

Edge End Supervision Equipment Operating Manual



Version: V1.3

Edition	Revised date	Revised	description
V1.0	2023-02-09		1. New
V1.1	2023-06-08		1. Adjust the document format uniformly 2. Detailed the product menu 3. Update the corresponding information interface
V1.2	2023-06-25		1. Replace the product pictures 2. Add a description of the basic use of the equipment 3. Delete part of the menu introduction
V1.3	2023-11-15		1. Change the updated picture on the web page 2. Add FAQ FAQ 3. Add precautions for using some equipment

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1. Preface

1.1. The documentation purpose

This manual mainly introduces the edge regulatory equipment use and provide common problem solutions, the purpose is to help users quickly understand and use the product, master the basic methods, the basic camera access and AI alarm strategy setting, understand the management interface each area function, to handle the basic alarm information, familiar with related solutions;

1.2. Applicable personnel

MBEL edge supervision equipment background system administrator and video supervision and early warning project implementation personnel;

1.3. Content scope

Basic use of MBEL edge supervision equipment management system, and FAQ;

1.4. Key vocabulary

Emergency command, video surveillance, structured capture, AI alarm analysis, AI early warning platform, face recognition, machine non-human identification analysis, electronic fence, intrusion alarm, fireworks identification, behavior recognition, wearable recognition, character status recognition, 4G;

1.5. Disclaimer

The products and services described in this document are limited by the specific terms of the contracts and agreements signed with the Company, and the functional scope may be changed. The key technical parameters shall be subject to the contract terms, and the Company shall not make any commitment to this;

Due to the product hardware and software upgrades, this manual will be updated regularly without notice. If necessary, please contact our technical staff. Thank you.

2. Basic function description of the product

2.1. Basic function description

This product is a universal edge AI server product with low power consumption and high performance, integrating video access, AI capture and alarm recognition. Its functions include: maximum 16 channels 1080P video access, video decoding, AI analysis, alarm capture, face recognition, license plate recognition, video coding storage, etc.;

2.2. Has implemented the algorithm

The AI algorithm has been implemented in the following algorithms, and more algorithms can be customized;

id	Name of alarm type	Algorithm id	Algorithm name
1	No helmet on for alarm	3	Personnel violations
2	Alarm without a mask	3	Personnel violations
3	Not wearing work clothes to alarm	3	Personnel violations
4	No seat belt for alarm	3	Personnel violations
5	Not wearing reflective clothing for the alarm	3	Personnel violations
6	Fire alarm	3	environmental anomaly
7	Smoke alarm	3	environmental anomaly
8	Fire-fighting facilities inspection	3	environmental anomaly
9	The debris piled up	4	environmental anomaly
10	Vehicle no stop	5	Peripheral alert
11	The vehicle left	5	Peripheral alert
12	Personnel wandering	5	Peripheral alert
13	Turn over the wall detection	5	Peripheral alert
14	invade	5	Peripheral alert
15	overstep the boundary	5	Peripheral alert
16	Fall detection	6	Behavioral alert

17	Smoking detection	6	Behavioral alert
18	phone	6	Behavioral alert
19	Look at the phone	6	Behavioral alert
20	Personnel running	6	Behavioral alert
21	Sleep post detection	6	Behavioral alert
22	Personnel leave the post	6	Behavioral alert
23	People gather	6	Behavioral alert
24	Personnel scuffle	6	Behavioral alert
25	human face	2	Full structure, Chemical analysis
26	Figure	2	
27	motorized vehicle	2	
28	non-motorized vehicle	2	
29	plate number	2	
30	Face recognition contrast	1	Face binding and recognition
31	License plate recognition comparison	1	
32	Over-man	5	Peripheral alert
33	Little member	5	Peripheral alert
34	Personnel leave	5	Peripheral alert
35	Non-motor vehicles are prohibited from parking	5	Peripheral alert
36	Non-motor vehicle departure	5	Peripheral alert
37	Cycling without a safety helmet	3	Personnel violations
38	Number of motor vehicles	5	Peripheral alert
39	Less than the number of motor vehicles	5	Peripheral alert
40	Hazardous chemical vehicles are prohibited from entering	5	Peripheral alert
41	Riding a motorcycle into the gas station	3	Personnel violations
42	The oil unloading process is not standard	5	Peripheral alert

2.3. Product appearance



Figure 1. Product appearance

- MBEL-BH16P: 16 channel edge monitoring equipment (Professional)

Note: The professional version has 4 network ports, WiFi, 4G communication function, external expansion 485, UART, IO input and output, audio input and output functions;

2.4. Core hardware parameters

- CPU quad-core Cortex A 53, with an NPU maximum of 28.8 TOPs computing power;
- Flash, 8GB/16GB/32GB eMMC ;
- SDRAM, 2xLPDDR4X, 2x4GB:
- HDMI 2.0 Output:
- USB, 1x USB 2.0 extension, 2x USB 3.0 extension;
- Ethernet, 2x1000M :
- 1 onboard TF card;
- 4-UART, 5-I2C and 1-SPI extensions;

3. Commissioning and preparation

3.1. Hardware

- Edge supervision device server host;
- 12V power supply adapter;
- WIN 7 or above computer;
- Network cable;



Figure 2. Overall hardware architecture

Hardware foundation connection diagram, as shown in the figure are the front and back wiring modes respectively;

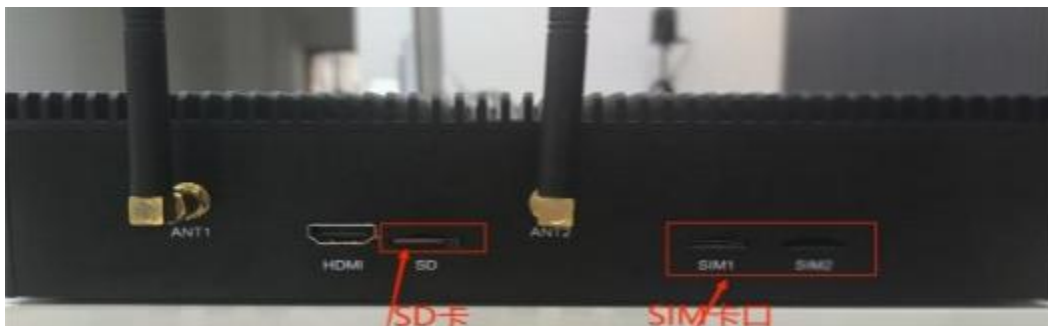


Figure 3. Front view



Figure 4 The reverse image

Notice:

1. When the horn connects to the AIBOX box, connect the active horn to SPK + and GND port, and not to SPK+ and SPK- port.
2. When the SD card is inserted into the slot, pay attention to the orientation and turn the notch toward the upper right.

3.2. Software

- Need to install Google browser or WIN 10 comes with EDGE browser;
- Install a 4GCMS software for debugging;

4 GCMS software download link:

<http://www.m51c.com/fwzx/>

4. Basic network Settings

Insert the network cable into the gigabit network port 1 (WAN) of the edge supervision device. The default IP of the device is 192.168.1.32. If the IP needs to be modified, it can be modified on the web page or with the 4 GCMS client search tool;

4.1. Using 4GCMS to modify IP

After installing 4 GCMS, scan the device-click the device to be modified -wired network-edit IP information;

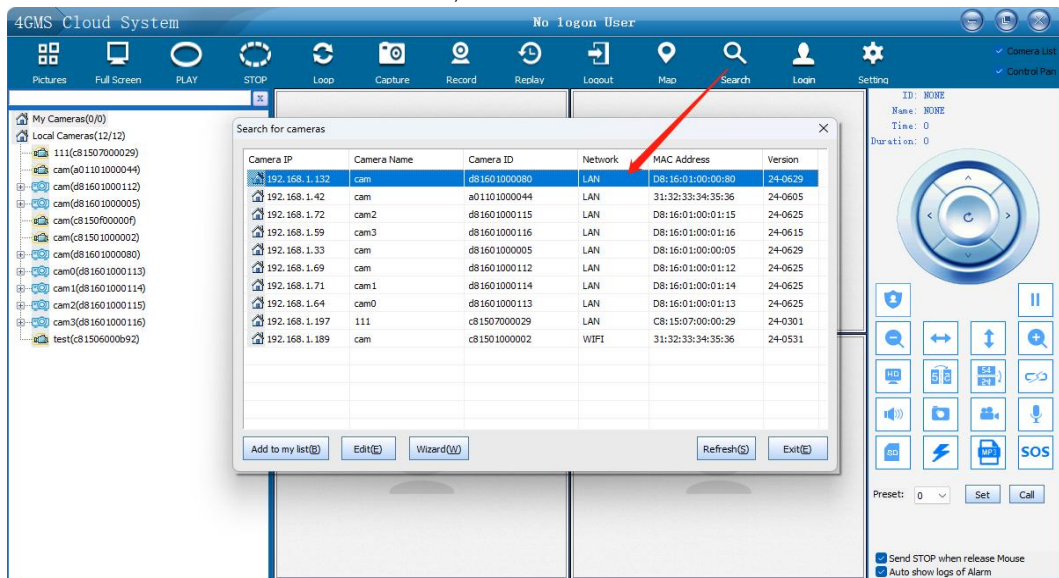


Figure 5. Modify the IP process page

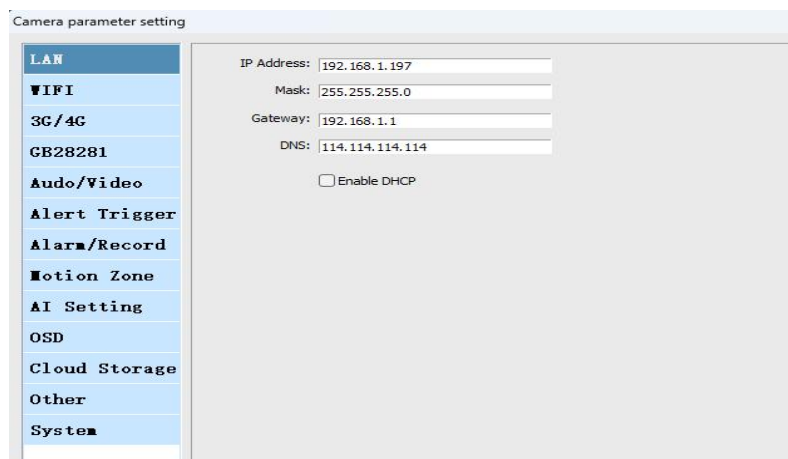


Figure 6 Camera parameter setting page

Notice: Please note that both the IP and gateway need to be modified to comply with the rules.

4.2. Modify the IP of the edge supervision device

Website link: WLAN network port default address:

<http://192.168.1.32/#/login>,

user name: admin ,password: 123456



Figure 7 login page

Setup steps: left sidebar-System management-IP configuration in network Settings;

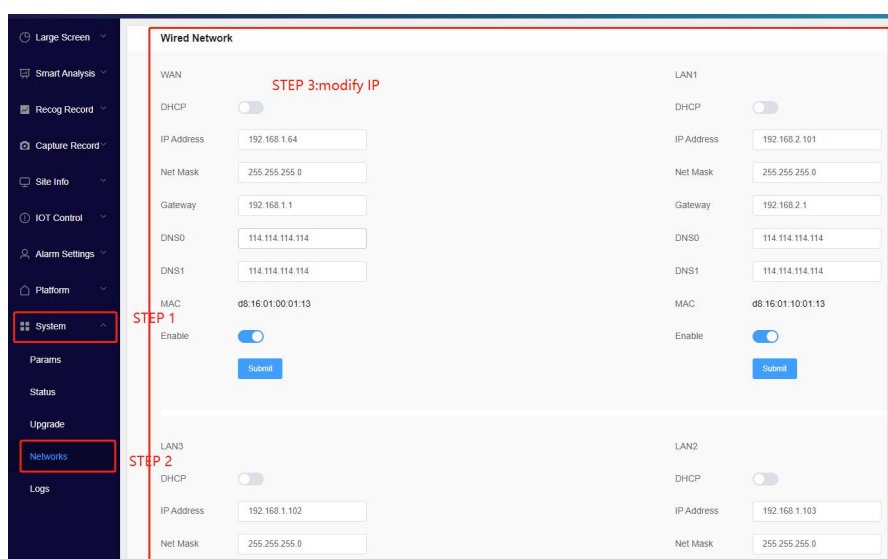


Figure 8. Network Settings page

4.3. Use multi-network ports

If it is necessary to connect to two or more WLAN network ports in order to access the external network, the remaining three network ports can be set with corresponding network segments as needed to allow the camera to connect to edge monitoring equipment;

If a special route needs to be set, fill in the content of the route in the DNS1 box, for example, to set a route as: `route add -net 192.168.10.0/24 gw 192.168.11.1 dev eth0 metric 0`, Then fill in the content shown in the figure below;

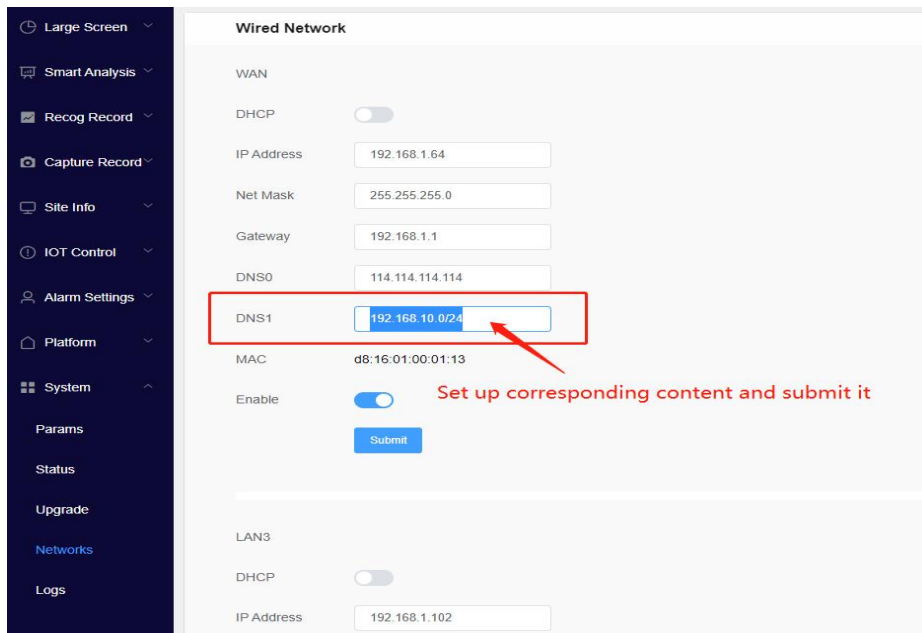


Figure 9. Special routing setting location

5. Camera access settings

5.1. Camera channel settings

Setting steps:left sidebar-warning control-channel management item-add camera/edit existing cameras,as shown in the figure:

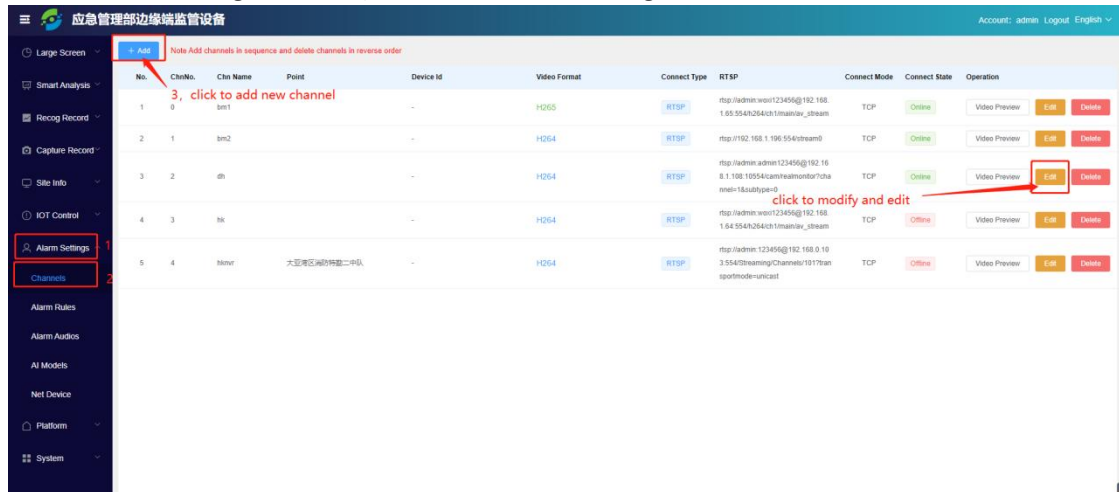


Figure 10 Camera channel setup steps

Notice:The edge monitoring equipment supports the access of cameras below 8 million, and it is recommended to use 1080P, H.264 RTSP video stream access; All channels must be added in order of 0~15. Skipping the order may cause AI recognition problems.

5.2. Special instructions for video camera access

5.2.1. For ordinary camera access edge supervision equipment

For cameras supporting ONV IF search, the RTSP address of the camera can be obtained through ONV IF search; if the known RTSP address can be filled directly, as shown in the figure below, fill in the necessary information according to the page prompts, and then follow the steps;

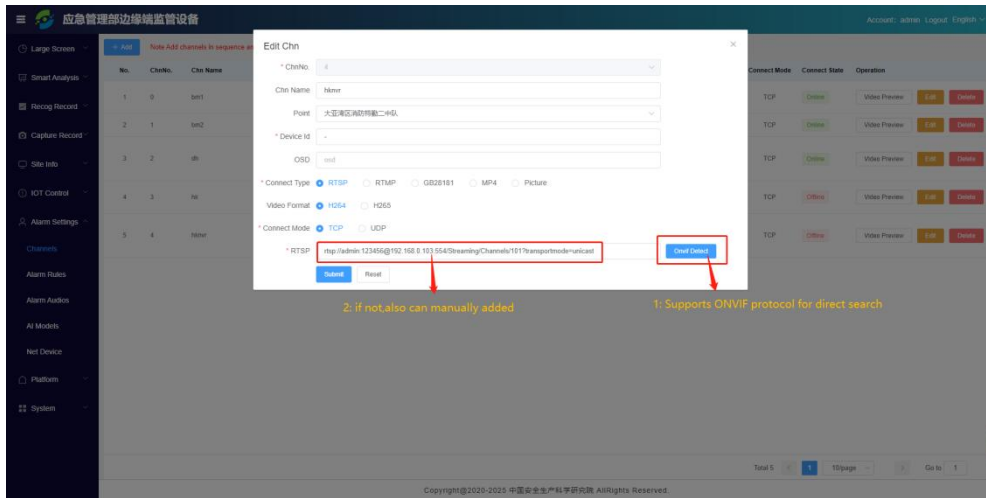


Figure 11 The Edit Channel Settings page

If multiple cameras are connected, the 4 g cmsr software passed by the company can be provided for camera RTSP verification, in which the beginning of c 0 is the routing ID and the beginning of c8 is the movement ID.

5.2.2. Add Hikon camera to the edge supervision equipment

For Hikon cameras, ONVIF search can not find, and some cameras do not open the RTSP function by default, then you want to open the Hikon camera RTSP function, RTSP address format:

Rtsp://admin:woxi123456@192.168.1.64:554/h264/ch1/main/av_stream , manually fill this address in the RTSP address bar in the figure above;

Notice: The Hikon camera suggests to set the code to H.264, the Hikon camera was set-coded as H.264 The interface is as shown below,If you are using an H.265,conduct some operations on the video preview interface



Figure 12. Hikon camera encoding mode page

5.2.3. Take the RTSP directly to the edge supervision equipment

Hikon Video Recorder, taking iDS-8632 NX-I8 / FA as an example:



Figure 13 Hikon video recorder system setting information page



Figure 14 Video coding viewing and modification page

rtsp://admin:ty080910@192.168.1.88:554/Streaming/Channels/701?Transport mode=unicast

rtsp://admin:ty080910@192.168.1.88:554/Streaming/Channels/1201?Transport mode=unicast

rtsp://admin:ty36zhan@192.168.1.64:554/Streaming/Channels/201?Transport mode=unicast

Notes:For the general rules of Hikvision video recorders, there is no problem with H265.

IP Channel 01 Master code stream for DS-9632N-ST:

rtsp://admin:12345@172.6.22.234:554/Streaming/Channels/101?transportmode=unicast

DS-9016 HF-ST:

rtsp://admin:12345@172.6.22.106:554/Streaming/Channels/1701?transportmode=unicast

5.2.4. The Dahua camera is connected to the edge supervision equipment

The rtsp format of the Dahua camera is as follows:

rtsp://username:password @ip:port/cam/realmonitor ?channel=1&subtype=0

For example, requesting substream 1 of channel 2 of a device, the URL is as follows:

rtsp://admin:admin@192.168.1.112:554/cam/realmonitor?channel=2&subtype=1

Notice:When Dahua cameras are connected to edge monitoring devices, please generally maintain a camera bitrate not exceeding 2Mbps.

5.2.5. RTMP video access

In many cases, if you need to access the RTMP video streams, then add the RTMP address directly in the channel management.

Edit Chn ×

* ChnNo.

Chn Name

Point

* Device Id

OSD

* Connect Type RTSP RTMP GB28181 MP4 Picture

Video Format H264 H265

* Connect Mode TCP UDP

* RTSP

Figure 15 RTMP address location

6. Control and setting of edge supervision equipment

Setting steps: left sidebar-warning control-control setting, as shown below: edit the alarm rules of the channel;

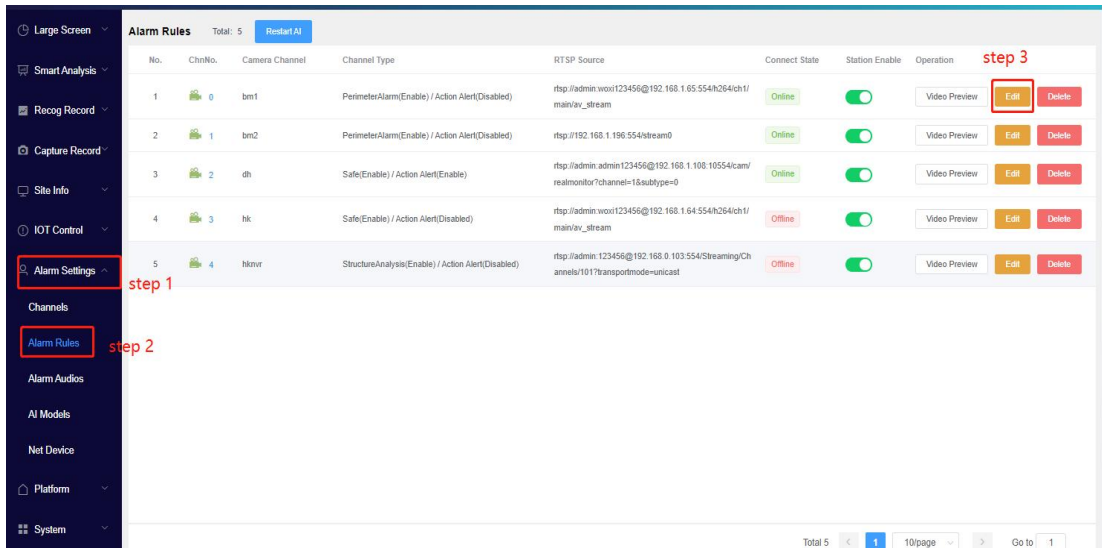


Figure 16 The control setting page

By editing the AI configuration of the channel to realize the requirements for different alarm algorithms. For the configuration of each rule, you can click the "+" on the left for specific configuration, and submit after the configuration is completed;

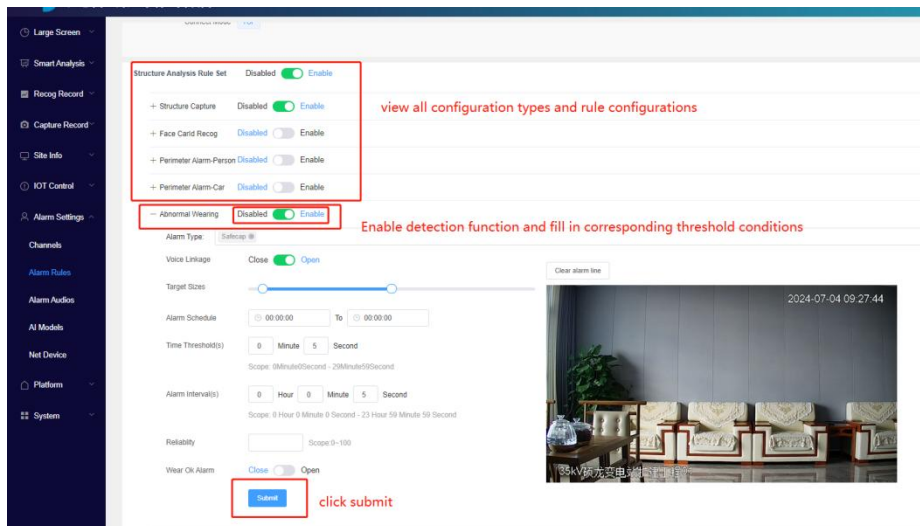


Figure 17 Control setting editing page

Notice: The poor detection effect of the whole detection and alarm system can appropriately reduce the confidence, view the position of the warning box\line in the detection area, and draw the warning box, and the default detection area is in the warning box.

If the whole detection and alarm system has inaccurate alarm, it is necessary to pay attention to the retention time (detection interval) and alarm interval (how many time detection and alarm) in the alarm setting.

If the whole detection and alarm system has detection results, but the speaker does not alarm, it should check whether the linkage voice binding option; there are also incorrect audio settings, you can check whether the relevant audio content is set, and check Section 7.

When using the personnel in the behavior test, they need to cooperate with the departure time, that is, how long the person will leave and report to the police.

6.1. Basic alarm rule logic

Currently, the system is divided into three categories of AI functions:

(1) Motor vehicle, non-motor vehicle, face, human form, license plate capture and attribute analysis.

(2) Item detection, including smoke, flame, fire-fighting facilities, etc.

(3) Personnel behavior detection, pay attention to the setting of residence time.

Notice: Due to system resource limitations, the total number of channels that can be opened by rules (1) and (3) cannot exceed 15. If the previous channel configuration has exhausted its capacity, the subsequent channels will not be effective;

The configuration page and commonly used rules have been listed. You can compare the opening/closing of the page and corresponding settings as needed. After setting, you need to restart the algorithm module to make the settings take effect.

6.2. Control installation is completed and effective

After the control setting is completed, the AI algorithm module should be reloaded, so restart the algorithm module. The operation steps are shown as follows: Setting steps: left sidebar-System management-status-restart AI.

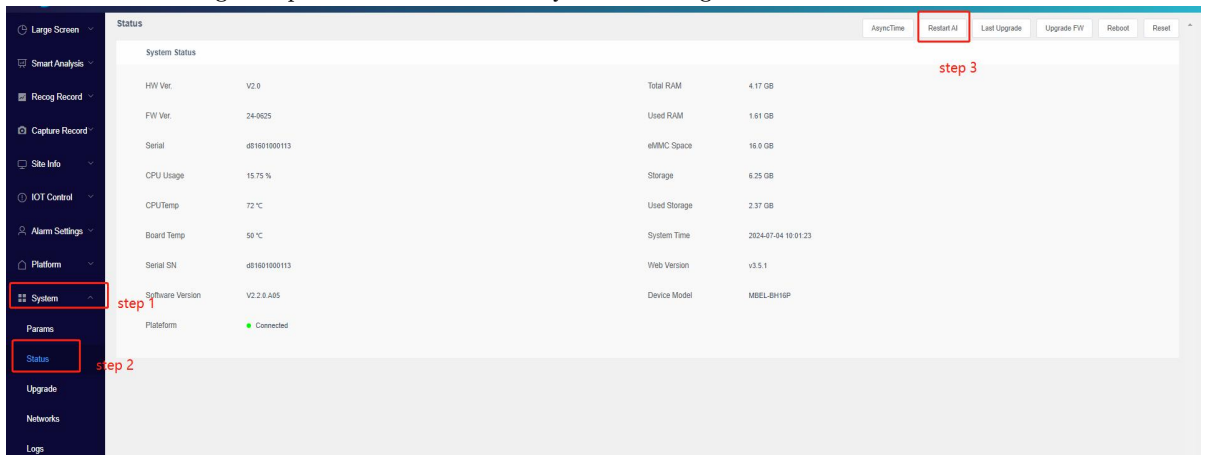


Figure 18 Restart step guidance

7. Introduction to System Function Menu

7.1. Intelligent statistical analysis of the large-screen interface

In order to meet the visual requirements of statistical analysis for small and medium-sized projects, a data statistics large screen display function has been developed; The large screen interface is mainly used by regulatory personnel for daily monitoring, filtering effective alarm information display, and summarizing alarm types;



Figure 19. Intelligent statistical analysis of the large-screen interface

The large screen interface shows the statistics of the data, which is divided into nine parts.

1. Data view

This section shows the number of channels (equipment added channels), alarm number (including the number of all alarm types), capture number (including face, human, shape, motor vehicles, non-motor vehicles, license plate capture number), online number (added channel online number), model number (number of alarm type), number of personnel (personnel files), the number of vehicles (number of vehicle files), etc data. Users can select data within the time range by clicking and display all by default data.

2. The top 10 channels this month

This section displays the top 10 channels with the highest number of alarms for the current month, and displays the proportion and total number of alarm channels in the form of a progress bar. The default display is the top 10 channels of the alarm, and users can choose different types of top 10 channels.

3. Distribution of AI events

This section displays the distribution of AI event types, including perimeter people, perimeter vehicles, personnel violations, abnormal environments, abnormal behaviors, etc. Display the quantity of a certain data item in a circular pattern. Move the mouse over the circular pattern to display the current type of quantity.

4. Guard and capture

This section shows the latest four alert snapshots. The lower left corner of the picture shows the name of the current event, the name of the control, the capture time and other data. After clicking on a picture, the detailed information of the current event will pop up. The left side shows the captured picture and 15 seconds before and after the capture, and the detailed information of the captured event will be displayed on the right side.

5. Storage space

This section shows the percentage of the current system storage. Displayed in a water balloon chart, shown in red for storage greater than 80% and not blue for storage less than 80%.

6. System detection

This section shows the use of CPU resources, 0-20 green, 20-40 brown, 40-60 light green, 60-80 light red and 80-100 red. Below shows the CPU main frequency and the temperature of the system board.

7. Alarm trend analysis

This section shows the analysis and trend chart of the alarm type, showing today's data by default. Users can click Select the data within the time range. The alarm type analysis shows the data in the form of pie chart, and the alarm trend shows the data in the form of line chart. Putting the mouse on the pie chart shows the number of the current type, and the number in time when placing the mouse over the point of the line chart.

8. Event list

This section displays the alarm data of the day, displayed as a list, stop rolling when moving the mouse to an item move, the user can delete through the delete button, delete without a prompt, the data will be directly deleted.

7.2. Main menu

Click on the buoy in the upper left corner to bring up the main menu bar on the side, and click again to hide it. Clicking on a certain item in the menu bar will adjust to the page, and the buoy will not be displayed. The main menu will also be displayed on the left. If you want to enter the large screen page again, you can click on the large screen menu to enter.



7.3. Intelligent analysis

This option includes: real-time video, AI video;

Real-time video: the real-time video streaming of the video camera;

AI video: the electronic fence preset by the camera, and the results identified by the corresponding algorithm will be superimposed and displayed;

7.3.1. Real-time video

The upper middle and left corner are respectively:

(1) Preview channel setting area: check the channel to preview;

(2) Split screen area: the number of split screens can be set, including 1,4,9 and 16;

(3) Full-screen icon: display the current preview interface in full screen;

(4) Video analysis mode option area:① face binding and recognition can be selected;② full structured analysis;③ alert capture;

(5) Alarm record display area: you can click to view the specific information of an alarm, click to view the large picture to enlarge the alarm picture, and at the same time, you can view the 15S video before and after the alarm;

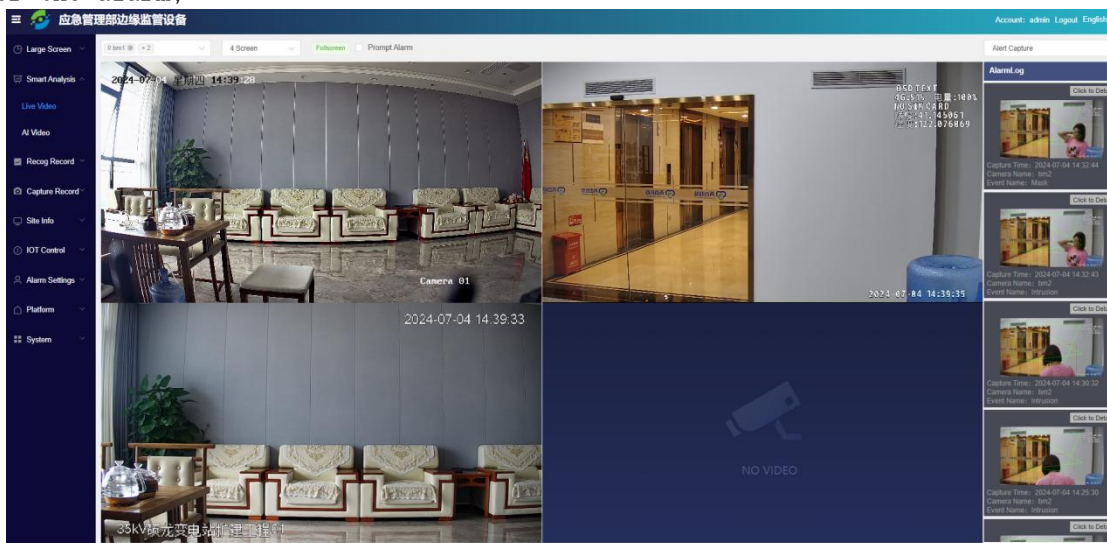


Figure Figure 21 Real-time video page

Notice: The required work for the configuration management page is recommended to be operated under the guidance of the manufacturer's technical personnel!

7.3.2. AI video

The “AI video” interface is the same as the “real-time video”, and the AI video channel interface will increase the display of information related to the display algorithm;

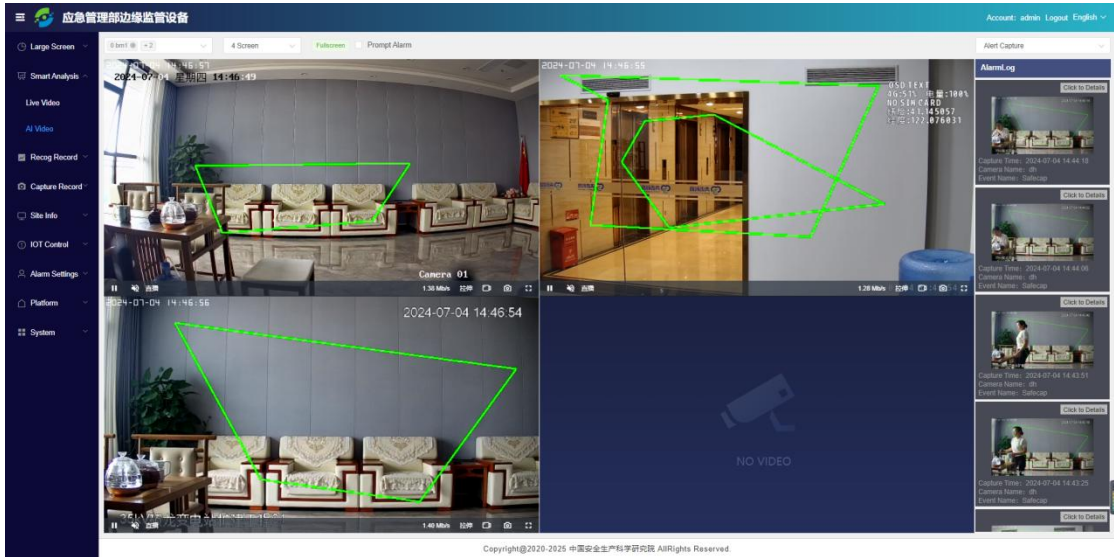


Figure 22 AI video picture

7.4. Identifying the records

Automatic identification record is subdivided into: face recognition, vehicle recognition;

No.	Snapshot	Baseline	trackid	ChnNo.	Chn Name	Reliability	Name	Dept Name	Gender	Telephone	Capture Time	Operation
1		17642		5	020	80.854	176337953701954416	#02	女	18808888888	2024-07-04 15:59:54	Export Delete
2		348		0	lm1	34.699	172367699375380704	#03	女	18808888888	2024-07-04 15:59:52	Export Delete
3		17638		5	020	75.839	1763380369562096176	#02	男	18808888888	2024-07-04 15:59:37	Export Delete
4		17626		5	020	79.472	172393689129054532	#02	男	18808888888	2024-07-04 15:59:03	Export Delete
5		17620		5	020	77.369	172224499948192000	#02	男	18808888888	2024-07-04 15:58:33	Export Delete
6		17616		5	020	85.231	176273495000009176	#02	男	18808888888	2024-07-04 15:57:41	Export Delete
7		17612		5	020	76.911	172427934695925184	#02	男	18808888888	2024-07-04 15:57:38	Export Delete

Figure 23 Face recognition page

7.4.1. Face recognition

The recognized facial information will be displayed here, and there are functional options such as "Export Data" "Save Image" "Batch Delete" "Time" "Channel" "Name" at the top of the interface. The recognition data results can be further processed, and facial recognition can be retrieved based on time periods, warning channels, personnel files.

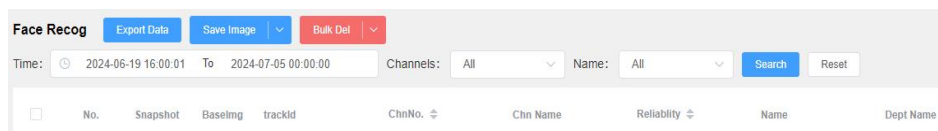


Figure 23 Face recognition information bar screen

If you want to export face recognition or vehicle recognition data, you can click the export data button, pop up the export data dialogue Box, where you can select export items and export fields. The export item can choose to export the current page, export the selector, export all the data, export the current page of the current page, the number of each page is 10/page, 20/page, 50/per page, 100/per page, 200/page; the export of the selection represents the user selected data across pages; export all the identified data. Export fields are selected by default. Users can select the fields they want for export. After selecting export items and export fields, click the Export Data Excel button to export the data to the Excel table and download it.

The Save picture button can download the selected data or download all the data in the form of compressed files. And zip, move the mouse into the drop-down icon to the right of the save button to view the saved options, export the selection and export all, and the number behind the drop-down option is the number to be exported. Batch deletion is similar to the save button. Batch deletion can delete the selected data or all the data. Please operate carefully, click the deletion option in the option to prompt the user to delete, and delete the data after reconfirmation.

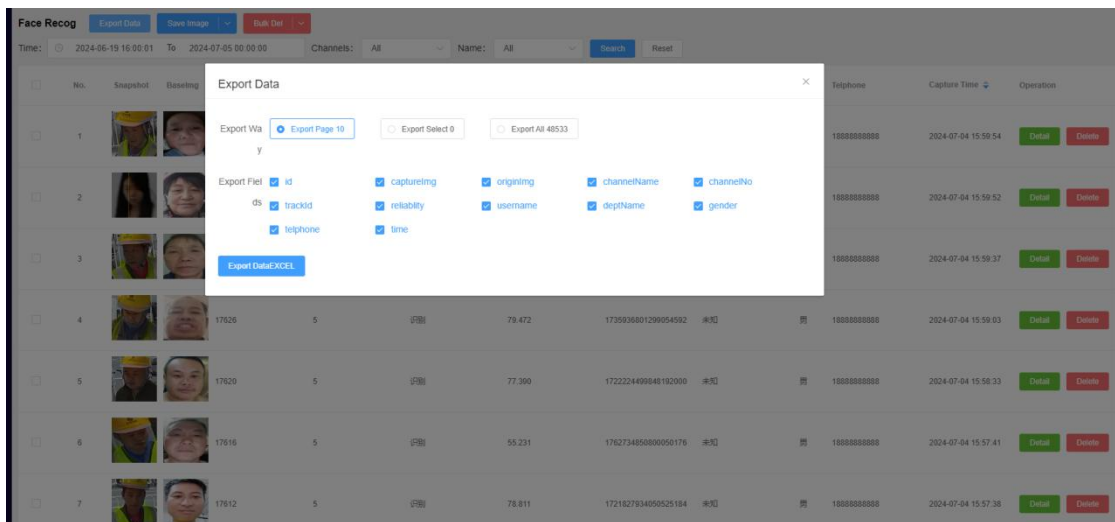


Figure 25 Face picture export page

7.4.2. Vehicle identification

The identified vehicle information will be displayed here, and the specific function option introduction is consistent with 7.4.1;

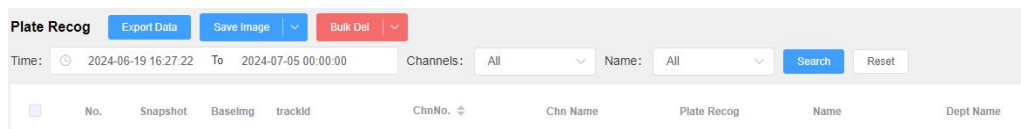


Figure 26 Vehicle identification information

7.5. Capture Record

The capture records are divided into: structured capture, alert capture, video playback

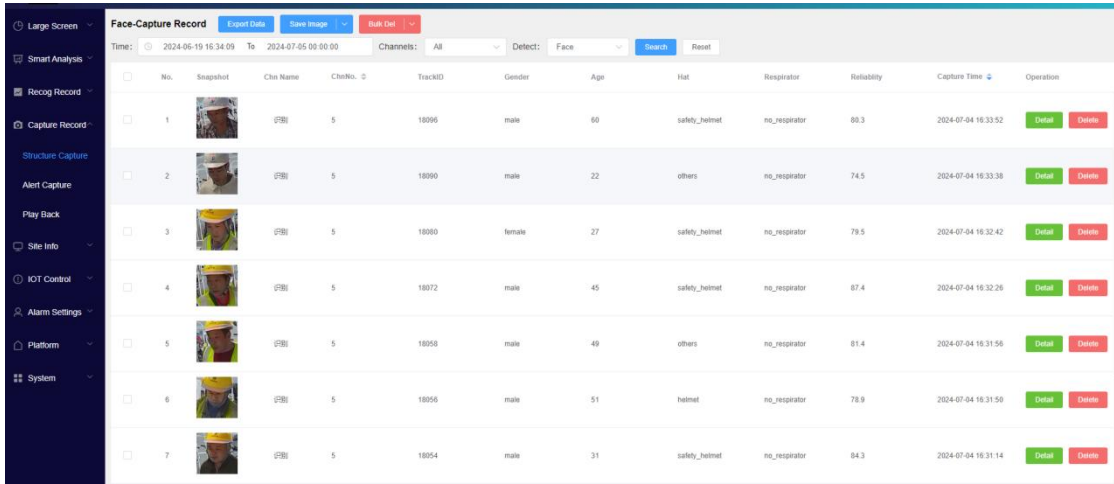


Figure 27 The snap record page

7.5.1. Structured capture records

Display AI identification information according to the strategy structure capture of control setting; the upper functional area can retrieve the specific channel, date and time period; click to view the details and deletion of each alarm information;

7.5.2. Vigilance capture

Catch and store the perimeter, perimeter vehicles and personnel violations and display AI identification information; the upper functional area can retrieve specific channels, date and time period; click to view the details and deletion of each alarm information; screen the alarm type in the figure;

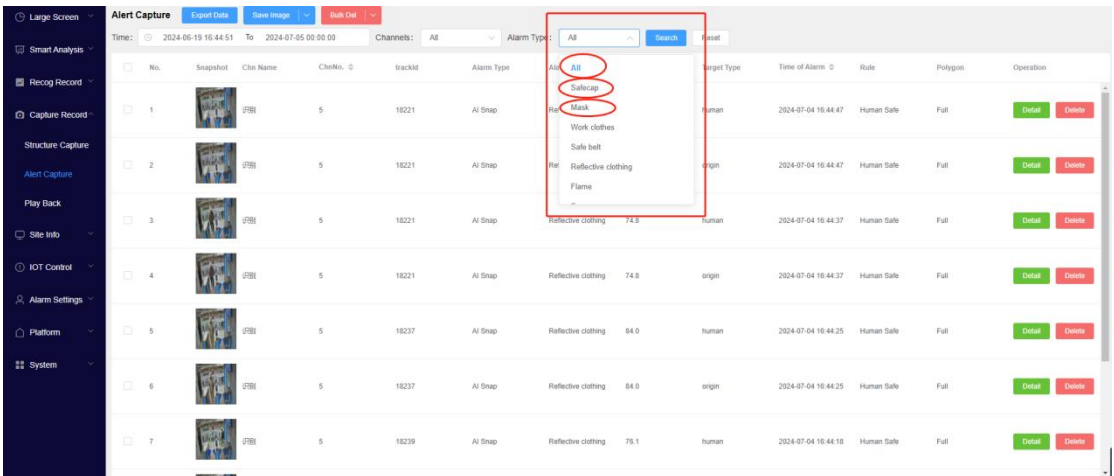


Figure 28 Warning and capture screening setting

7.5.3. Video playback

You can select the corresponding channel of video, picture playback, the upper functional area can retrieve the specific date and time period

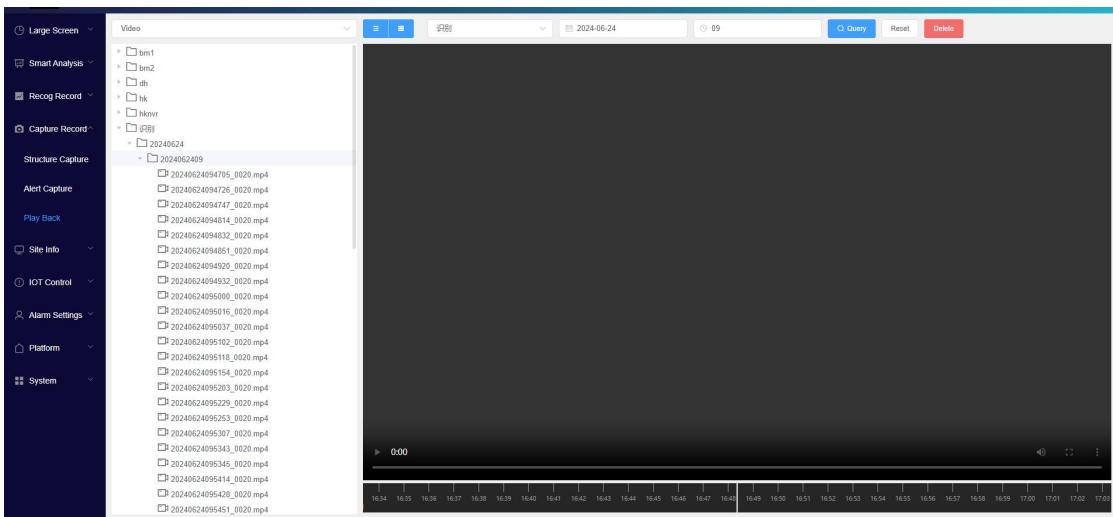


Figure 29 The video playback page

To the left of the content area is the directory tree saved by the channel, and the upper drop-down list can choose to view the video or graph Film, the default view is the video. If a channel name exists, a directory name appears as a channel name, otherwise it appears as a number. If you want to view the data of a certain channel, you can click on the channel to view it. After clicking the channel, the secondary directory is displayed, which is composed of the current date, users can click to view the data of a certain day according to the time, the third layer directory consists of date and time period, and clicking the directory composed of date and time again can display the video data list. The video data name is composed of year + month + day + hours + minutes + seconds _ video seconds, click the video name, and then click the play button in the video playback area to play. The search criteria will also change when you click on the left directory tree;

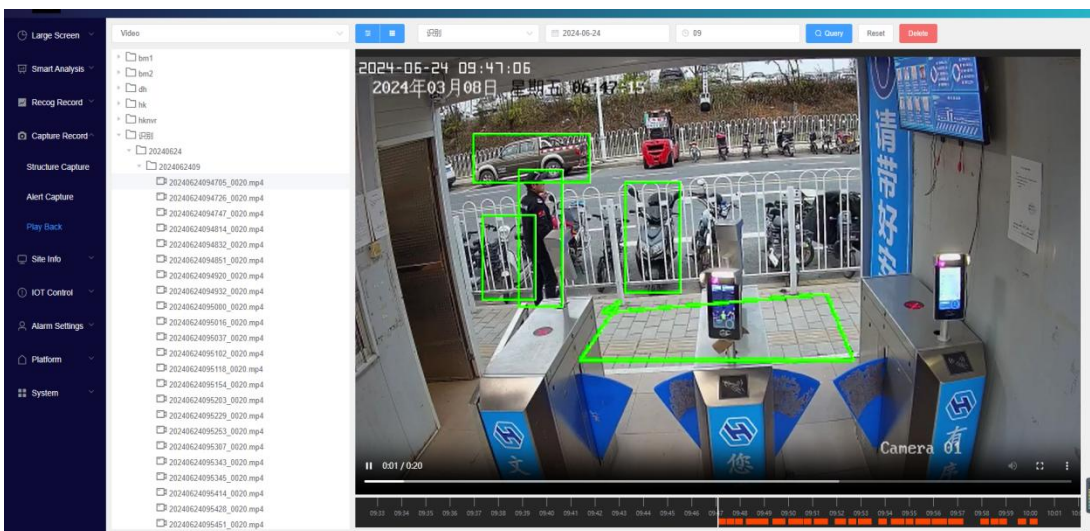



Figure 30 The video playback page

If you want to display all the video data in a thumbnail way, you can click the button to enter the thumbnail side 

Type view video. Thumbnail mode shows 12 videos by default, and users can switch to play by clicking the paging button, but it does not play

automatically by default, and the user needs to manually click the play button to play. If you want to return to a single play, you can

Click on the list button to switch off;

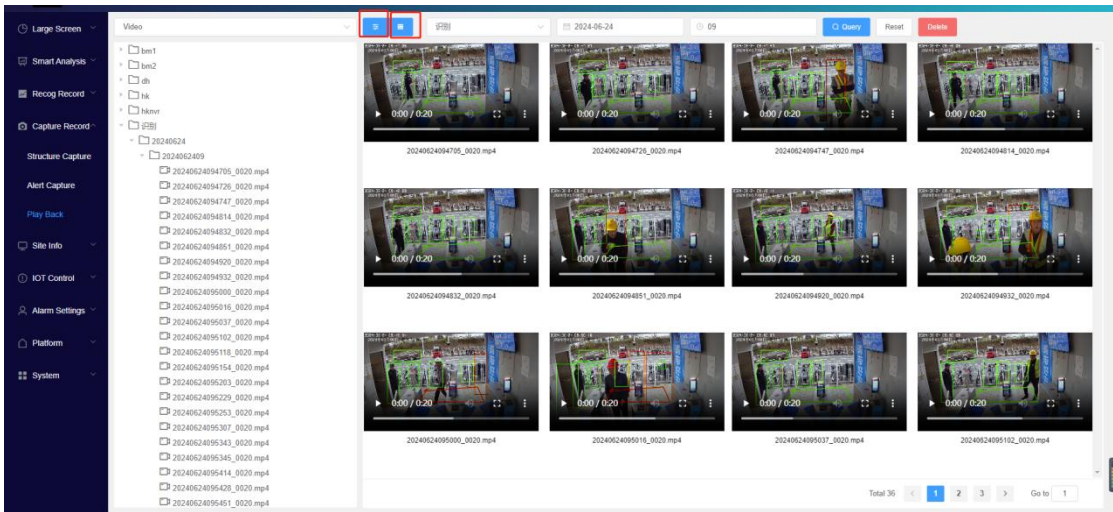


Figure 31 Video playback thumbnail page

In list mode, you can choose to drag the time scroll bar below the video area to find the playback. Intermediate white line table Show the current time, the user can drag left and right to obtain the video data playback within the time, and moving the mouse into this control will show the specific time in the current position of the mouse;

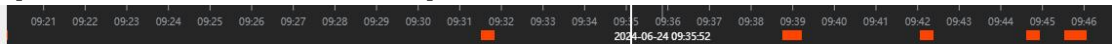


Figure 32 shows the specific time below the video playback

Query image data and video data is the same operation. One difference is that the picture list display data is displayed in the form of a table, users can click to view the picture and download the picture;

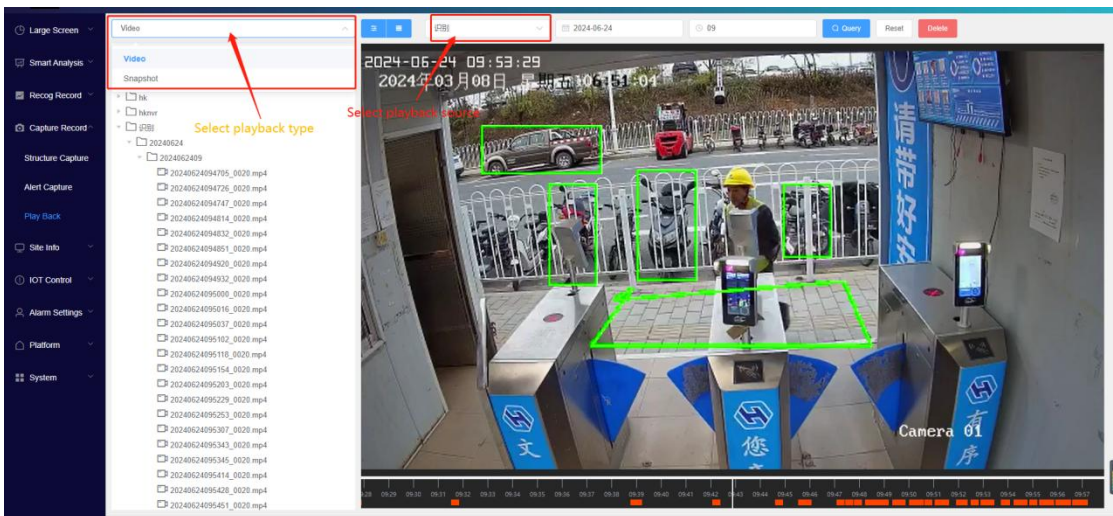


Figure 33 Video playback snap picture page

7.6. Archival Information

It mainly includes: point location information, park/enterprise files, personnel files, vehicle files, Portrait Library Management;

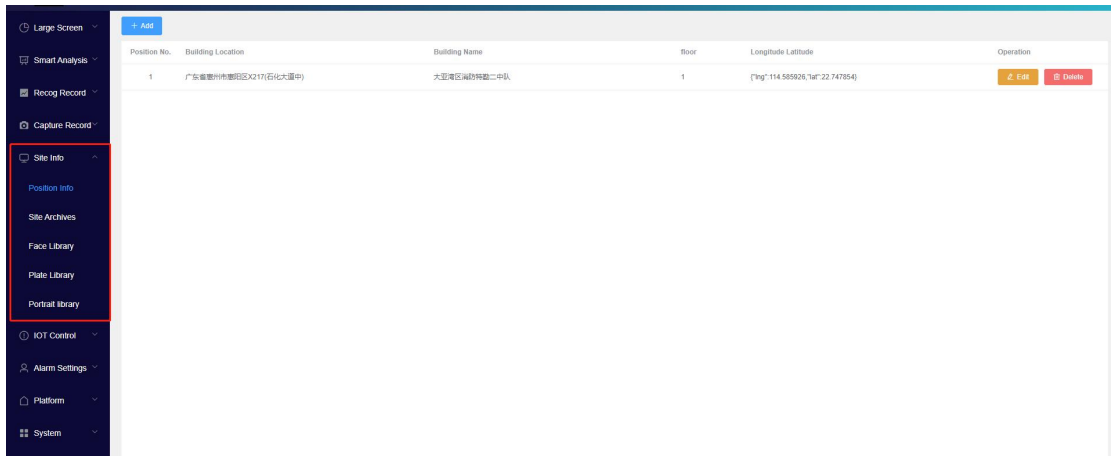



Figure Figure 34. Archive information page

7.6.1. Point information

Click  to add the specific location of the device. By default, the current location information will be displayed, and once the map obtains the location information, it will automatically fill in the corresponding form input box. If the location is not accurate, the user can delete the point position, enter keywords to search for location information, select a location information from the drop-down list, and select the corresponding point position. The name will also be automatically filled in. Users can also drag the map and click to select point information;

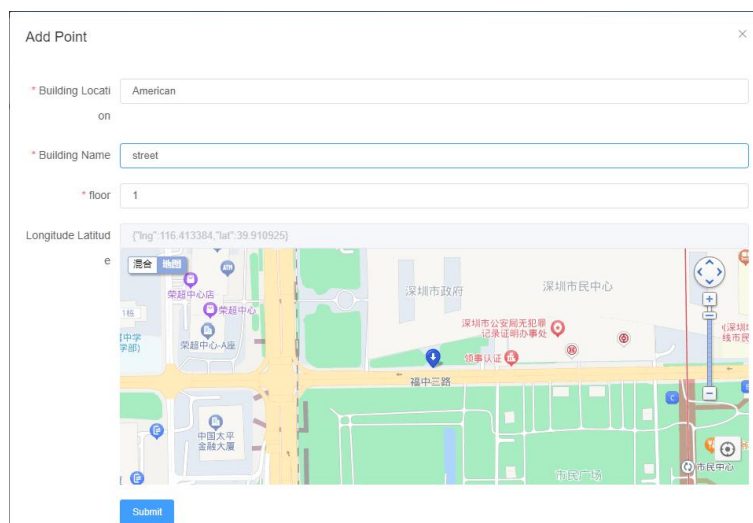



Figure 35 The location information selection page

Click  to modify the specific point information that has already been added;

7.6.2. Park/Enterprise Archives

Click **Add** to add the name of the park/enterprise, enter the enterprise name, social credit code, and note information,

Click **Submit** to complete;

Click **LookDept** to view the department details of the current park/enterprise, and add departments by clicking **New Dept**, Enter the department name from the list input box, click Add, click Cancel Add.

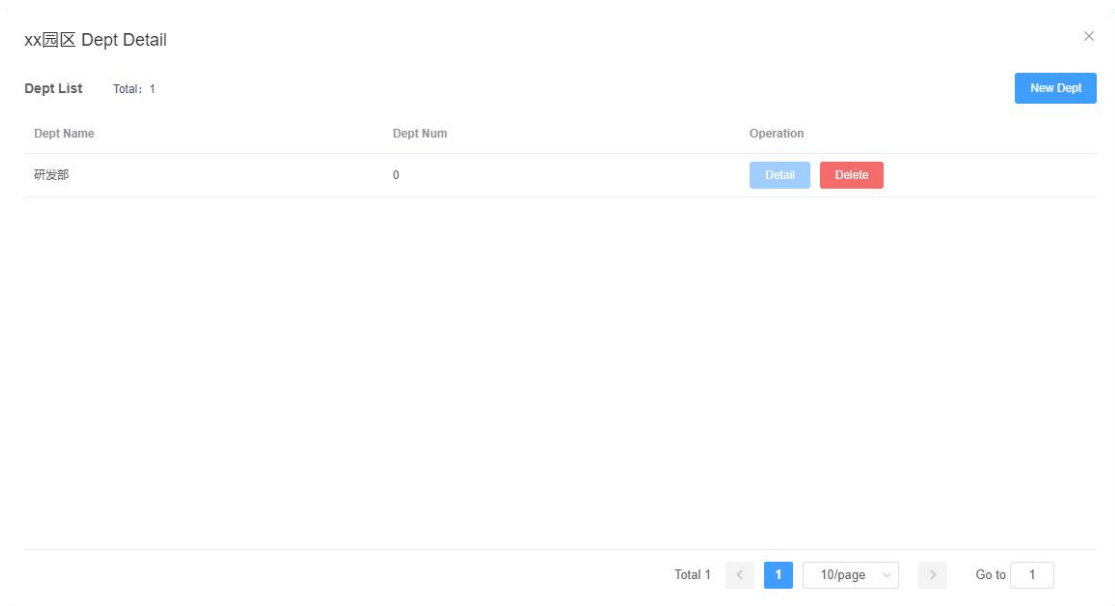


Figure 36 Park / enterprise addition interface

If the number of departments in the department list is 0, **Detail** in the gray unoperable state, if the number of departments. When it is greater than 0, you can view the personnel information of the current department. At this time, the deletion function cannot be operated. Users can directly use the unbinding function to remove the personnel from the department.

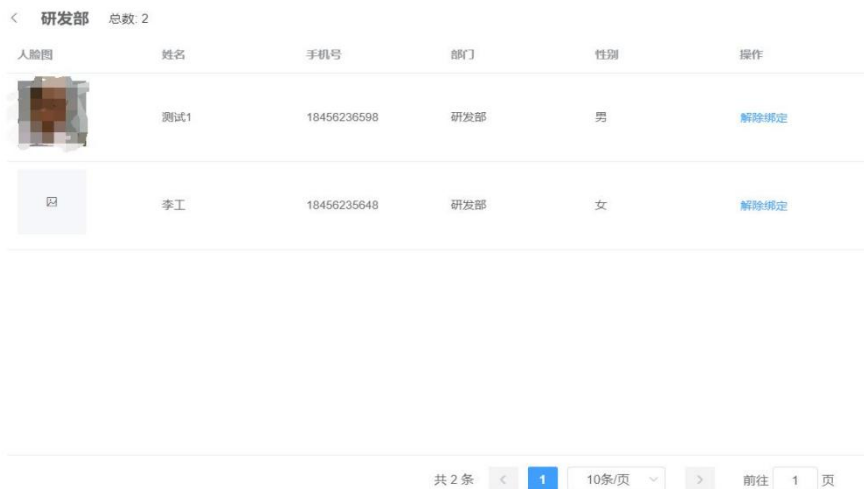


Figure Figure 37 The List of departments shows the page

Delete Click to delete the added park / enterprise to delete, if it is gray, means that the current operation, the number of departments is 0 can be deleted;

7.6.3. Personnel files

The personnel profile page can be searched for names and units by clicking **Query** and reset conditions can be used

A search bar with two dropdown menus labeled 'Name' and 'Unit', both set to 'All'. To the right are two buttons: a blue 'Query' button and a white 'Reset' button.

Add personnel files, which can be selected for single entry or batch entry. Click 'Single Entry' to enter the corresponding information according to the interface prompt. The associated department drop-down selection box is not optional by default. Only after selecting the unit can the department be selected. Click 'Submit Entry' to proceed;

An 'Import' form with the following fields:

- Treasury name: dropdown menu with 'None' selected.
- Name: text input with placeholder 'Please Enter Username'.
- Telephone: text input with placeholder 'Telephone'.
- Gender: radio buttons for 'Man' (selected) and 'Woman'.
- Unit: dropdown menu with 'Select' selected.
- Bind Dept: dropdown menu with 'Select' selected.
- Image: a large area with a blue background and text 'Drag or click to upload'. To the right, a 'Notice' box lists requirements: Types: JPG, JPEG, PNG; Size ≤ 4MB; Image Max Pixels ≤ 4096*4096; Image Min Pixels ≥ 100*100.
- Description: text input with placeholder 'Description'.

 At the bottom right are two buttons: a blue 'Submit Library' button and a white 'Logout' button.

Figure 38 Entry page of personnel files

Batch warehousing can add multiple personnel files at once, but data must be in the specified format. Move the mouse over to the dropdown icon for batch storage, select the folder, and a batch storage pop-up box will pop up. From the pop-up box, select the user manual folder for the edge

monitoring equipment you want to upload, then select the unit and department, and click "Batch Storage". Format image naming: Name Gender Phone Image Type.

7.6.4. Vehicle files

Vehicle warehousing steps are consistent with personnel warehousing;

7.7. Immediate early warning

Instant early-warning mainly includes: early-warning data, gateway information, Modbus;

7.8. Early warning and control control

Early warning control mainly includes: channel management, control setting, audio linkage and model management; see Section 5 for channel management; See Section 6 for the distribution control setting;

7.8.1. Audio linkage

The audio linkage page can modify the audio, set the steps: the left sidebar-early warning control-audio linkage-upload files-determine, if there is a need to change the audio format, you can install the company's special audio converter to achieve audio conversion;

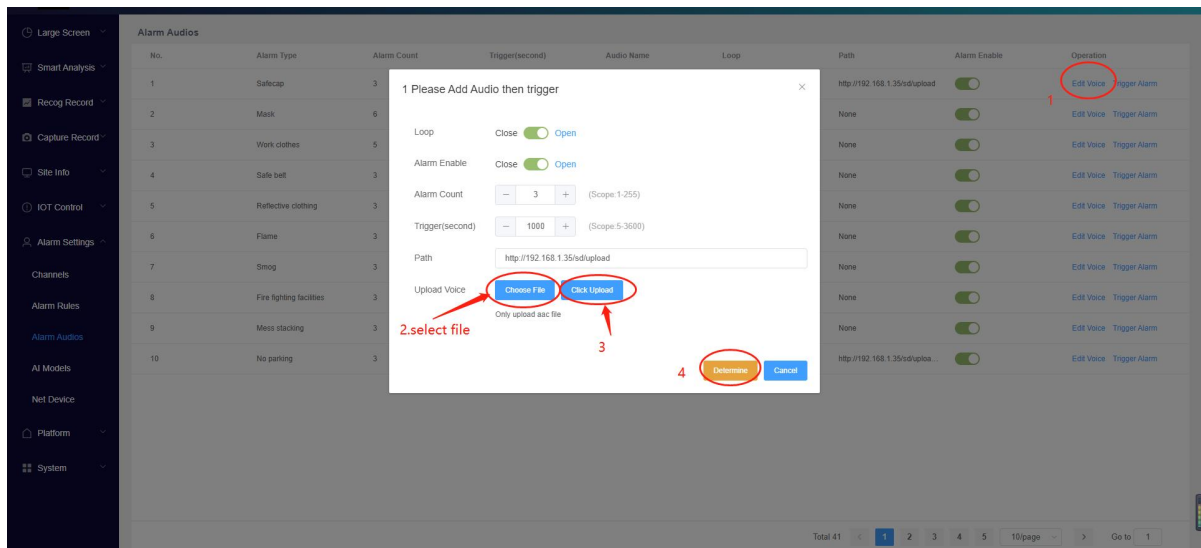


Figure 39 Audio linkage page

Notice:When connecting the speaker to the AIBOX box, connect the active speaker to the SPK+and GND ports, and the borderless speaker to the SPK+ and SPK- ports.

7.8.2. Model management

The model management page can view and edit the individual model early warning information;

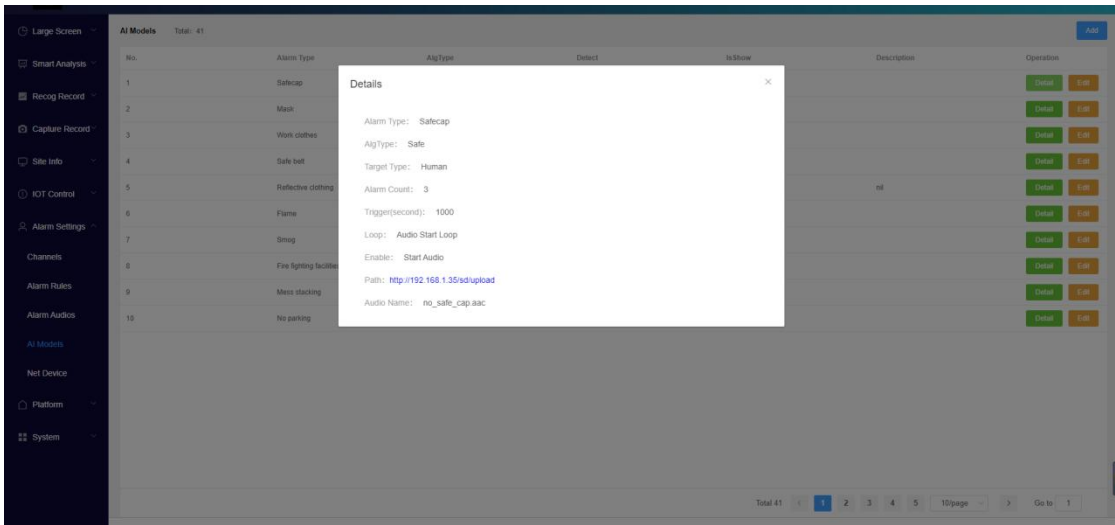


Figure 40 The Model management page

7.9. Platform access

Platform access includes: GB28181 configuration, GA/T 1400, server setting, Report; the most commonly used function is involving HTTP POST to alarm platform;

7.10. System management

System management includes: GB28181 configuration, GA/T 1400, server settings, and Report;

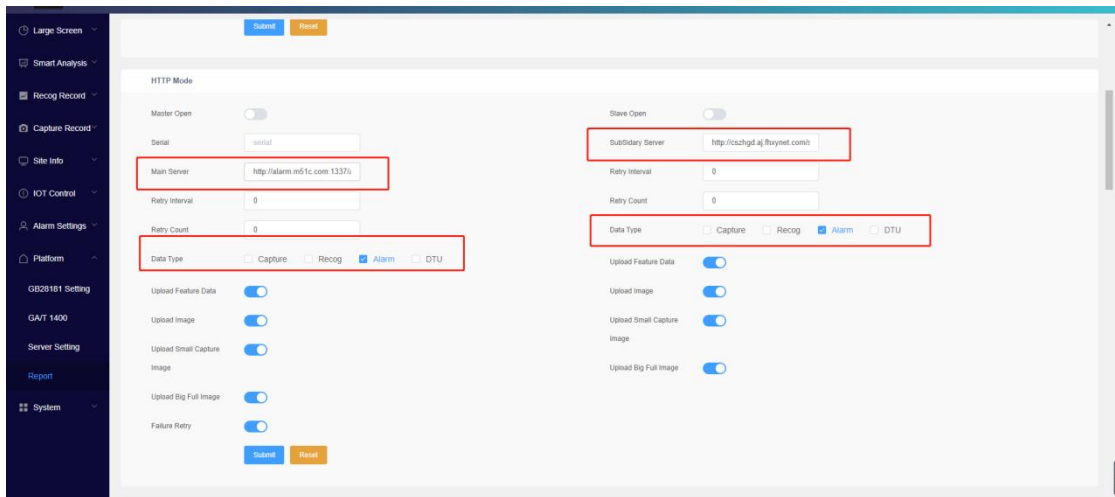


Figure 41 Platform access page

7.10.1. System parameters

System parameters include: system configuration, global algorithm setting, access authentication, M51C Connect;

system configuration:



The system language can be modified to be in Chinese and English;



The credibility threshold of the target can be modified, generally set to 10~50, its confidence is the confidence of all the model detection targets;



In the title of the website can be modified in the current page title name, enter the information to be modified, click **Edit** effective immediately;

Other Settings should operate according to the page reminder;

Global algorithm setting:

According to the page prompts can be modified, generally not recommended to change;

7.10.2. Hardware settings

Displays the current system configuration, the upper right corner function area has: restart AI, last upgrade status, firmware upgrade, device restart, reset and other functions;

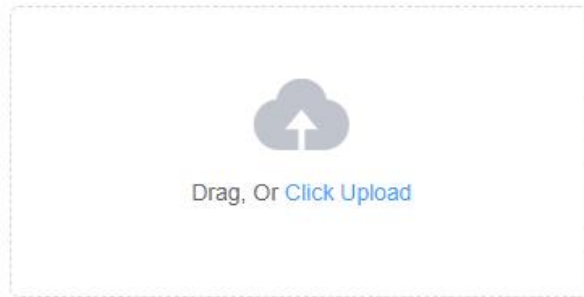
Firmware upgrade: click **Upgrade FW** , then click to upload the upgrade package provided by our technical staff, click **Upgrade FW** ;

7.10.3. Online upgrade Settings

Online upgrade includes: online upgrade setting, LOGO replacement. Online upgrade: according to the page prompts, generally not recommended to change;

Logo replacement: Click upload, select the logo file that needs to be replaced, enter the file selection interface, and the selected logo document will be displayed in the box selection area. Then click submit to complete the process; When uploading images with the extension png, modify the website logo; When uploading images with the extension ico, modify the website icon;;

LOGO Replace



If the image extension is png, change the website LOGO. Upload pictures with the extension ico when modifying the website icon



Figure 42 Logo replacement page

7.10.4. Network settings

Can set up the AIBOX wired network, wireless network, 4G network and other LAN port network, and fill in the corresponding information according to the interface prompt; see Section 4 for details;

8. FAQ

8.1. Basic setting logic

- 1) The departure of the personnel means that the personnel in the area leave the alarm once;
- 2) Personnel leaving the post means that there is no personnel on duty in the area;
- 3) When the vehicle leaves or the non-motor vehicle leaves, only alarm once;
- 4) The fire extinguisher cannot be identified, and the training picture needs to be further optimized without not enough;
- 5) Due to the limited system resources, the sum of the total number of non-human and human movements can not be more than 15. If the front channel has been configured to use up the capacity, the back channel will not work;
- 6) Action recognition detection will detect the duration of the action. If you want to be sensitive, set the time shorter;
- 7) Set the alarm but no response, please try to go to the system management, set the volume in the system configuration;
- 8) If the alarm is inaccurate, please try to go to the system management and modify the confidence, which is global confidence, See the specific threshold range; also check whether the alarm cordon/area position is consistent with the intended detection area;
- 9) At present, users are advised to use the http mode to upload the information to the cloud;
- 10) In the channel management, if the camera connection fails, the non-Hikon camera can try to use the VLC software to connect to the network stream, excluding the elements of the camera itself, and the Hikon camera uses its test software for testing.

8.2. The Channel Problem

All channels must be added in order of 0~15. Skipping the order may cause AI recognition problems.

8.3. Page personalization setting issue

8.3.1. Title replacement

LOGO replacement see Section 7.9.3;

Title replacement includes column title and copyright information at the bottom can be personalized according to their own needs, system management-system Settings steps:left sidebar-system management-parameter

setting-modify the website title/ permission information-refresh the web page;

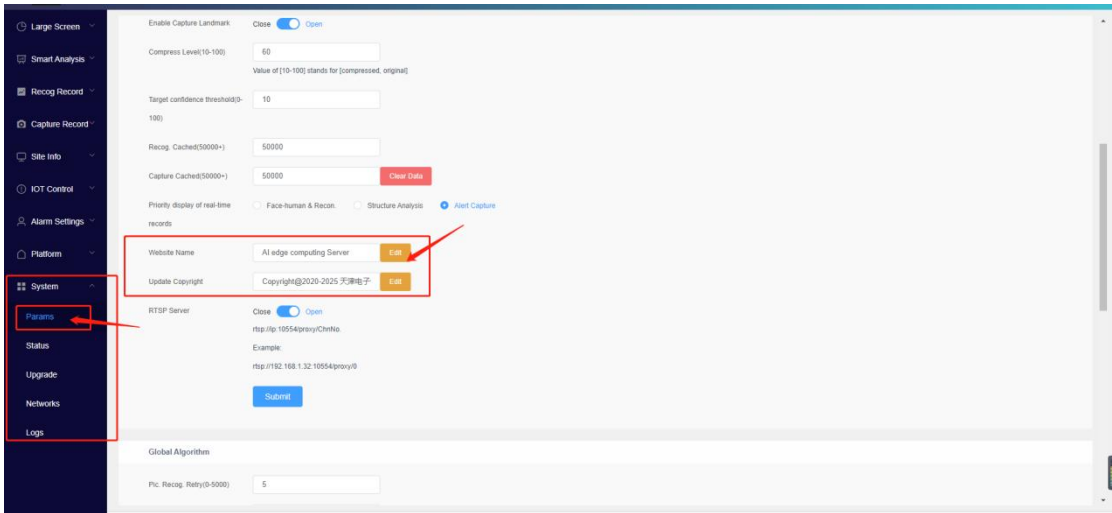


Figure 48 Title replacement page

8.3.2. Language Settings

If there is a language modification requirement, you can modify the corresponding content according to the requirements. If you need to add other languages, you can contact our technical personnel;

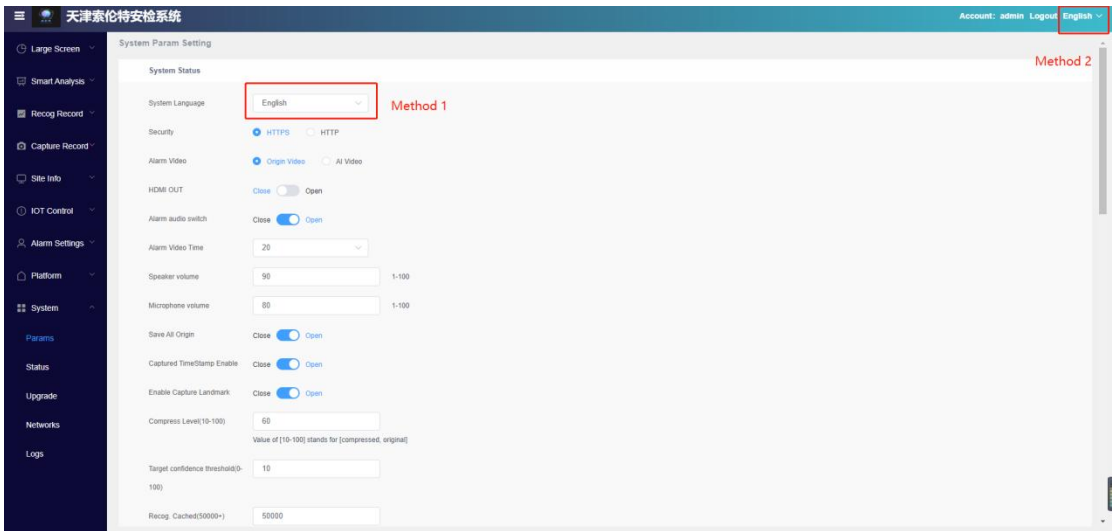


Figure 49 Language setting location

Notice:After the language switch is completed, it is recommended to go to the server settings and switch time information.

Setting steps: left sidebar - platform access -server setting -time zone information selection/current time manual input - click submit - refresh the web page;

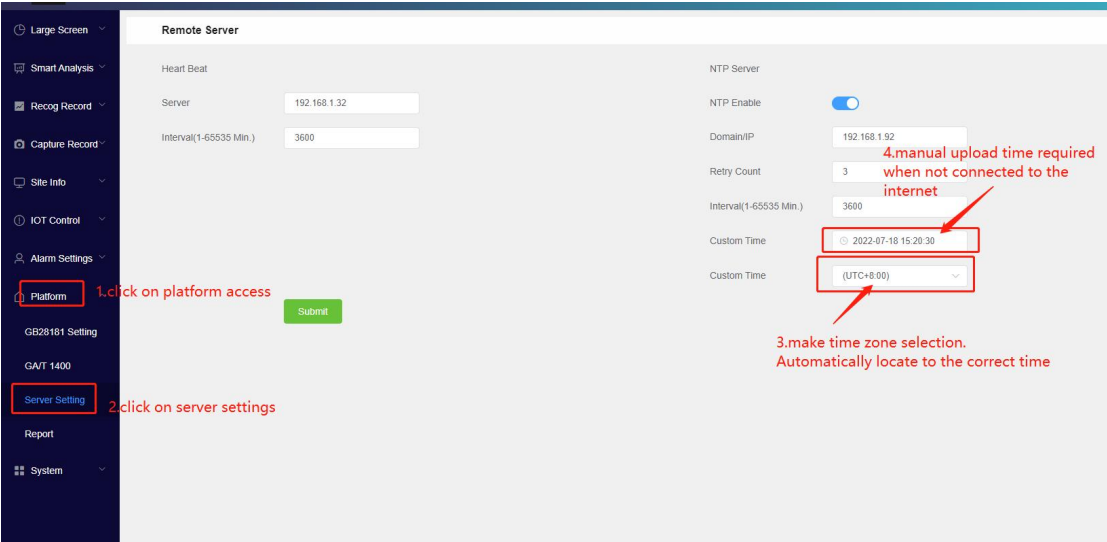


Figure 50 Time zone modification step