

New Features and Updates

for ZKBio CVSecurity 5.0.0_R

Previous Version: ZKBioSecurity V5000 4.0.0

Date: March 2022

Doc Version: 1.0

English

Thank you for choosing our product. Please read the instructions carefully before operation. Follow these instructions to ensure that the product is functioning properly. The images shown in this manual are for illustrative purposes only.



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About the Company

ZKTeco is one of the world's largest manufacturers of RFID and Biometric (Fingerprint, Facial, and Finger-vein) readers. Product offerings include Access Control readers and panels, Near & Far-range Facial Recognition Cameras, Elevator/floor access controllers, Turnstiles, License Plate Recognition (LPR) gate controllers and Consumer products including battery-operated fingerprint and face-reader Door Locks. Our security solutions are multi-lingual and localized in over 18 different languages. At the ZKTeco state-of-the-art 700,000 square foot ISO9001-certified manufacturing facility, we control manufacturing, product design, component assembly, and logistics/shipping, all under one roof.

The founders of ZKTeco have been determined for independent research and development of biometric verification procedures and the productization of biometric verification SDK, which was initially widely applied in PC security and identity authentication fields. With the continuous enhancement of the development and plenty of market applications, the team has gradually constructed an identity authentication ecosystem and smart security ecosystem, which are based on biometric verification techniques. With years of experience in the industrialization of biometric verifications, ZKTeco was officially established in 2007 and now has been one of the globally leading enterprises in the biometric verification industry owning various patents and being selected as the National High-tech Enterprise for 6 consecutive years. Its products are protected by intellectual property rights.

About the Manual

This manual introduces the **New Features and Updates for ZKBio CVSecurity 5.0.0_R**.

All figures displayed are for illustration purposes only. Figures in this manual may not be exactly consistent with the actual products.

Document Conventions

Conventions used in this manual are listed below:

GUI Conventions

For Software	
Convention	Description
Bold font	Used to identify software interface names e.g., OK , Confirm , Cancel .
>	Multi-level menus are separated by these brackets. For example, File > Create > Folder.
For Device	
Convention	Description
< >	Button or key names for devices. For example, press <OK>.
[]	Window names, menu items, data table, and field names are inside square brackets. For example, pop up the [New User] window.
/	Multi-level menus are separated by forwarding slashes. For example, [File/Create/Folder].

Symbols






Convention	Description
	This represents a note that needs to pay more attention to.
	The general information which helps in performing the operations faster.
	The information which is significant.
	Care taken to avoid danger or mistakes.
	The statement or event that warns of something or that serves as a cautionary example.

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1 Key Updates

Implemented Change	Description
Intelligent Video	Compare ZKBiosecurity VMS: <ol style="list-style-type: none">1. "Crowd detection" includes crowd density detection, crowd movement detection and heat maps.2. "Smart target search" supports searching targets by gender, age, hairstyle, mask, glasses, hat.3. "Smart vehicle detection" supports vehicle search and detection by multi-credential such as, plate number, vehicle type, vehicle brand, vehicle colour, etc.4. Supports behaviour analysis such as line crossing detection, intrusion detection, object left detection, object remove detection, region entrance, region exiting, rapid movement, wandering detection, and alarm linkage for abnormal behaviour.5. Supports intelligent reserve image search function.6. Maximum supports 1024 video channels, license-free for the first 64 channels, support 16 channels real-time playback simultaneously.
Intelligent Scene	<ol style="list-style-type: none">1. Tailing detection: Facial recognition record can cross-check with access control record to validate any personnel enter without access control record.2. Perimeter Protection Function: smart video analysis with line crossing detection to detect anyone crossing the perimeter with real-time snapshots or short videos for crossed line objects, an intelligent dashboard and detailed summary reports.3. Personnel control function: Facial recognition function cross-check with allowed list, prohibited list and strangers to prompt notifications, alerts, real-time snapshot and summary reports and detailed summary reports.4. Attendance Checking Function: Real-time checking personnel attendance in the delegated area, intelligent dashboard .5. People counting: Dynamically count the number of people in the area, and alarm when the number of people reaches the set value .6. "Advanced smart target search" in the intelligent scene module provide more compensative functions and supports the full-platform event search of multi-credential such as, person's name, ID number, reverse image search, gender, age, mask, glasses, jacket colour, and trousers colour, and generating detail person trajectory .
Attendance	The video capture records can be considered as an attendance log when users forget to check in/check out on attendance devices.
API	<ol style="list-style-type: none">1. Support Dynamic QR Code.2. Support departure employee.3. Support Access Level sync to the device.4. Support attendance exception application interface (leave, overtime. etc).5. The parking module supports adding, deleting, and changing the license plate number of personnel.
Personnel	<ol style="list-style-type: none">1. New add List Library to manage pass or prohibit people.2. Support person ID starts with 0, like 00001.

2 Functional Update Details

2.1 Intelligent Video Module

For details about the following function Settings, check the ZKBio CVSecurity operation guide.

2.1.1 Video Preview

- 1) Support Cycle to switch multiple camera surveillance images.
- 2) Support PTZ Control and Video enlargement.
- 3) Support Voice Talk and Voice Broad.
- 4) Support a maximum of 64 channels of video preview at the same time.



Figure 2.1.1 Vide Preview

2.1.2 Intelligent Video Task Setting

- 1) Set front-end intelligent tasks on the IPC web UI.
- 2) The back-end intelligent task configuration is as follows:

Device > Select a **Main Device** > Click **More** > **Task Management** > **New** > Set **Behavior Analysis/**
Face Recognition/Video Structure.

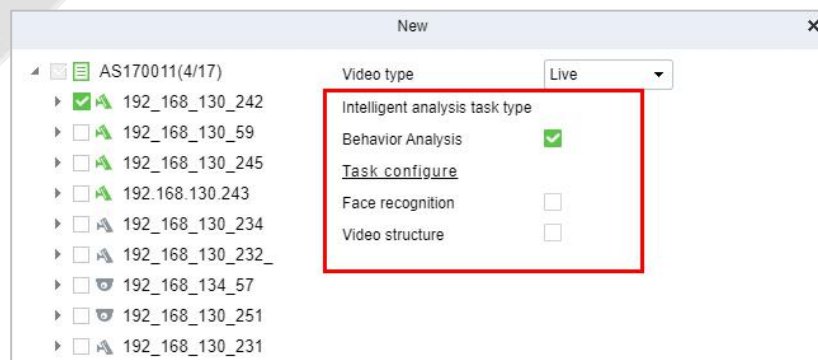
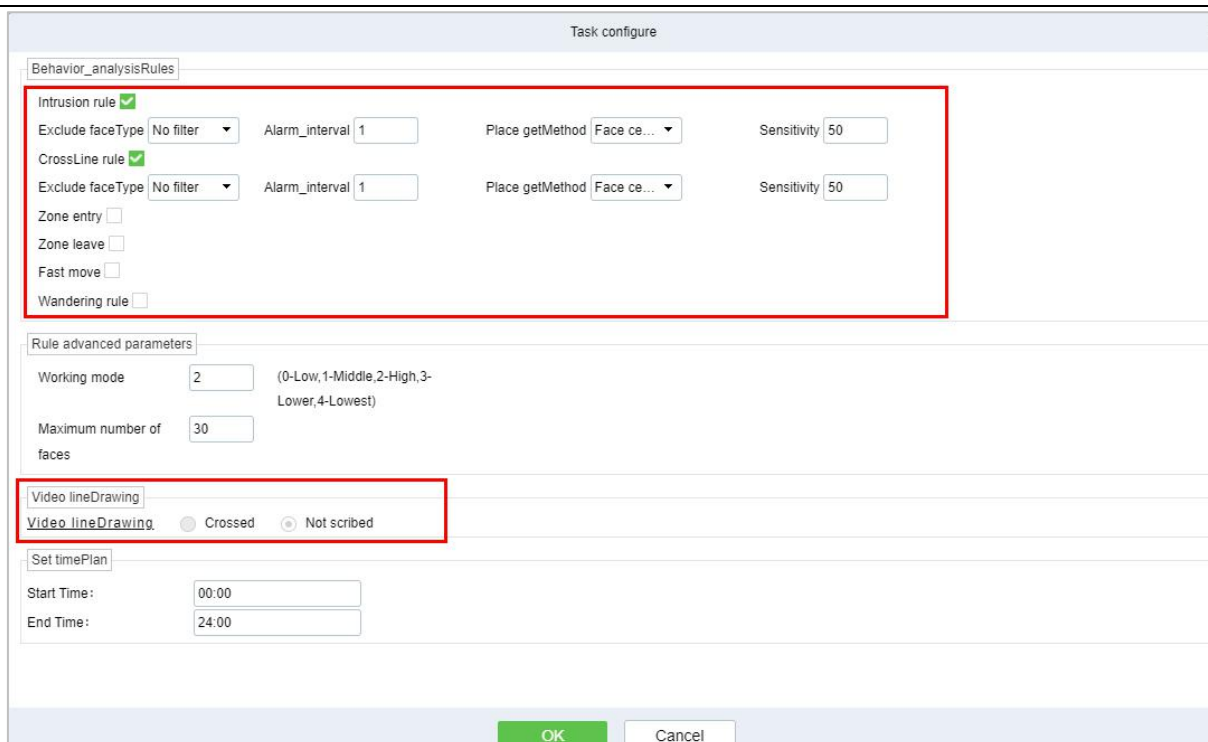


Figure 2.1.2-1 New IVS Task



The 'Task configure' dialog box is used to set up an IVS task. It contains several sections:

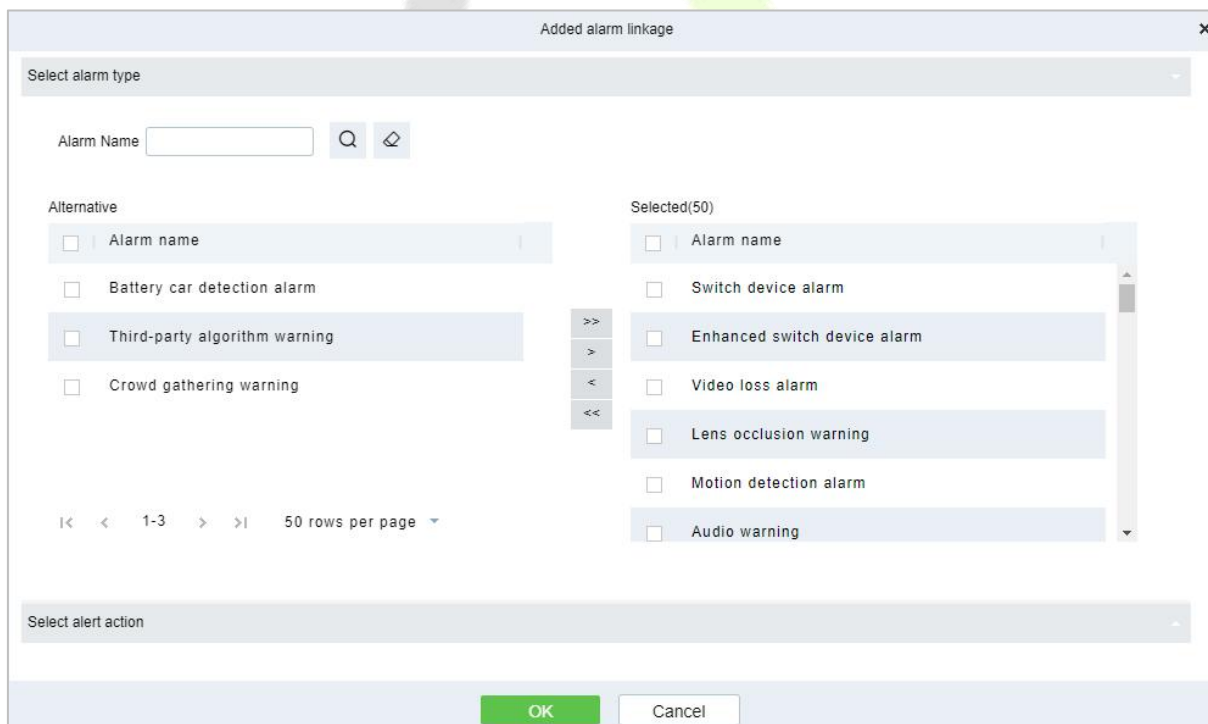
- Behavior_analysisRules:** This section is highlighted with a red box. It includes:
 - Intrusion rule:** Checked. Includes 'Exclude faceType' (No filter), 'Alarm_interval' (1), 'Place getMethod' (Face ce...), and 'Sensitivity' (50).
 - CrossLine rule:** Checked. Includes 'Exclude faceType' (No filter), 'Alarm_interval' (1), 'Place getMethod' (Face ce...), and 'Sensitivity' (50).
 - Zone entry:** Unchecked.
 - Zone leave:** Unchecked.
 - Fast move:** Unchecked.
 - Wandering rule:** Unchecked.
- Rule advanced parameters:** Includes 'Working mode' (2, with a note: (0-Low, 1-Middle, 2-High, 3-Lower, 4-Lowest)) and 'Maximum number of faces' (30).
- Video lineDrawing:** This section is also highlighted with a red box. It includes 'Video lineDrawing' (radio button) and 'Crossed' (radio button).
- Set timePlan:** Includes 'Start Time' (00:00) and 'End Time' (24:00).

At the bottom, there are 'OK' and 'Cancel' buttons.

Figure 2.1.2-2 New IVS Task

2.1.3 Support Intelligent Video Analysis Alarm Linkage

Device > Select a **Main Device** > Click **More** > **Alarm Management** > Set **Alarm Linkage**.



The 'Added alarm linkage' dialog box is used to configure alarm linkage. It includes:

- Select alarm type:** A dropdown menu.
- Alarm Name:** A text input field with search and edit icons.
- Alternative:** A list of alarm types with checkboxes:
 - Alarm name
 - Battery car detection alarm
 - Third-party algorithm warning
 - Crowd gathering warning
- Selected(50):** A list of alarm types with checkboxes:
 - Alarm name
 - Switch device alarm
 - Enhanced switch device alarm
 - Video loss alarm
 - Lens occlusion warning
 - Motion detection alarm
 - Audio warning
- Select alert action:** A dropdown menu.

At the bottom, there are 'OK' and 'Cancel' buttons.

Figure 2.1.3-1 Set Alarm Type

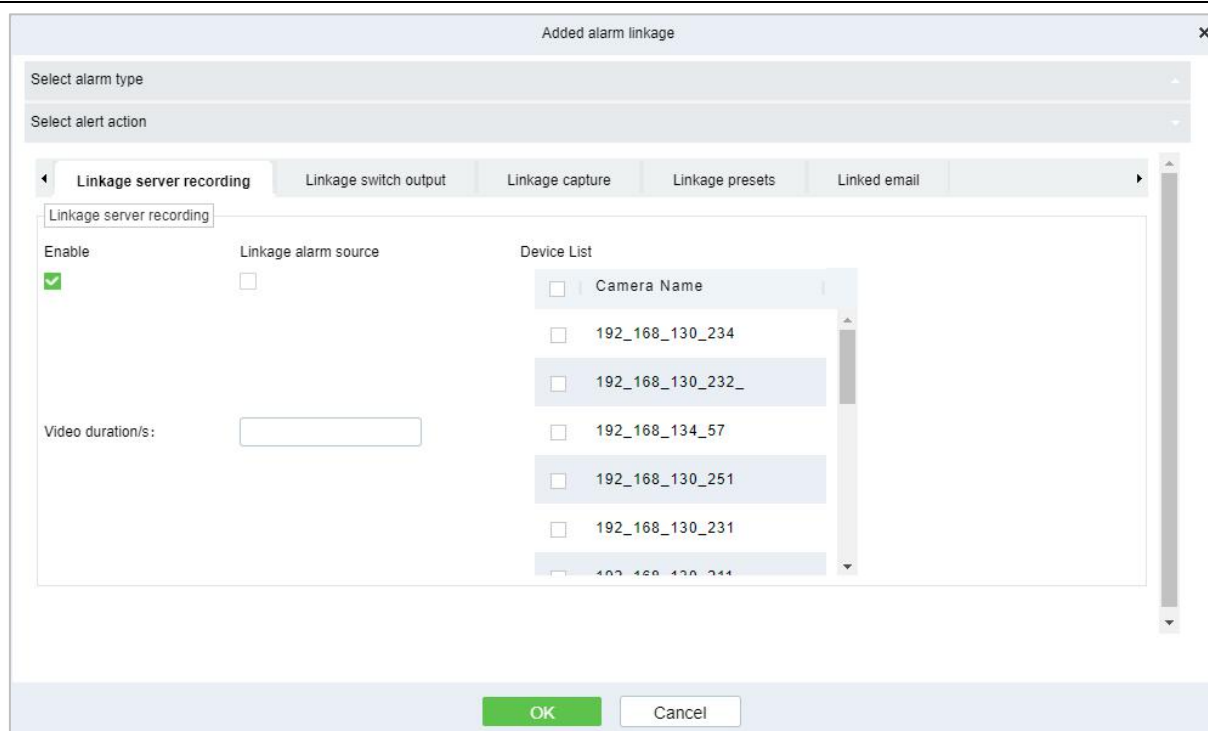


Figure 2.1.3-2 Set Alarm Action

2.1.4 Ream-time Alarm Monitoring

• Mixed Detection

Mainly used to display the live video of each camera and the push records of three types of events: target recognition, overall target, vehicle detection.

Intelligent Video > Intelligent Application > Mixed Detection:

The Mixed Detection area on the left displays two different tab pages, which are the device list - as shown in Figure 2.1.4-1, and Target Recognition List - Figure 2.1.4-2.



Figure 2.1.4-1 Mixed Detection - Device List

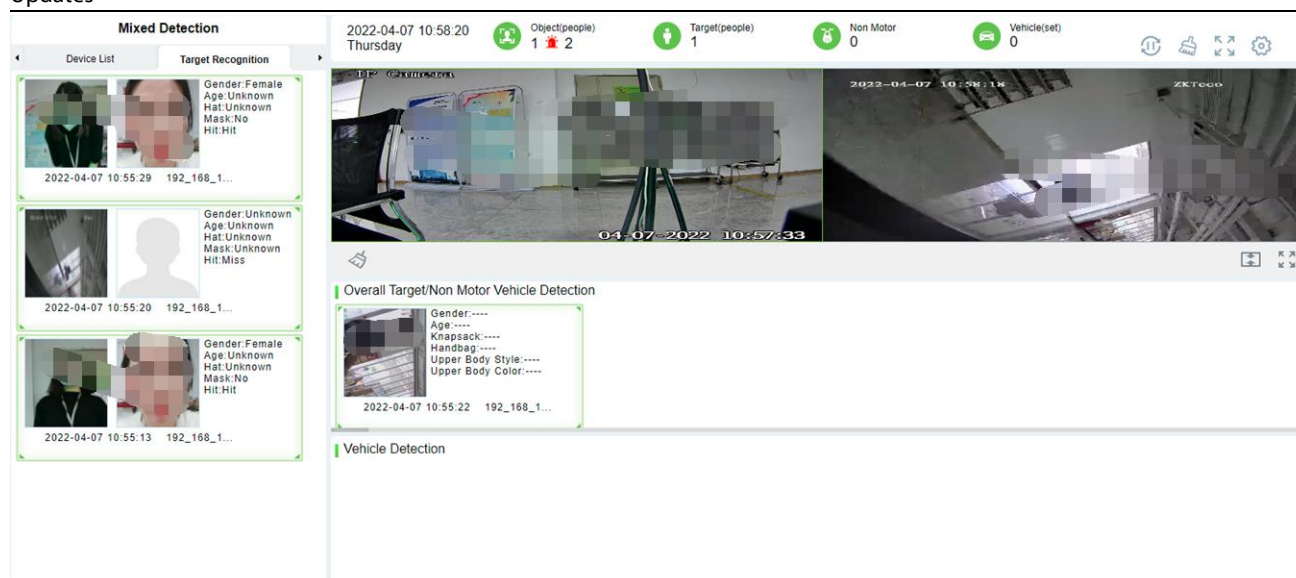


Figure 2.1.4-2 Mixed Detection - Target Recognition

Click "⚙️" on the right side to customize the parameters displayed by the configuration event, as shown in Figure 2.1.4-3.

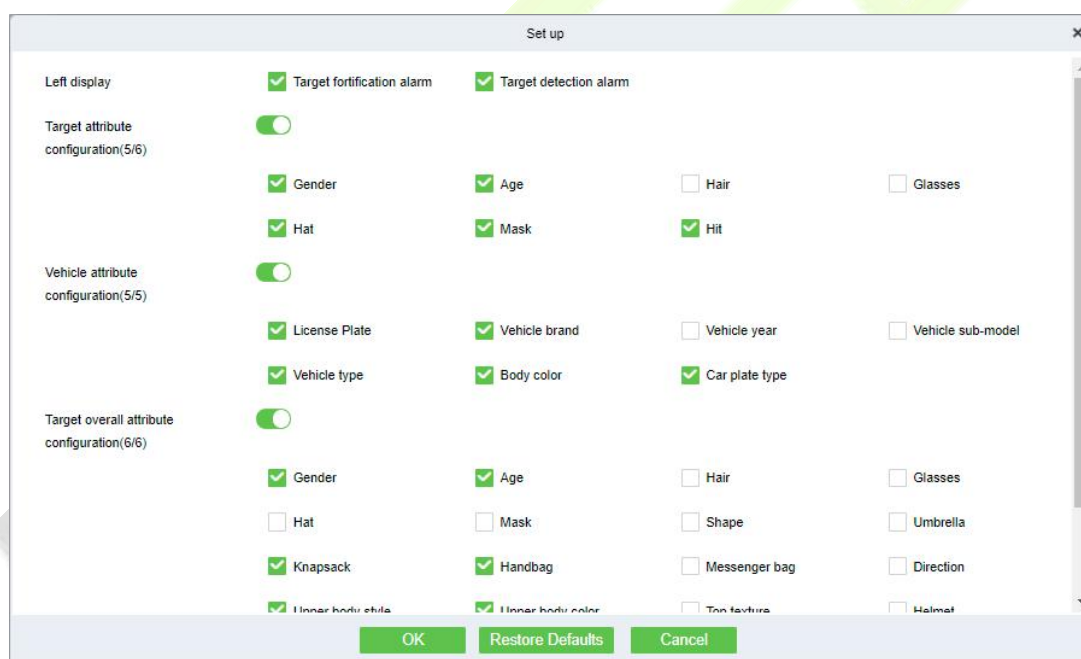


Figure 2.1.4-3 Parameter settings

And then, click **OK** to complete the custom event parameter configuration.

• Live Alarm

On the **[Live Alarm]** interface, the system can display the latest reported alarms, and the alarm information on the interface is refreshed in real time (up to 100 alarms are displayed).

Intelligent > Intelligent Application > Live Alarm.

You can see the interface as Figure 2.1.4-4.

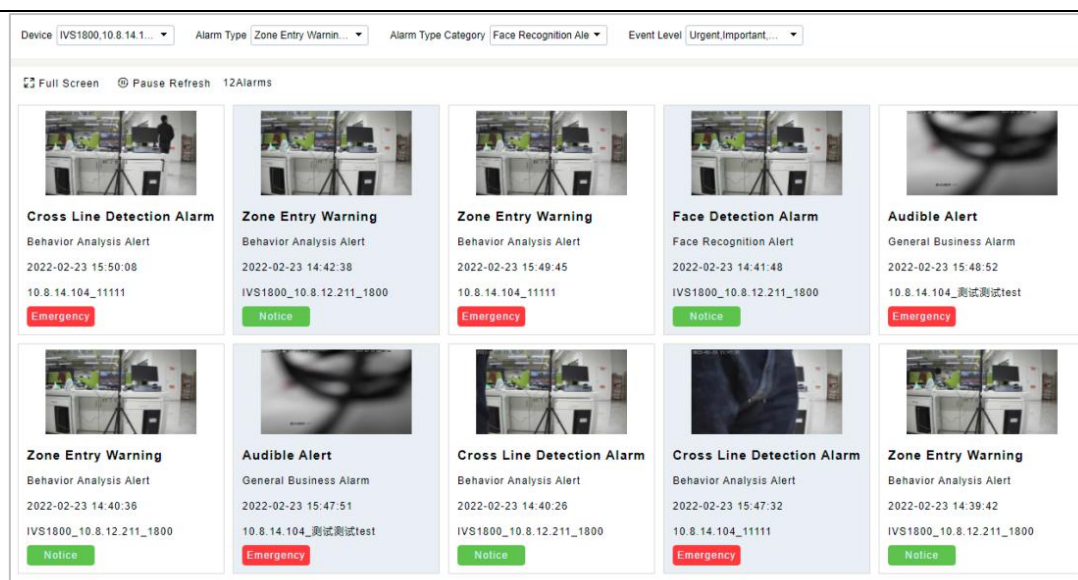


Figure 2.1.4 -4 Live Alarm

Double click the Alarm, you can see the details.

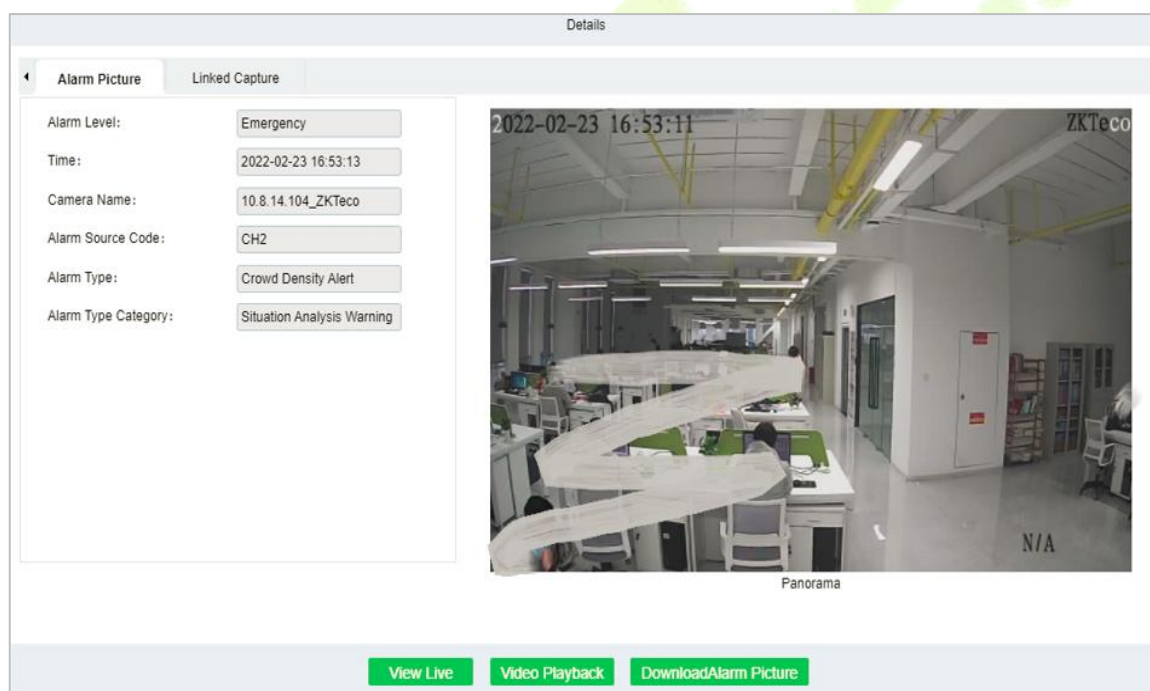


Figure 2.1.4 - 5 Alarm Details

2.1.5 Historical Alarms

Historical alarms include tabs such as "Face Recognition Alarm", "Vehicle Recognition Alarm", "Behavior Analysis Alarm", "General Service Alarm", "Crowd Situation Alarm", and "Third-Party Algorithm Alarm".

Note: The records are stored in the NVR/AS1700, if offline or powered off, the historical records cannot be queried.

Intelligent Video > Statistics > Historical Alarm > Search.

You can see the interface as Figure 2.1.5-1.

Intelligent Video / Statistics / Historical Warning

Time From 2022-03-19 00:00:00 To 2022-03-26 23:59:59 Device AS1700 Channel 192_168_130_211,1... Alarm type Face control Type details Face Recogniti... More

Export

Alarm Name	Channel Name	Snapshot Photo	Panorama	Alarm Time	Event Level	List Library Name	Similarity	Operations
Target recognition : 192_168_130_211				2022-03-26 10:26:0	Emergency			
Target recognition : 192_168_130_211				2022-03-26 10:21:0	Emergency			
Target recognition : 192_168_130_211				2022-03-26 09:54:4	Emergency			
Target recognition : 192_168_130_211				2022-03-26 09:37:4	Emergency			
Target recognition : 192_168_130_211				2022-03-26 09:36:3	Emergency	Pass List	83.08	
Target recognition : 192_168_130_211				2022-03-26 09:34:0	Emergency			
Target recognition : 192_168_130_211				2022-03-26 09:26:0	Emergency			
Target recognition : 192_168_130_211				2022-03-26 09:25:3	Emergency			
Target recognition : 192_168_130_211				2022-03-26 09:22:0	Emergency			
Target recognition : 192_168_130_211				2022-03-26 09:13:2	Emergency	Pass List	78.01	
Target recognition : 192_168_130_211				2022-03-26 09:09:3	Emergency			
Target recognition : 192_168_130_211				2022-03-26 09:04:5	Emergency			
Target recognition : 192_168_130_211				2022-03-26 09:04:3	Emergency			
Target recognition : 192_168_130_211				2022-03-26 09:04:1	Emergency			
Target recognition : 192_168_130_211				2022-03-26 08:59:2	Emergency			
Target recognition : 192_168_130_211				2022-03-26 08:58:5	Emergency			
Target recognition : 192_168_130_211				2022-03-26 08:58:2	Emergency			

Figure 2.1.5-1 Target Armed Alarm Results

Click an Alarm to pop up the **[Alarm Details]** interface. As shown in Figure 2.1.5-2.

Details

Alarm Picture

Capture

Whitelist

Time: 2022-02-23 15:56:34

Camera Name: CH3

Alarm Type: Target Recognition Alarm

Alarm Level: Important

Fortify Object:

Panorama

Search For Pictures With Pictures View Live Video Playback

Figure 2.1.5-2 Alarm Details

2.1.6 Target Search

Note:

- Target recognition algorithm plug-in has been installed on the AS1700 through the OMU Portal.
- The personnel library and its personnel information have been added to the list library.
- Need to set the task of Facial recognition and video structuring, **Device** > Select **AS1700** > **More** > **Task Management** > **New** > Select **Facial Recognition** and **Video Structuring**.
- For the scene using the front-end Intelligent camera, the related configuration of picture storage has been completed. Specific configuration: select "**Device Management** in the **[Intelligent Video]** module > **Main Device**", select **AS1700**, click **More**, select **Storage Management**, select the camera, and complete the configuration of the stored pictures.

• Face Search

Intelligent Video > Search > Face search, People can be searched by gender, age, mask, glasses, and hat.

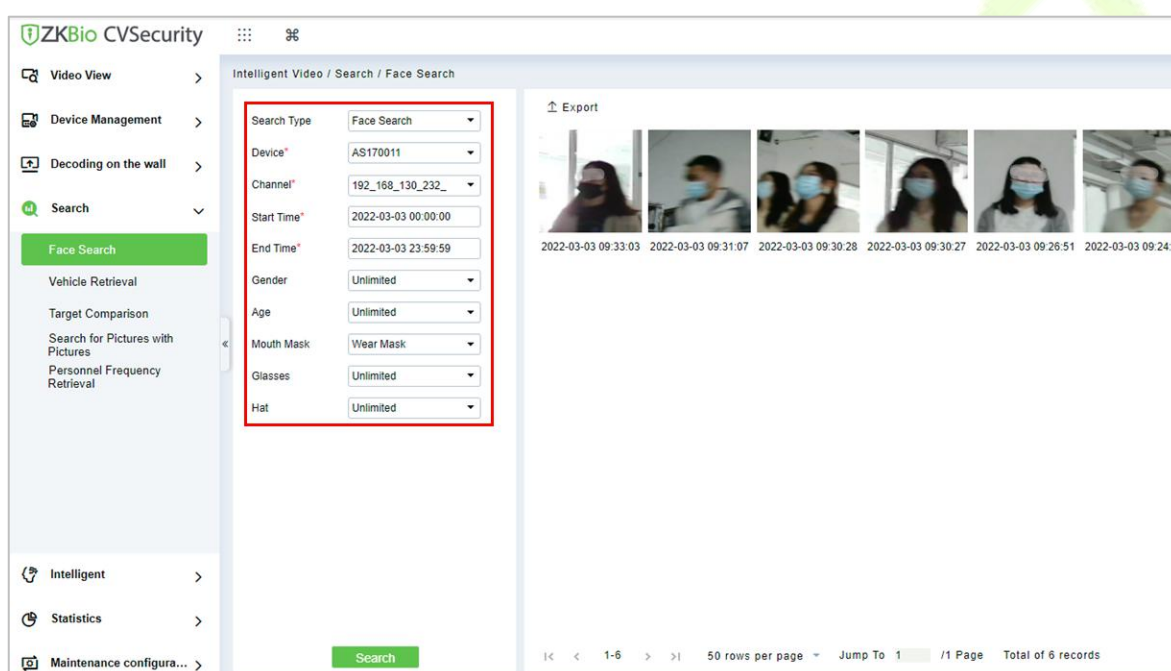


Figure 2.1.6-1 Face Search

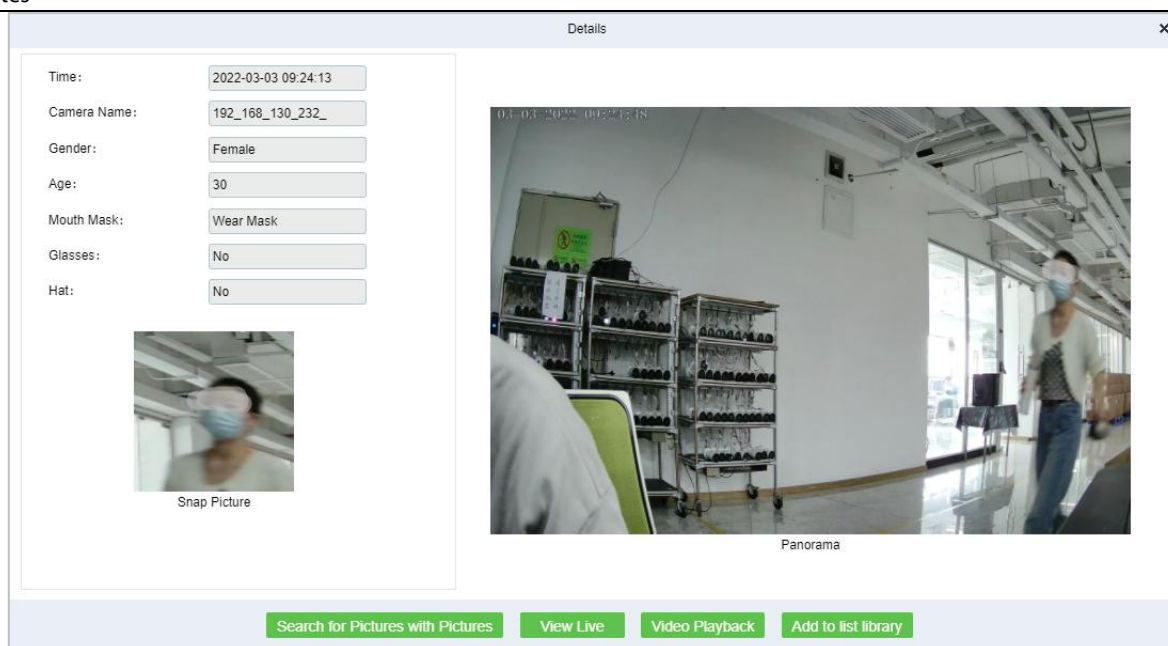


Figure 2.1.6-2 Face Search Details

Vehicle Retrieval

Retrieve vehicle information in snapshot library and vehicle library. The vehicle information in the snapshot library is generated by the AS1700 intelligent analysis task, and the vehicle information in the vehicle library is the vehicle information entered in the vehicle list library.

After configuring the AS1700 video structuring task, **Intelligent Video > Search > Vehicle Retrieval**.

You can search for vehicles and view details by license plate, brand, car type, car color and so on.

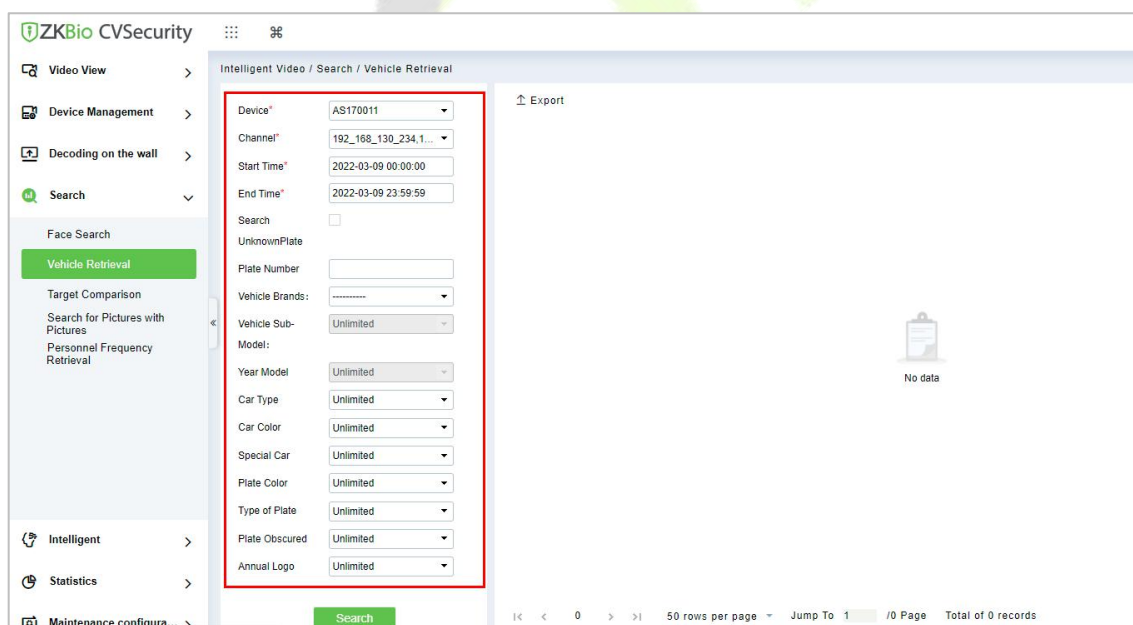


Figure 2.1.6-3 Vehicle Retrieval

• Target Comparison

Users can use the 1:1 face comparison feature:

- 1) Compare the two uploaded target images.
- 2) Compare the uploaded target image with the faces in the personnel list library.

According to the obtained similarity results, the system assists the human to determine whether it is the same person.

Intelligent Video > Search > Target Comparison, upload a recent photo to compare.

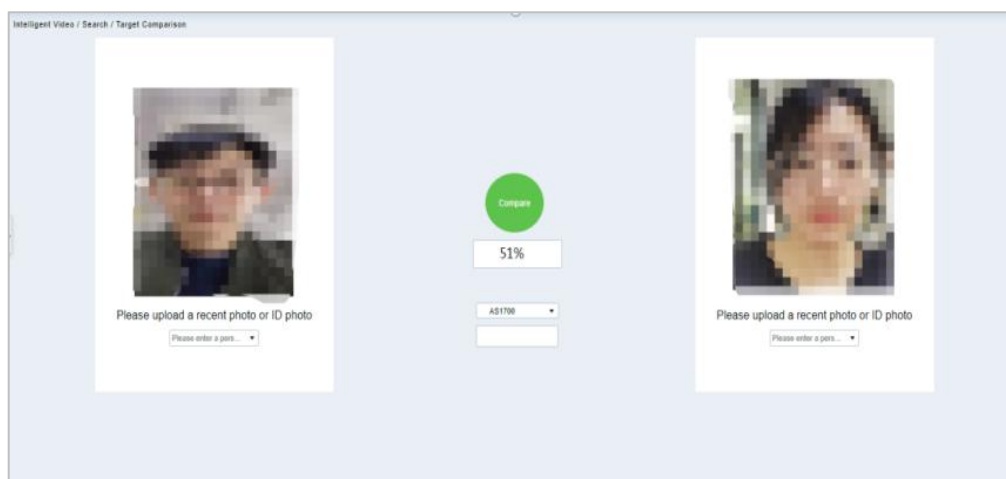


Figure 2.1.6-4 Target Comparison

• Search by Picture

Through uploaded photos, the search brings up records of similar images in the database.

Intelligent Video > Search > Search by Picture, upload photo to search.

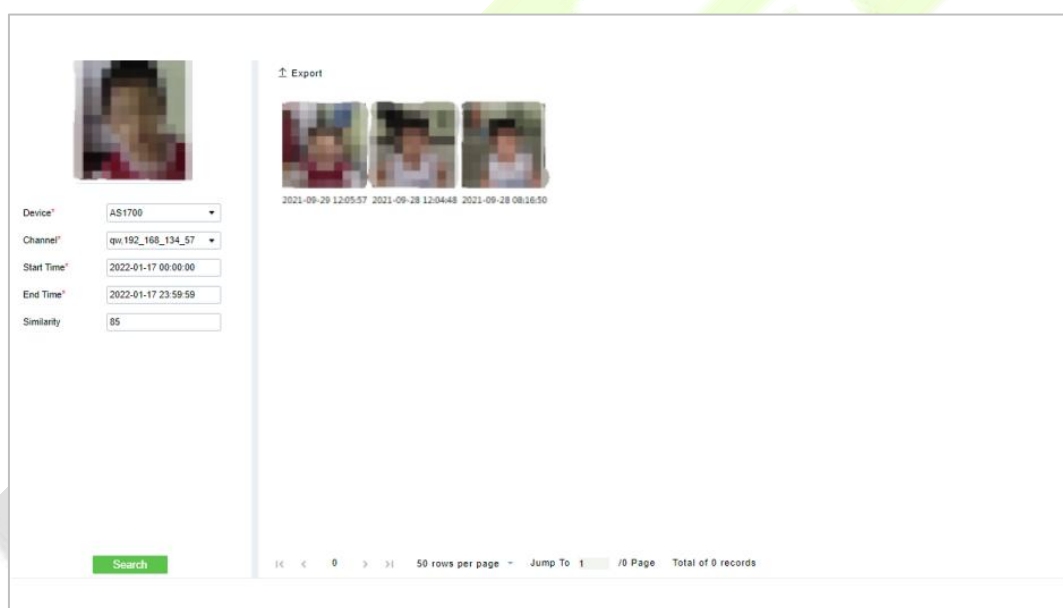


Figure 2.1.6-5 Search by picture

2.1.7 Personnel Frequency Retrieval

Supports fast counting of customer access frequency, which is convenient for merchants to identify high-quality customer sources. (Only NVR800 supported)

Intelligent Video > Search > Personnel Frequency Retrieval, quickly count the customer access frequency.

Intelligent Video / Search / Personnel Frequency Retrieval

NVR800* 10.8.14.104

Channel* est,ZKTeco...

List Library

Start Time* 2022-02-22 00:00:00

End Time* 2022-02-24 23:59:59

Min Interval(s) 0

Similarity 85

Gender

Age

Mouth Mask

Hair Style

Glasses

Hat

Maximum Display 100

Quantity

Search

Refresh

CH32

Frequency:3

CH32

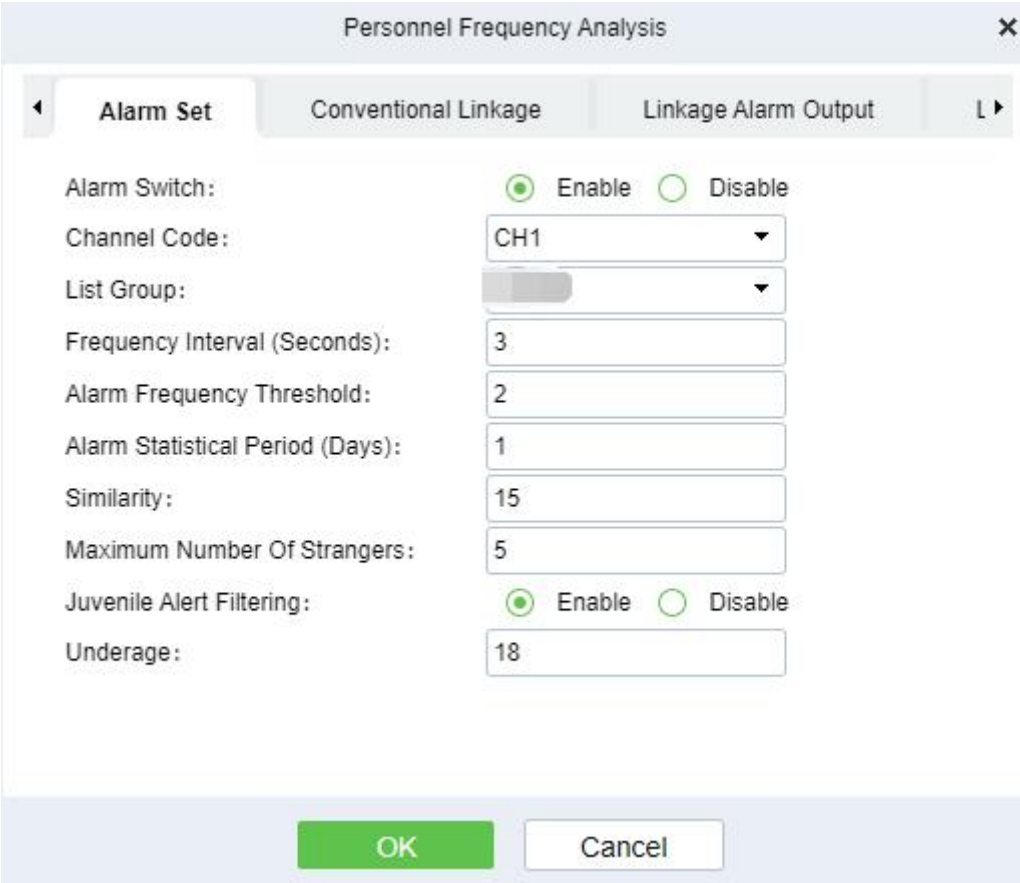
Frequency:1

Figure 2.1.7-1 Personnel Frequency Retrieval

2.1.8 Personnel Frequency Analysis

Supports alerts to customers with high access frequency, which is convenient for merchants to identify high-quality customer sources.

Intelligent Video > Device > Main Device > select NVR800 > More > Personnel Frequency Analysis.



The dialog box titled "Personnel Frequency Analysis" has three tabs: "Alarm Set", "Conventional Linkage", and "Linkage Alarm Output". The "Alarm Set" tab is active. It contains the following fields and controls:

- Alarm Switch: ☒ Enable ☐ Disable
- Channel Code: CH1 (dropdown)
- List Group: (dropdown)
- Frequency Interval (Seconds): 3 (text input)
- Alarm Frequency Threshold: 2 (text input)
- Alarm Statistical Period (Days): 1 (text input)
- Similarity: 15 (text input)
- Maximum Number Of Strangers: 5 (text input)
- Juvenile Alert Filtering: ☒ Enable ☐ Disable
- Underage: 18 (text input)

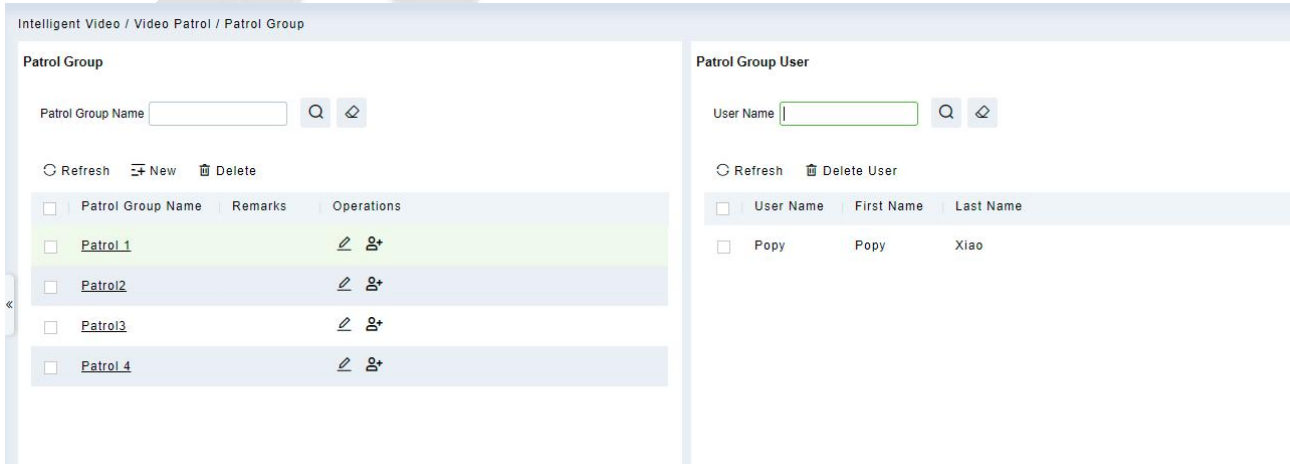
At the bottom are "OK" and "Cancel" buttons.

Figure 2.1.8-1 People frequency analysis

2.1.9 Video Patrol

On the preset path, you can check the punch-in by real-time preview of the camera remotely to achieve the same patrol task as the traditional punch-in effect.

Intelligent Video > Video Patrol > Patrol Group: create a patrol group to add patrol personnel.



The interface shows the "Patrol Group" management page. It has a breadcrumb trail: "Intelligent Video / Video Patrol / Patrol Group".

Patrol Group

Patrol Group Name: [input field] [Search] [Add]

Refresh New Delete

Patrol Group Name	Remarks	Operations
Patrol 1		[Edit] [Add User]
Patrol2		[Edit] [Add User]
Patrol3		[Edit] [Add User]
Patrol 4		[Edit] [Add User]

Patrol Group User

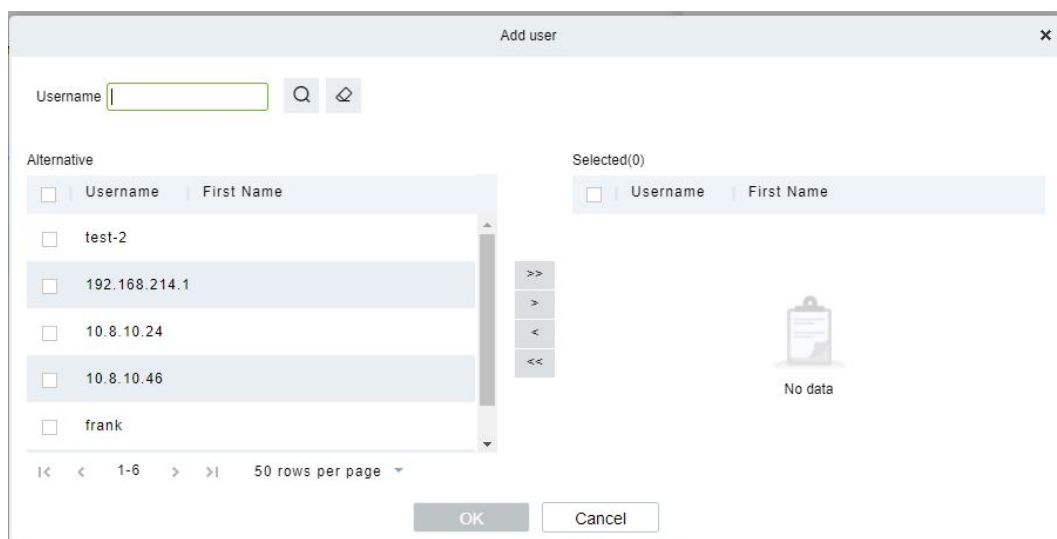
User Name: [input field] [Search] [Add]

Refresh Delete User

User Name	First Name	Last Name
Popy	Popy	Xiao

Figure 2.1.9-1 Patrol Group

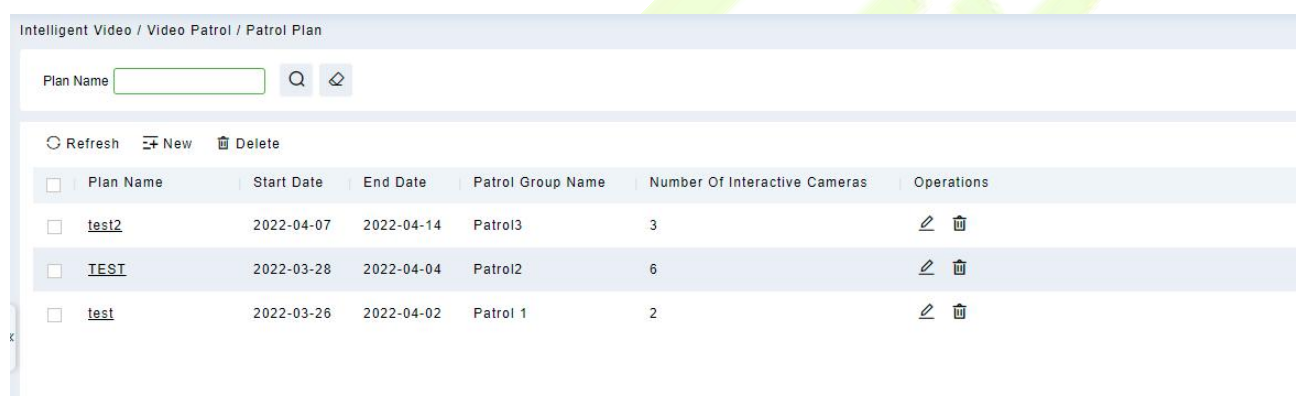
In the patrol group list, click **Add User** to enter and select to add group members.



The 'Add user' dialog box contains a search bar for 'Username' with a magnifying glass icon. Below it, there are two lists: 'Alternative' and 'Selected(0)'. The 'Alternative' list has columns for 'Username' and 'First Name' and contains five entries: 'test-2', '192.168.214.1', '10.8.10.24', '10.8.10.46', and 'frank'. The 'Selected(0)' list is currently empty. Between the lists are navigation buttons: '>>', '>', '<', and '<<'. To the right of the 'Selected(0)' list is a clipboard icon with the text 'No data'. At the bottom are 'OK' and 'Cancel' buttons.

Figure 2.1.9-2 Add User

Intelligent Video > Video Patrol > Patrol Plan, set a patrol plan to the patrol team.



The 'Patrol Plan' interface shows a search bar for 'Plan Name' and buttons for 'Refresh', 'New', and 'Delete'. Below is a table with the following data:

<input type="checkbox"/>	Plan Name	Start Date	End Date	Patrol Group Name	Number Of Interactive Cameras	Operations
<input type="checkbox"/>	test2	2022-04-07	2022-04-14	Patrol3	3	
<input type="checkbox"/>	TEST	2022-03-28	2022-04-04	Patrol2	6	
<input type="checkbox"/>	test	2022-03-26	2022-04-02	Patrol 1	2	

Figure 2.1.9-3 Patrol Plan



The 'Edit' dialog box for a patrol plan includes fields for 'Plan Name*' (test2), 'Patrol Group*' (Patrol3), 'Start Date*' (2022-04-07), and 'End Date*' (2022-04-14). There are 'Delete' and 'Delete all' buttons. Below these is a 7x24 grid representing a weekly schedule. The days of the week (Mo to Su) are listed on the left. The grid shows green bars indicating active periods: from 08:00 to 14:00 and from 16:00 to 20:00 on all days. At the bottom are 'Next Step' and 'Cancel' buttons.

Figure 2.1.9-4 New Patrol Group

Intelligent Video > Video Patrol > Real-time Patrol, online patrols are only available if the patrolman is logged into the system.

Intelligent Video / Video Patrol / Real-Time Patrol

Video Operation

2 Not Started 0 In Progress

0 Pause 0 End

Today's Patrol Task List

Op... Task List

08:20-13:32(test2)

15:05-19:42(test2)

Patrol Plan

Plan Name	Start Date	End Date	Patrol Group	Total Number Of Videos	Number Of Interactive Cameras	Patrol Plan Status
test2	2022-04-07	2022-04-14	Patrol3	3	3	Not Started

Video Device

192_168_130_251

192_168_130_59

192_168_130_211

Start Patrol

Figure 2.1.9-5 New Patrol Group

You can see different states of patrol plan in **[Video operation]** as Figure 2.1.9-6.

Video operation

1 Not started 0 In progress

0 Pause 0 End

Figure 2.1.9-6 View Different States of Patrol plan

Displaying the patrol plan, click  to patrol.



Figure 2.1.9-7 Patrol Task List

Show **[Patrol Plan]** interface, **[Video Device]** and **[Patrol]** window in this area.

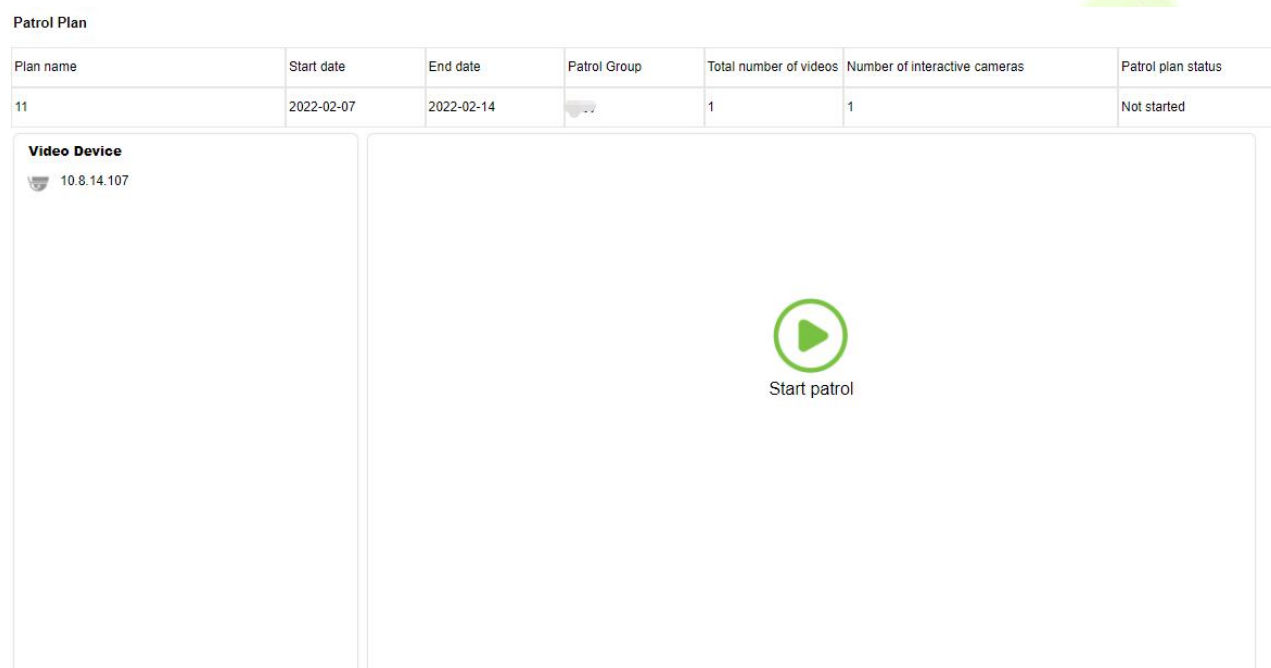


Figure 2.1.9-8 Patrol Plan

At cruising time patrolman should check-in if required.

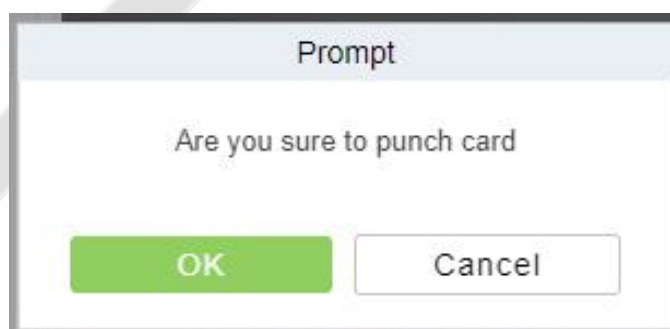


Figure 2.1.9-10

The check-in button blinks continuously when the check-in point is required.

Click  to report the alarm.

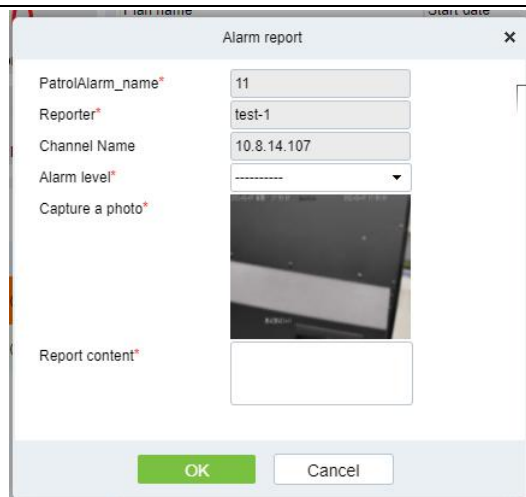

A dialog box titled "Alarm report" with a close button (X) in the top right corner. It contains several input fields: "PatrolAlarm_name*" with the value "11", "Reporter*" with the value "test-1", "Channel Name" with the value "10.8.14.107", "Alarm level*" with a dropdown menu showing "-----", and "Capture a photo*" with a small image of a camera. At the bottom, there is a "Report content*" text area and two buttons: "OK" and "Cancel".

Figure 2.1.9-11

Click  to Pause the plan.

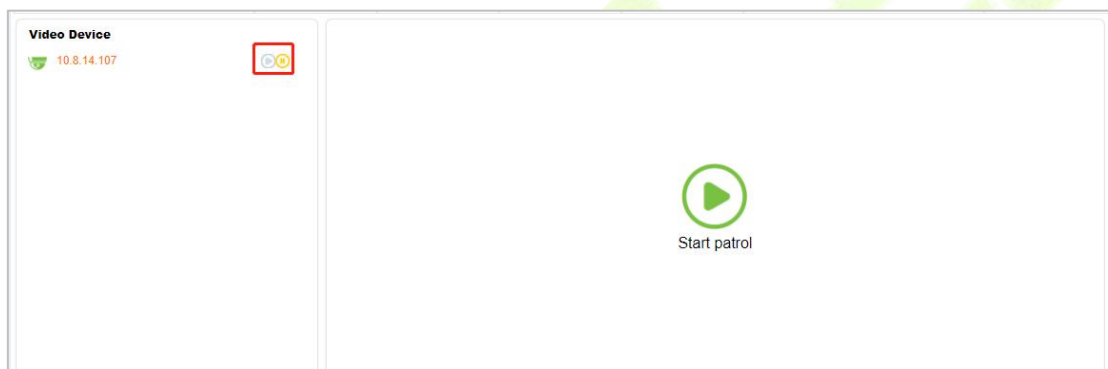


Figure 2.1.9-12

After that, it automatically switches to the next camera.

When all the cameras have been cruised, a Report Window will pop up.


A dialog box titled "Report patrol report" with a close button (X) in the top right corner. It contains three input fields: "PatrolAlarm_name*" with the value "11", "Reporter*" with the value "test-1", and "Report content*" with an empty text area. At the bottom, there are two buttons: "OK" and "Close".

Figure 2.1.9-13

Submit the report to finish the patrol plan, view the report.

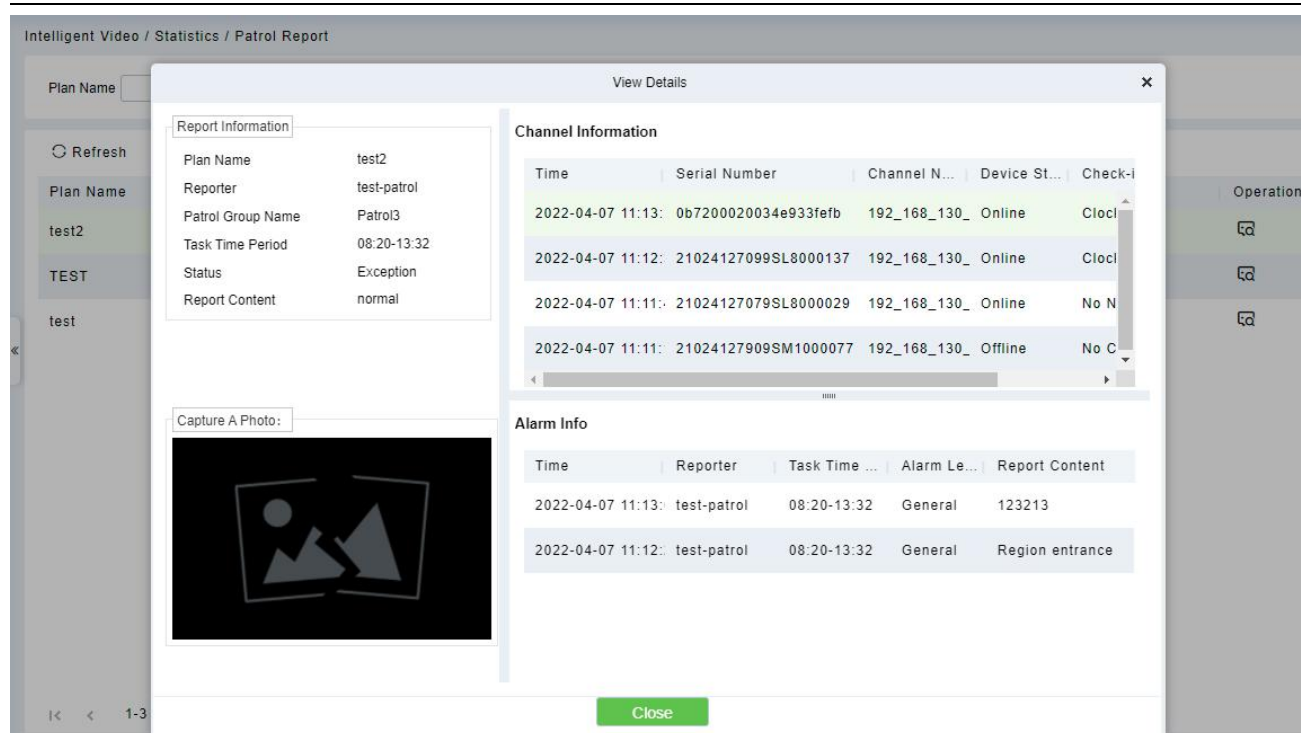


Figure 2.1.9-14

2.2 Intelligent Scene

2.2.1 Target Search

- **Operation Scenario**

Taking personnel name, ID and certificate number as retrieval conditions or uploading personnel pictures, the intelligent scene event records of personnel within a certain time range are searched and the corresponding trend report is generated.

- **Personnel Information Query Intelligent Scene Events**

Operating steps:

Step 1: In the [Intelligent Scenario] module, select **Scenario Application > Target Finding**.

Step 2: In the [Target Search] interface, fill in the time period and data source, enter the name or job number of the person in the search box and click **Retrieval** to find the target, as shown in Figure 2.2.1-1.

Intelligent Scene / Scene Application / Target Search


Target Search

Time Frame: 2021-12-19 15:15:07 - 2021-12-20 15:15:07

Data Modules: [Dropdown]

Thresholds: [Slider: 0 to 100]

Gender: [Unlimited] Glasses: [Unlimited] Mask: [Unlimited] Upper Color: [Unlimited] Lower Color: [Unlimited]

Please enter your name or job number [Input]  **Retrieval**

Trend Report

Create Time	Report Name	Report Describe	Creator	Operate	More...
-------------	-------------	-----------------	---------	---------	---------

Figure 2.2.1-1 Target lookup condition retrieval

Step 3: After the retrieval, the retrieval results appear, as shown in Figure 2.2.1-2.

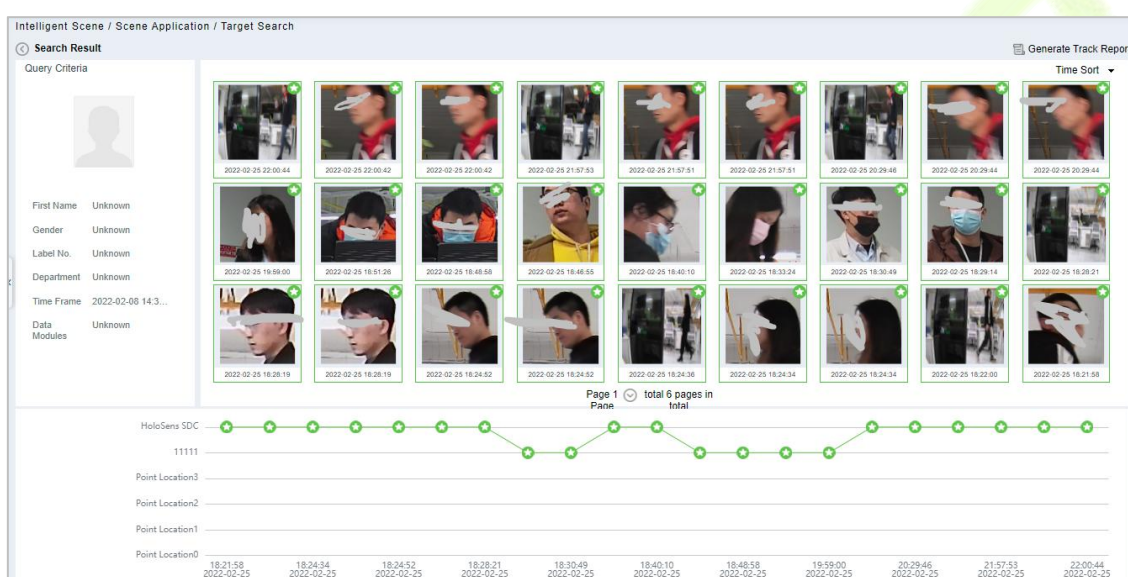


Figure 2.2.1-2 Object lookup retrieval results

Step 4: In the [Retrieval Result] interface, you can click **Generate Trend Report** in the upper right corner of the interface to export the trend report in PDF format, as shown in Figure 2.2.1-3.

Header Information

Report Name	Trend report about 11111 zoran at 20220317		
Report Describe			
Creator	admin		
Report Time	2022-03-17 01:46:26		

Target Detail



Name	zoran	Personnel ID	1180540	
Gender	Unknown	Department	Department Name	
Time Period	Mar 16, 2022 1:45:49 PM - Mar 17, 2022 1:45:48 PM		Record Type	Unknown

Trend Detail

The Floor: [Line Graph]

Point Location3: [Line Graph]

Point Location2: [Line Graph]

Point Location1: [Line Graph]

Point Location0: [Line Graph]

Record Detail

Event Time	Region	Event Source	Image	Event Name	Event Grade
2022-03-16 22:54:56	Area Name	7th floor		Allow list	Commonly

Figure 2.2.1-3Trend Report

Description:

If the point is empty, the movement report cannot be exported.

- **Upload Personnel Pictures to Query Intelligent Scene Events**

Operating steps:

Step 1: In the **[Intelligent Scene]** module, select "**Scenario Application > Target Search**".

Step 2: In the **[Target Search]** interface, click the icon in the pop-up interface, select the personnel picture on the local computer, click **OK**, and directly jump to the target search interface.

Step 3: After the search is over, the search results will appear, as shown in Figure 2.2.1-5.

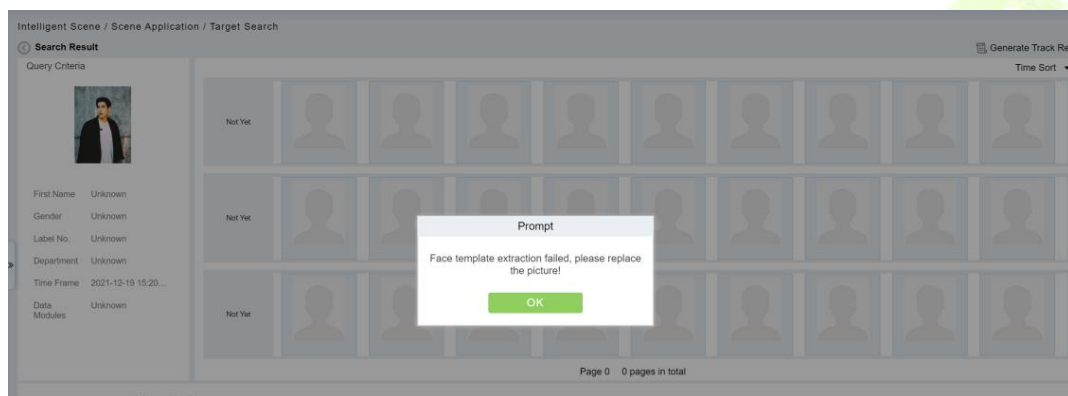


Figure 2.2.1-5 Search Results of Personnel Picture Search

Step 4: In the **[Search Result]** interface, you can click **Generate Trend Report** in the upper right corner of the interface to export the trend report in PDF format.

Description:

If the point is empty, the trend report cannot be exported.

2.2.2 People Control

The front-end camera is used for face capture, comparison, and recognition, and an early warning is sent when the database hits, through the creation of various types of key individuals to monitor the face database.

- **Personnel List Setting**

Introduce the operation of the personnel list library creation function set in the key personnel monitoring pre-set.

Operating steps:

Step 1: In the **[Personnel]** module, select "**Personnel Management > List Library**".

Step 2: Click **Add**, configure the relevant parameters, and complete the new list library, as shown in Figure 2.2.2-1.

Figure 2.2.2-1 shows a 'New' dialog box for adding a personnel list. It contains three input fields: 'Personnal list name*' (text), 'Personnal list type*' (dropdown), and 'Description' (text). The 'Personnal list type*' dropdown shows a dashed line. At the bottom, there are three buttons: 'Save and New' (green), 'OK' (green), and 'Cancel' (white).

Figure 2.2.2-1 Added personnel list library interface

Figure 2.2.2-2 shows the 'Add Personnel' dialog box. It features search fields for 'Personnel ID', 'Name', and 'Department Name'. Below these are two tables: 'Alternative' and 'Selected(0)'. The 'Alternative' table has columns 'Personne...', 'First Name', and 'Department Name'. The 'Selected(0)' table has columns 'Personne...', 'First Name', and 'Department Name'. There are navigation buttons (>>, >, <, <<) and a 'No data' message. At the bottom, there are 'OK' and 'Cancel' buttons.

Figure 2.2.2-2 Add people to the list

Step 3: Click **Add Person** on the right side of the list database information to add the personnel registered to the system to the list database, as shown in Figure 2.2.2-2.

• People Control Settings

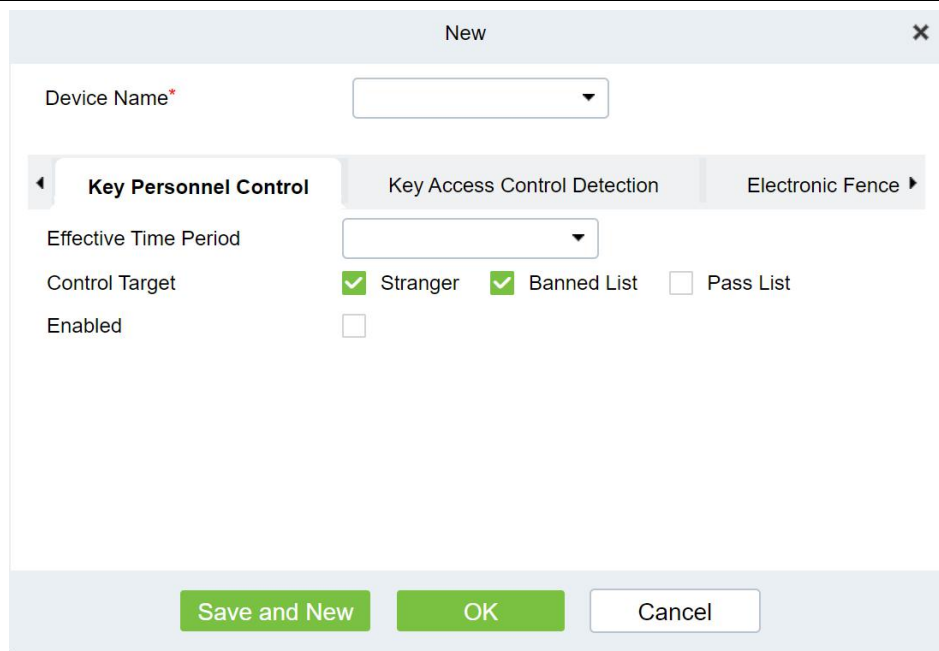
Introduce the operation steps to realize the key personnel monitoring function.

Operating steps:

Step 1: Introduce the operation steps to realize the key personnel monitoring function.

Step 2: Click **Add** on the **[Application Configuration]** interface, select the **[Key Personnel Control]** option page, and set the corresponding control detection conditions, as shown in Figure 2.2.2-3.

Step 3: Click **OK** to save the settings.



The 'New' dialog box is used to configure personnel control policies. It features a 'Device Name' dropdown at the top. Below it are three tabs: 'Key Personnel Control' (selected), 'Key Access Control Detection', and 'Electronic Fence'. Under the 'Key Personnel Control' tab, there is an 'Effective Time Period' dropdown, a 'Control Target' section with checkboxes for 'Stranger' (checked), 'Banned List' (checked), and 'Pass List' (unchecked), and an 'Enabled' checkbox (unchecked). At the bottom are three buttons: 'Save and New', 'OK', and 'Cancel'.

Figure 2.2.2-3 Added personnel control policy settings

• Result Verification

Operating steps:

Step 1: In the [Intelligent Scenario] module, select "Scenario Application > Key Personnel Monitoring".

Step 2: The information displayed on the [Key Personnel Monitoring] interface is the real-time monitoring information of the control settings that have taken effect in the system, as shown in Figure 2.2.2-4.

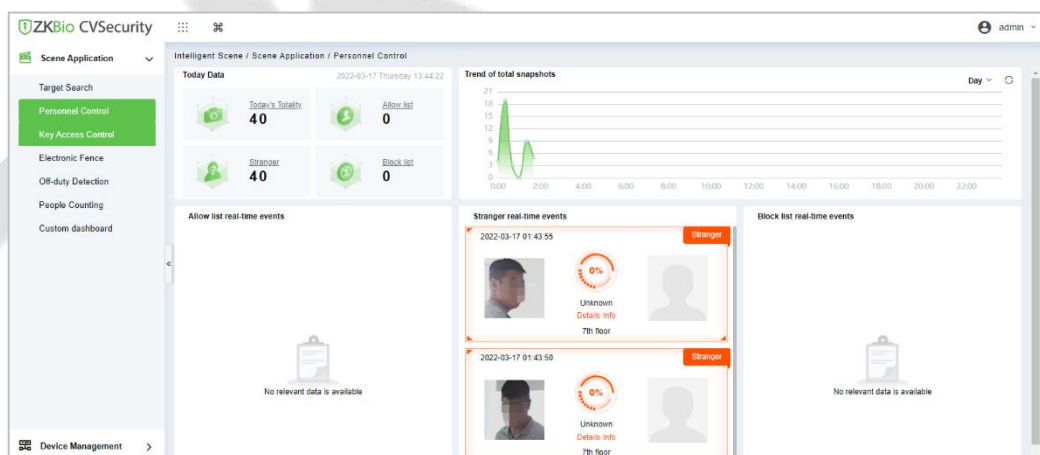


Figure 2.2.2-4 Personnel control real-time monitoring interface

2.2.3 Tailing Detection

The video face recognition is linked to the access control module's door opening event record, and the Intelligent camera captures the face and compares it to the access control event's job number to establish the person's identity and job number. Entering, the snapshot is unable to validate the stranger's identity, but it does understand the importance of key surveillance and protection of key entrances and exits.

Operating steps:

Step 1: In [Intelligent Scenario] module, select "**Service Configuration > Application Configuration**".

Step 2: Select the parameter, as shown in Figure 2.2.3-1, and click **OK** to save the settings.

The dialog box is titled "New" and contains the following fields and options:

- Device Name***: A dropdown menu.
- Tabbed Interface**: Three tabs are visible: "Key Personnel Control" (selected), "Key Access Control Detection", and "Electronic Fence".
- Effective Time Period**: A dropdown menu.
- Control Target**: Three checkboxes are present: "Stranger" (checked), "Banned List" (checked), and "Pass List" (unchecked).
- Enabled**: A checkbox (unchecked).
- Buttons**: "Save and New", "OK", and "Cancel".

Figure 2.2.3-1 New key entrance and exit monitoring settings

- **Result Verification**

Operating steps:

Step 1: In [Intelligent Scenario] module, select "**Scenario Application > Tailing**".

Step 2: Perform real-time monitoring and viewing of relevant records according to the key entrance and exit monitoring doors, as shown in Figure 2.2.3-2.

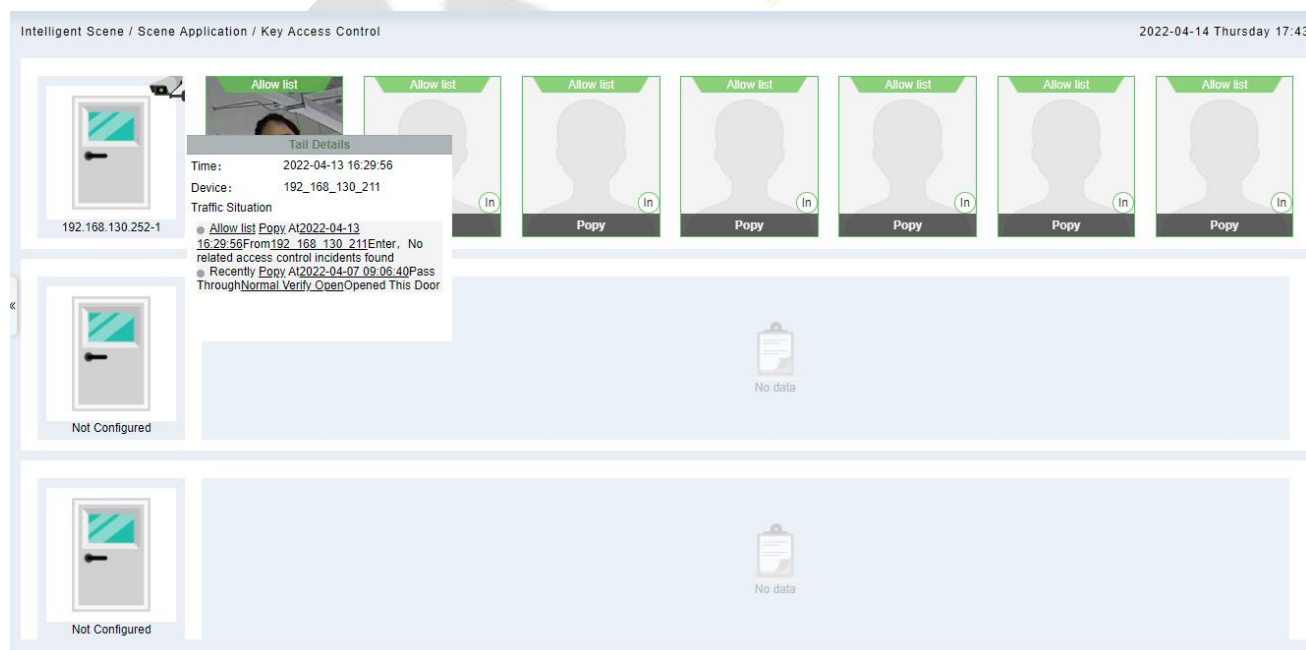


Figure 2.2.3-2 Key entrance and exit monitoring interface

2.2.4 Perimeter Protection

Through the intelligent camera line crossing analysis function, Perimeter Protections are delineated in the anti-crossing areas in passages, boundaries, entrances and exits, and alarms are triggered when crossing the fence. The crossing fence realizes the empowerment and supplementation of equipment such as access gates, physical fences, and security gates, and analyses and warns illegal crossing behaviours through computer vision.

Operating steps:

Step 1: Access the camera background, set the line statistics, and draw lines, as shown in Figure 2.2.4-1.

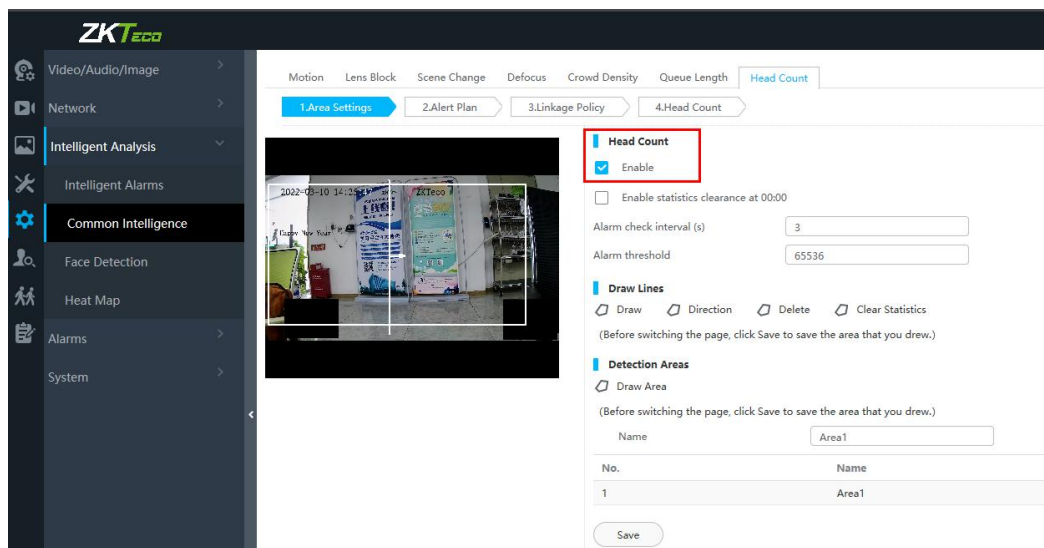


Figure 2.2.4-1 Set the camera over-the-line statistics to draw the line

Step 2: In [Intelligent Scenario] module, select "Service Configuration > Application Configuration".

Step 3: In [application configuration] interface, click **Add**, select the **Perimeter Protection** tab, and set the relevant parameters, as shown in Figure 2.2.4-2.

Step 4: Click **OK** to save the settings.

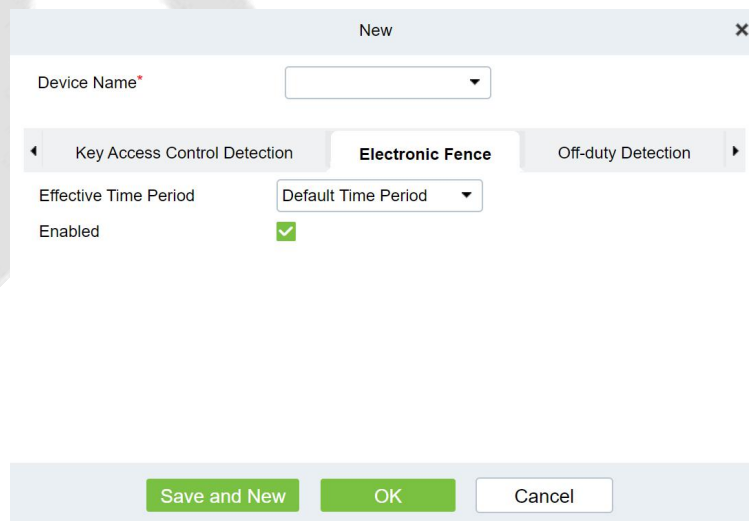


Figure 2.2.4-2 New Perimeter Protection Settings

• Result Verification

Operating steps:

Step 1: In [Intelligent Scene] module, select "**Scenario Application > Perimeter Protection**".

Step 2: View real-time monitoring data on this interface, as shown in Figure 2.2.4-3.

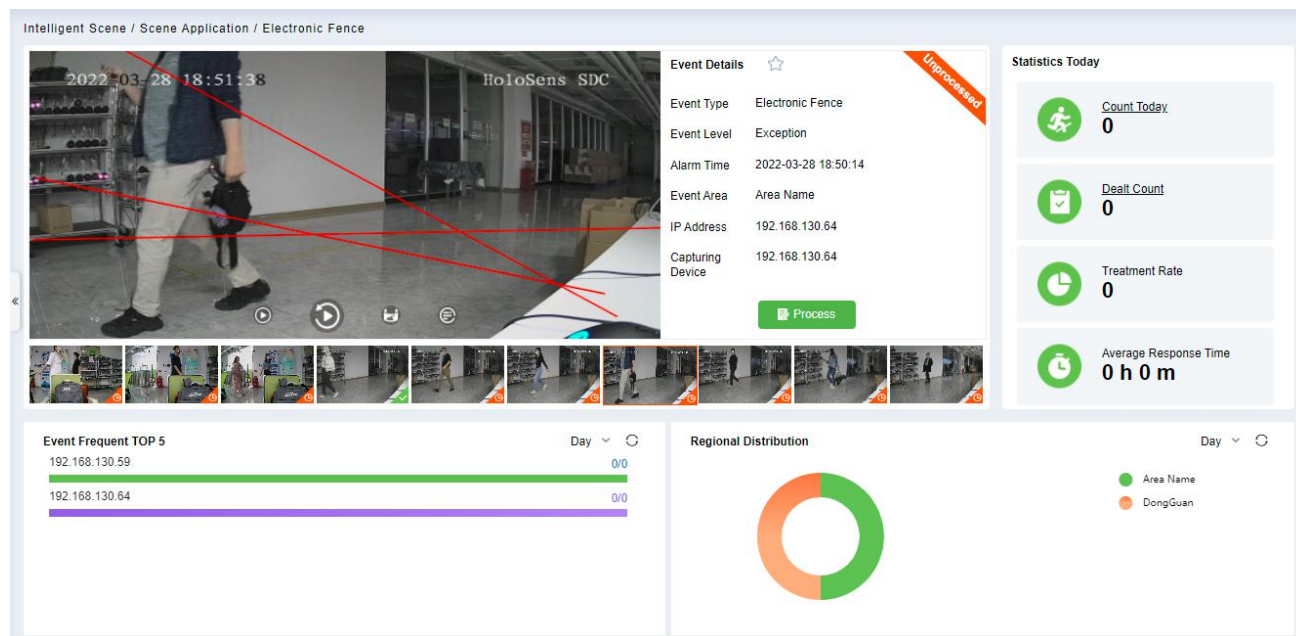


Figure 2.2.4-3 Real-time monitoring interface across the fence

2.2.5 Attendance Checking Detection

Through the intelligent camera people counting function to realize the monitoring and alarm of leaving work and leaving the post, by demarcating the monitoring area, setting the monitoring of leaving work and leaving the post, the camera calculates the number of people in the area in real time, and triggers the alarm of leaving work and leaving work when no one is on duty. This function is mainly used for monitoring security Business scenarios that need to be always on duty, such as rooms, monitoring rooms, and sentry posts.

• Preconditions

The camera supports (D series), and the Population Density function parameter is turned on. See "Population Density"

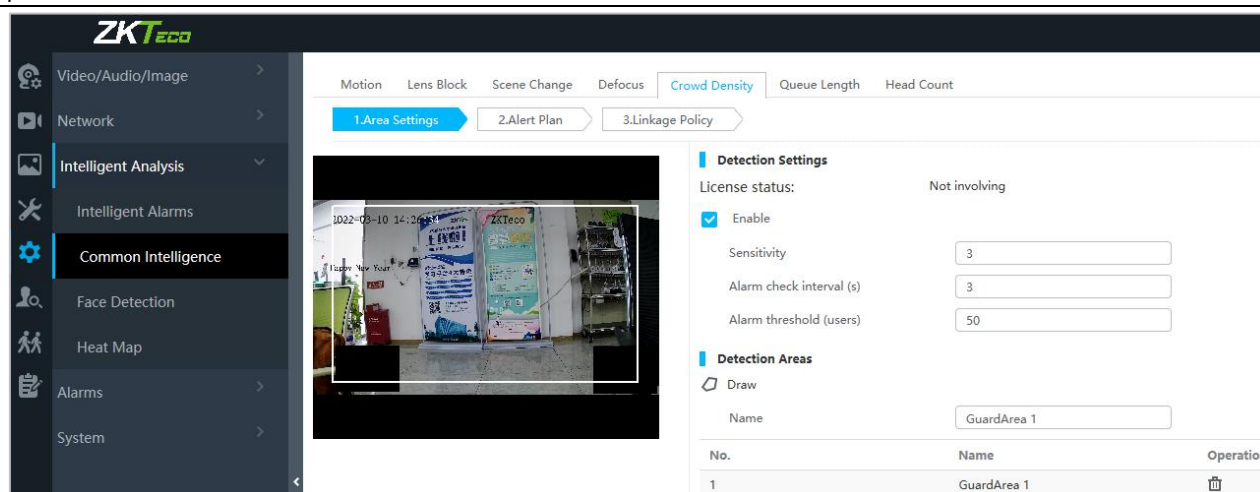


Figure 2.2.5-1 Population Density monitoring with built-in camera

Operating steps:

Step 1: Log in to the camera settings interface, select the **Population Density** tab in the “**Advanced Configuration > Intelligent Analysis > General Intelligence**” interface, and check to enable the Population Density function, as shown in Figure 2.2.5-1.

Step 2: In [Intelligent Scenario] module, choose “**Scenario Application > Retirement**”.

Step 3: Click **Location** to be configured on the Attendance Checking and Attendance Checking monitoring interface or on the application configuration interface, click the **Add**, select the **Perimeter Protection** tab, and set the relevant parameters, as shown in Figure 2.2.5-2.

Step 4: Click **OK** to save the settings.

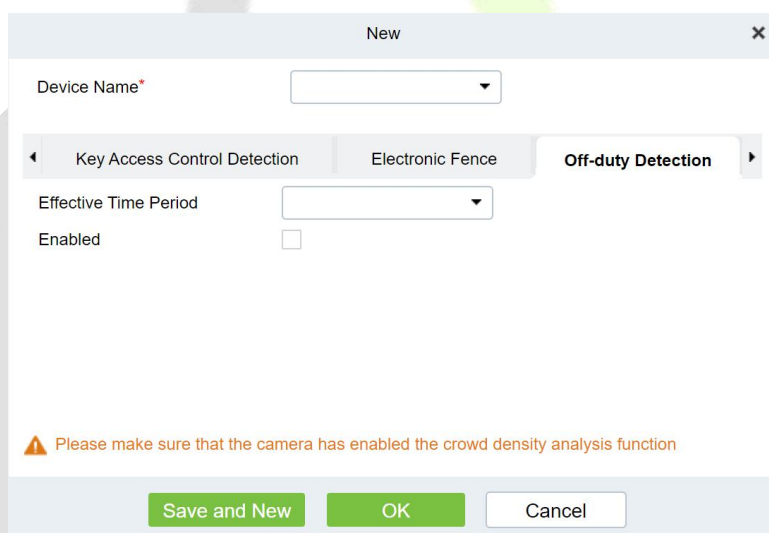


Figure 2.2.5-2 Add Attendance Checking Attendance Checking detection

Result Verification**Operating steps:**

Step 1: In the [Intelligent Scenario] module, select “**Scenario Application > Retirement**”.

Step 2: The relevant data can be viewed in this real-time monitoring interface, as shown in Figure 2.2.5-3.

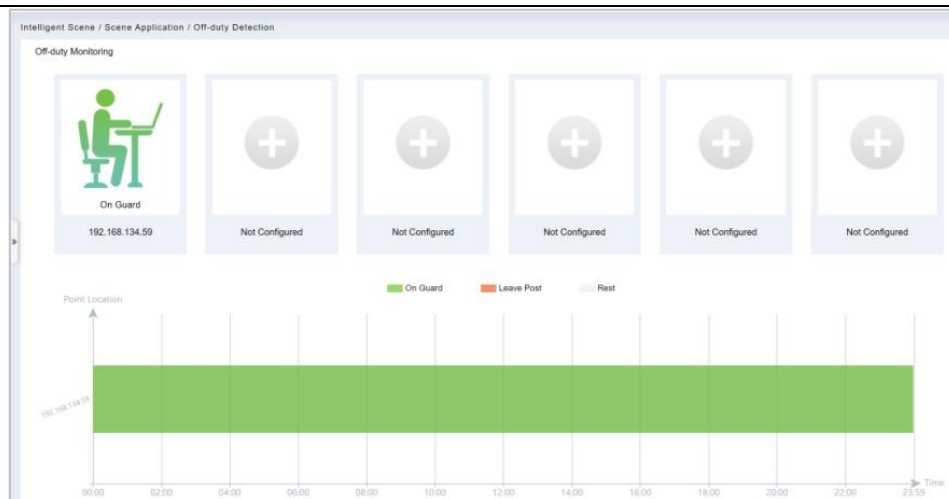


Figure 2.2.5-3 Attendance Checking and Attendance Checking monitoring interface

2.2.6 People Counting

Using the Intelligent camera's line crossing statistics function to count the number of people entering and leaving the area, entering +1, exiting -1, setting the area capacity, calculating the number of people in the area, dynamically displaying whether the area can enter the state, and realizing its business needs, particularly considering the current epidemic situation. The passenger flow regulation of supermarket stores is discussed in this connection.

Operating steps:

Step 1: Access the camera background, and set the line statistics to draw lines, as shown in Figure 2.2.6-1.

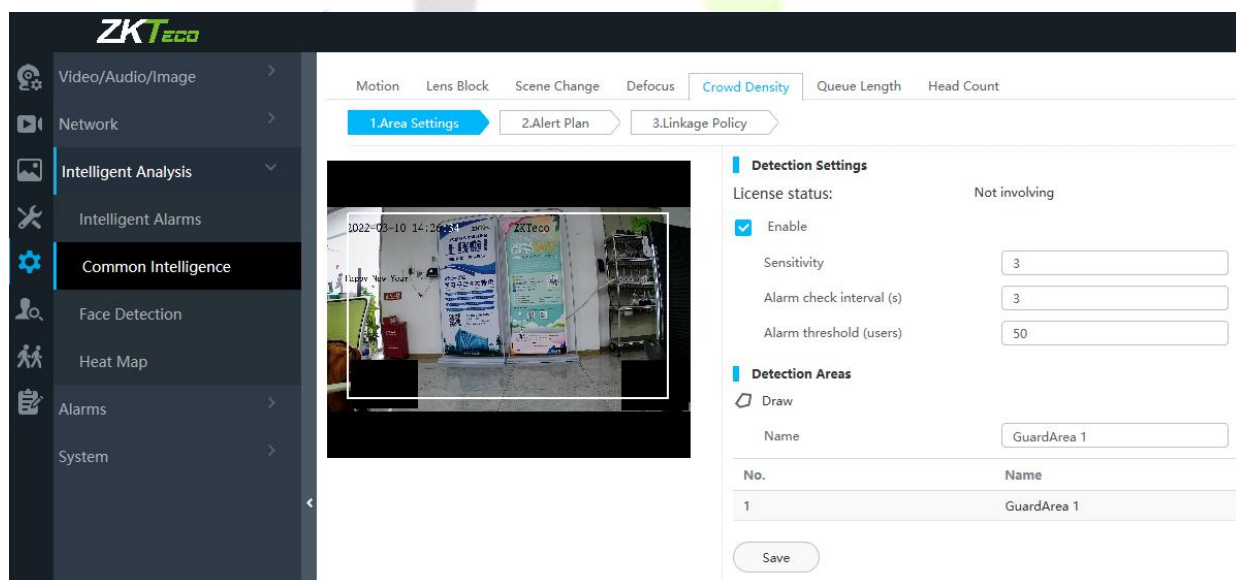


Figure 2.2.6-1 Set the camera to draw a line across the line fence

Step 2: In [Intelligent Scenario] module, choose "**Business Configuration > Statistical Scope Management**".

Step 3: Click **Add** to set the parameters of the statistical range of the number of people, as shown in Figure 2.2.6-2.

Step 4: Click **OK** to save the settings.

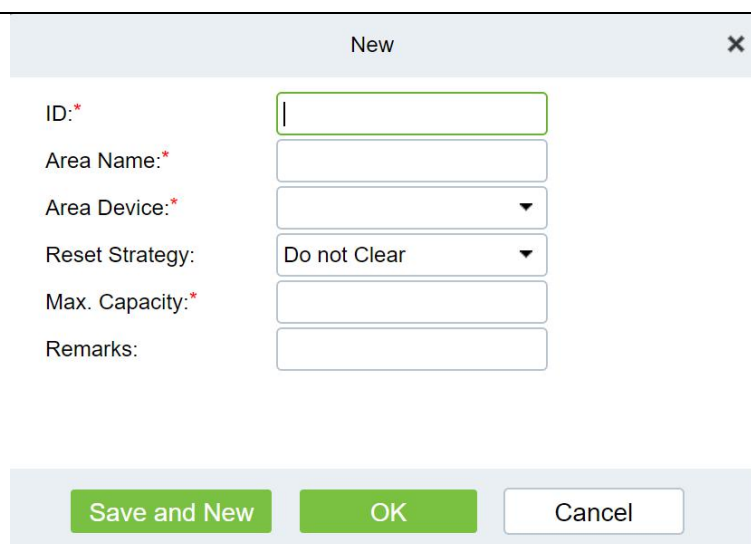


Figure 2.2.6-2 shows a 'New' dialog box for adding parameters. The fields are:

- ID:*
- Area Name:*
- Area Device:*
- Reset Strategy: Do not Clear
- Max. Capacity:*
- Remarks:

The buttons at the bottom are 'Save and New', 'OK', and 'Cancel'.

Figure 2.2.6-2 Added parameter interface for statistical range

Operating steps:

Step 1: In [Intelligent Scene] module, select "**Scenario Application > People Control**".

Step 2: The relevant dynamic data can be viewed in the real-time monitoring interface of regional people statistics, as shown in Figure 2.2.6-3



Figure 2.2.6-3 Number of Real-time Control Interface

2.3 Video Attendance

The video capture record can be considered as an attendance log when user forget to check in/check out on attendance machine.

Operating steps:

Step 1: create a "List Library" at Personnel Module that requires face attendance.

Step 2: In [Intelligent Video] module, select "**Device Management > Main Device**".

Step 3: Create a new "Face Fortify" task.

Step 4: "Basic Defense Information" configuration interface options:

- 1) List library information: "List library" that requires face attendance.
- 2) Alarm type: hit alarm.
- 3) The remaining parameters are filled in according to the actual situation.

Step 5: Switch to the "Intelligent > Intelligent Application > Live Alarm" interface under the [Intelligent Video] module to view the face attendance results in real time.

Attendance > Attendance Management > Attendance Point > New Device Module > select Intelligent Video, as shown in Figure 2.3.

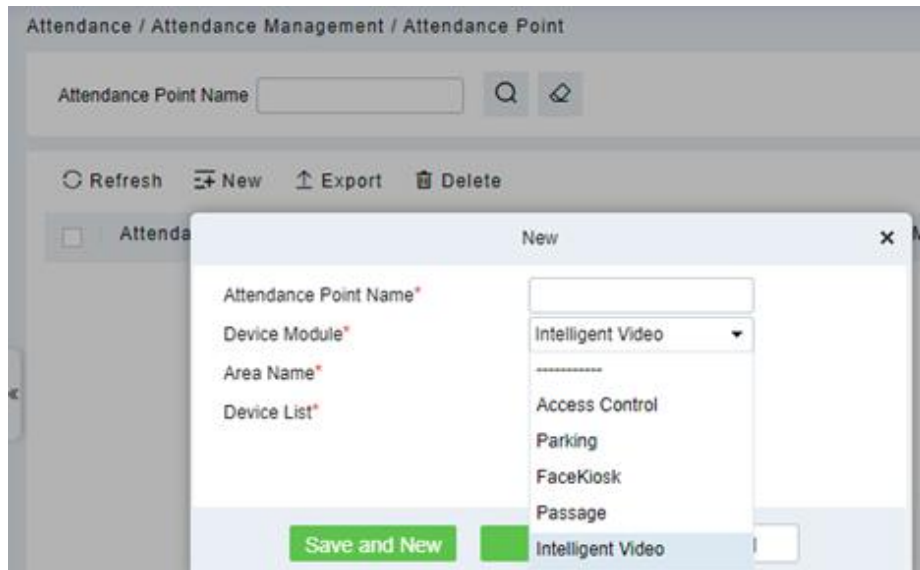


Figure 2.3 Attendance Point

2.4 Parking Module

Support LPR Camera with Best-w protocol.

Support Smart Video Plugin, compatible with old plugins.

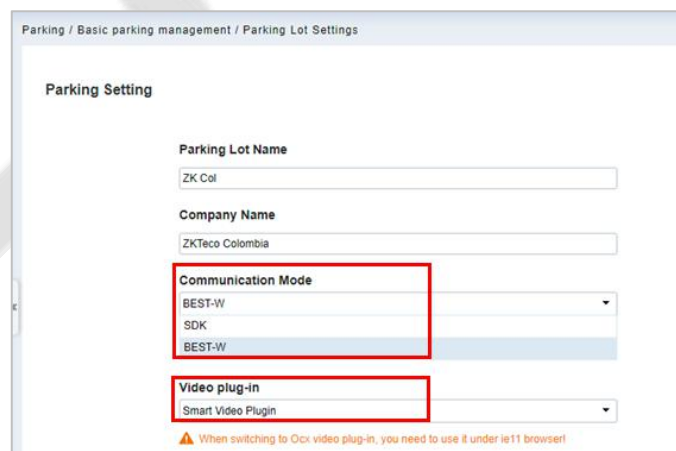


Figure 2.4 Parking Setting

2.5 Service Center

2.5.1 Device Center

The device status of all modules will be displayed on this page.

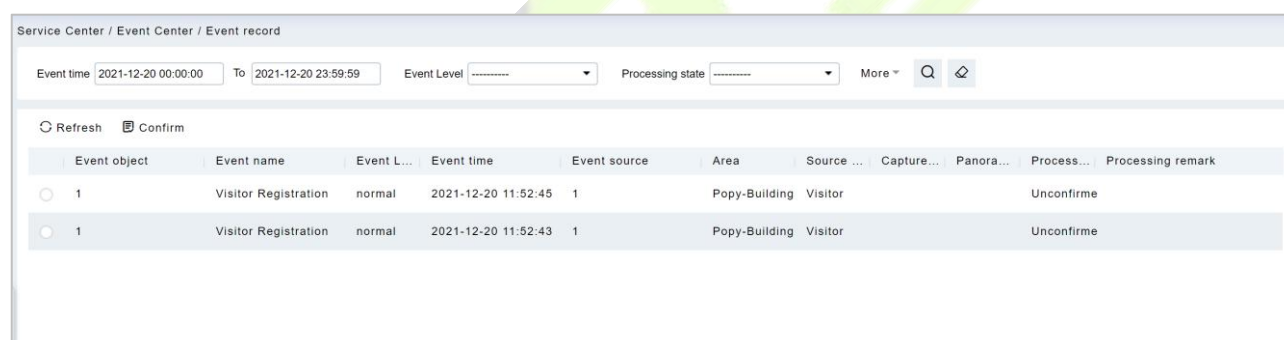


Serial Number	Device Name	Device Model	Firmware V...	IP Address	Belong Areas	Source Mo...	Status	Operator
CN3M212460001	ProfaceX	TDB08M-TI/M	ZAM170-NF-Vi	192.168.134.168	Area Name	Access	⊖	⚙
21024127099SL8000137	192.168.134.59	DBL522-01		192.168.134.59	Area Name	Intelligent Vide	⊖	⚙
f673eae8ab854805b3874535b6b56	AS1700	IVS1800		192.168.134.101		Intelligent Vide	✓	⚙

Figure 2.5.1-1 Device Display Page

2.5.2 Event Center

The event information generated by all modules of the software is displayed here.

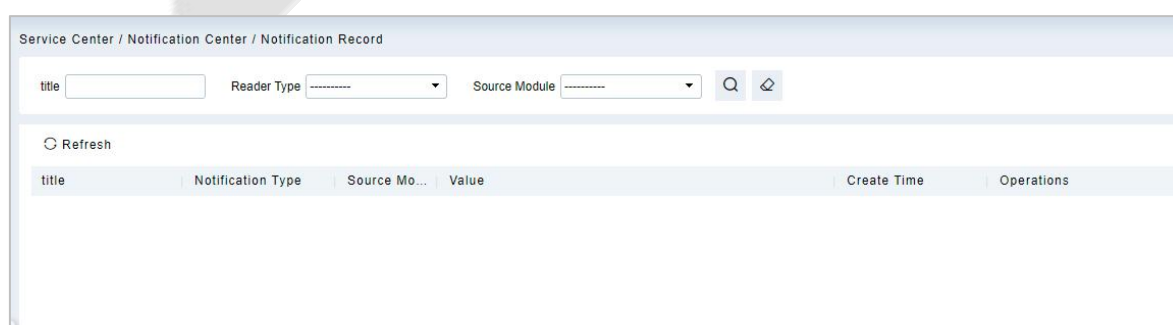


Event object	Event name	Event L...	Event time	Event source	Area	Source ...	Capture...	Panora...	Process...	Processing remark
1	Visitor Registration	normal	2021-12-20 11:52:45	1	Popy-Building	Visitor			Unconfirme	
1	Visitor Registration	normal	2021-12-20 11:52:43	1	Popy-Building	Visitor			Unconfirme	

Figure 2.5.2-1 Event recording page

2.5.3 The Notification Center

This interface records the message reminding events generated by the attendance and visitor module, as shown in Figure 2.5.3-1.



title	Notification Type	Source Mo...	Value	Create Time	Operations
-------	-------------------	--------------	-------	-------------	------------

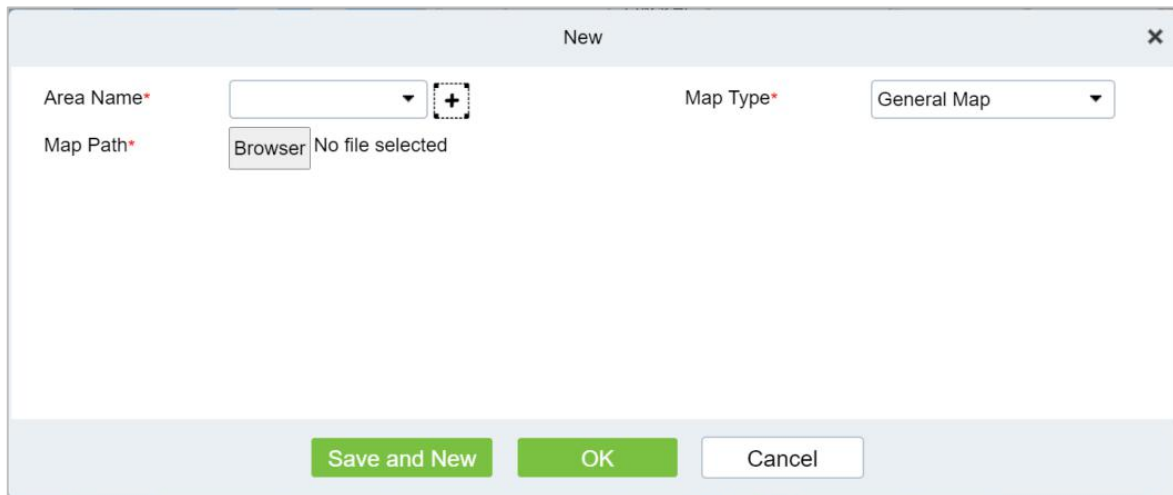
Figure 2.5.3-1 Message record page

2.5.4 The Map Center

You can import a map to set monitoring points. When an alarm occurs, you can immediately view the location of the alarm source and surrounding conditions, select an appropriate monitoring point, and view live videos, playback, and personnel movements.

Step 1: Add a map

Service Center > Map Center > Map Configuration to add a map. (Support General Map/ Super Map/ Google Map/ Baidu Map)



The 'New' dialog box is used to add a new map. It contains the following fields and controls:

- Area Name***: A text input field with a dropdown arrow and a plus icon.
- Map Type***: A dropdown menu currently set to 'General Map'.
- Map Path***: A text input field with a 'Browser' button and the text 'No file selected'.
- Buttons**: 'Save and New' (green), 'OK' (green), and 'Cancel' (white).

Figure 2.5.4-1 Add Map page

Step 2: Add submap (optional).

Map Center > Map Configuration > click 

In the Add Map list on the left of the page, drag a submap to place it on the map, as shown in Figure 2.5.4-2.

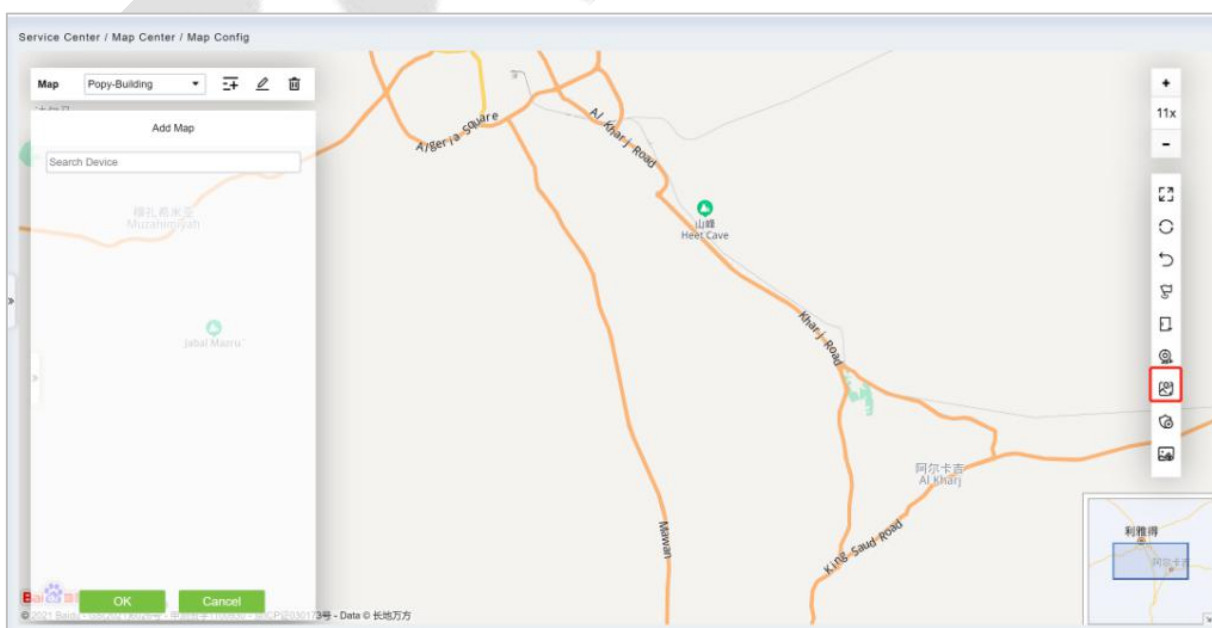


Figure 2.5.4-2 Add submap page

Step 3: Add a door.

Map Center > Map Configuration > click 

Step 4: Adding a Camera.

Map Center > Map Configuration > click  to add a camera.

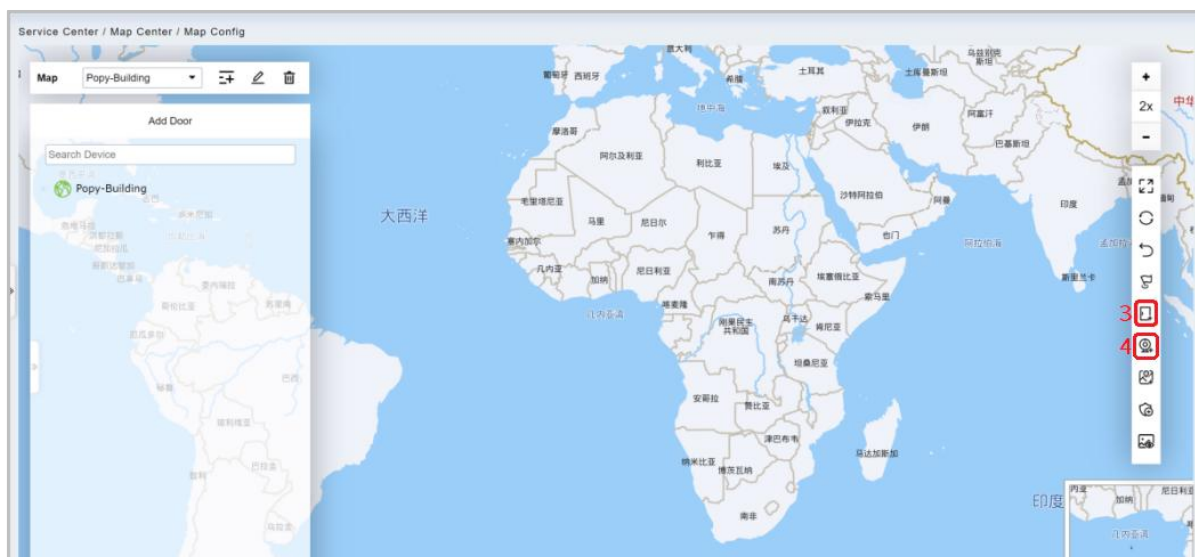


Figure 2.5.4-3

• Real-time Monitoring on Map

Alarms generated in the access control and video modules are displayed on the real-time monitoring interface. You can query access control and video events by category. When an alarm is generated, you can view the location of the alarm source and surrounding conditions, select a suitable monitoring point, and view the live video, playback, and personnel movement. Operation that can handle doors in batches.

• Personnel Tracking

Map Center > Real-time Monitoring > click 

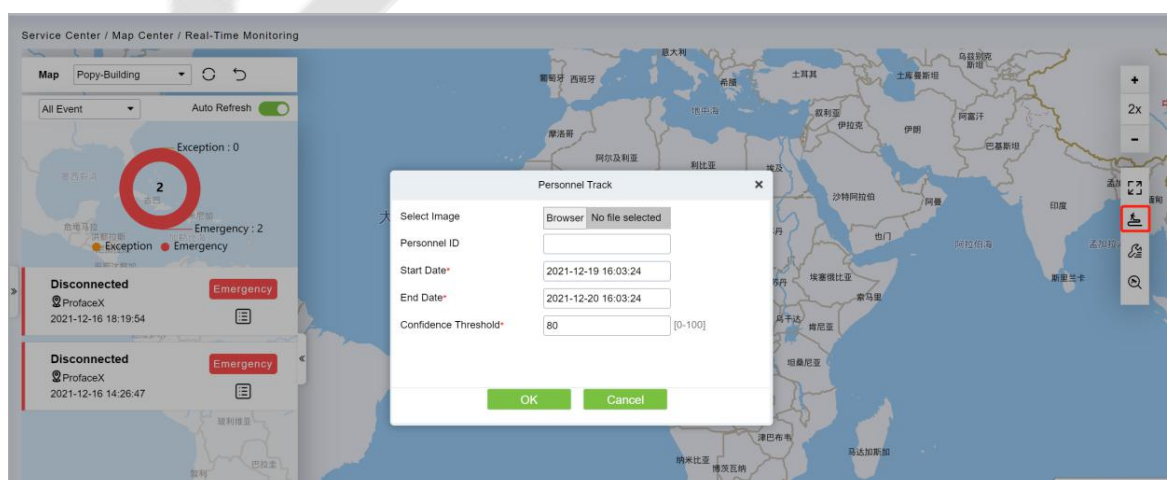


Figure 2.5.4-5 Page for Querying Personnel Trends

- **Handle Alarm Events**

Map Center > Real-time Monitoring > select an **Alarm**, click , the detailed information is displayed, as shown in Figure 2.5.4-6.

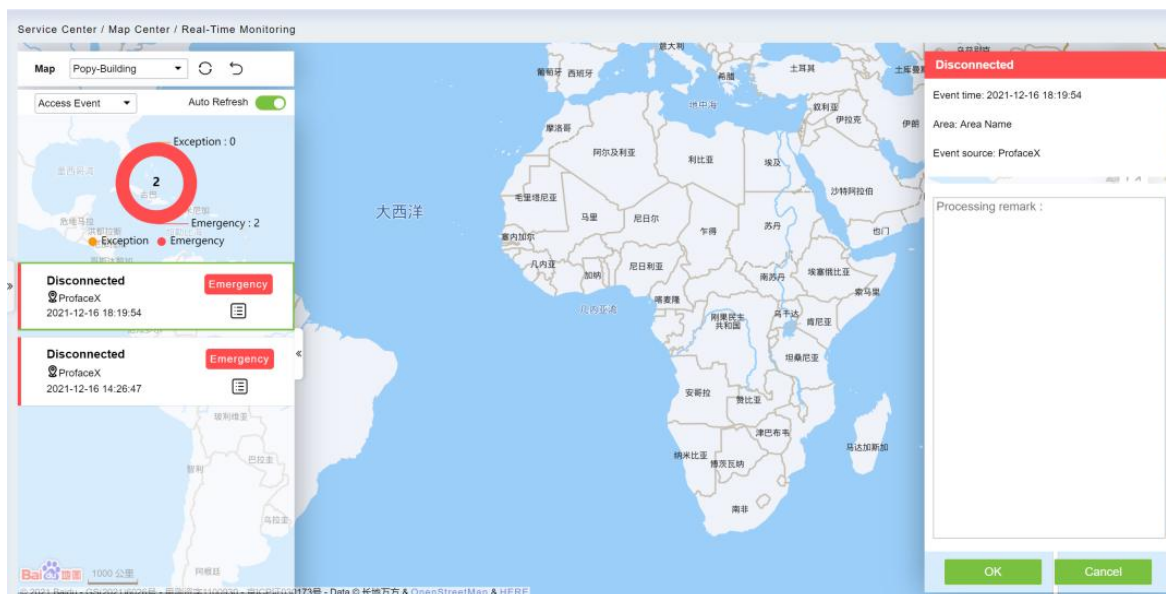


Figure 2.5.4-6

Privacy Policy

Notice:

To help you better use the products and services of ZKTeco and its affiliates, hereinafter referred as “we”, “our”, or “us”, the smart service provider, we consistently collect your personal information. Since we understand the importance of your personal information, we took your privacy sincerely and we have formulated this privacy policy to protect your personal information. We have listed the privacy policies below to precisely understand the data and privacy protection measures related to our smart products and services.

Before using our products and services, please read carefully and understand all the rules and provisions of this Privacy Policy. If you do not agree to the relevant agreement or any of its terms, you must stop using our products and services.

I. Collected Information

To ensure the normal product operation and help the service improvement, we will collect the information voluntarily provided by you or provided as authorized by you during registration and use or generated as a result of your use of services.

- 1. User Registration Information:** At your first registration, the feature template (**Fingerprint template/Face template/Palm template**) will be saved on the device according to the device type you have selected to verify the unique similarity between you and the User ID you have registered. You can optionally enter your Name and Code. The above information is necessary for you to use our products. If you do not provide such information, you cannot use some features of the product regularly.
- 2. Product information:** According to the product model and your granted permission when you install and use our services, the related information of the product on which our services are used will be collected when the product is connected to the software, including the Product Model, Firmware Version Number, Product Serial Number, and Product Capacity Information. **When you connect your product to the software, please carefully read the privacy policy for the specific software.**

II. Product Security and Management

1. When you use our products for the first time, you shall set the Administrator privilege before performing specific operations. Otherwise, you will be frequently reminded to set the Administrator privilege when you enter the main menu interface. **If you still do not set the Administrator privilege after receiving the system prompt, you should be aware of the possible security risk (for example, the data may be manually modified).**

2. All the functions of displaying the biometric information are disabled in our products by default. You can choose Menu > System Settings to set whether to display the biometric information. If you enable these functions, we assume that you are aware of the personal privacy security risks specified in the privacy policy.
3. Only your user ID is displayed by default. You can set whether to display other user verification information (such as Name, Department, Photo, etc.) under the Administrator privilege. **If you choose to display such information, we assume that you are aware of the potential security risks (for example, your photo will be displayed on the device interface).**
4. The camera function is disabled in our products by default. If you want to enable this function to take pictures of yourself for attendance recording or take pictures of strangers for access control, the product will enable the prompt tone of the camera. **Once you enable this function, we assume that you are aware of the potential security risks.**
5. All the data collected by our products is encrypted using the AES 256 algorithm. All the data uploaded by the Administrator to our products are automatically encrypted using the AES 256 algorithm and stored securely. If the Administrator downloads data from our products, we assume that you need to process the data and you have known the potential security risk. In such a case, you shall take the responsibility for storing the data. You shall know that some data cannot be downloaded for sake of data security.
6. All the personal information in our products can be queried, modified, or deleted. If you no longer use our products, please clear your personal data.

III. How we handle personal information of minors

Our products, website and services are mainly designed for adults. Without consent of parents or guardians, minors shall not create their own account. If you are a minor, it is recommended that you ask your parents or guardian to read this Policy carefully, and only use our services or information provided by us with consent of your parents or guardian.

We will only use or disclose personal information of minors collected with their parents' or guardians' consent if and to the extent that such use or disclosure is permitted by law or we have obtained their parents' or guardians' explicit consent, and such use or disclosure is for the purpose of protecting minors.

Upon noticing that we have collected personal information of minors without the prior consent from verifiable parents, we will delete such information as soon as possible.

IV. Others

You can visit https://www.zkteco.com/cn/index/Index/privacy_protection.html to learn more about how we collect, use, and securely store your personal information. To keep pace with the rapid development of technology, adjustment of business operations, and to cope with customer needs, we will constantly deliberate and optimize our privacy protection measures and policies. Welcome to visit our official website at any time to learn our latest privacy policy.



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