

Behavior Analysis Server

User Manual

Legal Information

©2020 Hangzhou Hikvision Digital Technology Co., Ltd. All rights reserved.

About this Manual

The Manual includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of this Manual at the Hikvision website (https://www.hikvision.com/).

Please use this Manual with the guidance and assistance of professionals trained in supporting the Product.

Trademarks

HIKVISION and other Hikvision's trademarks and logos are the properties of Hikvision in various jurisdictions.

Other trademarks and logos mentioned are the properties of their respective owners.

Disclaimer

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THIS MANUAL AND THE PRODUCT DESCRIBED, WITH ITS HARDWARE, SOFTWARE AND FIRMWARE, ARE PROVIDED "AS IS" AND "WITH ALL FAULTS AND ERRORS". HIKVISION MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY, SATISFACTORY QUALITY, OR FITNESS FOR A PARTICULAR PURPOSE. THE USE OF THE PRODUCT BY YOU IS AT YOUR OWN RISK. IN NO EVENT WILL HIKVISION BE LIABLE TO YOU FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR INDIRECT DAMAGES, INCLUDING, AMONG OTHERS, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, OR LOSS OF DATA, CORRUPTION OF SYSTEMS, OR LOSS OF DOCUMENTATION, WHETHER BASED ON BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), PRODUCT LIABILITY, OR OTHERWISE, IN CONNECTION WITH THE USE OF THE PRODUCT, EVEN IF HIKVISION HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR LOSS.

YOU ACKNOWLEDGE THAT THE NATURE OF INTERNET PROVIDES FOR INHERENT SECURITY RISKS, AND HIKVISION SHALL NOT TAKE ANY RESPONSIBILITIES FOR ABNORMAL OPERATION, PRIVACY LEAKAGE OR OTHER DAMAGES RESULTING FROM CYBER-ATTACK, HACKER ATTACK, VIRUS INSPECTION, OR OTHER INTERNET SECURITY RISKS; HOWEVER, HIKVISION WILL PROVIDE TIMELY TECHNICAL SUPPORT IF REQUIRED.

YOU AGREE TO USE THIS PRODUCT IN COMPLIANCE WITH ALL APPLICABLE LAWS, AND YOU ARE SOLELY RESPONSIBLE FOR ENSURING THAT YOUR USE CONFORMS TO THE APPLICABLE LAW. ESPECIALLY, YOU ARE RESPONSIBLE, FOR USING THIS PRODUCT IN A MANNER THAT DOES NOT INFRINGE ON THE RIGHTS OF THIRD PARTIES, INCLUDING WITHOUT LIMITATION, RIGHTS OF PUBLICITY, INTELLECTUAL PROPERTY RIGHTS, OR DATA PROTECTION AND OTHER PRIVACY RIGHTS. YOU SHALL NOT USE THIS PRODUCT FOR ANY PROHIBITED END-USES, INCLUDING THE

DEVELOPMENT OR PRODUCTION OF WEAPONS OF MASS DESTRUCTION, THE DEVELOPMENT OR PRODUCTION OF CHEMICAL OR BIOLOGICAL WEAPONS, ANY ACTIVITIES IN THE CONTEXT RELATED TO ANY NUCLEAR EXPLOSIVE OR UNSAFE NUCLEAR FUEL-CYCLE, OR IN SUPPORT OF HUMAN RIGHTS ABUSES.

IN THE EVENT OF ANY CONFLICTS BETWEEN THIS MANUAL AND THE APPLICABLE LAW, THE LATER PREVAILS.

Regulatory Information

FCC Information

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC compliance: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference.
- 2. This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement







This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the RoHS Directive 2011/65/EU.

2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: http://www.recyclethis.info.

2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a

designated collection point. For more information see: http://www.recyclethis.info .

Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

Preface

Applicable Model

This manual is applicable to DeepinMind Training Server.

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description		
<u> </u>	Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.		
Caution	ndicates a potentially hazardous situation which, if not avoided, could esult in equipment damage, data loss, performance degradation, or unexpected results.		
Note	Provides additional information to emphasize or supplement important points of the main text.		

Safety Instruction

- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.
- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region. Please refer to technical specifications for detailed information.
- Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with 100~240 VAC according to the IEC60950-1 standard. Please refer to technical specifications for detailed information.
- Do not connect several devices to one power adapter as adapter overload may cause overheating or a fire hazard.
- Please make sure that the plug is firmly connected to the power socket.
- If smoke, odor or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.

Contents

Chapter 1 Introduction	. 1
Chapter 2 Activation and Login	3
2.1 PC Requirements	3
2.2 Activation	3
2.2.1 Activate via SADP Software	3
2.2.2 Activate via Web Browser	. 5
2.3 Login	. 5
Chapter 3 Configuration Wizard	7
3.1 Create Analysis Cluster	7
3.1.1 Add Smart Analysis Unit	7
3.1.2 Create Stand-alone Analysis Cluster	. 8
3.2 Add Camera and Video	. 9
3.2.1 Add Camera	. 9
3.2.2 Add Video Recording	11
3.3 Perimeter Analysis Task	12
3.3.1 Create Perimeter Analysis Task	12
3.3.2 Line Crossing Detection	13
3.3.3 Region Entrance Detection	15
3.3.4 Region Exiting Detection	17
3.3.5 Intrusion Detection	19
3.3.6 Loitering Detection	21
3.3.7 Parking Detection	23
3.3.8 Unattended Baggage Detection	25
3.3.9 Object Removal Detection	27
3.4 Indoor Analysis Task	29
3.4.1 Create Trend Analysis Task	29

	3.4.2 Getting-up Detection	30
	3.4.3 Climbing Detection	33
	3.4.4 Absence/Sleep on Duty Detection	34
	3.4.5 Sudden Change of Sound Intensity Detection	37
	3.4.6 Abnormal Number of People Detection	39
	3.4.7 Standing-up Detection	42
	3.4.8 Sitting Detection	44
	3.4.9 Playing Mobile Phone Detection	46
	3.4.10 People Entrance(Non Police) Detection	48
	3.4.11 Police Absence Detection	50
	3.4.12 Falling-down Detection	52
	3.4.13 Physical Conflict Detection (Indoor)	54
	3.4.14 Overstaying Detection	57
3.5	Trend Analysis Task	60
	3.5.1 Create Trend Analysis Task	60
	3.5.2 People Density Analysis	61
	3.5.3 Real-time People Counting	63
	3.5.4 People Counting	65
3.6	Street Analysis Task	67
	3.6.1 Create Street Analysis Task	67
	3.6.2 Falling-down Detection	68
	3.6.3 Fast Moving Detection	70
	3.6.4 Physical Conflict Detection (Street)	72
	3.6.5 People Gathering Detection	74
3.7	' Task Management	76
	3.7.1 Configure Task	76
	3.7.2 Delete Task	78
	3.7.3 Pause Task	78

	3.7.4 Start Task	. 78
Ch	apter 4 Smart Analysis Unit Management	. 79
	4.1 Add Smart Analysis Unit to Cluster	79
	4.2 Remove Computing Node from Cluster	79
	4.3 Restart Smart Analysis Unit	. 79
	4.4 Power Off Smart Analysis Unit	80
	4.5 Delete Smart Analysis Unit	80
	4.6 Configure Network Parameters	. 80
	4.7 Enable UID Indicator	81
	4.8 View Hardware Resource	81
Ch	apter 5 System Management	83
	5.1 Basic Configuration	83
	5.2 Service Configuration	. 83
	5.3 Time Configuration	83
	5.4 User Management	84
	5.4.1 Add User	84
	5.4.2 Modify Password	. 85
	5.4.3 Delete User	85
	5.5 Log Management	86
	5.5.1 Search Log	86
	5.5.2 Download Maintenance Log	86
	5.6 Smart Mode	87
	5.7 Software Updating	87
	5.8 Restore Defaults	. 88
	5.9 Help Center	88
	5.10 Version Information	88
	5.11 Logout	88
	5.12 Obtain Guarding Vision Client Software	. 89

Cha	pter 6 Guarding Vision Client Configuration	90
	6.1 Log in	90
	6.2 Add Server	91
	6.2.1 Add Server Manually	91
	6.2.2 Add Online Server	92
	6.3 Live View	93
	6.3.1 View Analysis Task Frame	93
	6.3.2 View Task Analysis Results(Trend Scene Only)	95
	6.4 Remote Configuration	96
	6.5 Alarm Center	99
	6.5.1 Search Real-time Event	99
	6.5.2 Search Event	L01
	6.6 Data Retrieval	102
	6.7 Data Statistics	104

Chapter 1 Introduction

Based on the latest deep-learning algorithms, Behavior Analysis Server adopts the high-density GPU structure, and supports detection towards different behavior events in different scenes, including perimeter scene, trend scene, indoor scene and street scene.

Perimeter

- Line Crossing: An alarm will be triggered when a person crosses the warning line.
- Region Entrance: An alarm will be triggered when a person enters the detection area.
- Region Exiting: An alarm will be triggered when a person exits the detection area.
- Intrusion: An alarm will be triggered when the stay duration of a person in the detection area exceeds the time set.
- Loitering: An alarm will be triggered when the loitering time of a person in the detection area exceeds the time set.
- Parking: An alarm will be triggered when the parking time of a vehicle in the detection area exceeds the time set.
- Object Removal: An alarm will be triggered when the removal time of an object in the detection area exceeds the time set.
- Unattended Object: An alarm will be triggered when the unattended time of an object left in the detection area exceeds the time set.

Indoor

- Getting-up: An alarm will be triggered when a person in the detection area gets up.
- Climbing: An alarm will be triggered when a person climbs over the height set.
- Absence/Sleep on Duty: An alarm will be triggered when the time of a person on duty stays motionless or in absence exceeds the time set.
- Sudden Change of Sound Intensity: An alarm will be triggered when the sound intensity in the detection area is abnormal.
- Abnormal Number of People: An alarm will be triggered when the number of people in the detection area does not match the value set.
- Standing-up: An alarm will be triggered when a person in the detection area stands up.
- Sitting: An alarm will be triggered when the sedentary time of a person exceeds the time set.
- Playing Mobile Phone: An alarm will be triggered when the time of a person in the detection area playing mobile phone exceeds the time set.
- People Entrance (Non Police): An alarm will be triggered when the staying duration of non-police personnel exceeds the time set.
- Police Absence: An alarm will be triggered when the absence time of the police in the detection area exceeds the time set.

- Falling-down: An alarm will be triggered when a person in the detection area falls down and does not stand up in the time set.
- Physical Conflict (Indoor): An alarm will be triggered when the physical conflict time of two or more people exceeds the time set.

Trend

- People Density Analysis: Count the number of people in the detection area, and generate a people heat map.
- Real-time People Counting: Count the number of people within the same duration of stay during different time periods in the detection area, and upload the data according to the time interval set.
- People Counting: Count the number of people crossing the detection lines, and upload the data according to the time interval set.

Street

- Falling-down: An alarm will be triggered when a person in the detection area falls down suddenly.
- Fast Moving: An alarm will be triggered when the time a person in the detection area moves fast exceeds the time set.
- Physical Conflict (Street): An alarm will be triggered when the time of probable physical conflict between people in the detection area exceeds the time set.
- People Gathering: An alarm will be triggered when the number of people in the detection area and the time people gather exceeds the threshold level.

Chapter 2 Activation and Login

2.1 PC Requirements

You can get access to the server by IE browser. The requirements for your PC are shown as below.

Table 2-1 PC Requirements

Operating System	СРИ	Memory	Resolution	Browser
Microsoft Windows 7, Microsoft Windows 10	Intel® Pentium IV 3.0 GHz or more advanced version		1024 × 768 or higher	IE8 to IE11



The interface varies from version to version.

2.2 Activation

The server is available only after being activated.

2.2.1 Activate via SADP Software

Before You Start

- You have obtained SADP Software from the official website.
- The PC and server have been connected with each other on the same network segment.

Steps

1. Install and run the SADP software. The software searches all online devices within the local area network. Device type, IP address, activation status, device serial number and other information are shown in the list.



Initial Server IP Address: 192.168.1.64.

2. Check the desired server and set server password in the Activate Device window. Click Activate.

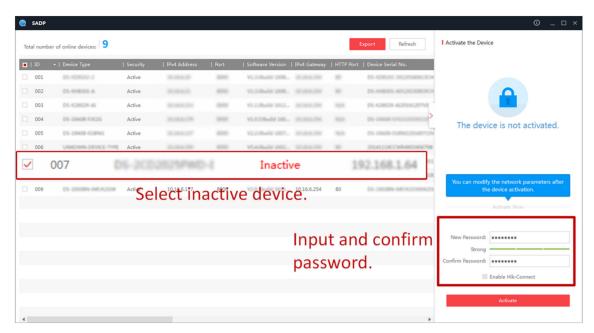


Figure 2-1 Activate Behavior Analysis Server

\bigcap i Note

- After server is activated, the **Activation Status** will change to **Active**.
- 8 to 32 characters allowed, including at least 2 of the following types: upper-case letters, lower-case letters, digits, and special characters.
- To protect your privacy and enterprise data, avoid device network security problem, we highly recommend you create a strong password in accordance with security rules.
- 3. Modify server IP address.
 - 1) Select the activated server. Enter IP address, subnet mask and gateway, etc. in the **Modify Network Parameters** window.
 - 2) Enter the password and click **Modify**. The popped up **Network Parameters Edited** indicates that network parameters settings take effect.

\bigcap i Note

- You shall acknowledge that the use of the product with Internet access might be under network security risks. For avoidance of any network attacks and information leakage, strengthen your own protection. We highly recommend you to assess the network security regularly. If the device is under network security risks, contact with your dealer or the nearest service center.
- In order to increase the security of your product, it is necessary to configure all passwords and other security settings properly. Please be mindful of your user name and password.

2.2.2 Activate via Web Browser

You can activate the server via Web browser.

Before You Start

- The PC and server have been directly connected.
- You have changed the IP address of the PC and it connected to the server properly.

Steps

1. Open IE browser. Enter 192.168.1.64 in the address bar and press Enter.

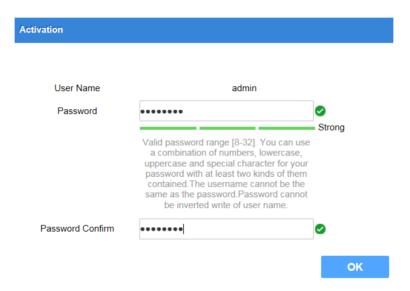


Figure 2-2 Activation Interface

2. Enter Password and confirm, then Click OK.

2.3 Login

Steps

1. Open IE browser. Enter server IP address in the address bar and press Enter.

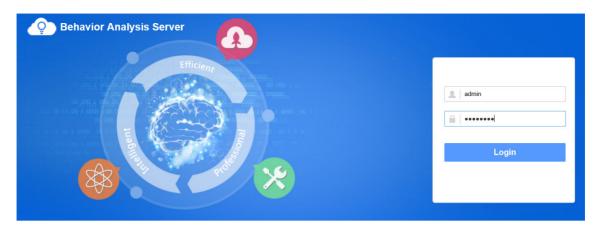


Figure 2-3 Login Interface

2. Enter user name and password. Click Login.

Chapter 3 Configuration Wizard

3.1 Create Analysis Cluster

3.1.1 Add Smart Analysis Unit

Add smart analysis unit(s) to create an analysis cluster.

Before You Start

Ensure that the smart analysis unit is online.

Steps

- 1. Go to Service → Smart Unit .
- 2. Click Add.



Figure 3-1 Add Smart Analysis Unit

3. Enter Name and Smart Analysis Unit IP, and keep Port as default value.

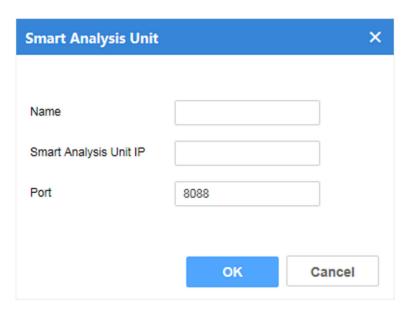


Figure 3-2 Configure Parameters

4. Click OK.

Note

The name of each unit can not be duplicated. Letters, digits and special characters are allowed, excluding `][#%!\$^&@:;"""?/\+_*.

3.1.2 Create Stand-alone Analysis Cluster

The stand-alone analysis cluster contains at least one smart analysis unit. There is only one master node in the cluster, and the rest are computing nodes. If the master node is offline, the cluster will not be available.

Before You Start

Ensure that smart analysis units are online and on the same subnet.

Steps

- 1. Go to Service → Smart Unit .
- 2. Check the desired smart analysis unit, and click Create Cluster.

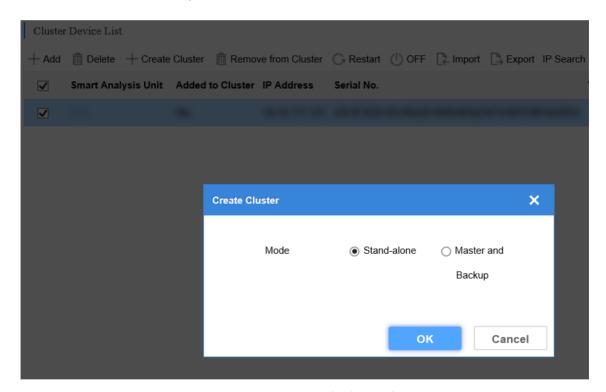


Figure 3-3 Create Stand-Alone Cluster

- 3. Select Stand-alone as Mode.
- 4. Click OK.

3.2 Add Camera and Video

Add camera and video recording for behavior analysis.

3.2.1 Add Camera

Add a camera that needs to be analyzed. Only one camera can be added for each time.

Before You Start

You have obtained the IP address, user name and login password of the camera.

- The control center is used to manage all cameras, and the area is a classification of these cameras according to the spatial location or specific requirements. For example, if the **Control Center** is set as **Binjiang District**, then the **Area** can be set as **Jiangnan Avenue**.
- Take adding camera to control center and user as admin as an example.

Steps

1. Click Resource → Device , click Administrator-admin and Add to enter camera information, and then click OK.

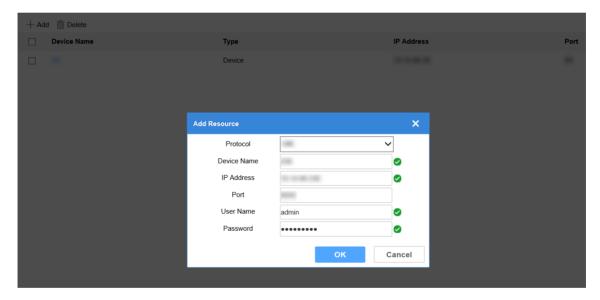


Figure 3-4 Add Camera

2. Click Add, select Type as Area, enter Name, and then click OK.

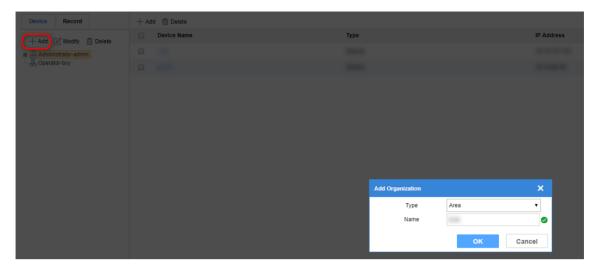


Figure 3-5 Add Area



Up to 32 characters allowed, including number, lowercase and uppercase, and special characters.

3. Select added area, and click Add.



Figure 3-6 Add Camera



The camera can be armed only when it is added to area.

4. Select the desired camera, and click OK.

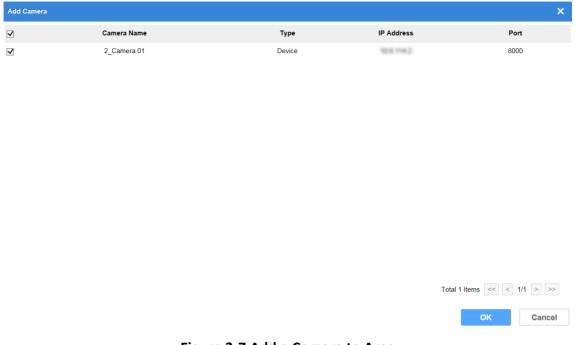


Figure 3-7 Add a Camera to Area

iNote

You can add control centers and areas for control center, and cameras for area.

3.2.2 Add Video Recording

Import the desired video. Skip this part if no video exists.

You can import a video recording into default list. Create an area if required.

Steps

1. Click Resource → Record , click Administrator-admin → Default List → Import .



Figure 3-8 Import Video Interface

2. Click **Browse** to select video recording files, and set video starting time as actual recording time. Click **OK**.

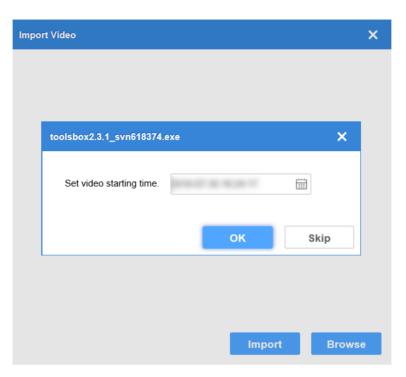


Figure 3-9 Set Video Starting Time

Note

When analyzing the video recording task, the actual time of video will be adopted if it is available. Otherwise, the starting time which is set will be adopted.

3. Click **OK** to complete the operation.

3.3 Perimeter Analysis Task

3.3.1 Create Perimeter Analysis Task

Create a perimeter analysis task. Up to 8 detection events can be added for each task.

Steps

1. Click Task Management → New .

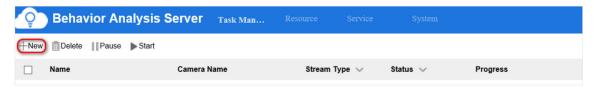


Figure 3-10 Create a New Task

2. Enter a task name.

3. Select the corresponding camera or video recording. Only one camera or video recording is allowed for each task.

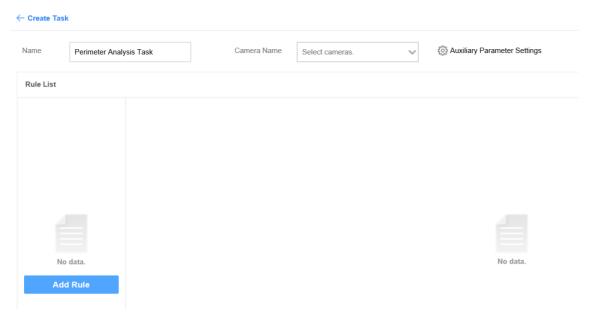


Figure 3-11 Create Task Interface



Keep Auxiliary Parameter Settings by default.

4. Click **Add Rule** to add related detection events. The rules for configuring different detection events are different. See more details in following sections.



You can select different scenes in any rules. If multiple scenes are selected in a rule, the analysis tasks of those scenes will be created at the same time.

3.3.2 Line Crossing Detection

An alarm will be triggered when a target crosses the warning line.

Steps

- 1. Select Line Crossing as Event.
- 2. Optional: Enable Size Filter.
 - 1) Click to draw the maximum size of the target.
 - 2) Click to draw the minimum size of the target.

iNote

If size filter is enabled, only targets whose size is between the minimum and maximum sizes will be detected.

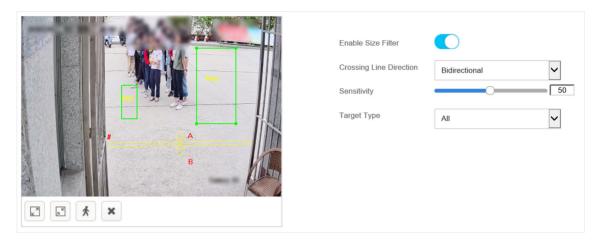


Figure 3-12 Draw Filter Target

- 3. Set crossing line.
 - 1) Click **f** to draw a crossing line.
 - 2) Move the mouse to the ends of the crossing line, press and hold the left mouse button to adjust the position and length of the line.
 - 3) Set the direction of crossing line.
 - 4) Set sensitivity. The higher the alarm sensitivity is, the easier an alarm can be triggered.



Click the drawn graph and then click to delete the line. The maximum size should be larger than the minimum one.

- 4. Select Target Type.
- **5.** Set detection time schedule, and the all-day detection is set by default. Click **t** to apply the settings to other days.



Figure 3-13 Set Detection Time Schedule

6. Click Save.

3.3.3 Region Entrance Detection

An alarm will be triggered when a target enters the detection area.

Steps

- 1. Click Add to configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Perimeter.
 - Event: select Region Entrance Detection.
- 2. Draw detection area.
 - Custom detection area
 - Click , press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.



Figure 3-14 Custom Detection Area

Full screen detection
 Click to do full screen detection.

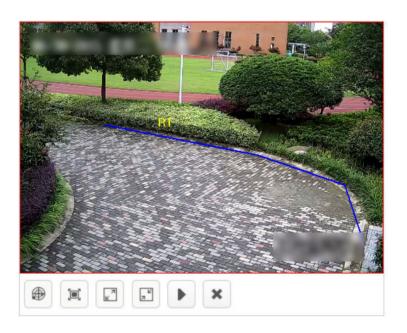


Figure 3-15 Full Screen Detection

- **3. Optional:** Enable **Size Filter**. Only targets between the minimum and maximum sizes will be detected.
 - 1) Click 📵 to draw the maximum size of the target.
 - 2) Click 🖪 to draw the minimum size of the target.

Note

Click the drawn graph and then click x to delete the area. The maximum size should be larger than the minimum one.

- 4. Select a target type according to your needs.
- 5. Set detection time schedule, all day by default. Click to apply the settings to other days.



Figure 3-16 Set Detection Time Schedule

6. Click Save.

3.3.4 Region Exiting Detection

An alarm will be triggered when a target exits the detection area.

Steps

- 1. Select Region Entrance as Event.
- 2. Draw detection area.
 - Custom detection area

Click \oplus , press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.



Figure 3-17 Custom Detection Area

Full screen detection
 Click to do full screen detection.



Figure 3-18 Full Screen Detection

- **3. Optional:** Enable **Size Filter**. Only targets between the minimum and maximum sizes will be detected.
 - 1) Click 📵 to draw the maximum size of the target.
 - 2) Click 🖪 to draw the minimum size of the target.

Note

Click the drawn graph and then click to delete the area. The maximum size should be larger than the minimum one.

4. Select Target Type.

5. Set detection time schedule, and the all-day detection is set by default. Click **to** apply the settings to other days.



Figure 3-19 Set Detection Time Schedule

6. Click Save.

3.3.5 Intrusion Detection

An alarm will be triggered if the stay duration of the target exceeds the time set.

Steps

- 1. Select Intrusion as Event.
- 2. Draw detection area.
 - Custom detection area

Click \oplus , press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.



Figure 3-20 Custom Detection Area

Full screen detection
 Click to do full screen detection.

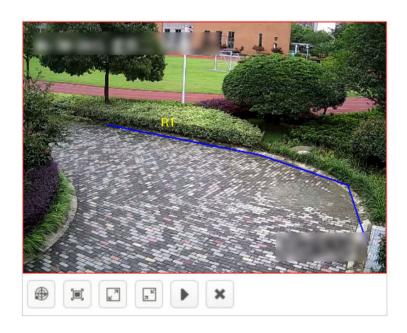


Figure 3-21 Full Screen Detection

- 3. Optional: Enable Size Filter.
 - 1) Click 🕝 to draw the maximum size of the target.
 - 2) Click to draw the minimum size of the target.

iNote

If size filter is enabled, only targets whose size is between the minimum and maximum sizes will be detected.

$|\mathbf{i}|_{\mathsf{Note}}$

Click the drawn graph and then click x to delete the area. The maximum size should be larger than the minimum one.

- **4.** Set **Duration(s)**, **Target Type**, and **Sensitivity**. The higher the alarm sensitivity is, the easier an alarm can be triggered.
- **5.** Set detection time schedule, and the all-day detection is set by default. Click **to** apply the settings to other days.

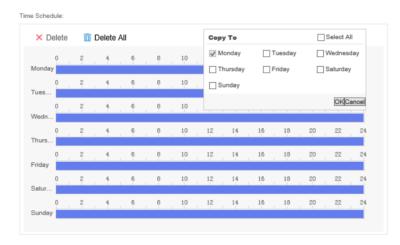


Figure 3-22 Set Detection Time Schedule

6. Click Save.

3.3.6 Loitering Detection

An alarm will be triggered if the loitering time of the target exceeds the time set.

Steps

- 1. Click Add to configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Perimeter.
 - Event: select Loitering Detection.
- 2. Draw detection area.
 - Custom detection area

Click \oplus , press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.



Figure 3-23 Custom Detection Area

Full screen detection
 Click to do full screen detection.

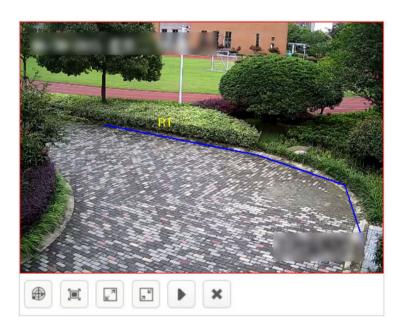


Figure 3-24 Full Screen Detection

- **3. Optional:** Enable **Size Filter**. Only targets between the minimum and maximum sizes will be detected.
 - 1) Click 📵 to draw the maximum size of the target.
 - 2) Click 🗈 to draw the minimum size of the target.

iNote

Click the drawn graph and then click to delete the area. The maximum size should be larger than the minimum one.

4. Set duration and target type.

5. Set detection time schedule, all day by default. Click **t** to apply the settings to other days.



Figure 3-25 Set Detection Time Schedule

6. Click Save.

3.3.7 Parking Detection

An alarm will be triggered if the parking time of the target exceeds the time set.

Steps

- 1. Click Add to configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Perimeter.
 - Event: select Parking Detection.
- 2. Draw detection area.
 - Custom detection area

Click #, press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.



Figure 3-26 Custom Detection Area

Full screen detection
 Click to do full screen detection.



Figure 3-27 Full Screen Detection

- **3. Optional:** Enable **Size Filter**. Only targets between the minimum and maximum sizes will be detected.
 - 1) Click 📵 to draw the maximum size of the target.
 - 2) Click 🖪 to draw the minimum size of the target.

iNote

Click the drawn graph and then click x to delete the area. The maximum size should be larger than the minimum one.

- **4.** Set **duration**, **target type**, and **sensitivity**. The higher the alarm sensitivity is, the easier an alarm can be triggered.
- **5.** Set detection time schedule, all day by default. Click **1** to apply the settings to other days.

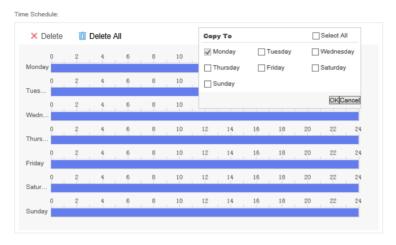


Figure 3-28 Set Detection Time Schedule

6. Click Save.

3.3.8 Unattended Baggage Detection

An alarm will be triggered if the unattended time of object exceeds the time set.

Steps

- 1. Click Add to configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Perimeter.
 - Event: select Unattended Object Detection.
- 2. Draw detection area.
 - Custom detection area
 - Click , press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.



Figure 3-29 Custom Detection Area

Full screen detection
 Click to do full screen detection.

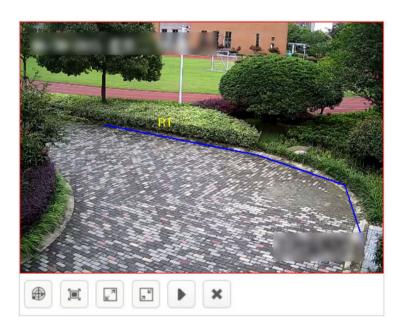


Figure 3-30 Full Screen Detection

- **3. Optional:** Enable **Size Filter**. Only targets between the minimum and maximum sizes will be detected.
 - 1) Click 📵 to draw the maximum size of the target.
 - 2) Click 🖪 to draw the minimum size of the target.

iNote

Click the drawn graph and then click x to delete the area. The maximum size should be larger than the minimum one.

- **4.** Set **duration**, **target type**, and **sensitivity**. The higher the alarm sensitivity is, the easier an alarm can be triggered.
- **5.** Set detection time schedule, all day by default. Click **1** to apply the settings to other days.

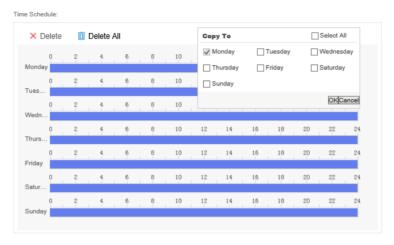


Figure 3-31 Set Detection Time Schedule

6. Click Save.

3.3.9 Object Removal Detection

An alarm will be triggered if the removal time of object exceeds the time set.

Steps

- 1. Click Add to configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Perimeter.
 - Event: select Object Removal Detection.
- 2. Draw detection area.
 - Custom detection area

Click

, press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.



Figure 3-32 Custom Detection Area

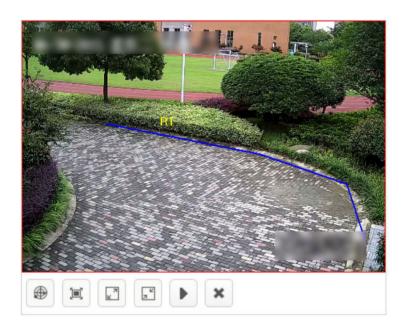


Figure 3-33 Full Screen Detection

- **3. Optional:** Enable **Size Filter**. Only targets between the minimum and maximum sizes will be detected.
 - 1) Click 📵 to draw the maximum size of the target.
 - 2) Click 🖪 to draw the minimum size of the target.

Note

Click the drawn graph and then click x to delete the area. The maximum size should be larger than the minimum one.

- **4.** Set **duration**, **target type**, and **sensitivity**. The higher the alarm sensitivity is, the easier an alarm can be triggered.
- **5.** Set detection time schedule, all day by default. Click **1** to apply the settings to other days.

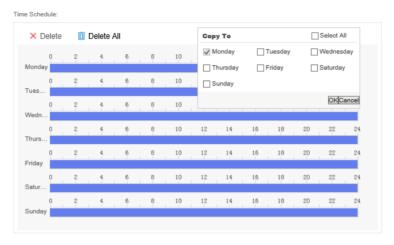


Figure 3-34 Set Detection Time Schedule

6. Click Save.

3.4 Indoor Analysis Task

3.4.1 Create Trend Analysis Task

Create an indoor analysis task. Up to 8 detection events can be added for each task.

Steps

1. Click Task Management → New .

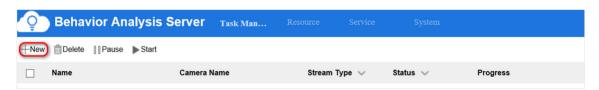


Figure 3-35 Create a New Task

- 2. Enter a task name.
- **3.** Select the corresponding camera or video recording. Only one camera or video recording is allowed for each task.

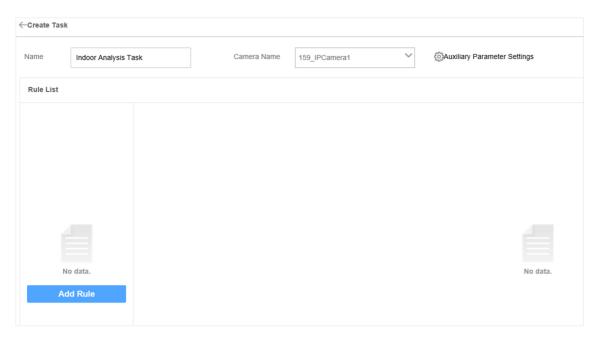


Figure 3-36 Create Task Interface



Keep Auxiliary Parameter Settings by default.

4. Click **Add Rule** to add related detection events. The rules for configuring different detection events are different. See more details in following sections.



You can select different scenes in any rules. If multiple scenes are selected in a rule, the analysis tasks of those scenes will be created at the same time.

3.4.2 Getting-up Detection

Detect getting-up movement of people in the area, such as getting up or getting out of bed during the break period.

Steps

- 1. Click Add to configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Indoor.
 - Event: select Getting-up Detection.
- 2. Draw detection area.
 - Custom detection area

Click # , press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.



Figure 3-37 Custom Detection Area



Figure 3-38 Full Screen Detection

- **3. Optional:** Enable **Size Filter**. Only targets between the minimum and maximum sizes will be detected.
 - 1) Click to draw the maximum size of the target.
 - 2) Click to draw the minimum size of the target.

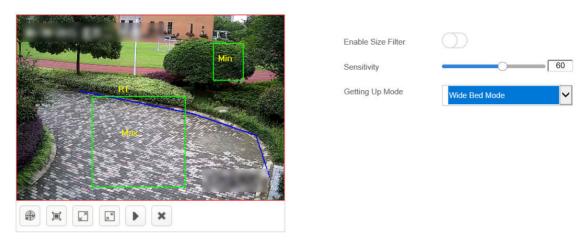


Figure 3-39 Draw Filter Target



Click the drawn graph and then click to delete the area. The maximum size should be larger than the minimum one.

- **4.** Set **sensitivity**. The higher the alarm sensitivity is, the easier an alarm can be triggered.
- 5. Set Getting-up Mode. You need to select relevant mode according to actual bed type.
 - · Wide Bed Mode
 - Bunk Bed Mode
 - · Sitting and Getting-up Mode
- **6.** Set detection time schedule, all day by default. Click **1** to apply the settings to other days.



Figure 3-40 Set Detection Time Schedule

7. Click Save.

3.4.3 Climbing Detection

Detect the movement of person who climbs over the height set. For example, such events as climbing and hanging.

Steps

- 1. Click Add to configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Indoor.
 - Event: select Climbing Detection.
- 3. Set crossing line direction.

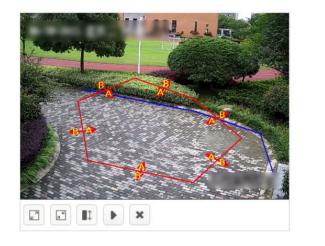




Figure 3-41 Set Climbing Area

i Note

Click the drawn graph and then click x to delete the area.

- **4. Optional:** Enable **Size Filter**. Only targets between the minimum and maximum sizes will be detected.
 - 1) Click to draw the maximum size of the target.
 - 2) Click to draw the minimum size of the target.
- 5. Set detection time schedule, all day by default. Click to apply the settings to other days.

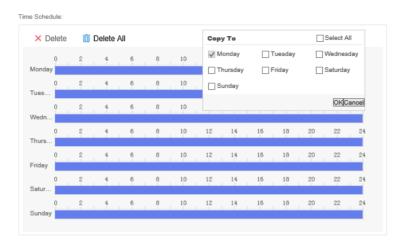


Figure 3-42 Set Detection Time Schedule

6. Click Save.

3.4.4 Absence/Sleep on Duty Detection

Detect the movement of a person on duty in the detection area who is absent or staying motionless. For example, a person is absent or has a sleep during the night duty.

Steps

- 1. Click Add to configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Indoor.
 - Event: select Absence/Sleep on Duty Detection.
- 2. Draw detection area.
 - Custom detection area
 - Click \oplus , press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.



Figure 3-43 Custom Detection Area



Figure 3-44 Full Screen Detection

- **3. Optional:** Enable **Size Filter**. Only targets between the minimum and maximum sizes will be detected.
 - 1) Click 📵 to draw the maximum size of the target.
 - 2) Click 🖪 to draw the minimum size of the target.

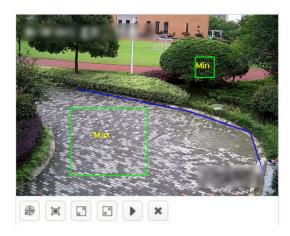




Figure 3-45 Draw Filter Target



Click the drawn graph and then click sto delete the area. The maximum size should be larger than the minimum one.

4. Configure detection parameters in details.

Configuration Mode

- Absence
- · Sleep on Duty
- · Absence or Sleep on Duty

Alarm Time when Nobody is on Duty

An alarm will be triggered if the absence time period exceeds the time set.

Persons on duty

The number of people on duty.

5. Set detection time schedule, all day by default. Click to apply the settings to other days.

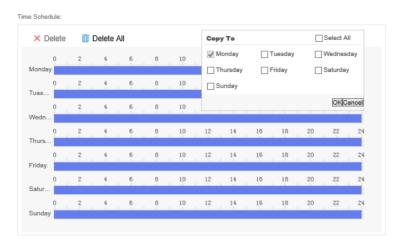


Figure 3-46 Set Detection Time Schedule

6. Click Save.

3.4.5 Sudden Change of Sound Intensity Detection

Detect whether the sound intensity in the area is normal or not. For example, such events as screaming or quarreling lead to sudden change of sound intensity.

Steps

- 1. Click Add to configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Indoor.
 - Event: select Detection for Sudden Change of Sound Intensity.
- 2. Configure detection mode.

Sensitivity Detection

Detect the sound according to various characteristics. An alarm will be triggered if there is an abnormal sound. For example, such events as screaming or quarreling lead to sudden change of sound intensity. You can keep the sensitivity value by default, and then make adjustments according to the actual alarm situation.

Decibel Threshold Detection

Detect the sound volume in the area. An alarm will be triggered if the volume is greater than the decibel threshold level.

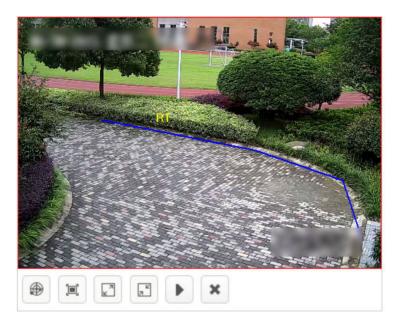


Figure 3-47 Full Screen Detection



Decibel threshold detection is easier to trigger alarm than sensitivity detection.

3. Click **Sound Intensity Test** to check real-time volume. Adjust the threshold according to the testing result.



Figure 3-48 Sound Intensity Test

4. Set detection time schedule, all day by default. Click **[6]** to apply the settings to other days.



Figure 3-49 Set Detection Time Schedule

5. Click Save.

3.4.6 Abnormal Number of People Detection

Detect whether the number of people is normal or not.

Steps

- 1. Configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Indoor.
 - Event: select Abnormal Number of People.
- 2. Draw detection area.
 - Click , press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.



Figure 3-50 Custom Detection Area

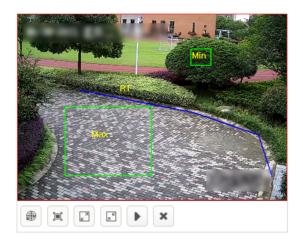
- Click 🔳 to do full screen detection.



Figure 3-51 Full Screen Detection

- **3. Optional:** Check **Enable Size Filter**. Only targets between the minimum and maximum sizes will be detected.
 - Click 🖸 , press and hold the left button to draw the maximum size of the target.

Click to delete the area. The maximum size should be larger than the minimum one.



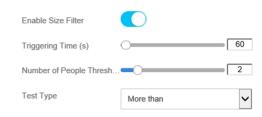


Figure 3-52 Draw Filter Target



Click the drawn graph and then click to delete the area. The maximum size should be larger than the minimum one.

- 4. Set Triggering Time and Number of People Threshold.
- 5. Set detection mode.

More than

An alarm will be triggered when the duration exceeds the triggering time and the number of people in detection area is greater than the threshold level set.

Less than

An alarm will be triggered when the duration exceeds the triggering time and the number of people in detection area is less than the threshold level set.

Equal to

An alarm will be triggered when the duration exceeds the triggering time and the number of people in detection area is equal to the threshold level set.

Not equal to

An alarm will be triggered when the duration exceeds the triggering time and the number of people in detection area is not equal to the threshold level set.

6. Set detection time schedule, all day by default. Click **1** to apply the settings to other days.

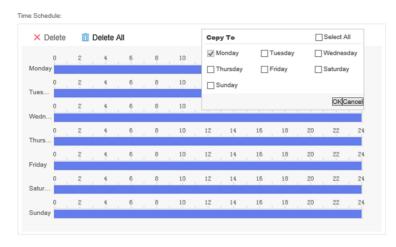


Figure 3-53 Set Detection Time Schedule

7. Click Save.

3.4.7 Standing-up Detection

Detect the standing movement of a person in the area. For example, the person who is being interrogated stands up from the seat during the trial.

Steps

- 1. Click Add to configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Indoor.
 - Event: select Standing-up Detection.
- 2. Draw detection area.
 - Custom detection area
 - Click \oplus , press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.



Figure 3-54 Custom Detection Area



Figure 3-55 Full Screen Detection

- **3. Optional:** Enable **Size Filter**. Only targets between the minimum and maximum sizes will be detected.
 - 1) Click 📵 to draw the maximum size of the target.
 - 2) Click 🖪 to draw the minimum size of the target.

Note

Click the drawn graph and then click x to delete the area. The maximum size should be larger than the minimum one.

- 4. Set sensitivity. The higher the alarm sensitivity is, the easier an alarm can be triggered.
- 5. Set detection time schedule, all day by default. Click **t** to apply the settings to other days.



Figure 3-56 Set Detection Time Schedule

6. Click Save.

3.4.8 Sitting Detection

Detect the sedentary time of a person. For instance, the interrogator or person who is interrogated stays motionless in the seat for a long time.

Steps

- 1. Configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Indoor.
 - Event: select Sitting Detection.
- 2. Draw detection area.
 - Click ⊕ , press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.



Figure 3-57 Custom Detection Area

- Click 🔳 to do full screen detection.

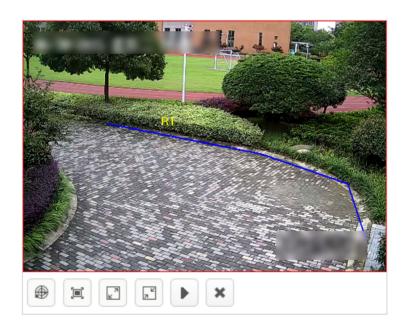


Figure 3-58 Full Screen Detection

- 3. Set Duration.
- 4. Set detection time schedule, all day by default. Click to apply the settings to other days.

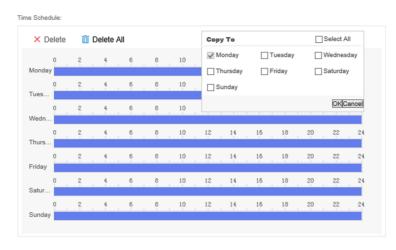


Figure 3-59 Set Detection Time Schedule

5. Click Save.

3.4.9 Playing Mobile Phone Detection

Detect the behavior of playing mobile phone in certain area.

Steps

- 1. Click Add to configure rule parameters.
 - Name: the name of rule. It is recommended that the name of rule be consistent with that of
 event.
 - Scene: select Indoor.
 - Event: select Playing Mobile Phone Detection.
- 2. Draw detection area.
 - Custom detection area
 - Click # , press the left mouse button and move the mouse to draw detection area, and press the right button to complete.



Figure 3-60 Custom Detection Area

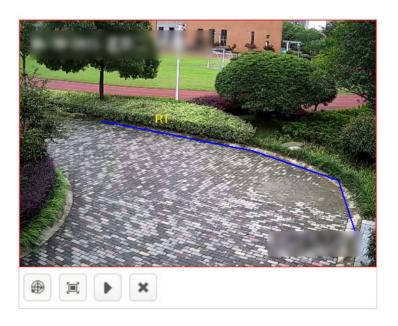


Figure 3-61 Full Screen Detection

Note

Click the drawn graph and then click to delete the area. The maximum size should be larger than the minimum one.

3. Set Duration.

4. Set detection time schedule, all day by default. Click **1** to apply the settings to other days.



Figure 3-62 Set Detection Time Schedule

5. Click Save.

3.4.10 People Entrance(Non Police) Detection

Detect the entrance behavior of non police person in certain area.

Steps

- 1. Click Add to configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Indoor.
 - Event: select People Entrance(Non Police) Detection.
- 2. Draw detection area.
 - Custom detection area

Click \oplus , press the left mouse button and move the mouse to draw detection area, and press the right button to complete.



Figure 3-63 Custom Detection Area



Figure 3-64 Full Screen Detection

- **3. Optional:** Enable **Size Filter**. Only targets between the minimum and maximum sizes will be detected.
 - 1) Click 📵 to draw the maximum size of the target.
 - 2) Click 🗈 to draw the minimum size of the target.

iNote

Click the drawn graph and then click x to delete the area. The maximum size should be larger than the minimum one.

4. Set Duration.

5. Set detection time schedule, all day by default. Click **[6]** to apply the settings to other days.

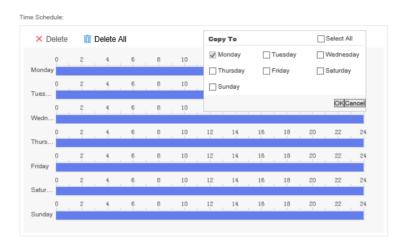


Figure 3-65 Set Detection Time Schedule

6. Click Save.

3.4.11 Police Absence Detection

Detect the occasion that no police is in the detection area.

Steps

- 1. Click Add to configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with that of event.
 - Scene: select Indoor.
 - Event: select Police Absence Detection.
- 2. Draw detection area.
 - Custom detection area

Click \oplus , press the left mouse button and move the mouse to draw detection area, and press the right button to complete.



Figure 3-66 Custom Detection Area



Figure 3-67 Full Screen Detection

- **3. Optional:** Enable **Size Filter**. Only targets between the minimum and maximum sizes will be detected.
 - 1) Click 📵 to draw the maximum size of the target.
 - 2) Click 🖪 to draw the minimum size of the target.

Note

Click the drawn graph and then click to delete the area. The maximum size should be larger than the minimum one.

4. Set Duration.

5. Set detection time schedule, all day by default. Click **[6]** to apply the settings to other days.



Figure 3-68 Set Detection Time Schedule

6. Click Save.

3.4.12 Falling-down Detection

Detect the falling-down behavior of person in the certain area.

Steps

- 1. Click Add to configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Indoor.
 - Event: select Falling-down Detection.
- 2. Draw detection area.
 - Custom detection area

Click \oplus , press the left mouse button and move the mouse to draw detection area, and press the right button to complete.

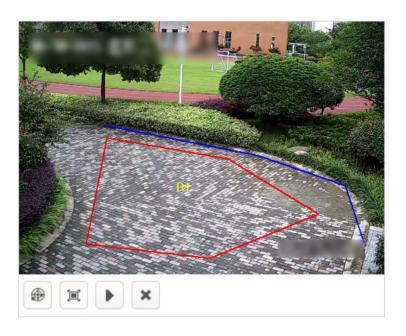


Figure 3-69 Custom Detection Area

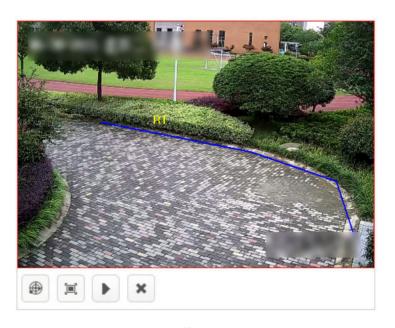


Figure 3-70 Full Screen Detection

Note

Click the drawn graph and then click to delete the area. The maximum size should be larger than the minimum one.

3. Set Duration.

4. Set detection time schedule, all day by default. Click **1** to apply the settings to other days.



Figure 3-71 Set Detection Time Schedule

5. Click Save.

3.4.13 Physical Conflict Detection (Indoor)

Detect the violent motion of people in the scene, such as fight.

Steps

- 1. Click Add to configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Indoor.
 - Event: select Physical Conflict Detection (Indoor).
- 2. Draw detection area.
 - Custom detection area

Click #, press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.



Figure 3-72 Custom Detection Area

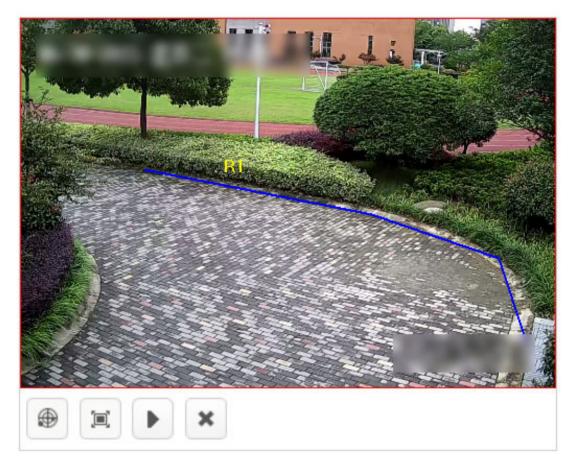


Figure 3-73 Full Screen Detection

- **3. Optional:** Enable **Size Filter**. Only targets between the minimum and maximum sizes will be detected.
 - 1) Click 🗖 to draw the maximum size of the target.
 - 2) Click 🖪 to draw the minimum size of the target.



Click the drawn graph and then click x to delete the area. The maximum size should be larger than the minimum one.

- **4.** Set **sensitivity**. The higher the alarm sensitivity is, the easier an alarm can be triggered.
- **5.** Set detection time schedule, all day by default. Click **1** to apply the settings to other days.



Figure 3-74 Set Detection Time Schedule

6. Click Save.

3.4.14 Overstaying Detection

Detect the behavior of staying in the toilet overtime.

Steps

- 1. Click Add to configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Indoor.
 - Event: select Overstaying Detection.
- 2. Draw detection area.
 - Custom detection area

Click , press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.



Figure 3-75 Custom Detection Area

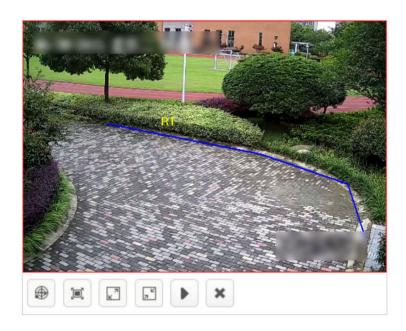


Figure 3-76 Full Screen Detection

- **3. Optional:** Enable **Size Filter**. Only targets between the minimum and maximum sizes will be detected.
 - 1) Click 📵 to draw the maximum size of the target.
 - 2) Click 🖪 to draw the minimum size of the target.

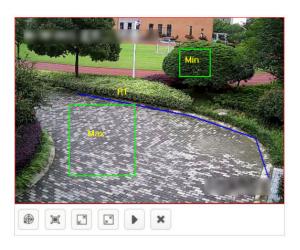




Figure 3-77 Draw Filter Target

Note

Click the drawn graph and then click x to delete the area. The maximum size should be larger than the minimum one.

4. Set Duration.

5. Set detection time schedule, all day by default. Click to apply the settings to other days.

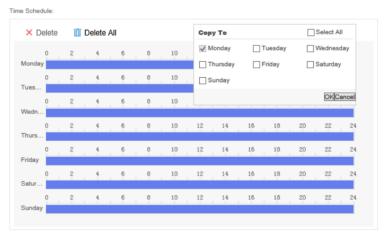


Figure 3-78 Set Detection Time Schedule

6. Click Save.

3.5 Trend Analysis Task

3.5.1 Create Trend Analysis Task

Create a trend analysis task. Up to 8 detection events can be added for each task.

Steps

1. Click Task Management → New .

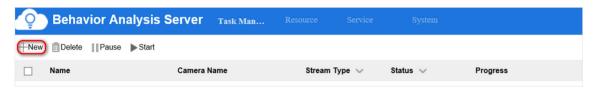


Figure 3-79 Create a New Task

- 2. Enter a task name.
- **3.** Select the corresponding camera or video recording. Only one camera or video recording is allowed for each task.

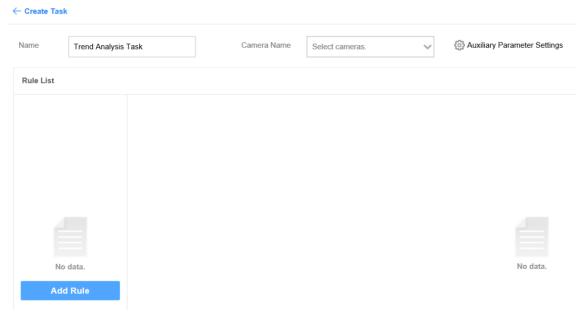


Figure 3-80 Create Task Interface

 $\square_{ extbf{Note}}$

Keep **Auxiliary Parameter Settings** by default.

4. Click **Add Rule** to add related detection events. The rules for configuring different detection events are different. See more details in following sections.

Note

You can select different scenes in any rules. If multiple scenes are selected in a rule, the analysis tasks of those scenes will be created at the same time.

3.5.2 People Density Analysis

Detect the density of people in the area and generate a heat map.

Steps

- 1. Click Add to configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Trend.
 - Event: select People Density Analysis.
- 2. Draw detection area.
 - Custom detection area

Click \oplus , press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.



Figure 3-81 Custom Detection Area

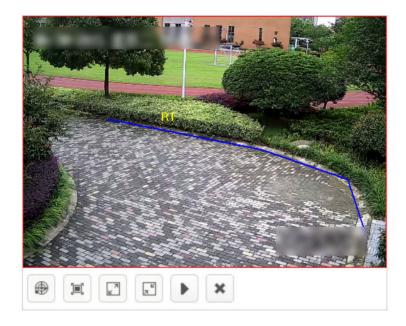


Figure 3-82 Full Screen Detection

3. Configure detection parameters in details.

Crowd Density Detection Mode

- Default Mode: applicable to outdoor large area scenes, such as square
- **Detection Mode**: applicable to large area scenes, such as supermarket
- Density Mode: applicable to small area scenes, such as meeting room

Analysis Reporting Interval

the interval of uploading analysis results

Alarm Reporting Interval

the minimum interval between two alarms

Low Alarm Threshold

the minimum number of people that triggers the low alarm of people density

Low Alarm Name

custom name

Medium Alarm Threshold

the minimum number of people that triggers the medium alarm of people density

Medium Alarm Name

custom name

High Alarm Threshold

the minimum number of people that triggers the high alarm of people density

High Alarm Name

custom name

4. Set detection time schedule, all day by default. Click **[** to apply the settings to other days.



Figure 3-83 Set Detection Time Schedule

5. Click Save.

3.5.3 Real-time People Counting

Count people in detection area.

- 1. Click Add to configure rule parameters.
 - Name: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Trend.
 - Event: select Real-time People Counting.
- 2. Draw detection area.
 - Custom detection area
 - Click \oplus , press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.



Figure 3-84 Custom Detection Area

Full screen detection
 Click to do full screen detection.

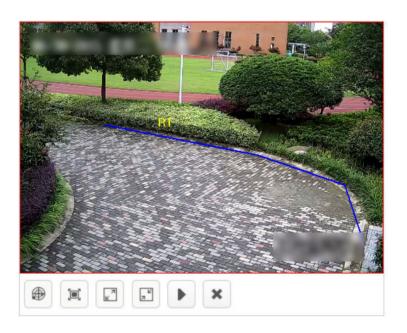


Figure 3-85 Full Screen Detection

- **3.** Set the report interval of number of people in the area.
- **4.** Set detection time schedule, all day by default. Click **t** to apply the settings to other days.



Figure 3-86 Set Detection Time Schedule

5. Click Save.

3.5.4 People Counting

Count the number of people in the area and report the result by time set.

- 1. Click Add to configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Trend.
 - Event: select People Counting.
- 2. Draw detection area and line.
 - Custom detection area
 - a. Click , press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.
 - b. Click to draw a detection line. Move the mouse to the ends of the detection line, press and hold the left mouse button to adjust the position and length of the line.

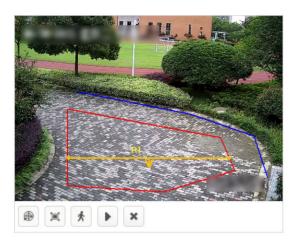




Figure 3-87 Custom Detection Area

- Full screen detection
 - a. Click is to do full screen detection.
 - b. Click to draw a detection line. Move the mouse to the ends of the detection line, press and hold the left mouse button to adjust the position and length of the line.

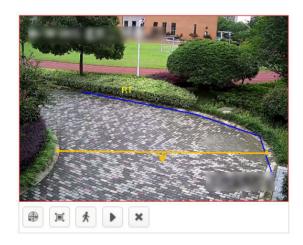




Figure 3-88 Full Screen Detection

i Note

Click the drawn graph and then click **x** to delete the area.

- 3. Set the report interval of people counting.
- **4.** Set detection time schedule, all day by default. Click **[6]** to apply the settings to other days.



Figure 3-89 Set Detection Time Schedule

5. Click Save.

3.6 Street Analysis Task

3.6.1 Create Street Analysis Task

Create a street analysis task. Up to 8 detection events can be added for each task.

Steps

1. Click Task Management → New .

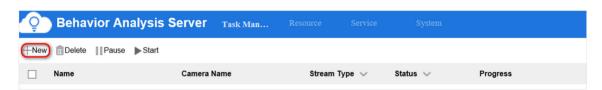


Figure 3-90 Create a New Task

- 2. Enter a task name.
- **3.** Select the corresponding camera or video recording. Only one camera or video recording is allowed for each task.

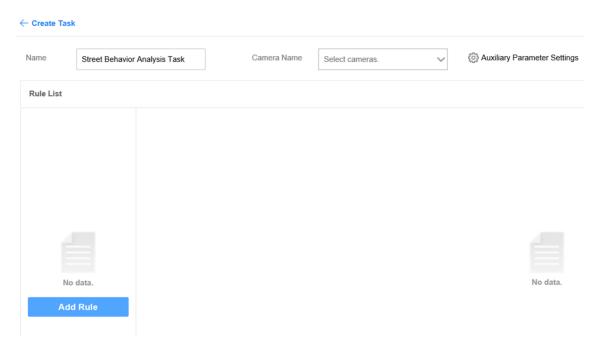


Figure 3-91 Create Task Interface



Keep Auxiliary Parameter Settings by default.

4. Click Set Rule to add related detection events. The rules for configuring different detection events are different. See more details in following sections.



You can select scenes in any rules. If multiple scenes are selected in a rule, the analysis tasks of those scenes will be created at the same time.

3.6.2 Falling-down Detection

Detect people in the area who falls down suddenly.

- 1. Configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Street.
 - Event: select Falling-down Detection.
- 2. Draw detection area.
 - Click , press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.

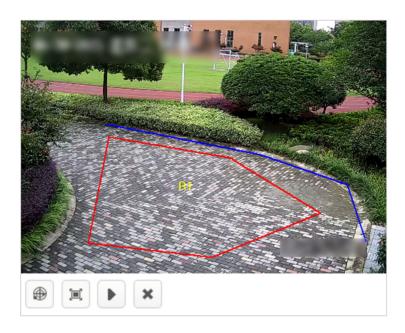


Figure 3-92 Custom Detection Area

- Click 🔳 to do full screen detection.

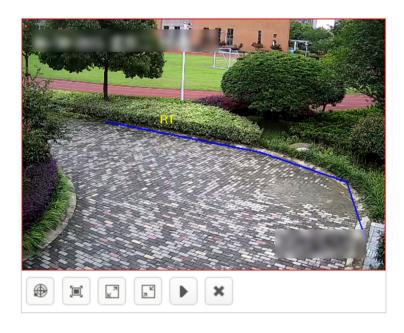


Figure 3-93 Full Screen Detection

- **3.** Set **Sensitivity**. The higher the alarm sensitivity is, the easier an alarm can be triggered.
- 4. Set detection time schedule, all day by default. Click to apply the settings to other days.

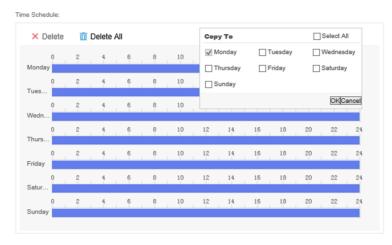


Figure 3-94 Set Detection Time Schedule

5. Click Save.

3.6.3 Fast Moving Detection

Detect the fast moving behavior of people in the scene, such as running.

- 1. Configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Street.
 - Event: select Fast Moving Detection.
- 2. Draw detection area.
 - Click , press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.

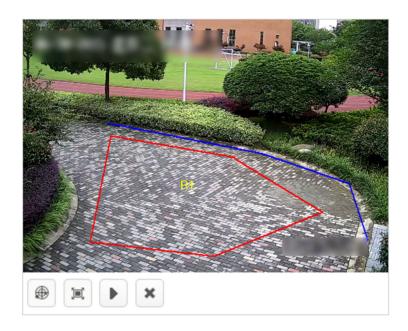


Figure 3-95 Custom Detection Area

- Click 🔳 to do full screen detection.

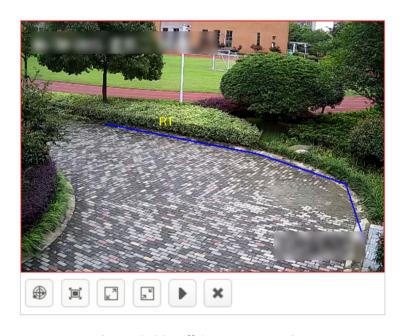


Figure 3-96 Full Screen Detection

- **3.** Set **Sensitivity** and **Duration**. The higher the alarm sensitivity is, the easier an alarm can be triggered.
- 4. Set Running Mode.
 - Single-person Running: An alarm will be triggered if the fast moving time of a single person exceeds the time set.

- Multiple-person Running: An alarm will be triggered if the fast moving time of multiple persons exceeds the time set.
- 5. Set detection time schedule, all day by default. Click **t** to apply the settings to other days.



Figure 3-97 Set Detection Time Schedule

6. Click Save.

3.6.4 Physical Conflict Detection (Street)

Detect the violent motion of people in the scene, such as fight.

- 1. Configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Street.
 - Event: select Physical Conflict Detection (Street).
- 2. Draw detection area.
 - Click , press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.

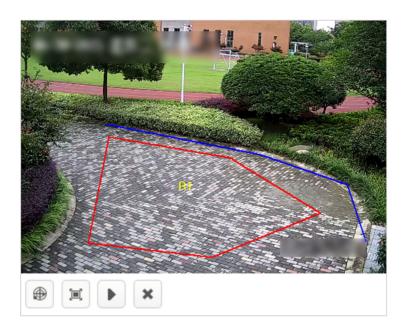


Figure 3-98 Custom Detection Area

- Click 🔳 to do full screen detection.

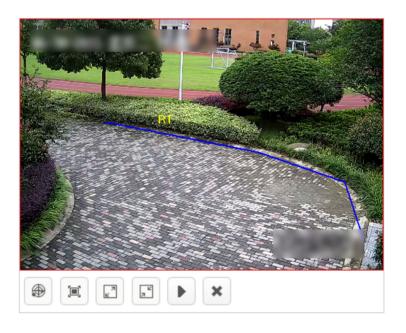


Figure 3-99 Full Screen Detection

- **3.** Set **Duration** and **Sensitivity**. The higher the alarm sensitivity is, the easier an alarm can be triggered.
- 4. Set Detection Mode and Alarm Interval.
 - Alarm Mode: default value.
 - Alarm Internal: the minimum internal between two alarms.

5. Set detection time schedule, all day by default. Click **1** to apply the settings to other days.

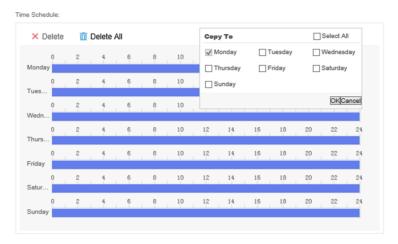


Figure 3-100 Set Detection Time Schedule

6. Click Save.

3.6.5 People Gathering Detection

Detect gathering behavior of people in street scene.

- 1. Configure rule parameters.
 - **Name**: the name of rule. It is recommended that the name of rule be consistent with the name of event.
 - Scene: select Street.
 - Event: select People Gathering Detection.
- 2. Draw detection area.
 - Click , press the left mouse button and move the mouse to draw detection area, and press the right button to complete the operation.

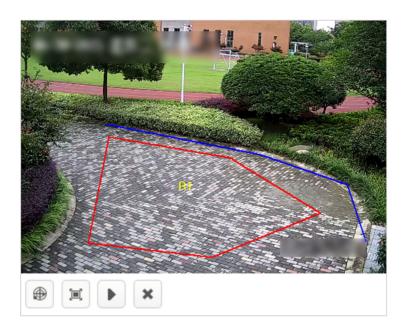


Figure 3-101 Custom Detection Area

- Click 🔳 to do full screen detection.

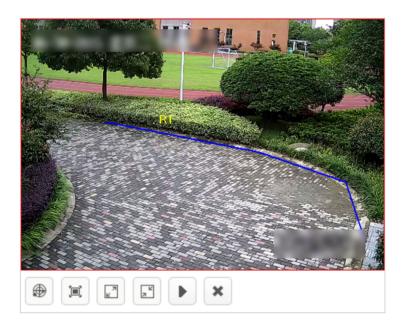


Figure 3-102 Full Screen Detection

- **3.** Set **Sensitivity** and **Duration**. The higher the alarm sensitivity is, the easier an alarm can be triggered.
- 4. Set the alarm interval and minimum number of people.
 - Alarm Internal(s): the minimum internal between two alarms
 - Min. People: the minimum number of gathering people

5. Set detection time schedule, all day by default. Click to apply the settings to other days.

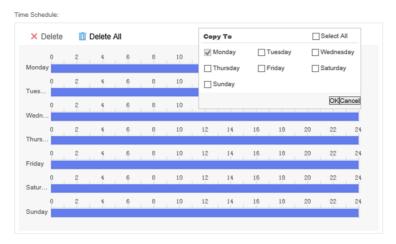


Figure 3-103 Set Detection Time Schedule

6. Click Save.

3.7 Task Management

3.7.1 Configure Task

Configure the established detection rule or add a new one.

Steps

1. Click Task Management, select a task and click the name.

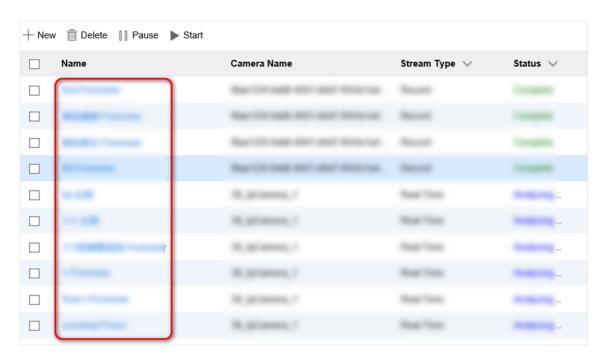


Figure 3-104 Task Management Interface

i Note

Move your mouse to **Stream Type** or **Status** to filter tasks.

2. Click rule name in Rule List, configure detection rules according to actual needs.

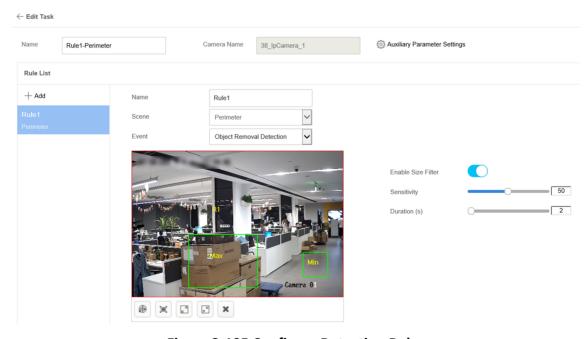


Figure 3-105 Configure Detection Rules

3. Click Add to add new detection rules.

3.7.2 Delete Task

Delete a task which is completed or no longer needs to be analyzed.

Steps

- 1. Click Task Management, and select the task to be deleted.
- 2. Click Delete, and click OK in the popped up box.

3.7.3 Pause Task

Pause a task which is being analyzed.

Steps

- 1. Click Task Management, and select the task to be paused.
- 2. Click Pause.

3.7.4 Start Task

Continue to analysis a task which was paused.

- 1. Click Task Management, and select the paused task.
- 2. Click Start.

Chapter 4 Smart Analysis Unit Management

4.1 Add Smart Analysis Unit to Cluster

Add new smart analysis unit(s) into cluster to enhance analysis capacity.

Before You Start

Smart unit(s) has been added.

Steps

- 1. Go to Service → Smart Unit.
- **2.** Check the desired smart unit(s).
- 3. Click Add to Cluster.
- 4. Click OK to add the new smart analysis unit into cluster.

4.2 Remove Computing Node from Cluster

Remove computing node(s) from cluster.

Before You Start

Smart analysis unit(s) is online.

Steps

- 1. Go to Service → Smart Unit .
- 2. Check the desired node(s).
- 3. Click Remove From Cluster.
- 4. Click OK.

4.3 Restart Smart Analysis Unit

Before You Start

Smart analysis unit(s) is online.

- 1. Click Service → Smart Unit .
- 2. Check smart analysis unit to be restarted.
- 3. Click Restart.
- 4. Click OK.

4.4 Power Off Smart Analysis Unit

Before You Start

Smart analysis unit(s) is online.

Steps

- 1. Go to Service → Smart Unit.
- 2. Check the desired smart analysis unit(s).
- 3. Click OFF.
- 4. Click OK.



Press the power button to turn the device on after the smart analysis unit is powered off.

4.5 Delete Smart Analysis Unit

A smart analysis unit can only be added to one node. You need to delete an analysis unit from a node before add it to another one.

Steps



If an offline smart analysis unit is deleted, it can only be added to the latest one node who just added it.

- 1. Go to Service → Smart Unit.
- 2. Check the desired smart unit(s).
- 3. Click Delete.
- 4. Click OK.

4.6 Configure Network Parameters

Configure the network parameters of smart analysis unit(s) through IE browser.

Before You Start

Ensure that the desired device connects to the network cable.

Steps

1. Go to Service → Smart Unit, and then click on the name of smart analysis unit.

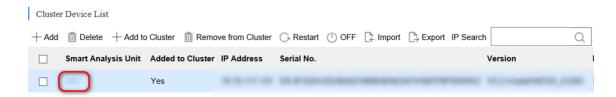


Figure 4-1 Cluster Device List

2. Click Network Configuration. Edit network parameters as needed.

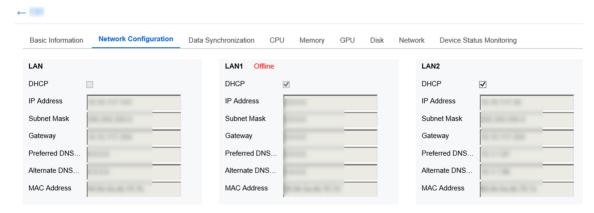


Figure 4-2 Edit Network Parameters



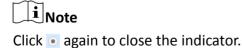
- Master or back-up node(s), which is added to cluster, is not allowed to be configured.
- Re-add the smart analysis unit(s) after its parameters changed.
- 3. Click OK.

4.7 Enable UID Indicator

Enable UID indicator to locate the sever quickly.

Steps

- 1. Go to Task Management → Smart Unit .
- 2. Click on the list of UID Indicator.



4.8 View Hardware Resource

View detailed information such as CPU, memory, GPU and Disk Usage, etc.

Steps

1. Go to Service → Smart Unit, and then click the name of smart analysis unit.



Figure 4-3 Cluster Device List

2. Click different tabs to view the usage of hardware.



Figure 4-4 View Hardware Resource

Chapter 5 System Management

5.1 Basic Configuration

The local filter function is enabled by default. In default status, the device can only be accessed via the IP address of itself. Disable local filter to access the device if port mapping is enabled.

5.2 Service Configuration

The results of task analysis can be uploaded to a third party device.

Steps

1. Click System → Service, and then click Add.

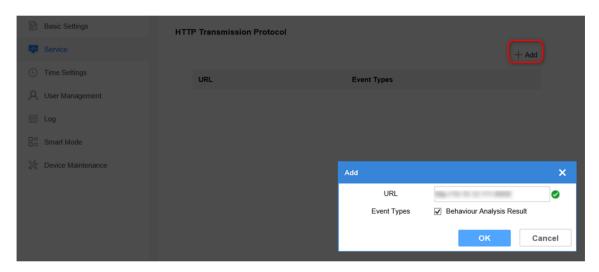


Figure 5-1 Service Configuration Interface

2. Configure the receiving address of the third party device.



Send task analysis results to the configured address via HTTP transmission protocol.

3. Click OK.

5.3 Time Configuration

Enable time sync as required. System time can be set by NTP sync or manually synchronization.

Before You Start

Obtain the IP address and port information of the NTP server for NTP sync.

Steps

1. Go to System → Time Settings .

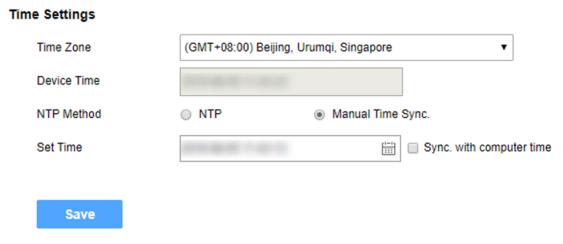


Figure 5-2 Time Configuration Interface

2. Select NTP or Manual Time Sync. as needed.



If **Sync.** with computer time is checked, the device time will be synchronized with the computer.

3. Click Save.

5.4 User Management

The system enabled an admin user by default. Only the admin user can add, delete users and modify user passwords. User types include administrators, operators, consumers. Operators and consumers can only modify their own passwords.

5.4.1 Add User

Up to 31 users can be added.

- 1. Go to System → User Management .
- 2. Click Add and enter user information.

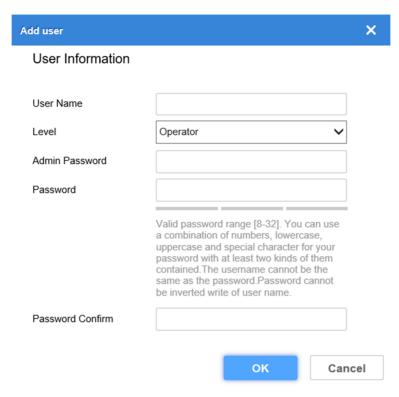


Figure 5-3 Add User



- We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product.
- It is recommended to reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.
- 3. Click OK to complete the operation.

5.4.2 Modify Password

Steps

- 1. Go to System → User Management .
- 2. Click the user name, and then click Modify.
- 3. Enter the admin password and new password, and then confirm your new password.
- 4. Click OK.

5.4.3 Delete User

The default user admin cannot be deleted.



- 1. Go to System → User Management .
- 2. Click the user name line, click **Delete**.
- 3. Click OK and enter admin password. Click OK again.



Clearing user resource means deleting the device added by the user. If the user is deleted with the resource remained, the device added by the user will be moved to the administrator.

5.5 Log Management

5.5.1 Search Log

The system log includes running log, alarm log, and operation log. Searching and exporting logs are allowed.

- Running Log: Record the completion and failure information of detection event.
- Operation Log: Record the operation information of Web interface.
- Alarm Log: Record error and alarm information of device.

Steps

- 1. Go to System \rightarrow Log.
- 2. Select the type of log.
- 3. Set the starting and ending time of search.
- **4.** Click \(\int \), and corresponding log information will be displayed.
- **5. Optional:** Click **Export**, and click **OK** in the popped up box to export desired log(s).

5.5.2 Download Maintenance Log

Maintenance log is used by professional maintainer to maintain device.

Steps

- 1. Go to System → Device Maintenance .
- 2. Click Download Maintenance Log, and click OK in the popped up box.



It may take a few minutes to export maintenance log(s). Please wait and select the save path as needed.

5.6 Smart Mode

Smart mode includes Single Smart Mode and Multi-Smart Mode. Single smart mode is set by default.

Before You Start

The cluster has been disbanded.

- Single Smart Mode: Perform analysis capability of the uploaded algorithm packages only. Uploading other algorithm package(s) is not supported.
- Multi-Smart Mode: Other algorithm packages with task analysis capabilities are supported to be uploaded.

Steps

- 1. Go to System → Smart Mode .
- 2. Select Single Smart Mode or Multi-smart Mode as needed.
- 3. Click Save.

5.7 Software Updating

Update the software via Web interface.

Before You Start

- Ensure that smart analysis unit(s) is online without any exception.
- · Obtain upgrading files.

Steps

1. Go to System → Device Maintenance .



Figure 5-4 Software Upgrading

- 2. Check the desired smart analysis unit(s).
- 3. Click Browse and select a desired file.

- **4.** Click **Upgrade** after the file is uploaded.
- 5. Click **OK** to start upgrading.

Note

The device will restart automatically after upgrading completed.

5.8 Restore Defaults

Restore defaults includes Restore and Default.

Before You Start

Ensure that the cluster has been disbanded.

- Restore: Restore all parameters, except IP address and user information, to default settings. The device will restart automatically and it is required to re-activate.
- Default: Restore all parameters to default settings. The device will restart automatically and it is required to re-activate.

Steps



This operation is not allowed in Multi-smart Mode. Switch to Single Smart Mode first.

- 1. Go to System → Device Maintenance .
- 2. Select Restore or Default as needed.

5.9 Help Center

Refer to the help document by going to **Help \rightarrow Help Document** on the upper-right corner of the interface to view or download the document.

5.10 Version Information

Check version information of different modules by going to **Help → Version** on the upper-right corner of the interface.

5.11 Logout

- 1. Go to admin → Logout on the upper-right corner of the interface.
- 2. Click OK.

5.12 Obtain Guarding Vision Client Software

In this device, Guarding Vision Client Software refers to 4200 Client Software.

- 1. Click **4200 Download** at the top-right corner of the interface to download Guarding Vision Client Software.
- 2. Install Guarding Vision Client Software.

Chapter 6 Guarding Vision Client Configuration

Accessing to the server via Guarding Vision Client (client for short) is allowed.



The client software interface updates from time to time. Please refer to the actual interface display.

6.1 Log in

Before You Start

You have obtained and installed Guarding Vision client software.

Steps

1. Open the client. Create a super user when enable the client for the first time. Enter super user name and password. Click **Log in**.

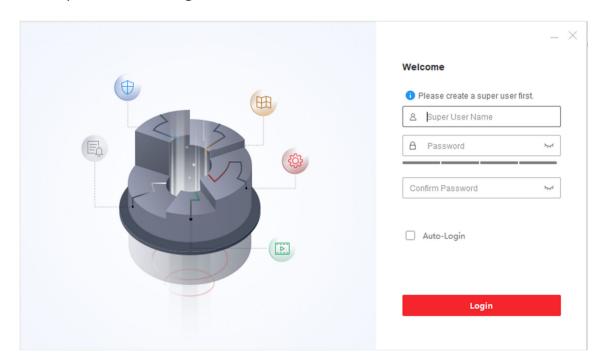


Figure 6-1 Create Super User



- Special characters V:*?"<>| are not allowed in user name.
- 8 to 16 characters allowed, including at least 2 of the following types: digits, lower-case letters, upper-case letters and special characters. Password cannot be the same as or opposite to the user name.

- 2. Optional: Check Enable Auto-login. The current user will log in automatically next time.
- 3. Set three security questions and answers for finding your password.

6.2 Add Server

Add the server to the client for management after login.

6.2.1 Add Server Manually

Enter the server IP address to add a server.

Before You Start

You have obtained the IP address, user name and login password of the server.

Steps

- 1. Go to Maintenance and Management → Device .
- 2. Click Add.

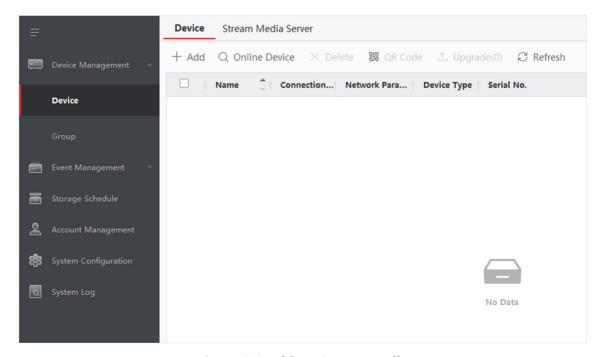


Figure 6-2 Add Device Manually

3. Select **IP/Domain** as **Adding Mode**, and Enter **Name**, **IP Address**, **User Name** and **Password**in the pop-up window.

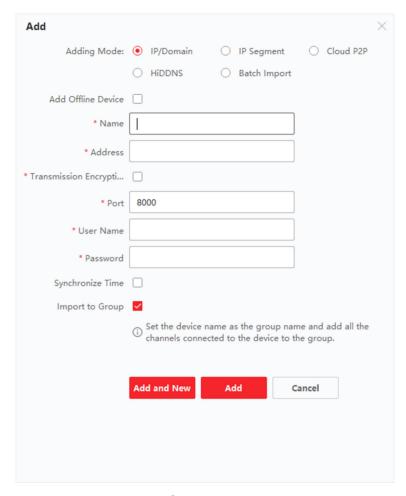


Figure 6-3 Configure Device Parameters

4. Click Add.



Check **Import to Group** to add all server channels to the group named by the server alias.

6.2.2 Add Online Server

Online adding is applicable to adding devices that are on the same network segment as the client software.

Before You Start

The desired server has been in the online device list.

- 1. Go to Maintenance and Management → Device .
- 2. Click Online Device and check the desired device.

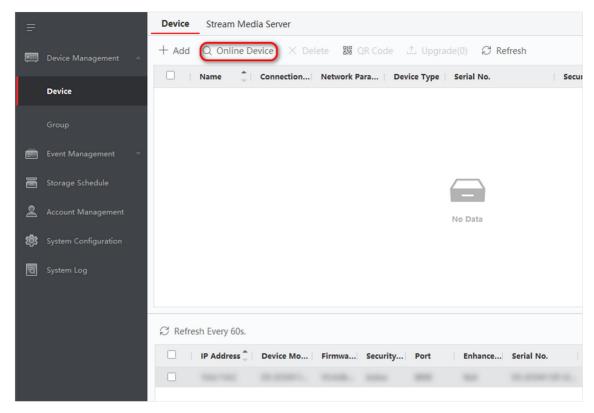


Figure 6-4 Add Online Device

- 3. Enter Name, User Name and Password in the pop-up window.
- 4. Click Add.



If multiple servers are selected at the same time, the software will add those servers with the same user name and password and use the server's IP address as the server name.

6.3 Live View

View the real-time video frame and analysis results of tasks.

6.3.1 View Analysis Task Frame

View the video frame of analysis task.

Steps

1. Click **■ → Main View** .

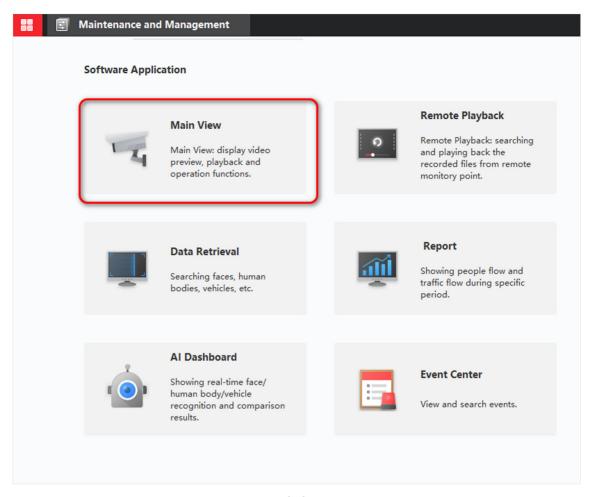


Figure 6-5 Click Main View

2. To view the real-time frame of the video , you can press the left button of mouse and drag the desired task to the playing window, or select a playing window and then double-click the desired task.



Figure 6-6 Main View Interface



Select a group to drag directly to any position on the right window, or double-click the group to preview all the tasks in the group.

Table 6-1 Operation Description

Operation	Description
0	Capture
O	Start to record
Ð	Switch to real-time playback
×	Close current live view window
×	Stop all live views

6.3.2 View Task Analysis Results(Trend Scene Only)

View the real-time analysis results of tasks in trend scene. For example, the window of People Counting task can show how many people entered and exited in the duration.

Steps

1. Click

→ AI Dashboard → Behavior Analysis .

2. To view the real-time frame of the video , you can press the left button of mouse and drag the desired task to the playing window, or select a playing window and then double-click the desired task.



Figure 6-7 View Real-time Analysis Results

Note

Select a group to drag directly to any position on the right window, or double-click the group to preview all the tasks in the group.

Table 6-2 Operation Description

Operation	Description
\times	Close current live view window
×	Stop all live views



- People counting task shows the number of people entered and exited in a time period.
- Real-time people counting task shows the current number of people in detection area.
- People density analysis task shows the line chart and heat map generated in a time period.

6.4 Remote Configuration

The client allows remote configuration of the server, including adding, editing, deleting and pausing the analysis tasks.

Steps

1. Click → Main View .

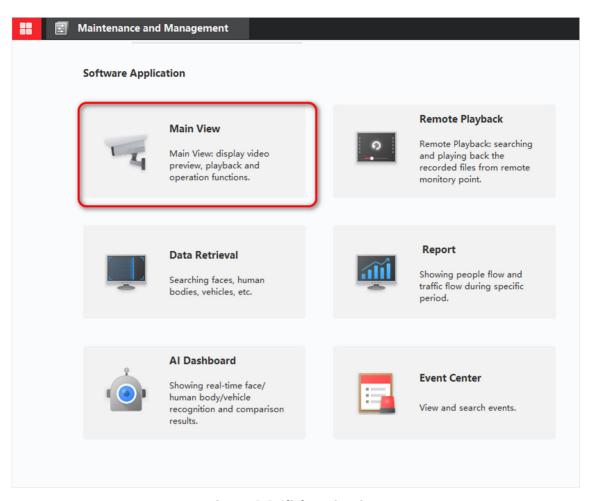


Figure 6-8 Click Main View

2. Select a task and click \longrightarrow Remote Configuration \rightarrow Basic Settings .

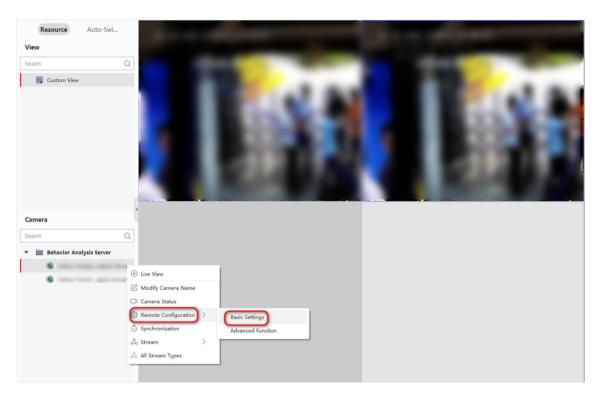


Figure 6-9 Select Remote Configuration

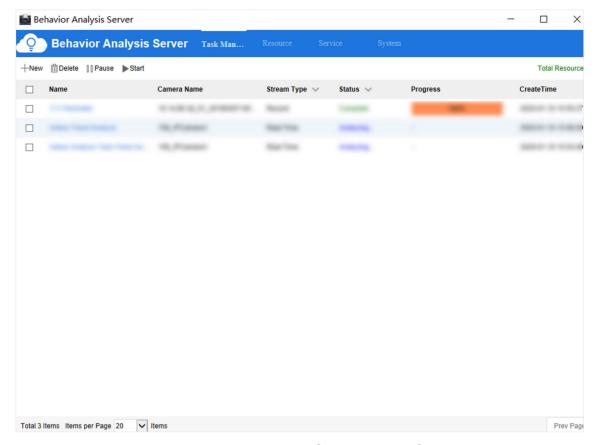


Figure 6-10 Remote Configuration Interface

6.5 Alarm Center

6.5.1 Search Real-time Event

It allows to view alarm information, preview real-time alarm channel, and automatically pop up the window when an alarm triggered.

Steps

1. Click **□ → Event Center** .

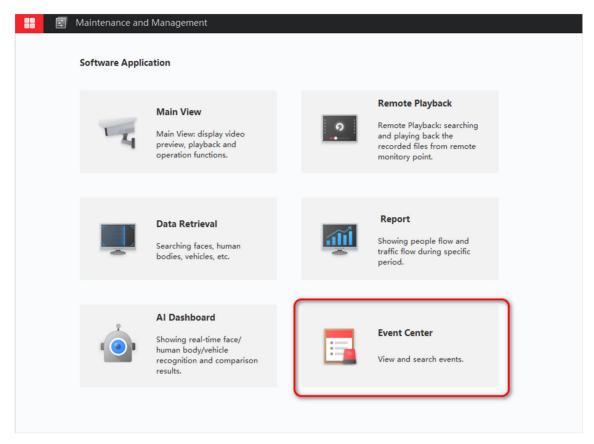


Figure 6-11 Click Event Center

2. Click Real-time Event to view real-time alarm information.

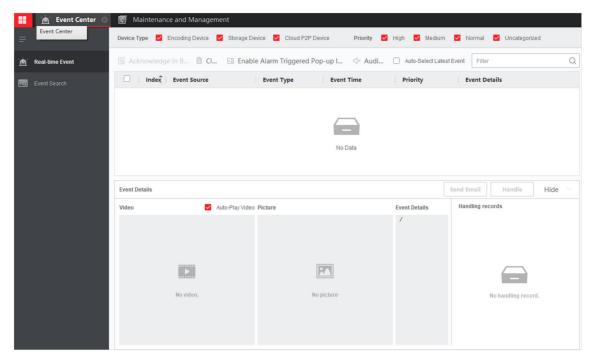


Figure 6-12 Real-time Event Alarm Information

Operation	Description
Clear List	Click or click the right button of mouse in the alarm information list and click Clear to clear the alarm information.
Alarm Sound	The alarm sound is off by default. Click $\leq \times$ to turn on the alarm sound and ≤ 0 to close.
Alarm Pop-up Window	The alarm pop-up window is off by default. Click 🔣 to turn on the alarm pop-up window and 🖂 to close.
Event Details	Click the desired alarm information to view the alarm image. Click Handle to record the handling suggestions.

6.5.2 Search Event

Quick search for alarm events.

Steps

1. Go to Event Center → Event Search.

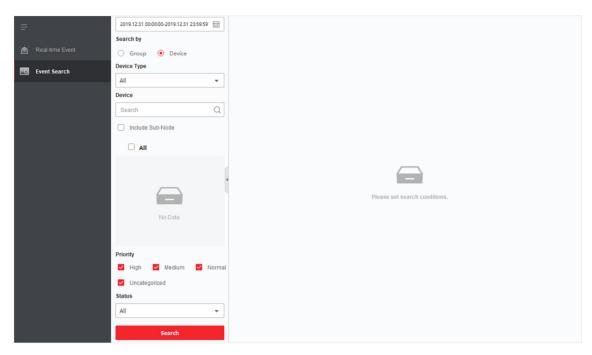


Figure 6-13 Event Alarm Information

- 2. Set searching conditions, and click Search.
- 3. Click on the desired event to view details.

6.6 Data Retrieval

Search alarm event and export related images.

Steps

1. Go to

→ Data Retrieval .

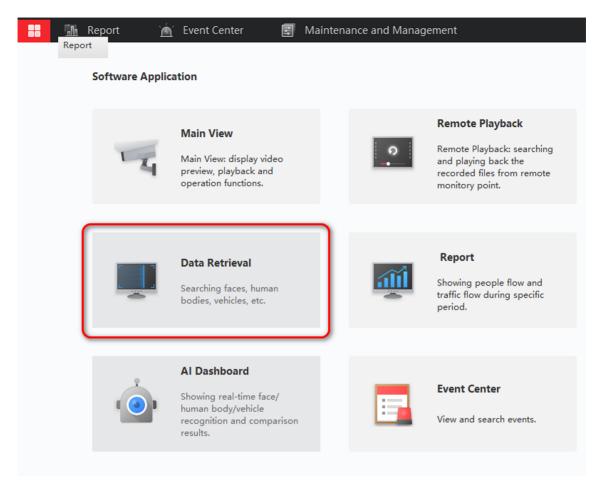


Figure 6-14 Data Retrieval

- 2. Click Behavior Analysis and configure the searching conditions.
- 3. Click Search.

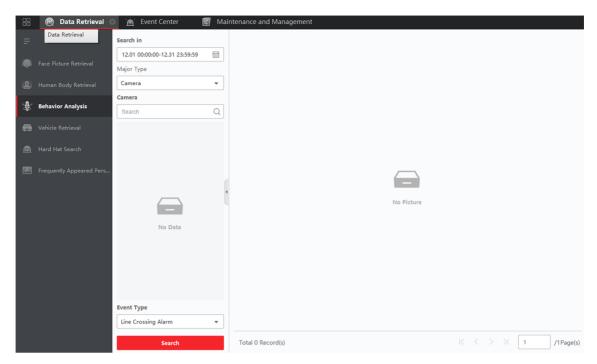


Figure 6-15 Data Retrieval Results



Only search by task name or rule name is allowed.

- 4. Click on the image of alarm event to view details.
- 5. Optional: Click Export to download related images of the event.

6.7 Data Statistics

Search the people flow volume and real-time number of people in trend analysis task. It supports to export related reports.

Steps

1. Go to
☐ → Report.

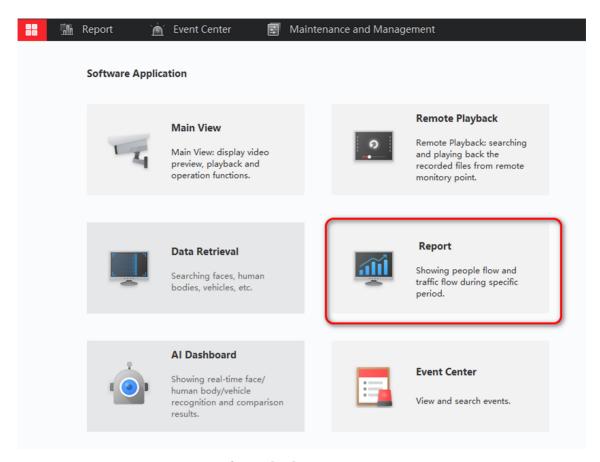


Figure 6-16 Data Report

- 2. Select People Counting or Real-time People Counting according to your actual needs.
- 3. Configure the searching conditions and then click Search.

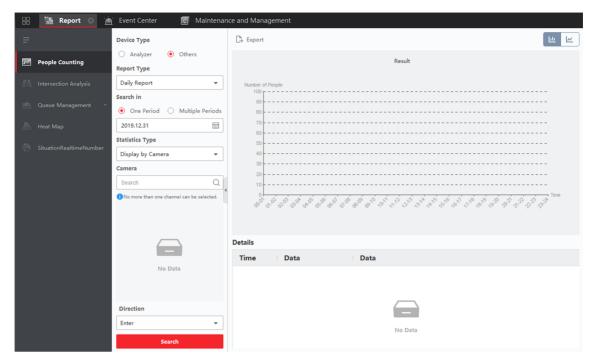


Figure 6-17 Report Results

- 4. Click on the image of alarm event to view details.
- **5. Optional:** Click **Export** to download related images of the event.

