



Intelligent Fusion Server

User Manual

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- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
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FCC Conditions

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

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

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<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 Intelligent Fusion Server.

Symbol Conventions

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

Symbol	Description
 Danger	Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.
 Caution	Indicates a potentially hazardous situation which, if not avoided, could result 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 over-heating 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.

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Chapter 1 Introduction

Intelligent fusion server (hereafter referred as the sever), equipped with professional GPU card, integrates deep learning-based algorithms of facial analysis, picture structuration and video structuration. It combines analysis, storage and application as one. By recognizing, analyzing, modelling and comparing pictures of faces, human bodies or vehicles, the server can perform functions as list alarm, creating personnel archives, personnel trace analysis, searching by human body picture, vehicle arming, and so forth. The server is widely applied for city, community, school, company, industrial area and other face recognition scenarios.

1.1 Key Features

- Human face list management.
- Human face list library arming.
- Human face detection in different monitoring scenarios.
- Rapid search for human face information in capture library.
- Supports list alarm, stranger alarm, frequently appeared person alarm, low frequency alarm, and license plate alarm.
- Settings of alarm popup and sound.
- Establish archives for each personnel.
- Generate personnel pattern.
- Supports management of AI algorithm packages.
- Rapid 1V1 face similarity comparison.
- Supports to search picture by attribute or picture, and display search results in order of similarity from high to low or in time order.
- Supports personnel identification and display search results in order of similarity from high to low.
- Supports to view the usage of device resource.
- User permission management of admin, operator and consumer.
- NTP time synchronization and manual time synchronization.
- Supports software updating.

1.2 PC Requirements

You can get access to the server with web browser.

The requirements for your PC are shown as below.

- Operating system: Microsoft Windows 7, Microsoft Windows 10.
- CPU: Intel Pentium IV 3.0 GHz or more advanced version.
- Memory: 1G or larger.
- Resolution: 1024 × 768 or higher.
- Web browser: Internet Explorer 10 or 11, Chrome 57+, Edge 95+.

Chapter 2 Configuration Wizard

Note

After upgrading the historical version to V1.4.0, please refer **5.5 Data Upgrade** to upgrade data first.

2.1 Login

You can get access to the server by web browser.

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, please strengthen your own protection. If the product does not work properly, please contact with your dealer or the nearest service center.

Steps

1. Open web browser, enter the IP address of the server and then press **Enter**.

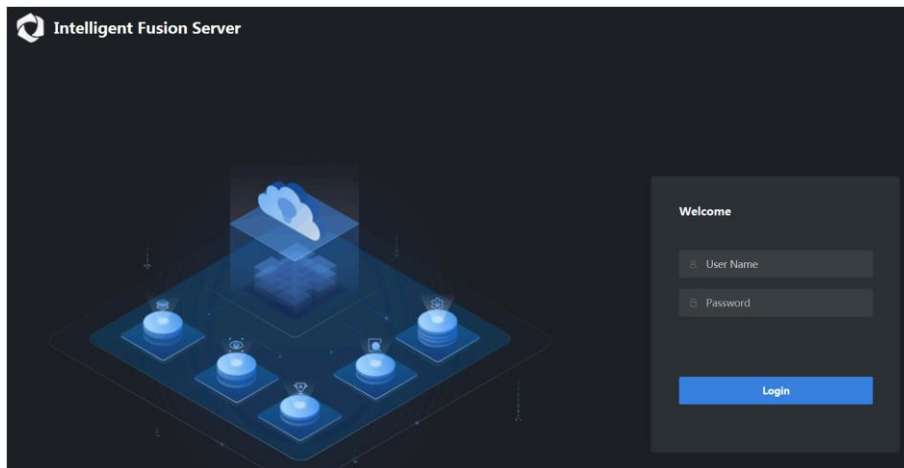


Figure 2-1 Login Interface

2. Enter **User Name** (admin) and **Password** (set for activation).
3. Click **Login**.

Note

- If the server is inaccessible, go to **Internet Options** → **Advancement**, check **Enable TLS1.1** and **Enable TLS1.2**.

- The specific interface varies from product to product.
-

2.2 Create Cluster

Note

The nodes that create micro video cloud cluster should be the same with that of creating analysis cluster. Otherwise, exception may occur.

2.2.1 Add Node

Before You Start

The node is online and on the same subnet with the server.

Note

The specific parameter values filled in the relevant interfaces below are for reference only. You need to configure relevant parameter values according to actual needs.

Steps

1. Go to **System Management** → **Cluster Management** → **Node Management**
2. Click **Add**.

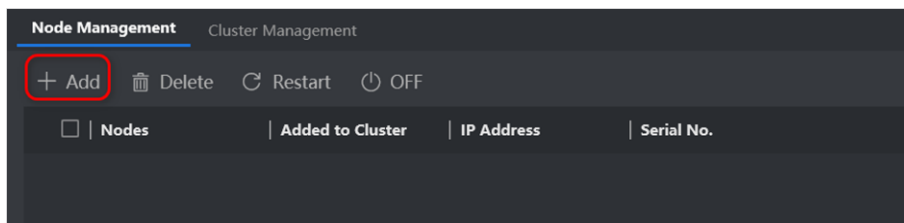


Figure 2-2 Add Notes

3. Enter **Name**, **Nodes IP**, **User Name** and **Password**.
4. Click **OK**.

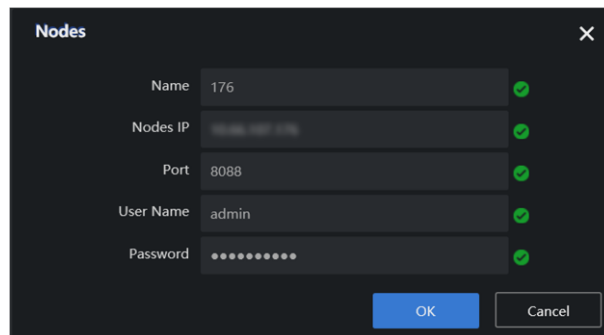
A dark-themed dialog box titled "Nodes" with a close button (X) in the top right corner. It contains five input fields, each with a green checkmark to its right, indicating successful configuration: "Name" with value "176", "Nodes IP" with value "192.168.1.176", "Port" with value "8088", "User Name" with value "admin", and "Password" with masked characters "••••••••". At the bottom are "OK" and "Cancel" buttons.

Figure 2-3 Configure Nodes Information

Note

If there are multiple nodes to be added, please follow the steps above to finish.

2.2.2 Create Stand-Alone Cluster

Two or fewer nodes can create a stand-alone cluster. It is not supported to form a working and backup cluster. Data can only be analyzed after the cluster is created.

Before You Start

Ensure the node is online.

Steps

1. Go to **System Management** → **Cluster Management**, and click **Create Cluster**.

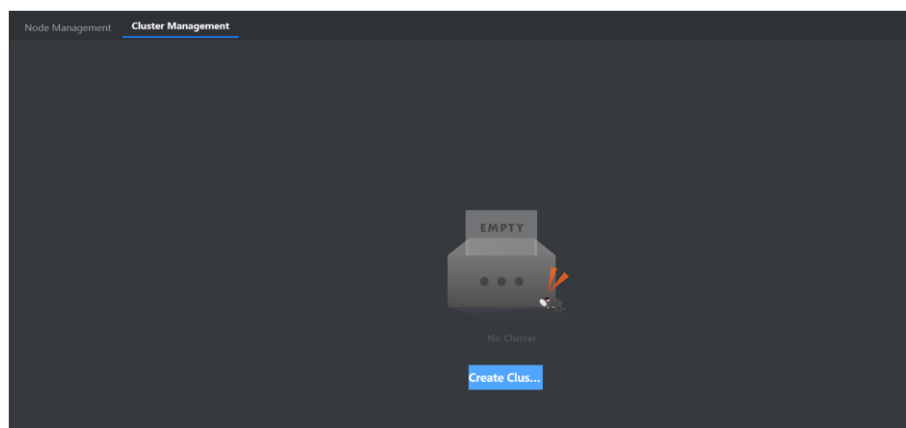


Figure 2-4 Click Create Cluster

2. Select the desired node, and click **Next**.

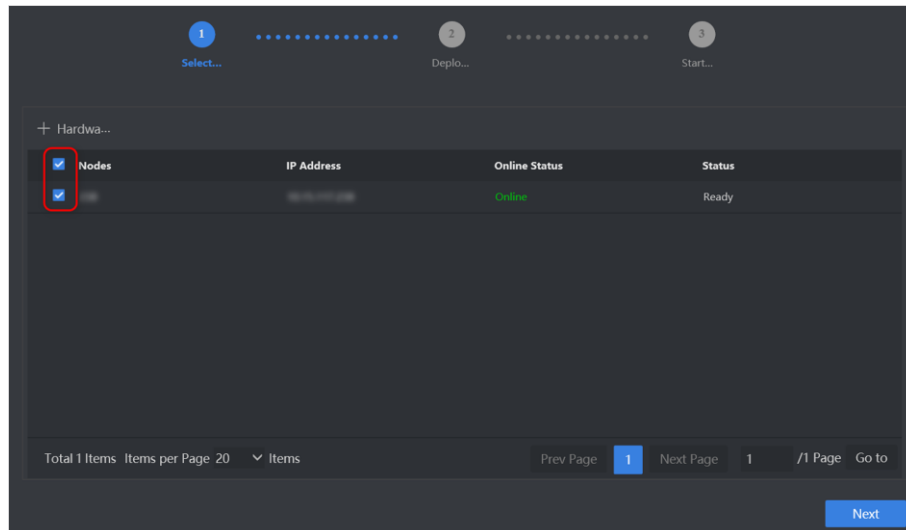


Figure 2-5 Select Node

3. Click **zookeeper**, **kafka**, **MongoDB**, **appServer** respectively, and check the desired nodes.

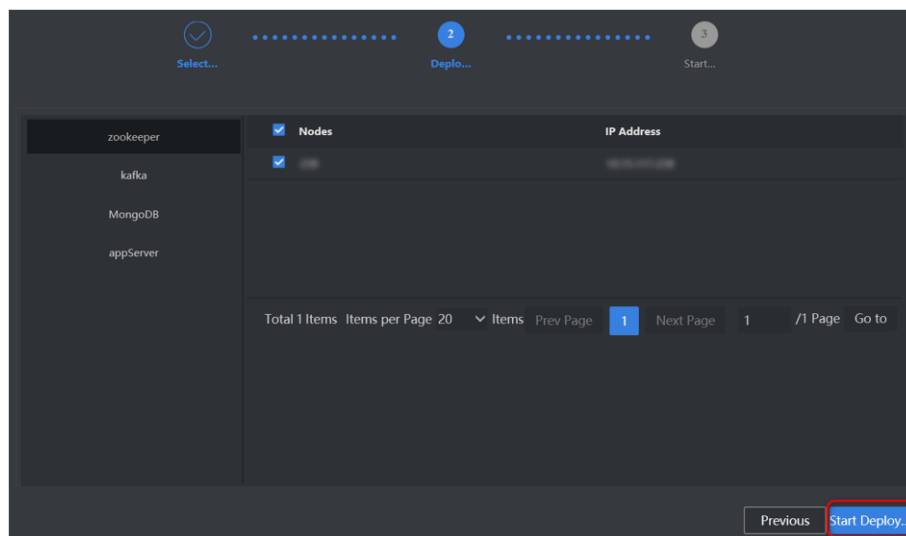


Figure 2-6 Deploying Service

4. Click **Start Deploying**.

5. Click **OFF** after deploying is completed.

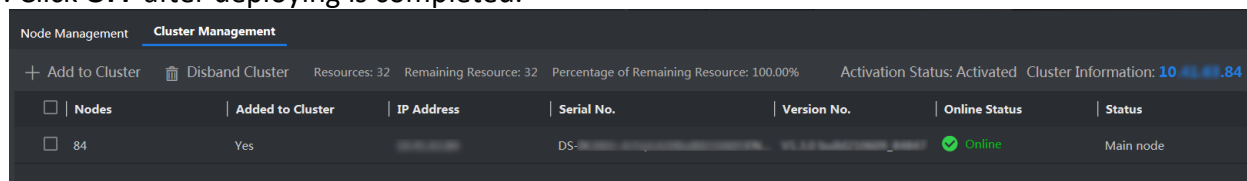


Figure 2-7 Deployed

6. Go to **Resource** → **Resource Algorithm** → **General Algorithm**, click  to allocate resources according to your actual needs.

Face Picture Analysis Path

Intelligent analysis and comparison of faces in pictures.

Face Video Analysis Path

Intelligent analysis and comparison of faces in videos.

OCR

Intelligent identification of identity Information from ID card picture.

Note

OCR is only supported by the KT2 card chip and needs to be used with the platform. It cannot submit tasks on the web interface.

Structured Picture Analysis Channel

Intelligent analysis of target (human body or vehicle) attributes in pictures.

Structured Video Analysis Channel

Intelligent analysis of target (human body or vehicle) attributes in videos.

Note

If the value of available resource is zero, the corresponding analysis task cannot be performed.

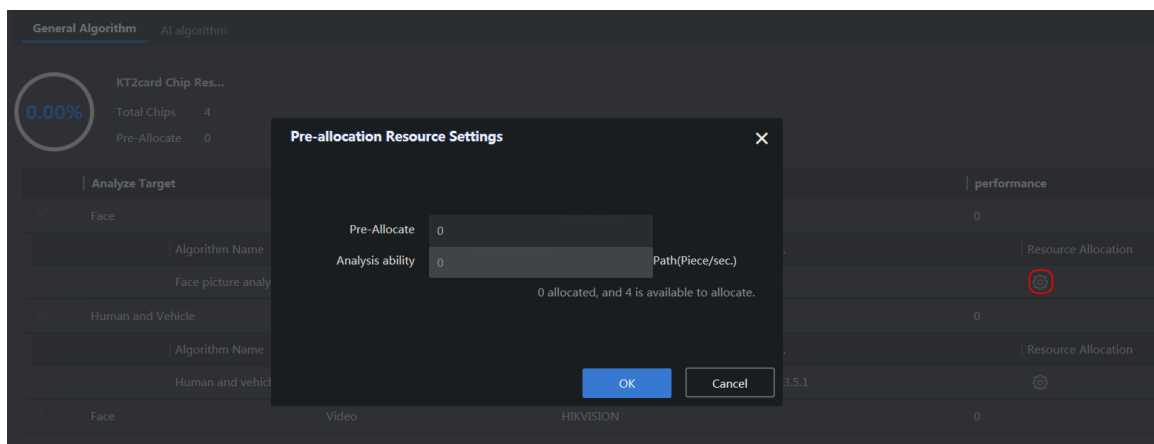


Figure 2-8 Allocate Resource

Note

The interfaces vary according to different types of chips. If the figure above is different with the actual one, the later prevails.

2.2.3 Create Working and Backup Cluster

Three or more nodes can create a working and backup cluster. Data can only be analyzed after the cluster is created, and at least three clusters need to be created.

Before You Start

- Ensure that at least 3 nodes are added.
- All the nodes should be on the same subnet.
- The master node and backup nodes must share the same type of GPU chip.

Steps

1. Go to **System Management** → **Cluster Management**, and click **Create Cluster**.
2. Select the desired nodes, and click **Next**.

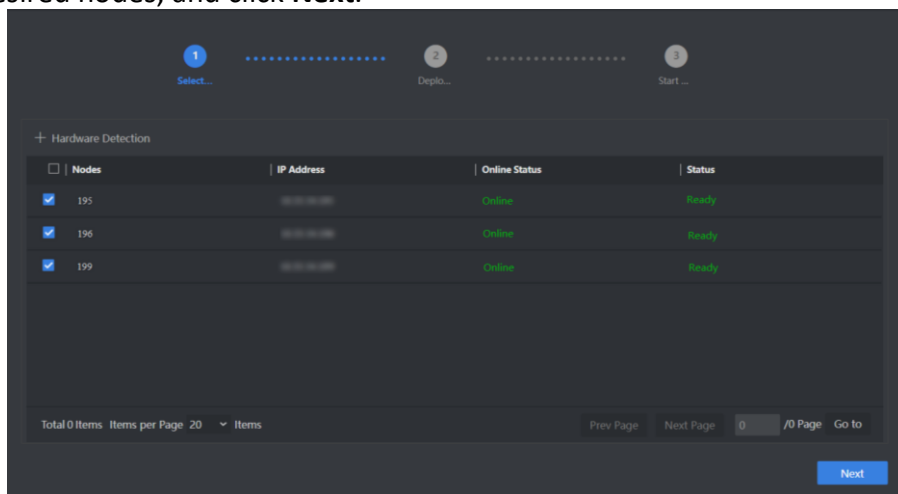


Figure 2-9 Check Nodes

3. Click **zookeeper**, **kafka**, **MongoDB**, **appServer** respectively, and check the desired nodes.
4. Click **appServer**, and enter an unused IP address in **Virtual IP**.

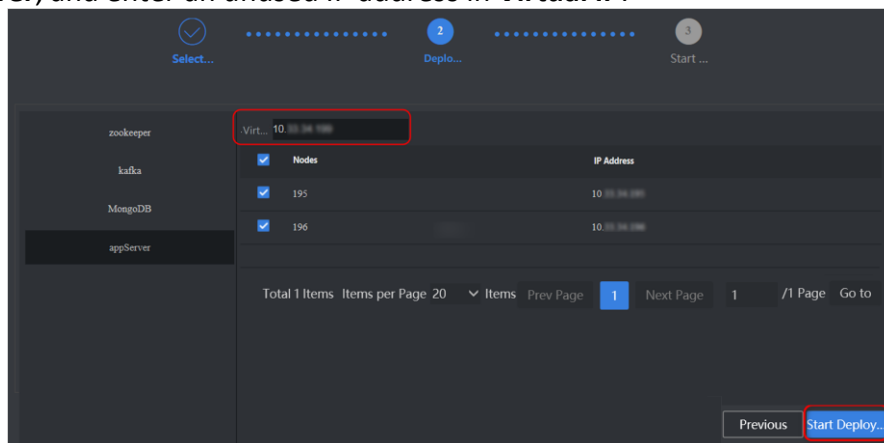


Figure 2-10 Deploy Server

5. Click **Start Deploying**.
6. Click **OFF** after deploying is completed.

7. Go to **Resource** → **Resource Algorithm** → **General Algorithm**, click  to allocate resources according to your actual needs.

Face Picture Analysis Path

Intelligent analysis and comparison of faces in pictures.

Face Video Analysis Path

Intelligent analysis and comparison of faces in videos.

OCR

Intelligent identification of identity Information from ID card picture.

Note

OCR is only supported by the KT2 card chip and needs to be used with the platform. It cannot submit tasks on the web interface.

Structured Picture Analysis Channel

Intelligent analysis of target (human body or vehicle) attributes in pictures.

Structured Video Analysis Channel

Intelligent analysis of target (human body or vehicle) attributes in videos.

Note

If the value of available resource is zero, the corresponding analysis task cannot be performed.

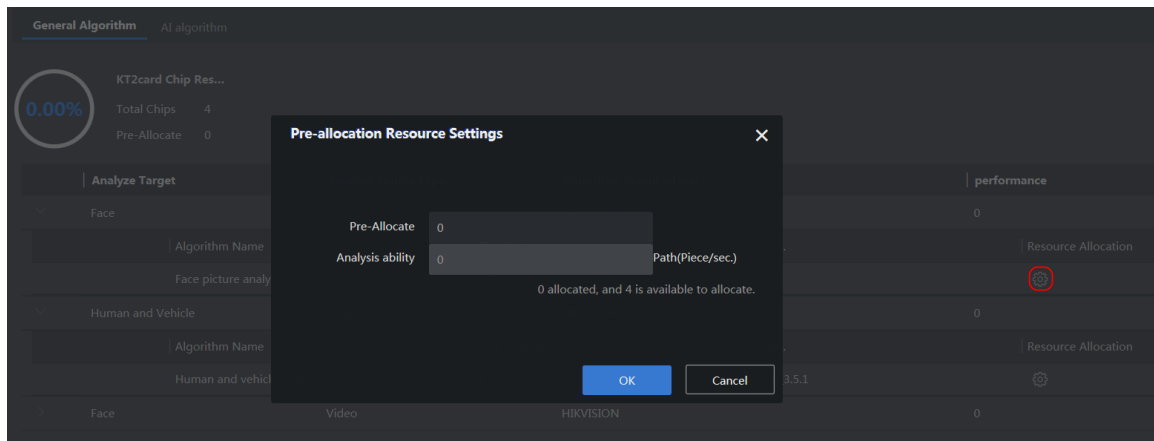


Figure 2-11 Allocate Resource

2.3 Add Face List Library

Add different list libraries, including normal library, blocklist library, and VIP library.

Steps

1. Go to **List Management**, and click **Add**.

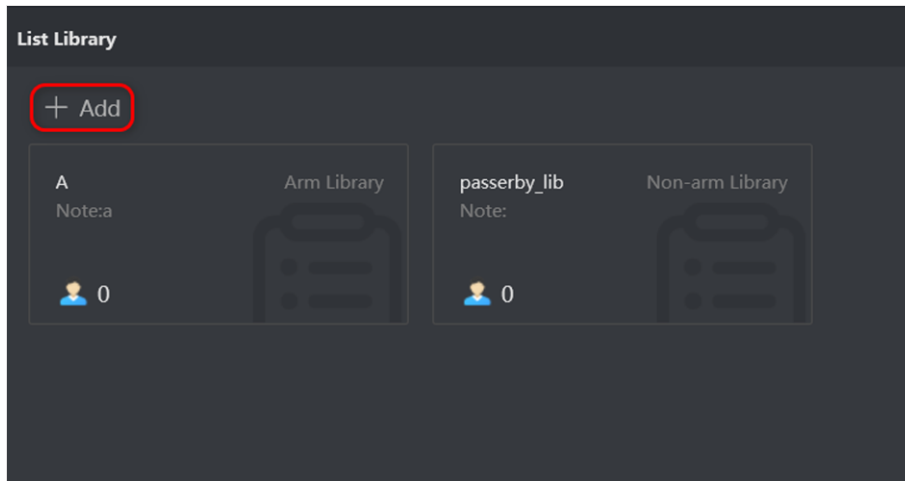


Figure 2-12 List Library Interface

2. Configure relevant parameters according to actual demands.

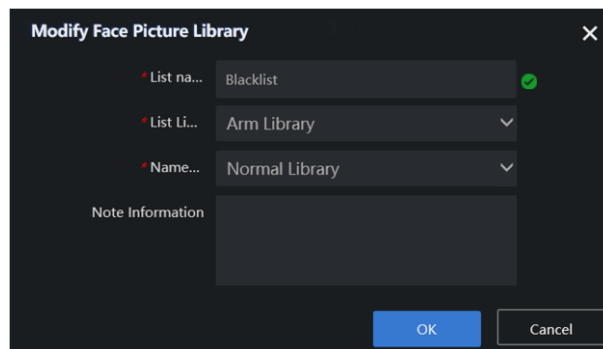


Figure 2-13 Add Face List Library

Note

Only when **List Library Type** is set as **Arm Library** can the alarming and personnel archive function be performed.

3. Click **OK**.
4. Optional: Other operations.
 - Click  to modify list library information.
 - Click  to delete the list library.

Note

- The passerby library is created by default and cannot be deleted. It is used to add captured stranger face pictures.
- Deleting a list library will delete all relevant personnel information.
- Only when no arming list is added, can the arm library be deleted.

2.4 Add Personnel Information

Before You Start

- Ensure a face list library is added.
- Go to **System Management**→ **System Config**→ **General** to configure the face picture library capacity.

Steps

1. Click the desired list library to add personnel information.

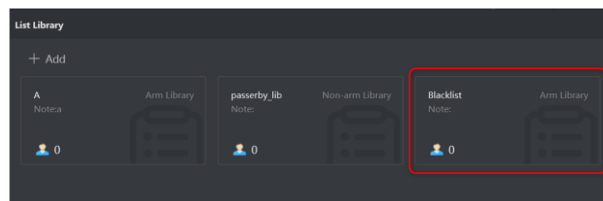


Figure 2-14 Click List Library

2. Click **Add**, enter relevant parameters, and upload face pictures.

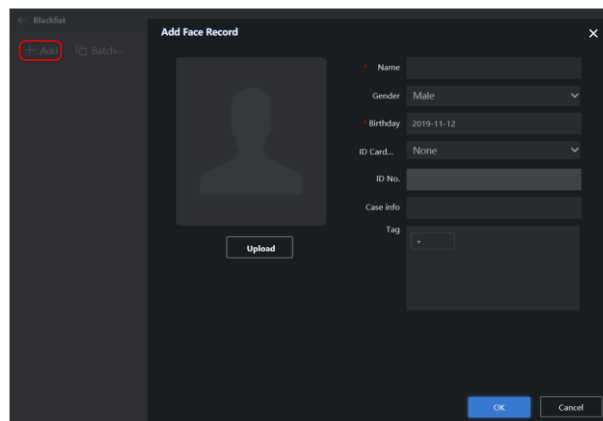


Figure 2-15 Add Personnel Information

Note

- **Name** and **Birthday** are required, enter other contents according to actual demands.
- Face pictures in the format of JPEG, BMP, TIF, PNG, and static GIF are supported.

3. Click **OK**.
4. Move your mouse to the desired item, and click different icons for further operations.
 - Click  to edit personnel information.
 - Click  to delete personnel information.
 - Click  to search personnel information.

2.5 Create Analysis Task

Analysis task includes real-time analysis task and local video record analysis task. Before creating analysis task, you should add respective resource like camera, video record and etc.

2.5.1 Add Camera

Add the desired camera for arming.

Before You Start

Obtain the IP address, user name and login password of the camera.

Steps

Note

- Add one camera only for each time.
-  indicates control center and  indicates area. The camera should be added to control center first before added to area. Here we take adding camera to control center "test" as an example.

1. Go to **Resource** → **Camera Management**.
2. Go to **admin** → .

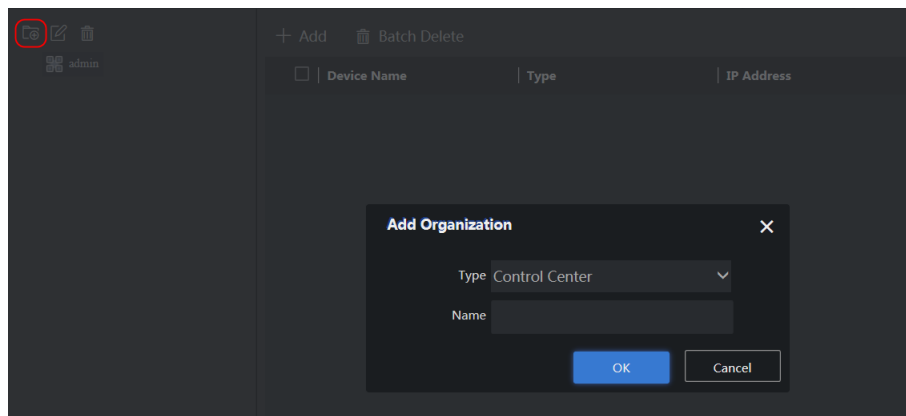


Figure 2-16 Add Control Center

3. Select **Control Center** as **Type** and enter the name of control center.
4. Click **OK**.
5. Click the newly-added control center and enter information in the popup window.

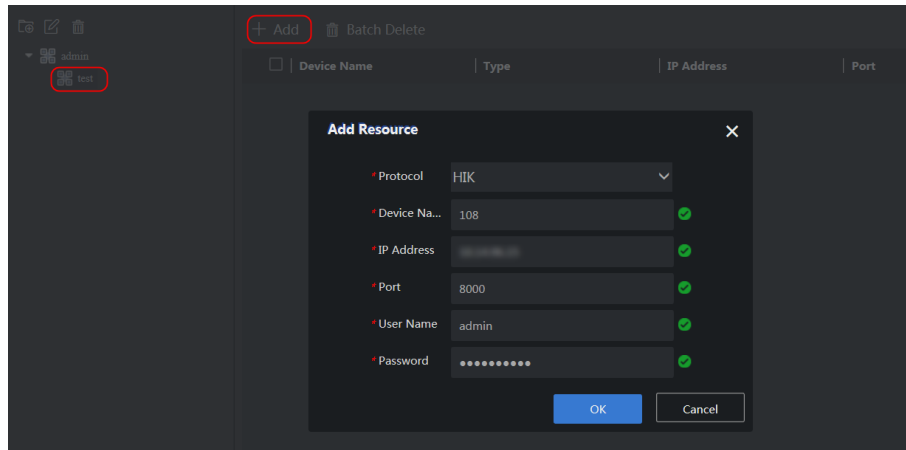


Figure 2-17 Add Camera

6. Click **OK**.
7. Click .
8. Select **Area** as **Type** and enter the name of area.

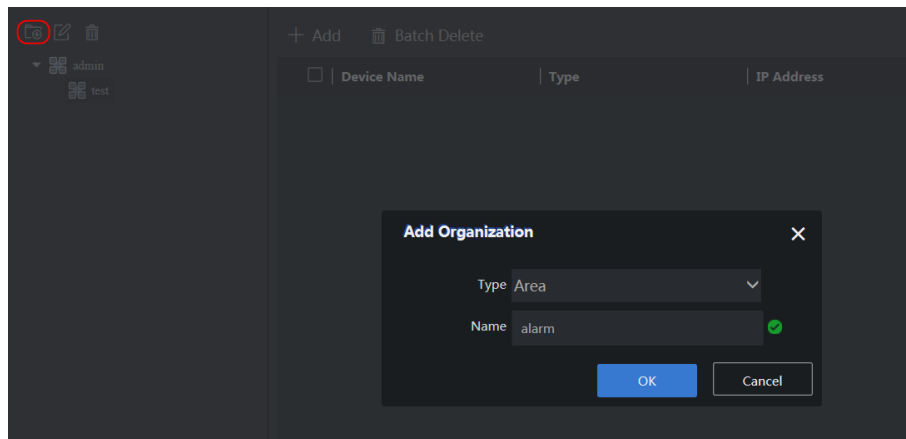


Figure 2-18 Add Area

9. Click **OK**.

Note

The area name supports digits, lower-case letters, upper-case letters, and special characters like "-" and "_". Up to 32 characters are allowed.

10. Click the newly-added area, and then click **Add**.

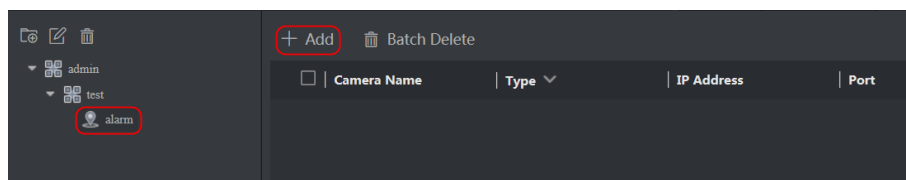


Figure 2-19 Add Camera to Area

 Note

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

11. Select the desired camera.

12. Click **OK**.

 Note

Both control center and area can be added to control center, but only camera can be added to area.

2.5.2 Create Real-time Analysis Task

Real-time analysis task is used to conduct real-time analysis of targets in monitoring scene.

Before You Start

The camera has been added.

Steps

1. Go to **Target Arming** → **Task Management** → **Real-Time Task List**, click **New**.

+ New

Batch D...

Start

Pau...

☐	Name	Camera Name	Type ▼	Priority	Stream Type	Status ▼
☐	Video Face	Camera1	Video Face	High	Real-Time	Analyzing...
☐	Picture Face	Camera2	Picture Face	Low	Real-Time	Analyzing...

Figure 2-20 Task Management Interface

2. Check a desired camera or multiple cameras, click **Create**.

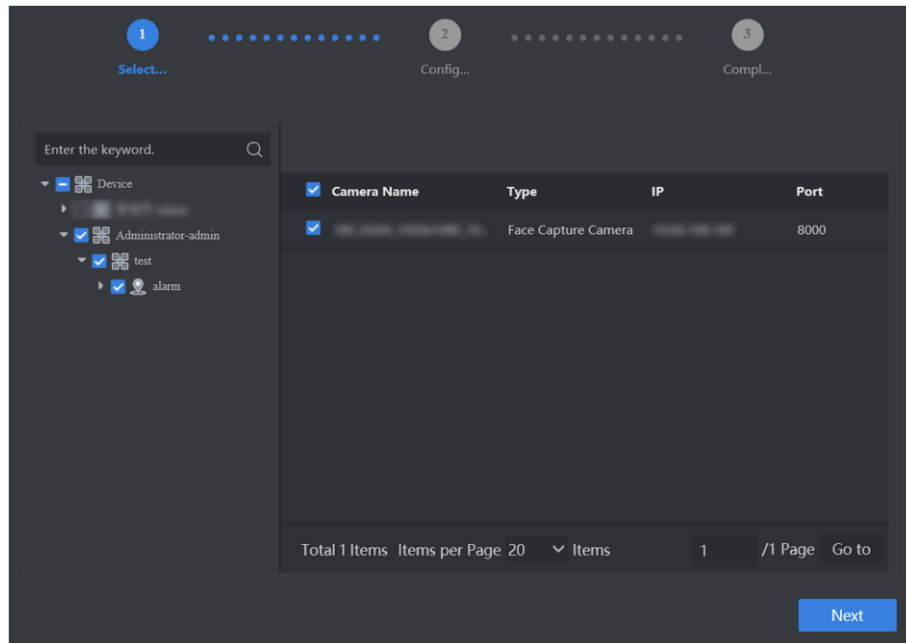


Figure 2-21 Check Cameras

3. Optional: Click  in **Rule Settings** list to set detailed rules.
- Click  to draw the detection area. Full screen detection is set by default.
 - Click  to draw min. pupil distance, and you can set max. pupil distance as well. After the minimum and maximum value are set, only face whose pupil distance is within the range will be detected.
 - Keep other parameters as default value.

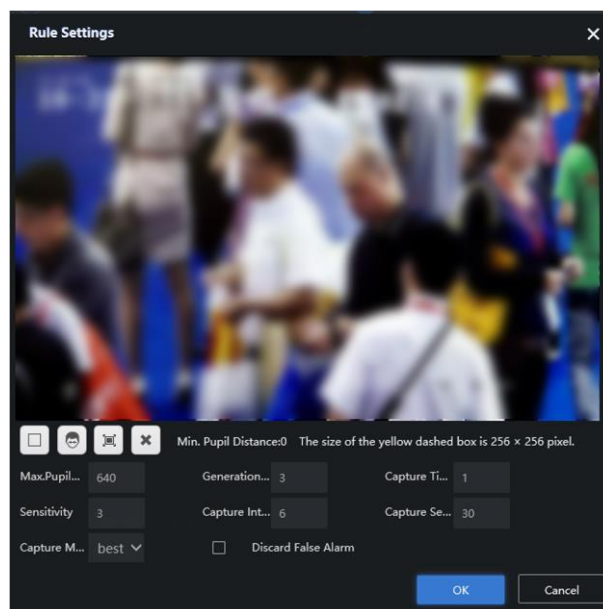


Figure 2-22 Set Rule

Caution

This step is only applicable for face capture of video streams from normal network cameras.

4. Click **OK**.
5. Click  to set detailed schedule. The server performs all-hours analysis by default.
6. Click **Create**.

Video Structure

Analysis of target attributes in videos. This type of analysis task should be created before you set license plate arming.

Video Face

Analysis and comparison of faces in videos.

Picture Structure

Analysis of target attributes in pictures. This type of analysis task should be created before you set license plate arming.

Picture Face

Analysis and comparison of faces in pictures.

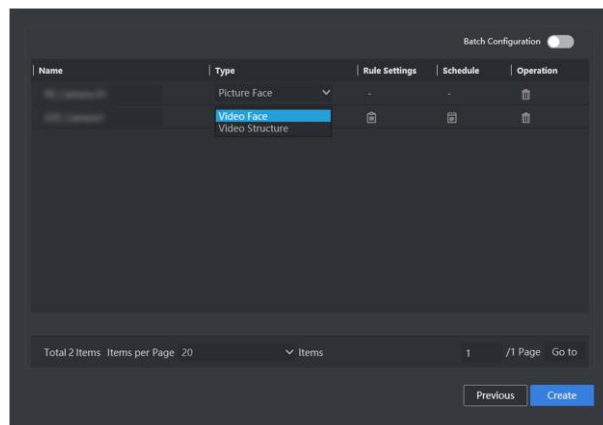


Figure 2-23 Create Real-time Analysis Task

Note

By clicking **Configure** on the upper-right corner, you can configure the task application intervals and human body selection strategy.

2.5.3 Import Video Record Files

Import the video that needs to be analyzed. If there is no video that needs to be analyzed, skip this

chapter.

Before You Start

Allocate resources.

Steps

1. Go to **Resource** → **Record File**.
2. Click **Default List**, and then click **Import**.

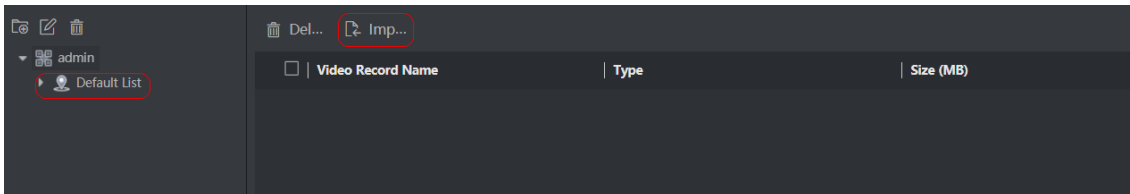


Figure 2-24 Import Video

3. Click **Select File** to select desired video recording files.

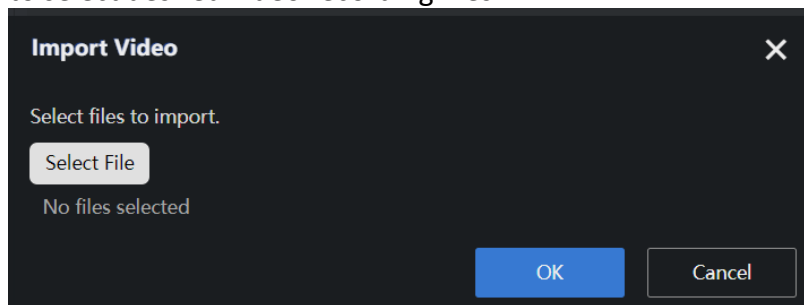


Figure 2-25 Select File

4. Set the actual time of recording as video starting time.

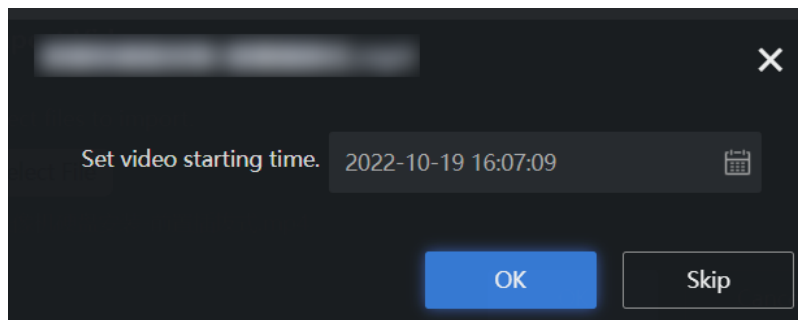


Figure 2-26 Set Video Starting Time

Note

- If the video starting time is not set, the time of analysis results will be inconsistent with that of actual recording.
 - Special characters in the video file name will cause video upload failure.
-

5. Click **OK**.

2.5.4 Create Video Record Analysis Task

Video record analysis task is used to analyze targets in video files.

Before You Start

- Import video record files.
- Go to **Resource** → **Resource Allocation** to allocate resources.

Steps

1. Go to **Smart Application** → **Video Analysis**, and click **New** to select the desired videos in the list.
2. Click **Next**.

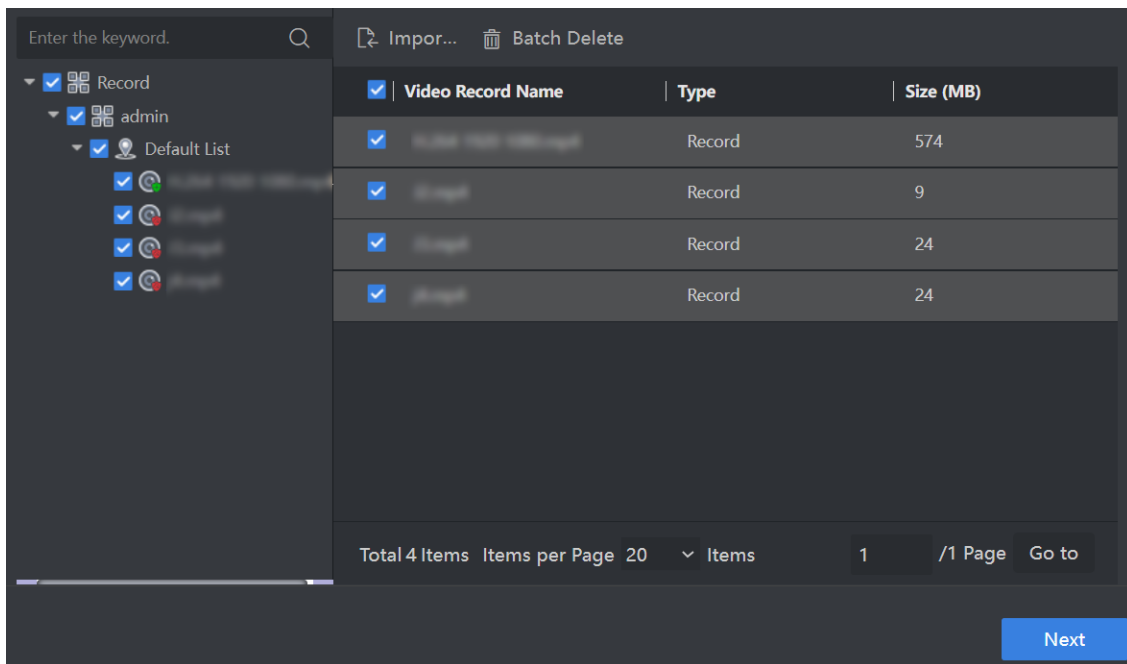


Figure 2-27 Select Recordings

Note

If the live view function is disabled, you may have to install a plug-in in accordance with the prompt. Close web browser before installing the plug-in.

3. Click  in **Rule Settings** list to set detailed rules in the popup interface.
 - Click  to draw the detection area. Full screen detection is set by default.
 - Click  to draw min. pupil distance, and you can set max. pupil distance as well. After pupil distance is set, only faces whose pupil distance is between min. and max. pupil distance value will be detected.
 - Keep other parameters as default value.

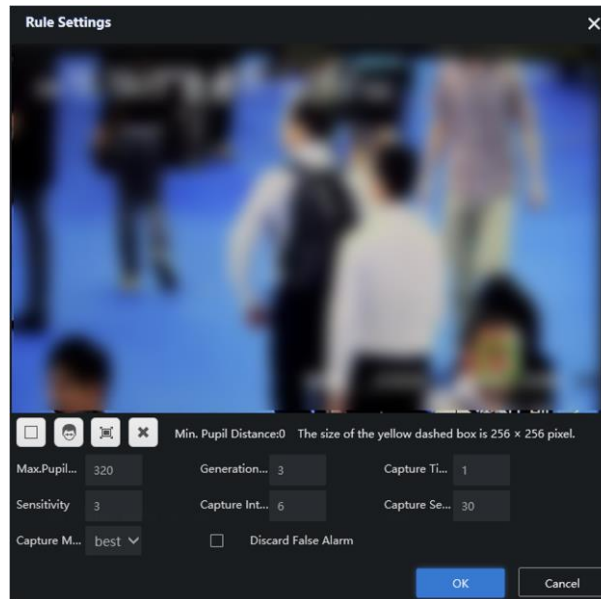


Figure 2-28 Set Rule

4. Click **Create**.

Video Structure

Analysis of target attributes in videos. This type of analysis task should be created before you set license plate arming.

Video Face

Analysis and comparison of faces in videos.

Arming Analysis

If enabled, arming analysis will be performed. This function is only available for video face analysis task.

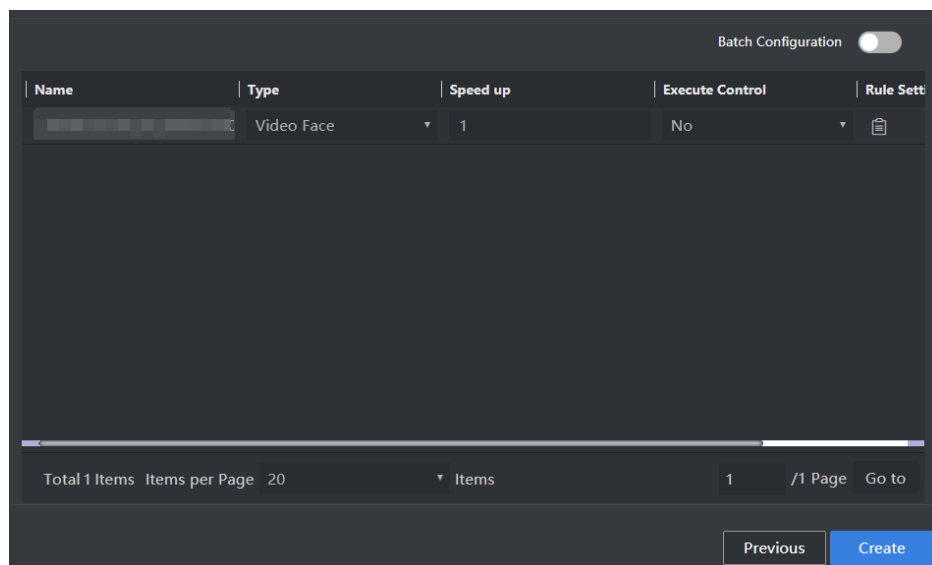


Figure 2-29 Create Video Record Analysis Task

2.6 Create AI Algorithm Task

Creating AI algorithm task is only available when there is one or more T4-chip device in the cluster.

2.6.1 Import AI Algorithm Package

Importing AI algorithm package(s) is required for creating analysis task(s).

Before You Start

Get an AI algorithm package.

Steps

1. Go to **System Management** → **Algorithm Management** → **AI Algorithm**, and click **Import**.

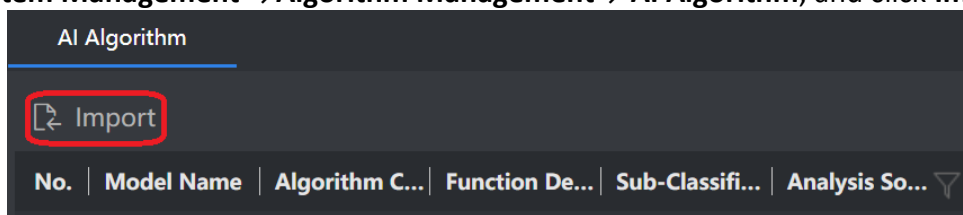


Figure 2-30 Import AI Algorithm Package

2. Click **Browse**, and select the desired algorithm package and description file (.json file).

Note

AI algorithm packages include encrypted algorithm packages and non-encrypted packages, and the former is only applicable to the device it is imported to.

3. Configure the parameters.

Algorithm Name

Enter a name as desired.

Sub-Classification

Enter the sub-classification of analysis type. Click **Edit** → **Add** to add sub-classification as desired.

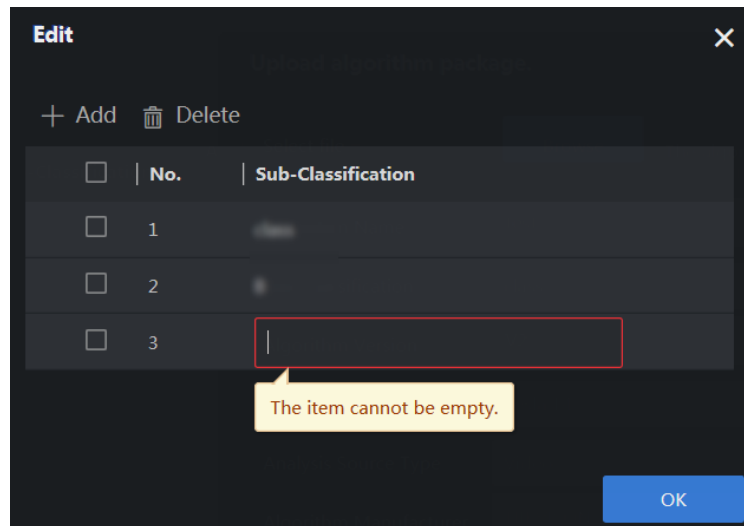


Figure 2-31 Add Sub-Classification

Algorithm Version

Keep the version as default value.

Chip Platform

Be consistent with the chip application type. Check the type in model management interface of AI Training Platform.

Analysis Source Type

Video: Analyze the recordings or videos of cameras.

Picture: Analyze the pictures submitted by the client. Captured pictures cannot be analyzed directly.

Note

Select **Analysis Source Type** as **Video** for video analysis task, and **Picture** for picture analysis task.

Upload Algorithm Package

Select file Browse The algorithm package file and correspon...

Algorithm Name

Sub-Classification analysis Edit

AI Algorithm Version V3 ✓

Chip Platform

Analysis Source Type Video

Algorithm Manufacturer

Details video analysis ✓

#, *, and \ are not allowed.

OK

Figure 2-32 Algorithm Package Parameter

- Click **OK**.
- Optional: Click or to check details or delete the corresponding algorithm.

AI Algorithm											
Import											
No.	Model Name	Algorithm C...	Function De...	Sub-Classifi...	Analysis Sou...	Algorithm ...	Chip Platform	AI Algorithm V...	Algorithm Versi...	Details	Operation
1	Classification	AI Open Platf...	Classification	Classification	Video	HIKVISION	KT2card	V1	1.0.1		
2	Detection	AI Open Platf...	Detection	Detection	Video	HIKVISION	KT2card	V2	2.0.0		

Figure 2-33 Algorithm List

2.6.2 Allocate Analysis Resource

Before You Start

Import AI algorithm package(s).

Steps

- Go to **Resource** → **Resource Allocation** → **AI Algorithm**, and click to allocate resources for AI algorithm package.

Note

Allocate resource of **Video Analysis Channel(s)** for video analysis task, and **Picture Analysis Channel(s)** for picture analysis task.

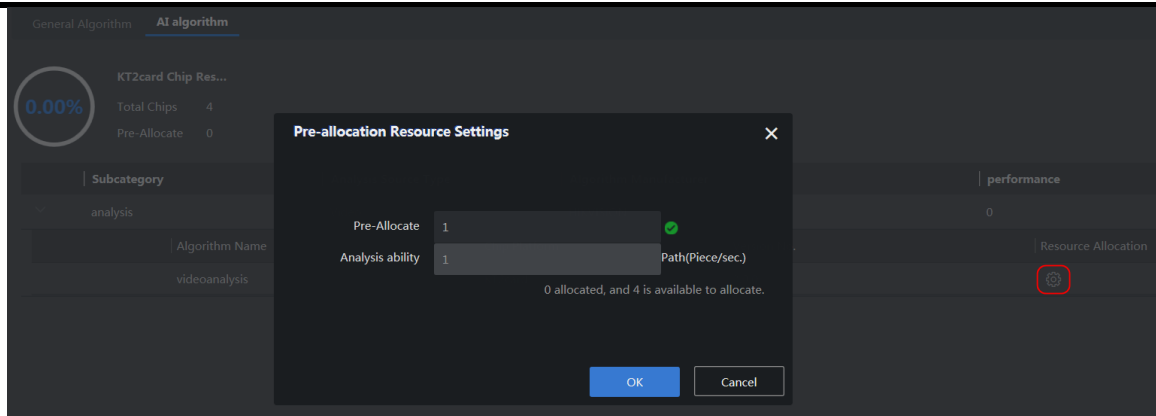


Figure 2-34 Allocate Resource for AI Algorithm Package

Note

If the value of available resource is zero, the corresponding analysis task cannot be performed.

2.6.3 Create Video Analysis Task

You can create video analysis task(s) of AI algorithms, and arm cameras (except capture cameras) through the web interface. Detection, classification, behavior, OCR model, and mixed analysis tasks are allowed to be created.

Before You Start

- Import video analysis algorithm(s).
- Allocate video analysis resource.

Steps

1. Go to **Target Arming** → **Task Management** → **AI Task**, and click **New**.
2. Configure related parameters.

Name

Enter a name as desired.

Camera Name

Select the desired camera(s) for arming. Creating video analysis task(s) of AI algorithms and arming cameras except capture cameras are allowed.

Sub-Classification/Version No.

Select a value as desired.

3. Click **Add Rule**, and configure related parameters as needed.

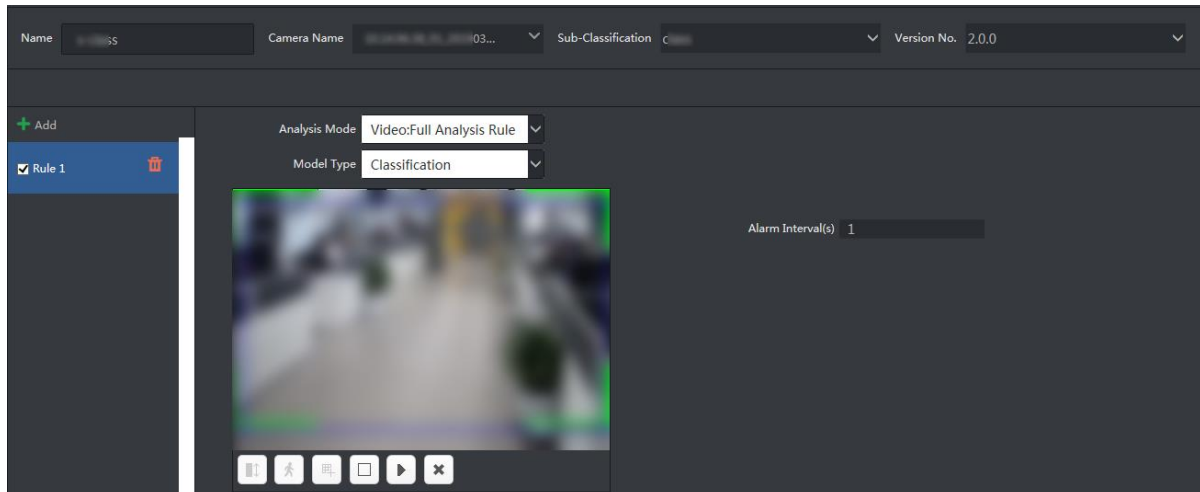


Figure 2-35 Create Task

Note

The parameters to be configured vary from different rules. The figure above is for illustration purpose only.

4. Click **Save**.
5. Optional: Check the results through the client.

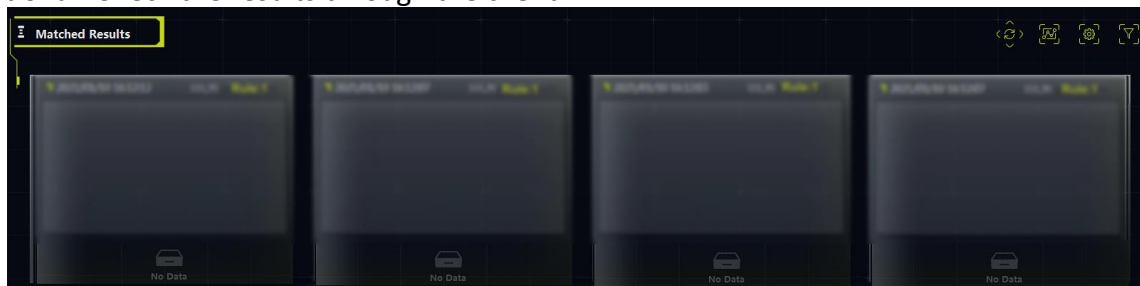


Figure 2-36 Check Analysis Result

2.6.4 Create Picture Analysis Task

Picture analysis task(s) should be created through the client. Detection, classification, OCR model, and mixed analysis tasks are allowed to be created.

Before You Start

- Allocate video analysis resource.
- Install the corresponding client and check AI dashboard.

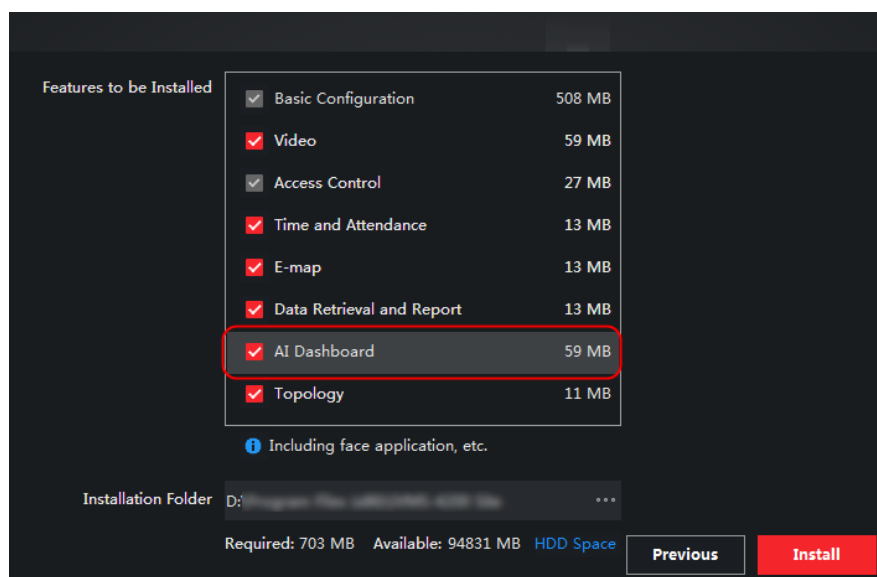


Figure 2-37 Check AI Dashboard

Steps

1. Log in to the client, and go to **Device Management** → **Add** to add the server.
2. Configure related parameters.

Name

Enter a name as desired.

Address

Enter the IP address of the server. For stand-alone cluster, enter the actual IP address of cluster. For working and backup cluster, enter the virtual IP address.

Port

Keep it as the default value.

User Name/Password

Enter the user name and password for login.

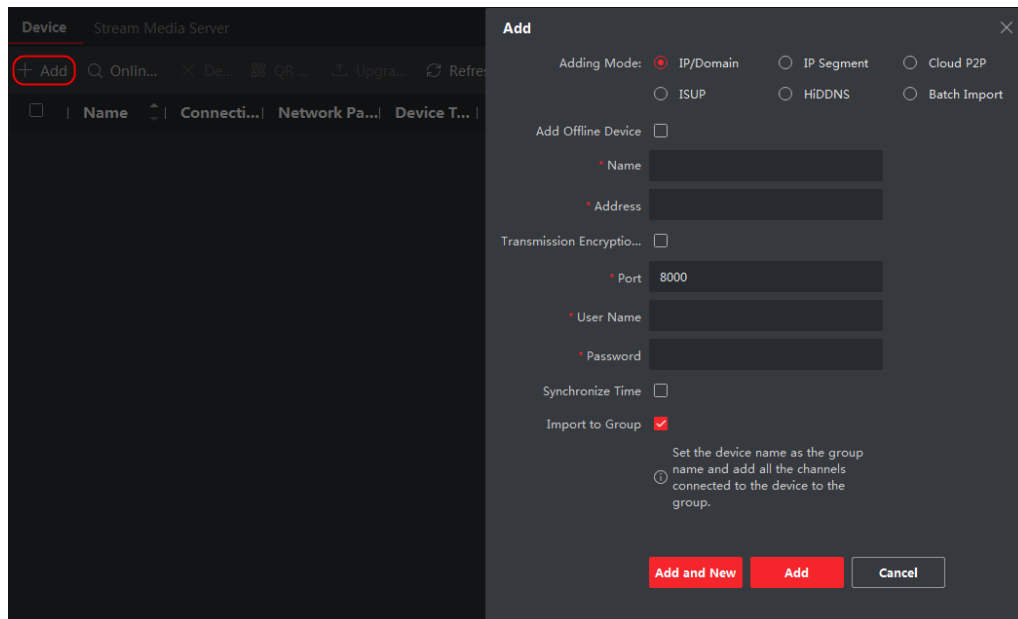


Figure 2-38 Add Server

2. Go back to the homepage, and click **AI Dashboard**.

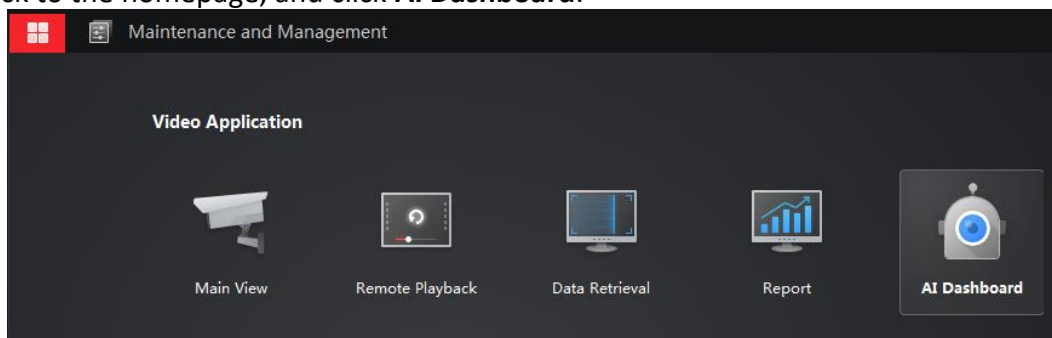


Figure 2-39 AI Dashboard

3. Go to **AI Open Platform** → .

4. Check the desired devices, and click **OK** to get imported AI algorithm package.

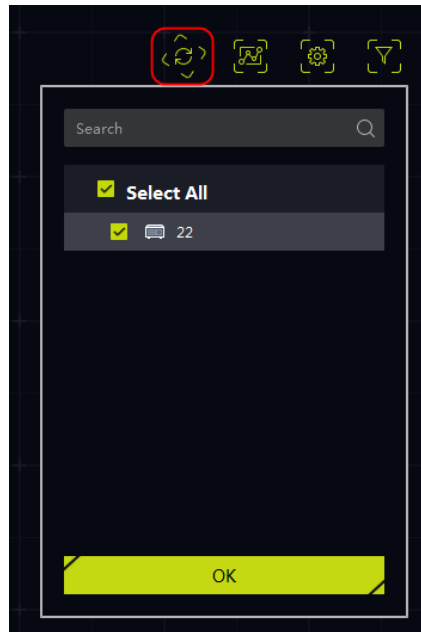


Figure 2-40 Model Package

5. Click **Picture Importing & Analysis**, and select a folder path.
6. Configure other parameters as required.

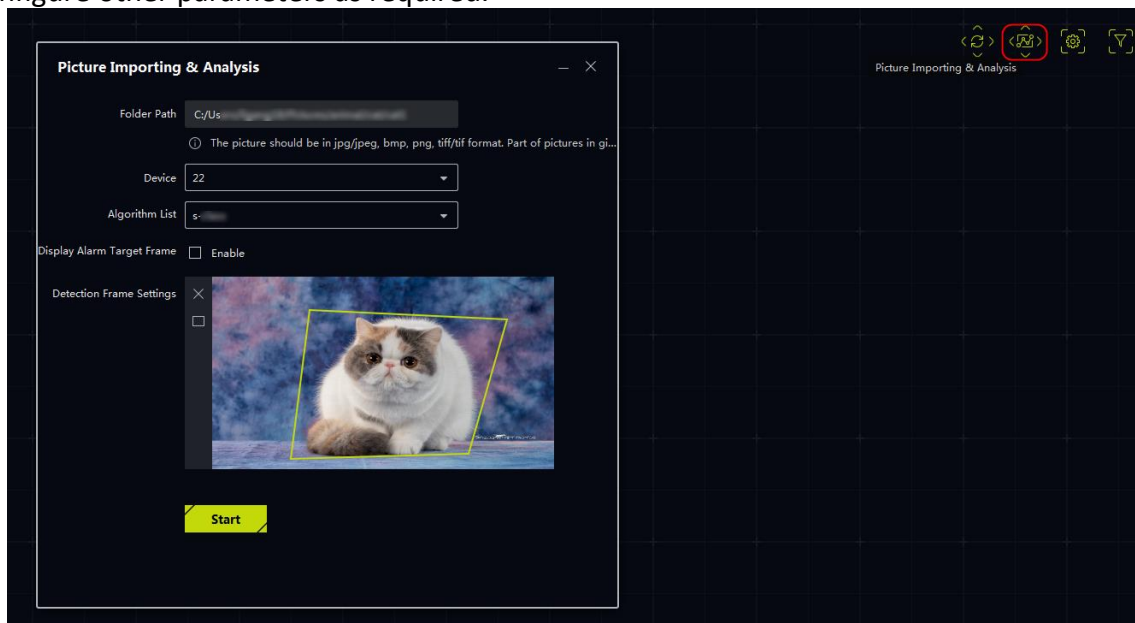


Figure 2-41 Import Picture

7. Click **Start**, and check analysis results after finished.

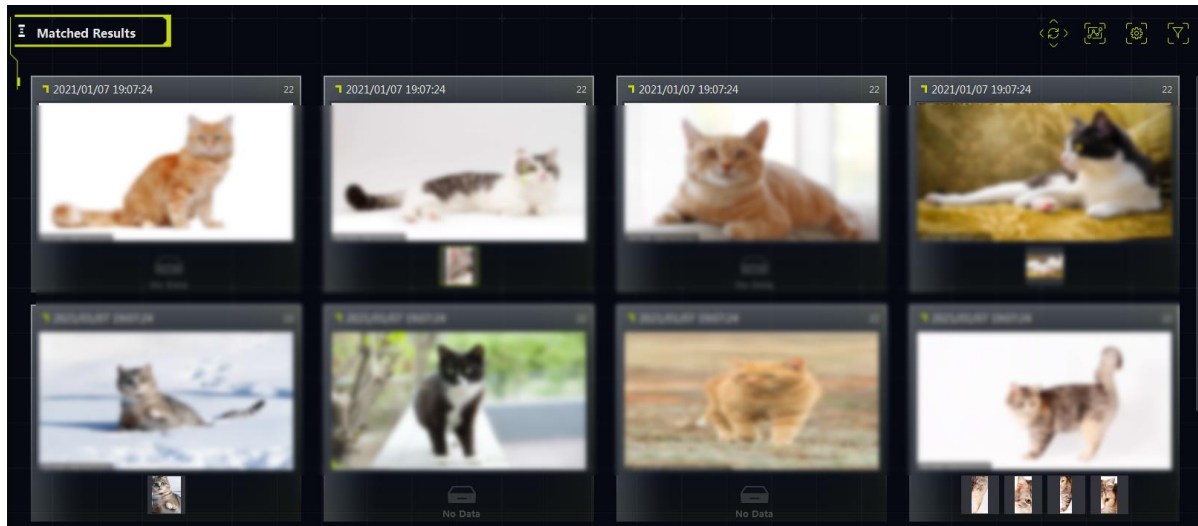


Figure 2-42 Check Analysis Result

2.6.5 AI Alarm Search

The AI alarm events can be searched through the client.

Before You Start

Install the client.

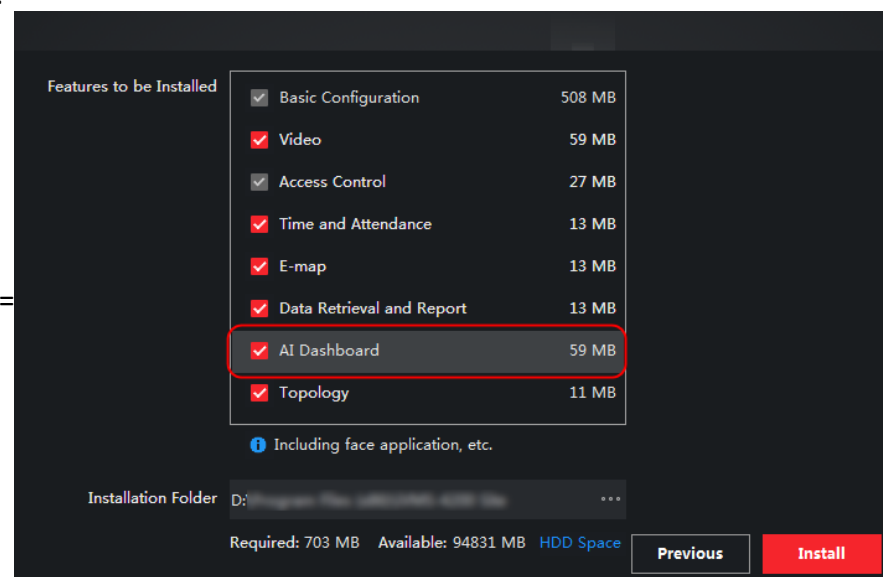


Figure 2-43 Check AI Dashboard

Steps

1. Log in to the client, and go to **Device Management** → **Add** to add the server.
2. Configure related parameters.

Name

Enter a name as desired.

Address

Enter the IP address of the server. For stand-alone cluster, enter the actual IP address of cluster. For working and backup cluster, enter the virtual IP address.

Port

Keep it as the default value.

User Name/Password

Enter the user name and password for login.

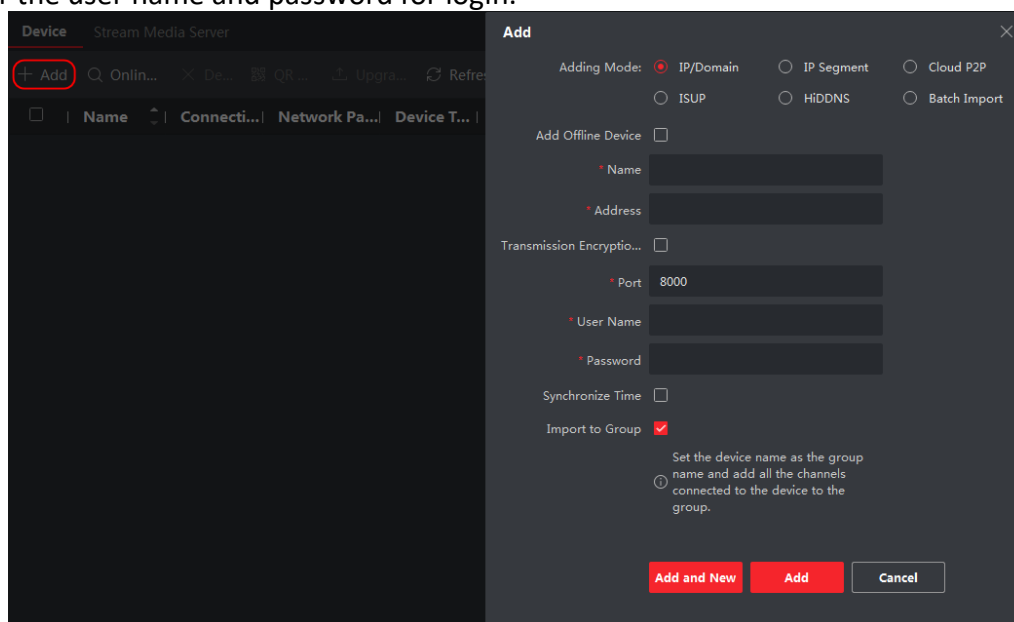


Figure 2-44 Add Server

- Go back to the homepage, and click **Data Retrieval**.

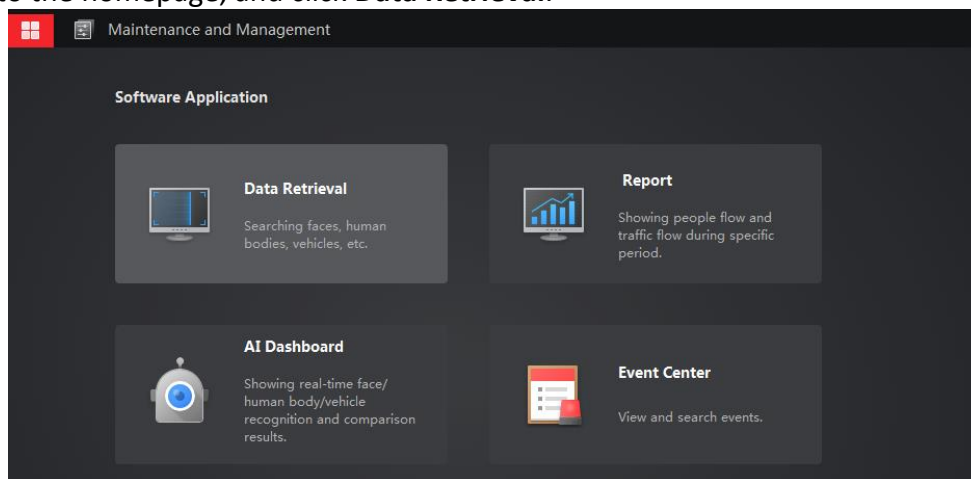


Figure 2-45 Data Retrieval

- Click **AI Dashboard Retrieval** and set search conditions, then click **Search**.

Video & Capture Analysis Task

Alarm events triggered by video analysis tasks.

Picture Importing & Analysis Task

Alarm events triggered by picture analysis tasks.

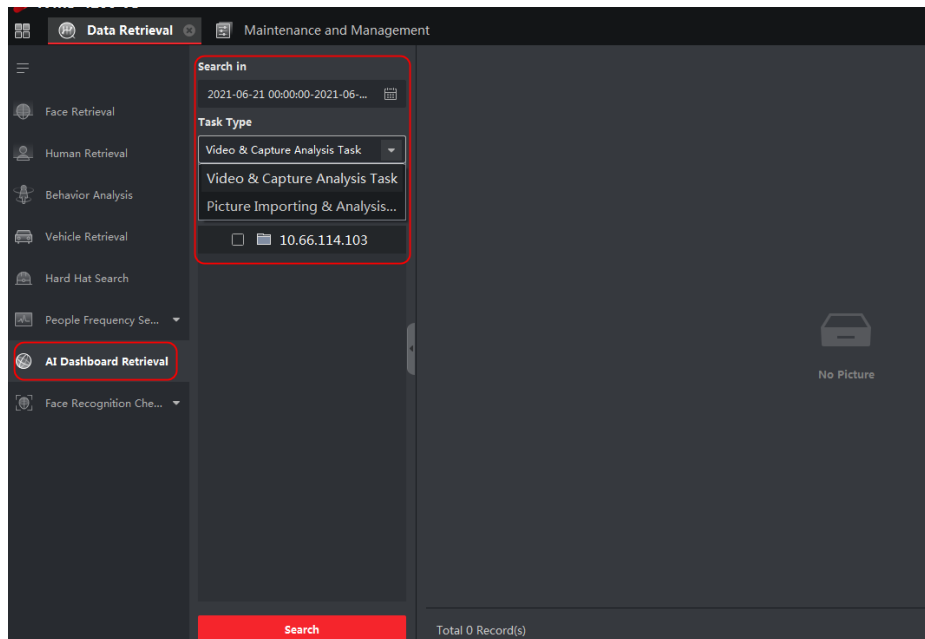


Figure 2-46 Search AI Alarm Event

2.7 Add Arming

2.7.1 Add List Arming

Listing arming is used to compare the faces captured by cameras with that of list library. If the similarity between this two pictures reaches the configured threshold value, a list alarm will be triggered.

Before You Start

- Cameras have been added and armed.
- A face list library has been created and personnel information added.
- Select **Arm Library** as **List Library Type** for the desired list library.

Steps

1. Go to **Target Arming** → **List Arming**, and click **New**.
2. Configure the parameters as below.

Table 2-1 Parameter Setting

Parameter Name	Description
Name/Note	Enter relevant information according to actual condition.

Parameter Name	Description
Arming Type	Select List Arm .
Arming Object	Select the desired list library.
Arming Camera	Select the desired camera.
Arming Time	Set arming time. You can click  to customize arming period.
Threshold	A high threshold value requires a high similarity.

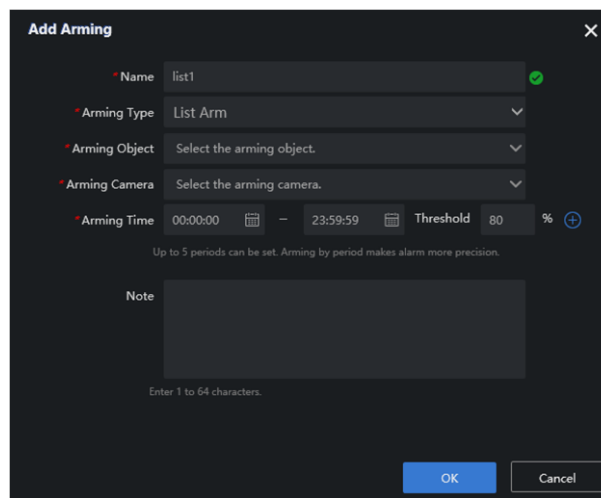


Figure 2-47 Set List Arming Parameters

3. Click **OK**.

Table 2-2 Parameter Setting

Operation	Description
Modify Arming Parameters	Click  to modify the arming parameters.
Delete Arming	Select the desired arming, and click  .

2.7.2 Add Stranger Arming

Stranger arming is used to compare the faces captured by cameras with that of list library. If the similarity between this two pictures does not reach the configured threshold value, a stranger alarm will be triggered.

Before You Start

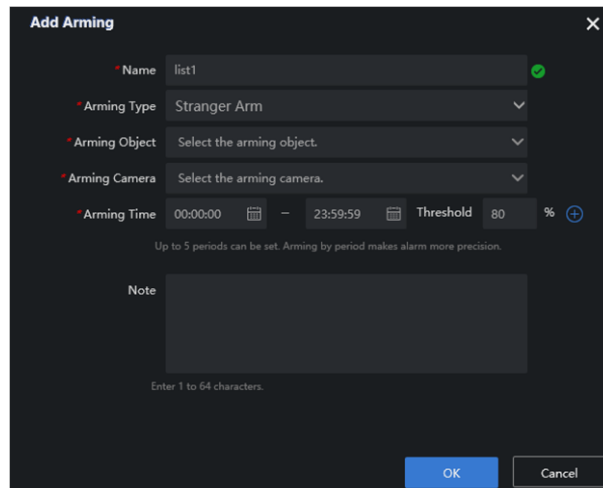
- Cameras have been added and armed.
- A face list library has been created and personnel information added.
- Select **Arm Library** as **List Library Type** for the desired list library.

Steps

1. Go to **Target Arming** → **List Arming**, and click **New**.
2. Configure the parameters as below.

Table 2-3 Parameter Setting

Parameter Name	Description
Name and Note	Enter relevant information according to actual condition.
Arming Type	Select Stranger Arm .
Arming Object	Select the desired list library.
Arming Camera	Select the desired camera.
Arming Time	Set arming time. You can click  to customize arming period.
Threshold	A high threshold value requires a high similarity.


Figure 2-48 Set Stranger Arming Parameters

3. Click **OK**.

Table 2-4 Parameter Setting

Operation	Description
Modify Arming Parameters	Click  to modify the arming parameters.
Delete Arming	Select the desired arming, and click  .

2.7.3 Add License Plate Arming

License plate arming is used to compare the license plates recognized by cameras with those armed license plates. If this two plates match with each other, a license plate alarm will be triggered.

Before You Start

A real-time or video record analysis task has been created, and its type is set as **Video Structure**.

Steps

1. Go to **Target Arming** → **License Plate Arming**, and check **Enable**.

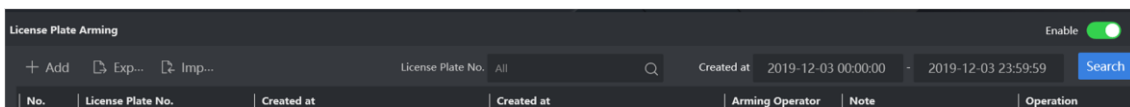


Figure 2-49 License Plate Arming Interface

Note

Import the template of license plate arming information to enable batch license plate arming. Go to **Export Arming List** → **Export Template** to get templates.

2. Click **Add**, and enter **License Plate No.**, **Start Time**, **End Time** and **Note**.

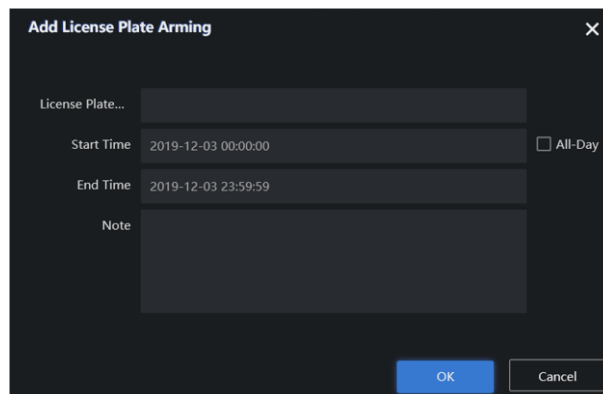


Figure 2-50 Add License Plate Arming

3. Click **OK**.

2.7.4 Add Structuration Arming

Structuration arming is used to compare the structural attributes identified by cameras with those arming attributes. If this two attributes match with each other, structured alarm will be triggered.

Before You Start

A real-time or video record analysis task has been created, and its type is set as **Video Structure**.

Steps

1. Go to **Target Arming** → **Structuration Arming**, and check **ADD**.
2. Configure the following parameters.
 - Enter **Name** and **Arm Reason** according to actual needs.
 - Select **Arming Target** according to the arming object.
 - Human Body**: Arm the structured attribute information of human body.
 - Motorcycle**: Arm the structured attribute information of motorcycle.
 - Tricycle**: Arm the structured attribute information of tricycle.
 - **Armed Camera**: Select the video structured analysis task that has been armed (the created real-time analysis task or video analysis task of video structured type).
 - **Arming Attribute**: Select the attribute information to be armed. Click  to add multiple attributes, and at most 5 attributes can be added.
 - **Arming Time**: Click  to conduct arming in different periods, and at most 5 periods can be added.

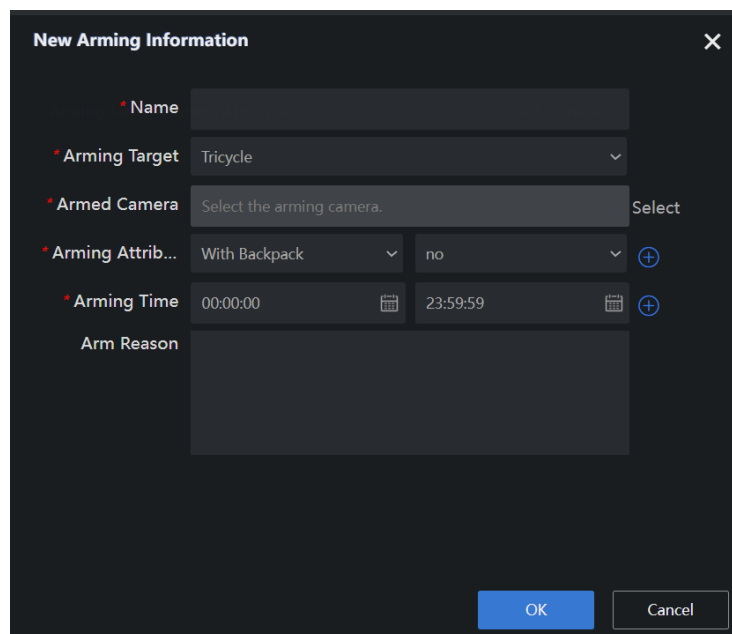
A screenshot of a 'New Arming Information' dialog box. It has a title bar with a close button (X). The form contains several fields: 'Name' (text input), 'Arming Target' (dropdown menu showing 'Tricycle'), 'Armed Camera' (dropdown menu with 'Select the arming camera.' and a 'Select' button), 'Arming Attrib...' (two dropdown menus, one showing 'With Backpack' and the other 'no', with a plus icon to the right), 'Arming Time' (two date/time pickers showing '00:00:00' and '23:59:59', with plus icons to the right), and 'Arm Reason' (text area). At the bottom are 'OK' and 'Cancel' buttons.

Figure 2-51 Configure Structuration Arming

3. Click **OK**. And click  to modify the armed parameters, or click **Delete** to delete chosen the arming.

2.8 Reset Standard

Generally, the data of arming library will be synchronized to the server automatically. If any exception occurs during the process of data synchronization, you can reset standard to manually synchronize the data of arming library and server.

Before You Start

Full text retrieval has been set.

Steps

1. Go to **System Management** → **System Config** → **System Maintenance**.

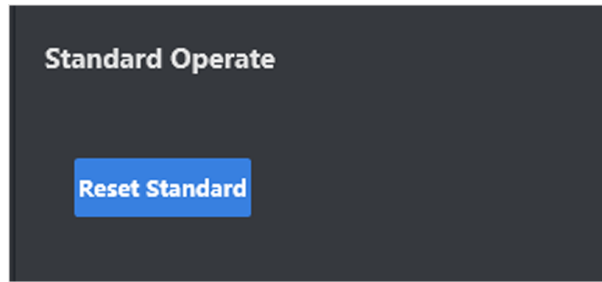


Figure 2-52 Reset Standard

2. Click **Reset Standard**.

2.9 Enable Frequency Alarm

Frequency alarm is used to count the frequency of personnel's appearance in monitoring scenes. An alarm will be triggered if the frequency reaches the configured threshold during specific period.

Before You Start

One or multiple cameras have been added and armed.

Steps

1. Go to **System Management** → **System Config** → **Frequency**.
2. Configure the parameters as below.

Table 2-5 Parameter Setting

Parameter Name	Description
Enable	Check Enable .
Arming Camera	Select the desired camera to count the personnel appearance frequency.
List to Filter	Filter the personnel in list library so that those personnel will not be counted.
Filtering Threshold	Compare the similarity between face captured by camera and that of face list library. If the similarity is greater than or equal to the set value, the personnel captured will not be counted.
Times	Frequency alarm will be generated only when the appeared times is greater than the configured times.
Capture Interval (min)	The interval of capturing face picture for the same personnel. (Unit: minute)
Similarity	Compare the similarity between newly captured face pictures and all

Parameter Name	Description
	captured face pictures. If the similarity is greater than or equal to the configured value, the appearance frequency for the same personnel will be counted.
Day Range	The statistics period of personnel appearance frequency. The data of the earliest day will be covered by the newly-added data if the actual number of days is greater than this value.
Time Segment	Set time period to count personnel appearance frequency.

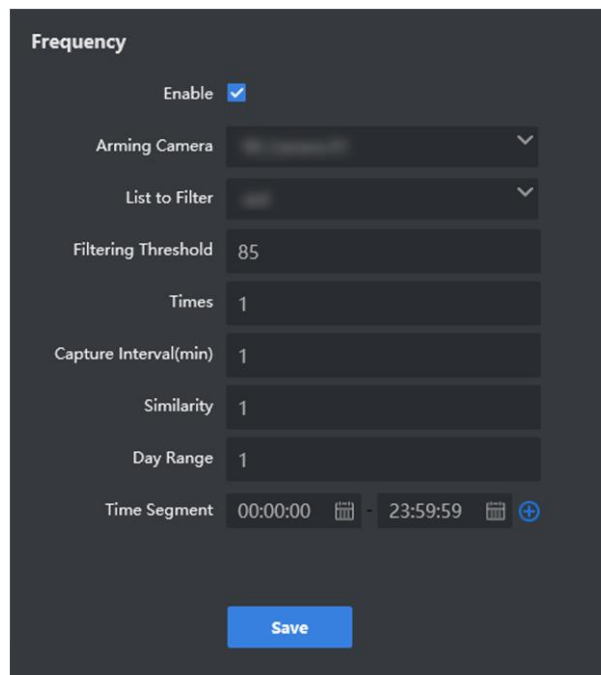


Figure 2-53 Enable Frequency Alarm

3. Click **Save**.

2.10 Enable Low Frequency Alarm

Low frequency alarm is used to count the frequency of personnel's appearance in monitoring scenes. An alarm will be triggered if the frequency does not reach the configured threshold during specific period.

Before You Start

One or multiple cameras have been added and armed.

Steps

1. Go to **System Management** → **System Config** → **Low Frequency**.

2. Configure the parameters as below.

Table 2-6 Parameter Setting

Parameter Name	Description
Enable	Check Enable .
Arming Camera	Select the desired camera.
Arming Object	Select the desired list library.
Times	Frequency alarm will be generated only when the appeared times is greater than the configured times.
Capture Interval (min)	The internal of capturing face picture for the same personnel. (Unit: minute)
Day Range	The statistics period of personnel appearance frequency. The data of the earliest day will be covered by the newly-added data if the actual number of days is greater than this value.
Daily Alarm Time	The time to report an alarm information.

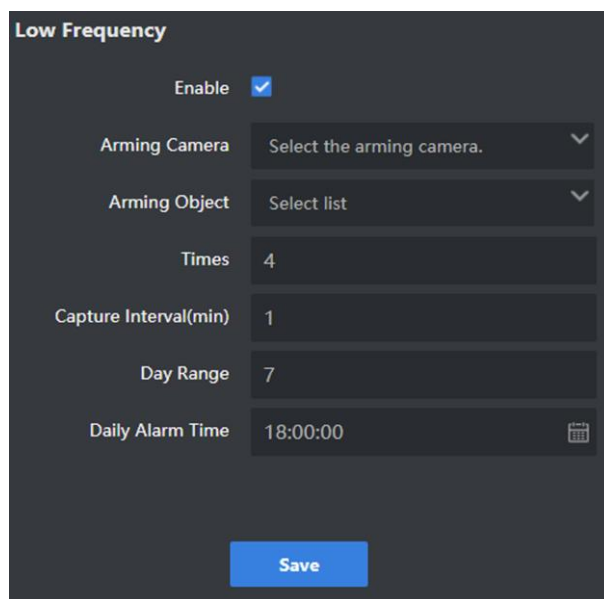


Figure 2-54 Enable Low Frequency Alarm

3. Click **Save**.

2.11 Enable Personnel Archive

Personnel archive is used to compare the similarity between face pictures captured by camera and that of face list libraries(except the passerby library). If the similarity value is greater than or equal

to threshold value, the captured picture will be classified and saved into the real name archive. Otherwise, it will be saved into the passerby archive. The archive records the appearance frequency, appearance duration and captured pictures. Every personnel will be recorded with a separated archive.

Before You Start

- At least one camera has been added and armed.
- Select **Arm Library** as **List Library Type** for the desired passerby library.

Steps

1. Go to **System Management** → **System Config** → **Personnel Archive**.
2. Configure the parameters as below.

Table 2-7 Parameter Setting

Parameter Name	Description
Enable	Check Enable .
Arming Object	Select Passerby Library and other desired lists.
Arming Camera	Select desired cameras.
Threshold	Compare the similarity between face pictures captured by camera and that of face list library (except passerby library). If the similarity value is greater than or equal to the threshold value, the captured picture will be classified and saved into the real name archive. Otherwise, it will be saved into the passerby archive.

The screenshot shows the 'Personnel Archive' configuration window. It has a dark background with white text. At the top, it says 'Personnel Archive'. Below that, there's an 'Enable' checkbox which is checked with a blue checkmark. Underneath, there are two dropdown menus: 'Arming Object' and 'Arming Camera'. Below those is a 'Threshold' field with the value '83'. At the bottom center, there is a blue 'Save' button.

Figure 2-55 Enable Personnel Archive

3. Click **Save**.

Chapter 3 Smart Application

The smart application includes live view, alarm search, personnel archive and 1 V 1 comparison.

3.1 Live View

View captured face pictures, list alarm information, stranger alarm information, frequently appeared personnel alarm information, low frequency alarm information, and structuration alarm information.

Before You Start

Add list arming.

Steps

1. Click **Live View**.

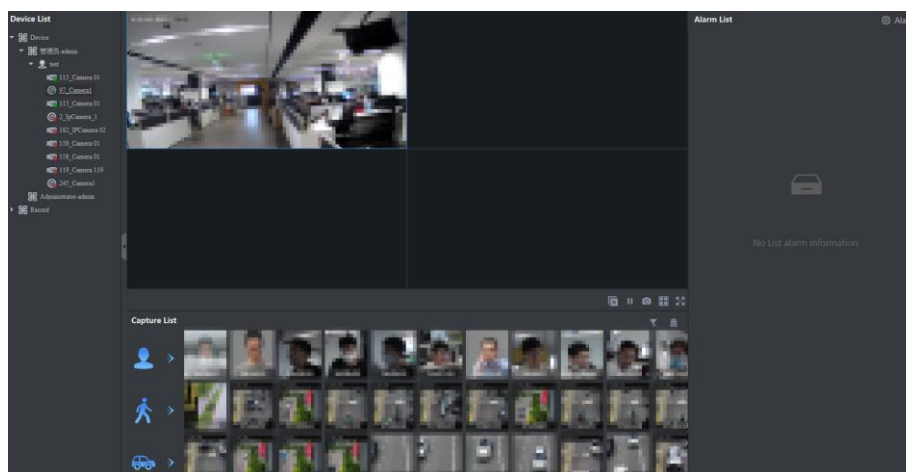


Figure 3-1 Live View

Note

In the live view interface, the bottom area displays real-time captured face pictures, human body pictures and vehicle pictures, and the right area displays real-time list alarm information.

Table 3-1 Live View Interface Introduction

Interface Area	Description
Live View Interface	Live view with multi-channels is supported. - Click  to stop live view of current channel. - Click  to stop live view for all channels. - Click  to capture pictures manually. The captured picture will

Interface Area	Description
	be saved automatically. Go to Configuration Live View to configure the saving path. - Click  to view in split window - Click  to view in full screen.
Capture List	Display the real-time captured face pictures, human body pictures and vehicle pictures. - Click  to filter cameras or videos, only face pictures from selected cameras or videos will be displayed. - Click  to delete current displayed face pictures. - Click  to add the selected picture to list library. - Click  to take the selected picture as a target to search picture by picture. - Click  to take the selected picture as a target to confirm identification.

2. Optional: Click **Alarm** in the upper right corner of the interface to configure parameters according to actual needs.

Table 3-2 Parameter Setting

Parameter Name	Description
Real-time Alarm Display	Check the desired alarm types to display corresponding alarm information.
Type of Alarm Popups	Enable alarm pop-up window and check the desired alarm types.
Customized Alarm Sound	Enable alarm sound to broadcast alarm information through specific sound. Alarm sound is customizable by uploading MP3 files.
Alarm Prompt	Enable alarm prompt to broadcast alarm information through message.

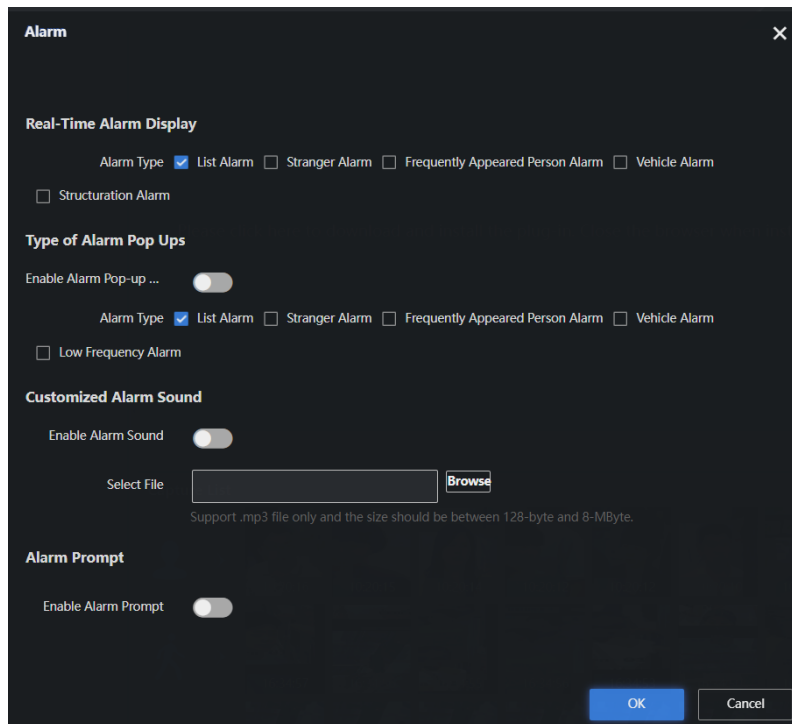


Figure 3-2 Configure Alarm Parameters

3.2 Alarm Search

Search detailed information of list alarm, stranger alarm, frequently appeared personnel alarm and license plate alarm.

3.2.1 List Alarm

Compare the similarity between captured face pictures and those in list library like blocklist library. A list alarm will be triggered if the similarity reaches the configured value.

Before You Start

Add list arming.

Steps

1. Go to **Alarm Search** → **List Alarm**. By default, the server displays all current alarm information.

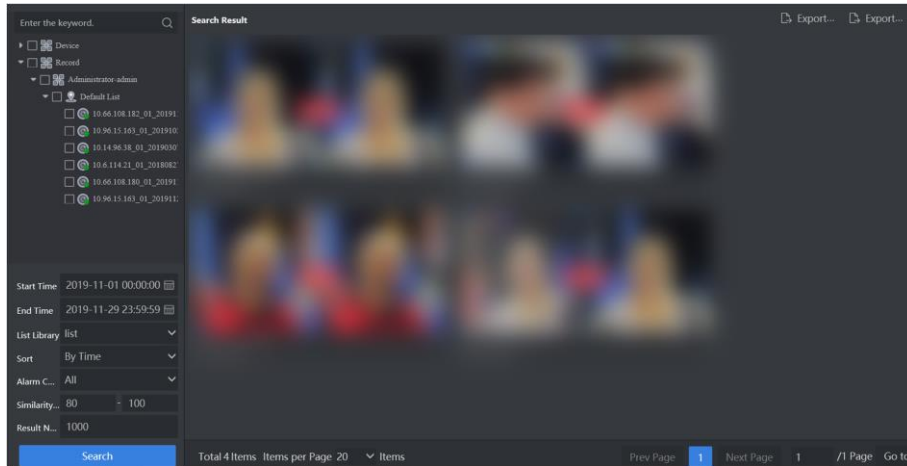


Figure 3-3 List Alarm Interface

- Optional: Select the desired cameras or videos. If no camera or record is selected, all the alarm information will be searched.
- Set search conditions according to actual needs.
- Click **Search**.
- Click alarm picture to view detailed information.

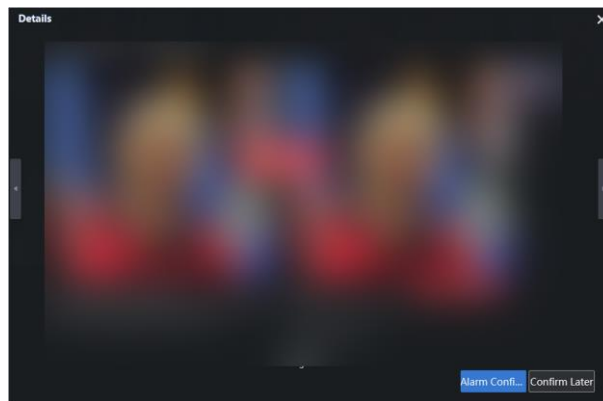


Figure 3-4 View Detailed Information

- Optional: Click **Alarm Confirmation** to confirm.
- Optional: Click **Export Current Page** or **Export All** to export alarm information.

3.2.2 Stranger Alarm

Compare the similarity between captured face pictures and those in list library. A stranger alarm will be triggered if the similarity value does not reach the configured value.

Before You Start

Add stranger arming.

Steps

1. Go to **Alarm Search** → **Stranger Alarm**. By default, the server displays all current alarm information.

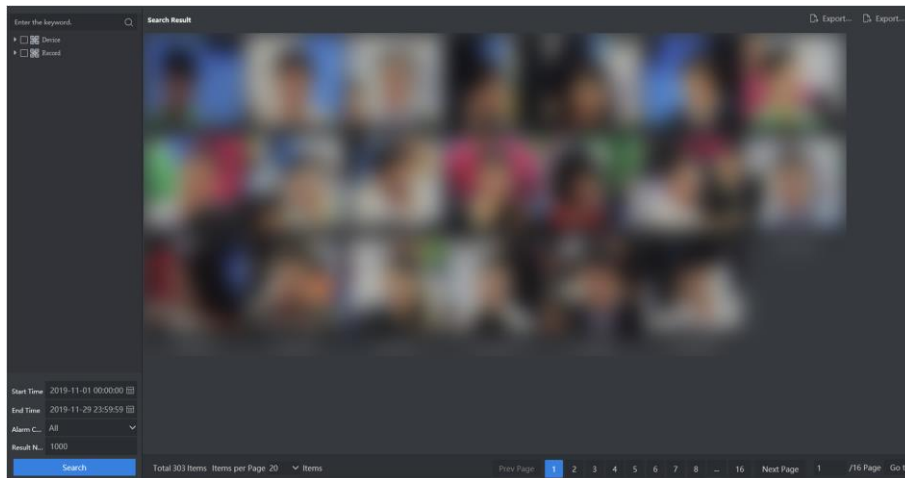


Figure 3-5 Stranger Alarm Interface

2. Optional: Select the desired cameras or records. If no camera or record is selected, all the alarm information will be searched.
3. Set search conditions according to actual needs.
4. Click **Search**.
5. Click stranger alarm picture to view detailed information.

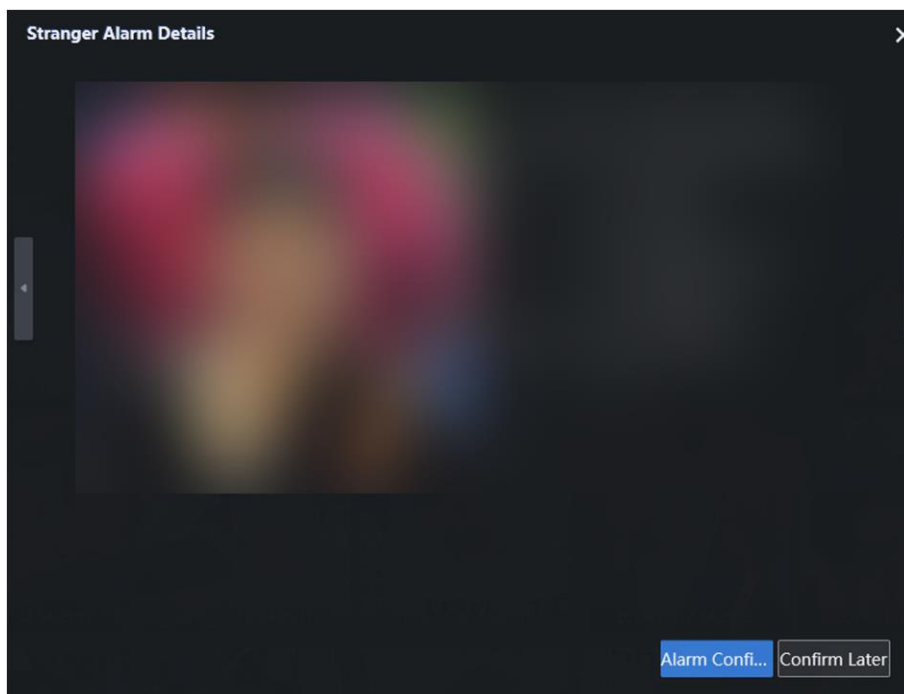


Figure 3-6 View Detailed Information of Stranger Alarm

6. Optional: Click **Alarm Confirmation** to confirm the alarm.
7. Optional: Click **Export Current Page** or **Export All** to export alarm information.

3.2.3 Frequently Appeared Person Alarm

Count personnel appearance frequency in monitoring scenes. An alarm will be triggered if the frequency reaches the configured value.

Before You Start

Enable frequency alarm.

Steps

1. Go to **Alarm Search** → **Frequently Appeared Person Alarm**. By default, the server displays all current alarm information.

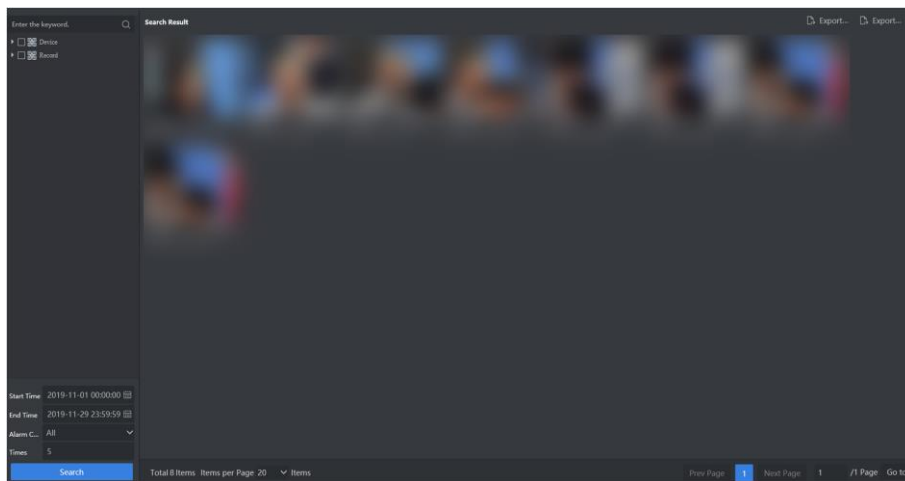


Figure 3-7 Frequently Appeared Person Alarm Interface

2. Optional: Select the desired cameras or records. If no camera or record is selected, all the alarm information will be searched.
3. Set search conditions according to actual needs.
4. Click **Search**.
5. Click alarm picture to view detailed information.

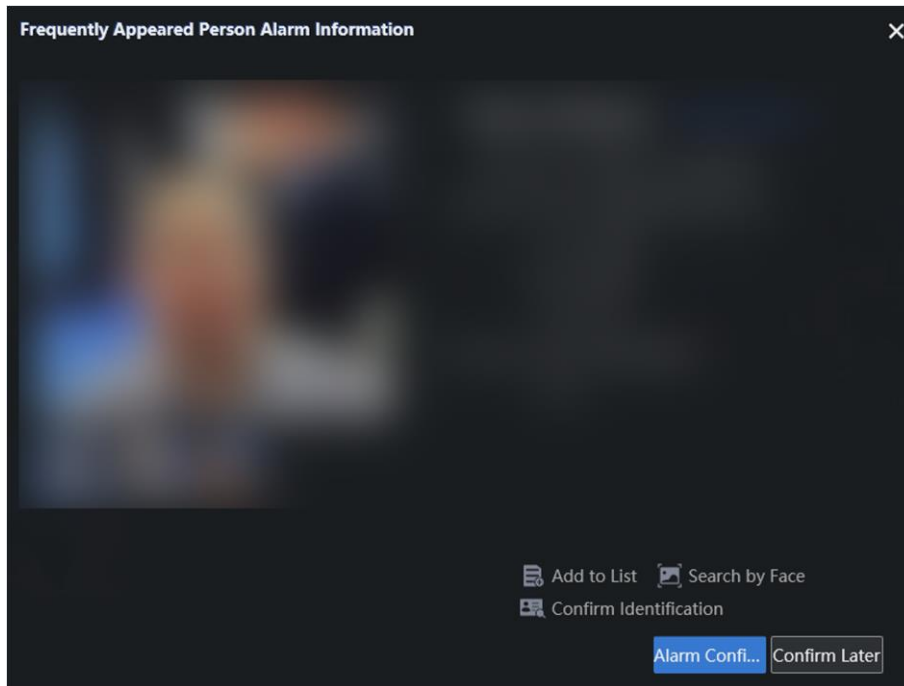


Figure 3-8 View Detailed Information-Frequently Appeared Person Alarm

 Note

You can view all captured information of the target person by clicking **Capture History**

6. Optional: Click **Alarm Confirmation** to confirm the alarm.
7. Optional: Click **Export Current Page** or **Export All** to export alarm information.

3.2.4 Low Frequency Alarm

Count personnel appearance frequency in monitoring scenes. An alarm will be triggered if the frequency reaches the configured threshold during specific period.

Before You Start

Enable low frequency alarm.

Steps

1. Go to **Alarm Search** → **Low Frequency Alarm**. By default, the server displays all current alarm information.

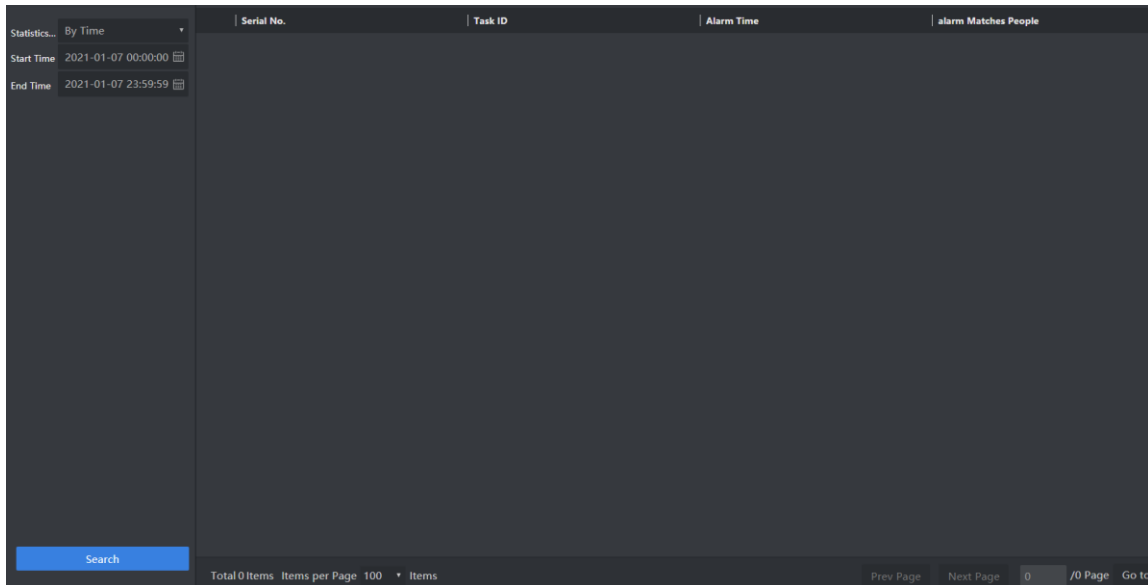


Figure 3-9 Low Frequency Alarm

- Optional: Select the desired cameras or records. If no camera or record is selected, all the alarm information will be searched.
- Set search conditions according to actual needs.
- Click **Search**.
- Click alarm picture to view detailed information.



Note

You can view all captured information of the target person by clicking **Capture History**.

- Optional: Click **Personnel Archive Details** to check the related information.
- Optional: Click **Alarm Confirmation** to confirm the alarm.
- Optional: Click **Export Current Page** or **Export All** to export alarm information.

3.2.5 License Plate Alarm

Compare the license plate recognized by cameras with armed license plates. If the license plate captured by camera matches with one of the armed, a license plate alarm will be triggered.

Before You Start

Add license plate arming.

Steps

- Go to **Alarm Search** → **Plate Alarm**. By default, the server displays all current alarm information.

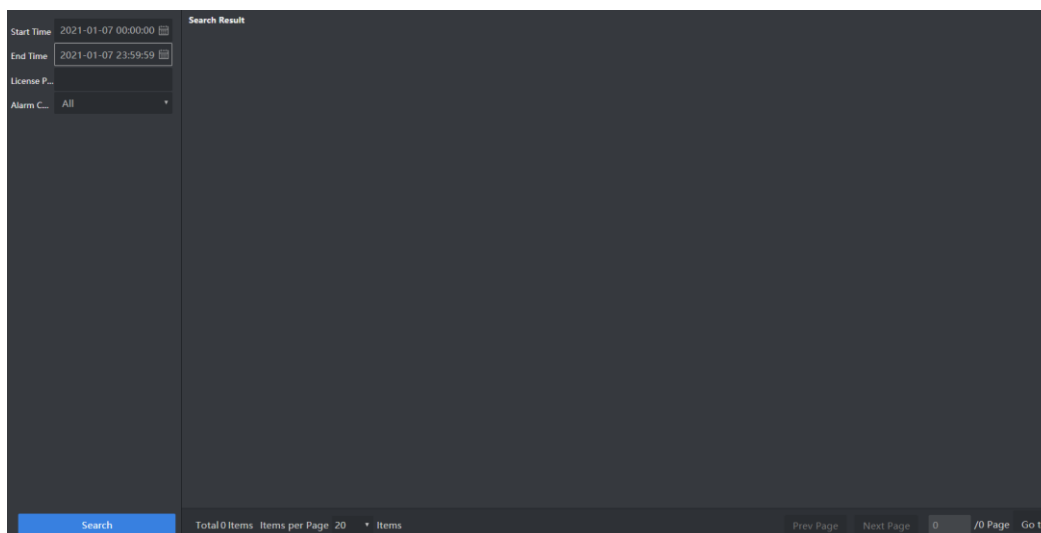


Figure 3-10 License Plate Alarm Interface

2. Optional: Select the desired cameras or records. If no camera or record is selected, all the alarm information will be searched.
3. Set search conditions according to actual needs.
4. Click **Search**.
5. Click alarm picture to view detailed information.

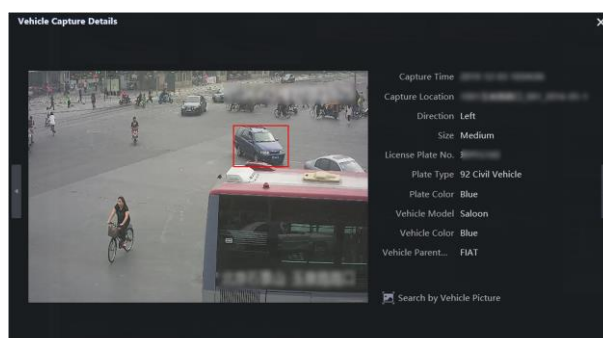


Figure 3-11 View Detailed Information-Plate Alarm

- Optional: Click **Alarm Confirmation** to confirm the alarm.
- Optional: Click **Export Current Page** or **Export All** to export alarm information.

3.2.6 Structuration Alarm

Search structuration alarm information

Before You Start

Structuration arming has been added.

Steps

1. Go to **Alarm Search** → **Structuration Alarm** to display all current alarm information by default.

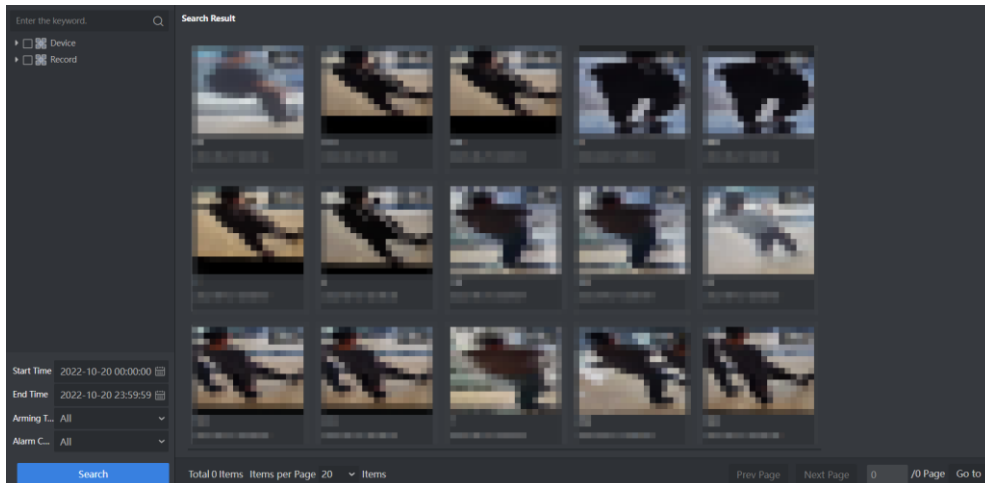


Figure 3-12 Structuration Alarm Interface

2. Optional: Check **Device** or **Record**. If it is not checked, all alarm information will be searched.
3. Set the search parameters as required.
4. Click **Search** to filter out qualified alarm information.

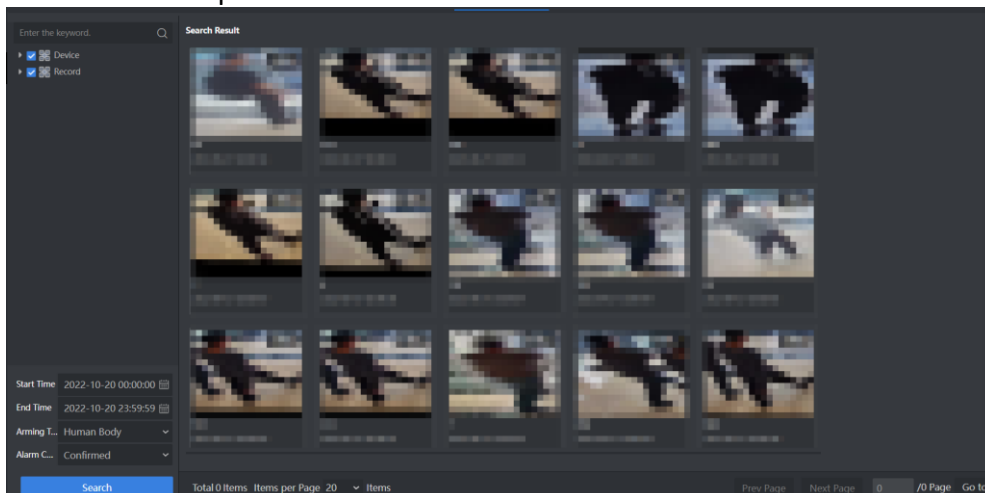


Figure 3-13 View Structuration Alarm Search Result

5. The following operations can be performed on the searched alarm information.
 - Click **Export Current Page** or **Export All** to export this page or all alarm information.
 - Click an alarm picture to view the details of the alarm picture.
 - Click **Confirm** to confirm the alarm.

3.3 Personnel Archive

Personnel archive records personnel appearance frequency, appearance time period and respective captured pictures in monitoring scenes.

Before You Start

Enable personnel archive.

Steps

1. Go to **Smart Application** → **Personnel Archive**.

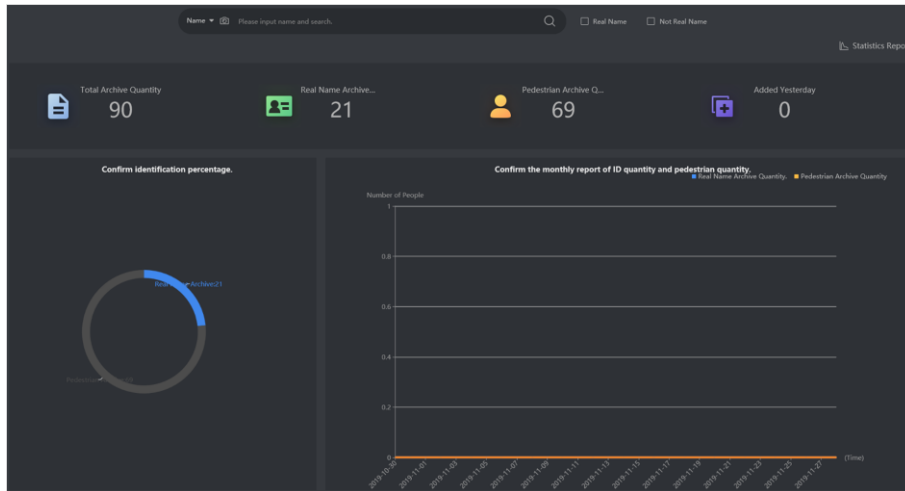


Figure 3-14 Personnel Archive Interface

Real Name

It refers to the personnel whose face picture is in list libraries, except the passerby library.

Not Real Name

It refers to the personnel whose face picture is in passerby library.

Statistic Report

In accordance with gender, age or total personnel frequency in a period, the statistic report shows different figures of strangers and real name personnel recognized by cameras or in the videos. You can also export the statistic report to generate an Excel or HTML file.

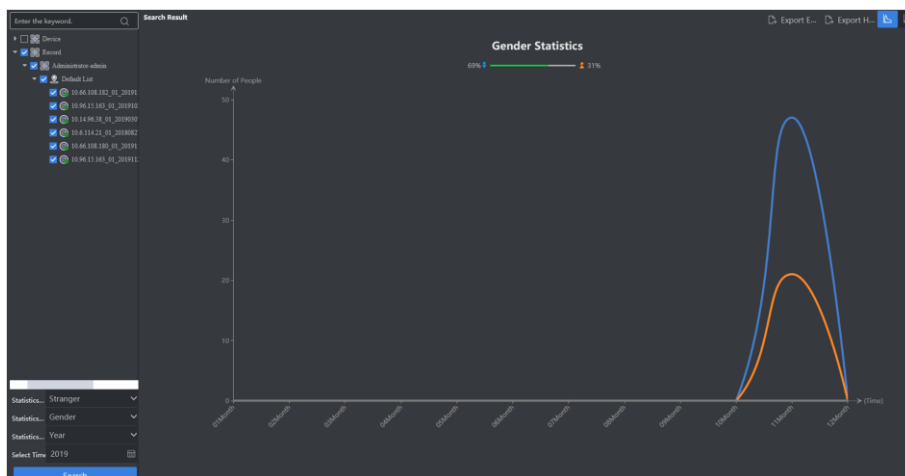


Figure 3-15 Statistic Report

2. Set search conditions according to actual needs and search personnel archive by clicking .

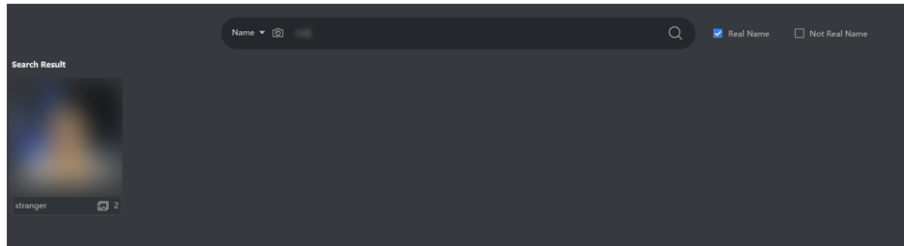


Figure 3-16 Personnel Archive Search Result

3. Click  to view details.

3.4 1 V 1 Comparison

Upload two face pictures to compare their similarity degree.

Steps

1. Go to **Smart Application** → **1 V 1 Comparison**.

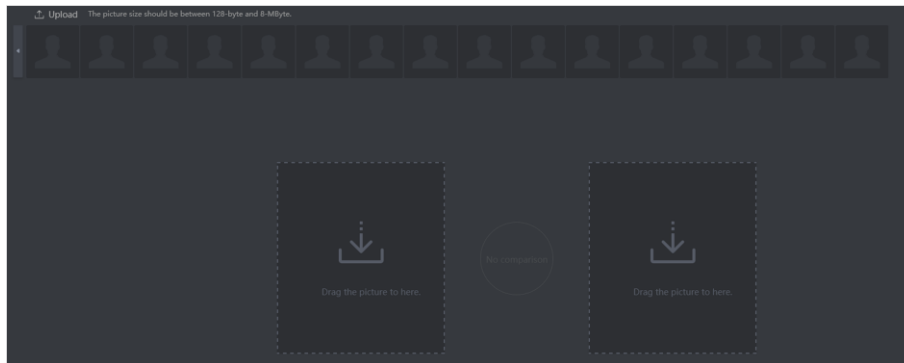


Figure 3-17 1 V 1 Comparison Interface

2. Click **Upload** to upload desired face pictures. If the selected picture contains multiple faces, these faces will all be uploaded.

Note

- Face pictures in the format of JPEG, BMP, TIF and PNG are supported. The resolution should be greater than 48×48 pixels and smaller than 64 MP, and the picture size should be greater than 128 KB and smaller than 8 MB.
 - It is recommended to upload pictures with clear faces to improve the comparison accuracy.
-

3. Drag desired face pictures to comparison area for similarity comparison.

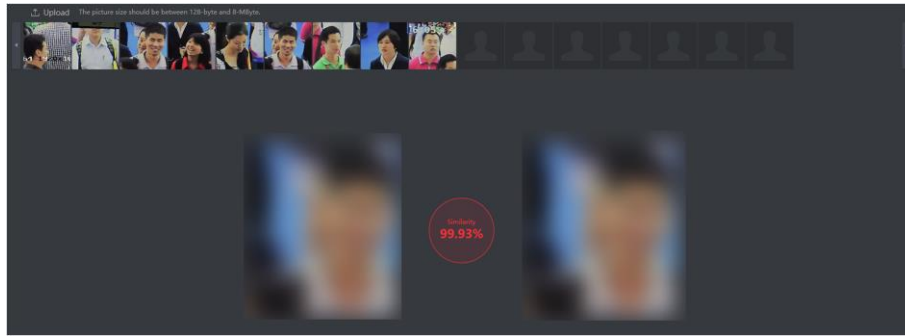


Figure 3-18 1 V 1 Comparison Result

Chapter 4 Smart Search

4.1 Face Picture Search

4.1.1 Search by Facial Attribute

Search captured face pictures by face attributes.

Before You Start

Alarm the camera.

Steps

1. Go to **Smart Search** → **Face Picture Search** → **Search by Attribute**. By default, the server displays all captured face pictures.
2. Set detailed search conditions as needed.



- If no camera or recording is selected, all captured face pictures will be searched.
 - You can set different search condition parameters by referring to **Configure Display Parameters**.
-

3. Click **Search**.

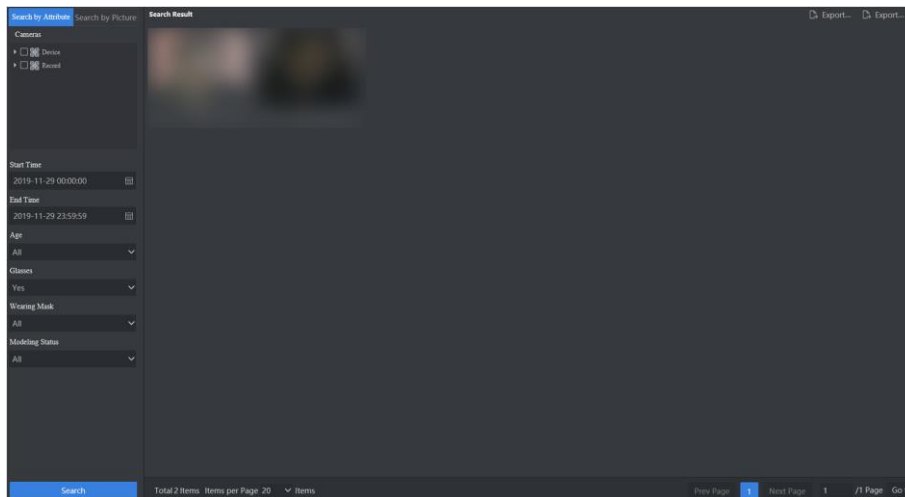


Figure 4-1 Search by Facial Feature Interface

4. Click the face picture displayed to view detailed information.

Note

Click  to set this face picture as target picture to search picture by picture. Click  to set this face picture as target picture to confirm identification. Click  to add this face picture to list library.

5. Optional: Click **Export Current Page** or **Export All** to export captured information.

4.1.2 Search by Face Picture

Upload a face picture to search similar pictures in capture library.

Before You Start

Alarm the camera.

Steps

1. Go to **Smart Search** → **Face Picture Search** → **Search by Picture** → **Search by Face**.
 2. Click **Upload** to upload desired face pictures. The system will detect faces automatically.
-

Note

- Face pictures in the format of JPEG, BMP, TIF and PNG are supported. The resolution should be greater than 48 × 48 pixels and smaller than 64 MP, and the picture size should be smaller than 8 MB.
 - It is recommended to upload clear pictures of faces to improve the comparison accuracy.
-

3. Click the square frame above the face and then click **OK**.
 4. Select the desired face picture and set detailed search conditions as needed.
-

Note

If no camera or recording is selected, all captured face pictures will be searched.

5. Click **Search**.

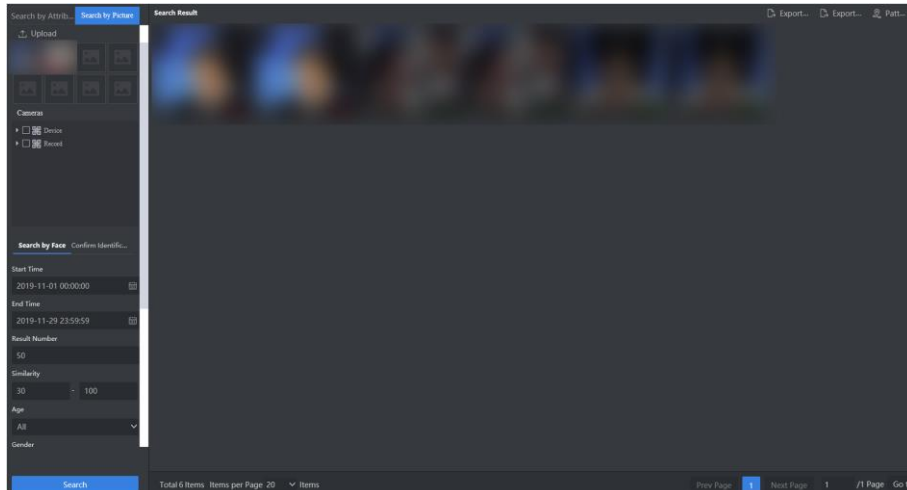


Figure 4-2 Search by Face Picture Results

6. Click the face picture displayed to view detailed information.

Note

Click  to set this face picture as target picture to search picture by picture. Click  to set this face picture as target picture to confirm identification. Click  to add this face picture to list library.

7. Optional:
 - Click **Export Current Page** or **Export All** to export searching results.
 - Click **Pattern**. Check the researched face pictures, and click **Generate Pattern** to generate person pattern information (5.2.9 **Configure Person Pattern** has been enabled).

4.1.3 Confirm Identification

Upload a face picture to search similar pictures in list library.

Before You Start

Add the list library.

Steps

1. Go to **Smart Search** → **Face Picture Search** → **Search by Picture** → **Confirm Identification**.
2. Click **Upload** to upload desired face pictures. The system will detect faces automatically.

Note

- Face pictures in the format of JPEG, BMP, TIF and PNG are supported. The resolution should be greater than 48 * 48 and smaller than 1600W pixels, and the picture size should be smaller than 8 MB.
 - It is recommended to upload clear pictures of faces to improve the comparison accuracy.
-

3. Click the square frame above the face and then click **OK**.

4. Select the desired face picture and set detailed search conditions as needed.

Note

If no camera or recording is selected, all captured face pictures will be searched.

5. Click **Search**.

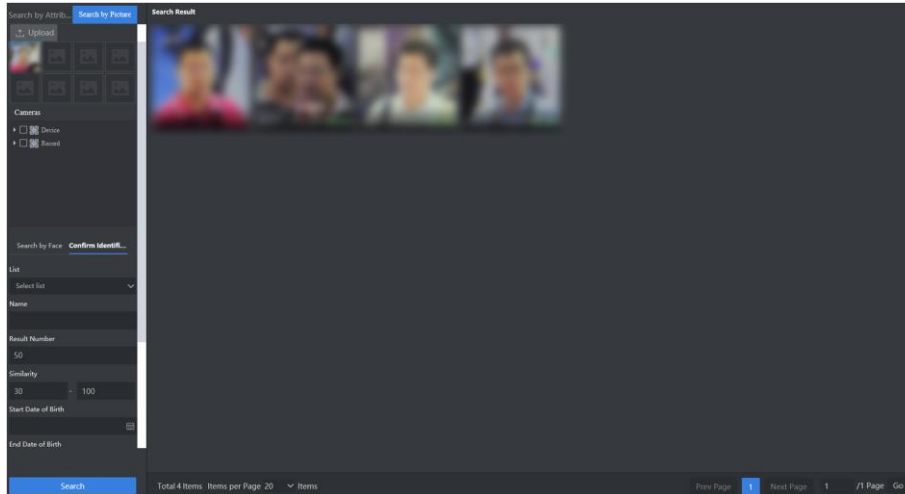


Figure 4-3 Confirm Identification Results

6. Click the face picture displayed to view detailed information.

Note

Click  to set this face picture as target picture to search picture by picture. Click  to set this face picture as target picture to confirm identification.

4.2 Human Body Search

4.2.1 Search by Physical Attribute

Search captured human body pictures by human body attributes.

Before You Start

Alarm the camera.

Steps

1. Go to **Smart Search** → **Human Body Search** → **Search by Attribute**. By default, the server displays all captured human body pictures.
2. Set detailed search conditions as needed.

 Note

- If no camera or recording is selected, all captured human body pictures will be searched.
 - You can set different search condition parameters by referring to **Configure Display Parameters**.
-

3. Click **Search**.

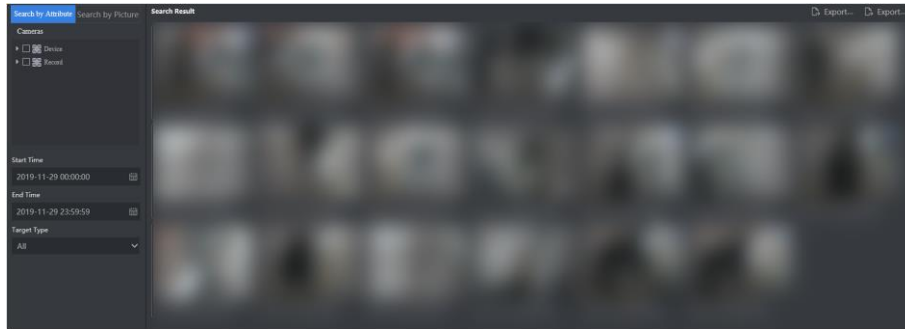


Figure 4-4 Search by Physical Attribute Interface

4. Click the human body picture displayed to view detailed information.

 Note

Click  to set this human body picture as target picture to search human body by human body.

5. Optional: Click **Export Current Page** or **Export All** to export captured information.

4.2.2 Search by Human Body Picture

Upload a human body picture to search similar human body pictures in capture library.

Before You Start

Alarm the camera.

Steps

1. Go to **Smart Search** → **Human Body Search** → **Search by Picture**. By default, the server displays all captured human body pictures.
 2. Click **Upload** to upload desired human body pictures. The system will detect human bodies automatically.
-

 Note

- Human body pictures in the format of JPEG, BMP, TIF and PNG are supported. The resolution should be greater than 48 × 48 pixels and smaller than 64 MP, and the picture size should be smaller than 8 MB.
 - It is recommended to upload clear pictures of human bodies to improve the comparison accuracy.
-

3. Click the square frame above the human body and then click **OK**.
4. Select the desired human body picture and set detailed search conditions as needed.

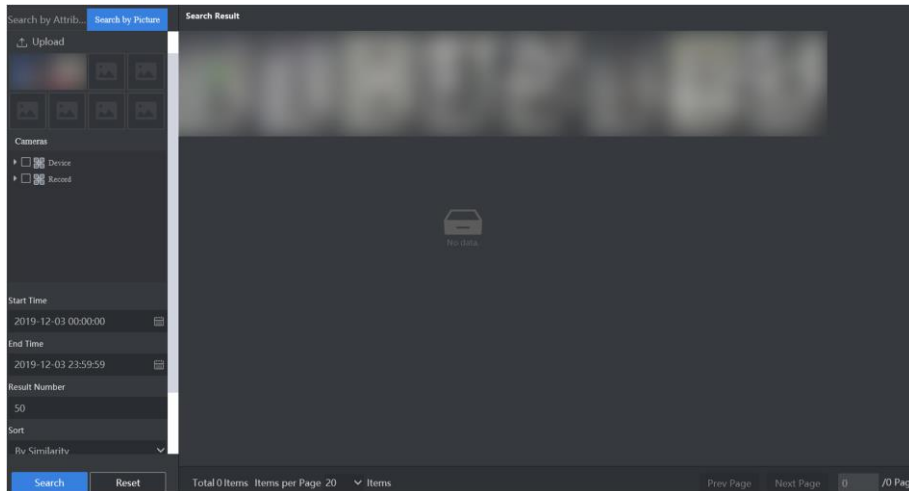


Figure 4-5 Set Human Body Feature Search Conditions

Note

If no camera or recording is selected, all captured human body pictures will be searched.

5. Click **Search**.
6. Click the human body picture displayed to view detailed information.

Note

Click  to set this human body picture as target picture to search human body by human body.

7. Optional: Click **Export Current Page** or **Export All** to export searching results.

4.3 Vehicle Search

4.3.1 Search by Vehicle Attribute

Search captured vehicle pictures by vehicle attributes.

Before You Start

Alarm the camera.

Steps

1. Go to **Smart Search** → **Vehicle Search** → **Search by Attribute**. By default, the server displays all vehicle pictures captured by cameras.

2. Set detailed search conditions as needed. Fuzzy search for license plate is available.

Note

- If no camera or recording is selected, all captured vehicle pictures will be searched.
- You can set different search condition parameters by referring to ***Configure Display Parameters***

3. Click **Search**.

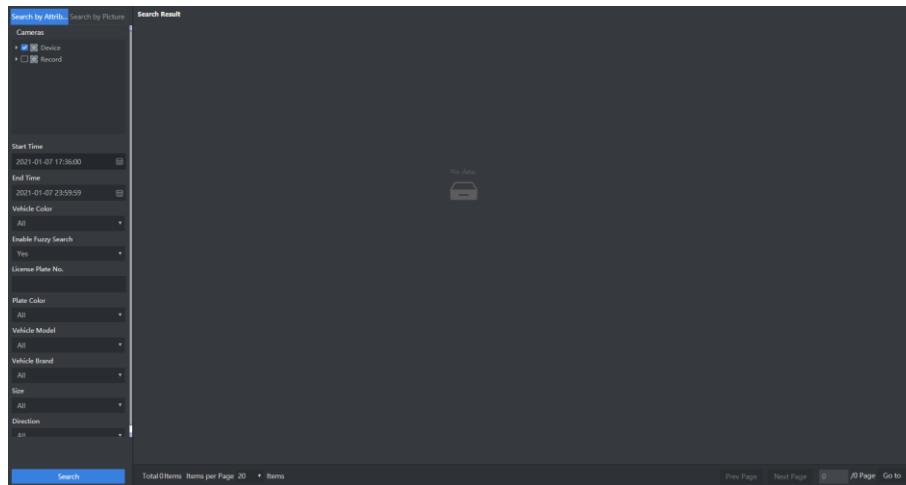


Figure 4-6 Vehicle Attribute Search Results

4. Click the face picture displayed to view detailed information.

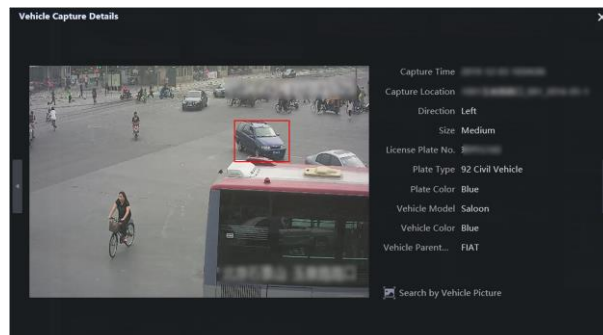


Figure 4-7 Vehicle Capture Results

Note

Click  to set this vehicle picture as target picture to search vehicle by vehicle.

5. Optional: Click **Export Current Page** or **Export All** to export captured information.

4.3.2 Search by Vehicle Picture

Upload a Vehicle picture to search related vehicle pictures in capture library.

Before You Start

Alarm the camera.

Steps

1. Go to **Smart Search** → **Vehicle Search** → **Search by Picture**. By default, the server displays all vehicle pictures captured by cameras.

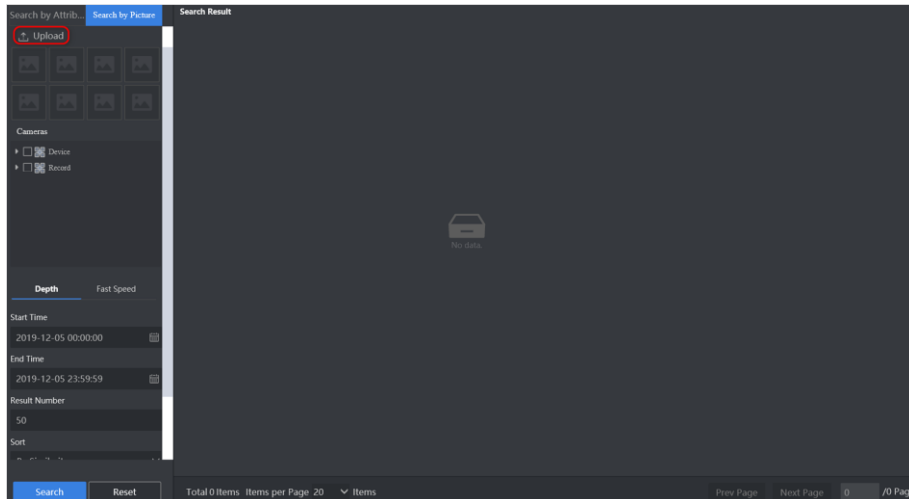


Figure 4-8 Search by Vehicle Picture Interface

2. Click **Upload** to upload desired vehicle pictures. The system will detect vehicles automatically.

Note

- Vehicle pictures in the format of JPEG, BMP, TIF and PNG are supported. The resolution should be greater than 48 × 48 pixels and smaller than 64 MP, and the picture size should be smaller than 8 MB.
 - It is recommended to upload clear pictures of vehicles to improve the comparison accuracy.
-

3. Click the square frame above the vehicle and then click **OK**.
4. Select the desired vehicle picture and set detailed search conditions as needed.

Depth

Search by vehicle body similarities.

Fast Speed

Search by plate number, shape, brand and color.

Note

If no camera or recording is selected, all captured vehicle pictures will be searched.

5. Click **Search**.
6. Click the vehicle picture displayed to view detailed information.



Note

Click  to set this vehicle picture as target picture to search vehicle by vehicle.

7. Optional: Click **Export Current Page** or **Export All** to export searching results.

Chapter 5 System Management

5.1 Cluster Management

5.1.1 Delete Node

Before You Start

The node is online and not included in any cluster.

Steps

1. Go to **System Management** → **Cluster Management** → **Node Management**.
2. Check the desired node.
3. Click **Delete**, and click **OK** in the popup dialogue box.

5.1.2 Restart Node

Before You Start

The node is online.

Steps

1. Go to **System Management** → **Cluster Management** → **Node Management**.
2. Check the desired node.
3. Click **Restart**, and click **OK** in the popup dialogue box.

5.1.3 Power off Node

Before You Start

The node is online.

Steps



Note

After the node is powered off, the device can only be started by pressing power button, and remote start-up is not supported.

1. Go to **System Management** → **Cluster Management** → **Node Management**.
2. Check the desired node.
3. Click **OFF**, and click **OK** in the popup dialogue box.

5.1.4 Add More Nodes to Cluster

Add more nodes to cluster to enhance its capacity.

Before You Start

- Ensure the new node(s) is added to the list.
- The new nodes are on the same subnet of the cluster.

Steps

1. Go to **System Management** → **Cluster Management** → **Cluster Management**.
2. Click **Add to Cluster**.

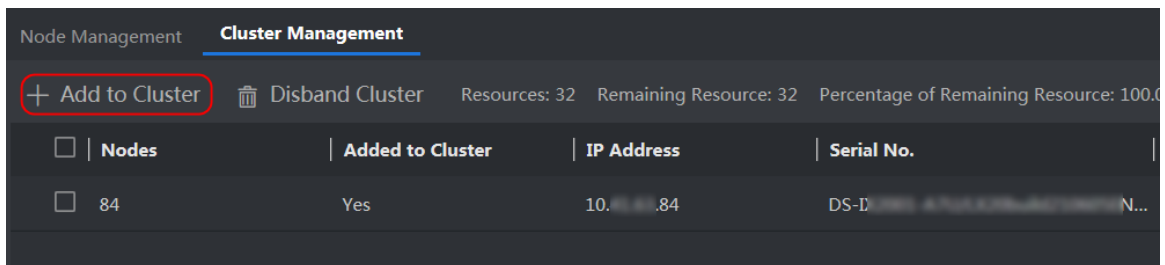


Figure 5-1 Add Nodes to Cluster

3. Check desired nodes, and click **Next**.

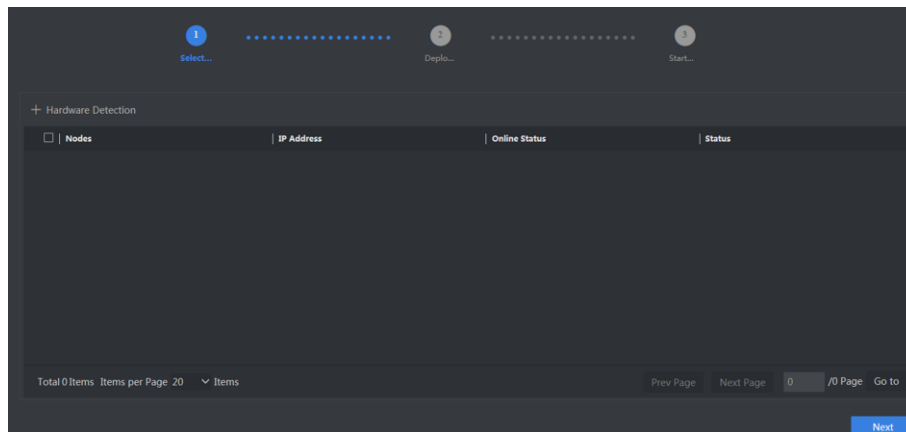


Figure 5-2 Check Desired Nodes

4. Click **Start Deploying**.
5. Click **OFF** after the cluster is deployed.

5.1.5 Disband Cluster

Steps

1. Go to **System Management** → **Cluster Management** → **Cluster Management**.
2. Click **Disband Cluster**.

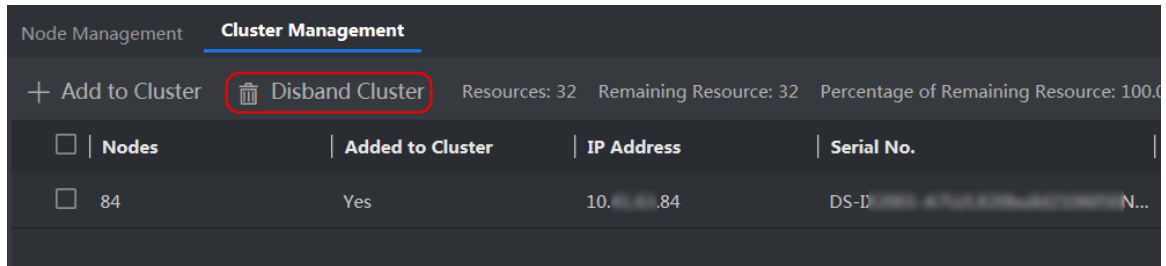


Figure 5-3 Disband Cluster

3. Click **OK**.

5.2 System Configuration

5.2.1 Configure General Information

Full-Text Search Server

Keep the default value. Configuration is not supported.
Server IP address is analysis cluster IP address.

Big Data Cloud Analysis

Keep the default value. Configuration is not supported.
Cloud analysis IP address is analysis cluster IP address.

FDLib Config

Modifying the library capacity configuration will delete the loaded list library. Please make sure the parameter you selected here is correct.

Basic

It is off by default. If the device is docked through Basic Authorization, this function can be enabled to maintain normal communication with the device.

Device Filter

Device filter is enabled by default, in which case the server is only accessible by its IP address. If you have configured port mapping, please disable the device filter function in order to access to the server normally.

Regional Configuration

You can select a desired region in Regional Configuration. Delete structured task(s) before and reallocate resource for task(s) after switching regions.

Replace Picture URL

Keep the default value. When the image data is stored in the local micro video cloud and the device IP changes, this function needs to be enabled to view historical image data.

Download Security Authentication

Keep the default value. When the device uses the local micro video cloud and the micro video cloud 5120 interface image authentication is enabled, this function needs to be enabled when viewing image data or uploading the list.

5.2.2 Configure Service

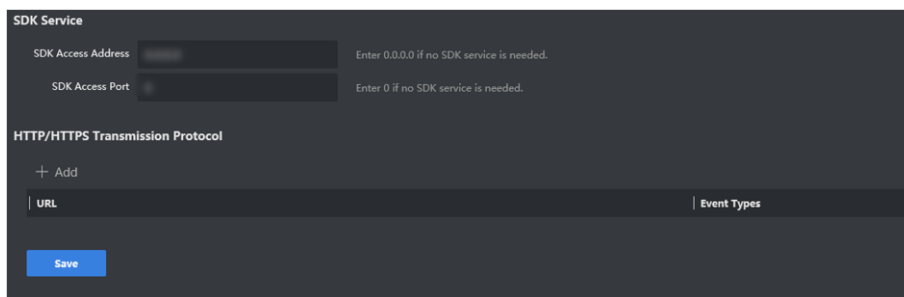
It supports sending task analysis results to the configured IP address.

Before You Start

Obtain IP address, port or URL.

Steps

1. Go to **System Management** → **System Config** → **Service**.



The screenshot displays the 'SDK Service' configuration page. At the top, there are two input fields: 'SDK Access Address' with a default value of '0.0.0.0' and a note 'Enter 0.0.0.0 if no SDK service is needed.', and 'SDK Access Port' with a default value of '8080' and a note 'Enter 0 if no SDK service is needed.'. Below these is the 'HTTP/HTTPS Transmission Protocol' section, which includes a '+ Add' button and a table with two columns: 'URL' and 'Event Types'. At the bottom left of the form is a blue 'Save' button.

Figure 5-4 SDK Service

2. Set SDK service or HTTP transmission protocol according to actual needs.

SDK Service

Send task analysis results to the configured IP address via SDK protocol.

HTTP/HTTPS Transmission Protocol

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

3. Click **Save**.

5.2.3 Configure Score Setting

Score captured face pictures or pictures in the list library by attributes such as pupil distance, clarity, and pitch angle. This function can pass over those pictures with poor quality. The score setting is disabled by default.

Steps

1. Go to **System Management** → **System Config** → **Score Setting**.

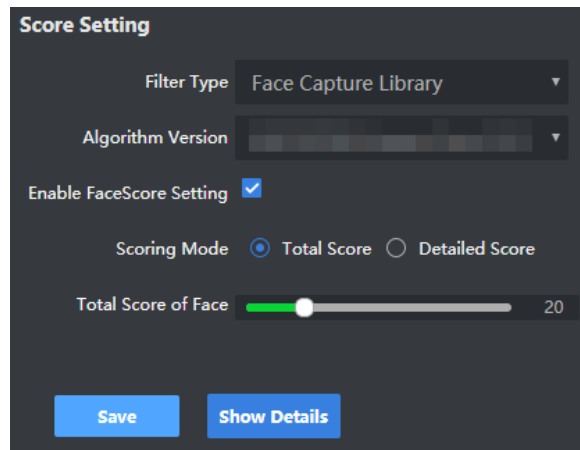


Figure 5-5 Score Setting

2. Select **Filter Type** as **Face Capture Library**.
3. Select an algorithm version, and enable score setting.
4. Set scoring mode as needed.
5. Click **Save**.
6. Optional: Click **Show Details** to check more information.
7. Optional: Click **Restore Default** to restore the default score value of each parameter under the detailed score mode.

5.2.4 Configure Pre-Classification

Pre-classification is only effective for human body search. More concurrent tasks of human body search will be allowed if the times of speed up is configured.

Steps

1. Go to **System Management** → **System Config** → **Pre-classification**.

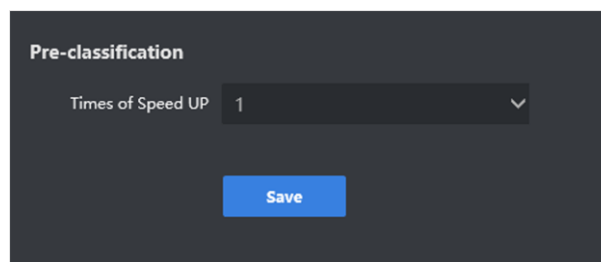


Figure 5-6 Pre-Classification Configuration

2. Set **Time of Speed Up** according to actual demands.
3. Click **Save**.

5.2.5 Configure Time

Synchronize the server time promptly. NTP and manual time synchronization are allowed.

Before You Start

Obtain the IP address and port of NTP server before synchronizing with NTP server time.

Note

If you are going to configure time (set device time earlier), it is recommended to perform the operation of **2.8 Reset Standard** once to avoid that the list library cannot alarm normally due to the operation of cancelling arming from the same list library and then arming again after the time is changed.

Steps

1. Go to **System Management** → **System Config** → **Time**.

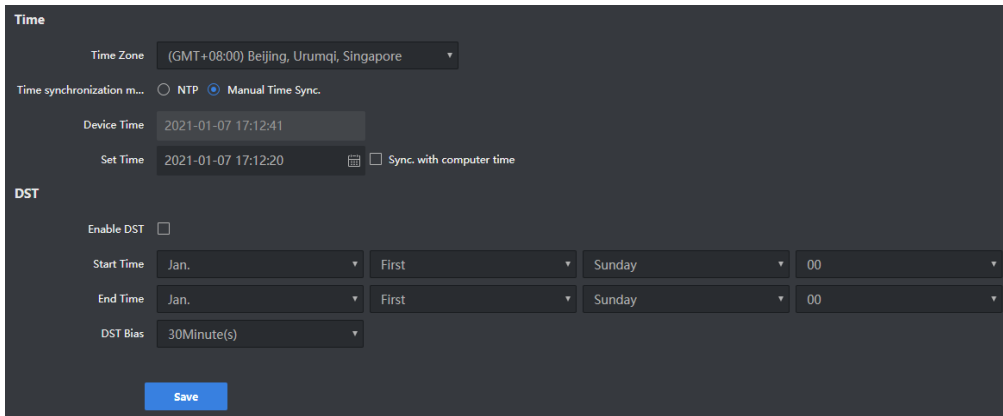


Figure 5-7 Time Configuration

2. Check **NTP** or **Manual Time Sync** according to actual demands.

Note

If **Sync. with computer time** is checked, the time of the server will be consistent with that of the computer.

3. Optional: Check **Enable DST** and set related parameters to synchronize the device time with that of the region where DST is applied.

Note

The device will restart if the time zone or DST settings change. You need to log in again.

4. Click **Save**.

5.2.6 User Management

There are three types of users, including admin, operator and consumer. Only admin has the permission to add and delete user, and edit user password. Operator and consumer have the permission to edit their own password only. Up to 32 users can be added.

Add User

Steps

1. Go to **System Management** → **System Configuration** → **User**

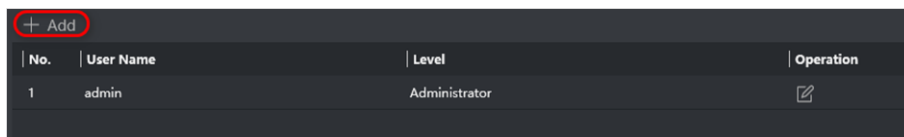


Figure 5-8 User Management Interface

2. Click **Add**, and input relevant information in the popup dialogue box.

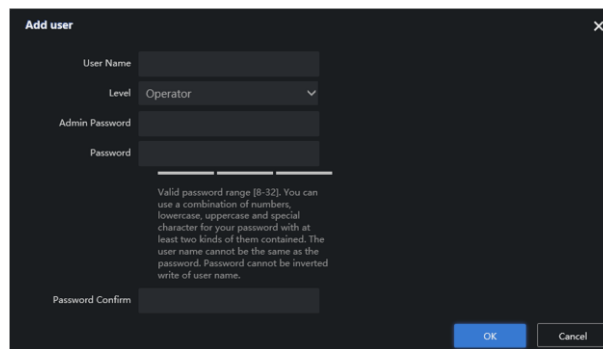
The screenshot shows a 'Add user' dialog box with a close button (X) in the top right corner. It contains several input fields: 'User Name' (text input), 'Level' (dropdown menu with 'Operator' selected), 'Admin Password' (text input), 'Password' (text input), and 'Password Confirm' (text input). Below the 'Password' field, there is a note: 'Valid password range [8-32]. You can use a combination of numbers, lowercase, uppercase and special character for your password with at least two kinds of them contained. The user name cannot be the same as the password. Password cannot be inverted write of user name.' At the bottom right, there are 'OK' and 'Cancel' buttons.

Figure 5-9 Add User



Note

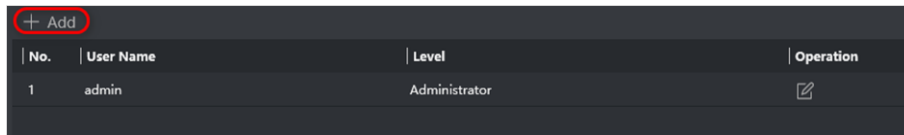
- We highly recommend you create a strong password of your own choosing (Using a minimum of 8 characters, including at least three of the following categories: upper case letters, lower case letters, numbers, and special characters.) in order to increase the security of your product.
 - We recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.
-

3. Click **OK**.

Modify Admin Password

Steps

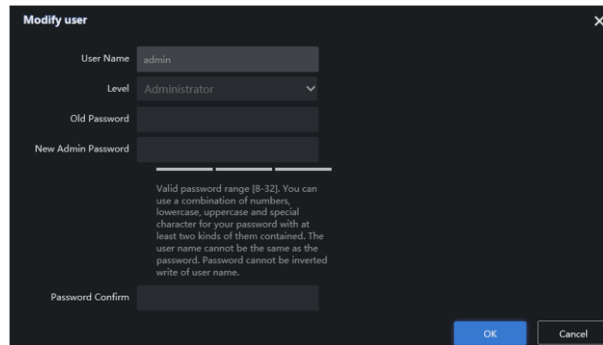
1. Go to **System Management** → **System Config** → **User**.
-



No.	User Name	Level	Operation
1	admin	Administrator	

Figure 5-10 User Management

- Click , and modify admin password in the popup dialogue box.



Modify user

User Name: admin

Level: Administrator

Old Password:

New Admin Password:

Valid password range [8-32]. You can use a combination of numbers, lowercase, uppercase and special character for your password with at least two kinds of them contained. The user name cannot be the same as the password. Password cannot be inverted write of user name.

Password Confirm:

OK Cancel

Figure 5-11 Modify User

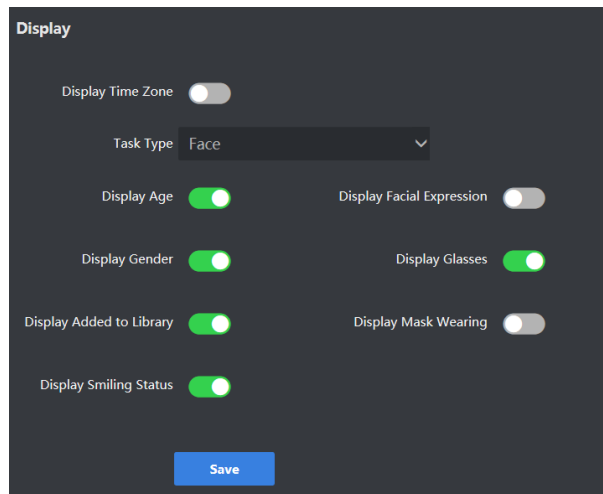
- Click **OK**.

5.2.7 Configure Display Parameters

Configure the search conditions for smart search function. For example, if you do not enable **Display Gender**, there will be no gender option in search conditions.

Steps

- Go to **System Management** → **System Config** → **Display**.



Display

Display Time Zone: ☐

Task Type: Face

Display Age: ☒ Display Facial Expression: ☐

Display Gender: ☒ Display Glasses: ☒

Display Added to Library: ☒ Display Mask Wearing: ☐

Display Smiling Status: ☒

Save

Figure 5-12 Display Configuration

Note

Enable **Display Time Zone** to display time zone in the search results, real-time alarms, and captured pictures. This function is disabled by default.

2. Set different search conditions according to actual needs.
3. Click **Save**.

5.2.8 Configuration Live View

Configure the play performance of live view, image format and saving path of manually captured pictures.

Steps

1. Go to **System Management** → **System Config** → **Live View**.

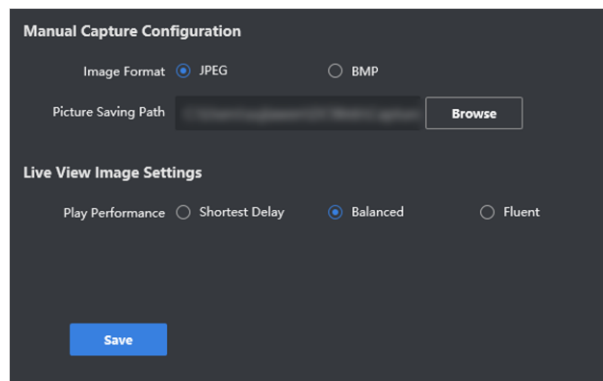


Figure 5-13 Live View Configuration

2. Set live view parameters.

Manual Capture Configuration

Select **JPEG** or **BMP** as **image format**, and configure **Picture Saving Path**.

Live View Image Settings

Set **Play Performance**. It is recommended to use default value.

3. Click **Save**.

5.2.9 Configure Person Pattern

Generate information of personnel movement path.

Steps

1. Go to **System Management** → **System Config** → **Person Pattern**.

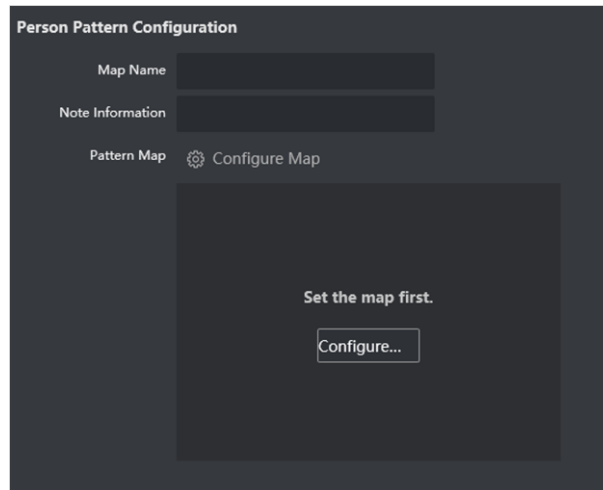


Figure 5-14 Person Pattern Configuration

2. Enter **Map Name** and **Note Information**.
3. Click **Configure Map** to upload a map.
4. Click **OK**.

5.2.10 Restore Default

Before You Start

The cluster has been disbanded.



There are two types of restoration, including restore and default.

Restore

Restore all parameters, except the IP parameters and user information, to the default settings. As a result, the device will restart automatically and need to be activated again.

Default

Restore all parameters to the default settings. As a result, the device will restart automatically and need to be activated again.

Steps

1. Go to **System Management** → **System Config** → **Restore Defaults**.

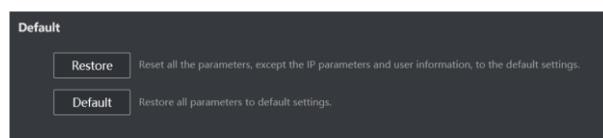


Figure 5-15 Restore Defaults Configuration

2. Select restoration type according to actual demands.

5.3 Enable Cloud Storage Authentication

If pictures submitted to the server attached with no authentication, or the authentication information expired, you need to enable cloud storage authentication.

Before You Start

Get the parameters of cloud storage.

Steps

1. Go to **System Management** → **System Config** → **Cloud Storage**.
2. Configure the related parameters.

IP Address

The IP address of micro video cloud.

Port

The port number of micro video cloud.

AK

Access key.

SK

Secret key.

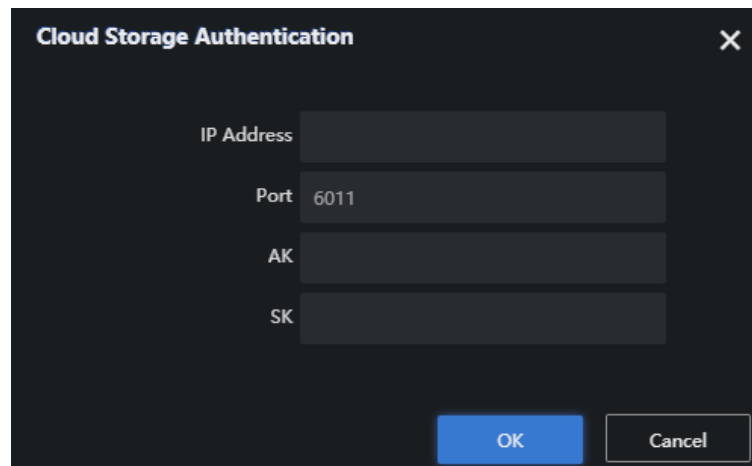


Figure 5-16 Cloud Storage Authentication

3. Click **OK**.

5.4 Strategy Parameters Configuration

To increase the precision of personnel archive, you can enable the scoring of similarity, captured picture, model fusion, etc. Personnel strategy is enabled by default.

Go to **System Management** → **System Config** → **Strategy Parameter** to check the parameters. It is recommended to keep the settings as default status.

5.5 Data Upgrade

After the historical version is upgraded to the new version, the historical data needs to be upgraded too (capture database transposition, list database re modeling). When the capture library is transposed, it is recommended to transpose all capture data.

Note

Failure to upgrade the data will result in problems such as the inability to search the historical list and capture data, and the inability to arm the historical list.

Steps

Go to **System Management** → **System Config** → **Data Upgrade**.

Capture Lib

Select **Upgrade Mode**, **Start Time**, and **End Time**, and click **Start**.

List

Click **Start**.

Note

Click **Pause** to stop upgrading data, and click **Resume** to continue upgrading data.

5.6 Operation and Maintenance

5.6.1 Check Hardware Status

Check detailed information of CPU, memory, disk, GPU, etc.

Steps

1. Go to **System Management** → **Operation and Maintenance** → **Hardware Status**.
2. Click  in **Details** list.

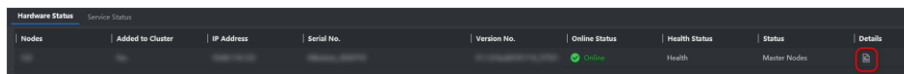


Figure 5-17 Hardware Status Interface

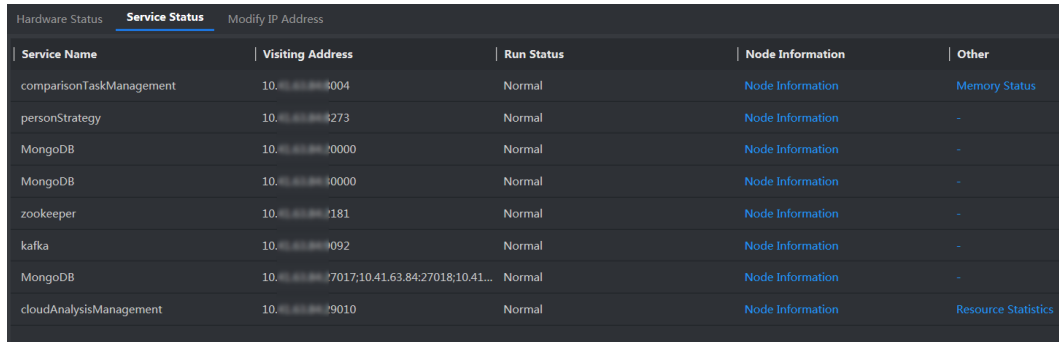
3. Click tabs to different hardware status.

5.6.2 Check Service Status

Check MongoDB, zookeeper, kafka and other service status.

Steps

1. Go to **System Management** → **Operation and Maintenance** → **Service Status**.



Service Name	Visiting Address	Run Status	Node Information	Other
comparisonTaskManagement	10.10.10.10:1004	Normal	Node Information	Memory Status
personStrategy	10.10.10.10:1273	Normal	Node Information	-
MongoDB	10.10.10.10:10000	Normal	Node Information	-
MongoDB	10.10.10.10:10000	Normal	Node Information	-
zookeeper	10.10.10.10:1181	Normal	Node Information	-
kafka	10.10.10.10:1092	Normal	Node Information	-
MongoDB	10.10.10.10:17017;10.41.63.84-27018;10.41...	Normal	Node Information	-
cloudAnalysisManagement	10.10.10.10:19010	Normal	Node Information	Resource Statistics

Figure 5-18 Service Status Interface

2. Click **Node Information**, **Memory Status** or **Resource Statistics** to check detailed information respectively.

Node Information

The node of current service.

Memory Status

The overall scale of memory, loaded data quantity, total number of dynamic library and capture duration.

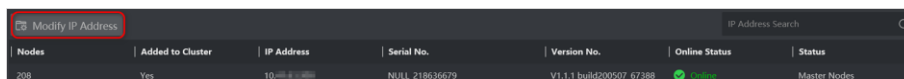
Resource Statistics

The total and remaining resource quantity.

5.6.3 Modify IP Address

You can modify the IP address of cluster and micro video cloud through the web page of Intelligent Fusion Server.

1. Go to **System Management** → **Maintenance** → **Modify IP Address**.
2. Click **Modify IP Address**.



Nodes	Added to Cluster	IP Address	Serial No.	Version No.	Online Status	Status
208	Yes	10.10.10.10	NULL_218636679	V1.1.1 build200507_67388	Online	Master Nodes

Figure 5-19 Modify IP Address

3. Modify the IP address as needed.
4. Click **Save**.

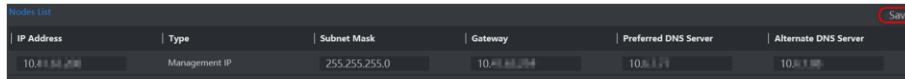


Figure 5-20 Save IP Address

5.6.4 Search Log

Log includes running log, alarm log and operation log. Searching and exporting logs are supported.

Running Log

Records running information.

Alarm Log

Records alarm information.

Operation Log

Records operation information in Web interface.

Steps

1. Go to **System Management** → **Log**.
2. Select log type, set search start time and end time, and click **Search**.
3. Click **Export** to export searched log.
 - Enter search information in search bar, click  to find log information.
 - Click **Maintenance** to export maintenance log for the maintenance staff's reference.

5.6.5 Check Online User

Check total quantity of users and real-time online users by click  in the top-right corner of the interface.

5.6.6 Check Version Information

Go to  → **Version** to check version information.

5.6.7 Check Help Document

Go to  → **Help Document** to refer to help information.

5.6.8 Upgrade Software

It is allowed to upgrade software through web interface.

Before You Start

- The device is online and running normally.
- Obtain updating files.

Steps

1. Go to **System Management** → **Software Updating**.

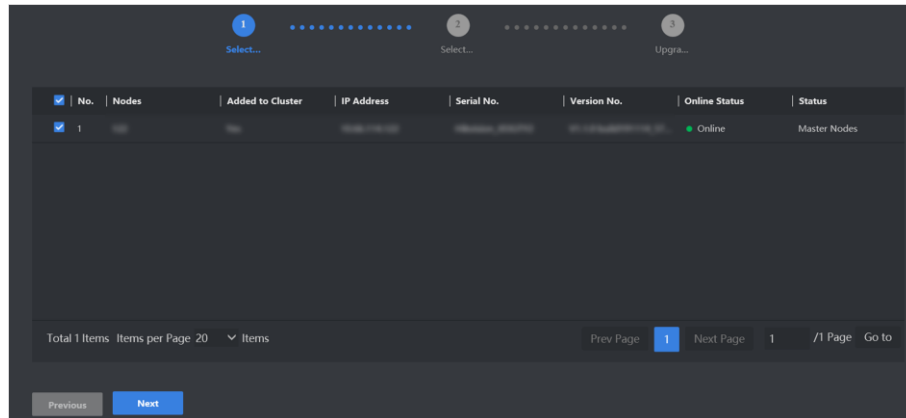


Figure 5-21 Software Updating Interface

2. Check the desired server, and click **Next**.

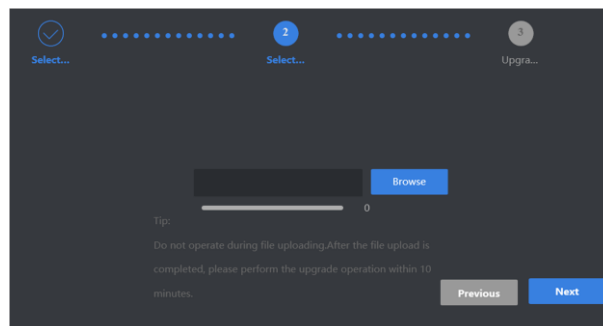


Figure 5-22 Select Uploading Files

3. Click **Browse** to upload updating files, and then click **Next**.
4. Click **OK**.

Note

The device will reboot after updating completed.

5.7 Log Out

Go to **admin** → **Logout** to log out.



See Far, Go Further