



# Network Video Recorder User Manual

V5.11



## Safety Regulatory

These instructions are intended to ensure that user can use the product correctly to avoid danger or property loss. The precaution measures are divided into “Warnings” and “Cautions”

**Warnings:** Serious injury or death may be caused if any of these warnings is neglected.

**Cautions:** Injury or equipment damage may be caused if any of these cautions are neglected.

|  |  |
|--|--|
|  |  |
| <p><b>Warnings:</b> Please follow these safeguards to prevent injury or death.</p> | <p><b>Cautions:</b> Please follow these safeguards to prevent potential injury or material damage.</p> |



### Warnings

- ◆ This installation must be conducted by a qualified service person and should strictly comply with the electrical safety regulations of the local region
- ◆ To avoid risk of fire and electric shock, do keep the product away from rain and moisture
- ◆ Do not touch components such as heat sinks, power regulators, and processors, which may be hot
- ◆ Source with DC 12V or PoE
- ◆ Please make sure the plug is firmly inserted into the power socket
- ◆ When the product is installed on a wall or ceiling, the device should be firmly fixed
- ◆ If the product does not work properly, please contact your dealer. Never attempt to disassemble the camera by yourself



### Cautions

- ◆ Make sure that the power supply voltage is correct before using the camera
- ◆ Do not store or install the device in extremely hot or cold temperatures, dusty or damp locations, and do not expose it to high electromagnetic radiation
- ◆ Only use components and parts recommended by manufacturer
- ◆ Do not drop the camera or subject it to physical shock
- ◆ To prevent heat accumulation, do not block air circulation around the camera
- ◆ Laser beams may damage image sensors. The surface of image sensors

- should not be exposed to where a laser beam equipment is used
- ◆ Use a blower to remove dust from the lens cover
  - ◆ Use a soft, dry cloth to clean the surface of the camera. Stubborn stains can be removed using a soft cloth dampened with a small quantity of detergent solution, then wipe dry
  - ◆ Do not use volatile solvents such as alcohol, benzene or thinners as they may damage the surface finishes
  - ◆ Save the package to ensure availability of shipping containers for future transportation

## EU Conformity Statement



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2004/30/EC, the LVD Directive 2014/35/EU, the RoHS Directive 2011/65/EU.



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



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

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# 1. Product Introduction

## 1.1 Introduction

Based on embedded Linux operation system, Milesight NVR Series manages and stores HD video data. It owns multi-disk management systems, front end HD device management system, HD video analysis system and high-capacity system for video. Also, it adopts the technology of high flow capacity data network transmitting&transmission, with multi-channel video decoding, to achieve functions like intelligent management, safe storage, HD decoding, etc.

## 1.2 Product Key Functions

### Basic Information

- Milesight NVR Series includes **NVR Series** (Mini NVR 1000 Series, Pro NVR 5000 Series, Pro NVR 7000 Series, Pro NVR 8000 Series), and **PoE NVR Series** (Mini PoE NVR 1000 Series, PoE NVR 5000 Series and PoE NVR 7000 Series), which can work with Milesight network cameras and connect with third party network cameras that support ONVIF.

### Monitoring

- Support HDMI video output, maximum to 3840\*2160 resolution.
- Support ANPR (Automatic Number Plate Recognition) function.
- Support PAL/NTSC adaptive video input.
- Support multiple screen displaying in live view.
- Support 1/4/8/9/12/14/16/32 screen live view. The channel sequence is adjustable.
- Support quick menu and tool bar in live view.
- Support batch IP editing, setting camera's video parameters and record schedule.
- Support the switch of Live View, manual switch and automatic patrol. The interval of automatic sequence is adjustable.
- Support motion detection and video loss alert.
- Support ANPR (Automatic Number Plate Recognition) function.
- Support various PTZ protocols and PTZ operations such as preset, patrol, etc.
- Support the configuration of **Auto Tracking** function on monitor directly.
- Support central zoom in by clicking the mouse at arbitrary area.
- Support 3D positioning control for the PTZ Camera Series and Fisheye Camera Series.
- Support to set privacy mask of camera.
- Support the configuration of Milesight PTZ cameras' Privacy Mask on monitor.
- Support OSD title and date configuration.
- Support instant playback.
- Support setting view to Original or Resize.
- Support playback on slave NVR when Milesight N+1 Hot Spare is enabled.
- Support the NVR-side Dewarping function of all cameras on monitor.

- Support the setting of Frame Rate and Bit Rate of different Record Stream Types separately according to the actual situation to achieve bandwidth saving.

## HDD Management

- Support hard disk and NAS storage.
- Support S.M.A.R.T technology.
- Support RAID and Group management.
- Support to set HDD property, including read-only and read/write.
- Support eSATA disk for recording or backup of NVR Pro 8000 Series.

## Recording/Snapshot and Playback

- Support ANR (Automatic Network Replenishment) for replenishing the recording gap due to internet interruptions.
- Support Transcoding for remote playback.
- Support recording with Primary Stream, Secondary Stream and Primary + Secondary Stream.
- Support General Playback, Event Playback, Tag Playback, Split Playback and Picture Playback.
- Support to tag and lock video.
- Support holiday schedule.
- Support recycle and non-recycle recording mode.
- Support 12 recording time periods with separate recording types.
- Support pre-record and post-record time setting for motion detection, alarm and VCA recording. And support pre-record setting for manual and schedule recording.
- Support recording/snapshot manually.
- Support digital zoom function at arbitrary area in playback.
- Support pause, rewind, fast play, slow play, skip forward and skip backward when playback, locating in progress bar by dragging the mouse.
- Support up to 128x fast forward playback.
- Support the recording and snapshot in the channels where the events triggered.

## Backup

- Support N+1 Hot Spare.
- Support Common Backup, Event Backup and Picture Back in Retrieve interface.
- Support export video files or snapshot to USB and eSATA device.
- Support backup device maintenance and management.

## Alarm & Exception

- Support motion detection configure and alarm.
- Support video loss alarm, alarm input and alarm output.
- Support Network Disconnected/Disk Full/Record Failed/Disk Error/Disk Uninitialized/No Disk alarms.
- Support VCA alarm, including Region Entrance, Region Exiting, Advanced Motion

Detection, Tamper Detection, Line Crossing, Loitering, Human Detection, People Counting and Object Left/Removed(Optional).

- Support various alarm response such as audible warning, sending email, recording, PTZ action and on/off relay out.
- Support the Picture Attached function for Email Linkage Alarm Action.

## Network

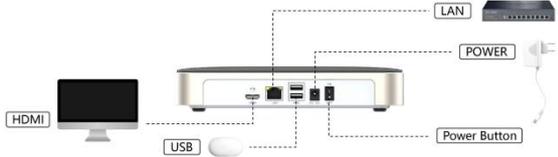
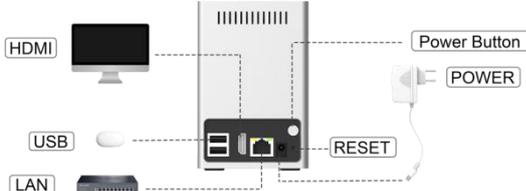
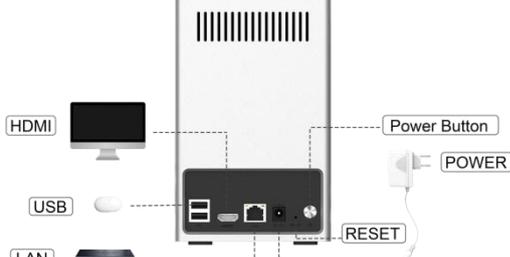
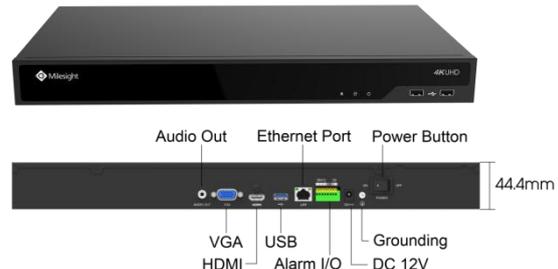
- Equipped with PoE ports for PoE cameras(only available for PoE NVR).
- Support remote search, playback and download of video files.
- Support remote acquiring and configuring of parameters.
- Support remote import and export of device parameters.
- Support P2P remote access.
- Support IPv4/IPv6, TCP, UDP, RTP, RTSP, RTCP, HTTP, HTTPS, DNS, DDNS, DHCP, NTP, SNTP, SMTP, SNMP, UPnP.
- Support remote acquiring of device status, system log and alarm status.
- Support remote operate system maintenance by initialize hard disk, add NAS, upgrade firmware and auto reboot, etc.
- Support upload alarm and exceptions to remote host.
- Support remote manual start or stop of recording.
- Support remote manual start or stop of alarm output.
- Support remote BMP image capturing.
- Support remote PTZ control.
- Support keyboard control.
- Built-in WEB Server.

## Other Functions

- Support multi-level user management, administrator can create multiple users with access rights.
- Support operating and configuring information import/export.
- Support auto reboot.
- Support CGI for Windows and Linux system.
- Support Plugin-Free mode.

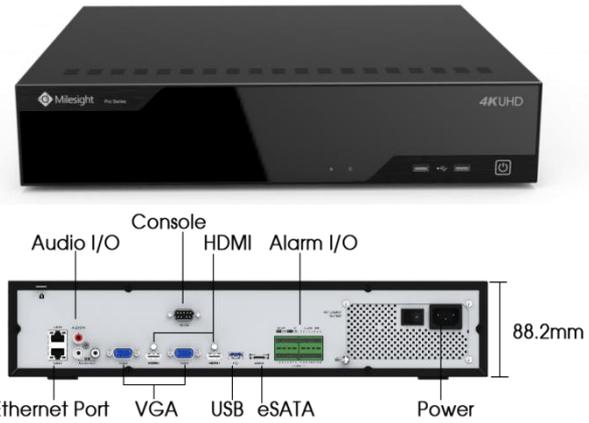
## 2. Hardware

### 2.1 Panel Buttons

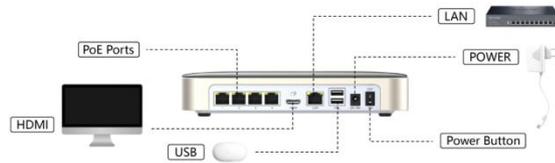
| Model                                | Hardware/Interface  |
|--------------------------------------|---|
| <b>4K H.265 Mini NVR 1000 Series</b> | <p><b>MS-N1004-UC:</b></p>                                  |
|                                      | <p><b>MS-N1009-UT (Firmware version: 71.xx.xx.xx):</b></p>  |
|                                      | <p><b>MS-N1009-UNT:</b></p>                               |
| <b>4K H.265 Pro NVR 5000 Series</b>  | <p><b>MS-N5008-UT/MS-N5016-UT:</b></p>                    |
| <b>4K H.265 Pro NVR 7000 Series</b>  | <p><b>MS-N7016-UH/MS-N7032-UH:</b></p>                    |

**4K H.265 Pro NVR 8000 Series**

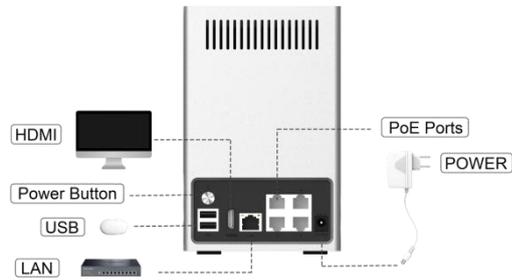
**MS-N8032-UH/MS-N8064-UH:**



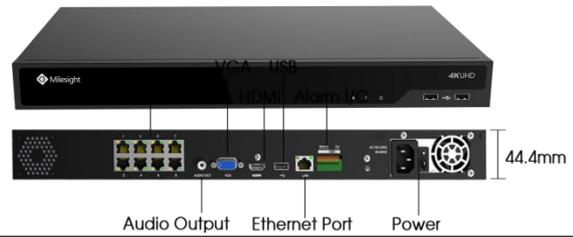
**MS-N1004-UPC:**



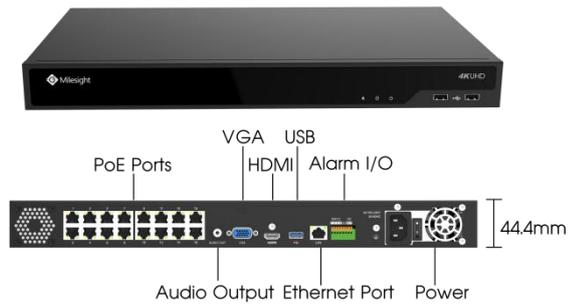
**MS-N1009-UPT:**



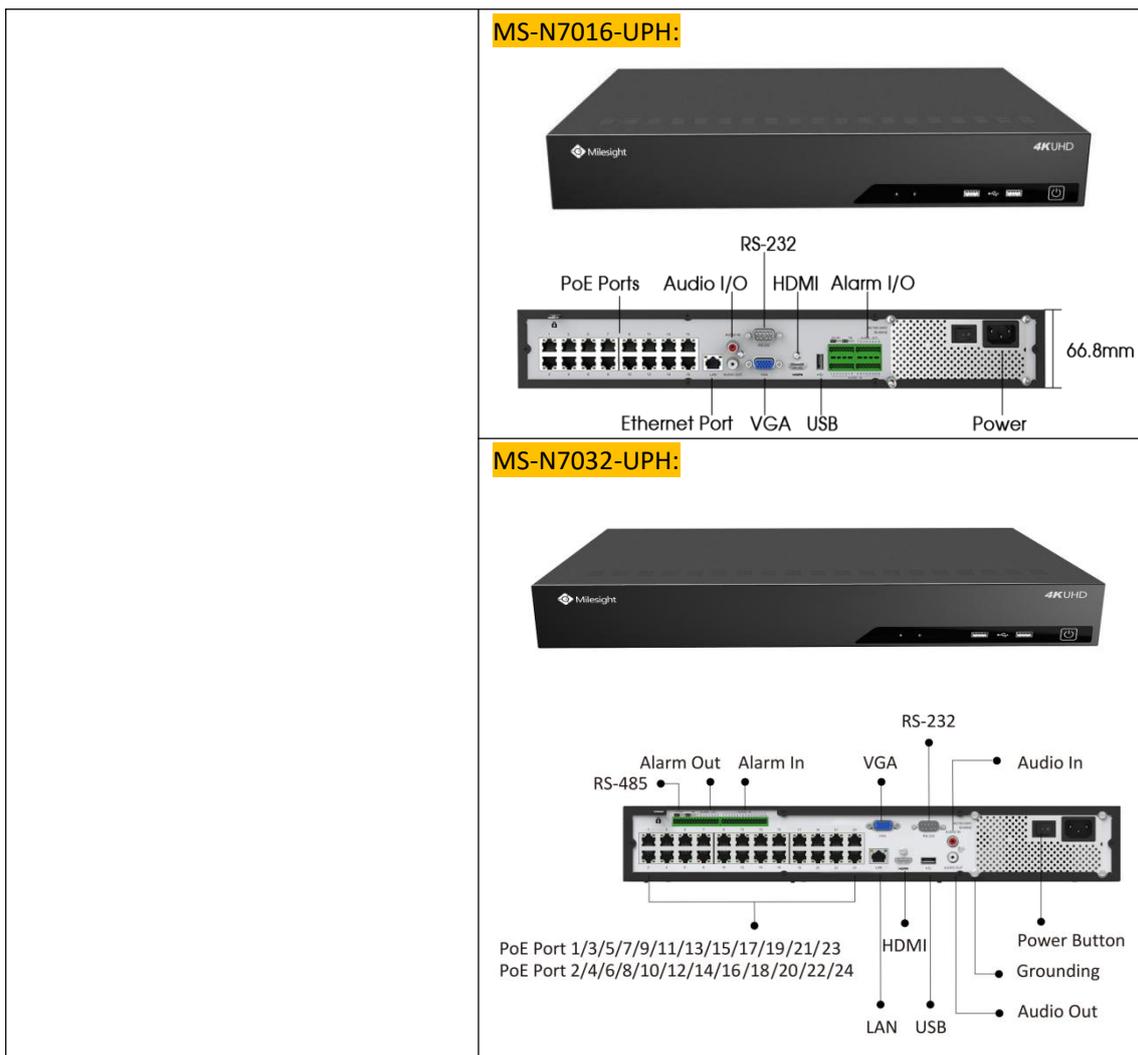
**MS-N5008-UPT:**



**MS-N5016-UPT:**



**4K H.265 PoE NVR Series**



## 2.2 Using a USB Mouse

| Item         | Click          | Description   |
|--------------|----------------|---|
| Left Button  | Single-click   | Live view: select the channel and show the toolbar of live view.<br>Menu: select and confirm.   |
|              | Double-click   | Switch between single screen to multi-screen when in live view mode and playback mode.  |
|              | Click and drag | (1) Control rotation direction in PTZ mode.<br>(2) Set the target area in motion detection, VCA and privacy mask alarm settings.<br>(3) Drag to set the digital zoom area.<br>(4) Drag the channel and the time scroll bar. |
| Right Button | Single-click   | Live view: shows pop-up menu.<br>Menu: exit and go to Live View.  |
| Scroll-wheel | Scroll up      | Scroll up the page.   |
|              | Scroll down    | Scroll down the page.   |

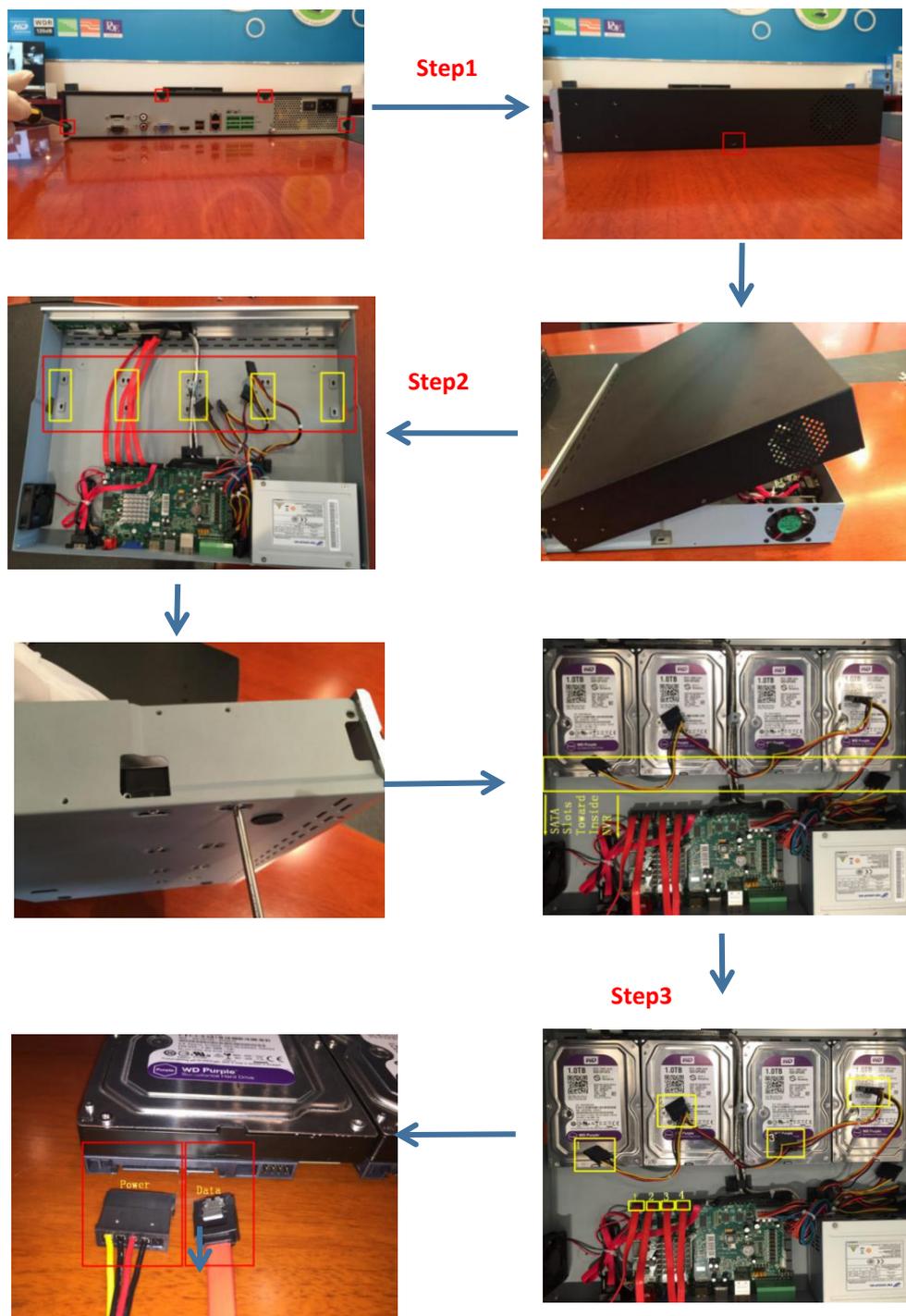
## 2.3 Hard Disk Installation

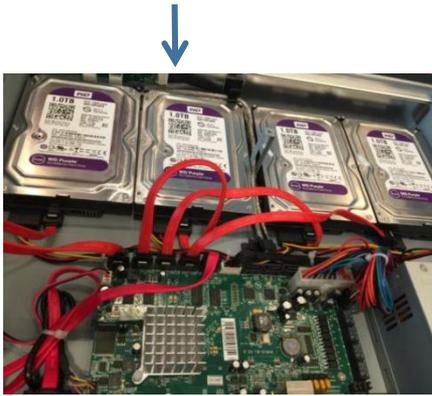
### 2.3.1 MS-N7000 series Hard Disk Installation

Step1. Unscrew the back and both sides' screws to open the upper lid.

Step2. Install the hard disks into NVR with screws shown in below pictures. (SATA Slots of hard disk should be toward inside NVR.)

Step3. Join the power and data connectors to corresponding hard disk.





## 2.3.2 MS-N8000 series Hard Disk Installation

**Step1.** Unscrew the back and both sides' screws to open the upper lid.

**Step2.** Uninstall the upper hard disk panel.

**Step3.** Install the hard disks into NVR with screws shown in below pictures.(SATA slots of hard disks should be toward inside NVR)

**Step4.** Join the power connectors to corresponding hard disks.(Install lower hard disk panel before upper one)

**Step5.** Join the data connectors to corresponding hard disk.(Check the connection by below sequence)



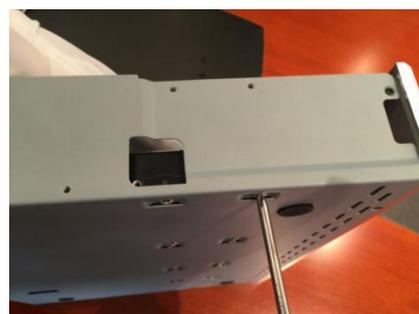
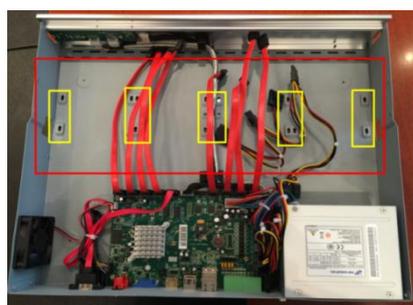
Step1

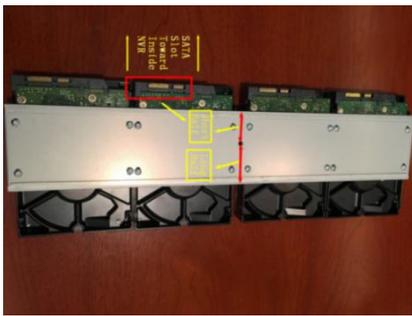


Step2



Step3





Step4 ↓



Step5 ↓



**Note:**

1. The SATA slots are in SHORT HALF side and the SATA slot toward inside NVR.
2. The data connector sequence of MS-N7000 series is different from MS-N8000 series'.

## 3. Local Operation



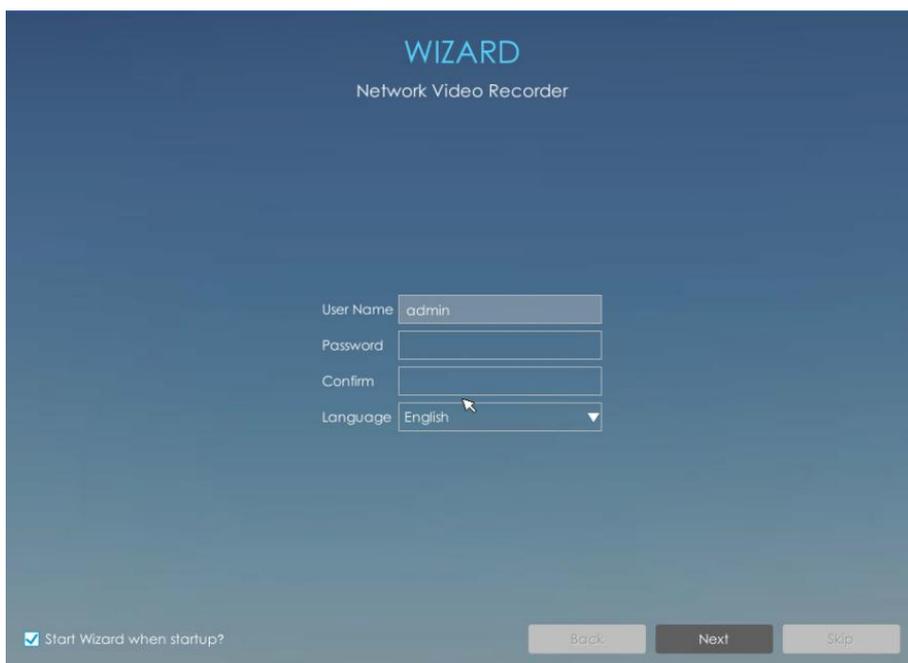
### 3.1 Wizard Setting

By default, the Setup Wizard will start once the NVR has been loaded. You can click check-box to turn off the Wizard when startup.



The Setup Wizard will guide you to complete important settings, which makes NVR more user-friendly.

**Step1. Set password to active admin account.**



**Note:**

1. Only the NVR firmware version xx.9.0.3 or above supports activation function.
2. Password must be 8 to 32 characters long.
3. Password must contain at least one number and one letter.

**Step2. Set security questions which are used for resetting password.**

10 questions are provided, you can select any one to set answer. Beside, customized question is available.

If you skip this step, you can also set it again in Setting -> User interface.

The screenshot shows the 'WIZARD' setup screen for a Network Video Recorder. The title is 'WIZARD Network Video Recorder'. There are three sets of security questions, each with a dropdown menu for the question and a text input field for the answer. The questions are all 'What's your father's name?'. At the bottom left, there is a checkbox labeled 'Start Wizard when startup?' which is checked. At the bottom right, there are three buttons: 'Back', 'Next', and 'Skip'.

**Note:**

Only the NVR firmware version xx.9.0.3 or above supports.

**Step3. Date and time setting.**

Select the Time Zone and date via NTP or you can set date and time manually.

The screenshot shows the 'WIZARD' setup screen for a Network Video Recorder, specifically the date and time settings. The title is 'WIZARD Network Video Recorder'. There are several settings: 'Time Zone' is set to '(UTC-08:00) United States - Pacific Time'; 'Daylight Saving Time' is set to 'Auto'; 'Synchronize with NTP server' is checked; 'NTP Server' is set to 'pool.ntp.org'; 'Set Date and Time Manually' is unchecked; and 'Set Date and Time' is set to '2019-09-10 02:52:32'. At the bottom left, there is a checkbox labeled 'Start Wizard when startup?' which is checked. At the bottom right, there are three buttons: 'Back', 'Next', and 'Skip'.

**Step4. Network setting.**

Input the IP Address, Subnet Mask, Gateway and Preferred DNS Server.

PoE NIC IPv4 Address option is only for PoE NVR Series.

The screenshot shows the 'WIZARD Network Video Recorder' configuration interface. It includes a dropdown menu for 'NIC' set to 'LAN', an unchecked 'Enable DHCP' checkbox, and input fields for 'IP Address' (192.168.7.111), 'Subnet Mask' (255.255.240.0), 'Gateway' (192.168.7.1), 'Preferred DNS Server' (8.8.8.8), 'Alternate DNS Server' (. . .), and 'PoE NIC IPv4 Address' (192.168.20.1). At the bottom, there is a checked checkbox for 'Start Wizard when startup?' and three buttons: 'Back', 'Next', and 'Skip'.

**Step5. Disk Management.**

The screenshot shows the 'WIZARD Network Video Recorder' configuration interface for disk management. It features a table with the following data:

| <input type="checkbox"/> | Part | Vendor                 | Status | Total     | Free | HDD Type |
|--------------------------|------|------------------------|--------|-----------|------|----------|
| <input type="checkbox"/> | 2    | WDC WD2500BEVT-0BA23T1 | Normal | 232.89 GB | 0    | LOCAL    |

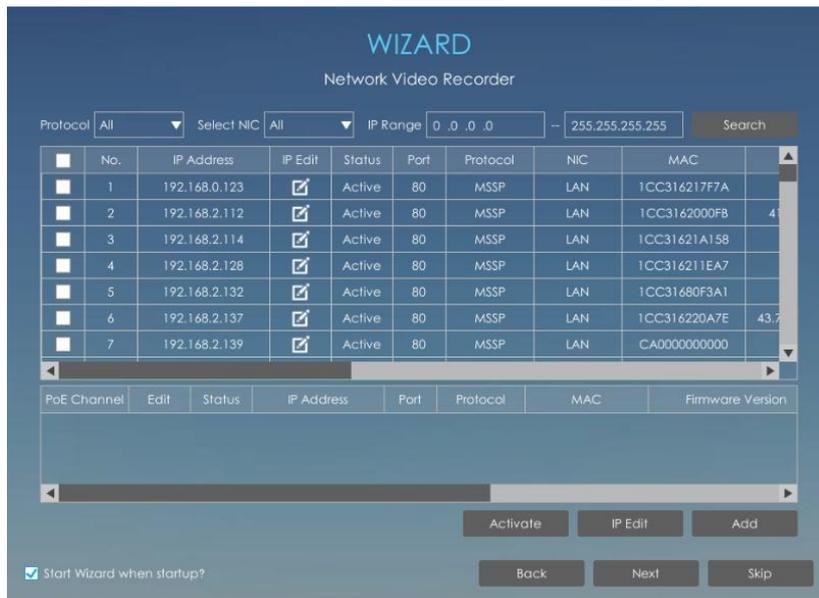
Below the table, there are two progress bars: 'Total Capacity' at 232.89 GB and 'Available Capacity' at 0. An 'Initialize' button is located to the right of the 'Available Capacity' bar. At the bottom, there is a checked checkbox for 'Start Wizard when startup?' and three buttons: 'Back', 'Next', and 'Skip'.

**Step6. Camera Management.**

Search all the cameras in LAN by filtering Protocol and IP Range. Select cameras and click



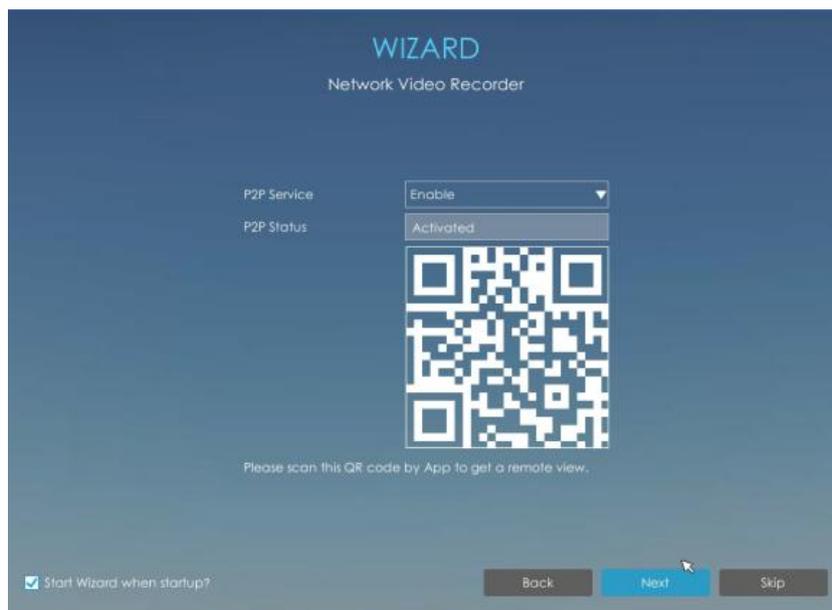
to add them to NVR.



**Note:**

1. It can auto detect cameras that connected to PoE ports (only for PoE NVR).
2. If camera status shows inactive, please click to active it first.

**Step7. P2P**



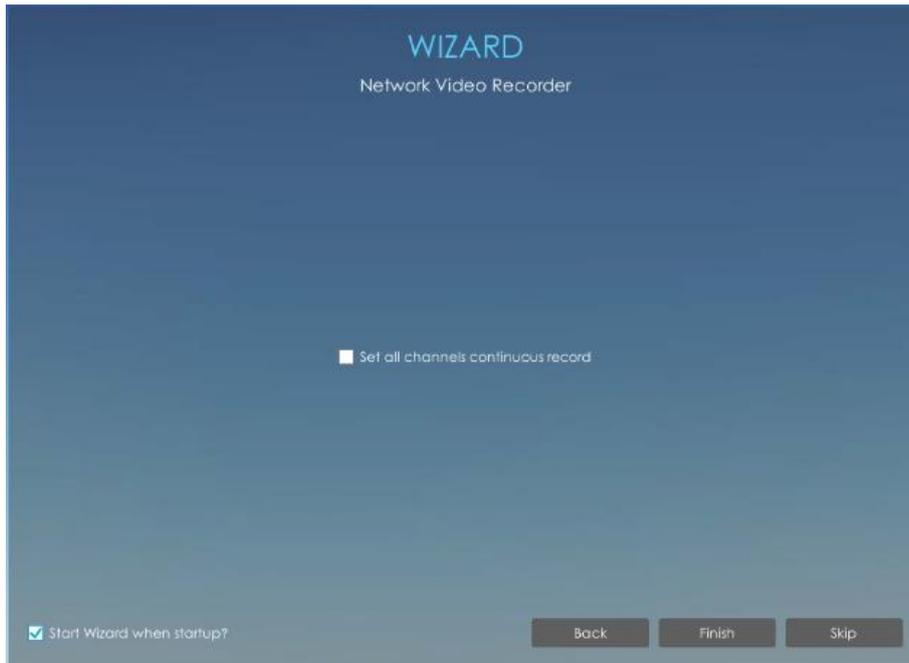
Select Enable to allow P2P Service. Then scan the QR code through M-sight Pro APP to get a remote and real-time view.

**Note:**

Only the NVR firmware version xx.9.0.9 or above supports enable P2P in Wizard directly.

**Step8. Record**

The user can start all channels recording by clicking .

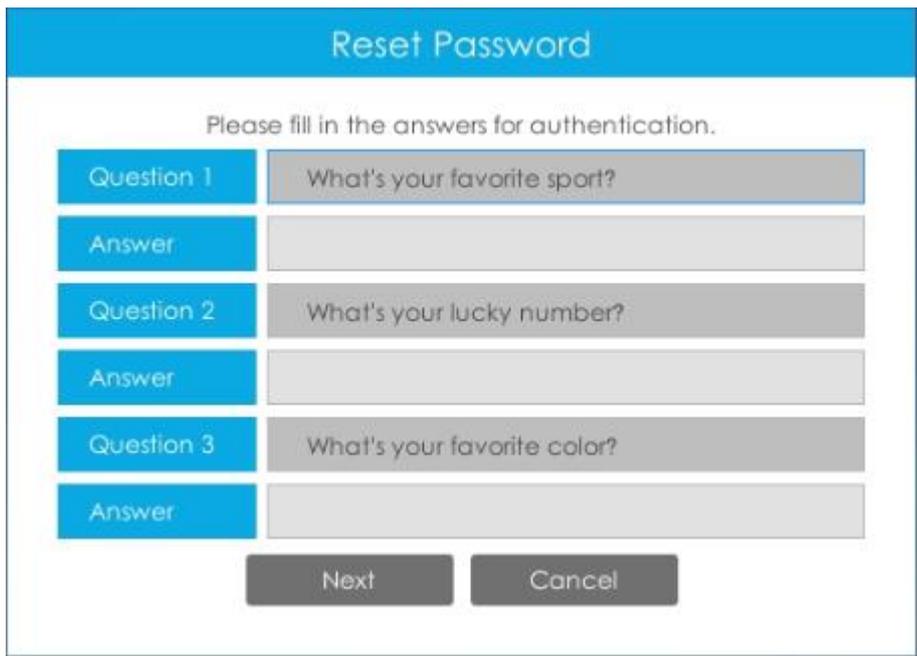


### Step9. Login

Input the user name and password to login the system.



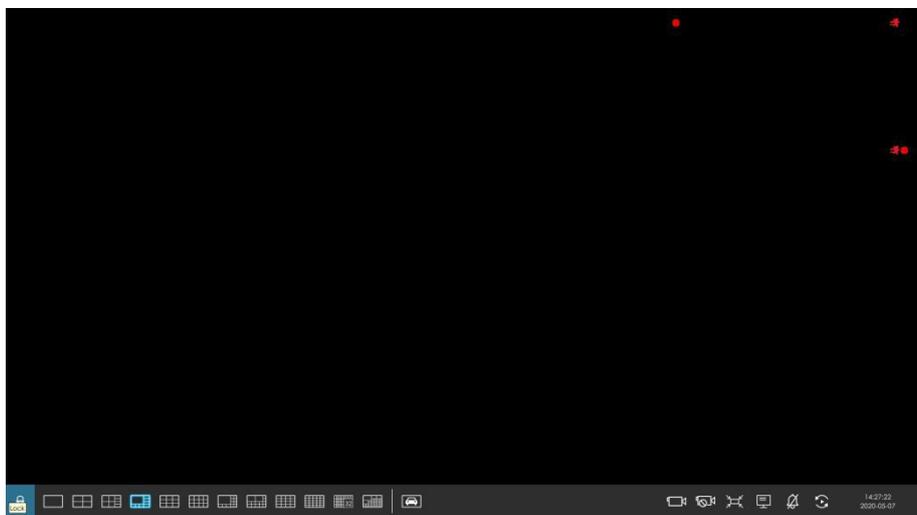
If you forget the password, click  to reset password.



**Note:**

Only the NVR firmware version xx.9.0.3 or above supports password reset if you forget it.

### 3.2 Live View



Main Menu and Tool Bar can pop up and hide automatically at the right side or bottom of the interface.

**Note:**

Tool Bar won't be hidden if there is event notification.

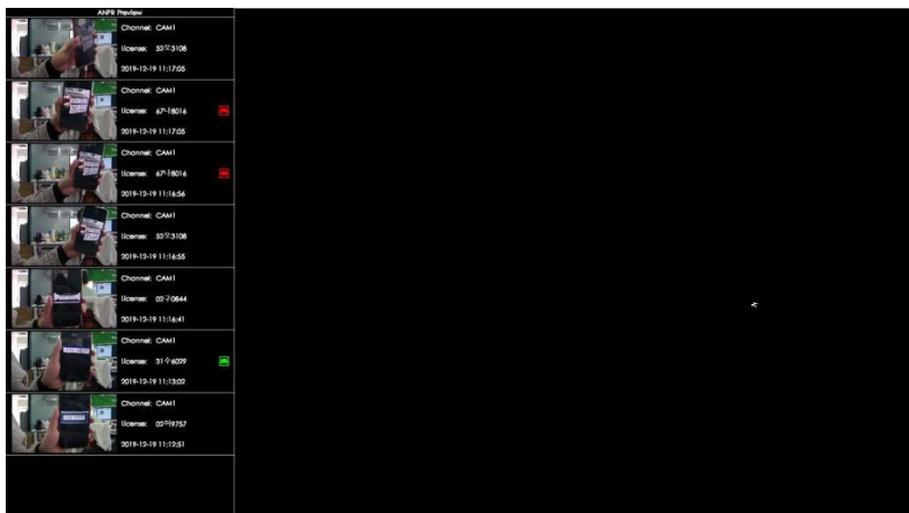
| Icons | Descriptions             | Icons | Descriptions      |
|-------|--------------------------|-------|-------------------|
|       | Lock/Unlock the tool bar |       | One screen layout |
|       | 4 screen layout          |       | 8 screens layout  |

|  |  |  |   |
|--|--|--|---|
|  | 1+7 screens layout   |  | 9 screens layout  |
|  | 12 screen layout   |  | 1+11 screens layout   |
|  | 2+10 screens layout  |  | 16 screen layout  |
|  | ANPR Mode  |  | Start all channels recording<br>(for all displaying channels)   |
|  | Stop all channels recording<br>(for all displaying channels)   |  | Adjust image in proportion<br>(for all displaying channels)   |
|  | Display settings (for all displaying channels, including Play Mode, Color, on/off of Stream Info, Channel Name and Border Line and Page Info.) |  | The Do Not Disturb function only turns off the notification of the Alarm Actions<br>(for all displaying channels)<br><b>Note:</b> Do Not Disturb function is not valid for changing corresponding settings. |
|  | Sequence   |  |   |

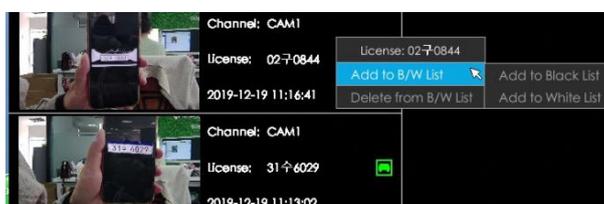
**ANPR Mode:**

After entering ANPR mode, the real-time license plate information including Plate Snapshot, Channel Name, License Plate Number, Detected Time and Plate Type will be shown on the left of the interface once it get detected. There are two license types:

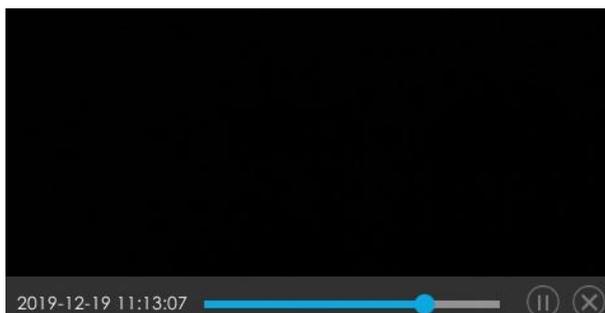
- License from Black List
- License form White List



No plate type will be shown if the license plate does not exist in Black/White list. However, you can right click the license plate information to quick add it to Black/White list or delete it from Black/White list.



Besides, you can click the license plate information to check the latest X seconds (10s~20s) video.



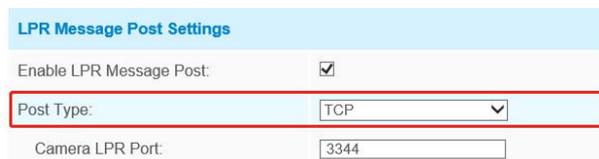
**Note:**

1. X = 10 + Pre Record Time

You can set Pre Record Time in Storage -> Video Record -> Record Settings interface.



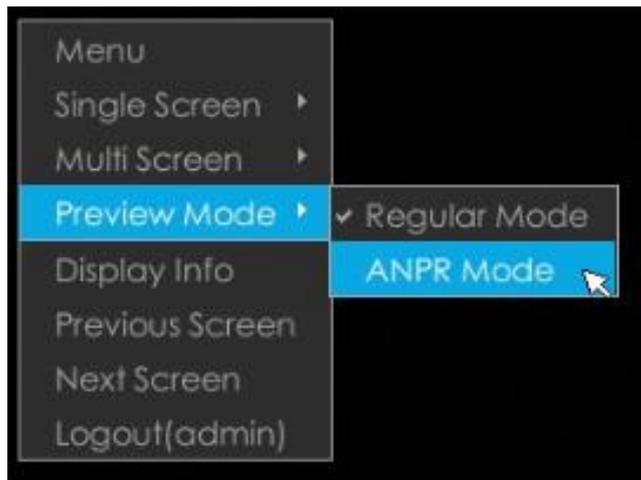
2. Ensure that there is available HDD on NVR and correct record settings is made, so that you can check the record on live view.
3. Ensure that NVR can get the license plate information. Please set TCP which is the default mode as Post Type. It can be set in Camera web page -> Advanced Settings -> ANPR -> Settings interface.



There are multiple icons on each channel displayed in live view, indicating different status of the channel.

| Icons | Descriptions  |
|-------|---|
|       | It indicates video loss                             |
|       | It indicates motion detection alarm                 |
|       | It indicates that the current channel is recording. |
|       | It indicates exception alarm                        |
|       | It indicates VCA alarm                              |

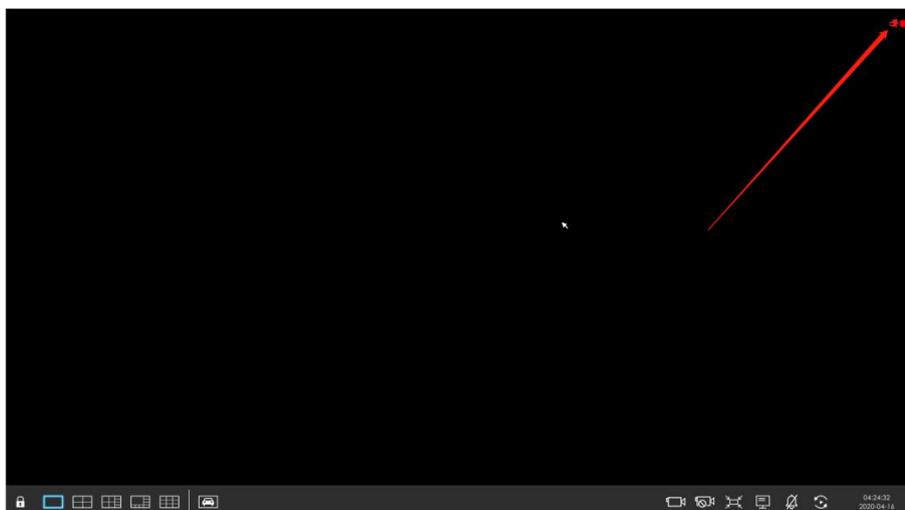
Right click in the Live View and the quick operation menu pops up.



| Item            | Descriptions   |
|-----------------|--|
| Menu            | Display Main Menu  |
| Single Screen   | The selected channel will be full screen. You could go back to previous screen layout by double clicking the channel |
| Sub Screen Ctrl | Switch to sub screen to operate (Only for Pro NVR 7000 Series, PoE NVR 7000 Series and Pro NVR 8000 Series)          |
| Multi Screen    | Switch to multiple screen layouts  |
| Preview Mode    | Regular Mode and ANPR Mode are available   |
| Display Info    | Show channel information, including Camera Number, Bit Rate, Frame Rate and Frame Size                               |
| Previous Screen | Switch to previous screen  |
| Next Screen     | Switch to next screen  |
| Logout          | Log out current user account   |

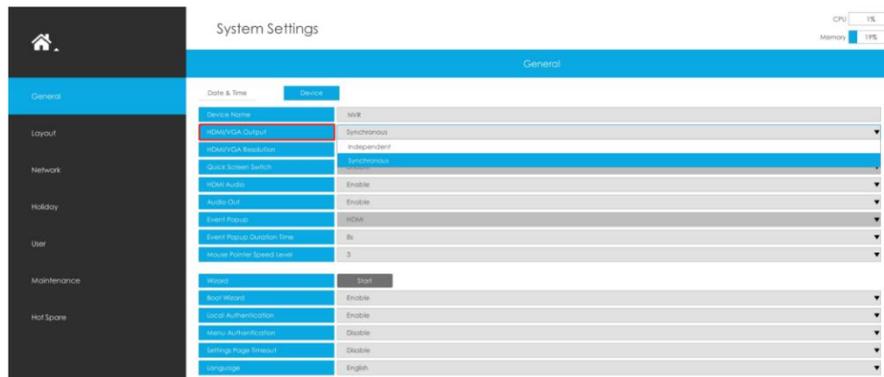
**Note:**

1. The functions and channel status on the sub screen are the same as that on the main screen of both NVR 7000 Series and NVR 8000 Series.



2. For the Sub Screen Ctrl function of Pro/PoE NVR 7000 Series, you can choose whether these

two outputs are independent or synchronous. And if you change the option, the modification will take effect after rebooting.



### Quick Operation for single channel

In live view interface, left click the channel, the quick menu will appear.



| Icons | Descriptions      | Icons | Descriptions              |
|-------|-------------------|-------|---------------------------|
|       | Manually record   |       | Image Configure           |
|       | PTZ control       |       | Original/Resize the image |
|       | Audio on/off      |       | Digital zoom              |
|       | Snapshot manually |       | Instant Playback          |
|       | Fisheye Mode      |       | Close menu                |

**Note:**

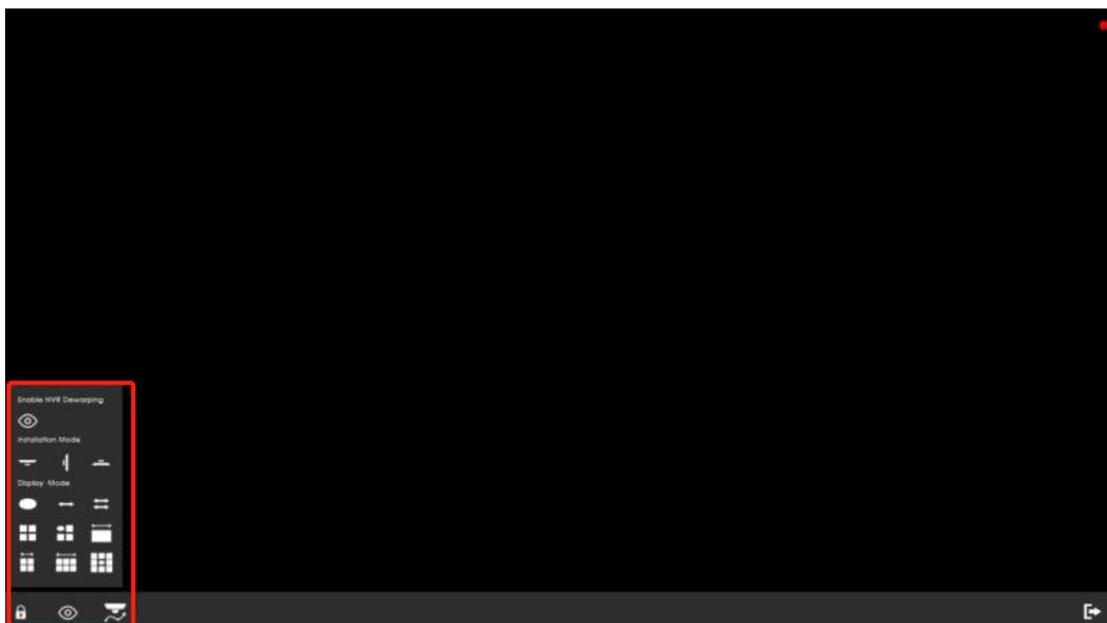
You can right-click to exit the instant playback.

**Fisheye Mode:**

Click to enter Fisheye Mode, which will display full screen fisheye channel. Click or any other icons in this page to enter NVR-side Dewarping. Then you can set installation modes and display modes for the camera on the Fisheye tool bar. After finished, click to end Dewarping.

**Note:**

1. NVR-side Dewarping is available for all devices including third-party devices.
2. Milesight NVR Only supports one channel Dewarping.



**Installation Mode:** Ceiling Mount/ Wall Mount/ Table Mount

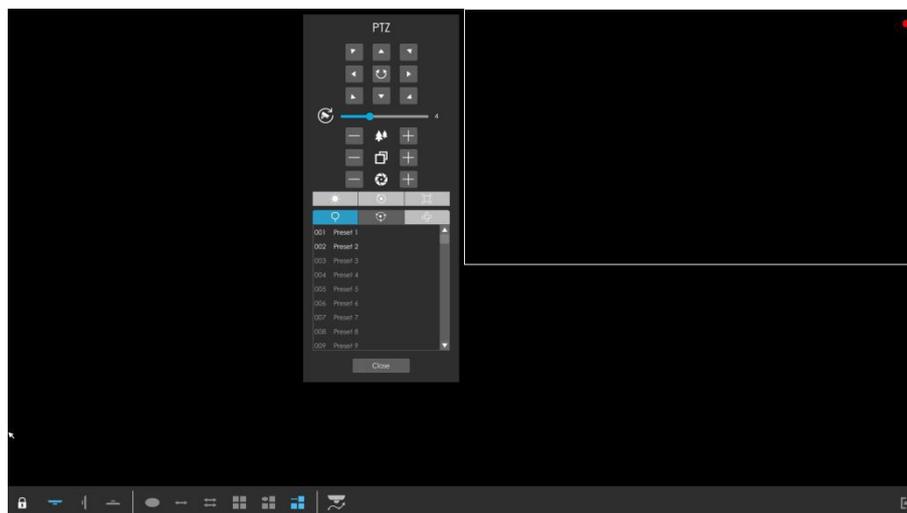
**Display Mode:** 1O/1P/2P/4R/1O3R/1P3R

**Fisheye Auto Tracking:** Comprehensive Fisheye Auto Tracking avoids any details missing by performing the digital Pan/Tilt/Zoom to track the moving objects automatically.

**Note:**

Fisheye Auto Tracking function is only supported in On-board Dewarping and ceiling mode with Regional View on fisheye network camera.

Select a fisheye channel(except for the original view), and click  to enter PTZ Mode. You can operate PTZ, Preset and Patrol of this channel separately.

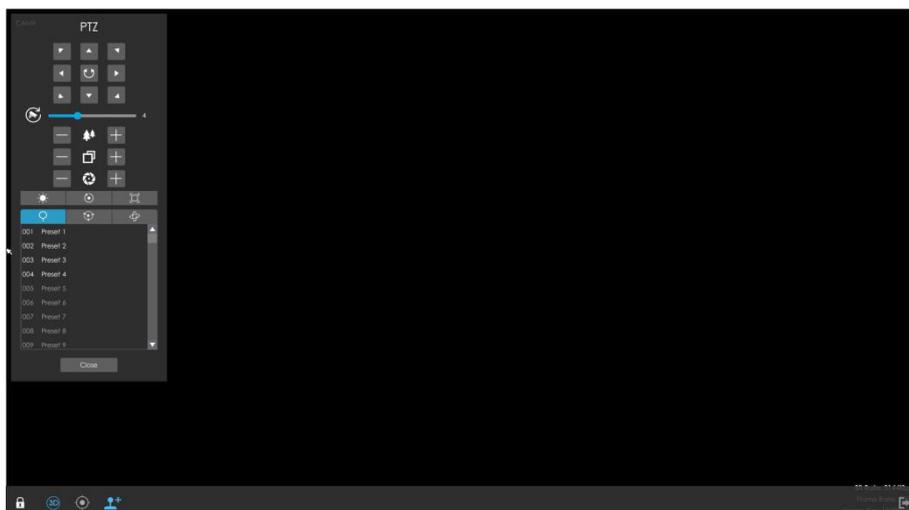


**Note:**

Only for Milesight Fisheye Camera in Bundle-Stream Mode.

**PTZ Mode:**

Click  to enter PTZ mode, and the selected channel will be full screen.



You can do PTZ, Preset, Patrol, Pattern, Lighting for 30s, Lens Initialization and Auxiliary Focus operation in the PTZ panel.

Meanwhile, there are four icons in the tool bar. The descriptions are as below.

| Icons | Descriptions             | Icons | Descriptions                    |
|-------|--------------------------|-------|---------------------------------|
|       | Lock/Unlock the tool bar |       | Enable/Disable 3D positioning   |
|       | PTZ Manual Tracking      |       | Show/Hide the PTZ control panel |

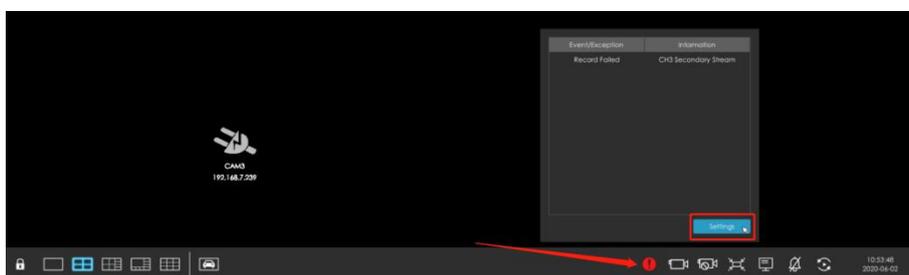
**Note:**

Ensure that your camera's version is 4X.7.0.74 or above before you use Lighting for 30s, Lens Initialization, Auxiliary Focus and PTZ Manual Tracking.

**Event Notification:**

The prompt icon will automatically blink in the bottom bar when corresponding event is triggered. You can click it to check alarm details. And it can be unlocked manually.

Also, you can select which alarm notification you want to get by click .



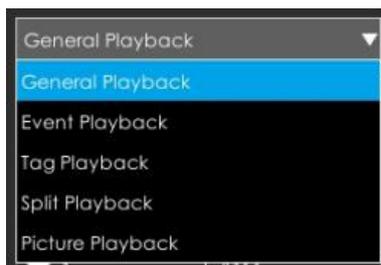
### 3.3 Playback

Playback supports to playback video according to recorded time and to play recorded video files in specified time period. Synchronous playback of multi-channel is supported.

### 3.3.1 General Playback

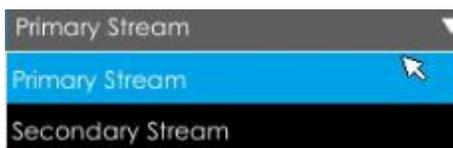


**Step1. Select General Playback as playback type.**



**Step2. Select Stream Type.**

Primary Stream and Secondary Stream are available.



**Step3. Select channel.**

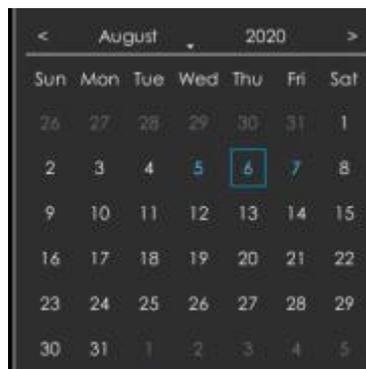
Select channels you want to do playback. User can click **Select Max** to select maximum channel for playback, 9 channels for Milesight Mini (PoE) NVR Series while 16 channels for other NVR. Layout of playback will be automatically adjusted according to the amount of the selected channels.

| CH                                    | Name  |
|---------------------------------------|-------|
| <input checked="" type="checkbox"/> 1 | CAM1  |
| <input checked="" type="checkbox"/> 2 | CAM2  |
| <input type="checkbox"/> 3            | CAM3  |
| <input type="checkbox"/> 4            | CAM4  |
| <input type="checkbox"/> 5            | CAM5  |
| <input type="checkbox"/> 6            | CAM6  |
| <input type="checkbox"/> 7            | CAM7  |
| <input type="checkbox"/> 8            | CAM8  |
| <input type="checkbox"/> 9            | CAM9  |
| <input type="checkbox"/> 10           | CAM10 |
| <input type="checkbox"/> 11           | CAM11 |
| <input type="checkbox"/> 12           | CAM12 |
| <input type="checkbox"/> 13           | CAM13 |
| <input type="checkbox"/> 14           | CAM14 |
| <input type="checkbox"/> 15           | CAM15 |
| <input type="checkbox"/> 16           | CAM16 |

Select Max      Clear All

**Step4. Select date.**

The day with blue letters means that there are record files.



**Video Playback Tool Bar Description**



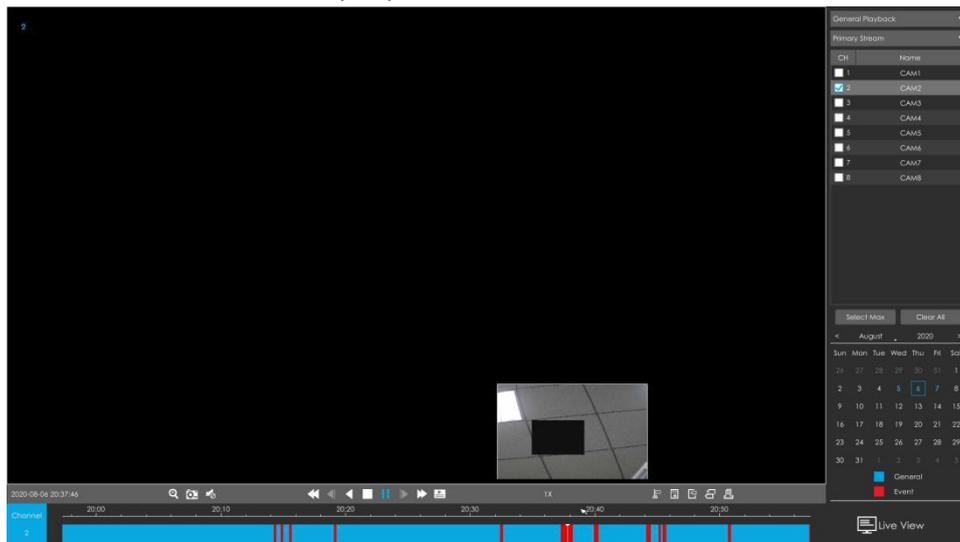
Every channel got their own file bar, and there is only one file bar matching with the selected channel. The tool bar can display multiple types record. It shows that in this record period what kind of event has happened. The symbolic meaning of each color is:

**Blue**—General

**Red** --- Event

Take this bar above as an example, it means that there are continuous recording and event recording in this period.

It is shown a thumbnail of what occurs at that given moment in the recorded video when you hover your mouse over the progress bar. You can Scroll the mouse wheel to get forward or backward frame of the video when you pause the video.



| Icons | Descriptions     | Icons | Descriptions              |
|-------|------------------|-------|---------------------------|
|       | Digital zoom     |       | Snapshot                  |
|       | Audio on         |       | Audio off                 |
|       | Speed down       |       | Speed up                  |
|       | Step reverse     |       | Step forward              |
|       | Rewind           |       | Play                      |
|       | Stop             |       | Pause                     |
|       | Timeline cutting |       | Lock video file           |
|       | Quick tag        |       | Custom tag                |
|       | File Management  |       | Zoom in timebar           |
|       | Zoom out timebar |       | Best Decoding Performance |
|       | Smart Play Speed |       |                           |

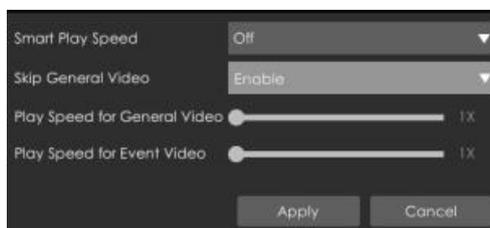
**Speed up/down:** You can adjust the speed even when playback is paused.

**Lock Video:** Once the video is locked, the whole file where the video located won't be overwritten. Milesight NVRs support the display of locked icon on the playback bar so that the corresponding files in the playback page can be identified directly. You can also change the lock status in Retrieve interface.

**Tag Video:** Quick Tag and Custom Tag are available for tag operation in Playback interface. Milesight NVRs support the display of tagged icon on the playback bar so that the corresponding files in the playback page can be identified directly. You can backup video via tag in Retrieve interface or do tag playback in Playback interface.

**Best Decoding Performance:** This function is supported for NVR 8000 Series, by which the decoding resources of the other screen can be used for playback when the decoding performance is insufficient. Here are some notes for using this feature below.

**Smart Play Speed:** You can configure Play Speed for General Video and Event Video and choose to skip General Video according to your preference.



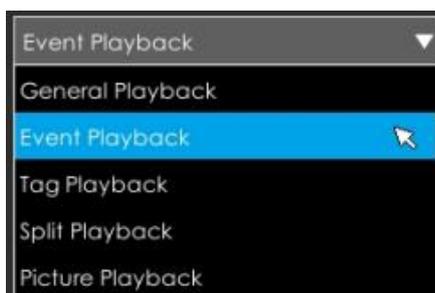
**Note:**

1. This button can be available only when HDMI2/VGA2 of NVR is enabled.
2. This button only exists in General Playback, Event Playback and Tag Playback.
3. Another screen will be black once this function is enabled.
4. The status of this option is temporary. Once you exit the playback interface, this function will automatically turn off. The other screen will restore preview, and the decoding resources of the two screens will be reassigned.
5. Only NVR firmware version xx.9.0.9 or above supports Smart Play Speed.

### 3.3.2 Event Playback

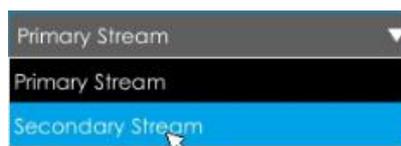


**Step1. Select Event Playback as playback type.**



**Step2. Select Stream Type.**

Primary Stream and Secondary Stream are available.



**Step3. Select channel.**

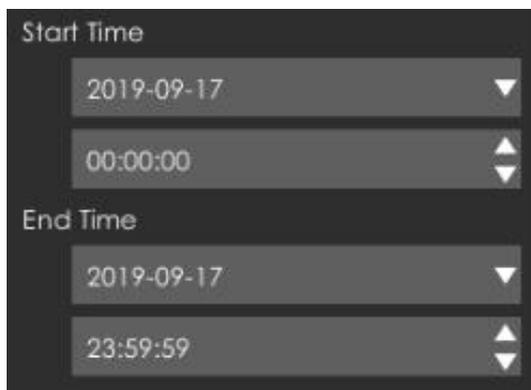
Select channels you want to do playback. Layout of playback will be automatically adjusted according to the amount of the selected channels.

| <input type="checkbox"/>            | CH | Name |
|-------------------------------------|----|------|
| <input checked="" type="checkbox"/> | 1  | CAM1 |
| <input type="checkbox"/>            | 2  | CAM2 |
| <input type="checkbox"/>            | 3  | CAM3 |
| <input type="checkbox"/>            | 4  | CAM4 |
| <input type="checkbox"/>            | 5  | CAM5 |
| <input type="checkbox"/>            | 6  | CAM6 |

**Step4. Select Event Type.**



**Step5: Select Start Time and End Time, click  to search the record.**

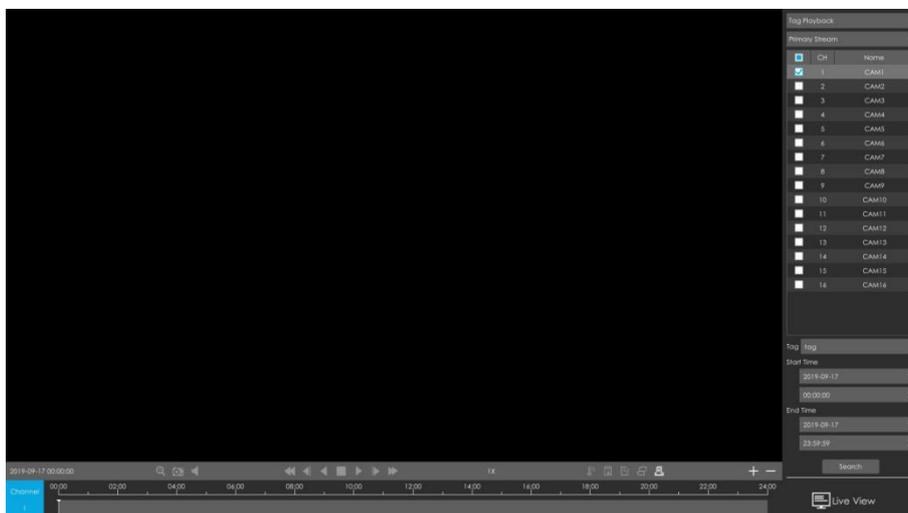


**Step6: It would list all videos after clicking . Set pre playback and post playback time, then play the video by clicking .**



Video Playback Tool Bar Description are the same as General Playback, except for those icons that are not locked or tagged on the playback bar.

### 3.3.3 Tag Playback

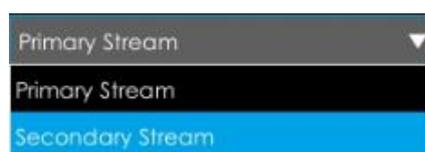


**Step1. Select Tag Playback as playback type.**



**Step2. Select Stream Type.**

Primary Stream and Secondary Stream are available.

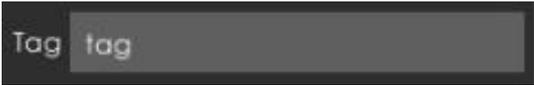


**Step3. Select channel.**

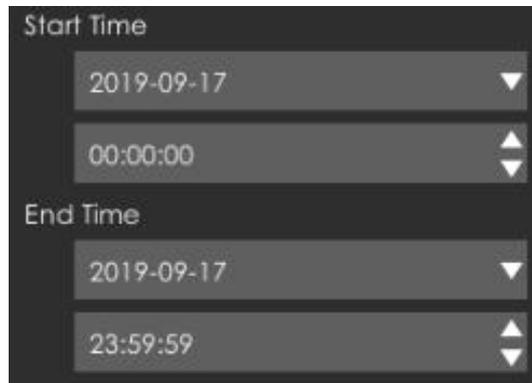
Select channels you want to do playback. Layout of playback will be automatically adjusted according to the amount of the selected channels.



**Step4. Input tag name or any key words of tag.**



**Step5: Select Start Time and End Time.**



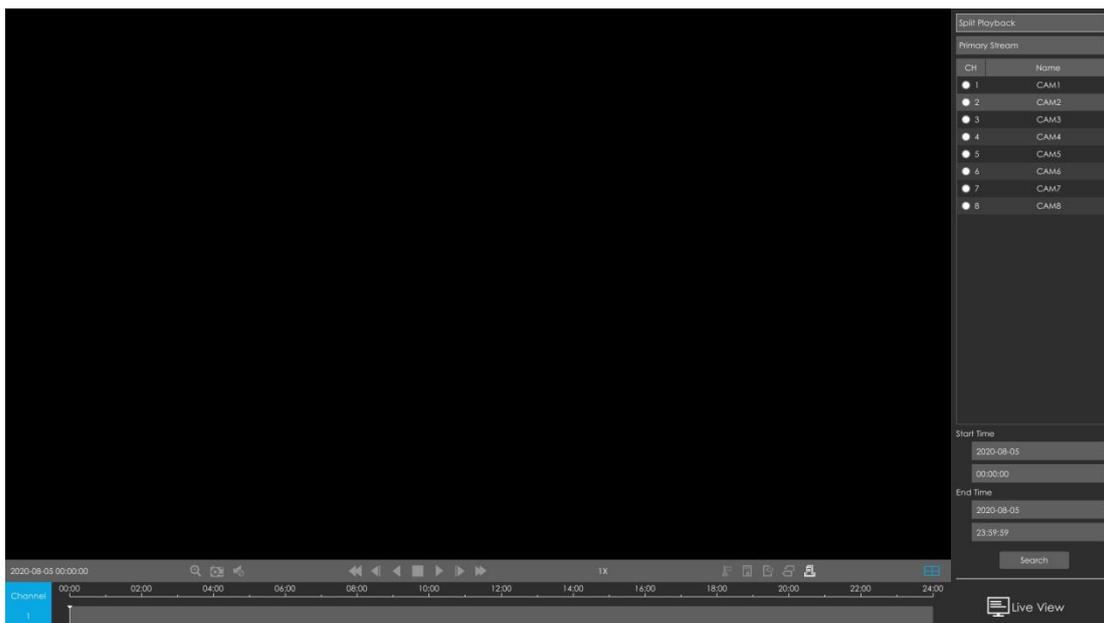
**Step6: It would list all tagged video after clicking . Set pre playback and post playback time, then play the tag video by clicking .**



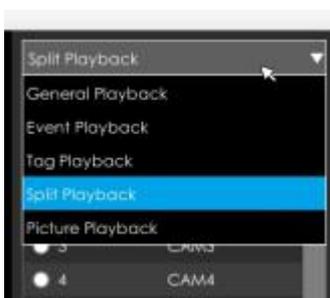
**Video Playback Tool Bar Description are the same as General Playback, except for those icons that are not locked or tagged on the playback bar.**

### 3.3.4 Split Playback

Split Playback allows users to select a video channel and set a time range to divide the video files into several parts in the specified time period according to their needs when watching playback, so that users can watch videos of different time simultaneously.



**Step1. Select Split Playback as playback type.**



**Step2. Select Stream Type.**

Primary Stream and Secondary Stream are available.

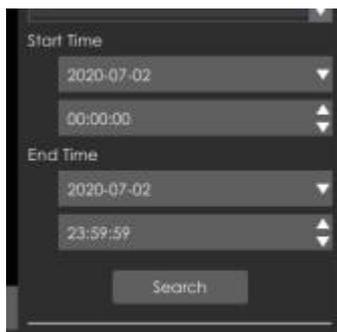
**Step3. Select channel.**

Select a channel you want to do play back. You are allowed to select only one channel at one time.

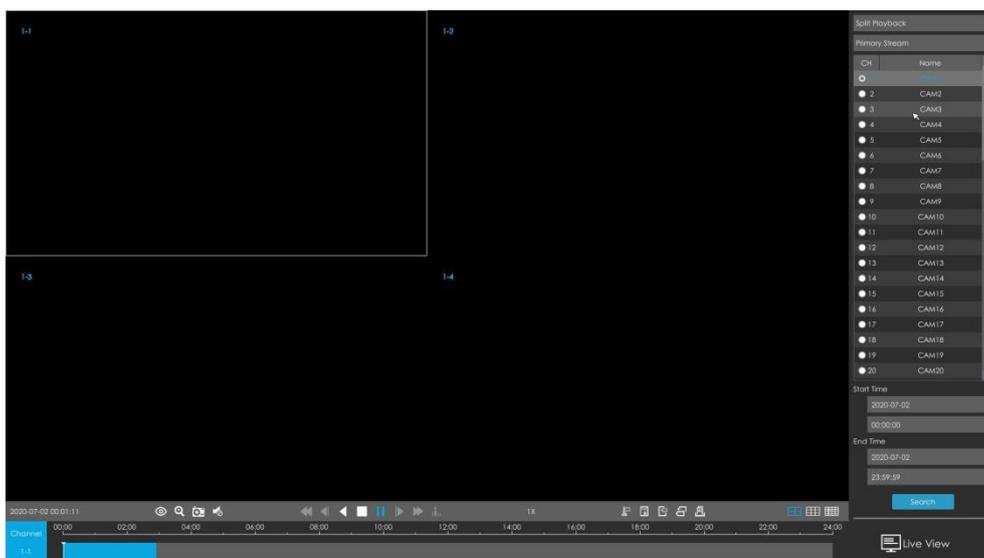
| <input type="checkbox"/>            | CH | Name |
|-------------------------------------|----|------|
| <input checked="" type="checkbox"/> | 1  | CAM1 |
| <input type="checkbox"/>            | 2  | CAM2 |
| <input type="checkbox"/>            | 3  | CAM3 |
| <input type="checkbox"/>            | 4  | CAM4 |
| <input type="checkbox"/>            | 5  | CAM5 |
| <input type="checkbox"/>            | 6  | CAM6 |
| <input type="checkbox"/>            | 7  | CAM7 |
| <input type="checkbox"/>            | 8  | CAM8 |
| <input type="checkbox"/>            | 9  | CAM9 |

**Step4. Set Start Time and End Time.**

Set Start Time and End Time and click Search button to search playback records of the chosen channel. The time period should be within 24 hours



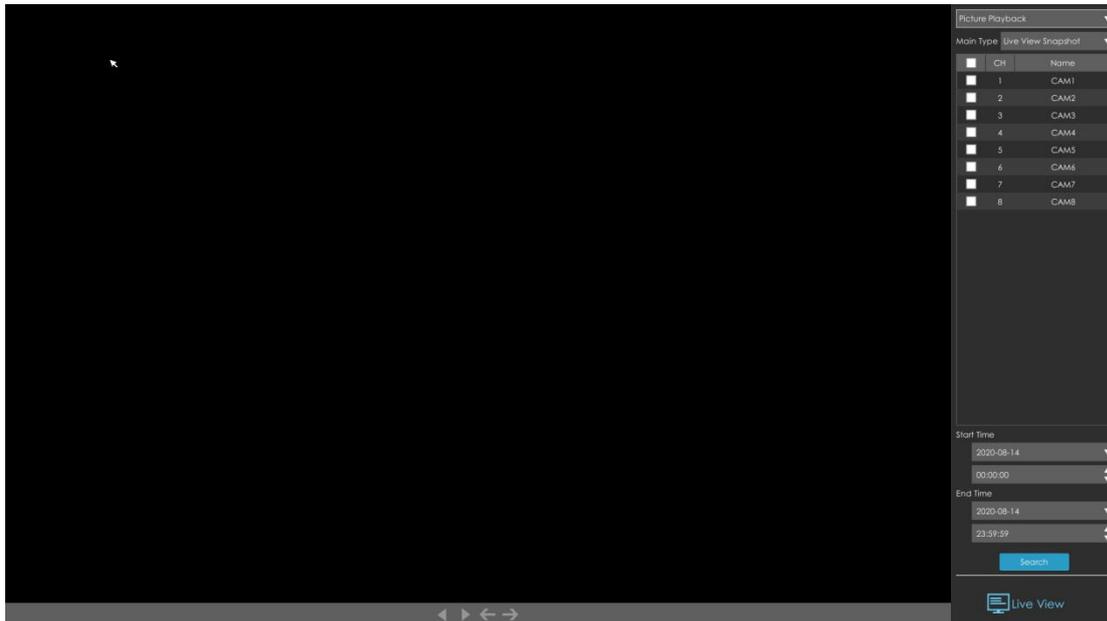
**Step5:** It would start playing after clicking , displayed in 4 split screens by default.



**Step6: Select Different Split Screen Numbers.**

Go to  in the Toolbar, which corresponds to 4/9/16 screens playback. You can click any one of them to switch to different layout. It would segment and play the video according to your selection automatically.

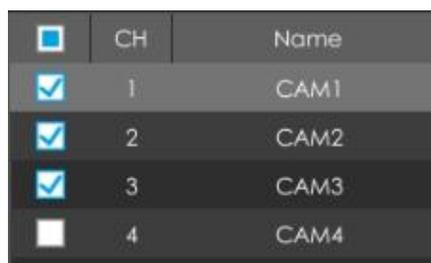
### 3.3.5 Picture Playback



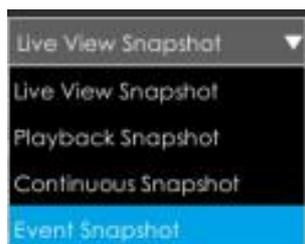
**Step1. Select Picture Playback as playback type.**



**Step2. Select channel.**



**Step3. Select Snapshot type, including Live View Snapshot, Playback Snapshot, Continuous Playback and Event Playback.**

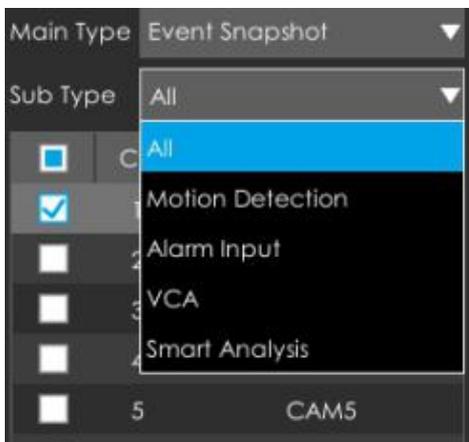


Live View Snapshot and Playback Snapshot refer to the picture file manually captured in Live

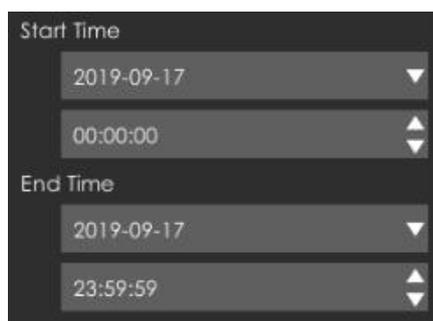
View and Playback page.

Continuous Snapshot requires you to set continuous snapshot schedule in Storage->Snapshot->Snapshot Schedule interface.

Event Snapshot includes Motion Detection, Alarm Input, VCA and Smart Analysis. Select corresponding event and click Search to get event snapshot files.



**Step4: Select Start Time and End Time.**



**Step5: It would list all snapshot after clicking**  .

Click  to play the selected picture, or click  to auto play pictures.

**Note:**

1. You can export picture by clicking  or  .



2. You can get detailed information from the display of exporting pictures.

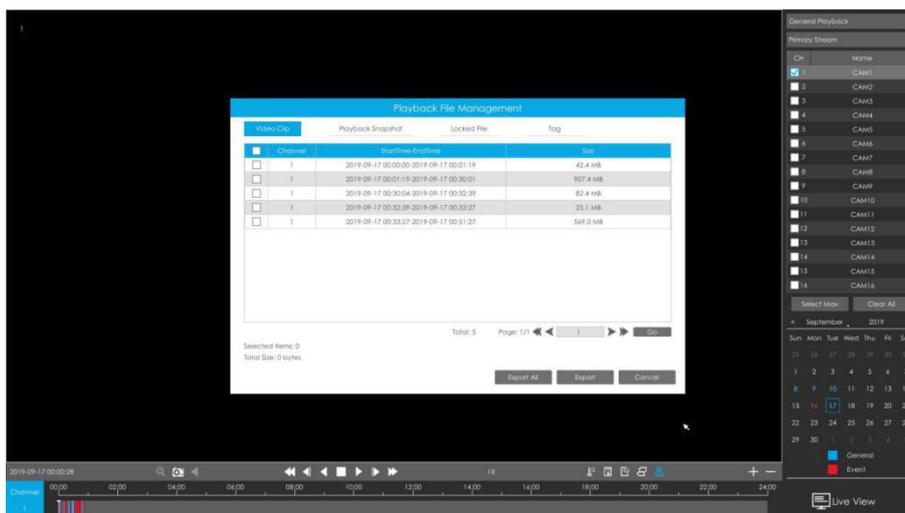


| Icons | Descriptions             | Icons | Descriptions |
|-------|--------------------------|-------|--------------|
|       | Play backward            |       | Play         |
|       | Previous picture         |       | Next picture |
|       | Back to search interface |       |              |

### 3.3.6 File Management

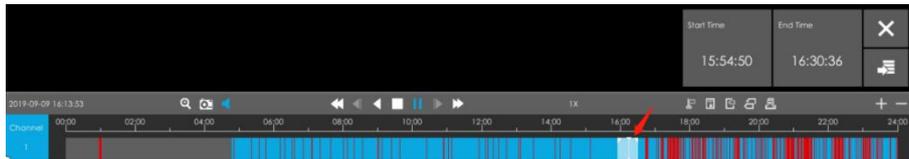
It would list all the operation you did this time until exit the Playback interface.

Operation includes clip video, snapshot, lock file and tag. Besides, you can export clipped video, playback snapshot and locked file to USB drives and eSATA.



Take clip video as example.  
Step1. Cut recorded files.

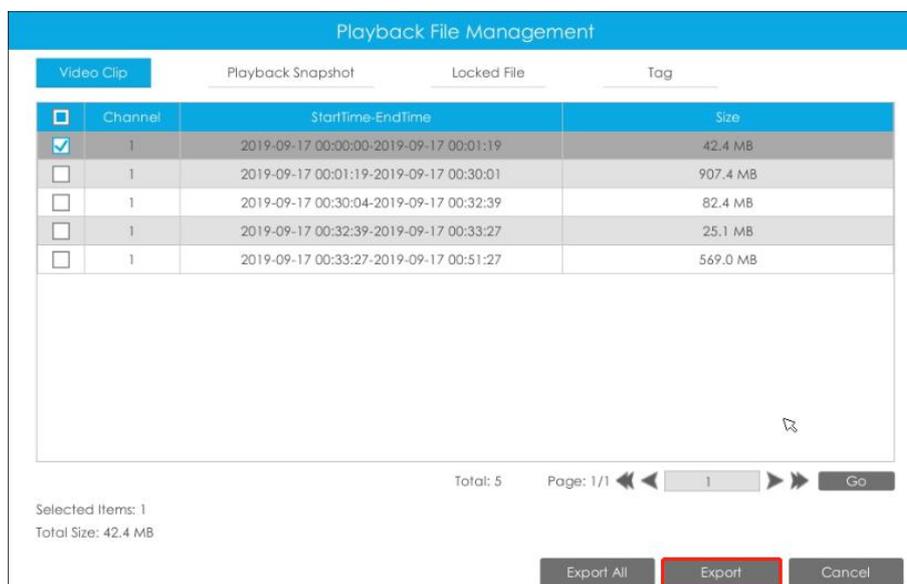
Select the channel and date you want to backup, then select the time at timeline and click , then drag the timeline to select the start time and end time of video.



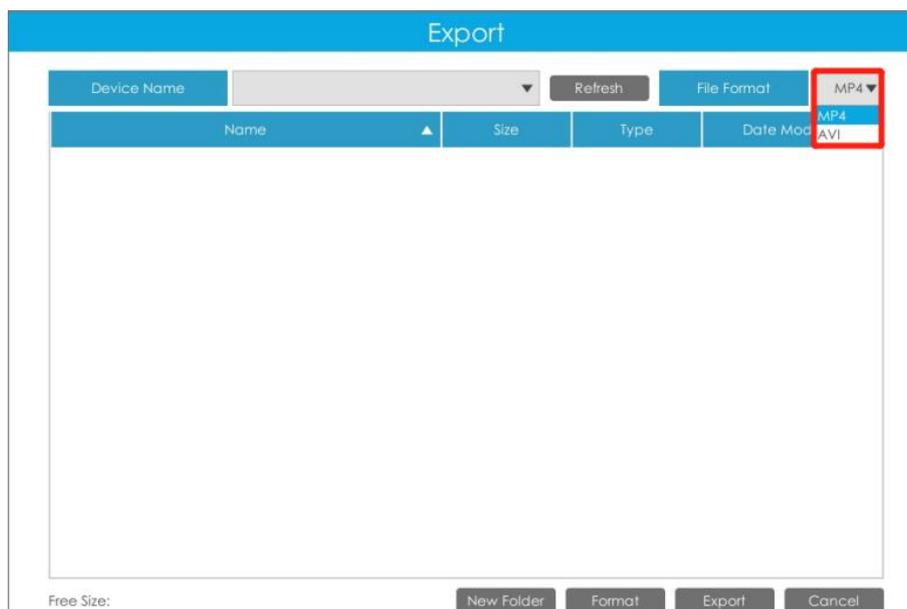
**Step2.** Click  to save the clipped video.

**Step3.** Click  to pop up File Management interface. Select the video you clipped and click

 to export video.



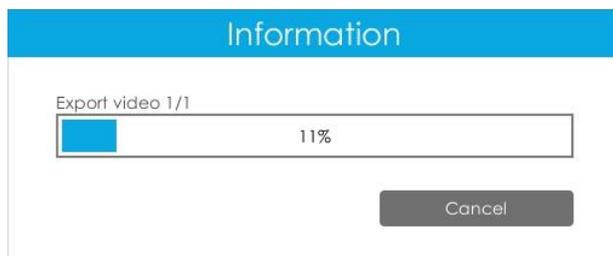
**Step4.** Select the device to storage exported video and then click .



**Note:**

You can also directly format and create new folder of storage device here.

There is an information promoted showing the export progress.



**Note:**

The download time of files depends on the time length of video you want to backup.

## 3.4 Retrieve

### 3.4.1 Common Backup

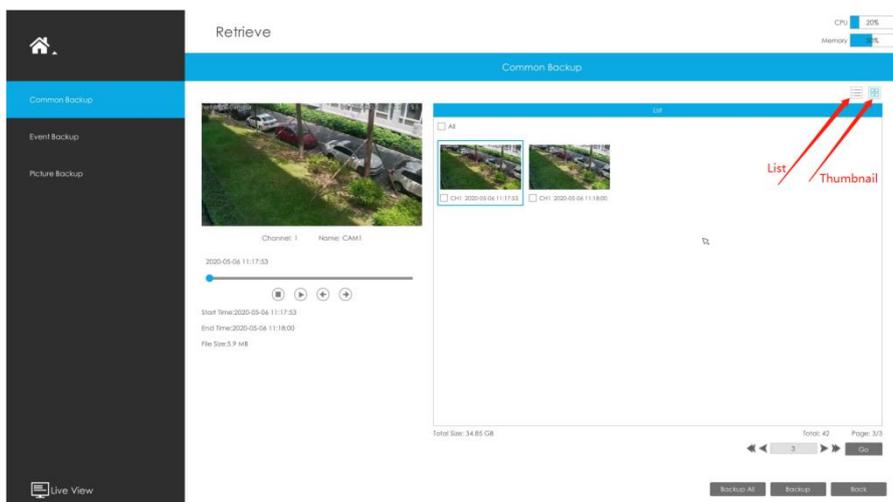
Support to search out record file according to different stream type, record type and file type you set.



**Step1:** Set the search condition and click  to search video.



The search result can be chosen as a list or thumbnail. The default search result presents as a list.

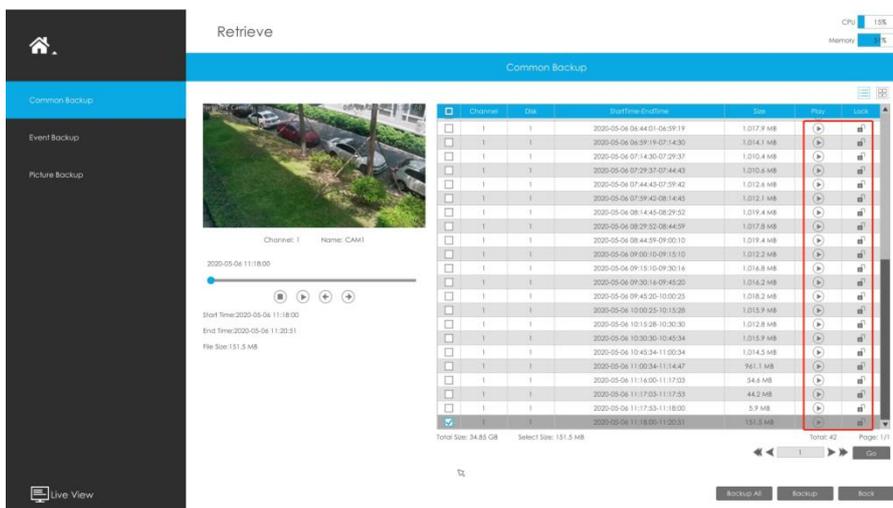


Step2: Select the file you want to backup and click . Also, you can click

 to backup all recorded videos.

In Common Backup interface, play, lock and unlock video are supported. Click  to play and

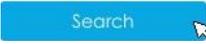
 to lock. Once the video is locked, the whole file where the video located won't be overwritten.

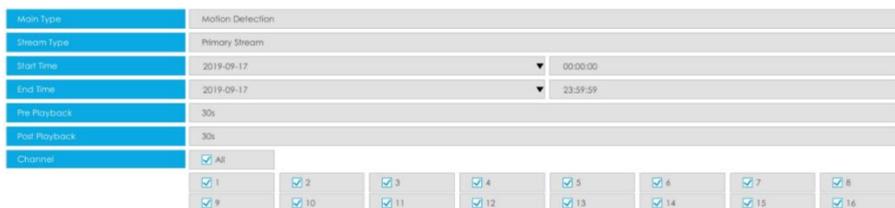


### 3.4.2 Event Backup

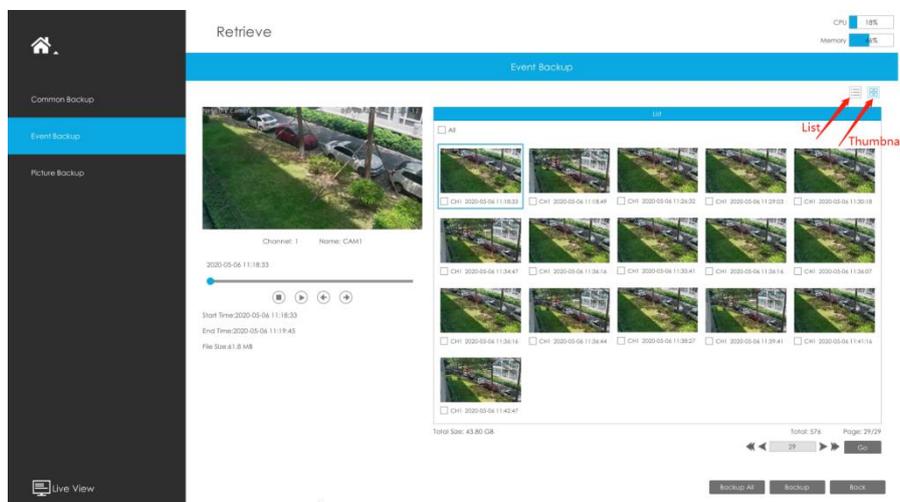
Support to search out and backup picture according to event type. The event type includes Motion Detection, Alarm Input, Alarm Output, VCA and Smart Analysis.



**Step1: Set the search condition and click  to search video.**



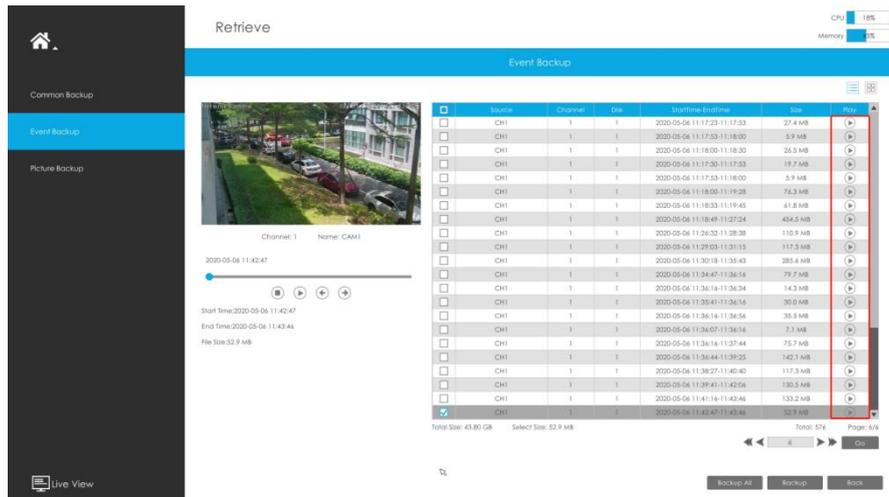
The search result can be chosen as a list or thumbnail. The default search result presents as a list.



**Step2: Select the file you want to backup and click . Also, you can click**

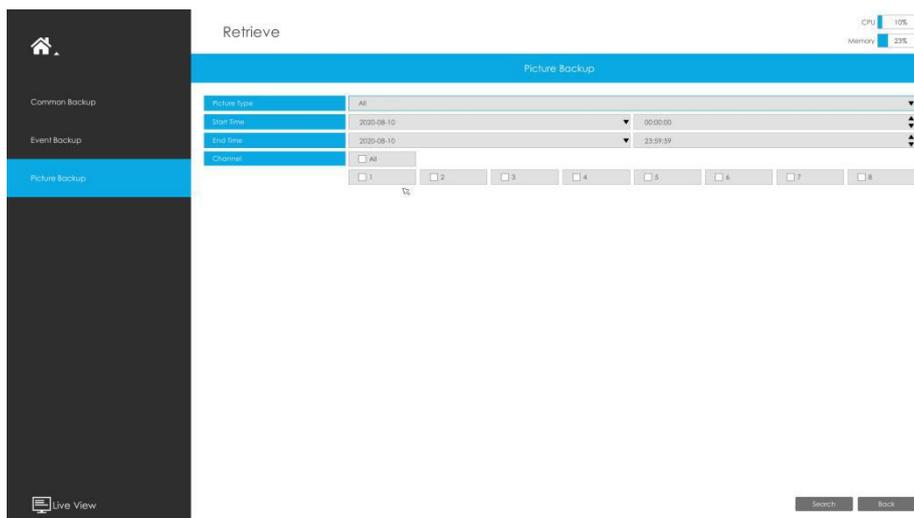
** to backup all recorded video.**

In Event Backup interface, you can click  to play the video.



### 3.4.3 Picture Backup

Support to search out and backup picture according to picture type. The picture type includes All, Live View Snapshot, Playback Snapshot and Event Playback.

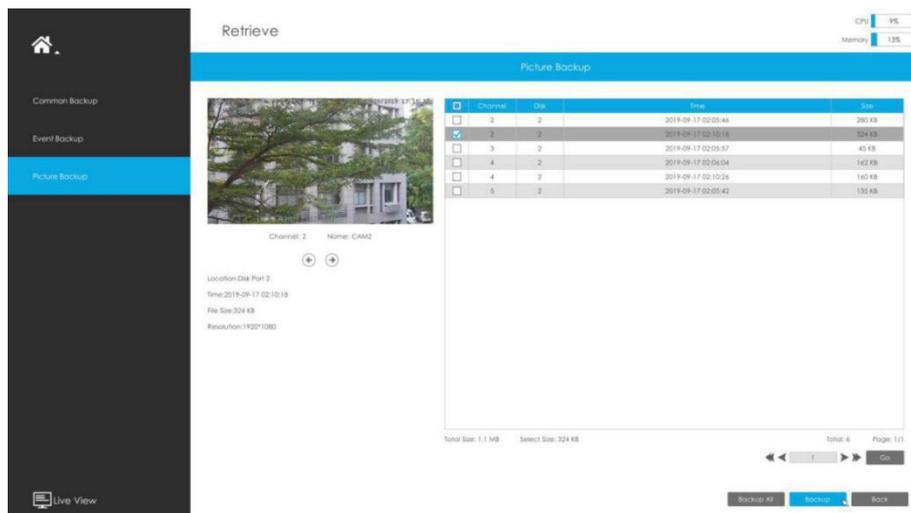


**Step1:** Set the search condition and click to search snapshot.



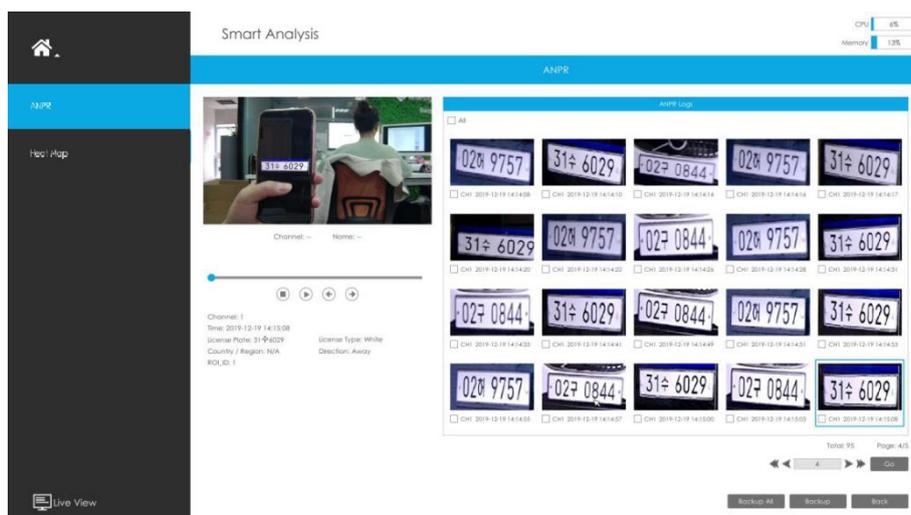
**Step2:** Select the file you want to backup and click . Also, you can click

to backup all recorded videos.



### 3.5 Smart Analysis

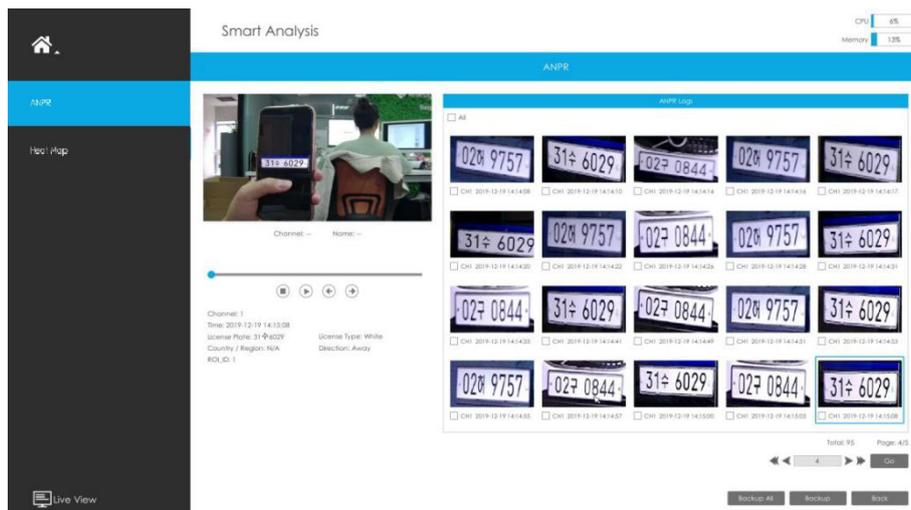
You can get both ANPR logs and Heat Map results in this page.



#### 3.5.1 ANPR

You can Search and Backup ANPR logs.

Input corresponded information and click search button  to search and you will get a whole ANPR logs list. License plate snapshot will be shown on the logs list while the complete image video and license plate information will be shown on the left of the page.



You can click to play the video.

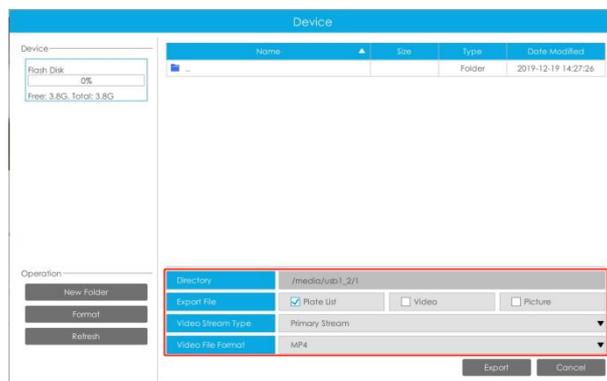


There are two methods to backup ANPR logs.

① Backup license plates you want.

**Step1:** Tick license plates you want to backup and click backup button ;

**Step2:** Select the export file type, video stream type and video file format, then click export button.



② Backup all.

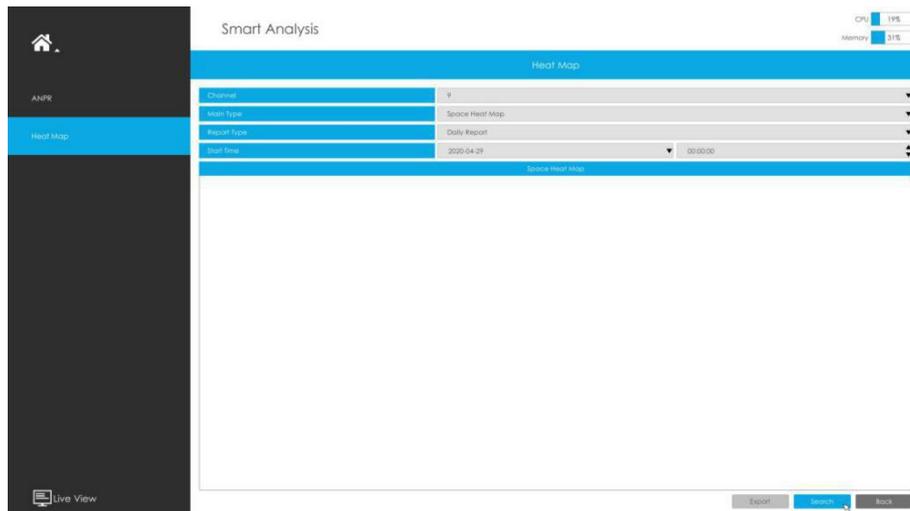
**Step1:** Click backup all button;

**Step2:** Select the export file type, video stream type and video file format, then click export button.

Then you will get corresponding file as selected export file type.

### 3.5.2 Heat Map

You can Search and Export Heat Map results.

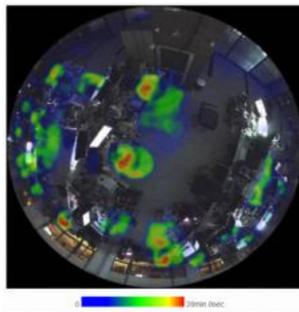


**Step1:** Entering search conditions.

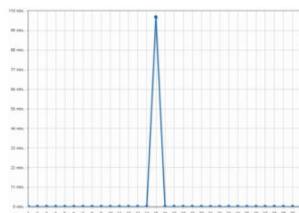
**Channel:** Select the channel first.

**Main Type:** Space Heat Map and Time Heat Map are available.

① Space Heat Map: Space Heat Map will be presented as a picture with different colors. Different colors represent different heat values. Red represents the highest and blue represents the lowest.



② Time Heat Map: Time heat map will be presented as a line chart to show the heat at different times.



**Report Type:** Daily Report, Weekly Report, Monthly Report and Annual Report are available.

**Start Time:** Input the time from which you want to Search.

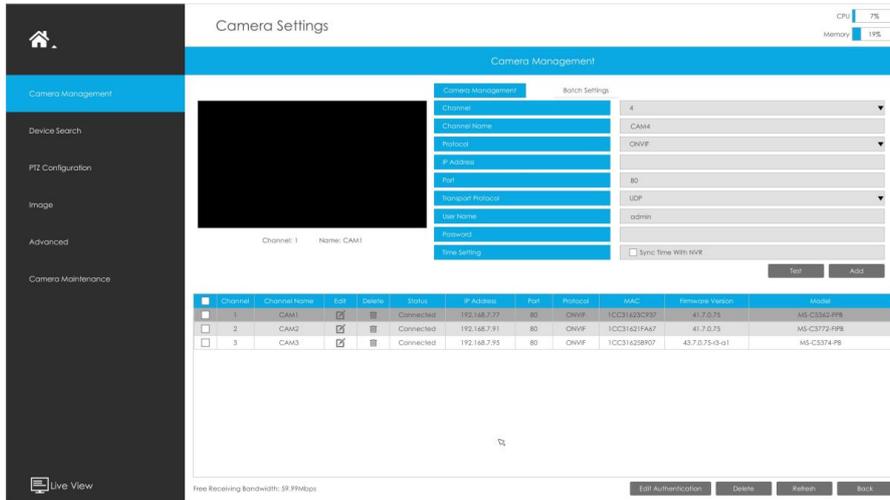
**Step2:** Click  to obtain the corresponding result and then you can click  to export it.

## 3.6 Camera Settings

Before configuration, please ensure that the camera is connected to the same network as your

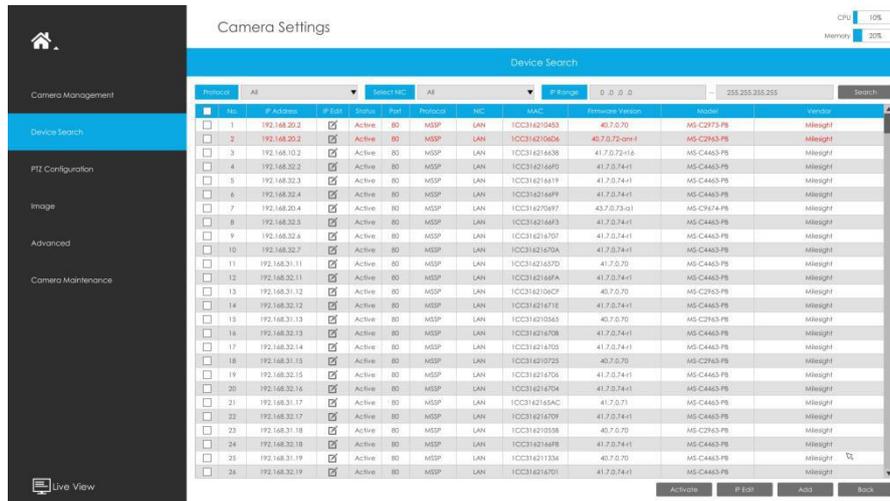
NVR and that the network setting for your NVR is properly set.

### 3.6.1 Camera Management

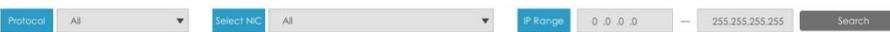


#### Step1. Add camera.

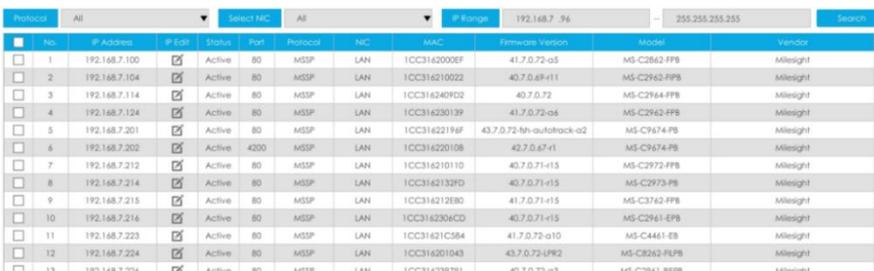
Method1. Add camera through Device Search interface. 'Settings' → 'Camera' → 'Device Search'.



1. Select IP Range, NIC and Protocol, which includes ALL, ONVIF and MSSP.



2. Click Search button to search cameras at the same LAN with NVR.



3. Select one channel, click **Add** button, input password and click **Add** button to finish.

4. Check  to **batch adding** the network cameras if they are with the same password, you can choose TCP or UDP transport protocol for it. Click **OK** to finish batch adding.

**MSSP:** You can search out all Milesight cameras which have different network segment in the LAN.

**Method2. Add camera through camera management interface. 'Settings' → 'Camera' → 'Camera Management'.**

| Channel | Channel Name | Edit | Delete | Status    | IP Address   | Port | Protocol | MAC          | Firmware Version | Model        |
|---------|--------------|------|--------|-----------|--------------|------|----------|--------------|------------------|--------------|
| 1       | CAM1         |      |        | Connected | 192.168.7.27 | 80   | ONVIF    | 1CC31621C584 | 41.7.0.75        | M5-C3372-FPS |
| 2       | CAM2         |      |        | Connected | 192.168.7.91 | 80   | ONVIF    | 1CC31621F4A7 | 41.7.0.75        | M5-C3372-FPS |
| 3       | CAM3         |      |        | Connected | 192.168.7.95 | 80   | ONVIF    | 1CC316228907 | 43.7.0.75-0-01   | M5-C3374-FPS |

Select channel ID, input complete information, then click [Add] button.

There are three protocols available for camera connection:

- **ONVIF:** You can add any ONVIF IP cameras with ONVIF protocols.

|                    |  |
|--------------------|--|
| Channel            | 4  |
| Channel Name       | CAM4   |
| Protocol           | ONVIF  |
| IP Address         | 192.168.7.223  |
| Port               | 80   |
| Transport Protocol | UDP  |
| User Name          | admin  |
| Password           | *****  |
| Time Setting       | <input checked="" type="checkbox"/> Sync Time With NVR |

Test Add

- **RTSP:** You can add any IP cameras with RTSP protocol streams (Port: 554). It needs you to input complete resource path of the IP camera to add it. Take Milesight device for example, the resource path of main stream is “rtsp://IP:port/main” and secondary stream is “rtsp://IP:port/sub”. The length of RTSP can be up to 128 bits.

|                    |  |
|--------------------|--|
| Channel            | 4  |
| Channel Name       | CAM4   |
| Protocol           | RTSP   |
| Primary            | rtsp://192.168.7.223/main                              |
| Secondary          | rtsp://192.168.7.223/sub                               |
| Transport Protocol | UDP  |
| User Name          | admin  |
| Password           | *****  |
| Time Setting       | <input checked="" type="checkbox"/> Sync Time With NVR |

Test Add

- **MSSP:** You can add Milesight cameras which are in the same LAN with MSSP protocol.

|                    |  |
|--------------------|--|
| Channel            | 4  |
| Channel Name       | CAM4   |
| Protocol           | MSSP   |
| IP Address         | 192.168.7.223  |
| Port               | 80   |
| Transport Protocol | UDP  |
| User Name          | admin  |
| Password           | *****  |
| Time Setting       | <input checked="" type="checkbox"/> Sync Time With NVR |

Test Add

You can add offline cameras to Milesight NVRs by method2. As long as the device information you fill in is correct, NVR will determine whether the device is connected and update the camera status automatically.

#### Step2. Check the connection status.

After adding the IP channels, click **Refresh** button on Camera Management interface,

then **Connected** appears under Status. If it doesn't appear, you need to check if the network is connected or whether the user name or password is correct or not.

| Channel                             | Channel Name | Edit | Delete | Status | IP Address | Port           | Protocol | MAC   | Firmware Version | Model             |               |
|-------------------------------------|--------------|------|--------|--------|------------|----------------|----------|-------|------------------|-------------------|---------------|
| <input checked="" type="checkbox"/> | 1            | CAM1 |        |        | Connected  | 192.168.7.131  | 80       | ONVIF | 1CC314230139     | 40.7.0.73-r10     | MS-C2962-FFB  |
| <input checked="" type="checkbox"/> | 2            | CAM2 |        |        | Connected  | 192.168.7.240  | 80       | ONVIF | 1CC316219CB4     | 40.7.0.66         | MS-C2963-FB   |
| <input type="checkbox"/>            | 3            | CAM3 |        |        | Connected  | 192.168.14.103 | 8083     | ONVIF | 1CC314219804     | 40.7.0.73-r7      | MS-C2961-EB   |
| <input type="checkbox"/>            | 5            | CAM5 |        |        | Connected  | 192.168.7.78   | 80       | ONVIF | 1CC314201043     | 43.7.0.73-IP92-#B | MS-CB262-FBFB |

### Step3. Configure camera.

#### Configure one camera

After successfully adding the camera, click to re-edit the channel info.

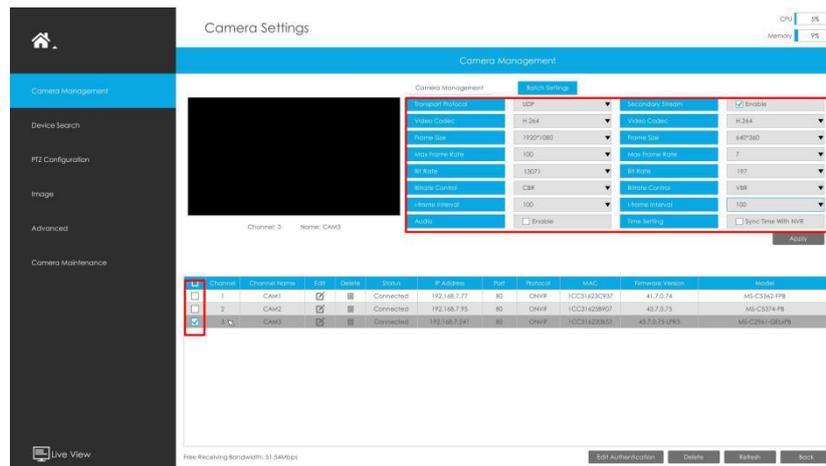
Go to Parameters page to re-edit parameters of this channel, select the Record Stream Type as General or Event to set different parameters separately. It is recommended to set lower parameters for General Stream to save certain storage. Click [OK] to save after your configuration.

**Note:**

1. Event Record Stream Configuration includes Events like Motion Detection, VCA, Camera Alarm Input and Smart Analysis.
2. Make sure your IPC's firmware version is 4X7.0.75 or above.

#### Batch configuring camera

Click , select multiple channels and set parameters of cameras.



#### Step4. Delete camera.

You can delete this channel by clicking , or you can select multiple devices and then click



to delete.



#### Step5. Configure PoE Channel (Only for PoE NVR)

1. Connect Milesight camera to PoE port, it will detect the camera automatically.
2. If the camera's password is the same with NVR admin password, it will be successfully authenticated and be changed into the same network segment with internal NIC IPv4 address, then the camera will be connected successfully.
3. If the camera's password is different with NVR admin password, the PoE channel will show disconnect status. You need to input the camera's password by clicking 

to realize authentication ( you can also multi-select the devices and then click this button). Then the camera will be changed into the same network segment with internal NIC IPv4 address and will be successfully connected. Next time, NVR will use the password you input to authenticate this camera when you re-plug it.

#### Note:

1. When NVR detects the inactive camera connected via PoE port, the camera will synchronize the password of NVR, and then camera will be successfully connected.
2. The steps for adding the third party PoE cameras plugged into Milesight PoE NVR:
  - ① Set camera's IP segment to the same as NVR PoE NIC before plugging to PoE NVR;
  - ② Select PoE for NIC in Device Search interface, click  to search out cameras;
  - ③ Select cameras and click  to add them.

**Edit Authentication**

User Name: admin

Password: ●●●●●●

Note: Edit authentication for selected cameras.

OK Cancel

### 3.6.2 Device Search

Select Protocol and NIC, then set the IP range, and click  to quickly search the IP devices that support selected protocol and NIC at the same LAN with NVR.

| Device Search            |            |               |                                     |          |               |                 |        |                  |                           |               |           |
|--------------------------|------------|---------------|-------------------------------------|----------|---------------|-----------------|--------|------------------|---------------------------|---------------|-----------|
| Protocol                 | All        | Select NIC    | All                                 | IP Range | 192.168.7 .96 | 255.255.255.255 | Search |                  |                           |               |           |
| No.                      | IP Address | IP Edit       | Status                              | Port     | Protocol      | NIC             | MAC    | Firmware Version | Model                     | Vendor        |           |
| <input type="checkbox"/> | 1          | 192.168.7.100 | <input checked="" type="checkbox"/> | Active   | 80            | MSSP            | LAN    | 1CC3162000EF     | 41.7.0.72-a5              | MS-C2862-FPB  | Milesight |
| <input type="checkbox"/> | 2          | 192.168.7.104 | <input checked="" type="checkbox"/> | Active   | 80            | MSSP            | LAN    | 1CC316210022     | 40.7.0.69-r11             | MS-C2962-FPB  | Milesight |
| <input type="checkbox"/> | 3          | 192.168.7.114 | <input checked="" type="checkbox"/> | Active   | 80            | MSSP            | LAN    | 1CC3162409D2     | 40.7.0.72                 | MS-C2964-FPB  | Milesight |
| <input type="checkbox"/> | 4          | 192.168.7.124 | <input checked="" type="checkbox"/> | Active   | 80            | MSSP            | LAN    | 1CC316230139     | 41.7.0.72-a6              | MS-C2962-FPB  | Milesight |
| <input type="checkbox"/> | 5          | 192.168.7.201 | <input checked="" type="checkbox"/> | Active   | 80            | MSSP            | LAN    | 1CC31622196F     | 43.7.0.72-Mi-autotrack-a2 | MS-C9674-FB   | Milesight |
| <input type="checkbox"/> | 6          | 192.168.7.202 | <input checked="" type="checkbox"/> | Active   | 4200          | MSSP            | LAN    | 1CC316220108     | 42.7.0.47-r1              | MS-C9674-FB   | Milesight |
| <input type="checkbox"/> | 7          | 192.168.7.212 | <input checked="" type="checkbox"/> | Active   | 80            | MSSP            | LAN    | 1CC316210110     | 40.7.0.71-r15             | MS-C2972-FPB  | Milesight |
| <input type="checkbox"/> | 8          | 192.168.7.214 | <input checked="" type="checkbox"/> | Active   | 80            | MSSP            | LAN    | 1CC3162153FD     | 40.7.0.71-r15             | MS-C2973-FB   | Milesight |
| <input type="checkbox"/> | 9          | 192.168.7.215 | <input checked="" type="checkbox"/> | Active   | 80            | MSSP            | LAN    | 1CC316212E80     | 41.7.0.71-r15             | MS-C3762-FPB  | Milesight |
| <input type="checkbox"/> | 10         | 192.168.7.216 | <input checked="" type="checkbox"/> | Active   | 80            | MSSP            | LAN    | 1CC3162306CD     | 40.7.0.71-r15             | MS-C2961-FPB  | Milesight |
| <input type="checkbox"/> | 11         | 192.168.7.223 | <input checked="" type="checkbox"/> | Active   | 80            | MSSP            | LAN    | 1CC31621C584     | 41.7.0.72-a10             | MS-C4461-E8   | Milesight |
| <input type="checkbox"/> | 12         | 192.168.7.224 | <input checked="" type="checkbox"/> | Active   | 80            | MSSP            | LAN    | 1CC316201043     | 43.7.0.72-1PR2            | MS-C8262-FBFB | Milesight |
| <input type="checkbox"/> | 13         | 192.168.7.226 | <input checked="" type="checkbox"/> | Active   | 80            | MSSP            | LAN    | 1CC316239791     | 40.7.0.72-a3              | MS-C2961-REPB | Milesight |
| <input type="checkbox"/> | 14         | 192.168.7.240 | <input checked="" type="checkbox"/> | Active   | 80            | MSSP            | LAN    | 1CC316219CB4     | 40.7.0.72                 | MS-C2963-FB   | Milesight |

If the camera status shows Inactive, please select camera and click  to active it first before adding to NVR

Besides, you can select channels and click  to **batch editing** their IP information.

**IP Edit**

MAC: 1CC316220108

Protocol: MSSP

IP Address: 192.168.7 .202

Subnet Mask: 255.255.240.0

Gateway: 192.168.7 .2

DNS: 8 .8 .8 .8

Port: 4200

User Name: admin

Password:

OK Cancel

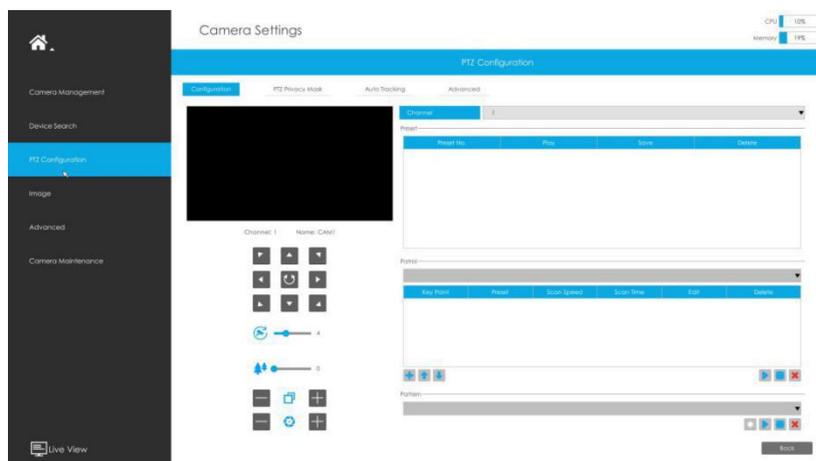
### 3.6.3 PTZ Configuration

#### Configuration

##### [Preset]

Preset can be set to move your PTZ camera to a desired preset position. The preset position is the preparation for Patrol.

**Step1.** Use the PTZ direction key to rotate the position of preset. Then choose a preset number and click  to save a preset position.



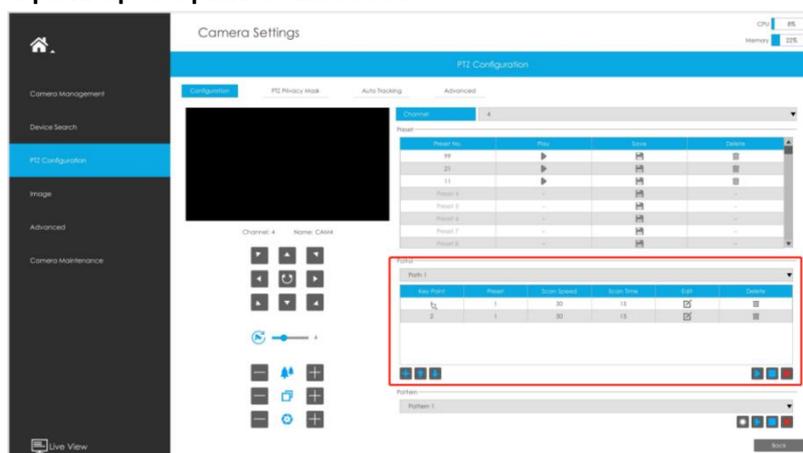
**Step2.** Choose a preset number and click  to delete the preset position.

**Step3.** Choose a preset number and click  to check the preset position.

##### [Patrol]

The camera will patrol according to the preset positions. The total time and patrol speed of the path is variable.

**Step1.** Select a path. Up to 8 paths could be set.



**Step2.** Click  to add preset position (up to 48 positions could be added). Set the parameters of preset positions, including preset position number, scan time and scan speed, then click .



**Step3.** Click  to delete the preset position.

**Step4.** Click  to preview the path patrol. Click  to stop.

**Step5.** Click  to delete all preset positions of the path patrol.

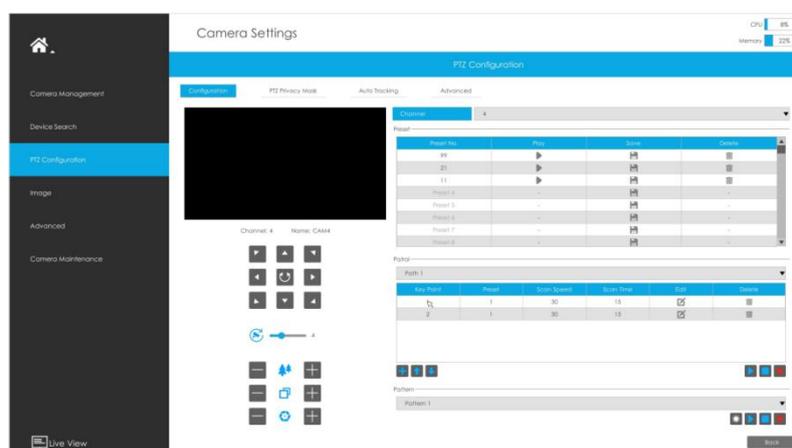
**Note:**

1. The preset positions decide the patrol path, which will run according to numerical order of the preset positions.
2. Scan time is how long the patrol stays on the preset position.
3. Scan speed is the rotate speed of speed dome from one preset position to the next.

**[Pattern]**

The camera will patrol back and forth in a constant speed. There is only one start point and one end point.

**Step1.** Select a pattern and click . Up to 4 patterns could be set.

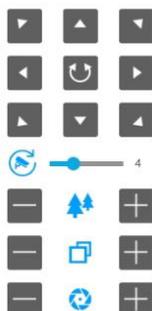


**Step2. Drag the mouse or click 8 direction keys by mouse to rotate PTZ.**

**Step3. Click  to save the PTZ movement patterns.**

**Step4. Click  to preview the pattern. Click  to stop.**

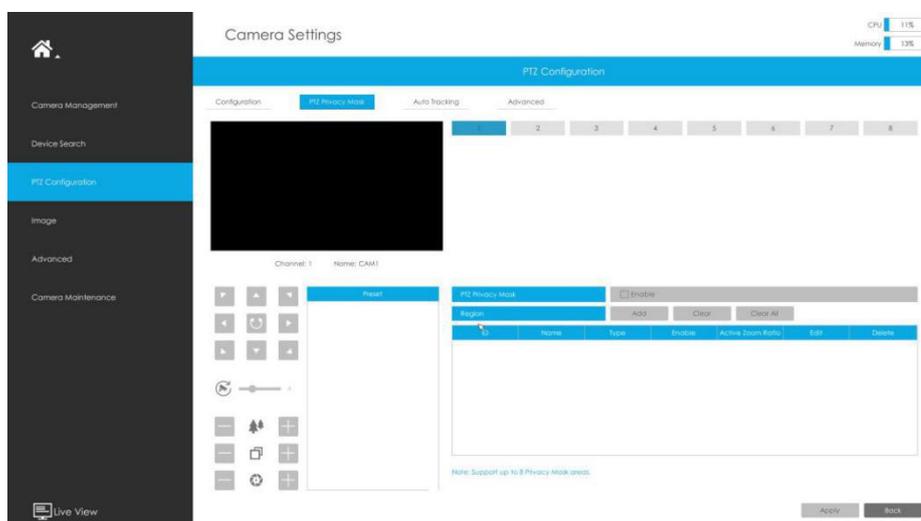
**[PTZ Operation]**



| Icons   | Descriptions                               | Icons   | Descriptions            |
|---|--|---|-------------------------|
|   | PTZ direction control and auto scan button |    | PTZ speed               |
|  | Zoom +, Focus +, Iris +                    |  | Zoom -, Focus -, Iris - |
|  | Zoom                                       |  | Focus                   |
|  | Iris                                       |   |                         |

**PTZ Privacy Mask**

Milesight NVR supports setting privacy mask for PTZ camera. Different from the general Privacy Mask, it is featured with a 3D coordinate system to protect object’s privacy and keep the specified area masked through manual operations from monitoring no matter how cameras pan/tilt/zoom.

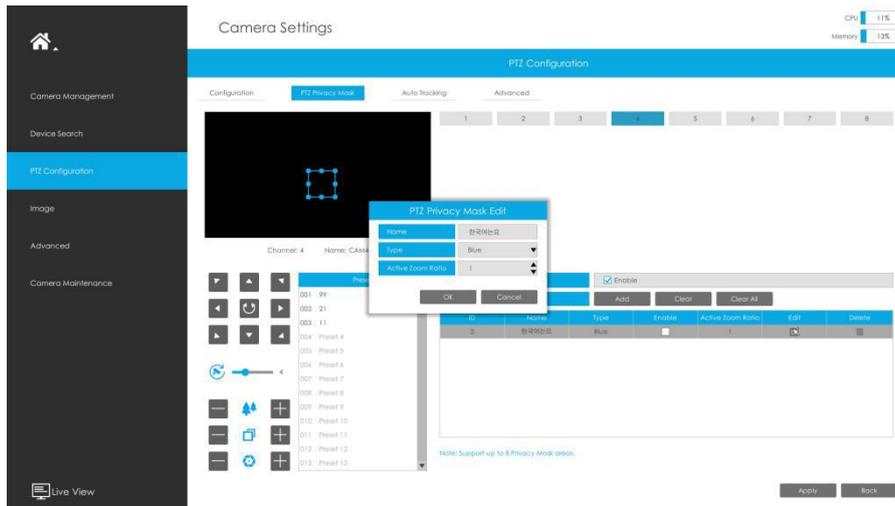


You can add a privacy mask by following steps:

**Step1. Select channel and enable Privacy Mask.**

**Step2. Drag the mouse to select the area which needs to be protected on the live view window and click  to save the selected areas. You can add 8 areas at most and each zone can be enabled and disabled.**

**Step3. Click  to edit PTZ Privacy Mask Name, the Privacy Mask Type and Active Zoom Ratio.**



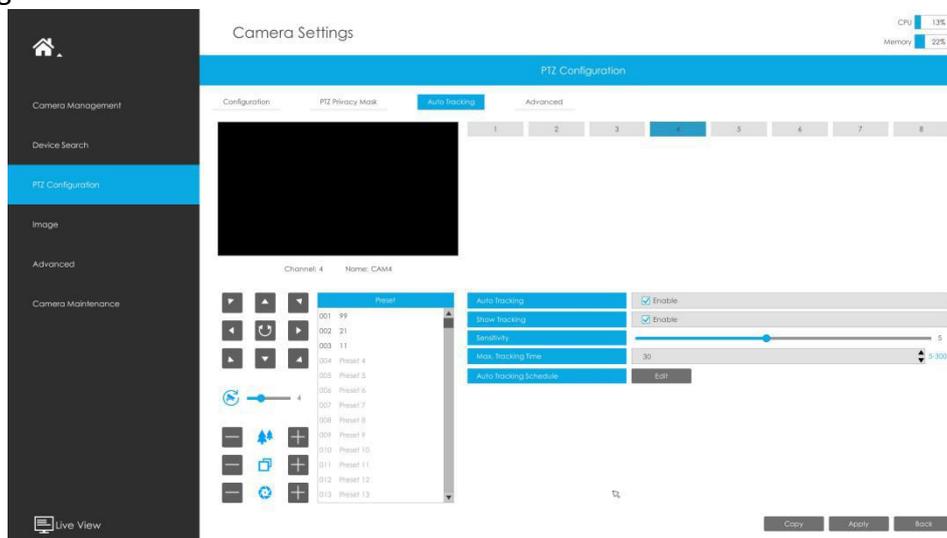
**Step4. Select “” to save the settings.**

**Note:**

1. Ensure that your camera’s version is 4X.7.0.73 or above.
2. There are two interfaces for Privacy Mask configuration. PTZ Privacy Mask is only applied in PTZ cameras while Privacy Mask can also be applied in other cameras.

**Auto tracking**

PTZ camera series supports to track the moving objects automatically after you configure this function.



**Step1. Check the checkbox to enable Auto Tracking.**

**Step2. Enable “Show Tracking” to show tracking in Auto Tracking function.**

**Step3. Set detecting sensitivity.**

**Step4. Set Max. Tracking Time which must be between 5~300s. The camera will stop tracking when the tracking time is used up.**

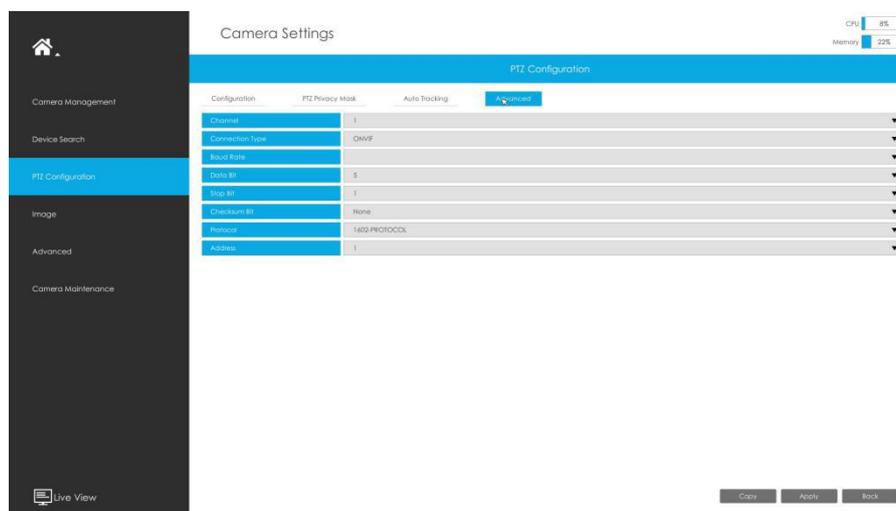
**Step5. Click  to edit Auto Tracking Schedule which will be synchronized to IP Camera.**

**Note:**

Ensure that your camera’s version is 4X.7.0.73 or above.

**Advanced**

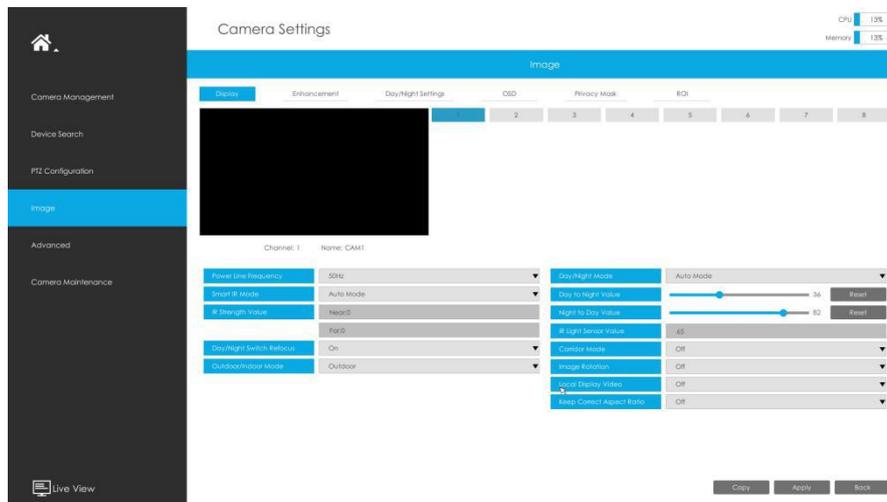
Choose a channel and set the PTZ parameters. Besides, you can click  to copy the same configuration to other channels.



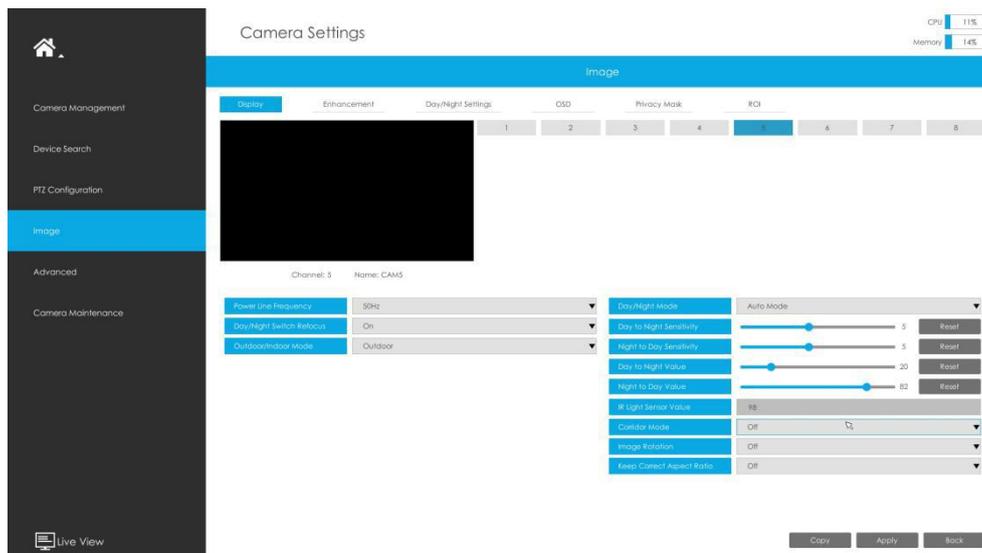
**Note:**

1. Settings for a PTZ camera must be configured before it can be used. Make sure that the PTZ and RS-485 of the NVR are connected properly.
2. The PTZ protocol and address of IP channel must be consistent with those of the PTZ decoder.

## 3.6.4 Image



### 3.6.4.1 Display



**Step1. Select channel.**

**Step2. Set the configuration.**

**Power Line Frequency:** 50Hz and 60Hz are available.

**Smart IR Mode:** 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. Support to set the strength of the IR to Auto Mode or Customize to achieve the best effect.

**Near view IR level:** Adjust the light strength of Low-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.

**IR Strength Value:** The current value of Low-Beams LED and High-Beams LED light value.

**IR LED Level:** Adjust the IR LED level from 0 to 100.

**White LED Level:** Adjust the White LED level from 0 to 100.

**Day/Night Switch Refocus:** With this option enabled, the camera will refocus when switching between day mode and night mode.

**Outdoor/Indoor Mode:** Set Outdoor/Indoor mode for the channel.

**Day/Night Mode:** Set the Day/Night mode for the channel.

**Day to Night Sensitivity:** Set the Sensitivity to trigger Night Mode.

**Night to Day Sensitivity:** Set the Sensitivity to trigger Day Mode.

**Day to Night Value:** Set the Minimum illumination intensity to trigger Night Mode.

**Night to Day Value:** Set the Maximum illumination intensity to trigger Day Mode.

**IR Light Sensor Value:** Shows the current value of IR light sensor.

**Corridor Mode:** Set corridor mode.

**Image Rotation:** Set image rotation.

**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.

**Local Display Video:** Select NTSC or PAL for local display.

**Keep Correct Aspect Ratio:** With this option enabled, the camera will prevent the image from distortion when resolution ratio is changed.

**Note:**

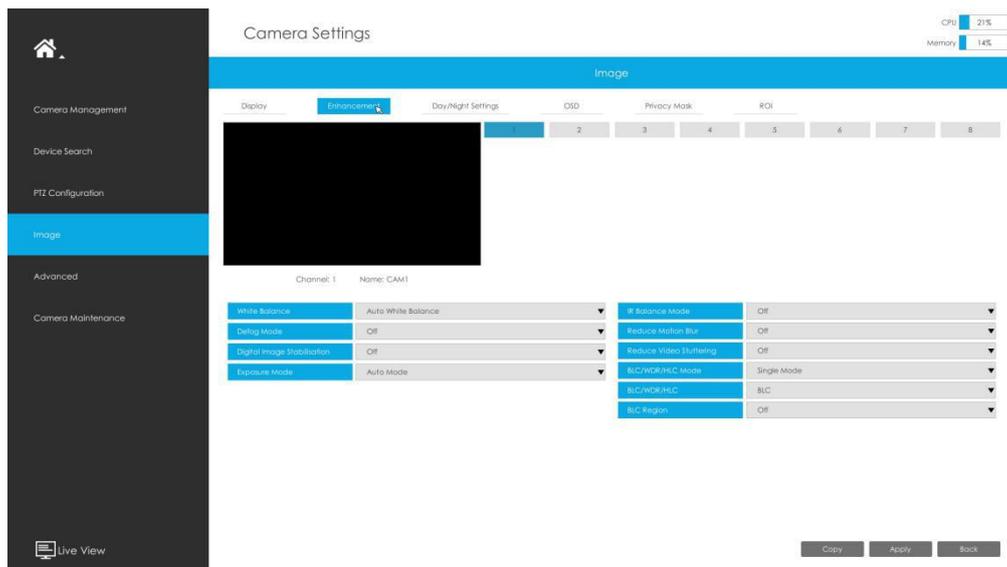
1. Smoked Dome Cover is only supported for Pro Dome and PTZ Dome cameras.
2. Smart IR Mode and IR LED Level are supported for cameras with IR LEDs.
3. White LED Level is only supported for PTZ Bullet cameras.
4. Day to Night Sensitivity and Night to Day Sensitivity under Auto Mode are only available under Auto Mode when camera are 180° Panoramic Bullet and Mini Bullet whose firmware version is 4X.7.0.74 or above.

**Step3. Copy the image settings to other channels by clicking**  **on the bottom of the windows.**

**Step4. Select**  **to save the settings.**

### 3.6.4.2 Enhancement

You can set Image Enhancement on NVR, and the configuration will be synchronized to Camera.



**Step1. Select channel.**

**Step2. Set the configuration.**

**Reduce Motion Blur:** Enable this function to reduce the motion blur of objects effectively. You can adjust the deblur level from 1 to 100.

**Reduce Video Stuttering:** This function is only supported by the cameras of 5MP@20fps to decrease the unstable phenomenon.

**White Balance:** Choose a white balance mode for the channel.

**Defog Mode:** Better image effect in foggy weather.

**Digital Image Stabilization:** Decrease the blur and shakiness of the image.

**Exposure Mode:** Auto Mode, Manual Mode, and Schedule Mode are available.

**IR Balance Mode:** Turn on to avoid IR overexposure.

**BLC/WDR/HLC Mode:** Click to choose Single Mode, Day/Night Mode or Schedule Mode.

**BLC/WDR/HLC:** Click to configure Back Light Compensation, Wide Dynamic Range or High Light Control.

**Wide Dynamic Range:** Off, Customize, and On are available.

**Wide Dynamic Level:** Set WDR with Low/High/Auto level.

**BLC Region:** Off, Customize, and Centre are available (in single mode, only enable when WDR is disable).

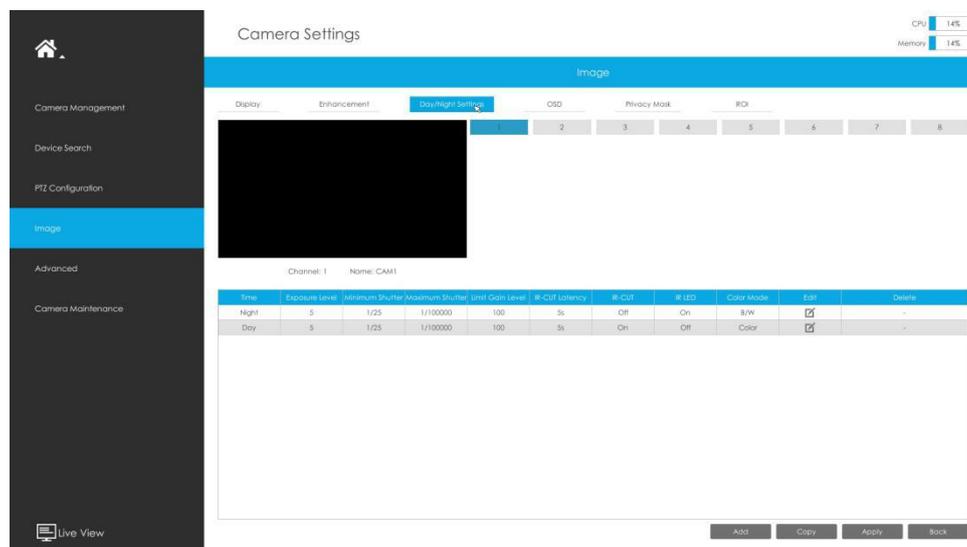
**HLC Level:** Select level for HLC.

**Anti-flicker Level:** Reduce flickers that appear on screen in some lighting conditions and there are 10 levels of anti-flicker adjustments.

**Step3. Copy the image settings to other channels by clicking  on the bottom of the windows.**

**Step4. Select  to save the settings.**

### 3.6.4.3 Day/Night Settings



**Step1. Select channel.**

**Step2. Set the configuration.**

**Exposure Level:** Level 0~10 are available to meet your need.

**Minimum Shutter:** Set the Minimum Shutter to 1~1/100000s.

**Maximum Shutter:** Set the Maximum Shutter to 1~1/100000s.

**Limit Gain Level:** Set the Limit Gain Level to 1~100.

**IR-CUT Latency:** The interval time of switching one mode to another.

**IR-CUT:** Turn on or turn off IR-CUT.

**IR LED:** Turn on or turn off IR-LED.

**Color Mode:** Select B/W or Color mode under Day/Night mode.

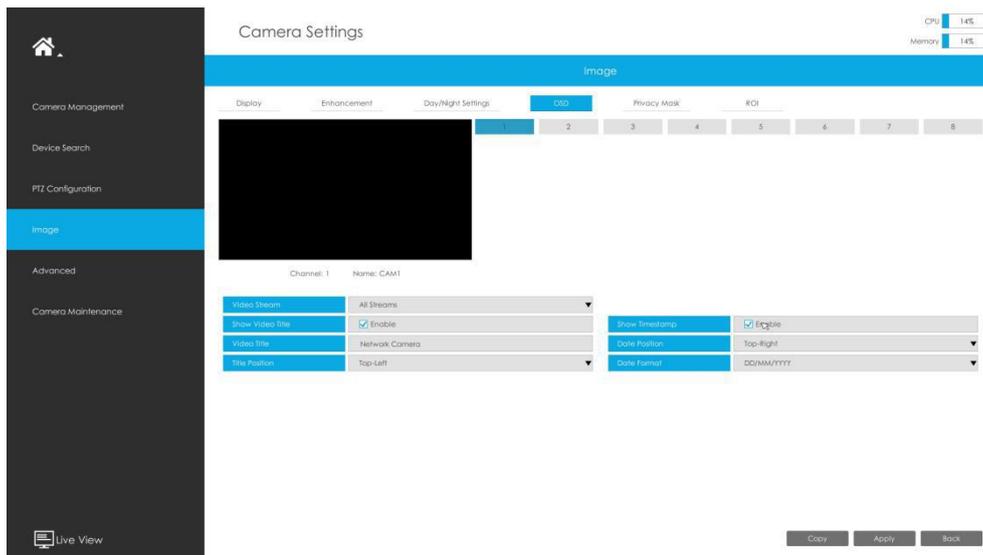
**Edit:** Edit the parameters above.

**Step3. Copy the image settings to other channels by clicking  on the bottom of the windows.**

**Step4. Select  to save the settings.**

### 3.6.4.4 OSD

You can set OSD (On Screen Display) on NVR, and the OSD will be synchronized to Camera.



**Step1. Select channel.**

**Step2. Select Video Stream, including All Streams, Primary Stream and Secondary Stream.**

**Step3. Enable video title and timestamp.**



**Show Video Title:** Enable it and the video title will be shown on screen.

**Title Position:** Set the position for the video title: Top-Left or Top-Right.

**Date Position:** Set the position for the date: Top-Left, Top-Right, Bottom-Left or Bottom-Right.

**Date Format:** Set format for date: YYYY-MM-DD, MM/DD/YY or DD/MM/YYYY.

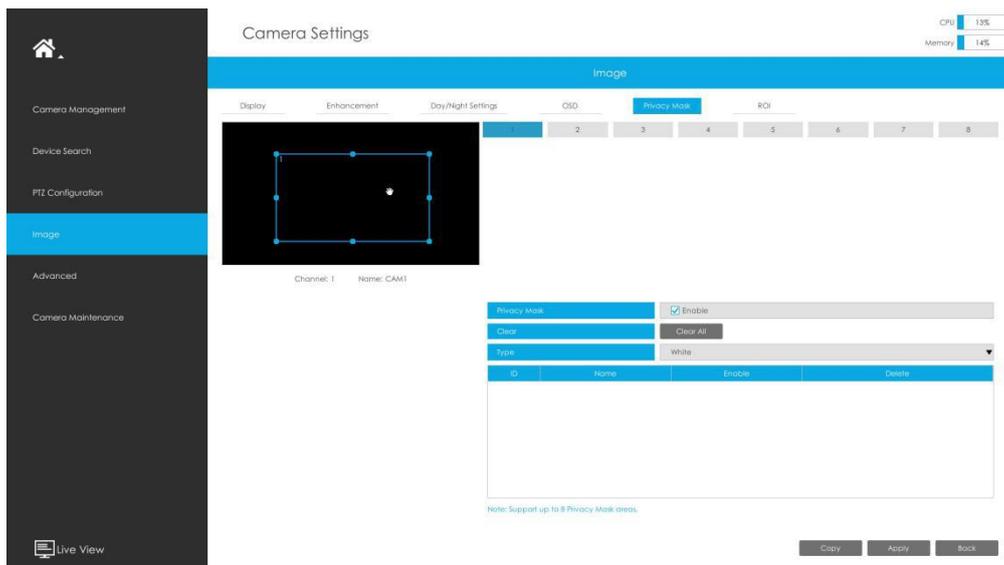
**Step4. Copy the OSD settings to the other channels by clicking the “” button on the bottom of the windows.**

**Step5. Select “” to save the settings.**



### 3.6.4.5 Privacy Mask

Milesight NVR supports to set privacy mask. It is used to cover some privacy area which is not proper to appear on monitor.



You can add a privacy mask by following steps:

**Step1. Select channel and enable privacy mask.**

**Step2. Set the privacy mask type and drag the mouse to select the area which is privacy on the live window. You can add 8 areas at most and each zone can be enabled and disabled.**

**Step3. Copy the privacy area to the other channels by clicking the “” button on the bottom of the windows.**

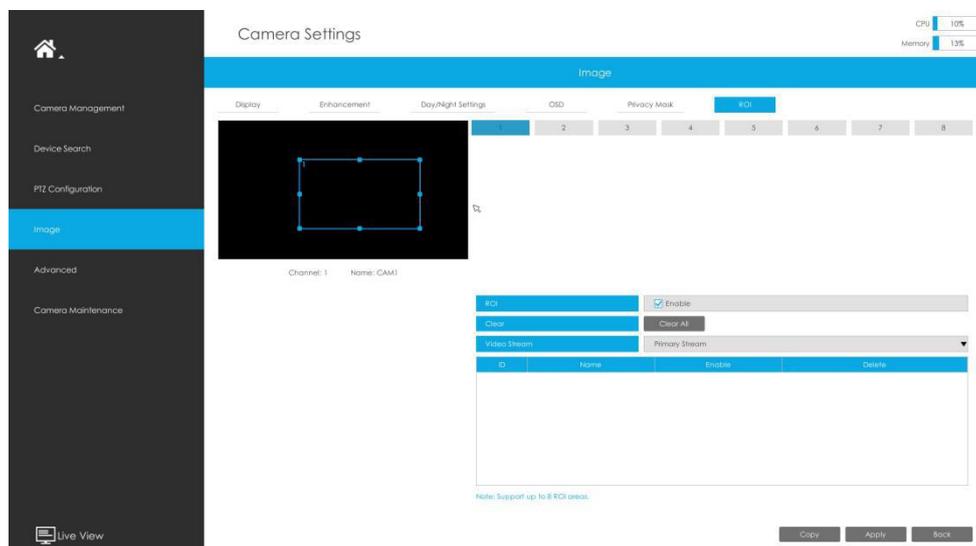
**Step4. Select “” to save the settings.**

**Note:**

Ensure the firmware version of the network camera is 4X.7.0.70 or above.

### 3.6.4.6 ROI

Milesight NVR supports to set ROI (Region Of Interest). It is an image cropping feature designed to assist users in achieving bandwidth and storage optimization.



You can add a ROI by following steps:

**Step1. Select channel and enable ROI.**

**Step2. Set the video stream type and drag the mouse to select the area in the preview window.**

You can add **8 areas** at most and each zone can be enabled and disabled.

**Step3. Copy the ROI area to the other channels by clicking the “**Copy**” button on the bottom of the windows.**

**Step4. Select “**Apply**” to save the settings.**

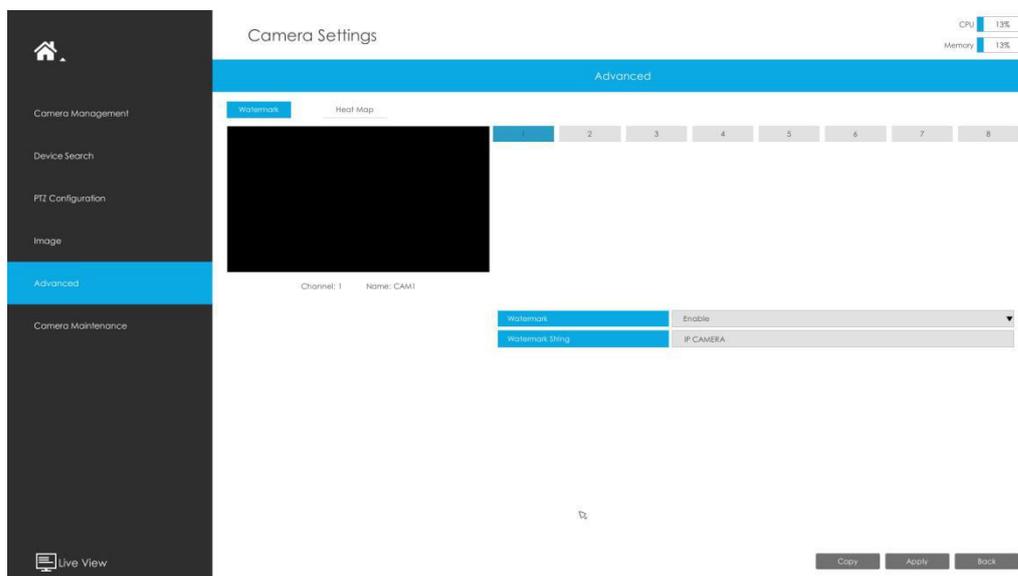
**Note:**

Ensure the firmware version of the network camera is 4X.7.0.70 or above.

## 3.6.5 Advanced

The screenshot shows the 'Camera Settings' interface for a camera named 'CAM1'. The 'Advanced' tab is selected, and the 'Watermark' sub-tab is active. The interface includes a sidebar with navigation options: Camera Management, Device Search, PTZ Configuration, Image, Advanced (highlighted), and Camera Maintenance. A 'Live View' button is at the bottom of the sidebar. The main content area shows a 'Watermark' section with a 'Watermark' dropdown menu set to 'Disable' and a 'Watermark String' field containing 'IP CAMERA'. Below this, there are 'Copy', 'Apply', and 'Back' buttons. The top right corner displays system status: CPU 11% and Memory 14%. A 'Heat Map' section with a grid of 8 numbered buttons (1-8) is also visible.

### 3.6.5.1 Watermark



You can add a watermark by following steps:

**Step1. Select channel.**

**Step2. Click the checkbox to enable Watermark.**

**Step3. Enter Watermark String.**

**Step4. Copy the image settings to other channels by clicking  on the bottom of the windows.**

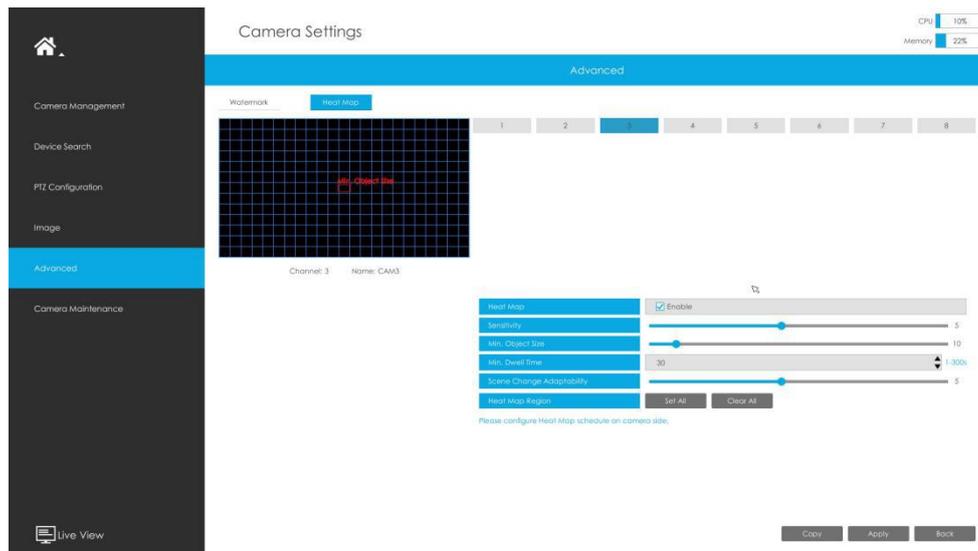
**Step5. Select  to save the settings.**

**Note:**

Watermark only appears when exporting by a third party.

### 3.6.5.2 Heat Map

Milesight NVRs support the configuration of the Heat Map function of Milesight cameras on NVR directly and you can search and export the results of Heat Map in Smart Analysis.



**Sensitivity:** Level 1~10 are available, the default level is 5. The higher the sensitivity, the easier the moving subjects to be recorded in the result.

**Min. Object Size:** Set the minimum object size from 1 to 100, the default value is 10. Objects smaller than this value will not be recorded in the result.

**Min. Dwell Time:** Set the minimum dwell time from 1 to 300, the default value is 30. If the object stays in the area longer than the set "Minimum Dwell Time", it will not be recorded in the result.

**Scene Change Adaptability:** Level 1~10 are available, the default level is 5. Scene Change Adaptability indicates the camera's adaptability to scene changes, which can increase the accuracy of detection. The camera adapts better to faster changing scenes if the value is higher.

**Heat Map Region:** Draw the screen to set the detection area. You can click "Set All" button to select all areas, or "Clear All" button to remove the current drawn area.

**Note:**

1. Ensure that your camera's version is 4X.7.0.74 or above.
2. Please configure Heat Map schedule on camera side.
3. The Heat Map function only works on the following cameras:

Fisheye: Ensure that the dewarping mode is 10 and the dewarping rule is On-board Dewarping.

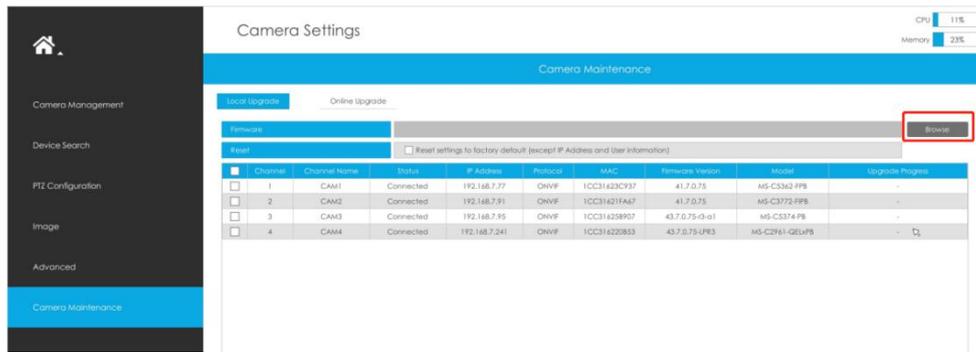
Panoramic Mini Bullet: Ensure to turn on the Lens Distort Correct function.

## 3.6.6 Camera Maintenance

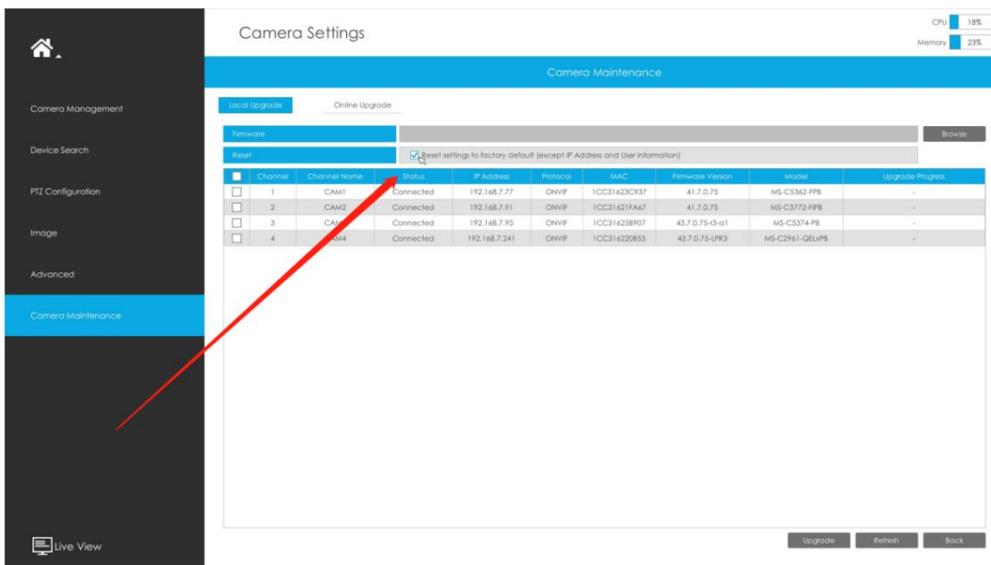
Milesight NVRs support both Online Upgrade and Local Upgrade of Milesight Cameras.

### Local Upgrade

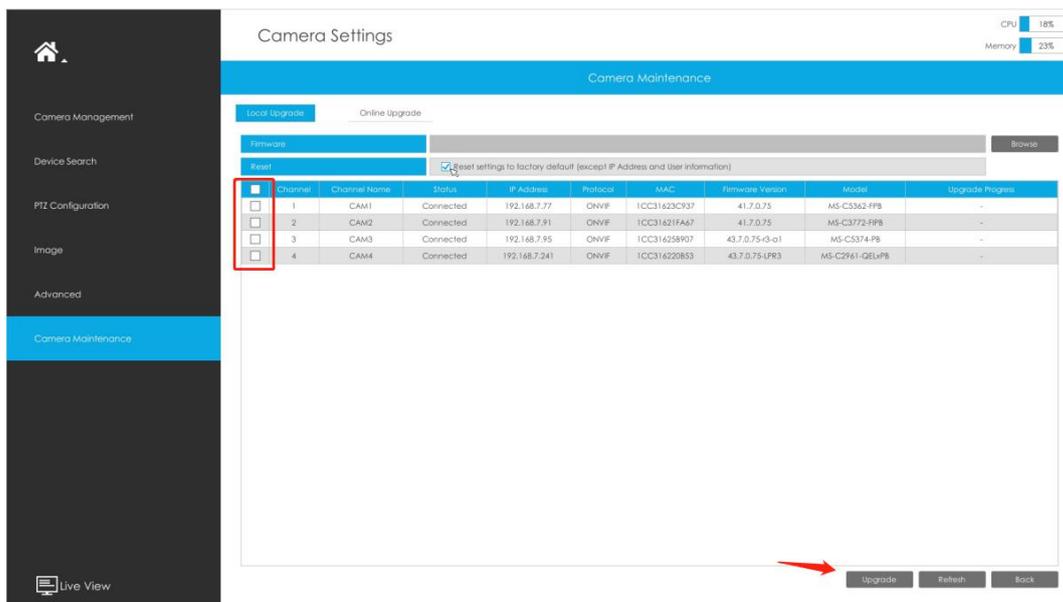
**Step1.** Click [Browse](#) and select the corresponding firmware you downloaded in your USB;



**Step2.** Check if you need to reset settings to factory default (except IP Address and User Information) after upgrade;

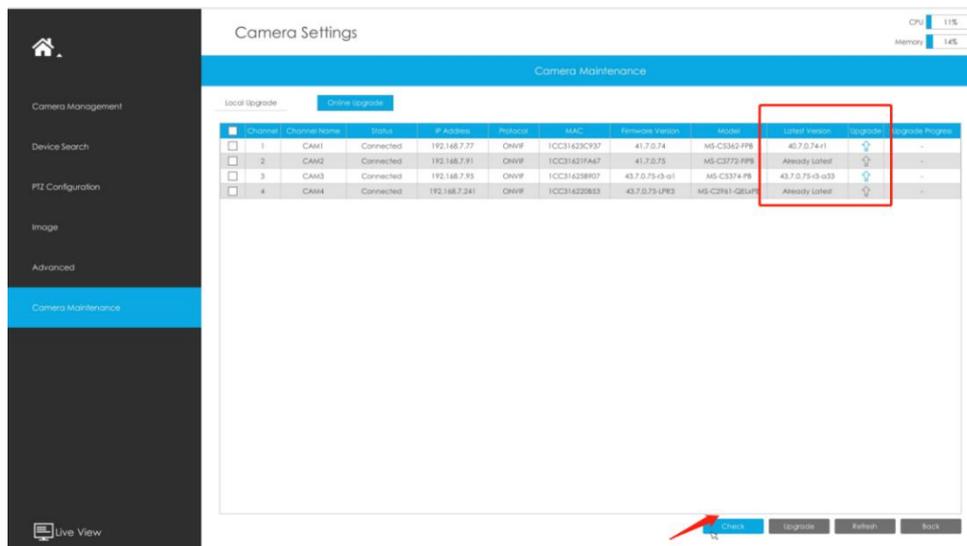


**Step3.** Choose the corresponding channel you want to upgrade and click  to upgrade the camera.



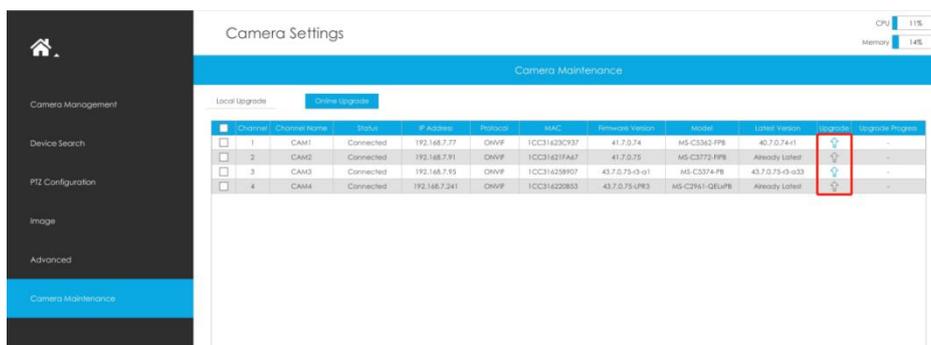
**Online Upgrade**

**Step1.** Click  to confirm whether there is a new version for the camera added to NVR; If there is a new version for camera, the icon in corresponding Upgrade column will turn blue and the latest version will be displayed in Latest Version column.

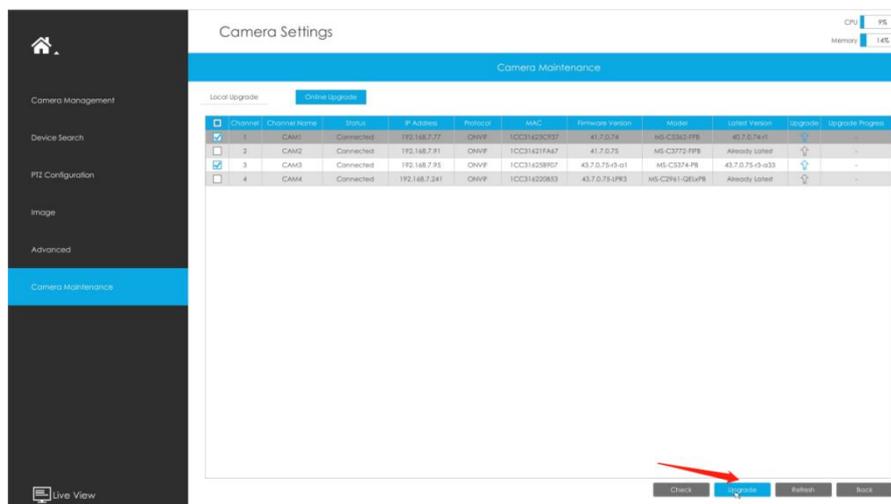


**Step2.** There are two ways to confirm the upgrade.

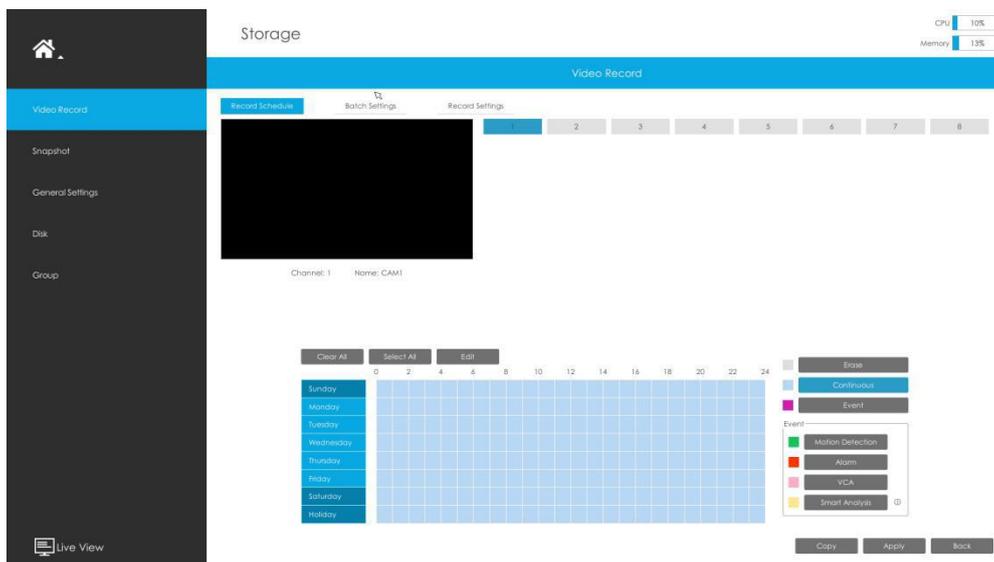
① Click the blue icon in corresponding Upgrade column to upgrade camera.



② A way to achieve batch upgrade. Just select the cameras you want to upgrade and then click  button.



### 3.7 Storage



#### Preparation for Record

**Step1.** Ensure your NVR has been installed and the HDD has been initialized, please check it on "Storage" -> "Disk" interface.



**Step2.** Ensure that the HDD has sufficient storage space.

Enable [Recycle Mode] in the case of insufficient capacity of storage device on Storage -> General Settings interface .



**Recycle Mode:** You can enable or disable Recycle Mode for all storage device.

**eSATA Function:** Both storage and backup are available.

**Note:**

eSATA Function is only available for NVR 8000 Series.

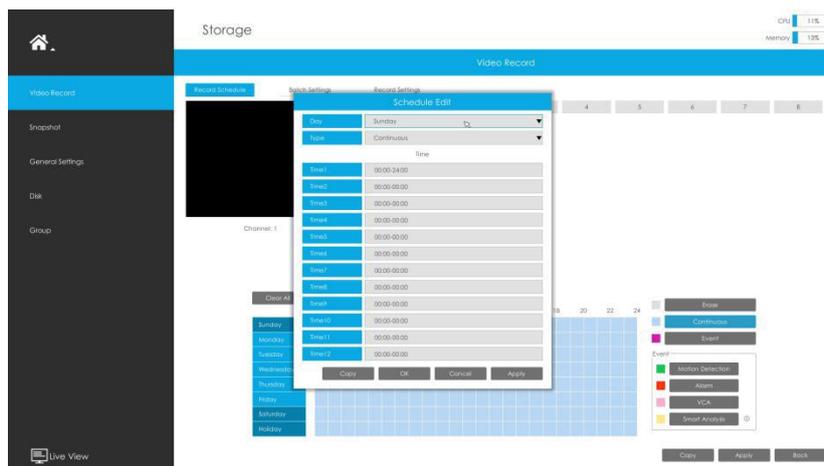
### 3.7.1 Video Record

#### Record Schedule

**Step1. Select channel.**

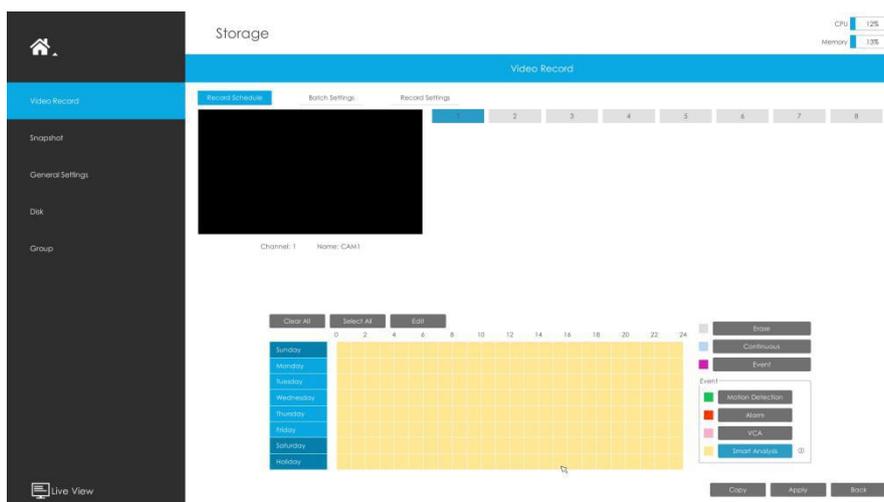
**Step2. Set record schedule.**

**Method 1:** Click  to edit schedule. Select Day, Record Type and Time to finish editing.

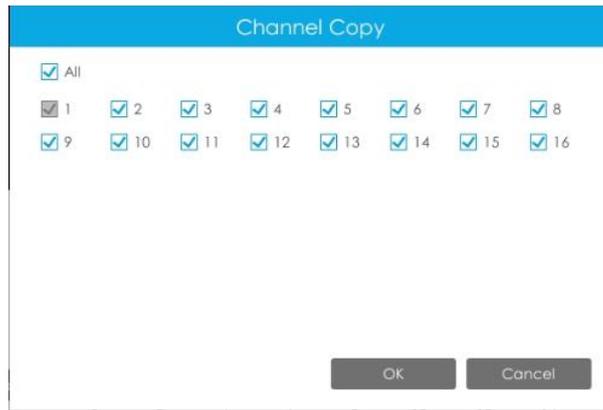


**Method 2:** Select operation type: Continuous, Event (including Motion, Alarm, VCA and Smart Analysis) or Erase. Then drag a square in the time table to set record effective time. It is convenient for you to set or clear all corresponding schedule by clicking  or





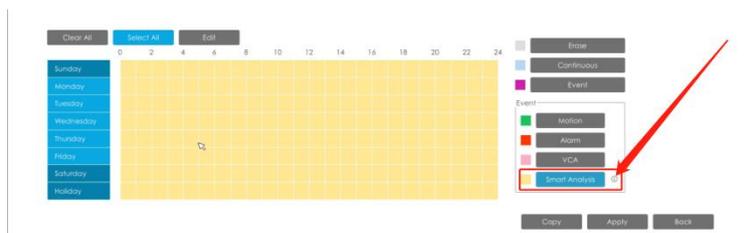
**Step3.** Click  to copy the same record configuration to other channels.



**Note:**

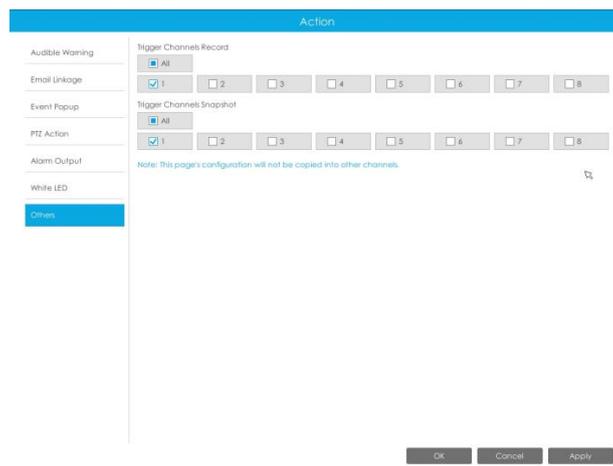
Here are steps for setting ANPR record correctly so that NVR will record when license plate is detected.

**Step1:** Set Smart Analysis as Record Type in Storage -> Video Record -> Record Schedule interface; The exclamation mark next to Smart Analysis is used to indicate that Smart Analysis includes ANPR.



**Step2:** Ensure Black List Mode or White List Mode or Visitor Mode is enabled as your demand.

**Step3:** Effective time and Trigger Channels Record action of Black List Mode/White List Mode/Visitor Mode are set (Full effective time and trigger channel record are set by default).

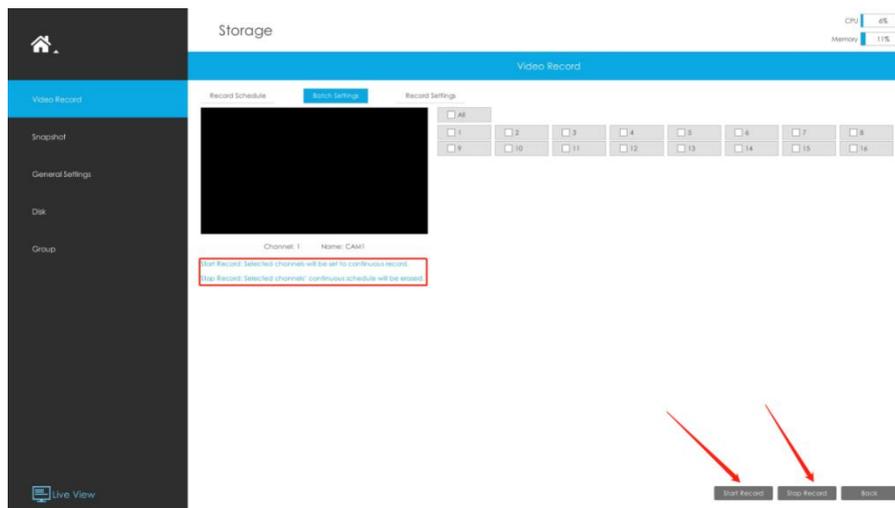


**Batch Settings**

**Step1.** Click **Batch Settings** to enter Batch Settings interface.

**Step2.** Select channels and click **Start Record** to start always record.

**Step3. Select channels and click Stop Record to stop record.**



### Record Settings

Make general configuration for selected channels. Click Copy to copy the same configuration to other channels.

**Channel:** Select the channel which will be set.

**Pre Record :** Event pre-record duration time. It will start recording before the event is triggered. Note that only NVR model ends with letter H support pre record.

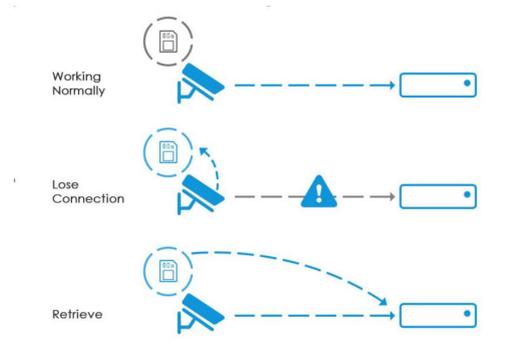
**Post Record:** Event post-record duration time. It will keep recording after the event is over.

**Audio Record:** Select to record audio or not.

**Record Stream Type:** Select Main stream or sub stream for record. [Primary+Secondary Stream is available for NVR model ends with T only](#). If secondary stream is selected for recording while it is disabled, a prompt indicating that the secondary stream is unavailable will pop up.

**Video Due Time:** Set the due time of recording files, 1~120days or unlimit are available.

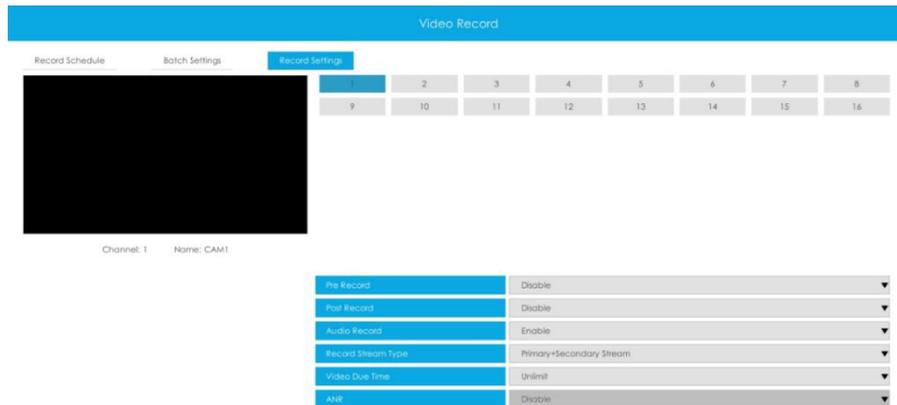
**ANR (Automatic Network Replenishment) :** Can automatically replenish the recording gap due to internet interruptions. As the picture shows below, NVR stores videos when the network connection between NVR and cameras is normal. When the connection lost, the camera would start continuous recording and store videos in SD card instead. Then after reconnection, NVR automatically retrieves the missed videos from camera's SD card in a period of time to prevent data missing.



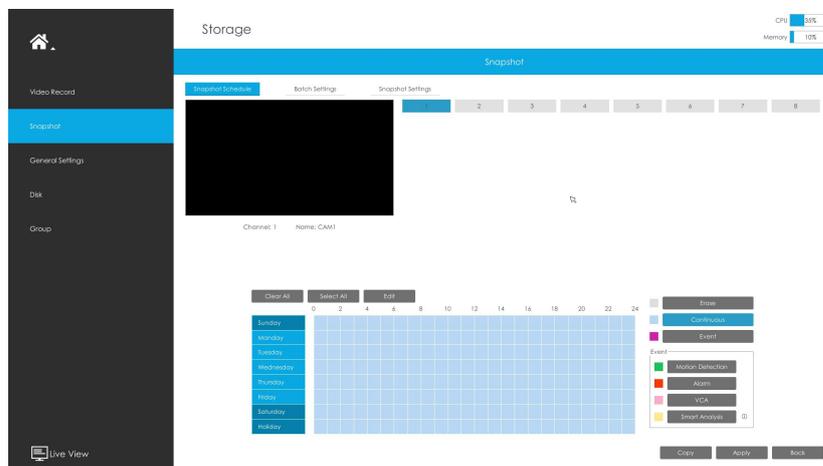
Here are some notes for using ANR below:

**Note:**

1. Ensure that your devices are with the correct firmware versions.  
 Camera: V4X.7.0.72 or above  
 NVR: V7X.9.0.6 or above  
 Firmware download link: <https://www.milesight.com/support/download#firmware>
2. Camera should equipped with on-board SD card.
3. Camera should be added to NVR by MSSP protocol.
4. No matter whether NVR has recording schedule or not, camera will do ANR recording and then retrieve back to NVR after reconnection.



### 3.7.2 Snapshot

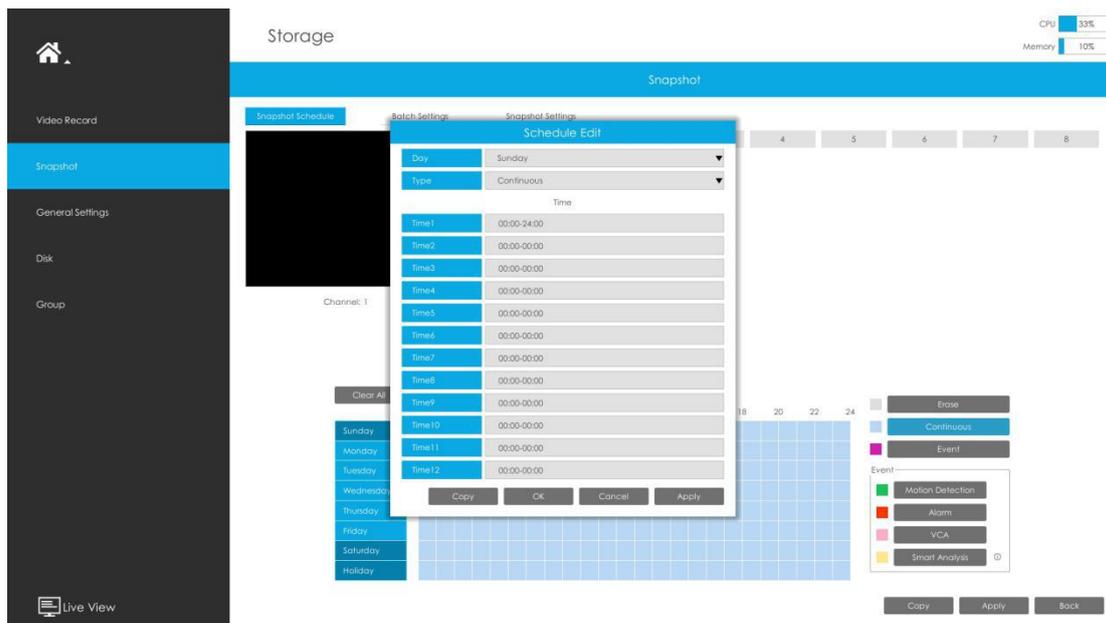


#### Snapshot Schedule

**Step1.** Select channel.

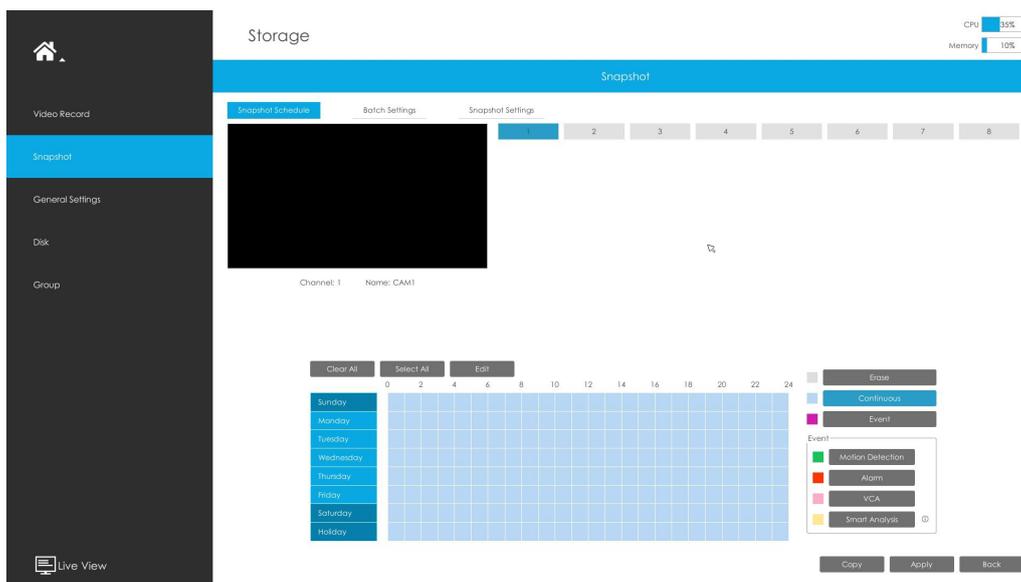
**Step2.** Set snapshot schedule.

**Method 1:** Click  to edit schedule. Select Day and Time to finish editing.



**Method 2:** Select operation type: Continuous, Event or Erase. Event record includes events like Motion Detection, Alarm, VCA and Smart Analysis, which can be searched in Event Playback. Then drag a square in the time table to set record effective time. It is convenient for you to set or clear

all corresponding schedule by clicking **Select All** or **Clear All**.



**Step3.** Click **Copy** to copy the same snapshot configuration to other channels.

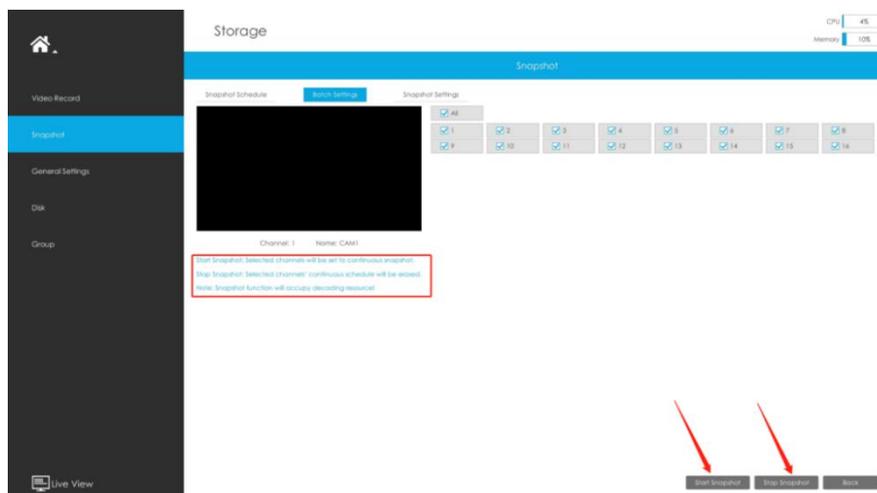


## Batch Settings

Step1. Click **Batch Settings** to enter Batch Settings interface.

Step2. Select channels and click **Start Snapshot** to start always record.

Step3. Select channels and click **Stop Snapshot** to stop record.



## Snapshot Settings

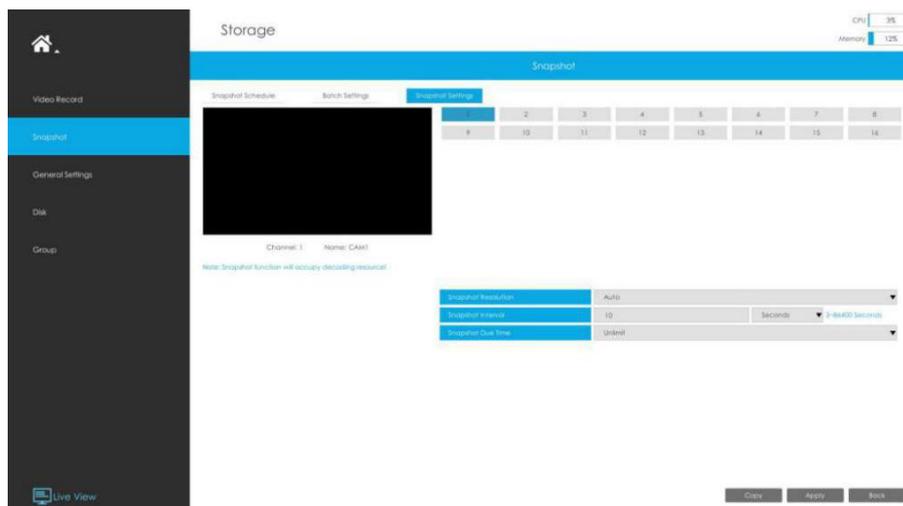
Make general configuration for selected channels. Click **Copy** to copy the same configuration to other channels.

**Channel:** Select the channel which will be set.

**Snapshot Resolution:** Set the snapshot resolution.

**Snapshot Interval:** Set the snapshot Interval, 3~86400 seconds are available.

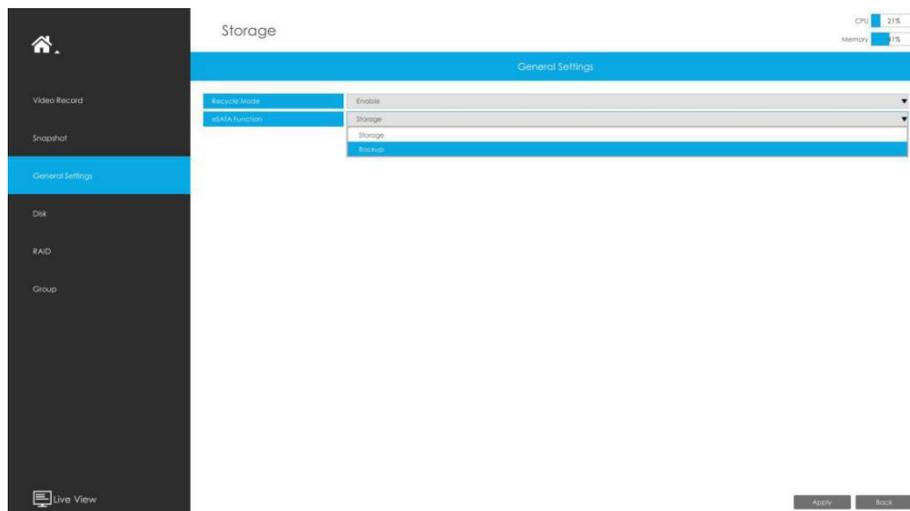
**Snapshot Due Time:** Set the due time of snapshot files, 1~120days or unlimited are available.



**Note:**

Some models support continuous snapshot function.

### 3.7.3 General Settings



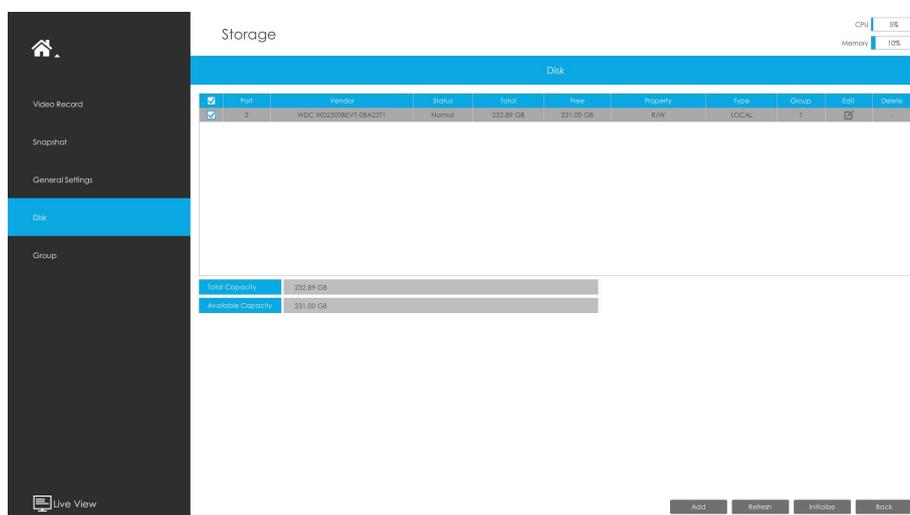
**Recycle Mode:** You can enable or disable Recycle Mode for all storage device.

**eSATA Function:** Both storage and backup are available.

**Note:**

eSATA Function is only available for NVR 8000 Series.

### 3.7.4 Disk

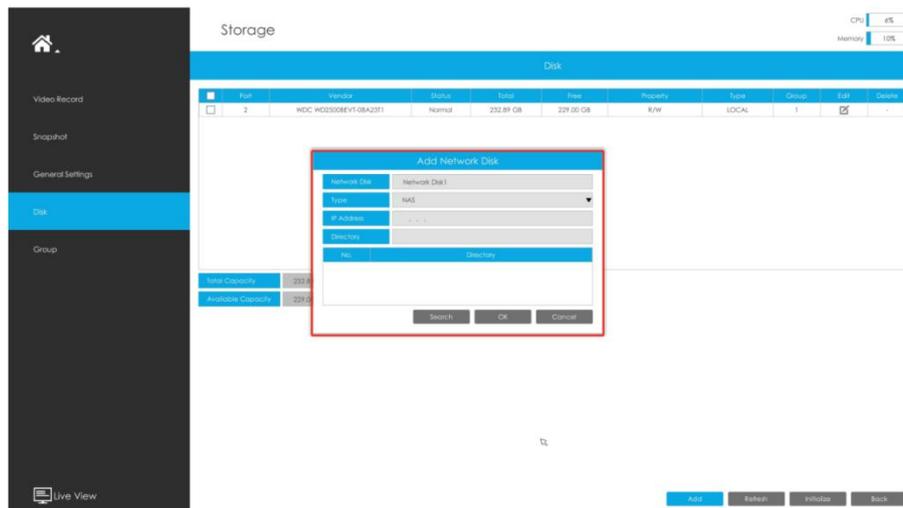


#### Network Disk

NAS (Network-Attached Storage) should be available within the network and properly configured to store the recorded files and snapshots. You can click and then input corresponded NAS information to add NAS.

**Note:**

1. NAS with NFS format is the only type for network disk adding.
2. It's recommended to use Hard Disk rather than Network Disk.

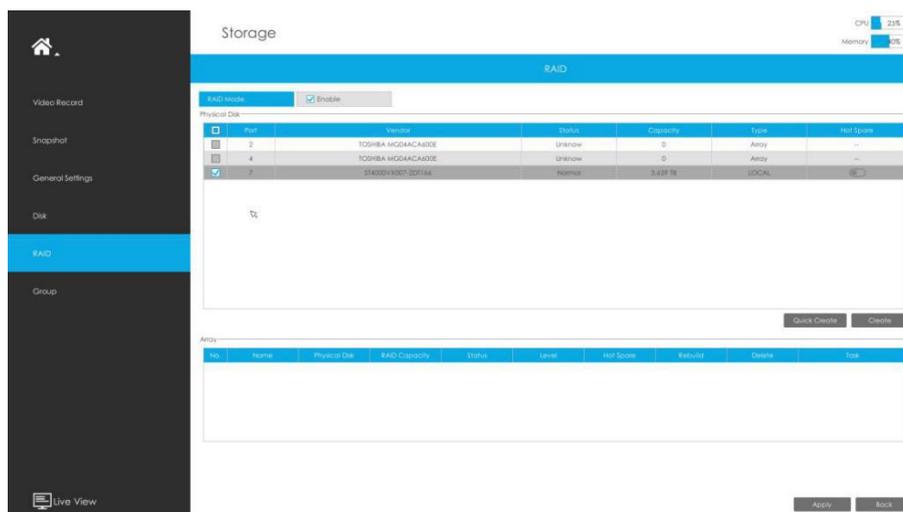


Select a storage device and click **Initialize** to initialize it, edit the Property by clicking . After that the storage device will be ready.

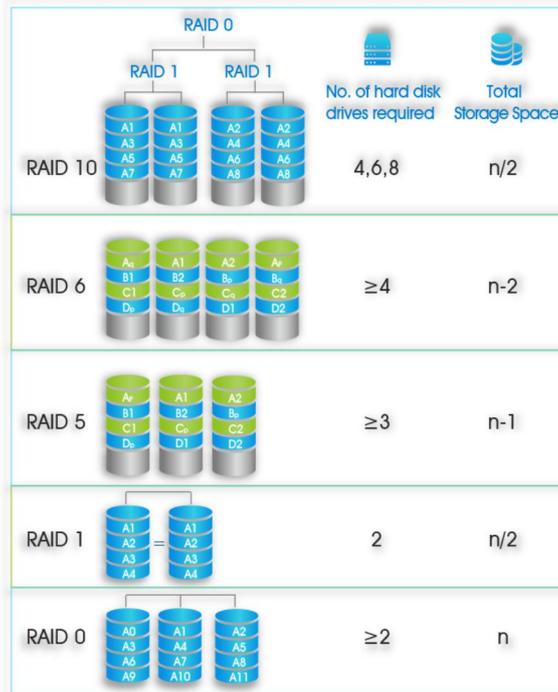


**HDD Type:** RAID means RAID, NAS means network attached storage while LOCAL means normal disk mode.

### 3.7.5 RAID

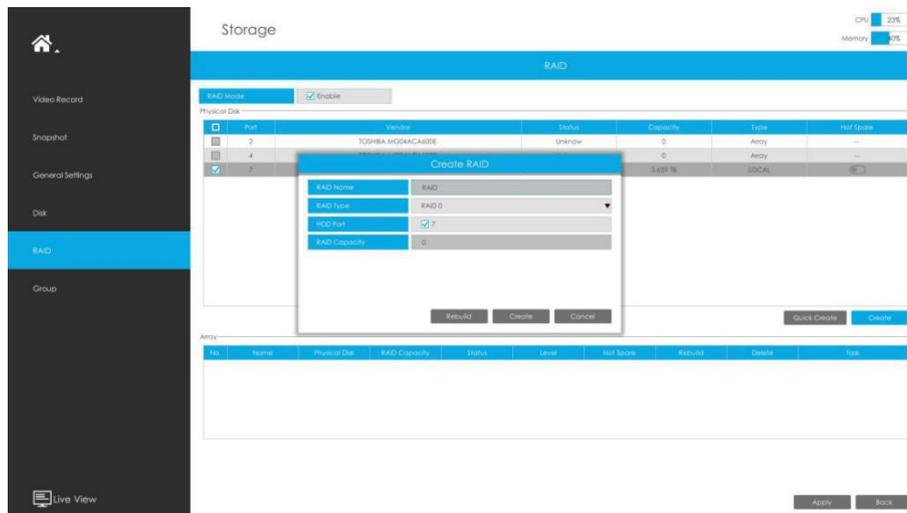


RAID (Redundant Array of Independent Disks) is a storage technology that combines multiple disk drive components into a logical unit. A RAID setup stores data over multiple hard disk drives to provide enough redundancy so that data can be recovered if one disk fails.



**Step1. Enable RAID. NVR will reboot after enabling.**

**Step2. Select HDD and click Create or Quick Create to create a new array. New array will be available after a while.**



**Hot Spare:** A disk can be used as the hot spare for any array created in the system.

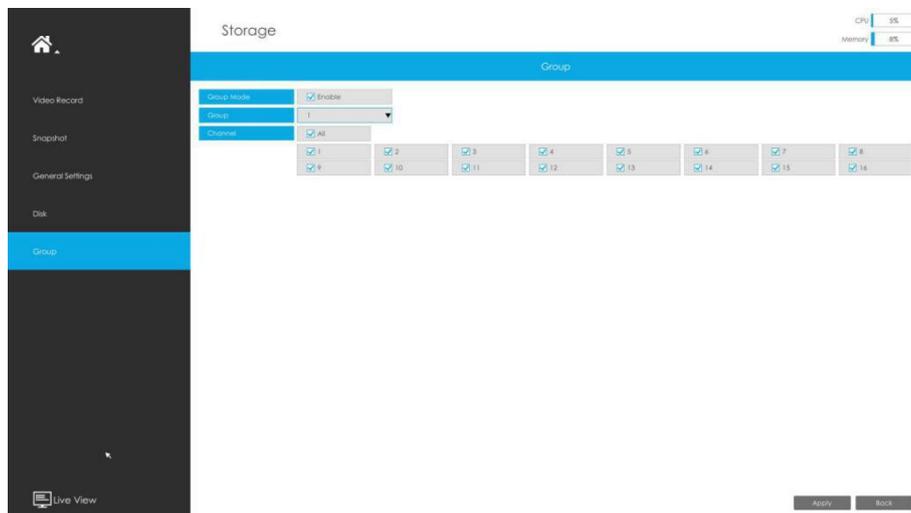
**Rebuild:** When the array is in Degraded status, the device can start rebuilding the array automatically with the hot spare disk to ensure the high security and reliability of the data.

**Note:**

1. RAID only available for 4K H.265 NVR 7000/8000 Series and 4K H.265 PoE NVR 7000 Series.
2. RAID capacity can not larger than 16TB.
3. Quick Create only for RAID5.

### 3.7.6 Group

You can divide disks into different groups, which is able to storage different channels' recorded files into different groups.



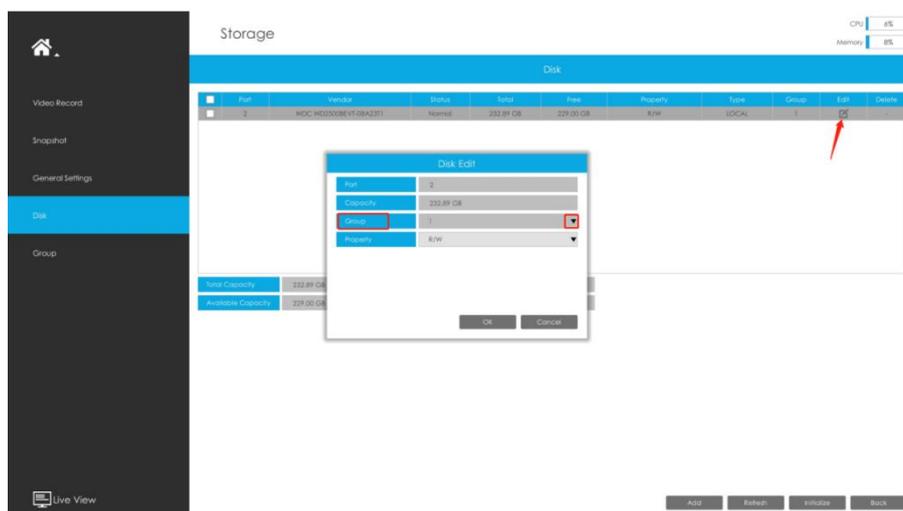
**Step 1. Enable Group.**



**Step 2. Switch to Disk interface. Click and set the group number of every disk.**

**Note:**

You can add 16 groups at most.

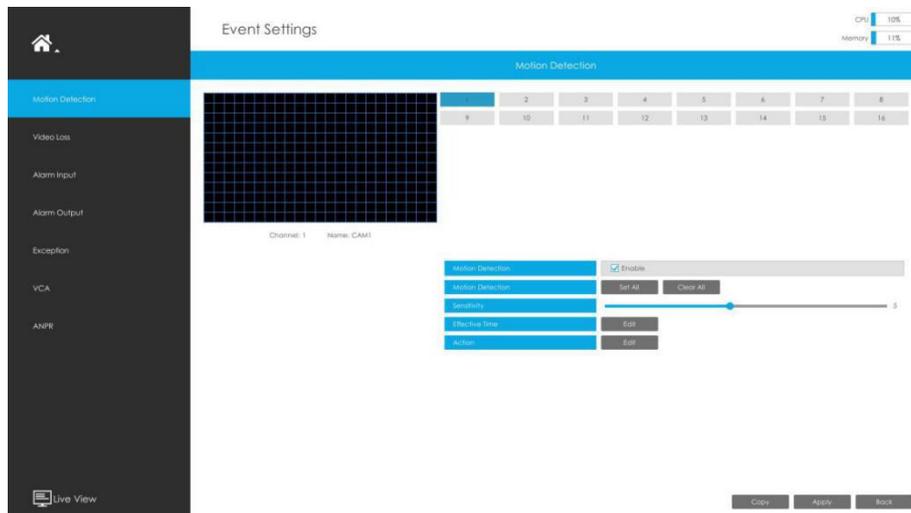


**Step 3. Select group and channels which you want to record into this group.**



## 3.8 Event

### 3.8.1 Motion Detection



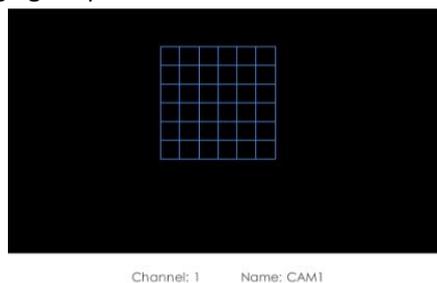
#### Step 1. Enable Motion Detection.

Select channel , Sensitivity and click  to enable Motion Detection.



#### Step2: Set the area for triggering motion detection.

You can set the area by dragging a square on live view window.



**Note:**

The motion detection area will be synchronized to Camera.

**Step 3. Set Effective Time of motion detection by clicking** .

It will be more convenient by clicking  or  to set or clear all time settings.



**Step 4. Set Action for motion detection alarm by clicking** .

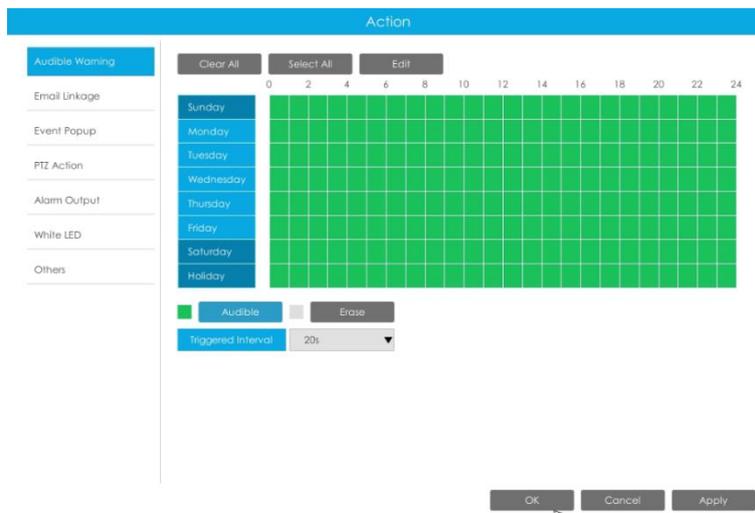
**Audible Warning:** NVR will trigger an audible beep when motion is detected.

The user can set effective schedule as following two ways:

① Select the operation type: Audible or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking  or  to set or clear all time settings.

② Click  to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

The user can set effective schedule as following two ways:

① Select the operation type, Email and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

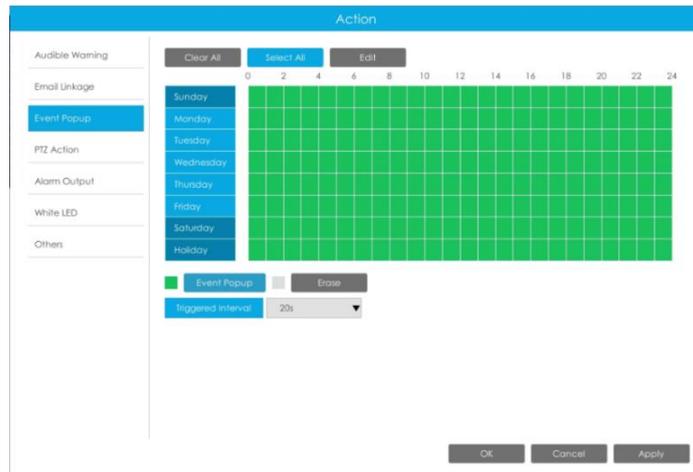
**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.

**Event Popup:** Trigger alarm screen popup to full screen when alarm is triggered. And you can set display duration time of all triggered channel in 'Settings'->'General'->'Event Popup Duration Time'. Then triggered channel will be shown one by one as duration time.

① Select the operation type, Event Popup and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



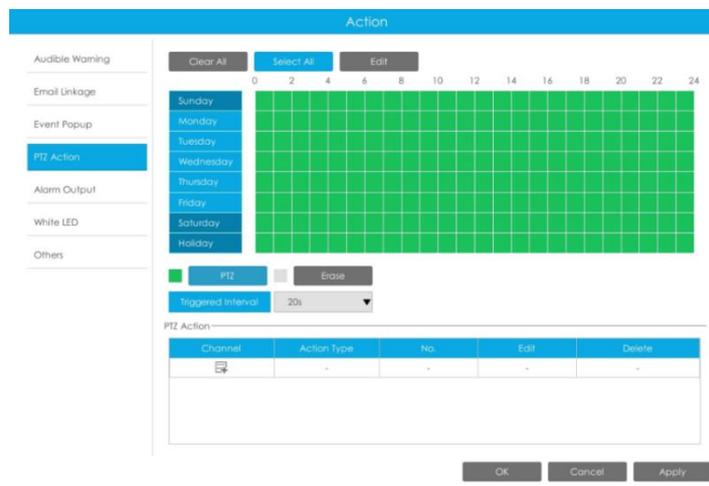
**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

The user can set effective schedule as following two ways:

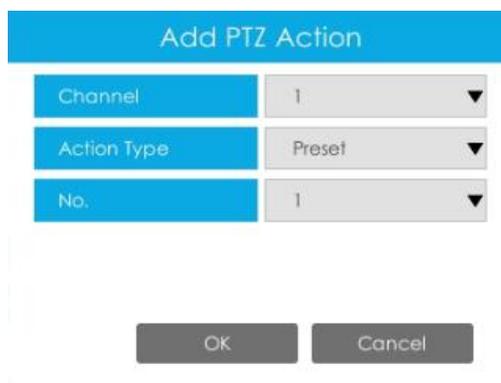
① Select the operation type: PTZ or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear to set or clear all time settings.

② Click **Edit** to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action by clicking .



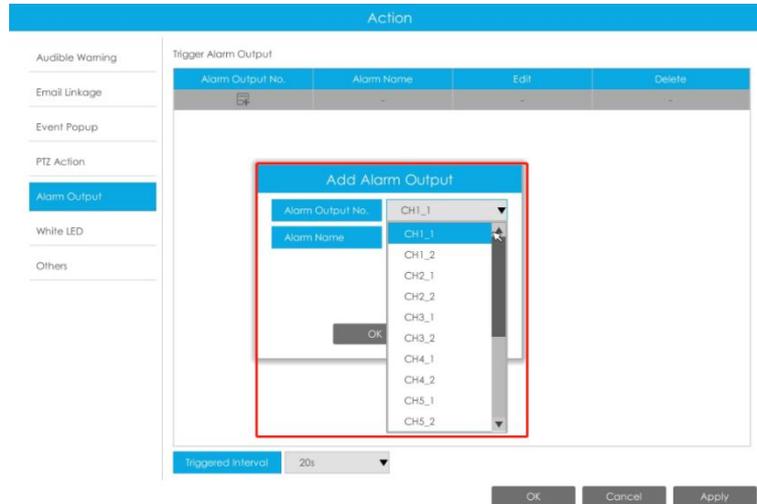
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



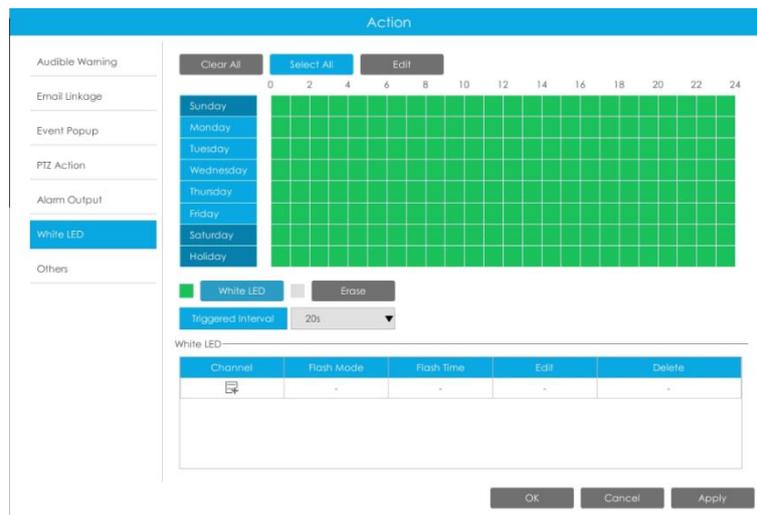
**White LED:** Trigger White LED flashing when alarm is triggered.

The user can set effective schedule as following two ways:

① Select the operation type, White LED and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED by clicking .

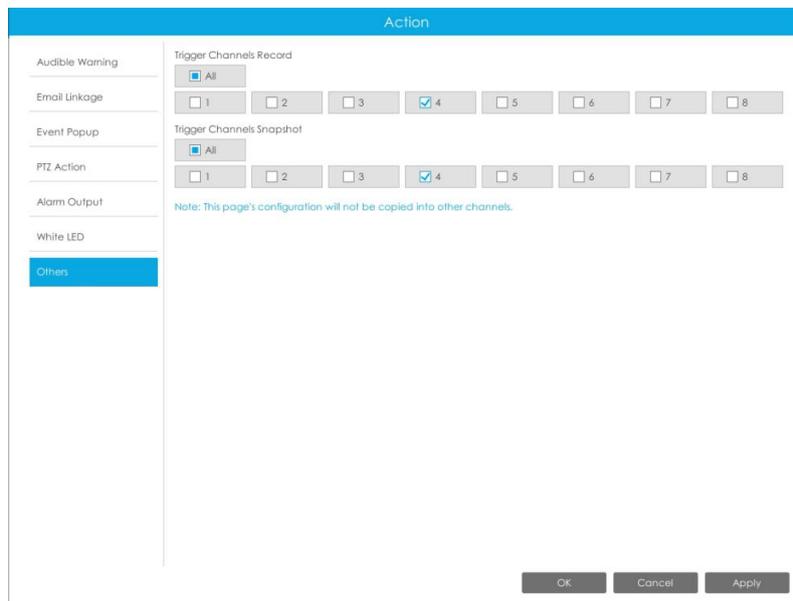


**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

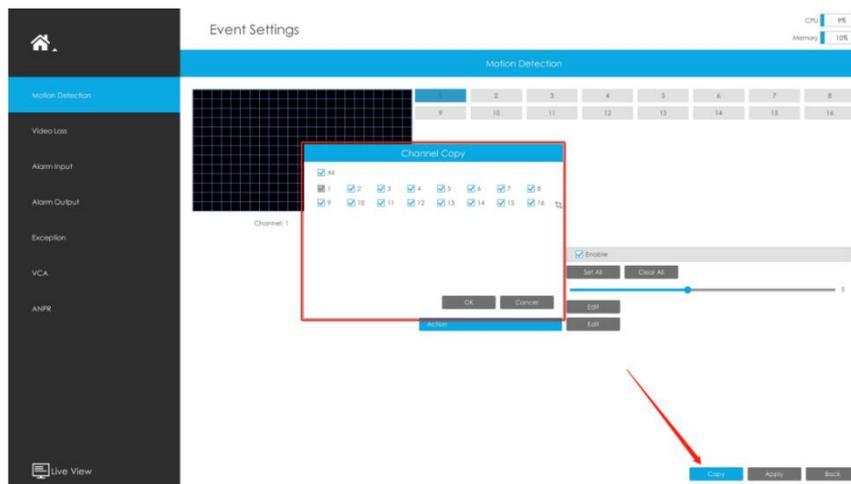
**Others:** Trigger channels to record and snapshot when alarm is triggered.



**Note:**

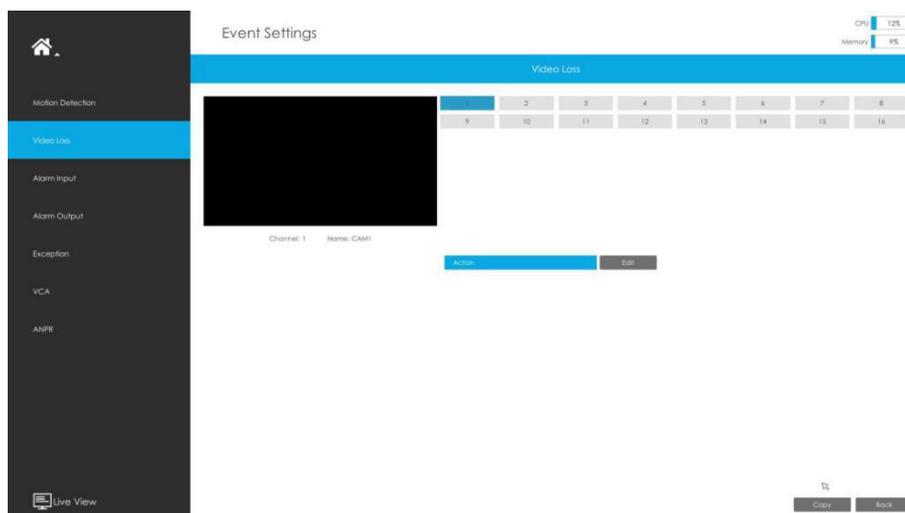
Make sure you have set correct schedule for record and snapshot before setting the Event Action.

**Step 5.** Click  and  to copy the same configuration to other channels.



## 3.8.2 Video Loss

### Step 1. Select a channel.



### Step 2. Set Action for video loss by clicking **Edit**.

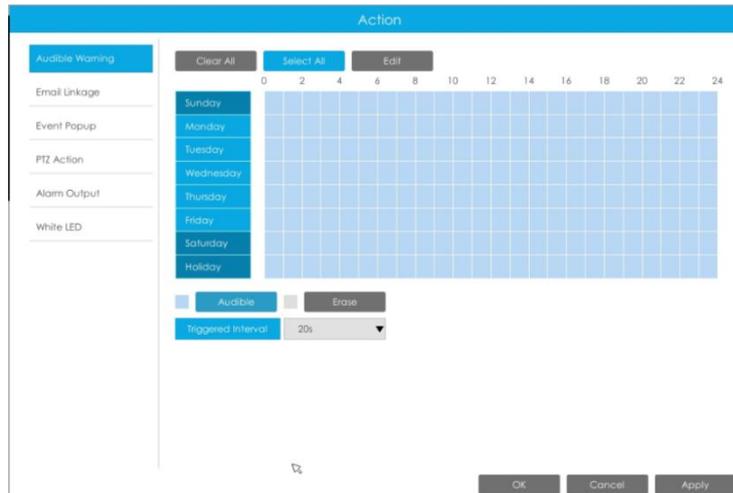
**Audible Warning:** NVR will trigger an audible beep when motion is detected.

The user can set effective schedule as following two ways:

① Select the operation type: Audible or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

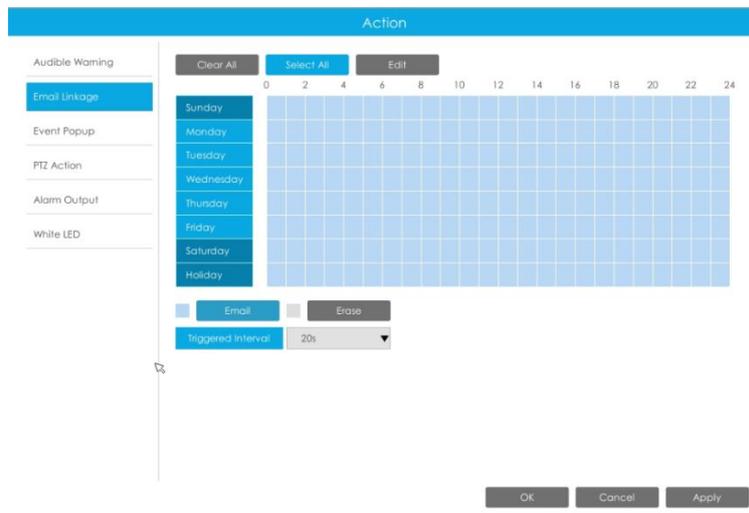


**Email Linkage:** NVR will send an email to the address you set before.

User can set effective schedule as following two ways:

- ① Select the operation type: Email or Erase. Then drag a rectangle on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.
- ② Click **Edit** to edit record effective time manually.

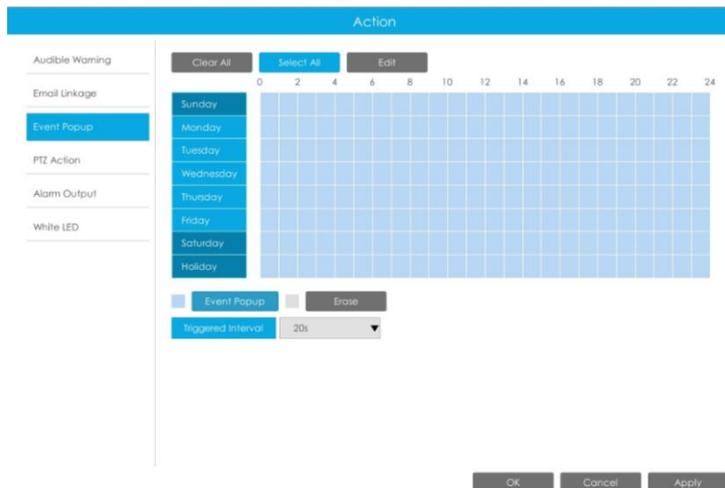
**Triggered Interval:** The effective interval between two actions when event triggered.



**Event Popup:** Trigger alarm screen popup to full screen when alarm is triggered. And you can set display duration time of all triggered channel in 'Settings'->'General'->'Event Popup Duration Time'. Then triggered channel will be shown one by one as duration time.

- ① Select the operation type, Event Popup and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.
- ② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



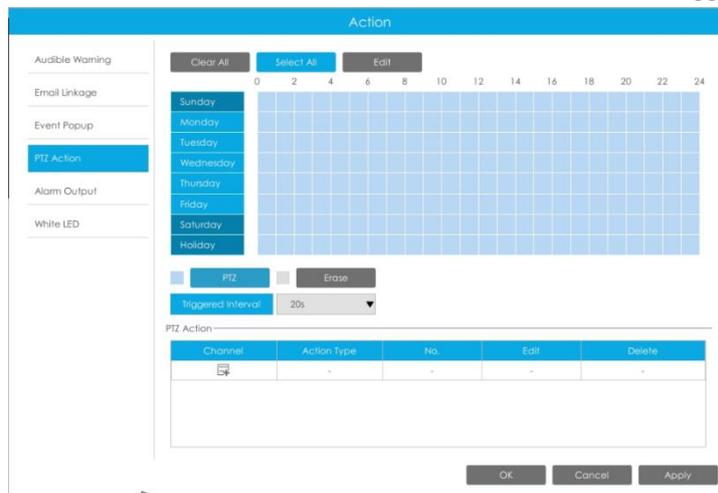
**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

User can set effective schedule as following two ways:

① Select the operation type: PTZ or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear to set or clear all time settings.

② Click **Edit** to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action by clicking .



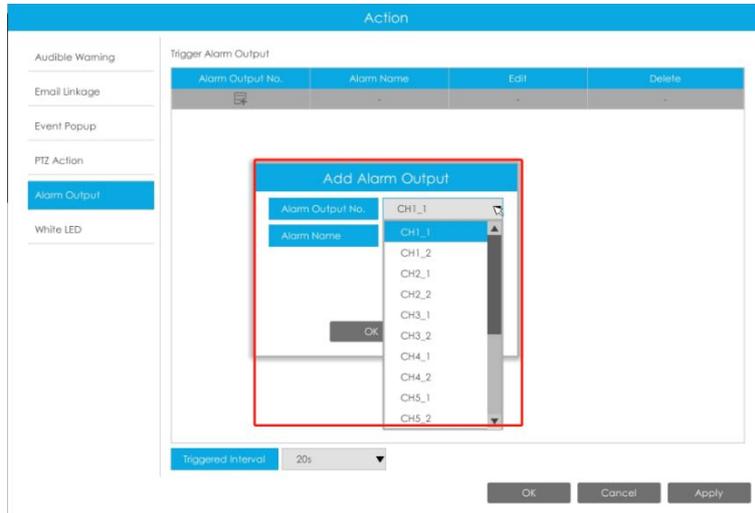
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



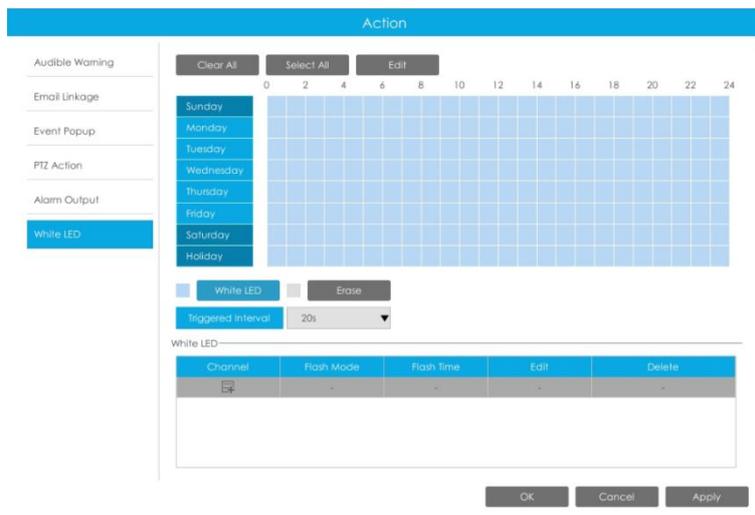
**White LED:** Trigger White LED flashing when alarm is triggered.

The user can set effective schedule as following two ways:

① Select the operation type, White LED and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED by clicking .

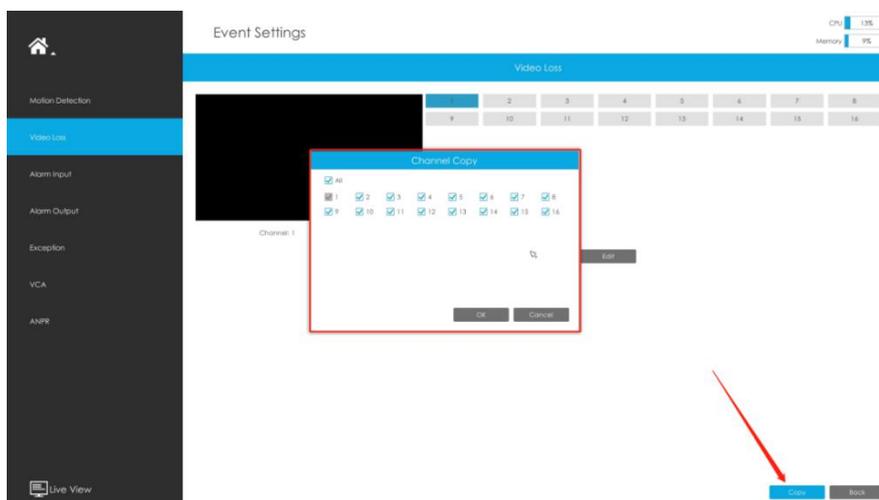


**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

**Step 3.** Click and to copy the same configuration to other channels.

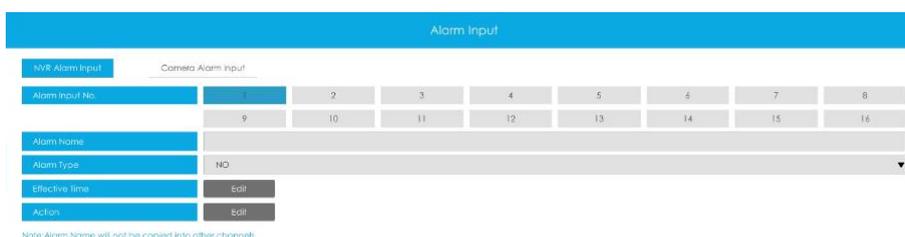


### 3.8.3 Alarm Input

#### 3.8.3.1 NVR Alarm Input

NVR Alarm Input function is supported by MS-N5008-UT, MS-N5016-UT, MS-N7016-UH, MS-N7032-UH, MS-N8032-UH, MS-N8064-UH, MS-N5008-UPT, MS-N5016-UPT, MS-N7016-UPH and MS-N7032-UPH.

**Step 1. Set Alarm input Number, Alarm Name and Alarm Type.**



**Alarm Input No.:** The channel which has input signal.

**Alarm Name:** Set a name for the alarm.

**Alarm Type:** Choose NO or NC alarm type for the alarm.

**Step 2. Set effective time for alarm input by clicking corresponding** .

**Step 3. Set action for alarm input by clicking corresponding** .

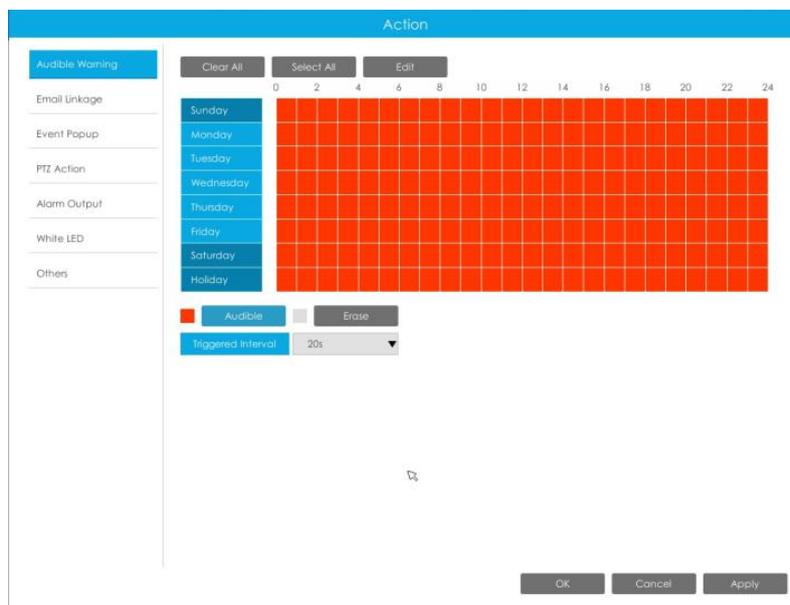
**Audible Warning:** NVR will trigger an audible beep when alarm is triggered.

User can set effective schedule as following two ways:

① Select the operation type: Audible or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking  or  to set or clear all time settings.

② Click  to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

User can set effective schedule as following two ways:

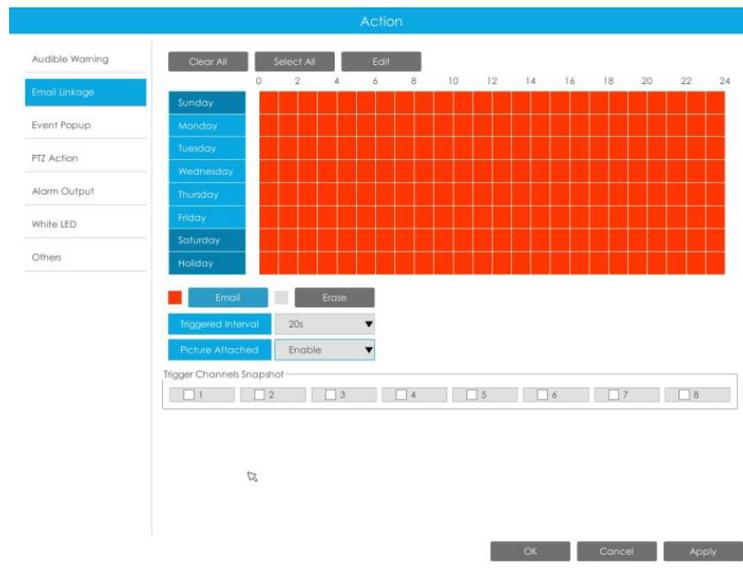
① Select the operation type: Email or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking  or  to set or clear all time settings.

② Click  to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Trigger Channels Snapshot:** The snapshot of selected channels will be sent when alarm is triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.

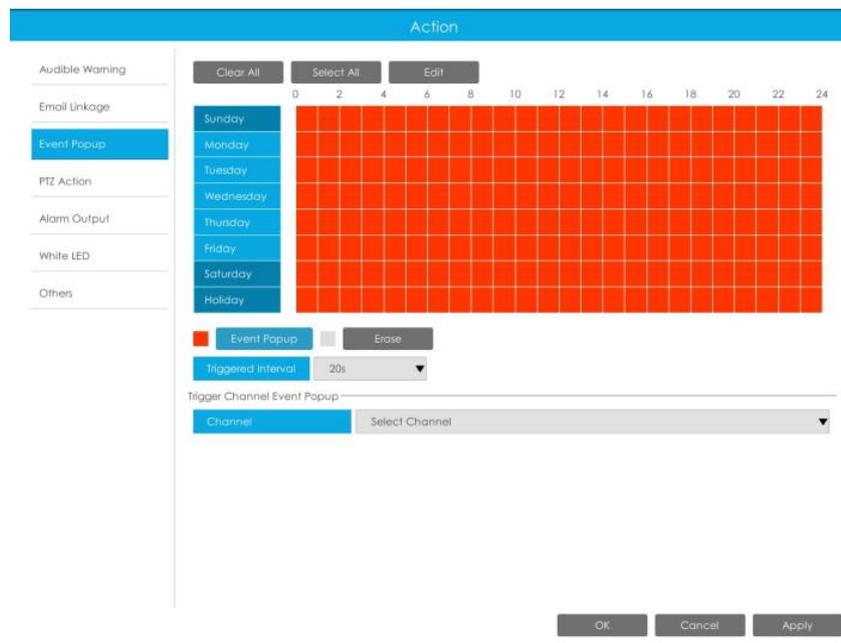


**Event Popup:** Trigger alarm screen popup to full screen when alarm is triggered. And you can set display duration time of all triggered channel in 'Settings'->'General'->'Event Popup Duration Time'. Then triggered channel will be shown one by one as duration time.

① Select the operation type, Event Popup and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset** and **Patrol**.

User can set effective schedule as following two ways:

① Select the operation type: PTZ or Erase. Then drag a square on the time table for time

setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear to set or clear all time settings.

② Click **Edit** to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

And you can add PTZ Action by clicking .

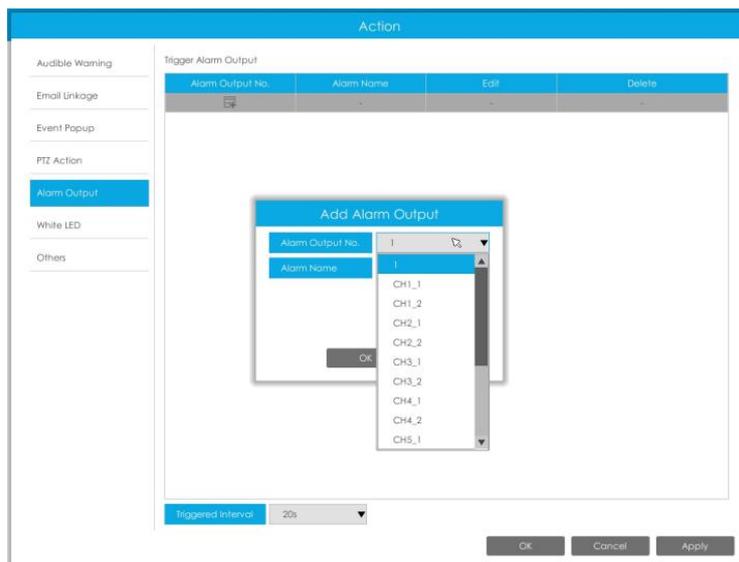
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



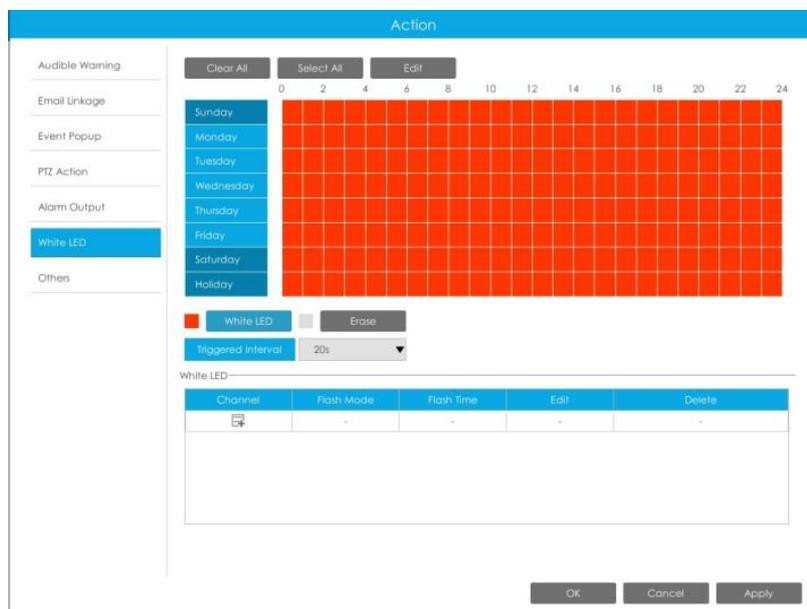
**White LED:** Trigger White LED flashing when alarm is triggered.

The user can set effective schedule as following two ways:

① Select the operation type, White LED and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED by clicking .

**Add White LED**

Channel: 1

Flash Mode: Twinkle

Flash Time: 3 [Reset]

[OK] [Cancel]

**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

**Others:** Trigger selected channels to record and snapshot when alarm is triggered.

**Action**

Audible Warning

Email Linkage

Event Popup

PTZ Action

Alarm Output

White LED

**Others**

Trigger Channels Record

All

1  2  3  4  5  6  7  8

Trigger Channels Snapshot

All

1  2  3  4  5  6  7  8

Note: This page's configuration will not be copied into other channels.

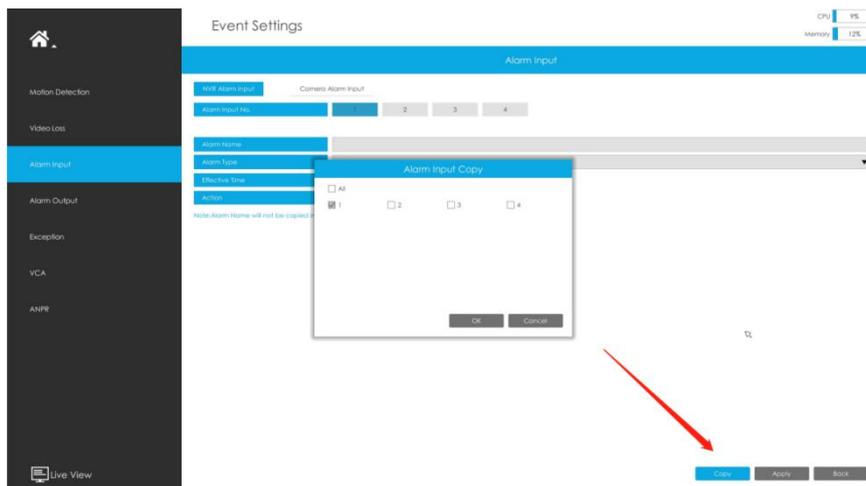
[OK] [Cancel] [Apply]

**Note:**

Make sure you have set correct schedule for record and snapshot before setting the Event Action.

**Step 4:** Copy alarm input settings to other input interface by clicking

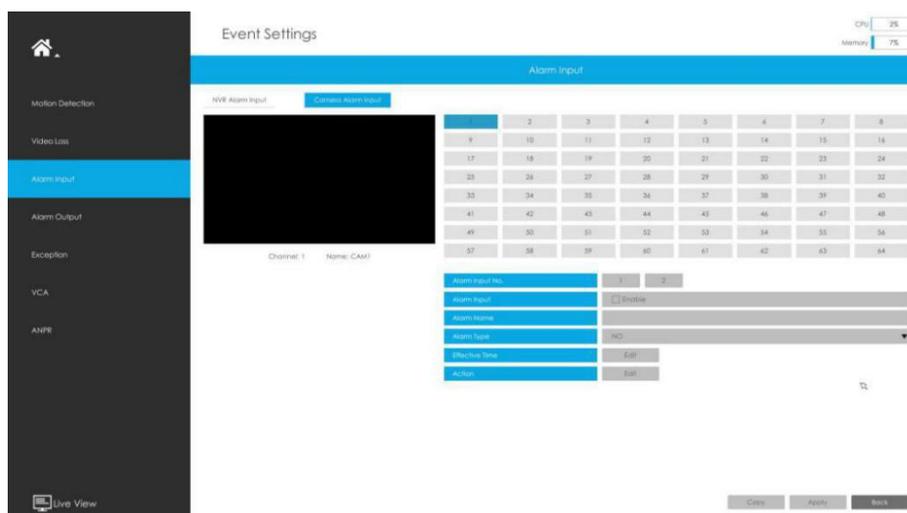
Copy



### 3.8.3.2 Camera Alarm Input

Milesight NVRs support configuring the Alarm Input of Milesight cameras directly.

**Step 1. Set Alarm Input Number, Enable Alarm Input, Set Alarm Name and Alarm Type**

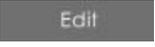


**Alarm Input No.:** The channel which has input signal.

**Alarm Input:** Click “Enable” to enable alarm input of this channel.

**Alarm Name:** Set a name for the alarm.

**Alarm Type:** Choose NO or NC alarm type for the alarm.

**Step 2. Set effective time for Alarm Input by clicking corresponding**  .

**Step 3. Set action for alarm input by clicking corresponding**  .

**Audible Warning:** NVR will trigger an audible beep when camera alarm is triggered.

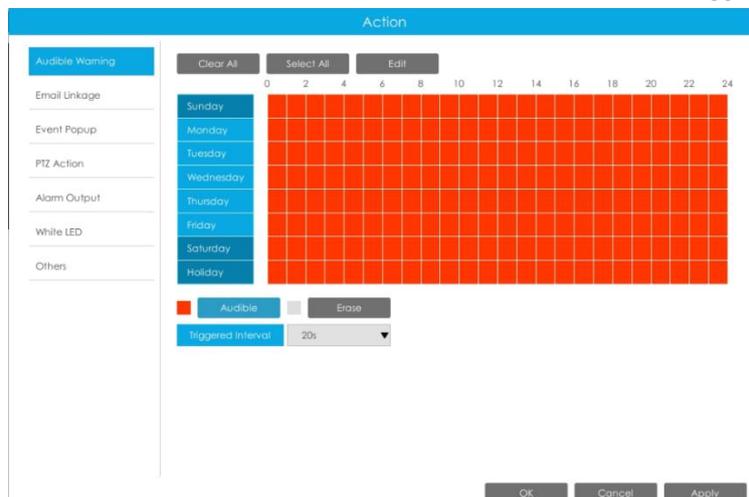
User can set effective schedule as following two ways:

- ① Select the operation type: Audible or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking  or  to set or clear all

time settings.

- ② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

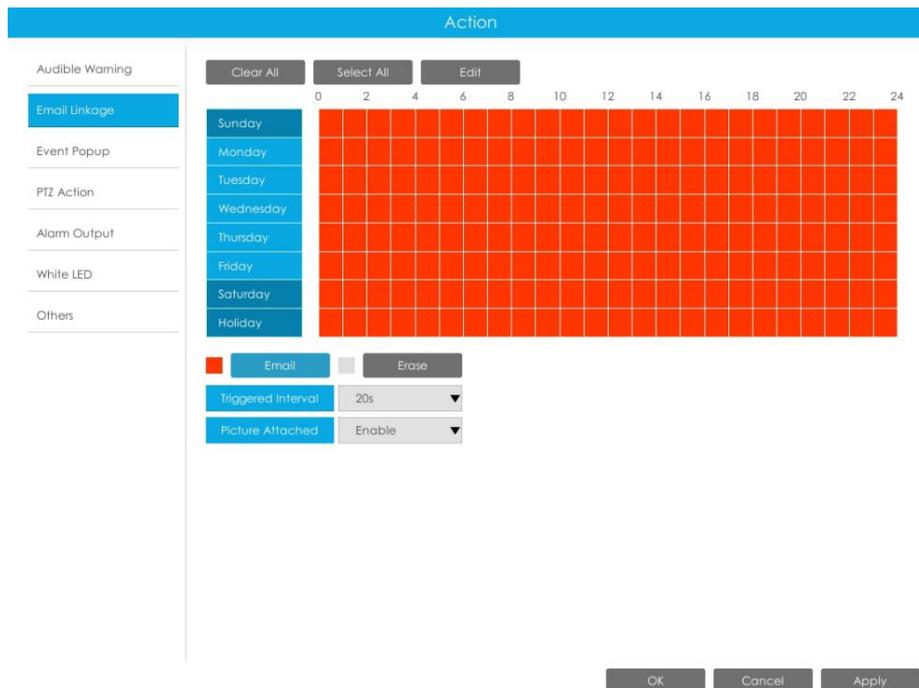
User can set effective schedule as following two ways:

- ① Select the operation type: Email or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

- ② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.

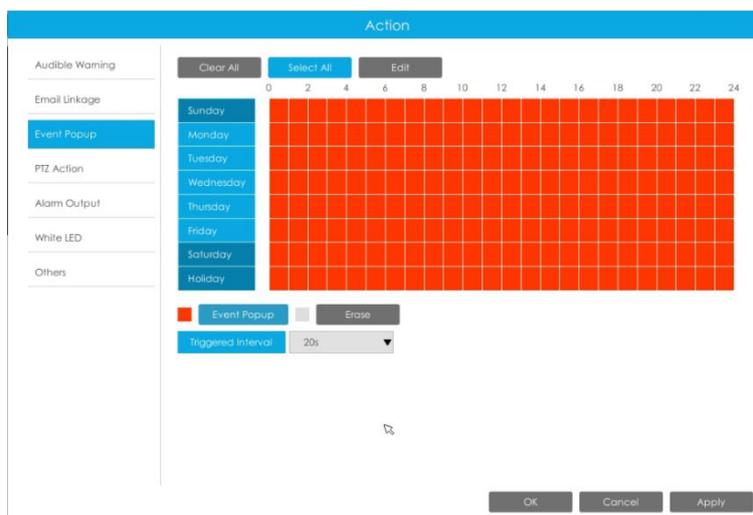


**Event Popup:** Trigger alarm screen popup to full-screen when alarm is triggered. And you can set display duration time of all triggered channel in 'Settings'->'General'->'Event Popup Duration Time'. Then triggered channel will be shown one by one as duration time.

① Select the operation type, Event Popup and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

User can set effective schedule as following two ways:

① Select the operation type: PTZ or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear to set

or clear all time settings.

② Click **Edit** to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

| Channel | Action Type | No. | Edit | Delete |
|---------|-------------|-----|------|--------|
|         | -           | -   | -    | -      |

And you can add PTZ Action by clicking  .

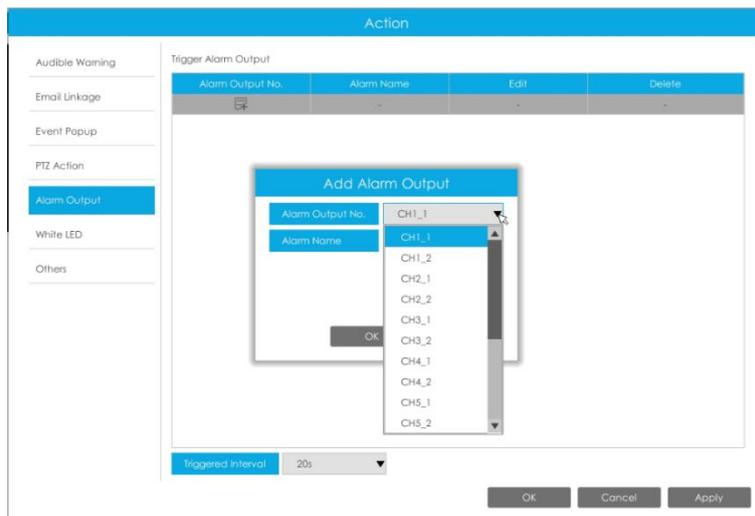
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



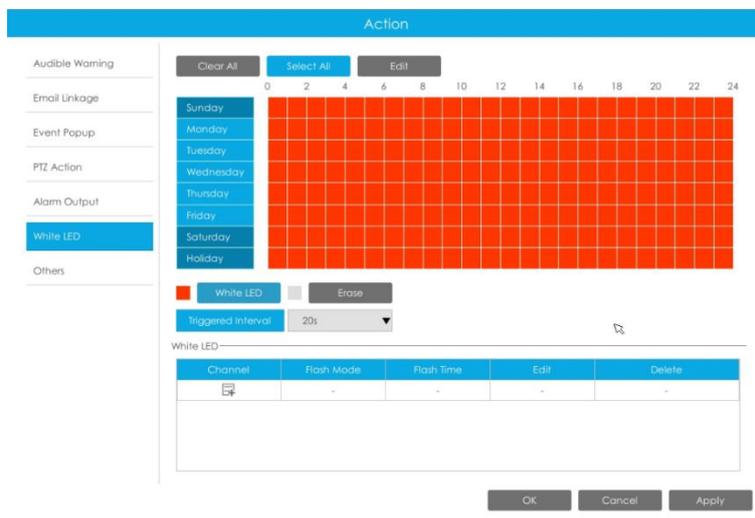
**White LED:** Trigger White LED flashing when alarm is triggered.

The user can set effective schedule as following two ways:

① Select the operation type, White LED and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED by clicking .

**Add White LED**

Channel: 1

Flash Mode: Twinkle

Flash Time: 3 [Reset]

[OK] [Cancel]

**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

**Others:** Trigger selected channels to record and snapshot when alarm is triggered.

**Action**

Audible Warning

Email Linkage

Event Popup

PTZ Action

Alarm Output

White LED

**Others**

Trigger Channels Record

All

1  2  3  4  5  6  7  8

Trigger Channels Snapshot

All

1  2  3  4  5  6  7  8

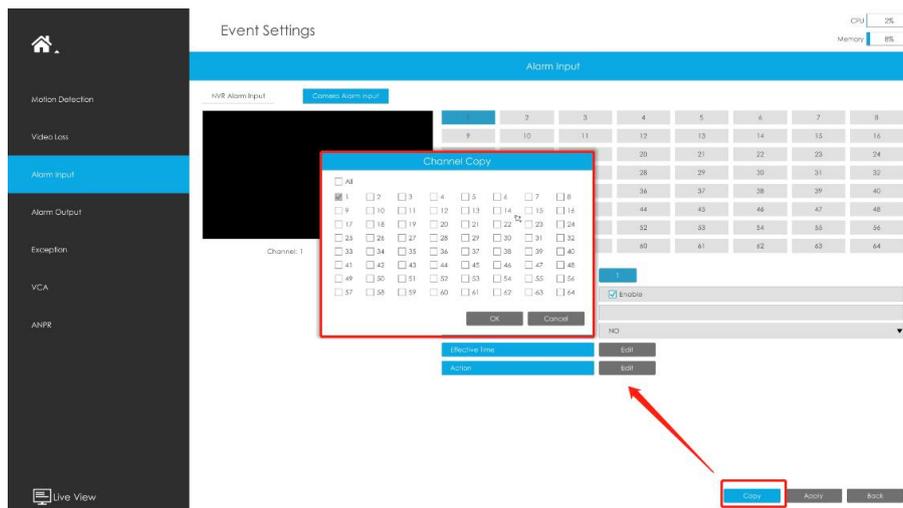
Note: This page's configuration will not be copied into other channels.

[OK] [Cancel] [Apply]

**Note:**

Make sure you have set correct schedule for record and snapshot before setting the Event Action.

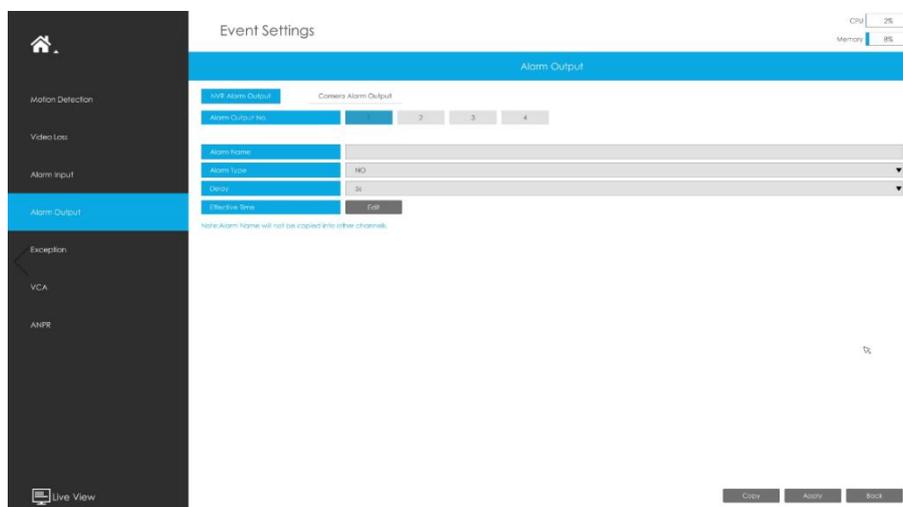
**Step 3: Copy alarm input settings to other input interface by clicking** 



### 3.8.4 Alarm Output

#### 3.8.4.1 NVR Alarm Output

Alarm Output function is supported by MS-N5008-UT, MS-N5016-UT, MS-N7016-UH, MS-N7032-UH, MS-N8032-UH, MS-N8064-UH, MS-N5008-UPT, MS-N5016-UPT, MS-N7016-UPH and MS-N7032-UPH.



**Step 1. Set Alarm output channel, Alarm Name, Alarm Type and Record Channels.**



**Alarm Output No.:** The channel which will output the alarm signal.

**Alarm Name:** Set a name for the alarm.

**Alarm Type:** Choose NO or NC alarm type for the alarm.

**Delay:** The output time for alarm. If the output alarm lasts too long, you can select the Manually Clear to stop it.

**Step 2. Set effective time for alarm output by clicking corresponding** .

The user can set effective schedule as following two ways:

① Select the operation type: Alarm Output or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking  or  to set or clear all time settings.

② Click  to edit record effective time manually.

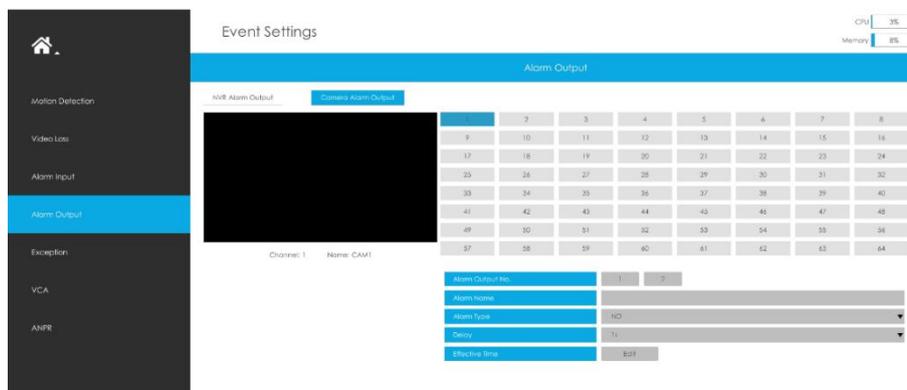


**Step 3: Copy alarm output settings to other output interface by clicking** .

### 3.8.4.2 Camera Alarm Output

Milesight NVRs support the upgrade of Milesight Cameras.

**Step 1. Set Alarm output channel, Alarm Name, Alarm Type and Record Channels.**



**Alarm Output No.:** The alarm output number of the corresponding channel which has input signal.

**Alarm Name:** Set a name for the alarm.

**Alarm Type:** Choose NO or NC alarm type for the alarm.

**Delay:** The output time for alarm. If the output alarm lasts too long, you can select the Manually Clear to stop it.

**Step 2. Set effective time for Alarm Output by clicking corresponding** .

The user can set effective schedule as following two ways:

① Select the operation type: Alarm Output or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking  or  to set or clear all time settings.

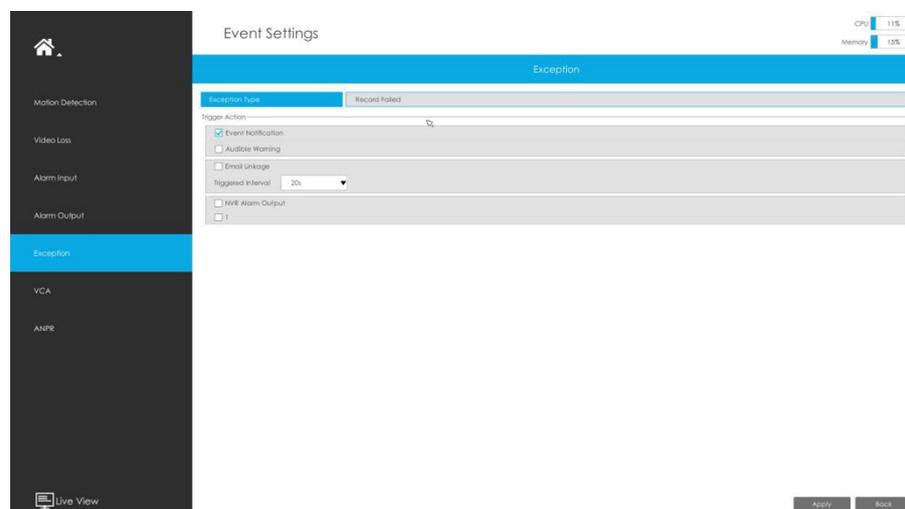
② Click  to edit record effective time manually.



**Step 3: Copy alarm output settings to other output interface by clicking** .

## 3.8.5 Exception

**Step1. Select Exception Type.**



**Network Disconnected:** Loss of network.

**Disk Full:** Disk full. It usually happens when recycle Mode is OFF.

**Record Failed:** Recording fails, including HDD Failed, HDD Full and so on.

**Disk Error:** Failed to recognize HDD.

**Disk Uninitialized:** Disk is uninitialized.

**No Disk:** There is no storage device.

**Step2. Select Action includes Event Notification, Audible Warning, Email Linkage and Alarm Output.**

**Event Notification:** You will get a notification in Live View if an alarm is triggered.

**Audible Warning:** NVR will trigger an audible beep.

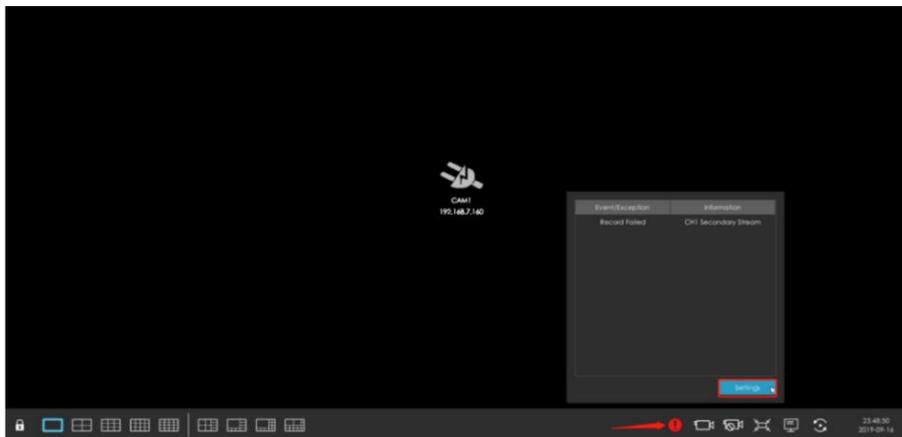
**Email Linkage:** An alarm Email will be sent if an alarm is triggered.

**Trigger Interval:** Set the interval to send Emails when detecting Record Failed Event (Only Record Failed Event supports to set trigger interval when sending emails).

**Alarm Output:** NVR will trigger the corresponding Alarm Output.



The prompt icon will automatically blink in the bottom bar when corresponding event is triggered. And it can be unlocked manually.



### 3.8.6 VCA

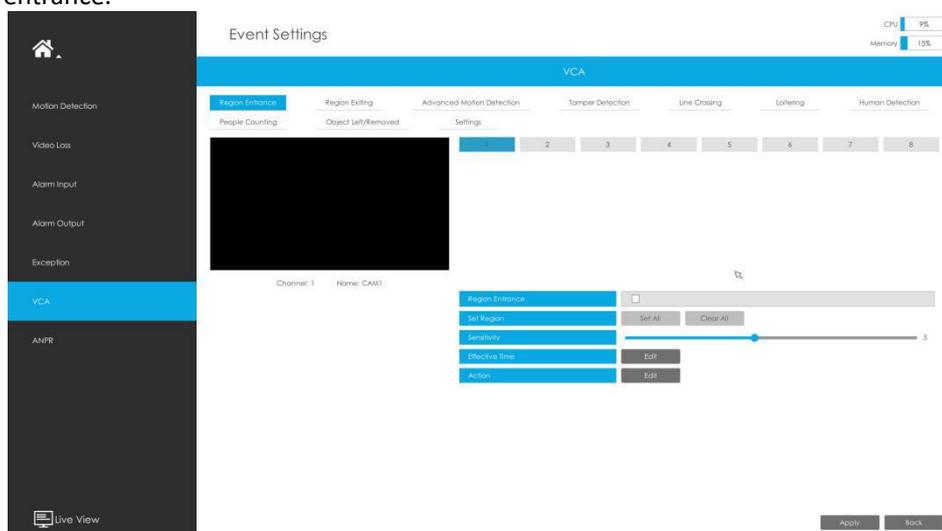
It uses Milesight Video Content Analysis technology which is applied in a wide range of domains including entertainment, health-care, retail, automotive, transport, home automation, safety and security. Milesight VCA provides advanced, accurate smart video analysis for Milesight network cameras. It enhances the performance of network cameras through 10 detection modes which are divided into basic function and advanced function, enabling the comprehensive surveillance function and quicker response of cameras to different monitoring scenes.

**Note:**

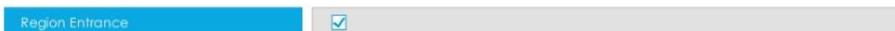
Please input license of selected channel in Settings page to activate VCA first.

## Region Entrance

Region entrance helps to protect a specific 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.



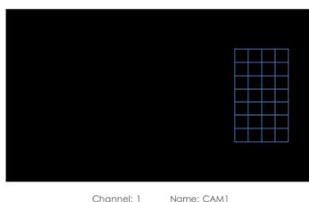
**Step 1. Select channel and enable Region Entrance.**



**Step 2. Set entrance detection region.**

You can select an area by dragging the mouse to set the trigger area, and this area will be synchronized to camera. Also, you can set or clear all set region by directly clicking **Set All**

or **Clear All**.



**Step 3. Set Sensitivity.**

The sensitivity can be configured to detect various movement according to different requirements. When the level of sensitivity is low, slight movement won't trigger the alarm.



**Step 4. Set Effective Time of region entrance by clicking **Edit**.**

NVR receives the alarm when effective time has been set. It will be more convenient by clicking

**Select All** or **Clear All** to set or clear all time settings.



**Step 5. Set Action for region entrance alarm by clicking Edit.**

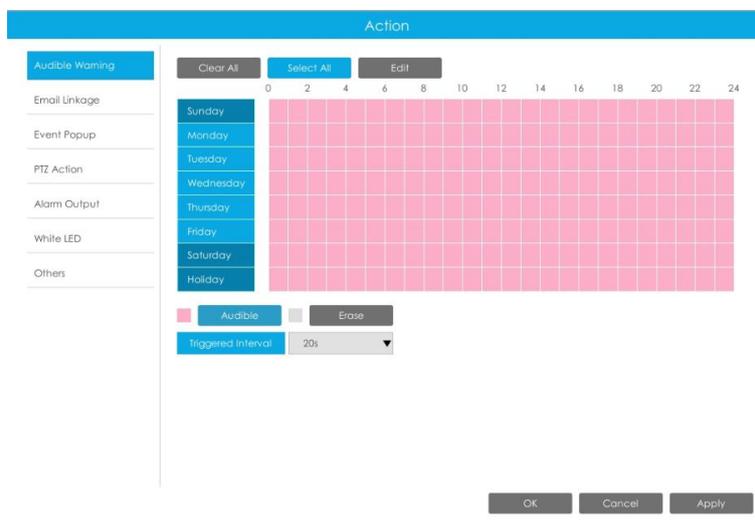
**Audible Warning:** NVR will trigger an audible beep when region entrance is detected.

The user can set effective schedule as following two ways:

① Select the operation type: Audible or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking Select All or Clear All to set or clear all time settings.

② Click Edit to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

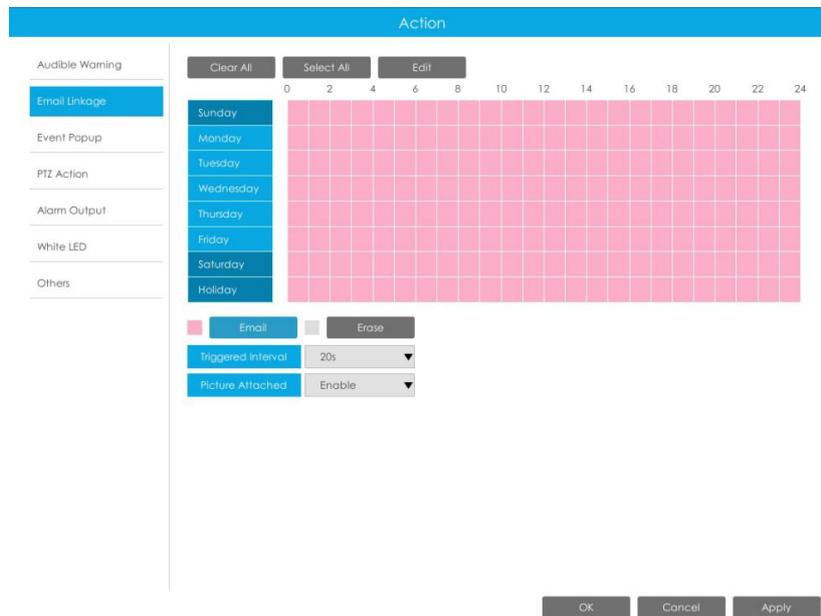
The user can set effective schedule as following two ways:

① Select the operation type, Email and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking Select All or Clear All to set or clear all time settings.

② Click Edit to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.

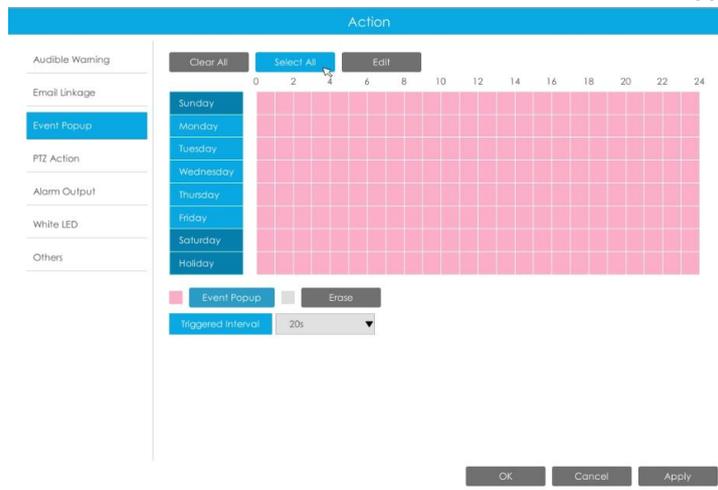


**Event Popup:** Trigger alarm screen popup to full screen when alarm is triggered. And you can set display duration time of all triggered channel in 'Settings'->'General'->'Event Popup Duration Time'. Then triggered channel will be shown one by one as duration time.

① Select the operation type, Event Popup and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



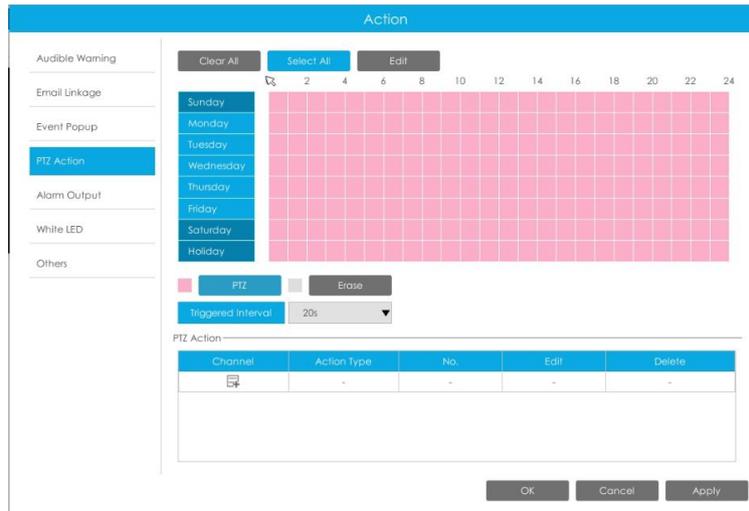
**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

User can set effective schedule as following two ways:

① Select the operation type: PTZ or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear to set or clear all time settings.

② Click **Edit** to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action by clicking .

The 'Add PTZ Action' dialog box has a blue header. It contains three dropdown menus: 'Channel' with '1' selected, 'Action Type' with 'Preset' selected, and 'No.' with '1' selected. At the bottom are 'OK' and 'Cancel' buttons.

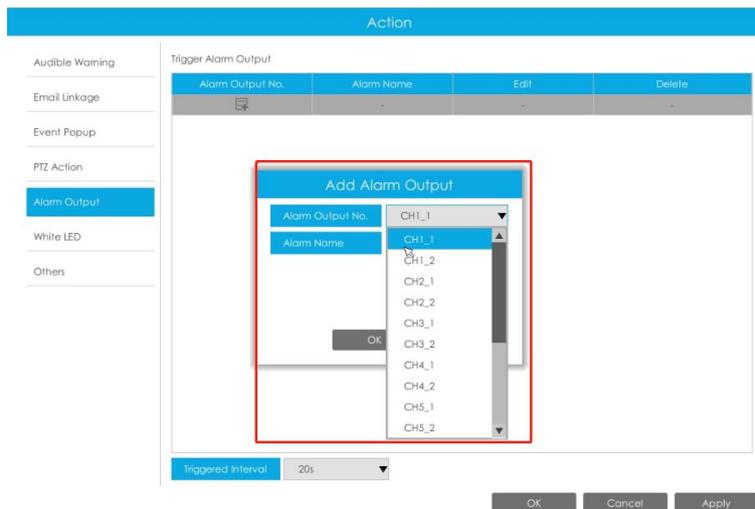
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



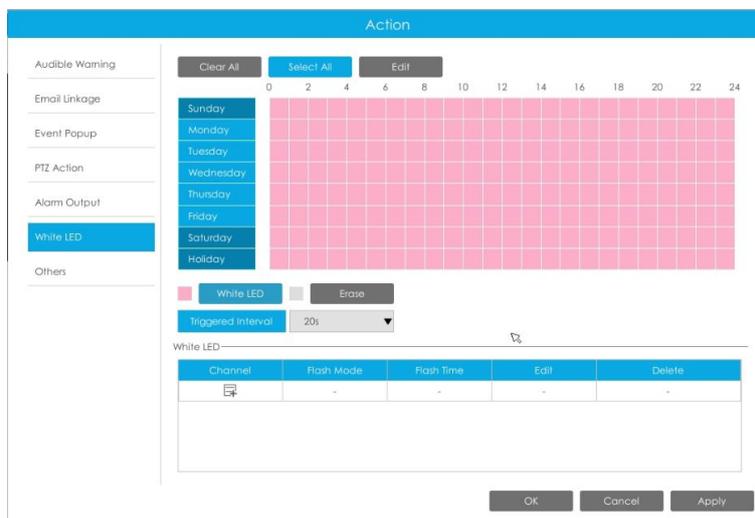
**White LED:** Trigger White LED flashing when alarm is triggered.

The user can set effective schedule as following two ways:

① Select the operation type, White LED and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED by clicking .

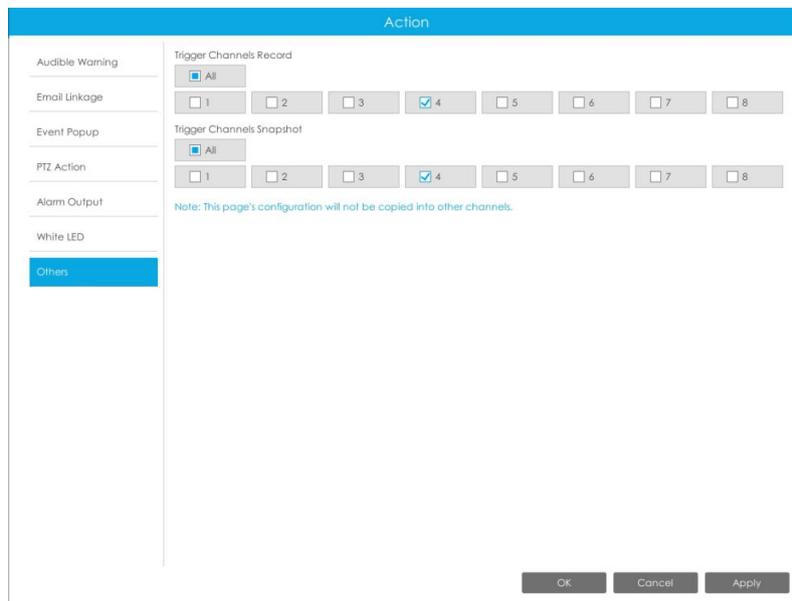


**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

**Others:** Trigger selected channels to record and snapshot when alarm is triggered.

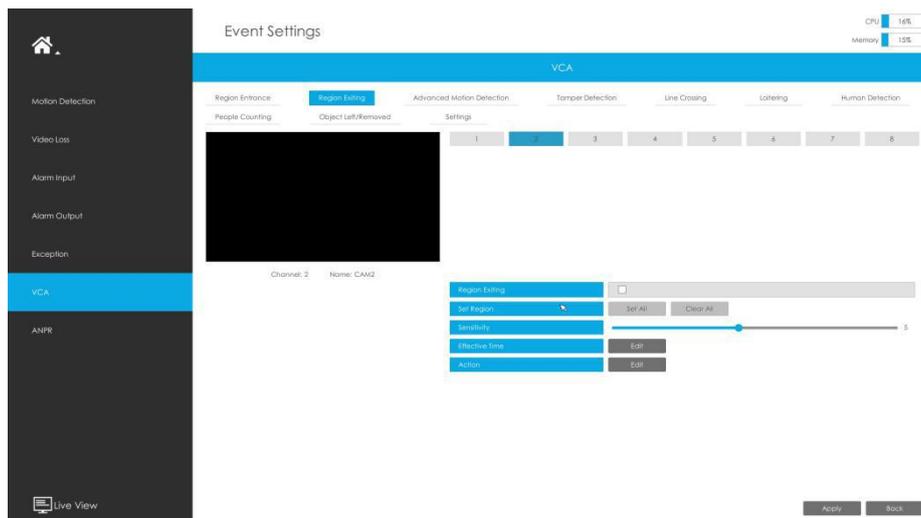


**Note:**

Make sure you have set correct schedule for record and snapshot before setting the Event Action.

**Region Exiting**

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



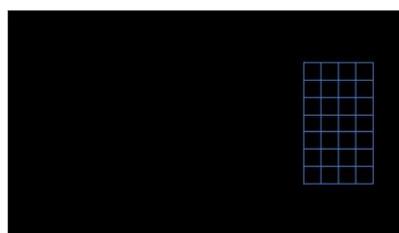
### Step 1. Select channel and enable Region Exiting.



### Step 2. Set exit detection region.

You can select an area by dragging the mouse to set the trigger area, and this area will be synchronized to camera. Also, you can set or clear all set region by directly clicking

or 



### Step 3. Set Sensitivity.

The sensitivity can be configured to detect various movements according to different requirements. When the level of sensitivity is low, slight movement won't trigger the alarm.



### Step 4. Set Effective Time of region exiting by clicking .

NVR receives the alarm when effective time has been set. It will be more convenient by clicking

 or  to set or clear all time settings.



**Step 5. Set Action for region exiting alarm by clicking .**

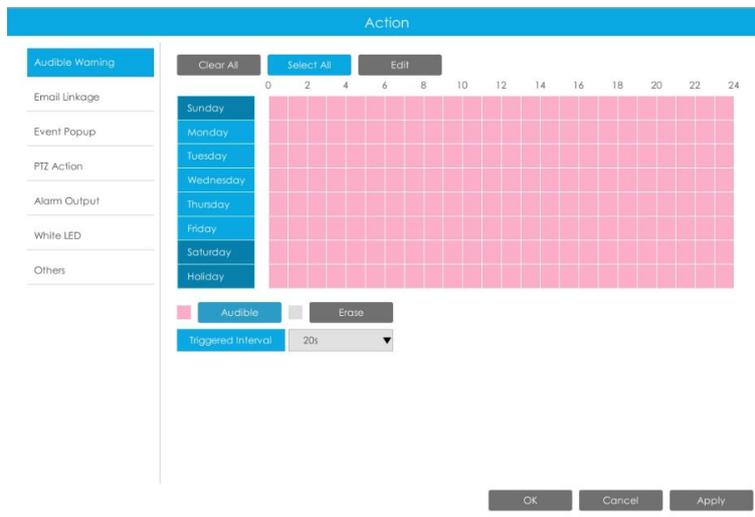
**Audible Warning:** NVR will trigger an audible beep when region entrance is detected.

The user can set effective schedule as following two ways:

① Select the operation type: Audible or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking  or  to set or clear all time settings.

② Click  to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

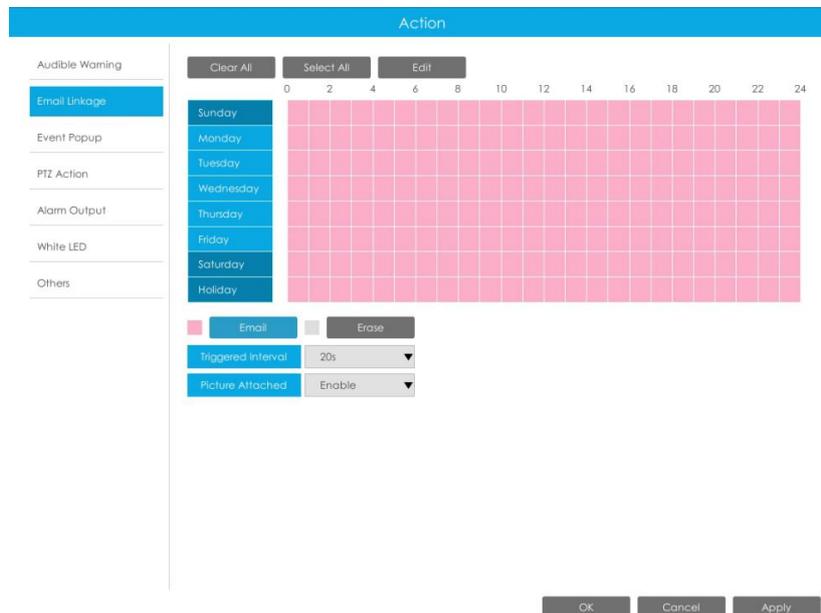
The user can set effective schedule as following two ways:

① Select the operation type, Email and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking  or  to set or clear all time settings.

② Click  to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails.If you enable it,you will receive alarm emails with one event captured picture attached.

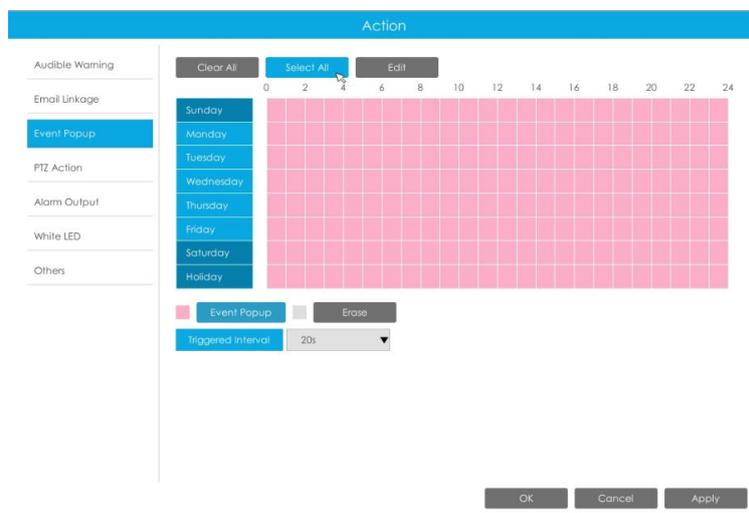


**Event Popup:** Trigger alarm screen popup to full screen when alarm is triggered. And you can set display duration time of all triggered channel in 'Settings'->'General'->'Event Popup Duration Time'. Then triggered channel will be shown one by one as duration time.

① Select the operation type, Event Popup and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



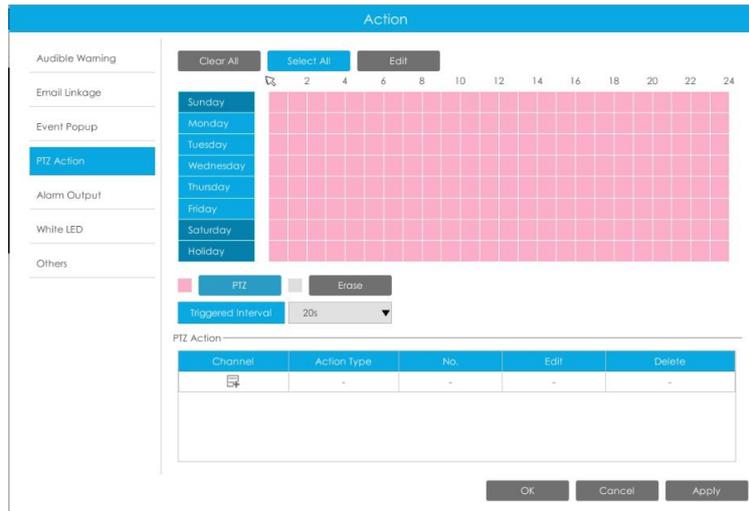
**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

User can set effective schedule as following two ways:

① Select the operation type: PTZ or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear to set or clear all time settings.

② Click **Edit** to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action by clicking .

The 'Add PTZ Action' dialog box has a blue header. It contains three input fields: 'Channel' with a dropdown menu showing '1', 'Action Type' with a dropdown menu showing 'Preset', and 'No.' with a dropdown menu showing '1'. At the bottom are 'OK' and 'Cancel' buttons.

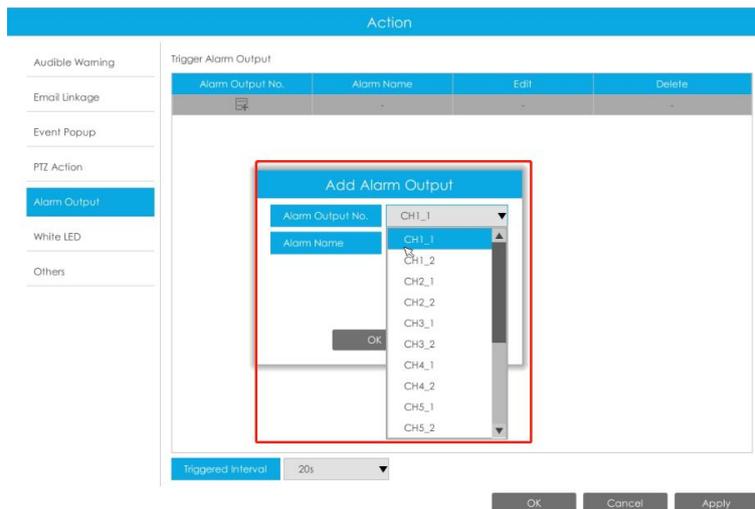
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



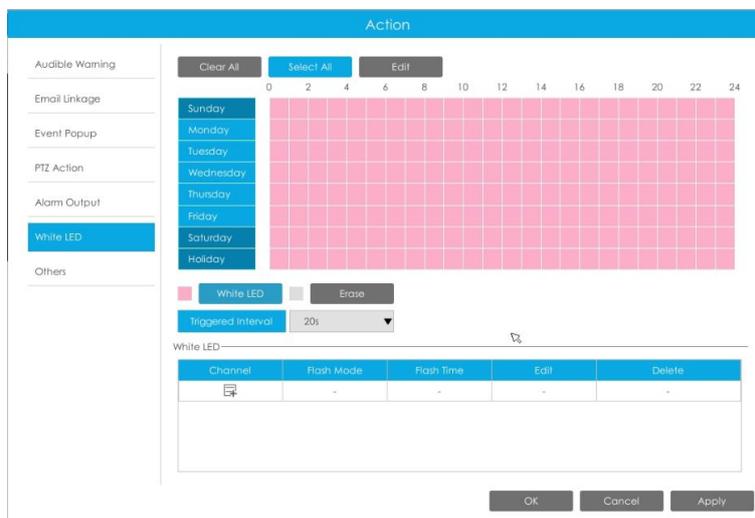
**White LED:** Trigger White LED flashing when alarm is triggered.

The user can set effective schedule as following two ways:

① Select the operation type, White LED and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED by clicking .

**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

**Others:** Trigger selected channels to record and snapshot when alarm is triggered.

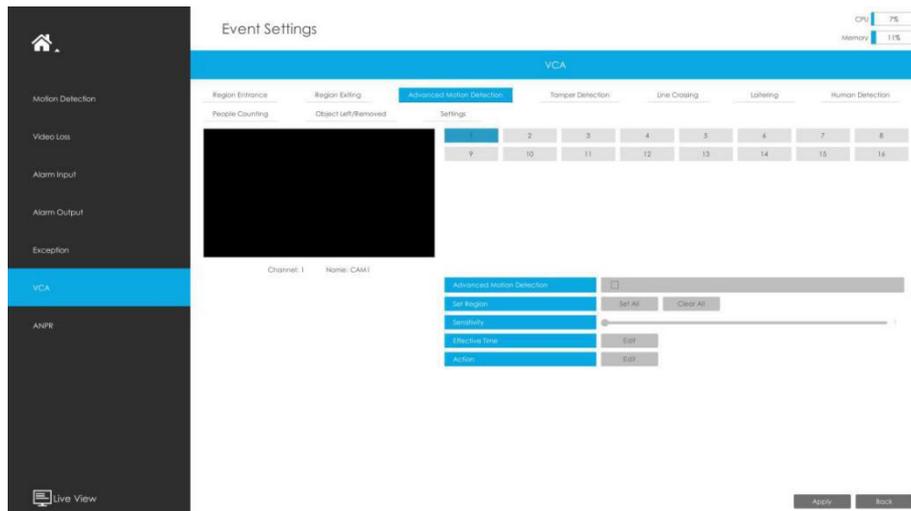
**Note:**

Make sure you have set correct schedule for record and snapshot before setting the Event Action.

### Advanced Motion Detection

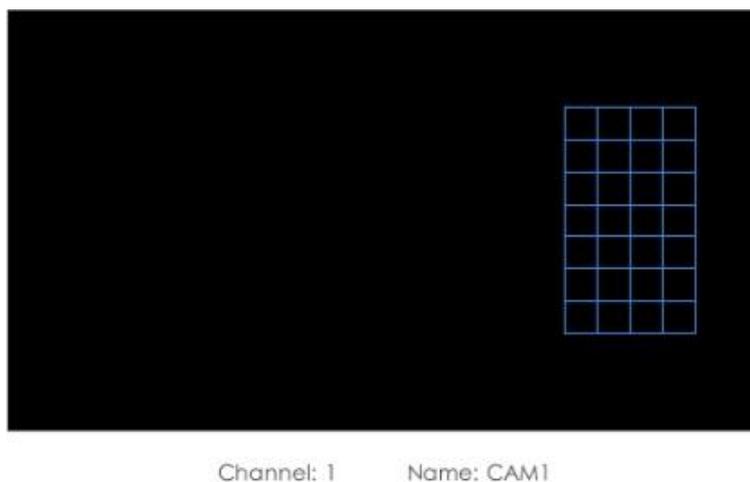
Different from traditional motion detection, Milesight advanced motion detection can filter out “noise” such as lighting changes, natural tree movements, etc. When an object moves in the selected area, it will trigger alarm.

**Step 1. Select channel and enable Advanced Motion Detection.**



### Step 2. Set advanced motion detection region.

You can select an area by dragging the mouse to set the trigger area, and this area will be synchronized to camera. Also, you can set or clear all set region by directly clicking  or .



### Step 3. Set Sensitivity.

The sensitivity can be configured to detect various movements according to different requirements. When the level of sensitivity is low, slight movement won't trigger the alarm.



### Step 4. Set Effective Time of advance motion detection by clicking .

NVR receives the alarm when effective time has been set. It will be more convenient by clicking  or  to set or clear all time settings.



**Step 5. Set Action for advanced motion detection alarm by clicking .**

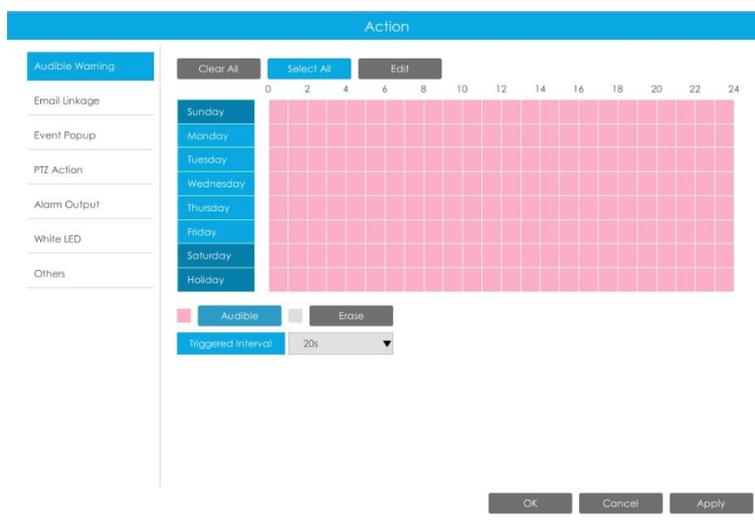
**Audible Warning:** NVR will trigger an audible beep when region entrance is detected.

The user can set effective schedule as following two ways:

① Select the operation type: Audible or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking  or  to set or clear all time settings.

② Click  to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

The user can set effective schedule as following two ways:

① Select the operation type, Email and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking  or  to set or clear all time settings.

② Click  to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.

**Event Popup:** Trigger alarm screen popup to full screen when alarm is triggered. And you can set display duration time of all triggered channel in 'Settings'->'General'->'Event Popup Duration Time'. Then triggered channel will be shown one by one as duration time.

① Select the operation type, Event Popup and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

User can set effective schedule as following two ways:

① Select the operation type: PTZ or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear to set or clear all time settings.

② Click **Edit** to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

The screenshot shows the 'Action' configuration window. On the left is a sidebar with options: Audible Warning, Email Linkage, Event Popup, PTZ Action (selected), Alarm Output, White LED, and Others. The main area features a 24-hour time table with days of the week listed on the left. Above the table are buttons for 'Clear All', 'Select All', and 'Edit'. Below the table are radio buttons for 'PTZ' and 'Erase', and a 'Triggered Interval' dropdown set to '20s'. At the bottom, there is a table for 'PTZ Action' with columns: Channel, Action Type, No., Edit, and Delete. The table currently has one row with dashes in the Action Type, No., Edit, and Delete columns. At the very bottom are 'OK', 'Cancel', and 'Apply' buttons.

And you can add PTZ Action by clicking .

The screenshot shows the 'Add PTZ Action' dialog box. It has a blue header with the title 'Add PTZ Action'. Below the header are three rows of configuration options, each with a blue label and a grey dropdown menu: 'Channel' with '1', 'Action Type' with 'Preset', and 'No.' with '1'. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

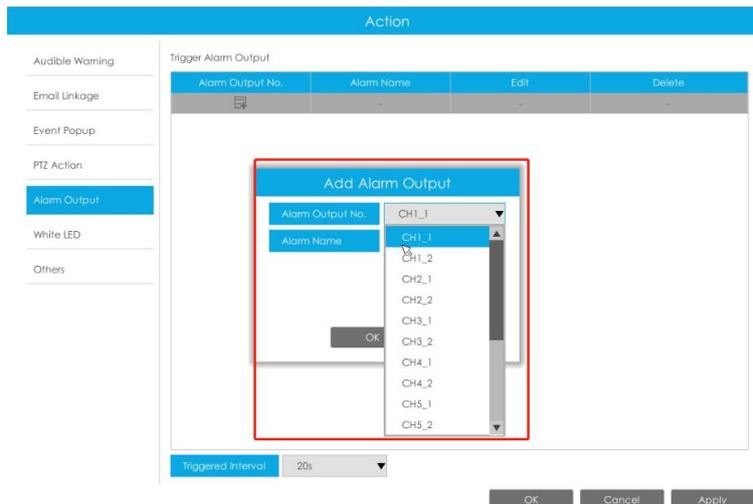
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



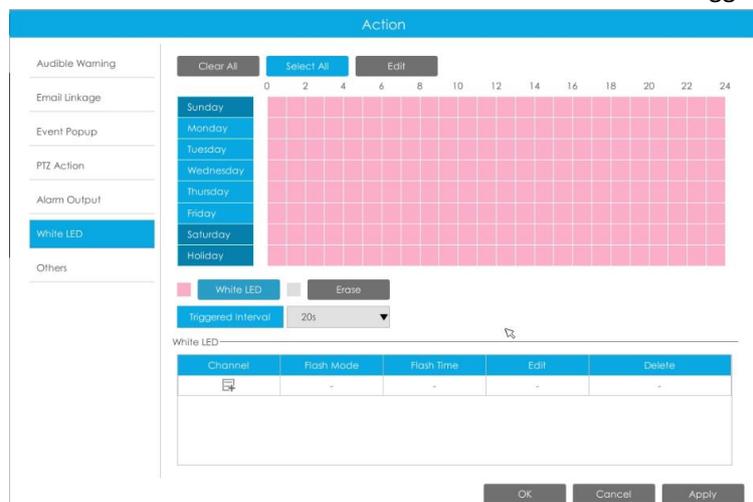
**White LED:** Trigger White LED flashing when alarm is triggered.

The user can set effective schedule as following two ways:

① Select the operation type, White LED and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED by clicking .

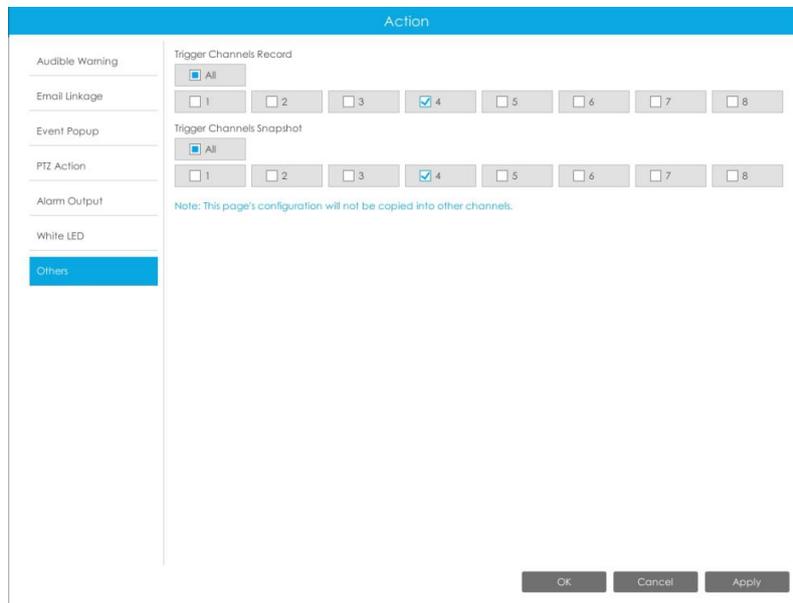


**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

**Others:** Trigger selected channels to record and snapshot when alarm is triggered.



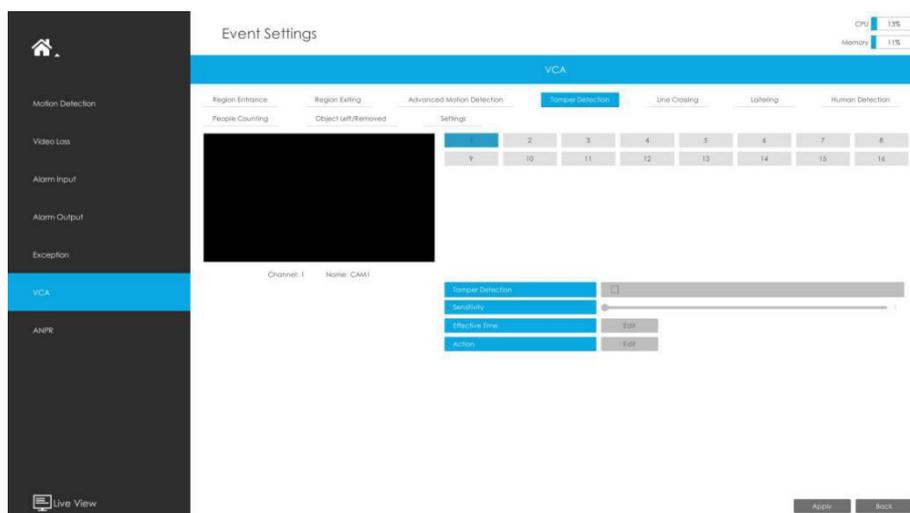
**Note:**

Make sure you have set correct schedule for record and snapshot before setting the Event Action.

**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.

**Step 1. Select channel and enable Tamper Detection.**



**Step 2. Set Sensitivity.**

The sensitivity can be configured to detect various movements according to different

requirements. When the level of sensitivity is low, slight movement won't trigger the alarm.



**Step 3. Set Effective Time of tamper detection by clicking Edit.**

NVR receives the alarm when effective time has been set. It will be more convenient by clicking

Select All or Clear All to set or clear all time settings.



**Step 4. Set Action for tamper detection alarm by clicking Edit.**

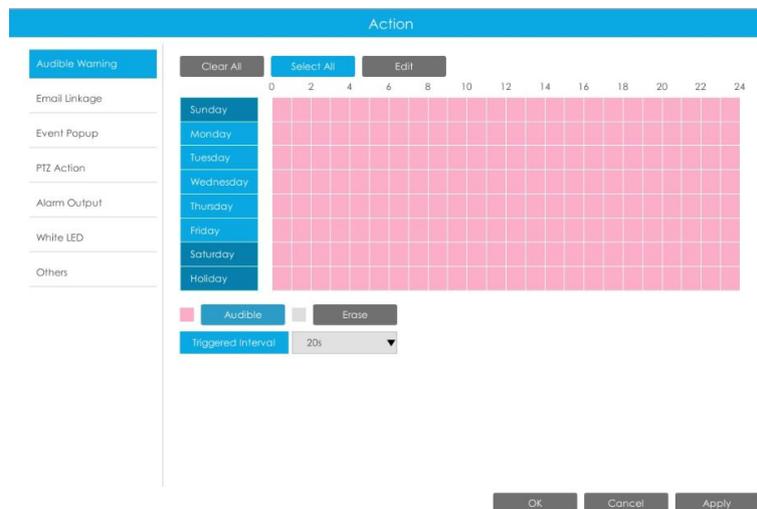
**Audible Warning:** NVR will trigger an audible beep when region entrance is detected.

The user can set effective schedule as following two ways:

① Select the operation type: Audible or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking Select All or Clear All to set or clear all time settings.

② Click Edit to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

The user can set effective schedule as following two ways:

① Select the operation type, Email and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

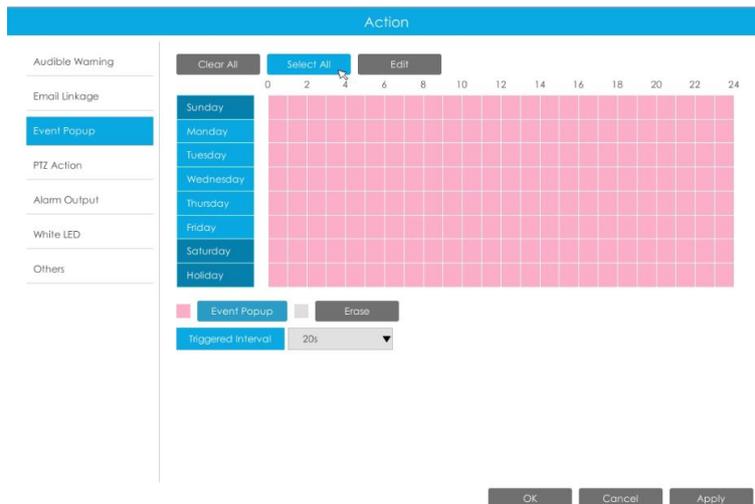
**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.

**Event Popup:** Trigger alarm screen popup to full screen when alarm is triggered. And you can set display duration time of all triggered channel in 'Settings'->'General'->'Event Popup Duration Time'. Then triggered channel will be shown one by one as duration time.

① Select the operation type, Event Popup and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



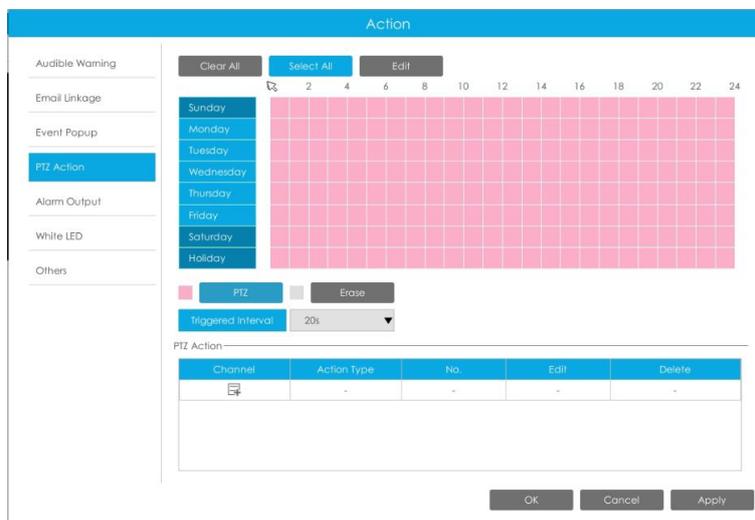
**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

User can set effective schedule as following two ways:

① Select the operation type: PTZ or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear to set or clear all time settings.

② Click **Edit** to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action by clicking  .

**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.

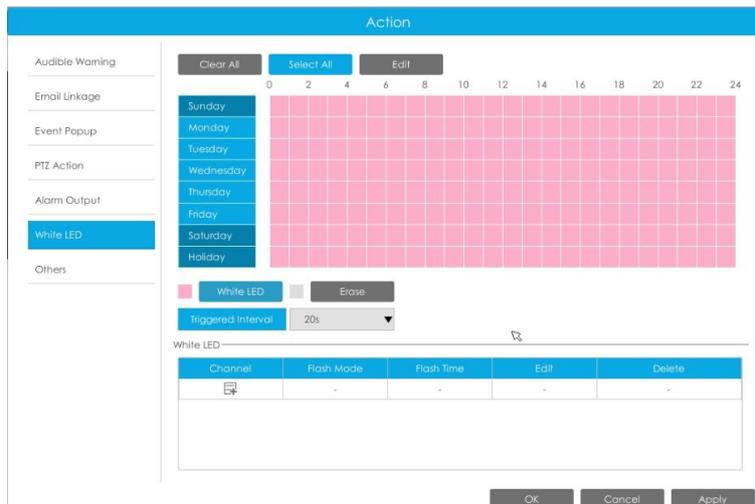
**White LED:** Trigger White LED flashing when alarm is triggered.

The user can set effective schedule as following two ways:

① Select the operation type, White LED and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED by clicking .

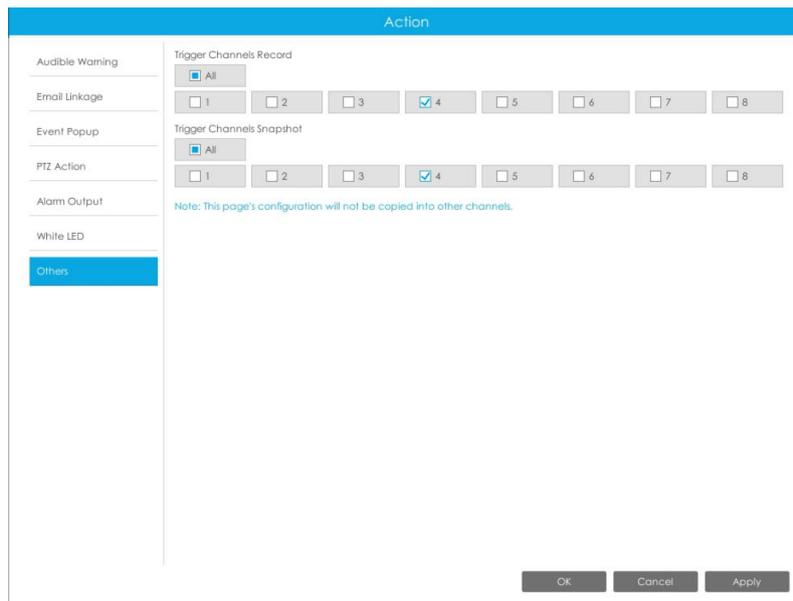


**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

**Others:** Trigger selected channels to record and snapshot when alarm is triggered.



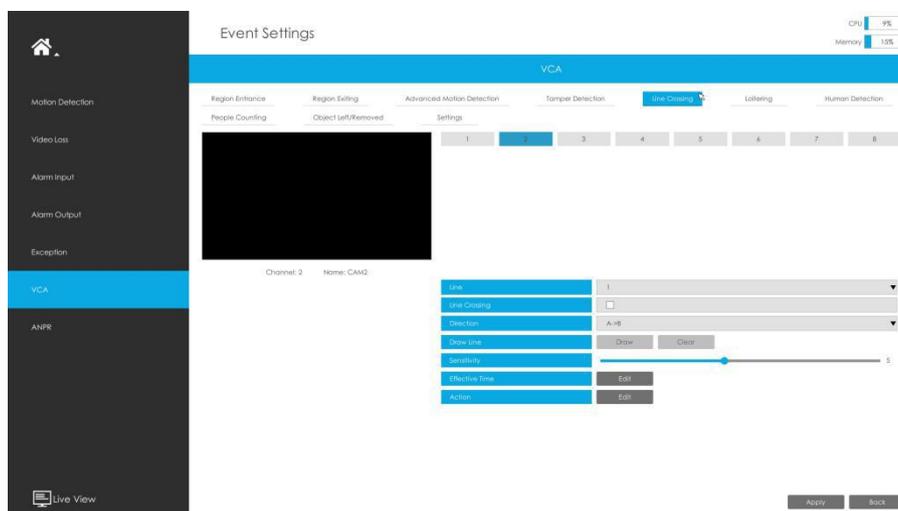
**Note:**

Make sure you have set correct schedule for record and snapshot before setting the Event Action.

**Line Crossing**

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

Settings steps are shown as follows:



**Step1: Select channel and choose detection line number.**

**Step 2. Enable Line Crossing.**



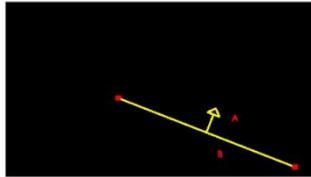
**Step 3. Define its direction.**

It 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.



#### Step 4. Draw detection lines.



Channel: 1 Name: CAM1

#### Note:

Each Line Crossing configuration works separately and do not affect each other.

#### Step 5. Set Sensitivity.

The sensitivity can be configured to detect various movements according to different requirements. When the level of sensitivity is low, slight movement won't trigger the alarm.



#### Step 6. Set Effective Time of line crossing by clicking **Edit**.

NVR receives the alarm when effective time has been set. It will be more convenient by clicking

**Select All** or **Clear All** to set or clear all time settings.



#### Step 7. Set Action for line crossing alarm by clicking **Edit**.

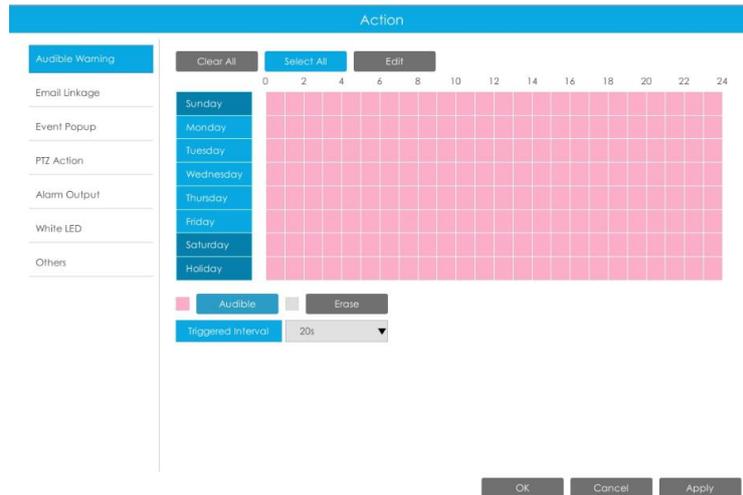
**Audible Warning:** NVR will trigger an audible beep when region entrance is detected.

The user can set effective schedule as following two ways:

① Select the operation type: Audible or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

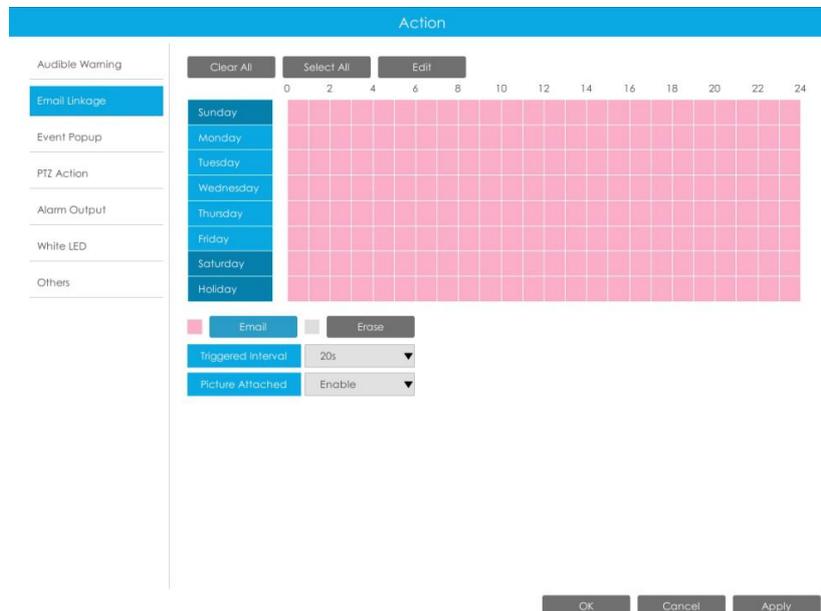
The user can set effective schedule as following two ways:

① Select the operation type, Email and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.



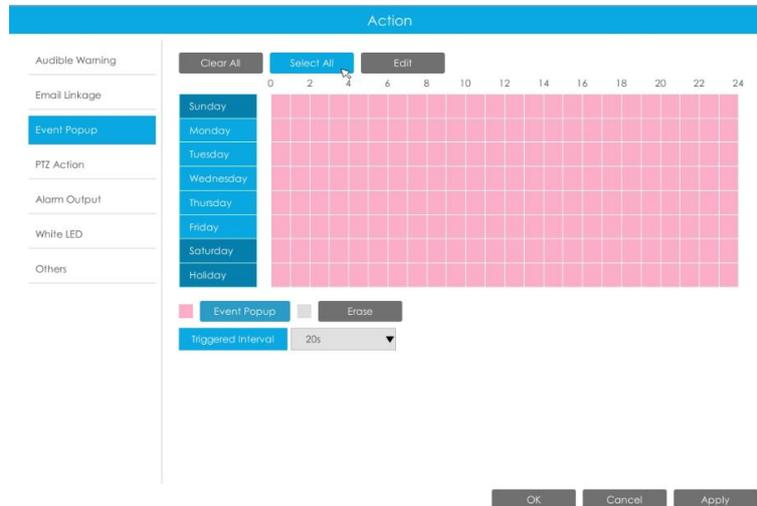
**Event Popup:** Trigger alarm screen popup to full screen when alarm is triggered. And you can set display duration time of all triggered channel in 'Settings'->'General'->'Event Popup Duration Time'. Then triggered channel will be shown one by one as duration time.

① Select the operation type, Event Popup and Erase. Then drag a square on the time table for

time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



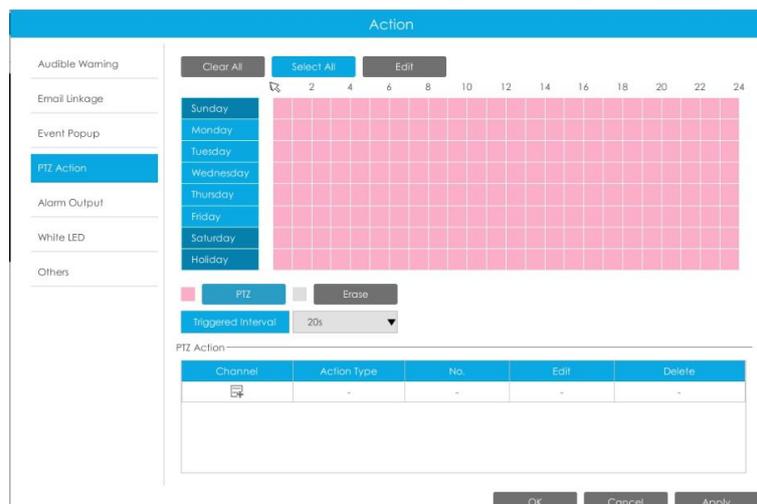
**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

User can set effective schedule as following two ways:

① Select the operation type: PTZ or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear to set or clear all time settings.

② Click **Edit** to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action by clicking .

**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.

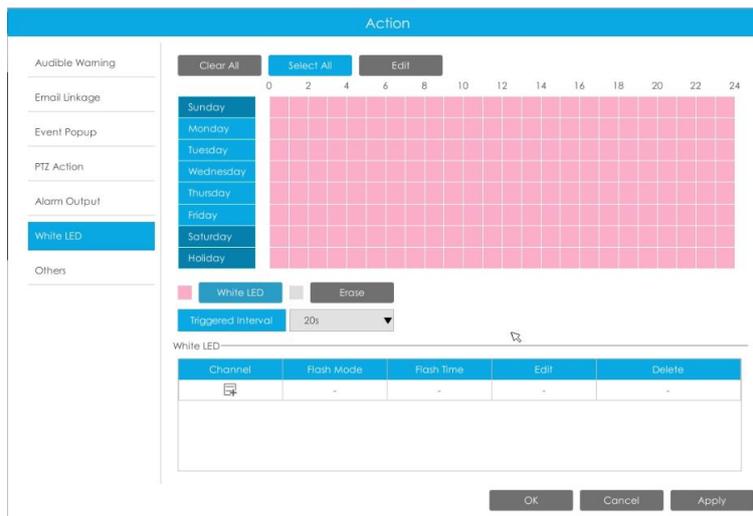
**White LED:** Trigger White LED flashing when alarm is triggered.

The user can set effective schedule as following two ways:

① Select the operation type, White LED and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED by clicking .

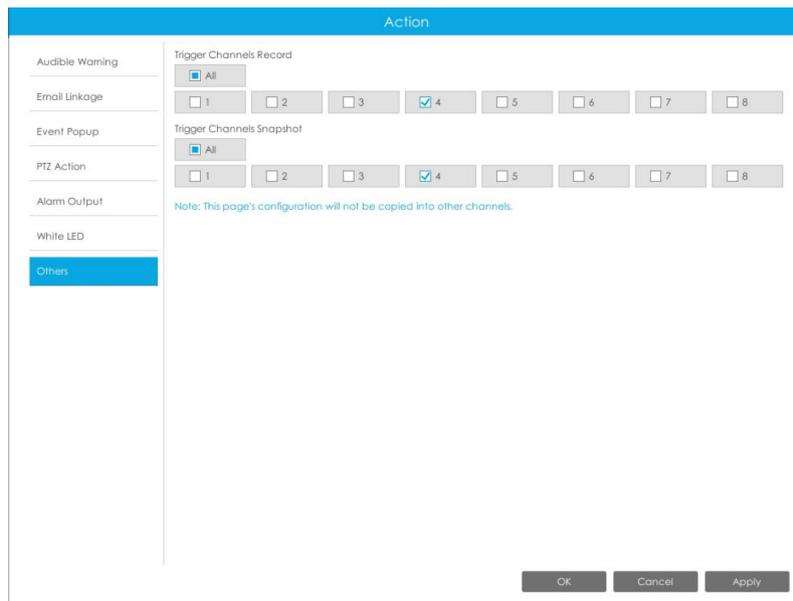


**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

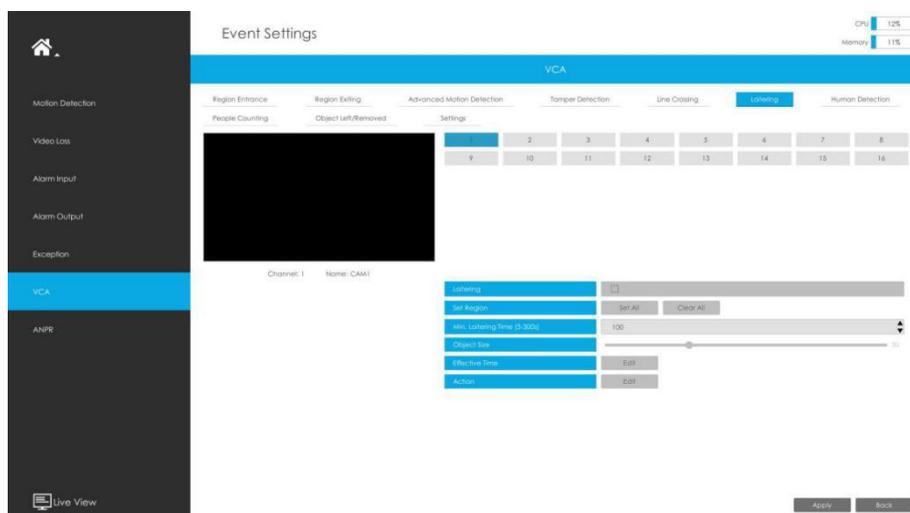
**Others:** Trigger selected channels to record and snapshot when alarm is triggered.

**Note:**

Make sure you have set correct schedule for record and snapshot before setting the Event Action.

**Loitering**

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

**Step 1. Select channel and enable Loitering.**

Loitering

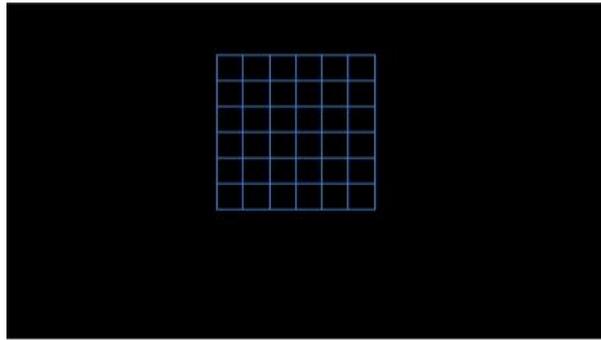
**Step 2. Set Loitering detected region.**

You can select an area by dragging the mouse to set the trigger area, and this area will be synchronized to camera. Also, you can set or clear all set region by directly clicking

Set All

and Clear All.

Clear All



Channel: 1 Name: CAM1

### Step 3. Set Min. Loitering Time and Object Size.

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. Also Milesight loitering allows to set "Object Size". Only the object bigger than the set size will trigger the alarm.



### Step 4. Set Effective Time of loitering by clicking

Edit

NVR receives the alarm when effective time has been set. It will be more convenient by clicking

Select All

or

Clear All

to set or clear all time settings.



### Step 5. Set Action for loitering alarm by clicking

Edit

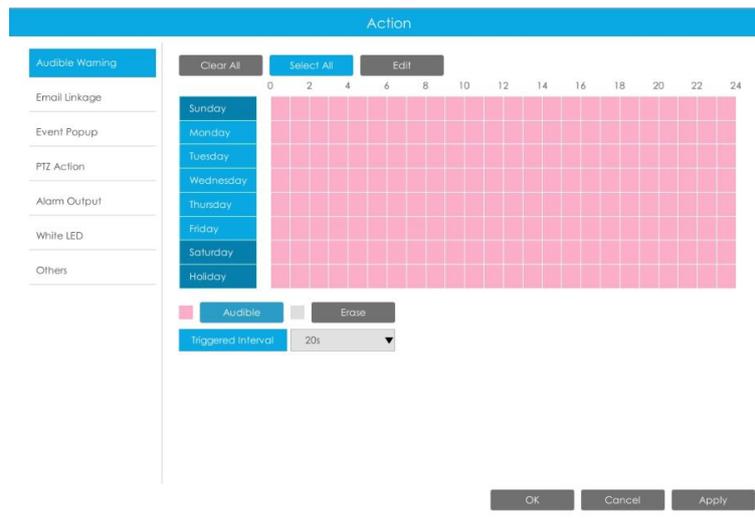
**Audible Warning:** NVR will trigger an audible beep when region entrance is detected.

The user can set effective schedule as following two ways:

① Select the operation type: Audible or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

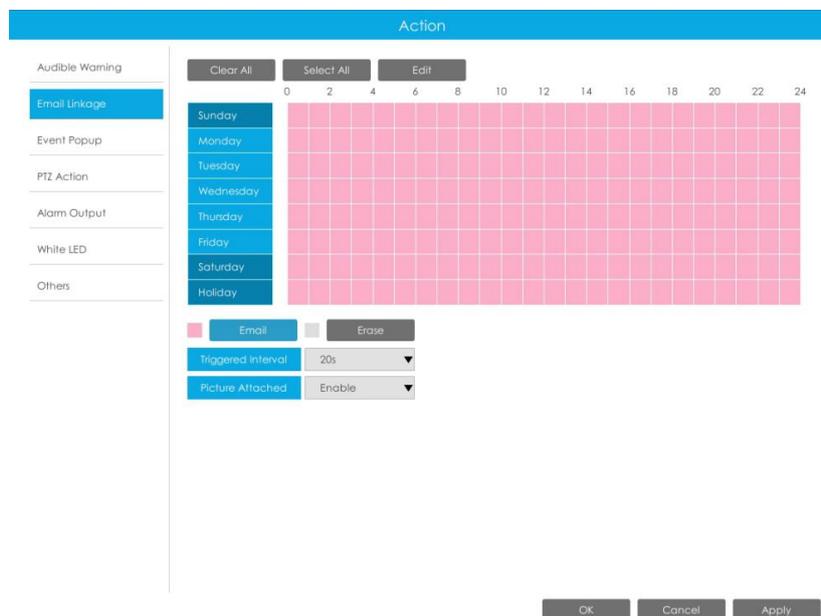
The user can set effective schedule as following two ways:

① Select the operation type, Email and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.



**Event Popup:** Trigger alarm screen popup to full screen when alarm is triggered. And you can set display duration time of all triggered channel in 'Settings'->'General'->'Event Popup Duration Time'. Then triggered channel will be shown one by one as duration time.

① Select the operation type, Event Popup and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

User can set effective schedule as following two ways:

① Select the operation type: PTZ or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear to set or clear all time settings.

② Click **Edit** to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

| Channel | Action Type | No. | Edit | Delete |
|---------|-------------|-----|------|--------|
|         | -           | -   | -    | -      |

And you can add PTZ Action by clicking .

**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.

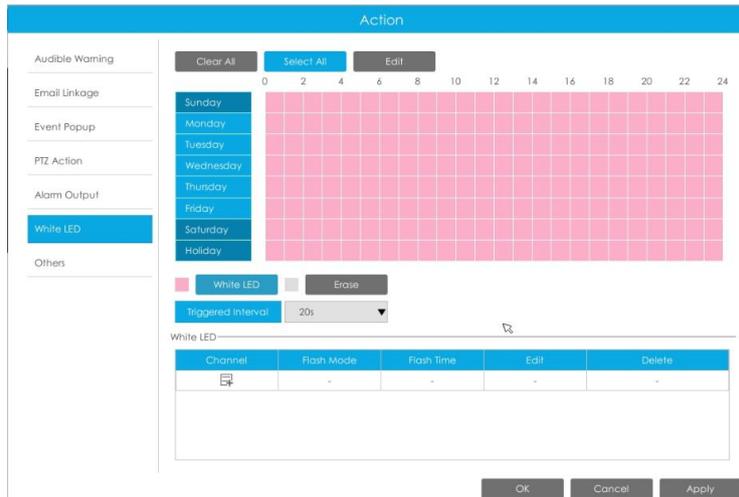
**White LED:** Trigger White LED flashing when alarm is triggered.

The user can set effective schedule as following two ways:

① Select the operation type, White LED and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED by clicking .

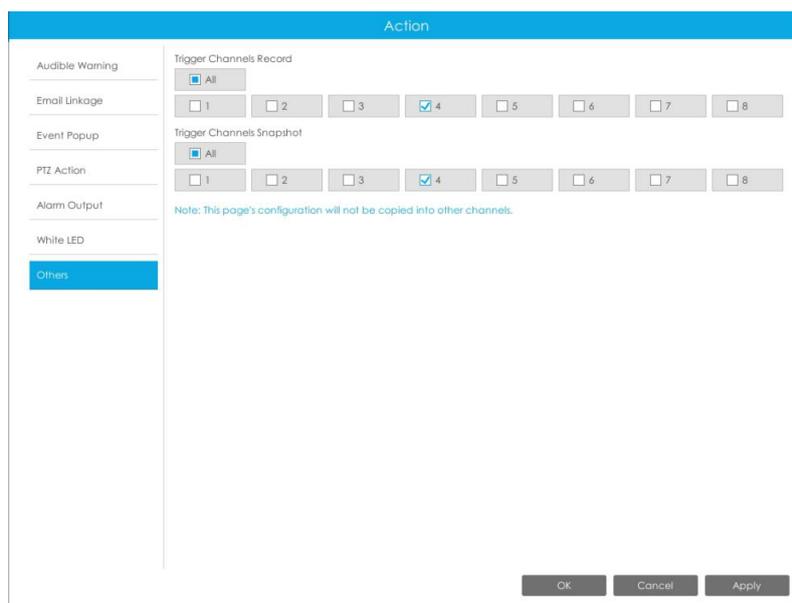


**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

**Others:** Trigger selected channels to record and snapshot when alarm is triggered.

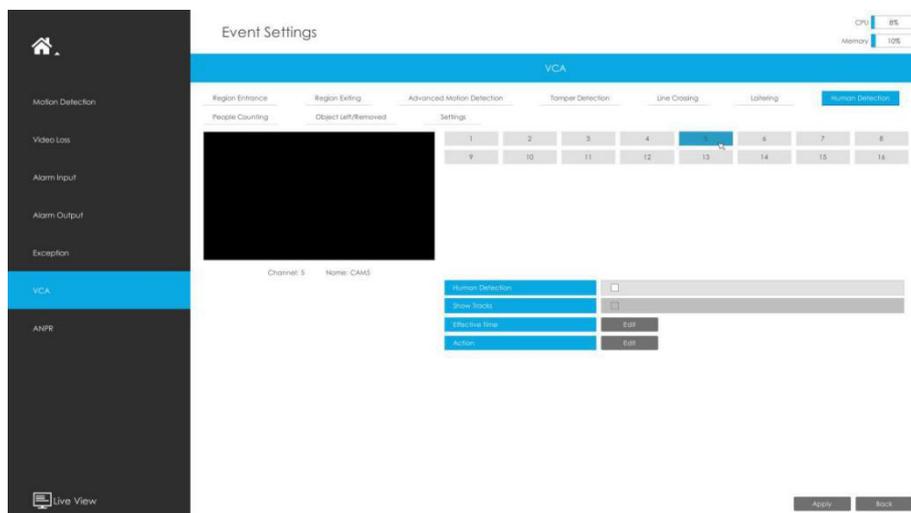


**Note:**

Make sure you have set correct schedule for record and snapshot before setting the Event Action.

## Human Detection

Human detection is used for figuring out whether an object is a human or not.



**Step 1. Select channel and enable Human Detection.**



**Step 2. Enable Show Tracks or not.**



**Step 3. Set Effective Time of human detection by clicking Edit.**

NVR receives the alarm when effective time has been set. It will be more convenient by clicking

**Select All** or **Clear All** to set or clear all time settings.



**Step 4. Set Action for human detection alarm by clicking Edit.**

**Audible Warning:** NVR will trigger an audible beep when region entrance is detected.

The user can set effective schedule as following two ways:

- ① Select the operation type: Audible or Erase. Then drag a square on the time table for time

setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

- ② Click **Edit** to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Email Linkage:** NVR will send an email to the address you set before.

The user can set effective schedule as following two ways:

- ① Select the operation type, Email and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

- ② Click **Edit** to edit effective time manually.

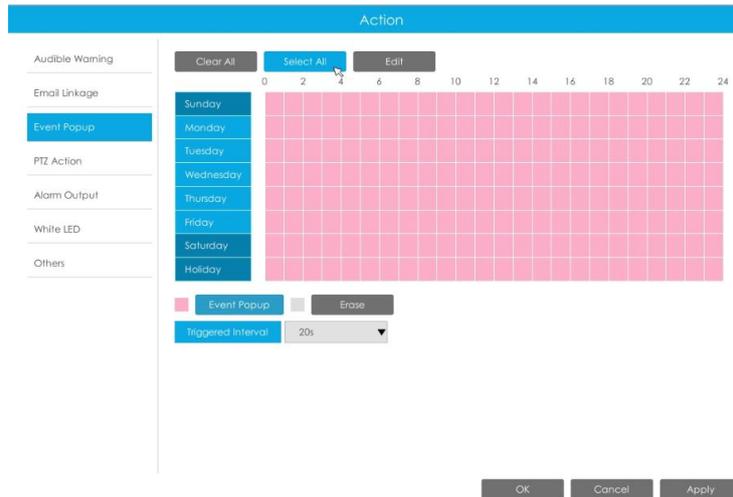
**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.

**Event Popup:** Trigger alarm screen popup to full screen when alarm is triggered. And you can set display duration time of all triggered channel in 'Settings'->'General'->'Event Popup Duration Time'. Then triggered channel will be shown one by one as duration time.

- ① Select the operation type, Event Popup and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.
- ② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

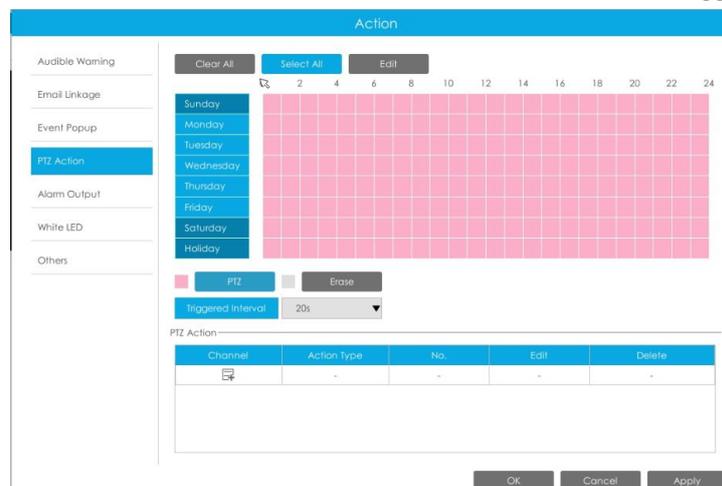


**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

User can set effective schedule as following two ways:

- ① Select the operation type: PTZ or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear to set or clear all time settings.
- ② Click **Edit** to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action by clicking .

**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2, etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.

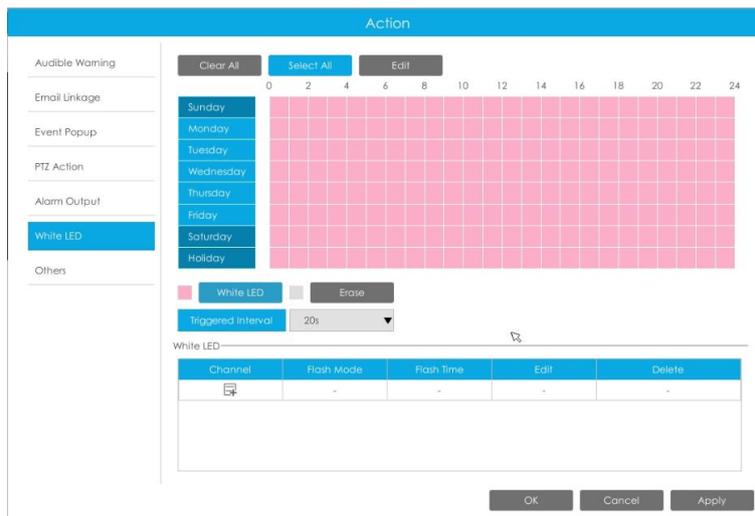
**White LED:** Trigger White LED flashing when alarm is triggered.

The user can set effective schedule as following two ways:

① Select the operation type, White LED and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED by clicking .

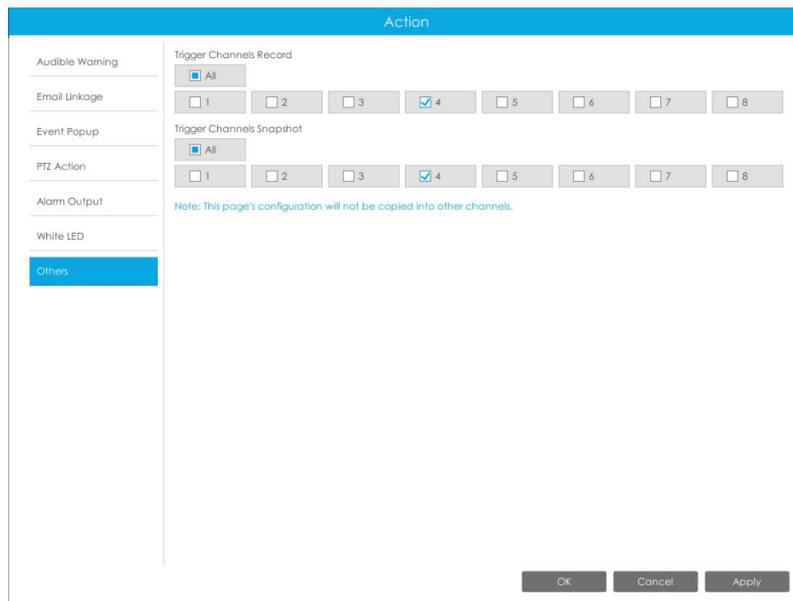


**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

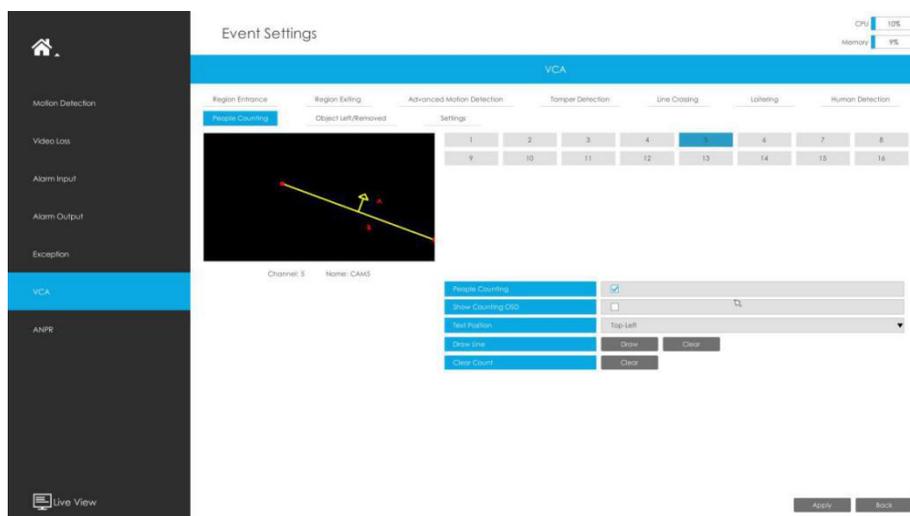
**Others:** Trigger selected channels to record and snapshot when alarm is triggered.

**Note:**

Make sure you have set correct schedule for record and snapshot before setting the Event Action.

**People Counting**

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

**Step 1. Select channel and enable People Counting.****Step 2. Set counting OSD.**

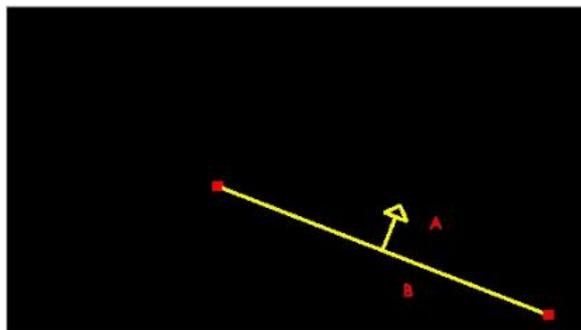
It shows the number of counted people, including in and out number.

Besides, you can clear count by clicking **Clear**.

|                   |  |
|-------------------|--|
| Show Counting OSD | <input checked="" type="checkbox"/>                                      |
| Text Position     | Top-Left   |
| Draw Line         | <input type="button" value="Draw"/> <input type="button" value="Clear"/> |
| Clear Count       | <input type="button" value="Clear"/>                                     |

**Note:**

- To enable people counting, human detection should be enabled first.
- Crossing along the direction of the arrow will record as “In”, opposite is “Out”.

**Step 3. Draw detection line.**

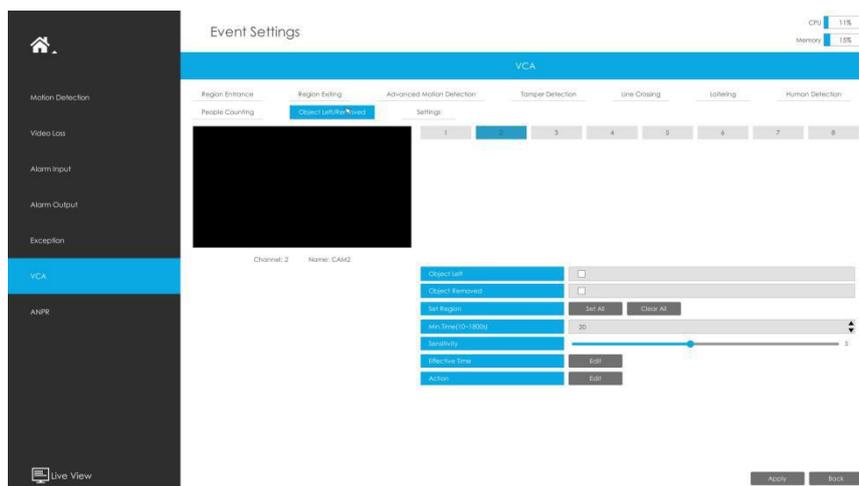
Channel: 1    Name: CAM1

**Object Left/Removed(Optional)**

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.

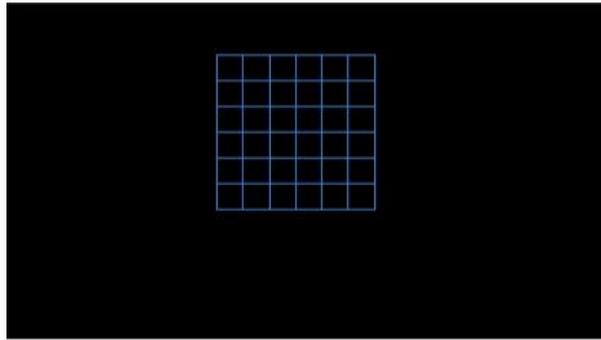
**Note:**

- Object Left/Removed is optional, if you need this function, please contact Milesight sales first.
- You need to upgrade the NVR to V7x.9.0.4-r2 or above to support this function.

**Step 1. Select channel and enable Object Left or Object Removed(Or you can enable both features at the same time).****Step 2. Set detection region.**

You can select an area by dragging the mouse to set the trigger area, and this area will be synchronized to camera. Also, you can set or clear all set region by directly clicking

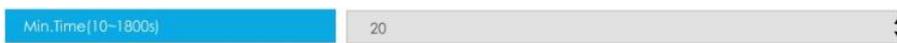
and .



Channel: 1 Name: CAM1

### Step 3. Set Min. Time.

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.



### Step 4. Set Sensitivity.

The sensitivity can be configured to detect various movements according to different requirements. When the level of sensitivity is low, slight movement won't trigger the alarm.



### Step 5. Set Effective Time of object left/removed by clicking Edit.

NVR receives the alarm when effective time has been set. It will be more convenient by clicking

Select All or Clear All to set or clear all time settings.



### Step 6. Set Action for object left/removed alarm by clicking Edit.

**Audible Warning:** NVR will trigger an audible beep when region entrance is detected.

The user can set effective schedule as following two ways:

- ① Select the operation type: Audible or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking Select All or Clear All to set or clear all

time settings.

- ② Click **Edit** to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

The screenshot shows the 'Action' configuration window. On the left, a sidebar lists action types: Audible Warning, Email Linkage, Event Popup, PTZ Action, Alarm Output, White LED, and Others. The 'Audible Warning' option is highlighted. The main area features a grid for scheduling, with columns representing hours from 0 to 24 and rows representing days of the week (Sunday to Holiday). Above the grid are buttons for 'Clear All', 'Select All', and 'Edit'. Below the grid are controls for 'Audible' (checked), 'Erase', and 'Triggered Interval' (set to 20s). At the bottom right, there are 'OK', 'Cancel', and 'Apply' buttons.

**Email Linkage:** NVR will send an email to the address you set before.

The user can set effective schedule as following two ways:

- ① Select the operation type, Email and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

- ② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.

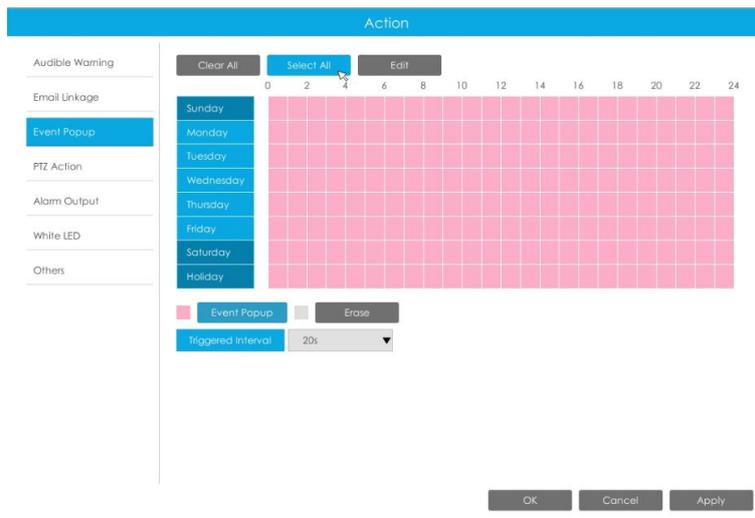
The screenshot shows the 'Action' configuration window with 'Email Linkage' selected in the sidebar. The main area features a grid for scheduling, with columns representing hours from 0 to 24 and rows representing days of the week (Sunday to Holiday). Above the grid are buttons for 'Clear All', 'Select All', and 'Edit'. Below the grid are controls for 'Email' (checked), 'Erase', 'Triggered Interval' (set to 20s), and 'Picture Attached' (set to Enable). At the bottom right, there are 'OK', 'Cancel', and 'Apply' buttons.

**Event Popup:** Trigger alarm screen popup to full screen when alarm is triggered. And you can set display duration time of all triggered channel in 'Settings'->'General'->'Event Popup Duration Time'. Then triggered channel will be shown one by one as duration time.

① Select the operation type, Event Popup and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



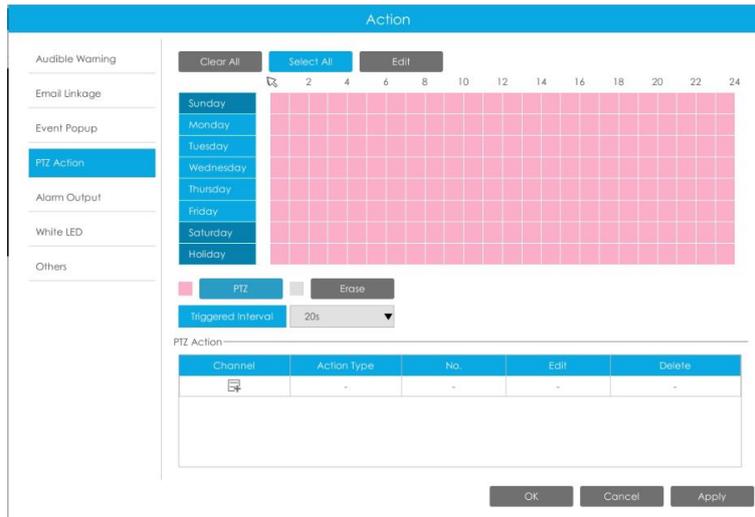
**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

User can set effective schedule as following two ways:

① Select the operation type: PTZ or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear to set or clear all time settings.

② Click **Edit** to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action by clicking .



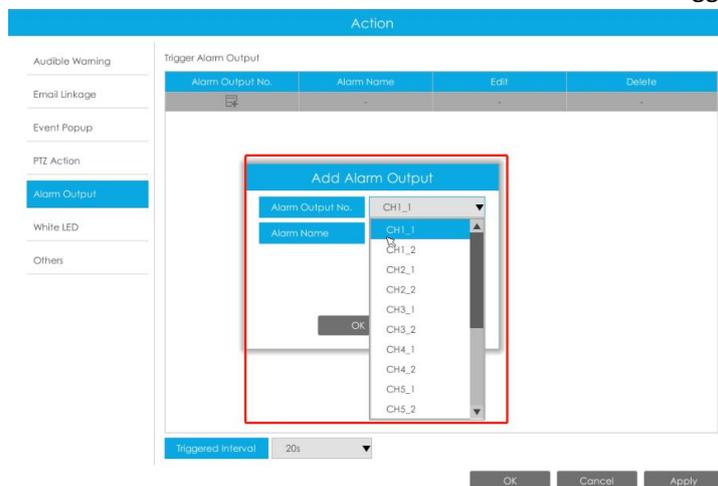
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



**White LED:** Trigger White LED flashing when alarm is triggered.

The user can set effective schedule as following two ways:

① Select the operation type, White LED and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

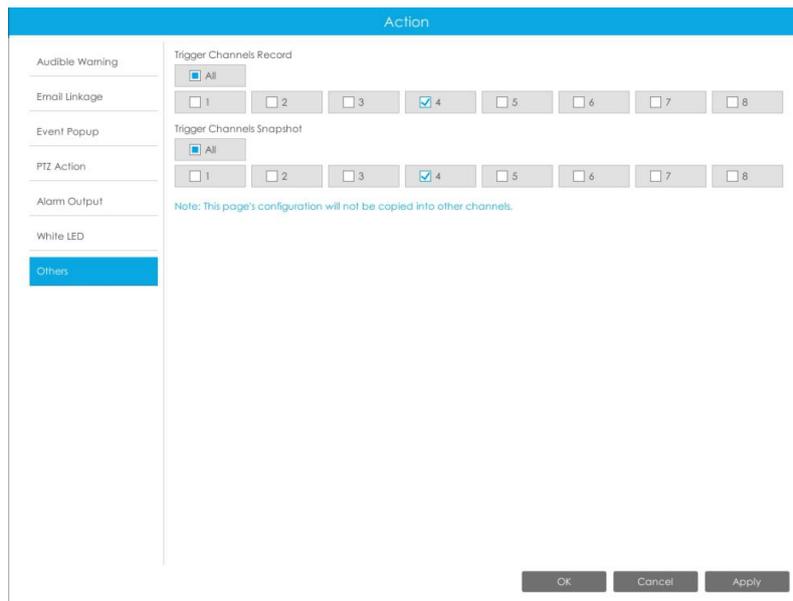
And you can add White LED by clicking .

**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

**Others:** Trigger selected channels to record and snapshot when alarm is triggered.

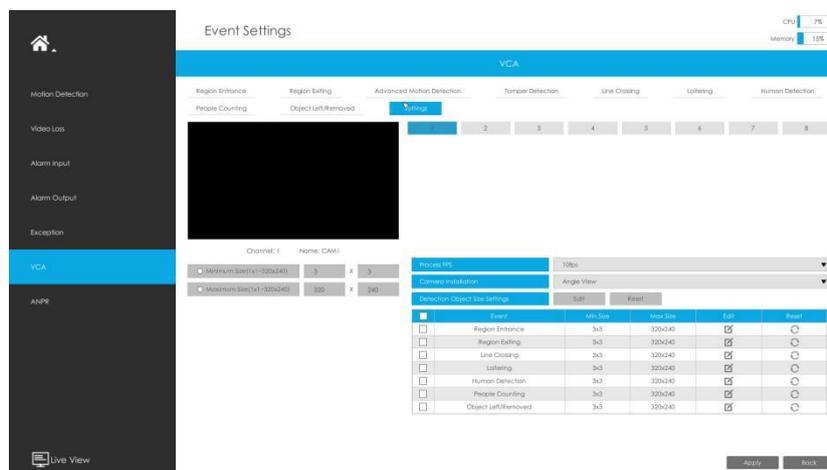


**Note:**

Make sure you have set correct schedule for record and snapshot before setting the Event Action.

**Settings**

Milesight VCA provides the primary setting for the whole VCA functions.



**Process FPS:** Five different periods are available(5, 10, 15, 20, 25 fps) for processing fps.

**Camera Installation:** Select camera installation view, including **Angle View, Horizontal View and Overhead View.**

**Detection Object Size Settings:** Edit the frame size you draw to trigger events. You can set Min. Size and Max. Size for different events separately.

**Minimum Size:** The Min. Size means that only if the object size is bigger than the frame, the settings for other VCA functions will take effect.

**Maximum Size:** The Max. Size means the opposite, the frame you draw on the screen stands for that only if the object size is smaller than the frame, the settings for other VCA functions will take effect.

**Note:**

Upgrade your device to corresponded firmware version.

Camera: V4X.7.0.74 or above.

NVR: V7X.9.0.9 or above.

### 3.8.7 ANPR

ANPR settings consist of Settings, List Management, Black List Mode, White List Mode and Visitor Mode. Here are some notes for using ANPR function.

**Note:**

1. Insert available HDD to NVR.
2. Upgrade your device to corresponded firmware version.  
Camera: V4X.7.0.72-r16 or above.  
NVR: V7X.9.0.7-r7 or above.  
Firmware download link: <http://www.milesight.com/support/download#firmware>
3. Ensure both camera and NVR support LPR/ANPR function. Up to 16 ANPR channels are supported for Milesight NVR.
4. Ensure that NVR can get license plate information. Please set TCP which is the default mode as Post Type. It can be set in Camera web page -> Advanced Settings -> ANPR -> Settings interface.

**LPR Message Post Settings**

Enable LPR Message Post:

Post Type: TCP

Camera LPR Port:

**Settings**

Do as following 5 steps to enable ANPR function. Camera will start to detect license plate and NVR will start to receive license plate information once these steps are done.

**Step1:** Select a channel and enable ANPR function;

**License:** Generated by camera's information

**License Status:** Show present license status, including Valid, Invalid, Expired, Inactivated

**Step2:** Select processing resolution. The further distance you detect, the higher resolution is needed. 1280\*720 by default;

**Step3:** Enable LPR Night Mode, then you can set Start Time, End Time and Level.

**Step4:** Set ANPR function effective time;

**Step5:** Set detection parameters including Detection Trigger, License Plate Format, Repeat Plate Checktime and Features Identification;

**Detection Trigger:** Always and Alarm Input are available. It will only detect information when alarm input is triggered if you select Alarm Input.

**Repeat Plate Checktime:** The same license plate information won't be received on NVR within the time you set.

**License Plate Format:** Set corresponding License Plate Format to screen out license plates conforming to the count and format you set to improve recognition accuracy.

| ID | License Plate Character Count | License Plate Format | Enable                              | Edit | Delete |
|----|-------------------------------|----------------------|-------------------------------------|------|--------|
| 0  | All                           | *                    | <input checked="" type="checkbox"/> | -    | -      |
|    | -                             | -                    | -                                   | -    | -      |

Format Example: AA1111\*

A- Letters Only  
1- Numbers Only  
\*- Unrestricted Type

① Click to add a License Plate Format.



License Plate Format Add

License Plate Character Count: 1

License Plate Format: \*

OK Cancel

- ② Select License Plate Character Count, which is 1-9.
- ③ Fill in License Plate Format you want to detect. A stands for Letters, 1 stands for numbers and \* stands for unrestricted type.

**Push Correct Character Count Results Only:**

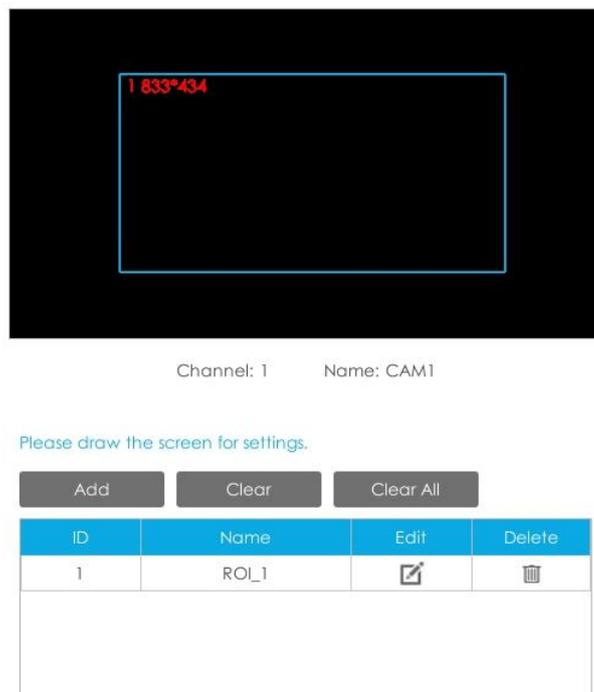
If the count of the detected license doesn't match your configuration, it will push correct character count results by completing or reducing characters automatically.

**Note:**

1. Make sure your IPC Version is 4X.7.0.74 or above.
2. You can add 8 rules at most.

**Features Identification:** The selected features identification will be shown in ANPR logs interface.

**Step6:** Set the detected ROI region which can be up to 4 regions. License plate will only be detected in the ROI regions.



Channel: 1 Name: CAM1

Please draw the screen for settings.

Add Clear Clear All

| ID | Name  | Edit | Delete |
|----|-------|------|--------|
| 1  | ROI_1 |      |        |

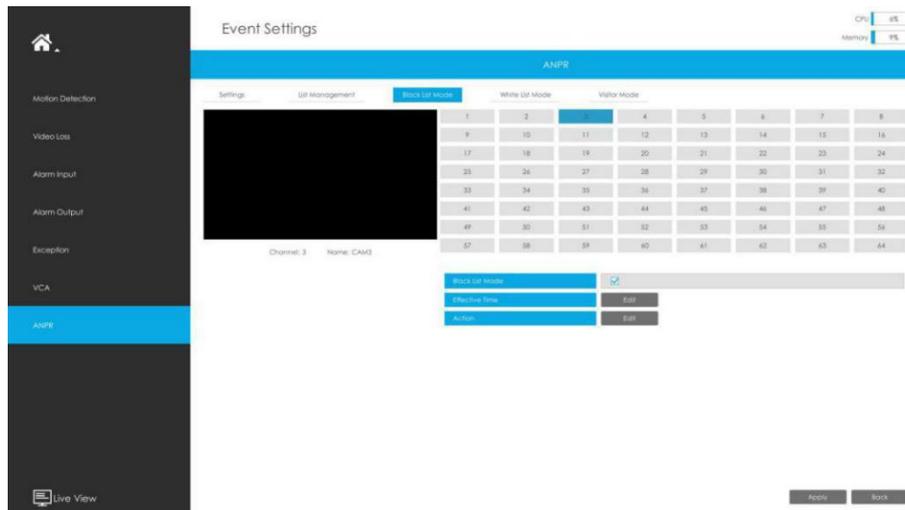
**List Management**

Make a license plate list for your own NVR ANPR system. You can upload license plates and set them with different license type here. 10000 plates can be added at most.



**White List Mode:** Manage event for license plates in white list

**Visitor Mode:** Manage event for those license plates do not have license type.



**Step1:** Enable Black List Mode/White List Mode/Visitor Mode as your demand;

**Step2:** Set effective time which means Mode works during that;

**Step3:** Set action including Audible Warning, Email Linkage, Event Popup, PTZ Action, Alarm Output, White LED and Trigger Channels Record.

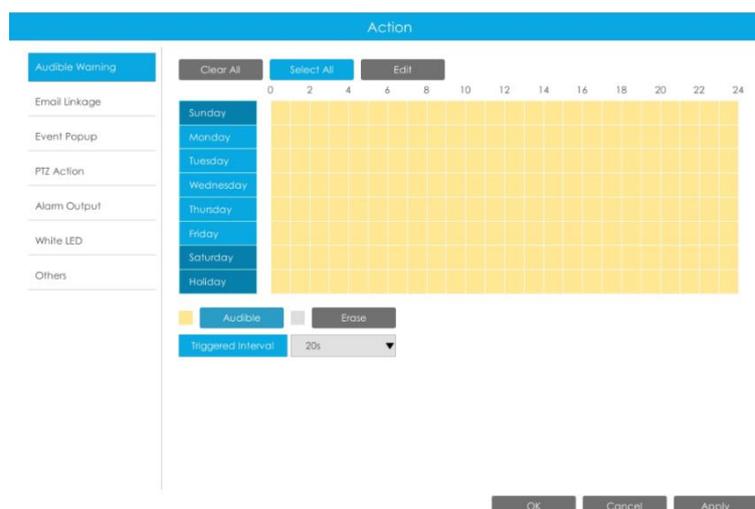
**Audible Warning:** NVR will trigger an audible beep when region entrance is detected.

The user can set effective schedule as following two ways:

① Select the operation type: Audible or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

The user can set effective schedule as following two ways:

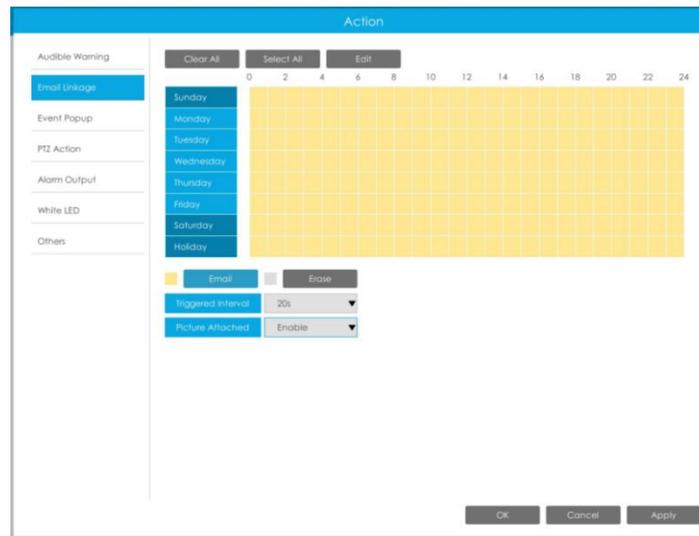
① Select the operation type, Email and Erase. Then drag a square on the time table for time

setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.

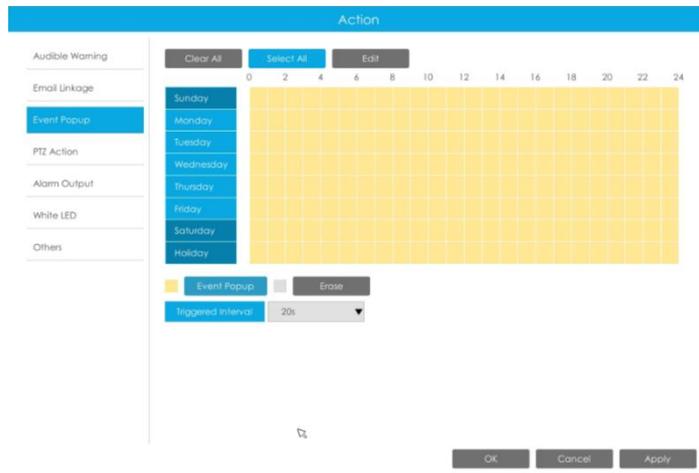


**Event Popup:** Trigger alarm screen popup to full screen when alarm is triggered. And you can set display duration time of all triggered channel in 'Settings'->'General'->'Event Popup Duration Time'. Then triggered channel will be shown one by one as duration time.

① Select the operation type, Event Popup and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

User can set effective schedule as following two ways:

① Select the operation type: PTZ or Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear to set or clear all time settings.

② Click **Edit** to edit record effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.

And you can add PTZ Action by clicking .

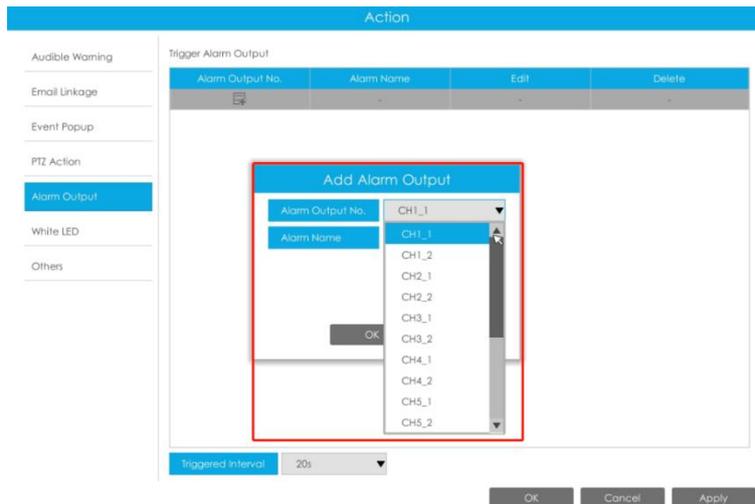
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



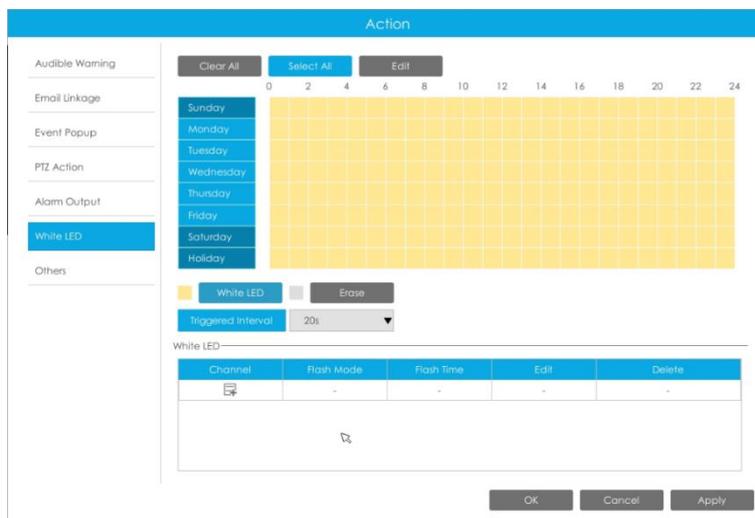
**White LED:** Trigger White LED flashing when alarm is triggered.

The user can set effective schedule as following two ways:

① Select the operation type, White LED and Erase. Then drag a square on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings.

② Click **Edit** to edit effective time manually.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED by clicking .

**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

**Others:** Trigger selected channels to record when alarm is triggered.

**Note:**

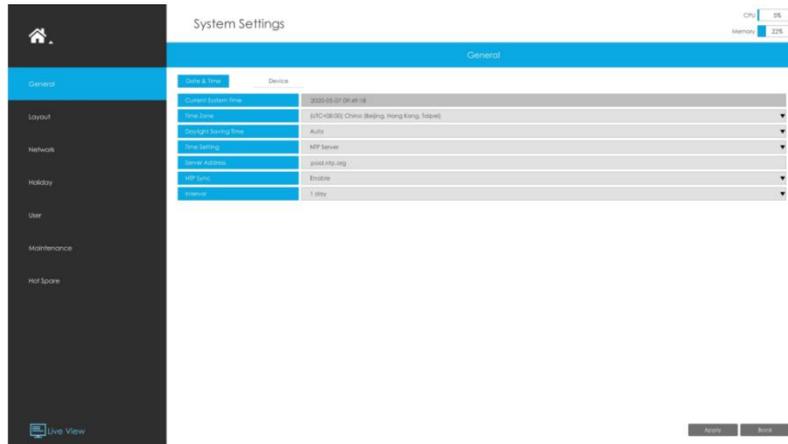
1. The list is exclusive for NVR, working with all LPR cameras you add. It won't synchronize with the list on camera side.
2. Do not forget to enable these modes, set effective time and record action for corresponded mode, ensuring that you can get real-time video when license plate is detected (Effective time and record action is enabled by default.).

## 3.9 Settings

### 3.9.1 General

#### Date & Time

It is for setting up the Time parameters of NVR, including Time Zone, Daylight Saving Time, Time Setting, Server Address, NTP Sync, Interval, etc.



**Server Address:** Support to Enter the address of NTP Server manually.

**NTP Sync:** Set the time of NVR to synchronize with the NTP server.

**Interval:** The interval for synchronizing with NTP server can be set.

**Device**

It is for setting up the general parameters of NVR, including Device Name, Device ID, HDMI Resolution, Language, System time, HDMI2/VGA2, HDMI Audio, Audio Out, etc.

**Event PopUp Duration Time:** The display duration time for Motion Detection popup screen.

**Mouse Pointer Speed Level:** Adjust the speed of mouse on monitor. From 1 to 5, there are 5 levels to choose.

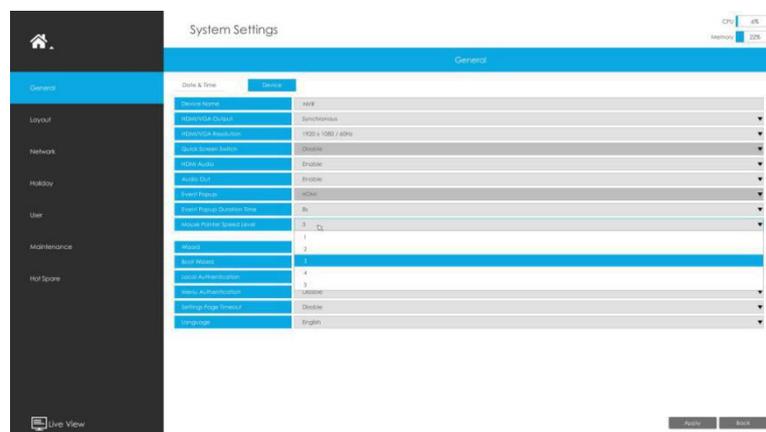
| Level | Adjusted speed              |
|-------|-----------------------------|
| 1     | 0.5 times the current speed |
| 2     | 0.7 times the current speed |
| 3     | the current speed           |
| 4     | 1.5 times the current speed |
| 5     | 2 times the current speed   |

**Boot Wizard:** Enable it to pop up boot wizard after rebooting.

**Local Authentication:** Enable it to authenticate the user after rebooting.

**Menu Authentication:** Enable it to authenticate the user every time when you click menu.

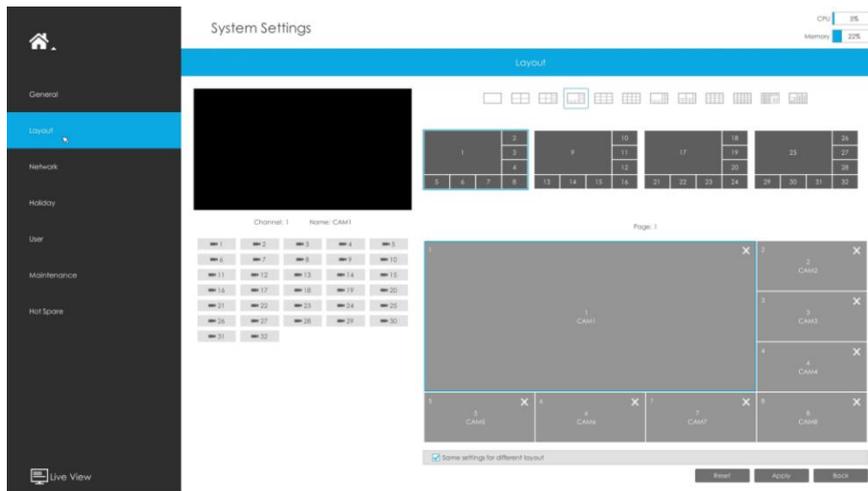
**Settings Page Timeout:** The interface will switch to Live View automatically according to the time you set.



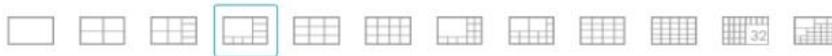
**Note:**

Not all NVR supports all the configurations above. For example, only NVR 8000 Series supports HDMI2/VGA2, Event Popup options and switching between the main-screen and sub-screen , which can be controlled by double-click the mouse wheel after enabling Quick Screen Switch function.

### 3.9.2 Layout



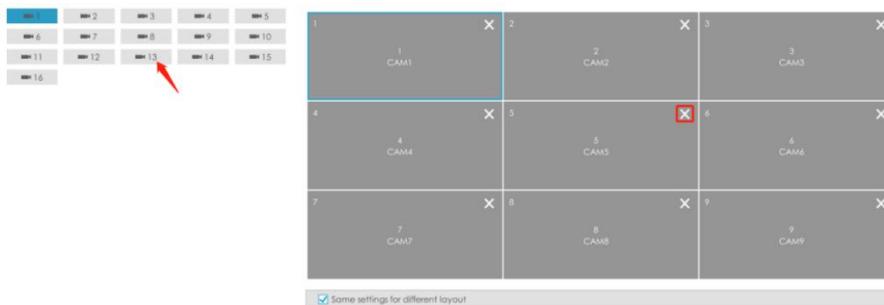
**Step1. Select a layout format.**



**Step2. Set desired channels.**

Click to close a channel. Select a window and then select a desired channel to add in.

Click to save the settings or click to reset the layout.



## 3.9.3 Network

### 3.9.3.1 Basic

The system supports two IP address format: IPv4 and IPv6

#### IPv4

Enable IPv4 DHCP to auto search IP. When enable DHCP function, you can not modify IP/ Subnet mask/ Gateway.

Disable IPv4 DHCP to modify IP/ Subnet mask/ Gateway manually.

#### IPv6

Manual/ Router Advertisement/ DHCPv6 are available.

#### DNS Server

Preferred DNS Server: DNS server IP address.

Alternate DNS Server: DNS server alternate address.

| Network              |                   |      |       |                    |        |      |      |
|----------------------|-------------------|------|-------|--------------------|--------|------|------|
| Basic                | UPnP              | DDNS | Email | P2P                | PPPoE  | SNMP | More |
| LAN                  |                   |      |       |                    |        |      |      |
| IPv4 DHCP            | Disable           |      |       | IPv6 Mode          | Manual |      |      |
| IPv4 Address         | 192.168.7.111     |      |       | IPv6 Address       |        |      |      |
| IPv4 Subnet Mask     | 255.255.240.0     |      |       | IPv6 Prefix Length |        |      |      |
| IPv4 Gateway         | 192.168.7.1       |      |       | IPv6 Gateway       |        |      |      |
| Preferred DNS Server | 192.168.5.1       |      |       |                    |        |      |      |
| Alternate DNS Server | ...               |      |       |                    |        |      |      |
| MTU(Bytes)           | 1500              |      |       |                    |        |      |      |
| MAC                  | TC:03:14:0A:30:92 |      |       |                    |        |      |      |
| PoE NIC IPv4 Address | 192.168.20.1      |      |       |                    |        |      |      |

#### Note:

1. Check the DHCP check-box when there is a DHCP server running in the networks.
2. Once DHCP is enabled, DNS will change accordingly.
3. The valid range of MTU is 500~1500.
4. Do not input an IP address conflicting with another device.
5. Working mode option is only for NVR 7000/8000 Series. Internal NIC IPv4 Address is only for PoE NVR Series.

### 3.9.3.2 UPnP

With the function enabled, you don't need to configure the port mapping for each port in router, it will do the port mapping in router automatically once **router supports UPnP**.

| Network         |                                     |               |               |         |       |      |      |
|-----------------|-------------------------------------|---------------|---------------|---------|-------|------|------|
| Basic           | UPnP                                | DDNS          | Email         | P2P     | PPPoE | SNMP | More |
| UPnP            | Disable                             |               |               |         |       |      |      |
| Forwarding Type | Auto                                |               |               |         |       |      |      |
| Port Type       | SNP                                 | External Port | Internal Port | Status  |       |      |      |
| HTTP            | <input checked="" type="checkbox"/> | 21202         | 80            | Invalid |       |      |      |
| RTSP            | <input checked="" type="checkbox"/> | 22202         | 554           | Invalid |       |      |      |

### 3.9.3.3 DDNS

Using DDNS to solve the dynamic IP address problem.

Check DDNS check-box to enable it, then select a DDNS Server and input the user name, password and host name. Do not forget to save the configuration.

Milesight has its own DDNS server. Please do port forwarding for HTTP port and RTSP port before enabling **Milesight DDNS**. Then input corresponding information and you can use <http://ddns.milesight.com:MAC> to access device remotely.

**Note:**

“Host Name” must begin with letters, and it can only contain number, letters, and hyphen.

The screenshot shows the 'Network' configuration page with the 'DDNS' tab selected. The settings are as follows:

| Basic              | UPnP | DDNS                             | Email | P2P | PPPoE | SNMP | More |
|--------------------|------|----------------------------------|-------|-----|-------|------|------|
| DDNS               |      | Disable                          |       |     |       |      |      |
| Provider           |      | ddns.milesight.com               |       |     |       |      |      |
| External HTTP Port |      | 80                               |       |     |       |      |      |
| External P2P Port  |      | 334                              |       |     |       |      |      |
| DDNS URL           |      | http://ddns.milesight.com/SA30F2 |       |     |       |      |      |

### 3.9.3.4 Email

A screenshot will be sent to the receivers when alarm is triggered.

The screenshot shows the 'Network' configuration page with the 'Email' tab selected. The settings are as follows:

| Basic                    | UPnP | DDNS | Email  | P2P | PPPoE | SNMP | More |
|--------------------------|------|------|--|-----|-------|------|------|
| User Name                |      |      | ew@ddns.milesight.cn   |     |       |      |      |
| Password                 |      |      | *****  |     |       |      |      |
| SMTP Server              |      |      | smtp.milesight.com   |     |       |      |      |
| SMTP Port                |      |      | 465  |     |       |      |      |
| Sender Email Address     |      |      | ew@ddns.milesight.cn   |     |       |      |      |
| Receiver Email Address 1 |      |      | wen1104@126.com  |     |       |      |      |
| Receiver Email Address 2 |      |      |  |     |       |      |      |
| Receiver Email Address 3 |      |      |  |     |       |      |      |
| Encryption               |      |      | <input type="radio"/> TLS <input checked="" type="radio"/> SSL |     |       |      |      |
| Host Name                |      |      | http://  |     |       |      |      |

**User name:** The E-mail address you choose to send emails. Please input **full email address**.

**Password:** The password of the E-mail.

**SMTP Server:** The SMTP Server of your E-mail.

**SMTP Port:** The port of SMTP Server. It's usually 25.

**Sender Email Address:** It must be same as [User name].

**Receiver Email Address:** E-mail Address for the receivers.

**Encryption:** Security Protocol of email sending, including TLS and SSL.

**Host Name:** It will be attached in the email.

Select  to check if the Mail function is workable.



**Note:**

If your NVR has a port forwarding IP for Host Name, please input the complete address that contains the port.

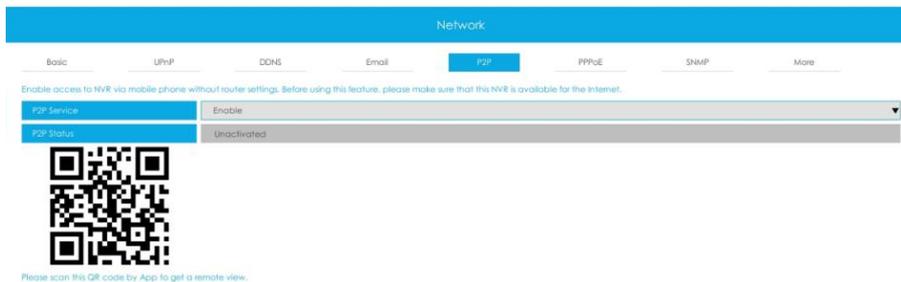
### 3.9.3.5 P2P

You can watch remote NVR live view in WAN by P2P on M-Sight Pro without doing port forwarding on router.

Click “Enable” and “Save” to enable P2P.

**P2P is enabled successfully when P2P Status shows “Activated”.**

After enabling, you can add the NVR on the APP M-Sight Pro for live view via scanning the QR code on the “P2P” page directly, or inputting the MAC address manually.



There are several status shows on P2P Status after clicking Saving, please check corresponded possibilities below:

| P2P Status                    | Description                                      |
|-------------------------------|--|
| Network unavailable           | Failed to connect with internet                  |
| Authentication request failed | Failed to authenticate P2P encryption            |
| No idle UUID                  | Please contact Milesight if this status shows up |
| Activated                     | P2P is available                                 |
| Login failed                  | Failed to login P2P server                       |
| Initialization failed         | Failed to initialize P2P                         |
| Unactivated                   | P2P is disabled                                  |
| Unknown error                 | Other error                                      |

**Note:**

1. Please make sure that NVR is available for internet before enabling.
2. If your NVR firmware version is not 7x.7.0.9-r2 or above, please contact Milesight to registered P2P first.

### 3.9.3.6 PPPoE

PPPoE combines PPP protocol with Ethernet, by which Ethernet hosts can connect to a remote access concentrator via a simple bridging device.

The screenshot shows the 'Network' configuration page with the 'PPPoE' tab selected. The settings are as follows:

| Basic            | UPnP | DDNS    | Email | P2P | PPPoE | SNMP | More |
|------------------|------|---------|-------|-----|-------|------|------|
| LAN1 PPPoE       |      | Disable |       |     |       |      |      |
| Dynamic IP       |      | 0.0.0.0 |       |     |       |      |      |
| UserName         |      |         |       |     |       |      |      |
| Password         |      |         |       |     |       |      |      |
| Confirm Password |      |         |       |     |       |      |      |

Note: If both UPnP and PPPoE are enabled, only PPPoE will take effect.

**Note:**

If both UPnP and PPPoE are enabled, only PPPoE will take effect.

### 3.9.3.7 SNMP

SNMP is an abbreviation of Simple Network Management Protocol, which is convenient for NVR to be monitored and managed in the whole network environment. The SNMP is widely used in many network devices, software and systems.

Before setting the SNMP, please download the SNMP software and manage to receive the NVR information via SNMP port. By setting the Trap Address, the NVR can send the alarm event and exception messages to the surveillance center.

The screenshot shows the 'Network' configuration page with the 'SNMP' tab selected. The settings are as follows:

| Basic               | UPnP | DDNS             | Email | P2P | PPPoE | SNMP | More |
|---------------------|------|------------------|-------|-----|-------|------|------|
| SNMP v1             |      | Disable          |       |     |       |      |      |
| SNMP v2c            |      | Disable          |       |     |       |      |      |
| Read Community      |      | public           |       |     |       |      |      |
| Write Community     |      | private          |       |     |       |      |      |
| SNMP v3             |      | Disable          |       |     |       |      |      |
| Read Security Name  |      |                  |       |     |       |      |      |
| Level of Security   |      | no auth, no priv |       |     |       |      |      |
| Write Security Name |      |                  |       |     |       |      |      |
| Level of Security   |      | no auth, no priv |       |     |       |      |      |
| SNMP Port           |      | 161              |       |     |       |      |      |

**SNMP v1/2c/3:** The version of SNMP. Please select the version of your SNMP software.

SNMP v1: No security protection

SNMP v2c: Require password for access

SNMP v3: Support encryption on the premise that the HTTPS protocol must be enabled.

**Read Community:** Input the name of Read Community

**Write Community:** Input the name of Write Community

**Read Security Name:** Input the name of Read Security Community

**Level of Security:** There are three levels available: (auth, priv), (auth, no priv) and (no auth, no priv)

**Write Security Name:** Input the name of Write Security Community

**Level of Security:** There are three levels available: (auth, priv), (auth, no priv) and (no auth, no priv)

**SNMP Port:** The default of the SNMP port is 161.

### 3.9.3.8 More

| Network               |      |        |       |       |      |      |
|-----------------------|------|--------|-------|-------|------|------|
| Basic                 | UPnP | DDNS   | Email | PPPoE | SNMP | More |
| SSH                   |      | Enable |       |       |      |      |
| SSH Port              |      | 22     |       |       |      |      |
| HTTP Port             |      | 80     |       |       |      |      |
| HTTPS Port            |      | 443    |       |       |      |      |
| RTSP Port             |      | 554    |       |       |      |      |
| Push Message          |      | Enable |       |       |      |      |
| Push Stream Type      |      | Auto   |       |       |      |      |
| Push Message Settings |      | Edit   |       |       |      |      |

#### SSH

Enable or disable SSH access. Secure Shell (SSH) has many functions; it can replace Telnet, and also provides a secure channel for FTP, POP, even for PPP.

#### SSH Port

The default SSH port is 22. Only for Milesight R&D debugging.

#### HTTP Port

The default HTTP port is 80. Please modify HTTP ports according to actual application.

#### Note:

1. The default HTTP port for IE browser is 80.
2. HTTP port is used for remote network access for 4k/H.265 NVR Series.

#### HTTPS Port

The default HTTPS port is 443. Please modify HTTPS ports according to actual application.

#### Note:

1. The default HTTPS port for IE browser is 443.
2. HTTPS port is used for remote network access for 4k/H.265 NVR Series.

#### RTSP Port

Real Time Streaming Protocol (RTSP) is an application layer protocol in TCP/IP protocol system.

The default RTSP port is 554. Please modify RTSP port according to actual application.

#### Note:

1. RTSP port is used for remote network live view.
2. RTSP port valid range is 554 or 1024~65535.
3. The RTSP format of Milesight NVR is "rtsp://IP:RTSP port/ch\_xxx".
  - ① IP: The IP address of NVR;
  - ② RTSP port: The default RTSP port is 554;
  - ③ ch\_xxx: The first number of xxx represents stream type, 1 for main stream and 4 for sub stream. The last two represents channel number, which start from '00' ('00' means channel 1). Take 'rtsp://192.168.8.179:554/ch\_402' as an example:

The IP address of NVR is 192.168.8.179.

The RTSP port is 554.

The stream type is sub stream and the channel number is 3.

#### Push Message

With this option enabled, you can receive the alarm message on the mobile application.

#### Push Stream Type

Select which video stream will be pushed to APP M-Sight Pro. Auto, Primary Stream and

Secondary Stream are available.

**Note:**

Only NVR model ends with letter T support this option.

**Push Message Settings**

① **Camera Event**

The screenshot shows the 'Push Message Settings' window with the 'Camera Event' tab selected. The 'Channel' dropdown is set to '1'. Under 'Push Event Type', the following options are checked: All, Motion Detection, Region Entrance, Advanced Motion Detection, Line Crossing, Human Detection, Alarm Input, Video Loss, Region Exiting, Tamper Detection, Loitering, and Object Left/Removed. The 'Alarm Input' section has checkboxes for '1' and '2' checked. At the bottom, there are buttons for 'Copy', 'OK', 'Cancel', and 'Apply'.

Select Push Event Type which will be pushed to APP M-sight Pro. There are different Push Event Types for every channel to choose, which means every camera added in this NVR can choose what Event Type it wants to push, like Motion Detection, Video Loss, Region Entrance, Region Exiting, Advanced Motion Detection, Tamper Detection, Line Crossing, Loitering Human Detection, Object Left/Removed and Alarm Input.

② **NVR Event**

The screenshot shows the 'Push Message Settings' window with the 'NVR Event' tab selected. The 'Alarm Input' section has a 'All' checkbox checked and four individual checkboxes for '1', '2', '3', and '4', all of which are checked. At the bottom, there are buttons for 'OK', 'Cancel', and 'Apply'.

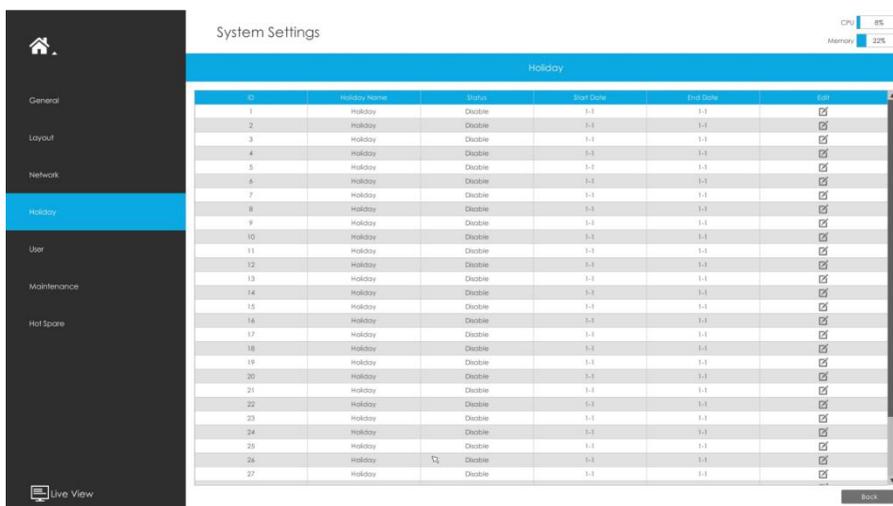
Select channels which you want to push the Alarm Input Event of NVR.

**Note:**

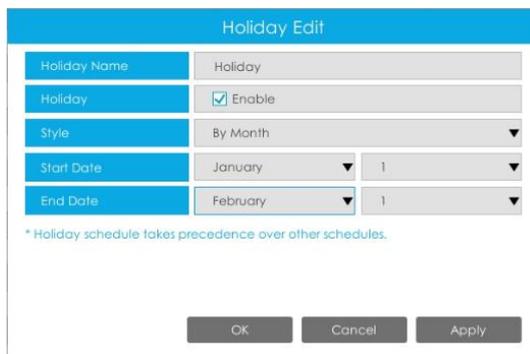
There would not have NVR Event interface if your NVR doesn't have alarm input interface.

### 3.9.4 Holiday

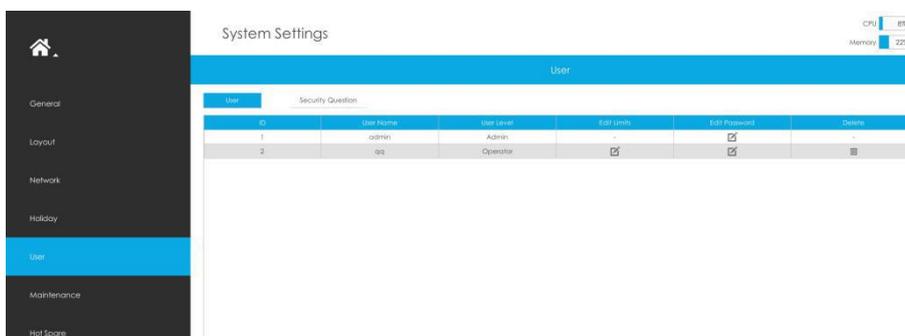
It can configure the record or image capture schedule for holidays of the current year.



Click to edit holiday information, including Holiday Name, Holiday Enable, Style, Start Date and End Date. Then click to save the configuration.



### 3.9.5 User



**Note:**

1. If the NVR firmware version is below xx.7.0.6, the default user name is “admin” and the

default password is “123456”.

- If the NVR firmware version is between xx.7.0.6 and xx.9.0.3, the default user name is “admin” and the default password is “ms1234”.
- If the NVR firmware version is xx.9.0.3 or above, please set the password before login.

### Add a new user

Click **Add**, then input user information and click **OK** to add a new user.

### Note:

The user name can only contain letters and number. There are two user levels with different authority: Operator and Viewer.

### Edit user limits

Select a user, when the background color changes into dark gray, click  to edit user privileges.

- Local Privilege means that the privilege to the monitor connected with NVR.
- Remote Privilege means that the privilege to web settings.

### Edit user password

Select a user, when the background color changes into dark gray, click  to modify password.

Sync new password to current connected PoE channels is available for PoE NVR Series.



The 'Edit Password' dialog box contains the following fields and controls:

- Admin Password: masked with 8 dots
- User Name: qq
- User Level: Operator (dropdown menu)
- New Password: masked with 8 dots
- Confirm: masked with 8 dots
- Buttons: OK and Cancel

### Delete user

Select a user and click  to delete a user.

### Modify Security Question

Input Admin Password, select security question and answer. Click  to save.



The 'User Security Question' form includes the following fields:

- Admin Password: masked with 8 dots
- Security Question 1: What's your favorite sport? (dropdown)
- Security Answer 1: (text input)
- Security Question 2: What's your lucky number? (dropdown)
- Security Answer 2: (text input)
- Security Question 3: What's your favorite color? (dropdown)
- Security Answer 3: (text input)

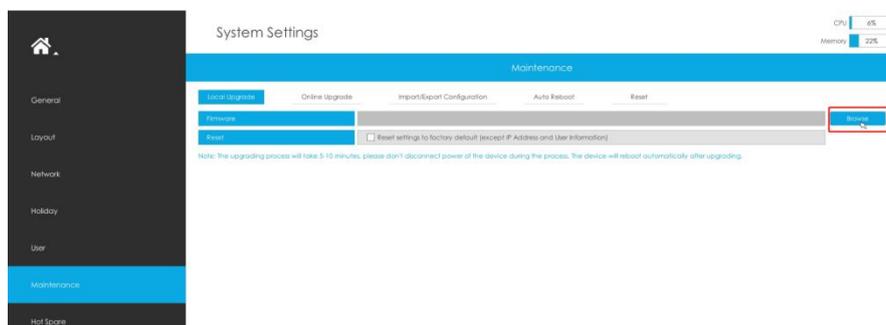
### Note:

1. This option is available for the NVR firmware version xx.9.0.3 or above.
2. Security question is used for resetting admin password if you forget current one.

## 3.9.6 Maintenance

### Local Upgrade

**Step1.** Click  and select the corresponding firmware you downloaded in your USB;



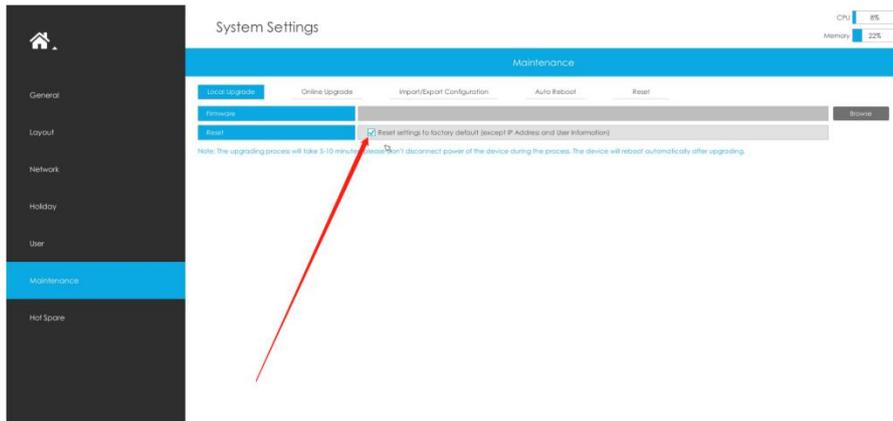
The 'System Settings' page shows the 'Maintenance' section with the following options:

- Local Upgrade (selected)
- Online Upgrade
- Import/Export Configuration
- Auto Reboot
- Reset

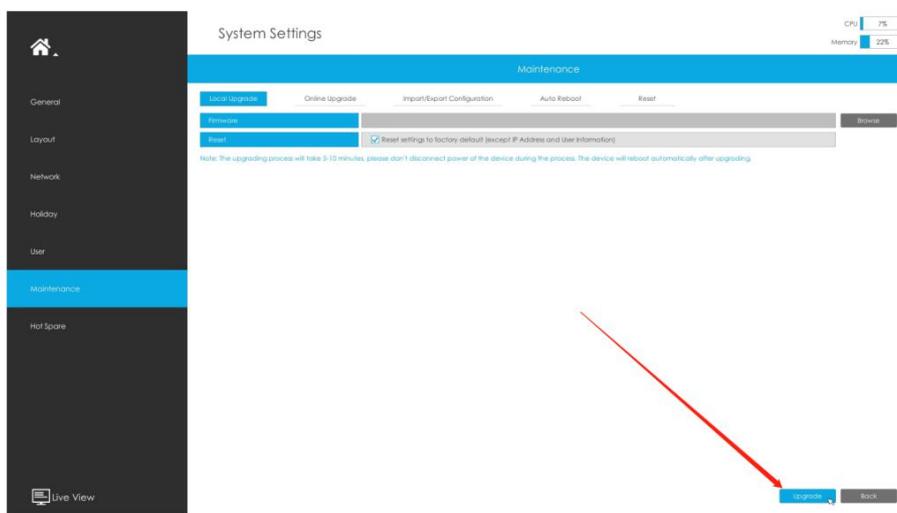
Below these options, there are checkboxes for 'Firmware' and 'Reset' (with a sub-option: 'Reset settings to factory default (except IP Address and User Information)'). A red box highlights the 'Browse' button next to the 'Firmware' checkbox.

Note: The upgrading process will take 5-10 minutes, please don't disconnect power of the device during the process. The device will reboot automatically after upgrading.

**Step2.** Check if you need to reset settings to factory default (except IP Address and User Information) after upgrade;



**Step3.** Click **Upgrade** to confirm the upgrade.

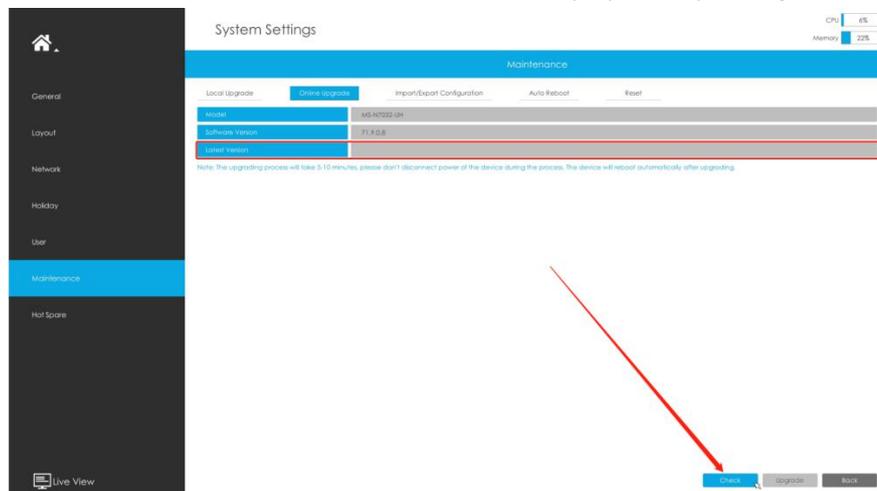


**Note:**  
The system will auto reboot after confirming upgrade.

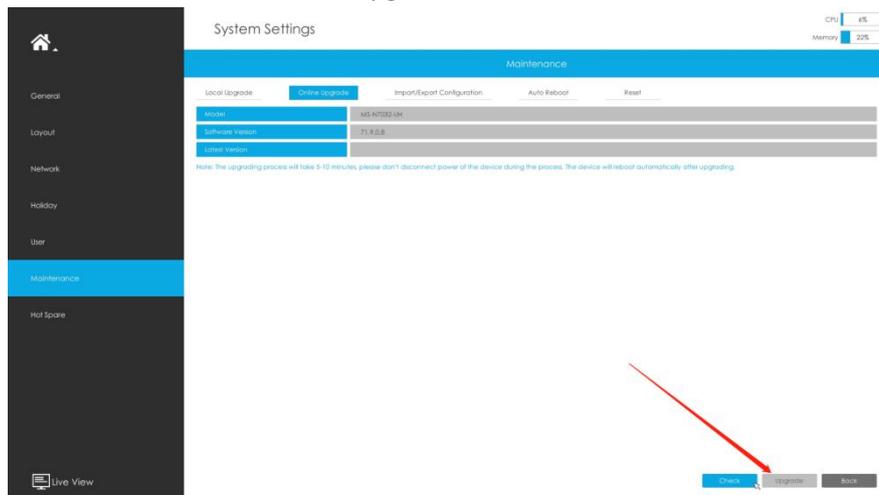
### Online Upgrade

**Step1.** Click **Check** to confirm whether there is a new version;

If there is a new version, the Latest Version column will display corresponding information.



**Step2.** Click **Upgrade** to confirm the upgrade.



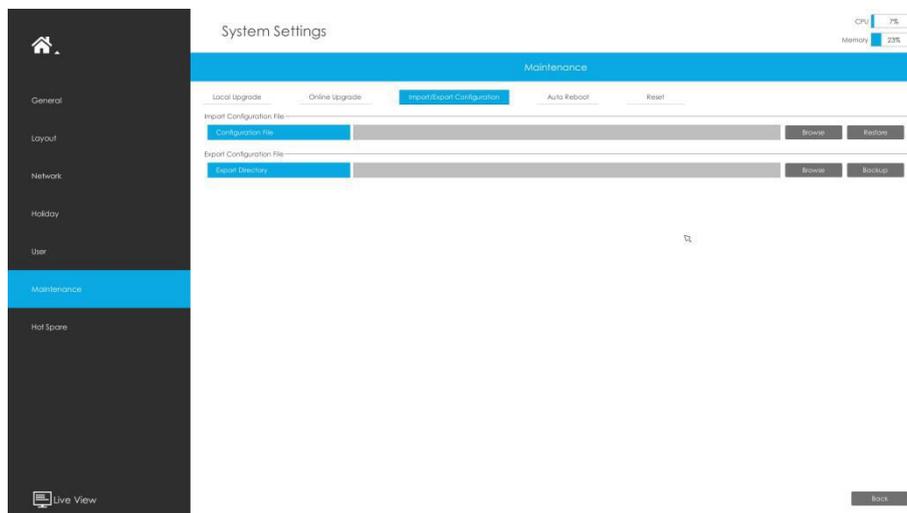
**Note:**

The system will auto reboot after confirming upgrade.

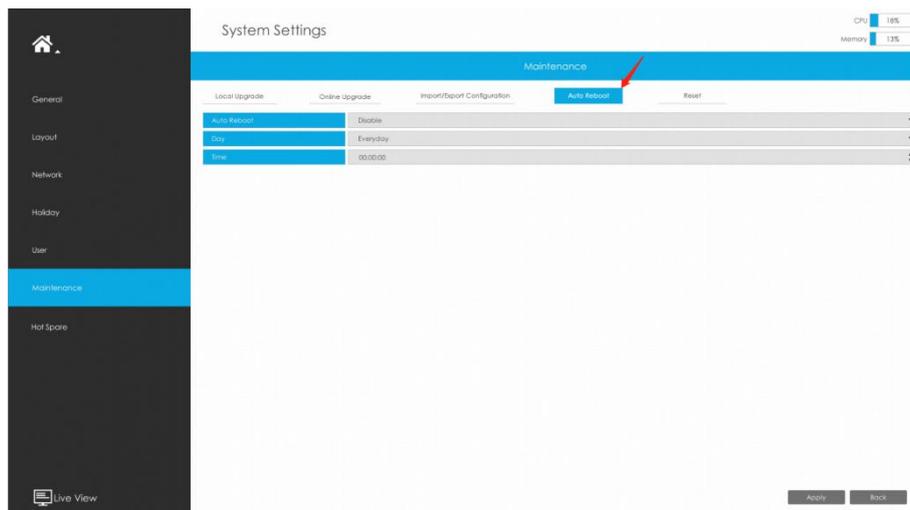
**Import/Export Configuration**

**Import Configuration File:** Select a .cfg file and then click **Restore** to import configuration to your NVR.

**Export Configuration File:** Select a folder and then click **Backup** to export configuration to USB device.



**Auto Reboot**



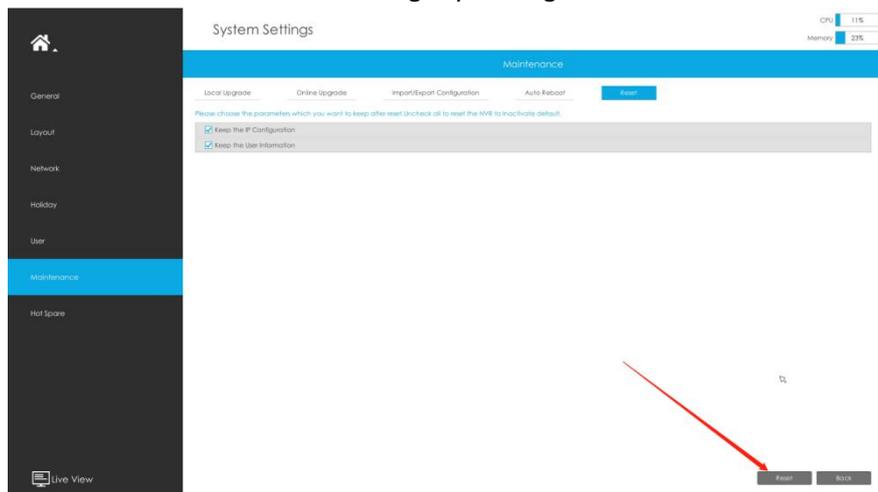
You can set day and time for reboot, and **the NVR will reboot automatically at the time you set.**

**Day:** Everyday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday and Sunday.

**Time:** Adjustable range from 00:00:00 to 23:59:59.

### Reset

All parameters can be reset to default settings by clicking **Reset**.



## 3.9.7 Hot Spare

Configured as the architecture of **N pcs Master NVRs and 1 hot spare Slave NVR**, Milesight N+1 Hot Spare guarantees the data integrity and reliability of video surveillance system. If any one of the Master NVRs fails, the Slave NVR can take over the channel information to ensure video recording. Meanwhile, when the failed NVR recovered, the Slave NVR will send the recorded data back.

### Master Mode:

**Step 1:** Select Master Mode as Hot Spare Mode.

**Step 2:** Input Slave IP Address, Slave Admin Password and Apply.

| Hot Spare            |                    |
|----------------------|--------------------|
| Hot Spare Mode       | Master Mode        |
| Slave IP Address     | 192.168.40.42      |
| Slave Admin Password | *****              |
| Slave Status         | Link is up (Ready) |

**Slave Mode:**

**Step 1:** Select Slave Mode as Hot Spare Mode and click Apply. NVR will change to Slave mode successfully after rebooting.

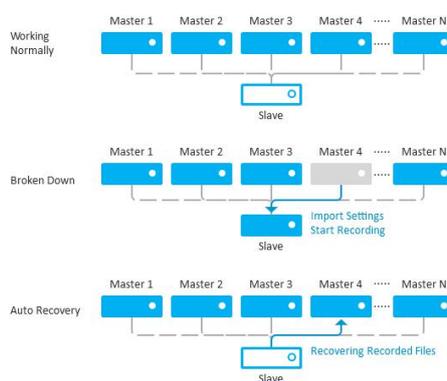
**Step 2:** Add Master which is up to 32.

| Hot Spare      |               |              |             |                   |                |        |
|----------------|---------------|--------------|-------------|-------------------|----------------|--------|
| Hot Spare Mode | Slave Mode    |              |             |                   |                |        |
| Master List    |               |              |             |                   |                |        |
| No.            | IP Address    | MAC Address  | Model       |                   |                |        |
|                |               |              |             |                   |                |        |
| Refresh        |               |              |             |                   |                |        |
| Master Status  |               |              |             |                   |                |        |
| No.            | IP Address    | MAC Address  | Model       | Connection Status | Working Status | Delete |
| 1              | 192.168.40.44 | 1CC3160A7EF4 | MS-N7032-UH | Online            | Normal         |        |

For example, there are three NVRs in LAN, 192.168.5.200, 192.168.5.201 and 192.168.5.202. If you want to set 192.168.5.200 and 192.168.5.201 as Master NVR, and set 192.168.5.202 as Slave NVR. You can operate as following steps.

- ① Set 192.168.5.200 and 192.168.5.201 to Master Mode. And then input the IP and account information of 192.168.5.202 as Slave.
- ② Set 192.168.5.202 to Slave Mode. And then add 192.168.5.200 and 192.168.5.201 to its Master List.

After Master and Slave match successfully, Hot Spare function begins to work.



**Note:**

1. Only MS-N7016-UH, MS-N7032-UH, MS-N8032-UH and MS-N8064-UH support N+1 Hot Spare function.
2. It is recommended to set Master NVR and Slave NVR up with the same NVR model.

### 3.10 Status

You can have a quick view of the information of the device, network, camera, disk and event. This part is only for your rapid reference. If you want to make any configuration, please go to corresponding parts accordingly.

#### 3.10.1 Device Information

Device Information include Model, MAC Address, Hardware Version, Software Version, and Uptime.

| Device Information |                   |
|--------------------|-------------------|
| Model              | M5-N201s-LPT      |
| MAC Address        | 1C:C3:16:0A:30:92 |
| Hardware Version   | V1.1              |
| Software Version   | F2.9.0.8-05       |
| Uptime             | 01:34:31 up 8:51  |

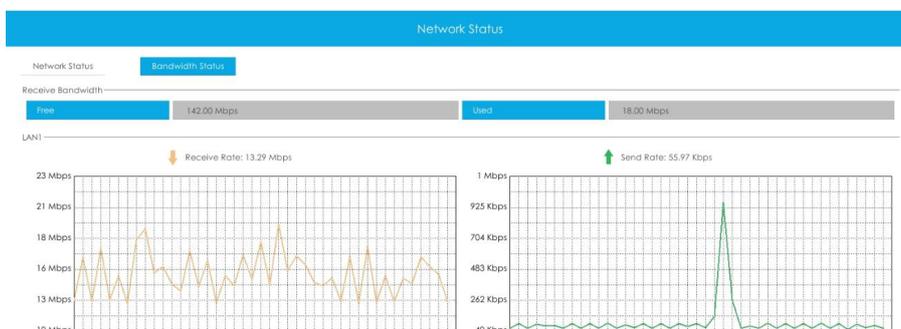
#### 3.10.2 Network Status

Network Status includes three main parts: Network Status and Bandwidth Status.

##### Network Status

| Network Status       |               |                    |                   |
|----------------------|---------------|--------------------|-------------------|
| Network Status       |               | Bandwidth Status   |                   |
| LAN1                 |               |                    |                   |
| Connection           | Link is up    | Mode               | 100 Mbps Full     |
| IPv4 DHCP            | Disable       | IPv4 Mode          | Manual            |
| IPv4 Address         | 192.168.7.111 | IPv4 Address       |                   |
| IPv4 Subnet Mask     | 255.255.240.0 | IPv4 Prefix Length |                   |
| IPv4 Gateway         | 192.168.7.1   | IPv6 Gateway       |                   |
| Preferred DNS Server | 192.168.5.1   | Mtu(Byte)          | 1500              |
| Alternate DNS Server |               | MAC                | 1C:C3:16:0A:30:92 |

##### Bandwidth Status



### 3.10.3 Camera Status

Camera Status includes Channel, Name, IP Address, Record, Frame Rate, Bit Rate, Frame Size and Status.

| Camera Status  |      |                 |        |            |           |            |              |
|----------------|------|-----------------|--------|------------|-----------|------------|--------------|
| Channel Status |      | PoE Port Status |        |            |           |            |              |
| Channel        | Name | IP Address      | Record | Frame Rate | Bit Rate  | Frame Size | Status       |
| 1              | CAM1 | 192.168.14.102  | On     | 26 fps     | 4.13 Mbps | 1920x1080  | Connected    |
| 2              | CAM2 | 192.168.14.103  | Off    | 25 fps     | 4.15 Mbps | 1920x1080  | Connected    |
| 3              | CAM3 | 192.168.14.105  | Off    | 25 fps     | 3.90 Mbps | 2560x1440  | Connected    |
| 4              | CAM4 | 192.168.7.161   | Off    | 0 fps      | 0 bps     | 0x0        | Disconnected |
| 5              | -    | -               | -      | -          | -         | -          | -            |
| 6              | -    | -               | -      | -          | -         | -          | -            |
| 7              | -    | -               | -      | -          | -         | -          | -            |

The **PoE Port Status** is only for PoE NVR, it will show you the current power and connection status of PoE ports.

| Camera Status  |            |                           |        |  |
|----------------|------------|---------------------------|--------|--|
| Channel Status |            | PoE Port Status           |        |  |
| PoE Port       | IP Address | Current Power Consumption | Status |  |
| 1              | --         | --                        | --     |  |
| 2              | --         | --                        | --     |  |
| 3              | --         | --                        | --     |  |
| 4              | --         | --                        | --     |  |
| 5              | --         | --                        | --     |  |
| 6              | --         | --                        | --     |  |
| 7              | --         | --                        | --     |  |
| 8              | --         | --                        | --     |  |

|                             |         |
|-----------------------------|---------|
| Total Power Consumption     | 0.00W   |
| Remaining Power Consumption | 120.00W |

Note:  
 1. The rated power consumption of all PoE ports is 120.00W.  
 2. When the total power consumption exceeds the rated value, the system will close PoE ports in the order of channel numbers from large to small until the total power is less than the rated power.

### 3.10.4 Disk Status

#### Disk Status

Disk Status includes Port, Vendor, Status, Total(GB), Free(GB), HDD Type and Group. The user can see the Total Capacity (GB) and Available Capacity (GB) as well.

| Disk Status |                        |           |           |           |          |          |       |
|-------------|------------------------|-----------|-----------|-----------|----------|----------|-------|
| Disk Status |                        | S.M.A.R.T |           |           |          |          |       |
| Port        | Vendor                 | Status    | Total     | Free      | Property | HDD Type | Group |
| 2           | WDC WD2500BEVT-0BA23T1 | Normal    | 232.89 GB | 217.00 GB | R/W      | LOCAL    | 1     |

|                    |           |
|--------------------|-----------|
| Total Capacity     | 232.89 GB |
| Available Capacity | 217.00 GB |

#### S.M.A.R.T

S.M.A.R.T is a monitoring system of HDD that detects anticipating failures of HDD and reports them with various indicators.

**Test Type:** Fast and Full are available.

**Self-evaluation:** If the HDD is in good condition, it will pass the self-evaluation.

| Disk Status |                       |       |      |           |           |        |
|-------------|-----------------------|-------|------|-----------|-----------|--------|
| ID          | Attribute Name        | Value | Warn | Threshold | Raw Value | Status |
| 01          | Raw_Read_Error_Rate   | 200   | 200  | 51        | 2         | OK     |
| 03          | Spin_Up_Time          | 142   | 131  | 21        | 1864      | OK     |
| 04          | Start_Stop_Count      | 1     | 1    | 0         | 516529    | OK     |
| 05          | Reallocated_Sector_Ct | 200   | 200  | 140       | 0         | OK     |
| 07          | Seek_Error_Rate       | 100   | 253  | 51        | 0         | OK     |
| 09          | Power_On_Hours        | 49    | 49   | 0         | 37264     | OK     |
| 0A          | Spin_Retry_Count      | 100   | 100  | 0         | 0         | OK     |

|                 |                   |
|-----------------|-------------------|
| Port            | 2                 |
| Test Process    |                   |
| Test Type       | FAST              |
| Temperature(C)  | 35                |
| Uptime          | 37264             |
| Self-evaluation | PASSED            |
| All evaluation  | In good condition |
| S.M.A.R.T Test  | Test              |

### 3.10.5 Event Status

#### Camera Event

The user can check Camera Event here, including Video Loss, Motion and I/O. will turn into when the corresponding alarm is triggered.

| Event Status |       |               |            |        |     |  |
|--------------|-------|---------------|------------|--------|-----|--|
| Channel      | Name  | IP Address    | Video Loss | Motion | I/O |  |
| 1            | CAM1  | 192.168.7.222 |            |        |     |  |
| 2            | CAM2  | --            |            |        |     |  |
| 3            | CAM3  | --            |            |        |     |  |
| 4            | CAM4  | --            |            |        |     |  |
| 5            | CAM5  | --            |            |        |     |  |
| 6            | CAM6  | --            |            |        |     |  |
| 7            | CAM7  | --            |            |        |     |  |
| 8            | CAM8  | --            |            |        |     |  |
| 9            | CAM9  | --            |            |        |     |  |
| 10           | CAM10 | --            |            |        |     |  |
| 11           | CAM11 | --            |            |        |     |  |
| 12           | CAM12 | --            |            |        |     |  |
| 13           | CAM13 | --            |            |        |     |  |
| 14           | CAM14 | --            |            |        |     |  |
| 15           | CAM15 | --            |            |        |     |  |
| 16           | CAM16 | --            |            |        |     |  |

#### Alarm

The user can check Alarm Input and Output list here if NVR has corresponded interface. will turn into when the corresponding alarm is triggered. For NVR alarm input or output, the relevant alarm input or output will be firstly listed, such as, 1, 2,etc, as for camera alarm input or output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Status** CPU: 65% Memory: 10%

Event Status

Camera Event Alarm VCA People Counting

Alarm Input List

| No.   | Alarm Name | Alarm Type | Status |
|-------|------------|------------|--------|
| 12    |            | NO         | ⊘      |
| 13    |            | NO         | ⊘      |
| 14    |            | NO         | ⊘      |
| 15    |            | NO         | ⊘      |
| 16    |            | NO         | ⊘      |
| CHK_1 | --         | NO         | ⊘      |
| CHK_2 | --         | --         | --     |
| CHK_1 | --         | NO         | ⊘      |
| CHK_2 | --         | --         | --     |
| CHK_1 | --         | NO         | ⊘      |
| CHK_2 | --         | --         | --     |

Alarm Output List

| No.   | Alarm Name | Alarm Type | Delay | Status |
|-------|------------|------------|-------|--------|
| 1     |            | NO         | 5s    | ⊘      |
| 2     |            | NO         | 5s    | ⊘      |
| 3     |            | NO         | 5s    | ⊘      |
| 4     |            | NO         | 5s    | ⊘      |
| CHK_1 | --         | --         | --    | --     |
| CHK_2 | --         | --         | --    | --     |
| CHK_1 | --         | NC         | 5s    | ⊘      |
| CHK_2 | --         | --         | --    | --     |
| CHK_1 | --         | NC         | 5s    | ⊘      |
| CHK_2 | --         | --         | --    | --     |
| CHK_1 | --         | --         | --    | --     |
| CHK_2 | --         | --         | --    | --     |

**VCA**

It shows the VCA status. will turn into when alarm is triggered.

**Status** CPU: 33% Memory: 9%

Event Status

Camera Event Alarm VCA People Counting

| Channel | Name  | IP Address    | Region Entrance | Region Exiting | Unusual Motion Detect | Temper. Detection | Line Crossing | Loitering | Human Detection |
|---------|-------|---------------|-----------------|----------------|-----------------------|-------------------|---------------|-----------|-----------------|
| 1       | CAM1  | 192.168.7.222 | ⊘               | ⊘              | ⊘                     | ⊘                 | ⊘             | ⊘         | ⊘               |
| 2       | CAM2  | --            | ⊘               | ⊘              | ⊘                     | ⊘                 | ⊘             | ⊘         | ⊘               |
| 3       | CAM3  | --            | ⊘               | ⊘              | ⊘                     | ⊘                 | ⊘             | ⊘         | ⊘               |
| 4       | CAM4  | --            | ⊘               | ⊘              | ⊘                     | ⊘                 | ⊘             | ⊘         | ⊘               |
| 5       | CAM5  | --            | ⊘               | ⊘              | ⊘                     | ⊘                 | ⊘             | ⊘         | ⊘               |
| 6       | CAM6  | --            | ⊘               | ⊘              | ⊘                     | ⊘                 | ⊘             | ⊘         | ⊘               |
| 7       | CAM7  | --            | ⊘               | ⊘              | ⊘                     | ⊘                 | ⊘             | ⊘         | ⊘               |
| 8       | CAM8  | --            | ⊘               | ⊘              | ⊘                     | ⊘                 | ⊘             | ⊘         | ⊘               |
| 9       | CAM9  | --            | ⊘               | ⊘              | ⊘                     | ⊘                 | ⊘             | ⊘         | ⊘               |
| 10      | CAM10 | --            | ⊘               | ⊘              | ⊘                     | ⊘                 | ⊘             | ⊘         | ⊘               |
| 11      | CAM11 | --            | ⊘               | ⊘              | ⊘                     | ⊘                 | ⊘             | ⊘         | ⊘               |
| 12      | CAM12 | --            | ⊘               | ⊘              | ⊘                     | ⊘                 | ⊘             | ⊘         | ⊘               |
| 13      | CAM13 | --            | ⊘               | ⊘              | ⊘                     | ⊘                 | ⊘             | ⊘         | ⊘               |
| 14      | CAM14 | --            | ⊘               | ⊘              | ⊘                     | ⊘                 | ⊘             | ⊘         | ⊘               |
| 15      | CAM15 | --            | ⊘               | ⊘              | ⊘                     | ⊘                 | ⊘             | ⊘         | ⊘               |
| 16      | CAM16 | --            | ⊘               | ⊘              | ⊘                     | ⊘                 | ⊘             | ⊘         | ⊘               |

**People Counting**

It shows every camera's current In/Out number of people counting.

**Status** CPU: 33% Memory: 9%

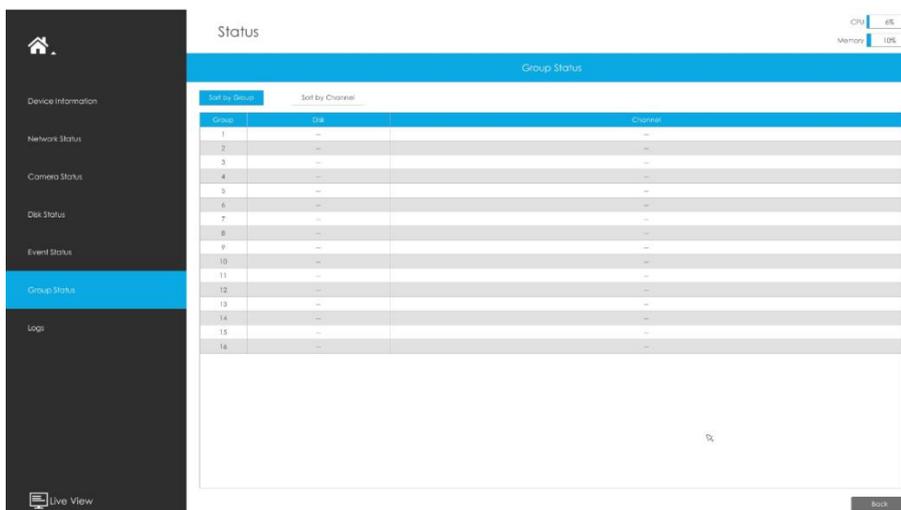
Event Status

Camera Event Alarm VCA People Counting

| Channel | Name  | IP Address    | In Count | Out Count |
|---------|-------|---------------|----------|-----------|
| 1       | CAM1  | 192.168.7.222 | --       | --        |
| 2       | CAM2  | --            | --       | --        |
| 3       | CAM3  | --            | --       | --        |
| 4       | CAM4  | --            | --       | --        |
| 5       | CAM5  | --            | --       | --        |
| 6       | CAM6  | --            | --       | --        |
| 7       | CAM7  | --            | --       | --        |
| 8       | CAM8  | --            | --       | --        |
| 9       | CAM9  | --            | --       | --        |
| 10      | CAM10 | --            | --       | --        |
| 11      | CAM11 | --            | --       | --        |
| 12      | CAM12 | --            | --       | --        |
| 13      | CAM13 | --            | --       | --        |
| 14      | CAM14 | --            | --       | --        |
| 15      | CAM15 | --            | --       | --        |
| 16      | CAM16 | --            | --       | --        |

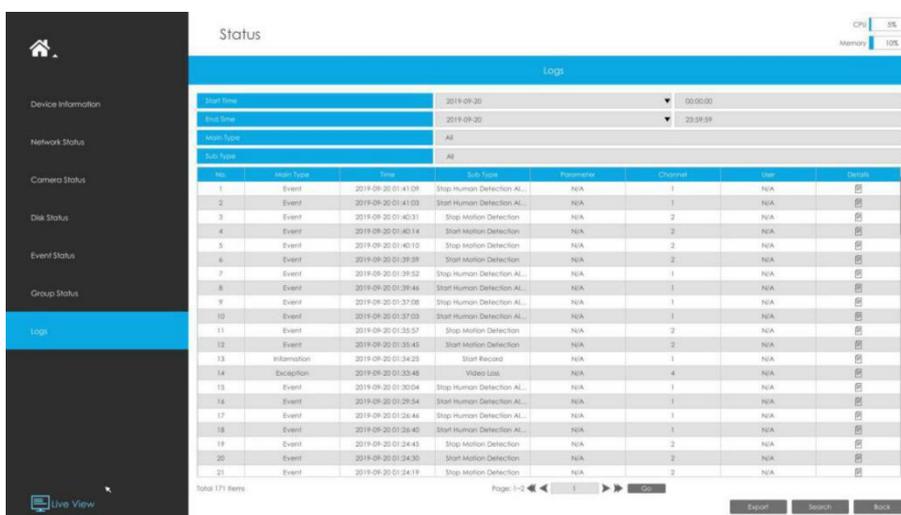
### 3.10.6 Group Status

Check Group Status. The status of the all created Groups can be sorted by Group or Channel.

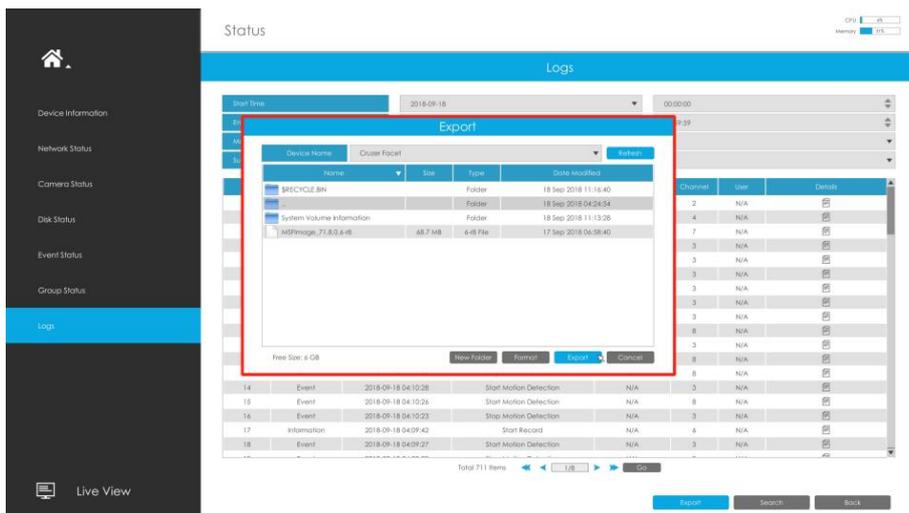


### 3.10.7 Logs

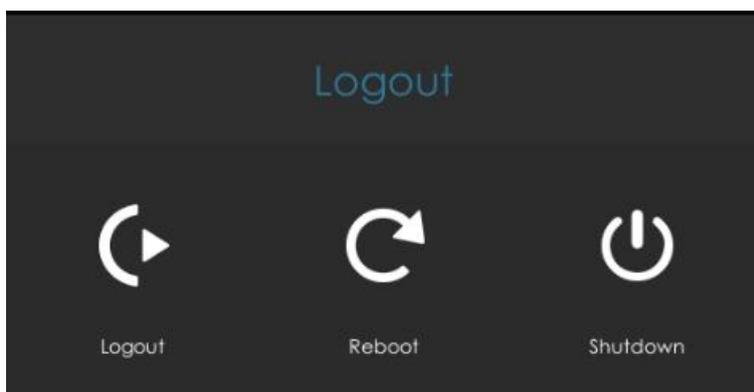
The user can check, search and export logs in Logs interface. By selecting the Start Time, End Time, Main Type and Sub Type, which can narrow down the scale of logs, you can search for logs that you need.



Click **Export** to export searched logs to media device.



### 3.11 Logout



**Logout:** Exit the current login account.

**Reboot:** Restart the NVR.

**Shutdown:** Close the NVR.

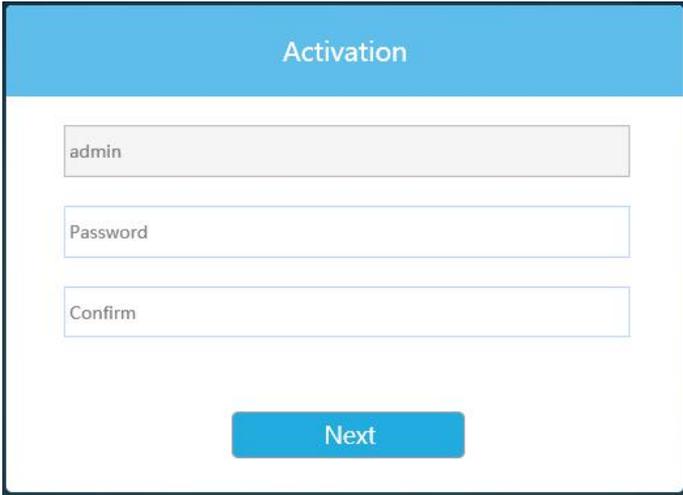
## 4.WEB Settings

### 4.1 Account Setting

**Note:**

Only the NVR firmware version xx.9.0.3 or above supports account activation.

**Step1. Set password to active admin account.**



**Note:**

1. Password must be 8 to 32 characters long.
2. Password must contain at least one number and one letter.

**Step2. Set security questions which are used for resetting password to finish account setting.**

10 questions are provided, you can select any one to set answer. Beside, customized question is available.

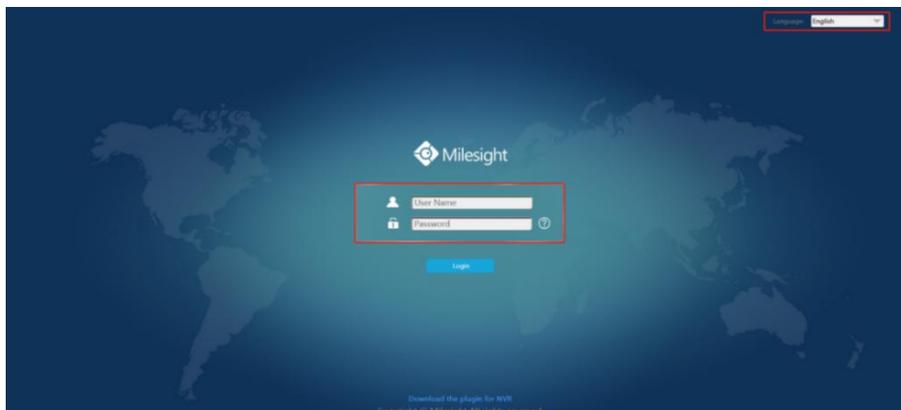
If you skip this step, you can also set it again in Setting -> User interface.



## 4.2 Login

Select Language on the top-right of interface.

Input the user name, password and click Login to login NVR web page.



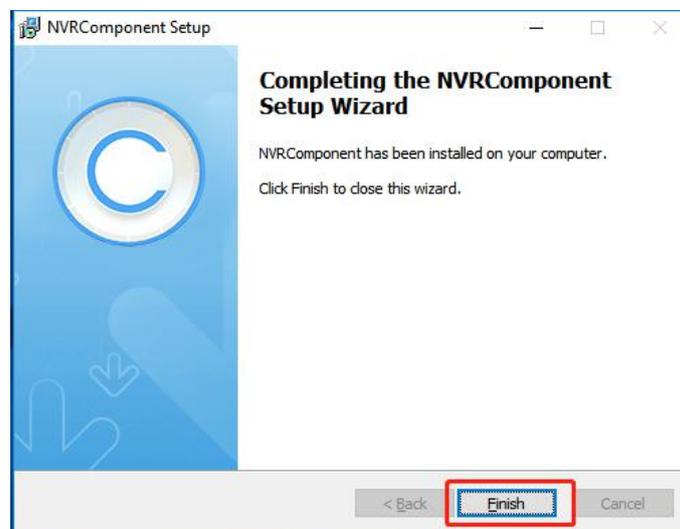
**Note:**

The account will be locked if the password is entered incorrectly for four times.

The browser will prompt to install the plugin when first logging in the device. Please click

“[Download the plugin for NVR](#)” to download the plugin for NVR.

Follow the prompts to install the plugin. When it's finished, it will pop out a window as shown below. Please click “Finish” and refresh the browser, then you will see the video.



**Note:**

During installing the plugin, please keep the browsers close.

If the firmware version of NVR is V7x.9.0.4 and above, you can preview the video on the browser without plugin in Plugin-Free mode.

1. For Windows system, Plugin-Free mode is supported in Chrome/Firefox/Microsoft Edge browser.
2. For MAC system, Plugin-Free mode is supported in Chrome/Firefox/Safari browser.

Only H.264 video codec are supported on Plugin-Free Mode for NVR. For better user experience, we recommend that you set the "profile" option to "main" on camera as shown below.

Basic Settings >> Video

Primary Stream    Secondary Stream    Tertiary Stream

|                      |                  |
|----------------------|------------------|
| Video Codec :        | H.264            |
| Frame Size :         | 1080P(1920*1080) |
| Maximum Frame Rate : | 25 fps           |
| Bit Rate :           | 4096 kbps        |
| Smart Stream :       | Off              |
| Bit Rate Control :   | CBR              |
| Profile :            | Main             |
| I-frame Interval :   | 50 frame (1-120) |

Save

**Note:**

1. Plugin-Free mode is only supported when Chrome version is above V45, Firefox version is above V52, Microsoft Edge version is above V11 and Safari version is above V11.
2. When you use plugin-free mode, it will display "Plugin-Free" mode in "Settings" - "Local Configuration" interface.

### Local Configuration

Plugin Mode    Plugin-free

Primary Stream When Fullscreen   

Note: Plugin-Free mode only supports H.264.

Save

If you forget the password, click  to reset password (Only the NVR firmware version xx.9.0.3 or above supports this.).

### Reset Password

Please fill in the answers for authentication.

Question1: What's your favorite sport?  
Answer1:

Question2: What's your lucky number?  
Answer2:

Question3: What's your favorite food?  
Answer3:

Next    Cancel

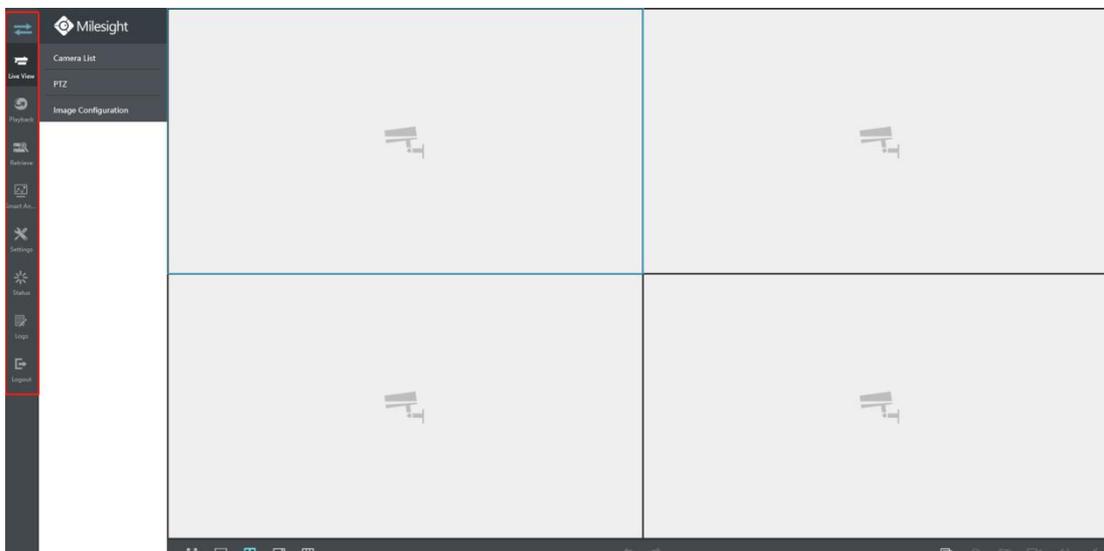
**Note:**

1. If the NVR firmware version is below xx.7.0.6, the default user name is "admin" and the default password is "123456".
2. If the NVR firmware version is between xx.7.0.6 and xx.9.0.3, the default user name is

“admin” and the default password is “ms1234”.

3. If the NVR firmware version is xx.9.0.3 or above, please set the password before login.

### 4.3 Menu



| Icons | Descriptions  |
|-------|---|
|       | Hide or show secondary menu   |
|       | Live view   |
|       | Play back the video   |
|       | Back Up Files   |
|       | Smart Analysis  |
|       | Make settings for Camera, Record, Event and System                                    |
|       | Check Device Information, Network Status, Camera Status, Disk Status and Event Status |
|       | Check all operation logs  |
|       | Log out NVR   |

## 4.4 Live View

### 4.4.1 Camera List

List and play added cameras on Camera List page.

Select one window one camera to play. Or click to get all cameras' live video.



Icons' descriptions of Live View

| Icons | Descriptions        | Icons | Descriptions          |
|-------|---------------------|-------|-----------------------|
|       | Play Primary Stream |       | Play Secondary Stream |
|       | Save View           |       | Play default view     |
|       | Full screen         |       | 1 screen mode         |
|       | 4 screens mode      |       | 8 screens mode        |
|       | 9 screens mode      |       | 16 screens mode       |
|       | Previous page       |       | Next page             |
|       | Stop all live view  |       | Start all live view   |
|       | Digital zoom        |       | Snapshot              |
|       | Record              |       | Audio on              |

|   |              |   |                |
|---|--------------|---|----------------|
|  | Audio off    |  | Original Image |
|  | Resize Image |   |                |

And there are multiple icons on each channel displayed in live view, indicating video loss and alarm status of the channel.

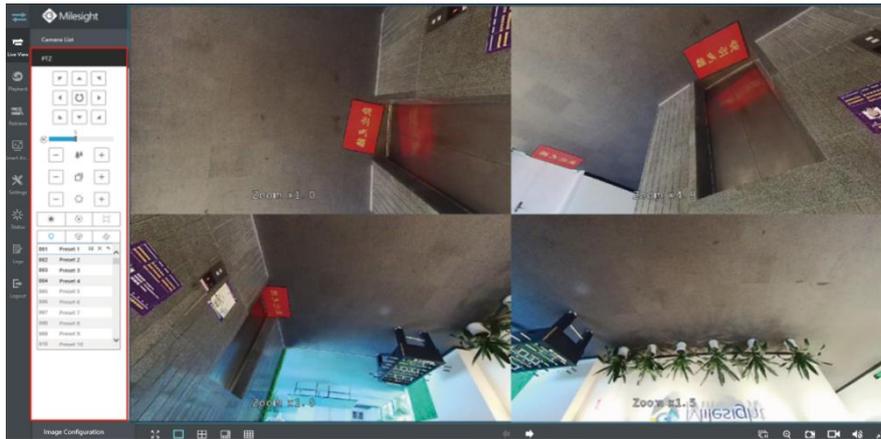
| Icons   | Descriptions                        |
|---|-------------------------------------|
|  | It indicates video loss             |
|  | It indicates motion detection alarm |
|  | It indicates VCA alarm              |

## 4.4.2 PTZ

For PTZ cameras, you can operate PTZ, Preset, Patrol, Pattern, Lighting for 30s, Lens Initialization and Auxiliary Focus on PTZ page directly.



For the Fisheye camera, select a Fisheye channel, and you can operate PTZ, Preset, Patrol, Lighting for 30s, Lens Initialization, Auxiliary Focus and Fisheye Auto Tracking of this channel separately.

**Note:**

1. Only for Milesight Fisheye Camera with Bundle-Stream Mode.
2. Ensure that your camera's version is 4X.7.0.74 or above before you use Lighting for 30s, Lens Initialization, Auxiliary Focus and Fisheye Auto Tracking.

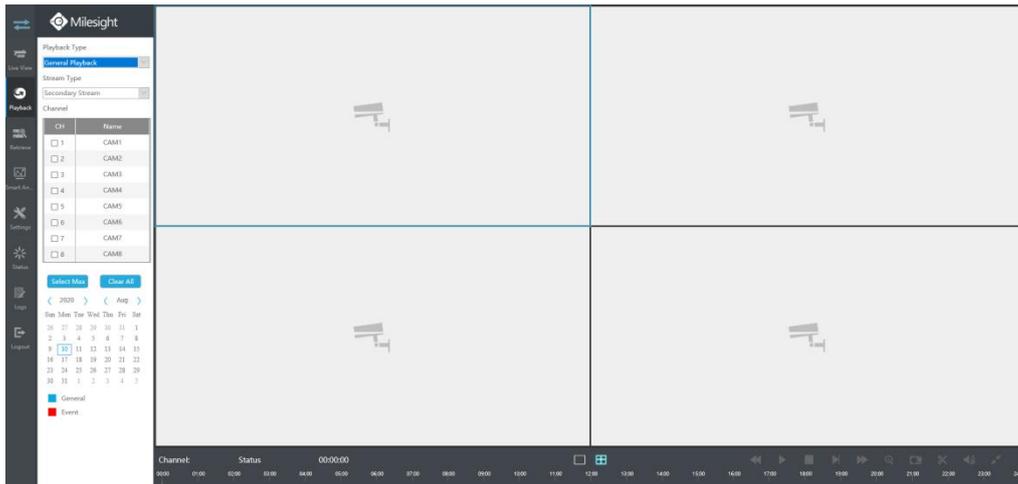
### 4.4.3 Image Configuration

Adjust image Brightness, Contrast, Saturation, Sharpness and Noise Reduction Level on Image Configuration page.



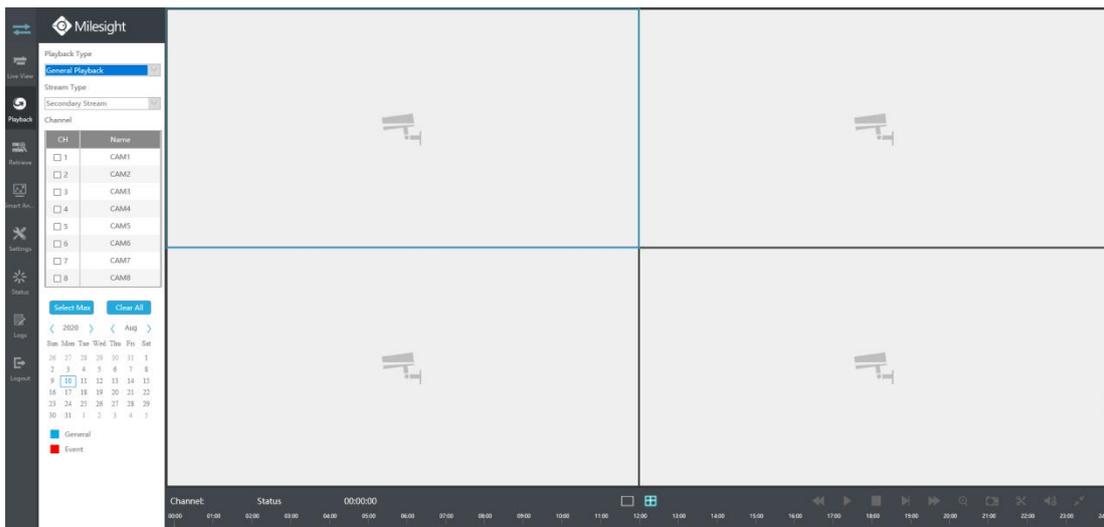
### 4.5 Playback

To play and backup the recorded files.



## 4.5.1 How to playback

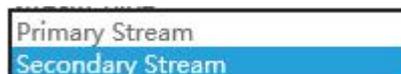
### 4.5.1.1 General Playback



**Step1. Select General Playback as Playback Type.**



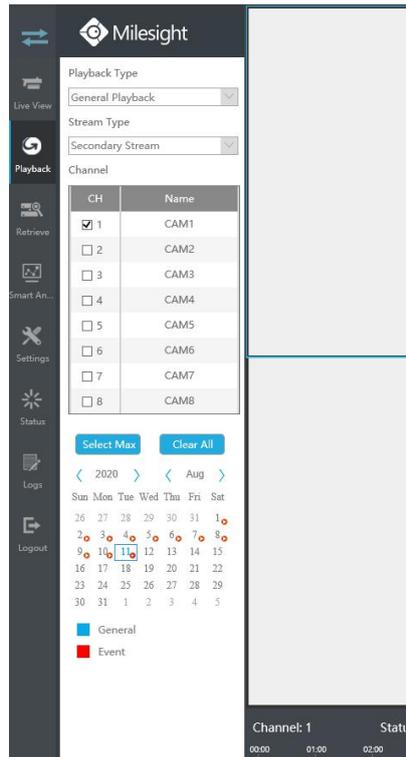
**Step2. Select Stream Type, including Primary Stream and Secondary Stream.**



**Step3. Select channel you want to do playback.**

**Note:**

The playback stream you selected will be remembered when you reenter the web playback page.



**Step4. Select Date.**

**Step4. Click  to play.**

**Note:**

Only the day with a red mark means that there are recorded files.



Every channel got their own file bar, and there is only one file bar matching with the selected channel. The tool bar can display multiple types record. It shows that in this record period what kind of event has happened. The symbolic meaning of each color is:

**Blue**—General

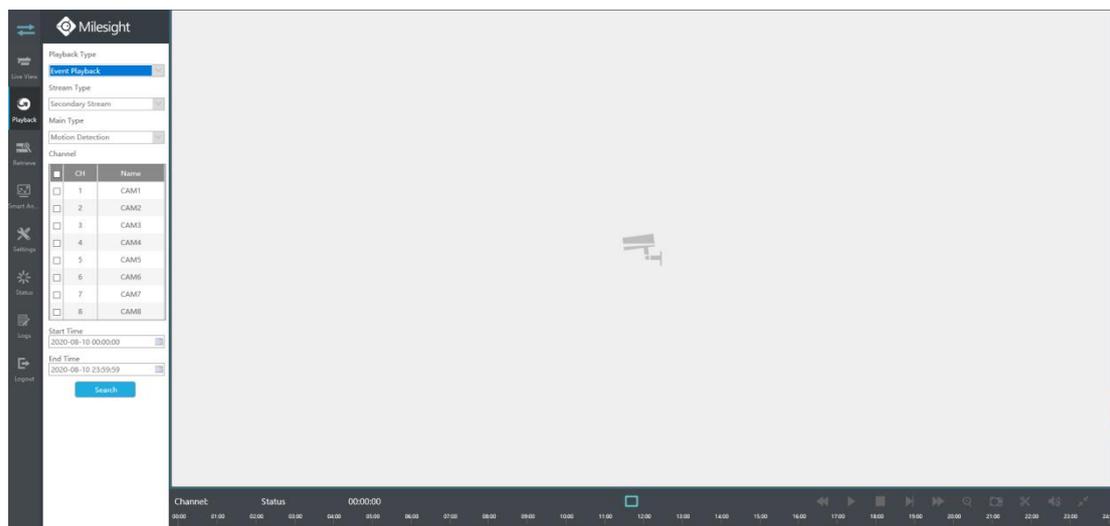
**Red** --- Event



**Note:**

1. You can adjust the speed even when playback is paused.
2. The playback time bar on web page also shows the locked and tagged icons, which is the same as on the monitor.

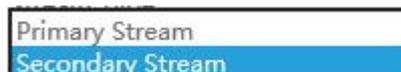
### 4.5.1.2 Event Playback



**Step1. Select Event Playback as Playback Type.**



**Step2. Select Stream Type, including Primary Stream and Secondary Stream.**



**Step3. Select Event Type**

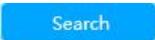


**Step4. Select channel you want to do playback.**

**Step5. Set Start Time and End time.**

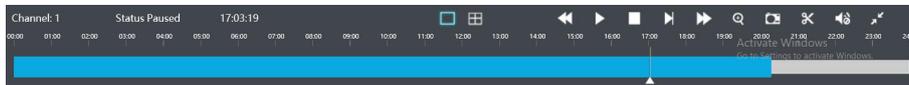
Start Time  
2020-08-10 00:00:00

End Time  
2020-08-10 23:59:59

**Step6. Click  to search files.**

**Step7. Click  to play.**

## Video Playback Tool Bar Description



The tool bar can display multi-event recording. It shows that in this record period what kind of event has happened. The symbolic meaning of each color is shown below:

**Blue**—Timing

**Red** --- Event

And take this bar above as an example, it means that there is continuously recording in this period.

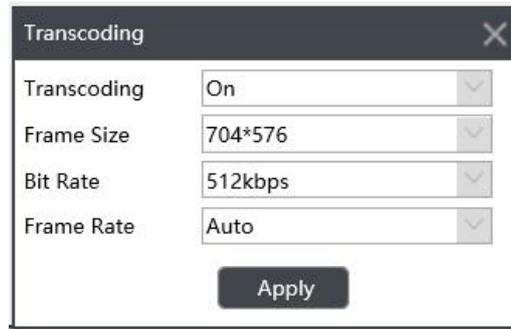
| Icons | Descriptions   | Icons | Descriptions   |
|-------|----------------|-------|----------------|
|       | 1 screen mode  |       | 4 screens mode |
|       | Speed Down     |       | Play           |
|       | Pause          |       | Stop           |
|       | Step Forward   |       | Speed Up       |
|       | Transcoding    |       | Digital Zoom   |
|       | Snapshot       |       | Backup         |
|       | Audio On       |       | Audio Off      |
|       | Original Image |       | Resize Image   |

### 4.5.2 Transcoding

With transcoding function, remote playback will have a better performance no matter what network environment is.

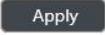
**Step1.** After successfully search out or play video, select the channel you want to transcoding

and click to expand transcoding panel.



### Step2. Set Transcoding parameters.

Set Transcoding, Frame Size, Bitrate and Frame Rate according to the network situation. The worse network situation, the lower transcoding parameter.

Step3. Click  to make transcoding take effect.

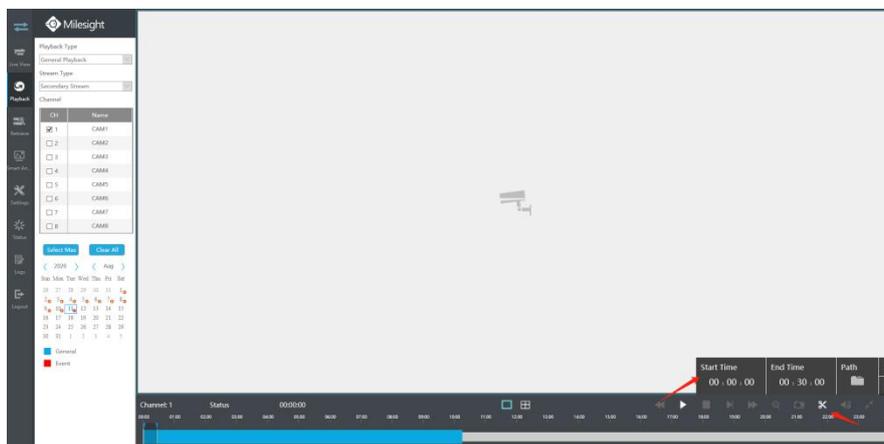
## 4.5.3 Video Files Backup

Recorded files can be cut and backed up from WEB.

Step1. In playback interface, select camera, stream type, the date and time to search record video.

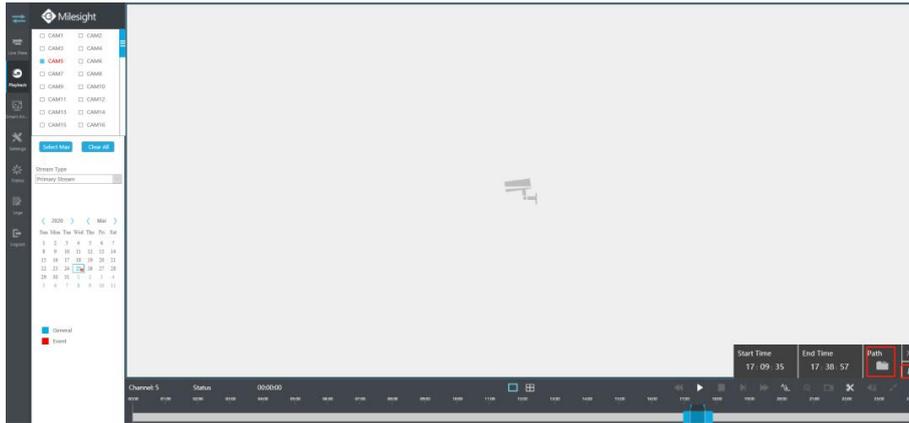
Step2. Select Recorded files for Backup.

Click , then select start time and end time by dragging the vertical line on the time bar.



Step3. Backup the recorded files.

Click  to select file path, then click  to back up recorded files.



## 4.5.4 Picture Files Backup

**Step1. Browse a playback picture path in Local Configuration interface.**



**Step2. Click  to save the picture during video playback. Then the backup picture can be found in the files path you set before.**

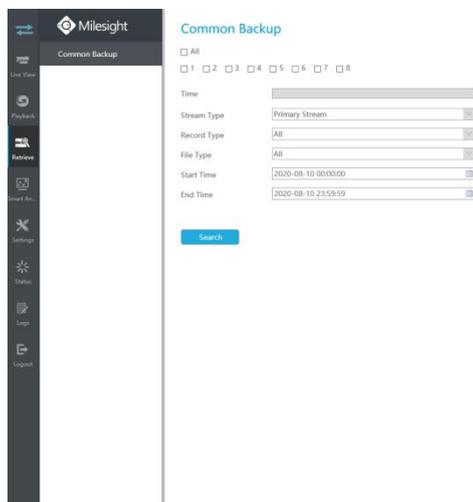
**Note:**

It is recommended to run browser as administrator before getting playback snapshot.

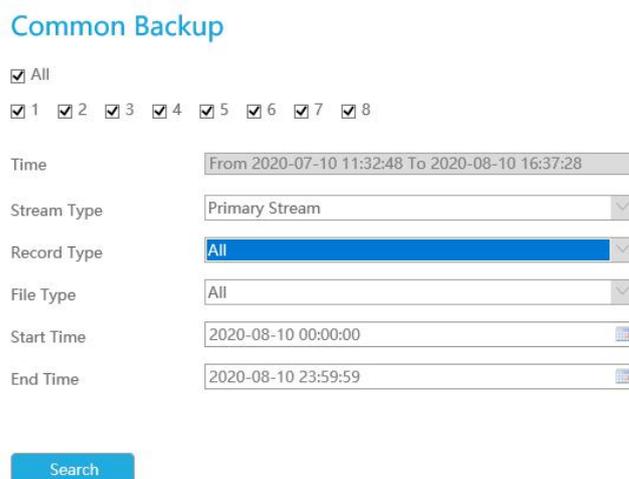


## 4.6 Retrieve

Support to the search of record file according to different stream type, record type and file type you set.



**Step1: Set the search condition and click  to search video.**



The search result can be shown as a list.

### Common Backup

|                          | Channel | Disk | Start Time-End Time          | Size     | Play | Lock |
|--------------------------|---------|------|------------------------------|----------|------|------|
| <input type="checkbox"/> | 1       | 1    | 2020-08-10 00:00:00-00:07:44 | 439.7MB  | ▶    | 🔒    |
| <input type="checkbox"/> | 1       | 1    | 2020-08-10 00:07:44-00:25:45 | 1016.0MB | ▶    | 🔒    |
| <input type="checkbox"/> | 1       | 1    | 2020-08-10 00:25:45-00:43:44 | 1016.0MB | ▶    | 🔒    |
| <input type="checkbox"/> | 1       | 1    | 2020-08-10 00:43:44-01:01:36 | 1014.4MB | ▶    | 🔒    |
| <input type="checkbox"/> | 1       | 1    | 2020-08-10 01:01:36-01:19:31 | 1018.0MB | ▶    | 🔒    |
| <input type="checkbox"/> | 1       | 1    | 2020-08-10 01:19:31-01:37:18 | 1012.8MB | ▶    | 🔒    |
| <input type="checkbox"/> | 1       | 1    | 2020-08-10 01:37:18-01:55:14 | 1016.4MB | ▶    | 🔒    |
| <input type="checkbox"/> | 1       | 1    | 2020-08-10 01:55:14-02:13:28 | 1013.0MB | ▶    | 🔒    |
| <input type="checkbox"/> | 1       | 1    | 2020-08-10 02:13:28-02:31:40 | 1015.0MB | ▶    | 🔒    |
| <input type="checkbox"/> | 1       | 1    | 2020-08-10 02:31:40-02:49:50 | 1017.3MB | ▶    | 🔒    |
| <input type="checkbox"/> | 1       | 1    | 2020-08-10 02:49:50-03:07:58 | 1015.2MB | ▶    | 🔒    |
| <input type="checkbox"/> | 1       | 1    | 2020-08-10 03:07:58-03:26:06 | 1018.3MB | ▶    | 🔒    |
| <input type="checkbox"/> | 1       | 1    | 2020-08-10 03:26:07-03:44:30 | 1018.7MB | ▶    | 🔒    |
| <input type="checkbox"/> | 1       | 1    | 2020-08-10 03:44:30-04:02:38 | 1017.0MB | ▶    | 🔒    |
| <input type="checkbox"/> | 1       | 1    | 2020-08-10 04:02:39-04:20:49 | 1018.3MB | ▶    | 🔒    |
| <input type="checkbox"/> | 1       | 1    | 2020-08-10 04:20:49-04:38:54 | 1013.0MB | ▶    | 🔒    |

**Step2:** Select the file you want to backup and click . Also, you can click

to backup all recorded videos.

In Common Backup interface, Play, Lock and Unlock video are supported. Click to play and

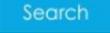
to lock. Once the video is locked, the whole file where the video located in won't be overwritten.

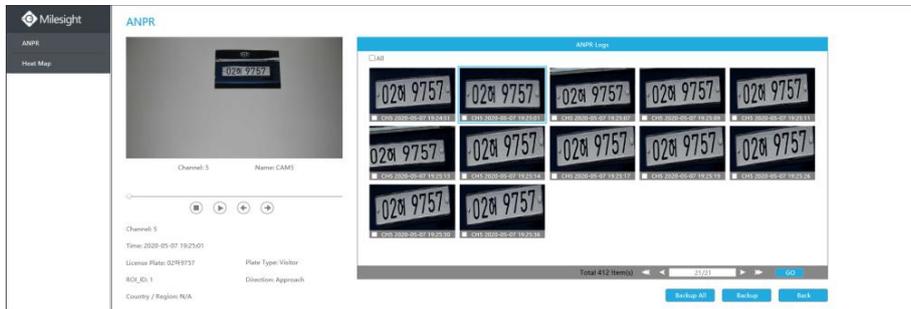
## 4.7 Smart Analysis

You can get both ANPR logs and Heat Map results in this page.

### 4.7.1 ANPR

You can Search and Backup ANPR logs.

Input corresponding information and click search button  to search and you will get a whole ANPR logs list. License plate snapshot will be shown on the logs list while the complete image video and license plate information will be shown on the left of the page.



You can click  to play the video.



There are two methods to backup ANPR logs.

① Backup license plates you want.

**Step1:** Tick license plates you want to backup and click ;

**Step2:** Select the export file type, video stream type and video file format, and then click .



② Backup all.

**Step1:** Click backup all  button;

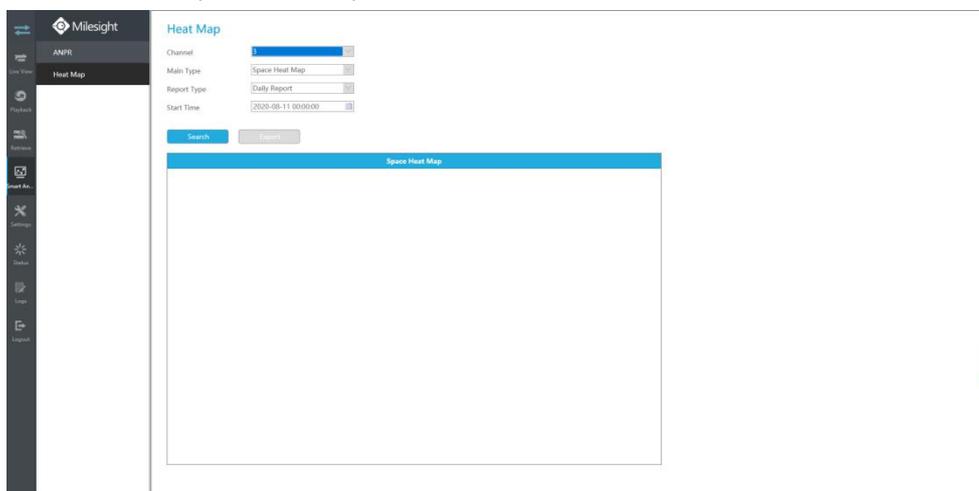
**Step2:** Select the export file type, video stream type and video file format, then click export button.

Then you will get corresponding file as selected export file type.



## 4.7.2 Heat Map

You can Search and Export Heat Map results.

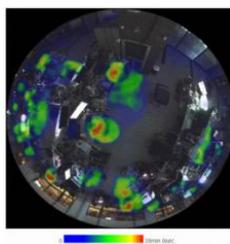


**Step1:** Entering search conditions.

**Channel:** Select the channel first.

**Main Type:** Space Heat Map and Time Heat Map are available.

① Space Heat Map: Space Heat Map will be presented as a picture with different colors. Different colors represent different heat values. Red represents the highest and blue represents the lowest.



② Time Heat Map: Time heat map will be presented as a line chart to show the heat at different times.



**Report Type:** Daily Report, Weekly Report, Monthly Report and Annual Report are available.

**Start Time:** Input the time from which you want to Search.

**Step2:** Click [Search](#) to obtain the corresponding result and then you can click [Export](#) to export it.

## 4.8 Settings

### 4.8.1 Local Configuration

Local Configuration includes Record File Path, Preview Picture Path, Playback Preview Path, Connection Type, Play Mode and Primary Stream When Fullscreen option.

#### Local Configuration

Record File Path

Preview Picture Path

Playback Picture Path

Connection Type

Play Mode

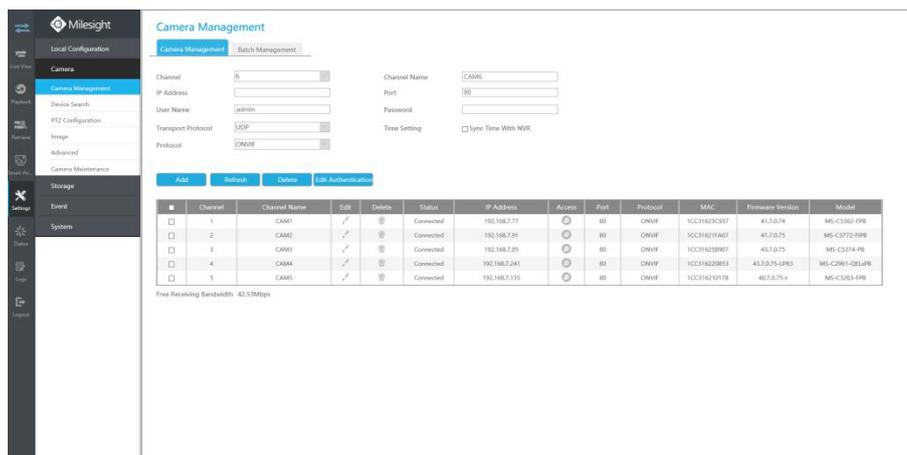
Auto Logout

Primary Stream When Fullscreen

### 4.8.2 Camera

Before configuration, please ensure that camera is connected to the same network as your NVR and the network setting for your NVR is properly setup.

#### 4.8.2.1 Camera Management



**Step1. Add Camera.**

**Method1. Add IP Channel in Device Search interface. 'Settings' → 'Camera' → 'Device Search'.**

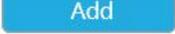
1. Select IP Range, NIC and Protocol, which includes ALL, ONVIF and MSSP.

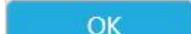
**MSSP:** You can search out all Milesight camera which has different network segment in the LAN.



2. Click  to search cameras at the same network segment with NVR.

| No. | IP Address    | Edit | Status | Port | Protocol | NIC | MAC          | Firmware Version         | Model          | Vendor    |
|-----|---------------|------|--------|------|----------|-----|--------------|--------------------------|----------------|-----------|
| 1   | 192.168.2.111 |      | Active | 80   | MSSP     | LAN | 1CC316289074 | 46.7.0.75-r5             | MS-C2964-SPB   | Milesight |
| 2   | 192.168.2.112 |      | Active | 80   | MSSP     | LAN | 1CC3162000F8 | 41.7.0.74-r11            | MS-C2962-49PB  | Milesight |
| 3   | 192.168.2.113 |      | Active | 80   | MSSP     | LAN | 1CC316267EC8 | 40.7.0.76-4K-AseaCrop-a1 | MS-C2851-PB    | Milesight |
| 4   | 192.168.2.115 |      | Active | 80   | MSSP     | LAN | 1CC316917F19 | 41.7.0.76-4K-AseaCrop-a1 | MS-C3762-4PB   | Milesight |
| 5   | 192.168.2.121 |      | Active | 80   | MSSP     | LAN | 1CC31604091A | 43.7.0.75                | MS-C9674-PB    | Milesight |
| 6   | 192.168.2.133 |      | Active | 80   | MSSP     | LAN | 1CC31621A158 | 41.7.0.75-r3-a2          | MS-C4462-4PB   | Milesight |
| 7   | 192.168.2.134 |      | Active | 80   | MSSP     | LAN | 1CC3162168F  | 43.7.0.75-LPR1-r         | MS-C2961-QL4PB | Milesight |
| 8   | 192.168.2.139 |      | Active | 80   | MSSP     | LAN | 1CC316229A83 | 43.7.0.76-#              | MS-C9674-PB    | Milesight |
| 9   | 192.168.2.146 |      | Active | 80   | MSSP     | LAN | 1CC316219237 | 41.7.0.75-r1             | MS-C9674-PB    | Milesight |
| 10  | 192.168.2.149 |      | Active | 80   | MSSP     | LAN | 1CC316230744 | 40.7.0.74                | MS-C2961-EB    | Milesight |
| 11  | 192.168.2.158 |      | Active | 80   | MSSP     | LAN | 1CC31623CF96 | 41.7.0.75-r              | MS-C4463-PB    | Milesight |
| 12  | 192.168.2.158 |      | Active | 80   | MSSP     | LAN | 1CC316201050 | 43.7.0.75-LPR2-a1        | MS-C8262-4L8PB | Milesight |
| 13  | 192.168.2.159 |      | Active | 80   | MSSP     | LAN | 1CC31621777E | 41.7.0.73                | MS-C4463-PB    | Milesight |
| 14  | 192.168.2.168 |      | Active | 80   | MSSP     | LAN | 1CC31620785  | 40.7.0.75-r              | MS-C3763-4PB   | Milesight |
| 15  | 192.168.2.169 |      | Active | 80   | MSSP     | LAN | 1CC3162207C5 | 42.7.0.66-r6             | MS-C8262-4PB   | Milesight |
| 16  | 192.168.2.170 |      | Active | 80   | MSSP     | LAN | 1CC316218BC3 | 40.7.0.71-Ing            | MS-C2962-4PB   | Milesight |

3. Select one channel, click  button, input password and click  to finish.

3. Or you can check  to **batch adding** the network cameras if they are of the same password, and you can choose TCP or UDP transport protocol for it. Click  to finish batch adding.

**Method2. Add camera through camera management interface. 'Settings' → 'Camera' → 'Camera Management'.**

Select channel id, input complete information, then click  button.

There are three protocols available for camera connection:

- **ONVIF:** You can add any IP cameras with ONVIF protocols.

- **RTSP:** You can add any IP cameras with RTSP protocol streams (Port: 554). It needs you to input complete resource path of the IP camera to add it. Take Milesight device for example, the resource path of main stream is “rtsp://IP:port/main” and second stream is “rtsp://IP:port/sub”. The length of RTSP can be up to 128 bits.

- **MSSP:** You can add Milesight cameras which are in the same LAN with this protocol.

You can add offline cameras to Milesight NVRs by method2. As long as the device information you fill in is correct, NVR will determine whether the device is connected and update the camera status automatically.

### Step2. Check the connection status.

After adding the IP channels, click  on Camera Management interface, then

 appears under Status. If it doesn't appear, you need to check if the network is

connected or whether the user name, password is correct or not.

| Channel | Edit  | Delete  | Status    | IP Address    | Port | Protocol | MAC          | Firmware Version | Model        | Vendor                        |
|---------|---|---|-----------|---------------|------|----------|--------------|------------------|--------------|-------------------------------|
| 1       |  |  | Connected | 192.168.8.150 | 80   | ONVIF    | 1CC3162009EF | 41.7.0.60        | MS-C2862-IPB | Milesight Technology Co.,Ltd. |
| 2       |  |  | Connected | 192.168.8.135 | 80   | ONVIF    | 1CC316211E78 | 41.7.0.60-r11-a1 | MS-C4862-IPB | Milesight Technology Co.,Ltd. |

### Step3. Configure IP Channel.

#### Configure one camera

After successfully adding the channel, click  to re-edit the channel info.

Camera Edit

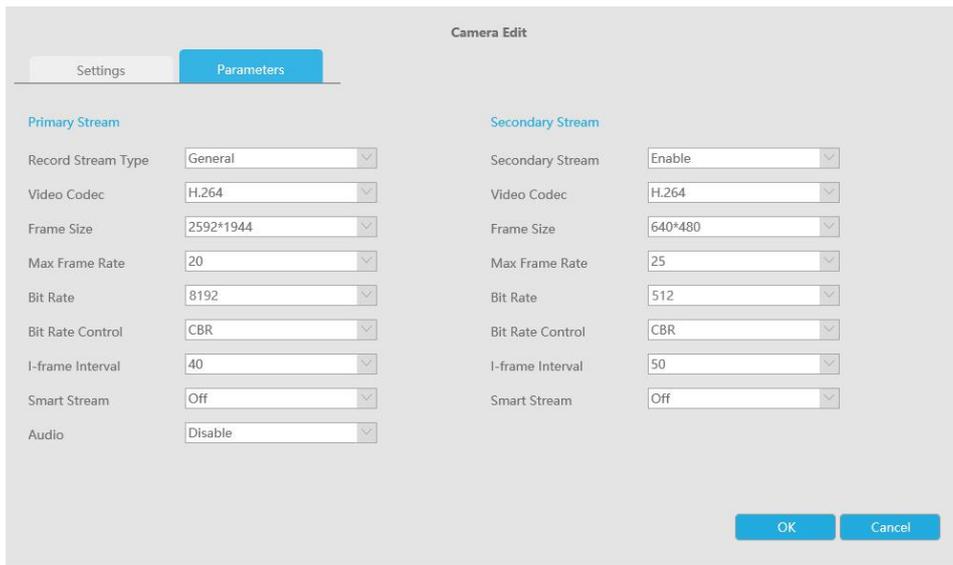
Settings
Parameters

|                    |   |              |   |
|--------------------|---|--------------|---|
| Channel            | <input type="text" value="1"/>              | Channel Name | <input type="text" value="CAM1"/>           |
| IP Address         | <input type="text" value="192.168.14.102"/> | Port         | <input type="text" value="8081"/>           |
| User Name          | <input type="text" value="admin"/>          | Password     | <input type="password" value="*****"/>      |
| Transport Protocol | <input type="text" value="UDP"/>            | Time Setting | <input type="checkbox"/> Sync Time With NVR |
| Protocol           | <input type="text" value="MSSP"/>           |              |   |

Go to Parameters page to re-edit parameters of this channel,select the Record Stream Type as General or Event to set different parameters separately. It is recommended to set lower parameters for General Stream to save certain storage. Click  to save after your configuration.

#### Note:

- 1.Event Record Stream Configuration includes Events like Motion Detection, VCA, Camera Alarm Input and Smart Analysis.
- 2.Make sure your IPC' s firmware version is 4X7.0.75 or above.



You can delete this channel by clicking , or you can select multiple devices and then click



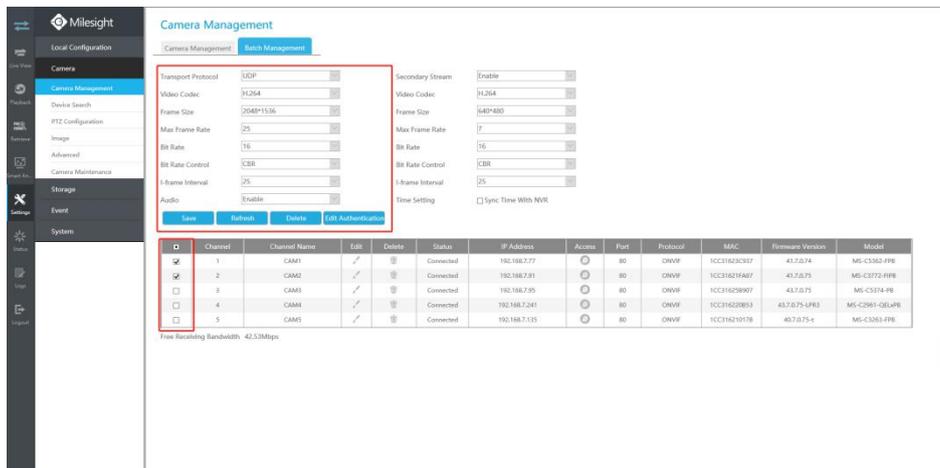
to delete.

Buttons: Add Refresh Delete Edit Authentication

| Channel | Edit | Delete | Status    | IP Address     | Port | Protocol | MAC          | Firmware Version | Model        | Vendor                        |
|---------|------|--------|-----------|----------------|------|----------|--------------|------------------|--------------|-------------------------------|
| 1       |      |        | Connected | 192.168.14.102 | 8081 | MSSP     | 1CC316210991 | 40.7.0.71-r8     | MS-C2962-FPB | Milesight Technology Co.,Ltd. |
| 2       |      |        | Connected | 192.168.14.103 | 8083 | MSSP     | 1CC316219804 | 40.7.0.71-r8     | MS-C2961-EB  | Milesight Technology Co.,Ltd. |
| 3       |      |        | Connected | 192.168.14.104 | 8084 | MSSP     | 1CC316238D13 | 40.7.0.71-r8     | MS-C2942-B   | Milesight Technology Co.,Ltd. |

### Batch configuring camera

Click , select multiple channels and set cameras parameters.



### Note:

The user name and password entered here are the default user name and password. The management port is 80 and the default Transport protocol is UDP.

### Step5. Configure PoE Channel(Only for PoE NVR)

1. Connect Milesight camera to PoE port, it will detect the camera automatically.
2. If the camera's password is the same with NVR admin password, it will be successfully authenticated and be changed into the same network segment with internal NIC IPv4 address,

then the camera will be connected successfully.

3. If the camera's password is different with NVR admin password, the PoE channel will show disconnect status. You need to input the camera's password by clicking **Edit Authentication** to realize authentication (you can also multi-select the devices and then click this button). Then the camera will be changed into the same network segment with internal NIC IPv4 address and will be successfully connected. In next time, NVR will use the password you input to authenticate this camera when you re-plug it;

### Edit Authentication

User Name

Password

Note: Edit authentication for selected cameras.

**Note:**

1. When NVR detects the inactive camera connected via PoE port, the camera will synchronize the password of NVR, and then camera will be successfully connected.

2. The steps for adding the **third party PoE cameras** plugged into Milesight PoE NVR:

- ① Set camera's IP segment to the same as NVR PoE NIC before plugging into PoE NVR;
- ② Select PoE for NIC in Device Search interface, click **Search** to search out cameras;
- ③ Select cameras and click **Add** to add them.

4. You can **access to cameras website** directly by clicking , which can save much steps to configure cameras with complete settings which were unavailable.

**Camera Management**

Camera Management | Batch Management

Channel:  Channel Name:   
 IP Address:  Port:   
 User Name:  Password:   
 Transport Protocol:  Time Setting:  Sync Time With NVR  
 Protocol:

| Channel                  | Channel Name | Edit | Delete | Status | IP Address | Access        | Port | Protocol | MAC   | Firmware Version | Model          |                 |
|--------------------------|--------------|------|--------|--------|------------|---------------|------|----------|-------|------------------|----------------|-----------------|
| <input type="checkbox"/> | 1            | CAM1 |        |        | Connected  | 192.168.7.77  |      | 80       | ONVIF | 1CC31623C937     | 41.7.0.74      | MS-C5362-FPB    |
| <input type="checkbox"/> | 2            | CAM2 |        |        | Connected  | 192.168.7.91  |      | 80       | ONVIF | 1CC31621FA67     | 41.7.0.75      | MS-C3772-FPB    |
| <input type="checkbox"/> | 3            | CAM3 |        |        | Connected  | 192.168.7.95  |      | 80       | ONVIF | 1CC31625B907     | 43.7.0.75      | MS-C5374-PB     |
| <input type="checkbox"/> | 4            | CAM4 |        |        | Connected  | 192.168.7.241 |      | 80       | ONVIF | 1CC316220B53     | 43.7.0.75-LPR3 | MS-C2961-QELxPB |
| <input type="checkbox"/> | 5            | CAM5 |        |        | Connected  | 192.168.7.135 |      | 80       | ONVIF | 1CC316210178     | 40.7.0.75-1    | MS-C3263-FPB    |

Free Receiving Bandwidth: 42.53Mbps

**Note:**

1. Please enable Channel Access in Network->More first;
2. Please select HTTP as transport protocol for PoE-connected cameras;
3. Please upgrade the NVR firmware version to xx.8.0.6 or above.

**4.8.2.2 Device Search**

| No. | IP Address    | Edit | Status | Port | Protocol | NIC | MAC          | Firmware Version         | Model           | Vendor    |
|-----|---------------|------|--------|------|----------|-----|--------------|--------------------------|-----------------|-----------|
| 1   | 192.168.2.111 | /    | Active | 80   | MSSP     | LAN | TCC316289074 | 46.7.0.75-a5             | MS-C2964-SPB    | Milesight |
| 2   | 192.168.2.112 | /    | Active | 80   | MSSP     | LAN | TCC3162000F8 | 41.7.0.74-r11            | MS-C2962-4FPB   | Milesight |
| 3   | 192.168.2.113 | /    | Active | 80   | MSSP     | LAN | TCC316207EC8 | 40.7.0.76-4K-AreaCrop-a1 | MS-C2851-4PB    | Milesight |
| 4   | 192.168.2.115 | /    | Active | 80   | MSSP     | LAN | TCC316917F19 | 41.7.0.76-4K-AreaCrop-a1 | MS-C3762-4FPB   | Milesight |
| 5   | 192.168.2.121 | /    | Active | 80   | MSSP     | LAN | TCC3160A091A | 43.7.0.75                | MS-C3674-4PB    | Milesight |
| 6   | 192.168.2.133 | /    | Active | 80   | MSSP     | LAN | TCC31621A158 | 41.7.0.75-r3-a2          | MS-C4462-4PB    | Milesight |
| 7   | 192.168.2.134 | /    | Active | 80   | MSSP     | LAN | TCC3162168F  | 43.7.0.75-LPR1-t         | MS-C2961-4EL4PB | Milesight |
| 8   | 192.168.2.139 | /    | Active | 80   | MSSP     | LAN | TCC316220A83 | 43.7.0.76-#              | MS-C3674-4PB    | Milesight |
| 9   | 192.168.2.146 | /    | Active | 80   | MSSP     | LAN | TCC316219227 | 41.7.0.75-t1             | MS-C4482-4PB    | Milesight |
| 10  | 192.168.2.147 | /    | Active | 80   | MSSP     | LAN | TCC316230744 | 40.7.0.74                | MS-C2961-4PB    | Milesight |
| 11  | 192.168.2.149 | /    | Active | 80   | MSSP     | LAN | TCC31623CF96 | 41.7.0.75-t              | MS-C4463-4PB    | Milesight |
| 12  | 192.168.2.158 | /    | Active | 80   | MSSP     | LAN | TCC316201050 | 43.7.0.75-LPR2-a1        | MS-C8262-4L9B   | Milesight |
| 13  | 192.168.2.159 | /    | Active | 80   | MSSP     | LAN | TCC31621777E | 41.7.0.73                | MS-C4463-4PB    | Milesight |
| 14  | 192.168.2.168 | /    | Active | 80   | MSSP     | LAN | TCC316220785 | 40.7.0.75-t              | MS-C3763-4PB    | Milesight |
| 15  | 192.168.2.169 | /    | Active | 80   | MSSP     | LAN | TCC3162207C5 | 42.7.0.66-#6             | MS-C8262-4PB    | Milesight |
| 16  | 192.168.2.170 | /    | Active | 80   | MSSP     | LAN | TCC3162188C3 | 40.7.0.71-#mg            | MS-C2962-4PB    | Milesight |

Select Protocol and NIC, set the IP range, then click **Search** to quickly search the IP devices that support selected protocol and NIC at the same LAN with NVR.

Protocol  NIC  IP Range  **Search** **Add**

If the camera status shows Inactive, please select camera and click **Activate** to active it first before adding to NVR.

Besides, you can select channels and click **IP Edit** to **batch editing** their IP information.

**IP Edit**

MAC

IP Address

Subnet Mask

Gateway

DNS

Port

User Name

Password

**OK** **Cancel**

### 4.8.2.3 PTZ Configuration

Select a channel and set the PTZ parameters. You can select [Copy to Camera] to copy the same configuration to other channels.

**PTZ Configuration**

|                 |         |
|-----------------|---------|
| Channel         | 1       |
| Connection Type | ONVIF   |
| Baud Rate       | 9600    |
| Data Bit        | 8       |
| Stop Bit        | 1       |
| Checksum Bit    | None    |
| PTZ Protocol    | PELCO_D |
| PTZ Address     | 1       |

Copy to Camera

Save

**Note:**

1. The PTZ protocol and address of IP channel must be consistent with those of the PTZ decoder.
2. Settings for a PTZ camera must be configured before it can be used. Make sure that the PTZ and RS-485 of the NVR are connected properly.

### 4.8.2.4 Image

**Display**

**Image**

Display Enhancement Day/Night Settings OSD Privacy Mask ROI

Channel 5

Power Line Frequency 50Hz

Day/Night Mode Auto Mode

Day to Night Sensitivity 5 Reset

Night to Day Sensitivity 5 Reset

Day to Night Value 20 Reset

Night to Day Value 82 Reset

IR Light Sensor Value 98

Day/Night Switch Refocus On

Outdoor/Indoor Mode Outdoor

Corridor Mode Off

Image Rotation Off

Keep Correct Aspect Ratio Off

Copy to Camera

**Step1. Select channel.**

**Step2. Set the configuration.**

**Power Line Frequency:** 50Hz and 60Hz are available.

**Day/Night Mode:** Set the Day/Night mode for the channel.

**Day to Night Sensitivity:** Set the Sensitivity to trigger Night Mode.

**Night to Day Sensitivity:** Set the Sensitivity to trigger Day Mode.

**Day to Night Value:** Set the Minimum illumination intensity to trigger Night Mode.

**Night to Day Value:** Set the Maximum illumination intensity to trigger Day Mode.

**IR Light Sensor Value:** Shows the current value of IR light sensor.

**IR LED Level:** Adjust the IR LED level from 1 to 100.

**White LED Level:** Adjust the White LED level from 0 to 100.

**Smart IR Mode:** 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. Support to set the strength of the IR to Auto Mode or Customize to achieve the best effect.

**Near view IR level:** Adjust the light strength of Low-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.

**IR Strength Value:** The current value of Low-Beams LED and High-Beams LED light value.

**Day/Night Switch Refocus:** With this option enabled, the camera will refocus when switching between day mode and night mode.

**Outdoor/Indoor Mode:** Set Outdoor/Indoor mode for the channel.

**Corridor Mode:** Set corridor mode.

**Image Rotation:** Set image rotation.

**Local Display Video:** Select NTSC or PAL for local display.

**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.

**Note:**

1. Smoked Dome Cover is only supported for Pro Dome and PTZ Dome cameras.
2. Smart IR Mode and IR LED Level are supported for cameras with IR LEDs.
3. White LED Level is only supported for PTZ Bullet cameras.
4. Day to Night Sensitivity and Night to Day Sensitivity are only available under Auto Mode when camera are Panoramic Bullet and Mini Bullet whose firmware version is 4X.7.0.74 or above.

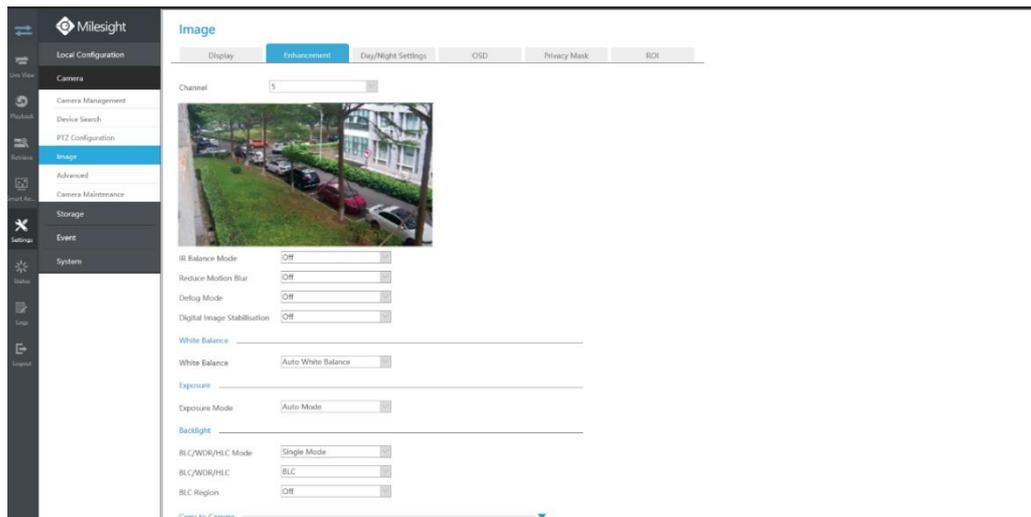
**Step3. You can click [Copy to Camera] to copy the same configuration to other channels.**



**Step4. Click save to save the settings.**

**Enhancement**

You can set Image Enhancement on NVR, and the configuration will be synchronized to Camera.



**Step1. Select channel.**

**Step2. Set the configuration.**

**IR Balance Mode:** Turn on to avoid IR overexposure.

**Reduce Motion Blur:** Enable this function to reduce the motion blur of objects effectively. You can adjust the deblur level from 1 to 100.

**Defog Mode:** Better image effect in foggy weather.

**Digital Image Stabilization:** Decrease the blur and shakiness of the image.

**White Balance:** Choose a white balance mode for the channel.

**Exposure Mode:** Auto Mode, Manual Mode, and Schedule Mode are available.

**BLC/WDR/HLC Mode:** Click to choose Single Mode, Day/Night Mode or Schedule Mode.

**BLC/WDR/HLC:** Click to configure Back Light Compensation, Wide Dynamic Range or High Light Control.

**Wide Dynamic Range:** Off, Customize, and On are available.

**Wide Dynamic Level:** Set WDR with Low/High/Auto level.

**BLC Region:** Off, Customize, and Centre are available (in single mode, only enable when WDR is disable).

**HLC Level:** Select level for HLC.

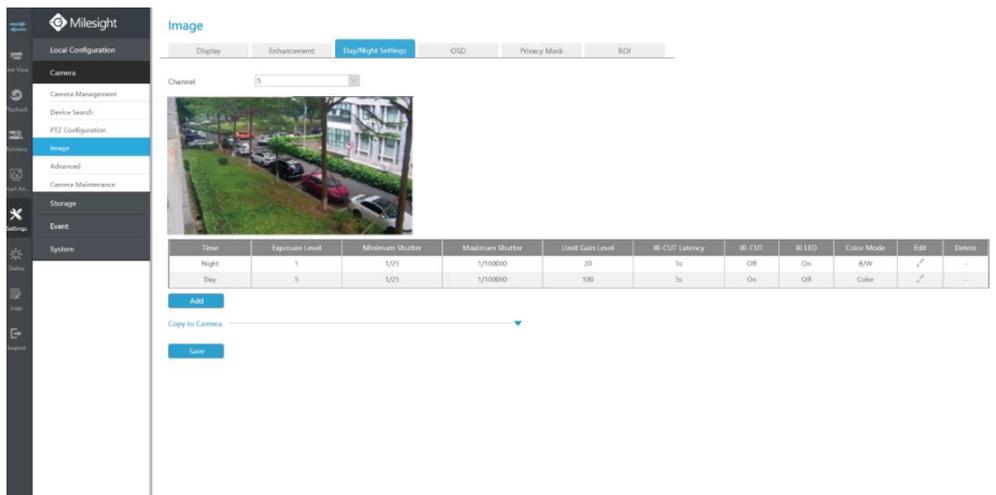
**Anti-flicker Level:** Reduce flickers that appear on screen in some lighting conditions and there are 10 levels of anti-flicker adjustments.

**Step3. You can click [Copy to Camera] to copy the same configuration to other channels.**



**Step4. Click save to save the settings.**

**Day/Night Settings**



**Step1. Select channel.**

**Step2. Set the configuration.**

**Exposure Level:** Level 0~10 are available to meet your need.

**Minimum Shutter:** Set the Minimum Shutter to 1~1/100000s.

**Maximum Shutter:** Set the Maximum Shutter to 1~1/100000s.

**Limit Gain Level:** Set the Limit Gain Level to 1~100.

**IR-CUT Latency:** The interval time of switching one mode to another.

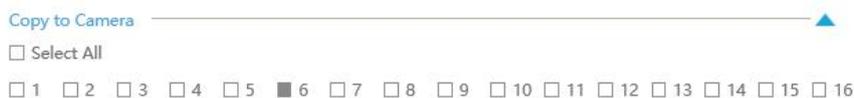
**IR-CUT:** Turn on or turn off IR-CUT.

**IR LED:** Turn on or turn off IR-LED.

**Color Mode:** Select B/W or Color mode under Day/Night mode.

**Edit:** Edit the parameters above.

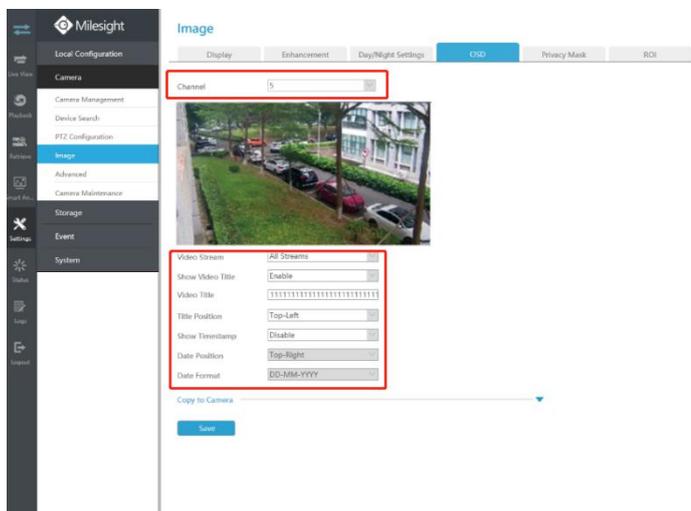
**Step3. You can click [Copy to Camera] to copy the same configuration to other channels.**



**Step4. Click save to save the settings.**

### OSD

You can set OSD (On Screen Display) on NVR, and the OSD will be synchronized to Camera.



Select channel and finish the info and save.

**[Video Stream]:** Select stream. All Streams, Primary Stream and Secondary Stream are available.

**[Show Video Title]:** Enable it and the video title will be shown on screen.

**[Video Title]:** Set the video title for the channel.

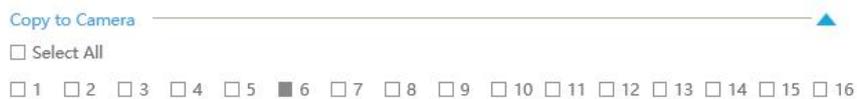
**[Title Position]:** Set the position for the video title: Top-Left, Top-Right, Bottom-Left or Bottom-Right.

**[Show Timestamp]:** Enable or disable timestamp.

**[Date Format]:** Set format for date: YYYY-MM-DD, MM/DD/YY or DD/MM/YYYY.

**[Date Position]:** Set the position for the date: Top-Left, Top-Right, Bottom-Left or Bottom-Right.

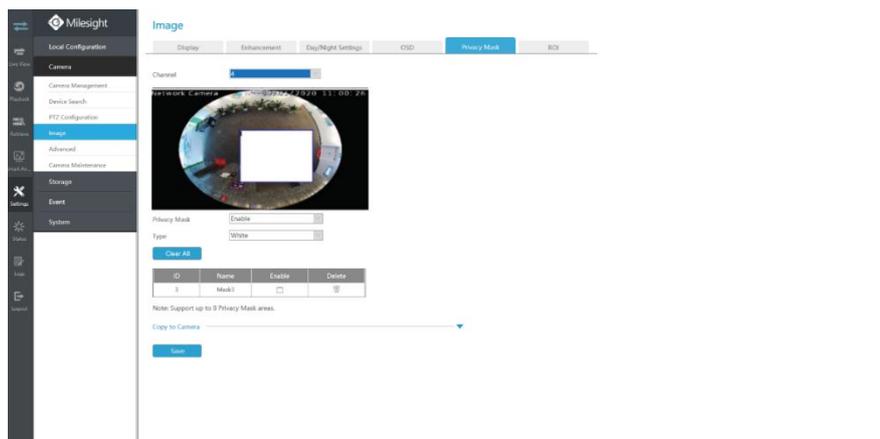
**Step3.** You can click **[Copy to Camera]** to copy the same configuration to other channels.



**Step4.** Click save to save the settings.

### Privacy Mask

Milesight NVR support to set privacy masks. It is used to cover some privacy area which is not proper to appear on monitor.



You can add a privacy mask by following steps:

**Step1.** Select channel and enable privacy mask.

**Step2.** Set the privacy mask type and drag the mouse to select the area which is privacy on the live window. You can add **8 areas** at most and each zone can be enabled and disabled.

**Step3.** You can click **[Copy to Camera]** to copy the same configuration to other channels.



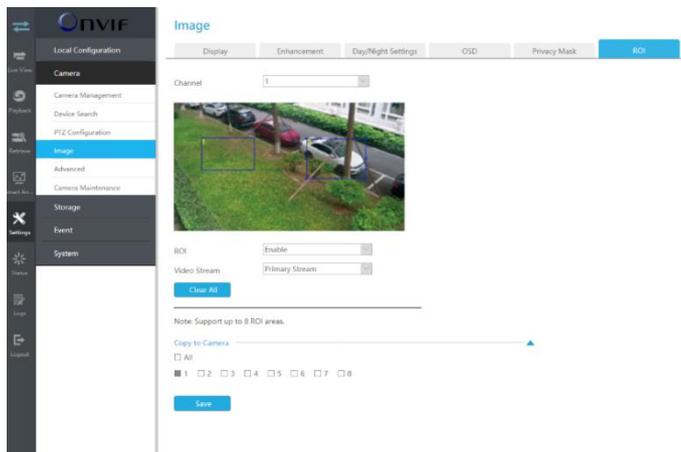
**Step4.** Click save to save the settings.

**Note:**

Ensure the firmware version of the network camera is 4X.7.0.70 or above.

**ROI**

Milesight NVR supports to set ROI (Region Of Interest). It is an image cropping feature designed to assist users in achieving bandwidth and storage optimization.



You can add a ROI by following steps:

**Step1. Select channel and enable ROI.**

**Step2. Set the video stream type and drag the mouse to select the area in the preview window.**

**You can add 8 areas at most and each zone can be enabled and disabled.**

**Step3. You can click [Copy to Camera] to copy the same configuration to other channels.**



**Step4. Click save to save the settings.**

**Note:**

Ensure the firmware version of the network camera is 4X.7.0.70 or above.

## 4.8.2.5 Advanced

### 4.8.2.5.1 Water Mark

---

Advanced

Watermark Heat Map

Channel



Watermark

Watermark String

Copy To Camera

Save

You can add a watermark by following steps:

**Step1. Select channel.**

**Step2. Click the checkbox to enable Watermark.**

**Step3. Enter Watermark String.**

**Step4. Copy the image settings to other channels.**

**Step5. Select  to save the settings.**

**Note:**

Watermark only appears when exporting by a third party.

### 4.8.2.5.2 Heat Map

Milesight NVRs support the configuration of the Heat Map function of Milesight cameras on NVR directly and you can search and export the results of Heat Map in Smart Analysis.

Heat Map

Heat Map Settings

Channel

Heat Map

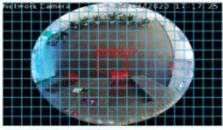
Sensitivity

Min. Object Size

Min. Dwell Time  1-100s

Scene Change Adaptability

Region Settings



Copy To Camera

Save

Note: Please configure Heat Map schedule on camera side.

**Sensitivity:** Level 1~10 are available, the default level is 5. The higher the sensitivity, the easier the moving subjects to be recorded in the result.

**Min. Object Size:** Set the minimum object size from 1 to 100, the default value is 10. Objects smaller than this value will not be recorded in the result.

**Min. Dwell Time:** Set the minimum dwell time from 1 to 300, the default value is 30. If the object stays in the area longer than the set "Minimum Dwell Time", it will not be recorded in the result.

**Scene Change Adaptability:** Level 1~10 are available, the default level is 5. Scene Change Adaptability indicates the camera's adaptability to scene changes, which can increase the accuracy of detection. The camera adapts better to faster changing scenes if the value is higher.

**Heat Map Region:** Draw the screen to set the detection area. You can click "Set All" button to select all areas, or "Clear All" button to remove the current drawn area.

**Note:**

1. Ensure that your camera's version is 4X.7.0.74 or above.
2. Please configure Heat Map schedule on camera side.
3. The Heat Map function only works on the following cameras:

Fisheye: Ensure that the dewarping mode is 10 and the dewarping rule is On-board Dewarping.

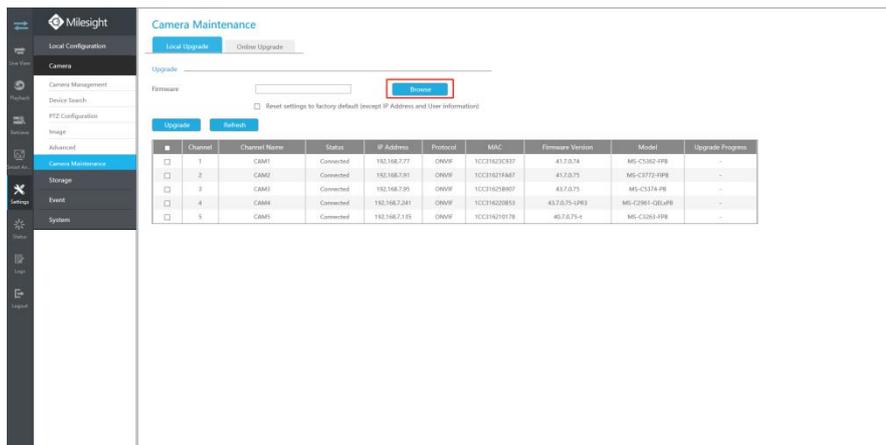
Panoramic Mini Bullet: Ensure to turn on the Lens Distort Correct function.

## 4.8.2.6 Camera Maintenance

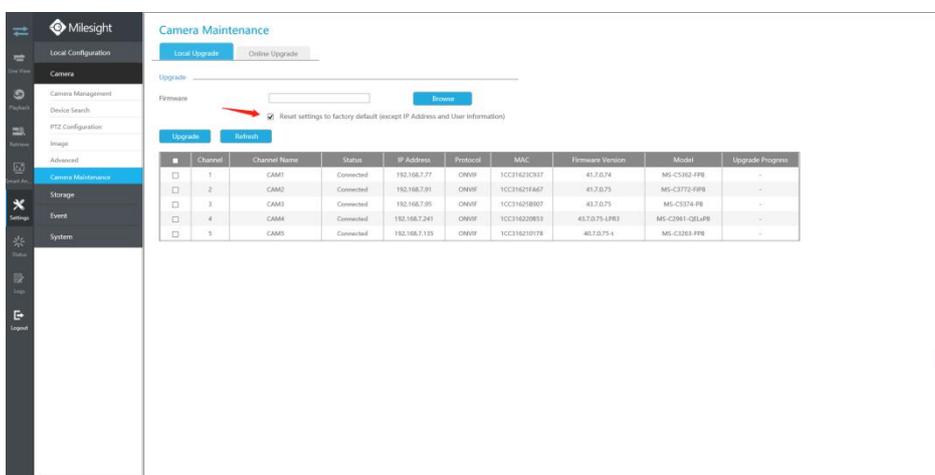
| Channel | Channel Name | Status    | IP Address    | Protocol | MAC          | Firmware Version | Model          | Upgrade Progress |
|---------|--------------|-----------|---------------|----------|--------------|------------------|----------------|------------------|
| 1       | CAM1         | Connected | 192.168.7.77  | ONVIF    | 1CC31623C937 | 41.7.0.74        | MS-C3362-FPB   | -                |
| 2       | CAM2         | Connected | 192.168.7.91  | ONVIF    | 1CC31621FA87 | 41.7.0.75        | MS-C3772-FPB   | -                |
| 3       | CAM3         | Connected | 192.168.7.95  | ONVIF    | 1CC31623B907 | 43.7.0.75        | MS-C3374-FB    | -                |
| 4       | CAM4         | Connected | 192.168.7.241 | ONVIF    | 1CC316228953 | 43.7.0.75-1PR3   | MS-C2961-QL4PB | -                |
| 5       | CAM5         | Connected | 192.168.7.135 | ONVIF    | 1CC316210178 | 40.7.0.75-1      | MS-C2053-FPB   | -                |

### Local Upgrade

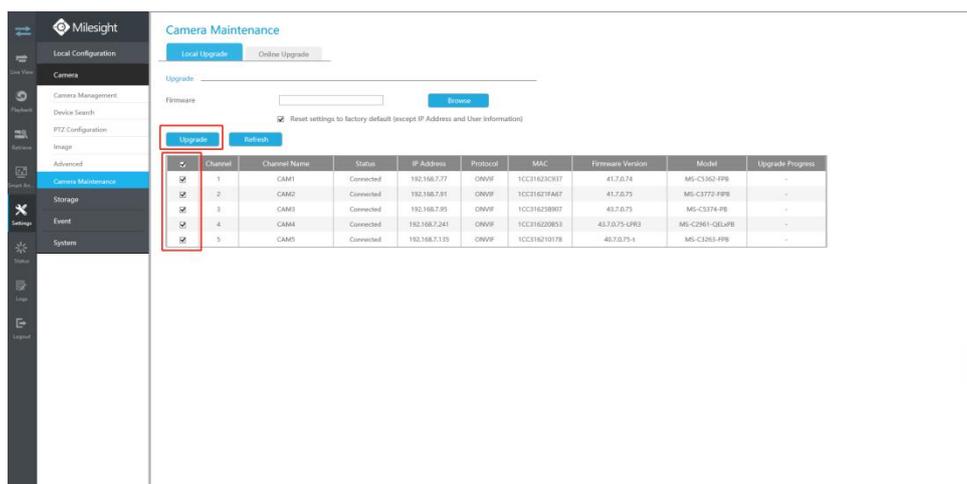
**Step1.** Click **Browse** to select the corresponding firmware.



**Step2.** Check if you need to reset settings to factory default (except IP Address and User Information) after upgrade.



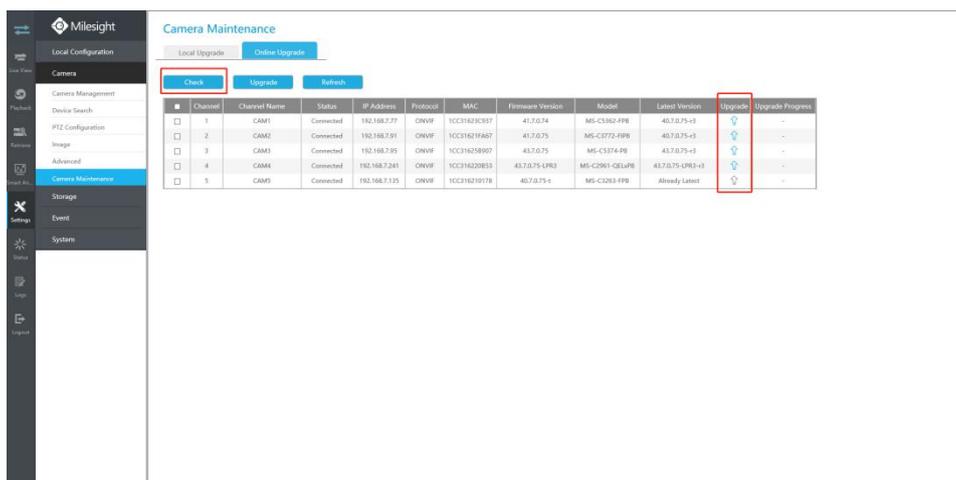
**Step3.** Choose the corresponding channel you want to upgrade and click  to upgrade the camera.



**Online Upgrade**

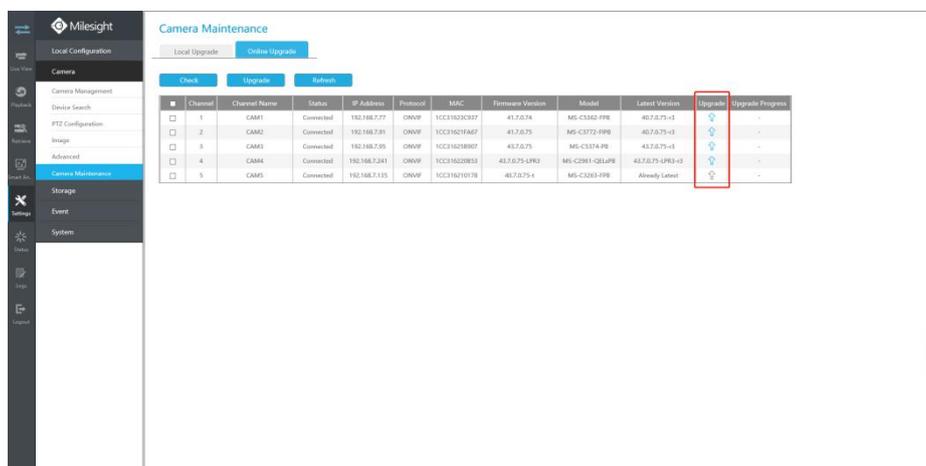
**Step1.** Click  to confirm whether there is a new version for the camera added to NVR; If there is a new version for camera, the icon in corresponding Upgrade column will turn blue and

the latest version will be displayed in Latest Version column.



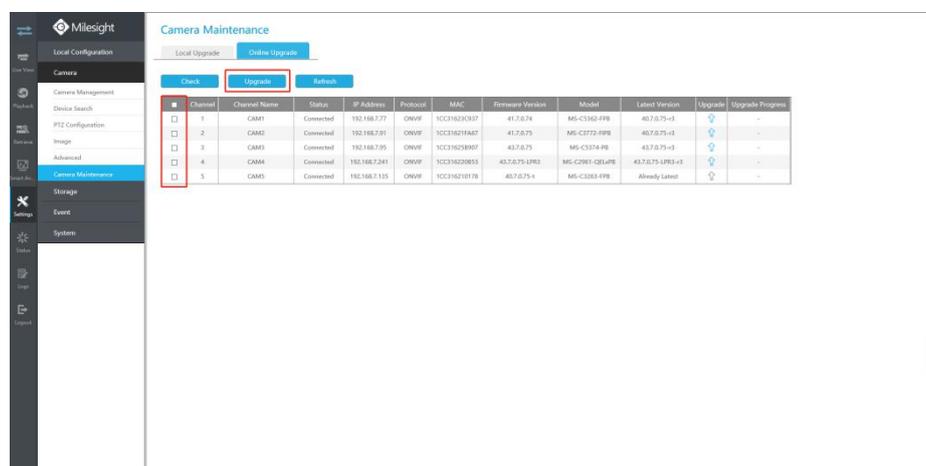
**Step2.** There are two ways to confirm the upgrade.

① Click the blue icon in corresponding Upgrade column to upgrade camera.



② A way to achieve batch upgrade. Just select the cameras you want to upgrade and then click

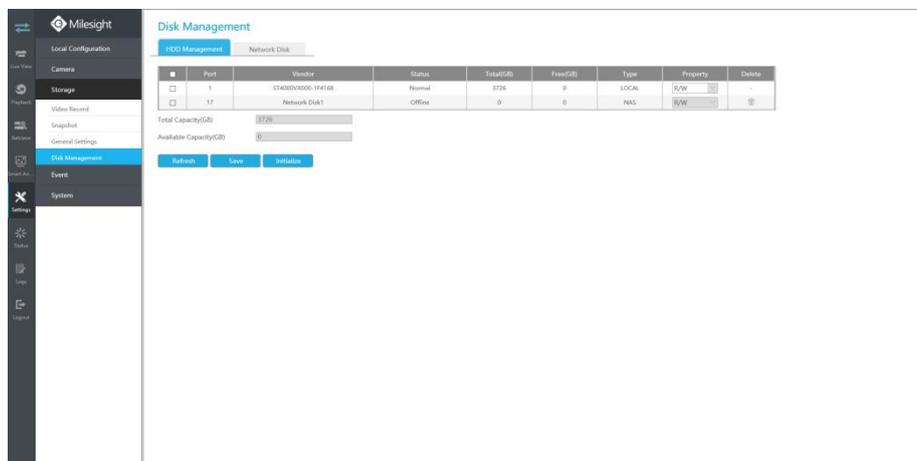
**Upgrade** button.



## 4.8.3 Storage

### Preparation for Configuration

**Step1. Ensure that your NVR has installed and initialized the HDD or Network Disk.**

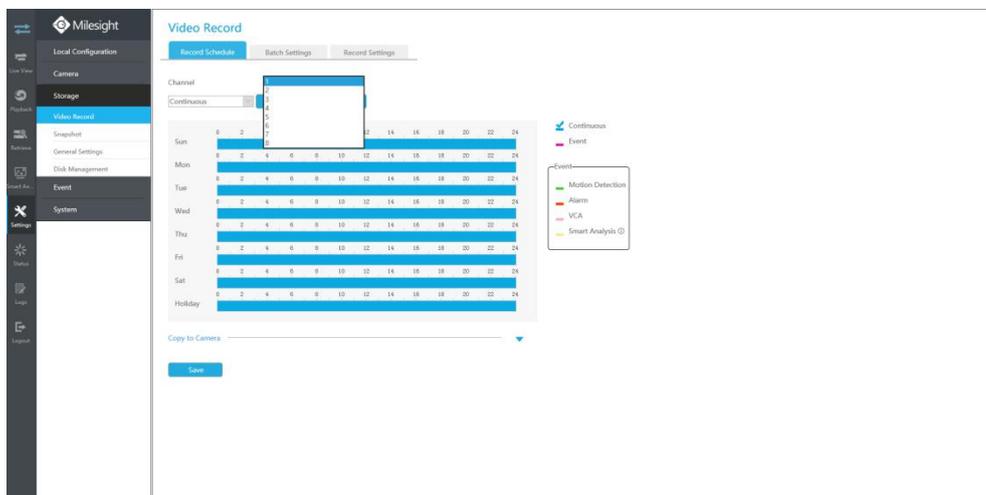


### 4.8.3.1 Video Record

#### Record Schedule

**Step1. Select Record Schedule.**

**Step2. Select the desired channel.**



**Step3. Set record schedule.**

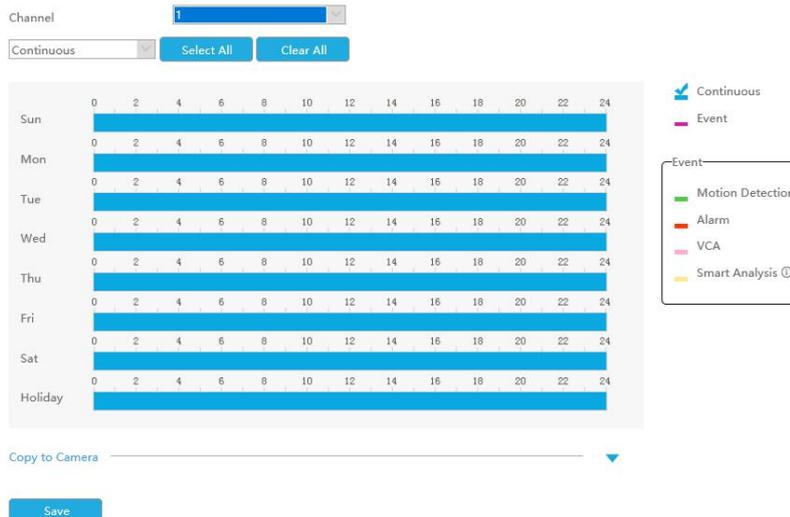
Select record configuration type including Continuous, Event (including Motion Detection, Alarm, VCA and Smart Analysis), then set the time you want to record. It is convenient for you to set or clear all

schedule by clicking

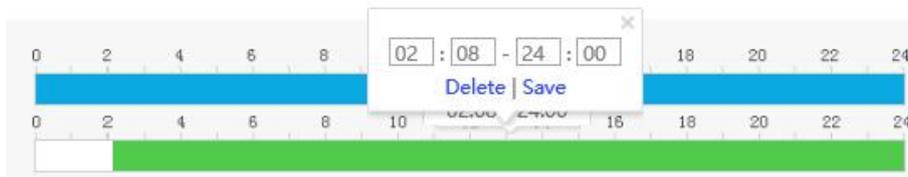
Select All

or

Clear All



Also, you can click the time bar and reedit the record time



Click  to copy time setting to other days.



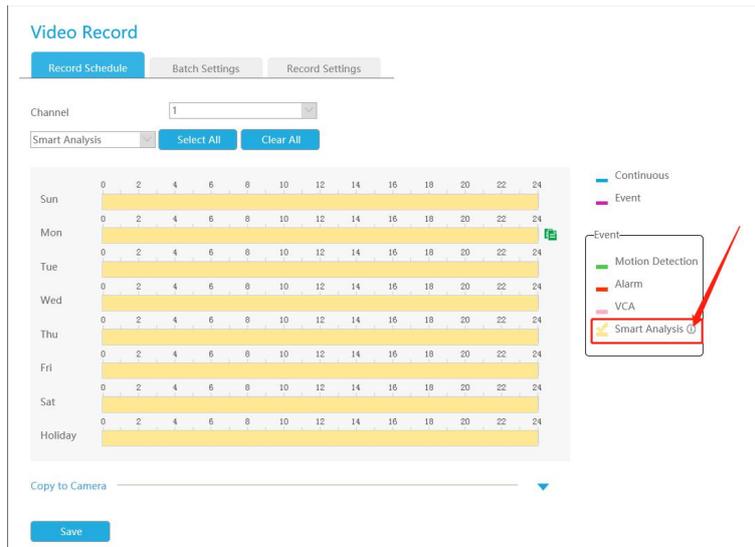
Click [Copy to Camera] to copy the same configuration to other channels.



**Note:**

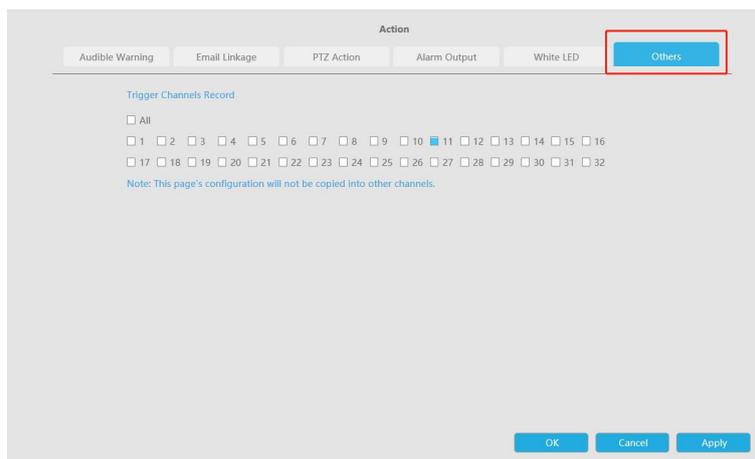
Here are steps for setting ANPR record correctly so that NVR will record when license plate is detected.

**Step1:** Set Smart Analysis as Record Type in Storage -> Video Record -> Record Schedule interface; The exclamation mark next to Smart Analysis is used to indicate that Smart Analysis includes ANPR.



**Step2:** Ensure Black List Mode or White List Mode or Visitor Mode is enabled as your demand.

**Step3:** Effective time and Trigger Channels Record action of Black List Mode/White List Mode/Visitor Mode are set (Full effective time and trigger channel record are set by default).



### Batch Settings

Record and Stop are available for user to set for selected channels.



## Record Settings

Make record settings for selected channels.

**Video Record**

Record Schedule    Batch Settings    **Record Settings**

Channel: 1

Pre Record: Disable

Post Record: Disable

Audio Record: Enable

Record Stream Type: Primary+Secondary Stream

Video Due Time: Unlimit

ANR: Disable

Copy to Camera

Save

**Channel:** Select the channel which will be set.

**Pre Record :** Event pre-record duration time. It will start recording before the event is triggered.

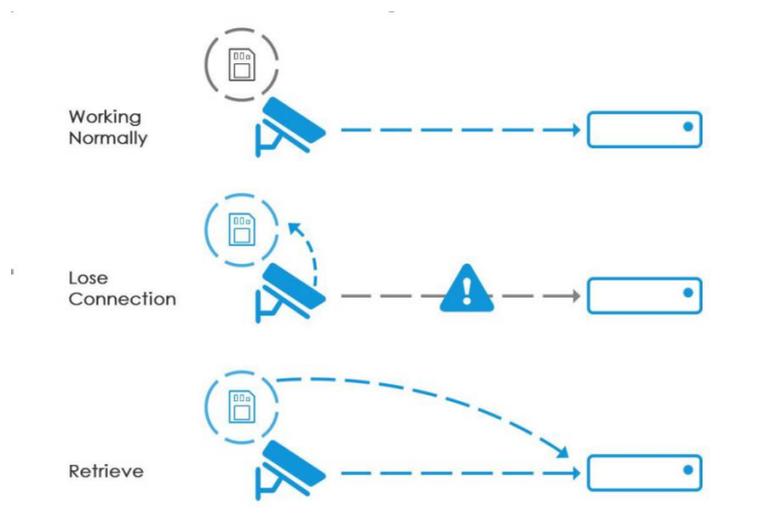
**Post Record:** Event post-record duration time. It will keep recording after the event is over.

**Audio Record:** Select to record audio or not.

**Record Stream Type:** Select Main stream or sub stream for record. [Primary+Secondary Stream is available for NVR model ends with T only](#). If secondary stream is selected for recording while it is disabled, a prompt indicating that the secondary stream is unavailable will pop up.

**Video Due Time:** Set the due time of recording files, 1~120days or unlimit are available.

**ANR (Automatic Network Replenishment) :** Can automatically replenish the recording gap due to internet interruptions. As the picture shows below, NVR stores videos when the network connection between NVR and cameras is normal. When the connection lost, the camera would start continuous recording and store videos in SD card instead. Then after reconnection, NVR automatically retrieves the missed videos from camera's SD card in a period of time to prevent data missing.



Here are some notes for using ANR below:

**Note:**

1. Ensure that your devices are with the correct firmware versions.

Camera: V4X.7.0.72 or above

NVR: V7X.9.0.6 or above

Firmware download link: <https://www.milesight.com/support/download#firmware>

2. Camera should equipped with on-board SD card.
3. Camera should be added to NVR by MSSP protocol.
4. No matter whether NVR has recording schedule or not, camera will do ANR recording and then retrieve back to NVR after reconnection.

Click [Copy to Camera] and  to copy the same configuration to other channels.



### 4.8.3.2 Snapshot

#### Snapshot Schedule

**Step1. Select Record Schedule.**

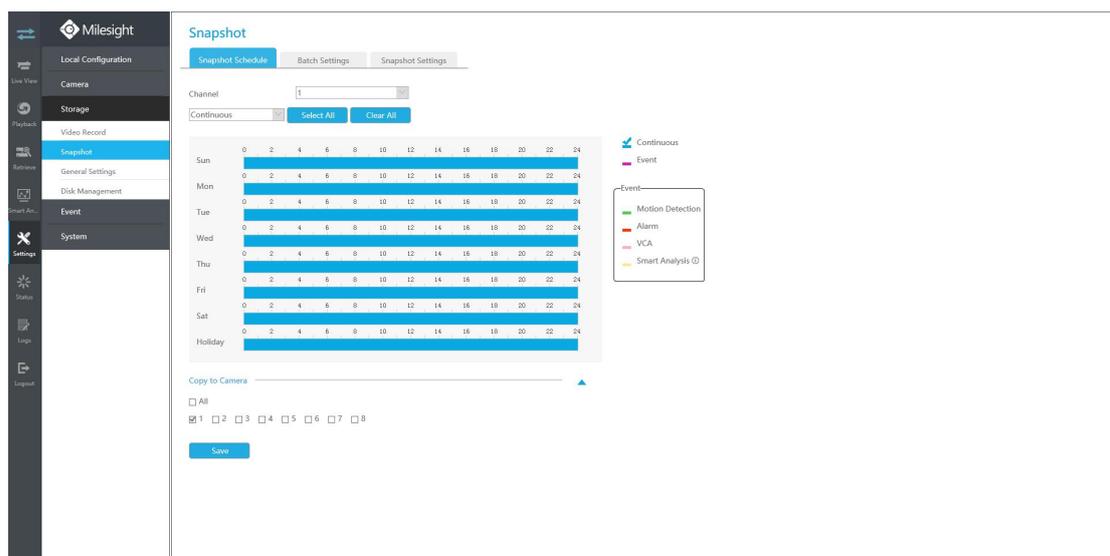
**Step2. Select the desired channel.**

**Step3. Set record schedule.**

Select operation type: Continuous, Event or Erase. Event record includes events like Motion Detection, Alarm, VCA and Smart Analysis, which can be searched in Event Playback. Set the time

you want to snapshot. It is convenient for you to set or clear all schedule by clicking 

or .



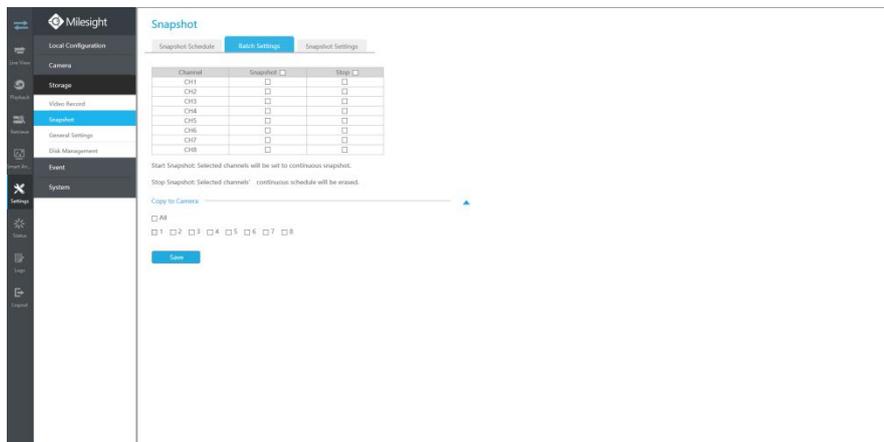
Also, you can click the time bar and reedit the record time

Click  to copy time setting to other days.

Click [Copy to Camera] to copy the same configuration to other channels.

### Batch Settings

Snapshot and Stop are available for user to set for selected channels.



### Snapshot Settings

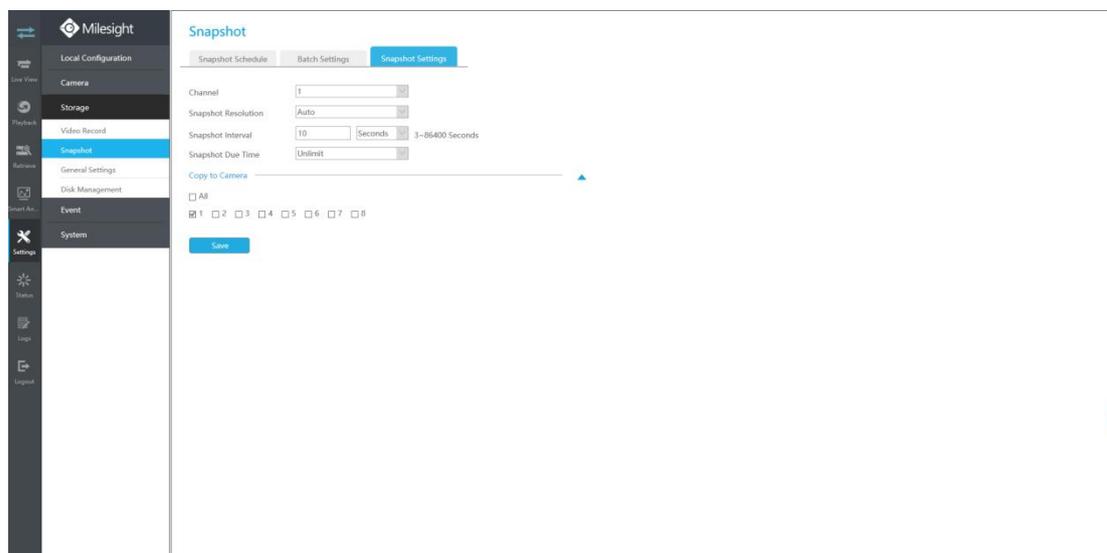
Make general configuration for selected channels. Click [Copy to Camera] to copy the same configuration to other channels.

**Channel:** Select the channel which will be set.

**Snapshot Resolution:** Set the snapshot resolution.

**Snapshot Interval:** Set the snapshot Interval, 3~86400 seconds are available.

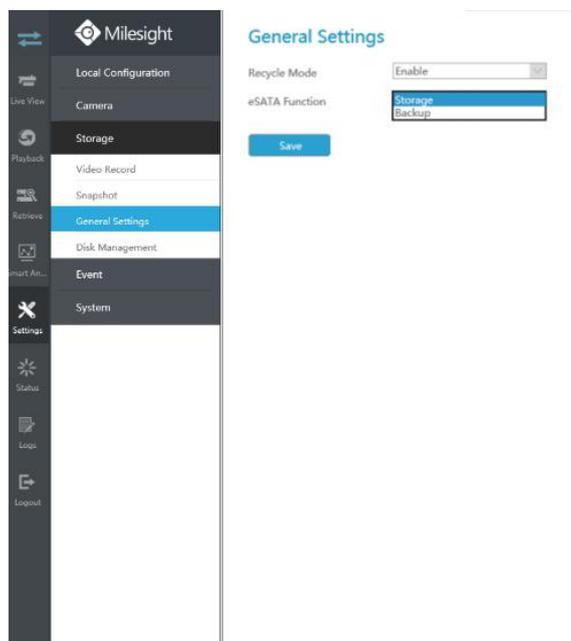
**Snapshot Due Time:** Set the due time of snapshot files, 1~120days or unlimit are available.



### Note:

Some models support continuous snapshot function.

### 4.8.3.3 General Settings



**Recycle Mode:** You can enable or disable Recycle Mode for all storage device.

**eSATA Function:** Both storage and backup are available.

**Note:**

eSATA Function is only available for NVR 8000 Series.

### 4.8.3.4 Disk Management

You can check Disk status and add Network Disk here.

#### HDD Mangement

**Property:** R/W and Read-only are available for this option.

**Note:**

Initializing the HDD before you set record schedule to ensure that record properly works.

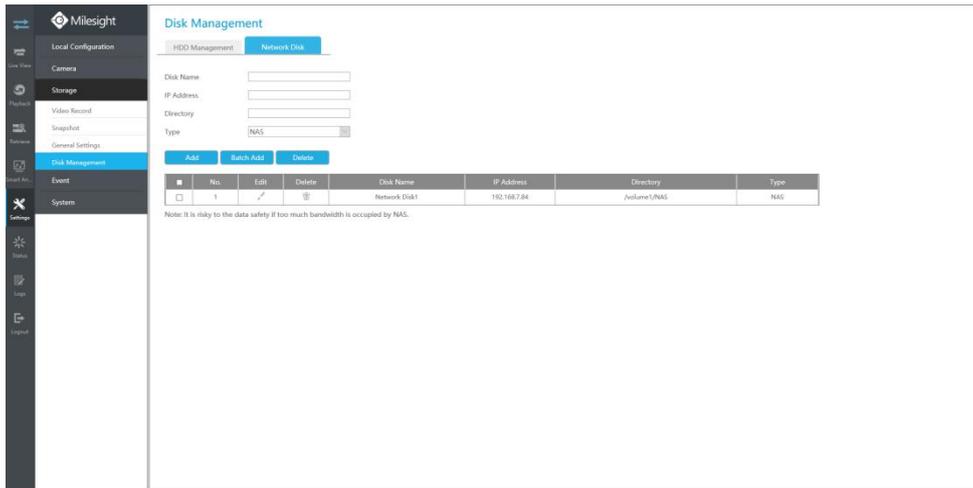


#### Network Disk

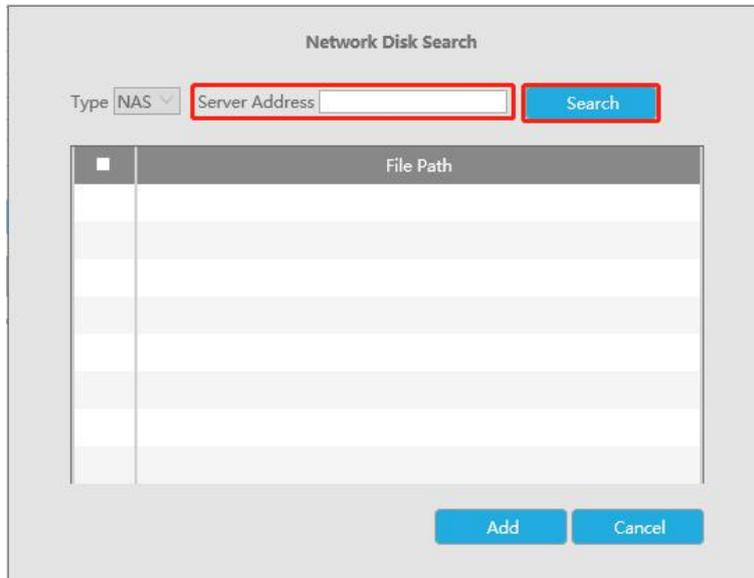
NAS (Network-Attached Storage) should be available within the network and properly configured to store the recorded files and snapshots.

**Note:**

1. NAS with NFS format is the only type for network disk adding.
2. It's recommended to use Hard Disk rather than Network Disk.

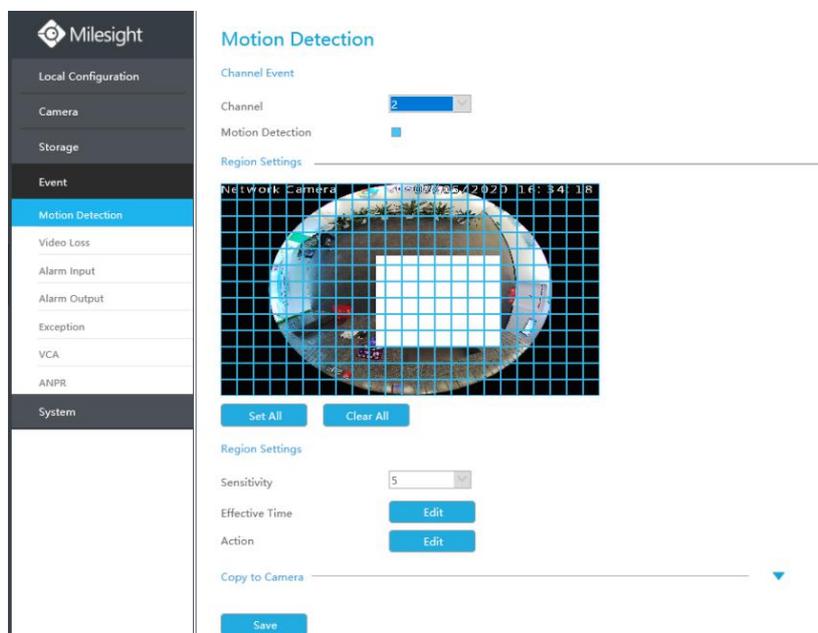


You can add it manually or search local NAS by clicking .



## 4.8.4 Event

### 4.8.4.1 Motion Detection



#### Step 1. Enable Motion Detection.

Select channel , Sensitivity and click  to enable Motion Detection.



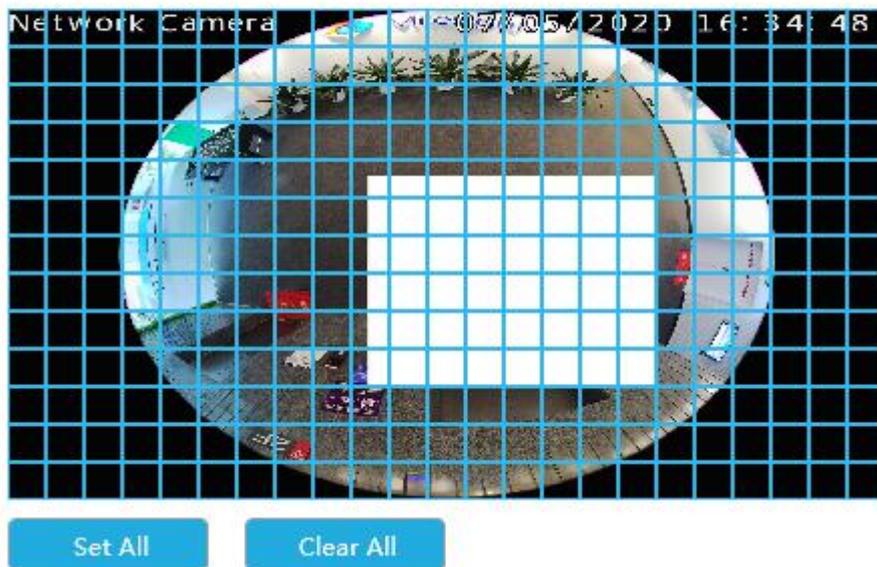
#### Step2: Set the area for triggering motion detection.

You can select an area by dragging the mouse to set the trigger area, and this area will be

synchronized to camera. Also, you can set or clear all set region by directly clicking



Region Settings



**Step 3. Set Effective Time of motion detection by clicking**

NVR receives the alarm when effective time has been set. It will be more convenient by clicking



**Step 4. Set Action for motion detection alarm by clicking**

**Audible Warning:** NVR will trigger an audible beep when motion is detected.

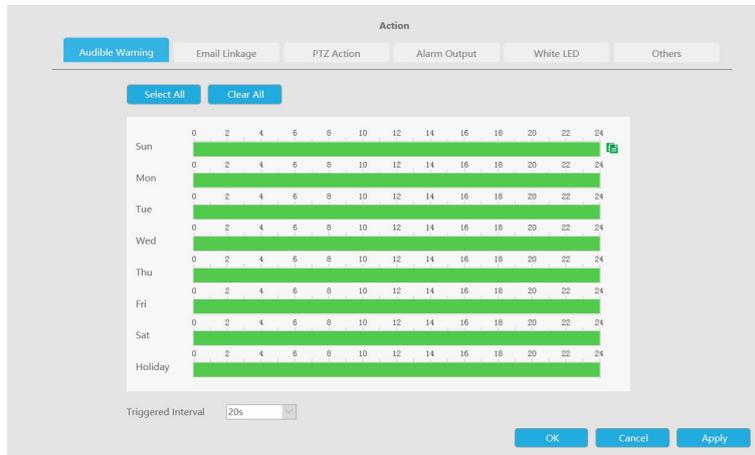
Drag a line on the time table for time setting. It will be more convenient by clicking



Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

Drag a line on the time table for time setting. It will be more convenient by clicking

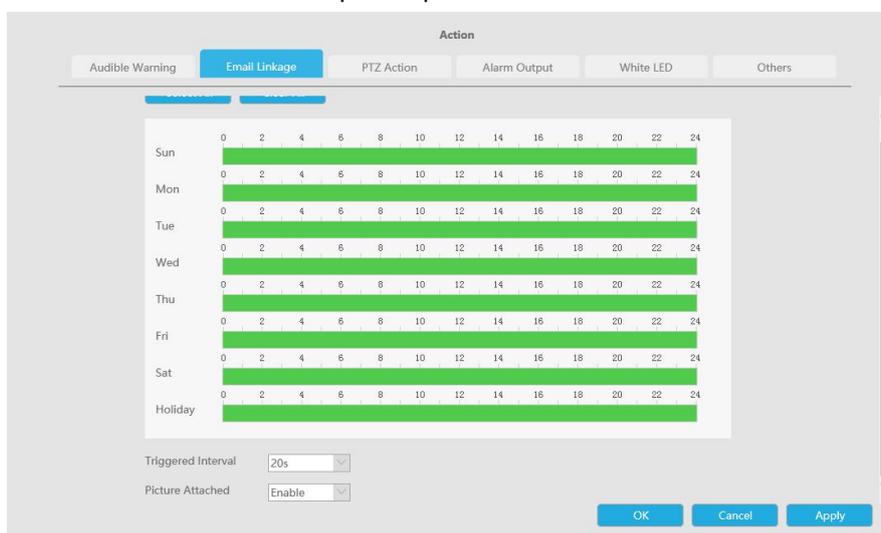
 or  to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

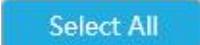
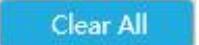
**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.



**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset** and **Patrol**.

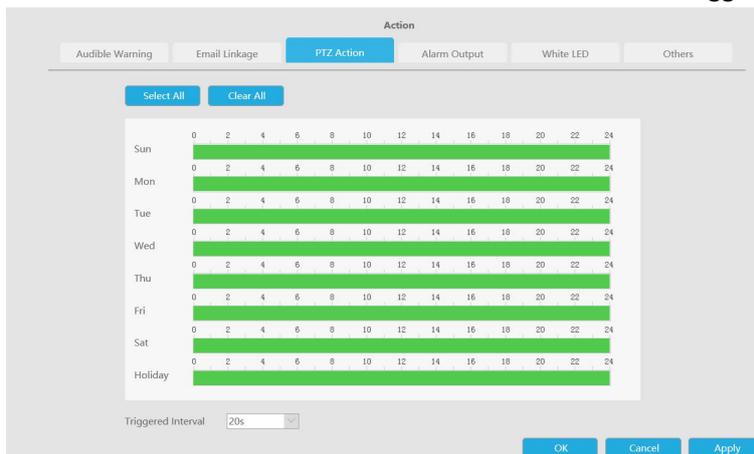
Drag a line on the time table for time setting. It will be more convenient by clicking

 or  to set or clear all time settings.

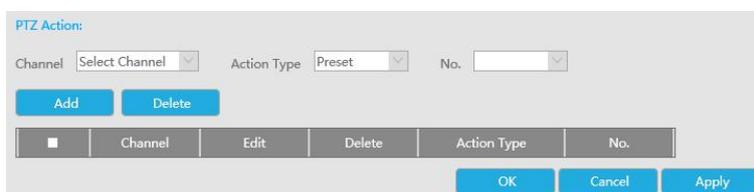
Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action.



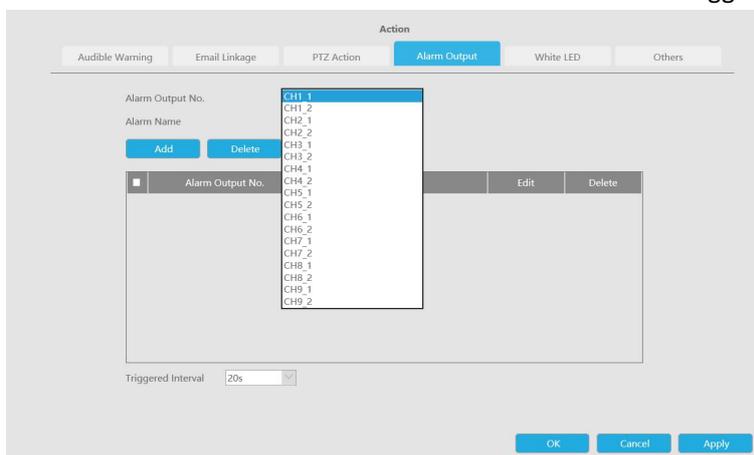
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



**White LED:** Trigger White LED flashing when alarm is triggered.

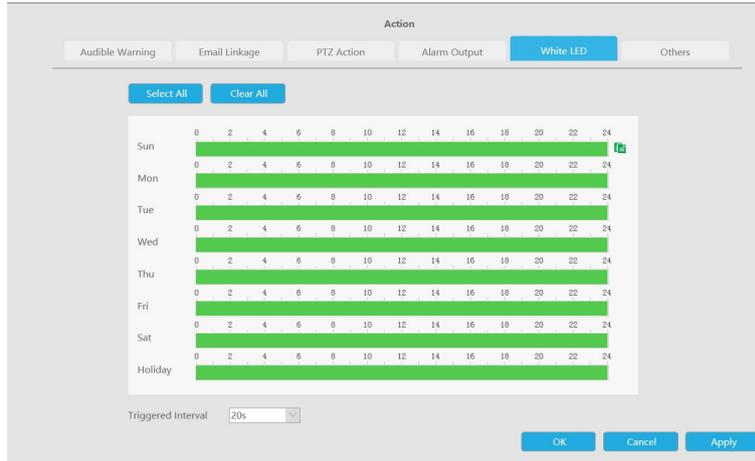
Drag a line on the time table for time setting. It will be more convenient by clicking



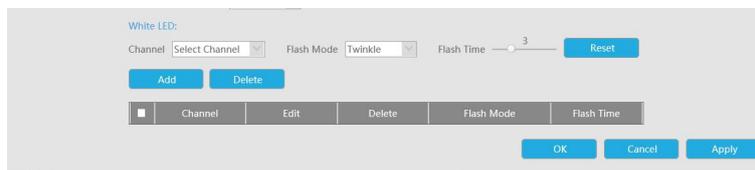
to set or clear all time settings. Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED.

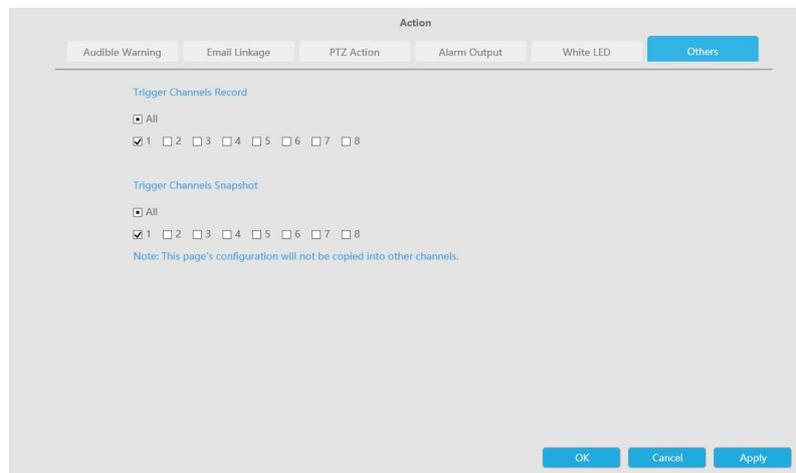


**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

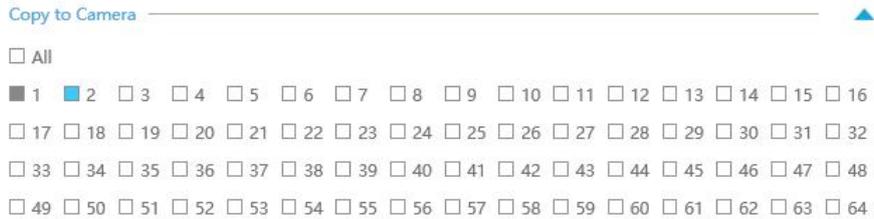
**Others:** Trigger selected channels to record and snapshot when alarm is triggered.



**Note:**

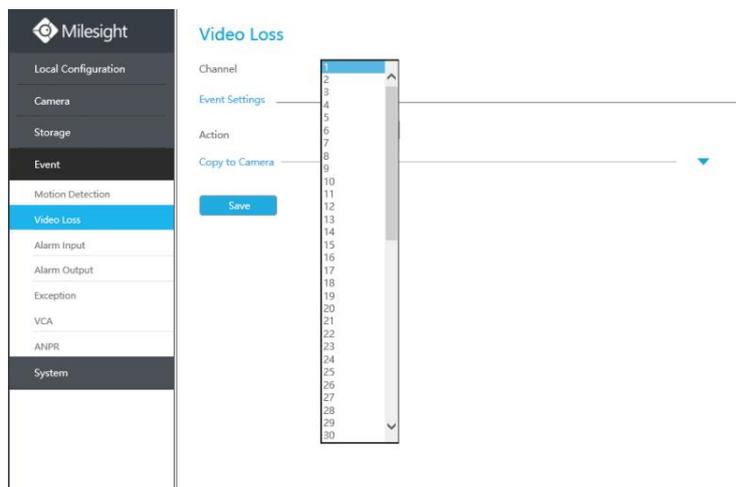
Make sure you have set correct schedule for record and snapshot before setting the Event Action.

**Step 5.** Click [Copy to Camera] and to copy the same configuration to other channels.



### 4.8.4.2 Video Loss

#### Step1. Select a channel



#### Step2. Set Action for video loss.

**Audible Warning:** NVR will trigger an audible beep when alarm is triggered.

Drag a line on the time table for time setting. It will be more convenient by clicking

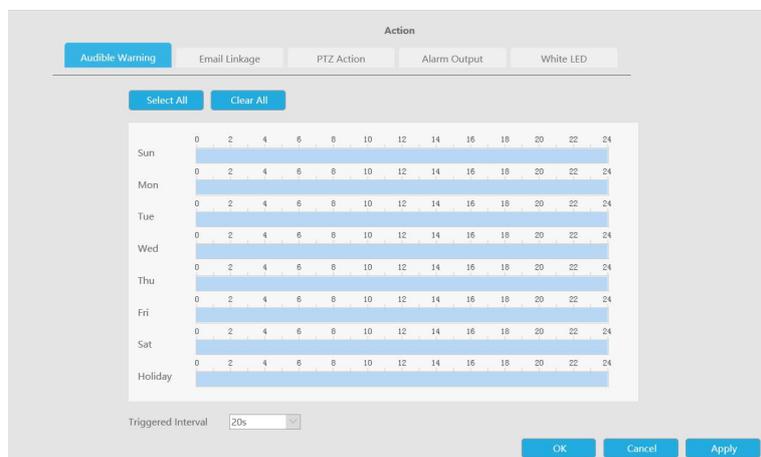


to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

Drag a line on the time table for time setting. It will be more convenient by clicking

Select All

or

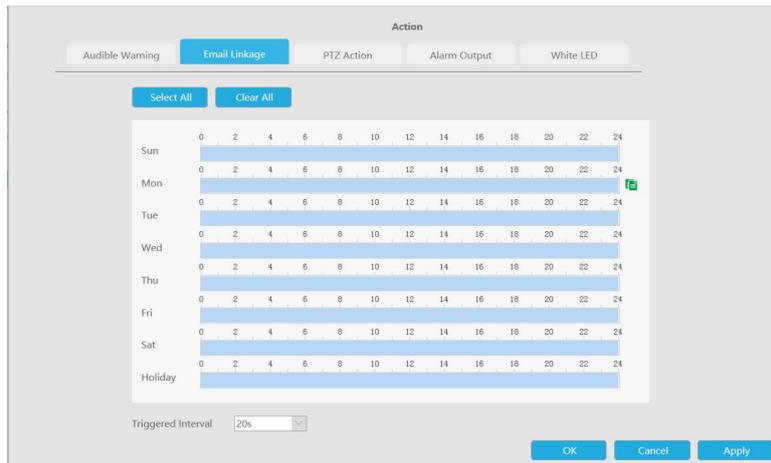
Clear All

to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

Drag a line on the time table for time setting. It will be more convenient by clicking

Select All

or

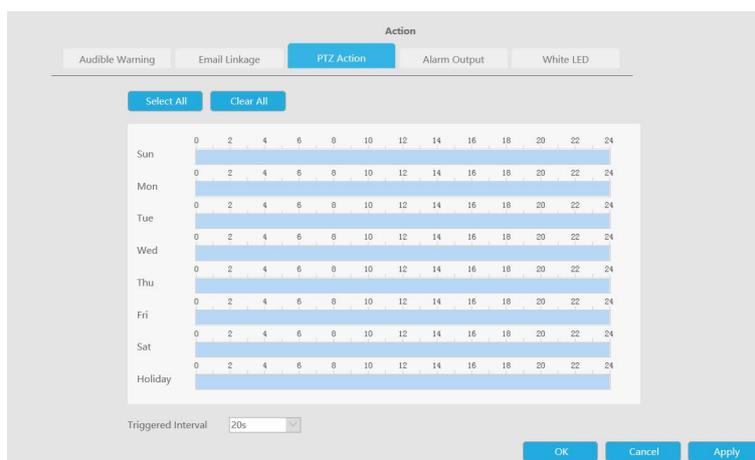
Clear All

to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action.

**PTZ Action:**

Channel  Action Type  No.

| <input type="checkbox"/> | Channel | Edit | Delete | Action Type | No. |
|--------------------------|---------|------|--------|-------------|-----|
|                          |         |      |        |             |     |

**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR alarm output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera alarm output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Action**

Alarm Output No.

Alarm Name

| <input type="checkbox"/> | Alarm Output No. | Edit | Delete |
|--------------------------|------------------|------|--------|
| <input type="checkbox"/> | CH1_1            |      |        |
| <input type="checkbox"/> | CH1_2            |      |        |
| <input type="checkbox"/> | CH2_1            |      |        |
| <input type="checkbox"/> | CH2_2            |      |        |
| <input type="checkbox"/> | CH3_1            |      |        |
| <input type="checkbox"/> | CH3_2            |      |        |
| <input type="checkbox"/> | CH4_1            |      |        |
| <input type="checkbox"/> | CH4_2            |      |        |
| <input type="checkbox"/> | CH5_1            |      |        |
| <input type="checkbox"/> | CH5_2            |      |        |
| <input type="checkbox"/> | CH6_1            |      |        |
| <input type="checkbox"/> | CH6_2            |      |        |
| <input type="checkbox"/> | CH7_1            |      |        |
| <input type="checkbox"/> | CH7_2            |      |        |
| <input type="checkbox"/> | CH8_1            |      |        |
| <input type="checkbox"/> | CH8_2            |      |        |
| <input type="checkbox"/> | CH9_1            |      |        |
| <input type="checkbox"/> | CH9_2            |      |        |

Triggered Interval

**White LED:** Trigger White LED flashing when alarm is triggered.

Drag a line on the time table for time setting. It will be more convenient by clicking

or  to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Action**

|         | 0          | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
|---------|------------|---|---|---|---|----|----|----|----|----|----|----|----|
| Sun     | [Time bar] |   |   |   |   |    |    |    |    |    |    |    |    |
| Mon     | [Time bar] |   |   |   |   |    |    |    |    |    |    |    |    |
| Tue     | [Time bar] |   |   |   |   |    |    |    |    |    |    |    |    |
| Wed     | [Time bar] |   |   |   |   |    |    |    |    |    |    |    |    |
| Thu     | [Time bar] |   |   |   |   |    |    |    |    |    |    |    |    |
| Fri     | [Time bar] |   |   |   |   |    |    |    |    |    |    |    |    |
| Sat     | [Time bar] |   |   |   |   |    |    |    |    |    |    |    |    |
| Holiday | [Time bar] |   |   |   |   |    |    |    |    |    |    |    |    |

Triggered Interval

And you can add White LED.

**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

**Step 3.** Click [Copy to Camera] and to copy the same configuration to other channels.

## 4.8.4.3 Alarm Input

### 4.8.4.3.1 NVR Alarm Input

Alarm Input function is supported by MS-N5008-UT, MS-N5016-UT, MS-N7016-UH, MS-N7032-UH, MS-N8032-UH, MS-N8064-UH, MS-N5008-UPT, MS-N5016-UPT, MS-N7016-UPH and MS-N7032-UPH.

**Step1.** Set Alarm input Number, Alarm Name and Alarm Type.

**Alarm Input No.:** The channel which has input signal.

**Alarm Name:** Set a name for the alarm.

**Alarm Type:** Choose NO or NC alarm type for the alarm.

**Step 2.** Set effective time for alarm input.

**Step3.** Set action for alarm input.

**Audible Warning:** NVR will trigger an audible beep when alarm is triggered.

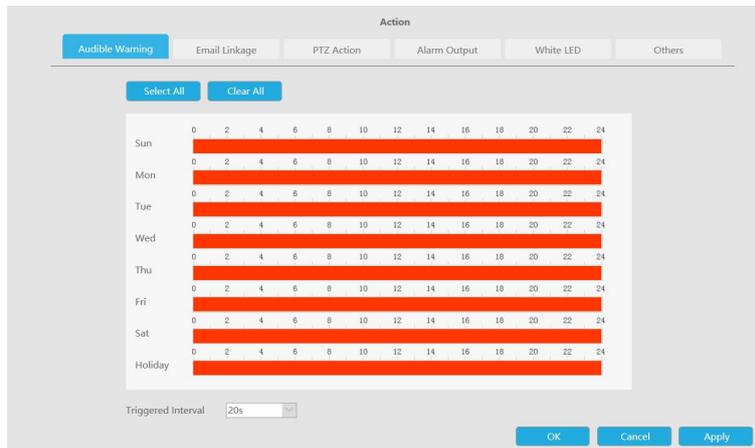
Drag a line on the time table for time setting. It will be more convenient by clicking



Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

Drag a line on the time table for time setting. It will be more convenient by clicking



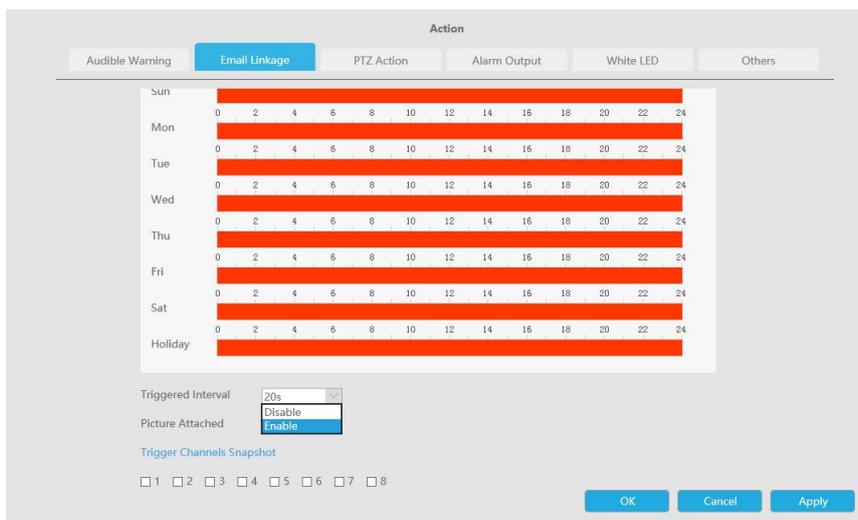
Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event capture attached.

**Trigger Channels Snapshot:** The snapshot of selected channels will be sent when alarm is triggered.



**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

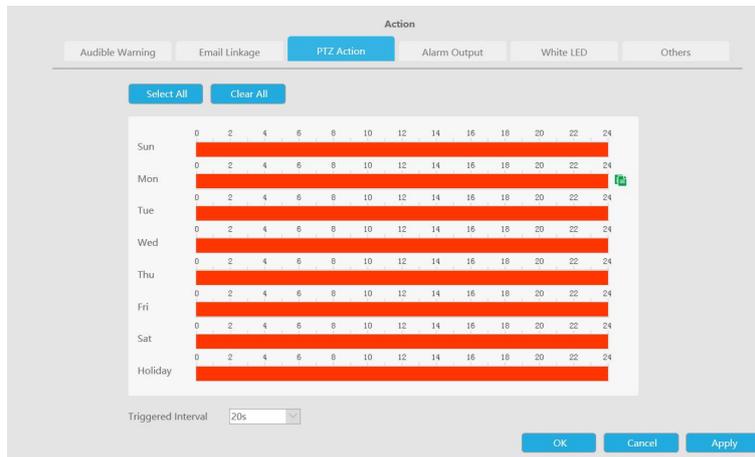
Drag a line on the time table for time setting. It will be more convenient by clicking



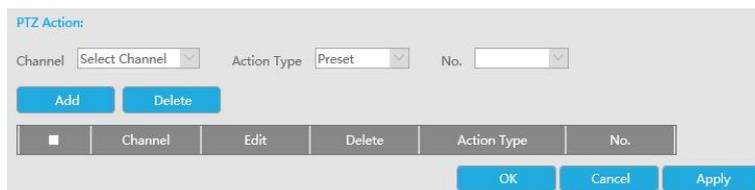
Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action.



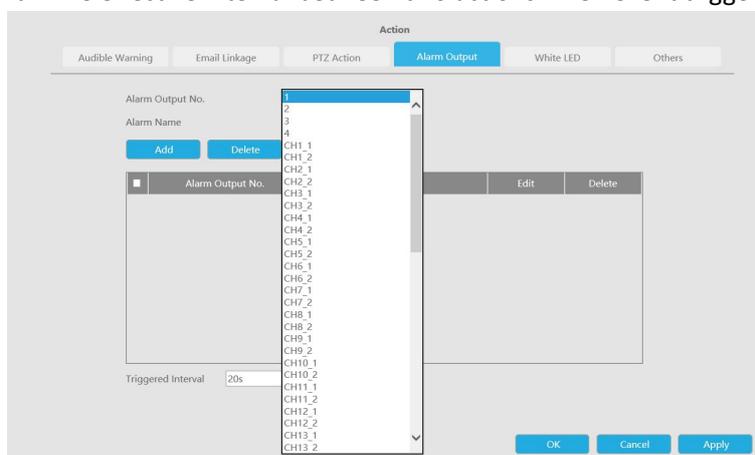
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR alarm output, the relevant alarm output will be first listed, that is, 1,2.etc, as for camera alarm output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



**White LED:** Trigger White LED flashing when alarm is triggered.

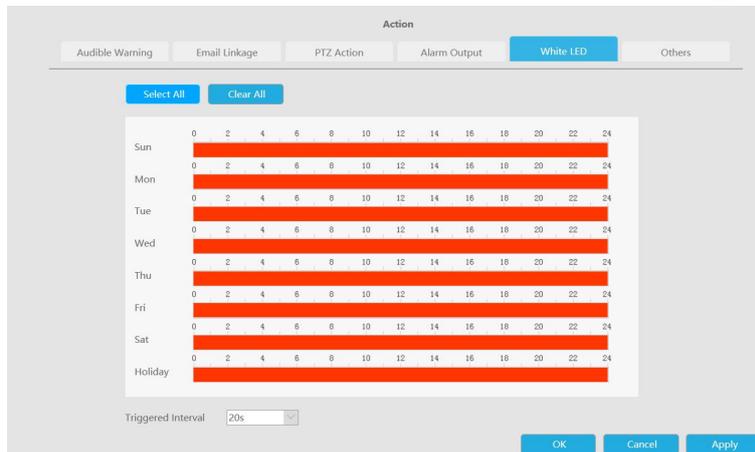
Drag a line on the time table for time setting. It will be more convenient by clicking



Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED.



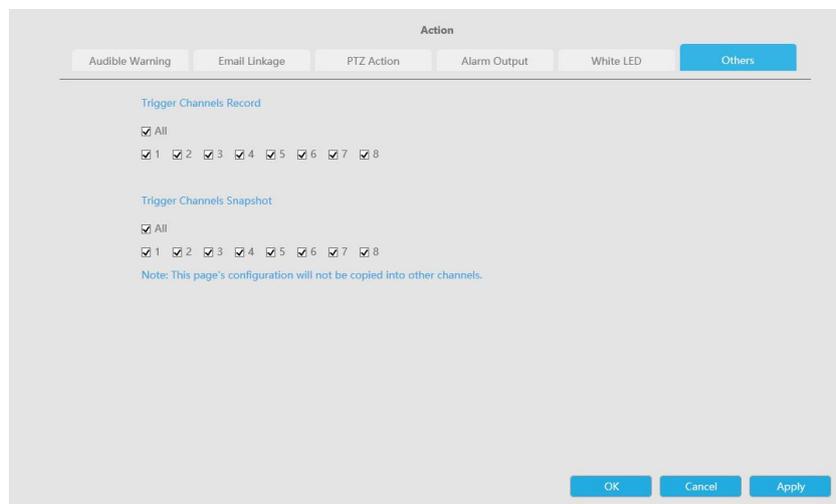
**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

**Others:** Start recording and snapshot when alarm is triggered.

Trigger selected channels to record and snapshot when alarm is triggered. Don't forget to set correct schedule for recording and snapshot.



**Step 4. Click [Copy to Alarm] and  to copy the same configuration to other alarm channels.**

Copy to Camera 

All

1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16

17  18  19  20  21  22  23  24  25  26  27  28  29  30  31  32

33  34  35  36  37  38  39  40  41  42  43  44  45  46  47  48

49  50  51  52  53  54  55  56  57  58  59  60  61  62  63  64

### 4.8.4.3.2 Camera Alarm Input

Milesight NVRs support the upgrade of Milesight Cameras.

**Step1. Set Alarm Input Number, Alarm Name and Alarm Type.**

### Alarm Input Settings

Channel

Alarm Input No.

Alarm Input

Alarm Name

Alarm Type

**Alarm Input No.:** The channel which has input signal.

**Alarm Name:** Set a name for the alarm.

**Alarm Type:** Choose NO or NC alarm type for the alarm.

**Step2. Set action for Alarm Input.**

**Audible Warning:** NVR will trigger an audible beep when motion is detected.

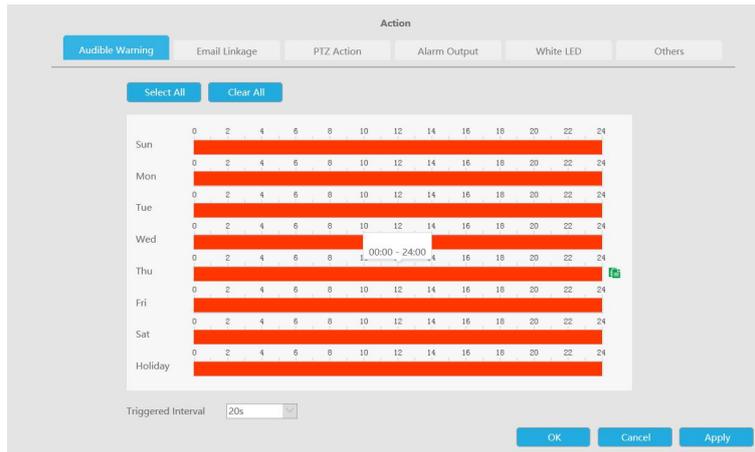
Drag a line on the time table for time setting. It will be more convenient by clicking

or  to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

Drag a line on the time table for time setting. It will be more convenient by clicking

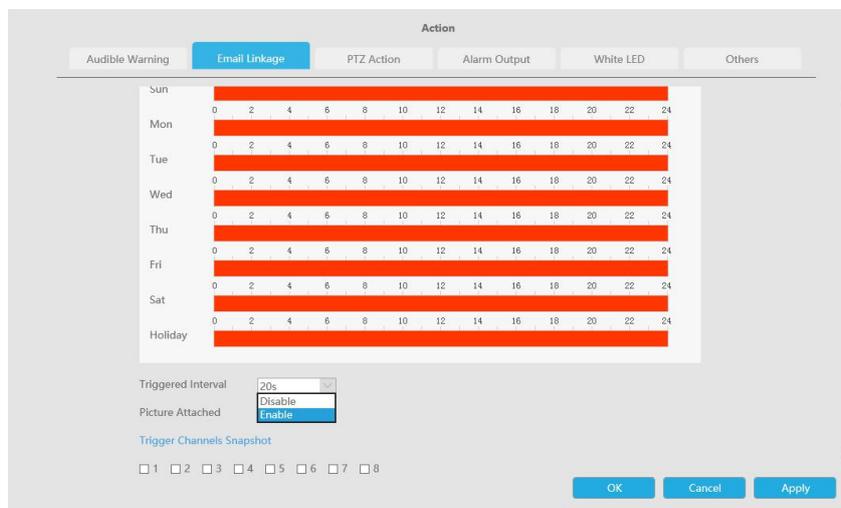
**Select All** or **Clear All** to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.



**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

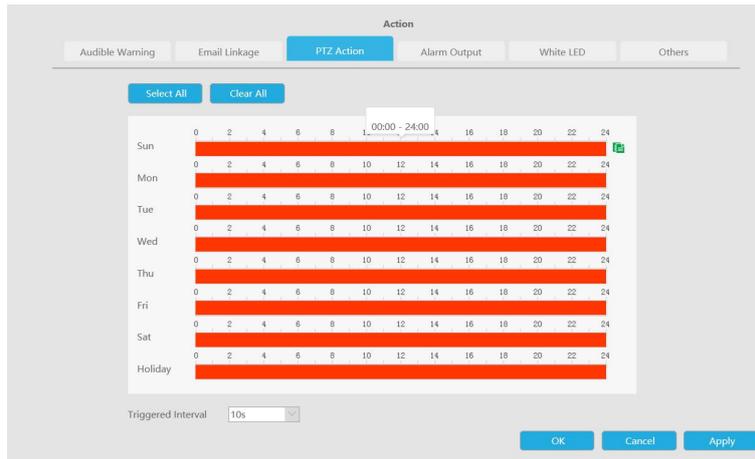
Drag a line on the time table for time setting. It will be more convenient by clicking

**Select All** or **Clear All** to set or clear all time settings.

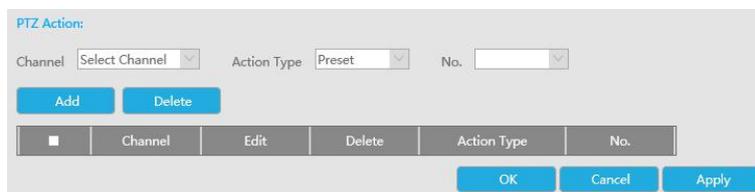
Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action.



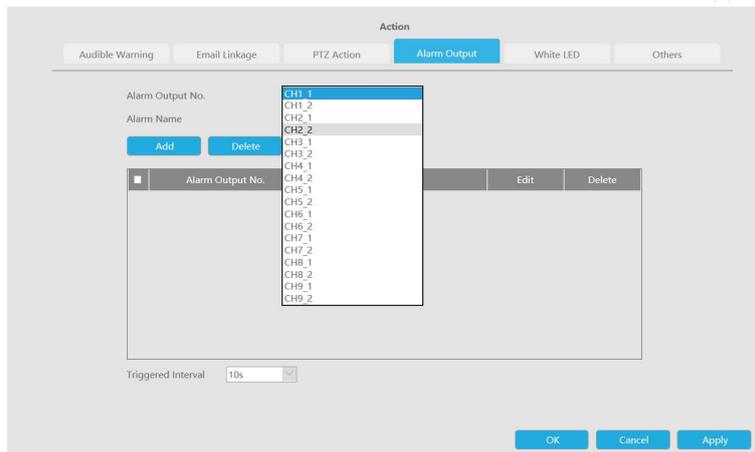
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



**White LED:** Trigger White LED flashing when alarm is triggered.

Drag a line on the time table for time setting. It will be more convenient by clicking

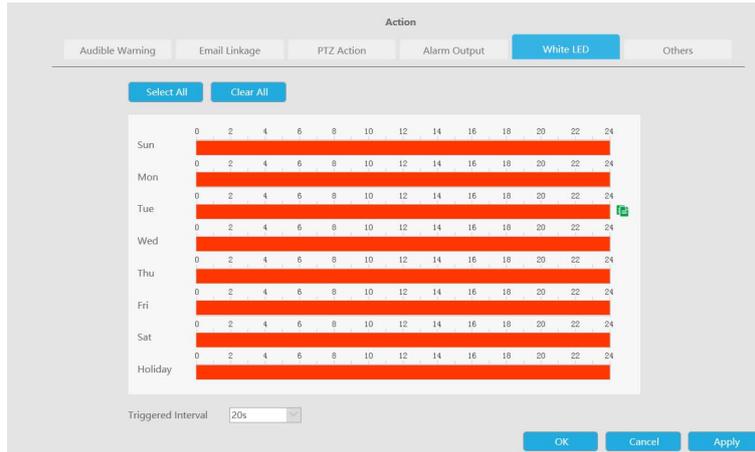


to set or clear all time settings.

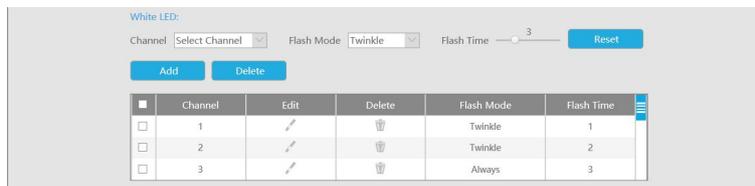
Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED.

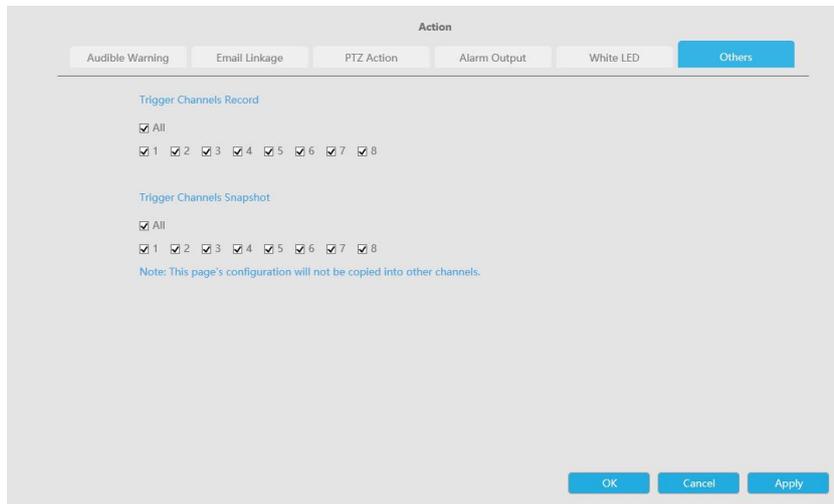


**Channel:** Select the channel which supports this function.

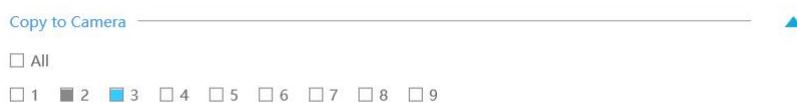
**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

**Others:** Trigger selected to channels record and snapshot when alarm is triggered.



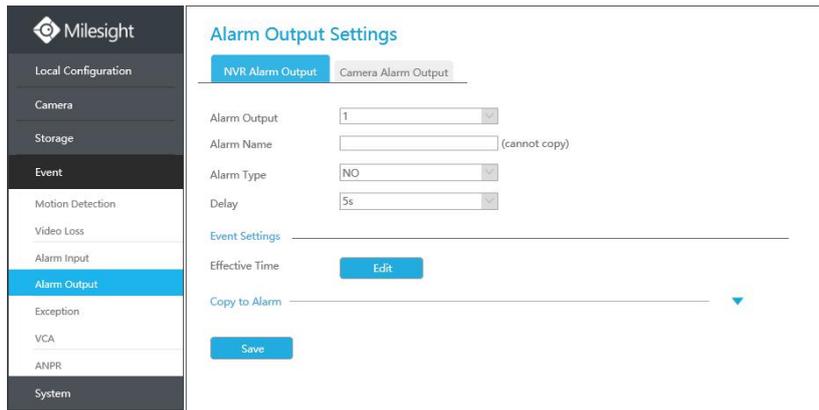
**Step 3.** Click [Copy to Camera] and to copy the same configuration to other channels.



## 4.8.4.4 Alarm Output

### 4.8.4.3.1 NVR Alarm Output

Alarm Output function is supported by MS-N5008-UT, MS-N5016-UT, MS-N7016-UH, MS-N7032-UH, MS-N8032-UH, MS-N8064-UH, MS-N5008-UPT, MS-N5016-UPT, MS-N7016-UPH and MS-N7032-UPH.



**Step 1. Set Alarm output channel, Alarm Type, Delay and Alarm Name.**



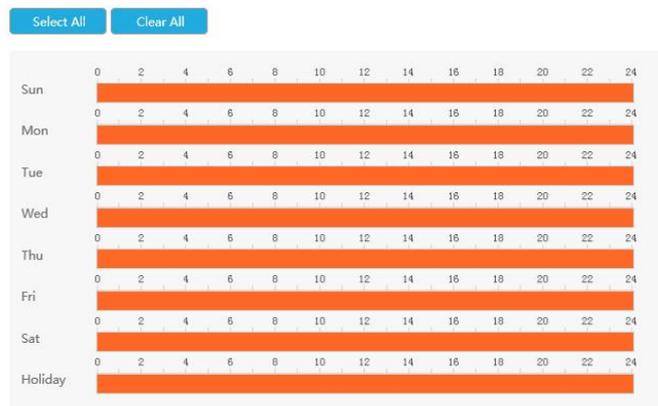
**Alarm Output:** The channel which will output the alarm signal.

**Alarm Type:** Select alarm type: NO or NC.

**Delay:** Set the output time for alarm. If the output alarm lasts too long, you can select the Manually Clear to stop it.

**Alarm Name:** Set a name for the alarm.

**Step 2: Set effective time.**

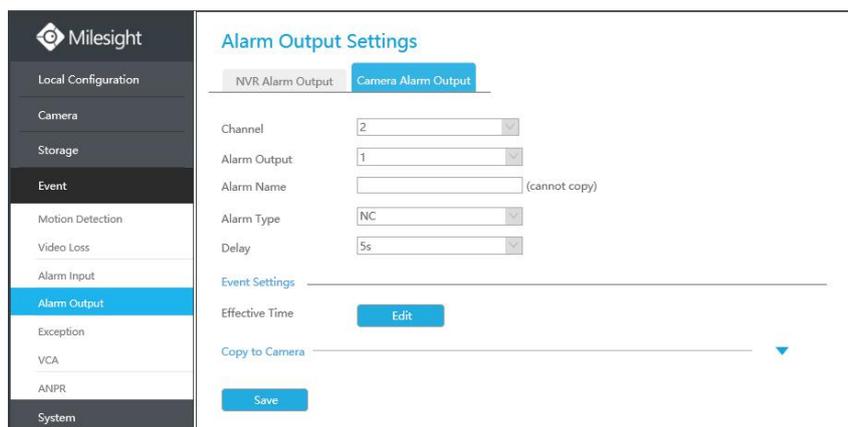


**Step3.** Click [Copy to Alarm] and  to copy the same configuration to other alarm channels.

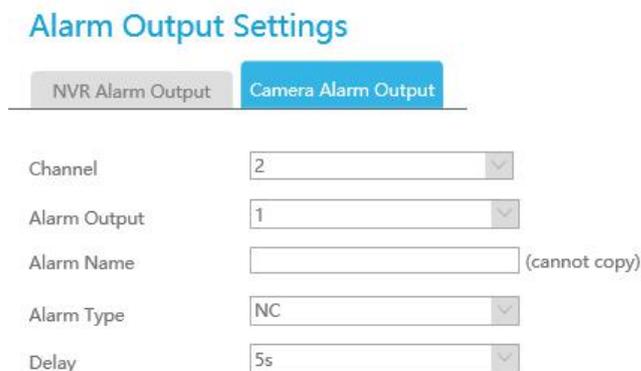


### 4.8.4.3.2 Camera Alarm Output

Milesight NVRs support the upgrade of Milesight Cameras.



**Step 1.** Set Alarm Output Channel, Alarm Type, Delay and Alarm Name.



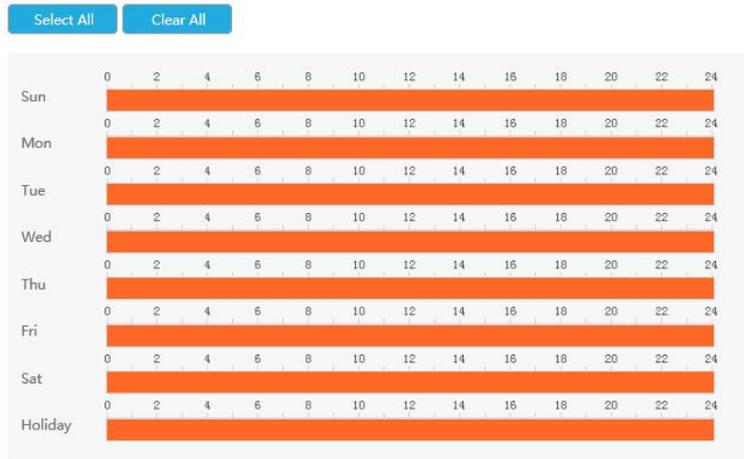
**Alarm Output:** The alarm output number of the corresponding channel which has input signal.

**Alarm Type:** Select Alarm Type: NO or NC.

**Delay:** Set the output time for alarm. If the output alarm lasts too long, you can select the Manually Clear to stop it.

**Alarm Name:** Set a name for the alarm.

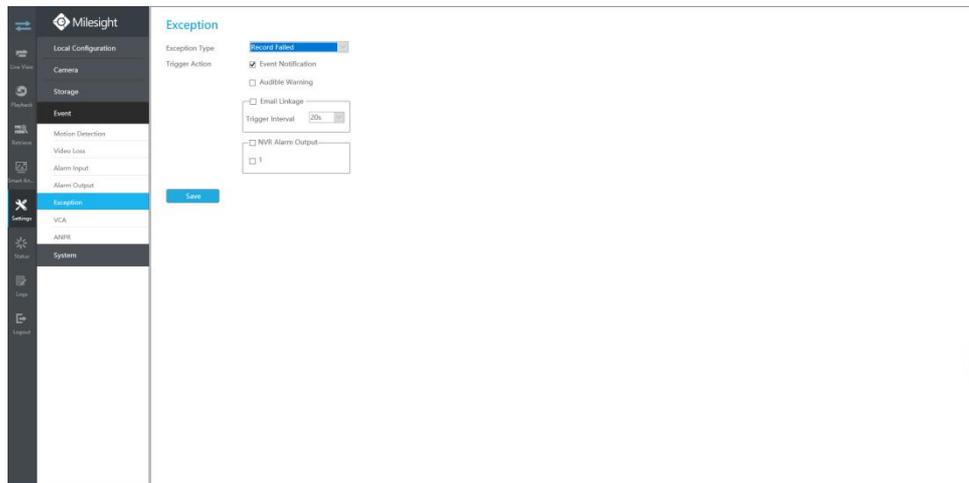
**Step 2:** Set effective time.



Step3. Click [Copy to Alarm] and to copy the same configuration to other alarm channels.



### 4.8.4.5 Exception



Step1. Select Exception Type.



**Network Disconnected:** Loss of network.

**Disk Full:** HDD full, it usually happens when Recycle Mode is OFF.

**Record Failed:** Recording fails, including HDD Failed, HDD Full and so on.

**Disk Error:** Failed to recognize HDD.

**Disk Uninitialized:** HDD is uninitialized.

**No Disk:** There is no Disk.

## Exception

|                |   |
|----------------|---|
| Exception Type | Network Disconnected  |
| Trigger Action | Disk Full<br>Record Failed<br>Disk Error<br>Disk Uninitialized<br>No Disk |

### Step 2. Select Action includes Event Notification, Audible Warning, Email Linkage and Alarm Output.

**Event Notification:** You will get a notification in Live View if an alarm is triggered.

**Audible Warning:** NVR will trigger an audible beep.

**Email Linkage:** An alarm Email will be sent if an alarm is triggered.

Trigger Interval: Set the interval to send Emails when detecting Record Failed Event (Only Record Failed Event can set interval when sending alarm Emails).

**NVR Alarm Output:** NVR will trigger the corresponding Alarm Output.

Event Notification

Audible Warning

Email Linkage

Trigger Interval

NVR Alarm Output

1

## 4.8.4.6 VCA

It uses Milesight Video Content Analysis technology which is applied in a wide range of domains including entertainment, health-care, retail, automotive, transport, home automation, safety and security. Milesight VCA provides advanced, accurate smart video analysis for Milesight network cameras. It enhances the performance of network cameras through 10 detection modes which are divided into basic function and advanced function, enabling the comprehensive surveillance function and quicker response of cameras to different monitoring scenes.

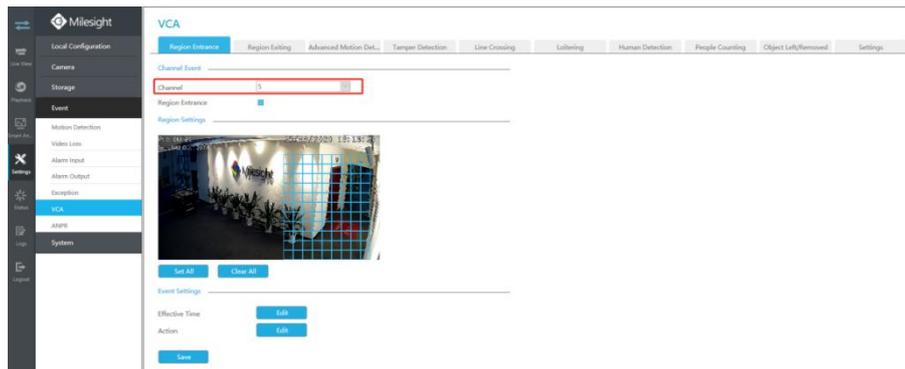
**Note:**

**Please input license of selected channel in Settings page to activate VCA first.**

### Region Entrance

Region entrance helps to protect a specific 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.

#### Step 1. Select channel.



### Step 2. Enable Region Entrance.

Region Entrance

### Step 3. Set entrance detection region.

You can select an area by dragging the mouse to set the trigger area, and this area will be synchronized to camera. Also, you can set or clear all set region by directly clicking

Set All

and

Clear All

Region Settings



### Step 4. Set Sensitivity to trigger event.

Sensitivity

5

### Step 5. Set Effective Time of region entrance by clicking

Edit

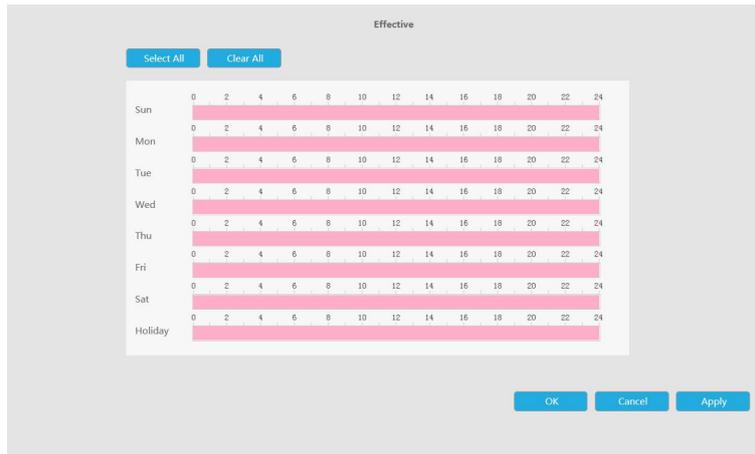
NVR receives the alarm when effective time has been set. It will be more convenient by clicking

Select All

or

Clear All

to set or clear all time settings.



Step 6. Set Action for region entrance alarm by clicking



**Audible Warning:** NVR will trigger an audible beep when motion is detected.

Drag a line on the time table for time setting. It will be more convenient by clicking



or

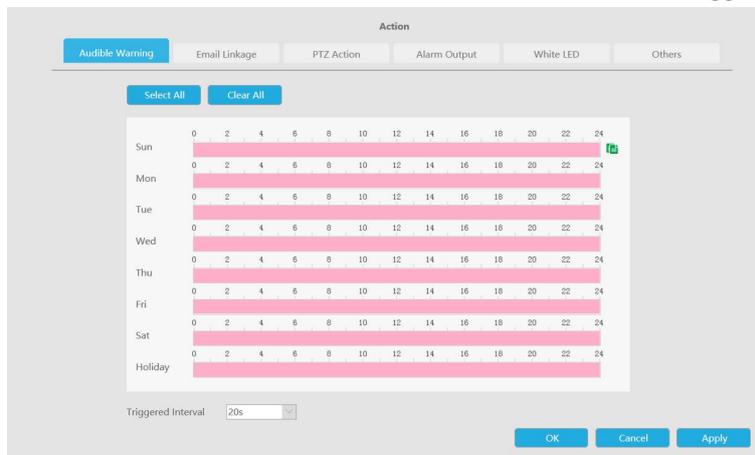


to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

Drag a line on the time table for time setting. It will be more convenient by clicking



or



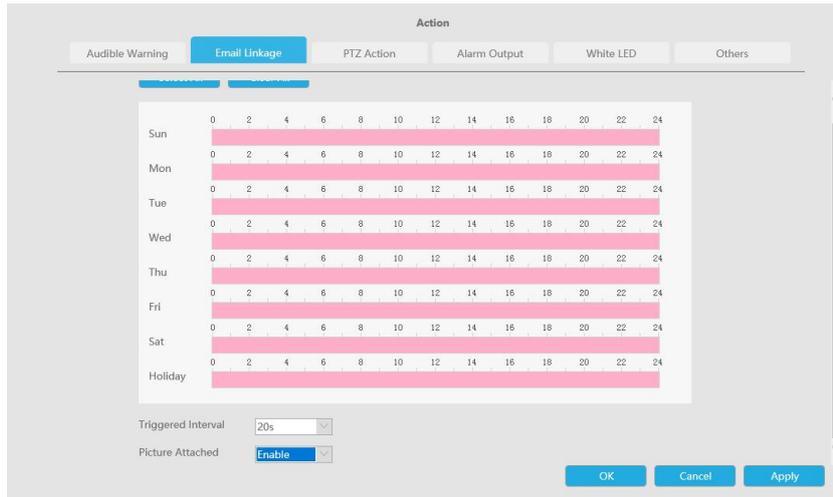
to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.



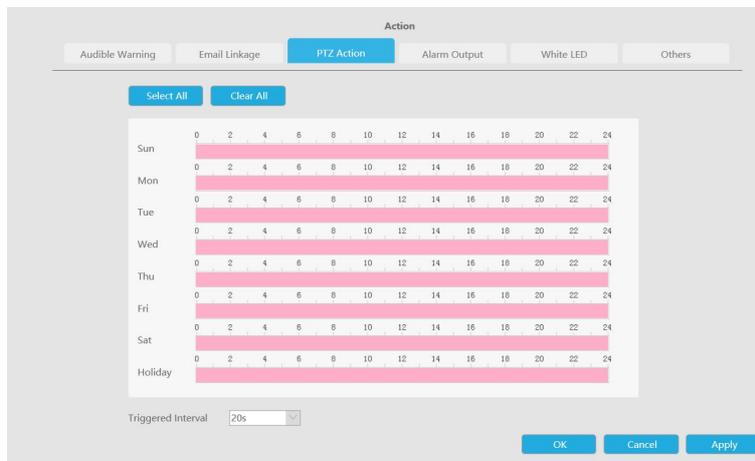
**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**. Drag a line on the time table for time setting. It will be more convenient by clicking

**Select All** or **Clear All** to set or clear all time settings.

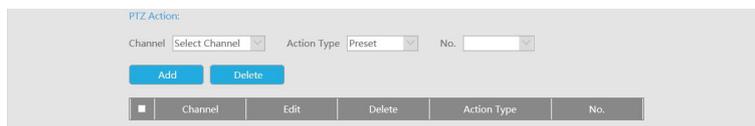
Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action.



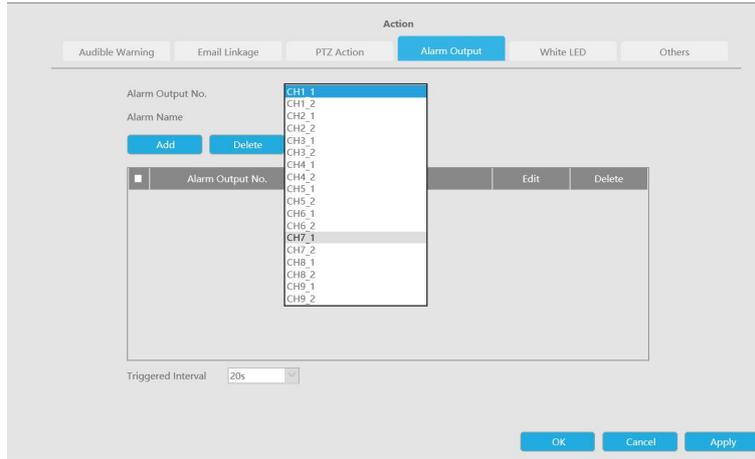
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



**White LED:** Trigger White LED flashing when alarm is triggered.

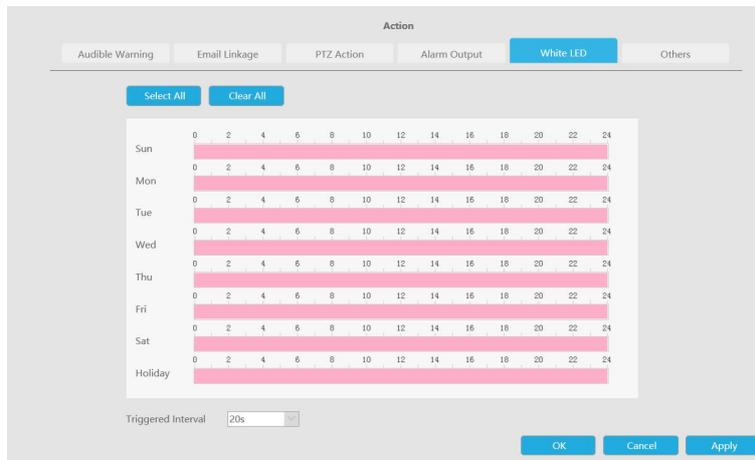
Drag a line on the time table for time setting. It will be more convenient by clicking



Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED.

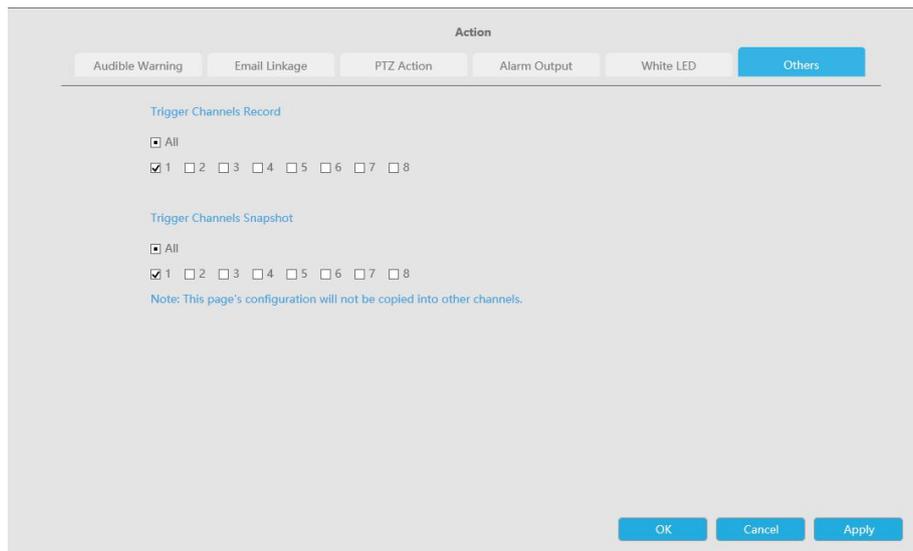


**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

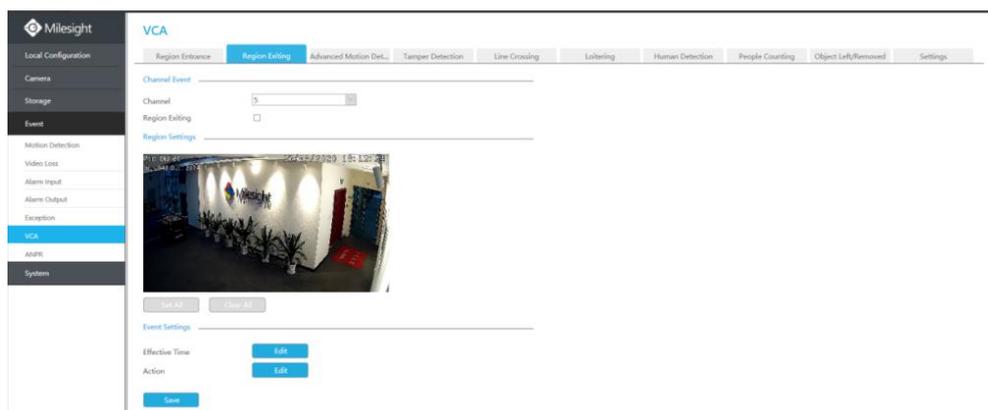
**Others:** Trigger selected channels to record when alarm is triggered.



### Region Exiting

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

#### Step 1. Select channel.

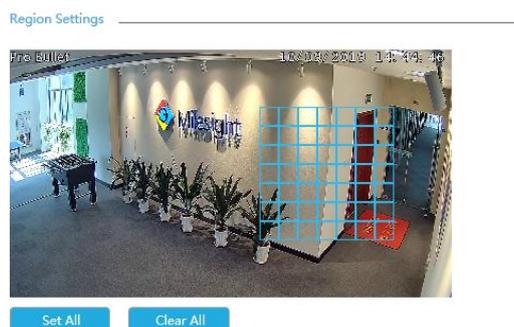
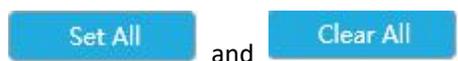


#### Step 2. Enable Region Exiting.



#### Step 3. Set exit detection region.

You can select an area by dragging the mouse to set the trigger area, and this area will be synchronized to camera. Also, you can set or clear all set region by directly clicking



**Step 4. Set Sensitivity to trigger event.**



**Step 5. Set Effective Time of region exiting by clicking**



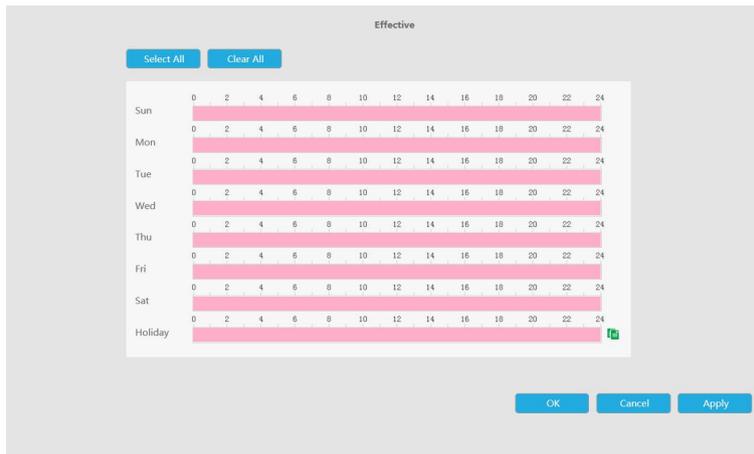
NVR receives the alarm when effective time has been set. It will be more convenient by clicking



or



to set or clear all time settings.



**Step 6. Set Action for region exiting alarm by clicking**



**Audible Warning:** NVR will trigger an audible beep when motion is detected.

Drag a line on the time table for time setting. It will be more convenient by clicking



or

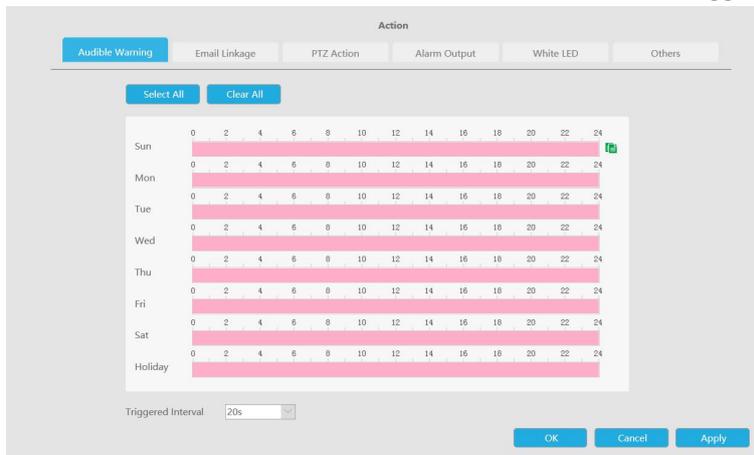


to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

Drag a line on the time table for time setting. It will be more convenient by clicking



or



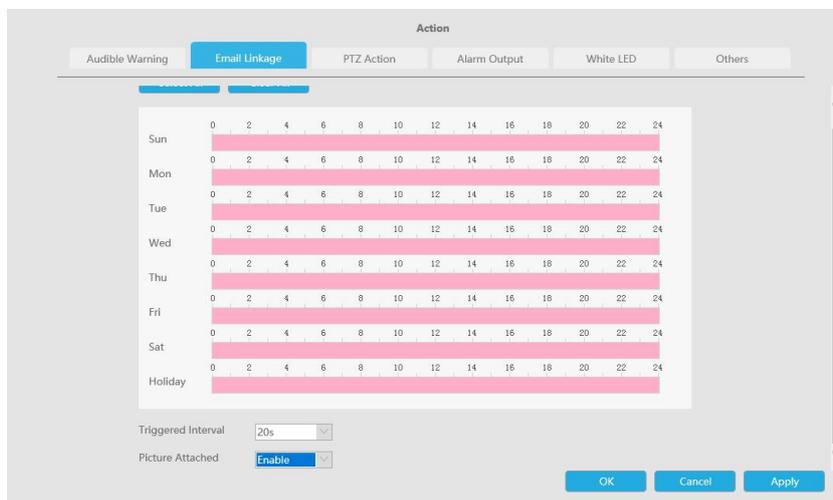
to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.



**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

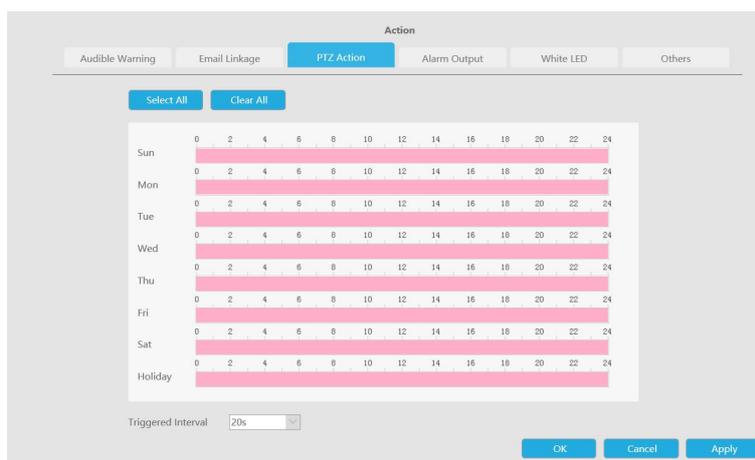
Drag a line on the time table for time setting. It will be more convenient by clicking

or to set or clear all time settings.

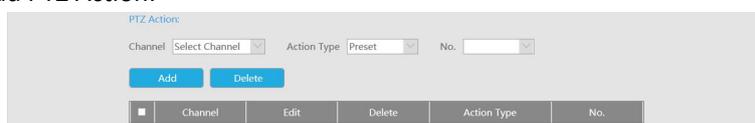
Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action.



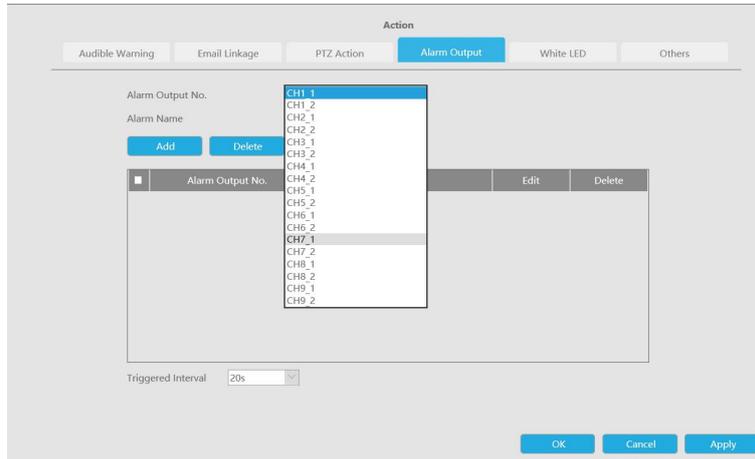
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



**White LED:** Trigger White LED flashing when alarm is triggered.

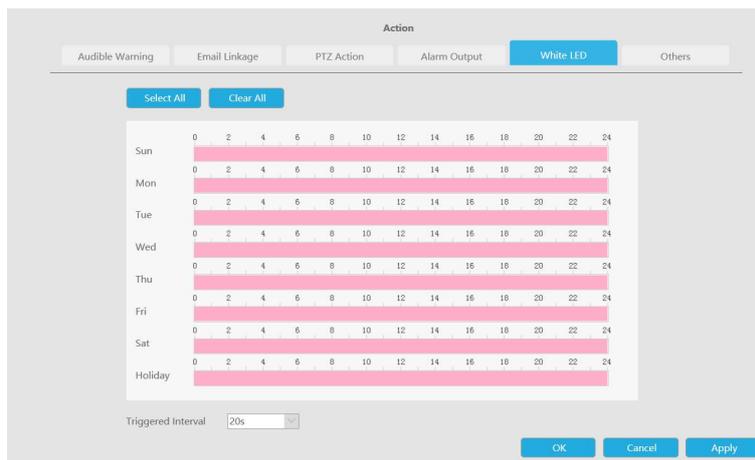
Drag a line on the time table for time setting. It will be more convenient by clicking



Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED.



**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

**Others:** Trigger selected channels to record and snapshot when alarm is triggered.

## Advanced 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.

### Step 1. Select channel.

### Step 2. Enable Advanced Motion Detection.

## Advanced Motion Detection



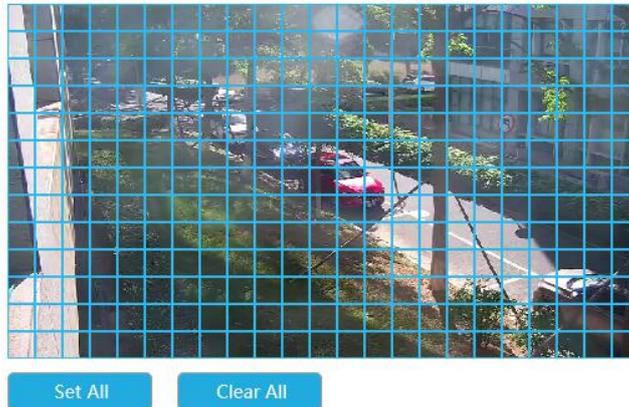
### Step 3. Set advanced motion detection region.

You can select an area by dragging the mouse to set the trigger area, and this area will be

synchronized to camera. Also, you can set or clear all set region by directly clicking



Region Settings



**Step 4. Set Sensitivity.**

The sensitivity can be configured to detect various movement according to different requirements. When the level of sensitivity is low, slight movement won't trigger the alarm.



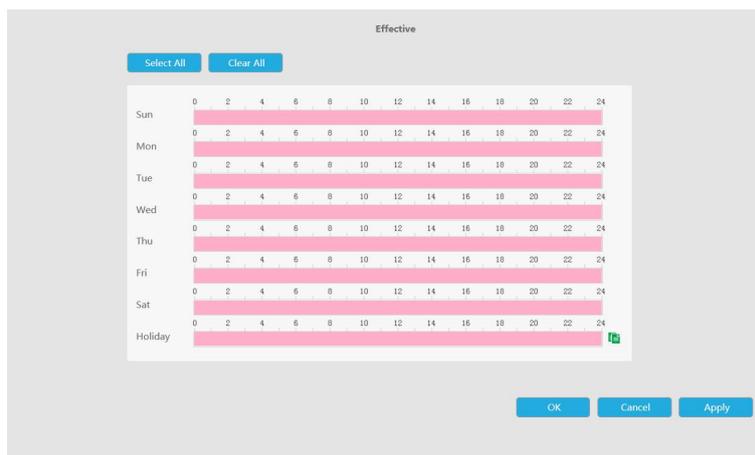
**Step 5. Set Effective Time of advance motion detection by clicking**



NVR receives the alarm when effective time has been set. It will be more convenient by clicking



to set or clear all time settings.



**Step 6. Set Action for advanced motion detection alarm by clicking**



**Audible Warning:** NVR will trigger an audible beep when motion is detected.

Drag a line on the time table for time setting. It will be more convenient by clicking

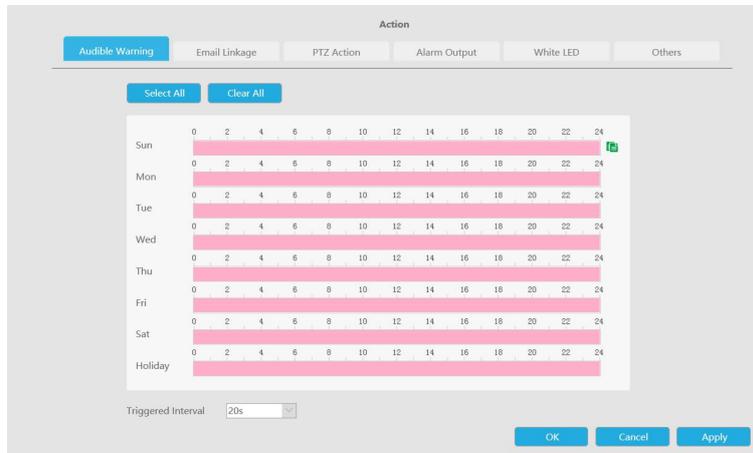


to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

Drag a line on the time table for time setting. It will be more convenient by clicking

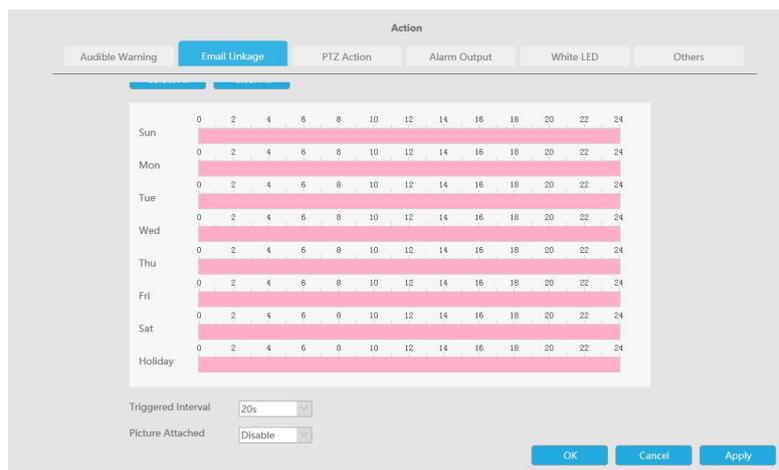
 or  to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.



**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

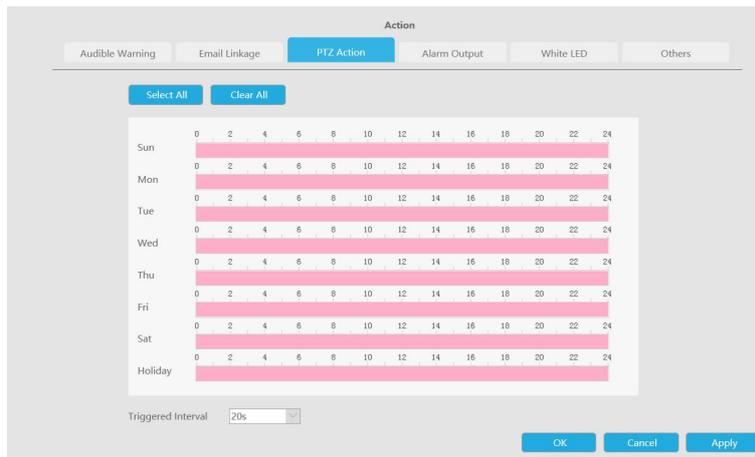
Drag a line on the time table for time setting. It will be more convenient by clicking

 or  to set or clear all time settings.

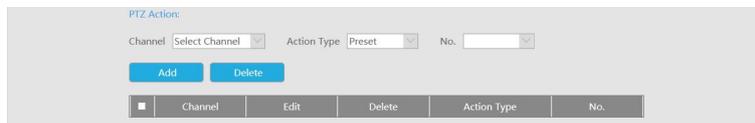
Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action.



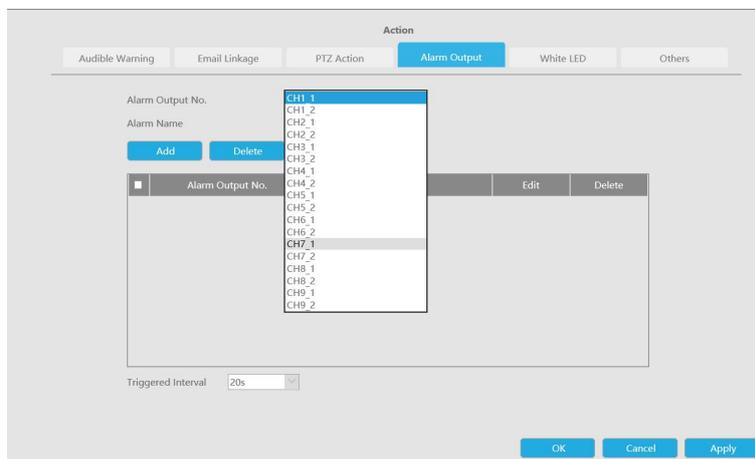
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



**White LED:** Trigger White LED flashing when alarm is triggered.

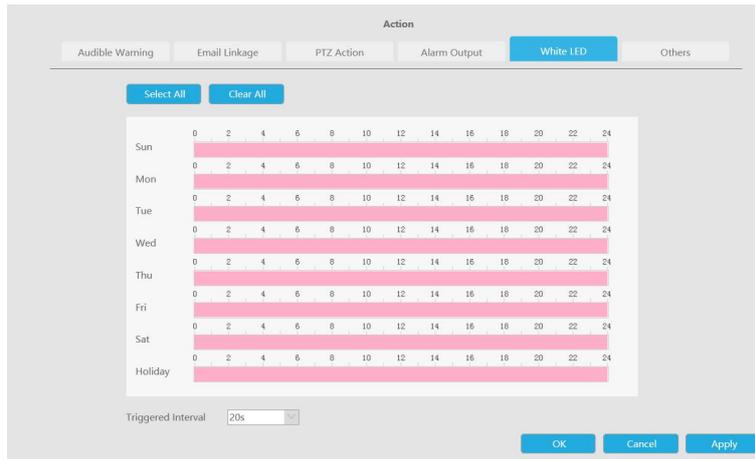
Drag a line on the time table for time setting. It will be more convenient by clicking



to set or clear all time settings. Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED.

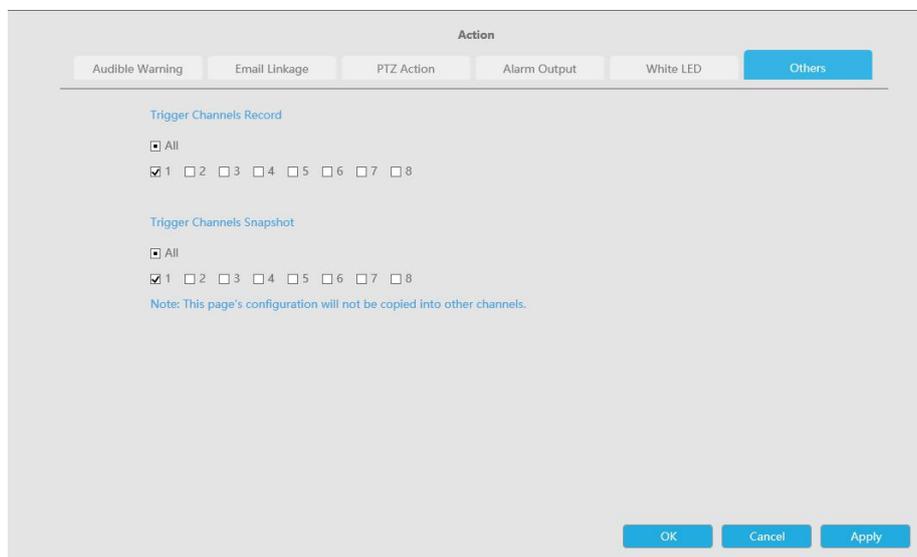


**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

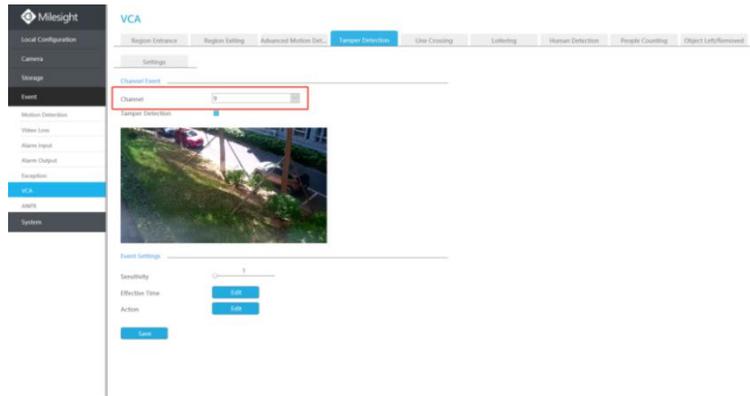
**Others:** Trigger selected channels to record and snapshot when alarm is triggered.



### 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.

**Step 1. Select channel.**

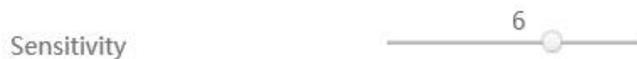


**Step 2. Enable Tamper Detection.**



**Step 3. Set Sensitivity.**

The sensitivity can be configured to detect various movement according to different requirements. When the level of sensitivity is low, slight movement won't trigger the alarm.



**Step 4. Set Effective Time of tamper detection by clicking**



NVR receives the alarm when effective time has been set. It will be more convenient by clicking



or



to set or clear all time settings.



**Step 5. Set Action for tamper detection alarm by clicking**



**Audible Warning:** NVR will trigger an audible beep when motion is detected.

Drag a line on the time table for time setting. It will be more convenient by clicking



or

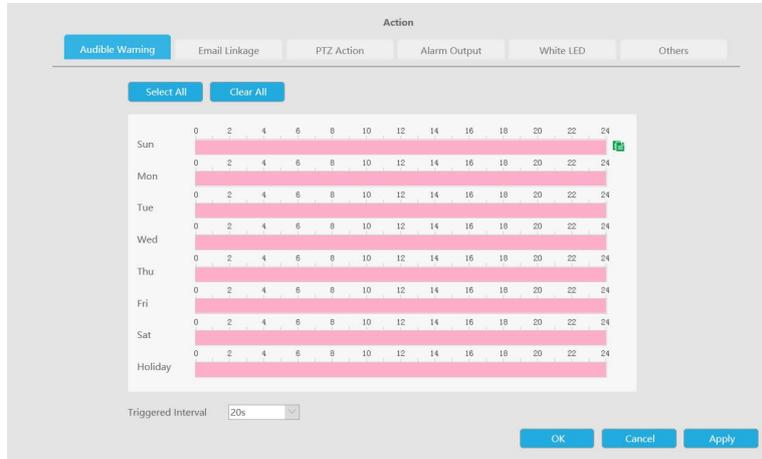


to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

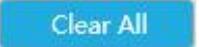
Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

Drag a line on the time table for time setting. It will be more convenient by clicking

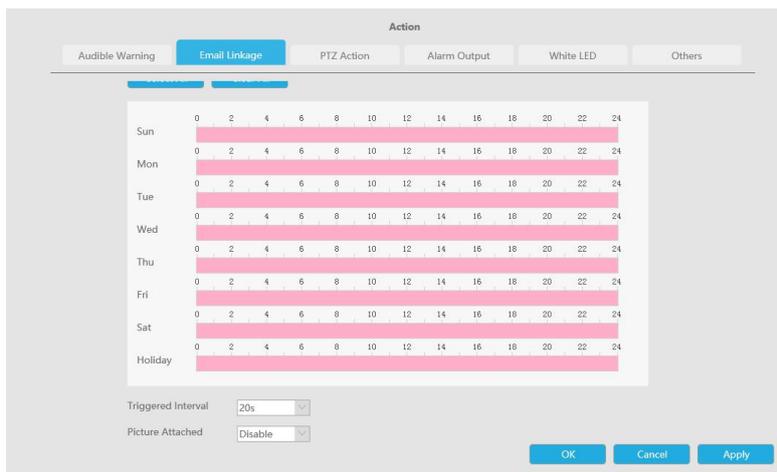
 or  to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.



**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

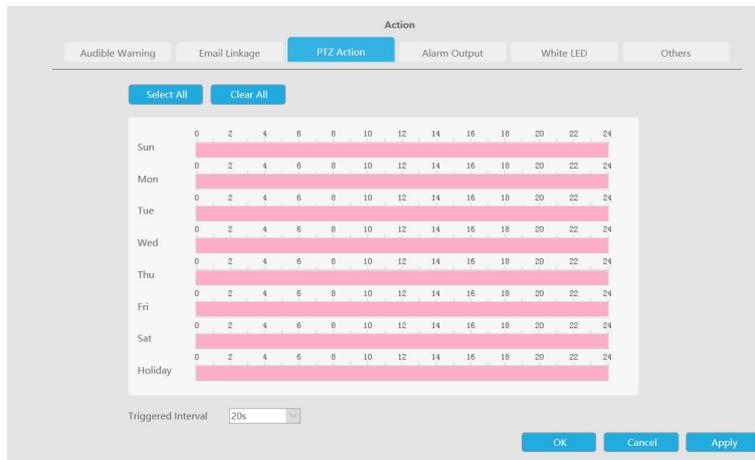
Drag a line on the time table for time setting. It will be more convenient by clicking

 or  to set or clear all time settings.

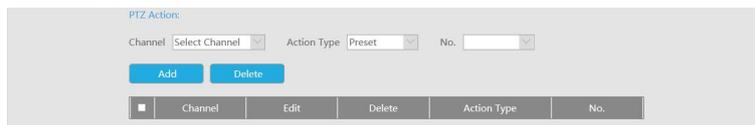
Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action.



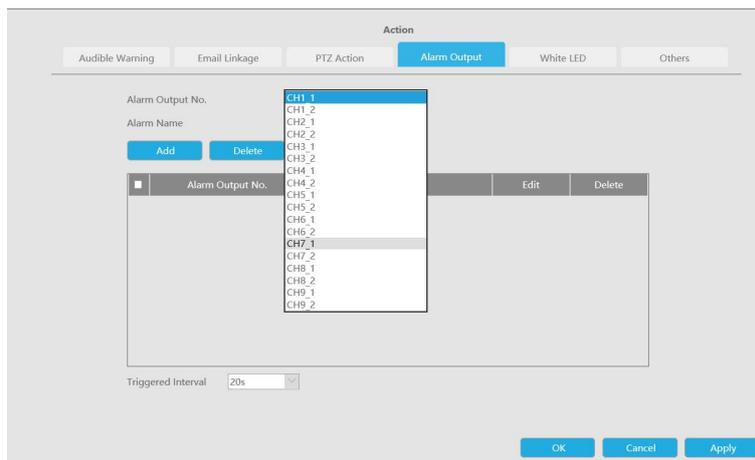
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



**White LED:** Trigger White LED flashing when alarm is triggered.

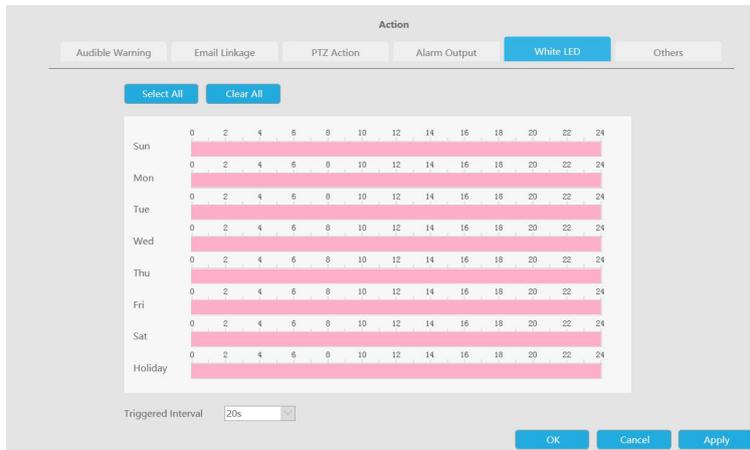
Drag a line on the time table for time setting. It will be more convenient by clicking

or to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED.

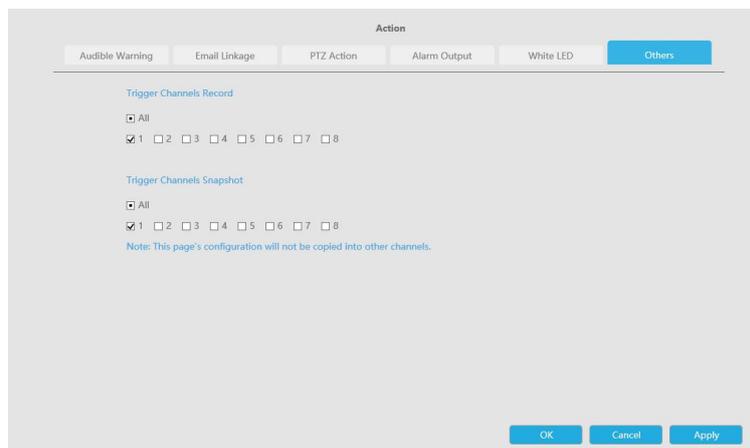


**Channel:** Select the channel which supports this function.

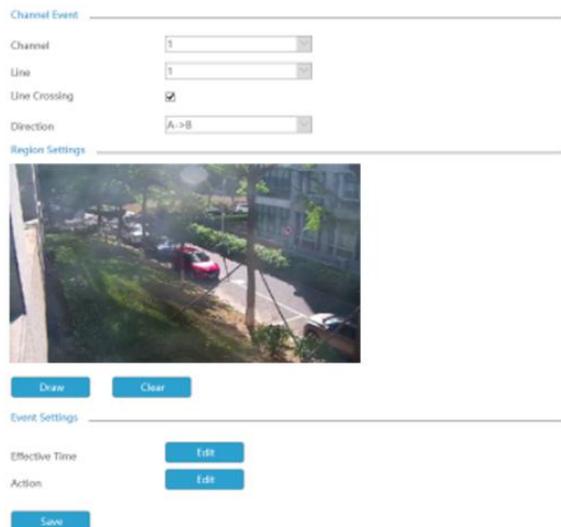
**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

**Others:** Trigger selected channels to record and snapshot when alarm is triggered.



**Line Crossing**



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

Settings steps are shown as follows:

**Step1: Select channel and choose detection line number.**

**Step 2. Enable Line Crossing.**



**Step 3. Define its direction.**

It 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.



**Step 4. Draw detection lines.**



**Step 5. Set Sensitivity.**

The sensitivity can be configured to detect various movement according to different requirements. When the level of sensitivity is low, slight movement won't trigger the alarm.



**Step 6. Set Effective Time of line crossing by clicking**



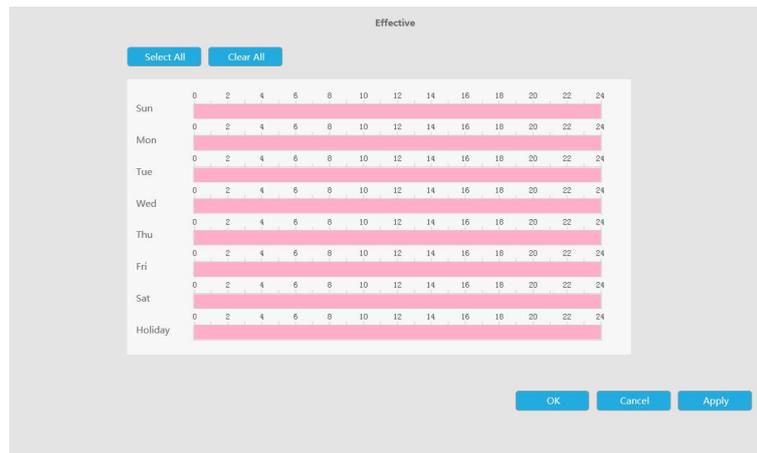
NVR receives the alarm when effective time has been set. It will be more convenient by clicking



or



to set or clear all time settings.



**Step 7. Set Action for line crossing alarm by clicking**



**Audible Warning:** NVR will trigger an audible beep when motion is detected.

Drag a line on the time table for time setting. It will be more convenient by clicking



or

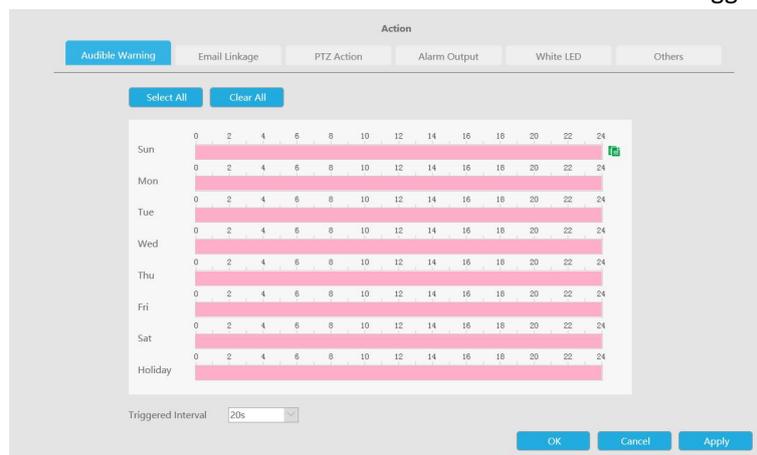


to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

Drag a line on the time table for time setting. It will be more convenient by clicking



or



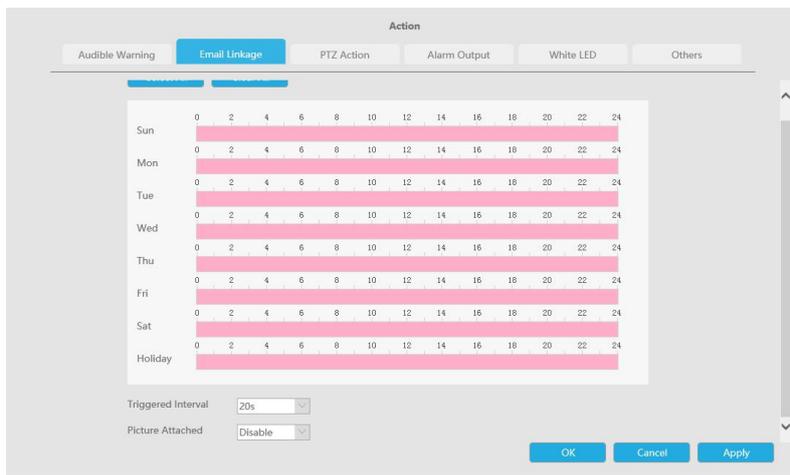
to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.



**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

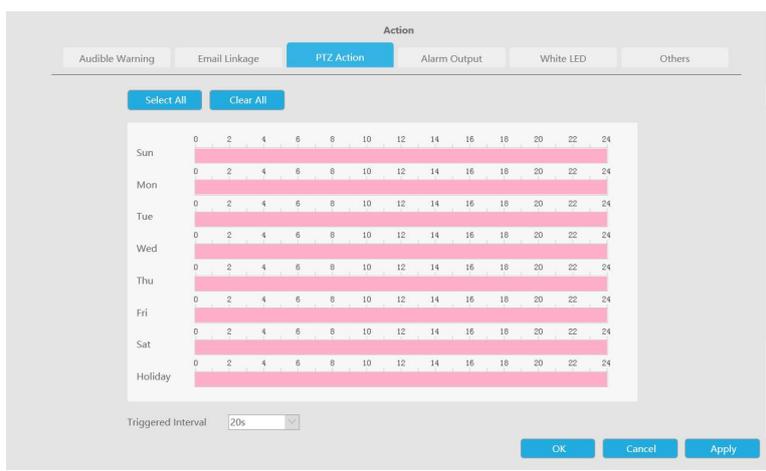
Drag a line on the time table for time setting. It will be more convenient by clicking

or to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action.



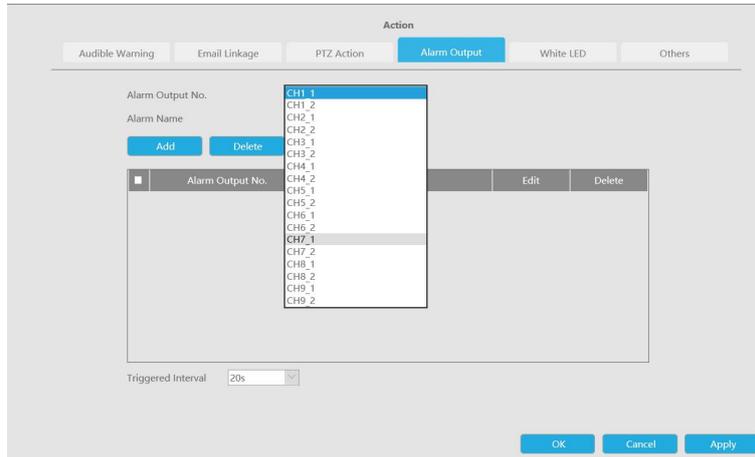
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



**White LED:** Trigger White LED flashing when alarm is triggered.

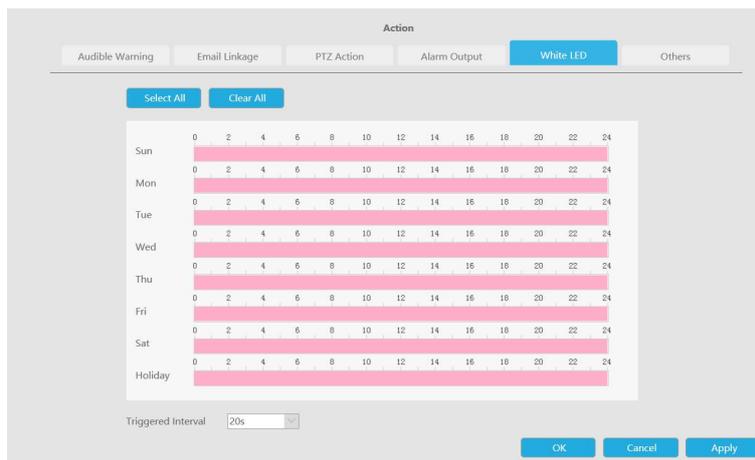
Drag a line on the time table for time setting. It will be more convenient by clicking



Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED.



**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

**Others:** Trigger selected channels to record and snapshot when alarm is triggered.

## Loitering

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

### Step 1. Select channel.

### Step 2. Enable Loitering.

Loitering



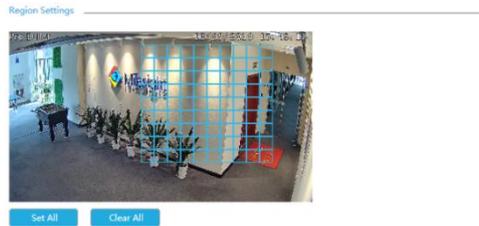
### Step 3. Set Loitering detected region.

You can select an area by dragging the mouse to set the trigger area, and this area will be synchronized to camera. Also, you can set or clear all set region by directly clicking

Set All

and

Clear All



**Step 4. Set Min. Loitering Time and Object Size.**

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. Also Milesight loitering allows to set "Object Size". Only the object bigger than the set size will trigger the alarm.

Min.Loitering Time (3-300s)

Object Size(1-100)

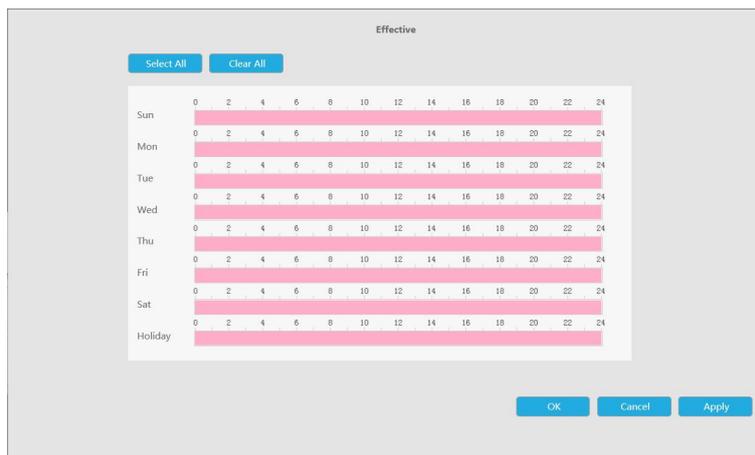
**Edit**

**Step 5. Set Effective Time of loitering by clicking**

NVR receives the alarm when effective time has been set. It will be more convenient by clicking

**Select All** or **Clear All**

to set or clear all time settings.



**Edit**

**Step 6. Set Action for loitering alarm by clicking**

**Audible Warning:** NVR will trigger an audible beep when motion is detected.

Drag a line on the time table for time setting. It will be more convenient by clicking

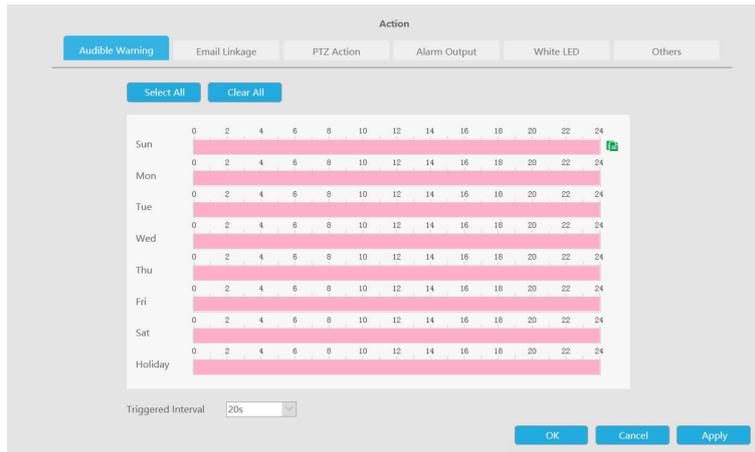
**Select All** or **Clear All**

to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

Drag a line on the time table for time setting. It will be more convenient by clicking

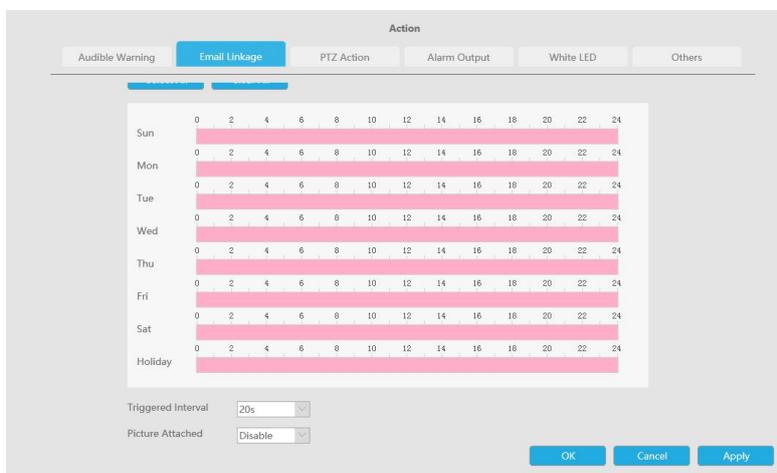
**Select All** or **Clear All** to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.



**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

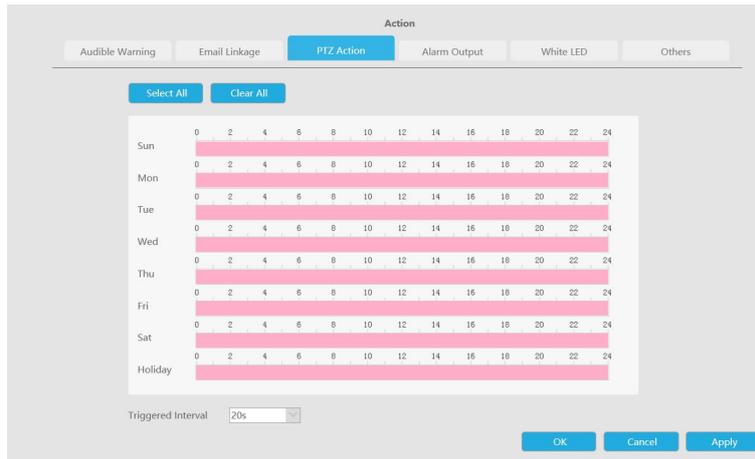
Drag a line on the time table for time setting. It will be more convenient by clicking

**Select All** or **Clear All** to set or clear all time settings.

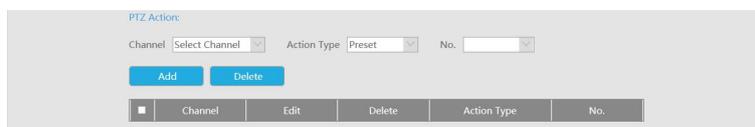
Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action.



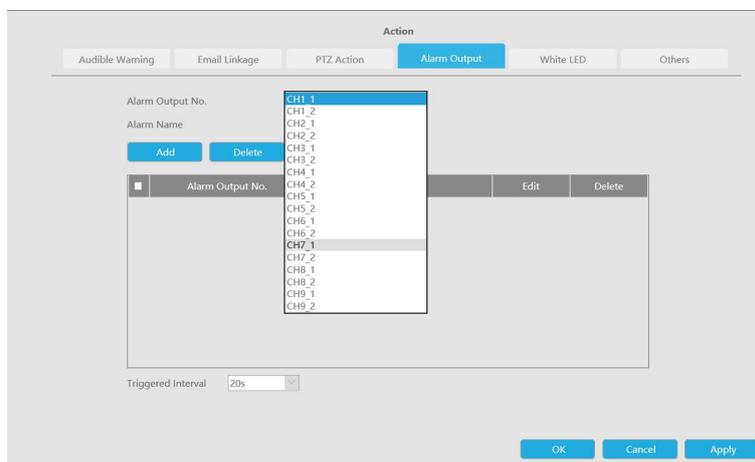
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



**White LED:** Trigger White LED flashing when alarm is triggered.

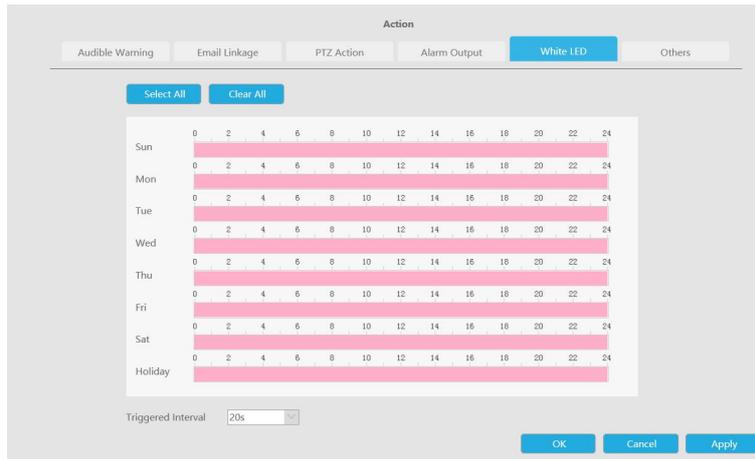
Drag a line on the time table for time setting. It will be more convenient by clicking

or to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED.

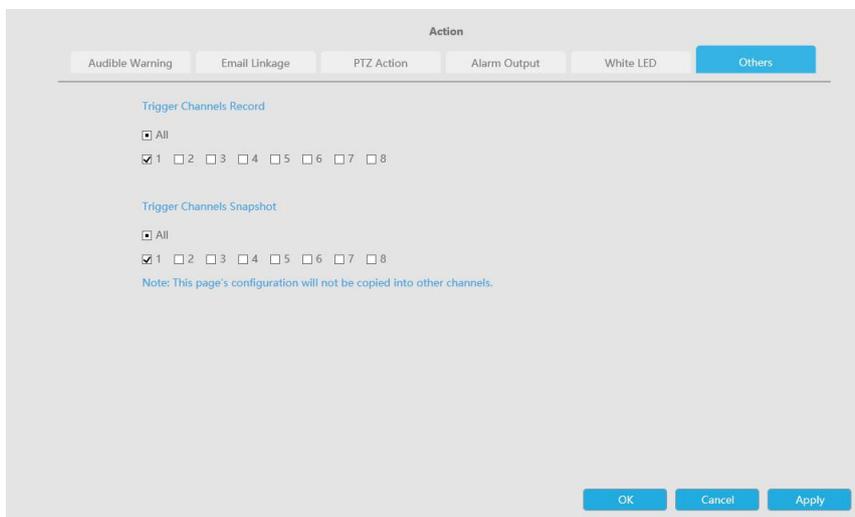


**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

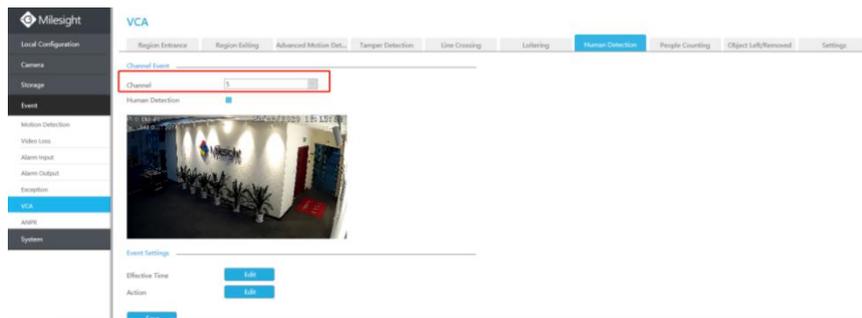
**Others:** Trigger selected channels to record and snapshot when alarm is triggered.



### Human Detection

Human detection is used for figuring out whether an object is a human or not.

**Step 1. Select channel.**



**Step 2. Enable Human Detection.**

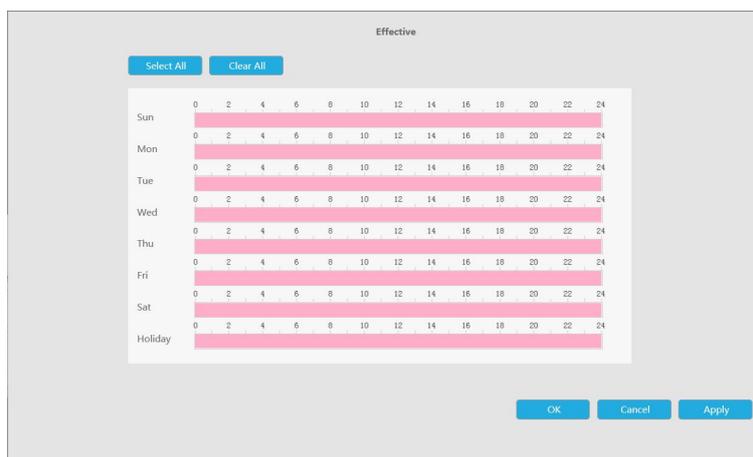
## Human Detection



**Step 3. Set Effective Time of human detection by clicking** 

NVR receives the alarm when effective time has been set. It will be more convenient by clicking

 or  to set or clear all time settings.



**Step 4. Set Action for human detection alarm by clicking** 

**Audible Warning:** NVR will trigger an audible beep when motion is detected.

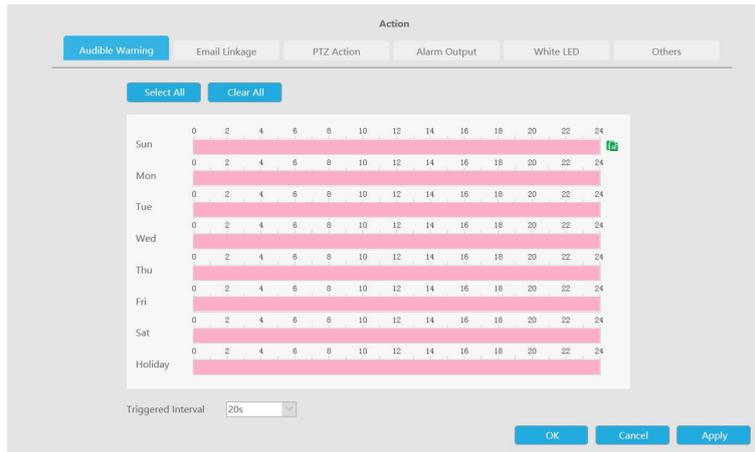
Drag a line on the time table for time setting. It will be more convenient by clicking

 or  to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

Drag a line on the time table for time setting. It will be more convenient by clicking

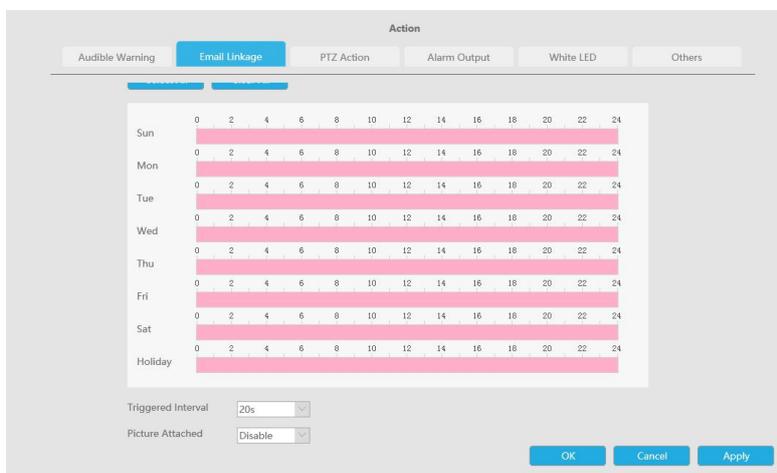
**Select All** or **Clear All** to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.



**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**.

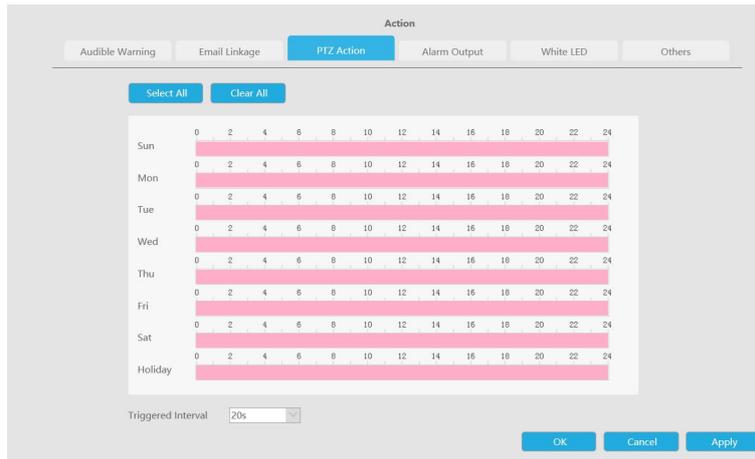
Drag a line on the time table for time setting. It will be more convenient by clicking

**Select All** or **Clear All** to set or clear all time settings.

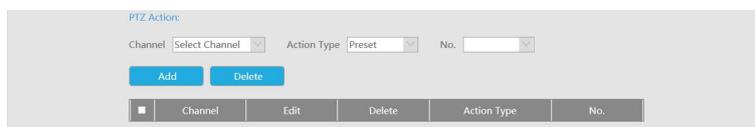
Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action.



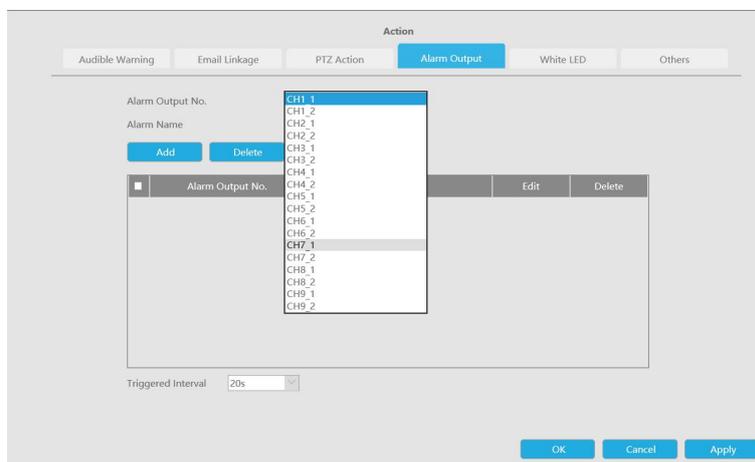
**Channel:** Select the channel which supports this function.

**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



**White LED:** Trigger White LED flashing when alarm is triggered.

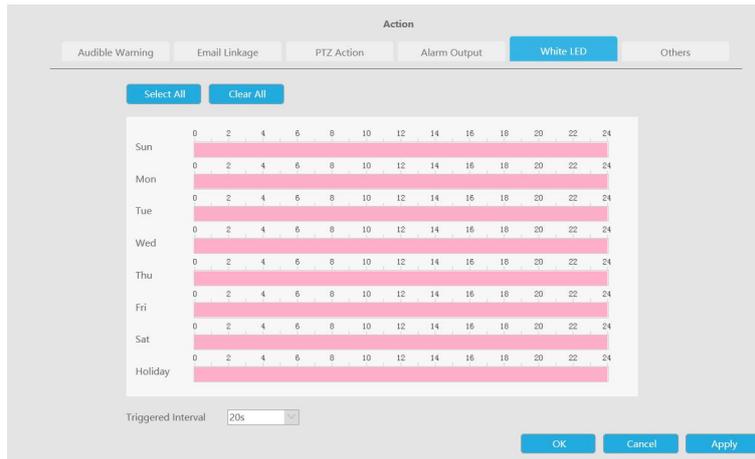
Drag a line on the time table for time setting. It will be more convenient by clicking



Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED.

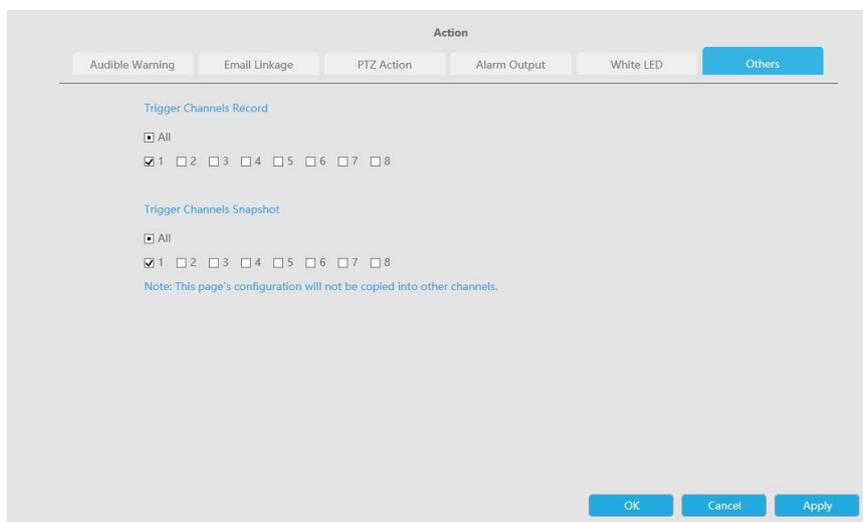


**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

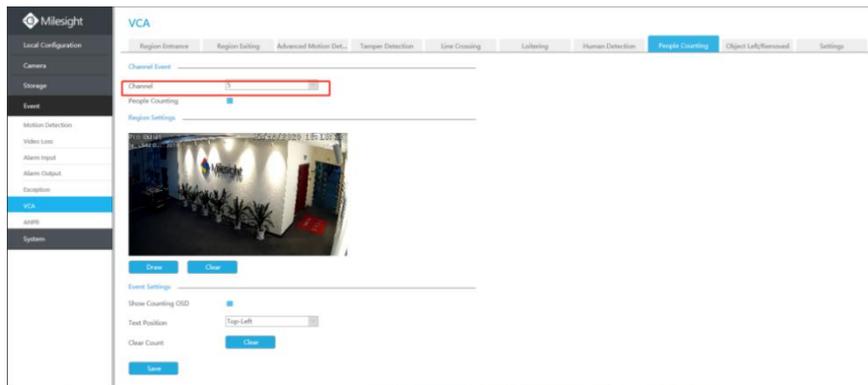
**Others:** Trigger selected channels to record and snapshot when alarm is triggered.



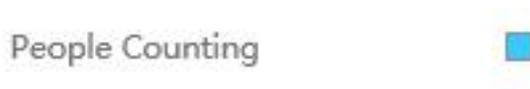
### People Counting

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

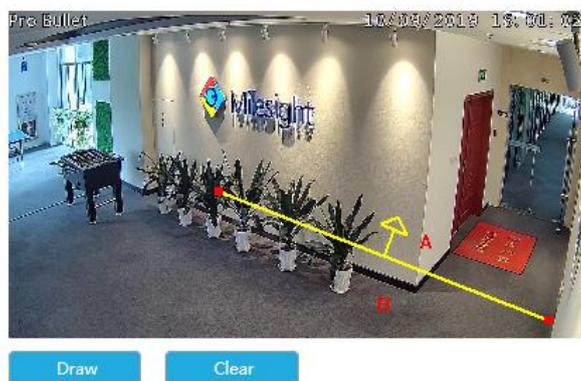
**Step 1. Select channel.**



**Step 2. Enable People Counting.**



**Step 3. Draw detection line.**



**Step 4. Set counting OSD.**

It shows the number of counted people, including in and out number.

Besides, you can clear count by clicking  .



**Note:**

1. To enable people counting, human detection should be enabled first.
2. Crossing along the direction of the arrow will record as “In”, opposite is “Out”.

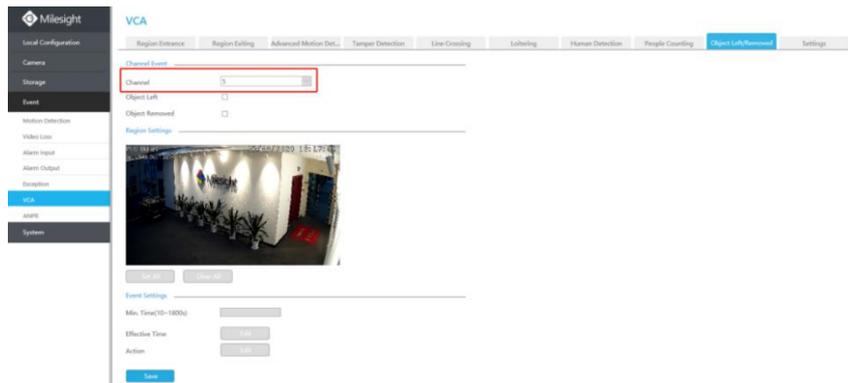
**Object Left/Removed(Optional)**

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.

**Note:**

1. Object Left/Removed is optional, if you need this function, please contact Milesight sales first.
2. You need to upgrade the NVR to V7x.9.0.4-r2 or above to support this function.

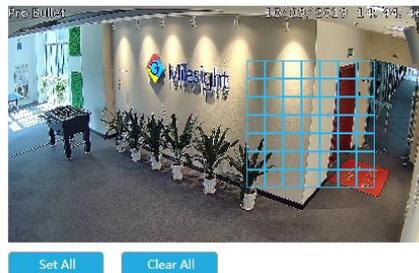
**Step 1. Select channel and enable Object Left or Object Removed(Or you can enable both features at the same time).**



### Step 2. Set detection region.

You can select an area by dragging the mouse to set the trigger area, and this area will be synchronized to camera. Also, you can set or clear all set region by directly clicking [Set All](#)

and [Clear All](#).



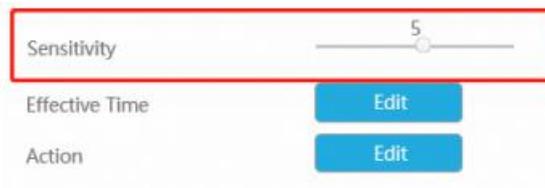
### Step 3. Set Min. Time.

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.

Min. Time(10~1800s)

### Step 4. Set Sensitivity.

The sensitivity can be configured to detect various movement according to different requirements. When the level of sensitivity is low, slight movement won't trigger the alarm.



Step 5. Set Effective Time of object left/removed by clicking [Edit](#).

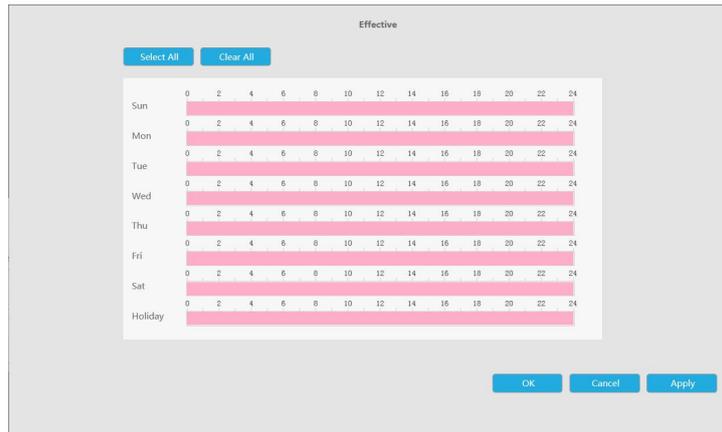
NVR receives the alarm when effective time has been set. It will be more convenient by clicking

[Select All](#)

or

[Clear All](#)

to set or clear all time settings.



**Step 6. Set Action for object left/removed alarm by clicking**



**Audible Warning:** NVR will trigger an audible beep when motion is detected.

Drag a line on the time table for time setting. It will be more convenient by clicking



or

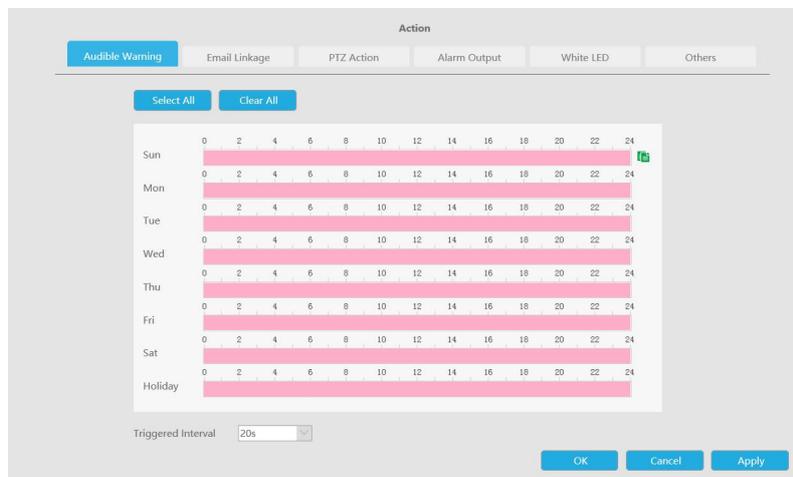


to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

Drag a line on the time table for time setting. It will be more convenient by clicking



or



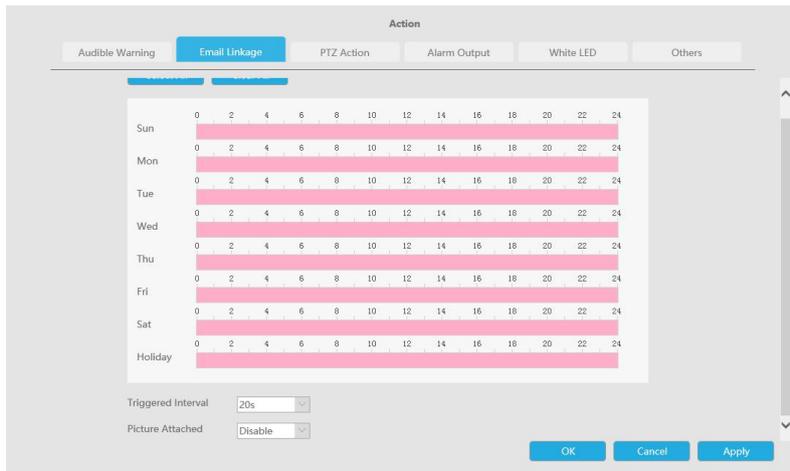
to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.

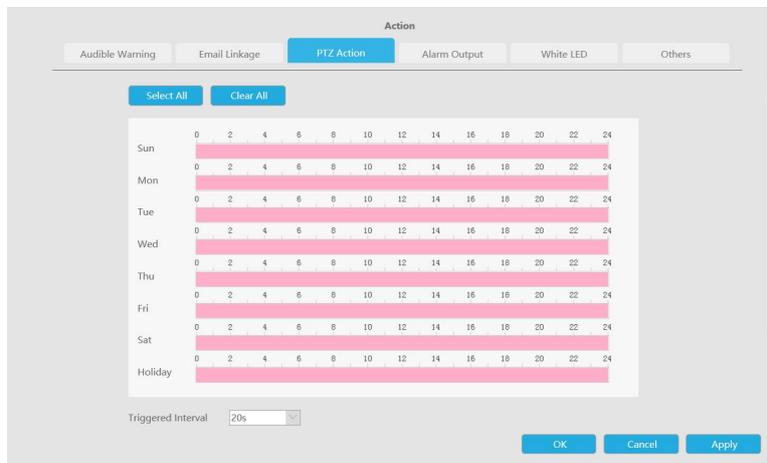
**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will receive alarm emails with one event captured picture attached.



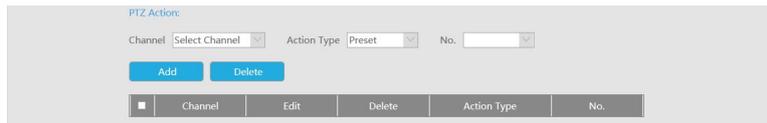
**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**. Drag a line on the time table for time setting. It will be more convenient by clicking **Select All** or **Clear All** to set or clear all time settings. Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action.



**Channel:** Select the channel which supports this function.

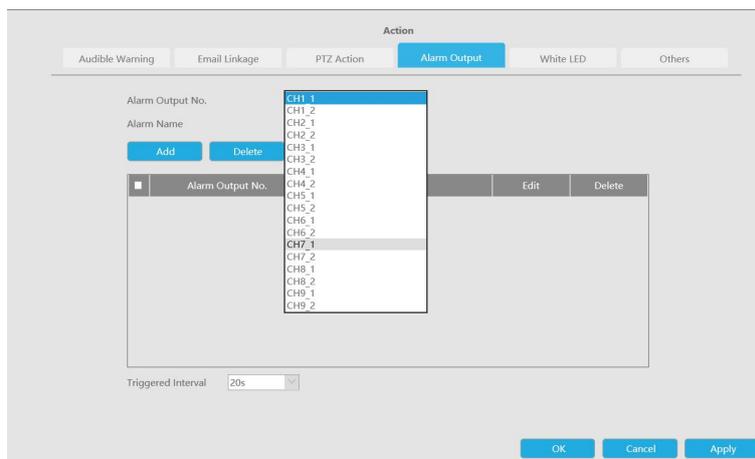
**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as

CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



**White LED:** Trigger White LED flashing when alarm is triggered.

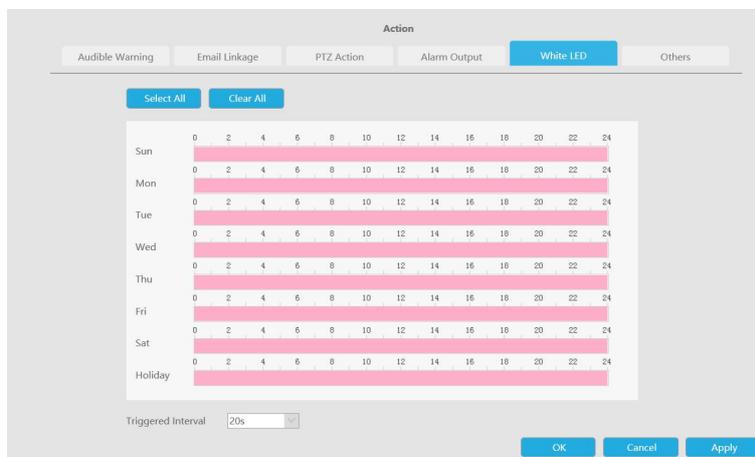
Drag a line on the time table for time setting. It will be more convenient by clicking



Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED.

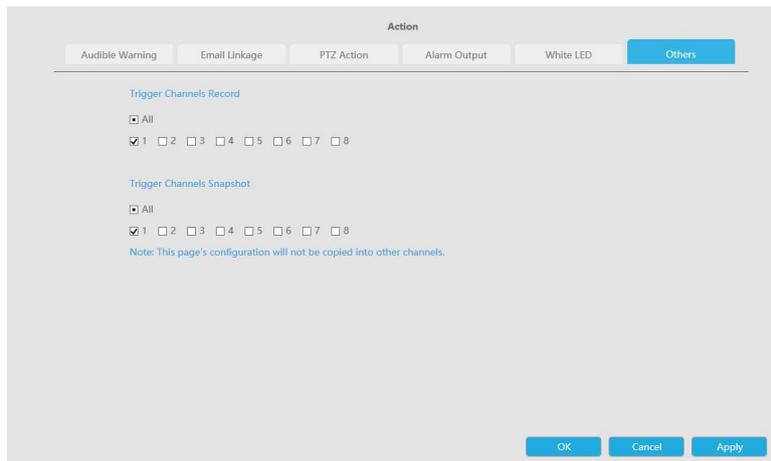


**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

**Others:** Trigger selected channels to record and snapshot when alarm is triggered.



### Settings

Milesight VCA provides the primary setting for the whole VCA functions.

**Process FPS:** Five different periods are available(5, 10, 15, 20, 25 fps) for process fps.

**Camera Installation:** Select camera installation view, including **Angle View**, **Horizontal View** and **Overhead View**

**Detection Object Size Settings:** Edit the frame size you draw to trigger events. You can set Min. Size and Max. Size for different events.

**Minimum Size:** The Min. Size means that only if the object size is bigger than the frame, the settings for other VCA functions will take effect.

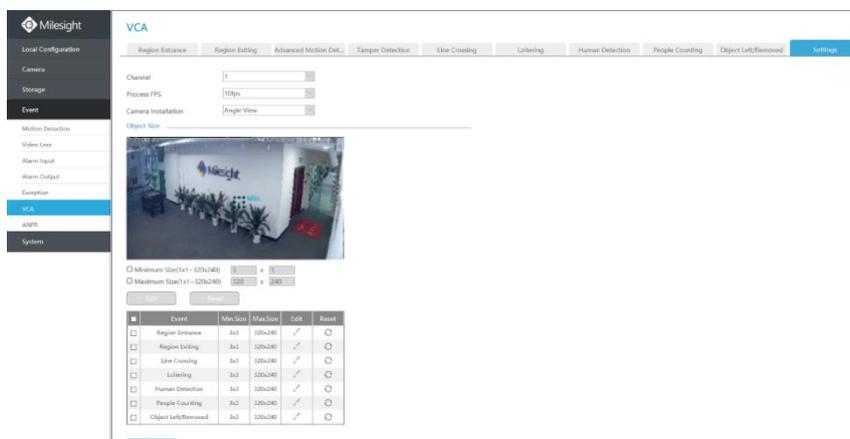
**Maximum Size:** The Max. Size means the opposite, the frame you draw on the screen stands for that only if the object size is smaller than the frame, the settings for other VCA functions will take effect.

**Note:**

Upgrade your device to corresponded firmware version.

Camera: V4X.7.0.74 or above.

NVR: V7X.9.0.9 or above.



## 4.8.4.7 ANPR

ANPR settings consist of Settings, List Management, Black List Mode, White List Mode and Visitor Mode. Here are some notes for using ANPR function.

**Note:**

1. Upgrade your device to corresponded firmware version.  
Camera: V4X.7.0.73 or above.  
NVR: V7X.9.0.7-r7 or above.  
Firmware download link: <http://www.milesight.com/support/download#firmware>
2. Ensure both camera and NVR support LPR/ANPR function. Up to 16 ANPR channels are supported for Milesight NVR.
3. Ensure that NVR can get license plate information. Please set TCP which is the default mode as Post Type. It can be set in Camera web page -> Advanced Settings -> ANPR -> Settings interface.

**LPR Message Post Settings**

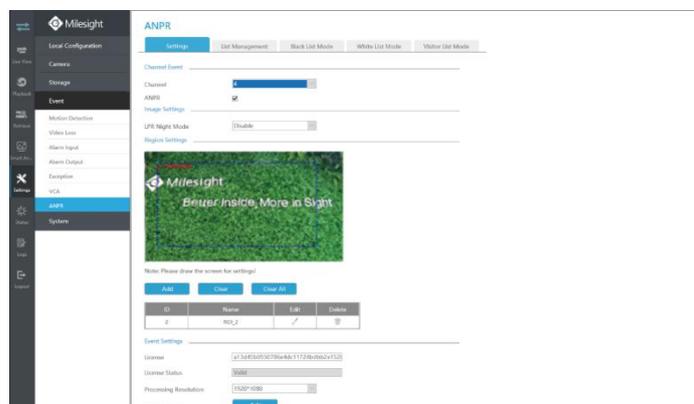
Enable LPR Message Post:

Post Type: TCP

Camera LPR Port:

### Settings

Do as following 5 steps to enable ANPR function. Camera will start to detect license plate and NVR will start to receive license plate information once these steps are done.



**Step1:** Select a channel and enable ANPR function;

**License:** Generated by camera's information

**License Status:** Show present license status, including Valid, Invalid, Expired, Inactivated

**Step2:** Select processing resolution. The further distance you detected, the higher resolution is needed. 1280\*720 by default;

**Step3:** Enable LPR Night Mode, then you can set Start Time, End Time and Level .

**Image Settings**

LPR Night Mode: Enable

Start Time: 18 : 00

End Time: 06 : 00

Level: 5

**Note:**

LPR Night Mode has a higher priority than the Day/Night Mode on the Display interface.

**Step4:** Set ANPR function effective time;

**Step5:** Set detection parameters including Detection Trigger, Confidence Level, Repeat Plate Checktime and Features Identification;

**Detection Trigger:** Always and Alarm Input are available. It will only detect information when alarm input is triggered if you select Alarm Input.

**Repeat Plate Checktime:** The same license plate information won't be received on NVR within the time you set.

**Features Identification:** The selected Features Identification will be shown in ANPR logs interface.

**License Plate Format:** Set corresponding License Plate Format to screen out license plate conforming to the count and format you set to improve recognition accuracy.

① Click  to add a License Plate Format.

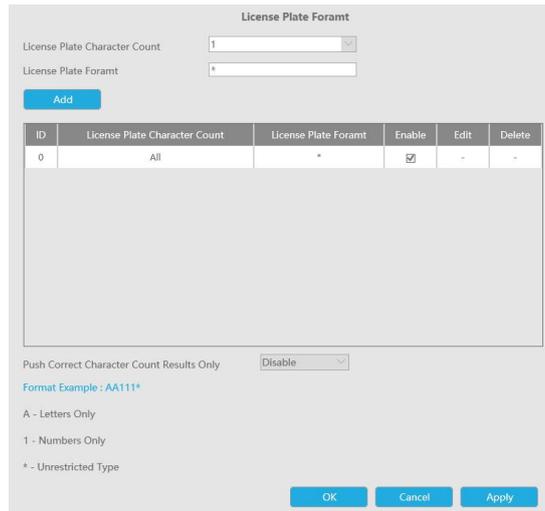
| ID | License Plate Character Count | License Plate Foramt | Enable                              | Edit | Delete |
|----|-------------------------------|----------------------|-------------------------------------|------|--------|
| 0  | All                           | *                    | <input type="checkbox"/>            | -    | -      |
| 1  | 1                             | *                    | <input checked="" type="checkbox"/> |      |        |

② Select License Plate Character Count, which is 1-9.

③ Fill in License Plate Format you want to detect. A stands for Letters, 1 stands for numbers and \* stands for unrestricted type.

**Push Correct Character Count Results Only:**

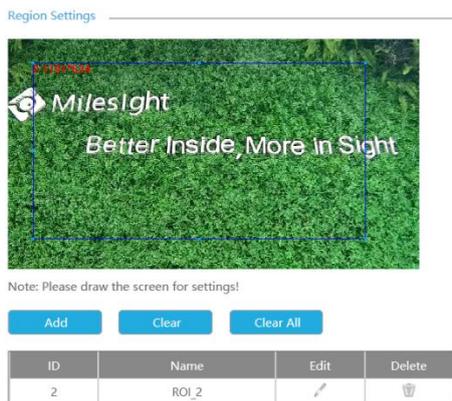
If the count of the detected license doesn't match your configuration, it will push correct character count results by completing or reducing characters automatically.



**Note:**

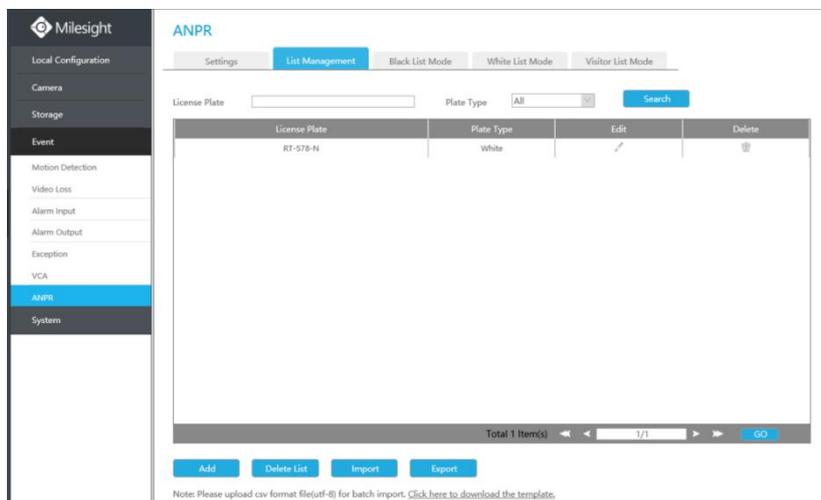
1. Make sure your IPC Version is 4X.7.0.74 or above.
2. You can add 8 rules at most.

**Step6:** Set the detected ROI region which can be up to 4 regions. License plate will only be detected in the ROI regions.



**List Management**

Make a license plate list for your own NVR ANPR system. You can upload license plates and set them with different license type here. 10000 plates can be added at most.



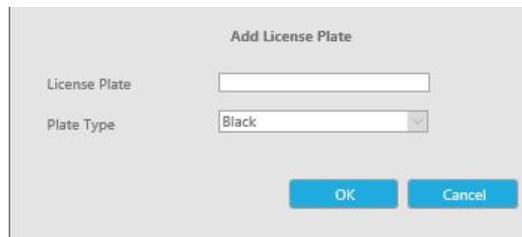
There are two methods to add license plates:

① Add one by one.

**Step1:** Click Add button  ;

**Step2:** Input the License Plate and select License Type;

**Step3:** Click OK and then the license plate will be added into the list;



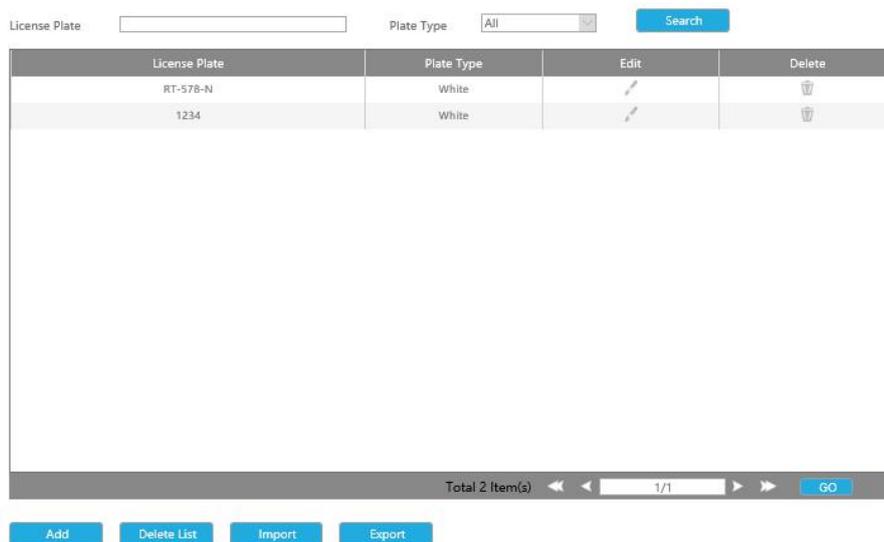
The dialog box titled "Add License Plate" contains two input fields: "License Plate" with an empty text box and "Plate Type" with a dropdown menu showing "Black". At the bottom right, there are two buttons: "OK" and "Cancel".

② Batch adding by importing template.

**Step1:** Input all license type and license plate number as Template shows;

|   | A     | B        | C |
|---|-------|----------|---|
| 1 | Type  | Plate    |   |
| 2 | White | RT-578-N |   |
| 3 | White | 1234     |   |
| 4 |       |          |   |

**Step2:** Click Import button  , select the file and click Upload to add all license plates into list.



The interface shows a search bar with "License Plate" and "Plate Type" dropdowns, and a "Search" button. Below is a table with columns: License Plate, Plate Type, Edit, and Delete. The table contains two rows: one with "RT-578-N" and "White", and another with "1234" and "White". At the bottom, there are buttons for "Add", "Delete List", "Import", and "Export". A status bar at the bottom indicates "Total 2 Item(s)" and "1/1".

Note: Please upload csv format file(utf-8) for batch import. [Click here to download the template.](#)

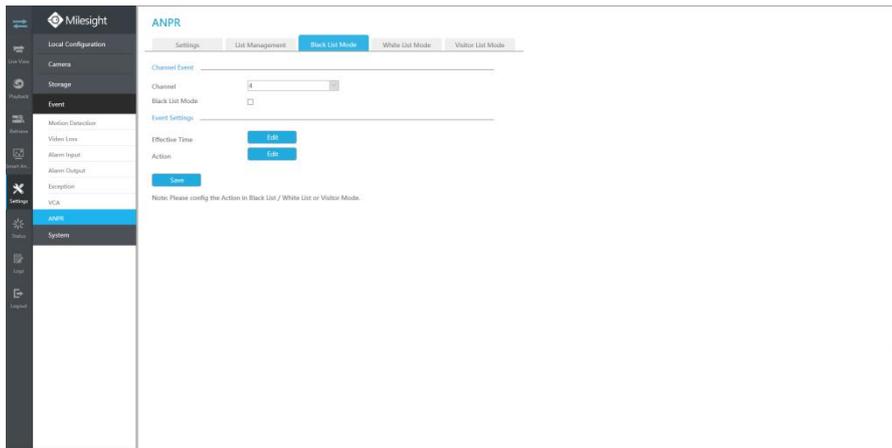
### Black List Mode/White List Mode/Visitor Mode

We provide you three modes for better event management, which is based on two license types.

**Black List Mode:** Manage event for license plates in black list.

**White List Mode:** Manage event for license plates in white list

**Visitor Mode:** Manage event for those license plates that do not have license type.



**Step1:** Enable Black List Mode/White List Mode/Visitor Mode as your demand;

**Step2:** Set effective time the Mode you chose will work during that;

**Step 3:** Set Action for ANPR alarm by clicking  .

**Audible Warning:** NVR will trigger an audible beep when motion is detected.

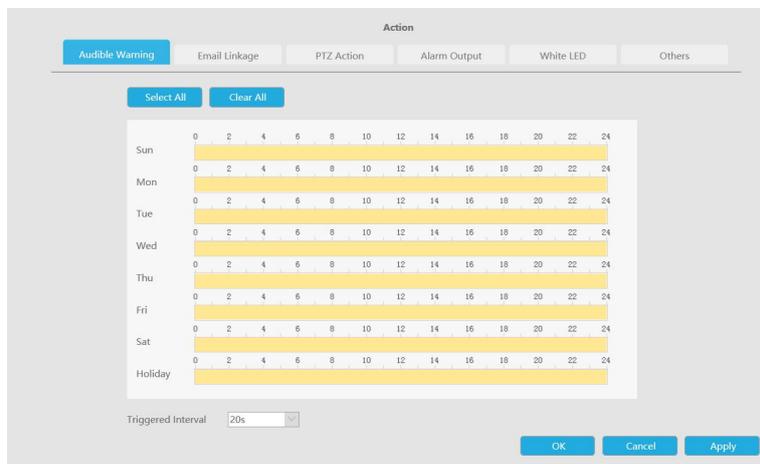
Drag a line on the time table for time setting. It will be more convenient by clicking

 or  to set or clear all time settings.

Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



**Email Linkage:** NVR will send an email to the address you set before.

Drag a line on the time table for time setting. It will be more convenient by clicking

 or  to set or clear all time settings.

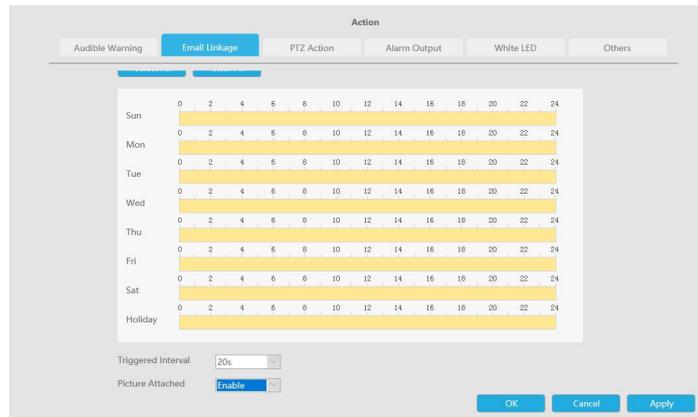
Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.

**Picture Attached:** Select whether to attach picture when sending Emails. If you enable it, you will

receive alarm emails with one event captured picture attached.



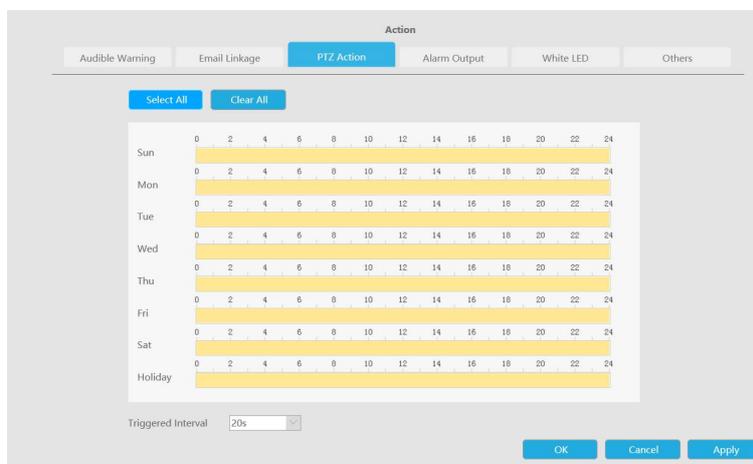
**PTZ Action:** Trigger PTZ action when alarm is triggered. PTZ action includes **Preset and Patrol**. Drag a line on the time table for time setting. It will be more convenient by clicking



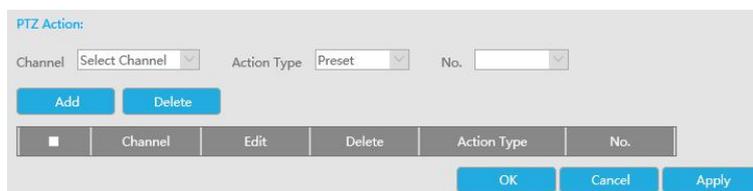
Moreover, you can click time bar to edit the time accurately.

Click  to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add PTZ Action.



**Channel:** Select the channel which supports this function.

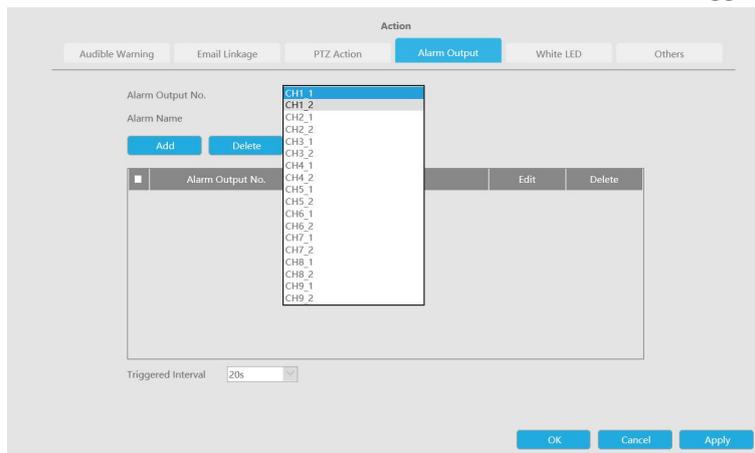
**Action Type:** Preset and Patrol are available.

**No.:** Select the number of Preset or Patrol.

**Alarm Output:** Trigger alarm output when alarm is triggered. For NVR Alarm Output, the relevant alarm output will be firstly listed, such as, 1, 2.etc. As for camera Alarm Output, it will display as

CHx\_x (such as CH1\_1) according to the camera channel and corresponding alarm number.

**Triggered Interval:** The effective interval between two actions when event triggered.



**White LED:** Trigger White LED flashing when alarm is triggered.

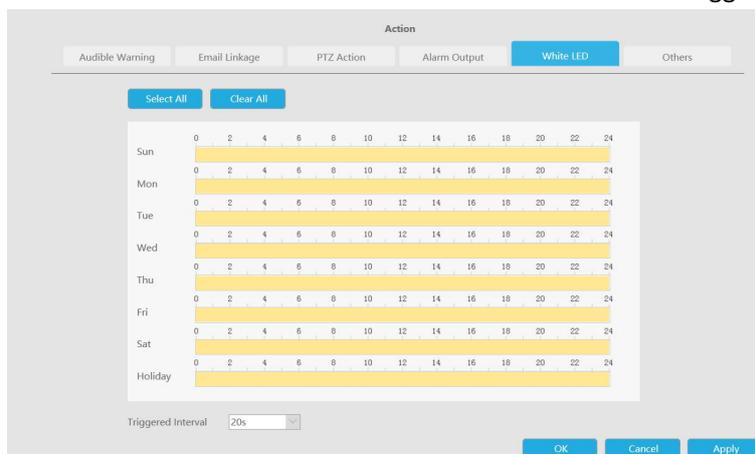
Drag a line on the time table for time setting. It will be more convenient by clicking



Moreover, you can click time bar to edit the time accurately.

Click to copy time setting to other day.

**Triggered Interval:** The effective interval between two actions when event triggered.



And you can add White LED.

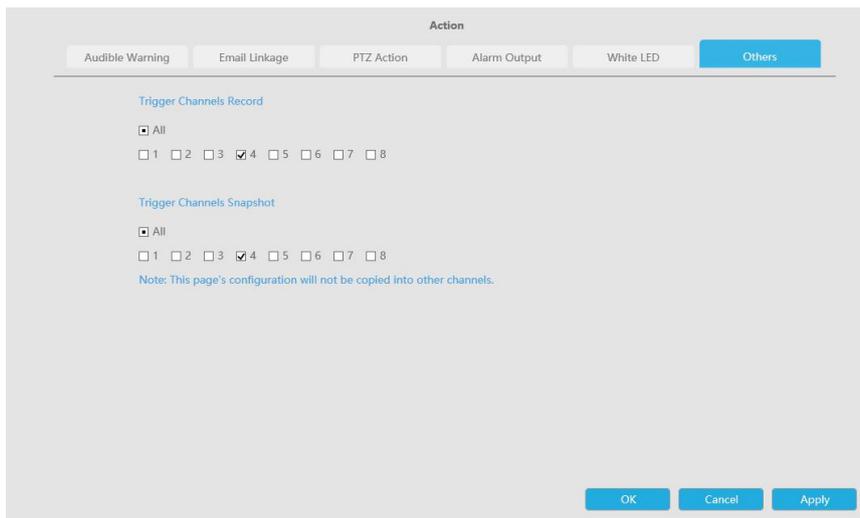


**Channel:** Select the channel which supports this function.

**Flash Mode:** Twinkle and Always are available.

**Flash Time:** Set the time for White LED flashing. When the Flash Mode is Twinkle, the range of Flash Time is 1~10 and the default value is 3. When the Flash Mode is Always, the range of Flash Time is 1~60 and the default value is 5.

**Others:** Trigger selected channels to record and snapshot when alarm is triggered.



**Note:**

1. The list is exclusive for NVR, working with all LPR cameras you add. It won't synchronize with the list on camera side.
2. Do not forget to enable these modes, set effective time and record action for corresponded mode, ensuring that you can get real-time video when license plate is detected (Effective time and record action is enabled by default.).

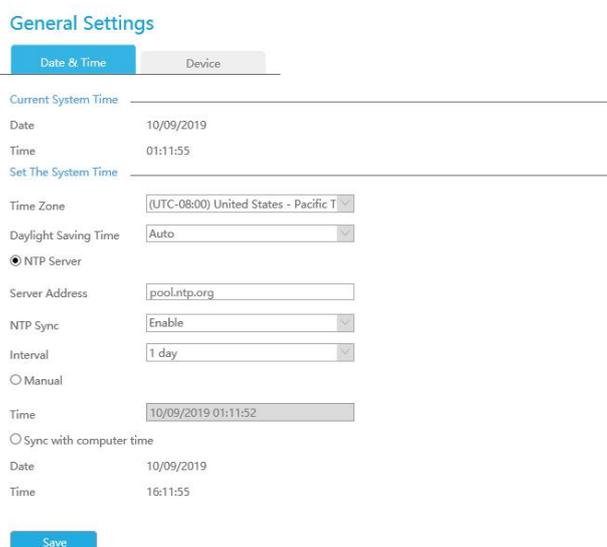
## 4.8.5 System

### 4.8.5.1 General Settings

To setup the general parameters of NVR, including modify the Device Name, Boot Wizard, set system time manually and auto logout, etc.

#### Date & Time

It is for setting up the Time parameters of NVR, including Time Zone, Daylight Saving Time, Server Address, NTP Sync, the interval for synchronizing with NTP server, Sync with computer time, etc.



## Device

It is for setting up the general parameters of NVR, including Device Name, HDMI Audio, HDMI Compatible Mode, etc.

### General Settings

| Date & Time          | Device  |
|----------------------|---|
| Device Name          | <input type="text" value="NVR"/>                |
| HDMI Audio           | <input type="text" value="Enable"/>             |
| Audio Out            | <input type="text" value="Enable"/>             |
| Boot Wizard          | <input type="text" value="Enable"/>             |
| HDMI Compatible Mode | <input type="text" value="Enable"/>             |
| Stream Information   | <input type="text" value="Disable"/>            |
| HDMI/VGA Resolution  | <input type="text" value="1920 x 1080 / 60Hz"/> |

**Audio Out:** This option will be hidden if NVR does not have Audio Out function.

**Boot Wizard:** Enable it to pop up boot wizard after rebooting.

**Stream Information:** Enable it to see bit rate, frame rate and frame size in both live view and playback interface.



### Note:

1. For some models, the stream information will reveal synchronously while transcoding is enabled.
2. Channels that play H.265 in plugin-free mode will not display the stream information.

## 4.8.5.2 Network

### 4.8.5.2.1 Basic

The system supports two IP address format: IPv4 and IPv6

#### IPv4

Enable IPv4 DHCP to auto search IP. When enable DHCP function, you can not modify IP/ Subnet mask/ Gateway.

Disable IPv4 DHCP to modify IP/ Subnet mask/ Gateway manually.

## IPv6

Manual/ Router Advertisement/ DHCPv6 are available.

## DNS Server

Preferred DNS Server: DNS server IP address.

Alternate DNS Server: DNS server alternate address.

**Network**

Basic | UPnP | DDNS | Email | P2P | PPPoE | SNMP | HTTPS | More

NIC Settings

IPv4 DHCP:

IPv4 Address:

IPv4 Subnet Mask:

IPv4 Gateway:

IPv6 Mode:

IPv6 Address:

IPv6 Prefix Length:

IPv6 Gateway:

MAC:

MTU(Byte):

DNS Server

Preferred DNS Server:

Alternate DNS Server:

PoE NIC IPv4 Address:

### Note:

1. Check the DHCP check-box when there is a DHCP server running in the networks.
2. Once DHCP is enabled, DNS will change accordingly.
3. The valid range of MTU is 500~1500.
4. Do not input an IP address conflicting with another device.

### 4.8.5.2.2 UPnP

With the function enabled, you don't need to configure the port mapping for each port in router, it will do the port mapping in router automatically once **router supports UPnP**.

**Network**

Basic | UPnP | DDNS | Email | P2P | PPPoE | SNMP | HTTPS | More

UPnP:

Forwarding Type:

| Port Type | Edit                          | External Port | Internal Port | Status  |
|-----------|-------------------------------|---------------|---------------|---------|
| HTTP      | <input type="text" value=""/> | 21202         | 80            | Invalid |
| RTSP      | <input type="text" value=""/> | 23302         | 554           | Invalid |

### 4.8.5.2.3 DDNS

Using DDNS to solve the dynamic IP address problem.

Check DDNS check-box to enable it, then select a DDNS Server, input the user name, password and host name. Do not forget to save the configuration.

Milesight has its own DDNS server. Please do port forwarding for HTTP port and RTSP port before enabling **Milesight DDNS**. Then input corresponding information and you can use <http://ddns.milesight.com:MAC> to access device remotely.

### Note:

“Host Name” must begin with letters, and it can only contain number, letters, and hyphen.

**Network**

Basic UPnP **DDNS** Email P2P PPPoE SNMP HTTPS More

Enable DDNS

Provider

External HTTP Port

External RTSP Port

DDNS URL

#### 4.8.5.2.4 Email

Email will send receivers a screenshot when the alarm is triggered.

**Network**

Basic UPnP DDNS **Email** P2P PPPoE SNMP HTTPS More

User Name

Password

SMTP Server

SMTP Port

Encryption  TLS  SSL

Host Name   Enable

Sender Email Address

Receiver Email Address 1

Receiver Email Address 2

Receiver Email Address 3

**User name:** The E-mail address you choose to send emails. Please input **full email address** into it.

**Password:** The password of the E-mail.

**SMTP Server:** The SMTP Server of your E-mail.

**SMTP Port:** The port of SMTP Server, it's usually 25.

**Encryption:** Security Protocol of email sending, including TLS and SSL.

**Host Name:** It will be attached in the email.

**Sender Email Address:** It must be same with [User name].

**Receiver Email Address:** E-mail Address for the receivers.

Select  to check if the Mail function is workable.

**Note:**

If your NVR has a port forwarding IP for Host Name, please input the complete address that contains the port.

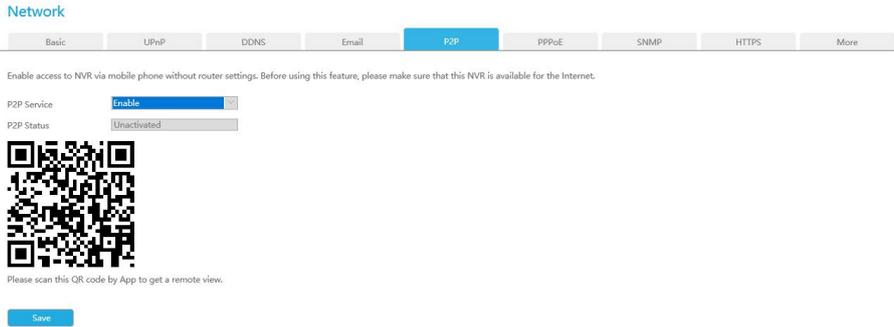
#### 4.8.5.2.5 P2P

You can watch remote NVR live view in WAN by P2P on M-Sight Pro without doing port forwarding on router.

Click "Enable" and "Save" to enable P2P.

**P2P is enabled successfully when P2P Status shows "Activated".**

After enabling, you can add the NVR on the APP M-Sight Pro for live view via scanning the QR code on the "P2P" page directly, or inputting the MAC address manually.



There are several status shows on P2P Status after clicking Saving, please check corresponded possibilities below:

| P2P Status                    | Description  |
|-------------------------------|--|
| Network unavailable           | Failed to connect with internet.Please check again for the network settings, like Gateway or DNS, make sure the NVR is able to the Internet. |
| Authentication request failed | Failed to authenticate P2P encryption.Please contact with Milesight.   |
| No idle UUID                  | Please contact Milesight if this status shows up   |
| Activated                     | P2P is available   |
| Login failed                  | Failed to login P2P server. Please contact with Milesight.   |
| Initialization failed         | Failed to initialize P2P. Please contact with Milesight.   |
| Unactivated                   | P2P is disabled  |
| Unknown error                 | Other error. Please contact with Milesight.  |

**Note:**

1. Please make sure that NVR is available for internet before enabling.
2. If your NVR firmware version is not 7x.7.0.9-r2 or above, please contact Milesight to registered P2P first.

#### 4.8.5.2.6 PPPoE

PPPoE combines PPP protocol with Ethernet, by which Ethernet hosts can connect to a remote access concentrator via a simple bridging device.



**Note:**

If both UPnP and PPPoE are enabled, only PPPoE will take effect.

#### 4.8.5.2.7 SNMP

SNMP is an abbreviation of Simple Network Management Protocol, which is convenient for NVR to be monitored and managed in the whole network environment. The SNMP is widely used in many network devices, software and systems.

Before setting the SNMP, please download the SNMP software and manage to receive the NVR information via SNMP port. By setting the Trap Address, the NVR can send the alarm event and exception messages to the surveillance center.

**SNMP v1/2c/3:** The version of SNMP, please select the version of your SNMP software.

SNMP v1: No security protection

SNMP v2c: Require password for access

SNMP v3: Support encryption on the premise that the HTTPS protocol must be enabled

**Read Community:** Input the name of Read Community

**Write Community:** Input the name of Write Community

**Read Security Name:** Input the name of Read Security Community

**Level of Security:** There are three levels available: (auth, priv), (auth, no priv) and (no auth, no priv)

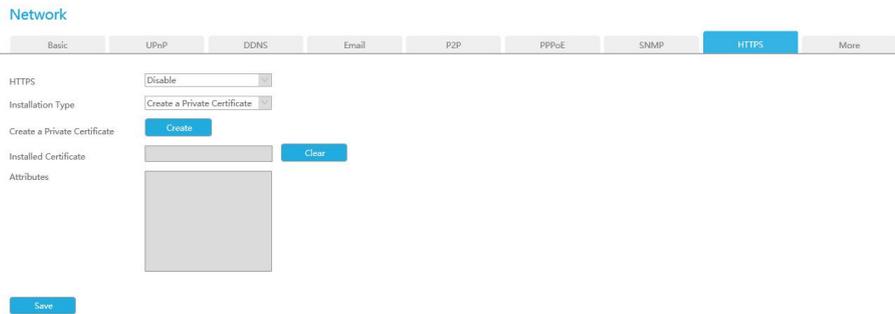
**Write Security Name:** Input the name of Write Security Community

**Level of Security:** There are three levels available: (auth, priv), (auth, no priv) and (no auth, no priv)

**SNMP Port:** The default of the SNMP port is 161

#### 4.8.5.2.8 HTTPS

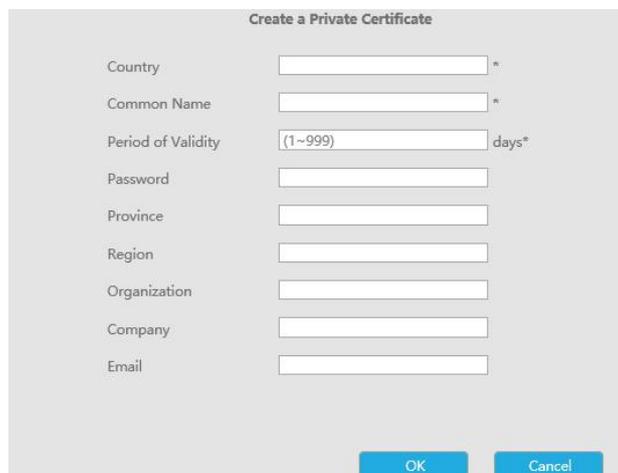
Set in the interface to make sure getting access to NVR successfully via HTTPS, which is able to guarantee communication data security. The reliable and stable technology can secure the user information security and device safety.



There are three certificate installation types:

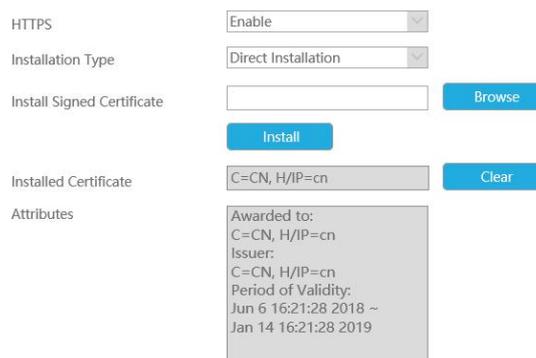
**Create a Private Certificate**

Click “Create” to create the following dialog box. And then enter Country, Common Name, Period of Validity and other information. And then click “OK” to generate a private certificate.



**Direct Installation**

Click “Browse” to select a signed certificate locally and click “Install” to install it.



**Create a Certificate Request**

Firstly, click “Create” button. And then enter Country, Common Name and other information to create the certificate request;

Download the certificate request and submit it to the trusted certificate authority for signature;

After receiving the signed valid certificate, import the certificate to the device.

|                                  |   |
|----------------------------------|---|
| HTTPS                            | <input type="text" value="Enable"/>   |
| Installation Type                | <input type="text" value="Create a Certificate Request"/>   |
| Create a Certificate Request     | <input type="button" value="Create"/> <a href="#">Request Content</a>   |
| Download the Certificate Request | <input type="button" value="Download"/>   |
| Delete the Certificate Request   | <input type="button" value="Delete"/>   |
| Installed Certificate            | <input type="text" value="C=CN, H/IP=cn"/> <input type="button" value="Clear"/>   |
| Attributes                       | <div style="border: 1px solid #ccc; padding: 5px;">                 Awarded to:<br/>                 C=CN, H/IP=cn<br/>                 Issuer:<br/>                 C=CN, H/IP=cn<br/>                 Period of Validity:<br/>                 Jun 6 16:21:28 2018 ~<br/>                 Jan 14 16:21:28 2019             </div> |

After creating and installing the certificate successfully, you can check the certificate information and clear the information on the following interface. And you can access the NVR by inputting <https://ip:port> via the web browser.

|                       |   |
|-----------------------|---|
| Installed Certificate | <input type="text" value="C=CN, H/IP=cn"/> <input type="button" value="Clear"/>   |
| Attributes            | <div style="border: 1px solid #ccc; padding: 5px;">                 Awarded to:<br/>                 C=CN, H/IP=cn<br/>                 Issuer:<br/>                 C=CN, H/IP=cn<br/>                 Period of Validity:<br/>                 Jun 6 16:21:28 2018 ~<br/>                 Jan 14 16:21:28 2019             </div> |

**Note:**

The default HTTPS port is 443, you can modify it on the “More” interface.

### 4.8.5.2.9 More

**Network**

|                       |                                     |
|-----------------------|-------------------------------------|
| Channel Access        | <input type="text" value="Enable"/> |
| Enable SSH            | <input type="text" value="Enable"/> |
| SSH Port              | <input type="text" value="22"/>     |
| HTTP Port             | <input type="text" value="80"/>     |
| HTTPS Port            | <input type="text" value="443"/>    |
| RTSP Port             | <input type="text" value="554"/>    |
| Push Message          | <input type="text" value="Enable"/> |
| Push Stream Type      | <input type="text" value="Auto"/>   |
| Push Message Settings | <input type="button" value="Edit"/> |

#### Channel Access

With this option enabled, you can access PoE-connected cameras website directly in Camera Management.

#### Enable SSH

Enable or disable SSH access. Secure Shell (SSH) has many functions; it can replace Telnet, and

also provides a secure channel for FTP, POP, even for PPP.

#### SSH Port

The default SSH port is 22. Only for Milesight R&D debugging.

#### HTTP Port

The default HTTP port is 80. Please modify HTTP ports according to actual application.

#### Note:

1. The default HTTP port for IE browser is 80.
2. HTTP port is used for remote network access for 4k/H.265 NVR Series.

#### HTTPS Port

The default HTTPS port is 443. Please modify HTTPS ports according to actual application.

#### Note:

1. The default HTTPS port for IE browser is 443.
2. HTTPS port is used for remote network access for 4k/H.265 NVR Series.

#### RTSP Port

Real Time Streaming Protocol (RTSP) is an application layer protocol in TCP/IP protocol system.

The default RTSP port is 554. Please modify RTSP port according to actual application.

#### Note:

1. RTSP port is used for remote network live view.
2. RTSP port valid range is 554 or 1024~65535.
3. The RTSP format of Milesight NVR is "rtsp://IP:RTSP port/ch\_xxx".
  - ① IP: The IP address of NVR;
  - ② RTSP port: The default RTSP port is 554;
  - ③ ch\_xxx: The first number of xxx represents stream type, 1 for main stream and 4 for sub stream. The last two represents channel number, which start from '00' ('00' means channel 1). Take 'rtsp://192.168.8.179:554/ch\_402' as an example:

The IP address of NVR is 192.168.8.179.

The RTSP port is 554.

The stream type is sub stream and the channel number is 3.

#### Push Message Enable

With this option enabled, you can receive the alarm message on the mobile application.

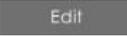
#### Push Video Stream

Select which video stream will be pushed to APP M-Sight Pro. Auto, Primary Stream and Secondary Stream are available.

#### Note:

Only NVR model ends with letter T support.

#### Push Event Type

Click  to select which alarm type will be pushed to APP M-sight Pro. There are different Push Event Types for every channel to choose, which means every camera added in this NVR can choose what Event Type it wants to push, like Motion Detection, Video Loss, Region Entrance, Region Exiting, Advanced Motion Detection, Tamper Detection, Line Crossing, Loitering and Human Detection.

#### Push Message Settings

##### ① Camera Event

The screenshot shows the 'Push Message Settings' dialog box with the 'Camera Event' tab selected. The 'Channel' dropdown is set to '1'. Under 'Push Event Type', the following options are checked: All, Motion Detection, Video Loss, Region Entrance, Region Exiting, Advanced Motion Detection, Tamper Detection, Line Crossing, Loitering, Human Detection, Object Left/Removed, and Alarm Input. The 'Alarm Input' sub-section has checkboxes for '1' and '2'.

Select Push Event Type which will be pushed to APP M-sight Pro. There are different Push Event Types for every channel to choose, which means every camera added in this NVR can choose what Event Type it wants to push, like Motion Detection, Video Loss, Region Entrance, Region Exiting, Advanced Motion Detection, Tamper Detection, Line Crossing, Loitering Human Detection, Object Left/Removed and Alarm Input.

## ② NVR Event

The screenshot shows the 'Push Message Settings' dialog box with the 'NVR Event' tab selected. Under 'Alarm Input', the following options are checked: All, 1, 2, 3, and 4.

Select channels which you want to push the Alarm Input Event of NVR.

### **Note:**

There would not have NVR Event interface if your NVR doesn't have alarm input interface.

## 4.8.5.3 Holiday

It can configure the record or image capture schedule for holidays of the current year.

| No. | Holiday Name | Status  | Start Date | End Date | Edit |
|-----|--------------|---------|------------|----------|------|
| 1   | Holiday      | Disable | 1-1        | 1-1      | ✎    |
| 2   | Holiday      | Disable | 1-1        | 1-1      | ✎    |
| 3   | Holiday      | Disable | 1-1        | 1-1      | ✎    |
| 4   | Holiday      | Disable | 1-1        | 1-1      | ✎    |
| 5   | Holiday      | Disable | 1-1        | 1-1      | ✎    |
| 6   | Holiday      | Disable | 1-1        | 1-1      | ✎    |
| 7   | Holiday      | Disable | 1-1        | 1-1      | ✎    |
| 8   | Holiday      | Disable | 1-1        | 1-1      | ✎    |
| 9   | Holiday      | Disable | 1-1        | 1-1      | ✎    |
| 10  | Holiday      | Disable | 1-1        | 1-1      | ✎    |
| 11  | Holiday      | Disable | 1-1        | 1-1      | ✎    |
| 12  | Holiday      | Disable | 1-1        | 1-1      | ✎    |
| 13  | Holiday      | Disable | 1-1        | 1-1      | ✎    |
| 14  | Holiday      | Disable | 1-1        | 1-1      | ✎    |
| 15  | Holiday      | Disable | 1-1        | 1-1      | ✎    |
| 16  | Holiday      | Disable | 1-1        | 1-1      | ✎    |

Click  to open holiday configuration page to modify holiday name, check the 'Enable Holiday' check-box, and then select [Type] to setup Start/End date. There are By0 Month, By Week, and By Date in [Type] mode. Then click [OK] to save the configuration and return to holiday page.

**Edit Holiday**

Holiday Name:

Enable Holiday:

Type:

Start Date:

End Date:

## 4.8.5.4 User

| No. | User Name | User Level |
|-----|-----------|------------|
| 1   | admin     | Admin      |
| 2   | ale       | Operator   |

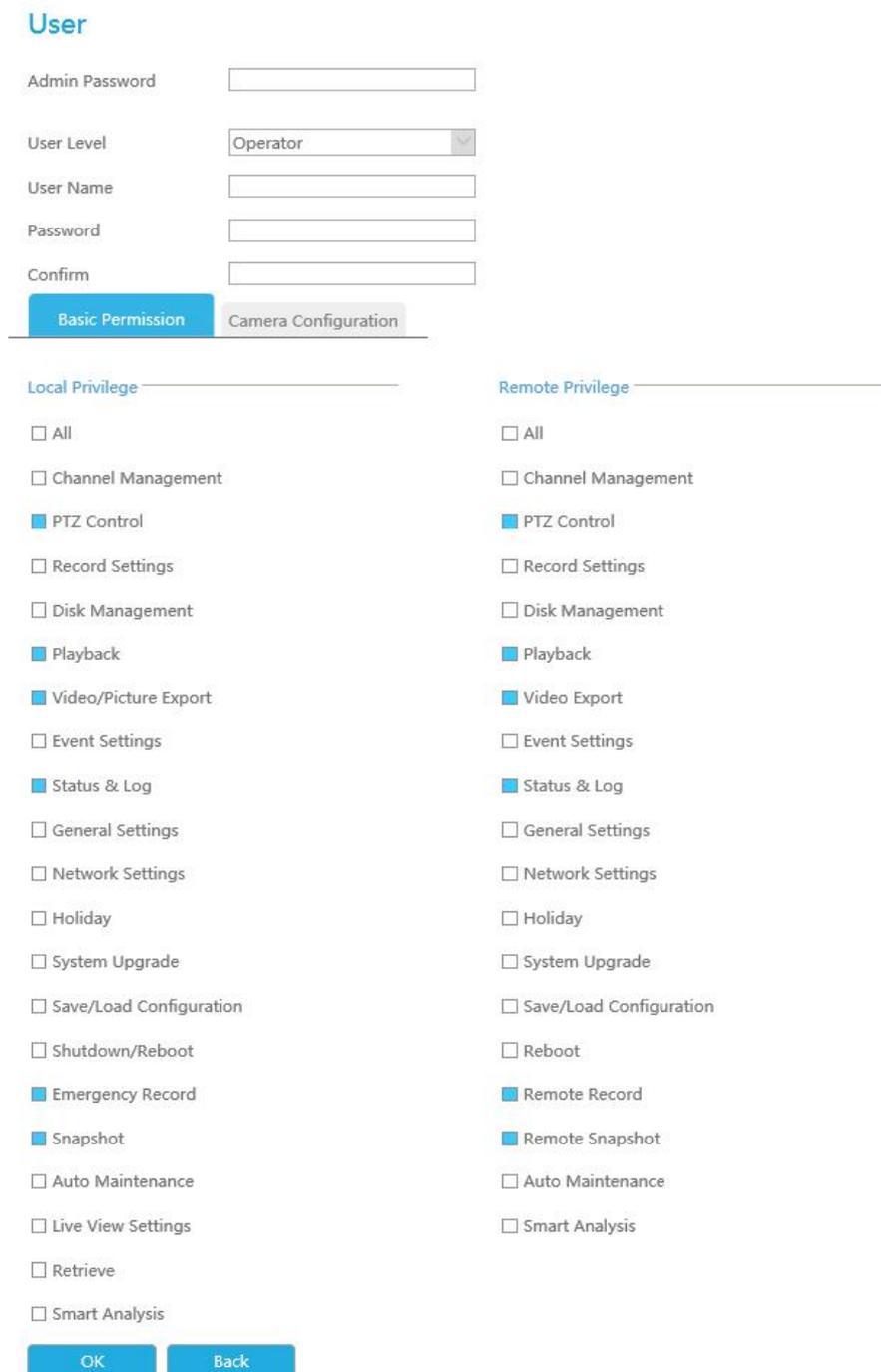
### Note:

1. If the NVR firmware version is below xx.7.0.6, the default user name is "admin" and the default password is "123456".
2. If the NVR firmware version is between xx.7.0.6 and xx.9.0.3, the default user name is "admin" and the default password is "ms1234".

3. If the NVR firmware version is xx.9.0.3 or above, please set the admin password before login.

### Add a new user

Click  to enter the user add interface, input information for the new user, select user level and set user privileges, then click  to save settings.



**User**

Admin Password

User Level

User Name

Password

Confirm

**Basic Permission** Camera Configuration

**Local Privilege**

- All
- Channel Management
- PTZ Control
- Record Settings
- Disk Management
- Playback
- Video/Picture Export
- Event Settings
- Status & Log
- General Settings
- Network Settings
- Holiday
- System Upgrade
- Save/Load Configuration
- Shutdown/Reboot
- Emergency Record
- Snapshot
- Auto Maintenance
- Live View Settings
- Retrieve
- Smart Analysis

**Remote Privilege**

- All
- Channel Management
- PTZ Control
- Record Settings
- Disk Management
- Playback
- Video Export
- Event Settings
- Status & Log
- General Settings
- Network Settings
- Holiday
- System Upgrade
- Save/Load Configuration
- Reboot
- Remote Record
- Remote Snapshot
- Auto Maintenance
- Smart Analysis

**OK** **Back**

#### Note:

User name can only contain letters and number. There are two user levels with different authority: Operator and Viewer.

### Edit user limits

Click a user, when the background color changes into blue, click  to edit user privileges.

- ① Local Privilege means the privilege to the monitor connected with NVR
- ② Remote Privilege means the privilege to web settings.

| Local Privilege  | Remote Privilege                                    |
|--|---|
| <input checked="" type="checkbox"/> All                  | <input checked="" type="checkbox"/> All             |
| <input type="checkbox"/> Channel Management              | <input type="checkbox"/> Channel Management         |
| <input checked="" type="checkbox"/> PTZ Control          | <input checked="" type="checkbox"/> PTZ Control     |
| <input checked="" type="checkbox"/> PTZ Settings         | <input checked="" type="checkbox"/> PTZ Settings    |
| <input type="checkbox"/> Record Settings                 | <input type="checkbox"/> Record Settings            |
| <input type="checkbox"/> Snapshot Settings               | <input type="checkbox"/> Snapshot Settings          |
| <input type="checkbox"/> Disk Management                 | <input type="checkbox"/> Disk Management            |
| <input checked="" type="checkbox"/> Playback             | <input checked="" type="checkbox"/> Playback        |
| <input checked="" type="checkbox"/> Video/Picture Export | <input checked="" type="checkbox"/> Video Export    |
| <input type="checkbox"/> Event Settings                  | <input type="checkbox"/> Event Settings             |
| <input checked="" type="checkbox"/> Status & Log         | <input checked="" type="checkbox"/> Status & Log    |
| <input type="checkbox"/> General Settings                | <input type="checkbox"/> General Settings           |
| <input type="checkbox"/> Network Settings                | <input type="checkbox"/> Network Settings           |
| <input type="checkbox"/> Holiday                         | <input type="checkbox"/> Holiday                    |
| <input type="checkbox"/> System Upgrade                  | <input type="checkbox"/> System Upgrade             |
| <input type="checkbox"/> Save/Load Configuration         | <input type="checkbox"/> Save/Load Configuration    |
| <input type="checkbox"/> Shutdown/Reboot                 | <input type="checkbox"/> Reboot                     |
| <input checked="" type="checkbox"/> Emergency Record     | <input checked="" type="checkbox"/> Remote Record   |
| <input checked="" type="checkbox"/> Snapshot             | <input checked="" type="checkbox"/> Remote Snapshot |
| <input type="checkbox"/> Auto Maintenance                | <input type="checkbox"/> Auto Maintenance           |
| <input type="checkbox"/> Live View Settings              | <input type="checkbox"/> Retrieve                   |
| <input type="checkbox"/> Retrieve                        | <input type="checkbox"/> Smart Analysis             |
| <input type="checkbox"/> Smart Analysis                  |   |

OK
Back

### Edit user password

Click  to modify password.

Sync new password to current connected PoE channels is available for PoE NVR Series.

#### User

Admin Password

User Level Admin

User Name admin

New Password

Confirm

Sync new password to current connected PoE channels

OK
Back

### Delete user

Select a user and click  to delete a user.

## Modify Security Question

Input Admin Password, select security question and answer. Click  to save.

### User

User
Security Question

**Password Authentication**

Admin Password:

**Security Question Setting (Questions are already set!)**

Security Question1:

Security Answer1:

Security Question2:

Security Answer2:

Security Question3:

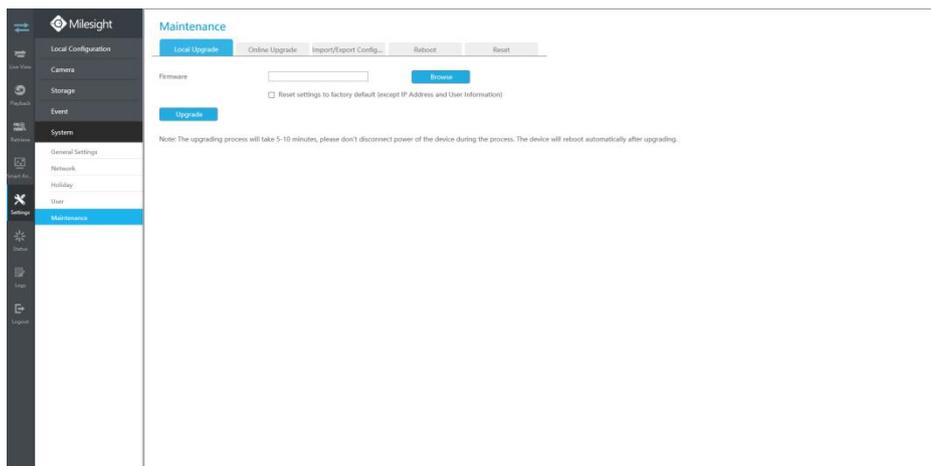
Security Answer3:

OK

### Note:

1. This option is available for the NVR firmware version xx.9.0.3 or above only.
2. Security question is used for resetting admin password if you forget current one.

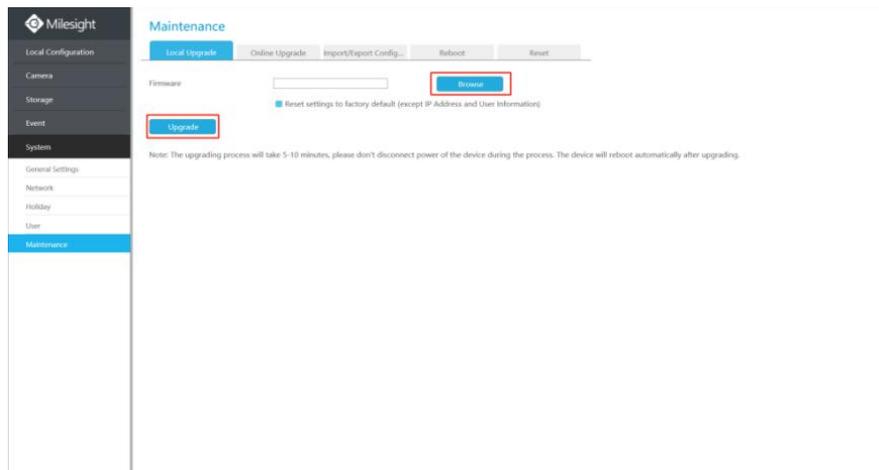
## 4.8.5.5 Maintenance



### Local Upgrade

**Step1.** Click  to select the firmware file, and you can check  to reset configuration to factory defaults;

**Step2.** Click **Upgrade** to confirm the upgrade.



**Note:**

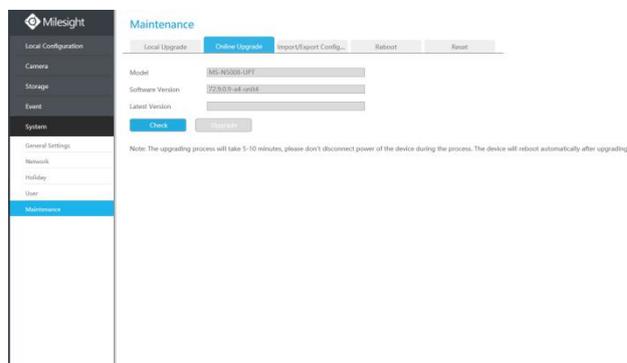
It will take 5 to 10 minutes to upgrade, please do not disconnect the device power during the process. The device will reboot automatically after upgrading.

**Online Upgrade**

**Step1.** Click **Check** to confirm whether there is a new version;

If there is a new version, the Latest Version column will display corresponding information.

**Step2.** Click **Upgrade** to confirm the upgrade.

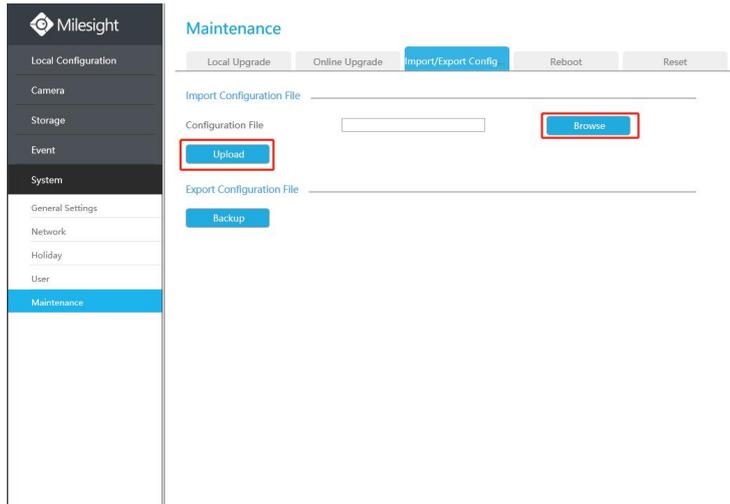


**Note:**

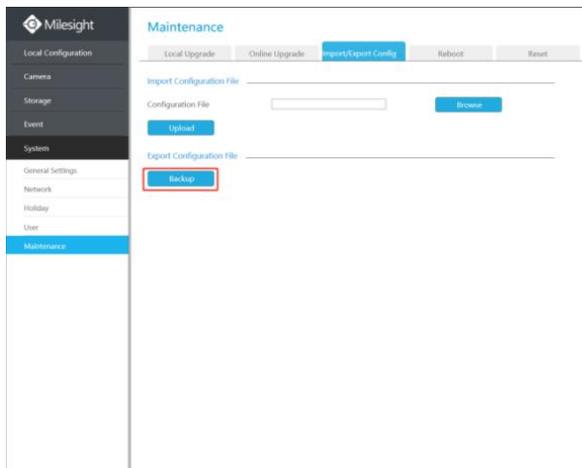
It will take 5 to 10 minutes to upgrade, please do not disconnect the device power during the process. The device will reboot automatically after upgrading.

**Import/Export Configuration**

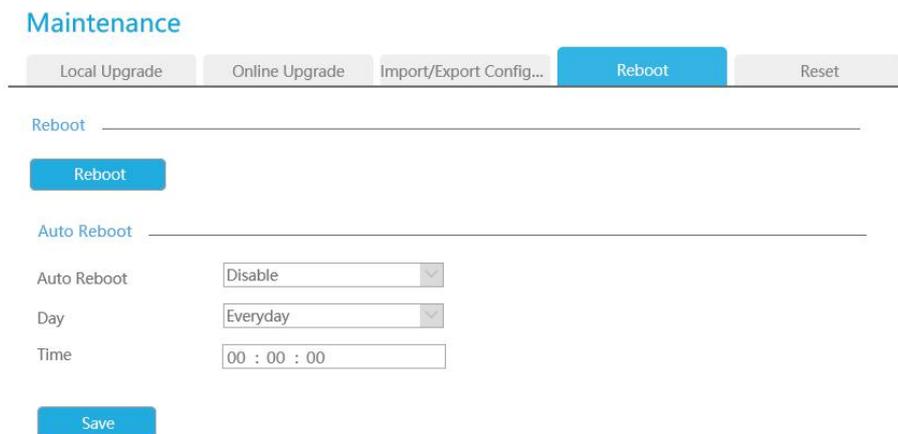
**Import Configuration File:** Click **Browse** to select one file and click **Upload** to import the NVR configuration.



**Export Configuration File:** Click  to backup current NVR settings.



## Reboot



## Reboot

Click  to reboot the NVR.

## Auto Reboot

You can set day and time for reboot, and **the NVR will reboot automatically at the time you set.**

**Day:** Everyday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday and Sunday.

**Time:** Adjustable range from 00:00:00 to 23:59:59.

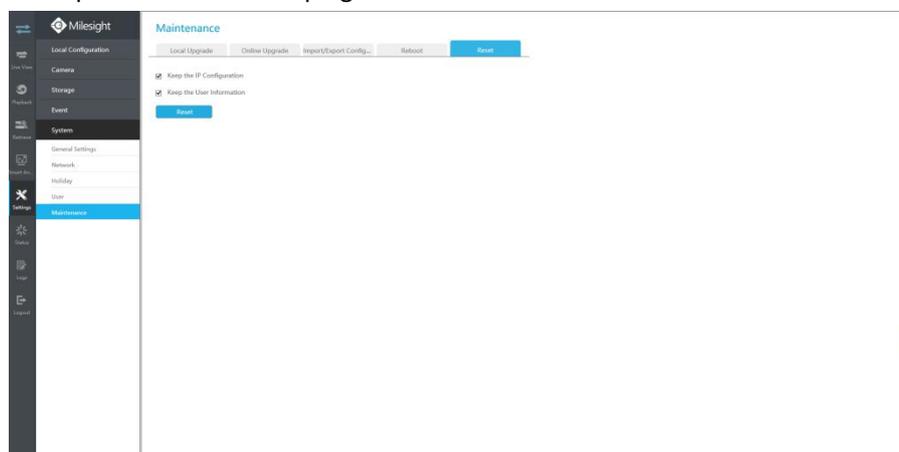
### Note:

1. Some models support this function.
2. Auto Reboot can be enabled in User -> Edit Limit -> Remote Privilege.
3. The record will display in the log when Auto Reboot takes effect.
4. If a user without Auto Reboot permission logs in, the function will be hidden.

## Reset

Click  to reset the NVR to factory defaults.

Keeping the IP parameters and Keeping the User information are available.



## 4.9 Status

You can have a quick view of the information of the device, network, camera, disk and event. This part is only for your rapid reference. If you want to make any configuration, please go to corresponding interfaces accordingly.

### 4.9.1 Device Information

#### 4.9.1.1 Device Information

Device information includes Model, MAC Address, Hardware Version, Software Version and Uptime.

### Device Information

| Device Information | About                    |
|--------------------|--------------------------|
| Model              | MS-N5008-UPT             |
| MAC Address        | 1C:C3:16:0A:43:03        |
| Hardware Version   | V1.0                     |
| Software Version   | 72.9.0.9-a4-unit4        |
| Uptime             | 16:11:04 up 7 days, 1:13 |

## 4.9.1.2 About

### Device Information

Device Information **About**

#### Open Source Software Licenses

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Click [View Licenses](#) to jump to the web link that shows the Open Source Software Licenses.

```

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- libxslt
- openssl
- python3
- python3-pip
- python3-setuptools
- python3-wheel
- python3-zipfile
- python3-zlib
- python3-zstd
- python3-zstd-compat
- python3-zstd-compat-compat
- python3-zstd-compat-compat-compat
- python3-zstd-compat-compat-compat-compat
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- libxslt
- openssl
- python3
- python3-pip
- python3-setuptools
- python3-wheel
- python3-zipfile
- python3-zlib
- python3-zstd
- python3-zstd-compat
- python3-zstd-compat-compat
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- libxslt
- openssl
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- python3-pip
- python3-setuptools
- python3-wheel
- python3-zipfile
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- python3-zstd
- python3-zstd-compat
- python3-zstd-compat-compat
- python3-zstd-compat-compat-compat
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- libxml2
- libxslt
- openssl
- python3
- python3-pip
- python3-setuptools
- python3-wheel
- python3-zipfile
- python3-zlib
- python3-zstd
- python3-zstd-compat
- python3-zstd-compat-compat
- python3-zstd-compat-compat-compat
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- libunistring
- libxml2
- libxslt
- openssl
- python3
- python3-pip
- python3-setuptools
- python3-wheel
- python3-zipfile
- python3-zlib
- python3-zstd
- python3-zstd-compat
- python3-zstd-compat-compat
- python3-zstd-compat-compat-compat
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- libunistring
- libxml2
- libxslt
- openssl
- python3
- python3-pip
- python3-setuptools
- python3-wheel
- python3-zipfile
- python3-zlib
- python3-zstd
- python3-zstd-compat
- python3-zstd-compat-compat
- python3-zstd-compat-compat-compat
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- libxml2
- libxslt
- openssl
- python3
- python3-pip
- python3-setuptools
- python3-wheel
- python3-zipfile
- python3-zlib
- python3-zstd
- python3-zstd-compat
- python3-zstd-compat-compat
- python3-zstd-compat-compat-compat

```

## 4.9.2 Network Status

Network Status includes three main parts: Receive Bandwidth, LAN.

### Network Status

| Receive Bandwidth |         |      |        |
|-------------------|---------|------|--------|
| Free              | 145Mbps | Used | 15Mbps |

| LAN                  |                             |                      |            |
|----------------------|-----------------------------|----------------------|------------|
| Connection           | Link is up - 100Mbps Duplex |                      |            |
| IPv4 DHCP            | Disable                     | IPv6 Mode            | Manual     |
| IPv4 Address         | 192.168.7.111               | IPv6 Address         |            |
| IPv4 Netmask         | 255.255.240.0               | IPv6 Prefix Length   |            |
| IPv4 Gateway         | 192.168.7.1                 | IPv6 Gateway         |            |
| Preferred DNS Server | 8.8.8.8                     | Alternate DNS Server |            |
| MAC                  | 1C:C3:16:0A:30:92           | MTU                  | 1500       |
| Receive Rate         | 17.45Mbps                   | Send Rate            | 429.66Kbps |

## 4.9.3 Camera Status

Camera status includes Channel, Name, IPv4 Address, Record, Frame Rate, Bit rate, Resolution and Status.

#### Camera Status

| Channel | Name | IPv4 Address   | Record | Frame Rate | Bit Rate | Resolution | Status    |
|---------|------|----------------|--------|------------|----------|------------|-----------|
| 1       | CAM1 | 192.168.14.102 | On     | 10fps      | 890Kbps  | 1920x1080  | Connected |
| 2       | CAM2 | 192.168.14.103 | On     | 25fps      | 3996Kbps | 1920x1080  | Connected |
| 3       | CAM3 | 192.168.14.105 | On     | 24fps      | 9951Kbps | 3840x2160  | Connected |
| 4       | --   | --             | --     | --         | --       | --         | --        |
| 5       | --   | --             | --     | --         | --       | --         | --        |
| 6       | --   | --             | --     | --         | --       | --         | --        |
| 7       | --   | --             | --     | --         | --       | --         | --        |
| 8       | --   | --             | --     | --         | --       | --         | --        |
| 9       | --   | --             | --     | --         | --       | --         | --        |

## 4.9.4 Disk Status

Disk status includes Port, Vendor, status, Total(GB), Free(GB), Type, In Use and Recycle Mode. You also can check the Total Capacity (GB) and Free Capacity.

#### Disk Status

| Port | Vendor                 | Status | Total(GB) | Free(GB) | Type  | Property |
|------|------------------------|--------|-----------|----------|-------|----------|
| 2    | WDC WD2500BEVT-0BA23T1 | Normal | 232       | 0        | LOCAL | R/W      |

Total Capacity(GB)

Available Capacity(GB)

[Refresh](#)

## 4.9.5 Event Status

### Camera Event

Camera Event shows camera event, including Video Loss, Motion and I/O. turns into

when alarm is triggered.

Event Status

- Camera Event
- Alarm
- VCA
- People Counting

| Channel | Name  | IPv4 Address   | Video Loss | Motion |
|---------|-------|----------------|------------|--------|
| 1       | CAM1  | 192.168.7.131  |            |        |
| 2       | CAM2  | 192.168.14.105 |            |        |
| 3       | CAM3  | 192.168.14.103 |            |        |
| 4       | CAM4  |                |            |        |
| 5       | CAM5  | 192.168.14.102 |            |        |
| 6       | CAM6  | 192.168.7.241  |            |        |
| 7       | CAM7  |                |            |        |
| 8       | CAM8  |                |            |        |
| 9       | CAM9  |                |            |        |
| 10      | CAM10 |                |            |        |

Alarm

Alarm shows the Alarm Input and Alarm Output status. turns into when alarm is triggered.

Event Status

- Camera Event
- Alarm
- VCA
- People Counting

Alarm Input List

| No. | Alarm Name | Alarm Type | Status |
|-----|------------|------------|--------|
| 1   |            | NO         |        |
| 2   |            | NO         |        |
| 3   |            | NO         |        |
| 4   |            | NO         |        |
| 5   |            | NO         |        |
| 6   |            | NO         |        |
| 7   |            | NO         |        |
| 8   |            | NO         |        |

Alarm Output List

| No.   | Alarm Name | Alarm Type | Dwell Time | Status |
|-------|------------|------------|------------|--------|
| 1     |            | NO         | 5s         |        |
| 2     |            | NO         | 5s         |        |
| 3     |            | NO         | 5s         |        |
| 4     |            | NO         | 5s         |        |
| CH1_1 |            | NO         | 5s         |        |
| CH1_2 |            | --         | --         | --     |
| CH2_1 |            | NC         | 5s         |        |
| CH2_2 |            | --         | --         | --     |

VCA

It shows the VCA status. turns into when alarm is triggered.

Event Status

- Camera Event
- Alarm
- VCA
- People Counting

| Channel | Name  | IPv4 Address | Region Entrance | Region Exiting | Advanced Motion Detection | Tamper Detection | Line Crossing | Loitering | Human Detection | Object Left/Removed |
|---------|-------|--------------|-----------------|----------------|---------------------------|------------------|---------------|-----------|-----------------|---------------------|
| 1       | CAM1  |              |                 |                |                           |                  |               |           |                 |                     |
| 2       | CAM2  |              |                 |                |                           |                  |               |           |                 |                     |
| 3       | CAM3  |              |                 |                |                           |                  |               |           |                 |                     |
| 4       | CAM4  |              |                 |                |                           |                  |               |           |                 |                     |
| 5       | CAM5  |              |                 |                |                           |                  |               |           |                 |                     |
| 6       | CAM6  |              |                 |                |                           |                  |               |           |                 |                     |
| 7       | CAM7  |              |                 |                |                           |                  |               |           |                 |                     |
| 8       | CAM8  |              |                 |                |                           |                  |               |           |                 |                     |
| 9       | CAM9  |              |                 |                |                           |                  |               |           |                 |                     |
| 10      | CAM10 |              |                 |                |                           |                  |               |           |                 |                     |
| 11      | CAM11 |              |                 |                |                           |                  |               |           |                 |                     |
| 12      | CAM12 |              |                 |                |                           |                  |               |           |                 |                     |
| 13      | CAM13 |              |                 |                |                           |                  |               |           |                 |                     |
| 14      | CAM14 |              |                 |                |                           |                  |               |           |                 |                     |
| 15      | CAM15 |              |                 |                |                           |                  |               |           |                 |                     |
| 16      | CAM16 |              |                 |                |                           |                  |               |           |                 |                     |

## People Counting

It shows every camera's current In/Out number of people counting.

Event Status

Camera Event Alarm VCA **People Counting**

| Channel | Name  | IPv4 Address | In | Out |
|---------|-------|--------------|----|-----|
| 1       | CAM1  | --           | -- | --  |
| 2       | CAM2  | --           | -- | --  |
| 3       | CAM3  | --           | -- | --  |
| 4       | CAM4  | --           | -- | --  |
| 5       | CAM5  | --           | -- | --  |
| 6       | CAM6  | --           | -- | --  |
| 7       | CAM7  | --           | -- | --  |
| 8       | CAM8  | --           | -- | --  |
| 9       | CAM9  | --           | -- | --  |
| 10      | CAM10 | --           | -- | --  |
| 11      | CAM11 | --           | -- | --  |
| 12      | CAM12 | --           | -- | --  |
| 13      | CAM13 | --           | -- | --  |
| 14      | CAM14 | --           | -- | --  |
| 15      | CAM15 | --           | -- | --  |
| 16      | CAM16 | --           | -- | --  |

## 4.9.6 Group Status

Check Group Status. The status of the all created Groups can be sorted by Group or Channel.

Milesight

Status

- Device Information
- Network Status
- Camera Status
- Disk Status
- Event Status
- Group Status**
- Packet Capture Tool

Group Status

Sort by Group Sort by Channel

| Group | Disk | Channel |
|-------|------|---------|
| 1     | --   | --      |
| 2     | --   | --      |
| 3     | --   | --      |
| 4     | --   | --      |
| 5     | --   | --      |
| 6     | --   | --      |
| 7     | --   | --      |
| 8     | --   | --      |
| 9     | --   | --      |
| 10    | --   | --      |
| 11    | --   | --      |
| 12    | --   | --      |
| 13    | --   | --      |
| 14    | --   | --      |
| 15    | --   | --      |
| 16    | --   | --      |

## 4.9.7 Packet Capture Tool

Input IP and Port, then click [Start] to start capture and click [End] to stop. Click [Download] to backup the captured packet locally.

## Packet Capture Tool

IP:

Port:

NIC:

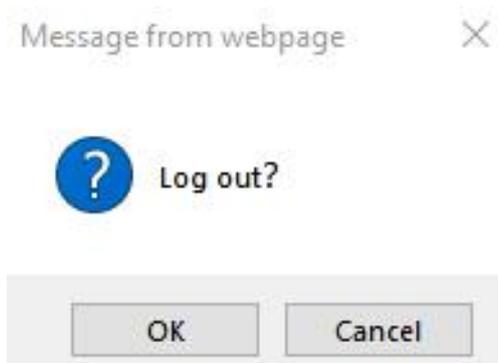
## 4.10 Logs

In Log interface, you can check, search and export logs. By selecting the Main Type, Sub Type, Start Time and End Time which can narrow down the scale of logs, you can search for logs that you need and then export them locally.

| No. | Main Type   | Time                | Sub Type               | Parameter | Channel | User | Remote Host IP | Details |
|-----|-------------|---------------------|------------------------|-----------|---------|------|----------------|---------|
| 1   | Information | 2020-08-11 11:31:03 | Start Record           | N/A       | 1       | N/A  | N/A            |         |
| 2   | Information | 2020-08-11 11:28:53 | Start Record           | N/A       | 4       | N/A  | N/A            |         |
| 3   | Information | 2020-08-11 11:27:13 | Start Record           | N/A       | 1       | N/A  | N/A            |         |
| 4   | Information | 2020-08-11 11:25:18 | Start Record           | N/A       | 2       | N/A  | N/A            |         |
| 5   | Event       | 2020-08-11 11:24:07 | Stop Motion Detection  | N/A       | 5       | N/A  | N/A            |         |
| 6   | Event       | 2020-08-11 11:24:55 | Start Motion Detection | N/A       | 5       | N/A  | N/A            |         |
| 7   | Information | 2020-08-11 11:24:28 | Start Record           | N/A       | 5       | N/A  | N/A            |         |
| 8   | Event       | 2020-08-11 11:23:05 | Stop Motion Detection  | N/A       | 5       | N/A  | N/A            |         |
| 9   | Event       | 2020-08-11 11:22:54 | Start Motion Detection | N/A       | 5       | N/A  | N/A            |         |
| 10  | Information | 2020-08-11 11:17:48 | Start Record           | N/A       | 4       | N/A  | N/A            |         |
| 11  | Event       | 2020-08-11 11:15:57 | Stop Motion Detection  | N/A       | 5       | N/A  | N/A            |         |
| 12  | Event       | 2020-08-11 11:15:44 | Start Motion Detection | N/A       | 5       | N/A  | N/A            |         |
| 13  | Information | 2020-08-11 11:13:50 | Start Record           | N/A       | 3       | N/A  | N/A            |         |
| 14  | Information | 2020-08-11 11:13:20 | Start Record           | N/A       | 1       | N/A  | N/A            |         |
| 15  | Information | 2020-08-11 11:11:56 | Start Record           | N/A       | 3       | N/A  | N/A            |         |
| 16  | Event       | 2020-08-11 11:11:04 | Stop Motion Detection  | N/A       | 5       | N/A  | N/A            |         |
| 17  | Event       | 2020-08-11 11:09:49 | Start Motion Detection | N/A       | 5       | N/A  | N/A            |         |
| 18  | Information | 2020-08-11 11:07:19 | Start Record           | N/A       | 5       | N/A  | N/A            |         |
| 19  | Information | 2020-08-11 11:07:10 | Start Record           | N/A       | 4       | N/A  | N/A            |         |
| 20  | Information | 2020-08-11 11:04:41 | Start Record           | N/A       | 4       | N/A  | N/A            |         |
| 21  | Exception   | 2020-08-11 11:04:43 | Record Failed          | N/A       | 4       | N/A  | N/A            |         |
| 22  | Exception   | 2020-08-11 11:04:41 | Record Failed          | N/A       | 4       | N/A  | N/A            |         |
| 23  | Exception   | 2020-08-11 11:04:40 | Record Failed          | N/A       | 4       | N/A  | N/A            |         |
| 24  | Exception   | 2020-08-11 11:04:38 | Record Failed          | N/A       | 4       | N/A  | N/A            |         |
| 25  | Exception   | 2020-08-11 11:04:37 | Record Failed          | N/A       | 4       | N/A  | N/A            |         |
| 26  | Exception   | 2020-08-11 11:04:36 | Video Loss             | N/A       | 4       | N/A  | N/A            |         |
| 27  | Exception   | 2020-08-11 11:04:35 | Record Failed          | N/A       | 4       | N/A  | N/A            |         |
| 28  | Exception   | 2020-08-11 11:04:34 | Record Failed          | N/A       | 4       | N/A  | N/A            |         |
| 29  | Exception   | 2020-08-11 11:04:32 | Record Failed          | N/A       | 4       | N/A  | N/A            |         |
| 30  | Exception   | 2020-08-11 11:04:31 | Record Failed          | N/A       | 4       | N/A  | N/A            |         |
| 31  | Exception   | 2020-08-11 11:04:29 | Record Failed          | N/A       | 4       | N/A  | N/A            |         |
| 32  | Exception   | 2020-08-11 11:04:28 | Video Loss             | N/A       | 4       | N/A  | N/A            |         |
| 33  | Information | 2020-08-11 11:04:28 | Stop Record            | N/A       | 4       | N/A  | N/A            |         |
| 34  | Information | 2020-08-11 10:55:18 | Start Record           | N/A       | 4       | N/A  | N/A            |         |
| 35  | Information | 2020-08-11 10:55:38 | Start Record           | N/A       | 1       | N/A  | N/A            |         |
| 36  | Information | 2020-08-11 10:50:40 | Start Record           | N/A       | 5       | N/A  | N/A            |         |
| 37  | Information | 2020-08-11 10:50:54 | Start Record           | N/A       | 2       | N/A  | N/A            |         |
| 38  | Information | 2020-08-11 10:49:42 | Start Record           | N/A       | 3       | N/A  | N/A            |         |
| 39  | Information | 2020-08-11 10:48:17 | Start Record           | N/A       | 1       | N/A  | N/A            |         |
| 40  | Event       | 2020-08-11 10:47:16 | ANPR                   | N/A       | 4       | N/A  | N/A            |         |
| 41  | Information | 2020-08-11 10:45:48 | Start Record           | N/A       | 4       | N/A  | N/A            |         |
| 42  | Event       | 2020-08-11 10:44:58 | ANPR                   | N/A       | 4       | N/A  | N/A            |         |
| 43  | Event       | 2020-08-11 10:44:45 | ANPR                   | N/A       | 4       | N/A  | N/A            |         |
| 44  | Information | 2020-08-11 10:44:17 | Start Record           | N/A       | 2       | N/A  | N/A            |         |
| 45  | Event       | 2020-08-11 10:43:44 | ANPR                   | N/A       | 6       | N/A  | N/A            |         |

## 4.11 Logout

Click  to exit the current account.



## 5. Services

Milesight Technology Co., Ltd 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](mailto:support@milesight.com)

Web: <http://www.milesight.com>

Online Problem Submission System: <http://www.milesight.com/support/feedback.asp>

### MILESIGHT USA

TEL: +1-800-561-0485

Add: 220 NE 51st ST, Oakland Park, Florida 33334, USA

### MILESIGHT KOREA

TEL: +82-2-839-3335

Add: 9F/925, 25-32, Anyang SK V1 Center, LS-ro 116beon-gil, Dongan-gu, Anyang-si, Gyeonggi-do, Korea

### MILESIGHT CHINA

TEL: +86-592-5922772

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