Network Camera

User Manual

V4.0.1

Hikvision Digital Technology Co., Ltd.

http://www.hikvision.com

use-IP
www.use-ip.co.uk
01304 827609

This manual is applied to the following camera models:

Type	Model
Box camera III	DS-2CD883F-E, DS-2CD855F-E, DS-2CD854F(WD)-E, DS-2CD853F-E, DS-2CD864F(WD)-E, DS-2CD863PF(NF)-E, DS-2CD893PFWD(NFWD)-E, DS-2CD833F-E, DS-2CD893PF(NF)-E
Dome camera III	DS-2CD783F-E(I), DS-2CD754F-E(I), DS-2CD764FWD-E(I), DS-2CD764F-E, DS-2CD754FWD-E(I), DS-2CD753F-E(I), DS-2CD763PF(NF)-E(I), DS-2CD793PF-E(I), DS-2CD793PFWD(NFWD)-E(I), DS-2CD733F-E(I), DS-2CD733F-EZ, DS-2CD755F-E(I), DS-2CD793NF-E(I)
Dome camera IV	DS-2CD7233F-EIZH,DS-2CD7253F-E(I)ZH, DS-CD7254F-EIZH, DS-2CD7293PFWD(NFWD)-EIZH, DS-2CD7263NF(PF)-EZH, DS-2CD 7264FWD-EZH, DS-2CD7293PF(NF)-EIZH, DS-2CD7255F-EIZHS
Bullet Camera	DS-2CD8253F-EI(Z), DS-2CD8233F-EI(Z), DS-2CD8264FWD-EI(Z), DS-2CD8264F-E, DS-2CD8254F-EI, DS-2CD8254FWD-E, DS-2CD8283F-EI, DS-2CD8255F-EI
Cube Camera I	DS-2CD8133F-E, DS-2CD8153F-E
Cube Camera II	DS-2CD8464F-EI, DS-2CD8433F-EI
Mini Dome Camera	DS-2CD7164-E,DS-2CD7153-E, DS-2CD7133-E

Thank you for purchasing our product. 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.

DISCLAIMER STATEMENT

"Underwriters Laboratories Inc. ("UL") has not tested the performance or reliability of the security or signaling aspects of this product. UL has only tested for fire, shock or casualty hazards as outlined in UL's Standard(s) for Safety, UL60950-1. UL Certification does not cover the performance or reliability of the security or signaling aspects of this product. UL MAKES NO REPRESENTATIONS, WARRANTIES OR CERTIFICATIONS WHATSOEVER REGARDING THE PERFORMANCE OR RELIABILITY OF ANY SECURITY OR SIGNALING RELATED FUNCTIONS OF THIS PRODUCT."

Regulatory Information

FCC Information

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

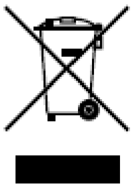
FCC Conditions

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

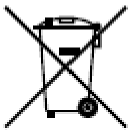
1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement

This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the Low Voltage Directive 2006/95/EC, the EMC Directive 2004/108/EC.



2002/96/EC (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.

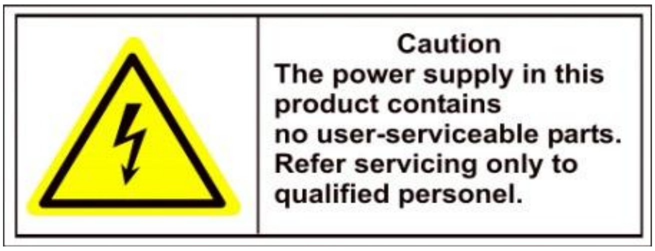


2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead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

Safety Warnings and Cautions

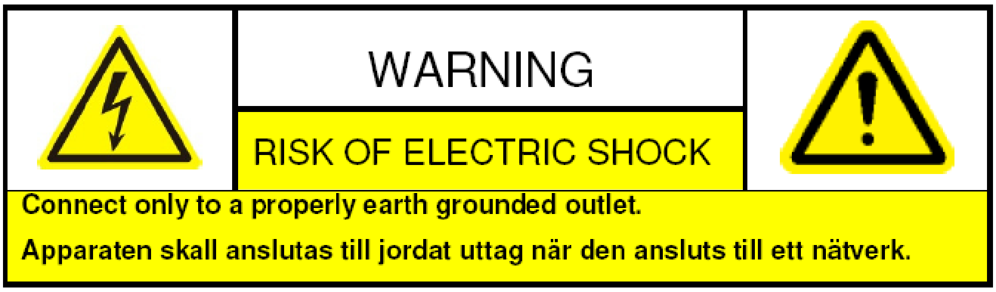
Please pay attention to the following warnings and cautions:

Hazardous Voltage may be present: Special measures and precautions must be taken when using this device. Some potentials (voltages) on the device may present a hazard to the user. This device should only be used by employees from our company with knowledge and training in working with these types of devices that contain live circuits.



Caution
The power supply in this product contains no user-serviceable parts. Refer servicing only to qualified personel.

Power Supply Hazardous Voltage: AC mains voltages are present within the power supply assembly. This device must be connected to a UL approved, completely enclosed power supply, of the proper rated voltage and current. **No user serviceable parts inside the power supply.**



WARNING

RISK OF ELECTRIC SHOCK

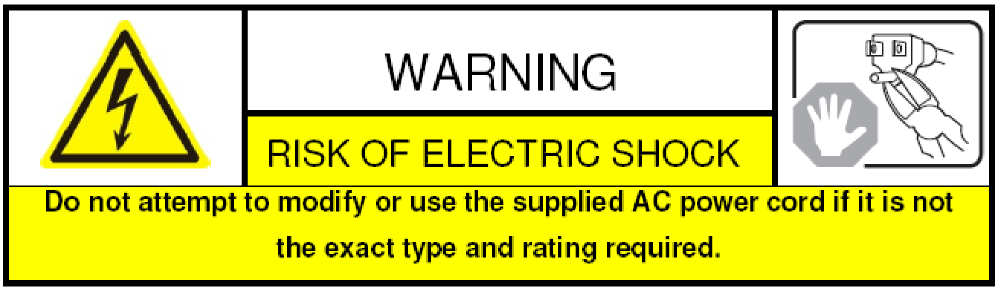
Connect only to a properly earth grounded outlet.

Apparaten skall anslutas till jordat uttag när den ansluts till ett nätverk.

System Grounding (Earthing): To avoid shock, ensure that all AC wiring is not exposed and that the earth grounding is maintained. Ensure that any equipment to which this device will be attached is also connected to properly wired grounded receptacles and are approved medical devices.

Power Connect and Disconnect: The AC power supply cord is the main disconnect device to mains (AC power).The socket outlet shall be installed near the equipment and shall be readily accessible.

Installation and Maintenance: Do not connect/disconnect any cables to or perform installation/maintenance on this device during an electrical storm.



WARNING

RISK OF ELECTRIC SHOCK

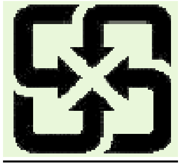
Do not attempt to modify or use the supplied AC power cord if it is not the exact type and rating required.

Power Cord Requirements: The connector that plugs into the wall outlet must be a grounding-type male plug designed for use in your region. It must have certification marks showing certification by an agency in your region. The connector that plugs into the AC receptacle on the power supply must be an IEC 320, sheet C13, female connector. See the following website for more information http://kropla.com/electric2.htm.

Lithium Battery: This device contains a Lithium Battery. There is a risk of explosion if the battery is replaced by an incorrect type. Dispose of used batteries according to the vendor's instructions and in accordance with local environmental regulations.

Perchlorate Material: Special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate. This notice is required by California Code of Regulations, Title 22, Division 4.5, Chapter 33: Best Management Practices for Perchlorate Materials. This device includes a battery which contains perchlorate material.

Taiwan battery recycling:

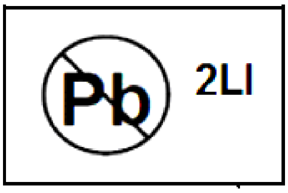


Please recycle batteries.

Thermal and Mechanical Injury: Some components such as heat sinks, power regulators, and processors may be hot; care should be taken to avoid contact with these components.

Electro Magnetic Interference: This equipment has not been tested for compliance with emissions limits of FCC and similar international regulations. This device is not, and may not be, offered for sale or lease, or sold, or leased until authorization from the United States FCC or its equivalent in other countries has been obtained. Use of this equipment in a residential location is prohibited. This equipment generates, uses and can radiate radio frequency energy which may result in harmful interference to radio communications. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment on and off, the user is required to take measures to eliminate the interference or discontinue the use of this equipment.

Lead Content:



Please recycle this device in a responsible manner. Refer to local environmental regulations for proper recycling; do not dispose of device in unsorted municipal waste.

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:**

- Please adopt the power adapter which can meet the safety extra low voltage (SELV) standard. And source with DC 12V or AC 24V (depending on models) according to the IEC60950-1 and Limited Power Source standard.
- 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 install blackouts equipment into the power supply circuit for convenient supply interruption.
- Please make sure that the ceiling can support more than 50(N) Newton gravities if the camera is fixed to the ceiling.
- 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.)

Cautions:

- 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.
- Do not place the camera in extremely hot, cold temperatures (the operating temperature should be between -10°C ~ 60°C), dusty or damp environment, and do not expose it to high electromagnetic radiation.
- To avoid heat accumulation, good ventilation is required for a proper operating environment.
- Keep out of water and any liquid.
- While shipping, the camera should be packed in its original packing.
- Improper use or replacement of the battery may result in hazard of explosion. Please use the manufacturer recommended battery type.

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Chapter 1 System Requirement

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 6.0 and above version, Apple Safari 5.02 and above version, Mozilla Firefox 3.5 and above version and Google Chrome8 and above versions.

Chapter 2 Network Connection

Before you start:

- If you want to set the network camera via a LAN (Local Area Network), please refer to *Section 2.1* ***Setting the Network Camera over the LAN***.
- If you want to set the network camera via a WAN (Wide Area Network), please refer to *Section 2.2* ***Setting the Network Camera over the WAN***.

2.1 Setting the Network Camera over the LAN

Purpose:

To view and configure the camera via a LAN, you need to connect the network camera in the same subnet with your computer, and install the SADP or iVMS-4200 software to search and change the IP of the network camera.

Note: For the detailed introduction of SADP, please refer to Appendix 1.

2.1.1 Wiring over the LAN

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

Purpose:

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

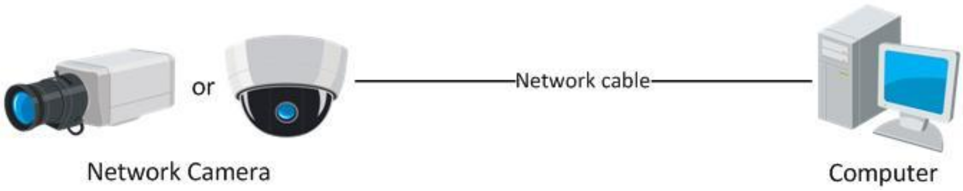


Figure 2-1 Connecting Directly

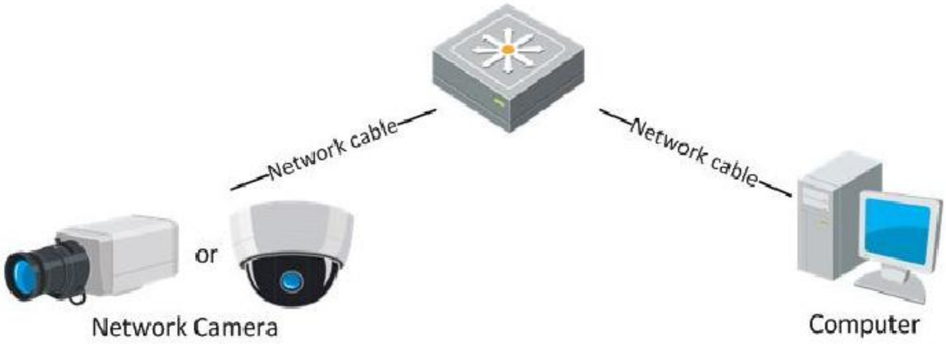


Figure 2-2 Connecting via a Switch or a Router

2.1.2 Detecting and Changing the IP Address

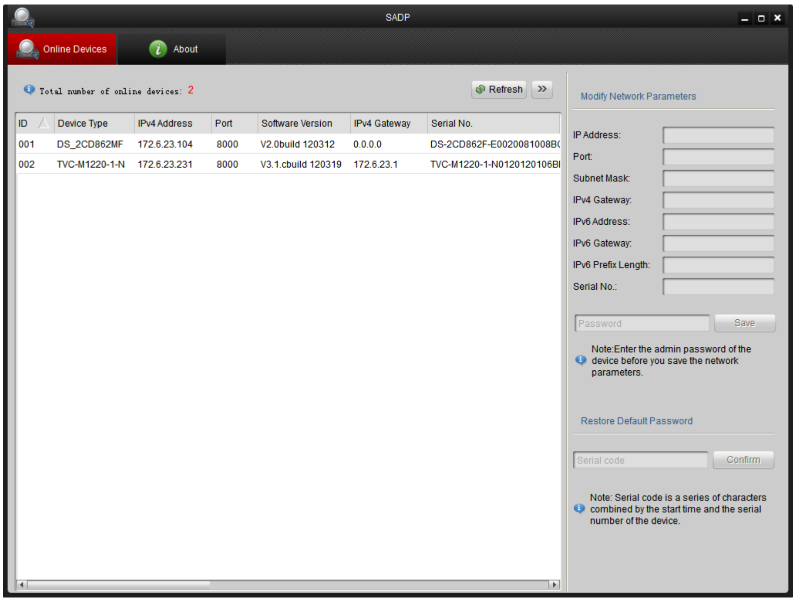
You need the IP address to visit the network camera.

Steps:

1. To get the IP address, you can choose either of the following methods:
   - Use SADP, a software tool which can automatically detect the online network cameras in the LAN and list the device information including IP address, subnet mask, port number, device serial number, device version, etc., shown in Figure 2-3.
   - Use the client software to list the online devices. Please refer to the user manual of client software for detailed information.
2. Change the IP address and subnet mask to the same subnet as that of your computer.
3. Enter the IP address of network camera in the address field of the web browser to view the live video.

Notes:

- The default IP address is 192.0.0.64 and the port number is 8000. The default user name is admin, and password is 12345.
- For accessing the network camera from different subnets, please set the gateway for the network camera after you logged in. For detailed information, please refer to *Section 5.3.1* ***Configuring TCP/IP Settings***.


SADP
Online Devices
About
Refresh
»
Modify Network Parameters
IP Address:
Port:
Subnet Mask:
IPv4 Gateway:
IPv6 Address:
IPv6 Gateway:
IPv6 Prefix Length:
Serial No.:
Password
Save
Restore Default Password
Serial code
Confirm

Total number of online devices: 2

ID	Device Type	IPv4 Address	Port	Software Version	IPv4 Gateway	Serial No.
001	DS_2CD862MF	172.6.23.104	8000	V2.0build 120312	0.0.0.0	DS-2CD862F-E0020081008B
002	TVC-M1220-1-N	172.6.23.231	8000	V3.1.cbuild 120319	172.6.23.1	TVC-M1220-1-N0120120106B

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

Note: Serial code is a series of characters combined by the start time and the serial number of the device.

Figure 2-3 SADP Interface

2.2 Setting the Network Camera over the WAN

Purpose:

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

2.2.1 Static IP Connection

Before you start:

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

- **Connecting the network camera via a router**

Steps:

1. Connect the network camera to the router.
2. Assign a LAN IP address, the subnet mask and the gateway. Refer to *Section 2.1.2* ***Detecting and Changing the IP Address*** for detailed IP address configuration of the camera.
3. Save the static IP in the router.
4. Set port mapping, E.g., 80, 8000, 8200 and 554 ports. The steps for port mapping vary depending on different routers. Please call the router manufacturer for assistance with port mapping.

Note: Refer to Appendix 2 for detailed information about port mapping.

5. Visit the network camera through a web browser or the client software over the internet.

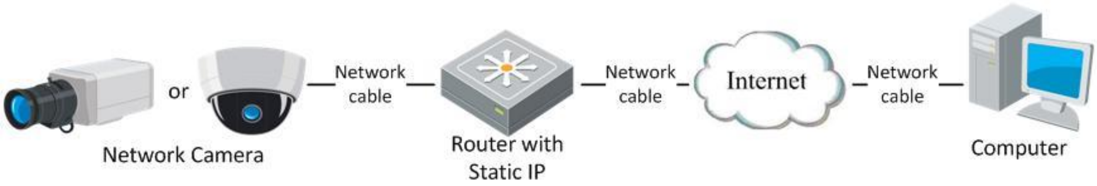

or
Network Camera
Network cable
Router with Static IP
Network cable
Internet
Network cable
Computer

Figure 2-4 Accessing the Camera through Router with Static IP

- **Connecting the network camera with static IP directly**

You can also save the static IP in the camera and directly connect it to the internet without using a router. Refer to *Section 2.1.2* ***Detecting and Changing the IP Address*** for detailed IP address configuration of the camera.

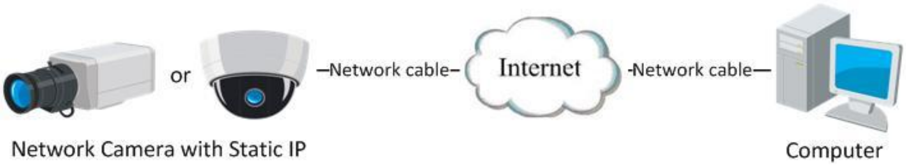

or
Network Camera with Static IP
Network cable
Internet
Network cable
Computer

Figure 2-5 Accessing the Camera with Static IP Directly

2.2.2 Dynamic IP Connection

Before you start:

Please apply a dynamic IP from an ISP. With the dynamic IP address, you can connect the network camera to a modem or a router.

- **Connecting the network camera via a router**

Steps:

1. Connect the network camera to the router.
2. In the camera, assign a LAN IP address, the subnet mask and the gateway. Refer to *Section 2.1.2* ***Detecting and Changing the IP Address*** for detailed LAN configuration.
3. In the router, set the PPPoE user name, password and confirm the password.
4. Set port mapping. E.g. 80, 8000, 8200 and 554 ports. The steps for port mapping vary depending on different routers. Please call the router manufacturer for assistance with port mapping.

Note: Refer to Appendix 2 for detailed information about 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 camera via the applied domain name.

- **Connecting the network camera via a modem**

Purpose:

This camera supports the PPPoE auto dial-up function. The camera gets a public IP address by ADSL dial-up after the camera is connected to a modem. You need to configure the PPPoE parameters of the network camera. Refer to *Section 5.3.3* ***Configuring PPPoE Settings*** for detailed configuration.

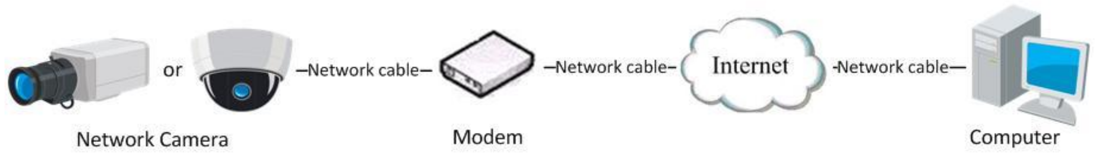


Figure 2-6 Accessing the Camera with Dynamic IP

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

◆ Normal Domain Name Resolution

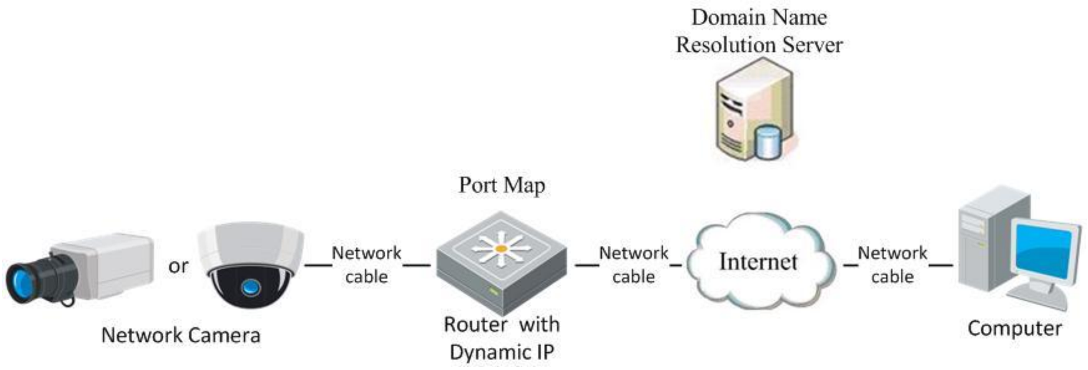

Domain Name
Resolution Server
Port Map
or
Network cable
Network cable
Internet
Network cable
Network Camera
Router with
Dynamic IP
Computer

Figure 2-7 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 camera. Refer to *Section 5.3.4* ***Configuring DDNS Settings*** for detailed configuration.
3. Visit the camera via the applied domain name.

♦ Private Domain Name Resolution

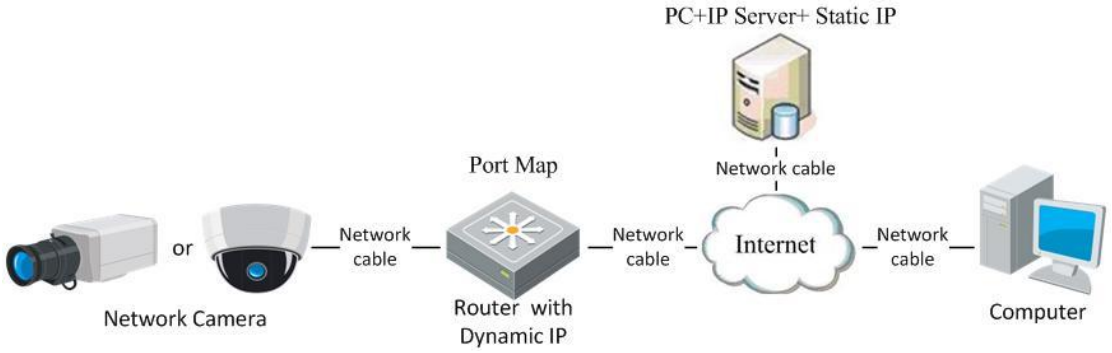

PC+IP Server+ Static IP
Network cable
Port Map
or
Network cable
Network cable
Internet
Network cable
Network Camera
Router with
Dynamic IP
Computer

Figure 2-8 Private Domain Name Resolution

Steps:

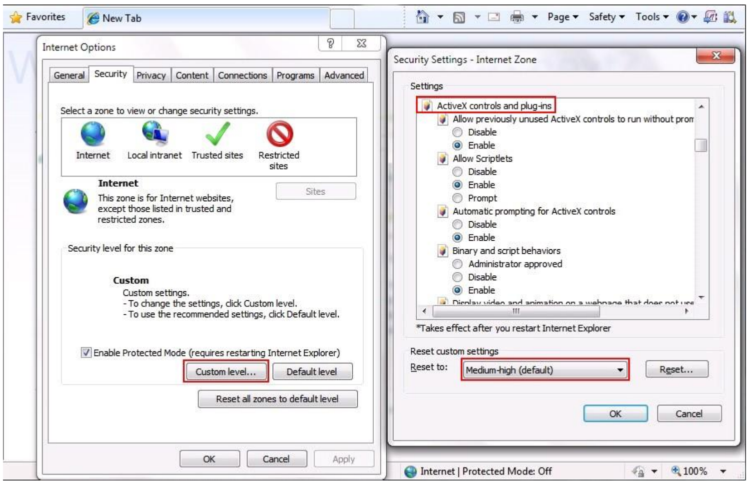
1. Install and run the IP Server software in a computer with a static IP.
2. Access the network camera through the LAN with a web browser or the client software.
3. Enable DDNS and select IP Server as the protocol type. Refer to *Section 5.3.4* ***Configuring DDNS Settings*** for detailed configuration.

Chapter 3 Access to the Network Camera

3.1 Accessing by Web Browsers

Before you start:

Check the security level of the web browser and change it to Low. On the IE browser menu bar, navigate to **Tools > Internet Options > Security > Custom level** to customize the level to **Low**.


Favorites
New Tab
Page
Safety
Tools
Internet Options
General
Security
Privacy
Content
Connections
Programs
Advanced
Internet
Local intranet
Trusted sites
Restricted sites
Sites
Custom level...
Default level
Reset all zones to default level
OK
Cancel
Apply
Security Settings - Internet Zone
Settings
Reset...
OK
Cancel
Internet | Protected Mode: Off
100%

Select a zone to view or change security settings.

Internet

This zone is for Internet websites, except those listed in trusted and restricted zones.

Security level for this zone

Custom

Custom settings.
- To change the settings, click Custom level.
- To use the recommended settings, click Default level.

☑ Enable Protected Mode (requires restarting Internet Explorer)

ActiveX controls and plug-ins
- Allow previously unused ActiveX controls to run without prom
  - ○ Disable
  - ● Enable
- Allow Scriptlets
  - ○ Disable
  - ● Enable
  - ○ Prompt
- Automatic prompting for ActiveX controls
  - ○ Disable
  - ● Enable
- Binary and script behaviors
  - ○ Administrator approved
  - ○ Disable
  - ● Enable

*Takes effect after you restart Internet Explorer

Reset custom settings

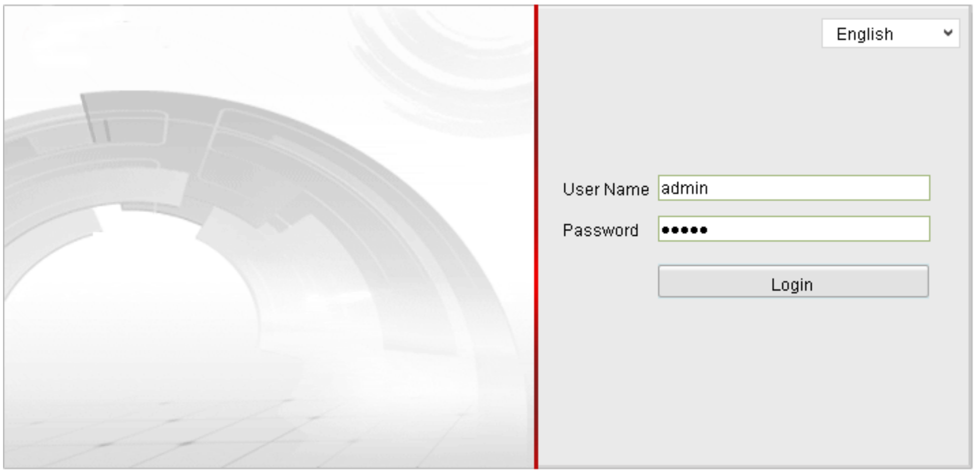
Reset to: Medium-high (default)

Figure 3-1 Adjust the Security Level

Steps:

1. Open the web browser.
2. In the address field, input the IP address of the network camera, e.g., 192.0.0.64 and press the **Enter** key to enter the login interface.
3. Input the user name and password and click Login.

Note: The default user name is admin, password is 12345.

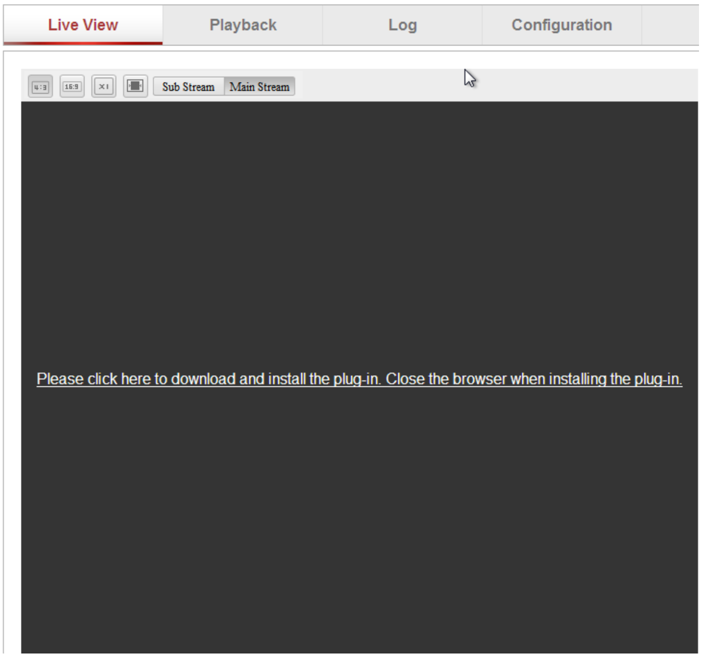

English
User Name
Password
Login

User Name: admin

Password: ●●●●●

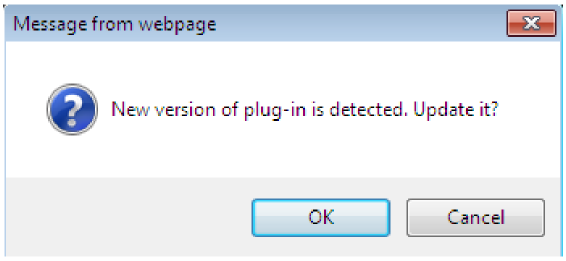
Figure 3-2 Login Interface

4. Install the plug-in before viewing the live video and operating the camera. Please follow the installation prompts to install the plug-in.


Live View
Playback
Log
Configuration
Sub Stream
Main Stream

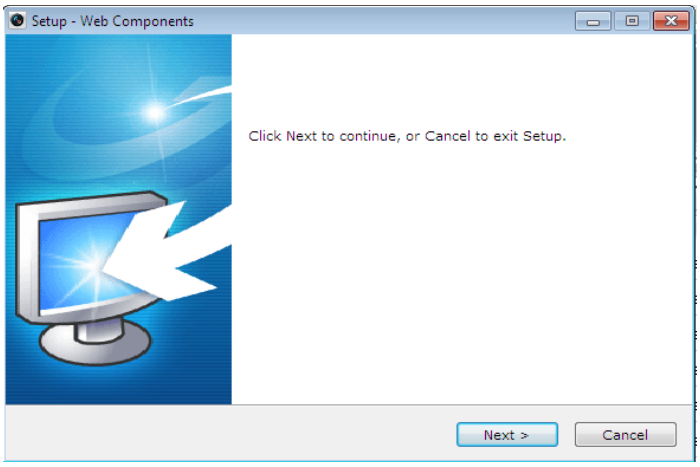
Please click here to download and install the plug-in. Close the browser when installing the plug-in.

Figure 3-3 Download and Install Plug-in


Message from webpage
OK
Cancel

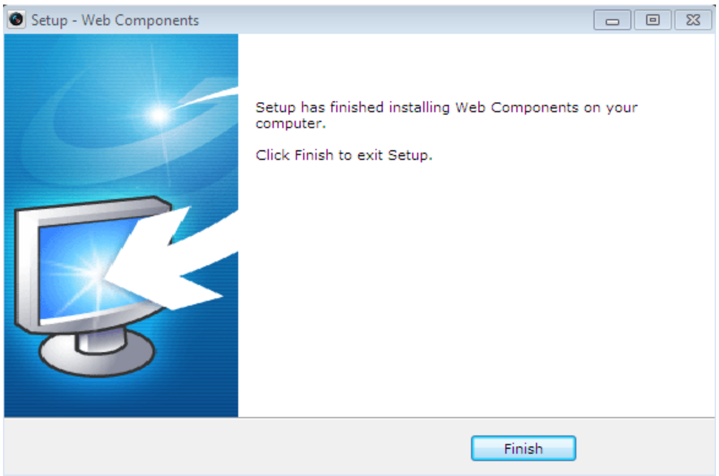
New version of plug-in is detected. Update it?

Figure 3-4 Install Plug-in (1)



Click Next to continue, or Cancel to exit Setup.

Figure 3-5 Install Plug-in (2)



Setup has finished installing Web Components on your computer.

Click Finish to exit Setup.

Figure 3-6 Install Plug-in (3)

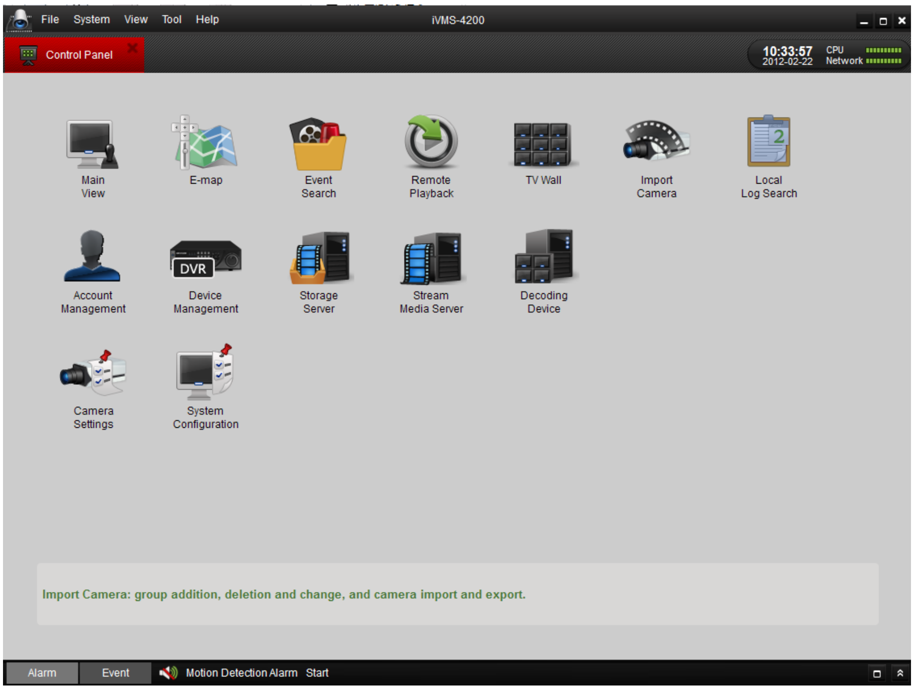
Note: You may have to close the web browser to install the plug-in. Please reopen the web browser and log in again after installing the plug-in.

3.2 Accessing by Client Software

3.2.1 Installing iVMS-4200 Software

The product CD contains the iVMS-4200 client software. You can view the live video and manage the camera with the client software. You can also download the software from our website *www.hikvision.com*.

Follow the installation prompts to install the client software and WinPcap. The control panel and live view interface of iVMS-4200 are shown as bellow.


File
System
View
Tool
Help
iVMS-4200
Control Panel
10:33:57
2012-02-22
CPU
Network
Main View
E-map
Event Search
Remote Playback
TV Wall
Import Camera
Local Log Search
Account Management
Device Management
Storage Server
Stream Media Server
Decoding Device
Camera Settings
System Configuration
Alarm
Event
Motion Detection Alarm Start

Import Camera: group addition, deletion and change, and camera import and export.

Figure 3-7 iVMS-4200 Control Panel

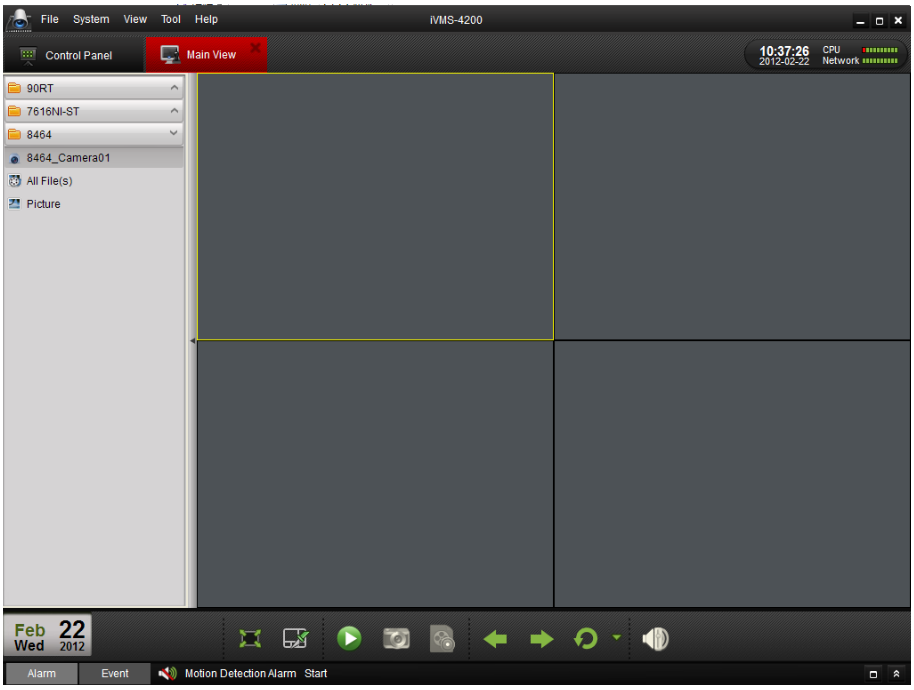

File
System
View
Tool
Help
iVMS-4200
Control Panel
Main View
10:37:26
2012-02-22
CPU
Network
90RT
7616NI-ST
8464
8464_Camera01
All File(s)
Picture
Feb 22
Wed 2012
Alarm
Event
Motion Detection Alarm Start

Figure 3-8 iVMS-4200 Live View Interface

Note: For detailed information about iVMS-4200 client software, please refer to the user manual of the iVMS-4200 software.

3.2.2 Installing iVMS-4500 Software

The product CD contains the iVMS-4500 client software. To view the camera with a mobile phone, install the iVMS-4500 client software in your mobile phone. You can also download the software from our website *www.hikvision.com*.

Note: For detailed information about iVMS-4500 client software, please refer to the user manual of iVMS-4500 software.

Chapter 4 Live View

4.1 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 camera to enter the live view page, or you can click Live View on the menu bar of the main page to enter the live view page.

Descriptions of the live view page:

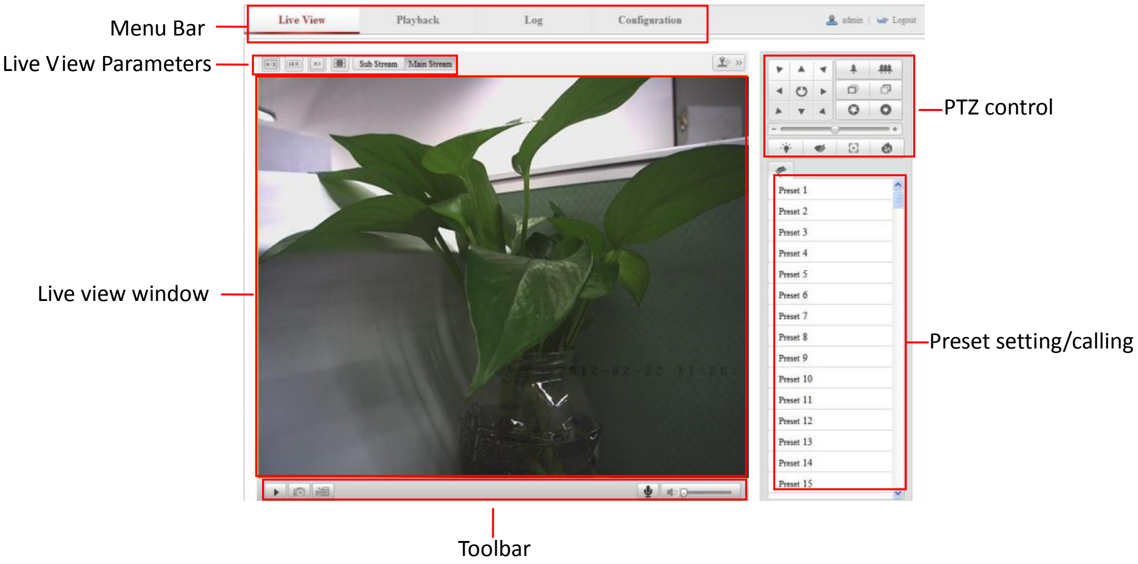

Menu Bar
Live View Parameters
Live view window
Live View
Playback
Log
Configuration
admin
Logout
Sub Stream
Main Stream
PTZ control
Preset 1
Preset 2
Preset 3
Preset 4
Preset 5
Preset 6
Preset 7
Preset 8
Preset 9
Preset 10
Preset 11
Preset 12
Preset 13
Preset 14
Preset 15
Preset setting/calling
Toolbar

Figure 4-1 Live View Page

Menu Bar:

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

Live View Window:

Display the live video.

Toolbar:

Operations on the live view page, e.g., live view, capture, record, audio on/off, two-way audio, etc.

PTZ Control:

Panning, tilting and zooming actions of the camera and the lighter and wiper control (if it supports PTZ function or an external pan/tilt unit has been installed).

Preset Setting/Calling:

Set and call the preset for the camera (if supports PTZ function or an external pan/tilt unit has been installed).

Live View Parameters:

Configure the image size and stream type of the live video.

4.2 Starting Live View

In the live view window as shown in Figure 4-2, click ▶ on the toolbar to start the live view of the camera.

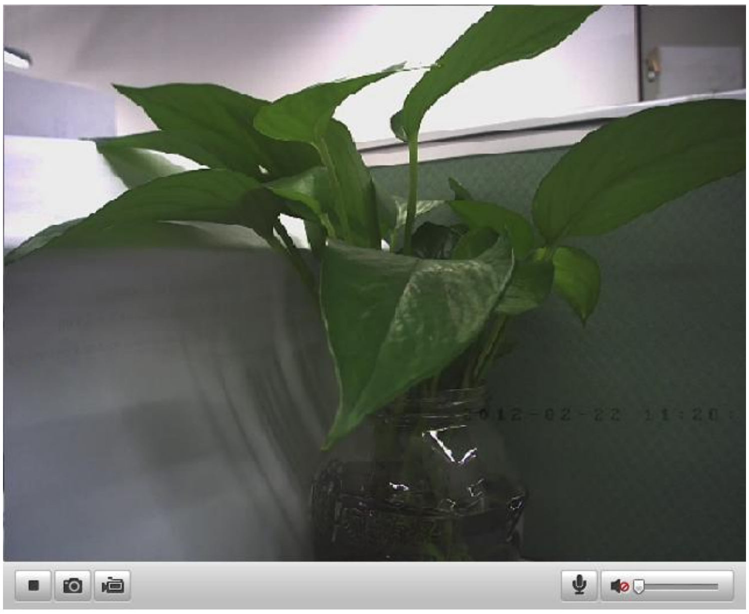


Figure 4-2 Start Live View

Table 4-1 Descriptions of the Toolbar

Icon	Description
▶/■	Start/Stop live view
📷	Manually capture the pictures displayed in live view mode and then save it as a JPEG file.
🎥/🎥	Manually start/stop recording.
🔊/🔇	Audio on and adjust volume /Mute
🎤/🎤	Turn on/off microphone

Note: Before using the two-way audio function or recording with audio, please set the **Stream Type** to **Video & Audio** referring to *Section 5.4.*

Full-screen Mode

You can double-click on the live video to switch the current live view into full-screen or return to normal mode from the full-screen.

Please refer to the following sections for more information:

- Configuring remote recording in *Section 6.2* ***Configuring Recording Schedule***.
- Setting the image quality of the live video in *Section 5.1* ***Configuring Local Parameters*** and *Section 5.4.1* ***Configuring Video Settings***.
- Setting the OSD text on live video in *Section 5.5.2* ***Configuring OSD Settings***.

4.3 Recording and Capturing Pictures Manually

In the live view interface, click on the toolbar to capture the live pictures or click to record the live video. The local saving paths of the captured pictures and clips can be set on the **Configuration > Local Configuration** page. To configure remote scheduled recording, please refer to *Section 6.2*.

Note: The captured image will be saved as a JPEG file in your computer.

4.4 Operating PTZ Control

Purpose:

In the live view interface, you can use the PTZ control buttons to realize pan/tilt/zoom control of the camera.

Before you start:

To realize PTZ control, the camera connected to the network must support the PTZ function or a pan/tilt unit has been installed to the camera. Please properly set the PTZ parameters on RS-485 Settings page referring to *Section 9.6* ***RS-485 Settings***.

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.

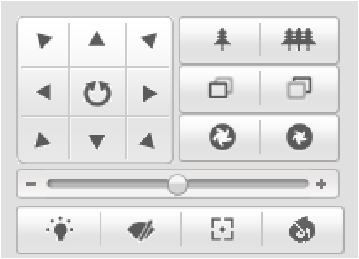


Figure 4-3 PTZ Control Panel

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

Notes:

- There are 8 direction arrows (△, ▽, ◁, ▷, ◿, ◺, ◹, ◸) in the live view window when you click and drag the mouse in the relative positions.
- For the cameras which support lens movements only, the direction buttons are invalid.

Table 4-2 Descriptions of PTZ Control Panel

Button	Description
🌲 | 🌲🌲🌲	Zoom in/out
⧉ | ⧉	Focus near/far
◉ | ●	Iris open/close
💡	Light on/off
☂	Wiper on/off
⛶	One-touch focus
↻	Initialize lens
− ──○── +	Adjust speed of pan/tilt movements

4.4.2 Setting / Calling a Preset

- **Setting a Preset:**

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

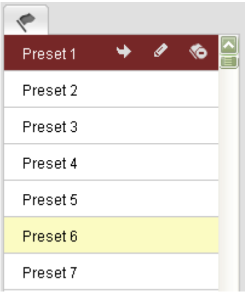

Preset 1
Preset 2
Preset 3
Preset 4
Preset 5
Preset 6
Preset 7

Figure 4-4 Setting a Preset

2. Use the PTZ control buttons to move the lens to the desired position.
   - Pan the camera to the right or left.
   - Tilt the camera up or down.
   - Zoom in or out.
   - Refocus the lens.
3. Click ✎ to finish the setting of the current preset.
4. You can click ⊗ to delete the preset.

Note: You can configure up to 128 presets.

- **Calling a Preset:**

This feature enables the camera to point to a specified preset scene manually or when an event takes place.

For the defined preset, you can call it at any time to the desired preset scene.

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

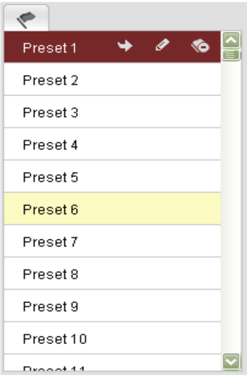
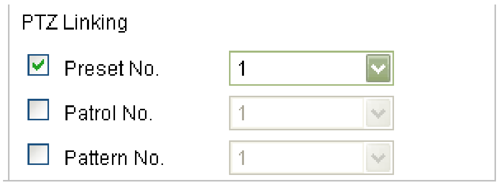


Figure 4-5 Calling a Preset

- **Linking to Alarm:**

The preset can also be linked to the alarm input when there is an alarm event occurring.



PTZ Linking

☑ Preset No. 1

☐ Patrol No. 1

☐ Pattern No. 1

Figure 4-6 PTZ Linking

Please refer to *Section 5.6.4* for the PTZ Linkage settings.

4.5 Configuring Live View Parameters

Purpose:

You can select the stream type and adjust the image size on the live view page.

Steps:

1. Click Main Stream or Sub Stream tab under the menu bar of the live view interface to select the stream type as main stream or sub-stream for live viewing.
2. Click each tab 4:3 16:9 ×1 ▣ to set the image size to 4:3, 16:9, original or auto.

Note: Please refer to *Section 5.4.1* ***Configuring Video Settings*** for more detailed settings about video parameters.

Chapter 5 Network Camera Configuration

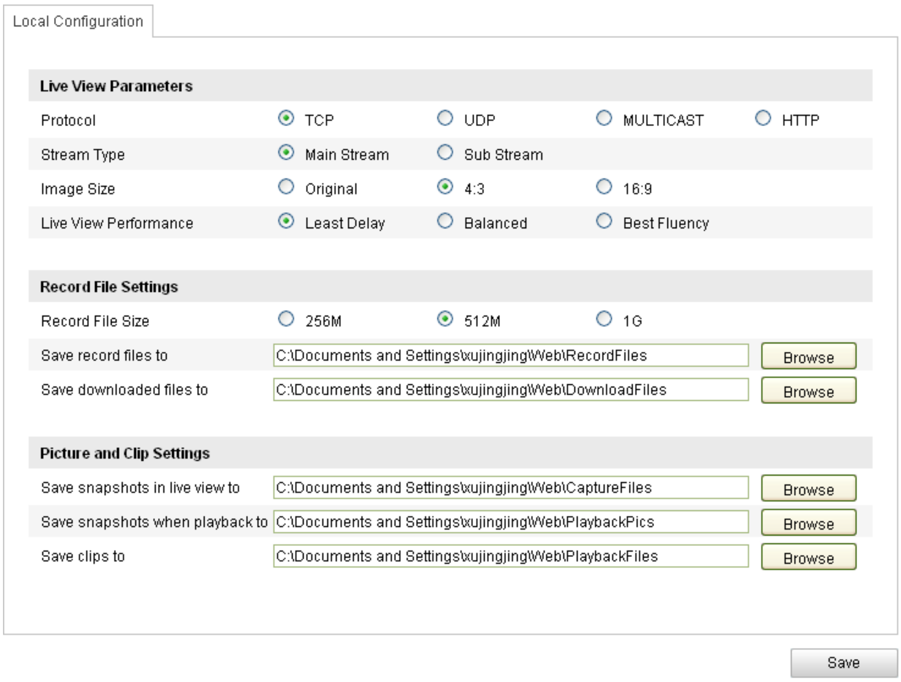
5.1 Configuring Local Parameters

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 Configuration



Live View Parameters

Protocol ● TCP ○ UDP ○ MULTICAST ○ HTTP

Stream Type ● Main Stream ○ Sub Stream

Image Size ○ Original ● 4:3 ○ 16:9

Live View Performance ● Least Delay ○ Balanced ○ Best Fluency

Record File Settings

Record File Size ○ 256M ● 512M ○ 1G

Save record files to C:\Documents and Settings\xujingjing\Web\RecordFiles Browse

Save downloaded files to C:\Documents and Settings\xujingjing\Web\DownloadFiles Browse

Picture and Clip Settings

Save snapshots in live view to C:\Documents and Settings\xujingjing\Web\CaptureFiles Browse

Save snapshots when playback to C:\Documents and Settings\xujingjing\Web\PlaybackPics Browse

Save clips to C:\Documents and Settings\xujingjing\Web\PlaybackFiles Browse

Figure 5-1 Local Configuration Interface

2. Configure the following settings:

- **Live View Parameters:** Set the protocol type, stream type, image size and live view performance.
  - **Protocol Type:** 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.

    HTTP: Allows the same quality as of TCP without setting specific ports for streaming under some network environments.

    MULTICAST: It's recommended to select MCAST type when using the Multicast function. For detailed information about Multicast, refer to *Section*

5.3.1 ***TCP/IP Settings***.

  - **Stream Type:** Set the stream type to main stream or sub-stream for live view by web browser. Please refer to *Section 5.4.1* ***Configuring Video Settings*** for the parameter settings of the main stream and sub-stream respectively.
  - **Image Size:** Set the image size to original, 4:3 or 16:9.
  - **Live View Performance:** Set the live view performance to Least Delay, Balanced or Best Fluency.
- **Record File Settings:** Set the saving path of the recorded video files.
  - **Record File Size:** Select the packed size of the manually recorded and downloaded video files 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 playback mode.
- **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 live view mode.
  - **Save snapshots when playback to:** Set the saving path of the captured pictures in playback mode.
  - **Save clips to:** Set the saving path of the clipped video files in playback mode.

Note: You can click Browse to change the directory for saving the clips and pictures.

3. Click Save to save the settings.

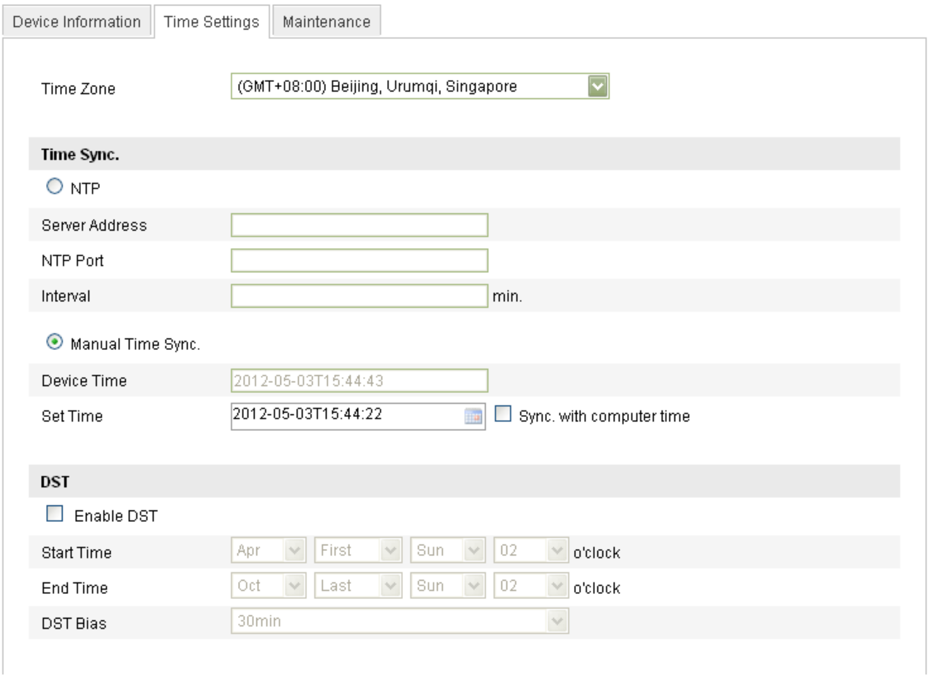
5.2 Configuring Time Settings

Purpose:

You can follow the instructions in this section to configure the time synchronization and DST settings.

Steps:

1. Enter the Time Settings interface:
   Configuration > Basic Configuration > System > Time Settings
   Or **Configuration > Advanced Configuration > System > Time Settings**



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

Time Sync.

○ NTP

Server Address

NTP Port

Interval min.

● Manual Time Sync.

Device Time 2012-05-03T15:44:43

Set Time 2012-05-03T15:44:22 ☐ Sync. with computer time

DST

☐ Enable DST

Start Time Apr First Sun 02 o'clock

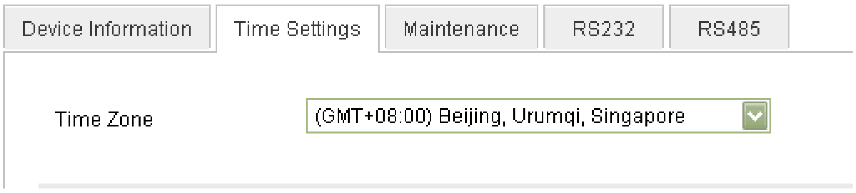
End Time Oct Last Sun 02 o'clock

DST Bias 30min

Figure 5-2 Time Settings

2. Select the Time Zone.

   Select the Time Zone which is the closest to the camera's location from the drop-down menu.



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

Figure 5-3 Time Zone Settings

3. Configure the time synchronization by NTP Server or manually.

- Configuring Time Synchronization by NTP Server.

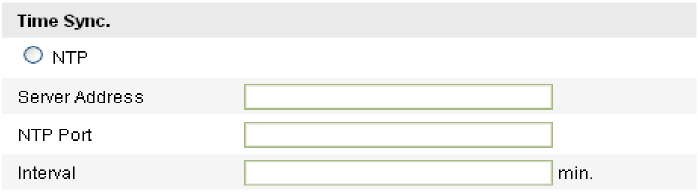
(1) Check the checkbox to enable the **NTP** function.

(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 with NTP server. It can be set from 1 to 10080 minutes.


Time Sync.

○ NTP

Server Address

NTP Port

Interval min.

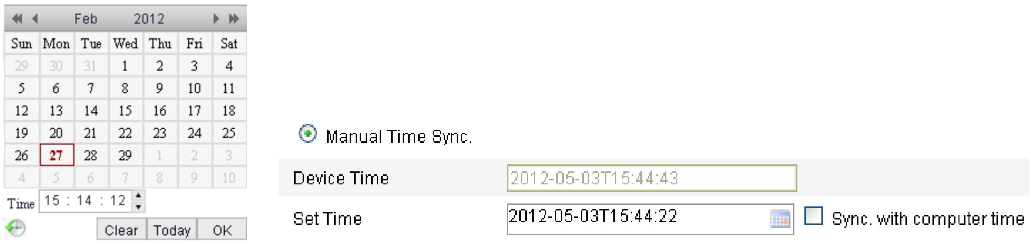
Figure 5-4 Time Sync by NTP Server

Note: If the camera 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 camera is set in a customized network, NTP software can be used to establish a NTP server for time synchronization.

- Configuring Time Synchronization Manually

Enable the **Manual Time Sync** function and then click to set the system time from the pop-up calendar.

Note: You can also check the **Sync with local time** checkbox to synchronize the time of the camera with the time of your computer.



Feb 2012

Sun	Mon	Tue	Wed	Thu	Fri	Sat
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	1	2	3
4	5	6	7	8	9	10

Time 15 : 14 : 12

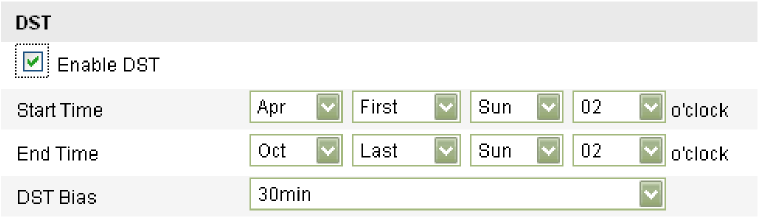
● Manual Time Sync.

Device Time 2012-05-03T15:44:43

Set Time 2012-05-03T15:44:22 ☐ Sync. with computer time

Figure 5-5 Time Sync Manually

4. Check ☐ Enable DST to enable the DST function.



DST

☑ Enable DST

Start Time	Apr	First	Sun	02	o'clock
End Time	Oct	Last	Sun	02	o'clock
DST Bias	30min				

Figure 5-6 DST Settings

5. Set the date of the DST period.
6. Click Save to save the settings.

5.3 Configuring Network Settings

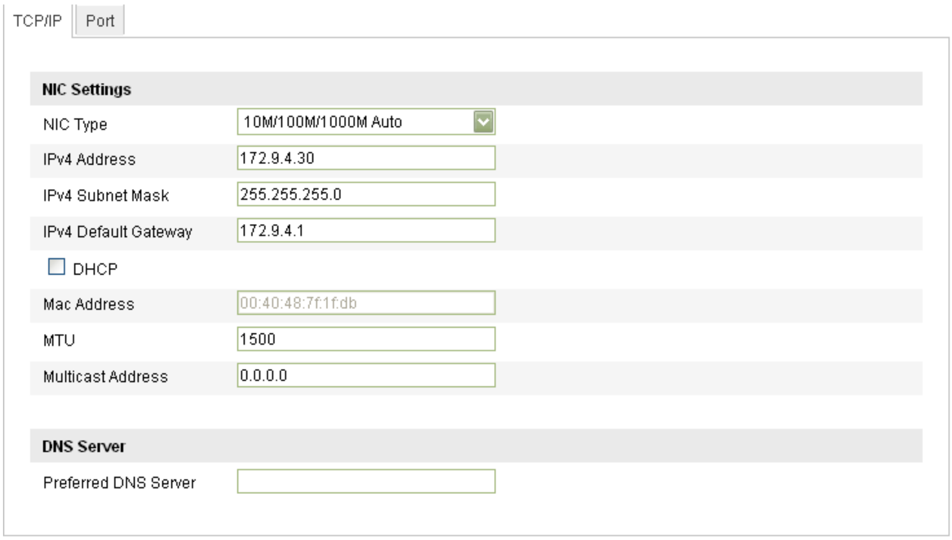
5.3.1 Configuring TCP/IP Settings

Purpose:

TCP/IP settings must be properly configured before you operate the camera over network.

Steps:

1. Enter TCP/IP Settings interface:
   Configuration > Basic Configuration > Network > TCP/IP
   Or **Configuration > Advanced Configuration > Network > TCP/IP**



NIC Settings

NIC Type: 10M/100M/1000M Auto

IPv4 Address: 172.9.4.30

IPv4 Subnet Mask: 255.255.255.0

IPv4 Default Gateway: 172.9.4.1

☐ DHCP

Mac Address: 00:40:48:7f:1f:db

MTU: 1500

Multicast Address: 0.0.0.0

DNS Server

Preferred DNS Server:

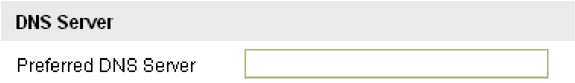
Figure 5-7 TCP/IP Settings

2. Configure the NIC settings, including the NIC Type, IPv4 Address, IPv4 Subnet Mask, IPv4 Default Gateway, MTU settings and Multicast Address.

Notes:

- The valid value range of MTU is 500 ~ 9676.
- The Multicast sends a stream to the multicast group address and allows multiples 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.

3. If the DHCP server is available, you can check ☐ DHCP to automatically obtain an IP address and other network settings from that server.
4. If the DNS server settings are required for some applications (e.g., sending email), you should properly configure the Preferred DNS Server.



DNS Server

Preferred DNS Server:

Figure 5-8 DNS Server Settings

5. Click Save to save the above settings.

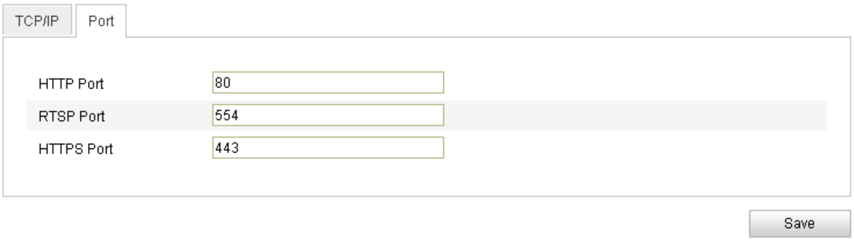
5.3.2 Configuring Port Settings

Purpose:

You can set the port No. of the camera, e.g. HTTP port, RTSP port and HTTPS port.

Steps:

1. Enter the Port Settings interface:
   Configuration > Basic Configuration > Network > Port
   Or **Configuration > Advanced Configuration > Network > Port**



HTTP Port 80
RTSP Port 554
HTTPS Port 443

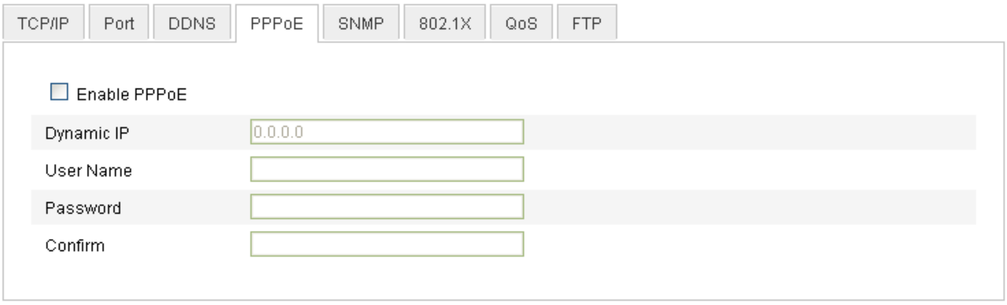
Figure 5-9 Port Settings

2. Set the HTTP port, RTSP port and HTTPS port of the camera.
   HTTP Port: The default port number is 80.
   RTSP Port: The default port number is 554.
   HTTPS Port: The default port number is 443.
3. Click Save to save the settings.

5.3.3 Configuring PPPoE Settings

Steps:

1. Enter the PPPoE Settings interface:
   Configuration >Advanced Configuration > Network > PPPoE



☐ Enable PPPoE
Dynamic IP 0.0.0.0

Figure 5-10 PPPoE Settings

2. Check the **Enable PPPoE** checkbox to enable this feature.
3. Enter **User Name**, **Password**, and **Confirm** password for PPPoE access.

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

4. Click Save to save and exit the interface.

5.3.4 Configuring DDNS Settings

Purpose:

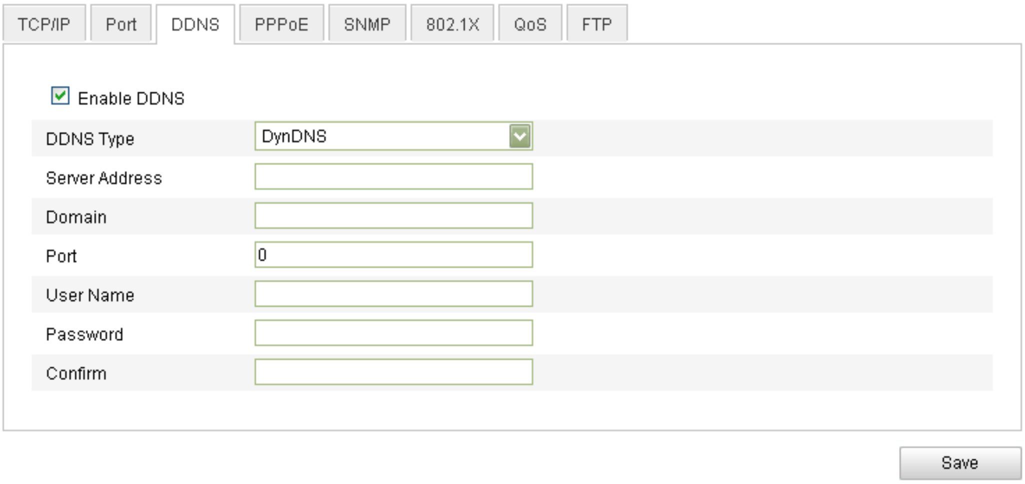
If your camera is set to use PPPoE as its default network connection, you can use the Dynamic DNS (DDNS) for network access.

***Before you start*:**

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

Steps:

1. Enter the DDNS Settings interface:
   Configuration > Advanced Configuration > Network > DDNS



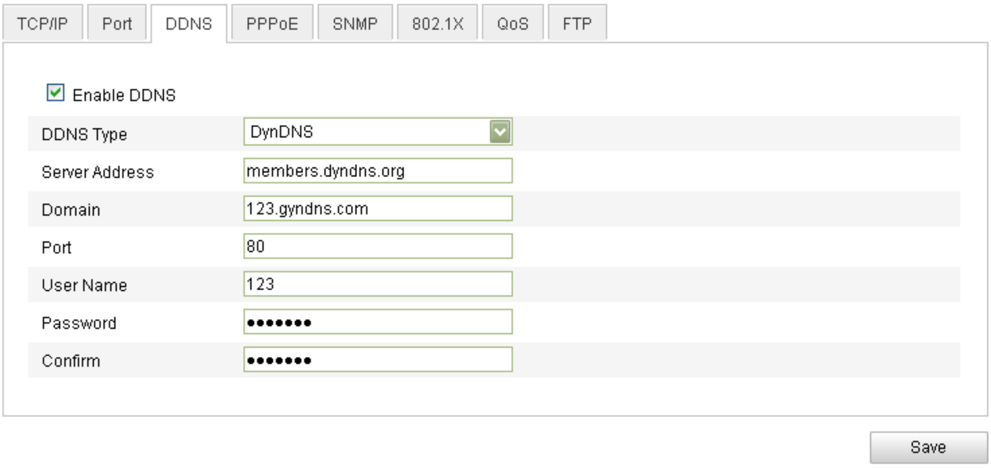
☑ Enable DDNS
DDNS Type: DynDNS
Server Address:
Domain:
Port: 0
User Name:
Password:
Confirm:

Figure 5-11 DDNS Settings

2. Check the **Enable DDNS** checkbox to enable this feature.
3. Select **DDNS Type**. Two DDNS types are selectable: IPServer and DynDNS.
   - DynDNS:

   Steps:

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



☑ Enable DDNS
DDNS Type: DynDNS
Server Address: members.dyndns.org
Domain: 123.gyndns.com
Port: 80
User Name: 123
Password: •••••••
Confirm: •••••••

Figure 5-12 DynDNS Settings

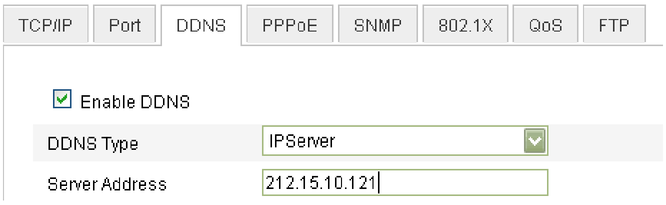
   - IP Server:

   Steps:

   (1) Enter the Server Address of the IP Server.

(2) Click Save to save the settings.

Note: For the IP Server, You have to apply a static IP, subnet mask, gateway and preferred DNS from the ISP. The **Server Address** should be entered with the static IP address of the computer that runs the IP Server software.



☑ Enable DDNS

DDNS Type: IPServer

Server Address: 212.15.10.121

Figure 5-13 IPServer Settings

5.3.5 Configuring SNMP Settings

Purpose:

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

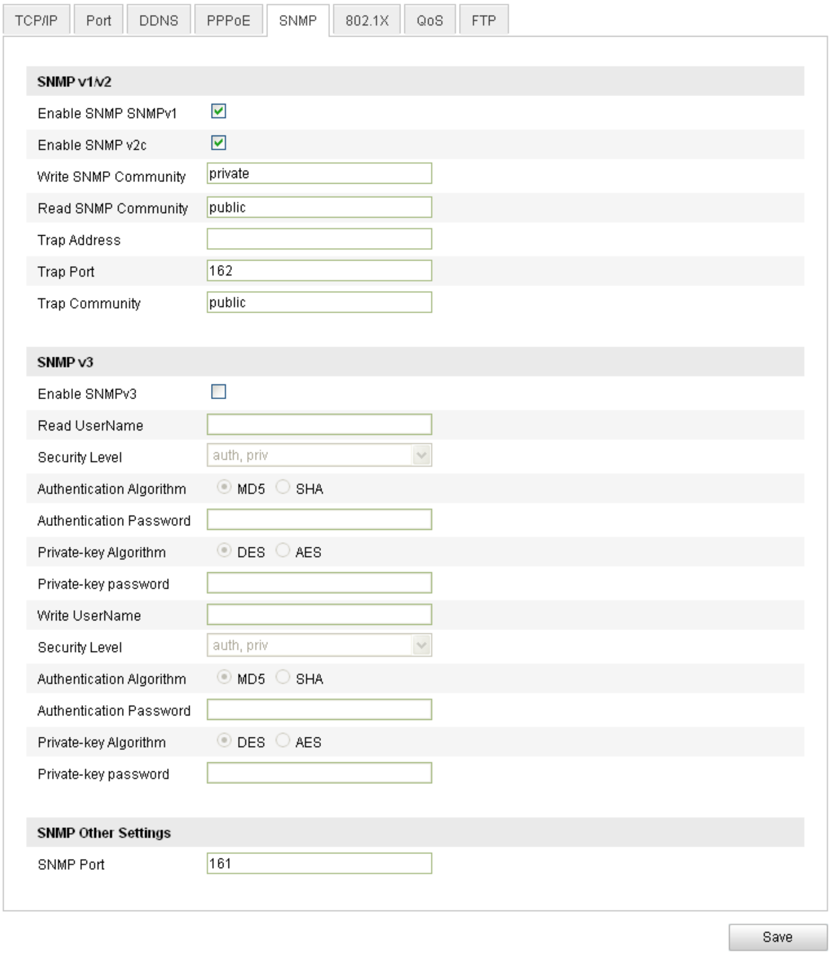
Before you start:

Before setting the SNMP, please download the SNMP software and manage to receive the camera information via SNMP port. By setting the Trap Address, the camera 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 > Advanced Configuration > Network > SNMP



SNMP v1/v2

Enable SNMP SNMPv1	☑
Enable SNMP v2c	☑
Write SNMP Community	private
Read SNMP Community	public
Trap Address	
Trap Port	162
Trap Community	public

SNMP v3

Enable SNMPv3	☐
Read UserName	
Security Level	auth, priv
Authentication Algorithm	● MD5 ○ SHA
Authentication Password	
Private-key Algorithm	● DES ○ AES
Private-key password	
Write UserName	
Security Level	auth, priv
Authentication Algorithm	● MD5 ○ SHA
Authentication Password	
Private-key Algorithm	● DES ○ AES
Private-key password	

SNMP Other Settings

SNMP Port	161

Figure 5-14 SNMP Settings

2. Check the corresponding version checkbox (Enable SNMP SNMPv1 , Enable SNMP v2c , Enable SNMPv3) 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 Save to save and finish the settings.

5.3.6 Configuring 802.1x Settings

Purpose:

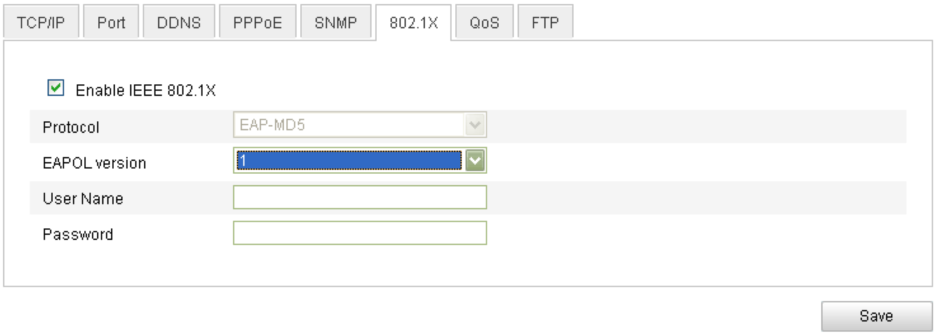
The IEEE 802.1X standard is supported by the network cameras, and when the feature is enabled, the camera data is secured and user authentication is needed when connecting the camera to the network.

Before you start:

The switch or router to which the camera is connected must also support the IEEE 802.1X standard and a server must be configured. Please apply and register a user name and password for 802.1X in the server.

Steps:

1. Enter the 802.1X Settings interface:
   Configuration > Advanced Configuration > Network > 802.1X



☑ Enable IEEE 802.1X

Protocol	EAP-MD5
EAPOL version	1
User Name	
Password	

Figure 5-15 802.1X Settings

2. Check the **Enable IEEE 802.1X** checkbox to enable the feature.
3. Configure the 802.1X settings, including EAPOL version, user name and password.
   Note: The EAPOL version must be identical with that of the router or the switch.
4. Enter the user name and password to access the server.
5. Click Save to finish the settings.

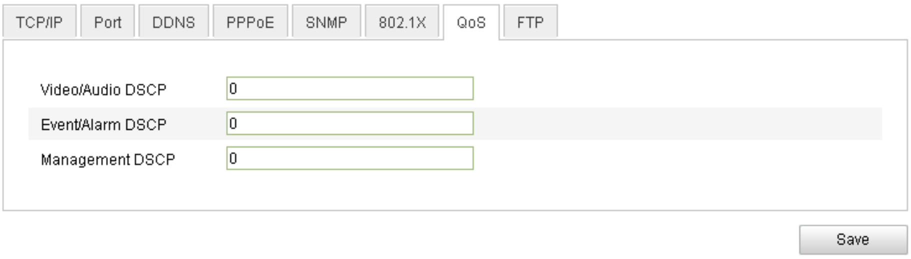
5.3.7 Configuring QoS Settings

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



Video/Audio DSCP	0
Event/Alarm DSCP	0
Management DSCP	0

Figure 5-16 QoS Settings

2. Configure the QoS settings, including video / audio DSCP, event / alarm DSCP and Management DSCP.
   The valid value range of the DSCP is 0-63. The bigger the DSCP value is the higher

the priority is.

3. Click Save to save the settings.

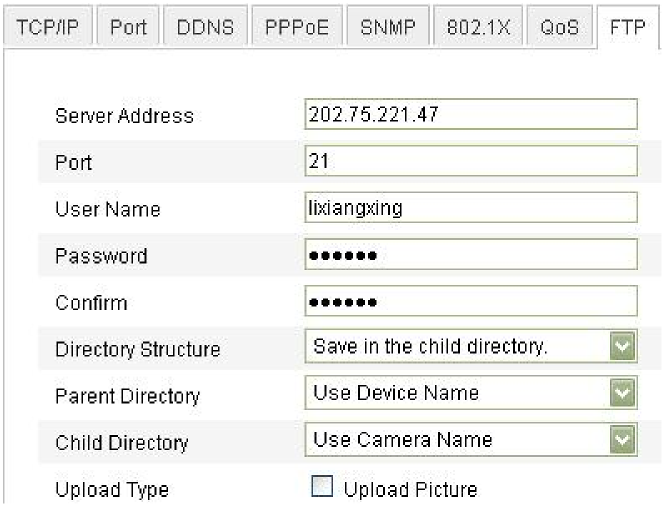
5.3.8 Configuring FTP Settings

Purpose:

The captured pictures of the camera can be uploaded to FTP server.

Steps:

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



Server Address	202.75.221.47
Port	21
User Name	lixiangxing
Password	●●●●●●
Confirm	●●●●●●
Directory Structure	Save in the child directory.
Parent Directory	Use Device Name
Child Directory	Use Camera Name
Upload Type	☐ Upload Picture

Figure 5-17 FTP Settings

2. Configure the FTP settings, including server address, port, user name, password, directory and upload type.
   Directory: In the **Directory Structure** field, you can select the root directory, parent directory and child directory. When the parent directory is selected, you have the option to use the Device Name, Device Number or Device IP for the name of the directory; and when the Child Directory is selected, you can use the Camera Name or Camera No. as the name of the directory.
   Upload type: To enable uploading the captured picture to the FTP server.

3. Click Save to save the settings.

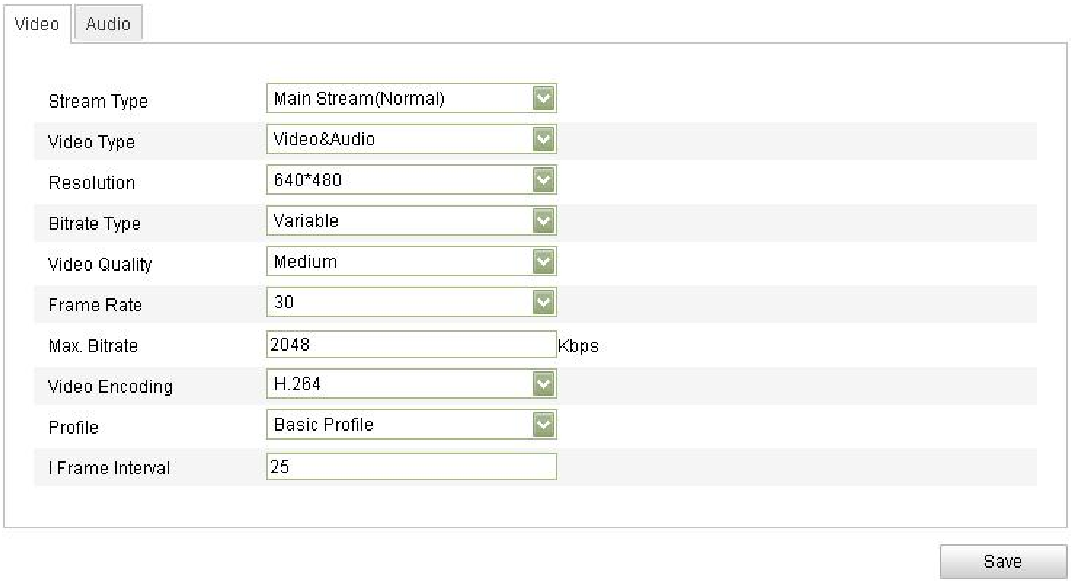
   Note: If you want to upload the captured pictures to FTP server, you also have to enable the continuous snapshot or event-triggered snapshot on **Snapshot** page. For detailed information, please refer to the *Section 5.6.8*.

5.4 Configuring Video and Audio Settings

5.4.1 Configuring Video Settings

Steps:

1. Enter the Video Settings interface:
   Configuration >Basic Configuration > Video / Audio > Video
   Or **Configuration > Advanced Configuration > Video / Audio > Video**



Stream Type	Main Stream(Normal)
Video Type	Video&Audio
Resolution	640*480
Bitrate Type	Variable
Video Quality	Medium
Frame Rate	30
Max. Bitrate	2048 Kbps
Video Encoding	H.264
Profile	Basic Profile
I Frame Interval	25

Figure 5-18 Configure Video Settings

2. Select the **Stream Type** of the camera to main stream (normal) or sub-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 5.1* ***Configuring Local Parameters*** for switching the main stream and sub-stream for live viewing.
3. You can customize the following parameters for the selected main stream or sub-stream:

   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:
   Set the frame rate to 1/16~25 fps. 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 32~16384 Kbps. The higher value corresponds to the higher video quality, but the higher bandwidth is required.

Video Encoding:

When the **Stream Type** of the camera is main stream, the **Video Encoding** standard can be set to H.264 or MPEG4.

When the **Stream Type** of the camera is sub-stream, the **Video Encoding** standard can be set to H.264, MJPEG.

I Frame Interval:

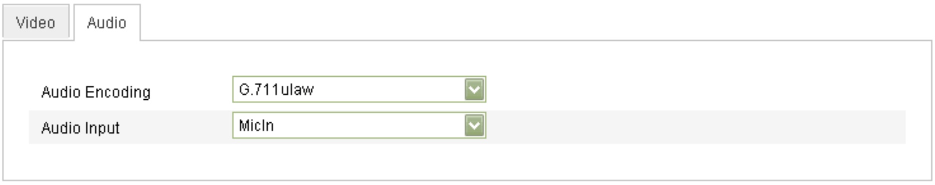
Set the I-Frame interval to 1~400.

4. Click Save to save the settings.

5.4.2 Configuring Audio Settings

Steps:

1. Enter the Audio Settings interface
   Configuration > Basic Configuration > Video / Audio > Audio
   Or **Configuration > Advanced Configuration > Video / Audio > Audio**



Audio Encoding: G.711ulaw

Audio Input: MicIn

Figure 5-19 Audio Settings

2. Configure the following settings.
   Audio Encoding: G.711 ulaw, G.711alaw and G.726 are selectable.
   Audio Input: MicIn and LineIn are selectable. Select MicIn to connect the microphone and select LineIn to connect the pickup.

3. Click Save to save the settings.

5.5 Configuring Image Parameters

5.5.1 Configuring Display Settings

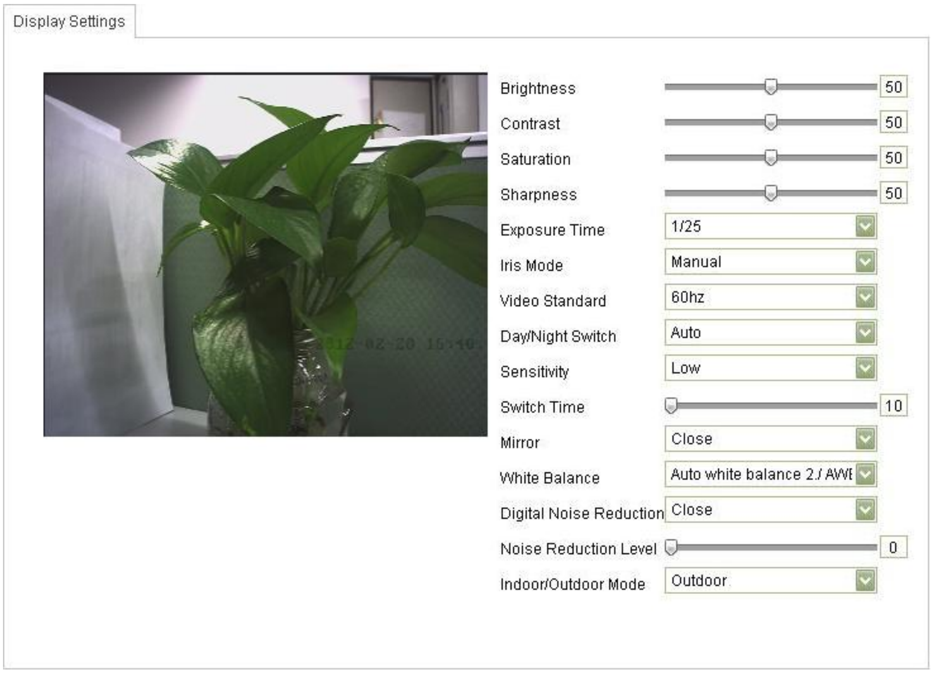
Purpose:

You can set the image quality of the camera, including brightness, contrast, saturation, hue, sharpness, etc.

Note: The Display parameters vary depending on the camera model.

Steps:

1. Enter the Display Settings interface:
   Configuration > Basic Configuration> Image> Display Settings
   Or **Configuration > Advanced Configuration> Image> Display Settings**
2. Set the image parameters of the camera.



Brightness 50
Contrast 50
Saturation 50
Sharpness 50
Exposure Time 1/25
Iris Mode Manual
Video Standard 60hz
Day/Night Switch Auto
Sensitivity Low
Switch Time 10
Mirror Close
White Balance Auto white balance 2./ AW
Digital Noise Reduction Close
Noise Reduction Level 0
Indoor/Outdoor Mode Outdoor

Figure 5-20 Display Settings

Descriptions of parameter configuration:

Exposure Time:

Speeds from 1/25 to 1/100,000 are selectable.

Iris Mode:

Auto and Manual are selectable.

Video Standard:

50 Hz and 60 Hz are selectable.

Day/Night Switch:

Day, Night and Auto are selectable.

Sensitivity

The Sensitivity of Day/Night switch can be set Low, Normal or High.

Switch Time:

Day/Night switch time is to adjust the time of day/night switch.

Mirror:

For the image mirror effect, Close, Center, Up/Down and Left/Right are selectable.

White Balance:

Auto white balance 1. /AWB1, Auto white balance 2. /AWB2 and Auto are selectable.

Digital Noise Reduction:

Close, Normal Mode and Expert Mode are selectable.

Noise Reduction Level:

From 0 to 100 are adjustable (0 stands for DNR closed and 100 stands for DNR function fully open).

Indoor/Outdoor Mode:

Select Indoor for indoor use or Outdoor for outdoor use.

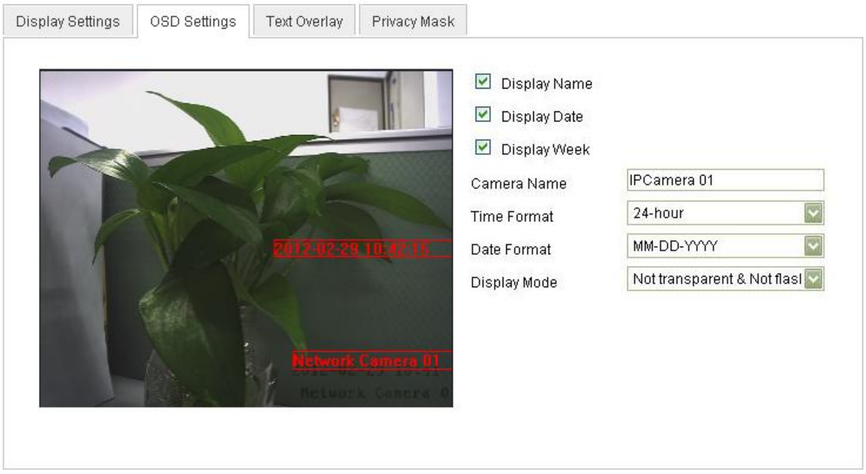
5.5.2 Configuring OSD Settings

Purpose:

You can customize the camera name and time on the screen.

Steps:

1. Enter the OSD Settings interface:
   Configuration > Advanced Configuration > Image > OSD Settings


Display Settings
OSD Settings
Text Overlay
Privacy Mask
2012-02-29 10:47:15
Network Camera 01

☑ Display Name
☑ Display Date
☑ Display Week
Camera Name: IPCamera 01
Time Format: 24-hour
Date Format: MM-DD-YYYY
Display Mode: Not transparent & Not flasl

Figure 5-21 OSD Settings

2. Check the corresponding checkbox to select the display of camera name, date or week if required.
3. Edit the camera name in the text field of **Camera Name**.
4. Select from the drop-down list to set the time format, date format and display mode.
5. You can use the mouse to click and drag the text frame in the live view window to adjust the OSD position.

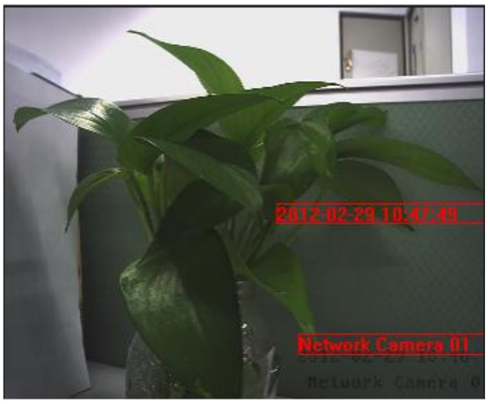

2012-02-29 10:47:49
Network Camera 01

Figure 5-22 Adjust OSD Location

6. Click Save to activate above settings.

5.5.3 Configuring Text Overlay Settings

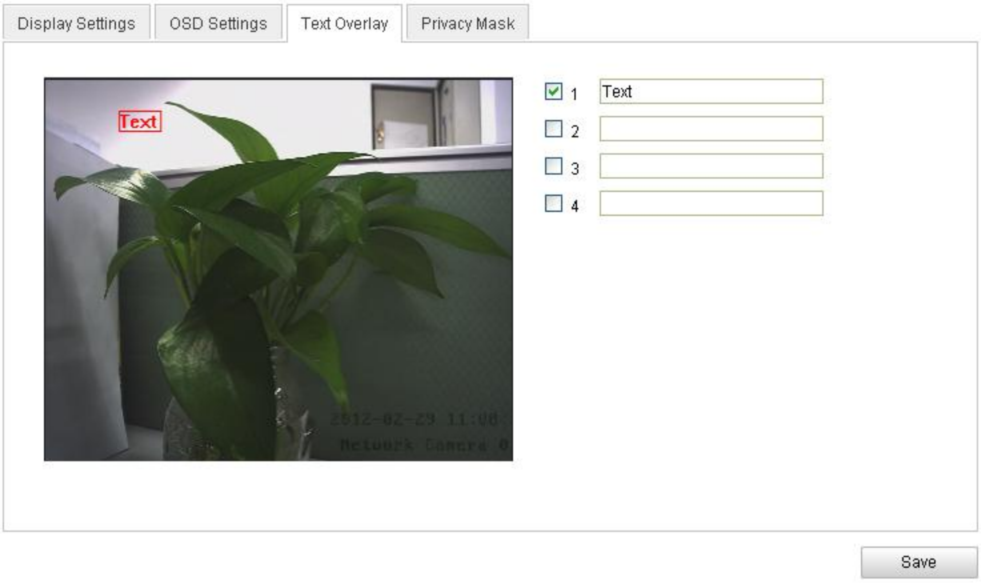
Purpose:

You can customize the text overlay.

Steps:

1. Enter the Text Overlay Settings interface:
   Configuration > **Advanced Configuration** > **Image** > **Text Overlay**
2. Check the checkbox in front of textbox to enable the on-screen display.
3. Input the characters in the textbox.
4. Use the mouse to click and drag the red text frame Text in the live view window to adjust the text overlay position.
5. Click Save.

Note: There are up to 4 text overlays configurable.



☑ 1 Text
☐ 2
☐ 3
☐ 4

Figure 5-23 Text Overlay Settings

5.5.4 Configuring Privacy Mask

Purpose:

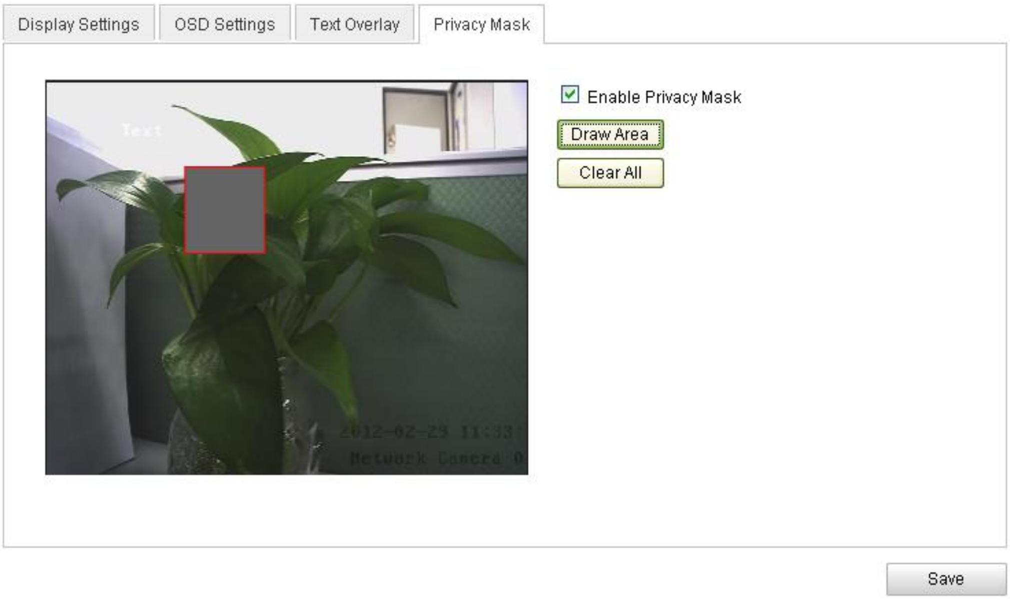
Privacy mask enables you to cover certain areas on the live video to prevent certain spots in the surveillance area from being live viewed and recorded.

Steps:

1. Enter the Privacy Mask Settings interface:
   Configuration > Advanced Configuration> Image > Privacy Mask

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

3. Click Draw Area .



☑ Enable Privacy Mask

Figure 5-24 Privacy Mask Settings

4. Click and drag the mouse in the live video window to draw the mask area.

Note: You are allowed to draw up to 4 areas on the same image.

5. Click Stop Drawing to finish drawing or click Clear All to clear all of the areas you set without saving them.

6. Click Save to save the settings.

5.6 Configuring and Handling Alarms

Purpose:

This section explains how to configure the network camera to respond to alarm events, including motion detection, external alarm input, video loss, tamper-proof and exception. These events can trigger the alarm actions, such as Notify Surveillance Center, Send Email, Trigger Alarm Output, etc.

For example, when an external alarm is triggered, the network camera sends a notification to an e-mail address.

5.6.1 Configuring Motion Detection

Purpose:

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

Steps:

1. Set the Motion Detection Area.

   Steps:

   (1) Enter the motion detection settings interface

   Configuration > Advanced Configuration> Events > Motion Detection

   (2) Check the checkbox of Enable Motion Detection.

   ☑ Enable Motion Detection

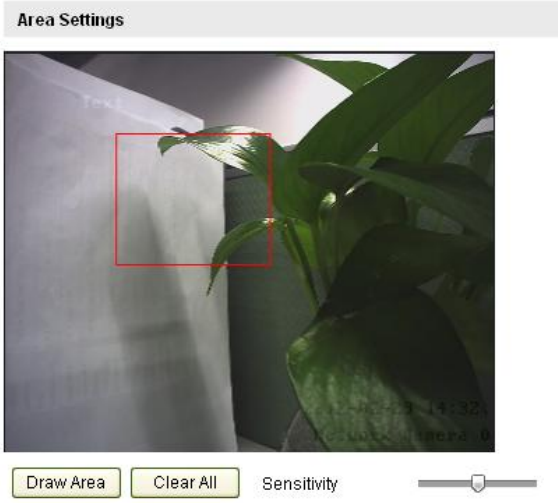


Figure 5-25 Enable Motion Detection

   (3) Click Draw Area. Click and drag the mouse on the live video image to draw a motion detection area.

   Note: You can draw up to 8 motion detection areas on the same image.

   (4) Click Stop Drawing to finish drawing.

   Note: You can click Clear All to clear all of the areas.

   (5) Move the slider Sensitivity to set the sensitivity of the detection.

2. Set the Arming Schedule for Motion Detection.

   Steps:

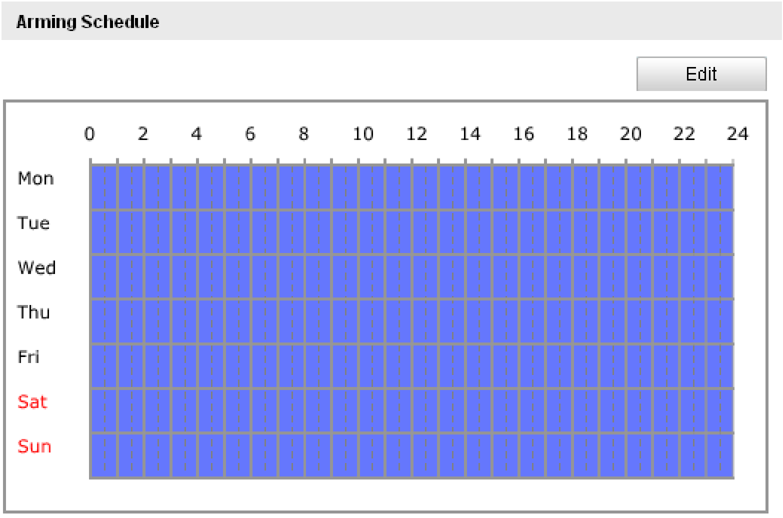

Arming Schedule
Edit
0
2
4
6
8
10
12
14
16
18
20
22
24
Mon
Tue
Wed
Thu
Fri
Sat
Sun

Figure 5-26 Arming Time

(1)Click Edit to edit the arming schedule. The Figure 5-28 shows the editing interface of the arming schedule.

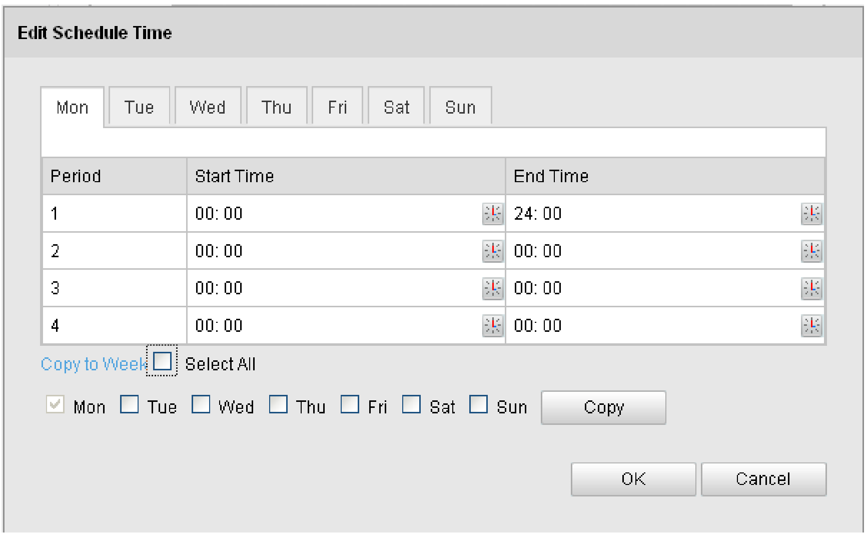
(2)Choose the day you want to set the arming schedule.

(3)Click 🕒 to set the time period for the arming schedule.

(4)After you set the arming schedule, you can copy the schedule to other days (Optional).

(5)Click OK to save the settings.

Note: The time of each period can't be overlapped. Up to 4 periods can be configured for each day.


Edit Schedule Time
Mon
Tue
Wed
Thu
Fri
Sat
Sun

Period	Start Time	End Time
1	00: 00	24: 00
2	00: 00	00: 00
3	00: 00	00: 00
4	00: 00	00: 00

Copy to Week ☐ Select All

☑ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ Sun

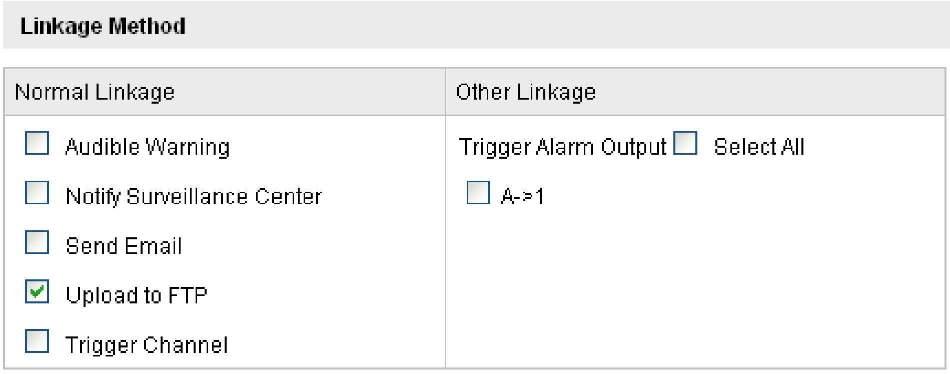
Copy
OK
Cancel

Figure 5-27 Arming Time Schedule

3. Set the Alarm Actions for Motion Detection.

Purpose:

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



Linkage Method

Normal Linkage	Other Linkage
☐ Audible Warning	Trigger Alarm Output ☐ Select All
☐ Notify Surveillance Center	☐ A->1
☐ Send Email	
☑ Upload to FTP	
☐ Trigger Channel	

Figure 5-28 Linkage Method

Steps:

(1) Check the checkbox to select the linkage method. Audible warning, notify surveillance center, send email, upload to FTP, trigger channel and trigger alarm output are selectable (Optional).

- **Audible Warning**

Trigger the audible warning locally.

- **Notify Surveillance Center**

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

- **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 5.6.7* to set the related parameters.

- **Upload to FTP**

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

Note: Set the FTP address and the remote FTP server first. Refer to *Section 5.3.8* for detailed information.

- **Trigger Channel**

The video will be recorded when the motion is detected. You have to set the recording schedule to realize this function. Please refer to *Section 6.2* for detailed information.

- **Trigger Alarm Output**

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

Note: To trigger an alarm output when an event occurs, please refer to *Section 5.6.5* to set the related parameters.

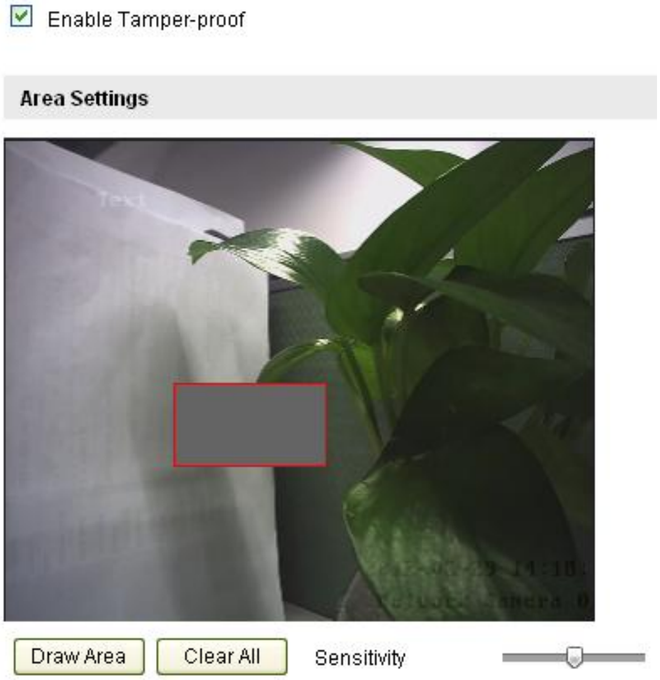
5.6.2 Configuring Tamper-proof Alarm

Purpose:

You can configure the camera to trigger the alarm when the lens is covered and take alarm response action.

Steps:

1. Enter the Tamper-proof Settings interface:
   Configuration > Advanced Configuration > Events > Tamper-proof



☑ Enable Tamper-proof

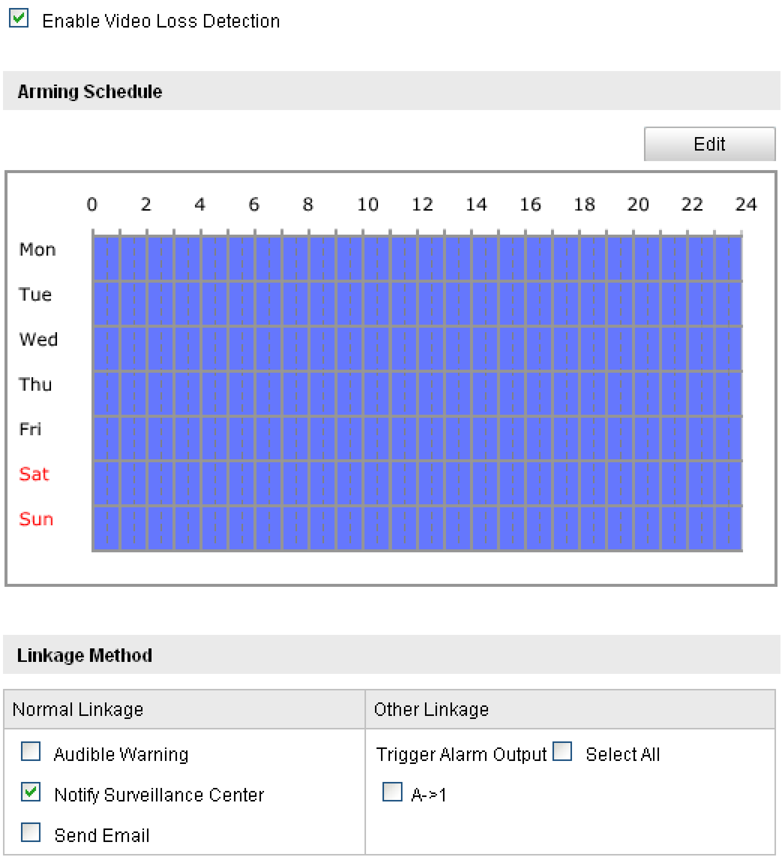
Figure 5-29 Tamper-proof Alarm

2. Check **Enable Tamper-proof** checkbox to enable the tamper-proof detection.
3. Set the tamper-proof area; refer to *Step 1* ***Set the Motion Detection Area*** in *Section 5.6.1*.
4. Click Edit to edit the arming schedule for tamper-proof. The arming schedule configuration is the same as the setting of the arming schedule for motion detection. Refer to *Step 2* ***Set the Arming Schedule for Motion Detection*** in *Section 5.6.1*.
5. Check the checkbox to select the linkage method taken for the tamper-proof. Audible warning, notify surveillance center, send email and trigger alarm output are selectable. Please refer to *Step 3* ***Set the Alarm Actions for Motion Detection*** in *Section 5.6.1*.
6. Click Save to save the settings.

5.6.3 Configuring Video Loss Alarm

Steps:

1. Enter the Video Loss Setting interface:
   Configuration > Advanced Configuration> Events > Video Loss


Arming Schedule
Edit
0
2
4
6
8
10
12
14
16
18
20
22
24
Mon
Tue
Wed
Thu
Fri
Sat
Sun
Linkage Method
Normal Linkage
Other Linkage
Select All

☑ Enable Video Loss Detection

☐ Audible Warning
☑ Notify Surveillance Center
☐ Send Email

Trigger Alarm Output ☐ Select All
☐ A->1

Figure 5-30 Video Loss

2. Check the **Enable Video Loss Detection** checkbox to enable the video loss detection.

3. Click Edit to edit the arming schedule for video loss detection. The arming schedule configuration is the same as the setting of the arming schedule for motion detection. Refer to *Step 2* ***Set the Arming Schedule for Motion Detection*** in *Section 5.6.1*.

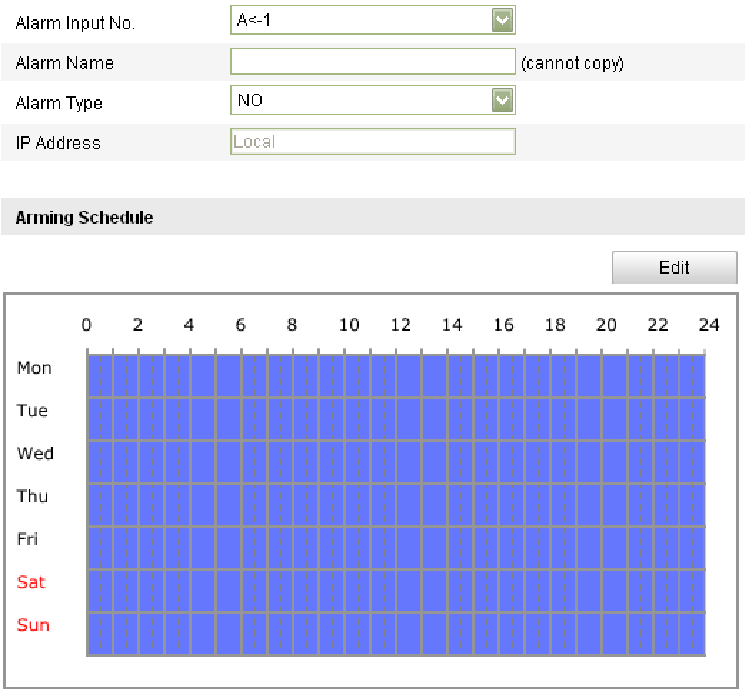
4. Check the checkbox to select the linkage method taken for the video loss alarm. Audible warning, notify surveillance center, send email and trigger alarm output are selectable. Please *Step 3* ***Set the Alarm Actions for Motion Detection*** in *Section 5.6.1*.

5. Click Save to save the settings.

5.6.4 Configuring External Alarm Input

Steps:

1. Enter the Alarm Input Settings interface:
   Configuration > Advanced Configuration> Events > Alarm Input:
2. Choose the alarm input No. and the Alarm Type. The alarm type can be NO (Normally Open) and NC (Normally Closed). Edit the name to set a name for the alarm input (optional).

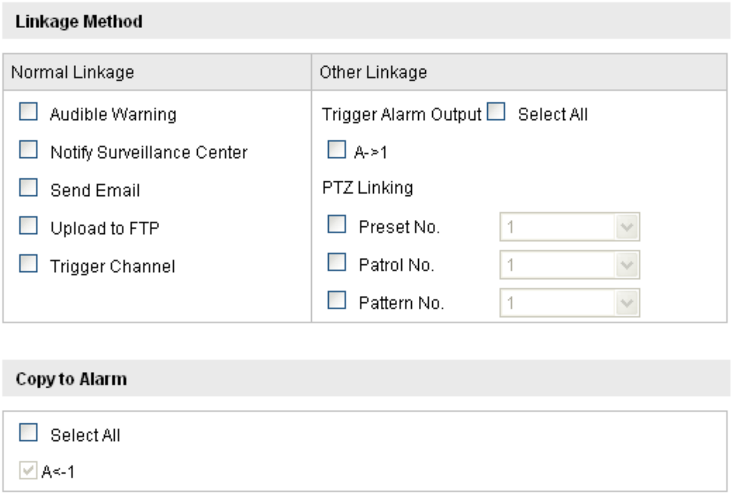


Alarm Input No. A<-1
Alarm Name (cannot copy)
Alarm Type NO
IP Address Local

Arming Schedule

Figure 5-31 Alarm Input Settings

3. Click Edit to set the arming schedule for the alarm input. Refer to *Step 2* ***Set the Arming Schedule for Motion Detection*** in *Section 5.6.1.*
4. Check the checkbox to select the linkage method taken for the alarm input. Refer to *Step 3* ***Set the Alarm Actions for Motion Detection*** in *Section 5.6.1.*
5. You can also choose the PTZ linking for the alarm input if your camera is installed with a pan/tilt unit. Check the relative checkbox and select the No. to enable Preset Calling, Patrol Calling or Pattern Calling.
6. You can copy your settings to other alarm inputs.
7. Click Save to save the settings.



Linkage Method

Normal Linkage	Other Linkage
☐ Audible Warning	Trigger Alarm Output ☐ Select All
☐ Notify Surveillance Center	☐ A->1
☐ Send Email	PTZ Linking
☐ Upload to FTP	☐ Preset No. 1
☐ Trigger Channel	☐ Patrol No. 1
	☐ Pattern No. 1

Copy to Alarm

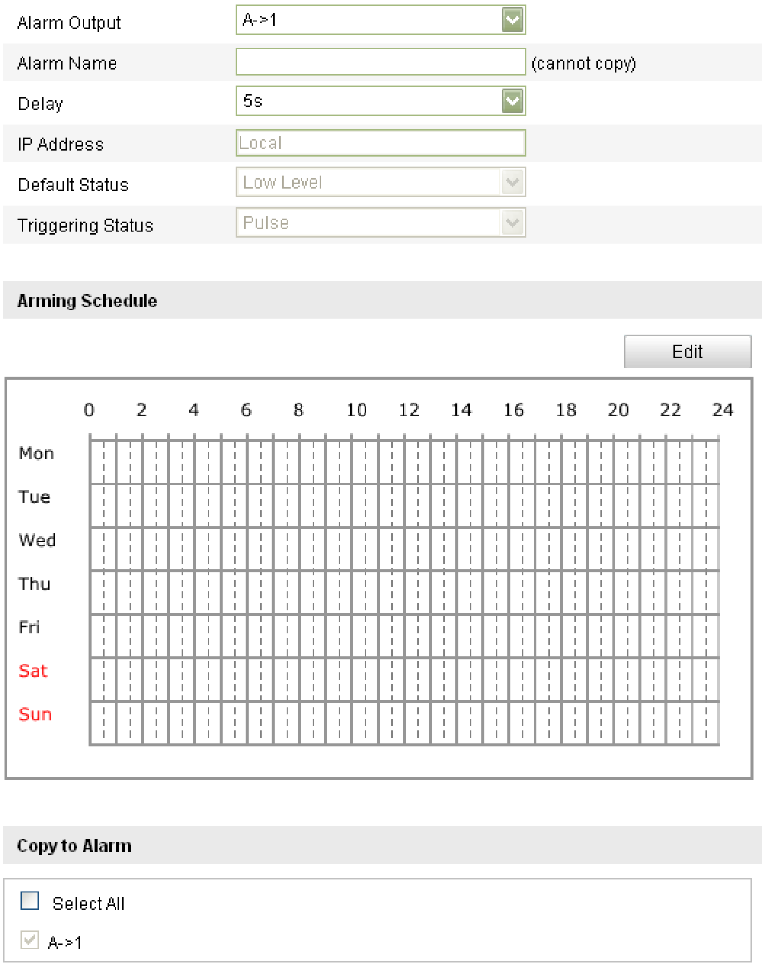
☐ Select All
☑ A<-1

Figure 5-32 Linkage Method

5.6.5 Configuring Alarm Output

Steps:

1. Enter the Alarm Output Settings interface:
   Configuration>Advanced Configuration> Events > Alarm Output
2. Select one alarm output channel in the **Alarm Output** drop-down list. You can also set a name for the alarm output (optional).
3. 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.
4. Click Edit to enter the **Edit Schedule Time** interface. The time schedule configuration is the same as the settings of the arming schedule for motion detection Refer to *Step 2* ***Set the Arming Schedule for Motion Detection*** in *Section 5.6.1*.
5. You can copy the settings to other alarm outputs.
6. Click Save to save the settings.



Alarm Output	A->1	
Alarm Name		(cannot copy)
Delay	5s	
IP Address	Local	
Default Status	Low Level	
Triggering Status	Pulse	

Arming Schedule

Copy to Alarm

☐ Select All

☑ A->1

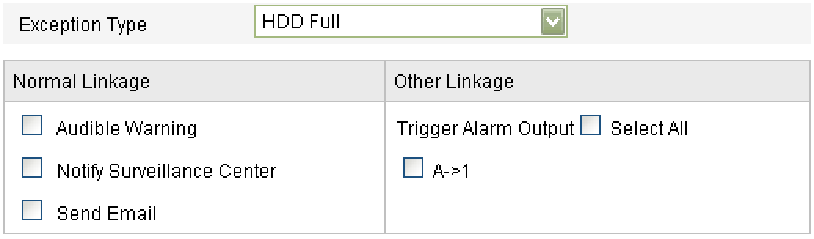
Figure 5-33 Alarm Output Settings

5.6.6 Handling Exception

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

Steps:

1. Enter the Exception Settings interface:
   Configuration > Advanced Configuration> Events > Exception
2. Check the checkbox to set the actions taken for the Exception alarm. Refer to *Step 3* ***Set the Alarm Actions Taken for Motion Detection*** in *Section 5.6.1*.



Exception Type: HDD Full

Normal Linkage	Other Linkage
☐ Audible Warning ☐ Notify Surveillance Center ☐ Send Email	Trigger Alarm Output ☐ Select All ☐ A->1

Figure 5-34 Exception Settings

3. Click Save to save the settings.

5.6.7 Configuring Email Settings

Purpose:

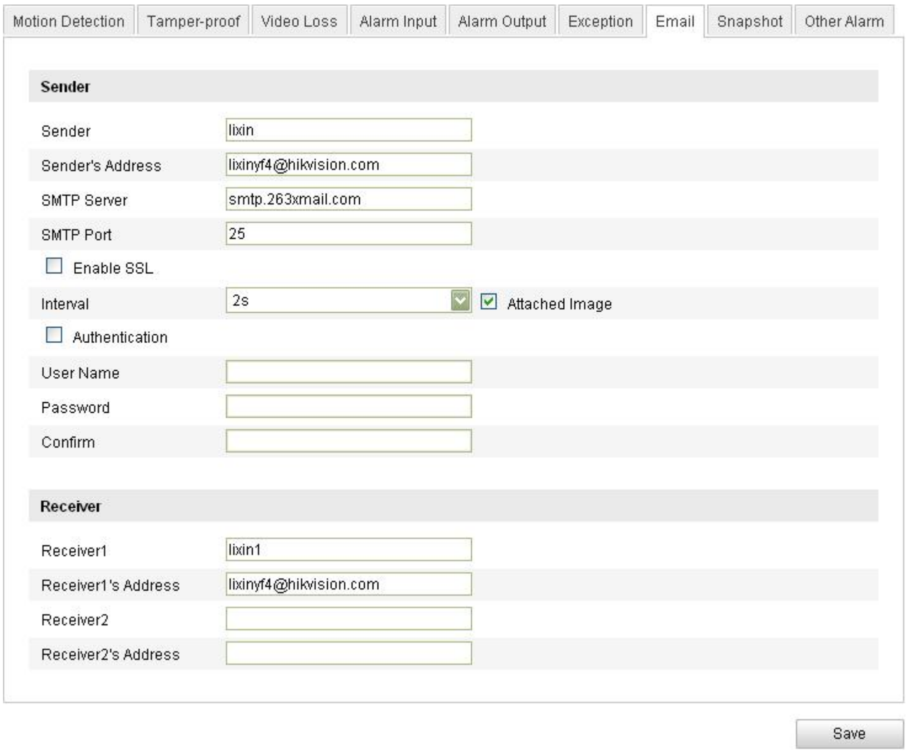
The system can be configured to send an Email notification to all designated receivers if an alarm event is detected, e.g., motion detection event, video loss, tamper-proof, etc.

Before you start:

Please configure the DNS Server settings under **Basic Configuration > Network > TCP/IP** or **Advanced Configuration > Network > TCP/IP** before using the Email function.

Steps:

1. Enter the TCP/IP Settings (**Configuration > Basic Configuration > Network > TCP/IP** or **Configuration > Advanced Configuration > Network > TCP/IP)** to set the IPv4 Address, IPv4 Subnet Mask, IPv4 Default Gateway and the Preferred DNS Server.
   Note: Please refer to *Section 5.3.1* ***Configuring TCP/IP Settings*** for detailed information.
2. Enter the Email Settings interface:
   Configuration > Advanced Configuration > Events > Email



Sender

Sender	lixin
Sender's Address	lixinyf4@hikvision.com
SMTP Server	smtp.263xmail.com
SMTP Port	25
☐ Enable SSL	
Interval	2s ☑ Attached Image
☐ Authentication	
User Name	
Password	
Confirm	

Receiver

Receiver1	lixin1
Receiver1's Address	lixinyf4@hikvision.com
Receiver2	
Receiver2's Address	

Figure 5-35 Email Settings

3. 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.

   Enable SSL: Check the checkbox to enable SSL if it is required by the SMTP server.

   Attached Image: Check the checkbox of Attached Image 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.

   Choose Receiver: Select the receiver to which the email is sent. Up to 2 receivers can be configured.

   Receiver: The name of the user to be notified.

   Receiver's Address: The email address of user to be notified.

4. Click Save to save the settings.

5.6.8 Configuring Snapshot Settings

Purpose:

You can configure the scheduled snapshot and event-triggered snapshot. The captured picture can be stored in the SD card (if supported) or the netHDD (For detailed information about netHDD, please refer to *Section 6.1* ***Configuring NAS Settings***). You can also upload the captured pictures to a FTP server.

Basic Settings

Steps:

1. Enter the Snapshot Settings interface:
   Configuration > Advanced Configuration > Events > Snapshot
2. Check the **Enable Timing Snapshot** checkbox to enable continuous snapshot. Check the **Enable Event-triggered Snapshot** checkbox to check event-triggered snapshot.
3. Select the quality of the snapshot.
4. Set the time interval between two snapshots.
5. Click Save to save the settings.

Uploading to FTP

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

- Upload continuous snapshots to FTP

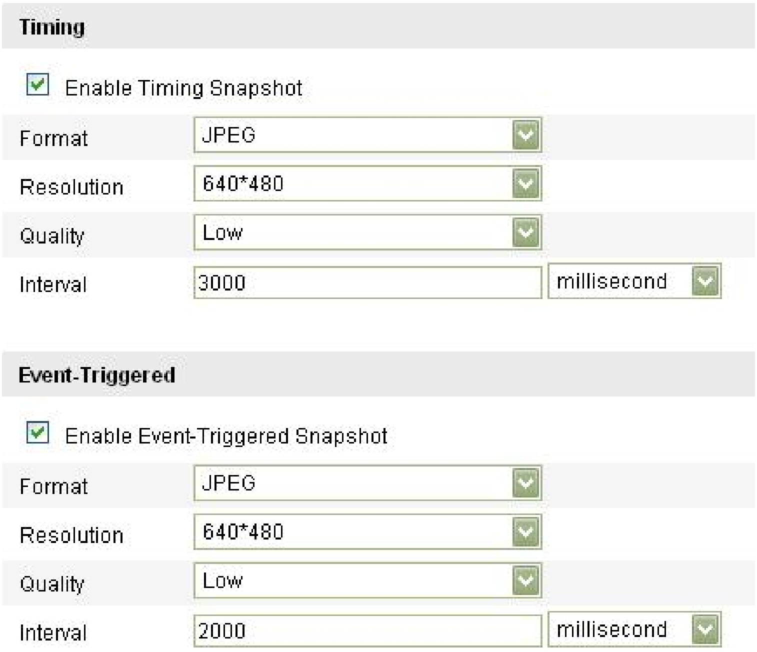
Steps:

1) Configure the FTP settings and check ☑ Upload Picture checkbox in FTP Settings interface. Please refer to *Section 5.3.8* for more details to configure FTP parameters.
2) Check the **Enable Timing Snapshot** checkbox.

- Upload event-triggered snapshots to FTP

Steps:

1) Configure the FTP settings and check ☑ Upload Picture checkbox in FTP Settings interface. Please refer to *Section 5.3.8* for more details to configure FTP parameters.
2) Check ☑ Upload to FTP checkbox in Motion Detection Settings or Alarm Input interface. Please refer to *Step 3* ***Set the Alarm Actions Taken for Motion Detection*** in *Section 5.6.1, or Step 4* ***Configuring External Alarm Input*** in *Section 5.6.4.*
3) Check the **Enable Event-triggered Snapshot** checkbox.



Timing

☑ Enable Timing Snapshot

Format: JPEG

Resolution: 640*480

Quality: Low

Interval: 3000 millisecond

Event-Triggered

☑ Enable Event-Triggered Snapshot

Format: JPEG

Resolution: 640*480

Quality: Low

Interval: 2000 millisecond

Figure 5-36 Snapshot Settings

5.6.9 Configuring Other Alarms

Purpose:

This section is for DS-2CD8464F-EI cube camera only. The DS-2CD8464F-EI camera supports external wireless alarm (e.g. access control alarm), embedded PIR (passive infrared sensor) alarm and manual alarm by remote control.

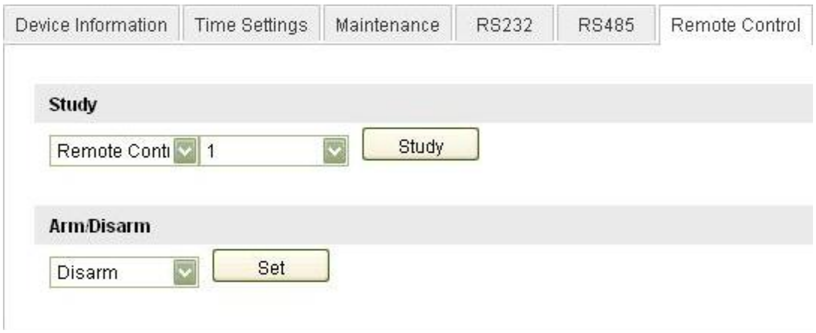
Study the wireless alarm and the remote control

Purpose:

Before configure the wireless alarm, the camera must study the code of the wireless alarm device; the remote control is used to arm/disarm the camera with the alarms and trigger the manual alarm. The camera must also study the code of the remote control before use it.

Steps:

1. Enter the Remote Control interface:
   Configuration> Advanced Configuration> System > Remote Control



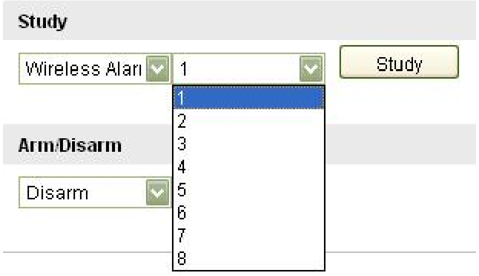
Remote Conti 1

Disarm

Figure 5-37 Remote Control

2. Study the code of the remote control or the wireless alarm.

- To study a remote control, select **Remote Control** from the **Study** drop-down list, and click Study; and then press any of the buttons on the remote control against the camera to send the signal.
- To study the wireless alarms, e.g. the access control device, select **Wireless Alarm** from the **Study** drop-down list, and select the device serial number (1-8) from the drop-down list, and click Study; and then send the signal from the wireless alarm device to the camera.



Study

Wireless Alarm 1

Arm/Disarm

Disarm

Figure 5-38 Study the Wireless Alarm

Notes:

- The camera can study up to 4 remote controls.
- To study the access control device, you can open the door/separate the device to send the signal.

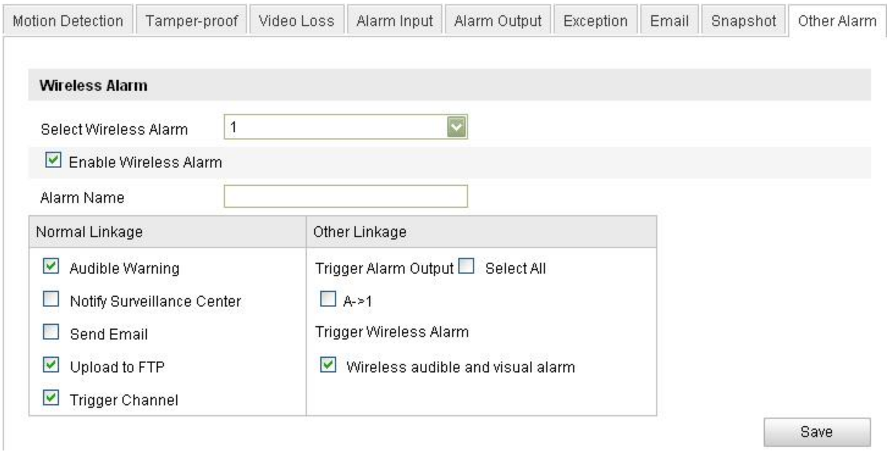
Configure the Wireless Alarm and PIR Alarm

- Configure the Wireless Alarm

Steps:

(1) Enter the Wireless Alarm Settings interface:
Configuration > Advanced Configuration > Events > Other Alarm

(2) Select the wireless alarm number. This camera supports up to 8 channels of external wireless alarm input.



Wireless Alarm

Select Wireless Alarm 1

☑ Enable Wireless Alarm

Alarm Name

Normal Linkage	Other Linkage
☑ Audible Warning	Trigger Alarm Output ☐ Select All
☐ Notify Surveillance Center	☐ A->1
☐ Send Email	Trigger Wireless Alarm
☑ Upload to FTP	☑ Wireless audible and visual alarm
☑ Trigger Channel	

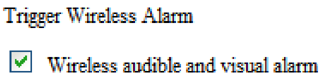
Figure 5-39 Wireless Alarm Settings

(3) Check the checkbox of **Enable Wireless Alarm** to activate the alarm and define

the alarm name in the **Alarm Name** field.

(4) Check the checkbox to select the linkage method taken for the wireless alarm. Audible warning, notify surveillance center, send email, upload to FTP, trigger channel, trigger alarm output and trigger wireless alarm output are selectable. Please refer to *Step 3* ***Set the Alarm Actions for Motion Detection*** in *Section 5.6.1*.

Note: DS-2CD8464F-EI camera supports wireless audible and visual alarm as the wireless alarm output for the wireless alarm. Check the check box of **Wireless audible and visual alarm** to activate the alarm output.



Trigger Wireless Alarm

☑ Wireless audible and visual alarm

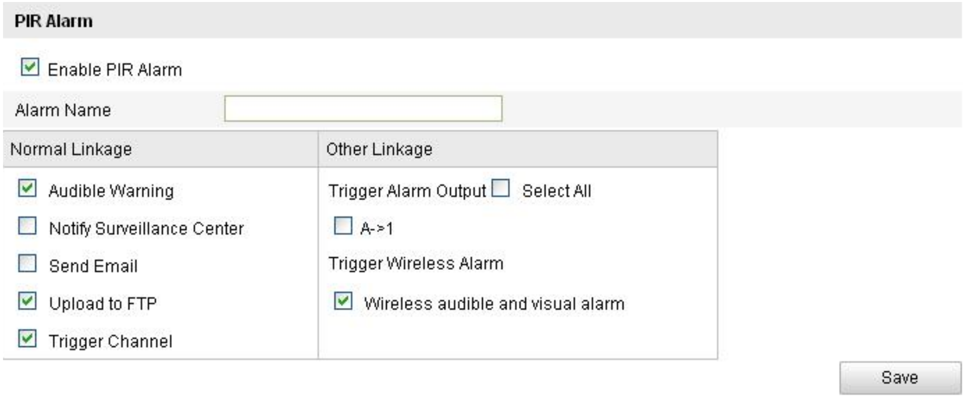
Figure 5-40 Wireless Alarm Output

(5) Click Save to save the settings.

- Configure the PIR Alarm

Steps:

(1) In the Other Alarm configuration interface, check the checkbox of **Enable PIR Alarm** to activate the PIR alarm and define the alarm name in the **Alarm Name** field.



PIR Alarm

☑ Enable PIR Alarm

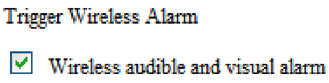
Alarm Name

Normal Linkage	Other Linkage
☑ Audible Warning	Trigger Alarm Output ☐ Select All
☐ Notify Surveillance Center	☐ A->1
☐ Send Email	Trigger Wireless Alarm
☑ Upload to FTP	☑ Wireless audible and visual alarm
☑ Trigger Channel	

Figure 5-41 PIR Alarm Settings

(2) Check the checkbox to select the linkage method taken for the PIR alarm. Audible warning, notify surveillance center, send email, upload to FTP, trigger channel, trigger alarm output and trigger wireless alarm output are selectable. Please refer to *Step 3* ***Set the Alarm Actions for Motion Detection*** in *Section 5.6.1*.

Note: DS-2CD8464F-EI camera supports wireless audible and visual alarm as the wireless alarm output for the PIR alarm. Check the check box of **Wireless audible and visual alarm** to activate the alarm output.



Trigger Wireless Alarm

☑ Wireless audible and visual alarm

Figure 5-42 Wireless Alarm Output

(3) Click Save to save the settings.

Note: The wireless alarm/PIR alarm triggered record will be started if the wireless alarm or PIR alarm is triggered on the defined recording schedule, either when the wireless/PIR alarm is enabled or not. Please refer to Section 6.2 for details about configuring recording schedule.

Manual Alarm/Emergency Alarm

DS-2CD8464F-EI camera supports manual alarm by the remote control. It can be manually triggered and linked to the audio warning if any emergency happens. You can press and hold the manual alarm button on the remote control for 2 seconds to trigger the audio warning manually.

Notes:

- The manual alarm is enabled and armed by default and not user-configurable.
- The manual alarm triggered record will be started if the manual alarm is triggered on the defined recording schedule, and will be stopped in 10 seconds after the manual alarm stops. Please refer to *Section 6.2* for details about configuring recording schedule.

5.6.10 Arming or Disarming the Camera

Purpose:

This section is for DS-2CD8464F-EI cube camera only. You can follow below steps to configure all-day arming for the camera with the wireless alarm, PIR alarm, motion detection, tamper-proof, etc.

Note: Manual alarm is enabled and armed by default and not included in this section.

- Arm the camera

Steps:

1. Enter the Remote Control interface:
   Configuration> Advanced Configuration> System > Remote Control
2. Select **Arm** from the **Arm/Disarm** drop-down list.
3. Set the arming delay.

Note: Arming delay refers to a time delay to arm the camera after you set it to arming status on this page. You can set the delay as 10 seconds, 30 seconds, 1 minute, 3 minutes or 5 minutes. You can also customize the delay time.

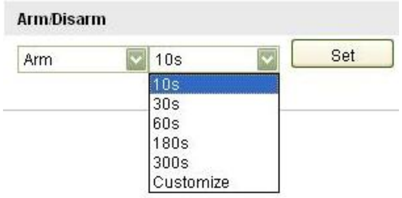


Figure 5-43 Arm the Camera

4. Click Set to arm the camera.

- Disarm the camera

In the Remote Control interface, select **Disarm** from the **Arm/Disarm** drop-down list and click Set to disarm the camera.

Notes:

- You can also press the Arm/Disarm button on the remote control to arm/disarm the camera if the camera has already studied the remote control.
- The arming indicator glows red when the camera is armed and glows blue when it's disarmed.

Chapter 6 Storage Settings

Before you start:

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.

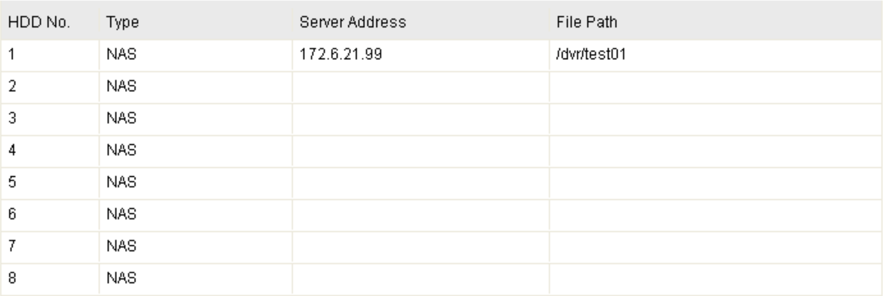
6.1 Configuring NAS Settings

Before you start:

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

Steps:

1. Add the network disk
   (1) Enter the NAS (Network-Attached Storage) Settings interface:
   Configuration > Advanced Configuration > Storage > NAS



HDD No.	Type	Server Address	File Path
1	NAS	172.6.21.99	/dvr/test01
2	NAS		
3	NAS		
4	NAS		
5	NAS		
6	NAS		
7	NAS		
8	NAS		

Figure 6-1 Add Network Disk

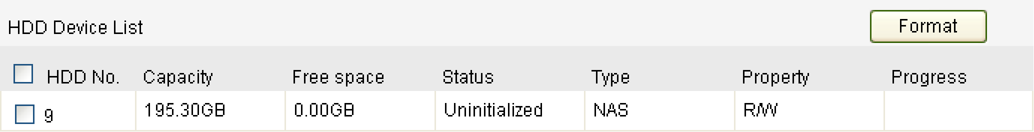
   (2) Enter the IP address of the network disk, and the default file path is */dvr/share*.

   Note: The network disk file path name *share* is user-defined while creating the DVR network storage. Please refer to the *User Manual of NAS* for creating the file path.

   (3) Click Save to add the network disk.

   Note: After having saved successfully, you need to reboot the camera to activate the settings.

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

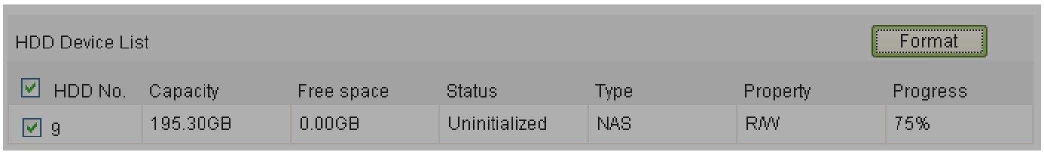


HDD Device List

☐ HDD No.	Capacity	Free space	Status	Type	Property	Progress
☐ 9	195.30GB	0.00GB	Uninitialized	NAS	R/W	

Figure 6-2 Initialize Disk

(2) If the status of the disk is **Uninitialized**, check the corresponding checkbox to select the disk and click Format to start initializing the disk.



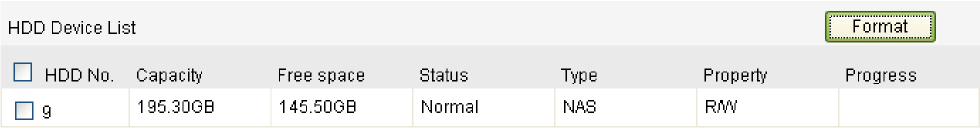
HDD Device List

Format

☑ HDD No.	Capacity	Free space	Status	Type	Property	Progress
☑ 9	195.30GB	0.00GB	Uninitialized	NAS	R/W	75%

Figure 6-3 Initializing

When the initialization completed, the status of disk will become **Normal.**



HDD Device List

Format

☐ HDD No.	Capacity	Free space	Status	Type	Property	Progress
☐ 9	195.30GB	145.50GB	Normal	NAS	R/W	

Figure 6-4 View Disk Status

Notes:

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

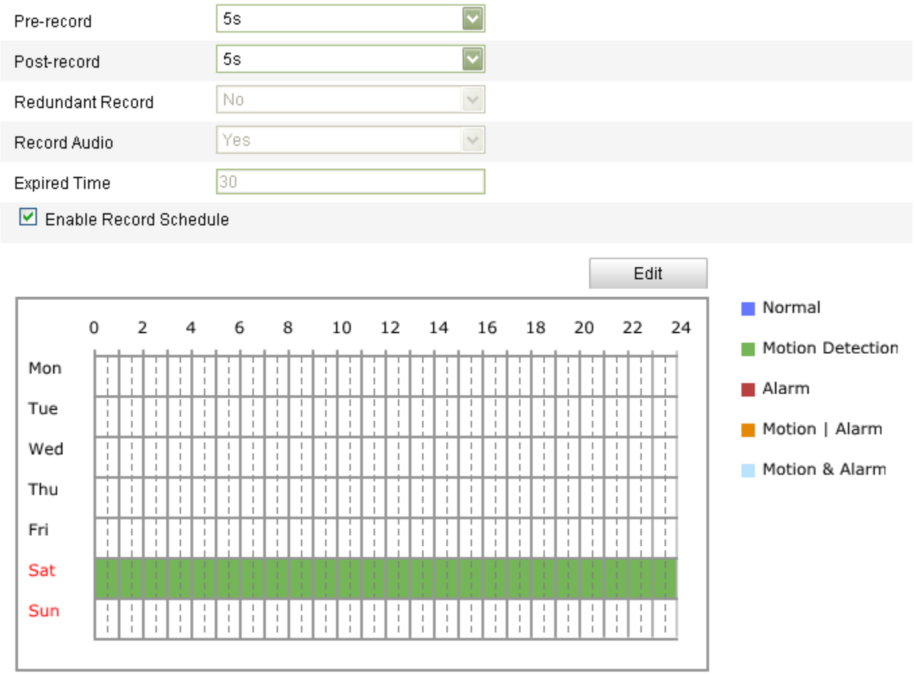
6.2 Configuring Recording Schedule

Purpose:

There are two kinds of recording for the cameras: manual recording and scheduled recording. For the manual recording, refer to *Section 4.3* ***Recording and Capturing Pictures Manually***. 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 SD card (if supported) or in the network disk.

Steps:

1. Enter the Record Schedule Settings interface:
   Configuration > Advanced Configuration> Storage > Record Schedule



Pre-record: 5s

Post-record: 5s

Redundant Record: No

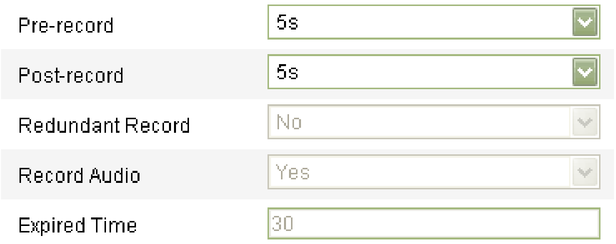
Record Audio: Yes

Expired Time: 30

☑ Enable Record Schedule

Figure 6-5 Recording Schedule Interface

2. Check the checkbox of **Enable Record Schedule** to enable scheduled recording.
3. Set the record parameters of the camera.



Pre-record: 5s

Post-record: 5s

Redundant Record: No

Record Audio: Yes

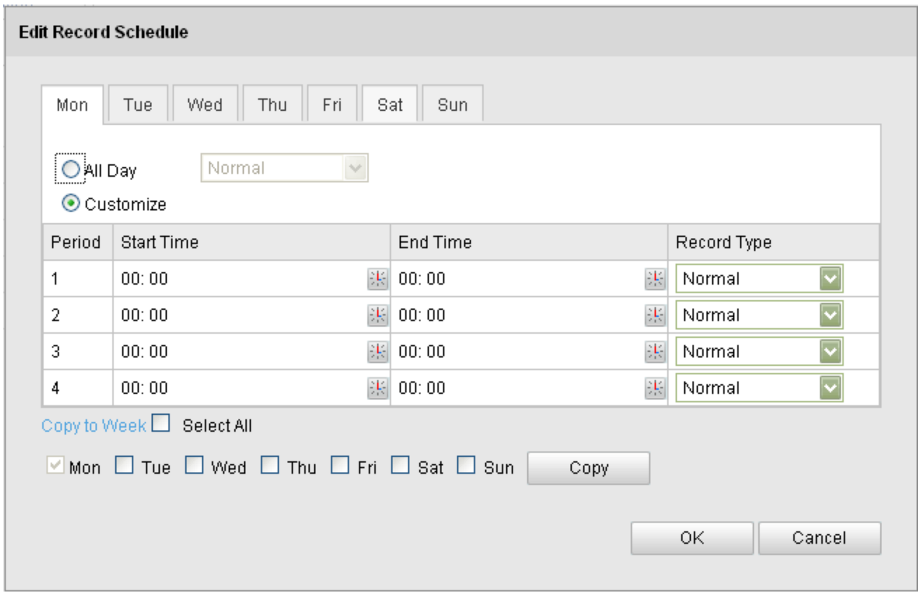
Expired Time: 30

Figure 6-6 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 camera 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.
- 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 camera 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.

Note: The record parameter configurations vary depending on the camera model.

4. Click Edit to edit the record schedule.



○ All Day Normal

● Customize

Period	Start Time	End Time	Record Type
1	00: 00	00: 00	Normal
2	00: 00	00: 00	Normal
3	00: 00	00: 00	Normal
4	00: 00	00: 00	Normal

Copy to Week ☐ Select All

☑ Mon ☐ Tue ☐ Wed ☐ Thu ☐ Fri ☐ Sat ☐ Sun

Figure 6-7 Record Schedule

5. Choose the day to set the record schedule.

   (1) Set all-day record or segment record:

   - If you want to configure the all-day recording, please check the **All Day** checkbox.
   - If you want to record in different time sections, check the **Customize** checkbox. Set the **Start Time** and **End Time.**

     Note: The time of each segment can't be overlapped. Up to 4 segments can be configured.

   (2) Select a **Record Type**. The record type can be Normal, Motion Detection, Alarm, Motion | Alarm, Motion & Alarm, PIR Alarm, Wireless Alarm, Manual Alarm or PIR | Wireless | Manual.

   - **Normal**

     If you select **Normal**, the video will be recorded automatically according to the time of the schedule.

   - **Record Triggered by Motion Detection**

     If you select **Motion Detection**, 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 checkbox of **Trigger Channel** in the **Linkage Method** of Motion Detection Settings interface. For detailed information, please refer to the *Step 1* ***Set the Motion Detection Area*** *in the Section 5.6.1.*

   - **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 checkbox of **Trigger Channel** in the **Linkage Method** of **Alarm Input Settings** interface. For detailed information, please refer to

Section 5.6.4.

- **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. Please refer to *Section 5.6.1* and *Section 5.6.4* for detailed information.

- **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. Please refer to *Section 5.6.1* and *Section 5.6.4* for detailed information.

- **Record Triggered by PIR Alarm**

  If you select **PIR Alarm**, the video will be recorded when the PIR alarm is detected.

  Besides configuring the recording schedule, you have to set the PIR alarm and check the checkbox of **Trigger Channel** in the **Normal Linkage** of PIR Alarm in Other Alarm Settings interface. For detailed information, please refer to *Step 2* ***Configure the PIR Alarm*** *in the Section 5.6.9.*

- **Record Triggered by Wireless Alarm**

  If you select **Wireless Alarm**, the video will be recorded when the wireless alarm is detected.

  Besides configuring the recording schedule, you have to set the wireless alarm and check the checkbox of **Trigger Channel** in the **Normal Linkage** of Wireless Alarm in Other Alarm Settings interface. For detailed information, please refer to *Step 1* ***Configure the Wireless Alarm*** *in the Section 5.6.9.*

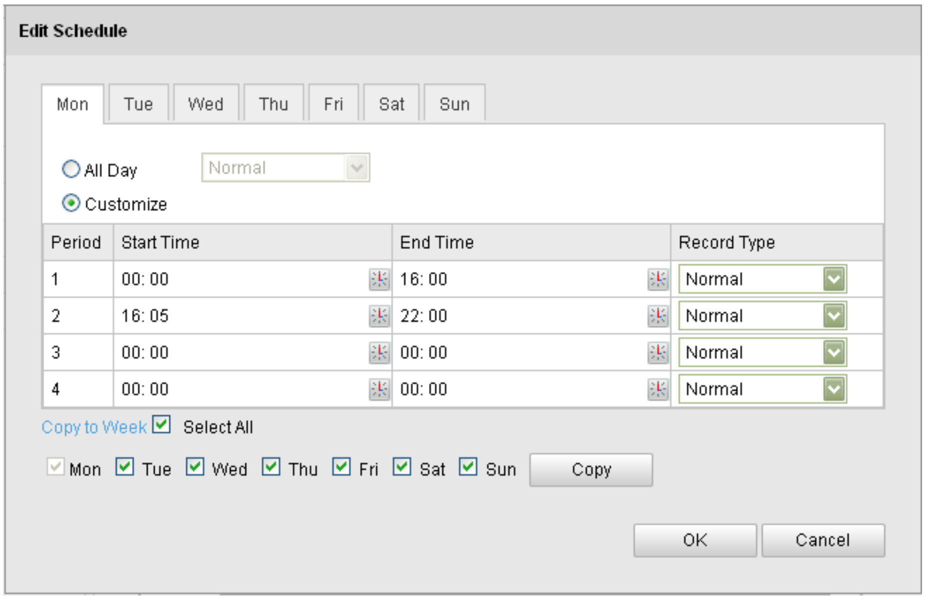
- **Record Triggered by Manual Alarm**

  If you select **Manual Alarm**, the video will be recorded when manual alarm is triggered.

- **Record Triggered by PIR | Wireless | Manual**

  If you select **PIR | Wireless | Manual,** the video will be recorded when the PIR alarm or wireless alarm or manual alarm is detected.

  Besides configuring the recording schedule, you have to configure the settings for wireless alarm and PIR alarm in Other Alarm Settings interface. For detailed information, please refer to *Section 5.6.9.*



Edit Schedule

○ All Day Normal

● Customize

Period	Start Time	End Time	Record Type
1	00: 00	16: 00	Normal
2	16: 05	22: 00	Normal
3	00: 00	00: 00	Normal
4	00: 00	00: 00	Normal

Copy to Week ☑ Select All

☑ Mon ☑ Tue ☑ Wed ☑ Thu ☑ Fri ☑ Sat ☑ Sun

Figure 6-8 Edit Record Schedule

(3) Check the checkbox ☐ Select All and click Copy to copy settings of this day to the whole week. You can also check any of the checkboxes before the date and click Copy.

(4) Click OK to save the settings and exit the **Edit Record Schedule** interface.

6. Click Save to save the settings.

Chapter 7 Playback

Purpose:

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

Steps:

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

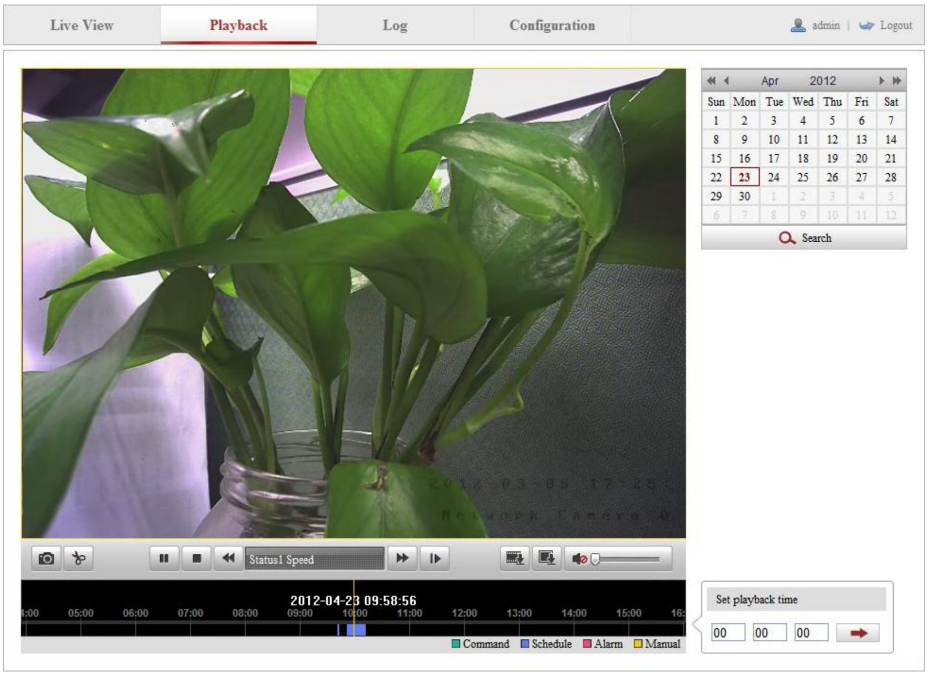
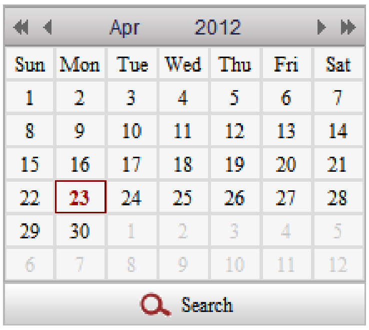

Live View
Playback
Log
Configuration
admin
Logout
Apr 2012
Sun Mon Tue Wed Thu Fri Sat
Search
Status1 Speed
2012-04-23 09:58:56
05:00
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
Command
Schedule
Alarm
Manual
Set playback time
00
00
00

Figure 7-1 Playback Interface

2. Select the date and click Search.



Apr 2012

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	1	2	3	4	5
6	7	8	9	10	11	12

Search

Figure 7-2 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.

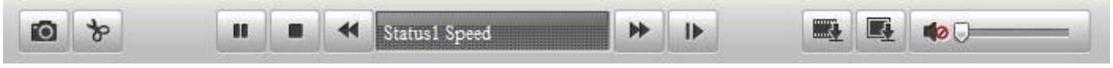
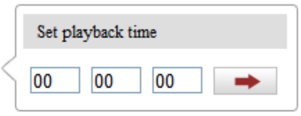

Status1 Speed

Figure 7-3 Playback Toolbar

Table 7-1 Description 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 video files
▶▶	Speed up	⬇	Download captured pictures
Status1 Speed	Display playback speed	⏵	Playback by frame

Note: You can choose the file paths locally for downloaded playback video files and pictures in Local Configuration interface. Please refer to *Section 5.1* 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.


Set playback time

00 00 00 ➡

Figure 7-4 Set Playback Time

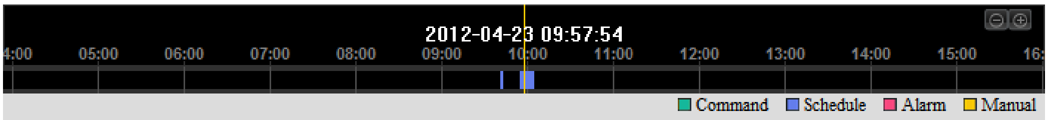

2012-04-23 09:57:54
4:00
05:00
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:
Command
Schedule
Alarm
Manual

Figure 7-5 Progress Bar

The different colors of the video on the progress bar stand for the different video types.

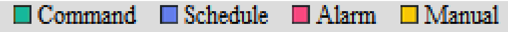

Command
Schedule
Alarm
Manual

Figure 7-6 Video Types

Chapter 8 Log Searching

Purpose:

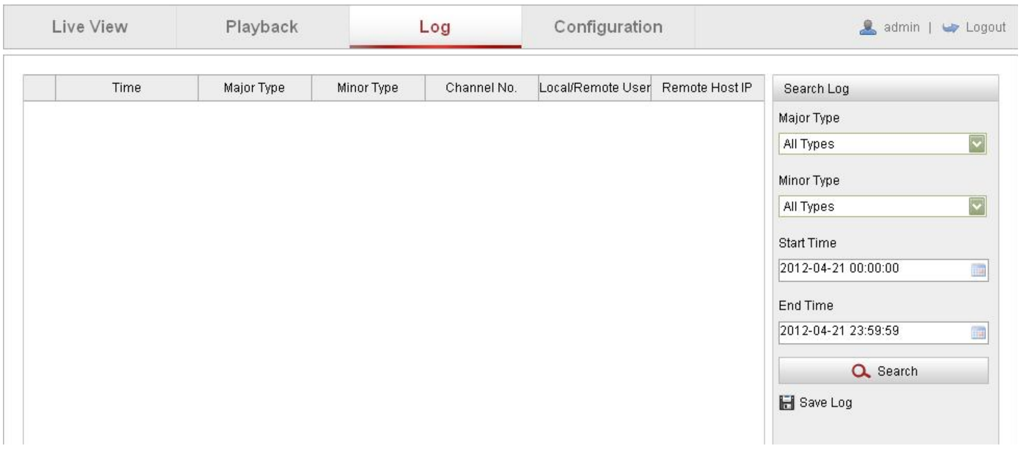
The operation, alarm, exception and information of the camera can be stored in log files. You can also export the log files on your demand.

Before you start:

Please configure network storage for the camera or insert a SD card in the camera.

Steps:

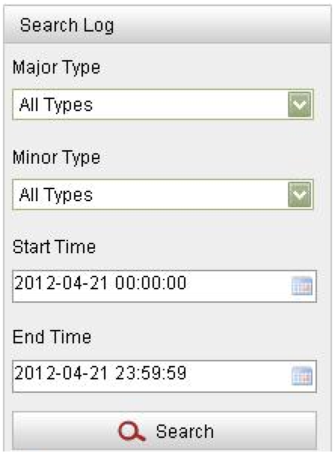
1. Click Log on the menu bar to enter log searching interface.


Live View
Playback
Log
Configuration
admin | Logout
Time
Major Type
Minor Type
Channel No.
Local/Remote User
Remote Host IP
Search Log
Search
Save Log

Major Type: All Types
Minor Type: All Types
Start Time: 2012-04-21 00:00:00
End Time: 2012-04-21 23:59:59

Figure 8-1 Log Searching Interface

2. Set the log search conditions to specify the search, including the Major Type, Minor Type, Start Time and End Time.
3. Click Search to search log files. The matched log files will be displayed on the **Log** interface.


Search Log
Search

Major Type: All Types
Minor Type: All Types
Start Time: 2012-04-21 00:00:00
End Time: 2012-04-21 23:59:59

Figure 8-2 Log Searching

4. To export the log files, click Save Log to save the log files in your computer.

Chapter 9 Others

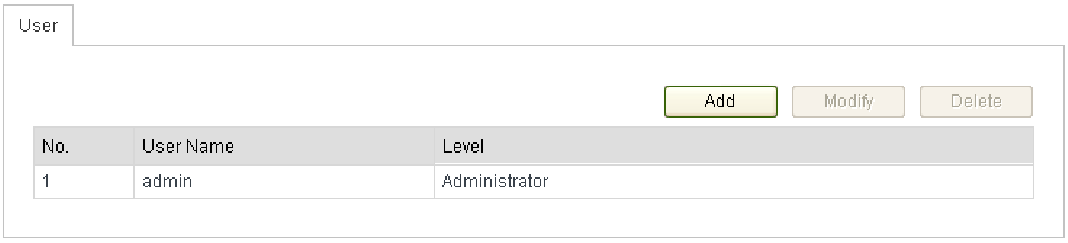
9.1 Managing User Accounts

Enter the User Management interface:

Configuration >**Basic Configuration**> **Security > User**

Or **Configuration** > **Advanced Configuration**> **Security > User**

The **admin** user has access to create, modify or delete other accounts. Up to 15 user accounts can be created.



No.	User Name	Level
1	admin	Administrator

Figure 9-1 User Information

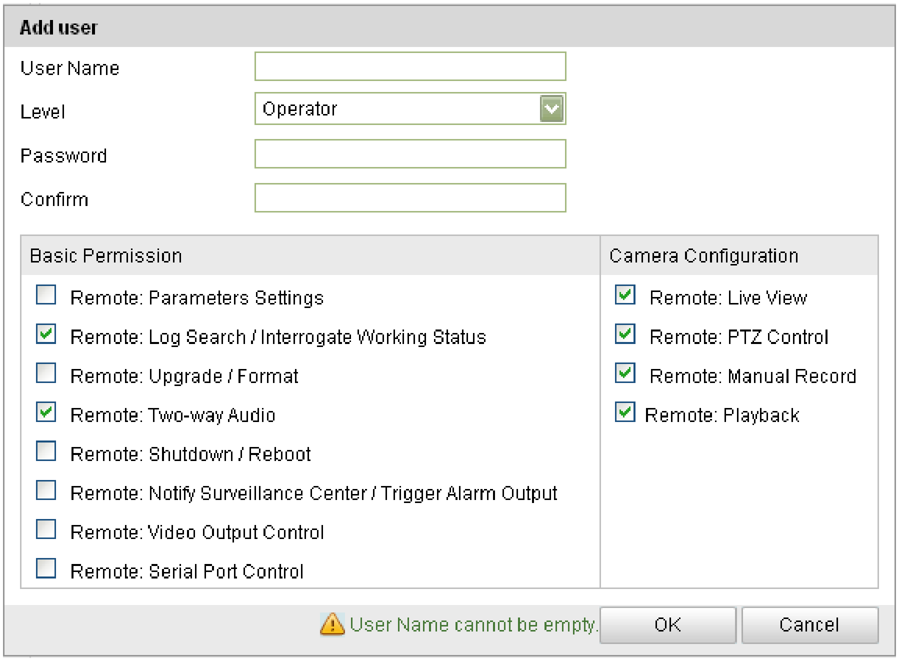
- Add a User

Steps:

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

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 OK to finish the user addition.



Add user

User Name

Level: Operator

Password

Confirm

Basic Permission
- ☐ Remote: Parameters Settings
- ☑ Remote: Log Search / Interrogate Working Status
- ☐ Remote: Upgrade / Format
- ☑ Remote: Two-way Audio
- ☐ Remote: Shutdown / Reboot
- ☐ Remote: Notify Surveillance Center / Trigger Alarm Output
- ☐ Remote: Video Output Control
- ☐ Remote: Serial Port Control

Camera Configuration
- ☑ Remote: Live View
- ☑ Remote: PTZ Control
- ☑ Remote: Manual Record
- ☑ Remote: Playback

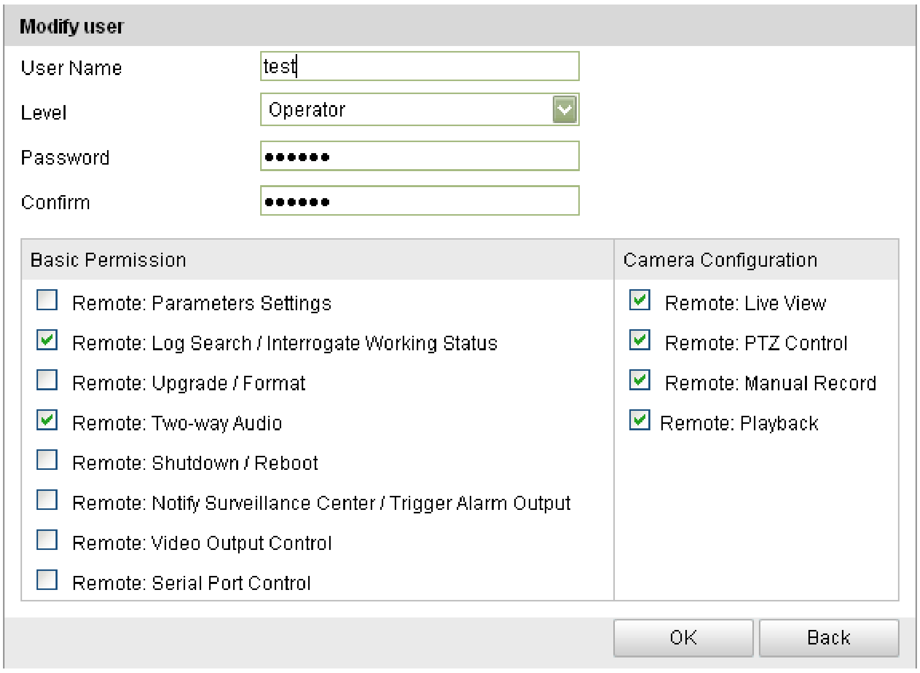
⚠ User Name cannot be empty.

Figure 9-2 Add a User

- Modify a User

Steps:

1. Left-click to select the user from the list and click Modify.
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 OK to finish the user modification.



Modify user

User Name: test

Level: Operator

Password: ●●●●●●

Confirm: ●●●●●●

Basic Permission
- ☐ Remote: Parameters Settings
- ☑ Remote: Log Search / Interrogate Working Status
- ☐ Remote: Upgrade / Format
- ☑ Remote: Two-way Audio
- ☐ Remote: Shutdown / Reboot
- ☐ Remote: Notify Surveillance Center / Trigger Alarm Output
- ☐ Remote: Video Output Control
- ☐ Remote: Serial Port Control

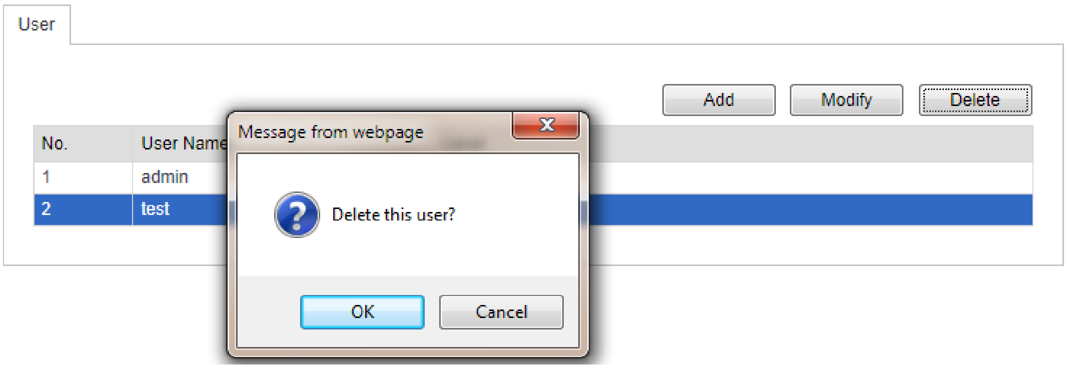
Camera Configuration
- ☑ Remote: Live View
- ☑ Remote: PTZ Control
- ☑ Remote: Manual Record
- ☑ Remote: Playback

Figure 9-3 Modify a User

- Delete a User

Steps:

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



No.	User Name
1	admin
2	test

Delete this user?

Figure 9-4 Delete a User

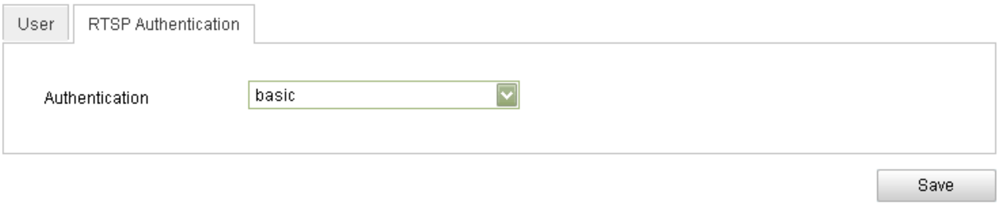
9.2 Configuring RTSP Authentication

Purpose:

You can specifically secure the stream data of live view.

Steps:

1. Enter the RTSP Authentication interface:
   Configuration> **Advanced Configuration**> **Security > RTSP Authentication**



Authentication: basic

Figure 9-5 RTSP Authentication

2. Select the **Authentication** type **basic** or **disable** in the drop-down list to enable or disable the RTSP authentication.
3. Click Save to save the settings.

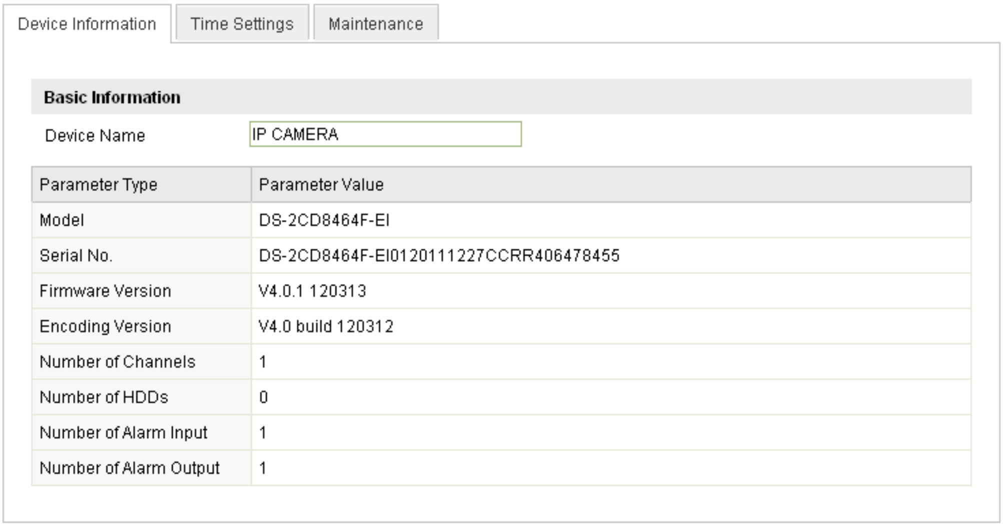
9.3 Viewing Device Information

Enter the Device Information interface:

Configuration > **Basic Configuration**> **System** > **Device Information**

Or **Configuration** > **Advanced Configuration> System** > **Device Information**

In the **Device Information** interface, you can edit the Device Name.
Other information of the network camera, such as Model, Serial No., Firmware Version, Encoding 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.



Basic Information

Device Name: IP CAMERA

Parameter Type	Parameter Value
Model	DS-2CD8464F-EI
Serial No.	DS-2CD8464F-EI0120111227CCRR406478455
Firmware Version	V4.0.1 120313
Encoding Version	V4.0 build 120312
Number of Channels	1
Number of HDDs	0
Number of Alarm Input	1
Number of Alarm Output	1

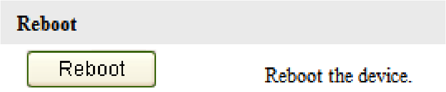
Figure 9-6 Device Information

9.4 Maintenance

9.4.1 Rebooting the Camera

Steps:

1. Enter the Maintenance interface:
   Configuration > **Basic Configuration> System > Maintenance**
   Or **Configuration** > **Advanced Configuration> System > Maintenance:**
2. Click Reboot to reboot the network camera.



Reboot the device.

Figure 9-7 Reboot the Device

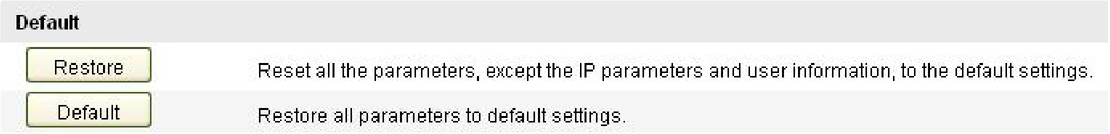
9.4.2 Restoring Default Settings

Steps:

1. Enter the Maintenance interface:

Configuration > **Basic Configuration> System** > **Maintenance**
Or **Configuration** > **Advanced Configuration> System** > **Maintenance**

2. Click Restore or Default to restore the default settings.



Reset all the parameters, except the IP parameters and user information, to the default settings.

Restore all parameters to default settings.

Figure 9-8 Restore Default Settings

9.4.3 Importing/Exporting Configuration File

Steps:

1. Enter the Maintenance interface:
   Configuration > **Basic Configuration> System** > **Maintenance**
   Or **Configuration** > **Advanced Configuration> System** > **Maintenance**
2. Click Browse to select the local configuration file and then click Import to start importing configuration file.
   Note: You need to reboot the camera after importing configuration file.
3. Click Export and set the saving path to save the configuration file in local storage.

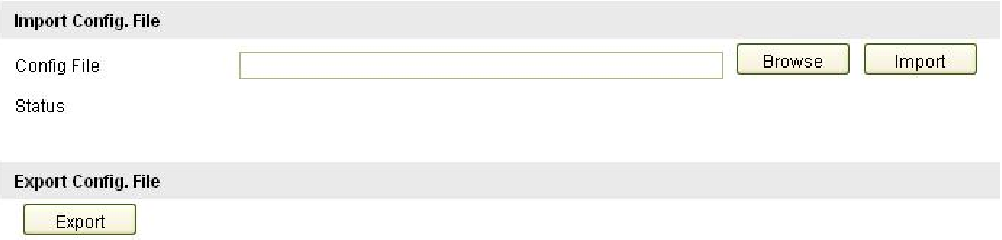


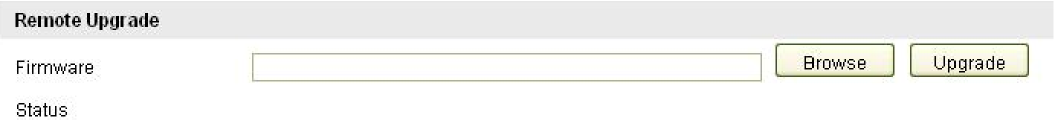
Figure 9-9 Import/Export Configuration File

9.4.4 Upgrading the System

Steps:

1. Enter the Maintenance interface:
   Configuration > **Basic Configuration> System** > **Maintenance**
   Or **Configuration** > **Advanced Configuration> System** > **Maintenance**
2. Click Browse to select the local upgrade file and then click Upgrade to start remote upgrade.

Note: The upgrading process will take 1 to 10 minutes. Please don't disconnect power of the camera during the process. The camera reboots automatically after upgrading.



Remote Upgrade

Firmware

Status

Figure 9-10 Remote Upgrade

9.5 RS-232 Settings

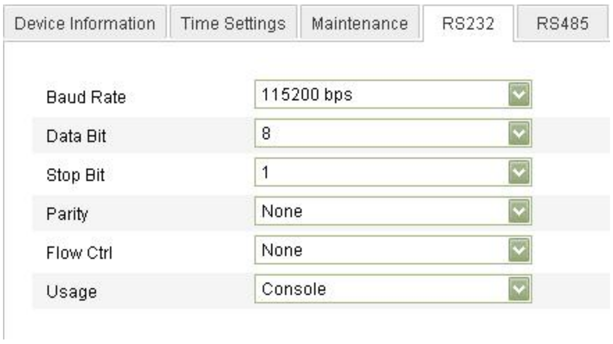
Purpose:

The RS-232 port can be used in two ways:

- Parameters Configuration: Connect a computer to the camera through the serial port. Device parameters can be configured by using software such as HyperTerminal. The serial port parameters must be the same as the serial port parameters of the camera.
- Transparent Channel: Connect a serial device directly to the camera. The serial device will be controlled remotely by the computer through the network.

Steps:

1. Enter RS-232 Port Setting interface:
   Configuration> Advanced Configuration> System > RS232



Baud Rate	115200 bps
Data Bit	8
Stop Bit	1
Parity	None
Flow Ctrl	None
Usage	Console

Figure 9-11 RS-232 Settings

Note: If you want to connect the camera by the RS-232 port, the parameters of the RS-232 should be exactly the same with the parameters you configured here.

2. Click Save to save the settings.

9.6 RS-485 Settings

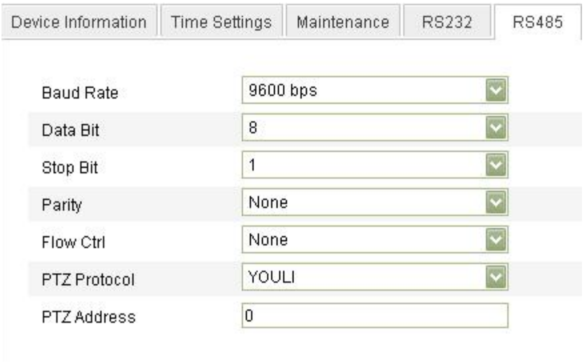
Purpose:

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 > RS485



Baud Rate: 9600 bps
Data Bit: 8
Stop Bit: 1
Parity: None
Flow Ctrl: None
PTZ Protocol: YOULI
PTZ Address: 0

Figure 9-12 RS-485 Settings

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

   By default, the Baud Rate is set as 9600 bps, the Data Bit is 8, the stop bit is 1 and the Parity and Flow Control is None.

   Note: The Baud Rate, PTZ Protocol and PTZ Address parameters should be exactly the same as the PTZ camera parameters.

Appendix

Appendix 1 SADP Software Introduction

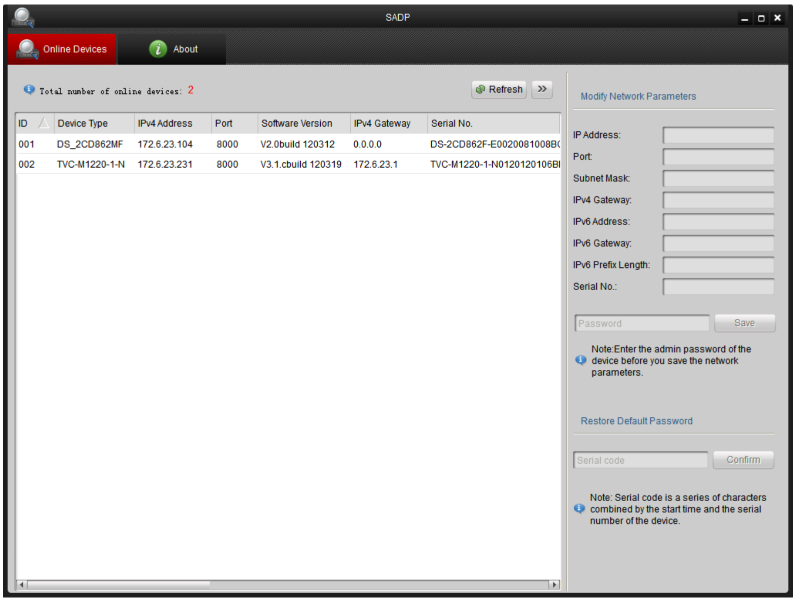
● Description

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, port number, gateway, etc. will be displayed.



Total number of online devices: 2

ID △	Device Type	IPv4 Address	Port	Software Version	IPv4 Gateway	Serial No.
001	DS_2CD862MF	172.6.23.104	8000	V2.0build 120312	0.0.0.0	DS-2CD862F-E0020081008B
002	TVC-M1220-1-N	172.6.23.231	8000	V3.1.cbuild 120319	172.6.23.1	TVC-M1220-1-N0120120106B

IP Address:
Port:
Subnet Mask:
IPv4 Gateway:
IPv6 Address:
IPv6 Gateway:
IPv6 Prefix Length:
Serial No.:

Password

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

Serial code

Note: Serial code is a series of characters combined by the start time and the serial number of the device.

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**

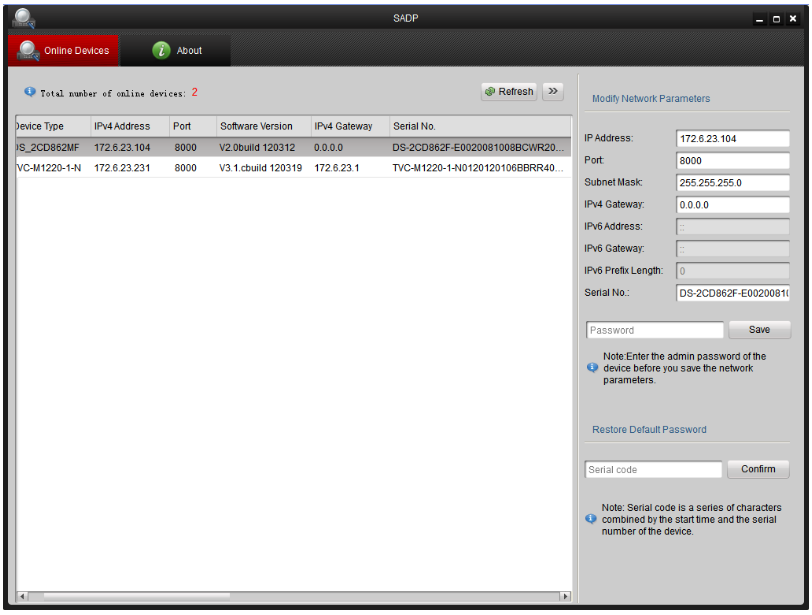
  You can also click Refresh to refresh the online device list manually. The newly searched devices will be added to the list.

  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. Enter the password of the admin account of the device in the **Password** field and click Save to save the changes.



Total number of online devices: 2

evice Type	IPv4 Address	Port	Software Version	IPv4 Gateway	Serial No.
S_2CD862MF	172.6.23.104	8000	V2.0build 120312	0.0.0.0	DS-2CD862F-E0020081008BCWR20...
VC-M1220-1-N	172.6.23.231	8000	V3.1.cbuild 120319	172.6.23.1	TVC-M1220-1-N0120120106BBRR40...

IP Address: 172.6.23.104
Port: 8000
Subnet Mask: 255.255.255.0
IPv4 Gateway: 0.0.0.0
IPv6 Address: ::
IPv6 Gateway: ::
IPv6 Prefix Length: 0
Serial No.: DS-2CD862F-E0020081

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

Note: Serial code is a series of characters combined by the start time and the serial number of the device.

Figure A.1.2 Modify Network Parameters

- ## Restore default password

Steps:

1. Contact our technical engineers to get the serial code.

Note: Serial code is a series of characters combined by the start time and the serial number of the device.

2. Input the code in the **Serial code** field and click Confirm to restore the default password.

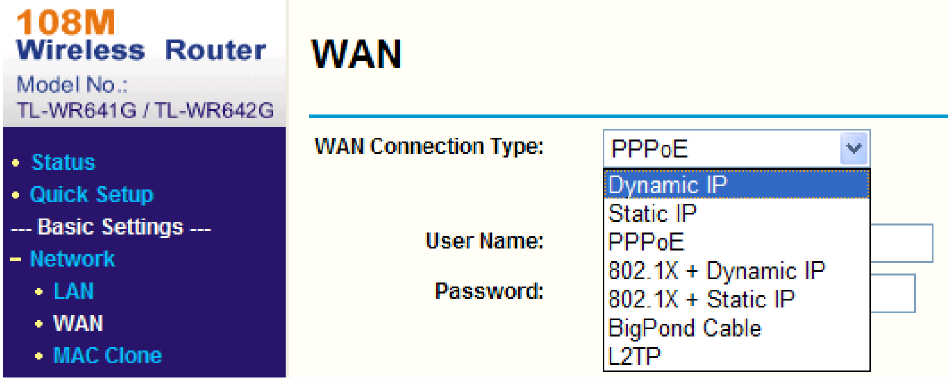
.

Appendix 2 Port Mapping

The following settings are for TP-LINK router (TL-R410). The settings vary depending on different models of routers.

Steps:

1. Select the **WAN Connection Type**, as shown below:


108M
Wireless Router
Model No.:
TL-WR641G / TL-WR642G
Status
Quick Setup
--- Basic Settings ---
Network
LAN
WAN
MAC Clone
WAN
Dynamic IP
Static IP
PPPoE
802.1X + Dynamic IP
802.1X + Static IP
BigPond Cable
L2TP

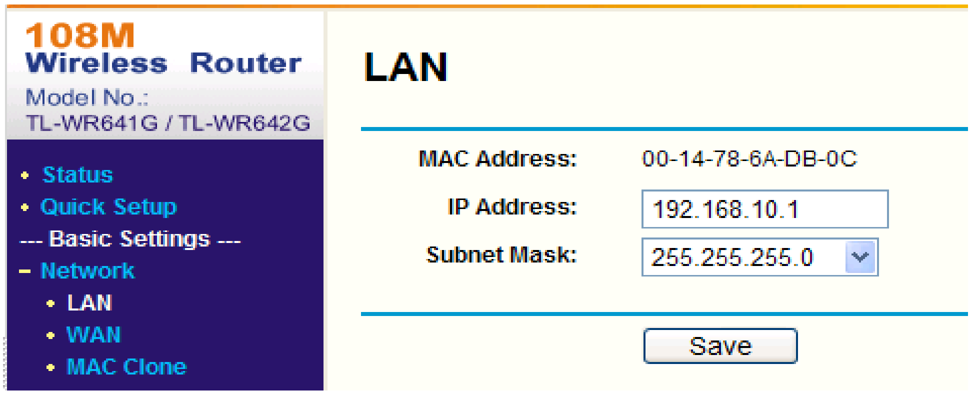
WAN Connection Type: PPPoE

User Name:

Password:

Figure A.2.1 Select the WAN Connection Type

2. Set the **LAN** parameters of the router as in the following figure, including IP address and subnet mask settings.


108M
Wireless Router
Model No.:
TL-WR641G / TL-WR642G
Status
Quick Setup
--- Basic Settings ---
Network
LAN
WAN
MAC Clone
LAN
Save

MAC Address: 00-14-78-6A-DB-0C

IP Address: 192.168.10.1

Subnet Mask: 255.255.255.0

Figure A.2.2 Set the LAN parameters

3. Set the port mapping in the virtual severs of **Forwarding**. By default, camera uses port 80, 8000, 554 and 8200. You can change these ports value with web browser or client software.

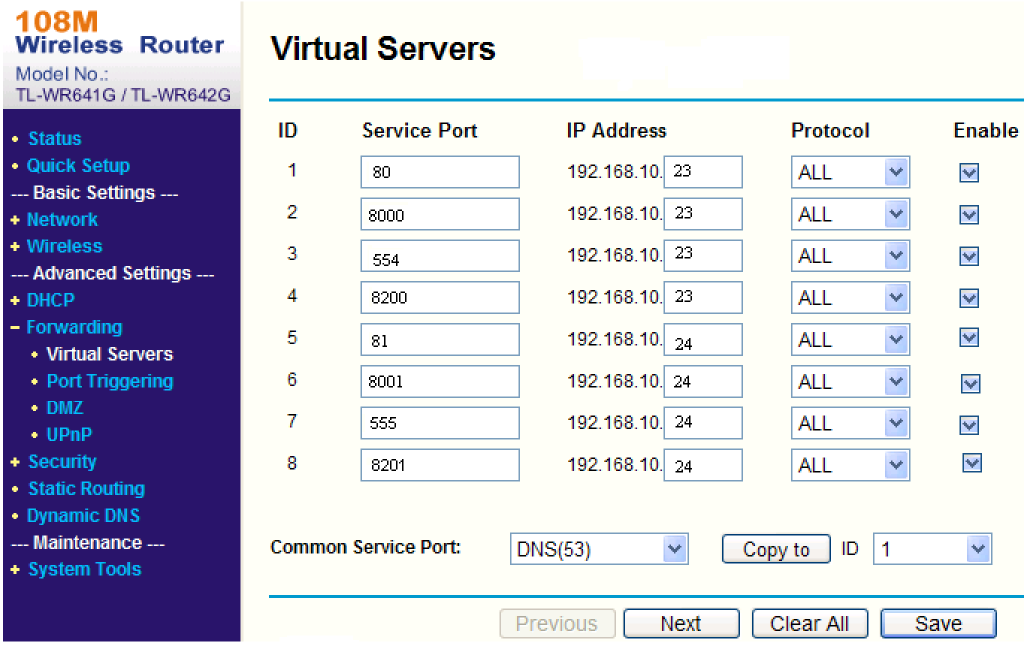
   Example:

   When the cameras are connected to the same router, you can configure the ports of a camera as 80, 8000, 554 and 8200 with IP address 192.168.1.23, and the ports of another camera as 81, 8001, 555, 8201 with IP 192.168.1.24. Refer to the steps as below:

Note: The 8200 port changes with the 8000 port with a constant value of 200. E.g. if the 8000 port is changed to 8005, then the 8200 port should be changed to 8205.

Steps:

1. As the settings mentioned above, map the port 80, 8000, 554 and 8200 for the network camera at 192.168.1.23
2. Map the port 81, 8001, 555 and 8201 for the network camera at 192.168.1.24.
3. Enable **ALL** or **TCP** protocols.
4. Check the **Enable** checkbox and click Save.


108M
Wireless Router
Model No.:
TL-WR641G / TL-WR642G
Status
Quick Setup
--- Basic Settings ---
Network
Wireless
--- Advanced Settings ---
DHCP
Forwarding
Virtual Servers
Port Triggering
DMZ
UPnP
Security
Static Routing
Dynamic DNS
--- Maintenance ---
System Tools
Previous
Next
Clear All
Save

Virtual Servers

ID	Service Port	IP Address	Protocol	Enable
1	80	192.168.10. 23	ALL	☑
2	8000	192.168.10. 23	ALL	☑
3	554	192.168.10. 23	ALL	☑
4	8200	192.168.10. 23	ALL	☑
5	81	192.168.10. 24	ALL	☑
6	8001	192.168.10. 24	ALL	☑
7	555	192.168.10. 24	ALL	☑
8	8201	192.168.10. 24	ALL	☑

Common Service Port: DNS(53) Copy to ID 1

Figure A.2.3 Port Mapping

Note: The port of the network camera cannot conflict with other ports. For example, some web management port of the router is 80. Change the camera port if it is the same as the management port.

First Choice for Security Professionals