IP Cameras

User Manual

Manual Version: 100-20140526
Zhejiang Uniview Technologies Co., Ltd.

Notice

The information in this manual is subject to change without notice. Every effort has been made in the preparation of this manual to ensure accuracy of the contents, but all statements, information, and recommendations in this manual do not constitute the warranty of any kind, express or implied.

Safety and Compliance Information

Conventions Used Symbol

The symbols in this chapter are shown in the following table. They are used to remind the reader of the safety precautions during equipment installation and maintenance.

Safety Symbol	Description
	Generic alarm symbol: To suggest a general safety concern.
	ESD protection symbol: To suggest electrostatic-sensitive equipment.
	Electric shock symbol: To suggest a danger of high voltage.

Safety Information

WARNING!

Installation and removal of the unit and its accessories must be carried out by qualified personnel. You must read all of the Safety Instructions supplied with your equipment before installation and operation.

Warnings:

- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)
- To reduce the risk of fire or electrical shock, do not expose this product to rain or moisture.
- This installation should be made by a qualified service person and should conform to all the local codes.
- Please make sure that the ceiling can support more than 50(N) Newton gravities if the camera is fixed to the ceiling.
- Make sure the power supply voltage is correct before using the camera.
- Do not drop the camera or subject it to physical shock.
- Do not touch sensor modules with fingers. If cleaning is necessary, use a clean cloth with a bit of ethanol and wipe it gently. If the camera will not be used for an extended period of time, put on the lens cap to protect the sensor from dirt.
- Do not aim the camera lens at the strong light such as sun or incandescent lamp. The strong light can cause fatal damage to the camera.
- The sensor may be burned out by a laser beam, so when any laser equipment is being used, make sure that the surface of the sensor not be exposed to the laser beam.
- While shipping, the camera should be packed in its original packing.

Caution: Fiber optic ports – optical safety.

Never look at the transmit laser while the power is on. Never look directly at the fiber ports and the fiber cable ends when they are powered on.

Caution: Use of controls or adjustments to the performance or procedures other than those specified herein may result in hazardous laser emissions.

Regulatory Compliance

FCC Part 15

This equipment has been tested and found to comply with the limits for 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.

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

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

LVD/EMC Directive

CE

This product complies with the European Low Voltage Directive 2006/95/EC and EMC Directive 2004/108/EC.

WEEE Directive–2002/96/EC

The product this manual refers to is covered by the Waste Electrical & Electronic Equipment (WEEE) Directive and must be disposed of in a responsible manner.

Preface

Audience

This manual is intended for:

- Surveillance system planners
- Field technical support and servicing engineers
- Software installation, configuration, and servicing administrators
- Product users

Technical Support

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Contents

Thank you for purchasing our products. If there are any questions, or requests, please do not hesitate to contact the dealer. This manual applies to Network Camera.

This manual may contain several technical incorrect places or printing errors, and the content is subject to change without notice. The updates will be added to the new version of this manual. We will readily improve or update the products or procedures described in the manual.

1 System Options

Item	Requirements
Operating System	Microsoft Windows 8/Windows 7/Windows XP (32-bit or 64-bit). Microsoft Windows 7 is recommended.
CPU	2.0 GHz or higher, dual-core. Intel i3 CPU or above is recommended.
Memory	At least 1 GB. 2 GB (or higher) is recommended.
Graphic card	At least 128 MB display memory. Mainstream discrete graphics with more than 1 GB display memory are recommended. The hardware should support DirectX9.0c. ***Note:*** *Make sure that the latest driver is installed on the graphic card.*
Sound card	Essential. ***Note:*** *The intercom and voice broadcast require the latest driver on the sound card.*
Network card	Gigabit (or higher) Ethernet network cards are recommended.
Display definition	• Least: 1024*768 • Ideal: 1440*900
Web Browser	Internet Explorer 8.0 (or above) is recommended with the security level of *Medium-high*.

2 Network Setting

This chapter introduces the basic network settings, including wired and wireless connections, which are fundamental to accessing the network camera (also named IP camera, abbr. IPC).

Wired Connection

Connecting to the Network over the LAN

This part for setting IPC over the LAN mainly involves two procedures. One is cable connecting, which is the basic physical connection. And the other one comes detecting and changing the IP address, which secures reliable data stream flowing via relevant protocol.

Cable Connecting

The following figures provide two methods for connecting a network camera to a computer: Figure 2-1 shows the direct connection to the computer, while Figure 2-2 indicates an indirect connection over the LAN via a switch or a router.

Figure 2-1 Connect to Computer Directly

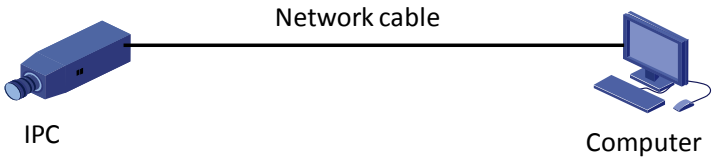
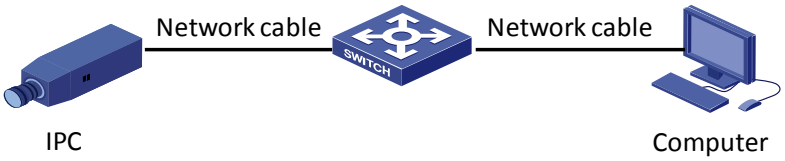


Figure 2-2 Connect via a Switch or a Router



Configuring the IP Address

The IP address enables you to visit the network camera over the LAN.

Steps:

1. Get the current IP address of the camera through EZManager (Univew client software) based on is the information labeled on camera, such as device serial number, device version and etc. For detailed information, please refer to Detecting Devices Online.

NOTE!

- The default IP address is “192.168.0.13”. Both the default username and password are “*admin*”.
- This step is necessary only when the IP address is unknown.

2. Change the IP address and the subnet mask to the same subnet as that of your computer under **Setup** > **Basic** > **Network**. For detailed information, please refer to Network.

NOTE!

- The camera will reboot after the IP address is changed.
- You can also modify network settings via EZManager. Refer to Modifying Network Configuration for detailed information.
- To access the network camera from a different subnet, please set the gateway for the network camera after you have logged in.

Connecting to the Network over the WAN

This part describes how to connect the network camera to the WAN with a static or a dynamic IP.

Connecting Based on a Static IP

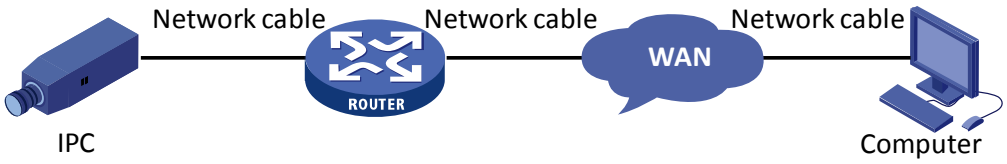
To connect a Uniview network camera using a static IP address, you need to apply for a unique static IP from an ISP (Internet Service Provider) for the camera first, and then use this IP address to connect the network camera to the WAN directly or via a router.

If you choose to connect the network camera to the WAN directly (shown as Figure 2-3), please refer to Configuring the IP Address for detailed information to set the obtained static IP in the camera. If you intend to connect the network camera to the WAN via a router (shown as Figure 2-4), you need to perform the following steps as required:

1. Connect the network camera to the router.
2. Set the LAN IP address, subnet mask and gateway in the camera. Please refer to Configuring the IP Address for more information.
3. Set the obtained static IP in the router.
4. Access the network camera through a web browser or the client software over the Internet.

Figure 2-3 Connect the Camera to the WAN Directly

Figure 2-4 Connect the Camera to the WAN via a Router



Connecting Based on DHCP

To use a dynamic IP address for the Uniview network camera, you need to apply for a dynamic IP from an ISP. With the dynamic IP address, you can connect the network camera to the WAN directly or via a router.

The following describes the steps of connecting via a router. Step 2-3 can be eliminated if you select directly connecting.

1. Connect the network camera to the router (shown as Figure 2-4).
2. Access the router.
3. Enable DHCP mode in the router to distribute dynamic IP.

4. Access the network camera. Please refer to Accessing the Network Camera for more information.
5. Set **IP Obtain Mode** to **DHCP** under **Setup > Basic > Network** in the camera.
6. Click **OK** at the bottom of the **Network** interface.
7. Use the new IP address to access the camera.

NOTE!

- The new network settings require a reboot to take effect.
- For using DHCP mode, the IP address is dynamically assigned after rebooting, therefore, please refer to Detecting Devices Online to identify the new obtained IP address.

Connecting Based on PPPoE

To use PPPoE mode to connect the network camera to the WAN, you need to apply for a PPPoE account from an ISP first. With the PPPoE account, you can connect the camera to the WAN directly or via a router.

The following describes the steps for a connection via a router. Step 2-3 can be eliminated if you select directly connecting.

1. Connect the network camera to the router (shown as Figure 2-4).
2. Access the router.
3. Enable PPPoE mode in the router.
4. Access the network camera. Please refer to Accessing the Network Camera for more information.
5. Set **IP Obtain Mode** to **PPPoE** under **Setup>Basic>Network** in the camera.
6. Click **OK** at the bottom of the **Network** interface.
7. Use the new IP address to access the camera.

NOTE!

- The new network settings require a reboot to take effect.
- For using PPPoE mode, the IP address is dynamically assigned after rebooting, therefore, please refer to Detecting Devices Online to identify the new obtained IP address.

Wireless Connection

For video surveillance applications, wireless technology enables a flexible, cost-efficient and quick way to implement monitoring, especially in the complex conditions where cabling is hard or costly. Uniview offers cameras with build-in wireless technology. And network cameras with build–in Wi-Fi module can easily be integrated into the network via wireless router. This part describes how to connect wireless network camera to the wireless network through Wi-Fi.

NOTE!

- This section is applicable for cameras that support wireless connection.
- Network cameras that support Wi-Fi connection do not support PoE (Power over Ethernet).

Before you start, you need to establish a reliable wireless network via wireless router. And then do the following step to connect the network camera.

Steps:

1. Set the IP address and subnet mask to the same segment as that of the wireless network. Please refer to Configuring the IP Address for detailed information.

NOTE!

- If the camera's IP address is in the same network segment of the wireless network, this step can be omitted.
- To manipulate this step, you must cable the network camera to your computer.
- The camera will reboot after the IP address is changed, please try the new IP address.

2. Access the network camera by a web browser. You can turn to the section of Access from Web Browser for detailed information.
3. Connect the camera to the network via the Wi-Fi function.
4. Select the **Setup** tab on the upper menu bar of the interface (show as Figure 4-1) to enter the setting page.
5. Enter **Basic > Wi-Fi**.
6. Tick **Enable** to enable Wi-Fi function. Wireless networks will be automatically detected and then listed.
7. Select the wireless network from the list, and click **To connect**.
8. Input the password for the selected network.

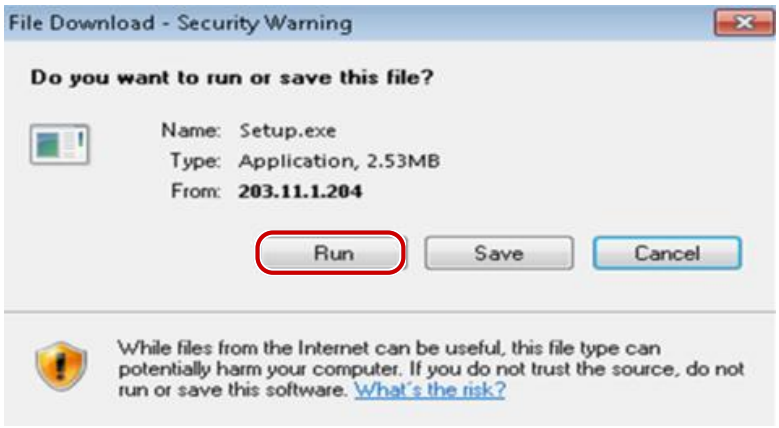
3 Accessing the Network Camera

Access from Web Browser

Steps:

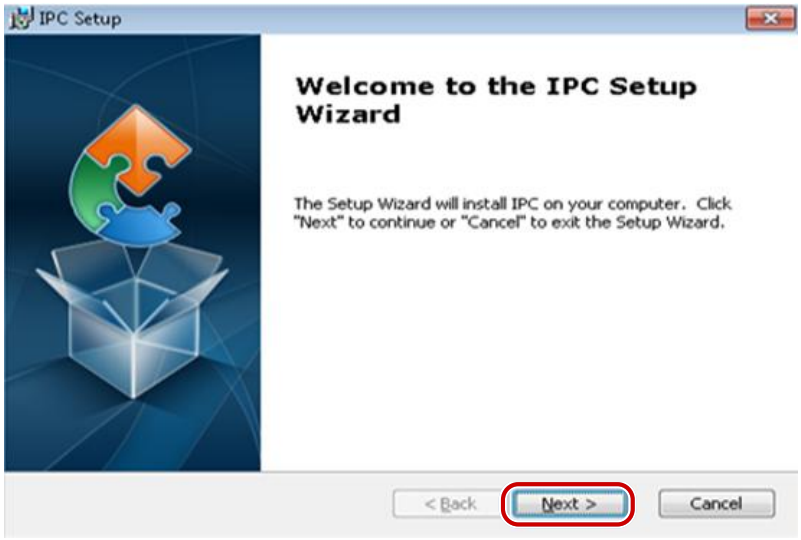
1. Open the web browser.
2. In the browser address field, input the IP address of the network camera, e.g., 192.168.0.13 and press the **Enter** key to enter the login interface.
3. Install the plug-in before viewing the live video and managing the camera. Please follow the installation prompts to install the plug-in.
   a. Download the plug-in. Click **Run Add-on** on the pop menu to link File Download prompt box.

   b. Click **Run** to run the plug-in file now or click **Save** to save it. Running the file now is recommended.

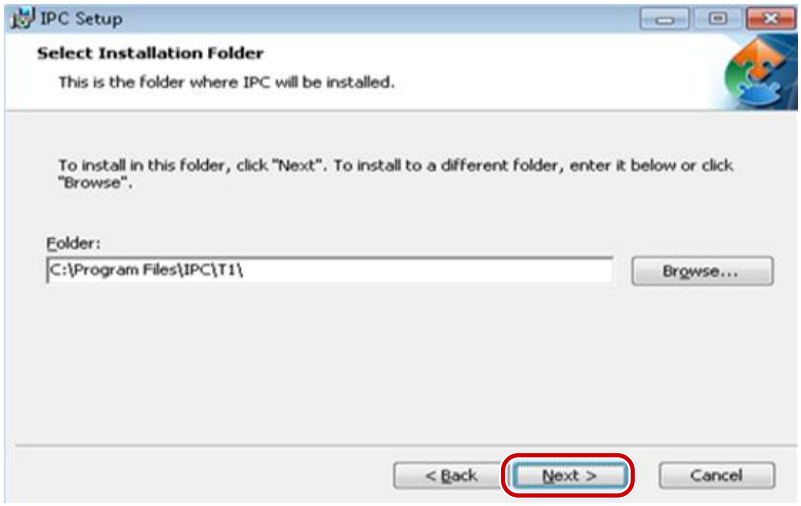


   c. Click **Run** to start the installation procedure.

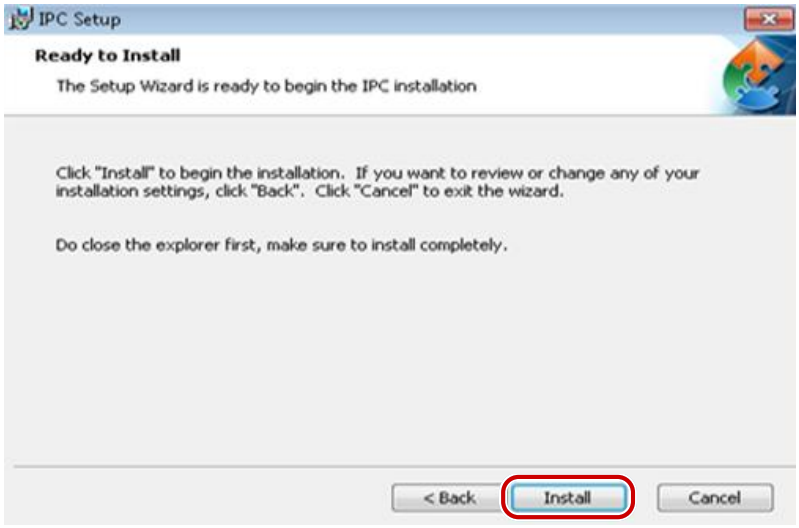
d. Click **Next** to continue.



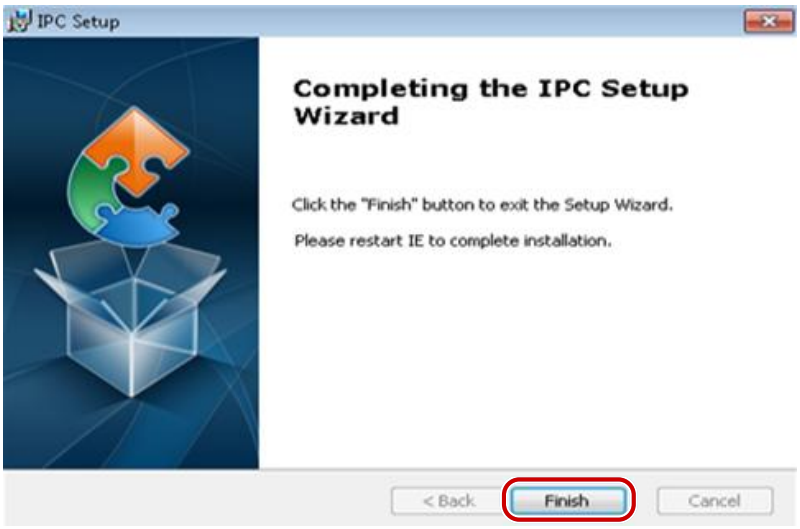
e. Click **Browse** to locate the installation folder, and then click **Next**.



f. Click **Install** to start the installation.



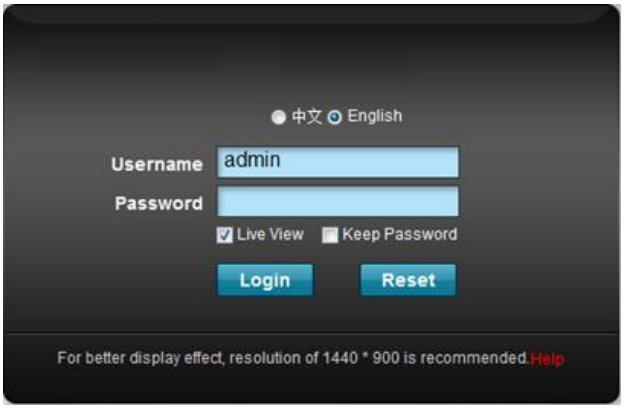
g. Click **Finish** to complete the installation process.



NOTE!

- You may need to close your web browser to complete the installation.
- The tip box of the plug-in installation will be popped out when first-time login or the camera software version is updated.
- The default IP address is “192.168.0.13”.

4. Reopen the web browser after the installation is completed.
5. Input your username and password.



6. Click **Login**.

NOTE!

- Both the default username and password is “*admin*”.
- Tick Live View to display live video directly after login.

Access from EZManager Software

EZManager is a client software of Uniview software suite, which provides multi-functionalities such as live view, parameter setting to manage network cameras. This section describes how to access live view and controlling interface of the network camera via EZManager.

Accessing Live View

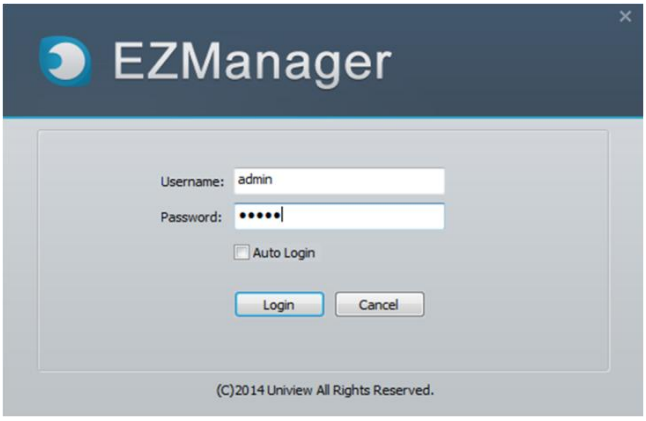
Steps:

1. Enter the EZManager software login interface.
2. Input the username and password.

NOTE!

Both the default username and password are "*admin*".

Figure 3-1 EZManager Login Interface



3. Detect the network camera. For detailed information, please refer to Detecting Devices Online in the Appendix.
4. Add the network camera (shown as Figure 3-2) as follows: select the camera by its name, IP address, type or serial number labeled on the product, click **Add**, and then click **Close** to close the **Device Search** box. The camera is listed on the **Device managed** list (shown as Figure 3-2).

Figure 3-2 Select the Network Camera (1)

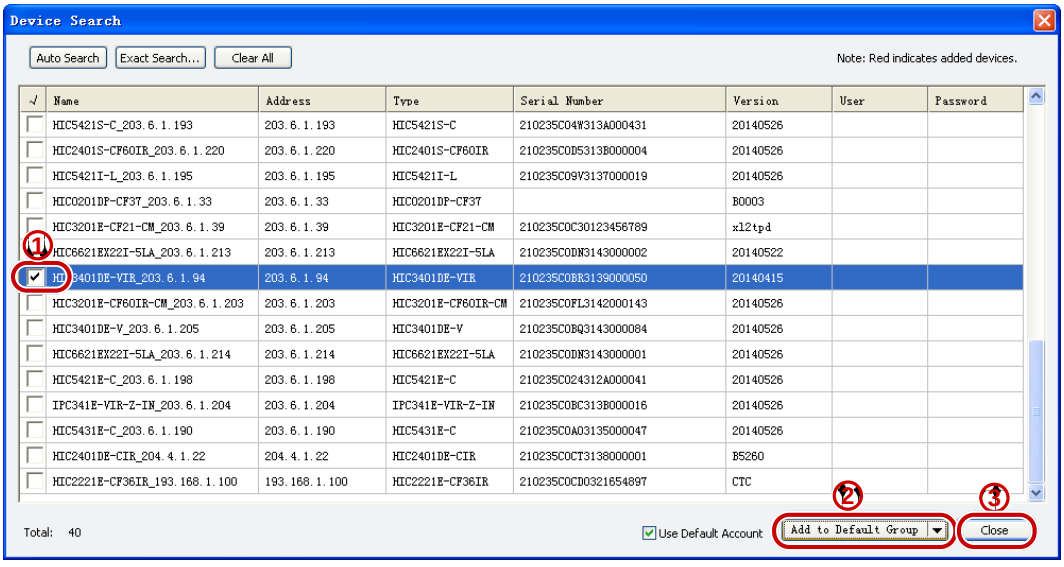
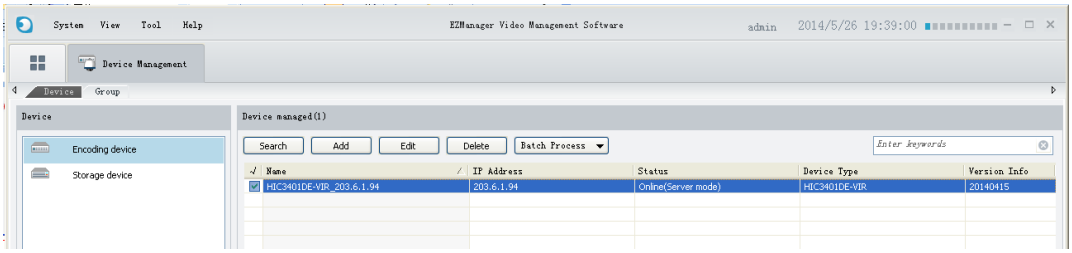


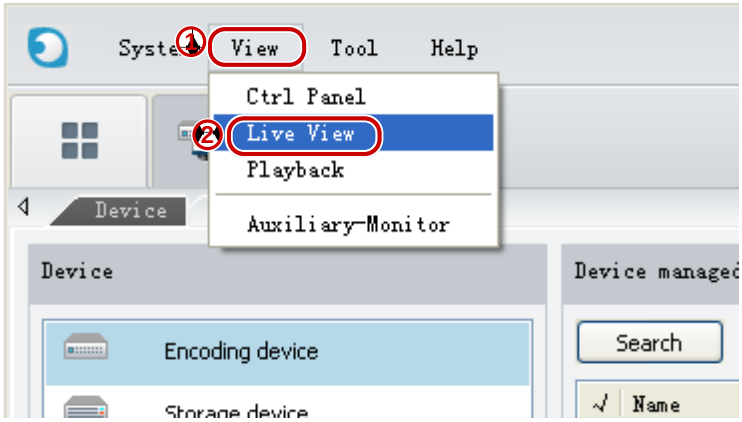
Figure 3-3 Select the Network Camera (2)



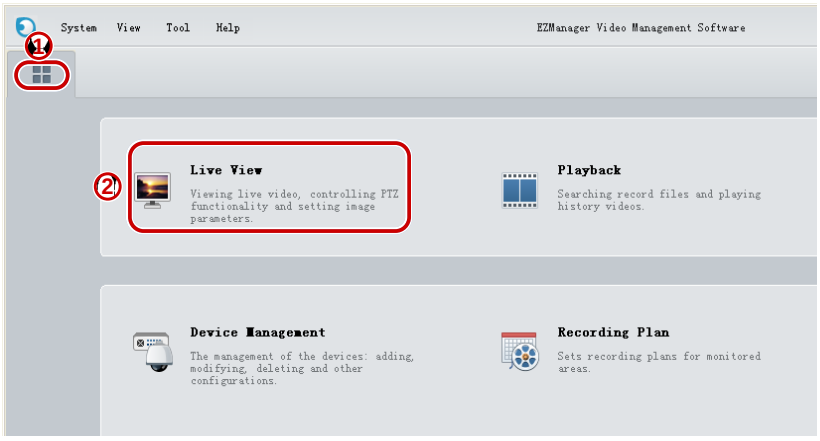
5. Access the network camera for live view.

a. Enter Live View interface. You can try either of the following two methods.

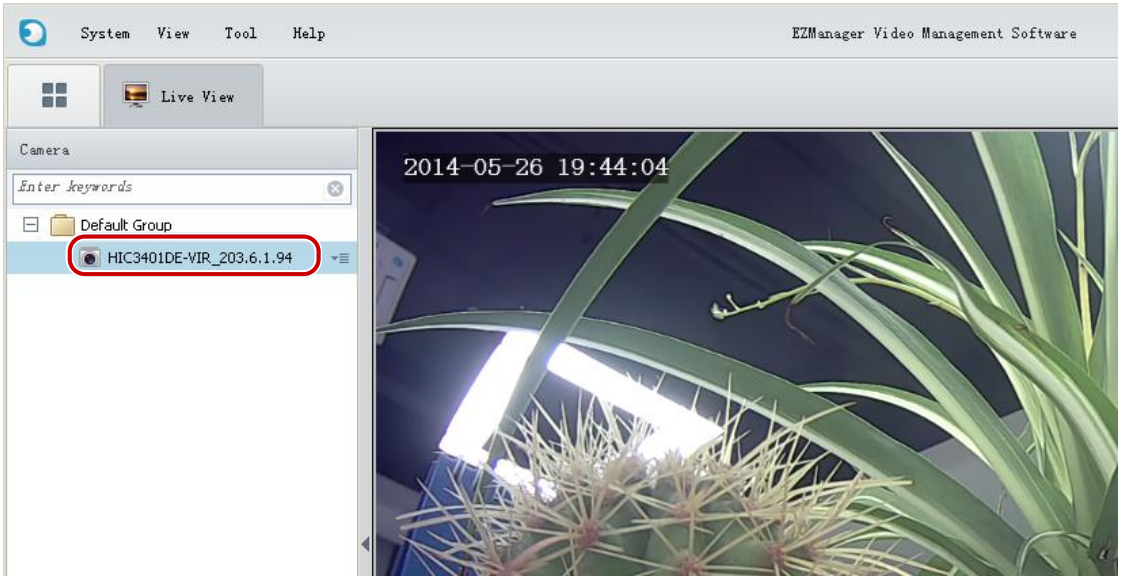
b. Choose **View** > **Live View**.



c. Click  to enter home interface, and then click **Live View**.



d. Double-click the camera in the camera list. The live video is displayed on the quarter-split-screen display window. In addition, double-click the real-time video to obtain full-screen display.



Accessing Controlling Interface

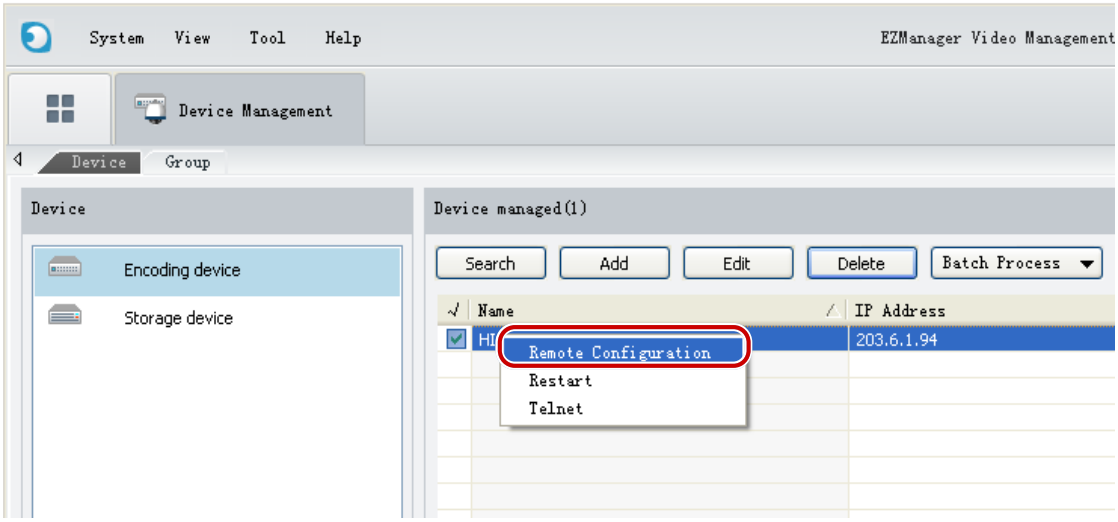
Steps:

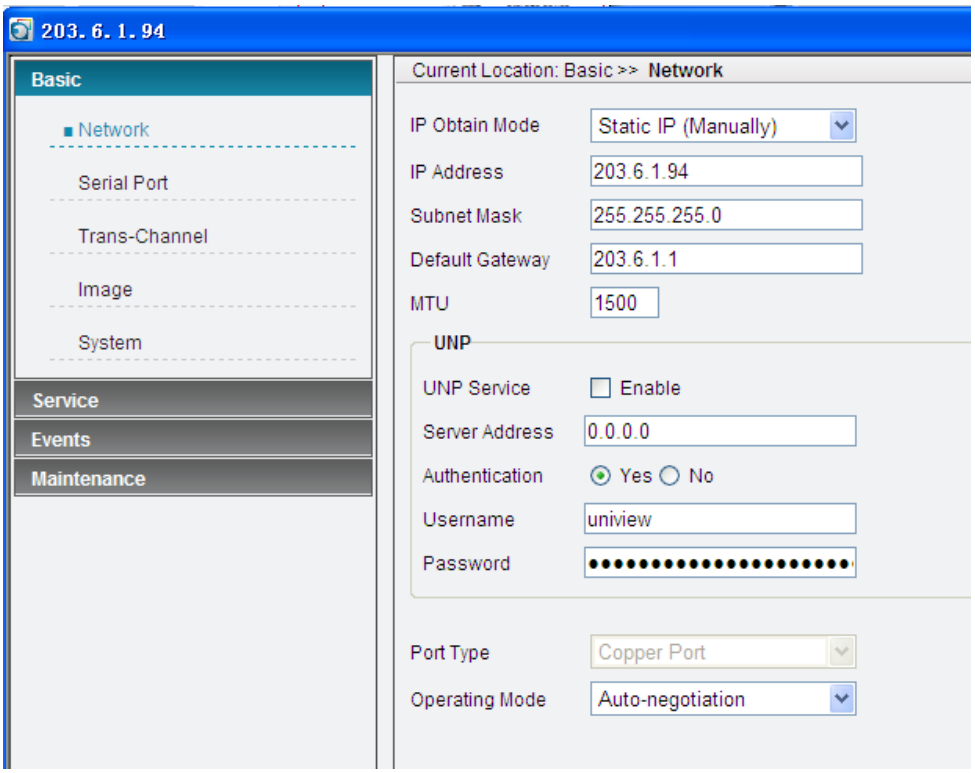
1. Enter the EZManager software login interface.

NOTE!

Step 1-4 in this part differ little from step 1-4 of accessing live view. Please refer to Accessing Live View for detailed information.

2. Input the username and password.
3. Detect the network camera you want to access.
4. Add the network camera.
5. Access the controlling interface of the network camera as follows: right-click the camera in the device list, and then choose **Remote Configuration from the pop-up menu** to enter the controlling interface**.**

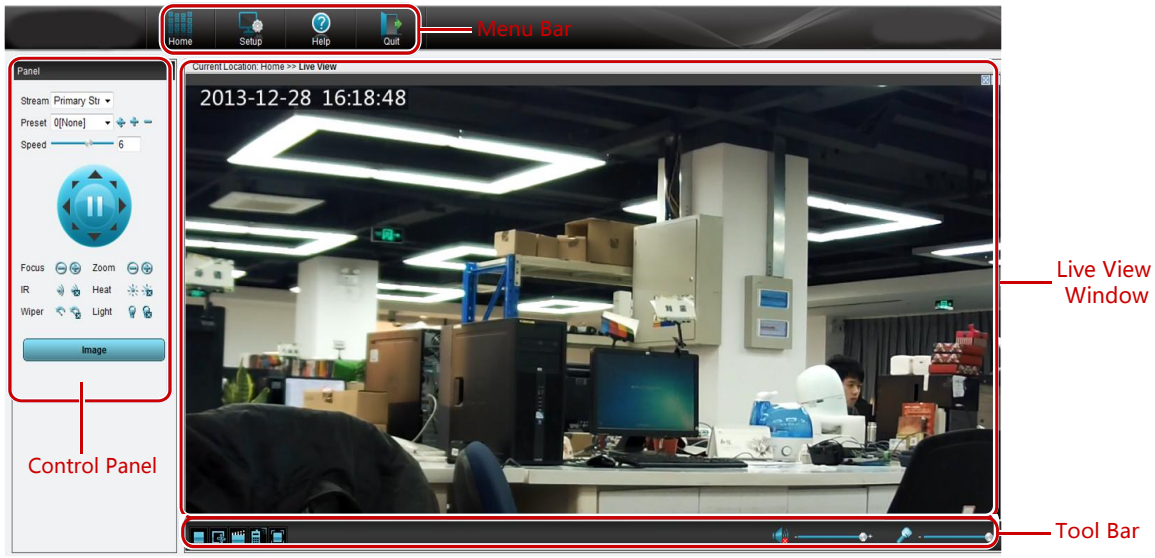



203. 6. 1. 94
Basic
Network
Serial Port
Trans-Channel
Image
System
Service
Events
Maintenance
Current Location: Basic >> Network
IP Obtain Mode
Static IP (Manually)
IP Address
203.6.1.94
Subnet Mask
255.255.255.0
Default Gateway
203.6.1.1
MTU
1500
UNP
UNP Service
Enable
Server Address
0.0.0.0
Authentication
Yes
No
Username
uniview
Password
Port Type
Copper Port
Operating Mode
Auto-negotiation

4 Live View Configuration

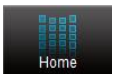
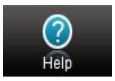
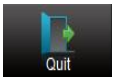
The following picture shows the live view page after you log in to the network camera through web browser. This page enables you to view live video, capture images, record video, control the PTZ, set/call presets and configure video parameters.

Figure 4-1 Live View Page



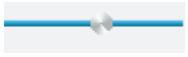
General Instructions of Live View Page

Menu Bar:

Icon	Descriptions
	Enter the **Home** interface of the network camera, including live video and part of controlling setting.(Basically as Figure 4-1)
	Enter the **Setup** interface, which consists of four items setting, that is **Basic**, **Service**, **Events** and **Maintenance** setting. Please refer to Network Camera Configuration for more information.
	Get **Help** information.
	Quit the network camera from the web browser.

Control Panel:

Some **Parameter Setting** described below may not be displayed on the Live View page. The following provides an overview of each available item and function.

Parameter Setting	Icon	Descriptions
Stream	/	Select the stream type for the live video in the live view window. ***Note:*** *If you want to choose other stream to be played in the live view window, make sure corresponding video stream is enabled. Refer to Video Stream for more information.*
Preset		Call the preset
		Add/delete a preset
Speed		Adjust speed of pan/tilt movements
PTZ Control		Click the direction buttons to control the pan/tilt movements. ***Note:*** *To realize PTZ control, the camera must support PTZ function or an external pan/tilt unit has been installed.*
Focus		Focus near/far
Zoom		Zoom in/out
IR		Infrared light on/off
Heat		Heater on/off
Wiper		Wiper on/off
Snow		Snow shaking on/off
Light		Light on/off
Image		Enter image setting page of the device

Live View Window:

Display the live video. Meanwhile, in the live view window, you can use the right-click menu to adjust live view settings. The following describes some of the menu items.

Parameter Setting	Descriptions
Aspect Ratio	Set the video display ratio in the window **Scale:** in 16:9 mode **Stretch:** by the display window size **Original:** by the actual video size
Video Effects	Set some parameters for the video played in the window to improve the image quality. For more information, refer to Video Effects .
System Configuration	Set the local parameters of the client computer for related functions. For more information, refer to System Configuration .

Toolbar:

Operations on the live view page, e.g., live view, capture, record, voice intercom, audio on/off, and etc.

Icon	Descriptions
	Start/stop live view.
	Capture snapshots from the screen. ***Note:*** *The path for saving the snapshots can be specified in the* System Configuration .
	Start/stop local recording. ***Note:*** *The path for saving the recordings can be specified in the* System Configuration .
	Start voice intercom with the device.
	Full screen display.
	Adjust the output volume of the playing ActiveX for the client computer.
	Adjust the MIC volume at the computer side when voice intercom is conducted between the device and the computer.

Video Stream

Triple streams, that is, the primary stream, secondary stream and third stream, are provided to meet different bandwidth and frame rate requirements. You can choose one of them to be displayed in the live view window.

NOTE!

Only **Primary Stream** is listed in the **Stream** option list unless other stream type is enabled.

To enable the secondary stream or the third stream in the live view window, perform the following steps:

1. Click the **Setup** tab on the upper menu bar of the interface (shown as Figure 5-1).
2. Click **Service** > **Encode**.
3. Select **Enable Secondary Stream** or **Enable Third Stream** as required, and then click **OK** to save the settings.

NOTE!

- To enable the third stream, you must enable the secondary stream too.
- To set video stream parameters, you can turn to Encoding for relevant information.

4. Choose stream type to be played in the **Stream** option list on the control panel (shown as Figure 4-1).

Video Effects

You can set parameters to improve the image quality of live videos displayed in the live video window. To configure video effects, you need do the following steps.

1. Click the **Home** tab on the upper menu bar of the interface (show as Figure 4-1).
2. Right-click in the live view window, select **Video Effects**, and configure the following parameters.

Configuration items	Descriptions
Image Adjust	Set brightness, contrast, Gamma, hue, and saturation values for decoded images to improve image quality.
Dynamic Contrast Enhance	To enhance the image scene depth, you can select the **Bright** mode or **Soft** mode and set the proper intensity.
Static Clear	Adjust static images to improve image quality.
Sharpness	Sharpen the images to improve image quality.
Image stabilizer	Reduce the image noise to improve image quality at night.

System Configuration

This section describes how to set the local parameters for your client computer. Please follow the steps below to perform system configuration.

1. Click the **Home** tab on the upper menu bar of the interface (show as Figure 4-1).
2. Right-click in the live view window, select **System Configuration**, configure the parameters listed in the following table, and then click **OK** to save the settings.

Panel Name	Configuration Items	Descriptions
Video Param	Display Mode	Includes **High Quality** and **Common**. ***Note:*** *If the client computer supports Direct 3D, it is recommended to select* ***High Quality*** *for better image effect.*
	Video Pixel Format	Video data format at the client computer. ***Note: RGB32*** *is suitable for old display cards.* ***YUV420*** *is recommended if the client computer supports* ***YUV420****.*
	Audio Encoding Format	Audio encoding format at the client computer.
	Processing Mode	When the network is under good conditions, **Real Time Prior** is recommended; otherwise, select **Fluent Prior**.
	Transmission	Stream transport protocol at the client computer. ***Note:*** If the current stream transport protocol is changed, the live view is automatically interrupted; and a new live view is established using the new protocol.
	Audio Code Sampling Rate(Hz)	Audio sampling rate at the client computer.
Record and Snapshot	Recording	Do recording according to size or time of the recording file.
	Subsection	The maximum size/time duration for a single recording file.

Panel Name	Configuration Items	Descriptions
	Size /Time	
	Record Overwrite	The policy to be taken when recording file overflows. ***Note: Overwrite*** *means that new recording overwrites the current recording.* ***Full Stop*** *means that the recording stops so that the current recording can be kept.*
	Local Recording Format	Format of local recordings.
	Local Recording	Path on the client computer for saving recordings. ***Note:*** *You can click the button*  *on the right to locate the folder.*
	Snapshot Folder	Path on the client computer for saving the snapshots. ***Note:*** *You can click the button*  *on the right to locate the folder.*
	Total Capacity	Total capacity allocated for local recordings.
	Snapshot Format	Snapshot image format.

5 Network Camera Configuration

Basic

Network

This section describes how to configure network parameters for the device, such as IP address, so that the device can be integrated to the network.

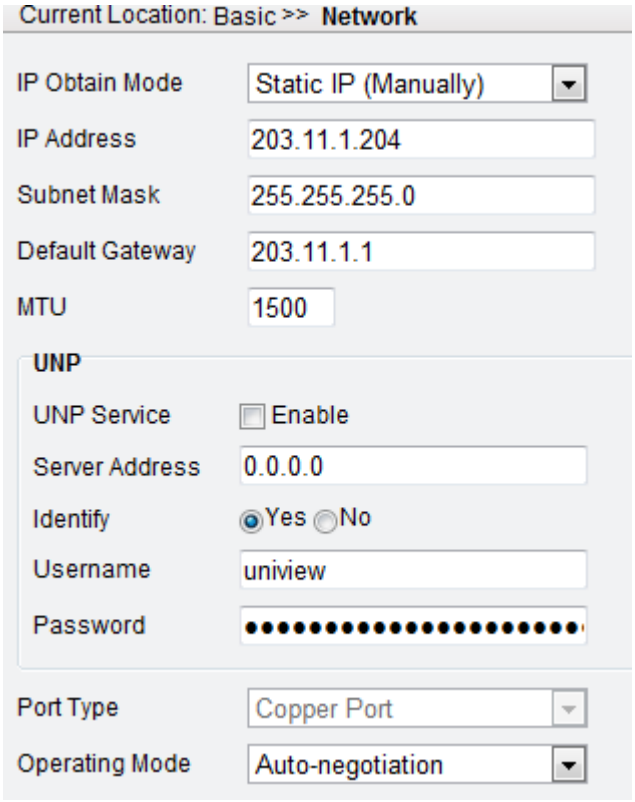
NOTE!

Network settings must be properly configured before you operate the camera over network.

Steps:

1. Enter the **Network** interface:

Setup > **Basic** > **Network**



2. Configure the parameters as listed in the following table.

Configuration items	Description
IP Obtain Mode	• Static Address (Manual): Configure the IP address, subnet mask and default gateway for the camera, making sure that the IP address is unique in the system. • PPPoE: Enter the username and password that the ISP (Internet Service

Configuration items		Description
		Provider) provides. • DHCP: The IP address is obtained automatically. This feature is enabled by default.
MTU		Maximum Transmission Unit (MTU) is used for fragment and reassembly of IP packets. Its default value is 1500 bytes within the range 500 ~ 1500.
UNP	UNP Service	If this service is enabled, the IP address is assigned by the Universal Network Passport (UNP) server.
	Server Address	IP address of the UNP server.
	Authentication	If authentication has been enabled on the UNP server, authentication must be enabled here on the device, and the username and password are required for authentication.
	Username	UNP username, which must be consistent with that configured on the UNP server.
	Password	UNP password, which must be consistent with that configured on the UNP server.
Port Type		Type of the port for communication.
Operating Mode		NIC speed and duplex mode.

3. Click **OK** to save the settings.

NOTE!

The device will reboot after its IP address is changed.

Image

This section describes how to set live view image parameters to meet image quality requirements in different scenes. The default scene remains unchanged until the switching conditions for a specific scene are met.

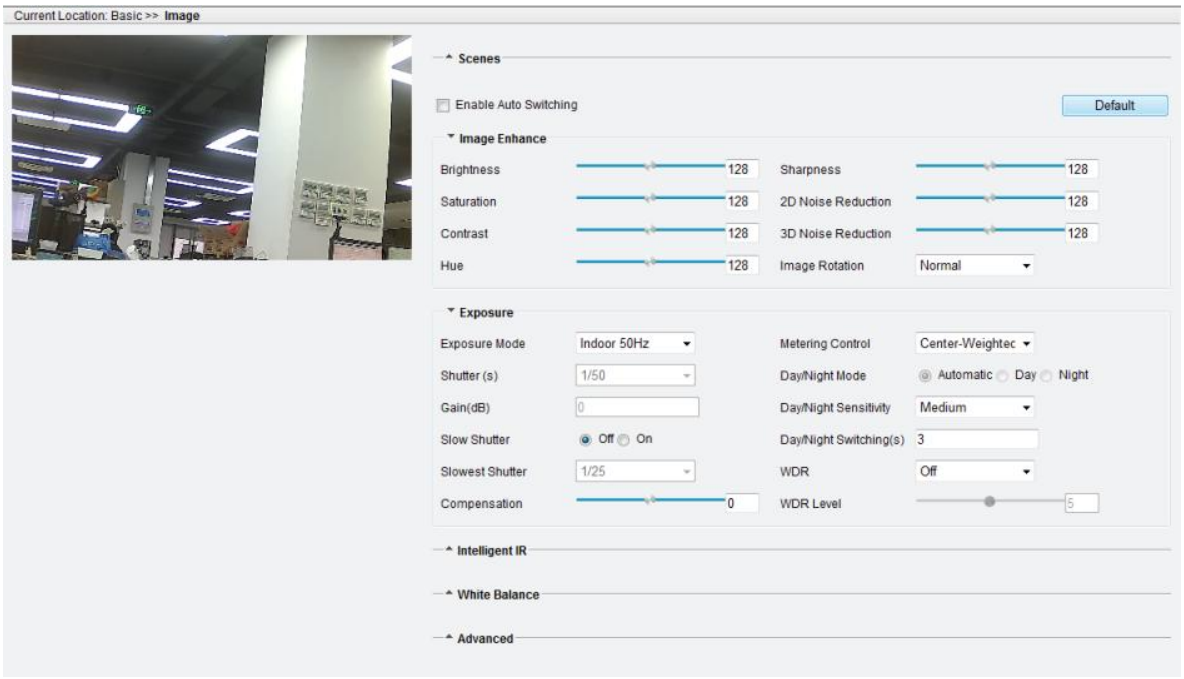
NOTE!

The **Image** parameters vary depending on the model of the camera. For more information, please refer to the web interface.

Setting Default Scene

1. Enter the **Image** interface:

Setup > **Basic** > **Image**



2. Select the **Default Scene** radio button to set the image parameters. The following table lists all parameters.

Configuration items		Description
Image Enhance	Brightness	The image brightness default value is 128, where a higher value produces a brighter image.
	Contrast	The default value is 128.
	Saturation	The saturation default value is 128. Lower values mean less color saturation.
	Hue	The default value is 128.
	Sharpness	The default value is 128.
	Image Rotation	• **Normal**: No rotation processing for the images. • **Flip Vertical**: Rotation processing for the images in the vertical direction. • **Flip Horizontal**: Rotation processing for the images in the horizontal direction. • **180°**: Rotate the images 180 degrees. • **90° CW**: Rotate the images 90 degrees clockwise for corridor mode.
	2D Noise Reduction	• The default value is **128**. Noise reduction might result in blurred image details.
	3D Noise Reduction	• 3D noise reduction might result in image smear.
Exposure Parameters	Exposure Mode	Different modes result in different exposure effects.
	Shutter	Fast shutter speed is suitable for scenes in motion, and slow shutter speed is suitable for scenes with few changes. ***Note:*** • *When the exposure mode is **manual exposure** or **shutter priority**, the time value can be set. When the exposure*

Configuration items		Description
		*mode is **custom exposure**, the minimal and maximum time values can be set.* • *When you set the shutter speed, the reciprocal of the shutter speed must not be less than the frame rate if **slow shutter** is not enabled. Otherwise, image quality might be adversely affected.*
	Gain	Control the level of amplification to provide a better image in low light situations. ***Note:** A high gain will also increase the amount of noise.* *The gain value is allowed to be set in manual or gain priority exposure mode. And its minimal and maximum can be set in custom exposure mode.*
	Slow Shutter	Slow shutter decreases the shutter speed in low light to improve image brightness.
	Slowest Shutter	This item can be adjusted after Slow Shutter is enabled.
	Compensation	Adjust exposure compensation value to get the desired image quality. ***Note:** This item is configurable when the exposure mode is not manual.*
	Metering Control	Select metering mode of the device. • **Center Weighted**: The meter concentrates the central part more than the rest area. • **Evaluative Metering**: Measures user-customized area. ***Note:** This item is configurable when the exposure mode is not manual.*
	Day/Night Mode	• **Automatic**: The device outputs the best images according to the illumination environment and switches between the black/white mode and color mode. • **Night:** The device provides the best black/white images according to the illumination environment. • **Day:** The device provides the best colorful images according to the illumination environment.
	Day/Night Sensitivity	Response time for switching the black/white mode and color mode when the ambient light changes. A smaller value means a higher switching speed. ***Note:** This item is configurable when the Day/Night mode is **Automatic**.*
	Day/Night Switching(s)	Duration time to switch between the black/white mode and color mode when the ambient light changes. ***Note:** This item is configurable when the Day/Night mode is **Automatic**.*
	WDR	Enabling WDR makes both the light and dark areas clearer. ***Note:** This item is configurable when the exposure mode is not manual or custom.*

Configuration items		Description
	WDR Level	This item can be adjusted for better image quality after WDR is enabled.
Intelligent IR	IR Control Mode	• **Global Balance**: Adjust IR light brightness and exposure parameters to achieve balanced image effect automatically. Note that some areas might be over exposed if you select this option. This mode is recommended if monitored range and image brightness are your concerns. • **Over-Exposure Suppression**: Adjust the IR light brightness and exposure parameters to prevent partial over-exposure automatically. Note that some areas might be dark if you select this option. This mode is recommended if clear and proper exposure in the monitored area is your concern. • **IR Manual**: Manually controls the IR light brightness.
	Infrared Level	Set the IR light level. A larger value yields stronger IR light. A value of 0 turns the IR light off. ***Note:*** *This item can be adjusted when the IR Control Mode is* ***Over Exposure Restrict.***
White Balance	White Balance	White balance ensures image colors always appear normal and correct the error caused by the light source. **Auto:** The device automatically controls the red gain and blue gain according to the light source. **Fine Tune:** You can manually adjust the red and blue offsets. **Indoor:** This mode is recommended for indoor scenes. **Outdoor:** This mode is recommended for outdoor scenes.
	Red Offset	Adjust the red gain for the white balance mode. ***Note:*** *This item is configurable when the white balance mode is Fine Tune.*
	Blue Offset	Adjust the blue gain for the white balance mode. ***Note:*** *This item is configurable when the white balance mode is Fine Tune.*
Advanced	Defog	This item makes images clearer in fog or mist situation. ***Note:*** *The higher level means greater defog effect.*

NOTE!

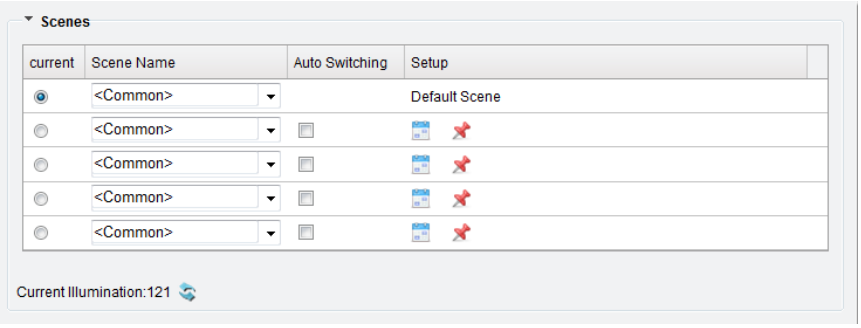
- You can use the slide bar to adjust the image parameter, or directly enter the value in the text box after the slide bar.
- If the reciprocal of the shutter speed is less than the frame rate (for example, the frame rate is 30, and the shutter speed is 1/15), the images might flash. You should make sure the reciprocal of the shutter speed is not less than the frame rate.
- To restore all image parameters to their defaults, click **Default.**
- On the preview pane, you can use the right-click menu to perform live view. The following describes the menu options:

  Full Screen/Normal View is used to play live view in full screen mode or exit the full screen mode. **Aspect Ratio** is used to set the image display ratio on the pane. For example, if you want HD images to be played in 16:9 mode, you can select **Aspect Ratio > Scale**. If you want to display images by the pane size, you can select **Aspect Ratio > Stretch**.

Setting Non-default Scene

1. Enter the Scenes interface:

Setup > **Basic** > **Image**



2. Select the radio button for a non-default scene, configure the parameters as listed in the following table.

Configuration items	Description
Current	Displays the current scene in use. ***Note:*** *You can select the radio button for a scene to switch to the scene. The image parameters are also adjusted to suit the scene.*
Scene Name	Name of the current scene.
Auto Switching	Adds the scene to the auto-switching list. ***Note:*** *After this option is selected, the system can automatically switch to the specific scene when the switching criteria are met. The auto switching list already contains the default scene.*
Setup	Click to configure the auto switching criteria, including the valid time range (start time and end time) for auto switching and illumination range. The time ranges cannot overlap each other. Auto switching occurs only when the illumination range is covered in the valid time range. A value of 0 means the criteria are not effective.

3. For more information about how to configure the image parameters for a specific scene, refer to Setting Default Scene.

4. Repeat the previous steps to configure other non-default scenes.
5. Select **Auto Switching**. The device can automatically switch to the specific scene when the switching criteria are met.

NOTE!

- If you have selected Auto Switching, you cannot configure scene parameters. The device automatically switches scenes according to the existing configuration.
- If multiple non-default scenes meet the switching criteria, the device switches the scene to the one with the smallest ID. The scene IDs are 1, 2, 3, and 4.

System

You can change the system time, device ID, and server IP Address.

When the device is managed in a centralized way, its SD card can be used as a backup of the central server storage. If the communication between the network camera and central storage is interrupted due to network problems, the front-end network camera temporarily stores the video data in the SD card. In this case, it is recommended to enable recording backup. Normally, the system backs up recordings on the SD card of a front-end network camera to the backup server if the SD card contains recordings and the network camera and the backup server can communicate.

To back up recordings, make sure there is an SD card in the network camera, and configure backup resources on the central server for the network camera, and configure the recording backup parameters on the web interface of the network camera.

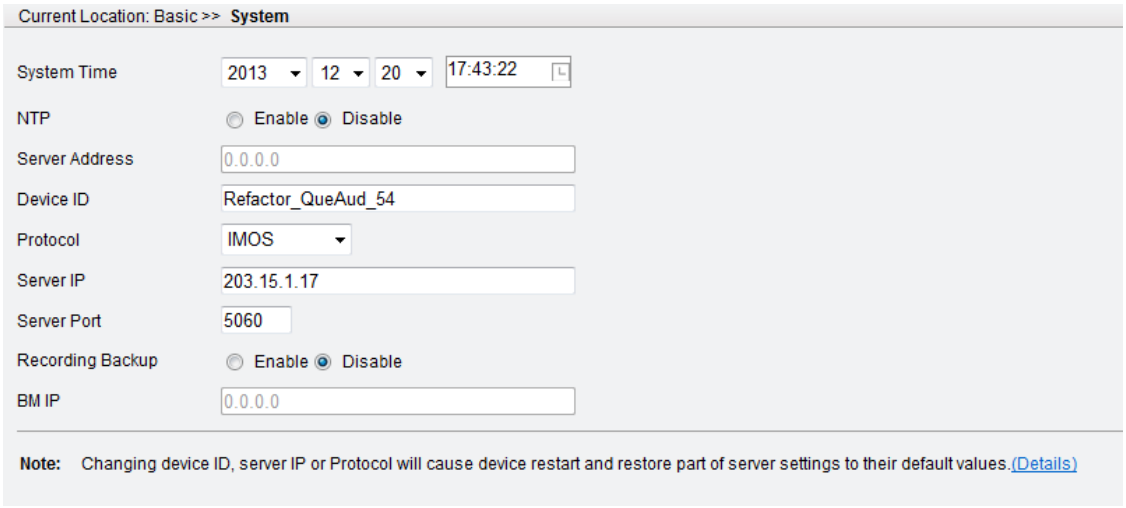
CAUTION!

Changing the device ID or VM server IP address will cause the device to reboot. In this case, the login password and system time will be synchronized with the new central server, and all the other parameters will be restored to the factory defaults except the NIC parameters, VM server parameters, image parameters, OSD parameters, custom user information and ROI parameters.

Steps:

1. Enter the **System** interface:

Setup > **Basic** > **System**



2. Configure the parameters as listed in the following table.

Configuration items	Description
System Time	Set the system time.
NTP	If NTP is enabled, system time is synchronized with the NTP server periodically.
Server Address	Make sure this Address is consistent with that of the IP address of NTP Server.
Device ID	When the device is managed by the central server, make sure the device ID is unique.
Protocol	Make sure this protocol is consistent with that of the central server management protocol. ***Note:*** *Choose "None" when device is standalone.*
Server IP	Make sure this IP address is consistent with that of the central server. ***Note:*** *This item needs to be configured when the device is managed by the central server.*
Server Port	Port number used for communicating with the central server, which must be consistent with the SIP port number of the central server. The default value is 5060. ***Note:*** *This item needs to be configured when the device is managed by the central server.*
Recording Backup	Enable or disable recording backup. ***Note:*** *This item needs to be configured when the device is managed by the central server.*
BM IP	Make sure this IP address is consistent with that of the backup server. ***Note:*** *This item is configurable only when recording back is enabled.*

3. Click **OK** to save the above settings.

Service

In this section, you can configure the encoding settings, Audio settings, OSD settings, ROI settings, Media stream settings and Preset patrol configuration.

Encoding

This section describes how to set the video standard and encoding parameters for different streams, and how to display the current status of the BNC output.

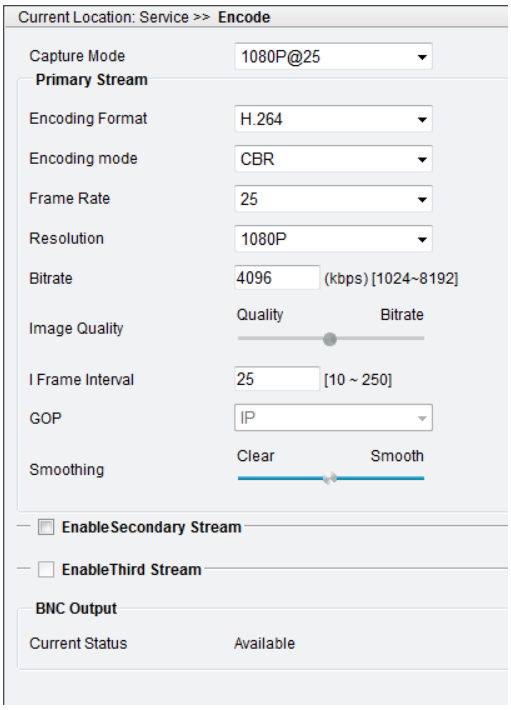
NOTE!

- The parameters for the secondary stream and third stream are similar with those of the primary stream. Unless otherwise specified, the following table takes the primary stream as an example.
- Some device models support third stream. To enable it, make sure Secondary Stream must be enabled simultaneously.

Steps:

1. Enter the **Encode** interface:

Setup > Service> Encode



2. Configure the parameters as listed in the following table:

Configuration items	Description
Capture Mode	Specify a video standard.
Encoding Format	Video encoding format.
Encoding mode	• **CBR:** The device uses constant encoding bitrate to send data. • **VBR:** The device dynamically adjusts the encoding bitrate according to the image quality.
Frame Rate	Image encoding frame rate. The unit is frame per second (FPS). ***Note:*** *To ensure image quality, the frame rate cannot be larger than the reciprocal of the shutter speed if you have set the shutter speed.*
Resolution	Resolution of the encoded images.
Bitrate	When the encoding mode is VBR or CBR, this value is the maximum bitrate.
Image Quality	When the encoding mode is VBR, you can set the quality level for encoded images. A value closer to bitrate priority means a smaller bitrate but might result in poor image quality. A value closer to quality priority means a larger bitrate and higher image quality.
I Frame Interval	It is recommended that this value be consistent with the frame rate.
GOP	GOP (Group of pictures) structural parameter.
Smoothing	Stream smoothening level. *Clear* means stream smoothen is not enabled. A value closer to *Smooth* means a higher smoothening level but might adversely affect image clearness. ***Note:*** *In poor network environment, enabling stream* ***smoothing*** *makes images smoother.*

Audio

This section describes how to set audio encoding parameters.

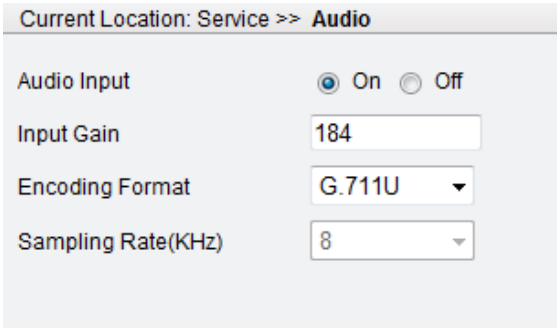
NOTE!

Some device models don't support audio settings. For more information, refer to the web interface.

Steps:

1. Enter the **Audio** interface:

Setup > **Service** > **Audio**



2. Configure the parameters as listed in the following table:

Configuration items	Description
Audio Input	Enables/disables audio input. If you disable audio input, no audio data is encoded. ***Note:*** *You can disable audio input if audio is not required. In this case, the device performance can be improved to some extent.*
Input Gain	Amplifying value for audio sampling. A larger value yields a higher amplifying ratio.
Encoding Format	Audio encoding format.
Sampling Rate	Audio sampling rate.

3. Click **OK** to save the above settings.

OSD

On-screen display (OSD) displays characters overlaying on the video images. OSD contents include time and other custom contents.

In some scenarios, it is required to hide some sensitive or privacy related areas on the live view, for example, the keyboard at the ATM. The feature for this requirement is called privacy mask. The privacy mask always works to hide the specified area regardless of the operations you perform.

NOTE!

On the preview pane, you can use the right-click menu to establish full-screen live view. The following describes the menu options:

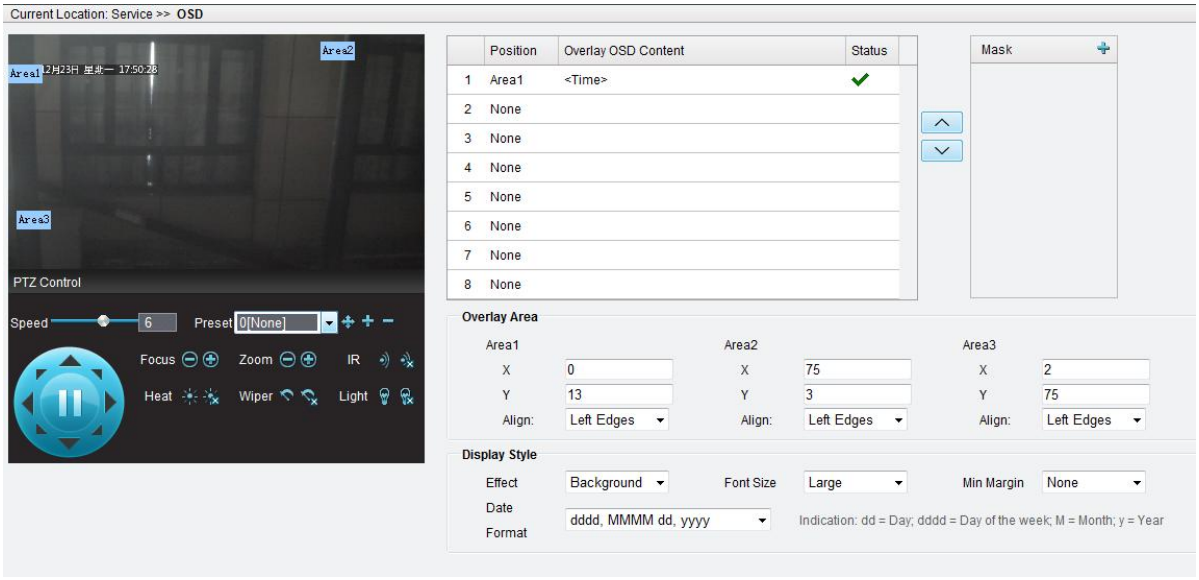
Full Screen/Normal View is used to play live view in full screen mode or exit the full screen mode.

Aspect Ratio is used to set the image display ratio on the pane. For example, if you want HD images to be played in 16:9 mode, you can select **Aspect Ratio** > **Scale**. If you want to display images by the pane size, you can select **Aspect Ratio** > **Stretch**.

Steps:

1. Enter the **OSD** interface

Setup > **Service** > **OSD**



2. Configure the following settings. In the overlay OSD area, set the OSD position, OSD content, overlay area, and content style. After you specify the OSD position and set the content, ✔ on the status bar means that the OSD settings are valid. At an OSD position, you can enter multiple lines as the content, and use the buttons ∧ and ∨ to adjust their display sequence.
3. In the privacy mask area, click the + button to add a new mask and click the − button to delete a mask.

Region of Interest (ROI)

If ROI is chosen, image quality in this region is first guaranteed when bandwidth is not enough. This section describes how to set audio encoding parameters.

NOTE!

Some device models don't support ROI. For more information, refer to the web interface.

Steps:

1. Enter the Region of Interest Settings interface.

Setup > **Service** > **Region of Interest**

2. If “Enable Region of Interest” is chosen, you can draw the region of interest on the image.

NOTE!

On the preview pane, you can use the right-click menu to establish full-screen live view. The following describes the menu options:

Full Screen/Normal View is used to play live view in full screen mode or exit the full screen mode. **Aspect Ratio** is used to set the image display ratio on the pane. For example, if you want HD images to be played in 16:9 mode, you can select **Aspect Ratio** > **Scale**. If you want to display images by the pane size, you can select **Aspect Ratio** > **Stretch**.

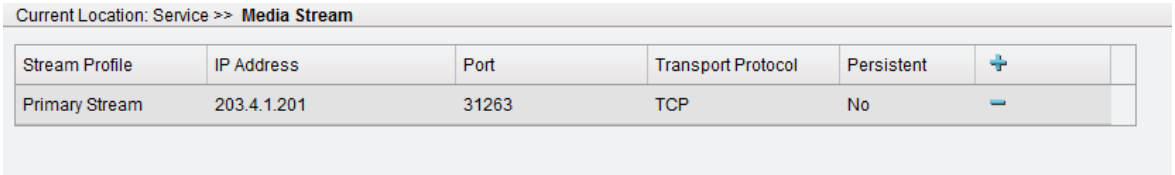
Media Stream

This section describes how to set the unicast or multicast IP address and port number for decoder that receives audio/video streams, and display media stream transport protocol.

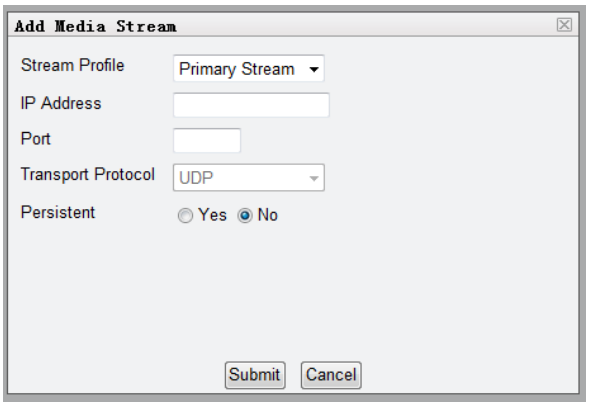
Steps:

1. Enter the **Media Stream** interface:

Setup > **Service** > **Media Stream**



2. Click the + button to specify the unicast or multicast IP address and port number for the decoder end that outputs streams and receives audio/video streams.



You can delete a stream by clicking the — button

3. Click **Submit** to complete the configuration.

NOTE!

- Choose “Persistent” if you need to establish the configured media stream automatically when the device reboots. .
- Only **Primary Stream** is listed in the **Stream Profile** list unless other stream type is enabled.

Preset Patrol

Preset patrol means that the PTZ camera rotate among multiple preset positions, or rotate following a specified route, for example, turn upward or turn left. You can rotate the PTZ camera and set the preset positions according to the current live view preview, and perform some operations to the PTZ camera.

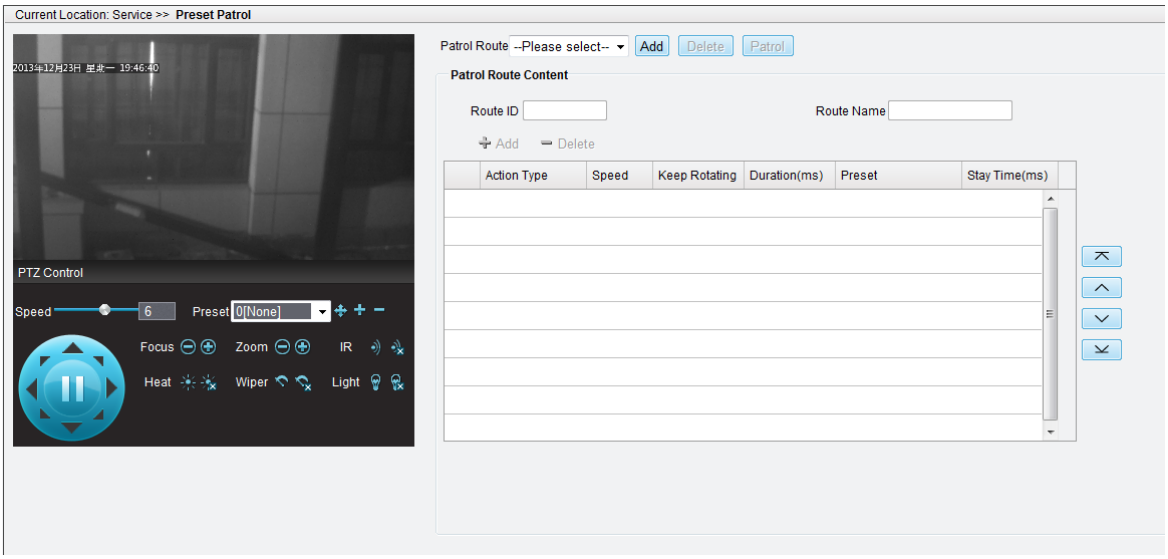
NOTE!

Some device models don’t have Preset Patrol Settings. For more information, refer to the web interface.

To configure preset patrol, please follow the steps below.

1. Enter the **Preset Patrol** interface:

Setup > **Service** > **Preset Patrol**



2. In the **Patrol Route** drop-down box, set preset positions or perform some operations to the PTZ camera. For more information, refer to Live View Configuration .

- To add the current PTZ position as a preset position, click **Add** to the right of the drop-down box, enter the route ID and name, and click **OK**.
- To have the PTZ moving to a preset position, select the corresponding preset item from the **Patrol Route** drop-down box and click **Patrol**.
- To delete a preset position, select the preset item from the **Patrol Route** drop-down box and click **Delete**.

To add a patrol route, please follow the steps below.

1. Enter the Preset Patrol interface:

Setup > **Service** > **Preset Patrol**

2. Click **Add** near the **Patrol Route** drop-down box.
3. In the **Patrol Route Content** area, enter the route name and ID, and click **Add** to add patrol actions. You can adjust the action sequence in the patrol route by clicking the corresponding buttons. Patrol actions include the following:

- After you click Add, you can configure the PTZ camera to rotate to the preset position and the hold time.
- After you click Add, you can specify the rotation direction, zoom value, rotation speed, rotation duration, and hold time, or you can configure the PTZ camera to keep rotating.

NOTE!

It is recommended that the first action in the patrol route is rotating to the preset position.

4. Click **OK** to confirm the configuration.

To start a patrol route, please follow the steps below.

1. Enter the **Preset Patrol** interface:

Setup > **Service** > **Preset Patrol**

2. From the **Patrol Route** drop-down box, select the patrol route to be started, and click **Patrol.**

To delete a patrol route, please follow the steps below.

1. Enter the Preset Patrol interface:

Setup > **Service** > **Preset Patrol**

2. From the **Patrol Route** drop-down box, select the patrol route to be deleted, and click **Delete**.

Storage

NOTE!

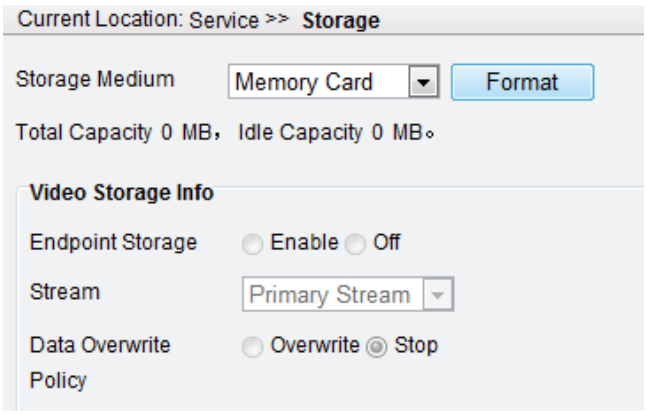
To configure record settings, please make sure that you have the network storage device within the network or the SD card inserted in your camera

Storage Settings contain the edge storage and endpoint cache. The endpoint storage sends data to Micro SD. This mode is suitable for the device standalone operation. The endpoint cache makes the Micro SD as backup of the Center Server, which means, data is stored to Micro SD when the Center Server Storage fails, and update to the Backup Server for Cache Post Recording (For more information, refer to System Configuration).

Steps:

1. Enter the **Storage** interface:

Setup > **Service** > **Storage**



2. Configure the parameters as listed in the following table:

Configuration items	Description
Storage Medium	Type of the storage medium. • *Click **Format** and click **OK** to format the storage medium (Micro SD). It will ask for a reboot to format the storage medium.* • *Total Capacity and Idle Capacity of the Micro SD are shown on the web.*
Endpoint Storage	Specify Enable or Off the Endpoint Storage. ***Note:**The Endpoint Cache is enabled when the Endpoint Storage is off and the Centre Server Storage is failed.*
Stream	Specify the stream to be stored.
Data Overwrite Policy	**Overwrite:** Data is overwritten from the beginning when the storage capacity is full. **Stop:** Data is not written when the storage capacity is full.

3. Click **OK** to confirm the configuration.

NOTE!

- The endpoint storage and endpoint cache cannot be configured at the same time because only one Micro SD is supported as storage media.
- It is suggested to enable the endpoint storage when the service is in the standalone status, and disable this function when the device is centralized managed, otherwise, it may influence the Endpoint Cache.

Events

You can use event settings to implement alarm reporting and associate actions to specific alarms, so that the system can take proper actions in time in response to the alarms. Event configuration covers Motion Detection, Occlusion Detection, Temperature Alarm, Boolean input/output alarms and Audio Alarm.

NOTE!

Some device models have different associate actions. For more information, refer to the web interface.

Motion Detection

Motion detection is a feature which can take alarm response actions and record the video for the motion occurs in the surveillance scene.

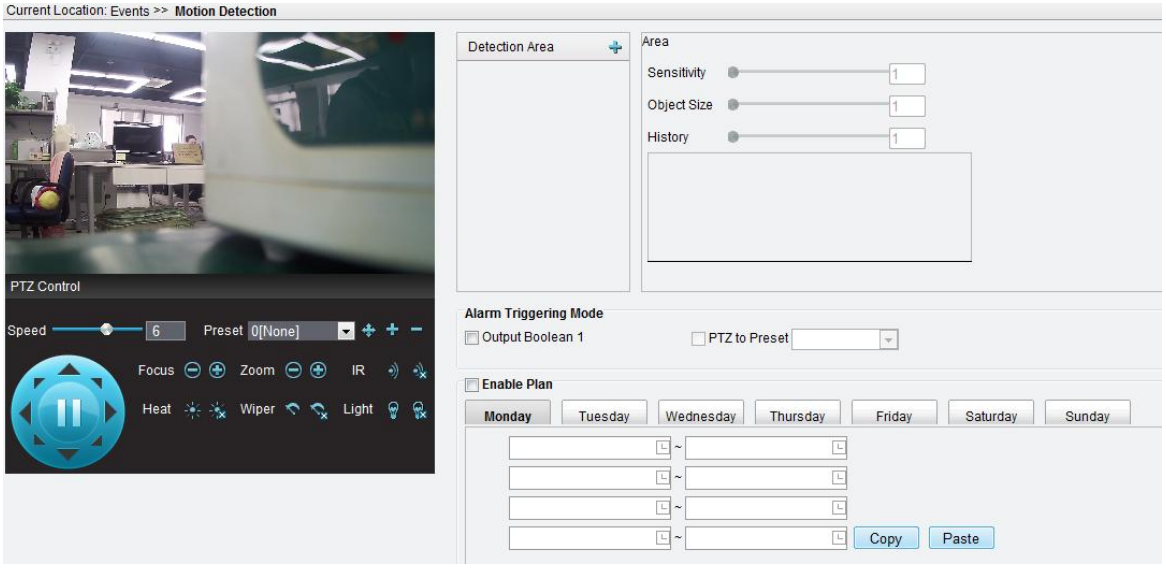
NOTE!

Some device models don't have PTZ Control, and some have different associate actions. For more information, refer to the web interface.

Steps:

1. Enter the **Motion Detection** interface

Setup > **Events** > **Motion Detection**



2. In the **Detection Area** part, click the + button to add an area.
3. Drag the rectangle frame of the area to set its position and range.
4. Set the **Sensitivity**, **Object size**, and **History** for motion detection as the alarm report criteria.

NOTE!

- A larger sensitivity value means a higher detection level (a little change in the area can be detected). When the change scope exceeds the object size and the change duration exceeds the specified duration, the alarm is reported.
- The motion detection results are displayed in real time on the page, and the red ones are the reported ones.

5. Configure the parameters as listed in the following table:

Configuration items	Description
Output Boolean 1	Specifies the alarm output port associated with the motion detection alarms. ***Note:*** *When an alarm occurs, the device triggers corresponding Boolean alarm, thus triggering the action on the third-party device.*
PTZ to Preset	Specifies the PTZ preset position associated with the motion detection alarms. ***Note:*** • *This item is configurable only after you add preset positions on the preset patrol setting page.* • *When an alarm occurs, the alarm triggers the PTZ camera to rotate to the preset position automatically, so that users can capture the images at site.*
Enable Plan	Select this checkbox and specify the time segment for the arming plan (including the start time and end time). The time segments you specify cannot overlap each other. The device outputs alarm signals only in the valid time segments. Week days include Monday to Sunday, and each day is divided into four time segments. ***Note:*** *After you complete setting the time segments for a day, you can* ***Copy*** *and* ***Paste*** *the time segments to another day.*

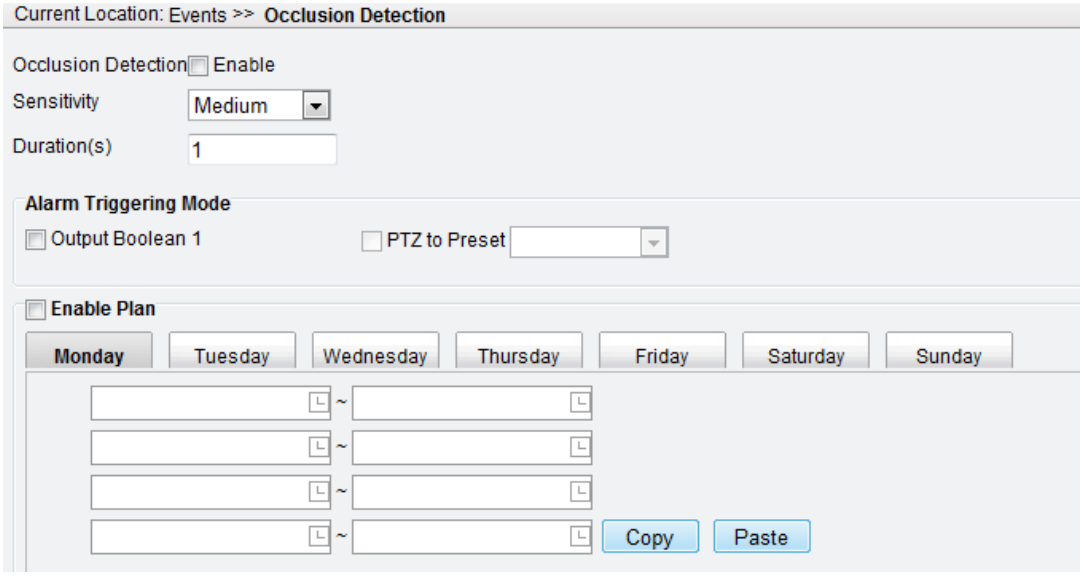
6. Click **OK** to complete the configuration.

Occlusion Detection

Steps:

1. Enter the **Occlusion Detection** interface:

Setup > **Events** > **Occlusion Detection**



2. Set the **Occlusion Detection**, **Sensitivity** and **Duration** parameters. Occlusion is easier to be detected with a higher value of **Sensitivity** (for example, A further/smaller occlusion may be detected in a high sensitivity). Alarm occurs when the lens is occluded and lasts for more than the time of duration.
3. Configure the parameters as listed in the following table:

Configuration items	Description
Output Boolean 1	Specifies the alarm output port associated with the occlusion detection alarms. ***Note:*** *When an alarm occurs, the device triggers corresponding Boolean alarm, thus triggering the action on the third-party device.*
PTZ to Preset	Specifies the PTZ preset position associated with the motion detection alarms. Note: • *This item is configurable only after you add preset positions on the preset patrol setting page.* • *When an alarm occurs, the alarm triggers the PTZ camera to rotate to the preset position automatically, so that users can capture the images at site.*
Enable Plan	Select this checkbox and specify the time segment for the arming plan (including the start time and end time). The time segments you specify cannot overlap each other. The device outputs alarm signals only in the valid time segments. Week days include Monday to Sunday, and each day is divided into four time segments. ***Note:*** *After you complete setting the time segments for a day, you can* ***Copy*** *and* ***Paste*** *the time segments to another day.*

4. Click **OK** to complete the configuration.

Temperature Alarm

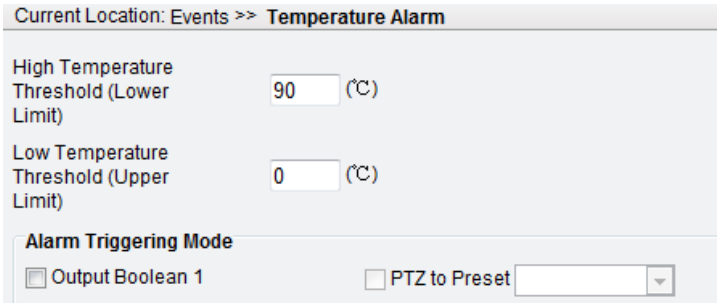
NOTE!

Some device models don't support Temperature Alarm Settings, and some have different associate actions. For more information, refer to the web interface.

Steps:

1. Enter the **Temperature Alarm** interface:

Setup > **Events** > **Temperature Alarm**.



2. Configure the parameters as listed in the following table.

Configuration items	Description
High/Low Temperature Threshold (Lower/Upper Limit)	Upper/lower limit for triggering temperature alarms.
Output Boolean 1	Specifies the alarm output port associated with the temperature alarms. ***Note:*** *When an alarm occurs, the device triggers corresponding Boolean alarm, thus triggering the action on the third-party device.*
PTZ to Preset	Specifies the PTZ preset position associated with the temperature alarms. ***Note:*** • *This item is configurable only after you add preset positions on the preset patrol setting page.* • *When an alarm occurs, the alarm triggers the PTZ camera to rotate to the preset position automatically, so that users can capture the images at site.*

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

Input Alarm

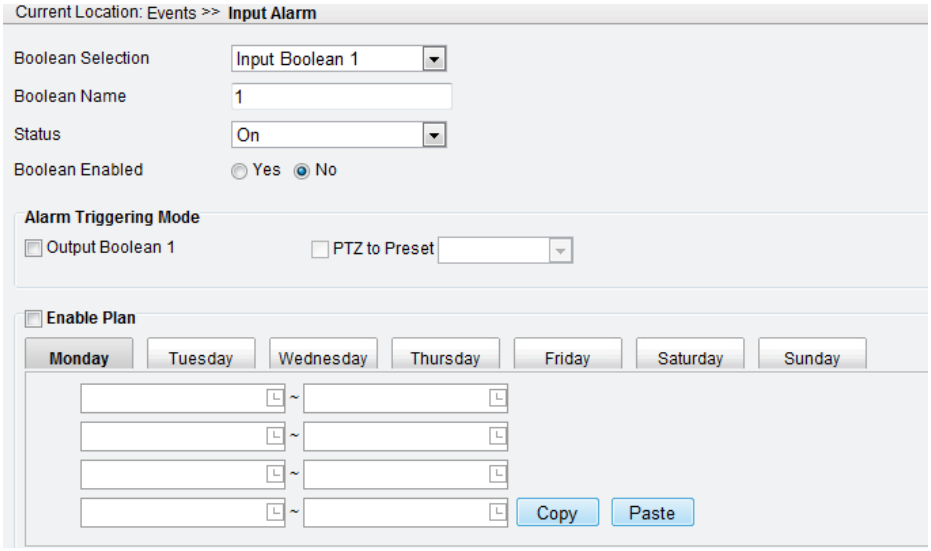
NOTE!

Some device models don't support Input Alarm Settings. For more information, refer to the web interface.

Steps:

1. Enter the **Input Alarm** interface:

Setup > **Events** > **Input Alarm**



2. Configure the parameters as listed in the following table.

Configuration items	Description
Boolean Selection	Input port for external alarms.
Boolean Name	N/A
Status	Specifies the Boolean input as *On* or *Off* according to the status of the third-party alarm input device. For example, if the alarm input device is *Normal On*, you must set this value to *On* for the device to receive the alarms from the third-party devices properly.
Boolean Enabled	Enables/disables Boolean.
Enable Plan	Specifies the start time and end time for arming. The time segments cannot overlap each other. The device outputs alarm signals only in the valid time segments. Week days include Monday to Sunday, and each day is divided into four time segments. ***Note:*** • *After you complete setting the time segments for a day, you can **Copy** and **Paste** the time segments to another day.* • *This item is configurable only after Boolean is enabled.*
Output Boolean 1	Specifies the alarm output port associated with the Boolean input alarms. ***Note:*** *When an alarm occurs, the device triggers corresponding Boolean alarm, thus triggering the action on the third-party device.*
PTZ to Preset	Specifies the PTZ preset position associated with the Boolean input alarms. ***Note:*** • *This item is configurable only after you add preset positions on the preset patrol setting page.* • *When an alarm occurs, the alarm triggers the PTZ camera to rotate to the preset position automatically, so that users can capture the images at site.*

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

Output Control

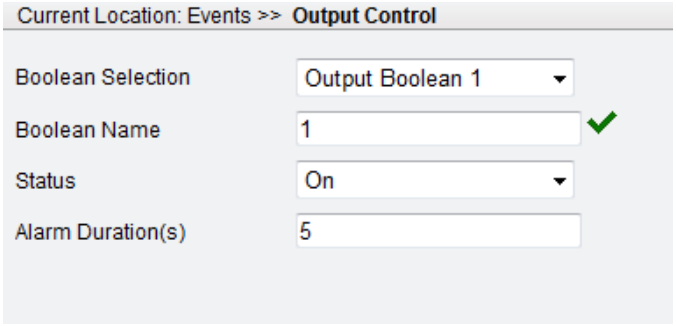
NOTE!

Some device models don't support Output Control Settings. For more information, refer to the web interface.

Steps:

1. Enter the **Output Control** interface:

Setup > **Events** > **Output Control**



2. Configure the parameters as listed in the following table.

Configuration items	Description
Boolean Selection	Specifies the alarm output port associated with motion detection alarms, temperature alarms or Boolean input alarms.
Boolean Name	N/A
Status	Specifies the Boolean output as **On** or **Off** according to the status of the third-party alarm output device. For example, if the alarm output device is **Normal On**, you must set this value to **On** for the device to output alarms to the third-party devices properly.
Alarm Duration	Duration for outputting alarms.

CAUTION!

When the device is connected to an alarm output device, please strictly follow the following power-on sequence. Otherwise, IPC internal components might be damaged.

The power-on sequence is as follows:

(1) Make sure the Boolean output is set to **On** (the default). Make sure the IPC and the alarm output device is powered off when you connect them.

(2) After the connection, power on the alarm output device, and then power on the IPC.

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

Audio Alarm

This section describes how to configure the audio alarm to the IPC audio input. The audio alarm is detected when change range of volume exceeds a certain value or its value exceeds a certain threshold with alarm reporting and associate actions.

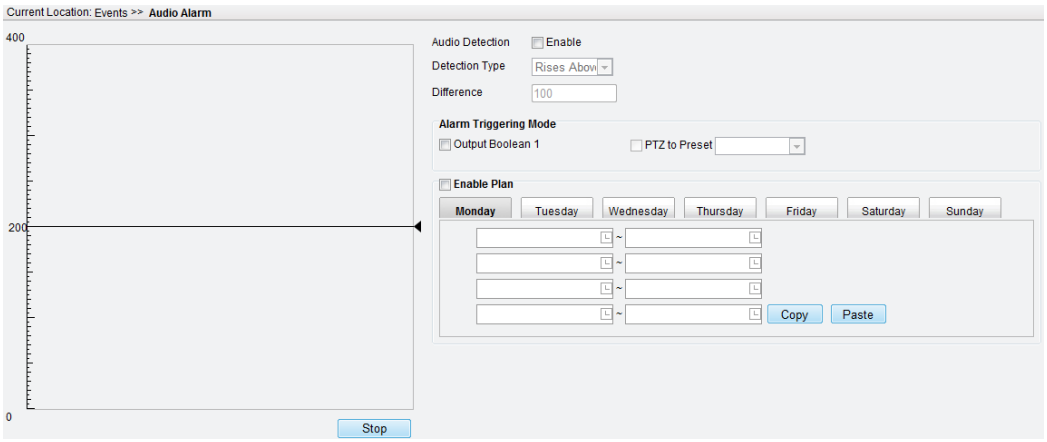
NOTE!

Some device models don't support Audio Alarm Settings, and some have different associate actions. For more information, refer to the web interface.

Steps:

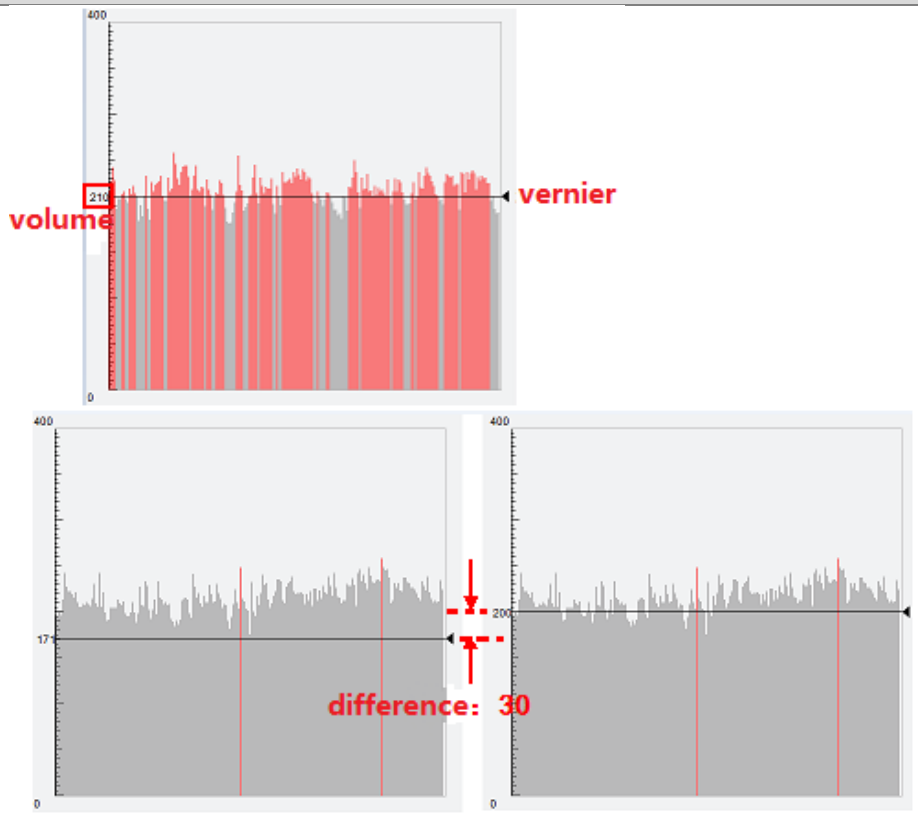
1. Enter the **Audio Alarm** interface:

Setup > **Events** > **Audio Alarm**



2. Configure the parameters as listed in the following table.

Configuration items	Description
Audio Detection	Make sure the device is connected to external audio input device if Audio Detection is Enabled.
Detection Type	• **Rises Above:** The alarm occurs when volume rising range exceeds certain value. • **Falls below:** The alarm occurs when volume falling range exceeds certain value. • **Passes:** The alarm occurs when volume rising or falling range exceeds certain value. • **Threshold:** The alarm occurs when volume exceeds threshold.
Difference/Threshold	• **Threshold:** Set the threshold for generating alarms • **Difference:** generates an alarm when the difference of two specific volumes exceeds this value. ***Note:*** • *You can check volume using the meter on the left side of the page.* • *Threshold is shown when the Detection Type is "Threshold", otherwise Difference is shown.* • *The audio detection results are displayed in real time on the page, and the red ones are the reported ones.*

Configuration items	Description
	
Output Boolean 1	Specifies the alarm output port associated with the audio detection alarms. ***Note:*** *When an alarm occurs, the device triggers corresponding Boolean alarm, thus triggering the action on the third-party device.*
PTZ to Preset	Specifies the PTZ preset position associated with the audio detection alarms. ***Note:*** • *This item is configurable only after you add preset positions on the preset patrol setting page.* • *When an alarm occurs, the alarm triggers the PTZ camera to rotate to the preset position automatically, so that users can capture the images at site.*
Enable Plan	Select this checkbox and specify the time segment for the arming plan (including the start time and end time). The time segments you specify cannot overlap each other. The device outputs alarm signals only in the valid time segments. Week days include Monday to Sunday, and each day is divided into four time segments. ***Note:*** *After you complete setting the time segments for a day, you can Copy and Paste the time segments to another day.*

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

6 Others

Maintenance

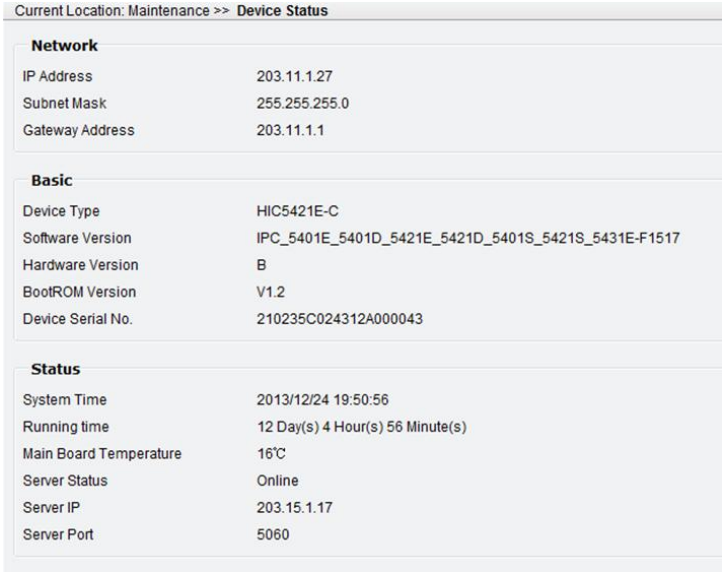
Device Status

You can check the device status in real time, making the device easy to maintain.

Steps:

1. Enter the **Device Status** interface

Setup > **Maintenance** > **Device Status**



2. View the device status.

Attributes	Description
IP Address	Current IP address of the device.
Subnet Mask	Subnet mask for the current IP address of the device.
Gateway Address	Current gateway IP address of the device.
Device Type	Device model.
Software Version	Current software version of the device.
Hardware Version	Current hardware version of the device.
BootROM Version	Current BootROM version of the device.
Device Serial No.	Serial No. of the device, which is on the label attached to the device.

Attributes	Description
Server Status	Status of the central server connected to the device when the device is managed by the central server.
Server IP	IP address of the central server in scenarios where the current device is under the management of the central server.
Server Port	Port number of the central server for communicating with the device when the device is managed by the central server.
System Time	Current system time of the device.
Running Time	Uninterruptedly running time of the device.
Main Board Temperature	Current temperature of the main board.

User Management

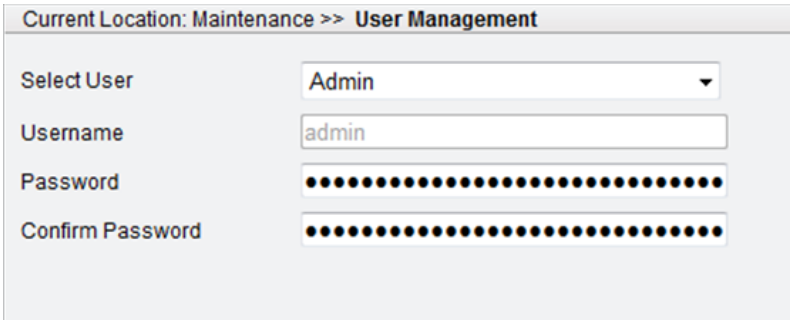
NOTE!

- The default administrator user account is “admin”, which cannot be renamed. The administrator has all management and operation permissions, and the other operators have only the live view permission.
- After you change the username or password of a user account, you will be logged out if you have logged in using the user account. To log into the system using the user account again, you need to provide the new username or the password.
- If you delete an operator, the operator is forcedly logged out.

Steps:

1. Enter the **User Management** interface

Setup > **Maintenance** > **User Management**



2. Select a user type. You can add an operator or modify the username and password for an operator. If you want to delete an operator, clear the username of the operator.
3. Click **OK** to confirm the configuration.

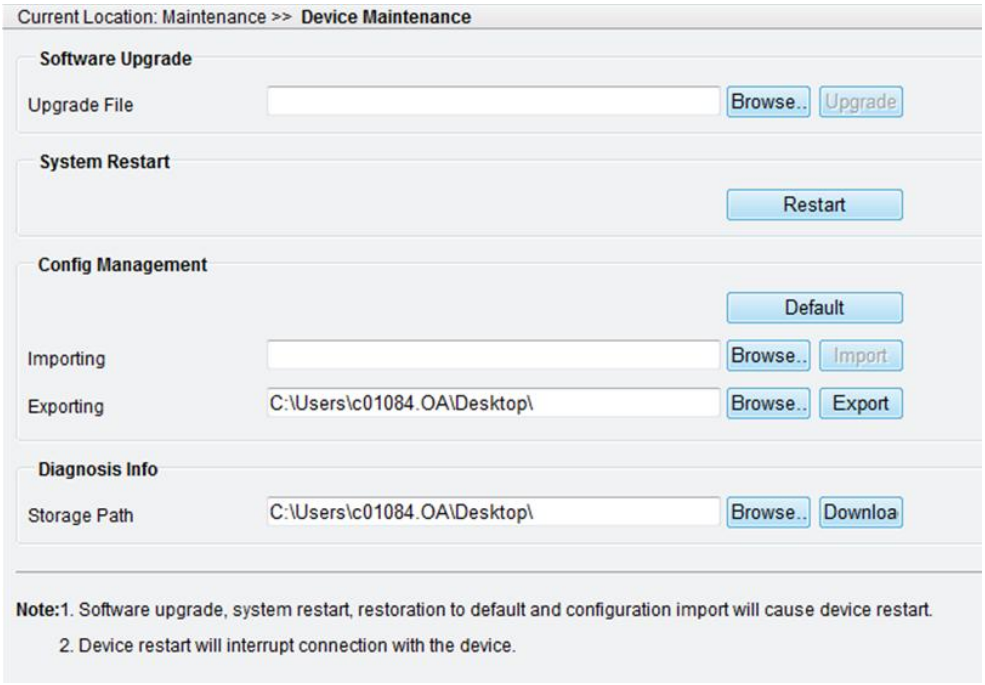
Device Maintenance

Software Upgrade

When the devices are managed in a centralized way, it is recommended to upgrade the devices through the central server if you want to upgrade them in batches. For more information, refer to the online help for the central server.

1. Enter the **Device Maintenance** interface

Setup > **Maintenance** > **Device Maintenance**



2. In the **Software Upgrade** area, click **Browse** and select the upgrade folder where the upgrade files reside.
3. Click **Upgrade** and click **OK** to launch the software upgrade process. The device will reboot automatically after the upgrade process completes.

NOTE!

The upgrade folder must contain all necessary upgrade files.

System Restart

CAUTION!

System reboot might interrupt the services. Make sure you understand the impacts before you reboot the system.

1. Enter the **Device Maintenance** interface

Setup > **Maintenance** > **Device Maintenance**

2. In the **System Restart** area, click **Restart** and click **OK**.

Config Management

You can export the current device configuration file to the local computer or other storage medium for backup purposes, or import the previously exported configuration into the device to restore the configuration.

CAUTION!

- Make sure the configuration file to import is of a device that is of the same model. A wrong configuration file might cause device exception.
- After the configuration file is imported successfully, the device will restart.
- If you restore the default configuration, all parameters will be restored to the factory defaults except the network setting, system time.

1. Enter the Device Maintenance interface

Setup > **Maintenance** > **Device Maintenance**

2. In the **Config Management** area, select the configuration file by clicking **Browse…** in the **Importing** row and then to **import** the local configuration file. The system will prompt the result after the import process completes.
3. To export the current configuration, click **Browse** in the **Exporting** row, set the path for saving the configuration file, and click **Export**.
4. To restore the default configuration, click **Default** and then click **OK**. The device will then restart with the default configuration.

Diagnosis Information

Diagnosis information includes log information and system configuration information. You can export diagnosis information as a local file.

1. Enter the Device Maintenance interface

Setup > **Maintenance** > **Device Maintenance**

2. In the **Diagnosis Info** area, clicking **Browse** to select the path for saving the information and then click **Download** to save the diagnosis information as a file in the specified folder.

NOTE!

The diagnosis information is saved in .tgz files. You can decompress the files and open them using a text editor.

Serial Port

The serial port settings must match the settings of the other device connected to the serial port. RS-485 serial ports are used to control PTZ cameras and to transparently transmit data with third-party devices.

If the device supports PTZ control and you specify the serial port mode as PTZ control on the central server, you must also login to the device and select **PTZ mode** for the serial port setting through the web interface.

NOTE!

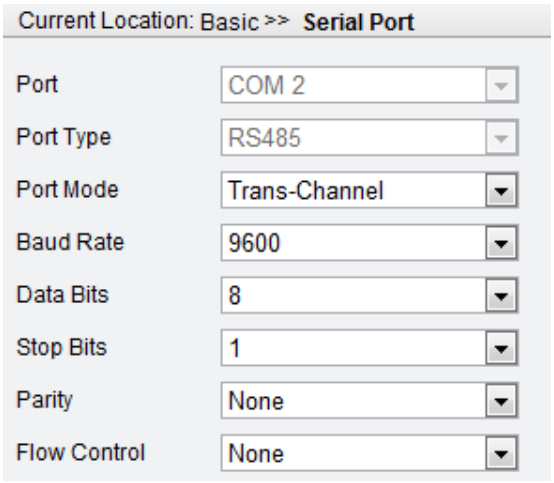
Some device models do not support serial port settings. For more information, refer to the web interface.

.

Steps:

1. Enter the **Serial Port** interface:

Setup > **Basic**> **Serial Port**



2. Configure the parameters as listed in the following table.

Configuration items	Description
Port	Name of the serial port to be set.
Port Type	Type of the serial port to be set.
Port Mode	• **PTZ Control:** Uses the RS-485 serial port to control a PTZ camera. • **Trans-Channel:** Uses the RS-485 serial port to transparently transmit data with a third-party device. • **OSD:** Uses the RS-485 serial port to receive serial data with a third-party device and reparse it, then display in the overlay OSD. ***Note:*** *If OSD is specified, make sure the format of serial data sent from the third-party device meets our data format. (For more information, contact our Support)*
Baud Rate	The default value is 9600. ***Note:*** *The baud rate of the serial port must be consistent with that of the device connected to the serial port.*
Data Bits	The default value is 8.
Stop Bits	The default value is 1.
Parity	The default value is None.
Flow Control	The default value is None.
PTZ Protocol	Sets the PTZ protocol supported by the channel. ***Note:*** • *This item is configurable only when the serial port mode is **PTZ control**.* • *If you select **INTERNAL-PTZ** as the PTZ protocol, the serial port is not used for external PTZ and its parameters are unavailable. You can perform control over internal PTZ after you connect the focus/zoom interface to the lens.*
PTZ Mode	• **Internal PTZ Priority:** The device first uses internal PTZ functions (for example, focus and zoom) rather than external PTZ. If a PTZ function is not available on the

Configuration items	Description
	device, the device then uses the external PTZ. • **External PTZ Priority:** The device uses the external PTZ to perform PTZ operations. ***Note:*** • *This item is configurable only when the serial port mode is **PTZ control**.* • *If you select **INTERNAL-PTZ** as the PTZ protocol, the PTZ mode is fixed to **Internal PTZ Priority**. The serial port cannot be used for external PTZ.* • *Before using PTZ control, make sure the interfaces related to PTZ control have been connected properly according to the specified PTZ mode.*
Address Code	Sets the PTZ address code. ***Note:** This item is configurable when the serial port mode is **PTZ control** and the PTZ protocol is not I**NTERNAL-PTZ**.*

3. Click **OK** to save the above settings.

Trans-Channel

Transparent channels are used to transparently transmit data between two devices.

Make sure the serial port mode of the device has been set to **Trans-Channel**, for detailed information, refer to Serial Port**.**

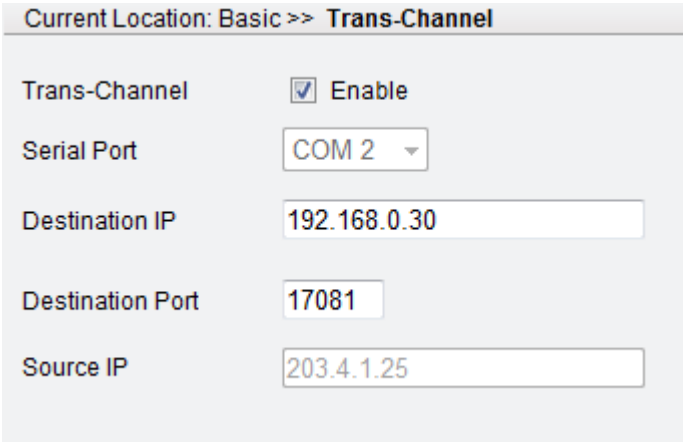
NOTE!

Some devices don't support the Trans-Channel Settings. For more information, refer to the web interface.

Steps:

1. Enter the **Tans-Channel** interface:

Setup > **Basic** > **Serial Port**



2. Configure the parameters as listed in the following table.

Configuration items	Description
Trans-Channel	Enables/disables the transparent channel.
Serial Port	Name of the serial port to be set.
Destination IP	IP address of the third-party device connected to the transparent channel. ***Note:*** *This item is configurable after the transparent channel is enabled.*
Destination Port	Port number of the third-party device connected to the transparent channel. ***Note:*** *This item is configurable after the transparent channel is enabled.*
Source IP	Displays the IP address on the device side.

3. Click **OK** to save the above settings.

7 Appendix- EZManager Introduction

Description of EZManager

EZManager, as one software of Uniview's video surveillance managing software suite, integrates multi-functionality with not only live video viewing, network camera detecting and configuring, log administration and user information setting, but also the convenience of sequence displaying, multi-monitoring. It serves as a micro managing system, and enables you to detect online devices within your subnet and reveal the information of the devices. And with it, you can also modify the basic network setting of the devices.

Detecting Devices Online

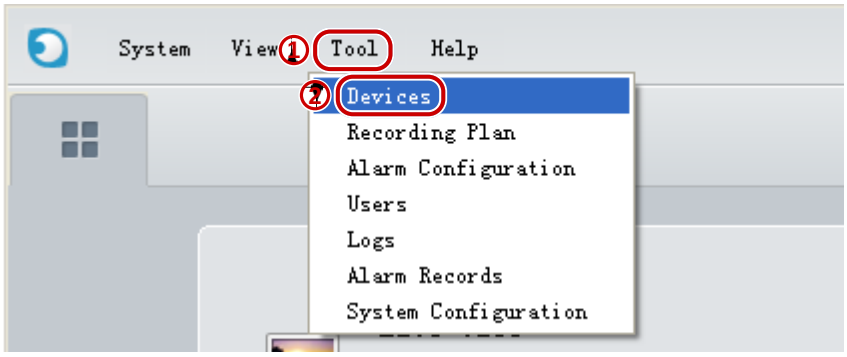
Prior to detecting devices online via EZManager software, please make sure EZManager is correctly installed. After that, enter EZManager and do the following steps to detect devices online.

NOTE!

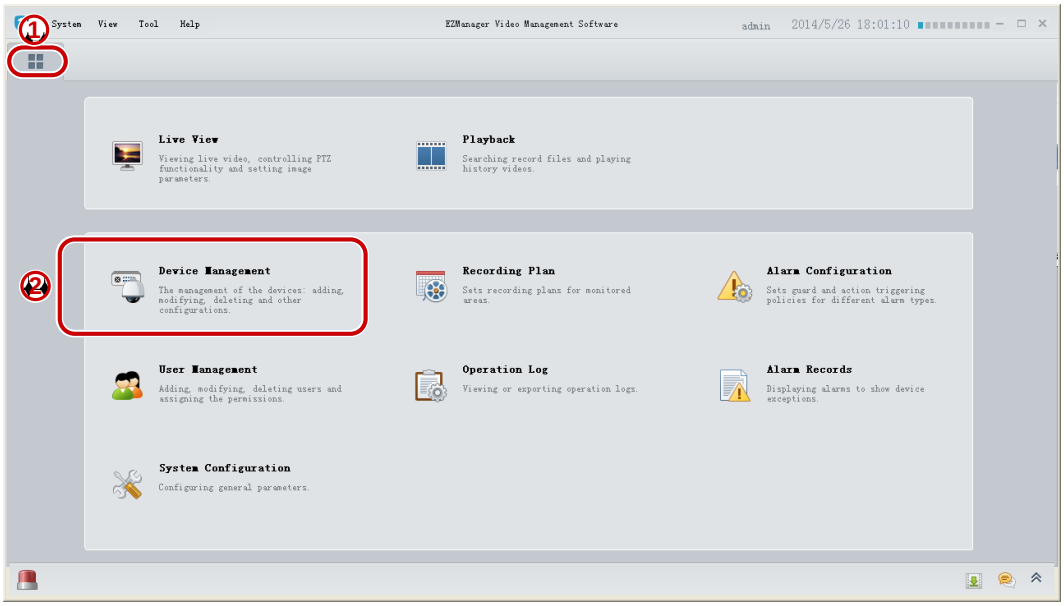
The default user name of EZManager is "*admin*", and password is "*admin*".

Steps:

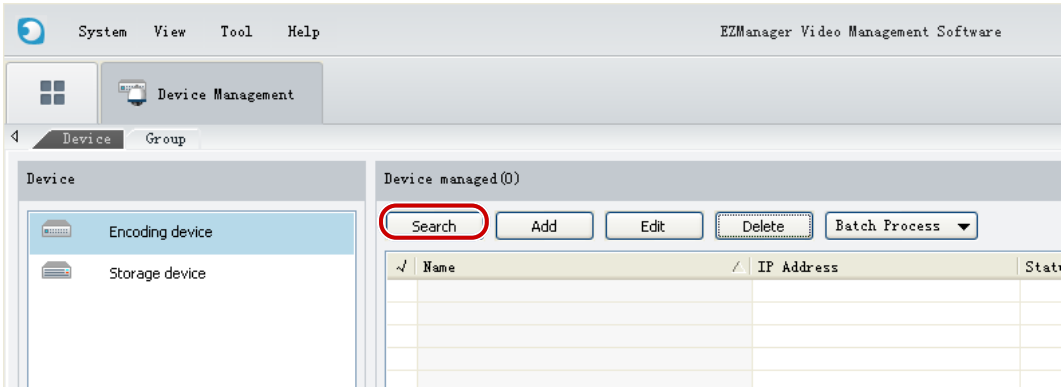
1. Access the **Device Management** interface. You can try either of the following two methods.
   a. Click **Tool**, and then select **Devices** in the drop-down list.



   b. Click  to enter home interface, and then click **Device Management**.



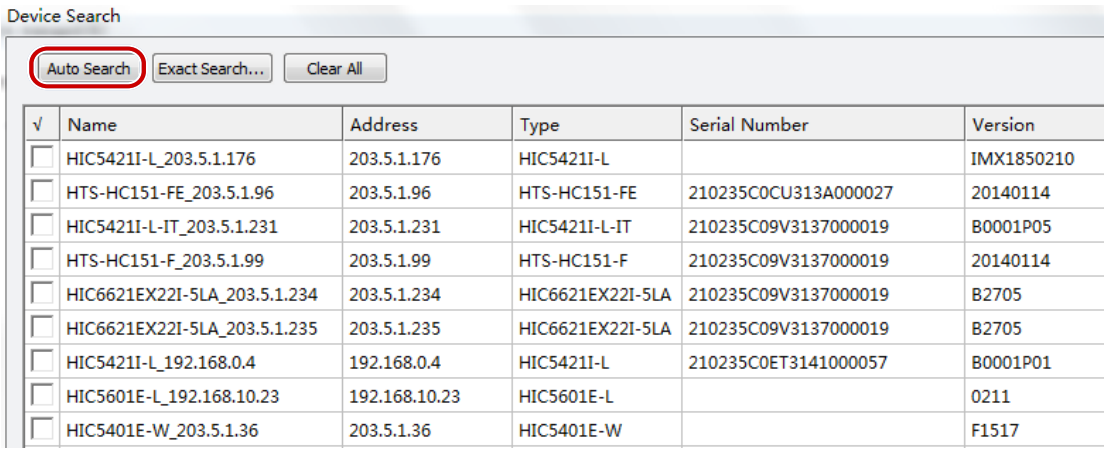
c. Click Search. Then, a Device Search box will be popped out.



NOTE!

In this step, make sure **Encoding device** is selected in the **Device** list on the right of the **Device Management** interface**.**

2. Click **Auto Search**. All the detected network cameras will be listed after a short period's search.

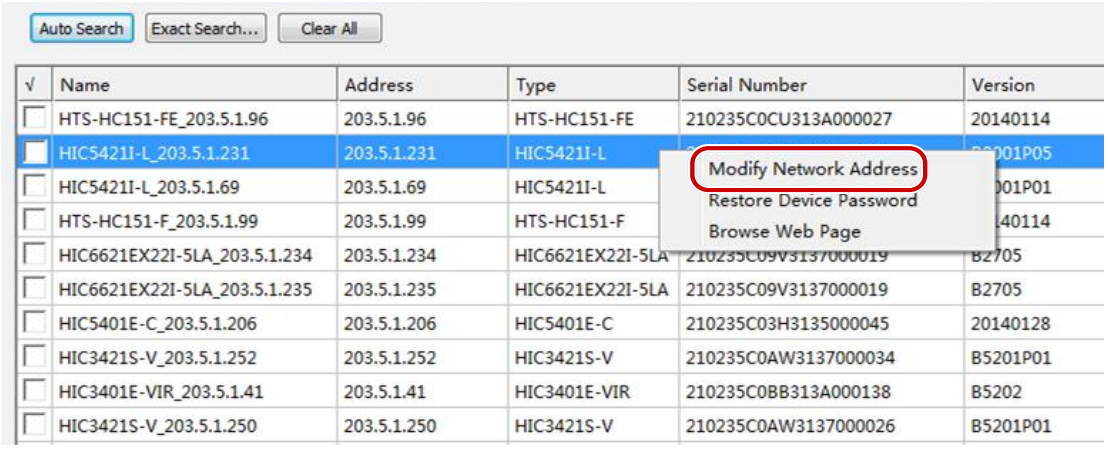


√	Name	Address	Type	Serial Number	Version
	HIC5421I-L_203.5.1.176	203.5.1.176	HIC5421I-L		IMX1850210
	HTS-HC151-FE_203.5.1.96	203.5.1.96	HTS-HC151-FE	210235C0CU313A000027	20140114
	HIC5421I-L-IT_203.5.1.231	203.5.1.231	HIC5421I-L-IT	210235C09V3137000019	B0001P05
	HTS-HC151-F_203.5.1.99	203.5.1.99	HTS-HC151-F	210235C09V3137000019	20140114
	HIC6621EX22I-5LA_203.5.1.234	203.5.1.234	HIC6621EX22I-5LA	210235C09V3137000019	B2705
	HIC6621EX22I-5LA_203.5.1.235	203.5.1.235	HIC6621EX22I-5LA	210235C09V3137000019	B2705
	HIC5421I-L_192.168.0.4	192.168.0.4	HIC5421I-L	210235C0ET3141000057	B0001P01
	HIC5601E-L_192.168.10.23	192.168.10.23	HIC5601E-L		0211
	HIC5401E-W_203.5.1.36	203.5.1.36	HIC5401E-W		F1517

Modifying Network Configuration

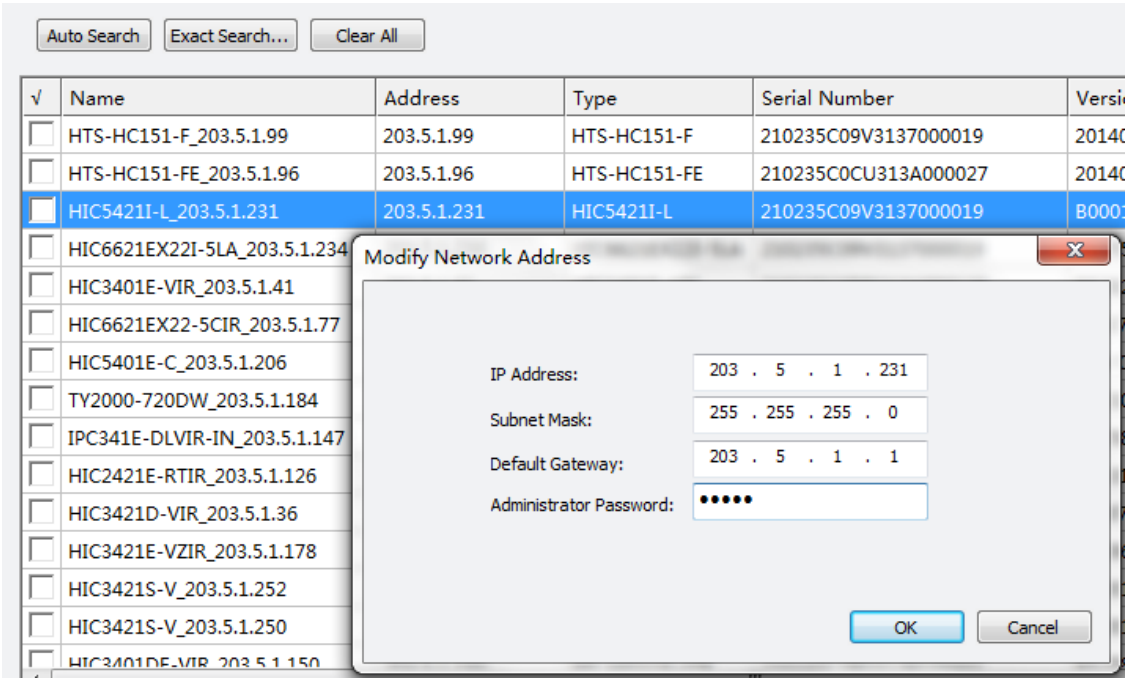
Steps:

1. Detect devices online. Please refer to the section of Detecting Devices Online in this User Manual for detailed information.
2. Find the device to be modified in device list according to its Name, IP Address, Type or Serial Number labeled on the product.
3. Right-click the selected device in device list, and then a drop-down list will be popped out.



√	Name	Address	Type	Serial Number	Version
	HTS-HC151-FE_203.5.1.96	203.5.1.96	HTS-HC151-FE	210235C0CU313A000027	20140114
	HIC5421I-L_203.5.1.231	203.5.1.231	HIC5421I-L		001P05
	HIC5421I-L_203.5.1.69	203.5.1.69	HIC5421I-L		001P01
	HTS-HC151-F_203.5.1.99	203.5.1.99	HTS-HC151-F		140114
	HIC6621EX22I-5LA_203.5.1.234	203.5.1.234	HIC6621EX22I-5LA		B2705
	HIC6621EX22I-5LA_203.5.1.235	203.5.1.235	HIC6621EX22I-5LA	210235C09V3137000019	B2705
	HIC5401E-C_203.5.1.206	203.5.1.206	HIC5401E-C	210235C03H3135000045	20140128
	HIC3421S-V_203.5.1.252	203.5.1.252	HIC3421S-V	210235C0AW3137000034	B5201P01
	HIC3401E-VIR_203.5.1.41	203.5.1.41	HIC3401E-VIR	210235C0BB313A000138	B5202
	HIC3421S-V_203.5.1.250	203.5.1.250	HIC3421S-V	210235C0AW3137000026	B5201P01

4. Click **Modify Network Address** on popped menu. A corresponding box will appear.



NOTE!

- The default gateway information you set must match IP address**.**
- The administrator password is "*admin*" while default account is used.

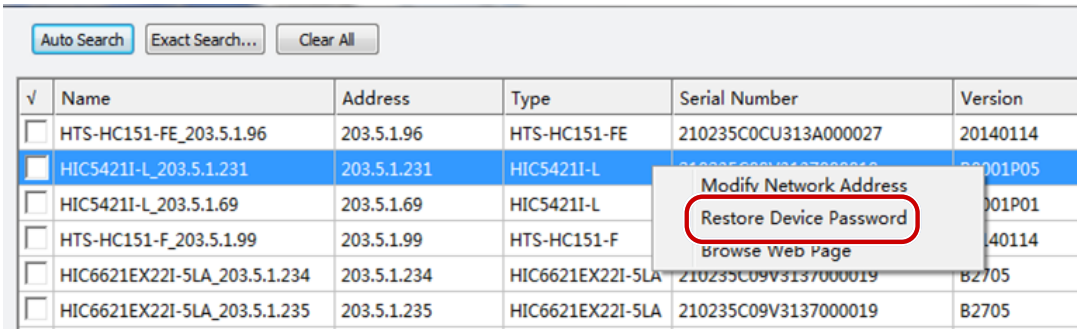
5. Modify the network parameters in corresponding setting blanks.

Restoring Default Password

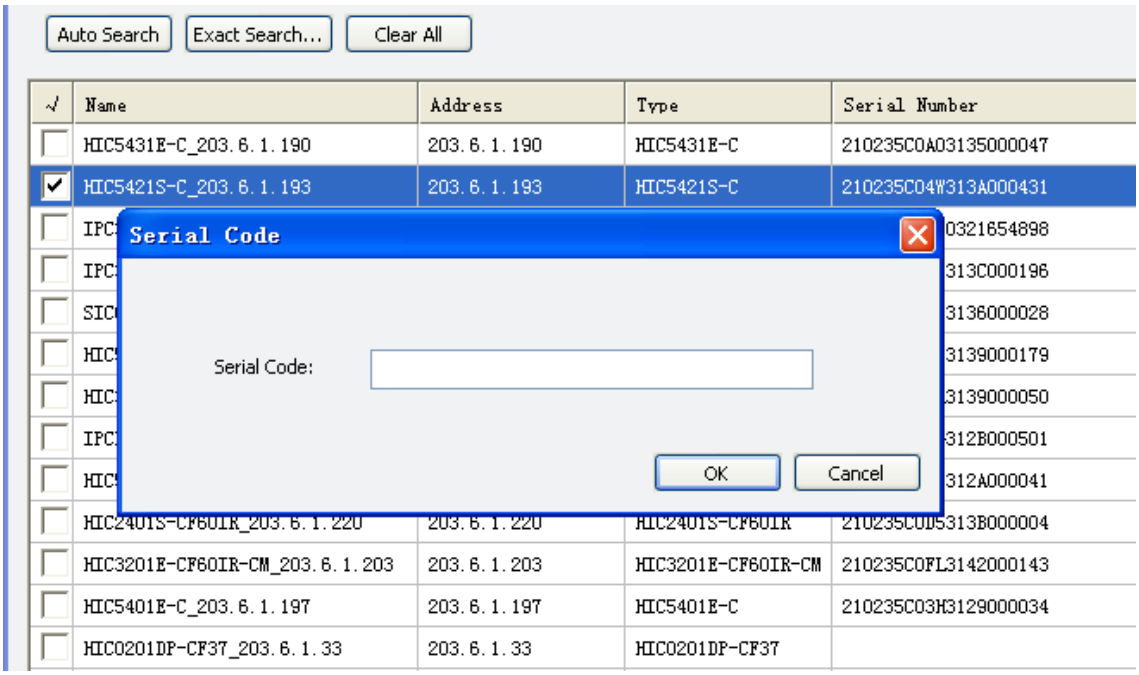
Serial code is a must to restore the device to the default password. And it is a series of characters combined with the start time and the serial number of the device. To get it, contact your technical engineers.

Steps:

1. Detect devices online. Please refer to the section of Detecting Devices Online in this User Manual for detailed information.
2. Find the device to be modified in device list according to its Name, IP Address, Type or Serial Number labeled on the product.
3. Right-click the selected device in device list, and then a drop-down list will be popped out.



4. Click **Restore Device Password** on popped menu. Then a relevant box will appear.



5. Input the serial code in the serial code field and click **OK** to restore the default password.

http://www.uniview.com/en/
globalsupport@uniview.com