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# User Manual

## IP CAMERA



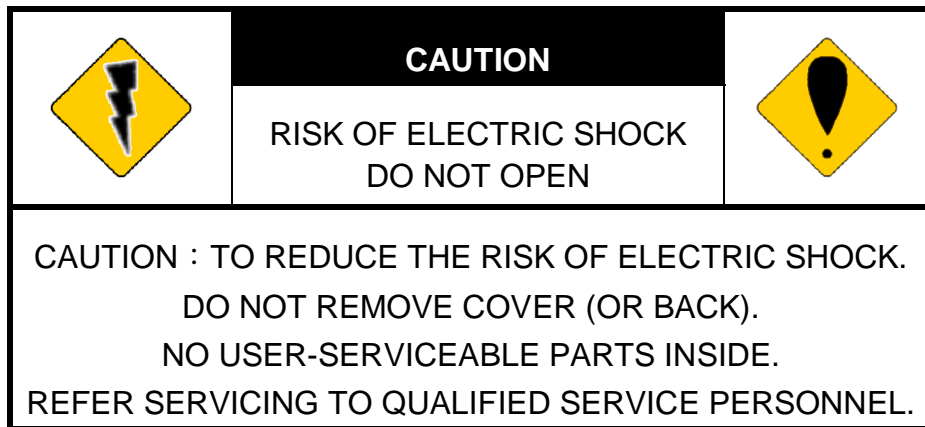
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## WARNINGS

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MISTURE.  
DO NOT INSERT ANY METALLIC OBJECT THROUGH VENTILATION GRILLS.

## CAUTION



## COPYRIGHT

THE TRADEMARKS MENTIONED IN THE MANUAL ARE LEGALLY REGISTERED TO THEIR RESPECTIVE COMPANIES.

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# I. Preface

This is a 1/3.2" CMOS IP camera with the web server built in. User can view real-time video via IE browser. It supports H.264, JPEG and MPEG4(3GPP Only) video compression which provides smooth and high video quality. The video can be stored in the Micro SD card and playback remotely.

With user friendly interface, it is an easy-to-use IP camera which is designed for security application.

# II. Product Specifications

- 2M CMOS Sensor
- 720P Real-time
- Power over Ethernet available
- H.264/ JPEG compression
- 2-way audio
- Support iPhone / Android / Blackberry / Windows mobile.
- Triple Streaming
- SDK for Software Integration
- Free Bundle 36 Channel Recording Software
- Support Micro SD Card (Optional)

## Specifications

Hardware	
CPU	ARM 9 ,32 bit RISC
RAM	256MB
Flash	16MB
Image sensor	1/3.2" CMOS sensor
Sensitivity	1.5 lux @F2.0
Lens Type	4.3mm, F2.0
Audio in	Mic Built-in
Audio Out	x1
Power	DC 12V

Dimensions		58mm (W) x 65mm (L) x 131.5mm (D)
<b>Network</b>		
Ethernet		10/ 100 Base-T
Network Protocol		HTTP, TCP/ IP, UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP
Wireless (Optional)		
	Wireless	802.11n/b/g
	Security	WEP,WPA-PSK,WPA2-PSK
<b>System</b>		
Video Resolution		1600x1200, 1280x1024, 1280x960,1280x720, 800x600,640x480, 320x240, 176x144
CMOS setting		Brightness, Contrast, Saturation, Exposure, Sharpness, BLC, AGC, Night Mode, Flip, Mirror, Outdoor, Indoor
Image snapshot		Yes
Full screen monitoring		Yes
Privacy Mask		Yes, 3 different areas
Compression format		H.264/ M-JPEG
Video bitrates adjust		CBR, VBR
Motion Detection		Yes, 3 different areas
Triggered action		Mail, FTP, SD Card
Pre/ Post alarm		Yes, configurable
Security		Password protection
Firmware upgrade		HTTP mode, can be upgraded remotely
Simultaneous connection		Up to 10
Audio		Yes, 2-way
Operation Temperature		-10~ 40°C
<b>SD Card management (Optional)</b>		
Recording Trigger		Motion Detection, Schedule
Video Format		AVI, JPEG
Video playback		Yes
Delete file		Yes
<b>Web browsing requirement</b>		
OS		Windows 2000, XP, 2003, Microsoft IE 6.0 or above
Hardware	Suggested	Intel Dual Core 1.66G, RAM: 1024MB, Graphic card: 128MB

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	Minimum	Intel-C 2.8G, RAM: 512MB, Graphic card: 64MB
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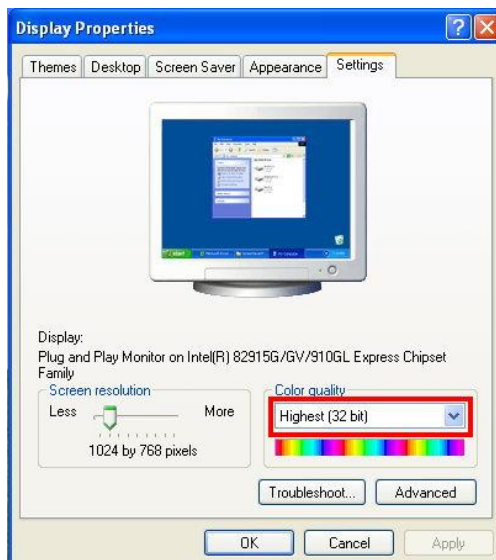
## III. Product Installation

### A. Monitor Setting

- i. Right-Click on the desktop. Select “ Properties”



- ii. Change color quality to highest (32bit).



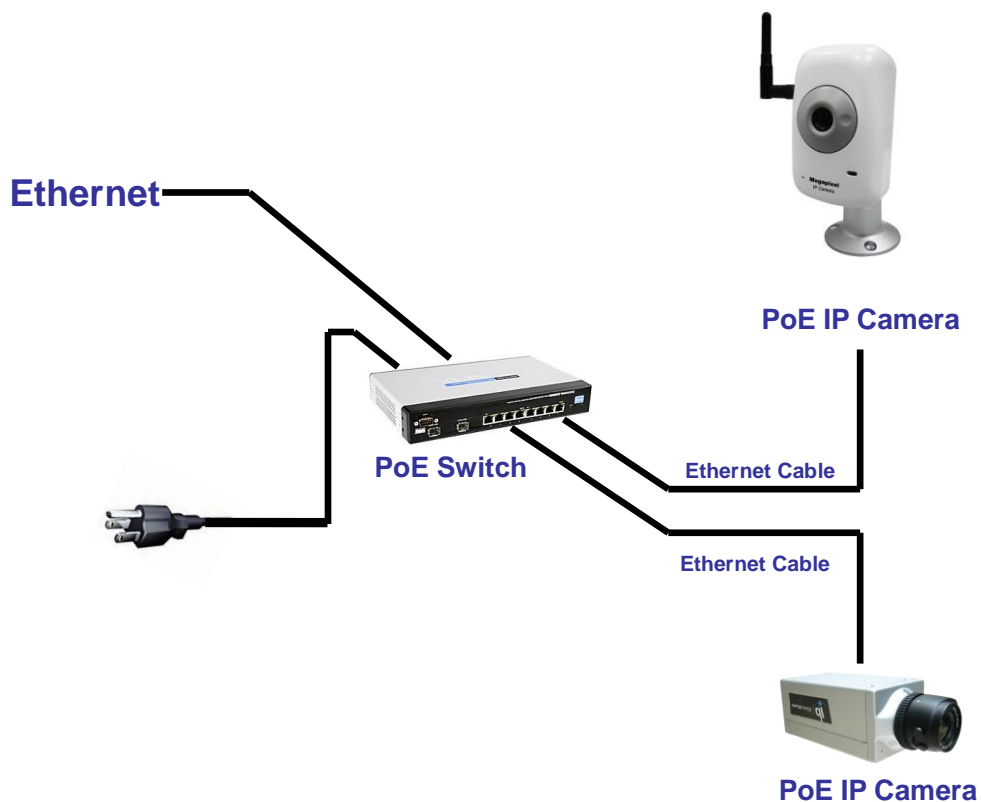
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## B. Hardware Installation Assignment

- i. Connect power adaptor.  
Connect IP Cam to PC or network with Ethernet cable.  
Set up the network configurations according to the network environment.  
For further explanation, please refer to chapter VI, “Network Configuration for IP CAMERA”.
- ii. PoE ( Power Over Ethernet)(Optional) **802.3af, 15.4W PoE Switch is recommended**

Power over Ethernet (PoE) is a technology that integrates power into a standard LAN infrastructure. It enables power to be provided to the network device, such as an IP phone or a network camera, using the same cable as that used for network connection. It eliminates the need for power outlets at the camera locations and enables easier application of uninterruptible power supplies (UPS) to ensure 24 hours a day, 7 days a week operation.



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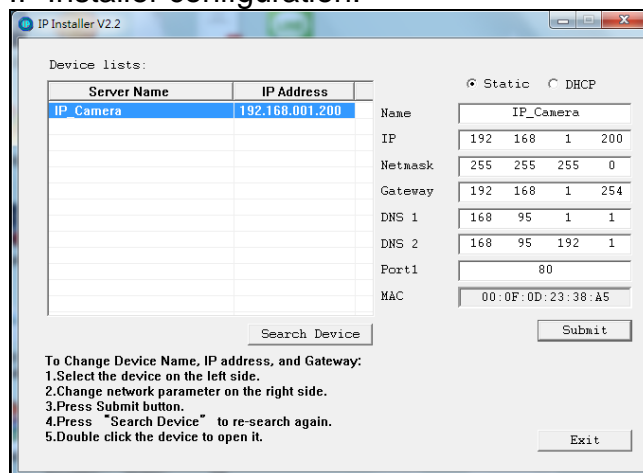
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## C. IP Assignment

- i. Use the software, "IP Installer" to assign the IP address of IP CAMERA. The software is in the attached software CD.
- ii. IP installer supports two languages
  - a. IPInstallerCht.exe : Chinese version
  - b. IPInstallerEng.exe : English version
- iii. There are 3 kinds of IP configuration.
  - a. Fixed IP (Public IP or Virtual IP)
  - b. DHCP (Dynamic IP)
  - c. Dial-up (PPPoE)
- iv. Execute IP Installer
- v. For Windows XP SP2 user, it may popup the following message box. Please click "Unblock".



- vi. IP Installer configuration:



- vii. IP Installer will search all IP Cameras connected on Lan. The user can click "Search Device" to search again.



- viii. Click one of the IP Camera listed on the left side. The network configuration of this IP camera will show on the right side. You may change the “name” of the IP Camera to your preference (eg: Office, warehouse). Change the parameter and click “Submit” then click “OK”. It will apply the change and reboot the Device.



- ix. Please make sure the subnet of PC IP address and IP CAM IP address are the same.

**The same Subnet:**

IP CAM IP address: 192.168.1.200

PC IP address: 192.168.1.100

**Different Subnets:**

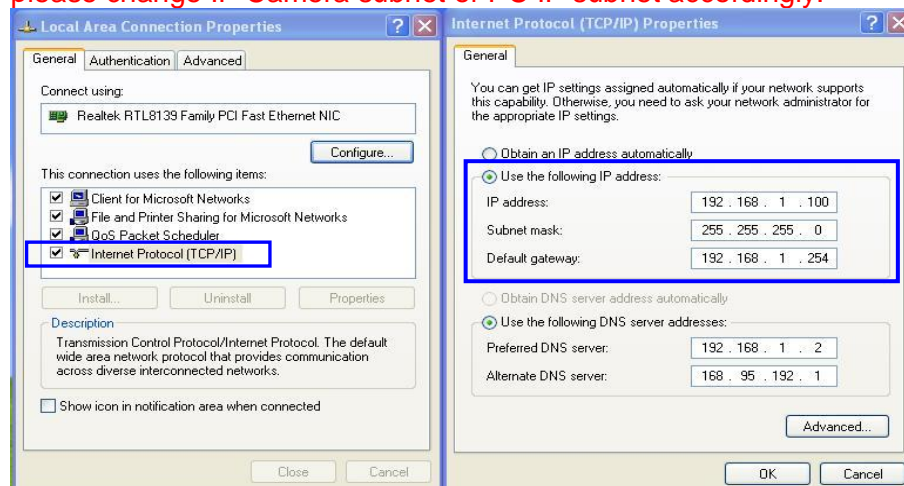
IP CAM IP address: 192.168.2.200

PC IP address: 192.168.1.100

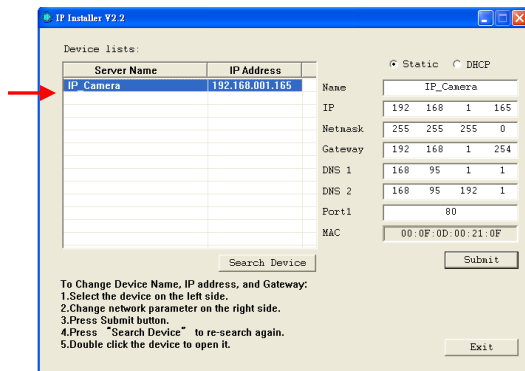
**To Change PC IP address:**

Control Panel→Network Connections→Local Area Connection Properties→Internet Protocol (TCP/IP) →Properties

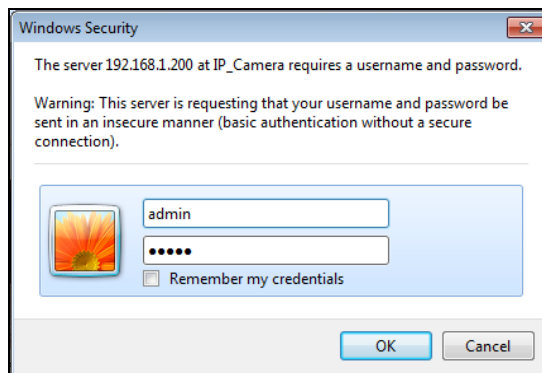
Please make sure your IP Camera and PC have the same Subnet. If not, please change IP Camera subnet or PC IP subnet accordingly.



- x. A quick way to access remote monitoring is to left-click the mouse twice on a selected IP Camera listed on “Device list” of IP Installer. An IE browser will be opened.



- xi. Then, please key in the default “user name: admin” and “password: admin”.



## D. Install ActiveX control:

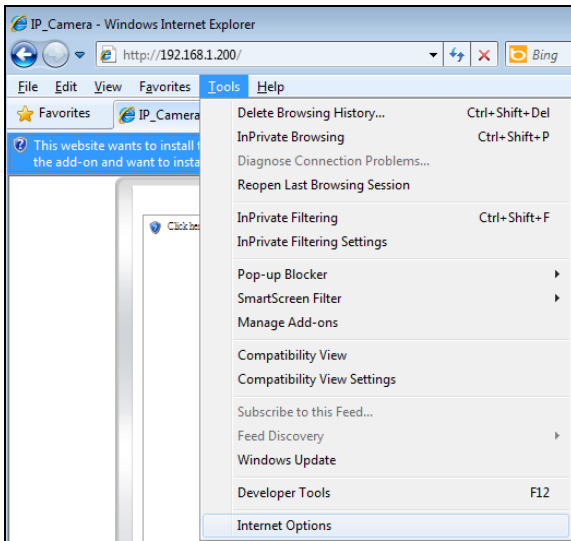
For the first time to view the camera video via IE, it will ask you to install the ActiveX component.



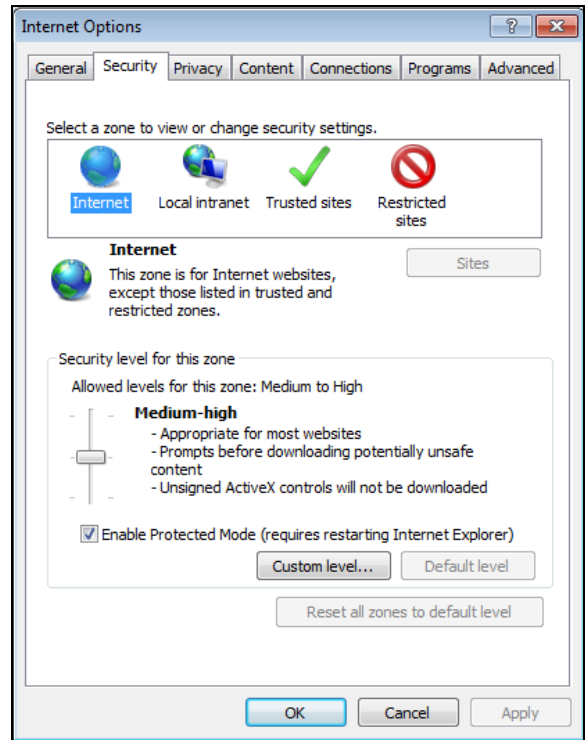
If the installation failed, please check the security setting for the IE browser.

- i. IE → Tools → Internet Options... → Security Tab → Custom Level... → Security Settings → Download unsigned ActiveX controls → Select “Enable” or Prompt.
- ii. IE → Tools → Internet Options... → Security Tab → Custom Level... → Initialize and script ActiveX controls not marked as safe → Select “Enable” or Prompt.

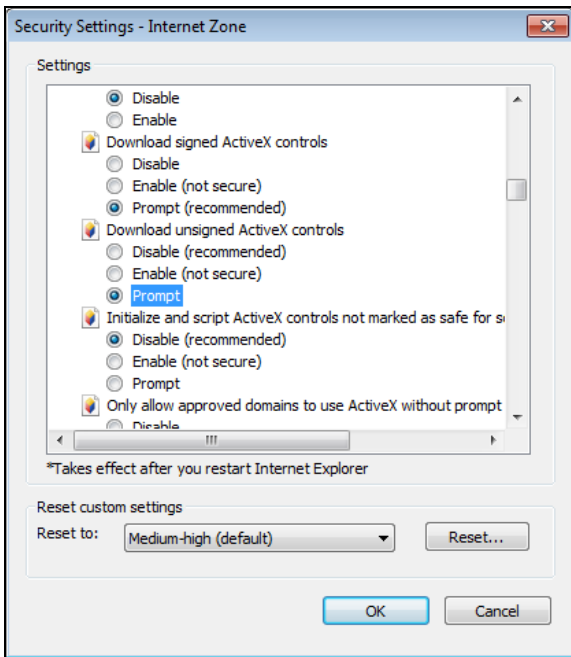
1



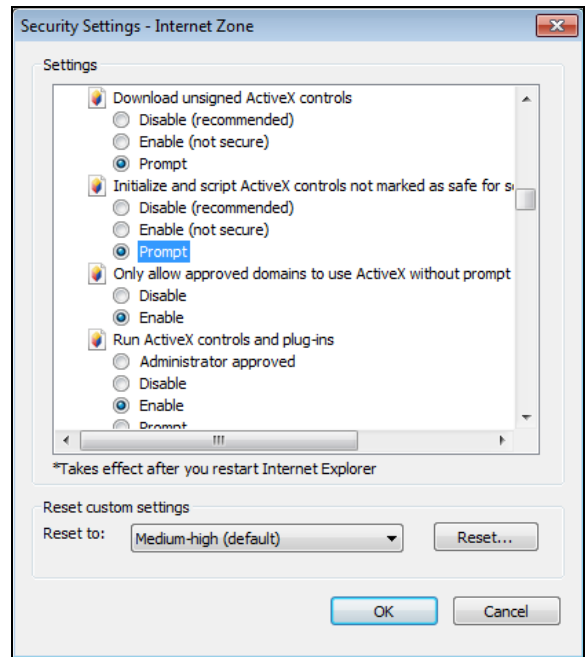
2



3

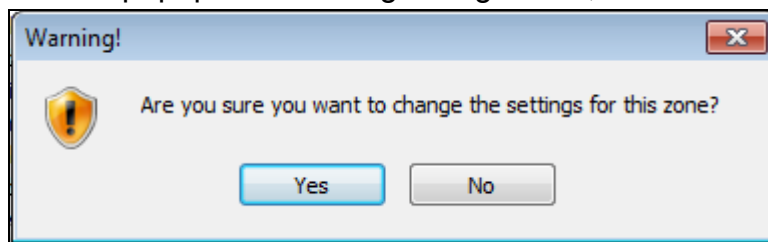


4



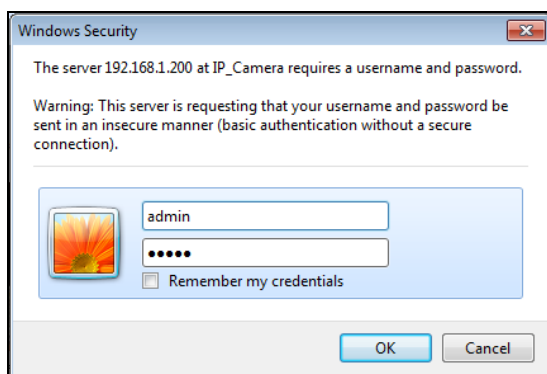
5

When popup the following dialogue box, click “Yes”.

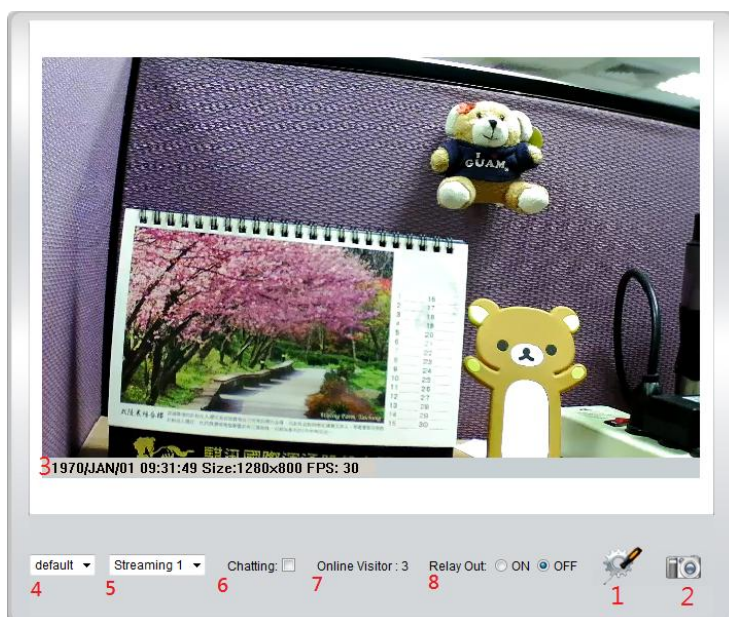




## IV. Live Video

Start a IE browser, type the IP address of the IP camera in the address field. It will show the following dialogue box. Key-in the user name and password. The default user name and password are “**admin**” and “**admin**”.



When connect to the IP CAMERA ◦ The following program interface shows.



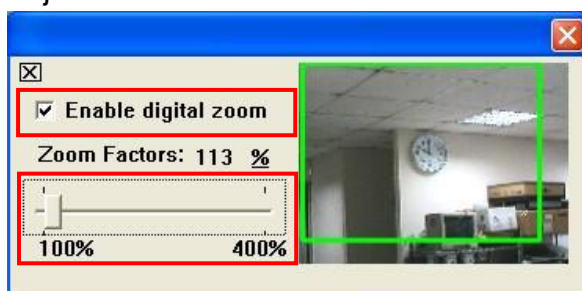
- 
1.  : Get into the administration page
  2.  : Video Snapshot
  3. Show system time, video resolution, and video refreshing rate
  4. Select video streaming source **(When streaming 2 setting in 『Video Setting』 is closed, this function will not display)**
  5. IP Camera supports 2-way audio. Click the “Chatting” check box. Then you can use microphone which connects to the PC to talk to server side, which is IP Camera side
  6. Shows how many people connect to this IP camera
  7. Select the Outdoor or Indoor options.

Double-click the video, it will change to full screen mode. Press “Esc” or double-click the video again, it will change back to normal mode.

Right-Click the mouse on the video, it will show a pop-up menu.



1. Snapshot : Save a JPEG picture
2. Record Start : Record the video in the local PC. It will ask you where to save the video. To stop recording, right-click the mouse again. Select “Record Stop”. The video format is AVI. Use Microsoft Media Player to play the recorded file.
3. Mute : Turn of the audio. Click again to turn on it.
4. Full Screen : Full-screen mode.
5. ZOOM: Enable zoom-in and zoom-out functions. Select “Enable digital zoom” option first within the pop-up dialogue box and then drag and drop the bar to adjust the zoom factors.



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# V. Configuration



Click



to go back to the live

video page.

The screenshot shows a configuration window with a top navigation bar containing 'System', 'Network', 'A/V Setting', and 'Event' tabs. A clapperboard icon is in the top right corner. The main content area is titled 'System Information' and contains the following sections:

- Server Information**
  - MAC Address: 00:0F:0D:23:38:A
  - Server Name: IP\_Camera  Status Bar
  - Language:  English  繁體中文  简体中文  French
  - Russian  Italian  Spanish  German
  - Portuguese  Polish  Japanese
- OSD Setting**
  - Time Stamp:  Enabled  Disabled
  - Text:  Enabled  Disabled
  - OSD Display** [Text Edit](#)
- Time Setting**
  - Server Time: 1970/1/1 8:18:53 Time Zone: GMT+08:00
  - Date Format:  yy/mm/dd  mm/dd/yy  dd/mm/yy
  - Time Zone: GMT+08:00
  - Enable Daylight Saving:
  - NTP :
    - NTP Server: 198.123.30.132
    - Update: 6 Hour
    - Time Shift: 0 Minutes [-1440..1440]
  - Synchronize with PC's time
    - Date: 2012/4/6
    - Time: 13:39:27
  - Manual
    - Date: 2012/4/6
    - Time: 13:39:16
  - The date and time remain the same

An 'Apply' button is located at the bottom right of the configuration area.

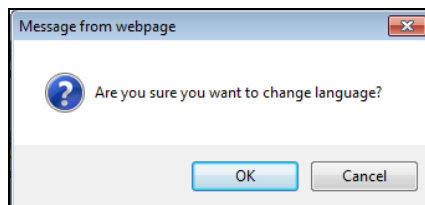
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# A. System

## i. System Information

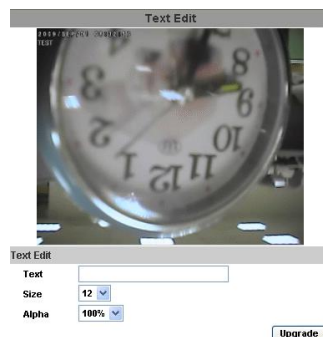
- a. Server Information: Set up the camera name, select language, and set up the camera time.
  1. Server Name : This is the Camera name. This name will show on the IP Installer.
  2. Select language : There are English, Traditional Chinese, and Simplified Chinese to select. When change, it will show the following dialogue box for the confirmation of changing language.



- b. OSD Setting: Select a position where date & time stamp / text showing on screen.



Moreover, click Text Edit can entry to adjust the OSD contents which is including Size and Alpha of text. Finally, click **Upgrade** button to reserve the setting.



- c. Server time setting : Select options to set up time - “NTP”, “Synchronize with PC’s time”, “Manual”, “The date and time remain the same”.

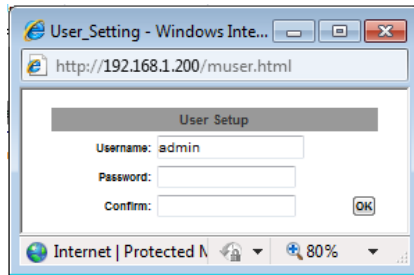
ii . User Management

IP CAMERA supports three different users, administrator, general user, and anonymous user.

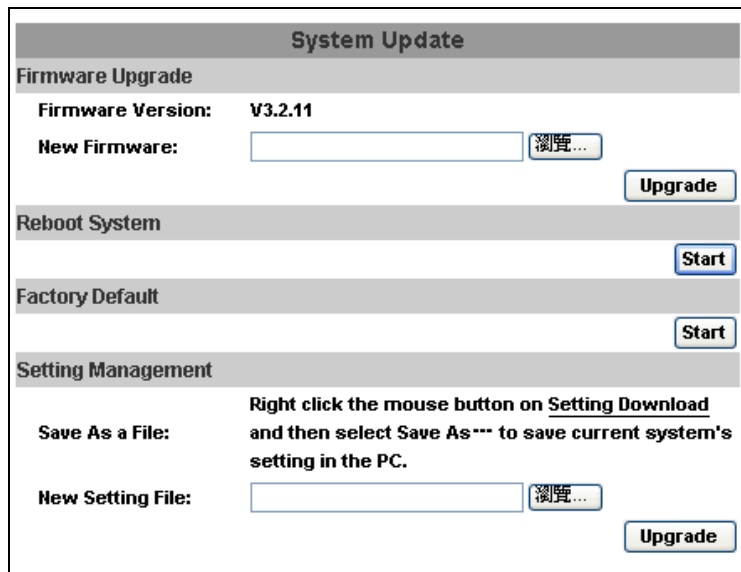
Username	User Group	Modify	Remove
admin	Administrator	Edit	

- a. Anonymous User Login :  
 Yes : Allow anonymous login  
 No : Need user name & password to access this IP camera
- b. Add user :  
 Type the user name and password, then click “Add/Set”.
- c. Click “edit” or “delete” to modify the user.





iii 、 System update :



- a. To update the firmware online, click “Browse...” to select the firmware. Then click “Upgrade” to proceed.
- b. Reboot system : re-start the IP camera
- c. Factory default : delete all the settings in this IP camera.
- d. Setting Management : User may download the current setting to PC, or upgrade from previous saved setting.
  1. Setting download:  
Right-click the mouse button on Setting Download → Select “Save AS...” to save current IP CAM setting in PC → Select saving directory → Save
  2. Upgrade from previous setting  
Browse → search previous setting → open → upgrade → Setting update confirm → click **index.html**. to return to main page

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# B.Network

## i. IP Setting

IP Camera supports DHCP and static IP.

IP Setting	
<b>IP Assignment</b>	
<input type="radio"/> DHCP	
<input checked="" type="radio"/> Static	
IP Address:	<input type="text" value="192.168.1.200"/>
Subnet Mask:	<input type="text" value="255.255.255.0"/>
Gateway:	<input type="text" value="192.168.1.254"/>
DNS 0:	<input type="text" value="168.95.1.1"/>
DNS 1:	<input type="text" value="168.95.192.1"/>
<b>Port Assignment</b>	
Web Page Port:	<input type="text" value="80"/>
RTSP Port :	<input type="text" value="554"/>
RTP Start Port:	<input type="text" value="5000"/> [1024..10000]
RTP End port:	<input type="text" value="9000"/> [1025..10000]
<b>UPnP</b>	
UPnP:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
<input type="button" value="Apply"/>	

- a. DHCP : Using DHCP, IP Camera will get all the network parameters automatically.
- b. Static IP : Please type in IP address, subnet mask, gateway, and DNS manually.
- c. Port Assignment: user may need to assign different port to avoid conflict when setting up IP assignment.
  1. Web Page Port: setup web page connecting port and video transmitting port (Default: 80)
  2. RTSP Port: setup port for RTSP transmitting (Default: 554)
  3. RTP Start and End Port: in RTSP mode, you may use TCP and UDP for connecting. TCP connection uses RTSP Port (554). UDP connection uses RTP Start and End Port.

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d. UPNP

This IP camera supports UPNP, If this service is enabled on your computer, the camera will automatically be detected and a new icon will be added to “My Network Places.”

**Note:** UPNP must be enabled on your computer.

Please follow the procedure to activate UPNP

1. open the Control Panel from the Start Menu
2. select Add/Remove Programs
3. Select Add/Remove Windows Components and open Networking Services section
4. Click Details and select UPNP to setup the service
5. The IP device icon will be added to “MY Network Places”
6. User may double click the IP device icon to access IE browser

ii 、 PPPoE :

The screenshot shows a window titled "PPPoE" with a "PPPoE Setting" section. It includes radio buttons for "Enabled" and "Disabled", with "Disabled" selected. There are input fields for "Username:" and "Password:". Below that is a "Send mail after dialed" section with an unchecked "Enabled" checkbox and a "Subject:" field containing "PPPoE From IPcam". An "Apply" button is located at the bottom right.

Select “Enabled” to use PPPoE.

Key-in Username and password for the ADSL connection.

Send mail after dialed : When connect to the internet, it will send a mail to a specific mail account. For the mail setting, please refer to “Mail and FTP” settings.

iii 、 DDNS :

It supports DDNS (Dynamic DNS) service.

a. DynDNS :

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**DDNS**

**DDNS Setting**

Enabled     Disabled

Provider:  ▼

Hostname:

Username:

Password:

Schedule Update:  Minutes

**State**

Idle

**Note:**

1. **Schedule Update:** Feature of DDNS schedule update is designed for IP products which installed behind the ICS or NAT devices. Update range from every 5 (minutes) to 5000 (minutes) and 0 remain to off.
2. Please note that the hostname will be blocked by DynDNS.org if schedule update is more than once every 5 minutes to 60 minutes. In general, schedule update in every 1440 minutes is recommended.

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1. Enable this service
2. Key-in the DynDNS server name, user name, and password.
3. Set up the IP Schedule update refreshing rate.
4. Click "Apply"
5. If setting up IP schedule update too frequently, the IP may be blocked. In general, schedule update every day (1440 minutes) is recommended.

b. Camddns service :

**DDNS**

**DDNS Setting**

Enabled     Disabled

**Provider:**     ▼

**Username:**   

**Schedule Update:**     Minutes

**State**

Idle

**Note:**

1. **Schedule Update:** Feature of DDNS schedule update is designed for IP products which installed behind the ICS or NAT devices. Update range from every 5 (minutes) to 5000 (minutes) and 0 remain to off.
2. Please note that the hostname will be blocked by DynDNS.org if schedule update is more than once every 5 minutes to 60 minutes. In general, schedule update in every 1440 minutes is recommended.

1. Please enable this service
2. Key-in user name.
3. IP Schedule update is default at 5 minutes
4. Click "Apply".

c. DDNS Status

1. Updating : Information update
2. Idle : Stop service
3. DDNS registration successful, can now log by  
http://<username>.ddns.camddns.com : Register successfully.
4. Update Failed, the name is already registered : The user name has already been used. Please change it.
5. Update Failed, please check your internet connection : Network connection failed.
6. Update Failed, please check the account information you provide : The server, user name, and password may be wrong.

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iv、Mail & FTP & SAMBA

To send out the video via mail of ftp, please set up the configuration first.

### MAIL Setting

Server Settings	
<u>Mail Setting</u>	
Login Method:	Account <input type="button" value="v"/>
Mail Server:	<input type="text"/>
Username:	<input type="text"/>
Password:	<input type="text"/>
Sender's Mail:	<input type="text"/>
Receiver's Mail:	<input type="text"/>
Bcc Mail:	<input type="text"/>
Mail Port:	25 (Default 25)
<input type="button" value="Test"/>	

### FTP Setting

Server Settings	
<u>Mail Setting</u>	
<u>FTP Setting</u>	
FTP Server:	<input type="text"/>
Username:	<input type="text"/>
Password:	<input type="text"/>
Port:	21
Path:	/ <input type="text"/>
Mode:	PORT <input type="button" value="v"/>
Create the folder:	Yes <input type="button" value="v"/> (ex:Path/20100115/121032m.avi)
<input type="button" value="Test"/>	

### SAMBA

Allows different PCs can view the recorded files among the shared folder.

Server Settings	
<u>Mail Setting</u>	
<u>FTP Setting</u>	
<u>Samba (Network storage)</u>	
Location:	\\192.168.1.16\test (ex:\\nas_ip\folder)
Workgroup:	Huntelec
Username:	cecilia_kuo
Password:	*****
Create the folder:	Yes <input type="button" value="v"/> (ex:Path/20100115/121032m.avi)
<input type="button" value="Test"/>	
<input type="button" value="Apply"/>	

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## STEP 1

Setup the “Event Setting” by clicking “Samba” option and then select the “File Format” of Record File to AVI File (with Record Time Setting).

**Event Setting**

Motion Detection

Area Setting:

	Area 1	Area 2	Area 3		
Sensitivity:	5	5	5		
Area 1:	<input checked="" type="checkbox"/> E-mail	<input type="checkbox"/> FTP	<input type="checkbox"/> Out1	<input type="checkbox"/> Save to SD card	<input checked="" type="checkbox"/> Samba
Area 2:	<input type="checkbox"/> E-mail	<input type="checkbox"/> FTP	<input type="checkbox"/> Out1	<input type="checkbox"/> Save to SD card	<input type="checkbox"/> Samba
Area 3:	<input type="checkbox"/> E-mail	<input type="checkbox"/> FTP	<input type="checkbox"/> Out1	<input type="checkbox"/> Save to SD card	<input type="checkbox"/> Samba

Subject: IP Camera Warning!

Interval: 10 sec a period of time between every two motions detected.

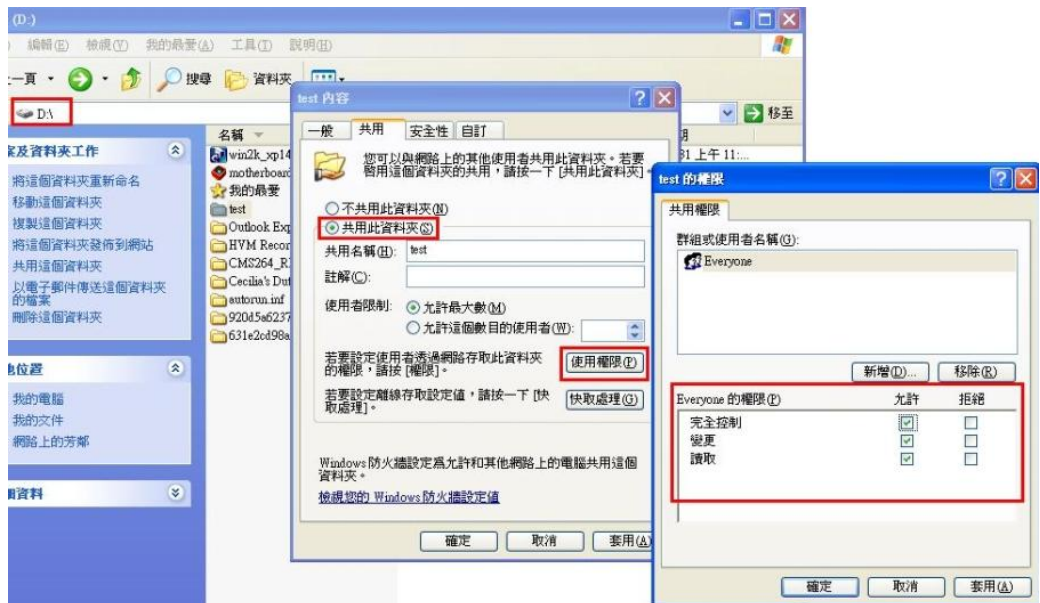
Based on the schedule

**Record File**

File Format: AVI File(with Record Time Setting)

## STEP 2

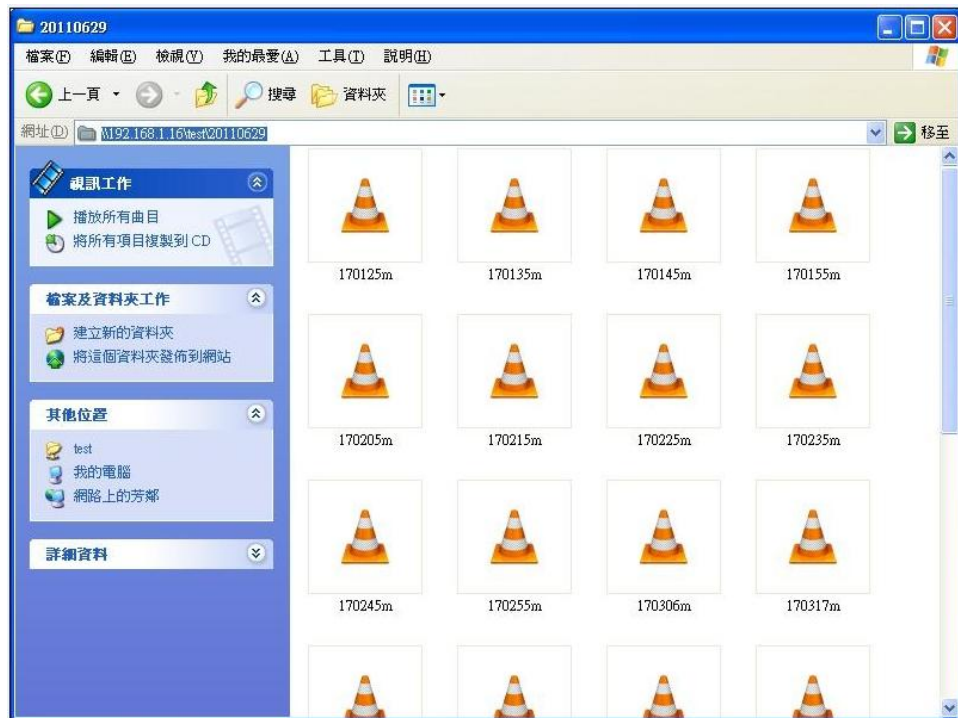
Setup the samba folder to shared format.



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### STEP 3

Enter to the created path to view the recorded files.





v · Wireless Setting (Wireless Network Optional)

Supports 802.11 b/g wireless connection.

Notice : Wireless network and Ethernet network use the same IP, the user has to unplug Ethernet cable, if Ethernet cable is not unplug, wireless setting can not be executed.

SSID	Mode	Security	Signal strength
allan	Infrastructure	WPA	79
RHOSON	Infrastructure	WEP	16
Link	Infrastructure	OFF	16
SinoStar	Infrastructure	WEP	11
7f-2	Infrastructure	WEP	12
00160159A7FA	Infrastructure	WEP	56
RDTEST	Infrastructure	WEP	48
3Com	Infrastructure	OFF	43
Default	Infrastructure	WPA	74

<b>MAC Address:</b>	00:16:16:16:DD:E1
<b>Mode:</b>	Infrastructure
<b>Operation Mode:</b>	Auto
<b>SSID:</b>	allan
<b>Security:</b>	None

Apply

a. Status of Wireless Networks :

scan all wireless services.

b. Wireless Setting :

1. **Mode** : There are Infrastructure and Ad-hoc. Infrastructure is for connecting with the router. Ad-hoc is for connecting with PC. There is "Channel" to select only when user uses Ad-hoc mode.

e.g. If one PC's channel is 1, the other's channel has to 1, too.

<b>MAC Address:</b>	00:11:E2:03:37:48
<b>Mode:</b>	Ad-hoc
<b>Operation Mode:</b>	Auto
<b>SSID:</b>	Default
<b>Channel:</b>	6
<b>Security:</b>	None

2. **SSID** : Based on AP setting.
3. **Channel** : This is only be used when the user selects Ad-hoc mode in order to avoid conflict.
4. **Security** : It supports “None”, “WEP”, “WPA-PSK” security encryption based on the setting of the Router.
5. **WEP** :

Security:	WEP	▼
<b>WEP Setting</b>		
Authentication:	Open System	▼
Encryption:	64 bit	▼
Key Type:	HEX	▼ (10 character max)
Key 1:	<input checked="" type="radio"/>	<input type="text"/>
Key 2:	<input type="radio"/>	<input type="text"/>
Key 3:	<input type="radio"/>	<input type="text"/>
Key 4:	<input type="radio"/>	<input type="text"/>

- Authentication : There are Open System and Shared Keys, it is based on different encryptions. This has to be the same as the Router’s setting.
  - Encryption : There are 64 bits and 128 bits. This is based on Key Type based on the Router’s setting.
  - Key Type : There are HEX and ASCII. When selecting HEX, the user only can input 0~9 characters and use A, B, C, D, E, and F.
  - When selecting ASCII, the user can input any character.  
(Case sensitive)
  - Key 1~4 : Based on Key Type to input characters.
6. **WPA-PSK** :

Security:	WPA-PSK	▼
<b>WPA-PSK Setting</b>		
Encryption	TKIP	▼
Pre-Shared Key:	<input type="text"/>	(ASCII format, 8-63)

- Encryption : There are TKIP and AES.
- Pre-Shared Key : Allow any characters .(Case sensitive)

---

# C.A/V Setting

## i \ Image Setting



For the security purpose, there are three areas can be setup for privacy mask. Click Area button first and pull a area on the above image. Finally, click **Save** button to reserve the setting.

Adjust "Brightness", "Contrast", "Hue", "Saturation" to get clear video.

Adjust "Brightness", "Contrast", "Hue", "Saturation", "Exposure", "Sharpness" to get clear video. Moreover, IP CAMERA supports "Back Light Compensation", "Night Mode" and "Video Orientation".

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ii · Video Setting

User may select 2 streaming output simultaneously:

Streaming 1 Setting: Basic mode and Advanced mode

Streaming 2 Setting: Basic mode and Advanced mode.

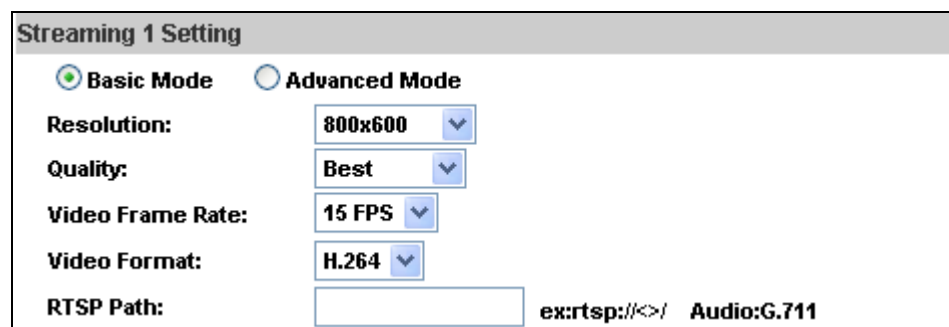
3GPP Streaming Setting:

- a. Video System: click the drop down list to select the system type



The screenshot shows a window titled "Video Setting". Below the title bar, there is a label "Video System:" followed by a dropdown menu currently displaying "NTSC".

- b. Streaming 1 Basic Mode :



The screenshot shows a window titled "Streaming 1 Setting". At the top, there are two radio buttons: "Basic Mode" (which is selected) and "Advanced Mode". Below this, there are several settings, each with a dropdown menu:

- Resolution: 800x600
- Quality: Best
- Video Frame Rate: 15 FPS
- Video Format: H.264

At the bottom, there is a text input field for "RTSP Path:" which is currently empty. To the right of the input field, the text "ex:rtsp://</>" and "Audio:G.711" are displayed.

1. Resolution :

There are 8 resolutions can be chosen.

1600x 1200, 1280x1024, 1280x960, 1280x720, 800x600,  
640x480, 320x240, 176x144

2. Quality :

There are 5 levels to adjust:

Best/ High/ Standard/ Medium/ Low

The higher the quality is, the bigger the file size is. Also not good for internet transmitting

3. Video Frame Rate : The video refreshing rate per second.

4. Video Format : H.264 or JPEG

5. RTSP Path: RTSP output name

c. Streaming 1 Advanced Mode :

The screenshot shows the 'Streaming 1 Setting' dialog box with the 'Advanced Mode' selected. The settings are as follows:

- Resolution: 800x600
- Bitrate Control Mode: VBR
- Video Quantitative: 9
- Video Bitrate: 1.5Mbps
- Video Frame Rate: 15 FPS
- GOP Size: 1 X FPS (GOP = 15)
- Video Format: H.264
- RTSP Path: ex:rtsp://</> Audio:G.711

1. Resolution :

There are 8 resolutions can be chosen.

1600x 1200, 1280x1024, 1280x960, 1280x720, 800x600, 640x480, 320x240, 176x144

2. Bitrate Control Mode

There are CBR [ Constant Bit Rate ] and VBR [ Variable Bit Rate ] to use.

CBR : 32Kbps~4Mbps (the higher the CBR is, the better the video quality is)

VBR : 1(Low)~10(High) – Compression rate, the higher the compression rate, the lower the picture quality is; vise versa. The balance between VBR and network bandwidth will affect picture quality. Please carefully select the VBR rate to avoid picture breaking up or lagging.

3. Video Frame Rate

The video refreshing rate per second.

NTSC: Max 30 frames/second PAL: Max 25 frames/second

4. GOP Size

It means "Group of Pictures". The higher the GOP is, the better the quality is.

5. Video Format : H.264 or JPEG

6. RTSP Path: RTSP output connecting route

d. Streaming 2 Basic Mode :

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**Streaming 2 Setting**

Basic Mode    Advanced Mode

Resolution:

Quality:

Video Frame Rate:

Video Format:

RTSP Path:    `ex:rtsp://</>v2`   Audio:G.711

1. Resolution :  
There are 8 resolutions can be chosen.  
1600x 1200, 1280x1024, 1280x960, 1280x720, 800x600, 640x480, 320x240, 176x144
  2. Quality :  
There are 5 levels to adjust:  
Best/ High/ Standard/ Medium/ Low  
The higher the quality is, the bigger the file size is. Also not good for internet transmitting
  3. Video Frame Rate : The video refreshing rate per second.
  4. Video Format : H.264 or JPEG
  5. RTSP Path: RTSP output connecting route
- e. Streaming 2 Advanced Mode :

**Streaming 2 Setting**

Basic Mode    Advanced Mode

Resolution:

Bitrate Control Mode:  CBR    VBR

Video Quantitative:

Video Bitrate:

Video Frame Rate:

GOP Size:

Video Format:

RTSP Path:    `ex:rtsp://</>v2`   Audio:G.711

1. Resolution :  
There are 8 resolutions can be chosen.  
1600x 1200, 1280x1024, 1280x960, 1280x720, 800x600, 640x480, 320x240, 176x144
2. Bitrate Control Mode  
There are CBR [ Constant Bit Rate ] and VBR [ Variable Bit Rate ] to use.

---

CBR : 32Kbps~4Mbps (the higher the CBR is, the better the video quality is)

VBR : 1~10 (Compression Rate)

3. Video Frame Rate

The video refreshing rate per second.

4. GOP Size

It means "Group of Pictures". The higher the GOP is, the better the quality is.

5. Video Format : MPEG4 or JPEG

6. RTSP Path: RTSP output name

f. 3GPP Streaming mode:

3GPP Streaming Setting

Enabled  Disabled (Resolution=176x144, FPS=5, Format=MPEG4)

3GPP Path:  ex:rtsp://</>/3g Audio:AMR

ex:rtsp://</>/3gx No Audio

Apply

3GPP mode suggested setting: 176x144 resolution, 5FPS, MPEG4 format

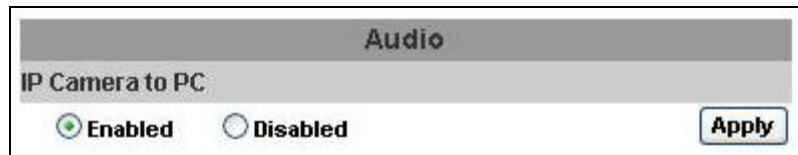
1. Enable or Disable 3GPP Streaming

2. 3GPP: 3GPP output name

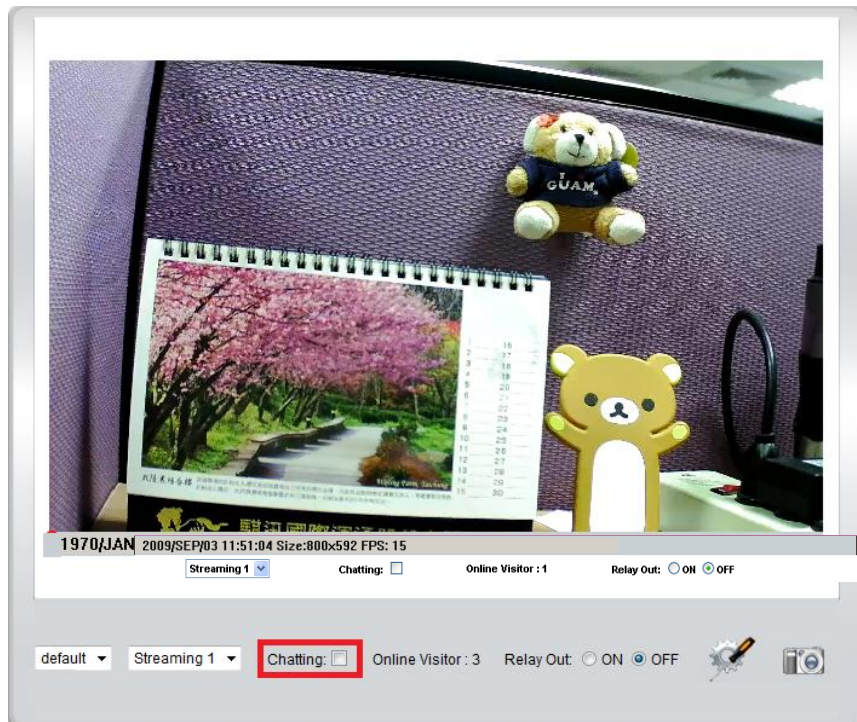
iii 、 Audio :

IP CAMERA supports 2-way audio. User can send audio from IP Camera Built-in mic to remote PC; User can also send audio from remote PC to IP Camera's external speaker.

- a. Audio from IP camera built-in mic to local PC: select "Enable" to start this function.



- b. Audio from local PC to IP Camera: Check "chatting" in the browsing page.



The Audio will not be smooth when enable SD card recording function simultaneously.



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## D.Event List

IP CAMERA provides multiple event settings.

i、 Event Setting

The screenshot shows the 'Event Setting' window for an IP camera. It is divided into several sections: 'Motion Detection' with a video preview; 'Area Setting' with three colored buttons (Area 1: blue, Area 2: green, Area 3: red) and corresponding sensitivity dropdowns (all set to 5); notification options for each area (E-mail, FTP, Samba); a 'Subject' field with 'IP Camera Warning!'; an 'Interval' dropdown set to '10 sec' with a descriptive note; a 'Based on the schedule' checkbox; 'Record File' settings including 'File Format' (AVI File(with Record Time Setting)); and 'Record Time Setting' with 'Pre Alarm' and 'Post Alarm' both set to '5 sec'. An 'Apply' button is located at the bottom right.

- a. Motion Detection :
- IP CAMERA allows 3 areas motion detection. When motion is triggered, it can send the video to some specific mail addresses, transmit the video to remote ftp server and Samba. To set up the motion area, click “Area Setting”. Using mouse to drag and draw the area. The same operation for area 2 and 3.
- b. Record File Setting: IP CAMERA allows 3 different types of recording file to change its record size.
- When motion/alarm is triggered, there are 3 different types of record mode.
1. AVI File (With Record File Setting )
  2. Multi-JPEG (With Record File Setting), only with JPEG

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compression format.

3. Single JPEG (Single File with Interval Setting)

c. Record Time Setting :


Pre Alarm and Post Alarm setups for video start and end time when motion detected, I/O, or other devices got triggered.

Note: Pre/Post Alarm record time is base on record time setting and IP Cam built-in Ram memory. Limited by IP Cam built-in Ram Memory, When information is too much or video quality set too high, it will cause recording frame drop or decrease on post alarm recording time.

ii . Schedule

- a. Schedule: After complete the schedule setup, the camera data will be recorded according to the schedule setup.
- b. Snapshot: After enable the snapshot function, user can select the storage position of snapshot file, the interval time of snapshot and the reserved file name of snapshot.

Schedule																								
All	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Mon.																								
Tue.																								
Wed.																								
Thu.																								
Fri.																								
Sat.																								
Sun.																								

 With schedule setup.

Snapshot	
<input type="radio"/> Enabled	<input checked="" type="radio"/> Disabled
Snapshot:	<input type="checkbox"/> E-mail <input type="checkbox"/> FTP <input type="checkbox"/> Save to SD card
Interval:	<input type="text" value="10"/> Second(s) [1..50000]
File Name:	<input type="text" value="Snapshot"/>

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iii 、 Log List

Log List	
System Logs	<a href="#">Logs</a>
Motion Detection Logs	<a href="#">Logs</a>
I/O Logs	<a href="#">Logs</a>
All Logs	<a href="#">Logs</a>

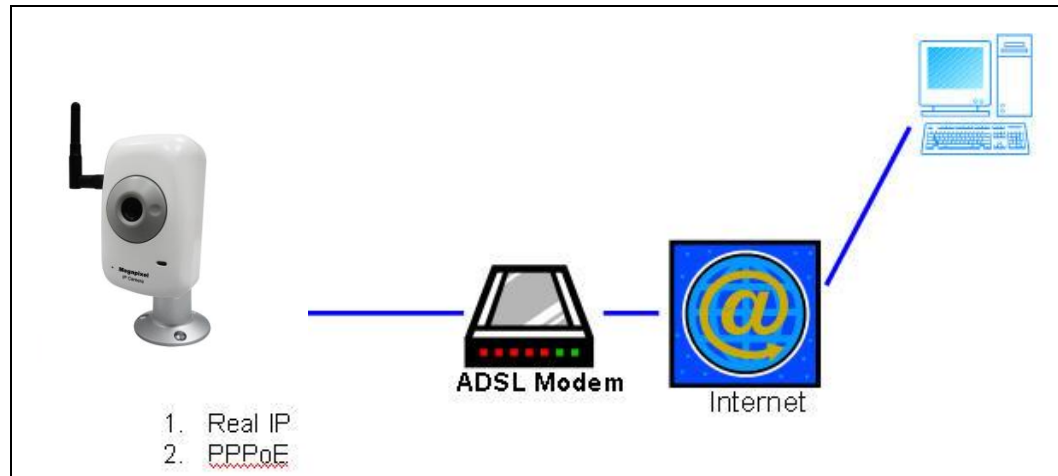
Sort by System Logs, Motion Detection Logs and I/O Logs. In addition, System Logs and I/O Logs won't lose data due to power failure.

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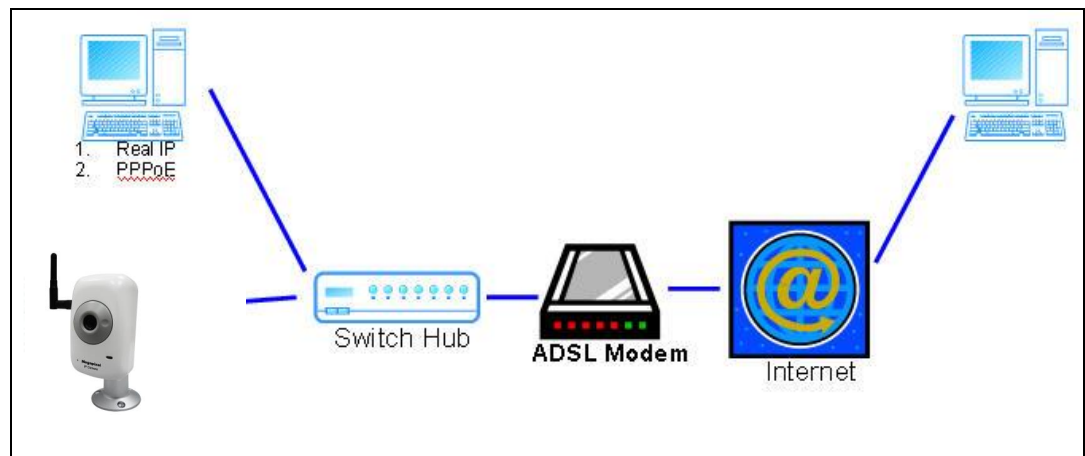
## VI. Network Configuration

i \ Configuration 1 :



- Internet Access : ADSL or Cable Modem
- IP address : One real IP or one dynamic IP
- Only IP CAMERA connects to the internet
- For fixed real IP, set up the IP into IP CAMERA. For dynamic IP, start PPPoE.

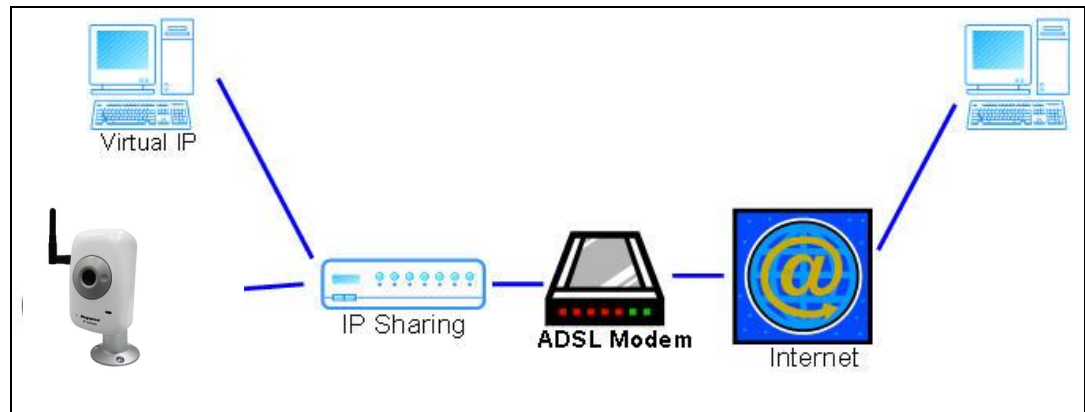
ii \ Configuration 2 :



- Internet Access : ADSL or Cable Modem
- IP address : More than one real IP or one dynamic IP
- IP CAMERA and PC connect to the internet
- Device needed : Switch Hub
- For fixed real IP, set up the IP into IP CAMERA and PC. For dynamic IP, start PPPoE.

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iii 、 Configuration 3 :

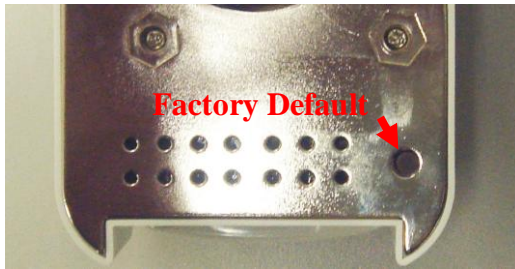


- a. Internet Access : ADSL or Cable Modem
- b. IP address : one real IP or one dynamic IP
- c. IP CAMERA and PC connect to the internet
- d. Device needed : IP sharing
- e. Use virtual IP, set up port forwarding in IP sharing.

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## VII. Factory Default

- i 、 To recover the default IP address and password, please follow the following steps.
- ii 、 Remove power, and press and hold the button in the back of IP CAMERA.



- iii 、 Power on the camera. Don't release the button during the system booting.
- iv 、 It will take around 30 seconds to boot the camera.
- v 、 Release the button when camera finishes proceed.
- vi 、 Re-login the camera using the default IP (<http://192.168.1.200>), and user name (admin), password (admin).

## VIII. Package contents

- i 、 IP CAMERA Network Camera
- ii 、 Adaptor
- iii 、 Ethernet Cable
- iv 、 CD title (User manual, IP installation Utility)

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# Appendix I

SD Card Recommended :

Vendor	Test
ADATA 4G	passed
ADATA 512M	passed
Blast 128M	passed
GIGATEK 128M	passed
Kingmax 256M	passed
Kingston 128M	passed
Kingston 256M	passed
Kingston 512M	passed
Kingston 1G	passed
Kingston 32G	passed
Phast 256M	passed
Photofast 256M	passed
PK 128M	passed
PRETEC 128M	passed
READY 128M	passed
SanDisk 128M	passed
SanDisk 256M	passed
SanDisk 512M	passed
SanDisk 1G	passed
SanDisk 2G	passed
SanDisk 4G	passed
SanDisk 8G	passed
SanDisk 16G	passed
SanDisk 32G	passed

SiliconPower 128M	passed
SiliconPower 256M	passed
TEKQ 128M	passed
TEKQ 256M	passed
Toshiba 128M	passed
Toshiba 256M	passed
Toshiba 4G	passed
Transcend 128M 80X	passed
Transcend 256M 80X	passed
Transcend 1G 80X	passed
Transcend 2G 150X	passed
Transcend 4G 150X	passed
Transcend 512M 80X	passed
Transcend 4G	passed
Transcend 8G	passed
Transcend 16G	passed
Transcend 32G	passed
TwinMOS 128M	passed
TwinMOS 256M	passed
UMAX 128M	passed
U-TEK 128M	passed