



Milesight Enterprise NVR User Manual

Version: V1.0
Date: 2024-06-06

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Chapter 1. Introduction

1.1 Copyright Statement

This manual may not be reproduced in any form or by any means to create any derivative such as translation, transformation, or adaptation without the prior written permission of Xiamen Milesight IoT Co., Ltd (Hereinafter referred to as Milesight).

Milesight reserves the right to change this manual and the specifications without prior notice. The latest specifications and user documentation for all Milesight products are available on our official website www.milesight.com.

1.2.1 Introduction

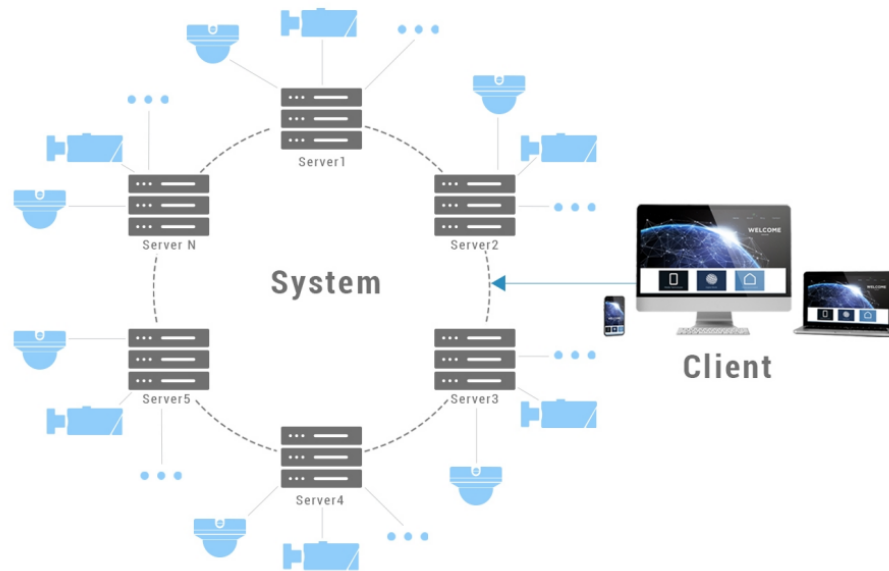
Milesight Video Management System Enterprise (hereinafter referred to as VMS) is one of the most innovative and most powerful video management software systems on the market, and it will fulfill your highest requirements and expectations. The simple and intuitive design requires little training while providing easy operations to preview, record video, add maps and alarm, etc. VMS adopts Client/Server architecture, which greatly improves the performance and efficiency of video storage, video forwarding and video Analytics, etc. It is a future-proof network video solution for large projects and can manage unlimited network cameras via unlimited working servers in different locations. The multi-level user authority management allows various user organization authority management and allocation. It's able to integrate with other cameras over ONVIF.

This manual describes how to use and manage "Milesight VMS Enterprise" in your network environment. Some knowledge of network environment would be beneficial to the readers. Should you require any technical assistance, please contact authorized service center.

1.3.1 Key Features

- Support 16/32/64/128 channels.
- Support RAID 0/1/5/6/10/50/60 disk array.
- Support 16*20TB/ 6*20TB storage and expandable disk capacity(support hot-swap).
- Support 2.5Gbps/100Mbps LAN ports.
- Support 4* DDR4 Slot(2*8GB Pre-installed).
- Support independent and synchronous display.
- Support BNC In and BNC Out ports.

- Support USB 3.0/USB 2.0/USB 3.2 Gen2 ports.
- Support dual-power supply to protect data security.
- Support ONVIF.
- Support H.265/H.264 video compression.
- Support more than 2000 channels per system/25 servers per system (The numbers given are recommended minimum, additional scalability would be determined based on specific usage requirements).
- Support manage Milesight IoT sensors.
- Support E-Map (Offer users a complete visual overview of the devices locations).
- Support Advanced PTZ function.
- Support up to 64 live view channels per monitor with main or sub streams optional.
- Support self-adaptive layout.
- Support up to 64 channels synchronous or asynchronous playback.
- Support the Event & Alarm for prioritizing, processing, categorizing alarm data, and triggering versatile alarm actions.
- Support Smart Search, Video Synopsis, Timeline Thumbnail etc. for evidence forensic.
- Support quick locating & playback by tags, events.
- Support split playback (Split one video into multiple clips and play them back simultaneously).
- Support multiple kinds of overlays for exported videos.
- Support local and NAS storage.
- Support account management (Flexible customization of the privilege of the roles).
- Friendly GUI for easy operation.
- Alarm can be triggered in real time by various events including VCA, multiple alarm actions can be enabled at the same time.
- Support Fisheye Dewarping in both live view and playback.
- Support Smart Analytics like ANPR, VMS-end People Counting and VMS-end Video Analytics.
- Support AI Box Events, including Fall Detection and Face Recognition.
- Support N+M Failover (Any functioning server with failover function on and valid licenses will take over the cameras of the failed server. The cameras with record on will keep recording).
- One system manages several servers. Every server shares the same data file.



One system manages several servers. Every server shares the same data file.

Chapter 2. Installation

2.1 Software Overview

An installation of “Milesight VMS Enterprise” has two components: Server software and Client software.

“Milesight VMS Enterprise Server” is the intelligence management system forward the RTSP stream, and the Client software is used to log in the server and provides the user interface for all tasks including monitoring, searching, exporting and configuration. “Milesight VMS Enterprise Client” allows users in different locations to log into the server. If users have the privilege, they are able to change the system configuration.

2.2 System Operation Environment

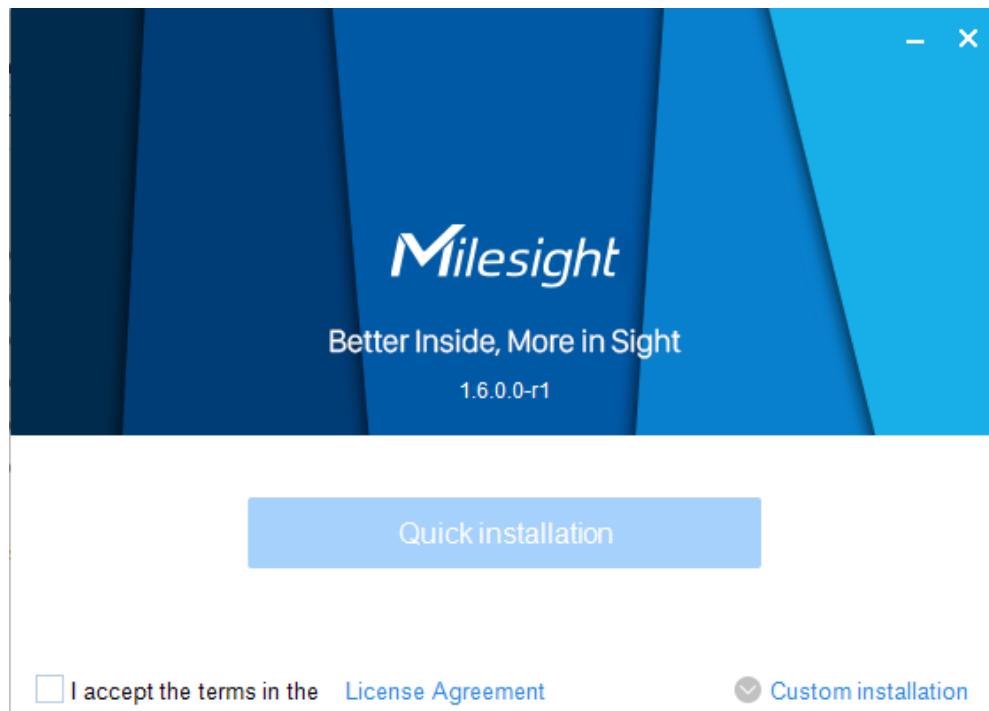
Client	CPU	Intel Core i5 @2.9GHz or above
	Memory	4GB or above
	HDD	HDD/SSD
	GPU	Recommend, discrete graphics card will be better
	Graphic Memory	2GB or more
	Display Resolution	1280 x 720 or above
	Network	1 Gbps or above
	OS	Windows8/10/11,Windows Server 2008/2012/2016/2019/2022
Server	CPU	Intel Core i3 @2.3GHz or above
	Memory	8GB or above
	HDD	HDD/SSD
	Network	1Gbps or above (10Gbps recommended)
	OS	Windows8/10/11,Windows Server 2008/2012/2016/2019/2022

2.4 Installation Guide

Run the Milesight VMS Enterprise installation file and install the programs on your computer by following the on-screen instructions. After finishing installation, you will find the programs on the start menu or on the desktop.

Step1: Double click the installation file;

Step2: Check I accept the terms in the [License Agreement](#) ;



You can click [Custom installation](#) button to select the destination folder and customize the installation options, including Install both Client and Server, Install client only and Install server only as shown below. Here you need to install both Client and Server to finish complete installation.




Quick installation

C:\Users\Lix\Desktop\Milesight VMS Enterprise\ 

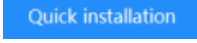
Install client Install server Install video wall

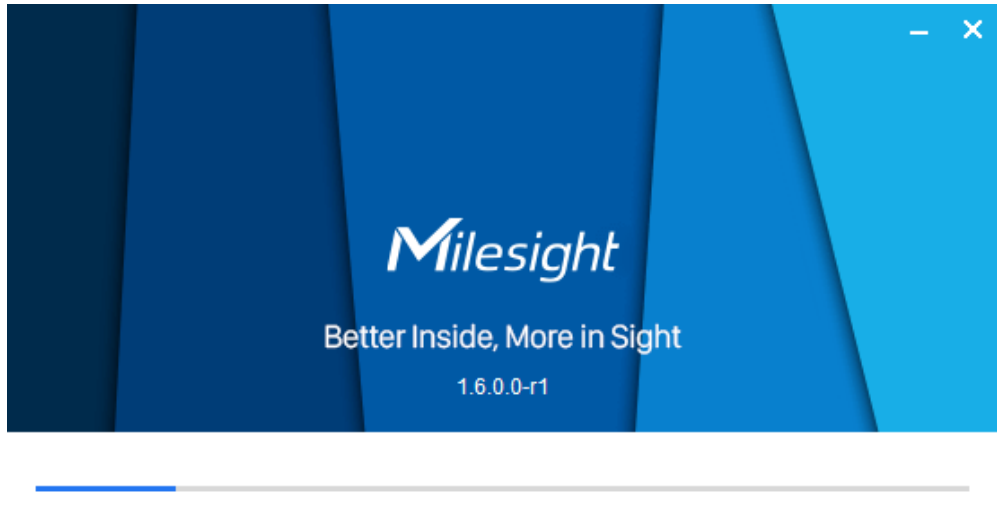
I accept the terms in the [License Agreement](#)

 [Default installation](#)

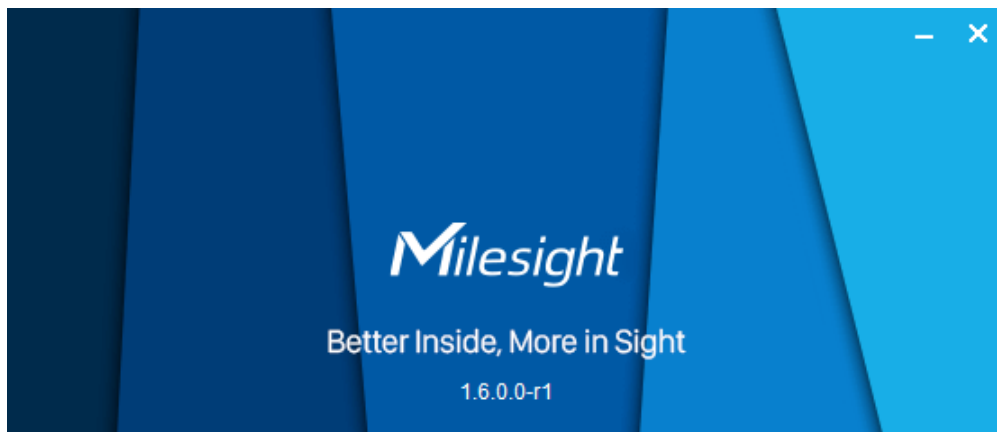
 **Note:**

- 1. The default installation folder is C:\Program Files\Milesight VMS\Enterprise.
- 2. The default installation options is "Install both Client and Server".

Step3: Click  to install;



Step4: Click **Finished** button to finish the installation.



Run VMS Now


Finished


Note: It will automatically repair the VMS program in the background to restore the running file when it is lost due to the installation environment.

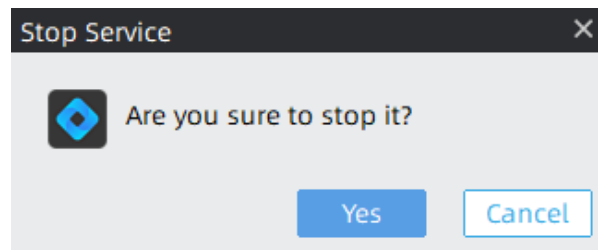
2.5 Login and Operations

2.5.1 How to Execute VMS Enterprise


Step1: Start “Milesight VMS Enterprise Server” first;

Double click the icon  to start the server after installation, then all the cameras on the server will load automatically.

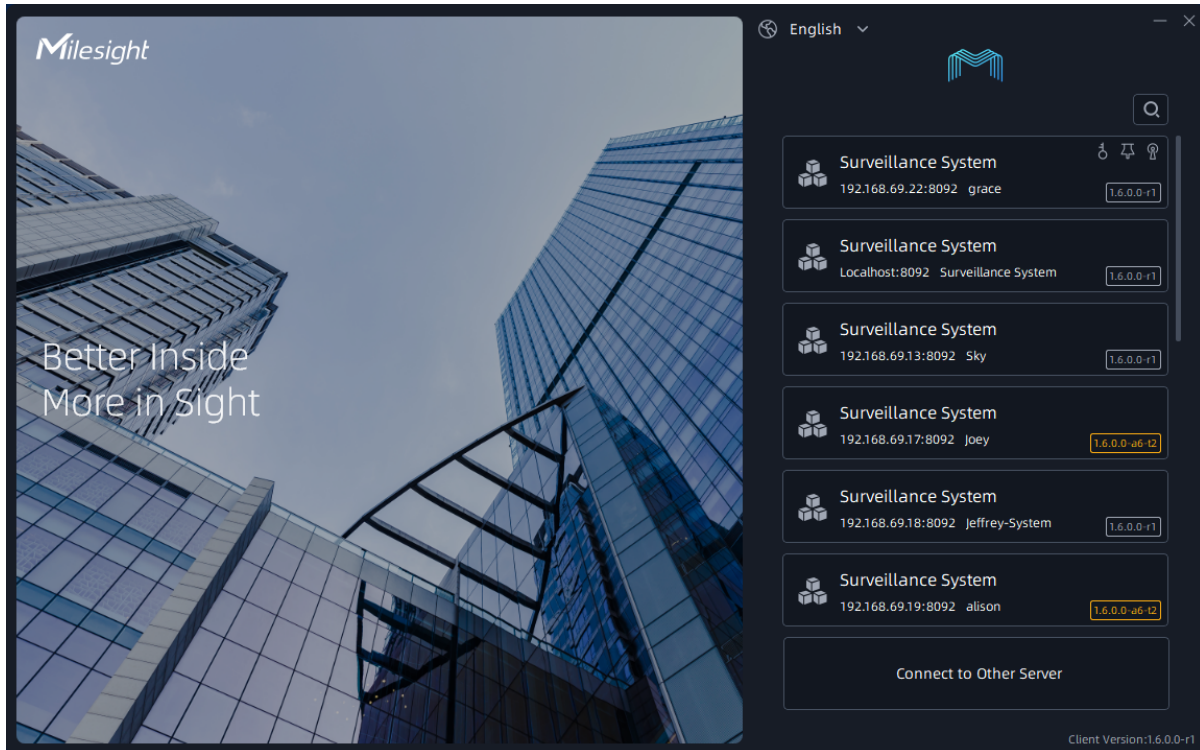
 **Note:** When the services of VMS Server, Video Wall and Video Analytics stops, a confirmation popup will pop up to confirm the operation.



Step2: Then, start “Milesight VMS Enterprise Client”;

Double click the icon  to start the software after starting the Milesight VMS Enterprise Server. There is a dynamic icon as shown below, and please wait for a few seconds, then a window will pop up as below:





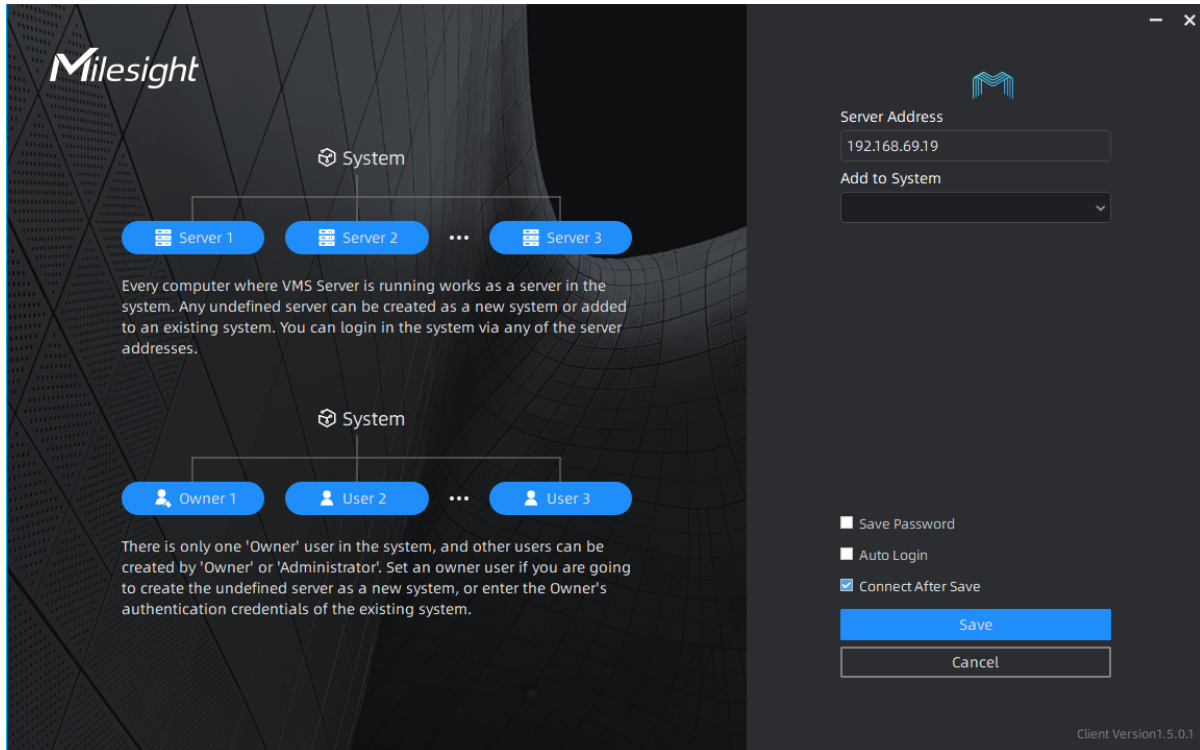
Before using “Milesight VMS Enterprise Client” for live view, you need to create VMS system first. Then you are able to add the cameras via different servers. Only after adding the server and cameras, can you use functions like Live View, playback, E-map, etc.

There are three ways to login in the Milesight VMS system:

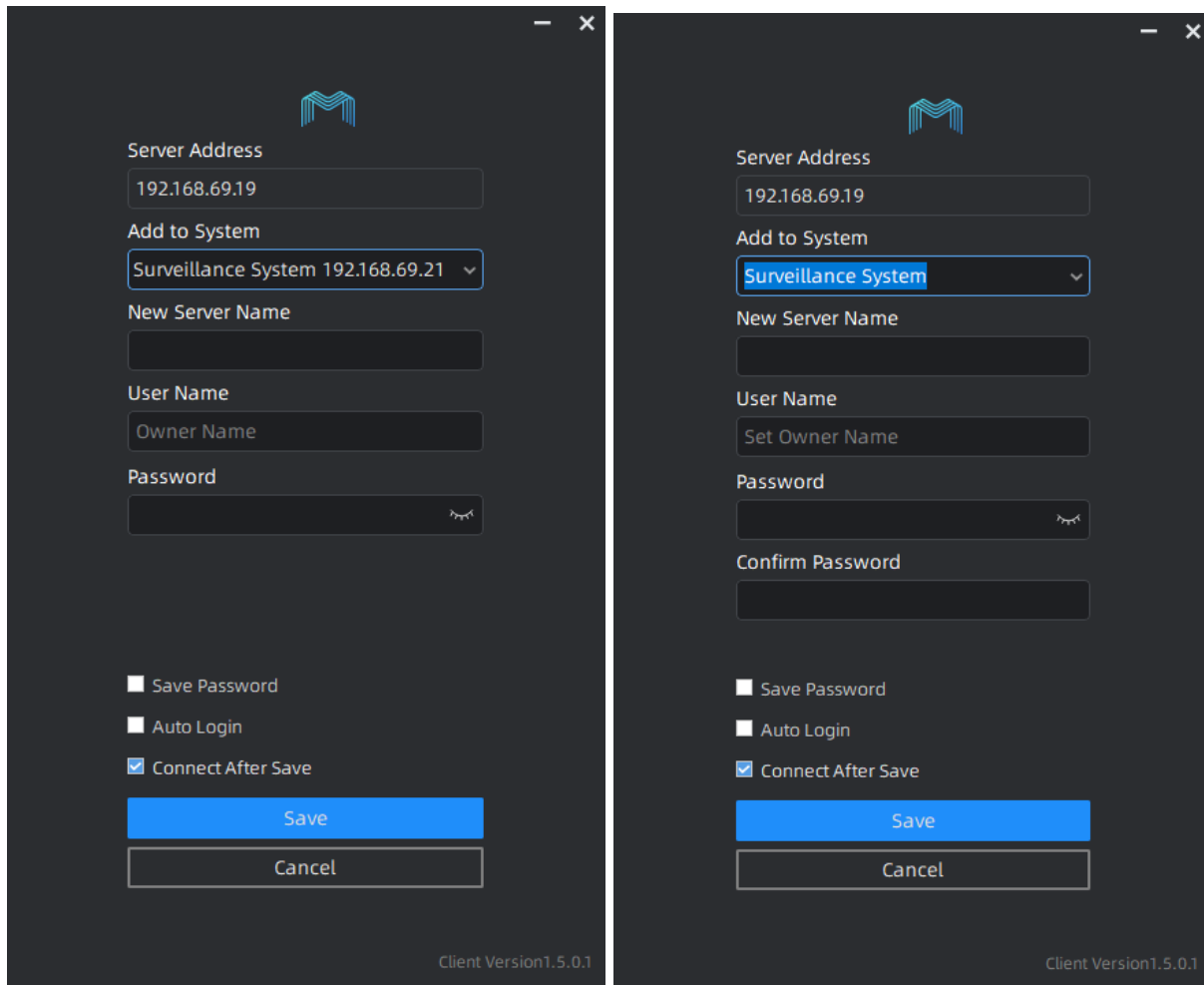
1. Directly connecting existing system in the list.
2. Login VMS client interface by adding undefined server to a new system or a existing system in the list.

Step1: Choose undefined servers which can be searched automatically in the local network;

Step2: Click the “Undefined Server” and the window will show as below:

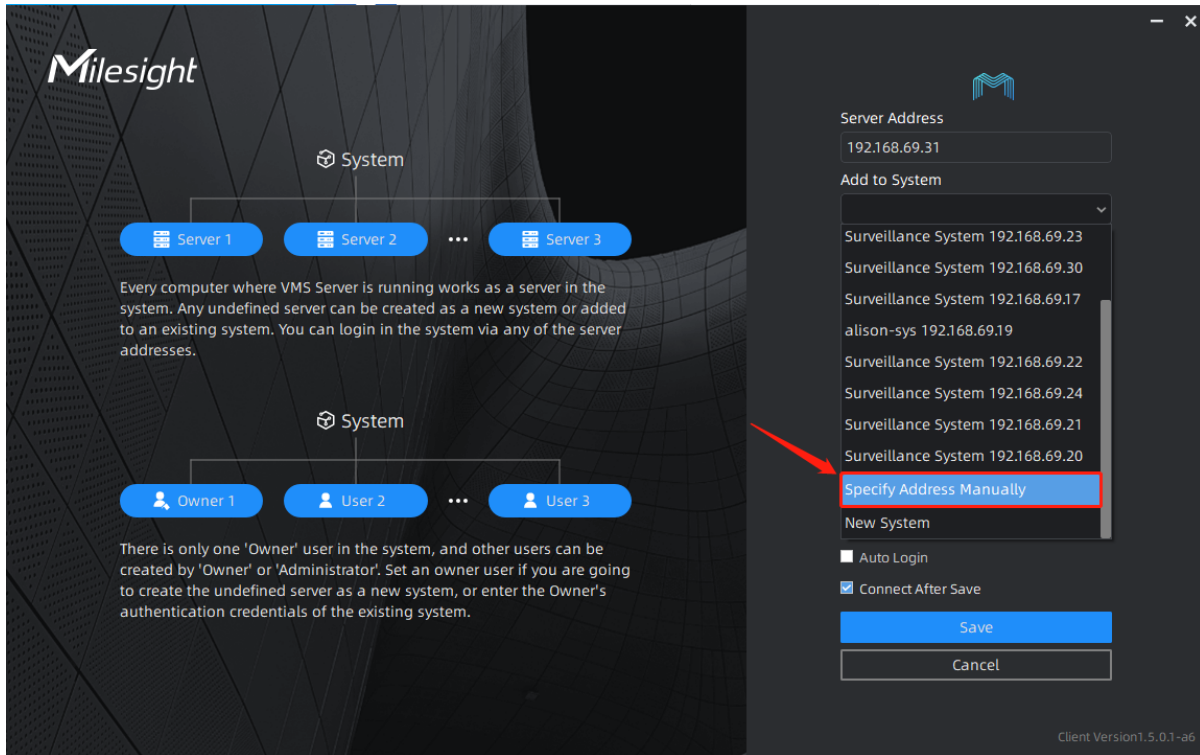


Step3: Select to add undefined server to a new system or an existing system;



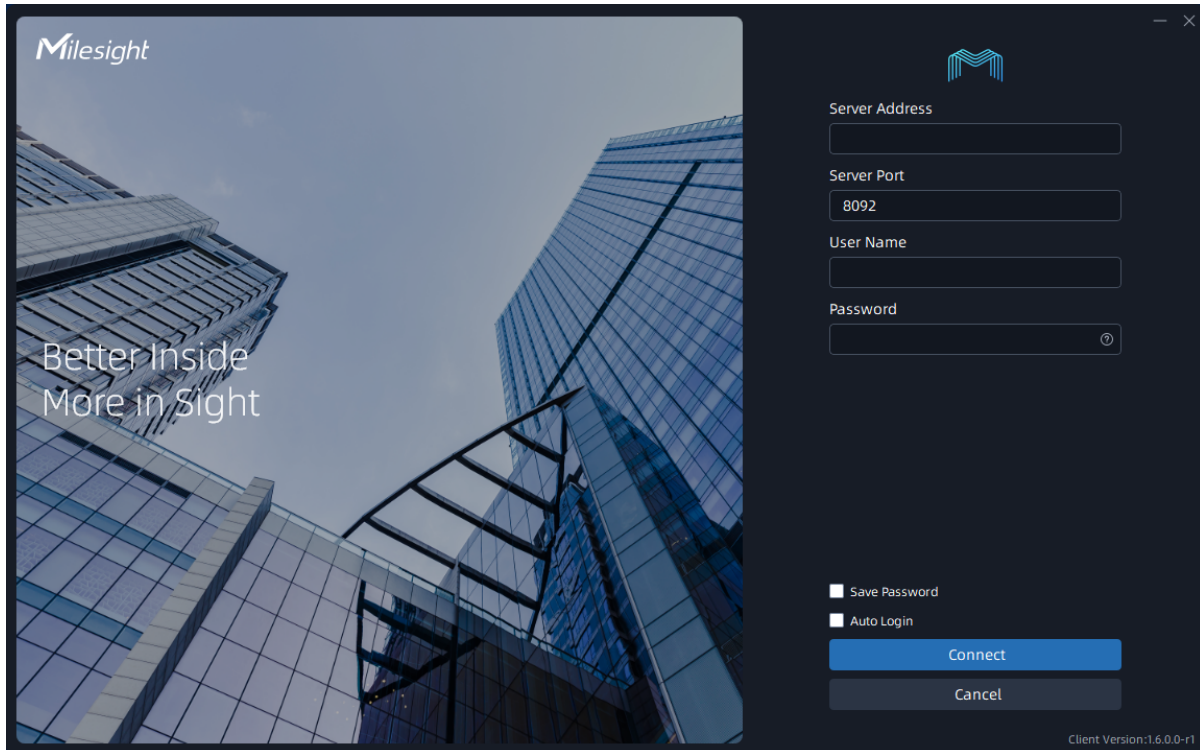
Step4: After configuring the settings, click Save button to connect. The servers will be added to VMS system successfully.

 **Note:** Users can add undefined servers to VMS systems in different LANs.



3. Manually connecting other systems which have been created in other network.

Step1: Click  and a window page show as below:

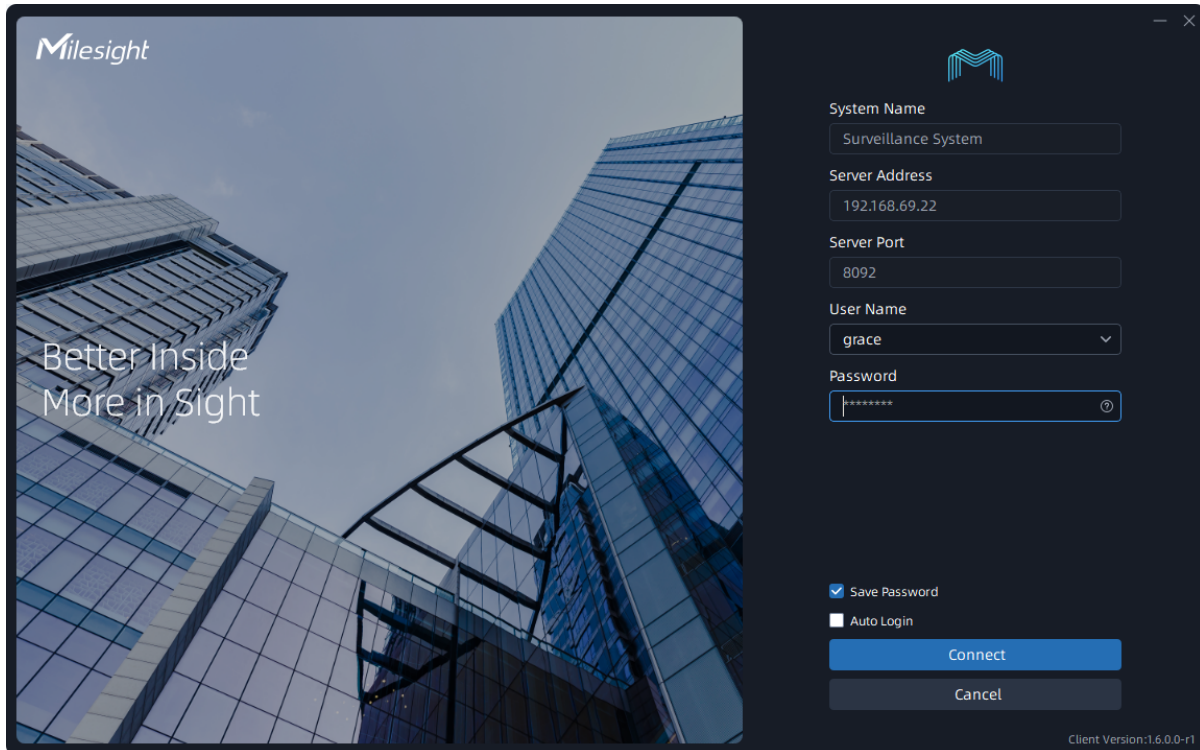


Step2: Enter server address, user name and password, and click the “Connect” button, then system which the server is added to will show in the list of login window.


 **Note:**

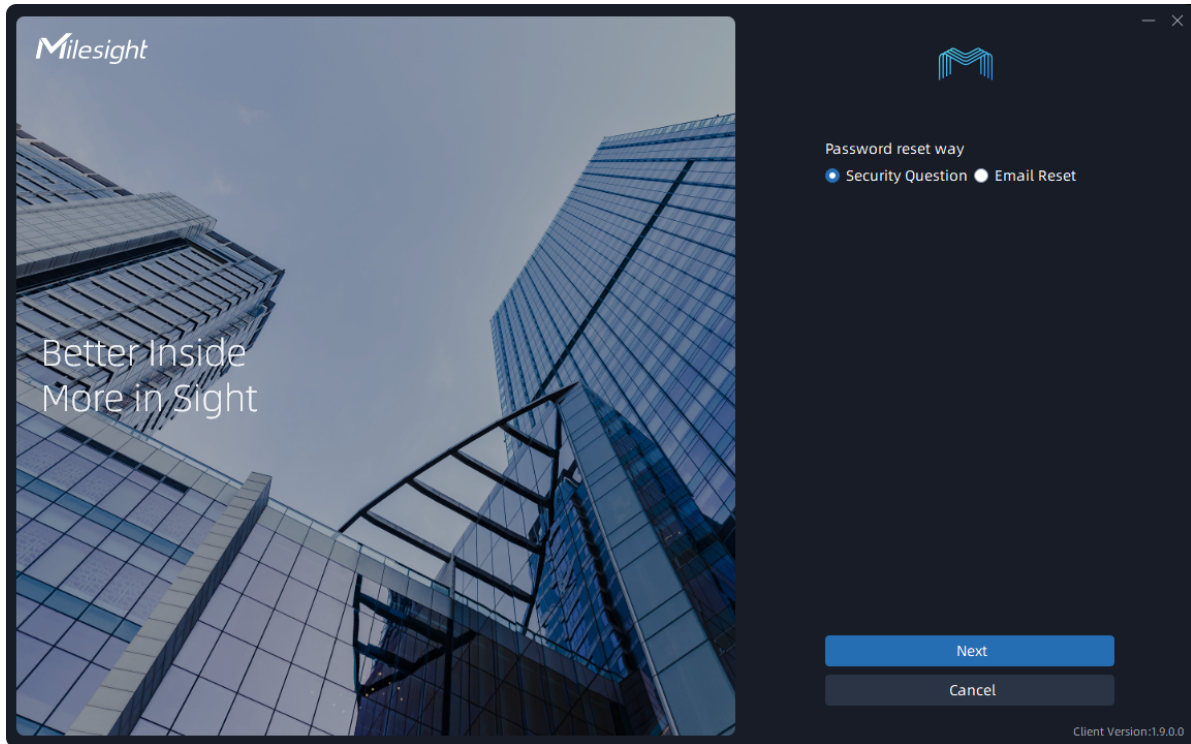
1. A VMS system can add multiple servers, but there is only a master server.
2. The created systems and undefined servers in the current local network can be automatically searched and show in the list as above. User can scroll down to choose other systems or servers in the list.

Step3: Select a system, then enter the user name and password to connect;

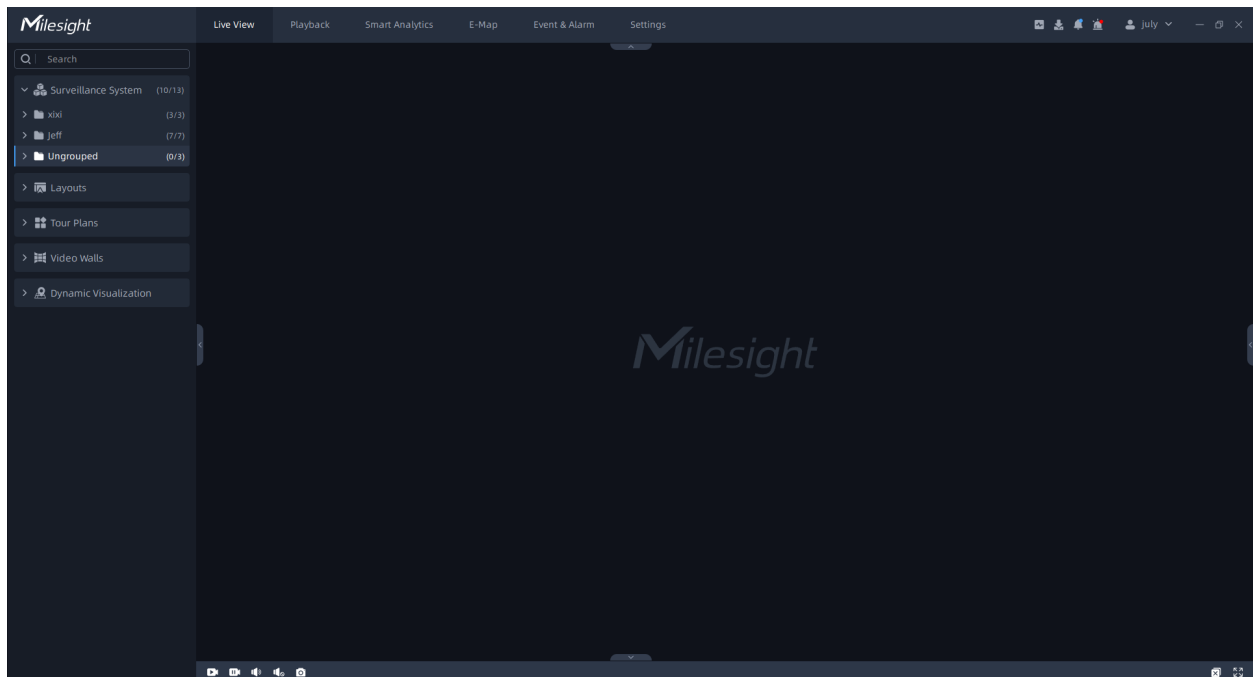


 **Note:**

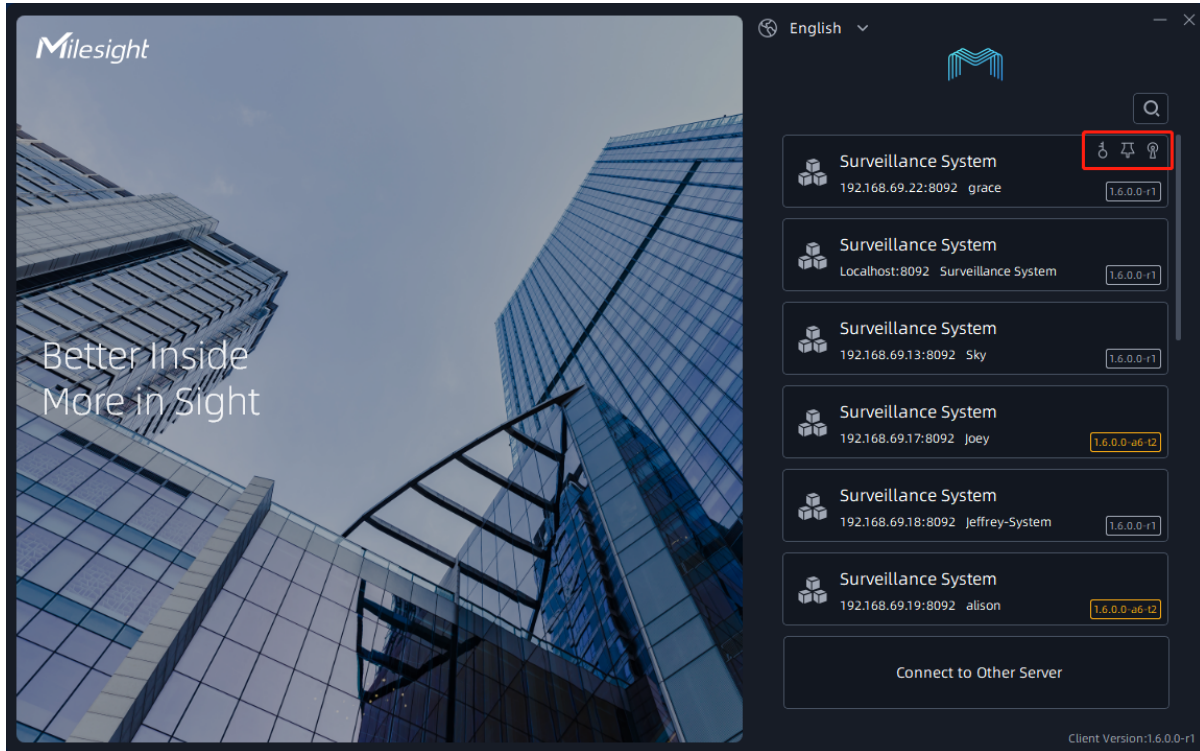
- If the Save Password option is checked, “Milesight VMS Enterprise Client” will log in without keying in the user name and password next time. As it supports remembering multiple accounts and passwords, you can choose one of them in the user name.
- If you forget the password, you can click  to reset it through Security Question or Email Reset. To implement Email Reset, you need to complete the Email Service settings first.




Step4: After login the system, the VMS system client interface will show as below. If you create Owner user and first login the VMS system, there is a wizard window displayed in the client interface. More wizard details can refer to [Login Wizard \(page 22\)](#).




Note: The **Top** status icon, the **Saved Password** status icon and the **Manual Connection** status icon in the login interface, bringing users a more visual experience. The page is as below:

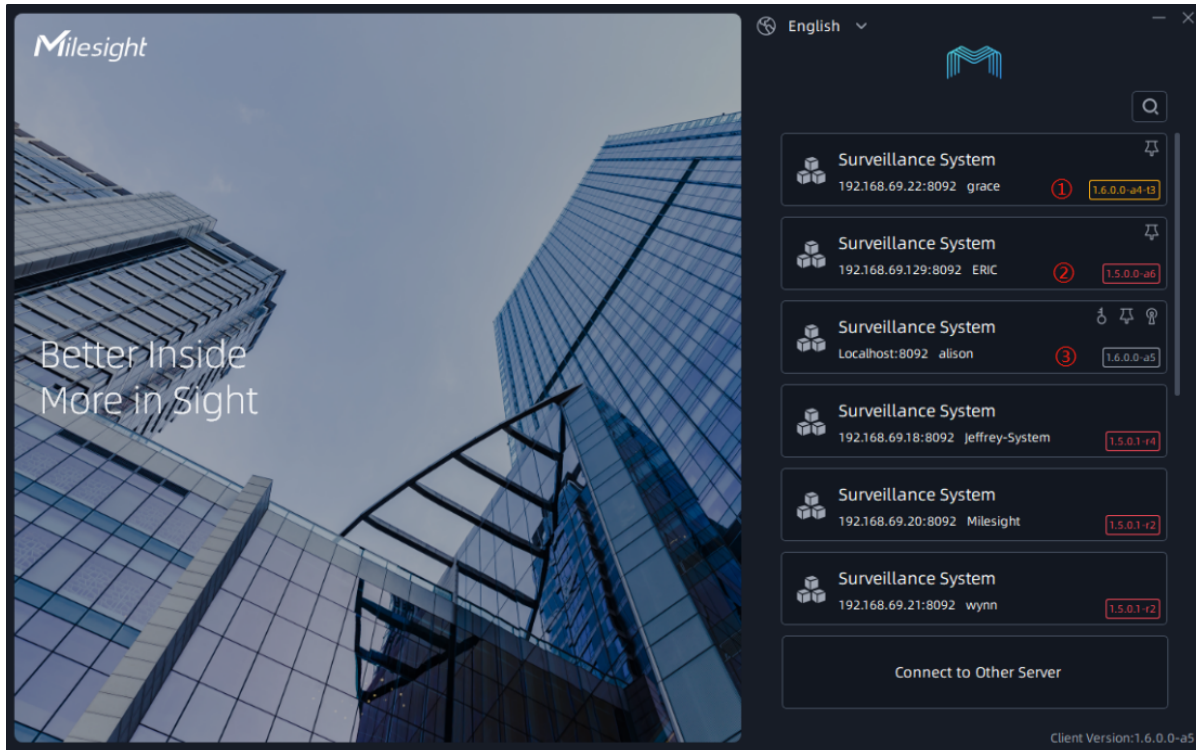


The three icons on the login page indicate the corresponding actions that have been set up by the user. For example:

 means that you have chosen to remember this system's password so that you don't have to enter it on the next login.

 means that you have placed this system on top, and the later you top the system, the closer it gets to the top of the list.

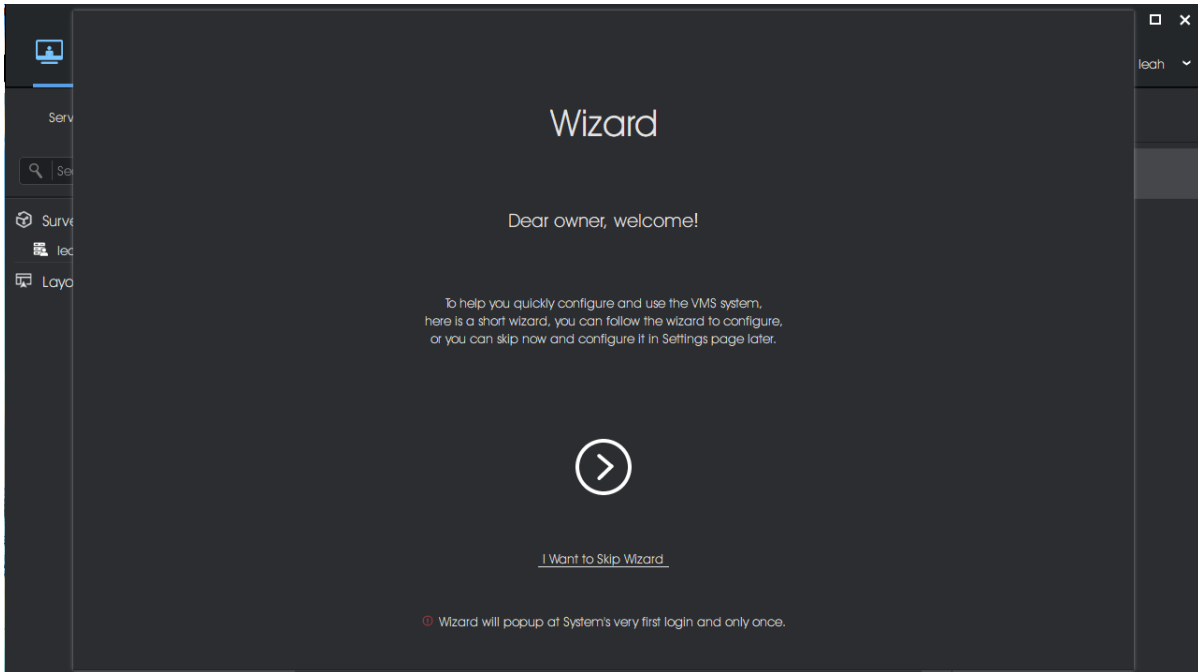
 means that you have connected to this system manually.



- When the client version is different from the system version but belongs to the same major version, it will display a yellow version number and remind the user to upgrade the version for a better user experience.
- When the major version of the client version and the system version are different, the red version number will be displayed, and it is required to upgrade the version to login into the program.
- When the client version is the same as the system version, it will display the white version number without any prompt.

2.5.2 Login Wizard

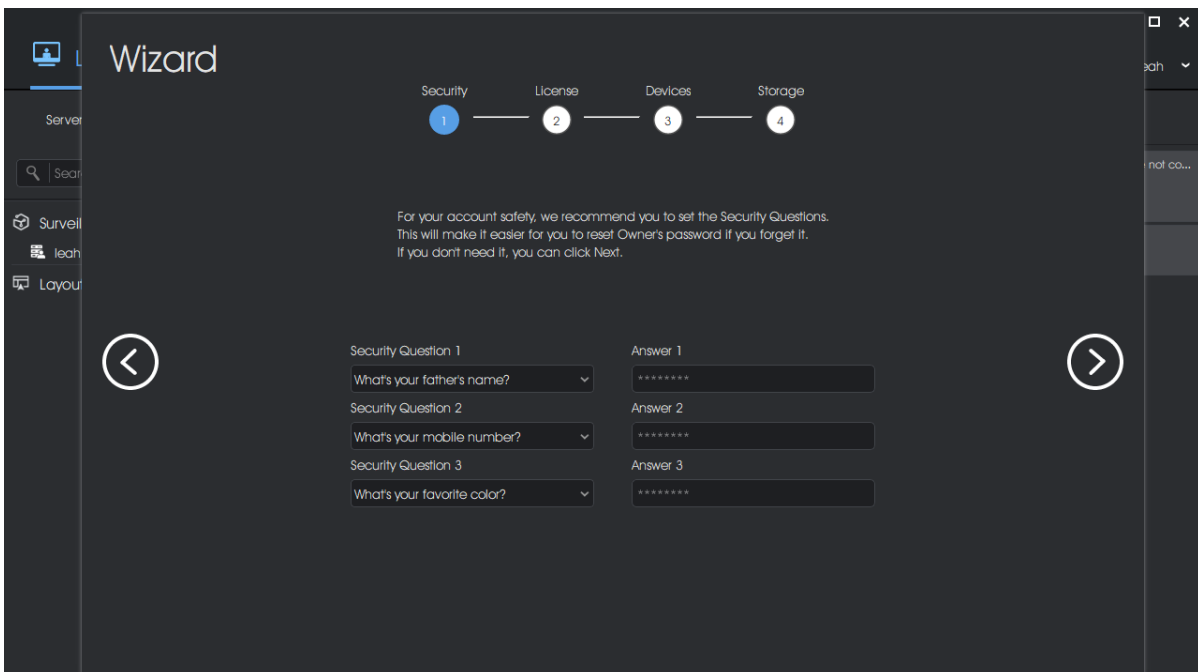
The wizard will help you to quickly configure and use the VMS system, including some basic configuration page: Security, License, Devices and Storage. If you create a new system, then there is a pop-up wizard as shown below at system's very first login and once only.





Here you can choose directly skipping wizard or click  button to start wizard.

• Security

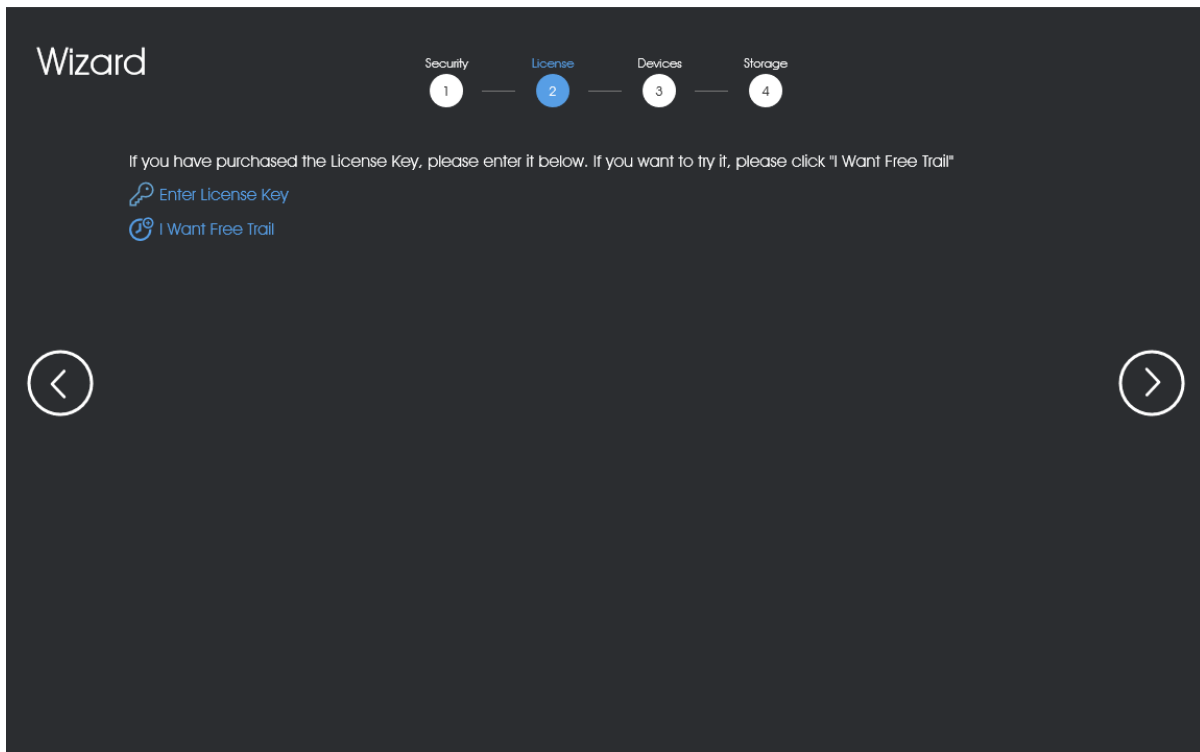
Security configuration page is to set some security questions for account safety. This will make it easier for Owner to reset password if forget it.




Here you can choose three questions from predefined questions or customize some of them, and fill in answers completely. After setting, click  to save the Security setting and enter next wizard interface. Also, If you don't need it, you can click  to directly enter next wizard. Also, you can make configuration in the Security Questions of [User Settings \(page 173\)](#).


• License

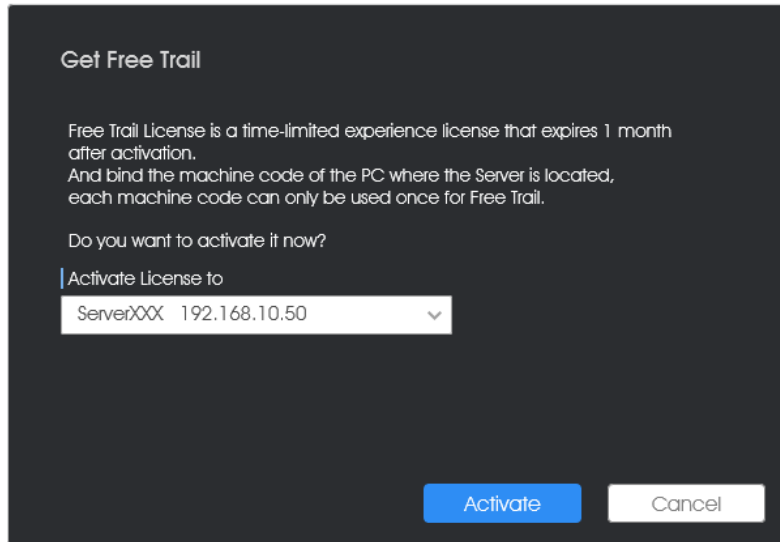
The License wizard will guide user how to activate license, which will facilitate user to add devices next. There are two options, including Enter License Key and I Want Free Trail. In addition, you can also refer to [License Activation \(page 154\)](#) to set license activation.




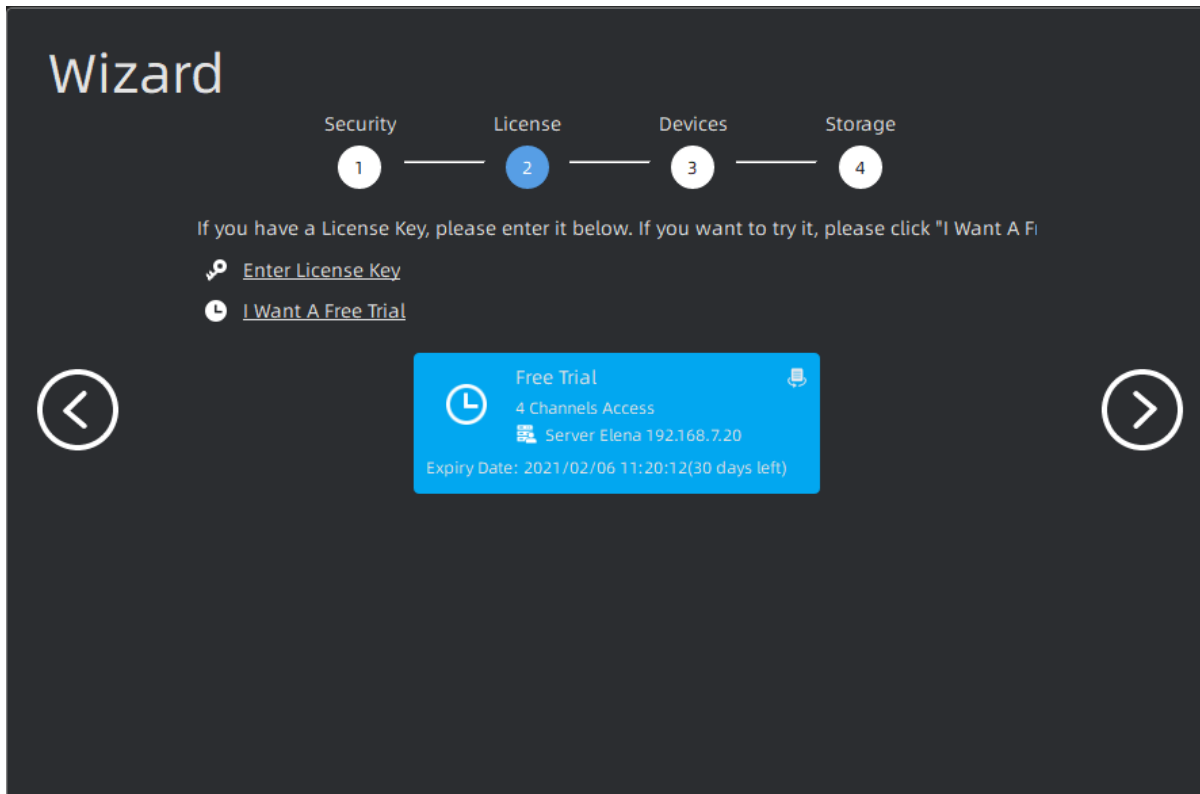
 **Note:** Now Milesight VMS supports three types of licenses, they are Camera License, Video Wall License and Smart Analytics License.


(1) Free Trial Activation

Step1: Click  button. If this is the first time you use the VMS software, then a window will pop up as shown below:




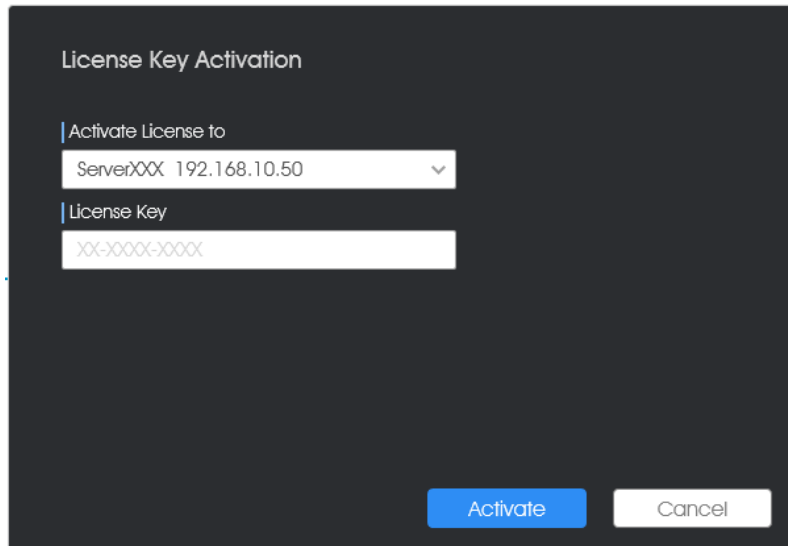
Step2: Select server which a license is registered to and click  button, then a Free Trail information card will show in the License wizard interface.



 **Note:** The Free Trial with 4 camera access is a time-limited experience license that expires in 1 month after activation. You can purchase our license to access more channels.

(2) Online Activation

Step1: Click  button and wait for several seconds, a window will pop up as shown below:




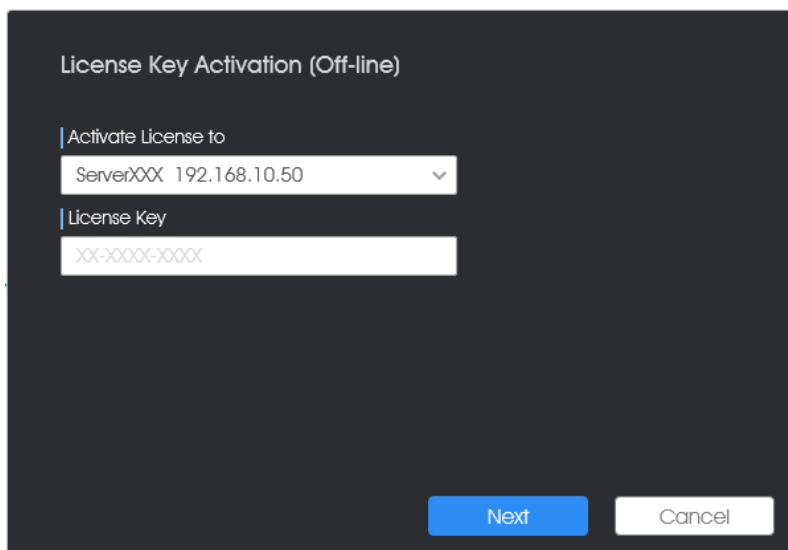
The dialog box is titled "License Key Activation". It contains two input fields: "Activate License to" with a dropdown menu showing "ServerXXX 192.168.10.50" and "License Key" with a text input field containing "XX-XXXX-XXXX". At the bottom right, there are two buttons: "Activate" (blue) and "Cancel" (white).

Step2: Select server and Input Activation Code, then click the  button;


Step3: After verifying your activation code successfully, the license information card will show in the License wizard interface.

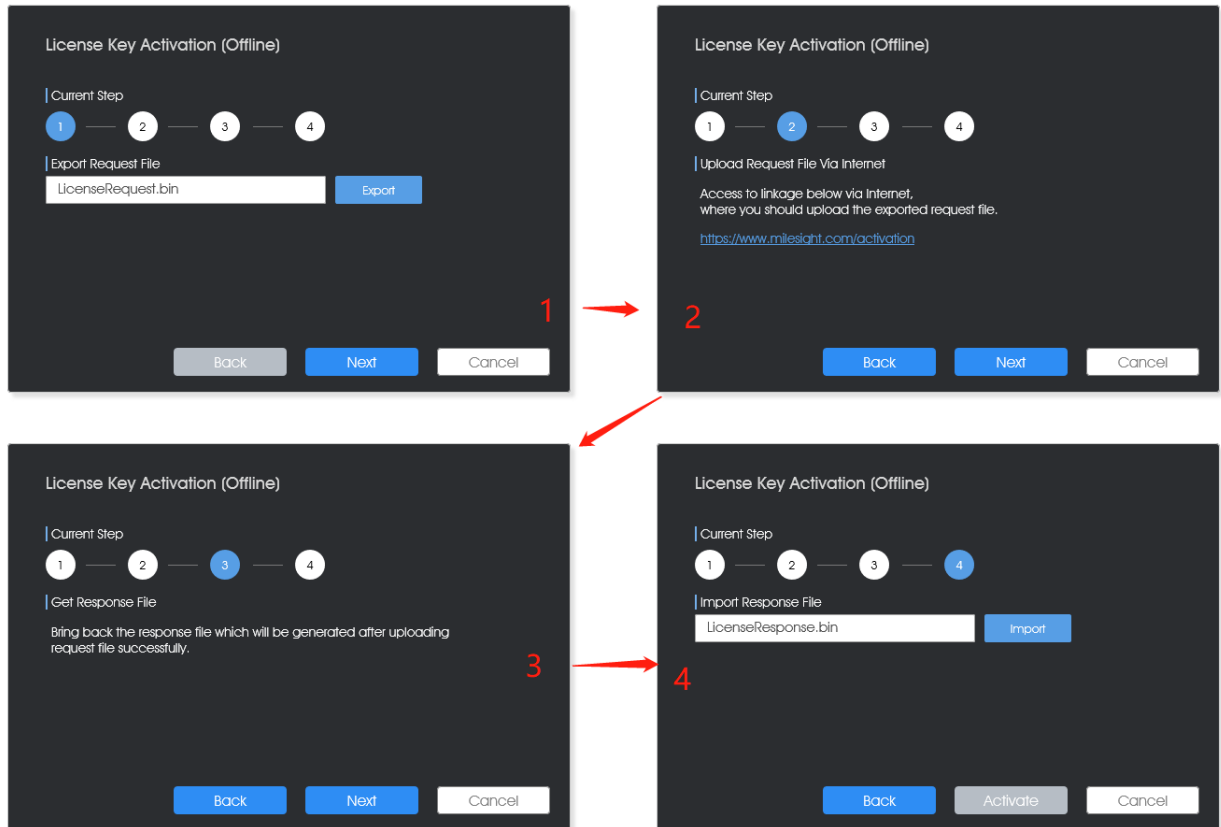
(3) Offline Activation

Step1: Click  button. If the server is not connected to the Internet, then licenses can be activated offline as shown below:



The dialog box is titled "License Key Activation (Off-line)". It contains two input fields: "Activate License to" with a dropdown menu showing "ServerXXX 192.168.10.50" and "License Key" with a text input field containing "XX-XXXX-XXXX". At the bottom right, there are two buttons: "Next" (blue) and "Cancel" (white).

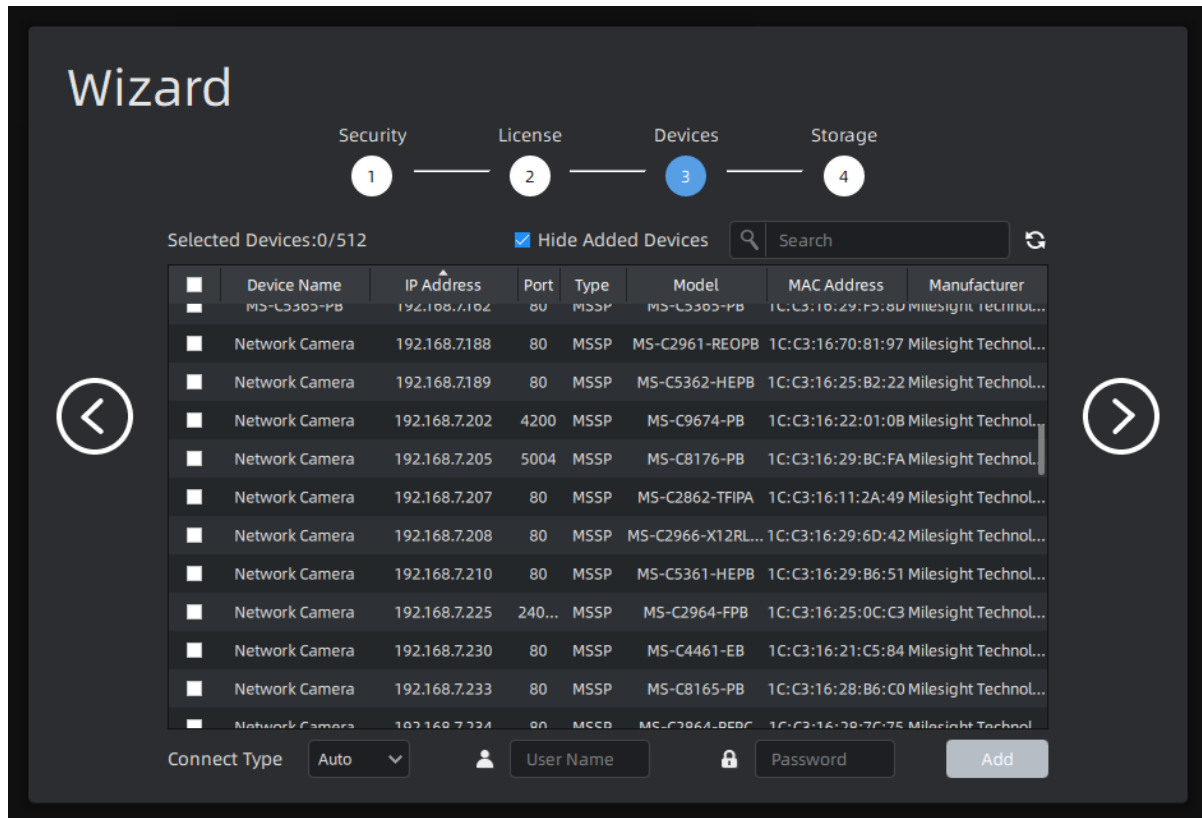
Step2: Select server and Input Activation Code, then click  button. Here you can operate according to current step tips. More operation information can refer to the [Manual Activation \(page 154\)](#) of License Activation.



Step3: After activating the license successfully, the license information card will show in the License wizard interface.

• Devices

After activating license, the Devices wizard is used for users to quickly add devices which can be searched in the same network automatically.



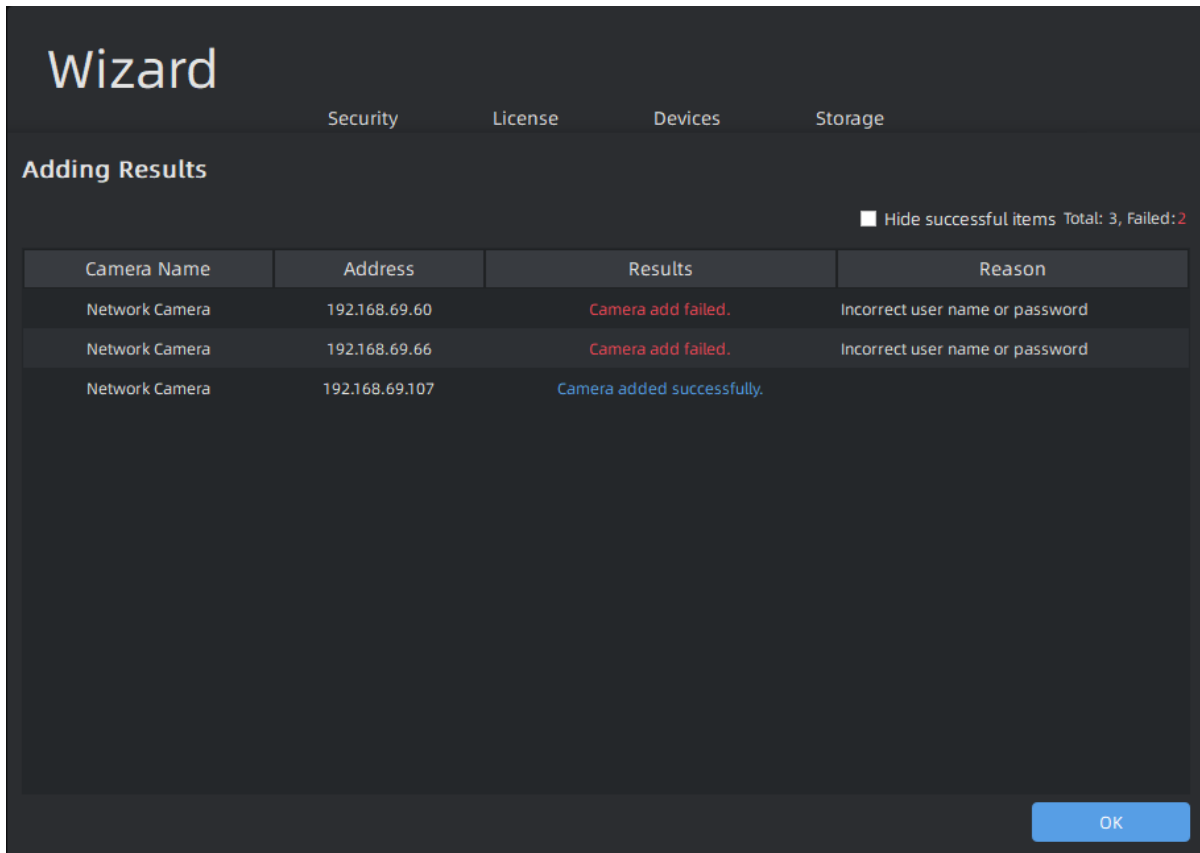
Steps of adding devices can be referred to as below:

Step1: Input device information in the Search box to search out the device which will be added;

Step2: Check the device box;

Step3: Enter Connect Type, User Name and Password of the selected device;

Step4: Click **Add** button, a window will pop up to show Add Result as below:

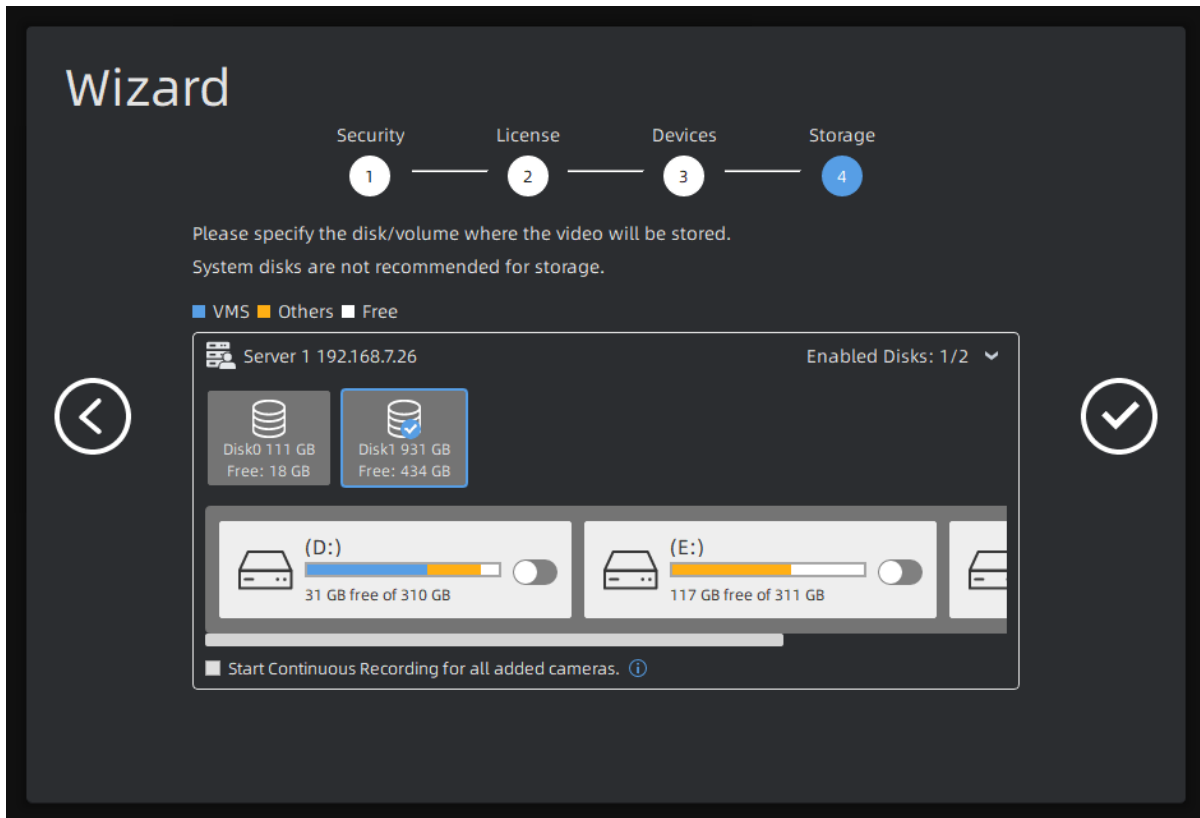


Step5: Click  button.


If you need to add device later on, then you can refer to [3.2.1 Camera Management \(page 45\)](#) to add devices.

- **Storage**

The Storage wizard is to enable which disk to store recordings and images of VMS system. More storage disk configuration can refer to [Storage Management \(page 167\)](#).

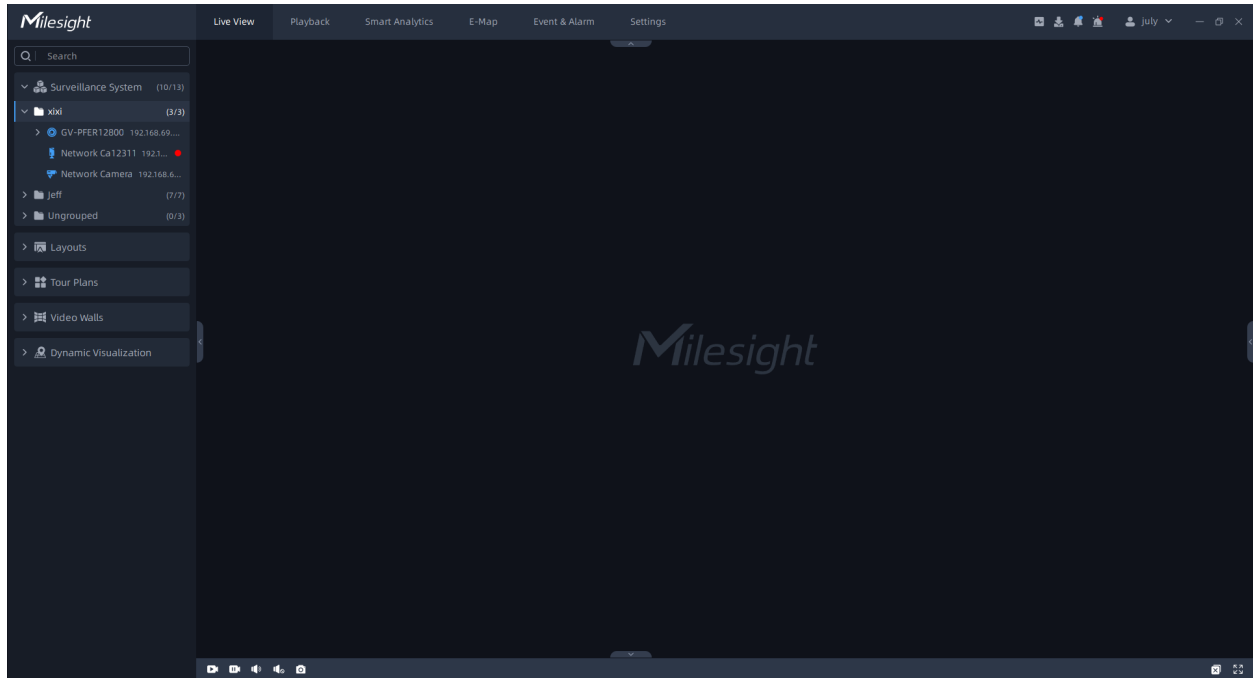


Note: If there are multiple servers in the system before entering the wizard, the disk information of multiple servers will be displayed here.





After setting the four wizard configurations, click the  button to finish wizard configurations.


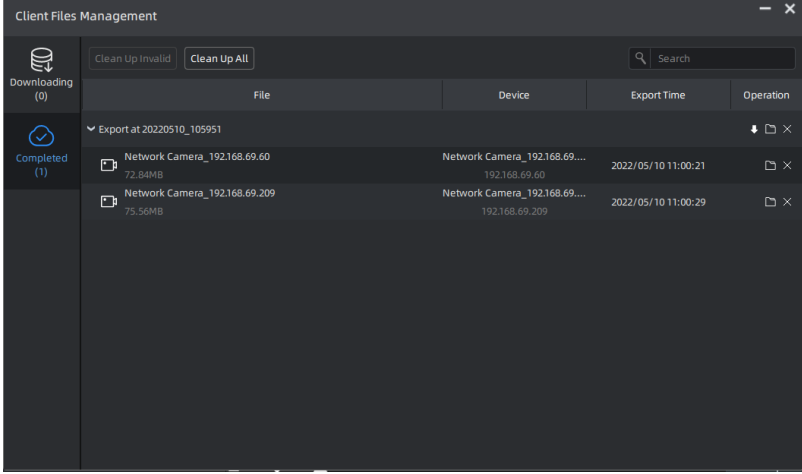




2.5.3 User Interface Introduction

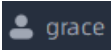
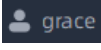
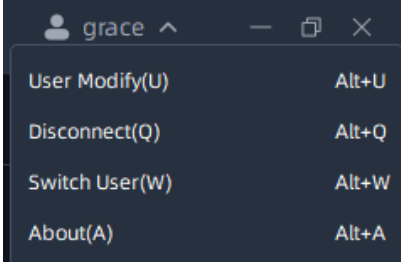

After you login the VMS system, you can see the Live View interface as shown below. The left part is device list panel, the top part is main menu panel, the right part is small function panel and the center part is Viewing panel.



The meanings of the icons on the interface are as below:

Item	Function Introduction
	Hide/Show button
	To check the real-time CPU status on PC
	To check the real-time GPU status on PC
	To check the real-time RAM memory on PC

Item	Function Introduction
	<p>Click the button, then the Client Files Management window will pop up as shown below to check the exporting file progress, including downloading and completed status.</p>  <p>Downloading: The downloading files will be viewed here.</p> <p>Completed: The downloaded files will be viewed here.</p>
	<p>Minimize the interface</p>
	<p>Restore the interface</p>
	<p>Maximize the interface</p>
	<p>Close the software</p>

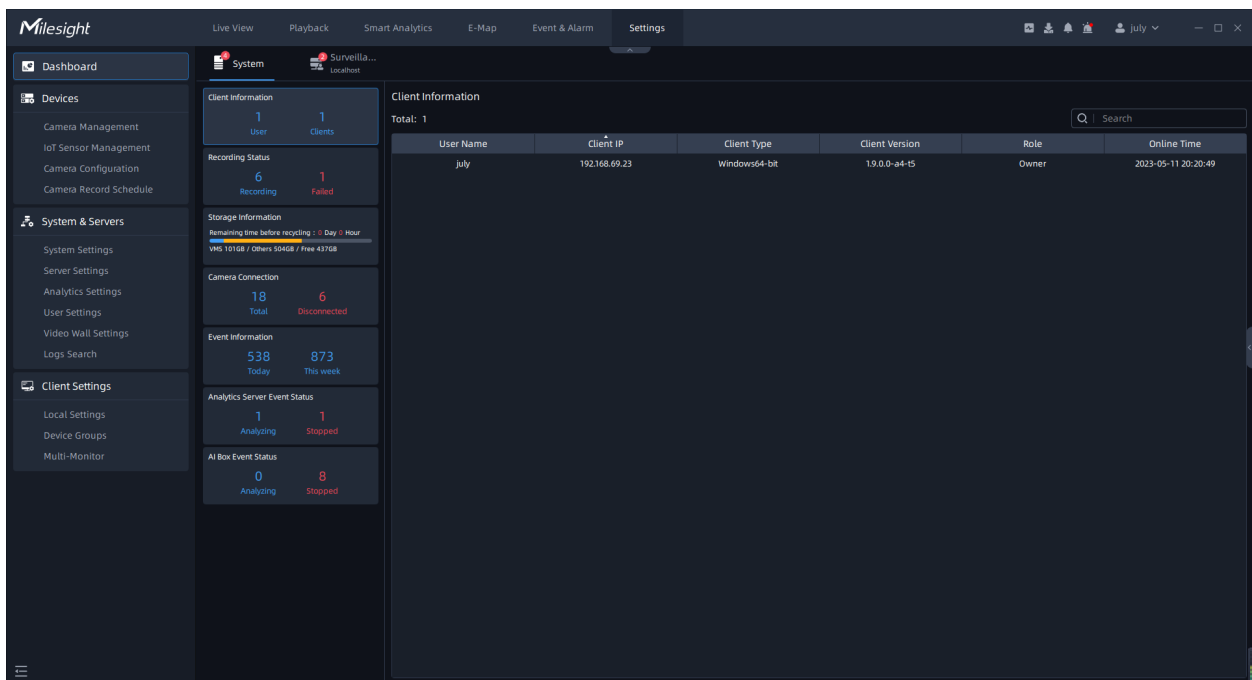
Item	Function Introduction
	<p>Display current login user name.</p> <p>Click  to pop up a user menu as below:</p>  <p>User Modify: Click the User Modify to jump to User Management (page 173)</p> <p>Disconnect: Click the button to logout the VMS client.</p> <p>About: Click the button to check Milesight VMS information about logo, version and copyright, etc., as below:</p> 

Chapter 3. Settings

This part mainly includes Dashboard, Devices, System & Servers and Client Settings. Basic operations for the VMS can be performed here.

3.1 Dashboard

Here you can view the status and resource usage of the system and its servers. When you click “Settings->Dashboard”, the window will show as below.



3.1.1 System

- **Client Information**

You can view current online client information in the system. In the left panel, you can see the total number of currently logged-in users and the total number of connected clients in the system. And you can view the details including the login User Name, Client IP, Client Type, Client Type, Role and Online Time as below.

The screenshot displays the 'Settings' page in the Milesight Enterprise NVR interface. The left sidebar contains navigation menus for 'Dashboard', 'Devices', 'System & Servers', and 'Client Settings'. The main content area is titled 'Client Information' and shows a summary of system metrics and a table of client details.

Client Information Summary:

- Client Information: 1 User, 1 Clients
- Recording Status: 0 Recording, 0 Failed
- Storage Information: Remaining time before recycling: 0 Day 0 Hour, VMS 303GB / Others 112TB / Free 634GB
- Camera Connection: 5 Total, 0 Disconnected
- Event Information: 0 Today, 0 This week
- Analytics Server Event Status: 0 Analyzing, 1 Stopped
- AI Box Event Status: 0 Analyzing, 0 Stopped

Client Information Table:

User Name	Client IP	Client Type	Client Version	Role	Online Time
July	Localhost	Windows64-bit	1.10.0.0-45	Administrator	2023-08-28 11:09:46

• Recording Status

You can check the recording status of each channel in the system. In the left panel, you can see the total number of current recordings and the total number of failed recordings in the system. And you can view the details including the Camera Name, IP Address, Stream, Record Type and Status as below.

The screenshot displays the 'Recording Status' page in the Milesight Enterprise NVR interface. The left sidebar is identical to the previous screenshot. The main content area shows a summary of recording metrics and a table of recording details.

Recording Status Summary:

- Recording Status: 0 Recording, 1 Failed
- Storage Information: Remaining time before recycling: 0 Day 0 Hour, VMS 303GB / Others 112TB / Free 632GB
- Camera Connection: 14 Total, 0 Disconnected
- Event Information: 0 Today, 0 This week
- Analytics Server Event Status: 0 Analyzing, 1 Stopped
- AI Box Event Status: 0 Analyzing, 0 Stopped

Recording Status Table:

Camera Name	Address	Stream	Record Type	Status
9	192.168.201.10	Primary	Record Schedule	No Enabled Volume

When there are too many cameras in the system, you can check "Hide Normally Recording Cameras" to focus only on the failed recordings.

• Storage Information

You can view the current storage information of the system. In the left panel, you can see the total storage capacity occupied by VMS, the total storage capacity occupied by others, the total remaining storage capacity in the system, and estimated remaining time before recycling. And you can view the detailed disk information of each server including the Disk, Volume, Total Storage, VMS Storage Usage and Volume Status as below.

The screenshot displays the Milesight Enterprise NVR Settings interface. The left sidebar contains navigation options: Dashboard, Devices (Camera Management, IoT Sensor Management, Device Groups, Camera Configuration, Camera Record Schedule), System & Servers (System Settings, Server Settings, Analytics Settings, User Settings, Video Wall Settings, Logs Search), and Client Settings (Local Settings, Multi-Monitor). The main content area is divided into several panels:

- Client Information:** Shows 1 User and 1 Client.
- Recording Status:** Shows 0 Recording and 1 Failed.
- Storage Information (System-wide):** Shows Remaining time before recycling: 0 Day 0 Hour, VMS 303GB / Others 132GB / Free 83GB.
- Camera Connection:** Shows 14 Total and 0 Disconnected.
- Event Information:** Shows 0 Today and 0 This week.
- Analytics Server Event Status:** Shows 0 Analyzing and 1 Stopped.
- AI Box Event Status:** Shows 0 Analyzing and 0 Stopped.

Two **Storage Information** panels are shown for servers:

Server Name: July's System

Disk	Volume	Total Storage	VMS Storage Usage	Volume Status	Remaining time before recycling
disk 0	C	111.40GB	0B	Read-only	0Day:0Hour
disk 1	D	200.00GB	0B	Read-only	
disk 2	E	366.00GB	201.00GB	Read-only	
disk 2	F	365.51GB	0B	Read-only	

The remaining time is calculated estimate according to the video schedule of the current accessed device, and the final result depends on the actual situation.

Server Name: Jeffrey's System

Disk	Volume	Total Storage	VMS Storage Usage	Volume Status	Remaining time before recycling
disk 0	C	111.57GB	0B	Read-only	0Day:0Hour
disk 1	D	200.00GB	0B	Read-only	
disk 2	E	366.00GB	0B	Read-only	
disk 2	F	365.51GB	102.00GB	Read-only	

The remaining time is calculated estimate according to the video schedule of the current accessed device, and the final result depends on the actual situation.

You can click [Storage Management](#) button to quickly jump to the Storage Management page in Server Settings. And you can click [Storage Information](#) button to jump to the Storage Information page of the corresponding Server's Dashboard.

• Camera Connection

You can view the connection status of all cameras currently in the system. In the left panel, you can see how many cameras are connected and how many cameras that have failed to connect in the system. And you can view the details including the Camera Name, IP Address, Stream, Last Online Time and Status as below.

The screenshot shows the Milesight NVR Settings interface. The left sidebar contains navigation menus for Dashboard, Devices, System & Servers, and Client Settings. The main content area is divided into several sections:

- Client Information:** Shows 1 User and 1 Client.
- Recording Status:** Shows 0 Recording and 1 Failed.
- Storage Information:** Shows remaining time before recycling: 0 Day 0 Hour, with usage: VHS 303GB / Others 1127B / Free 632GB.
- Camera Connection:** Shows 14 Total and 0 Disconnected.
- Event Information:** Shows 0 Today and 0 This week.
- Analytics Server Event Status:** Shows 0 Analyzing and 1 Stopped.
- AI Box Event Status:** Shows 0 Analyzing and 0 Stopped.

The **Camera Connection** table is the primary focus, displaying the following data:

Camera Name	Address	Last Online Time	Status	Operation
Network Camera	192.168.69.115	2023-08-28 11:34:08	Normal	
Network Camera	192.168.69.153	2023-08-28 11:34:08	Normal	
Network Camera	192.168.69.156	2023-08-28 11:34:08	Normal	
Network Camera	192.168.69.222	2023-08-28 11:34:08	Normal	
Network Camera	192.168.69.247	2023-08-28 11:34:08	Normal	
8	192.168.201.10	2023-08-28 11:34:08	Normal	
6	192.168.201.10	2023-08-28 11:34:08	Normal	
9	192.168.201.10	2023-08-28 11:34:08	Normal	
4	192.168.201.10	2023-08-28 11:34:08	Normal	
5	192.168.201.10	2023-08-28 11:34:08	Normal	
1	192.168.201.10	2023-08-28 11:34:08	Normal	
3	192.168.201.10	2023-08-28 11:34:08	Normal	
2	192.168.201.10	2023-08-28 11:34:08	Normal	
7	192.168.201.10	2023-08-28 11:34:08	Normal	

If the connection fails, the reason for the failure will be displayed in red in the "Status" column. When there are too many cameras in the system, you can check "Hide Normally Connected Cameras" to focus only on the camera that failed to connect.

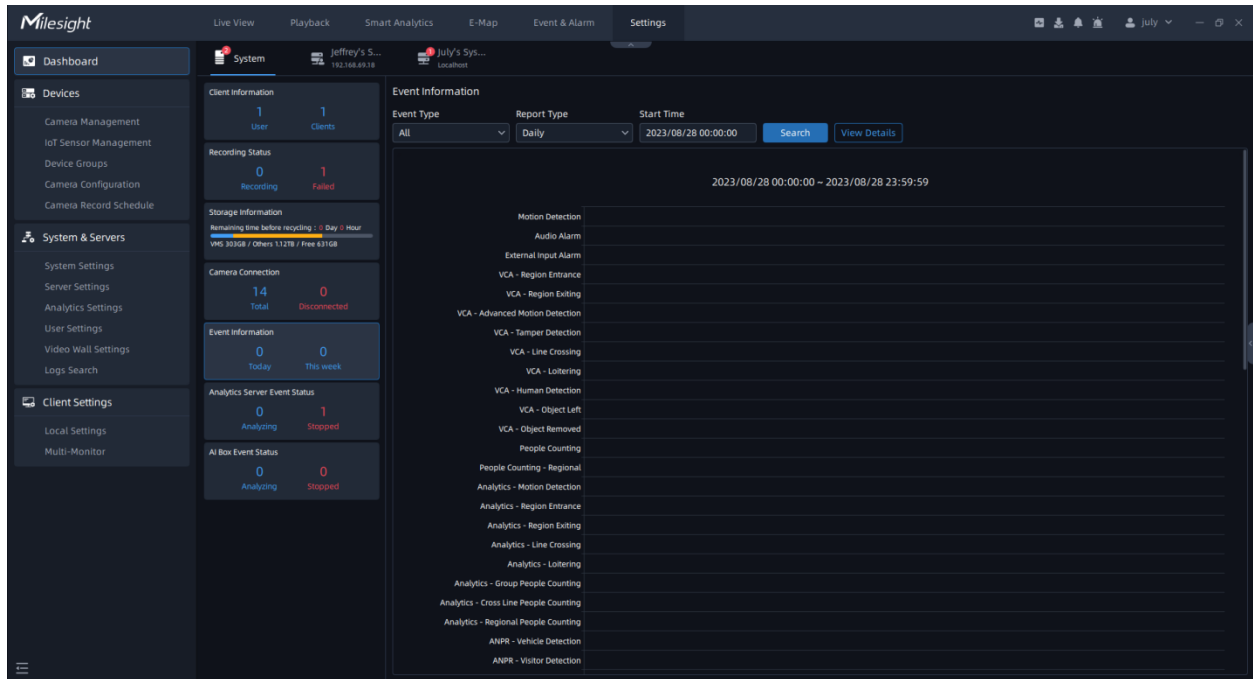
And it supports displaying the preview thumbnail when you hover the mouse over the device name or address.

This screenshot is similar to the previous one, but it shows a preview thumbnail for the camera with address 192.168.201.10. The interface also shows the 'Show preview when hovering on name/address' checkbox is checked, and the 'Hide normally connected cameras' checkbox is unchecked.

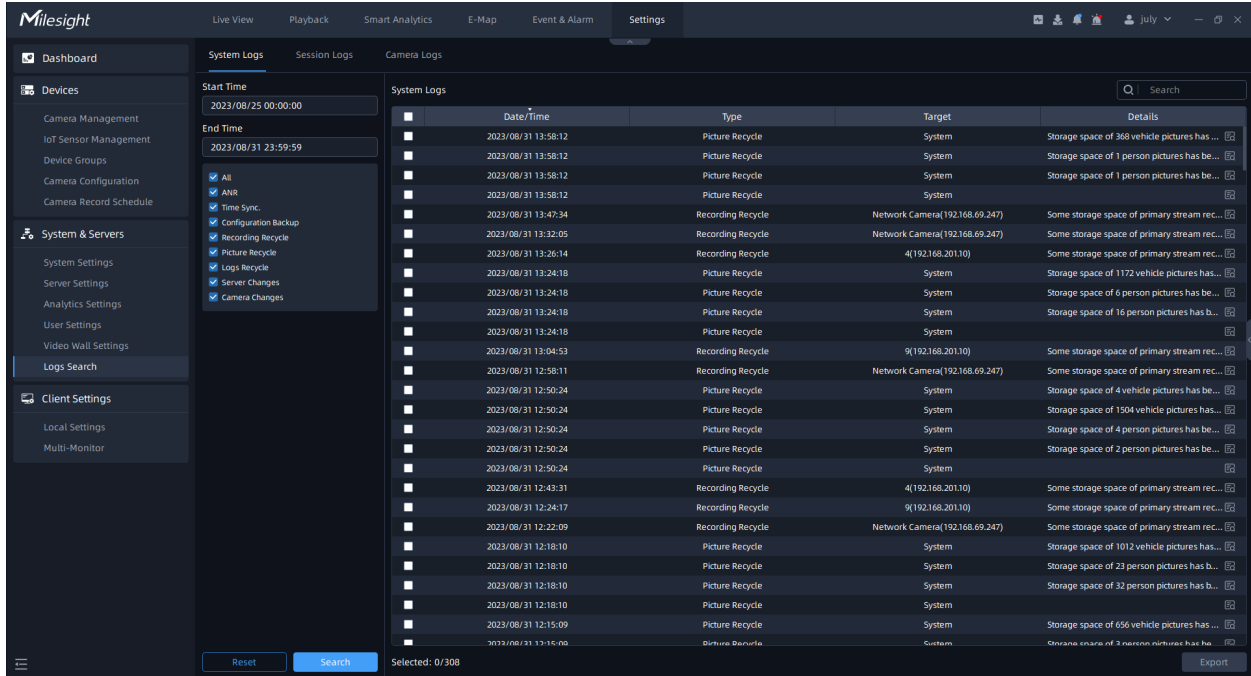
Camera Name	Address	Last Online Time	Status	Operation
Network Camera	192.168.69.115	2023-08-28 11:34:29	Normal	
Network Camera	192.168.69.153	2023-08-28 11:34:29	Normal	
Network Camera	192.168.69.156	2023-08-28 11:34:29	Normal	
Network Camera	192.168.69.222	2023-08-28 11:34:29	Normal	
Network Camera	192.168.69.247	2023-08-28 11:34:29	Normal	
8	192.168.201.10	2023-08-28 11:34:29	Normal	
6	192.168.201.10	2023-08-28 11:34:29	Normal	
9	192.168.201.10	2023-08-28 11:34:29	Normal	
4	192.168.201.10	2023-08-28 11:34:29	Normal	
5	192.168.201.10	2023-08-28 11:34:29	Normal	
1	192.168.201.10	2023-08-28 11:34:29	Normal	
3	192.168.201.10	2023-08-28 11:34:29	Normal	
2	192.168.201.10	2023-08-28 11:34:29	Normal	
7	192.168.201.10	2023-08-28 11:34:29	Normal	

• Event Information

Users can check the event information in this module to better analyze the event information. In the left panel, you can see how many events were triggered today and this week. And on the right side of the screen, it will list the number of times each event is triggered based on your settings.

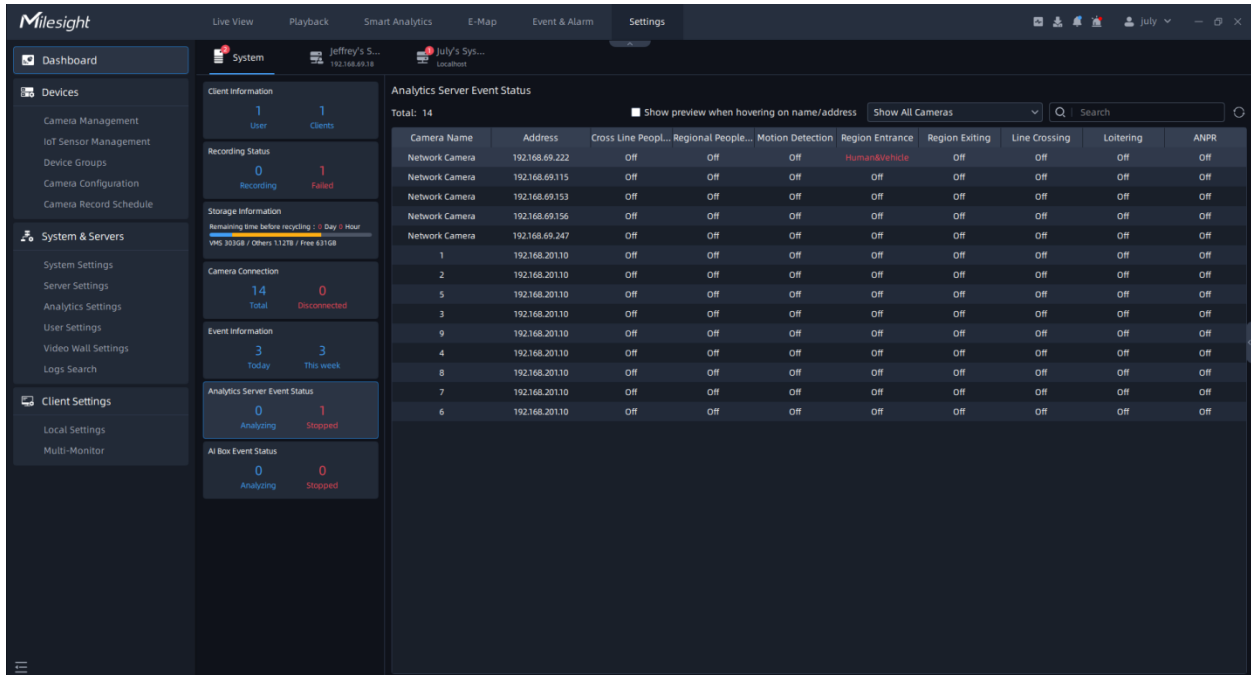


Click the “View detailed log” button and it will jump to the Log interface to view the log in more detail.



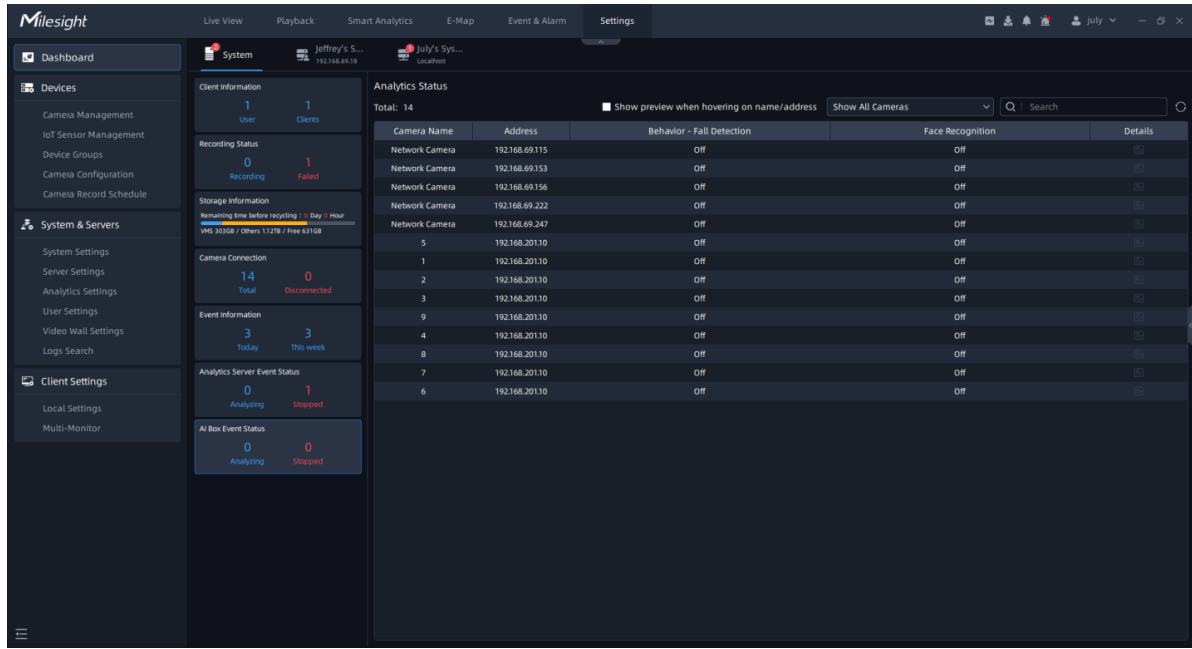
• Analytics Server Event Status

Users can check VMS-end Video Analytics status of All cameras in this module. In the left panel, you can see how many channels are analyzing and how many channels are stopped. And on the right side of the screen, it will list the status of each event for all channels.



• AI Box Event Status

Users can check AI Box Event Analytics status of All cameras in this module. In the left panel, you can see how many channels are analyzing and how many channels are stopped. And on the right side of the screen, it will list the status of each event for all channels.



The meaning of the status with different colors can be referred in the table below:

Table 1.

Color	Description
Black	It means Analytics Event is enabled, and you can refer to the following different working states. On: Analytics Event is enabled but the detected object is not checked. Human: Analytics Event is enabled and the detected object is selected as Human. Vehicle: Analytics Event is enabled and the detected object is selected as Vehicle. Human&Vehicle: Analytics Event is enabled and the detected object is selected as Human and Vehicle.
Red	It means Analytics Event is enabled but stops working.
Gray	It means Analytics Event is disabled.

3.1.2 Server

• Server Health

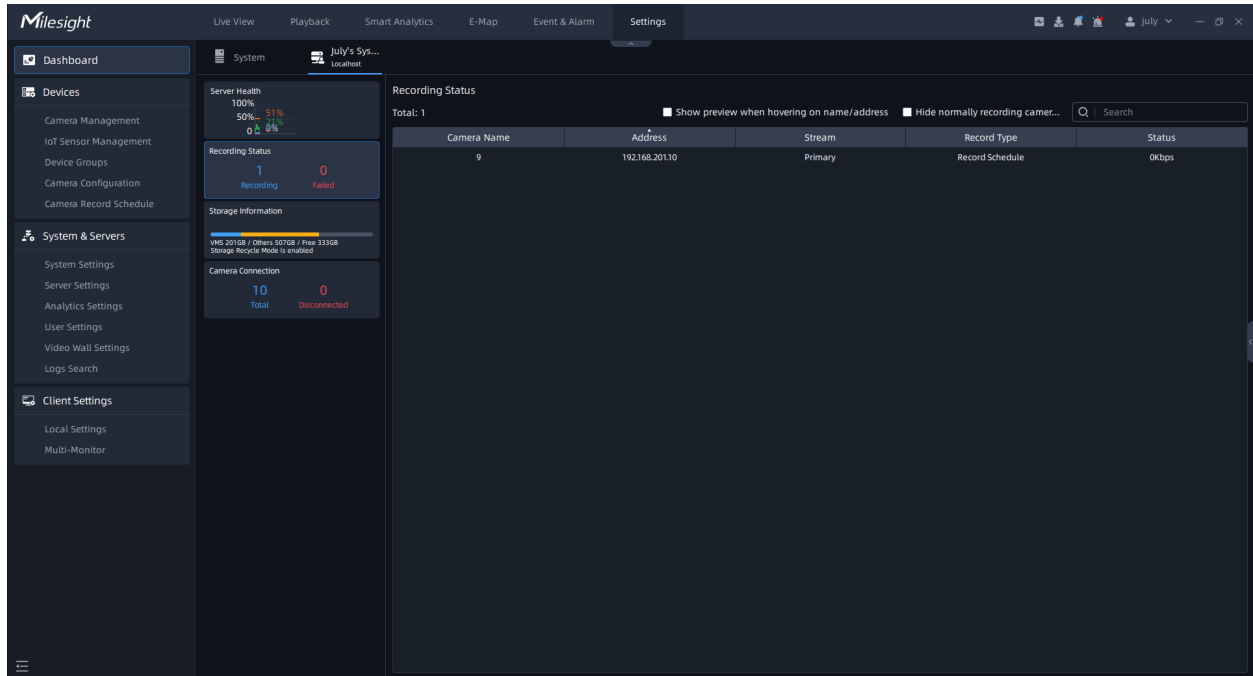
You can view the usage of the device where the server is located in real time, including CPU, Memory, Ethernet, Disk. And you can see the information including the CPU Info, Memory Info, Ethernet, OS Info, VMS Version, Up Time and Licenses Usage Overview.



Note: If there are multiple network cards, there will be multiple network card records like Disk in the figure.

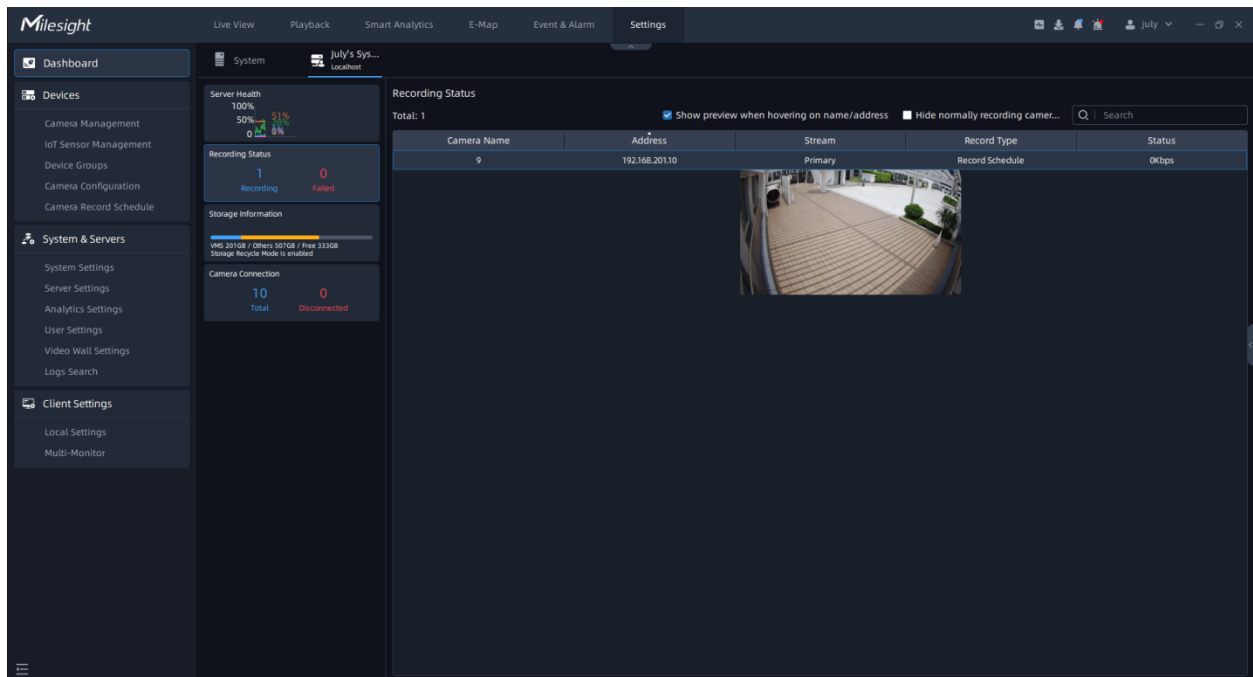
• Recording Status

You can check the recording status of each channel in the server. In the left panel, you can see the total number of current recordings and the total number of failed recordings in the server. And you can view the details including the Camera Name, IP Address, Stream, Record Type and Status as below.



When there are too many cameras in the system, you can check "Hide Normally Recording Cameras" to focus only on the failed recordings.

And it supports displaying the preview thumbnail when you hover the mouse over the device name or address.



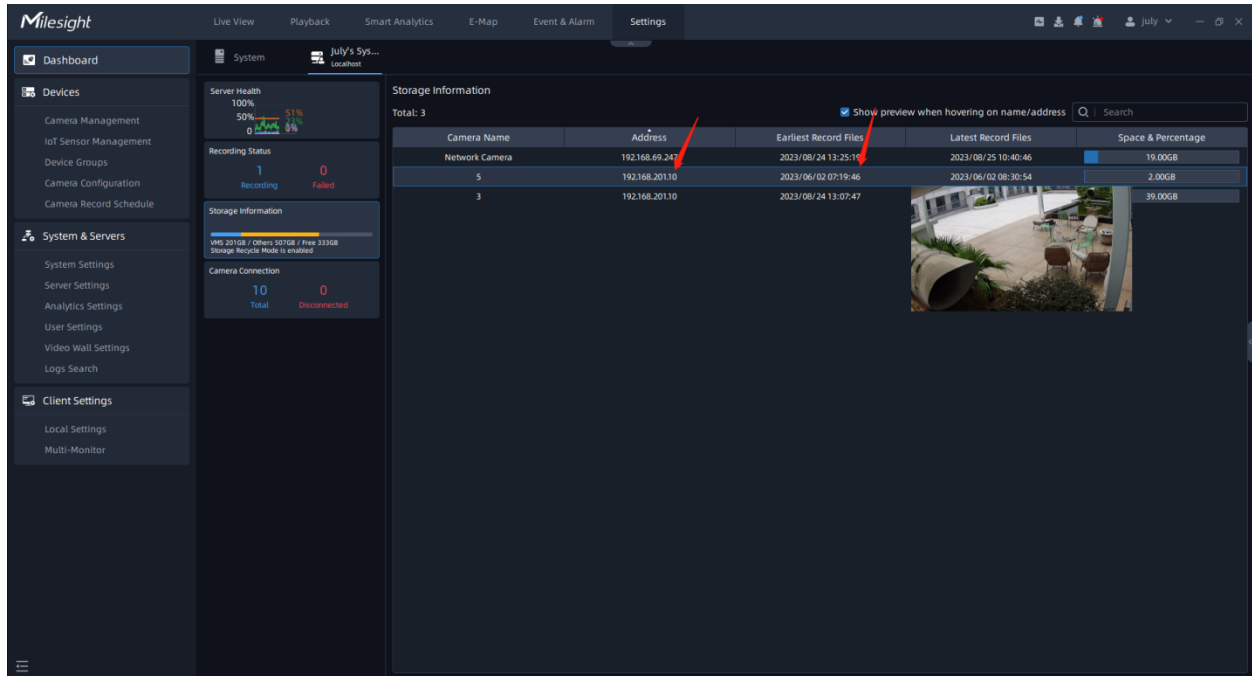
• Storage Information

You can view the current storage information of the server. In the left panel, you can see the total storage capacity occupied by VMS, the total storage capacity occupied by others, and the total remaining storage capacity in the server. And you can view the detailed storage information used by each camera of the server including the Camera Name, IP Address, Earliest Record Files, Latest Record Files and Space & Percentage as below.

The screenshot shows the Milesight NVR Settings interface. The left sidebar contains navigation options: Dashboard, Devices (Camera Management, IoT Sensor Management, Device Groups, Camera Configuration, Camera Record Schedule), System & Servers (System Settings, Server Settings, Analytics Settings, User Settings, Video Wall Settings, Logs Search), and Client Settings (Local Settings, Multi-Monitor). The main content area is titled 'Storage Information' and shows a table with columns: Camera Name, Address, Earliest Record Files, Latest Record Files, and Space & Percentage. The table lists three cameras with their respective storage usage. A 'Recording Status' section shows 1 Recording and 0 Failed. A 'Storage Information' bar chart shows VMS 201GB, Others 507GB, and Free 313GB. A 'Camera Connection' section shows 10 Total and 0 Disconnected.

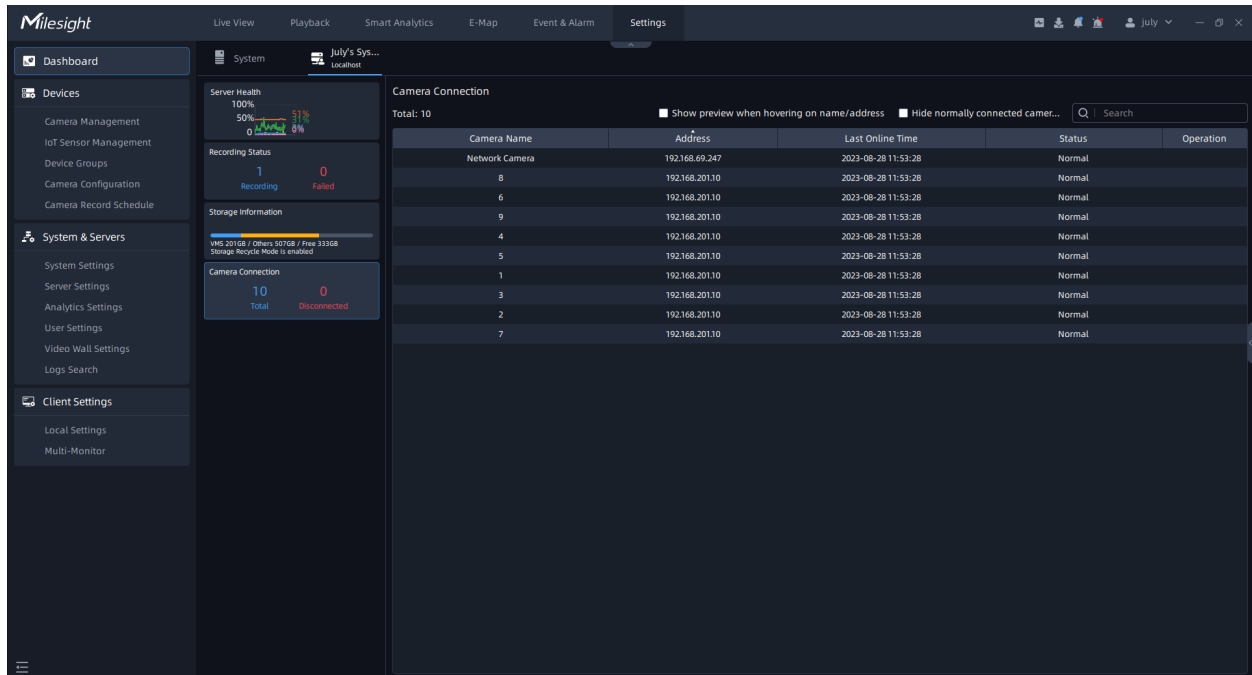
Camera Name	Address	Earliest Record Files	Latest Record Files	Space & Percentage
Network Camera	192.168.69.247	2023/08/24 13:25:19	2023/08/25 10:40:46	19.00GB
5	192.168.201.10	2023/06/02 07:19:46	2023/06/02 08:30:54	2.00GB
3	192.168.201.10	2023/08/24 13:07:47	2023/08/25 10:40:46	39.00GB

And it supports displaying the preview thumbnail when you hover the mouse over the device name or address.



• Camera Connection

You can view the connection status of all cameras currently in the server. In the left panel, you can see how many cameras are connected and how many cameras that have failed to connect in the server. And you can view the details including the Camera Name, IP Address, Stream, Last Online Time and Status as below.




If the connection fails, the reason for the failure will be displayed in red in the "Status" column. When there are too many cameras in the system, you can check "Hide Normally Connected Cameras" to focus only on the camera that failed to connect.

And it supports displaying the preview thumbnail when you hover the mouse over the device name or address.

The screenshot shows the Milesight VMS interface with the 'Camera Connection' table. The table has the following data:

Camera Name	Address	Last Online Time	Status	Operation
Network Camera	192.168.69.247	2023-08-28 11:53:38	Normal	
8	192.168.20110	2023-08-28 11:53:38	Normal	
6	192.168.20110	2023-08-28 11:53:38	Normal	
9	192.168.20110	2023-08-28 11:53:38	Normal	
4	192.168.20110	2023-08-28 11:53:38	Normal	
5	192.168.20110	2023-08-28 11:53:38	Normal	
1	192.168.20110	2023-08-28 11:53:38	Normal	
3	192.168.20110		Normal	
2	192.168.20110		Normal	
7	192.168.20110		Normal	

Note:

- The number on the label indicates the number of abnormal cards on this page.
-  indicates that the server is offline.

3.2 Devices

3.2.1 Camera Management

This VMS supports to add cameras to get an efficient and convenient management. The devices also can be edited or deleted from the VMS Enterprise at any time.

When you click the "Settings->Devices-> Camera Management" button, the window will show as below:

The screenshot displays the Milesight Enterprise NVR Settings interface. The top navigation bar includes options like Live View, Playback, Smart Analytics, E-Map, Event & Alarm, and Settings. The left sidebar contains a menu with categories: Dashboard, Devices, System & Servers, and Client Settings. The main content area is titled 'Camera List' and shows a table of online cameras. The table has columns for Status, Camera Name, Address, Port, Type, Model, MAC Address, Firmware Version, and Server. There are 10 cameras listed, all with the same IP address (192.168.201.10) and port (8092). The first camera is a Network Camera with model MS-C2971-X12RPC. The server for all cameras is 'July's System'.

Status	Camera Name	Address	Port	Type	Model	MAC Address	Firmware Version	Server
■	Network Camera	192.168.69.247	80	MSSP	MS-C2971-X12RPC	1C:C3:16:2C:2D:75	45.8.44.3-r4-c3-push	July's System
■	1	192.168.201.10	8092	RTSP				July's System
■	7	192.168.201.10	8092	RTSP				July's System
■	2	192.168.201.10	8092	RTSP				July's System
■	4	192.168.201.10	8092	RTSP				July's System
■	6	192.168.201.10	8092	RTSP				July's System
■	9	192.168.201.10	8092	RTSP				July's System
■	3	192.168.201.10	8092	RTSP				July's System
■	8	192.168.201.10	8092	RTSP				July's System
■	5	192.168.201.10	8092	RTSP				July's System

1. Add Device

- **Search Camera**

Click “Add Device” button, the page is as below:

This VMS can search devices which are in the same network automatically, and you can also input device information in the Search box to filter out mismatching devices and get demanded ones only to be displayed in the Device List.

The screenshot shows the 'Add Device' window in the Milesight Enterprise NVR settings. The window title is 'Add Device' and it contains a table of discovered devices. The table has the following columns: Device Name, Address, Port, Type, Model, MAC Address, and Manufacturer. The device 'ipcamera' at address 192.168.69.133 is highlighted in blue. The interface also includes a sidebar with navigation options like Dashboard, Devices, Camera Management, System & Servers, and Client Settings.

Device Name	Address	Port	Type	Model	MAC Address	Manufacturer
XNO-9063R	192.168.69.57	80	ONVIF		00:09:18:66:DE:F9	
HIKVISION DS-2KD886/C-IVW	192.168.69.71	63235	ONVIF		4C:F5:DC:9E:80:63	
Network Camera	192.168.69.76	80	MSSP	MS-C4473-PB	1C:C3:16:21:03:8E	Milesight Technology Co.,Ltd.
Network Camera	192.168.69.90	80	MSSP	TS2971-X12TPE	1C:C3:16:50:03:F2	Milesight Technology Co.,Ltd.
ZN-AIB0K4	192.168.69.96	80	ONVIF		00:1C:88:F2:00:08	
ネットワークカメラ	192.168.69.102	80	MSSP	PRD-S30K6A	1C:C3:16:40:07:E1	
Network Camera	192.168.69.105	80	MSSP	MIN-S180	1C:C3:16:12:91:A5	IPCAM
Network Camera	192.168.69.111	80	MSSP	W-314	1C:C3:16:40:01:D9	World CNS
Network Camera	192.168.69.115	80	MSSP	MS-C207E-SPB	1C:C3:16:30:01:04	Milesight Technology Co.,Ltd.
Network Camera	192.168.69.119	80	MSSP	MS-C2862-RFIPA	1C:C3:16:11:29:00	Milesight Technology Co.,Ltd.
ipcamera	192.168.69.133	80	ONVIF		00:50:C2:65:34:D2	
Network Camera	192.168.69.137	80	MSSP	MS-C2962-RFPA	1C:C3:16:11:00:09	Milesight Technology Co.,Ltd.
SI-2000ICT	192.168.69.147	80	MSSP	VMI-2MPX23IR-SMW	1C:C3:16:12:2C:11	VistaCCTV
Network Camera	192.168.69.153	80	MSSP	MS-C3366-X12G0PC	1C:C3:16:2A:FA:EE	Milesight Technology Co.,Ltd.
Network Camera	192.168.69.156	80	MSSP	MS-C2973-SPB	1C:C3:16:28:8C:87	Milesight Technology Co.,Ltd.
Network Camera	192.168.69.158	80	MSSP	MS-C8183-SPD	1C:C3:16:40:08:8B	Milesight Technology Co.,Ltd.
Network Camera	192.168.69.162	80	MSSP	TS8266-FIPE	1C:C3:16:50:05:01	Milesight Technology Co.,Ltd.
Network Camera	192.168.69.163	80	MSSP	MS-C2975-PC	1C:C3:16:46:89:AD	Milesight Technology Co.,Ltd.
Network Camera	192.168.69.165	85	MSSP	MS-C3366-X12G0PC	1C:C3:16:78:8C:D0	Milesight Technology Co.,Ltd.
Network Camera	192.168.69.166	80	MSSP	MS-C5372-FIPE	1C:C3:16:2A:F8:53	Milesight Technology Co.,Ltd.
Network Camera	192.168.69.167	80	MSSP	MS-C2966-X12TPE	1C:C3:16:50:04:1F	Milesight Technology Co.,Ltd.
Network Camera	192.168.69.170	80	MSSP	MS-C2961-X12RPE	1C:C3:16:50:01:FB	Milesight Technology Co.,Ltd.
Network Camera	192.168.69.179	80	MSSP	MS-C2962-RFPC	1C:C3:16:20:00:66	Milesight Technology Co.,Ltd.
PMC	192.168.69.188	80	MSSP	PMCB266-X4PC	1C:C3:16:20:45:87	Milesight Technology Co.,Ltd.
Network Camera	192.168.69.189	80	MSSP	MS-C5362-FILPC	1C:C3:16:28:21:69	Milesight Technology Co.,Ltd.

Add Camera

There are two methods available to add devices.

(1) This VMS provides “Add Selected” to add devices. Please refer to the steps as below:

Step1: Input device information in the Search box to search out the device which is going to be added in the same LAN;

Step2: Check the device box;

Step3: Click **Add Selected** button and the pop-up window is as below;

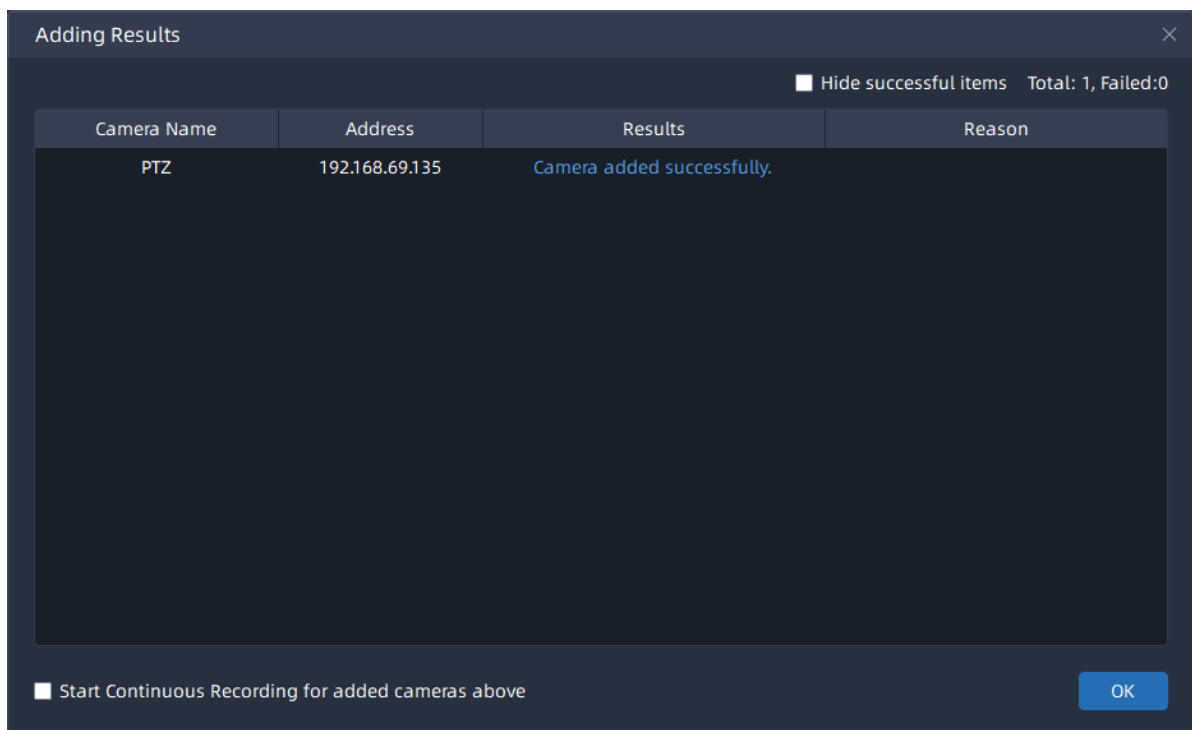
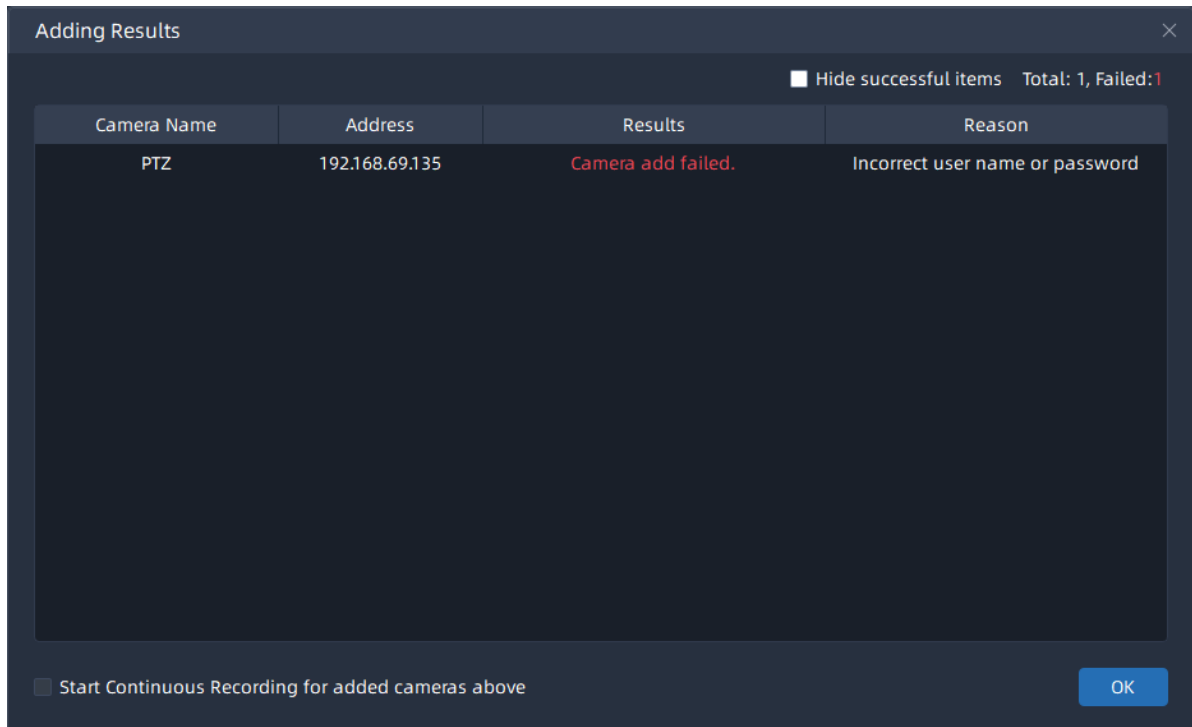
Add Manually


Add single device | Batch addition

*Device Name: Auto
*Protocol: ONVIF
*IP/Address:
*Port: 80
*Connect Type: Auto
*Server: Auto Assign
*User Name:
*Password:
Add | Cancel

Step4: Enter password of the selected device and the server which the cameras will be added to;

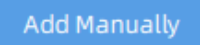
Step5: Click **Add** button, a window will pop up to inform you whether the device is added successfully or not. The pop-up window is as shown below:

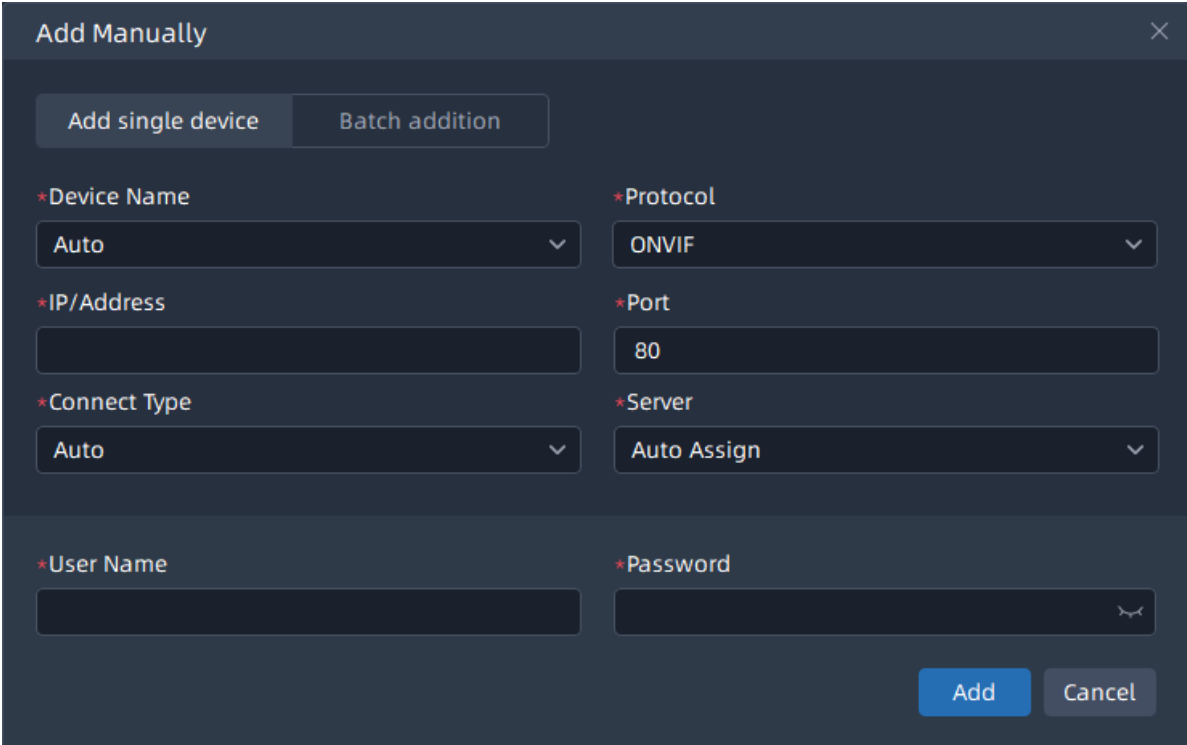


 **Note:** You can select the check box at the bottom to start continuous recording for added cameras.


Step6: Click  button.


(2) You can also add the camera manually, steps follow as below:

Step1: Click  button, a window will pop up as shown below:



Step2: Enter device information;

 **Note:** Those blank box must be filled, including Device Name, IP/Address, Port, User Name and Password.

Step3: Click  button, a window will pop up to inform you whether the device is added successfully or not;

Step4: Click  button.

Through Protocol you can add Milesight cameras via IP/Domain, P2P or Milesight DDNS, cameras supporting ONVIF or other cameras supporting RTSP.

- ONVIF Protocol page:

The screenshot shows a dark-themed 'Add Manually' dialog box. At the top, there are two tabs: 'Add single device' (selected) and 'Batch addition'. Below the tabs, there are several fields with red asterisks indicating they are required:

- *Device Name: A dropdown menu with 'Auto' selected.
- *Protocol: A dropdown menu with 'ONVIF' selected. This field is highlighted with a red rectangular border.
- *IP/Address: An empty text input field.
- *Port: A text input field with '80' entered.
- *Connect Type: A dropdown menu with 'Auto' selected.
- *Server: A dropdown menu with 'Auto Assign' selected.
- *User Name: An empty text input field.
- *Password: An empty text input field with a small eye icon on the right.

At the bottom right of the dialog, there are two buttons: 'Add' (in blue) and 'Cancel' (in grey).

- MSSP Protocol page:

This screenshot is identical in layout to the previous one, showing the 'Add Manually' dialog box. The only difference is the selection in the '*Protocol' dropdown menu, which is now 'MSSP'. This dropdown menu is also highlighted with a red rectangular border.

- RTSP Protocol page:

The screenshot shows the 'Add Manually' dialog box with the following fields and options:

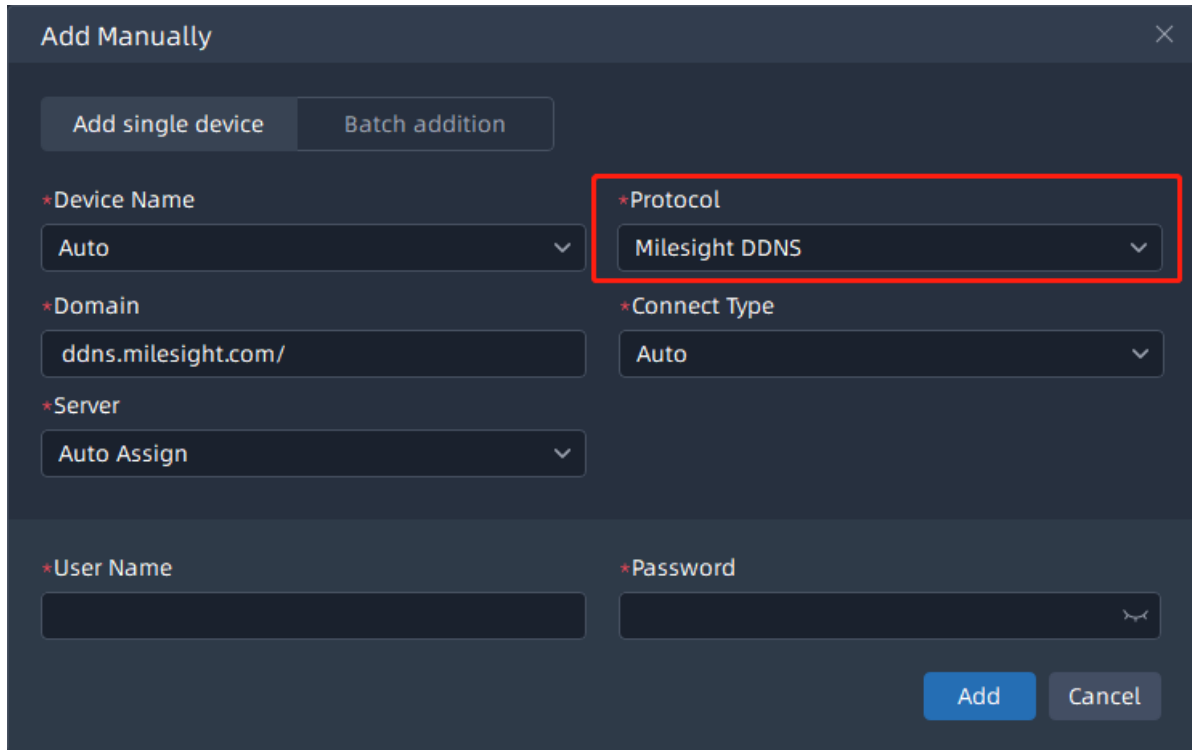
- Buttons: Add single device, Batch addition
- *Device Name: [Empty text field]
- *Protocol: RTSP (highlighted with a red box)
- *RTSP Main Address: Primary Stream
- RTSP Sub Address: Secondary Stream
- *Connect Type: Auto
- *Server: Auto Assign
- *User Name: [Empty text field]
- *Password: [Empty password field]
- Buttons: Add, Cancel

- P2P Protocol page:

The screenshot shows the 'Add Manually' dialog box with the following fields and options:

- Buttons: Add single device, Batch addition
- *Device Name: Auto
- *Protocol: P2P (highlighted with a red box)
- *MAC Address: 1C:C3:16:
- *Server: Auto Assign
- *User Name: [Empty text field]
- *Password: [Empty password field]
- Buttons: Add, Cancel


- Milesight DDNS page:



The screenshot shows a dark-themed dialog box titled "Add Manually" with a close button (X) in the top right corner. At the top, there are two buttons: "Add single device" (selected) and "Batch addition". Below this, there are several fields:

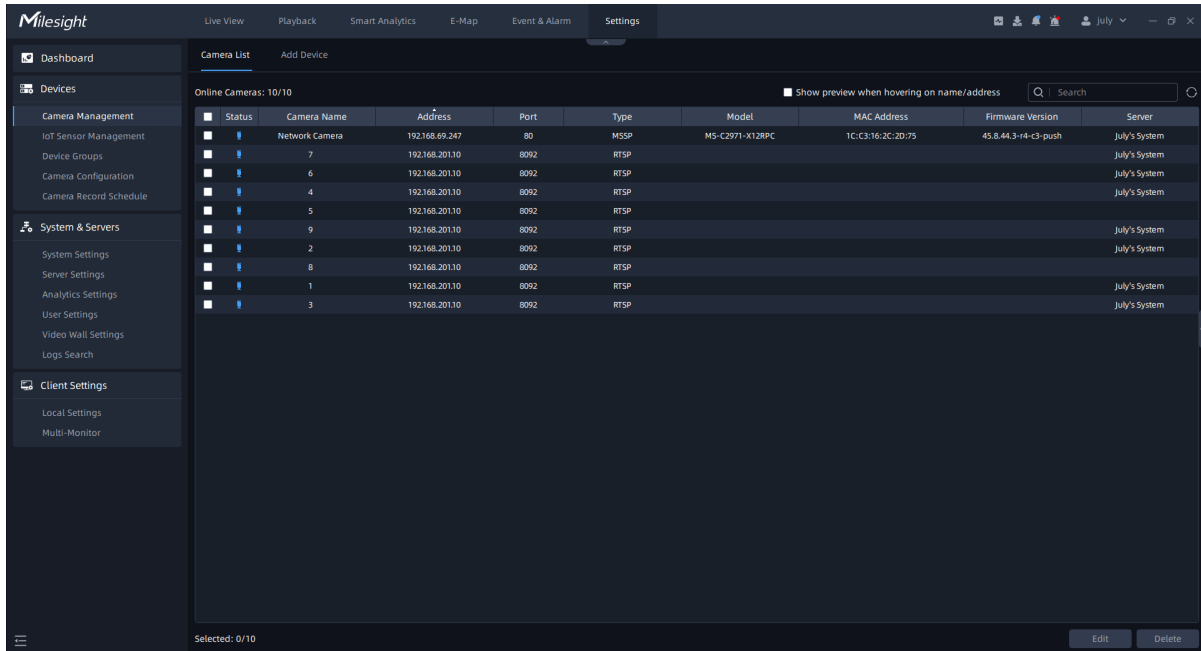
- *Device Name: A dropdown menu with "Auto" selected.
- *Protocol: A dropdown menu with "Milesight DDNS" selected. This field is highlighted with a red rectangular border.
- *Domain: A text input field containing "ddns.milesight.com/".
- *Connect Type: A dropdown menu with "Auto" selected.
- *Server: A dropdown menu with "Auto Assign" selected.
- *User Name: An empty text input field.
- *Password: An empty text input field with a toggle icon on the right.

At the bottom right of the dialog, there are two buttons: "Add" (in blue) and "Cancel" (in grey).

 **Note:** Before you register Milesight VMS software, you can only add up to 4 channels. For more information, please refer to [License Activation \(page 154\)](#)

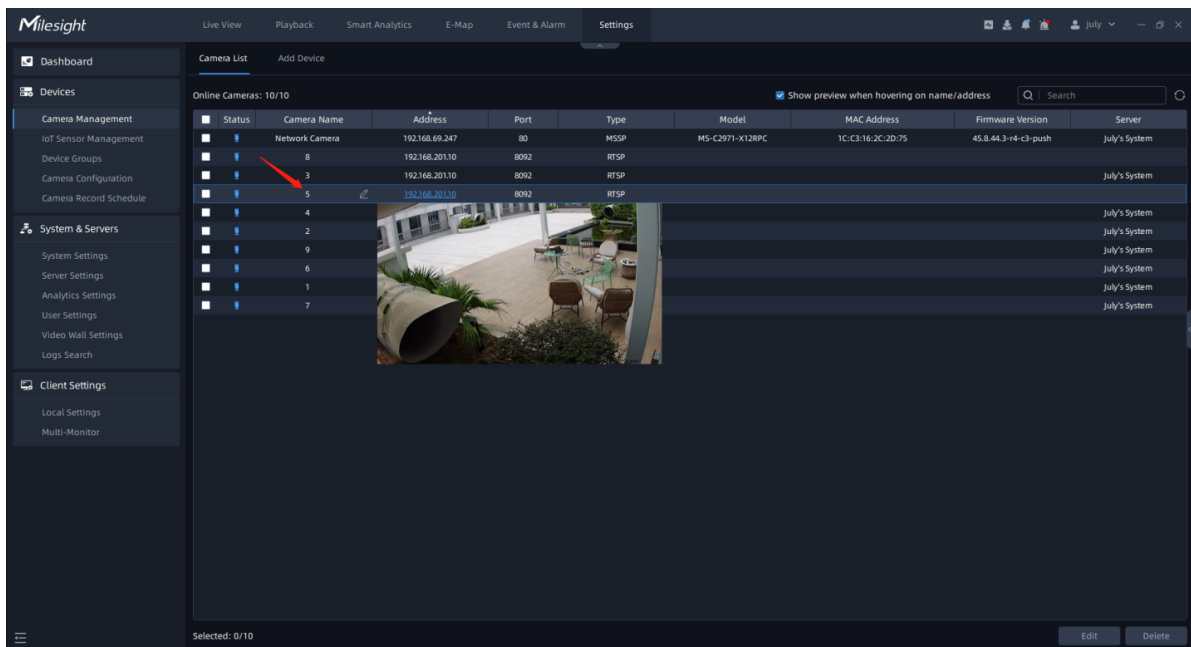
2.Camera List

The devices which are added will display in Camera List page.

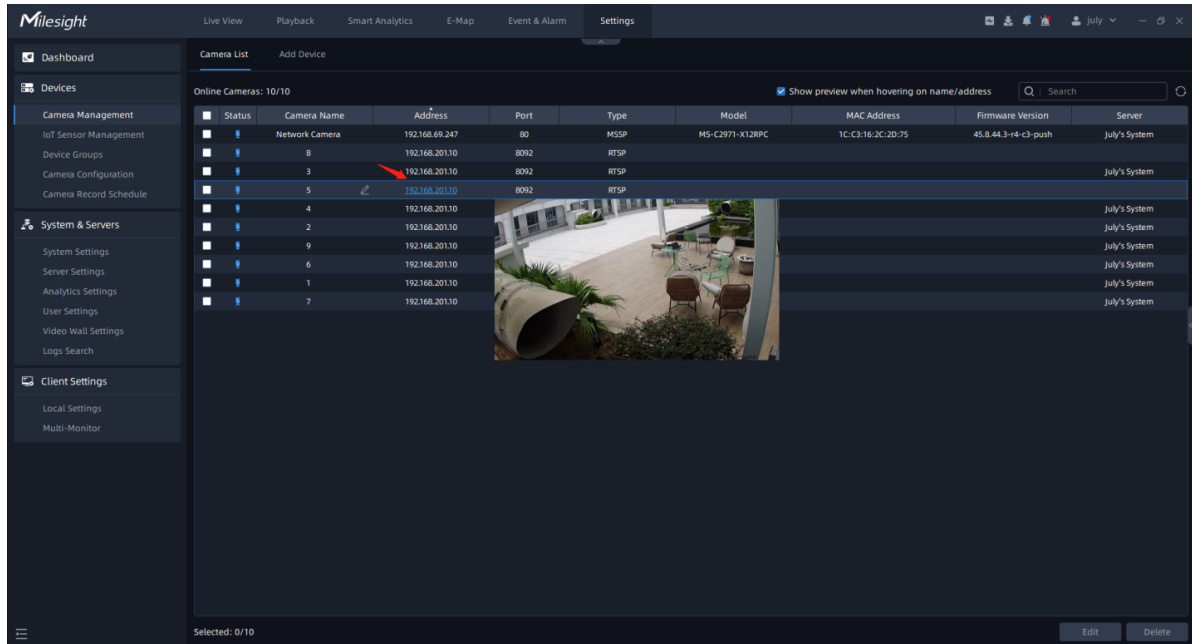


Click Show preview when hovering on name/IP to check the checkbox, it will show preview window of the camera when your mouse hovers on camera name or IP. The interface is as below:

- Show preview when hovering on name:



- Show preview when hovering on IP:



• Edit Camera

Click the “Edit” button to edit the added devices. All parameters can be edited except the Port, IP/Address and Mac Address. See as below:

Camera added by IP/Address:

Modify

*Device Name: Network Camera

*Protocol: MSSP

*IP/Address: 192.168.64.23

*Port: 80

*Connect Type: Auto

*Server: test 192.168.69.15

*User Name: admin

*Password: *****

Parameters of connected cameras can be modified without entering User Name and Password.

Save Cancel

Camera added by P2P:

Modify

*Device Name: PTZ

*Protocol: P2P

*MAC Address: 1C:C3:16:22:0B:53

*Server: grace 192.168.69.22

*User Name: admin

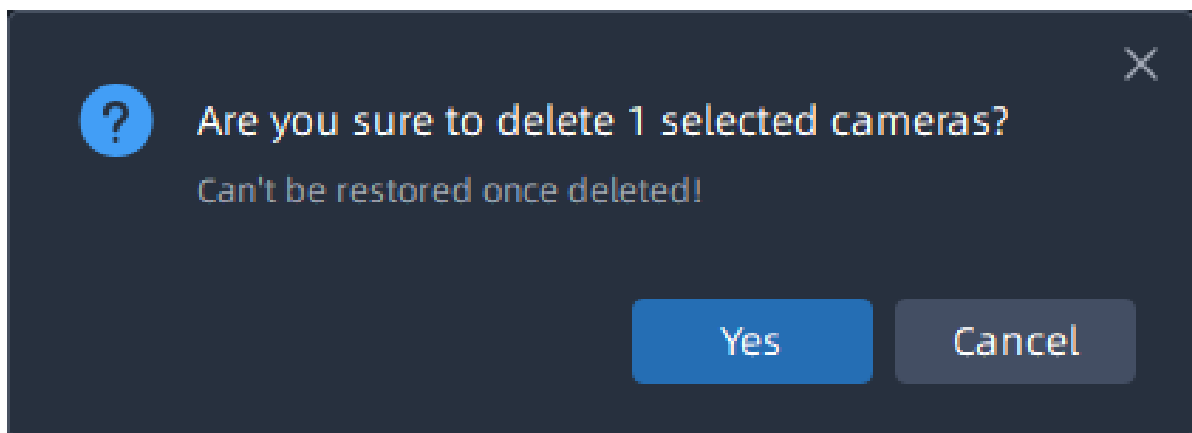
*Password: *****

Parameters of connected cameras can be modified without entering User Name and Password.

Save Cancel

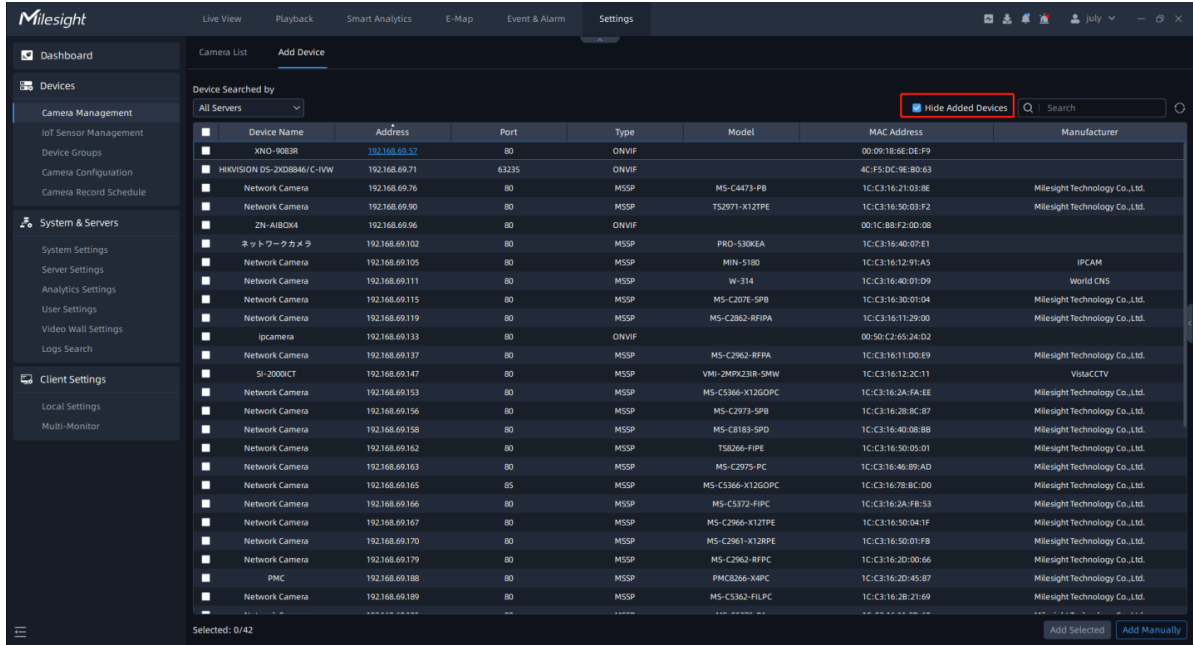
• Delete Camera

Click the “Delete” button to delete the added device, a window will pop up to inform you whether to delete the selected cameras. The pop-up window is as below:



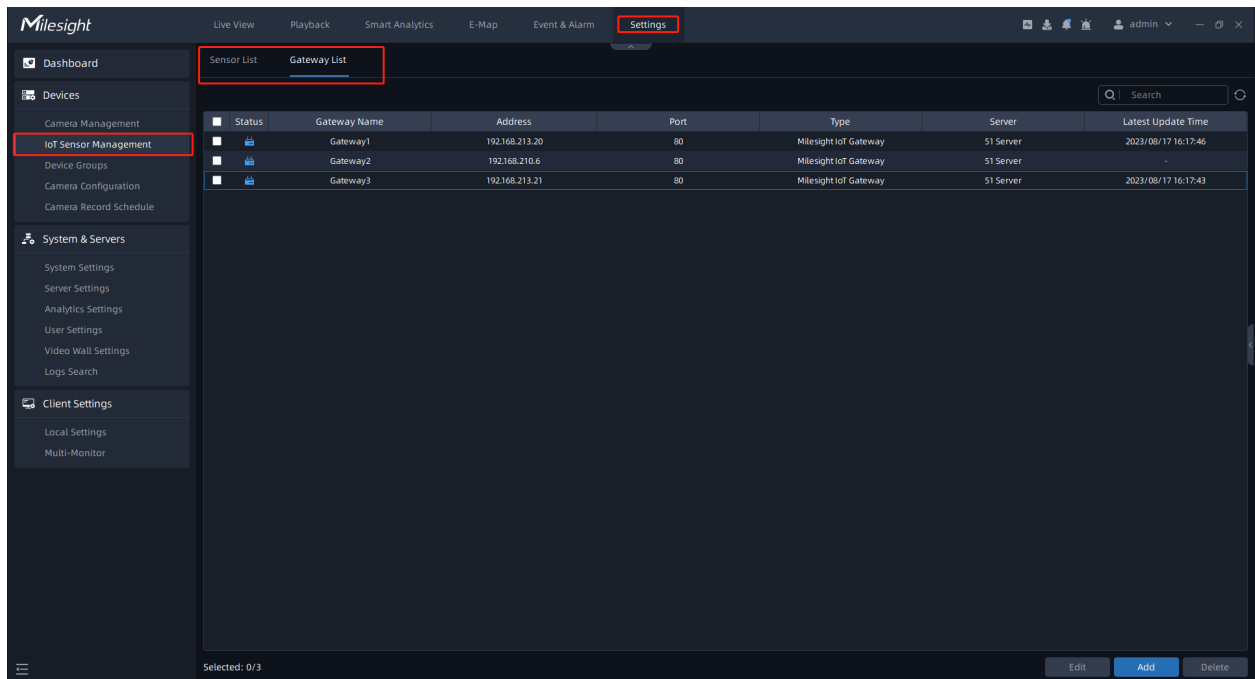
Note:

- Only check the added device, the “Edit” button and “Delete” button will be clicked.
- If the device you want to add has already been added, the name of the device that you have already set can be remained. In addition, you can still find it in the search list. Please make sure that you don’t check “Hide Added Devices” .



3.2.2 IoT Sensor Management

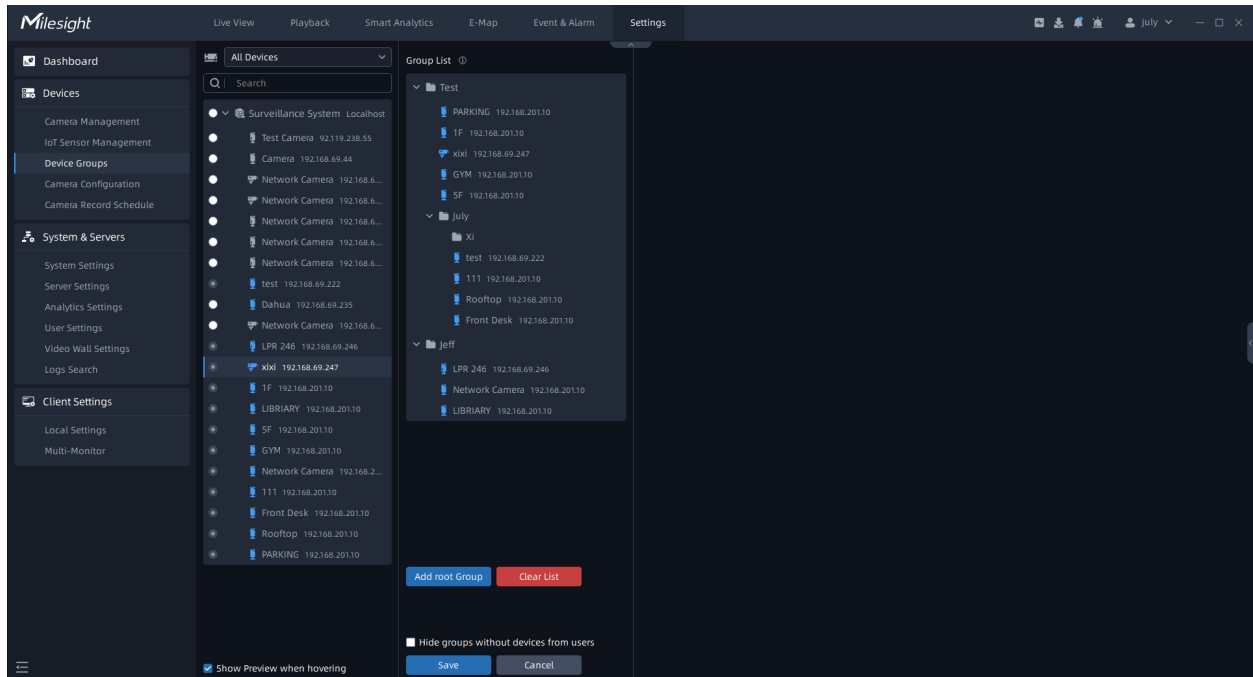
Here you can add and manage gateways and sensors. It perfectly brings together data from IoT sensors and generates actionable insights. Currently, the supported sensors are AI Workplace Occupancy Sensor VS121, 3D ToF People Counting Sensor VS132, AI ToF People Counting Sensor VS133, LoRaWAN Wall Switch WS50X, Smart Light Controller WS558, Magnetic Contact Switch WS301 and Smart Button WS101.








Note: The VMS only supports people counting statistics for Line 1 from VS133.

3.2.3 Device Groups

By enabling the display and filtering of both cameras and IoT sensors, you can flexibly organize these devices into different groups according to your preferences.



Step1: Click the **Add root Group** to add a root Group and select the desired devices, and then click the  to edit the name of the root Group. Or you can click the  to remove it from the group;

Step2: Click the  to add a Child Group, and select the desired devices, and then click the  to edit the name of the Child Group. Or you can click the  to remove it from the group ;

Step3: After grouping the cameras, click the **Save**. A pop-up window will inform you “Group save successfully”. If you want to delete all device groups at once, you can click the **Clear List**. To enhance the cleanliness and usability of the user interface, you can enable the option 'Hide groups without devices from users.' This setting ensures that only groups containing actual devices are displayed.

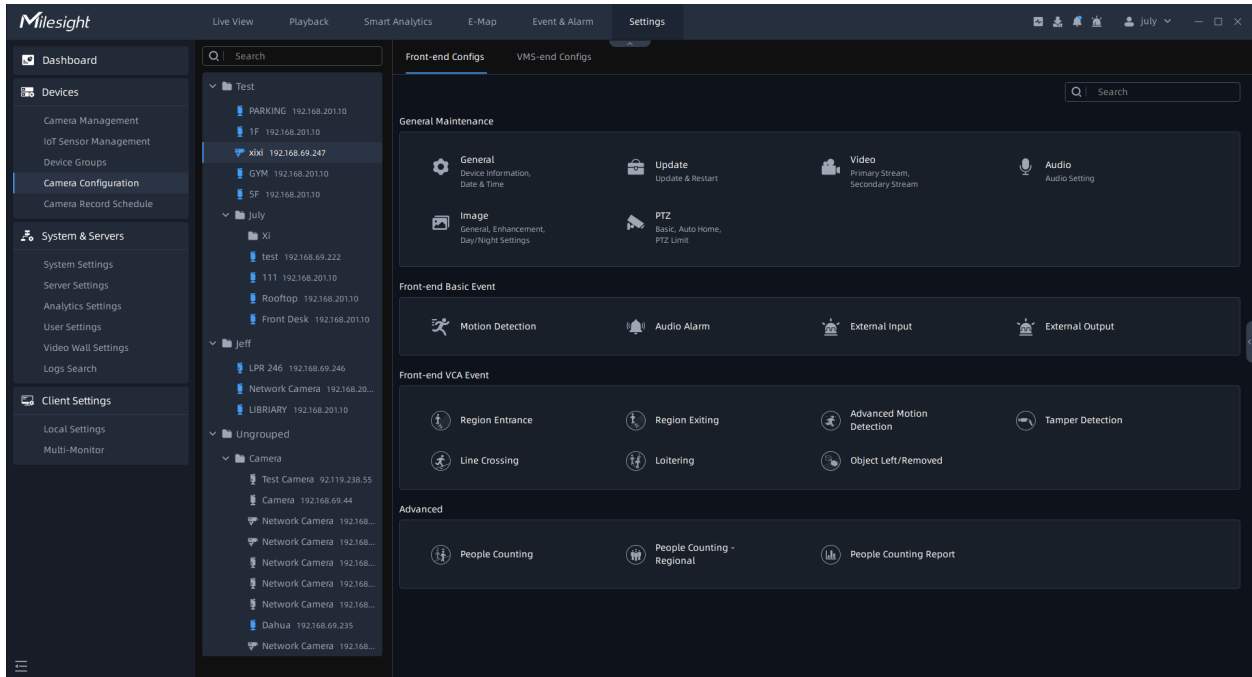
Note:

- Creating Group List will automatically hide the Server List.

- Each camera can only be added to a group.

3.2.4 Camera Configuration

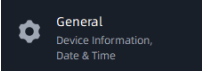
In the Camera Configuration, you can configure the parameters and events of the cameras as well as events related to server-based functionality on the VMS. The window as shown below.



3.2.4.1 Front-end Configs

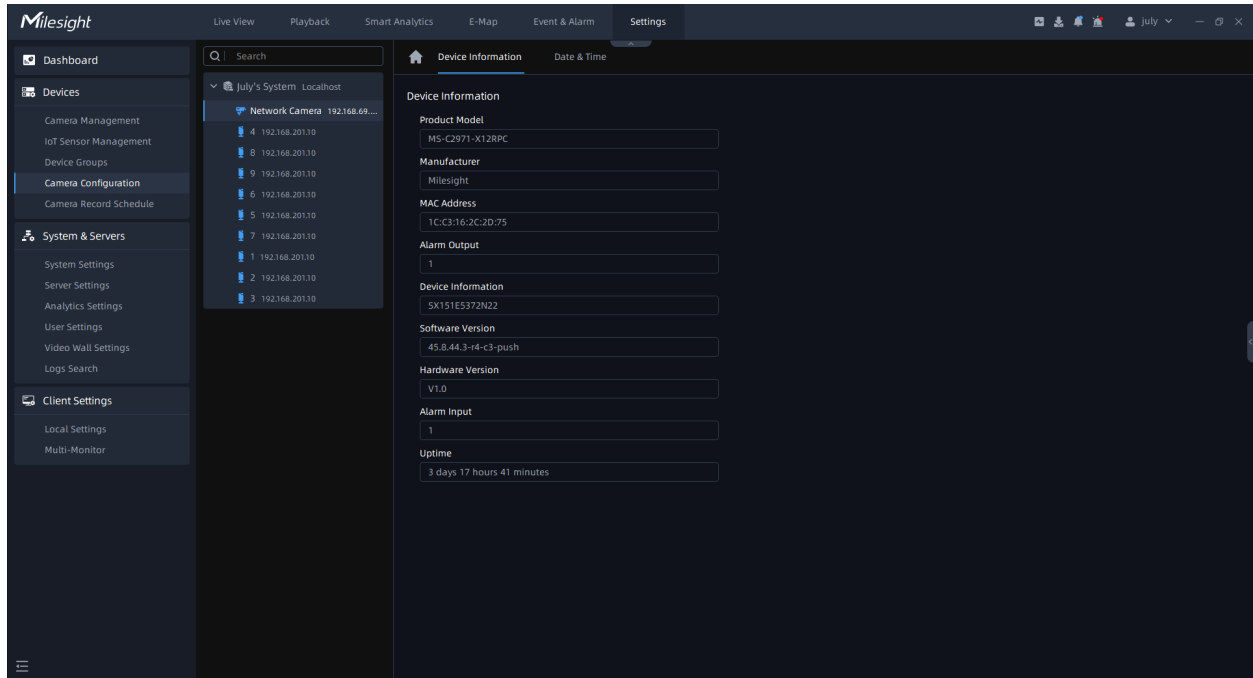
Here you can select a device in the device list and directly click Configuration button on the interface or input key words in the Search box to make configurations.

3.2.4.1.1 Maintenance

Click , the setting window will show as below.

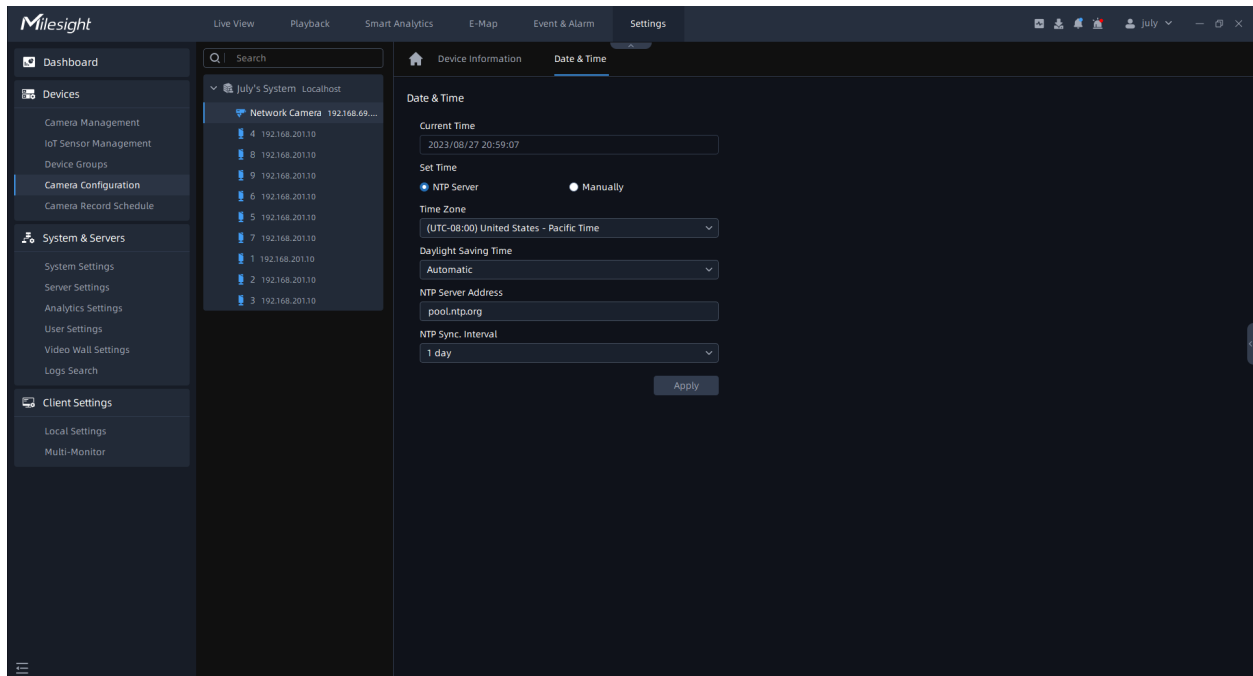
- **Device Information**

In this page, you can view the device's read-only firmware parameters as shown above, which are allowed to be selected and copied.



• Date & Time

Click “Date & Time” button, the setting page will show as below.



NTP Server page:

The screenshot shows the 'Set Time' configuration page. At the top, there are two radio buttons: 'NTP Server' (selected) and 'Manually'. Below this, there are four dropdown menus: 'Time Zone' set to '(UTC+08:00) China(Beijing, Hong Kong, Taipei)', 'Daylight Saving Time' set to 'Disable', 'NTP Server Address' set to 'pool.ntp.org', and 'NTP Sync. Interval' set to '1 hour'. An 'Apply' button is located at the bottom right.

Manually page:


The screenshot shows the 'Set Time' configuration page with 'Manually' selected. There are two radio buttons: 'NTP Server' and 'Manually' (selected). Below them is a 'Date/Time' input field containing '2022/08/04 09:15:48'. There is also a checkbox labeled 'Get Computer Time' which is unchecked. An 'Apply' button is located at the bottom right.

The meanings of the parameters on the Date & Time page can be referred to the table as below:

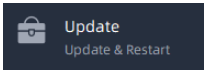
Table 2.

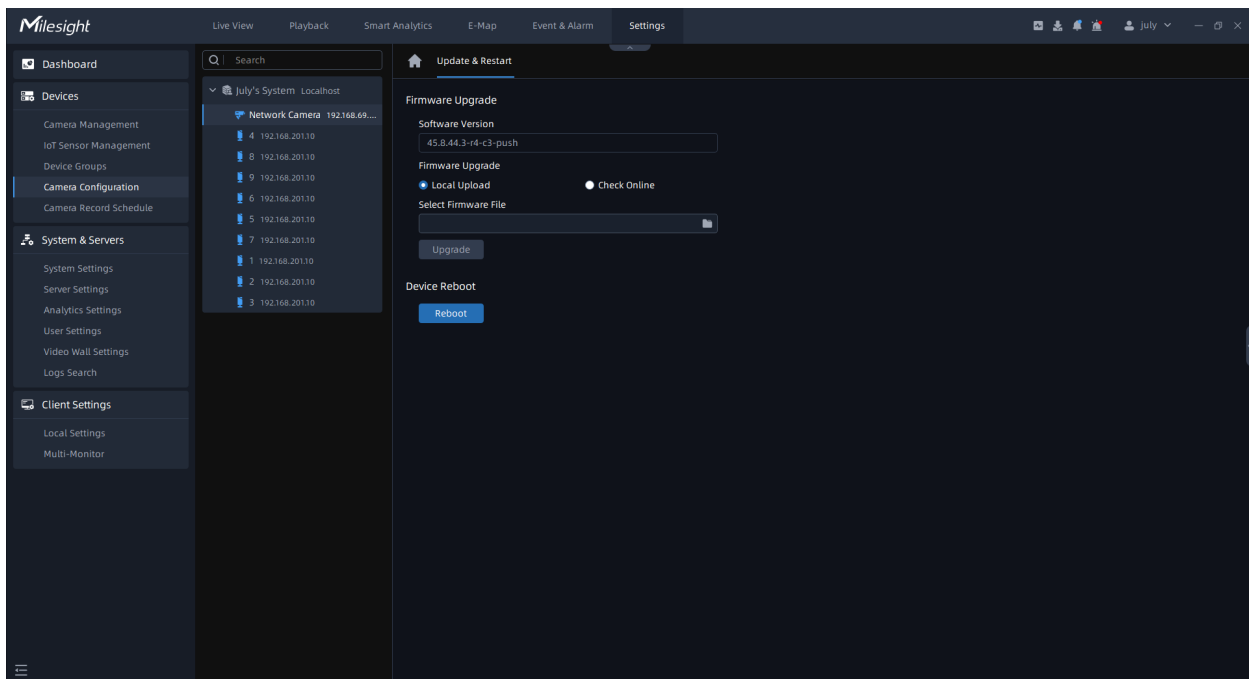
Parameters	Function Introduction
Current Time	Current date & time of the device.
Set Time	There are two options to set time, NTP server and Manually.
Time Zone	Choose a time zone for your location.

Parameters	Function Introduction
Daylight Saving Time	Enable the daylight saving time.
NTP Server Address	The address of NTP server.
NTP Sync. Interval	Regularly update your time according to the interval time.
Manually	Set date and time of device manually.
Get computer time	Synchronize the time with your computer.

After finishing the settings, you can click the “Apply” button to apply your settings to the the selected camera. If you also want to set other parameters, you can click the  button to go back the Device Configuration home page.



• Update

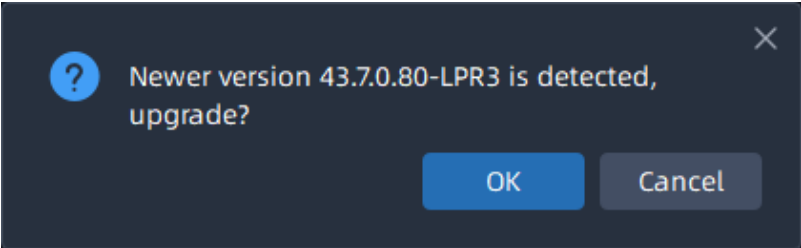
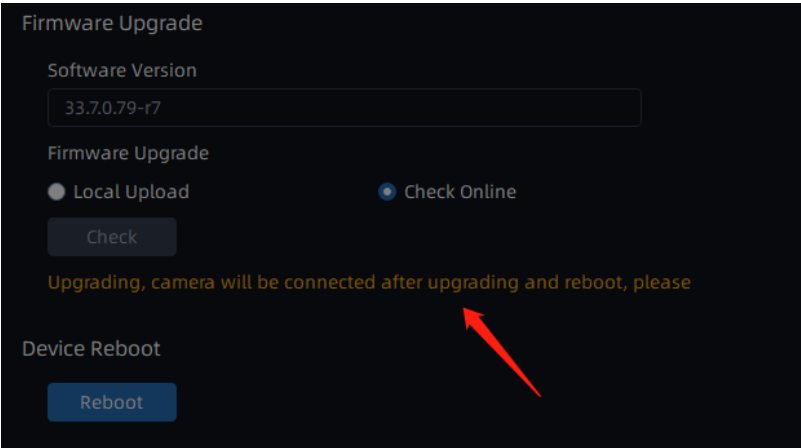
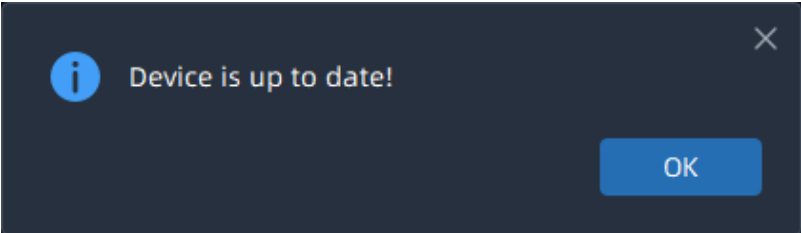
Here you can view and upgrade firmware of camera. Click  button, the Update page will show as below:



The meanings of the parameters on the Update page can be referred to the table as below:

Table 3.

Parameters	Function Introduction
System Upgrade	<p>Software Version: The software version of the camera.</p> <p>There are two ways to upgrade firmware, including Local Upgrade and Check Online.</p> <p>Local Upgrade: Check the "Local Upgrade" checkbox and click  button to select firmware file, then click the "Upgrade" button to upgrade. After the system reboots successfully, the update is done.</p> <p>Check Online: Check the "Check Online" button and then click .</p>

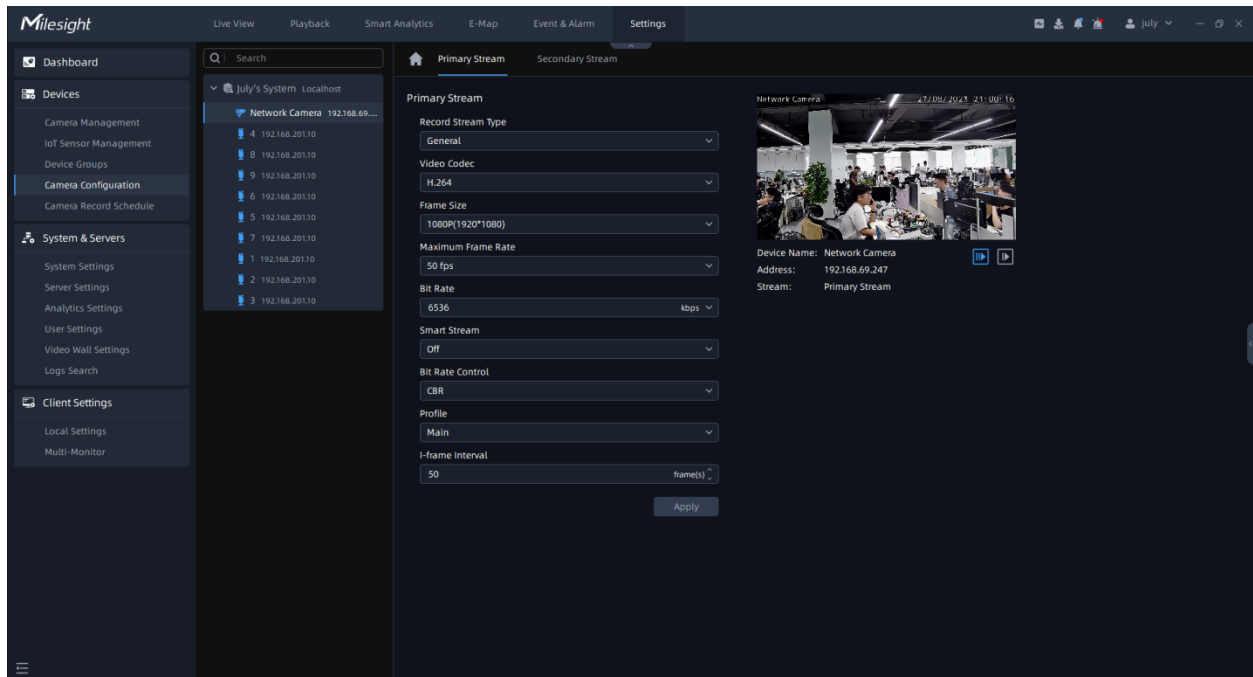
Parameters	Function Introduction
<p>System Upgrade</p>	<p>If the current firmware file of device is not latest version, a pop-up window will inform you whether to upgrade to the latest version as below:</p>  <p>When you click the “OK” button to upgrade, the upgrade process is as shown below:</p>  <p>If the current firmware file of device is the latest version, a pop-up window will inform you that the current version is latest version as below:</p> 
<p>Reboot</p>	<p>Click “Reboot” button to restart the device immediately</p>

3.2.4.1.2 Parameters

Video

- **Primary Stream**

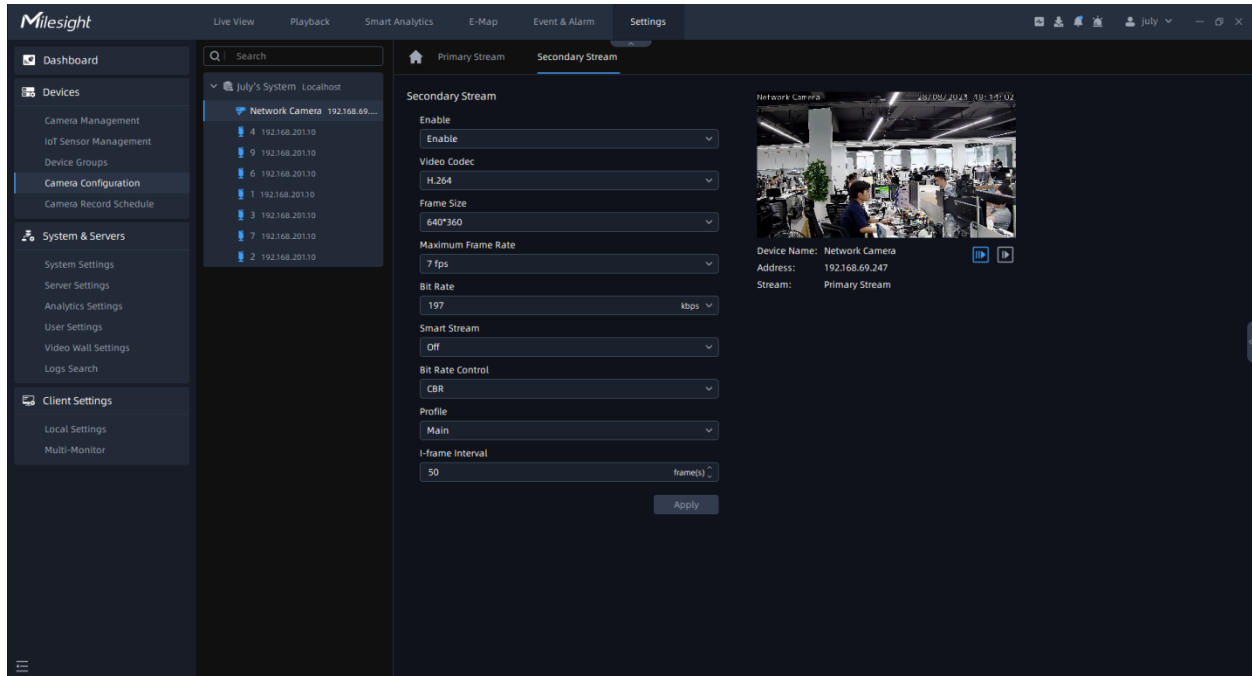
The Primary Stream page is as below:



The meanings of the parameters on the page can be referred to the Table

Secondary Stream

Click the “Secondary Stream” button, the Secondary Stream page will show as below:




The meanings of the parameters on Video page can be referred to the table below:

Table 4.

Parameters	Function Introduction
Enable	This item is available only if you set set Secondary Stream for the device.
Record Stream Type	<p>General & Event are available only for Primary Stream. General refers to continuous record video, while Event includes events that can trigger alarms, such as Motion, Exception, LPR and so on.</p> <p>This item can separately set different bit rate and frame rate for different Recording Stream Types. If user chooses Event, video will be recorded according to the configuration of video stream type when an event happens, thereby greatly reducing the recording storage space.</p>
Video Codec	H.265/H.264/MJPEG available.
Frame Size	<p>For Primary Stream, it includes 1080P (1920*1080), 1.3M (1280*960), 720P (1280*720), D1 (704*576).</p> <p>For Secondary Stream, it includes D1 (704*576), 640*480, 640*360, 352*288, 320*240, 320*192, 320*180.</p>
Maximum Frame Rate	Maximum refresh frame rate per second up to 25fps.

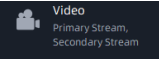
Parameters	Function Introduction
Bit Rate	Transmitting bits of data per second, this item is optional only if you select the H.264 and H.265.
Smart Stream	Smart Stream mode remarkably reduces the bandwidth and the data storage requirements for network cameras while ensuring the high quality of images, and it is a 10-level adjustable codec. It is optional to turn On/Off Smart Stream mode. Level: Level 1~10 are available to meet your need.
Bit Rate Control	CBR: Constant Bit Rate. The rate of CBR output is constant. VBR: Variable Bit Rate. The rate of VBR output will be variable according to the occupation of bandwidth.
Image Quality	Low/Medium/High are available. This item is optional only if you select VBR.
JPEG Quality	Low/Medium/High/Higher are available. This item is optional only if you selected the MJPEG.
Profile	The option is for H.264. Base/Main/High can be selected according to your needs.
I-frame Interval	Set the I-frame interval to 1~120. This item is optional only if you selected the H.264 and H.265.

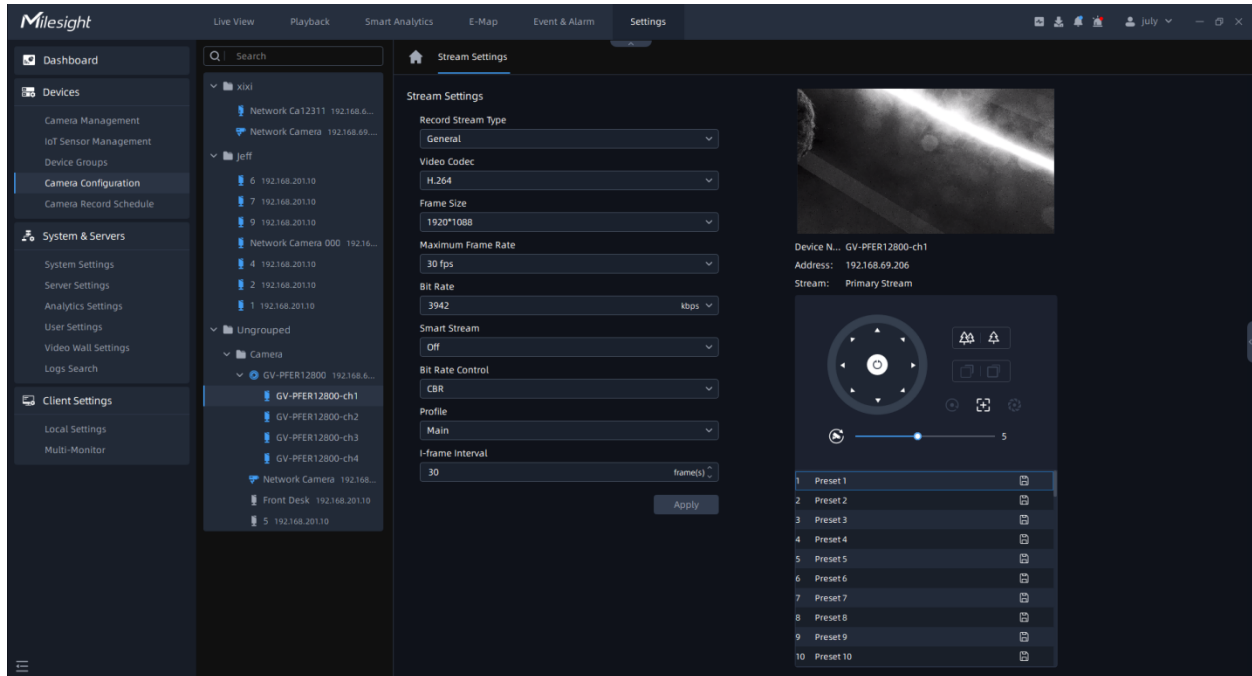
After finishing the settings, please click the “Apply” button.

 **Note:** There is Primary and Secondary parameter configuration pages for Video interface of ordinary cameras and Fisheye camera under Bundle-Stream mode.

• Stream Settings

Video parameters of each channel of Fisheye camera can be configured separately under Multi-Channel mode. You can also focus on image position through control PTZ panel.


Select fisheye channel and click , the page will show as below:



The meanings of the parameters on Video page can be referred to the table below:

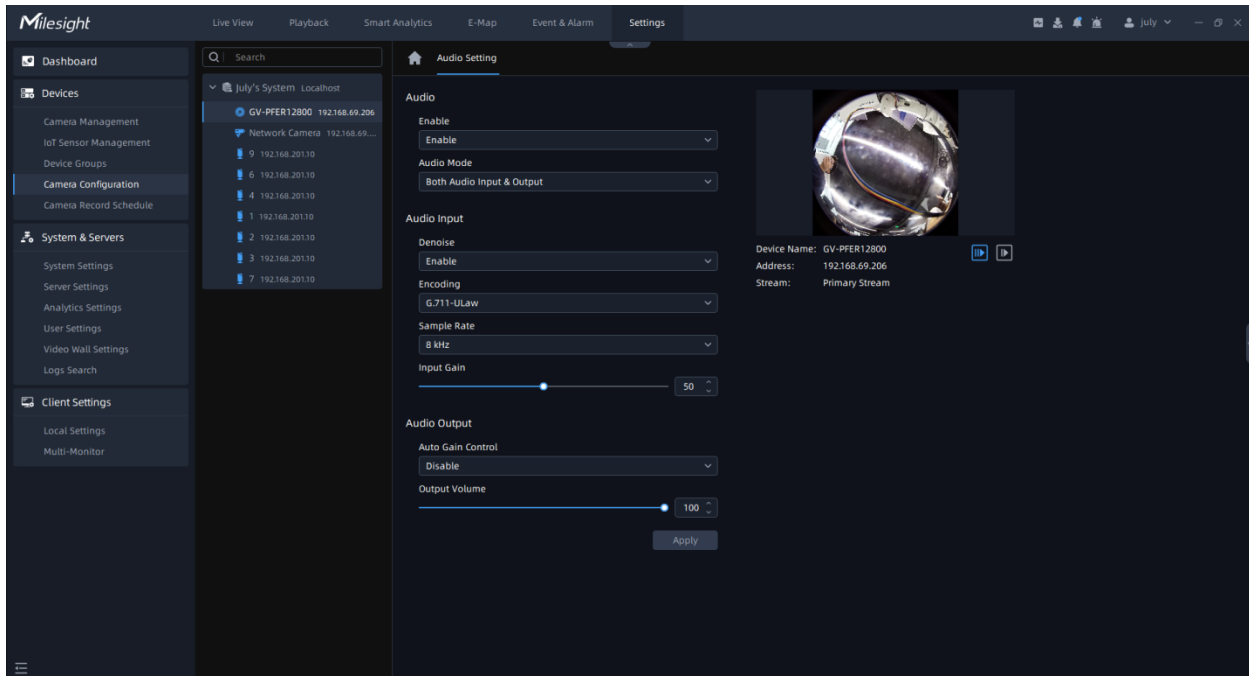
Table 5.

Parameters	Function Introduction
<p>Record Stream Type</p>	<p>General & Event are available only for Primary Stream. General refers to continuous record video, while Event includes events that can trigger alarms, such as Motion, Exception, LPR and so on.</p> <p>This item can separately set different bit rate and frame rate for different Recording Stream Types. If user chooses Event, video will be recorded according to the configuration of video stream type when an event happens, thereby greatly reducing the recording storage space.</p>
<p>Video Codec</p>	<p>H.264/H.265 available.</p>
<p>Frame Size</p>	<p>There are five options available, including 4000*3000, 3000*3000, 2560*2560, 1920*1920, 1280*1280.</p>
<p>Maximum Frame Rate</p>	<p>Maximum refresh frame rate per second up to 25fps.</p>
<p>Bit Rate</p>	<p>Transmitting bits of data per second, up to 16384 kbps.</p>

Parameters	Function Introduction
Smart Stream	<p>Smart Stream mode remarkably reduces the bandwidth and the data storage requirements for network cameras while ensuring the high quality of images, and it is a 10-level adjustable codec.</p> <p>It is optional to turn On/Off Smart Stream mode.</p> <p>Level: Level 1~10 are available to meet your need.</p>
Bit Rate Control	<p>CBR: Constant Bit Rate. The rate of CBR output is constant.</p> <p> Note: The default option is CBR and can't be changed to H.264 or H.265.</p>
Profile	<p>The option is for H.264. Base/Main/High can be selected according to your needs.</p>
I-frame Interval	<p>Set the I-frame interval to 1~120.</p>

Audio

This Audio function allows to configure audio interface parameters for camera.



The meanings of the parameters on Audio page can be referred to the table below:

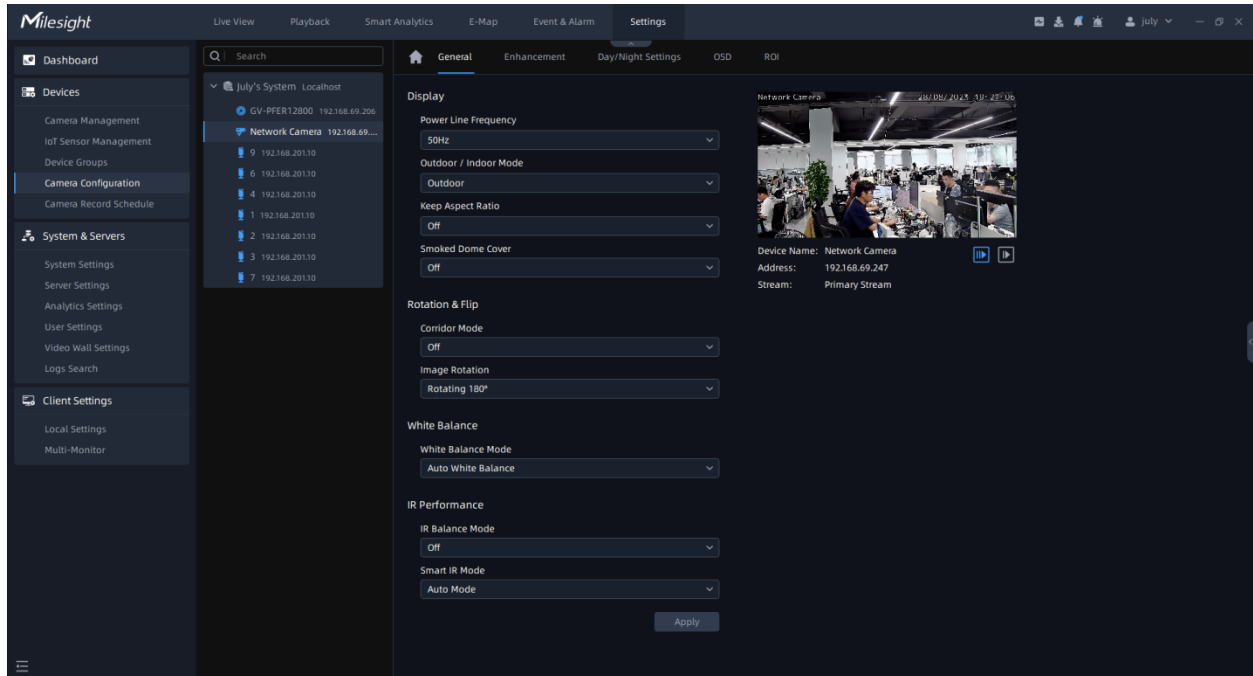
Table 6.

Parameters	Function Introduction
Audio	<p>Enable: Enable audio feature.</p> <p>Audio Mode: Only Audio Input, Only Audio Output, Both Audio Input & Output are available.</p>
Audio Input	<p>Denoise: Set it as Enable/Disable. When you enable the function, the noise detected can be filtered.</p> <p>Encoding: G.711-ALaw, AAC LC, G.722 and G.726 are available.</p> <p>Sample Rate: 8KHz, 16KHz, 32KHz, 44.1KHz, and 48KHz are available.</p> <p>Audio Bit Rate: The function is available only for AAC LC, and supports up to 256kbps.</p> <p>Input Gain: Input audio gain level, 0-100.</p>
Audio Output	<p>Auto Gain Control: This function improves the quality of audio, and it's available for H.265 series only.</p> <p>Output Volume: Adjust volume of output.</p>

Image

- **General**

Click the button, then the Image-General page will be as shown below:



The meanings of the parameters on Image-General page can be referred to the table below:


Table 7.

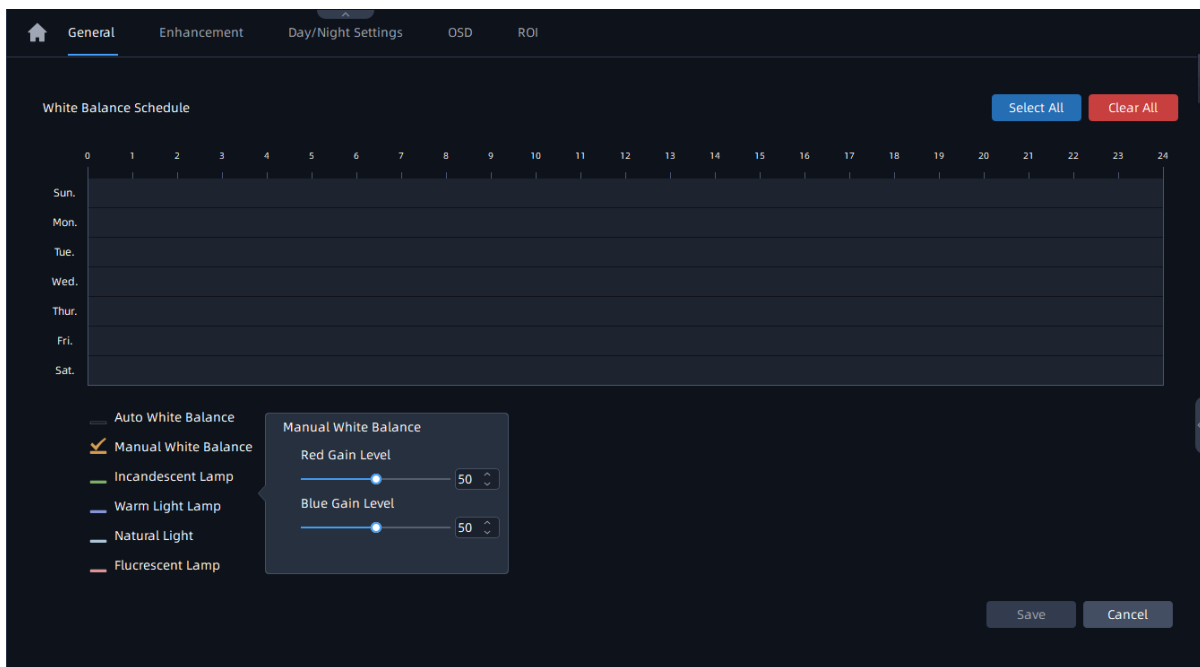
Parameters	Function Introduction
Power Line Frequency	60Hz flicker for 30fps camera model and 50Hz flicker for 25fps camera model
Outdoor/Indoor Mode	Select indoor or outdoor mode to meet your needs
Keep Aspect Ratio	Enable to keep image Aspect Ratio
Zoom Limit	The PTZ Network Camera with optical zoom of 20X or above supports Zoom Limit function.
Local Display Video (Only for Pro Bullet)	Select NTSC or PAL for local display


Parameters	Function Introduction
Corridor Mode	<p>There are three options available, you can select one to meet your need</p> <p>Off: Keep the image in normal direction</p> <p>Clockwise 90°: Rotate the image by 90° clockwise</p> <p>Anticlockwise90°: Rotate the image by 90° anticlockwise</p>
White Balance Mode	<p>To restore white objects, removed color distortion caused by the light of the environment</p> <p>Auto White Balance:This option will automatically enable the White Balance function</p> <p>Manual White Balance: This option is only for H.265 series. Set Red Gain Level and Blue Gain Level manually.</p> <p>Incandescent Lamp: Select this option when light is similar with incandescent lamp</p> <p>Warm Light Lamp: Select this option when light is similar with warm light lamp</p> <p>Natural Light: Select this option when there is no other light but natural light</p> <p>Fluorescent Lamp: Select this option when light is similar with Fluorescent Lamp</p> <p>Schedule mode: Select this option that you can customize the schedule to enable/disable above modes</p>
IR Balance Mode	<p>There is an option to turn On/Off the IR LED.</p> <p>IR Balance Mode would avoid the problem of overexposure and darkness, and the IR LED will change according to the actual illumination.</p>
Smart IR Mode	<p>With the combination of the High Beam and Low Beam, The IR LEDs technology has been upgraded to provide better image clarity and quality regardless of the object distance. Also, the Low Beam and High Beam's brightness can be adjusted manually or automatically on the basis of the Zoom ratio. Moreover, with the IR anti-reflection panel, the infrared light transmittance is highly increased.</p> <p>Support to set the strength of the IR to Auto Mode or Customize to achieve the best effect.</p>
Near view IR level	Adjust the light strength of Low-Beams LED light level from 0 to 100.
Middle view IR level	Adjust the light strength of Middle-Beams LED light level from 0 to 100.
Far view IR level	Adjust the light strength of High-Beams LED light level from 0 to 100.

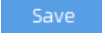
Parameters	Function Introduction
Day/Night Switch Refocus	With this option enabled, the camera will refocus when switching between day mode and night mode.
Smoked Dome Cover	This function is only for Pro Dome. If Pro Dome is equipped with a Smoked Dome Cover, enable this function to display a normal image.
Lens Distort Correct (Only for 180°Panoramic Mini Bullet)	There are two options available, you can select one to meet your need Off: Select the original image of 180°Panoramic Mini Bullet On: Select the dewarping image of 180°Panoramic Mini Bullet

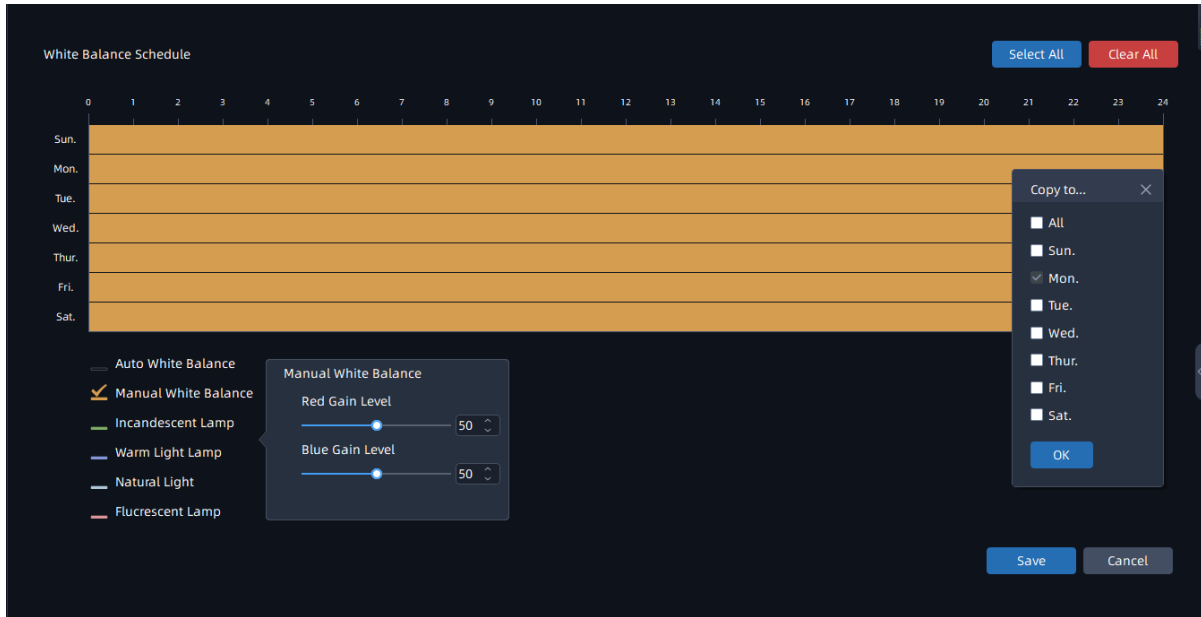
Here You can customize White Balance schedule, steps follow as below:

Step1: Choose Schedule Mode and click the  button, White Balance Schedule page will show as below:



Step2: Check the White Balance Mode which you are interested, and you can draw the interested schedule or click the Select All button  to select all schedule interested.

Step3: Click the OK button and save  button after all set.

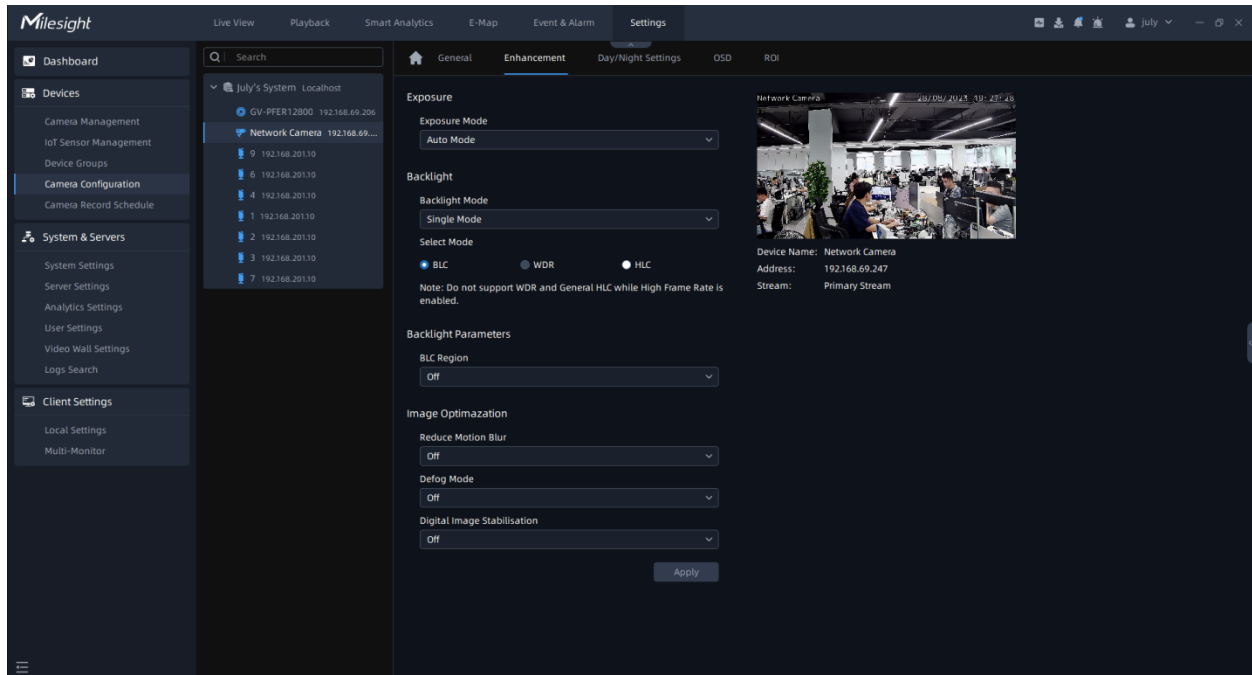


Note: Auto White Balance can't be chosen in Schedule Mode.

You can set Red Gain level and Blue Gain level from 0 to 100 in Manual White Balance.



• Enhancement

The Image-Enhancement page is as below:



The meanings of the parameters on Image-Enhancement can be referred to the table below:

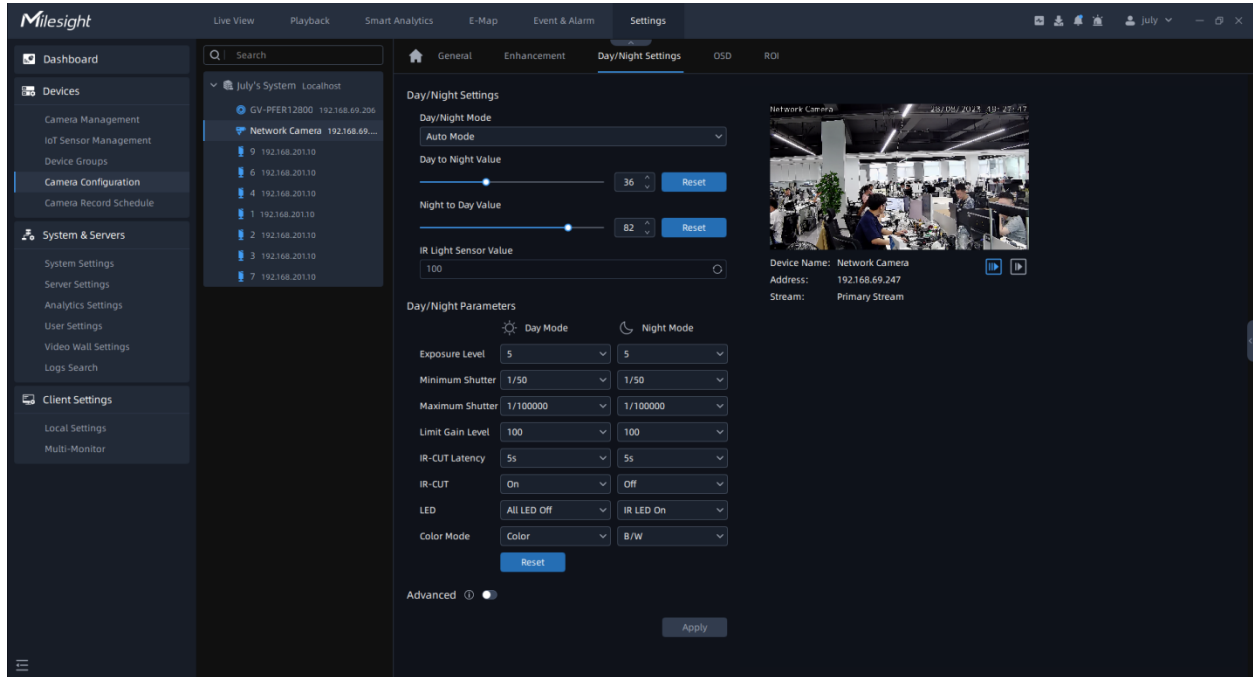
Table 8.

Parameters	Function Introduction
<p>Exposure Mode</p>	<p>Auto Mode, Manual Mode and Schedule Mode are available.</p> <p>Auto Mode: The camera will adjust the brightness according to the light environment automatically.</p> <p>Manual Mode: The camera will adjust the brightness according to the value you set.</p> <p>Schedule Mode: You can click the  to customize the exposure schedule, including Auto Mode and Manual Mode.</p> <p> Note: WDR/HLC Schedule has higher priority than exposure settings during the same time period.</p>
<p>Exposure Time</p>	<p>This option is just available for Manual Mode. You can set the exposure time from 1~1/100000s, the higher the value is, the brighter the image is.</p>
<p>Gain Level</p>	<p>This option is just available for Manual Mode. You can set the exposure gain level from 1~100.</p>
<p>Backlight Mode</p>	<p>Single Mode: Set single mode for BLC/WDR/HLC.</p> <p>Day/Night Mode: Support BLC/WDR/HLC on Day Backlight Mode/Night Backlight Mode separately.</p> <p>Schedule Mode: Set schedule mode for BLC/WDR/HLC.</p>
<p>Day Backlight Mode</p>	<p>BLC/WDR/HLC are available.</p>
<p>Night Backlight Mode</p>	<p>BLC/WDR/HLC are available.</p>
<p>BLC Region</p>	<p>Off, Customize, and Centre are available. (In single mode, only enable when WDR and HLC are disabled).</p> <p>Off: Calculate the full range of view and offer appropriate light compensation.</p> <p>Customize: This allows to customize inclusive or exclusive region manually.</p> <p>Centre: This option will automatically add an inclusive region in the middle of the window and give the necessary light compensation.</p>

Parameters	Function Introduction
Wide Dynamic Range	<p>This function which can capture and display both bright and dark areas in the same frame enables details of objects in both bright and dark areas to be visible.</p> <p>Off: Always disable WDR function.</p> <p>On: Always enable the WDR and there are Low/High/Auto three levels.</p> <p>Customize: Customize the schedule to enable/disable the WDR function and set the levels with Low/High/Auto.</p>
WDR Level	Set WDR with Low/High/Auto level.
Anti-flicker Level	Reduce flickers that appear on screen in some lighting conditions and the anti-flicker level can be adjusted from 0~100.
HLC Mode	<p>This function is only for H.265 series to adjust the brightness to a normal range when the light is strong.</p> <p>Off: Disable HLC function.</p> <p>General Mode: Enable the general mode of HLC, and there is a setting for HLC Level.</p> <p>Enhancement Mode: Enable the enhanced mode of HLC, and there is a setting for HLC Level.</p>
HLC Level	HLC level can be adjusted from 0~100.
Reduce Motion Blur	<p>Enable this function to reduce the motion blur of objects effectively.</p> <p>Deblur level can be adjusted from 0 to 100.</p>
Defog Mode	<p>Enable this function to provide better image effect in foggy weather.</p> <p>Defog intensity Defog intensity from 0 to 100.</p>
Digital Image Stabilisation	Decrease the blur and shakiness of the image.
Lens Type (Only for Pro Box camera)	DC-Iris/P-Iris/Manual are available for different lens types.
Reduce Video Stuttering (Only for 5MP@20fps camera model)	Enable this function to reduce video stuttering effectively.

• Day/Night Settings

The Image-Day/Night Settings page is as below:


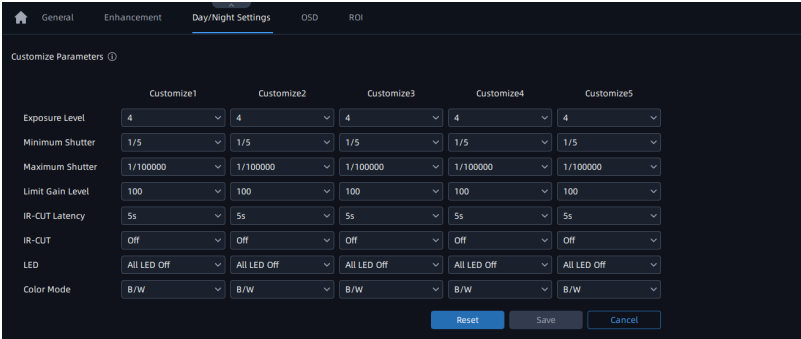
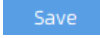






The meanings of the parameters on Image-Day/Night Settings can be referred to the table below:

Table 9.

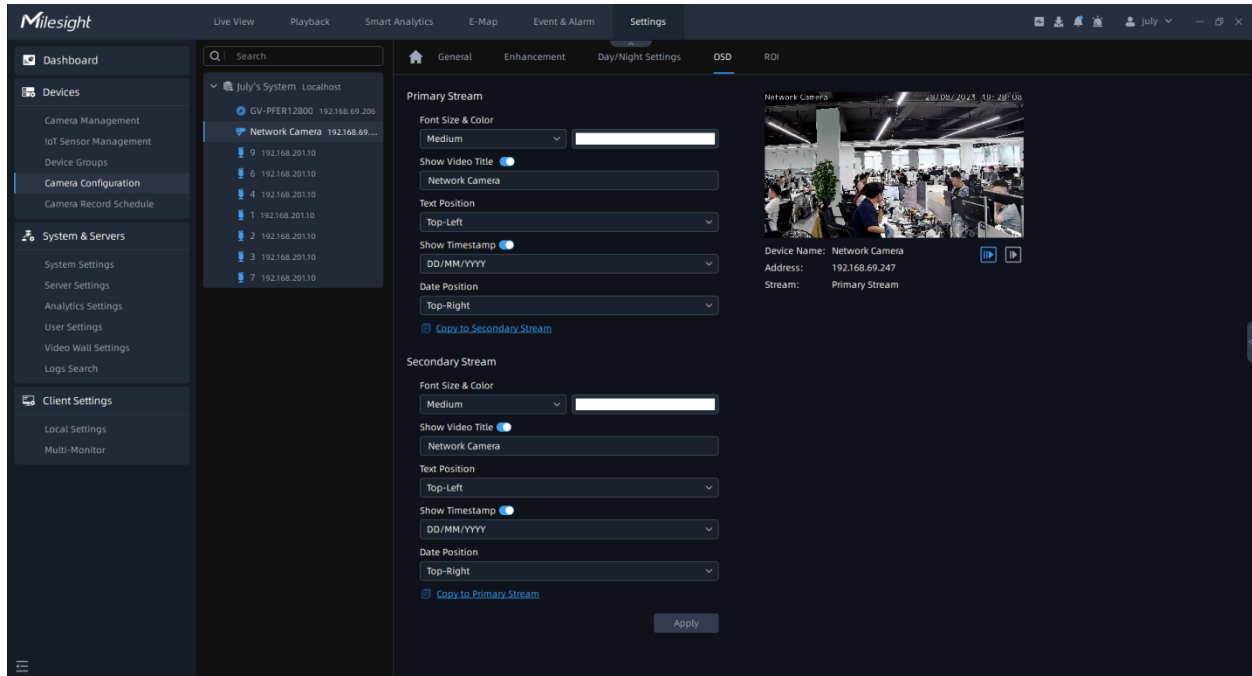
Parameters	Function Introduction
<p>Day/Night Mode</p>	<p>There are several parameters such as Exposure Level, Maximum Exposure Time and IR-CUT Interval, etc, associated with this mode.</p> <p>Auto Mode: Show in live view based on environment, set the sensitivity for switching Day Mode to Night Mode, or Night Mode to Day Mode</p> <p>Day Mode: Show in live view based on Day Mode settings</p> <p>Night Mode: Show in live view based on Night Mode settings</p> <p>Timing Switch: Show in live view based on your own settings' time to start/end Night Mode</p>
<p>Day To Night Value</p>	<p>This is the sensitivity for switching Day Mode to Night Mode. When IR Light Sensor Current Value is lower than this value, it will switch Day Mode to Night Mode.</p>

Parameters	Function Introduction
Night To Day Value	This is the sensitivity for switching Night Mode to Day Mode . When IR Light Sensor Current Value is higher than this value, it will switch Night Mode to Day Mode.
IR Light Sensor Value	The current value of the IR light sensor
Night Effective Time	You can set night effective time
Exposure Level	Level 0~10 are available to meet your need
Minimum Shutter	Minimum Shutter is the same as Maximum Exposure Time. Set the minimum Shutter from 1~1/100000s
Maximum Shutter	Maximum Shutter is the same as Minimum Exposure Time. Set the maximum Shutter from 1~1/100000s
Limit Gain Level	Limit gain level from 1~100
IR-CUT Latency	The interval time of switching one mode to another, and it can be set from 1s to 20s.
IR-CUT	Turn on or turn off IR-CUT
LED	All LED Off: Turn off all LED IR LED On: Turn on all IR LED White LED On: Turn on White LED
Color Mode	Select B/W or Color under Day/Night mode

Parameters	Function Introduction
Advanced	<p>Here you can customize for different parameters and schedule, then camera will run in customized parameters at specified time.</p> <p>Click the  to enter customize parameters page as shown below:</p>  <p>Here you can add up to 5 Customize Exception Mode, and click  button to save the settings.</p> <p>Click the  to enter Customize Schedule page as shown below:</p>  <p>Here you can set effective time for 5 types of customize parameters mode and click  button to save the settings.</p> <p> Note: Camera will run with Day/Night Mode when out of customized schedule time.</p>

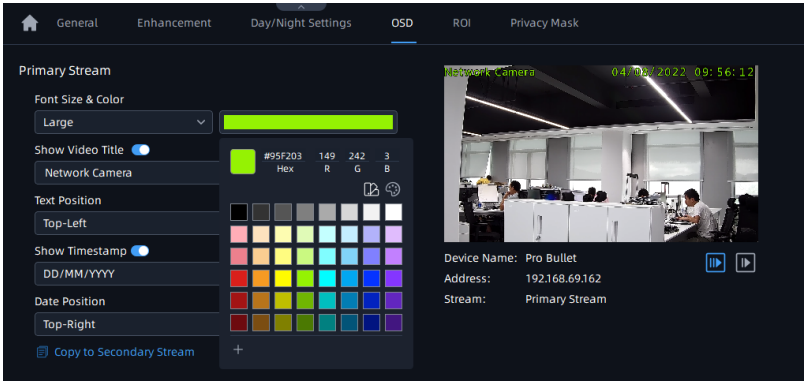
- OSD





The Image-OSD page is as below:



The meanings of the parameters on OSD can be referred to the table below:

Table 10.

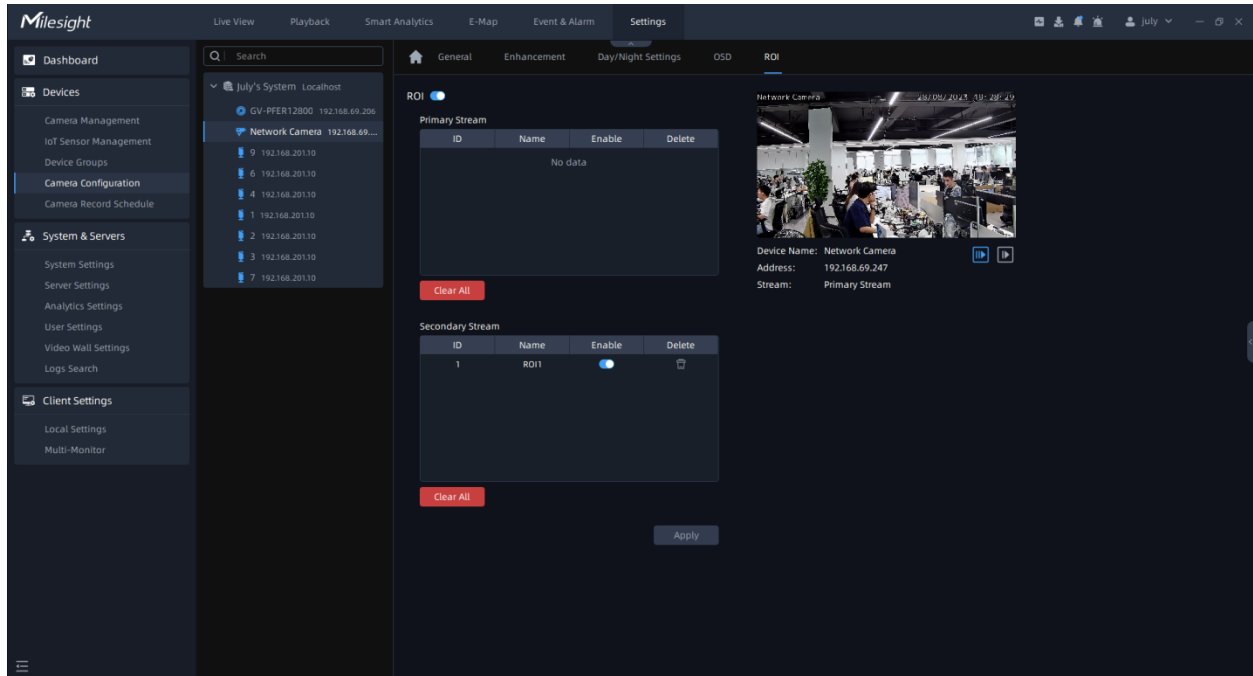
Parameters	Function Introduction
<p>Font Size & Color</p>	<p>Smallest/Small/Medium/Large/Largest/Auto options are available for font size of title and date.</p> <p>You can also set different color for title and time as shown below:</p> 

Parameters	Function Introduction
Show Video Title	<p>Click the  button to show video title.</p> <p>Video Title: Customize the OSD content.</p> <p>Text Position: There are four options available, including Top-Left, Top-Right, Bottom-Left and Bottom-Right.</p> <p> Note: Video Title and Text Position can be edited when you enable the button.</p>
Show Timestamp	<p>Click the  button to display date on the image.</p> <p>Timestamp: Choose timestamp show format, including YYYY-MM-DD, MM/DD/YYYY and DD/MM/YYYY.</p> <p>Date Position: Date display position on the image, there are four options available, including Top-Left, Top-Right, Bottom-Left and Bottom-Right.</p> <p> Note: Timestamp and Date Position can be edited when you enable the button.</p>
Copy to Primary/ Secondary Streams	Copy the settings to other streams.

Here you can choose to copy the settings of Primary Stream to Secondary Stream, vice versa.

- **ROI**

Users can select up to 8 key regions of a scene to transmit through separate streams for targeted preview and recording.



Step1: Enable the ROI function;

Step2: Choose primary stream or secondary stream;

Step4: Hold down the mouse to draw the area in the preview window;

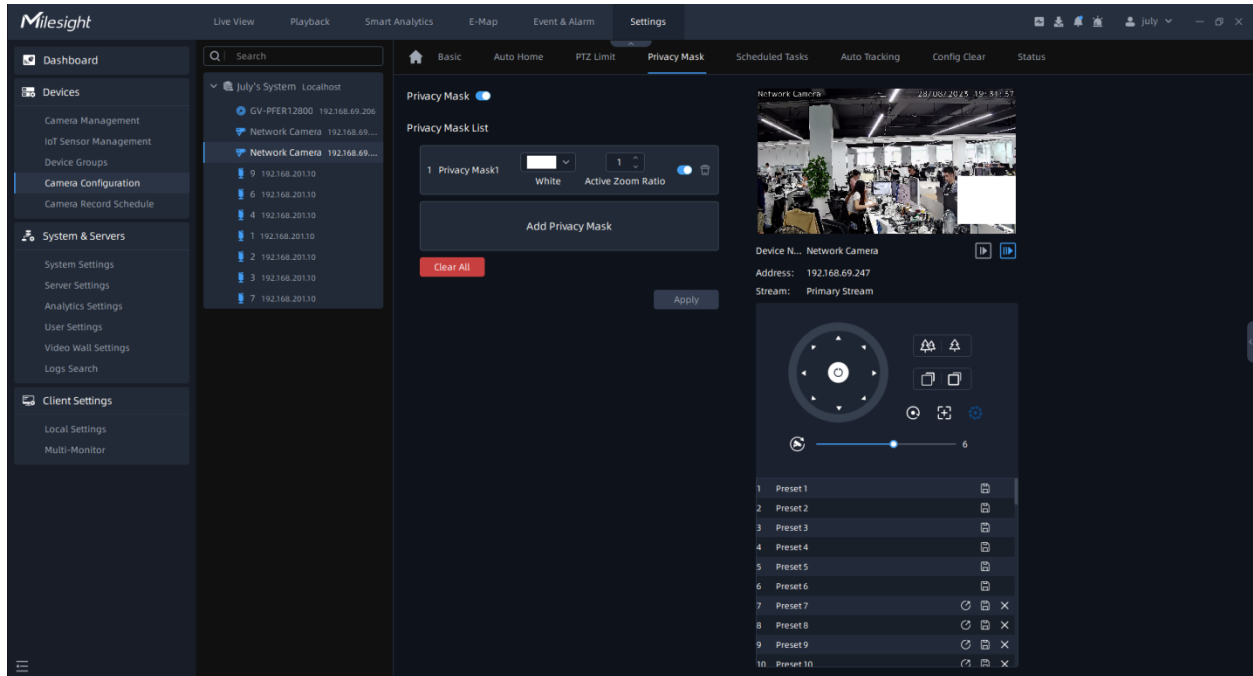
Step5: Click  button to apply settings.

- **Privacy Mask**

The VMS supports privacy mask function.

(1) For non-AI series

It supports up to 24 areas, the setting steps are as below:



Step1: Enable the Privacy Mask function;

Step2: Choose the mask color;

Step3: Hold down the mouse to draw the area in the preview window and click

Apply

button to apply settings;

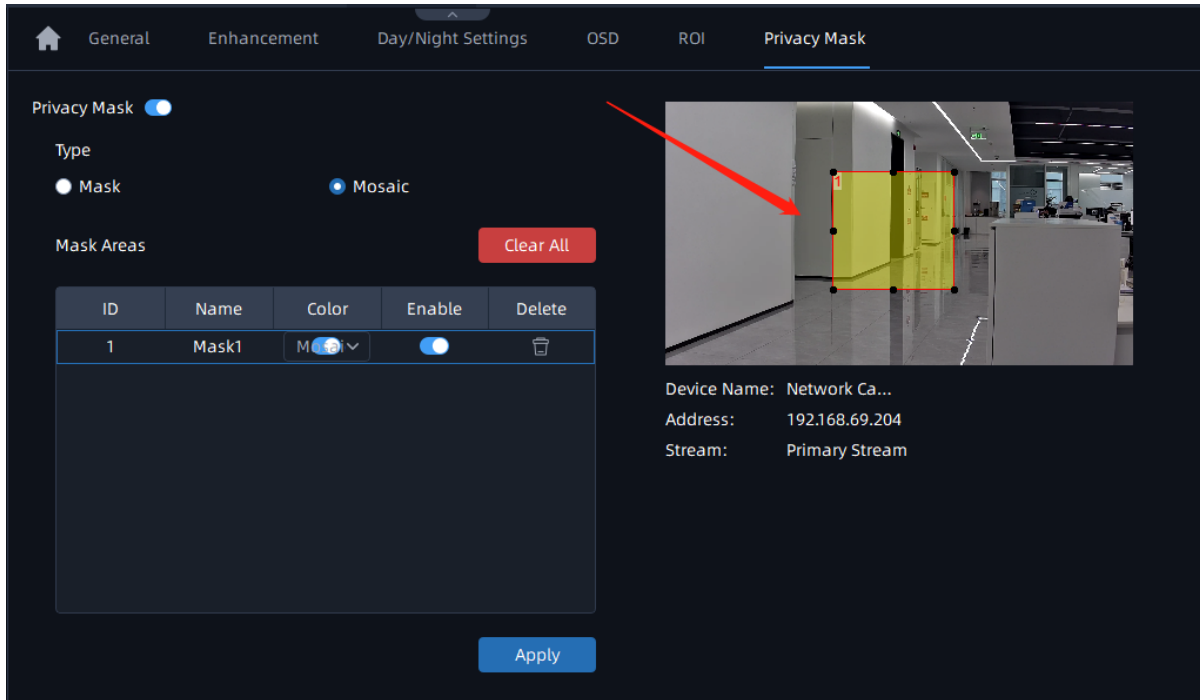
Step 4: Click the **×** button to delete mask area, or click **Clear All** button to clear all drawn areas, then click the

Apply

button.

(2) For AI series

It supports up to 28 areas, which include 24 mask areas and 4 mosaic areas. The setting steps are as below:



Step1: Enable the Privacy Mask function;

Step2: Choose the mask type as Mask or Mosaic;

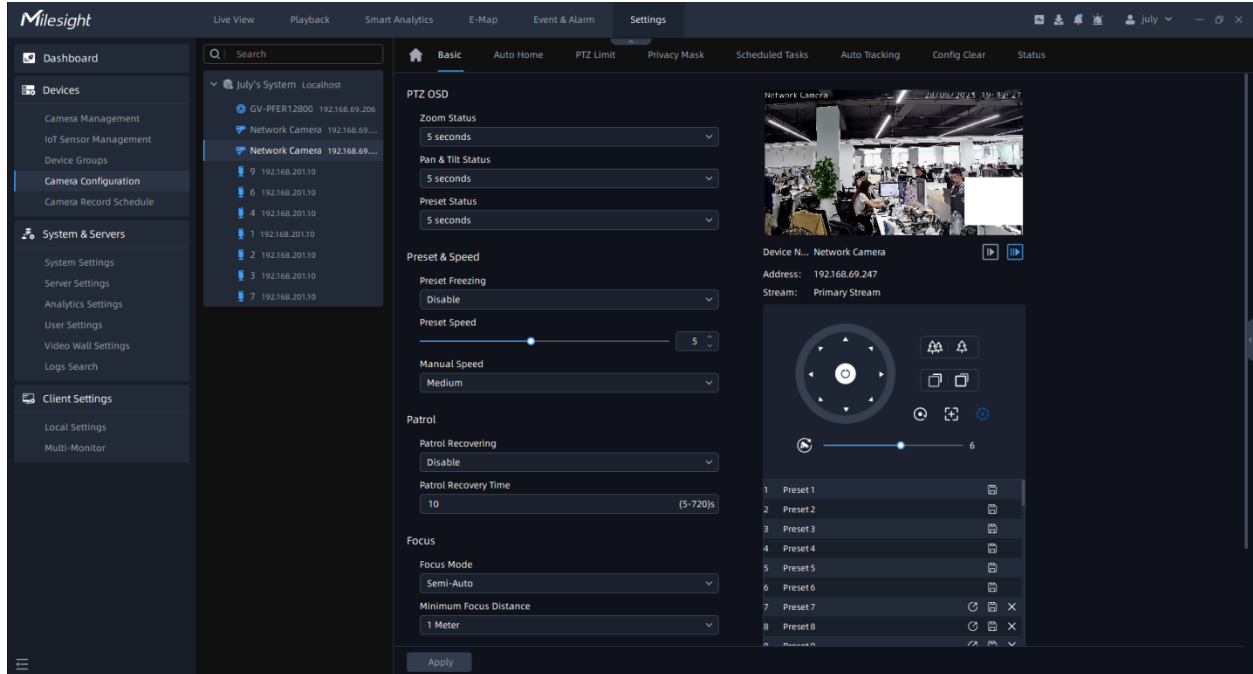
Step3: Hold down the mouse to draw the area in the preview window. If you choose the mask type as Mask, you can Change the color of Mask area, there are eight colors available: White, Black, Blue, Yellow, Green, Brown, Red and Purple.

Step4: Click button to enable or disable the corresponding areas, or click button to delete the areas.

Step5: click the button to apply the settings, or click button to clear all drawn areas.

PTZ

• Basic




The meanings of the parameters on PTZ-Basic can be referred to the table below:

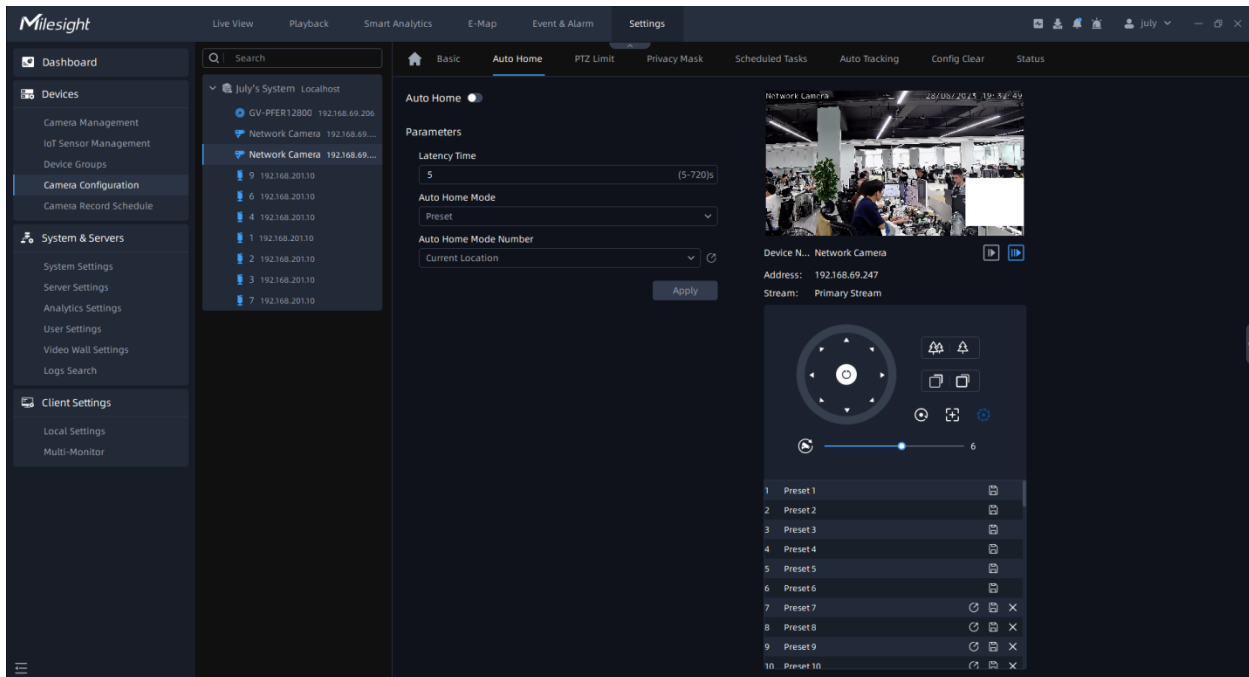
Table 11.

Parameters	Function Introduction
PTZ OSD	Configure the OSD parameter, you can set the Zoom status OSD , Pan&Tilt Status , Preset Status with Always Close/Always Open/2 seconds/5 seconds/10 seconds.
Preset Freezing	If Preset Freezing is enabled, the live view of preset position will be showed directly instead of showing both the moving path to the position and the live view. It can also reduce the use of bandwidth in the network system.
Preset Speed	It determines the speed of calling presets. Level 1~10 are available.
Patrol	Patrol Recovering: Click to enable Patrol Recovering. Patrol Recovery Time: Set time for Patrol Recovering, which is between 5 to 720 seconds.
Focus	Focus Mode: Three focus modes are available: Auto/ Semi-Auto/ Manual. Minimum Focus Distance: Set the minimum focus distance to adjust the step length of each focus. 1 meter, 1.5 meters, 3 meters, 6 meters, 10 meters and 20 meters are available. The default minimum focus distance is 1 meter.

Parameters	Function Introduction
<p>Power Off Memory</p>	<p>If the camera stop working for a longer time than predefined, then the position of it will be recorded. And it will resume to the position after going back to the normal work from power off. You can set the resume time from 30 seconds, 60 seconds, 300 seconds or 600 seconds to record its position.</p>
<p>Initial Position</p>	<p>You can configure the Initial Position for PTZ cameras as a zero point.</p> <p>Set: Click to set the current position as a Initial Position.</p> <p>Clear: Clear the Initial Position to default settings.</p> <p>Call: Click to call the Initial Position.</p>


• **Auto Home**

Auto Home allows the PTZ camera to return to a predefined Home Position automatically after a period of latency time. Click  to enable the Auto Home mode.



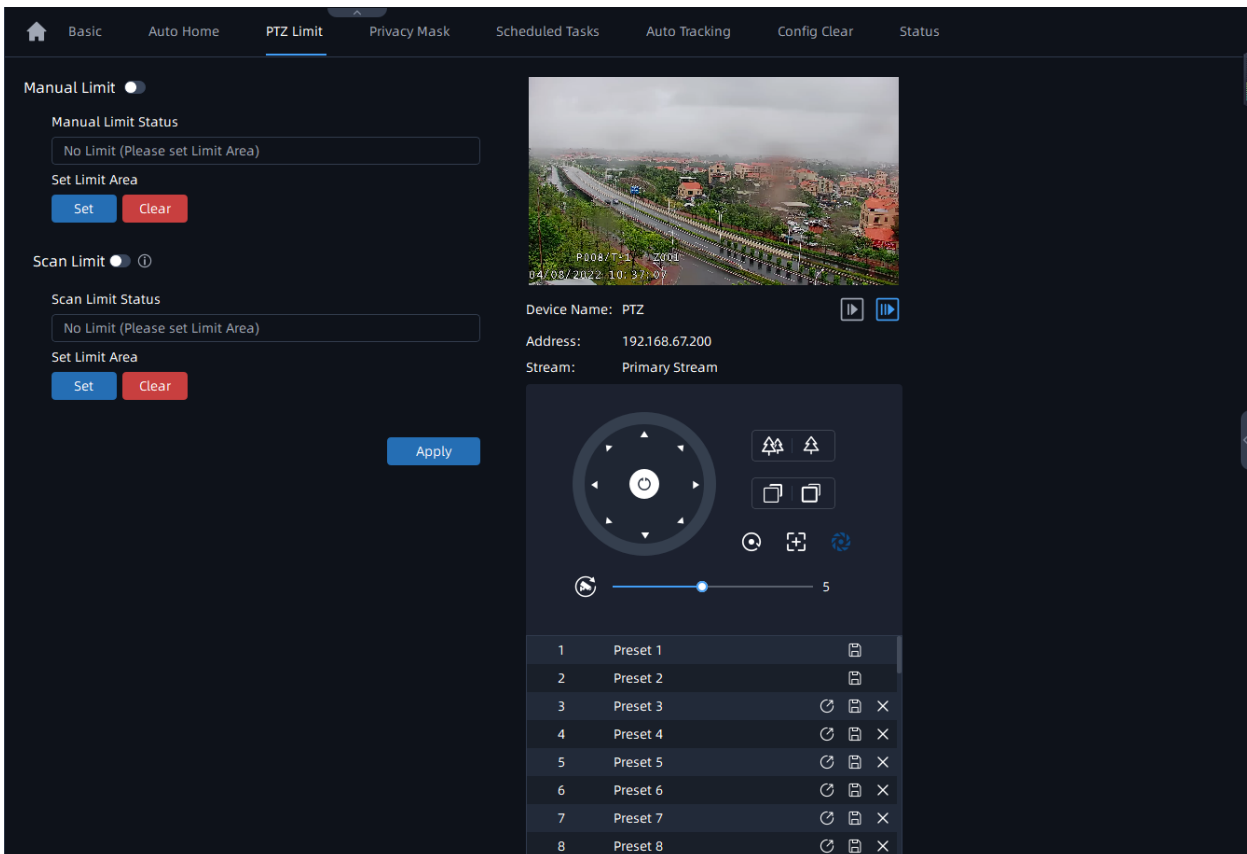
The meanings of the parameters on PTZ-Auto Home can be referred to the table below:

Table 12.





















Parameters	Function Introduction
Latency Time	Set a latency time to trigger Auto Home mode, 5-720s.
Auto Home Mode	Preset: A preset point will take effect when triggering the Auto Home.
Auto Home Mode Number	Select a predefined preset in the list, press  to check the location. Also support to select current location.

• PTZ Limit

The PTZ camera can be programmed to move within the configurable PTZ Limits (Left/Right and Up/Down).



The screenshot displays the PTZ Limit configuration page. It includes a navigation bar with tabs: Basic, Auto Home, PTZ Limit (selected), Privacy Mask, Scheduled Tasks, Auto Tracking, Config Clear, and Status. The main content area is divided into two sections: Manual Limit and Scan Limit. Both sections have a status field set to 'No Limit (Please set Limit Area)' and 'Set Limit Area' buttons. A video preview window shows a street scene with a PTZ camera. Below the preview is a PTZ control panel with a directional pad, a power button, and a zoom slider. A table at the bottom lists 8 presets, each with a refresh, save, and delete icon.

1	Preset 1	
2	Preset 2	
3	Preset 3	  
4	Preset 4	  
5	Preset 5	  
6	Preset 6	  
7	Preset 7	  
8	Preset 8	  


Step1: Choose Manual Limit or Scan Limit;


- **Manual Limit:**


When Manual limit stops are set, you can operate the PTZ control panel manually only in the limited surveillance area.

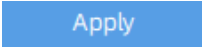
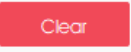
- **Scan Limit:**


When Scan limit stops are set, the auto scan is performed only in the limited surveillance area.

Step2: Click  button to enable the PTZ Limit function;

Step3: Click  and then click the PTZ controller buttons to set the left/right/Up/Down limit stops. You can also call the defined presets and set them as the limits of the PTZ camera;

 **Note:** After setting each limit stop, you need to click OK button.

Step4: After setting all limit stops, click  button to apply the limit stops, or click  to clear the settings.

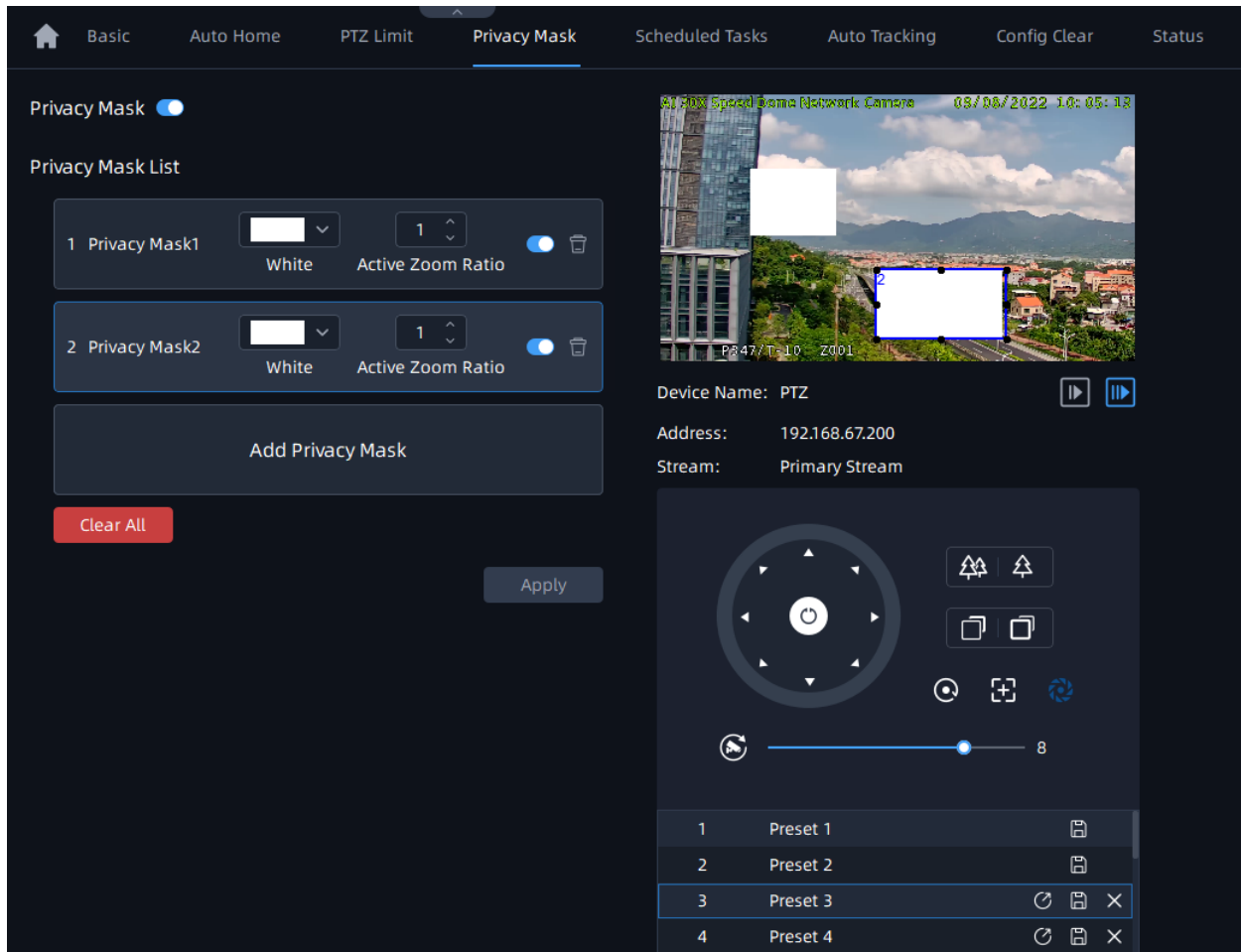
 **Note:** Manual Limit has higher priority than Scan Limit.

- **Privacy Mask**

Privacy mask enables to cover certain areas on the live video to prevent certain spots in the surveillance area from being viewed and recorded. The mask area does not move as the lens moves.

(1) For non-AI series

You can set 8 mask areas at most. The setting steps are as below:



Step1: Enable the Privacy Mask function;

Step2: Click the Add Privacy Mask and hold down the mouse to draw the area in the preview window;

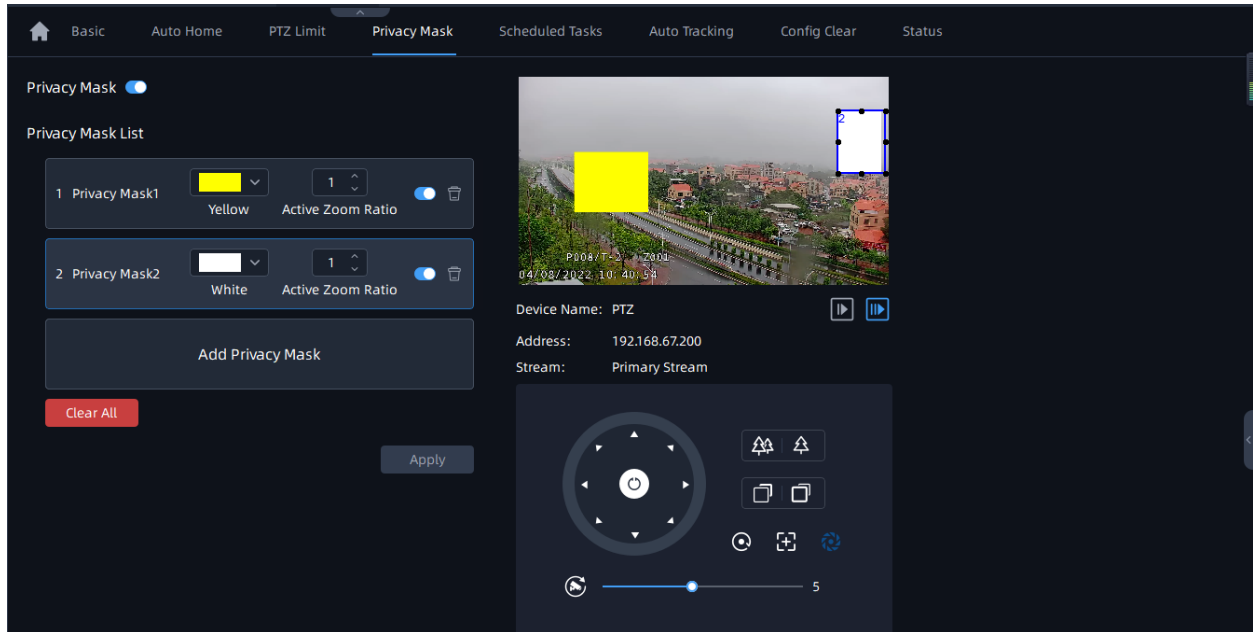
Step3: The added area will be listed in Privacy Mask List;

Step4: Configure color and Active Zoom Ratio for added Privacy Mask;

Step5: Click Apply button to apply Privacy Mask area. You can also click ✕ button to delete mask area, or click Clear All button to clear all drawn areas.

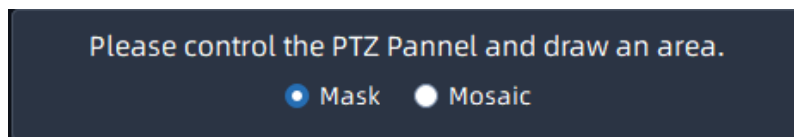
(2) For AI series

You can set 28 mask areas at most, which includes 24 mask areas and 4 mosaic areas. The setting steps are as below:



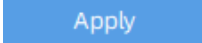


Step1: Enable the Privacy Mask function;

Step2: Click the Add Privacy Mask and select the mask type as Mask or Mosaic, then hold down the mouse to draw the area in the preview window;





Step3: The added area will be listed in Privacy Mask List;




Step4: Configure color and Active Zoom Ratio for added Privacy Mask;

Step5: Click  button to apply Privacy Mask area. You can also click  button to delete mask area, or click  button to clear all drawn areas.

The meanings of the parameters on PTZ-Privacy Mask can be referred to the table below:

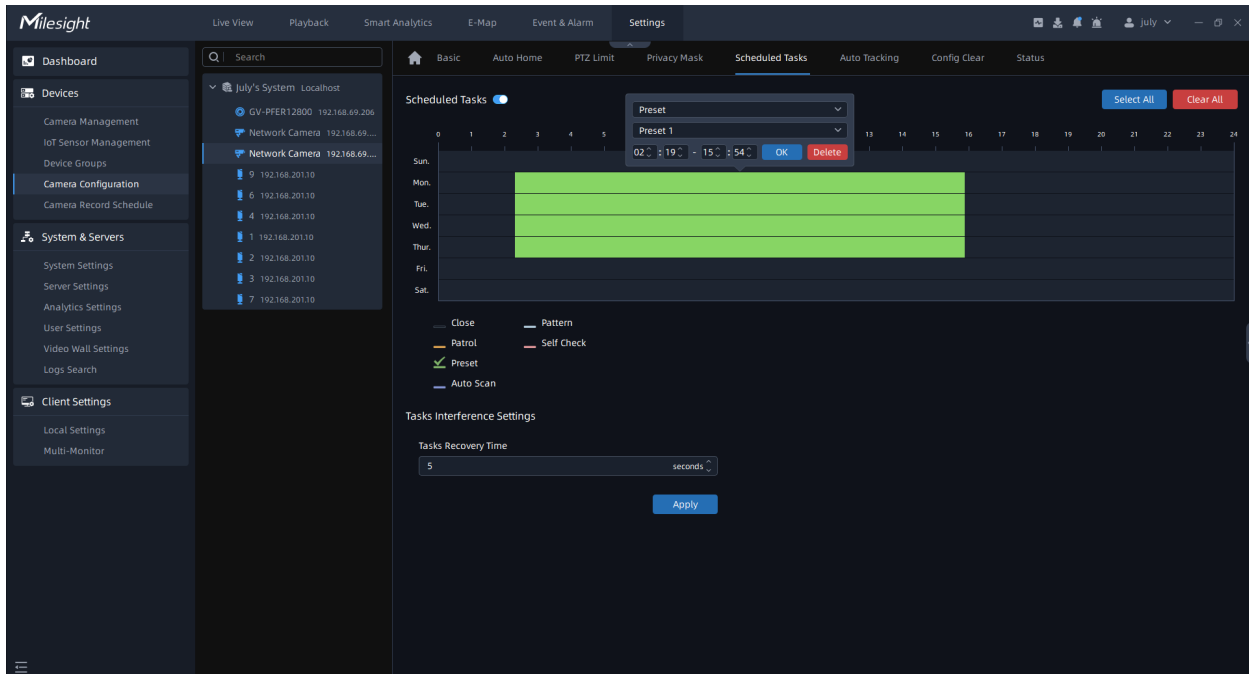
Table 13.

Parameters	Function Introduction
	Click to enable or disable the Privacy Mask function.
	Add the current drawing area as Privacy Mask.

Parameters	Function Introduction
	Delete Privacy Mask area.
	Clear all areas you drew in the Privacy Mask list.
 Color options box	Select the color for the privacy areas. There are eight colors available: White, Black, Blue, Yellow, Green, Brown, Red, Violet. If you set the mask type to Mosaic, this option will be Mosaic by default and cannot be modified.
Active Zoom Ratio	Set the value of Active Zoom Ratio from 1 to 12 according to your needs, and then the mask will only appear when the zoom ratio is greater than the predefined value.

• Scheduled Tasks

You can configure the PTZ camera to perform a certain action automatically in a user-defined time period. The page is as shown below:



The screenshot displays the 'Scheduled Tasks' configuration page in the Milesight NVR settings. The interface is dark-themed and includes a sidebar on the left with navigation options such as 'Dashboard', 'Devices', 'Camera Configuration', 'System & Servers', and 'Client Settings'. The main content area shows a calendar grid for scheduling tasks, with a legend for task types (Close, Patrol, Preset, Auto Scan) and a 'Tasks Interference Settings' section with a 'Tasks Recovery Time' slider set to 5 seconds. A 'Preset' dialog box is open, showing a selected preset and time settings (02:19 to 15:54). The calendar grid shows a task scheduled for Monday, Tuesday, and Wednesday.

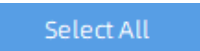
Step1: Check the checkbox to enable Scheduled Task;

Step2: Set the schedule and task details;

Step3: Set the Task Recovery Time (from 5-720 seconds). You can set the time (a period of inactivity) before the PTZ camera starts the schedule and task details.

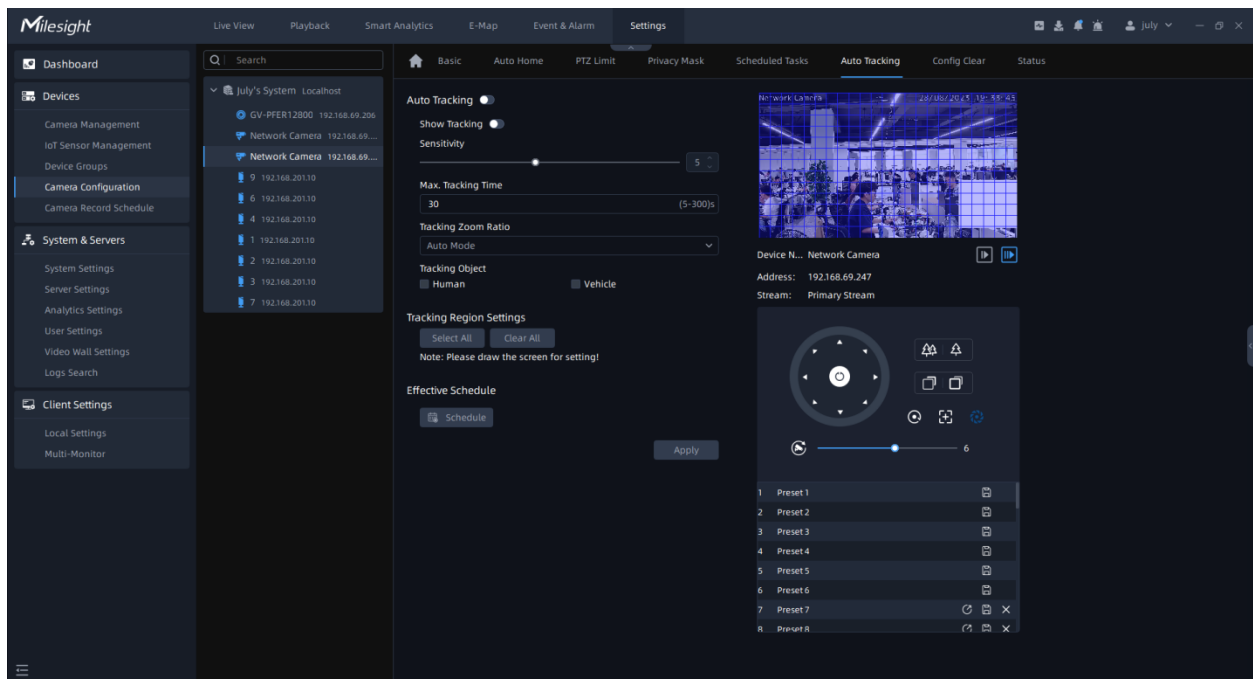
Step4: Click  button to save all the configurations.

Note:

1. The time of each task cannot be overlapped. Up to 10 tasks can be configured for each day.
2. The Scheduled Tasks function is prior to Auto Home function. When these two functions are set at the same time, only the Scheduled Tasks function takes effect.
3. You can click  button to select or close all schedules of different kinds of tasks.

• Auto Tracking

PTZ cameras support auto tracking of the moving objects after you configure this function.



Step1: Enable Auto Tracking function;

Step2: Choose whether to show tracking process;

Step3: Set detecting sensitivity from 1-10;

Step4: Set Max Tracking Time which must be between 5~300s. The camera will stop tracking when the tracking time expires;

Step5: Set Tracking Zoom Ratio including Auto Mode and Customize. The camera will automatically adjust tracking zoom ratio when Auto Mode is chosen. When Customize is chosen, user needs to set the tracking zoom ratio first by adjusting zoom button, then camera will automatically track the moving objects according to customized tracking zoom ratio and the object's proportion in the picture at the moment. At the same time, the object will always keep the same proportion in the picture during the tracking process.

Step6: Set Tracking Object. Check Human or Vehicle attribute, and the camera will automatically track the corresponding object;

Step7: Draw the screen to set the detection region.

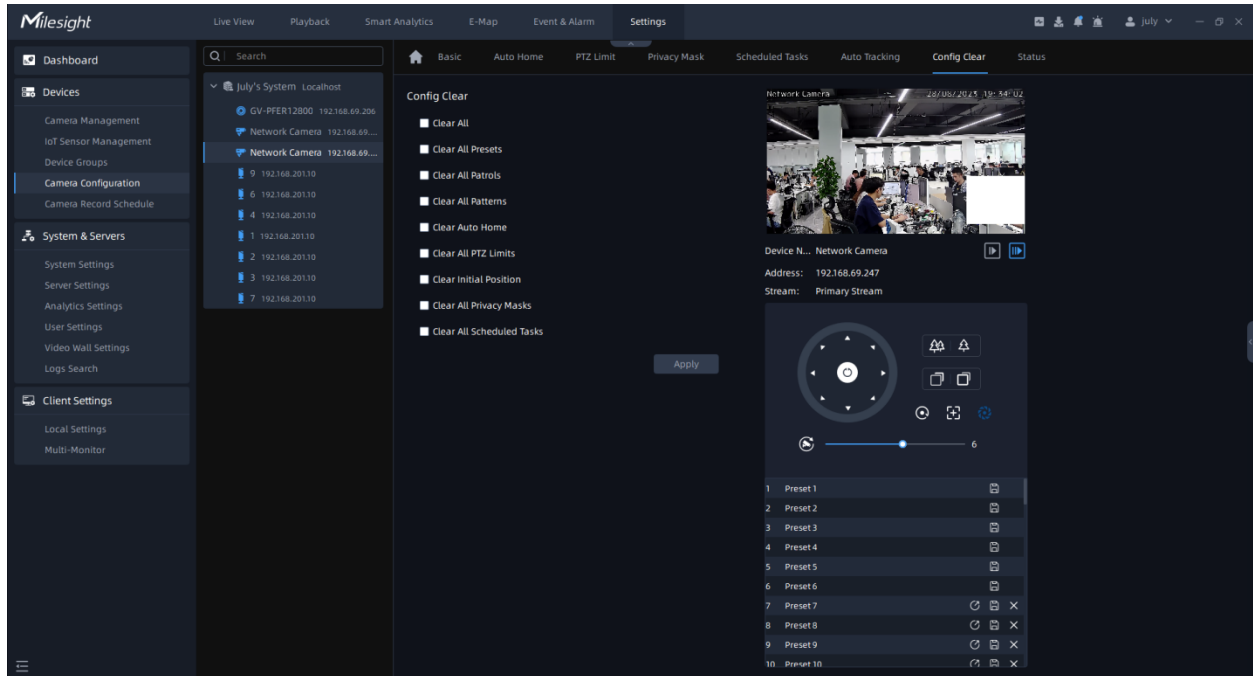
Step8: Click  to set Auto Tracking schedule;

Step9: After setting the configurations, click  button to apply the settings.

 **Note:** Please turn off Auto Home before using Auto Tracking.

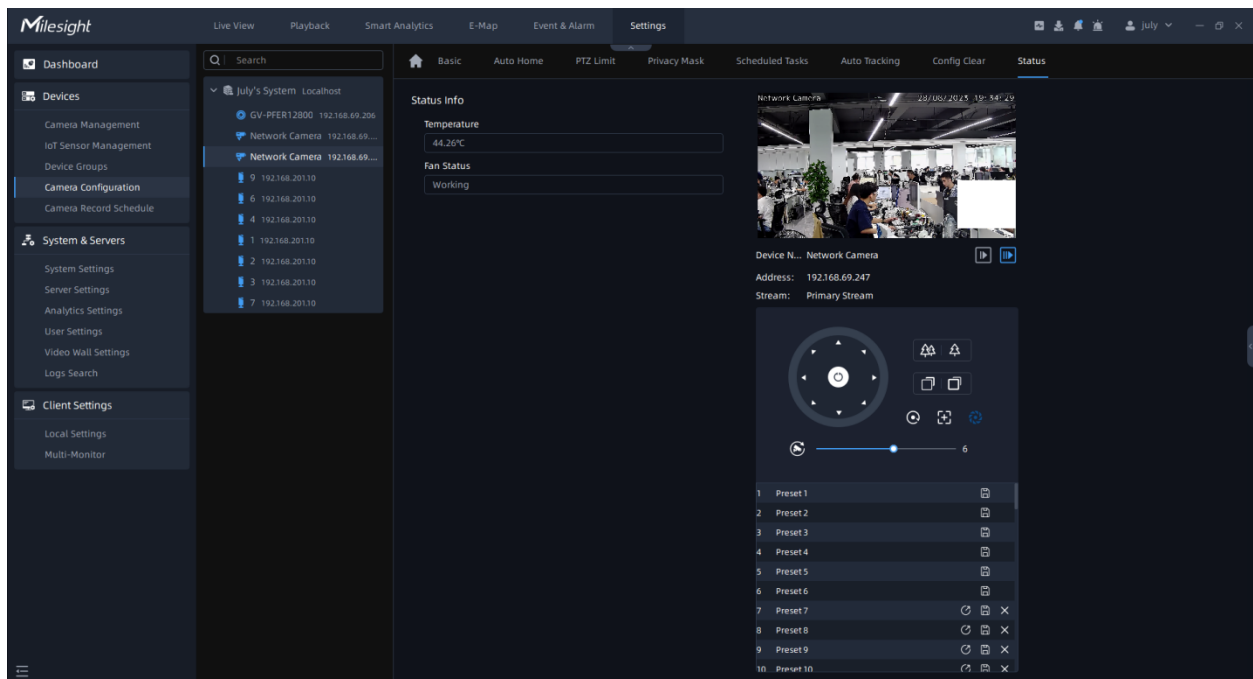
• Config Clear

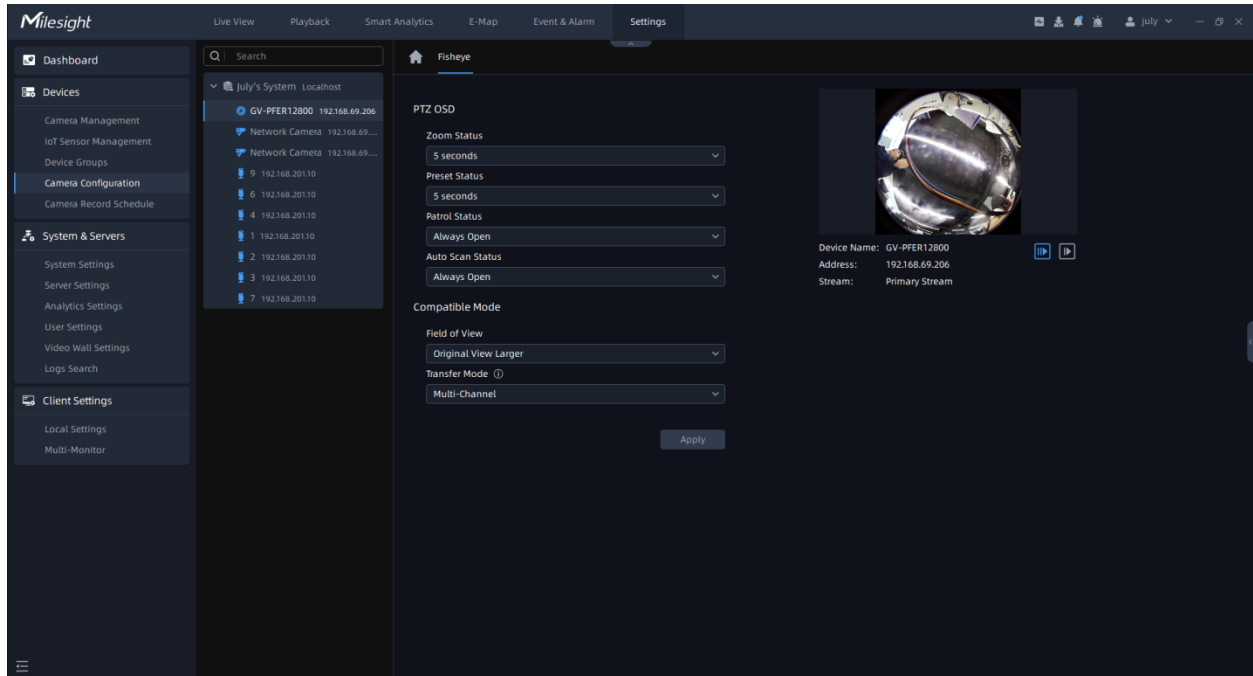
Here you can clear PTZ configurations which you set before, including Clear All, Clear All Presets, Clear All Patrols, Clear All Patterns, Clear Auto Home, Clear All PTZ Limits , Clear All Privacy Masks and Clear All Scheduled Tasks. After checking the configuration clear checkbox, click “Apply” button.



• **Status**

Here you can know the status of the PTZ, including temperature, heater status and fan status.






The meanings of the parameters on Fisheye can be referred to the table below:

Table 14.

Parameters	Function Introduction
Zoom Status	Support the settings of display time of Zoom Status OSD. 2seconds/5seconds/10seconds/Always Open/Always Close are available.
Preset Status	Support the settings of display time of Preset Status OSD. 2seconds/5seconds/10seconds/Always Open/Always Close are available.
Patrol Status	Support the settings of display time of Patrol Status OSD. Always Open/Always Close are available.
Auto Scan Status	Support the settings of display time of Auto Scan Status OSD. Always Open/Always Close are available.

Parameters	Function Introduction
<p style="text-align: center;">Field of View</p>	<p>Support optional Field of View on Fisheye camera.</p> <p>Original View Larger: With this option enabled, the original view (1O) will have a larger viewing angle, and the other views will maintain the original viewing angle.</p> <p>Normal: With this option enabled, all views will maintain the original viewing angle.</p> <p>All View Larger: With this option enabled, all views will have a larger viewing angle.</p>
<p style="text-align: center;">Transfer Mode</p>	<p>Support Bundle-Stream Mode or Multi-Channel Mode to meet different needs.</p> <p>Bundle-Stream Mode: Combining multiple views into one channels. In this mode, there are Primary and Secondary streams.</p> <p>Multi-Channel Mode: Each view occupies one channel independently according to the Display mode. In this mode, there is only Primary stream for each channel.</p>

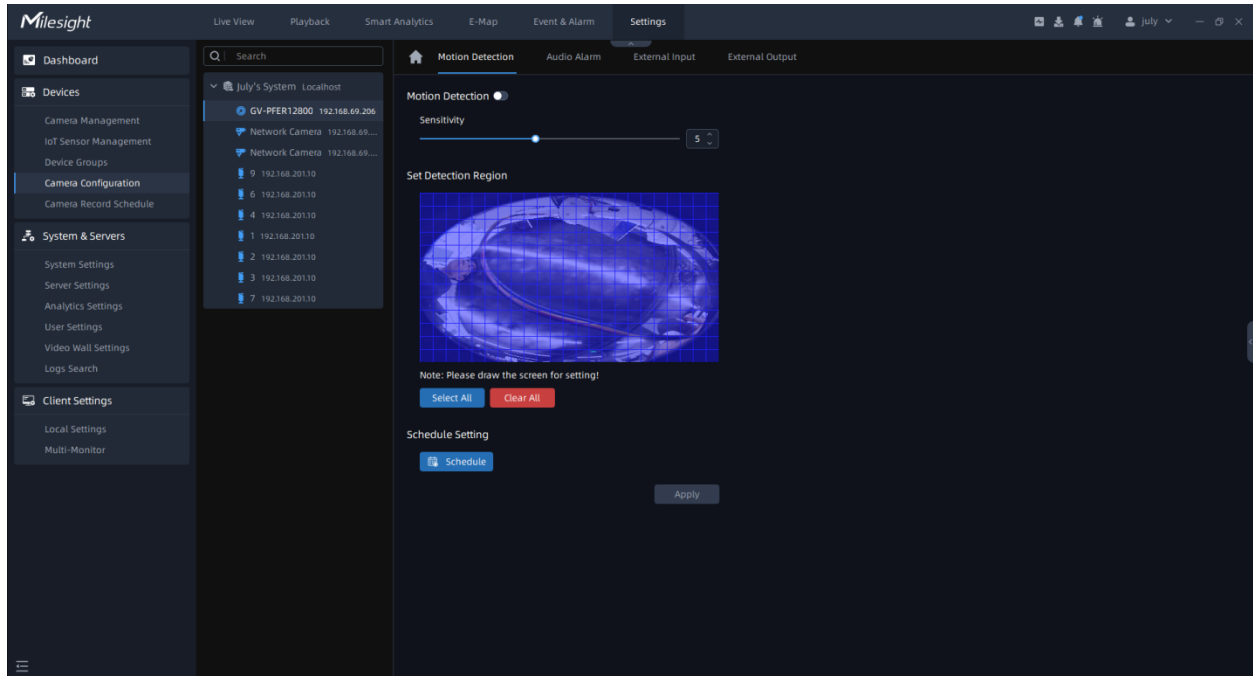
 **Note:** After finishing the settings, you can click the Apply button to apply your settings to the VMS software.


3.2.4.1.3 Front-end Basic Event


This part mainly is to set some general alarm events, including Motion Detection, Audio Alarm, External Input and External Output.

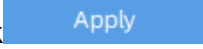
Motion Detection

User can do the alarm settings here. The page is as shown below:




Step 1: Select the camera on the left tree which you want to set motion detection. Make sure  button is enabled and draw certain areas by left-click mouse;


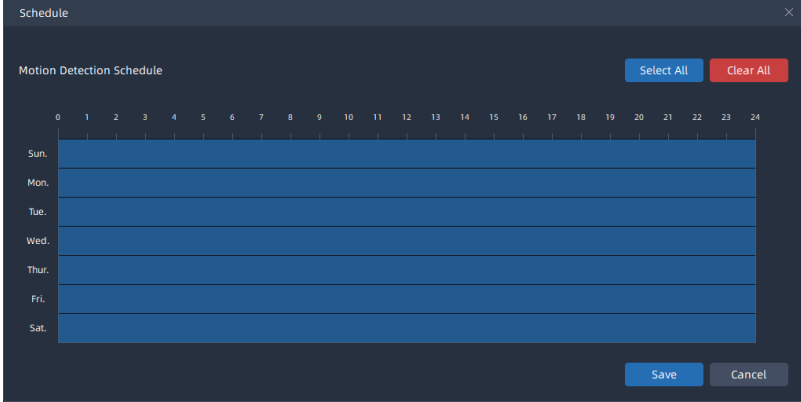
Step 2: Set Sensitivity and click  to set schedule;

Step 3: Click  button to send the settings to camera to save.

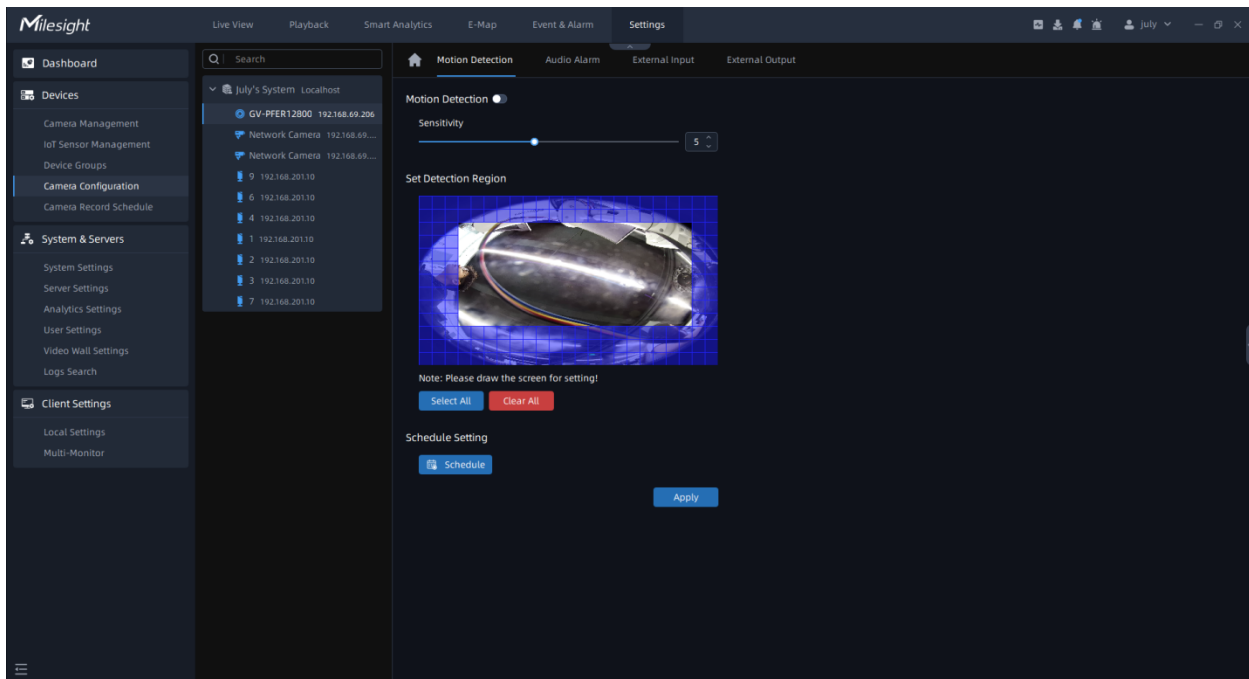
The meanings of the parameters on the page can be referred to the table below:

Table 15.

Parameters	Function Introduction
	Click to enable Motion Detection function.
Sensitivity	Sensitivity level, 1~10
Select All	Click the button, and the motion in the area will be detected.
Clear All	Click the button, and the area drawn before will be removed.

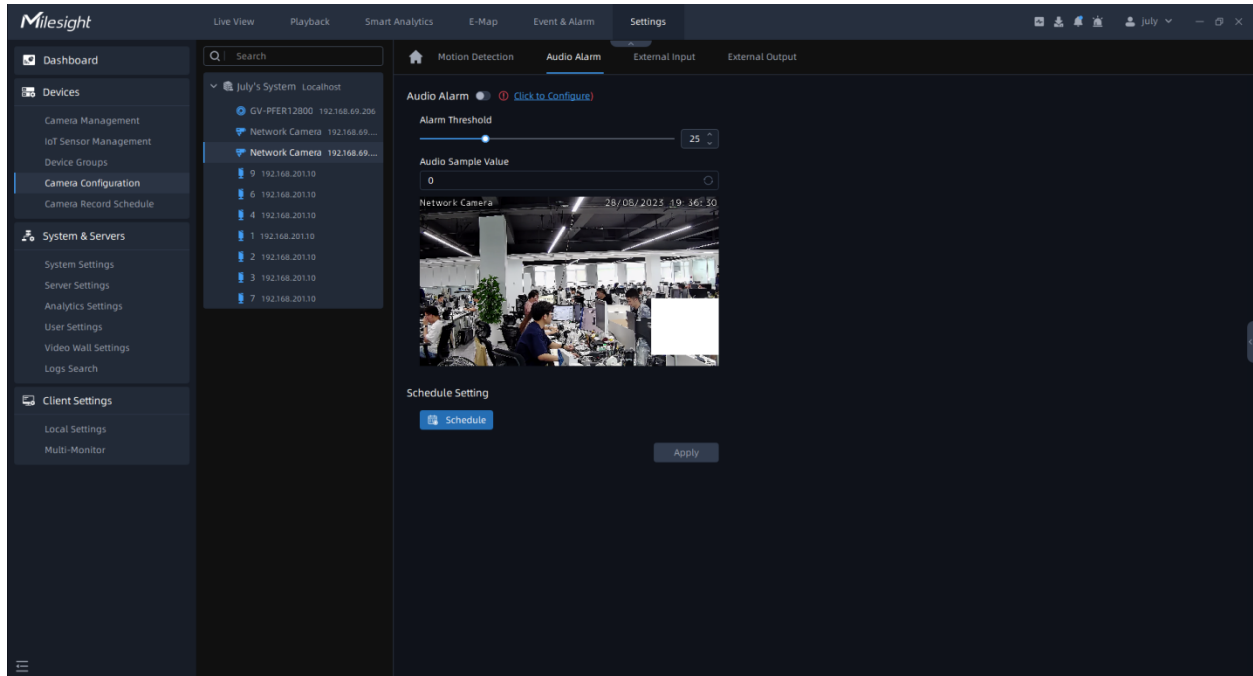
Parameters	Function Introduction
	<p>Click the button to set schedule, a window will pop up as below:</p> 


Note: It will show the real-time trigger status of the event in the configuration page.




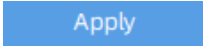
Audio Alarm


Enable the Audio before using Audio Alarm function.



Step1: Select the camera on the left tree which you want to set Audio Alarm. Make sure  button is enabled;

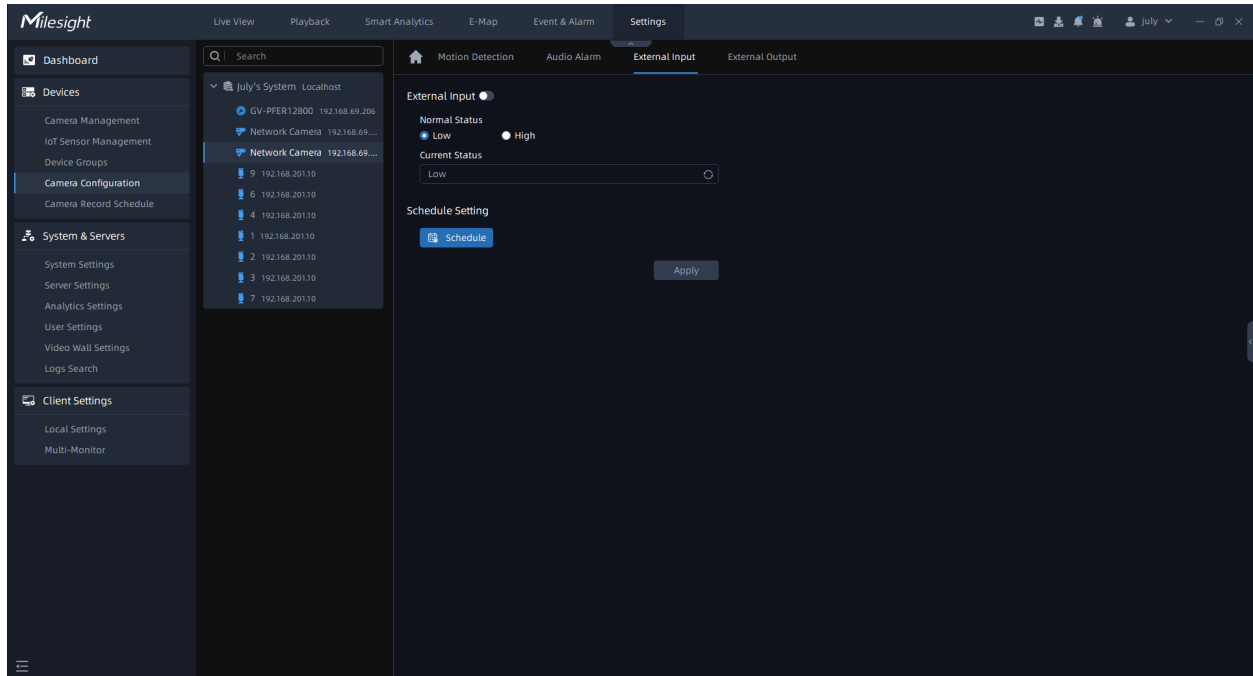
Step2: Set Alarm Threshold and click  to set schedule;

Step3: Click  button to send the settings to camera to save.

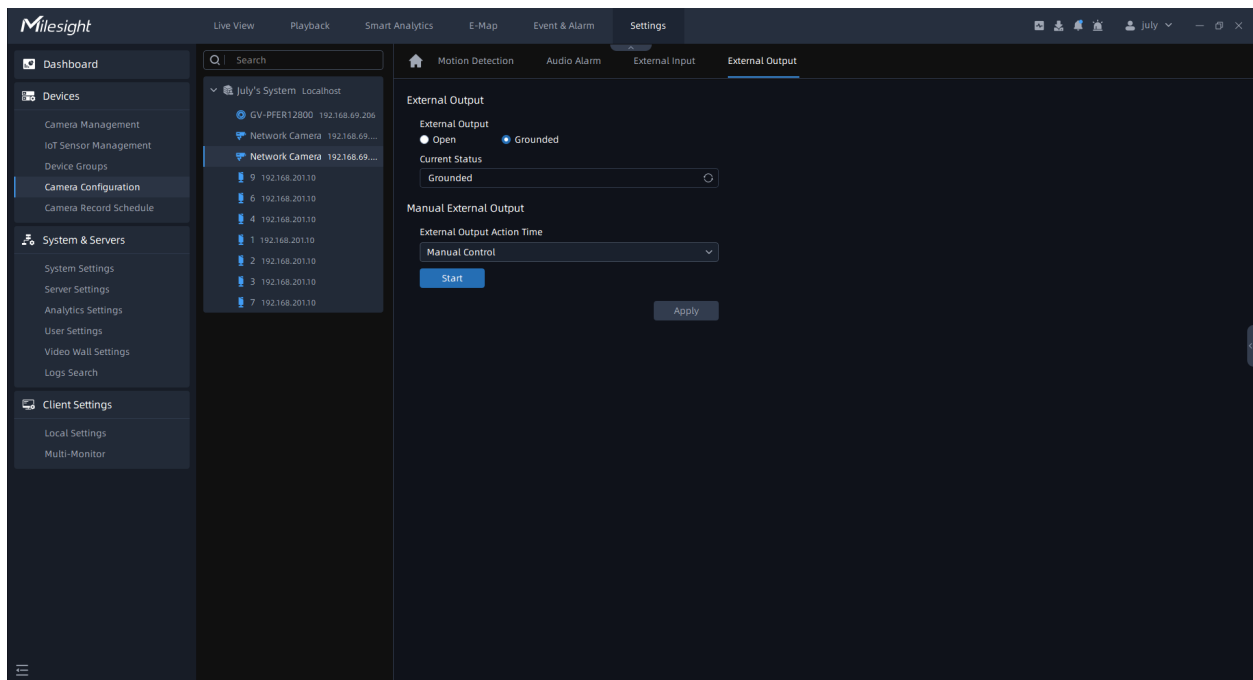
 **Note:** Audio Sample Value represents the current audio value, and only for refresh and check.

External Input

Single External Input:



Double External Input:



Please set the **Normal Status** firstly. When the **Current Status** is different with Normal Status, it will trigger the alarm.

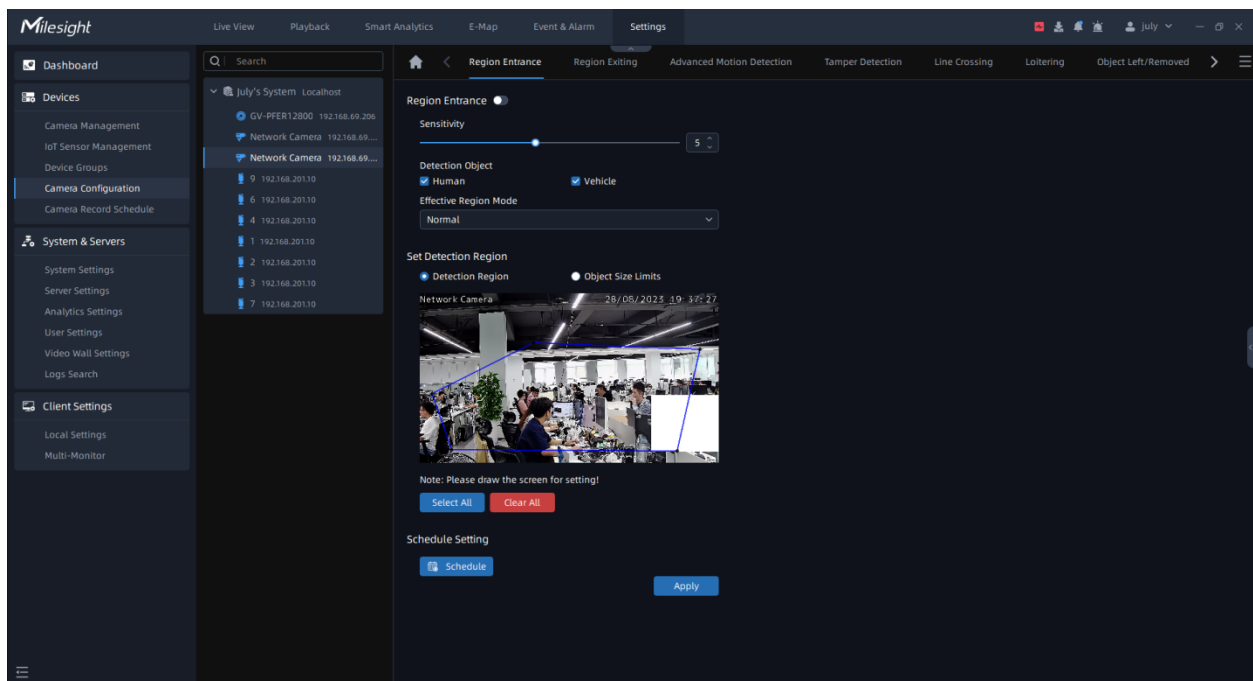
Note: There are two independently external input/output settings in the page because of some cameras with two sets of alarm input/output hardware.

3.2.4.1.4 Front-end VCA Event

Milesight VCA provides advanced, accurate smart video analytics for Milesight network cameras. It enhances the performance of network cameras through 8 detection modes which are divided into basic functions and advanced functions, enabling a comprehensive surveillance system and quicker response of cameras to different monitoring scenes.

Region Entrance

The Region entrance helps to protect a special area from potential threat of suspicious person's or object's entrance. An alarm will be triggered when objects enter the selected regions by enabling region entrance.



Step1: Select the camera and enable Region Entrance function;

Step2: Set detecting sensitivity;

Step3: Set up the Detection Object. Check Human or Vehicle attribute, and the camera will alarm and trigger related events once people or vehicle is detected;

Step4: Set Effective Region Mode. If you choose Normal, it supports configuring the Detection region for the current area. If you choose Advanced (Only for PTZ series), it supports configuring the detection region for different PTZ presets (Only support Preset 1~4 so far);

Step5: Draw the detection region.

Step6: Set Object Size Limit.


- **Minimum Size:** Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected.

The default minimum size is 3*3.

- **Maximum Size:** Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected.

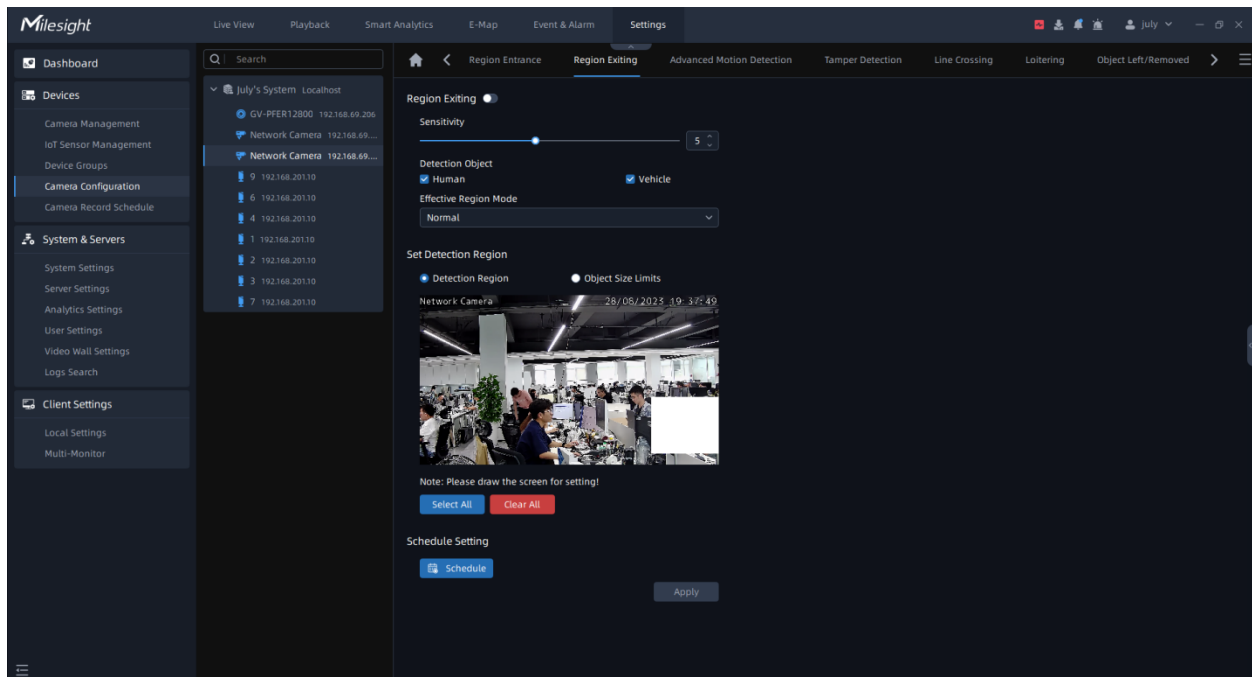
The default maximum size is 320*240.

Step7: Set detection schedule, then click  to send the settings to camera to apply.

 **Note:** For AI Camera Series, it will show the real-time trigger status of the event in the configuration page.

Region Exiting

Region exiting is to make sure that any person or object won't exit the monitored area. Any exit of people or objects will trigger an alarm.



Step1: Select the camera and enable Region Exiting function;

Step2: Set detecting sensitivity;

Step3: Set up the Detection Object. Check Human or Vehicle attribute, and the camera will alarm and trigger related events once people or vehicle is detected;

Step4: Set Effective Region Mode. If you choose Normal, it supports configuring the Detection region for the current area. If you choose Advanced (Only for PTZ series), it supports configuring the detection region for different PTZ presets (Only support Preset 1~4 so far);

Step5: Draw the detection region.

Step6: Set Object Size Limit.


- Minimum Size: Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected.

The default minimum size is 3*3.

- Maximum Size: Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected.

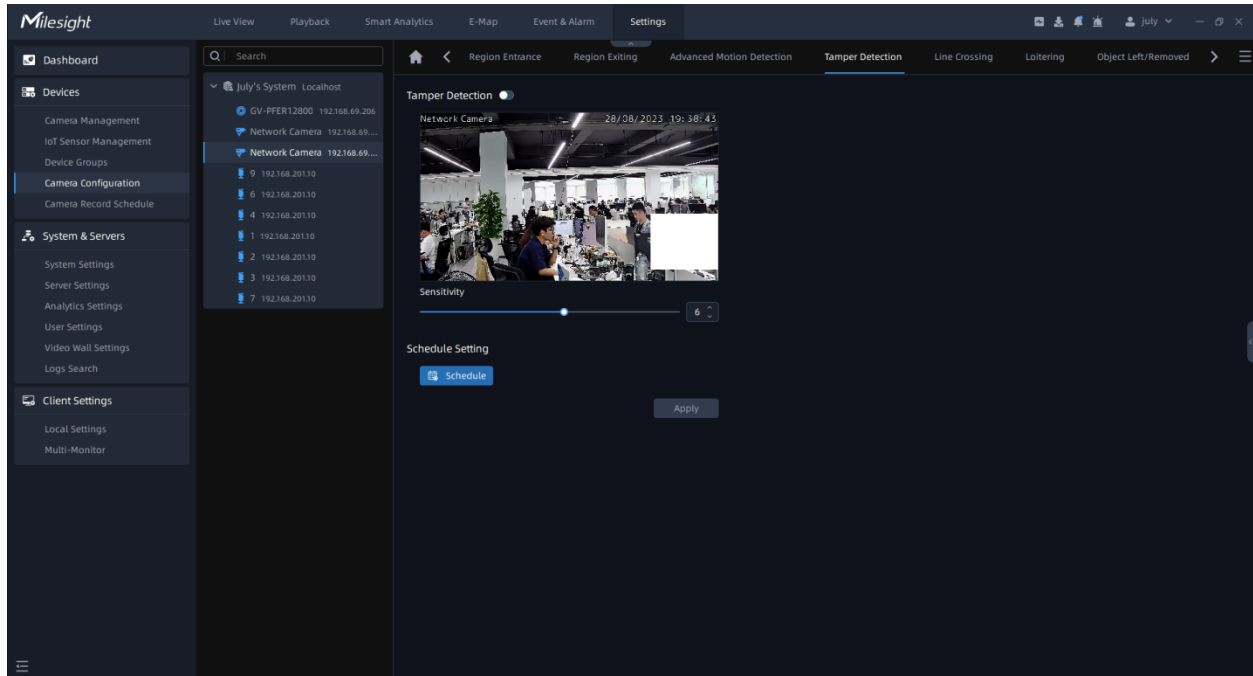
The default maximum size is 320*240.

Step7: Set detection schedule, then click  to send the settings to camera to apply.

 **Note:** For AI Camera Series, it will show the real-time trigger status of the event in the configuration page.

Advance Motion Detection

Different from traditional motion detection, Milesight Advanced Motion Detection can filter out “noise” such as lighting changes, natural tree movements, etc. When an object moves in the selected area, it will trigger alarm.



Step1: Select the camera and enable Advanced Motion Detection function;

Step2: Set detecting sensitivity;

Step3: Set up the Detection Object. Check Human or Vehicle attribute, and the camera will alarm and trigger related events once people or vehicle is detected;

Step4: Set Effective Region Mode. If you choose Normal, it supports configuring the Detection region for the current area. If you choose Advanced (Only for PTZ series), it supports configuring the detection region for different PTZ presets (Only support Preset 1~4 so far);

Step5: Draw the detection region.

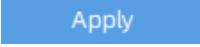
Step6: Set Object Size Limit.


- Minimum Size: Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected.

The default minimum size is 3*3.

- Maximum Size: Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected.

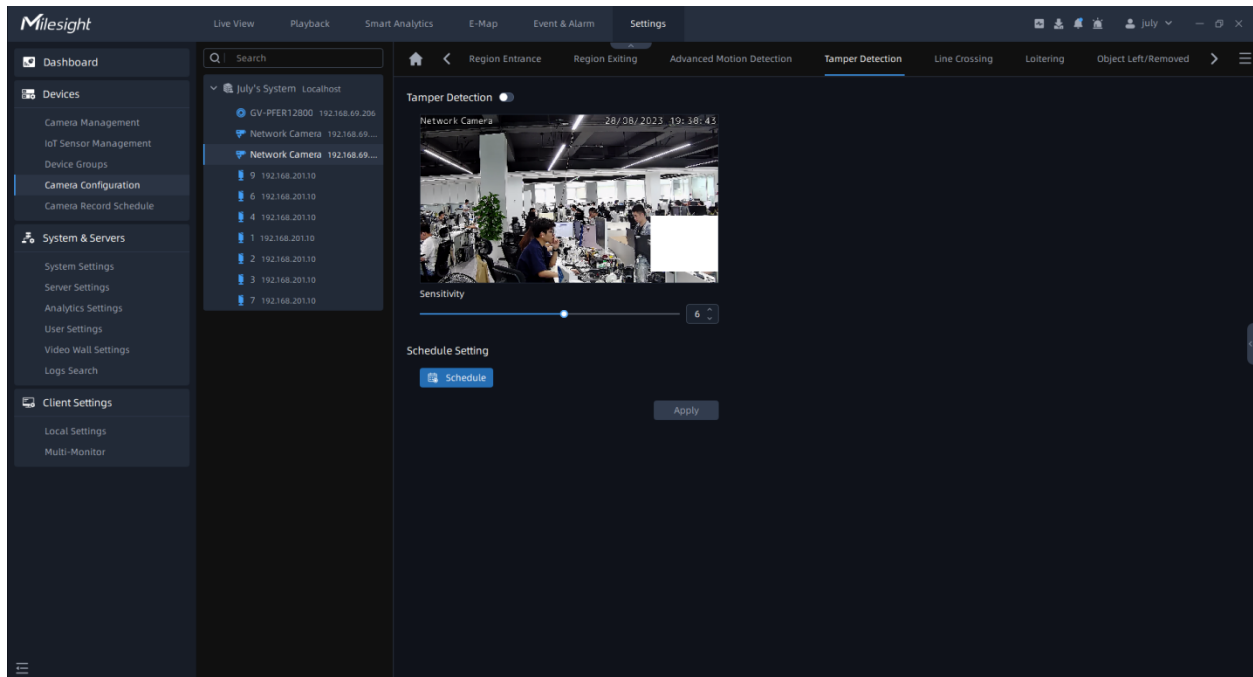
The default maximum size is 320*240.

Step7: Set detection schedule, then click  to send the settings to camera to apply.

 **Note:** For AI Camera Series, it will show the real-time trigger status of the event in the configuration page.


Tamper Detection


Tamper Detection is used to detect possible tampering like the camera being unfocused, obstructed or moved. This functionality alerts security staff immediately when any above-mentioned actions occur.



Step1: Select the camera and enable Tamper Detection function;

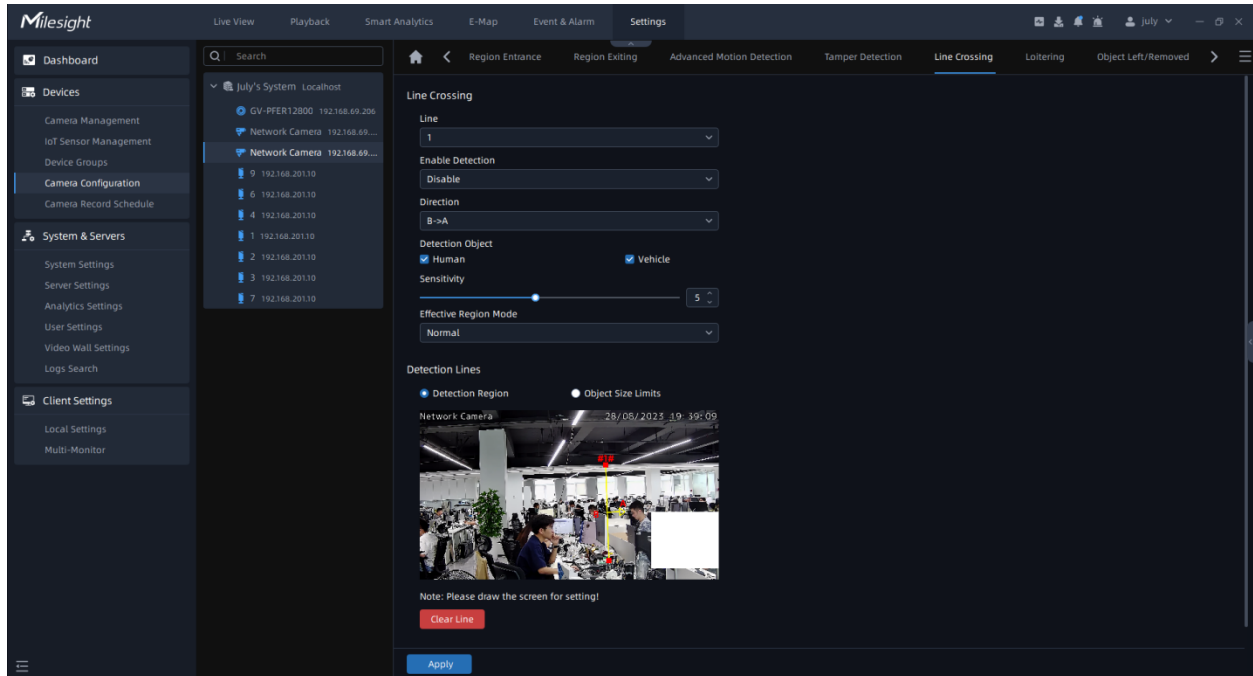
Step2: Set detecting sensitivity;

Step3: Set detection schedule, then click  to send the settings to camera to apply.

 **Note:** For AI Camera Series, it will show the real-time trigger status of the event in the configuration page.

Line Crossing

Line Crossing detection is designed to work in most indoor and outdoor environments. An event will be triggered when the camera detects objects crossing a defined virtual line.



Settings steps are shown as follows:

Step1: Select camera and choose a line number;

Step2: Enable Line Crossing Detection function;

Step3: Define its direction;

Step4: Set up the Detection Object. Check Human or Vehicle attribute, and the camera will alarm and trigger related events once people or vehicle is detected;

Step5: Set detecting sensitivity;

Step6: Draw detection lines. If you choose Normal, it supports configuring the Detection line for the current area. If you choose Advanced (Only for PTZ series), it supports configuring the detection line for different PTZ presets (Only support Preset 1~4 so far);

Step7: Set detection schedule, then click Apply to send the settings to camera to apply.

Step8: Draw the detection region.

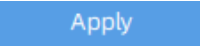
Step9: Set Object Size Limit.

- **Minimum Size:** Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected.

The default minimum size is 3*3.

- **Maximum Size:** Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected.

The default maximum size is 320*240.

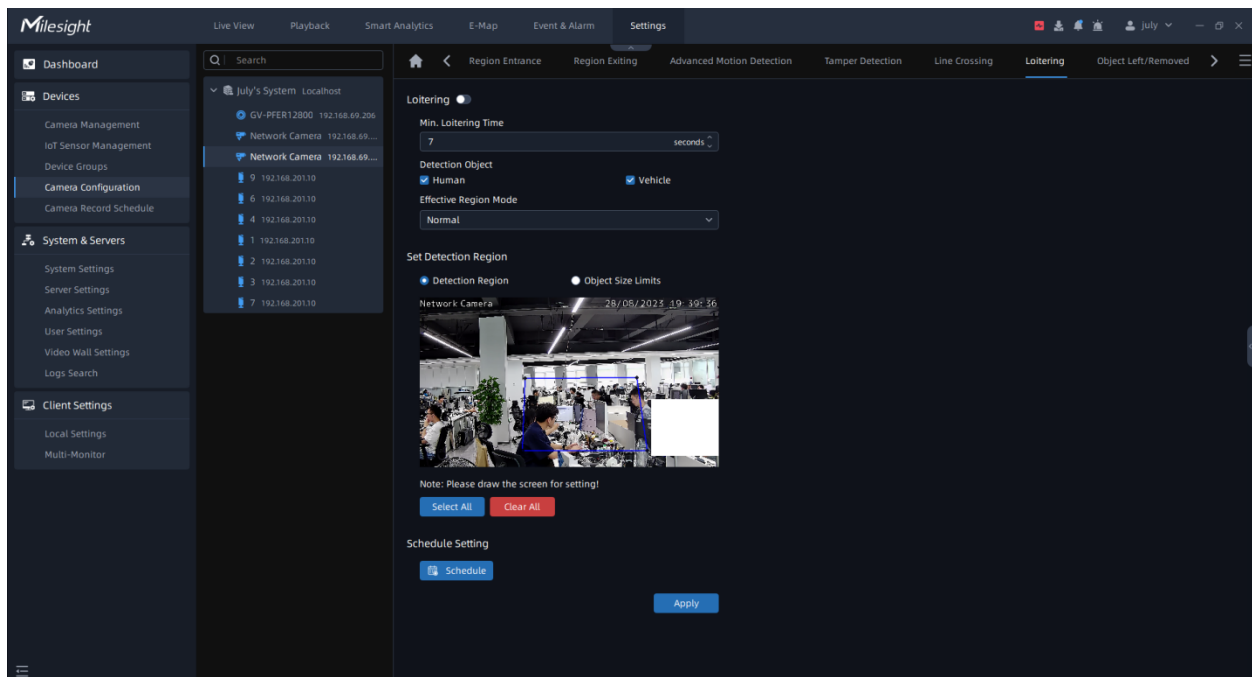
Step10: Set detection schedule, then click  to send the settings to camera to apply.

Note:

1. Milesight allows to set up to four lines at a time. There are three direction modes to choose for triggering alarm. “A-->B” means when there is any object crossing the line from the “A” side to the “B” side, the alarm will be triggered. “B-->A” vice versa. “A<-->B” means that the alarm will be triggered when objects cross line from either side.
2. For AI Camera Series, it will show the real-time trigger status of the event in the configuration page.

Loitering

When objects are loitering in a defined area for a specific period of time, it would trigger an alarm.



The screenshot displays the Milesight web interface for configuring Loitering detection. The interface includes a sidebar with navigation options such as Dashboard, Devices, System & Servers, and Client Settings. The main content area shows the 'Loitering' configuration page with the following settings:

- Min. Loitering Time:** 7 seconds
- Detection Object:** Human and Vehicle (both checked)
- Effective Region Mode:** Normal
- Set Detection Region:** Detection Region (selected), Object Size Limits
- Video Feed:** Network Camera, 28/08/2023 19:39:36
- Buttons:** Select All, Clear All, Apply

Note: Please draw the screen for setting!

Step1: Select camera and enable the Loitering function;

Step2: Set minimum loitering time;

Step3: Set up the Detection Object. Check Human or Vehicle attribute, and the camera will alarm and trigger related events once people or vehicle is detected;

Step4: Set Effective Region Mode. If you choose Normal, it supports configuring the Detection region for the current area. If you choose Advanced (Only for PTZ series), it supports configuring the detection region for different PTZ presets (Only support Preset 1~4 so far);

Step5: Draw the detection region.

Step6: Set Object Size Limit.

- Minimum Size: Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected.

The default minimum size is 3*3.

- Maximum Size: Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected.

The default maximum size is 320*240.

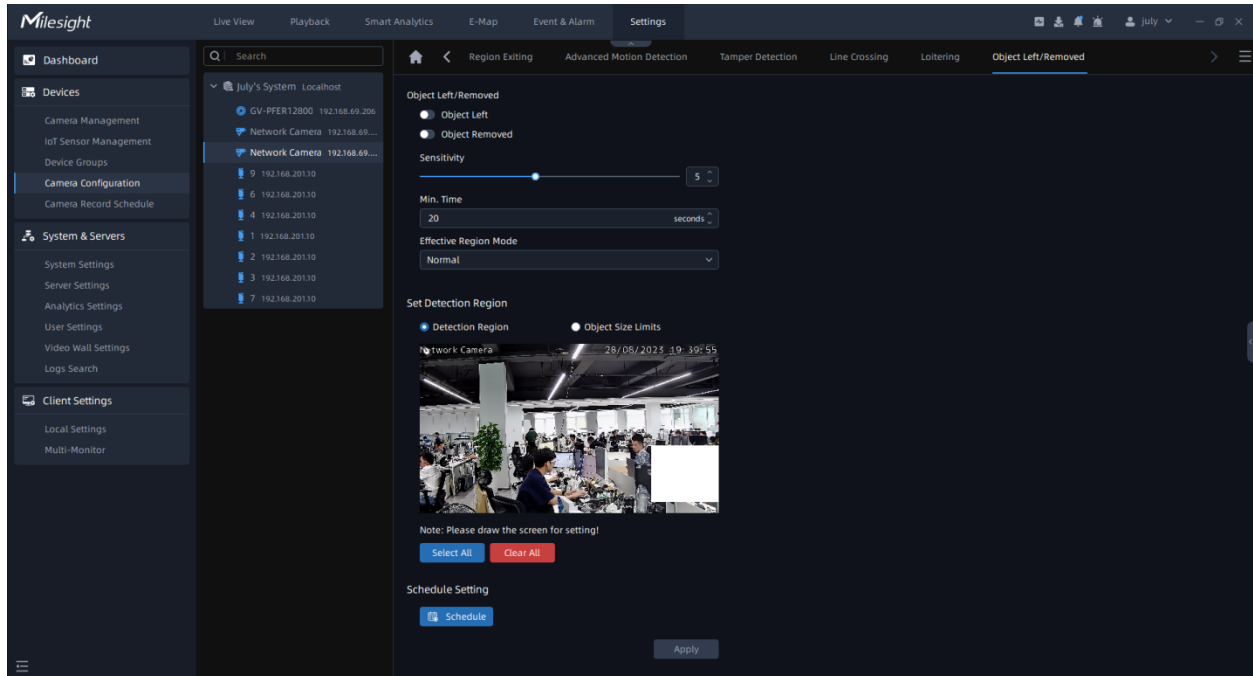
Step7: Set detection schedule, then click  to send the settings to camera to apply.

 **Note:**

- After setting minimum loitering time from 3s to 1800s, any objects loitering in the selected area over the minimum loitering time will trigger the alarm.
- For AI Camera Series, it will show the real-time trigger status of the event in the configuration page.

Object Left/Removed

Object Left can detect and prompt an alarm if an object is left in a pre-defined region. Object Removed can detect and prompt an alarm if an object is removed from a pre-defined region.



Step1: Enable Object Left or Object Removed (Or you can enable both features at the same time);

Step2: Set detecting sensitivity;

Step3: Set minimum time;

Step4: Set Effective Region Mode. If you choose Normal, it supports configuring the Detection region for the current area. If you choose Advanced (Only for PTZ series), it supports configuring the detection region for different PTZ presets (Only support Preset 1~4 so far);

Step5: Draw the detection region.


Step6: Set Object Size Limit.

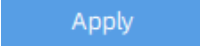
- **Minimum Size:** Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected.


The default minimum size is 3*3.

- **Maximum Size:** Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected.

The default maximum size is 320*240.

Step7: Set detection schedule, then click  to send the settings to camera to apply.

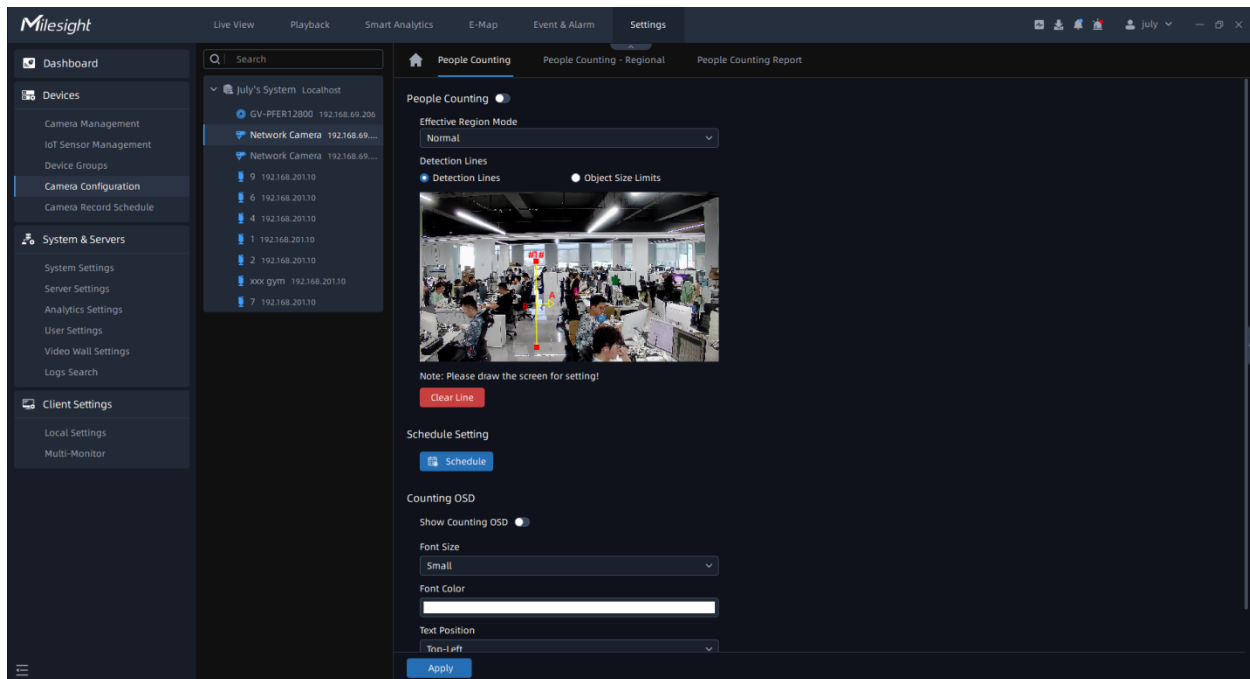
Step8: Click  to send the settings to camera to apply.

 **Note:** After setting minimum time from 3s to 1800s, any objects are left in the selected area or removed from the selected area over the minimum time will trigger the alarm.

3.2.4.1.5 Advanced

People Counting

People counting is able to count how many people enter or exit during the setting period.



Step1: Select camera and enable the People Counting function;

Step2: Set Effective Region Mode. If you choose Normal, it supports configuring the Detection region for the current area. If you choose Advanced (Only for PTZ series), it supports configuring the detection region for different PTZ presets (Only support Preset 1~4 so far);

Step3: Set detection line;

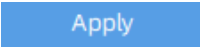
Step4: Set Object Size Limit.

- **Minimum Size:** Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected.

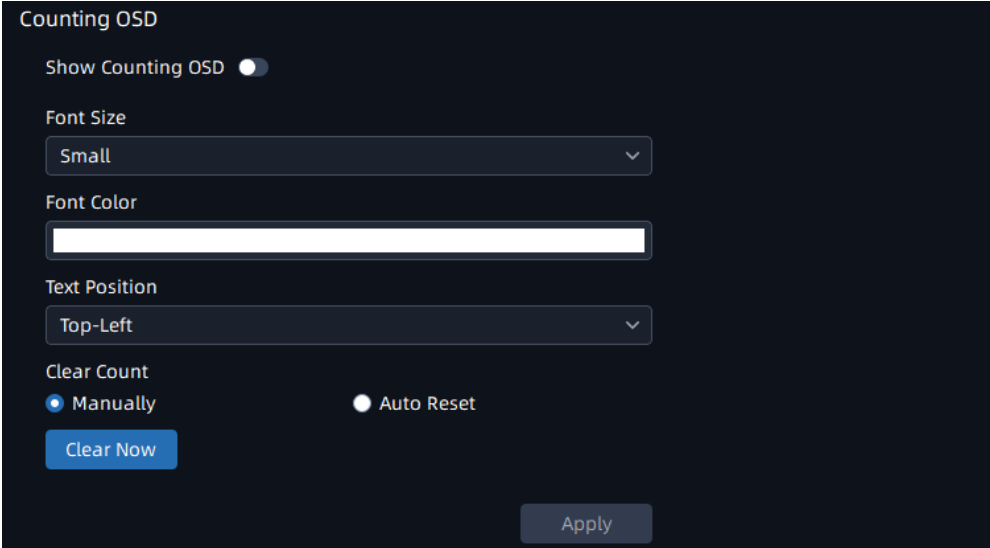
The default minimum size is 3*3.

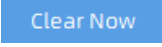
- **Maximum Size:** Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected.

The default maximum size is 320*240.

Step5: Set detection schedule, then click  to send the settings to camera to apply.

Step6: Set Counting OSD;



Here you can check counting options which will display on the screen, and set font size, font color and text position. There are two types of clearing count, including Manually and Auto Reset. You can check Manually and click  to clear counting, or check Auto Reset and choose when to automatically reset. The Auto Reset configuration interface is as below:

Clear Count

Manually Auto Reset

Day to Reset

Everyday

Time to Reset

11: 28: 10

Apply

Everyday

Sun.

Mon.

Tue.

Wed.

Thur.

Fri.

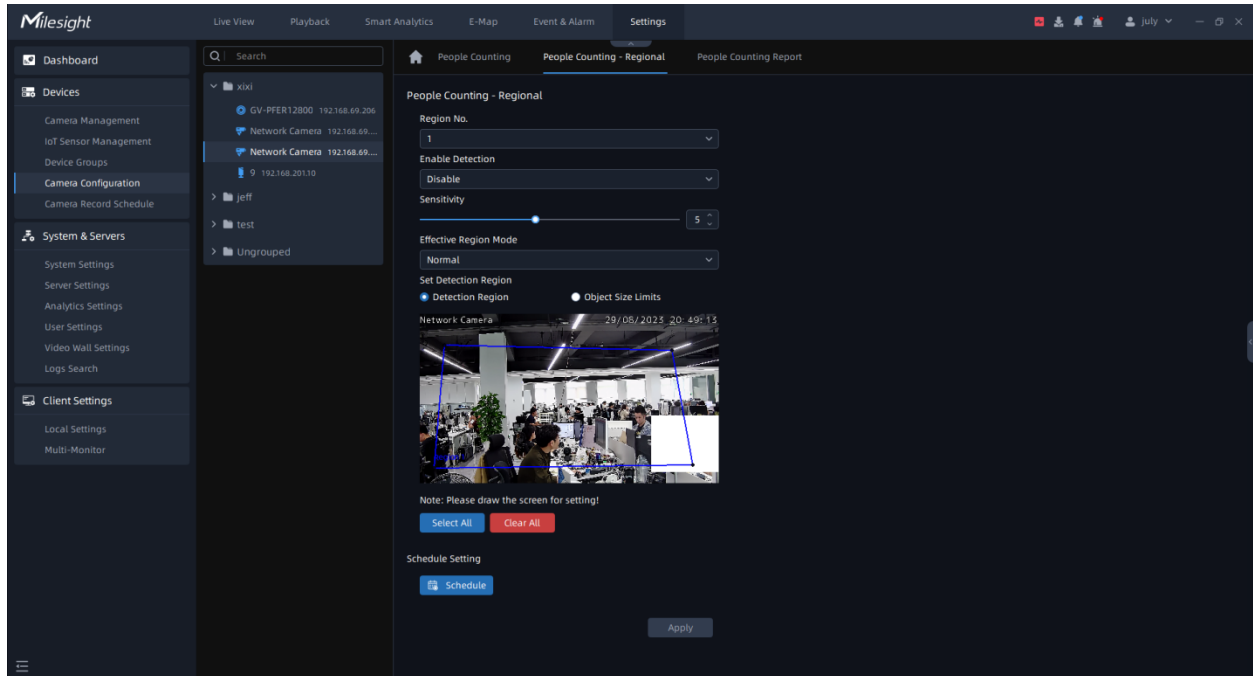
Sat.

Everyday

Step7: Click  to send the settings to camera to apply.

Regional People Counting

When enabling Regional People Counting, users can check the real-time number of people and the time of each person's stay in the detection region.



Step1: Select a detection area and enable it;

Step2: Set detecting sensitivity;

Step3: Draw the detection region.;

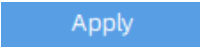
Step4: Set Object Size Limit.

- **Minimum Size:** Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected.

The default minimum size is 3*3.

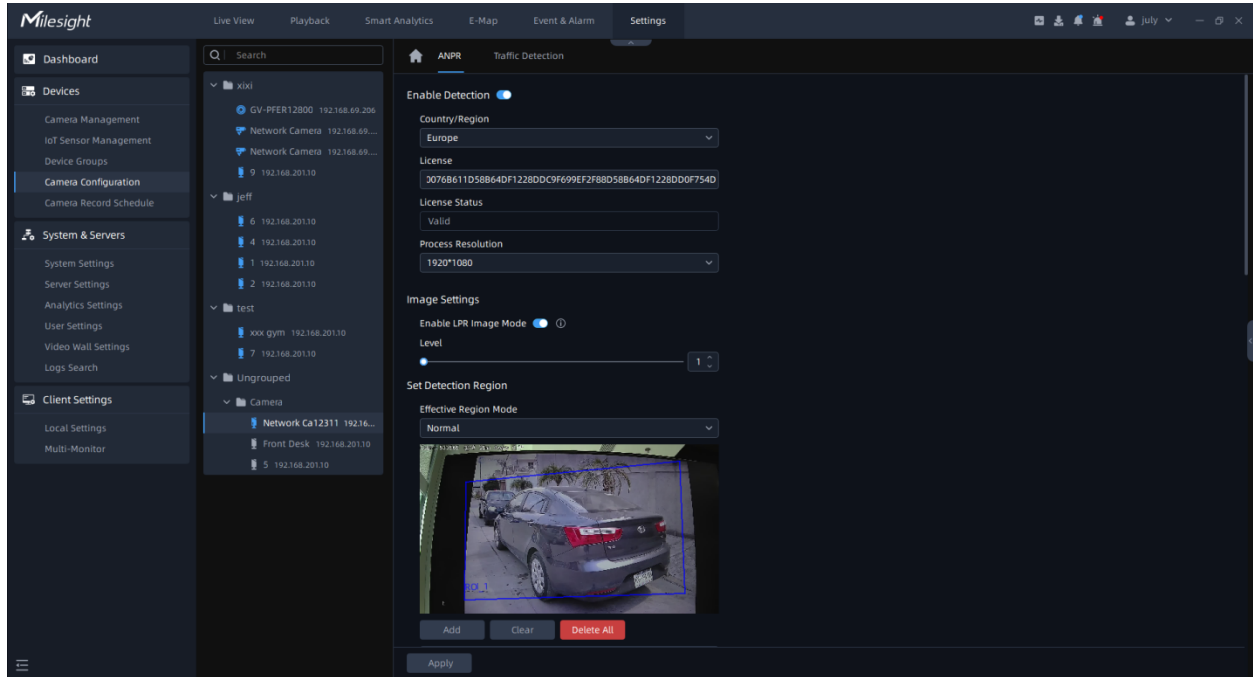
- **Maximum Size:** Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected.

The default maximum size is 320*240.

Step5: Set detection schedule, then click  to send the settings to camera to apply.

ANPR

This part is to enable the license plate recognition function and set related detection configuration for Milesight cameras which supports LPR function.



Step1: Click plates;  button to enable Detection, the camera can start detecting the license

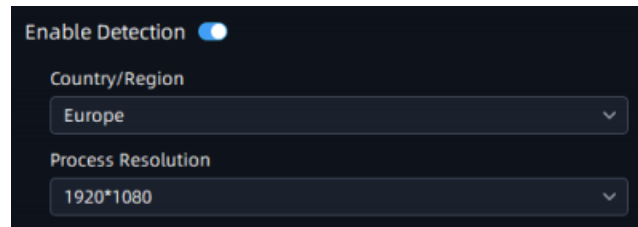



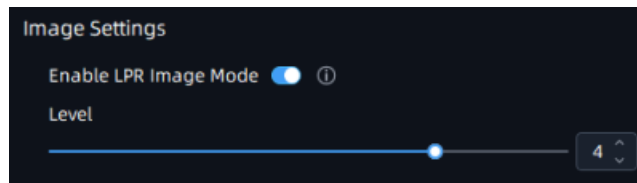
Table 16.

Parameters	Function Introduction
	Click the button to enable detection function.

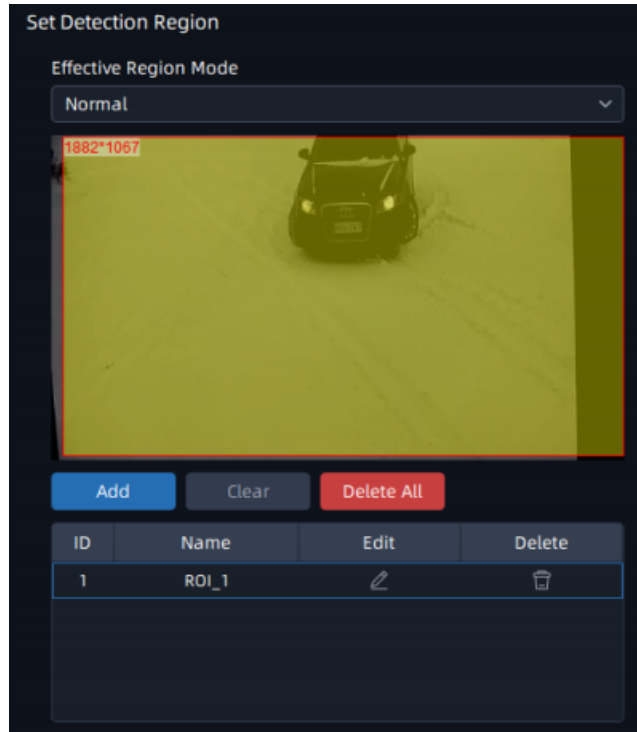
Parameters	Function Introduction
License (Only for LPR2 and LPR3)	Generated by camera's information.
License Status (Only for LPR2 and LPR3)	Show present license status, including Valid and Invalid .
Country/Region	Select Country/Region to detect the license plate.
Process Resolution	Resolution of the stream for LPR Analytics, including 1920*1280, 1280*720.

Step2: The LPR Image Mode supports the optimal LPR night recognition effect by adjusting different parameter levels. Level 1~5 are available.

To enable LPR Image Mode, parameters of Backlight, Exposure and Day/Night Switch will be set to special values. Minimum Shutter of each Level: 1- 1/250, 2- 1/500, 3 - 1/750, 4 - 1/1000, 5- 1/2000.



Step3: Set Detection Region. You can draw the screen to select interested areas;



Advanced Mode (For PTZ camera):

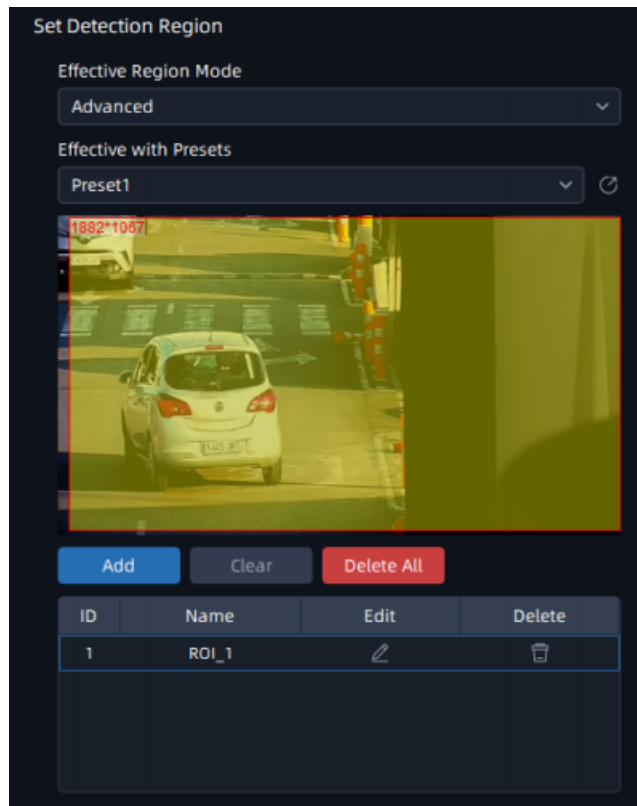




















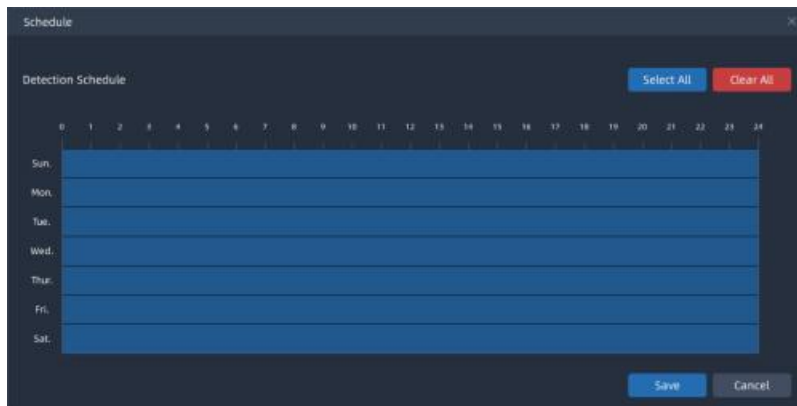


Table 17.

Parameters	Function Introduction																
Effective Region Settings	<p>Normal: Configure the LPR detection regions for the current area.</p> <p>Advanced: Configure different LPR detection regions for different PTZ presets(Only support Preset 1~4 so far).</p>																
Add	<p>Draw the screen to select the interested areas, then click "Add"button to add the area, and only four recognition areas can be added.</p> <p>You can edit the name of the areas or delete the areas in the list below.</p> <table border="1" data-bbox="821 716 1321 888"> <thead> <tr> <th>ID</th> <th>Name</th> <th>Edit</th> <th>Delete</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>ROI_1</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>ROI_2</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>ROI_3</td> <td></td> <td></td> </tr> </tbody> </table> <p> Note: Minimum width of detection area is 150 pixels, and Minimum height of detection area is 40 pixels.</p>	ID	Name	Edit	Delete	1	ROI_1			2	ROI_2			3	ROI_3		
ID	Name	Edit	Delete														
1	ROI_1																
2	ROI_2																
3	ROI_3																
Clear	Click the "Clear" button to clear the area being drawn.																
Delete All	Click the "Delete All" button to delete all the added areas.																

Step4: Schedule Settings. You can draw the schedule by clicking  button;



Step5: Set Detection Settings, Snapshot OSD and LPR Message Post Settings, then click "Apply" button.

Detection Settings

Detection Trigger
Always

Repeat Plate Checktime
0 millisecond(s)

License Plate Serial Format
Edit

Features Identification

- All
- Plate Color
- Vehicle Color
- Direction
- Vehicle Type
- Detection Region

Snapshot OSD

Font Size
Medium

Font Color
[Color Picker]

Enable Background Color

[Color Picker]

OSD Position
Top

OSD Information

- All

Plate

- License Plate
- Plate Type
- Plate Color

Vehicle


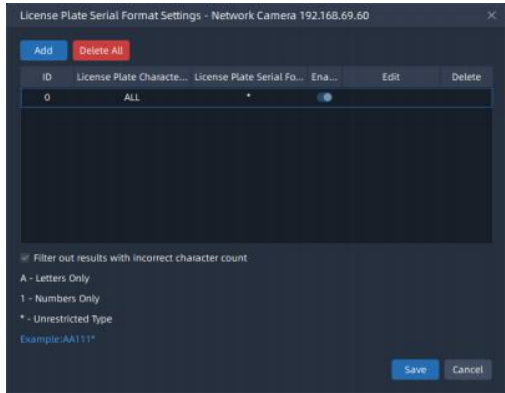
- Vehicle Type
- Vehicle Color
- Direction
- Speed

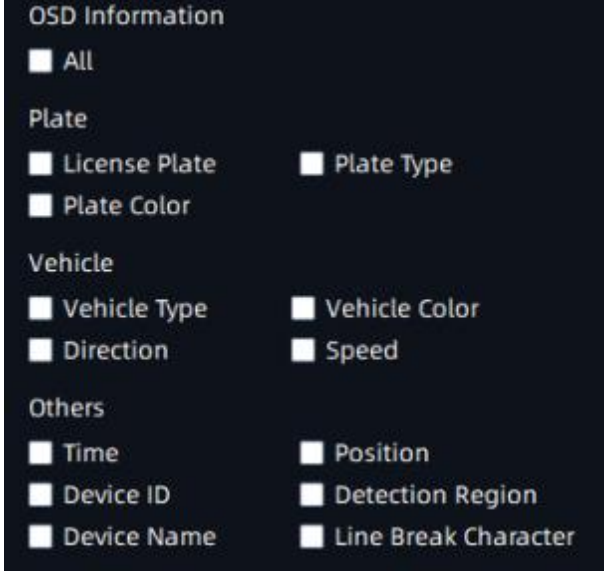

Others

- Time
- Position
- Device ID
- Detection Region
- Device Name
- Line Break Character

Table 18.


Parameters	Function Introduction
Detection Trigger	<p>Always: in this mode, camera will always detect license plates.</p> <p>Alarm Input: in this mode, camera will only detect license plates during Alarm Input is being triggered.</p>
Confidence Level	<p>You can set the confidence level from 1 to 10.</p> <p>When the confidence level of the license plate is higher than the set confidence level, it will push the license plate image to the Smart Search interface.</p>
Repeat Plate Checktime	<p>Set the time interval for repeatedly reading license plates to effectively avoid duplicate identification of parking vehicles.</p> <p>You can set Repeat Plate Checktime from 0 to 60min or 0 to 60000ms.</p>

Parameters	Function Introduction
<p style="text-align: center;">License Plate Serial Format</p>	<p>Click  button to customize the license plate serial format. It supports formulating identification rules and can automatically do further processing, filter license plates in non-compliant formats to achieve more intelligent and accurate license plate recognition.</p> 
<p style="text-align: center;">Features Identification</p>	<p>Check All, Plate Color, Vehicle Type, Vehicle Color, Detection Region, Direction, or Region(Only for LPR2) to enable Feature Identification, and it will display the corresponding information on the ANPR Search interface.</p>
<p style="text-align: center;">Font Size</p>	<p>Small/Medium/Large are available.</p>
<p style="text-align: center;">Font Color</p>	<p>Set different colors for the image OSD.</p>
<p style="text-align: center;">Enable Background Color</p>	<p>Enable to set different colors for display information background on screen.</p>
<p style="text-align: center;">OSD Position</p>	<p>OSD display position on the image .</p>

Parameters	Function Introduction
<p style="text-align: center;">OSD Information</p>	<p>Customize the OSD content. You can set OSD Information as shown below:</p>  <p>The screenshot shows a dark-themed settings window titled "OSD Information". It contains several sections with checkboxes: <ul style="list-style-type: none"> OSD Information: <input type="checkbox"/> All Plate: <input type="checkbox"/> License Plate, <input type="checkbox"/> Plate Type, <input type="checkbox"/> Plate Color Vehicle: <input type="checkbox"/> Vehicle Type, <input type="checkbox"/> Vehicle Color, <input type="checkbox"/> Direction, <input type="checkbox"/> Speed Others: <input type="checkbox"/> Time, <input type="checkbox"/> Position, <input type="checkbox"/> Device ID, <input type="checkbox"/> Detection Region, <input type="checkbox"/> Device Name, <input type="checkbox"/> Line Break Character </p>
<p style="text-align: center;">Enable LPR Message Post</p>	<p>Check the checkbox to enable LPR Message Post. It will push information to some third-party devices or software that are compatible with our sales.</p>
<p style="text-align: center;">Post Type</p>	<p>Information can be pushed by RTSP, TCP or HTTP.</p> <p>TCP: Default Post Type, recommended for current VMS.</p> <p>HTTP: To push License Plate information to the configured HTTP server.</p> <p>RTSP: Only works with those server which support to receive ONVIF alarm stream via RTSP.</p>
<p style="text-align: center;">HTTP Method</p>	<p>There are two HTTP push methods: Post and Get.</p>
<p style="text-align: center;">Snapshot Type</p>	<p>Three kinds of snapshot can be chosen: All, License Plate and Full Snapshot. When you choose All, License Plate Snapshot and Full Snapshot will be pushed.</p> <p> Note: This option is available just for Post HTTP Method.</p>

Parameters	Function Introduction
HTTP Notification URL	The VMS system can use the API URL to send LPR information to other devices when the license plate is recognized. The API URL format is as below: http://IP:Port/api/lpr?
User Name	User name for HTTP Server.
Password	Password for HTTP Server.
Camera LPR Port	This option is available for TCP Post type.

Traffic Detection

Step1: Click  button to enable Traffic Detection and enter the camera installation information;

Enable Traffic Detection


Installation Height

m

Installation Angle

Angle Compensation

Table 19.

Parameters	Function Introduction
	Click the button to enable Traffic Detection function.
Installation Height	Fill in the installation height according to the actual installation height of the camera.
Installation Angle	Fill in the installation height according to the actual installation angle between the camera's field of view and the horizontal.
Angle Compensation	Support angle compensation range: -30° ~ 30° , default 0° . Angle compensation is mainly used as horizontal angle compensation, such as the radar cannot be installed in the middle of the road. In order to detect data more accurate, the angle between the installation position and the road can be compensated and corrected.

Step2: Set Detection Region. Configure the radar detection area on the basis of the successful saving of the LPR detection area settings;

The user needs to measure the actual spatial position coordinates of the two coordinate points (relative to the Radar AI LPR Camera position). e.g.: You can adjust the position of P1, P2 by mouse, as shown in the figure below, move the P1 point to the white traffic line in the lower right corner, then you need to measure the horizontal and vertical distance from the camera to the actual position corresponding to the P1 point. Similarly, please complete the distance measurement of point P2.

We recommend that you move the P1 point marker to a more Obvious target (such as trees or other landmarks) , so you can measure the distance easier.

The Radar detection area is a rectangle with diagonal lines in the two coordinate points;

Set Detection Region

Coordinate X1
 m

Coordinate Y1
 m

Coordinate X2
 m

Coordinate Y2
 m

Trigger Distance
 m

Note: The coordinate of radar position is (0,0).

Table 20.

Parameters	Function Introduction
Coordinate X1&Y1	X and Y axis parameters of P1 coordinates.
Coordinate X2&Y2	X and Y axis parameters of P2 coordinates.

Step3: Set LPR Detection Region Calibration.

To match LPR data, please configure LPR detection region calibration after radar detection. The calibration of the LPR detection area is mainly to match the space coordinates. The number of this configuration item shows the corresponding number according to the number of the LPR detection area. The data filled in is based on the corresponding trajectory map on the right when the target vehicle enters the area to find the target and fill in the X value shown above. To match LPR data, please configure LPR detection region calibration after radar detection.

For example, after you have drawn 3 detection areas, you can find the coordinate information corresponding to the targets in the three detection areas from the radar coordinates. You only need to fill in this coordinate information;

Step4: Schedule Settings. Set the effective time of traffic detection.

Step5: Traffic OSD Settings. Customers can choose the information that needs to be displayed in Live Video and the display format, such as color, size, etc.

Table 21.

Parameters	Function Introduction
Show OSD	Users can choose the information they want to display in Live Video.
Font Size&Font Color	The font size and color of the OSD display, the default size is Medium.
Manually	Manually reset the vehicle count.
Auto Reset	It is used to automatically clear the vehicle count at regular intervals (Just reset the OSD count for Live Video).

Traffic OSD

Show OSD

Speed Direction

Distance Azimuth

Vehicle Counting

Font Size

Medium

Font Color

Clear Count

Manually Auto Reset

Clear Now

Apply

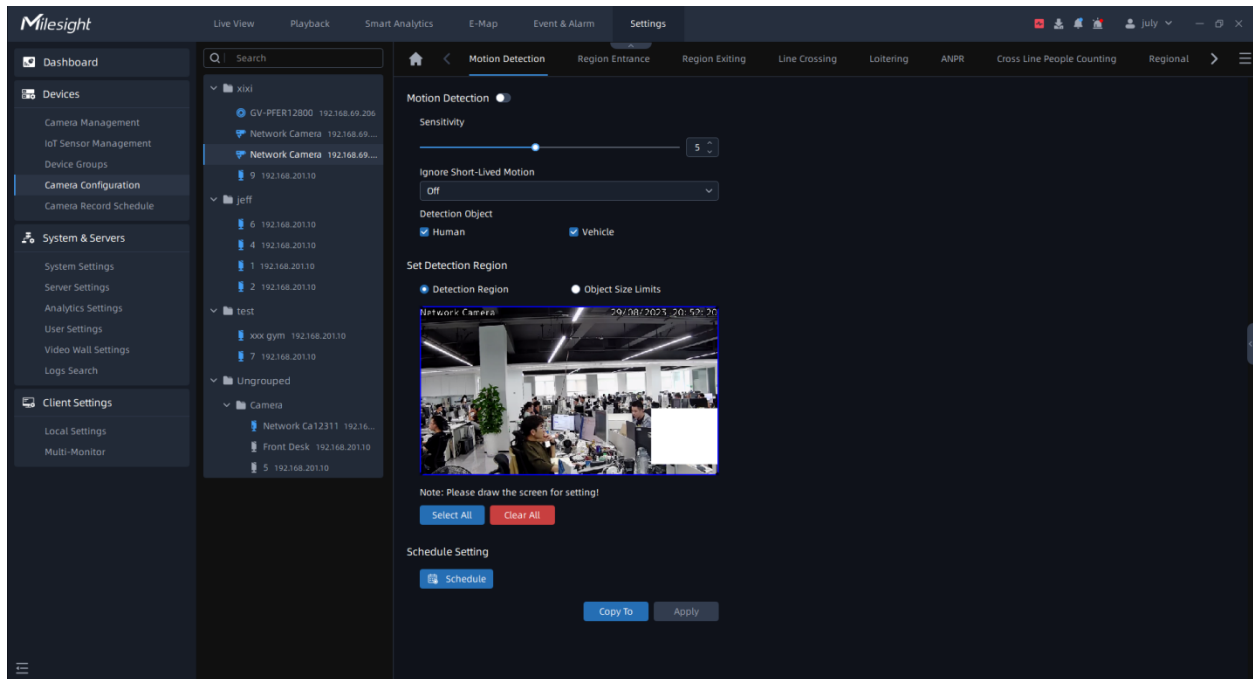
3.2.4.2 VMS-end Config

Currently Milesight supports VMS-end Video Analytics Events including Motion Detection, Region Entrance, Region Exiting, Line Crossing and Loitering. Users only need to add the Video Analytics Server and video streams to the VMS system, then the Video Analytics Events can be enabled on the VMS side.

3.2.4.2.1 VMS-end Analytics Events

Motion Detection

Different from traditional motion detection, Milesight Advanced Motion Detection can filter out “noise” such as lighting changes, natural tree movements, etc. When an object moves in the selected area, it will trigger alarm.



Step1: Select the camera and enable Advanced Motion Detection function;

Step2: Set detecting sensitivity;

Step3: Set up the Detection Object. Check Human or Vehicle attribute, and the camera will alarm and trigger related events once people or vehicle is detected;

Step4: Set Effective Region Mode. If you choose Normal, it supports configuring the Detection region for the current area. If you choose Advanced (Only for PTZ series), it supports configuring the detection region for different PTZ presets (Only support Preset 1~4 so far);

Step5: Draw the detection region.

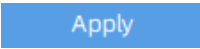
Step6: Set Object Size Limit.


- **Minimum Size:** Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected.

The default minimum size is 3*3.

- **Maximum Size:** Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected.

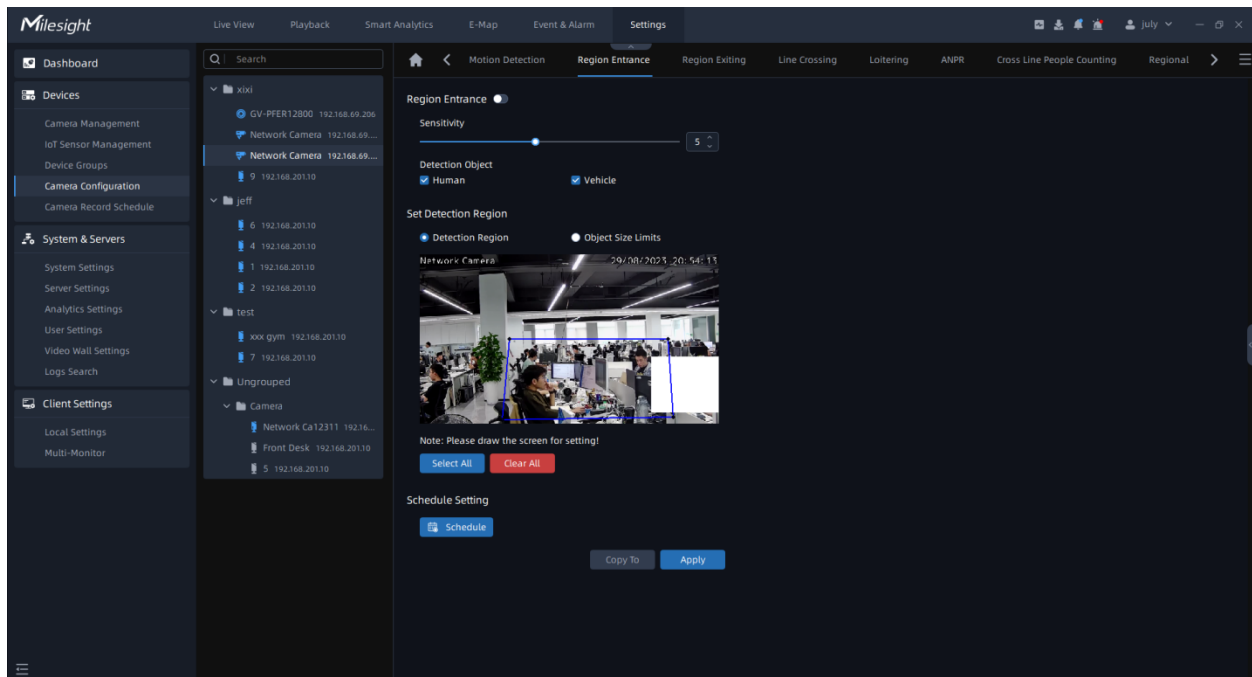
The default maximum size is 320*240.

Step7: Set detection schedule, then click  to send the settings to camera to apply.

 **Note:** For AI Camera Series, it will show the real-time trigger status of the event in the configuration page.

Region Entrance

The Region entrance helps to protect a special area from potential threat of suspicious person's or object's entrance. An alarm will be triggered when objects enter the selected regions by enabling region entrance.



Step1: Select the camera and enable Region Entrance function;

Step2: Set detecting sensitivity;


Step3: Set Detection Object. Set up the Detection Object. Check Human or Vehicle attribute, and the camera will alarm and trigger related events once people or vehicle is detected;

Step4: Draw the detection region, it supports polygon areas.

Step5: Set Object Size Limit.

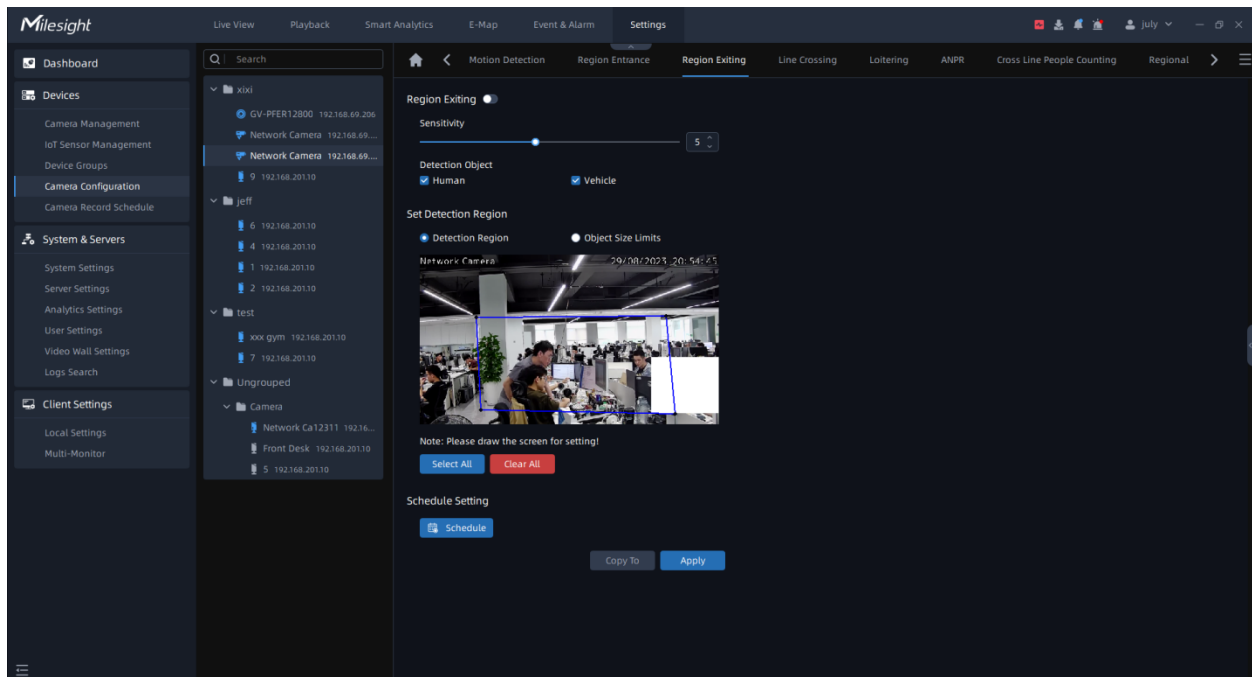
- **Minimum Size:** Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected. The default minimum size is 3*3.
- **Maximum Size:** Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected. The default maximum size is 320*240.

Step6: Set detection schedule, then click [Apply](#) to save the settings.

 **Note:** It will show the real-time trigger status of the event in the configuration page.

Region Exiting

Region exiting is to make sure that any person or object won't exit the monitored area. Any exit of people or objects will trigger an alarm.



Step1: Select the camera and enable Region Exiting function;

Step2: Set detecting sensitivity;

Step3: Set Detection Object. Set up the Detection Object. Check Human or Vehicle attribute, and the camera will alarm and trigger related events once people or vehicle is detected;

Step4: Draw the detection region, it supports polygon areas.

Step5: Set Object Size Limit.

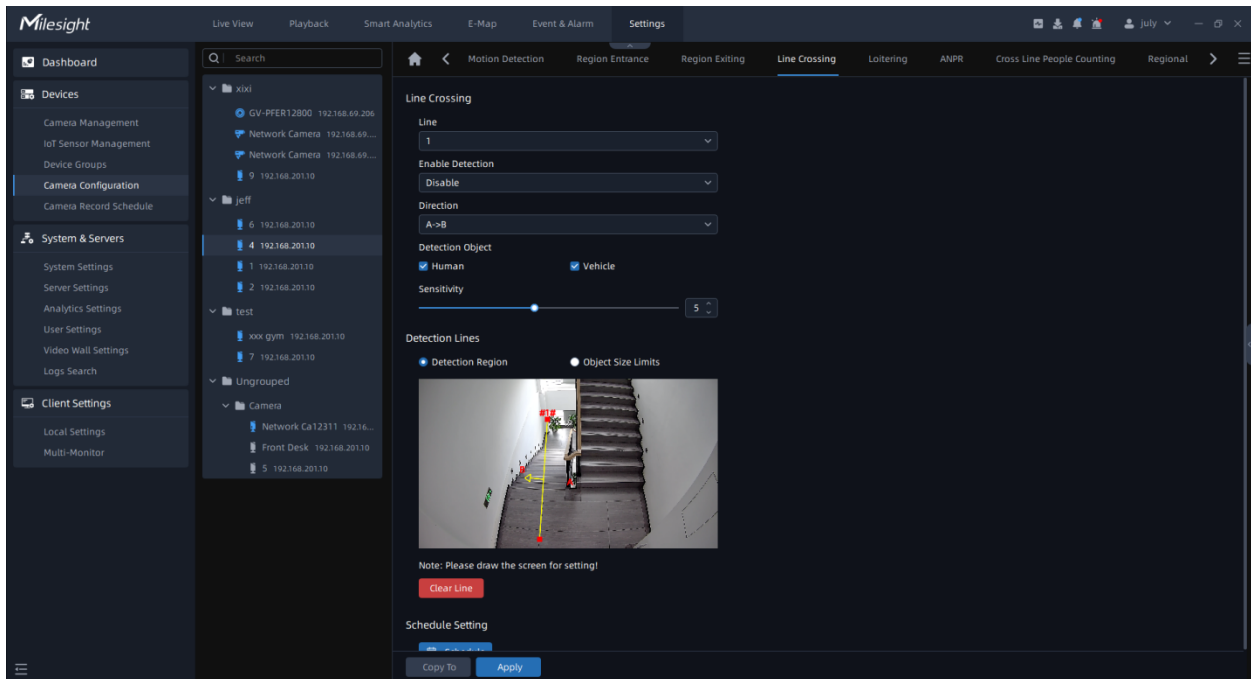
- **Minimum Size:** Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected. The default minimum size is 3*3.

Step6: Set detection schedule, then click **Apply** to save the settings.

 **Note:** It will show the real-time trigger status of the event in the configuration page.

Line Crossing

Line Crossing detection is designed to work in most indoor and outdoor environments. An event will be triggered when the camera detects objects crossing a defined virtual line.



Step1: Select camera and choose a line number.

Step2: Enable Line Crossing Detection function;

Step3: Define its direction;

Step4: Set Detection Object. Set up the Detection Object. Check Human or Vehicle attribute, and the camera will alarm and trigger related events once people or vehicle is detected;


Step5: Set detecting sensitivity;

Step6: Draw detection lines;

Step7: Set Object Size Limit.

- **Minimum Size:** Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected. The default minimum size is 3*3.
- **Maximum Size:** Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected. The default maximum size is 320*240.

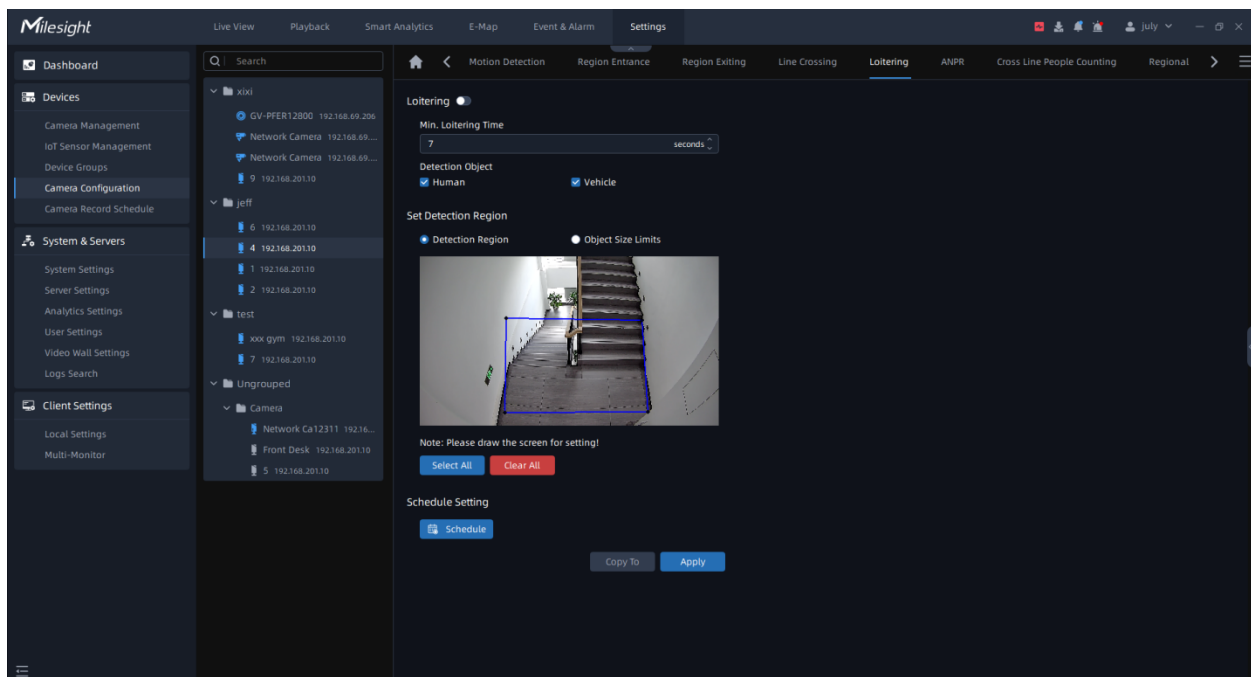
Step8: Set detection schedule, then click  to save the settings.

 **Note:** 1. Milesight allows to set up to four lines at a time. There are three direction modes to choose for triggering alarm. “A-->B” means when there is any object crossing the line from the “A” side to the “B” side, the alarm will be triggered. “B-->A” vice versa. “A<-->B” means that the alarm will be triggered when objects cross line from either side.

2. It will show the real-time trigger status of the event in the configuration page.

Loitering

When objects are loitering in a defined area for a specific period of time, it would trigger an alarm.



The screenshot displays the Milesight web interface for configuring Loitering detection. The interface includes a sidebar with navigation options such as Dashboard, Devices, System & Servers, and Client Settings. The main content area is titled "Loitering" and contains the following settings:

- Min. Loitering Time:** Set to 7 seconds.
- Detection Object:** Checked for Human and Vehicle.
- Set Detection Region:** Radio buttons for "Detection Region" (selected) and "Object Size Limits".
- Video Preview:** A live video feed showing a staircase with a blue detection region drawn on it.
- Buttons:** "Select All", "Clear All", "Schedule Setting" (with a "Schedule" button), "Copy To", and "Apply".

A note below the video preview states: "Note: Please draw the screen for setting!".

Step1: Select camera and enable the Loitering function;

Step2: Set minimum loitering time;

Step3: Set Detection Object. Set up the Detection Object. Check Human or Vehicle attribute, and the camera will alarm and trigger related events once people or vehicle is detected;

Step4: Draw the detection region, it supports polygon areas.

Step5: Set Object Size Limit.

- **Minimum Size:** Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected. The default minimum size is 3*3.
- **Maximum Size:** Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected. The default maximum size is 320*240.

Step6: Set detection schedule, then click  to save the settings.

 **Note:**

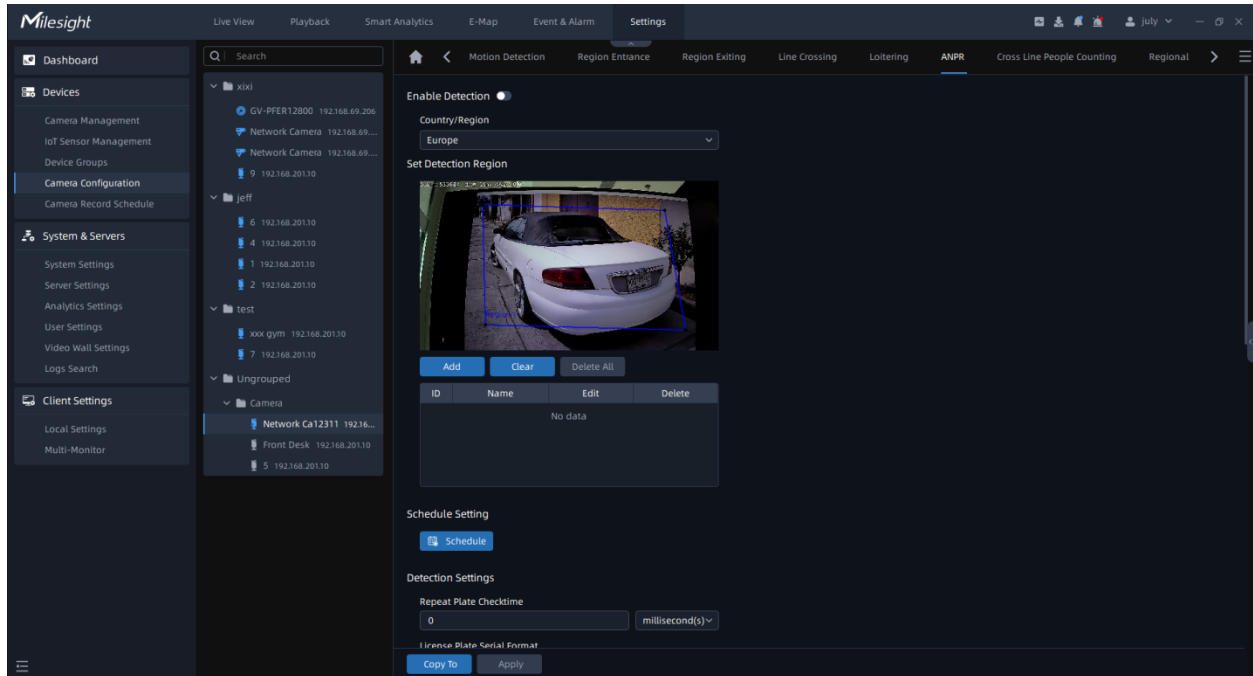
1. After setting minimum loitering time from 3s to 1800s, any object loitering in the selected area over the minimum loitering time will trigger the alarm.
2. It will show the real-time trigger status of the event in the configuration page.


ANPR

This part is to enable the ANPR server-based algorithm, making it possible to use ANPR solutions whether it is an LPR camera or not.

Before setting, you need to confirm the following items:

- There is a license for ANPR in the system, and the license quantity is sufficient. For more information, please refer to [License Activation \(page 154\)](#)
- The Video Analytics Server has been installed and running. For more information about the analytics server, please refer to [3.3.3 Analytics Settings \(page 170\)](#)



Step1: Click  button to enable Detection, the camera can start detecting the license plates;

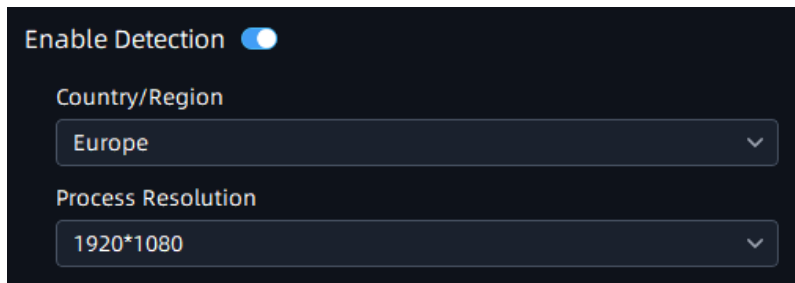



Table 22.

Parameters	Function Introduction
	Click the button to enable detection function.
Country/Region	Select Country/Region to detect the license plate.

Step2: Set Detection Region. You can draw the screen to select interested areas;

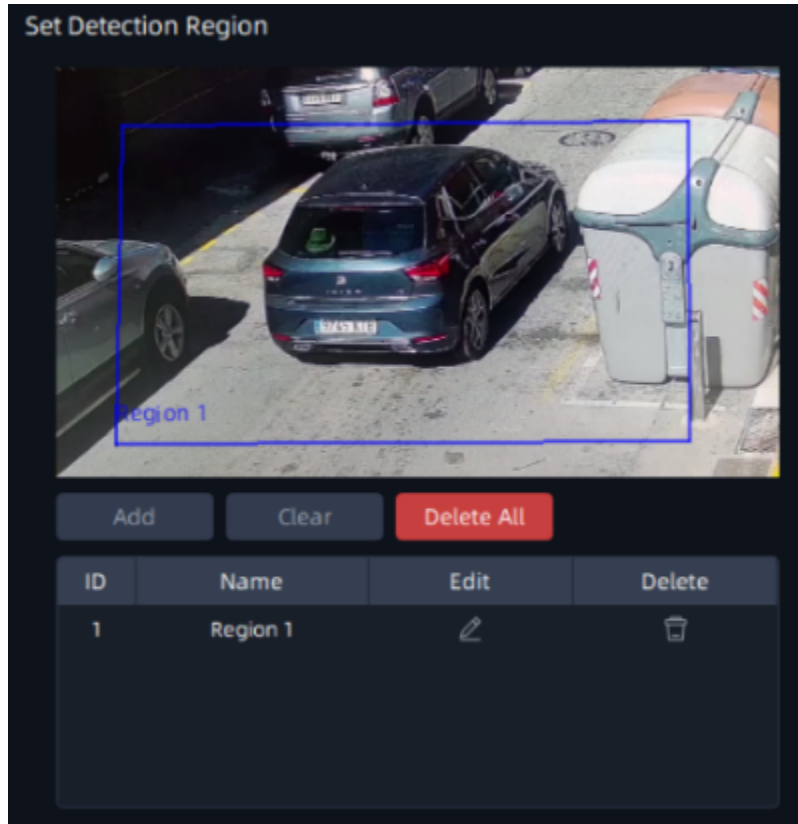



















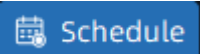
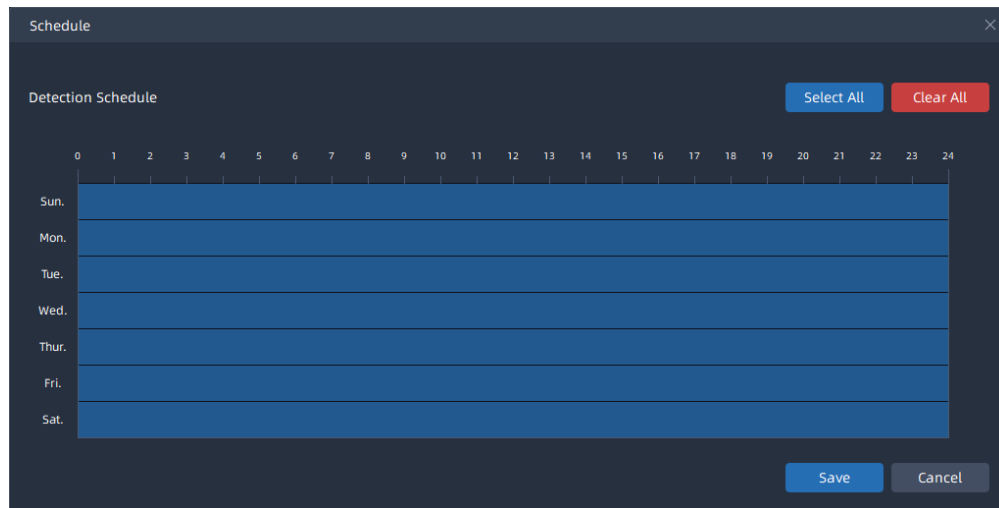


Table 23.

Parameters	Function Introduction
Effective Region Settings	<p>Normal: Configure the LPR detection regions for the current area.</p> <p>Advanced: Configure different LPR detection regions for different PTZ presets(Only support Preset 1~4 so far).</p>

Parameters	Function Introduction																
<p style="text-align: center;">Add</p>	<p>Draw the screen to select the interested areas, then click "Add" button to add the area, and only four recognition areas can be added.</p> <p>You can edit the name of the areas or delete the areas in the list below.</p> <table border="1" data-bbox="581 478 1378 753"> <thead> <tr> <th>ID</th> <th>Name</th> <th>Edit</th> <th>Delete</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>ROI_1</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>ROI_2</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>ROI_3</td> <td></td> <td></td> </tr> </tbody> </table> <p> Note: Minimum width of detection area is 150 pixels, and Minimum height of detection area is 40 pixels.</p>	ID	Name	Edit	Delete	1	ROI_1			2	ROI_2			3	ROI_3		
ID	Name	Edit	Delete														
1	ROI_1																
2	ROI_2																
3	ROI_3																
<p style="text-align: center;">Clear</p>	<p>Click the "Clear" button to clear the area being drawn.</p>																
<p style="text-align: center;">Delete All</p>	<p>Click the "Delete All" button to delete all the added areas.</p>																

Step3: Schedule Settings. You can draw the schedule by clicking  button;



Step4: Set Detection Settings, Snapshot OSD and LPR Message Post Settings, then click "Apply" button.

Detection Settings

Detection Trigger

Repeat Plate Checktime

License Plate Serial Format

Features Identification

All

Plate Color Vehicle Type

Vehicle Color Detection Region

Direction

Snapshot OSD

Font Size

Font Color

Enable Background Color

OSD Position

OSD Information

All

Plate

License Plate Plate Type

Plate Color

Vehicle

Vehicle Type Vehicle Color

Direction Speed


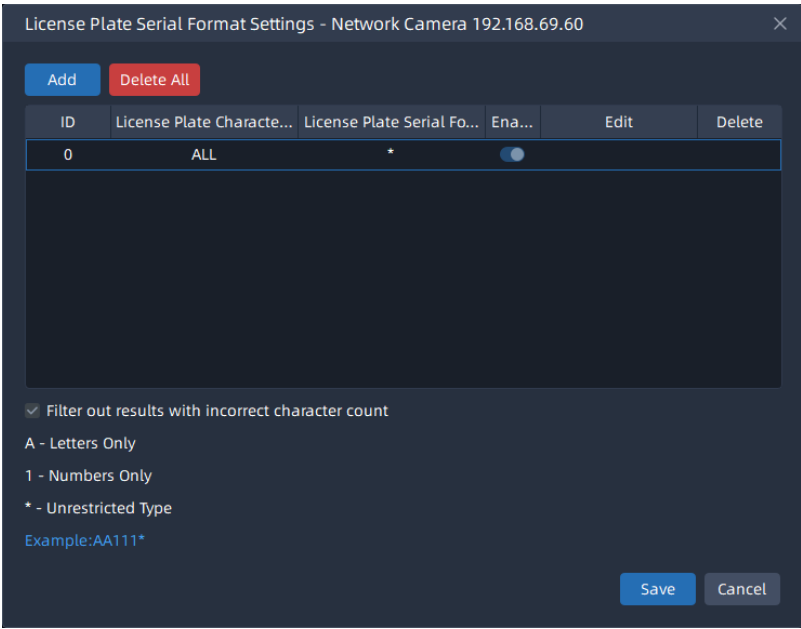
Others

Time Position

Device ID Detection Region

Device Name Line Break Character

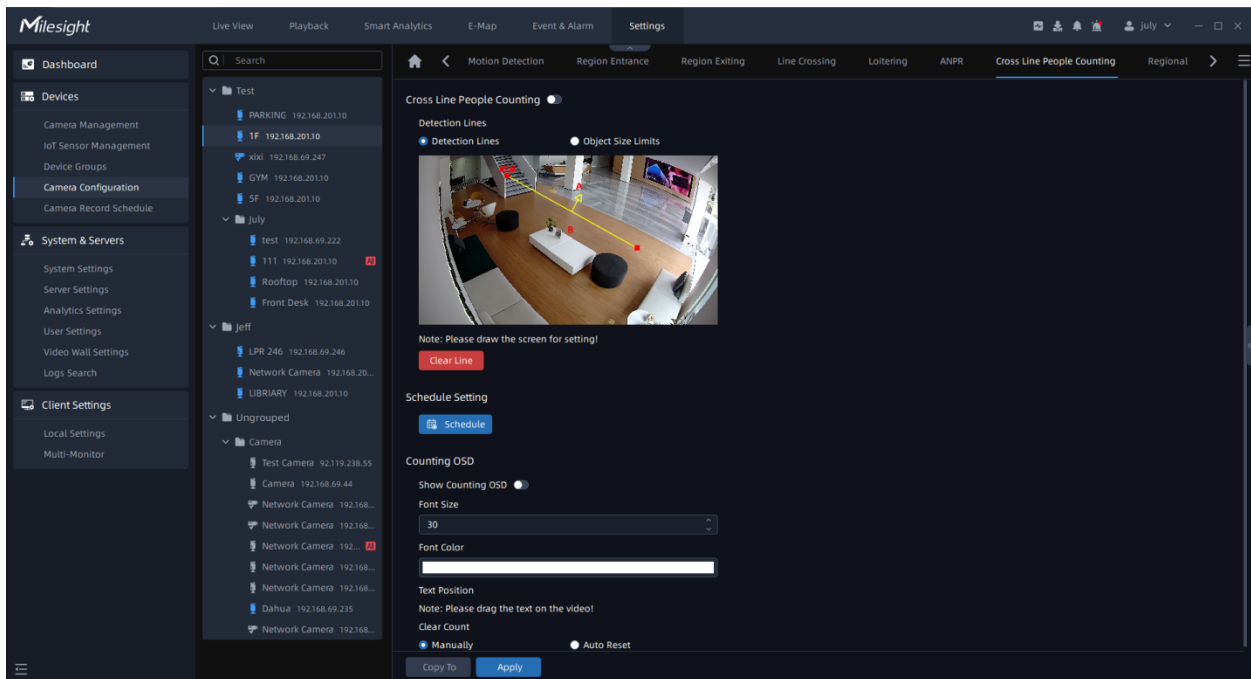
Table 24.

Parameters	Function Introduction
Repeat Plate Checktime	<p>Set the time interval for repeatedly reading license plates to effectively avoid duplicate identification of parking vehicles.</p> <p>You can set Repeat Plate Checktime from 0 to 60min or 0 to 60000ms.</p>
License Plate Serial Format	<p>Click  button to customize the license plate serial format. It supports formulating identification rules and can automatically do further processing, filter license plates in non-compliant formats to achieve more intelligent and accurate license plate recognition.</p>  <p>The screenshot shows a dialog box titled "License Plate Serial Format Settings - Network Camera 192.168.69.60". It contains an "Add" button and a "Delete All" button. Below these is a table with columns: ID, License Plate Characte..., License Plate Serial Fo..., Ena..., Edit, and Delete. The table has one row with ID "0", License Plate Characte... "ALL", License Plate Serial Fo... "*", and Ena... "ON". Below the table, there is a checked checkbox "Filter out results with incorrect character count" and a list of options: "A - Letters Only", "1 - Numbers Only", and "* - Unrestricted Type". An example "AA111*" is shown. At the bottom right are "Save" and "Cancel" buttons.</p>
Features Identification	<p>Check All, Plate Color, Vehicle Type, Vehicle Color, Detection Region, Direction, or Region(Only for LPR2) to enable Feature Identification, and it will display the corresponding information on the ANPR Search interface.</p>
Font Size	Small/Medium/Large are available.
Font Color	Set different colors for the image OSD.
Enable Background Color	Enable to set different colors for display information background on screen.
OSD Position	OSD display position on the image .

Parameters	Function Introduction
<p style="text-align: center;">OSD Information</p>	<p>Customize the OSD content. You can set OSD Information as shown below:</p> <div style="background-color: #2c3e50; color: white; padding: 10px; border: 1px solid #34495e;"> <p>OSD Information</p> <p><input type="checkbox"/> All</p> <p>Plate</p> <p><input type="checkbox"/> License Plate <input type="checkbox"/> Plate Type</p> <p><input type="checkbox"/> Plate Color</p> <p>Vehicle</p> <p><input type="checkbox"/> Vehicle Type <input type="checkbox"/> Vehicle Color</p> <p><input type="checkbox"/> Direction <input type="checkbox"/> Speed</p> <p>Others</p> <p><input type="checkbox"/> Time <input type="checkbox"/> Position</p> <p><input type="checkbox"/> Device ID <input type="checkbox"/> Detection Region</p> <p><input type="checkbox"/> Device Name <input type="checkbox"/> Line Break Character</p> </div>


Cross Line People Counting

Cross Line People counting is able to count how many people enter or exit during the setting period.

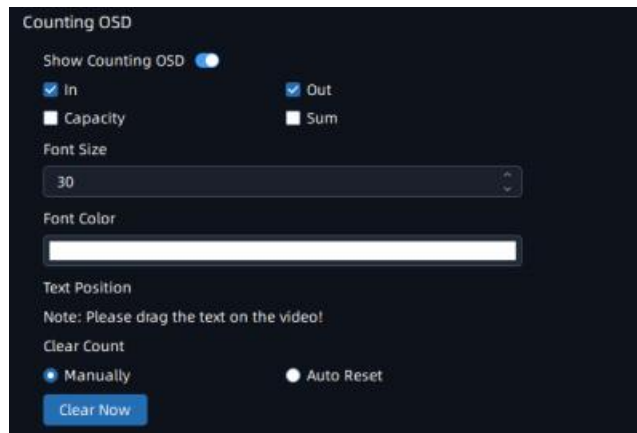


Step1: Select the camera and enable the Cross Line People Counting function;

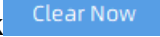
Step2: Set detection line;

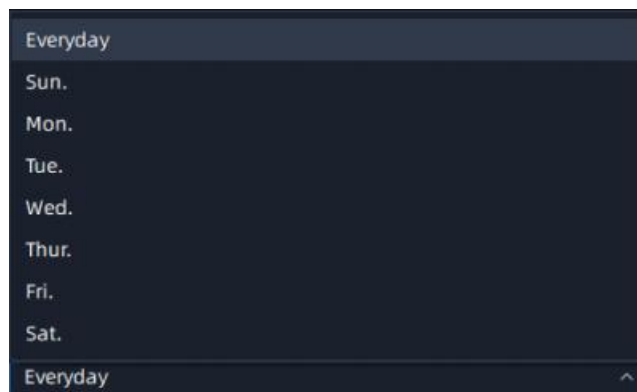
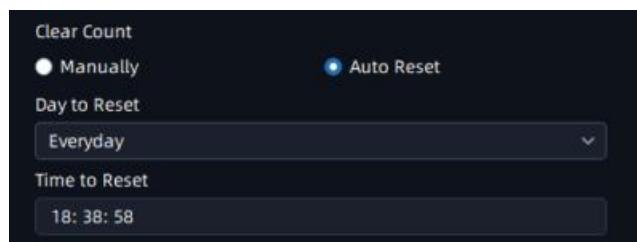
Step3: Click  Schedule to set detection schedule;


Step4: Set Counting OSD;



Here you can check counting options that will display on the screen, and set font size, font color and text position. There are two types of Clear Count, including Manually and Auto

Reset. You can check Manually and click  to clear counting, or check Auto Reset and choose when to automatically reset. The Auto Reset configuration interface is as below:

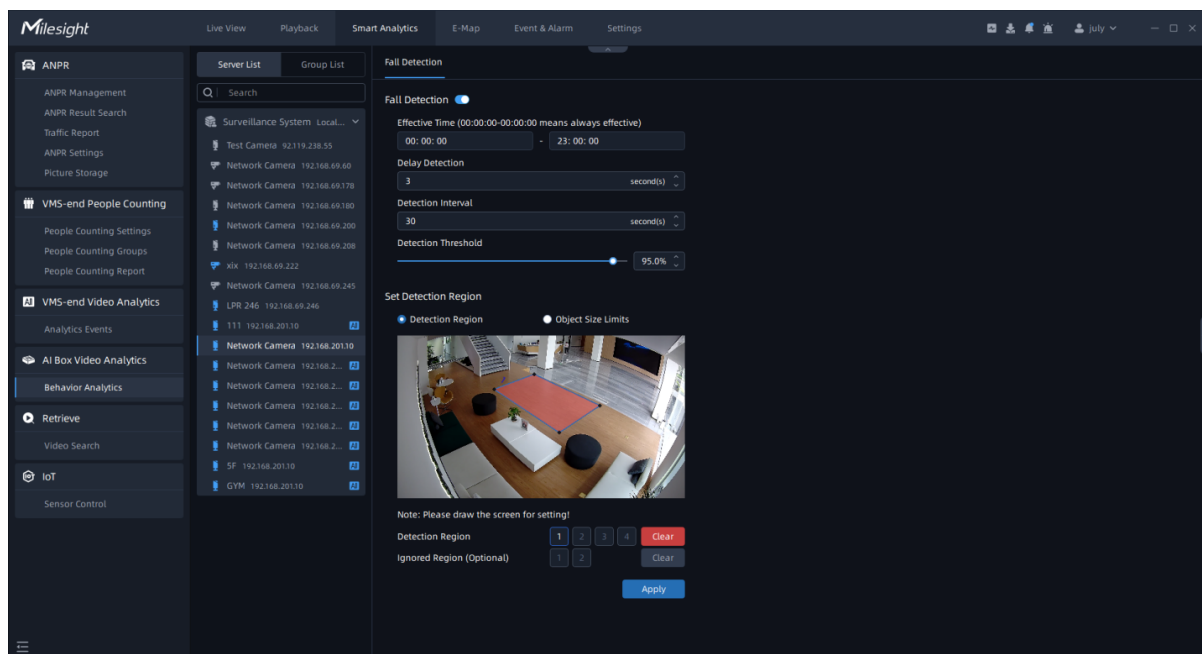


Step5: Click  to send the settings to camera to apply.

3.2.4.2.2 AI Box Events

Behavior-Fall Detection

The VMS supports the integration of Fall Detection between AI Box and VMS Enterprise. Users only need to add the AI Box and video streams to the VMS system, then the Fall Detection can be enabled on the VMS side.



Fall Detection

Step1: Select the camera and enable Fall Detection function;

Step2: Set Effective Time;

Step3: Set Delay Detection. If you set the time, when the moving duration of an object is within the setting time, the alarm will not be triggered;

Step4: Set Detection Interval. If you set the time, the alarm will not be triggered again the time interval ;

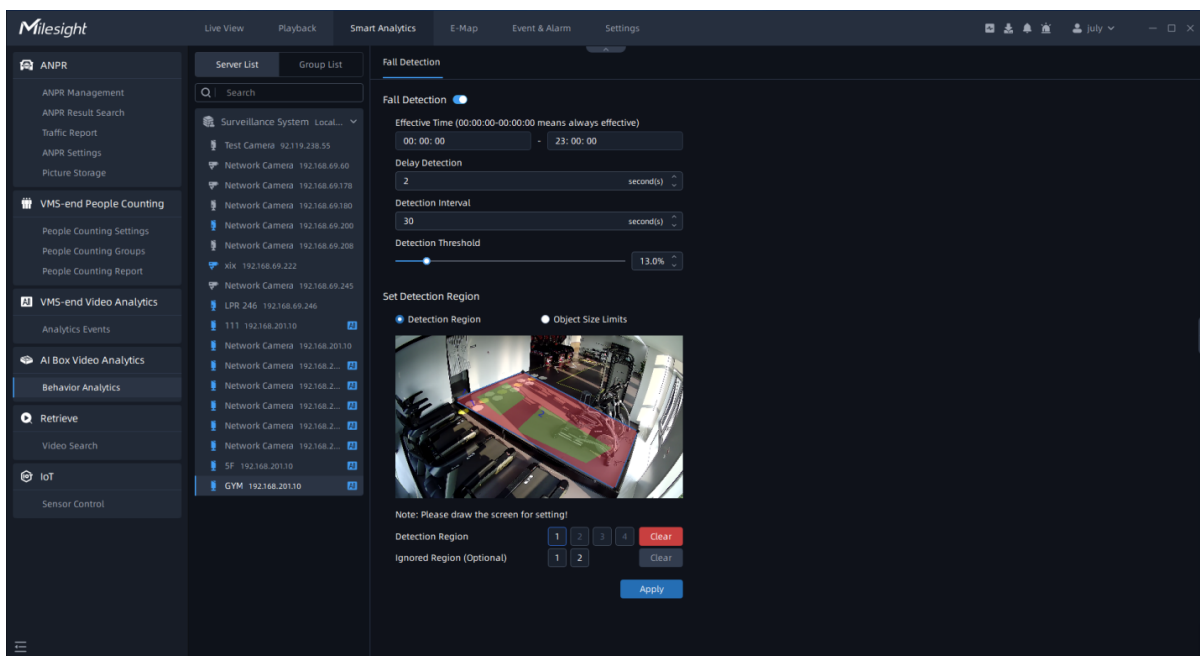
Step5: Set Detection Threshold. Depending on the needs of different usage scenarios, you can customize the threshold that triggers fall detection;

Step6: Draw the Detection Region, it supports drawing of 4 detection areas.

Step7: Set Object Size Limit.

- **Minimum Size:** Draw the screen or input pixel number to set the minimum size of the detected object. When the object is smaller than this size, it will not be detected. The default minimum size is 1%.
- **Maximum Size:** Draw the screen or input pixel number to set the maximum size of the detected object. When the object is larger than this size, it will not be detected. The default maximum size is 50%.

Step8: Set Ignored Region(Optional), the drawn area will not trigger the alarm. Then click **Apply** to save the settings.



Note:

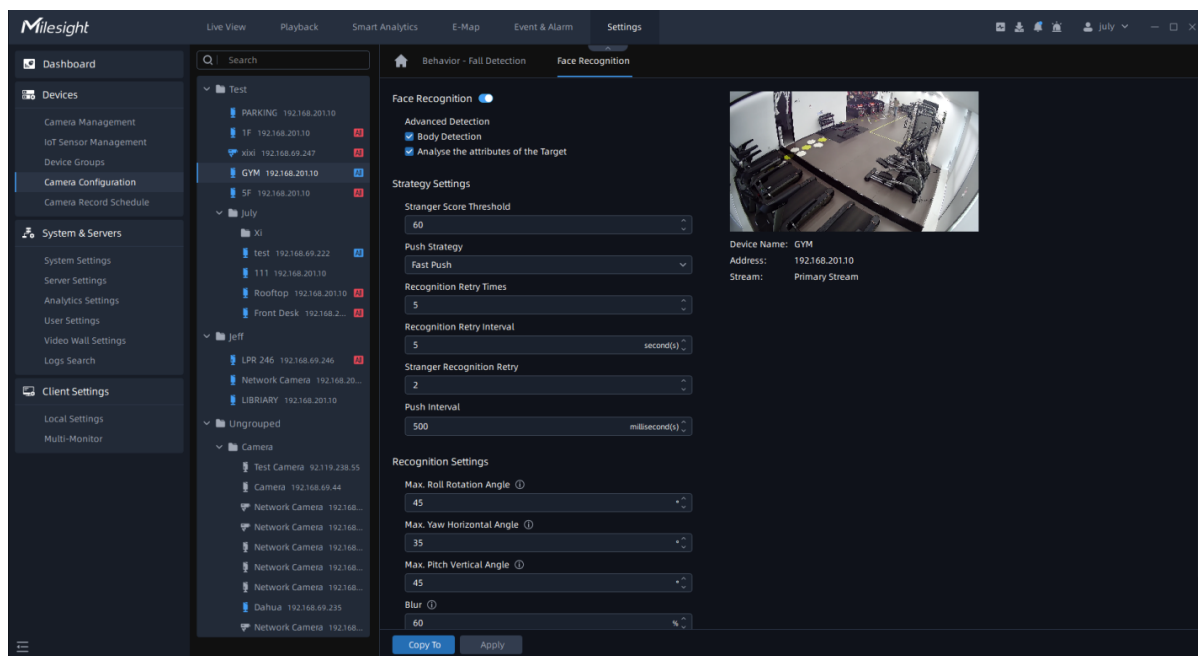
- One AI Box can analyze up to 8 channels of fall detection simultaneously.
- An AI Box cannot be used simultaneously with different VMS.
- The recommended resolution for network cameras is 1080P, since the total resolution of all channels exceeds 1080P*8 may cause decoding issues with the AI Box.

- The system automatically assigns which AI Box is used to analyze each channel, eliminating the need for users to select.

When the AI Box's computing capability is insufficient to analyze the channels on VMS Enterprise, the interface will display a prompt message: "Compute capability full, please check AI Box's compute capability".

Face Recognition

The VMS supports the integration of Face Recognition between AI Box and VMS Enterprise, allowing users to centrally manage AI Box and alarm events on VMS Enterprise.



Face Recognition

Step1: Select the camera and enable Face Recognition. Check 'Body Detection' and 'Analyse the attributes of the Target' if you want to obtain more information about body attributes ;


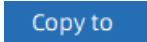
Step2: Set Strategy Settings based on the actual application scenario;

- **Stranger Score Threshold:** Set the threshold, below which the target individual is labeled as a stranger, and above which it belongs to the Face Watch List.
- **Push Strategy:** If you set the 'Fast Push', it will push a face screenshot in the shortest time when the face is detected. Conversely, the 'Best Push' will push a face screenshot of best quality when the face is detected.
- **Recognition Retry Times:** Set this value, it determines the number of times, ranging from 0 to 5000, the system will attempt to recognize a face.

- **Recognition Retry Interval:** Set this value, it represents the time interval, ranging from 0 to 60 seconds, between successive retry attempts for facial recognition.
- **Stranger Recognition Retry:** Set this value, it allows for multiple retry attempts, ranging from 0 to 5, when detecting and identifying strangers during recognition.
- **Push Interval:** Set this value, it determines the time interval between each push notification.

Step3: Set Recognition Settings based on the actual deployment environment and installation conditions of the camera.

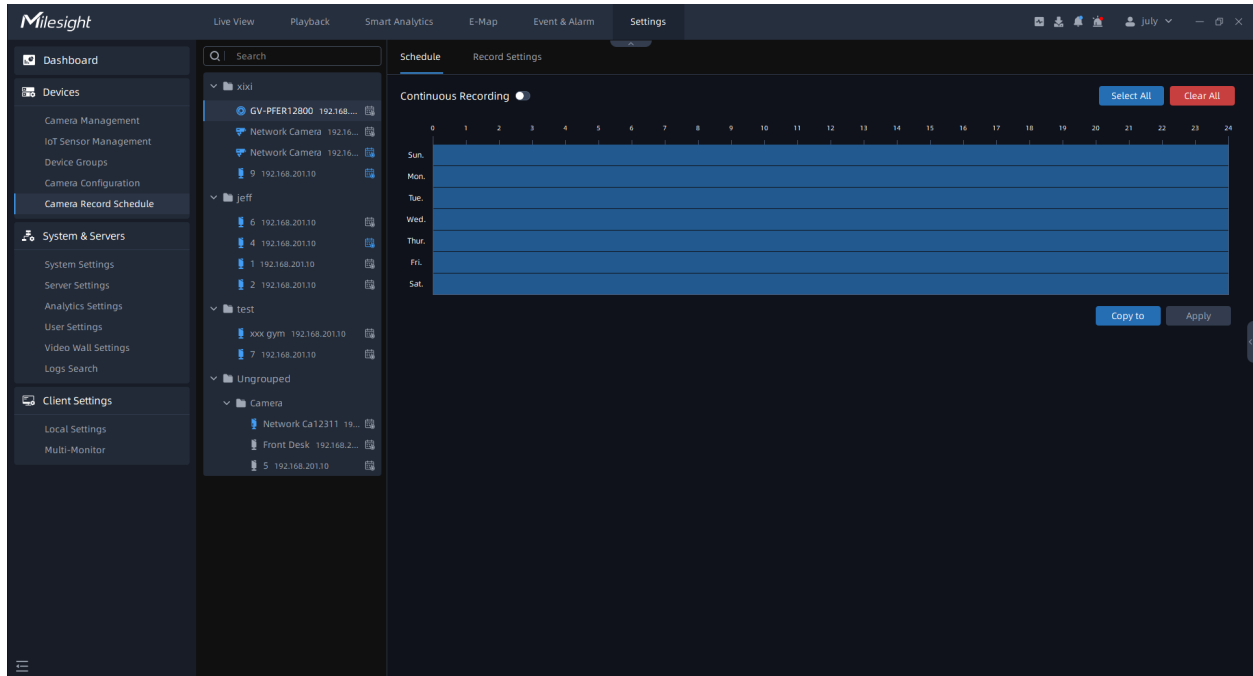
- **Max. Roll Rotation Angle:** Set this value, it specifies the maximum acceptable angle, ranging from 0-180°, of roll rotation for accurate face recognition.
- **Max. Yam Horizontal Angle:** It sets the maximum allowable horizontal yam angle, ranging from 0-100°, for precise face recognition.
- **Max. Pitch Vertical Angle:** It determines the maximum allowable vertical pitch angle for accurate face recognition.
- **Blur:** It represents the level of blurriness, ranging from 0-100%, that is considered acceptable for face recognition.
- **Min. Face:** It defines the minimum size requirement, ranging from 5-380 pixels, for detecting and recognizing faces.
- **Min Body:** It sets the minimum size threshold, ranging from 5-380 pixels, for detecting and recognizing the human body.

Once you have configured the above parameters according to your needs, you can click the  to apply the settings. You can also click the  to copy the settings to other channels.

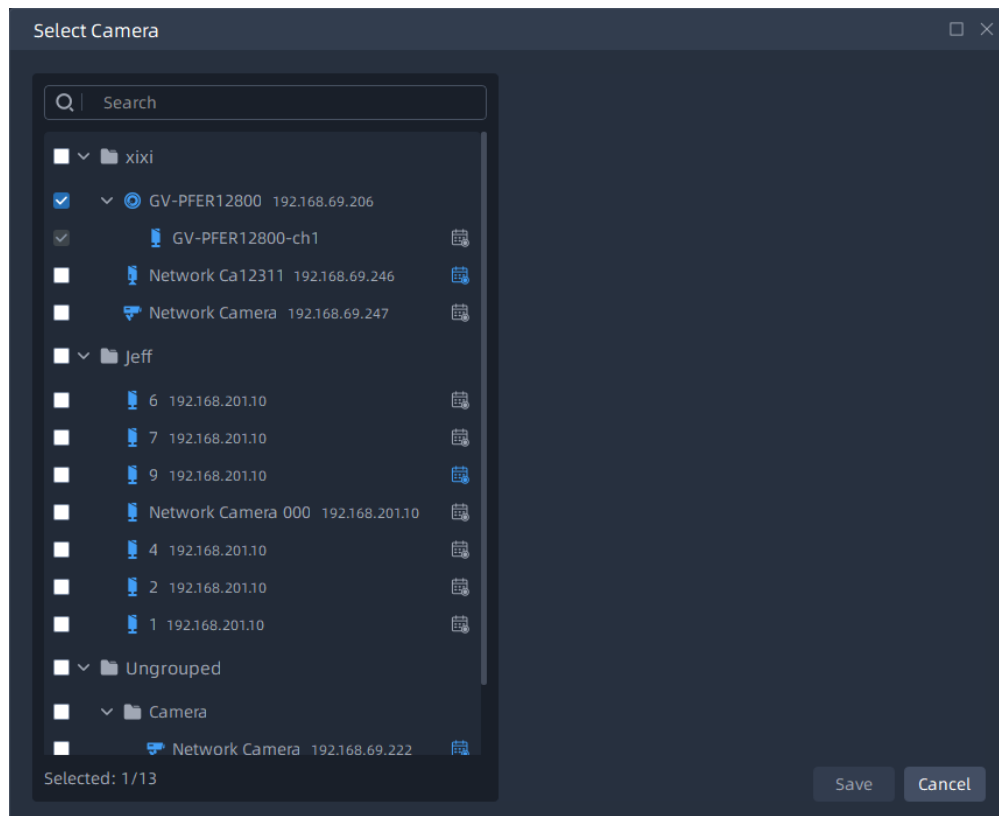
3.2.5 Camera Record Schedule

3.2.5.1 Schedule

Here you can set continuous recording schedule for the selected camera according to your needs, and clicking the Apply button to apply the settings. You can also click “Copy to” button to copy the settings to other channels.

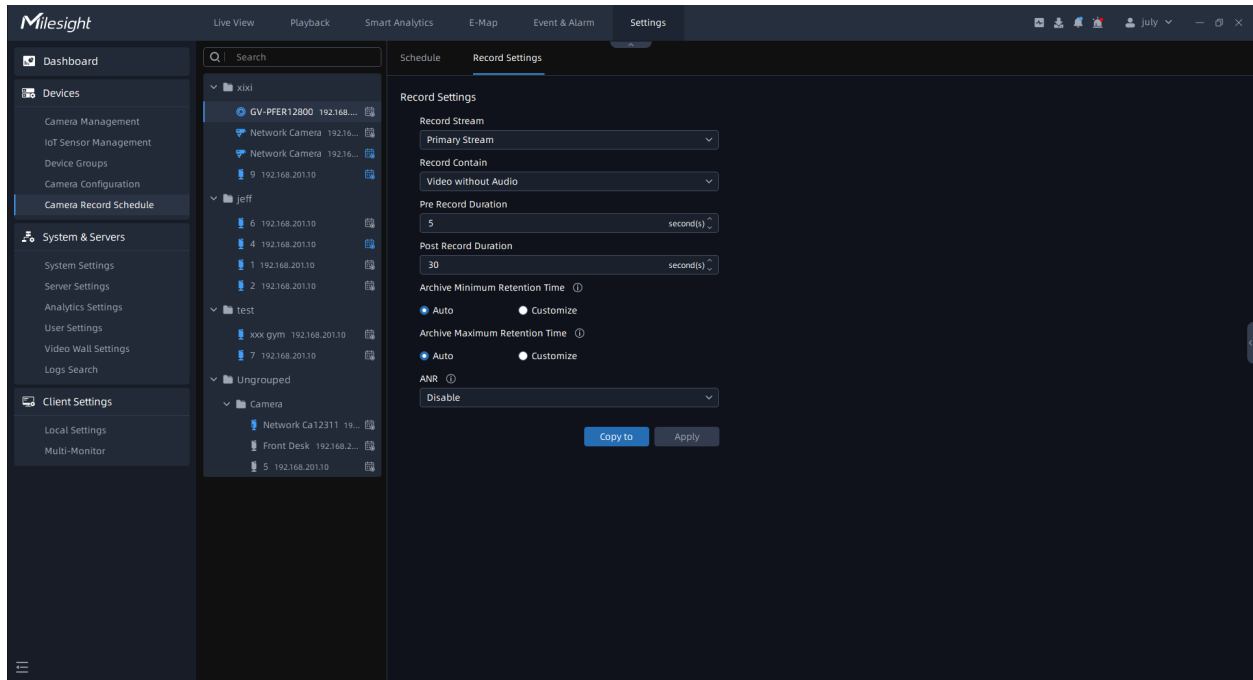


When you click “Copy to” button, the page will show as below. You can check channels in which you are interested, and click Save button to apply your schedule to the other channels.





3.2.5.2 Record Settings




Here you can configure some parameters for continuous recording schedule of selected channel.



The meanings of the items on the Record Settings page can be referred to the table below:

Table 25.

Items	Function Introduction
<p>Record Stream</p>	<p>Choose Primary stream, Secondary Stream or Dual Stream to record video.</p>
<p>Record Contain</p>	<p>You can choose Video with Audio or Video without Audio to record video.</p> <p> Note: When the recording is enabled with audio, it will pop up this prompt to show the audio status of the current channel.</p> <div data-bbox="704 1577 1300 1682" style="border: 1px solid black; padding: 5px; background-color: #f0f0f0;"> <p>Record Contain</p> <p>Video with Audio</p> <p> Please enable device audio. Click to Configure</p> </div>
<p>Pre Record Duration</p>	<p>Enable the function for Continuous Recording schedule. Pre Record Duration can be set from 1~10s, the default time is 5s.</p>

Items	Function Introduction
Post Record Duration	Enable the function for Continuous Recording schedule. Post Record Duration can be set from 10~60s, the default time is 30s.
Archive Minimum Retention Time	Choose Auto, 30 days, 60 days, 90 days or Customize to set Archive Minimum Retention Time.  Note: The customized archive due time is from 1 to 365 days.
Archive Maximum Retention Time	Choose Auto, 30 days, 60 days, 90 days or Customize to set Archive Maximum Retention Time.  Note: The customized archive due time is from 1 to 365 days.
ANR	Enable or disable ANR function. This function is independent of schedule.  Note: Please make sure that you have the network storage device within the network or the SD card inserted in your camera.

After finishing the settings and clicking the Apply button, you can click the “Copy to” button to copy the settings to continuous recording schedule of other channels. Then click the “Save” button to apply your settings to the other channels.

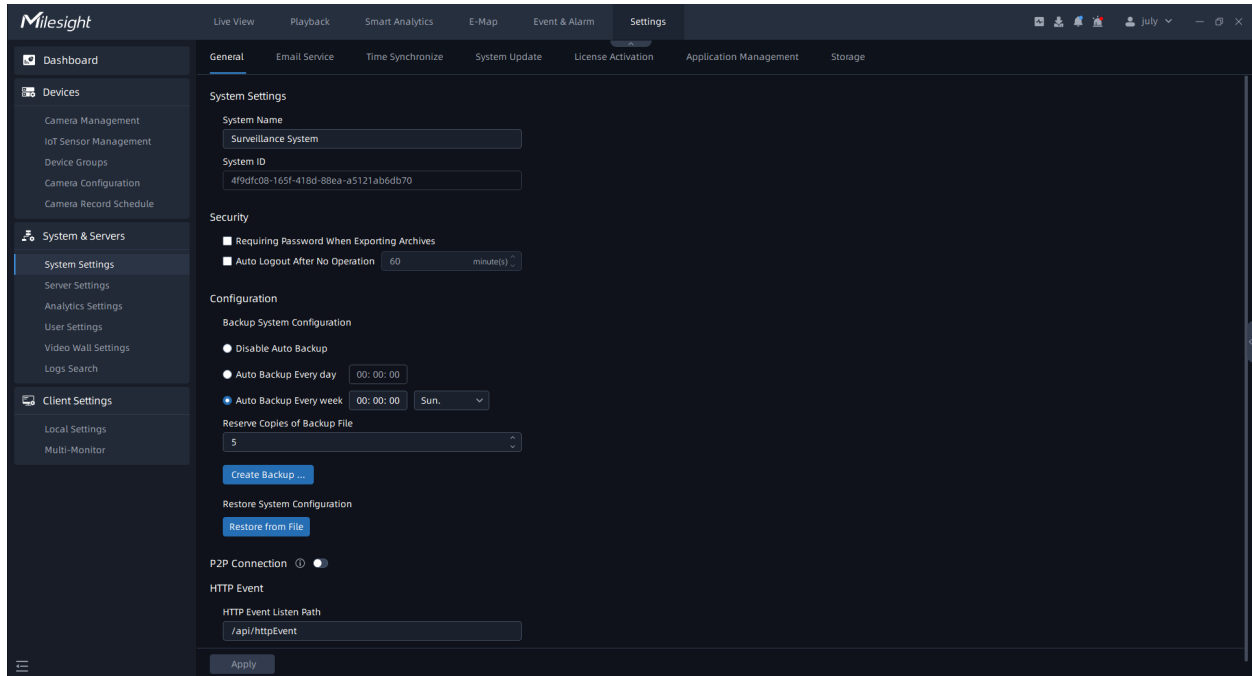
3.3 System and Servers

3.3.1 System Settings

Here you can view and edit configurations about VMS system. There are General, Email Service, Time Synchronize and License Activation.

General


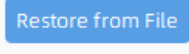
Click the “System Settings->General” button, the General page will show as below:


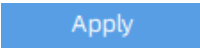
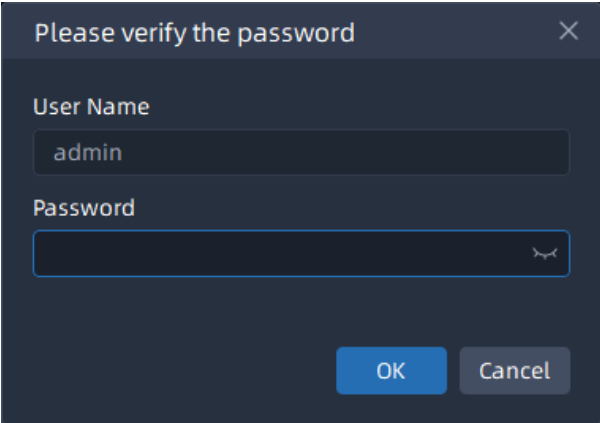
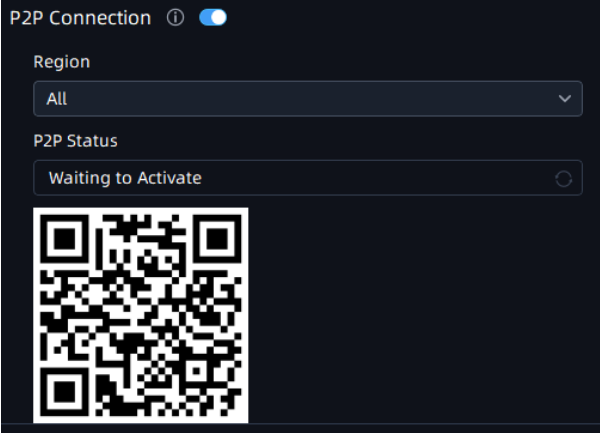



The meanings of the items on the page can be referred to the table below:

Table 26.

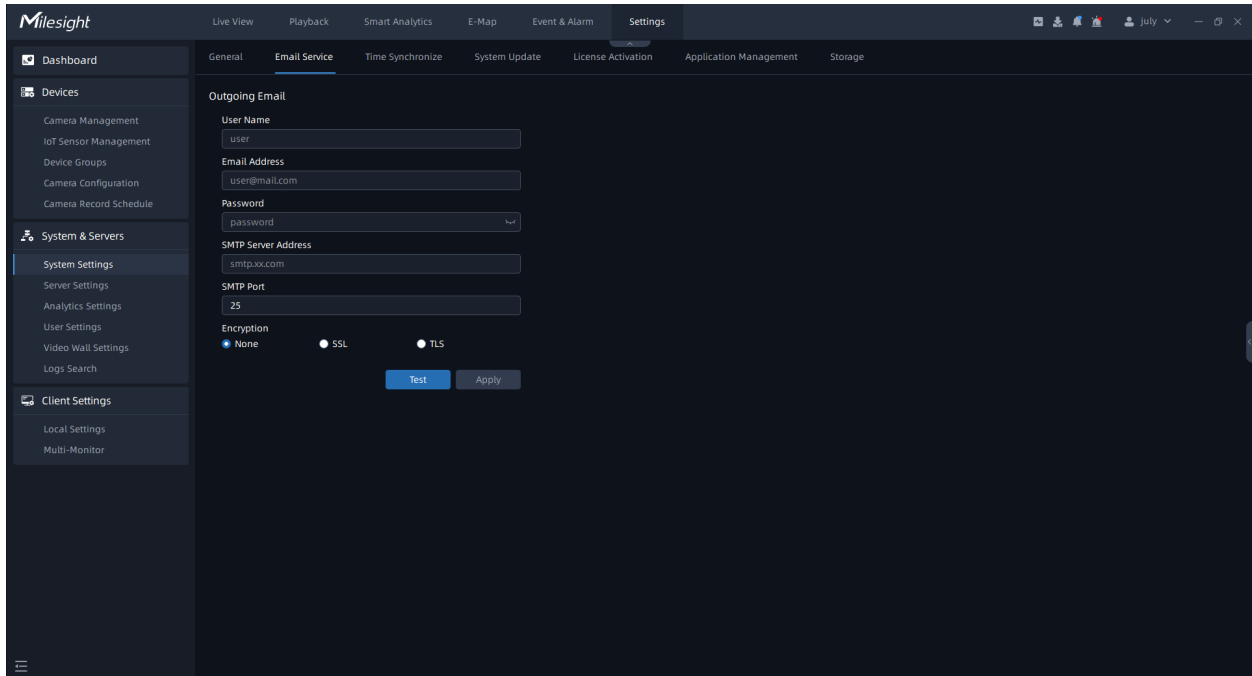
Items	Function Introduction
System Name	You can customize the system name.
Security	<p>Requiring Password When Exporting Archives: Select the check box to set the password when exporting the archives.</p> <p>Auto Logout: If the user does not operate within the set time period, the VMS Enterprise Client will automatically log out from system for better security.</p>

Items	Function Introduction
<p>Backup System Configuration</p>	<p>Disable Auto Backup: Select the check box to disable auto backup.</p> <p>Auto Backup Everyday: Select the check box to enable auto backup at certain times everyday.</p> <p>Auto Backup Every week: Select the check box to enable auto backup at certain times of the day each week.</p> <p>Reserve Copies of Backup File: You can choose the number of the copies of backup file (5-10).</p> <p>You can also click  to back up system configuration manually.</p>
<p>Restore System Configuration</p>	<p>Click  to restore system configuration.</p>
<p>HTTP Event</p>	<p>HTTP Event Listen Path can be set by yourself.</p>

Items	Function Introduction
<p>P2P Connection</p>	<p>Click  button to enable P2P mode, and then users can choose P2P servers in different regions by themselves.</p> <p>After finishing the settings, click  button, a window will pop up to verify the user's password, input the password, and then click "OK" button to apply the settings to your VMS system.</p>  <p>After successfully enabling the P2P function, it allows M-VMS Mobile APP to access the system through the Internet in P2P mode.</p>  <p> Note: You can download the M-VMS Mobile APP in the link: https://www.milesight.com/support/download</p>

Email Service

Here you can set your VMS system to send emails. Click the "System Settings->Email Service" button, the Email Service page will show as below:



The meanings of the items on the page can be referred to the table below:

Table 27.

Items	Function Introduction
User Name	The sender's name. It is usually the same as the account name.
Email Address	Sender Email Address.
Password	The password of the sender.
SMTP Server Address	The SMTP Server IP address or host name (e.g. smtp.gmail.com).
SMTP Port	The port of SMTP Server. The default TCP/IP port for SMTP is 25(not secured). For SSL/TLS port, it depends on the mail you use.
Encryption	Click to enable SSL or TLS if it is required by the SMTP server.

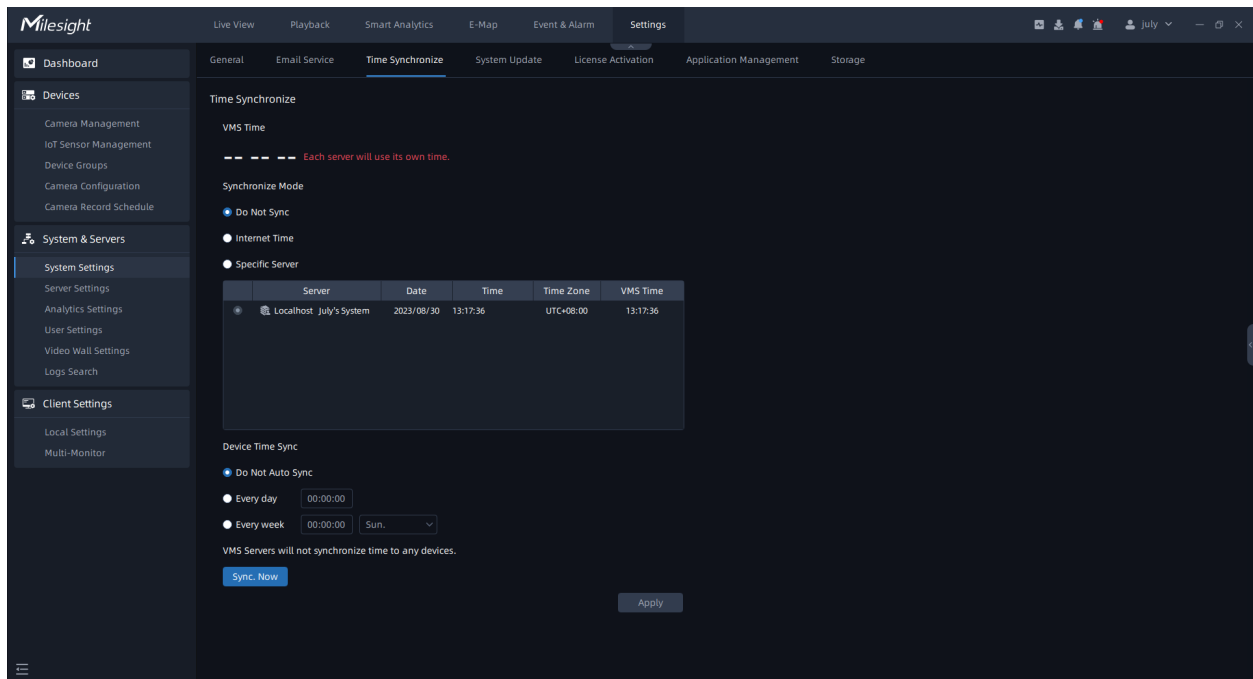
After finishing the settings, you can click “Test” button to send a test email to the recipient email address, then click “Apply” button. If you want to see the setting effect, then you need to set event action as Send Email and Email Address of the receiver user which email will be sent to.

More details about the Send Email action can see the table of [Event Rule Settings \(page 344\)](#).

More details about the Email Address of user which receive the emails can set in the [User Management \(page 173\)](#).

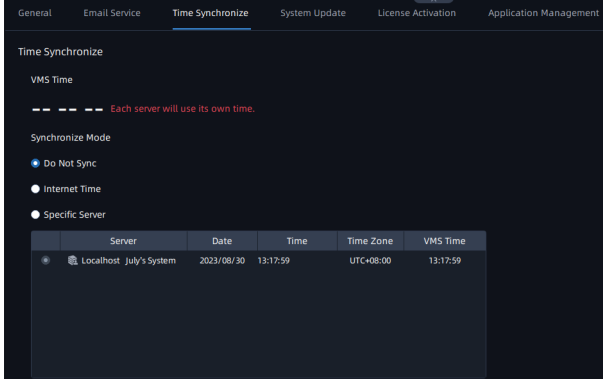
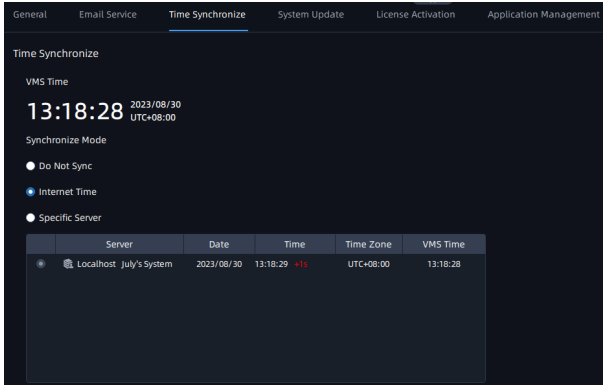
Time Synchronize



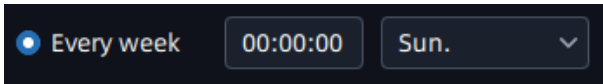
Users can set synchronize mode for VMS time, including Do Not Sync, Internet Time and Specific Server. In addition, users can synchronize VMS time to the devices. This page is as shown below:



The meanings of the items on the page can be referred to the table below:

Table 28.

Items		Function Introduction										
Synchronize Mode	Do Not Sync	<p>Choose this item, then each server added to VMS system will use its own time as shown below:</p>  <table border="1" data-bbox="797 646 1247 793"> <thead> <tr> <th>Server</th> <th>Date</th> <th>Time</th> <th>Time Zone</th> <th>VMS Time</th> </tr> </thead> <tbody> <tr> <td>Localhost July's System</td> <td>2023/08/30</td> <td>13:17:59</td> <td>UTC+08:00</td> <td>13:17:59</td> </tr> </tbody> </table>	Server	Date	Time	Time Zone	VMS Time	Localhost July's System	2023/08/30	13:17:59	UTC+08:00	13:17:59
	Server	Date	Time	Time Zone	VMS Time							
Localhost July's System	2023/08/30	13:17:59	UTC+08:00	13:17:59								
Internet Time	<p>Choose this item, then VMS system will use Internet to synchronize time as shown below:</p>  <table border="1" data-bbox="797 1159 1247 1310"> <thead> <tr> <th>Server</th> <th>Date</th> <th>Time</th> <th>Time Zone</th> <th>VMS Time</th> </tr> </thead> <tbody> <tr> <td>Localhost July's System</td> <td>2023/08/30</td> <td>13:18:29 +1s</td> <td>UTC+08:00</td> <td>13:18:28</td> </tr> </tbody> </table>	Server	Date	Time	Time Zone	VMS Time	Localhost July's System	2023/08/30	13:18:29 +1s	UTC+08:00	13:18:28	
Server	Date	Time	Time Zone	VMS Time								
Localhost July's System	2023/08/30	13:18:29 +1s	UTC+08:00	13:18:28								

Items		Function Introduction
Synchronize Mode	Specific Server	<p>Check this item and choose a server time as VMS time as shown below:</p> 
Device Time Sync	Do Not Auto Sync	VMS Servers will not synchronize time to any device under this option.
	Every Day	<p>VMS Servers will synchronize VMS time to all devices every day according to the user's setting.</p> 
	Every Week	<p>VMS Servers will synchronize VMS time to all devices every week according to the user's setting.</p> 
	Sync. Now	Click this button and the VMS Server will synchronize time to all devices.

System Update

Here you can update any client, server, video wall and analytics server in the system as needed. The list shows the information of all clients, servers, video walls and analytics servers in the system, including Component, Server name, IP Address, Current Version, Newer Version, System, Platform and Status. This page is as shown below:

No.	Type	License Quantity	Activation Code	Server	Expiry Time	Status	Operation
1	Camera Access	4	Free Trial	July's System Localhost	2022/08/24 12:00:22	Expired	
2	Camera Access	64	1e8b-180c-a7df-e87f	July's System Localhost	2028/08/11 00:00:00	Working	
3	Video Wall	64	5630-b543-1bc2-2fda	July's System Localhost	2026/08/01 00:00:00	Working	
4	Video Analytics	64	6d2c-5435-319f-38e0	July's System Localhost	2079/07/07 00:00:00	Working	
5	ANPR	4	b290-b75d-9865-84e6	July's System Localhost	Never expire	Working	

There are two update ways, including Online Update and Local Update.

• Online Update

Step1: Click button to check Online Update. Click button to update to the target version.

Note: As long as any node of the server or client in the system has Internet, online version detection and upgrade can be performed.

• Local Update

Step1: Click button to check Local Update. Click button to upload the specified version higher than the current one. After the upload is successful, the corresponding version will be displayed in the target version column.

Step2: Click button to update to the target version. If no version is uploaded, by default, the target version is the latest version.

License Activation

Now our VMS supports Camera Access License, Video Wall License, Video Analytics License and ANPR License.

1. Camera Access License: Limit the number of camera channels that can be added. (regardless of the manufacturer);
2. Video Wall License: Limit the number of Video Wall monitors that can be active at the same time.;
3. Video Analytics License: Limit the number of channels that can be deployed with server-side AI intelligence. (3rd-party devices only).
4. ANPR License: Limit the number of channels that can be deployed with server-side ANPR algorithm.

Here you can get a six-months free trial with 4 camera access when your server firstly is added to VMS system. You need to purchase our license to access more channels.

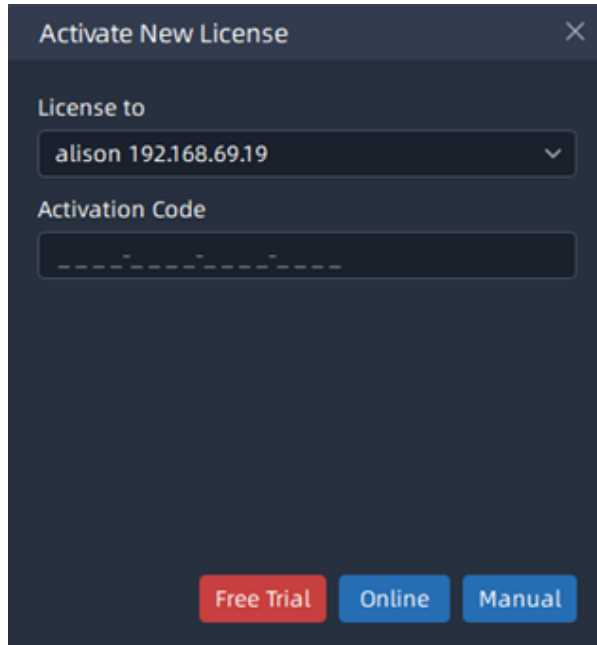
No.	Type	License Quantity	Activation Code	Server	Expiry Time	Status	Operation
1	Camera Access	4	Free Trial	July's System Localhost	2022/08/24 12:00:22	Expired	
2	Camera Access	64	1e8b-180c-a7df-e87f	July's System Localhost	2028/08/11 00:00:00	Working	
3	Video Wall	64	5630-b543-1bc2-2fda	July's System Localhost	2026/08/01 00:00:00	Working	
4	Video Analytics	64	6d2c-5435-319f-38e0	July's System Localhost	2079/07/07 00:00:00	Working	
5	ANPR	4	b290-b75d-9865-84e6	July's System Localhost	Never expire	Working	

There are three activation license ways, including Free Trial Activation, Online Activation and Manual Activation.

Note: The VMS allows for the sharing of licenses between failed servers and other servers within the same system, effectively reducing costs for customers. This license sharing feature is applicable within a 7-day validity period.

(1) Free Trial Activation

Step1: Click **Activate License** button to pop up a “Activate New License” window as shown below:

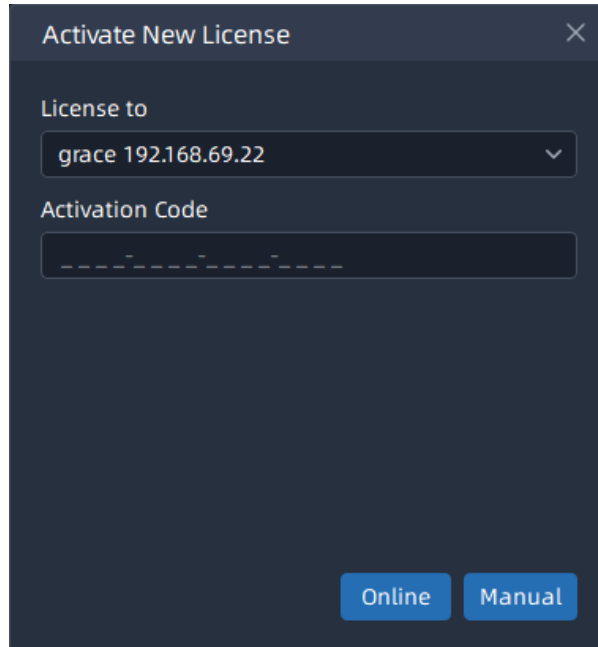


The screenshot shows a dark-themed dialog box titled "Activate New License" with a close button (X) in the top right corner. Inside the dialog, there are two main sections: "License to" and "Activation Code". The "License to" section features a dropdown menu with the text "alison 192.168.69.19" and a downward arrow. The "Activation Code" section has a text input field with a dashed line pattern. At the bottom of the dialog, there are three buttons: "Free Trial" (red), "Online" (blue), and "Manual" (blue).

Step2: Select a server that the license will be registered. If you firstly use the VMS software, and you can directly click **Free Trial** button to activate a free trial license, then the license will be added to license list successfully.

(2) Online Activation

Step1: Click **Activate License** button to pop up a “Activate New License” window as shown below:



Activate New License

License to
grace 192.168.69.22

Activation Code

Online Manual

Step2: Input Activation Code and click **Online** button to verify your activation code;

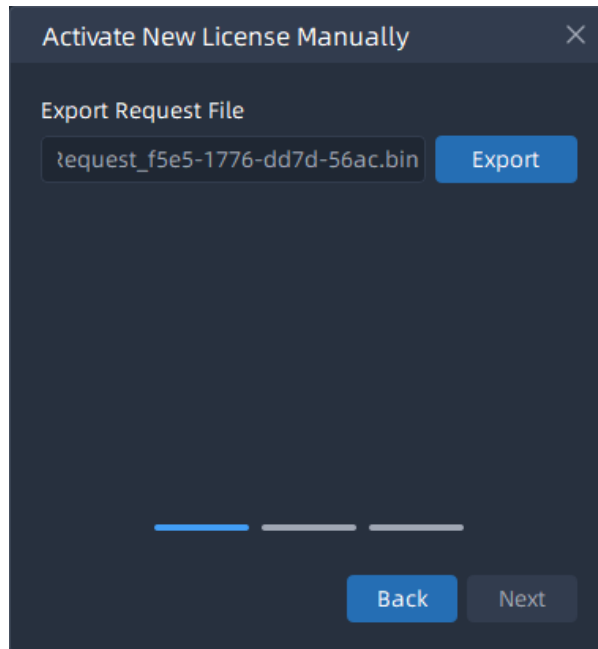
Step3: After verifying your activation code successfully, the license will be added to the License Activation list and displayed working status.

(3) Manual Activation

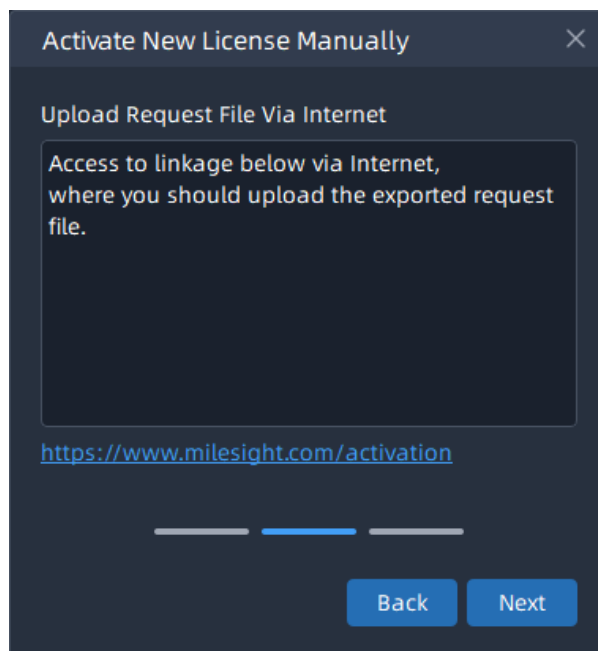
If neither target server nor client computer is not connected to the Internet, then licenses can be activated offline. The manual activation steps can be referred to as below:

Step1: Click **Activate License** button to pop up a “Activate New License” window as Online Activation shown above:

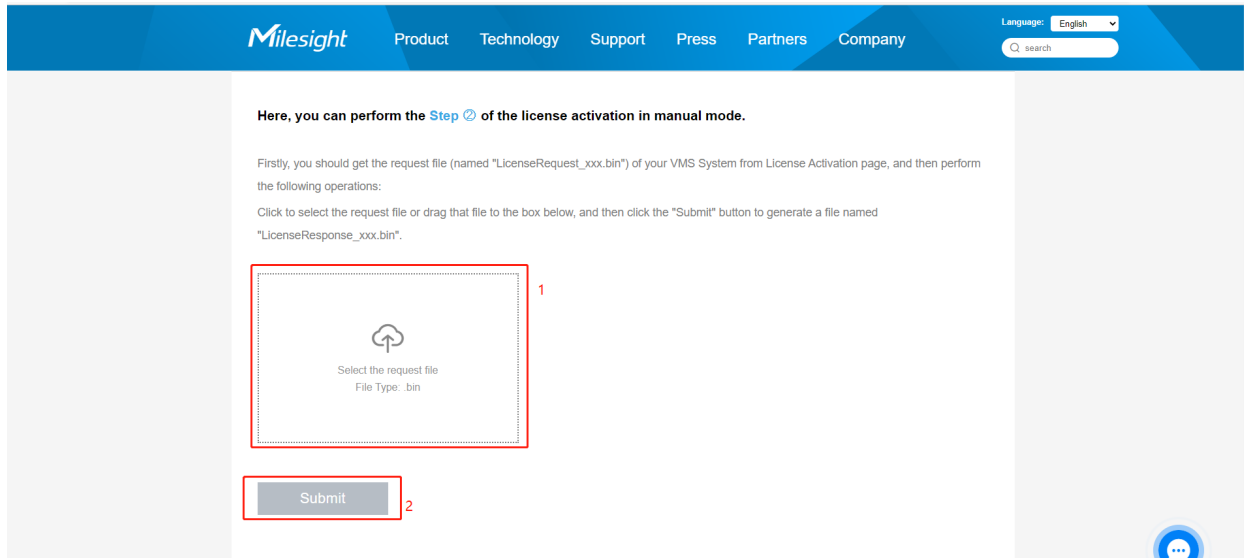
Step2: Input Activation Code and click **Manual** button, then a window pop up as below, you can activate the license manually according to the current reminded steps;



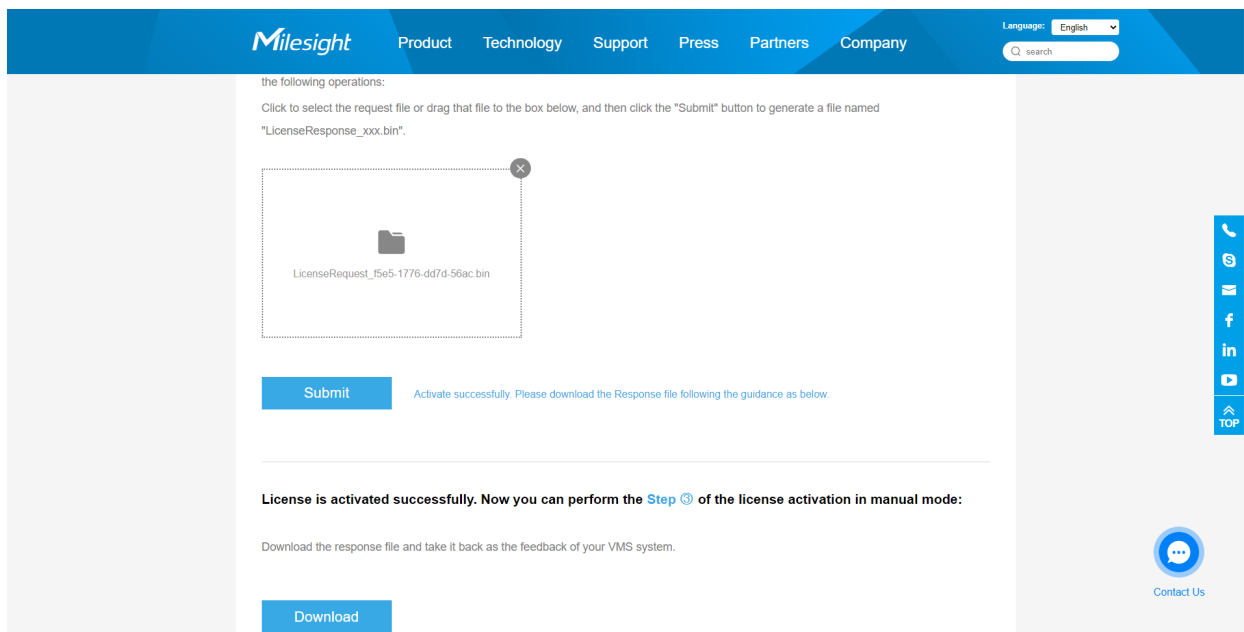
Step3: Click **Export** button to export the LicenseRequest.bin file and save to your local storage path or flash memory, then click **Next** button. The window will change as below:



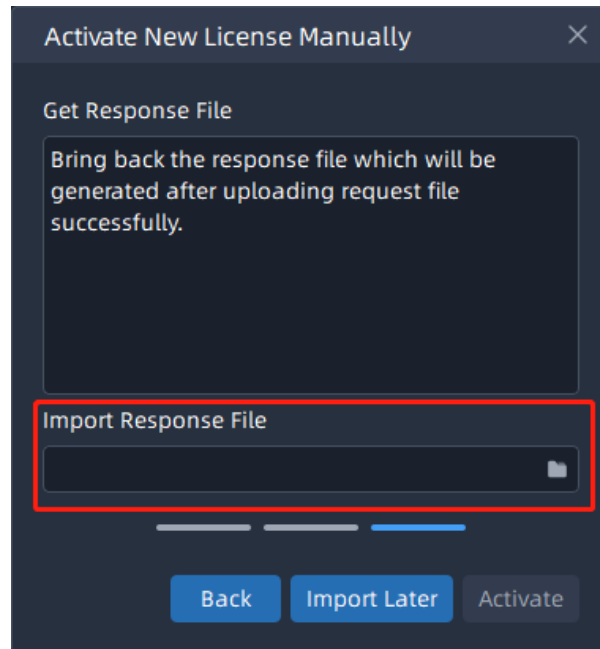
Step4: Copy the address to another online server URL search box and the Milesight License Activation website will show as below. You can upload the previous exported LicenseRequest_XXXX-XXXX-XXXX-XXXX.bin here;

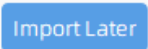


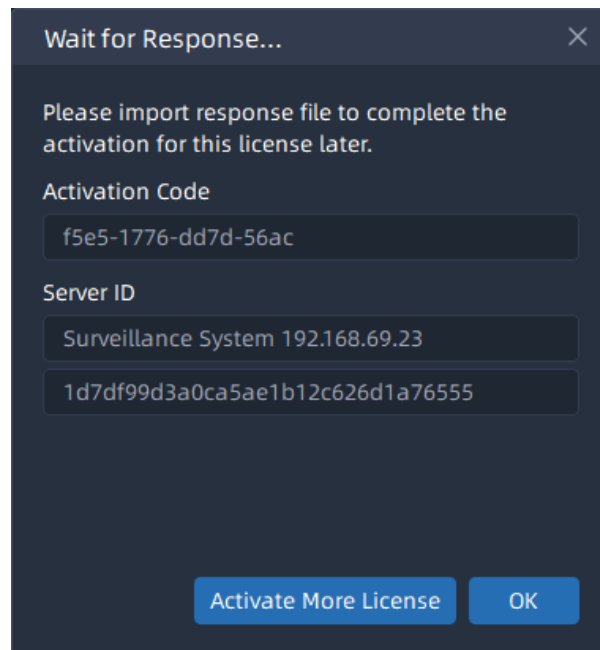
Step5: If the activation code is correct and valid, then the website will show as below. You can click [Download](#) button to download the response file;



Step6: Import the downloaded license response file from activation website, and click [Activate](#) button to activate the license;



If you want to import the response file later, you can click  button.



After activating the license successfully, the license will be added to the License Activation list and displayed working status.

No.	Type	License Quantity	Activation Code	Server	Expiry Time	Status	Operation
1	Camera Access	4	Free Trial	July's System Localhost	2022/08/24 12:00:22	Expired	
2	Camera Access	64	1e8b-180c-a7df-e87f	July's System Localhost	2028/08/11 00:00:00	Working	
3	Video Wall	64	5630-b543-1bc2-2fda	July's System Localhost	2026/08/01 00:00:00	Working	
4	Video Analytics	64	6d2c-5435-319f-38e0	July's System Localhost	2079/07/07 00:00:00	Working	
5	ANPR	4	b290-b75d-9865-84e6	July's System Localhost	Never expire	Working	

At the bottom of the interface, there are buttons for: Export Server ID, Export License, Overview, and Activate License.

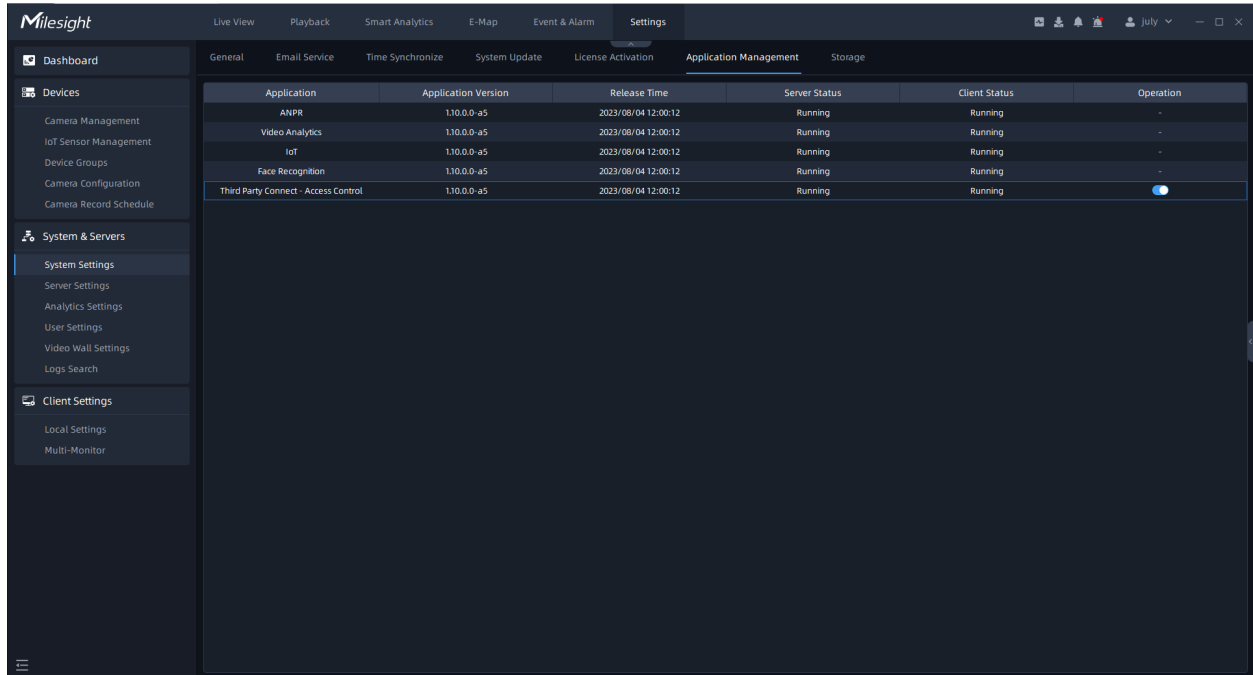
There are some other operations as below:

1. Click button to import the response file to activate the license.
2. Click button to deactivate the license. After deactivation, this activation code can be reactivated or activated and used on other servers. The free trial license does not have this option.
3. Click button to delete the license. This option is only for the license whose status is not Working.
4. Click button to check each license details.
5. Click button to export the license list in the system.
6. Click button to overview usage condition of activated licenses.

Note: Each License can only be registered to one server because license is bound with hardware information of computer on which server resides. If there is an exceptional occurrence of server, all licenses of the computer on which server resides will become invalid. And once the server starts to run, the licenses will automatically become valid and restore working status.

Application Management

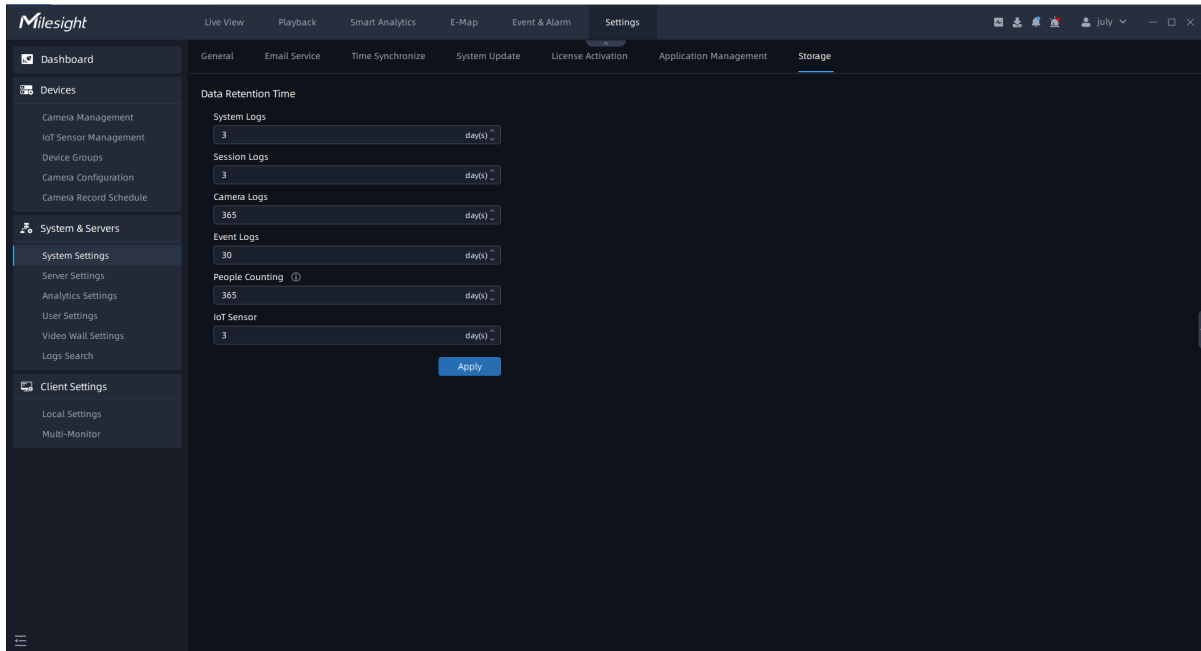
Here you can manage various applications of VMS, including ANPR, Video Analytics, Face Recognition and Third Party Connect - Access Control. Users can check the application status and enable or disable Third Party Connect manually.



Application	Application Version	Release Time	Server Status	Client Status	Operation
ANPR	1.10.0.0-a5	2023/08/04 12:00:12	Running	Running	-
Video Analytics	1.10.0.0-a5	2023/08/04 12:00:12	Running	Running	-
IoT	1.10.0.0-a5	2023/08/04 12:00:12	Running	Running	-
Face Recognition	1.10.0.0-a5	2023/08/04 12:00:12	Running	Running	-
Third Party Connect - Access Control	1.10.0.0-a5	2023/08/04 12:00:12	Running	Running	<input checked="" type="checkbox"/>

Storage

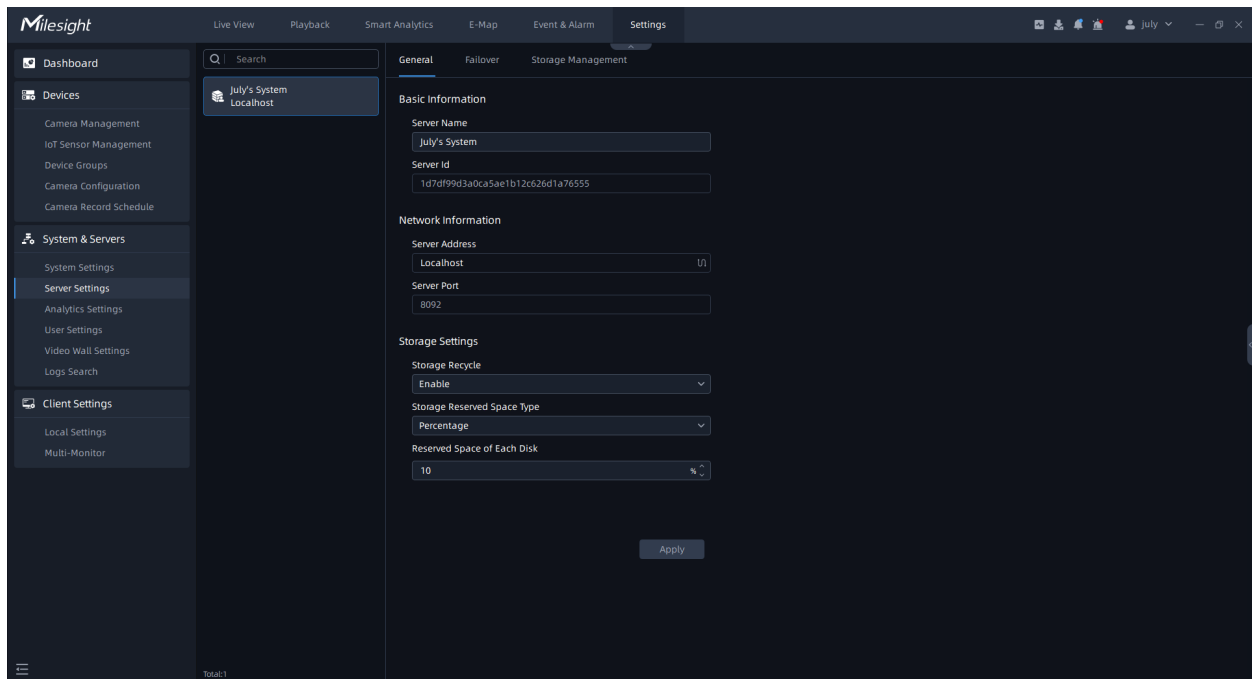
The storage page allows you to manage the data retention time, ranging from 1 to 9999 days, for different components, including System Logs, Session Logs, Camera Logs, Event Logs, People Counting and IoT Sensor. It helps optimize storage usage and ensures that log data is available for a specific period, based on your needs and compliance requirements.



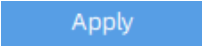
3.3.2 Server Settings

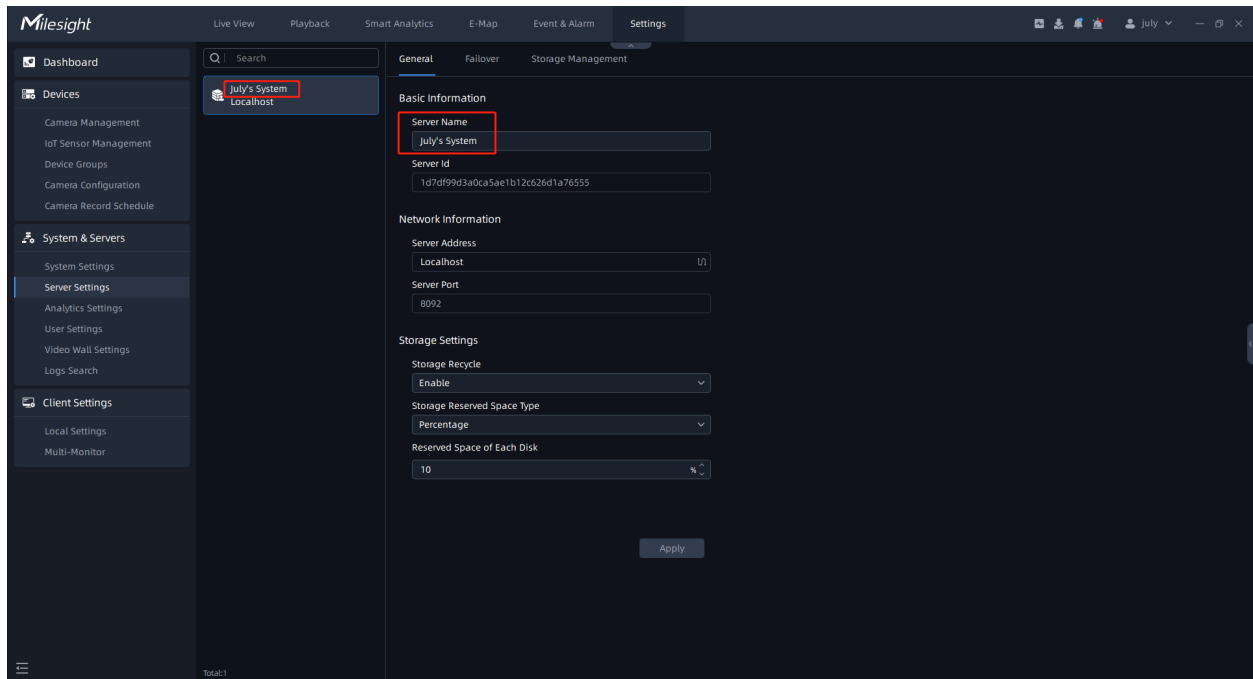
General

User can check and configure basic server settings. There are several parts, including Basic Information, Network Information, Storage Setting and Detach from system. Click “Server Settings->General” button, the page will show as below:




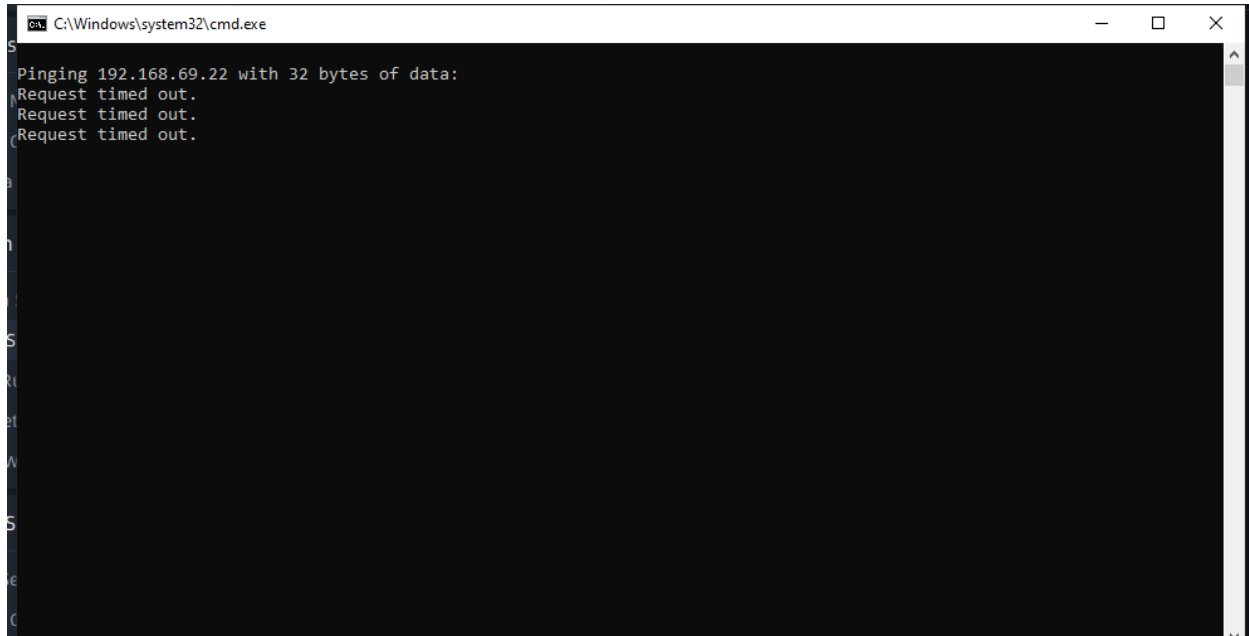
• Basic Information:

Here you can change name of each server inside VMS system. Select a server and change its name, then clicking  button to apply the new name.



• Network Information:

When clicking  button, a window will pop up to ping your server IP as below, and you can check your current server IP status here.



```


C:\Windows\system32\cmd.exe
S
Pinging 192.168.69.22 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
C

```

- **Storage Setting:**


If enable Storage Recycle function, it will delete the previous storage files when the disk space reaches the setting threshold value, ensuring that disk storage can be continued.

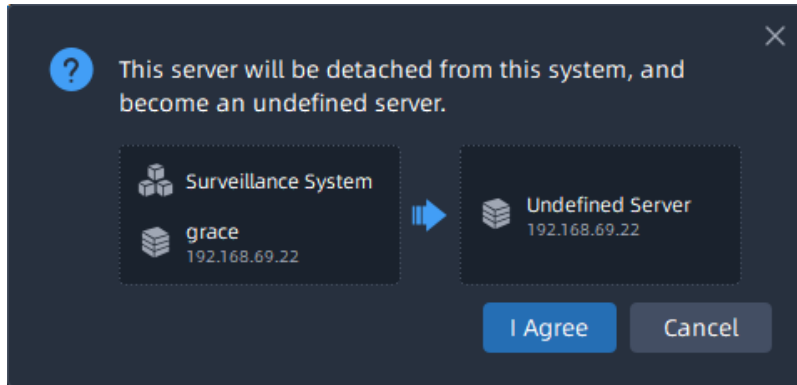


 **Note:** You can choose Percentage or Specific Value to set the threshold value of Storage Recycle.

- **Detach from System:**

You can also detach the added servers from system. The steps are as below:

Step 1: Click  button, then a pop-up window as below;

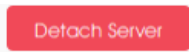


Step2: Choose Remove or Keep cameras of this server from system;

Step3: Wait for 5 seconds and click **I Agree** button to detach the selected server from this VMS system, then the server will become an undefined server;

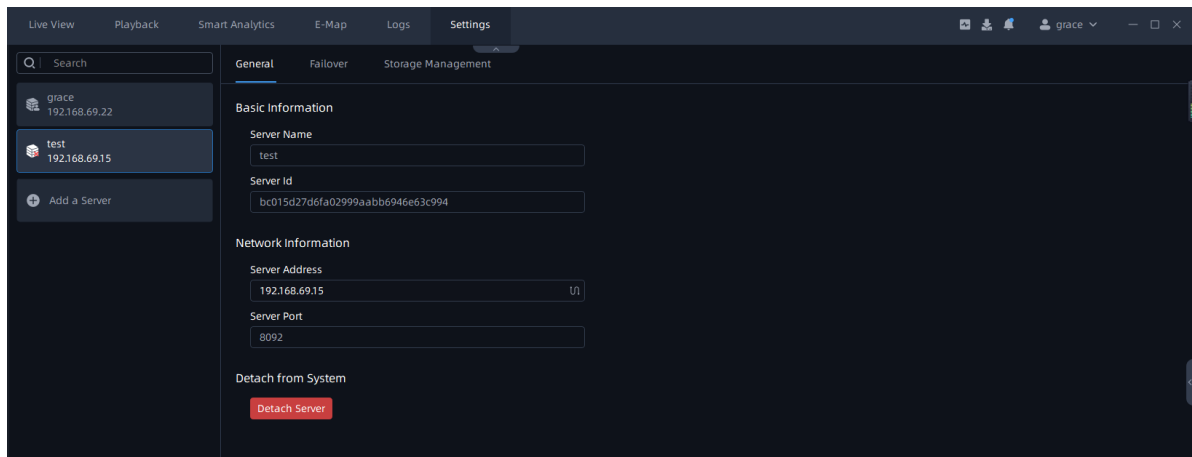
Note:

- Only the Owner user has permission to perform the Detach Server operation and check detach result.
- When there is an exceptional occurrence of server to make it offline, if you directly click



button, then the deleted server don't really be detached from system.

Once server restores normal status, the server still can display in the interface and start working.



- After the last server is detached, all clients connected to the system will be forced to logout, and pop up a window to inform you “All servers in this system have been removed, please set up system or contact administrator”.

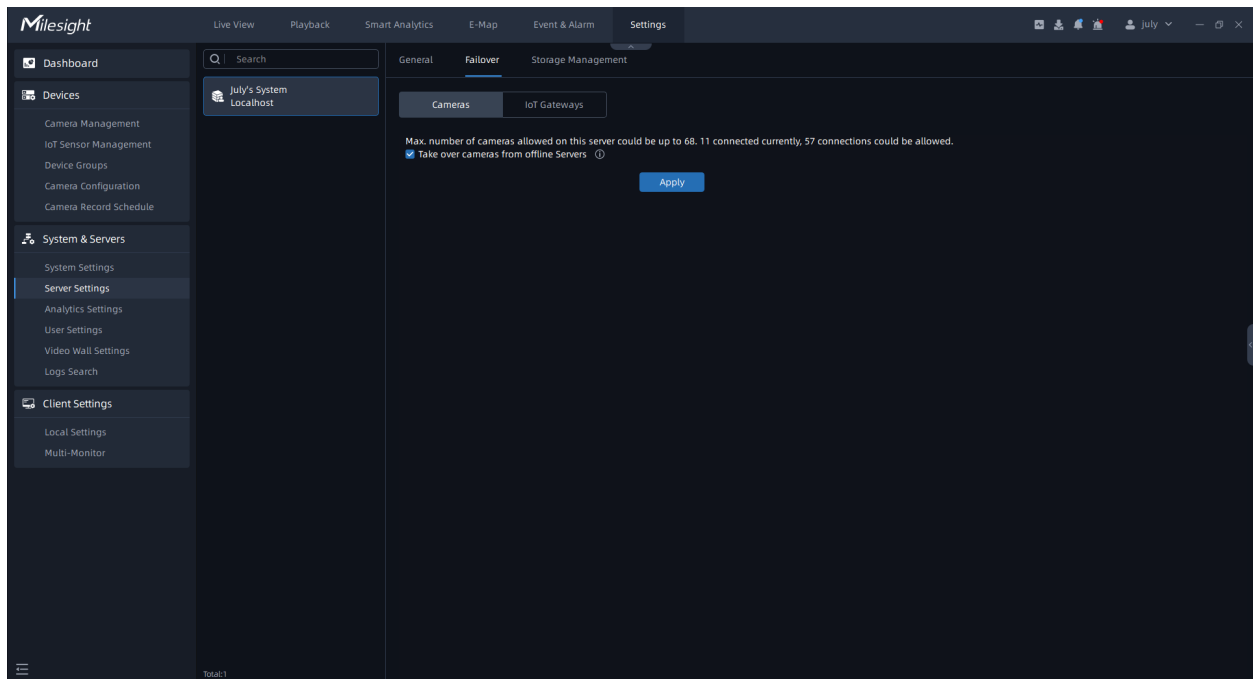
Failover

Click “Server Settings->Failover” button, and then you can set the failover function in this interface. This function allows the current server to take over the cameras and IoT gateways from the offline server.

- Cameras

Check **Take over cameras from offline Servers** to enable the Failover function. When other servers are offline, this server will take over cameras from the offline servers automatically.

If you checked **Take over cameras according to customized priority**, the server will take over cameras from the offline servers according to the set priority. The page will show as below:



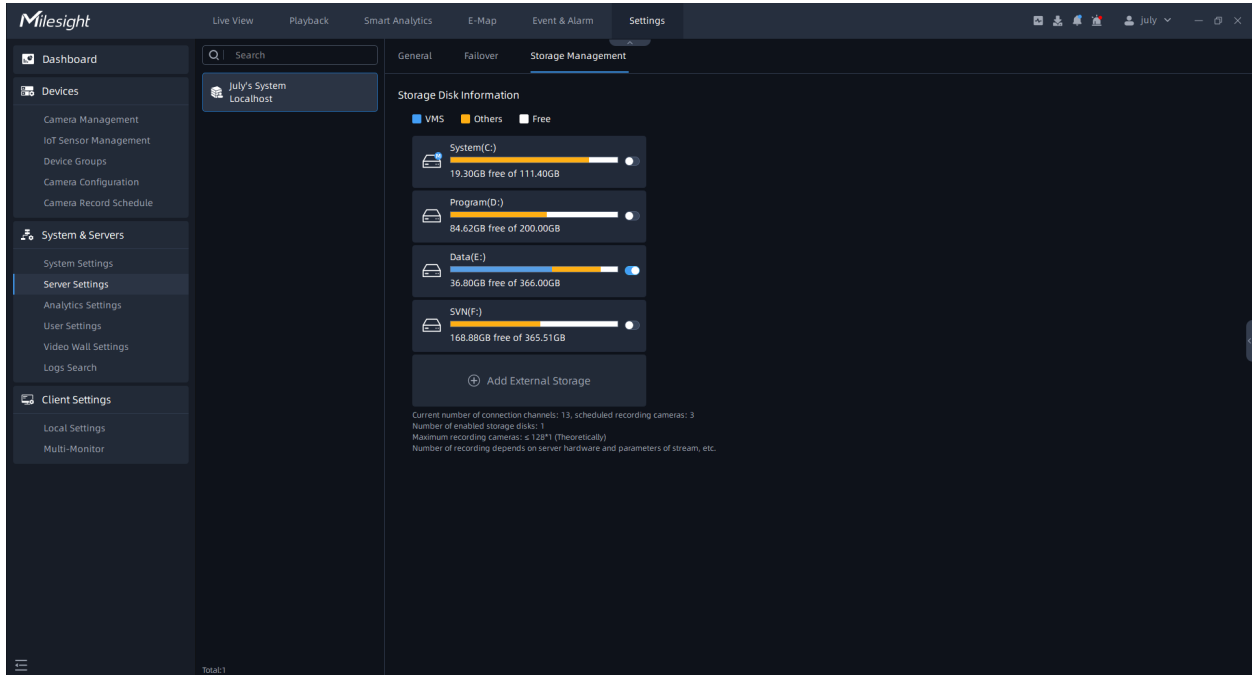
For example, here I set the priority of the cameras in Server 192.168.69.22 as shown in the figure. When the server 192.168.69.22 is offline, other servers in the system will take over the cameras from this server in the order of High, Medium and Low, and the camera whose priority is set to Never will not be taken over.

Note: There must be unoccupied channels on the server whose Failover function is enabled. Only when the number of channels on the server is less than 128, the server whose Failover function is enabled can take over the channels of other servers.

- IoT Gateways

Storage Management

Here you can see that every server's storage disk information includes local disk storage and network storage in this system. And you can enable storage disk which you are interested to store recordings and images of VMS system.



You can also add external storage according to following steps:

Step1: Click the “Add External Storage” button, a window will pop up as shown below:

SMB/CIFS window:

The 'Add External Storage' dialog box contains the following fields and controls:

- Protocol:** A dropdown menu currently set to 'SMB/CIFS'.
- URL:** A text input field with a placeholder text: '\\<Computer Name>\<Folder>'. The text is highlighted in blue.
- User Name:** An empty text input field.
- Password:** An empty password input field with a show/hide icon on the right.
- Buttons:** 'Save' and 'Cancel' buttons at the bottom right.

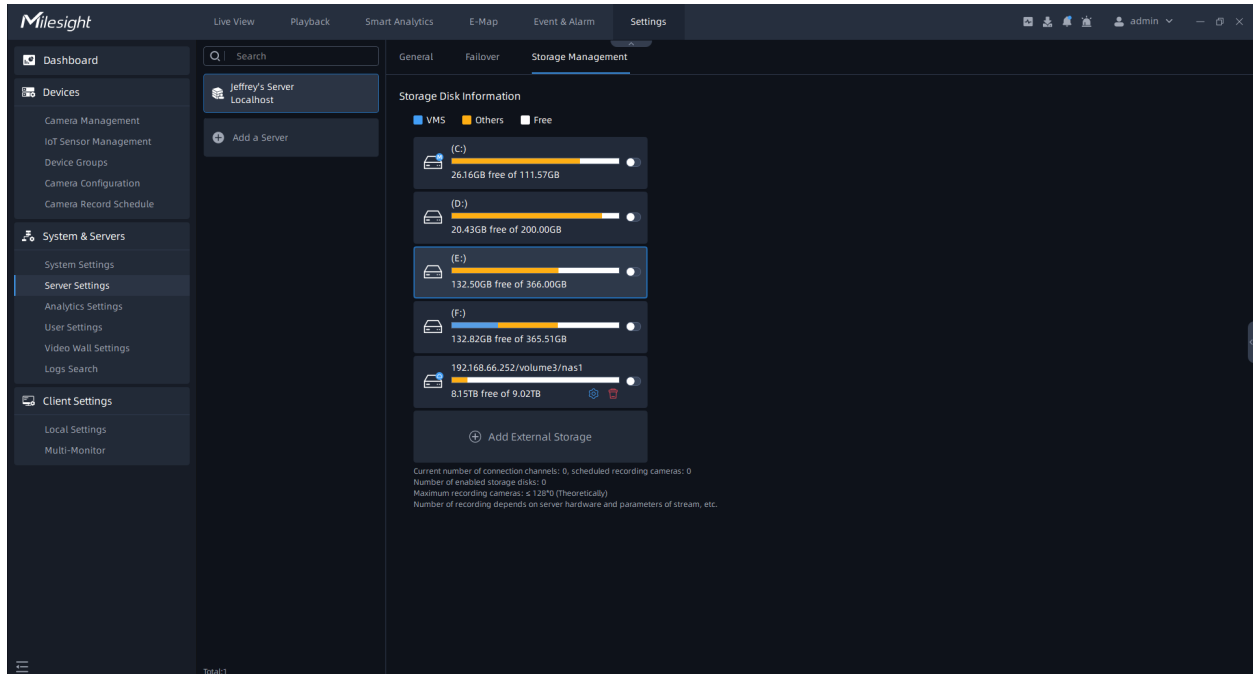
NFS window:

The meanings of the items on the page can be referred to the table below:

Table 29.

Items	Function Introduction
Protocol	Choose protocol, including SMB/CIFS and NFS.
URL	Fill correct URL format. For SMB/CIFS, e.g. "\\192.168.7.25\share". You can fill the URL according to your settings for NFS.
User Name	This option is available for SMB/CIFS, the account name for network disk which you set.
Password	You can set the password for network disk to guarantee the security if SMB/CIFS is selected.
Path	Input the NFS file path, e.g. "/path1/path2/.../path N".

Step2: Finish the setting and click "Save" button. Then the disk will be added into the server storage disk list as shown below:



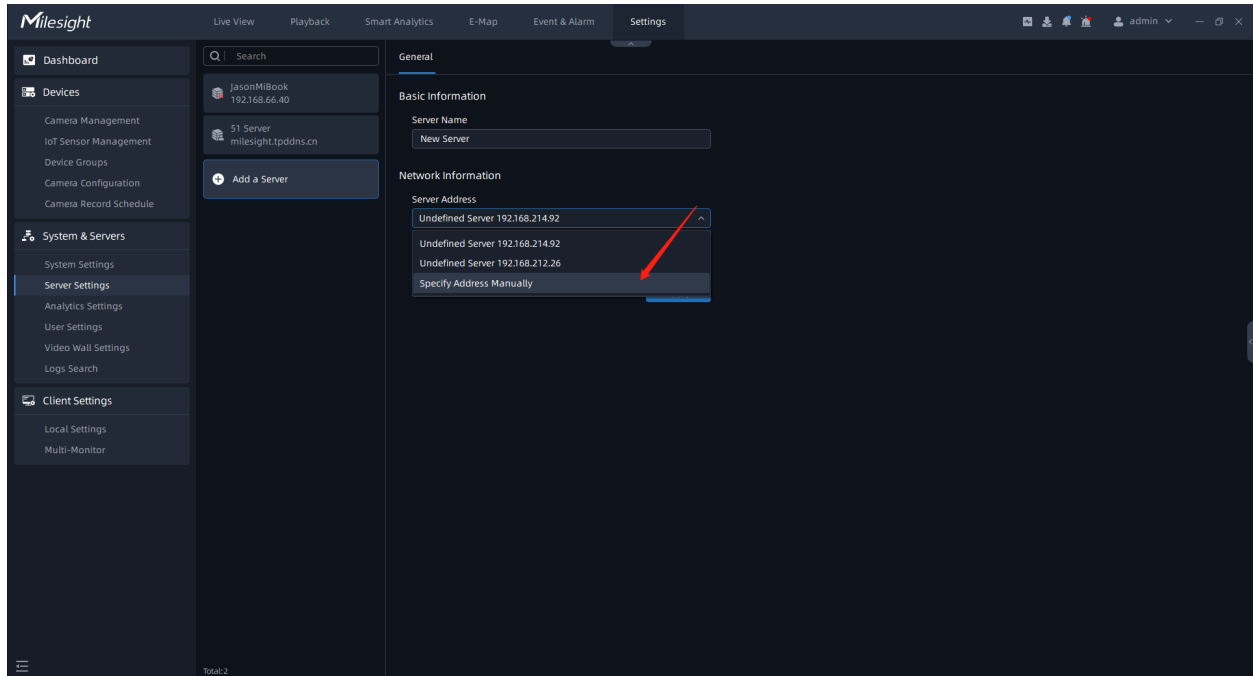
The screenshot shows the Milesight Enterprise NVR Settings interface. The left sidebar contains navigation menus for Dashboard, Devices, System & Servers, and Client Settings. The main content area is titled 'Storage Management' and displays 'Storage Disk Information' for 'Jeffrey's Server Localhost'. It lists five storage locations with their respective free and total capacities. A legend indicates VMS (blue), Others (orange), and Free (white) space. Below the disk information, there is a section for 'Add External Storage' and a status summary: 'Current number of connection channels: 0, scheduled recording cameras: 0, Number of enabled storage disks: 0, Maximum recording cameras: ≤ 128* (Theoretically), Number of recording depends on server hardware and parameters of stream, etc.'

Note:

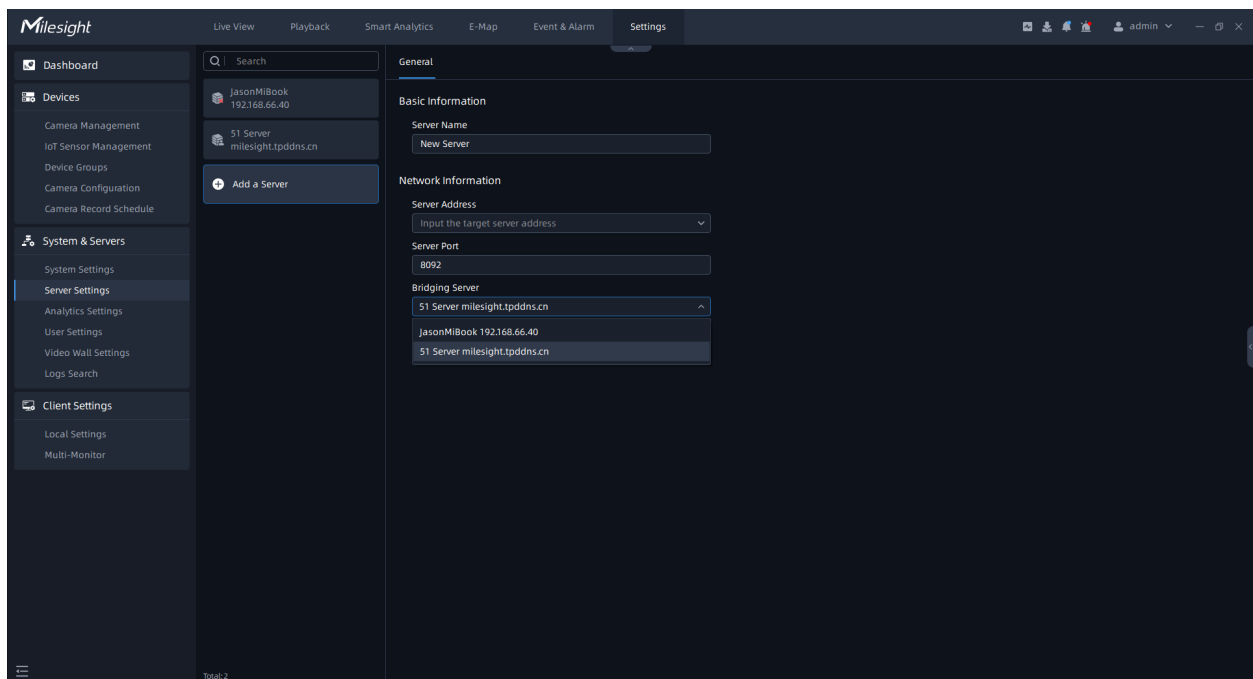
1. Before adding the external storage, please make sure that the network disk is available within the network and properly configured to store the recorded files, etc.
2. The network disks can be deleted, but local storage disk can't be deleted from VMS system.

Add a Server

In this interface, users can not only directly add undefined servers in the same LAN as any server in the current system, but also add servers in different LANs by manually entering the server addresses.



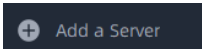
Note: If the user chooses to manually enter the specified server address, make sure that the corresponding Bridging Server is selected for the service.

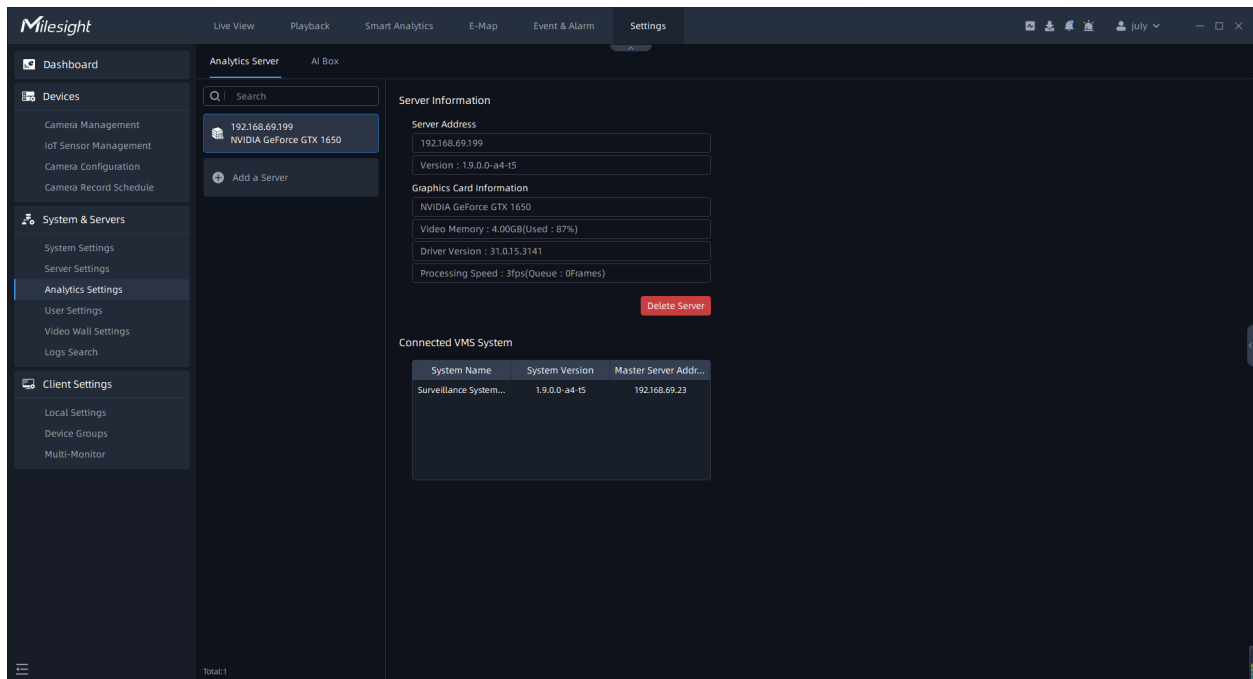


3.3.3 Analytics Settings

Before setting, you need to confirm the following items:

- There are Video Analytics and ANPR licenses in the system, and the license quantity is sufficient. For more information, please refer to [License Activation \(page 154\)](#).
- The Video Analytics Server has been installed and running.
- The AI Box is up and running.

Step1: Click  button then select a running Analytics Server or AI Box as shown below:




The screenshot shows the Milesight web interface with the 'Settings' tab selected. The 'Add a Server' button is highlighted. The 'Server Information' section displays the following details:

Field	Value
Server Address	192.168.69.199
Version	1.9.0.0-a4-15
Graphics Card Information	NVIDIA GeForce GTX 1650
Video Memory	4.00GB(Used : 87%)
Driver Version	31.015.3141
Processing Speed	3fps(Queue : 0Frames)

The 'Connected VMS System' table shows one system connected:

System Name	System Version	Master Server Addr...
Surveillance System...	1.9.0.0-a4-15	192.168.69.23

Step2: Click  button, then the server will be successfully added. You can check the server information and how many systems are currently connected to this server and the hardware information of AI Box as shown below:

The screenshot shows the Milesight Settings interface. The left sidebar has a 'System & Servers' section with 'Analytics Settings' selected. The main area shows the 'Analytics Server' configuration. A search bar is at the top of the server list. One server is listed with IP 192.168.69.193 and GPU NVIDIA GeForce RTX 3060. The right panel displays the server's details: Server Address (192.168.69.193), Version (1.10.0.0), Graphics Card Information (NVIDIA GeForce RTX 3060), and Driver Version (31.0.15.3713). A 'Delete Server' button is present. Below, the 'Connected VMS System' table is empty, showing 'No data'.

The screenshot shows the Milesight Settings interface with the 'AI Box' tab selected. The left sidebar remains the same. The main area shows the 'AI Box' configuration. A search bar is at the top of the AI Box list. One AI Box is listed with IP 192.168.69.217 and model BX108-A. The right panel displays the AI Box's details: AI Box Address (192.168.69.217:9090), Version (V.0.2.XZ07), Hardware Information (Device Number: M030201202205001245, Device SN: M014100892206000692, Date & Time: 2023/07/30 15:11:27, Device Model: BX108-A), and Compute Capability Used (7/8). A 'Delete AI Box' button is present.

Note:

1. Currently only NVIDIA graphic card (CUDA compute capability 7.5 or higher is recommended) is supported for Video Analytics Server.
2. Currently only 64-bit Operating System is supported for Video Analytics Server.
3. For VMS-end Video Analytics and VMS-end People Counting:


- No license is required for cameras added via MSSP, Milesight DDNS and P2P protocols.
 - The license is required for the cameras added via RTSP and ONVIF protocols.
4. For ANPR, a license is required for cameras added via all protocols.
 5. For AI Box, no extra license is required.

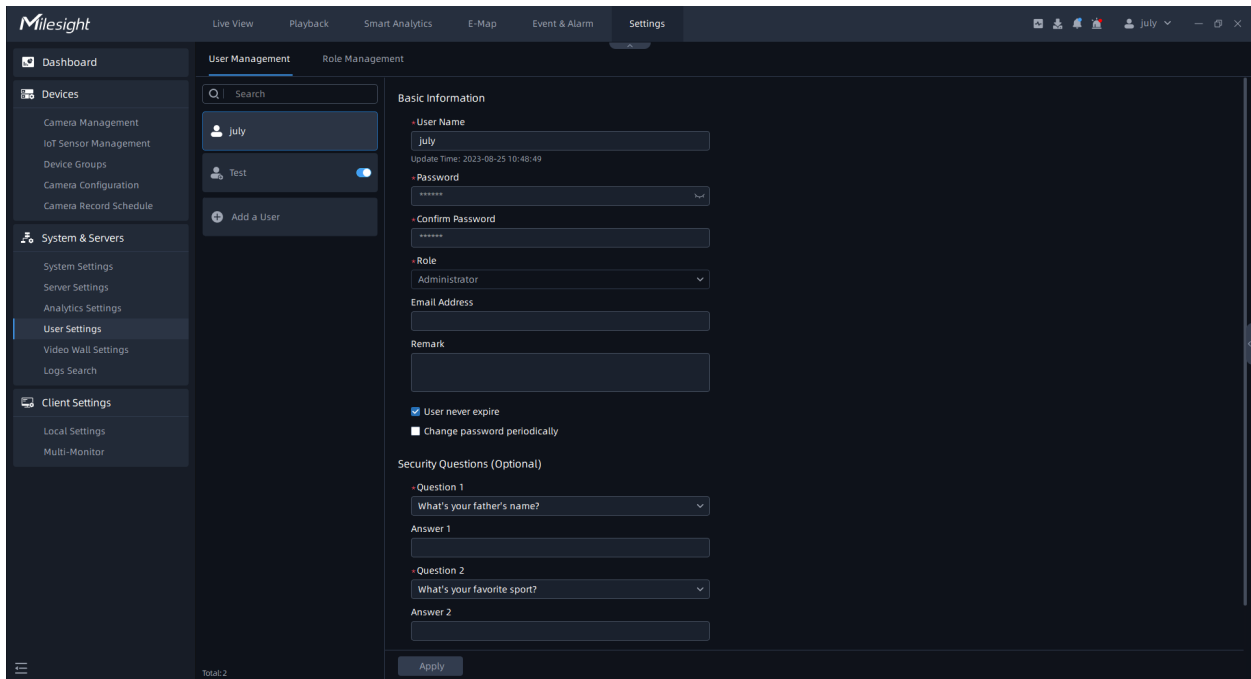
3.3.4 User Settings

User Management

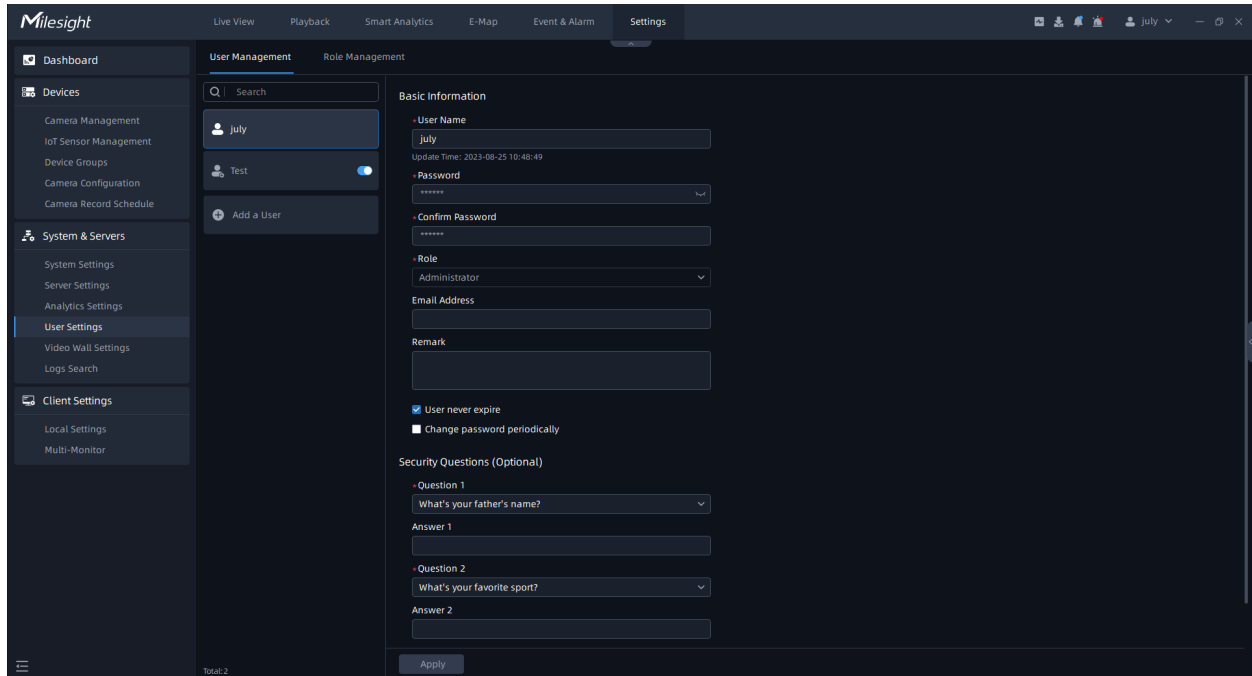
Users are managed in the User Management page.

Users can be created, modified and deleted from the User Management page in “Milesight VMS Client”. Several properties of a user including User Name, Password, Confirm password, Role, Email Address and Remark can be changed here. Besides, users can set security questions to improve user security.

 **Note:** Password Verification is required if any changes are made.

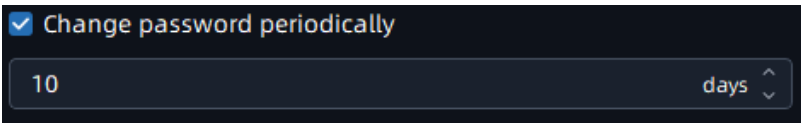


Click the “User Settings->User management” button, the page will show as below:



The meanings of the items on the page can be referred to the table below:

Table 30.

Items	Function Introduction
User never expire	User never expire by default, you can also set user expiry date for other role users. When a user date expires, you can't use the user to login to the VMS system.
Change password periodically	Enable to set a time period to change the password periodically for better security. 
Change password when first login	With this option enabled, it will ask to change the password when logging in for the first time.
Disconnect or Exit from VMS	With this option enable, the users without this privilege will not be able to close or log out of the VMS system during monitoring.

Each user can modify his or her own security questions, which greatly improves security.

Owner role page:

Basic Information

* User Name
grace
Update Time: 2022-04-19 13:22:22

* Password

* Confirm Password

* Role
Owner

Email Address
grace@milesight.com

Remark

Security Questions (Optional)

* Question 1
What's your father's name?
Answer 1

* Question 2
What's your favorite sport?
Answer 2

* Question 3
What's your mother's name?
Answer 3

Other role page:

Basic Information

*** User Name**

Update Time: 2022-07-27 09:34:09

*** Password**

*** Confirm Password**

*** Role**

Viewer
▼

Email Address

Remark

User never expire

Change password periodically

Disconnect or Exit from VMS

Delete
Apply

Note:

1. The created users are enabled by default. The user can't choose to disable itself when a user logs in the VMS system client.
2. If user is disabled, then the VMS system client which the user login to will logout compulsively and pop up a reminder window "User has been disabled or deleted, please contact administrator".
3. There can only be one user who is Owner, which is the user added when the system is created, and the priority of role is highest.

Role Management

Roles are managed in the Role Management page. The Administrator can't be deleted by default. Also, you can add or delete customized roles.

The screenshot displays the 'Role Management' interface. On the left, there is a sidebar with a search bar and a list of roles: Administrator, Operator, Viewer, 111, test, and an 'Add a Role' button. The main area is divided into two tabs: 'Basic Information' (selected) and 'Permissions'. Under 'Basic Information', there is a 'Role Name' field containing 'Administrator' and a 'Remark' text area. Below this is a 'User List' table with columns for ID, User Name, and Delete. The table currently shows 'No data'. An 'Apply' button is located at the bottom right of the main area.

ID	User Name	Delete
No data		

Basic Information Page

You can create multiple users under a role, then all users under the role will be listed in the User List as shown below:

Basic Information
Permissions

Basic Information

***Role Name**

Remark

User List

ID	User Name	Delete
1	vila	

Apply

Note: If you click the button to delete the user, a window will pop up as below to inform you “This user will be deleted” . If you check the checkbox to keep user history data and even if click “OK” button to delete the user, then tag or locked recording video files added by user can still be kept.

?
This user will be deleted.
✕

👤 1gg - Viewer

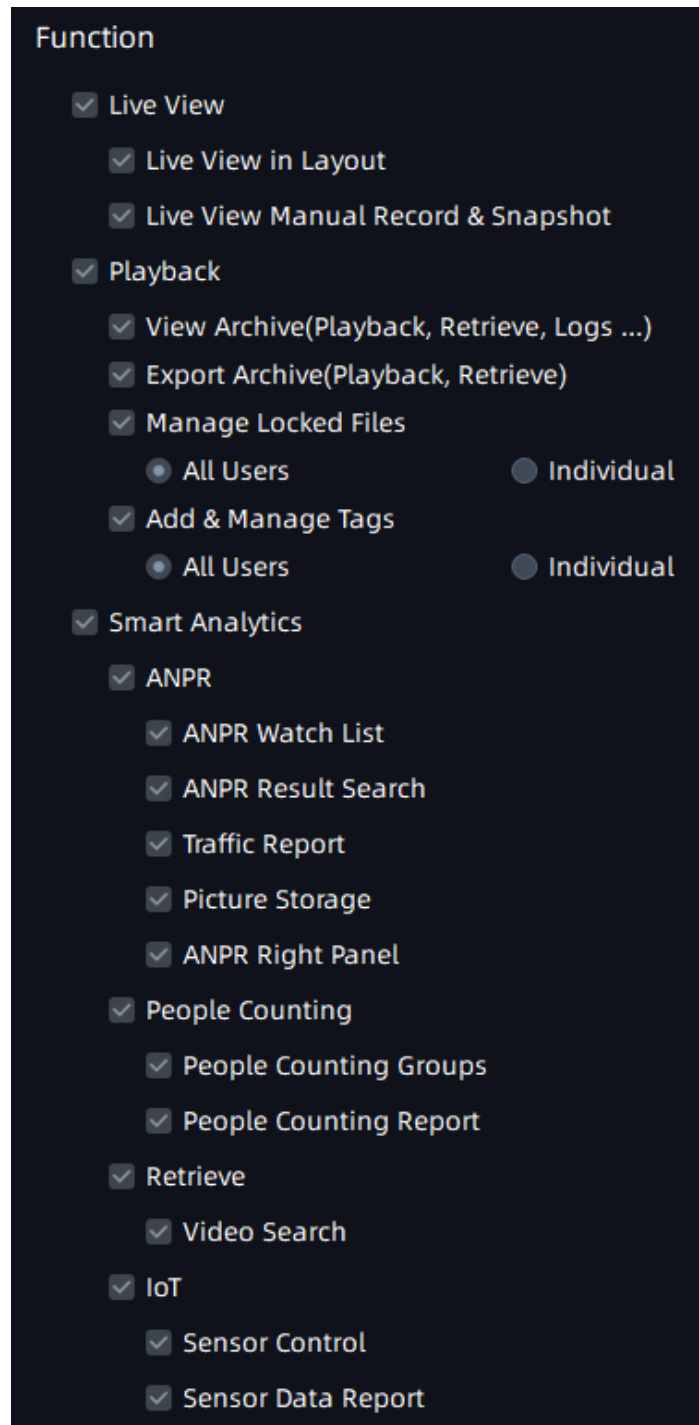
Keep user history data i

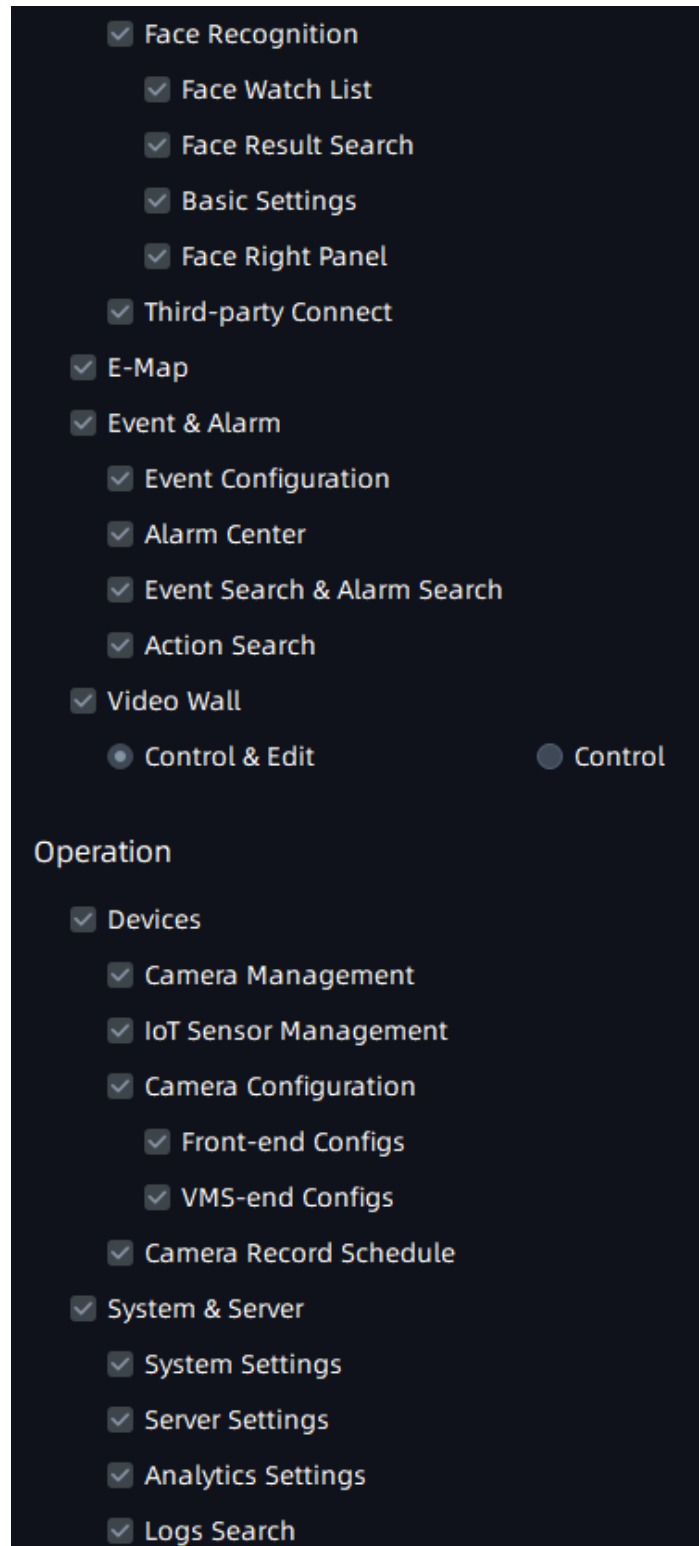
OK
Cancel

Permissions Page

Different roles have different functions and operation permissions, resource access to Smart Analytics.

- Administrator: Own full access to function and operation permissions, resource access to Smart Analytics.

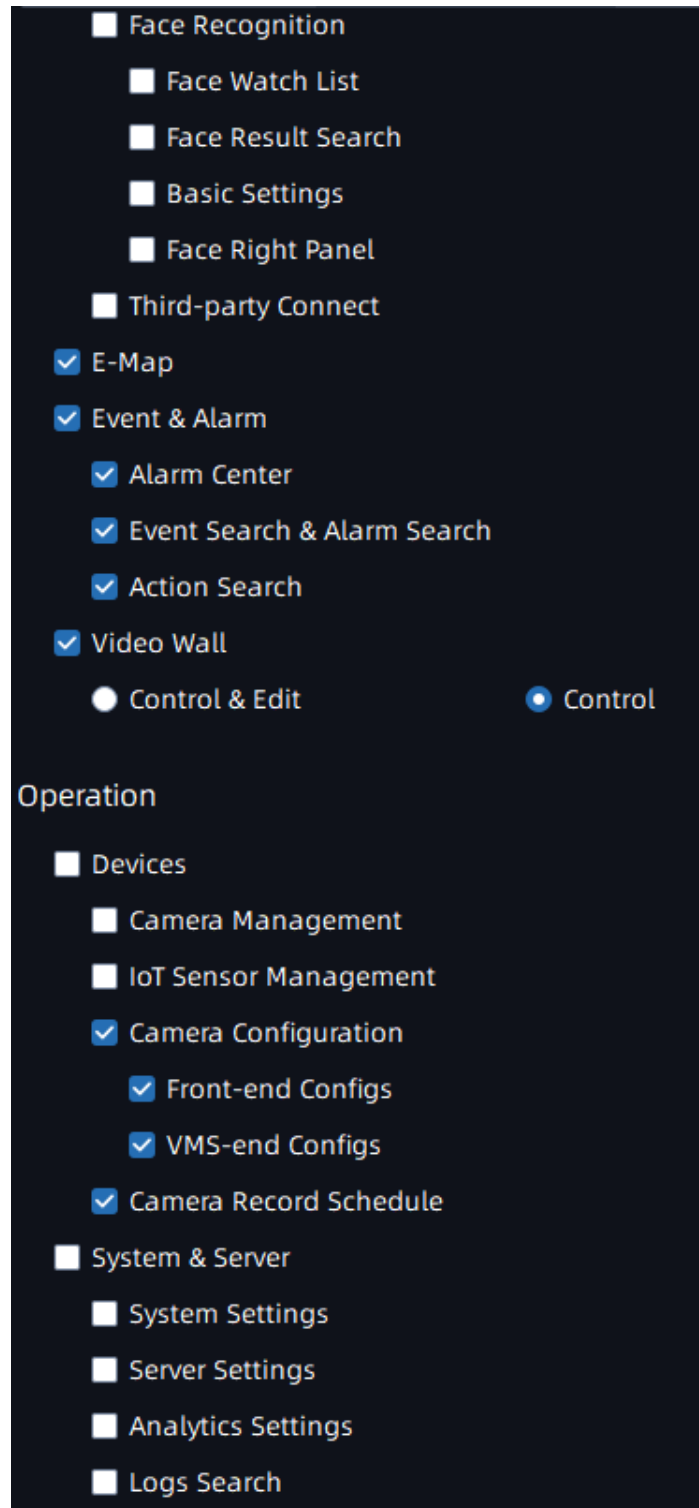




- Customized role: You can customize the role permissions.

Function

- Live View
 - Live View in Layout
 - Live View Manual Record & Snapshot
- Playback
 - View Archive(Playback, Retrieve, Logs ...)
 - Export Archive(Playback, Retrieve)
 - Manage Locked Files
 - All Users
 - Individual
 - Add & Manage Tags
 - All Users
 - Individual
- Smart Analytics
 - ANPR
 - ANPR Watch List
 - ANPR Result Search
 - Traffic Report
 - Picture Storage
 - ANPR Right Panel
 - People Counting
 - People Counting Groups
 - People Counting Report
 - Retrieve
 - Video Search
 - IoT
 - Sensor Control
 - Sensor Data Report



Cameras Page

Here you can configure cameras for each role on individual channels, such as Stream Only , Stream & PTZ options, etc.

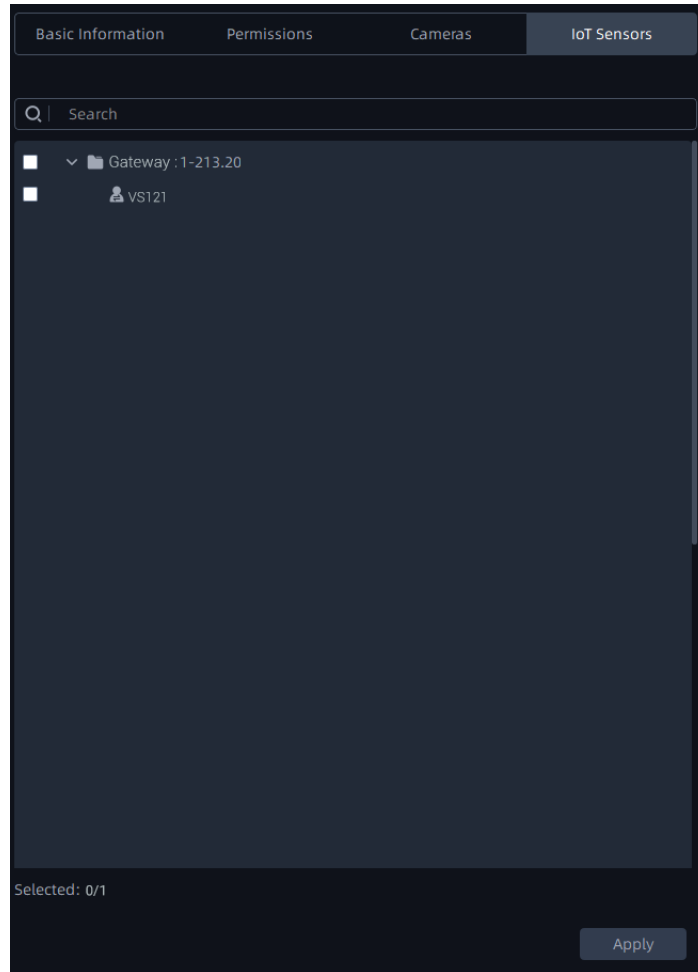
The screenshot displays the 'Cameras' tab in the Mileight Enterprise NVR settings. The interface includes a search bar and a list of cameras organized into folders. A context menu is open over the 'Camera' folder under the 'Ungrouped' section, showing the following options:

- Full Control
- Stream & Talk
- Stream & PTZ
- Stream Only
- N/A
- N/A

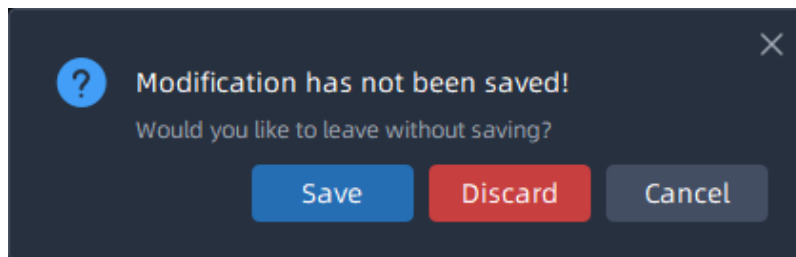
The 'Set' button is positioned to the right of the selected 'N/A' option. The 'Apply' button is located at the bottom right of the interface. The status bar at the bottom left indicates 'Selected: 0/21'.

IOT Sensor Page

Here you can configure IoT Sensors for the customized roles.



Note: After setting all the configuration, please remember to click "Apply" button. Otherwise, when you click other buttons outside the control panel, a window will pop up to inform you "Configuration is not saved, discard changes?"



3.3.5 Video Wall Settings

Here you can operate all the settings related to the [video wall \(page 212\)](#) in Live View.

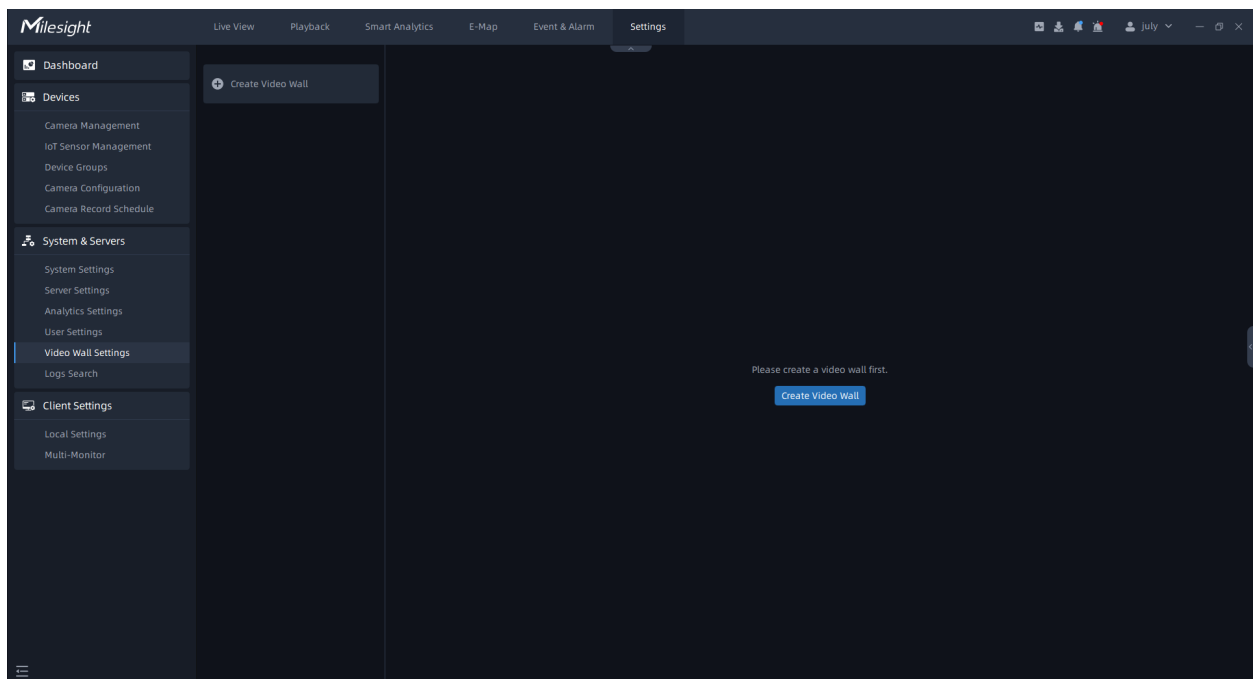
Please refer to the following key features of the Video Wall function:

- Up to 100 Video Walls per System
- Custom Screen Combinations & Split
- PTZ and Digital Zooming Operations
- Remote Desktop Sharing
- Remote Control and Monitoring

On each Video Wall Screen, it supports:


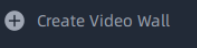
- Display up to 64 IP Channels
- Display Primary/Secondary Streams
- Freely adjust the size and position of each channel, whether it be within or across monitors
- Video Wall Tour/Tour Plan, each displaying unrestricted channels in turn, at custom time intervals and custom layouts

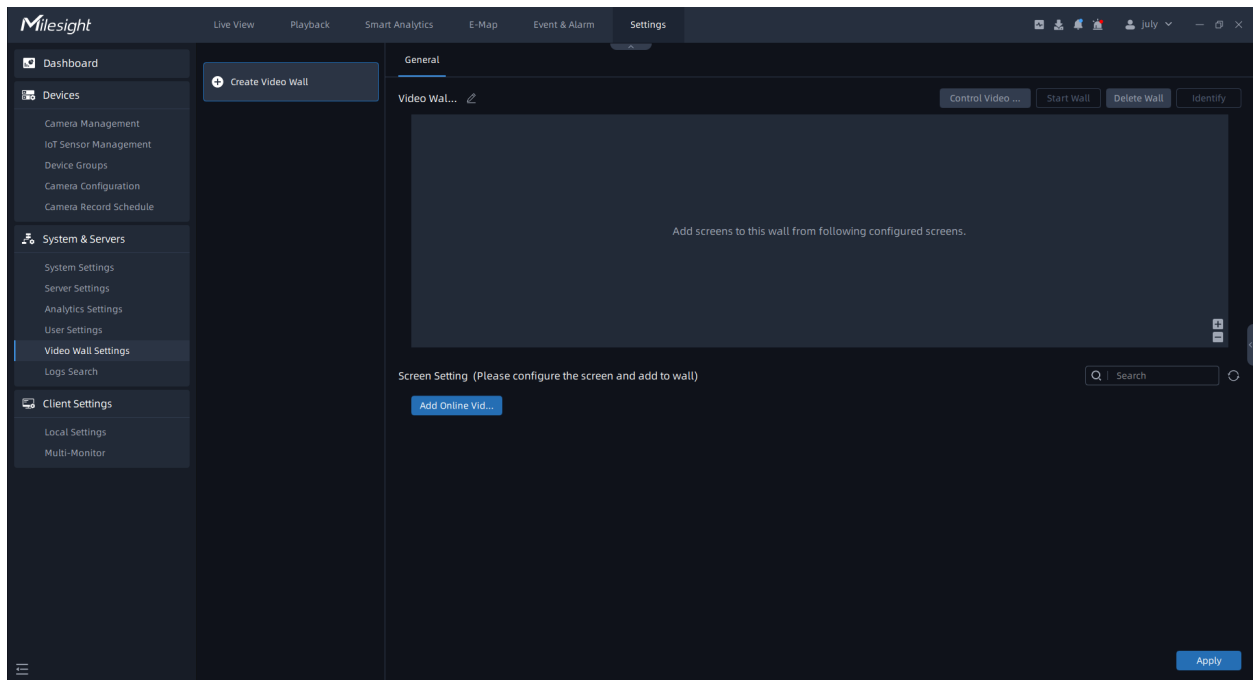
• General Setting




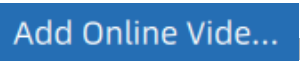
Before setting, you need to confirm the following items:

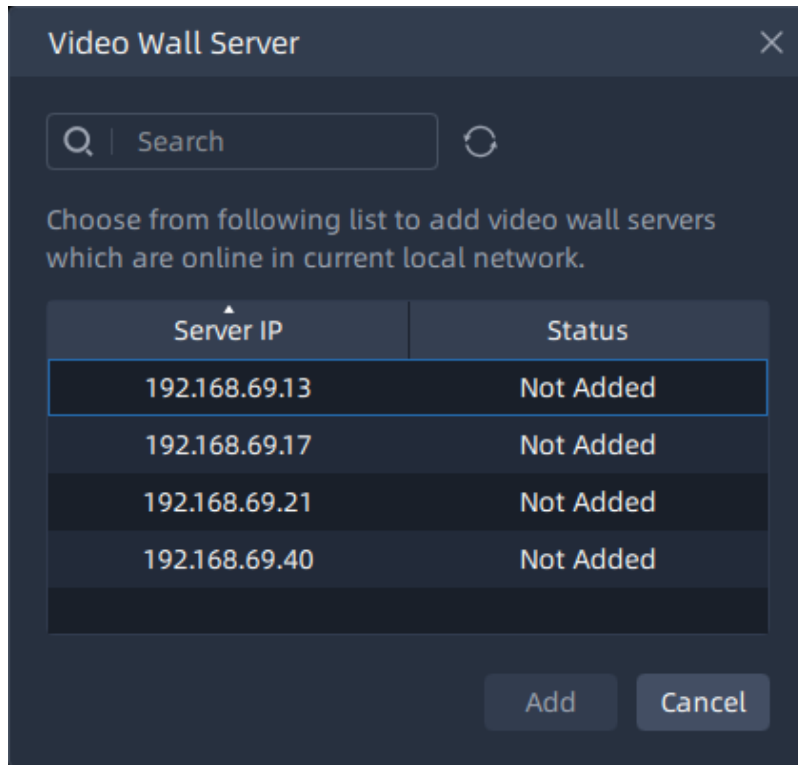
- There are license for Video Wall in the system, and the license quantity is sufficient.
- On the device connected to the monitor, the server of the Video Wall has been installed and running.

Step1: Click  button or  button in the left panel, then the page will change as below:

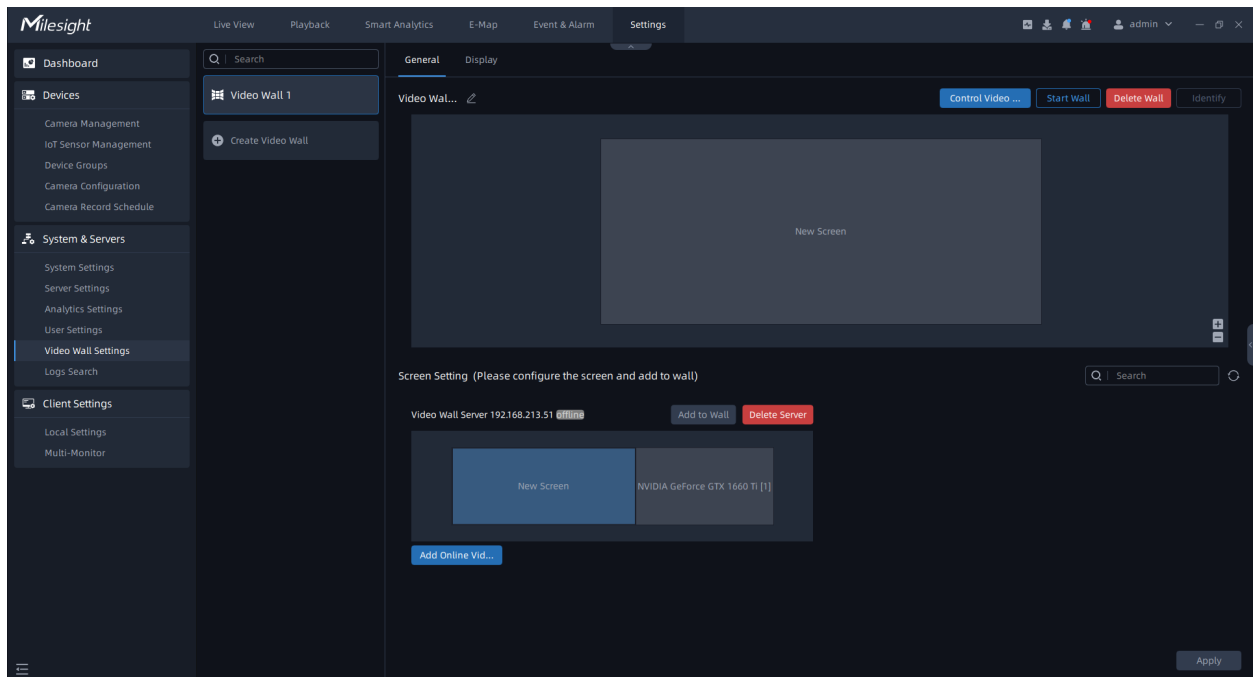


You can click  next to the name to rename.

Step2: Click  button, a window will be popped up as shown below:



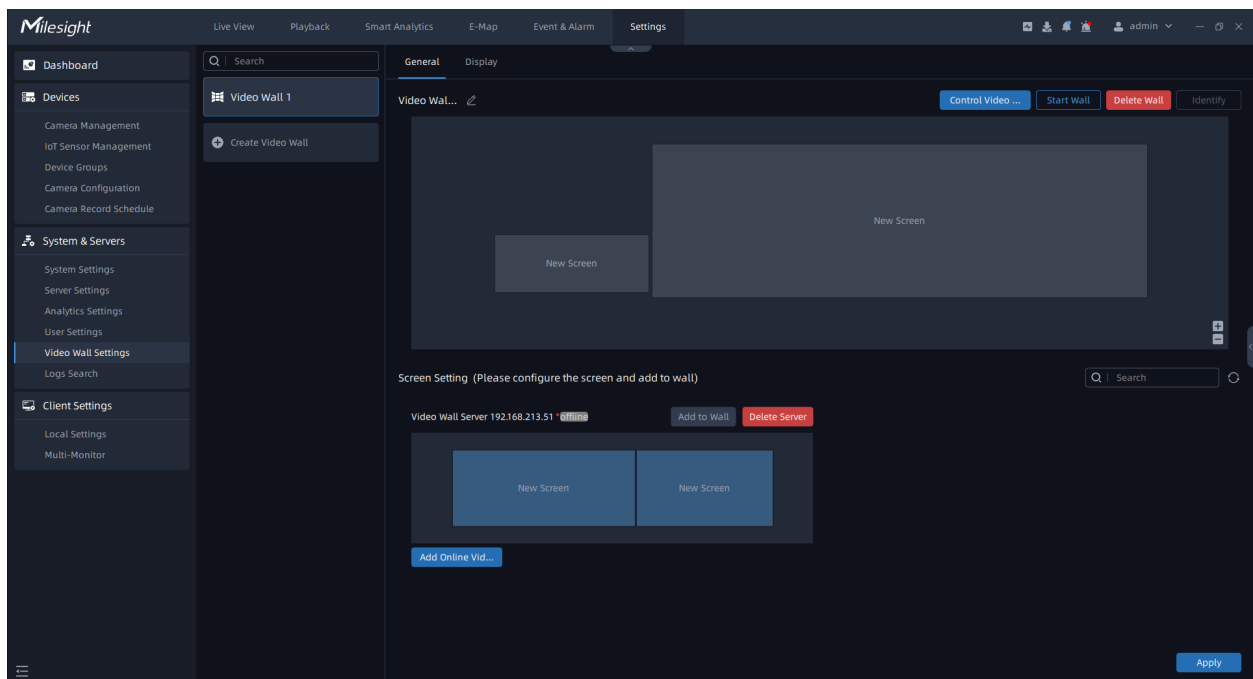
Step3: All online servers that have no screen existed in current video wall will be displayed in the list. Click a server and click [Add](#) button. You can add multiple as needed. Then the added client will be shown on the page as below:



You can click **Delete Client** button to delete the client.

Step4: Click on the monitor to generate a screen and you can rename it by clicking on the name. Then click **Add to Wall** button to add the screen to the wall. You can add multiple screens as needed.

Click on the blank area of the screen, the selected box on each screen has small squares, you can click and drag them to divide the monitor and then add to the wall. Each monitor can be divided into up to four screens. The added screen will be shown on the page as below:

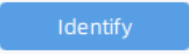
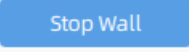




You can click the screen and drag to adjust the position.

Step5: Finish the settings and click **Apply** button.

Step6: Click **Start Wall** button to run the video wall. Then you can use video wall function in the Live View. For details, please refer to the [video wall \(page 212\)](#) in Live View.

There are some other operations as below:

- Click  button to identify the corresponding screen.
- Click  button to stop running the video wall.
- Click  button to delete the video wall.

 **Note:** For more detailed configuration, you can refer to [Milesight-Troubleshooting-VMS Enterprise Video Wall](#).

• Display

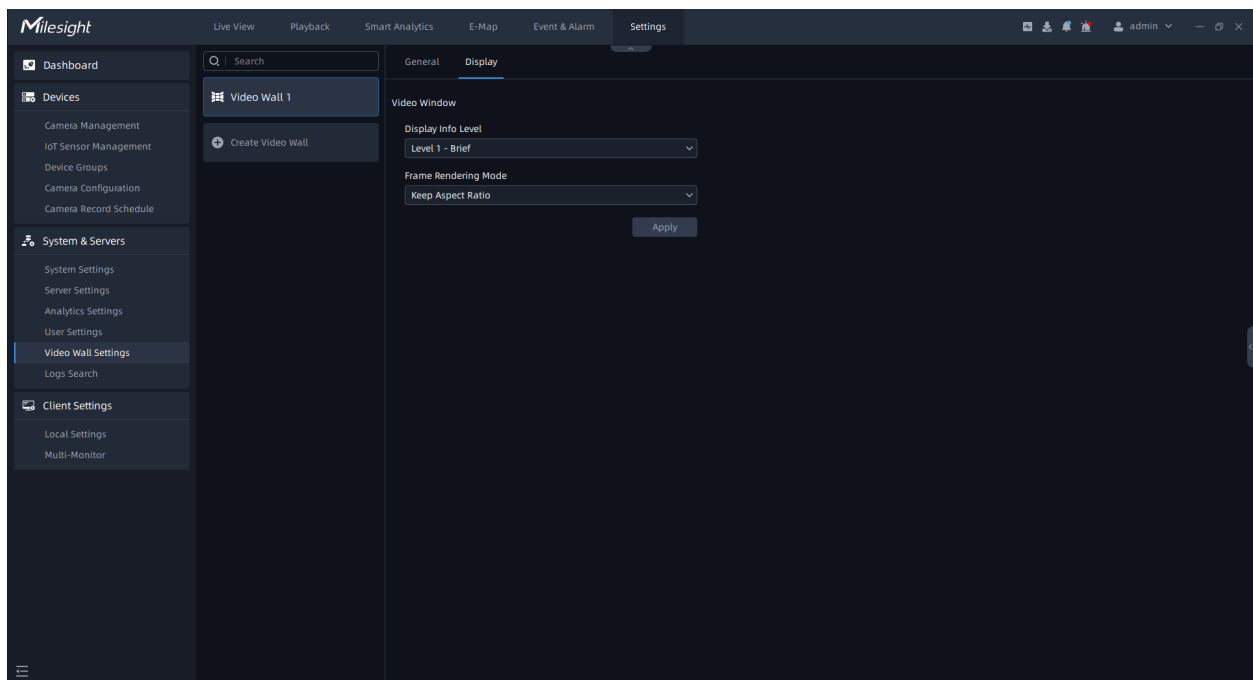
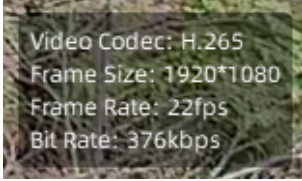
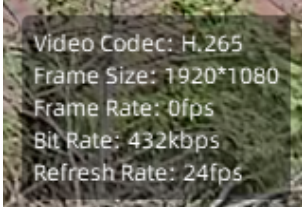
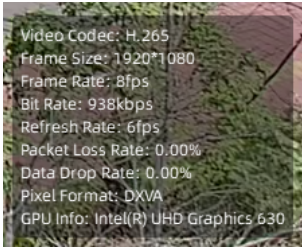


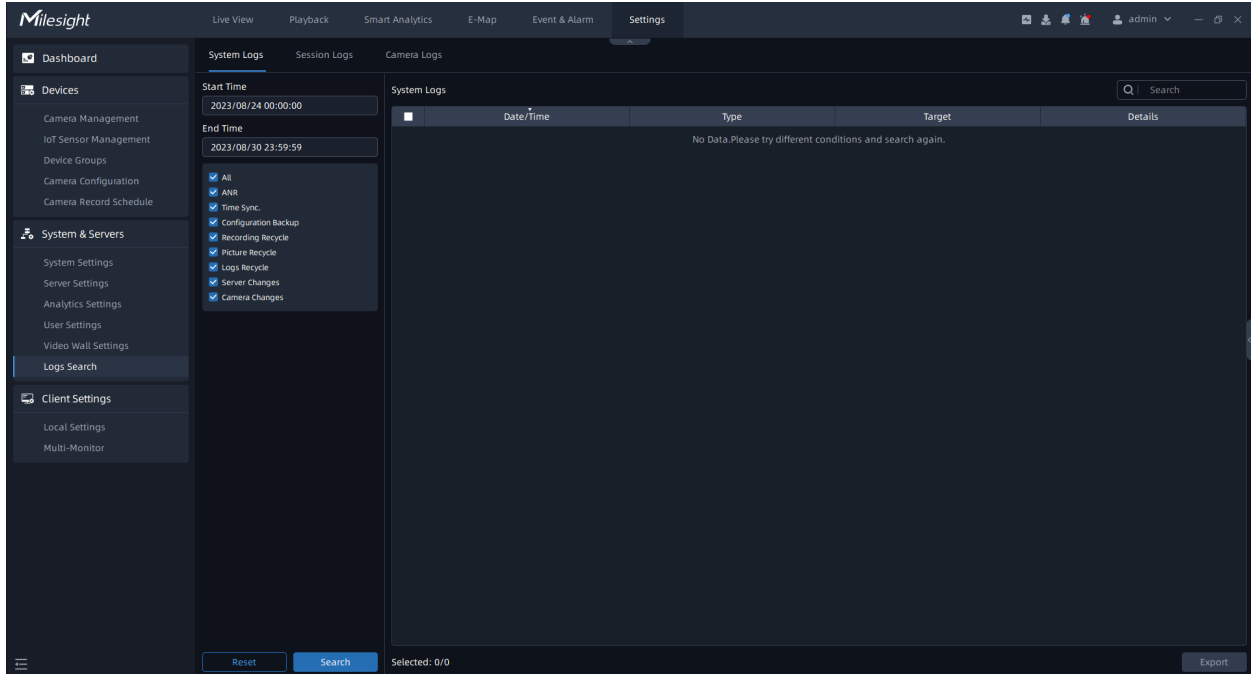
Table 31.

Item	Function Introduction
Display Info Level	<p>You can set the stream information displayed on the live video to Brief, More or Professional, as shown below:</p> <p>Brief:</p>  <p>More:</p>  <p>Professional:</p> 
Frame Rendering Mode	<p>You can choose Keep Aspect Ratio to keep image Aspect Ratio, and also choose the Stretch to Window Size.</p>

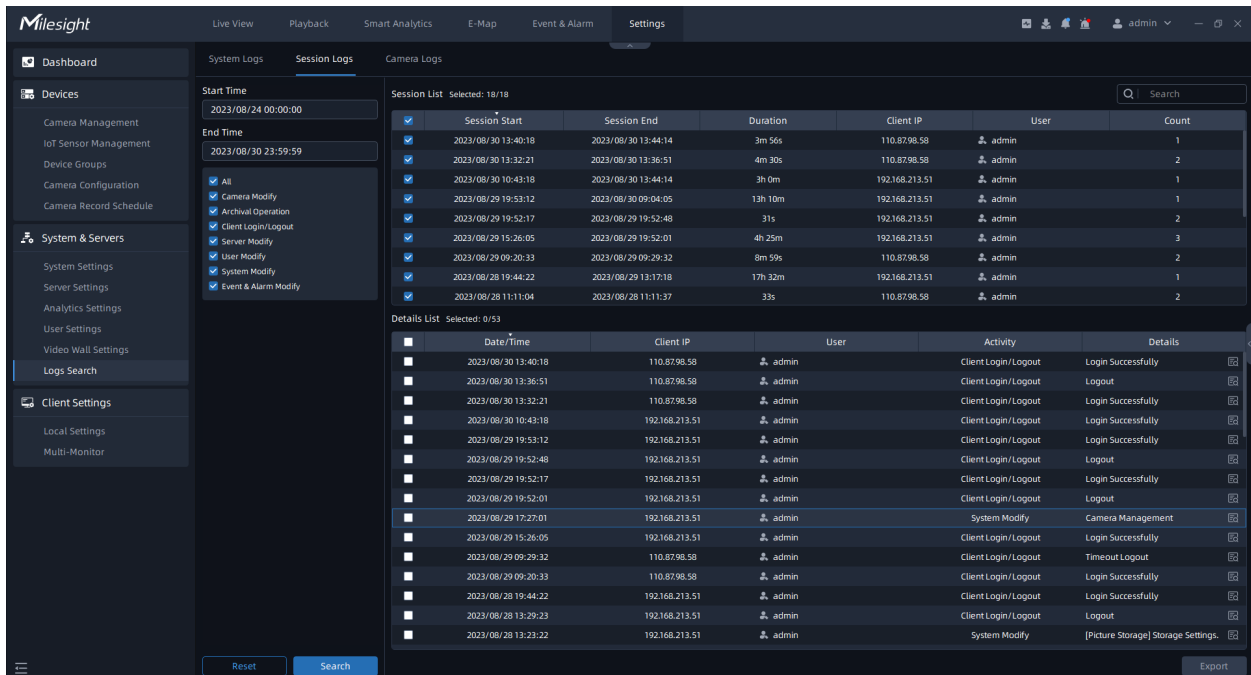
3.4 Logs Search

There are three parts in the Logs window, including System Logs, Session Logs and Camera Logs. Here you can check, search and export the interested logs.;

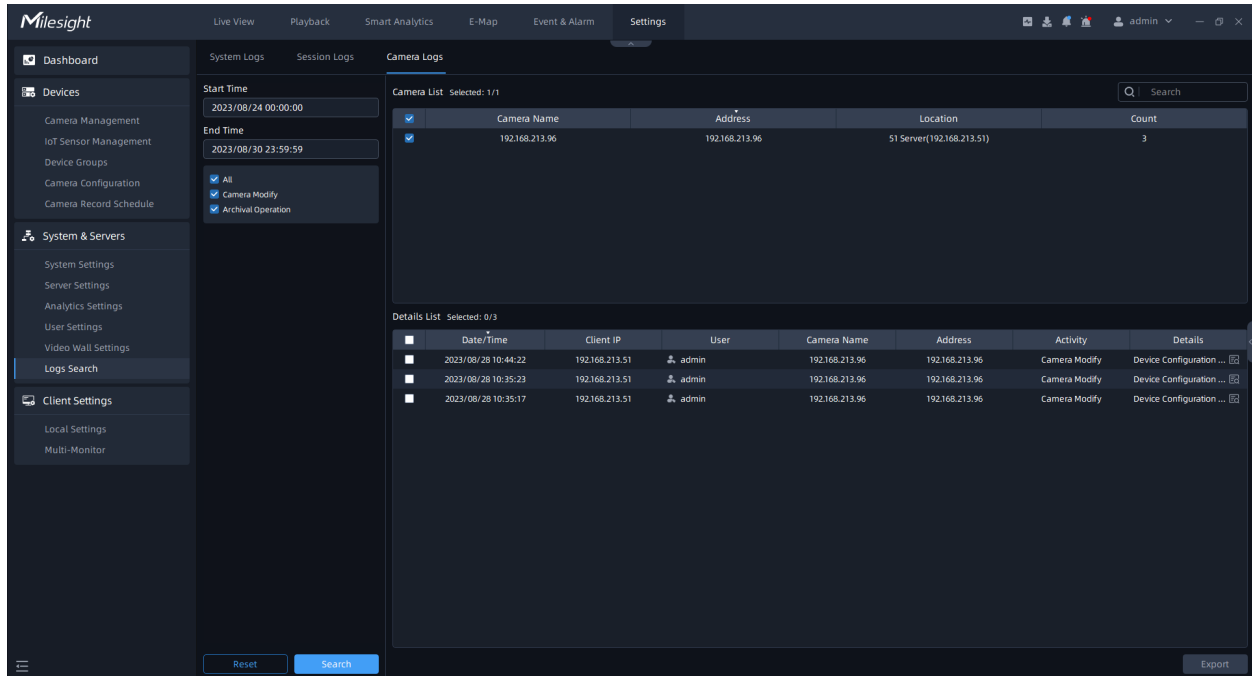
- **System Logs page:** System Logs is a log that records all operations within the vms system, such as server status and video files, etc.



- **Session Logs page:** The Session Logs is to record logs about all operations of each user from login to logout.



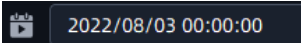
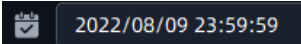
Camera Logs page: The Camera Logs is to record logs about all operations of each camera.




You can set filter condition as you need.


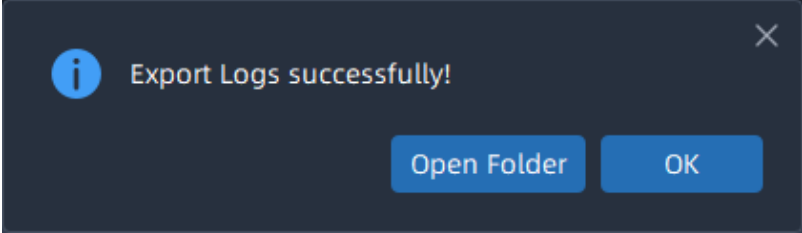
The meanings of the items can be referred to the table below:

Table 32.

Item	Function Introduction
	Start filter time.
	End filter time.

Item	Function Introduction
<div data-bbox="212 533 511 785" style="background-color: #333; color: #fff; padding: 5px;"> <input checked="" type="checkbox"/> All <input checked="" type="checkbox"/> ANR <input checked="" type="checkbox"/> Time Sync. <input checked="" type="checkbox"/> Configuration Backup <input checked="" type="checkbox"/> Recording Recycle <input checked="" type="checkbox"/> Picture Recycle <input checked="" type="checkbox"/> Logs Recycle <input checked="" type="checkbox"/> Server Changes <input checked="" type="checkbox"/> Camera Changes </div> <p data-bbox="289 814 435 844" style="text-align: center;">System Logs</p>	<p data-bbox="542 348 1247 373">Here you can filter out the interested logs by checking the option box.</p> <p data-bbox="542 399 1026 424">All: Check the "All" checkbox to search all logs.</p> <p data-bbox="542 449 1328 499">ANR: Check the condition checkbox to search all logs about starting the ANR function.</p> <p data-bbox="542 525 1373 575">Time Sync.: Check the condition checkbox to search all logs about synchronizing time to the front-end device.</p> <p data-bbox="542 600 1344 651">Configuration Backup: Check the condition checkbox to search all logs about backup system configuration files.</p> <p data-bbox="542 676 1412 726">Recording Recycle: Check the condition checkbox to search all logs about recording recycling.</p> <p data-bbox="542 751 1380 802">Picture Recycle: Check the condition checkbox to search all operation logs about pictures recycling.</p> <p data-bbox="542 827 1403 877">Logs Recycle: Check the condition checkbox to search all operation logs about logs recycling.</p> <p data-bbox="542 903 1383 953">Server Changes: Check the condition checkbox to search all operation logs about the server being online or offline.</p> <p data-bbox="542 978 1396 1029">Camera Changes: Check the condition checkbox to search all operation logs about the auto reset of VMS-end people counting data.</p>

Item	Function Introduction
<div data-bbox="212 604 511 835" style="background-color: #333; color: #fff; padding: 5px; margin-bottom: 10px;"> <input checked="" type="checkbox"/> All <input checked="" type="checkbox"/> Camera Modify <input checked="" type="checkbox"/> Export Files <input checked="" type="checkbox"/> Client Login/Logout <input checked="" type="checkbox"/> Server Modify <input checked="" type="checkbox"/> User Modify <input checked="" type="checkbox"/> System Modify <input checked="" type="checkbox"/> Event & Alarm Modify </div> <p style="text-align: center;">Session Logs</p>	<p>Here you can filter out the interested logs by checking the option box.</p> <p>All: Check the "All" checkbox to search all operation logs.</p> <p>Instant View: Check the condition checkbox to search all operation logs about starting and ending live view of each channel.</p> <p>Archive Playback: Check the condition checkbox to search all operation logs about start and end each channel playback in the Playback interface.</p> <p>Client Login/Logout: Check the condition checkbox to search all operation logs about users' Login or Logout to VMS client system.</p> <p>Server Modify: Check the condition checkbox to search all operation logs about server parameters modification of Server Settings (page 162) and Storage Disk Management modification of Login Wizard (page 29).</p> <p>User Modify: Check the condition checkbox to search all operation logs about user/role modify of User Settings (page 173) and Security questions modification of Login Wizard (page 23).</p> <p>System Modify: Check the condition checkbox to search all operation logs about system modification such as device add or delete, Email settings and schedule settings, etc.</p> <p>Event&Alarm Modify: Check the condition checkbox to search all operation logs about adding, deleting or modifying event rules of Event Rule Settings (page 323).</p> <p> Note: There are five options can't be operated in the Camera Logs page, including Client Login/Logout, Server Modify, System Modify, Event Rules Modify and Event Rules Modify.</p>
<div data-bbox="212 1245 511 1350" style="background-color: #333; color: #fff; padding: 5px; margin-bottom: 10px;"> <input checked="" type="checkbox"/> All <input checked="" type="checkbox"/> Camera Modify <input checked="" type="checkbox"/> Export Files </div> <p style="text-align: center;">Camera Logs</p>	<p>Here you can filter out the interested logs by checking the option box.</p> <p>All: Check the "All" checkbox to search all operation logs.</p> <p>Camera Modify: Check the condition checkbox to search all operation logs about Device Configuration and Device Event.</p> <p>Export Files: Check the condition checkbox to search all operation logs about successful export of the channel files in the Playback interface.</p>
<div data-bbox="261 1486 461 1539" style="background-color: #4a90e2; color: #fff; padding: 5px; display: inline-block; border-radius: 3px;">Refresh</div>	<p>Click the button to refresh the event logs list.</p>
<div data-bbox="212 1581 493 1623" style="border: 1px solid #ccc; padding: 5px; display: inline-block;"> <input type="text" value="Search"/> </div>	<p>Input content to search the matched logs.</p>

Item	Function Introduction
	<p>Export the log file. If the selected log is exported successfully, a window will pop up to inform you as shown below:</p> 

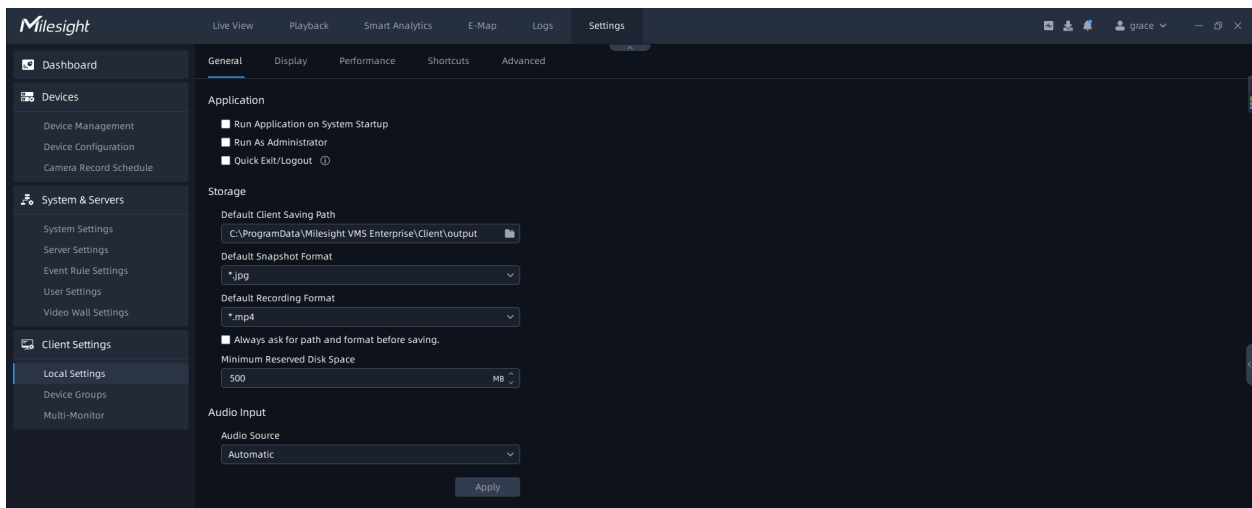
3.5 Client Settings

3.5.1 Local Settings

This part is mainly used to customize client settings. Here you can set General setting including storage path and format, Display and Notification.




General

Here you can set some general parameters about client.



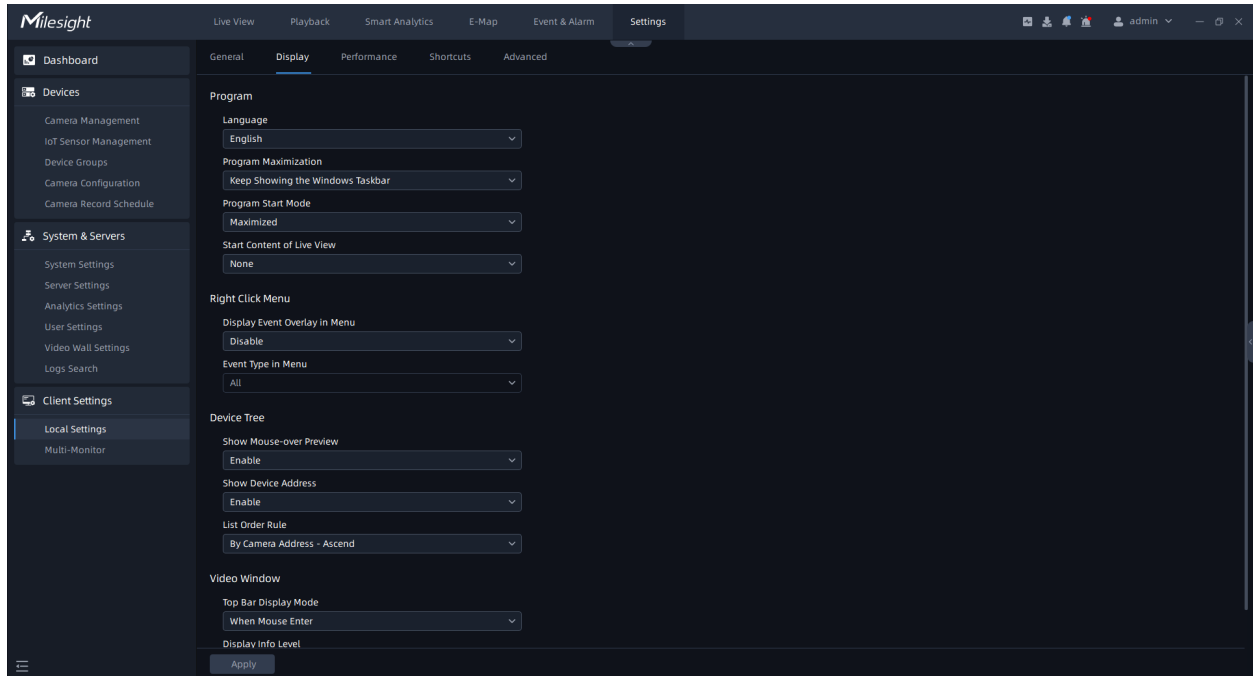
The meanings of the items on the page can be referred to the table below:

Table 33.

Item	Function Introduction
Application	<p>You can customize some settings about system startup and exit here, including Run Application on System Startup, Run As Administrator, Quick Exit/Logout.</p> <p> Note: There will be no prompt when exiting/logging out the application if checked.</p>
Storage	<p>Default Client Saving Path: You can click the  button to choose a path to store recordings and snapshots from VMS.</p> <p>Default Snapshot Format: Choose a kind of image format to save snapshots, including jpg, bmp, png, gif and tiff. The default image format is jpg.</p> <p>Default Recording Format: Choose a kind of recording format to save recorded videos, including mp4, avi, mkv and asf. The default recording format is mp4.</p> <p> Note: If you check the checkbox to choose “Always ask for path and format before saving”, then the previous configuration for storage path and recording/snapshot format are invalid.</p> <p>Minimum Reserved Disk Space: Set the minimum reserved space for the disk of the VMS client side. When the remaining space of the disk reaches the set value, it will automatically stop storing.</p>
Audio Source	<p>This audio source function allows you to hear the sound from cameras or transmit your sound to the camera side. You can choose a kind of audio source, including Automatic and Microphone.</p> <p>Automatic means audio source varies with system audio interface, and the interface used by the system will take effect.</p>

Display

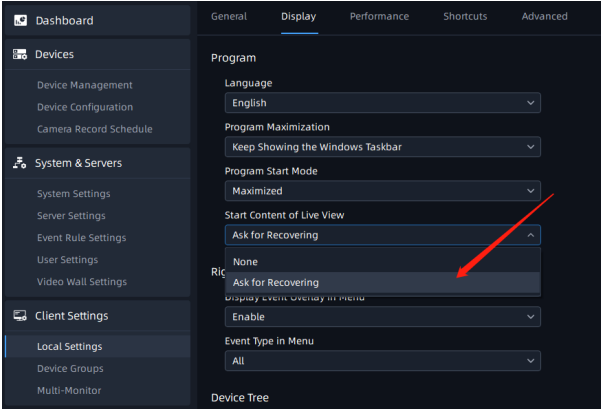
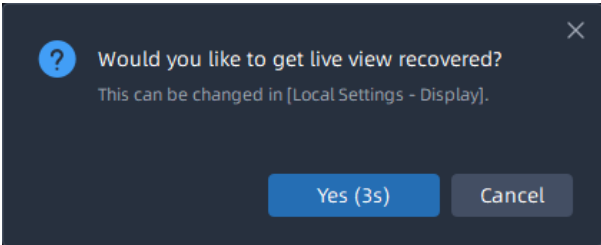
You can set VMS client display including system language, VMS client window display and image window display, etc.

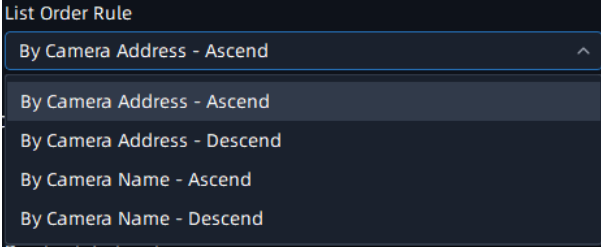


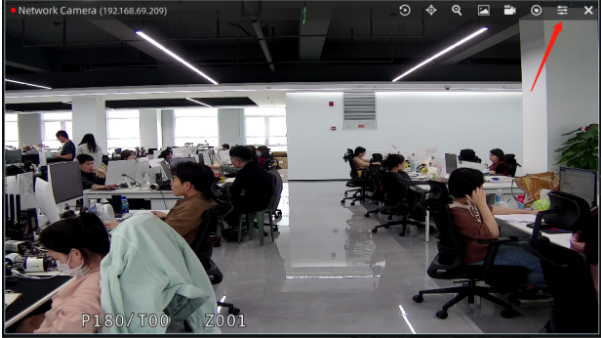
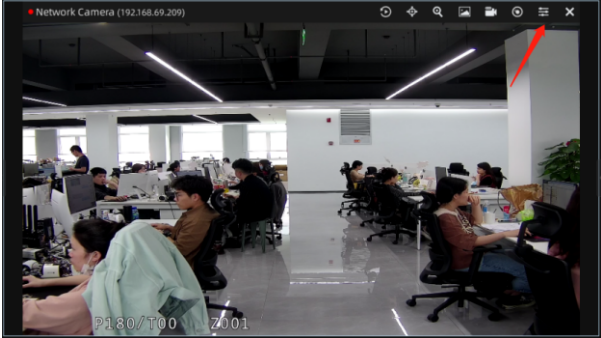
The meanings of the items on the page can be referred to the table below:


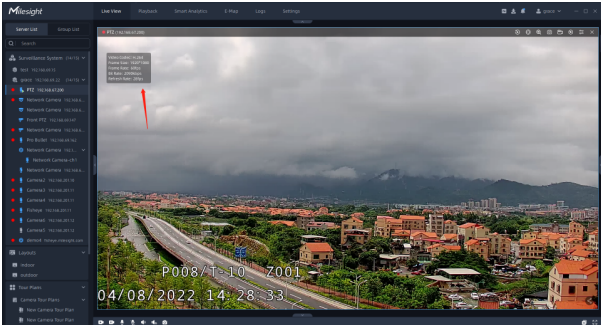
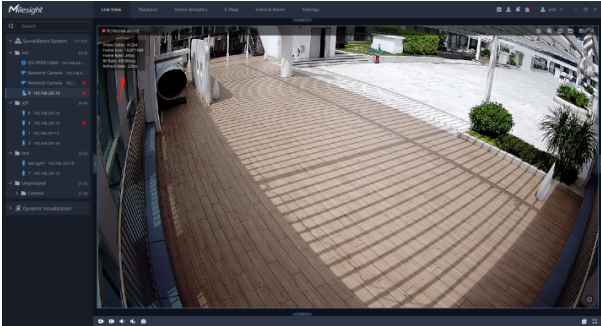
Table 34.

Item	Function Introduction
Language	Select system language, the default language is English.
Program Maximization	You can choose VMS system window display mode, including Keep Showing the Windows Taskbar and Full Screen without Windows Taskbar.
Program Start Mode	<p>Choose a display mode of VMS window when starting the VMS client, including Maximized, Window at Center and Last.</p> <p>Maximized: VMS window will display according to Maximization you set when starting the VMS.</p> <p>Window at Center: VMS window will display at center of your screen when starting the VMS.</p> <p>Last: VMS window will display according to the previous logout status when starting the VMS.</p>

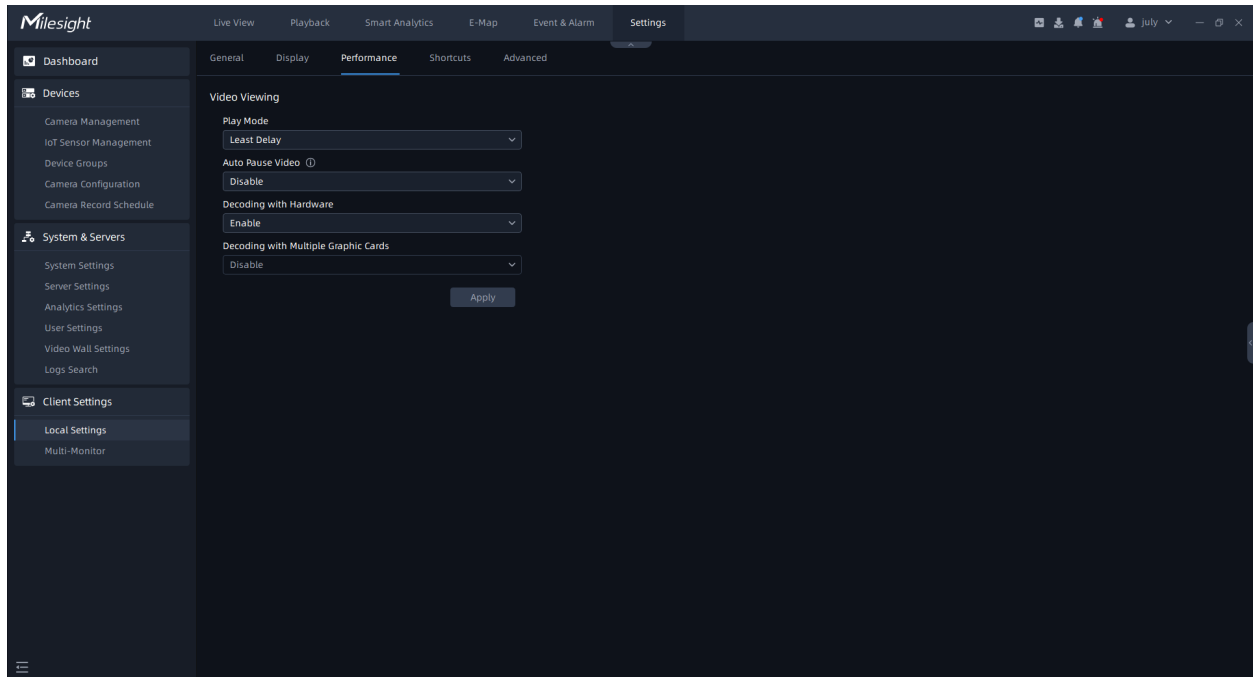
Item	Function Introduction
<p style="text-align: center;">Start Content of Live View</p>	<p>If the "Ask for Recovering" option is selected, when the VMS Client program is started, it will ask to restore the last closed preview window.</p>  
<p style="text-align: center;">Display Event Overlay in Menu</p>	<p>Enable to display Event Overlay on Live View interface when right click the menu.</p>

Item	Function Introduction
<p>Event Type in Menu</p>	<p>Check the checkbox to display the corresponding event type on Live View interface when right click the menu. The event type includes Front-end Events and Smart Analytics Events, you can also check “Any Event” option to display all event types with one click.</p> 
<p>Show Mouse-Over Preview</p>	<p>Select the module to be displayed on Mouse-Over Preview.</p>
<p>Show Device Address</p>	<p>Select the module to display the device address in Device Tree, including IP address, domain, MAC address, etc.</p>
<p>List Order Rule</p>	<p>Select the module to sort the devices in Device Tree. Users can sort the devices by camera address or camera name to meet different requirements.</p> 

Item	Function Introduction
<p style="text-align: center;">Top Bar Display Mode</p>	<p>Set display mode for top bar of video window.</p> <p>When Mouse Enter: Top bar of video window will display only when your mouse enters the camera video window.</p> <p>Always: Top bar of all cameras' video window will always display.</p> <ul style="list-style-type: none"> • When Mouse Enter:  <ul style="list-style-type: none"> • Always: 

Item	Function Introduction
<p>Display Info Level</p>	<p>You can set the stream information displayed on the live view interface to Brief, More or Professional, as shown below:</p> <p>Brief:</p>  <p>More:</p>  <p>Professional:</p> 
<p>Frame Rendering Mode</p>	<p>You can choose Keep Aspect Ratio to keep image Aspect Ratio, and also choose the Stretch to Window Size.</p>

Performance



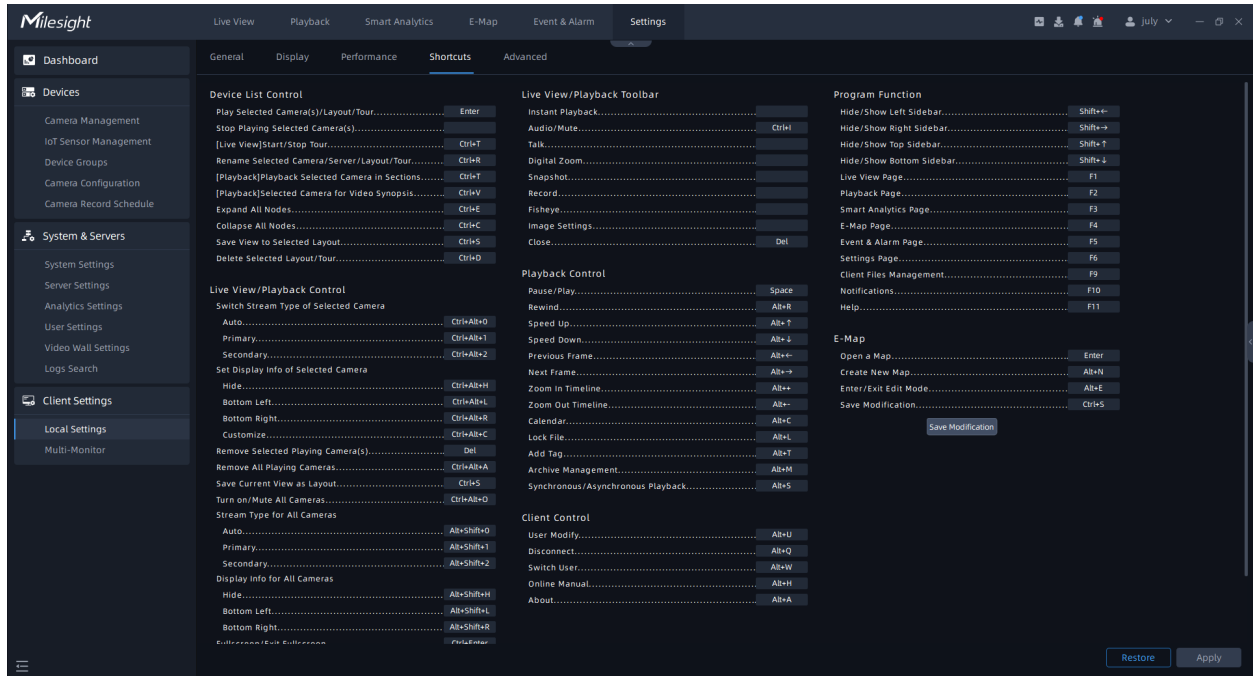
The meanings of the items on the page can be referred to the table below:

Table 35.


Item	Function Introduction
Play Mode	Users can choose Least Delay or Best Fluency according to different network environments to get the best user experience.
Auto Pause Video	The VMS program will automatically pause video decoding to reduce computer load when it exceeds the time threshold without any operation.
Decoding with Hardware/ Decoding with Multiple Graphic Cards	Support Decoding with Hardware and Decoding with Multiple Graphic Cards to provide various options.

Shortcuts

Here you can view and set all shortcut keys of the system.



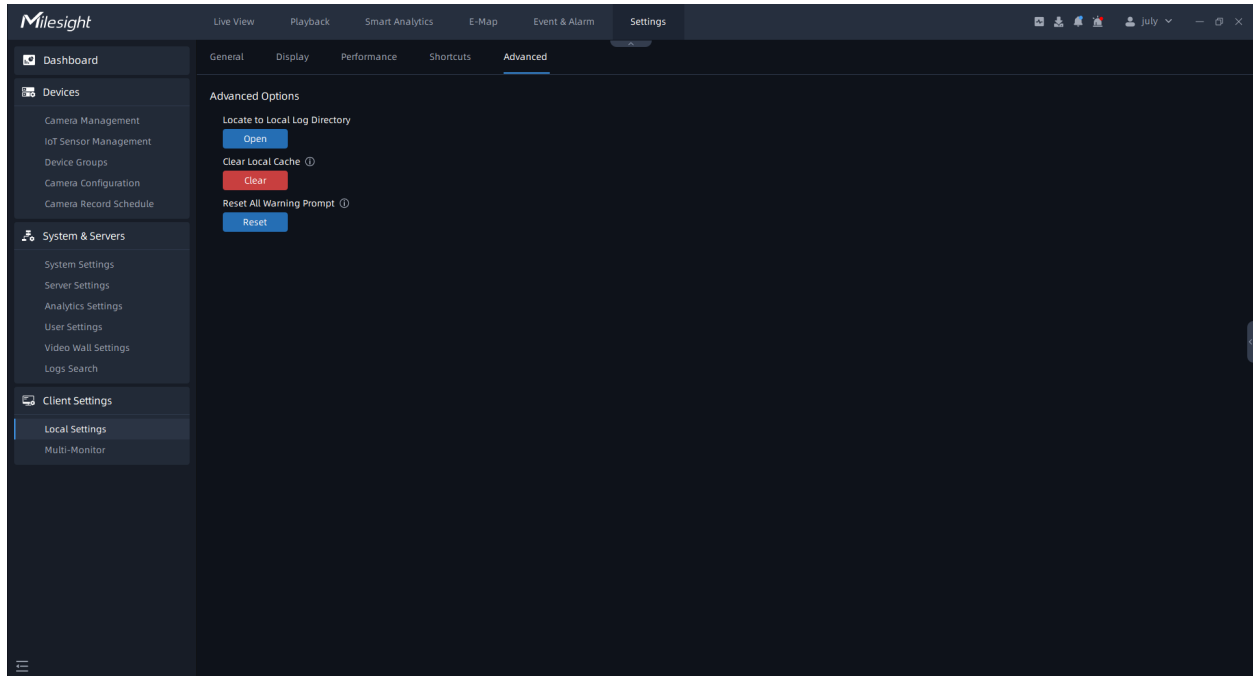
Step1: Click the shortcut button, then press the shortcut key on the keyboard. The shortcut key will be displayed on the shortcut button.

Step2: Finish settings and click  button.

You can click  button to restore to default settings.


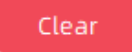

Advanced

Here you can set some advanced configurations for VMS client. This page is as below:



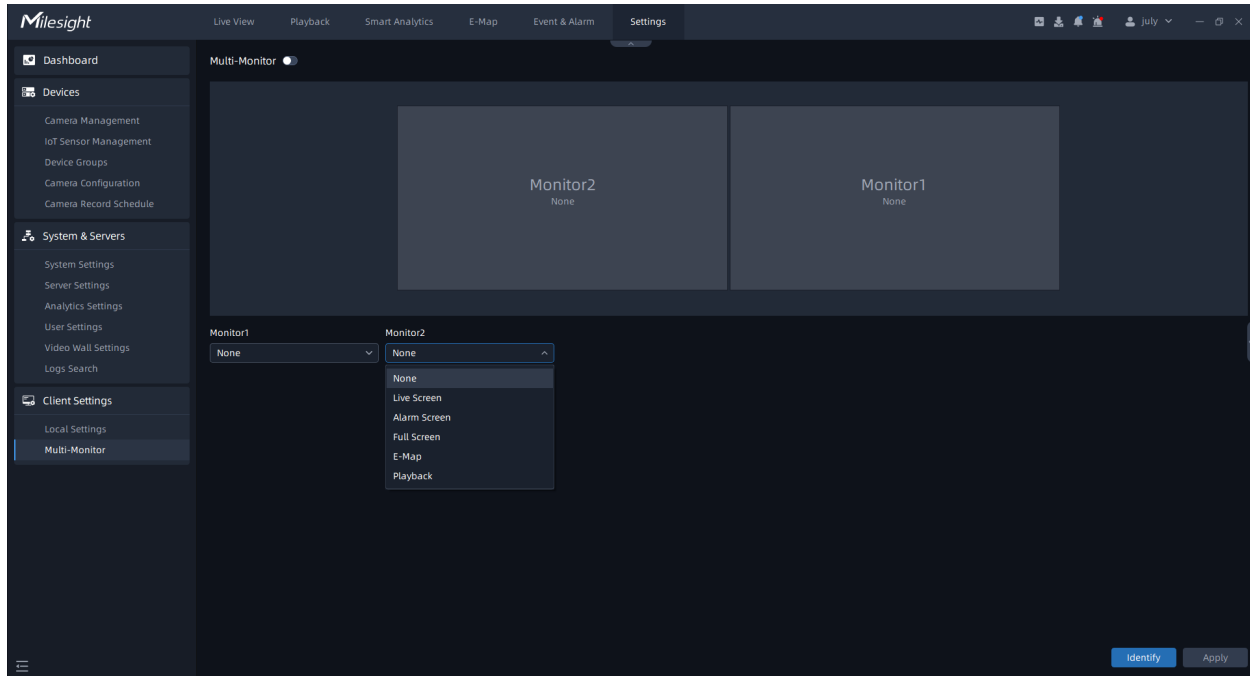
The meanings of the items on the page can be referred to the table below:

Table 36.

Item	Function Introduction
Locate to Local Log Directory	Click  to locate to client log directory.
Clear Local Cache	Click  to clear client cache, such as client logs, video thumbnails, etc.
Reset All Warning Prompt	Click  to reset all pop-up prompt dialogs.

3.5.2 Multi-Monitor

Now “Milesight VMS Client” supports multiple monitors display setting. When clicking on the “Multi-Monitor” button, the page will show as below.



There are 6 modes you can choose to use in each monitor, including [None], [Live Screen], [Alarm Screen], [Full Screen], [E-Map], [Playback].

None: Do nothing settings for other monitors.

Live Screen: For this mode, you can add any camera which you want to show on the screen. Just drag the camera and move it into the specified monitor.

Full Screen: For this mode, the live video will be showed on the specified monitor as full screen mode. After choosing Full Screen mode and setting Multi-Monitor as the Show on Full Screen option according to the table of [Right-click menu of Live View window \(page 225\)](#), the live view window of selected cameras will display on the setting monitor as Full Screen.

Alarm Screen: When the camera is triggered, the live video will play on the monitor.

E-Map: Users can use the E-map function in this mode.

Playback: For this mode, users can search and play back the recorded files of selected cameras.

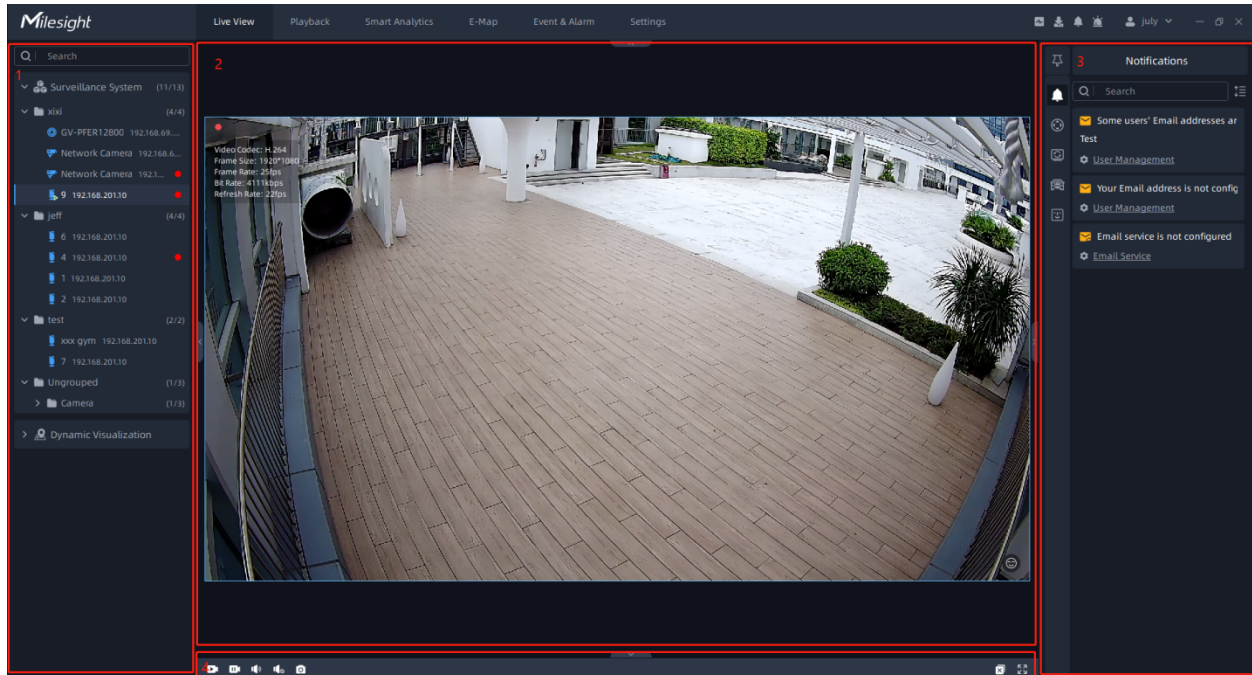
 **Note:**

- There is no limit to the number of monitors, and it depends on the number of monitors connected to the computer.

- There is no configuration quantity limit for Live Screen, but Alarm Screen and Full Screen can only set one separately.

Chapter 4. Live View

This part is mainly used for viewing real-time video. The interface is mainly made up of left Resource Panel, center Viewing Panel, right Notification Panel and bottom toolbar.



Left Resource panel: (page 208) Displays all servers and cameras inside the VMS system.

Center Viewing panel: (page 221) Can display maximum up to 64 individual live camera streams.

Right Function panel: (page 229) There are four tabs, including Notifications, ANPR Preview, PTZ Control and Camera Tour List.

Bottom Toolbar: (page 228) Users can operate all channels being played in batches.

If cameras have not been added, then you can add the cameras manually or by searching cameras. For details, please refer to the [3.2.1 Camera Management \(page 45\)](#) of Camera Management. After adding the camera, you can drag it to the Center Viewing panel to display the video.

4.1 Left Resource Panel

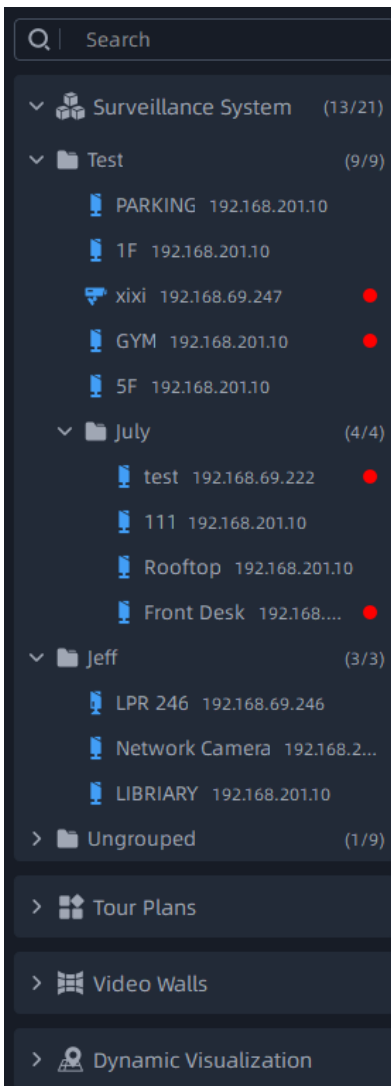
This part is to display the added devices tree according to Server List and Group List.

Note:

If users have set up the Device Groups, only the Group List will be displayed. Otherwise, the Server List will be shown.

4.1.1 Group List

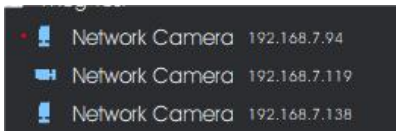
The Group List will show the cameras according to the groups settings in the [3.2.3 Device Groups \(page 58\)](#). The Group List interface is as below:



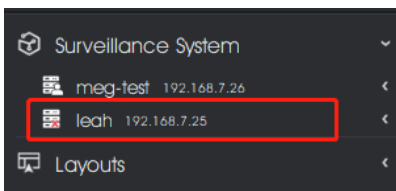
Right-click on the device list, the meanings of the items in the Pop-up Menu can be referred to the table .

 **Note:**

- There is a red point in the front of camera as shown below. It means the camera is recording. However if you see a gray point, it means recording failed, and you can check the details for failure by hovering your mouse on the point.



- The status of server as shown below. It means the server is offline.




Layouts can be customized. The customized layouts will both show in the Server List and Group List. Setting customized layout can refer to the Save As Layout item of table in the [4.2.2 Right-click Menu of Live View Window \(page 224\)](#).

How to connect the camera:


Select a camera in the left resource panel, and double-click on a camera or drag and drop a camera to the center viewing panel to play. You can also right-click camera and select the Play option, then the camera is connected automatically and live video will show in the center viewing panel.

In addition, you can also drag and drop the server to the live view window to batch play all cameras which belong to the server.

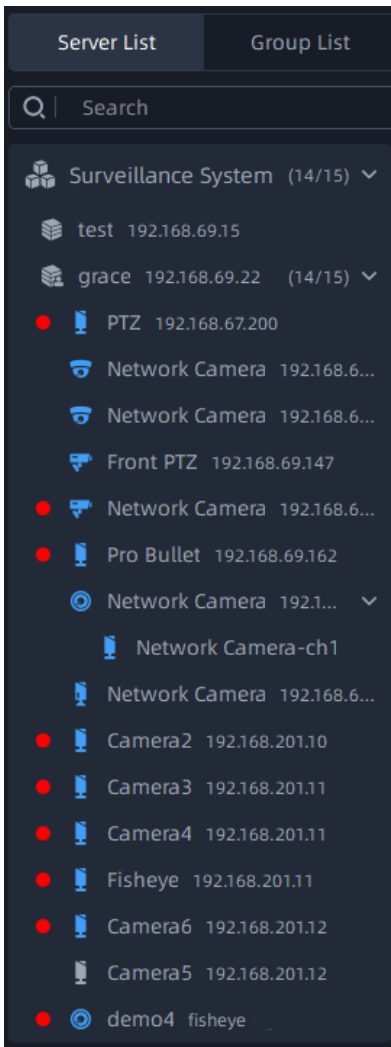
 **Note:** The status of the camera as shown below means the camera is playing.



How to disconnect the camera:

Directly click the  button in the camera live view window of center viewing panel to close. Or right click the connecting camera, select the Stop Playing option, the camera will be disconnected.

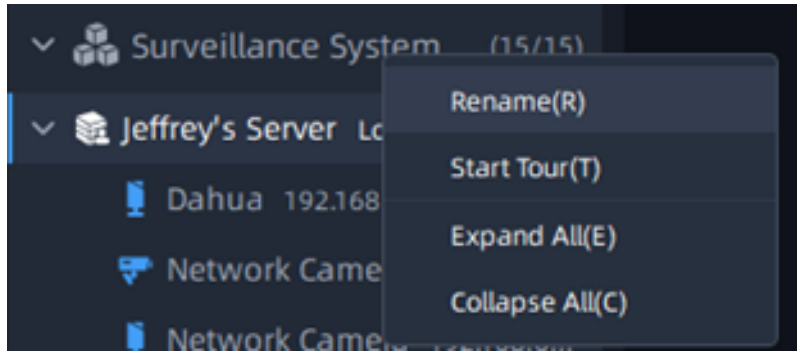
4.1.2 Server List



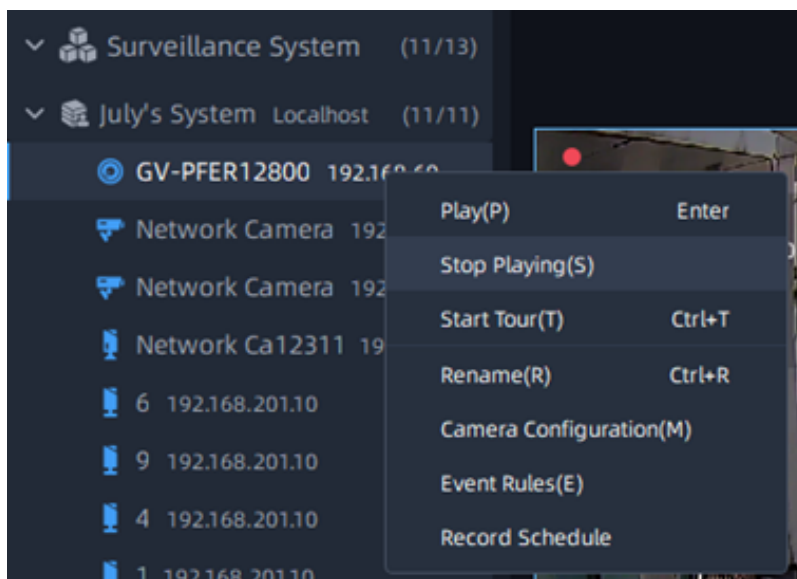
The Server List contains the VMS system, servers inside the system, cameras inside the servers. The Server List interface is as below:

Right-click on the list, there are three kinds of Pop-up Menu as below:

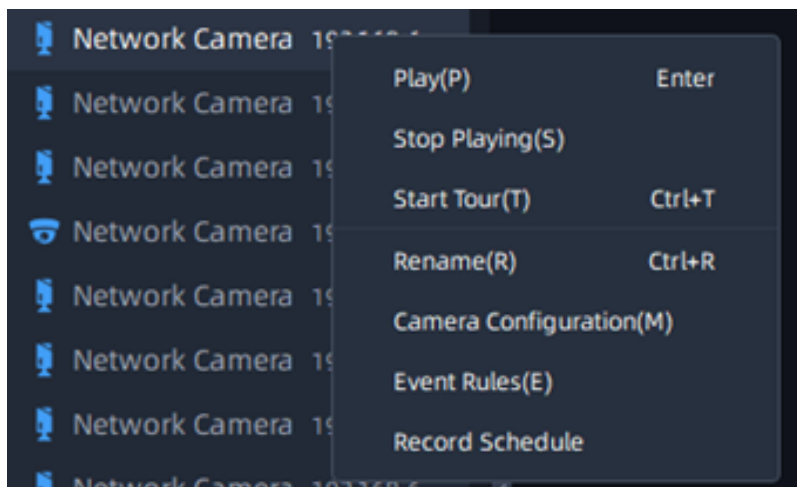
- Pop-up Menu on the right-click of system:



- Pop-up Menu on the right-click of server:



- Pop-up Menu on the right-click of camera:



The meanings of the items can be referred to the table below:


Table 37.

Item	Description
Rename	You can rename the system, server and camera.
Start Tour	All cameras in the system start tour or all cameras in the server start tour.
Expand All	Expand all sub devices inside the system or server.
Collapse All	Collapse all sub devices inside the system or server.
Play Cameras	Play all cameras inside the server.
Stop Playing	Stop playing all the videos inside the server or stop playing the video of selected cameras.
Play	Start the live video.
Add Device	Jump to the Add Device page.
Server Settings	Jump to the Server Settings page.
Status	Jump to the DashBoard page.
Logs	Jump to the Logs page.
Device Configuration	Jump to the Device Configuration page.
Device Event	Jump to the Device Event page.

4.1.3 Video Wall

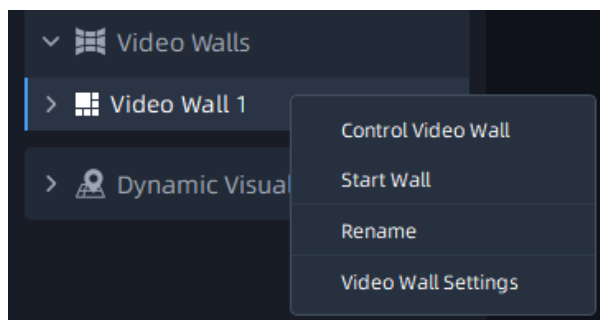
Through this function, you can use all screens in the local area network. The video wall list will be shown according to the video wall you created in the [Video Wall Settings \(page 184\)](#). The video wall is as below:



Icon  indicates that the screen is not available, you need to check if the Video Wall server is running normally.

- **How to use video wall?**

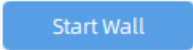
Step1: Right-click the video wall and a menu window will pop up as below:



Step2: Click Control Video Wall and a window will pop up as below:




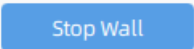
Step3: Double-click a screen, then you can enter the specific screen. For more details, please refer to the [How to use screen \(page 214\)?](#)

Step4: Click  button to run the video wall. Then you can drag and drop the camera, layout and tour plan to the screen.

After running the video wall, there are some operations as below:

(1) Click  button to identify all running screens in the video wall.

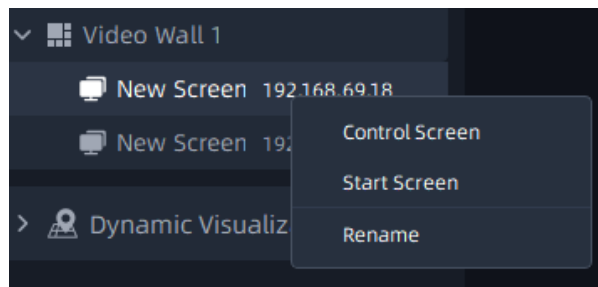
(2) Click  button to clear the content on all screens in the video wall.

(3) Click  button to stop running the video wall.

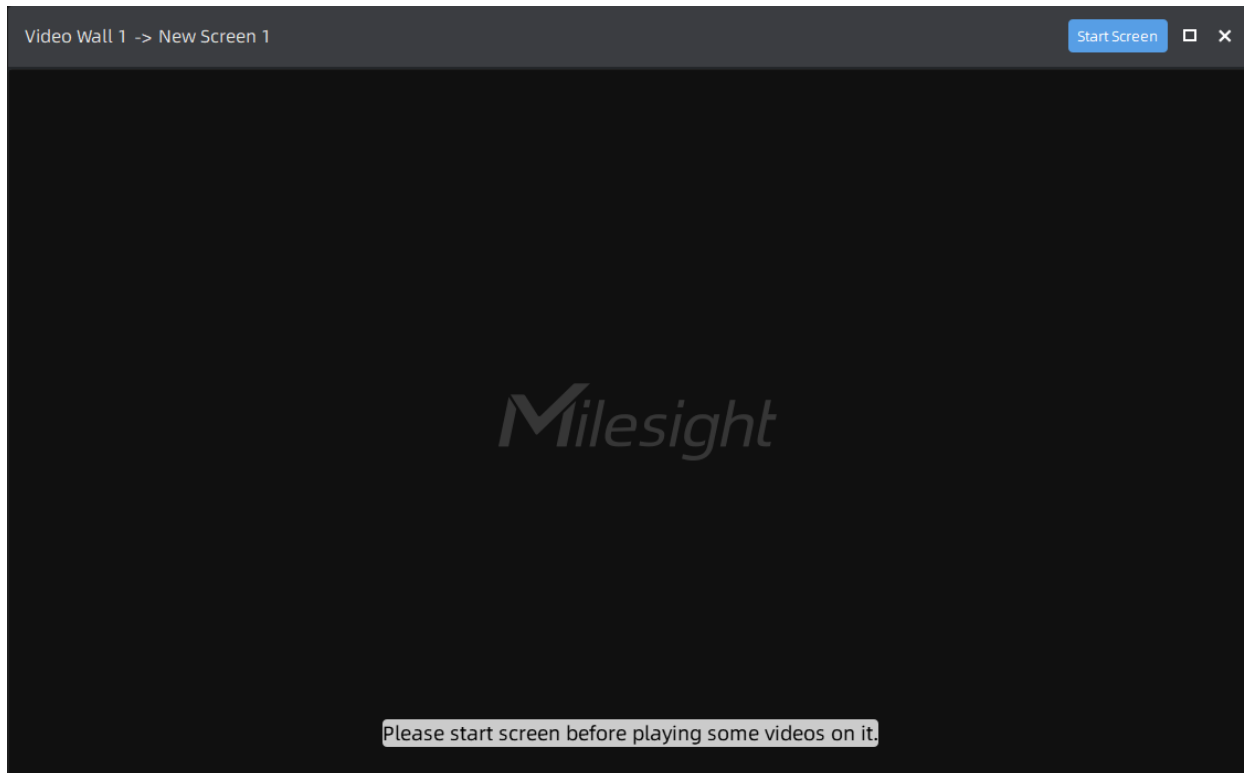
• How to use screen?


You can also use several of the screens individually.

Step1: Right-click the specific screen and a menu window will pop up as below:


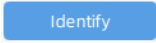




Step2: Click Control Screen and a window will pop up as below:



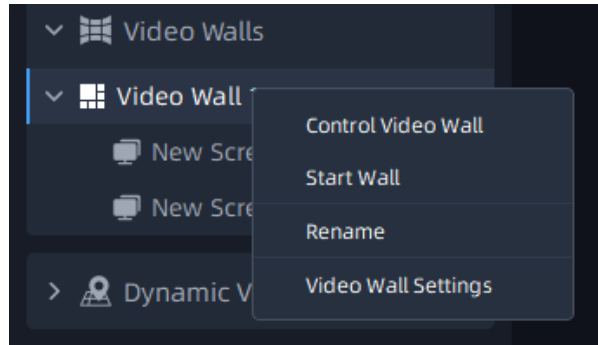
Step3: Click  button to run the screen. Then you can drag and drop the camera, layout and tour plan to the screen.

After running the screen, there are some operations as below:

- (1) Click  button to refresh the screen.
- (2) Click  button to identify the corresponding screen.
- (3) Click  button to clear the content on the screen.
- (4) Click  button to stop running the screen.

• Right-click menu

(1) When the video wall is not running, right-click the video wall and a menu window will pop up as below:

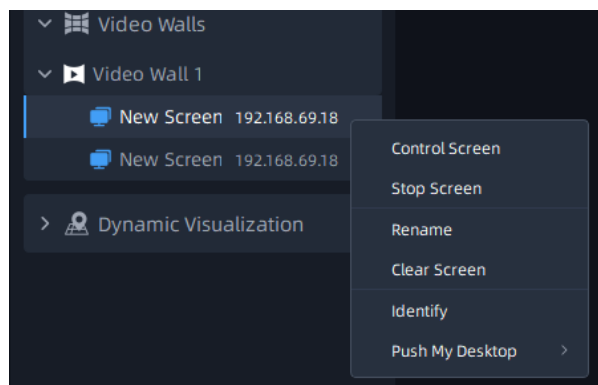


The meanings of the menu can be referred to the table below:

Table 38.

Item	Function Introduction
Control Video Wall	Use the video wall. For more details , please refer to the How to use video wall ? (page 213)
Start Wall	Run the video wall.
Rename	Rename the video wall.
Video Wall Settings	Jump to the Video Wall Settings page.

(2) When the video wall is running, right-click the video wall and a menu window will pop up as below:

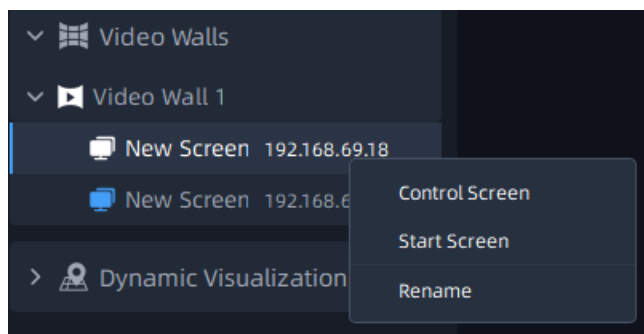


The meanings of the menu can be referred to the table below:

Table 39.

Item	Function Introduction
Control Video Wall	Use the video wall. For more details , please refer to the How to use video wall (page 213)?
Stop Wall	Stop running the video wall.
Clear Wall	Clear the content on all screens in the video wall
Rename	Rename the video wall.
Save Matrix	Save the content currently playing on each screen of the video wall.
Identify Screens	Identify all running screens in the video wall.
Video Wall Settings	Jump to the Video Wall Settings page.

(3) When the screen is not running, right-click the screen and a menu window will pop up as below:



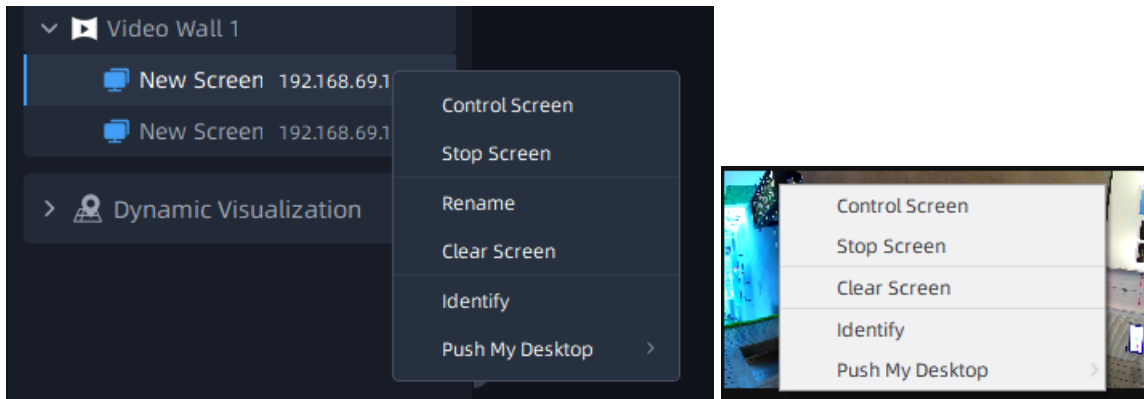
The meanings of the menu can be referred to the table below:

Table 40.

Item	Function Introduction
Control Screen	Use the video wall. For more details , please refer to the How to use screen (page 214)?
Start Screen	Run the screen.

Item	Function Introduction
Rename	Rename the screen.

(4) When the screen is running, right-click the screen and a menu window will pop up as below:

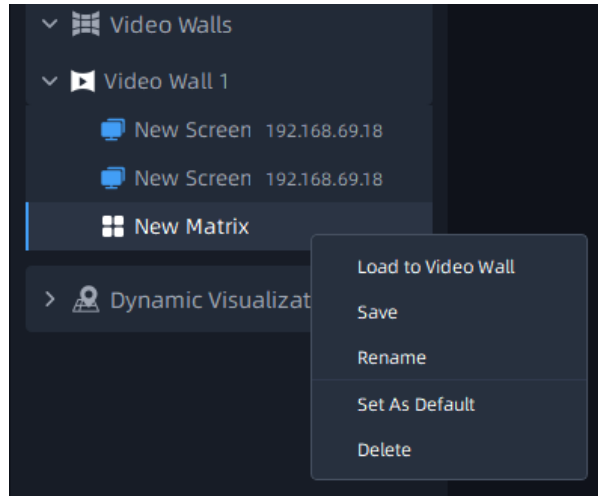


The meanings of the menu can be referred to the table below:

Table 41.

Item	Function Introduction
Control Screen	Use the video wall. For more details , please refer to the How to use screen (page 214) ?
Stop Screen	Run the screen.
Rename	Rename the screen.
Clear Screen	Clear the content on the screen.
Identify	Identify the corresponding screen.
Push My Desktop	Push the desktop to the screen for display. If there are multiple desktops, select any one to push as needed.

(5) Right-click the the matrix and a menu window will pop up as below:



The meanings of the menu can be referred to the table below:

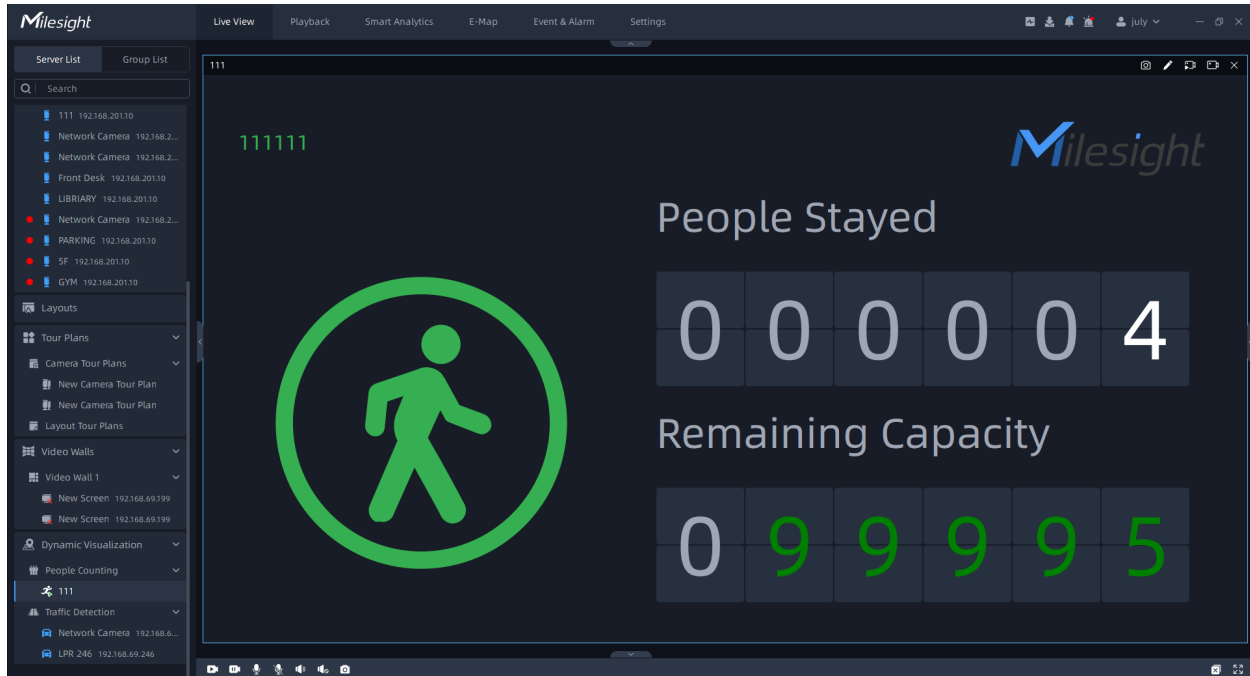
Table 42.

Item	Function Introduction
Load to Video Wall	Each screen will play the content according to this matrix.
Save	Save the content currently playing on each screen of the video wall to this matrix.
Rename	Rename the matrix.
Set As Default	Set the matrix as default. Every time you run the video wall, each screen will play the content according to this matrix. There could be at most only one default matrix.
Delete	Delete the matrix.

4.1.4 Dynamic Visualization

People Counting

Click on the group list on the left panel, and you can see the real-time count results of all cameras within the set group, as well as the light status indicating whether the current number of people staying reaches the set maximum number of people staying.

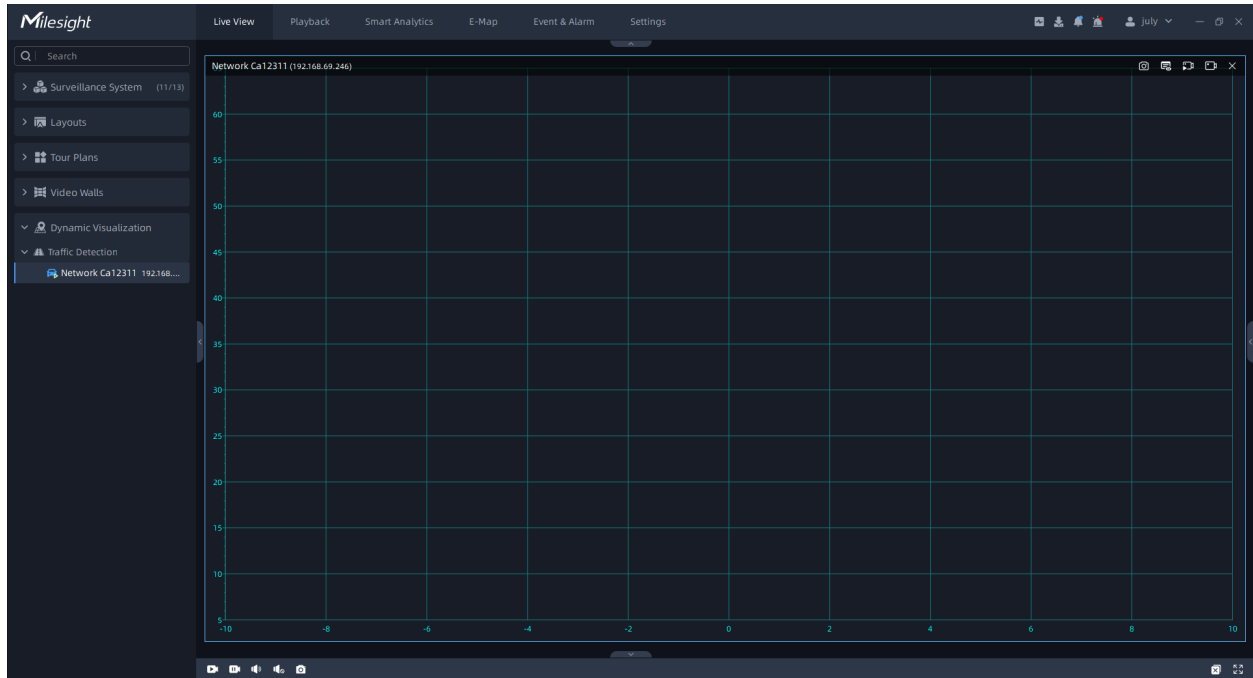


Remaining Capacity: Display the value of the remaining number of people staying in real time, and the minimum value is 0. (Remaining Capacity = Max.Stay - People Stayed, Max. Stay is set in the Smart Analytics -> [People Counting Groups interface \(page 295\)](#))

People Stayed: Display the number of people staying in real time. (Stays value = In value - Out value, the minimum number of people staying is 0)

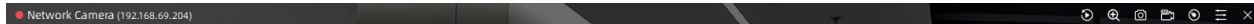
Traffic Detection

Here you can see the detection results of Traffic Detection. Double click the channel on the left list, you can see the detected target in real time according to the settings in the [Traffic Detection \(page 122\)](#).




4.2 Live View Workspace





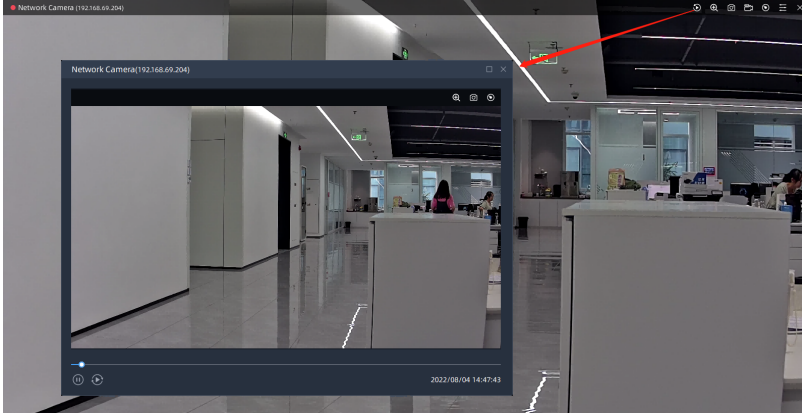







4.2.1 Toolbar of Live View Window



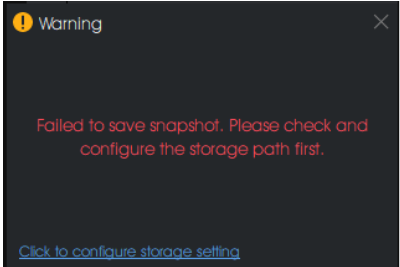


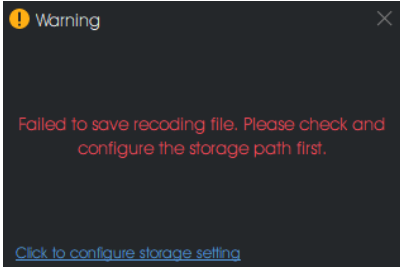




















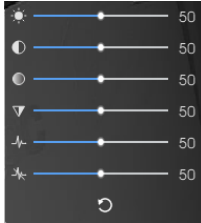

The meanings of the icons on the toolbar can be referred to the table below:


Table 43.

Icon	Function Introduction
	It will display a red icon in the upper left corner of the channel if it is recording.

Icon	Function Introduction
	<p>Click to view the video file in the last 5 minutes.</p> <p>Click  to pause. Click  to play video file in Playback.</p> <p> Note: This item is available only for cameras which have video.</p> 
	<p>Click to turn on Speaker. You can adjust the volume of the speaker from 1~100.</p> <p> Note: This item is available only for cameras which support Audio In.</p>
	<p>Click to start talking</p> <p> Note: This item is available only for cameras which support Audio Out, including ONVIF cameras.</p>
	<p>Click to start Joystick Control and 3D Positioning for the camera live view.</p>
	<p>Click to enable Digital Zoom</p> <p> Note: The Digital Zoom can't be used with PTZ 3D Positioning at the same time.</p>

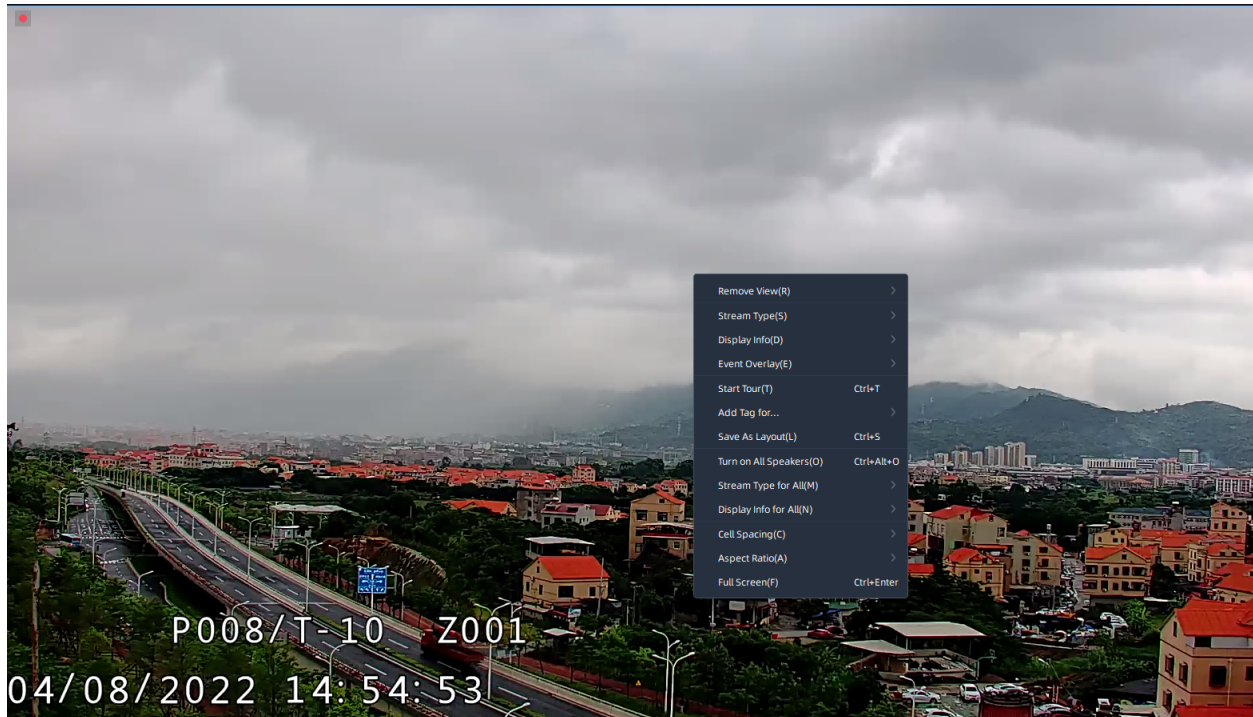
Icon	Function Introduction
	<p>Snapshot</p> <p> Note: Please configure the storage path first, otherwise a pop-up window will inform you to set as below when clicking the button.</p> 
	<p>Start/Stop recording manually</p> <p> Note: Please configure the storage path first, otherwise a pop-up window will inform you to set as below when clicking the button.</p> 
	 <ul style="list-style-type: none"> <li data-bbox="711 1247 1427 1304"> Enable Dewarping. <li data-bbox="711 1314 1427 1371"> Select ceiling mounting mode. <li data-bbox="711 1381 1427 1438"> Select wall mounting mode. <li data-bbox="711 1449 1427 1505"> Select flat mounting mode. <li data-bbox="711 1516 1427 1572"> Select live view of original fisheye view. <li data-bbox="711 1583 1427 1640"> Select live view of 360° panoramic view. <li data-bbox="711 1650 1427 1707"> Select live view of two 180° panoramic views. <li data-bbox="711 1717 1427 1774"> Select live view of four regional views.

Icon	Function Introduction	
		 Select live view of one original fisheye view and three regional views.
		 Select live view of one 360° panoramic view and one regional view.
		 Select live view of one 360° panoramic view and four regional views.
		 Select live view of one 360° panoramic view and six regional views.
		 Select live view of one original fisheye view and eight regional views.
		<p>Brightness: Adjust the brightness of the scene</p> <p>Contrast: Adjust the color and light contrast</p> <p>Saturation: Adjust the saturation of the image. Higher Saturation makes colors appear more "pure" while lower one appears more "wash-out"</p> <p>Sharpness: Adjust the Sharpness of image. Higher Sharpness sharps the pixel boundary and makes the image looks "more clear"</p> <p>2D DNR/3D DNR: Adjust the noise reduction level</p> <p>Default: Restore brightness, contrast and saturation to default settings</p>
	Stop playing the Live View	

 **Note:** You can set display mode of the top toolbar of live view in the [Display \(page 196\)](#) of Local Settings.

4.2.2 Right-click Menu of Live View Window

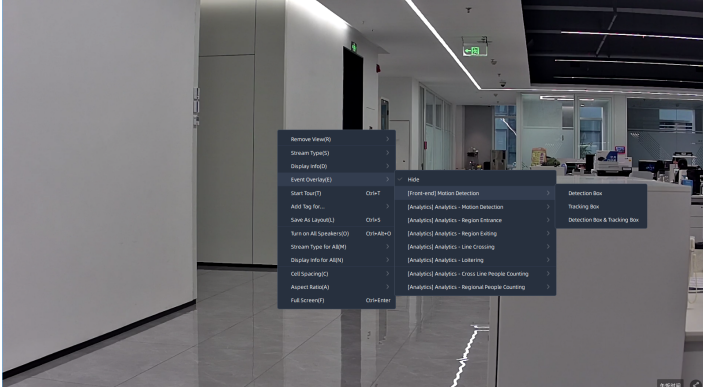
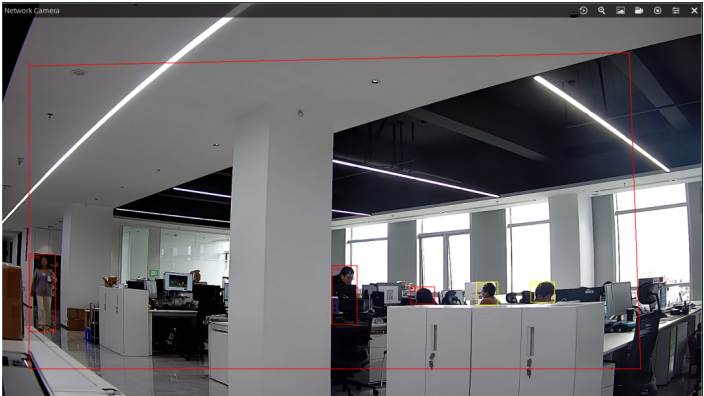
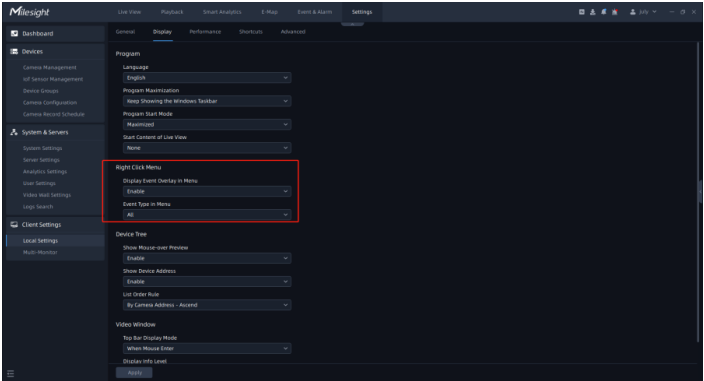
This part is used for playing the Live View window. Right-click the camera live view window to pop up a menu as shown below:



The meanings of the items on the toolbar can be referred to the table below:

Table 44.

Item	Description
Stream Type	There are three options available, including Auto, Primary and Secondary. If you choose the the Auto option, then the camera video will automatically switch stream according to computer performance.
Display Info	Choose to display the video stream information at Left or Right of the live view window, or customize the display position of stream information. You can also choose to hide the stream information.

Item	Description
<p style="text-align: center;">Event Overlay</p>	<p>Choose to display Event Detection Region and the detection frame to track the target for Front-end Events and Smart Analytics Events.</p>   <p>Note: Please make sure you have enabled “Display Event Overlay in Menu” option in Local Setting interface as shown below:</p> 
<p style="text-align: center;">Add Tag For</p>	<p>Choose to add tag for the selected camera or all cameras in Layout.</p>







Item	Description
Full Screen	Display all cameras in the layout to full screen. Click again the Exit Full Screen to restore the normal window.
Multi-Monitor	<p>This option is available only when you set monitor as the Full Screen mode, more Full Screen mode details can see the Multi-Monitor (page 204) .</p> <p>After choosing Full Screen mode and setting Multi-Monitor as the Show on Full Screen option, the live view window of selected camera will display on the setting monitor as Full Screen.</p>
Remove	Choose Selected Views or All Views in Layout to remove the camera live view.
Save As Layout	<p>Choose the option to save layouts which you are interested in. You can name the new layout and the layout will be added to the device list panel. The pop-up Save Layout window is as below:</p> <div data-bbox="613 886 1211 1249" data-label="Image"> </div> <p>Note: It supports saving Client-side Dewarping mode of Fisheye model and stream information to the layout on Live View and Playback interface.</p> <div data-bbox="613 1360 1312 1738" data-label="Image"> </div>

Item	Description
Cell Spacing	Set the Cell spacing size among the live view windows in the layout. There are four options available, including None, Small, Normal and Large.
Aspect Ratio	You can choose 1:1, 4:3, 16:9, 3:4 and 9:16 to show the window aspect ratio.
Star Tour/Stop Tour	Click the option to start/stop tour of cameras in the current layout.
Turn on/Mute All Speakers	Enable or disable the speaker of all cameras in the current layout.
Stream Type for All	Set stream type for all cameras in the current layout.
Display Info for All	Set display of stream information for all cameras in the current layout.

4.2.3 Bottom Toolbar

Users can operate all channels being played in batches. The meanings of the icons on toolbar can be referred to the table below:

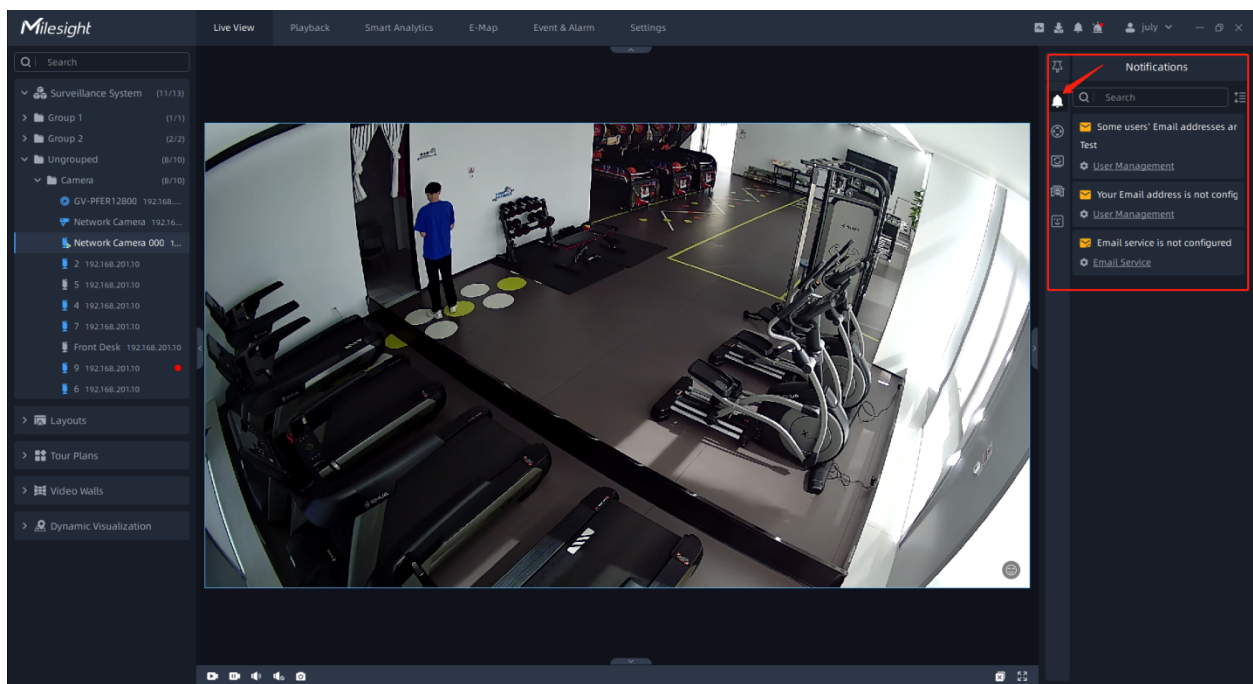
Table 45.

Item	Function Introduction
	Start/Stop Recording for All.
	Start/Stop Talking for All.
	Turn on/Mute All Speakers.
	Snapshot for All.
	Close All.
	Full Screen.

4.3 Right Panel of Live View

4.3.1 Notification

User can receive and check real-time notifications from system or event setting pushed in the panel. Also, user can directly click received notification window to jump up to the related configuration page. After the setting is completed and the configuration is valid, the corresponding notification in the panel will disappear. There are two types of notification, including system notification and event rule notification. The panel page is as below:

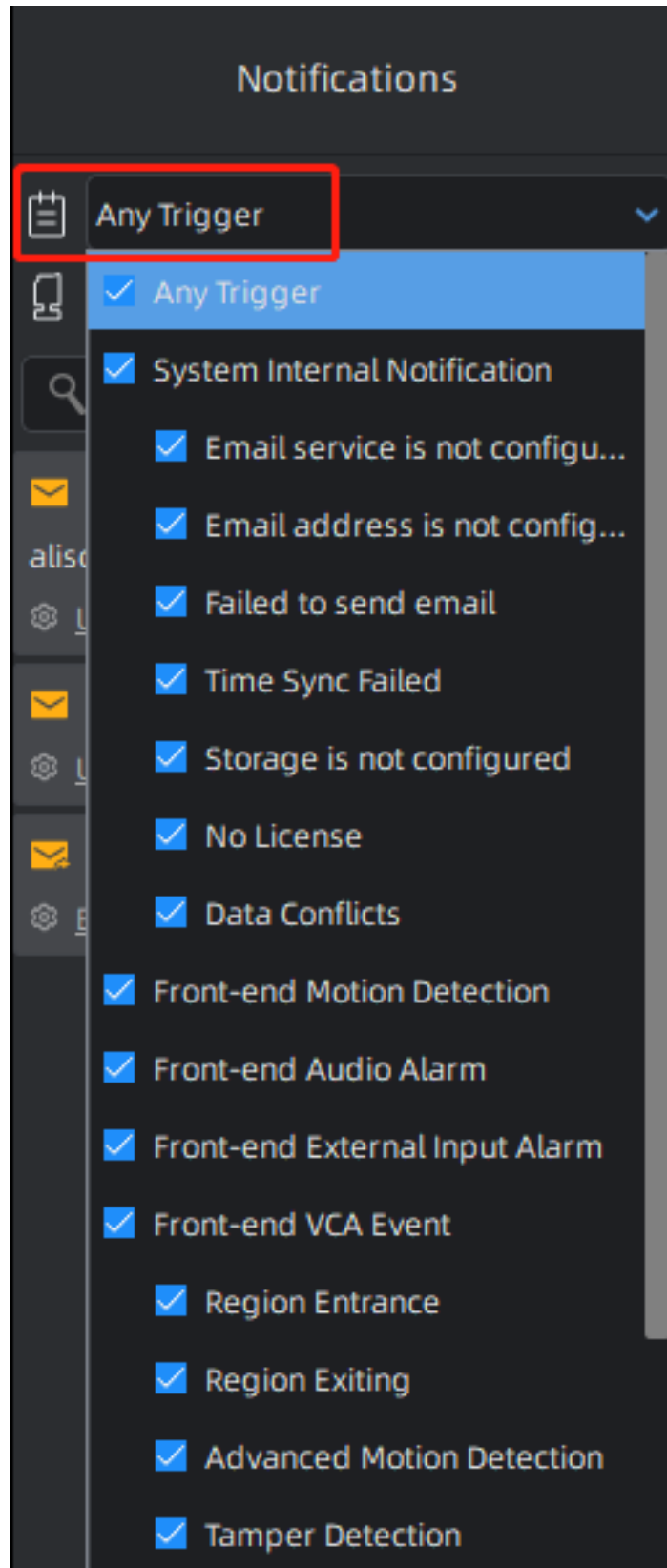


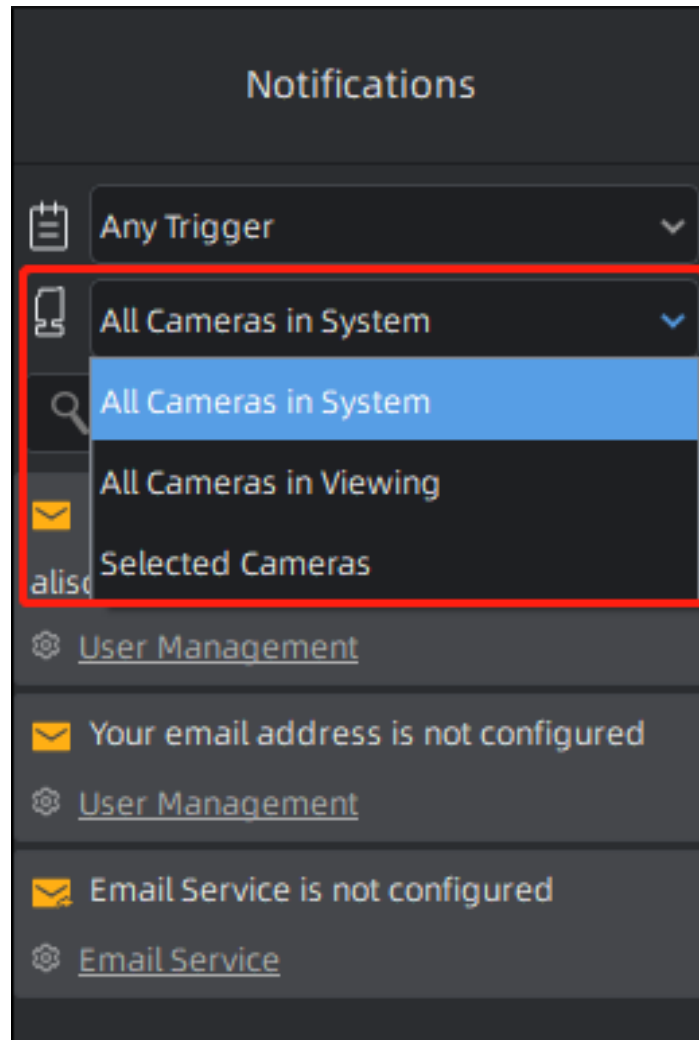
System Notification: If the system Email service, Email address or Storage are not configured, etc, then the notifications will be automatically pushed and shown in the Notification panel according to system detecting rules.

Event Rule Notification: You can refer to the table of [Event Rule Settings \(page 344\)](#) to set event rule and choose Show Notification in Action configuration options. When the event is triggered, the event notification will be pushed to the Notification panel.

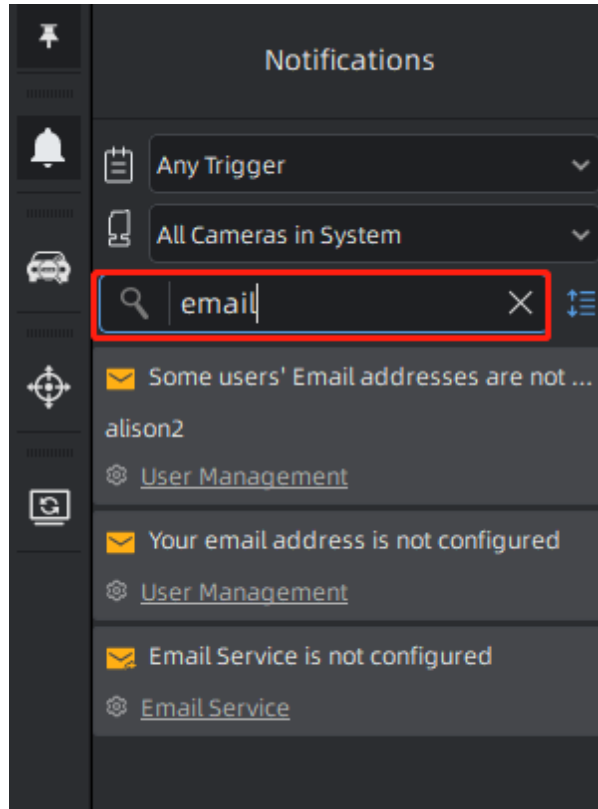
And you can filter the notifications based on the event or camera, or you can directly search for notifications in the notification panel.

- Notification filtering:



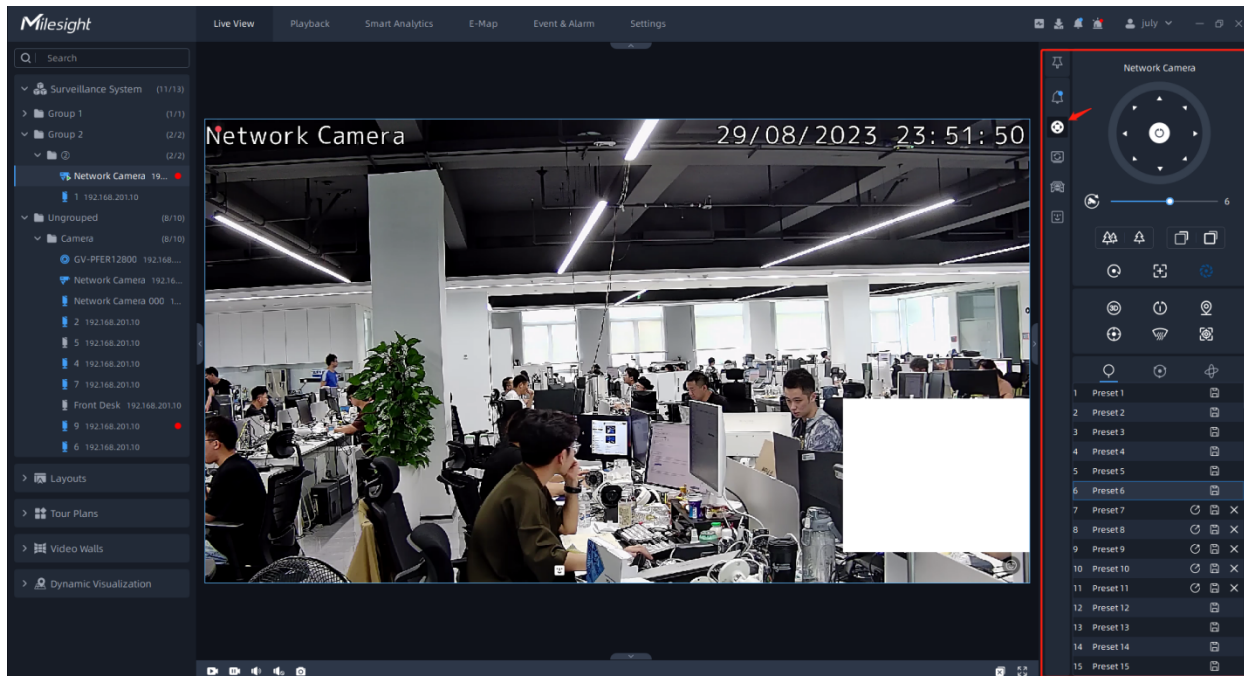


- Search for notification:




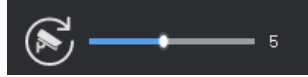



4.3.2 PTZ Control








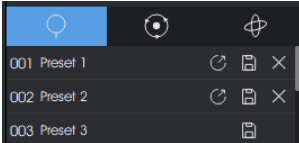



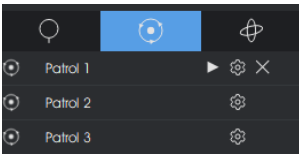


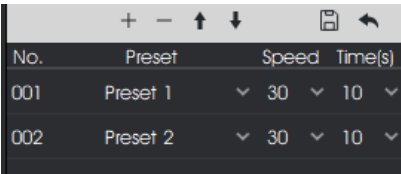
Users can remotely pan/tilt/zoom the camera by operating the PTZ Control panel. It can zoom in on far distant objects with exceptional clarity. You can also easily track objects with high precision by using a mouse or joystick.


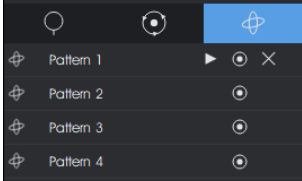





The meanings of the items can be referred to the table below:

Table 46.

Item	Description
	<p>Navigation buttons are used to control the direction. The rotation button is used for Auto Scan.</p>
	<p>To adjust the speed of pan/tilt movements, from 1 to 10.</p>
	<p>Click -/+ to zoom in and zoom out.</p>
	<p>Click -/+ to focus near or far of the lens.</p>
	<p>Lens Initialization, Auxiliary Focus and Auto Iris.</p>

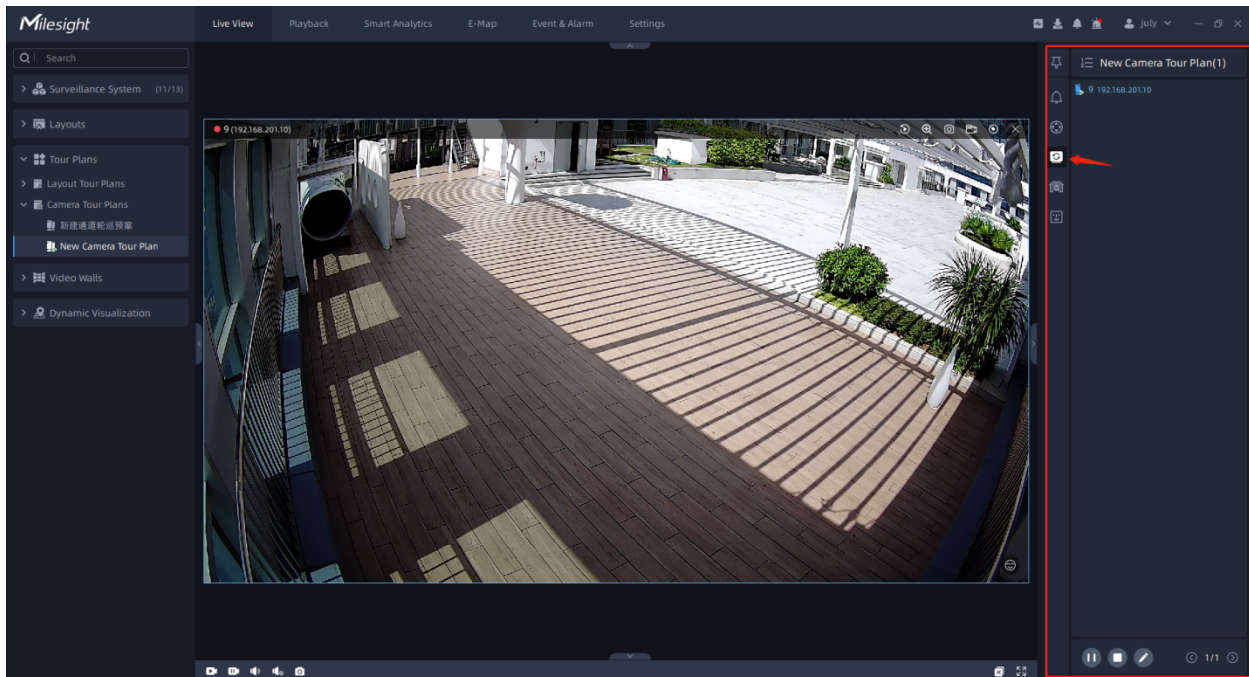
Item	Description											
	<p>Lighting For 30s: Click to open/close the White LED for lighting 30s.</p>											
	<p>3D Positioning: Click to enable/disable 3D positioning.</p>											
	<p>One-touch Patrol: Click to carry out the patrol.</p>											
	<p>Auto Home: Click to enable Auto Home.</p>											
	<p>Manual Tracking: Click to track the moving objects.</p>											
	<p>Dehumidifying: Defog.</p>											
	<p>Auto Tracking: With this option enabled, the camera can perform the digital Pan/Tilt/Zoom to track the moving objects automatically.</p> <p>Note:</p> <ul style="list-style-type: none"> • Auto Tracking is only supported in regional views. • Auto Tracking is only supported in ceiling mounting mode of on-board dewarping mode. 											
	 Call the preset.											
	 Save the setting of the current preset.											
	 Delete the preset.											
	 Play the patrol.											
	<p>Click the  button to set the patrol according to the page as shown below:</p>  <table border="1" data-bbox="545 1692 943 1864"> <thead> <tr> <th>No.</th> <th>Preset</th> <th>Speed</th> <th>Time(s)</th> </tr> </thead> <tbody> <tr> <td>001</td> <td>Preset 1</td> <td>30</td> <td>10</td> </tr> <tr> <td>002</td> <td>Preset 2</td> <td>30</td> <td>10</td> </tr> </tbody> </table>	No.	Preset	Speed	Time(s)	001	Preset 1	30	10	002	Preset 2	30
No.	Preset	Speed	Time(s)									
001	Preset 1	30	10									
002	Preset 2	30	10									

Item	Description
	 Delete the patrol.
	 Play the pattern.
	 Click to start recording for the pattern, and click again to stop.
	 Delete the pattern.

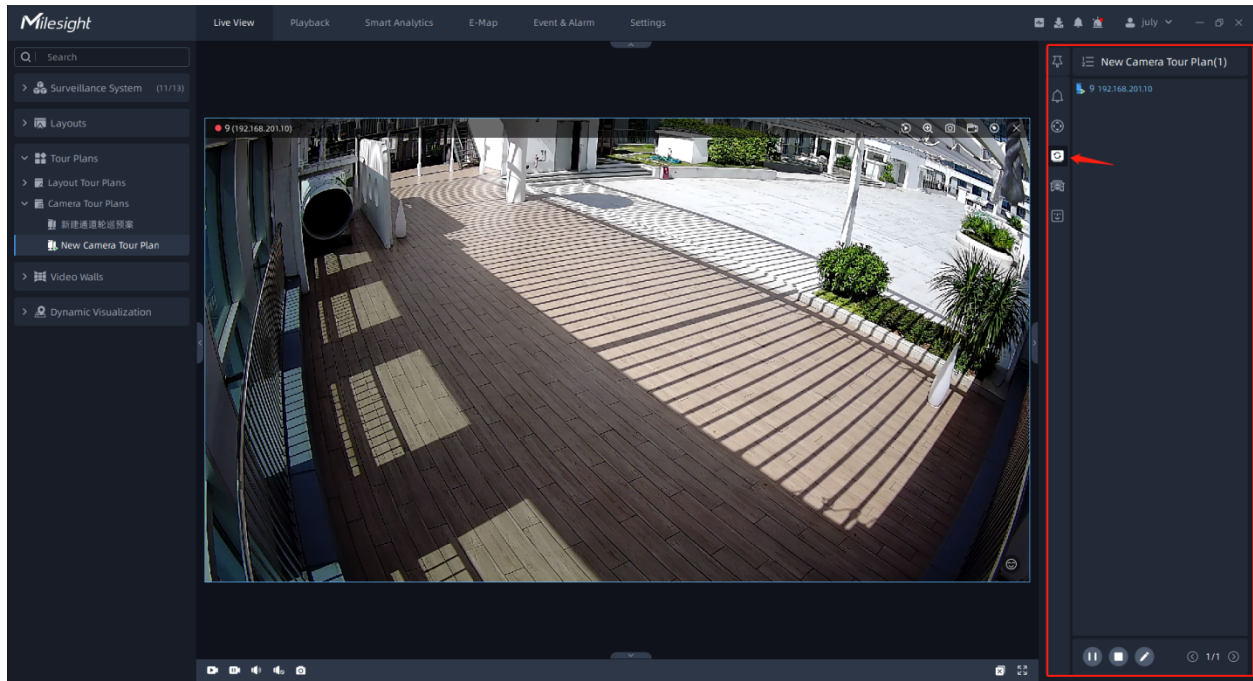
4.3.3 Tour List

This Tour function includes Camera Tour and Layout Tour. By using this function, the selected cameras/layouts will automatically switch live view window, which greatly offers convenience for users. The Tour List page is as below:

- Camera Tour:


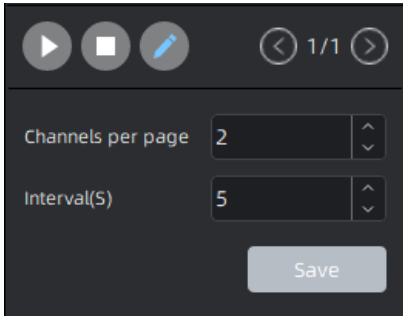
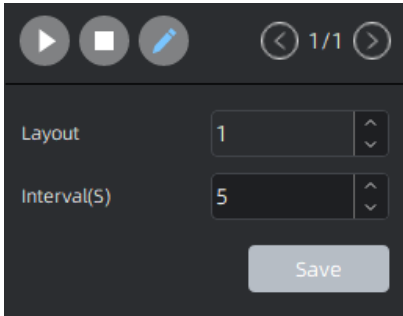







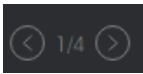


- Layout Tour:




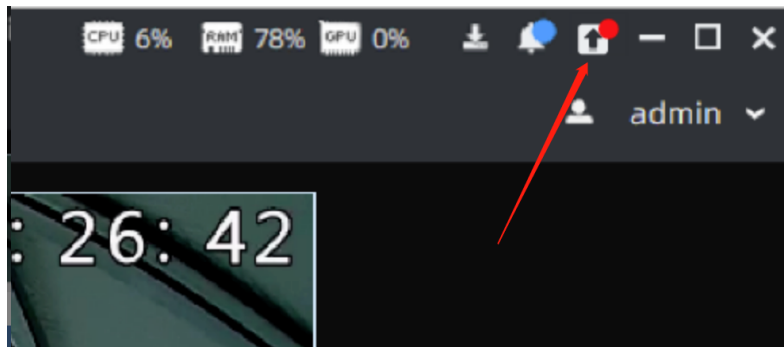
The meanings of the items can be referred to the table below:

Table 47.

Item	Description
	<p>Click the button to edit the tour plan.</p> <ul style="list-style-type: none"> • Camera Tour Plans:  <ul style="list-style-type: none"> • Layout Tour Plans:  <p>Channels per page: Set the number of channels displayed on each page.</p> <p>Layout: The number of layouts displayed on each page.</p> <p>Intervals: Set the tour time for each page in the list.</p> <p> Note: Users can adjust the order of the tour list by dragging the camera when editing the tour plan.</p>
	<p>Remove camera in the tour list.</p>
	<p>Click the button to start tour. Then the cameras in the Cameras Tour List will start touring according to your tour time setting.</p>
	<p>Click the button to pause the current tour.</p>

Item	Description
	Click the button to stop and exit the current camera tour window.
	Click  or  button to jump to previous or next camera live view window of camera tour list.

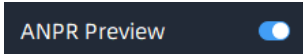
 **Note:** If there is a new version available for upgrade, there will be an alert in the upper right corner of the client. If it is already the latest version, the icon will not appear.

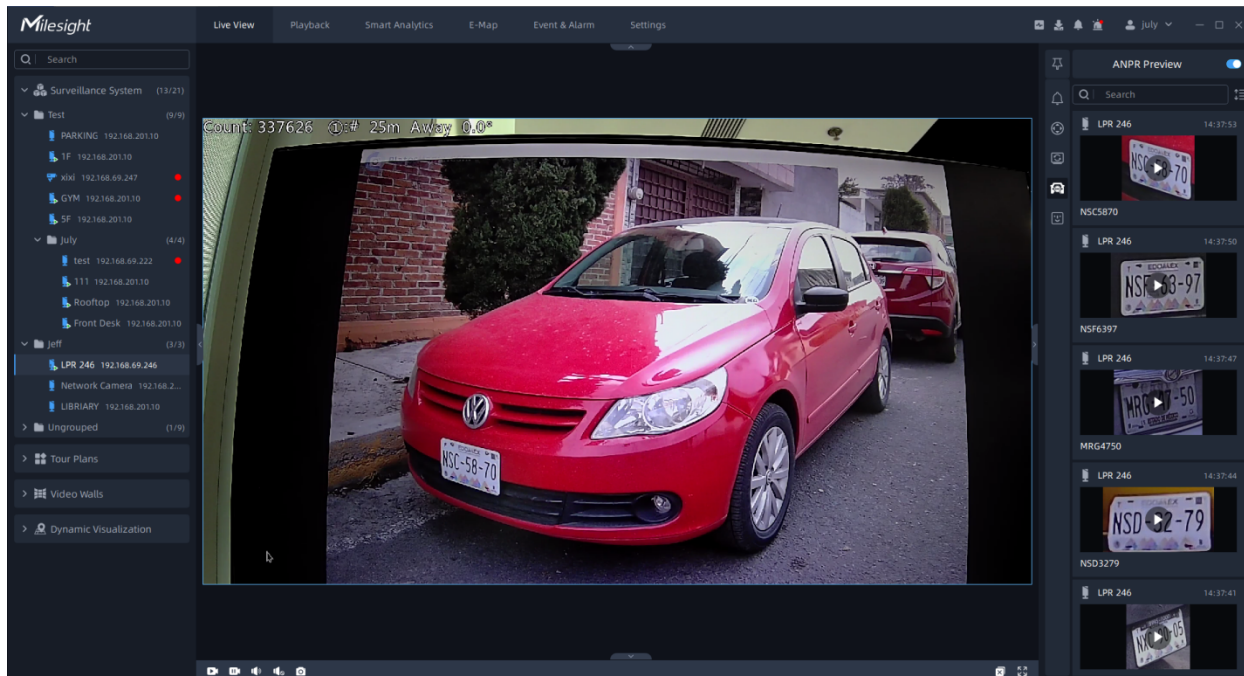


4.3.4 ANPR Preview

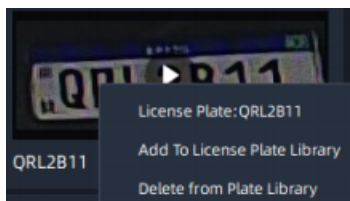
Here you can preview the license plate recognition results which are pushed by front-end

Device and VMS-end ANPR. If it is the latter one, then the AI icon will be added next to the license plate number in the picture, and the Analytics Mode in the Details will be displayed as VMS Analytics, while the opposite is Camera Analytics.

Only when you click the  icon, you will receive a message about ANPR in the panel, the preview interface is as below:



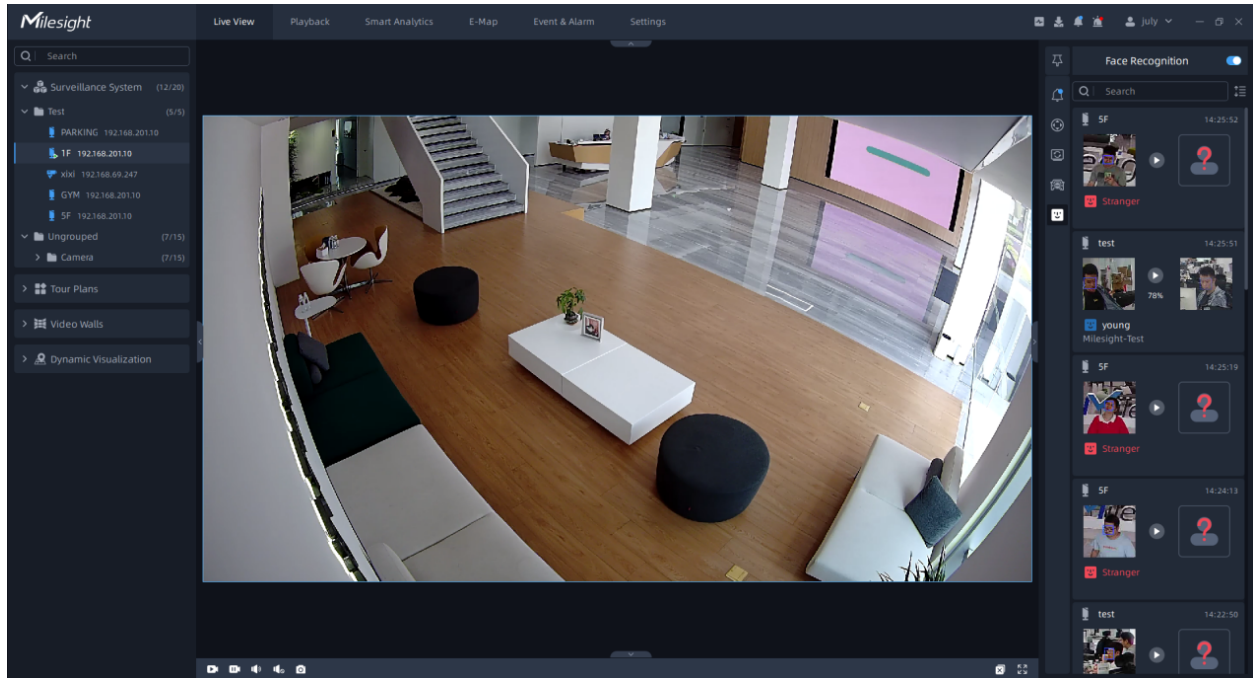
You can right click on the ANPR notification push window to pop up a menu as below, and choose to add the license plate to White or Black List in the VMS system. If the license plate has already existed in the White or Black List of VMS system, then you can choose to change its type as you want. You can also choose to delete the license plate from White or Black List.



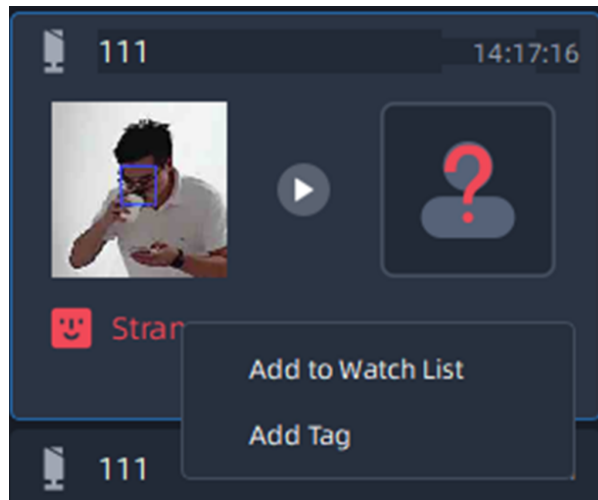
4.3.5 Face

Here you can preview the face recognition results. Only when you enable the **Face Recognition** , you will receive a message about face recognition in the panel, the preview is as below:

As shown in the above figure, if the recognized person is not in the Face Watch List, the recognition result will be displayed as "Stranger." If the person is in the Face Watch List, it will display the imported name, department information, and the matching score.



You can right click on the Face Recognition notification push window to pop up as below, and choose to add the recognized photos to Watch List. You can also add tag to the corresponding video footage of the recognition result for convenient future retrieval.



Chapter 5. Playback

In this part, you can search and play back the recorded files of selected cameras.

The Playback interface is as below:




Left Resource Panel: displays all servers and cameras inside the VMS system.


Center Playback Panel: can display unlimited individual playback video items.

Bottom Control Panel: control videos replayed in center viewing panel.

Right Notification Panel: there are two tabs, including Notifications and Tags for playback. The Tags for playback tab can refer to [Right Panel of Playback \(page 277\)](#).

Here you can select the cameras in Left Resource Panel and replay the selected cameras through three ways, including double clicking the desired cameras, directly dragging the desired cameras to the Center Playback panel, or right clicking the cameras and choosing the Play option. You can find desired video to replay more precisely by clicking  button.

Note:

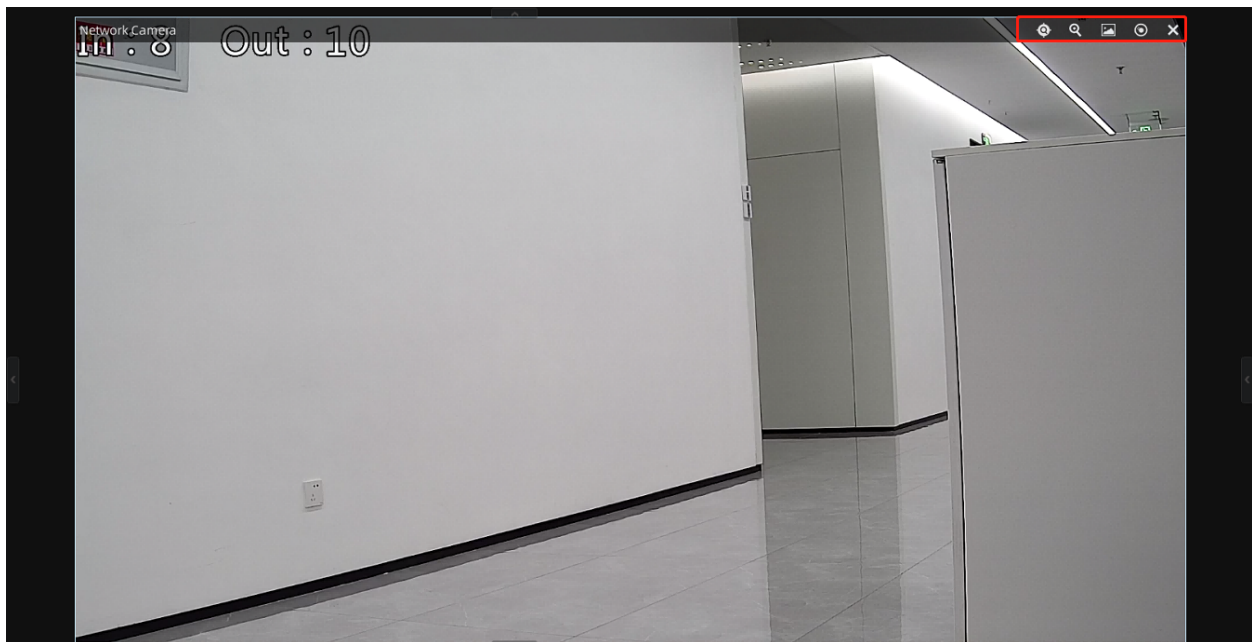
- The  icon in the front of camera means the recording video of camera is available.

- Blue typeface means there are recording files, white typeface means middle dates but no file and gray typeface means you can't click.
- You can also press on the Ctrl key and choose several continuous dates on the calendar to search video.

5.1 Workspace and Toolbar of Playback Window

This part is used for playing recorded videos. The right-click menu and top toolbar of playback window provide some operation settings.

The playback window of camera is as below:


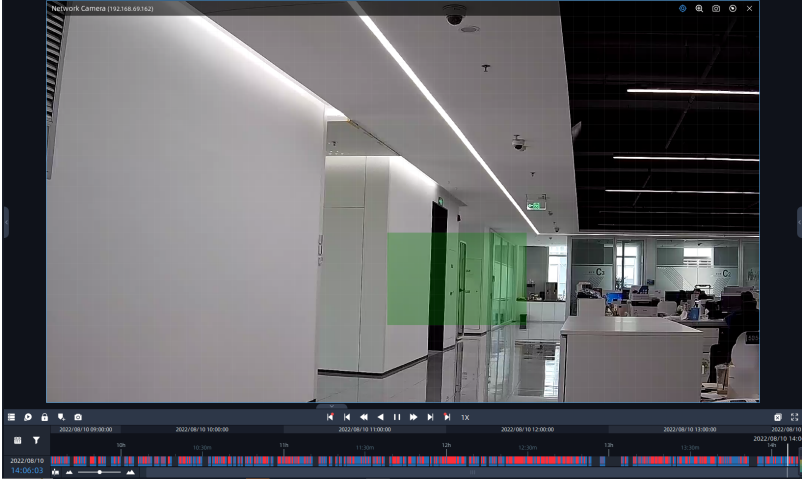





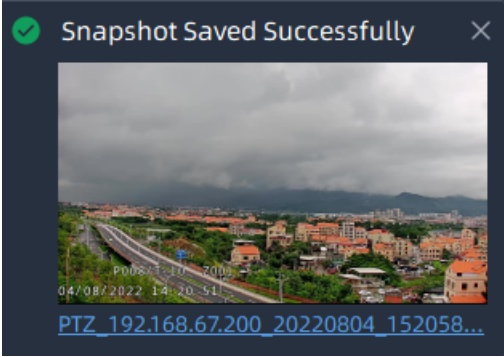

















- **The toolbar of Playback window:**



The meanings of the items on the toolbar can be referred to the table below:

Table 48.

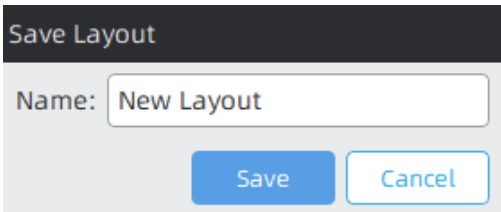
Icon	Function Introduction
	<p>Click and draw an area on the screen to search the motion detection events. The search results will be displayed in red on the timeline.</p> 
	<p>Click to turn on Speaker, and you can adjust the volume of the speaker from 1~100.</p> <p> Note: This item is available only for cameras which support speaker</p>
	<p>Click to enable digital zoom</p> <p> Note: The digital zoom can't be used with PTZ 3D Positioning at the same time.</p>
	<p>Click the button and a pop-up window will shown as below. You can click the bottom blue text to check the snapshot storage path.</p> 

Icon	Function Introduction	
	<div style="display: flex; align-items: center;">  Enable Dewarping. </div> <div style="display: flex; align-items: center;">  Select ceiling mounting mode. </div> <div style="display: flex; align-items: center;">  Select wall mounting mode. </div> <div style="display: flex; align-items: center;">  Select flat mounting mode. </div> <div style="display: flex; align-items: center;">  Select live view of original fisheye view. </div> <div style="display: flex; align-items: center;">  Select live view of 360° panoramic view. </div> <div style="display: flex; align-items: center;">  Select live view of two 180° panoramic views. </div> <div style="display: flex; align-items: center;">  Select live view of four regional views. </div> <div style="display: flex; align-items: center;">  Select live view of one original fisheye view and three regional views. </div> <div style="display: flex; align-items: center;">  Select live view of one 360° panoramic view and one regional view. </div> <div style="display: flex; align-items: center;">  Select live view of one 360° panoramic view and four regional views. </div> <div style="display: flex; align-items: center;">  Select live view of one 360° panoramic view and six regional views. </div> <div style="display: flex; align-items: center;">  Select live view of one original fisheye view and eight regional views. </div>	
		Stop playing the Live View

• The right-click menu of Playback window:

The meanings of the items on the right-click menu can be referred to the table below:

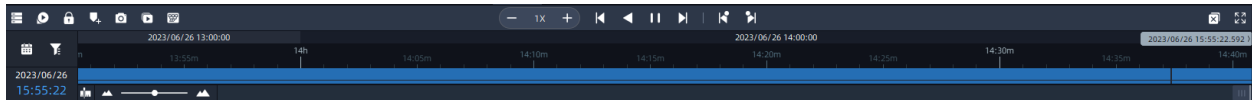
Table 49.

Item	Description
Stream Type	There are three options available, including Auto, Primary and Secondary. If you choose the the Auto option, then the camera video will automatically switch stream according to computer performance.
Display Info	Choose to display the video stream information at Left or Right of the live view window, or customize the display position of stream information. You can also choose to hide the stream information.
Split Playback	Divide the video files into several channels in the specified time period according to needs. When watching playback, users can watch videos of different time simultaneously. More details can refer to Split Playback (page 263) .
Add Tag for	Add tag for the selected cameras or all cameras in the playback panel.
Full Screen	You can choose Current View to display the selected camera to full screen, or choose Layout to display all cameras in the layout to full screen. Click again the Exit Full Screen to restore the normal window.
Remove	Choose Selected Views or All Views in Layout to remove the camera playback.
Save As Layout	<p>Choose the option to save layouts which you are interested in, and you can name the new layout and the layout will be added to the device list panel. The pop-up Save Layout window is as below:</p> 
Cell Spacing	Set the cell spacing size among the live view windows in the layout. There are four options available, including None, Small, Normal and Large.
Aspect Ratio	You can choose 1:1, 4:3, 16:9, 3:4 and 9:16 to show the window aspect ratio.
Pause/Resume all	Pause/Resume all recorded videos in the current layout.
Turn on/Mute All Speakers	Enable or disable the speaker of all cameras in the current layout.

Item	Description
Stream Type for All	Set stream type for all cameras in the current layout.
Display Info for All	Set display of stream information for all cameras in the current layout.


5.2 Playback Control



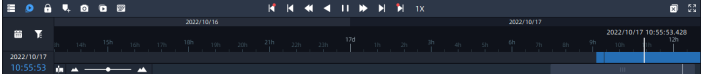
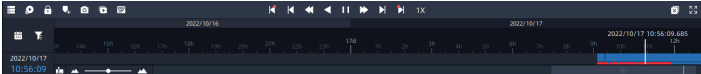

5.2.1 Video Playback Tool Bar Description


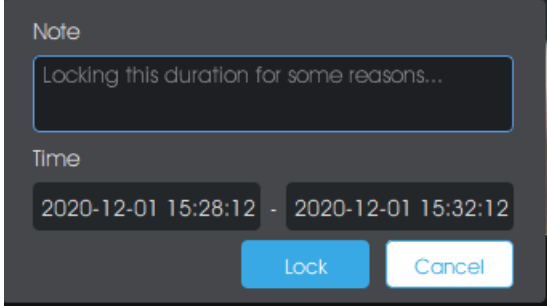

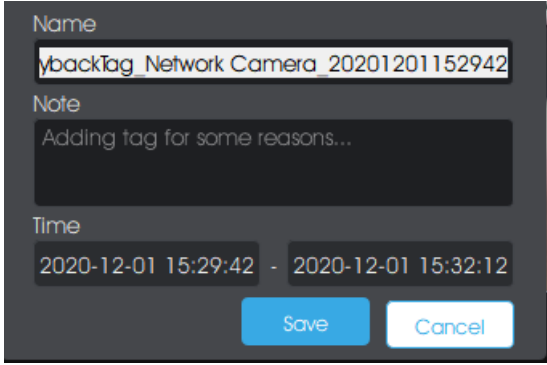




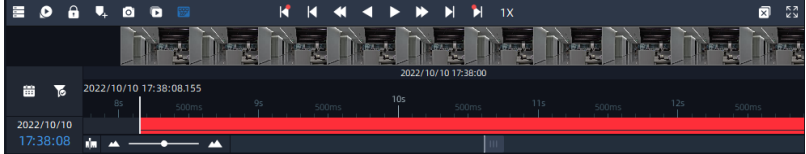

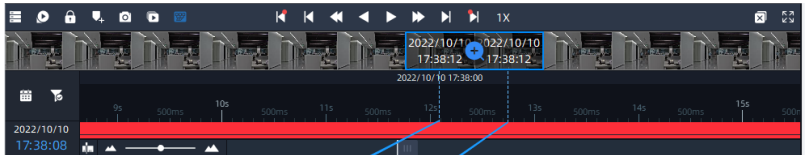
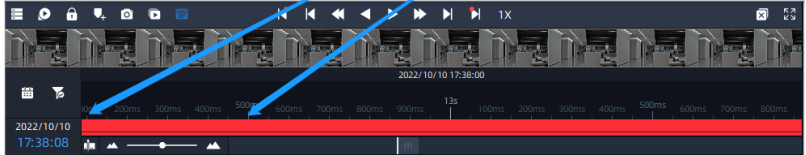
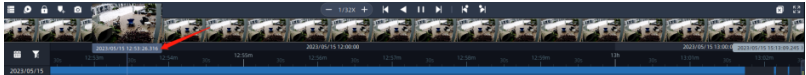
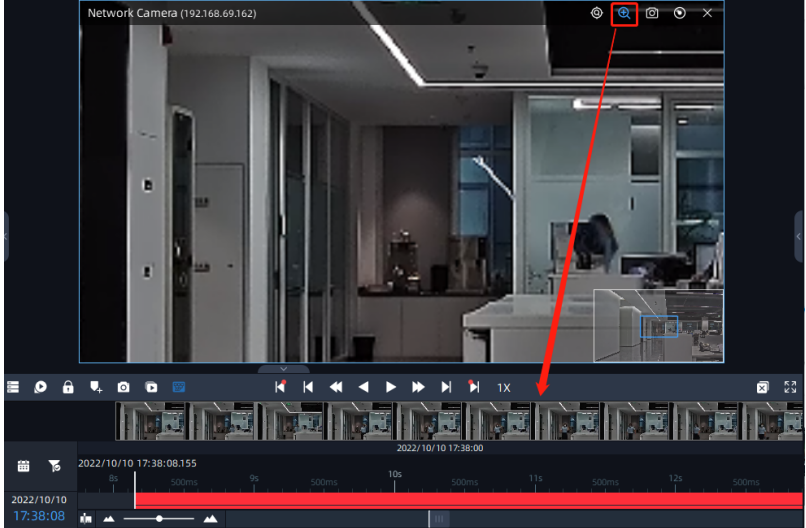
The meanings of the items can be referred to the table below:


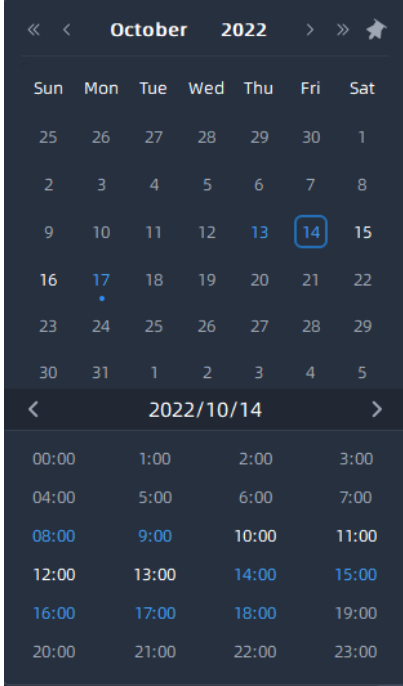
Table 50.



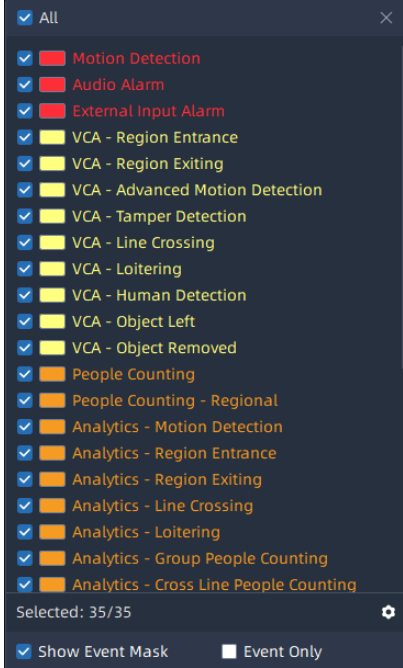

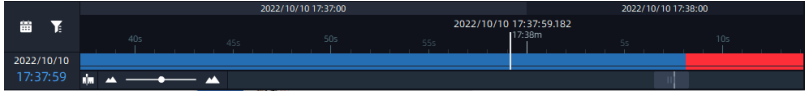
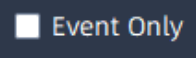
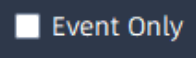
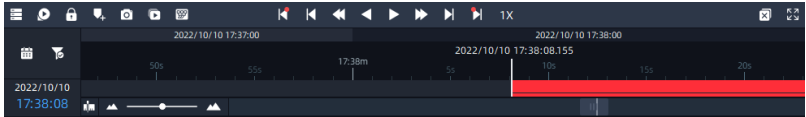
Icon	Description
	Archive Management, more details can refer to Archive Management (page 265) .




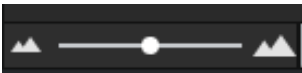


Icon	Description
	<p>Asynchronous Playing or Synchronous Playing switch button</p> <p>You can click  button to switch to Asynchronous Playing or Synchronous Playing. The timeline will change as shown below once switching to different playing modes;</p> <p>Asynchronous Playing: The timeline only represents the recorded videos of selected channel.</p>  <p>Synchronous Playing: Choose Synchronous Playing to playback the recorded videos of all channels in the center playback panel at the same time.</p>  <p>Note:</p> <ul style="list-style-type: none"> • When you use Synchronous mode to play, the thick bar at the top of the timeline represents the video files of current selected camera. The thin bar at the bottom of the timeline represents the video files of all cameras in the center playback panel. • When you use Synchronous mode to play, the upper left of each window will display the status of asynchronous playback, such as multiples, pauses, etc. 

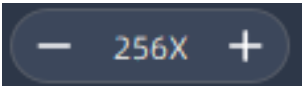





Icon	Description
	<p>Lock video file for selected cameras, you can set locked time duration and reasons as below:</p> 
	<p>Add Tags for selected cameras, you can set tag name, reasons and time duration as shown below:</p> 
	<p>Snapshot for all</p>
	<p>Click this button to enter the Video Synopsis function. Video Synopsis function supports the simultaneous display events that occurred at different times to reduce hours of video footage to a few minutes, which can help users focus on key events.</p> <p>For more details, please refer to 5.2.2 Video Synopsis (page 253)</p>

Icon	Description
	<p>Click this button to show thumbnail of the corresponding time as shown below.</p>  <p>You can click  button to enter a more detailed time interval to check the details, which can be used for Smart Forensic.</p>   <p>The display of a single thumbnail will match the current time point when hovering the playback timeline.</p>  <p>Note: When you enable Digital Zoom, the thumbnails will zoom in or out in synchronization with the image.</p> 

Icon	Description
	<p>Choose date to search recorded videos of camera, the page is as below:</p> 

Icon	Description
	<p>Click  to show the event mask popup window.</p>  <p>Check the  option to display the color of the event on the timeline, and then the user can check event type to be shown on the timeline, the timeline will show different colors according to selected event type as below:</p>  <p> Note: The user can also check  to show only event video file on the timeline.</p> 

Icon	Description
	<p>Click the  button to enter Event Mask Colors Setting interface, it supports customizing different colors for different events according to the user's requirement.</p>  <p>And you can use the mouse to drag the corresponding event to adjust its order. When the time of multiple events overlaps, the color of the event with the highest order will be displayed first on the timeline.</p>
	<p>Drag to zoom in/out timeline.</p>
	<p>Play previous or next event video.</p>
	<p>Play previous or next frame of video.</p>

Icon	Description
	<p>Adjust the speed of video playback.</p> <p>Speed Down: Includes 32X, 16X, 8X, 4X, 2X, 1X, 1/2, 1/4, 1/8, 1/16 and 1/32 for Play or Rewind.</p> <p>Speed Up: Includes 1/32, 1/16, 1/8, 1/4, 1/2, 1X, 2X, 4X, 8X, 16X and 32X for Play or Rewind.</p> <p> Note:</p> <p>The specific acceleration situation depends on the decoding performance of the Client.</p>
	<p>Rewind or Play the video.</p>
	<p>Pause the video.</p>
	<p>Close all Views.</p>
	<p>Full Screen.</p>

5.2.2 Video Synopsis

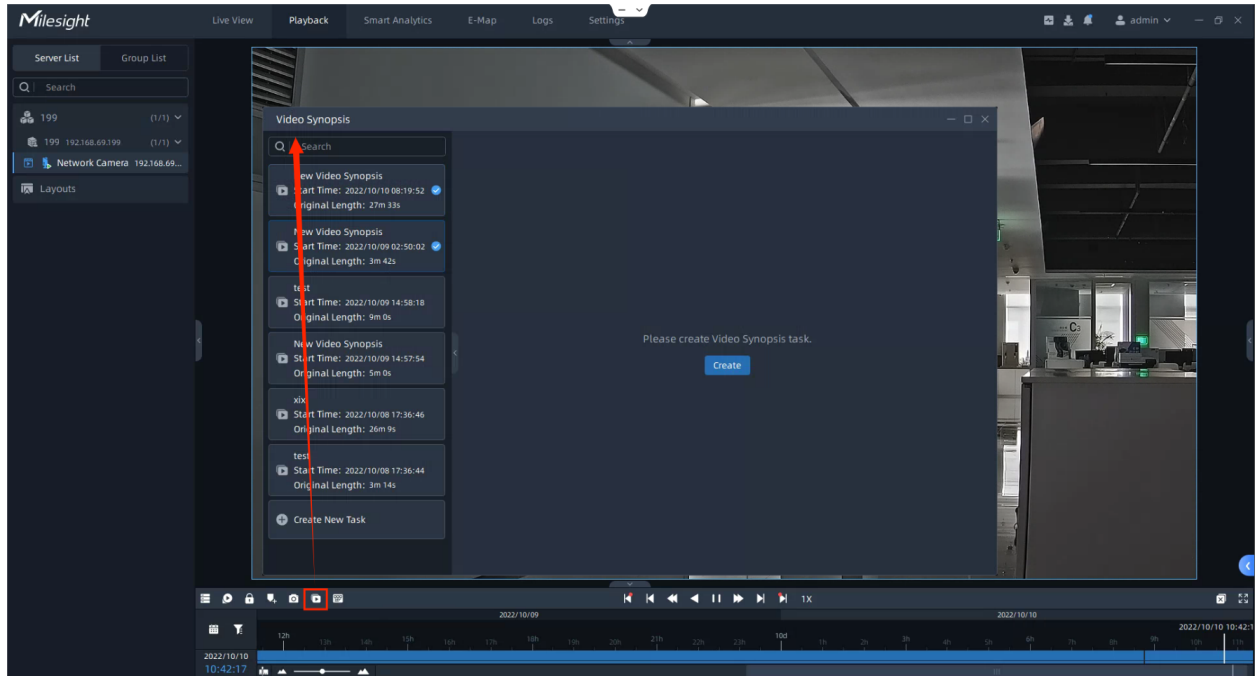
Video Synopsis function supports the simultaneous display events that occurred at different times to reduce hours of video footage to a few minutes, which can help users focus on key events.

Before setting, you need to confirm the following items:

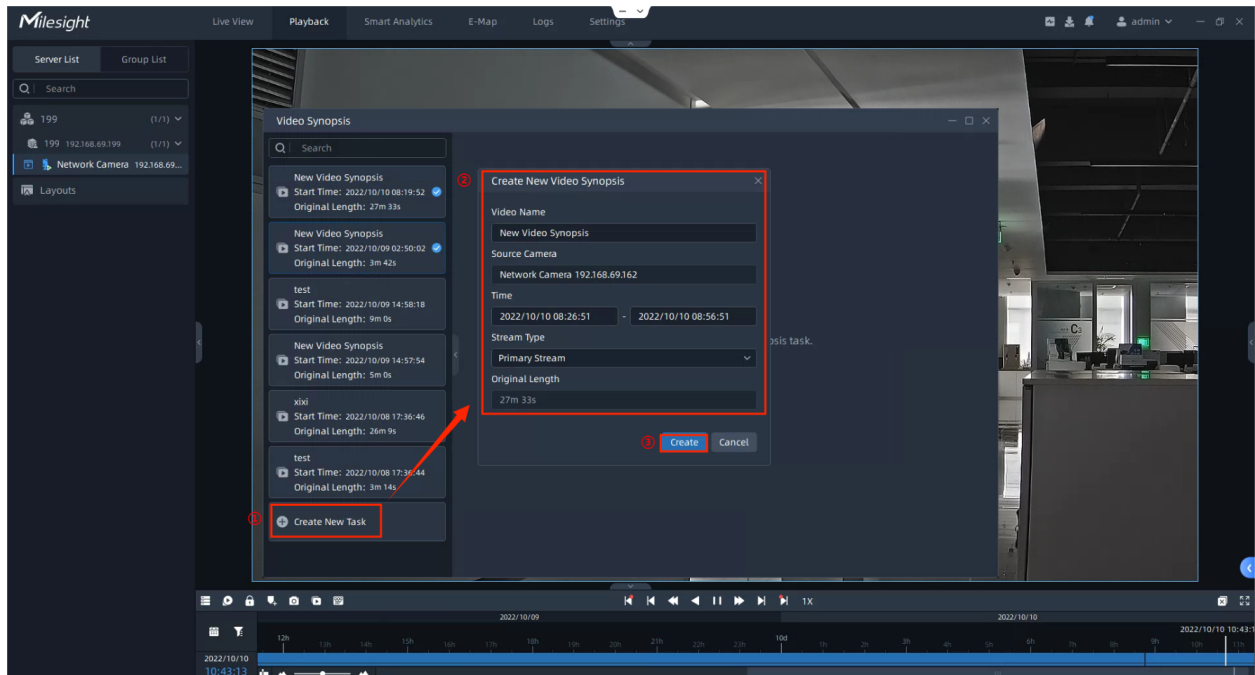
- The Video Synopsis component is already installed and running on your device.
- The device is equipped with an NVIDIA graphic card (CUDA compute capability 7.5 or higher). Besides, the memory of graphic card is recommended above 6G.

The setting steps are as below:

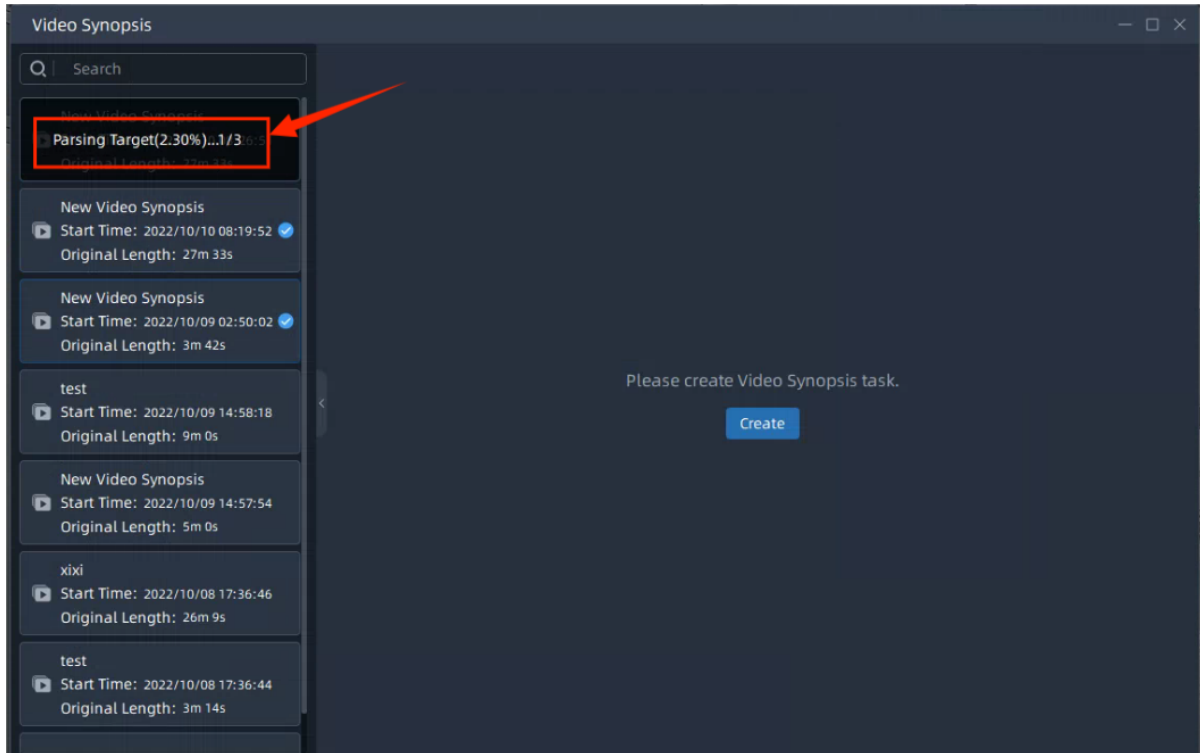
Step1: Click  button on Playback interface to enter Video Synopsis interface.




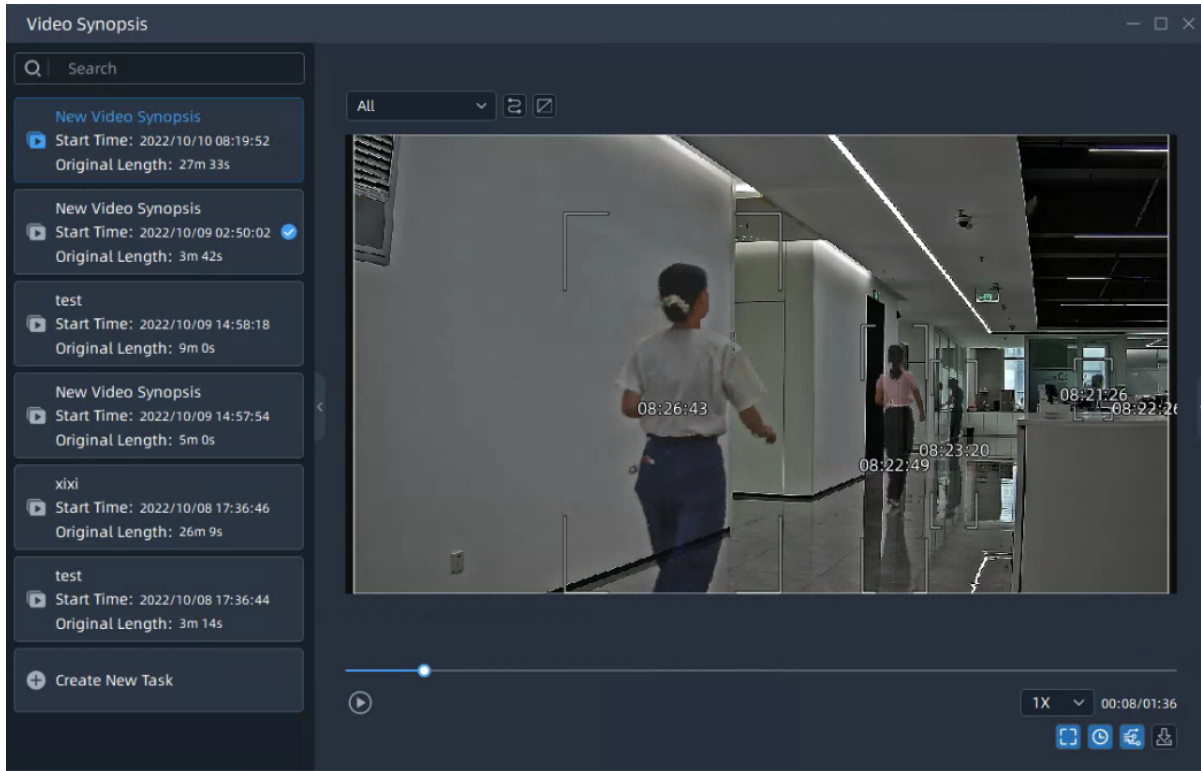
Step2: Click the "Create" button to pop up a new window, enter Video Name, Source Camera, Time and Stream Type, then click the "Create" button to create a new video synopsis task.



After the parsing process reaches 100%, the video synopsis task is created successfully.


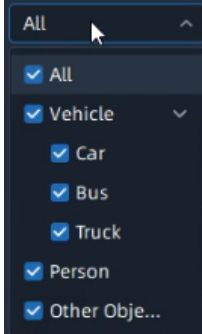


Step3: When the task is created successfully, double click the task, then click  button to play the synopsis video, and you will see the events that occurred at different times are displayed at the same time as shown below.





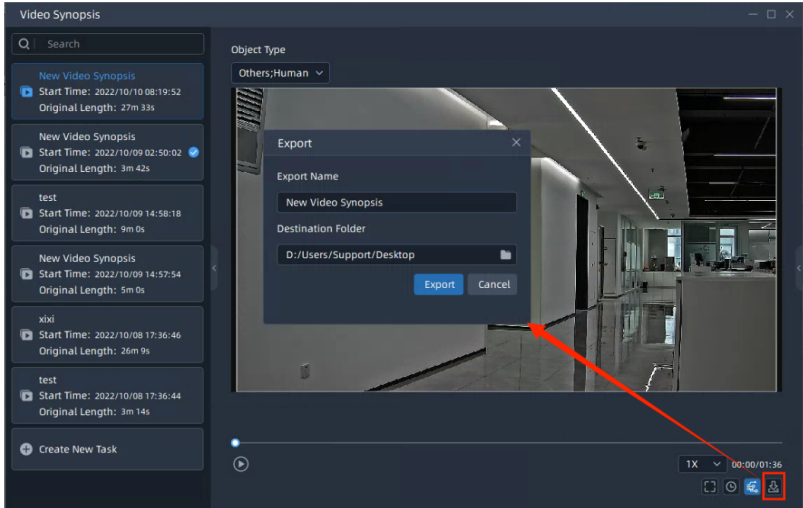
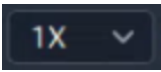
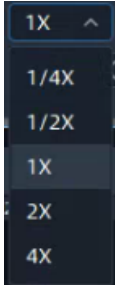
The meanings of the items can be referred to the table below:

Table 51.


Icon	Description
 <p>Object Type</p>	<p>Select the object type to focus on the target moving objects. All, Vehicle, Person and Other Object are available.</p> 

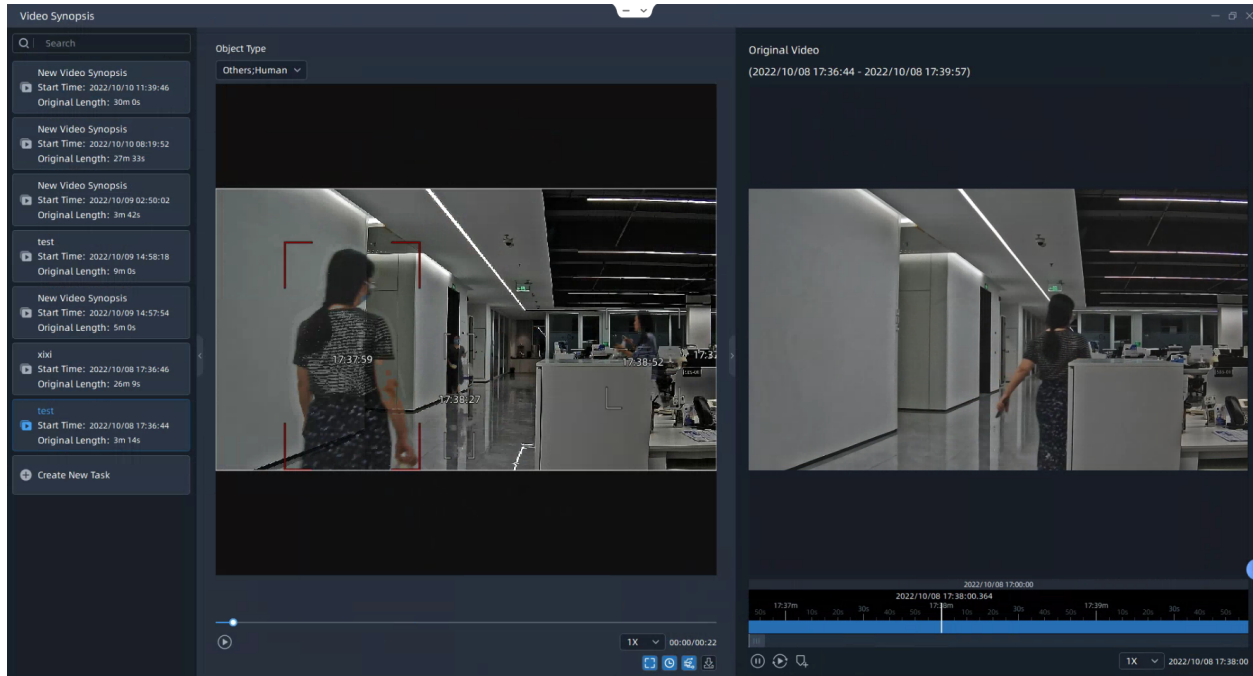
Icon	Description
<div data-bbox="365 846 412 892" data-label="Image"> </div> <p data-bbox="365 919 412 947">Path</p>	<p data-bbox="597 323 987 350">Enable this option to customize paths.</p> <div data-bbox="597 380 1398 884" data-label="Image"> <p data-bbox="609 384 695 401">Video Synopsis</p> <p data-bbox="609 422 678 438">Search</p> <p data-bbox="609 457 764 474">Coffee Bar Video Synopsis</p> <p data-bbox="609 474 784 491">Start Time: 2023/02/14 16:08:20</p> <p data-bbox="609 491 748 508">Original Length: 30m 0s</p> <p data-bbox="609 520 737 537">New Video Synopsis</p> <p data-bbox="609 537 784 554">Start Time: 2023/02/14 14:42:47</p> <p data-bbox="609 554 748 571">Original Length: 30m 0s</p> <p data-bbox="841 470 1354 758">Cafe</p> <p data-bbox="841 764 932 781">H < > X</p> <p data-bbox="841 821 854 837">⏸</p> <p data-bbox="1268 821 1365 837">1X 00:16/00:24</p> </div> <p data-bbox="597 905 1273 932">After drawing the path, it will filter only moving targets on this path.</p> <div data-bbox="597 957 1398 1461" data-label="Image"> <p data-bbox="609 961 695 978">Video Synopsis</p> <p data-bbox="609 999 678 1016">Search</p> <p data-bbox="609 1035 764 1052">Coffee Bar Video Synopsis</p> <p data-bbox="609 1052 784 1068">Start Time: 2023/02/14 16:08:20</p> <p data-bbox="609 1068 748 1085">Original Length: 30m 0s</p> <p data-bbox="609 1098 737 1115">New Video Synopsis</p> <p data-bbox="609 1115 784 1131">Start Time: 2023/02/14 14:42:47</p> <p data-bbox="609 1131 748 1148">Original Length: 30m 0s</p> <p data-bbox="841 1047 1354 1335">Cafe</p> <p data-bbox="841 1398 854 1415">⏸</p> <p data-bbox="1268 1398 1365 1415">1X 00:25/00:28</p> </div>

Icon	Description
<div data-bbox="365 852 412 905" data-label="Image"> </div> <p data-bbox="365 932 412 957">ROI</p>	<p data-bbox="597 323 1008 348">Enable this option to customize the ROI.</p> <div data-bbox="597 380 1395 888" data-label="Image"> </div> <p data-bbox="597 917 1344 942">After drawing the region, it will only filter moving targets within that region.</p> <div data-bbox="597 974 1395 1482" data-label="Image"> </div>
<div data-bbox="358 1528 418 1583" data-label="Image"> </div> <p data-bbox="326 1610 451 1635">Target Box</p>	<p data-bbox="597 1572 1149 1598">Enable this option to show the target box on the video.</p>
<div data-bbox="358 1680 418 1734" data-label="Image"> </div> <p data-bbox="326 1761 451 1787">Timestamp</p>	<p data-bbox="597 1724 1219 1749">Enable this option to show the target timestamp on the video.</p>

Icon	Description
 <p data-bbox="315 417 464 443">Crowded Level</p>	<p data-bbox="597 344 1398 371">Select the crowded level. Highest, High, General, Low and Lowest are available.</p> <p data-bbox="597 394 1349 422">The higher the crowded level, the more objects will be shown in the video.</p>
 <p data-bbox="354 793 427 819">Export</p>	<p data-bbox="597 480 1057 508">Click this button to export the synopsis video.</p> 
 <p data-bbox="354 1289 427 1314">Speed</p>	<p data-bbox="597 1079 1377 1106">Adjust the speed of the synopsis video. 1/4X, 1/2X, 1X, 2X, 4X are available.</p> 

Step4: When hovering on a target in the video, the target box will turn red, clicking on the target box, it will jump to the original video for more details.

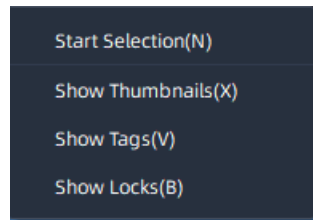
When viewing the original video, users can click  button to tag the video quickly, or click  button to jump to the playback interface to play the video directly.



5.2.3 Settings Menu on the Timeline

You can directly drag the mouse to select a period of time on the timeline or refer to the steps as below to select.

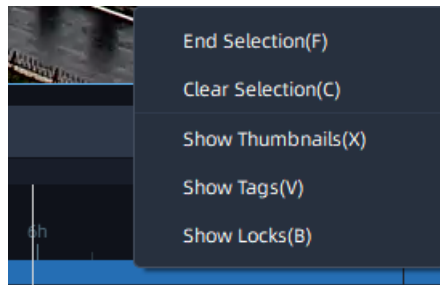
Step1: Right-click the the timeline and a menu window will pop up as below:



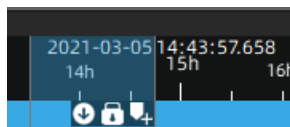
Step2: Select the Start Selection and a vertical line will show on the position of right-clicking timeline as below:



Step3: Move the mouse to another position of the timeline and right-click again, a menu show as below:

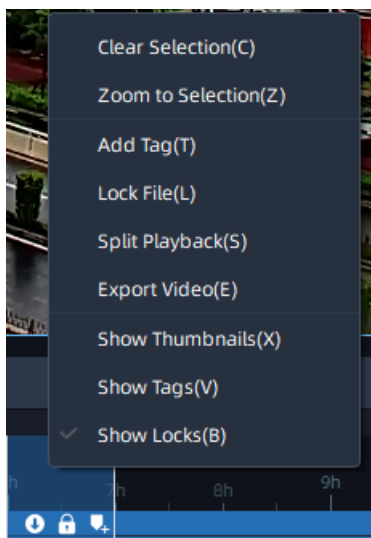


Step4: Click the End Selection and the selected time show as below:



You can export video, lock file, and add tag directly on the timeline.

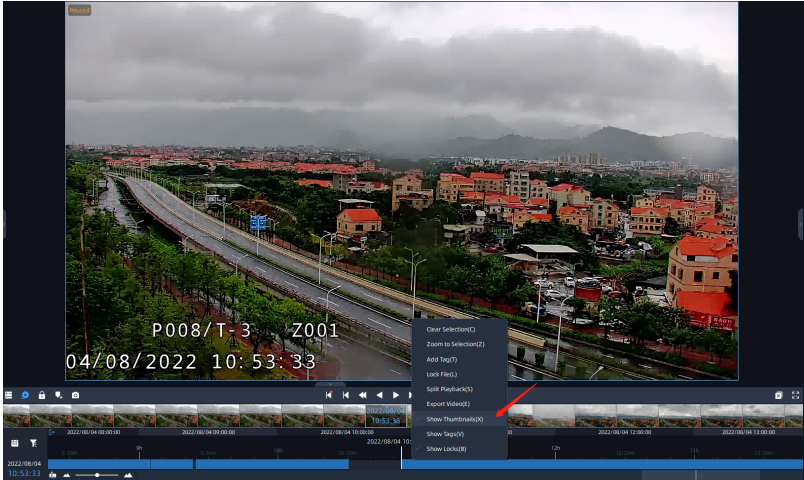
Step5: Right click the timeline, a menu show as below:

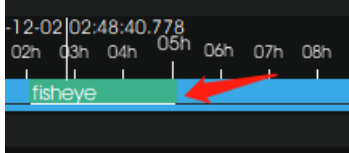
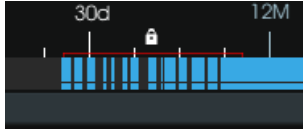


The meanings of the menu on timeline can be referred to the table below:

Table 52.

Item	Function Introduction
Start Selection	Select start time of period on the timeline.
End Selection	Select end time of period on the timeline.
Clear Selection	Clear selection of start time or selection of a period of time on the timeline.

Item	Function Introduction
Zoom to Selection	Zoom the selection of time period in to extend to whole timeline.
Add Tag	Add tag for the selected time period.
Lock file	Lock the selected time period.
Split Playback	Divide the video files into several channels in the specified time period according to needs. When watching playback, users can watch videos of different time simultaneously. More details can refer to "5.3 Split Playback".
Export Video	Export the video for the selected time period. Settings about Export Video can see Export (page 267) .
Edit Tag	Edit tag which you set.
ExportTag	Export tag which you set.
Play Tag Video	Play videos with tag you set.
Delete Tag	Delete tag which you set.
Show Thumbnails	<p>Show thumbnail of the corresponding time. Users can also resize the thumbnail timeline as needed.</p> 

Item	Function Introduction
<p data-bbox="305 451 430 478">Show Tags</p>	<p data-bbox="553 346 1398 401">After setting the tags, you can choose the option to show the tag on the timeline as below:</p> 
<p data-bbox="300 739 435 766">Show Locks</p>	<p data-bbox="553 646 1370 701">After setting the lock files, you can choose the option to show the lock file on the timeline as below:</p> 

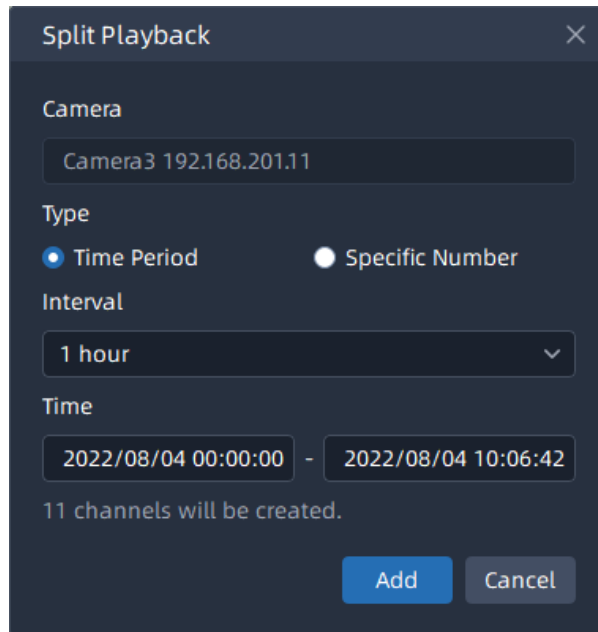
5.3 Split Playback

Split Playback allows you to divide the video file of a specified period of time into several parts when watching playback according to your needs, so that users can watch videos of different time simultaneously.

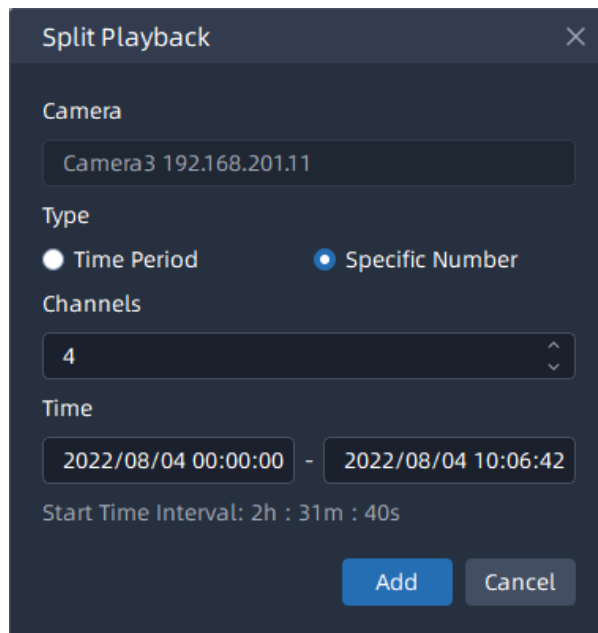
Split Playback setting steps are as below:

Step1: Right click the playback window of a camera and choose Split Playback, or right-click the selected time period on the timeline and choose Split Playback, a window will pop up as below:


- Time Period setting page:

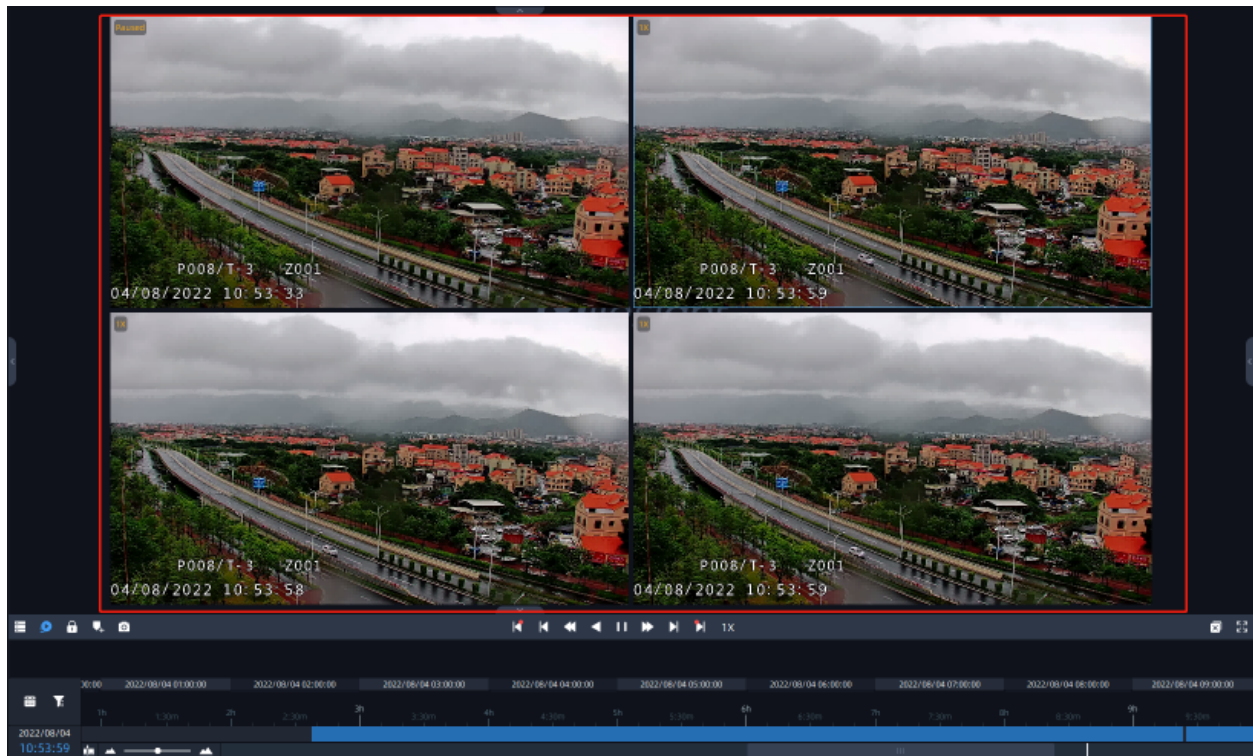



- Specific Number setting page:

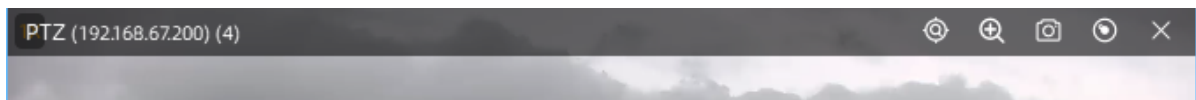


Step2: Check a type to split the video file. If you choose the Time Period, and set Time Interval and Start/End Time, then the channels will be split automatically by VMS system as above. If you choose the Specific Number, and set channel number and Start/End Time, then Time Interval will be calculated and split automatically by VMS system as above.

Step3: After setting, click  button, the selected video will be split to new channels to replay asynchronously on the playback layout as shown below:



 **Note:** The number in the channel name of the toolbar indicates the time sequence of each window in this split playback.



5.4 Archive Management

5.4.1 Tags

All tags will be logged and listed in the Tags page of Archive Management. Click the

 button, including Tags, Locked Files and Export pages, to pop up a window as shown below:

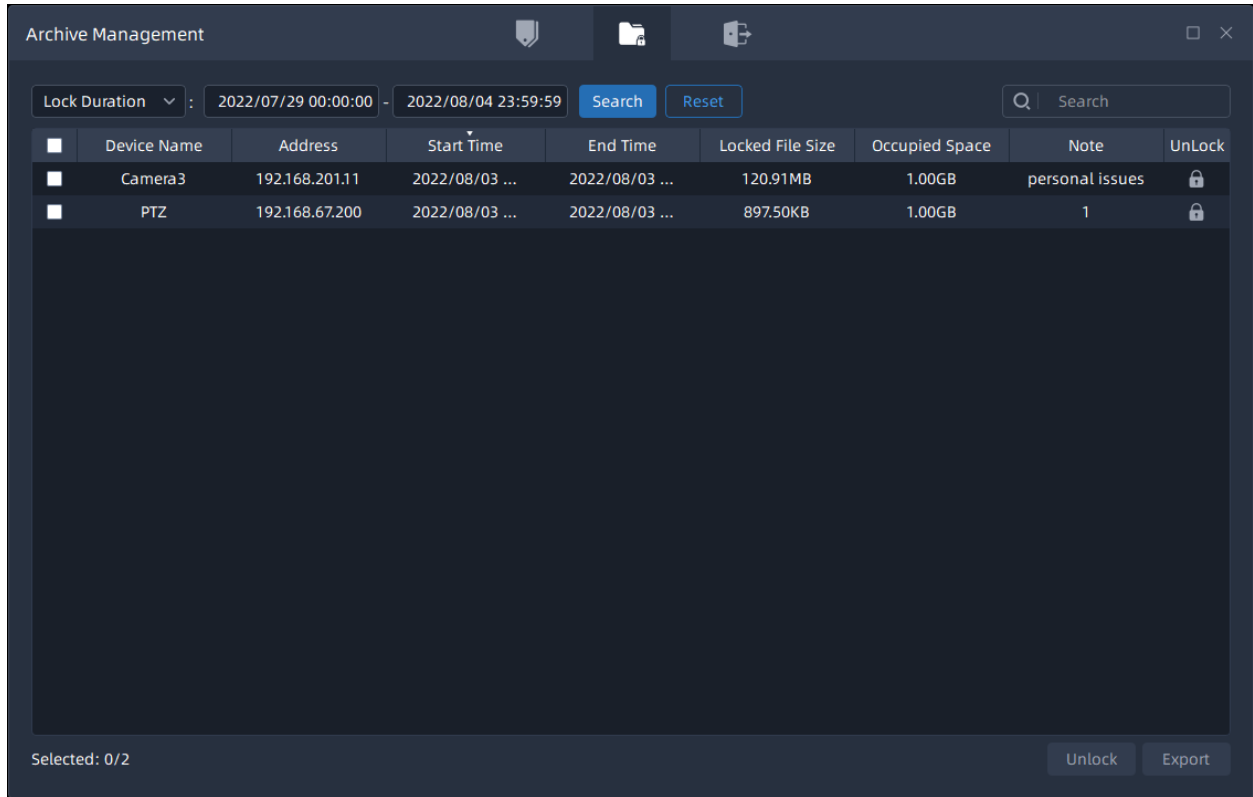
The screenshot shows the 'Archive Management' window. At the top, there are navigation icons and window controls. Below that, there are filters for 'All Tags' and 'Create Time' with a date range from '2022/07/29 00:00:00' to '2022/08/04 23:59:59'. There are 'Search' and 'Reset' buttons. The main area is a table with the following columns: Name, Device Name, Address, Start Time, End Time, Create Time, Note, and Delete. The table contains 10 rows of data. At the bottom, there is a 'Selected: 0/10' indicator and 'Delete' and 'Export' buttons.

Name	Device Name	Address	Start Time	End Time	Create Time	Note	Delete
night	Camera4	192.168.201.11	2022/08/04 ...	2022/08/04 ...	2022/08/04 ...		
PlaybackTag_Cam...	Camera4	192.168.201.11	2022/08/04 ...	2022/08/04 ...	2022/08/04 ...		
abc	Camera4	192.168.201.11	2022/08/04 ...	2022/08/04 ...	2022/08/04 ...		
2	Camera4	192.168.201.11	2022/08/04 ...	2022/08/04 ...	2022/08/04 ...		
1	Camera4	192.168.201.11	2022/08/04 ...	2022/08/04 ...	2022/08/04 ...		
PlaybackTag_Cam...	Camera4	192.168.201.11	2022/08/04 ...	2022/08/04 ...	2022/08/04 ...		
PlaybackTag_Cam...	Camera4	192.168.201.11	2022/08/04 ...	2022/08/04 ...	2022/08/04 ...		
PlaybackTag_Cam...	Camera4	192.168.201.11	2022/08/04 ...	2022/08/04 ...	2022/08/04 ...		
take a break	Camera3	192.168.201.11	2022/08/03 ...	2022/08/03 ...	2022/08/03 ...		
1	PTZ	192.168.67.200	2022/08/03 ...	2022/08/03 ...	2022/08/03 ...		

User can edit the tag name, delete or export for the selected tags. If user want to export the selected tag video files, more details can refer to the [Export \(page 267\)](#).

5.4.2 Locked Files

The video files which user locked will be logged and listed as shown below. Once enable the Storage Recycle of General page of Server Settings and the video is locked. The locked video files won't be automatically deleted even if the storage disk of VMS is full.



The screenshot shows the 'Archive Management' window. At the top, there are navigation icons and a search bar. Below the search bar, there are filters for 'Lock Duration' with a date range from '2022/07/29 00:00:00' to '2022/08/04 23:59:59', and buttons for 'Search' and 'Reset'. The main area contains a table with the following data:

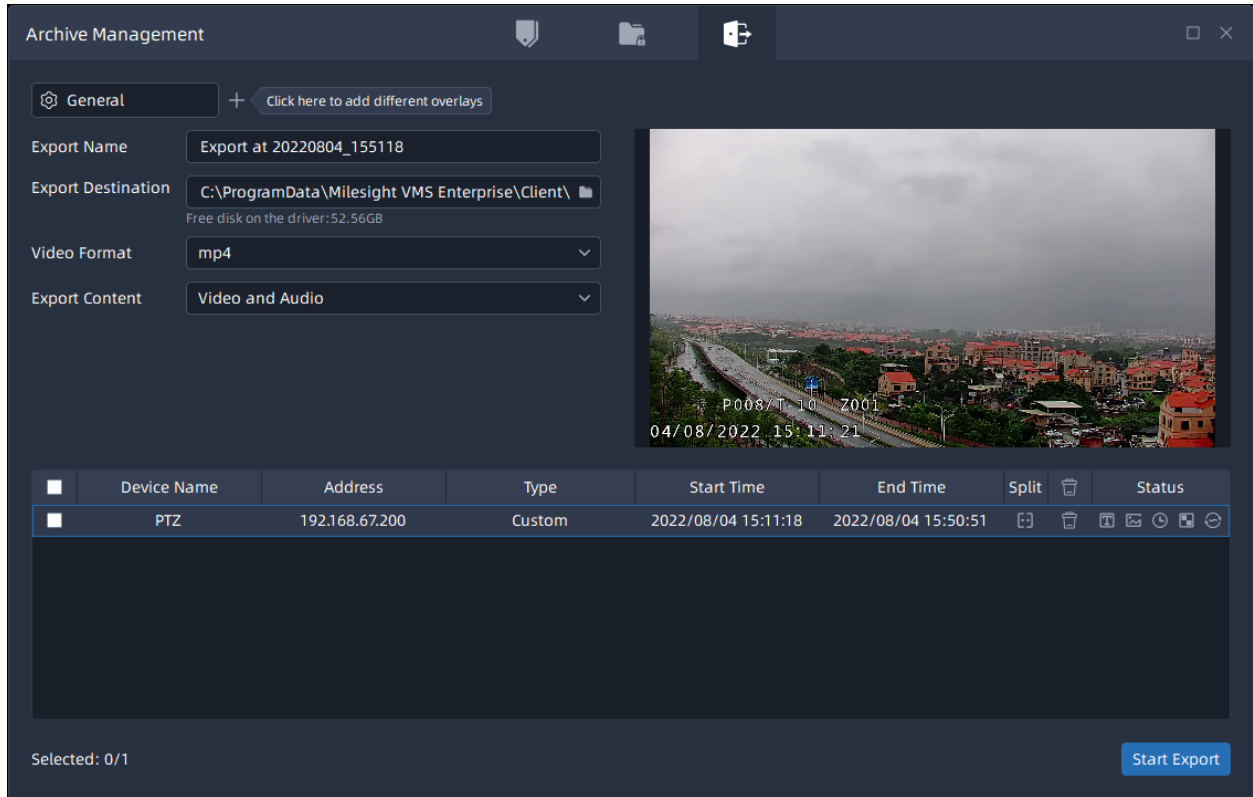
Device Name	Address	Start Time	End Time	Locked File Size	Occupied Space	Note	UnLock
Camera3	192.168.201.11	2022/08/03 ...	2022/08/03 ...	120.91MB	1.00GB	personal issues	🔒
PTZ	192.168.67.200	2022/08/03 ...	2022/08/03 ...	897.50KB	1.00GB	1	🔒

At the bottom left, it says 'Selected: 0/2'. At the bottom right, there are 'Unlock' and 'Export' buttons.

If you want to export the selected locked files, please refer to [Export \(page 267\)](#) for more details.

5.4.3 Export

The Export allows user to customize some basic or advanced settings for selected files which will be exported. The page is as below:



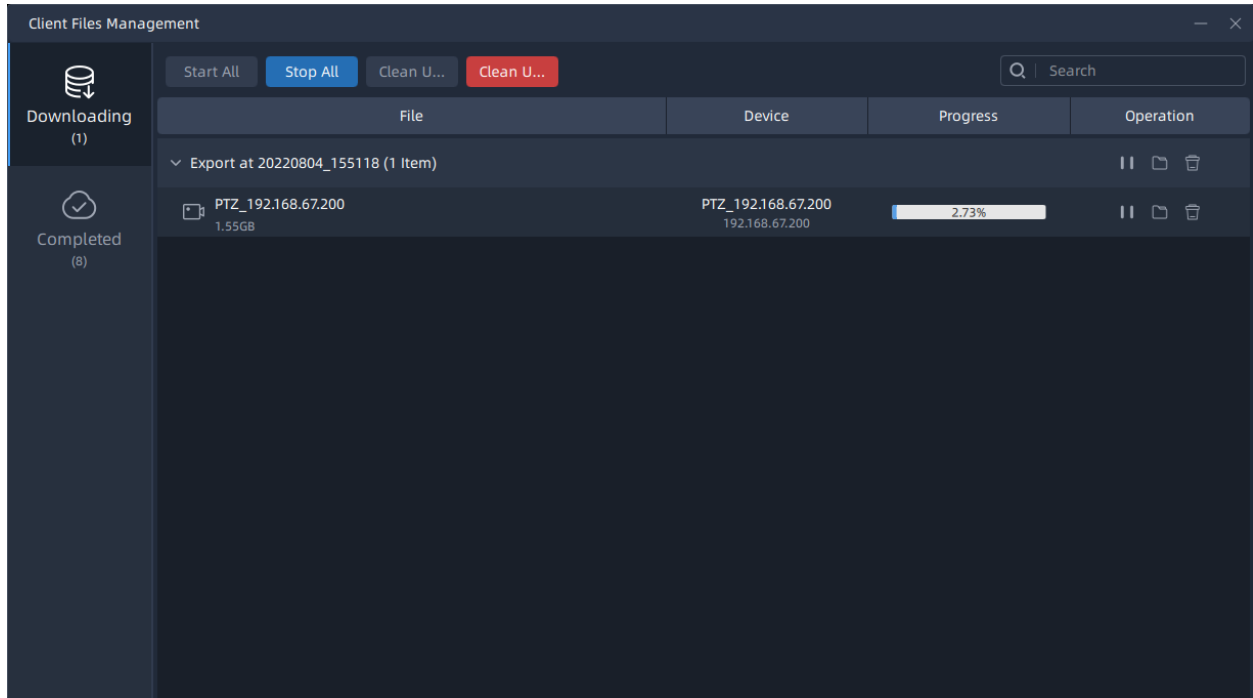
Export steps are listed as below:



Step1: Select video which will be exported. You can select video through two ways:

(1) Select the files in the Tags or Locked Files page of the Archive Management window and click **Export** button.

(2) Select a period of time on the timeline and select the Export Video option. Then the selected video files will be listed in the bottom of Export Setting page as above.




Step2: Click **Start Export** button to directly export selected files, and you can click  button to check task exporting situation as below. For more details about Client Files Management, you can see the table of [User Interface Introduction \(page 31\)](#).



In addition, before starting exporting, you can also click  button to half split the time of video file, or click  button in the Archive Management window to set the exported file. Export settings include General, Text OSD, Image OSD, Timestamp, Transcoding and Privacy Mask. Each setting page is as below:

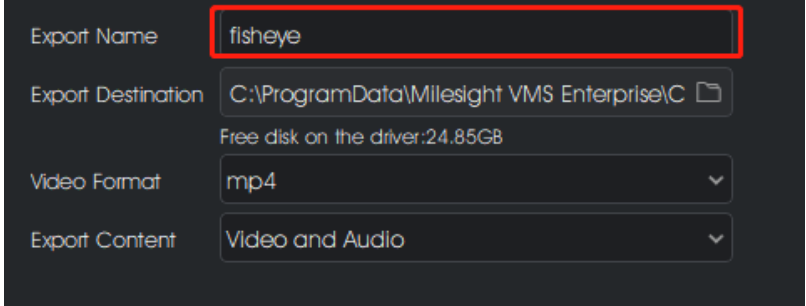







- **General**


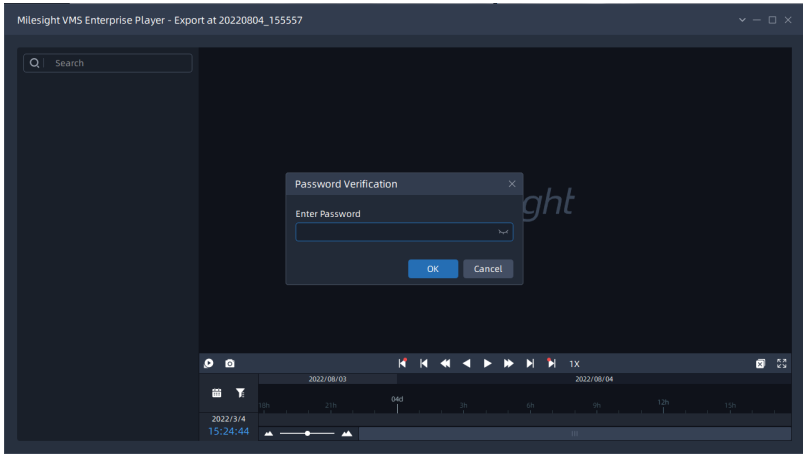

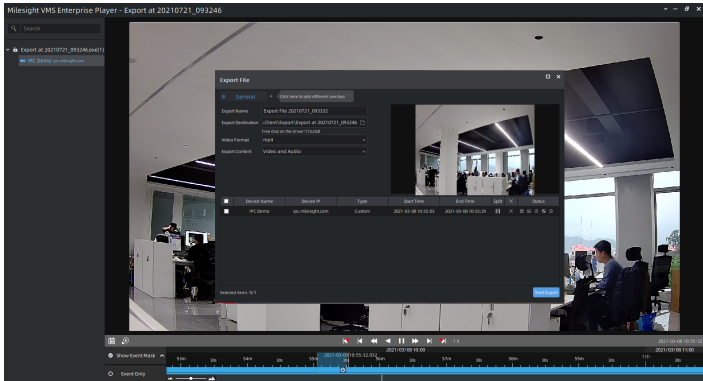
The page is as below:

Export Name	Export at 20201208_094508
Export Destination	C:\ProgramData\Milesight VMS Enterprise\C  Free disk on the driver:25.13GB
Video Format	mp4 
Export Content	Video and Audio 

The meanings of the items can be referred to the table below:

Table 53.

Item	Function Introduction
<p>Export Name</p>	<p>Name the exported file name as shown below:</p>  <p>After setting the items and finishing the export of video file, you can see the customized exported files name as shown below in the local storage.</p> <ul style="list-style-type: none">  Export at 20201207_155024  Export at 20201207_162634  Export at 20201208_092332  Export at 20201208_095425  Export at 20201208_143951  Export at 20201208_143951_fisheye
<p>Export Destination</p>	<p>Click  button to select storage path of exported files.</p>
<p>Video Format</p>	<p>The avi, mp4, exe, mkv, and asf formats are supported.</p>

Item	Function Introduction
<p>Password</p>	<p>Set password for exported video.</p> <p> Note: This option is available just for exe format.</p> <p>After setting, you need to enter the password when playing the exported video.</p> 
<p>Re-export</p>	<p>Set whether the exported video can be exported again.</p> <p> Note: This option is available just for exe format.</p> 
<p>Export Content</p>	<p>The video, Audio, Video and Audio are supported.</p>

- Text OSD

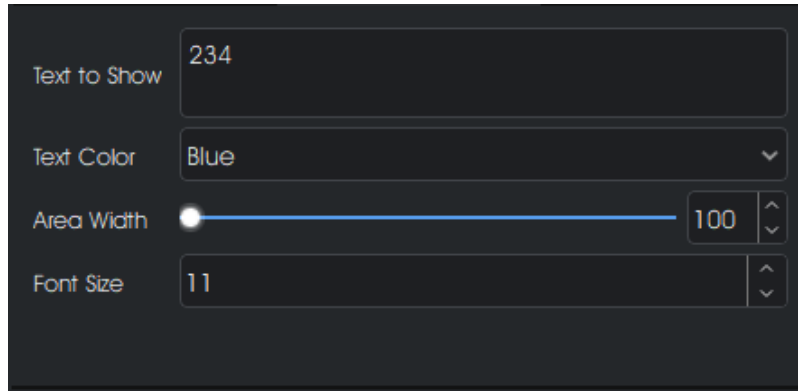
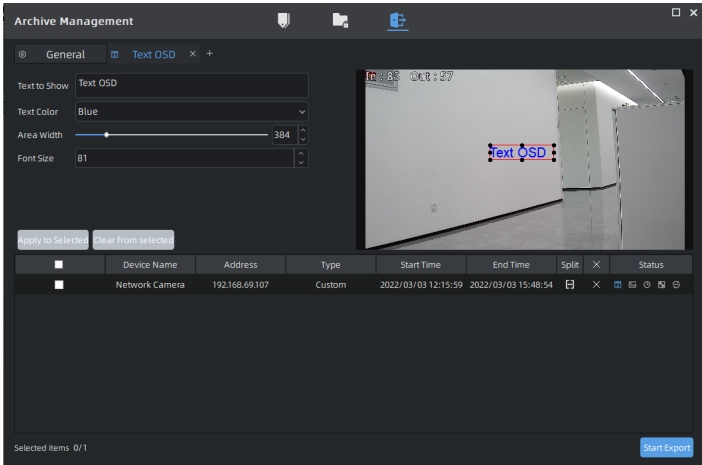
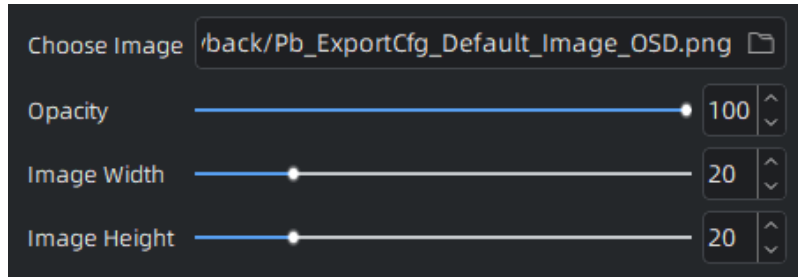


Table 54.

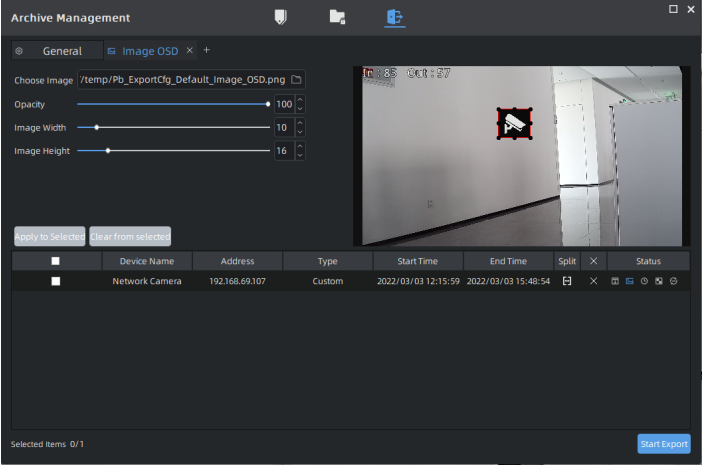
Item	Function Introduction
<p>Text to Show</p>	<p>After setting the items, you can see the real-time added text information showed on the thumbnail window as below:</p>  <p>The screenshot shows the 'Archive Management' window. On the left, the 'Text OSD' configuration panel is visible with settings: Text to Show: Text OSD, Text Color: Blue, Area Width: 384, and Font Size: 81. On the right, a video thumbnail shows a hallway with the text 'Text OSD' overlaid in blue.</p>
<p>Text Color</p>	<p>Select color for added text, including White, Black, Blue, Yellow, Green and Brown.</p>
<p>Area Width</p>	<p>Adjust area width of text show from 100 to 1920</p>
<p>Front Size</p>	<p>Adjust Front Size from 40 to 400</p>

• **Image OSD**

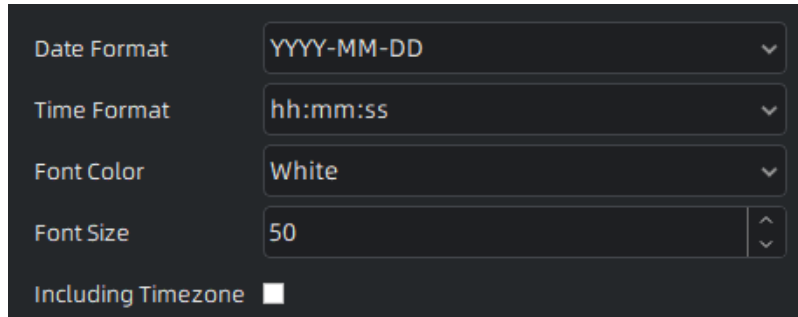


The meanings of the items can be referred to the table below:

Table 55.

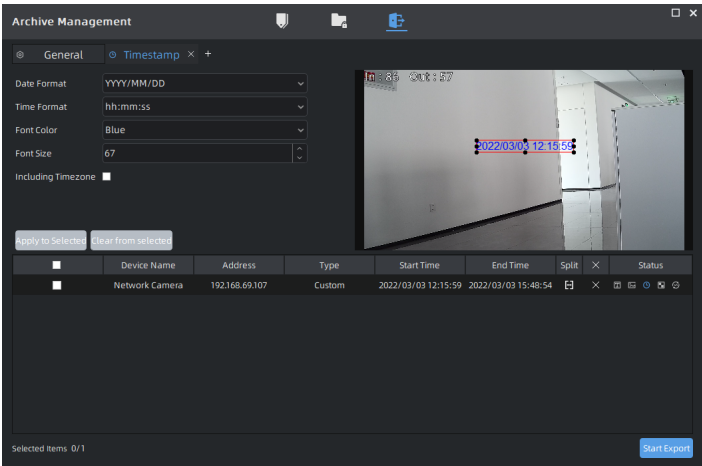
Item	Function Introduction
<p>Choose Image</p>	<p>You can choose image saved in local storage to be added to the video file.</p> <p>After setting the items, you can see the customized image as shown below on the thumbnail.</p> 
<p>Opacity</p>	<p>Choose opacity of image added in the video from 100 to 1920.</p>
<p>Image Width</p>	<p>Adjust width of image added in the video from 0-100.</p>
<p>Image Height</p>	<p>Adjust height of image added in the video from 0-100.</p>

- **Timestamp**



The meanings of the items can be referred to the table below:

Table 56.

Item	Function Introduction
<p>Date Format</p>	<p>Date format, including YYYY-MM-DD, MM/DD/YYYY and DD/MM/YYYY.</p> <p>After setting the items, you can see the customized timestamp as shown below on the thumbnail.</p> 
<p>Time Format</p>	<p>Time format, including hh:mm:ss and hh:mm:ss AP.</p>
<p>Font Color</p>	<p>The White, Black, Blue, Yellow, Green and Brown are available.</p>
<p>Font Size</p>	<p>Adjust size of font from 10-400.</p>
<p>Including Timezone</p>	<p>Check the checkbox to make the display information include timezone.</p>

• **Transcoding**

Timelapse page:

Transcoding Type	Timelapse	▼
Initial Length	7s	
Speed Up to	1X	▲ ▼
Exported Length	7	▲ ▼
		Sec ▼

Reduce Data Size page:

Transcoding Type	Reduce Data Size	▼
Frame Size	Original	▼
Bit Rate	Original	▼
Frame Rate	Original	▼

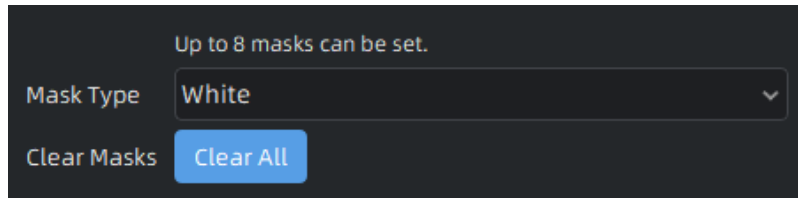
The meanings of the items can be referred to the table below:

Table 57.

Item	Function Introduction
Transcoding Type	Timelapse and Reduce Data Size are available.
Initial Length	Initial time length of the exported video. This option is available when choosing Timelapse as Transcoding type.
Speed Up to	Set play speed of the exported video.
Exported Length	The Exported Length varies with the Speed Up to of the exported video, and the unit of Exported Length includes second and minute.
Frame Size	Frame size of the exported video, including Original, 704*576, 352*288 and 320*176. This option is available when choosing Reduce Data Size as Transcoding type.
Bit Rate	Bit Rate of the exported video, including Original, 16kbps, 32kbps, 64kbps, 128kbps, 256kbps, 512kbps, 1024kbps and 2048kbps.

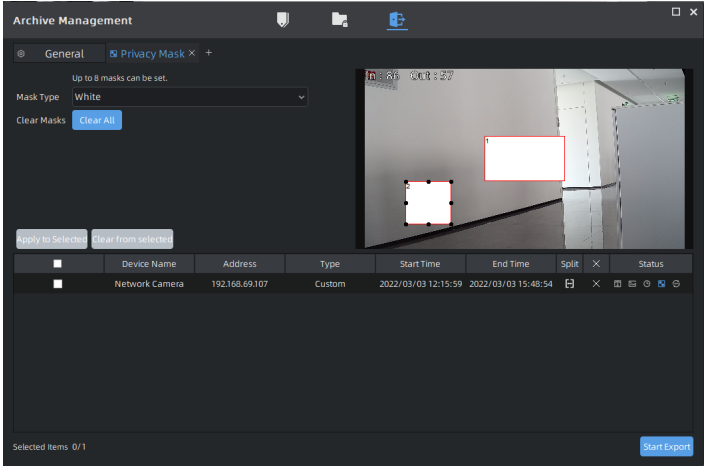
Item	Function Introduction
Frame Rate	Frame Rate of the exported video, including Original and these options from 1-25fps.

• Privacy Mask



The meanings of the items can be referred to the table below:

Table 58.

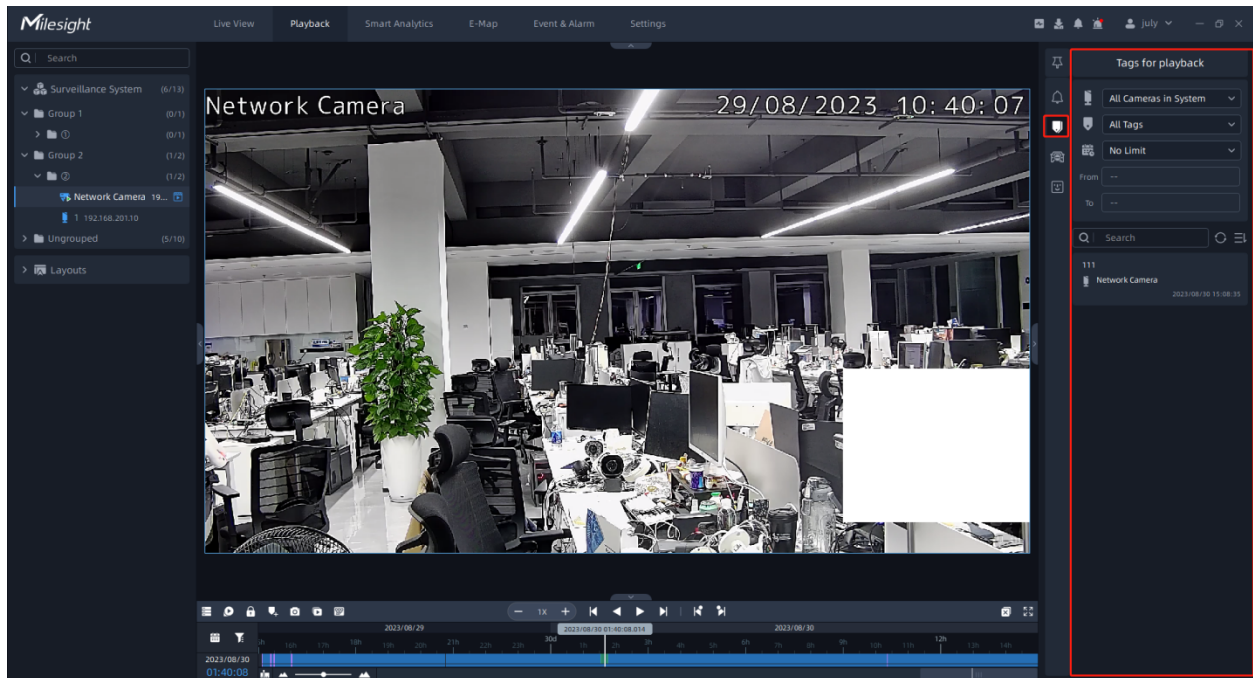
Item	Function Introduction
Mask Type	<p>Set colors of privacy masks, including White, Black, Blue, Yellow, Green and Brown. After choosing the mask type, you can drag left key of mouse to draw the mask area on the thumbnail as below:</p>  <p>Note: Up to 8 masks can be set.</p>
Clear Masks	Click the Export button to clear all masks.

5.5 Right Panel of Playback

There are Notifications and Tags for playback. The Notifications of VMS client is public part, for more details, you can refer to [Notification \(page 229\)](#).

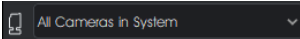
5.5.1 Tags for playback

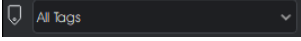




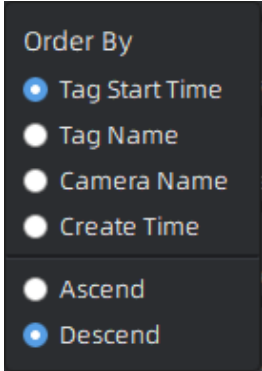
All added tags will be displayed on the panel and you can double click the tags to view the playback video. If there are too many tags on the panel, you can search desired tags through filtering conditions as below:



The meanings of the icon of the page can refer to the table below:

Table 59.

Item	Function Introduction
 <p>Source Cameras</p>	<p>All Cameras in System: Select all cameras inside VMS system.</p> <p>All Cameras in Viewing: Select all cameras of the current playback window.</p> <p>Selected Cameras: Select selected cameras in the current playback window.</p>

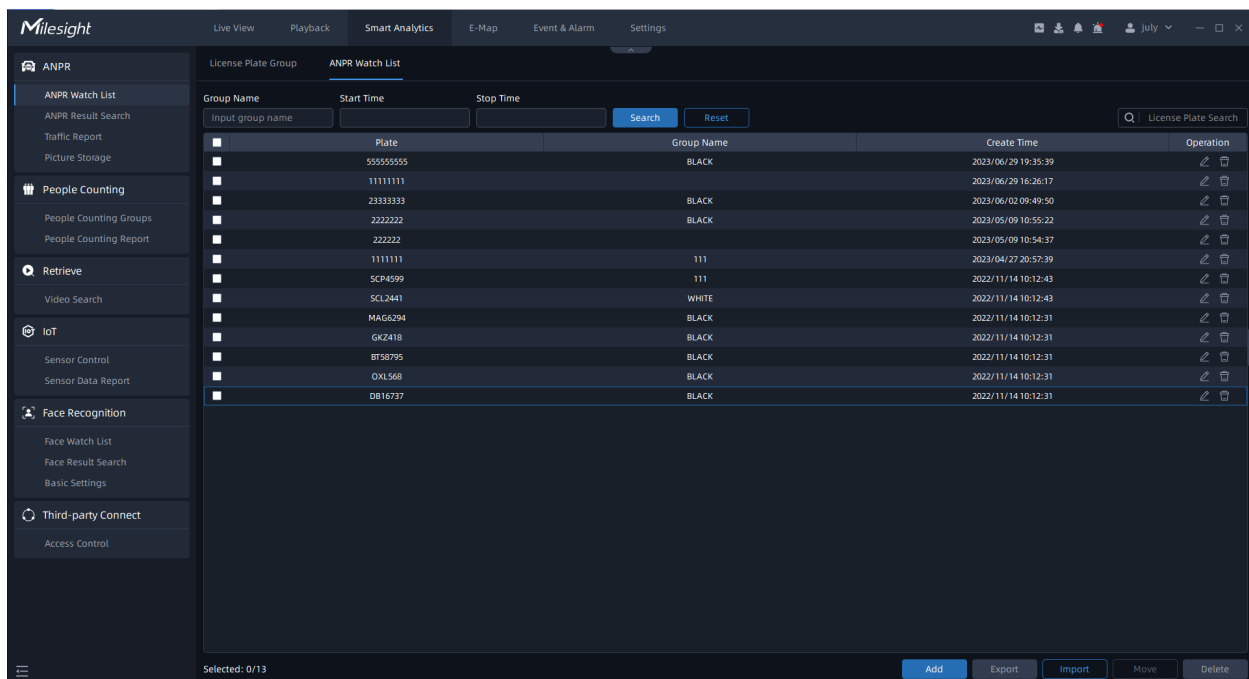
Item	Function Introduction
 <p>Tag Type</p>	<p>All Tags: All types of tags.</p> <p>Live Tags: Tag files added in the live view window.</p> <p>Playback Tags: Tag files added in the playback window.</p> <p>Event Tags: Tag files added by event trigger.</p>
 <p>Time Period</p>	<p>No limit, Last Day, Last Week, Last Month and Customize are available.</p> <p> Note: The customized “To” time can't exceed the current system time.</p>
	<p>Refresh the results.</p>
 <p>Sort Button</p>	<p>Choose sort way of tag video files in the list as shown below:</p> <p>The default Tag files list are ordered by Tag Time and Descend.</p> 



























Chapter 6. Smart Analytics

6.1 ANPR

6.1.1 ANPR Watch List


Add license plates to this interface. After enabling license plate recognition, VMS will automatically receive the recognition result sent by the MileSight cameras and compare it with the black and white list added in VMS.




Group Name	Start Time	Stop Time	Plate	Group Name	Create Time	Operation
			55555555	BLACK	2023/06/29 19:35:39	 
			11111111	BLACK	2023/06/29 16:26:17	 
			23333333	BLACK	2023/06/02 09:49:50	 
			22222222	BLACK	2023/05/09 10:55:22	 
			222222		2023/05/09 10:54:37	 
			11111111	111	2023/04/27 20:57:39	 
			SCP4599	111	2022/11/14 10:12:43	 
			SCL2441	WHITE	2022/11/14 10:12:43	 
			MAG6294	BLACK	2022/11/14 10:12:31	 
			GK2418	BLACK	2022/11/14 10:12:31	 
			BT58795	BLACK	2022/11/14 10:12:31	 
			OXL568	BLACK	2022/11/14 10:12:31	 
			DB16737	BLACK	2022/11/14 10:12:31	 

You can choose either of the below two ways to add license plates.


(1) Add License Plate One by One




Step1: Click  button to pop up a Add Plate window as below:

Step2: Input license plate and choose a group for the license plate, and click  button;

Step3: Repeat the Step1-2 to add other license plates manually.

(2) Batch Import License Plate

Step1: Click  button to pop up a window as shown below:

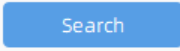
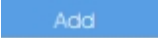
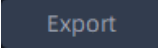
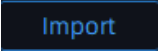



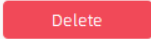
Step2: The imported file must be filled in according to the specified format. You can click  to download the template. After filling in, click  button to import a plates file, then click  button.

 **Note:**

1. The default form of imported or exported license plates file is csv.
2. A license plate can't be repeatedly add to the same type of plate list.
3. Maximum quantity of license plates added in the list is 10000.

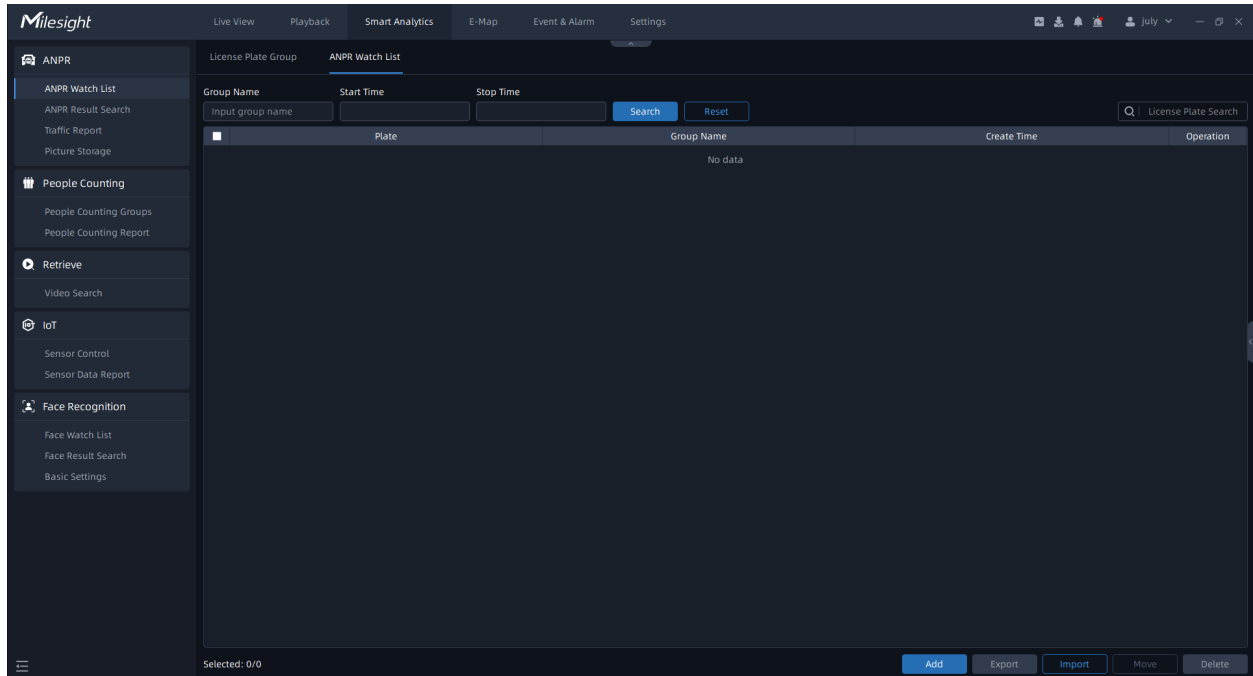
The meanings of the parameters in the interface can be referred to the table below:

Table 60.


Parameter	Function Introduction
	Input the group name and select Start Time and End Time, click the "Search" button, the corresponding license plates will be displayed in the list below.
	Enter the license plate and choose a group for the license plate, click the "Add" button, the license plate will be added successfully.
	Click the "Export List" button to export the license plates in the current list to a csv form locally.
	<p>You can add a csv form with the license plate you want to add, then click  button to import the form to this interface. And click the "Upload" button, the license plates will be added successfully.</p> <p> Note: You can first download the template as a reference in this interface.</p>
	Select the camera, click the "move" button to move it to the corresponding group.
	Click the "Delete" button to delete all the selected license plates in the current list.


License Plate Group

Add License Plate Group to this interface, including Manual Group and Automatic Group. Users can manually add the license plates to the group, or automatically group the license plate according to the set rules. In addition, users can also set Valid Time for the group to meet different requirements, which greatly improves the user experience.



(1) Add License Plate Group One by One

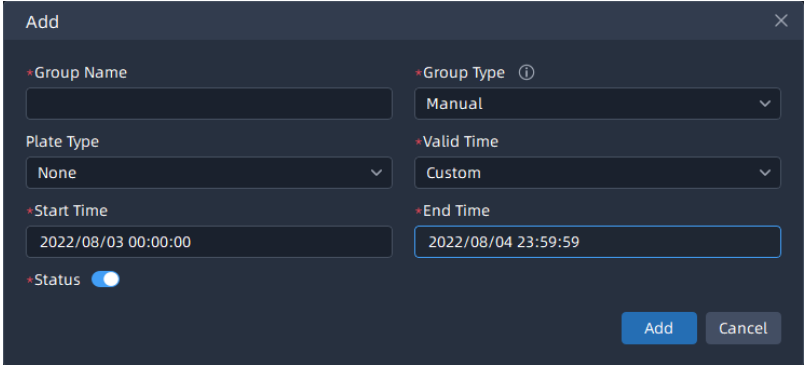
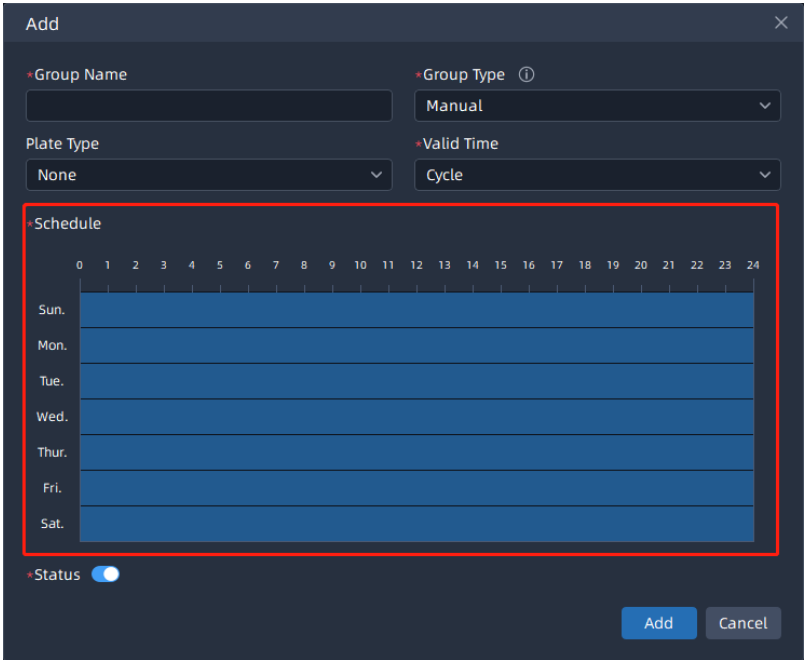
Step1: click  button to pop up a Add Group window as below:

Step2: Input Group Name, and select Group Type, Plate Type and Valid Time for this group. Then click  button.

The meanings of the parameters in this window can be referred to the table below:


Table 61.

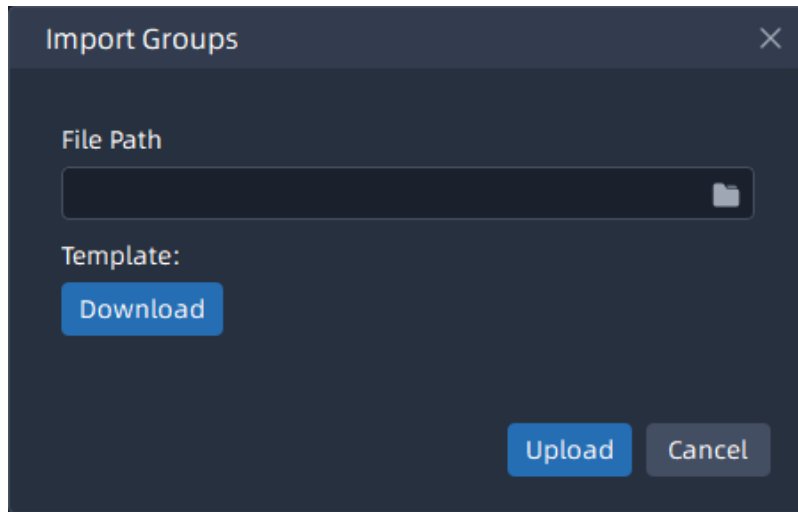
Parameter	Function Introduction
Group Type	Manual and Automatic are available for this option. Manual: Manual group can add, edit and delete the license plate in the group manually. Automatic: Automatic group can only set rules to update license plates automatically, but cannot edit or delete license plates manually.
Plate Type	Black List and White List are available for this option.




Parameter	Function Introduction
<p>Valid Time</p>	<p>Always, Custom and Cycle are available for this option.</p> <p>Always: The group will always take effect under this option.</p> <p>Custom: Users can customize the effective time of the group.</p>  <p>Cycle: Users can set schedule for the group.</p> 
<p>Status</p>	<p>Click this option to enable or disable the group.</p>

Step3: Repeat the Step1-2 to add other groups manually.

(2) Batch Import License Plate Group

Step1: Click  button to pop up a window as shown below:

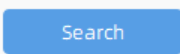






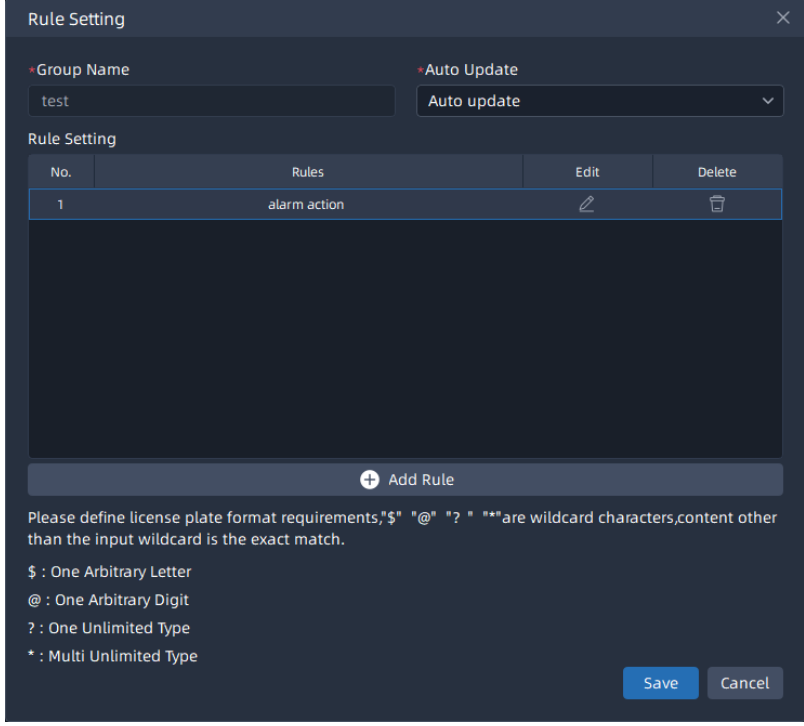
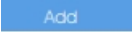
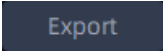
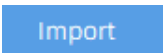


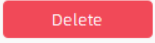
Step2: The imported file must be filled in according to the specified format. You can click  to download the template. After filling in, click  button to import a plates file, then click  button.

 **Note:** The default form of imported or exported license plates file is csv.

The meanings of the parameters in the interface can be referred to the table below:

Table 62.

Parameter	Function Introduction
	Select Group Type, Plate Type and Status, then input the group name, click the "Search" button, the corresponding groups will be displayed in the list below.
	Check the basic information of this group.
	Modify the group information.
	Delete the group.

Parameter	Function Introduction
	<p>If you add a group as an automatic type, you can click this button to set the rules for this group, and then all license plates that meet the rules will be automatically added to this group.</p> 
	<p>Enter the group name and select Group Type, Plate Type and Valid Time, click the "Add" button, the group will be added successfully.</p>
	<p>Click the "Export List" button to export the group in the current list to a csv form locally.</p>
	<p>You can add a csv form with the group you want to add, then click  button to import the form to this interface. And click the "Upload" button, the group will be added successfully.</p> <p> Note: You can first download the template as a reference in this interface.</p>
	<p>Click the "Delete" button to delete all the selected groups in the current list.</p>


6.1.2 ANPR Result Search

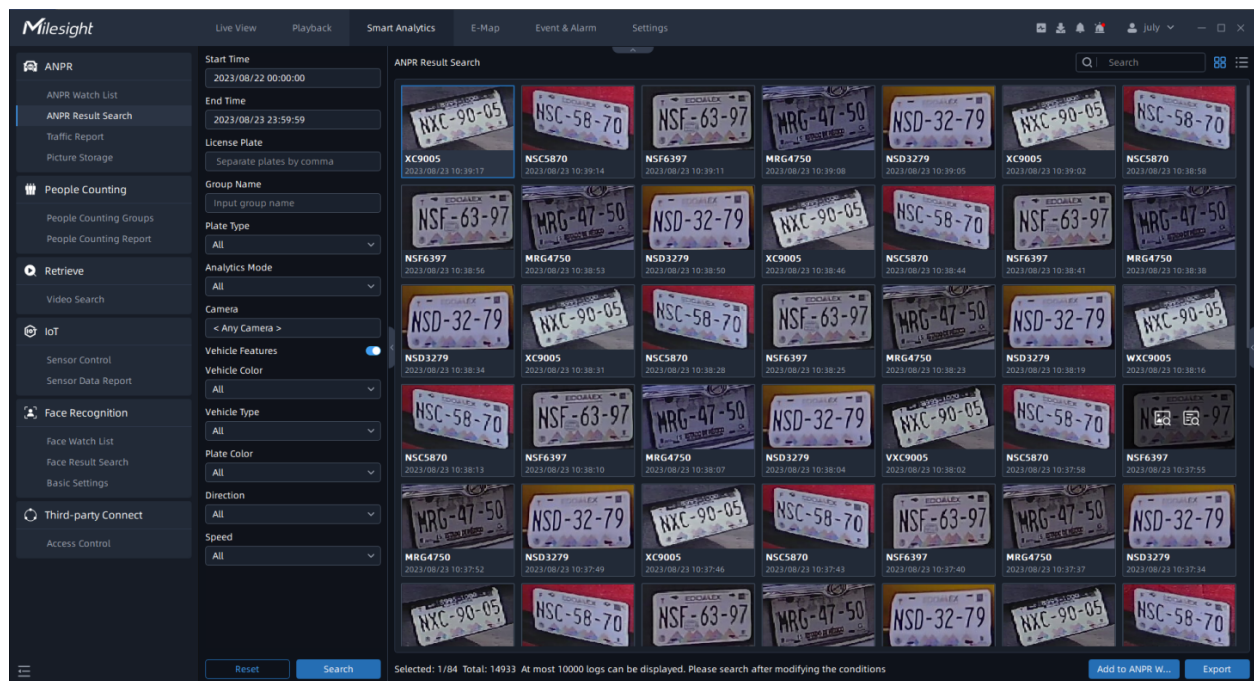
The real-time detection results will be displayed on the center of Smart Search page, including License Plate, Plate Type, Capture Time, live screenshot, camera name and IP.

How to search the license plate recognition results?


Step1: Select Time, License Plate, Group Name, Plate Type, Analytics Mode, Vehicle Features, etc., and then check the corresponding camera. The related license plate

information will be displayed as below by clicking  button;




Click  button to show Thumbnail Mode as below:



The screenshot shows the Milesight Smart Search interface. On the left is a sidebar with navigation options: ANPR, People Counting, Retrieve, IoT, Face Recognition, and Third-party Connect. The main area is titled 'ANPR Result Search' and displays a grid of license plate images. Each image includes a license plate number and a capture time. A search bar and filters are visible at the top of the main area. At the bottom, there is a status bar showing 'Selected: 1/84 Total: 14933 At most 10000 logs can be displayed. Please search after modifying the conditions' and buttons for 'Add to ANPR W...', 'Export', 'Reset', and 'Search'.

Click  button to switch to List Mode as below:

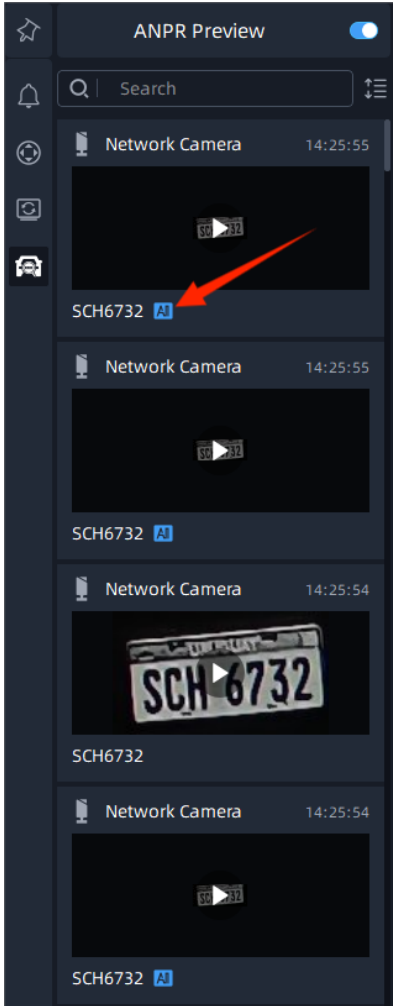
The screenshot shows the Milesight Smart Analytics interface. On the left is a sidebar with navigation options: ANPR (ANPR Watch List, ANPR Result Search, Traffic Report, Picture Storage), People Counting (People Counting Groups, People Counting Report), Retrieve (Video Search), IoT (Sensor Control, Sensor Data Report), Face Recognition (Face Watch List, Face Result Search, Basic Settings), and Third-party Connect (Access Control). The main area is titled 'ANPR Result Search' and contains a search filter on the left and a table of results on the right. The search filter includes fields for Start Time, End Time, License Plate, Group Name, Plate Type, Analytics Mode, Camera, Vehicle Features, Vehicle Color, Vehicle Type, Plate Color, Direction, and Speed. The table has columns for No., License Plate Picture, License Plate, Plate Type, Capture Time, Camera, and Operation. The table contains 28 rows of data. At the bottom, a status bar reads: 'Selected: 0/84 Total: 14933 At most 10000 logs can be displayed. Please search after modifying the conditions'. There are also buttons for 'Reset', 'Search', 'Add to ANPR W.', and 'Export'.


- The  icon in the left bottom of thumbnail photo means the license plate is in the Black List, while the  icon means the license plate is in the White List.
- Both the recognition results of Camera Analytics and VMS analytics can be searched and managed in this interface at the same time. The  icon means that the recognition result is from VMS analytics.

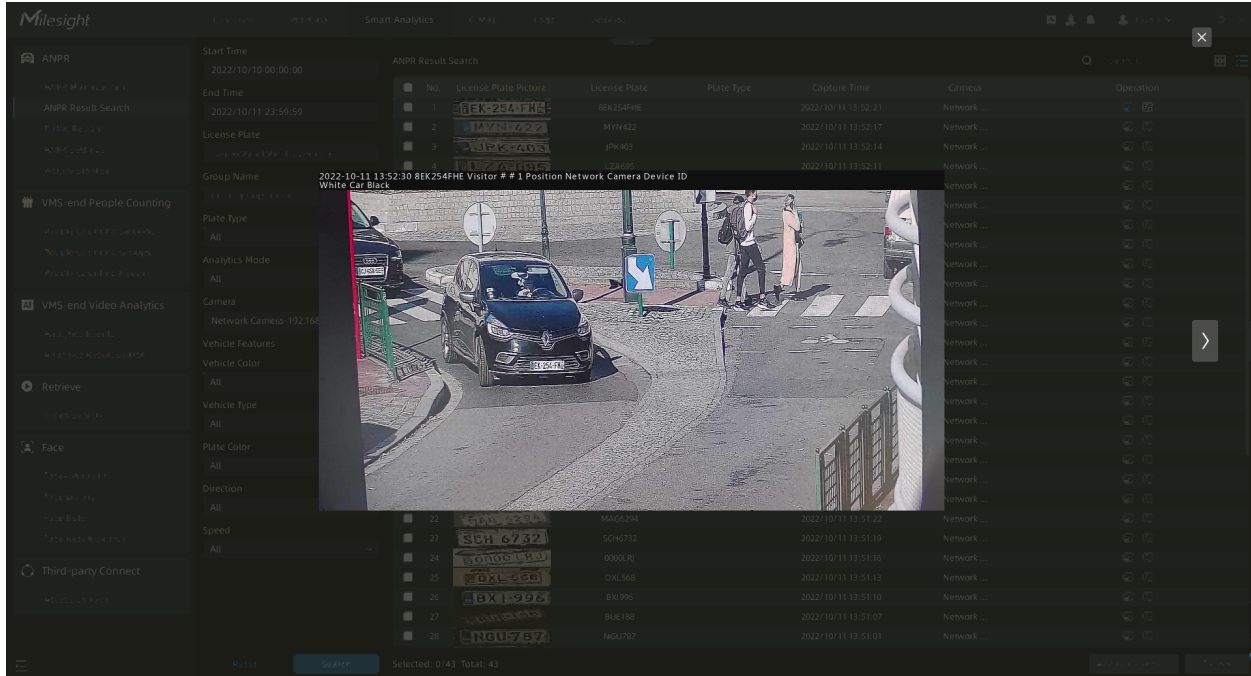
ANPR Result Search


Search

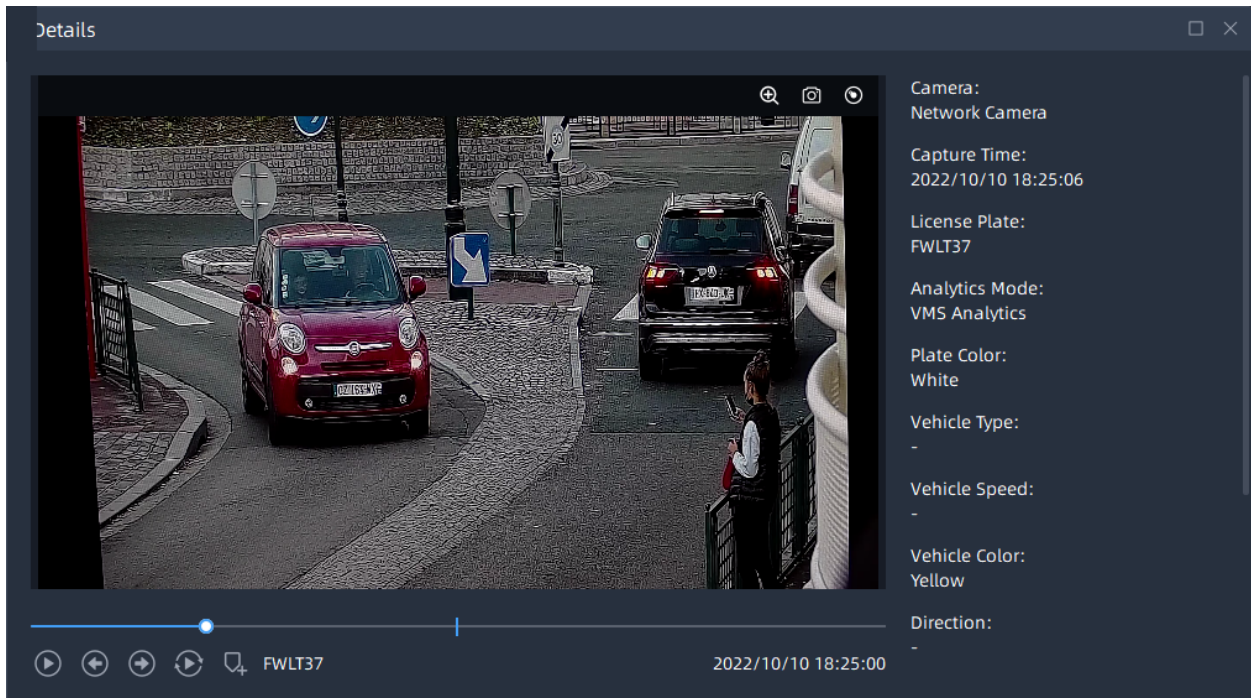
 34315UNB 2022/10/14 14:27:02	 34451IRB 2022/10/14 14:27:02	 8464HNB 2022/10/14 14:27:01	 GA807PA 2022/10/14 14:27:01	 427641N5 2022/10/14 14:27:01	 R9180Z3 2022/10/14 14:27:00	 R9180Z3 2022/10/14 14:27:00
 R9180Z5 2022/10/14 14:26:59	 R9180Z3 2022/10/14 14:26:59	 BZ110DSE 2022/10/14 14:26:58	 718BZ5 2022/10/14 14:26:58	 R9180Z3 2022/10/14 14:26:58	 DRDM464 2022/10/14 14:26:57	 BRDM46 2022/10/14 14:26:57
 EK254FM 2022/10/14 14:26:56	 PRDM06 2022/10/14 14:26:56	 BRDM06 2022/10/14 14:26:56	 PRDM06 2022/10/14 14:26:55	 PRDM06 2022/10/14 14:26:55	 WWN492 2022/10/14 14:26:54	 MWN492 2022/10/14 14:26:54
 MHN422 2022/10/14 14:26:53	 MWN4P2 2022/10/14 14:26:53	 WMN492 2022/10/14 14:26:52	 MYN422 2022/10/14 14:26:52	 JPK403 2022/10/14 14:26:52	 WMN492 2022/10/14 14:26:52	 ZPRPW 2022/10/14 14:26:50
 ZPR4PW 2022/10/14 14:26:50	 LZA695 2022/10/14 14:26:46	 RMR589 2022/10/14 14:26:45	 RMR589 2022/10/14 14:26:45	 RMR589 2022/10/14 14:26:44	 RMR589 2022/10/14 14:26:44	 RMR569 2022/10/14 14:26:43



Step2: Click the  icon in the upper right corner of the result, it will display the entire snapshot including the detection frame as shown below:



And click the  icon in the upper right corner of the result, you can check the recording of the event and the detailed information of the detection result as shown below. You can also add tags for the video or play the video in the playback interface with one click.



Step3: Select the detection result and click

Add to License Plate Library

button to add the license plate to the license plate group.

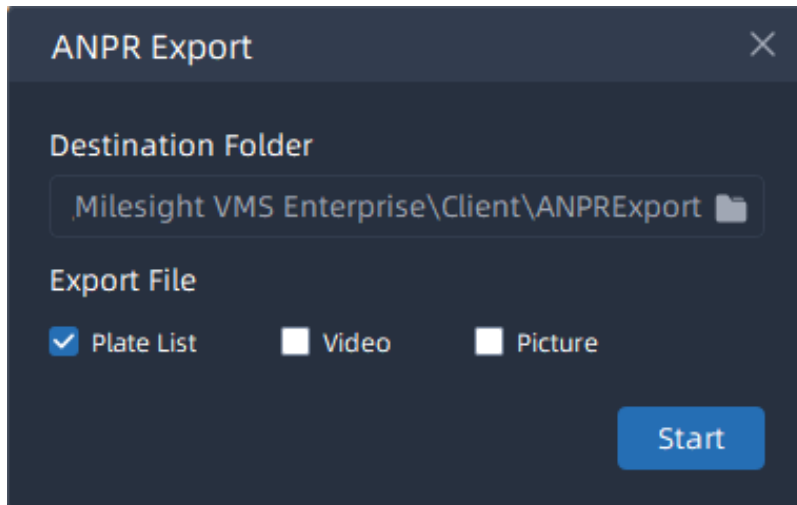
The screenshot displays a table of license plate detection results. The table has columns for No., License Plate Picture, License Plate, Plate Type, Capture Time, Camera, and Operation. A dialog box titled 'Add' is open, showing a 'Group Name' field with the text 'No Item Selected' and 'Add' and 'Cancel' buttons. A red arrow points from the 'Add to License Plate Library' button in the text above to the 'Add' button in the dialog box.


No.	License Plate Picture	License Plate	Plate Type	Capture Time	Camera	Operation
1		OP5450	--	2022/08/05 11:50:34	Network ...	
2		KBH8421	--	2022/08/05 11:50:31	Network ...	
3		KZP5655	--	2022/08/05 11:50:28	Network ...	
4		ZPX1526	--	2022/08/05 11:50:25	Network ...	
5		ZKH2665	--	2022/08/05 11:50:21	Network ...	
6		PPE7975	--	2022/08/05 11:50:14	Network ...	
			--	2022/08/05 11:50:10	Network ...	
			--	2022/08/05 11:50:10	Network ...	
			--	2022/08/05 11:50:03	Network ...	
			--	2022/08/05 11:49:52	Network ...	
			--	2022/08/05 11:49:48	Network ...	
			--	2022/08/05 11:49:45	Network ...	
			--	2022/08/05 11:49:41	Network ...	
			--	2022/08/05 11:49:38	Network ...	
15		XNK5429	--	2022/08/05 11:49:35	Network ...	
16		KBH6211	--	2022/08/05 11:49:30	Network ...	
17		KBK6880	--	2022/08/05 11:49:28	Network ...	
18		TIZ8090	--	2022/08/05 11:49:24	Network ...	
19		PMK8435	--	2022/08/05 11:49:20	Network ...	
20		KBH3569	--	2022/08/05 11:49:17	Network ...	
21		YTB2118	--	2022/08/05 11:49:10	Network ...	
22		KBM112	--	2022/08/05 11:49:02	Network ...	
23		KBK2404	--	2022/08/05 11:49:01	Network ...	
24		KBM11	--	2022/08/05 11:48:48	Network ...	
25		KBK2404	--	2022/08/05 11:48:47	Network ...	
26		IHK8992	--	2022/08/05 11:48:38	Network ...	
27		KBP9738	--	2022/08/05 11:48:31	Network ...	

Selected: 1/45 Total: 45 Add to License ... Export

Step4: Select the detection result and click Export button to export the videos to the destination folder. After setting the export file destination, type and format, click Start

button to start the file backup. You can click button to check task export situation as below. For more details about Client Files Management, you can see the table of [User Interface Introduction \(page 31\)](#).




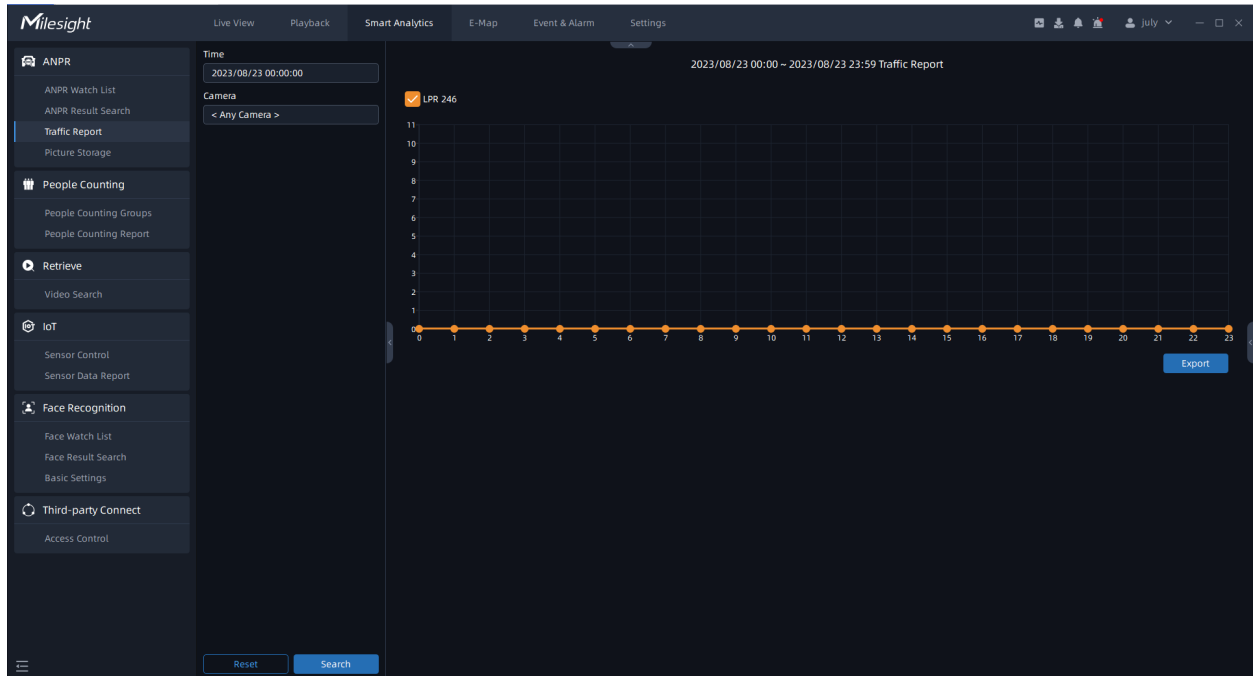
 **Note:** The backup file of Plate List is csv format.

6.1.3 Traffic Report

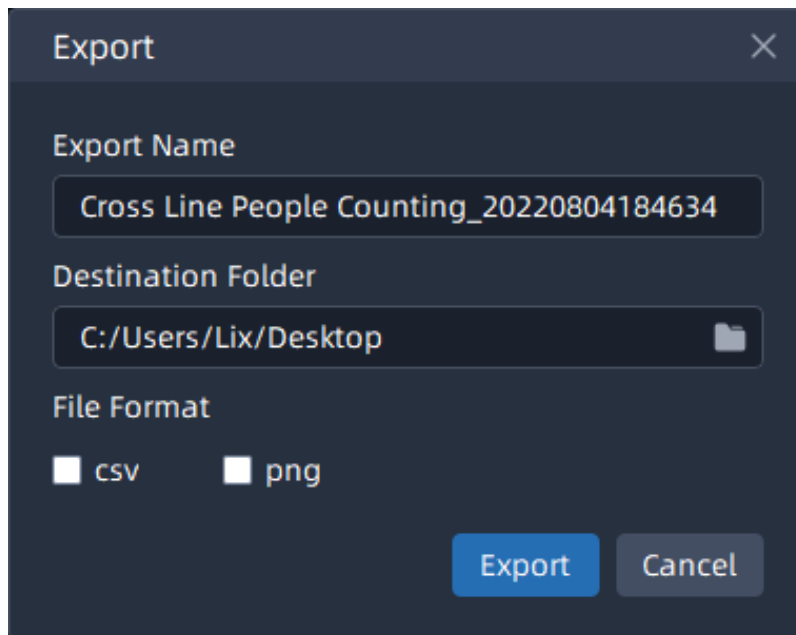
The results of Traffic Detection during the enabling period will be displayed on the “Traffic Report” interface.

Step1: Select Start Time, then select the corresponding camera.


Step2: Click the  button, it will automatically count the data for the day from the start time and generate the corresponding report;



Step3: Click the button to pop up the Export window as shown below, and you can choose File Format to export the report to local.

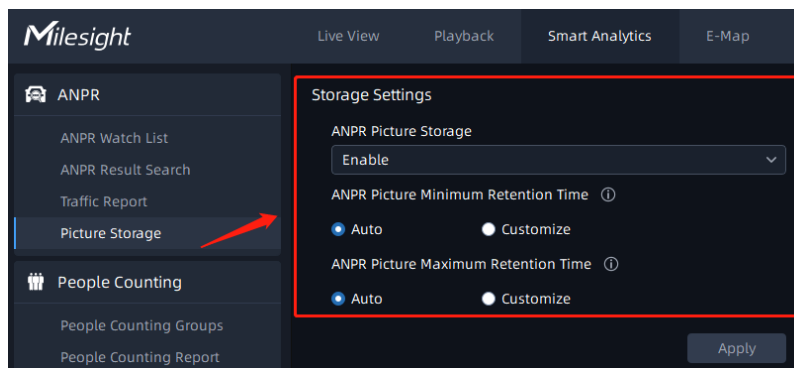


6.1.4 Picture Storage

Click  button to enable ANPR Picture Storage. And users can set the minimum storage time and maximum storage time of face pictures. Auto and Customize options are available.

- **Auto:** The ANPR pictures will be overwritten when storage space is insufficient.
- **Customize:** Customize the storage time according to the requirements.

The page shows as below:



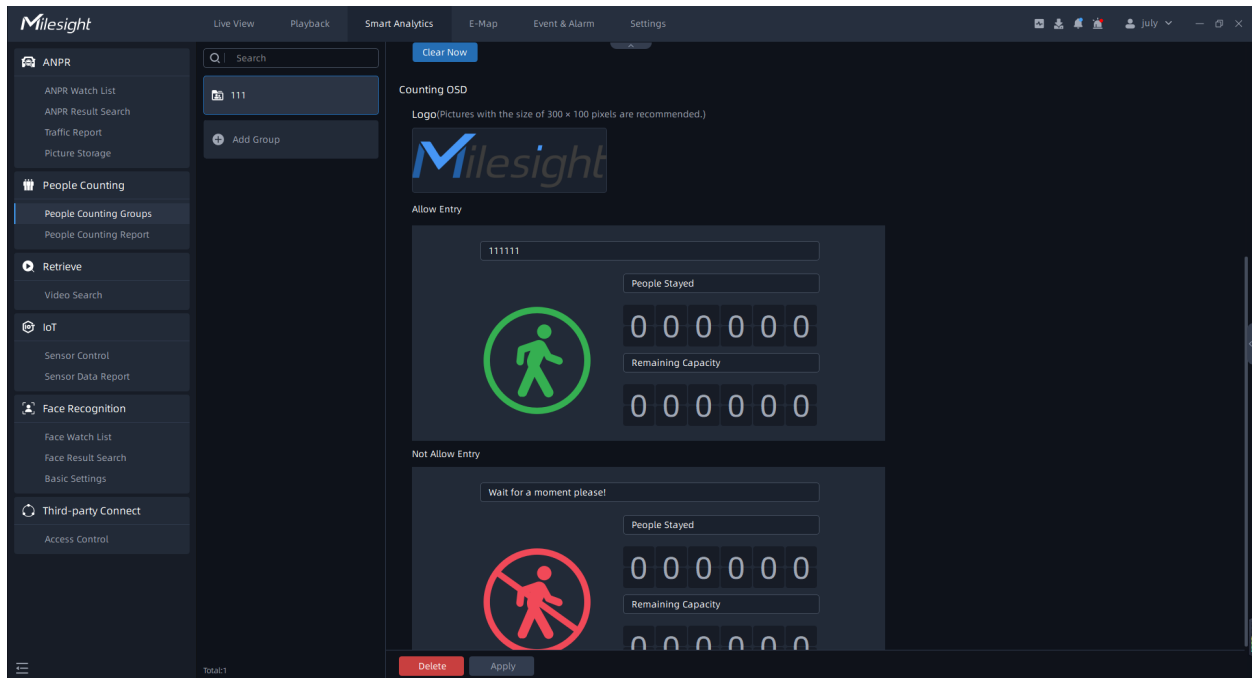
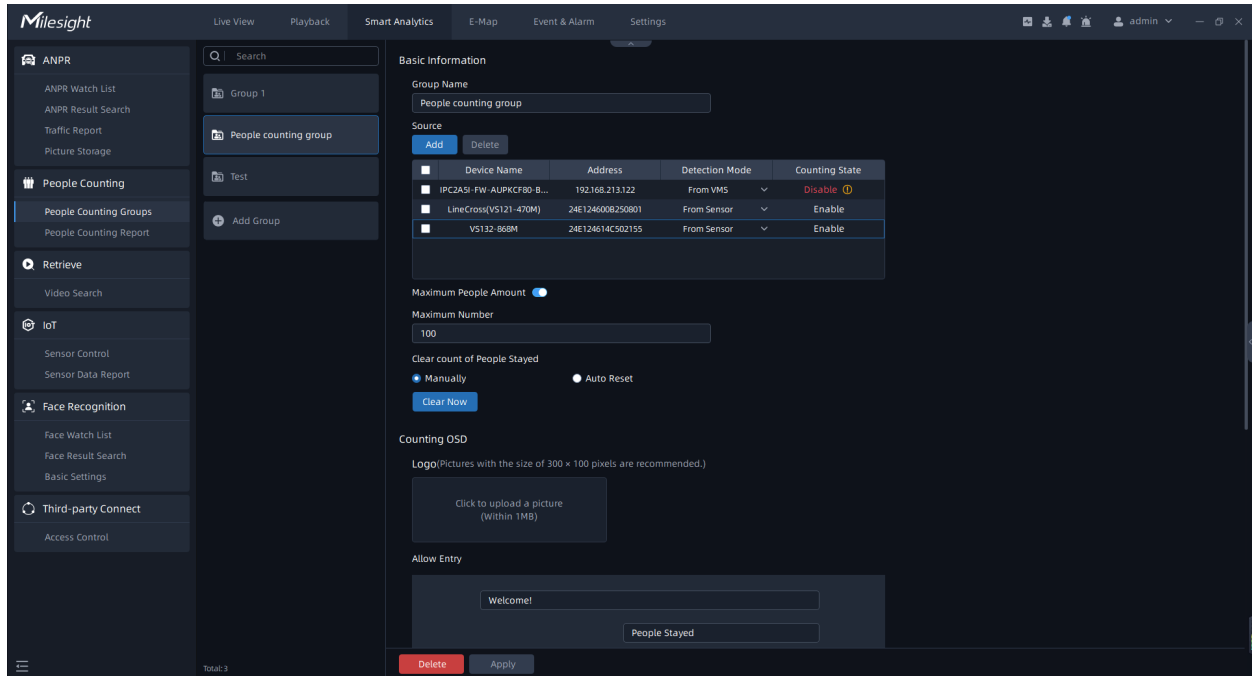
6.2 VMS-end People Counting

VMS-end People Counting including Cross Line People Counting, Regional People Counting, People Counting Groups and People Counting Reports. Users only need to add the Video Analytics Server and video streams to the VMS system, then the People Counting function can be enabled on the VMS side to meet various monitoring scenarios.

Before setting, you need to confirm the related items refer to [Analytics Settings \(page 170\)](#).

6.2.1 People Counting Groups

Users can add multiple devices, including cameras and Milesight IoT sensors to one group that can count the total number of people entering and exiting in this group. This function provides a smart crowd solution to improve monitoring efficiency.



Step1: Click  **Add Group** to add a new group and input the group name.

Step2: Click the “Add” button to add the cameras to this group.


 **Note:** Detection from the VMS side or the camera side is available.

Step3: Enable Maximum People Amount. Users can set the maximum number of people, when the number of people staying in the group exceeds the set value, it will trigger the corresponding alarm.

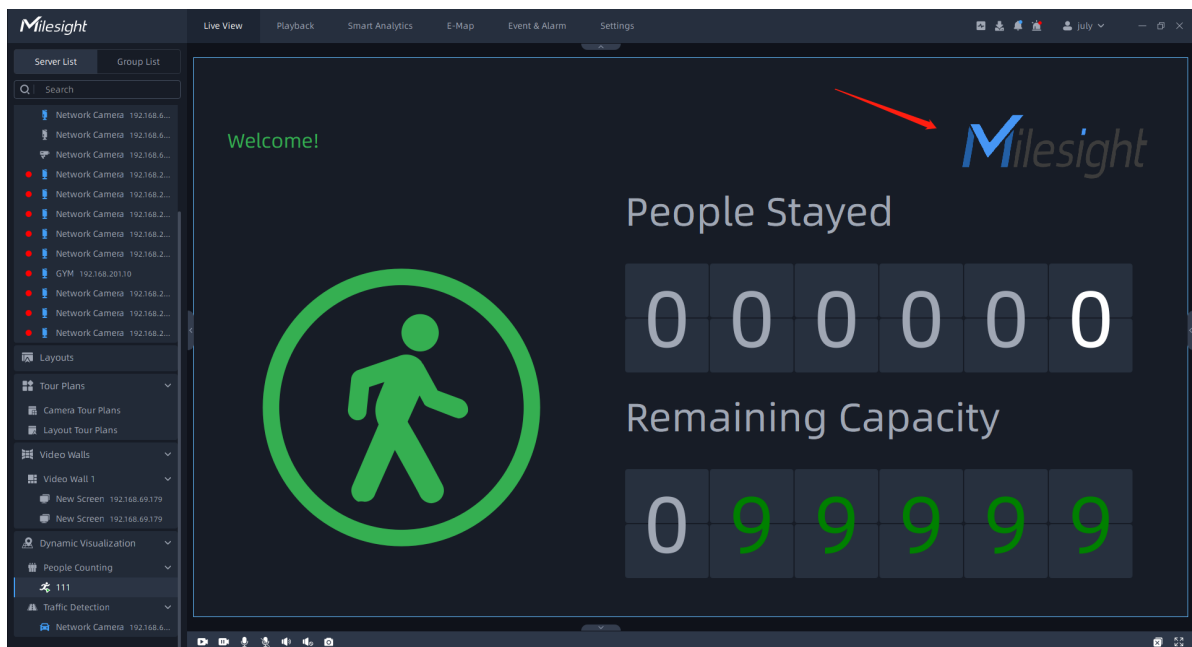
Step4: Users can choose to manually or automatically clear the Count of People Stayed.

Step5: Set the Counting OSD panel.

- **Logo:** Upload a customized image as a logo in the People Counting Groups interface to meet the logo customization needs of customers.


 **Note:** Pictures with the size of 300 x 100 pixels are recommended.

The effect of the live view interface is shown below:



- **Allow Entry:** Set the prompt when Green Light is on in the People Counting Live View interface. The default prompt is “Welcome!!!”.

- **Not Allow Entry:** Set the prompt when Red Light is on in the People Counting Live View interface. The default prompt is “Please wait till the green light turns on.”.

Step6: Click  to apply the settings. Then the real-time count results of all cameras within the set group, as well as the light status indicating whether the current number of people staying reaches the set maximum number of people staying, will be displayed in the [People Counting \(page 219\)](#) interface of the Live view.

6.2.2 People Counting Report

The results during the enabling period will be displayed on the “People Counting Report” interface.


Group People Counting

Step1: Select Compare Mode as Longitudinal or Horizontal Mode.


- **Longitudinal:** A report showing different data within a group.
- **Horizontal:** A report showing the same data in different groups.

Step2: Select Report Type including Daily Report, Weekly Report, Monthly Report and Annual Report;

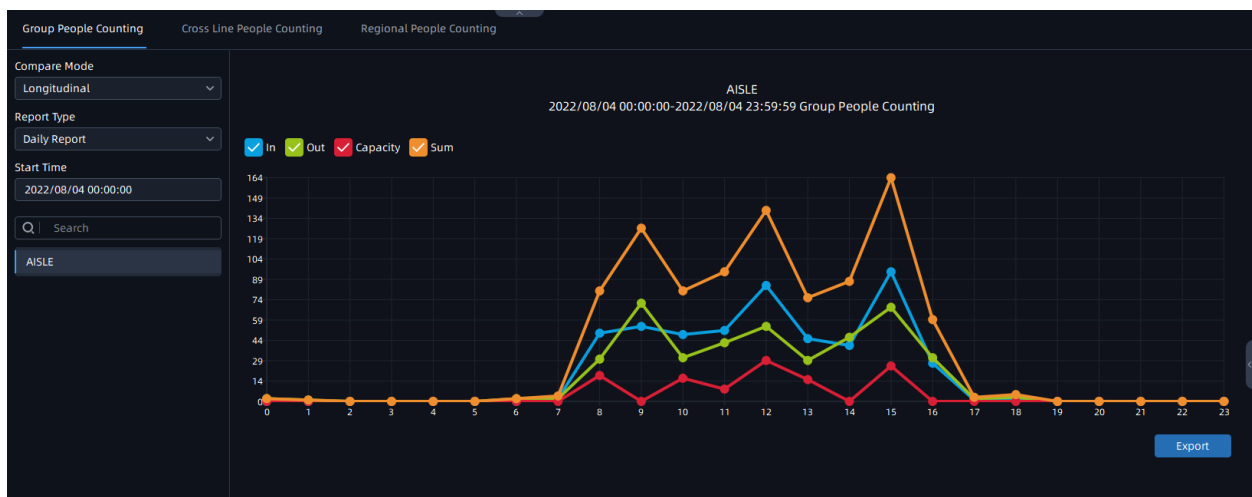
Step3: Select Start Time, then select the corresponding groups.

 **Note:** For the longitudinal mode, you can only select one group. For the horizontal mode, you can select up to 10 groups as needed.

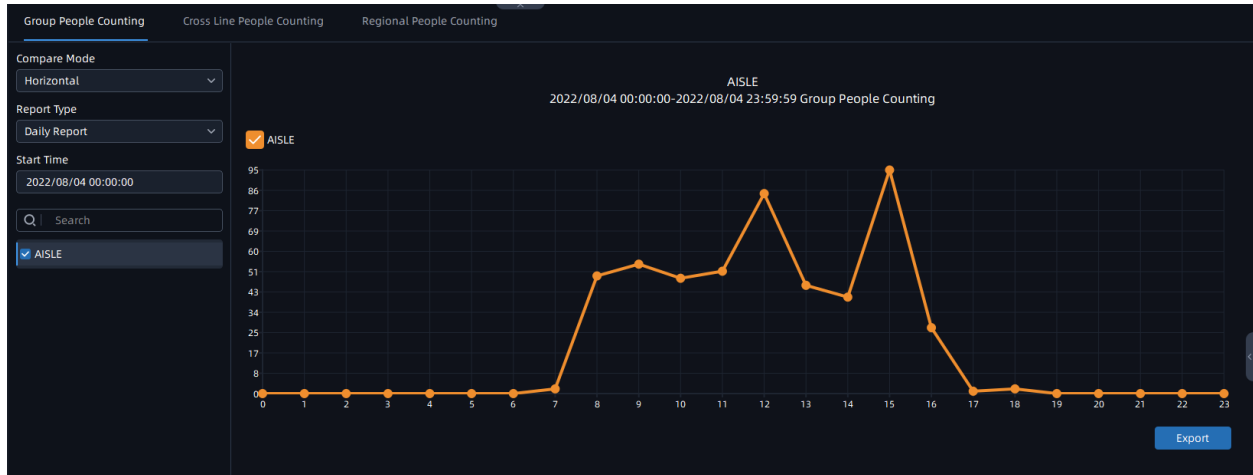
Step4: If the Compare Mode is selected as Horizontal Mode, you also need to select the Statistics Type including In, Out, Capacity and Sum.


Step5: Click the  button, it will automatically count the data for the day/ week/ month/ year (based on the report type selected by the user) from the start time and generate the corresponding report.

Longitudinal:



Horizontal:



Step4: Click the  button to pop up the Export window as shown below, and you can choose File Format to export the report to local.

Export

Export Name
Group People Counting_20220804184537

Destination Folder
C:/Users/Lix/Desktop


File Format
 csv png

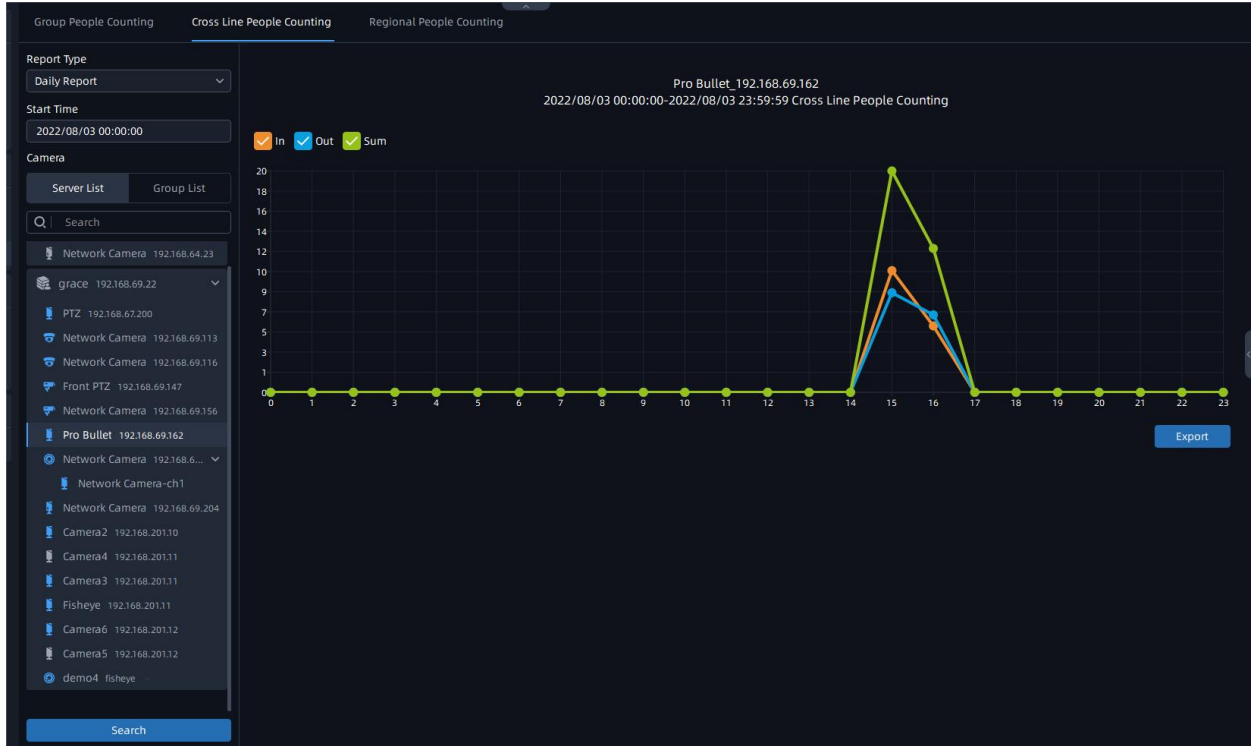
Export Cancel

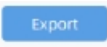
Cross Line People Counting

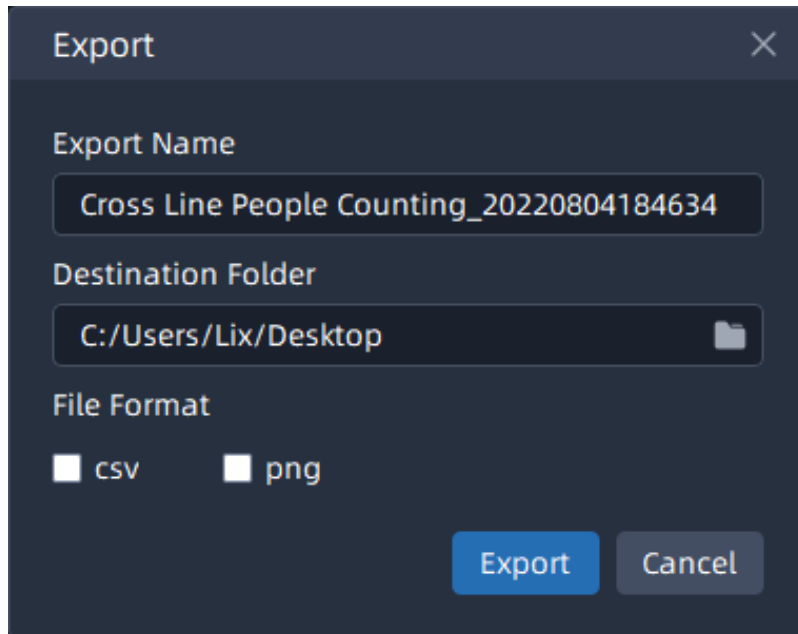
Step1: Select Report Type including Daily Report, Weekly Report, Monthly Report and Annual Report;

Step2: Select Start Time, then select the corresponding camera.

Step3: Click the  button, it will automatically count the data for the day/ week/ month/ year (based on the report type selected by the user) from the start time and generate the corresponding report;



Step4: Click the  button to pop up the Export window as shown below, and you can choose File Format to export the report to local.



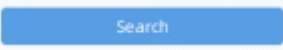
Regional People Counting

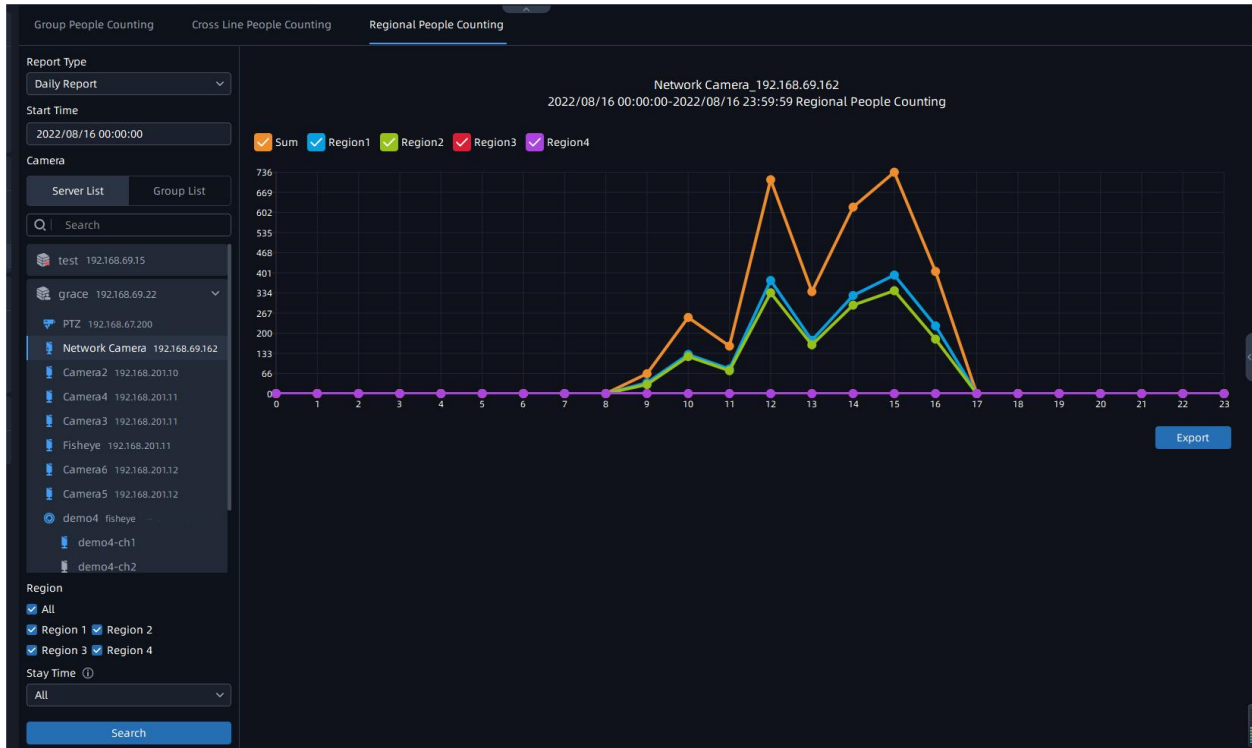
Step1: Select Report Type including Daily Report, Weekly Report, Monthly Report and Annual Report;


Step2: Select Start Time, then select the corresponding camera.

Step3: check the check box to select the regions as needed.

Step4: Select the Stay Time including All, More Than and Less Than and set the time of more than/less than.

Step5: Click the  button, it will automatically count the data for the day/ week/ month/ year (based on the report type selected by the user) from the start time and generate the corresponding report;



Step6: Click the  button to pop up the Export window as shown below, and you can choose File Format to export the report to local.

The screenshot shows an 'Export' dialog box with the following fields and options:

- Export Name:** Regional People Counting_20220804184920
- Destination Folder:** C:/Users/Lix/Desktop
- File Format:**
 - csv
 - png
- Buttons:** Export, Cancel

6.3 Retrieve

6.3.1 Video Search

Users can search and back up recording files according to different recording type, stream type, time, file type and event type, which is convenient for users to manage recording files and greatly improves user experience.

The screenshot displays the Milesight Smart Analytics interface. On the left sidebar, the 'Retrieve' section is active, with 'Video Search' selected. The main panel shows search filters on the left and a table of results on the right.

Search Filters:

- Start Time: 2023/08/30 00:00:00
- End Time: 2023/08/30 23:59:59
- Camera: < Any Camera >
- Recording Type: All
- Stream Type: All
- File Mark: All
- Event Type: All

Video Search Results Table:

Camera Name	Address	Start Time	End Time	Stream Type	File Size	File Location	Operation
Network Camera	192.168.69.222	2023/08/30 15:04:48	2023/08/30 15:12:56	Primary Stream	245MB	July's System	[Icon]
Network Camera	192.168.69.222	2023/08/30 15:00:58	2023/08/30 15:04:48	Primary Stream	115MB	July's System	[Icon]
Network Camera	192.168.69.247	2023/08/30 14:56:54	2023/08/30 15:12:56	Primary Stream	773MB	July's System	[Icon]
9	192.168.201.10	2023/08/30 14:52:43	2023/08/30 15:12:55	Primary Stream	610MB	July's System	[Icon]
Network Camera	192.168.69.247	2023/08/30 14:35:40	2023/08/30 14:56:54	Primary Stream	1023MB	July's System	[Icon]
9	192.168.201.10	2023/08/30 14:29:29	2023/08/30 14:52:43	Primary Stream	702MB	July's System	[Icon]
4	192.168.201.10	2023/08/30 14:29:29	2023/08/30 14:38:01	Primary Stream	258MB	July's System	[Icon]
Network Camera	192.168.69.247	2023/08/30 14:29:28	2023/08/30 14:35:40	Primary Stream	297MB	July's System	[Icon]
4	192.168.201.10	2023/08/30 14:18:45	2023/08/30 14:29:13	Primary Stream	316MB	July's System	[Icon]
9	192.168.201.10	2023/08/30 14:18:35	2023/08/30 14:29:13	Primary Stream	321MB	July's System	[Icon]
Network Camera	192.168.69.247	2023/08/30 14:14:10	2023/08/30 14:29:14	Primary Stream	726MB	July's System	[Icon]
Network Camera	192.168.69.247	2023/08/30 13:52:55	2023/08/30 14:14:10	Primary Stream	1023MB	July's System	[Icon]
4	192.168.201.10	2023/08/30 13:44:41	2023/08/30 14:18:45	Primary Stream	1023MB	July's System	[Icon]
9	192.168.201.10	2023/08/30 13:44:41	2023/08/30 14:18:35	Primary Stream	1023MB	July's System	[Icon]
Network Camera	192.168.69.247	2023/08/30 13:31:40	2023/08/30 13:52:55	Primary Stream	1023MB	July's System	[Icon]
4	192.168.201.10	2023/08/30 13:10:58	2023/08/30 13:44:41	Primary Stream	1023MB	July's System	[Icon]
9	192.168.201.10	2023/08/30 13:10:48	2023/08/30 13:44:41	Primary Stream	1023MB	July's System	[Icon]
Network Camera	192.168.69.247	2023/08/30 13:10:25	2023/08/30 13:31:40	Primary Stream	1023MB	July's System	[Icon]
Network Camera	192.168.69.247	2023/08/30 12:49:11	2023/08/30 13:10:25	Primary Stream	1023MB	July's System	[Icon]
4	192.168.201.10	2023/08/30 12:37:05	2023/08/30 13:10:58	Primary Stream	1023MB	July's System	[Icon]
9	192.168.201.10	2023/08/30 12:36:54	2023/08/30 13:10:48	Primary Stream	1023MB	July's System	[Icon]
Network Camera	192.168.69.247	2023/08/30 12:27:57	2023/08/30 12:49:11	Primary Stream	1023MB	July's System	[Icon]
Network Camera	192.168.69.247	2023/08/30 12:06:43	2023/08/30 12:27:57	Primary Stream	1023MB	July's System	[Icon]
4	192.168.201.10	2023/08/30 12:03:11	2023/08/30 12:37:04	Primary Stream	1023MB	July's System	[Icon]
9	192.168.201.10	2023/08/30 12:03:00	2023/08/30 12:36:54	Primary Stream	1023MB	July's System	[Icon]
Network Camera	192.168.69.247	2023/08/30 11:45:28	2023/08/30 12:06:43	Primary Stream	1023MB	July's System	[Icon]
4	192.168.201.10	2023/08/30 11:29:17	2023/08/30 12:03:10	Primary Stream	1023MB	July's System	[Icon]
9	192.168.201.10	2023/08/30 11:29:06	2023/08/30 12:03:00	Primary Stream	1023MB	July's System	[Icon]

Selected Files: 0/106


Step1: Check the corresponding camera, and select Recording Type, Stream Type, Start Time, End Time, File Mark and Event Type, then click Search button to search for recording files.

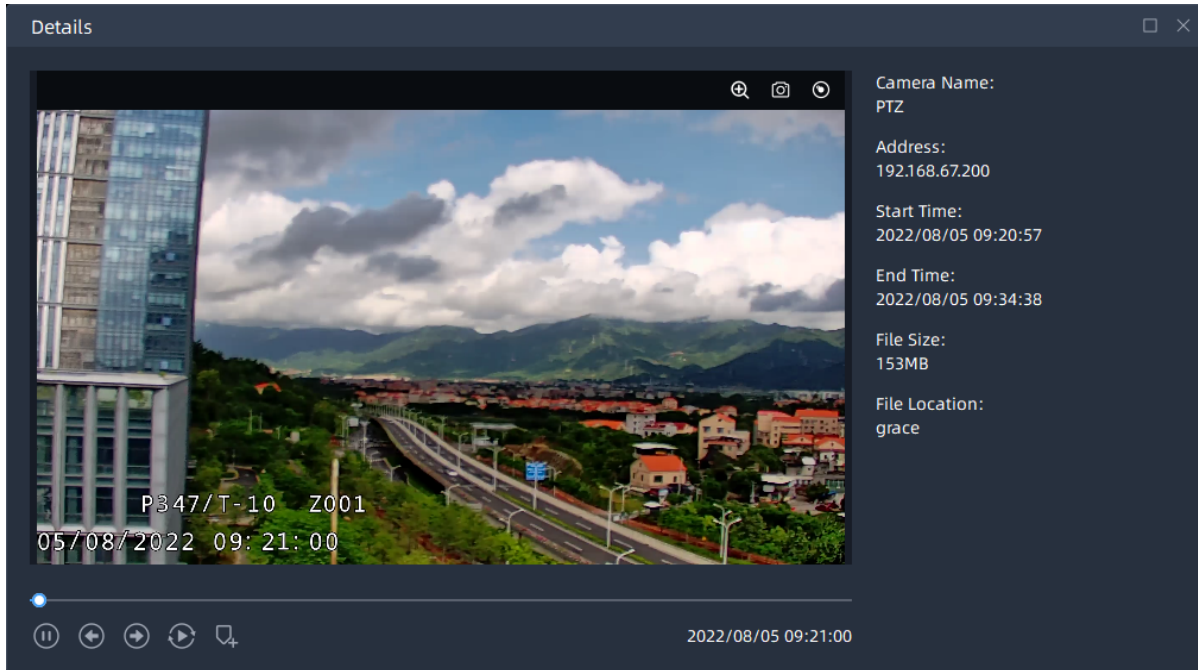
The image shows a dark-themed search filter panel with the following fields:

- Start Time:** 2022/10/14 00:00:00
- End Time:** 2022/10/14 23:59:59
- Camera:** < Any Camera >
- Recording Type:** All (dropdown arrow)
- Stream Type:** All (dropdown arrow)
- File Mark:** All (dropdown arrow)
- Event Type:** All (dropdown arrow)

The recording files will be listed as shown below:

Camera Name	Address	Start Time	End Time	Stream Type	File Size	File Location	Operation
Network Camera	192.168.69.222	2023/08/30 15:04:48	2023/08/30 15:12:56	Primary Stream	245MB	July's System	
Network Camera	192.168.69.222	2023/08/30 15:00:58	2023/08/30 15:04:48	Primary Stream	115MB	July's System	
Network Camera	192.168.69.247	2023/08/30 14:56:54	2023/08/30 15:12:56	Primary Stream	773MB	July's System	
9	192.168.201.10	2023/08/30 14:52:43	2023/08/30 15:12:55	Primary Stream	610MB	July's System	
Network Camera	192.168.69.247	2023/08/30 14:35:40	2023/08/30 14:56:54	Primary Stream	1023MB	July's System	
9	192.168.201.10	2023/08/30 14:29:29	2023/08/30 14:52:43	Primary Stream	702MB	July's System	
4	192.168.201.10	2023/08/30 14:29:29	2023/08/30 14:38:01	Primary Stream	258MB	July's System	
Network Camera	192.168.69.247	2023/08/30 14:29:28	2023/08/30 14:35:40	Primary Stream	297MB	July's System	
4	192.168.201.10	2023/08/30 14:18:45	2023/08/30 14:29:13	Primary Stream	316MB	July's System	
9	192.168.201.10	2023/08/30 14:18:35	2023/08/30 14:29:13	Primary Stream	321MB	July's System	
Network Camera	192.168.69.247	2023/08/30 14:14:10	2023/08/30 14:29:14	Primary Stream	726MB	July's System	
Network Camera	192.168.69.247	2023/08/30 13:52:55	2023/08/30 14:14:10	Primary Stream	1023MB	July's System	
4	192.168.201.10	2023/08/30 13:44:51	2023/08/30 14:18:45	Primary Stream	1023MB	July's System	
9	192.168.201.10	2023/08/30 13:44:41	2023/08/30 14:18:35	Primary Stream	1023MB	July's System	
Network Camera	192.168.69.247	2023/08/30 13:31:40	2023/08/30 13:52:55	Primary Stream	1023MB	July's System	
4	192.168.201.10	2023/08/30 13:10:58	2023/08/30 13:44:51	Primary Stream	1023MB	July's System	
9	192.168.201.10	2023/08/30 13:10:48	2023/08/30 13:44:41	Primary Stream	1023MB	July's System	
Network Camera	192.168.69.247	2023/08/30 13:10:25	2023/08/30 13:31:40	Primary Stream	1023MB	July's System	
Network Camera	192.168.69.247	2023/08/30 12:49:11	2023/08/30 13:10:25	Primary Stream	1023MB	July's System	
4	192.168.201.10	2023/08/30 12:37:05	2023/08/30 13:10:58	Primary Stream	1023MB	July's System	
9	192.168.201.10	2023/08/30 12:36:54	2023/08/30 13:10:48	Primary Stream	1023MB	July's System	
Network Camera	192.168.69.247	2023/08/30 12:27:57	2023/08/30 12:49:11	Primary Stream	1023MB	July's System	
Network Camera	192.168.69.247	2023/08/30 12:06:43	2023/08/30 12:27:57	Primary Stream	1023MB	July's System	
4	192.168.201.10	2023/08/30 12:03:11	2023/08/30 12:37:04	Primary Stream	1023MB	July's System	
9	192.168.201.10	2023/08/30 12:03:00	2023/08/30 12:36:54	Primary Stream	1023MB	July's System	
Network Camera	192.168.69.247	2023/08/30 11:45:28	2023/08/30 12:06:43	Primary Stream	1023MB	July's System	
4	192.168.201.10	2023/08/30 11:29:17	2023/08/30 12:03:10	Primary Stream	1023MB	July's System	
9	192.168.201.10	2023/08/30 11:29:06	2023/08/30 12:03:00	Primary Stream	1023MB	July's System	

Step2: Click the  icon in the list, you can check the recording with detailed information as shown below. You can also add tags for the video or play the video in the playback interface with one click.



Step3: Check the recording files and click Export button to back up the videos to the destination folder. Users can choose to back up the videos in mp4 or avi format.

Camera Name	Address	Start Time	End Time	Stream Type	File Size	File Location	Operation	
<input checked="" type="checkbox"/>	Network Camera	192.168.69.156	2022/08/04 15:54:23	2022/08/04 16:14:51	Primary Stream	654MB	grace	
<input checked="" type="checkbox"/>	PTZ	192.168.67.200	2022/08/04 15:54:23	2022/08/04 15:54:52	Primary Stream	24MB	grace	
<input type="checkbox"/>	PTZ	192.168.67.200	2022/08/04 15:53:38	2022/08/04 15:53:59	Primary Stream	17MB	grace	
<input type="checkbox"/>	Network Camera	192.168.69.204	2022/08/04 15:53:25	2022/08/04 15:54:27	Primary Stream	31MB	grace	
<input type="checkbox"/>	Network Camera	192.168.69.156	2022/08/04 15:53:04	2022/08/04 15:54:17	Primary Stream	19MB	grace	
<input type="checkbox"/>	Pro Bullet	192.168.69.162	2022/08/04 15:52:46	2022/08/04 15:54:30	Primary Stream	45MB	grace	
<input type="checkbox"/>	Network Camera	192.168.69.113	2022/08/04 15:52:35	2022/08/04 15:53:21	Primary Stream	33MB	grace	
<input type="checkbox"/>	Network Camera	192.168.69.204	2022/08/04 15:52:35	2022/08/04 15:53:29	Primary Stream	27MB	grace	
<input type="checkbox"/>	Network Camera	192.168.69.204			ary Stream	20MB	grace	
<input type="checkbox"/>	Pro Bullet	192.168.69.162			ary Stream	13MB	grace	
<input type="checkbox"/>	PTZ	192.168.67.200			ary Stream	137MB	grace	
<input type="checkbox"/>	Network Camera	192.168.69.204			ary Stream	38MB	grace	
<input type="checkbox"/>	Network Camera	192.168.69.204			ary Stream	15MB	grace	
<input type="checkbox"/>	PTZ	192.168.67.200			ary Stream	27MB	grace	
<input type="checkbox"/>	Pro Bullet	192.168.69.162			ary Stream	47MB	grace	
<input type="checkbox"/>	Network Camera	192.168.69.113			ary Stream	33MB	grace	
<input type="checkbox"/>	Pro Bullet	192.168.69.162			ary Stream	14MB	grace	
<input type="checkbox"/>	Network Camera	192.168.69.204	2022/08/04 15:48:58	2022/08/04 15:50:22	Primary Stream	42MB	grace	
<input type="checkbox"/>	PTZ	192.168.67.200	2022/08/04 15:47:54	2022/08/04 15:49:53	Primary Stream	98MB	grace	
<input type="checkbox"/>	PTZ	192.168.67.200	2022/08/04 15:46:56	2022/08/04 15:47:51	Primary Stream	41MB	grace	
<input type="checkbox"/>	Network Camera	192.168.69.204	2022/08/04 15:46:45	2022/08/04 15:48:42	Primary Stream	58MB	grace	
<input type="checkbox"/>	Pro Bullet	192.168.69.162	2022/08/04 15:46:20	2022/08/04 15:49:14	Primary Stream	80MB	grace	
<input type="checkbox"/>	Network Camera	192.168.69.204	2022/08/04 15:45:38	2022/08/04 15:46:44	Primary Stream	33MB	grace	
<input type="checkbox"/>	Network Camera	192.168.69.204	2022/08/04 15:45:16	2022/08/04 15:45:43	Primary Stream	13MB	grace	
<input type="checkbox"/>	Network Camera	192.168.69.204	2022/08/04 15:45:04	2022/08/04 15:45:16	Primary Stream	6MB	grace	
<input type="checkbox"/>	PTZ	192.168.67.200	2022/08/04 15:44:40	2022/08/04 15:46:50	Primary Stream	106MB	grace	
<input type="checkbox"/>	Network Camera	192.168.69.204	2022/08/04 15:43:59	2022/08/04 15:45:05	Primary Stream	33MB	grace	

Video Search Export

Destination Folder
ht VMS Enterprise\Client\VideoSearchExport

File size 654MB, free space 51.8GB

Video File Format

Selected Files: 1/835

6.4 IoT

6.4.1 Sensor Control

Here users can see the status of sensors as shown in the table below, and can perform individual as well as batch control, etc.

And users can add sensors and gateways on the [IoT Sensor Management \(page 57\)](#) interface.

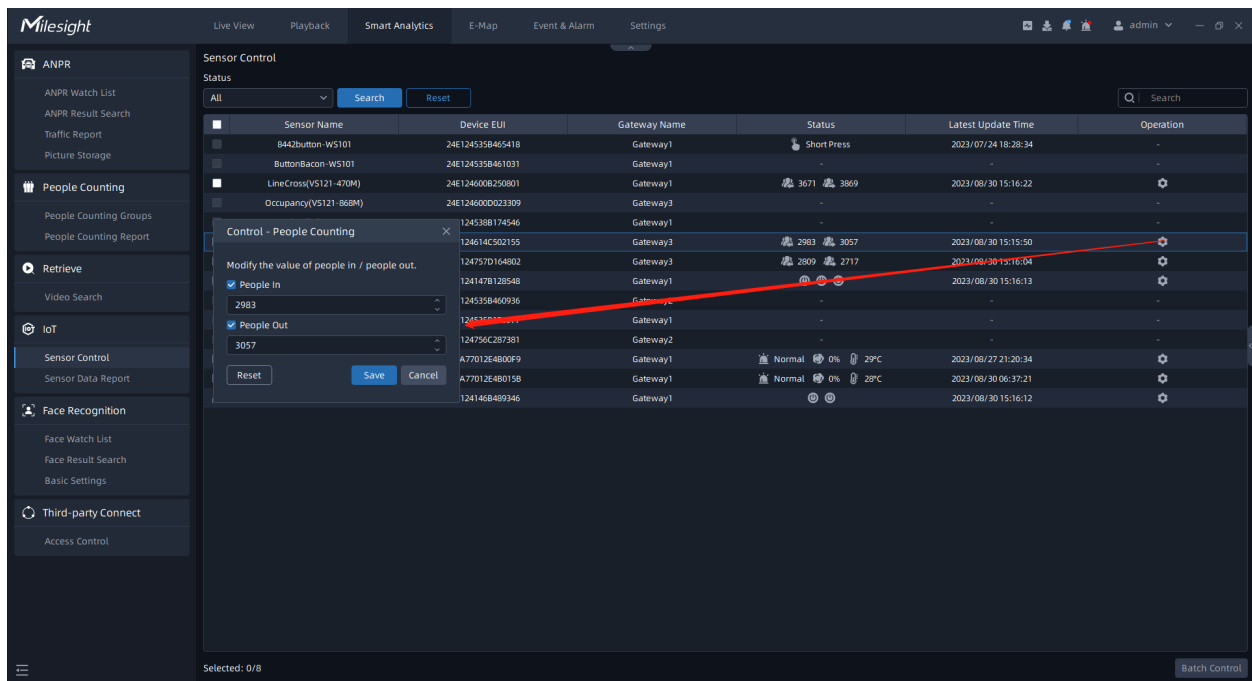

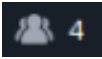
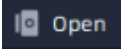

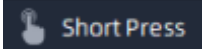
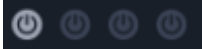
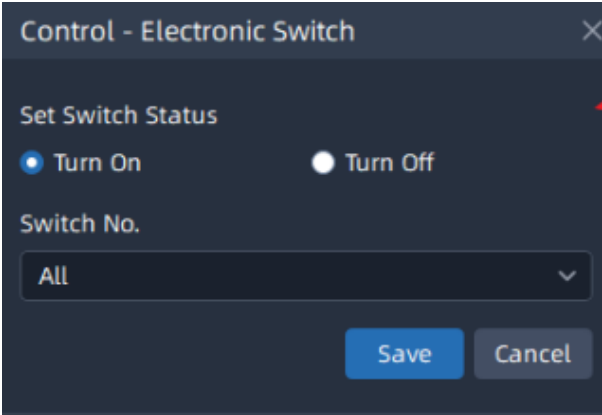
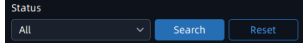
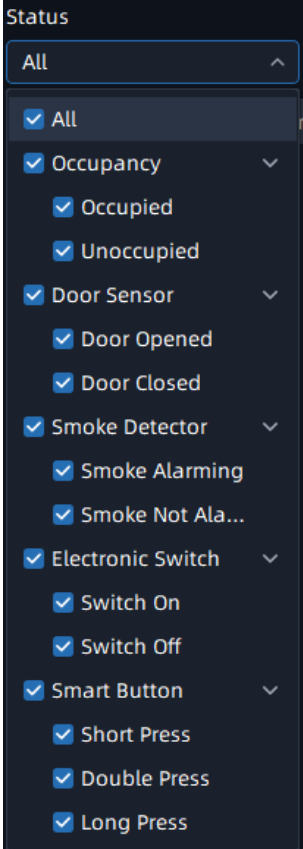


Table 63.

Parameters	Function Introduction
 <p>Light Control WS558</p>	<p>Check the status of each switch. For example, as shown in the picture, the first switch is currently on, and the other switches are off.</p>
 <p>Occupancy Sensor VS121</p>	<p>Check the current number of people detected by the sensor.</p>

Parameters	Function Introduction
 <p>Magnetic Contact WS301</p>	<p>Check the switch status of the door, open and close are available.</p>
<p>3D TOF People Counting Sensor VS132</p>	<p>Check the current number of people detected by the sensor.</p>
<p>AI ToF People Counting Sensor VS133</p>	<p>Check the current number of people detected by the sensor.</p> <p> Note: The VMS only supports people counting statistics for Line 1 from VS133.</p>
 <p>Smart Button WS101</p>	<p>Check the status of the smart button, Short Press(<=3 seconds), Double Press and Long Press(>=3 seconds) are available.</p>
 <p>Wall Switch WS50X</p>	<p>Check the status of each switch. For example, as shown in the picture, the first switch is currently on, and the other switches are off.</p> <p>And the users can also switch the status of the Electronic Switch on VMS client, so as to achieve the effect of turn on or turn off.</p> 

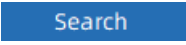
Parameters	Function Introduction
 <p style="text-align: center;">Status</p>	<p>Click to filter sensors in different status.</p> 

6.4.2 Sensor Data Report

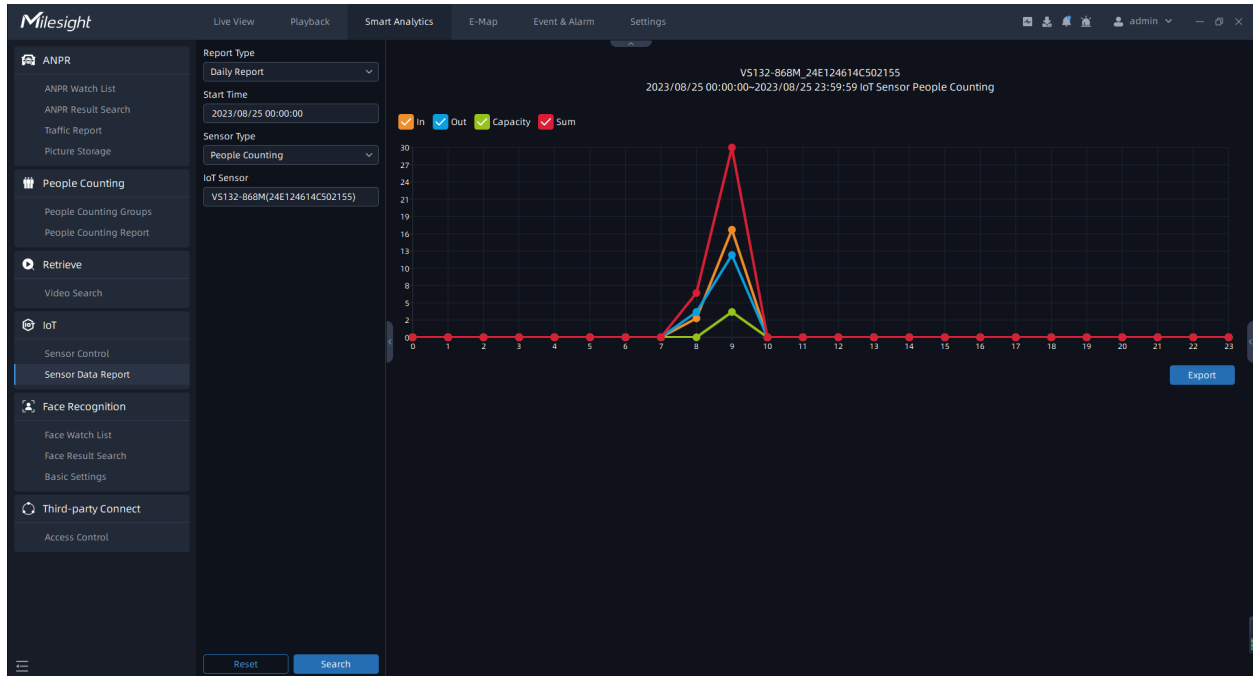
Here you can view a report on the number of people detected by each individual sensor here, including AI Workplace Counting Sensor VS121, 3D ToF People Counting Sensor VS132 and AI ToF people Counting Sensor VS133.

Step1: Select Report Type including Daily Report, Weekly Report, Monthly Report and Annual Report;

Step2: Select Start Time, then select target sensor;

Step3: Click the , it will automatically count the data for the day/

week/ month/ year (based on the report type selected by the user) from the start time and generate the corresponding report.



Step4: Click the **Export** button to pop up the Export window as shown below, and you can choose File Format to export the report to local.

The screenshot shows the "Export" dialog box. It has a title bar with a close button. The "Export Name" field contains the text "IoT Sensor People Counting_20230825095823". The "Destination Folder" field contains the path "\\Users\Lix\VMS Output\SensorReportExport" with a folder icon. The "File Format" section has two radio buttons: "csv" (selected) and "png". At the bottom, there are "Export" and "Cancel" buttons.

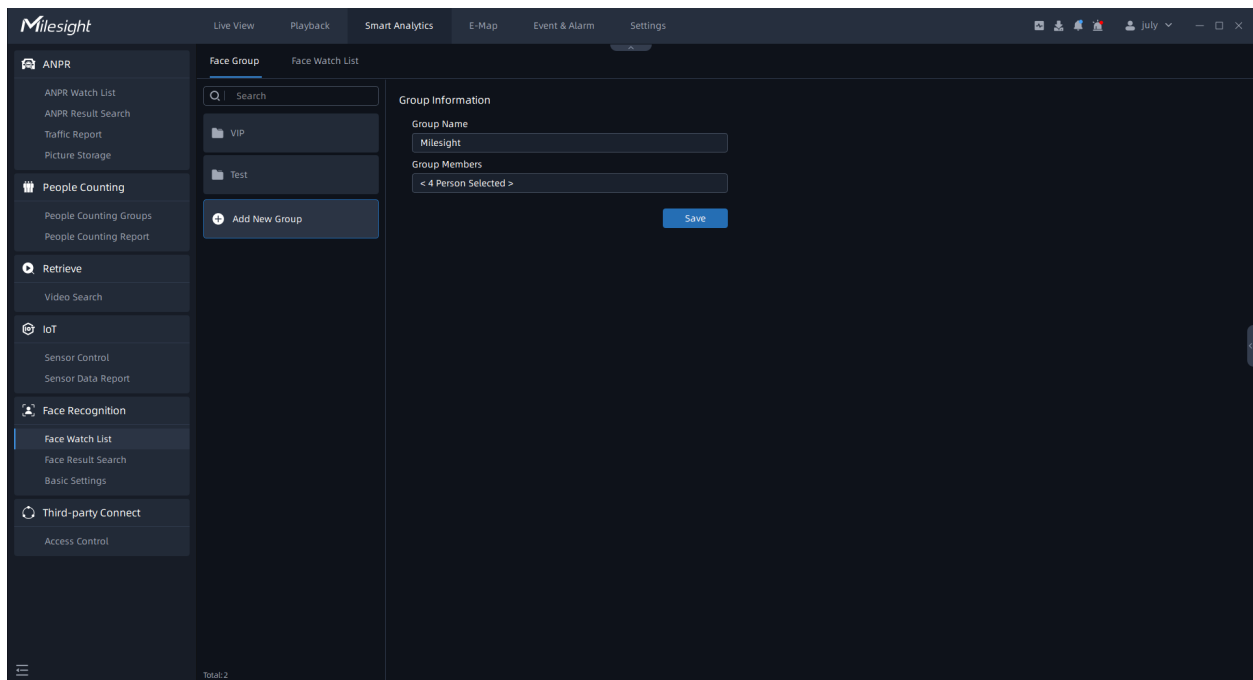
6.5 Face Recognition

For better face recognition applications, VMS supports importing up to 300,000 facial images for face matching and other related purposes.

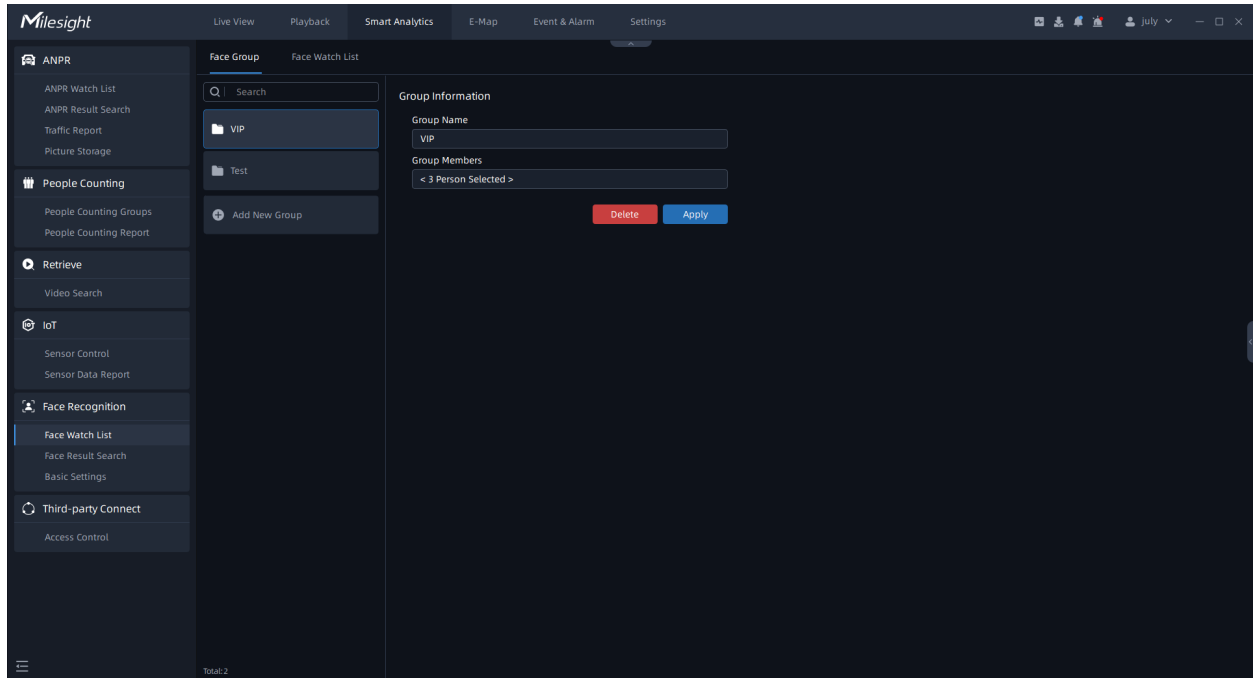
6.5.1 Face Watch List

6.5.1.1 Face Watch List

Add Face Group to this interface. Click the **Add New Group**, input the group name, then check the corresponding group members, and click the **Save** to create the group successfully.

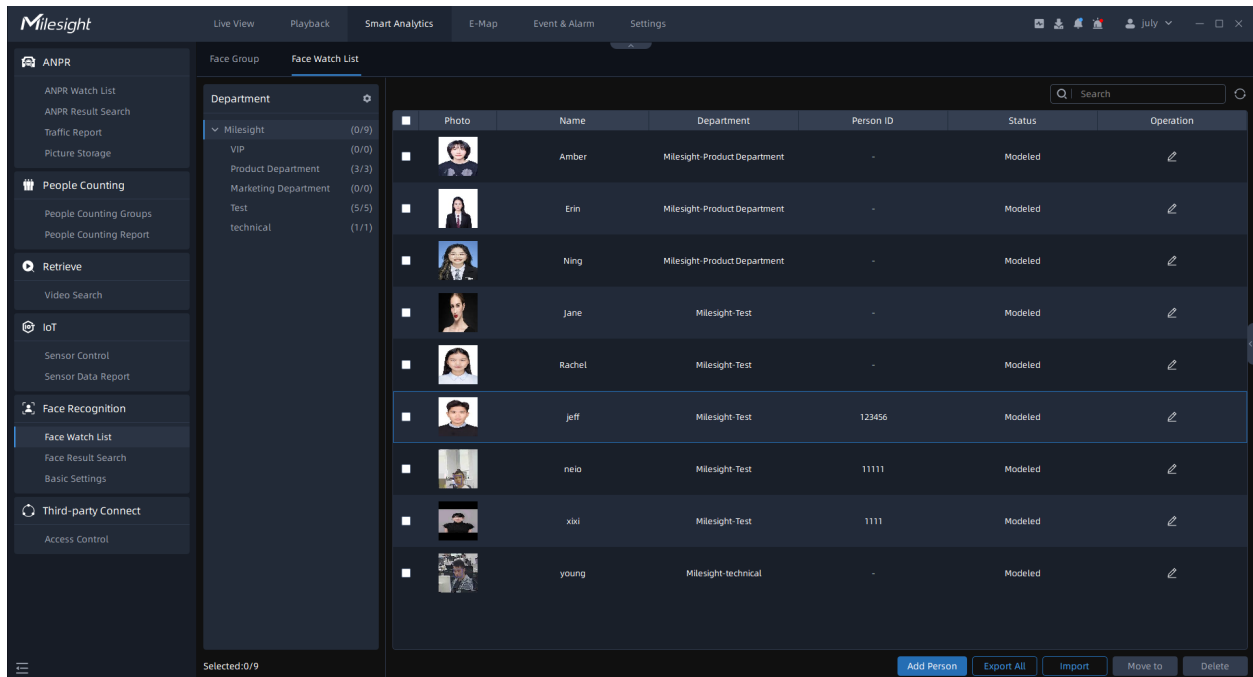


For existing groups, if you need to add/remove members, you can simply click on the group and then click the **Apply**. If you want to delete a specific group, you can click the **Delete**.






6.5.1.2 Face Watch List




Add the face watch list to this interface, the VMS supports importing up to 300,000 facial images for face matching and other related purposes.



Before creating the Face Watch List, you need to create the Department first.

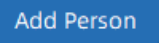
Step1: Click the  to create the Primary Department and name it. You can also click the  to rename it.

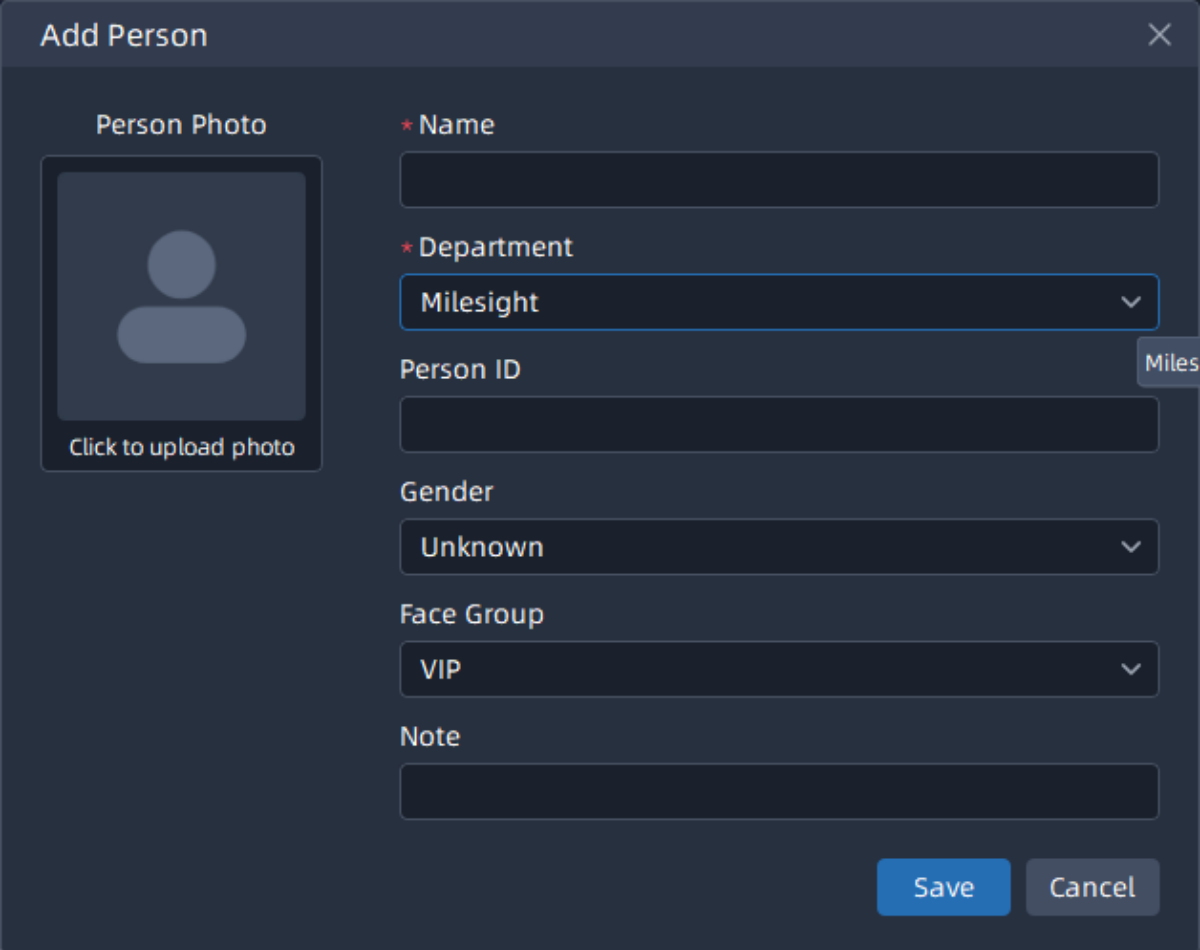
 **Note:** The creation of a maximum of 10 Primary Departments is supported.

Step2: Click the  to create a Child-department. Click the  to rename the Child-department. Or you can click the  to delete it. If you need to add more child departments under an already created Child Department, you can repeat the above steps.

You can choose either of the below two ways to add face list.

(1) Add Face List One by One

Step1: Click the  to pop up a “Add Person” window as below:



Add Person

Person Photo
Click to upload photo

* Name

* Department
Milesight

Person ID
Miles

Gender
Unknown

Face Group
VIP

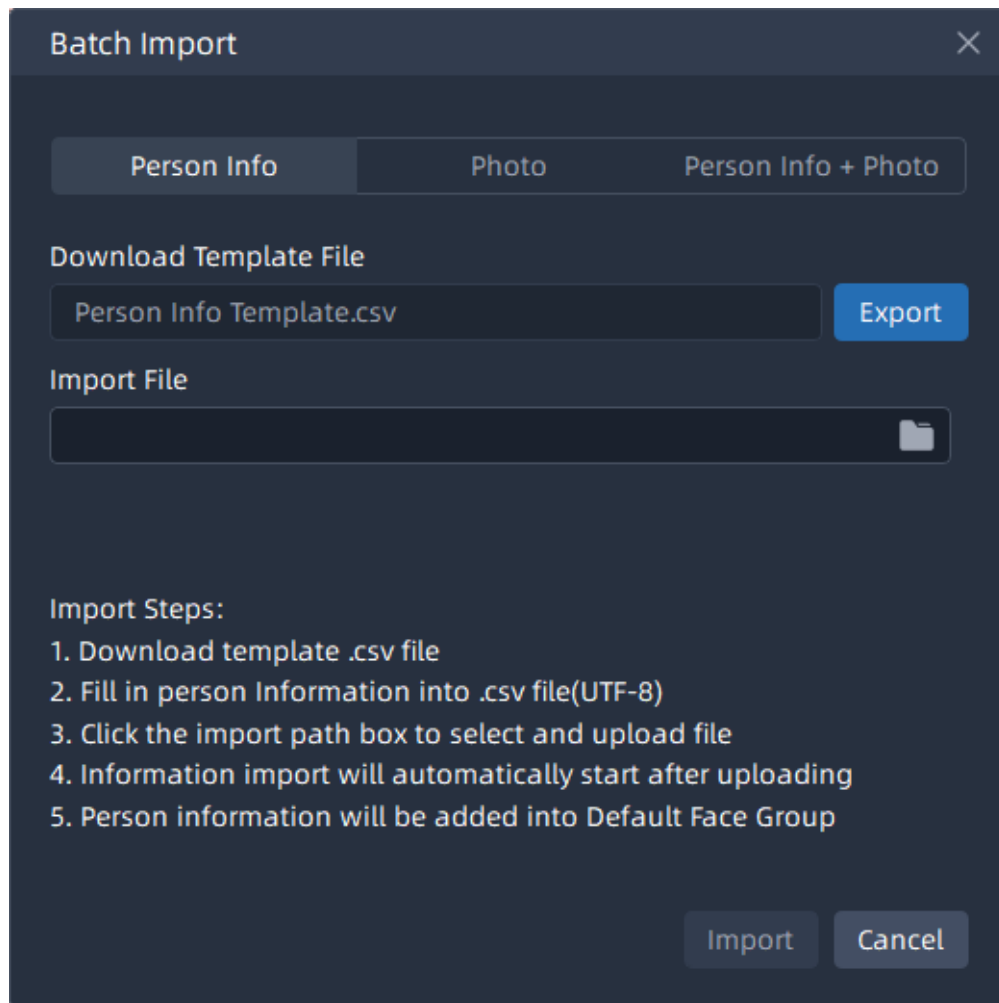
Note

Save Cancel

Step2: Input Name and Person ID, choose Department, Gender and Face Group, and then upload the person photo, click the **Save**.

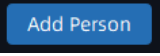
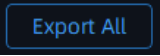
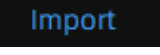
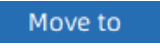
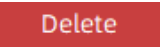
(2) Batch Import Face List

Step1: Click the **Import** to pop up a window as shown below:



The imported file must be filled in according to the specified format. You can click to download the template. After filling in, click **Import** button to select the file, then click the **Import**.

The meanings of the parameters in the interface can be referred to the table below:

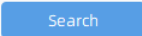
Parameter	Function Introduction
	Add the face list one by one.
	Click the "Export All" button to export the faces in the current list to a csv form locally.
	Click the "Import" button to batch import the face list.
	Click the "Move to" button to move the selected face list to the corresponding group.
	Click the "Delete" button to delete all the selected faces in the current list.

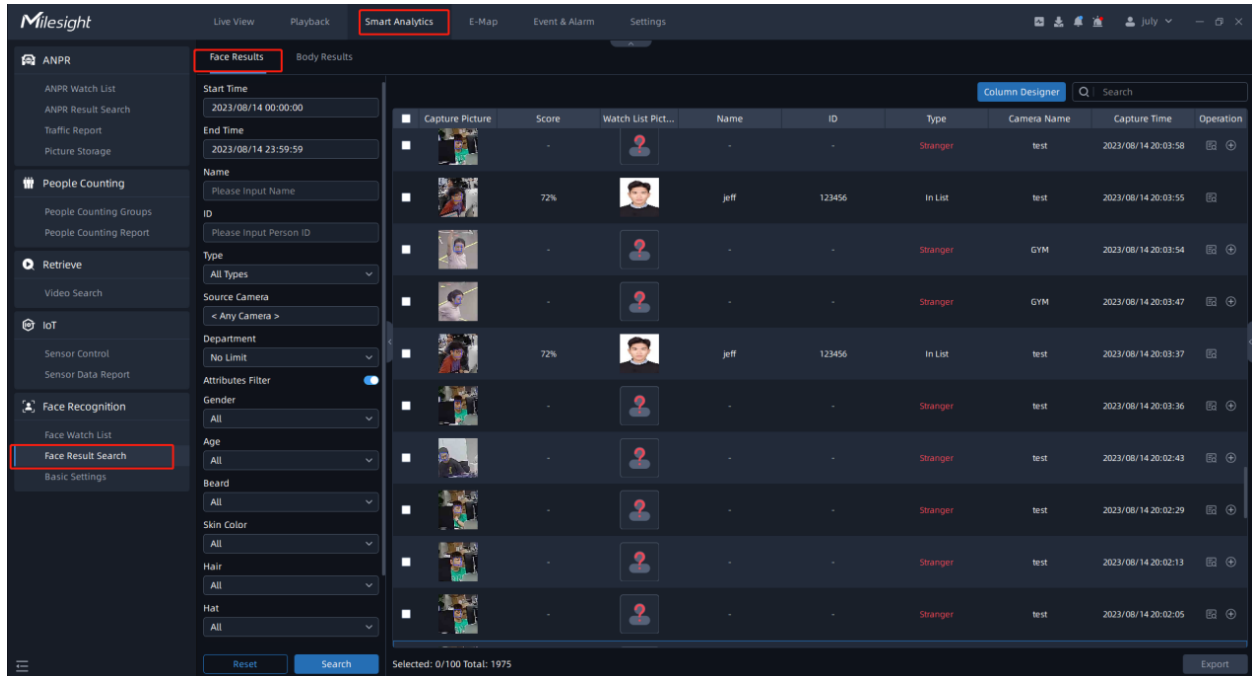
6.5.2 Face Result Search


The real-time detection results will be displayed in the center of the Face Result Search page, including Face Results and Body Results which allows users to easily search and retrieve relevant facial recognition results for efficient analysis and review.

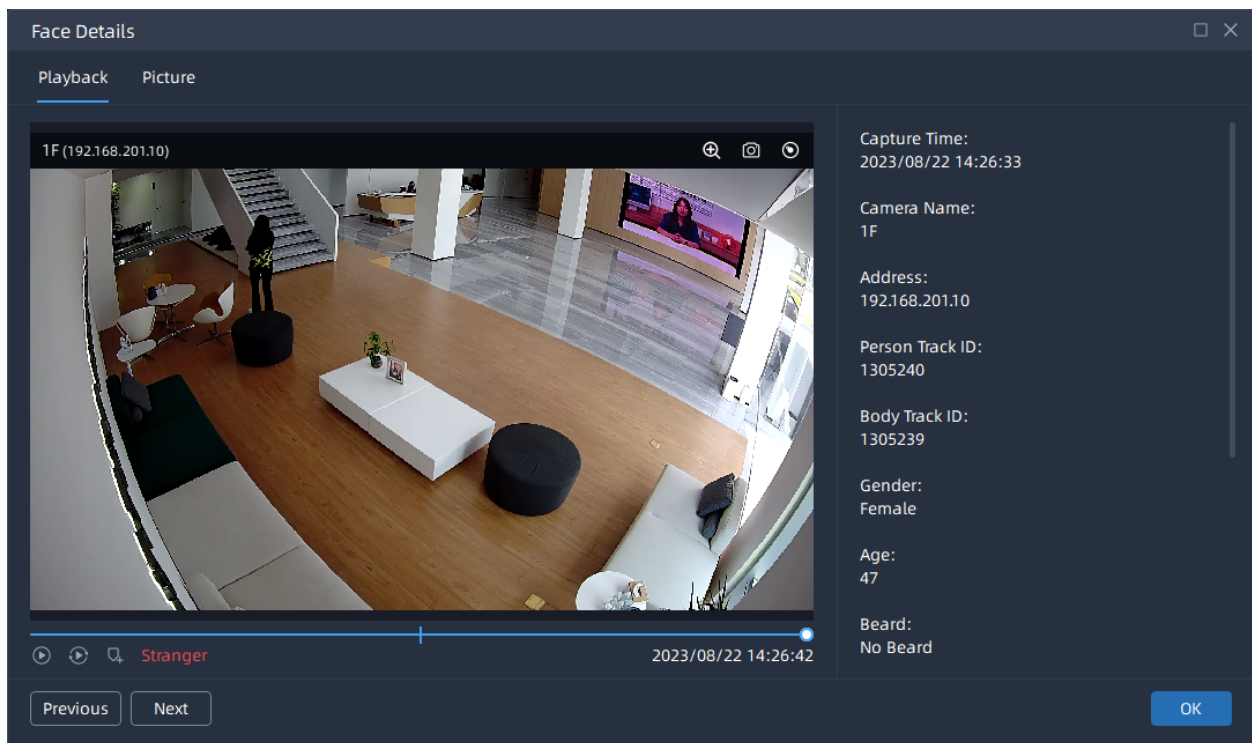
6.5.2.1 Face Result


Select Time, Name, Person ID, Source Camera, Department, etc., and the related face

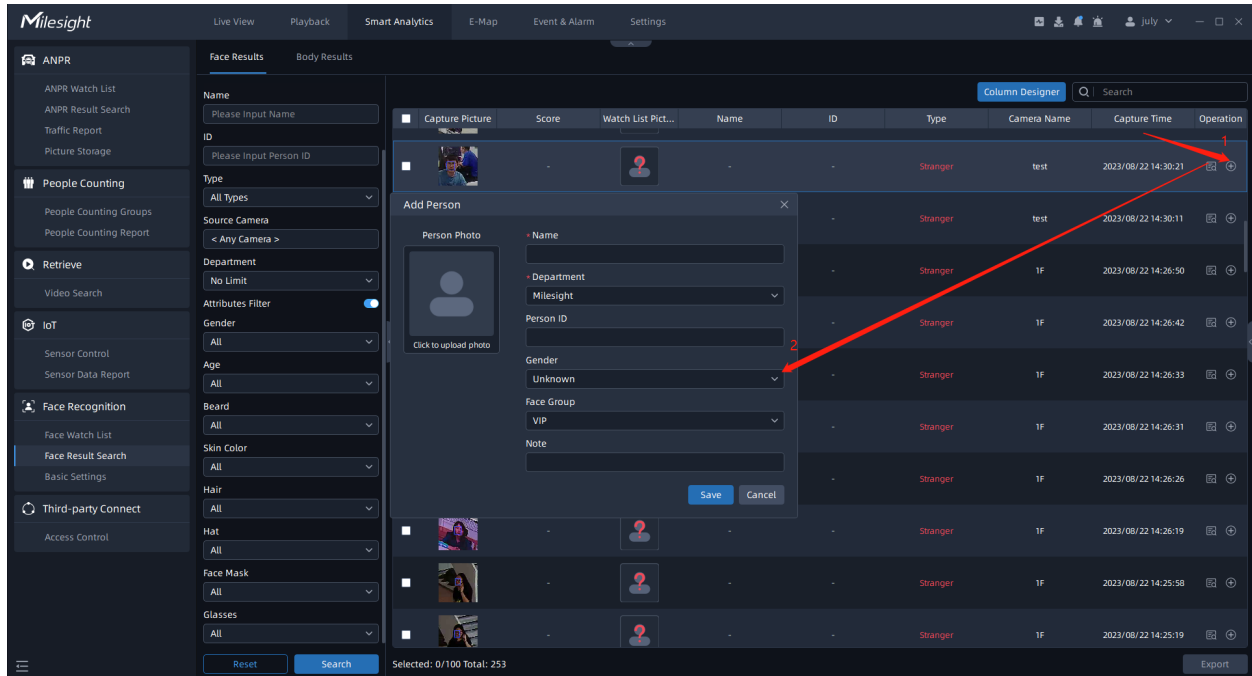
information will be displayed as below by clicking  button. If you want to view more facial attributes such as hairstyle, mask wearing, and glasses, you can enable the Attributes Filter.



By clicking the , you can view more face details, playback videos, capture snapshots, and perform other related actions.

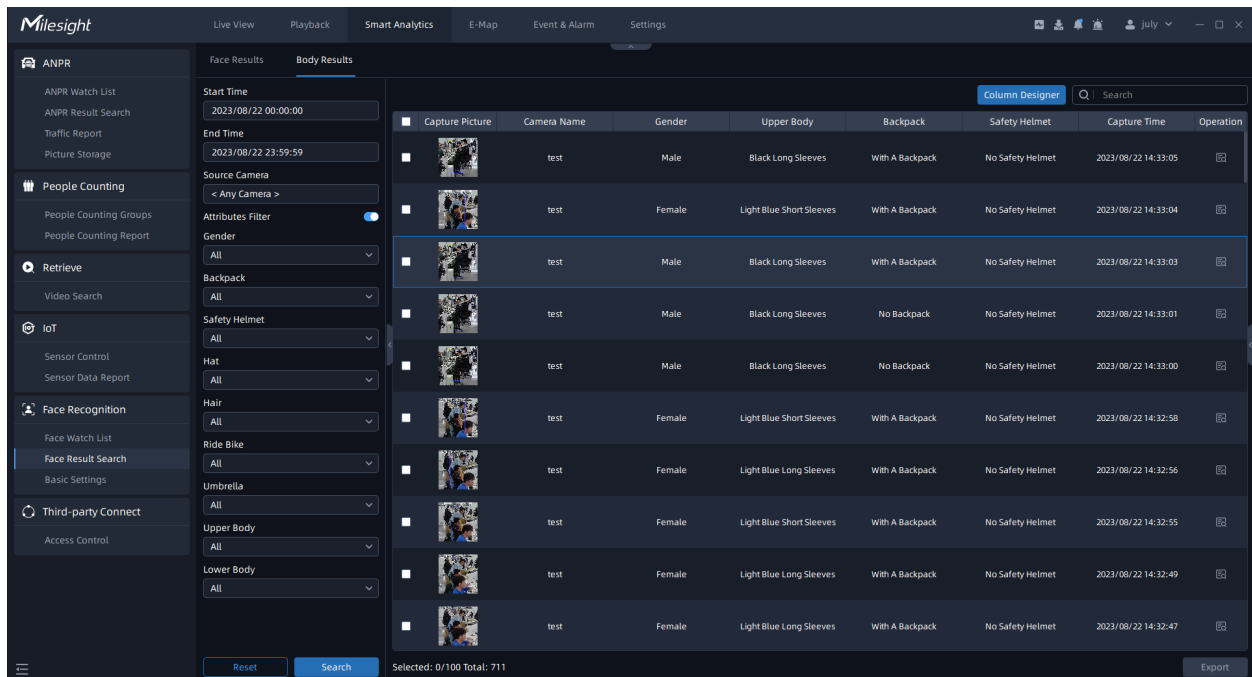



You can also click the  to add photos from Face Results to the Face Watch List.

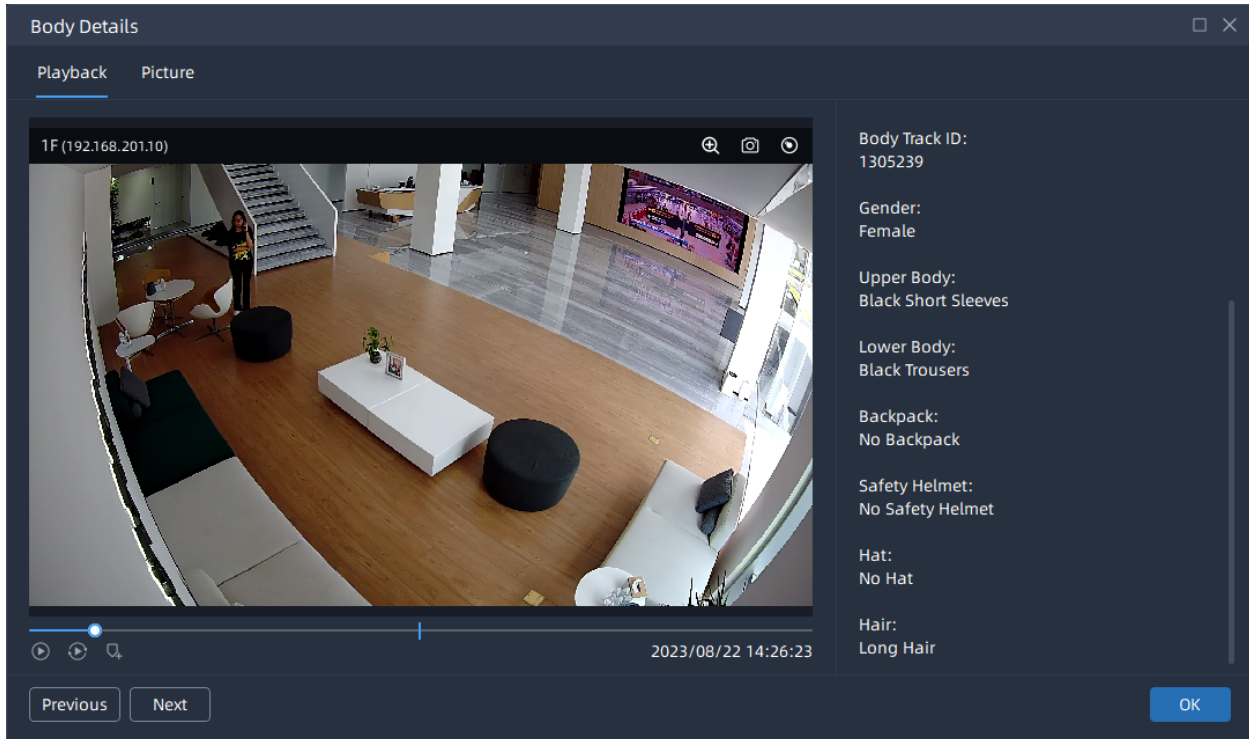


6.5.2.2 Body Results

Select Time and Source Camera, and the related body results will be display as below by clicking the **Search**. If you want to view additional attributes such as backpack presence, umbrella usage, and upper-body or lower-body clothing styles, you can enable the Attributes Filter.



By clicking the , you can view more body details, playback videos, capture snapshots, and perform other related actions.



The screenshot displays the 'Body Details' window. On the left, a video playback window shows a person in a modern office lobby. The video title is '1F (192.168.201.10)'. Below the video is a progress bar and playback controls. At the bottom of the video window are 'Previous' and 'Next' buttons. On the right side of the window, a list of body attributes is displayed:

- Body Track ID: 1305239
- Gender: Female
- Upper Body: Black Short Sleeves
- Lower Body: Black Trousers
- Backpack: No Backpack
- Safety Helmet: No Safety Helmet
- Hat: No Hat
- Hair: Long Hair

An 'OK' button is located at the bottom right of the window.

If you want to display more face/body attributes in the Face Results/Body Results interface, you can click on the [Column Designer](#). The selected attributes will be synchronized across both search pages and their corresponding Details section. Alternatively, you can click the [Reset](#) to revert to the default settings.

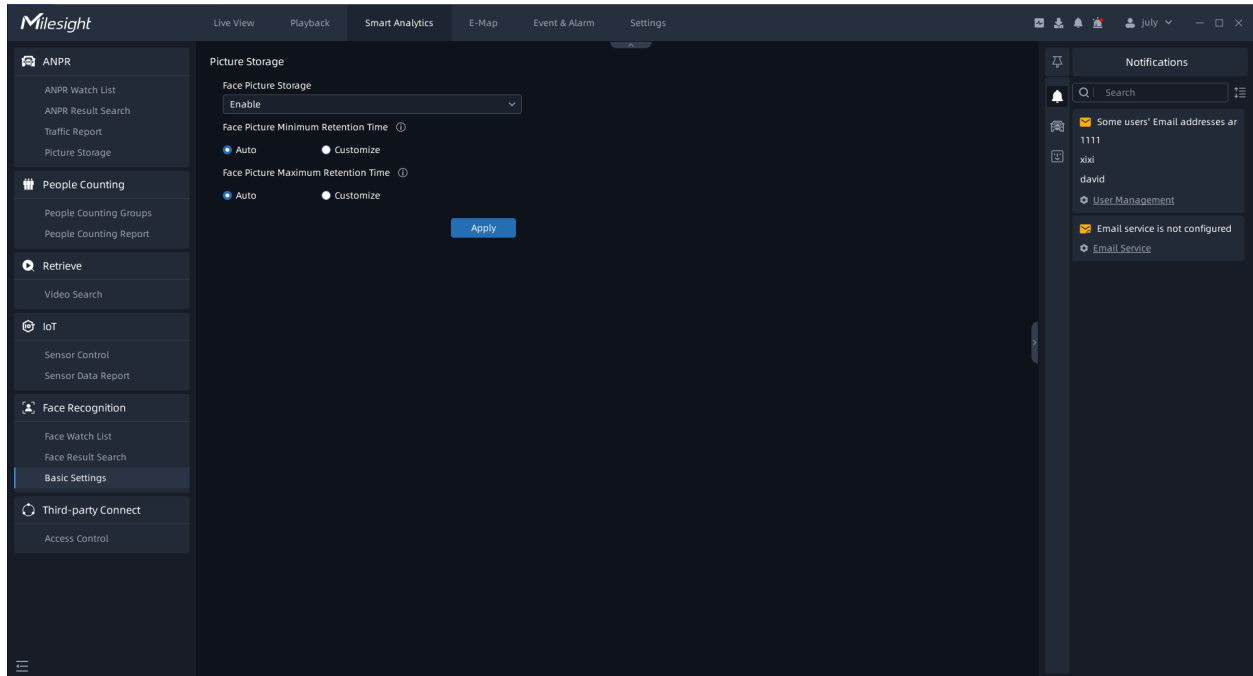
The screenshot displays the Milesight Enterprise NVR interface. The main area shows the 'Face Results' section with a 'Column Designer' dialog box open. The dialog box allows users to customize the columns displayed in the table. The 'Name' column is highlighted with a red arrow labeled '1', and the 'Column Designer' dialog is labeled with a red arrow labeled '2'. The table below shows columns for 'Capture Picture', 'Score', 'Watch List Picture', 'Name', 'ID', 'Type', 'Camera Name', and 'Capture Time'. The table contains several rows of data, including 'Stranger' entries. The interface also shows a sidebar with navigation options like 'ANPR', 'People Counting', 'Retrieve', 'IoT', 'Face Recognition', and 'Third-party Connect'. A 'Notifications' panel is visible on the right side.

6.5.2.3 Basic Settings

Enable Face Pictures Storage to save face pictures to VMS. And users can set the minimum storage time and maximum storage time of face pictures. Auto and Customize options are available.

- **Auto:** Face pictures will be overwritten when storage space is insufficient.
- **Customize:** Customize the storage time according to the requirements.

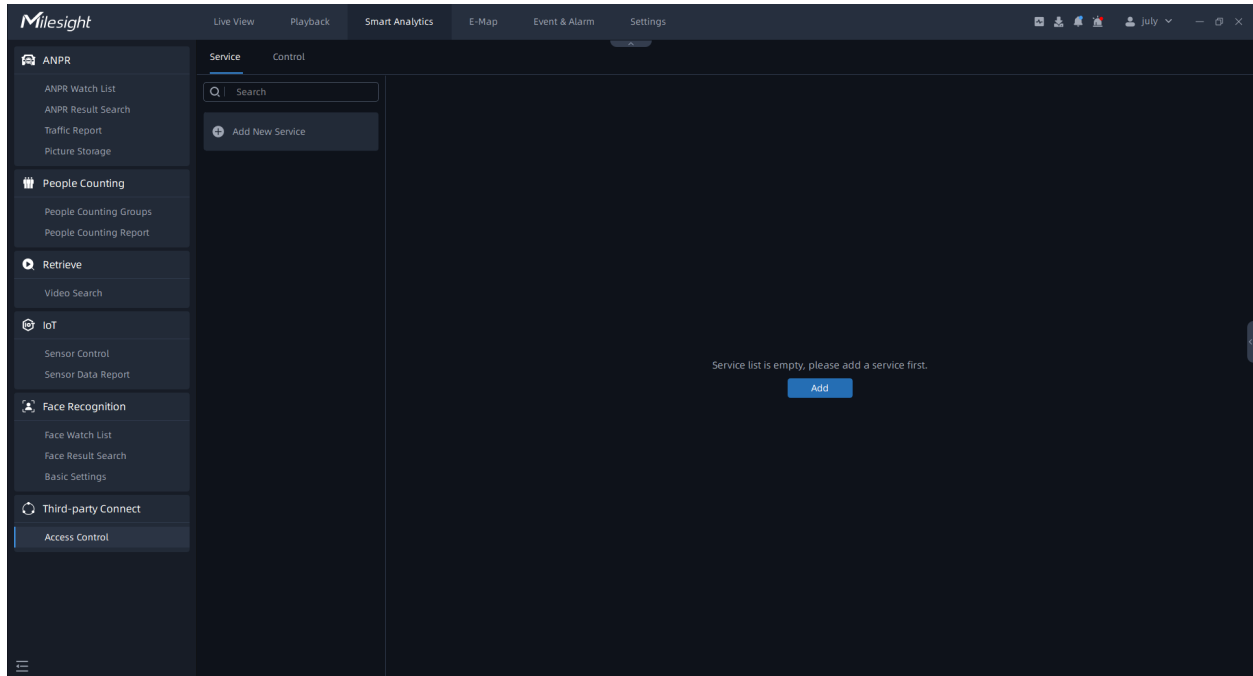
Users can search for face pictures in Face Result Search interface after enabling Face Pictures Storage.



6.6 Third-party Connect

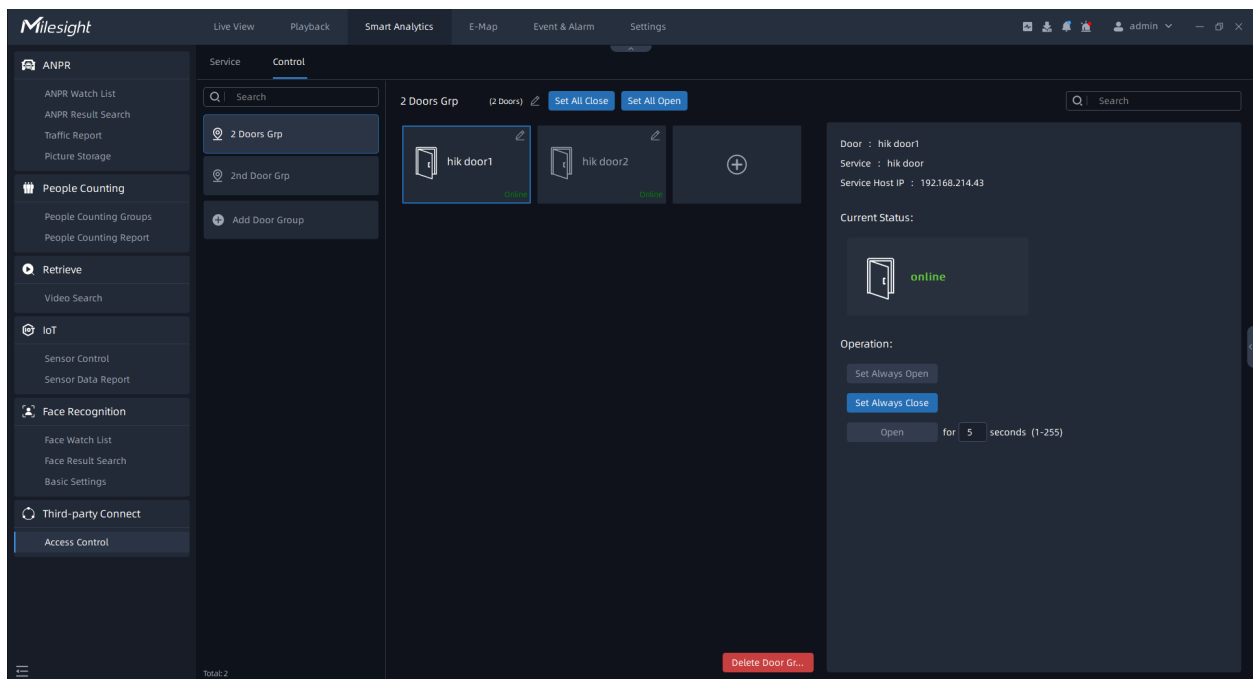
6.6.1 Access Control


Here you can add third-party access control device, then it supports triggering the corresponding alarm actions based on external device events.

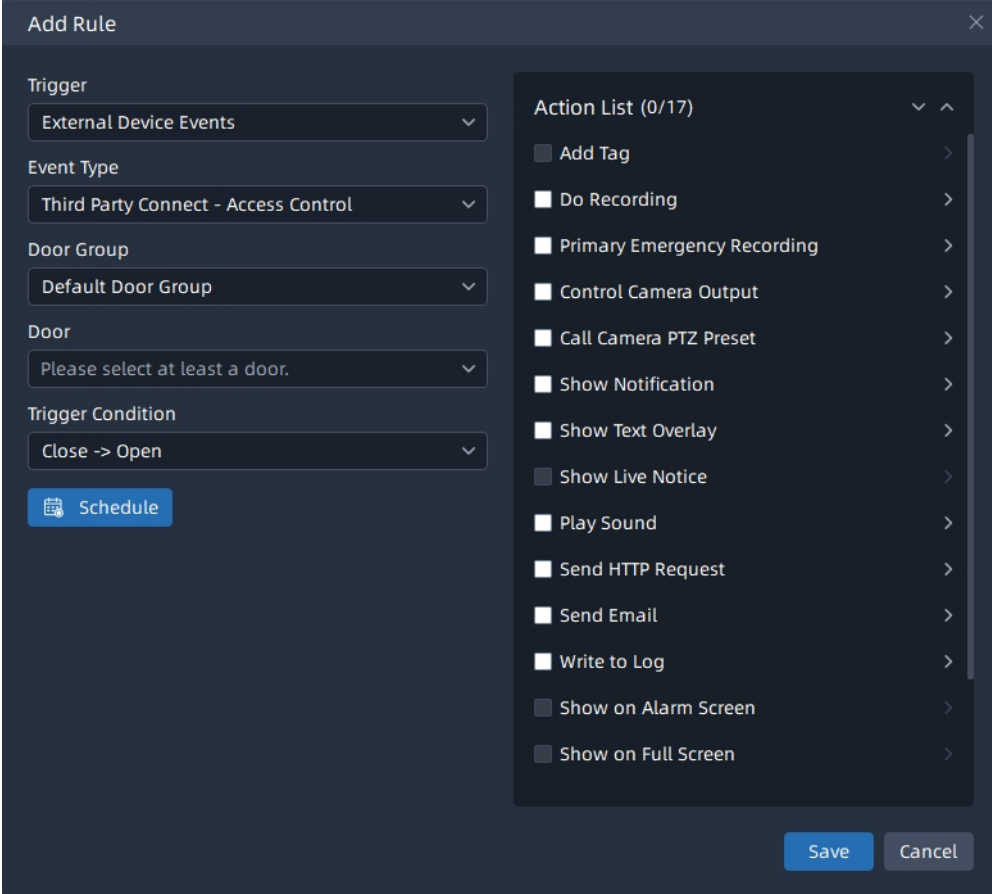


Step1: Click the "Add New Device" button, input the Service Name, Host URL, Port, User Name and Password, and click the "Connect" button to connect to the device successfully.

Note: Currently it only supports the DS-K260X model of Hikvision. If you have compatibility requirements, please contact technical support.



Step2: Go to Settings - Event Rule Settings interface, Click  button to add an event rule. Select the event trigger type as Third Party Connect - Access Control, select the door group and the corresponding door, select the trigger condition, set the schedule, and then set the alarm action. Multiple types of action can be set for an event trigger. The meaning of each alarm action can refer to [Alarm Action \(page 344\)](#).



Add Rule

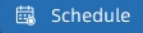
Trigger: External Device Events

Event Type: Third Party Connect - Access Control

Door Group: Default Door Group

Door: Please select at least a door.

Trigger Condition: Close -> Open

 Schedule

Action List (0/17)

- Add Tag
- Do Recording
- Primary Emergency Recording
- Control Camera Output
- Call Camera PTZ Preset
- Show Notification
- Show Text Overlay
- Show Live Notice
- Play Sound
- Send HTTP Request
- Send Email
- Write to Log
- Show on Alarm Screen
- Show on Full Screen

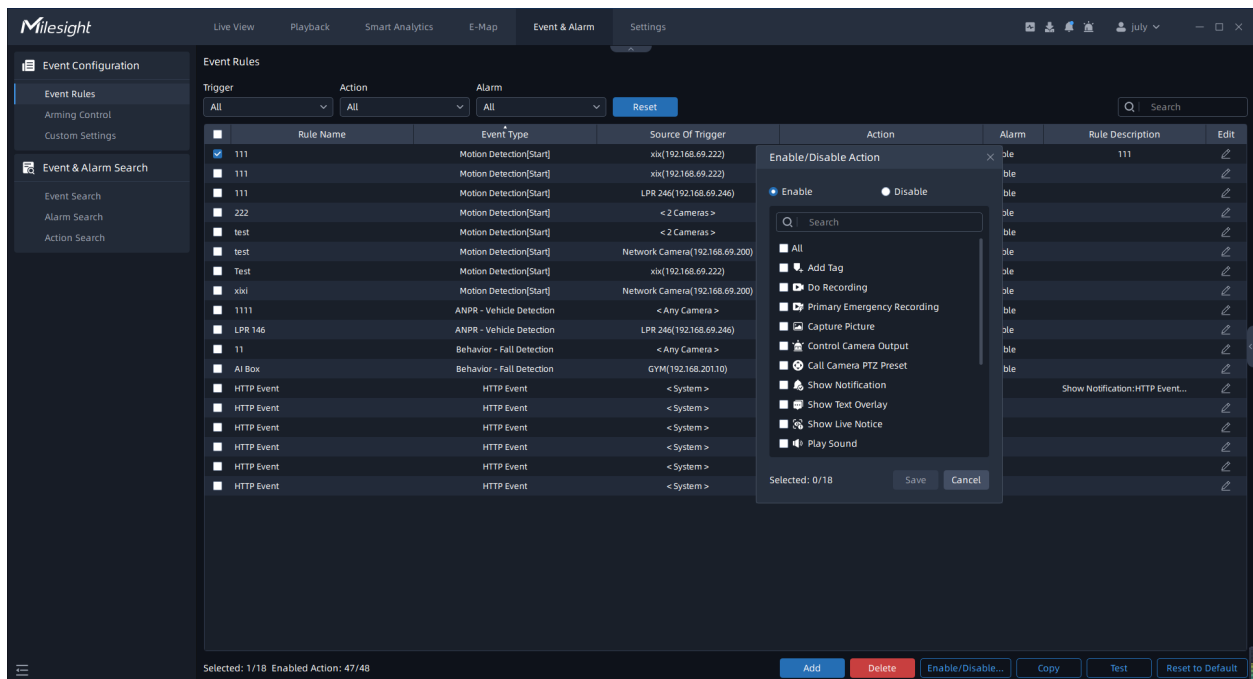
Save Cancel

Step3: After setting the event rules, click the “Save” button, then the event rule will be added to the event rule list and take effect.

Chapter 7. Event & Alarm

This VMS supports customizing event rules including trigger and action settings. And with data priorities processing and clear category of Alarm Data, Milesight Event & Alarm delivers more intelligent interfaces to focus on the target Event that matters to you.


The added event rules will be listed in the list, then you can directly check the details of event rules in the list.

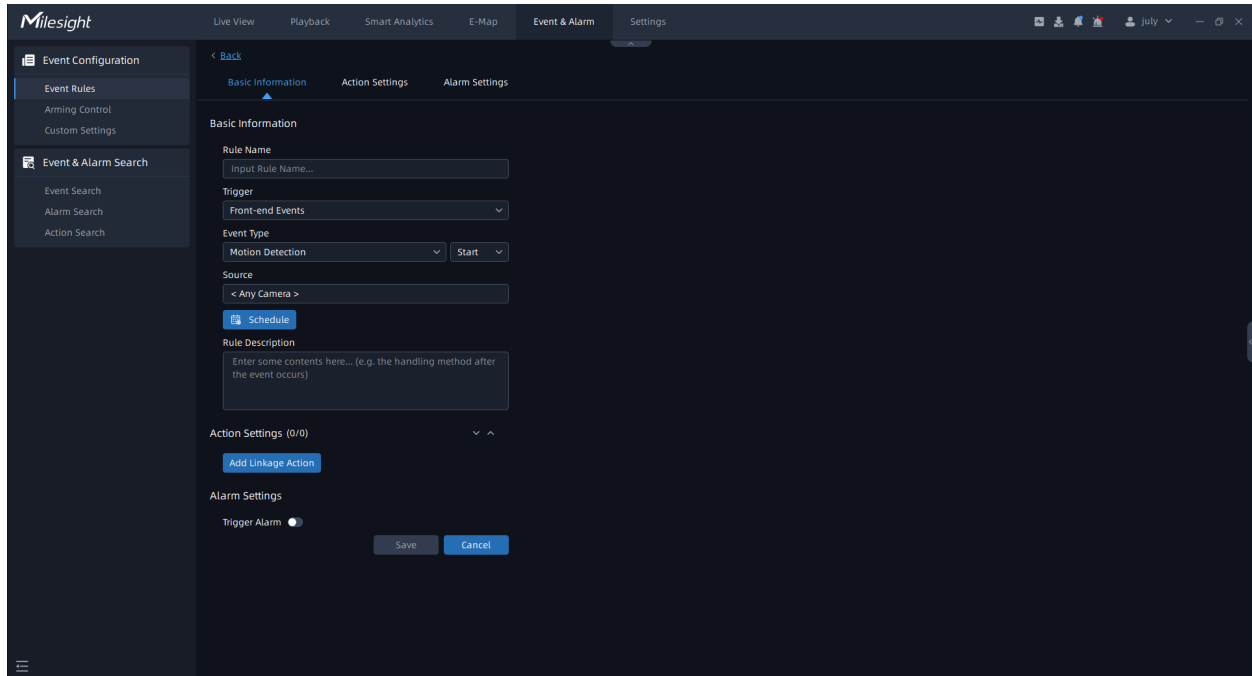


7.1 Event Configuration

7.1.1 Event Rules

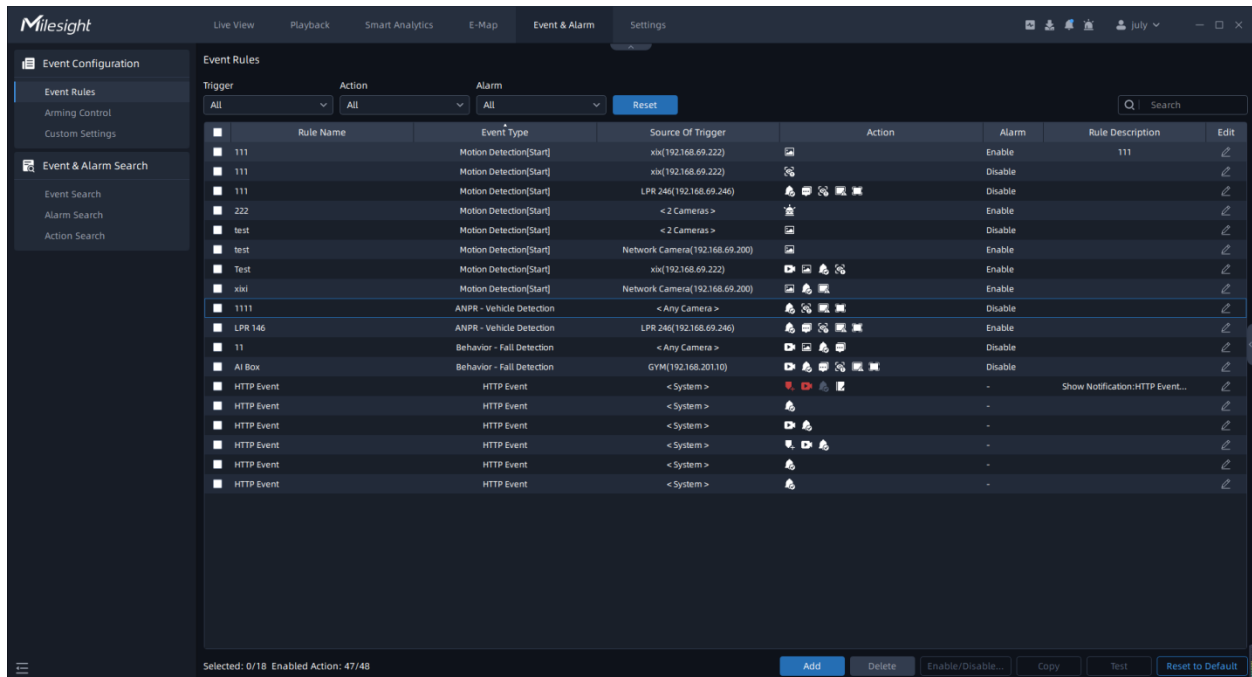
The steps of adding event rule are shown as below:


Step1: Click  button to add event rule as show below:






Here you can set event rules. Different types of trigger and action have different configuration rule items. Multiple types of action can be set for an event trigger. The meanings of the parameters on the page can refer to the table below.

Step2: After setting the event rules, click the “Save” button, then the event rule will be added to the event rule list and take effect.



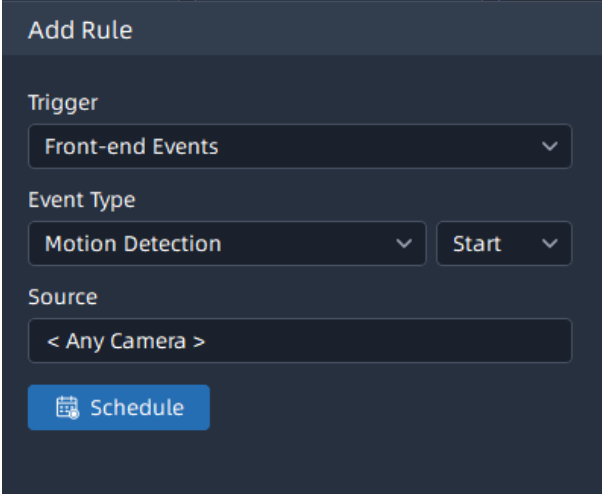

Step3: You can also click  button, or double click event rule row in the list to modify the selected event rule. Then click again the “Save” to apply the modified event rule.

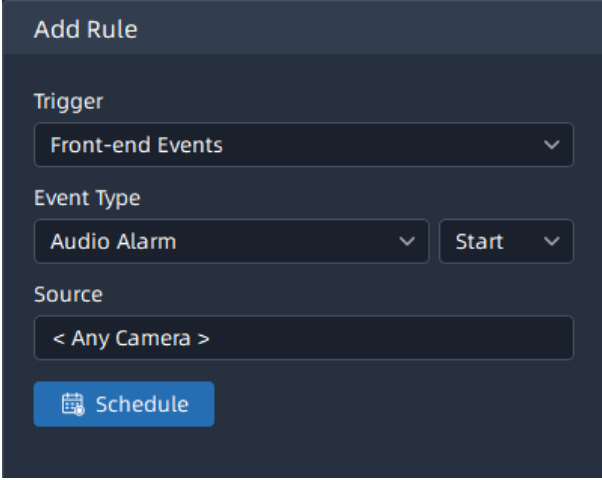

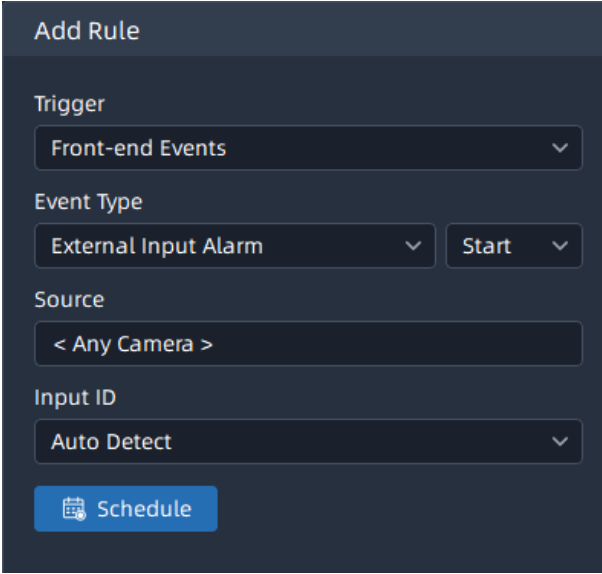

Step4: Check the corresponding event rules, and then click the  or

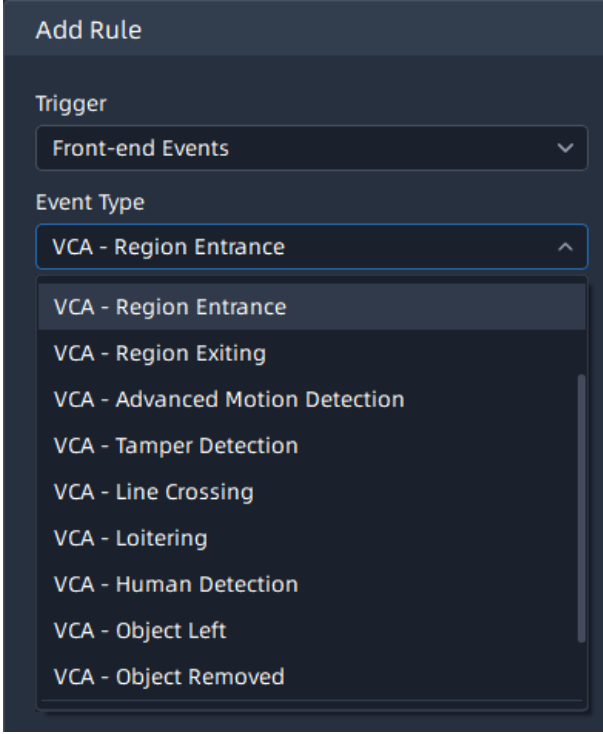

 button to enable or disable the event rules in batches. You can also click the  button to reset the event rules to the default, then the manually added rules will be deleted.

Now our VMS supports setting kinds of event trigger, the meanings of trigger settings can be referred to the table below:

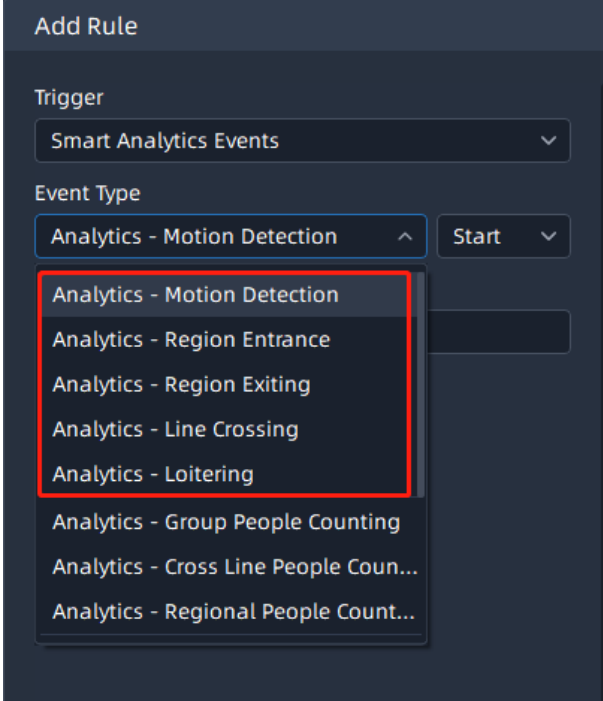
Table 64.

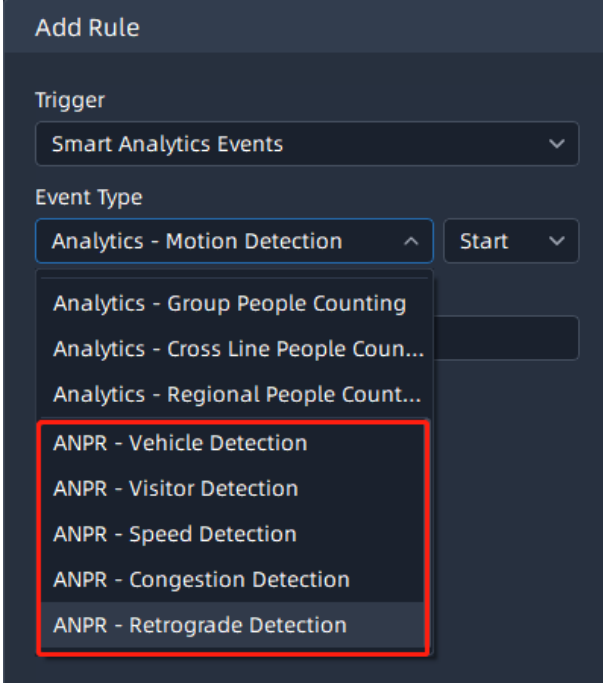
Parameter	Function Introduction
Front-end Event	<p>Front-end Motion Detection: When cameras detect object motion, the event will be triggered. The event trigger has two statuses including Start and Stop, you can set different camera sources and schedules for different states. The page is as below:</p>  <p> Note: Enable the Motion Detection of Milesight camera before using the function.</p>

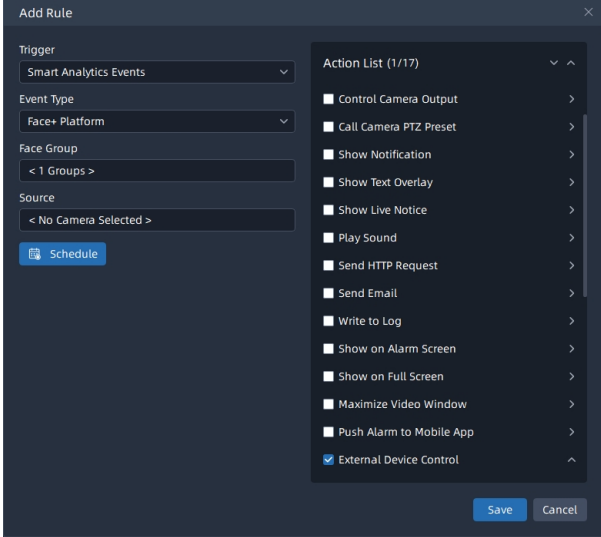
Parameter	Function Introduction
<p>Front-end Event</p>	<p>Front-end Audio Alarm: The event trigger setting page is the same as Front-end Motion Detection setting page.</p>  <p> Note: Enable the Audio Alarm of Milesight camera before using the function.</p>
<p>Front-end Event</p>	<p>Front-end External Input Alarm: The event trigger page is as below. If the selected camera has multiple alarm interfaces, then you can choose a type of Input ID. The default Input ID is Auto Detect.</p>  <p> Note: Enable the External Input Alarm of Milesight camera before using the function.</p>

Parameter	Function Introduction
<p>Front-end Event</p>	<p>Front-end VCA: You can set different camera sources, schedules and VCA event types here. The page is as below:</p>  <p> Note: Enable the VCA event of Milesight camera before using the function.</p>


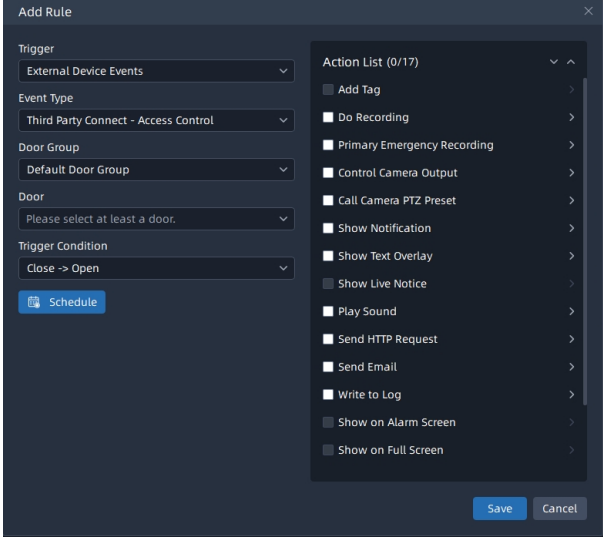

Parameter	Function Introduction
<p>Front-end Event</p>	<p>People Counting: Here you can set trigger rule of two modes, including People Counting and Regional People Counting. When the number of people detected exceeds the threshold you set, the event will be triggered. The page is as below:</p> <div data-bbox="532 457 1031 1075"> <p>Add Rule</p> <p>Trigger Front-end Events</p> <p>Event Type People Counting</p> <p>Source < Any Camera ></p> <p>Thresholds</p> <p><input type="checkbox"/> In 9999</p> <p><input type="checkbox"/> Out 9999</p> <p><input type="checkbox"/> Capacity 9999</p> <p><input type="checkbox"/> Sum 9999</p> <p><input checked="" type="checkbox"/> Only when crossing the threshold.</p> <p>Schedule</p> </div> <div data-bbox="532 1113 1031 1730"> <p>Add Rule</p> <p>Trigger Front-end Events</p> <p>Event Type People Counting - Regional</p> <p>Source < Any Camera ></p> <p>Thresholds</p> <p><input type="checkbox"/> Region 1 ></p> <p><input type="checkbox"/> Region 2 ></p> <p><input type="checkbox"/> Region 3 ></p> <p><input type="checkbox"/> Region 4 ></p> <p><input checked="" type="checkbox"/> Only when crossing the threshold.</p> <p>Schedule</p> </div> <p>Note:</p> <ul style="list-style-type: none"> • Enable the People Counting event of Milesight camera before using the function. • here you can enable the option in the image below, the alarm will only be triggered if the threshold is exceeded, otherwise it will be triggered every time the value changes. <div data-bbox="532 1957 932 2011"> <p><input checked="" type="checkbox"/> Only when crossing the threshold.</p> </div>

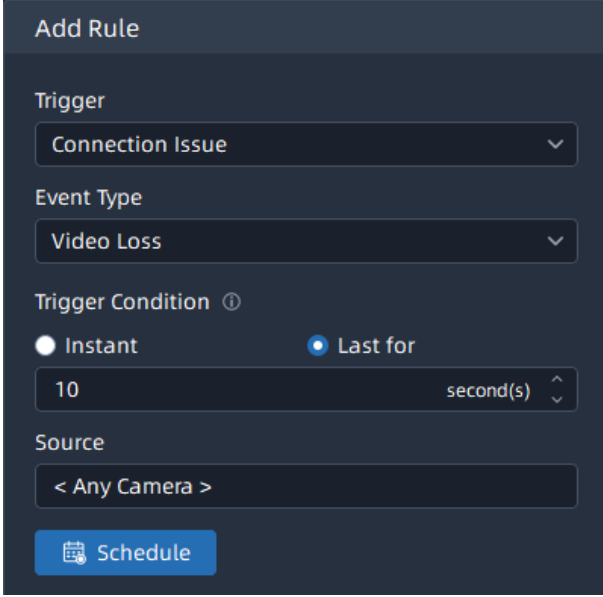
Parameter	Function Introduction
Smart Analytics Events	<p>Analytics: Here you can set Smart Analytics Events trigger rule of five modes, including Motion Detection, Region Entrance, Region Exiting, Line Crossing and Loitering. You can set different camera sources and schedules here. The page is as below:</p>  <p>The screenshot shows the 'Add Rule' configuration window. Under the 'Trigger' section, 'Smart Analytics Events' is selected. Under the 'Event Type' section, a dropdown menu is open, listing several event types. The first five items in the list are enclosed in a red rectangular box: 'Analytics - Motion Detection', 'Analytics - Region Entrance', 'Analytics - Region Exiting', 'Analytics - Line Crossing', and 'Analytics - Loitering'. Other visible options include 'Analytics - Group People Counting', 'Analytics - Cross Line People Coun...', and 'Analytics - Regional People Count...'.</p>

Parameter	Function Introduction
<p>Smart Analytics Events</p>	<p>ANPR: Here you can set ANPR trigger rule of five modes, including Vehicle Detection, Visitor Detection, Speed Detection, Congestion Detection and Retrograde Detection. The VMS system will trigger alarm actions according to the configuration rules. The page is as below:</p>  <p>Note: The VMS can only receive license plate recognition results from Milesight camera.</p>

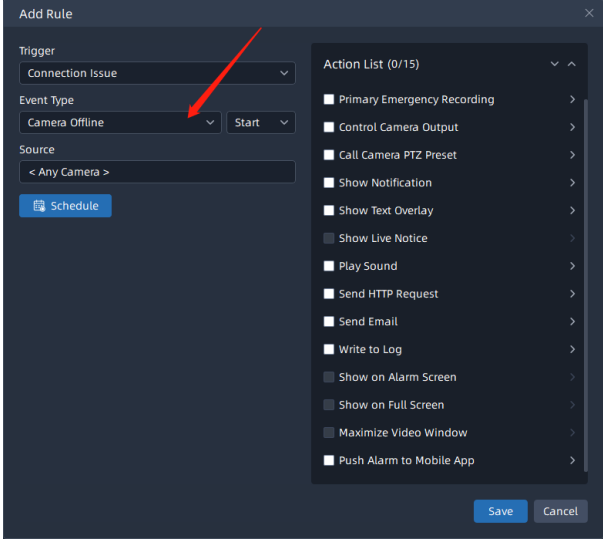
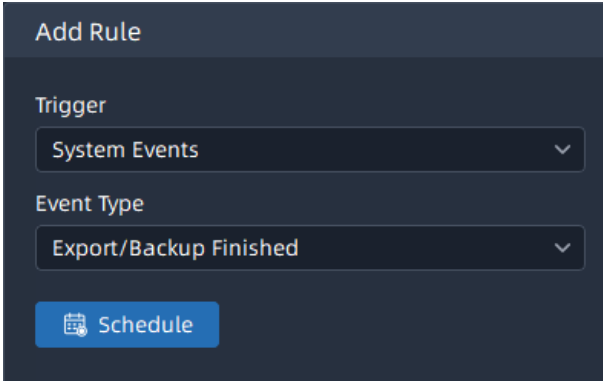
Parameter	Function Introduction
<p>Smart Analytics Events</p>	<p>Face+ Platform: Select the event trigger type as Face+ Platform, select the face group and the corresponding camera, set the schedule, and then set the alarm action.</p>  <p>Note: For more information, please refer to 6.5.4 Face Rule (page).</p>

Parameter	Function Introduction
<p>AI Box Analytics Events</p>	<p>Here you can set Fall Detection and Face Recognition trigger rules. The VMS system will trigger alarm actions according to the configuration rules. The page is as below:</p> <div data-bbox="532 428 1130 1192" style="background-color: #2c3e50; color: white; padding: 10px; border: 1px solid #34495e;"> <p>Basic Information</p> <p>Rule Name <input type="text" value="Input Rule Name..."/></p> <p>Trigger <input type="text" value="AI Box Analytics Events"/></p> <p>Event Type <input type="text" value="Behavior - Fall Detection"/></p> <p>Source <input type="text" value=" < Any Camera >"/></p> <p><input type="button" value="Schedule"/></p> <p>Rule Description <input type="text" value="Enter some contents here... (e.g. the handling method after the event occurs)"/></p> <p>Action Settings (0/0) v ^ <input type="button" value="Add Linkage Action"/></p> <p>Alarm Settings Trigger Alarm <input type="checkbox"/></p> <p style="text-align: right;"><input type="button" value="Save"/> <input type="button" value="Cancel"/></p> </div>

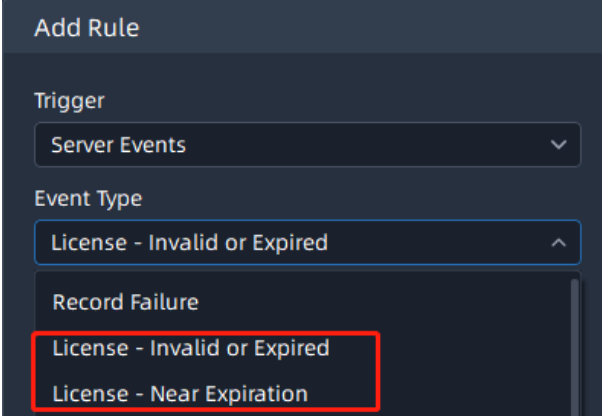
Parameter	Function Introduction
<p>IoT Sensor Events</p>	<p>IoT: Here you can set IoT Sensor Events trigger rule of five sensors: Occupancy, People Counting, Door Sensor, Electronic Switch and Smart Button. You can set different sensor sources and schedules here. The page is as below:</p> 
<p>External Device Event</p>	<p>Third Party Connect - Access Control: Select the event trigger type as Third Party Connect - Access Control, select the door group and the corresponding door, select the trigger condition, set the schedule, and then set the alarm action.</p>  <p> Note: For more information, please refer to 6.6.1 Access Control (page 320).</p>

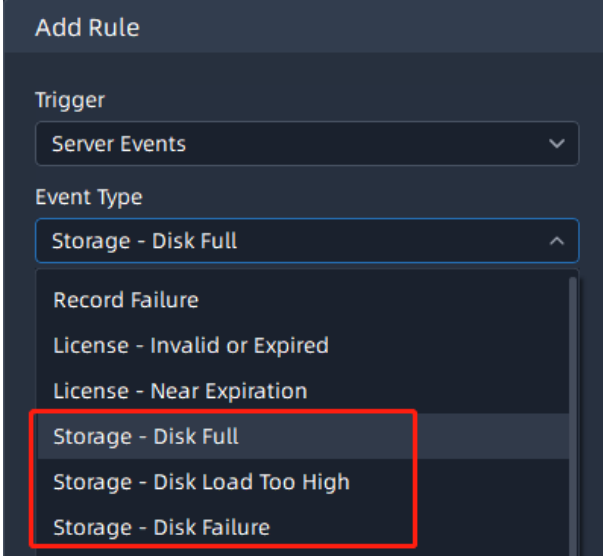
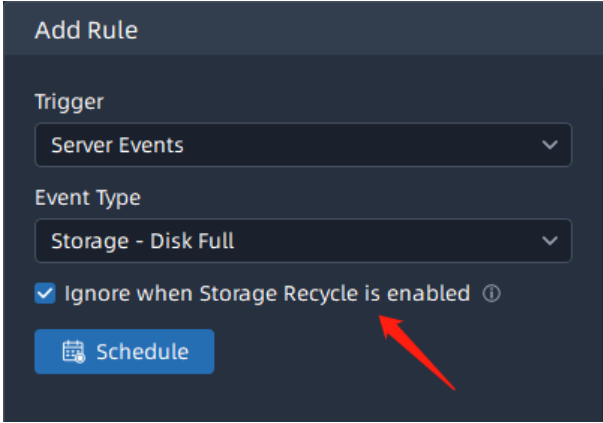
Parameter	Function Introduction
<p>Connection Issue</p>	<p>Video Loss: You can set Video Loss trigger rule for selected cameras. Once the selected cameras are disconnected beyond the set time, the event rule will be triggered.</p>  <p>The screenshot shows the 'Add Rule' configuration window. It includes the following settings:</p> <ul style="list-style-type: none"> Trigger: Connection Issue Event Type: Video Loss Trigger Condition: Instant (unselected) and Last for (selected) Duration: 10 second(s) Source: < Any Camera > Action: Schedule

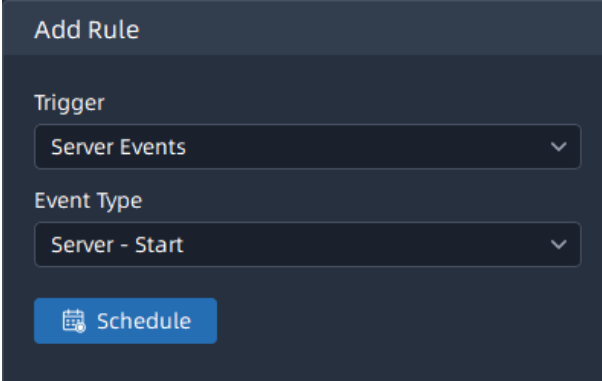
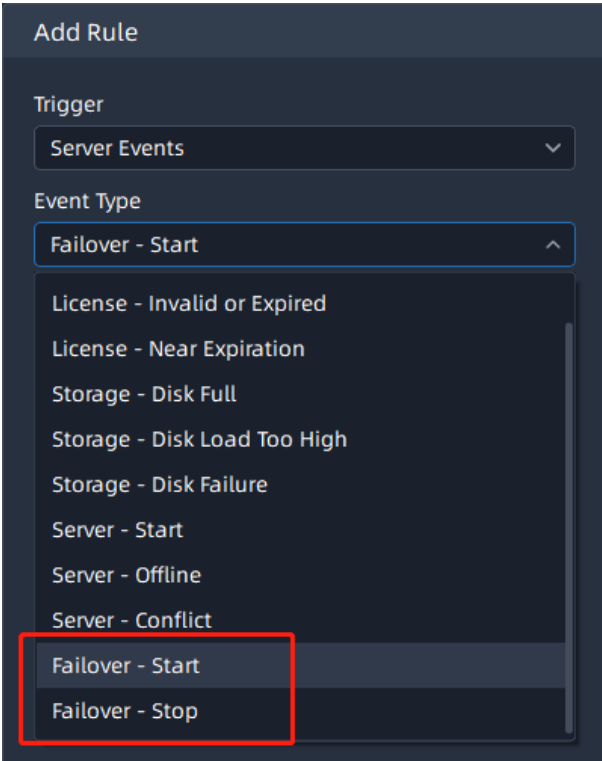
Parameter	Function Introduction
<p>Connection Issue</p>	<p>Video Packet: Here you set the event rule as Video Packet Lost or Video Packet Resume.</p> <div data-bbox="532 428 1029 915"> <p>Add Rule</p> <p>Trigger Connection Issue</p> <p>Event Type Video Packet - Lost</p> <p>Trigger Condition ⓘ <input type="radio"/> Instant <input checked="" type="radio"/> Last for 10 second(s)</p> <p>Source < Any Camera ></p> <p>Schedule</p> </div> <div data-bbox="532 949 1029 1318"> <p>Add Rule</p> <p>Trigger Connection Issue</p> <p>Event Type Video Packet - Resumed</p> <p>Source < Any Camera ></p> <p>Schedule</p> </div> <p>The Video Packet Lost event will be triggered if the VMS system detects the video packet is lost for more than the set time.</p> <p>The Video Packet Resumed event will be triggered if the VMS system detects the video packet is resumed in the last 1 minute.</p>


Parameter	Function Introduction
<p>Connection Issue</p>	<p>Connection Issue: It will trigger an alarm when the camera is offline or online.</p> 
<p>System Events</p>	<p>Export/Backup Finished:After setting the event rule, the event is triggered when the VMS system finishes data backup or export, like recording video export, system and server configuration export, etc. The page is as below:</p> 

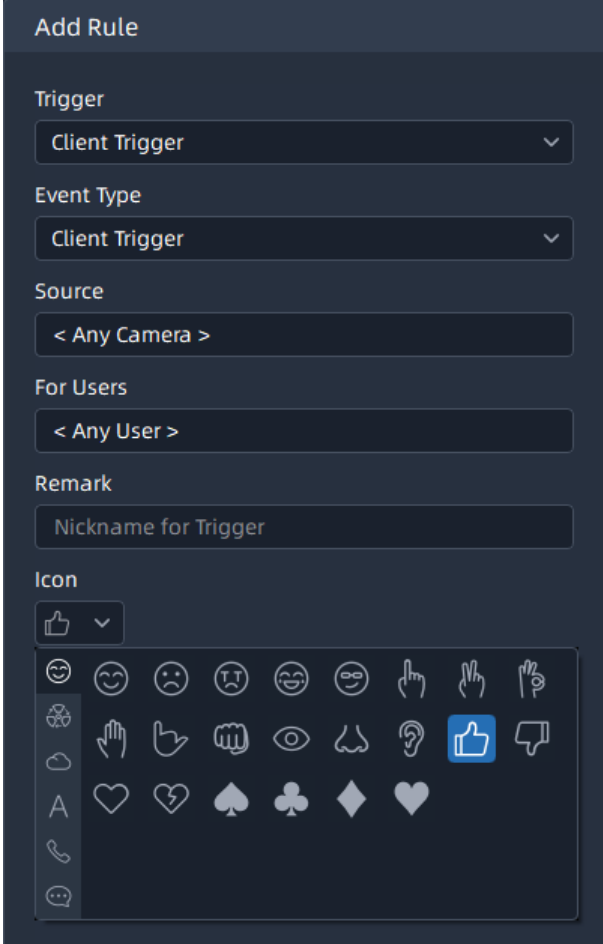
Parameter	Function Introduction
System Events	<p>User Expiration: Here You can set five types of User trigger rule, including Expired, Near Expiration, Login Succeeded, Login Failed and logout. The page is as below:</p> 
Server Events	<p>Record Failure: You can set a schedule for the selected cameras, if the selected cameras record failed, then the event will be triggered.</p> 

Parameter	Function Introduction
<p>Server Events</p>	<p>License Issue: You can set three types of License Issue trigger rule, including Invalid, Expired and Near Expiration. You can set duration for Near Expiration Date if your license is close to expire, then the event will be triggered duration days before Expiration Date.</p> 

Parameter	Function Introduction
<p>Server Events</p>	<p>Storage Issue: After setting the event rule, the event will be triggered if the VMS system detects Storage Issue. There are three types of Storage Issue, including Disk Full, Disk Load too High and Disk Failure.</p>  <p>Note: In the settings of the Disk Full event, the user can choose to mute the alarm when the storage recycle is enabled.</p> 

Parameter	Function Introduction
	<p>Server Started: After setting the event rule, the event is triggered if a certain server is started, offline or Conflict in the VMS system. The page is as below:</p>  <p>The screenshot shows the 'Add Rule' configuration window. The 'Trigger' dropdown is set to 'Server Events' and the 'Event Type' dropdown is set to 'Server - Start'. A blue 'Schedule' button is visible at the bottom.</p>
<p>Server Events</p>	<p>Failover: After setting the event rules, the event will be triggered if the VMS system detects Failover Start Working or Stop Working after Server Recovery.</p>  <p>The screenshot shows the 'Add Rule' configuration window with the 'Event Type' dropdown menu open. The menu lists various event types, with 'Failover - Start' and 'Failover - Stop' highlighted by a red box. Other visible options include 'License - Invalid or Expired', 'License - Near Expiration', 'Storage - Disk Full', 'Storage - Disk Load Too High', 'Storage - Disk Failure', 'Server - Start', 'Server - Offline', and 'Server - Conflict'.</p>

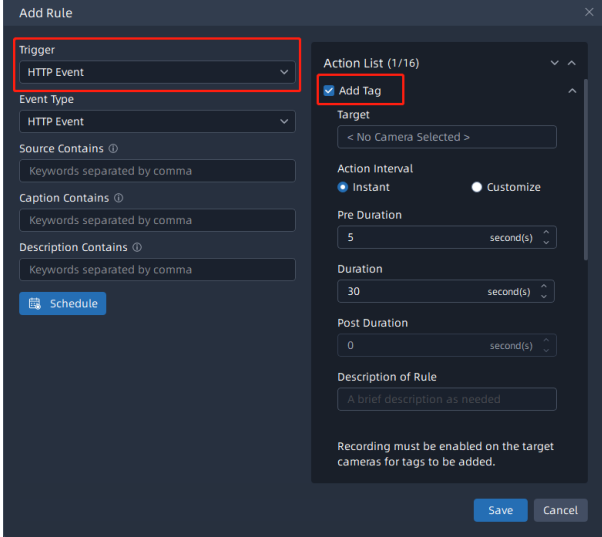
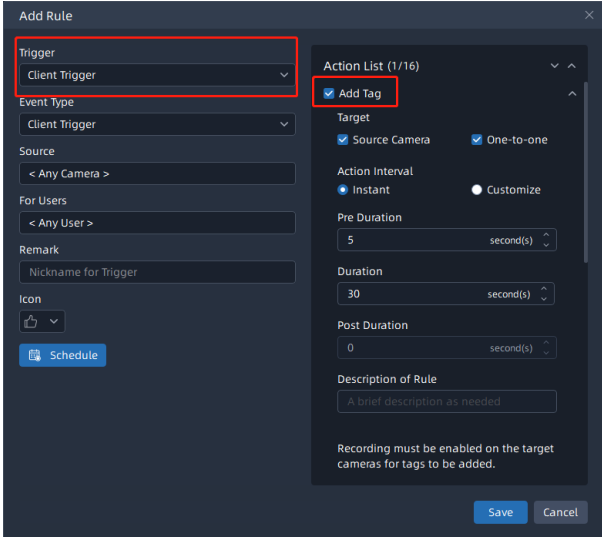

Parameter	Function Introduction
HTTP Event	<p>HTTP Event: After setting the event rules, the HTTP event will be triggered only if there are matches in the 'Caption', 'Source', or 'Description' with any of the entered keywords if the VMS system receives HTTP push from external devices. The page is as below:</p> <div data-bbox="532 485 1130 1136" style="background-color: #2c3e50; color: white; padding: 10px; border: 1px solid #34495e;"> <p style="margin: 0;">Add Rule</p> <p>Trigger <input type="text" value="HTTP Event"/></p> <p>Event Type <input type="text" value="HTTP Event"/></p> <p>Source Contains ⓘ <input type="text" value="Keywords separated by comma"/></p> <p>Caption Contains ⓘ <input type="text" value="Keywords separated by comma"/></p> <p>Description Contains ⓘ <input type="text" value="Keywords separated by comma"/></p> <p style="text-align: center;"><input type="button" value="Schedule"/></p> </div> <p> Note: If the field is empty, event will always be triggered.</p>

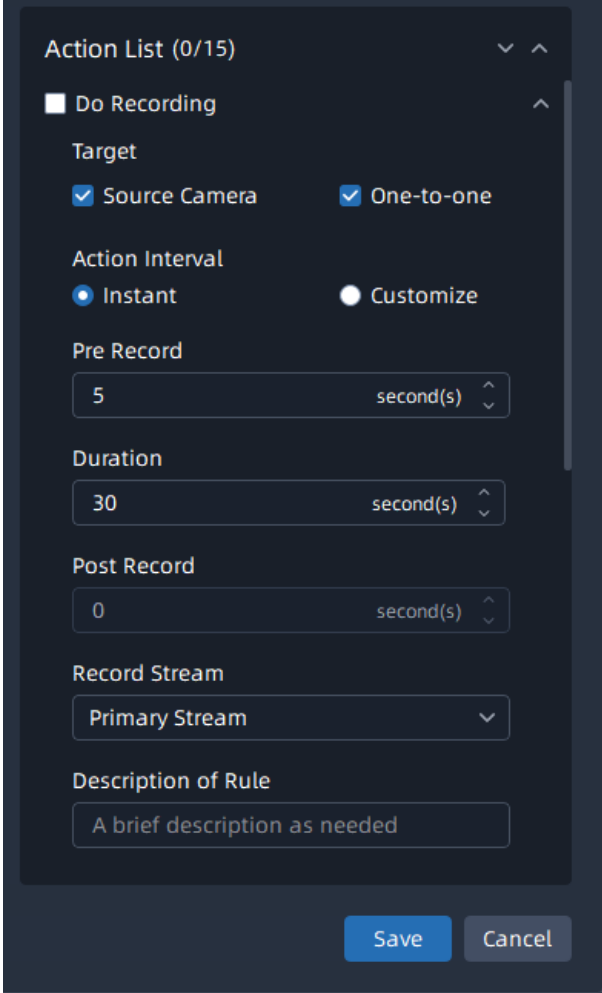
Parameter	Function Introduction
<p>Client Trigger</p>	<p>Client Trigger: Here you can set trigger icon, users who will be available to use this trigger, remark and trigger schedule for selected cameras. After setting the rule, selected users can see the trigger rule icon and remark in live view window of selected cameras. The page is as below:</p> 

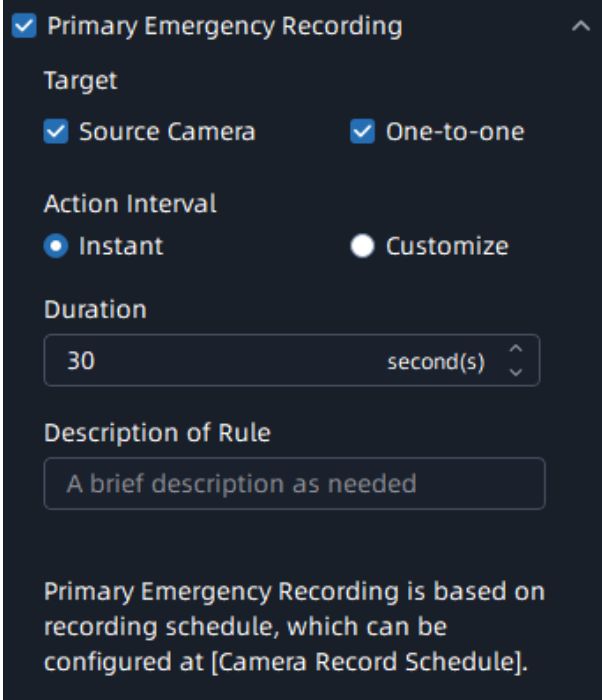
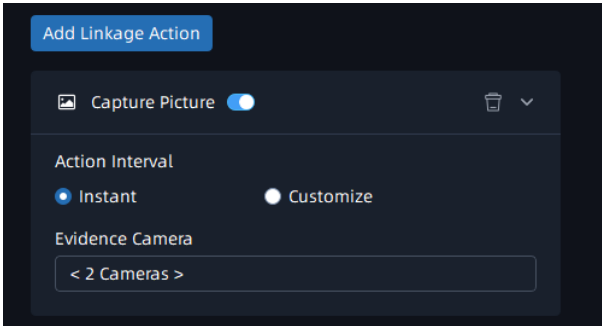
Parameter	Function Introduction
<p style="text-align: center;">Timer Event</p>	<p>Timer Event: Here you configure Timer Event to detect anomalies and trigger alarms based on predefined time schedules.</p> <div style="background-color: #2c3e50; color: white; padding: 10px; border: 1px solid #34495e;"> <p>Basic Information</p> <p>Rule Name <input style="background-color: #34495e; color: white; border: none;" type="text" value="Input Rule Name..."/></p> <p>Trigger <input style="background-color: #34495e; color: white; border: none;" type="text" value="Timer Event"/></p> <p>Event Type <input style="background-color: #34495e; color: white; border: none;" type="text" value="Timer Event"/></p> <p>Time <input style="background-color: #34495e; color: white; border: none;" type="text" value="12:00:00"/></p> <p><input style="background-color: #3498db; color: white; border: none;" type="button" value="Schedule"/></p> <p>Rule Description <input style="background-color: #34495e; color: white; border: none;" type="text" value="Enter some contents here... (e.g. the handling method after the event occurs)"/></p> </div>

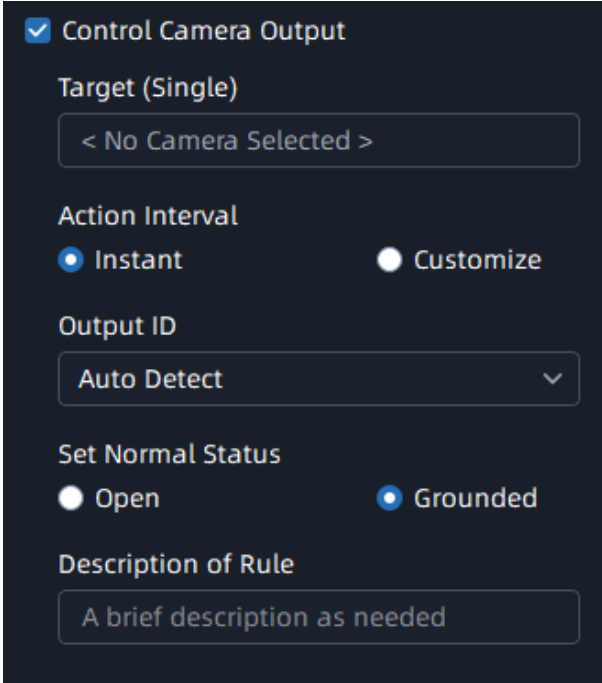

The meanings of action settings can be referred to the table below:

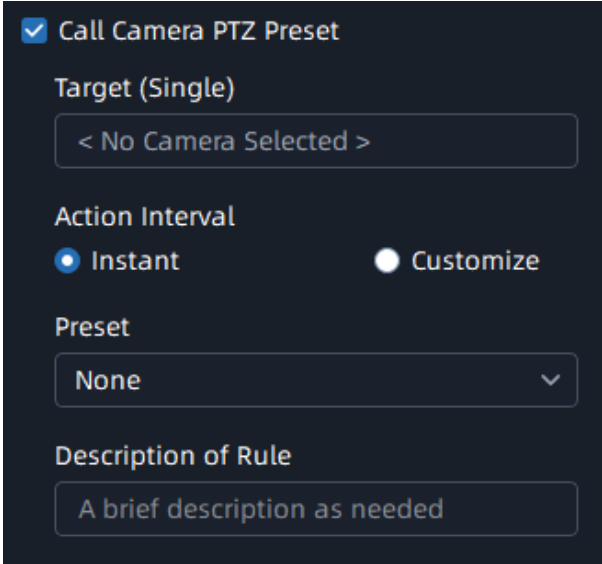

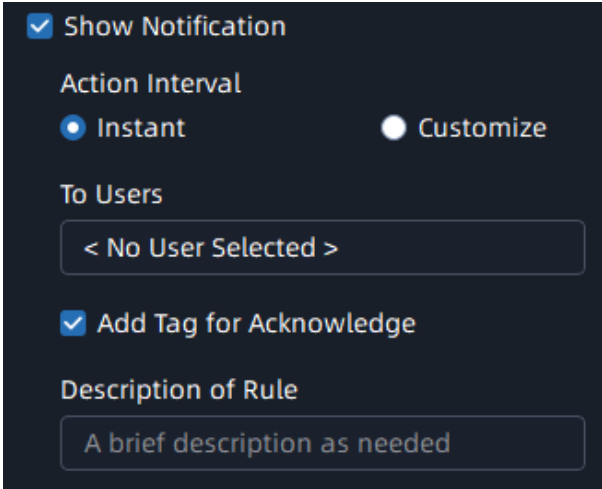

Table 65.

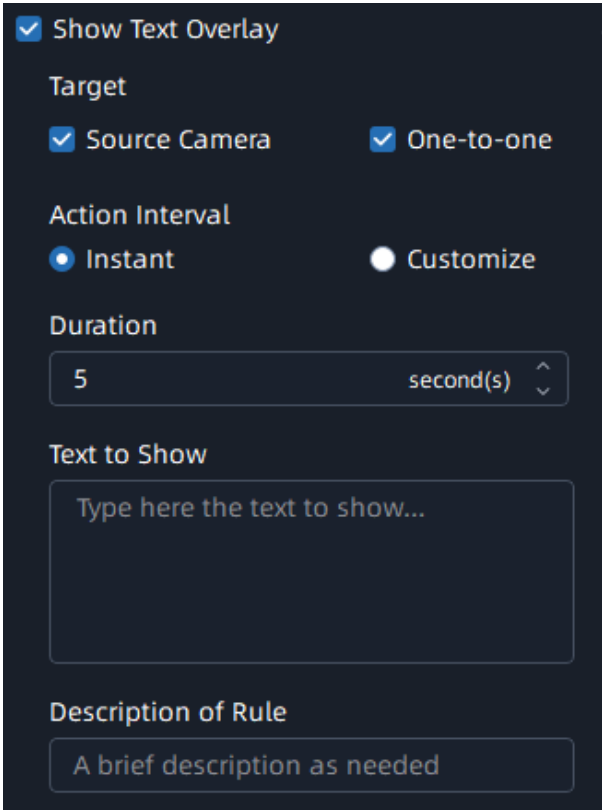
Parameter	Function Introduction
<p style="text-align: center;">Action</p>	<p>Add Tag: When the Event Trigger is set to HTTP Event or Client Trigger, it supports triggering "Add Tag" to the recording.</p> <div style="margin-top: 10px;">  </div> <div style="margin-top: 10px;">  </div> <p>Then users can see the tag on the timeline as shown below.</p> <div style="margin-top: 10px;">  </div>

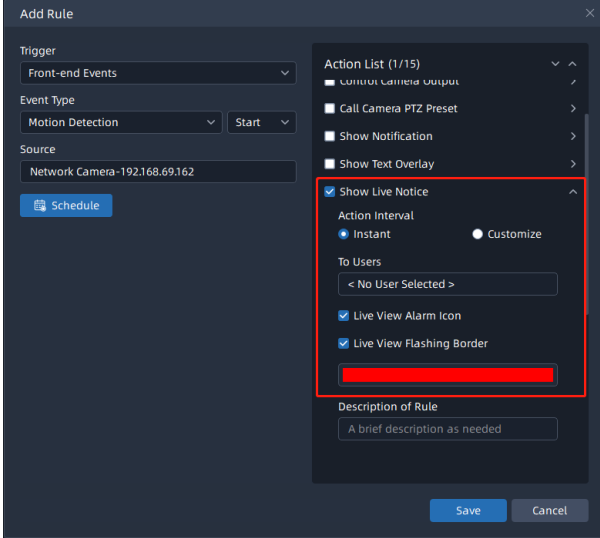
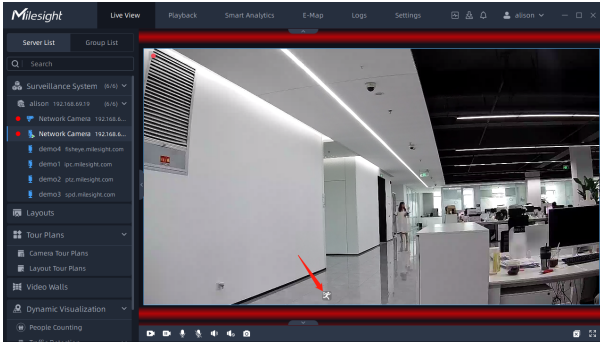
Parameter	Function Introduction
Action	<p>Do Recording: After setting the action rule, the selected target cameras will record video according to the action setting when the corresponded event is triggered. The page is as below:</p> 

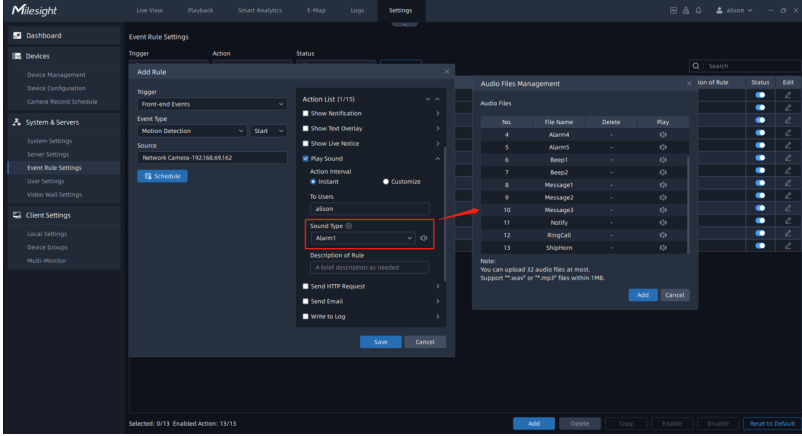
Parameter	Function Introduction
<p>Action</p>	<p>Primary Emergency Recording: After setting the action rule, the selected target cameras will record primary stream video according to the action setting when the corresponded event is triggered. The page is as below:</p>  <p>Note: The targeted devices that is recording the primary stream video still continue to record primary stream video when related event is triggered.</p> <p>Capture Picture: After setting the action rule, the Source Camera is allowed to trigger snapshots on Evidence Camera. The Page is as below:</p>  <p>Note: Within 2 evidence cameras are supported.</p>


Parameter	Function Introduction
Action	<p>Control Camera Output: After setting the action rule, the current output status of selected target camera will change to another one status according to the action setting when the corresponded event is triggered. The page is as below:</p>  <p> Note: Only one targeted camera can be selected. If you want more cameras to perform the action, and you can copy the event rule to configure separately.</p>

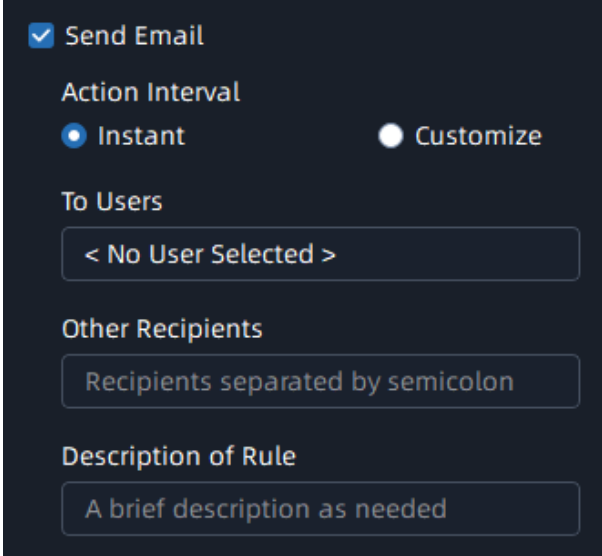

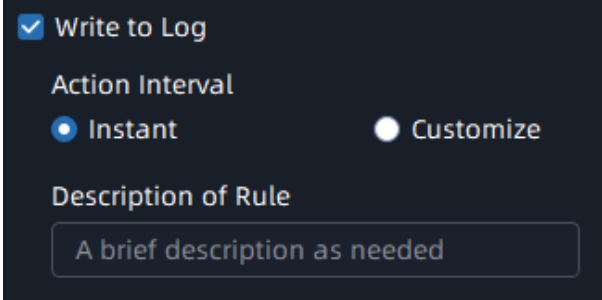
Parameter	Function Introduction
<p style="text-align: center;">Action</p>	<p>Call Camera PTZ Preset: After setting the action rule, the selected preset of target camera will be called according to the action setting when the corresponded event is triggered. The page is as below:</p>  <p> Note: The default target cameras only display the devices which can support PTZ function.</p>
	<p>Show Notification: After setting the action rule, the selected users can see the event notification in the notifications panel according to the action setting when the corresponded event is triggered. The page is as below:</p>  <p> Note: Selected users must set to receive the notification in the Notification Filter, and then can see the event notification in the notifications panel.</p>


Parameter	Function Introduction
	<p>Show Text Overlay: After setting the action rule, the text overlay which you set will display in the real-time live view window of selected cameras according to the action interval and duration setting when the corresponded event is triggered. Furthermore, you have the option to restrict the visibility of these alarm actions to specific users.</p> <p>The page is as below:</p>  <p>The screenshot shows a configuration panel for 'Show Text Overlay'. At the top, there is a checked checkbox for 'Show Text Overlay'. Below it, the 'Target' section includes 'Source Camera' (checked) and 'One-to-one' (checked). The 'Action Interval' section has 'Instant' selected with a radio button and 'Customize' unselected. The 'Duration' section shows a value of '5' in a dropdown menu with 'second(s)' and up/down arrows. The 'Text to Show' section has a text input field with the placeholder 'Type here the text to show...'. The 'Description of Rule' section has a text input field with the placeholder 'A brief description as needed'.</p>

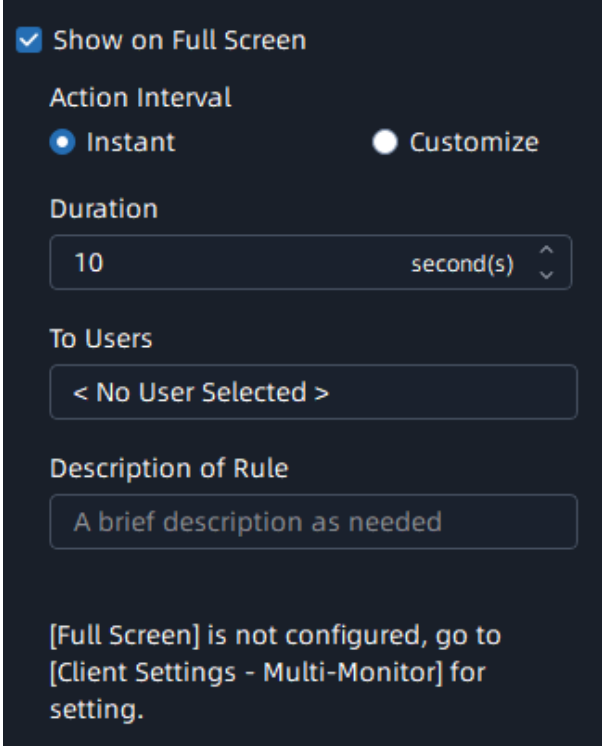

Parameter	Function Introduction
<p style="text-align: center;">Action</p>	<p>Show Live Notice: Once the event is triggered, it will flash a frame and show the alarm icon on the Live View interface according to the setting, making monitoring more intuitive and efficient. The page is as below:</p>  

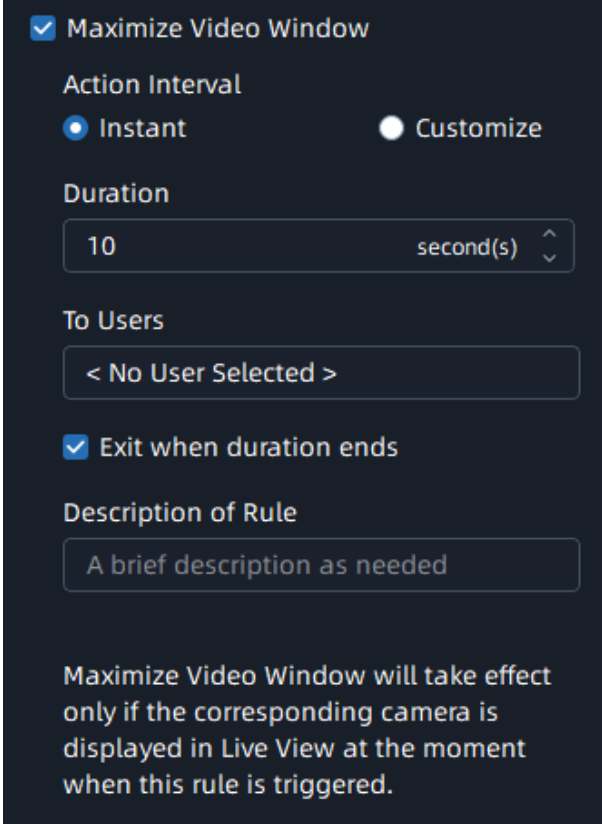
Parameter	Function Introduction
<p style="text-align: center;">Action</p>	<p>Play Sound: After setting the action rule, the audio file will play on the client system of selected users when the corresponded event is triggered. Users can choose the built-in audio files in the system or upload the custom audio files manually to meet different needs. The page is as below:</p>  <p>Note: User can upload 32 audio files at most.</p>

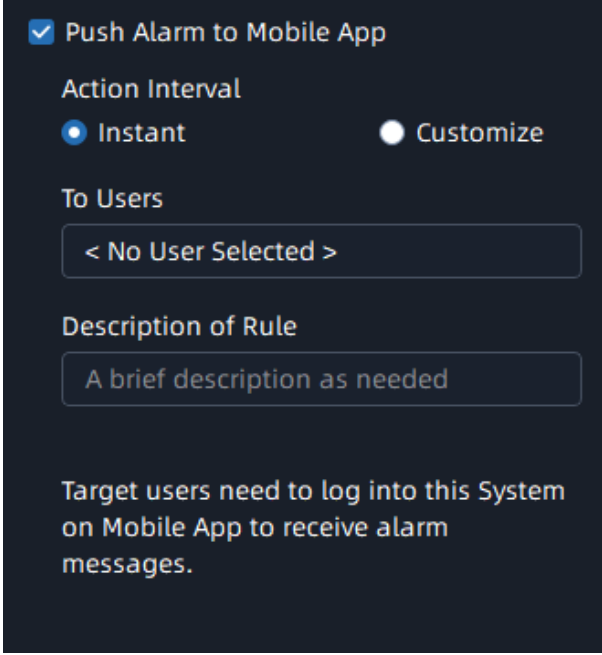

Parameter	Function Introduction
<p style="text-align: center;">Action</p>	<p>Send HTTP Request:After setting the action rule, the VMS system will send HTTP Request to the URL filled in the box when the corresponded event is triggered. The page is as below:</p> <div style="border: 1px solid black; padding: 10px; background-color: #f0f0f0; margin-bottom: 10px;"> <p><input type="checkbox"/> Send HTTP Request ^</p> <p>Action Interval</p> <p><input checked="" type="radio"/> Instant <input type="radio"/> Customize</p> <p>HTTP URL</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">Type here the URL</div> <p>Content Type</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">text/plain v</div> <p>HTTP Content</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">Type here the HTTP Content</div> </div> <div style="border: 1px solid black; padding: 10px; background-color: #f0f0f0;"> <p>Authentication Type</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">Digest v</div> <p>Request Type</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">GET v</div> <p>User Name</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">User Name of HTTP Server</div> <p>Password</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">Password of HTTP Server v</div> <p>Description of Rule</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">A brief description as needed</div> </div> <p> Note: The HTTP URL format can be customized,for example,http://{ip}:{port}/api/httpEvent?xxxxxx</p>

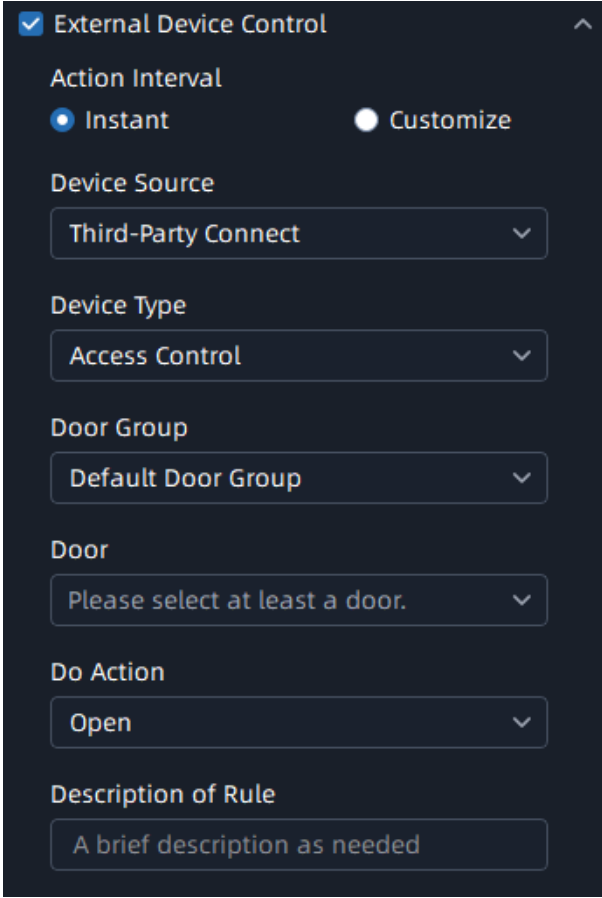
Parameter	Function Introduction
Action	<p>Send Email: After setting the action rule, the VMS system will send the event emails including trigger, event source and time, etc., to the selected users and other recipients which you set when the corresponded event is triggered. The page is as below:</p>  <p> Note: Email Service needs to be configured correctly.</p>
	<p>Write to Log: After setting the action rule, the VMS system will write the information about event to event logs when the corresponded event is triggered. The page is as below:</p> 

Parameter	Function Introduction
<p style="text-align: center;">Action</p>	<p>Show on Alarm Screen: After setting the action rule, the VMS system will push the live view of camera to display on Alarm Screen while action is triggered. The page is as below:</p> <div style="background-color: #2c3e50; color: white; padding: 10px; border: 1px solid #34495e;"> <p><input checked="" type="checkbox"/> Show on Alarm Screen</p> <p>Action Interval</p> <p><input checked="" type="radio"/> Instant <input type="radio"/> Customize</p> <p>Duration</p> <p>10 second(s)</p> <p>To Users</p> <p>< No User Selected ></p> <p>Description of Rule</p> <p>A brief description as needed</p> <p>[Alarm Screen] is not configured, go to [Client Settings - Multi-Monitor] for setting.</p> </div> <p> Note: 'Alarm Screen' need to be configured firstly.</p>

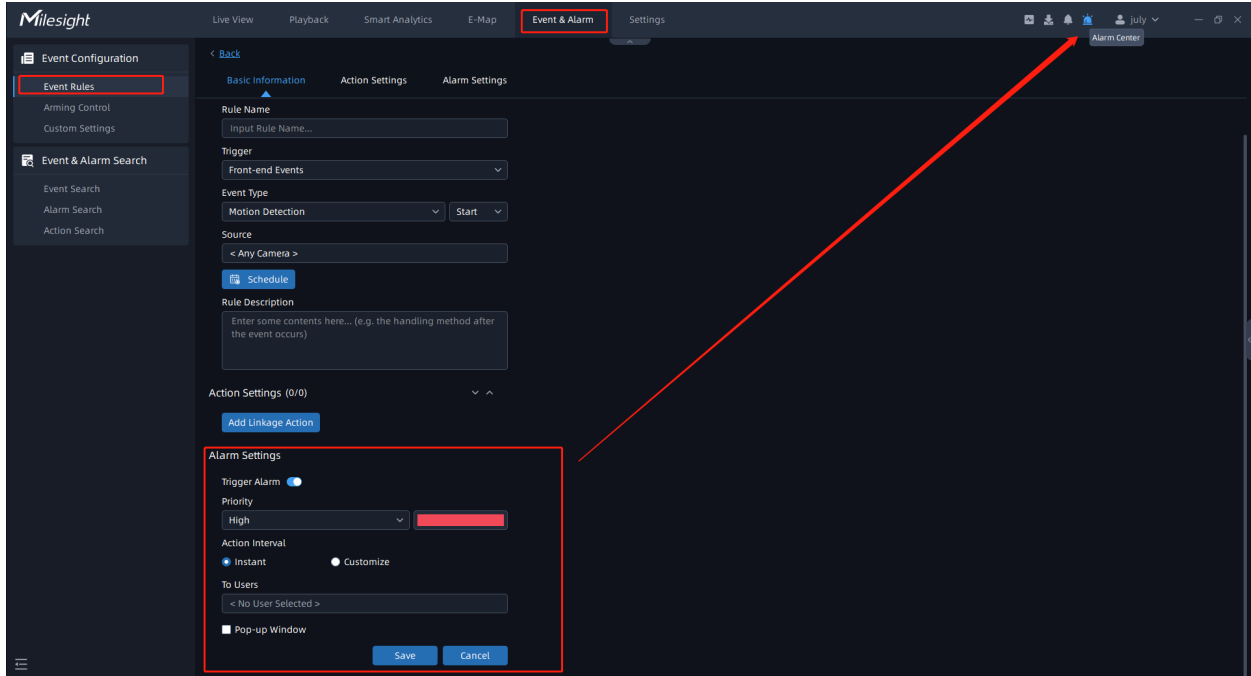
Parameter	Function Introduction
Action	<p>Show on Full Screen: After setting the action rule, the VMS system will push the live view of camera to display on Full Screen while action is triggered. The page is as below:</p>  <p> Note: 'Full Screen' must be configured firstly.</p>

Parameter	Function Introduction
Action	<p>Maximize Video Window: After the action rule is set, the VMS system will maximize the live view of camera on the current video window while action is triggered. The page is as below:</p>  <p>Note:</p> <ul style="list-style-type: none"> • Maximize Video Window will take effect only if the corresponding camera is displayed in Live View at the moment when the event is triggered. • Only live view of one channel can be maximized to the current video window each time.

Parameter	Function Introduction
Action	<p>Push Alarm to Mobile App: After the action rule is set, the VMS system will push alarm message to M-VMS Mobile App. The page is as below:</p>  <p> Note: Please make sure the version of M-VMS Mobile App is V1.0.0.2 or above.</p>

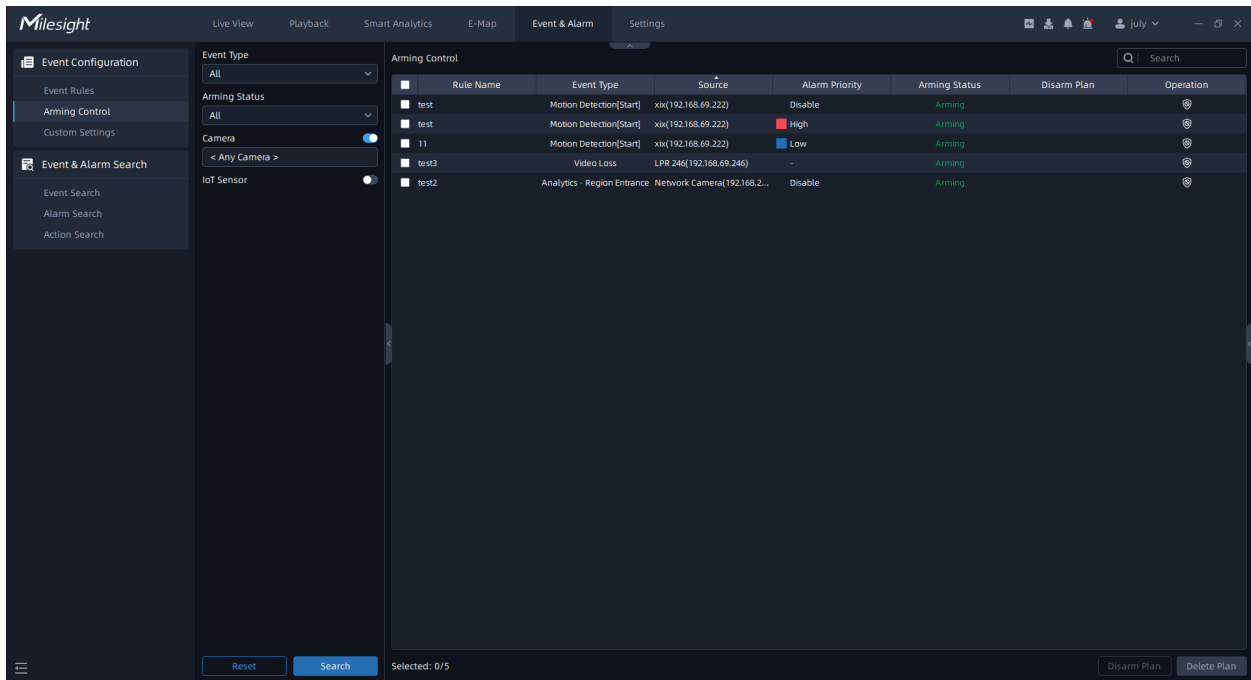
Parameter	Function Introduction
<p style="text-align: center;">Action</p>	<p>External Device Control: If you have added an access control device, it supports triggering the door opening or closing according to different event trigger types to achieve access control management.</p> 

Step 5: Enable Trigger Alarm. When you enable it, then the Alarm Data will be generated in the Alarm Center



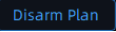

7.1.2 Arming Control


The VMS supports setting Disarm Plan to disable events temporarily at a specific time interval.



Step1: Select the Event Type, Arming Status, Camera and IoT Sensor, and click

;







Step2: Check the events, and click  button or click ;

Step3: Set the specific time interval that you'd like to disable the events and click ;

Step4: If you need to restore the armed status, you can click ;

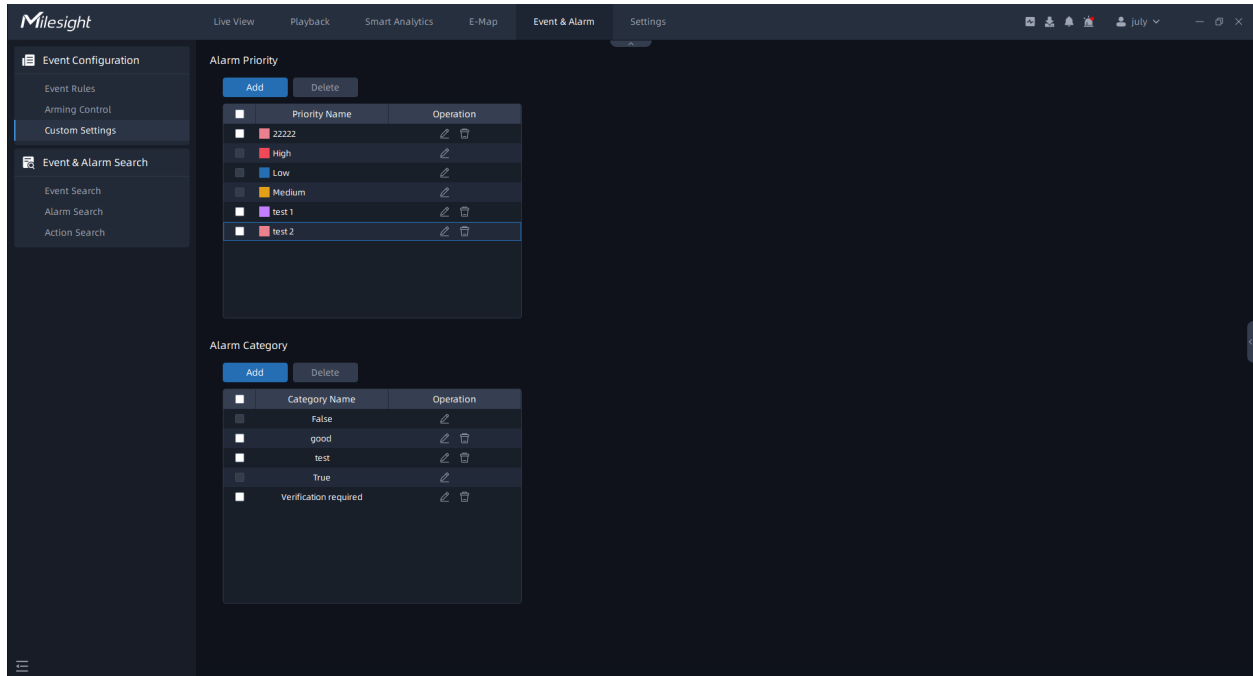
The meanings of the icons on the interface can be referred to the table below:

Table 66.




Icon	Function Introduction
 Disarm Plan	Click  icon to disarm plan
 Edit Plan	click  icon to change the time interval of the Disarm Plan.
 Delete Plan	Click  icon to delete the disarm plan.

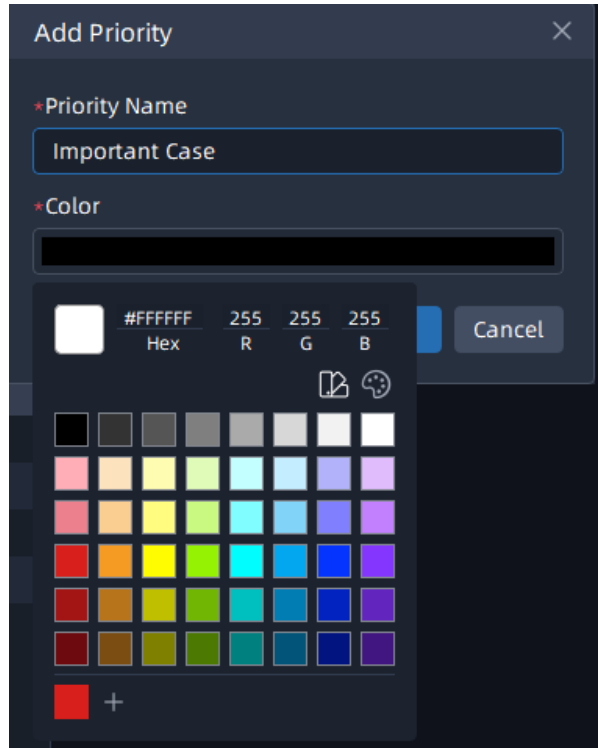
7.1.3 Custom Setting

You can customize the names of Alarm Priority and Category on the Custom Settings interface. The prioritization and classification of Alarm Data help users to find the target quickly.

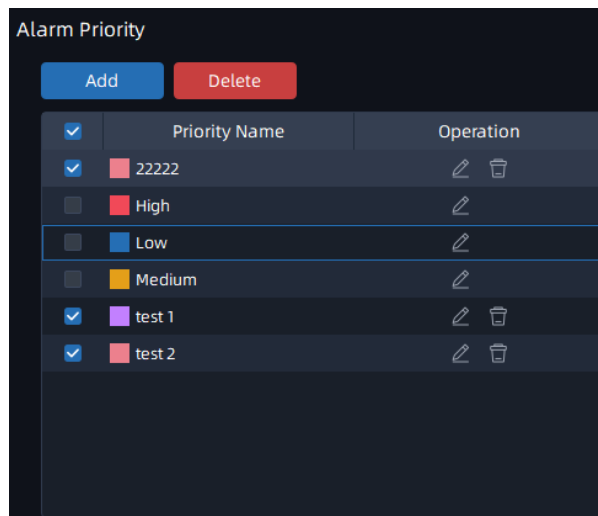


- Alarm Priority

Users can click  button, and then input the priority name and choose the color. If you need to edit the specific Alarm Priority, you can click  button to change the name and color. Or if you want to delete the specific Alarm Priority, you can click  icon.

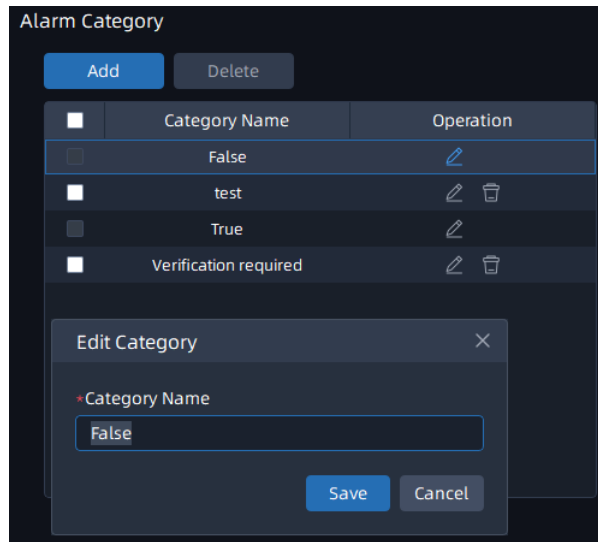


By clicking on **Delete** to delete the Alarm Priority in bulk or individually.

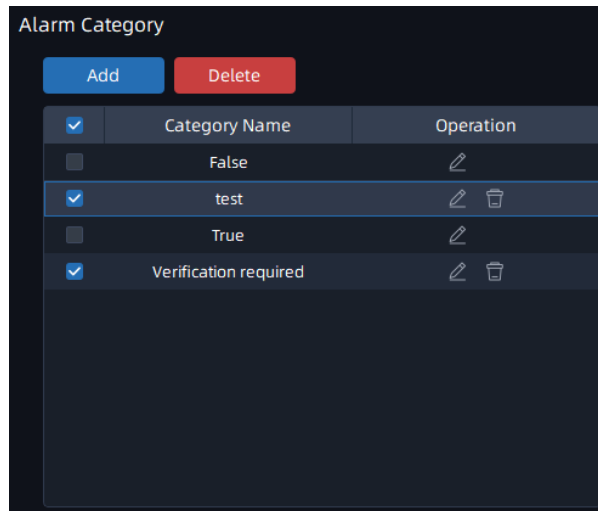


- Alarm Category

Users can click **Add** button, and then input the Category Name. If you need to edit the Category Name, you can click icon. Or if you want to delete the specific Alarm Category, you can click icon.



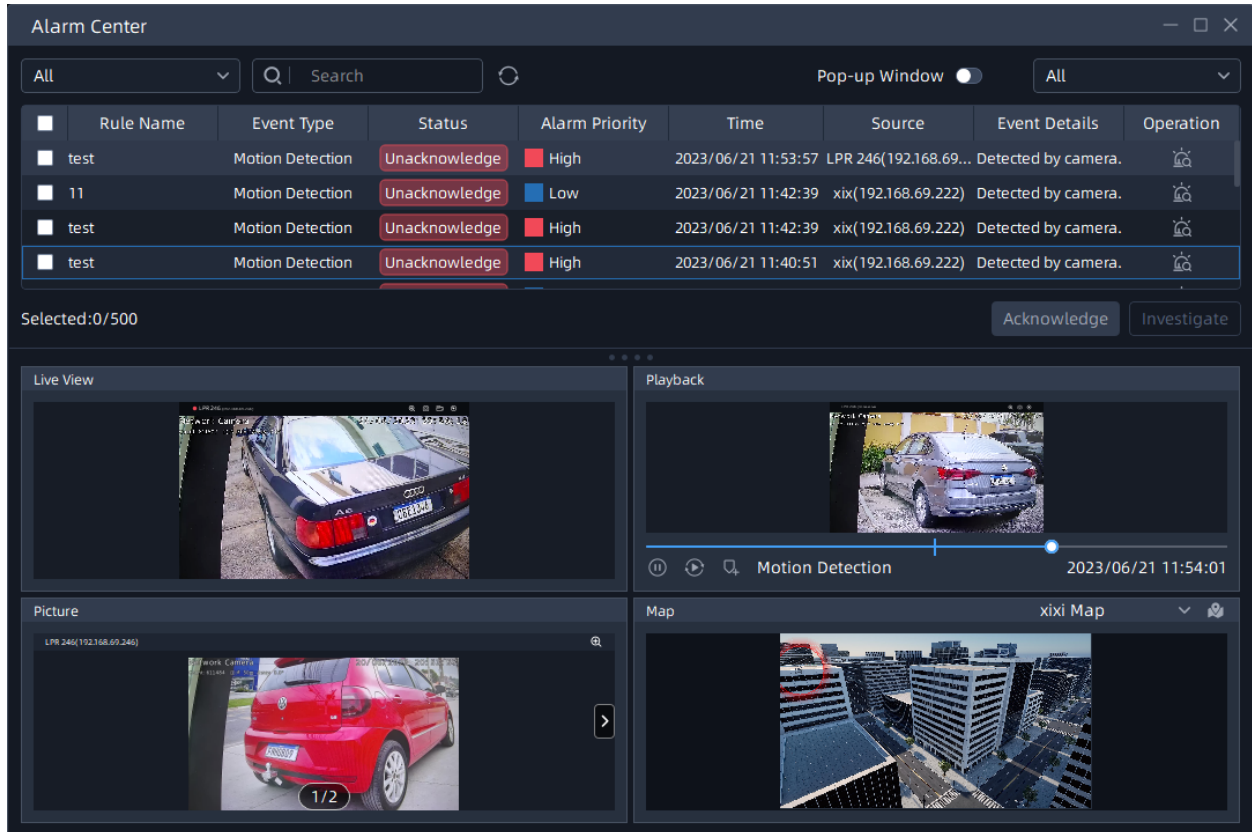
By clicking on **Delete** to delete the Alarm Category in bulk or individually.



7.2 Alarm Center










In the Alarm Center, you can see the Alarm Data with the status of Unacknowledged and the corresponding priority level. Besides, the Live View, Playback, Picture and Map will be shown in the below section.







Note: To implement Picture feature, you need to enable the Capture Picture first.



The meanings of the parameters in the interface can be referred to the table below:

Table 67.

Icon	Function Introduction
Pop-up Window 	Once it is enabled, you will receive real-time pop-up notifications whenever there is Alarm Data generated.
Play 	Click  to view the playback video at the time of the event trigger
Pause 	Click  to pause the playback.
Play in Playback 	Click  to return to the Playback interface for users to view more playback details.
Add Tag 	Click  to tag the playback time period.

Icon	Function Introduction
Next 	Click  to view the picture taken by Evidence Camera
Previous 	Click  to view the picture taken by Source Camera
Enable 	Click  to enable digital zoom

How to change the status of Alarm Data?

Step1: Select the target Alarm Data in bulk or individually;

Step2: Click [Acknowledge](#) to put the Alarm Data into the specific category and click [Save](#) button, then the Alarm Data can be searched in Alarm Search;

Or you can click [Investigate](#), the status of the Alarm Data will then become Under Investigate. If you want to change the status again, you can click [Acknowledge](#) and put it to the target category.

The screenshot displays the Alarm Center interface. At the top, there is a search bar and a 'Pop-up Window' toggle. Below this is a table of alarm events. The table has columns for Rule Name, Event Type, Status, Alarm Priority, Time, Source, Event Details, and Operation. The first row is selected, and its status is 'Unacknowledge'. Below the table, there are 'Acknowledge' and 'Investigate' buttons. A dialog box titled 'Acknowledge' is open, showing 'Alarm Category' set to 'True' and a 'Remark' field. The background shows a 'Live View' of a car, a 'Picture' of a car, and a 'xixi Map' of a city.

Rule Name	Event Type	Status	Alarm Priority	Time	Source	Event Details	Operation
test	Motion Detection	Unacknowledge	High	2023/06/26 11:33:26	LPR 246(192.168.69...	Detected by camera.	
test	Motion Detection	Unacknowledge	High	2023/06/26 11:22:26	LPR 246(192.168.69...	Detected by camera.	
test	Motion Detection	Unacknowledge	High	2023/06/26 11:20:27	LPR 246(192.168.69...	Detected by camera.	
test	Motion Detection	Unacknowledge	High	2023/06/26 11:13:19	xix(192.168.69.222)	Detected by camera.	

If you want to know more details about the Alarm Data, you can click to enter the Alarm Details interface and view more details, such as Playback, Picture, Operation Log, etc. Similarly, on this interface, you can also change the status of the alarm data by clicking [Acknowledge](#) and [Investigate](#).

Alarm Center

All Pop-up Window All

Rule Name	Event Type	Status	Alarm Priority	Time	Source	Event Details	Operation
test	Motion Detection	Unacknowledge	High	2023/06/26 11:33:26	LPR 246(192.168.69...	Detected by camera.	
test	Motion Detection	Unacknowledge	High	2023/06/26 11:22:26	LPR 246(192.168.69...	Detected by camera.	
test	Motion Detection	Unacknowledge	High	2023/06/26 11:20:27	LPR 246(192.168.69...	Detected by camera.	
test	Motion Detection	Unacknowledge	High	2023/06/26 11:13:19	xix(192.168.69.222)	Detected by camera.	

Alarm Details

Playback Picture Operation Logs

LPR 246 (192.168.69.246)

Network Camera

Count: 686648 @ 3:20m 4799y 141v

Motion Detection 2023/06/26 11:33:18

Previous Next

Rule Name: test

Alarm Priority: High

Status: Unacknowledge

Event Type: Motion Detection

Event Time: 2023/06/26 11:33:26

Source: LPR 246(192.168.69.246)

Event Details: Detected by camera.

Event ID: 71830934-0d3c-4823-9216-71f982a470af@1687756162

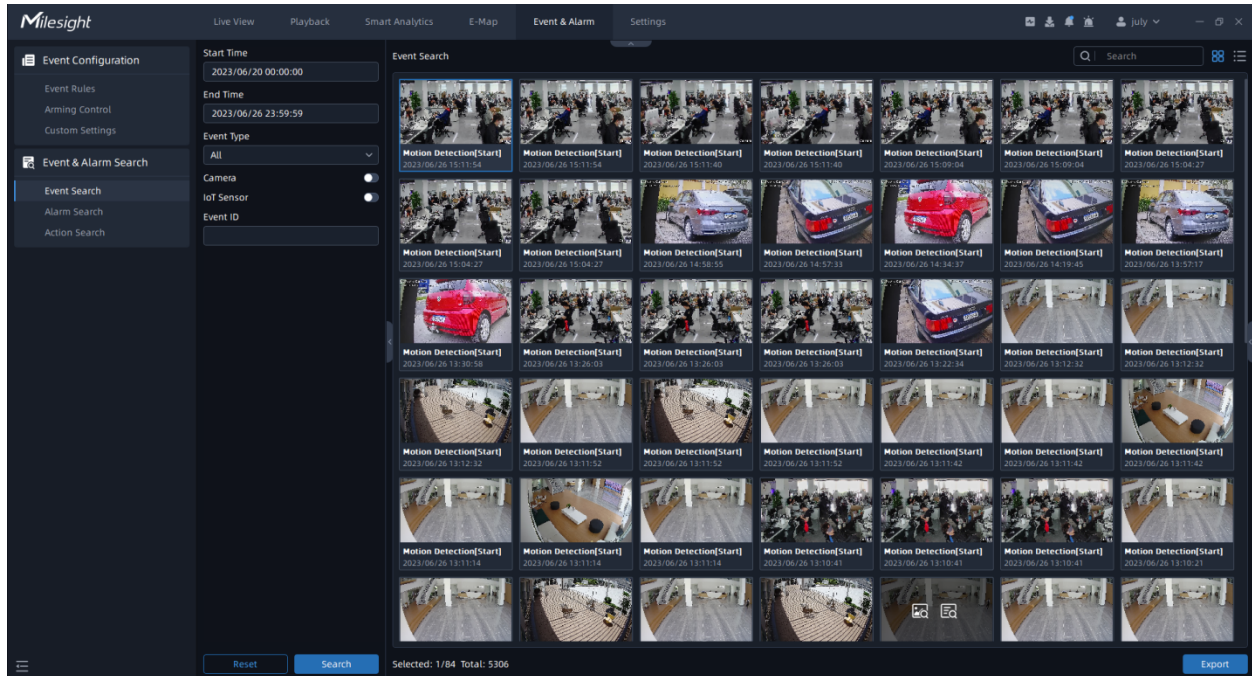
Acknowledge Investigate

7.3 Event Alarm Search

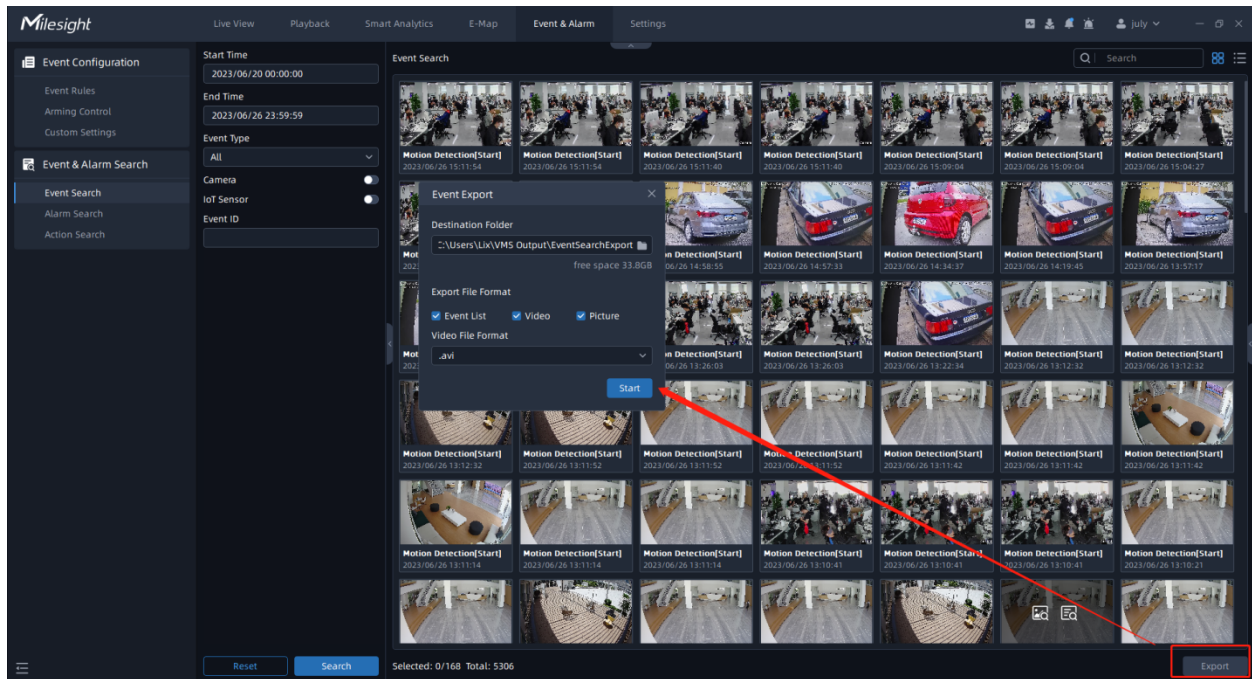
7.3.1 Event Search

You can search and export analytics results of Camera and IoT Sensor according to Event Type, Time Range, Event ID in the Event Search interface.

Before you start, please make sure that you have added an event action as recording in the Event Rules interface, otherwise the detection results will not be searchable in the Event Search interface.



By clicking on **Export**, you can export the target events in Event List, Video, and Picture files. The Video File Format supports .avi and .mp4 formats.




7.3.2 Alarm Search

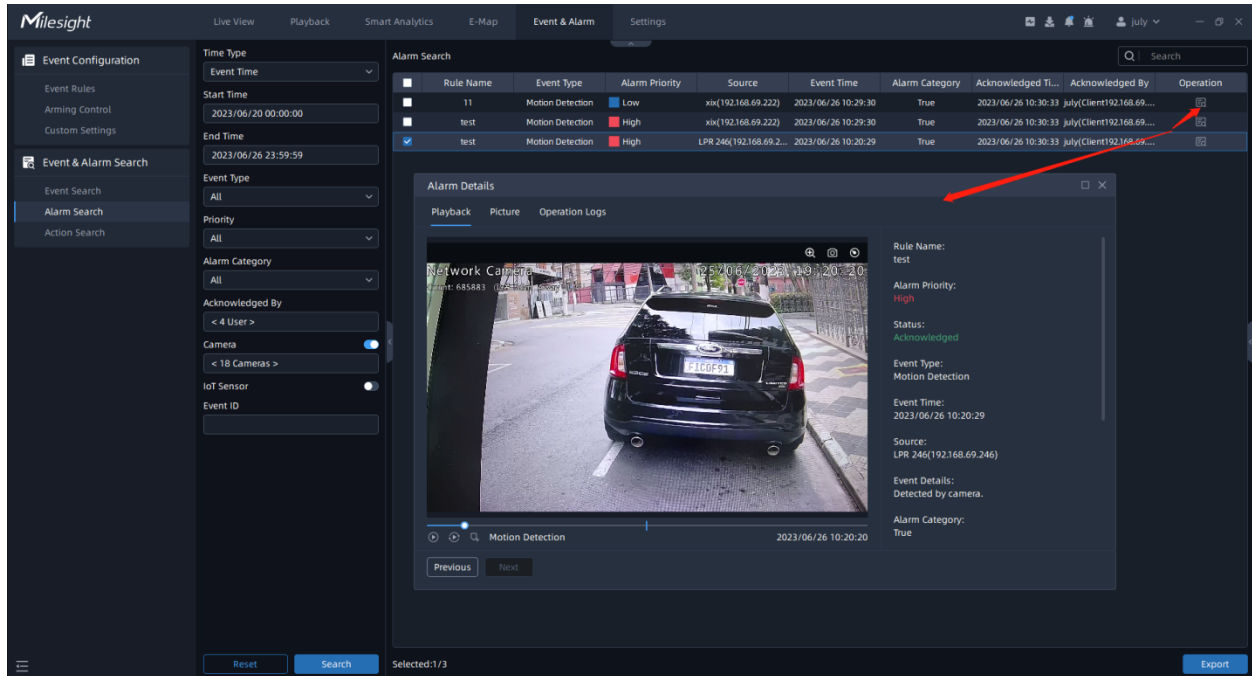
Based on Time Type, Time Range, Priority, Alarm Category, etc., you can find the acknowledged Alarm Data of Camera and IoT Sensor in the Alarm Search page.

The screenshot displays the Milesight Alarm Search interface. The sidebar on the left includes 'Event Configuration' and 'Event & Alarm Search'. The 'Event & Alarm Search' section is active, showing filters for Time Type, Start Time (2023/06/20 00:00:00), End Time (2023/06/26 23:59:59), Event Type (All), Priority (All), Alarm Category (All), Acknowledged By (< 4 User >), Camera (< 18 Cameras >), IoT Sensor, and Event ID. The main area shows a table of search results with the following data:

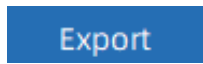
Rule Name	Event Type	Alarm Priority	Source	Event Time	Alarm Category	Acknowledged Ti...	Acknowledged By	Operation
11	Motion Detection	Low	xix(192.168.69.222)	2023/06/26 10:29:30	True	2023/06/26 10:30:33	july(Client192.168.69....	
test	Motion Detection	High	xix(192.168.69.222)	2023/06/26 10:29:30	True	2023/06/26 10:30:33	july(Client192.168.69....	
test	Motion Detection	High	LPR 246(192.168.69.2...)	2023/06/26 10:20:29	True	2023/06/26 10:30:33	july(Client192.168.69....	

At the bottom of the interface, there are 'Reset' and 'Search' buttons, and a status indicator 'Selected: 0/3'. An 'Export' button is located at the bottom right.

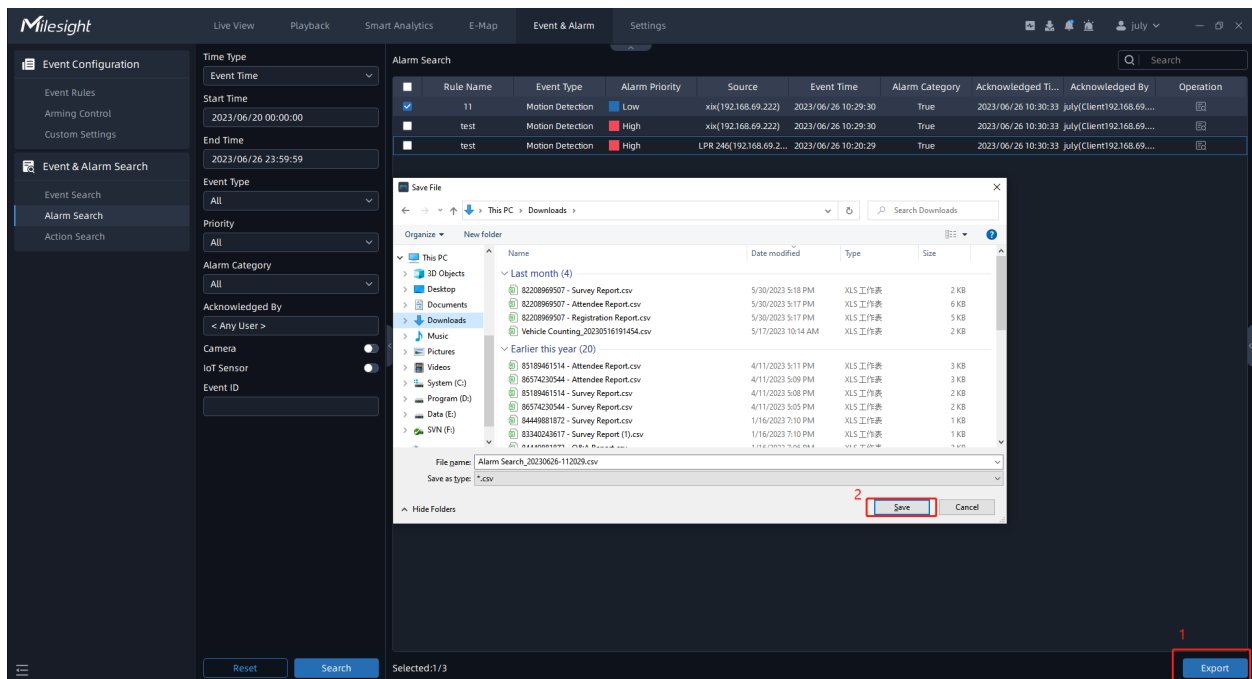
By clicking on  to enter the Alarm Details interface, you can view more details about the Alarm Data, such as Playback, Picture, Operation Logs, etc.



If you need to export Alarm Data, you can select Alarm Data in bulk or individually and click

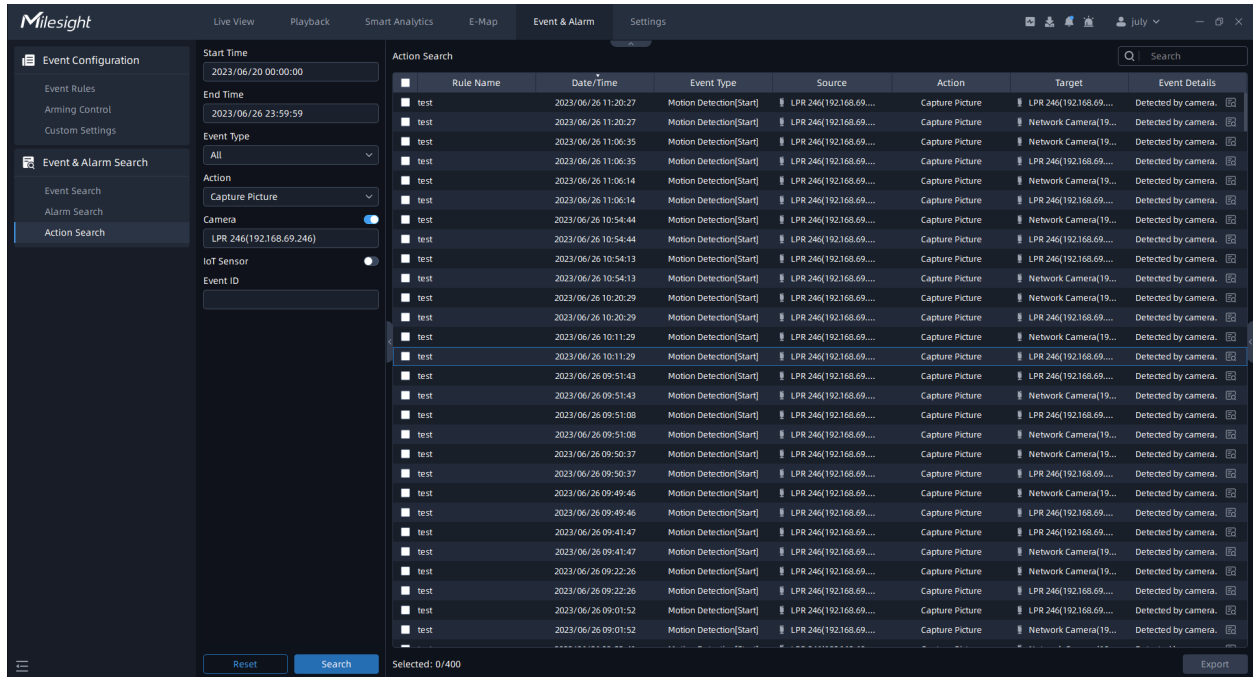



to export it in CSV format.

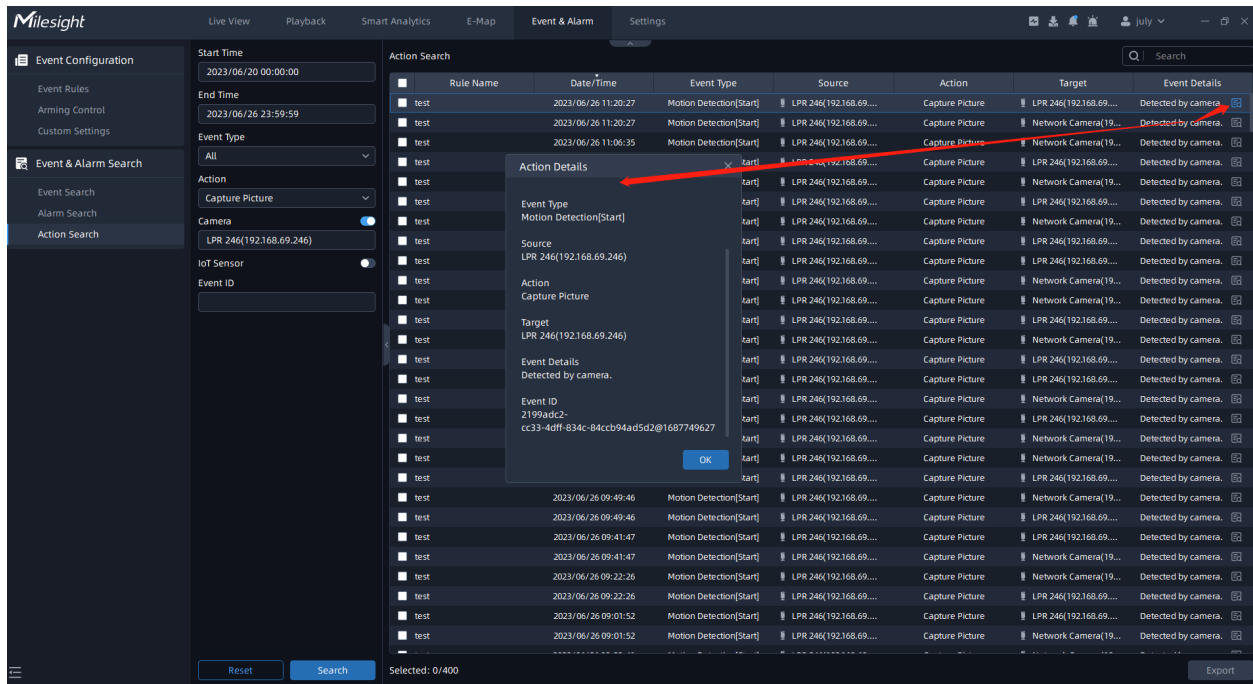


7.3.3 Action Search

Based on Time Range, Event Type, and Action, you can filter out the target events corresponding to the target alarm action in the Action Search interface.

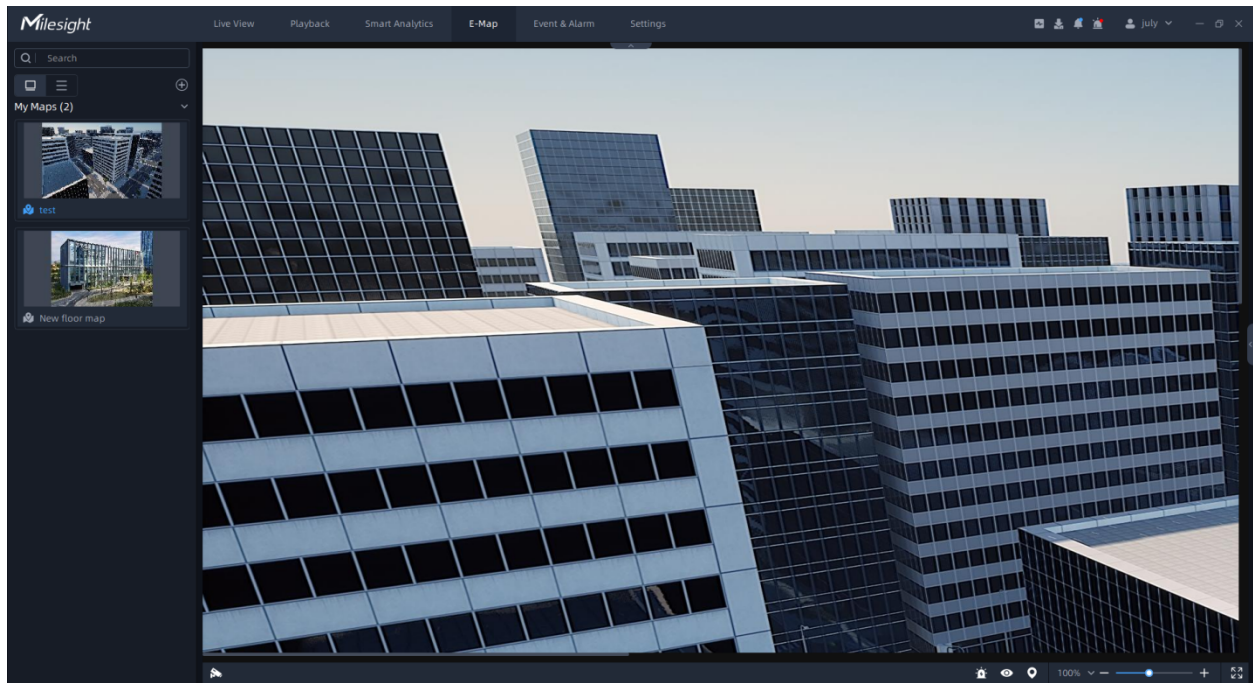


By clicking  to see more action details.



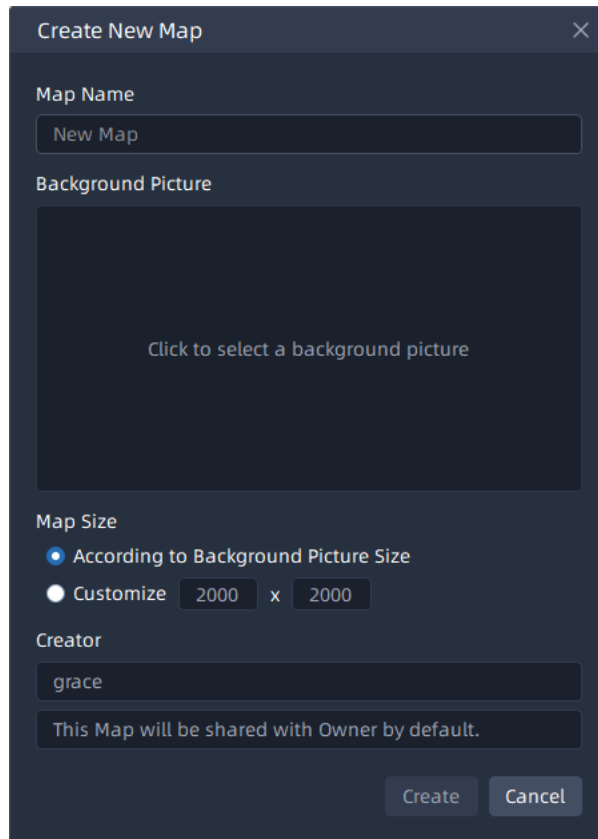
Chapter 8. E-map

Milesight VMS supports adding multiple maps. Through this function, you can add several cameras for the added maps, which can help you distinctly understand cameras distribution situation and find specified cameras quickly and easily.



How to add map?

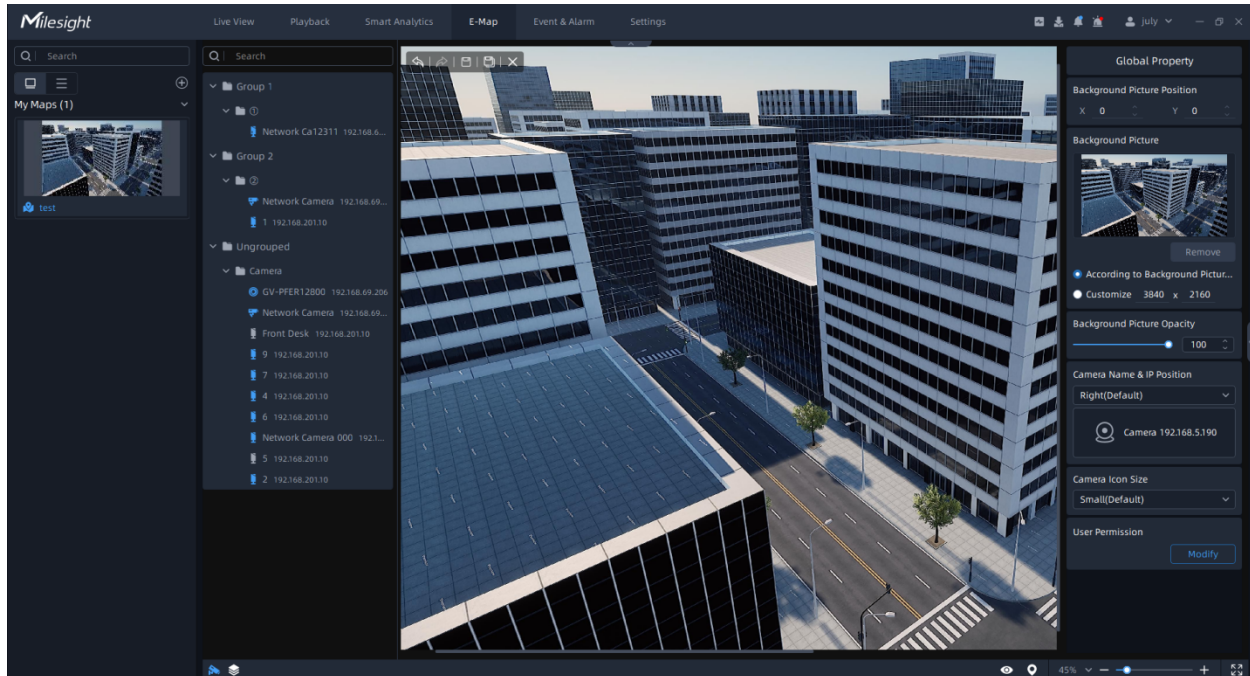
Step1: You can click  button in the left panel to add a new map. A window will pop up as shown below:




The screenshot shows a dark-themed dialog box titled "Create New Map" with a close button (X) in the top right corner. The dialog contains the following fields and options:

- Map Name:** A text input field containing "New Map".
- Background Picture:** A large dark rectangular area with the text "Click to select a background picture" centered inside.
- Map Size:** Two radio button options:
 - According to Background Picture Size
 - Customize 2000 x 2000
- Creator:** A text input field containing "grace".
- Footer:** A text box containing "This Map will be shared with Owner by default." and two buttons: "Create" and "Cancel".

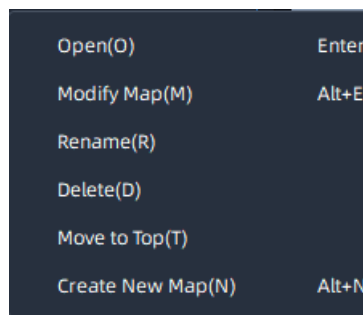
Step2: Name the new map. When Map Size is selected as According to Background Picture Size, you need to click the “Click to select a background picture” to upload a background picture. When Map Size is selected as Customize, you can set the size as needed and don’t need to upload a background picture. If you upload a background picture, the filled size cannot be smaller than the image resolution. Then click the “Create” button. After the map is created, the newly created map starts to be edited by default. The created map will be listed in the left panel of E-map window as shown below:



 **Note:** Please choose a picture less than 8MP or 4K resolution.

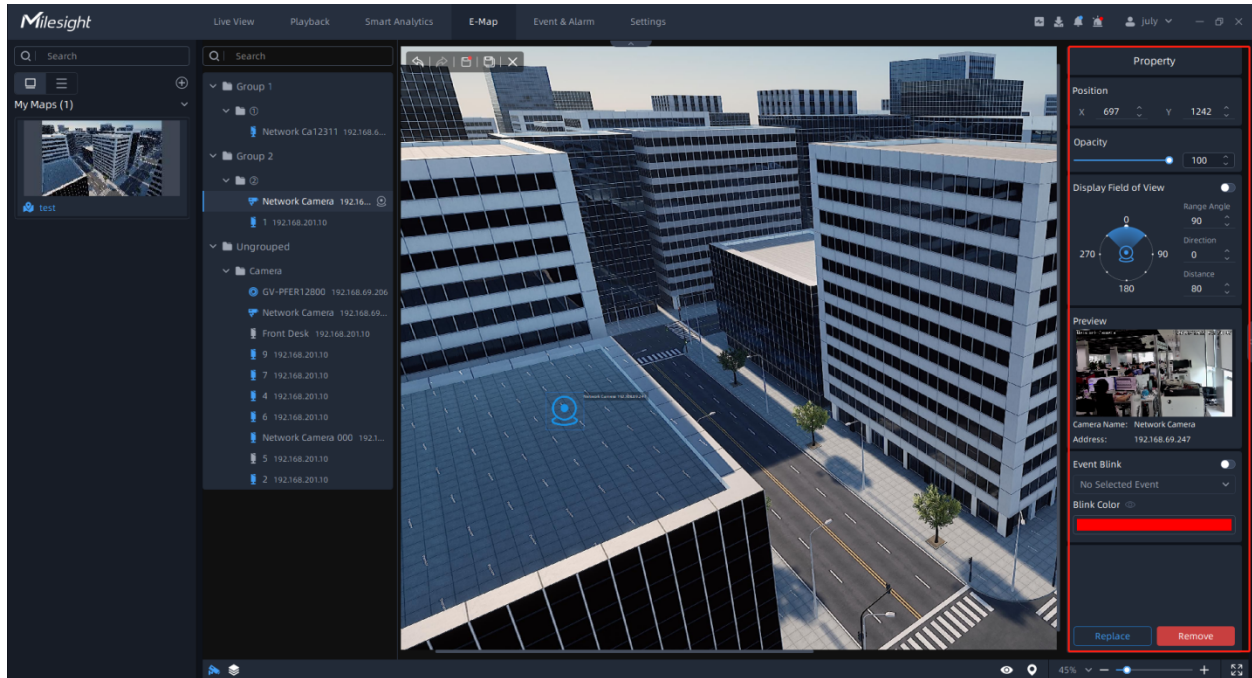
In the left panel, you can click  to set whether to display the list as thumbnails or text.

You can right click the added map to pop up a menu window to do some operations, including Open, Modify Map, Rename, Delete, Move to Top and Create New Map as shown below.



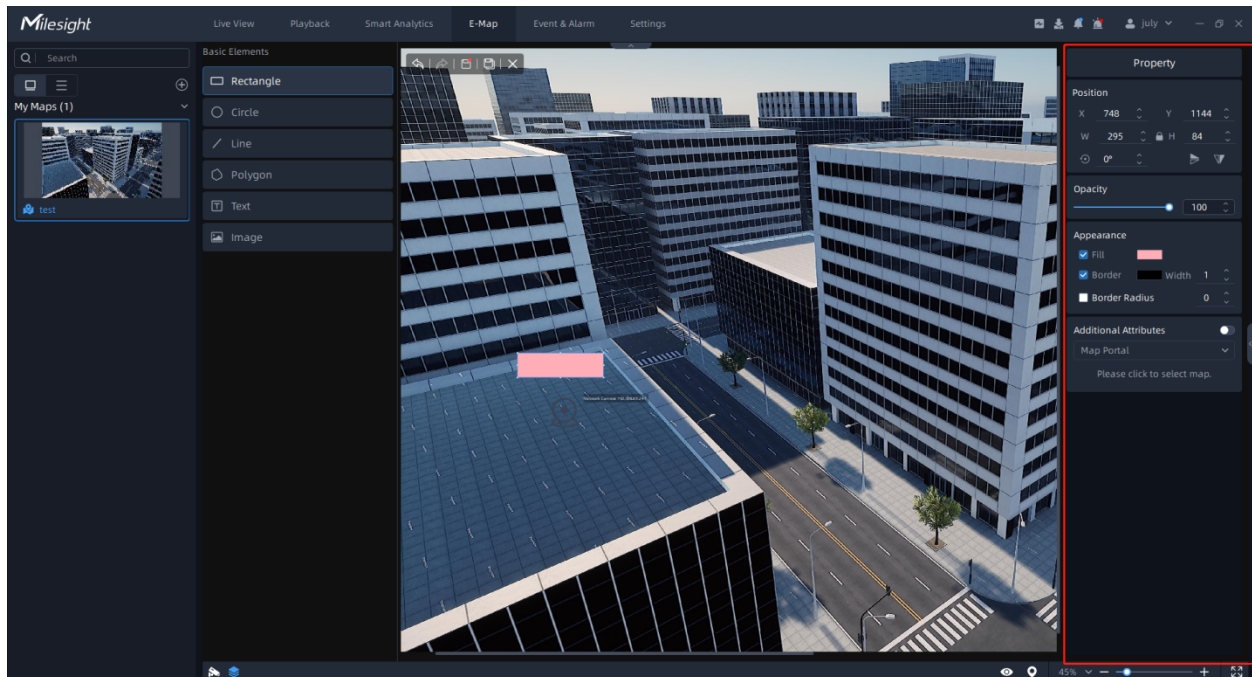
In the Global Property panel, you can set Map Size, Background Picture Opacity, Camera Name & IP Position, and Camera Icon Size in the right panel.

Step3: Drag and drop the different cameras from Camera List to the map. You can click the camera icon which is added in the map to modify the icon property including Icon Position, Opacity, Display Field of View, Event Blink, Switch to Another Camera or Remove From Map in the right panel as below.



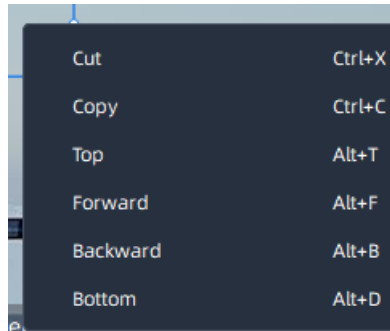
For Event Blink, you can select events as needed and set the Blink Color. When an event occurs on the camera, it will flash with the corresponding color as a reminder.






Step4: Click an element in Layer List and draw on the map. After drawing, press Esc to exit drawing. You can click the drawn element to modify the property including Position, Opacity, Appearance as below.





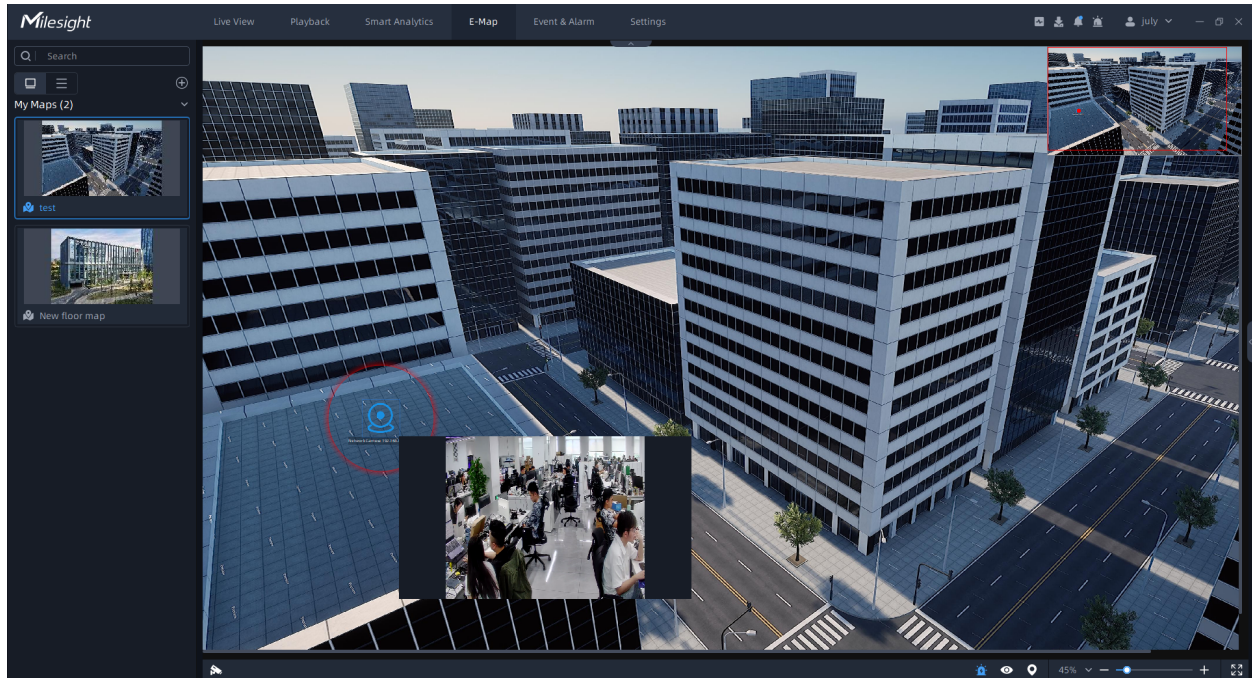
For rectangles, circles, and polygons, it can be set as a portal. Enable Additional Attributes and click to select added maps.

You can right click the added element to pop up a menu window to do some operations, including Cut, Copy, Top, Forward, Backward and Bottom as shown below.

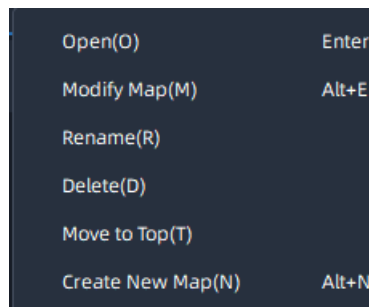



Step5: When setting, you can click  button to undo an action or click  button to redo an action. After setting, you can click  button to save your settings for the map or click  button to save as a new map. And click  button to exit edit mode and view the added map.

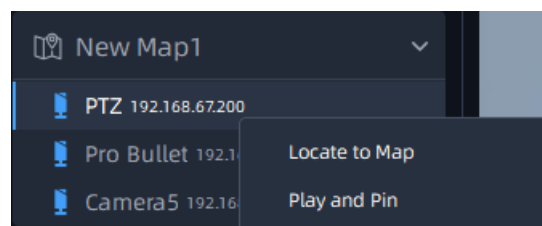
Step6:After saving the settings and exiting the edit mode, you can double-click the map  to switch to view. And you can click  icon to preview the live view of cameras and use top toolbar of the thumbnail window. Also you can click the element to jump to the corresponding map.




If the map is in a non-editing state, you can right click the added map to pop up a menu window to do some operations, including Open, Modify Map, Rename, Delete, Move to Top and Create New Map as shown below.

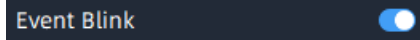


Also, you can click  and you will see the device tree, and right-click the camera on it to pop up a menu window to do some operations, including Locate to Map, Play and Pin as shown below.

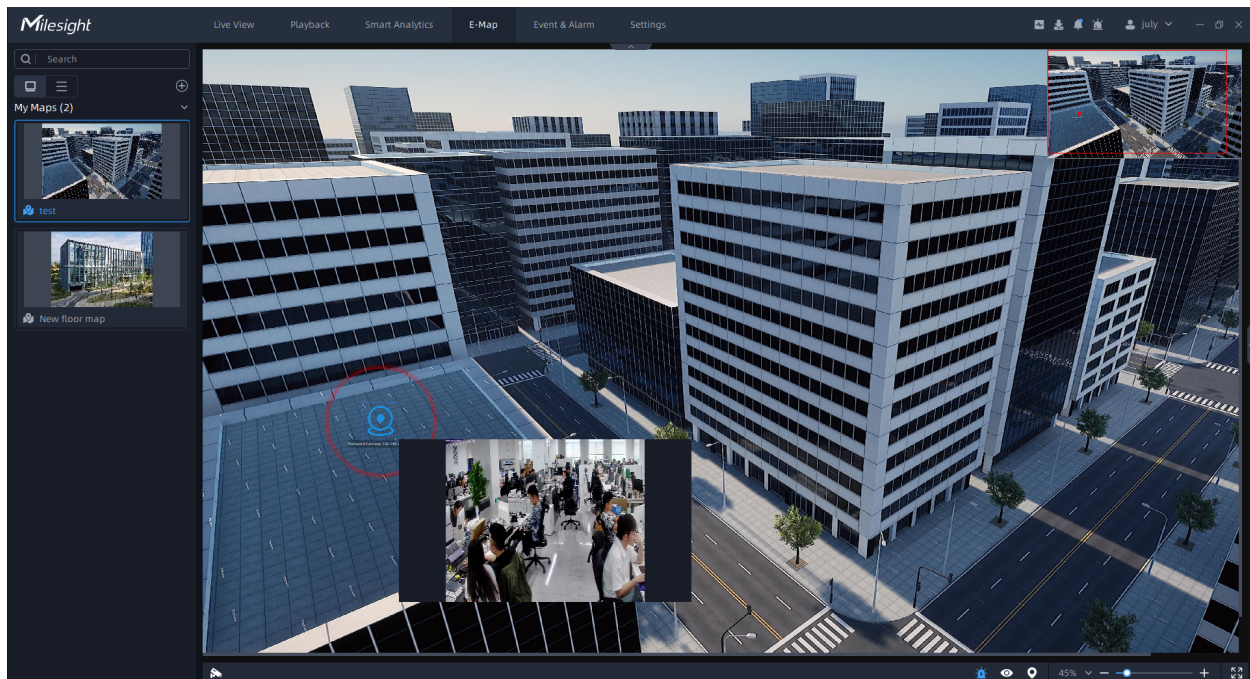


Event Blink

Click  button to set whether to display event blinking as below:




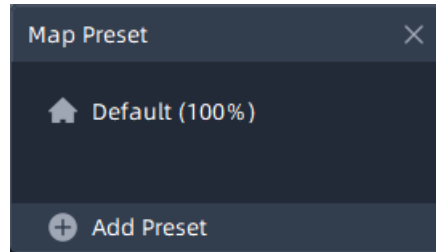
If enabled, thumbnails will be displayed in the upper right corner. When an event occurs on the camera which has set event blink, it will flash with the corresponding color as a reminder.




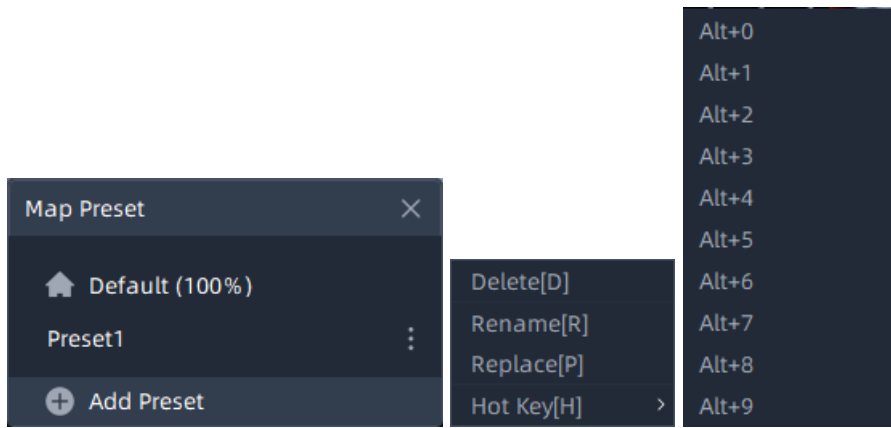
Map Preset

Map Preset can help user locate the specified position quickly.

Click  button to add different presets for maps. Map Preset Add page is as below:




Click the “Add Preset” button to add presets which are added according to current proportion and position of map. Here you can also click  to set operation about presets in the pop-up operation window including Delete, Rename, Replace and Hot Key.

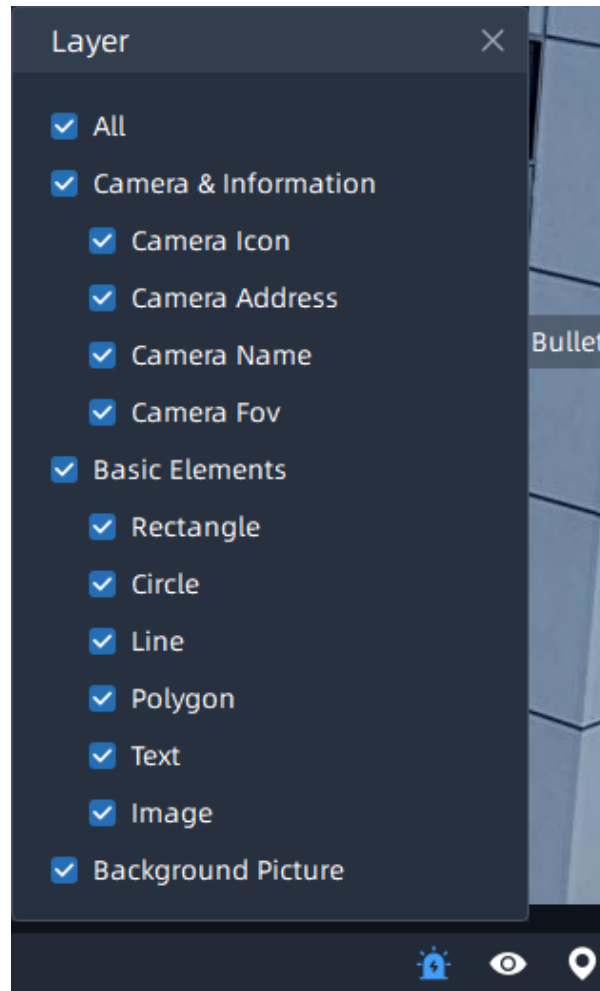


Note:

1. You can click the “Default” button to display the map with 100% centered.
2. You can set a Hot Key for every preset and the 10 Hot keys can't be reused to set.

Show Layers

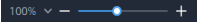
Click  button to set content to be displayed, here you can focus on the specified components in map panel according to your settings.

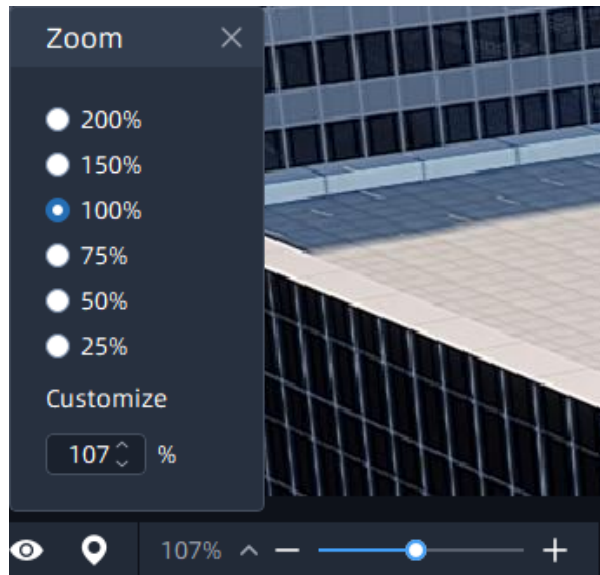



Map Proportion Zoom

The display of map graphics in the Map window can be controlled under View Mode or Edit Mode.

The size of the map can be selected, and the map can be moved in the window to show the area you want to view by using

 customizing zoom proportion as shown below or using the mouse wheel to adjust the map size.



 **Note:** Apart from the background picture, the icons and texts added in map both are involved in

Zoom in/out.

Chapter 9. Service

Milesight provides customers with timely and comprehensive technical support services. End-users can contact your local dealer to obtain technical support. Distributors and resellers can contact directly with Milesight for technical support.

Technical Support Mailbox: support@milesight.com

Web: <http://www.milesight.com>

Online Problem Submission System: <http://www.milesight.com/service/feedback.asp>

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