

Algorithm Warehouse

User Manual

Manual Version: V1.01

About This Manual

Thank you for your purchase. If you have any questions, please do not hesitate to contact your dealer.

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Usage Instructions

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- The product described in this manual is provided on an "as is" basis. Unless required by applicable law, this manual is only for informational purpose, and all statements, information, and recommendations in this manual are presented without warranty of any kind, expressed or implied, including, but not limited to, merchantability, satisfaction with quality, fitness for a particular purpose, and noninfringement.
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Document Conventions

- The graphics, tables or photos in this manual are only for illustrative purpose. The actual product may be different.
- The mouse operations described in this manual are right-handed operations.
- This manual is a guide for multiple product models instead of for a specific product, and certain contents in this manual may not apply to all products.
- Due to uncertainties such as physical environment, discrepancy may exist between the actual values and reference values provided in this manual. In case of any conflicts or disputes, please refer to our final interpretation.
- Please follow the instructions in this manual when you use the product. Using the product under professional guidance is recommended.
- The symbols in the following table may be found in this manual. Carefully follow the instructions indicated by the symbols to avoid hazardous situations and use the product properly.

Symbol	Description
 NOTE!	Indicates useful or supplemental information about the use of product.
 CAUTION!	Indicates a situation which, if not avoided, could result in damage, data loss or malfunction to product.
 WARNING!	Indicates a hazardous situation which, if not avoided, could result in bodily injury or death.

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1 Environment Preparation

This chapter introduces the environment preparations before login.

Please make sure that the server hosting the system and the client computer are connected via network. For optimal performance, it is recommended to use Google Chrome or FireFox.



NOTE!

The system has dual network interfaces. By default, the IP address of interface 1 is **192.168.1.30** and interface 2 is **192.168.2.30**.

2 User Login

This chapter describes how to log in, reset password, log out, and change the theme.

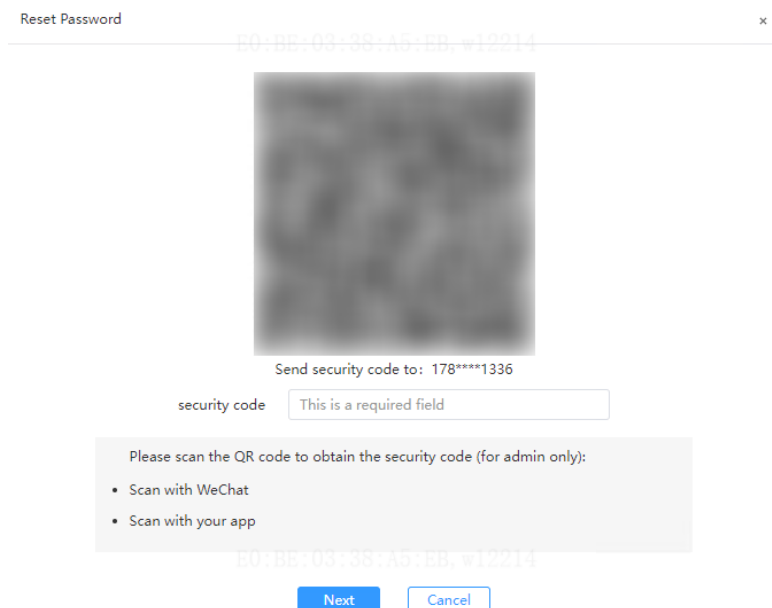
2.1 Login

Open the web browser, enter the <http://smart box IP>, and then press **Enter** to open the **Login** page. Enter the username and password (default: admin/123456), and then click **Login**.

For the first login, follow the on-screen instructions to complete the information.

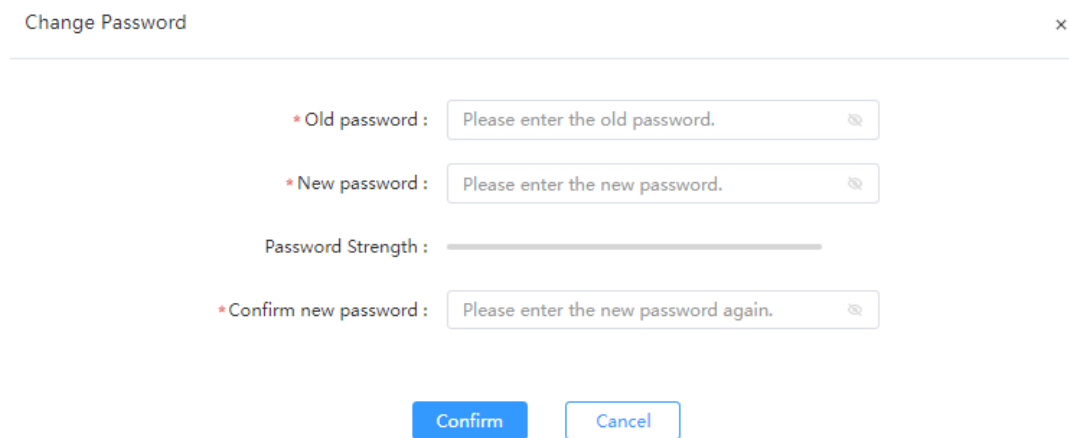
2.2 Reset Password

Click **Forgot Password**. Scan the QR code to obtain a security code, then enter the code and set a new password for admin.





2.3 Change Password

To change the login password, click the username in the top right corner, click **Change Password**, and then follow the on-screen instructions to set the new password.




Change Password x

* Old password : 

* New password : 

Password Strength :

* Confirm new password : 

Confirm Cancel

2.4 Logout

Click the username in the top right corner, and then click **Logout**.

2.5 Change Theme

Click **Change Theme** in the top right corner to personalize the theme.

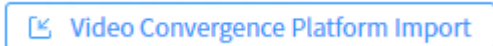
3 Channel Management

Channel management includes:

- Channel operations: add, edit, delete, search channels.
- Task configuration: choose tasks, draw detection areas.

3.1 Add Channel

Key Operations

- Add manually: Click **Add**, and then configure the parameters.
- Auto search: Click **Auto Search** to search devices on the same LAN as the smart box, and then configure the parameters.
- Video Convergence Platform Import: Click  to search for cameras within the platform, and then select camera(s) to add.



NOTE!

Before using the Video Convergence Platform Import function, ensure that [Video Convergence Platform](#) is enabled and properly configured.

Protocol	Description
Onvif Protocol	Enter the channel name, IP, username, and password, and then choose a stream type.
RTSP Protocol	<p>It is recommended to choose RTSP when:</p> <ul style="list-style-type: none"> ● The smart box cannot pull streams from the channel directly, but can pull streams via an NVR. In this case, obtain the RTSP URL from the NVR. ● The smart box cannot connect the camera via Onvif. In this case, enter the RTSP URL by referring to the examples below, and then replace parameters ①②③ accordingly; other URLs remain unchanged. <p>Template ▷</p> <p>Authentication mode: rtsp://admin:①②③@204.204.70.67/media/video1 Non-authentication mode: rtsp://192.168.1.10:554//Streaming/1③</p> <p>① Username of the channel ② Password of the channel ③ IP address of the channel</p> <p>Refer to the following examples for common RTSP stream formats in authentication mode:</p> <pre>rtsp://admin:admin@192.168.1.15:554/id=0 rtsp://admin:123456@192.168.1.15:554/1/0 rtsp://admin:123456@192.168.1.15:554/stream1 rtsp://admin:123456@192.168.1.15:8554/profile0 rtsp://admin:123456@192.168.1.15:8554/profile1 rtsp://admin:123456@192.168.1.15:554/live0.264 rtsp://admin:123456@192.168.1.15:554/media/video1 rtsp://admin:123456@192.168.1.15:554/unicast/c1/s0/live rtsp://admin:123456@192.168.1.15:554/LiveMedia/ch1/Media1 rtsp://admin:123456@192.168.1.15:554/Streaming/Channels/101 rtsp://admin:123456@192.168.1.15:554/cam/realmonitor?channel=1&subtype=0</pre>

Other Operations

Operation	Description
Edit	Click Edit to edit the channel information. Caution: Be cautious when replacing the channel settings with settings of other channels; it may affect data analysis and retrieval.
Details	Click Details to view the detailed channel information.
Delete	<ul style="list-style-type: none"> ● Delete one by one: Click Delete . ● Delete in batches: Select the channels to be deleted and click Batch Delete .
Refresh	Click Refresh to refresh the channel list.


3.2 Intelligent Analysis Configuration

Configure intelligent analysis for channels.

Channel Mgt

[+ Add](#) [Refresh](#) [Auto Search](#) [Batch Delete](#)

<input type="checkbox"/>	Channel ID	Channel Name	Status	IP Address	rtsp	Protocol	Alarm Type	Operation
<input type="checkbox"/>	1	1	Online	217.1.1.98		onvif		Analysis Config Edit Details Delete
<input type="checkbox"/>	2	12121	Online	217.1.1.9	rtsp://217.1.1.9:8554/stream/0	rtsp	Tripwire People Counting	Analysis Config Edit Details Delete

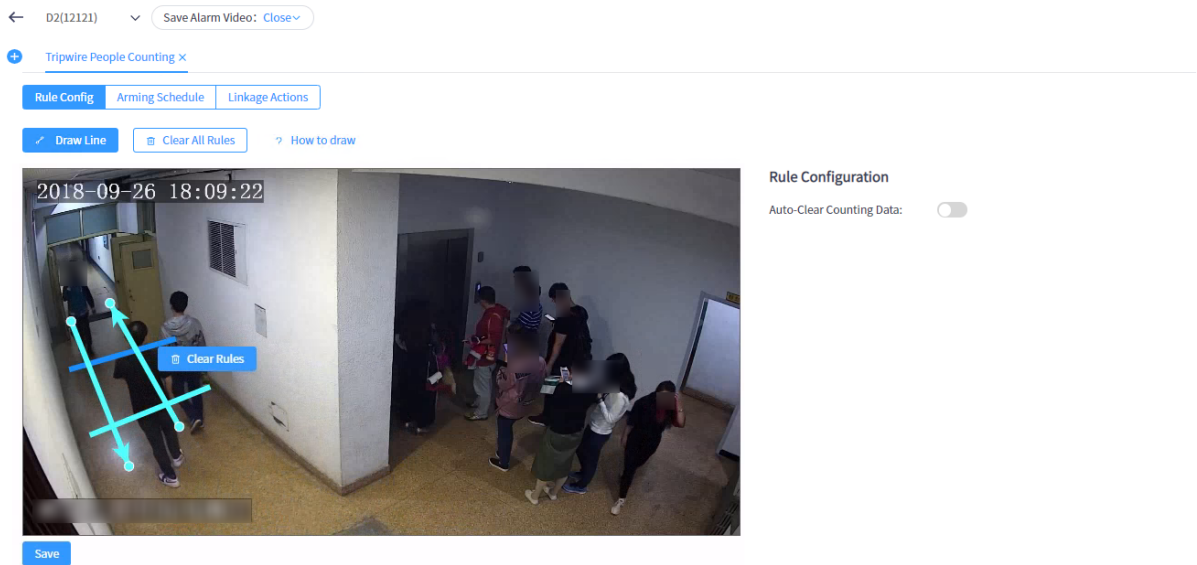
Click **Analysis Config**, click  and choose the intelligent analysis service.

**NOTE!**

- If the configured analysis tasks exceed the total computing power of the Smart Box, analysis accuracy will be affected. Please pay attention to the remaining computer power during configuration.
- Face recognition cannot be enabled simultaneously with other functions. There are no such limitations for other functions.

Operation	Description
Select Channel	Choose the channel to configure.
Save Alarm Video	Set the alarm video length. After being enabled, you can view alarm videos in Behavioral Data .
Face Recognition/ Behavior & Person Identification (displayed based on service type)	<p>When enabled, you can configure the following parameters:</p> <ul style="list-style-type: none"> ● Person Library: Select one or more person libraries. Detected targets will be compared with persons in the selected libraries. Results can be view on the Data Search page. ● Alarm Threshold: Set the match threshold to trigger an alarm. ● Alarm Type: Choose Match Alarm, Not Match Alarm, or All. ● Alarm Output: Select up to 4 alarm devices for alarm linkage. ● Enable: Enable/disable alarm audio. For face recognition services, configure here. For behavior services, configure in Linkage Actions. ● Alarm Audio Play Count: Set the number of times the alarm audio will play. <p>Enable <input checked="" type="checkbox"/></p> <hr/> <p>Person Library: <input type="text" value="Default List x"/> ▾</p> <p>Alarm Threshold: <input type="text" value="80"/> <input type="button" value="-"/> <input type="button" value="+"/></p> <p>Alarm Type: <input type="text" value="All"/> ▾</p> <p>Alarm Output: <input type="text"/> ▾</p> <p>Enable: <input type="radio"/> Open <input checked="" type="radio"/> Close</p> <p>Alarm Audio Play Count: <input type="text" value="2"/> <input type="button" value="-"/> <input type="button" value="+"/></p>

3.2.1 Area Configuration



1. Draw the detection rule.
 - Use the default rule: By default, the detection area covers the entire image.
 - Customize rules: Click **Clear Rules**, and then draw rules as needed.
 Click to start drawing, right-click to finish.
 Draw a tripwire: Specify two points to set the tripwire, click again to set the detection direction.
 Draw an area: Specify 3 to 6 points to set the detection area.



NOTE!

Some algorithms support multiple detection areas.

2. Configure the parameters as needed.

Item	Description	Algorithm
Sensitivity	Set the detection sensitivity. Higher sensitivity triggers alarms more easily, but may also increase false alarms.	General Configuration (required for most algorithms)
Trigger Time	An alarm is triggered when the duration of the behavior reaches the threshold. Range: 1-1800s	
Alarm Interval	Though behavior detections are continuous, alarms will be reported at set time interval.	
Face Capture Mode	<ul style="list-style-type: none"> ● Quality Priority: Reports the best-quality face snapshot from when the face enters the image until it leaves. ● Speed Priority: Reports the best-quality face snapshot from when the face enters the image until a predefined quick reporting time is reached. ● Periodic Selection: Reports a face snapshot at specified intervals from when the face enters the image. ● Quick Report: Immediately reports a face snapshot when the face enters the image. If a higher-quality snapshot is captured later, it will also be reported. 	Face Recognition
Min. Face Filtering Size Width/Height	Faces with the size smaller than the set size will not be detected.	
Intrusion Detection Type	Available options: Pedestrian, Non-Motor Vehicle, and Motor Vehicle.	Intrusion Detection

Item	Description	Algorithm
Max./Min. Head & Shoulder Filter Width/Height	Excludes pedestrians with head and shoulder dimensions outside specified limits.	Intrusion Detection, Enter Area, Leave Area
Max./Min. Non-Motor Vehicle Filter Width/Height	Excludes non-motor vehicles with dimensions outside specified limits.	Intrusion Detection
Max./Min. Motor Vehicle Filter Width/Height	Excludes motor vehicles with dimensions outside specified limits.	Intrusion Detection
Work Clothes Library	See Work Clothes Library Management.	No Work Clothes Detection
Background Refresh Interval	The background refresh interval must be greater than the trigger time configured for Lost Items; otherwise, alarm will not be triggered.	Lost Items
Person Number Limit	<ul style="list-style-type: none"> ● Absence Detection, Inadequate Worker: An alarm will be triggered if the number of people in the area is less than the set threshold and the trigger time is met. ● People Gathering, Overcrowding Detection: An alarm will be triggered if the number of people in the area is more than the set threshold and the trigger time is met. 	Overcrowding Detection, Absence Detection, People Gathering, Inadequate Worker
Fluctuation	An alarm is triggered if the number of people added to the area is greater than or equal to the set threshold and the duration reaches the specified time threshold. Range: 1-39.	People Gathering
Auto-Clear Counting Data	When enabled, the dashboard data will be reset every day. Note: Up to 4 tripwires are allowed for a channel. People counting data is based on the sum of the counting data of the 4 tripwires.	Tripwire People Counting
Detour Area	Unwashed vehicle detection supports 2 kinds of detection areas: <ul style="list-style-type: none"> ● Vehicle Washing Area: The drawn area is the default area for analyzing whether vehicles have been washed. ● Detour Area: Select a drawn area and set Detour Area to Yes. This function is typically used for areas where vehicle entry is prohibited. Any vehicle passing through this area will be reported. 	Unwashed Vehicle Detection
Distance Measurement Line (m)	Enter the actual distance of the straight line displayed in the image.	Campus Vehicle Overspeed Detection, Forklift Overspeed Detection
Default Speed Limit (km/h)	Set the baseline speed limit.	
Speed Limit Ratio of Speeding (%)	An alarm will be triggered if the detected vehicle speed exceeds Default Speed Limit + Default Speed Limit * Speed Limit Ratio of Speeding. The alarm details, including the detected speed, can be view in Behavioral Data .	
Speed Correction (km/h)	Correct speeds within a specified segment. The correction percentage can be either positive or negative; adjust according to the actual conditions. For example, if the speed range is 30-40 km/h and the correction percentage is 10%, and the detected speed is 35km/h, the corrected speed will be 38.5km/h (35+35*10%).	

Item	Description	Algorithm
	<input type="text" value="30"/> <input type="text" value="40"/> <input type="button" value="-"/> <input type="text" value="10"/> <input type="button" value="+"/> % <input type="text" value=""/> <input type="button" value="-"/> <input type="text" value="0"/> <input type="button" value="+"/> % <input type="text" value=""/> <input type="button" value="-"/> <input type="text" value="0"/> <input type="button" value="+"/> %	
Only capture large dogs	Control whether to identify large dogs only.	Dog recognition
Longest distance without a dog's leash	If a dog is off-leash for a distance that exceeds the threshold, it is considered as risky.	
Allow dog walking time period	An alarm will be triggered if a dog is walked outside the designated time period.	
Vehicle Count Threshold	If the number of vehicles in the area exceeds or meets the threshold, the area is considered as congested.	Campus Vehicle Congestion Detection
Time Threshold	An alarm will be triggered if the duration of vehicle congestion exceeds or meets the threshold.	

3.2.2 Arming Schedule

[Rule Config](#) [Arming Schedule](#) [Linkage Actions](#)

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

Key Operations

Drag on the timeline to set the arming schedule, and then click **Save**. The default arming schedule is 24h.

Other Operations

Operation	Description
Copy to Other Days	Used to apply the settings of a day (e.g., Monday) to other days of the week. 1. Select the day (e.g., <input checked="" type="radio"/> Monday). 2. Click Copy to Other Days , and then click Save .
Clear All	Click to clear all.

3.2.3 Linkage Actions

Rule Config Arming Schedule **Linkage Actions**

Link Alarm Output

A->1 A->2 A->3 A->4

Link Audio Output

Enable Open Close

Alarm Audio Play Count

Save

Link Alarm Output

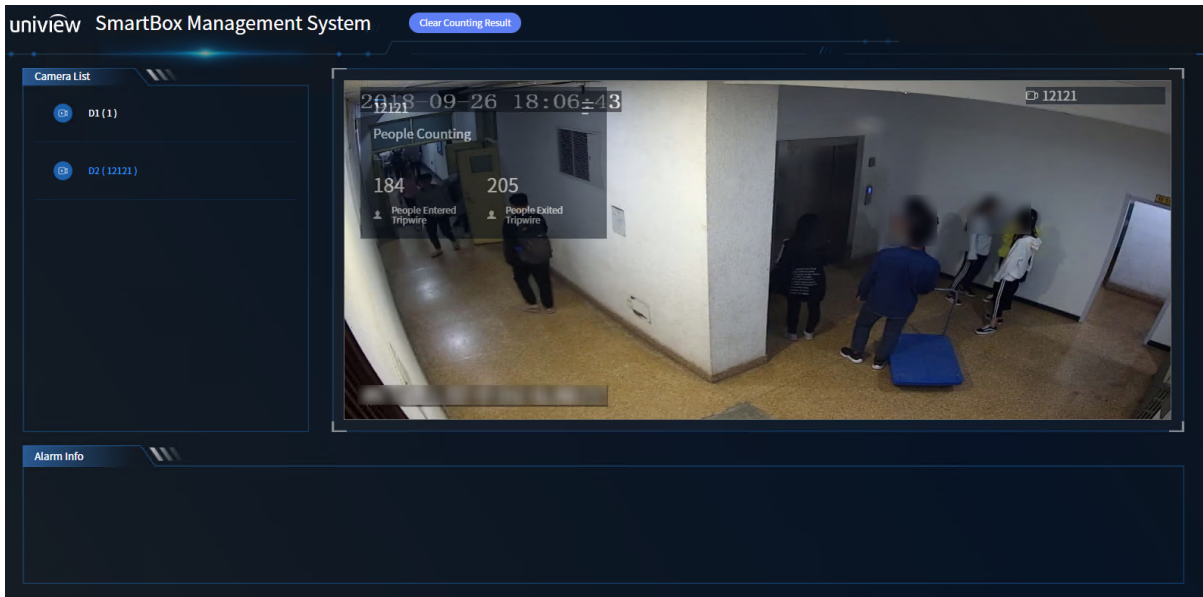
The four alarm output options correspond to the four alarm output terminals on the smart box. After connecting an alarm terminal to an external alarm device, you need to configure alarm output on the page as shown below.

Link Audio Output

Set whether alarms generated by smart services are linked to audio output. The linkage audio can be configured in [Audio Upload](#).

4 Data Dashboard

Click **Data Dashboard** in the top right corner to view live videos and alarms. For information about how to configure intelligent analysis, see [Intelligent Service Configuration](#).

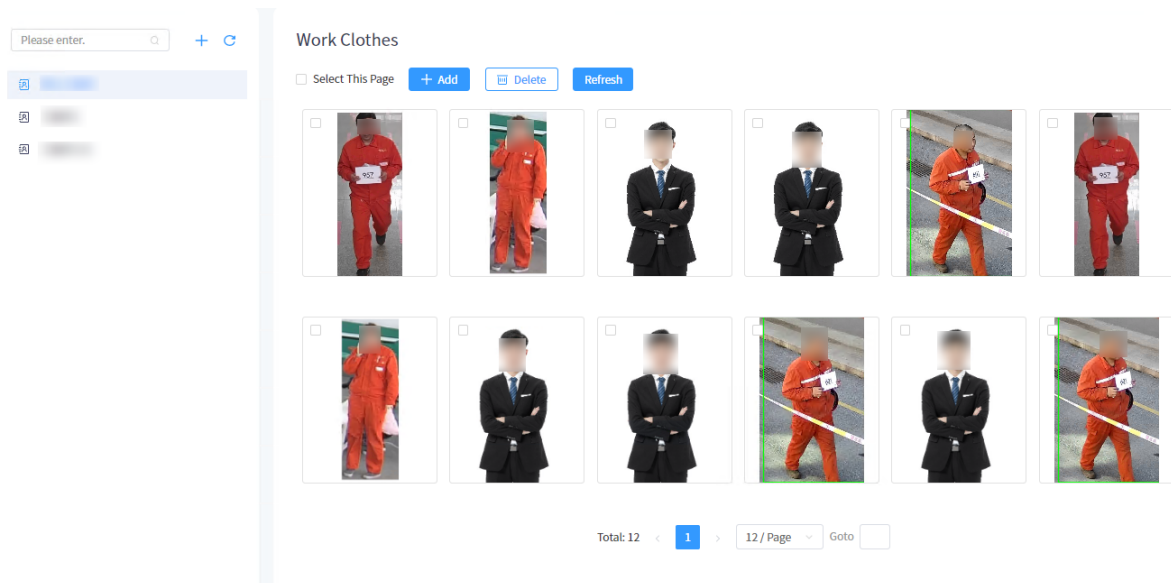


Operation	Description
Full Screen	Double-click the video image to switch to full screen. To exit, press Esc .
Switch channel	1-window: Click a channel on the left-side list to switch the channel. 4-window: Select a window, and then click the desired channel on the left-side list.

5 Library Configuration

5.1 Work Clothes Library

This section describes how to manage work clothes photos in different work clothes libraries. Up to eight work clothes libraries are allowed, and each allows 50 photos. The photos are used for no work clothes detection.



5.1.1 Work Clothes Library Management

- Add a work clothes library: Click **+** on the left, and then enter a name for the work clothes library.
- Edit a work clothes library: Hover over the work clothes library, and then click **Edit** to change the library name.
- Delete a work clothes library: Hover over the work clothes library, and then click **Delete**.
- Search for a work clothes library: Enter keywords in the search box, and then click **🔍** or press **Enter**.
- Refresh work clothes libraries: Click **↻** to refresh the work clothes library list.



NOTE!

Deleting a work clothes library will also delete all the work clothes data in it.

5.1.2 Work Clothes Management

1. Requirements of Work Clothes Photos

Work clothes must have collars and sleeves, such as suits, white coats, security uniforms, and factory work clothes. Special work clothes such as reflective vests, reflective aprons, and reflective strips are not supported.



NOTE!

- Photos downloaded from the Internet or taken by a mobile phone are not supported.
- The photo resolution should be in this range: 95px*285px to 200px*600px.

2. Add Work Clothes

Key Operations

1. Click **Add**, and select the work clothes image.
2. Click **OK** to import it.

Other Operations

Operation	Description
Delete	<ul style="list-style-type: none"> ● Delete one by one: Hover over the work clothes photo, and then click Delete. ● Delete in batches: Select the work clothes photos to delete, and then click Delete.
Search	Search by criteria.

5.2 Person Library

Manage persons in different person libraries. Up to 128 person libraries and a total of 100,000 persons are allowed.

The screenshot displays the 'Person Library Management' interface. On the left, there is a sidebar with a search bar and a list of libraries, including 'DefaultList' and several others with IDs. The main area is titled 'Library Member' and contains a search bar, a 'Model Status' dropdown, and a 'Search' button. Below the search bar are buttons for '+ Add', 'Delete', 'Batch Import', 'Batch Export', and 'Export Template'. The main content is a grid of person photos, each with a 'Success' message and a name and ID number. The grid is paginated, showing 12 photos per page. The total number of photos is 4808.

5.2.1 Person Library Management

- Add a person library: Click **+** on the left, and then enter a name for the library.
- Edit a person library: Hover over the person library, and then click **Edit** to change the library name.
- Delete a person library: Hover over the person library, and then click **Delete**.
- Search a person library: Enter keywords in the search box, and then click or press **Enter**.
- Refresh the person library list: Click to refresh the person library list.



NOTE!

Deleting a person library will also delete all the person data in it.

5.2.2 Person Management

1. Photo Requirements

- Overall requirements: Bareheaded (no hats) and unobstructed (no masks) frontal photos.
- Range requirements: The photo must show the contours of both ears, and the top of the head (including all hair), and down to the bottom of the neck.

- Color requirements: True color photos.
- Makeup requirements: No makeup such as hair dye and eyelashes that may affect the real appearance are allowed.
- Background requirements: A solid-colored background, such as white and blue.
- Light requirements: The photo should be taken with adequate light. There should be no overly dim, overly bright, or uneven lightness (i.e., half shadow and half bright) on the face.
- Photo timeliness requirements: The age depicted in the photo should not be significantly different from the current actual age. The photo should not exceed one year. For individuals with significant changes in hairstyle or bangs, it is recommended to take the photo on the spot.
- Photography equipment requirements: The photo should be taken with a high-quality smartphone or a single-lens reflex camera.
- Photo requirements: JPG format, file size 50KB-2MB; the resolution of the face should be in the range of 640px*640px to 200px*200px; no image alterations such as beautification.

Correct



Wrong



① Dim light



② Blurry face



③ Black and white photo



④ Face too small



⑤ Low resolution



⑥ Side face



⑦ With mask



⑧ With heavy make-up



2. Add Person

Key Operations

- Add persons one by one or in batches.
 - Add one by one: Click **Add**, select a face photo, and complete the required information.
 - Batch import: Click **Download Template**, complete the required information in the **.csv** file according to instructions in the faceTemplate file, and then click **Upload** to upload the **faceTemplate.zip** file.
- The system starts modeling when the import is complete. Modeling status include

Status	Description
Ongoing	The face photo is modeling.
Success	The face photo meets the requirements and can be detected and analyzed in live video.
Failed	The face photo does not meet the requirements and cannot be detected or analyzed in live video. You can delete the face photos that failed to be modeled.

Other Operations

Operation	Description
View	Hover over a face photo and then click View .
Edit	Hover over a face photo and then click Edit .
Delete	<ul style="list-style-type: none"> Delete one by one: Hover over a face photo and click  Delete. Delete in batches: Select the face photos to delete and then click .
Search	Search face photos by name, ID number, and modeling status.
Export	Export search results. Choose Export This Page or Export Selected and then click Confirm.

6 Analysis & Statistics

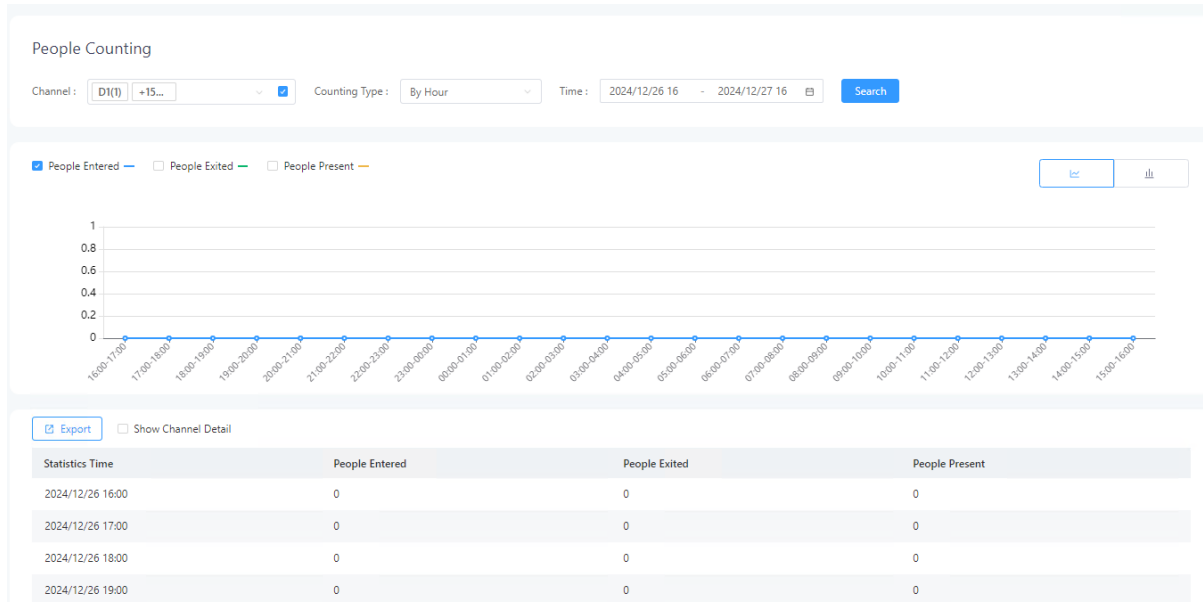
Currently people counting data are displayed here. You can filter data by channel, statistical type, and statistical time.



NOTE!

The unit of time (minute, hour, day, month) is determined by the selected statistical type. The time range cannot exceed 60 units of time.

- Search results are displayed in charts, which can be exported for each unit of time.
- Select **Show Channel Detail** to view data from each channel, which can also be exported.



7 Data Search

7.1 Behavioral Data

Search analysis results from channels configured with behavior analysis services.

Please select detection type Please enter Plate No. Match:

-

Select This Page

Total: 3682 < 1 2 3 4 5 ... 369 > 10 / Page Goto

Key Operations

- Search filters: Channel, event type, object type, plate number, and time.

- For channels with behavior and person identification function enabled, if the behavioral data comparison exceeds the set threshold, the matching image from person library will be displayed on the right side.
- Click [View](#) (hover over the image in **Grid** layout) or double-click the search result to view the snapshot of the analysis result.
- Click [Video](#) (hover over the image in **Grid** layout) to view the alarm video.

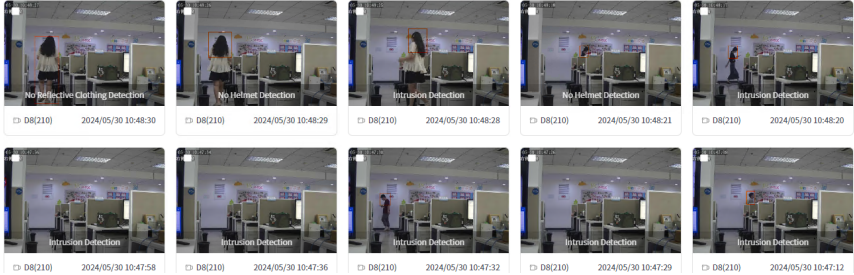


NOTE!

To view alarm video, you need to enable **Save Alarm Video** in [Intelligent Service Configuration](#).

- Click [Edit](#) to handle the search result. If it is marked as **False Alarm**, this item will be synced to [Sample Library](#), helping to reduce future false alarms.

Other Operations

Operation	Description																																			
Layout	<ul style="list-style-type: none"> • Grid layout  <ul style="list-style-type: none"> • List layout <table border="1"> <thead> <tr> <th><input type="checkbox"/></th> <th>Image</th> <th>Channel</th> <th>Alarm Type</th> <th>Alarm Time</th> <th>Plate No.</th> <th>Operation</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td></td> <td>D8(210)</td> <td>Intrusion Detection</td> <td>2024/05/30 10:56:56</td> <td></td> <td>View Video</td> </tr> <tr> <td><input type="checkbox"/></td> <td></td> <td>D8(210)</td> <td>Absence Detection</td> <td>2024/05/30 10:56:54</td> <td></td> <td>View Video</td> </tr> <tr> <td><input type="checkbox"/></td> <td></td> <td>D8(210)</td> <td>Intrusion Detection</td> <td>2024/05/30 10:56:42</td> <td></td> <td>View</td> </tr> <tr> <td><input type="checkbox"/></td> <td></td> <td>D8(210)</td> <td>Intrusion Detection</td> <td>2024/05/30 10:56:41</td> <td></td> <td>View</td> </tr> </tbody> </table>	<input type="checkbox"/>	Image	Channel	Alarm Type	Alarm Time	Plate No.	Operation	<input type="checkbox"/>		D8(210)	Intrusion Detection	2024/05/30 10:56:56		View Video	<input type="checkbox"/>		D8(210)	Absence Detection	2024/05/30 10:56:54		View Video	<input type="checkbox"/>		D8(210)	Intrusion Detection	2024/05/30 10:56:42		View	<input type="checkbox"/>		D8(210)	Intrusion Detection	2024/05/30 10:56:41		View
<input type="checkbox"/>	Image	Channel	Alarm Type	Alarm Time	Plate No.	Operation																														
<input type="checkbox"/>		D8(210)	Intrusion Detection	2024/05/30 10:56:56		View Video																														
<input type="checkbox"/>		D8(210)	Absence Detection	2024/05/30 10:56:54		View Video																														
<input type="checkbox"/>		D8(210)	Intrusion Detection	2024/05/30 10:56:42		View																														
<input type="checkbox"/>		D8(210)	Intrusion Detection	2024/05/30 10:56:41		View																														
Refresh	Click Refresh to update search results.																																			
Delete	Select the search result(s) to delete and click Delete .																																			
Export	Export search results. Choose Export This Page or Export Selected and then click Confirm																																			

7.2 Face Data

Search snapshots from channels configured with face snapshot services.

Behavioral Data **Face Data**

D1(98) +7... Please enter name. Please enter ID number. Match: All Gender: All Age: All

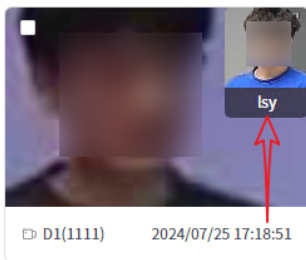
Glasses: All Mask: All 2024-08-16 00:00:00 - 2024-08-16 23:59:59

Select This Page

A grid of 10 face images arranged in two rows of five. Each image has a small square icon in the top-left corner and a caption below it containing a channel ID and a timestamp. The captions are: D1(98) 2024/08/16 11:44:19, D1(98) 2024/08/16 11:44:00, D1(98) 2024/08/16 11:43:55, D1(98) 2024/08/16 11:42:28, D1(98) 2024/08/16 11:42:24, D1(98) 2024/08/16 11:42:10, D1(98) 2024/08/16 11:41:18, D1(98) 2024/08/16 11:39:10, D1(98) 2024/08/16 11:39:05, and D1(98) 2024/08/16 11:39:04.

Key Operations

- Search filters: Channel, time, and face attributes.
- For channels with face recognition function enabled, the matching image from person library will be displayed on the right side.



- Click (hover over the image in **Grid** layout) or double-click the search result to view the snapshot of the analysis result.

Other Operations

Operation	Description
Layout	<ul style="list-style-type: none"> • Click Grid to switch to the grid layout. <p>A grid layout of 10 face images arranged in two rows of five. Each image has a small square icon in the top-left corner and a caption below it containing a channel ID and a timestamp. The captions are: D5(D5(test-5)) 2023/09/08 14:57:03, D5(D5(test-5)) 2023/09/08 14:56:58, D5(D5(test-5)) 2023/09/08 14:56:57, D5(D5(test-5)) 2023/09/08 14:56:57, D5(D5(test-5)) 2023/09/08 14:56:56, D5(D5(test-5)) 2023/09/08 14:56:56, D5(D5(test-5)) 2023/09/08 14:56:56, D5(D5(test-5)) 2023/09/08 14:56:56, D5(D5(test-5)) 2023/09/08 14:56:56, D5(D5(test-5)) 2023/09/08 14:56:56.</p> <ul style="list-style-type: none"> • Click List to switch to the list layout. <p>A list layout of face images. Each image has a small square icon in the top-left corner and a caption below it containing a channel ID and a timestamp. The captions are: D1(1) 2024/09/23 15:21:29, D1(1) 2024/09/23 15:21:25, and D1(1) 2024/09/23 15:21:21. Each caption has a View link next to it.</p>

Operation	Description
Refresh	Click Refresh to update search results.
Delete	Select the search result(s) to delete and click Delete .
Export	Export search results. Choose Export This Page or Export Selected and then click Confirm

8 Platform Configuration

8.1 Alarm Center

8.1.1 Platform Configuration

When data integration is configured, alarms will be uploaded to the third-party platform by default. For detailed configuration steps, please contact technical support.

- Interface version: Choose the correct interface version.
- Upload image data: When enabled, the smart box can upload images to the third-party platform.
- Upload video data: When enabled, the smart box can upload videos to the third-party platform.
- Upload channel status: When enabled, the smart box can upload channel status to the third-party platform.
- HTTP/HTTPS keep-alive: When enabled, the smart box will send keep-alive messages to the third-party platform.
- Keep-alive time: Set the interval for the smart box to send keep-alive messages.
- Push address: Third-party platform address used to receive data from the smart box.

Platform 1



Interface Version	<input type="text" value="V2.0"/>	Upload Image Data	<input type="radio"/> Open <input checked="" type="radio"/> Close
Upload Video Data	<input type="radio"/> Open <input checked="" type="radio"/> Close	Channel Status	<input type="radio"/> Open <input checked="" type="radio"/> Close
HTTP/HTTPS Keep-alive	<input type="radio"/> Open <input checked="" type="radio"/> Close	Keep-alive Time	<input type="text" value="30"/> seconds
Push Address	<input type="text" value="http://ip:port/url or ws://ip:port/url"/>		

Platform 2

Interface Version	<input type="text" value="V2.0"/>	Upload Image Data	<input type="radio"/> Open <input checked="" type="radio"/> Close
Upload Video Data	<input type="radio"/> Open <input checked="" type="radio"/> Close	Channel Status	<input type="radio"/> Open <input checked="" type="radio"/> Close
HTTP/HTTPS Keep-alive	<input type="radio"/> Open <input checked="" type="radio"/> Close	Keep-alive Time	<input type="text" value="30"/> seconds
Push Address	<input type="text" value="http://ip:port/url or ws://ip:port/url"/>		

8.1.2 Upload Time Interval Config

When it is needed to upload data to the third-party platform, you need to configure the platform first (see Platform Configuration). You can set the time interval for uploading alarm analysis results and enable/disable data upload for the channels.

- Upload interval is enabled: 
- Upload interval is disabled: 

Channel	Upload Interval (min)	Enable
D1(1)	- 60 +	<input type="checkbox"/>
D2(12121)	- 60 +	<input type="checkbox"/>
D3()	- 60 +	<input type="checkbox"/>
D4()	- 60 +	<input type="checkbox"/>
D5()	- 60 +	<input type="checkbox"/>
D6()	- 60 +	<input type="checkbox"/>
D7()	- 60 +	<input type="checkbox"/>
D8()	- 60 +	<input type="checkbox"/>

[Save](#)

8.1.3 Audio Column Config

Configure the audio columns so that when an alarm is generated on a channel, the alarm will be played through the audio column.

Set the audio column IP, choose the NIC, enable audio, and then click **Save**.

You can also customize audio files for different alarm columns. See operations in [Audio Upload](#).

Refresh

Channel	Audio Column IP	Audio Column Status	Audio Play Count	Audio Volume	Enable
D1(1)	Please enter audio colu	-	- 1 +	- 60 +	<input type="checkbox"/>
D2(12121)	Please enter audio colu	-	- 1 +	- 60 +	<input type="checkbox"/>
D3()	Please enter audio colu	-	- 1 +	- 60 +	<input type="checkbox"/>
D4()	Please enter audio colu	-	- 1 +	- 60 +	<input type="checkbox"/>
D5()	Please enter audio colu	-	- 1 +	- 60 +	<input type="checkbox"/>
D6()	Please enter audio colu	-	- 1 +	- 60 +	<input type="checkbox"/>
D7()	Please enter audio colu	-	- 1 +	- 60 +	<input type="checkbox"/>
D8()	Please enter audio colu	-	- 1 +	- 60 +	<input type="checkbox"/>

Save

8.2 Video Convergence Platform

Set the target platform for local data reporting.

Video Convergence Platform

Enabled Status Open Close

* Platform Type

* IP/Domain Name

* Port

* appkey

* appsecret

* Username

* Password

Save

Parameter	Description
Platform Type	VMS: Our company's VMS device.

Parameter	Description
IP/Domain Name	Enter the IP address or domain name of the target platform.
Port	Use the default port number (80) or enter the actual port number.
appkey	Obtain from the target platform.
appsecret	Obtain from the target platform.
Username	Enter the username of the target platform.
Password	Enter the password of the target platform.

8.3 EZCloud

Enable EZCloud and then click **Save** to manage the smart box on the EZCloud platform. Information that can be uploaded to EZCloud includes alarm records and snapshots (can be enabled or disabled as needed).

9 Auto-Learning

9.1 Sample Library

The sample library collects samples for algorithm's automatic learning, which helps reduce future false alarms.

**NOTE!**

This function is currently available for Intrusion Detection, Cross Line Detection, Climbing Detection, and Long Stay Detection.

Item	Description
Add	Behavioral data marked as a false alarm are automatically added to the sample library.
Delete	If a data is mistakenly marked as a false alarm, you can select it and click Delete to remove it from the sample library.
Refresh	Refresh the sample library.

9.2 Smart Configuration

Choose whether to enable Auto-Learning. If enabled, when an alarm is triggered, the algorithm will determine whether to report the alarm according to the samples in the library.

Sample Library Smart Config

Auto-Learning : Open Close

Save

10 System Configuration

10.1 User Configuration

- Add user: Click **Add**, and then configure the parameters.

Add User
×

* Username

* Password

* User Type

Basic Permission Restart View Logs Upgrade
 Configure

Channel Permission D1 D2 D3 D4 D5 D6
 D7 D8

- Modify permissions

Modify x

Basic Permission Restart View Logs Upgrade
 Configure

Channel Permission D1 D2 D3 D4 D5 D6
 D7 D8

- Change password:

Change Password x

* Old password

* New Password

Password Strength :

* Confirm new password

* Email



NOTE!

Only admin can modify the email address.

- Delete user

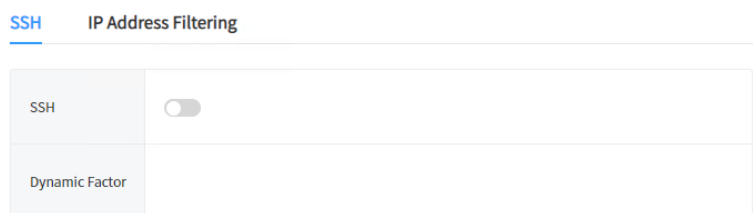
10.2 Time Configuration

- Set Time Manually: Set the date and time manually, or click **Sync with Computer** to sync with the computer time.
- Sync with NTP Server: Enable this function and set the NTP server address, port, and time sync interval.

10.3 Security

10.3.1 SSH

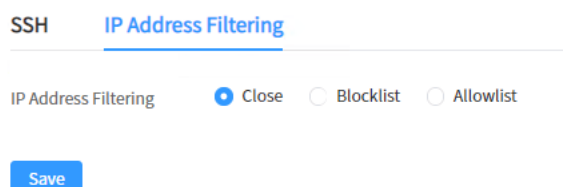
When enabled, you can access the smart box's background to perform management operations via the SSH protocol.





10.3.2 IP Address Filtering

Use IP address to allow or forbid access to the smart box.

- Off: IP address filtering is disabled.
- Blocklist: Access from IP addresses on the blocklist is forbidden. Up to 64 IP addresses are allowed on the blocklist.
- Allowlist: Only access from IP addresses on the allowlist is allowed. Up to 64 IP addresses are allowed on the allowlist.



10.4 Maintenance

- Upgrade the version: Click , locate the upgrade package (contact technical support for the package), and then click **Upgrade** or **Complete Upgrade**.
 - Upgrade: The configuration and alarm data of the current version will be kept.
 - Complete Upgrade: All the configuration and alarm data of the current version will be deleted.
- Restore default settings: Click **Restore** to restore default settings. You may choose whether to keep the current network settings and user settings.
- Restart the device: Click **Restart** to restart the device
- Import or export configuration: Click , set the path, and then click **Import** or **Export**.
- Export diagnosis information: Click **Export** to export diagnosis information.
- Hard disk management: You can format the hard disk when encountering issues such as disk mounting failure, disk offline, full storage, etc.

10.5 Version Information

You can view the version information, and set the device name and device ID.

Version Info

Device Name	ECS- [REDACTED]
Device ID	1
Model	ECS- [REDACTED]
Language	English
Serial No.	[REDACTED]
Firmware Version	ECS_ [REDACTED]
Operation Time	3hour7minute39second

Save

10.6 Personalization

10.6.1 Logo and Name

Set a custom logo and system name.

- To customize the logo, click the current logo and select an image from local.
- To customize the name, select **Custom Name** and enter a custom name in the entry box.

Personalization

Logo and Name

Upload Audio

System Logo



Restore Default Style

Recommended image resolution: 160px * 160px or multiples of 160px * multiples of 160px, The logo image can only be .JPG JPEG or PNG format.

Save

System Name: Restore Defaults Custom Name

*Note: You can customize the system name with letters and digits (up to 32 characters).

Save

10.6.2 Audio Upload

Customize audio files for different smart services.

- Click **Upload** and select an audio file from local.
- Click **Test** to play the audio on your computer and verify it.

Personalization

Logo and Name [Upload Audio](#)

Algorithm Name	Operation
Intrusion Detection	Test ⬆️ Upload
No Helmet Detection	Test ⬆️ Upload
No Work Clothes Detection	Test ⬆️ Upload
Calling Detection	Test ⬆️ Upload
No Mask Detection	Test ⬆️ Upload
Fall Detection	Test ⬆️ Upload
Absence Detection	Test ⬆️ Upload
Smoking Detection	Test ⬆️ Upload
Sleep on Duty Detection	Test ⬆️ Upload

10.7 Network Information

10.7.1 Packet Capture

Choose the NIC whose packets you want to capture, and then set the packet size, IP address, port number, and select **All/Specify/Filter** as needed, and then click **Start Capture** to start capturing packets. When finished, you can click **Export** to export the captured packets and analyze them using Wireshark.



NOTE!

- The maximum size of the captured packets is 65535 bytes or 100MB.
- When **Specify** is selected, only packets of the specified port/ IP will be captured.
- When **Filter** is selected, packets of the specified port/IP will be filtered and not captured; while other packets will be captured.

10.7.2 Network Resource Statistics

The page displays information about the smart box's network resources. The information refreshes every 5s.

Type	Bandwidth
IPC Connection	10Mbps
Remote Live View	0bps
Idle Receive Bandwidth	150Mbps
Idle Send Bandwidth	160Mbps

10.8 Online User

View the online users and the corresponding login IP and login time.

Online User

[Force Offline](#)

<input type="checkbox"/>	Username	IP Address	Login Time
<input type="checkbox"/>	admin	217.1.1.123	2024/05/29 15:10:13
<input type="checkbox"/>	admin	217.1.1.69	2024/05/29 17:41:09
<input type="checkbox"/>	admin	217.1.2.89	2024/05/29 17:16:24



NOTE!

Only admin can force a user to go offline.

10.9 Operation Logs

Search operation logs by time range and log type (main type and sub type).

Operation Log

Time: - Main Type: Sub Type: [Search](#)

Username	Operation Time	IP Address	Channel ID	Main Type	Sub Type	Detailed Info
admin	2024/05/29 17:41:09	217.1.1.69		Operation	Login	
admin	2024/05/29 17:36:09	217.1.2.89		Operation		
admin	2024/05/29 17:35:48	217.1.2.89		Operation		

10.10 Smart Capability Configuration

1. Select a scenario or algorithm(s) based on your actual needs.
After selecting a scenario, the commonly used algorithms for that scenario will be automatically selected. You can also manually add or remove algorithms as needed.
2. Click **OK**.
3. Go to [Intelligent Analysis Configuration](#) and configure the corresponding algorithms.

Please select scenario(s) or algorithm(s) as needed

Common Safe Production Safe Community Safe School Smart Hospital Construction Site Bright Kitchen
Rural Road Expressway Servic... Gas Station

Clear All

Category	Algorithm Function(18/20)
<input checked="" type="checkbox"/> General Functions	<input checked="" type="checkbox"/> Intrusion Detection <input checked="" type="checkbox"/> Cross Line Detection <input checked="" type="checkbox"/> Enter Area <input checked="" type="checkbox"/> Leave Area <input checked="" type="checkbox"/> Area People Counting <input checked="" type="checkbox"/> Overcrowding Detection <input checked="" type="checkbox"/> Tripwire People Counting <input checked="" type="checkbox"/> Preset Marker Detection
<input type="checkbox"/> Environment	<input type="checkbox"/> Fire Detection <input checked="" type="checkbox"/> Fume Detection <input type="checkbox"/> Obstructed Evacuation Route Detection <input type="checkbox"/> Lost Items <input type="checkbox"/> Trash Bin Open Detection <input type="checkbox"/> Rat Detection <input checked="" type="checkbox"/> Uncovered Bare Soil Detection <input checked="" type="checkbox"/> Inspection of Debris Stacking <input type="checkbox"/> Trash Bin Overflow <input type="checkbox"/> Exposed Trash <input checked="" type="checkbox"/> Dog identification <input type="checkbox"/> Bagged Trash <input checked="" type="checkbox"/> Charging Gun Not In Place Detection <input type="checkbox"/> No Fire Extinguisher Detection <input type="checkbox"/> Dump Truck Without Tarp Detection <input type="checkbox"/> Oil Leak Detection <input type="checkbox"/> Water Leak Detection <input type="checkbox"/> Gas Leak Detection <input type="checkbox"/> Test Paper Color Change Detection <input type="checkbox"/> Bear Intrusion Detection
<input type="checkbox"/> PPE	<input type="checkbox"/> No Helmet Detection <input type="checkbox"/> No Work Clothes Detection <input type="checkbox"/> No Reflective Clothing Detection <input type="checkbox"/> No Mask Detection <input type="checkbox"/> Shirtless Detection <input type="checkbox"/> No Chef Uniform Detection <input type="checkbox"/> No Chef Hat Detection <input checked="" type="checkbox"/> No Safety Harness Detection <input type="checkbox"/> No Safety Belt Detection <input type="checkbox"/> No Safety Goggles Detection <input type="checkbox"/> No Safety Gloves Detection <input type="checkbox"/> No Dust/Gas Mask Detection <input checked="" type="checkbox"/> Exposed Long Hair Detection
<input type="checkbox"/> Behavior	<input type="checkbox"/> Sleep On Duty Detection <input type="checkbox"/> Absence Detection <input type="checkbox"/> Smoking Detection <input type="checkbox"/> Calling Detection <input type="checkbox"/> Using Mobile Phone Detection <input type="checkbox"/> Fall Detection <input type="checkbox"/> Climbing Detection <input checked="" type="checkbox"/> Long Stay Detection <input type="checkbox"/> Fight Detection <input checked="" type="checkbox"/> People Gathering <input checked="" type="checkbox"/> Quick Moving Detection <input type="checkbox"/> Inadequate Worker <input type="checkbox"/> Knife/Stick in Hand Detection
<input type="checkbox"/> Vehicle	<input type="checkbox"/> Illegally Parked Motor Vehicle <input type="checkbox"/> Unwashed Vehicle Detection <input type="checkbox"/> Illegally Parked Non-Motor Vehicle <input type="checkbox"/> Campus Vehicle Overspeed Detection <input type="checkbox"/> Forklift Overspeed Detection

Confirm

11 Network Configuration

11.1 TCP/IP

Basic Information

Click **Edit** to edit the basic network information.

- Static: Click **Static**, and then set the IP address, subnet mask, and default gateway manually.
- DHCP: Use DHCP to automatically assign the IP address, subnet mask, and default gateway.



NOTE!

If the smart box needs to connect to both the WAN and LAN, you need to set up a dual-NIC configuration.

DNS Server

Choose a reliable and trustworthy DNS server to avoid security risks. If the preferred DNS server is unavailable, the alternate server will take over automatically.

Default NIC

Choose a preferred NIC for network communication and data transmission, and then click **Save**.

11.2 Port

After modifying the default HTTP port, you need to add the port number at the end of the IP address to access the smart box, for example, http://ip:80

11.3 Custom Route

Click **Add** to add a custom route.

Status Open Close

NIC

* IP Segment

* Subnet Mask

* Default Gateway

Confirm

Cancel