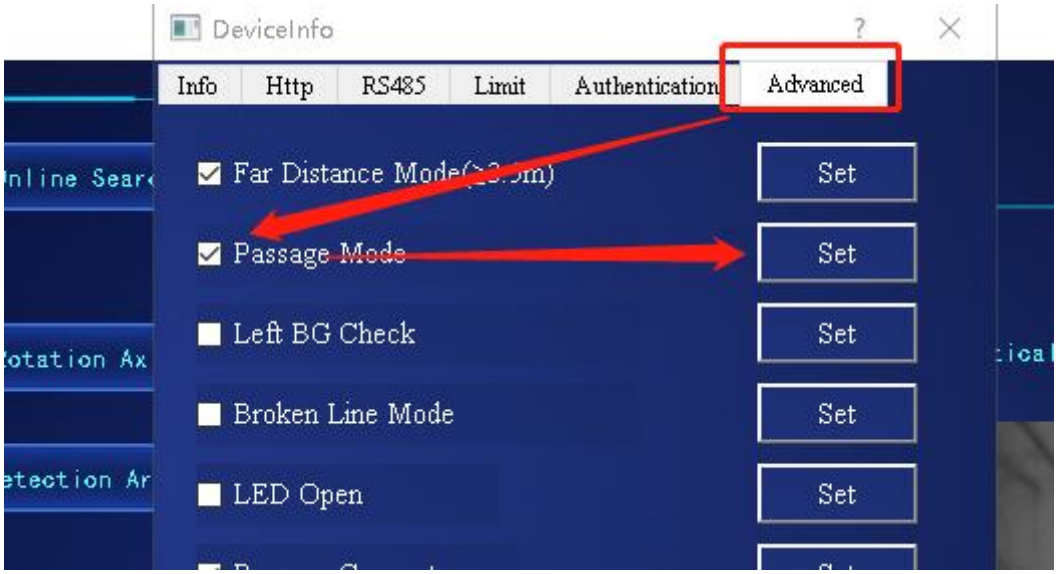


Figure 2-37 Example of aisle mode setting

Figure 2-38 Comparison example between normal mode and aisle mode

2.4.12 Left image background check setting

When the device's detection area setting cannot avoid objects such as sundries or solid-color walls due to installation conditions, using this mode can reduce the interference of these objects, thereby improving the accuracy of counting. The setting method is: select the “Advanced Features” tab, check the “Left Image Background Verification Mode” check box, and then click the “Settings” button, as shown in Figure 2-39. Note: Miscounts cannot be completely avoided using this mode. In order to obtain the best counting accuracy, you should try to choose a suitable installation location and avoid interference such as sundries or walls.

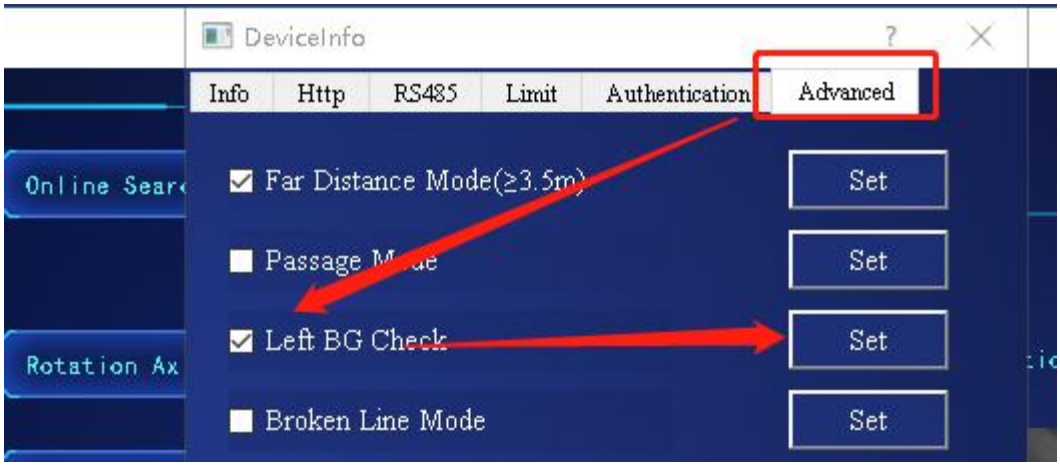


Figure 2-39 Example of background verification mode setting in the left figure

2.4.13 Polyline mode setting

This mode can be used when the scene conditions of the device are limited so that the straight form of the detection line cannot meet the counting requirements. Set the detection line to polyline mode. The setting method is: select the “Advanced Features” tab, check the “Polyline Mode” check box, and then click the “Settings” button, as shown in Figure 2-40. After using this mode, when setting the detection line, you can drag the 4 points of the detection line to complete the setting of the detection line, as shown in Figure 2-41.

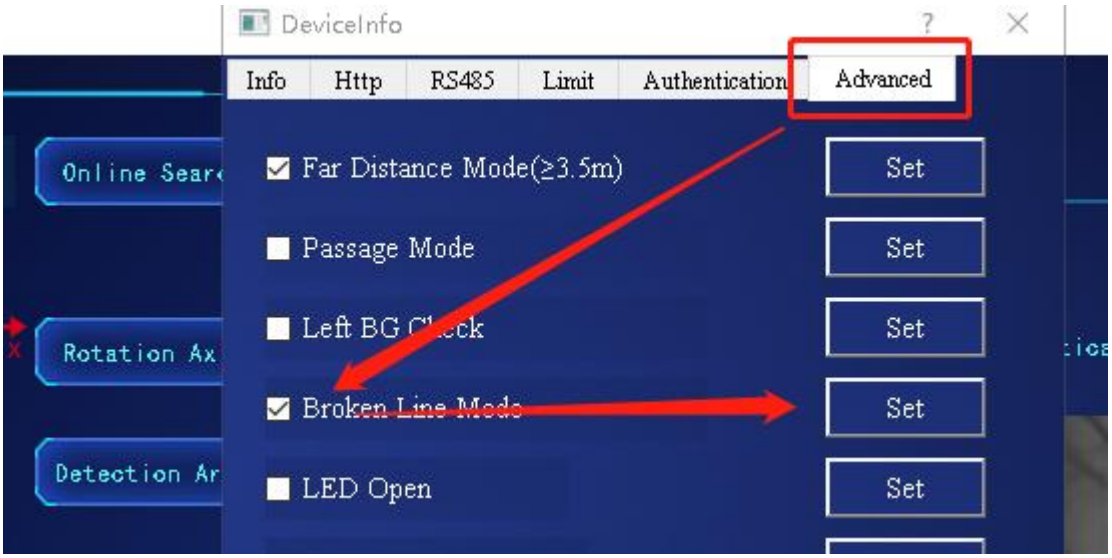


Figure 2-40 Example of Polyline mode setting

2.4.14 LED status control

It is used to manually control the on and off of the LED, and the use of this function requires the device to have an LED light accessory. The method to turn on the LED is: select the “Advanced Features” tab, check the “LED On” check box, and then click the “Settings” button, as shown in Figure 2-41. After turning on the LED, the LED of the device lights up normally.

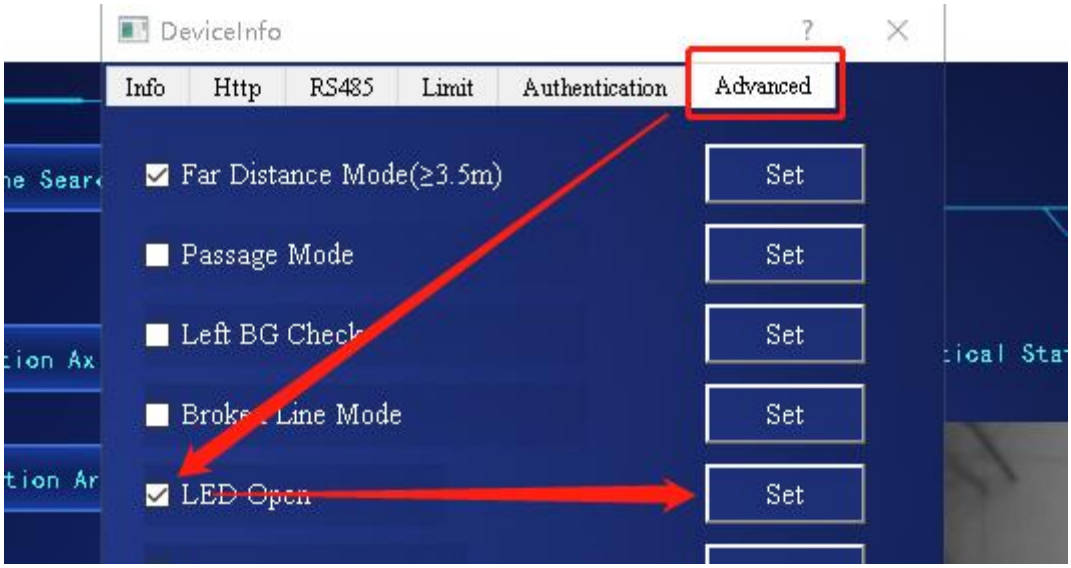


Figure 2-41 Example of LED turning on

2.4.15 Reverse Connection Settings

The “reverse connection” function is a device access method reserved by device manufacturers for troubleshooting device problems. After using this method, if the device is connected to the Internet, the device manufacturer can detect that the device is online and perform remote maintenance operations. By default, this feature is enabled. The method to close the reverse connection is: select the “Advanced Functions” tab, uncheck the “Reverse Connection” check box, and then click the “Settings” button, as shown in Figure 2-42.

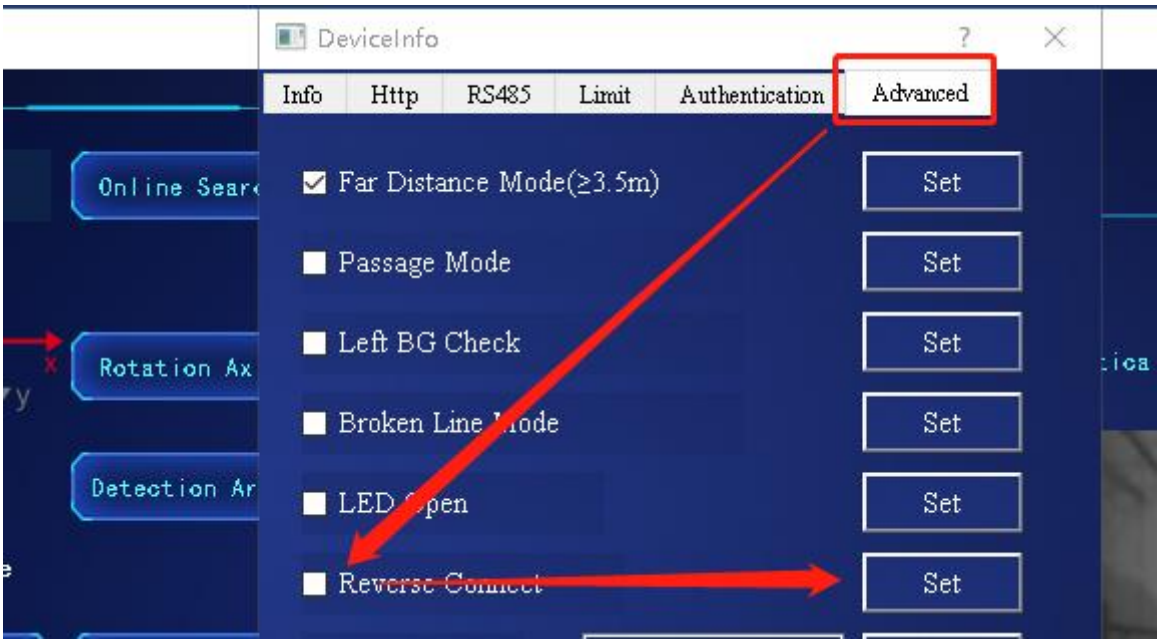


Figure 2-42 Example of reverse connection settings

2.4.16 Child Mode Settings

The children mode is used to count the passenger flow data of children in the passenger flow data. After the height threshold of children is set, the passenger flow data will count people below the threshold as children, and people not lower than the threshold as adult passengers. Note: Children's passenger flow data and adult passenger flow data are only valid when the json data is pushed, and the passenger flow data in the software client does not distinguish between children or adults. The method of enabling the child mode is: select the “Advanced Features” tab, and check the “Kids Mode” check box. Then fill in the child height threshold, and finally click the “Settings” button, as shown in Figure 2-43.

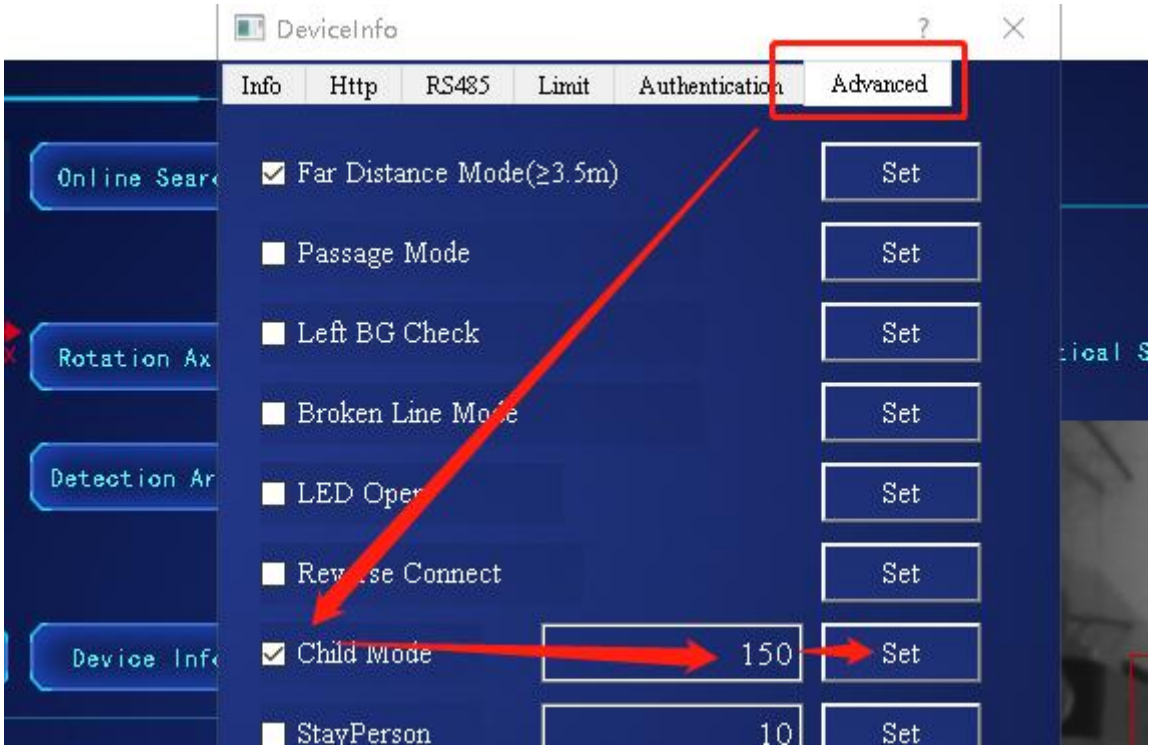


Figure 2-43 Example of child mode setting

2.4.17 Number of people staying

The number of stays refers to the passenger flow data that stays in the detection area for more than the stay duration threshold. If the dwell time threshold is set to 5 seconds and a pedestrian stays in the detection area for 10 seconds, the pedestrian will be regarded as the number of stays. The number of stays increased by 1. After using this function, the upload of this data item will be added in the json mode data push of http. The method of setting the number of stays is: select the “Advanced Functions” tab, and check the check box of “Numbers of

Stays". Then fill in the dwell time threshold (in seconds), and finally click the "Settings" button, as shown in Figure 2-44.

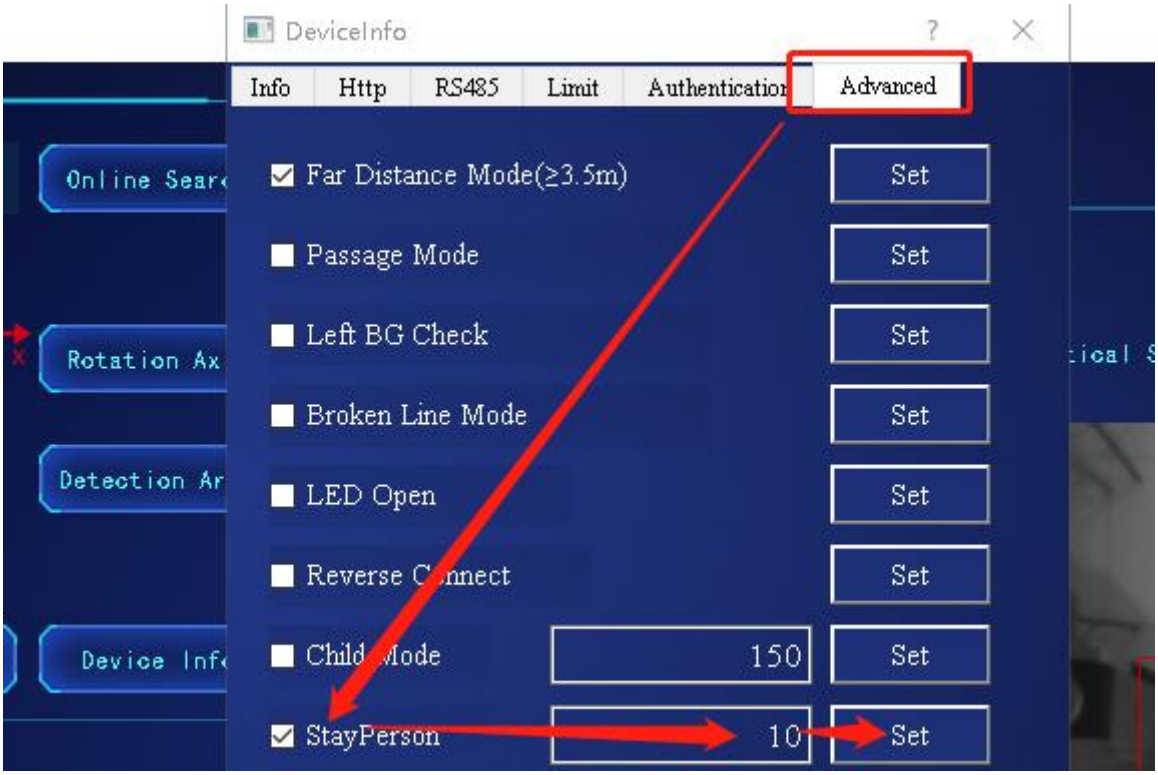


Figure 2-44 Example of number of people staying

2.4.18 Exposure Target Value Setting

The exposure target value is used to set the target brightness of the image. In normal lighting scenes, setting the exposure target value to 90 can meet the requirements. If the lighting conditions of the scene where the device works are relatively dark, the value needs to be lowered according to the site conditions. It should be noted that if the image is relatively dark, it will affect the imaging effect of the image and have an adverse effect on the counting accuracy, so the sub-parameters need to be set carefully. The method of setting the exposure target value is as follows: select the "Advanced Functions" tab, fill in the exposure value in the target exposure value edit box, and finally click the "Setting" button, as shown in Figure 2-45.

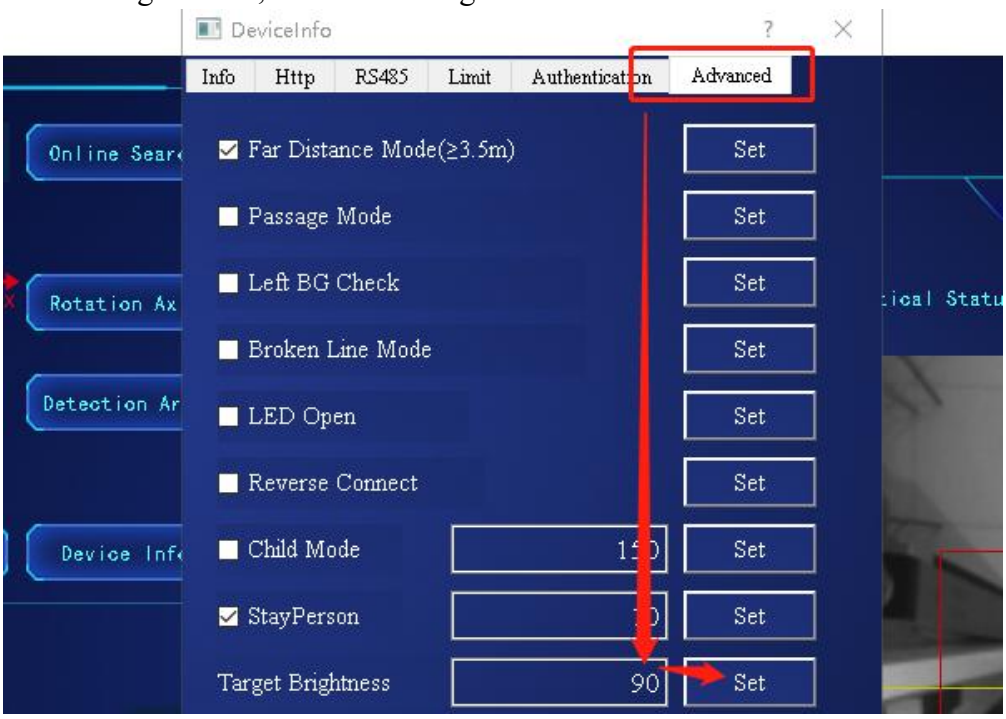


Figure 2-45 Example of exposure target value setting

2.4.19 Gray scale threshold setting

The grayscale image threshold is used to set the depth map output of the device. This value must be set

smaller than the exposure target value, otherwise the depth map of the device will become a black image, and the passenger flow will not be counted at this time. Therefore, be sure to set this parameter correctly, and it is recommended to set the value 10 smaller than the exposure target value. The method for setting the grayscale threshold is as follows: select the “Advanced Functions” tab, fill in the threshold in the grayscale threshold edit box, and finally click the “Settings” button, as shown in Figure 2-46.

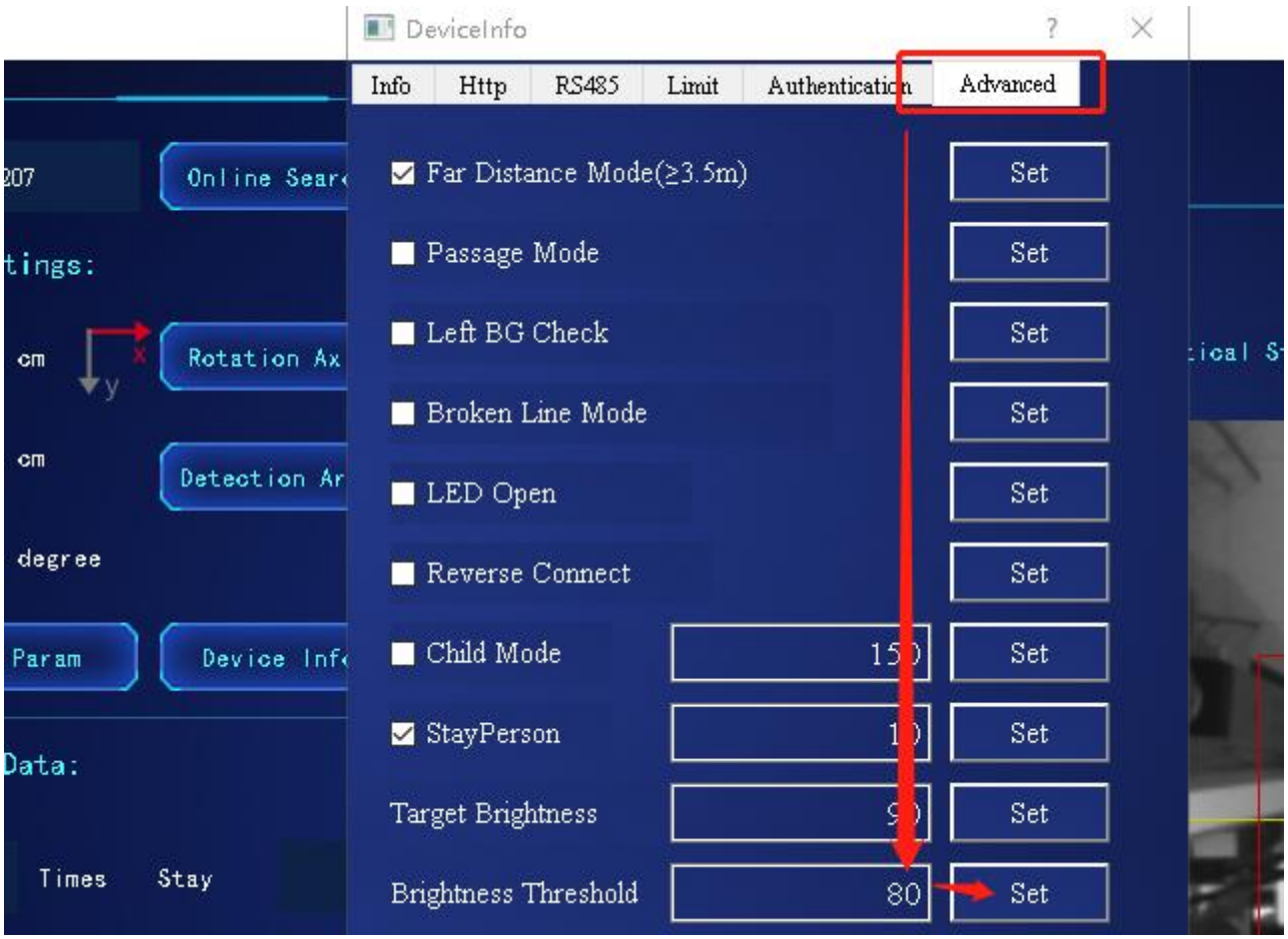


Figure 2-46 Example of grayscale threshold setting

2.4.20 Key frame interval setting

Key frame interval is used to set the key frame interval of RTSP video stream, the default is 20. The setting method is: select the “Advanced Function” tab, then fill in the key frame interval in the key frame interval edit box, and finally click the “Setting” button, as shown in Figure 2-47. Note: After setting this function, the device will automatically restart, and it will take effect after restarting.

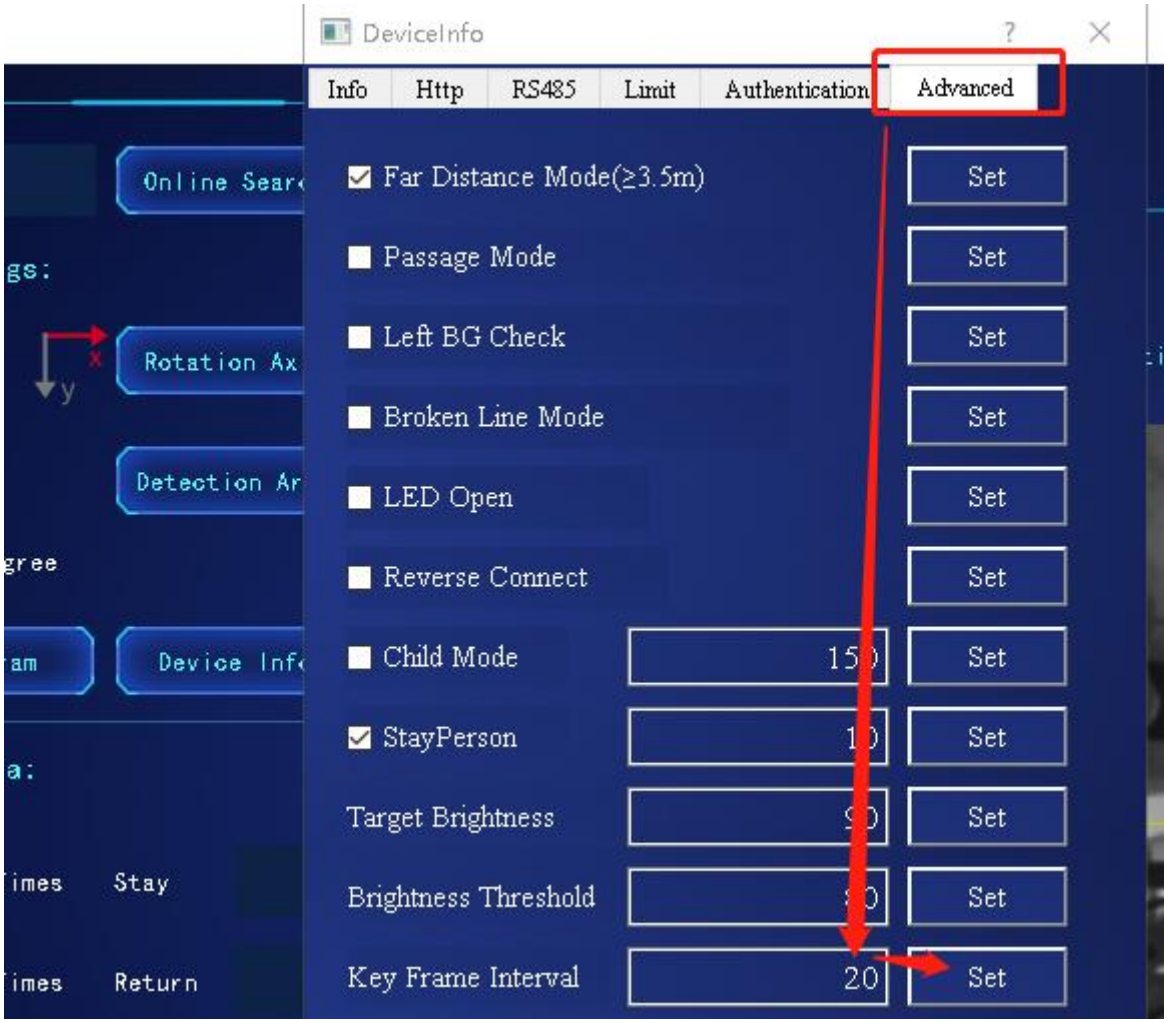


Figure 2-47 Example of key frame interval setting

2.4.21 IO delay setting

In the MODBUS protocol of RS485, there are command items to read IO on-delay and off-delay, and the value of IO delay is set accordingly. The setting method is: The setting method is: select the “Advanced Function” tab, then fill in the on-delay in the on-delay edit box, and fill in the off-delay in the off-delay edit box, and finally click the “Setting” button, as shown in Figure 2- 48.

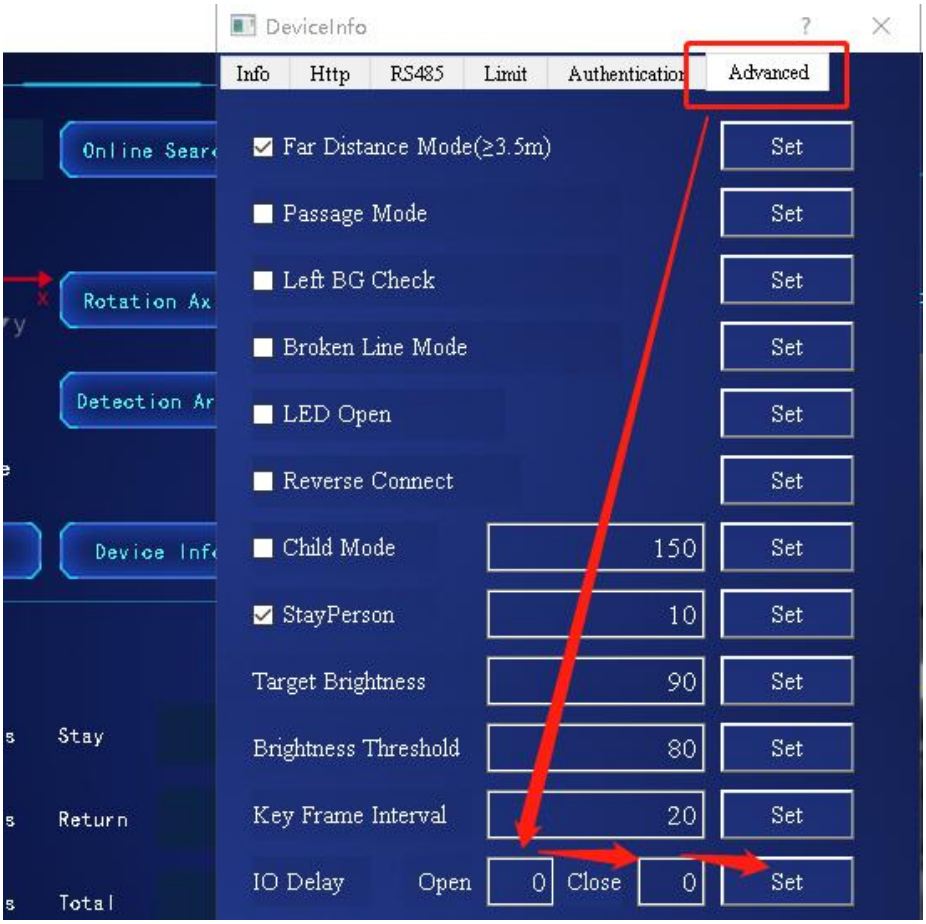


Figure 2-48 Example of IO delay setting

2.4.23 Network Information Settings

The device supports wired and wireless networks, and the two network settings are as follows.

(1) Wired network settings

Click the “Modify Network Parameters” button to select the wired network;

Select the type of IP acquisition, if it is a static IP, fill in the information related to the static IP, including IP address, subnet mask, default gateway, DNS1 and DNS2. If it is dynamically obtained, select “DHCP” and do not need to fill in IP related information;

Click the “Save Settings” button to complete the wired network settings. At this point, a message box indicating that the setting is successful will pop up, and then the device will restart to take effect, as shown in Figure 2-49.

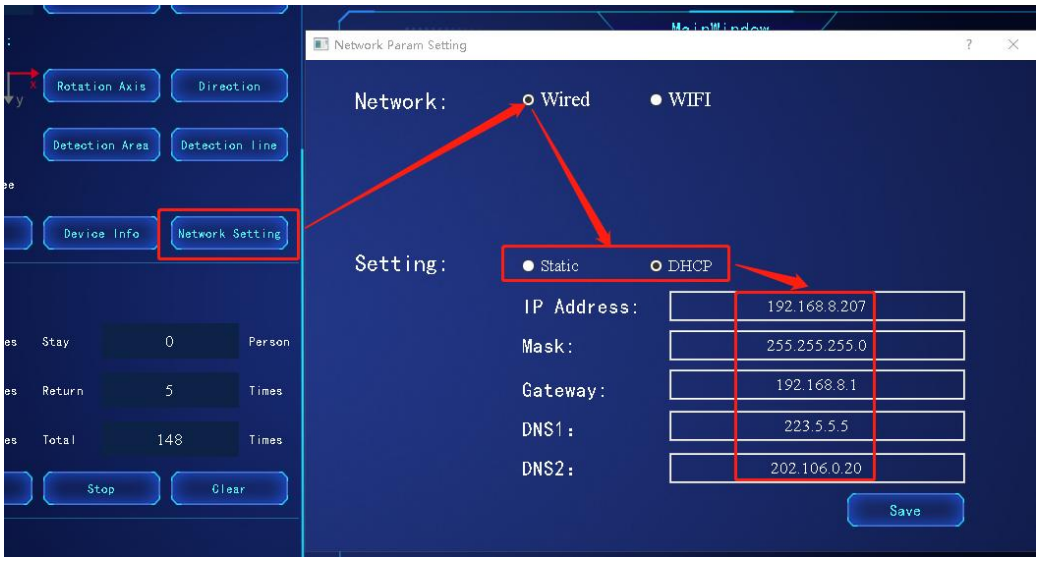


Figure 2-49 Example of wired network settings

(2) Wireless network settings

• Try a wired network connection device first, and connect to the device;

• Click the “Modify Network Parameters” button to select the wireless network;

• Select the WIFI name to be connected, and enter the WIFI password;

• Click the “WIFI Settings” button, and the WIFI verification prompt progress bar will pop up, as shown in Figure 2-50;

• After about 10 seconds, a wifi setting result prompt box will pop up, as shown in Figure 2-51. If the verification is successful, you can go to the next step, otherwise check whether the wifi password is correct and reset it.

• Select the type of IP acquisition, if it is a static IP, fill in the information related to the static IP, including IP address, subnet mask, default gateway, DNS1 and DNS2. If it is dynamically obtained, select “DHCP” and do not need to fill in IP related information;

• Click the “Save Settings” button to complete the wired network settings. At this point, a prompt box of successful setting will pop up, and then the device will restart to take effect.

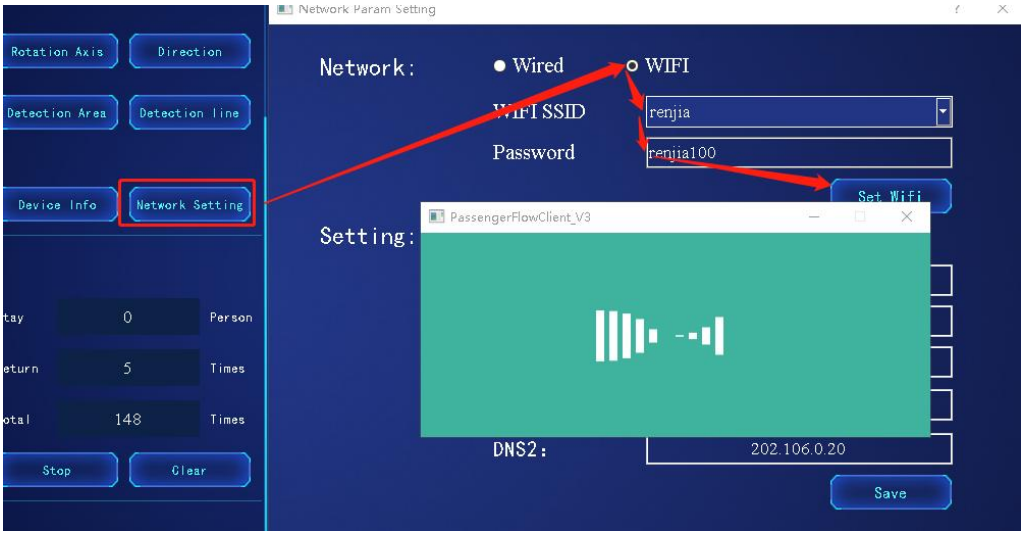


Figure 2-50 Example of WIFI settings

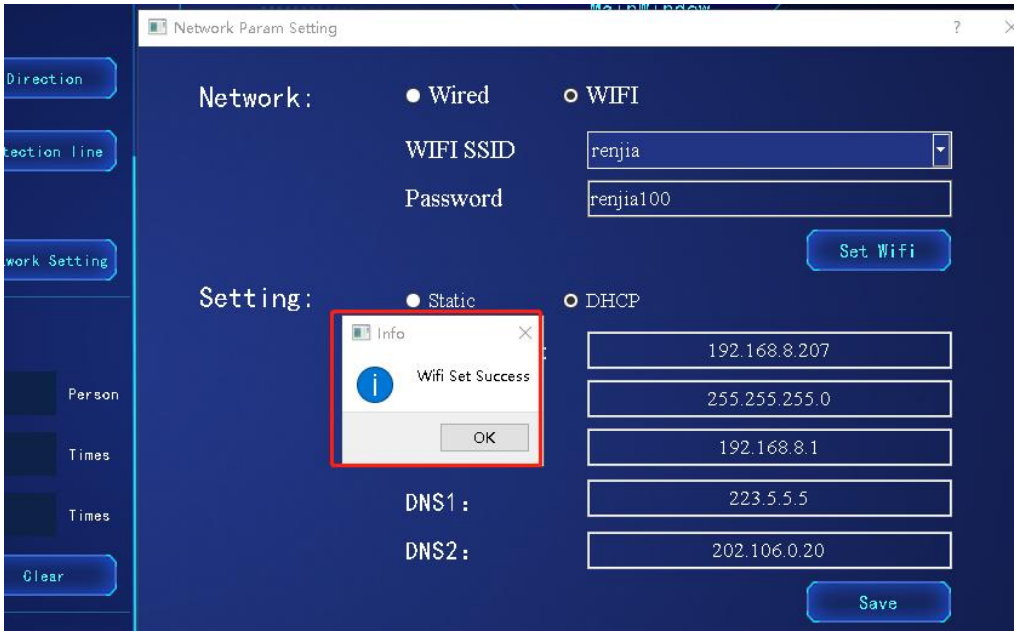


Figure 2-51 Example of successful WIFI verification

2.5 Software mode setting

2.5.1 Debug mode setting

The debugging mode is used to troubleshoot passenger flow counting problems. When this mode is turned on, the information of passenger flow detection can be displayed in real time, including head detection frame and height and other information. The way to enable it is: tick the “Debug Mode” check box. At this time, the software displays “Debug”, as shown in Figure 2-52.

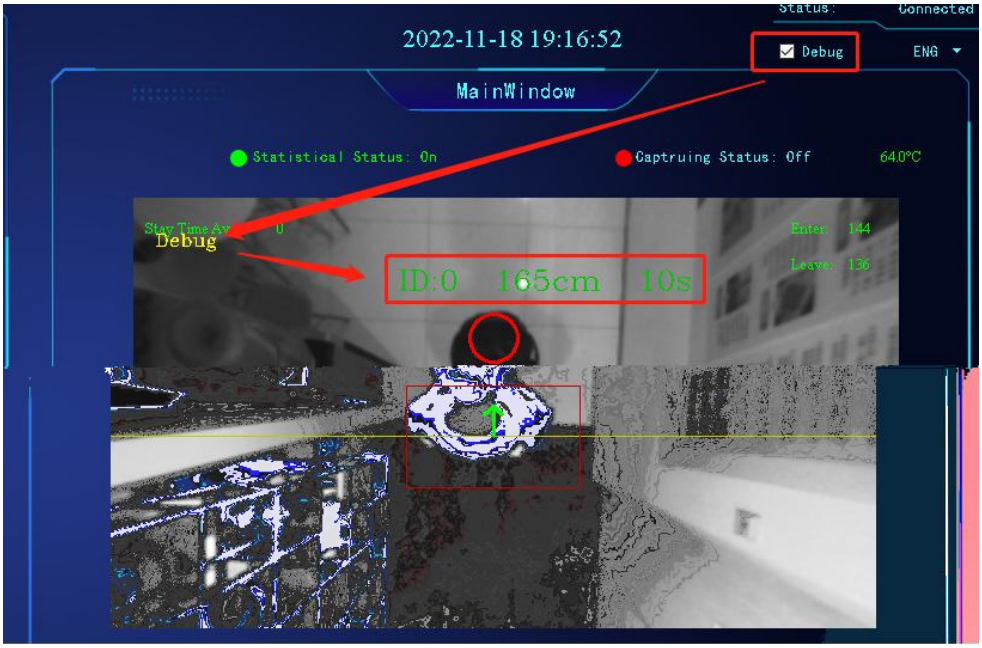


Figure 2-52 Debug mode setting example

2.5.2 Language switching settings

The software supports switching between Chinese and English. The switching method is: click the "Language Selection" drop-down box, and then select the language to be switched. After the selection is completed, the software will switch to the corresponding language display, and keep the current language configuration when it is opened next time, as shown in Figure 2-53.

Figure 2-53 Example of language switching settings

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

•Reorient or relocate the receiving antenna.

•Increase the separation between the equipment and receiver.

•Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

•Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RF Exposure Information

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.