IP – High Speed PTZ with IRs

Models

IP-PTZ643W 1.3mp

IP-PTZ645W 2.0mp

20 x Optical Zoom

1.3 and 2 Megapixel models

ONVIF Protocol

4.7mm ~ 94mm Lens

12 x High Power IRs up to 150m

Version 007 ***Last Revised 02/10/2015***

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CAUTION

- 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 moistened with ethanol and wipe it gently. If the camera is not be used for an extended period of time, put on the lens cap on, to protect the sensor from dirt.
- Do not aim the camera lens at the strong light such as sun or incandescent lamp. Strong light can cause damage to the camera.
- The sensor may be burned out by a laser beam so avoid exposure.
- Do not place the camera in extremely hot or cold temperatures, avoid dusty conditions, and do not expose camera to high electromagnetic radiation.
- To avoid heat accumulation, good ventilation is required for a proper operating environment.
- During transport it is recommended that the camera is packed in its original packing.

Chapter 1 Introduction

1.1 System Requirement

System requirement of web browser accessing is as follows:
Operating System: Microsoft Windows XP SP1 and above version / Vista / Win7 / Server 2003 / Server 2008 32bits
CPU: Intel Pentium IV 3.0 GHz or higher
RAM: 1G or higher
Display: 1024×768 resolution or higher
Web Browser: Internet Explorer 7.0 and above version.

1.2 Features

- HD Video Output
- Supports ONVIF protocol and JPEG picture capture
- Provides motion detection function
- Auto-focus function
- Advanced video compression with high compression ratio
- Supports dual-stream
- Supports JPEG picture capture
- Provides RS-485 and RS-232 interfaces.

1.3 PTZ Control

- Pans 360 degrees continuous rotation
- Tilts 90 degrees without any blindspot
- PTZ auto adjusts speed according to the zoom function
- Auto switches on IR lamps and adjusts IR brightness according to the lens near and far settings

1.4 Applications

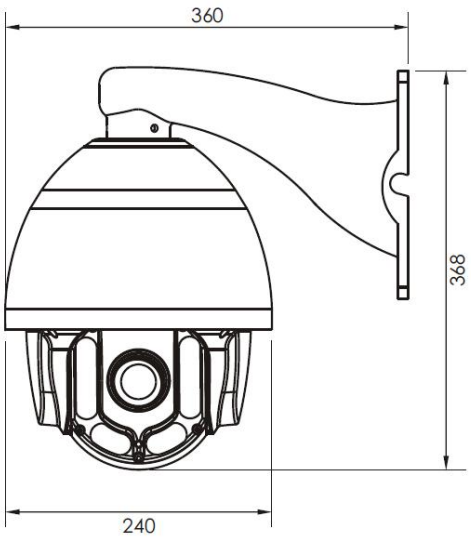
This IP PTZ camera can be operated using its own browser access software, CCTVWindow and NVR/ IP DVR with ONVIF protocol.

1.5 Product Overview

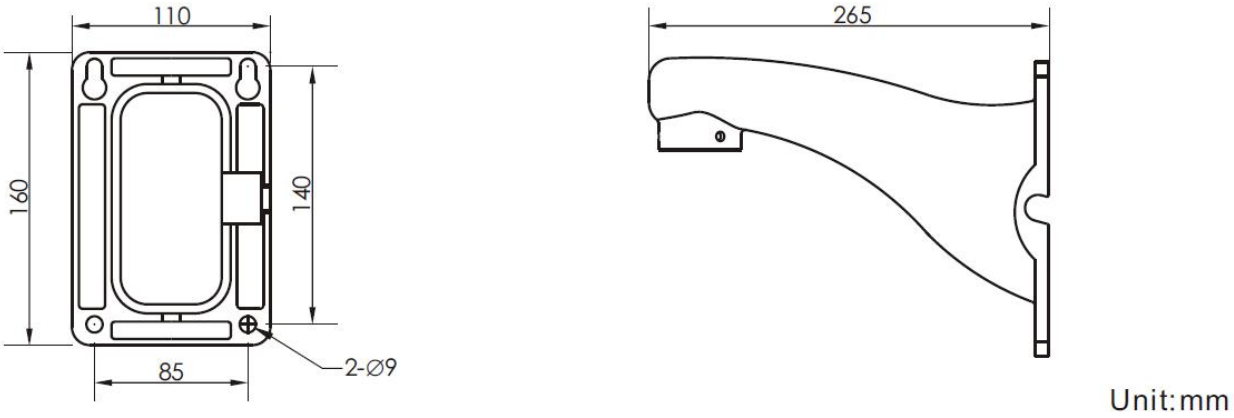
Power Supply	12vDC 4A ± 10%	Power Consumption	Max 15w day Max 30x night
IR Distance	100m ~ 120m	Decoder	Built In
Pan Range	360°	Tilt Rotate	90°
High Speed	Pan 0. 6° ~ 200°/s Tilt 0.8° ~ 75°/s	Presets	128
Standard Speed	Pan 0. 6° ~ 30°/s Tilt 0.4° ~ 17°/s	Monitoring Method	Preset/Patrol/Auto-Scan
Operational Environment	Outdoor: -20° ~ +60° Indoor: -10° ~ +50°	Protection Rating	IP66
Humidity	0 ~ 95%	Installation	Wall Mount only

1.6 Installation Instructions

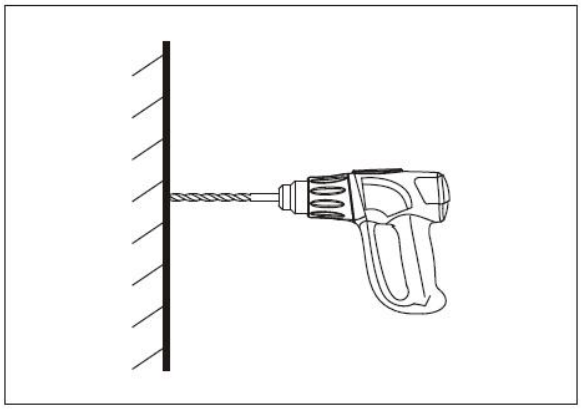
1.6.1 Overall Dimensions



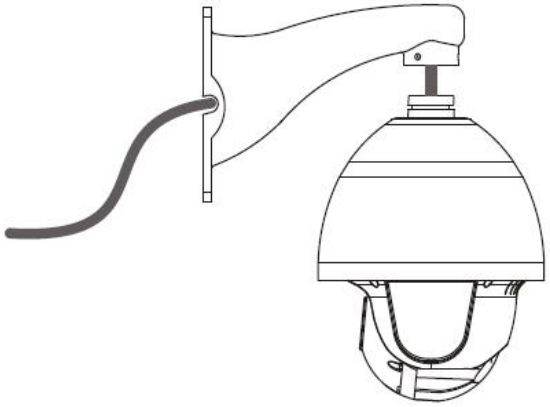
1.6.2 Wall Bracket Dimensions



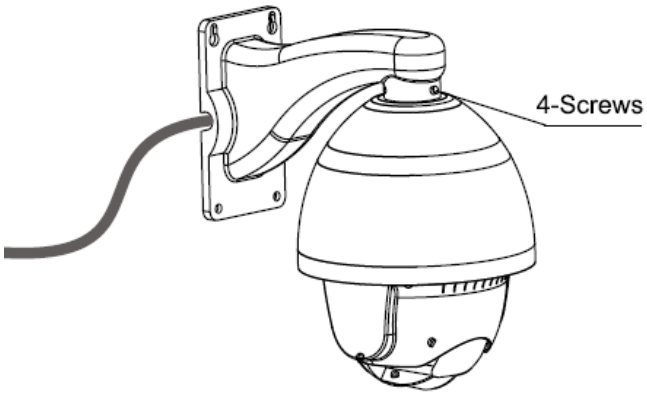
Step 1. Place bracket against wall and mark the four positions for screw holes.



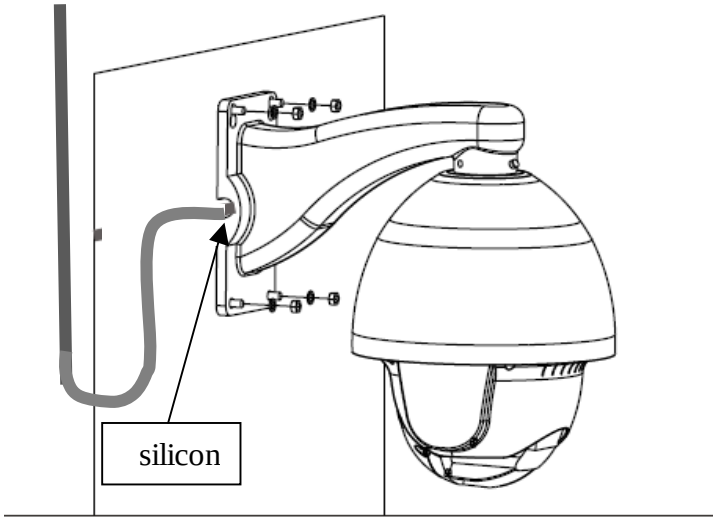
Step 2. Drill and plug holes. .



Step 3. Feed multi-core cable from camera through bracket.



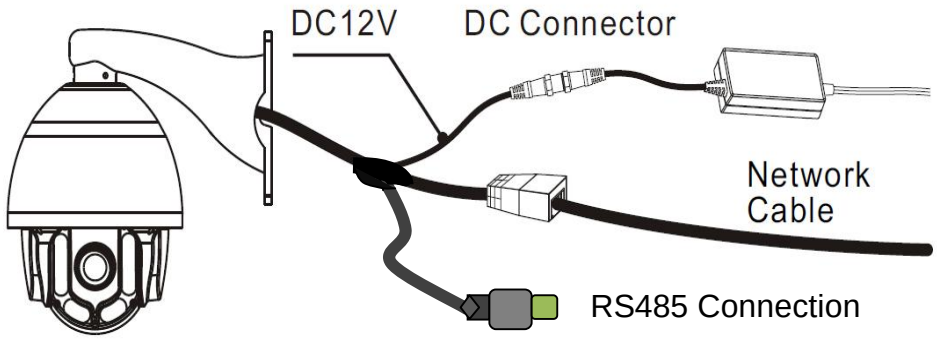
Step 4. Secure the camera with 4 screws to the bracket.



Step 5. Feed the camera cable either through the wall or take it out sideways via the access on the side of the bracket as shown above. Fix bracket to wall and seal with silicon around exposed cable entry points. Do not allow cable to run down into the camera but if cable has to run down, take cable run down below entry point and loop it upwards into entry point.

Step 6. Remove transparent film from dome cover.

1.7 Power Supply and Network Connections



1.7.1 Power Supply Connection

The PTZ is rated at 12vDC using a 4Amp regulated power supply. The connector is a 2.1mm power jack.

1.7.2 Network Cable Connection

The network connection is the RG45 connector. This allows connection direct to another device using a crossover cable, connecting to a router using a LAN cable or a switch. Note that the network cable should not me more than 100 metres. Each IP camera must use a unique IP address.

1.7.3 RS485 Cable Connection

The RS485 cable allows the IP camera to control telemetry from a keyboard or DVR rather than via a network connection. Ensure that the + connects to the T+ connection at the back of the DVR or keypad and – to the T- connection at the back of the DVR or keypad.

1.7.4 Simple Troubleshooting

Fault	Check	Possible Cause	Solution
No picture and no telemetry	Mains power supply	Power supply	Replace
		PTZ mainboard	Replace
Image okay but camera is not doing a self test	Motor fault	Mechanical fault	Obstruction or part failure
	Camera movement	Camera angle too sharp	Adjust as necessary
		Insufficient power	Use/replace power supply
		Mainboard fault	Replace
Self tests okay but no images	Power going to camera and to camera module	Disconnection	Reconnect
	Network cable	Disconnected	Reconnect
		Cable too long	Over 100m
		IP address error	Change IP addr
		Incorrect cable	Use correct type
Self test and image okay but no telemetry	Client or web configuration issue	Check PTZ address, protocol and baud rate settings	PTZ address, protocol and baud rate must agree with PTZ camera settings
Image is not sharp/colours are pale	Check dome plastic cover	Is transparent protective cover still on dome cover	Remove
		Is dome cover dirty	Clean dome cover
	Check PTZ focus settings	Is camera in manual focus	Set to auto focus

1.8 Basic Operation

1.8.1 General

The versatility of this IP PTZ camera allows it to communicate through different platforms. As these platforms are not the same, you will need to use reference manuals referring to the particular platform used in addition to this manual.

1.8.2 Power On Self Test

When this camera is powered up, it runs a self-test by panning and tilting to prove that it works okay. This helps to diagnose problems when telemetry does not operate camera.

1.8.3 Presets

A preset allows a position to be saved in the PTZ camera that can be called or used in a tour/patrol. Presets first need to be created by sending the camera a preset command linked to a number. Then by using a call/shot command the camera will then move to the preset position.

Dependent on whether the keyboard, DVR or software uses an embedded Enter command will dictate the format of the preset and call command used. For example a keyboard with an Enter key could set a preset using

PRESET <nn> ENTER (where nn = preset number).
Where the keyboard has no Enter key, the enter is embedded in the command such as
<nn> PRESET (where nn = preset number).

Likewise when calling the preset a keyboard with an Enter key could send a call using
CALL/SHOT <nn> ENTER (where nn = preset number) or
<nn> SHOT (where nn = preset number).

1.8.4 Tours/Patrols

Tours or Patrols allow you to initiate a sequence of presets automatically. This camera has no PTZ menu so every command is either a mixture of preset or call sequences. In order to cover the variety of options for controlling the PTZ camera it is necessary to use a double layer of control commands by using General Commands and Function Commands.

1.9 Info on General & Function Commands

1.9.1 General Commands

Using double layer preset commands allows a greater option of commands to be used. The following is a list of General Commands. Like the 92 command for setting the Patrol/Tour there are other commands for Pattern setup and running, IR, etc.

General Command Function	Preset No.	Additional Info
Infra Red Functions	90	Auto/Force/Sensitivity
Camera Module Functions	91	IR Cut Filter/Modules
Patrol/Tour Functions	92	Patrol/Tour setup/running
Pattern Functions	93	Pattern setup/running
PTZ Control Functions	94	Park options/auto scan
Menu	95	No menu on this PTZ
System Settings	96	Factory Reset
High Speed Auto Scan	98	
Low Speed Auto Scan	99	

1.9.2 Function Commands

Function Commands are the second layer associated with a General Command. These are generally call commands that follow the General command.

CALL/SHOT 90	**I R FUNCTION**		
1	IR Auto On/Off	2	IR Forced On
3	IR Forced Off	11	IR High
12	IR Medium	13	IR Low
CALL/SHOT 90, CALL/SHOT <n>		Eg. CALL 90, CALL 2 (option 2)	

CALL/SHOT 91	**CAMERA MODULE FUNCTION**		
1	IRCUT On	2	IRCUT Off
3	IRCUT Auto On	4	IRCUT Auto Off
CALL/SHOT 91, CALL/SHOT <n> Eg. CALL 91, CALL 3 (option 3)			

PRESET 92	**PATROL/TOUR FUNCTION**		
1	CALL Patrol 1	2	CALL Patrol 2
3	CALL Patrol 3	4	CALL Patrol 4
5	CALL Patrol 5	6	CALL Patrol 6
7	CALL Patrol 7	8	CALL Patrol 8
9	Patrol End	10	Patrol Time 5 ~ 240s
11	Patrol Speed 1 ~ 63		
Example: **Create Patrol/Tour Number 1** PRESET 92, CALL/SHOT 1 **Opens Patrol/Tour 1** CALL/SHOT PRESET 1, 2, 3 Etc. **Add presets, then when finished** CALL/SHOT 92, CALL/SHOT PRESET 9 **to Save Patrol/Tour** CALL/SHOT 92, CALL/SHOT 1 **Runs the Patrol/Tour 1**			

PRESET 93	**PATTERN**				
1	PATTERN 1	2	PATTERN 2	3	PATTERN 3
4	PATTERN 4	5	PATTERN END		
Example: **Create Pattern Number 1** PRESET 93, CALL/SHOT 1 Opens Pattern 1 Move PTZ to record Pattern 1 CALL/SHOT 93, CALL/SHOT PRESET 5 To Save Pattern CALL/SHOT 93, CALL/SHOT 1 Runs Pattern 1					

CALL/SHOT 94	**PTZ CONTROL**		
1-8	Park Preset 1-8	9-16	Park Patrol 1-8
17-20	Park Pattern 1-4	21	Park Auto Scan
22	Park AB Line	30	Park Time 0 Off
31	Park Time 10s	32	Park Time 30s
33	Park Time 60s	41	A Line scan setting
42	B Line scan setting	43	High Speed line scan start
44	Middle Speed line scan start	45	Low Speed line scan start
46	Inner Arc line scan	47	Outer Arc line scan

Initiate Park to allow PTZ to return to a Preset/Tour/Pattern after time period
Examples:
CALL/SHOT 94, CALL 1, CALL 94, CALL 31
After 10 secs of inactivity move to Preset 1
CALL/SHOT 94, CALL 9, CALL 94, CALL 32
After 30 secs of inactivity move to Patrol/Tour 1
CALL/SHOT 94, CALL 17, CALL 94, CALL 33
After 60 secs of inactivity move to Pattern 1
CALL/SHOT94, CALL 9, CALL 94, CALL 30
Clear Park Time setting for Patrol/Tour 1

PRESET 96	**RESTORE FACTORY SETTINGS**
10, 12, 14	Enter Calls sequentially to default settings Special Note: You will default the network settings using this restore option. PRESET 96, CALL 10, CALL 12, CALL14

1.9.3 Patrol/Tour Setup Procedure

After setting the required presets (Refer 1.8.3) you need to create a Patrol/Tour number, add the required presets to that number, then save the settings. Note that commands for setting presets are different from commands calling presets. When **setting** presets press the **PRESET** button and when calling the preset press the **CALL** or **SHOT** button.

1.9.3.1 Create a Patrol/Tour

Step 1 Create blank Patrol/Tour (n) (n = Patrol/Tour No.)
Set Preset 92, Call Preset 1, to create blank Patrol/Tour No. (n)

Step 2 Add presets to Patrol/Tour (n) (n = Patrol/Tour No.)
Call Preset 1, to add preset 1 to Patrol/Tour No. (n)
Call Preset 2, to add preset 2 to Patrol/Tour No. (n)
Call Preset 3, to add preset 3 to Patrol/Tour No. (n)
Call Preset 4, to add preset 4 to Patrol/Tour No. (n)
Call Preset 5, to add preset 5 to Patrol/Tour No. (n)

Step 3 Save Patrol/Tour No. (n) with presets
Call Preset 92, Call Preset 9, to save Patrol/Tour No. (n) with presets.

1.9.3.2 Run Patrol/Tour (n) Procedure
Call Preset 92, Call Preset (n) to run Patrol/Tour No. (n)

1.9.3.3 Dwell Time at preset point
This option allows the changing of the time spent at each preset point before moving to the next preset point.

Set Preset 92, Call Preset 10 to accept dwell time
Call Preset < 5 ~ 240 > to change dwell time between 5 and 240 seconds.

1.9.3.4 Speed moving between preset points in a Patrol/Tour
This option allows changing the speed between preset points

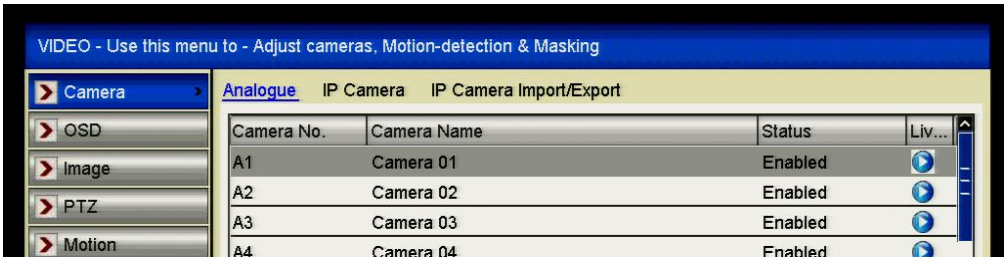
Set Preset 92, Call Preset 11 to accept running speed in a Patrol/Tour
Call Preset < 1 ~ 63 > to change Patrol/Tour speed between 1 and 63.

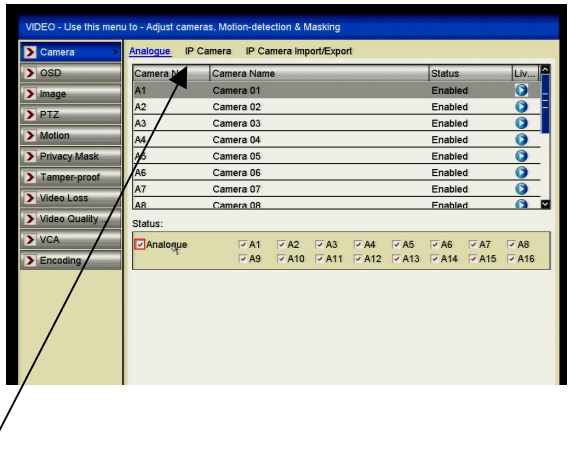
1.10 Connecting IP Camera to IP DVR

1.10.1 Connecting through Alien MEGA DVR

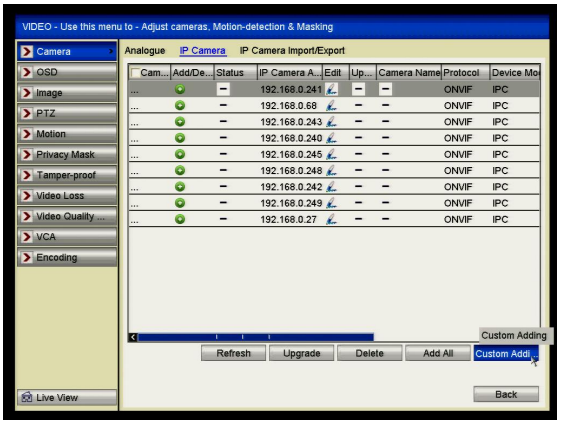
Connect the camera to a router or switch and the DVR to a network using a standard LAN cable.

Enter the DVR menu and select VIDEO.

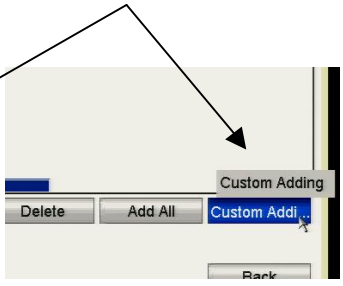


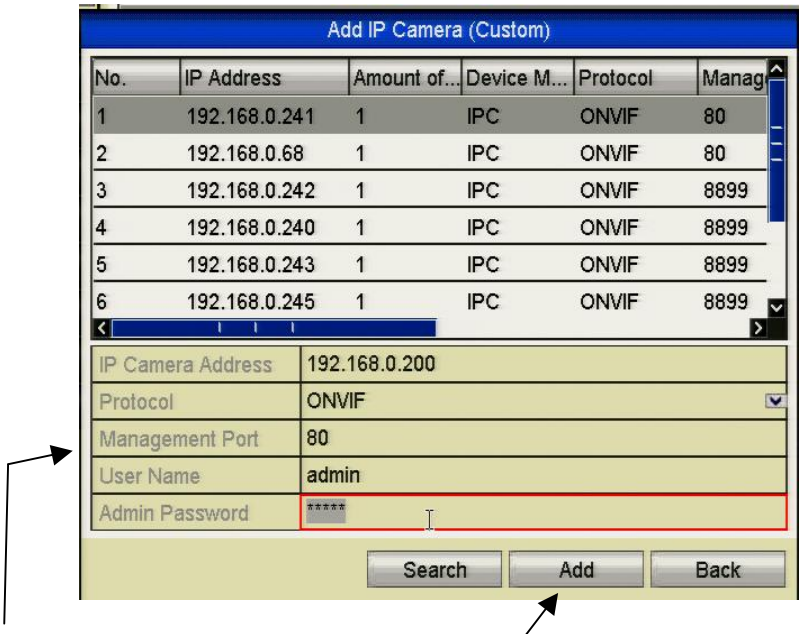


Click on IP Camera menu.



Now click on Custom Adding

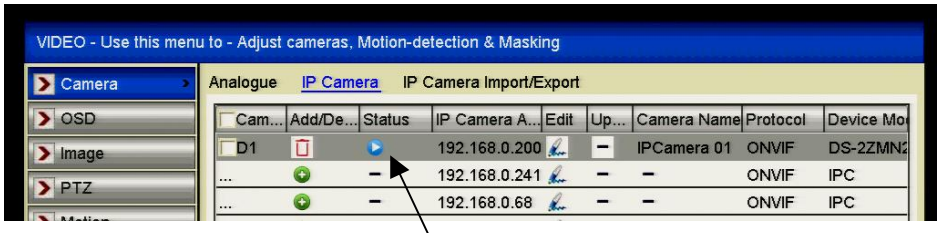




Complete the following:-

IP Camera Address as set in the PTZ camera
Protocol : ONVIF
Management Port: 80
User Name: admin (Username set in PTZ camera default is admin)
Admin Password: 12345 (Password set in PTZ camera default is 12345)

Then click Add button. Then click Back.



Check that the status shows

Click the arrow key to display the IP camera channel.

SPECIAL NOTE: IP cameras are added to the end of the analogue channels but if an analogue is removed, it will take the lowest spare channel number available.

Chapter 2 Network Connection

2.1 Setting the Network Zoom Camera over the LAN

Purpose:

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

2.1.1 Wiring over the LAN

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

Purpose:

- To test the network zoom camera, you can directly connect the network zoom camera to the computer with a crossover cable as shown in Figure 2-1.

- Refer to the Figure 2-2 to set the network zoom camera over the LAN via a switch or a router.

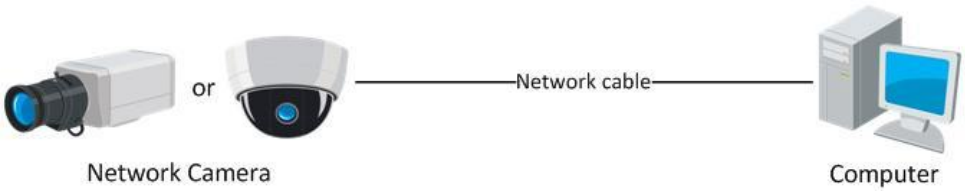


Figure 2-1 Connecting via crossover cable

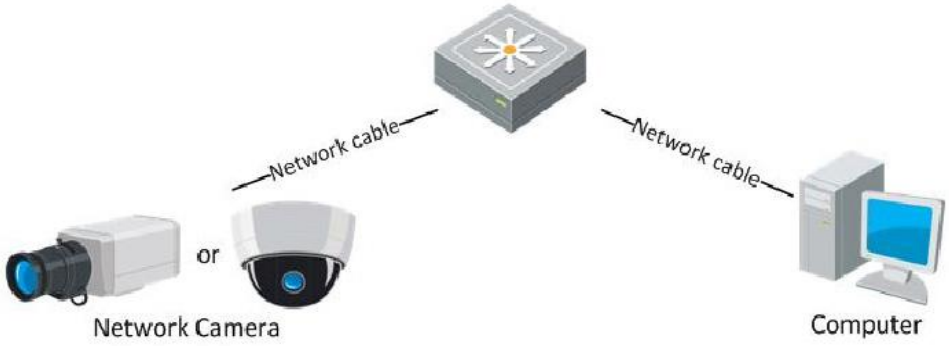


Figure 2-2 Connecting via a Switch or a Router

2.1.2 Detecting and Changing the IP Address

You need the IP address to access the network zoom 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 zoom 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.
2. Change the IP address, subnet mask and gateway ensuring that the same subnet and gateway used by the router are set but a unique IP is set.
3. Enter the IP address of network zoom camera in the address field of the web browser to view the live video.

Notes:

- The default IP address is **192.0.0.64**. The default user name is **admin** and password is **12345**.
- For accessing the network zoom camera from different subnets, please set the gateway for the network zoom camera after you logged in. For detailed information, please refer to Section ***6.3.1 Configuring TCP/IP Settings***.

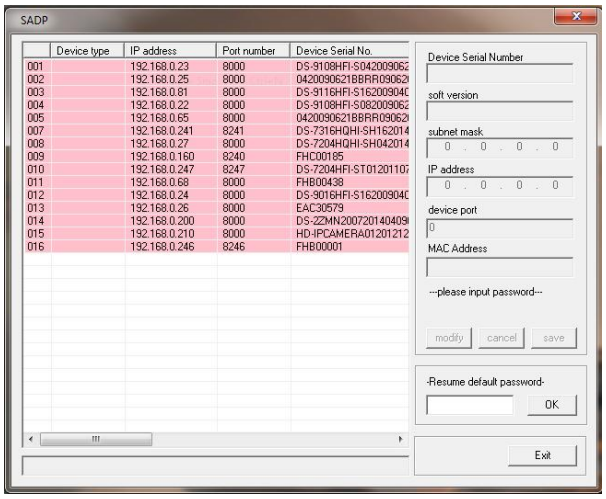


Figure 2-3 SADP Interface

2.2 Setting the Network Camera over the WAN

Purpose:
This section explains how to connect the IP 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 IP camera via a router or connect it to the WAN directly.

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

Steps:

1. Connect the IP camera to the router.
2. Assign a LAN IP address, the subnet mask and the gateway. Refer to Section ***3.1.2 Detecting and Changing the IP Address*** for detailed IP address configuration of the IP camera.
3. Save the static IP in the router.
4. Set port mapping, E.g., 80, 8000 and 554 ports. The steps for port mapping vary depending on different routers. Please call the router manufacturer for assistance with port mapping.
5. Connect to the IP camera through a web browser or the client software over the internet.

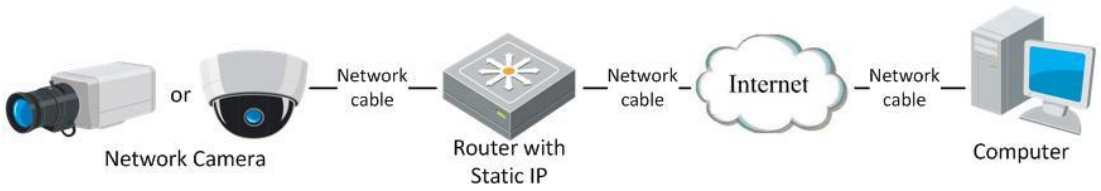


Figure 2-4 Accessing the Zoom camera through Router with Static IP

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 IP camera to a modem or a router.

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

Steps:

1. Connect the IP camera to the router.
2. In the IP camera, assign a LAN IP address, the subnet mask and the gateway.
3. Set port mapping. E.g. 80, 8000 and 554 ports in the router and forward to the local address set in the IP camera. The steps for port mapping vary depending on different routers.
4. Create the dynamic name e.g www.dyndns.org using a domain name provider.
5. In the client software, set the dynamic name (normal domain), port 8000*, user name and password. * port 8000 is the default server port but can be changed.
6. Configure the DDNS settings in the client software interface..
7. Connect to the IP camera via the applied domain name through the client or browser.

Chapter 3 Network IP Camera

3.1 Accessing by Web Browser

Steps:

1. Open the web browser.
2. In the address field, input the IP address of the network zoom 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**.

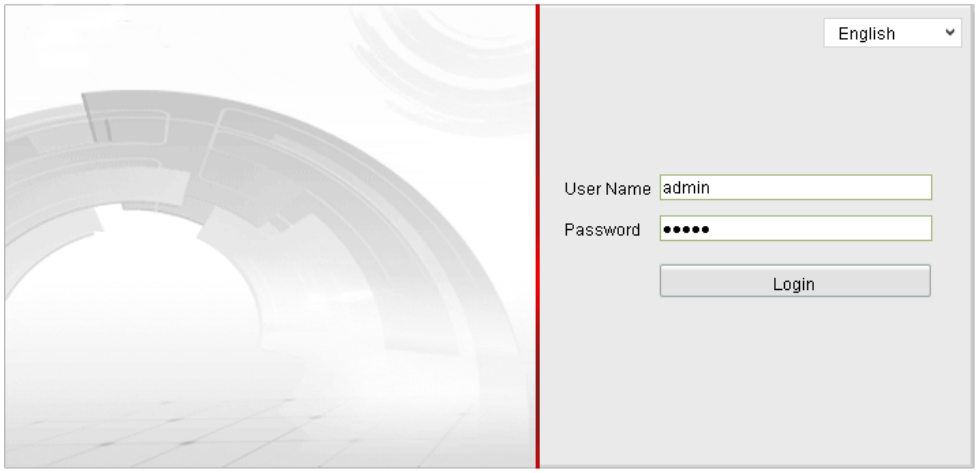


Figure 3-1 Login Interface

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

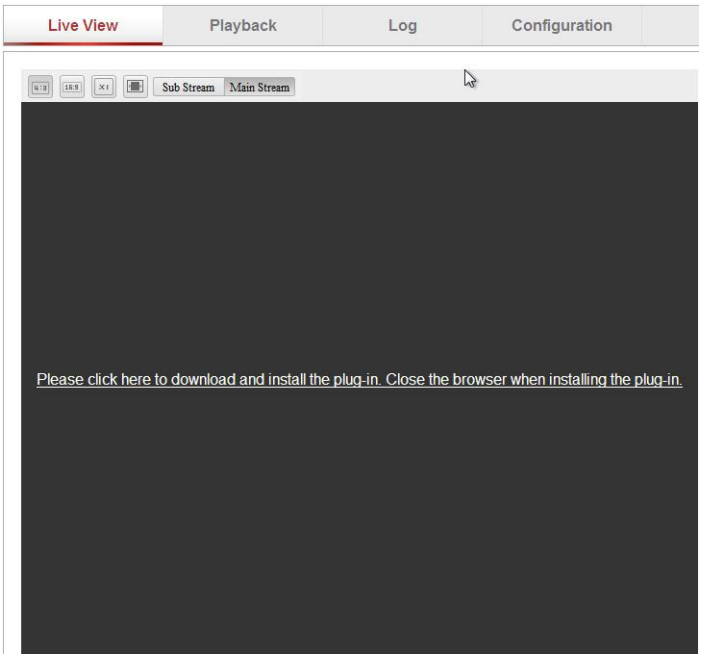


Figure 3-2 Download and Install Plug-in

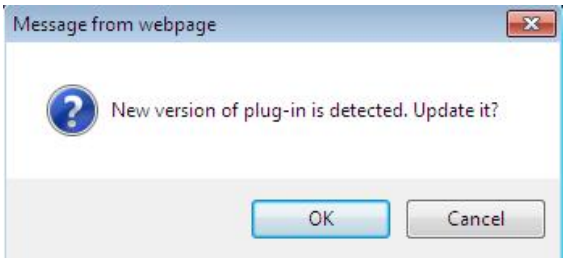


Figure 3-3 Install Plug-in (1)

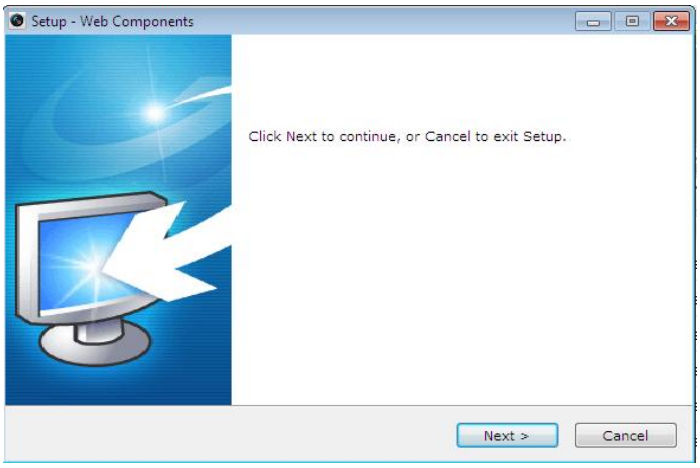


Figure 3-4 Install Plug-in (2)

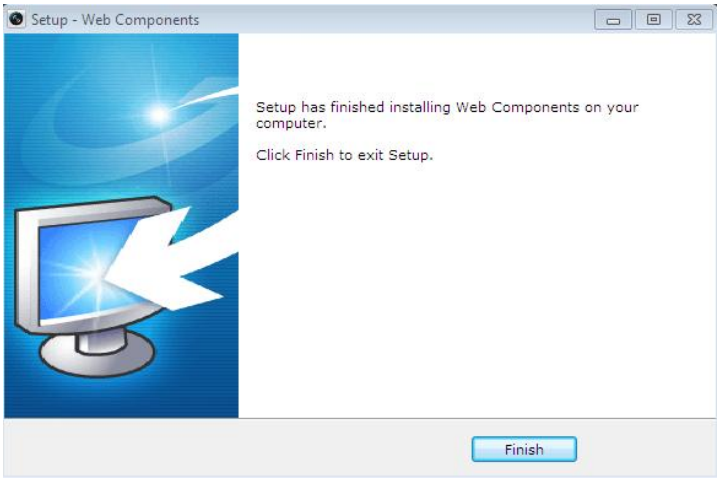


Figure 3-5 Install Plug-in (3)

Note:

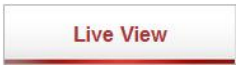
You may find when using Internet Explorer that the plug-in does not run. If this occurs you may have to enter the Tools menu in I.E (press the ALT key if the menu bar in not displayed) and select Compatibility View Settings, then add the IP address that you are accessing the IP camera on, followed by Close, close I.E then refire and the plug-in should then run correctly. This is a Windows security issue.

Chapter 4 Live View

4.1 Live View Page

Purpose:

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

Log into the network zoom camera to enter the live view page, or you can click 

on the menu bar of the main page to enter the live view page.

Descriptions of the live view page

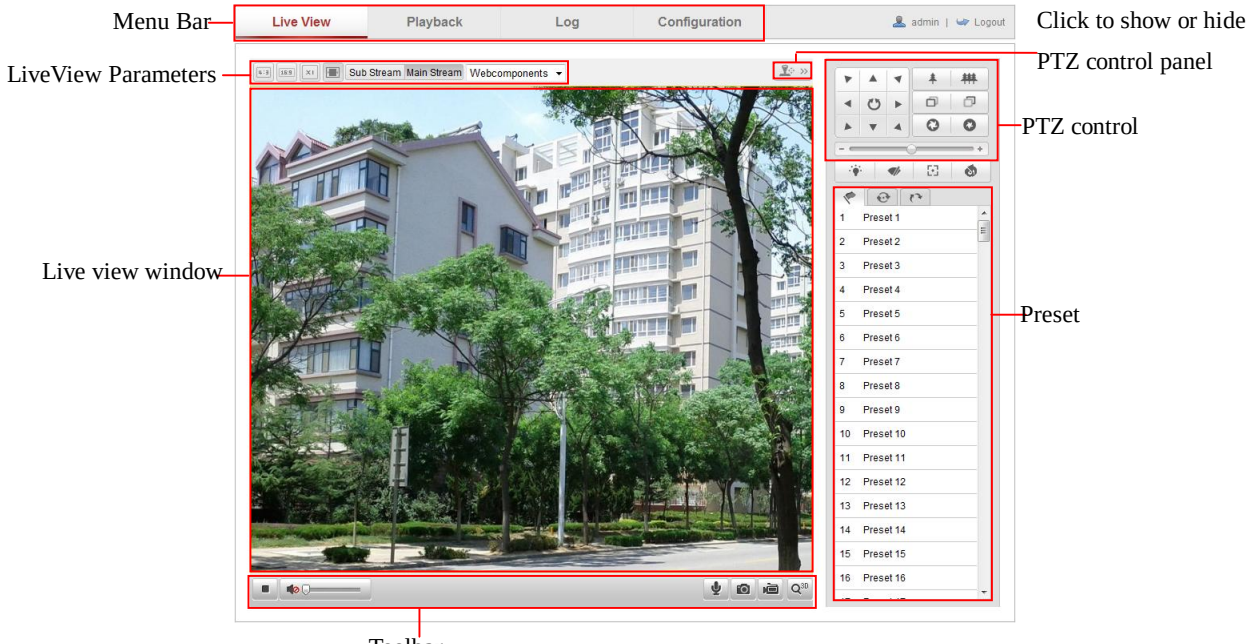


Figure 4-1 Live View Page

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, focusing and zooming actions of the camera.

Preset:

Set and call the preset/patrol for the camera.

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 zoom camera.

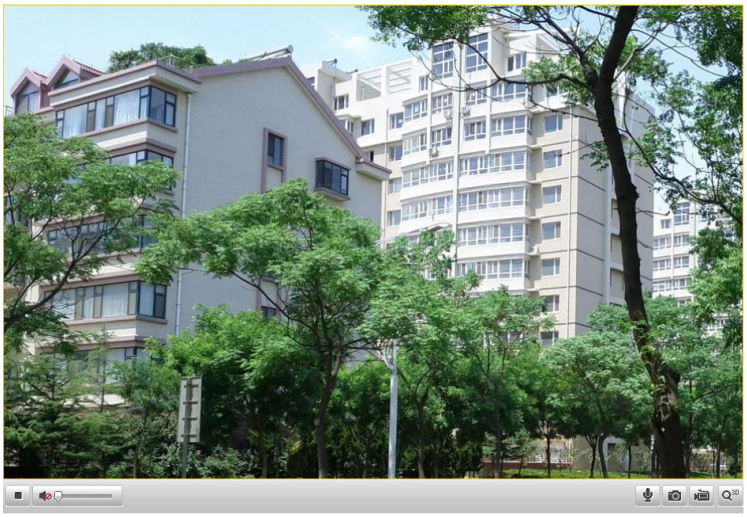


Figure 4-2 Start Live View

Table 4-1 Descriptions of the Toolbar

Icon	Description	Icon	Description
	Live view on		Live view off
	Manual recording off		Manual recording on
	Audio on and adjust volume		Mute
	Two-way audio off		Two-way audio on
	Manually capture the pictures		3D zoom

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

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 ***5.6 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 in the **Configuration > Local Configuration** interface.

To configure remote automatic recording, please refer to Section ***6.2 Configuring Record Schedule***.

***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 control panning, tilting and zooming.

4.4.1 PTZ Control Panel

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

Click the zoom/focus buttons for lens control.

Figure 4-3 PTZ Control Panel

Table 4-2 Description of PTZ Control Panel

Button	Description
	Zoom in/out
	Focus near/far
	Adjust speed of pan/tilt movements

4.4.2 Setting/Calling a Preset

Purpose:

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

- **Setting a Preset:**

Steps:

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

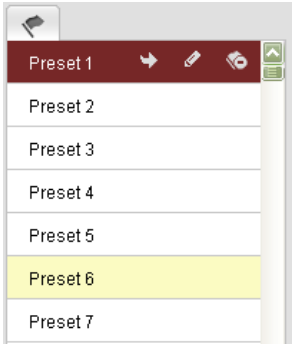


Figure 4-4 Setting a Preset

2. Use the PTZ control buttons to move the lens to the desired position.
   - Pan the zoom camera to the right or left.
   - Tilt the zoom 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 255 presets.

- **Calling a Preset:**

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

Figure 4-5 Calling a Preset

4.4.3 Setting / Calling a Patrol/Tour

Purpose:

A patrol/tour is a series of presets. It can be configured and called on the patrol settings interface. There are up to 8 patrols for customising. A patrol can be configured with up to 32 presets.

Before you start:

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

- **Setting a Patrol:**

Steps:

1. In the PTZ control panel, click to enter the patrol settings interface.
2. Select a patrol number from .
3. Click to enter the adding interface for preset as shown in Figure 4-6.

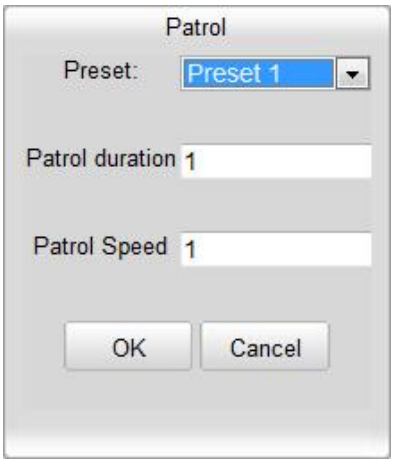


Figure 4-6 Adding Presets

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

Name	Description
Patrol Time	It is the time staying on one preset point. The camera moves to another preset point after the time set.
Patrol Speed	It is the speed of moving from one preset to another.

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

4.4.4 Configuring Power Off Memory

Purpose:

The PTZ camera can resume its previous PTZ status or actions after it restarted from a power-off. You can set the time prior to the camera resuming its PTZ function.

1. Enter the Basic PTZ Parameter Configuration interface:
   Configuration > **Advanced Configuration** > **PTZ** > **Basic**

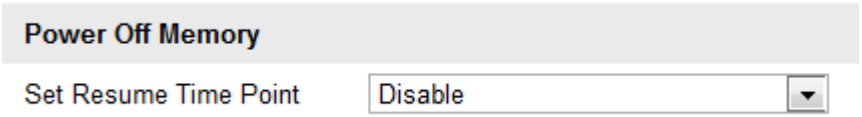


Figure 4-7 Basic PTZ Configuration Interface

2. Set the resume time to 30 seconds, 60 seconds, 300 seconds or 600 seconds before power-off.
3. Click Save to save the settings.

4.4.5 Configuring Park Actions

Purpose:

This feature allows the zoom camera to start a predefined park action (scan, preset, patrol, etc.) automatically after a period of inactivity (park time).

Steps:

1. Enter the Park Action Settings interface:
   Configuration > **Advanced Configuration**> **PTZ** > **Park Action**

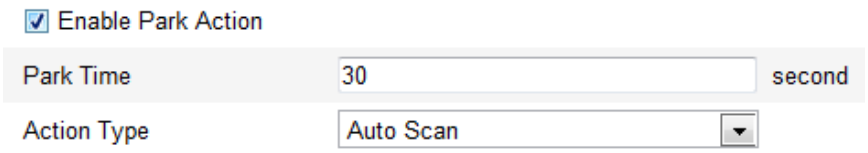


Figure 4-8 Set the Park Action

2. Check the checkbox to **Enable Park Action**.
3. Set the **Park Time** as the inactivity time of the zoom camera before it starts the park actions.
4. Choose **Action Type** the from the drop-down list. Auto scan, patrol and preset are available.
5. Click Save to save the settings.

4.5 Configuring Live View Parameters

- **Mainstream/Sub-stream:**

You can select Main Stream or Sub Stream as the stream type of live viewing. The main stream is with a relatively high resolution and needs greater bandwidth. The sub-stream is low resolution and so needs less bandwidth. The default setting of stream type is Main Stream.

Note: Please refer to Section ***5.4.1 Configuring Video Settings*** for more detailed parameter settings of the main stream and sub-stream respectively.

- **Image Size:**

You can scale up/down the live view image by clicking . the image size can be 4:3, 16:9, original or auto.

Chapter 5 Camera Configuration

5.1 Configuring Local Parameters

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

Steps:

1. Enter the Local Configuration interface:

   Configuration > Local Configuration

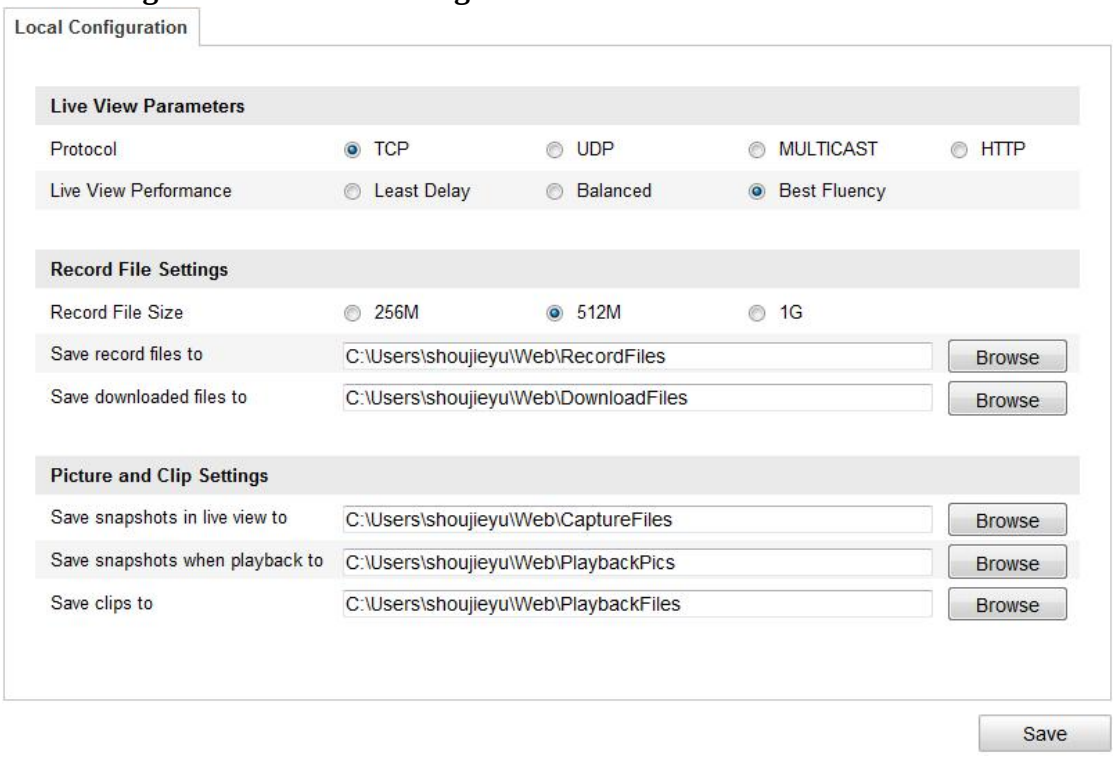


Figure 5-1 Local Configuration Interface

2. Configure the following settings:

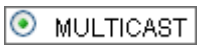
- **Live View Parameters:** Set the protocol type, stream type, image size and live view performance.
  - ♦ **Protocol Type:** TCP, UDP, MULTICAST and HTTP are selectable.

    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 the protocol type to

    when using the Multicast function.

Live View Performance: Set the live view performance to Least Delay, Balanced or Best Fluency.

- **Record File Settings:** Set the saving path of the video files.
  - **Record File Size:** Select the packed size of manually recorded and downloaded video files. The size can be set to 256M, 512M or 1G.
  - **Save record files to:** Set the saving path for the manually recorded video files.
  - **Save downloaded files to:** Set the saving path for the downloaded video files in

interface.
- **Picture and Clip Settings:** Set the saving paths of the captured pictures and clipped video files.
  - **Save snapshots in live view to:** Set the saving path of the manually captured pictures in

interface.
  - **Save snapshots when playback to:** Set the saving path of the captured pictures in

interface.
  - **Save clips to:** Set the saving path of the clipped video files in

interface.

Note: You can click

to change the directory for saving video files, clips and pictures.

3. Click

to save the settings.

5.2 Configuring Time Settings

Purpose:

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

To enter the Time Settings interface:

Configuration > Basic Configuration > System > Time Settings

or **Configuration > Advanced Configuration > System > Time Settings**

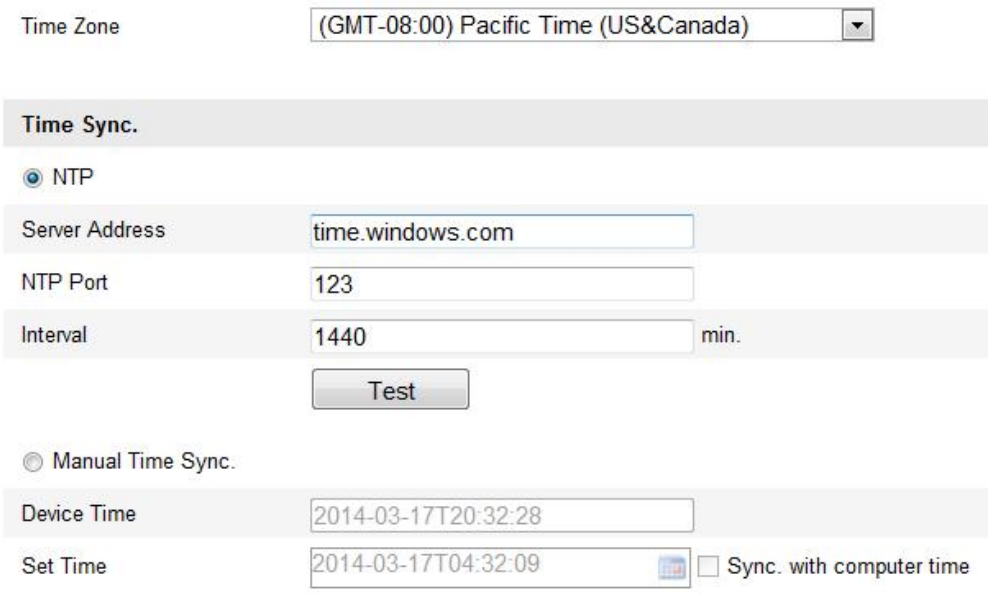


Figure 5-2 Time Settings

- **Configuring Time Synchronisation 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 synchronising actions by NTP server. It can be set from 1 to 10080 minutes.

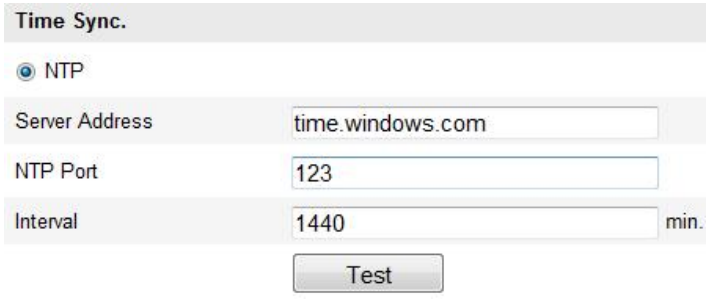


Figure 5-3 Time Sync by NTP Server

You can click **Test** to make sure that the NTP server is connected.

***Note*:** If the zoom camera is connected to a public network, you should use an NTP server that has a time synchronisation function, such as the server at the National Time Center (IP Address: 210.72.145.44). If the zoom camera is set in a customised network, NTP software can be used to establish an NTP server for time synchronisation.

- **Configuring Time Synchronisation Manually**

(1) Check the **Manual Time Sync** checkbox.

(2) Click to set the system time from the pop-up calendar.

(3) Click to save the settings.

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

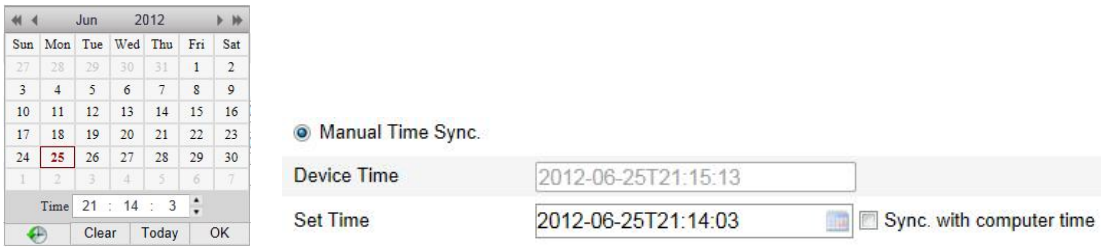


Figure 5-4 Time Sync Manually

- **Select the Time Zone**

Purpose:

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

From the **Time Zone** drop-down menu as shown in Figure 5-5, select the Time Zone in which the zoom camera locates.

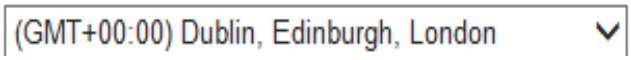


Figure 5-5 Time Zone Settings

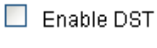
- **Configuring Daylight Saving Time (summer time)**

Purpose:

The time will be adjusted automatically when the Daylight Saving Time(DST) date arrives.

Steps:

(1) Enter the **DST** interface by **Configuration** > **Advanced Configuration** > **System** > **DST**

(2) Check  to enable the DST function.

(3) Set the date of the DST period.

(4) Click to save the settings.

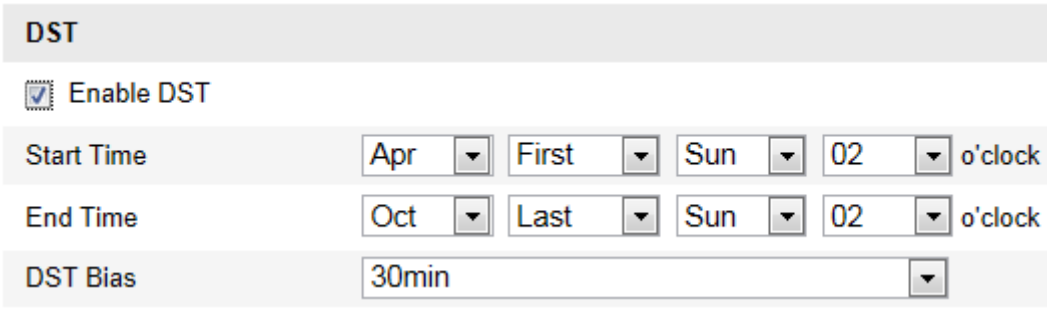


Figure 5-6 DST Settings

5.3 Configuring Network Settings

5.3.1 Configuring TCP/IP Settings

Purpose:

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

Steps:

1. Enter TCP/IP Settings interface:

   Configuration > Basic Configuration > Network > TCP/IP

   Or **Configuration > Advanced Configuration > Network > TCP/IP**

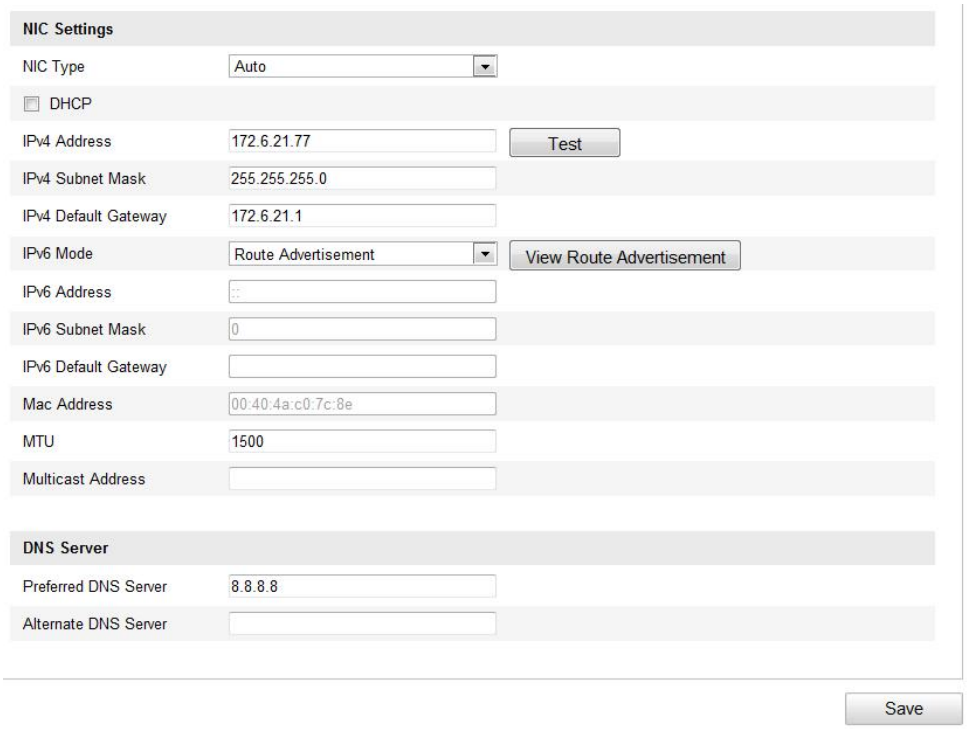


Figure 5-7 TCP/IP Settings

2. Configure the NIC settings, including the **IPv4(IPv6) Address**, **IPv4(IPv6) Subnet Mask** and **IPv4(IPv6) Default Gateway**.
3. Click **Test** to make sure that the IP address is not used.(optional)
4. Click Save to save the above settings.

***Notes*:**

- If the DHCP server is available, you can check DHCP to automatically obtain an IP address and other network settings from that server.
- The valid value range of Maximum Transmission Unit(MTU) is 100 ~ 1500. The default value is 1500.
- The Multicast sends a stream to the multicast group address and allows multiple clients to acquire the stream at the same time by requesting a copy from the multicast group address. Before utilising this function, you have to enable the Multicast function of your router and configure the gateway of the network zoom camera.
- If the DNS server settings are required for some applications (e.g., sending email), you should properly configure the **Preferred DNS Server** and **Alternate DNS server**.

Note: The router must support the route advertisement function if you select **Route Advertisement** as the IPv6 mode.

5.3.2 Configuring Port Settings

Purpose:

If there is a router and you want to access the zoom camera through Wide Area Network (WAN), you need to set the 3 ports for the zoom camera.

Steps:

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

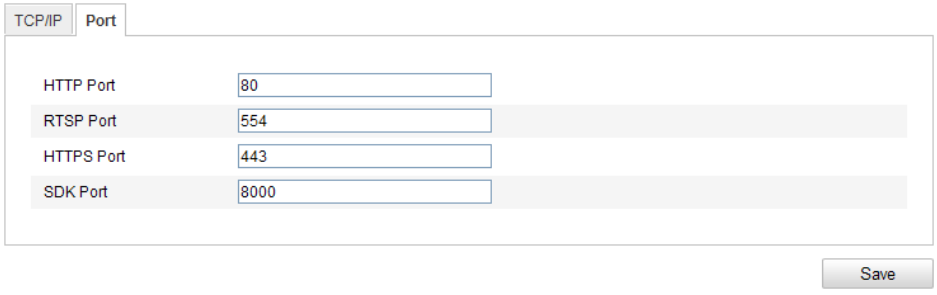


Figure 5-8 Port Settings

2. Set the RTSP port of the zoom 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.
   SDK Port: The default port number is 8000.

3. Click Save to save the settings.

5.3.3 Configuring PPPoE Settings

Purpose:

If you have no router but only a modem, you can use Point-to-Point Protocol over Ethernet (PPPoE) function. Note that this is not generally available in the UK.

Steps:

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

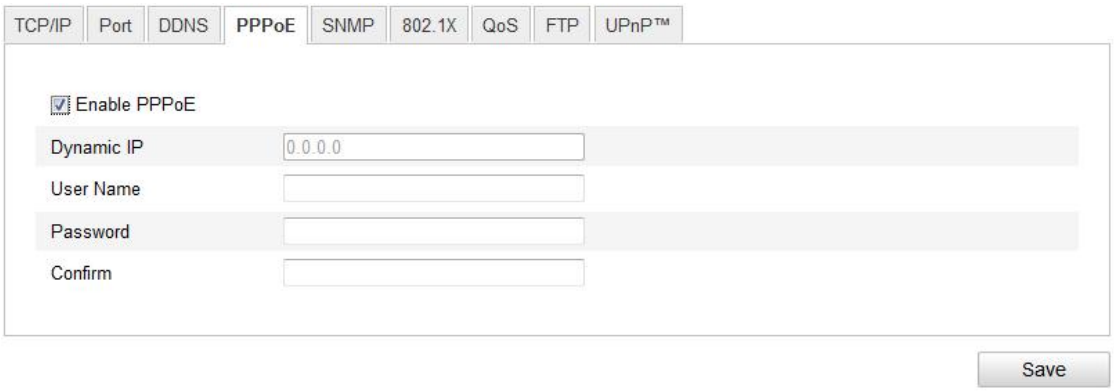


Figure 5-9 PPPoE Settings

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 roter is not supported by a static IP address 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 zoom camera.

Steps:

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

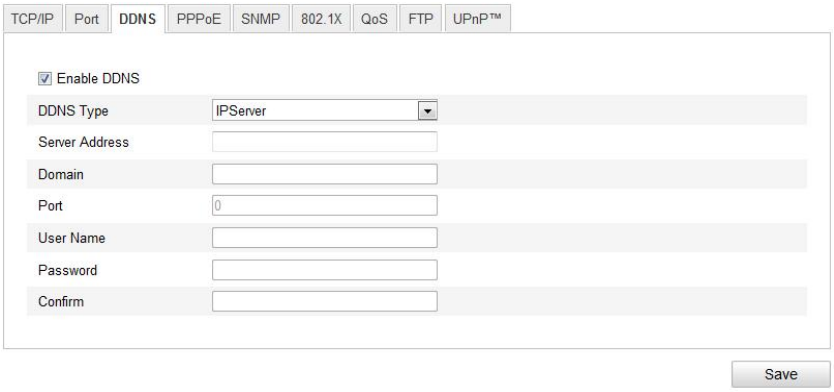


Figure 5-10 DDNS Settings

2. Check the **Enable DDNS** checkbox to enable this feature.
3. Select **DDNS Type**. Four DDNS types are selectable: IPServer, DynDNS, HiDDNS and NO-IP.

- **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.

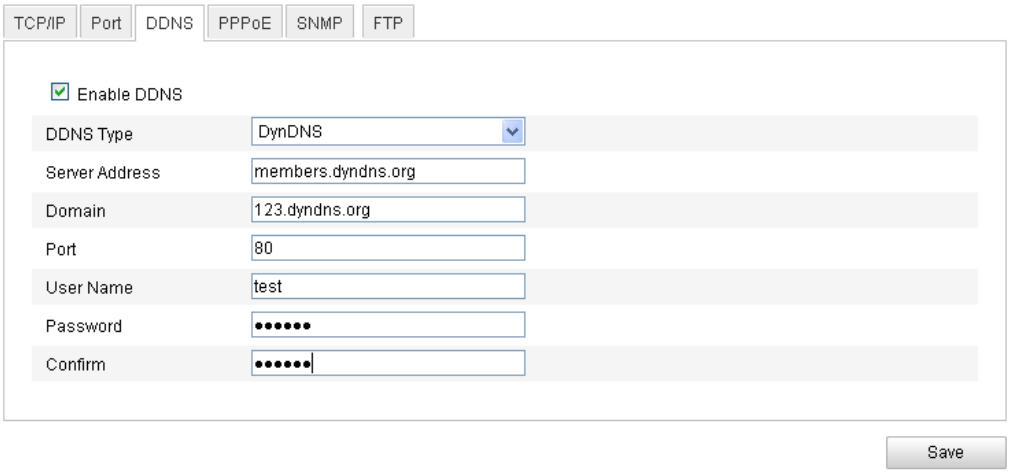


Figure 5-11 DynDNS Settings

- **IP Server:**

Steps:

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

(2) Click Save to save the settings.

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

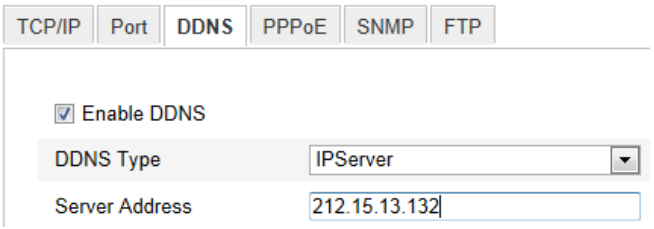


Figure 5-12 IPServer Settings

- **HiDDNS:**

Steps:

(1) Enter the Server Address: www.hik-online.com.

(2) Enter the Domain name of the camera. The domain is the same with the device alias in the HiDDNS server.

(3) Click Save to save the settings.

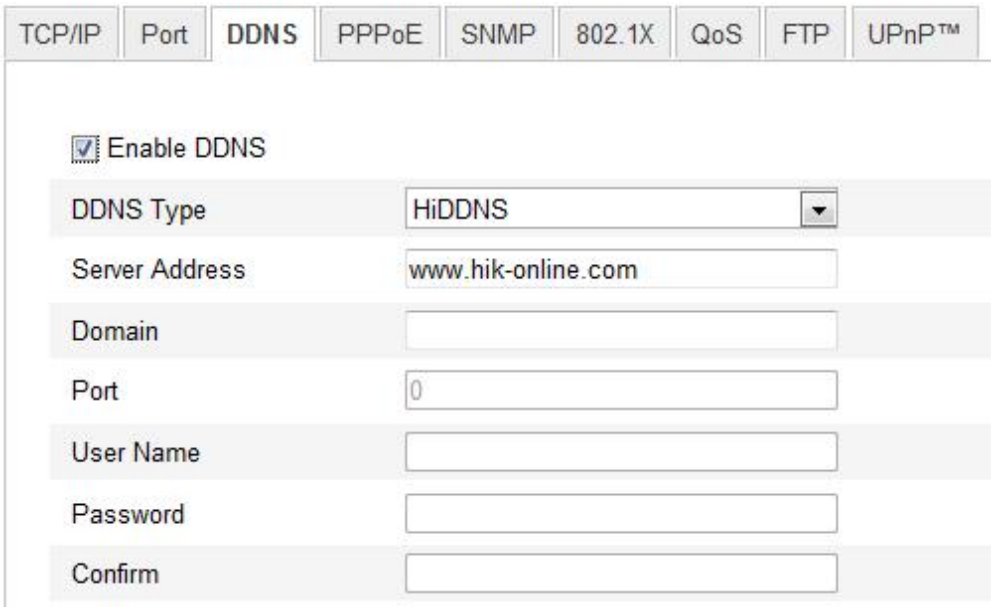


Figure 5-13 HiDDNS Settings

- **NO-IP:**

Steps:

(1)Enter **Server Address** of NO-IP.

(2)In the **Domain** text field, enter the domain name obtained from the NO-IP website.

(3)Enter the **Port** of NO-IP server.

(4)Enter the **User Name** and **Password** registered on the NO-IP website.

(5)Click Save to save the settings.

5.3.5 Configuring SNMP Settings

Purpose:

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

Before you start:

Before setting the SNMP, please use the SNMP software and manage to receive the zoom camera information via SNMP port. By setting the Trap Address, the zoom 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

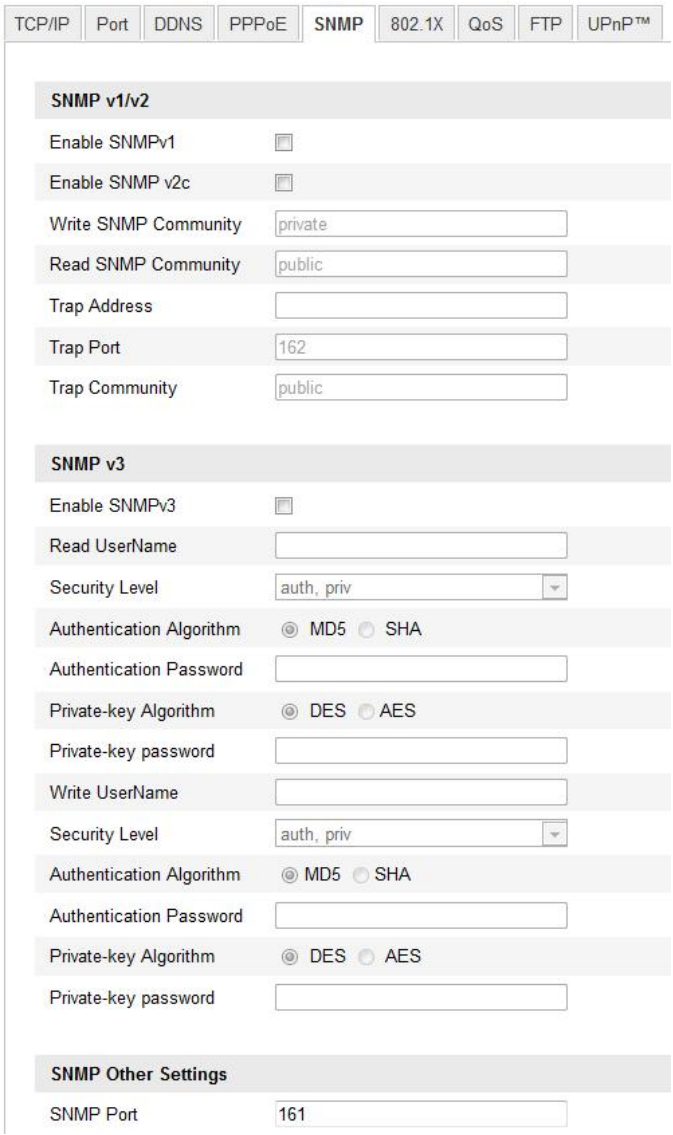


Figure 5-14 SNMP Settings

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

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

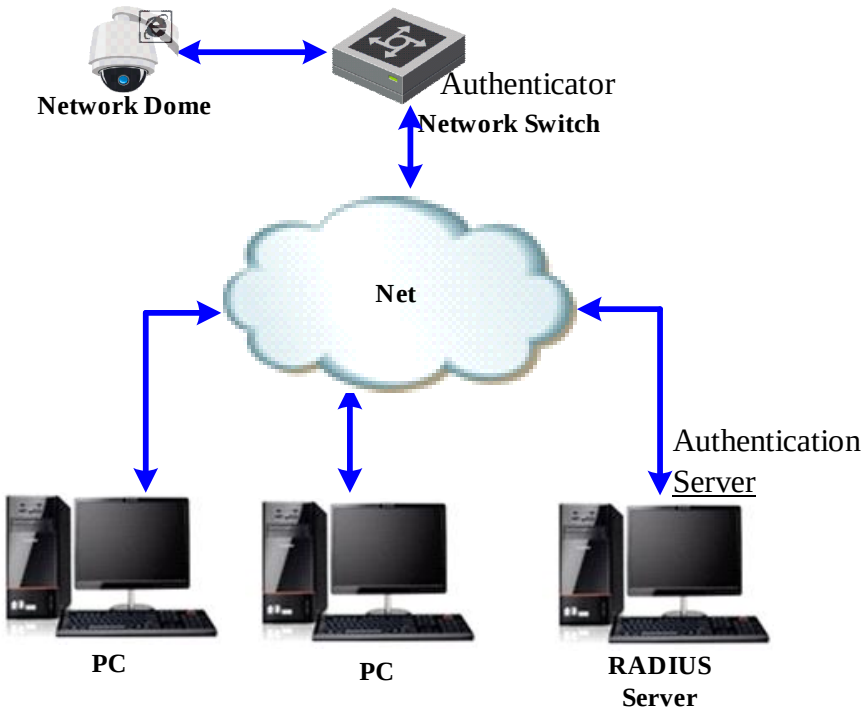


Figure 5-15 Protected LAN

- Before connecting the network camera to the protected LAN, please apply a digital certificate from a Certificate Authority.
- The network camera requests access to the protected LAN via the authenticator

(a switch).

- The switch forwards the identity and password to the authentication server (RADIUS server).
- The switch forwards the certificate of authentication server to the network camera.
- If all the information is validated, the switch allows the network access to the protected network.

Steps:

1. Connect the network camera to your PC directly with a network cable.
2. Enter the 802.1X Settings interface:
   Configuration > Advanced Configuration > Network > 802.1X

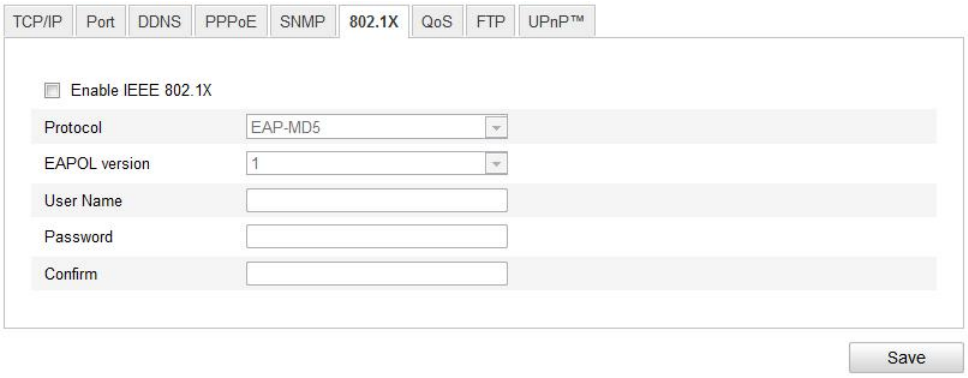


Figure 5-16 802.1X Settings

3. Check the **Enable IEEE 802.1X** checkbox to enable it.
4. Configure the 802.1X settings, including user name and password.
   Note: The EAP-MD5 version must be identical with that of the router or the switch.
5. Enter the user name and password (issued by the CA) to access the server.
6. Click Save to finish the settings.

   ***Notes*:** The camera reboots when you save the settings.
7. After the configuration, connect the camera to the protected network.

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

Figure 5-17 QoS Settings

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

3. Click Save to save the settings.

***Notes*:**

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

5.3.8 Configuring FTP Settings

Purpose:

You can set a FTP server and configure the following parameters for uploading captured pictures. Note this service is not supported.

Steps:

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

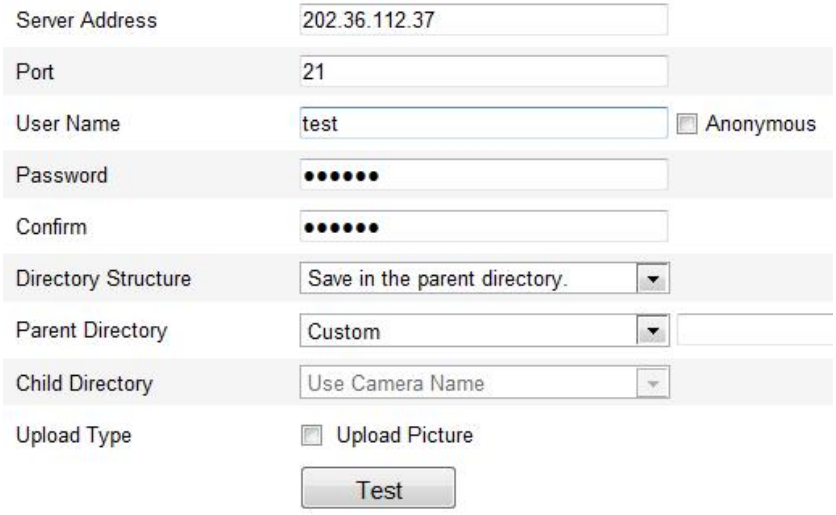


Figure 5-18 FTP Settings

2. Configure the FTP settings, including server address, port, user name, password, directory and upload type.
   - **Setting the directory in FTP server for saving files**:
     In the **Directory Structure** field, you can select the root directory, parent directory and child directory.
     - **Root directory**: The files will be saved in the root of FTP server.
     - **Parent directory**: The files will be saved in a folder in FTP server. The name of folder can be defined as shown in following Figure 5-19.

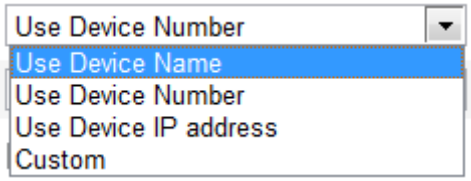


Figure 5-19 Parent Directory

     - **Child directory**: It is a sub-folder which can be created in the parent directory. The files will be saved in a sub-folder in FTP server. The name of folder can be defined as shown in following Figure 5-20.

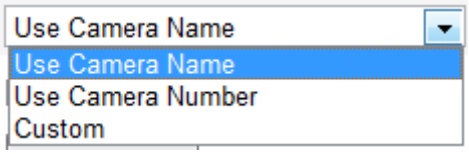


Figure 5-20 Child Directory

   - **Upload type:** To enable uploading the captured picture to the FTP server.
3. Click Save to save the settings.
4. You can click **Test** to make sure that the FTP function is set successfully.(optional)

5.3.9 Configuring UPnP™ Settings

Universal Plug and Play (UPnP™) is a networking architecture that provides compatibility among networking equipment, software and other hardware devices. The UPnP protocol allows devices to connect seamlessly and to simplify the implementation of networks in the house and corporate environments.
With the function enabled, you don't need to configure the port mapping for each port, and the camera is connected to the Wide Area Network via the router.

Steps:

1. Enter the UPnP™ settings interface.
   Configuration >Advanced Configuration > Network > UPnP
2. Check the checkbox to enable the UPnP™ function.
   You can edit the Friendly Name of the camera. This name can be detected by corresponding device, such as a router.

Figure 5-21 Configure UPnP Settings

5.3.10 Configuring NAT (Network Address Translation) Settings

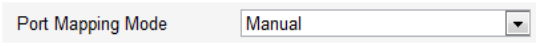
Steps:

1. Set the port mapping mode:

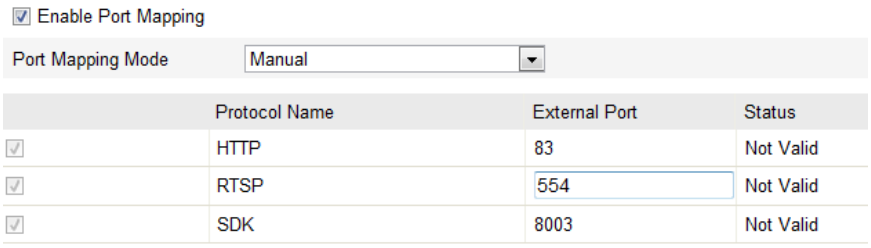
   To port mapping with the default port numbers:

   Choose

   To port mapping with the customised port numbers:

   Choose 

   Then you can customise the value of the port number by yourself.



2. Click

to save the settings.

5.3.11 Configuring Email Settings

Purpose:

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

Before you start:

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 Email Settings interface:

Configuration > Advanced Configuration > Network > Email

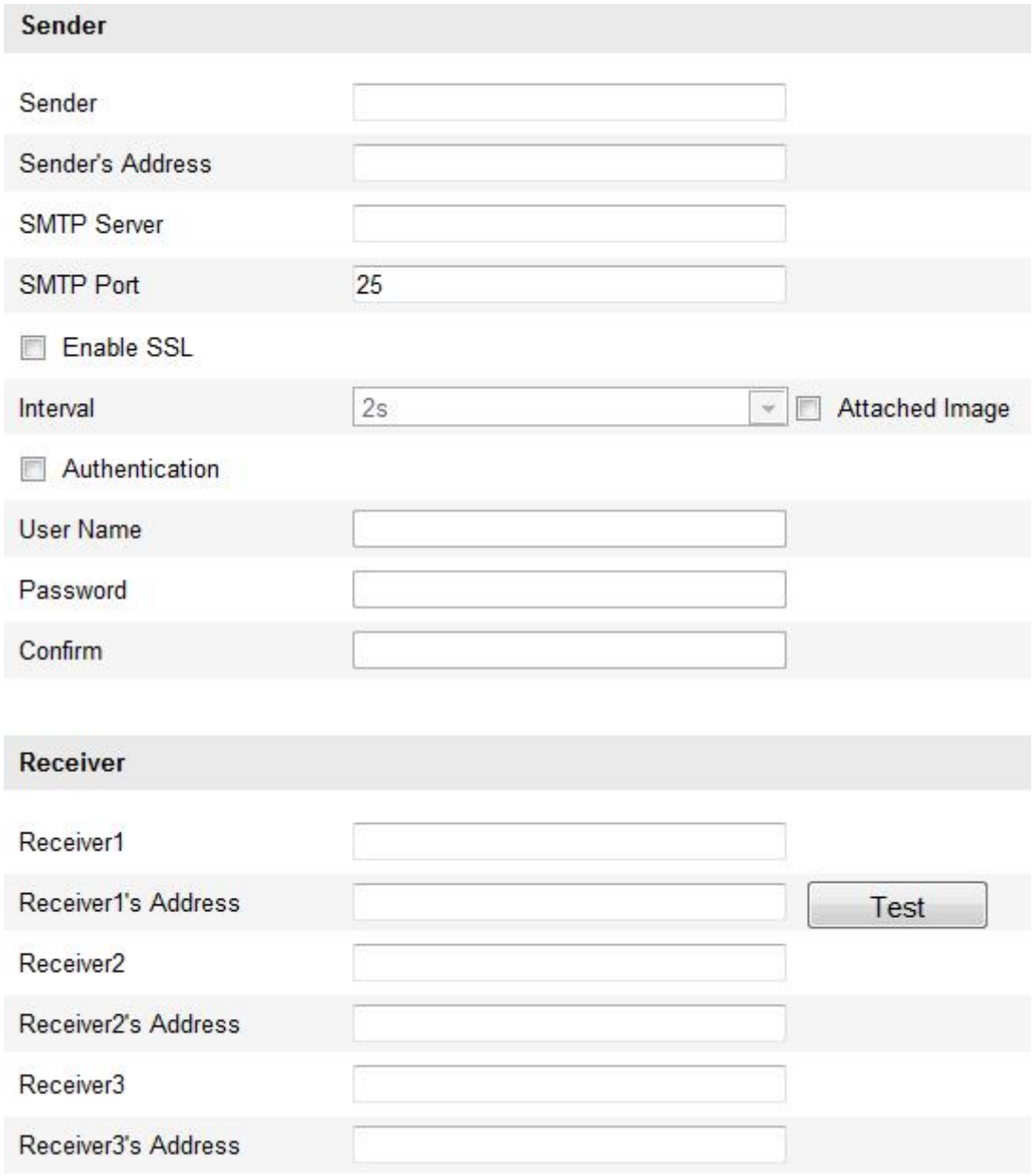


Figure 5-22 Email Settings

2. Configure the following settings:
   Sender: The name of the email sender.
   Sender's Address: The email address of the sender.
   SMTP Server: The SMTP Server IP address or host name (e.g., smtp.263xmail.com). Tip: Ping the SMTP server and use the IP address instead will avoid problems with resolving the name.
   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.

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. (Optional: click Test to make sure that the email server can send email out.)

3. Click Save to save the settings.

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**

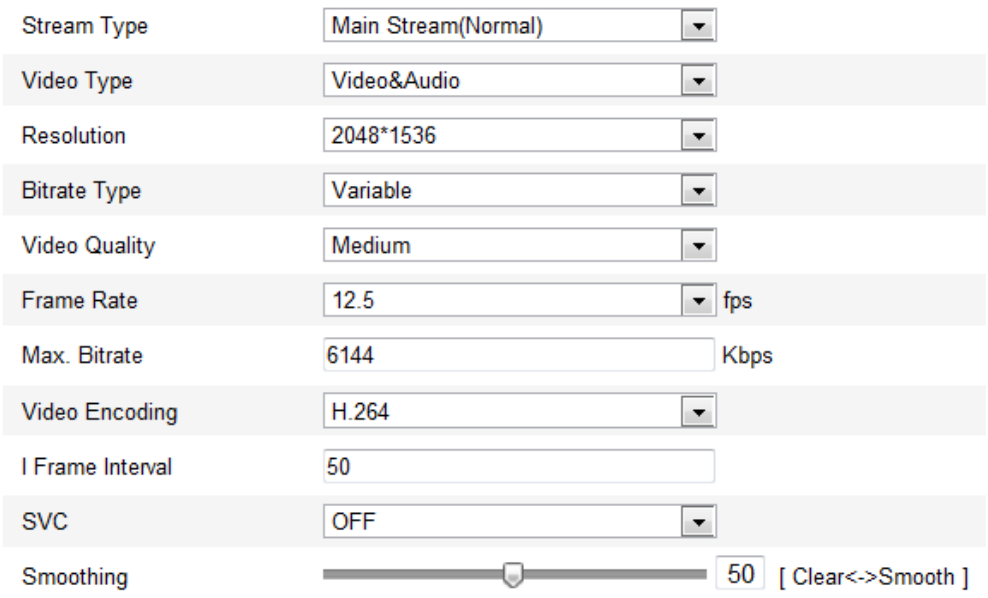


Figure 5-23 Configure Video Settings

2. Select the **Stream Type** of the zoom 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 customise 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:

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:

The video encoding standard can be set to H.264, MPEG4 or MJPEG.

Profile:

You can set the profile level to **High Profile, Main Profile** or **Basic Profile**.

I Frame Interval:

Set the I-Frame interval from 1 to 400.

SVC:

SVC is a video encoding technology. It extracts frames from the original video and sends these frames to a video recorder which also supports SVC function when the network bandwidth is insufficient.

Smoothing:

Drag the slider to set the image as clear or smooth.

4. Click

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**

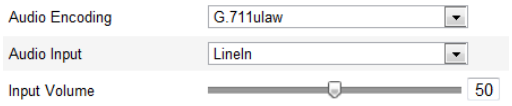


Figure 5-24 Audio Settings

2. Configure the following settings.
   Audio Encoding: G.722.1, G.711ulaw, G.711alaw, MP2L2 and G.726 selectable.
   Audio Input: When an intercom is connected to the camera, you need to set this option to **LineIn**. When a microphone is connected to the camera, you need to set this option to **MicIn**.
   Input Volume: Slid the bar to turn up/down the volume. The value ranges from 0 to 100.
3. Click Save to save the settings.

5.4.3 Configuring ROI

Before you start:
ROI (Region of Interest) encoding is used to enhance the quality of images which are specified in advance.
Stream Type:
You can set the ROI function for main stream, sub stream or third stream. Select a stream type and then configure the ROI settings.
- **Fixed Region:** The fixed region encoding is the ROI encoding for the manually configured area. You can choose the Image Quality Enhancing level for ROI encoding and you can also name the ROI area.

Steps:
1. Select a **Region No.**.
2. Check the check box of **Enable** under **Fixed Region**.
3. Click Draw Area and draw a red frame in the live view image.
4. Adjust the **ROI level** from 1 to 6. The higher the value, the better image quality in the red frame.
5. Enter a **Region Name** and click **Save** to save the settings.

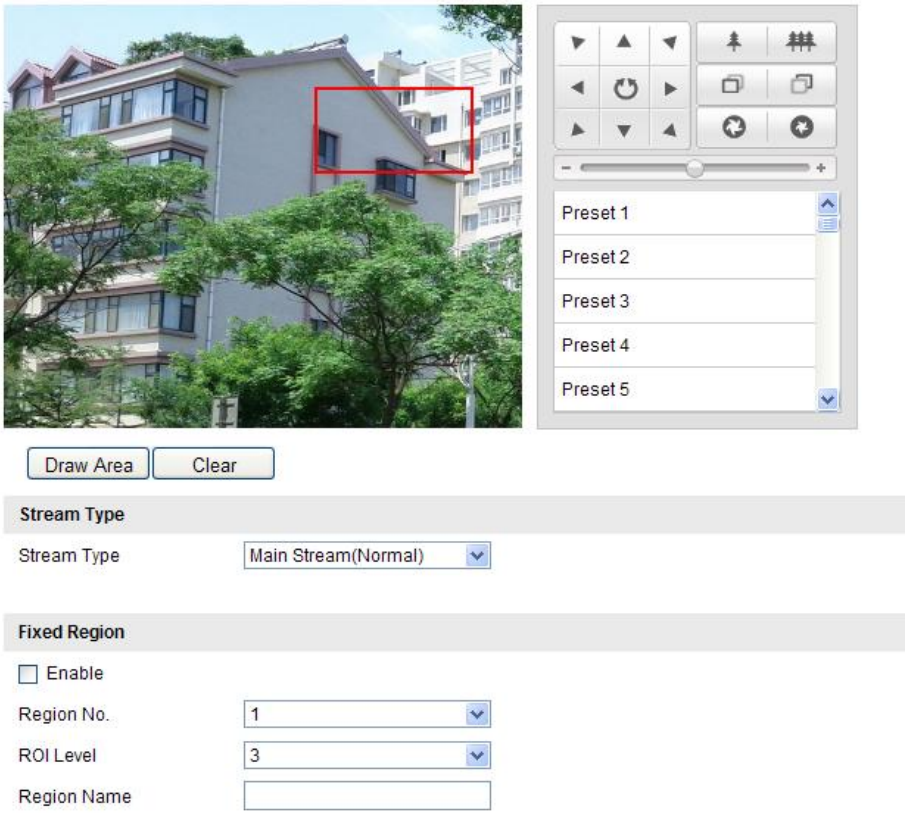


Figure 5-25 Region of Interest

5.5 Configuring Display Settings

Purpose:

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

Note: The parameters in **Display Settings** interface vary depending on the models of network camera.

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 network camera.

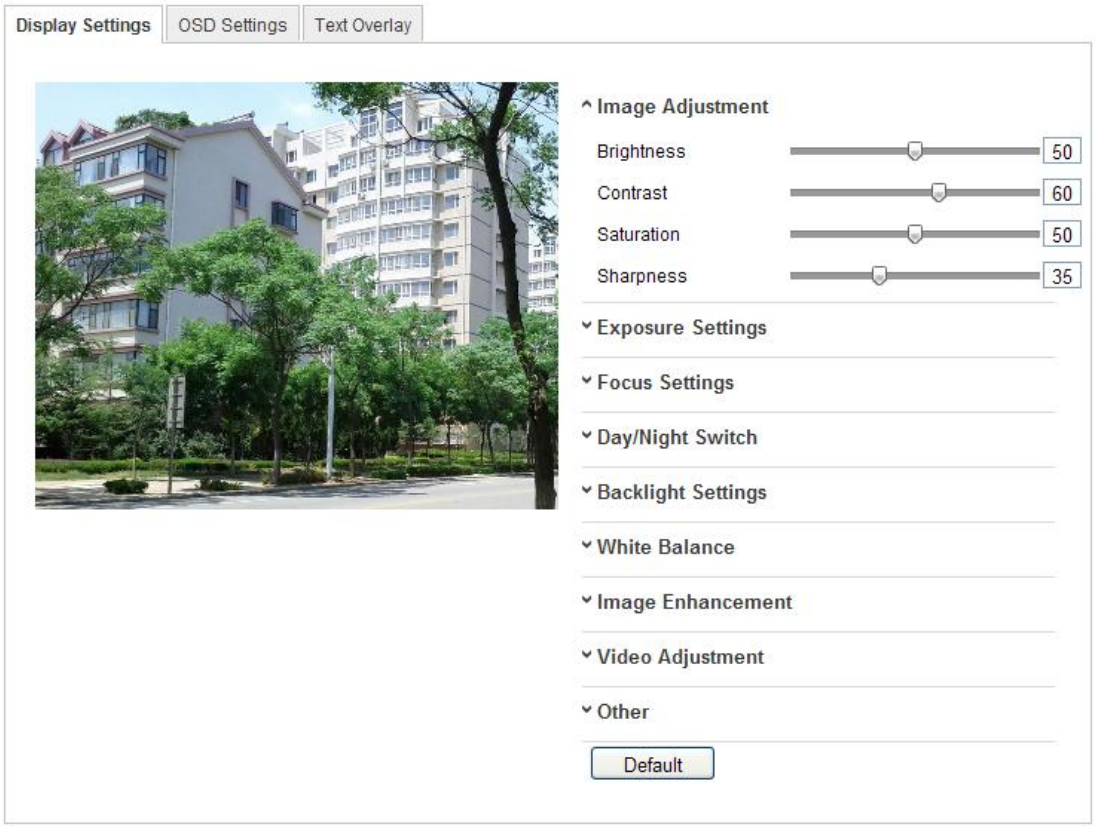


Figure 5-26 Display Settings

5.5.1 Image Adjustment

- **Brightness**

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

- **Contrast**

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

- **Saturation**

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

- **Sharpness**

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

NOTE This function varies depending on the models of zoom camera.

5.5.2 Exposure Settings

- **Exposure Mode**

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

- Auto:

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

- Iris Priority:

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

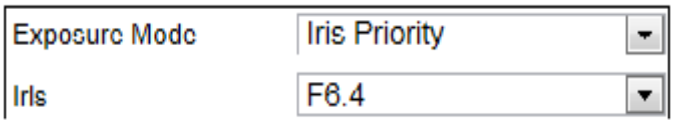


Figure 5-27 Manual Iris

- Shutter Priority:

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

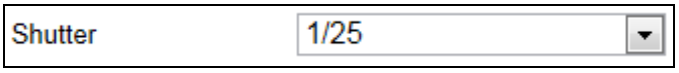


Figure 5-28 Manual Shutter

- Manual:

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

NOTE This function varies depending on the models of zoom camera.

- **Limit Gain**

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

- **Slow Shutter**

This function can be used in underexposure condition. It lengthens the shutter time to ensure full exposure. The slow shutter value can be set to **Slow Shutter*2, *4, *6, *12, *16, *24** and ***32**.

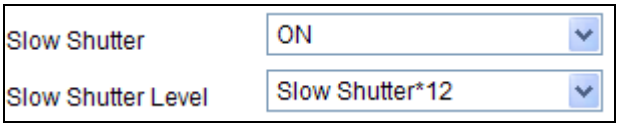


Figure 5-29 Slow Shutter

5.5.3 Focus Settings

- **Focus Mode**

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

- Auto**:**

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

- Semi-auto:

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

- Manual**:**

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

manually.

- **Min. Focus Distance**

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

NOTE The minimum focus value varies depending on the models of camera.

5.5.4 Day/Night Switch

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

- **Auto**:

In **Auto** mode, the day mode and night mode can switch automatically according to the light condition of environment. The switching sensitivity can be set to **Low**, **Normal**, **High**.

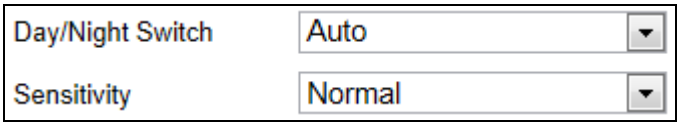


Figure 5-30 Auto Mode Sensitivity

- **Day**:

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

- **Night**:

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

- **Schedule**

In **Schedule** mode, you can set the time schedule for day mode as shown in Figure 5-31. The rest time out of the schedule is for night mode.

NOTE This function varies depending on the models of zoom camera.

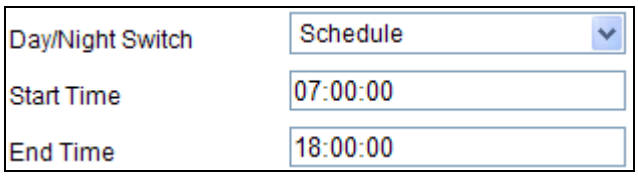


Figure 5-31 Day Night Schedule

5.5.5 Backlight Settings

- **BLC**

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

5.5.6 WDR (Wide Dynamic Range)

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

You can enable or disable the WDR function as shown in Figure 5-32. The wide dynamic level ranges from 0 to 100.

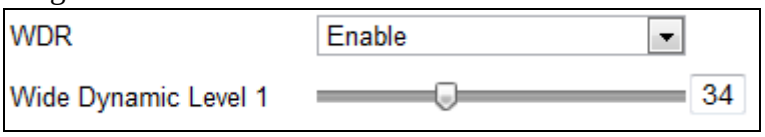


Figure 5-32 WDR

NOTE This function varies depending on the models of zoom camera.

- **HLC**

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

5.5.7 White Balance

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

- **Auto**:

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

- **Manual White Balance:**

In **MWB** mode, you can adjust the colour temperature manually to meet your own demand as shown in Figure 5-33.

Figure 5-33 Manual White Balance

- **Outdoor**

You can select this mode when the zoom camera is installed in outdoor environment.

- **Indoor**

You can select this mode when the zoom camera is installed in indoor environment.

- **Fluorescent Lamp**

You can select this mode when there are fluorescent lamps installed near the zoom camera.

- **Sodium Lamp**

You can select this mode when there are sodium lamps installed near the zoom

camera.

- **Auto-Track**

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

NOTE This function varies depending on the models of zoom camera.

5.5.8 Image Enhancement

- **3D Digital Noise Reduction**

The 3D digital noise reduce function processes the noise in the video signal.

You can set **Digital Noise Reduction** function to **Normal Mode** and adjust the **Noise Reduction Level** as shown in Figure 5-34. The level ranges from 0 to 100.

If you are a professional technician, you can set it to **Expert Mode** then adjust **Space DNR Level** and **Time DNR Level**.

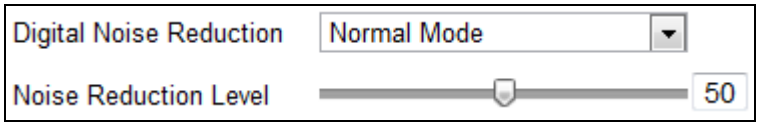


Figure 5-34 3D Digital Noise Reduction

NOTE This function varies depending on the models of zoom camera.

- **De-fog Mode**

When there is fog in the image, you can enable this function to get clear image.

NOTE This function varies depending on the models of zoom camera.

5.5.9 Video Adjustment

- **Mirror**

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

NOTE This function varies depending on the models of zoom camera.

- **Video Standard**

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

NOTE This function varies depending on the models of zoom camera.

5.5.10 Other

- **Lens Initialisation**

The lens operates the movements for initialisation when you check the check box for **Lens Initialisation.**

- **Zoom Limit**

You can set **Zoom Limit** value to limit the maximum value of zooming. The value can be set to 20, 40, 80, 160 and 320.

NOTE This function varies depending on the models of zoom camera.

- **Local Output**

You can select the output mode to ON or OFF.

5.6 Configuring OSD Settings

You can customise the on screen display of time and camera name.

Steps:

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

Figure 5-35 OSD Settings

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

in the live view window to adjust the OSD position.

Figure 5-36 Adjust OSD Location

6. Click Save to activate above settings.

5.7 Configuring Text Overlay Settings

Purpose:

You can customise 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.

Figure 5-37 Text Overlay Settings

5.8 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:

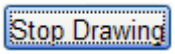
Configuration > Advanced Configuration> Image > Privacy Mask

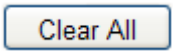
2. Check the checkbox of **Enable Privacy Mask** to enable this function.
3. Click Draw Area.

Figure 5-38 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 

to finish drawing or click 

to clear all of the areas you set without saving them.

6. Click

to save the settings.

5.9 Configuring and Handling Alarms

Purpose:

This section explains how to configure the network zoom camera to respond to alarm events, including motion detection, external alarm input, video tampering 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 zoom camera sends a notification to an e-mail address.

5.9.1 Configuring Motion Detection

Purpose:

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

Steps:

1. 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**.

Figure 5-39 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:

(1) To edit the arming schedule as shown in Figure 5-41, click Edit in Figure 5-40.

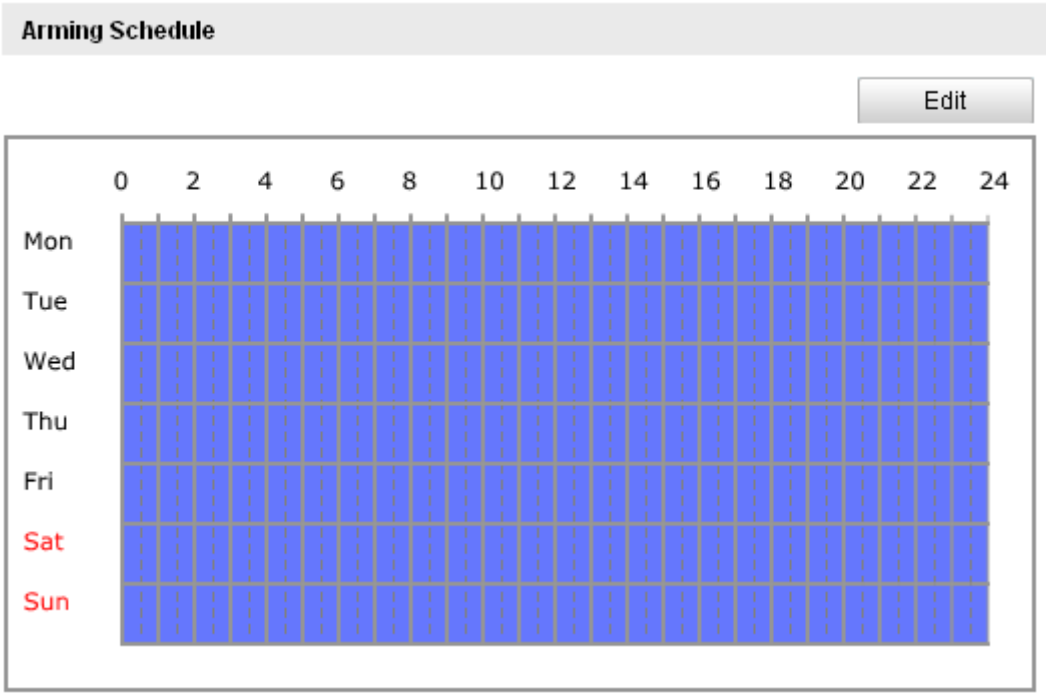


Figure 5-40 Arming Schedule

(2) Choose the day you want to set the arming schedule as shown in Figure 5-41.

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

(4) After you set the arming schedule, you can click Copy to 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.

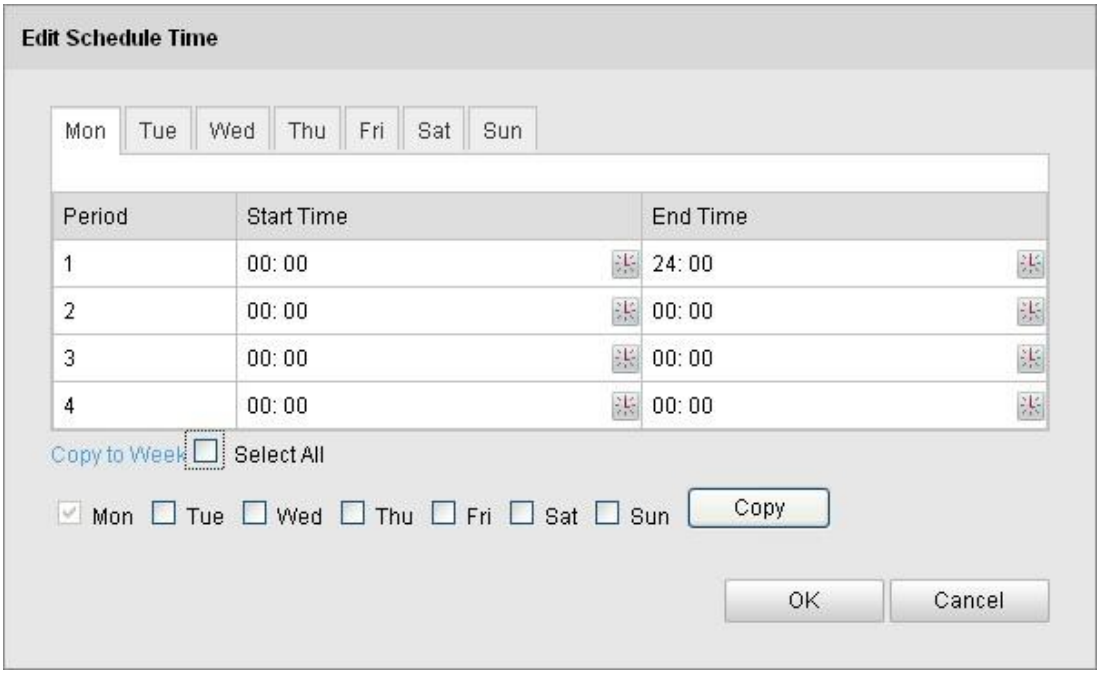


Figure 5-41 Arming Time Schedule

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.

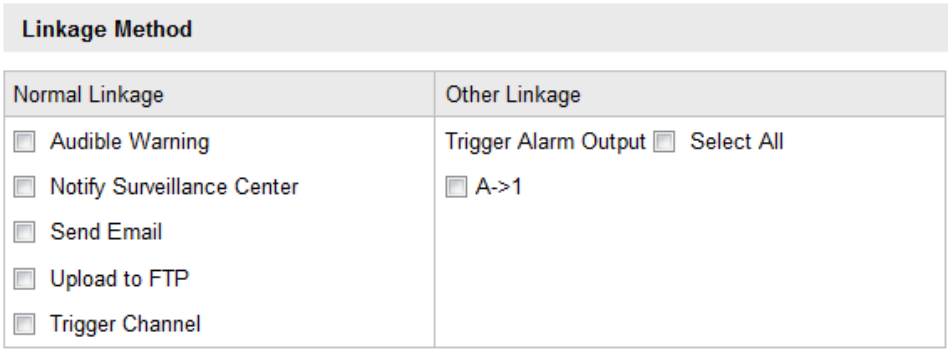


Figure 5-42 Linkage Method

Check the checkbox to select the linkage method. Notify surveillance center, send email, upload to FTP, trigger channel and trigger alarm output are selectable.

- **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 ***5.3.11 Configuring Email Settings*** to set the Email parameters.

- **Upload to FTP**

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

  Note: You need a FTP server and set FTP parameters first. Refer to Section ***5.3.8 Configuring FTP Settings*** for setting FTP parameters.

- **Trigger Channel**

  Record a video when an event occurs.

  Note: You have to set the recording schedule to initiate this function. Please refer to Section ***6.2 Configuring Record Schedule*** for settings the recording schedule.

- **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 ***5.11.1 Configuring Alarm Output*** to set the alarm output parameters.

5.10 Configuring Video Tampering Alarm

Purpose:

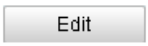
You can configure the zoom camera to trigger the alarm actions when the lens is covered.

Steps:

1. Enter the video tampering Settings interface:

   Configuration > Advanced Configuration > Events > Video Tampering

Figure 5-43 video tampering Alarm

2. Check **Enable video tampering** checkbox to enable the video tampering detection.
3. Set the video tampering area. Refer to *Step **1 Set the Motion Detection Area*** in Section ***5.9.1 Configuring Motion Detection***.
4. Click 

to edit the arming schedule for video tampering. 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 ***5.9.1 Configuring Motion Detection***.
5. Check the checkbox to select the linkage method taken for the video tampering. 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 ***5.9.1 Configuring Motion Detection***.
6. Click

to save the settings.

5.11 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).
3. Edit the name in

to set a name for the alarm input (optional).

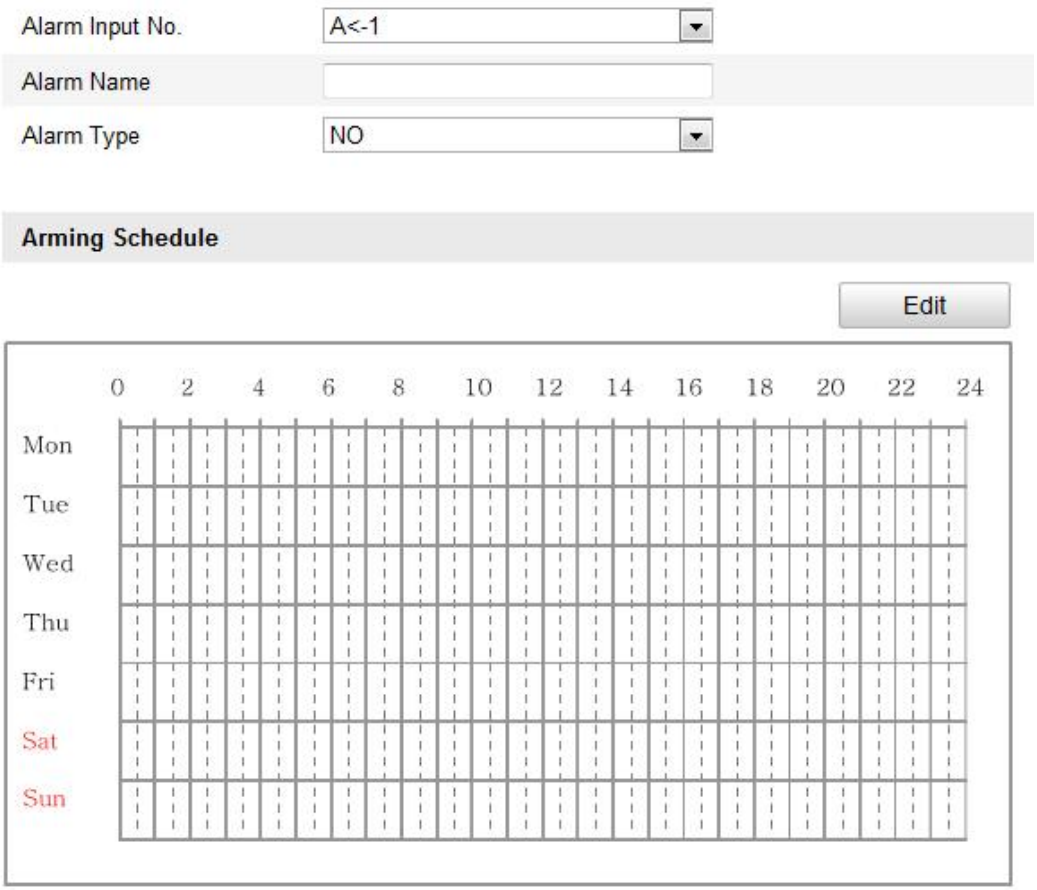


Figure 5-44 Alarm Input Settings

4. Click Edit to set the arming schedule for the alarm input. Refer to *Step* ***2 Set the Arming Schedule for Motion Detection*** in Section ***5.9.1 Configuring Motion Detection***.
5. 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 ***5.9.1 Configuring Motion Detection***.
6. You can copy your settings to other alarm inputs.
7. Click Save to save the settings.

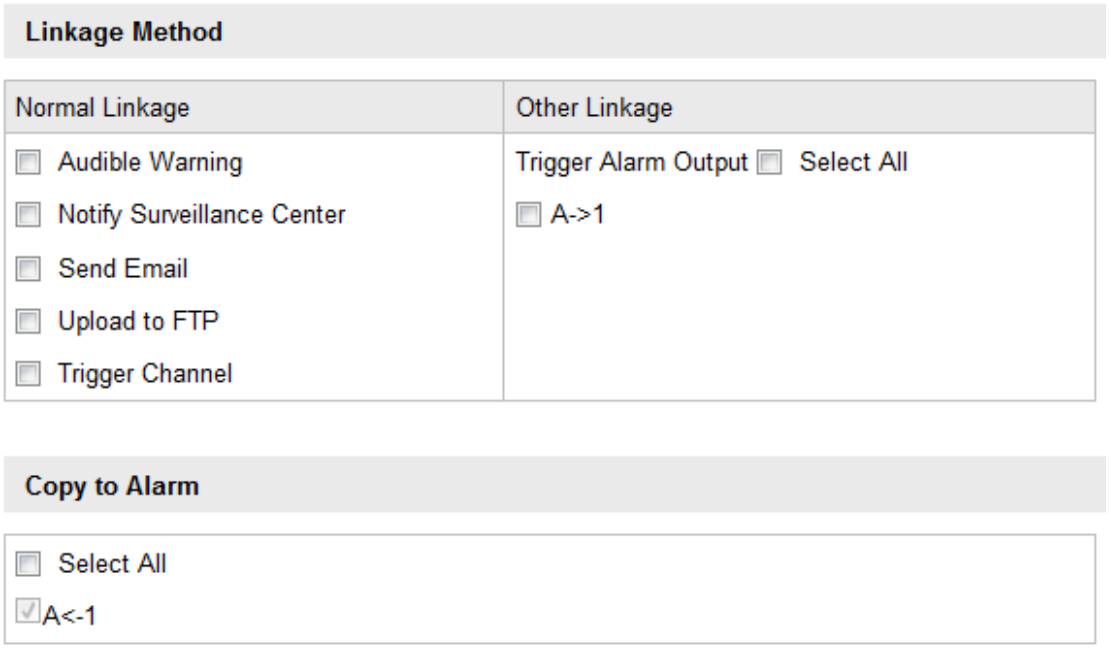


Figure 5-45 Linkage Method

5.11.1 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.
3. Set a name in

for the alarm output (optional).
4. The **Delay** time can be set to **5sec**, **10sec**, **30sec**, **1min**, **2min**, **5min, 10min** or **Manual**. The delay time refers to the time duration that the alarm output remains in effect after alarm occurs.
5. Click

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 ***5.9.1 Configuring Motion Detection***.
6. You can copy the settings to other alarm outputs.
7. Click

to save the settings.

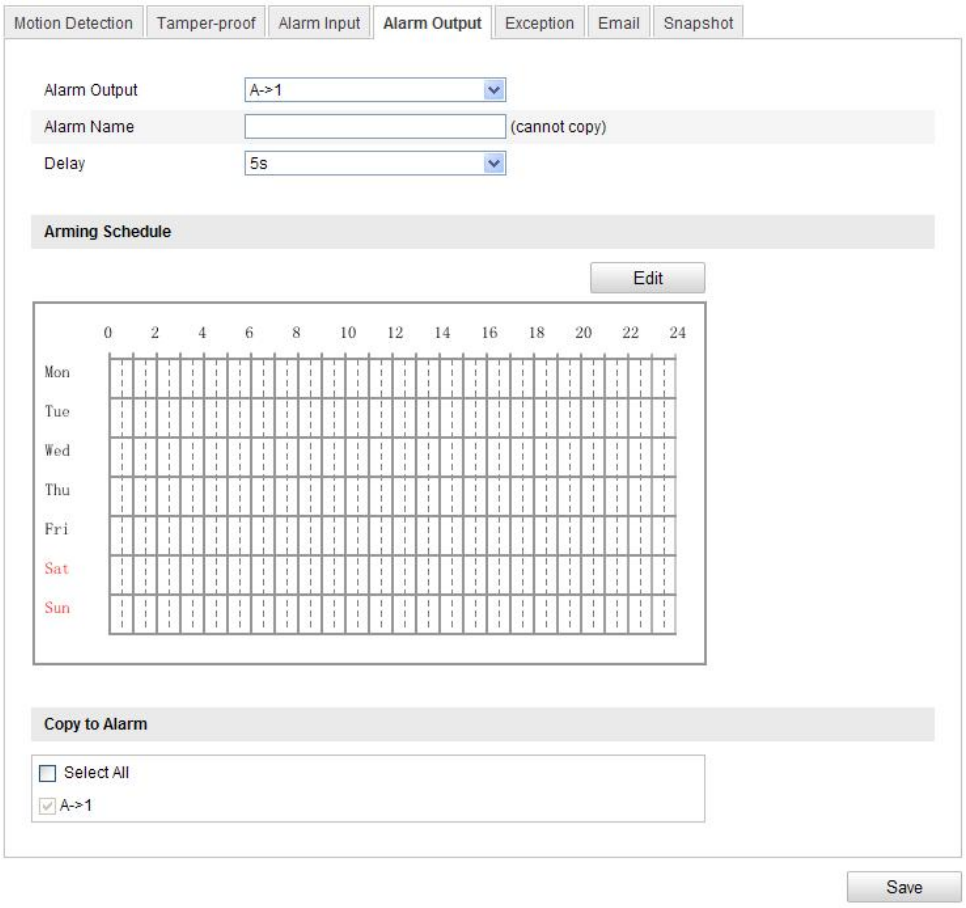


Figure 5-46 Alarm Output Settings

5.12 Handling Exception

The exception type can be HDD full, HDD error, network disconnected, IP address conflict and illegal login to the zoom 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 ***5.9.1 Configuring Motion Detection***.

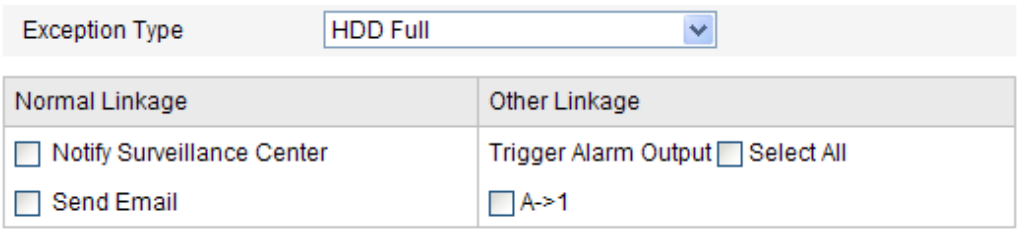


Figure 5-47 Exception Settings

3. Click to save the settings.

Chapter 6 Record 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 (optional) inserted in your zoom 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
   (2) Select the NAS type as NFS or SMB/CIFS. If you select SMB/CIFS, you need to enter the User Name and Password.

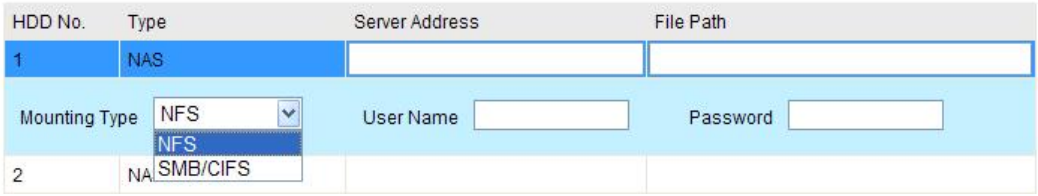


Figure 6-1 Select NAS Type

   (3) Enter the IP address of the network disk. The default NFS storage format of file path is */dvr/test* as shown in Figure 6-2. And the default SMB/CIFS storage format of file path is */test*.
   (4) Click **Test** to make sure that the NAS is connected successfully.(Optional)

HDD No.	Type	Server Address	File Path
1	NAS	10.99.105.249	/dvr/test
2	NAS		
3	NAS		
4	NAS		

Figure 6-2 Add Network Disk

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.

   (5) Click Save to add the network disk.

NOTE After having saved successfully, you need to reboot the zoom camera to activate the settings.

2. Initialise 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.

(2) If the status of the disk is **Uninitialised** as shown in Figure 6-3, check the corresponding checkbox to select the disk and click Format to start initialising the disk.

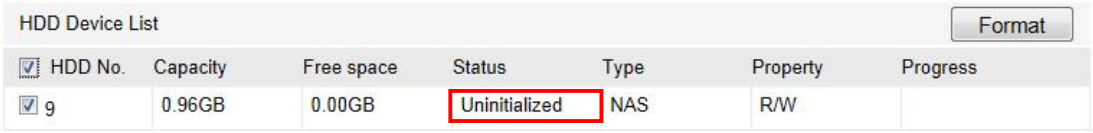


Figure 6-3 Initialise Disk

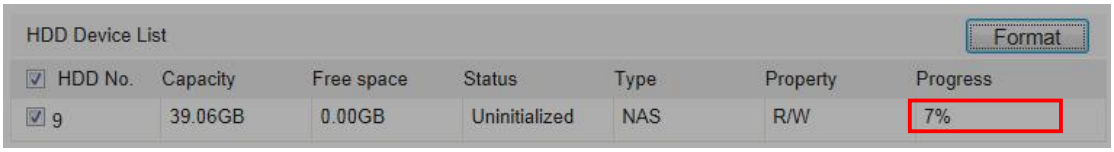


Figure 6-4 Initialising

When the initialisation completed, the status of disk will become **Normal** as shown in Figure 6-5**.**

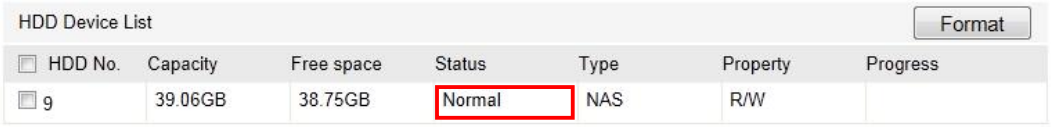


Figure 6-5 View Disk Status

Notes:

- Up to 8 NAS disks can be connected to the zoom camera.
- To initialise and use the SD card (optional) after, insert it into the zoom camera, then refer to the steps for NAS disk initialisation.

6.2 Configuring Recording Schedule

Purpose:

There are two kinds of recording for the zoom 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 recorded files from scheduled recording are stored in the SD card (if supported) or on the network disk.

Steps:

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

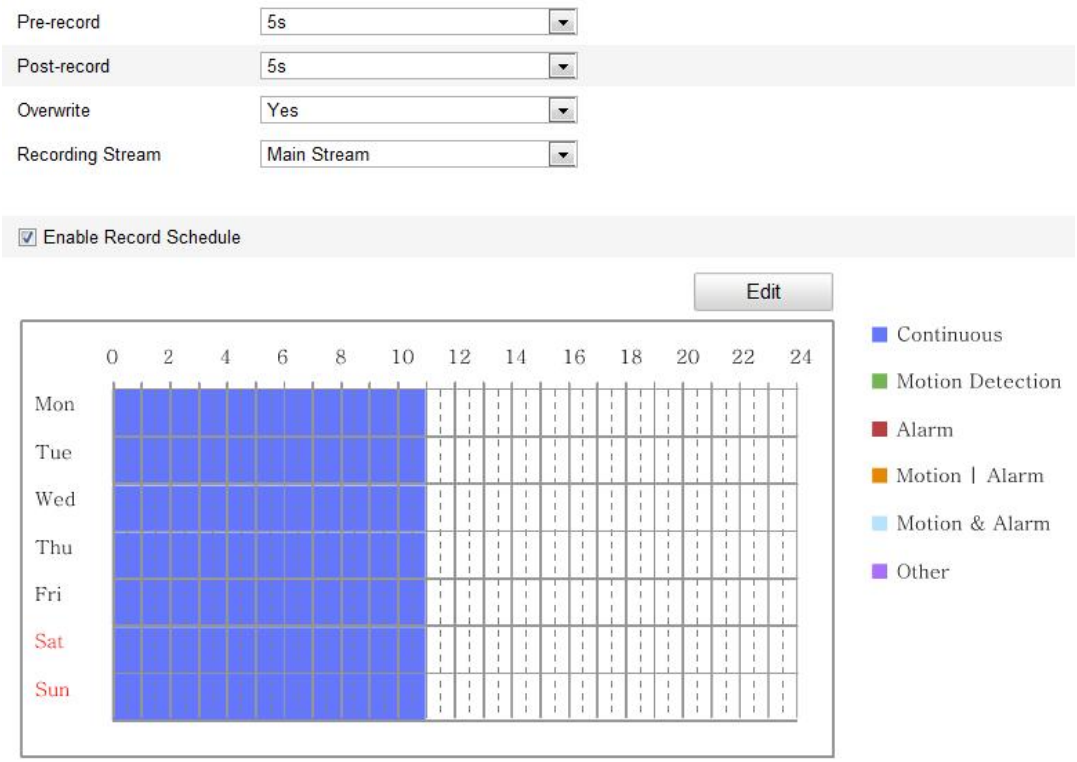


Figure 6-6 Recording Schedule Interface

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

Figure 6-7 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 zoom 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.
  Note: The pre-record time changes according to the video bitrate.
- **Post-record:** The time you set to stop recording after the scheduled time or the event. For example, if an alarm triggered recording ends at 11:00, and the post-record time is set as 5 seconds, the zoom 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 Pre-record and Post-record parameters vary depending on the zoom camera model.

- **Overwrite**: If you enable this function and the HDD is full, the new recorded files overwrite the oldest recorded files automatically.
- **Recording Stream:** You can set the recording stream as **Main Stream** or **Sub Steam**.

4. Click Edit to edit the record schedule.

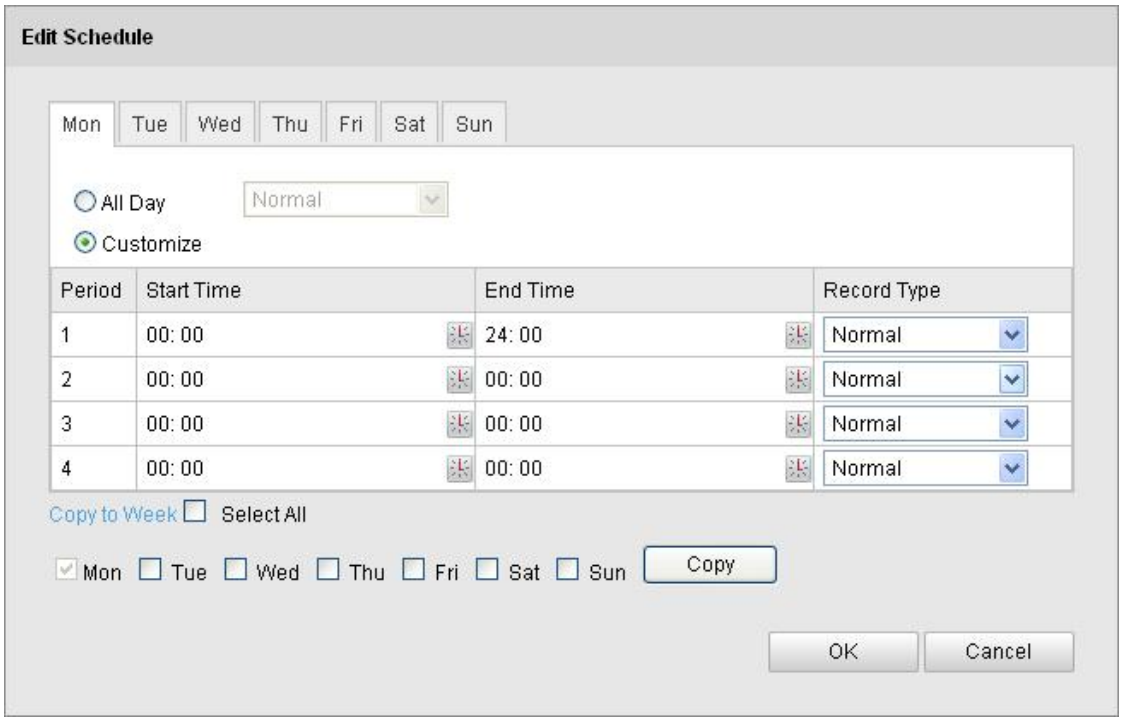


Figure 6-8 Record Schedule

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 slots within a 24 hour period, check the **Customise** checkbox. Set the **Start Time** and **End Time.**

     Note: The time of each timeslot cannot overlap. Up to 4 slots can be configured.

   (2) Select a **Record Type**. The record type can be Normal, Motion Detection, Alarm, Motion | Alarm, Motion & Alarm.
   - ♦ **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 ***5.9.1 Configuring Motion Detection***.

- **Record Triggered by Alarm**

  If you select **Alarm**, the video will be recorded when the alarm is triggered via the external alarm input channels.

  Besides configuring the recording schedule, you have to set the **Alarm Type** and check the checkbox of **Trigger Channel** in the **Linkage Method** of **Alarm Input Settings** interface. For detailed information, please refer to Section ***5.11 Configuring External Alarm Input***.

- **Record Triggered by Motion & Alarm**

  If you select **Motion & Alarm**, the video will be recorded when the motion and alarm are triggered at the same time.

  Besides configuring the recording schedule, you have to configure the settings in the **Motion Detection** and **Alarm Input Settings** interfaces. Please refer to Section ***5.9.1*** and Section ***5.11*** 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 in the **Motion Detection** and **Alarm Input Settings** interfaces. Please refer to Section ***5.9.1*** and Section ***5.11*** for detailed information.

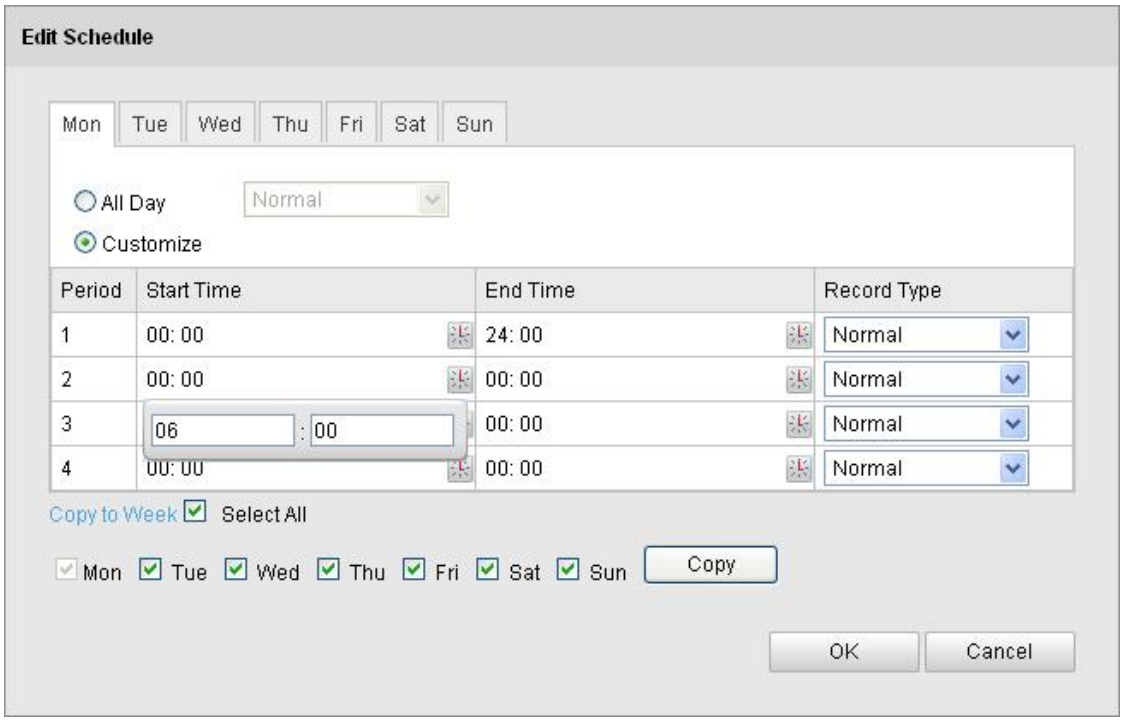


Figure 6-9 Edit Record Schedule

(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.

6.3 Configuring Snapshot Settings

Purpose:

You can configure the scheduled snapshot and event-triggered snapshot. You can upload the captured pictures to a FTP server.

Basic Settings

Steps:

1. Enter the Snapshot Settings interface:
   Configuration > Advanced Configuration > Storage > 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. You can click **Edit** to set a schedule for **Timing Snapshot**.
4. Select the quality of the snapshot.
5. Set the time interval between two snapshots.
6. Click Save to save the settings.

Uploading to FTP

NOTE Please make sure that the FTP server is online.

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

- Upload continuous snapshots to FTP

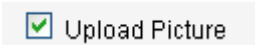
Steps:

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

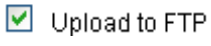
END

- Upload event-triggered snapshots to FTP

Steps:

1) Configure the FTP settings and check 

checkbox in FTP Settings interface. Please refer to Section ***5.3.8 Configuring FTP Settings*** for more details to configure FTP parameters.

2) Check 

checkbox in Motion Detection Settings or Alarm Input interface. Check the **Enable Event-triggered Snapshot** checkbox.

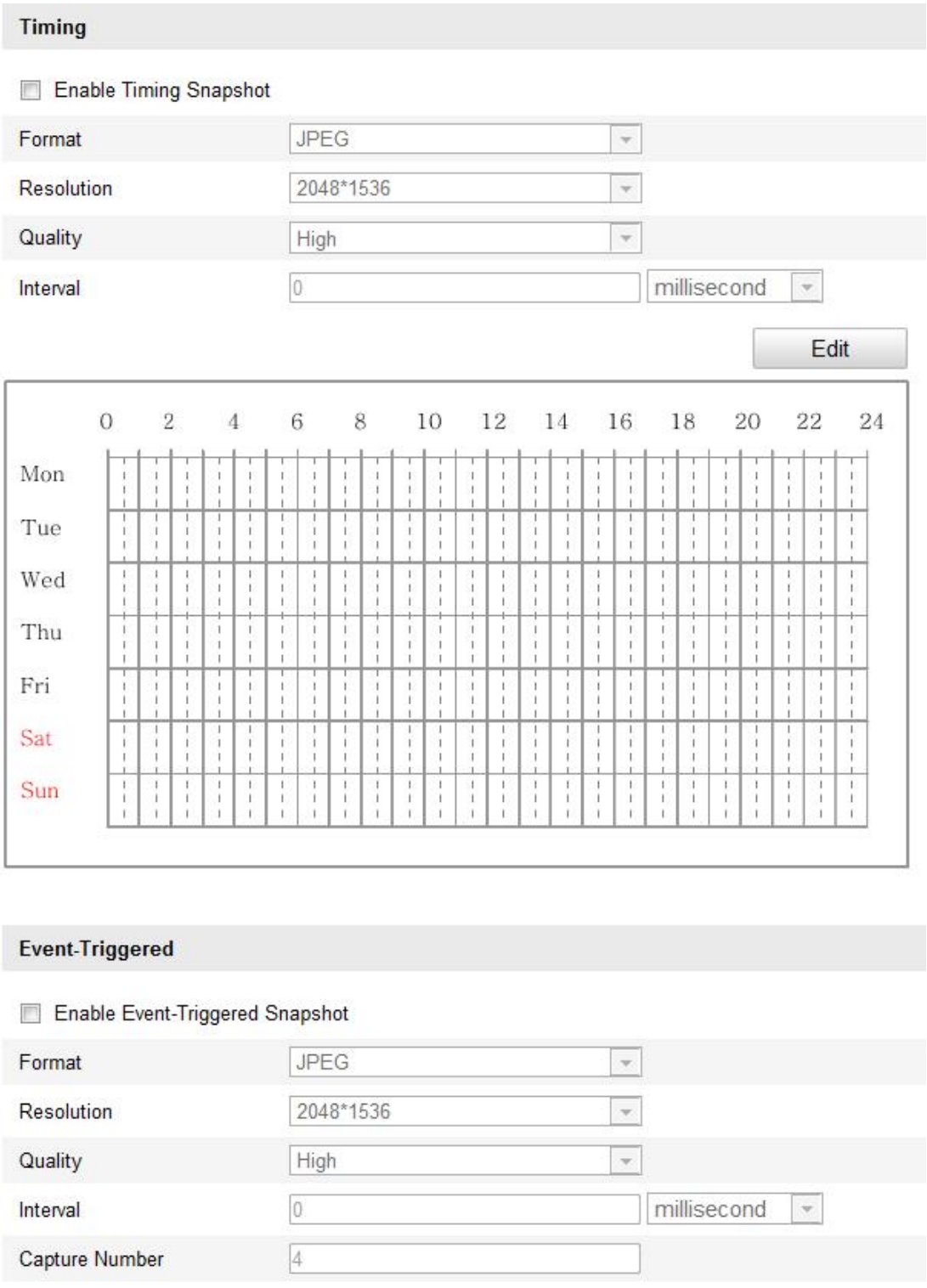


Figure 6-10 Snapshot Settings

Chapter 7 Playback

Purpose:

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

7.1 Playing Back Video Files

Steps:

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

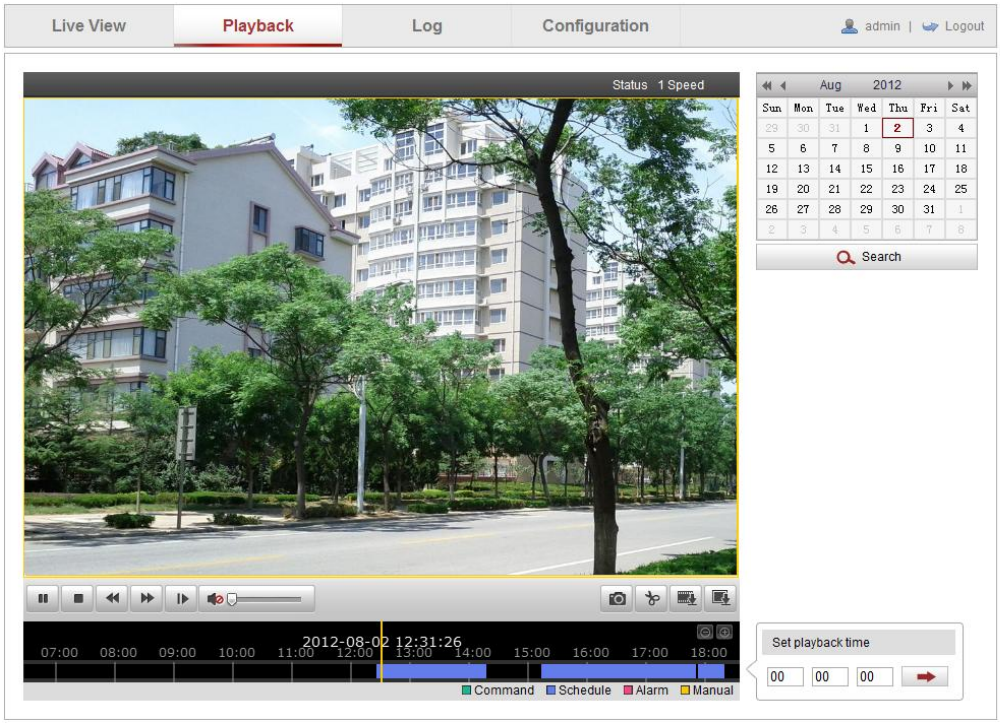


Figure 7-1 Playback Interface

2. Select the date and click 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.

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
	Display playback status		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 Configuring Local Parameters*** for details.

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

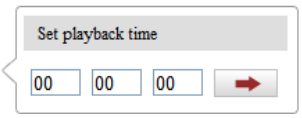


Figure 7-4 Set Playback Time

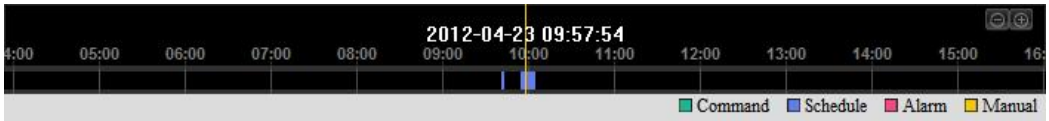


Figure 7-5 Progress Bar

The different colours of the video in the progress bar stand for the different video

types as shown in Figure 7-6.

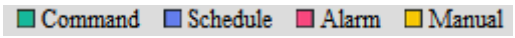


Figure 7-6 Video Types

7.2 Downloading Video Files

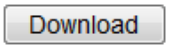
Steps:

1. Click on the playback interface. The pop-up menu is shown in Figure 7-7. All the video files are listed.

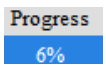
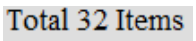
	No.	File Name	Start Time	End Time	File Size	Progress
	1	ch01_08000000000000000	2012-08-14 10:12:31	2012-08-14 10:30:29	43 MB	
	2	ch01_08000000000000100	2012-08-14 10:33:00	2012-08-14 10:43:50	27 MB	
	3	ch01_08000000000000200	2012-08-14 10:45:08	2012-08-14 10:56:20	28 MB	
	4	ch01_08000000000000301	2012-08-14 11:10:45	2012-08-14 11:11:01	1 MB	
	5	ch01_08000000000000401	2012-08-14 11:11:09	2012-08-14 11:11:17	1 MB	
	6	ch01_08000000000000501	2012-08-14 11:12:13	2012-08-14 11:12:21	1 MB	
	7	ch01_08000000000000601	2012-08-14 11:13:43	2012-08-14 11:14:28	3 MB	
	8	ch01_08000000000000701	2012-08-14 11:15:14	2012-08-14 11:15:30	1 MB	
	9	ch01_08000000000000801	2012-08-14 11:15:35	2012-08-14 11:16:24	2 MB	
	10	ch01_08000000000000901	2012-08-14 11:17:09	2012-08-14 11:17:33	1 MB	
	11	ch01_08000000000001001	2012-08-14 11:17:47	2012-08-14 11:18:03	1 MB	
	12	ch01_08000000000001101	2012-08-14 11:20:39	2012-08-14 11:21:03	1 MB	
	13	ch01_08000000000001201	2012-08-14 11:24:38	2012-08-14 11:24:54	1 MB	
	14	ch01_08000000000001301	2012-08-14 11:25:52	2012-08-14 11:26:01	1 MB	
	15	ch01_08000000000001401	2012-08-14 11:27:37	2012-08-14 11:27:54	1 MB	
	16	ch01_08000000000001501	2012-08-14 11:28:36	2012-08-14 11:28:44	1 MB	
	17	ch01_08000000000001601	2012-08-14 11:28:50	2012-08-14 11:28:58	1 MB	
	18	ch01_08000000000001701	2012-08-14 11:29:16	2012-08-14 11:29:32	1 MB	
	19	ch01_08000000000001801	2012-08-14 11:34:38	2012-08-14 11:34:54	1 MB	
	20	ch01_08000000000001901	2012-08-14 11:42:15	2012-08-14 11:42:24	1 MB	

Figure 7-7 Video Downloading interface

2. Check the checkbox in front of the video files that you need to download.

3. Click  to download the video files.

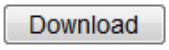
Notes:

- The progress ratio  displays the downloading ratio of the video file.
- You can click to stop the downloading.
- The total number  displays the amount of the video files.

- The video files are not all listed on one page. You can click First Page Prev Page 1/2 Next Page Last Page to turn pages.

7.3 Downloading Captured Images

Steps:

1. Click on the playback interface. The pop-up menu is shown in Figure 7-8.
2. Set the linkage type of capturing the pictures as timing, alarm, motion, etc..
3. Set the start time and end time. Click **Search**. The corresponding picture files are listed on the left.
4. Check the checkbox in front of the files that you need to download.
5. Click  to download the files.

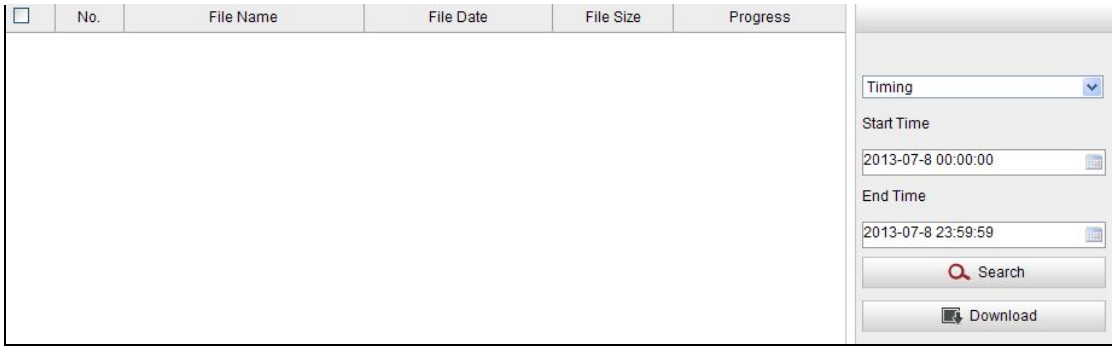


Figure 7-8 Picture Downloading interface

Chapter 8 Log Searching

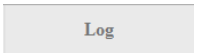
Purpose:

The operation, alarm, exception and information of the zoom 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 zoom camera or insert a SD card in the zoom camera.

Steps:

1. Click 

on the menu bar to enter log searching interface.

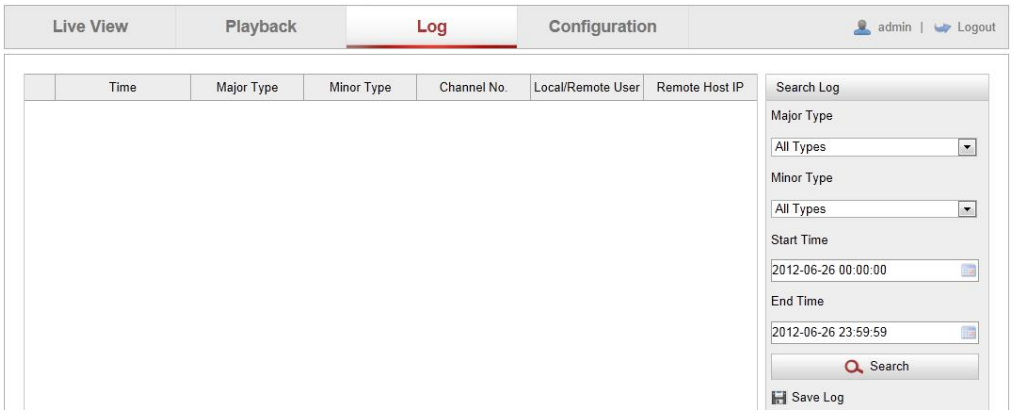


Figure 8-1 Log Searching Interface

2. Set the log search conditions to specify the search, including the Major Type, Minor Type, Start Time and End Time as shown in Figure 8-2.
3. Click

to search log files. The matched log files will be displayed on the **Log** interface.

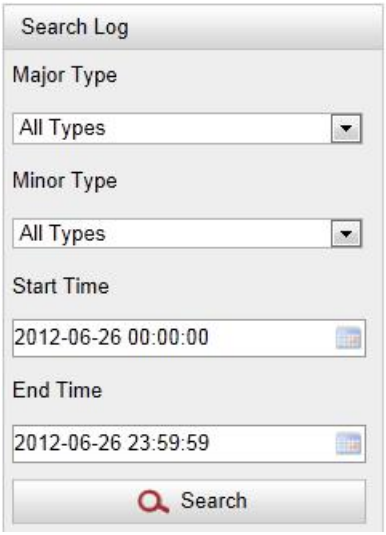
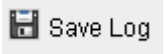


Figure 8-2 Log Searching

4. To export the log files, click 

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 31 user accounts can be created.

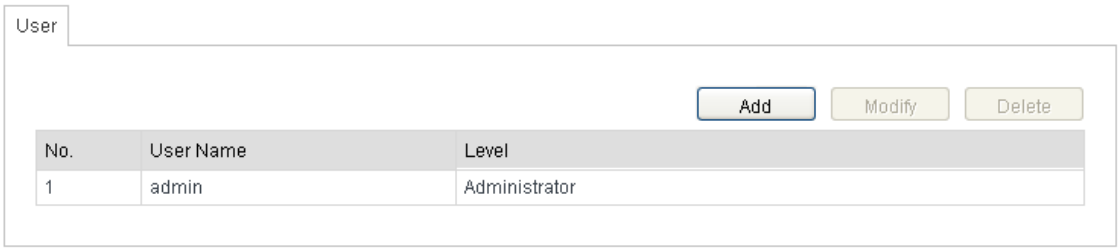


Figure 9-1 User Information

- 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.

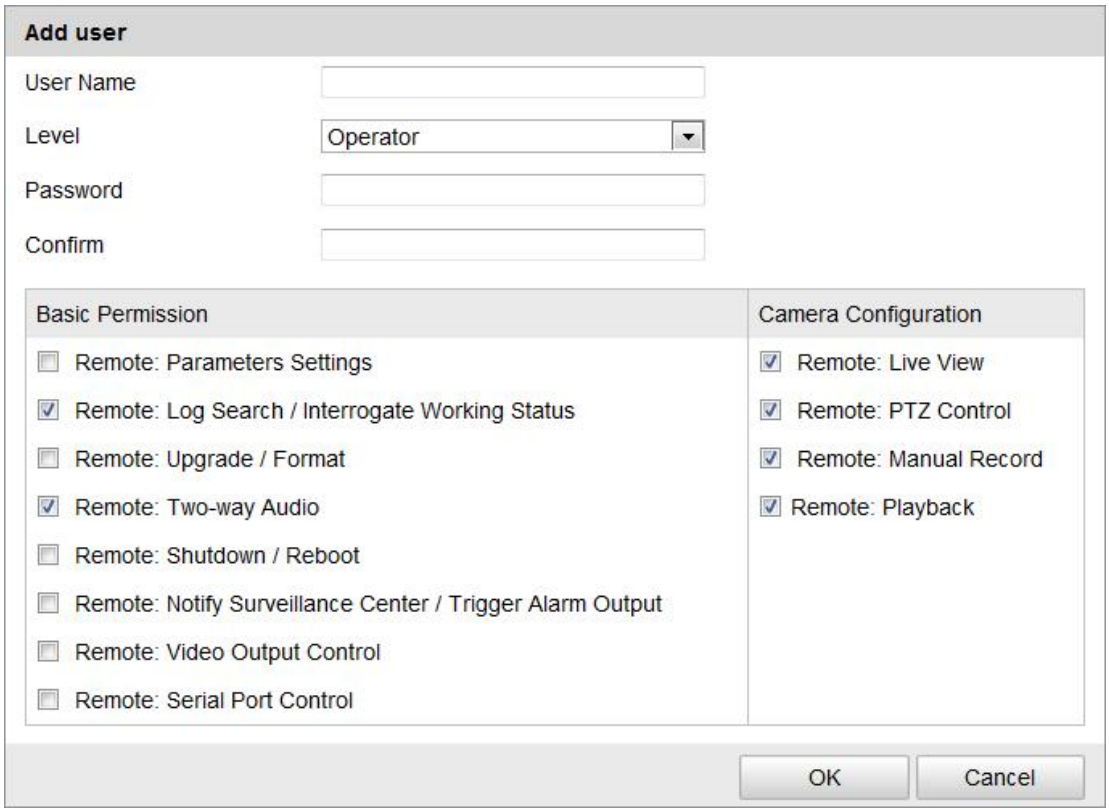


Figure 9-2 Add a User

- 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.

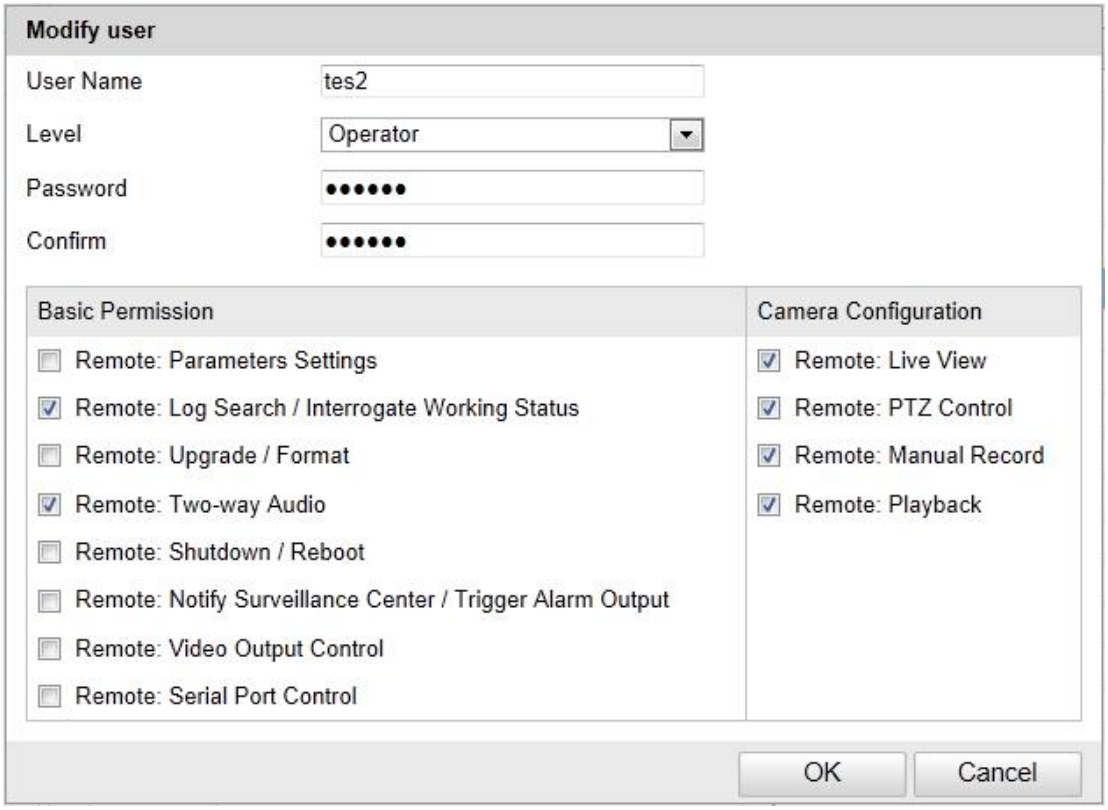


Figure 9-3 Modify a User

- 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.

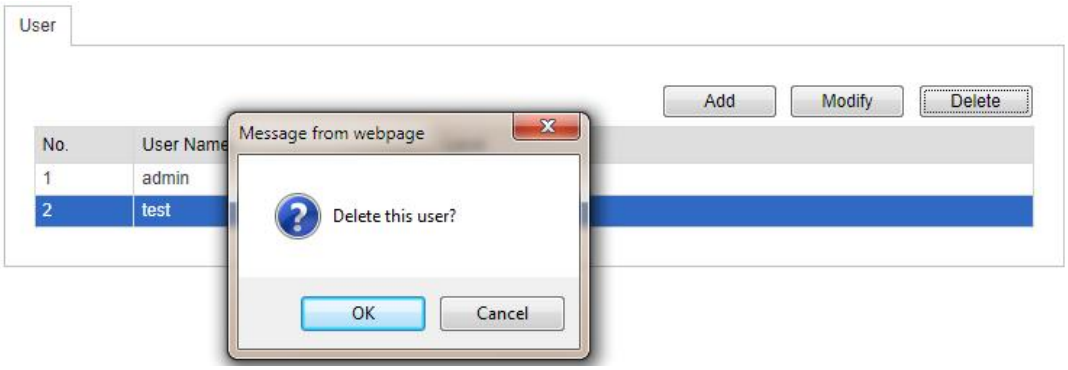


Figure 9-4 Delete a User

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**

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 Configuring Anonymous Visit

When you enable this function, you can log into the camera without a username and password.

In login interface, check the **Anonymous** checkbox and click **Login** to enter the camera as shown in Figure 9-7.

Figure 9-6 Anonymous Login

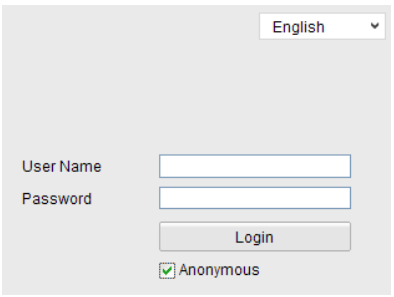


Figure 9-7 Login Interface

9.4 Configuring IP Address Filter

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

Filter Type	Description
Forbidden	Forbid the IP addresses added in the **IP Address Filter** interface to log in.
Allowed	Allow only the IP addresses added in the **IP Address Filter** interface to log in.

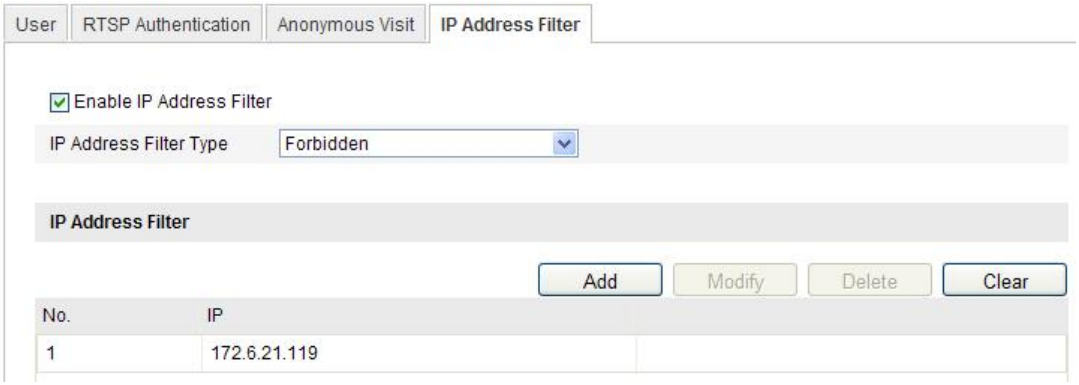


Figure 9-8 IP Address Filter

9.5 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 zoom 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.

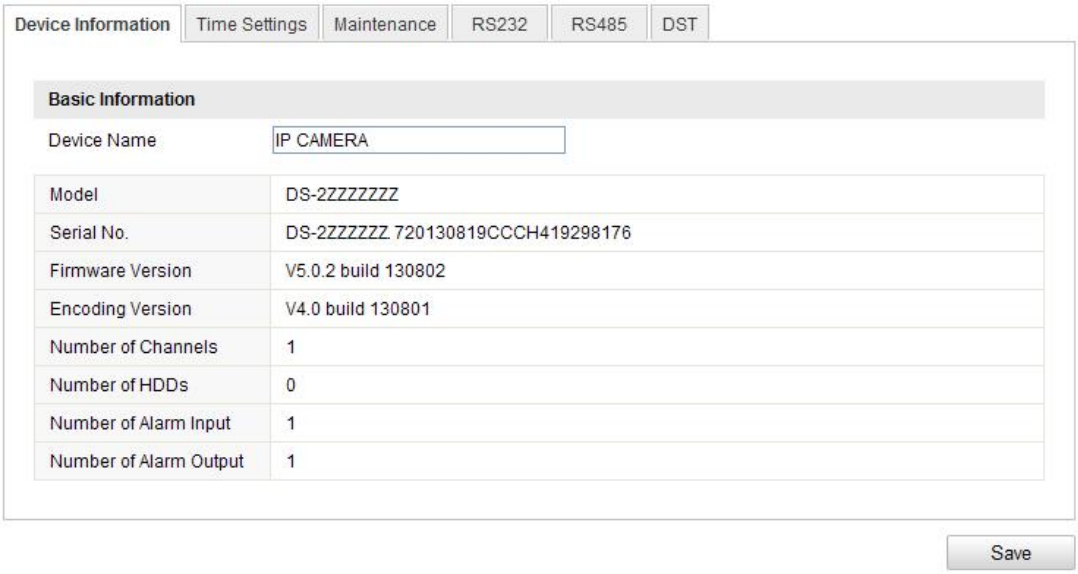


Figure 9-9 Device Information

9.6 Maintenance

9.6.1 Rebooting the Zoom 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 zoom camera.

Figure 9-10 Reboot the Device

9.6.2 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.

Note: Clicking Default restores all the parameters to default settings including the IP address and user information. Please use this button with caution.

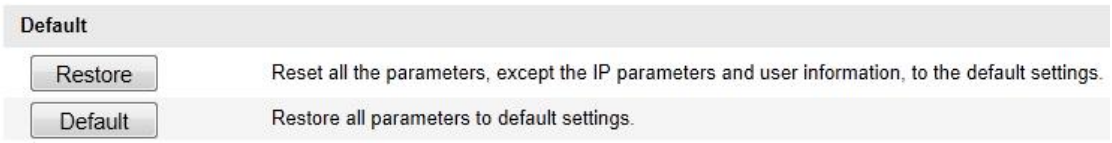


Figure 9-11 Restore Default Settings

9.6.3 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 zoom camera after importing configuration file.
3. Click Export and set the saving path to save the configuration file in local storage**.**

Figure 9-12 Import/Export Configuration File

9.6.4 Upgrading the System

Steps:

1. Enter the Maintenance interface:
   Configuration > **Basic Configuration**> **System** > **Maintenance**
   or **Configuration** > **Advanced Configuration**> **System** > **Maintenance**
2. Select Firmware or Firmware Directory.
   - **Firmware**: when you select **Firmware**, you need to find the firmware in

your computer to upgrade the device.

- **Firmware Directory**: You need to find the directory where the firmware locates. The device can find the firmware in the directory automatically.

3. Click 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 to the zoom camera during the process. The zoom camera reboots automatically after upgrading.

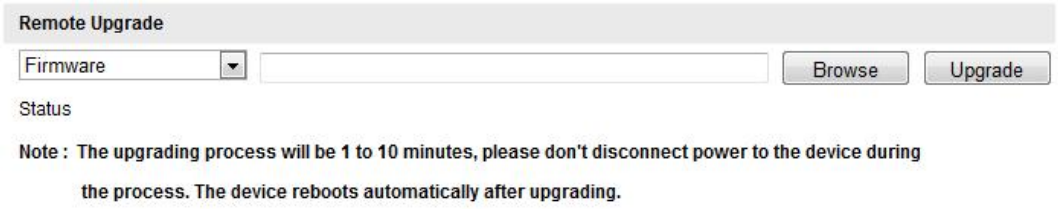


Figure 9-13 Remote Upgrade

9.6.5 Enabling/Disabling Telnet

You can enable/disable the **Telnet** function in the interface:

Configuration > **Advanced Configuration**> **System** > **Service**

Figure 9-14 Telnet Function

9.7 RS-232 Settings

Purpose:

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

- Parameter 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 in 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**

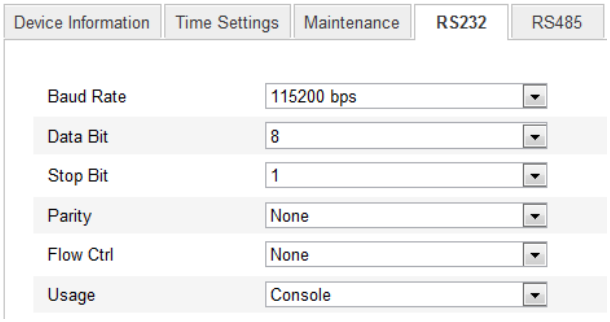


Figure 9-15 RS-232 Settings

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.

9.8 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

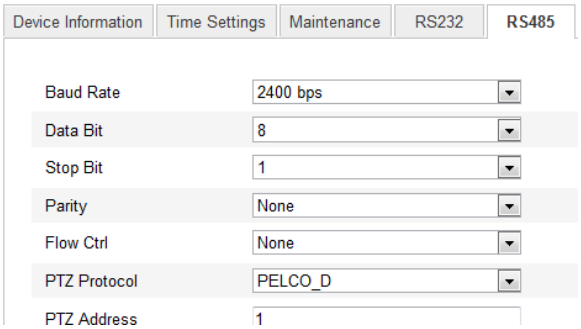


Figure 9-16 RS-485 Settings

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 of SADP**

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

- **Search active devices online**

  - **Search online devices automatically**

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

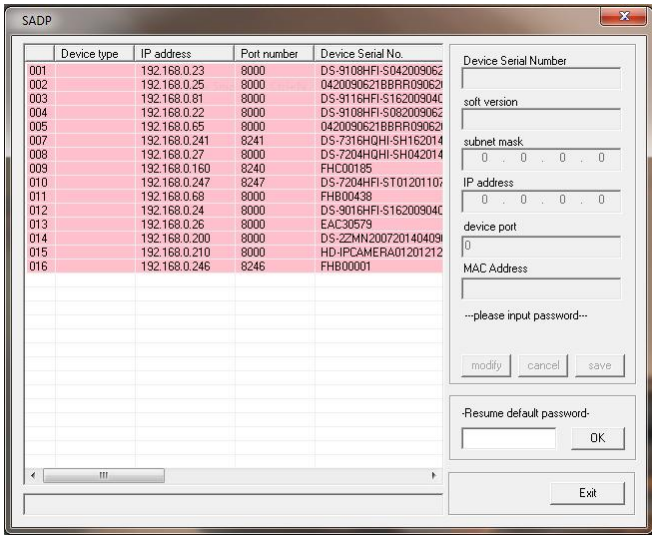


Figure A.1.1 Searching Online Devices

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

  - **Search online devices manually**

    You can also click 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.

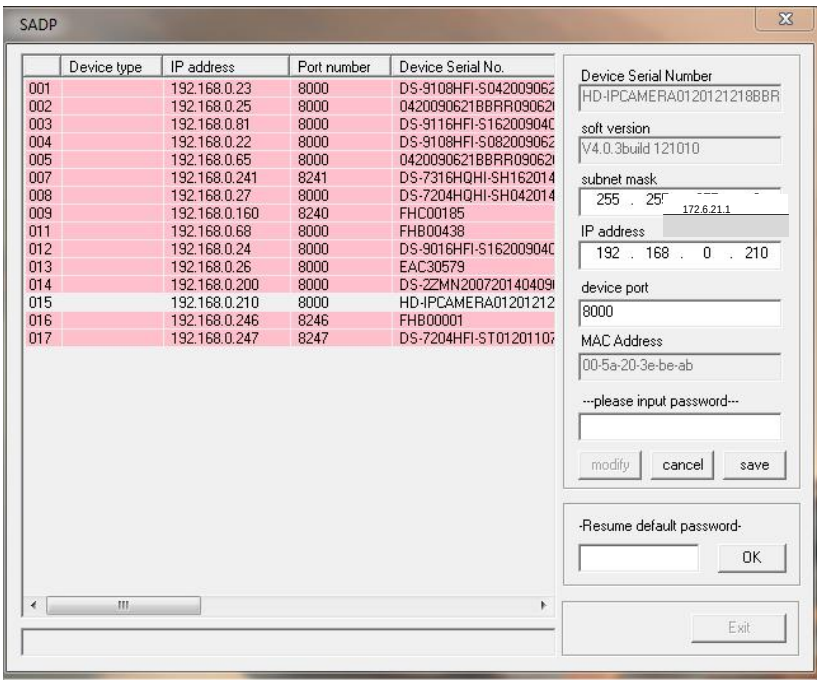


Figure A.1.2 Modify Network Parameters

● 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:

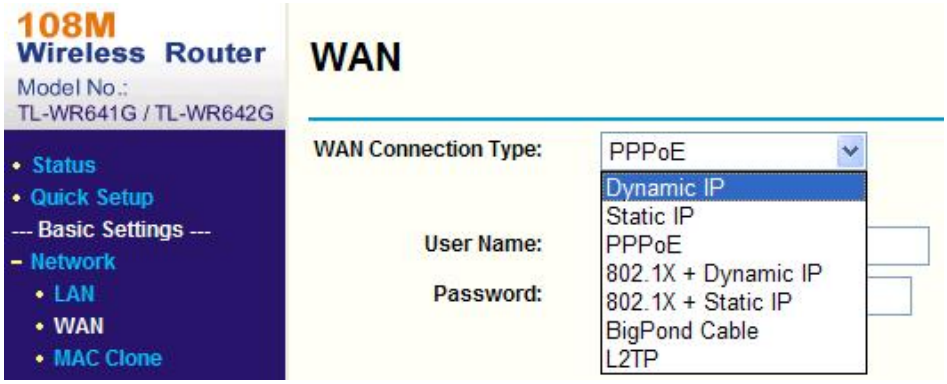


Figure A.2.1 Select the WAN Connection Type

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

Figure A.2.2 Set the LAN parameters

3. Set the port mapping in the virtual servers of **Forwarding**. You need to forward ports 80, 8000, 8200~8210 and 554 for a zoom camera.

Notes:

- You can change 80, 8000 and 554 ports value in the zoom camera with web browser or client software.
- In the zoom camera, the 8200~8210 ports change with the 8000 port with a constant value of 200. E.g. if the 8000 port is changed to 8005, then the 8200~8210 ports should be changed to 8205~8215.

Example:

When the zoom cameras are connected to the same router, you can forward the ports of a zoom camera as 80, 8000, 8200~8210 and 554 with IP address 192.168.1.23, and the ports of another zoom camera as 81, 8001, 8201~8211 and 555 with IP 192.168.1.24. Refer to the steps as below:

Steps:

1. As the settings mentioned above, forward the port 80, 8000, 8200~8210 and 554 for the network zoom camera at 192.168.1.23
2. Forward the port 81, 8001, 8201~8211 and 555 for the network zoom camera at 192.168.1.24.
3. Enable **ALL** or **TCP** protocols.
4. Check the **Enable** checkbox and click Save.

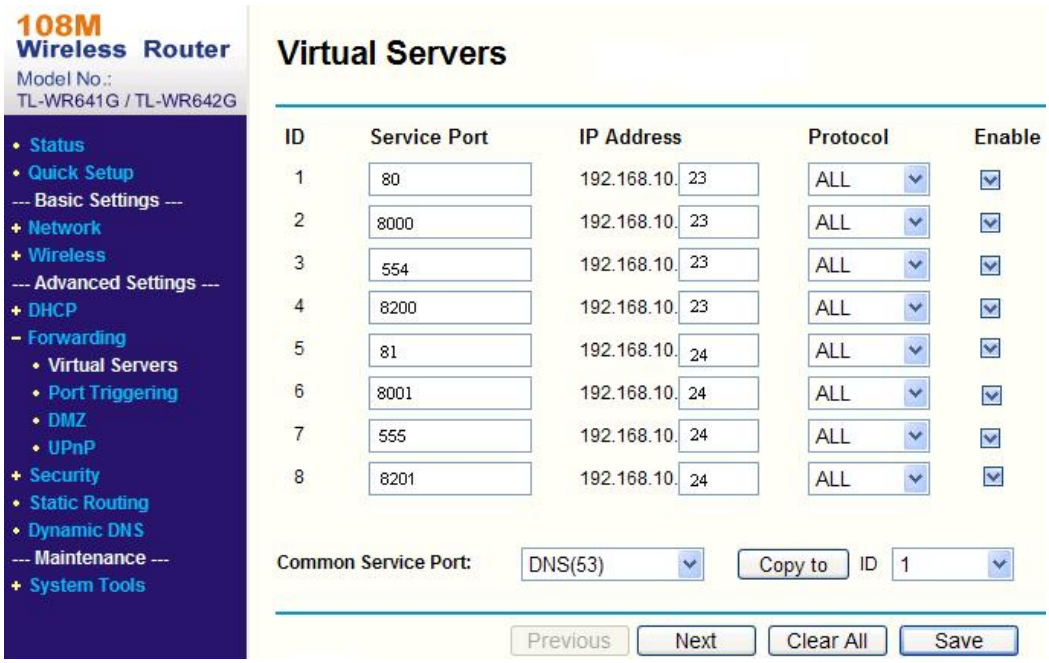


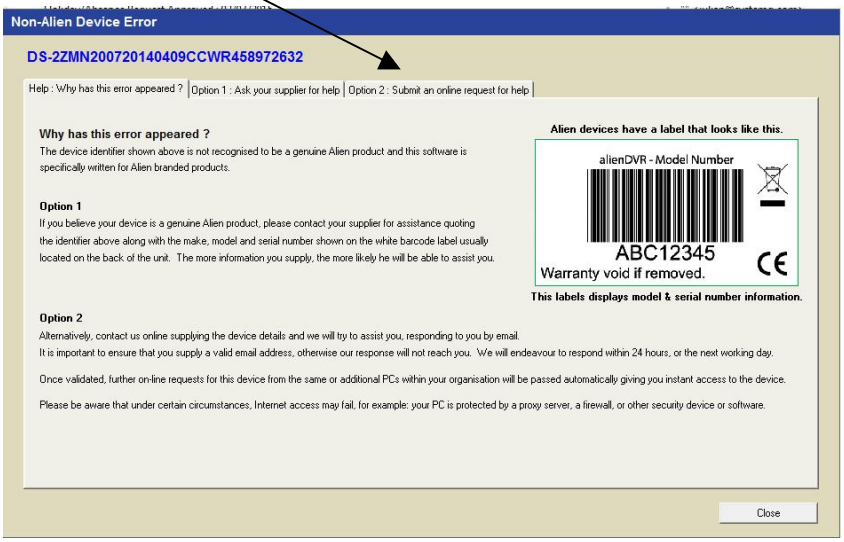
Figure A.2.3 Port Mapping

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

Appendix 3 CCTVWindow

The PTZ643/645 camera can be used with CCTVWindow. This client software is supplied free when you purchase these PTZ cameras. You have licences to load CCTVWindow to up to 5 Windows PCs or Windows laptops. The product code for this software is SOFT920.

Load the client software from the SOFT920 C.D. The software will require you enter the software key on the C.D This is in the format of SYSQ-xxxx-xxxx-xxxx (where xxxx relates to numeric key on CD). When the display Non-Alien Device Error is displayed select Option 2 to submit an online request for help that this will register the product.

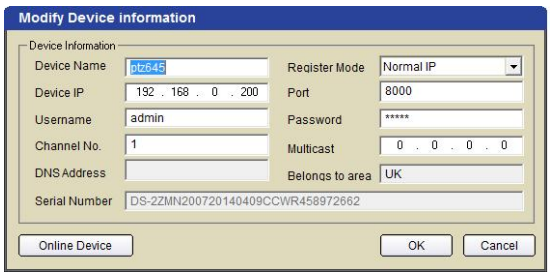


To initiate CCTVWindow go to the desktop. Double click icon to initiate the software.

Enter user **admin** and password **123456**. The Preview screen will now display.

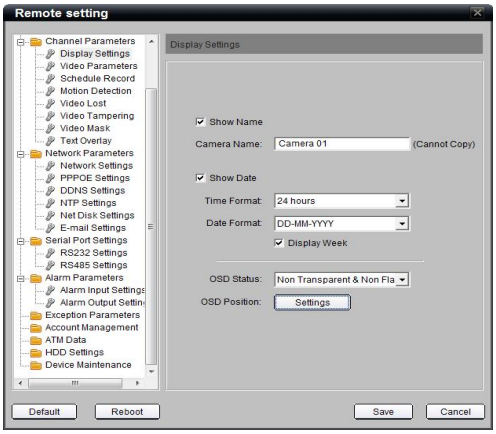
Click on Setup then double click the Alien Icon Logo to the left of DVR name to display Modify Device Information and enter the local IP address, port 8000, the user and password in the IP-PTZ643W/645W and channel number set to 1, then click OK.

Note: (default User = **admin** Password = **12345**)



Then click on Preview and double click the Alien Icon to display the video.

To access the CCTVWindow settings for the camera, click on Setup and single click the Alien Icon to the left of the PTZ camera name, the Remote Settings box in the centre of the screen display will display in heavy type and clicking this will provide access to the camera settings.



Note that details of these parameters are documented in the CCTVWindow instruction manual that is on the software CD or on your PC when you load CCTVWindow, in C:\Program Files(x86)\CCTVWindow\Docs\CCTVWindow-Software-Manual.pdf.

WEE/CG0783SS

This symbol on the products and/or accompanying documents means that used electronic equipment must not be mixed with general household waste. For treatment, recovery and recycling please return this unit to your trade supplier or local designated collection point as defined by your local council.

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