PROVISION ISR

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# IP Series

## CAMERA USER MANUAL

# PROVISION-ISR

# BX-390IP

# User Manual

## 1080P Professional IP Box Camera

For H.264 IP Camera

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# Cautions

- Before operation, we strongly advise users to read this manual and keep it properly for using later.
- Please use the specified power supply to connect.
- Avoid from in correct operation, shock vibration, heavy pressing which can cause damage to product.
- Do not use corrosive detergent to clean main body of the camera. If necessary, please use soft dry cloth to wipe dirt; for hard contamination, use neutral detergent. Any cleanser for high grade furniture is applicable.
- Avoid aiming the camera directly towards extremely bright objects, such as, sun, as this may damage the image sensor.
- Please follow the instructions to install the camera. Do not reverse the camera, or the reversing image will be received.
- Do not operate it incase temperature, humidity and power supply are beyond the limited stipulations.
- Keep away from heat sources such as radiators, heat registers, stove., etc.
- This is product instructions not quality warranty. We may reserve the rights of amending the typographical errors, inconsistencies with the latest version, software upgrades and product improvements, interpretation and modification. These changes will be published in the latest version without special notification.
- When this product is in use, the relevant contents of Microsoft, Apple and Google will be involved in. The pictures and screenshots in this manual are only used to explain the usage of our product. The ownerships of trademarks, logos and other intellectual properties related to Microsoft, Apple and Google belong to the above-mentioned companies.

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# 1 Introduction

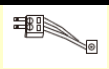
## 1.1 Overview

This IP-CAMERA (short for IP-CAM) is designed for high performance CCTV solutions. It adopts state of the art video processing chips. It utilizes most advanced technologies, such as video encoding and decoding technology, complies with the TCP/IP protocol, SoC, etc to ensure this system more stable and reliable. This unit consists of two parts: the IP-CAM device and central management software (short for CMS). The CMS centralizes all devices together via internet or LAN and establishes a sound surveillance system to realize unified management and remote operation to all devices in one network.

This product is widely used in banks, telecommunication systems, electricity power departments, law systems, factories, storehouses, uptowns, etc. In addition, it is also an ideal choice for surveillance sites with middle or high risks..

## 1.2 Package

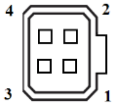
The pictures below are only for reference. Please make the object as the standard.

| *IP-CAM* | *Quick Guide Start* | *CD* | *Terminal Block* | *Mounting Block* | *Screw-driver* | *Screws* |
|---|---|---|---|---|---|---|
| | | |  | | | |

| Accessories | Description |
|---|---|
| IP-CAMERA | The device without Lens |
| Quick Start Guide | The Brief instructions of the product |
| CD | CD-ROM with software and manual |
| Terminal Block | Connect power supply |
| Mounting Block | Fix IP-CAM device on wall or ceiling |
| Screwdriver | A tool to fix the screw of the back focus ring |
| Screws | For installation |

## 1.3 Side Panel for IP-CAM

The pictures are only for reference; please make the object as the standard.




| | DC |
|---|---|
| 1 | Damp- |
| 2 | Damp + |
| 3 | Driver + |
| 4 | Driver - |

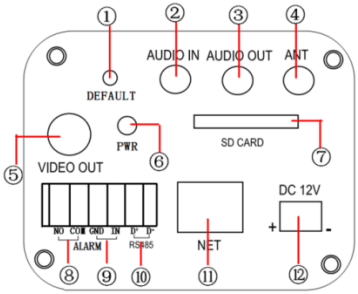
① Focus Adjusting:

When it still fails to realize focusing after having confirmed the correct lens interface, the back focus adjustment may be required. Operate the following steps: tighten the lens firstly and then loose the fixed back focus ring; rotate the lens slowly until the video image turns to be clear, and finally tighten and lock the back focus ring.

② Iris Lens Plug:

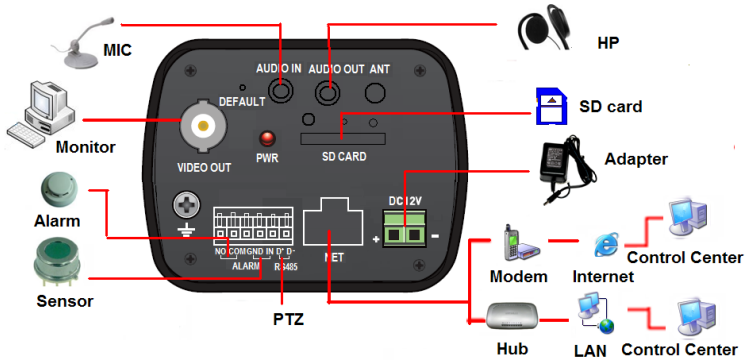
The Camera provides an iris lens plug in negative pattern with four square holes and the definition of pins is shown above. The interface of DC drive auto iris adopts four pins: Damp+, Damp-, Drive + and Drive-.

## 1.4 Rear Panel Connection




| | | | |
|---|---|---|---|
| 1 | Reset key | 7 | SD card slot |
| 2 | Audio input port | 8 | Alarm output port |
| 3 | Audio output port | 9 | Alarm input port |
| 4 | Reserved antenna port | 10 | Connect to PTZ |
| 5 | Video output port | 11 | Network port |
| 6 | Power indicator | 12 | Connect to Power |

The connection of IP-CAM is shown below:




User can connect the PC and IP-CAMERA in accordance with above picture. Before connecting, please connect external devices, and then connect the power.

The connection step as shown below:

**Step 1:** Connect IP-CAM firstly.

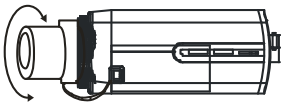
**Step 2:** Internet line connect to Internet transfer equipment or devices

**Step 3**: Connect power cable to a power outlet.

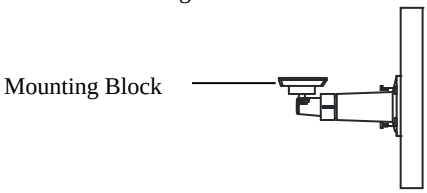
# 2 Installation

## 2.1 Wall Mounting

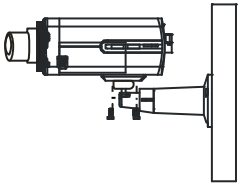
Step 1: Rotate the lens clockwise onto the lens mount of the camera.
Step 2: Plug the wire of auto iris lens to the auto iris interface of the camera.



Step 3: Connect the power supply and video output.
Step 4: Attach the mounting block to the bracket and then install the bracket to the wall and tighten the screws to fix it as shown below. Please make sure that the wall is strong enough to withstand three times the weight of the camera.




Step 5: Attach the camera to the bracket with the mounting block and then tighten the screws to fix it.



## 2.2 CMS and IP-Tool Installation

Find CMS software from CD and then double click “Setup.exe” file to pop up installation wizard.
Install the software according to the prompts in the wizard. After you complete the installation, you will see the CMS and IP-Tool icon on the desktop. Please see the user manual of this software for more details.
If you need to install IP-Tool separately, please double click IP-Tool installation package and install it according its wizard prompts. After you finish installing, double click IP-Tool icon to start IP-Tool.

# 3 IE Connection

User can connect IP-CAM through LAN or WAN. Here only take IE browser (6.0) for example. The details are as follows.

## 3.1 LAN

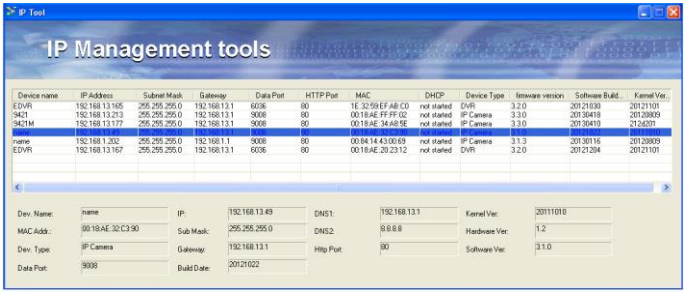
In LAN, there are two ways to access IP-CAM :①Access through IP-Tool ;②Directly Access through IE Browser.

### 3.1.1 Access through IP-Tool

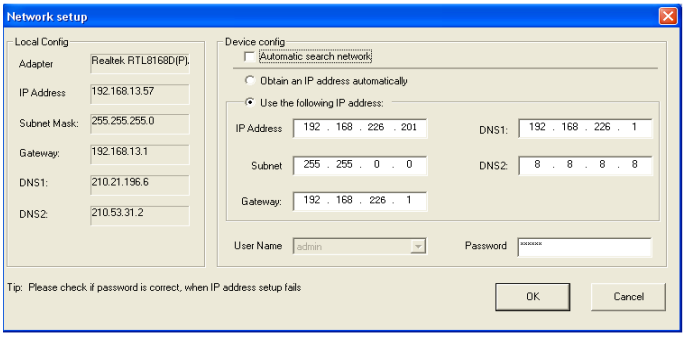
**Step 1**: Make sure the PC and IP-Cam are connected to the LAN and the IP-Tool is installed in the PC from the CD.

**Step 2**: Use IP-Tool to modify the network of IP-Cam. Then, double click the

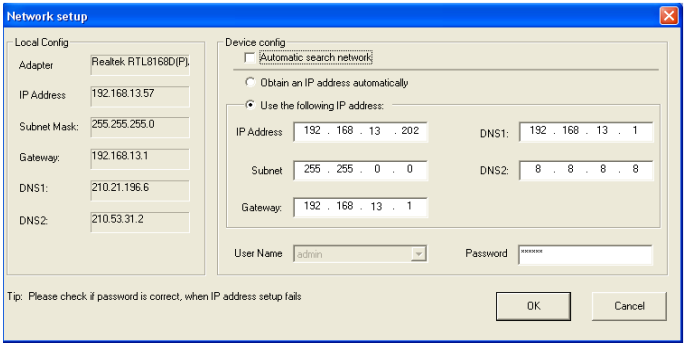
icon on the desktop to run this software as shown below:



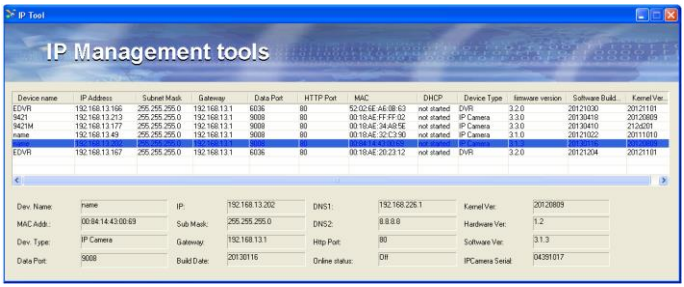

After starting IP-Tool and clicking the IP-Cam in the list, user can check the information of IP-Cam. If user cannot confirm which one is himself, please shut off the electricity of the IP-Cam and then power on it. When shutting off the power, the device information will disappear. When powering on, the device information will emerge. Well, this device is the used device. Right click the device information and select “network setup”.



For example, the network segment of this computer is 192.168.13.57. So, please modify the IP address, Subnet Mask, Gateway of IP-Cam which must be in the same network segment with the computer. After modifying, please input the user name and password and then click "OK" button to save the setting.




**Note**: The default user name is: admin. The default password is: 123456.
The new IP address of this device will display as follows after modification.




**Step 3**: Use the IP-Tool to login the IP-Cam.
Right-click the IP address and select "browse with IE" or double click the IP address. Then the system will pop up the IE browser to connect IP-Cam as shown below. IE browser will auto download the Active X control. After finishing the installation of the Active X control, a login window will pop up.

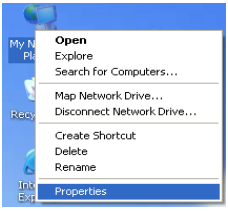
Input User name and password and then click “OK” button to login.

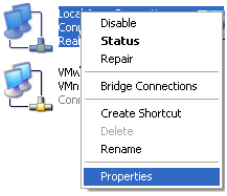
**Note**: User also can use the modified IP address of the IP-Cam. Input the IP address in the IE browser bar and then click “Enter” to access IP-Cam. The default user name is admin. The default password is 123456.

### 3.1.2 Directly access through IE

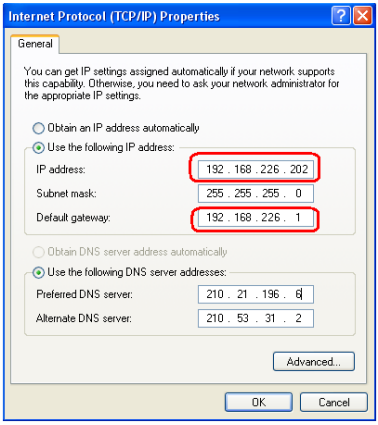
The network service is default as shown below:
IP address: **192.168.226.201**
Subnet Mask: **255.255.255.0**
Gateway: **192.168.226.1**
HTTP: **80**
Data port: **9008**
The first you used the device, you should connect the device with the above default settings.

**Step 1:** Manual setup the IP address of the PC, the network segment should be as same as the default settings of IP-CAM. Right click “My Network Places” icon on the desktop→select “Properties” as shown in the following left figure. Right click “Local Area Connection” at the popup window, and then select “Property” as shown in the following right figure.



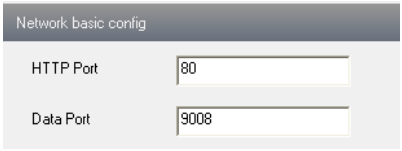

Select “Internet Protocol (TCP/IP)” in the “General” tabs→click “Properties”→Manual input network address information of the PC in the pop up window. Refer to the following figure:



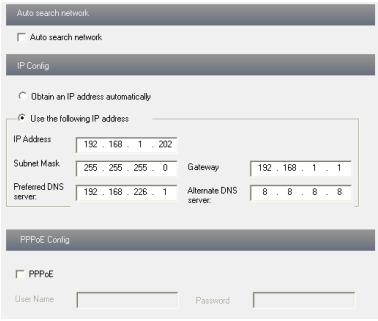
**Step 2:** Open the IE Browser and input the default address of IP-CAM and confirm. Then the IE browser will download Active X control automatically.
**Step 3:** After downloading Active X control, the login dialog box will pop up as below:
**Step 4:** Input user name and password in the login dialog box and click "OK" button to enter into the live interface. You can manage and setup the IP-CAM, such as change IP address etc.

## 3.2 WAN

**Access through router or virtual server**
**Step1:** Connecting according to above steps in LAN; Enter into System Configuration→Network configuration→Basic configuration to setup the port number as shown in the picture on the left hand.
**Step 2:** Enter into System Configuration→Network configuration→IP configuration to change IP address as shown in the picture on the right hand.

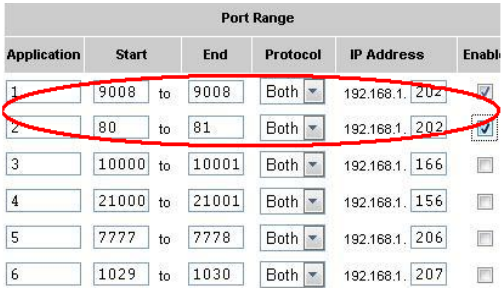



**Port Setup**




**IP Setup**

**Step 3**: Enter into the router's management interface through IE browser; remap the IP address and port of IP-CAM in the "virtual server". The name depends on the router.



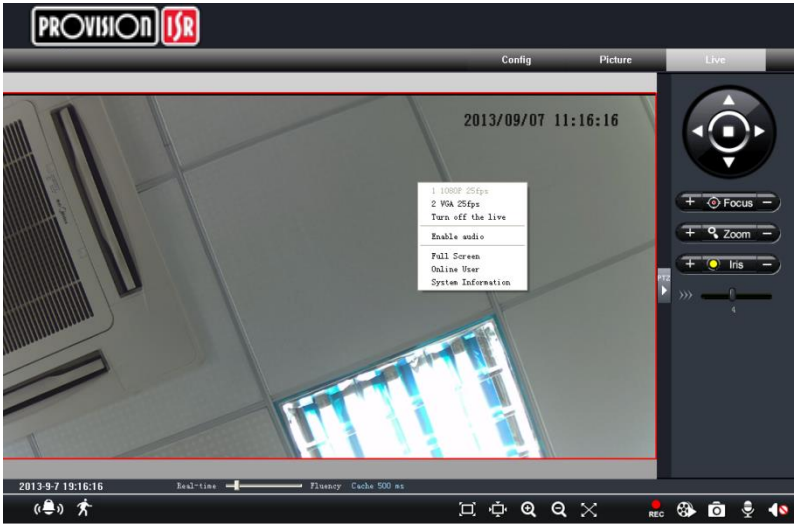

**IP Remap**

**Step 4:** Open the IE browser and input its WAN IP and http port to access.

# 4 Remote Preview

## 4.1 Remote Preview

After you log in, you will see the following window.




The descriptions of the icon on the remote preview interface:

| Icon | Description | Icon | Description |
|---|---|---|---|
| | Sensor alarm indicator icon | | Full screen |
| | Motion alarm indicator icon | REC | Start/Stop record |
| | Fix size | | Playback |
| | Actual size | | Snap |
| | Zoom in | | Talk |
| | Zoom out | | Open/close audio |

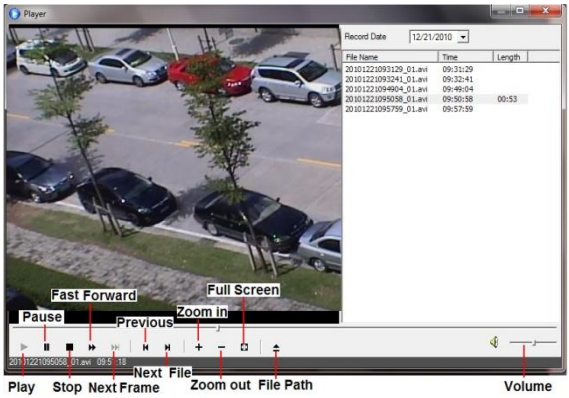
Right click mouse to appear a pull-down list as shown above:
**Stream**: Two options. You can set them in video stream chapter.
**Turn off the live:** Click this item will close present live preview.
**Enable audio:** Enable remote audio transmission.
**Full screen:** The live preview picture will full-screen display. Double click or click right mouse to return to the previous interface.
**Online user:** Display user's list connect to the device.
**System information:** Display the device information: device name, firmware version, software build date, kernel version and hardware version.

Click PTZ extended button to unfold PTZ control panel.
The descriptions of the control panel are as follows:

| Button | Description |
|---|---|
| | to rotate the dome upwards ; to rotate the dome downwards; to rotate the dome towards left; to rotate the dome towards right ; to stop rotating the dome. |
| | Drag the scroll bar to adjust rotating speed of the dome. |
| | Focus button. Click button to have long focus and click to have short focus so that you can adjust the image clearly. |
| | Zoom button. Click to zoom in the image; click to zoom out the image. |
| | Iris button. Click to increase light of the dome; click to decrease light of the dome. |

## 4.2 Playback

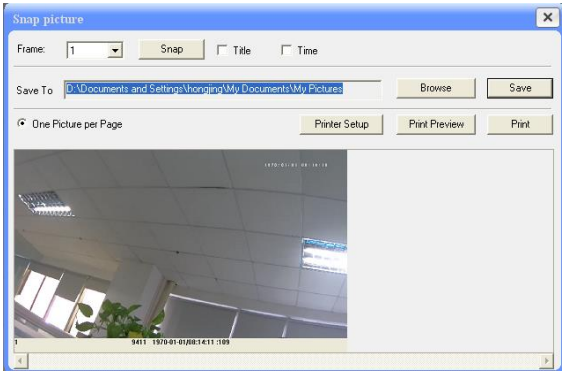
Click REC icon to see the following window:



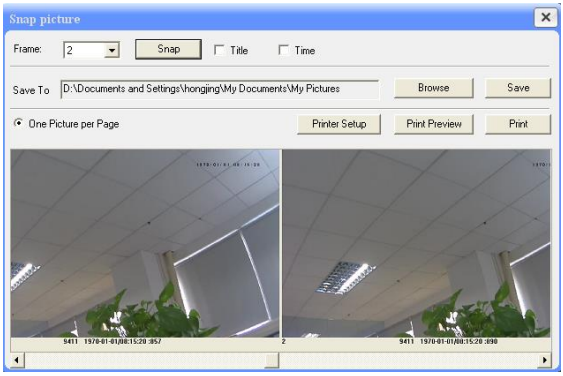

After selecting the record date, the record files will be displayed in the record file list box. User can double click a certain record file to playback or check a certain file. Then click Play button to do playback. User can do relating operation according to some buttons in the playback interface.

## 4.3 Snap

Select the picture number, and then click “Snap” icon as shown below:




User can snap multiple pictures. Select the picture number from Frame pull down list box, such as 2, and check “Title” and “Time” to show capture title and time on the snap pictures simultaneously.




Click “Browse” to set saving path; Click “Save” to save pictures to HDD on the computer; Click “Printer setup” to set the printer and print the snap pictures; drag the scroll bar to view all snapped pictures.

# 5 Remote Configuration

Functions of remote configurations include: System Configuration, Video Configuration, PTZ Configuration, Alarm Configuration, Network Configuration and Advanced Configuration. You should firstly select the menu on the left, and then setup the relative parameters. When one user configures parameters of a certain device, other users can not setup this device.

## 5.1 System Configuration

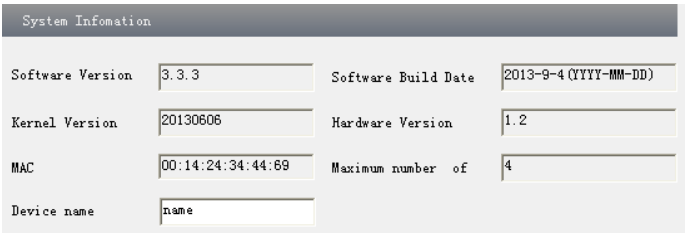
The “System configuration” includes three submenus: Basic Information, Date & Time and SD card.

### 5.1.1 Basic Information

In the “Basic Information interface, user can setup the device name and also can check the relative information of the server

Setting steps:

1. Clicking the "Config" icon will appear the menu list.
2. Clicking the “Basic Information "will pop up a window as shown below:



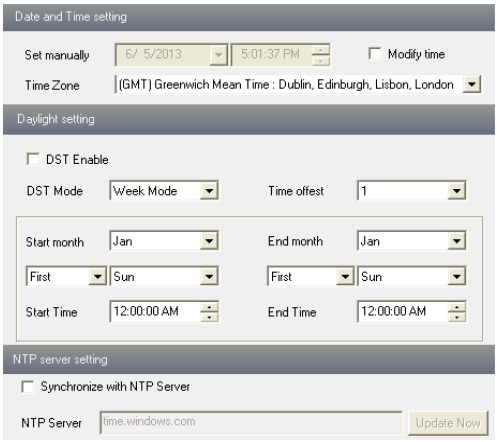

| *Parameter* | *Meaning* |
|---|---|
| Software version | The software of the device |
| Software build date | The software build date of the device |
| Kernel version | The kernel version of the device |
| Hardware version | The hardware version of the device |
| Mac Address | MAC address of device |
| Maximum number of user | Support max 4 users to access |
| Device name | Name of the device. |

3. Input the name of the device in the "Device name" text box.
4. Press the "Save" button to save the settings.

### 5.1.2 Date & Time Configuration

Setting steps:

1. Enter into "System Configuration" →“Date & Time”.

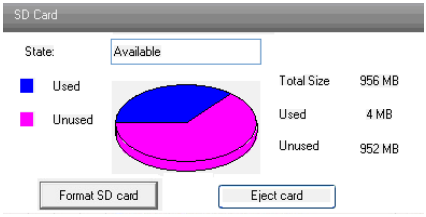



2. Select “Modify Time ", user can self-define time. Choose the right "Time Zone" according to user’s location.
3. User can also enable DST and set DST mode and time.
4. User can setup time by select the “Synchronize with NTP Server”.
5. Press the "Save" button to save the settings.

### 5.1.3 SD Card

Setting steps:

1. Enter into "System Configuration" →“SD Card” as shown below:




Click “Format SD card” to format SD card.
Click "Eject card" to stop writing data to SD card. Then the SD card can be ejected safely.

**Note**: Using of SD card function should be coordinated with motion alarm. When alarm is triggered, the system will automatically snap picture and save the picture into SD card.

## 5.2 Video Configuration

Camera Configuration includes four submenus: Camera Configuration, Video Stream, Time Stamp and Video Mask.

### 5.2.1 Camera Configuration

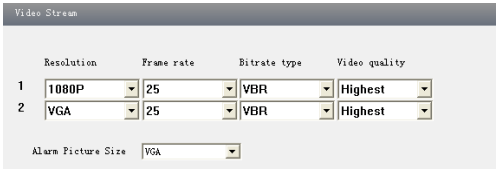
Setting steps:

1. Enter into "Video Configuration "→ "Camera" interface as shown below:

2. Adjust Brightness, Contrast, Hue and saturation of the picture.
3. Select white balance mode.
4. Sharpen, denoise, frequency, CVBS format and day-night are adjustable.
5. Enable auto iris, the image mirror and image overturn function.
6. Press the "Save" button to save the settings.

### 5.2.2 Video Stream

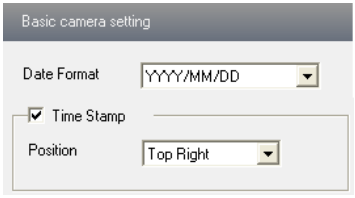
1. Enter into "Video configuration"→ "Video Stream" to see a interface as shown below:




2. Select the resolution of the single frame image at the "Resolution" pull down list.
3. Select the quantity of video per second at the "Frame rate" pull down list.
4. Select the data stream type at the "Bit rate type" pull down list.
5. Set the video quality at the "Video quality" pull down list.
6. Choose the alarm picture size.
7. Press the "Save" button to save the settings.

### 5.2.3 Time Stamp

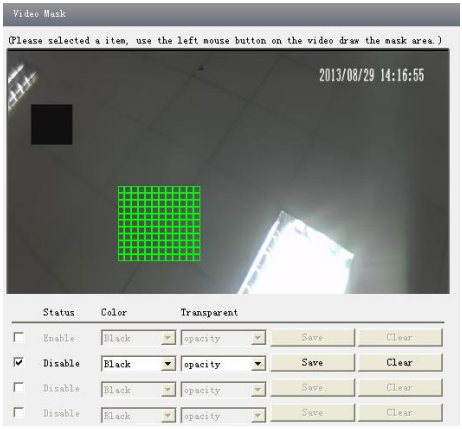
Enter into "Video configuration"→"Time Stamp" to display the interface as shown below:




Here you can set date format and the position of the time stamp shown in the live image.

### 5.2.4 Video Mask

You can set 4 mask area at most.



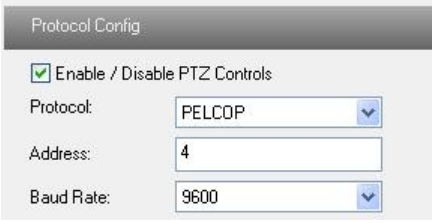

Enable the mask, select color and transparent of the mask area and then drag the mouse to set the mask area. This will take you see a gridding area. After that, click “Save” button to save the settings. Then you will see a mask area on the live image.

## 5.3 PTZ Configuration

PTZ Configuration includes three submenus: Protocol, Preset and Cruise.

### 5.3.1 Protocol

1. Enter into "PTZ Configuration"→"Protocol" interface as shown below:

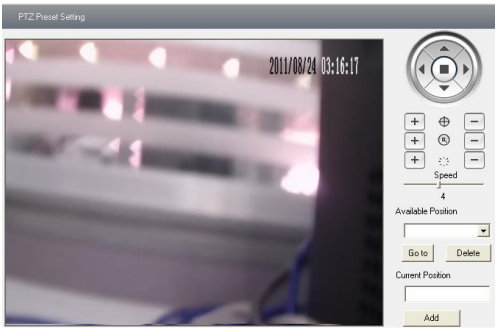


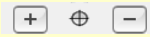
2. Tick off “Enable/Disable PTZ Config”, and then reboot IE client side, the PTZ control panel will be displayed on the live interface.
3. Select the protocol of the PTZ device at the "Protocol" pull down list.
4. Input address of the PTZ in the "Address" textbox.
5. Select baud rate of the PTZ in the "Baud rate" pull down list.

**For the settings of protocol, address and baud rate please refer to the user manual of the PTZ setting.**

### 5.3.2 Preset Configuration

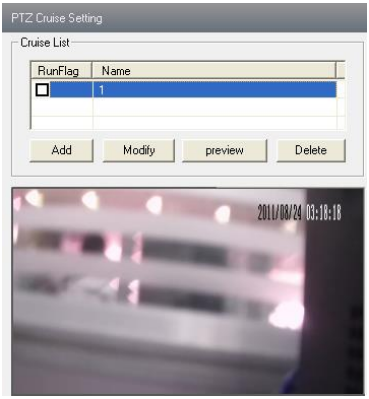
1. Enter into "PTZ Configuration"→"Preset" to see a interface as shown below:
2. Input the preset number and set its position by controlling PTZ control panel and then click Add button to add preset point into the Available position list.
3. Select the preset in the pull down list of the Available position and click Go to button to move the dome to this preset point; click Delete button to delete checked preset point.
4. After finishing setting, click Save button to save the settings



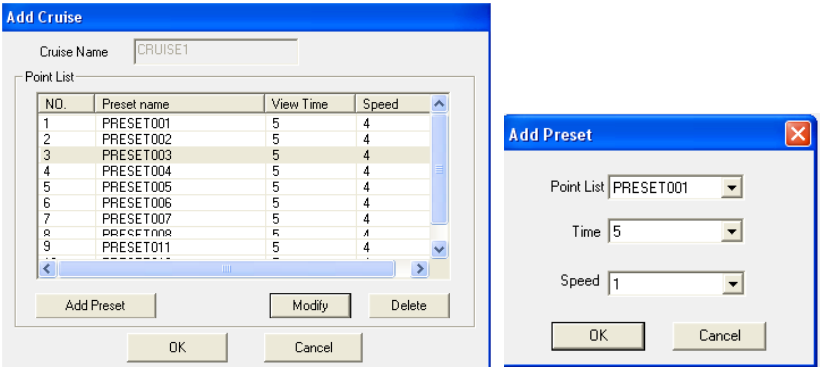

| *Button* | *Meanings* |
|---|---|
| | to rotate the dome upwards; to rotate the dome downwards; to rotate the dome towards left; to rotate the dome towards right; to stop rotating the dome. |
|  | Focus button. Click button to have long focus; click button to have short focus. |
| | Zoom button. Click button to zoom in the locale picture ; click button to zoom out the locale picture. |
| | Iris button. Click button to increase light of the dome; click button to decrease the light of the dome. |
| | Drag the scroll bar to adjust rotating speed of the dome. |

### 5.3.3 Cruise Configuration

Enter into "PTZ Configuration"→"Cruise" to display a interface as shown below:




Click “Add” button to add cruise.
Choose a cruise and click “Modify” button to pop up a window as below:



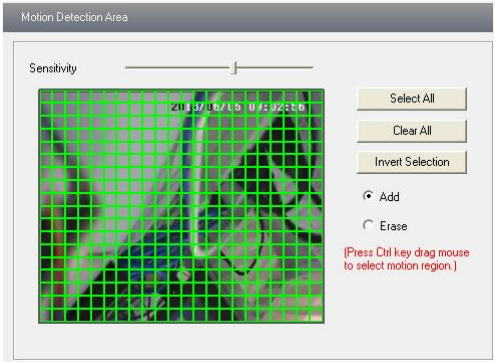

Click “Add Preset” button to pop up a window. You can add the preset there.
Click “Preview” button to check the related information of this cruise and click “Delete” button to delete this cruise.
4. Press the "Save" button to save the settings.

## 5.4 Alarm Configuration

Alarm configuration includes six submenus: Motion Detection Area, Motion Detection Trigger, Motion Detection Schedule, Alarm Input Trigger, Alarm Input Schedule and Alarm Out.

### 5.4.1 Motion Detection Area

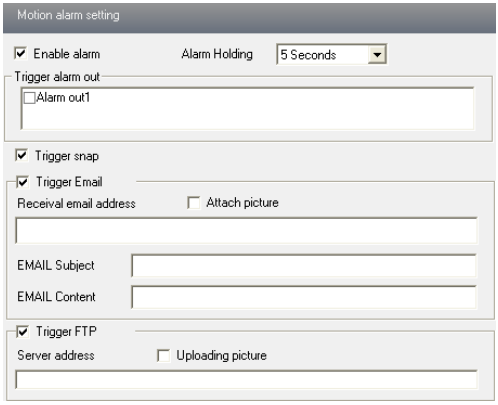
1. Enter into “Alarm configuration"→"Motion Detection Area" to see a interface as shown below:




2. Move the "Sensitivity" scroll bar to setup the motion trace sensitivity.
3. Check the "Add", press the "Ctrl" button and move mouse to select the motion detection area; Select "Erase" and move the mouse to clear all motion detection area.
4. Press the "Save" button to save the settings.

### 5.4.2 Motion Detection Trigger

1. Enter into "Alarm Configuration"→ "Motion Detection Trigger" to display a interface as below:




2. Check "Enable alarm" check box. Then motion based alarm is activated.
3. Set alarm holding time.
4. Set alarm trigger options.

**Alarm Out**: If selected, this would trigger the external relay output on detecting a motion based alarm.

**Trigger Snap**: If selected, the system will snap images on an alarm and save them in SD card.

**Trigger Email**: If the email and attach picture checkbox is checked (Email address shall be set first in the Mail config interface), the triggered snap pictures and event will be sent into those address.

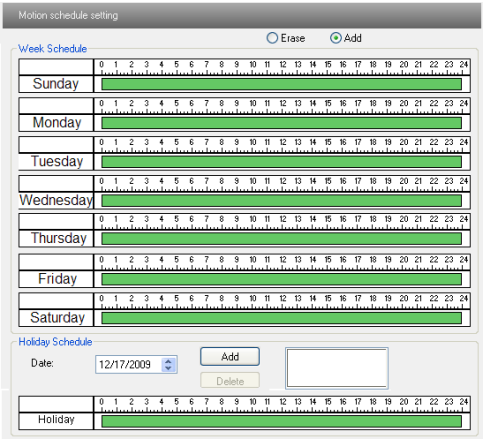
**Trigger FTP**: If “Uploading picture” is checked, the triggered snap pictures will be sent into FTP server address. Please refer to FTP configuration chapter for more details.
5. Press the "Save" button to save the settings.

### 5.4.3 Motion Detection Schedule

A window will show as below by entering into “Alarm configuration"→ "Motion Detection schedule" menu.

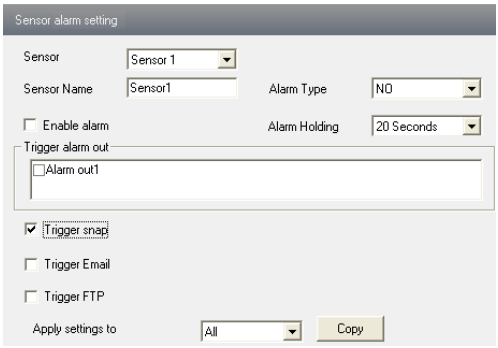
**Week schedule**
User could set the alarm time from Monday to Sunday for alarm everyday in one week.
Note: The lengthwise means one day of a week; the rank means 24 hours of a day. Mouse clicks on the pane to set the alarm hours. Green means selected area. Blank means unselected area.
2."Add": add the schedule for a special day.
3."Erase": delete holiday schedule

**Day schedule**
User could set alarm time for alarm in some time of special day, such as holiday.
1. Select a date at the "Date" pull down list, press "Add" button to add that date to the list box on the right side and then move the scroll bar to set the schedule of that day.
2. Select a date in the list box on the right side, and press "Erase" to remove the schedule on that day.
Press the "Save" button to save the settings.
**Holiday schedule is prior to Week schedule.**




### 5.4.4 Alarm Input Trigger

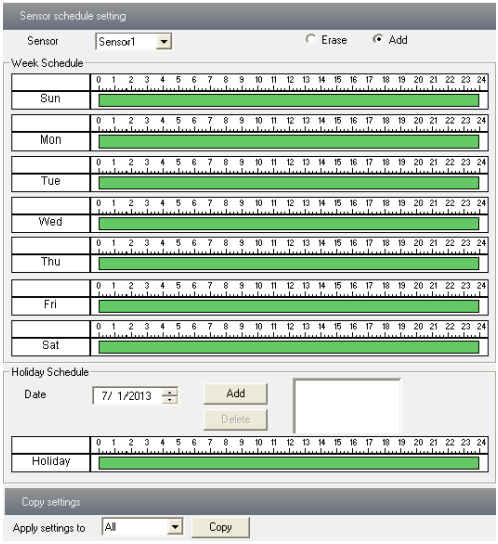
1. Enter “Alarm Configuration"→"Alarm Input Trigger" to see a screen as shown below:




2. Select the sensor at the "Sensor" pull down list and set the sensor name and alarm type: NO and NC.
3. Enable alarm and select alarm holding time.
4. Set alarm trigger options. The setting steps are the same with that of motion detection trigger. Please refer to motion detection trigger chapter for details.
5. Apply settings to all by clicking “Copy” button, which can quickly set the same settings for all sensors.

### 5.4.5 Alarm Input Schedule

Enter into “Alarm Configuration"→“Alarm Input Schedule” as shown below:

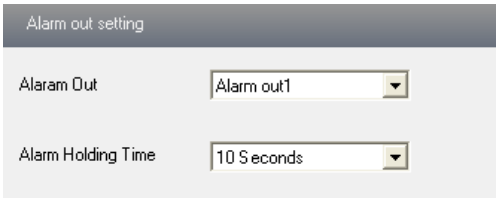



1. Select the sensor which needs to setup the alarm parameter at the "Sensor" pull down list
2. The following setup steps are similar to Motion Detection Schedule’s. Please refer to

Motion Detection Schedule chapter for more details

### 5.4.6 Alarm Out

1. Enter into “Alarm configuration"→"Alarm output" as shown below:



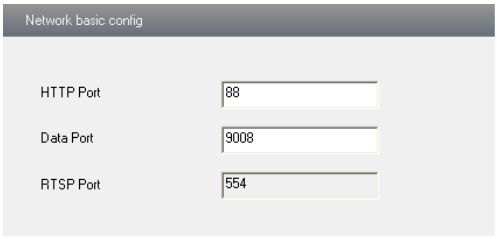

2. Select alarm holding time and alarm name at the "Alarm out” and “Alarm holding time” pull down list box respectively.
3. Press the "Save" button to save the settings

## 5.5 Network Configuration

Network configuration includes nine submenus: Port, Wired, NET Traversal Configuration, Server Configuration, IP Notify, DDNS Config, RTSP, UPNP, Mail Setting and FTP.

### 5.5.1 Port

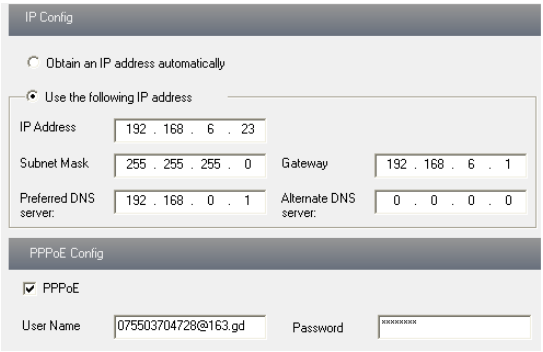
1. Enter into "Network config"→"Port" to see the interface as shown below:




2. Input port number for IE access in the "HTTP Port" textbox.
3. Input the port number for audio & video transmission in the "Data Port" textbox.

### 5.5.2 Wired

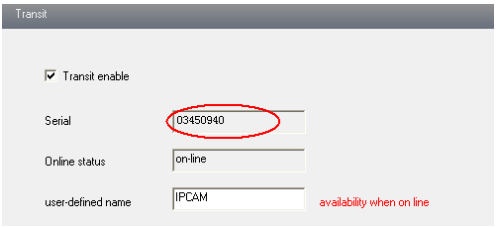
1. Enter into "Network Configuration"→"Wired" to see a tab shown below:
2. There are two Options for setup IP: obtain an IP address auto by DHCP protocol and use the following IP address, user can choose one of options for requirements.
3. Use the following IP address: display the IP address, subnet mask, gateway and DNS of the device.




4. PPPOE: User needs to manual input the user name and password for dial-up internet.
Firstly, user needs to login IE clients, then enter into user name and password of PPPoE, save the setting and exit. Secondly, setup IP address change notice. Thirdly, connect with Modem, then the device will dial-up internet automatically.
6. Press the "Save" button to save the settings.

### 5.5.3 NET Traversal Configuration

In this interface, user can access to network without dynamic domain name and port forwarding by enabling NET transit.
1.Enter into “Network Configuration”→ “NET traversal Config”. Refer to Fig 5-11:

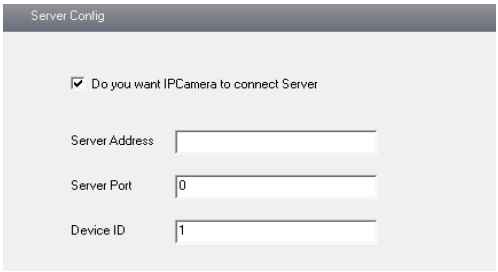



2. Check “transit enable”. Then save the setting.
3. Input www.upnpicp.com in IE address; download and install Active X. Then a window shows up as Fig 5-12:

4. Input the only device ID of the IP-CAM or user-defined name. And then input user name and password.

### 5.5.4 Server Configuration

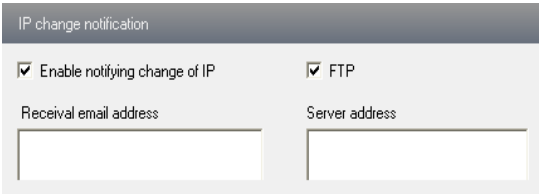
Enter into "Network Configuration"→ "Server Config".




1. Check "Do you want IP Camera to connect Server.
2. Check the IP address and port of the transfer media server in the ECMS/NVMS. Then enable the auto report in the ECMS/NVMS when adding a new device. Then input the remaining information of the device in the ECMS/NVMS. After that, the system will auto allot a device ID. Please check it in the ECMS/NVMS.
3. Input the above-mentioned server IP, server port and device ID in the responding boxes. Click "save" button to save the settings.

### 5.5.5 IP Notify

1. Enter into "Network Configuration"→"IP Notify" to see a tab as below.




2. If the "Enable notifying change of IP" is selected, when the IP address of the device is changed, a new IP address will be sent to the appointed mailbox automatically; If "FTP" is selected, when the IP address of the device was changed, a new IP address will be sent to FTP server.

### 5.5.6 DDNS Configuration

1. Domain name Registration （http://provision-isr-dns.com）

***Note:*** DDNS is used to register for a hostname

with DDNS username and password.

**Provision ISR** now allows you to use our mint DDNS server in order to create a virtual address for your DVR/NVR/IP-Camera on the internet. Each account is limited to 35 different addresses using your preferred domain name address instead of using IP addresses. Follow the steps below to register your DVR's name and to configure your DVR to use Provision ISR's Mint DDNS server.

**(a) <u>To register a domain with Provision-ISR DDNS server follow these steps:</u>**

1) Visit our website: **http://provision-isr-dns.com** and register for a domain name by clicking "**Registration**"

2) Fill in the registration form, then click "**Submit**"

3) Fill in the host name you want to apply for and press "**Request Domain**" (for example "**home**")

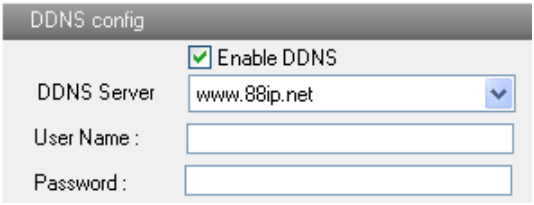
4) If there is no problem with the domain registration you will see the following message: "**Your domain was successfully created.**"

If you do not see this message, the domain name you requested is already in use and you will be requested to provide an alternate domain name (please note: *domain name* is sometimes called *host name*).

You can create up to 35 domain records under a single account

5) The domain name is added at the beginning of your DVR's address, for example the domain "*home*" will appear as **home.provision-isr-dns.com.**

1. Enter into "Network Configuration"→"DDNS Configuration" tab as below:




**Note:** The steps to band a domain name for video surveillance server are as follows. Firstly, register a user name and a password to log on the website of service supplier, and then apply for a domain name online for the server. After that, users can visit the server through inputting the domain name at IE terminal.

2. Press the "Save" button to save the settings.

Please refer to the following table for parameters and instructions of DDNS configuration.

| *Parameter* | *Meaning* |
|---|---|
| ***DDNS server*** | Address of the website which provided by domain name supplier. The optional: www.dns2p.net， www.88ip.net，www.meibu.com，www.dyndns.com，www.no-ip.com，www.3322.org and mintdns type. |
| ***User name*** | Log in the website of domain name supplier |
| **Password** | Log in the website of domain name supplier |

**1. Apply the Domain Name (Take dns2p for example)**

**(1) Register in the Web**

**Register dialog box**

Step 1: Fill in the blank of IE address with ‘www.dns2p.com’.

Step 2: Click to enter the website.

Step 3: Click "New User" in the right of homepage to register. For example: User ID is ‘abc’, and password is ‘123456’. The register dialog display as above.

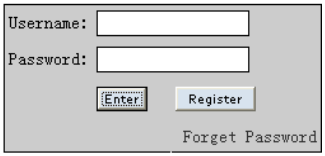
**(2) Login**

Step 1: Return to homepage after registering successfully.

Step 2: Click "Account Manager" on the right of homepage to login.

Step 3: Input the username and password with the information that you have registered.

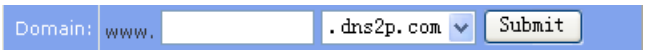
Step 4: Click "Enter" key after filling in the textbox.




**Log in**

**(3) Domain Setup**

Step 1: Click "Domain Management" on the left to set the domain.




**Domain setup**

Step 2: Input the domain in the textbox. For example, you set ‘IP-CAMERA’ as the domain.

Step 3: Click "Submit" button, the system will pop up a dialog box to show that the domain is added successfully.

**Note:** Time of probationary period is one month. If user wants to use it continuatively after one month, please Step 4: click "Buy Now" in the right of homepage to pay for it.

**2. Setup in the IP-CAMERA**

(1) DOMAIN

Domain is set in '1. Apply the Domain Name'. According to the example above, the domain is 'WWW. IP-CAMERA.dns2p.com'.

(2) USER ID

Username of registered which is set in '(1) Register in the Web'. According to the example above, user ID is 'abc'.

(3) PASSWORD

Password is set in '(1) Register in the Web'. According to the example above, password is '123456'.

Note: If the connection fails, press the "INFO" button. Now the system will display: 'DDNS NONE'. Then you need to check network and information above and try again.

**3. Application**

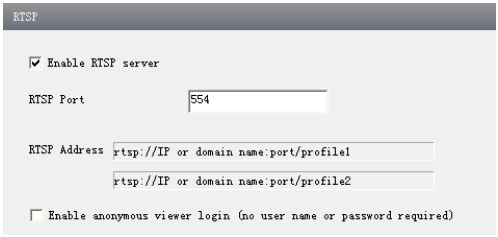
Connect IP-CAMERA to the Network Client.

Step 1: After popping up the login interface, fill in "Server" textbox with '*.dns2p.com' to visit the Network Client of the IP-CAMERA. The domain set in '(3) Domain Setup'. According to the example above, fill in "Server" textbox with 'IP-CAMERA.dns2p.com'.

Step 2: Click "save" button to save the above setting.

### 5.5.7 RTSP

Enter into "Network Configuration"→ "RTSP" interface as shown below:




1. Select "Enable RTSP server.
2. RTSP Port: Access Port of the streaming media. The default number is 554.
3. RTSP Address: The RTSP addresses are inputted in the media player.

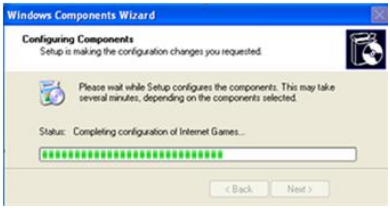
Application: This device supports VLC player. You can upload the VLC player in the related website and then select “File”→”Open URL” from the tool bar of the player. You will see the live image which is the same with that of playing through IE.

### 5.5.8 UPNP

Enter into “Network Configuration”→ “UPNP” interface as shown below:
Select “Enable UPNP” and then input friendly name.

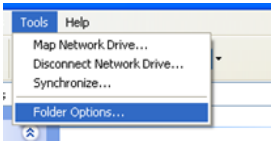
**Enable UPNP**

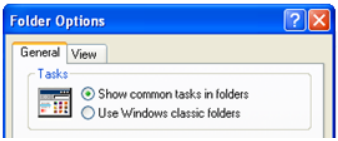
Double-click the “My Network Places” icon on the desktop in PC and select “Show icons for networked UPnP devices” in the “Network Tasks” list box. Then a information window will pop up. Click “YES” button to see a “Windows Components Wizard” dialog box pop up as shown below. Then press “Next” to continue. After finished the installation of configuring components, the UPnP icons will display. Users can double-click certain icon to connect the remote surveillance login interface through IE.




If “Show icons for networked UPnP devices” can’t display in the “Network Tasks” list box, please follow the below operation:

- Click “Tools”-- “Folder options”
- Check the “Show common tasks in folders” in the “Tasks” check box, UPnP icon will display.




### 5.5.9 Mail Setting

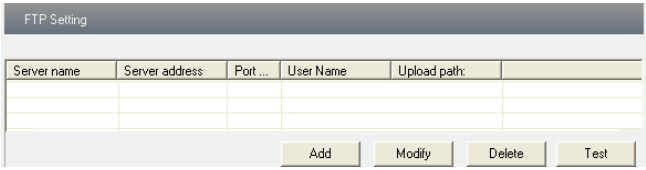
Enter into “Network Configuration” → “Mail Setting” interface. Please refer to below picture.

1. From Email: sender's e-mail address
2. User name and password: sender's user name and password
3. Server address: SMTP name of sender
4.Select the secure connection type at the Secure Connection pull down list according to user' actual needs
5. Receival email address list: add email address into the list
6. Receival email address: receiver's e-mail address
7. After all parameters setup, user can click "Test your account settings". If email sent successful, a "Test Successful" window will pop up, if not, users can try other email addresses or check the setting.

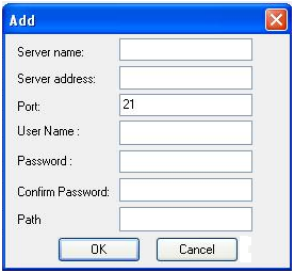
**Note**: If you change the static IP into PPPoE and select mailbox, there will be an e-mail sent to users' mail box for notifying a new IP address.

### 5.5.10 FTP

Enter into Network Configuration→FTP interface; please refer to below picture.




1. Add: Click Add button to input FTP server's server name, address, port number, user name, password, and upload path, click OK to confirm the setting. Refer to the following picture:
Modify: Your can click this button to change some information of the FTP server
Delete: Select certain FTP account; Click this button to delete this account
Test: Select certain FTP account; Click this button to test its valid or not.
Please refer to the following table for parameters and instructions of FTP configuration.



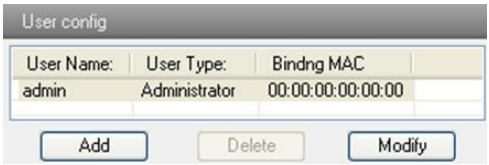

| *Parameter* | *Meaning* |
|---|---|
| ***Server name*** | The name of the FTP server |
| ***Server address*** | The address of the FTP server |
| ***Port*** | The port number of the FTP server |
| ***User name*** | The user name of the FTP server |
| ***Password*** | The password of the FTP server |
| ***Path*** | The save path for FTP files |

## 5.6 Advanced Configuration

Advanced configuration includes five submenus: User Configuration, Onvif Configuration, Security Configuration, Configure Backup & Restore, Reboot and Upgrade.

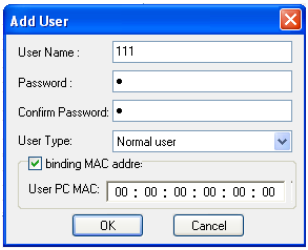
### 5.6.1 User Configuration

Enter into "User Configuration" interface. Refer to the following picture:




**Add user:**

1. Clicking "Add" button pops up "Add user" dialog box as shown below:

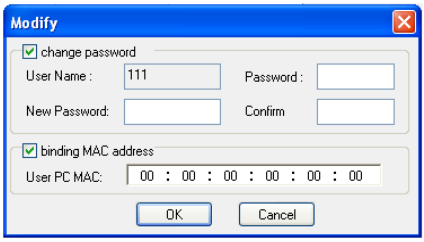



After binding physical address to the IP-CAM, you can access the device on this PC only. If the MAC address was ““00:00:00:00:00:00” which means it can be connected to any computers.

2. Input user name in "User Name" textbox (only letters).
3. Input characters in "Password" and "Confirm Password" textbox (letters or numbers).
4. Input the MAC address of the PC in "Binding MAC address" textbox.
5. Click “OK” button and then the new added user will display in the user list.

**Modify user:**

1. Select the user which needs to modify password and physical address in the user configuration list box.
2. Clicking “Modify” button will pop up “Modify user” dialog box as shown below.




3. Input original password of this user in the “password” text box.
4. Input new password in the “New password” and “Confirmation” text box.
5. Input computer’s physical address which is used to access the server in the “User PC MAC” text box.
6. Click “OK” button to modify user’s password and binding MAC address successfully.

**Delete user:**

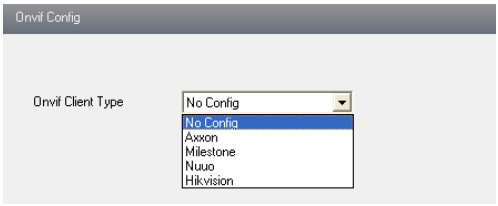
1. Select the user which needs to delete in the user configuration list box.
2. Clicking “Delete” button will pop up a confirm dialog box. Then click “OK” to delete the user.

**Note:** The default super administrator cannot be deleted.

| Parameter | Meaning |
|---|---|
| User Name | User name to operate the logon client end |
| User Type | Type of users, normal user, advanced user and super administrator |
| Binding MAC address | The MAC addresses of user access the server which should setup according to actual MAC address of server. |
| Password | Password to log in the client terminal |
| Confirm Password | Password to log in the client terminal |

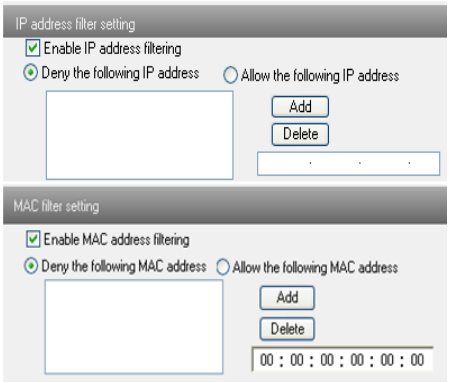
## 5.6.2 Onvif Configuration

This function is mainly used for connecting our device through other companies’ monitoring platform software, such as, Hikvision, Axxon, Milestone., etc.



### 5.6.3 Security Configuration

Enter into Advanced Configuration→Security Configuration to see a tab shown below:




Check “Enable IP address” check box, select “Deny the following IP address”, input IP address in the IP address list box and click “Add” button. Then this IP address will display in the list box; the operation step of “Allow the following IP address” is the same with “Deny the following IP address”

Select the IP address which needs to be deleted from the IP address list box and click “delete” button to delete that IP address.

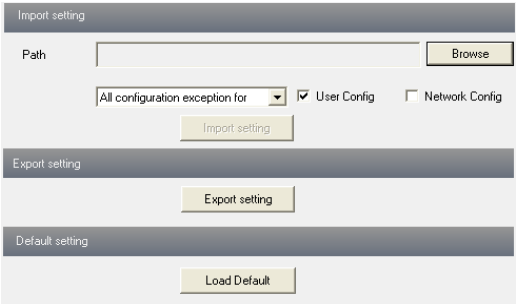
Check “Enable MAC address” check box, select “Deny the following IP address”, input MAC address in the MAC address list box and click “Add” button. Then this MAC address will display in the list box; the operation step of “Allow the following MAC address” is the same with “Deny the following IP address”.

4. Select the MAC address which needs to be deleted from the MAC address list box and click “delete” button to delete that MAC address.

5. Click "save" button to save the above setting.

### 5.6.4 Configure Backup & Restore

Enter into Advanced configuration→Configure Backup & Restore Interface.



- **Import & Export Configuration**:

User can import or export the setting information from PC or to device.

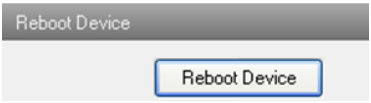
1. Click “Browse” to select save path for import or export information on PC.
2. User can import or export all setting information to PC, but those two settings “user configuration” and “network configuration” are exceptional.

- **Default Configuration**

Click “Load default” button to restore all system settings to default status.

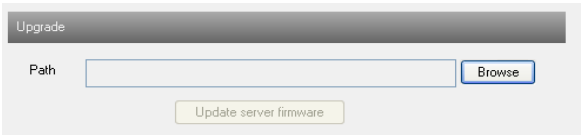
### 5.6.5 Reboot Device

Enter into Advanced configuration—Reboot device to see a interface as shown below:
Click “Reboot device” button to reboot the device.




### 5.6.6 Upgrade

Enter into Advanced Configuration—Upgrade interface.

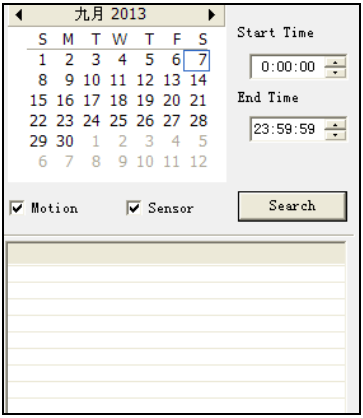



1. Click “Browse” button to select the save path of the upgrade file
2. Click “Upgrade server firmware” button to start upgrading the application program
3. The device will restart automatically
4. After you successfully update the software, click “OK” button to close IE and then re-open IE to connect IP-Cam.

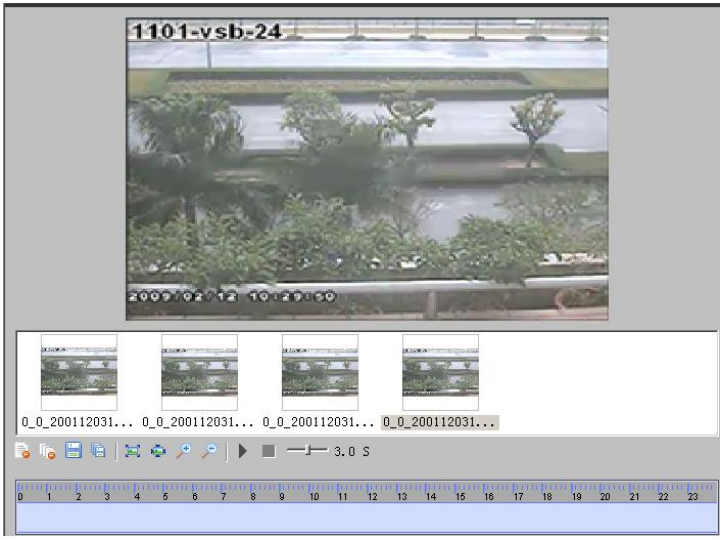
Caution! You can’t disconnect to PC or close the IP-CAM during upgrade.

# 6 Video Search

Click “picture” icon and search the images which saved in the SD card.




1. Select date in the “calendar”, check “motion detection” relatively and click “search” button. Then the triggered snap pictures will be displayed in the list box.
2. Double click a filename or select a filename and then click “view” button in the list box to view snap pictures.




**Definitions of function buttons:**

| Item | Buttons | Explanations |
|---|---|---|
| 1 | | Close: Select certain picture and click this button will close this preview picture. |
| 2 | | Close all: click this button will close all preview pictures |
| 3 | | Save: click this button, select the save path of the picture file on PC to save this preview picture |
| 4 | | Save all: click this button, select the save path of the picture files on PC to save all preview pictures |
| 5 | | Fit size: click this button, the preview pictures will fit on screen |
| 6 | | Actual size: click this button to display the actual size of the preview pictures (for user's requirements) |
| 7 | | Zoom in: click this button to amplify the preview picture, user can drag cursor to view request areas. |
| 8 | | Zoom out: click this button to zoom out amplified preview picture |
| 9 | | Slider play: click this button to play preview pictures on the mode of slider |
| 10 | | Stop: click this button to stop slide show |
| 11 | | Play speed: play rate of the slide show |

# 7 Mobile Surveillance

This IP-CAM supports mobile surveillance by phones with Windows mobile, iPhone, Android and Blackberry OS. Please check the operation system version of mobile before use; and connect the IP-CAM to Internet.

## 7.1 Network Configuration

- **Access device via LAN**

**Step 1:** Connect device via wireless router. Then checkmark DHCP both in router and device to automatically acquire IP address or enter the IP address manually.

**Step 2**: Use WIFI function in your mobile phone to connect the wireless router.

**Note: Make sure your phone network and device network are in the same network segment on LAN.**

**Step 3:** Add the IP address and port in the mobile phone surveillance client.

- **Access device via 3G network**

**Step 1:** Set the device network. Please enter Main Menu→Setup→Network tab.

- If you use PPPoE to connect device, please enable PPPoE and input username and password received from you ISP in network tab. Then click "Apply". You can enter Main Menu→Information→Network tab to see the IP address. If you want to utilize dynamic domain name, please apply for a domain name in a DNS server supported by the device.
- If you have a static WAN IP address, please enter Main Menu→Setup→Network tab to input your IP address, gateway and port.
- If you use LAN IP address, please enter Main Menu→Setup→Network tab to input your IP address, gateway and port and then forward IP address and port number in virtual server setup of the router or virtual server(If you has enabled the UPnP function in both the device and router, you can skip this step). Port forwarding setting may be different in different routers and servers. Please refer to the router's manual for details. After you forward your LAN IP address and port, please check the WAN IP address in the router or server.

**Step 2**: Add the WAN IP address or domain name in mobile phone surveillance client.

## 7.2 By Phones with iPhone OS

- **Install through Iphone.**

**Step 1:** Open App Store software as shown in the figure on the left.

**Step2:** Search “Provision Cam” and click “Free” button as shown in the figure on the right.

**Step 3:** Click “Install App” button as shown in the figure on the left.

**Step 4:** Input iTunes Store password and then click “OK”. The software will be installed automatically.

- **Install Software through PC**

**Step 1:** Install iTunes store in PC and then login.

Step 2: Connect iPhone and PC.

Step 3: Search and select “Provision Cam”.

Step 4: Click “Download” button.

Step 5: Input username and password.

Step 6: Synchronously apply "Provision Cam" software to iPhone/iPad.

- **"Provision Cam" Instruction**

**1. Login**

**Step 1**: Choose network type. There are two network connection ways: 3G/3G +WIFI, enhanced video quality. This network supports main stream and sub stream. The real-time image will be displayed by using sub stream.
3G, normal video quality compared to the former network type.
**Step 2**: Input server, account and password.

**Server**: WAN IP address (or domain name) plus HTTP port of the device. For example: 210.21.183:89 or 123.dvrdydns.com:89.
***Note:*** The default http port of the device is 80. If modified, use the modified port.
**Account and Password**: The login account and password of the device. The default account is admin and the default password is 123456.

**Step 3:** Click【Login】button to access the device.

**2. Main Interface**

There are many buttons in the main interface, such as, screen mode, favorite channel, snap, record, open/close audio, talk, PTZ., etc.

: Image view button. The pictures snapped in the live will be checked by clicking this button.

: Playback button. Click this button to enter into playback interface.

: Settings button. Click this button to set local configuration (Some can also support remote configuration).

: Information button. Click this button to check lots of information including local information, device information, network information, etc.

: Server list button. Click this button to add server list.

: Help button. Help you know about the use of this software quickly.

: CMS button. Make you preview the live image of multi-devices.

: Log off button. Click this button to return to the login interface.

: Screen mode button. You can choose 1，4，6，8，9，13 or 16 screen display mode.

: Favorite channel display button. If you save your favorite channel in the favorite server list, clicking this button will directly play all favorite channels you have saved.

: Snap button. Choose the channel and click this button to capture the channel image.

: Local record button. Choose the channel and click this button to start recording.

: Open/Close audio. Choose the channel and click this button to open/close the audio of this channel.

: Open/Close talk. Click this button to pop up the servers which support talk function. Select the device to start talking.

: Set video parameter button. Select the channel and click this button to set the video parameters including brightness, hue, saturation and contrast.

: PTZ button. Click this button to pop up PTZ control panel.

: Choose bitrate priority or quality priority according to your network condition.

Channel indicator instruction:

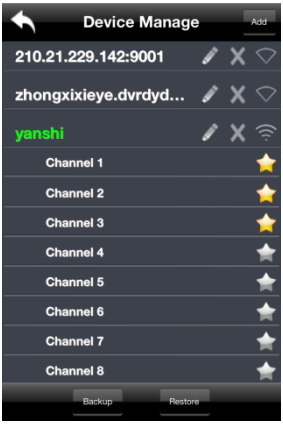
：Video loss ：Schedule recording ：Others

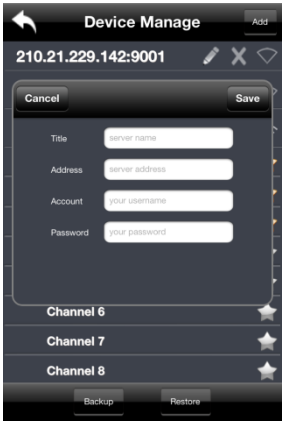
：Sensor alarm ：Motion alarm

：Motion /sensor alarm based recording or manual recording

### 3. Server list

Click button to pop up the following picture.




➢ Add device: Click “Add” button in the top right corner to pop up a dialog box as shown in the following left picture. Input the relative information of the device and click “Save” button.

➢ Delete device: Click button behind the device name to delete this device.

➢ Edit device: Click button behind the device name to edit the information of this device.

➢ Backup & restore: It is recommended to click “Backup” button to reserve the information of all devices. Then you can click “Restore” button to restore all device information after you re-install the client or delete the device uncarefully.

➢ indicates the device has been connected;

➢ indicates the device is connecting;

➢ indicates the device is not connected.

### 4. Live Preview

Once you access the device, the system will automatically display the screen mode in accordance with the channel number of the device

***Note:*** The maximum number of channels which can be connected are nine after login.

1. Click “Screen mode” button to select channel as shown in Fig 1.

2. When there is video playing in a screen, you can switch the channel by long pressing the screen as shown in Fig 2.
3. When no video is playing in a screen, click this screen to choose channel as shown in Fig 3.
4. When the single channel is playing, you can zoom in/out the image by swiping you finger up and down as shown in Fig 4.
5. When the single channel is playing, the channel can be switched by swiping your finger left or right as shown in Fig 5.
6. When multi channels are playing, drag one channel screen to the other channel screen. This will make these two channels change the position of each other.

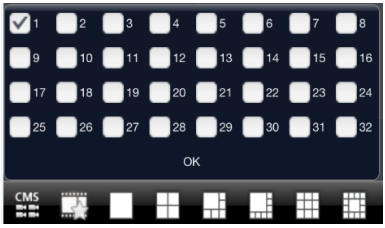



Fig 1

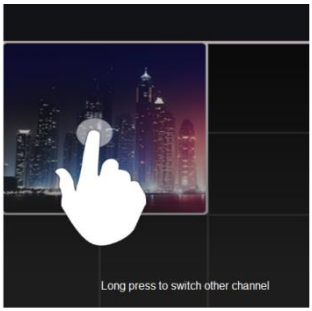



Fig 2

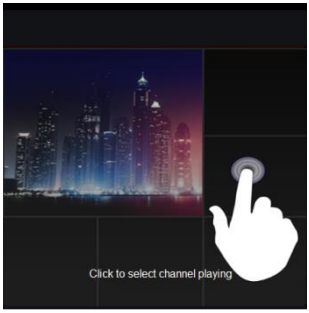



Fig 3

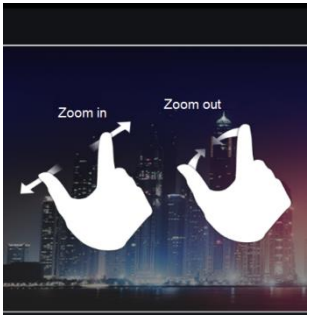



Fig 4

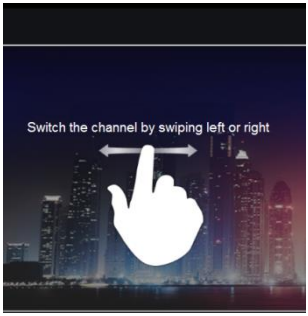
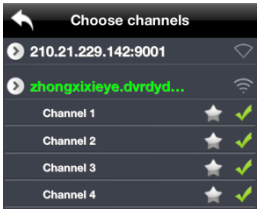



Fig 5




## 5. CMS Function

This function makes multi-device managements and preview come true.

**Step 1**: Click CMS to enable CMS function. When this icon turns green, it means this function is enabled.

**Step 2**: Click Set(0) to choose channel as shown in the right picture. After you choose the channel, click "ok", the system will display the related image automatically.

- If channels have been added into the group, you can see the images by clicking the group name.
- On viewing the group channel images, click button and select channels to check other channel images.
- Click "Exit CMS" to exit CMS mode and return to the main interface of the device.

## 6. Favorite Channel/Group

There are two kinds of favorite channels: favorite channels of the device and favorite group of CMS.

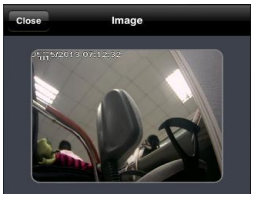
- **Favorite channels of the device**

**Step 1**: Click to enter into device management list. Click the device name to extend channel. Enlighten the channels to save favorite channels as shown in the following picture on the left.

**Step 2**: Return to the main interface and click button to play the favorite channels.

- **Favorite groups of CMS**

Enable CMS function and enlighten the group to save the favorite groups as shown in the following picture on the right.

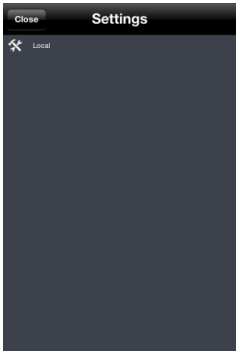


Then click button to play. Only one favorite group can be collected.

: Color means the channel or group has been collected. Grey means the channel or group isn't collected.

**7. Playback Interface**

Click "Playback" button to enter the playback interface. Then click "Search" button to search the file. To play the record by click this file name.




**8. Image View**

Click button to view the captured pictures.

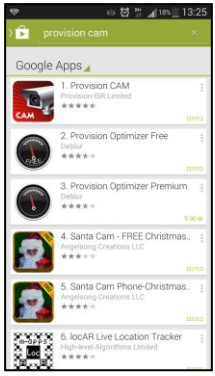
**9. Settings Interface**

In this interface, you can configure the local settings.

**10. Information Interface**

In this interface, you can view system information.

## 7.3 By Phones with Android




**Software Installation**

**Step 1**: Run "Play Store" (or Google market) program.

**Step 2**: Search "Provision Cam".

**Step 3**: Press "Install" button.

**Step 4**: Install the software subject to the notes. Once the downloading is done, the software will install automatically

**Login Menu**

**Step 1**: Configure the network of your device and mobile phone.

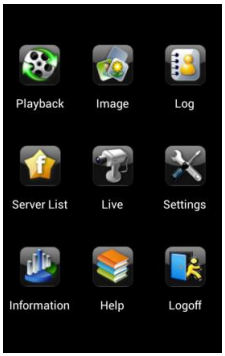
**Step 2**: Input the WAN IP address/domain name and port of your device in the sever column. The port should be HTTP port of your device. The default http port of the device is 80. If you have changed your http port, please enter the new port here. For example: 210.21.228.183:89 or 123.dvrdydns.com:89.

**Step 3**: Input the account and password of your device. The default account name is admin and the default password is 123456.

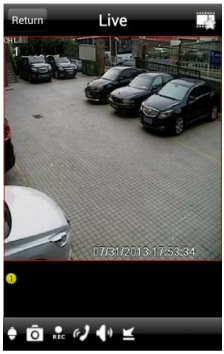
**Step 4**: Check "Remember Server" to save the setting. When you login next time, you can click ▼ button to select this server for quick access.

| | |
|---|---|
| | PTZ |
| | Snap |
| REC | Record |
| | Talk |
| | Enable/disable audio |
| | Hide |
| | Playing favorite channel |

**Main Menu**



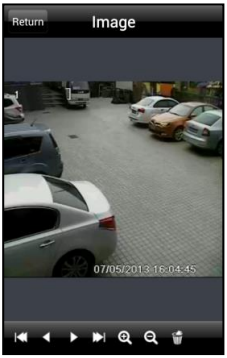

**Live View**



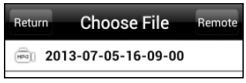

| | |
|---|---|
| | The first picture |
| | The previous picture |
| | Next picture |
| | The last picture |
| | Zoom in |
| | Zoom out |
| | Delete |

## Record Playback:

Click “Playback” in the main menu interface to enter playback interface. Then choose the channel you want to playback. This will take you to see the record file. Click this file to play.




| | |
|---|---|
| | Pause/Play |
| | Stop |
| | Forward |
| | Backward |

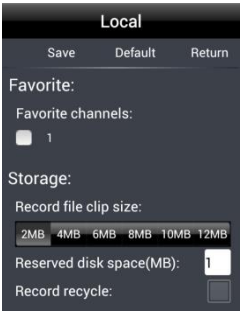


**Server List:**

In the main menu interface, click “Server list” to see the above picture on the left hand.

**Add Server:** Click button to pop up a window as shown in the above picture on the right hand. Enter the name, server, user and password of the device you want to add. Then click “Save” button to save the server. When you log in next time, you can choose and quickly access this server by clicking the little triangle button in the server column.

**Modify Server:** Click button to modify the server information. Delete Server: Click button to delete the server information.




**Settings:**

In the main menu interface, click “Settings” to enter the settings interface where you can configure local settings. Click “Local” to enter local settings interface. In this interface, you can set favorite channel and storage.

**Favorite Channel:**

Check the favorite channels and click “Save” button to save these channels. Then go into live interface and click button to play these favorite channels.

**Storage**: Setup the relevant parameters of mobile video.

**Information View**: view the DVR/NVR basic information as shown in the picture on the right.

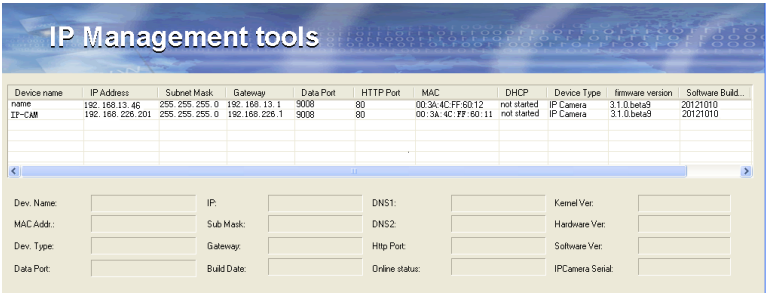
# 8 IP-Tool

## Updating through IP-Tool

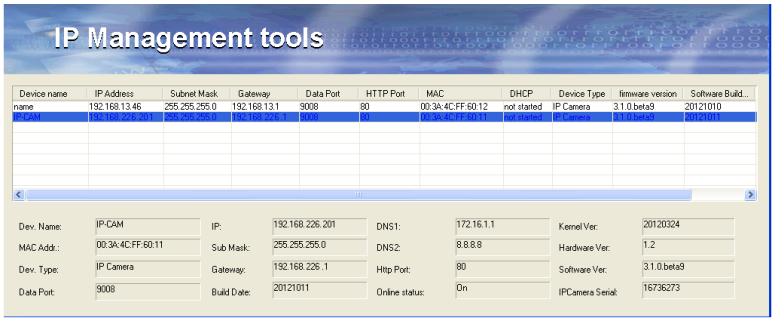
**Note: Do not cut off power supply and internet when updating. If the device is unable to start because of the failure of upgrade, it needs to retrofit.**

Acquire the IP-Tool from the supplier and then double click the IP-Tool icon

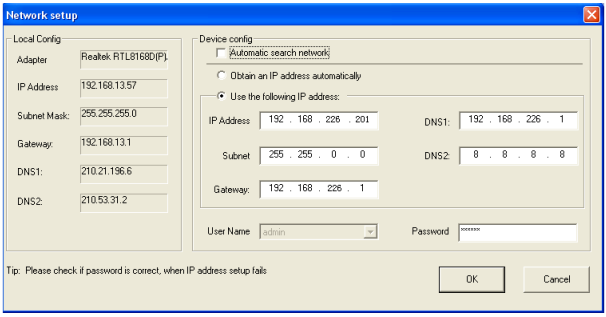
to run this software. Then the device can be searched; if the device can't be searched, please check whether the PC and the device connect to the network or not.




Click the device to check its detail information as shown below:



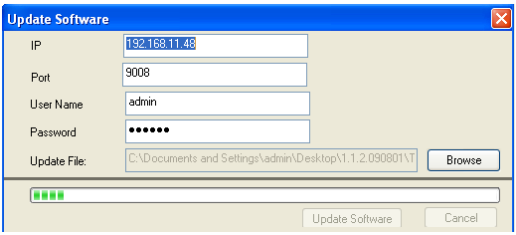

When upgrading the software and kernel, the IP address of PC and device should be at the same network segment. If the network segment is different, user should change the IP address by right clicking the device and then select "network setup". Modify IP address dialog box will appear as follows:



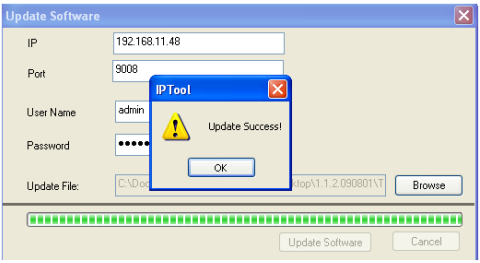

Modify IP address and click OK button to exit the dialog box. After that, IP-Tool will display the new IP address.

- **Upgrade Software**

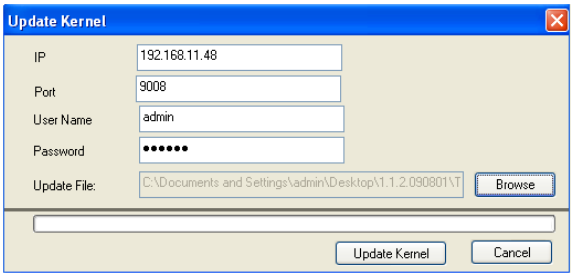
Select the device; right click "Update software". Click "Update" to start upgrading，the progress bar will display as below. When upgrading, please do not disconnect PC and the device and make sure the power is on.



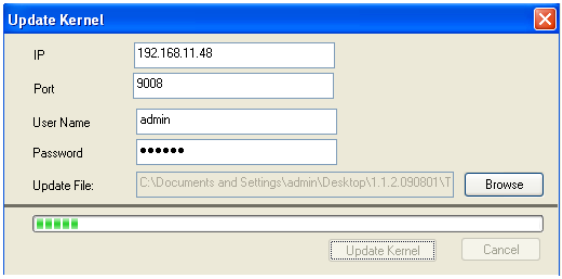

After finishing upgrading, a massage box will pop up as below:




Click OK button to exit the update dialog box, and then the device will restart automatically. Select the device and right click it to select "Update kernel". This will bring up a dialog box as below:




Input the relevant information and click “Browse” button to choose your update file. After that, click “Update Kernel” button to start updating. When upgrading, do not disconnect PC to device and make sure the power is on. The update progress bar will display as below:




After finishing upgrading, a message box will pop up. After a while, the device will restart automatically.

# 9 Q & A

**1. Q: How to find my password if I forget it?**

A：Hold and press the default hole with spicula to reset.

Default IP: 192.168.226.201

User name: admin

Password: 123456

**2. Q：Fail to connect devices through IE browser, why?**

A: Network doesn't connect well. Please check the connection and make sure it connected well.

B: IP is not available. Reset the valid IP.

C: Web port number has been revised: contact administrator to get the correct port number.

D: Exclude the above reasons. Recover default setting by long pressing the default hole.

Note: Default IP: 192.168.226.201，mask number: 255.255.255.0

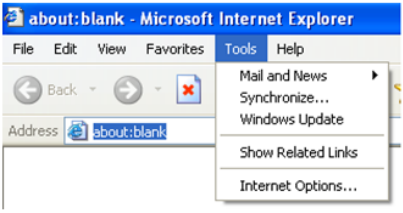
**3. Q：IP tool cannot search devices, why?**

A：It may be caused by the anti-virus software in your computer. Please exit it and try to search device again.

**4. Q：IE cannot download ActiveX control. How can I do?**

a. IE browser blocks ActiveX. Please do setup following below.

①Open IE browser. Click Tools-----Internet Options….




②Select Security------Custom Level….Refer to Fig 4-1

③Enable all the sub options under "ActiveX controls and plug-ins". Refer to Fig 4-2

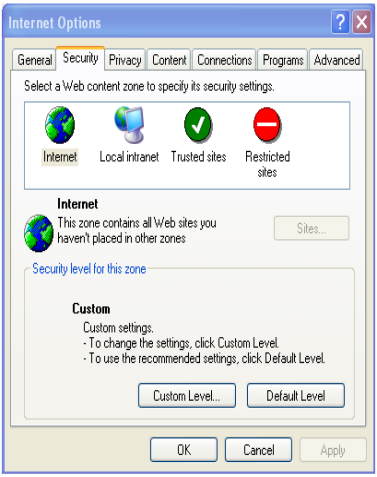



Fig 4-1

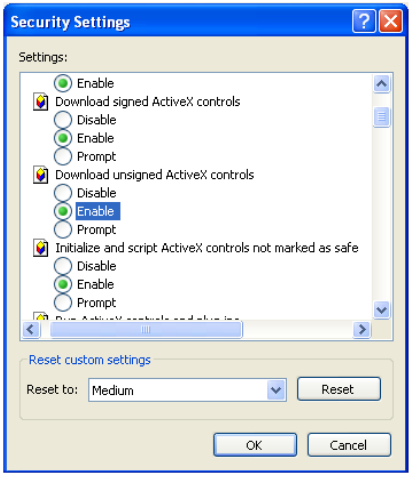



Fig 4-2

④then click ok to finish setup.

b. Other plug-ins or anti-virus blocks ActiveX. Please uninstall or close them.

**5. Q：No sound can be heard, why?**

A： Without connect audio input device. Please connect and try again.

B: Without enable audio function at the corresponding channel. Please check AUDIO item to enable this function.

**6. Q：Why doesn't the device connect to wireless?**

A: Check the statues of wireless router. Please make sure the router is open

B: Check the router and the device port. Please make the router setup is matched with device port.

**7. Q: How to do when the device is unable to start normally on upgrading?**

If the device is unable to start normally when upgrading, please rename the files suffixed with .tar as updatepack.tar and copy it to the root directory of SD card. Restart the device and then the device will upgrade automatically from the SD card. After finishing upgrading, the user can search the IP address of IP Cam in the IP Tool.

# 10 Specification

| | |
|---|---|
| Model | BX-390IP |
| Image Sensor | Sony Exmor IMX122 1/3" CMOS |
| Effective Pixels | 1920x1080 |
| Electronic Shutter | 1/25s ~ 1/100000s |
| Day & Night | ICR |
| Min. Illumination | 0.1lux |
| Audio compression | G711A |
| Communication | Two Way Audio |
| Image Settings | AWB, AES, AGC Adjustable |
| | Exposure Mode (Auto / Manual) |
| | BLC, HLC Adjustable |
| | Sharpness, Saturation, Brightness & Contrast Adjustable |
| WDR Range | Digital WDR |
| Noise Reduction | 3D-DNR |
| Image Orientation | Mirror/Flip |
| Privacy Zone | Yes |
| Motion Detection | Yes |
| Video Compression | H.264 |
| Resolution | 1080P (1920x1080), 960P (1280×960), 720P (1280×720), VGA (640×480), QVGA (320×240) |
| Multi-stream | 1920x1080 (1~30fps) / 1280×960 (1~30fps) / 1280x720 (1~30fps) / 1280x720 (1~30fps) / 640×480 (1~30fps) / 320x240 (1~30fps) |
| Bit rate | 64Kbps ~ 8Mbps |
| Encode Mode | VBR/CBR |
| Image Quality | Five levels under VBR; Free adjustment under CBR |
| IR Distance | No |
| Lens | N/A |
| Iris | N/A |
| Lens Mount | CS Mount |
| Water-proof | No |
| Bracket | No |
| Dimensions | 70W x 145D x 60H mm |
| Weight(gross) | 395g |
| Network | RJ45 (+PoE) |
| Power | DC Socket |
| Analog Video Output | CVBS (BNCx1) |
| Mic Connectivity | 1Ch Input, 1Ch Output |
| SD Card | Support TF (64GB Max) |
| RS485 | Yes |
| Alarm | 1Ch Input, 1Ch Output |
| Remote Monitoring | IE Browsing, CMS 2.0 Control Software, Provision CAM Mobile App for iOS &Android |
| User Access | Supports simultaneous monitoring for up to 4 users with multi-stream real time transmission |
| Network Protocol | TCP/IP, UDP, DHCP, NTP, RTSP, PPPoE, DDNS, SMTP, FTP |
| ONVIF | Yes |
| Ethernet | 100Mbps |
| PoE | Yes |
| Power Supply | DC12V/PoE |
| Work Environment | -10℃~50℃,10%~90% Humidity |

Notes:

www.provision-isr.com