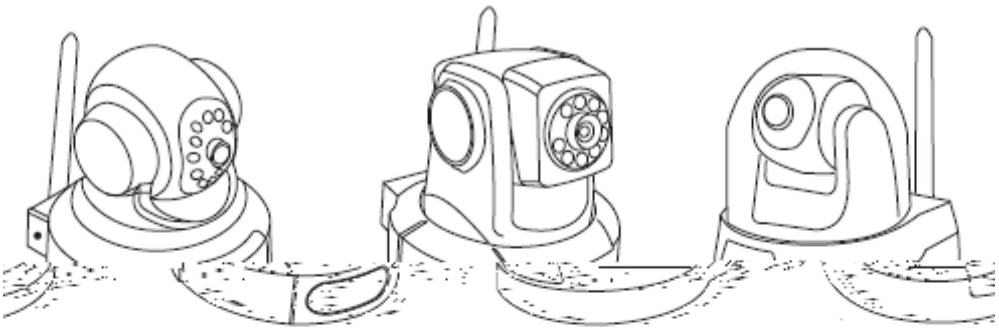
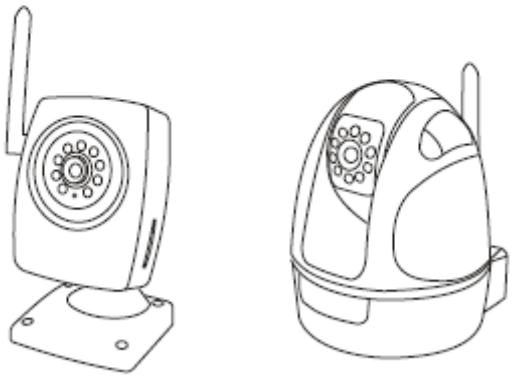
User Manual for IP Camera

Network/IP Camera

(WiFi/cable optional)



GD2806 GD2807 GD2805



GD2808 GD2809

Version No.: 2.0

Please read this user manual carefully before using the product.

Contents

1. Overview

1.1 Brief Introduction

The product is a digital IP camera. With a high-integration SOC chip, it integrates video acquisition, compression and network transmission into a single device and provides a high-definition, high-integration and low-cost solution for LAN-/WAN-based remote video surveillance of users. The IP Camera is applicable to medium/small homes or business offices and various occasions needing remote network video transmission and monitoring. The product features easy installation and convenient operation.

1.2 General Features

- H.264 Integrated intelligent IP camera with high-performance programmable media processor
- Optimized H.264 video compression, easy transmission of high-definition images at low network bandwidth
- Max. 10 users simultaneous browsing online
- Embedded Web Server to facilitate real-time monitoring and setting management via IE window
- Support Wi-Fi/802.11b/g wireless network(* wifi module for optional)
- Real-time browse/recording/snap/retrieval/replay/download
- Dynamic Domain Name Server (DDNS), supporting LAN and Internet
- Diversified network protocols: HTTP, TCP, IP, UDP, SMTP, DDNS, DNS, SNT, DHCP, FTP, and so on
- Network adaptation technology: automatic adjustment of video frame rate based on network width
- Motion detection alarm (settable area and sensitivity), alarm recording, and alarm mail sending
- Support Imaging area masking
- Automatic fault recovery: automatic connection after network interruption
- Remote system upgrade

Special Features for each model

	GD2805	GD2806	GD2807	GD2808	GD2809
Pan /Tilt (270/120deg.)	√	√	√		√
SD card	√	√	√	√	√
Wireless Wi-Fi	√	√	√	√	√
IR night vision (5m)	√	√		√	√
Bi-directional listening	√	√	√	√	√
Built-in microphone	√	√		√	√
External alarm input/output			√		√
Waterproof function			√		

1.3 Operating Environment

Minimum Hardware Configuration:

CPU: Pentium 2.0 GHz
Memory: 256 MB
Graphics card: TNT2
Audio card: Mandatory for listening and bidirectional intercom
Hard disk: Not less than 40G for recording images

Recommended Hardware Configuration:

CPU: Pentium 2.6 GMHz
Memory: 512 MB
Graphics card: Nvidia Geforce FX5200 or ATI RADEON 7000(9000) 128M video memory

Operating System:

32-bit Windows2000, Windows XP, Windows2003 and Windows Vista of Simplified Chinese/English Edition, and 64-bit Windows2003, Windows XP and Windows Vista of Simplified Chinese/English Edition)

Software:

Internet protocol IPv4 (Note: IPv6 not supported for the time being)
IE 5.0 or above
DirectX8.0 or above
TCP/IP

Other demands:

The graphics card of the PC running this software needs to support color conversion and zoom of images. Presently graphics cards tested included Nvidia Tnt/Tnt2, Geforce Mx200/400/420/440 Fx5200/5600, ATI Radeon 7000/7200/7500/8500\9000/9200/9500/9600, MatroxG450/550, and INTEL845G/865G. Note that the driver for the graphics card must support hardware zoom.

1.4 Technical Specifications

Item	Parameter
Image sensor	1/4''CMOS, 300,000 pixels, minimum illumination: 1 Lux
Video compression algorithm	H.264 baseline profile @Level 2.2
Video resolution	VGA: 640*480, QVGA: 320*240
Night vision distance	5m(only for GD2805/GD2806/GD2808/GD2809)
PTZ control angle	Horizontal: 270°; vertical: 120°
Video adjustment parameters	Brightness, contrast, image quality
Stream format	Pure video stream or composite audio/video stream
Video frame rate	1~30 frame/second
Video compression bit rate	16Kbit/second ~ 4Mbit/second
Audio input	One linear input or embedded passive MIC input, MIC impedance: 1000KΩ
Audio output	One linear output
Audio compression algorithm	G.726
System interface	RJ-45, 10/100M Ethernet interface

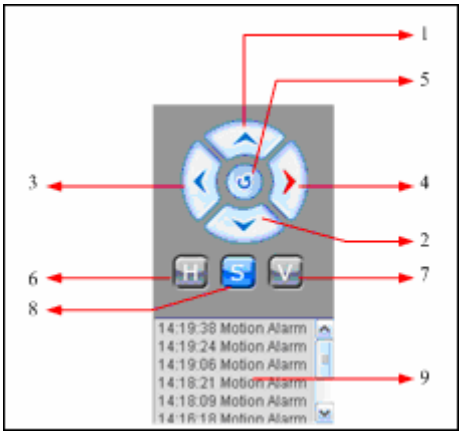
3.1 Liview

3.1.1 Setting Items

On the left of the Homepage are items that a user can visit or set. If an item is clicked, the corresponding item turns yellow, and meanwhile goes to its setting interface. For detailed settings, refer to the following descriptions.

Note: Only the system administrator has the right to set parameters.

3.1.2 PTZ Control and Alarm Messages



Meaning of icons:

1. Up 2. Down 3. Left 4. Right

Note: All above actions involve inching control.

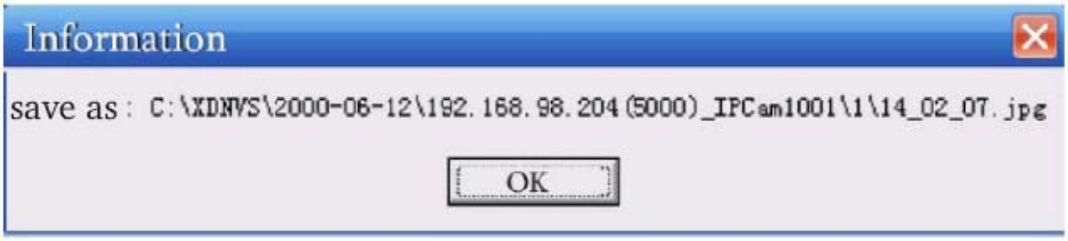
5. Click to return to the default initial position
6. Click to rotate once in horizontal direction
7. Click to rotate once in vertical direction
8. Click to stop continuous rotation
9. Alarm message column: displays alarm time and type in case of any alarm

3.1.3 Functional Buttons

If clicked for the first time, the above icons will turn green (except Alarm), indicating the function is enabled. Clicking again recovers the initial status and cancels the function.

Meaning of functional buttons:

Snap: Snaps a JPEG picture and stores it in the designated path, as shown in the following figure:



Record: Records video files and stores them in a designated path. If the listening function (Call or Speaker) is enabled, recording can be made at the same time.

During recording, to visit a setting item, an alert message appears, prompting that “This will be stopped if you turn to the other pages, continue?”, as shown in the following figure:

Call: Enables the intercom function. Please connect the Audio signal line of the device to the related audio device.

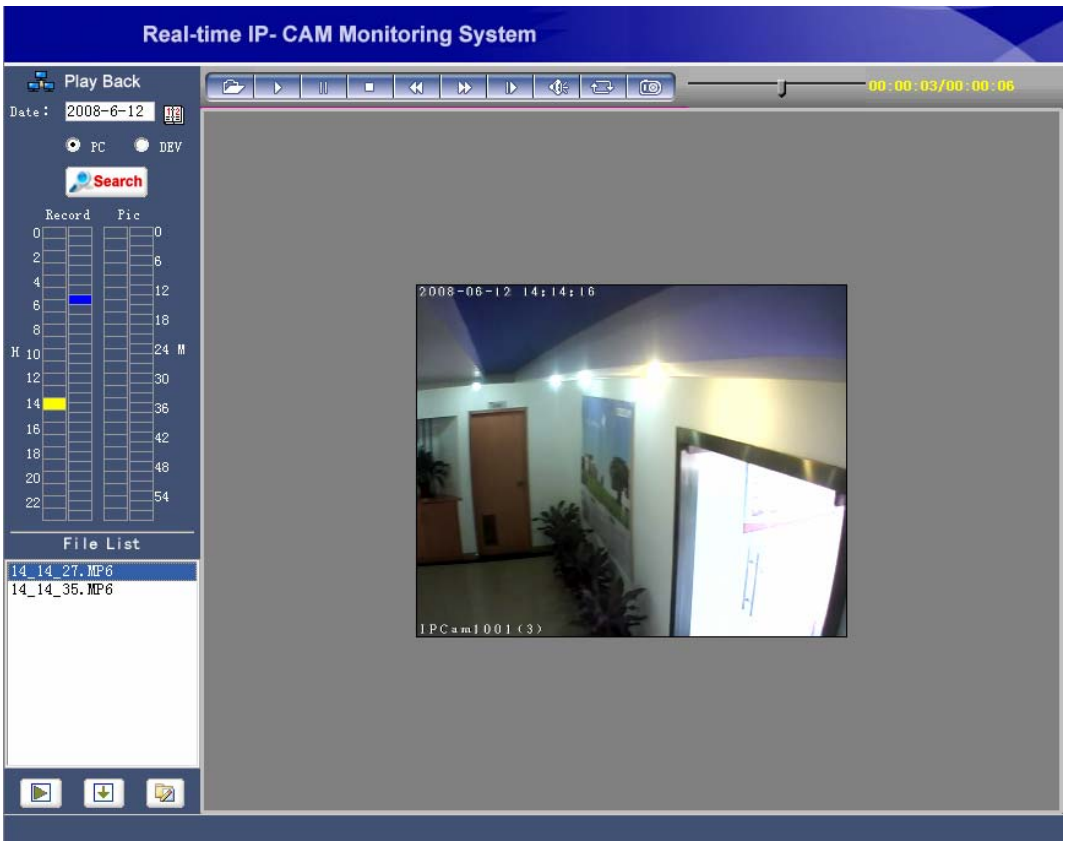
Speak: Enables the listening function. The device has a built-in MIC to listen on-site voices in real time.

Alarm: If the motion detection alarm function is set, (refer to the section of Motion for details), the indicator turns red and blinks after an alarm is triggered.

After an alarm is triggered, double click on this icon stops alarm and meanwhile clears the content in the alarm message column.

By default, an alarm event will stop automatically in ten seconds after being triggered.

Replay: Enables online playback of record files, as shown in the following figure:



3.1.4 Retrieving Record Files

The user can search record files in the local PC or SD card (DEV) of a device.

Date: Select a query date and click  . The calendar selection interface appears, as shown in the following figure:

<<Decrease year

>> Increase year

<Decrease month

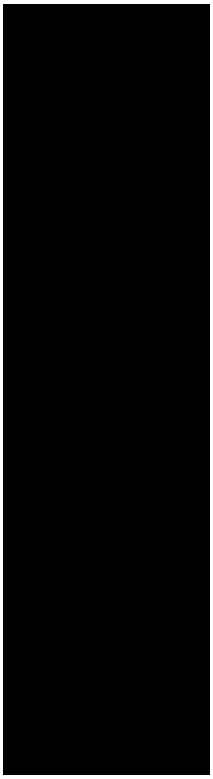
> Increase month

After a date is selected, the calendar interface closes automatically.

PC: Queries record files in the local PC.

DEV: Queries record files in the SD card.

Click Search to search record files in the PC or SD card on the designated date. The method for querying record files in different durations of a day is as shown in the following figure:



The **Record** part displays the list of record files queried.
The **Pic** part displays the list of record files queried.

The left of each part displays hour(s), one hour for each bar;
The right of each part displays minute(s), 2 minutes for each bar;

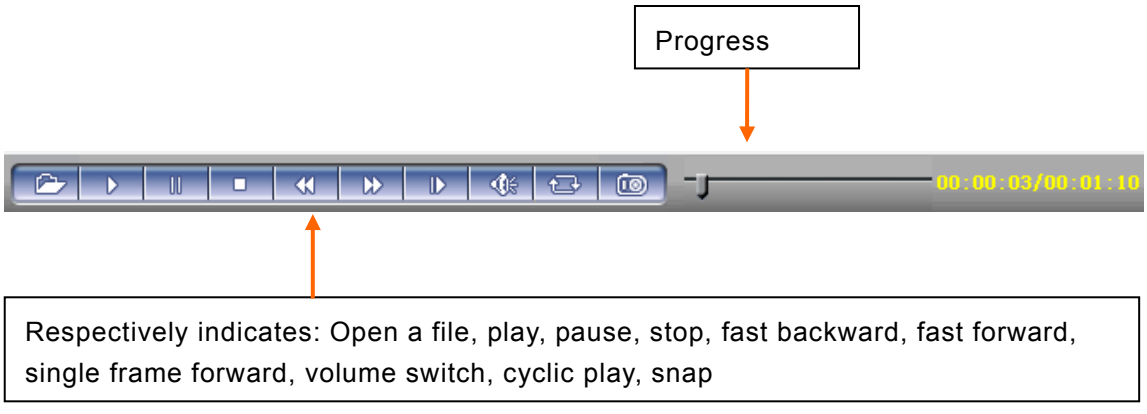
Displays a currently selected time;
Displays the currently queried record files or picture files in a time segment;

File List

Displays a list of the currently queried record files or JPEG pictures.

3.1.5 Playing Record Files

Select a record file or JPEG file to be played from the **File List** or double click to play. During play, the right window clock displays the played content so that the user can view playing information and operate played content, as shown in the following figure:

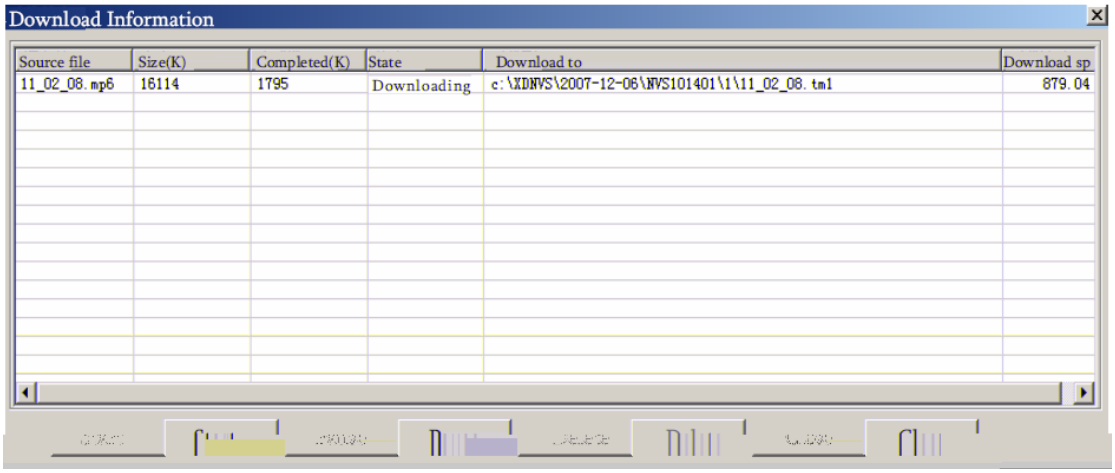


Note: After a motion detection alarm recording is triggered (refer to Motions Settings for details), if the user selects to store record files in the SD card and meanwhile enables audio recording, mosaic may occur to pictures upon replay. Therefore, audio recording is not recommended when recording in the SD card is made.

3.1.6 Download of Record Files in SD Card

Select a record file in the SD card from the **File List**. Click  to download the file to the local PC.

Click  . The **Download Information** window appears. The user can view the file download information, as shown in the following figure:



During download, if the <**Pause**> button is clicked, the download pauses. Clicking <**Start**> resumes the download of the uncompleted file. After download, you may click the <**Delete**> button to delete downloaded files.

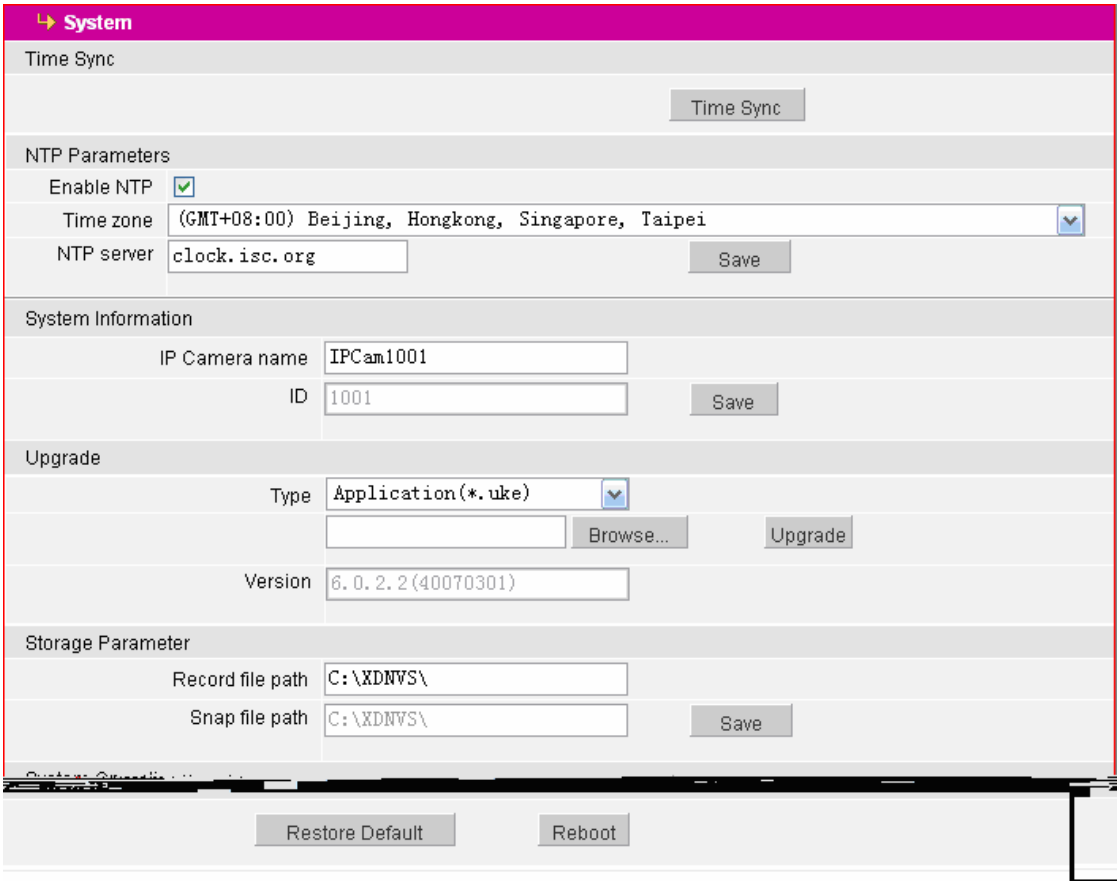
Click the <**Close**> button to exit the **Download Information** window.

3.1.7 OSD Display

The current date and time are displayed on the upper part of the interface.

The IP camera name and the number of users currently visiting the IP camera are displayed on the lower part of the interface.

3.2 System



Time Sync: The system clock of the IP camera synchronizes with the PC.

NTP Parameters: The system clock of the IP camera synchronizes with the clock of the NTP Server.

This function is enabled by default. Please select and save a time zone and switch to the **Live View** interface. The upper part of the interface will display the calendar and clock of the NTP Server.

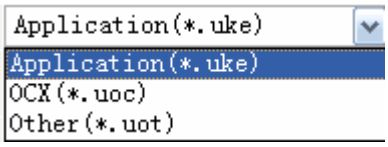
System Information: Displays device name and device ID.

The device name may be a user-defined one and the ID is the unique identity upon device delivery.

Note: The device name shall be saved after modification, and the IP camera will reboot automatically.

Upgrade: software upgrade

Three files needs upgrade, that is, uke file, uoc file and uot file, as shown in the following figure:



Click the <**Browse...**>button to select an upgrade file.

Click the <**Upgrade**> button to confirm and download the file to the system. During

this process, the system will display an upgrade progress bar. After the upgrade is completed, the system prompts “upgrade succeeded”, and meanwhile, the IP camera reboots automatically (it takes about 5 seconds). Please wait.

Version: version number of the current software, such as 6.0.2.2.

Note: During upgrade, make sure that the power supply and network connection of the IP camera shall not be interrupted.

For obtaining of upgrade files, please contact our company or the local dealer. Our company shall not be held liable for any device failure arising from unauthorized upgrade files.

Storage Parameter

Storage path for record files, the default path is: C:\XDNVS.

System Operation

Restore Default: Restores the default settings. Please use this function with care.

Reboot: Automatic device reboot; the IP camera will reboot in about five seconds, please wait.

3.3 Video

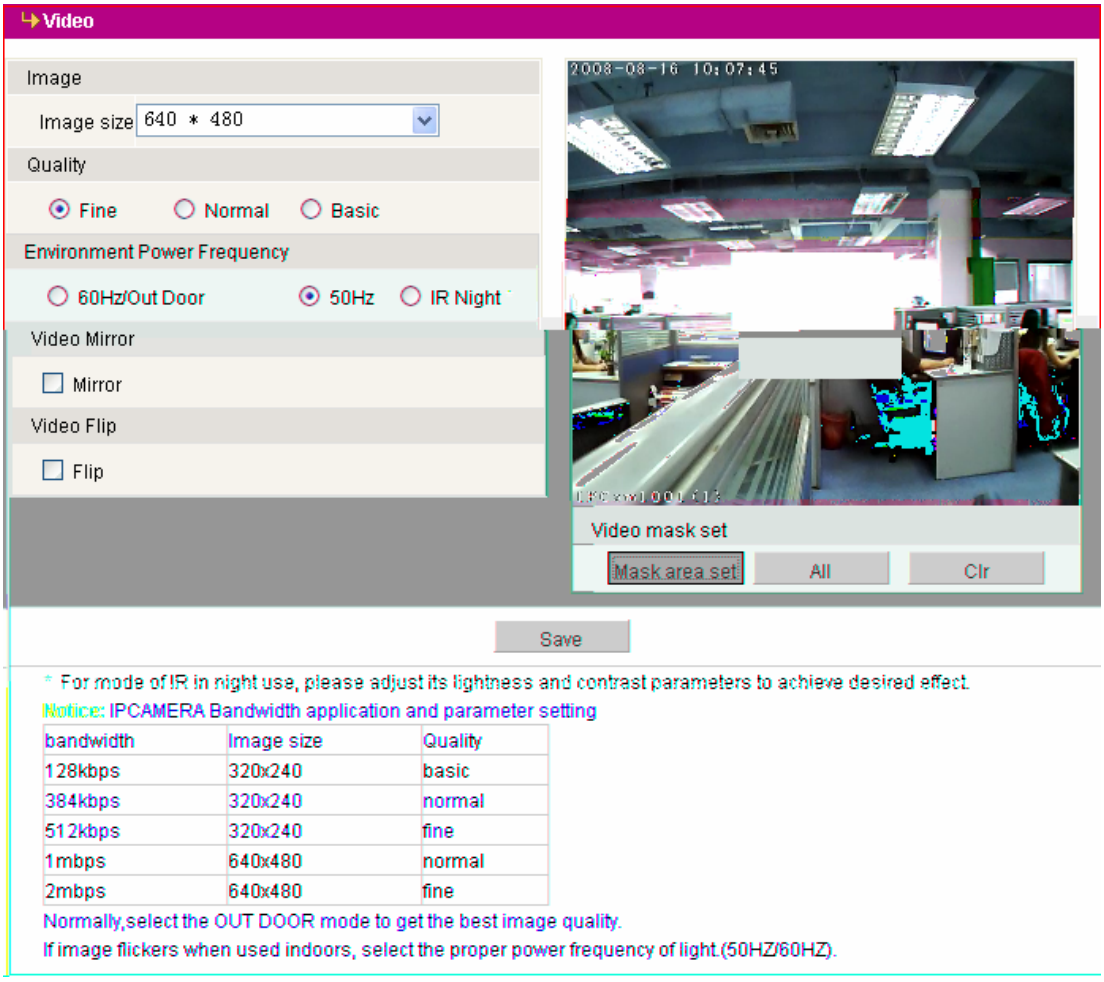


Image: Image resolution setting

VGA: 640*480; QVGA: 320*240; save any resolution modification, and the device will reboot automatically.

Quality: Image quality setting

The user may select **Fine**, **Normal** and **Basic** according to the actual needs. **Fine** is selected by default.

Note: Different image resolutions and qualities occupy different network bandwidth. Please make settings with reference to the table of IPCAMERA Bandwidth Application and Parameter Setting.

Environment Power Frequency: Selection of operating environment and power frequency of light

According to different lighting environments, select the power frequency of 50Hz or 60Hz. 60Hz is selected by default.

Note: Wring power frequency selection may cause image flickering.

In case of poor illumination of device installation site or night use, select the night vision mode **IR Night**.

Video Mirror and **Video Flip**:

Image mirror and flip: if hanging installation is taken for the device, images may be inversed, so these two functions can be enabled for adjustment.

Video mask set: mask of private images

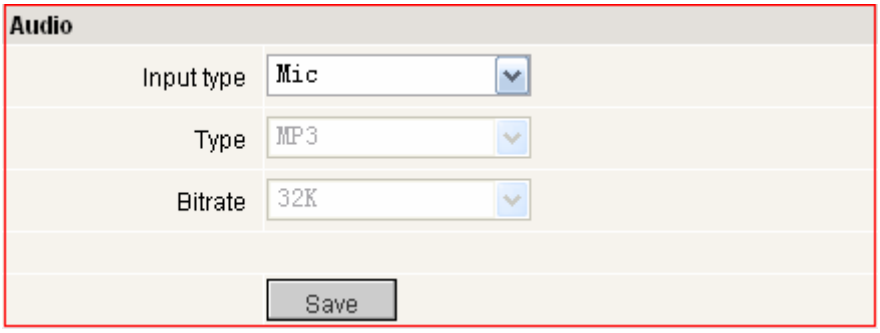
To protect some monitored areas from other persons, images of such an area can be masked.

An entire image is split into 22*18 small areas. Double click or drag your mouse to select one or more areas to be masked.

All: Sets to mask the entire image.

Clr: Clears the masked area(s).

3.4 Audio



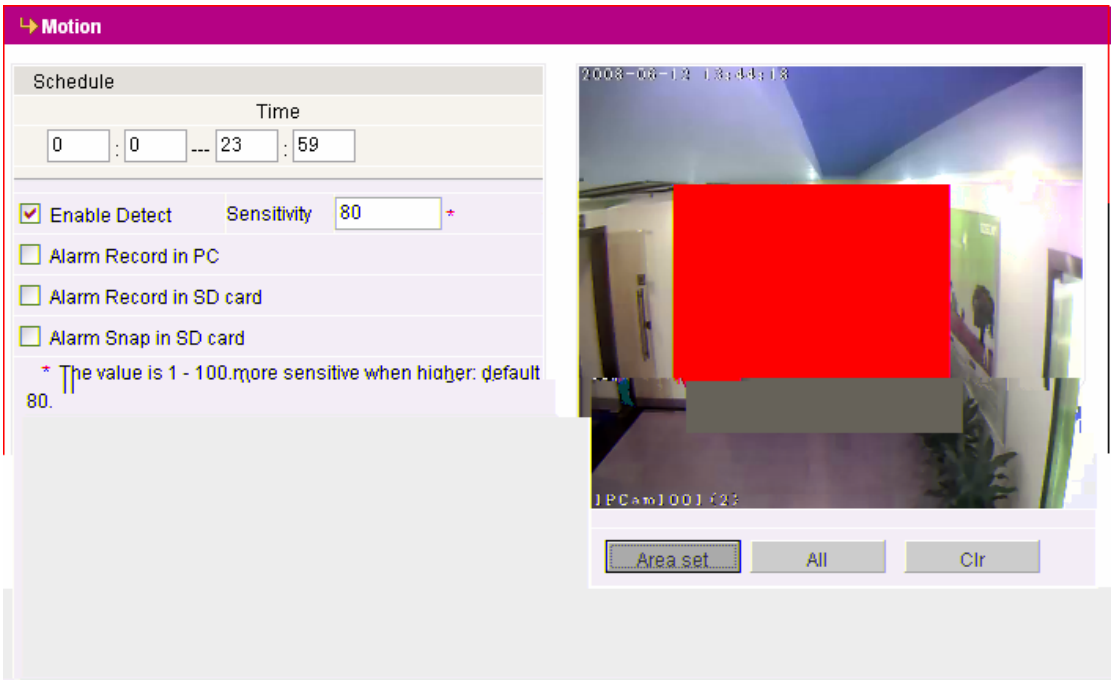
Input type: Selection of external audio input type

Mic (microphone) input or Line In (linear) input.

Type: Displays audio code format

Bit rate: Displays audio bit rate.

3.5 Motion



Schedule: Sets the arming duration for motion detection.

Enable Detect: Enables or disables motion detection.

Sensitivity: Motion sensitivity setting, ranging from 1 to 100 (80 by default); 1 means the lowest sensitivity while 100 means the highest sensitivity

Alarm Record in PC: Enables local PC recording after alarm trigger.

Alarm Record in SD card: Enables SD card recording after alarm trigger.

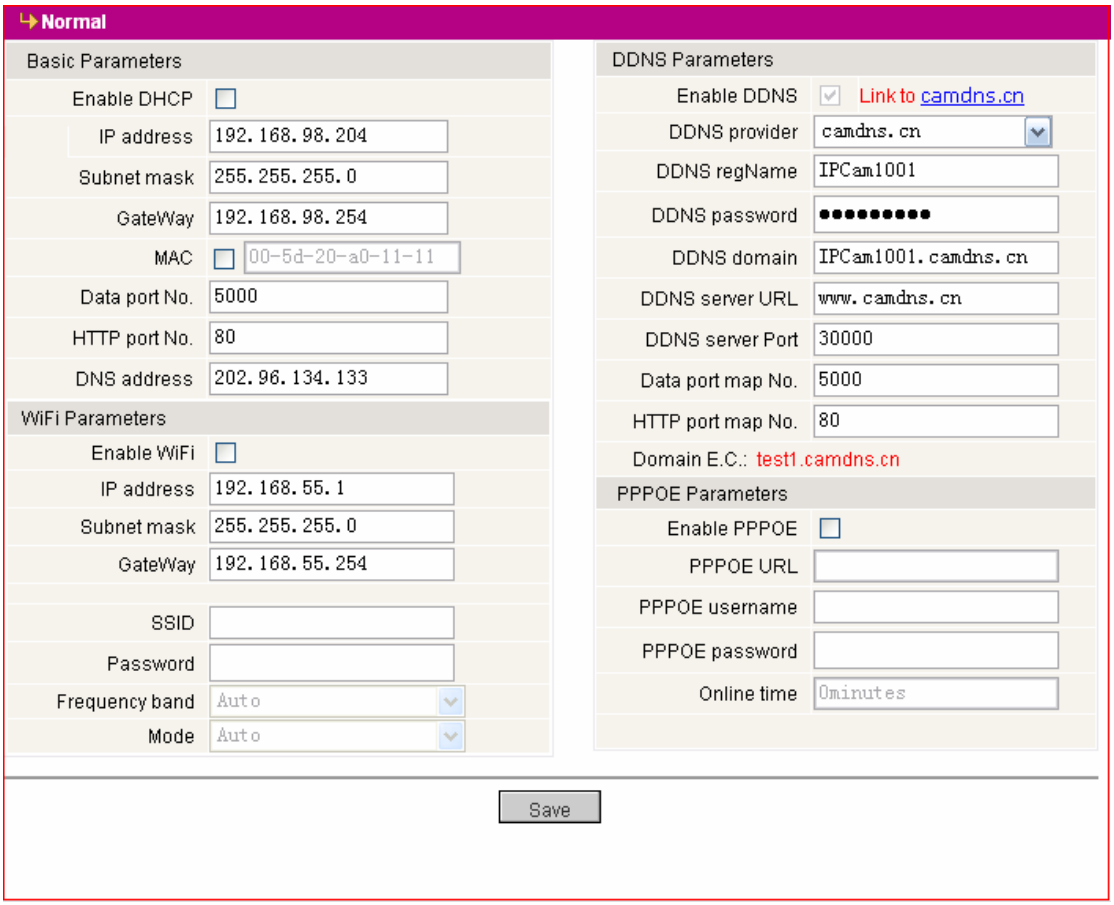
Alarm Snap in SD card: Snap site images in JPEG format and store them in the SD card after alarm trigger. If alarm trigger continues, an image will be snapped and stored in the SD card for about every ten seconds

Area set: Click and drag your mouse to determine a detection area.

All: Sets the entire video as the motion detection area.

Clr: Clears all motion detection areas.

3.6 Network



Basic Parameters: setting of basic network parameters

If fixed IP (such as static extranet IP or LAN) is used for IP camera connection, it is necessary to make setting here.

IP address: Fills in the IP address of the IP camera.

Subnet mask: Fill in the subnet mask, such as 255.255.255.0.

GateWay: Fill in the gateway address.

MAC: Physical address of the IP camera, its unique identity over the network. Do not change its settings at will.

Data port No: Data stream transmission port

HTTP port No: Web access port

DNS address: Fill in the local DNS address.

For detailed parameter settings, consult your network administrator or the local ISP (Internet Service Provider).

For LAN application, please avoid conflict between the IP address of the IP camera and that of the internal PC over the LAN.

Enable DHCP: Enables DHCP service or not.

If a DHCP Server exists over your network (for example, the LAN has a router device providing DHCP service), after this function is enabled, the DHCP Server will automatically allocate an IP address to your IP camera.

WiFi Parameters: Settings of wireless WiFi parameters.

A WiFi module can be configured for the device to support wireless network connection. It is applicable to a network environment with wireless AP devices (such as wireless router).

Enable WiFi: Enables or disables WiFi function.

IP address: Sets a wireless IP address which shall not be in the same network section as the wired network address (i.e., IP address in **Basic Parameters**.

Subnet mask: Sets subnet mask of the wireless network.

Gateway: Gateway address of the wireless network. It shall not be in the same network section as the wireless gateway address (the **Gateway** address in **Basic Parameters**).

SSID: A login name for identity verification of the wireless network. On a user passing identity verification is authorized to access the wireless network. It shall be the same as the SSID set in the wireless network (router/AP).

Password: Wireless network encryption password.

Frequency band: After successful connection, the frequency bandwidth of the wireless network is displayed.

Mode: After successful connection, the connection mode of the wireless network is displayed.

Note: The WiFi setting and connection are complicated. For detailed settings, refer to the section of "*WiFi Setting and Connection*" in the appendix.

DDNS Parameters: DDNS domain setting

The setting of this item can bind the IP camera with a fixed domain name so that it can access the network via domain name, regardless of change of the public IP address of the camera.

DDNS provider: Select the DDNS Server. The device supports three DDNS Server addresses:
viewipcam.com, camdns.cn, and 3322.org .

DDNS regName: User name the user registers with the DDNS Server.

DDNS password: Password the user registers with the DDNS Server.

DDNS domain: Remote access domain name set after logon to the DDNS Server.

DDNS server URL: DDNS Server address, such as www.3322.org

DDNS server port: DDNS Server connection port, 30000 by default.

Data port map No.: If the device is mapped into a public network via a network server (e.g., a router), fill in the data port number of the public network used after device mapping, 5000 by default.

HTTP port map No.: If the device is mapped into a public network via a network server (e.g., a router), fill in the web port number of the public network used after device mapping, 80 by default.

Note: To implement normal DDNS domain name access, set the correct local DNS address. For details, refer to **DNS Address** setting in **Basic Parameters**. The default DNS address of the IP camera is a DNS address of Guangdong province in P.R.China. To enable the DDNS function outside Guangdong, set the correct local DNS address.

Note: For detailed application and setting of DDNS domain name, refer to <*Application and Setting of DDNS Domain Name*> in the appendix.

PPPOE parameters: Setting of PPPOE dial-up Internet access parameters

The device supports PPPOE dial-up Internet access. If only the user fills in the correct information, the device can make network access connection independently. Since the IP address for dial-up Internet access is a dynamic one, the user is recommended to apply for and set the DDNS domain name.

Please set the following PPPOE parameters:

Enable PPPOE: Enables or disables PPPOE function.

PPPOE URL: The current IP address displayed after successful dial-up connection (no need to set).

PPPOE username: Fill in the user ID. Please consult your local ISP.

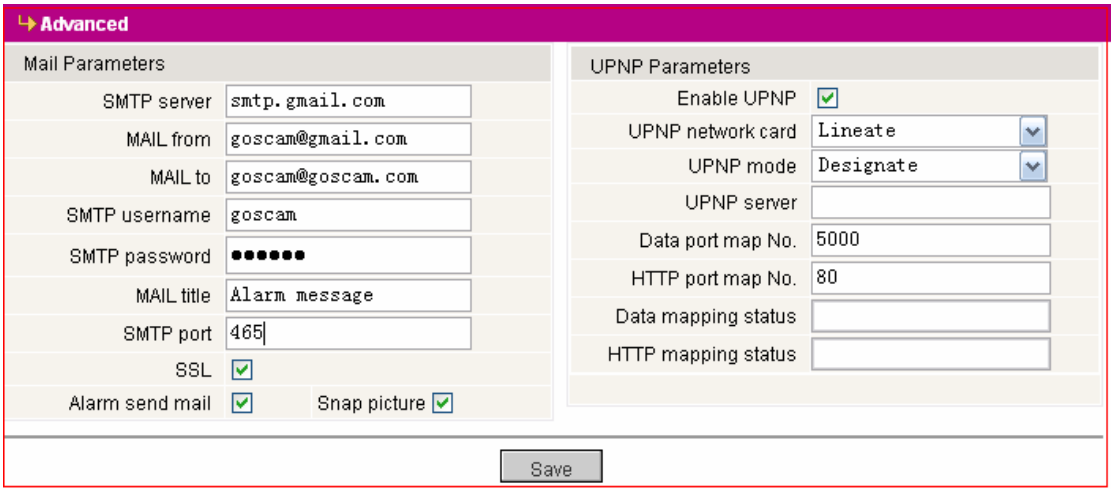
PPPOE password: Fill in the password. Please consult your local ISP.

Online Time: Displays the online network connection duration (no need to set).

Note: The connection of the IP camera over different networks needs different parameter settings. For details, refer to <*Access and Setting of IP Camera in Different Network Environments*> in the appendix.

After parameter setting, click <**Save>**. The device needs to reboot (about 5 seconds), please wait.

3.7 Advanced



Mail Parameters

If the user has set motion detection alarm and enabled alarm mail sending function (for details, refer to **Motion** setting), complete related mailbox setting here.

SMTP server: Address of the SMTP mail server, such as the Gmail SMTP Server

is smtp.gmail.com.

MAIL from: Inbox address

MAIL to: Outbox address

SMTP username: Logon user name for the mailbox sending alarm mails

SMTP password: Logon password for the mailbox sending alarm mails

MAIL title: The title of a mail

SMTP port: Port number of the SMTP Server

SSL: Supports SSL security authentication or not

Alarm send mail: Enables alarm mail sending function

Snap picture: Enables picture snap function. Snapped pictures will be sent as an attachment to the alarm mail. A JPEG picture will be snapped every 10 seconds even if the alarm is continuously triggered in 10 seconds.

Note: Normally, the default port number of an SMTP Server is 25 (such as the 163 mail server), and no SSL authentication is needed. However, some mail servers use special SMTP port, for example, the Gmail uses the 465 port, and meanwhile, SSL authentication is needed. When selecting a mail server, the user must clearly know the latest SMTP port of the Server and whether it supports SSL authentication. Furthermore, some free mails do not support SMTP service.

UPNP parameters

Automatic port mapping: this function is enabled if the LAN has a server (such as a router) with UPNP function, so the server will automatically map the port set for the IP camera into an external network (such as the Internet).

UPNP network card: Type of network card connecting the UPNP Server: Lineate or WiFi.

UPNP mode: includes two modes: **Designate** and **Auto**. The **Designate** mode means the data map port and Web map port are designated for the server, while the **Auto** mode means the server sets the data map port and Web map port.

UPNP server: gateway address of the network server with UPNP function.

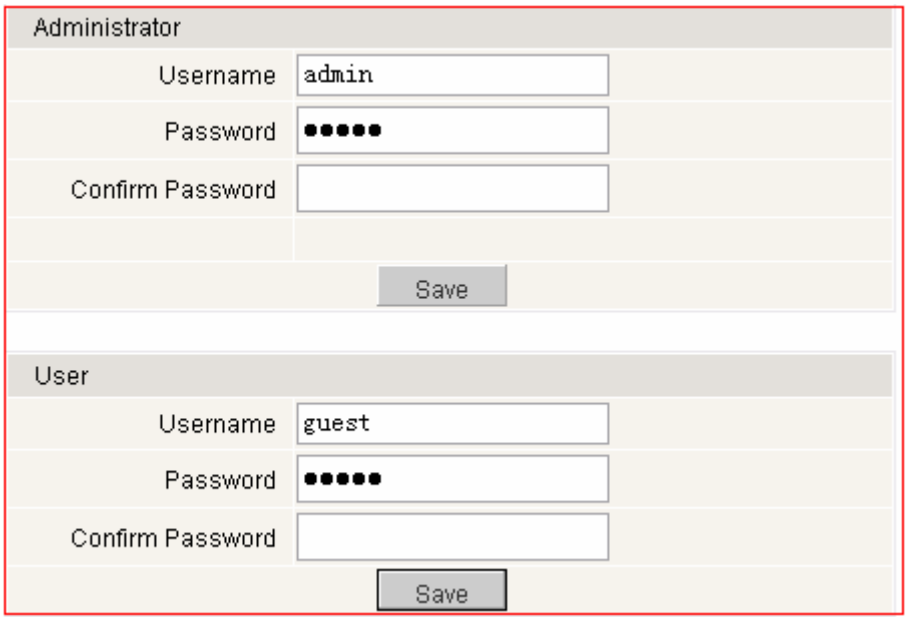
Data port map No.: Data port number.

HTTP port map No.: Web port number.

Data mapping status and **HTTP mapping status**: Port number displayed after successful mapping.

After setting, click <**Save**>. The settings take effect.

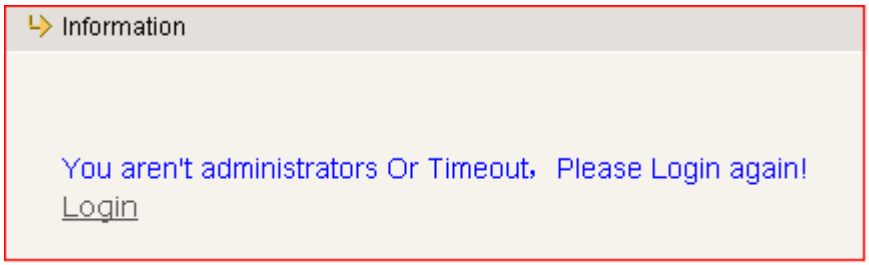
3.8 User Manage



The IP camera provides two levels of user access rights:

Administrator: system administrator with the highest right who can access the device and modify all of its parameters.

User: Ordinary users who can log on and access the device, but cannot set and modify its parameters. If such a user access related setting items, the system will prompt access rejection information, as shown in the following figure:



Please fill in and remember the following user management information:

Username: Fill in the name of the authorized user.

Password: Fill in the password of the authorized user.

Confirm Password: Confirmation of the user's password.

The **Username** and **Password** must be a case-sensitive string composed of one to sixteen letters, digits, underlines or dots (.).

After setting, click <**Save**>. The settings take effect.

3.9 Image Set

The user can adjust the brightness and contrast of images to suit different operating environments. Click **Image Set**. The following window appears:

Brightness adjustment, 13 by default
Contrast adjustment, 23 by default
Click to decrease the magnitude by 5
Click to increase the magnitude by 5
Click to restore default settings.

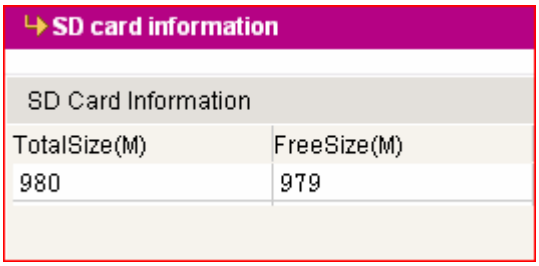
The image browse interface on the right can display the brightness and contrast adjustment effect in real time.

After setting, click **Image Set**. The widow closes.

3.10 SD Card

Query the information about the current SD card.

On the blank of the interface, right click. A dialog appears. Select **Refresh** to view the total size and free size of the SD card. If Empty is displayed, it indicates no SD card is inserted into the IP camera.



Note: The SD card adopts cyclic recording mode. If the system finds that the recording space of the card is used up (the free size is less than about 60MB), it will automatically overwrite the previously recorded files. Therefore, please properly download and back up the recorded files in the SD card.

4. Appendix

4.1 Network Ports Occupied by IP Camera

By default, the IP camera occupies the following ports:

TCP	80 (Web port)	5000 (communication port, audio/video data transmission port, intercom data transmission port)
UDP	5000	Audio/video data transmission port
Multicast port	Initial multicast port + channel ID	

4.2 Default Network Parameters

Wired network:

IP address: 192.168.1.1

Subnet mask: 255.255.255.0

Gateway: 192.168.55.1

Data port: 5000

Web port: 80

DHCP: disabled

Wireless network:

Wireless IP address: 192.168.55.1

Subnet mask: 255.255.255.0

Gateway: 192.168.1.1

4.3 Application and Setting of DDNS Domain Name

4.3.1 DDNS Overview

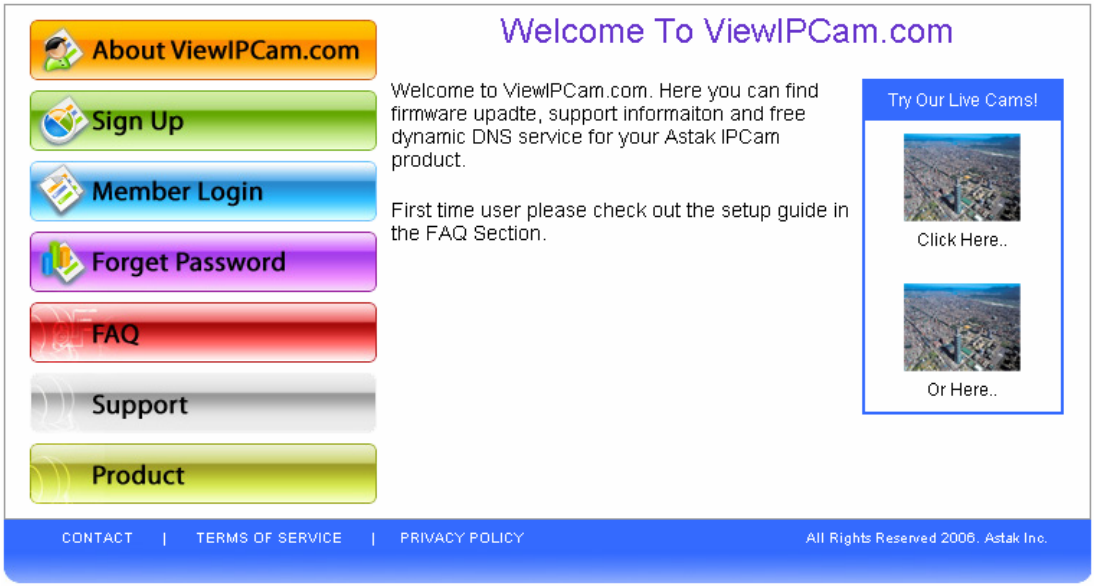
Presently the most IP addresses an ISP provides are dynamic ones (such as ADSL dial-up Internet access). However, a fixed IP is needed for remote access of many IP cameras. The cost for a fixed IP is unacceptable to customers. Therefore, DDNS provides a brand-new solution which can capture the variable IP and relates it to the domain name. In this way, a customer can access the IP camera by the domain name.

4.3.2 Application for DDNS Domain Name

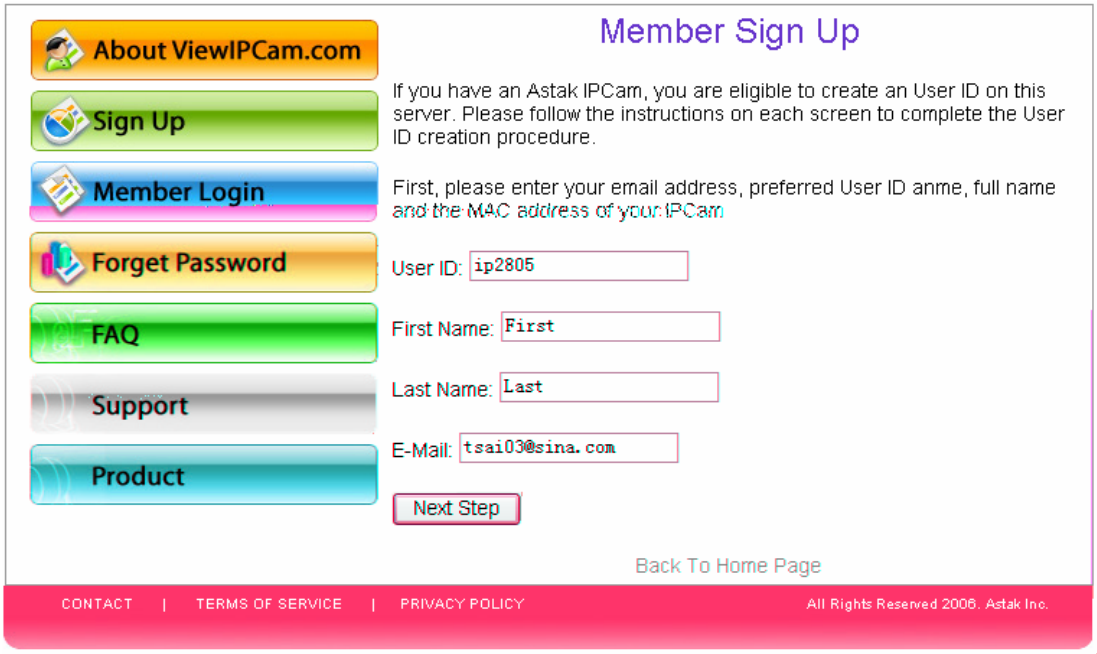
To access the IP camera via a DDNS domain name, first register a DDNS domain name (domain) with the DDNS Server.

The device supports three DDNS Servers: 3322.org, viewipcam.com, and camdns.cn. The user can select anyone of them. In the following we will take viewipcam.com as an example to describe the application for DDNS domain name.

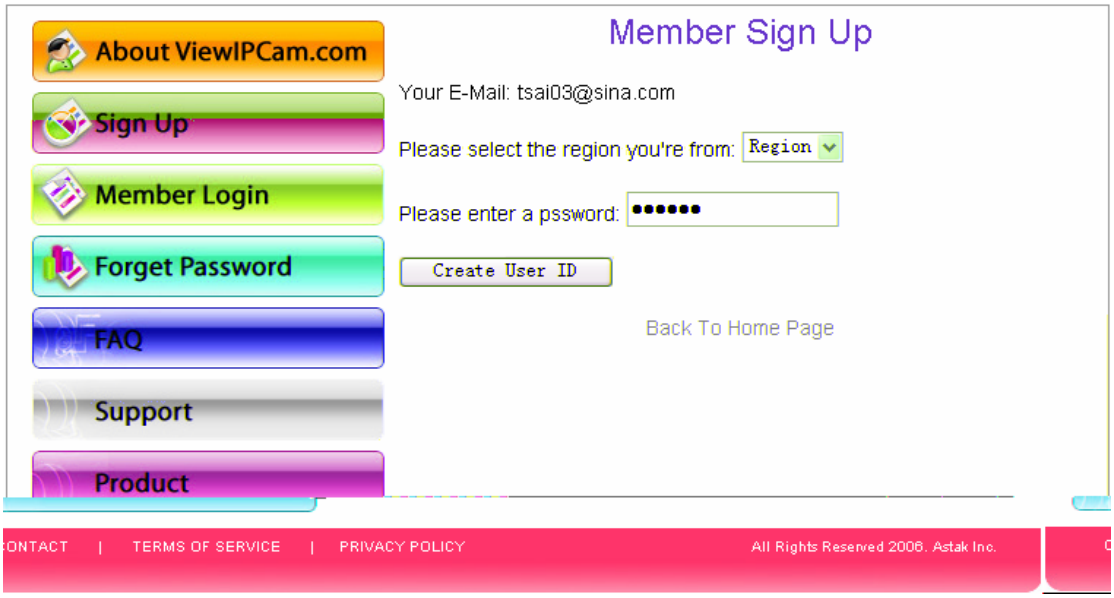
Log on to www.viewipcam.com.



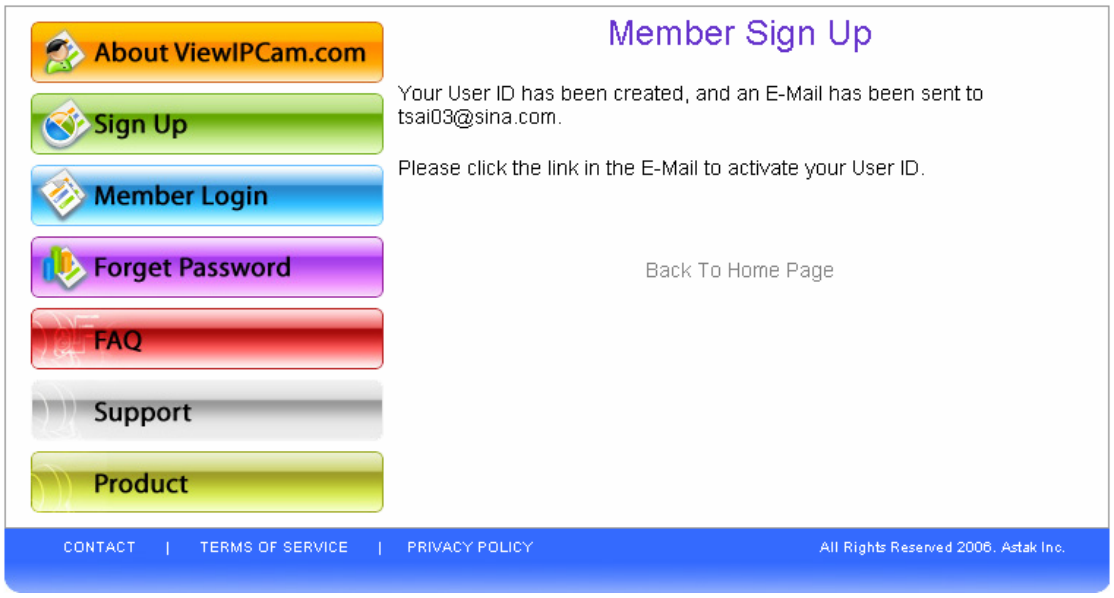
Select **Sign Up**.



Fill in **User ID** and your **E-mail** address. Click **<Next Step>**.



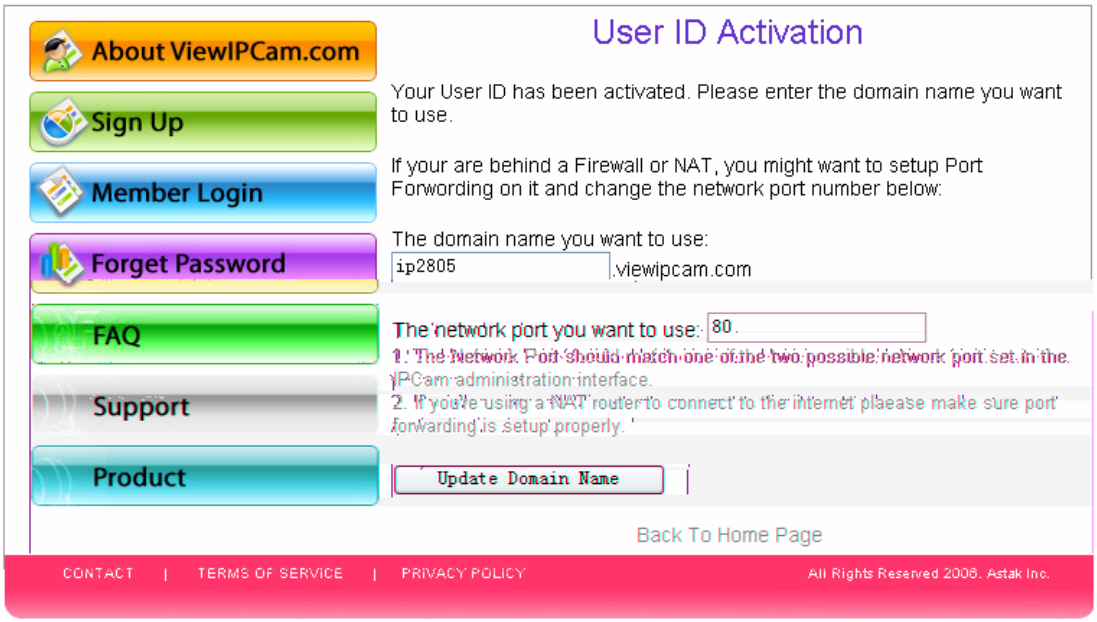
Fill in the login password. Click <**Create User ID**>.



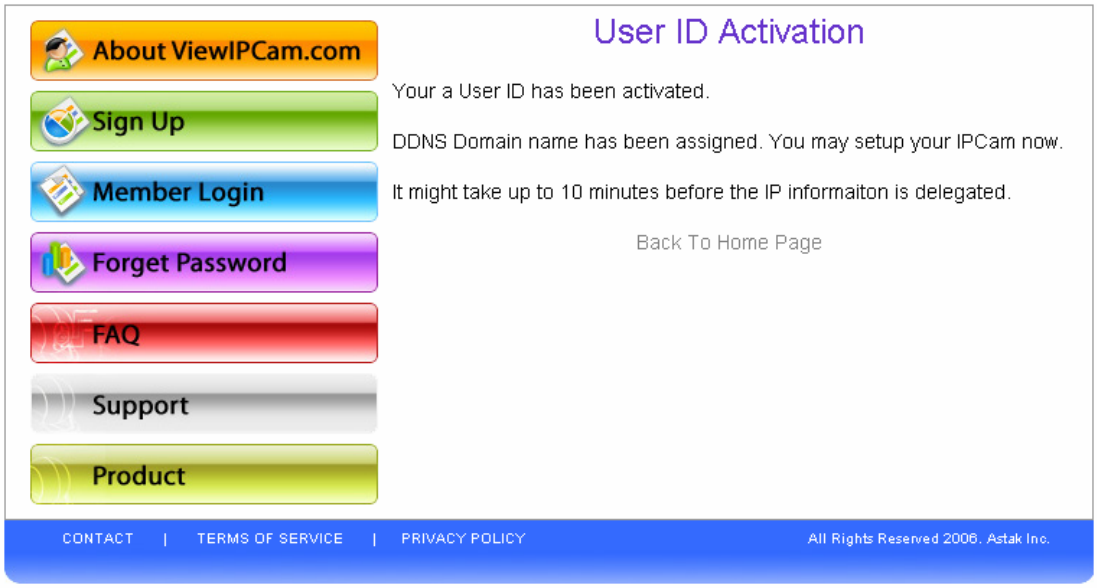
The **User ID** has been created successfully. The system prompts the user to check an E-mail from the Astak DDNS Server to activate the **User ID**.

Check your E-mail, and click 

to activate your User ID.



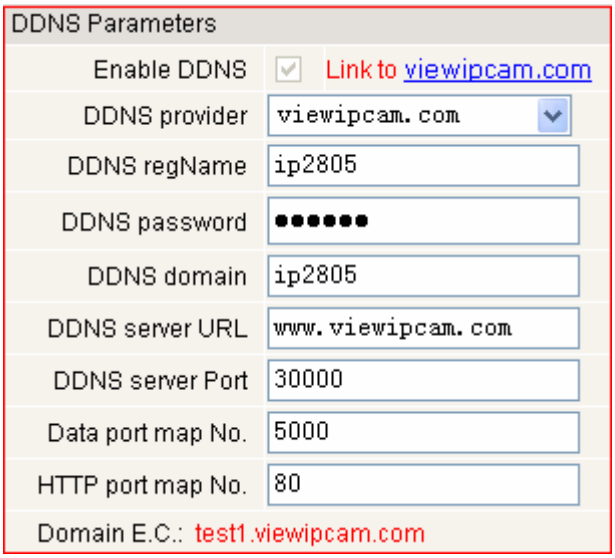
Fill in a DDNS domain name (such as “ip2805”) and network port (such as “80”) you want to use. Click <**Upgrade Domain Name**>



The domain name has been assigned, and the system prompts the user to complete the DDNS domain name setting in the IP camera.

4.3.3 DDNS Setting in IP Camera

Log on to the IP camera. Enter **DDNS Parameters** under **Network**. Fill in the user name, password and domain name registered with the domain server viewipcam.com, as shown in the following figure:



Save the settings. The IP camera will reboot.

In this example, your IP camera has accessed to the Internet, and its domain name is http://ip2805.viewipcam.com. Enter it in the IE address bar, and you can access the device via the DDNS domain name.

Note: If you use the DDNS domain name to access the IP camera, do not add "www" to the IE address bar.

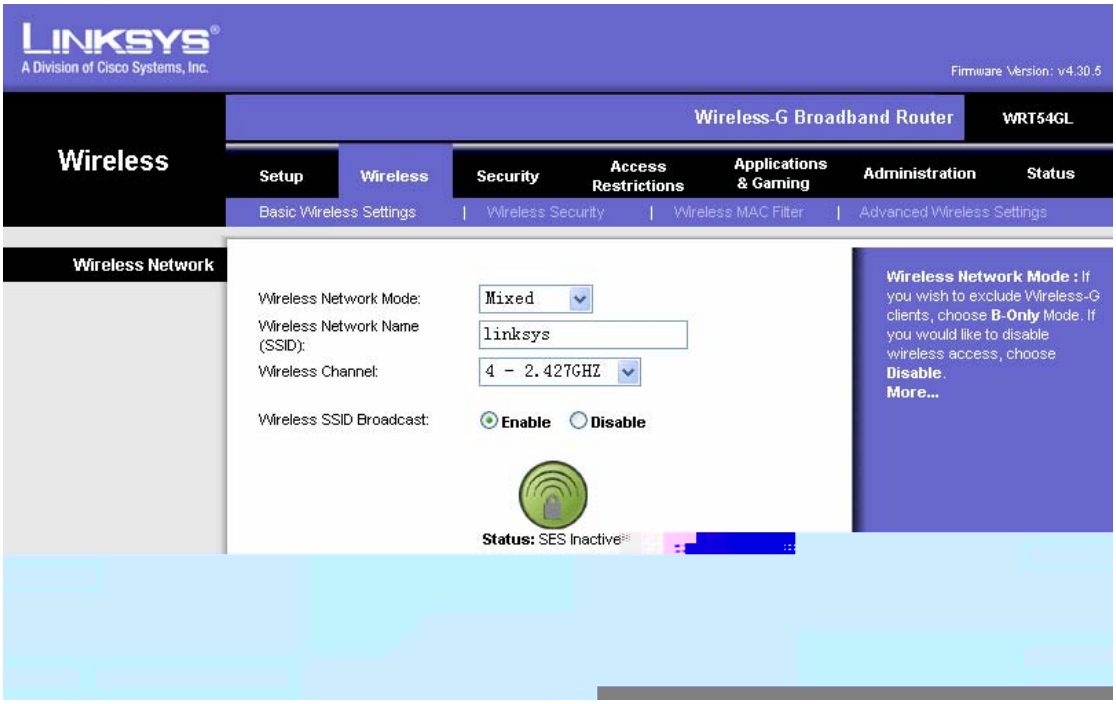
4.4 WiFi Setting and Connection

If your IP camera has WiFi configuration, your IP camera can access a WiFi network in wireless mode with a wireless AP device (e.g., a wireless router). This section takes a Linksys wireless router WRT54GL as an example to describe WiFi setting and connection.

4.4.1 Wireless Router Setting

First, enable the wireless function of the router.

Log on to the wireless router setting interface. Select the **Wireless** item.



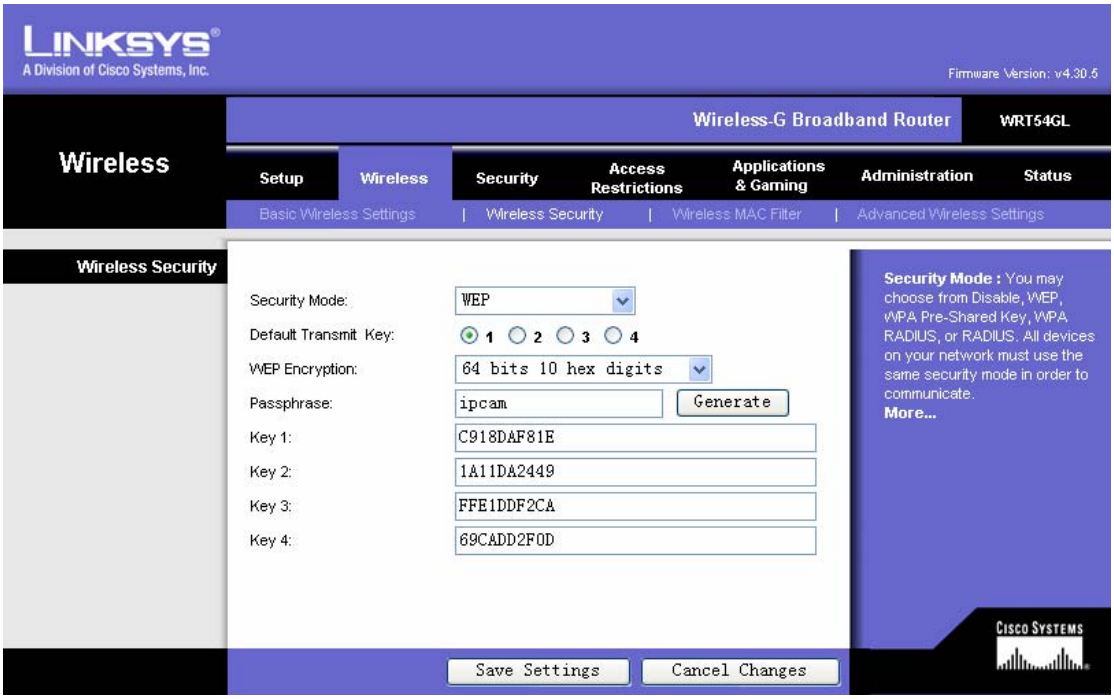
Select **Basic Wireless Settings**. Please complete the following settings:

(1) Wireless Network Mode: **Mixed** is recommended to enable the wireless function ad support the 802.11b/g standard. Selecting **Disable** disables the wireless function.

(2) Wireless Network Name(SSID): Fill in SSID (**linksys** is selected by default)

Click <**Save Settings**> to save the settings.

To encrypt the wireless network, select **Wireless Security**.



Please complete the following settings:

(1) Security Mode: Please select **WEP**.

(2) Default Transmit Key: Select which group of key is used.

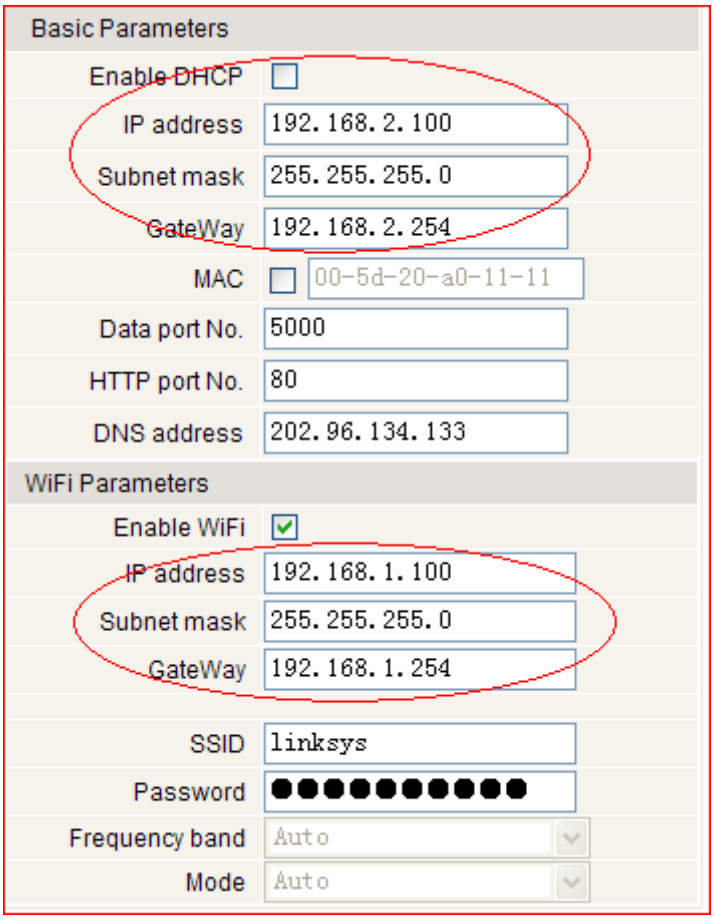
The key may be manually set or automatically generated by clicking <**Generate**>.

Please select or set one among the four groups of keys.

Remember the set SSID and key, since you have to fill in the information during WiFi setting of the IP camera.

4.4.2 WiFi Setting of IP Camera

Log on to the IP camera. Enter the **Network**. Fill in the IP address, Subnet mask, Gateway, SSID, password and other items in **WiFi Parameters**, as shown in the following figure:



4.4.3 Precautions on WiFi Settings (This is very important, please read carefully)

(1) The wireless IP address shall be in different network section from the wired IP address. If the wireless network section is 192.168.1.XXX, the wired IP address in **Basic Parameters** shall be set in another network section such as 192.168.2.XXX .

(2) Please disable DHCP function in **Basic Parameters.**

(3) The WiFi encryption mode only supports WEP mode for the time being. Please select **WEP** in the wireless router.

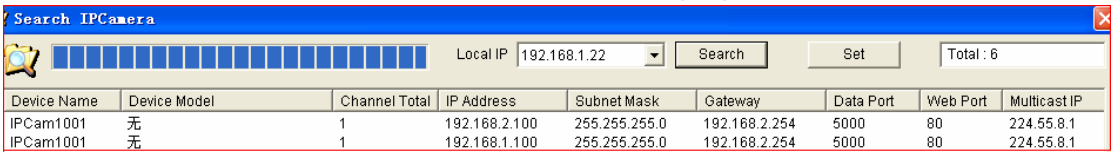
(4) The SSID and encryption key shall be the same as that set in the wireless router.

(5) In case of WiFi transmission, delay or stagnation may occur to browse of VGA pictures due to influence of wireless transmission bandwidth of the device. It is recommended that the image format be set to QVGA to get the best image quality upon WiFi connection.

(6) The wireless transmission frequency band of the device is 2.4 GHz. The transmission distance in open space is 30m. The existence of other 2.4 GHz wireless products may lead to interference and affect the transmission effect.

4.4.4 WiFi Network Search and Access

Save WiFi parameter settings. Disconnect your network cable and wait till the IP camera completes reboot. Check whether the IP camera connects the WiFi network. Run the SearchIPCam.exe software in the CD to search. If WiFi connection is normal, the search software can find the wireless and wired addresses of the IP camera at the same time, as shown in the following figure:



Enter the wireless IP of the IP camera in the IE address bar, and you can access the IP camera connected via WiFi.

4.5 Access and Setting of IP Camera in Different Network Environments

This section describes how to access and set IP camera in different network environments.

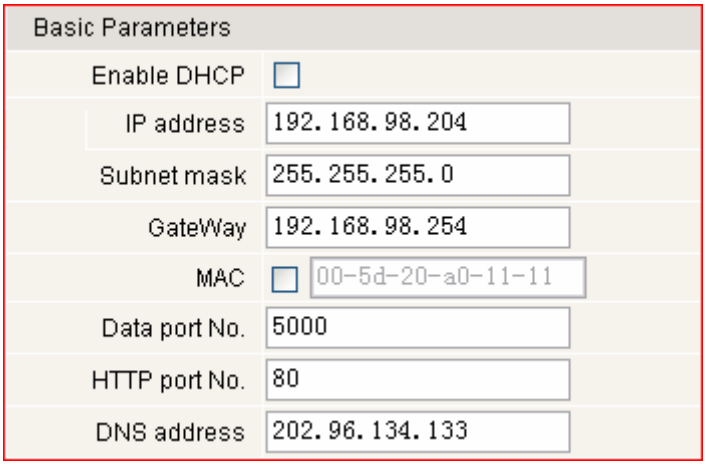
4.5.1 LAN

Two modes can be used in a LAN to connect an IP camera: Local static IP and local dynamic IP.

(1) Local static IP

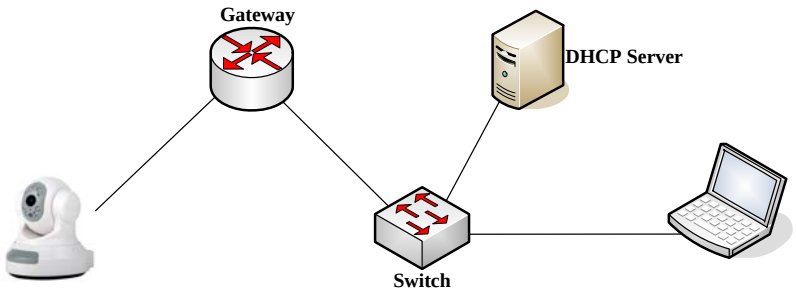
Local static IP means that your administrator assigns a local IP to the IP camera. In the LAN, your PC must be in the same network section as the IP address of the IP camera to access successfully. The network topology is as follows:

For detailed settings, refer to **Basic Parameters** settings under **Network**. An example is given below:

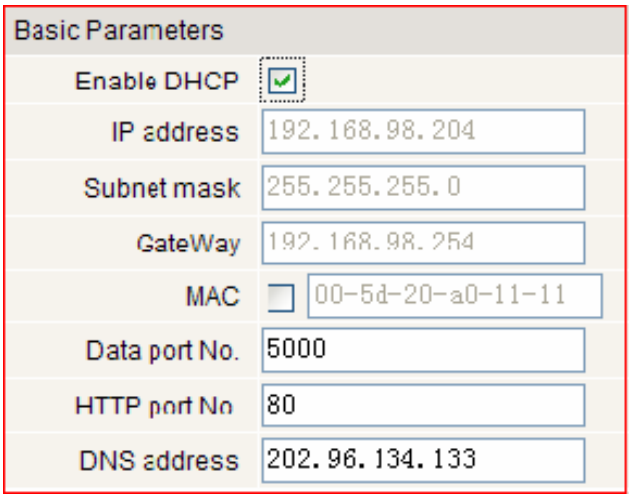


(2) Local dynamic IP

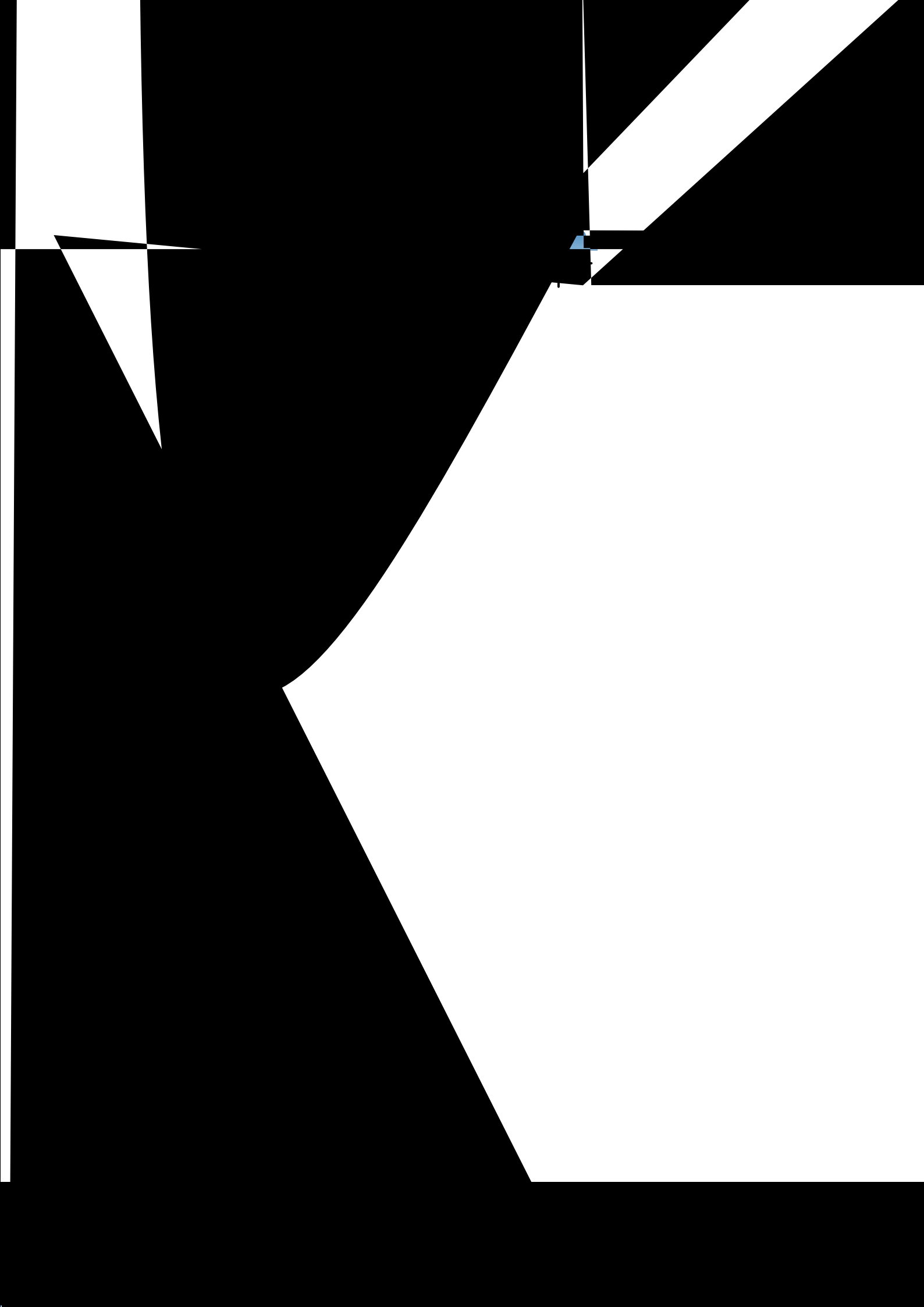
Dynamic IP means that the IP camera gets an IP address in the same LAN via the DHCP Server. The network topology is as shown in the following figure.



For detailed settings, refer to **Basic Parameters** settings under **Network**. An example is given below:



Use the Internet Explorer to log on to the IP camera. Go to **Network** and click to select **Enable DHCP**. Save the parameter settings. The IP camera reboots to validate the settings.

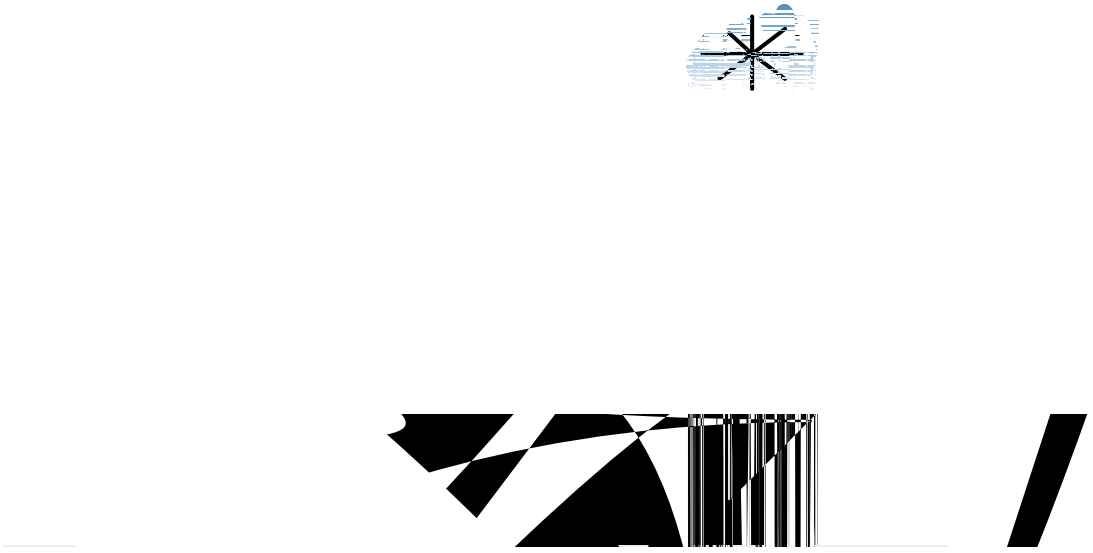


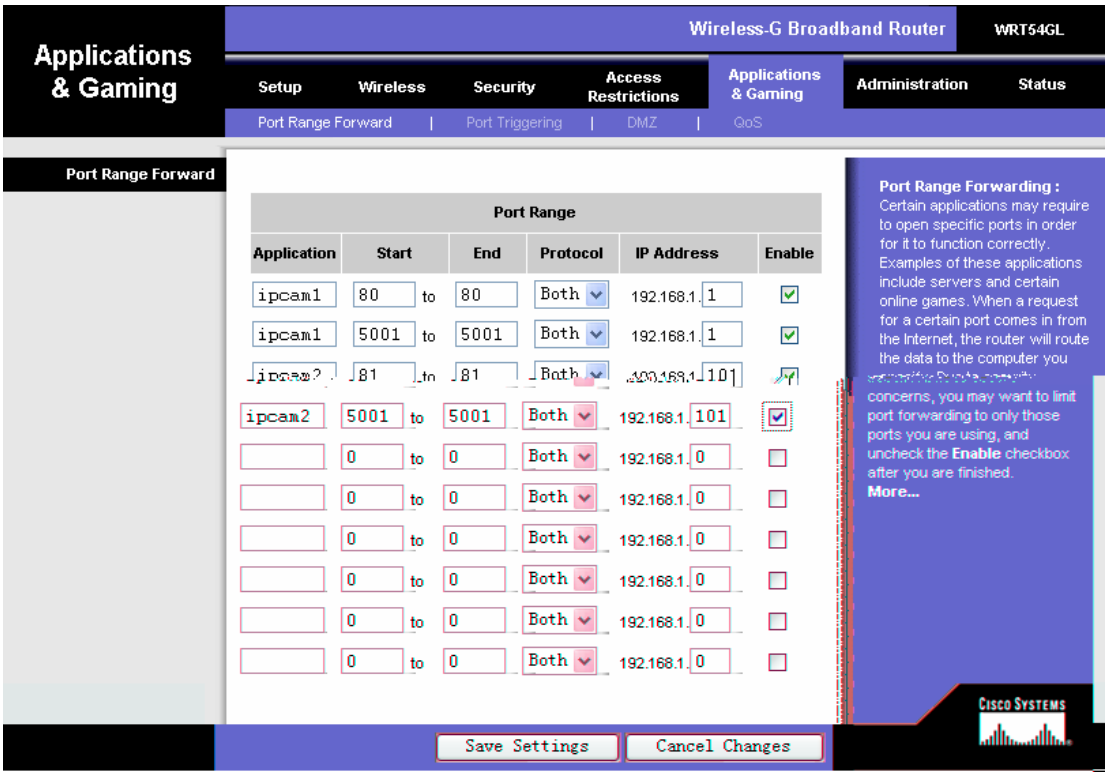
Connect the IP camera to the network port of the ADSL Modem. Power on again and wait till successful dial-up.

Note: The successfully dial-up Internet access time and DDNS domain name resolution time may vary with the Quality of Service (QoS) of different ISPs. Normally it will take about 2 to 3 minutes to complete first dial-up or Modem reboot after power-off. Please wait.

4.6 Port Mapping in Router

If the user uses the shared Internet access mode with ADSL and router, as shown in the following figure:





Add the HTTP ports, DATA ports and IP addresses of all IP cameras over the LAN. Click <**Save Settings**> to save the settings.

4.6.2 DMZ

Log on to the router. Select **DMZ** under **Applications & Gaming**, as shown in the following figure:

The DMZ host enables the router to cancel firewall function of an IP address over the LAN so that the IP address can be directly mapped into the external IP of the router, regardless of the port. This mode only supports one IP camera.

Select **Enable** to enable the DMZ function. Fill in the IP address of the DMZ host (IP camera), such as 192.168.1.100.

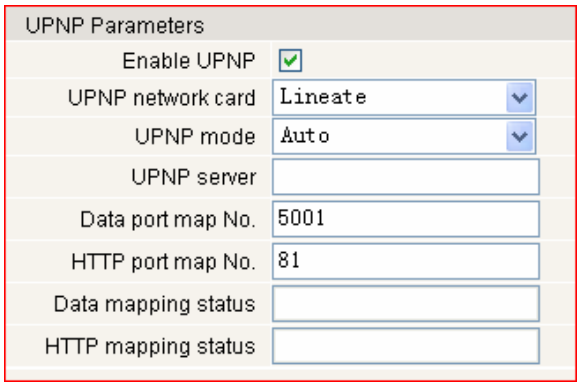
Click <**Save Settings**> to save the settings.

Note: The **Port Range Forward** and **DMZ** cannot be used at the same time.

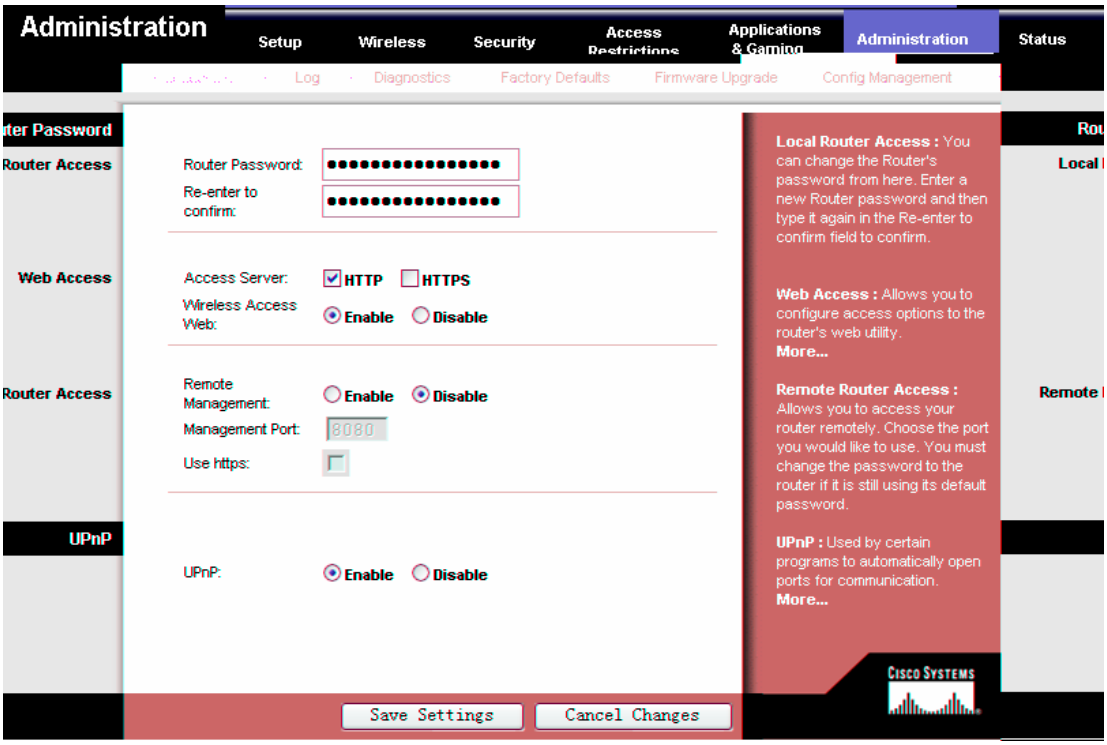
4.6.3 UPnP

Automatic port mapping: when the router has UPNP function, if this function is enabled, the router will automatically map the port set for the IP camera into the public network.

First, enable the UPNP function of the IP camera. Log on to the IP camera. Enter the **UPNP Parameters** interface under **Advanced**. Select **Enable UPNP**. Fill in the HTTP port and DATA port and save, as shown in the following figure:



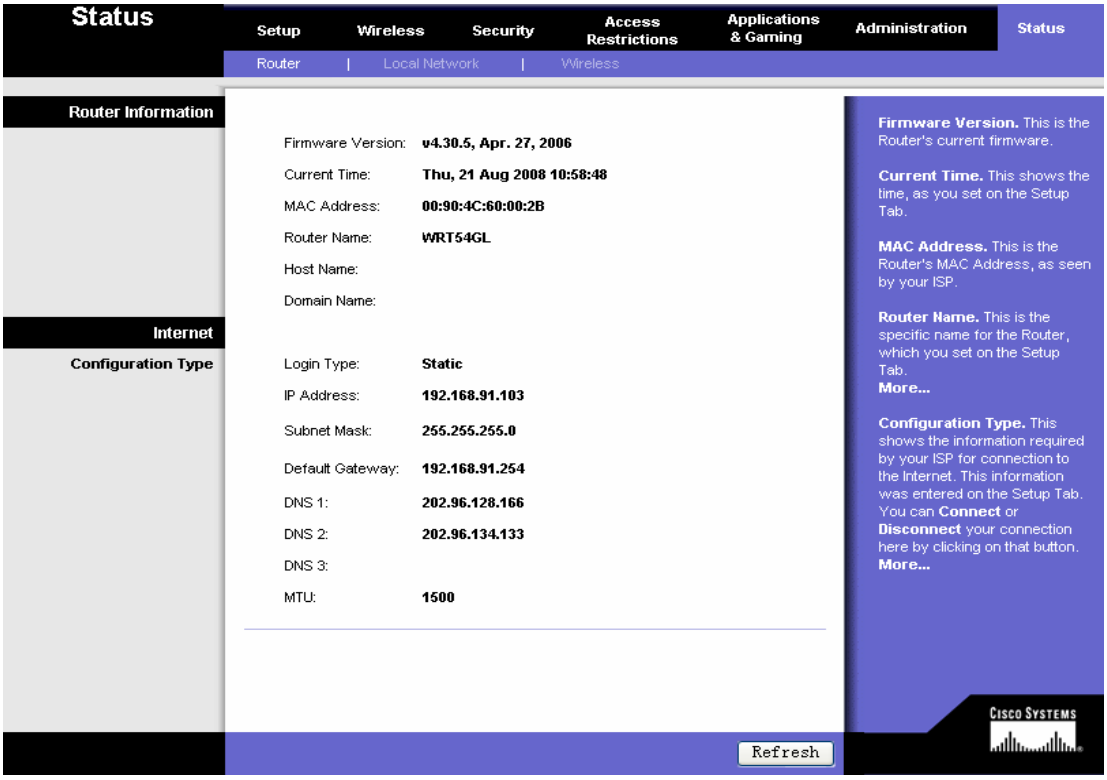
Log on to the router. Select **Management** under **Applications & Gaming**, as shown in the following figure:



Among UPNP options, select **Enable** to enable the UPNP function. Click <**Save Settings**> to save the settings.

4.6.4 Extranet Access

The user can query the Extranet address of the router. Click **Status** on the router setup tab, as shown in the following figure:



Internet displays the Internet IP address of the current router, such as 119.122.47.47. If a remote PC wants to access the IP camera, enter the IP address and port number in the IE address bar.

In the example, to make remote access to 192.168.1.100 over the LAN, enter http://119.122.47.47.

To make remote access to 192.168.1.101 over the LAN, enter http://119.122.47.47:81.

Of course, if a DDNS domain name is set for the IP camera, the remote PC can access by “domain name + port”, for example: http://goscam.3322.org:81.

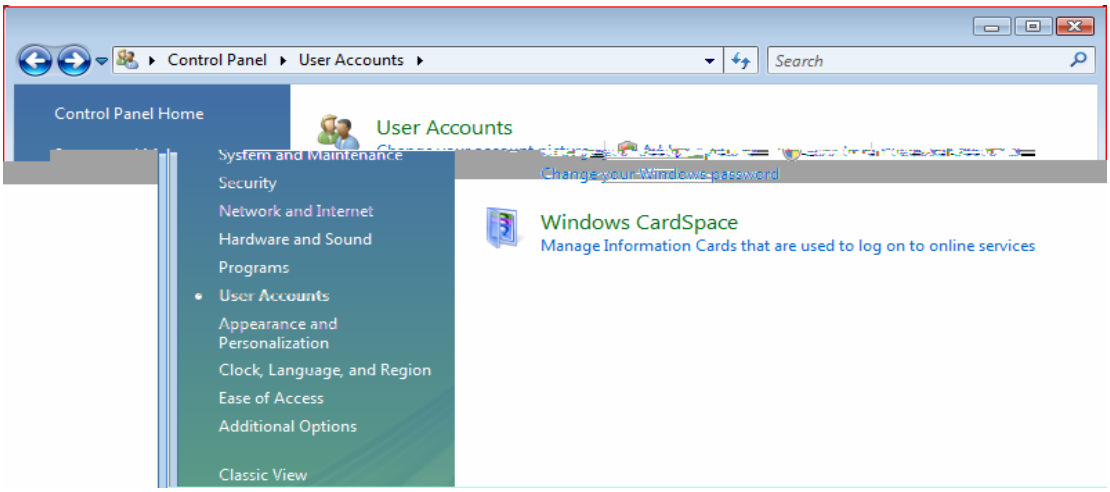
4.7 FAQs

◆ Why can’t record files be saved under the Vista operating system?

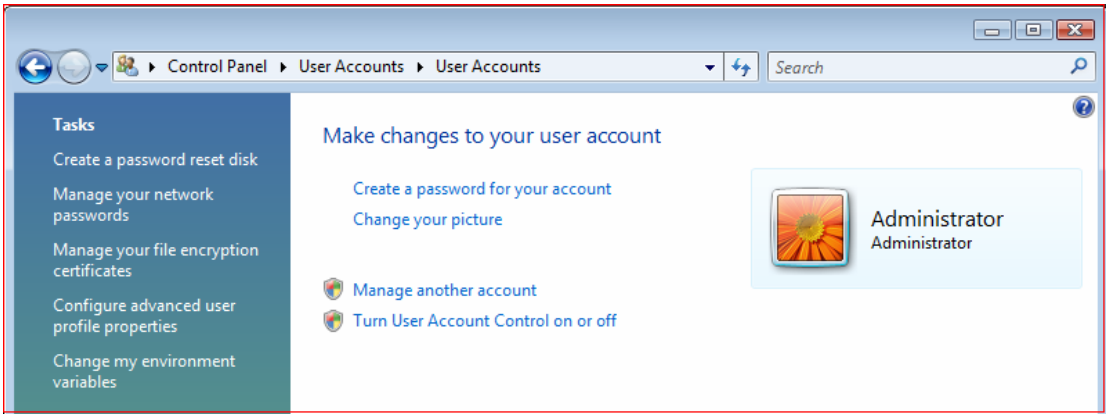
Solution:

(1) Turn off UAC

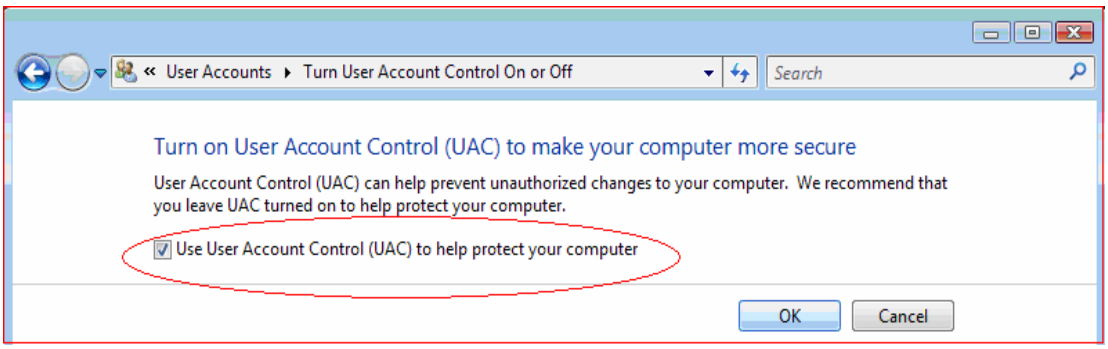
Select **Control Panel → User Accounts**.



Select **Turn User Account Control on or off**.

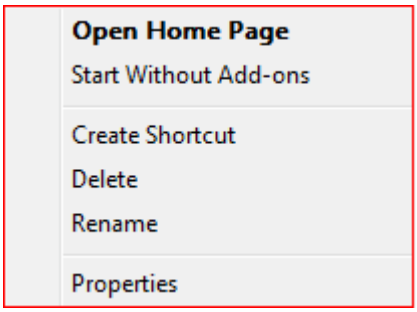


Cancel the **Use User Account(UAC) to help protect your computer function**. After confirmation, restart your PC.

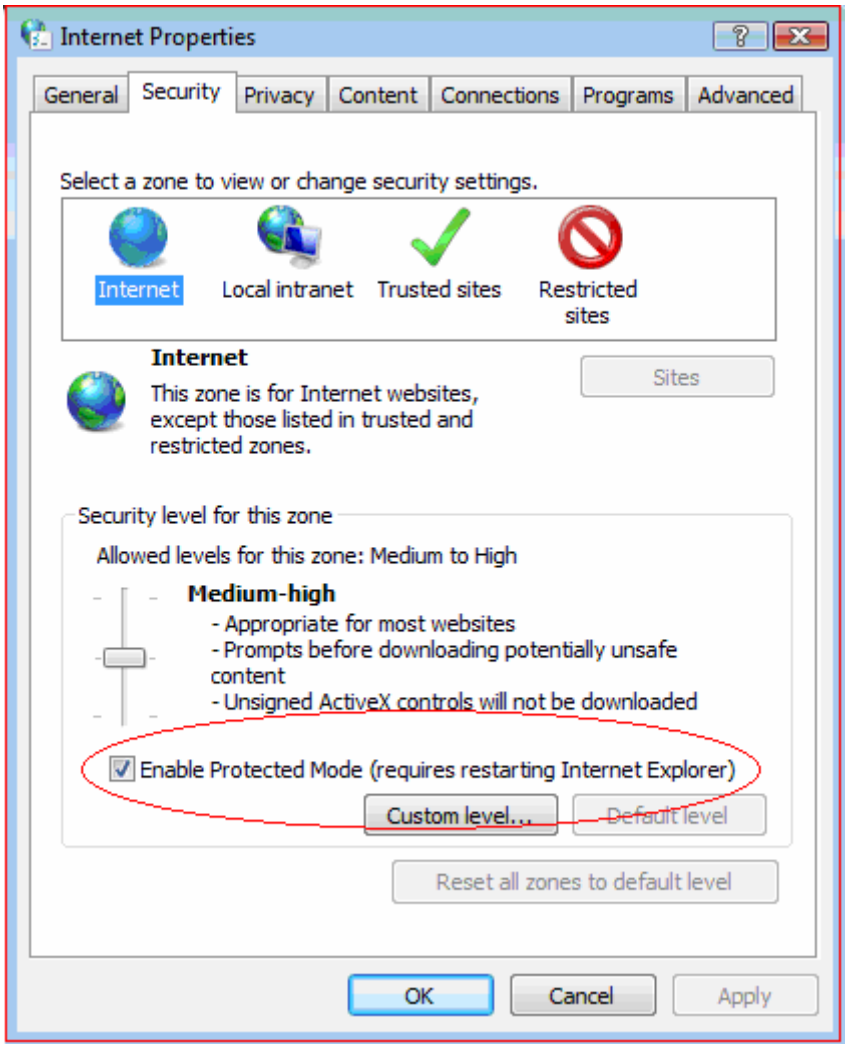


(2) Cancel IP protection mode

Right click the IE icon on your desktop. Select **Properties**.



Select **Security** → **Internet** to cancel the **Enable Protected Mode** function. After confirmation, restart the Internet Explorer again.



- How shall we do if there is no video image in the Internet Explorer?
  Possible cause: No add-ons are installed. If the Internet Explorer is used to an IP camera for the first time, related add-ons shall be installed. For details, refer to the Quick Installation Guide.

- Why does an error occur when the Internet Explorer is used to access the IP camera

access after software upgrade?
Delete the contents in the buffer in the Internet Explorer. Detailed procedure: Open the **Tools** menu of the Internet Explorer. Select **Internet Options**. Click <**Delete Files**> under **Internet Temporary Files**. Select the check box **Delete All Offline Content**. Click <**OK**>. Log on to the IP camera again.

- Why does a blue screen occur to image display?
  Possible cause 1: Too many users are using the function. Please turn off some clients.
  Possible cause 2: Low network bandwidth; please select QVGA format to browse images.
  Possible cause 3: No DATA port mapping is made in router.

- How shall we do if access to the IP camera via the Internet Explorer fails?
  Possible cause 1: network interruption.
  Use a PC to access the network to test network access. First exclude cable fault and network fault caused by viruses until PCs can ping each other successfully.
  Possible cause 2: the IP address is occupied by other devices.
  Disconnect the connection between the IP camera and the network. Connect the IP camera to a PC independently. Reset the IP address according to recommended operations.
  Possible cause 3: The IP address is in a different subnet.
  Check the IP address and subnet mask address of the Server, as well as the gateway settings.
  Possible cause 4: conflict between physical address and IP camera
  Change the physical address of the IP camera.
  Possible cause 5: The Web port has been changed.
  Contact the administrator to get related port information.
  Possible cause 6: unknown.
  Press the <**Reset>** button on the tail of the IP camera to restore the default settings. Make reconnection. Default settings of the system: IP address: 192.168.1.10; subnet mask: 255.255.255.0; and gateway: 192.168.1.254.

- Abnormal image display color (green or other colors)
  It is caused by graphics card difference. Sometimes, the images of the IP camera cannot be displayed normally, that is, they are displayed in green or other colors. Run Config.exe extracted from the OCX control package (or run C:\Windows\system32\Config.exe) to set the display buffer. Automatic test, fixed use of video memory or fixed use of memory. Rerun the IE to connect the IP camera.

- Poor audio effect