

User Manual

IR IP CAMERA





WARNINGS

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

DO NOT INSERT ANY METALLIC & ELETRIC CONDUCTIVE OBJECT THROUGH VENTILATION GRILLS.

CAUTION

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		

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

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I. Preface

IR IP CAMERA is a professional CCD IP camera. It has built-in web server which enables user to view real-time video via IE browser. It also supports simultaneously MPEG-4&JPEG video compression and dual streaming which provides smooth and high video quality. The video can be stored in the SD card, and can be playback remotely.

IR IP CAMERA is an easy-to-use IP Camera which is designed for security application.

II. Product Specifications

- IP 66
- External Varifocal Lens adjustment
- Super hi-res 540TVL
- True Day/Night Function
- Mechanism IR Cut Filter available
- IR Distance 20M
- MPEG-4/ MJPEG Compression Format
- Support Cell Phone/ PDA/ 3GPP
- Dual streaming
- SDK for software Integration
- Free Bundle 36 Channel Recording Software

Specifications

Hardware	
CPU	ARM 9 ,32 bit RISC
RAM	64MB
ROM	8MB
Image sensor	1/3" CCD
Sensitivity	0 Lux (IR On)
Horizontal Resolution	540 TV Line
Lens Type	Varifocal Auto IRIS 2.8~10mm
ICR	Mechanism IR Cut Filter

LED	IR Distance 20M	
Video Out	1	
Power Consumption	DC 12V, 450mA	
Operating Temperature	-10°C (heater on)~ 40 °C	
Dimensions	83mm (W) x 79.5mm (H) x 182.5mm (D)	
Weight	700g	
Network		
Ethernet	10/ 100 Base-T	
Network Protocol	HTTP, TCP/ IP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP	
WEP	64/ 128 bit	
System		
Video Resolution	NTSC : 720x480, 704x480,352x240, 176x120	
	PAL : 720x576, 704x576,352x288, 176x144	
Video adjust	Brightness, Contrast, Saturation, Hue	
Dual Streaming	Yes	
CCD setting	AGC (Auto), Day/ Night(Auto)	
Image snapshot	Yes	
Full screen monitoring	Yes	
Compression format	MPEG-4/ MJPEG	
Video bitrate adjust	CBR, VBR	
Motion Detection	Yes, 3 different areas	
Triggered action	Mail, FTP	
Pre/ Post alarm	Yes, configurable	
Security	Password protection	
Firmware upgrade	HTTP mode, can be upgraded remotely	
Simultaneous connection	Up to 10	
Web browsing requirement		
OS	Windows 2000/ 2003, XP, Vista, Microsoft IE 6.0 or above	
Hardware		
	Suggested	Intel-C 2.0G, RAM : 512MB, Graphic card : 64MB
	Minimum	Intel-C 1.6G, RAM : 256MB, Graphic card : 32MB

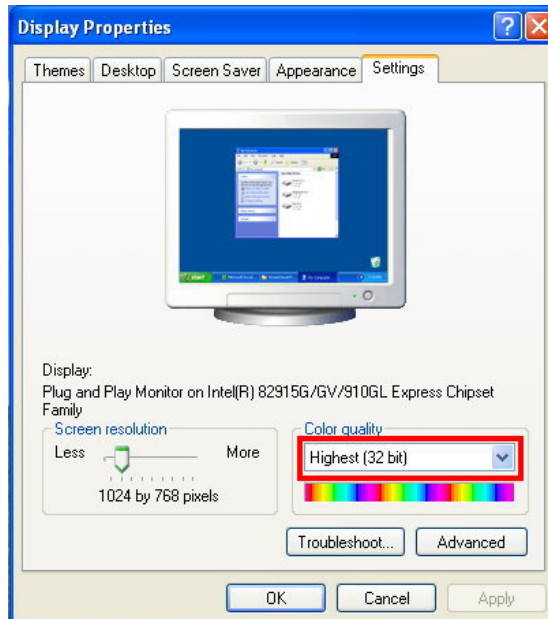
III. Product Installation

A. Monitor Setting

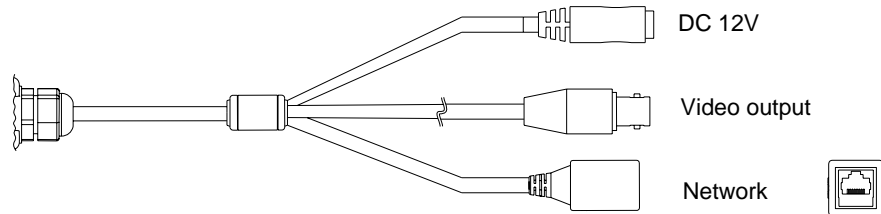
- i. Right-Click on the desktop. Select “ Properties”.



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



B. Hardware Installation



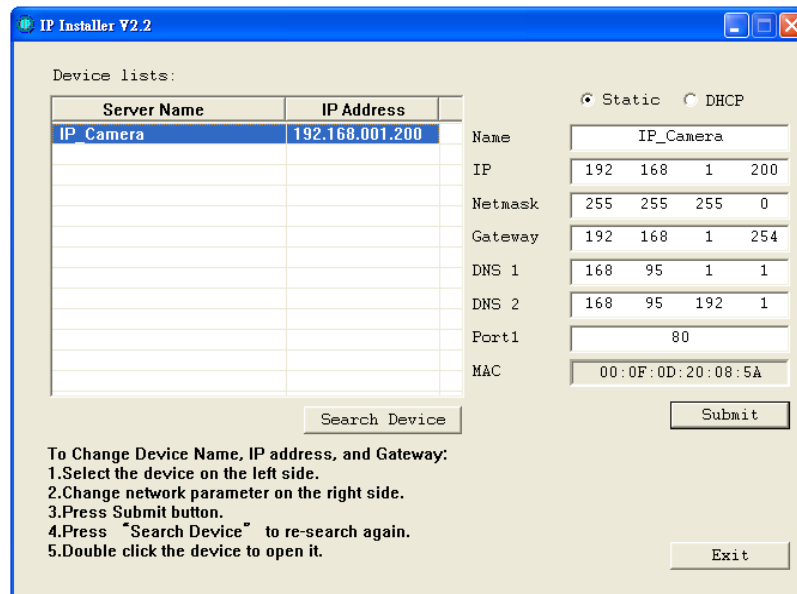
- i. Connect power adaptor
- ii. Connect Ethernet cable to IP Camera
- iii. Connect IP Camera to a computer or Local network.

C. IP Assignment

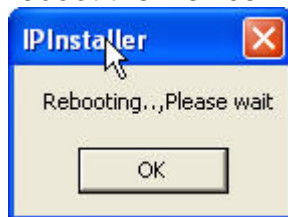
- i. Use the software, "IP Installer" to assign the IP address of IP Camera. The software is in the attached software CD.
- ii. There are two languages for the IP installer
 - a. IPInstallerCht.exe : Chinese version
 - b. IPInstallerEng.exe : English version
- iii. There are 3 kinds of IP configuration.
 - a. Fixed IP (Public IP or Virtual IP)
 - b. DHCP (Dynamic IP)
 - c. Dial-up (PPPoE)
- iv. Please execute IP Installer
- v. For Windows XP SP2 user, the following message box may appear. 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”. The following dialogue box will show. Just 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:

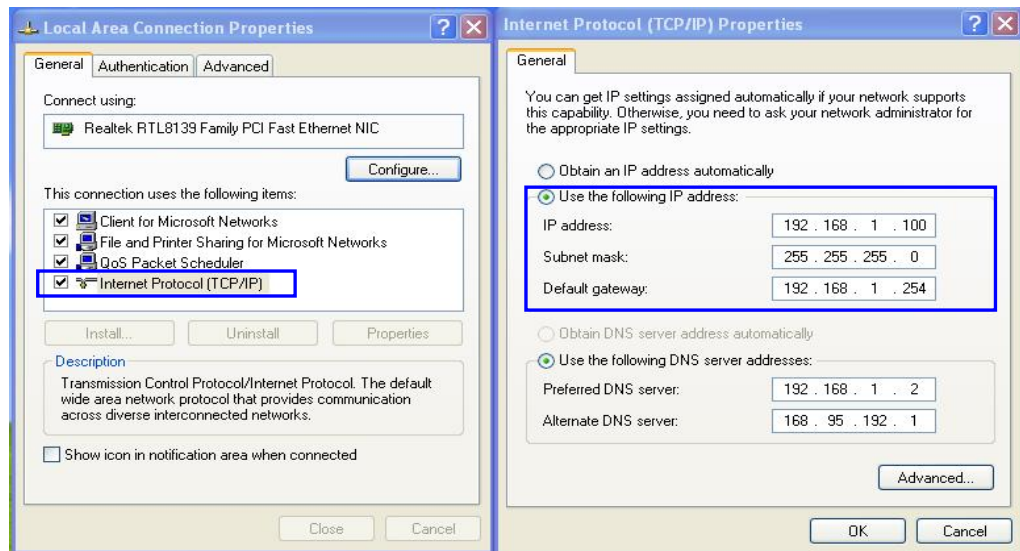
IP CAM IP address: 192.168.2.200

PC IP address: 192.168.1.100

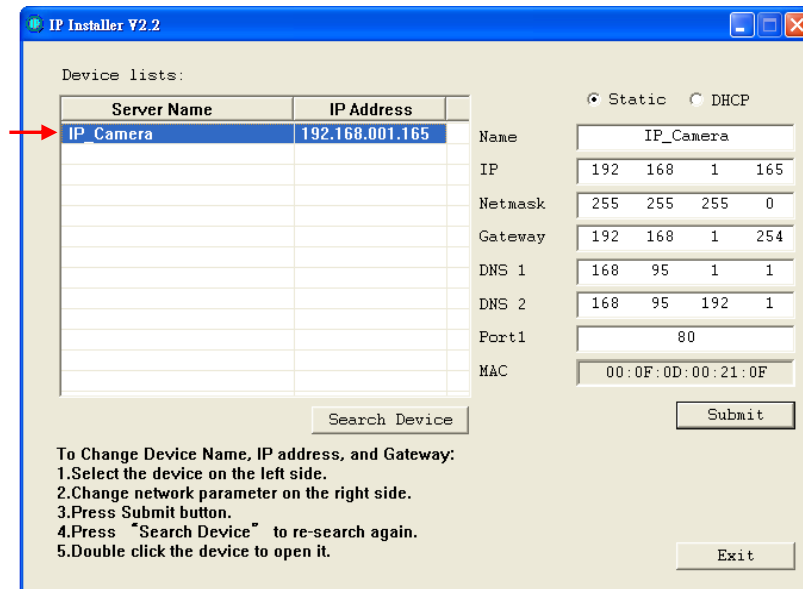
To Change PC IP address:

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

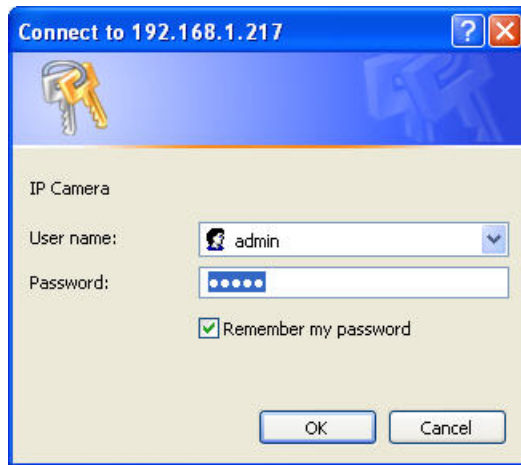
Please make sure your IP Camera and PC have the same Subnet. If not, please change IP Camera subnet or PC IP subnet accordingly.



- 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.

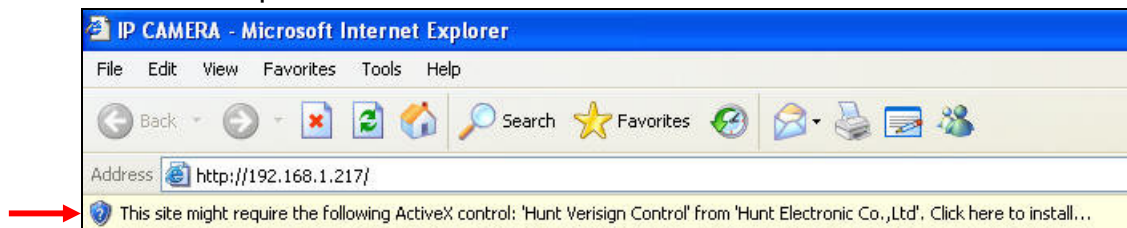


- xi. Then, please key in the default “user name: admin” and “password: admin”.



D. Install ActiveX control:

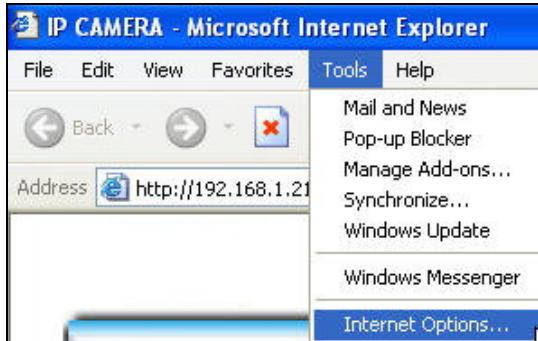
For the first time to view the camera video via IE, it will ask you to install the ActiveX component.



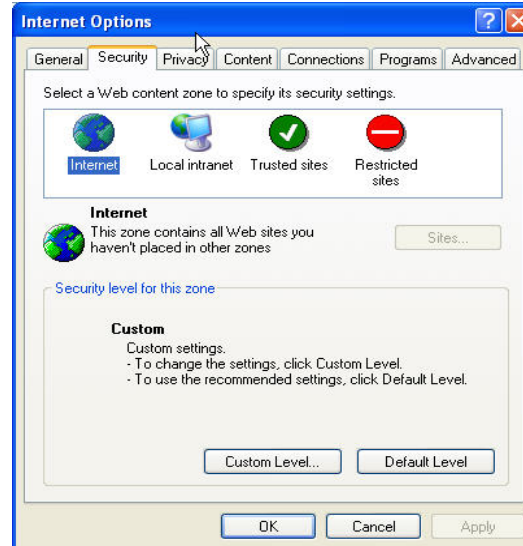
If the installation failed, please check the security setting for the IE browser.

- 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.

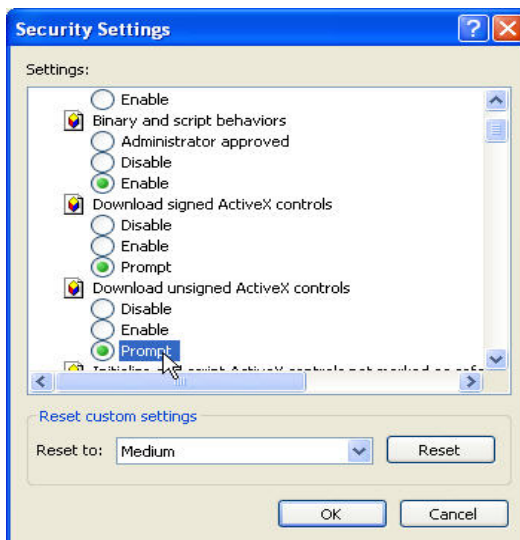
1



2



3

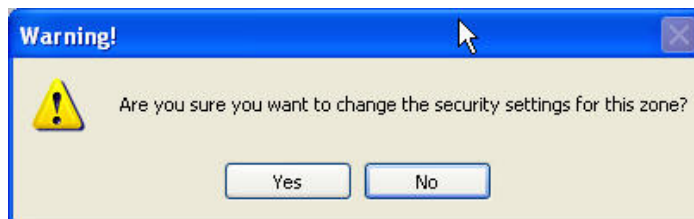


4



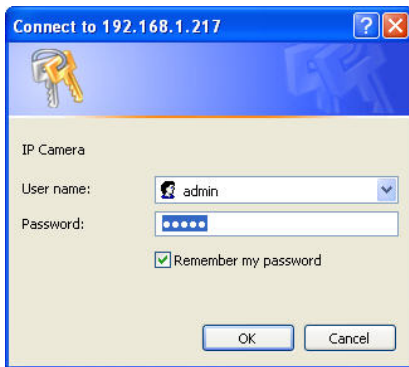
5

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

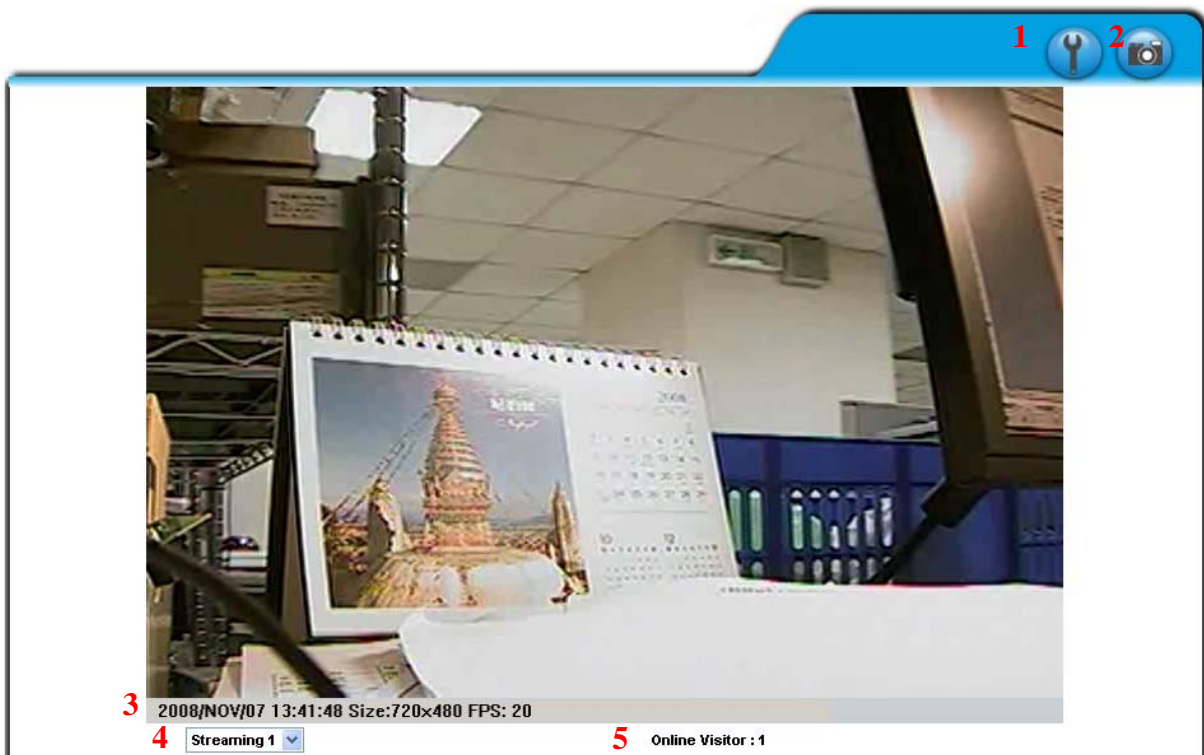




IV. Live Video

Start an 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. Shows how many people connect to this IP camera

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 jpg picture
2. Record Start : Record 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.

V. IR IP CAMERA Configuration

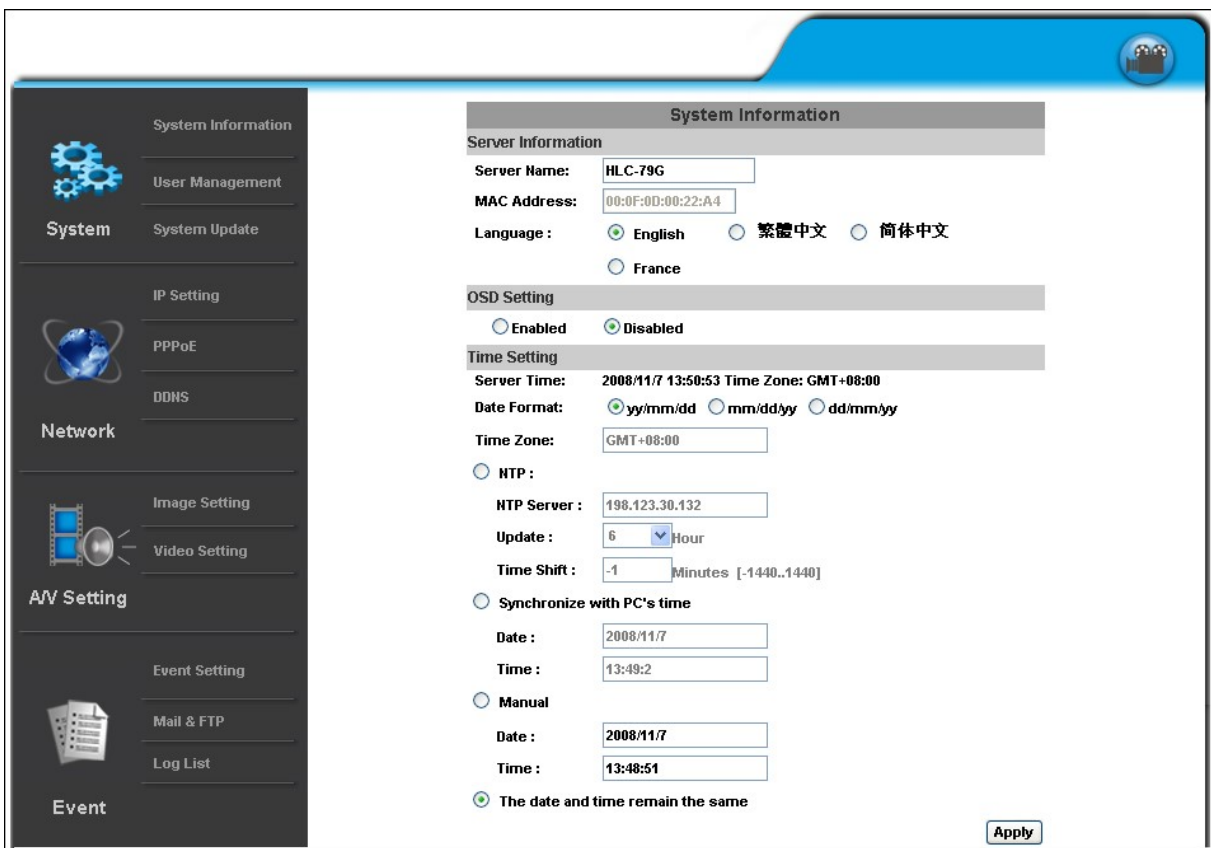


Click



to back to the live video

page.



The screenshot displays the configuration web interface for an IP camera. On the left is a dark sidebar menu with icons and labels for various settings: System (wrench icon), Network (globe icon), A/V Setting (camera icon), and Event (document icon). The main content area is titled "System Information" and contains several sections:

- Server Information:** Server Name: HLC-79G; MAC Address: 00:0F:0D:00:22:A4; Language: English (selected), 繁體中文, 简体中文, France.
- OSD Setting:** Enabled, Disabled (selected).
- Time Setting:** Server Time: 2008/11/7 13:50:53 Time Zone: GMT+08:00; Date Format: yy/mm/dd (selected), mm/dd/yy, dd/mm/yy; Time Zone: GMT+08:00.
- NTP:** NTP Server: 198.123.30.132; Update: 6 Hour; Time Shift: -1 Minutes [-1440..1440].
- Synchronize with PC's time:** Date: 2008/11/7; Time: 13:49:2.
- Manual:** Date: 2008/11/7; Time: 13:48:51.
- The date and time remain the same:** (selected).

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

A. System

i. System Information

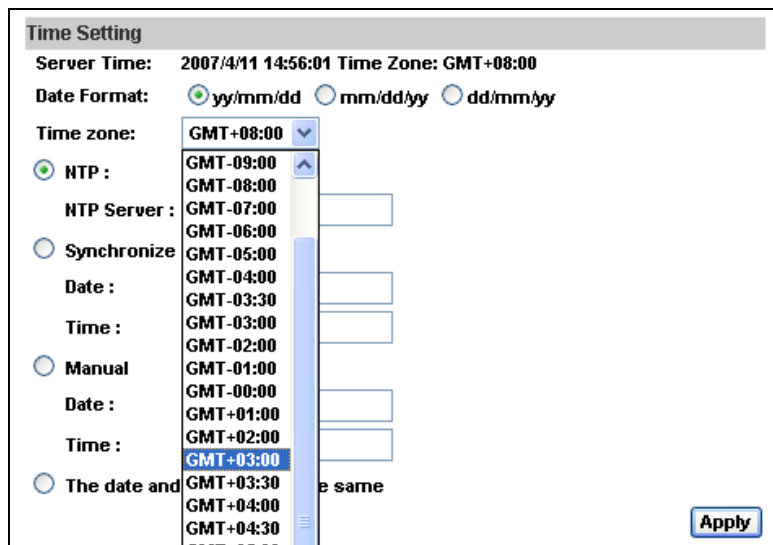
- a. Server Information : Set up the camera name, select language, and set up the camera time.
 1. Server Name : This is the Camera name. This name will show on the IP Installer.
 2. Select language : There are English, Traditional Chinese, and Simple Chinese to select. When changed, it will show the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



- b. OSD Setting : select a position where date & time display on screen.

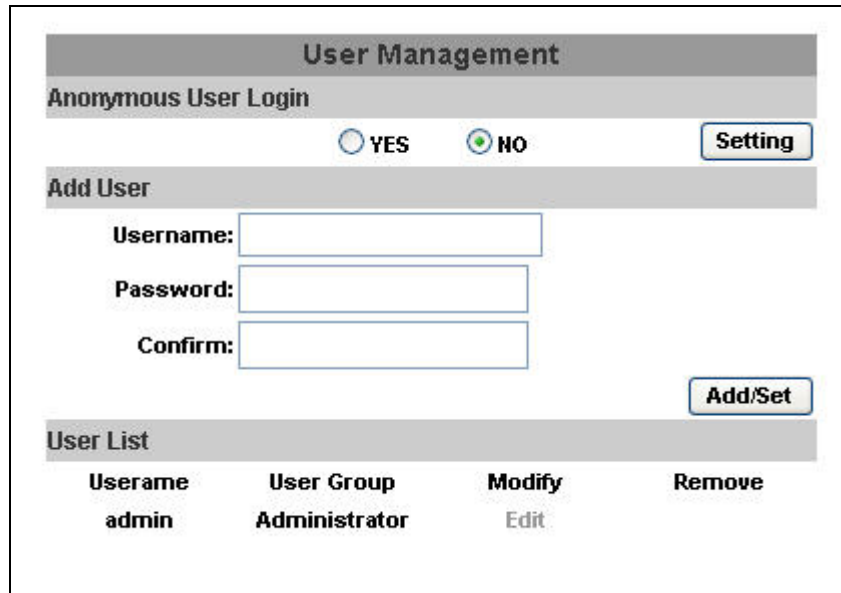


- c. Server time setting : Select options to set up time - "NTP", "Synchronize with PC's time", "Manual", "The date and time remain the same".



ii · User Management

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



The screenshot shows the 'User Management' web interface. It has a title bar 'User Management' and a section 'Anonymous User Login' with radio buttons for 'YES' and 'NO' (where 'NO' is selected) and a 'Setting' button. Below is the 'Add User' section with input fields for 'Username:', 'Password:', and 'Confirm:', and an 'Add/Set' button. At the bottom is a 'User List' table:

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.



The screenshot shows a 'User Setup' dialog box within a Microsoft Internet Explorer window. The dialog has a title bar 'User_Setting - Microsoft Internet Explorer'. It contains input fields for 'Username:' (with 'admin' entered), 'Password:', and 'Confirm:', and an 'OK' button.

iii 、 System update :

System Update	
Firmware Upgrade	
Firmware Version:	V3.2.11
New Firmware:	<input type="text"/> 瀏覽...
<input type="button" value="Upgrade"/>	
Reboot System	
<input type="button" value="Start"/>	
Factory Default	
<input type="button" value="Start"/>	
Setting Management	
Save As a File:	Right click the mouse button on <u>Setting Download</u> and then select Save As... to save current system's setting in the PC.
New Setting File:	<input type="text"/> 瀏覽...
<input type="button" value="Upgrade"/>	

- a. To update the firmware online, click “Browse...” to select the firmware. Then click “Upgrade” to the proceed.
- b. Reboot system : re-start the IP camera
- c. Factory default : delete all the settings and restore defaults system.
- 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

B.Network

i、 IP Setting

IR IP CAMERA supports DHCP and static IP.

IP Setting	
IP Assignment	
<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"/>
Port Assignment	
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]
UPnP	
UPnP:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
<input type="button" value="Apply"/>	

- a. DHCP : Using DHCP, IR 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.

d. UPnP

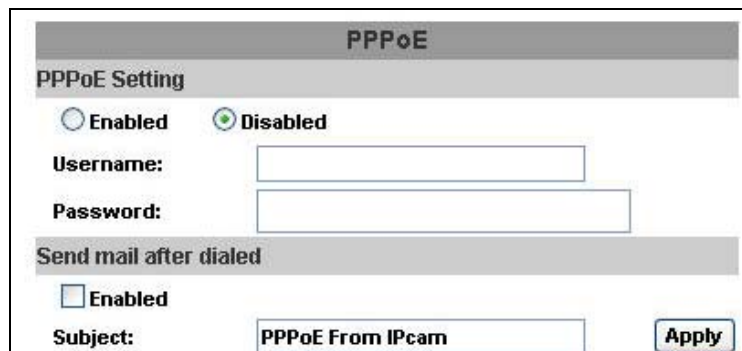
This IP camera supports UPnP, If this service is enabled on your computer, the camera will automatically be detected and a new icon will be added to “My Network Places.”

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 contains two radio buttons: "Enabled" (unselected) and "Disabled" (selected). Below these are two text input fields labeled "Username:" and "Password:". A section titled "Send mail after dialed" contains an unchecked checkbox labeled "Enabled" and a "Subject:" field with the text "PPPoE From IPcam". An "Apply" button is located at the bottom right of the window.

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 :

IR IP camera supports DDNS (Dynamic DNS) and Manual Built-in DDNS services.

a. DynDNS :

DDNS

DDNS Setting

Enabled Disabled

Provider:

Hostname:

Username:

Password:

Schedule Update: **Minutes**

State

Idle↑
↓

Note:

- 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.
- 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 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.

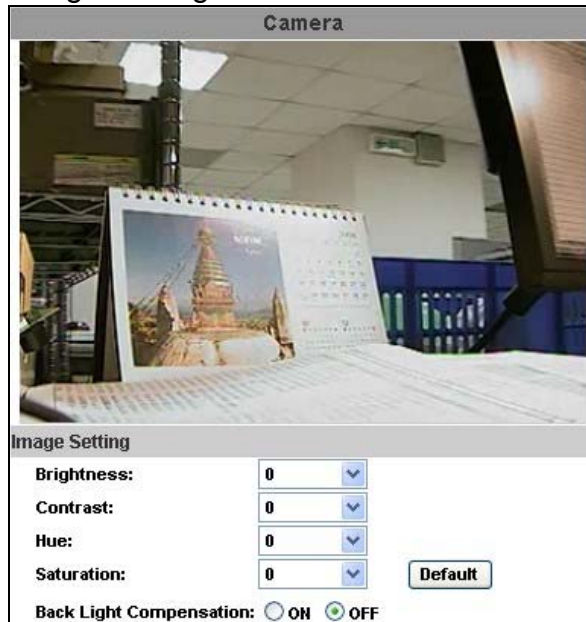
1. Please enable this service
2. Key-in user name.
3. IP Schedule update is default at 5 minutes
4. Click “Apply”.

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.

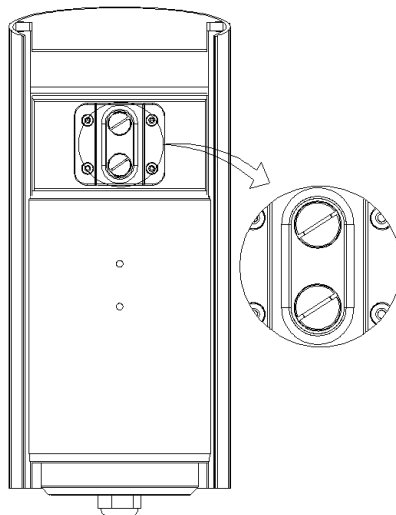
C.A/V Setting

i、 Image Setting



Adjust “Brightness”, “Contrast”, “Hue”, “Saturation” to get clear video. If needed, please select “Back Light Compensation” ON to compensate back light situation

- ii、 This IP camera belongs to external varifocal lens adjustment camera. Please adjust “**ZOOM**” first and “**FOCUS**” in the following to complete the adjustment.



iii 、 Video Setting

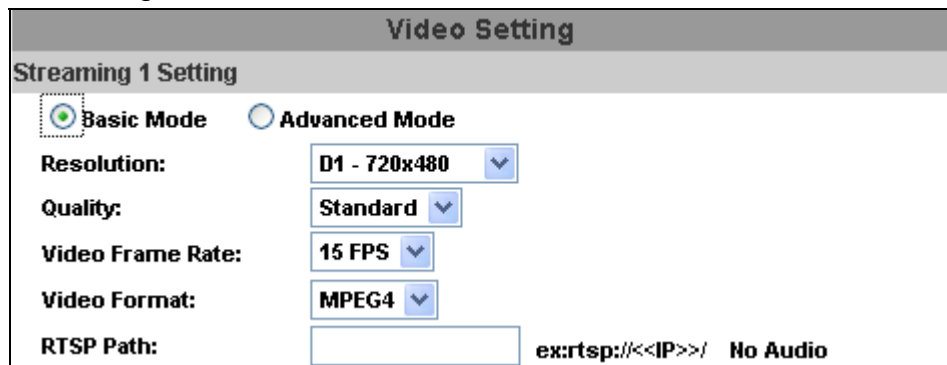
User may select 2 streaming output simultaneously:

Streaming 1 Setting: Basic mode and Advanced mode

Streaming 2 Setting: Basic mode, Advanced mode, and 3GPP mode

(Max Video Frame Rate for both streaming combined is 30 FPS)

a. Streaming 1 Basic Mode :



1. Resolution :

There are 4 resolutions to choose.

	NTSC	/	PAL
D1	– 720×480	/	720×576
4CIF	– 704×480	/	704×576
CIF	– 352×240	/	352×288
QCIF	– 176×120	/	176×144

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 : MPEG4 or JPEG.

5. RTSP Path: RTSP output name

b. Streaming 1 Advanced Mode :

Video Setting

Streaming 1 Setting

Basic Mode **Advanced Mode**

Resolution: D1 - 720x480 ▼

Bitrate Control Mode: CBR VBR

Video Quantitative: 9 ▼

Video Bitrate: 1.5Mbps ▼

Video Frame Rate: 30 FPS ▼

GOP Size: 1 X FPS ▼ GOP = 30

Video Format: MPEG4 ▼

Video Orientation: Flip Mirror

RTSP Path: ex:rtsp://<<IP>>/ No Audio

1. Resolution :

There are 4 resolutions to choose.

	NTSC	/	PAL
D1	– 720x480	/	720x576
4CIF	– 704x480	/	704x576
CIF	– 352x240	/	352x288
QCIF	– 176x120	/	176x144

2. Bitrate Control Mode

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

CBR : 32Kbps~4Mbps – Increase CBR to increase the picture quality; vise versa

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

Picture display frame 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 :

There are 2 Video Format to choose
MPEG4 or JPEG.

6. RTSP Path: RTSP output connecting route

c. Streaming 2 Basic Mode :

Streaming 2 Setting

Basic Mode
 Advanced Mode
 3GPP Mode
 Close

Resolution: QCIF - 176x120 ▾

Quality: Low ▾

Video Frame Rate: 5 FPS ▾

Video Format: MPEG4 ▾

RTSP Path: v2 ex:rtsp://<<<IP>>/v2 No Audio

1. Resolution :

There are 4 resolutions to choose.

		NTSC	/	PAL
D1	–	720x480	/	720x576
4CIF	–	704x480	/	704x576
CIF	–	352x240	/	352x288
QCIF	–	176x120	/	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 Format : MPEG4 or JPEG

4. RTSP Path: RTSP output connecting route

d. Streaming 2 Advanced Mode :

Streaming 2 Setting

Basic Mode
 Advanced Mode
 3GPP Mode
 Close

Resolution: QCIF - 176x120 ▼

Bitrate Control Mode: CBR VBR

Video Quantitative: 7 ▼

Video Bitrate: 128Kbps ▼

Video Frame Rate: 5 FPS ▼

GOP Size: 1 X FPS ▼ GOP = 5

Video Format: MPEG4 ▼

RTSP Path: u2 ex:rtsp://<<IP>>/u2 No Audio

1. Resolution :

There are 4 resolutions to choose.

	NTSC	/	PAL
D1	– 720x480	/	720x576
4CIF	– 704x480	/	704x576
CIF	– 352x240	/	352x288
QCIF	– 176x120	/	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

e. Streaming 2, 3GPP mode:

Streaming 2 Setting

Basic Mode
 Advanced Mode
 3GPP Mode
 Close

Resolution:

Bitrate Control Mode: CBR VBR

Video Quantitative:

Video Bitrate:

Video Frame Rate:

GOP Size: **GOP = 20**

Video Format:

3GPP Path: **ex:rtsp://<<IP>>/3g Audio:AMR**
ex:rtsp://<<IP>>/3gx No Audio

3GPP default value is QQVGA , 128Kbp , 5FPS , GOP=1XFPS

3GPP mode suggested setting: QQVGA, lower than 128kbps, 5FPS, GOP= 1x FPS or 2x FPS, MPEG4 format

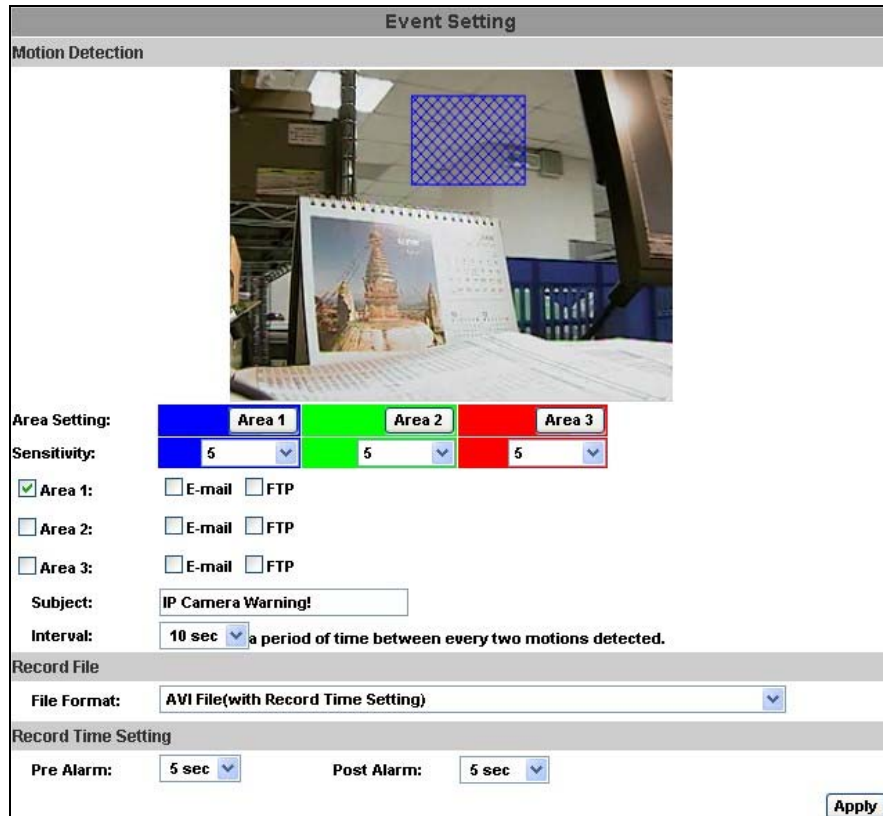
3GPP can achieve up to 10FPS, In 3GPP mode, Stream 1 & Stream 2 combined frame rate is 20FPS

1. Fix Resolution :
QCIF – 176x120 / 176x144
2. Bitrate Control Mode
There are CBR [Constant Bit Rate] and VBR [Variable Bit Rate] to use.
CBR : 32Kbps~320bps (the higher the CBR is, the better the video quality is)
VBR : 1~10 (Compression Rate)
3. Video Frame Rate (**5 FPS is recommended**)
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. 3GPP: 3GPP output name

D.Event List

IR IP CAMERA provides multiple event settings.

i、 Event Setting



a. Motion Detection

IP CAMERA allows 3 areas motion detection. When motion is triggered, it can send video to some specific mail addresses, transmit video to remote ftp server. To set up the motion area, click “Area Setting”. Using mouse to drag and set 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.

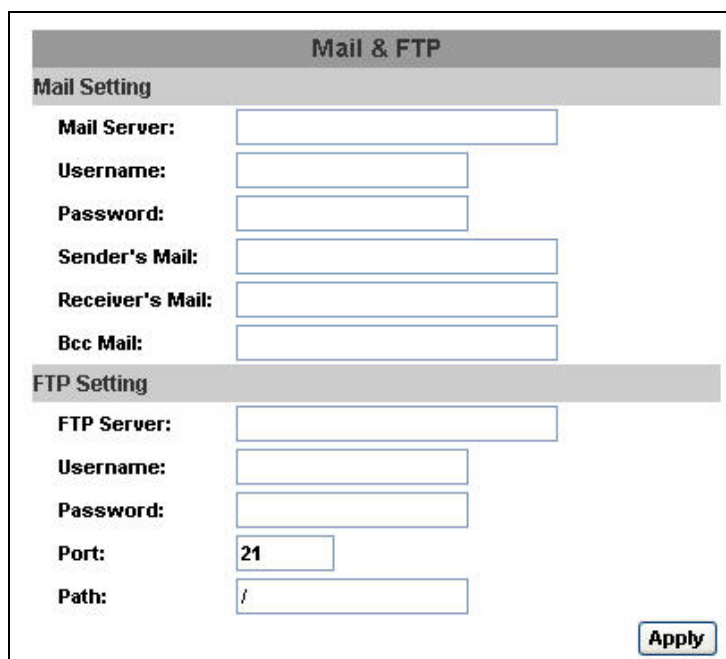
1. AVI File (With Record File Setting)
2. Multi-JPEG (With Record File Setting), only with JPEG compression format.
3. Single JPEG (Single File with Interval Setting)

- 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 、 Mail & FTP

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



The form is titled "Mail & FTP" and is divided into two sections: "Mail Setting" and "FTP Setting".

Mail Setting

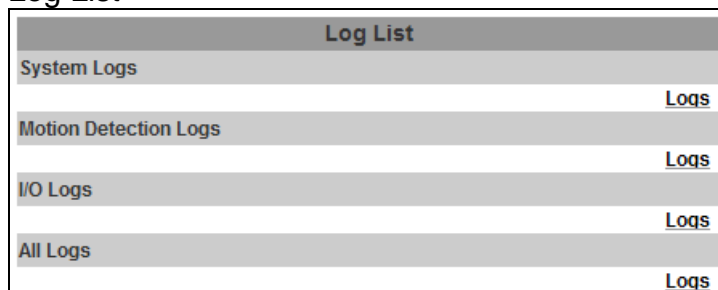
- Mail Server:
- Username:
- Password:
- Sender's Mail:
- Receiver's Mail:
- Bcc Mail:

FTP Setting

- FTP Server:
- Username:
- Password:
- Port:
- Path:

An "Apply" button is located at the bottom right of the form.

iii 、 Log List



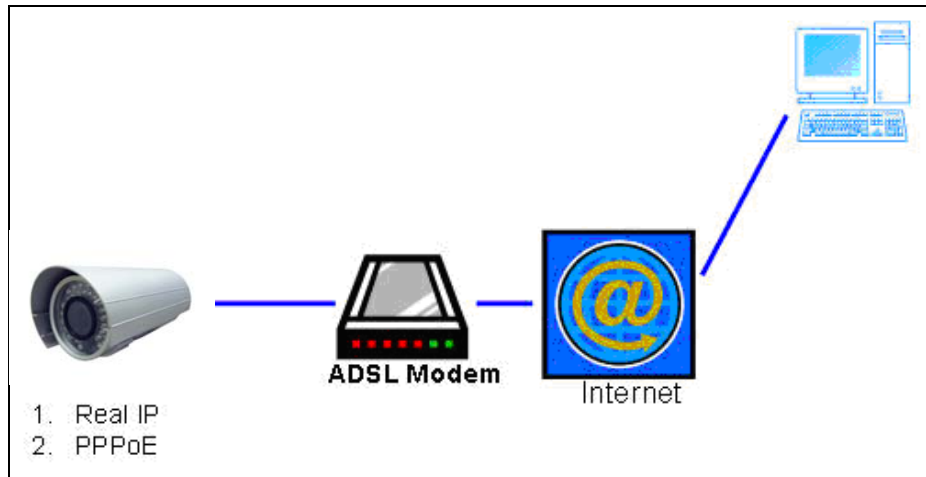
The "Log List" interface shows a table with the following rows:

Log List	
System Logs	Logs
Motion Detection Logs	Logs
I/O Logs	Logs
All Logs	Logs

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.

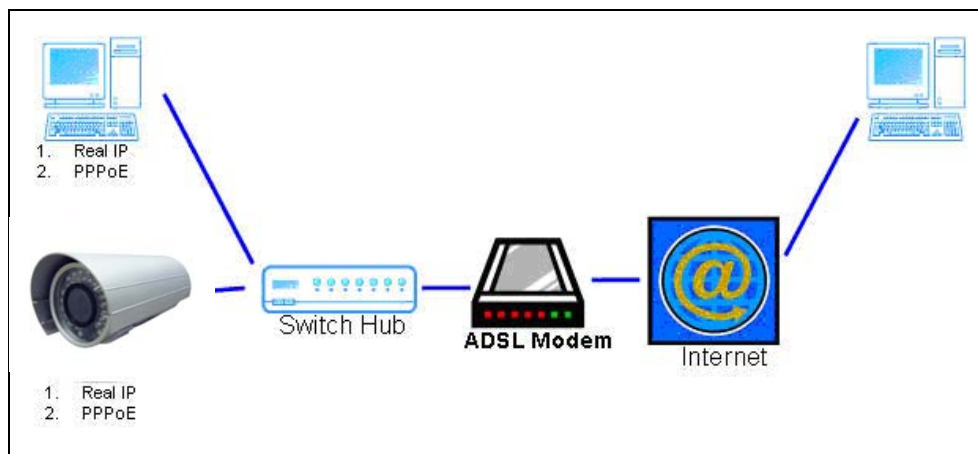
VI. Network Configuration

i、 Configuration 1 :



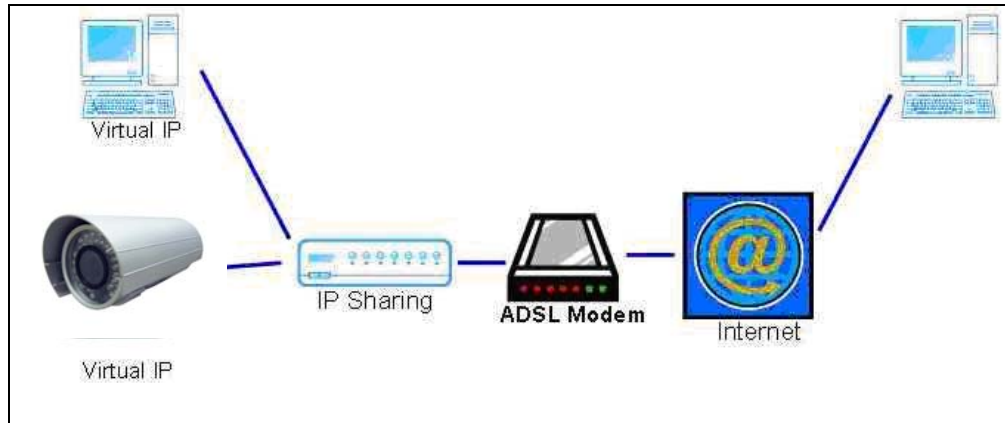
- a. Internet Access : ADSL or Cable Modem
- b. IP address : One real IP or one dynamic IP
- c. Only IR IP CAMERA connects to the internet
- d. For fixed real IP, set up the IP into IR IP CAMERA. For dynamic IP, start PPPoE.

ii、 Configuration 2 :



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

iii 、 Configuration 3 :



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

VII. Package contents

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

Appendix I

SD Card Recommended :

SanDisk 128M	Transcend 128M 80X
SanDisk 256M	Transcend 256M 80X
SanDisk 512M	Transcend 512M 80X
SanDisk 1G	Transcend 1G 80X
SanDisk 2G	Transcend 2G 80X
SanDisk 4G	Transcend 4G 80X