IPC Online Operation Manual

1 Overview

An IP camera (hereinafter referred to as IPC) is a new product integrating network video technologies into a traditional camera. The IPC can realize simpler monitoring (particularly remote monitoring), easier construction and maintenance, better audio and alarm linkage, more flexible record storage, more enriched product selection, much clearer video effect, and more perfect monitoring management. In addition, the IPC supports access by WiFi, 3G and optical fiber, and PoE (Power over Ethernet, or network power supply).

With the rapid development of network, network products have gradually spread to every corner of our life. The developing and innovative IPC has been widely applied to the education, commerce, medical treatment, public services, and other fields.

Common audio and video cameras used at the places such as banks, supermarkets, companies, residences, and households have gradually replaced by IPCs whose videos can be uploaded to the network. You can view public or private real-time pictures or dynamic videos at home or any place where network is available.

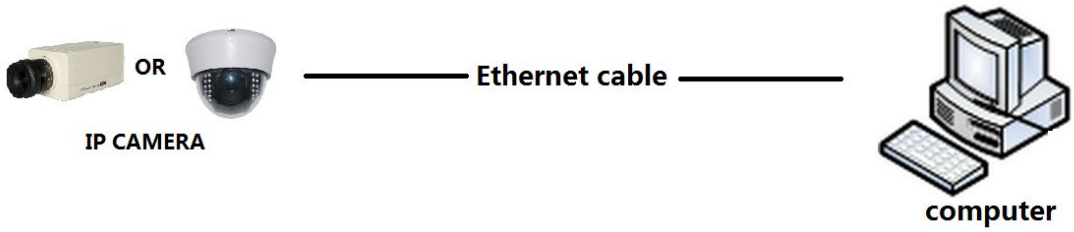
The company has launched multiple IPC modules whose specifications are listed in the table below:

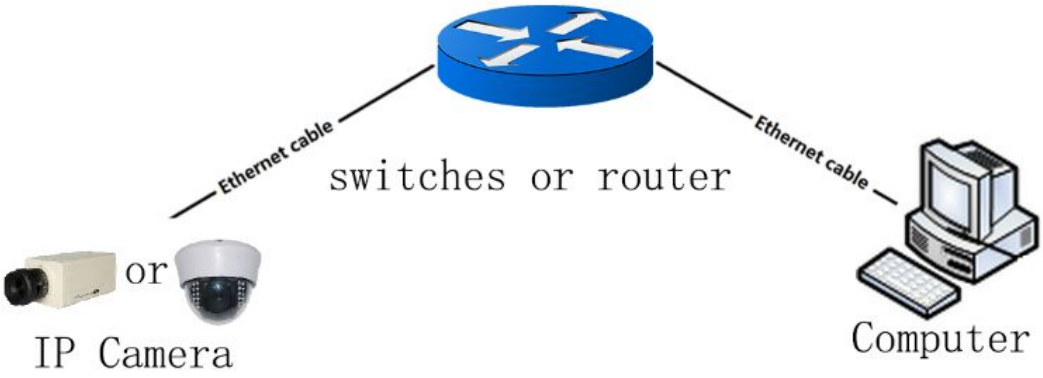
Product Name	B17	B13	B14
Master Chip	Hi3518C		
Sensor	OV9712	AP0130	GK1401
Sensor Pixel	100M	130M	100M
Dimensions	1/4	1/3	1/3.8
Electronic Shutter	1/5–1/15000 S		
Compression Mode	H.264		
Resolution	1280*720: 30 fps; 640*360: 30 fps; 160*112: 30 fps		
Video Stream	Dual stream		
Bit Rate	32Kbps–8192Kbps		
Encoding Type	CBR (Constant Bit Rate) and VBR (Variable Bit Rate)		
S/N Ratio	≥50db		
2A Video Algorithm	AWB (auto white balance), auto exposure		
Video Enhancement	Backlight compensation, brightness, contrast and hue adjustment		
Privacy Mask	Up to four regions		
Text Overlay	Customizable		
Video Mirror	Horizontal and vertical		
Video Device	1-ch MIC input/1-ch LINE_OUT		
Audio Performance	Two-way voice talkback		

Audio System	G.711/G.726
Local Storage	Expansible MIN_SD card interface
Alarm I/O Interface	1-ch input and 1-ch output
Alarm Method	Motion detection: sets motion detection regions and triggers motion alarms.
Alarm Processing	The control center undertakes monitoring and transmits alarms to the presets: sends emails with snapshots, keeps records in logs, and saves records and snapshots to a local directory.
Network Interface	Ethernet (10/100M BASE-T), RJ-45 interface
Network Service Protocol	TCP, UDP, HTTP, SMTP, DHCP, DHS, DDNS, ARP, ICMP, SMTP, POP3, NTP, RTP, RTCP, Pelco-D
WiFi Interface	Optional
Network Security	IP filter, user-class password protection, user access logs
Web Server	Micro internet Explorer6.0 or later, GOOGLE, CHROME, FIREFOX, etc.
Software Management	Multi-channel remote network monitoring management system, ONVIF (Open Network Video Interface Forum) compatible with each platform software
Mobile Phone Monitoring	iPhone and Andriod mobile monitoring
Remote Access	DDNS and P2P remote access
Power Supply	DC12V/1A
Operating Temperature	

2 IPC Setting

2.1 Connection Mode





As shown in the figures above, IPCs can be connected in two ways.

2.2 Operation Steps

Note: Before operation, set the computer as follows:

Select **Start > Control Panel > Network Connections > Local Area Connections** > **Properties**, and on the pop-up screen, click **Internet Protocol (TCP/IP) > Properties**, select **Use the following IP address**, type the IP address 1**92.168.1.X** (X ranging from 2 to 10 is recommended) and the subnet mask **255.255.255.0**, and click **OK**.

Set the computer in the above way when browsing IPCs via Web and Client as described in sections 3.2 Browsing via Web and 3.3 Browsing via Client.

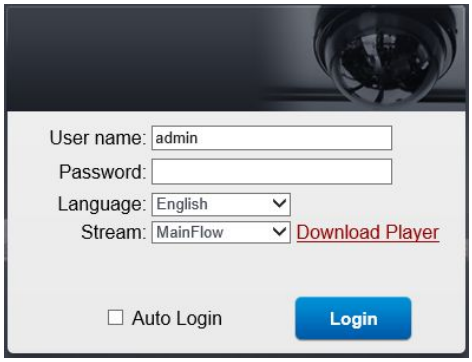
2.2.1 Login

- Start a browser, such as Internet Explorer and QQ browser.
- Type the IP of the IPC in the address bar.

  Note: The default IP of the IPC is 192.168.1.136.
- Press ENTER to open the login screen.
- Type the IPC user name in the first field.

  Note: The default user name of the IPC is admin.
- Type the IPC password in the second field.

  Note: The default password of the IPC is admin.
- Click the **Login** button.

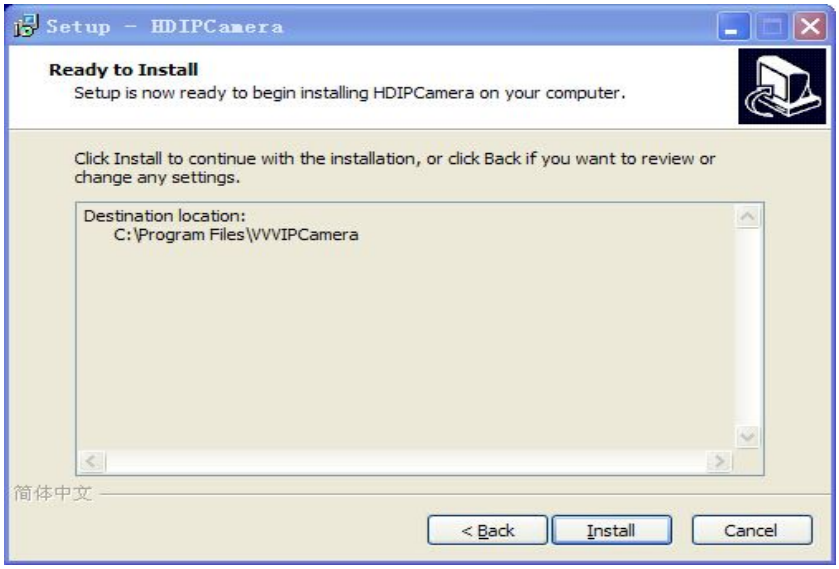


2.2.2 Control Installation

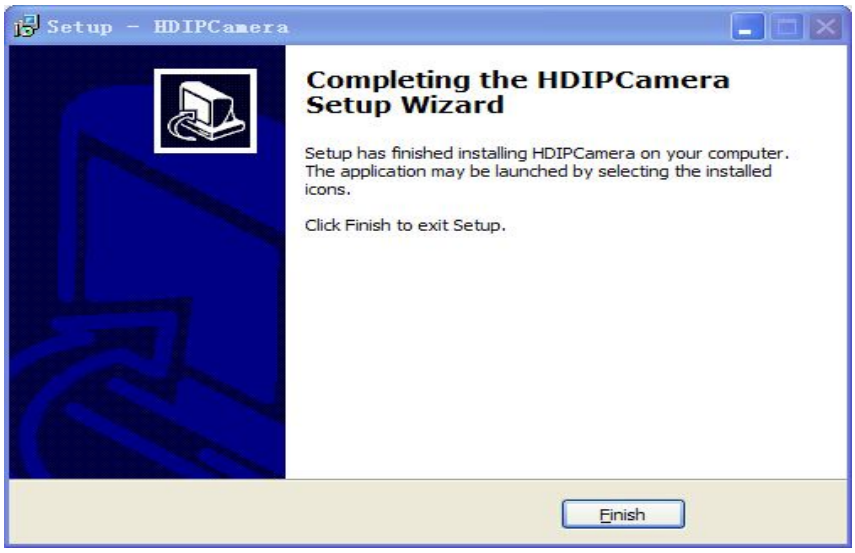
Upon login, the system prompts you to install a control for the initial access to the IPC. Click the **Download Player** option on the preceding screen.

- Double-click **HDIPCamera.exe**.

- Click **Next** continuously till the following screen appears.



- Click **Install**.



- Click **Finish** to complete control installation.

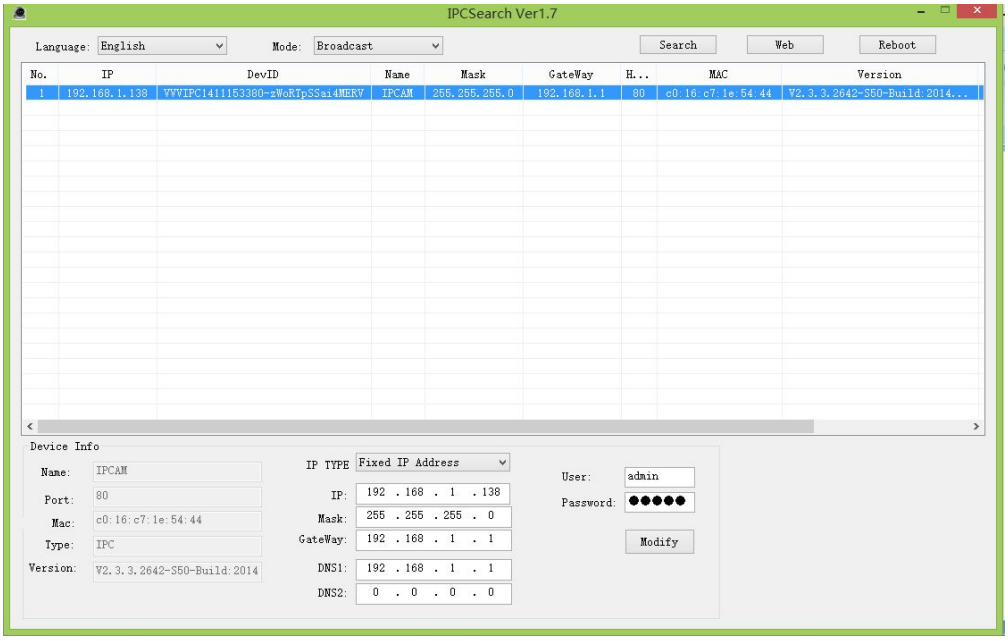
2.2.3 Searching the IP of IPC in the LAN

The software tool **IPCSearch.exe** can be used to search the IP in the LAN.

Multiple IPCs can be connected in the LAN.

Perform the following steps:

- Run **IPCSearch.exe**, click the **Search** button to display the IP of connected IPCs in the LAN, as shown in the figure below:



1. Double-click the desired device to open the Web page.

2. Select the desired device and click the **Web** button to open the Web page.

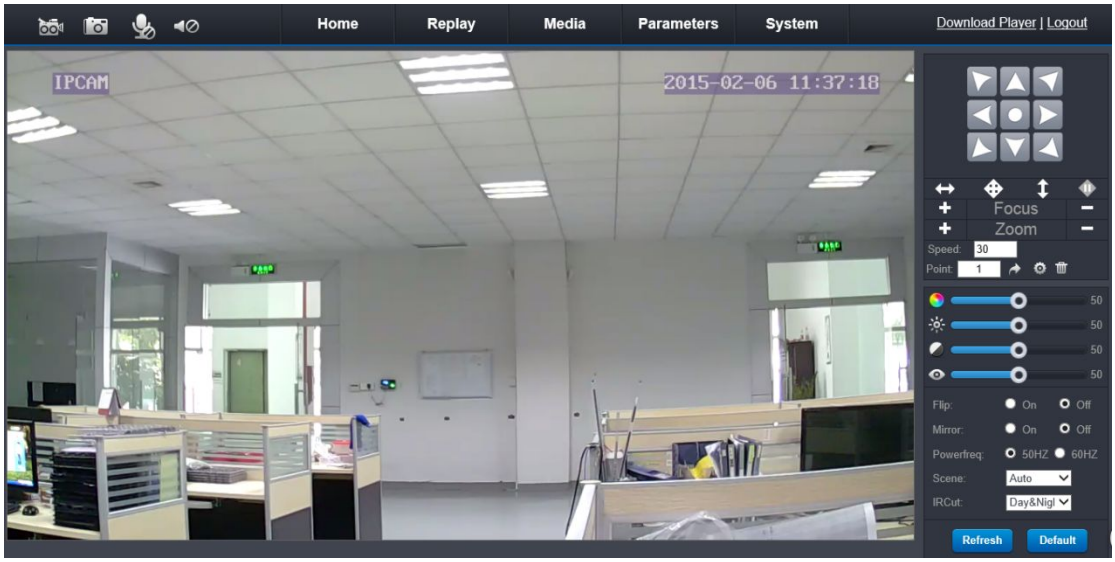
- Remember the searched IP to browse or set the IPC via Web or Client. (Refer to sections 2.2.4 Changing IP, 3 Browsing IPCs in the LAN, and 4. Remotely Browsing IPCs)

2.2.4 Changing IP

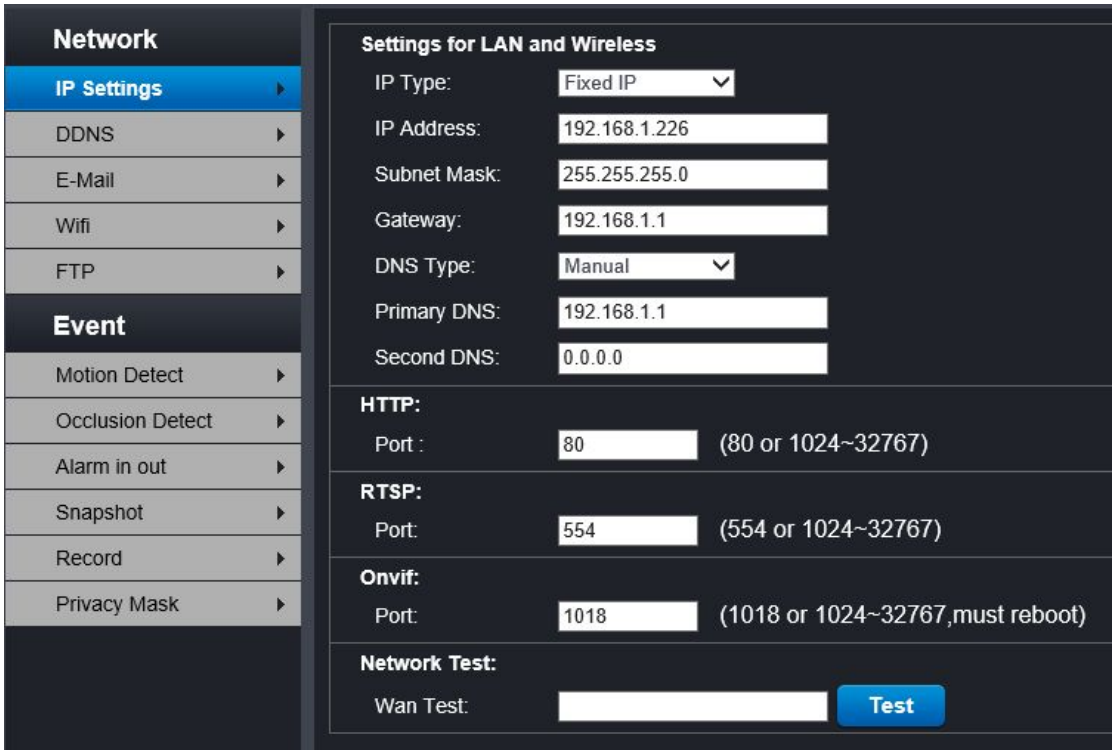
Note:

- If only one IPC is available in the same LAN, it is not recommended to change its IP.
- If two or more IPCs are available in the same LAN, their IPs must be changed to be different.
- Keep a record of the new IP to help accessing the IPC even if the IP is forgotten.

- Upon correct control installation and login, the following screen appears.



- Click **Parameters > Network > IP Settings** to go to the following screen.

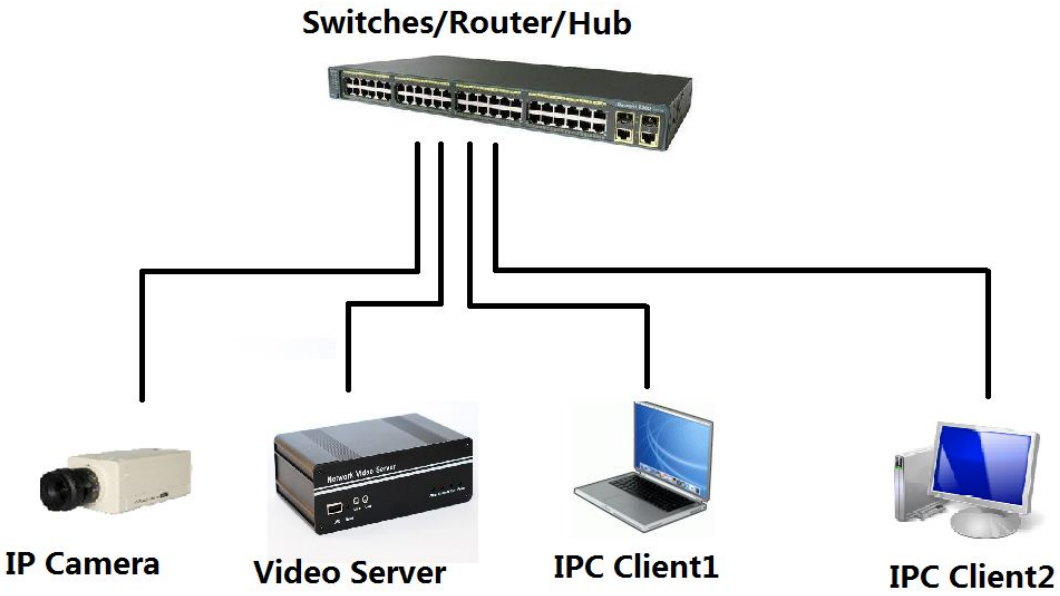


- Change the IP in the **IP Address** field.
- The IP address is changed successfully.

3 Browsing IPCs in the LAN

3.1 Overview

Common networking in the LAN is as shown in the figure below.



You can browse IPC images in the LAN in any of the following ways:

- Web
- Client
- NVR

These methods will be introduced in the following sections.

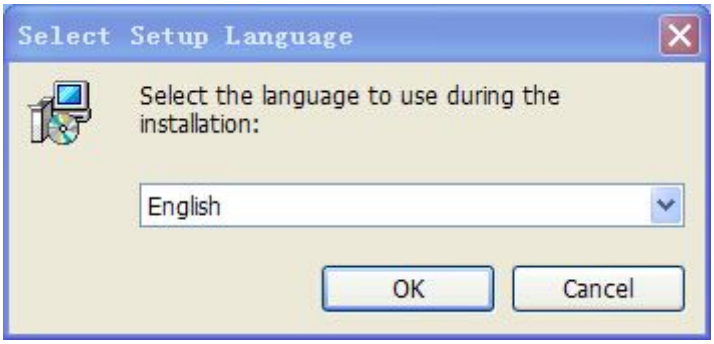
3.2 Browsing via Web

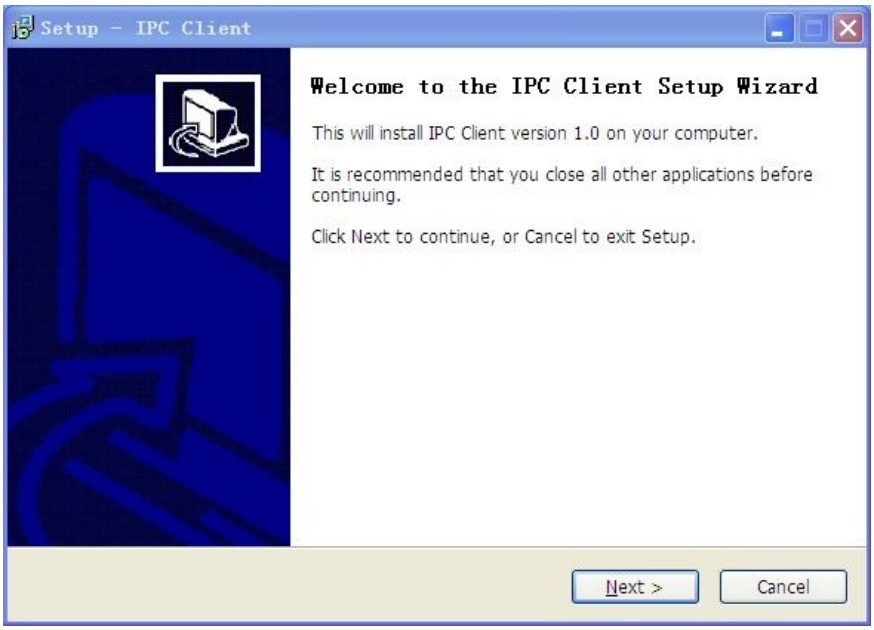
- Log in to the IPC by referring to section 2.2.1 Login.
- If the control is installed on the computer, install the control by referring to section 2.2.2 Control Installation.
- Then, you can browse IPC images, control and set the IPC.

3.3 Browsing via Client

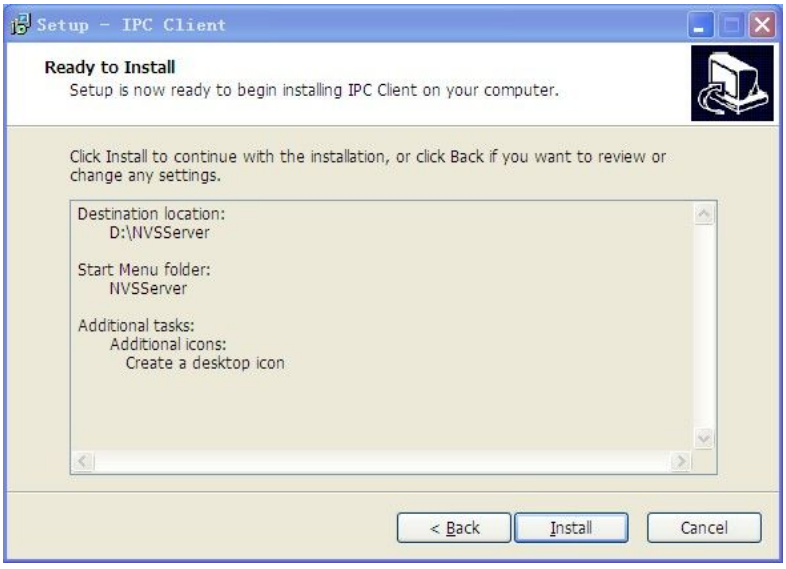
3.3.1 Installation

- Run **setup.exe** in the attached compact disc.
- Select the desired language, **English** for example, and click **OK**.

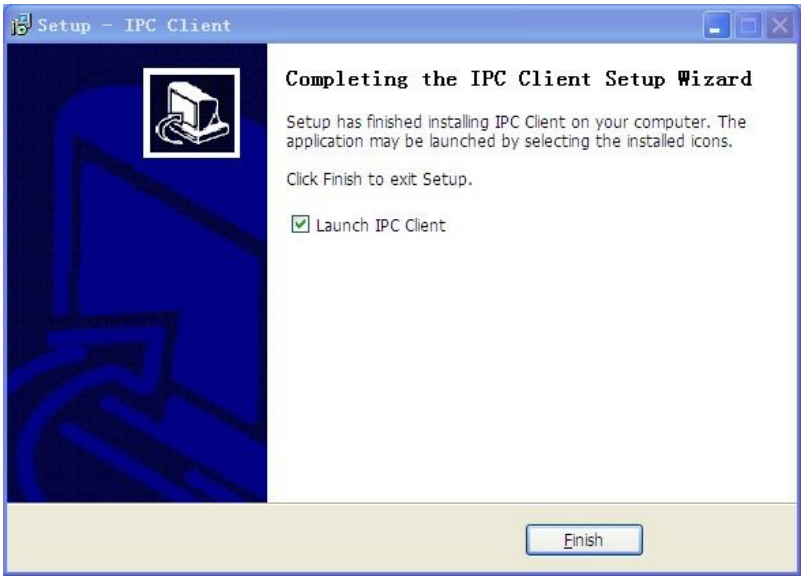




- Click **Next** continuously till the following window appears.



- Click the **Install** button and wait for the following window.



- Click the **Finish** button to complete installation of the client.

  Note:

  - Upon installation, the computer runs the client immediately.

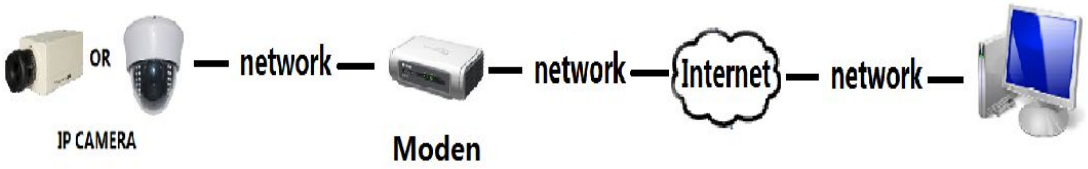
3.4 Browsing via NVR

Refer to the *NVR User Manual*.

4. Remotely Browsing IPCs

4.1 Overview

Remote access is to access IPCs in the WAN (Wide Area Network), and the common networking is as shown in the figure below.



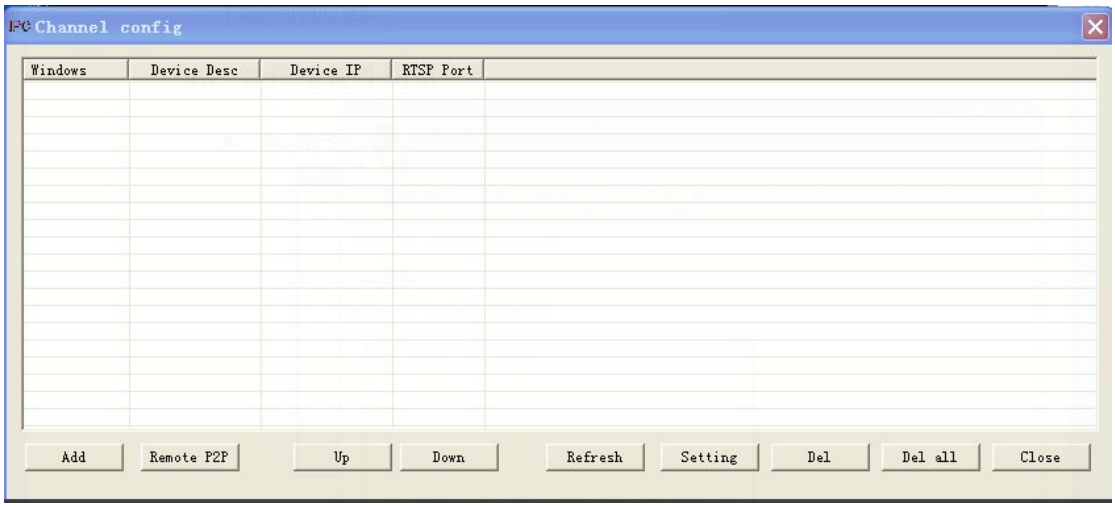
Remote access can be realized in any of the following ways:

- Client
- Mobile phone

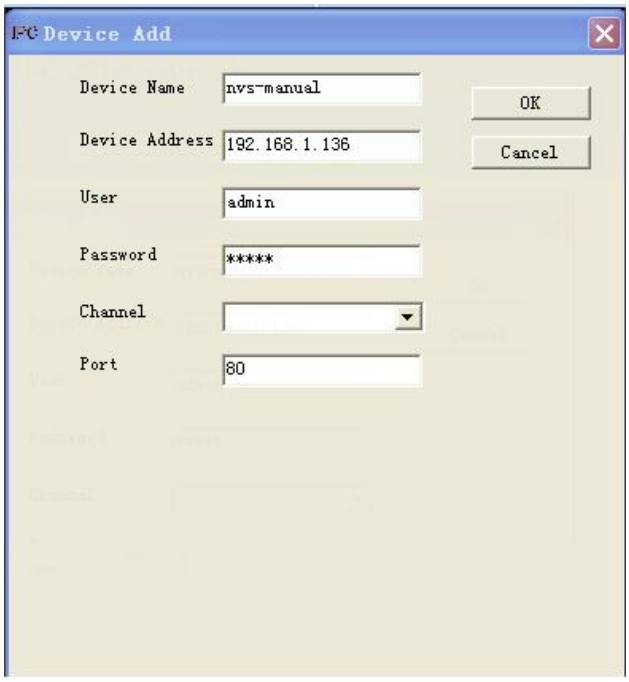
These methods will be introduced in the following sections.

4.2 Browsing via Client

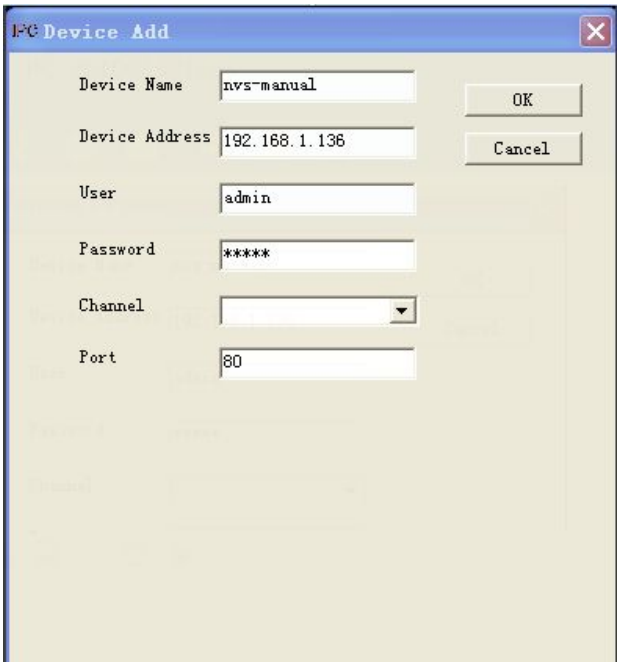
- Run the Client and click **Add Device** to open the following screen.



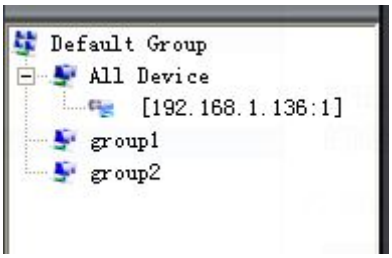
- Click the **Add** button to open the following screen.



- Enter **Device Name** (named at will), **User (**admin by default), **Password** and **Device Address**, as shown in the following screen.



- Click **OK** to present the icon of the camera in the device list as shown in the figure below.



- Drag and drop the camera to any playing screen to remotely browse its videos.

Note:

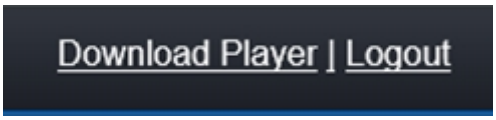
For other functions of the Client, refer to the *Windows PC Client User Manual.*

5 IPC Parameter Setting and Introduction

The IPC Web on the Internet Explorer mainly includes the following functions: **Home**, **Replay**, **Media**, **Parameters**, and **System**. Click the desired button to enter the corresponding function interface.

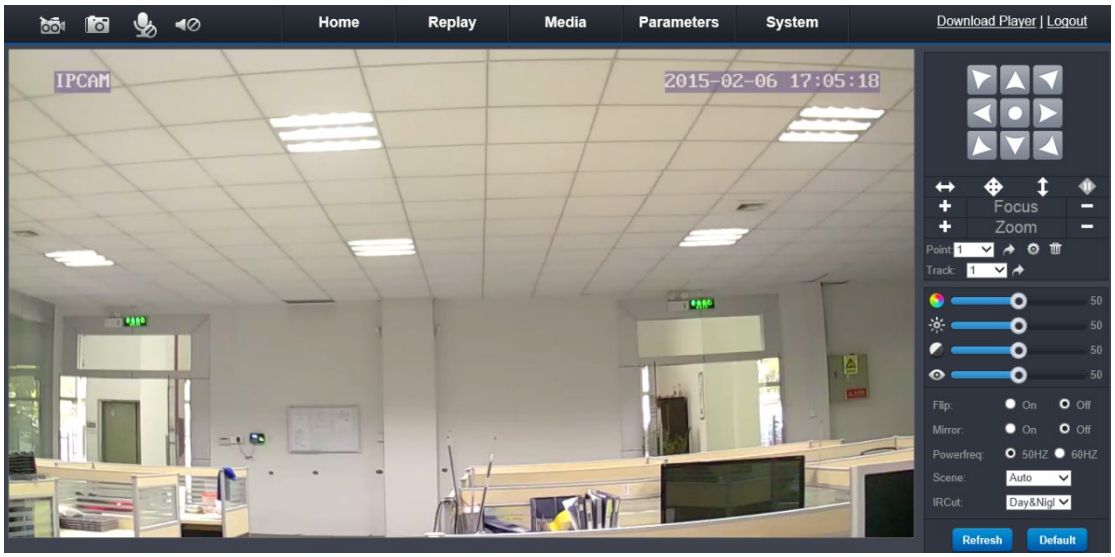
On the upper right corner of the Web, click the **Download Player** option to

download the player and **Logout** to exit and return to the login screen.



5.1 Home

Upon login to the camera, the Home page appears by default, where the middle section is the video image, the top section shows function buttons, and the right section shows the operation panel. Detailed functions are described below:

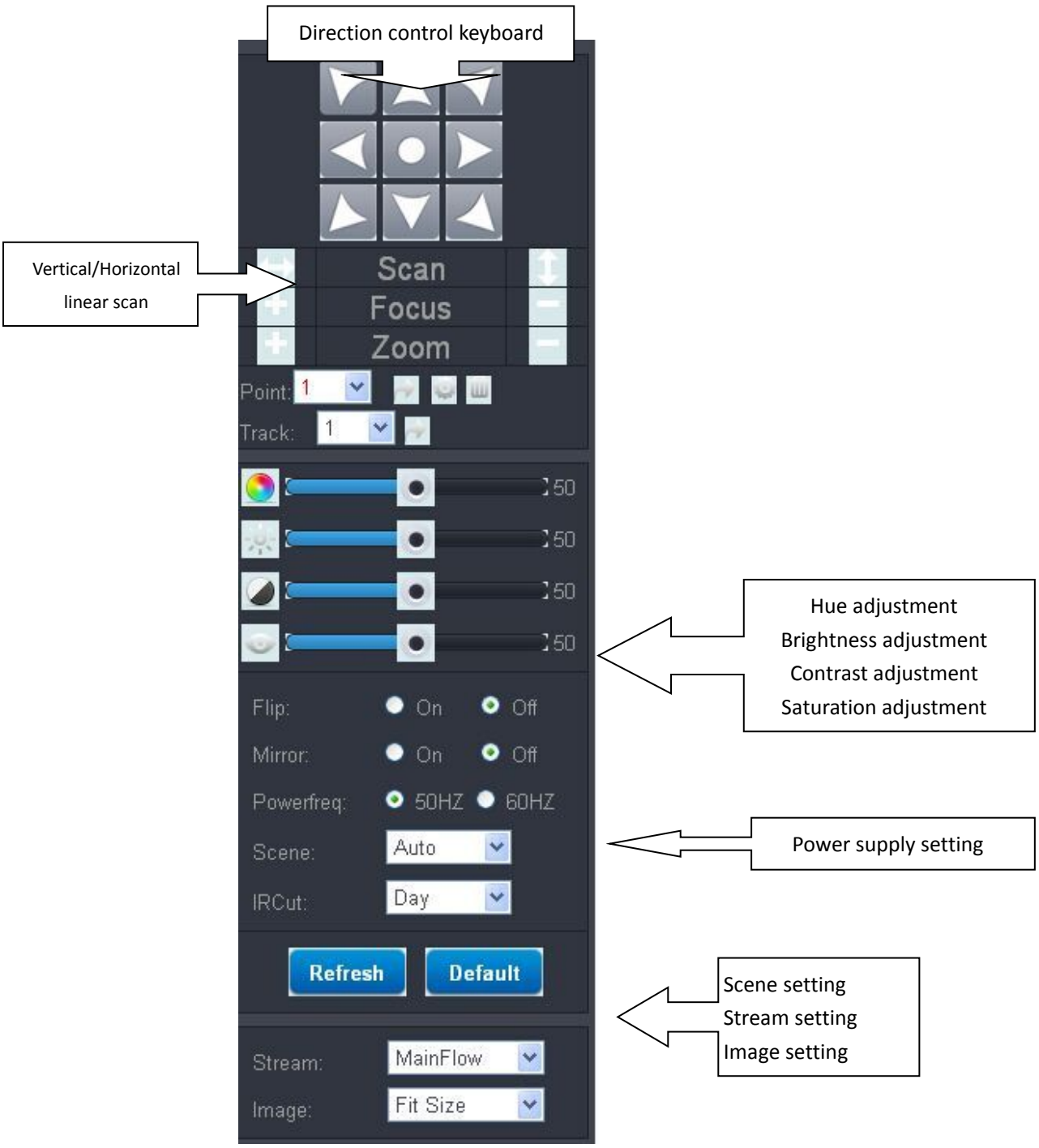


 Recording: Click the button to turn it red and open the local storage dialog box to save video files to a local folder.

 Snapshot: Click the button to take a snapshot of the current screen and open the local storage dialog box to save the picture to a local folder.

 Talkback: Click the button to enable talkback and hide the red icon, so voices can be sent from the computer to the camera.

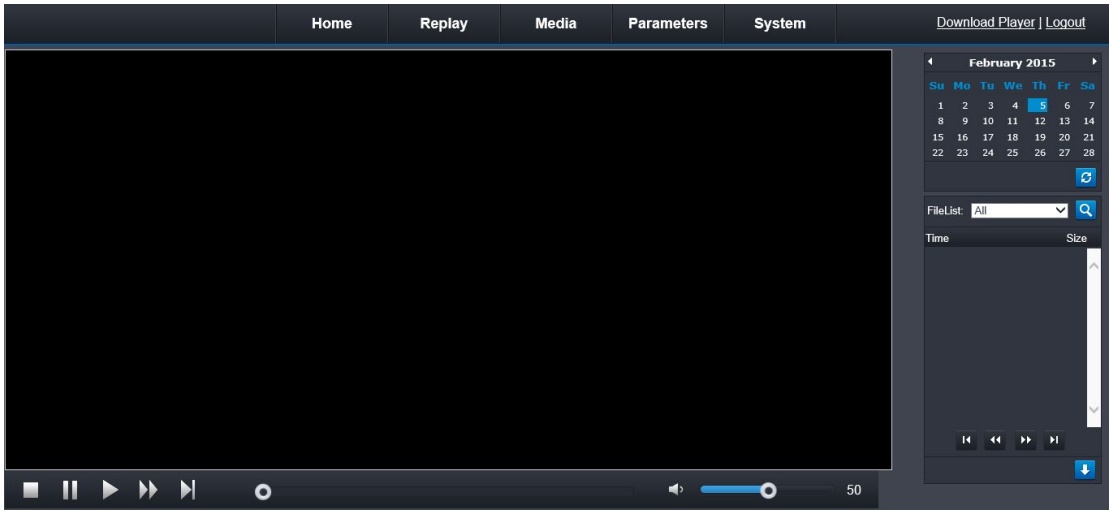
 Voice: Click the button to turn on the voice and hide the red icon; click it again to turn off the voice again.



Note: Some functions in the control panel are available to high-speed dome cameras only, and other cameras will not display these functions.

5.2 Playback

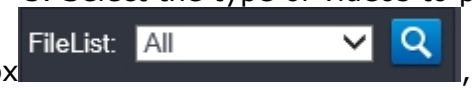
Click the **Playback** button in the navigation panel to enter the playback screen, as shown in figure below.



5.2.1 Searching Playback Files

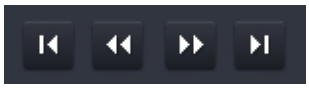
1. Click the  button on the right to see the red date(s) with records.

2. Select the date to search videos.

3. Select the type of videos to play in the drop-down list box 

, and click the  button to search videos and display them in the video list.

4. Double-click the video to play in the video list and play it in the playing area.

5.  Click these buttons to go to the first, previous, next, and last page of the video list.

5.2.2 Downloading Videos

Select the desired video file in the video list and click the  button to download the video.

5.2.3 Controlling Video Playing

 Stop: stops the video completely and return to the start point.

 Pause: temporarily stops the playing video.

 Play: plays the video again after pausing, stopping and stepping forward frame.

 Fast play: speeds up playing.

 Play by frame: plays one frame at each click.

 Playback progress bar

Audio adjustment bar

5.3 Media

Media parameters include the video, audio, image, OSD, and PTZ setting.

5.3.1 Video Settings

Click the **Video** button to open the following screen.

Resolution: Set the image size.

Bit Rate: Set the maximum bit rate for data transmission like 2048KBps (2MBps per second for image transmission, or at most 256Kb per second stored on the computer); accordingly, a camera provides at most 0.9Gb records per hour.

Maximum Frame: Set the maximum number of frames per second; for example, 30 frames indicate 30 pictures per second.

Bit Rate Type: Constant bitrate refers to a constant bitrate, and **Variable bitrate** indicates a bitrate changed according to image sizes, where the bitrate decreases under static environment and increases under dynamic environment.

I Frame Gap: Set the interval between I frames.

Norm: **PAL** and **NTSC** are two different systems and the former is usually used in China.

5.3.2 Audio Settings

Encoded Format: Choose among **G711a**, **G711u** and **G726**.

Input Gain: Set the input volume of the camera sound pickup.

Output Vol: Set the output volume of the camera horn.

Main Stream: Turn on or off the audio of the main stream.

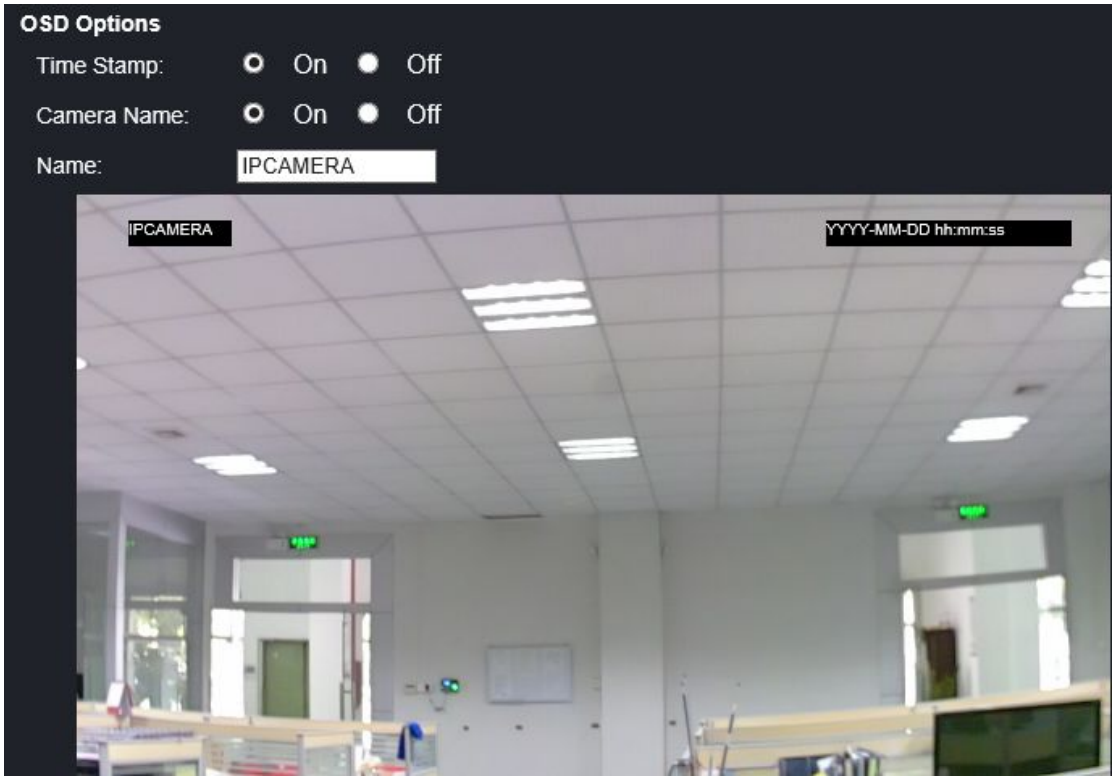
Sub Stream: Turn on or off the audio of the sub stream.

5.3.3 Wide Dynamic Range (WDR)

WDR: Choose among **Off**, **Low**, and **High**.

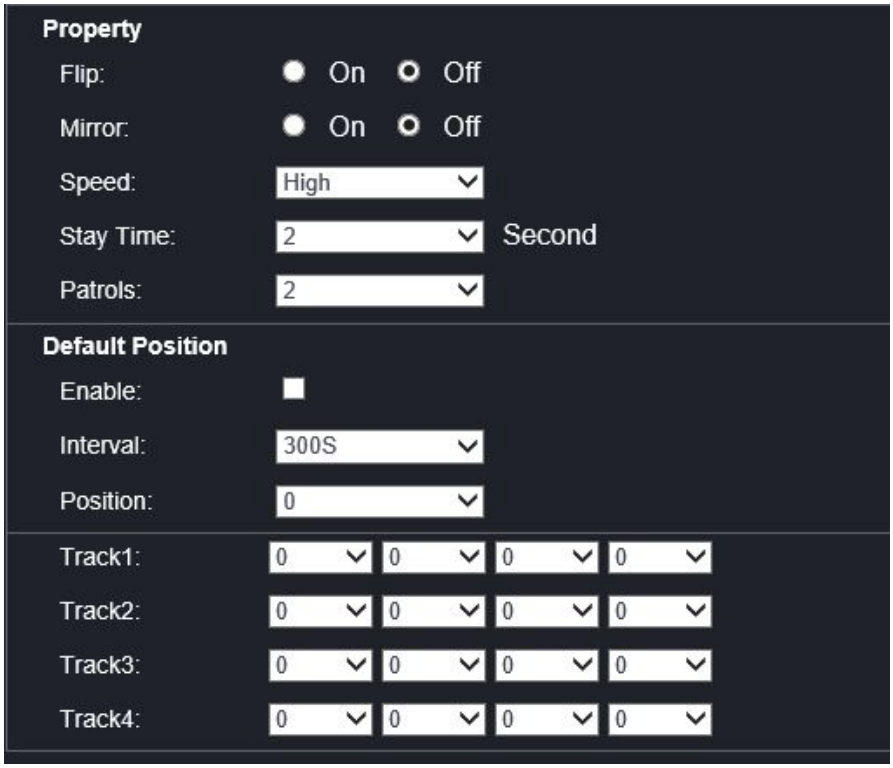
5.3.4 OSD Options

In the **OSD Options** screen, you can choose to switch on or off the time stamp and camera name, customize the name, and move the time stamp.



5.3.5 PTZ Settings (Available for Devices with PTZ Only)

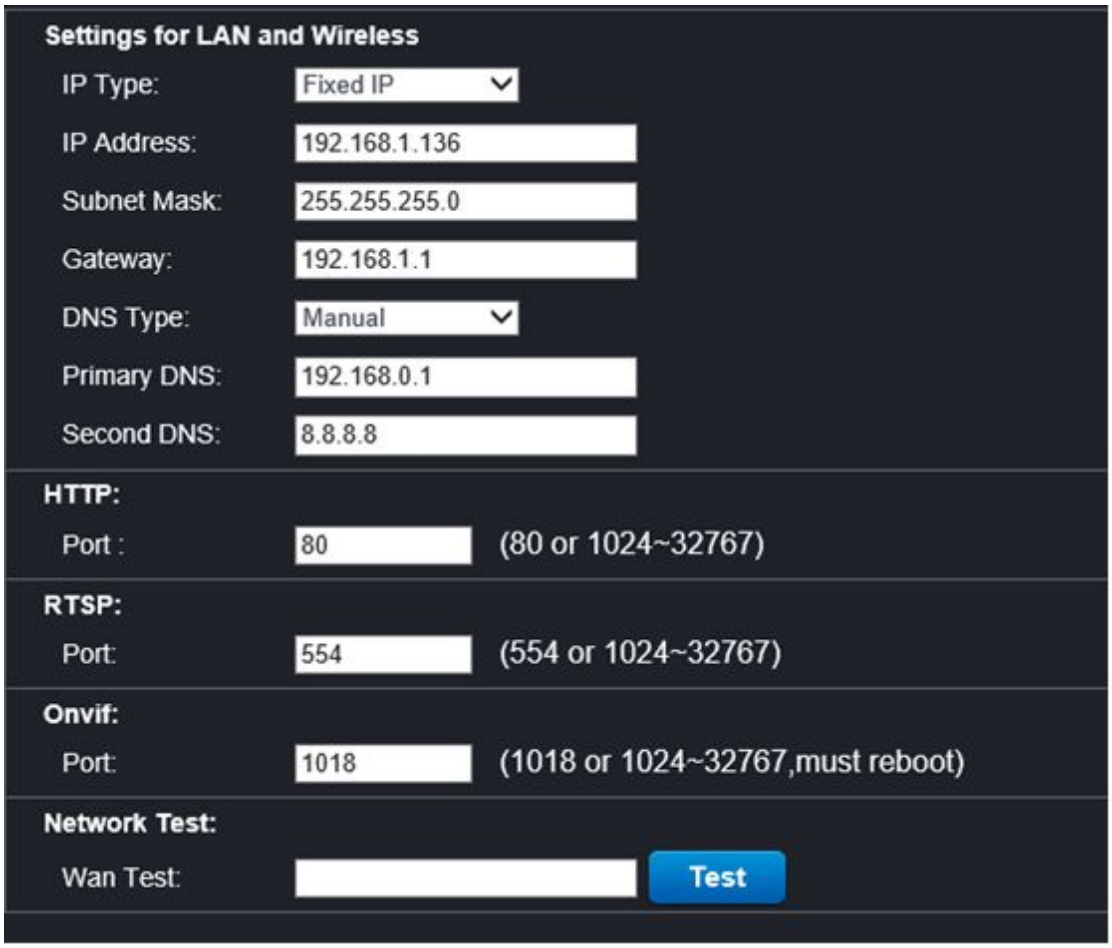
Set the PTZ properties as follows:



5.4 Parameters

5.4.1 Network

Set the fixed IP in the following screen.



IP Type: Switch between **Fixed IP** and **Dynamic IP**; If **Fixed IP** is selected, set the fixed IP for the camera, and if **Dynamic IP** is selected, select **DHCP Service** in the **DNS Type** field so the DHCP server allocates IP to the camera.

IP Address: Display the current LAN IP of the camera.

Subnet Mask: Display the current subnet mask of the camera.

Gateway: Set the IP for accessing Internet devices like routers to enable DDNS (Dynamic Domain Name Server), P2P (peer-to-peer) and other related functions.

Primary DNS: Get the local IP of the DNS (Domain Name Server) from the network provider to enable DDNS, P2P and other related functions.

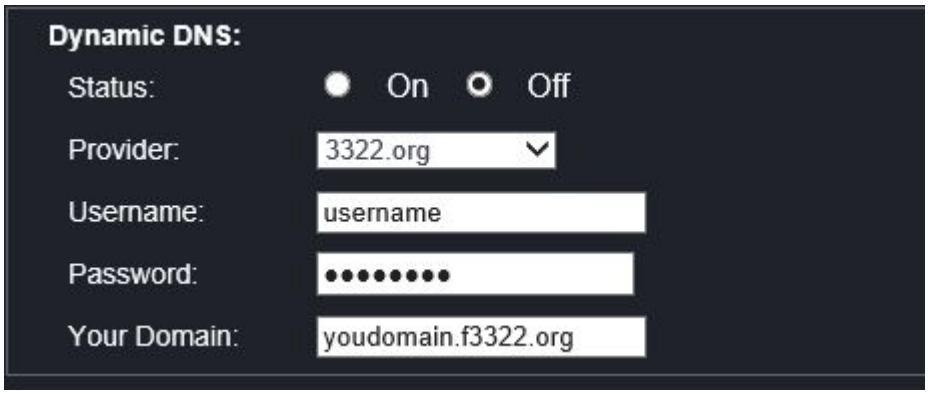
Port:

HTTP: Set the HTTP (Hyper Text Transport Protocol) port for transmitting HTTP data, such as Web application and CGI (Computer Graphics Interface) configuration.

RTSP: Set the RTSP (Real Time Streaming Protocol) audio and video stream port.

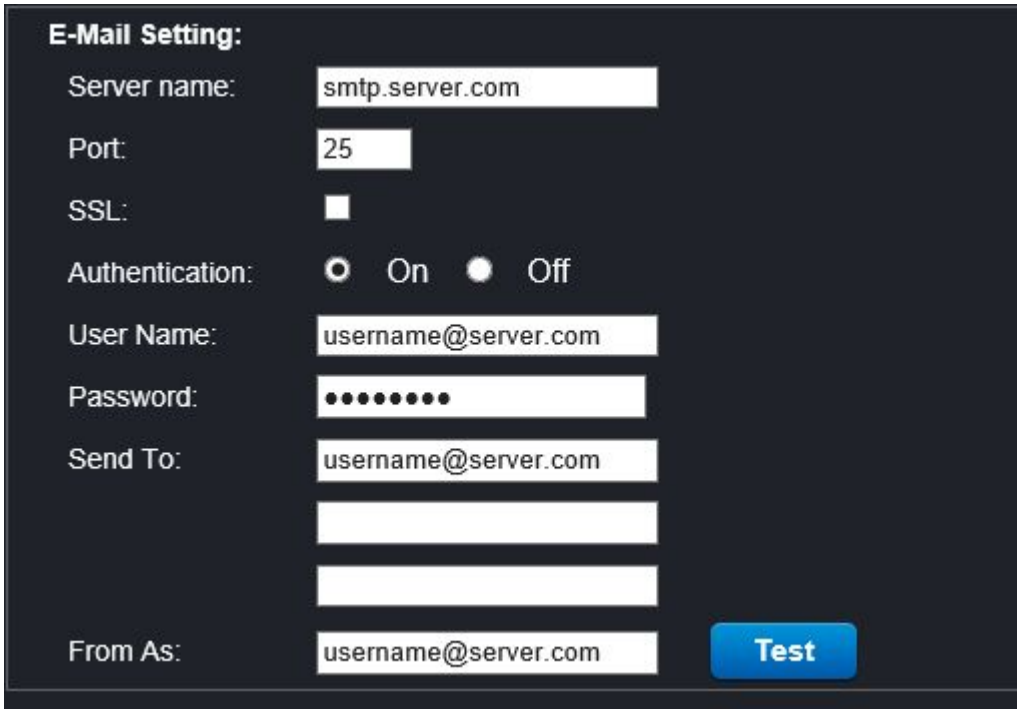
ONVIF: Set the ONVIF port.

5.4.2 Dynamic DNS



Dynamic DNS: Select **On** in the **Status** field to make the bound domain name effective, select a corresponding provider (only the **dyndns** and **3322** domain names are supported at present and no free domain names are available because they are unstable), and type the username and password.

5.4.3 E-Mail Settings

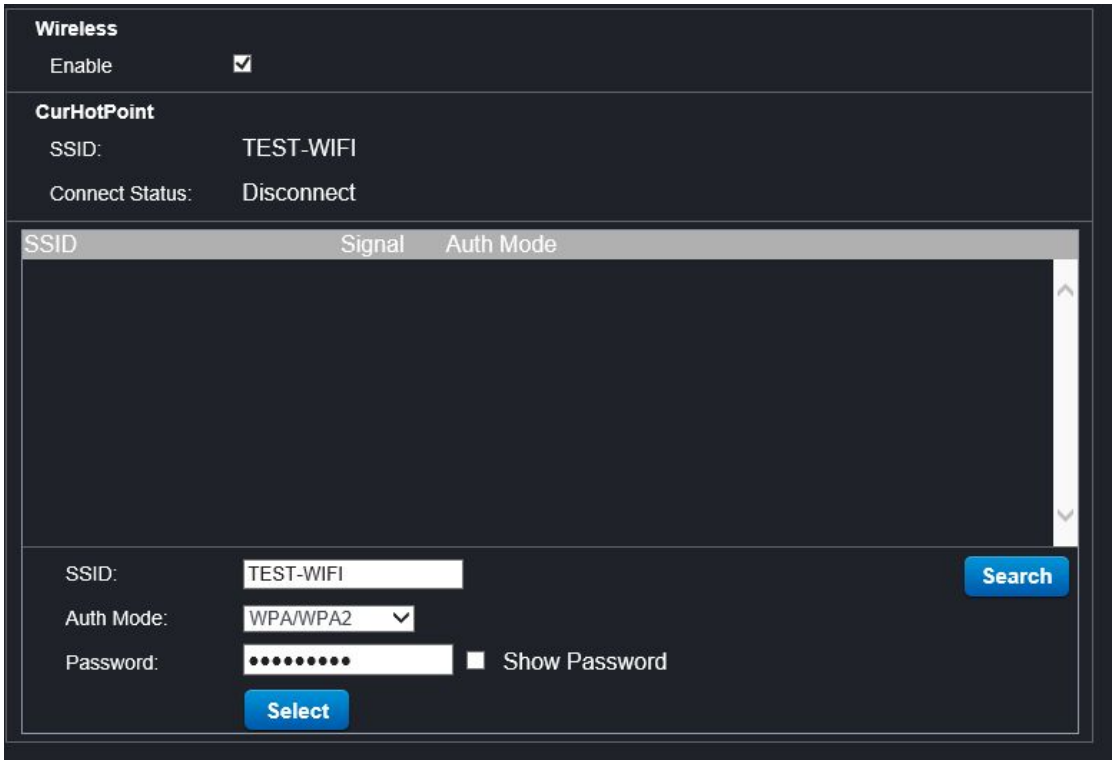


Keep the server name and port by default.

Send To: Set the email of a receiver to receive emails of motion detection alarms.

Test: Click the button to test the settings.

5.4.4 WiFi Settings

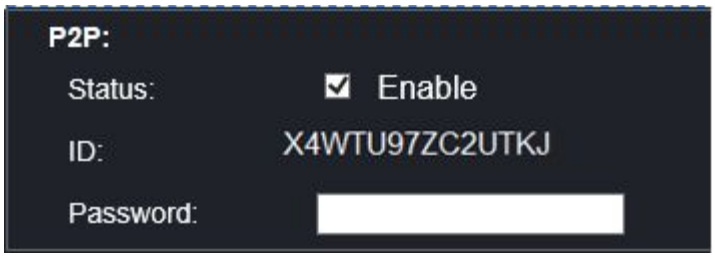


Enable: Select the **Enable** checkbox to enable WiFi.

Search: Click the **Search** button to find WiFi signals around the camera.

Note: WiFi connection is tried only when the webpage is disconnected.

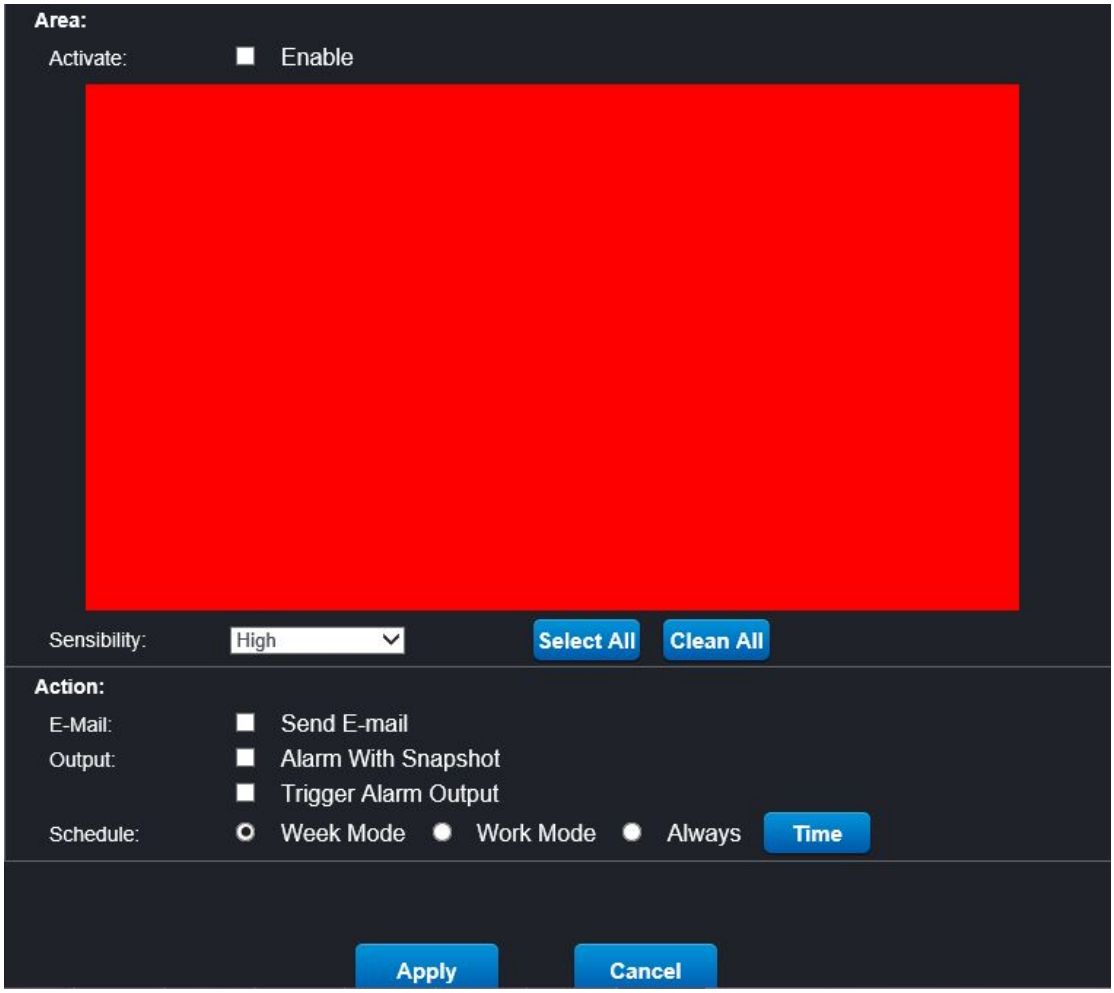
5.4.5 P2P Settings



Status: Select the **Enable** checkbox to enable P2P.

Password: Change the password.

5.4.6 Motion Detection Settings



Sensibility: Select a level of sensitivity for detection.

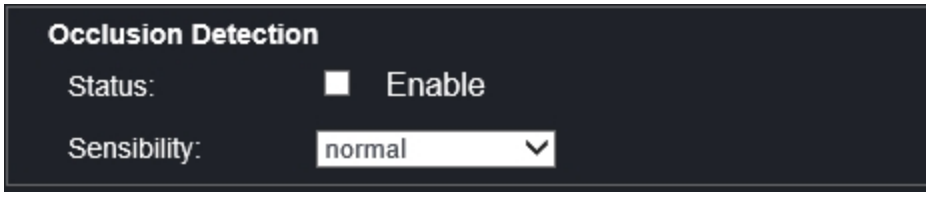
Action: Choose to send snapshots and videos for alarms by email or FTP.

Schedule: Choose among **Week Mode**, **Work Mode**, and **Always**.

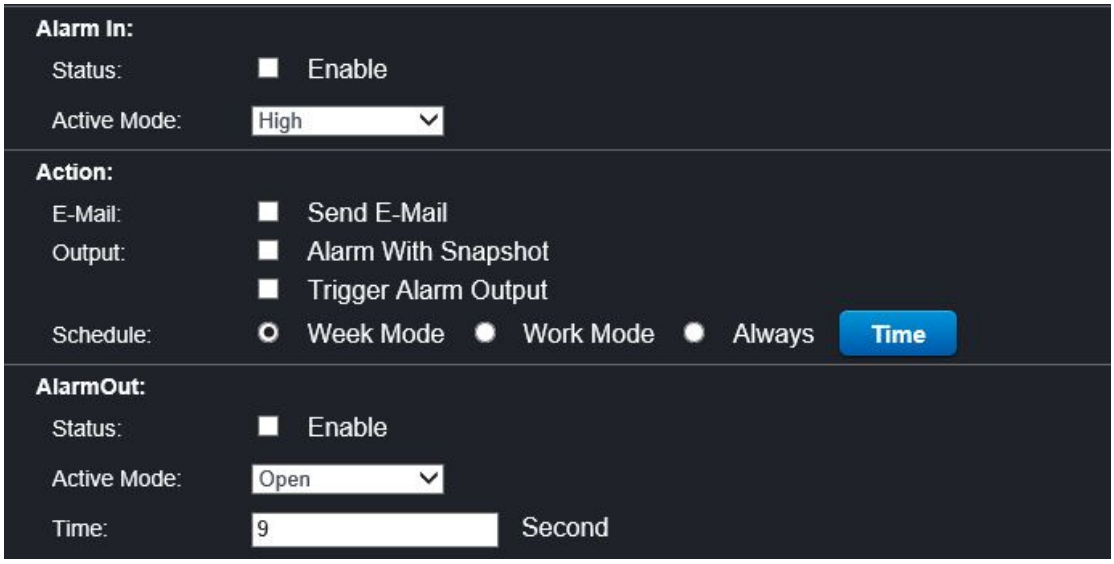
Time: Click the **Time** button to select the time for motion detection.

5.4.7 Occlusion Detection

The system generates an alarm when the camera is covered.



5.4.8 Alarm Input and Output

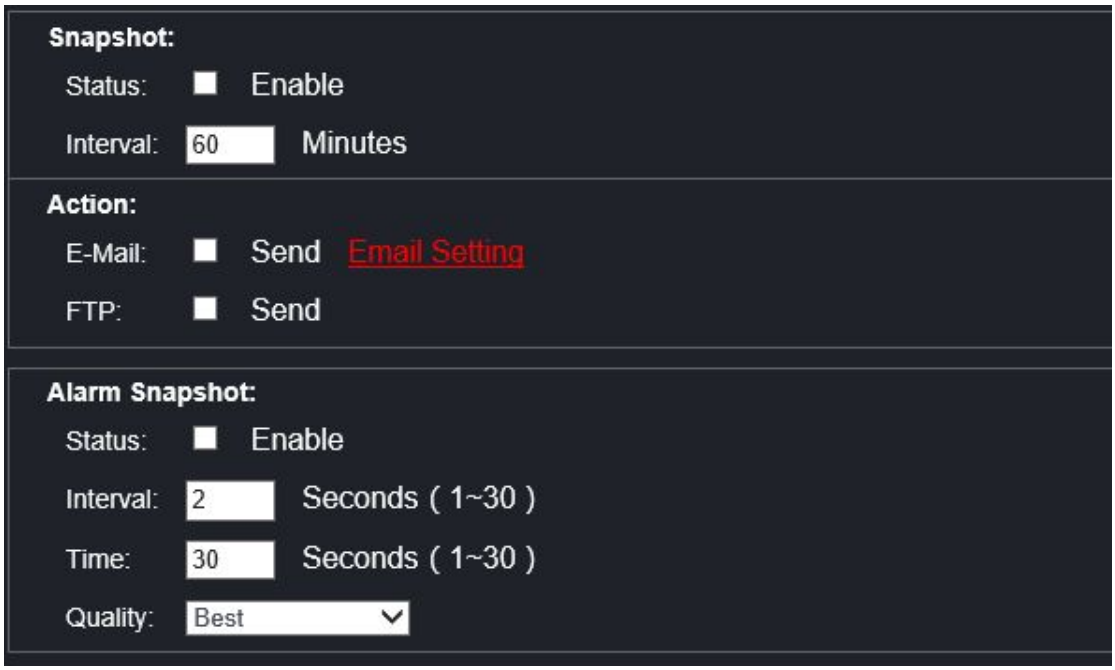


Action: Choose to send snapshots and videos for alarms by email or FTP.

Schedule: Choose among **Week Mode**, **Work Mode**, and **Always**.

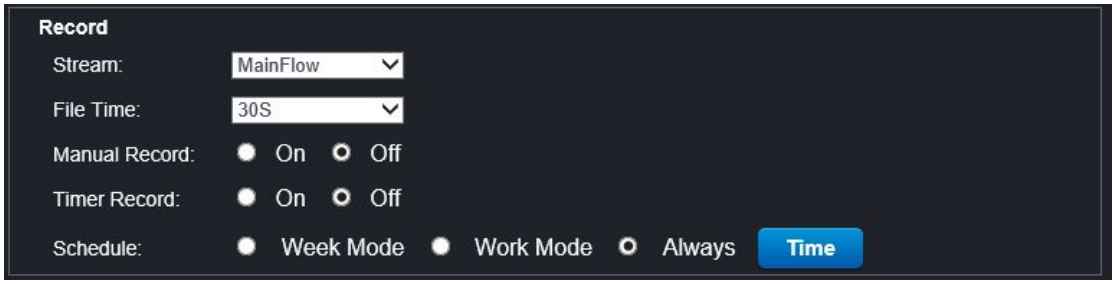
Time: Click the **Time** button to select the time for motion detection.

5.4.9 Snapshot



Set the interval for taking snapshots and choose to send the snapshots by email or FTP.

5.4.10 Record



Record: Save records to an SD card.

Schedule: Select the recording time.

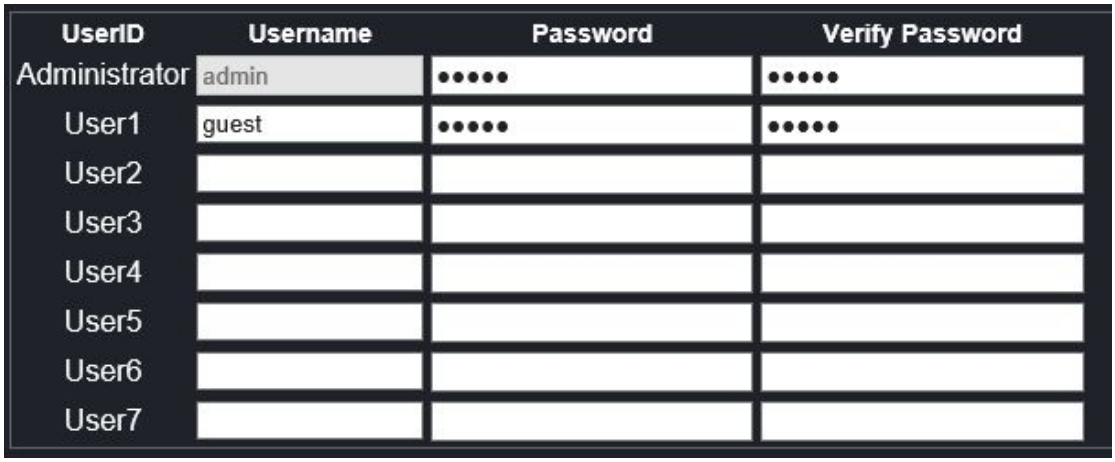
Time: Click the **Time** button to select the time for motion detection.

5.5 System

This is to set **User**, **Time setting**, **Initialize**, **Device info**, **Local Storage**, and **System log**.

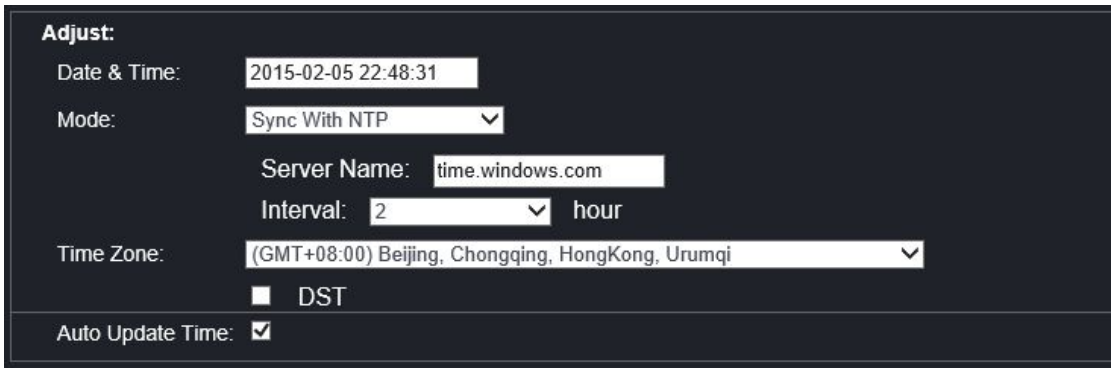
5.5.1 User

This is to change passwords and create users. Account information of the Administrator (admin) cannot be changed and new users are common users.

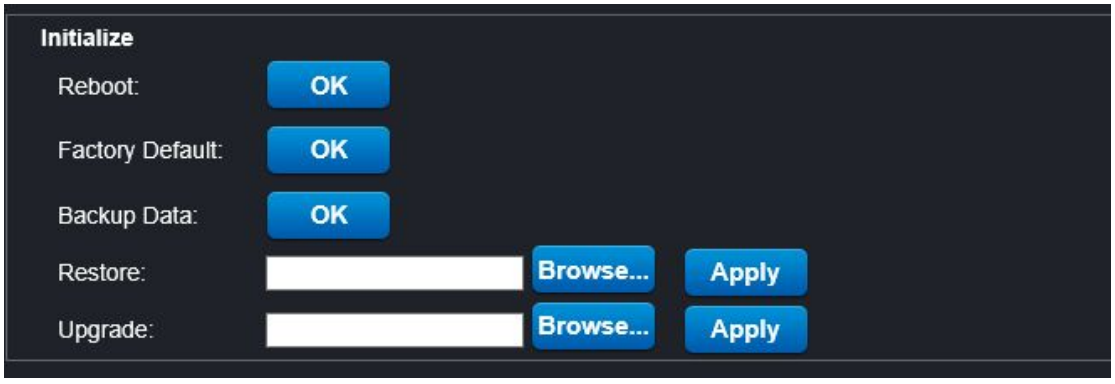


5.5.2 Time settings

This is to adjust time manually, synchronize time with the computer and NTP (network time protocol), and select the time zone as needed. The time zone should be correct. Otherwise, the P2P client may display wrong time.



5.5.3 Initialize



Reboot: Reboot the camera; it takes about one minute for the camera to restart.

Factory Default: Restore default settings; the IP is restored to 192.168.1.128, and you need to configure some parameters after restoring to factory settings.

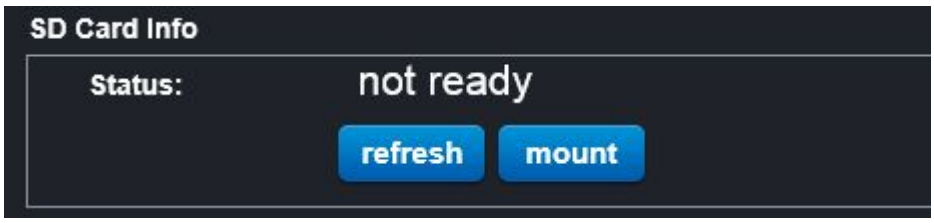
Upgrade: Select the upgrade file and firmware version. For details, refer to

the **Updating your Camera** in the **FAQ** folder.

5.5.4 Device Info

This screen shows the camera name, serial number, versions and network information.

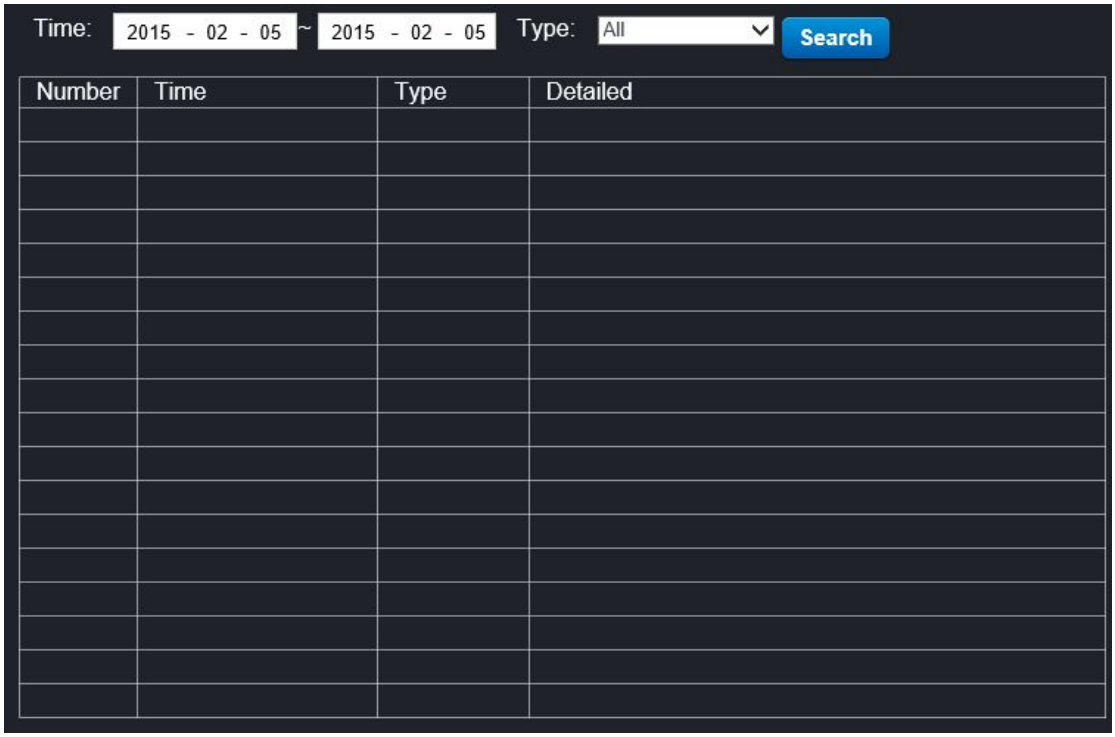
5.5.5 SD Card Info



This is to view the status of the SD card.

5.5.6 System Log

You can check logs saved in an SD card in the camera that records the operation history and motion detection alarms, as shown in the screen below.



Appendix A NVR Adaption Table

No.	NVR	Version	Auto Search	Video	Audio	PTZ	Motion Detection	Auto Time Synchronization
	Dahua		OK	OK		OK	OK	OK
	Zenointel		OK	OK		OK	NO	OK
	Hikvision		NO	OK		OK	NO	NO
	Aevision	I16/V8	OK	OK		OK	OK	OK
	XM		OK	OK		OK	OK	NO
	ANKO		OK	OK		OK	OK	OK