

HIKVISION



Network Indoor Speed Dome

User Manual

User Manual

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This Manual is applicable to Network Indoor Speed Dome.

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website (<http://overseas.hikvision.com/en/>).

Please use this user manual under the guidance of professionals.

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FCC Information

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

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

FCC Conditions

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

1. This device may not cause harmful interference.
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Safety Instruction

These instructions are intended to ensure that the user can use the product correctly to avoid danger or property loss.

The precaution measure is divided into 'Warnings' and 'Cautions':

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

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

| | |
|---|--|
|  |  |
| Warnings Follow these safeguards to prevent serious injury or death. | Cautions Follow these precautions to prevent potential injury or material damage. |



Warnings:

- All the electronic operation should be strictly compliance with the electrical safety regulations, fire prevention regulations and other related regulations in your local region.
- Use the power adapter which is provided by normal company. The power consumption cannot be less than the required value.
- Do not connect several devices to one power adapter as adapter overload may cause over-heat or fire hazard.
- Make sure that the power has been disconnected before you wire, install or dismantle the speed dome.
- When the product is installed on wall or ceiling, the device shall be firmly fixed.
- If smoke, odors or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.
- If the product does not work properly, contact your dealer or the nearest service center. Never attempt to disassemble the speed dome yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)
- For the speed domes that support laser, do not look directly into the laser light within 6 meters because laser is hazardous to humans.



Cautions:

- Do not drop the dome or subject it to physical shock, and do not expose it to high electromagnetism radiation. Avoid the device installation on vibrations surface or places subject to shock (ignorance can cause device damage).
- Do not place the dome in extremely hot, cold, dusty or damp locations, otherwise fire or electrical shock will occur. Refer to the specification of the device for detailed operating environment.
- The bubble for indoor use shall be kept from rain and moisture.
- Exposing the device to direct sun light, low ventilation or heat source such as heater or radiator is

forbidden (ignorance can cause fire danger).

- Do not aim the speed dome at the sun or extra bright places. A blooming or smear may occur otherwise (which is not a malfunction however), and affecting the endurance of sensor at the same time.
- Use the provided glove when open up the bubble and avoid direct contact with the bubble, because the acidic sweat of the fingers may erode the surface coating of the bubble.
- Use a soft and dry cloth when clean inside and outside surfaces of the bubble, do not use alkaline detergents.
- Keep all wrappers after unpack them for future use. In case of any failure occurred, you need to return the speed dome to the factory with the original wrapper. Transportation without the original wrapper may result in damage on the speed dome and lead to additional costs.
- Improper use or replacement of the battery may result in hazard of explosion. Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.

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Table of Contents

| | | |
|------------------|---|-----------|
| CHAPTER 1 | OVERVIEW | 1 |
| 1.1 | SYSTEM REQUIREMENT | 1 |
| 1.2 | FUNCTIONS..... | 1 |
| CHAPTER 2 | NETWORK CONNECTION | 4 |
| 2.1 | SETTING THE NETWORK SPEED DOME OVER THE LAN | 4 |
| 2.1.1 | <i>Wiring over the LAN</i> | <i>4</i> |
| 2.1.2 | <i>Activating the Speed Dome</i> | <i>5</i> |
| 2.2 | SETTING THE NETWORK SPEED DOME OVER THE WAN | 9 |
| 2.2.1 | <i>Static IP Connection</i> | <i>9</i> |
| 2.2.2 | <i>Dynamic IP Connection</i> | <i>10</i> |
| CHAPTER 3 | ACCESS TO THE NETWORK SPEED DOME..... | 12 |
| 3.1 | ACCESSING BY WEB BROWSERS | 12 |
| 3.2 | ACCESSING BY CLIENT SOFTWARE | 13 |
| CHAPTER 4 | BASIC OPERATIONS | 15 |
| 4.1 | CONFIGURING LOCAL PARAMETERS | 15 |
| 4.2 | LIVE VIEW PAGE..... | 16 |
| 4.3 | STARTING LIVE VIEW | 17 |
| 4.4 | OPERATING PTZ CONTROL | 19 |
| 4.4.1 | <i>PTZ Control Panel.....</i> | <i>19</i> |
| 4.4.2 | <i>Auxiliary Functions.....</i> | <i>21</i> |
| 4.4.3 | <i>Setting/Calling a Preset.....</i> | <i>22</i> |
| 4.4.4 | <i>Setting/Calling a Patrol</i> | <i>24</i> |
| 4.4.5 | <i>One-touch Patrol.....</i> | <i>26</i> |
| 4.4.6 | <i>Setting/Calling a Pattern.....</i> | <i>26</i> |
| 4.5 | PLAYBACK..... | 27 |
| 4.5.1 | <i>Play Back Video Files</i> | <i>27</i> |
| 4.5.2 | <i>Downloading Video Files.....</i> | <i>29</i> |
| 4.6 | PICTURES | 30 |
| CHAPTER 5 | SYSTEM CONFIGURATION..... | 32 |
| 5.1 | STORAGE SETTINGS..... | 32 |
| 5.1.1 | <i>Configuring Recording Schedule</i> | <i>32</i> |
| 5.1.2 | <i>Configuring Capture Schedule</i> | <i>34</i> |
| 5.1.3 | <i>Configuring Net HDD</i> | <i>36</i> |
| 5.2 | BASIC EVENT CONFIGURATION | 38 |
| 5.2.1 | <i>Configuring Motion Detection</i> | <i>38</i> |
| 5.2.2 | <i>Configuring Video Tampering Alarm.....</i> | <i>43</i> |
| 5.2.3 | <i>Configuring Alarm Input.....</i> | <i>44</i> |
| 5.2.4 | <i>Configuring Alarm Output.....</i> | <i>45</i> |
| 5.2.5 | <i>Handling Exception</i> | <i>46</i> |

| | | |
|------------------|--|------------|
| 5.3 | SMART EVENT CONFIGURATION | 47 |
| 5.3.1 | <i>Detecting Audio Exception</i> | 48 |
| 5.3.2 | <i>Configuring Face Detection</i> | 49 |
| 5.3.3 | <i>Configuring Intrusion Detection</i> | 49 |
| 5.3.4 | <i>Configuring Line Crossing Detection</i> | 51 |
| 5.3.5 | <i>Region Entrance Detection</i> | 52 |
| 5.3.6 | <i>Region Exiting Detection</i> | 53 |
| 5.4 | PTZ CONFIGURATION | 54 |
| 5.4.1 | <i>Configuring Basic PTZ Parameters</i> | 54 |
| 5.4.2 | <i>Configuring PTZ Limits</i> | 56 |
| 5.4.3 | <i>Configuring Initial Position</i> | 57 |
| 5.4.4 | <i>Configuring Park Actions</i> | 58 |
| 5.4.5 | <i>Configuring Privacy Mask</i> | 59 |
| 5.4.6 | <i>Configuring Scheduled Tasks</i> | 60 |
| 5.4.7 | <i>Clearing PTZ Configurations</i> | 61 |
| 5.4.8 | <i>Configuring Smart Tracking</i> | 62 |
| 5.4.9 | <i>Prioritize PTZ</i> | 63 |
| CHAPTER 6 | SPEED DOME CONFIGURATION | 64 |
| 6.1 | CONFIGURING NETWORK SETTINGS | 64 |
| 6.1.1 | <i>Basic Settings</i> | 64 |
| 6.1.2 | <i>Advanced Settings</i> | 68 |
| 6.2 | CONFIGURING VIDEO AND AUDIO SETTINGS..... | 78 |
| 6.2.1 | <i>Configuring Video Settings</i> | 78 |
| 6.2.2 | <i>Configuring Audio Settings</i> | 79 |
| 6.2.3 | <i>Configuring ROI Settings</i> | 80 |
| 6.2.4 | <i>Dual-VCA Settings</i> | 82 |
| 6.3 | CONFIGURING IMAGE SETTINGS | 82 |
| 6.3.1 | <i>Configuring Display Settings</i> | 82 |
| 6.3.2 | <i>Configuring OSD Settings</i> | 87 |
| 6.3.3 | <i>Configuring Text Overlay Settings</i> | 89 |
| 6.3.4 | <i>Configuring Image Parameters Switch</i> | 90 |
| 6.4 | CONFIGURING SYSTEM SETTINGS..... | 91 |
| 6.4.1 | <i>System Settings</i> | 91 |
| 6.4.2 | <i>Maintenance</i> | 94 |
| 6.4.3 | <i>Security</i> | 97 |
| 6.4.4 | <i>User Management</i> | 99 |
| CHAPTER 7 | VCA CONFIGURATION | 104 |
| 7.1 | CONFIGURING VCA INFORMATION | 104 |
| 7.2 | ADVANCED CONFIGURATION | 104 |
| 7.3 | SCENE CONFIGURATION | 105 |
| 7.4 | RULE CONFIGURATION DEMONSTRATION..... | 109 |
| 7.4.1 | <i>Lecture</i> | 109 |
| 7.4.2 | <i>Answering Questions</i> | 110 |

| | | |
|------------------|----------------------------------|------------|
| CHAPTER 8 | HEAT MAP | 111 |
| 8.1 | HEAT MAP CONFIGURATION | 111 |
| 8.2 | HEAT MAP STATISTICS | 112 |
| APPENDIX | | 113 |
| | SADP SOFTWARE INTRODUCTION | 113 |

Chapter 1 Overview

1.1 System Requirement

System requirement of web browser accessing is as follows:

Operating System: Microsoft Windows XP SP1 and above version / Vista / Win7 / Server 2003 / Server 2008 32bits

CPU: Intel Pentium IV 3.0 GHz or higher

RAM: 1G or higher

Display: 1024×768 resolution or higher

Web Browser: Internet Explorer 8.0 and above version, Apple Safari 5.02 and above version, Mozilla Firefox 5 and above version and Google Chrome 18 and above versions.

1.2 Functions

Note:

The functions vary depending on the speed dome models.

- **PTZ Limits**

The speed dome can be programmed to move within the PTZ limits (left/right, up/down).

- **Scan Modes**

The speed dome provides 5 scan modes: auto scan, tilt scan, frame scan, random scan and panorama scan.

- **Preset Freezing**

This feature freezes the scene on the monitor when the dome is moving to a preset. This allows for smooth transition from one preset scene to another. It also guarantees that masked area will not be revealed when the dome is moving to a preset.

- **Presets**

A preset is a predefined image position. When the preset is called, the speed dome will automatically move to the defined position. The presets can be added, modified, deleted and called.

- **Label Display**

The on-screen label of the preset title, azimuth/elevation, zoom, time and speed dome name can be displayed on the monitor. The displays of time and speed dome name can be programmed.

- **Auto Flips**

In manual tracking mode, when a target object goes directly beneath the speed dome, the video will automatically flips 180 degrees in horizontal direction to maintain continuity of tracking. This function can also be realized by auto mirror image depending on different camera models.

- **Privacy Mask**

This function allows you to block or mask certain area of a scene, for preventing the personal privacy from recording or live viewing. A masked area will move with pan and tilt functions and automatically adjust in size as the lens zooms telephoto and wide.

- **3D Positioning**

In the client software, use the left key of mouse to click on the desired position in the video image and drag a rectangle area in the lower right direction, then the speed dome system will move the position to the center and allow the rectangle area to zoom in. Use the left key of mouse to drag a rectangle area in the upper left direction to move the position to the center and allow the rectangle area to zoom out.

- **Proportional Pan/Tilt**

Proportional pan/tilt automatically reduces or increases the pan and tilt speeds according to the amount of zoom. At telephoto zoom settings, the pan and tilt speeds will be slower than at wide zoom settings. This keeps the image from moving too fast on the live view image when there is a large amount of zoom.

- **Auto Focus**

The auto focus enables the camera to focus automatically to maintain clear video images.

- **Day/Night Auto Switch**

The speed domes deliver color images during the day. And as light diminishes at night, the speed domes switch to night mode and deliver black and white images with high quality.

- **Slow Shutter**

In slow shutter mode, the shutter speed will automatically slow down in low illumination conditions to maintain clear video images by extending the exposure time. The feature can be enabled or disabled.

- **Backlight Compensation (BLC)**

If you focus on an object against strong backlight, the object will be too dark to be seen clearly. The BLC (Backlight Compensation) function can compensate light to the object in the front to make it clear, but this causes the over-exposure of the background where the light is strong.

- **Wide Dynamic Range (WDR)**

The wide dynamic range (WDR) function helps the camera provide clear images even under back light circumstances. When there are both very bright and very dark areas simultaneously in the field of view, WDR balances the brightness level of the whole image and provide clear images with details.

- **White Balance (WB)**

White balance can remove the unrealistic color casts. White balance is the white rendition function of the camera to adjust the color temperature according to the environment automatically.

- **Patrol**

A patrol is a memorized series of pre-defined preset function. The scanning speed between two presets and the dwell time at the preset are programmable.

- **Pattern**

A pattern is a memorized series of pan, tilt, zoom, and preset functions. By default the focus and iris are in auto status during the pattern is being memorized.

- **Power Off Memory**

The speed dome supports the power off memory capability with the predefined resume time. It allows the speed dome to resume its previous position after power is restored.

- **Scheduled Task**

A time task is a preconfigured action that can be performed automatically at a specific date and

time. The programmable actions include: auto scan, random scan, patrol 1-8 ,pattern 1-4, preset 1-8,frame scan, panorama scan, tilt scan, day, night, reboot, PT adjust, Aux Output, etc.

- **Park Action**

This feature allows the speed dome to start a predefined action automatically after a period of inactivity.

- **User Management**

The speed dome allows you to edit users with different levels of permission, in the admin login status. Multiple users are allowed to access and control the same network speed dome via network simultaneously.

- **3D Digital Noise Reduction**

Comparing with the general 2D digital noise reduction, the 3D digital noise reduction function processes the noise between two frames besides processing the noise in one frame. The noise will be much less and the video will be clearer.

- **Dual-VCA**

Combine the detected VCA information into the video stream, which can be used for the second-time analysis on the back-end device.

Chapter 2 Network Connection

Before you start:

- If you want to set the network speed dome via a LAN (Local Area Network), refer to **Section 2.1 Setting the Network Speed Dome over the LAN**.
- If you want to set the network speed dome via a WAN (Wide Area Network), refer to **Section 2.2 Setting the Network Speed Dome over the WAN**.

2.1 Setting the Network Speed Dome over the LAN

Purpose:

To view and configure the speed dome via a LAN, you need to connect the network speed dome in the same subnet with your computer, and install the SADP or client software to search and change the IP of the network speed dome.

Note:

For the detailed introduction of SADP, refer to **Appendix**.

2.1.1 Wiring over the LAN

The following figures show the two ways of cable connection of a network speed dome and a computer:

Purpose:

- To test the network speed dome, you can directly connect the network speed dome to the computer with a network cable as shown in Figure 2-1.
- Refer to the Figure 2-2 to set the network speed dome over the LAN via a switch or a router.

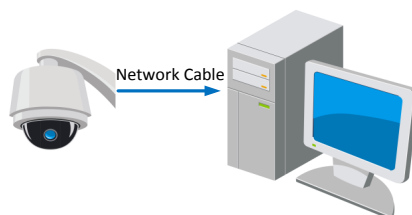


Figure 2-1 Connecting Directly

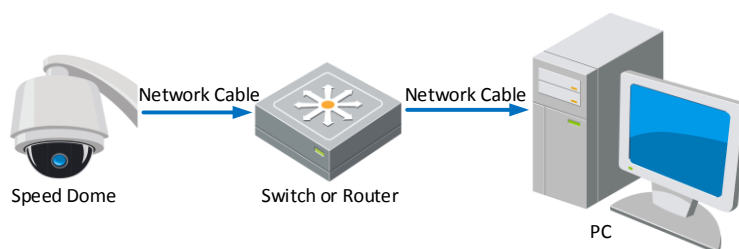


Figure 2-2 Connecting via a Switch or a Router

2.1.2 Activating the Speed Dome

Purpose:

You are required to activate the speed dome first before you can use the speed dome. Activation via Web Browser, Activation via SADP, and Activation via client software are supported. In the following sections, activation via web browser and SADP will be taken as examples. You may refer to the user manual of the speed dome for the details of activation via client software.

◆ **Activation via Web Browser**

Steps:

1. Power on the speed dome, and connect the speed dome to the network.
2. Input the IP address into the address bar of the web browser, and click **Enter** to enter the activation interface.

Note:

The default IP address of the speed dome is 192.168.1.64.

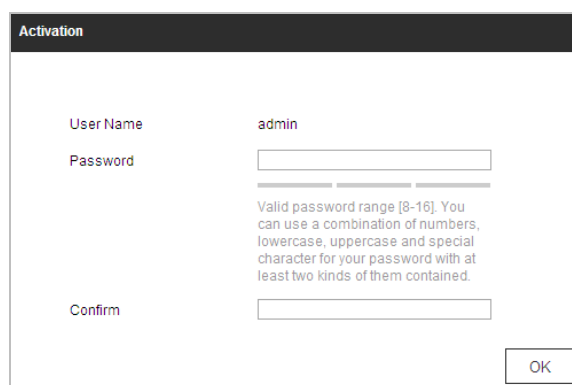


Figure 2-3 Activation Interface(Web)

3. Create a password and input the password into the password field.



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

4. Confirm the password.
5. Click **OK** to activate the speed dome and enter the live view interface.

◆ **Activation via SADP Software**

SADP software is used for detecting the online device, activating the device, and resetting the password.

Get the SADP software from the supplied disk or the official website, and install the SADP according to the prompts. Follow the steps to activate the speed dome.

Steps:

1. Run the SADP software to search the online devices.

2. Check the device status from the device list, and select an inactive device.

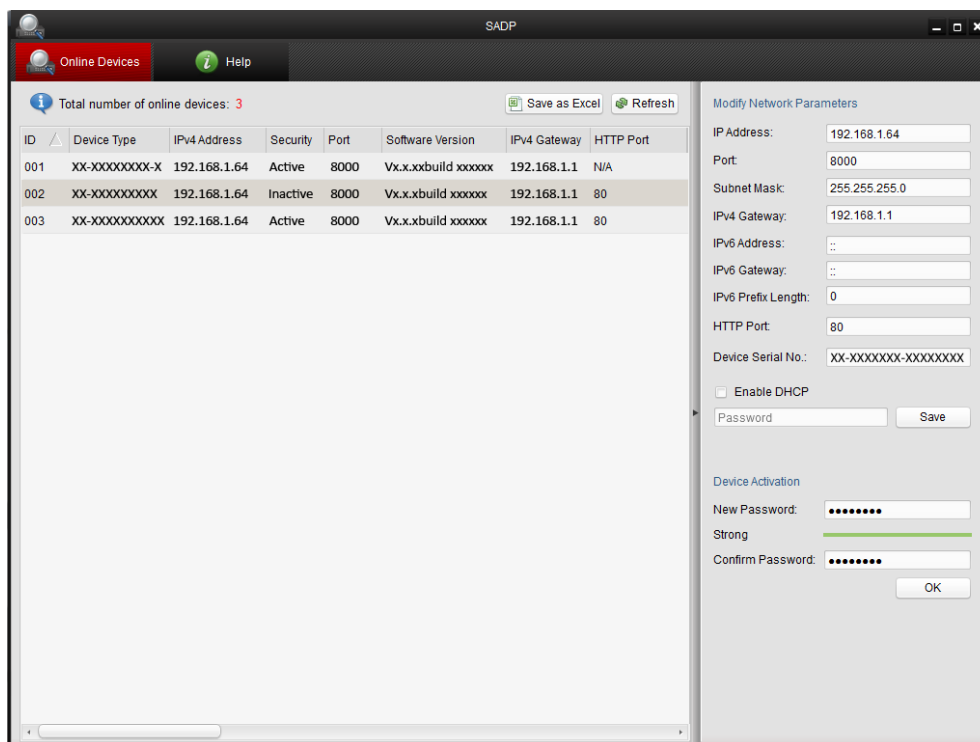



Figure 2-4 SADP Interface

3. Create a password and input the password in the password field, and confirm the password.

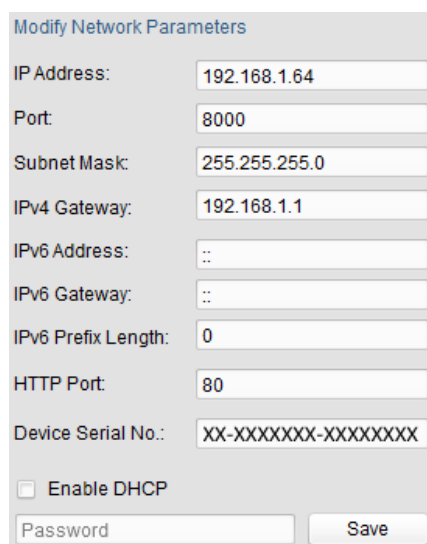
 **STRONG PASSWORD RECOMMENDED**—We highly recommend you create a strong password of your own choosing (Using a minimum of 8 characters, including at least three of the following categories: upper case letters, lower case letters, numbers, and special characters.) in order to increase the security of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

4. Click **OK** to save the password.

Note:

You can check whether the activation is completed on the popup window. If activation failed, make sure that the password meets the requirement and then try again.

5. Change the device IP address to the same subnet with your computer by either modifying the IP address manually or checking the **Enable DHCP** checkbox.



Modify Network Parameters

IP Address: 192.168.1.64

Port: 8000

Subnet Mask: 255.255.255.0

IPv4 Gateway: 192.168.1.1

IPv6 Address: ::

IPv6 Gateway: ::

IPv6 Prefix Length: 0

HTTP Port: 80

Device Serial No.: XX-XXXXXXXX-XXXXXXXX

Enable DHCP

Password Save

Figure 2-5 Modify the IP Address

6. Input the password and click **Save** to activate your IP address modification.

◆ Activation via Client Software

The client software is versatile video management software for multiple kinds of devices. Get the client software from the supplied disk or the official website, and install the software according to the prompts. Follow the steps to activate the camera.

Steps:

1. Run the client software and the control panel of the software pops up, as shown in the figure below.

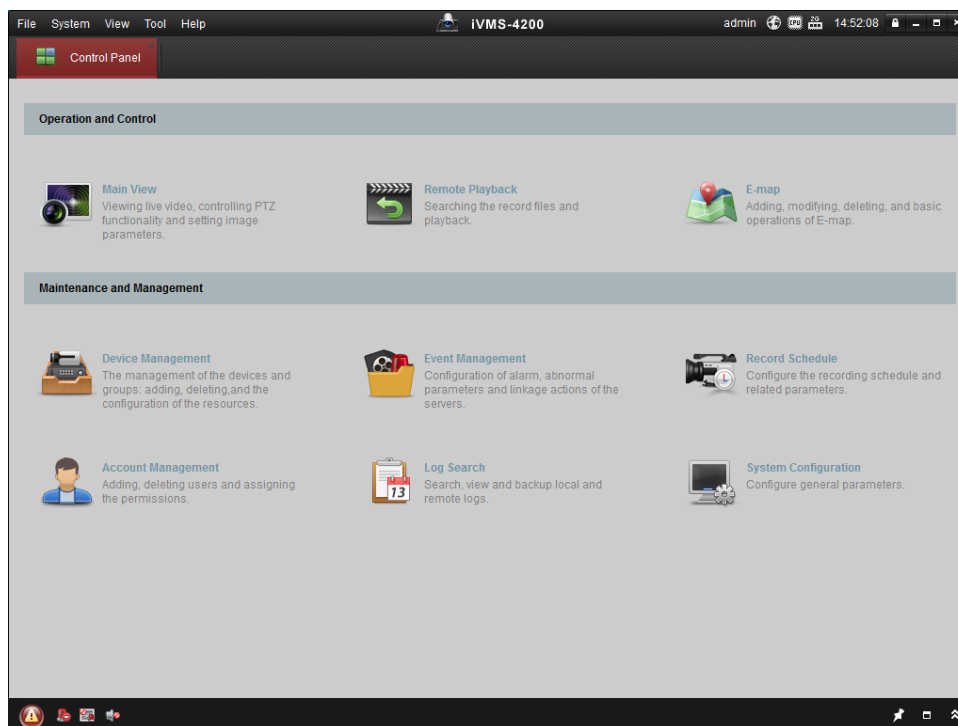


Figure 2-6 Control Panel

- Click **Device Management** to enter the Device Management interface, as shown in the figure below.

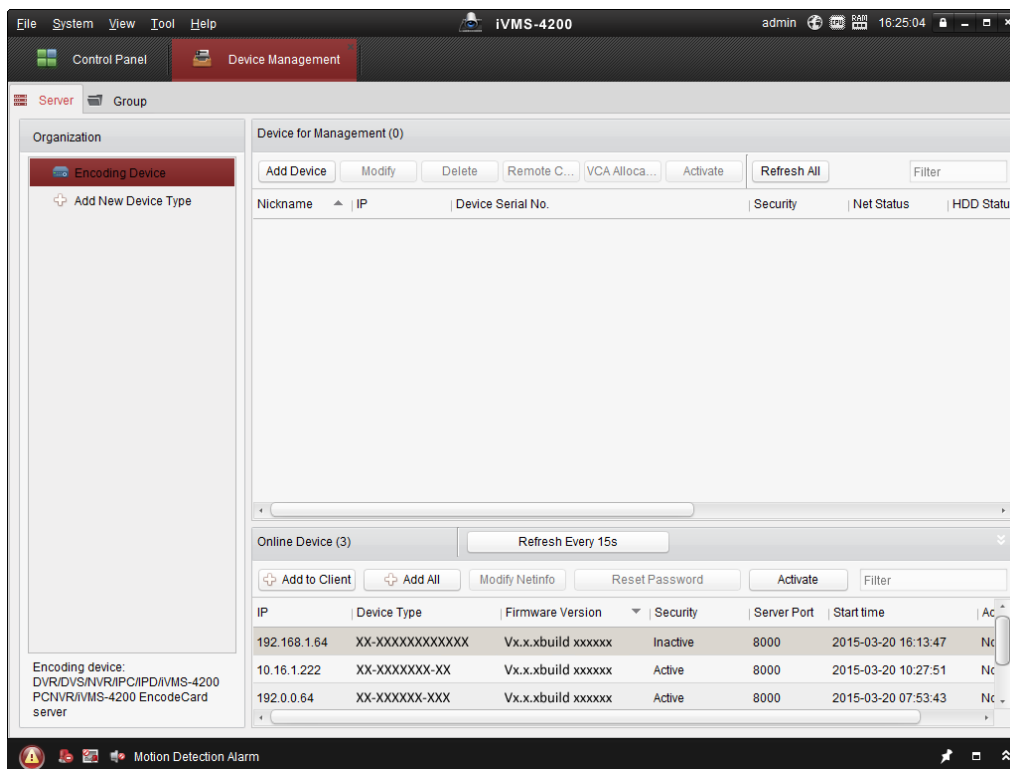


Figure 2-7 Device Management Interface

- Check the device status from the device list, and select an inactive device.
- Click **Activate** to pop up the Activation interface.
- Create a password and input the password in the password field, and confirm the password.

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

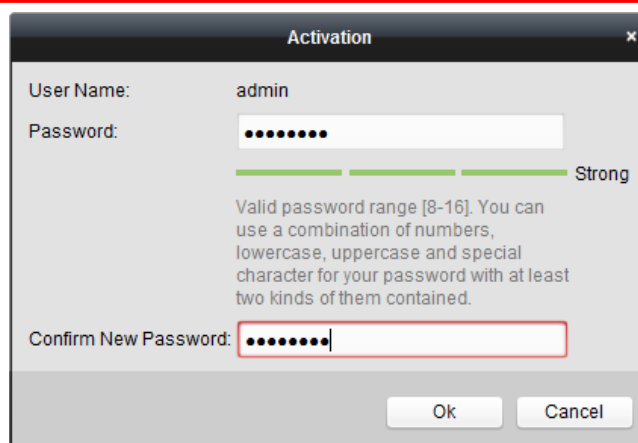


Figure 2-8 Activation Interface

6. Click **OK** to start activation.
7. Click **Modify Netinfo** to pop up the Network Parameter Modification interface, as shown in the figure below.

Figure 2-9 Modifying the Network Parameters

8. Change the device IP address to the same subnet with your computer by either modifying the IP address manually or checking the **Enable DHCP** checkbox.
9. Input the password to activate your IP address modification.

2.2 Setting the Network Speed Dome over the WAN

Purpose:

This section explains how to connect the network speed dome to the WAN with a static IP or a dynamic IP.

2.2.1 Static IP Connection

Before you start:

Apply a static IP from an ISP (Internet Service Provider). With the static IP address, you can connect the network speed dome via a router or connect it to the WAN directly.

- **Connecting the network speed dome via a router**

Steps:

1. Connect the network speed dome to the router.
2. Assign a LAN IP address, the subnet mask and the gateway. Refer to **Section 2.1.2 Activating the Speed Dome** for detailed IP address configuration of the speed dome.
3. Save the static IP in the router.
4. Set port mapping, E.g., 80, 8000 and 554 ports. The steps for port mapping vary depending on different routers. Call the router manufacturer for assistance with port mapping.
5. Visit the network speed dome through a web browser or the client software over the internet.

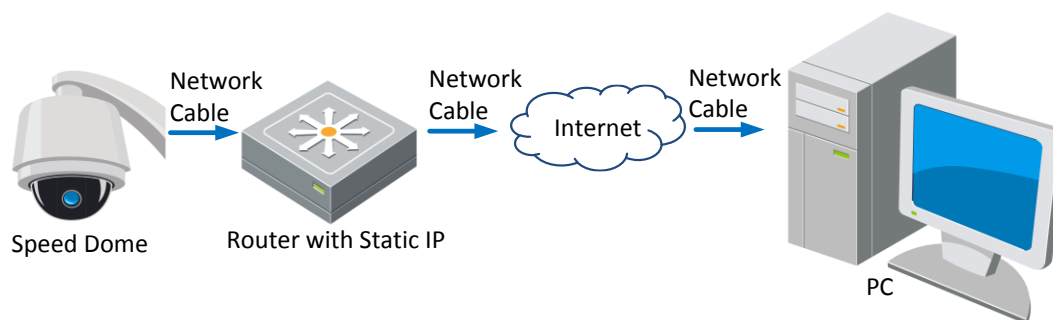


Figure 2-10 Accessing the Speed Dome through Router with Static IP

- **Connecting the network speed dome with static IP directly**

You can also save the static IP in the speed dome and directly connect it to the internet without using a router. Refer to **Section 2.1.2 Activating the Speed Dome** for detailed IP address configuration of the speed dome.

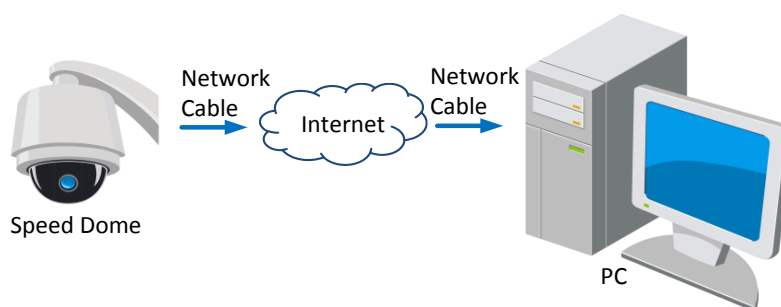


Figure 2-11 Accessing the Speed Dome with Static IP Directly

2.2.2 Dynamic IP Connection

Before you start:

Apply a dynamic IP from an ISP. With the dynamic IP address, you can connect the network speed dome to a modem or a router.

- **Connecting the network speed dome via a router**

Steps:

1. Connect the network speed dome to the router.
2. In the speed dome, assign a LAN IP address, the subnet mask and the gateway. Refer to **Section 2.1.2 Activating the Speed Dome** for detailed LAN configuration.
3. In the router, set the PPPoE user name, password and confirm the password.



- *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.*

- *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*
4. Set port mapping. E.g. 80, 8000 and 554 ports. The steps for port mapping vary depending on different routers. Call the router manufacturer for assistance with port mapping.
 5. Apply a domain name from a domain name provider.
 6. Configure the DDNS settings in the setting interface of the router.
 7. Visit the speed dome via the applied domain name.
- **Connecting the network speed dome via a modem**

Purpose:

This speed dome supports the PPPoE auto dial-up function. The speed dome gets a public IP address by ADSL dial-up after the speed dome is connected to a modem. You need to configure the PPPoE parameters of the network speed dome. Refer to **Section 6.1.1 Basic Settings - Configuring PPPoE Settings** for detailed configuration.

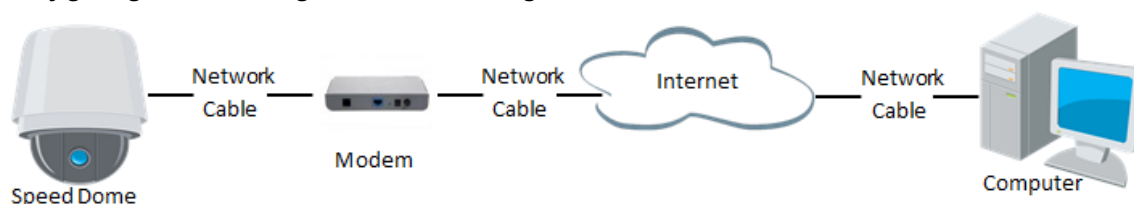


Figure 2-12 Accessing the Speed Dome with Dynamic IP

Note:

The obtained IP address is dynamically assigned via PPPoE, so the IP address always changes after rebooting the speed dome. To solve the inconvenience of the dynamic IP, you need to get a domain name from the DDNS provider (E.g. DynDns.com). Follow below steps for normal domain name resolution and private domain name resolution to solve the problem.

◆ Normal Domain Name Resolution

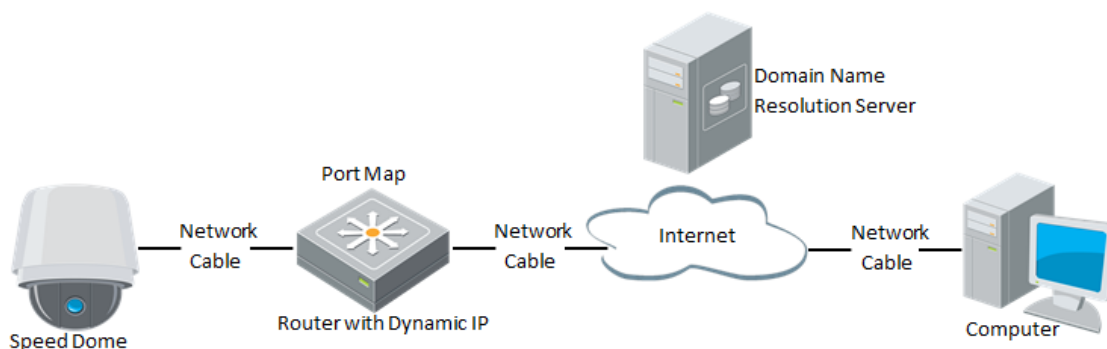


Figure 2-13 Normal Domain Name Resolution

Steps:


1. Apply a domain name from a domain name provider.
2. Configure the DDNS settings in the **DDNS Settings** interface of the network speed dome. Refer to **Section 6.1.1 Basic Settings - Configuring DDNS Settings** for detailed configuration.
3. Visit the speed dome via the applied domain name.

Chapter 3 Access to the Network

Speed Dome

3.1 Accessing by Web Browsers

Steps:

1. Open the web browser.
2. In the address field, input the IP address of the network speed dome, e.g., 192.168.1.64 and click **Enter** to enter the login interface.
3. Activate the speed dome for the first time using, and refer to the **section 2.1.2 Activating the Speed Dome**.
4. Select English as the interface language on the top-right of login interface.
5. Input the user name and password and click .

The admin user should configure the device accounts and user/operator permissions properly. Delete the unnecessary accounts and user/operator permissions.

Note:

The device IP address gets locked if the admin user performs 7 failed password attempts (5 attempts for the user/operator).

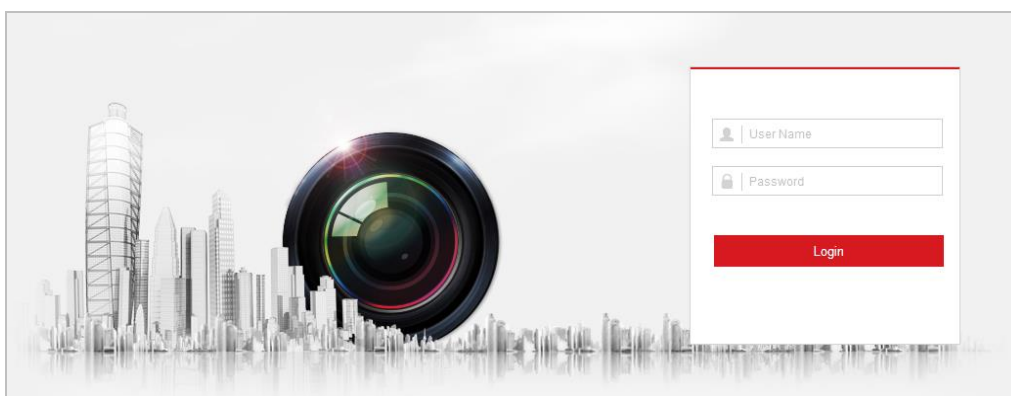


Figure 3-1 Login Interface

6. Install the plug-in before viewing the live video and operating the speed dome. Follow the installation prompts to install the plug-in.

Note:

You may have to close the web browser to install the plug-in. Reopen the web browser and log in again after installing the plug-in.

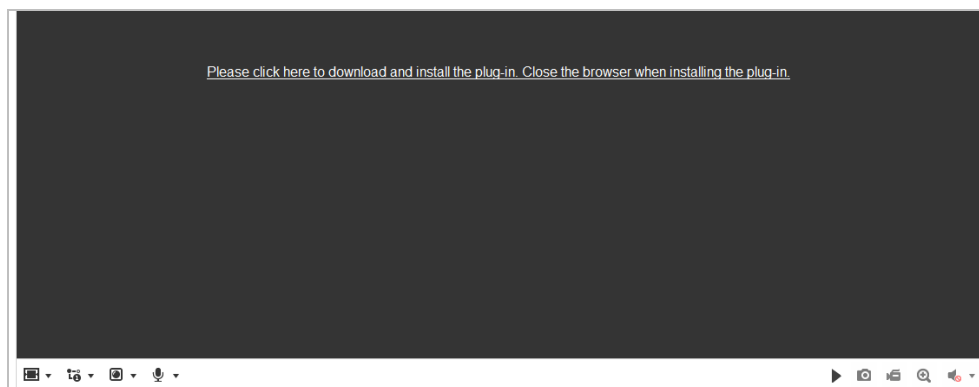


Figure 3-2 Download and Install Plug-in

3.2 Accessing by Client Software

The product CD contains the client software. You can view the live video and manage the speed dome with the client software.

Follow the installation prompts to install the client software and WinPcap. The configuration interface and live view interface of client software are shown below.

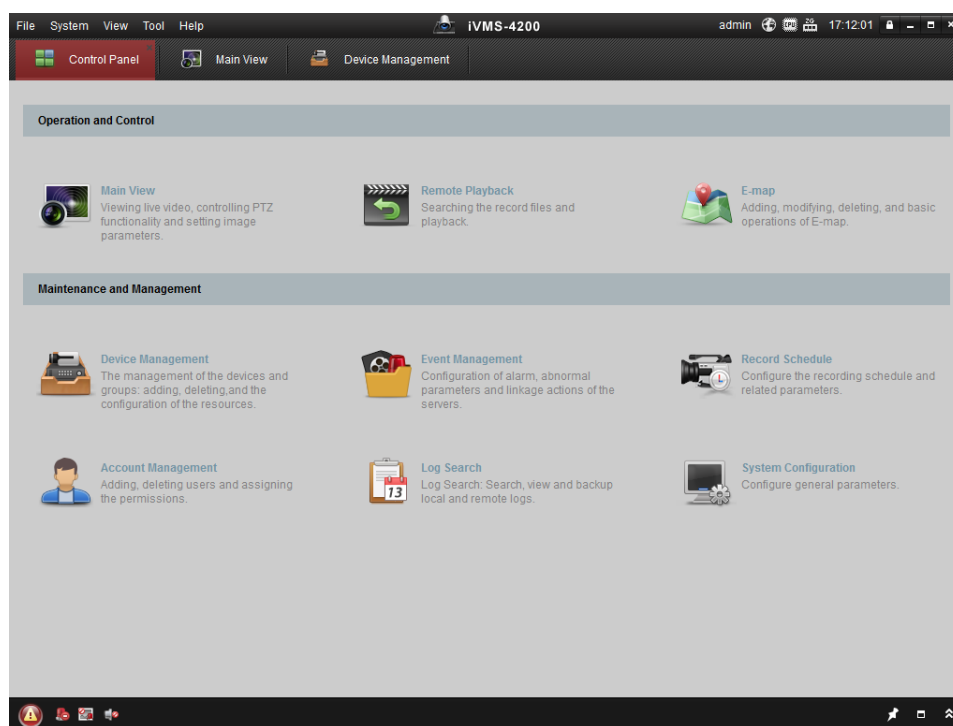


Figure 3-3 iVMS-4200 Control Panel

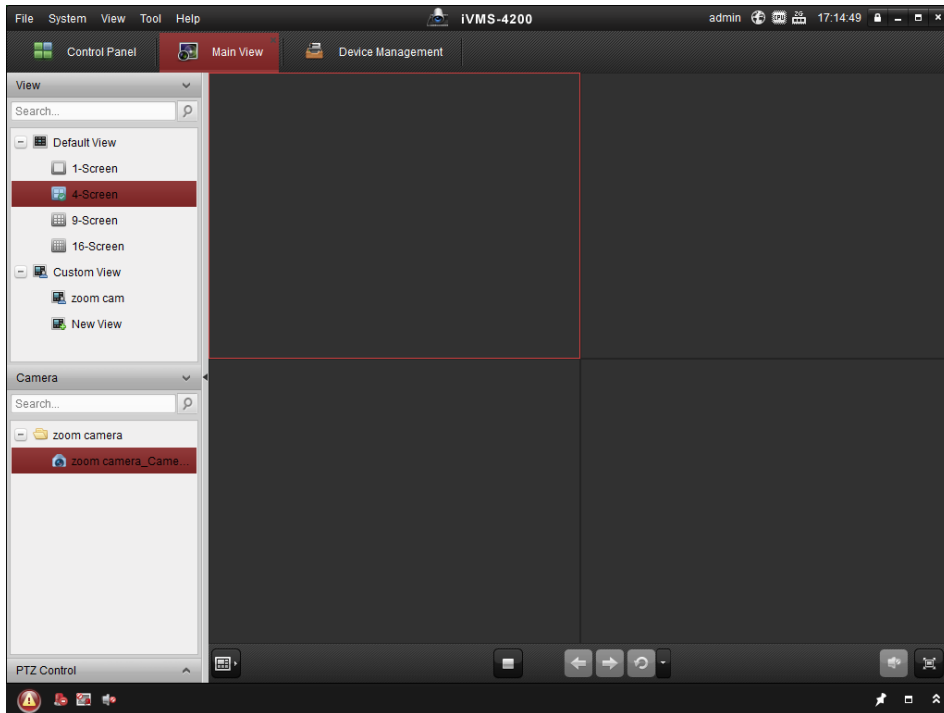


Figure 3-4 iVMS-4200 Live View Interface

Notes:

- If you use third party VMS software, contact technical support of our branch for camera firmware.
- For detailed information about client software of our company, refer to the user manual of the software. This manual mainly introduces accessing to the network speed dome by web browser.

Chapter 4 Basic Operations

In this and the following chapters, operation of the speed dome by the web browser will be taken as an example.

4.1 Configuring Local Parameters

Note:

The local configuration refers to the parameters of the live view and other operations using the web browser.

Steps:

1. Enter the Local Configuration interface:

Configuration > Local

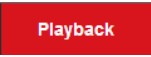

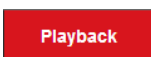
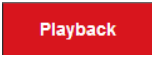

The screenshot displays the 'Local Configuration' interface with the following sections and settings:

- Live View Parameters:**
 - Protocol: TCP, UDP, MULTICAST, HTTP
 - Play Performance: Shortest Delay, Balanced, Fluent
 - Rules: Enable, Disable
 - Image Format: JPEG, BMP
- Record File Settings:**
 - Record File Size: 256M, 512M, 1G
 - Save record files to: [Text Field] [Browse] [Open]
 - Save downloaded files to: [Text Field] [Browse] [Open]
- Picture and Clip Settings:**
 - Save snapshots in live view to: [Text Field] [Browse] [Open]
 - Save snapshots when playback to: [Text Field] [Browse] [Open]
 - Save clips to: [Text Field] [Browse] [Open]

A red 'Save' button is located at the bottom left of the interface.

Figure 4-1 Local Configuration Interface

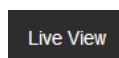
2. Configure the following settings:
 - **Live View Parameters:** Set the protocol type, play performance, rules and image format.
 - ◆ **Protocol:** TCP, UDP, MULTICAST and HTTP are selectable.
 - TCP:** Ensures complete delivery of streaming data and better video quality, yet the real-time transmission will be affected.
 - UDP:** Provides real-time audio and video streams.
 - MULTICAST:** It's recommended to select the protocol type to **MULTICAST** when using the Multicast function.
 - HTTP:** Allows the same quality as of TCP without setting specific ports for streaming under some network environments.
 - ◆ **Play Performance:** Set the play performance to Shortest Delay, Balanced or Fluent.
 - ◆ **Rules:** You can enable or disable the rules of dynamic analysis for motion here.

- ◆ **Image Format:** The captured pictures can be saved as different format. JPEG and BMP are available.
 - **Record File Settings:** Set the saving path of the video files.
 - ◆ **Record File Size:** Select the packed size of manually recorded and downloaded video files. The size can be set to 256M, 512M or 1G.
 - ◆ **Save record files to:** Set the saving path for the manually recorded video files.
 - ◆ **Save downloaded files to:** Set the saving path for the downloaded video files in  interface.
 - **Picture and Clip Settings:** Set the saving paths of the captured pictures and clipped video files.
 - ◆ **Save snapshots in live view to:** Set the saving path of the manually captured pictures in  interface.
 - ◆ **Save snapshots when playback to:** Set the saving path of the captured pictures in  interface.
 - ◆ **Save clips to:** Set the saving path of the clipped video files in  interface.
- Notes:**
- You can click **Browse** to change the directory for saving video files, clips and pictures.
 - You can click **Open** to directly open the video files, clips and pictures.
3. Click  to save the settings.

4.2 Live View Page

Purpose:

The live video page allows you to view live video, capture images, realize PTZ control, set/call presets and configure video parameters.

Log in the network speed dome to enter the live view page, or you can click  on the menu bar of the main page to enter the live view page.

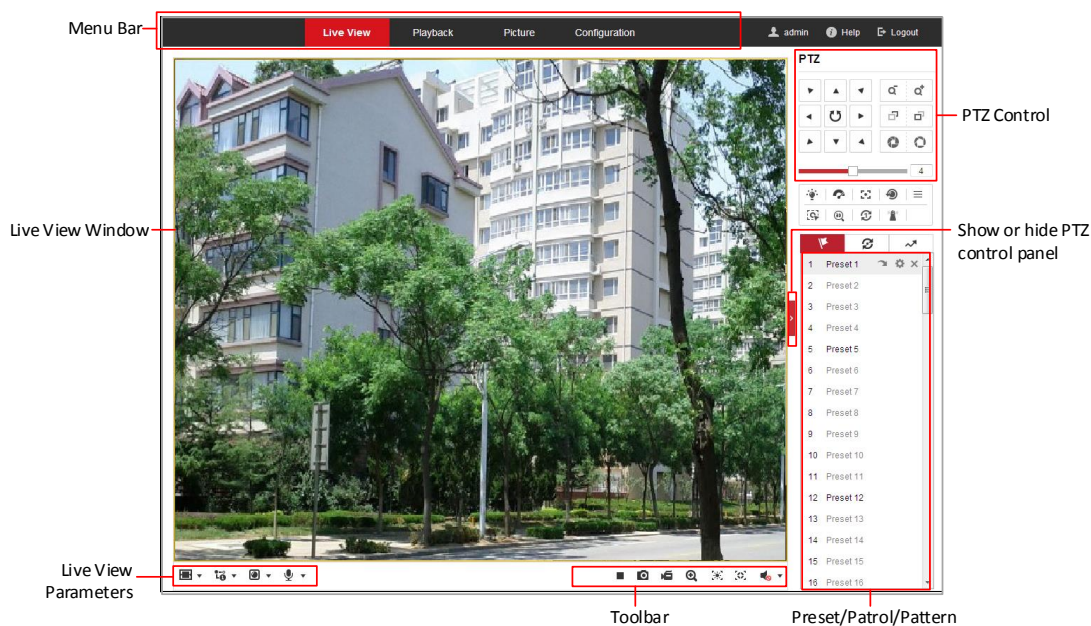


Descriptions of the live view page:

Figure 4-2 Live View Page

Menu Bar:

Click each tab to enter Live View, Playback, Picture, and Configuration page respectively.

Click  to display the help file of the speed dome.

Click  to logout the system.

Live View Window:

Display the live video.

Toolbar:

Operations on the live view page, e.g., live view, capture, record, audio on/off, regional exposure, regional focus, etc.

PTZ Control:

Panning, tilting, focusing and zooming actions of the speed dome. The lighter, wiper, one-touch focus and lens initialization control.

Preset/patrol/pattern:

Set and call the preset/patrol/pattern for the speed dome.


Note:

The functions vary depending on the speed dome models.

Live View Parameters:

Configure the image size, stream type, plug-in type, and two-way audio of the live video.

4.3 Starting Live View

In the live view window as shown in Figure 4-3, click  on the toolbar to start the live view of the speed dome.

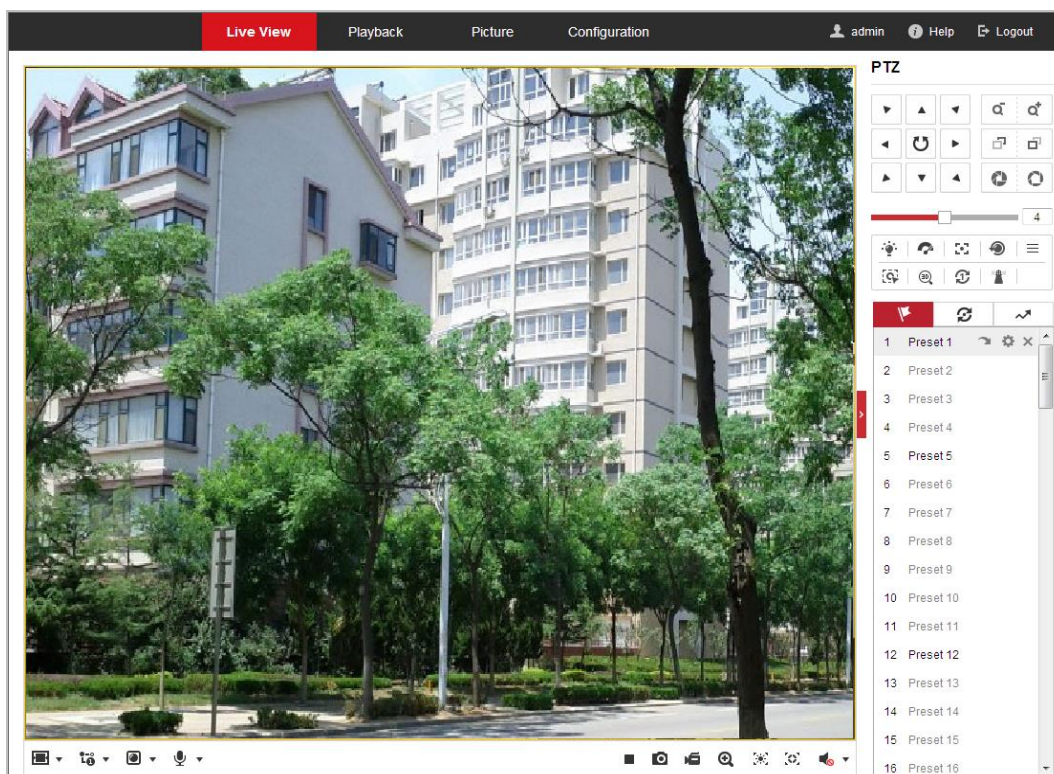




















Figure 4-3 Start Live View

Table 4-1 Descriptions of the Toolbar

| Icon | Description | Icon | Description |
|------|---|------|---|
| | Start/Stop Live view. | | Manually capture the pictures. |
| | Display in 4:3/16:9/original/Self-adaptive window size. | | Live view with the main/sub/third stream. |
| | Play via webcomponents/quick time. | | Start/Stop Two-way Audio. |
| | Manual start/stop recording. | | Mute/Audio on and adjust volume |
| | Start/stop digital zoom. | | Enable/Disable Regional Exposure |
| | Enable / Disable Regional Focus | | |

- Double-click on the live video to switch the current live view into full-screen or return to normal mode from the full-screen.
- Click to select from and display live video in 4:3/16:9/original/self-adaptive window size.
- Click to select from and display live video with the main/ sub/third stream. The main stream is with a relatively high resolution and needs much bandwidth. The default setting of stream type is .

- Click  to select between  and  and play the live video via player **Webcomponents** or **Quick Time**. The live video is played via webcomponents by default, and other types of players are supported for the browser, such as MJPEG, and VLC. You are required to download and install the player to play the live video.
- Click  to enable two-way audio and the icon turns into . Click the icon again to stop two-way audio.
- Click  to start live view and the icon turns into . Click the icon again to stop live view.
- Click  to capture the picture.
- Click  to start recording and the icon turns into . Click the icon again to stop recording.
- Click  to enable digital zoom function and the icon turns into . Then drag the mouse towards low right direction to draw a rectangle on the image as the desired zoom. After viewing it you can click any place of the picture to get back to normal picture.
- Click the  on the toolbar to enter the regional exposure operation mode and the icon turns into . Then drag the mouse to draw a rectangle on the image as the desired exposure region.
- Click the  on the toolbar to enter the regional focus operation mode and the icon turns into . Then drag the mouse to draw a rectangle on the image as the desired focus region.
- Click  to display the . Drag the slider to adjust the volume.

Note:

Before using the two-way audio or recording with audio functions, set the **Stream Type** to **Video & Audio** referring to **Section 6.2.1 Configuring Video Settings**.

Refer to the following sections for more information:



- Configuring remote recording in **Section 5.1.1 Configuring Recording Schedule**.
- Setting the image quality of the live video in **Section 6.3 Configuring Image Settings** and **Section 6.2.1 Configuring Video Settings**.
- Setting the OSD text on live video in **Section 6.3.2 Configuring OSD Settings**.

4.4 Operating PTZ Control

Purpose:

In the live view interface, you can use the PTZ control buttons to control panning, tilting and zooming.

4.4.1 PTZ Control Panel













On the live view page, click  to show the PTZ control panel or click  to hide it. Click the direction buttons to control the pan/tilt movements.






Click the zoom/iris/focus buttons to realize lens control.



Figure 4-4 PTZ Control Panel







Table 4-2 Descriptions of PTZ Control Panel

| Button | Name | Description |
|---|-------------------|--|
|  | PTZ Control Panel | <p>Hold and press the direction button to pan/tilt the speed dome.</p> <p>Click  and the speed dome keeps panning, the icon turns into .</p> <p>Click the icon again to stop the speed dome.</p> |
|  | Zoom out/in | <p>Click , the lens zooms in, click , and the lens zooms out.</p> |
|  | Focus near/far | <p>Click , the lens focus far and the items far away gets clear. Click , the lens focus near and the items nearby gets clear.</p> |
|  | Iris close/open | <p>When the image is too dark, click  to open the iris. When the image is too bright, click  to close the iris.</p> |

| Button | Name | Description |
|---|---------------------|--|
|  | Auxiliary Functions | The auxiliary functions include light, wiper, auxiliary focus, lens initialization, manual tracking, 3D positioning, one-touch patrol, and one-touch park. |
|  | Speed Adjustment | Adjust speed of pan/tilt movements. |
|  | Preset | Refer to Section 4.4.3 Setting/Calling a Preset for detailed information of setting preset. |
|  | Patrol | Refer to Section 4.4.4 Setting/Calling a Patrol for detailed information of setting patrol. |
|  | Pattern | Refer to Section 4.4.6 Setting/Calling a Pattern for detailed information of setting pattern. |

- **Buttons on the Preset/Patrol/Patterns interface:**

Table 4-3 Descriptions of Buttons

| Buttons | Description |
|---|--|
|  | Start the selected patrol/pattern. |
|  | Stop current patrol/pattern. |
|  | Set the selected preset/patrol. |
|  | Delete the selected preset/patrol/pattern. |
|  | Start recording a pattern. |
|  | Stop recording the pattern. |


4.4.2 Auxiliary Functions

The Auxiliary functions panel is shown in the figure below:




Figure 4-5 Auxiliary Functions

-  Light

Click  to enable/disable the light supplement of the speed dome. This function is reserved.

-  Wiper

Click  to move the wiper once.

-  Auxiliary Focus

The auxiliary focus function is reserved.


-  Manual Tracking

Before you start:

Enter the Smart Tracking settings interface and enable smart tracking first.


Configuration > PTZ > Smart Tracking

Steps:


1. Click  on the toolbar of live view interface.
2. Click a moving object in the live video.
The speed dome will track the object automatically.

-  3D Positioning


Steps:

1. Click  on the toolbar of live view interface.
2. Operate the 3D positioning function:
 - Click a position of the live video. The corresponding position will be moved to the center of the live video.
 - Hold down the left mouse button and drag the mouse to the lower right on the live video. The corresponding position will be moved to the center of the live video and zoomed in.
 - Hold down the left mouse button and drag the mouse to the upper left on the live video. The corresponding position will be moved to the center of the live video and zoomed out.

-  One-touch Patrol

Click  to call one-touch patrol. For detailed information of setting one-touch patrol, refer to **Section 4.4.5 One-touch Patrol**.

-  One-touch Park

Click  to save the current view as the preset No. 32 and start park at the the current position.

4.4.3 Setting/Calling a Preset

Purpose:

A preset is a predefined image position. For the defined preset, you can click the calling button to quickly view the desired image position.

- **Setting a Preset:**

Steps:

1. In the PTZ control panel, select a preset number from the preset list.

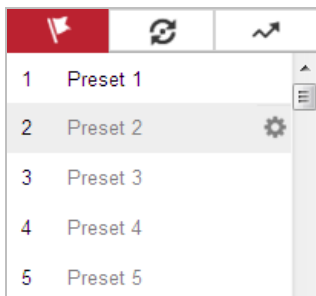




Figure 4-6 Setting a Preset

2. Use the PTZ control buttons to move the lens to the desired position.
 - Pan the speed dome to the right or left.
 - Tilt the speed dome up or down.
 - Zoom in or out.
 - Refocus the lens.
3. Click  to finish the setting of the current preset.
4. Edit a preset name by double clicking on the default name such as preset 1. (The pre-defined presets are named already and not configurable. Refer to the user manual for detailed function description.)
5. You can click  to delete the preset.

Note:

You can configure up to 256 presets.

- **Calling a Preset:**

In the PTZ control panel, select a defined preset from the list and click  to call the preset.

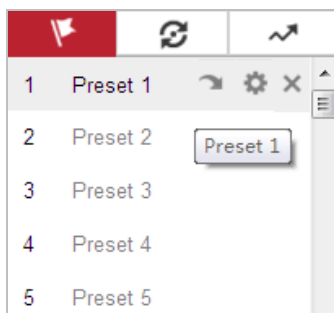


Figure 4-7 Calling a Preset

For convenient preset selection, refer to the following steps to navigate to the preset you want.

Steps:

1. Select any preset from the list.
2. Click the preset number you need on the keyboard.

Notes:

- The following presets are predefined with special commands. You can only call them but not configure them. For instance, preset 99 is the “Start auto scan”. If you call the preset 99, the speed dome starts auto scan function.
- Preset function varies depending on the speed dome models.

Table 4-4 Special Presets

| Preset | Function | Preset | Function |
|--------|--------------------------------|--------|--------------------------|
| 33 | Auto flip | 92 | Start to set limit stops |
| 34 | Back to initial position | 93 | Set limit stops manually |
| 35 | Call patrol 1 | 94 | Remote reboot |
| 36 | Call patrol 2 | 95 | Call OSD menu |
| 37 | Call patrol 3 | 96 | Stop a scan |
| 38 | Call patrol 4 | 97 | Start random scan |
| 39 | Day mode (IR cut filter in) | 98 | Start frame scan |
| 40 | Night mode (IR cut filter out) | 99 | Start auto scan |
| 41 | Call pattern 1 | 100 | Start tilt scan |
| 42 | Call pattern 2 | 101 | Start panorama scan |
| 43 | Call pattern 3 | 102 | Call patrol 5 |
| 44 | Call pattern 4 | 103 | Call patrol 6 |
| 45 | One-touch Patrol | 104 | Call patrol 7 |
| 90 | Wiper | 105 | Call patrol 8 |

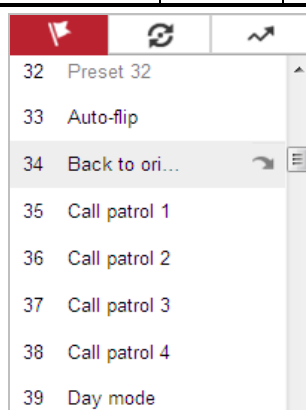


Figure 4-8 Special Preset

Note:

You may need to use the OSD (On Screen Display) menu when controlling the speed dome remotely. To display the OSD menu on the live view screen, you can call the preset number 95.

4.4.4 Setting/Calling a Patrol

Purpose:

A patrol is a memorized series of preset function. It can be configured and called on the patrol settings interface. There are up to 8 patrols for customizing. A patrol can be configured with 32 presets.

Before you start:

Make sure that the presets you want to add into a patrol have been defined.

- **Setting a Patrol:**

Steps:




1. In the PTZ control panel, click  to enter the patrol settings interface.
2. Select a patrol number from the list and click .
3. Click  to enter the adding interface of preset, as shown in Figure 4-9.



Figure 4-9 Adding Presets


4. Configure the preset number, patrol time and patrol speed.

Table 4-5 Descriptions of Patrol

| Name | Description |
|--------------|---|
| Patrol Time | It is the duration staying on one patrol point. The speed dome moves to another patrol point after the patrol time. |
| Patrol Speed | It is the speed of moving from one preset to another. |

5. Click **OK** to save a preset into the patrol.
6. Repeat the steps from 3 to 5 to add more presets.
7. Click **OK** to save all the patrol settings.

- **Calling a Patrol:**

In the PTZ control panel, select a defined patrol from the list and click  to call the patrol, as shown in Figure 4-10.

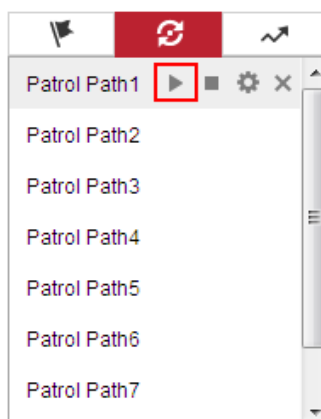




Figure 4-10 Calling a Preset

4.4.5 One-touch Patrol

Purpose:

One-touch patrol is an automatically created patrol. The system automatically add preset No.1 to No.32 to the patrol path 8. You can call the one-touch patrol and the speed dome moves as the patrol path 8 automatically.

Steps:

1. Set preset No.1 to No.32. Refer to **Section 4.4.3 Setting/Calling a Preset** for detailed information of setting preset.
2. Call preset No. 45, and the speed dome moves as patrol path 8.
3. Click  to enter the patrol settings interface and start/stop one-touch patrol, edit the patrol time and the speed.
4. You can click  of the PTZ control panel to start one-touch patrol.

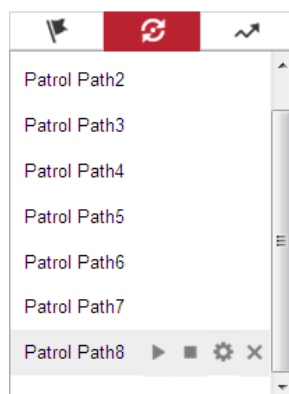


Figure 4-11 Patrol Path 8

4.4.6 Setting/Calling a Pattern

Purpose:


A pattern is a memorized series of pan, tilt, zoom, and preset functions. It can be called on the pattern settings interface. There are up to 4 patterns for customizing.

Note:

Pattern function varies depending on the speed dome models.

● **Setting a Pattern:**

Steps:

1. In the PTZ control panel, click  to enter the pattern settings interface.
2. Select a pattern number from the list as shown in Figure 4-12.

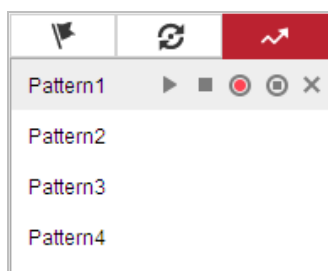


Figure 4-12 Patterns Settings Interface









3. Click  to enable recording the panning, tilting and zooming actions.
4. Use the PTZ control buttons to move the lens to the desired position after the information of **PROGRAM PATTERN REMAINING MEMORY %**) is displayed on the screen.
 - Pan the speed dome to the right or left.
 - Tilt the speed dome up or down.
 - Zoom in or out.
 - Refocus the lens.
5. Click  to save all the pattern settings.
 - **Buttons on the Patterns interface:**

Table 4-6 Descriptions of the Buttons

| Buttons | Description |
|---|--|
|  | Start the selected patrol/pattern. |
|  | Stop current patrol/pattern. |
|  | Set the selected preset/patrol. |
|  | Delete the selected preset/patrol/pattern. |
|  | Start recording a pattern. |
|  | Stop recording the pattern. |

Notes:

- These 4 patterns can be operated separately and with no priority level.
- When configuring and calling the pattern, proportional pan is valid; the limit stops and auto flip will be invalid; and the 3D positioning operation is not supported.

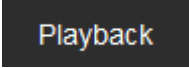
4.5 Playback

Purpose:

This section explains how to view the video files stored in the network disks or memory cards.

4.5.1 Play Back Video Files

Steps:

1. Click  on the menu bar to enter playback interface.

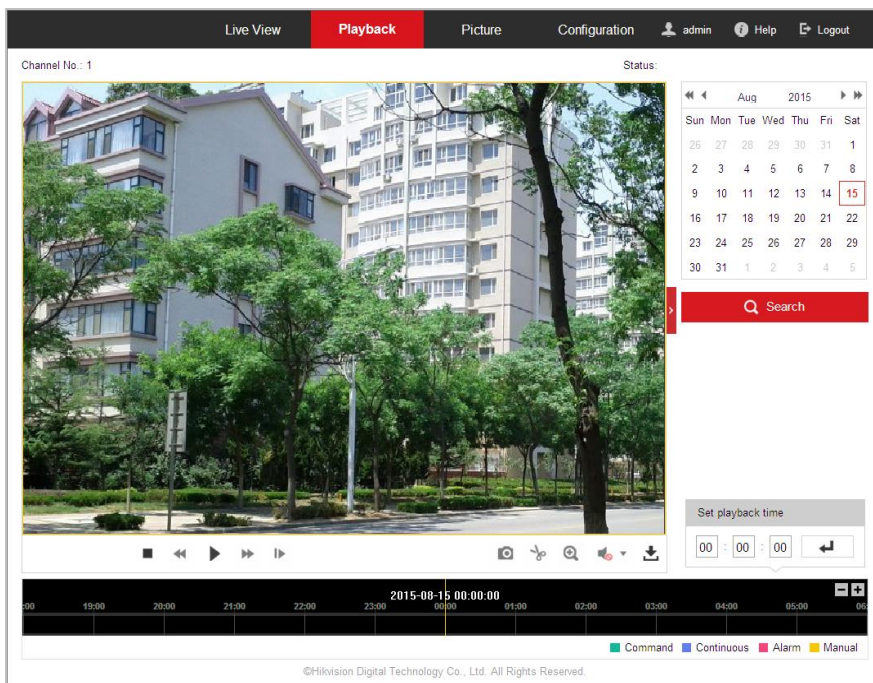


Figure 4-13 Playback Interface

2. Select the date and click .

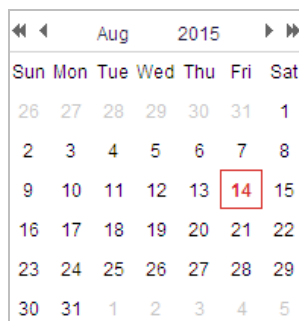



Figure 4-14 Search Video



3. Click  to play the video files found on this date.










The toolbar on the bottom of Playback interface can be used to control playing process.



Figure 4-15 Playback Toolbar



Table 4-7 Descriptions of the Buttons

| Button | Operation | Button | Operation |
|---|-----------|---|-------------------|
|  | Play |  | Capture a picture |

| | | | |
|---|-----------------------------|--|---------------------------------|
|  | Pause |  | Start/Stop clipping video files |
|  | Stop |  | Audio on and adjust volume/Mute |
|  | Speed down |  | Download |
|  | Speed up |  | Playback by frame |
|  | Enable/Disable digital zoom | | |

Note:

You can choose the file paths locally for downloaded playback video files and pictures in Local Configuration interface. Refer to **Section 4.1 Configuring Local Parameters** for details.

Drag the progress bar with the mouse to locate the exact playback point. You can also input the time and click  to locate the playback point in the **Set playback time** field. You can also click  to zoom out/in the progress bar.

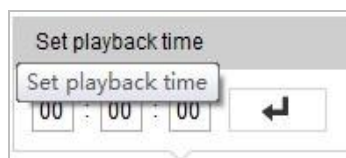


Figure 4-16 Set Playback Time

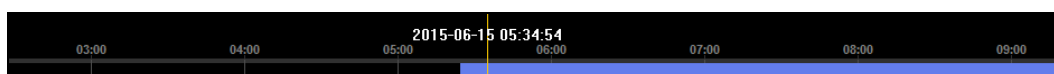


Figure 4-17 Progress Bar

The different colors of the video on the progress bar stand for the different video types as shown in Figure 4-18.

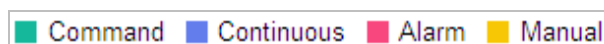



Figure 4-18 Video Types

4.5.2 Downloading Video Files

Steps:

1. Click  on the playback interface. The pop-up menu is shown in Figure 4-19.
2. Set the start time and end time. Click **Search**. The corresponding video files are listed on the left.

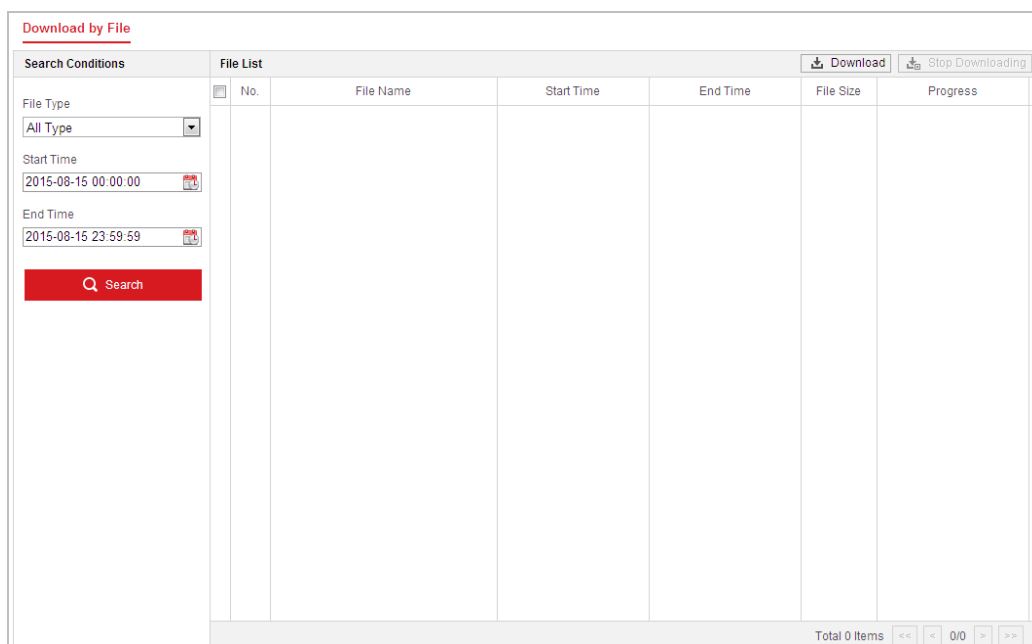



Figure 4-19 Video Downloading interface

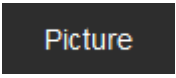
3. Check the checkbox in front of the video files that you need to download.
4. Click  **Download** to download the video files.

4.6 Pictures

Purpose:

This section explains how to view the captured picture files stored in the network disks or the memory cards and download the captured pictures.

Steps:

1. Click  **Picture** on the menu bar to enter picture interface.

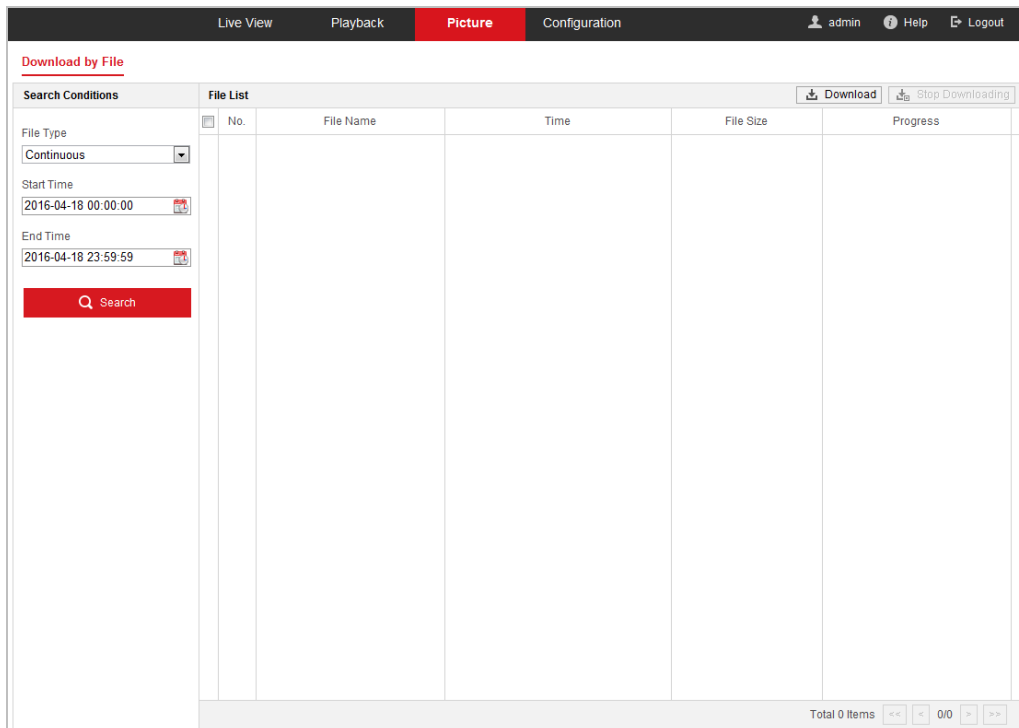



Figure 4-20 Picture Interface

2. Select the file type of capturing the pictures from the list as timing, alarm, motion, etc.
3. Set the start time and end time. Click **Search**. The corresponding picture files will be listed.
4. Check the checkbox in front of the files that you need to download.
5. Click  **Download** to download the files.

Chapter 5 System Configuration

5.1 Storage Settings

Before you start:

To configure record settings, make sure that you have the network storage device within the network or the memory card inserted in your speed dome.

5.1.1 Configuring Recording Schedule

Purpose:

There are two kinds of recording for the speed domes: manual recording and scheduled recording. In this section, you can follow the instructions to configure the scheduled recording. By default, the record files of scheduled recording are stored in the memory card (if supported) or in the network disk.

Steps:

1. Enter the Record Schedule settings interface:

Configuration > Storage > Schedule Settings > Record Schedule

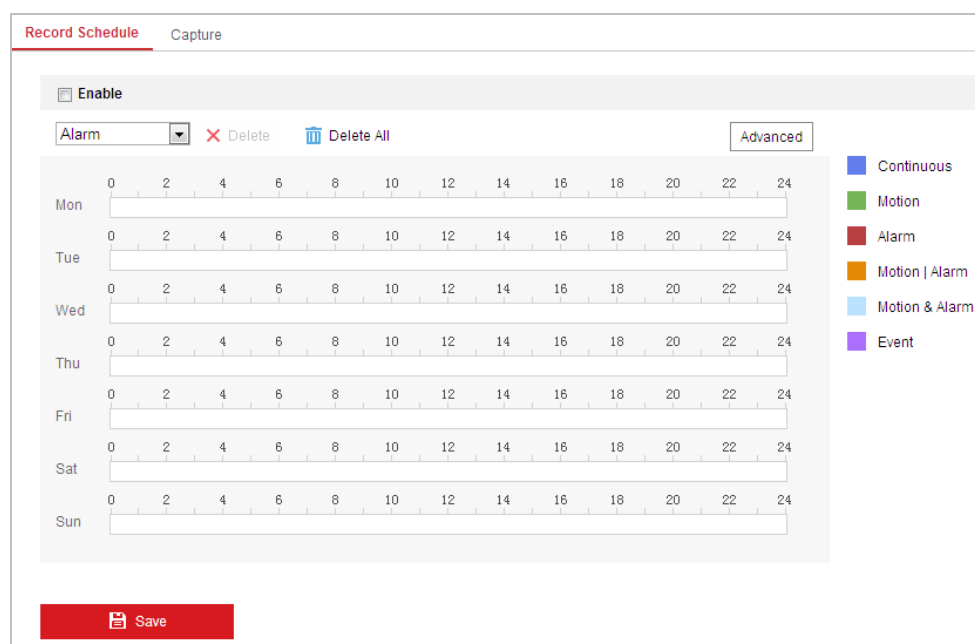


Figure 5-1 Recording Schedule Interface

2. Check the **Enable** checkbox to enable scheduled recording.
3. To set the advanced settings of the speed dome, click **Advanced** to enter the advanced settings interface.

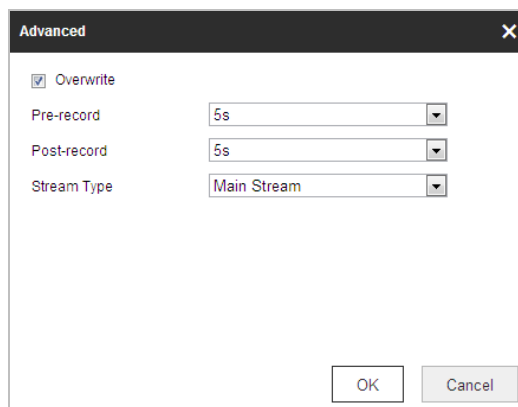


Figure 5-2 Record Parameters

- **Pre-record:** The time you set to start recording before the scheduled time or the event. For example, if an alarm triggers recording at 10:00, and the pre-record time is set as 5 seconds, the speed dome starts to record at 9:59:55.

The Pre-record time can be configured as No Pre-record, 5 s, 10 s, 15 s, 20 s, 25 s, 30 s or not limited.

Note:

The pre-record time changes according to the video bitrate.

- **Post-record:** The time you set to stop recording after the scheduled time or the event. For example, if an alarm triggered recording ends at 11:00, and the post-record time is set as 5 seconds, the speed dome records until 11:00:05.

The Post-record time can be configured as 5 s, 10 s, 30 s, 1 min, 2 min, 5 min or 10 min.

- **Stream Type:** You can select the stream type for recording; Main Stream, Sub-Stream and Third Stream are selectable. If you select the sub-stream, you can record for a longer time with the same storage capacity.

Note:

The Pre-record and Post-record parameters vary depending on the speed dome models.

4. Click **OK** to save the advanced setting.
5. Select a Record Type. The record type can be Continuous, Motion, Alarm, Motion | Alarm, Motion & Alarm, and Event.
 - Normal: If you select Continuous, the video will be recorded automatically according to the time of the schedule.
 - Record Triggered by Motion Detection: If you select Motion, the video will be recorded when the motion is detected. Besides configuring the recording schedule, you have to set the motion detection area and check the **Trigger Channel** checkbox in the Linkage Method of Motion Detection settings interface. For detailed information, refer to **Section 5.2.1 Motion Detection**.
 - Record Triggered by Alarm: If you select Alarm, the video will be recorded when the alarm is triggered via the external alarm input channels. Besides configuring the recording schedule, you have to set the Alarm Type and check the **Trigger Channel** checkbox in the Linkage Method of Alarm Input settings interface. For detailed information, refer to **Section 5.2.3 Alarm Input**.
 - Record Triggered by Motion & Alarm: If you select Motion & Alarm, the video will be recorded when the motion and alarm are triggered at the same time. Besides

configuring the recording schedule, you have to configure the settings on the Motion Detection and Alarm Input settings interfaces.

- Record Triggered by Motion | Alarm: If you select Motion | Alarm, the video will be recorded when the external alarm is triggered or the motion is detected. Besides configuring the recording schedule, you have to configure the settings on the Motion Detection and Alarm Input settings interfaces.
- Record Triggered by Event: If you select to record by event, the video will be recorded when any of the events is triggered.

6. Click  to save the settings.

5.1.2 Configuring Capture Schedule

Purpose:

You can configure the scheduled snapshot and event-triggered snapshot. The captured picture can be stored in the local storage or network storage.

Steps:

1. Enter the Snapshot settings interface:

Configuration > Storage > Storage Settings > Capture

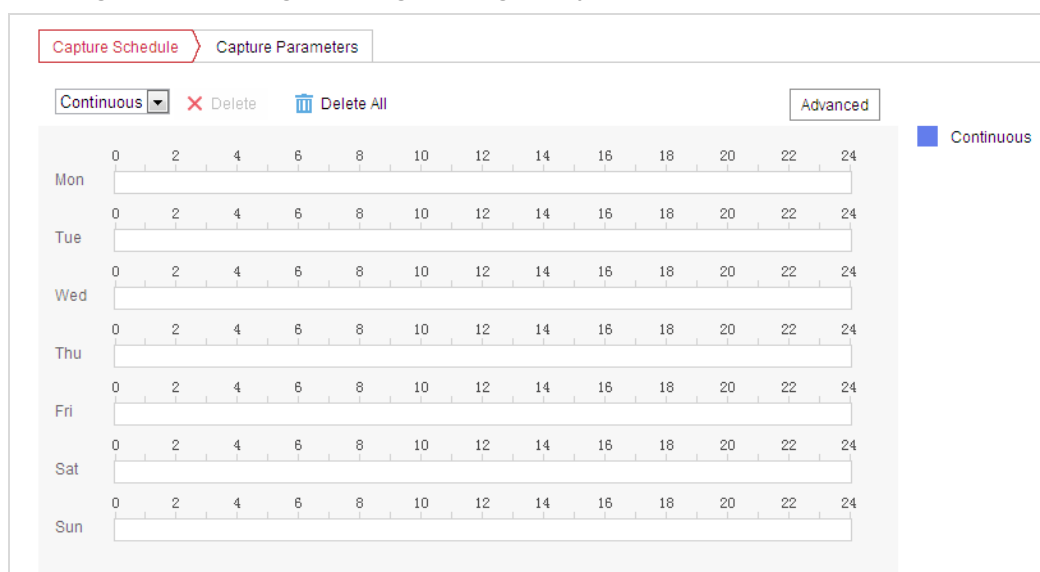




Figure 5-3 Snapshot Settings

2. Click  to enter the Capture Schedule interface.
3. Select the timeline of a certain day, and drag the left button of the mouse to set the capture schedule (the start time and end time of the recording task).
4. After you set the scheduled task, you can click  and copy the task to other days (optional).
5. After setting the capture schedule, you can click a capture segment to display the segment capture settings interface to edit the segment capture parameters. (optional)

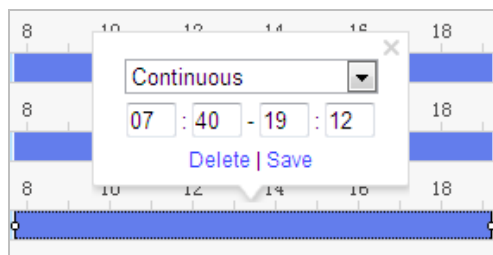


Figure 5-4 Segment Snapshot Settings

6. Click Advanced to enter the advanced setting interface. You can select the stream type of the capture.
7. Click Capture Parameters to enter the Capture Parameters Interface.
8. Check the **Enable Timing Snapshot** checkbox to enable continuous snapshot, and configure the schedule of timing snapshot. Check the **Enable Event-triggered Snapshot** checkbox to enable event-triggered snapshot.
9. Select the format, resolution, quality of the snapshot.
10. Set the time interval between two snapshots.
11. Click Save to save the settings.

Uploading to FTP

Note:

Make sure that the FTP server is online.

You can follow below configuration instructions to upload the snapshots to FTP.

● Upload continuous snapshots to FTP

Steps:

1. Configure the FTP settings and check the **Upload Picture** checkbox in FTP Settings interface. Refer to **Section 6.1.2 Configuring FTP Settings** for more details to configure FTP parameters.
2. Check the **Enable Timing Snapshot** checkbox.
3. Click **Edit** to set the snapshot schedule. Refer to **Section 5.2.1 Configuring Motion Detection**.

● Upload event-triggered snapshots to FTP

Steps:

1. Configure the FTP settings and check the **Upload Picture** checkbox in FTP Settings interface. Refer to **Section 6.1.2 Configuring FTP Settings** for more details to configure FTP parameters.
2. Check the **Upload to FTP** checkbox in Motion Detection Settings or Alarm Input interface. Refer to **Section 5.2.1 Configuring Motion Detection**.
3. Check the **Enable Event-triggered Snapshot** checkbox.

5.1.3 Configuring Net HDD

Before you start:

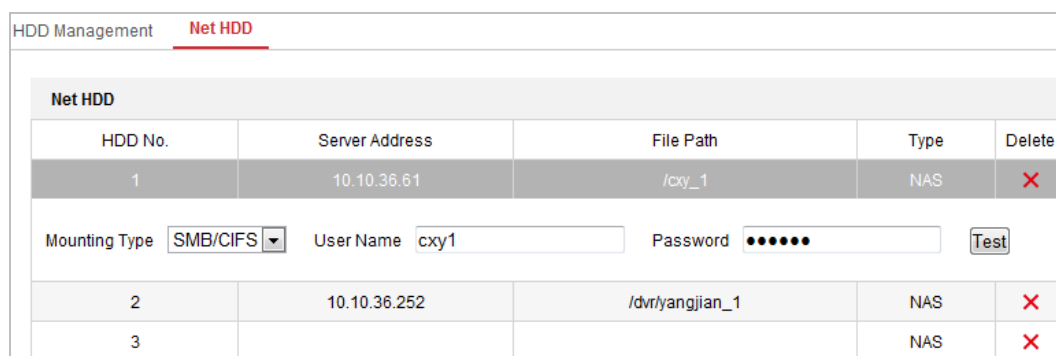
The network disk should be available within the network and properly configured to store the recorded files, log files, etc.

Steps:

- **Add the network disk**

1. Enter the NAS (Network-Attached Storage) settings interface:

Configuration > Storage > Storage Management > Net HDD



| HDD No. | Server Address | File Path | Type | Delete |
|---------|----------------|----------------|------|--------|
| 1 | 10.10.36.61 | /cxy_1 | NAS | X |
| 2 | 10.10.36.252 | /dvr/yanjian_1 | NAS | X |
| 3 | | | NAS | X |

Mounting Type: User Name: Password:

Figure 5-5 Select Net HDD Type

2. Input the IP address and the file path of the network disk.
3. Select the mounting type. NFS and SMB/CIFS are selectable. You can set the user name and password to guarantee the security if SMB/CIFS is selected.

Note:

Refer to the *NAS User Manual* for creating the file path.



- For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.
- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

4. Click  Save to add the network disk.

Note:

After having saved successfully, you need to reboot the speed dome to activate the settings.

- **Initialize the added network disk.**

1. Enter the HDD settings interface (**Configuration > Storage > Storage Management > HDD Management**), in which you can view the capacity, free space, status, type and property of the disk.

HDD Management Net HDD

| HDD Management | | | | | | | | Format |
|-------------------------------------|---------|----------|------------|--------|------|----------|----------|--------|
| <input checked="" type="checkbox"/> | HDD No. | Capacity | Free space | Status | Type | Property | Progress | |
| <input checked="" type="checkbox"/> | 9 | 9.84GB | 0.00GB | Normal | NAS | R/W | | |
| <input checked="" type="checkbox"/> | 10 | 10.00GB | 6.75GB | Normal | NAS | R/W | | |

Quota

Max. Picture Capacity

Free Size for Picture

Max. Record Capacity

Free Size for Record

Figure 5-6 Storage Management Interface

- If the status of the disk is **Uninitialized**, check the corresponding checkbox to select the disk and click **Format** to start initializing the disk.
- When the initialization completed, the status of disk will become **Normal** as shown in Figure 5-7.

HDD Management

| <input checked="" type="checkbox"/> | HDD No. | Capacity | Free space | Status | Type | Property | Progress |
|-------------------------------------|---------|----------|------------|------------|------|----------|----------|
| <input checked="" type="checkbox"/> | 9 | 20.00GB | 0.00GB | Formatting | NAS | R/W | |

Figure 5-7 View Disk Status

- **Define the Quota for Record and Pictures**

- Input the quota percentage for picture and for record.
- Click **Save** and refresh the browser page to activate the settings.

Quota

Max. Picture Capacity

Free Size for Picture

Max. Record Capacity

Free Size for Record

Percentage of Picture %

Percentage of Record %

Figure 5-8 Quota Settings

Notes:



- Up to 8 NAS disks can be connected to the speed dome.
- To initialize and use the memory card after insert it to the speed dome, refer to the steps of NAS disk initialization

5.2 Basic Event Configuration

Purpose:

This section explains how to configure the network speed dome to respond to alarm events, including motion detection, video tampering, video loss, alarm input, alarm output and exception. These events can trigger the alarm actions, such as Send Email, Notify Surveillance Center, etc. For example, when motion detection is triggered, the network speed dome sends a notification to an e-mail address.

Notes:

- On the event configuration page, click  to show the PTZ control panel or click  to hide it.
- Click the direction buttons to control the pan/tilt movements.
- Click the zoom/iris/focus buttons to realize lens control.
- The functions vary depending on the speed dome models.

5.2.1 Configuring Motion Detection

Purpose:

Motion detection is a feature which can trigger alarm actions and actions of recording videos when the motion occurred in the surveillance scene.

Steps:

1. Enter the motion detection setting interface:
Configuration > Event > Basic Event > Motion Detection
2. Check the **Enable Motion Detection** checkbox to enable this function.
You can check the **Enable Dynamic Analysis for Motion** checkbox if you want the detected object get marked with rectangle in the live view.
3. Select the configuration mode as **Normal** or **Expert** and set the corresponding motion detection parameters.
 - **Normal**



Figure 5-9 Motion Detection Settings-Normal

Steps:

- (1) Click **Draw Area** and drag the mouse on the live video image to draw a motion detection area.
- (2) Click **Stop Drawing** to finish drawing.

Notes:

- You can draw up to 8 motion detection areas on the same image.
- You can click **Clear All** to clear all of the areas.

- (3) Move the slider **Sensitivity** to set the sensitivity of the detection.

● Expert

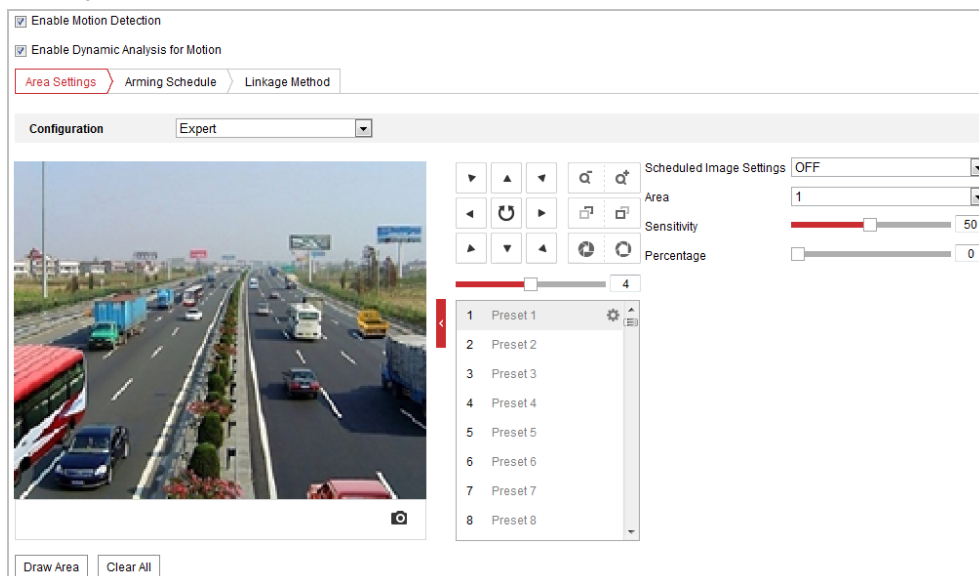


Figure 5-10 Motion Detection Settings-Expert

Steps:

- (1) Select the **Scheduled Image Settings**, there are **OFF**, **Auto-Switch** and **Scheduled-Switch** selectable. If the schedule image switch mode is enabled, you can configure the detection rule for the day and night separately.
 - OFF:** Disable the day and night switch.
 - Auto-Switch:** Switch the day and night mode according to the illumination automatically.
 - Scheduled-Switch:** Switch to the day mode at 6:00 a.m., and switch to the night mode at 18:00 p.m.
- (2) Select **Area No.** to configure in the dropdown list.
- (3) Set the values of sensitivity and proportion of object on area.
 - Sensitivity:** The greater the value is, the easier the alarm will be triggered.
 - Percentage:** When the size proportion of the moving object exceeds the predefined value, the alarm will be triggered. The less the value is, the easier the alarm will be triggered.
4. Set the **Arming Schedule** for Motion Detection.
 - (1) Click **Arming Schedule** tab to enter the arming schedule setting interface.

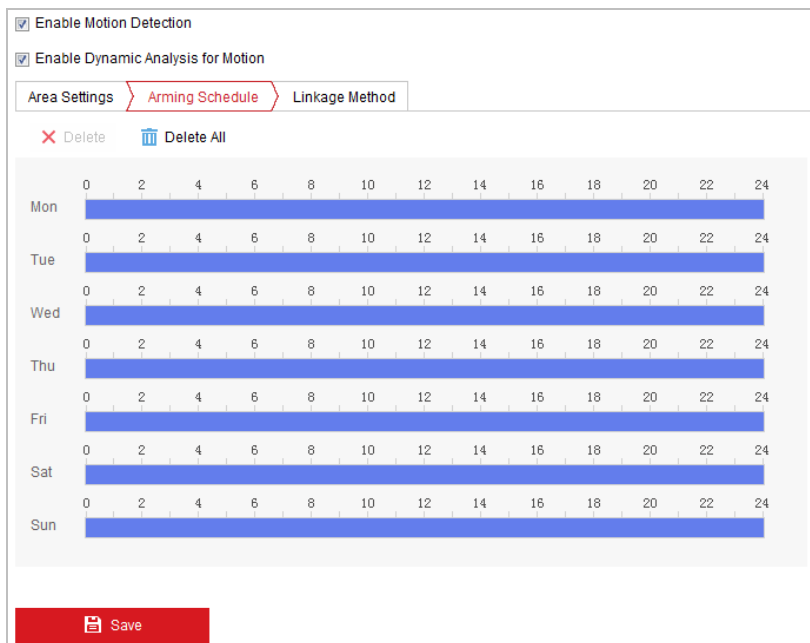


Figure 5-11 Arming Schedule


- (2) Select the timeline of a certain day, and drag the mouse to set the arming schedule (the start time and end time of the arming task).
- (3) After you set the scheduled task, you can click  and copy the task to other days (optional).



Figure 5-12 Arming Time Schedule

- (4) After setting the arming schedule, you can click a segment to display the segment arming settings interface to edit the segment record parameters (optional).

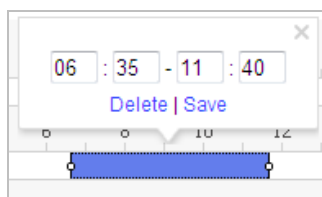



Figure 5-13 Segment Arming Settings

- (5) Click  to save the settings.

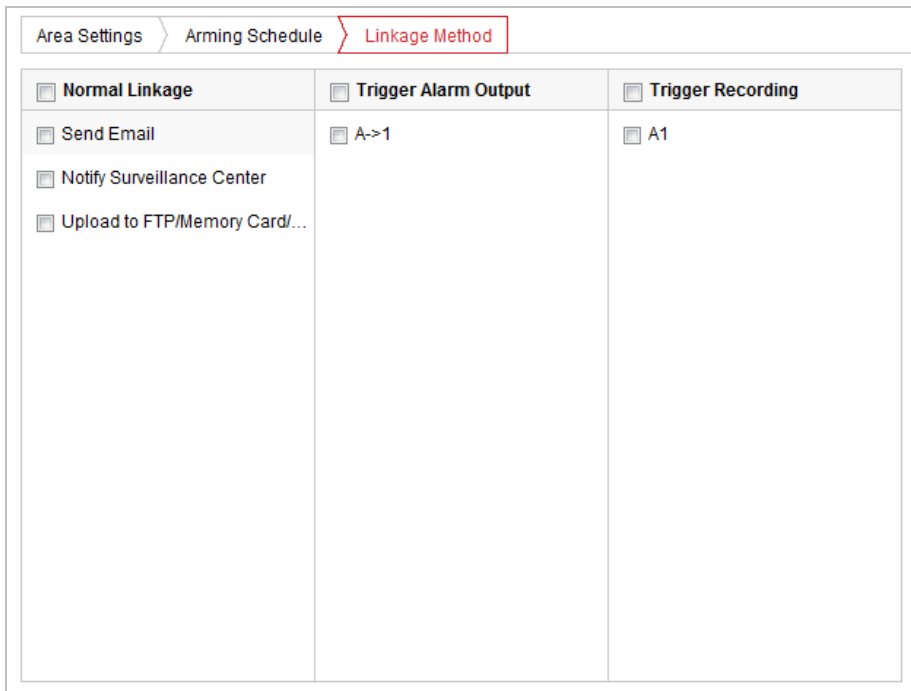
Note:

The time of each period cannot be overlapped. Up to 8 periods can be configured for each day.

5. Set the **Linkage Method** for Motion Detection.

- (1) Click  tab to enter the **Linkage Method** interface.

Note: You can specify the linkage method when an event occurs. The following contents are about how to configure the different types of linkage method.



| Normal Linkage | Trigger Alarm Output | Trigger Recording |
|--|-------------------------------|-----------------------------|
| <input type="checkbox"/> Send Email | <input type="checkbox"/> A->1 | <input type="checkbox"/> A1 |
| <input type="checkbox"/> Notify Surveillance Center | | |
| <input type="checkbox"/> Upload to FTP/Memory Card/... | | |

Figure 5-14 Linkage Method

- (2) Check the checkbox to select the linkage method. Send Email, Notify Surveillance Center, Upload to FTP/Memory/NAS, Trigger Alarm Output and Trigger Recording are selectable.

● **Send Email**

Send an email with alarm information to a user or users when an event occurs.

Note:

To send the Email when an event occurs, you need to refer to **Section 6.1.2 Advanced Settings - Configuring Email Settings** to set the Email parameters.

● **Notify Surveillance Center**

Send an exception or alarm signal to remote management software when an event occurs.

● **Upload to FTP/Memory/NAS**

Capture the image when an alarm is triggered and upload the picture to a FTP server.

Note:

You need a FTP server and set FTP parameters first. Refer to **Section 6.1.2 Advanced Settings - Configuring FTP Settings** for setting FTP parameters.

- **Trigger Alarm Output**

Trigger one or more external alarm outputs when an event occurs.

Note:

To trigger an alarm output when an event occurs, refer to **Section 5.2.4 Configuring Alarm Output** to set the alarm output parameters.

- **Trigger Recording**

Record a video when an event occurs.

Note:

You have to set the recording schedule to realize this function. Refer to **Section 5.1.1 Configuring Recording Schedule** for settings the recording schedule.

5.2.2 Configuring Video Tampering Alarm

Purpose:

You can configure the speed dome to trigger the alarm actions when the lens is covered.

Steps:

1. Enter the Video Tampering settings interface :

Configuration > Event > Basic Event > Video Tampering

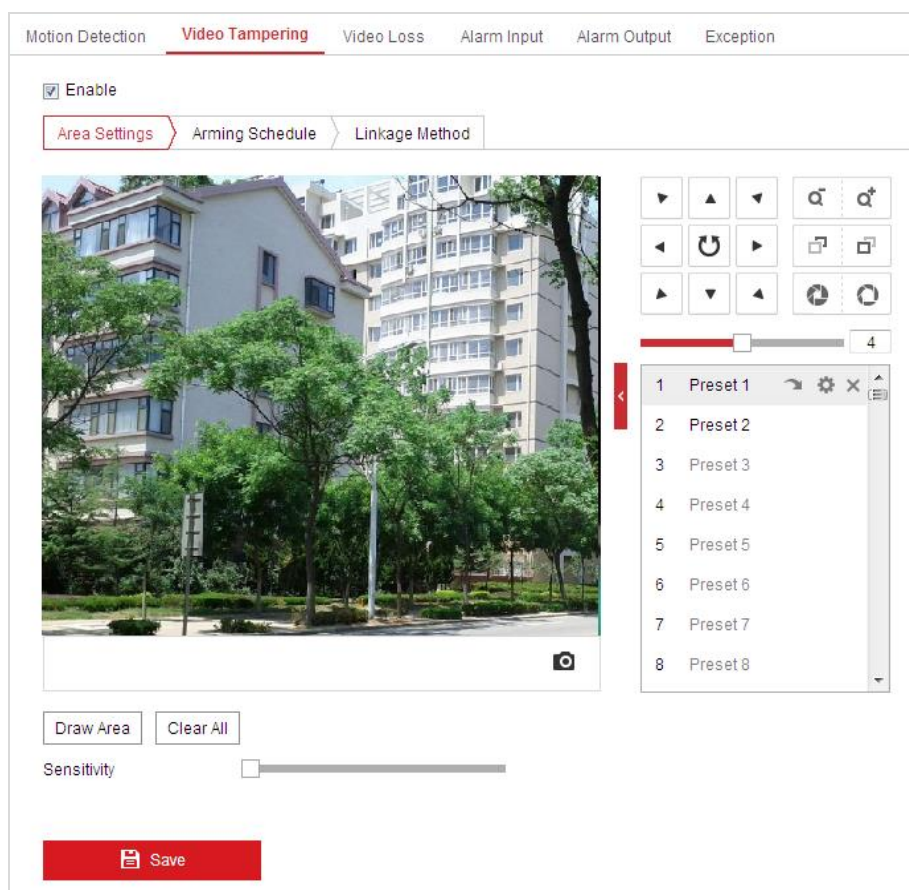


Figure 5-15 Tampering Alarm

2. Check the **Enable** checkbox to enable the tampering detection.

- Click **Arming Schedule** tab to enter the arming schedule setting interface. The arming schedule configuration is the same as the setting of the arming schedule for motion detection. Refer to *step 4* in **Section 5.2.1 Configuring Motion Detection** for details.
- Click **Linkage Method** tab to select the linkage method taken for tampering. Send Email, Notify Surveillance Center, and Trigger Alarm Output are selectable. Refer to *step 5* in **Section 5.2.1 Configuring Motion Detection** for details.
- Click **Save** to save the settings.

5.2.3 Configuring Alarm Input

Steps:

- Enter the Alarm Input settings interface:
Configuration > Event > Basic Event > Alarm Input
- Choose the alarm input No. and the Alarm Type. The alarm type can be NO (Normally Open) and NC (Normally Closed).
- Edit the name in **Alarm Name** (cannot copy) to set a name for the alarm input (optional).

Alarm Input No. IP Address

Alarm Type Alarm Name

Enable Alarm Input Handling

Arming Schedule Linkage Method

| | | | | | | | | | | | | | |
|-----|---|---|---|---|---|----|----|----|----|----|----|----|----|
| Mon | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Tue | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Wed | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Thu | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Fri | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Sat | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Sun | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |

Figure 5-16 Alarm Input Settings

- Click **Arming Schedule** tab to enter the arming schedule setting interface. The arming schedule configuration is the same as the setting of the arming schedule for motion detection. Refer to *step 4* in **Section 5.2.1 Configuring Motion Detection** for details.

5. Click Linkage Method tab to select the linkage method taken for alarm input. Send Email, Notify Surveillance Center, Upload to FTP/Memory/NAS, Trigger Alarm Output and Trigger Recording are selectable. Refer to *step 5* in **Section 5.2.1 Configuring Motion Detection** for details.
6. You can also choose the PTZ linking for the alarm input. Check the relative checkbox and select the No. to enable Preset Calling, Patrol Calling or Pattern Calling.
7. You can copy your settings to other alarm inputs.

Figure 5-17 Linkage Method

8. Click Save to save the settings.

5.2.4 Configuring Alarm Output

Steps:

1. Enter the Alarm Output settings interface:
Configuration > Event > Basic Event > Alarm Output
2. Select one alarm output channel in the **Alarm Output** dropdown list.
3. Set a name in Alarm Name (cannot copy) for the alarm output (optional).
4. The **Delay** time can be set to **5sec, 10sec, 30sec, 1min, 2min, 5min, 10min** or **Manual**. The delay time refers to the time duration that the alarm output remains in effect after alarm occurs.
5. Click Arming Schedule tab to enter the arming schedule setting interface. The time

schedule configuration is the same as the settings of the arming schedule for motion detection. Refer to *step 4* in **Section 5.2.1 Configuring Motion Detection** for details.

Alarm Output No. IP Address

Delay Alarm Name

Alarm Status (cannot copy)

Arming Schedule

| | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
|-----|---|---|---|---|---|----|----|----|----|----|----|----|----|
| Mon | | | | | | | | | | | | | |
| Tue | | | | | | | | | | | | | |
| Wed | | | | | | | | | | | | | |
| Thu | | | | | | | | | | | | | |
| Fri | | | | | | | | | | | | | |
| Sat | | | | | | | | | | | | | |
| Sun | | | | | | | | | | | | | |

Figure 5-18 Alarm Output Settings

6. You can copy the settings to other alarm outputs.
7. Click to save the settings.

5.2.5 Handling Exception

The exception type can be HDD full, HDD error, network disconnected, IP address conflicted and illegal login to the speed domes.

Steps:

1. Enter the Exception settings interface:
Configuration > Event > Basic Event > Exception
2. Check the checkbox to set the actions taken for the Exception alarm. Refer to **Section 5.2.1 Configuring Motion Detection** for details.

| Exception Type: HDD Full | |
|---|---|
| <input type="checkbox"/> Normal Linkage | <input type="checkbox"/> Trigger Alarm Output |
| <input type="checkbox"/> Send Email | <input type="checkbox"/> A->1 |
| <input type="checkbox"/> Notify Surveillance Center | <input type="checkbox"/> A->2 |




Figure 5-19 Exception Settings

3. Click  to save the settings.

5.3 Smart Event Configuration



Purpose:

This section explains how to configure the network speed dome to respond to alarm events, including audio exception, face detection, intrusion detection, line crossing detection, region entrance detection, and region exiting detection. These events can trigger the alarm actions, such as Send Email, Notify Surveillance Center, etc.

For example, when audio exception detection is triggered, the network speed dome sends a notification to an e-mail address.

This function varies depending on different speed dome models.

Notes:

- On the event configuration page, click  to show the PTZ control panel or click  to hide it.
- Click the direction buttons to control the pan/tilt movements.
- Click the zoom/iris/focus buttons to realize lens control.

5.3.1 Detecting Audio Exception

Purpose:

When you enable this function and audio exception occurs, the alarm actions will be triggered.

Steps:

1. Enter the Audio Exception Detection interface:

Configuration > Event > Smart Event > Audio Exception Detection

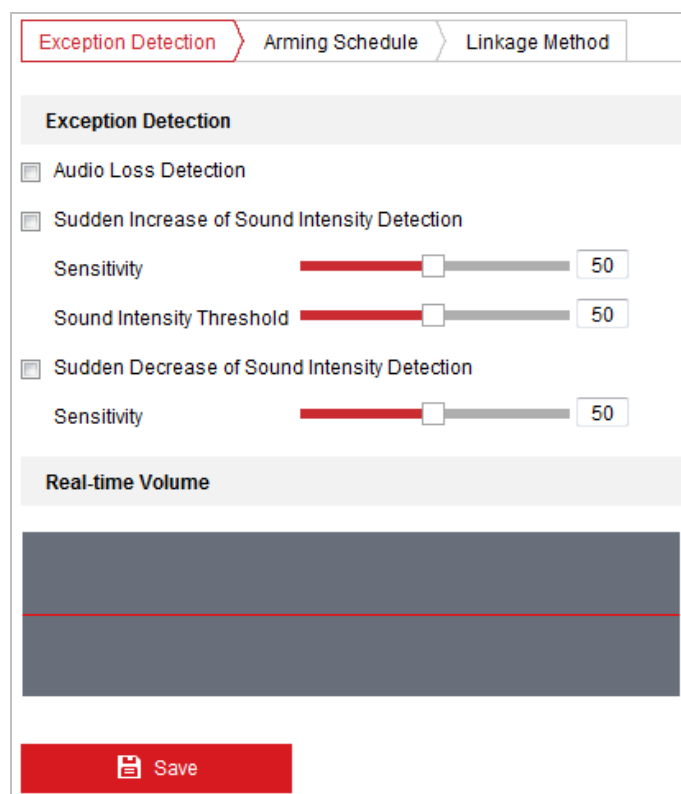




Figure 5-20 Audio Exception Detection

2. Check the **Audio Loss Detection** checkbox to enable the audio input exception detection.
3. Check the **Sudden Increase of Sound Intensity Detection** checkbox to enable the sudden rise detection.
 - **Sensitivity:** Range [1-100], the smaller the value the more severe the sound change will trigger the detection.
 - **Sound Intensity Threshold:** Range [1-100], it can filter the sound in the environment, the louder the environment sound, the higher the value should be. You can adjust it according to the actual environment.
4. Check the **Sudden Decrease of Sound Intensity Detection** checkbox to enable the sudden drop detection.
 - **Sensitivity:** Range [1-100], the smaller the value the more severe the sound change will trigger the detection.
5. Click **Arming Schedule** tab to enter the arming schedule setting interface. The time schedule configuration is the same as the settings of the arming schedule for motion

detection. Refer to *step 4* in **Section 5.2.1 Configuring Motion Detection** for details.

- Click  tab to select the linkage method taken for the audio input exception. Send Email, Notify Surveillance Center, Trigger Alarm Output and Trigger Recording are selectable. Refer to *step 5* in **Section 5.2.1 Configuring Motion Detection** for details.
- Click  to save the settings.

5.3.2 Configuring Face Detection

Purpose:

After the face detection is enabled, a face appears in the surveillance area. It will be detected and certain actions may be triggered by the detection.

Steps:

- Enter the Face Detection interface:
Configuration > Event > Smart Event > Face Detection
- Check the **Enable Face Detection** checkbox.
- (Optional) You can check the **Enable Dynamic Analysis for Face Detection** checkbox if you want the detected face get marked with rectangle in the live view.

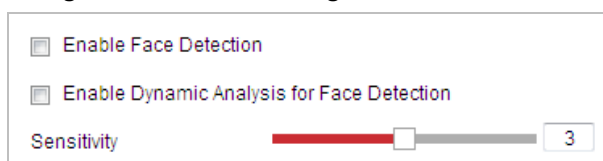
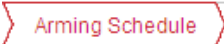




Figure 5-21 Configuring Face Detection

- Configure the sensitivity for face detection.
Sensitivity: Range [1-5]. The value of the sensitivity defines the size of the object which can trigger the alarm, when the sensitivity is high, a very small object can trigger the alarm.
- Click  tab to enter the arming schedule setting interface. The time schedule configuration is the same as the settings of the arming schedule for motion detection. Refer to *step 4* in **Section 5.2.1 Configuring Motion Detection** for details.
- Click  tab to select the linkage method taken for the video loss alarm. Send Email, Notify Surveillance Center, Upload to FTP/Memory/NAS, Trigger Alarm Output and Trigger Recording are selectable. Refer to *step 5* in **Section 5.2.1 Configuring Motion Detection** for details.
- Click  to save the settings.

5.3.3 Configuring Intrusion Detection

Intrusion detection can set an area in the surveillance scene and once the area is entered, a set of alarm action is triggered.

Steps:

- Enter the Intrusion Detection interface:
Configuration > Events > Smart Event > Intrusion Detection
- Check the **Enable** checkbox.

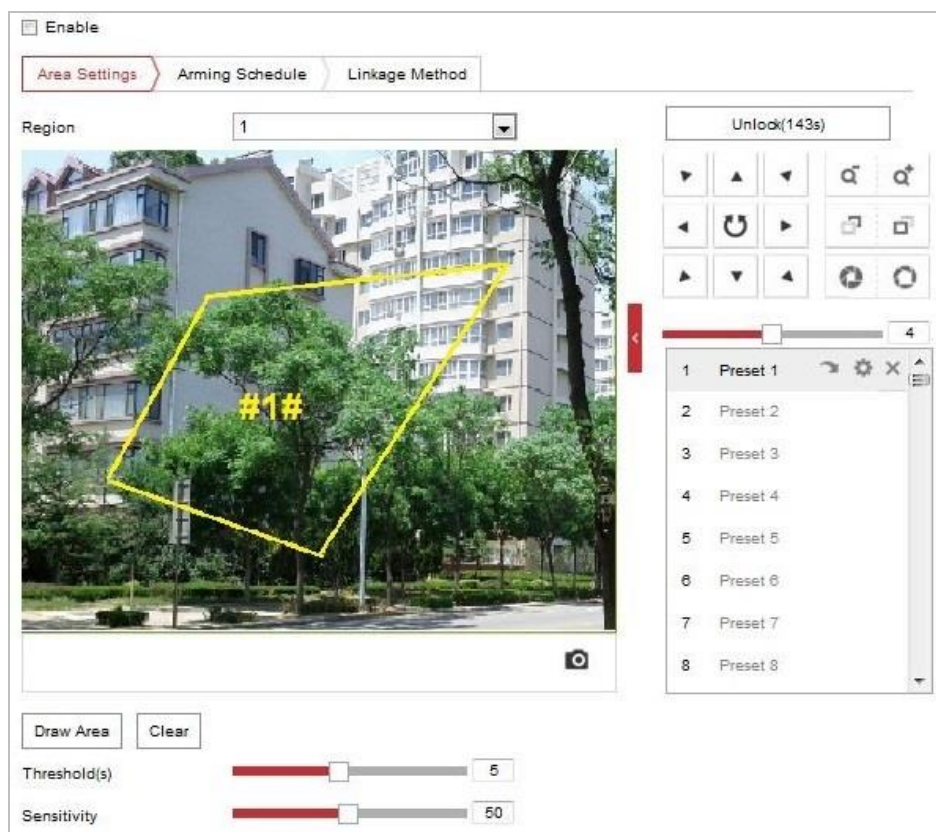


Figure 5-22 Configuring Intrusion Area

- The event triggered and park action related PTZ movement will be locked for 180 seconds after you enter the intrusion detection interface. Optionally, you can click the button to manually activate the movement, or lock the movement when the button turns to by clicking it.

- Draw area.

- (1) Select the Region No.in dropdown list.
- (2) Click to draw a rectangle on the image as a defense region.
- (3) Click on the image to specify a corner of the rectangle, and right-click the mouse after four corners are configured.

Note:

Up to four areas are supported. You can click to clear the areas you drawn.

- Configure the parameters for each defense region separately.

- **Threshold (s):** Range [0-10], the threshold for the time of the object loitering in the region.

If you set the value as 0, alarm is triggered immediately after the object entering the region.

- **Sensitivity:** Range [1-100]. The value of the sensitivity defines the size of the object which can trigger the alarm, when the sensitivity is high, a very small object can trigger the alarm.

- Click tab to enter the arming schedule setting interface. The time schedule configuration is the same as the settings of the arming schedule for motion detection. Refer to *step 4* in **Section 5.2.1 Configuring Motion Detection** for details.

- Click tab to select the linkage method taken for intrusion detection. Send

Email, Notify Surveillance Center, Upload to FTP/Memory Card/NAS, Smart Tracking, Trigger Alarm Output and Trigger Recording are selectable. Refer to *step 5* in **Section 5.2.1**

Configuring Motion Detection for details.

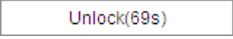
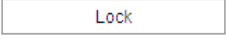
- Click  to save the settings.

5.3.4 Configuring Line Crossing Detection

The virtual plane detection can be adopted for the intrusion detection. Once the virtual plane is detected being traversed according to the configured direction, a set of alarm action is triggered.

Steps:

- Enter the Line Crossing Detection interface:
Configuration > Event > Smart Event > Line Crossing Detection
- Check the **Enable** checkbox to enable the line crossing detection function.
- Select the Line in dropdown list to configure.
- The event triggered and park action related PTZ movement will be locked for 180 seconds after you enter the line crossing detection interface. Optionally, you can click the

 button to manually activate the movement, or lock the movement when the button turns to  by clicking it.

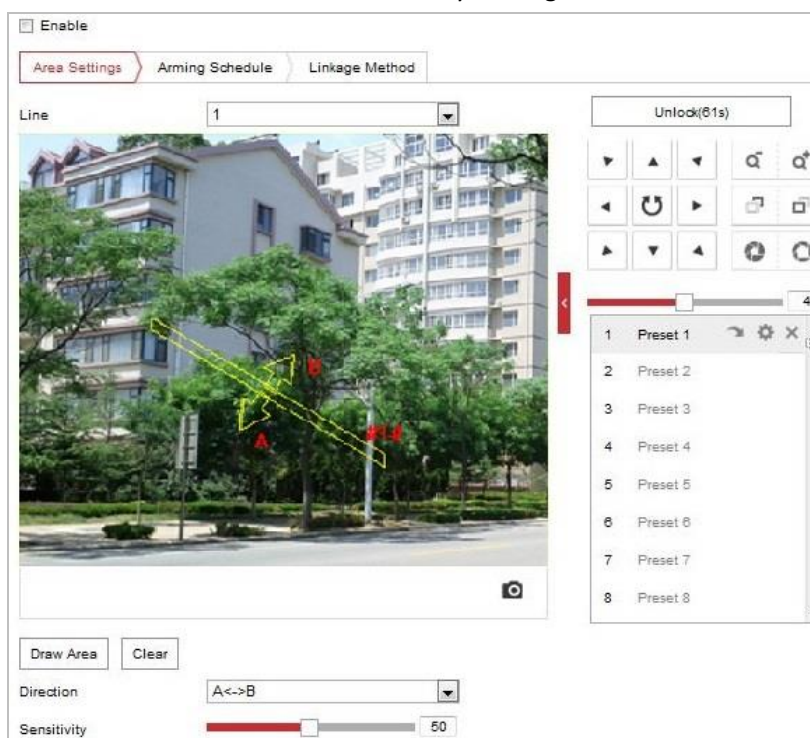



Figure 5-23 Configuring Line

- Draw area.

- Click  to draw a line on the image.

- Click the line to switch to the editing mode.

Drag an end to the desired place to adjust the length and angle of the line. And drag the line to adjust the location.

Note:

Up to four lines are supported.

6. Configure the parameters for each defense region separately.
 - **Direction:** Select the detection direction in the dropdown list, there are A->B, A->B and B->A selectable.
 - **Sensitivity:** Range [1-100]. The value of the sensitivity defines the size of the object which can trigger the alarm, when the sensitivity is high, a very small object can trigger the alarm.
7. Click **Arming Schedule** tab to enter the arming schedule setting interface. The time schedule configuration is the same as the settings of the arming schedule for motion detection. Refer to *step 4* in **Section 5.2.1 Configuring Motion Detection** for details.
8. Click **Linkage Method** tab to select the linkage method taken for the line crossing detection. Send Email, Notify Surveillance Center, Upload to FTP/Memory Card/NAS, Smart Tracking, Trigger Alarm Output and Trigger Recording are selectable. Refer to *step 5* in **Section 5.2.1 Configuring Motion Detection** for details.
9. Click **Save** to save the settings.

5.3.5 Region Entrance Detection

Purpose:

Region entrance detection function detects people, vehicle or other objects which enter a pre-defined virtual region from the outside place, and some certain actions can be taken when the alarm is triggered.

Steps:

1. Enter the Region Entrance Detection settings interface:
Configuration > Event > Smart Event > Region Entrance Detection
2. Check the **Enable** checkbox to enable the Region Entrance Detection function.

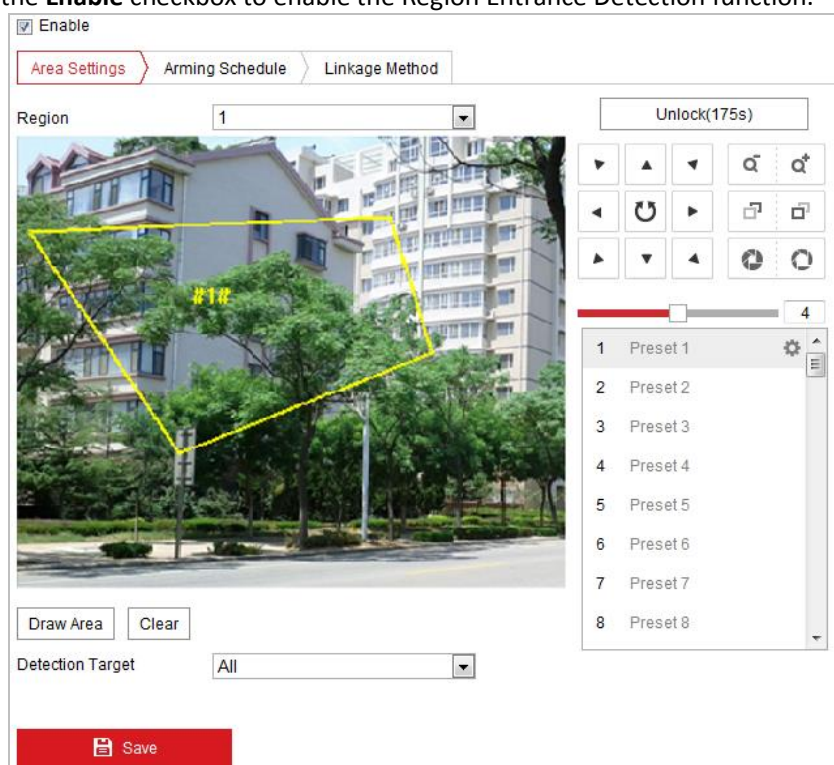


Figure 5-24 Configuring Region Entrance Detection

3. Select the region from the dropdown list for detection settings.
4. Click the **Draw Area** button to start the region drawing.
5. Click on the live video to specify the four vertexes of the detection region, and right click to complete drawing.
Repeat the step to configure other regions. Up to 4 regions can be set. You can click the **Clear** button to clear all pre-defined regions.
6. Set the detection target for the region entrance detection. You can select human, vehicle, or all (human & vehicle) as the detection target from the dropdown list. If Human is selected, only human beings will be identified as detection objects and as well as Vehicle.
7. Click **Arming Schedule** tab to enter the arming schedule setting interface. The time schedule configuration is the same as the settings of the arming schedule for motion detection. Refer to *step 4* in **Section 5.2.1 Configuring Motion Detection** for details.
8. Click **Linkage Method** tab to select the linkage method taken for the video loss alarm. Send Email, Notify Surveillance Center, Upload to FTP/Memory Card/NAS, Smart Tracking, Trigger Alarm Output and Trigger Recording are selectable. Refer to *step 5* in **Section 5.2.1 Configuring Motion Detection** for details.
9. Click **Save** to save the settings

5.3.6 Region Exiting Detection

Purpose:

Region exiting detection function detects people, vehicle or other objects which exit from a pre-defined virtual region, and some certain actions can be taken when the alarm is triggered.

Steps:

1. Enter the Region Exiting Detection settings interface:
Configuration > Event > Smart Event > Region Exiting Detection
2. Check the **Enable** checkbox to enable the Region Exiting Detection function.

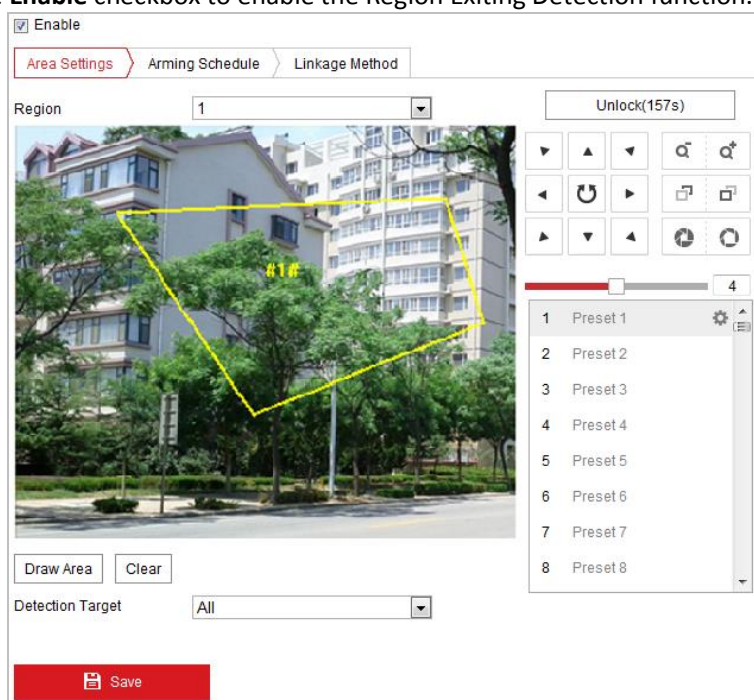
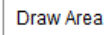

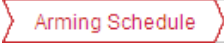






Figure 5-25 Configuring Region Exiting Detection

3. Select the region from the dropdown list for detection settings.
4. Click the  button to start the region drawing.
5. Click on the live video to specify the four vertexes of the detection region, and right click to complete drawing.
Repeat the step to configure other regions. Up to 4 regions can be set. You can click the  button to clear all pre-defined regions.
6. Set the detection target for the region entrance detection. You can select human, vehicle, or all (human & vehicle) as the detection target from the dropdown list. If Human is selected, only human beings will be identified as detection objects and as well as Vehicle.
7. Click  tab to enter the arming schedule setting interface. The time schedule configuration is the same as the settings of the arming schedule for motion detection. Refer to *step 4* in **Section 5.2.1 Configuring Motion Detection** for details.
8. Click  tab to select the linkage method taken for the video loss alarm. Send Email, Notify Surveillance Center, Upload to FTP/Memory Card/NAS, Smart Tracking, Trigger Alarm Output and Trigger Recording are selectable. Refer to *step 5* in **Section 5.2.1 Configuring Motion Detection** for details.
9. Click  button to save the settings

5.4 PTZ Configuration

Notes:

- On the event configuration page, click  to show the PTZ control panel or click  to hide it.
- Click the direction buttons to control the pan/tilt movements.
- Click the zoom/iris/focus buttons to realize lens control.
- The functions depending on the speed dome models.

5.4.1 Configuring Basic PTZ Parameters

Purpose:

You can configure the basic PTZ parameters, including proportional pan, preset freezing, preset speed, etc.

1. Enter the Basic Settings interface:
Configuration > PTZ > Basic Settings

The screenshot displays the 'Basic PTZ Configuration Interface' with the following settings:


- Basic Parameter:**
 - Enable Proportional Pan
 - Enable Preset Freezing
 - Preset Speed: 4
 - Manual Control Speed: Auto
 - Keyboard Control Speed: Medium
 - Auto Scan Speed: 28
 - Max. Tilt-angle: (0 - 90)Degree
 - Zooming Speed: 3
- PTZ OSD:**
 - Zoom Status: 2s
 - PT Status: 2s
 - Position Display Format: PT
 - Preset Status: 2s
- Power Off Memory:**
 - Set Resume Time Point: 30s

A red 'Save' button is located at the bottom of the configuration panel.

Figure 5-26 Basic PTZ Configuration Interface

2. Configure the following settings:

- **Basic Parameters:** Enable/disable proportional pan and preset freezing, set the preset speed, manual control speed, keyboard control speed, auto scan speed, Max. tilt-angle and zooming speed.
 - ◆ **Proportional Pan:** If you enable this function, the pan/tilt speeds change according to the amount of zoom. When there is a large amount of zoom, the pan/tilt speed will be slower for keeping the image from moving too fast on the live view image.
 - ◆ **Preset Freezing:** This function enables the live view to switch directly from one scene defined by a preset to another, without showing the middle areas between these two, to ensure the surveillance efficiency. It can also reduce the use of bandwidth in a digital network system.
- Note:**
Preset freezing function is invalid when you calling a pattern.
- ◆ **Preset Speed:** You can set the speed of a defined preset from 1 to 8.
- ◆ **Manual Control Speed:** The speed dome provides 5 control speed modes: Compatible, Pedestrian, Non-motor Vehicle, Motor Vehicle and Auto. Select it from the dropdown list.
- ◆ **Keyboard Control Speed:** Define the speed of PTZ control by a keyboard as Low, Medium or High.
- ◆ **Auto Scan Speed:** The scan speed can be set from level 1 to 40.
- ◆ **Max. Tilt-angle:** Set the tilt-angle of the speed dome from the dropdown list.
- ◆ **Zooming Speed:** The speed of zooming is adjustable.
- **PTZ OSD:** Set the on-screen display duration of the PTZ status.

- ◆ **Zoom Status:** Set the OSD duration of zooming status as 2 seconds, 5 seconds, 10 seconds, Normally Close or Normally Open.
 - ◆ **PT Status:** Set the azimuth angle display duration while panning and tilting as 2 seconds, 5 seconds, 10 seconds, Normally Close or Normally Open.
 - ◆ **Position Display Format:** PT and Direction are selectable for position display format.
 - ◆ **Preset Status:** Set the preset name display duration while calling the preset as 2 seconds, 5 seconds, 10 seconds, Normally Close or Normally Open.
 - **Power-off Memory:** The speed dome can resume its previous PTZ status or actions after it restarted from a power-off. You can set the time point of which the speed dome resumes its PTZ status. You can set it to resume the status of 30 seconds, 60 seconds, 300 seconds or 600 seconds before power-off.
3. Click  to save the settings.

5.4.2 Configuring PTZ Limits

Purpose:

The speed dome can be programmed to move within the configurable PTZ limits (left/right, up/down).

Steps:

1. Enter the Limit configuration interface:

Configuration > PTZ > Limit

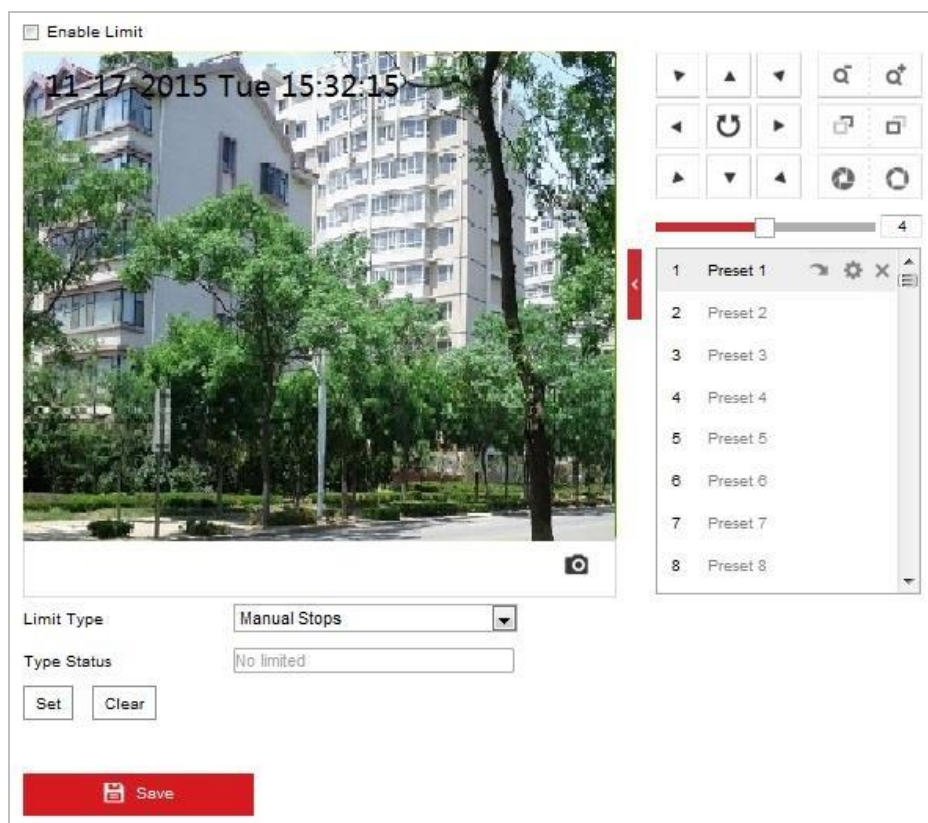



Figure 5-27 Configure the PTZ Limit

2. Click the **Enable Limit** checkbox and choose the limit type as Manual Stops or Scan Stops.
 - **Manual Stops:**
When manual limit stops are set, you can operate the PTZ control panel manually only in the limited surveillance area.
 - **Scan Stops:**
When scan limit stops are set, the random scan, frame scan, auto scan, tilt scan, panorama scan is performed only in the limited surveillance area.
- Note:**
Manual Stops of Limit Type is prior to Scan Stops. When you set these two limit types at the same time, **Manual Stops** is valid and **Scan Stops** is invalid.
3. Click the PTZ control buttons to find the left/right/up/down limit stops; you can also call the defined presets and set them as the limits of the speed dome.
 4. Click **Set** to save the limits or click **Clear** to clear the limits.
 5. Click  to save the settings.

5.4.3 Configuring Initial Position

Purpose:

The initial position is the origin of PTZ coordinates. It can be the factory default initial position. You can also customize the initial position according to your own demand.

- **Customize an Initial Position:**

Steps:

1. Enter the Initial Position configuration interface:



Configuration > PTZ > Initial Position



Figure 5-28 PTZ Configuration

2. Click the PTZ control buttons to find a position as the initial position of the speed dome; you can also call a defined preset and set it as the initial position of the speed dome.
3. Click **Set** to save the position.

- **Call/delete an Initial Position:**

You can click  to call the initial position. You can click  to delete the initial position and restore the factory default initial position.

5.4.4 Configuring Park Actions

Purpose:

This feature allows the speed dome to start a predefined park action (scan, preset, pattern and etc.) automatically after a period of inactivity (park time).

Notes:

- **Scheduled Tasks** function is prior to **Park Action** function. When these two functions are set at the same time, only the **Scheduled Tasks** function takes effect.
- This function varies depending on the speed dome models.

Steps:

1. Enter the Park Action settings interface:

Configuration > PTZ > Park Action



Figure 5-29 Set the Park Action

2. Check the **Enable Park Action** checkbox.
3. Set the **Park Time** as the inactivity time of the speed dome before it starts the park actions.
4. Choose **Action Type** the from the dropdown list.

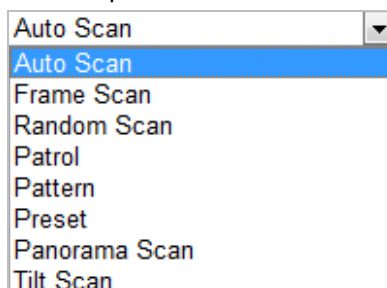


Figure 5-30 Action Types

5. Click  to save the settings.

5.4.5 Configuring Privacy Mask

Purpose:

Privacy mask enables you to cover certain areas on the live video to prevent certain spots in the surveillance area from being live viewed and recorded.

Steps:

1. Enter the Privacy Mask settings interface:

Configuration > PTZ > Privacy Mask

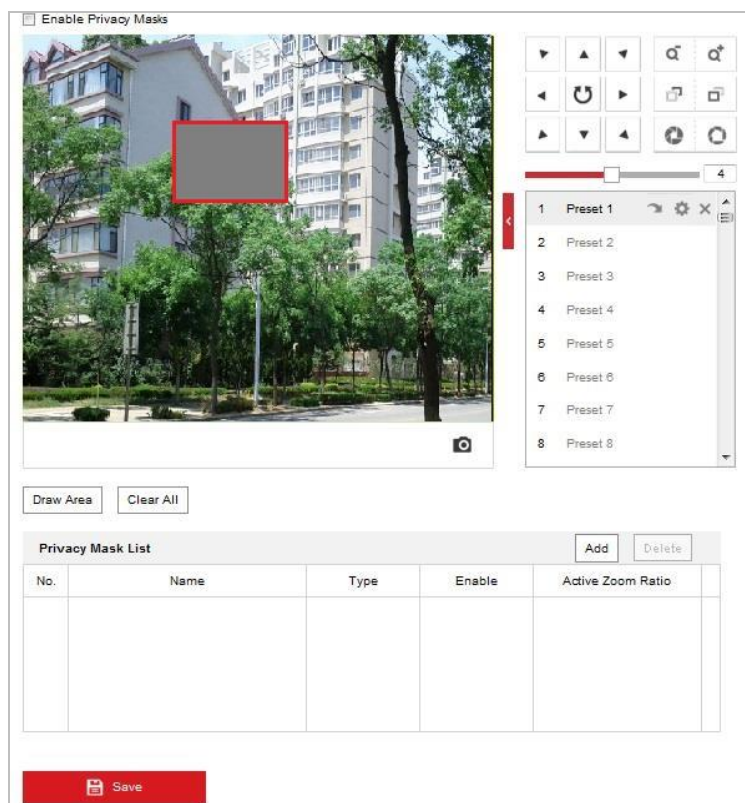


Figure 5-31 Draw the Privacy Mask

2. Click the PTZ control buttons to find the area you want to set the privacy mask.
3. Click **Draw Area**, and drag the mouse in the live video window to draw the area.
4. You can drag the corners of the red rectangle area to draw a polygon mask.
5. Click **Stop Drawing** to finish drawing or click **Clear All** to clear all of the areas you set without saving them.
6. Click **Add** to save the privacy mask, and it will be listed in the **Privacy Mask List** area; set the value of **Active Zoom Ratio** on your demand, and then the mask will only appear when the zoom ratio is greater than the predefined value.

| Privacy Mask List | | | | | Add | Delete |
|-------------------|----------------|------|--------|-------------------|-----|--------|
| No. | Name | Type | Enable | Active Zoom Ratio | | |
| 1 | Privacy Mask 1 | gray | Yes | 1 | | |
| | | | | | | |

Figure 5-32 Privacy Mask List

7. Check the **Enable Privacy Mask** checkbox to enable this function.

Note:

You are allowed to draw up to 8 areas for the speed dome.

5.4.6 Configuring Scheduled Tasks

Purpose:

You can configure the network speed dome to perform a certain action automatically in a user-defined time period.

Steps:

1. Enter the Scheduled Task settings interface:

Configuration > PTZ > Scheduled Tasks

Enable Scheduled Task

OFF

Mon: 0 2 4 6 8 10 12 14 16 18 20 22 24

Tue: 0 2 4 6 8 10 12 14 16 18 20 22 24

Wed: 0 2 4 6 8 10 12 14 16 18 20 22 24

Thu: 0 2 4 6 8 10 12 14 16 18 20 22 24

Fri: 0 2 4 6 8 10 12 14 16 18 20 22 24

Sat: 0 2 4 6 8 10 12 14 16 18 20 22 24

Sun: 0 2 4 6 8 10 12 14 16 18 20 22 24

Park Time: s

- OFF
- Auto Scan
- Frame Scan
- Random Scan
- Patrol
- Pattern
- Preset
- Panorama Scan
- Tilt Scan
- Dome Reboot
- Dome Adjust
- Aux Output

Figure 5-33 Configure Scheduled Tasks

2. Check the **Enable Scheduled Task** checkbox.
3. Set the **Park Time**. You can set the park time (a period of inactivity) before the speed dome starts the scheduled tasks.
4. Select the task type from the dropdown list. You can choose scan, preset, pattern and etc.

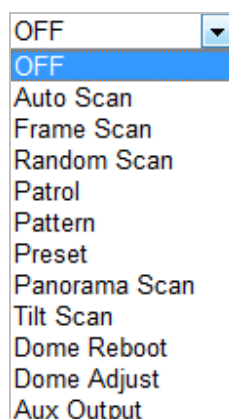



Figure 5-34 Task Types

5. Select the timeline of a certain day, and drag the mouse to set the recording schedule (the start time and end time of the recording task).
6. After you set the scheduled task, you can click  and copy the task to other days (optional).

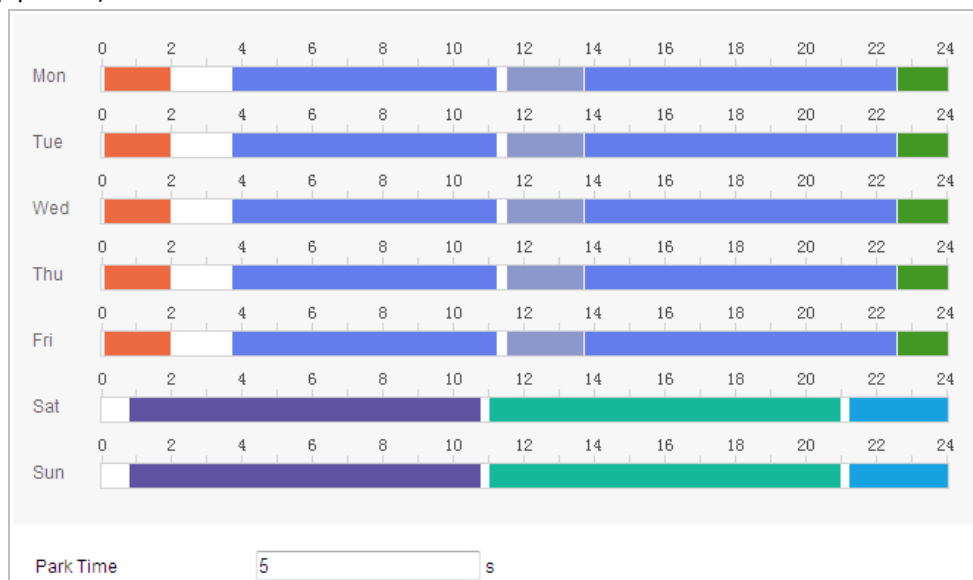


Figure 5-35 Edit the Schedule and Task Type

Note:

The time of each task cannot be overlapped. Up to 10 tasks can be configured for each day.

7. Click  to save the settings.

5.4.7 Clearing PTZ Configurations

Purpose:

You can clear PTZ configurations in this interface, including all presets, patrols, patterns, privacy masks, PTZ limits, scheduled tasks and park actions.

Note:

The function varies depending on the speed dome models.

Steps:

1. Enter the Clearing Configuration interface:
Configuration > PTZ > Clear Config
2. Check the checkbox of the items you want to clear.

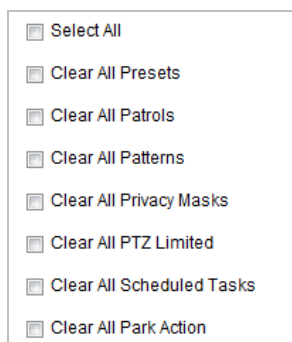


Figure 5-36 Clearing Configuration

3. Click  to clear the settings.

5.4.8 Configuring Smart Tracking

Purpose:

The speed dome tracks the moving objects automatically after you configure this function.

Steps:

1. Enter the Smart Tracking settings interface:
Configuration > PTZ > Smart Tracking

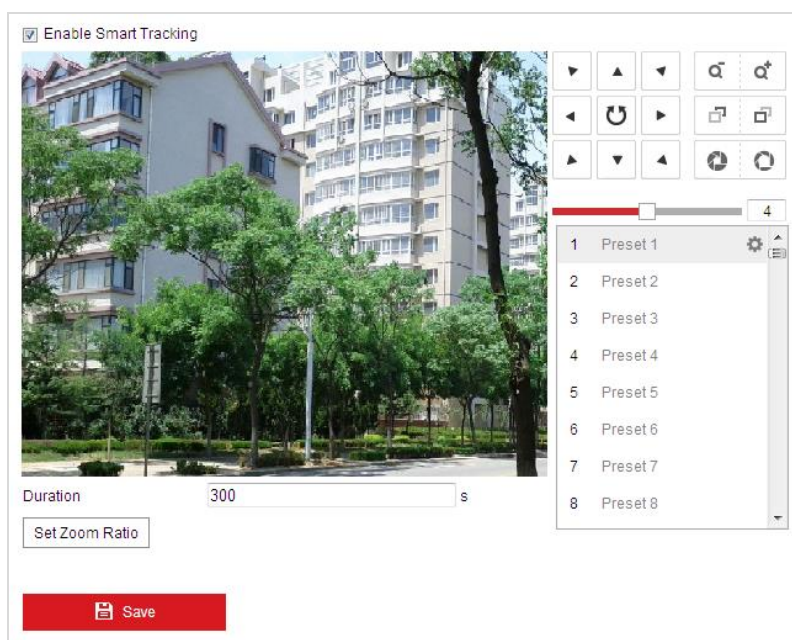


Figure 5-37 Configure Smart Tracking

2. Check the **Enable Smart Tracking** check box to enable smart tracking function.
3. Click the PTZ buttons to select an object.

4. Click to set the current zoom ratio as the tracking zoom ratio.
5. Set the tracking duration. The speed dome stops tracking when the duration time is up. The duration ranges from 0 to 300 seconds.

Notes:

- Setting the duration to 0 means that there' no duration when speed dome tracks.
- Not all the speed dome models support this function. Take the browser interface of the actual product as standard.

5.4.9 Prioritize PTZ

Purpose:

The camera can be controlled by network and RS-485 signals. You can set the control priority of these two signals.

Steps:

1. Enter the Prioritize PTZ interface:

Configuration > PTZ > Prioritize PTZ

| | |
|----------------|--------------------------------------|
| Prioritize PTZ | <input type="text" value="Network"/> |
| Delay | <input type="text" value="10"/> s |

Figure 5-38 Position Settings

2. Select Network or RS-485 from the dropdown list
3. Set the delay time (Range 2-200s).

Note:

The operation of **Operator** is prior to that of **User**. When the **Operator** is controlling the camera, the **User** cannot control it. When the **Operator** finishes, the **User** can control the camera after the **Delay** time. The **Delay** time can be set in Priority PTZ interface as shown follows.

4. Click to save the settings.

Chapter 6 Speed Dome Configuration

6.1 Configuring Network Settings

Note:

The functions vary depending on the speed dome models.

6.1.1 Basic Settings

Configuring TCP/IP Settings

Purpose:

TCP/IP settings must be properly configured before you operate the speed dome over network. IPv4 and IPv6 are both supported.

Steps:

1. Enter TCP/IP settings interface:

Configuration > Network > Basic Settings > TCP/IP

The screenshot displays the TCP/IP configuration page with the following settings:

- TCP/IP** (selected tab), DDNS, PPPoE, Port, NAT
- NIC Type: Auto
- DHCP
- IPv4 Address: 10.65.70.179 (with Test button)
- IPv4 Subnet Mask: 255.255.255.0
- IPv4 Default Gateway: 10.65.70.254
- IPv6 Mode: Route Advertisement (with View Route Advertisement button)
- IPv6 Address: [empty]
- IPv6 Subnet Mask: [empty]
- IPv6 Default Gateway: ::
- Mac Address: bc:ad:28:b4:0c:a2
- MTU: 1500
- Multicast Address: [empty]
- Enable Multicast Discovery
- DNS Server** section:
 - Preferred DNS Server: 8.8.8.8
 - Alternate DNS Server: [empty]

Figure 6-1 TCP/IP Settings

2. Select the NIC type from the dropdown list.
3. Configure the NIC settings, including the **IPv4 (IPv6) Address**, **IPv4 (IPv6) Subnet Mask**, **IPv4 (IPv6) Default Gateway** and **IPv6 Mode**.

Notes:

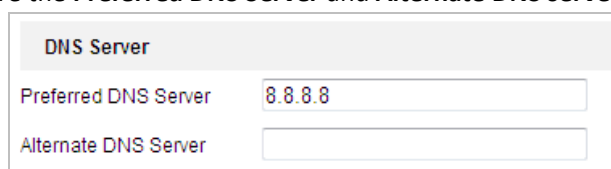
- If the DHCP server is available, you can check the **DHCP** checkbox to automatically

- obtain an IP address and other network settings from that server.
 - The router must support the route advertisement function if you select Route Advertisement as the IPv6 mode.
 - You can click **Test** to make sure that the IP address is valid.
4. Set the MTU. The valid value range of Maximum Transmission Unit (MTU) is 500 ~ 1500. The default value is 1500.
 5. Set the multicast address.

Note:

The Multicast sends a stream to the multicast group address and allows multiple clients to acquire the stream at the same time by requesting a copy from the multicast group address. Before utilizing this function, you have to enable the Multicast function of your router and configure the gateway of the network speed dome.

6. If the DNS server settings are required for some applications (e.g., sending email), you should properly configure the **Preferred DNS Server** and **Alternate DNS server**.



| DNS Server | |
|----------------------|---------|
| Preferred DNS Server | 8.8.8.8 |
| Alternate DNS Server | |

Figure 6-2 DNS Server Settings

7. Click  to save the settings.

Configuring DDNS Settings

Purpose:

If your speed dome is set to use PPPoE as its default network connection, you can use the Dynamic DNS (DDNS) for network access.

Before you start:

Registration on the DDNS server is required before configuring the DDNS settings of the speed dome.




- *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.*
- *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*

Steps:

1. Enter the DDNS settings interface:
Configuration > Network > Basic Settings > DDNS
2. Check the **Enable DDNS** checkbox to enable this feature.
3. Select **DDNS Type**. Two DDNS types are selectable: NO-IP and DynDNS.

- **DynDNS:**

Steps:

- (1) Input **Server Address** of DynDNS (e.g. members.dyndns.org).
- (2) In the **Domain** text field, input the domain name obtained from the DynDNS website.
- (3) Input the **Port** of DynDNS server.
- (4) Input the **User Name** and **Password** registered on the DynDNS website.
- (5) Click  to save the settings.

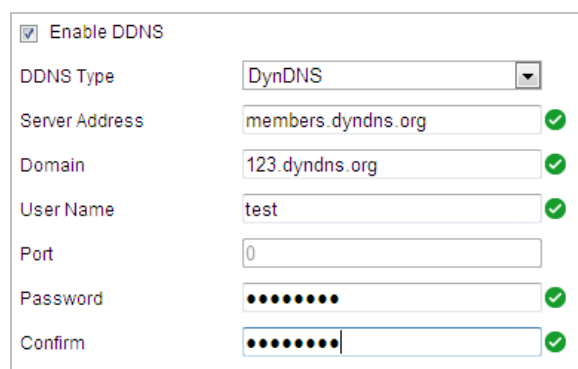



Figure 6-3 DynDNS Settings

- **NO-IP:**

Steps:

- (1) Input **Server Address** of NO-IP.
- (2) In the **Domain** text field, input the domain name obtained from the NO-IP website.
- (3) Input the **Port** of NO-IP server.
- (4) Input the **User Name** and **Password** registered on the NO-IP website.
- (5) Click  to save the settings.

Configuring PPPoE Settings

Purpose:

If you have no router but only a modem, you can use Point-to-Point Protocol over Ethernet (PPPoE) function.

Steps:

1. Enter the PPPoE settings interface:
Configuration > Network > Basic Settings > PPPoE




Figure 6-4 PPPoE Settings

2. Check the **Enable PPPoE** checkbox to enable this feature.

- Input **User Name**, **Password**, and **Confirm** password for PPPoE access.

Note:

The User Name and Password should be assigned by your ISP.



- For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.
- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

- Click  Save to save and exit the interface.

Configuring Port Settings

Purpose:

If there is a router and you want to access the speed dome through Wide Area Network (WAN), you need to forward the three ports for the speed dome.

Steps:

- Enter the Port settings interface:

Configuration > Network > Basic Settings > Port

| | |
|-------------|-----------------------------------|
| HTTP Port | <input type="text" value="80"/> |
| RTSP Port | <input type="text" value="554"/> |
| HTTPS Port | <input type="text" value="443"/> |
| Server Port | <input type="text" value="8000"/> |

Figure 6-5 Port Settings

- Set the HTTP port, RTSP port and port of the speed dome.

HTTP Port: The default port number is 80.

RTSP Port: The default port number is 554.

HTTPS Port: The default port number is 443.

Server Port: The default port number is 8000.

- Click  Save to save the settings.

Configuring NAT (Network Address Translation) Settings

Purpose:

Universal Plug and Play (UPnP™) is a networking architecture that provides compatibility among networking equipment, software and other hardware devices. The UPnP protocol allows devices to connect seamlessly and to simplify the implementation of networks in the house and corporate environments.

With the function enabled, you don't need to configure the port mapping for each port, and the camera is connected to the Wide Area Network via the router.

Steps:

1. Enter the UPnP™ settings interface.

Configuration > Network > Basic Settings > NAT

2. Check the checkbox to enable the UPnP™ function.

Note:

You can edit the Nickname of the speed dome. This name can be detected by corresponding device, such as a router.

3. Set the port mapping mode:

To port mapping with the default port numbers:

Choose **Port Mapping Mode**

To port mapping with the customized port numbers:

Choose **Port Mapping Mode**

And you can customize the value of the port number by yourself.

The screenshot shows the UPnP settings interface. At the top, there is a checkbox labeled "Enable UPnP™" which is checked. Below it is a "Nickname" field with the value "490340679" and a green checkmark. Underneath is a "Port Mapping Mode" dropdown menu set to "Auto". Below the dropdown is a table with the following data:

| Port Type | External Port | External IP Address | Internal Port | Status |
|-------------|---------------|---------------------|---------------|--------|
| HTTP | 80 | 0.0.0.0 | 80 | Valid |
| RTSP | 554 | 0.0.0.0 | 554 | Valid |
| Server Port | 8000 | 0.0.0.0 | 8000 | Valid |

Figure 6-6 Port Mapping Mode

4. Click  to save the settings.

6.1.2 Advanced Settings

Configuring SNMP Settings

Purpose:

You can use SNMP to get speed dome status and parameters related information.

Before you start:

Before setting the SNMP, use the SNMP software and manage to receive the speed dome information via SNMP port. By setting the Trap Address, the speed dome can send the alarm event and exception messages to the surveillance center.

Note:

The SNMP version you select should be the same as that of the SNMP software.

Steps:

1. Enter the SNMP settings interface:

Configuration > Network > Advanced Settings > SNMP

SNMP v1/v2

Enable SNMPv1

Enable SNMP v2c

Read SNMP Community: public

Write SNMP Community: private

Trap Address:

Trap Port: 162

Trap Community: public

SNMP v3

Enable SNMPv3

Read UserName:

Security Level: no auth, no priv

Authentication Algorithm: MD5 SHA

Authentication Password:

Private-key Algorithm: DES AES

Private-key password:

Write UserName:

Security Level: no auth, no priv

Authentication Algorithm: MD5 SHA

Authentication Password:

Private-key Algorithm: DES AES

Private-key password:

SNMP Other Settings


SNMP Port: 161

Figure 6-7 SNMP Settings

2. Check the corresponding version checkbox (**Enable SNMP v1**, **Enable SNMP v2c**, **Enable SNMP v3**) to enable the feature.
3. Configure the SNMP settings.

Note:

The configuration of the SNMP software should be the same as the settings you configure here.

4. Click  to save and finish the settings.

Configuring FTP Settings

Purpose:

You can set a FTP server and configure the following parameters for uploading captured pictures.

Steps:

1. Enter the FTP settings interface:
Configuration > Network > Advanced Settings > FTP

| | |
|-------------------------|---|
| Server Address | <input type="text" value="0.0.0.0"/> |
| Port | <input type="text" value="21"/> |
| User Name | <input type="text"/> <input type="checkbox"/> Anonymous |
| Password | <input type="password"/> |
| Confirm | <input type="password"/> |
| Directory Structure | <input type="text" value="Save in the root directory"/> ▼ |
| Picture Filing Interval | <input type="text" value="OFF"/> ▼ Day(s) |
| Picture Name | <input type="text" value="Default"/> ▼ |
| | <input type="checkbox"/> Upload Picture |
| | <input type="button" value="Test"/> |

Figure 6-8 FTP Settings

- Configure the FTP settings, including server address, port, user name, password, directory, and upload type.

Note:

The server address supports both the domain name and IP address formats.



- For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.
- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.
- Setting the directory in FTP server for saving files:**

In the **Directory Structure** field, you can select the root directory, parent directory and child directory.

- ◆ **Root directory:** The files will be saved in the root of FTP server.
- ◆ **Parent directory:** The files will be saved in a folder in FTP server. The name of folder can be defined as shown in following Figure 6-9.

| | |
|-----------------------|---|
| Use Device Name | ▼ |
| Use Device Name | |
| Use Device Number | |
| Use Device IP address | |
| Custom | |

Figure 6-9 Parent Directory

- ◆ **Child directory:** It is a sub-folder which can be created in the parent directory. The files will be saved in a sub-folder in FTP server. The name of folder can be defined as shown in following Figure 6-10.

| | |
|-------------------|---|
| Use Camera Name | ▼ |
| Use Camera Name | |
| Use Camera Number | |
| Custom | |

Figure 6-10 Child Directory

- **Upload type:**

Enable uploading the captured picture to the FTP server.

Note:

You can click **Test** to confirm the configuration.

3. Click  to save the settings.

Note:

If you want to upload the captured pictures to FTP server, you also have to enable the continuous snapshot or event-triggered snapshot in **Snapshot** interface.

Configuring Email Settings

Purpose:

The system can be configured to send an Email notification to all designated receivers if an alarm event is detected, e.g., motion detection event, video loss, video tampering, etc.

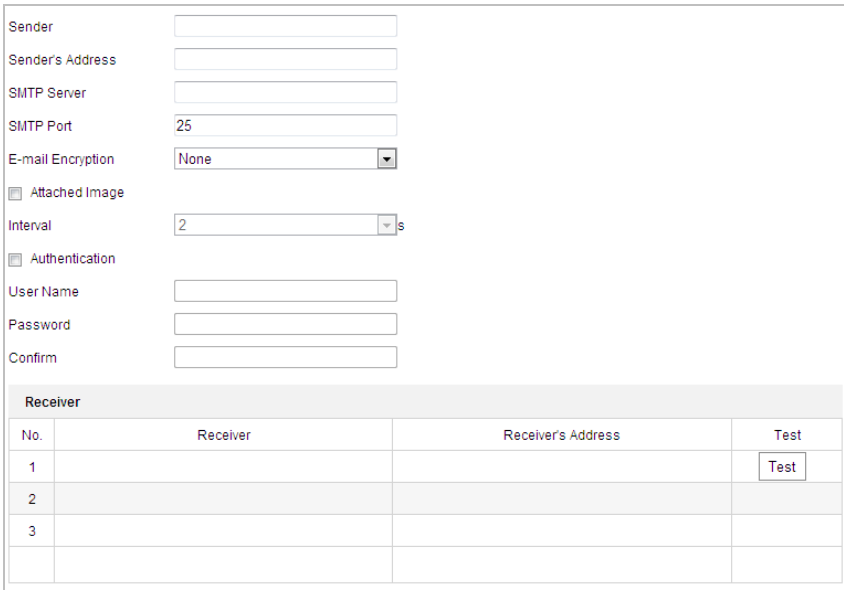
Before you start:

Configure the DNS Server settings under **Configuration > Network > Basic Settings > TCP/IP** before using the Email function.

Steps:

1. Enter the Email settings interface:

Configuration > Network > Advanced Settings > Email



| Sender | <input type="text"/> | | |
|---|----------------------|--------------------|-------------------------------------|
| Sender's Address | <input type="text"/> | | |
| SMTP Server | <input type="text"/> | | |
| SMTP Port | 25 | | |
| E-mail Encryption | None | | |
| <input type="checkbox"/> Attached Image | | | |
| Interval | 2 s | | |
| <input type="checkbox"/> Authentication | | | |
| User Name | <input type="text"/> | | |
| Password | <input type="text"/> | | |
| Confirm | <input type="text"/> | | |
| Receiver | | | |
| No. | Receiver | Receiver's Address | Test |
| 1 | | | <input type="button" value="Test"/> |
| 2 | | | |
| 3 | | | |
| | | | |

Figure 6-11 Email Settings

2. Configure the following settings:

Sender: The name of the email sender.

Sender's Address: The email address of the sender.

SMTP Server: The SMTP Server IP address or host name (e.g., smtp.263xmail.com).

SMTP Port: The SMTP port. The default TCP/IP port for SMTP is 25.

E-mail encryption: None, SSL, and TLS are selectable. When you select SSL or TLS and disable STARTTLS, e-mails will be sent after encrypted by SSL or TLS. The SMTP port should be set as

465 for this encryption method. When you select SSL or TLS and enable STARTTLS, emails will be sent after encrypted by STARTTLS, and the SMTP port should be set as 25.

Note:

STARTTLS protocol must be supported by the email server for e-mail encryption with STARTTLS. When it is not supported by the email server and the checkbox of Enable STARTTLS is checked, the email will not be encrypted.

Attached Image: Check the **Attached Image** checkbox if you want to send emails with attached alarm images.

Interval: The interval refers to the time between two actions of sending attached pictures.

Authentication (optional): If your email server requires authentication, check this checkbox to use authentication to log in to this server and enter the login user name and password.



- *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.*
- *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*

Receiver: Input the receiver to which the email is sent.

Receiver's Address: The email address of user to be notified. (Optional: click **Test** to make sure that the email server can send email out.)

3. Click  to save the settings.

Configuring Platform Access

Purpose:

Platform access provides you an option to manage the devices via platform.

Steps:

1. Enter the **Platform Access** settings interface.
Configuration > Network > Advanced Settings > Platform Access
2. Check the **Enable** checkbox to enable the function.
3. Select the Platform Access Mode.
4. You can use the default server address. Or you can check the Custom checkbox on the right and input a desired server address.
5. Click **Save** to save the settings.

Configuring HTTPS Settings

Purpose:

HTTPS is consisted by SSL&HTTP. It is used for encryption transmission, identity authentication network protocol which enhances the security of WEB accessing.



- For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.
- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

Steps:

1. Enter the HTTPS settings interface.

Configuration > Network > Advanced Settings > HTTPS

2. Check the **Enable** checkbox to enable the function.
3. Create the self-signed certificate or authorized certificate.

Figure 6-12 Create Certificate

OPTION 1: Create the self-signed certificate

- (1) Select Create Self-signed Certificate.
- (2) Click **Create** to create the following dialog box.

Figure 6-13 Create Self-signed Certificate

- (3) Input the country, host name/IP, validity and other information.
- (4) Click **OK** to save the settings.

OPTION 2: Start the installation when signed certificate is available.

- (1) Select Signed certificate is available, Start the installation directly.
- (2) Click **Browse** to upload the available certificate.

(3) Click **Install** button to install the certificate.

(4) Click **OK** to save the settings.

OPTION 3: Create certificate request first and continue the installation.

(1) Select Create certificate request first and continue the installation.

(2) Click **Create** to create the certificate request, and fulfill the required information.

(3) Download the certificate request and submit it to the trusted certificate authority for signature.

(4) After receiving the signed valid certificate, import the certificate to the device.

(5) Click **OK** to save the settings.

4. There will be the certificate information after you successfully create and install the certificate.

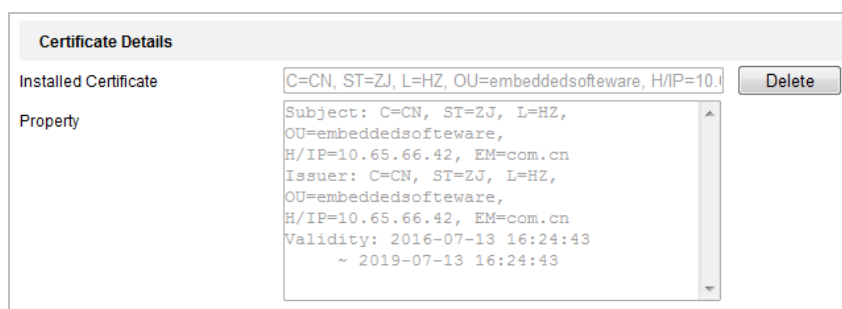


Figure 6-14 Installed Certificate Property

Notes:

- The default port number of HTTPS is 443. The port value ranges from 1 to 65535.
- When the port number is the default number 443, the format of the URL is **https://IP address**, eg., **https://192.168.1.64**.
- When the port number is not the default number 443, the format of the URL is **https://IP address:port number**, eg., **https://192.168.1.64:81**.

Configuring QoS Settings

Purpose:

QoS (Quality of Service) can help solve the network delay and network congestion by configuring the priority of data sending.

Steps:

1. Enter the QoS settings interface:

Configuration > Advanced Configuration > Network > QoS

The screenshot shows the QoS Settings interface with three input fields: "Video/Audio DSCP" with a value of 0, "Event/Alarm DSCP" with a value of 0, and "Management DSCP" with a value of 0.

Figure 6-15 QoS Settings

2. Configure the QoS settings, including video/audio DSCP, event/alarm DSCP and Management DSCP. The valid DSCP value ranges from 0 to 63. The DSCP value is bigger, the priority is higher.

3. Click  to save the settings.

Notes:

- Make sure that you enable the QoS function of your network device (such as a router).
- It will ask for a reboot for the settings to take effect.

Configuring 802.1X Settings**Purpose:**

The speed dome supports IEEE 802.1X standard.

IEEE 802.1X is a port-based network access control. It enhances the security level of the LAN. When devices connect to this network with IEEE 802.1X standard, the authentication is needed. If the authentication fails, the devices don't connect to the network.

The protected LAN with 802.1X standard is shown as follows:

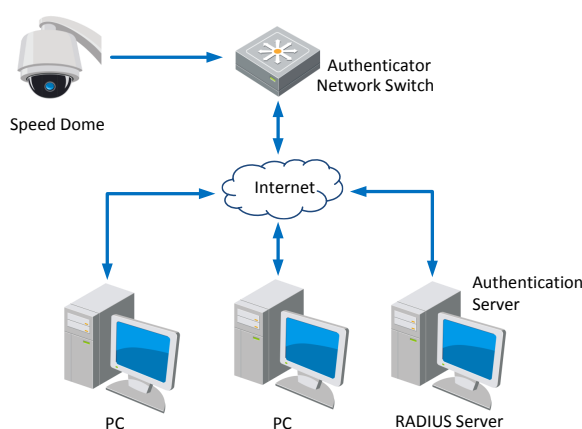


Figure 6-16 Protected LAN

- Before connecting the Network Camera to the protected LAN, apply a digital certificate from a Certificate Authority.
- The network camera requests access to the protected LAN via the authenticator (a switch).
- The switch forwards the identity and password to the authentication server (RADIUS server).
- The switch forwards the certificate of authentication server to the network camera.
- If all the information is validated, the switch allows the network access to the protected network.



- *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.*
- *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*

Steps:

1. Connect the network camera to your PC directly with a network cable.
2. Enter the 802.1X settings interface:

Configuration > Network > Advanced Settings > 802.1X

| | |
|--|---------|
| <input checked="" type="checkbox"/> Enable IEEE 802.1X | |
| Protocol | EAP-MD5 |
| EAPOL version | 1 |
| User Name | |
| Password | |
| Confirm | |

Figure 6-17 802.1X Settings

3. Check the **Enable IEEE 802.1X** checkbox to enable it.
4. Configure the 802.1X settings, including user name and password.

Note:

The EAP-MD5 version must be identical with that of the router or the switch.

5. Click  to finish the settings.

Note:

The camera reboots when you save the settings.

6. After the configuration, connect the camera to the protected network.

Configuring Wi-Fi Settings**Purpose:**

By connecting to the wireless network, you don't need to use cable of any kind for network connection, which is very convenient for the actual surveillance application.

Before you start:

Enter TCP/IP configuration interface: Configuration > Network > Basic Settings > TCP/IP, and select Wlan as the NIC type.

Input the IPv4 Address, IPv4 Subnet Mask, IPv4 Default Gateway, and DNS Server, etc. of the network that you need to access.

Then enter the Wi-Fi configuration interface: Configuration > Network > Basic Settings > TCP/IP, and you can configure Wi-Fi function manually or by WPS.

➤ Manual Wi-Fi Configuration**Steps:**

1. Go to the Wi-Fi AP interface or the Wi-Fi settings interface of router and set the related parameters.
 - Enable the Wi-Fi function and set the Wi-Fi mode to router mode or Wi-Fi AP mode.
 - The protocol can be set as 11b, 11g, 11n, or other auto/mixed mode. Do NOT set it as 11a.
 - Set the SSID, and enable SSID Broadcast, to make sure the device can search the Wi-Fi network.
 - Configure the Encryption Mode and Encryption Type and reboot the device.

Note:

The router Wi-Fi network setting interface varies from routers to routers, set the parameters accordingly.

2. Go to Configuration > Network > Advanced Settings > Wi-Fi, and click Search to list all the Wi-Fi networks.
3. Search the configured Wi-Fi according to the SSID, and click the SSID line to turn it to gray and list the information in Wi-Fi configuration.
4. Select the Network Mode as Manage, and enter the Key.
5. Click **Save** to save the settings.

➤ **Auto Wi-Fi Configuration**

You can automatically set the Wi-Fi for the device via WPS (Wi-Fi Protected Setup) protocol. You can set the Wi-Fi for device via QSS security protocol according to the way you configure the WPS protocol. Three methods of setting WPS configuration are listed below.

PBC Configuration

Note:

The steps are not strictly sorted, and you must perform all operations within 120s, or the operation is invalid.

Steps:

1. In the WPS configuration interface of Wi-Fi tab, check the checkbox of **Enable WPS**, and select **PBC Connection**. Click **Connect**.
2. Press WPS button of your router or Wi-Fi AP, or enter the WPS configuration interface to add the Wi-Fi network.
3. Set the Wi-Fi mode to PBC and click **Connect**. If the signal is valid, the Wi-Fi will be added in 20s.

Add PIN Code of Wi-Fi Connector to Device

Note:

If the router or Wi-Fi AP is new or the PIN Code is not edited, choose this method.

Steps:

1. Enter the configuration interface to get the PIN Code of your router or Wi-Fi connector.
2. In the WPS configuration interface of Wi-Fi tab, check the checkbox of WPS and select **Use router PIN code**.
3. Enter SSID and router PIN Code and click **Connect**. The correct Wi-Fi network parameter will be listed in the Wi-Fi configuration interface in 20s.

Add PIN Code of Device to Wi-Fi Connector

Steps:

1. Click **Generate** in WPS configuration interface to generate a new PIN Code.

Note:

You must perform all operations within 120s, or the operation is invalid.

2. Open configuration interface of Wi-Fi router or Wi-Fi AP, and go to WPS setting interface.
3. Add the new PIN Code and click **Connect**. The correct Wi-Fi network parameter will be listed in the Wi-Fi configuration interface in 20s.

Wi-Fi Configuration Complete

When you complete the Wi-Fi network configuration, you can enter the device management interface of router or Wi-Fi AP to see if the device is in the device list.

- If the device is listed in the Wi-Fi connector device interface, you can access to the device via the wlan address configured.
- If the device is not accessible, check if the Wi-Fi signal is poor, or any disturb or block is

between the device and the Wi-Fi connector.

Note:

This function is only applicable for the cameras with the built-in Wi-Fi module. The device that supports Wi-Fi does not support 802.1X protocol. You can realize the connection control with Wi-Fi encryption configuration.

6.2 Configuring Video and Audio Settings

6.2.1 Configuring Video Settings

Steps:

1. Enter the Video settings interface:

Configuration > Video/Audio > Video

| | |
|------------------|--|
| Stream Type | Main Stream(Normal) |
| Video Type | Video Stream |
| Resolution | 1920*1080P |
| Bitrate Type | Variable |
| Video Quality | Medium |
| Frame Rate | 25 fps |
| Max. Bitrate | 4096 Kbps |
| Video Encoding | H.264 |
| H.264+ | OFF |
| Profile | Main Profile |
| I Frame Interval | 50 |
| SVC | OFF |
| Smoothing | <input type="range" value="50"/> 50 [Clear<->Smooth] |

Figure 6-18 Configure Video Settings

2. Select the **Stream Type** of the speed dome to main stream (normal), sub-stream or third stream. The main stream is usually for recording and live viewing with good bandwidth, and the sub-stream can be used for live viewing when the bandwidth is limited. Refer to the **Section 4.1 Configuring Local Parameters** for switching the main stream and sub-stream for live viewing.
3. You can customize the following parameters for the selected stream.

Note:

The parameters vary depending on the speed dome models.

Video Type:

Select the stream type to video stream, or video & audio composite stream. The audio signal will be recorded only when the **Video Type** is **Video & Audio**.

Resolution:

Select the resolution of the video output.

Bitrate Type:

Select the bitrate type to constant or variable.

Video Quality:

When bitrate type is selected as **Variable**, 6 levels of video quality are selectable.

Frame Rate:

The frame rate is to describe the frequency at which the video stream is updated and it is measured by frames per second (fps). A higher frame rate is advantageous when there is movement in the video stream, as it maintains image quality throughout.

Max. Bitrate:

Set the max. bitrate to 256~16384Kbps. The higher value corresponds to the higher video quality, but the higher bandwidth is required.

Video Encoding:

For main stream, the **Video Encoding** standard can be set to H.264 and MPEG4. For sub-stream and third stream, the **Video Encoding** standard can be set to H.264, MPEG4 and MJPEG.

Profile:

Basic Profile, Main Profile and High Profile are selectable.

I Frame Interval:

Set the I-Frame interval from 1 to 400.

SVC:

Scalable Video Coding is an extension of the H.264/AVC standard. Select OFF/ON to disable/enable the SVC function. Select Auto, and the device will automatically extract frames from the original video when the network bandwidth is insufficient.

Smoothing:

It refers to the smoothness of the stream. The higher value of the smoothing, the better fluency of the stream, though, the video quality may not be so satisfied. The lower value of the smoothing, the higher quality of the stream, though it may appear not fluent.

4. Click  to save the settings.

6.2.2 Configuring Audio Settings

Steps:

1. Enter the Audio settings interface

Configuration > Video/Audio > Audio


| | |
|----------------------------|---|
| Audio Encoding | MP2L2 |
| Sampling Rate | 16kHz |
| Audio Stream Bitrate | 64kbps |
| Audio Input | LinIn |
| Input Volume |  50 |
| Environmental Noise Filter | OFF |

Figure 6-19 Audio Settings

2. Configure the following settings.

Audio Encoding: G.722.1, G.711ulaw, G.711alaw, MP2L2, G.726 and PCM are selectable.

Sampling Rate: When the Audio Encoding is selected as MP2L2 or PCM, you can configure the Sampling Rate in the dropdown list. The greater the value is, the better the audio quality will be.

Audio Stream Bitrate: When the Audio Encoding is selected as MP2L2, you can configure the Audio Stream Bitrate in the dropdown list. The greater the value is, the better the audio quality will be.

Audio Input: When an intercom is connected to the speed dome, you need to set this option to **LineIn**. When a microphone is connected to the speed dome, you need to set this option to **MicIn**.

Input Volume: Slid the **bar** to turn up/down the volume. The value ranges from 0 to 100.

Environmental Noise Filter: Select ON or OFF from the dropdown list to enable or disable the function. It's recommended to enable the function when the sampling rate is lower than 32kHz.

3. Click  to save the settings.

6.2.3 Configuring ROI Settings

Purpose:

ROI (Region of Interest) encoding is used to enhance the quality of images which are specified in advance. There are two different ROI methods: **Fixed Region** and **Dynamic Region**. When **Fixed Region** is enabled, image quality of ROI area will be enhanced and image quality of other areas will be reduced. When **Dynamic Region** is enabled, image quality of tracking target will be enhanced.

Note:

ROI function varies depending on the speed dome models.

Enter the ROI settings interface:

Configuration >Video/Audio > ROI



Figure 6-20 Region of Interest (1)

| Stream Type | |
|---|---------------------|
| Stream Type | Main Stream(Normal) |
| Fixed Region | |
| <input type="checkbox"/> Enable | |
| Region No. | 1 |
| ROI Level | 3 |
| Region Name | |
| Dynamic Region | |
| <input type="checkbox"/> Enable Face Tracking | |
| ROI Level | 3 |
| <input type="checkbox"/> Enable Target Tracking | |
| ROI Level | 6 |

Figure 6-21 Region of Interest (2)

● ROI for Fixed Region

Steps:

1. Check **Enable** checkbox to enable the **Fixed Region** function.
2. Select a stream type. You can set the ROI function for main stream, sub-stream or third stream.
3. Click and then drag the mouse to draw a red frame in the live view image. You can click to clear it.

Note:

The number of areas supported in ROI function varies depending on the speed dome models.


4. Select the **Region No.** from the dropdown list.
5. Adjust the **ROI level** from 1 to 6. The higher the value, the better image quality in the red frame.
6. Input a **Region Name**.

- **ROI for Dynamic Region**

1. Check the **Enable Face Tracking** checkbox to enable face tracking, and the captured face picture is set as region of interest. Adjust the **ROI level** from 1 to 6.
2. Check the **Enable Target Tracking** checkbox to enable target tracking, and the target is set as region of interest. Adjust the **ROI level** from 1 to 6.
3. Click **Save** to save the settings.

6.2.4 Dual-VCA Settings

Steps:



1. Enter the Dual-VCA settings interface:
Configuration > Video/Audio > Display Info. on Stream
2. Check the checkbox to enable the function of Dual-VCA which can be used cooperatively with NVR to implement dual-VCA retrieval during playback.
3. Click  to save the settings.

Notes:

Dual-VCA function varies depending on the different speed dome models.

6.3 Configuring Image Settings

Notes:

- On the event configuration page, click  to show the PTZ control panel or click  to hide it.
- Click the direction buttons to control the pan/tilt movements.
- Click the zoom/iris/focus buttons to realize lens control.
- The functions vary depending on the speed dome models.

6.3.1 Configuring Display Settings

Purpose:

You can set the image quality of the speed dome, including brightness, contrast, saturation, sharpness, etc.

Notes:

- The parameters in **Display Settings** interface vary depending on the speed dome models.
- You can double click the live view to enter full screen mode and double click it again to exit.

Steps:

1. Enter the Display settings interface:
Configuration > Image> Display Settings
2. Select the **Scene** in the dropdown list with different predefined image parameters.
3. Set the image parameters of the speed dome.

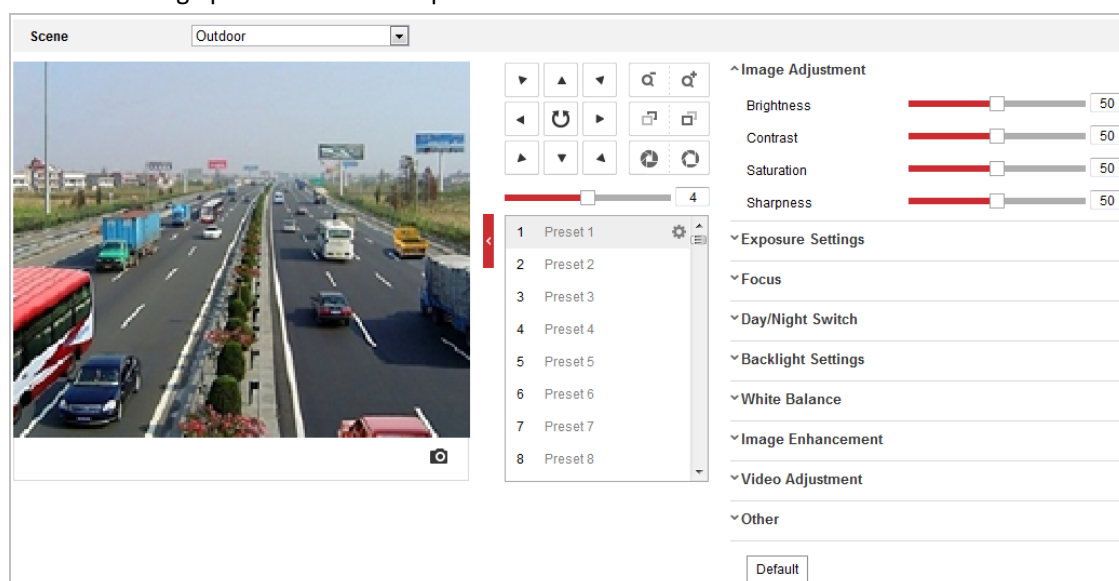


Figure 6-22 Display Settings

Image Adjustment

- **Brightness**

This feature is used to adjust brightness of the image. The value ranges from 0 to 100.

- **Contrast**

This feature enhances the difference in color and light between parts of an image. The value ranges from 0 to 100.

- **Saturation**

This feature is used to adjust color saturation of the image. The value ranges from 0 to 100.

- **Sharpness**

Sharpness function enhances the detail of the image by sharpening the edges in the image. The value ranges from 0 to 100.

Exposure Settings

- **Exposure Mode**

The **Exposure Mode** can be set to **Auto**, **Iris Priority**, **Shutter Priority**, and **Manual**.

- ◆ **Auto:**

The iris, shutter and gain values will be adjusted automatically according to the brightness of the environment. You can set the iris range and shutter ranges by setting the Max. Iris Limit, Min. Iris Limit, Max. Shutter Limit, and Min. Shutter Limit respectively.

- ◆ **Iris Priority:**

The value of iris needs to be adjusted manually. The shutter and gain values will be adjusted automatically according to the brightness of the environment.

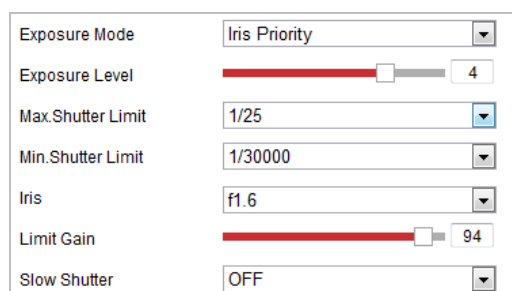


Figure 6-23 Iris Priority Mode

◆ Shutter Priority:

The value of shutter needs to be adjusted manually. The iris and gain values will be adjusted automatically according to the brightness of the environment.

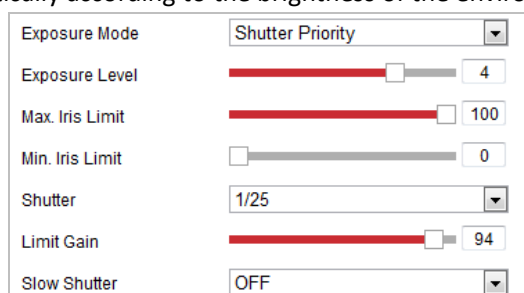


Figure 6-24 Shutter Priority Mode

◆ Manual:

In **Manual** mode, you can adjust the values of **Iris**, **Shutter**, **Gain**, **Limit Gain** and **Slow Shutter** manually.

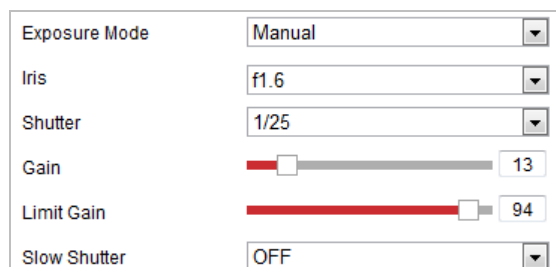


Figure 6-25 Manual Mode

Focus Settings

● Focus Mode

The **Focus Mode** can be set to **Auto**, **Manual**, **Semi-auto**.

◆ Auto:

The speed dome focuses automatically at any time according to objects in the scene.

◆ Semi-auto:

The speed dome focuses automatically only once after panning, tilting and zooming.

◆ Manual:

In **Manual** mode, you need to use   on the control panel to focus manually.

● Min. Focus Distance

This function is used to limit the minimum focus distance. The value can be set to 10cm, 50cm, 1.0m, 1.5m, 3m, 6m, 10m and 20m.

Note:

The minimum focus value varies depending on the speed dome models.

Day/Night Switch

The **Day/Night Switch** mode can be set to **Auto**, **Day**, **Night** and **Scheduled-Switch**.

Note:

This function varies depending on the speed dome models.

◆ **Auto:**

In **Auto** mode, the day mode and night mode can switch automatically according to the light condition of environment.

◆ **Day:**

In **Day** mode, the speed dome displays color image. It is used for normal lighting conditions.

◆ **Night:**

In **Night** mode, the image is black and white. **Night** mode can increase the sensitivity in low light conditions.

◆ **Scheduled-Switch:**

In **Schedule** mode, you can set the time schedule for day mode as shown in Figure 6-26.

The rest time out of the schedule is for night mode.



| | | |
|------------------|------------------|---|
| Day/Night Switch | Scheduled-Switch | ▼ |
| Start Time | 07:00:00 |  |
| End Time | 18:00:00 |  |

Figure 6-26 Day Night Schedule

Backlight Settings

● **BLC (Back Light Compensation)**

If there's a bright backlight, the subject in front of the backlight appears silhouetted or dark. Enabling **BLC** (back light compensation) function can correct the exposure of the subject. But the backlight environment is washed out to white.

● **WDR (Wide Dynamic Range)**

The wide dynamic range (WDR) function helps the camera provide clear images even under back light circumstances. When there are both very bright and very dark areas simultaneously in the field of view, WDR balances the brightness level of the whole image and provide clear images with details.

● **HLC**

HLC (High Light Compensation) makes the camera identify and suppress the strong light sources that usually flare across a scene. This makes it possible to see the detail of the image that would normally be hidden.

White Balance

The **White Balance** mode can be set to **Auto**, **MWB**, **Outdoor**, **Indoor**, **Fluorescent Lamp**, **Sodium Lamp** and **Auto-Tracking**.

Note:

This function varies depending on the speed dome models.

◆ **Auto:**

In **Auto** mode, the camera retains color balance automatically according to the current color temperature.

◆ **MWB (Manual White Balance):**

In **MWB** mode, you can adjust the color temperature manually to meet your own demand as shown in Figure 6-27.

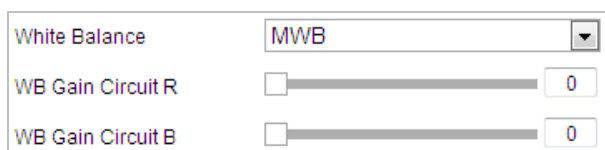


Figure 6-27 Manual White Balance

◆ **Outdoor**

You can select this mode when the speed dome is installed in outdoor environment.

◆ **Indoor**

You can select this mode when the speed dome is installed in indoor environment.

◆ **Fluorescent Lamp**

You can select this mode when there are fluorescent lamps installed near the speed dome.

◆ **Sodium Lamp**

You can select this mode when there are sodium lamps installed near the speed dome.

◆ **Auto-Tracking**

In **Auto-Tracking** mode, white balance is continuously being adjusted in real-time according to the color temperature of the scene illumination.

Image Enhancement

Note:

This function varies depending on the speed dome models.

● **3D Digital Noise Reduction**

You can set **Digital Noise Reduction** function to **Normal** and adjust the **Noise Reduction Level** as shown in Figure 6-28. The level ranges from 0 to 100.

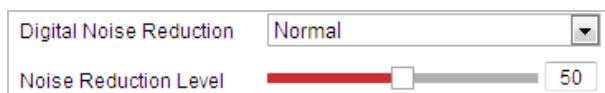


Figure 6-28 3D Digital Noise Reduction

If you are a professional technician, you can set it to **Expert Mode** then adjust **Space DNR Level** and **Time DNR Level**. The level ranges from 0 to 100.

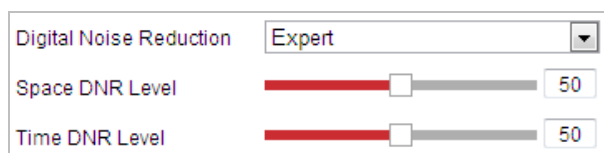


Figure 6-29 Expert Mode

- **Defog Mode**

You can set the **Defog Mode** to ON or OFF as you need.

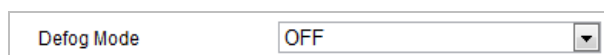


Figure 6-30 Defog Mode

- **EIS (Electronic Image Stabilization)**

You can set the **EIS** to ON or OFF as you need.

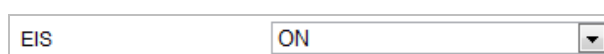


Figure 6-31 Electronic Image Stabilization

Video Adjustment

- **Mirror**

If you turn the **MIRROR** function on, the image will be flipped. It is like the image in the mirror. The flip direction can be set to OFF or CENTER.

- **Video Standard**

You can set the **Video Standard** to 50hz(PAL) or 60hz(NTSC) according to the video system in your country.

- **Capture Mode**

You can disable this function or select the capture mode from the list..

Other

- **Lens Initialization**

The lens operates the movements for initialization when you check the **Lens Initialization** checkbox.

- **Zoom Limit**

You can set **Zoom Limit** value to limit the maximum value of zooming. The value can be selected from the list.

- **Local Output**

Select local output as ON of OFF.

6.3.2 Configuring OSD Settings

Purpose:

The speed dome supports the following on screen displays:

Time: Supports for time display.

Camera Name: Identifies the name of speed dome.

You can customize the on screen display of time.

Steps:

1. Enter the OSD settings interface:

Configuration > Image > OSD Settings

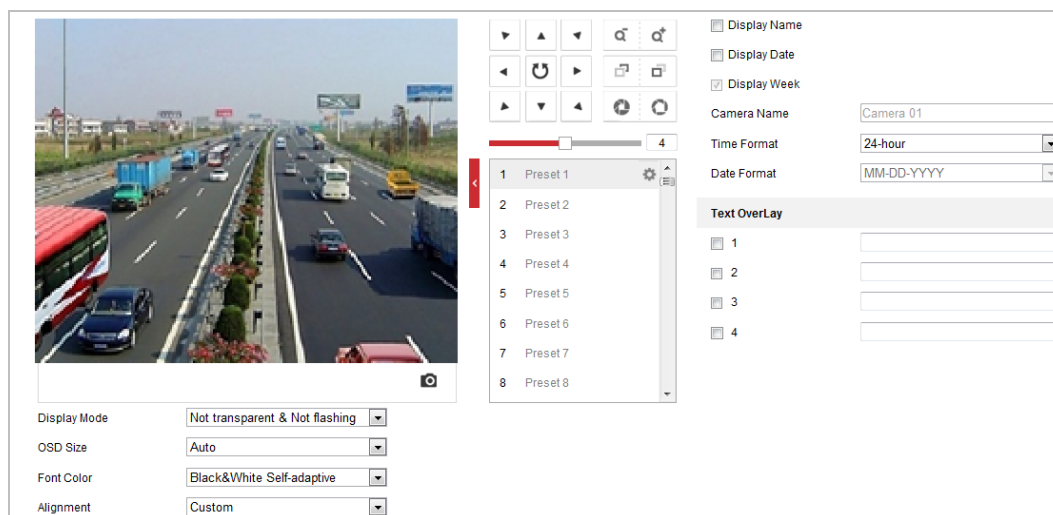


Figure 6-32 OSD Settings

2. Select the Display Mode, OSD Size, Font Color and Alignment from the dropdown list.
3. Check the corresponding checkbox to select the display of speed dome name, date or week if required.
4. Edit the speed dome name in the text field of **Camera Name**.
5. Select from the dropdown list to set the time format and date format.
6. You can drag the text frame **!Pdome** in the live view window to adjust the OSD position.



Figure 6-33 Adjust OSD Location



7. Click  to activate above settings.

6.3.3 Configuring Text Overlay Settings

Purpose:

You can customize the text overlay.

Steps:

1. Enter the Text Overlay settings interface:
Configuration > Image > OSD Settings
2. Check the checkbox in front of textbox to enable the on-screen display.
3. Input the characters in the textbox.
4. Drag the red text frame  in the live view window to adjust the text overlay position.
5. Click  to save the settings.

Note:

There are up to 8 text overlays configurable. When the video resolution is 1080p, only one text overlay is supported. When PTZ direction, preset OSDs are displayed, the text overlay is disabled.

6.3.4 Configuring Image Parameters Switch

Purpose:

You can configure **Link to Preset** or **Scheduled-Switch** in this interface. **Link to Preset**: Set the time period and linked scene for the preset and check the corresponding checkbox to go to the linked scene in the configured time period. **Scheduled-Switch**: Set the time period and linked scene and it will go to the linked scene in the configured time period when you check the corresponding checkbox.

Steps:

1. Enter the Image Parameters Switch interface:

Configuration > Image > Image Parameters Switch

2. Check the **Link to Preset** checkbox or **Scheduled-Switch** to enable the function. (Only one function can be enabled in the same time.)
3. When you enable the function of **Link to Preset**, select one preset from the dropdown list, check the corresponding checkbox, set the time period and the linked scene for the selected preset. (Up to 4 periods can be configured for one preset.)

Figure 6-34 Link to Preset

Figure 6-35 Linked Scene

4. When you enable the function of **Scheduled-Switch**, check the corresponding checkbox, set the time period and the linked scene.

Figure 6-36 Schedule-Switch

5. Click  Save to save the settings.

Note:

The two functions are not enabled by default.

6.4 Configuring System Settings

6.4.1 System Settings

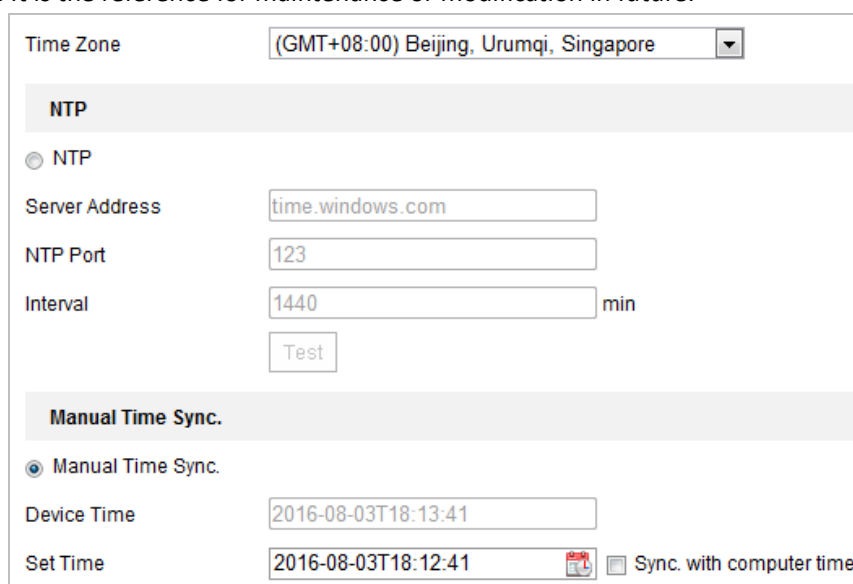
Viewing Basic Information

Enter the Device Information interface:

Configuration > System > System Settings > Basic Information

In the **Basic Information** interface, you can edit the Device Name and Device No..

Other information of the network speed dome, such as Model, Serial No., Firmware Version, Encoding Version, Web Version, Plugin Version, Number of Channels, Number of HDDs, Number of Alarm Input and Number of Alarm Output are displayed. The information cannot be changed in this menu. It is the reference for maintenance or modification in future.



The screenshot displays the 'Device Information' configuration page. At the top, the 'Time Zone' is set to '(GMT+08:00) Beijing, Urumqi, Singapore'. Below this, the 'NTP' section is active, indicated by a selected radio button. The NTP settings include: 'Server Address' (time.windows.com), 'NTP Port' (123), and 'Interval' (1440 min), with a 'Test' button. The 'Manual Time Sync.' section is also visible, with 'Manual Time Sync.' selected. It shows 'Device Time' (2016-08-03T18:13:41) and 'Set Time' (2016-08-03T18:12:41) with a 'Sync. with computer time' checkbox.

Figure 6-37 Device Information

Time Settings

Purpose:

You can follow the instructions in this section to configure the time which can be displayed on the video. There are Time Zone, Time Synchronization, and Daylight Saving Time (DST) functions for setting the time. Time Synchronization consists of auto mode by Network Time Protocol (NTP) server and manual mode.

Enter the Time Settings interface:

Configuration > System > System Settings > Time Settings

Time Zone: (GMT+08:00) Beijing, Urumqi, Singapore

NTP

NTP

Server Address: time.windows.com

NTP Port: 123

Interval: 1440 min

Test

Manual Time Sync.

Manual Time Sync.

Device Time: 2015-11-17T15:39:53

Set Time: 2015-11-17T15:39:20 Sync. with computer time

Save

Figure 6-38 Time Settings

● Configuring Time Synchronization by NTP Server

Steps:

- (1) Check the radio button to enable the **NTP** function.
- (2) Configure the following settings:

Server Address: IP address of NTP server.

NTP Port: Port of NTP server.

Interval: The time interval between the two synchronizing actions by NTP server. It can be set from 1 to 10080 minutes.

NTP

NTP

Server Address: time.windows.com

NTP Port: 123

Interval: 1440 min

Test

Figure 6-39 Time Sync by NTP Server

Notes:

- You can click to make sure that the NTP server is connected.
- If the speed dome is connected to a public network, you should use a NTP server that has a time synchronization function, such as the server at the National Time Center (IP Address: 210.72.145.44). If the speed dome is set in a customized network, NTP software can be used to establish a NTP server for time synchronization.

● Configuring Time Synchronization Manually

Steps:

- (1) Check the **Manual Time Sync** radio button.
- (2) Click to set the system time from the pop-up calendar.

(3) Click  to save the settings.

Note:

You can also check the **Sync with local time** checkbox to synchronize the time of the speed dome with the time of your computer.

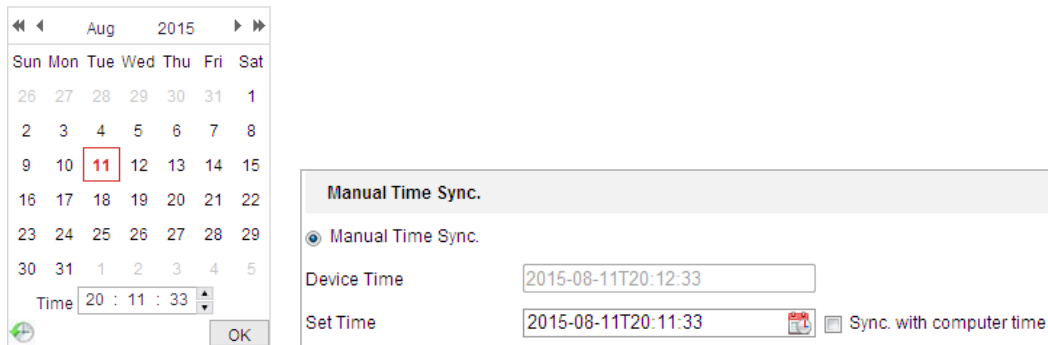


Figure 6-40 Time Sync Manually

● **Select the Time Zone**

Purpose:

When the speed dome is taken to another time zone, you can use the **Time Zone** function to adjust the time. The time will be adjusted according to the original time and the time difference between the two time zones.

From the **Time Zone** dropdown menu as shown in Figure 6-41, select the Time Zone in which the speed dome locates.

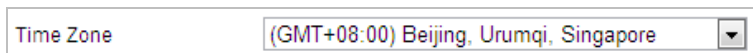


Figure 6-41 Time Zone Settings

Configuring DST (Daylight Saving Time)

Purpose:

If there is the habit of adjusting clocks forward in your country in certain time period of a year, you can turn this function on. The time will be adjusted automatically when the Daylight Saving Time (DST) comes.

Steps:

1. Enter the **DST** interface:

Configuration > Advanced Configuration > System > DST

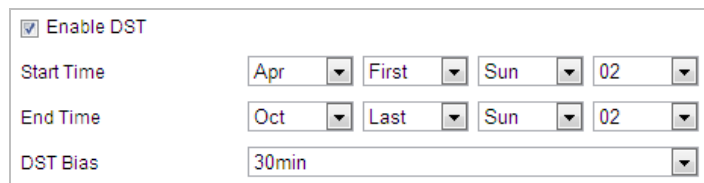



Figure 6-42 DST Settings

2. Check the **Enable DST** checkbox to enable the DST function.

3. Set the date of the DST period.
4. Click  to save the settings.

Configuring RS-485

Purpose:

The RS-485 serial port is used to control the PTZ of the camera. The configuring of the PTZ parameters should be done before you control the PTZ unit.

Steps:

1. Enter RS-485 Port Setting interface:

Configuration > Advanced Configuration > System > RS-485

| | |
|--------------|---------|
| Baud Rate | 9600 |
| Data Bit | 8 |
| Stop Bit | 1 |
| Parity | None |
| Flow Ctrl | None |
| PTZ Protocol | PELCO-D |
| PTZ Address | 0 |

Figure 6-43 RS-485 Settings

2. Set the RS-485 parameters and click  to save the settings.

Note:

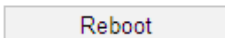
The Baud rate, PTZ Protocol and PTZ Address parameters of the speed dome should be exactly the same as those of the control device.

6.4.2 Maintenance

Upgrade & Maintenance

● Rebooting the Speed dome

Steps:

1. Enter the Maintenance interface:
Configuration > System > Maintenance > Upgrade & Maintenance
2. Click  to reboot the network speed dome.

● Restoring Default Settings

Steps:

1. Enter the Maintenance interface:
Configuration > System > Maintenance > Upgrade & Maintenance

2. Click or to restore the default settings.

Note:

Clicking restores all the parameters to default settings including the IP address and user information. Use this button with caution.

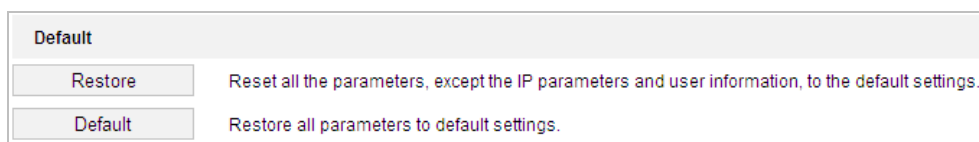


Figure 6-44 Restore Default Settings

● Importing/Exporting Configuration File

Steps:

1. Enter the Maintenance interface:
Configuration > System > Maintenance > Upgrade & Maintenance
2. Click to select the local configuration file and then click to start importing configuration file.

Note:

You need to reboot the speed dome after importing configuration file.

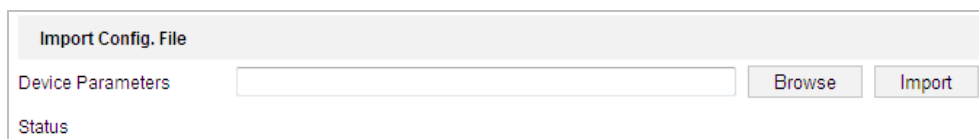


Figure 6-45 Import Configuration File

● Upgrading the System

Steps:

1. Enter the Maintenance interface:
Configuration > System > Maintenance > Upgrade & Maintenance
2. Select Firmware or Firmware Directory.
 - **Firmware:** when you select **Firmware**, you need to find the firmware in your computer to upgrade the device.
 - **Firmware Directory:** You need to find the directory where the firmware locates. The device can find the firmware in the directory automatically.
3. Click to select the local upgrade file and then click to start remote upgrade.

Note:

The upgrading process will take 1 to 10 minutes. Don't disconnect power of the speed dome during the process. The speed dome reboots automatically after upgrading.



Upgrade

Firmware

Status

Note: The upgrading process will be 1 to 10 minutes, please don't disconnect power to the device during the process. The device reboots after upgrading.

Figure 6-46 Remote Upgrade

Log Searching

Purpose:

The operation, alarm, exception and information of the speed dome can be stored in log files. You can also export the log files on your demand.

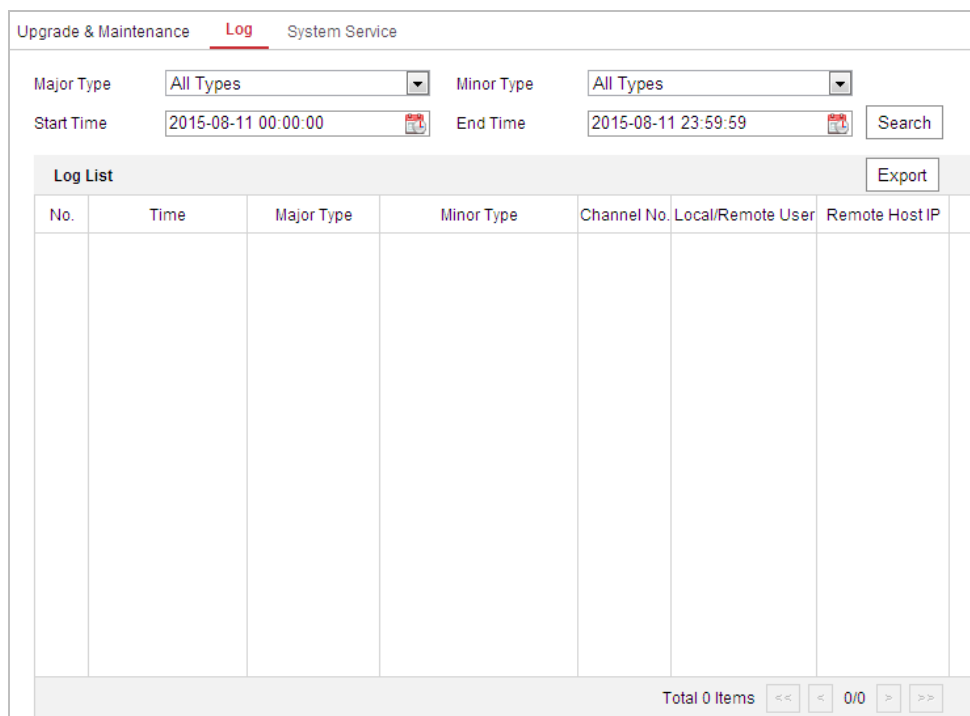
Before you start:

Configure network storage for the speed dome or insert a memory card in the speed dome.

Steps:

1. Enter the Log interface:

Configuration >System > Maintenance > Log



Upgrade & Maintenance **Log** System Service

Major Type Minor Type

Start Time End Time

Log List

| No. | Time | Major Type | Minor Type | Channel No. | Local/Remote User | Remote Host IP |
|---------------|------|------------|------------|-------------|-------------------|----------------|
| Total 0 Items | | | | | | |

Figure 6-47 Log Searching Interface

2. Set the log search conditions to specify the search, including the Major Type, Minor Type, Start Time and End Time as shown in Figure 6-47.
3. Click to search log files. The matched log files will be displayed on the **Log** interface.
4. To export the log files, click **Save Log** to save the log files in your computer.

System Service

Steps:

1. Enter the interface of configuring the remote connection:
Configuration > System > Maintenance > System Service
2. Input a number in text field as the upper limit of the remote connection number. E.g. when you specify the remote connection number as 10, then the 11th remote connection cannot be established.



Figure 6-48 Live View Connection Settings

3. Click  button to activate the settings.


6.4.3 Security

Configuring Authentication Security

Purpose:

You can specifically secure the stream data of live view.

Steps:

1. Enter the Authentication interface:
Configuration > System > Security > Authentication
2. Set the authentication mode for each authentication type.
RTSP Authentication: Select the authentication mode as basic or disable in the dropdown list to enable or disable the RTSP authentication.
3. Click  to save the settings.

Configuring IP Address Filter

Purpose:

With this function on, the camera allows certain IP addresses whether to log in or not.

Steps:

1. Enter IP Address Filter interface:
Configuration > System > Security > IP Address Filter

Enable IP Address Filter

IP Address Filter Type: Forbidden

| IP Address Filter | | | Add | Modify | Delete |
|--------------------------|-----|----|-----|--------|--------|
| <input type="checkbox"/> | No. | IP | | | |
| | | | | | |

Figure 6-49 IP Address Filter

2. Check the **Enable IP Address Filter** checkbox.
3. Select the type of IP Address Filter in the dropdown list, Forbidden and Allowed are selectable.
4. Set the IP Address Filter list.

- **Add an IP Address**

Steps:

- (1) Click **Add** to add an IP.
- (2) Input the IP Address.

Add IP Address

IP Address:

Figure 6-50 Add an IP

- (3) Click **OK** to finish adding.

- **Modify an IP Address**

Steps:

- (1) Left-click an IP address from filter list and click **Modify**.
- (2) Modify the IP address in the text filed.

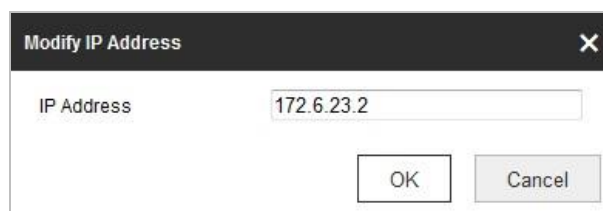


Figure 6-51 Modify an IP

(3) Click **OK** to finish modifying.

- **Delete an IP Address**

Left-click an IP address from filter list and click **Delete**.

- **Delete all IP Addresses**

Click **Clear** to delete all the IP addresses.

5. Click  to save the settings.

Configure Security Service Settings

Steps:

1. Enter the Security Service interface:

Configuration > System > Security > Security Service

2. Check the checkbox to enable the SSH function.

Enable SSH: Enabling SSH (Secure Shell) function is to encrypt and compress the data and to reduce the transmission time.

3. Check the checkbox to enable the Illegal Login Lock function.

Illegal Login Lock: Enabling illegal login lock function is to automatically lock the device IP after the admin user performing 7 failed password attempts (5 attempts for the user/operator).

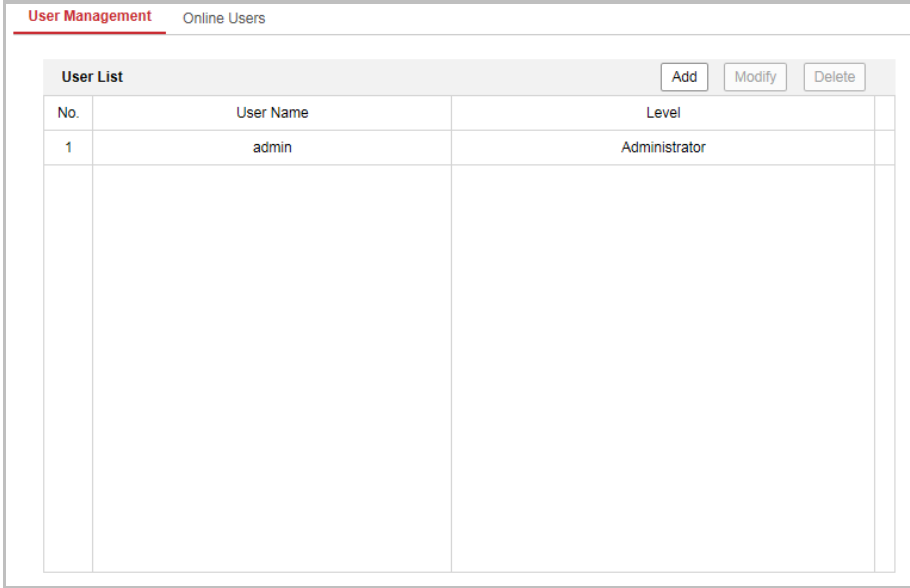
4. Click  to save the settings.

6.4.4 User Management

Enter the User Management interface:

Configuration > System > User Management

The **admin** user has access to create, modify or delete other accounts. Up to 32 user accounts can be created.



| User List | | | Add | Modify | Delete |
|-----------|-----------|---------------|-----|--------|--------|
| No. | User Name | Level | | | |
| 1 | admin | Administrator | | | |
| | | | | | |

Figure 6-52 User Information

- **Add a User**

Steps:

1. Click to add a user.
2. Input the new **User Name**, select **Level** and input **Password**.



- *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (Using a minimum of 8 characters, including at least three of the following categories: upper case letters, lower case letters, numbers, and special characters.) in order to increase the security of your product.*
- *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*

Note:

The level indicates the permissions you give to the user. You can define the user as **Operator** or **User**.

3. In the **Basic Permission** field and **Camera Configuration** field, you can check or uncheck the permissions for the new user.
4. Click to finish the user addition.

Add user

User Name: user1 ✓

Level: Operator

Password: ●●●●●●●● Strong ✓

Valid password range [8-16]. You can use a combination of numbers, lowercase, uppercase and special character for your password with at least two kinds of them contained.

Confirm: ●●●●●●●● ✓

Select All

Remote: Parameters Settings

Remote: Log Search / Interrogate Wo...

Remote: Upgrade / Format

Remote: Two-way Audio

Remote: Shutdown / Reboot

Remote: Notify Surveillance Center / ...

Remote: Video Output Control

Remote: Serial Port Control

Remote: Live View

Remote: Manual Record

Remote: PTZ Control

Remote: Playback

OK Cancel

Figure 6-53 Add a User

● Modify a User

Steps:

1. Left-click to select the user from the list and click .
2. Modify the **User Name**, **Level** or **Password**.
3. In the **Basic Permission** field and **Camera Configuration** field, you can check or uncheck the permissions.
4. Click to finish the user modification.

Modify user

User Name: user1

Level: Operator

Password: ●●●●●●

Valid password range [8-16]. You can use a combination of numbers, lowercase, uppercase and special character for your password with at least two kinds of them contained.

Confirm: ●●●●●●

- Select All
- Remote: Parameters Settings
- Remote: Log Search / Interrogate Wo...
- Remote: Upgrade / Format
- Remote: Two-way Audio
- Remote: Shutdown / Reboot
- Remote: Notify Surveillance Center /...
- Remote: Video Output Control
- Remote: Serial Port Control
- Remote: Live View
- Remote: Manual Record
- Remote: PTZ Control
- Remote: Playback

OK Cancel

Figure 6-54 Modify a User

● Delete a User

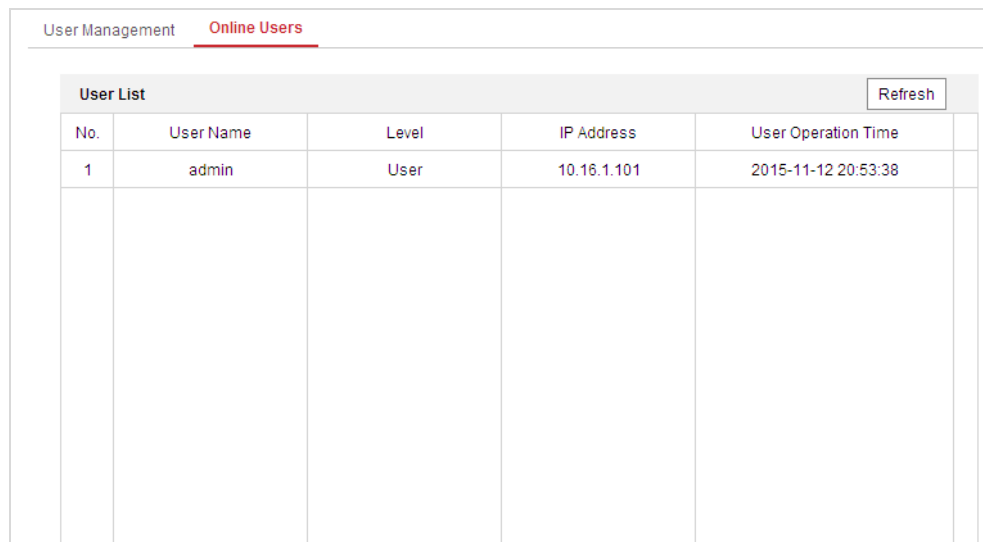
Steps:

1. Left-click the user name you want to delete and click .
2. Click on the pop-up dialogue box to delete the user.

Online Users

Enter the Online Users configuration interface:

Configuration > System > User Management > Online Users



The screenshot shows a web interface for 'User Management' with a sub-tab for 'Online Users'. Below the navigation bar is a table titled 'User List' with a 'Refresh' button in the top right corner. The table has five columns: 'No.', 'User Name', 'Level', 'IP Address', and 'User Operation Time'. One row is visible with the following data: No. 1, User Name 'admin', Level 'User', IP Address '10.16.1.101', and User Operation Time '2015-11-12 20:53:38'.

| User List | | | | | Refresh |
|-----------|-----------|-------|-------------|---------------------|---------|
| No. | User Name | Level | IP Address | User Operation Time | |
| 1 | admin | User | 10.16.1.101 | 2015-11-12 20:53:38 | |
| | | | | | |
| | | | | | |

Figure 6-55 Online Users

You can see the current users who are visiting the device through this interface.

User information, such as user name, level, IP address, and operation time, is displayed in the User List. Click **Refresh** to refresh the list.

Chapter 7 VCA Configuration

Purpose:

You can do intelligent analysis such as behavior analysis and face capture, etc. with the speed dome. Multiple rules can be configured for different requirements

Note:

VCA function varies depending on different speed dome models.

7.1 Configuring VCA Information

Steps:

1. Enter the VCA Information Configuration interface:
Configuration > VCA > VCA Info
2. Check the check box to enable the Intelligent Analysis.
3. Set the display information:
 - Display VCA info. on Stream: The green frames will be displayed on the target if in a live view or playback.
 - Display Target info. on Alarm Picture: There will be a frame on the target on the uploaded alarm picture if the checkbox is checked.
 - Display Rule info. on Alarm Picture: The captured target and the configured area will be framed on the alarm picture.
4. Set the Snapshot:

You can configure the **Notify Surveillance Center** function which is used for uploading the picture to the surveillance center when a VCA alarm occurs.

You can also set the quality and resolution of the picture separately.
5. Click **Save** to save the settings.

7.2 Advanced Configuration

All the parameters for both behavior analysis and face capture are collected in the advanced configuration page. You can configure these parameters for different VCA types on your demand.

Steps:

1. Enter the Advanced Configuration interface:
Configuration > VCA > Advanced Configuration
2. Adjust the Detection Parameters.

Detection Sensitivity: Range [0-4], the higher the sensitivity is, the easier the target will be detected.

Background Update Rate: Range [0-4], if a detected target remains in the monitoring scene for a certain time, the system will count the target as the background automatically. The greater the value is, the faster the target will be counted as the background.

Minimum Target Size: Range [0-4], The system will filter out the object smaller than the minimum target size.

Displacement Constraint for Target Generation: Range [0-4], the higher the value is, the slower the target is generated, and the higher accuracy the analysis will get.

Light Change Suppression: Check the checkbox to suppress the impact caused by the illumination change.

Enable Physiological Identification Triggering: You can enable the function to filter out other changes except physiological identification to make the tracking more accurate.

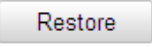
3. Adjust the Tracking Parameters.


Post-tracking: You can configure the tracking duration after the target is still.

Tracking Speed Level: Range [1-16], you can configure the tracking speed by setting the level from 1 to 16. The higher the level, the faster the tracking speed is.

Force Tracking: Check the checkbox to enable the function to prevent the object to be blocked. After the function being enabled, the speed dome will continue locating and tracking the blocked target.

Horizontal Tracking Limit: You can set the tracking threshold. The higher the value is, the easier the tracking can be stopped.

Restore Default: Click  to restore the parameters to the default.

Restart VCA: Click  to restart the VCA function.

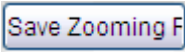
7.3 Scene Configuration

Purpose:

The speed dome supports patrol tracking for multiple scenes. You can configure the rules for the scene on your demand.

Steps:

1. Get the VCA configuration interface:
Go to **VCA Configuration > VCA Resource**. Select the Behavior Analysis as the intelligent resource. Click **Save** to save the settings.
2. Configure the **VCA Info**: For details, see *错误! 未找到引用源。 错误! 未找到引用源。*
3. Configure the **Zoom Ratio** parameters: Set the appropriate tracking zooming ratio with the

PTZ control panel. Click on  button to save the settings.

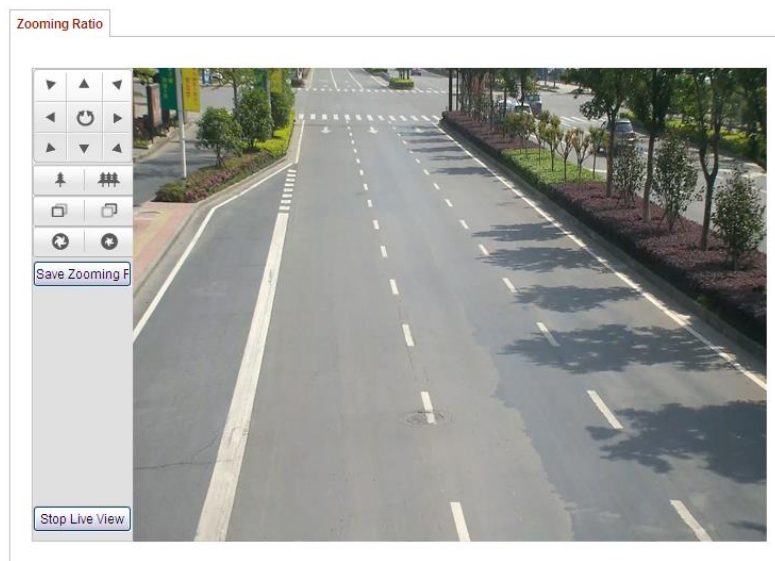


Figure 7-1 Zoom Ratio

4. Configure the Scene:

Go to **VCA Configuration > Scene Configuration**

At most 10 scenes can be added. Different rules and properties can be configured for each scene.

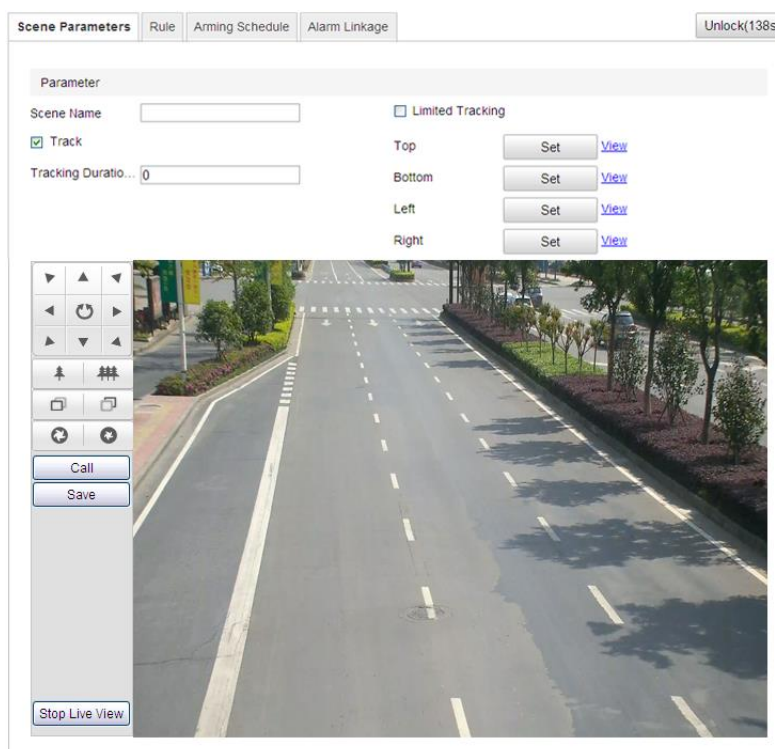




Figure 7-2 Scene Parameters

● Create a Scene:


- 1) Add New Scene: Click  to create a new scene.
- 2) Control the PTZ to get the required scene.

- 3) Set the scene parameters:
 - Scene Name:** Enter a custom scene name.
 - Duration:** Set the dwell time of the scene when doing patrol tracking. The intelligent analysis will be enabled during the period. If the alarm is triggered, the speed dome will start to track automatically.
 - Enable Track:** Check the checkbox to enable the tracking function for the scene.
 - Tracking Duration:** Set the duration of the tracking. If the value is selected as 0, the tracking duration will not be limited.
 - Limited Tracking:** You can check the checkbox to enable/disable the function. If the function is enabled, you can set the limited position for the tracking.
- 4) Click  to save the settings.

- **Rule Configuration:**

There are 2 rules can be configured for a single scene. Follow the steps below to configure the rule for the scene.

Steps:

- 1) Create new rule: Click on the button  to add a new rule.
- 2) Select rule type: Click the dropdown menu to select the rule type. Lecture and answer question are selectable.

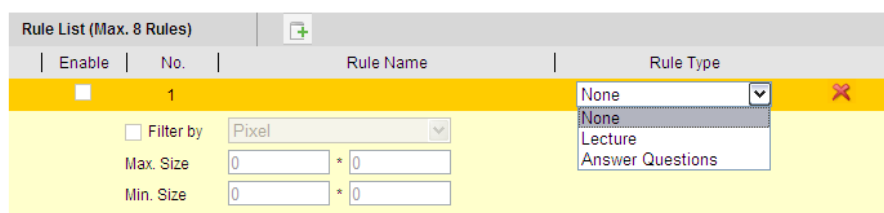



Figure 7-3 Rule List

- 3) Configure the rule area: Click the Draw Line or Draw Area button on the tool bar of the live view panel. Click the mouse on the live view panel. Right click the mouse to finish drawing. For details, see 7.4 Rule Configuration Demonstration.
- 4) Configure the filtering size: The filtering function is supported for all rules. You can set the minimum and maximum size of the object needs to be filtered. The system will only detect the object in a size between the configured minimum and maximum value. For details, see 7.4 Rule Configuration Demonstration.
- 5) Enable rules: Check the **Enable** checkbox of each rule in the rule list to enable the rule.
- 6) Click  to save the settings.

Note:

Create multiple rules: You can create more rules by repeating the above steps.

- **Configure Arming schedule:**

- 1) Click the Arming Schedule tab.
- 2) Select a rule from the rule list.

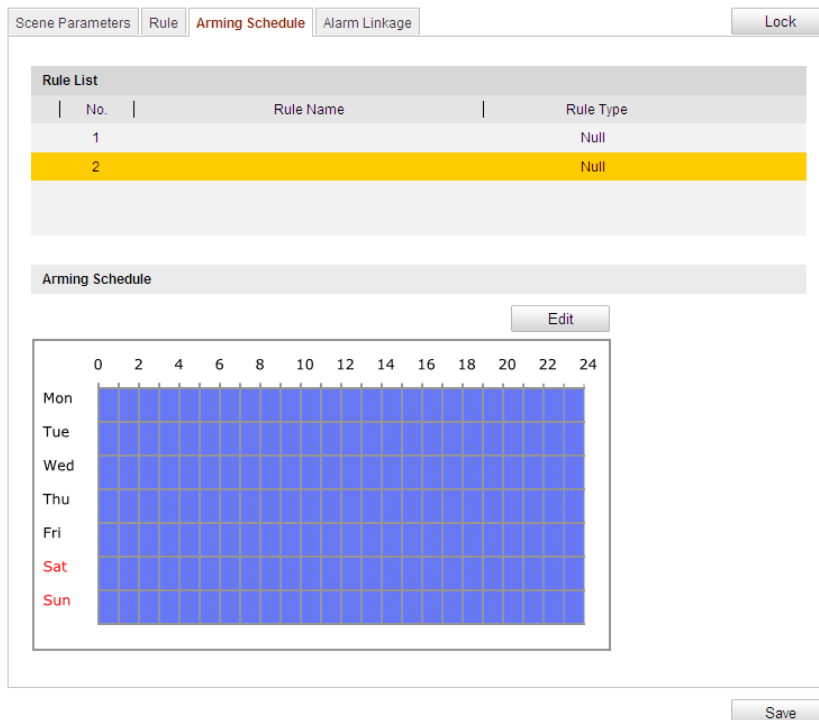


Figure 7-4 Arming Schedule

- 3) Click on the Edit button to edit the arming time segment.

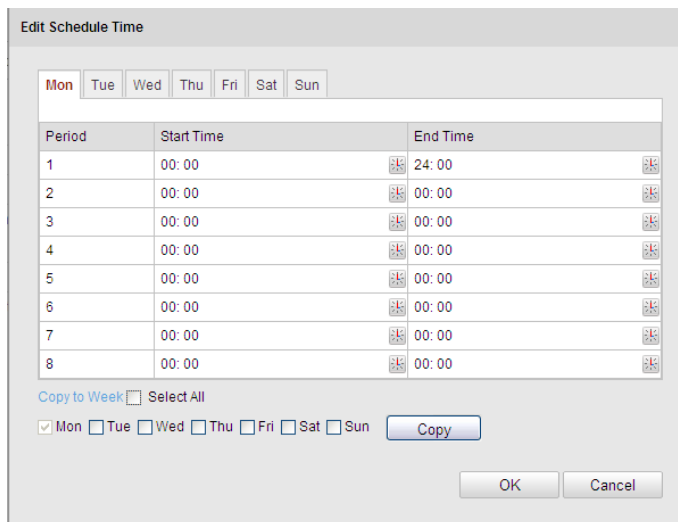


Figure 7-5 Schedule Time

Note:

You can select to copy the settings to whole week or are specific days of the week. At most 8 segments can be configured.

- 4) Click  to save the settings.

- **Configure Alarm Linkage:**

- 1) Click the Alarm Linkage tab.
- 2) Select a rule from the rule list.

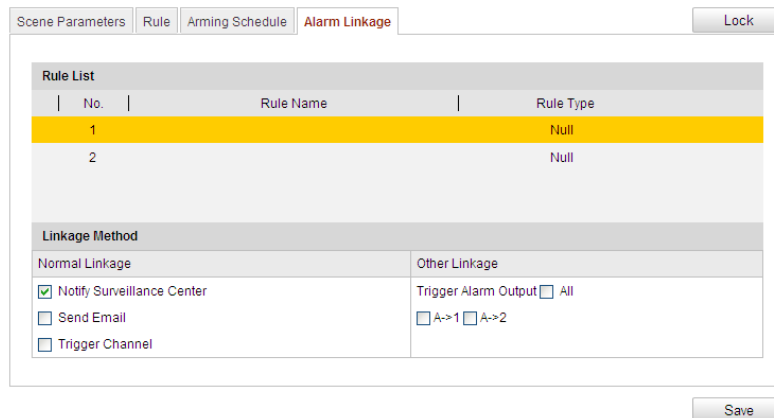


Figure 7-6 Alarm Linkage

- 3) Check the checkbox of corresponding linkage actions to enable it.
5. Advanced Configuration: For details, see 7.3 Advanced Configuration. Click Save to save the settings.

7.4 Rule Configuration Demonstration

Purpose:


This section provides detailed configuration steps for each rule.

7.4.1 Lecture

Purpose:

This function can be used for detecting the action of the tutor and to control the device to track the tutor during the lecture time within the configured detection area.

Steps:

1. Create new rule: Click on the button  to add a new rule.
2. Select rule type: Click the dropdown menu and select **Lecture** as the rule type.

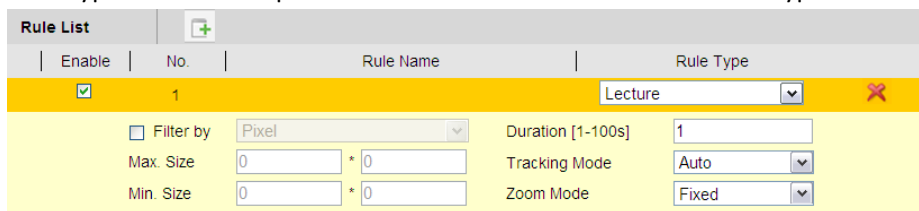
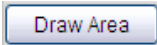


Figure 7-7 Select Rule Type

3. Configure the rule area:
 - Click  on the tool bar of the live view panel. Click the mouse on the live view panel. Right click the mouse to finish drawing.
 4. Set the duration from 1 to 100.
 5. Click the drop down menu to select a tracking mode (auto, vertical, and horizontal).

- Set the zoom mode as fixed or auto.

| | |
|---------------|-------|
| Tracking Mode | Auto |
| Zoom Mode | Fixed |

- Configure the filtering size:

The filtering function is supported for all rules.

- Check the check box of filtering to enable the function.

| | |
|---|--------|
| <input checked="" type="checkbox"/> Filter by | Pixels |
| Maximum ... | 0 * 0 |
| Minimum S... | 0 * 0 |


- Click **Minimum Size** and **Maximum Size** on the tool bar. Click and drag the mouse on the live view panel to frame the reference object. The system will calculate the sizes of the objects and display them on the filtering panel.
- Enable rules: Check the **Enable** checkbox of each rule in the rule list to enable the rule.
- Click **Save** to save the settings.

7.4.2 Answering Questions

Purpose:

This function can be used for detecting the action of the student (normally for detecting the action of standing up or sitting down), and to control the device to give a close-up to the student during the time when they are answering questions within the configured detection area.

Steps:

- Create new rule: Click on the button  to add a new rule.
- Select rule type: Click the dropdown menu and select **Answer Questions** as the rule type.

| Rule List | | + | |
|---|-----|-----------|------------------|
| Enable | No. | Rule Name | Rule Type |
| <input checked="" type="checkbox"/> | 1 | | Answer Questions |
| <input type="checkbox"/> Enable Calibration | | | |
| | | Pixel | |
| Max. Size | 0 | * | 0 |
| Min. Size | 0 | * | 0 |

Figure 7-8 Select Rule Type

- Configure the rule area:

Click **Draw Area** on the tool bar of the live view panel. Click the mouse on the live view panel. Right click the mouse to finish drawing.

- Configure the filtering size: for details, see Step 5 in section 7.4.1 Lecture
- Enable rules: Check the **Enable** checkbox of each rule in the rule list to enable the rule.

Click **Save** to save the settings.

Chapter 8 Heat Map

Purpose:

Heat map is a graphical representation of data represented by colors. The heat map function of the camera usually be used to analyze the visit times and dwell time of customers in a configured area.

Note:

Heat map function varies depending on the different speed dome models.

8.1 Heat Map Configuration

Steps:

1. Enter the Heat Map configuration interface:

Configuration > Heat Map

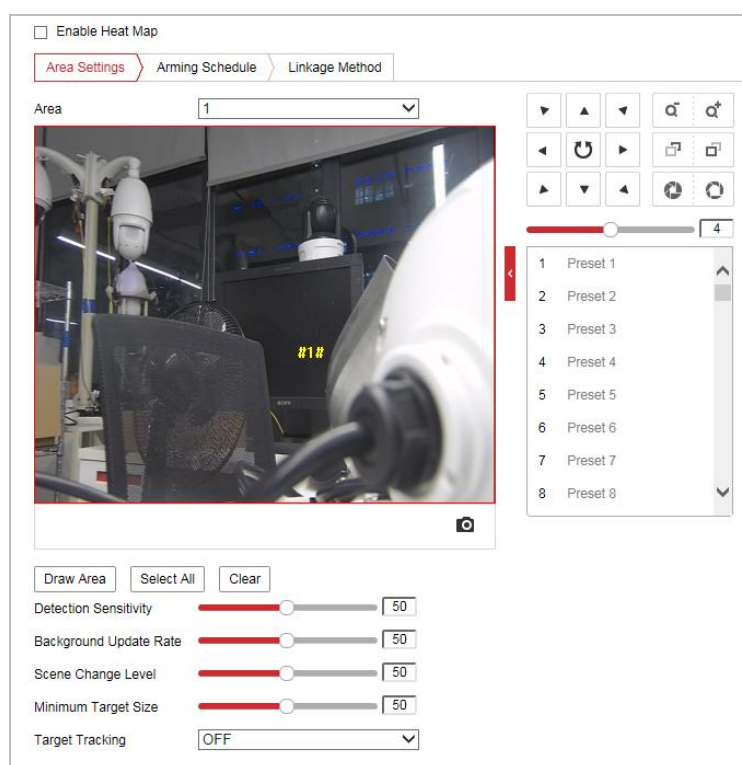


Figure 8-1 Heat Map Configuration

2. Check the **Enable Heat Map** checkbox to enable the function.
3. Select the area No. in the dropdown list.

Note:

Up to 8 areas can be configured, and all the areas can only be configured in the same scene. Click Draw Area to define the area you want to count the visitors.

4. Configure the parameters for drawn area, including Detection Sensitivity, Background Update Rate, Scene Change Level, Minimum Target Size, Target Tracking, etc..
5. Set the arming schedule. Refer to *step 4* in **Section 5.2.1 Configuring Motion Detection** for

details.

6. Set the linkage method by checking the checkbox. Refer to *step 5* in **Section 5.2.1 Configuring Motion Detection** for details.
7. Click **Save** to save the settings.

8.2 Heat Map Statistics

1. Click **Application** to enter the data statistics interface.
2. Select the report type by clicking the dropdown list. Daily Report, Weekly Report, Monthly Report, and Annual Report are selectable.
3. Click **Counting** to export the data.
4. Select *Statistics Result* as Space Heat Map or Time Heat Map, and the corresponding heat map will be displayed. And if you select the time heat map to list the statistics, there is an **Export** button to export the data in an excel file.

Appendix

SADP Software Introduction

● Description of SADP

SADP (Search Active Devices Protocol) is a kind of user-friendly and installation-free online device search tool. It searches the active online devices within your subnet and displays the information of the devices. You can also modify the basic network information of the devices using this software.

● Search active devices online

◆ Search online devices automatically

After launch the SADP software, it automatically searches the online devices every 15 seconds from the subnet where your computer locates. It displays the total number and information of the searched devices in the Online Devices interface. Device information including the device type, IP address and port number, etc. will be displayed.

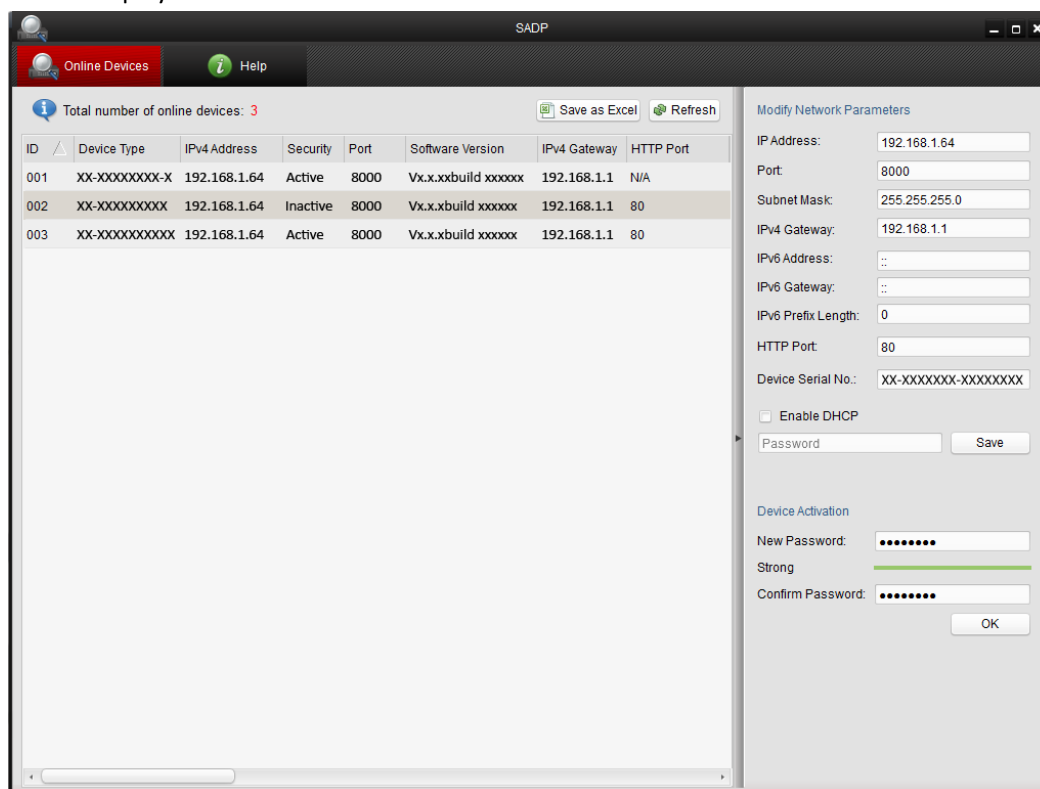
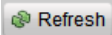


Figure A.1.1 Searching Online Devices

Note:





Device can be searched and displayed in the list in 15 seconds after it went online; it will be removed from the list in 45 seconds after it went offline.

◆ Search online devices manually

You can also click  to refresh the online device list manually. The newly

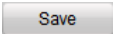
searched devices will be added to the list.

Note:

You can click  or  on each column heading to order the information; you can click  to expand the device table and hide the network parameter panel on the right side, or click  to show the network parameter panel.

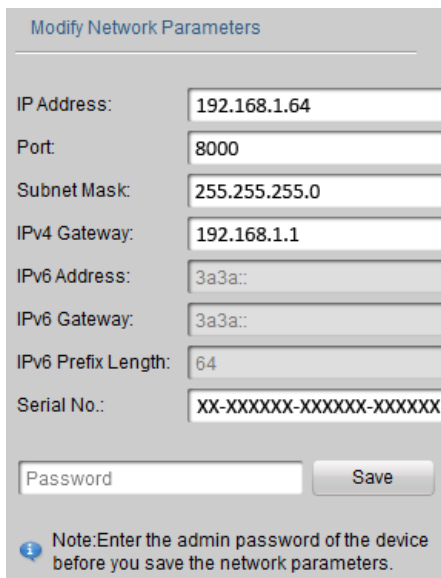
● Modify network parameters

Steps:

1. Select the device to be modified in the device list and the network parameters of the device will be displayed in the **Modify Network Parameters** panel on the right side.
2. Edit the modifiable network parameters, e.g. IP address and port number.
3. Input the password of the admin account of the device in the **Password** field and click  to save the changes.



- *For your privacy and to better protect your system against security risks, we strongly recommend the use of strong passwords for all functions and network devices. The password should be something of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers and special characters) in order to increase the security of your product.*
- *Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.*



Modify Network Parameters

IP Address: 192.168.1.64

Port: 8000

Subnet Mask: 255.255.255.0

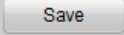
IPv4 Gateway: 192.168.1.1

IPv6 Address: 3a3a::

IPv6 Gateway: 3a3a::

IPv6 Prefix Length: 64

Serial No.: XX-XXXXXX-XXXXXX-XXXXXX

Password 


 Note: Enter the admin password of the device before you save the network parameters.

Figure A.1.2 Modify Network Parameters



See Far, Go Further