User Manual

IP CAMERA

WARINGS

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

DO NOT INSERT ANY METALLIC OBJECT THROUGH VENTILATION GRILLS.

CAUTION

<table>
<tr><td>  </td><td>CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN</td><td>  </td></tr>
<tr><td colspan="3">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.</td></tr>
</table>

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CONTENT

I. Preface

This IP Camera has the web server built in. User can view real-time video via IE browser. This camera supports simultaneously H.264, Motion JPEG & MPEG4 video compressions and dual-streaming which provides smooth and high-quality video. The video can be stored in the SD card and playback remotely. With the user friendly interface, it is an easy-to-use IP camera which is designed for security applications.

II. Product Specifications

Main Features:

- Full HD 1080P@30fps real time
- 1/2.7” 2Megapixel CMOS Sensor
- Digital Noise Reduction
- Digital Wide Dynamic Range (D-WDR)
- Shutter Speed adjust
- Sense Up adjust
- Day & Night Switch time control manually
- IR-Cut filter
- Power over Ethernet available
- H.264/ M-JPEG / MPEG4 compression
- Micro SD card backup
- Support iPhone/iPad/Android/Mac
- Triple Streaming
- SDK for Software Integration
- Free Bundle 36ch recording software (IP Camera Recorder)

YUC-Hi26RP Specifications

Hardware	
CPU	ARM 9 ,32 bit RISC
RAM	256MB
Flash	16MB
Image sensor	1/2.7” 2Megapixel CMOS sensor
Lens Changeable	Yes, CS Mount

Sensitivity	Color : 0.1 Lux (AGC ON) B / W: 0.05 Lux (AGC ON)	
Support DC IRIS	Yes	
Shutter Time	1 / 5 ~ 1 / 10,000 sec	
ICR	Mechanism IR cut Filter	
I/O	1 Alarm in / 1 Relay out	
Audio	G.711(64K) and G.726(32K,24K) audio compression Input : audio in or mic built-in(auto switch) Output: 3.5mm phone jack, Support 2-way.	
Power over Ethernet	Yes	
Power	12V DC Power consumption Max: 4W 24V AC Power consumption Max: 4.8W PoE Power consumption Max: 5.3W	
Operating Temperature	-10°C ~ 45°C	
Dimensions (w/o lens)	65mm (W) x 58mm (H) x 132mm (L)	
Weight	450g	
Network		
Ethernet	10/ 100 Base-T	
Network Protocol	HTTP, HTTPS, SNMP, QoS/DSCP, Access list, IEEE 802.1X, RTSP, TCP/ IP, UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP, SAMBA, Bonjour	
Wireless (Option)		
	Built-in	3G Dongle ＊
Wireless	802.11 b/g/n	
Security	WEP,WPA-PSK,WPA2-PSK	
System		
Video Resolution	1920x1080@30fps, 1280x720@30fps, ,640x480@30fps, 320x240@30fps, 176x144@30fps	
Video Adjust	Brightness, Contrast, Hue, Saturation, Sharpness, Shutter Speed adjust, AGC, Sense-Up, D-WDR, Flip, Mirror, Noise reduction, Exposure, Day & Night adjust	
Triple Streaming	Yes	
Image snapshot	Yes	
Full screen monitoring	Yes	
Privacy Mask	Yes, 3 different areas	
Compression format	H.264/ M-JPEG/ MPEG4	
Video Bit rates adjust	CBR, VBR	
Motion Detection	Yes, 3 different areas	
Triggered action	Mail, FTP, Save to SD card, Relay out, SAMBA	

Pre/ Post alarm		Yes, configurable
Security		Password protection, IP address filtering, HTTPS encrypted data transmission, 802.1X port-based authentication for network protection, QoS/DSCP
Firmware upgrade		HTTP mode, can be upgraded remotely
Simultaneous connection		Up to 10
SD card management		
Recording trigger		Motion Detection, IP check, Network break down (wire only), Schedule, Alarm in
Video format		AVI, JPEG
Video playback		Yes
Delete files		Yes
Client System requirement		
OS		Windows 7, 2000, XP, 2003, Microsoft IE 6.0 or above, Chrome, Safari, Firefox
Mobile Support		iOS 4.3 or above, Android 1.6 or above.
Hardware	Suggested	Intel Dual Core 2.53G,RAM: 1024MB, Graphic card: 128MB
	Minimum	Intel-C 2.8G, RAM: 512MB, Graphic card: 64MB

＊3G dongle support list, 3G dongle would be prepared by users.

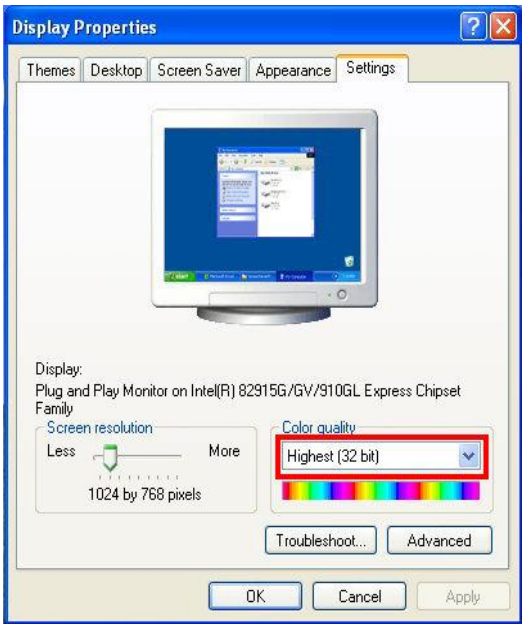
	Model name	Test result
Huawei	E220	PASSED
	E156G	PASSED
	E160G	PASSED

III. Product Installation

A. Monitor Setting

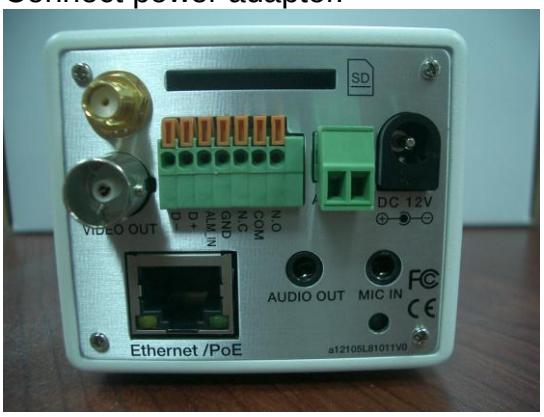
1. Right-Click on the desktop. Select “Properties”

2. Change color quality to highest (32bit).



A. Assignment

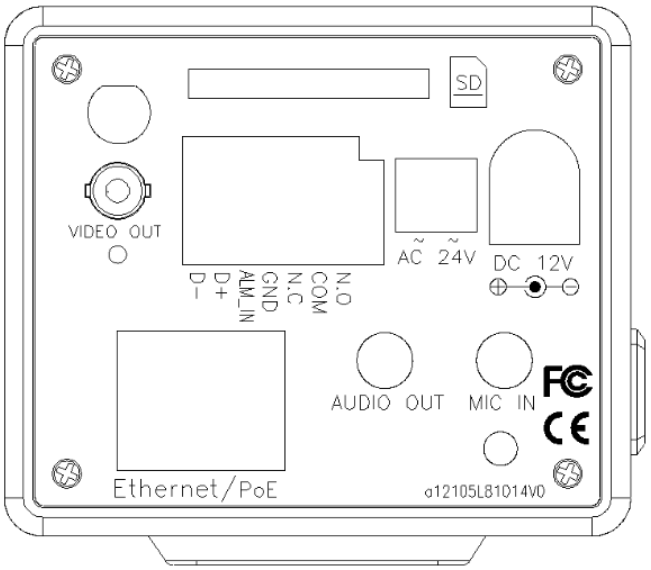
i. Connect power adaptor.



ii. Connect IP Cam to PC or network with Ethernet cable.

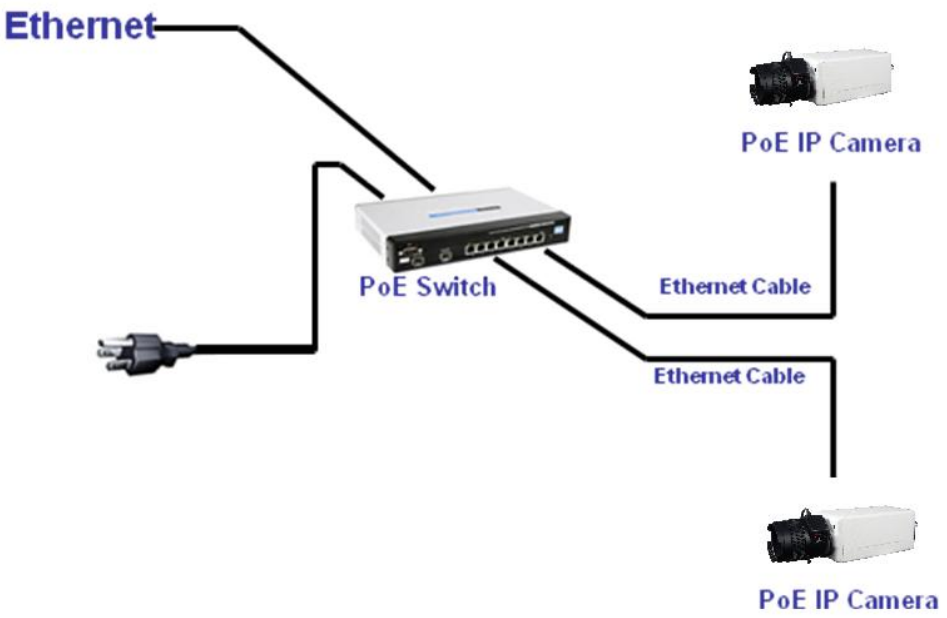
iii. Set up the network configurations according to the network environment. For further explanation, please refer to chapter VI, “Network Configuration for IP CAMERA”.

iv. Back panel instruction: Back panel diagram is shown in the following.



6. PoE (Power-Over-Ethernet) 802.3at, 30.0W PoE Switch is recommended

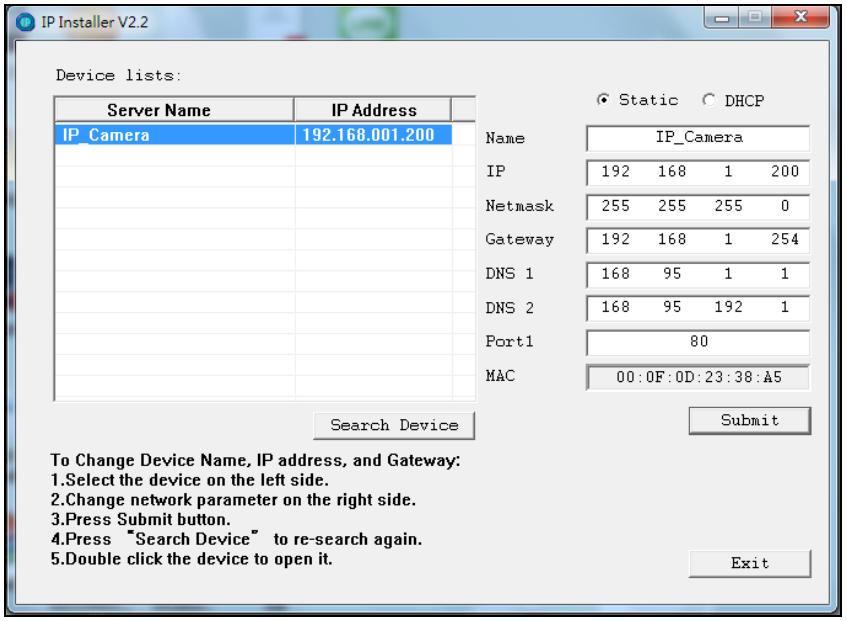
Power-over-Ethernet (PoE) is a technology that integrates power into a standard LAN infrastructure. It enables power to be provided to the network device, such as an IP phone or a network camera, using the same cable as that used for network connection. It eliminates the need for power outlets at the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



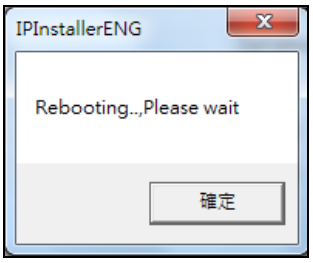
C. IP Assignment

1. Use the software, “IP Installer” to assign the IP address of IP Camera. The software is in the attached CD.
2. There are two languages for the IP installer
   a. IPInstallerCht.exe: Chinese version
   b. IPInstallerEng.exe: English version
3. There are 3 kinds of IP configuration.
   a. Fixed IP (Public IP or Virtual IP)
   b. DHCP (Dynamic IP)
   c. Dial-up (PPPoE)
4. Execute IP Installer
5. For Windows XP SP2 user, it may popup the following message box. Please click “Unblock”.

6. IP Installer configuration:



7. IP Installer will search all IP Cameras connected on LAN. The user can click the icon, Search Device, to search again.
8. 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 (ex: Office, warehouse). Change the parameter and click “Submit” then click “OK”. It will apply the change and reboot the Device.



9. 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:

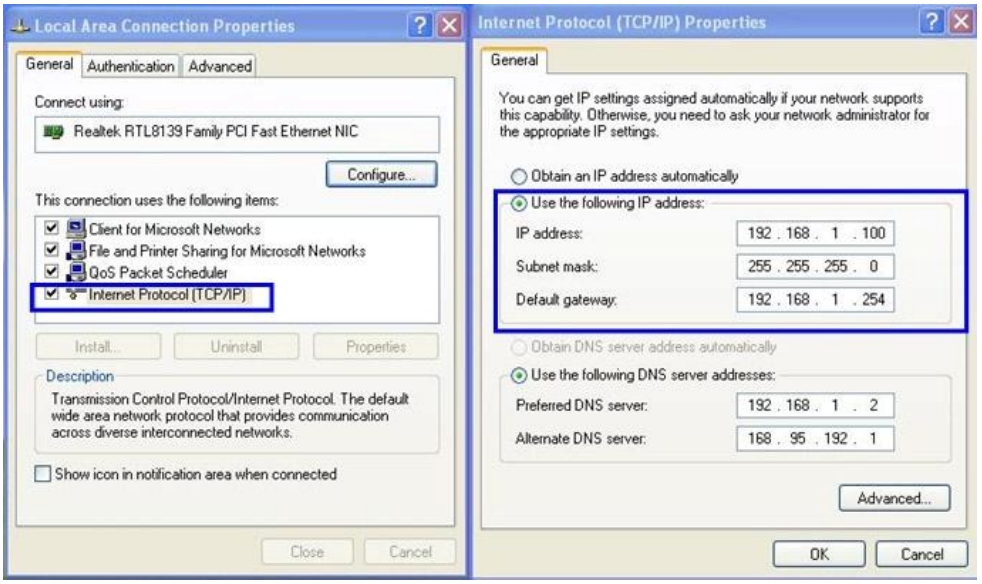
IP CAM IP address: 192.168.2.200

PC IP address: 192.168.1.100

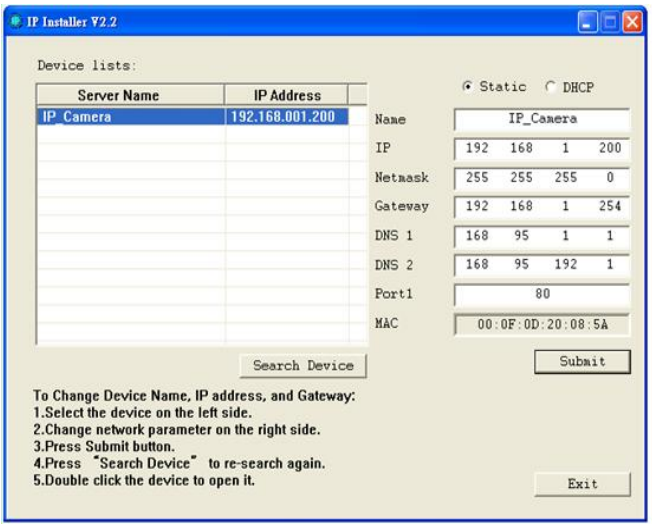
To Change PC IP address:

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

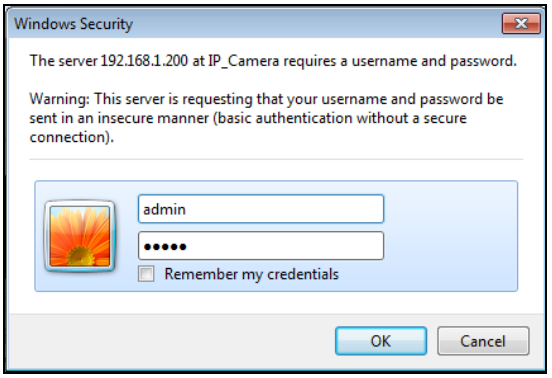
Please make sure your IP Camera and PC have the same Subnet. If not, please change IP Camera subnet or PC IP subnet accordingly.



10. 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.



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



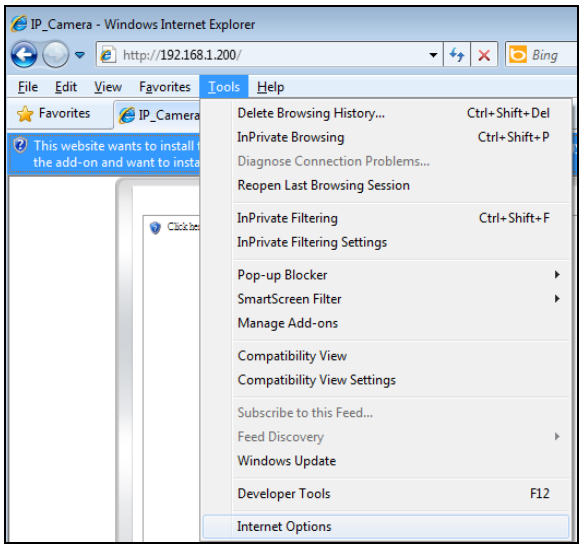
D. Install ActiveX control

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

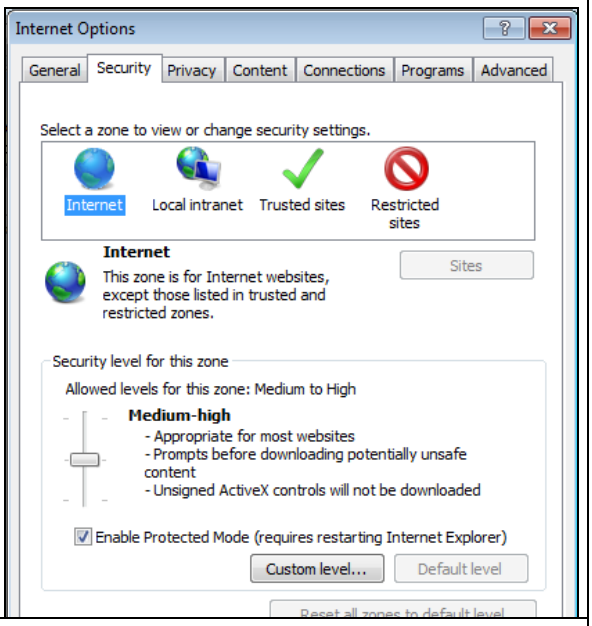
If the installation failed, please check the security setting for the IE browser.

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

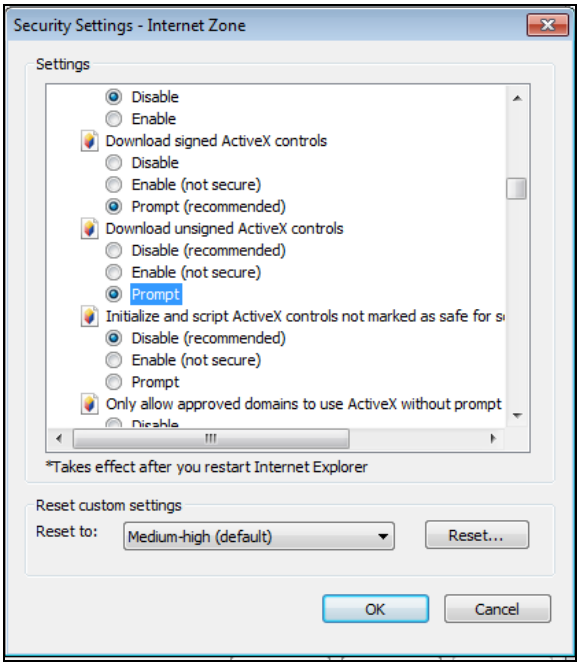
1



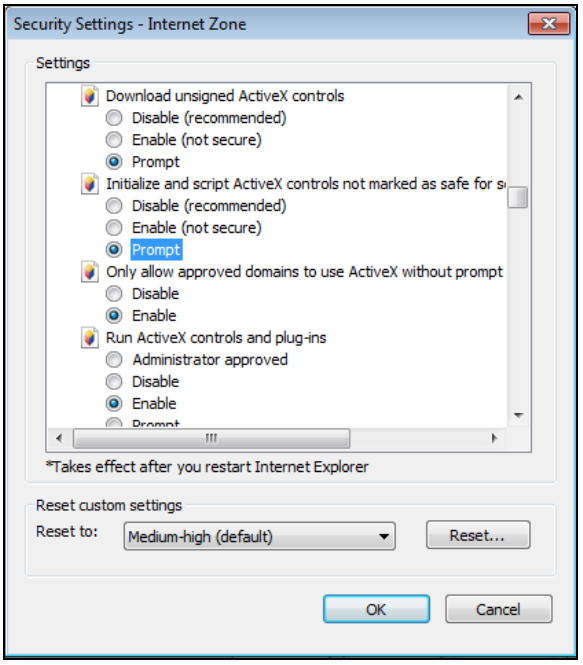
2



3

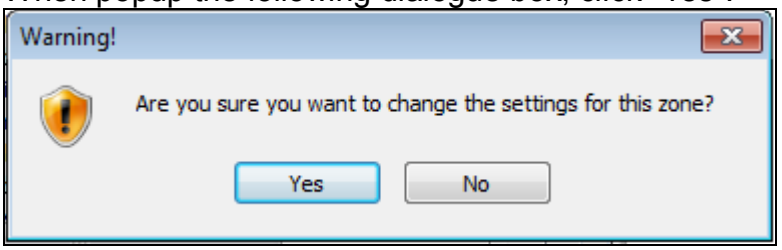


4



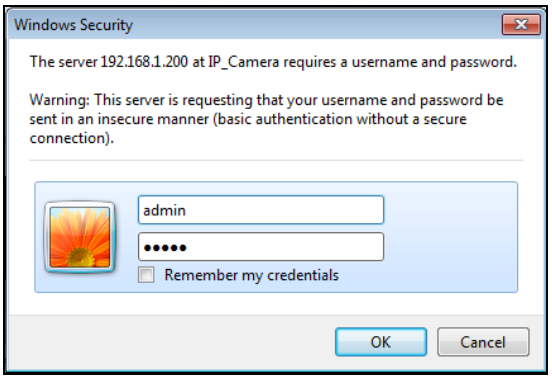
5

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



E. 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”.



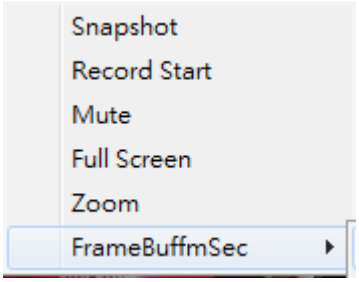
When the IP Camera is connected successfully, it shows the following program interface.

1.  Get into the administration page

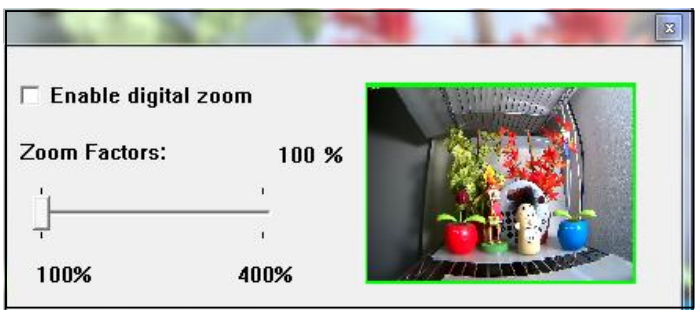
2.  : Video Snapshot
3. Show system time, video resolution, and video refreshing rate
4. Adjust image, Default, 1/2x, 1x, 2x
5. Select video streaming source (”Video Setting”, If the streaming 2 setting is closed, this option will not appear here.)
6. IP Camera supports 2-way audio. Click the “Chatting” check box. Then you can use microphone connected to the PC to talk to server side, which is IP Camera side.
7. Show how many people connect to this IP camera.
8. Tick the Relay out "ON" box to enable the relay output.

Double-click the video to switch to full screen view. Press “Esc” or double-click the video again 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.



IV. IP Camera Configuration

Click  to get into the administration page as below.

Click  to back to the live video

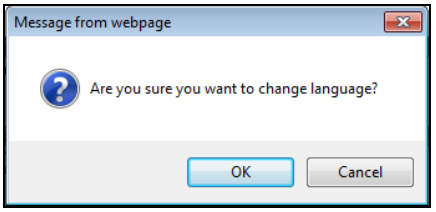
A. System

1. System Information

a. Server Information: Set up the camera name, select language, and set up the camera time.

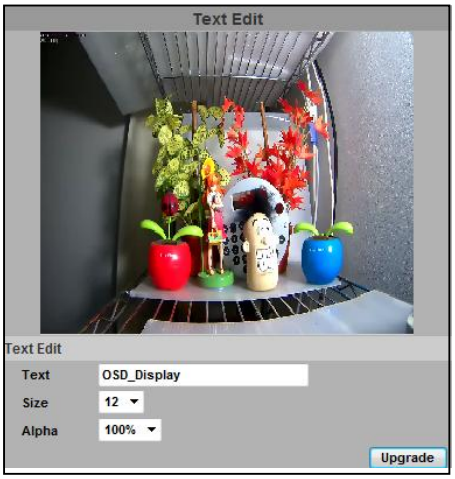
(i) Server Name: This is the Camera name. This name will show on the IP Installer.

(ii) Select language: There are English, Traditional Chinese, and Simplified Chinese for selection. When switching, it will show the following dialogue box for the confirmation of changing language.

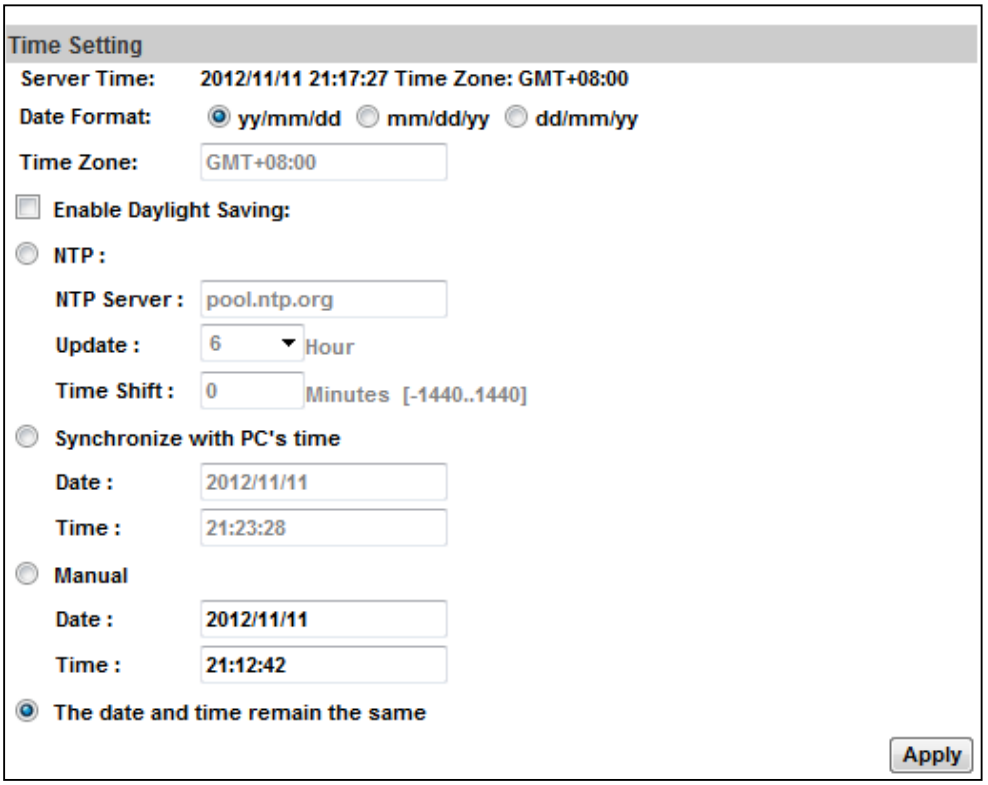


b. OSD Setting: Select a position where date & time stamp / text showing on screen.

Moreover, click Text Edit can entry to adjust the OSD contents which is alpha of text. Finally, click Upgrade button to reserve the setting.

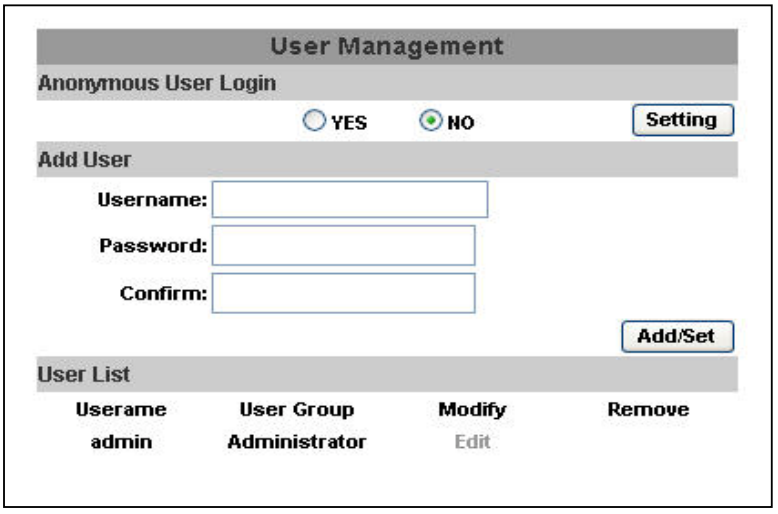


c. Server time setting: Select options to set up time - “NTP”, “Synchronize with PC’s time”, “Manual”, “The date and time remain the same”.



2. User Management

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



a. Anonymous User Login:

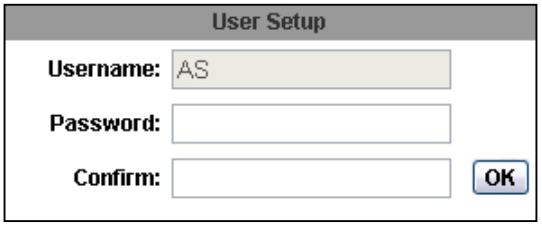
Yes: Allow anonymous login

No: Need user name & password to access this IP camera

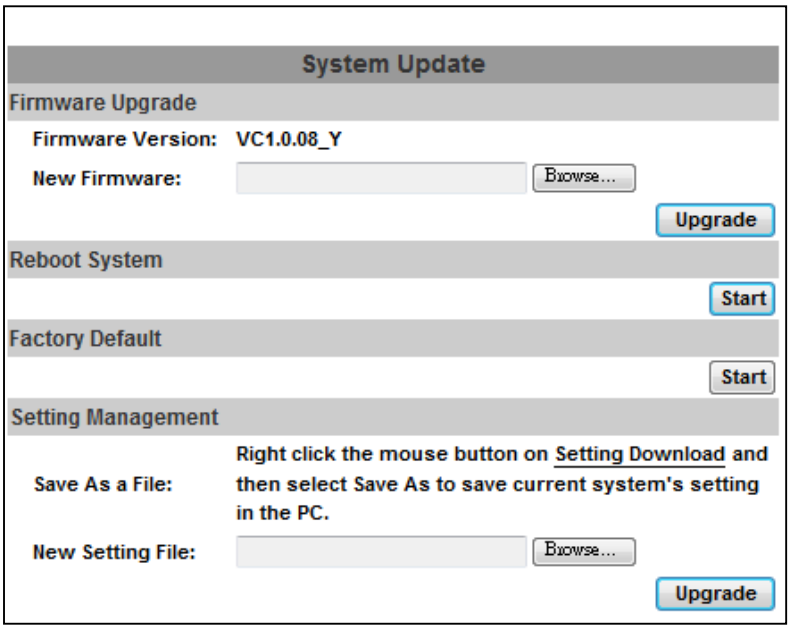
b. Add user:

Type the user name and password, then click “Add/Set”.

c. Click “edit” or “delete” in the user list to modify them. The system will ask you to key in the password in the pop-up window before you edit the user information.



3. 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.

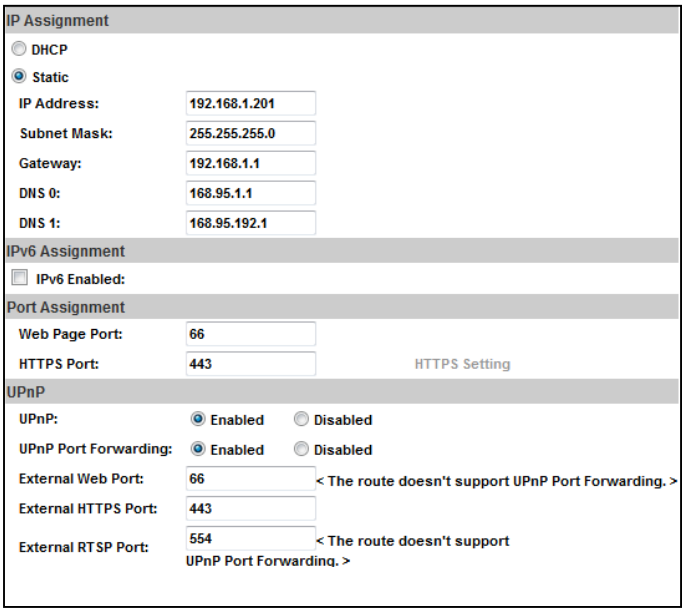
(i) Setting download:
Right-click the mouse button on Setting Download → Select “Save AS…” to save current IP CAM setting in PC → Select saving directory → Save

(ii) Upgrade from previous setting:
Browse → search previous setting → open → upgrade → Setting update confirm → click index.html. to return to main page

B. Network

1. IP Setting

IP Camera supports DHCP and static IP.

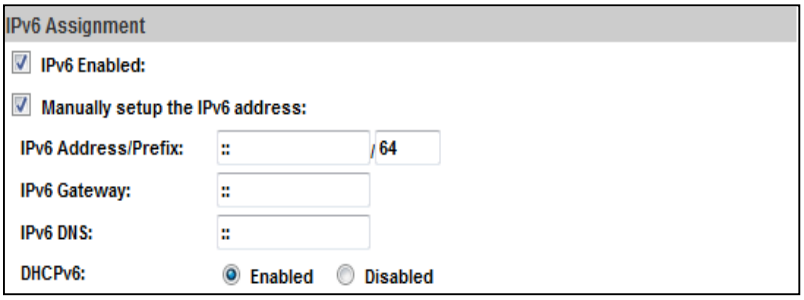


a. IP Assignment

(i) DHCP: Using DHCP, IP CAMERA will get all the network parameters automatically.

(ii) Static IP: Please type in IP address, subnet mask, gateway, and DNS manually.

b. IPv6 Assignment: IPv6 is a newer numbering system that provides a much larger address pool than IPv4, which accounts for most of today's Internet traffic. You can set up IPv6 manually by key in Address, Gateway, and DNS, or enable DHCP to assign the IP automatically.



c. Port assignment:

(i) Web Page Port: setup web page connecting port and video transmitting port (Default: 80)

(ii) HTTP Port: setup HTTPS connecting port (Default: 443)

d. UPnP (Universal Plug and play):

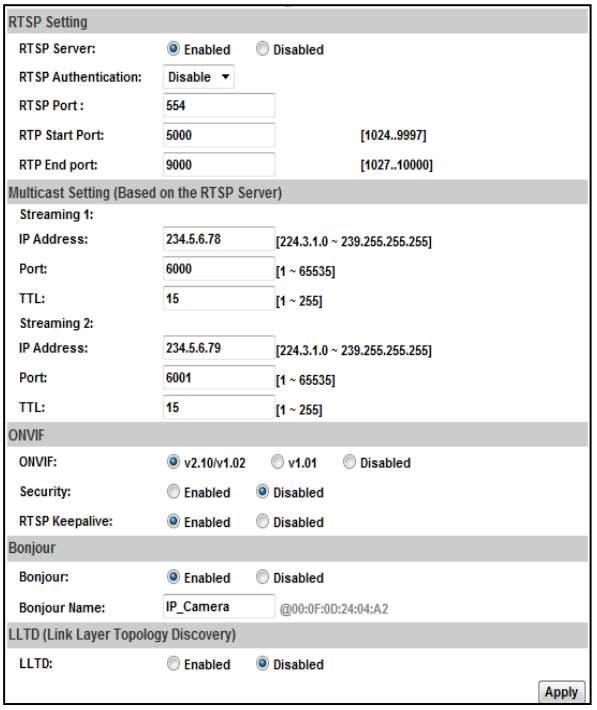
This IP camera supports UPnP. If this service is enabled on your computer, the camera will automatically be detected and a new icon will be added to “My Network Places.”

(i) UPnP Port Forwarding:

Enable UPnP Port Forwarding can access the Network Camera from the internet. Selecting this option is to allow the Network Camera to open ports on the router automatically so that video streams can be sent out from a LAN. There are three External port can be set, Web Port, Http Port and RTSP port. To utilize of this feature, make sure that your router supports UPnP TM and it is activated.

(ii) Note: UPnP must be enabled on your computer. Please follow the procedures to activate UPnP.

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



e. RTSP setting

(i) RTSP Server: enable or disable

(ii) RTSP Port: setup port for RTSP transmitting (Default: 554)

(iii) RTSP Start and End Port: in RTSP mode, you may use TCP and UDP for connecting. TCP connection uses RTSP Port (554). UDP connection uses RTSP Start and End Port.

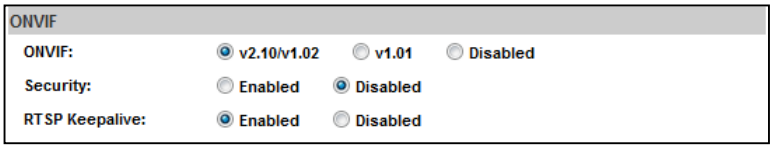
f. Multicast Setting (Based on the RTSP Server)

Multicast is a bandwidth conservation technology. This function allows several users to share the same packet sent from IP camera. To use Multicast, appoint IP Address and port here. TTL means the life time of packet. The larger the value is, the more users can receive the packet.

To use Multicast, be sure to enable the function "Receive Multicast" in your media player.

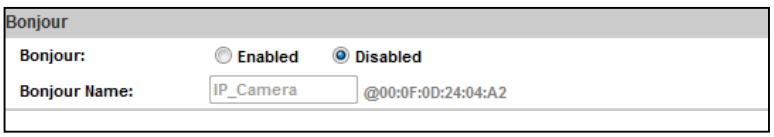
g. ONVIF

Choose your ONVIF version and settings.



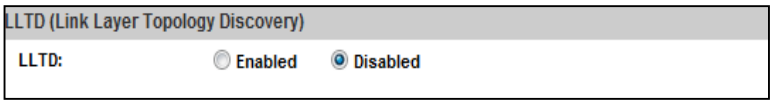
h. Bonjour

This function enables MAC systems to link to this IP camera. Key in name here.



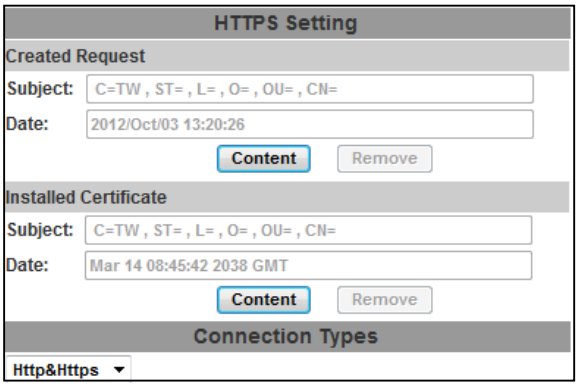
i. LLTD

If your PC supports LLTD, enable this function then you can check the connection status, properties, and device position (like IP address) of this IP Camera in the network map.

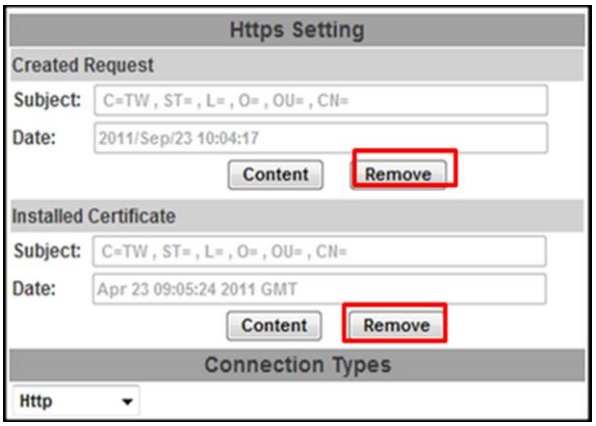


2. Advanced

a. Https (Hypertext Transfer Protocol Secure): Https can help protect streaming data transmission over the internal on the higher security level.



Https setting: Before setting new request, please remove old secure identification at Http connection type.

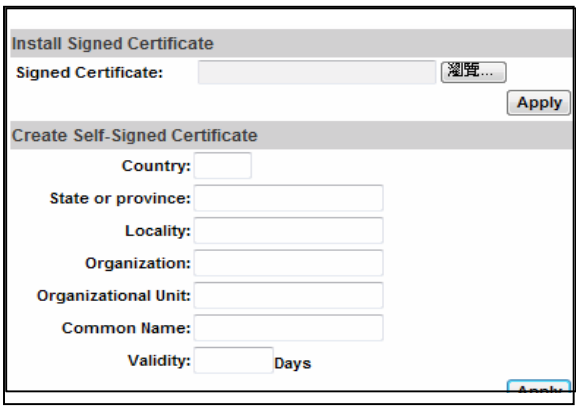


(i) Created request: remove secured identification in Created request mode. There is a warning message showing. Please set “Yes” to remove secure identification.

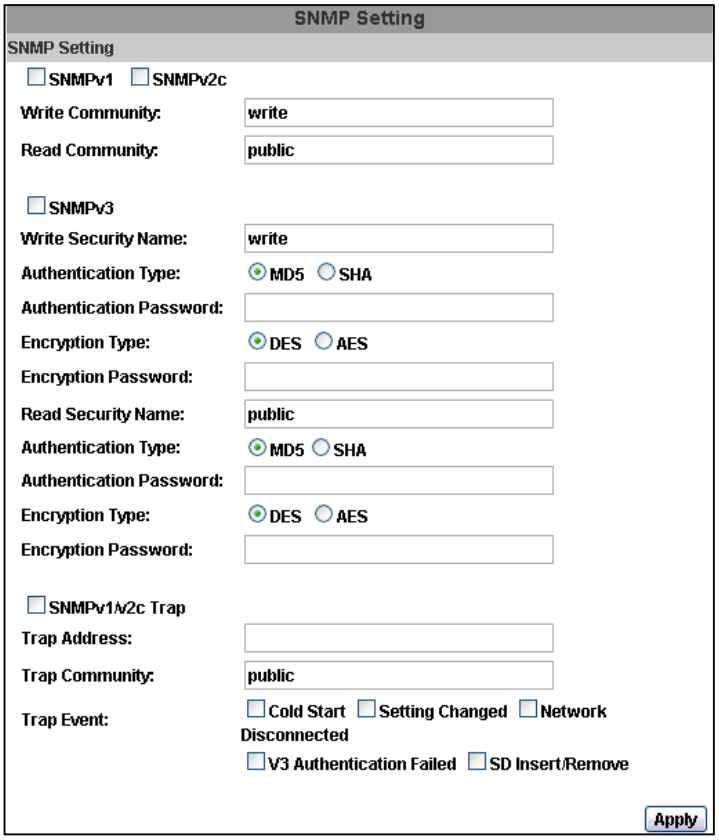
(ii) Setting the secure identification and apply it.

iii) Installed Certificate: remove Certificate in .Installed Certificate mode. There will be a warning message to check again.

(iv) There are two ways to set Certificate - Install Signed Certificate and Create Self-Signed Certificate.



b. SNMP (Simple Network Management Protocol)



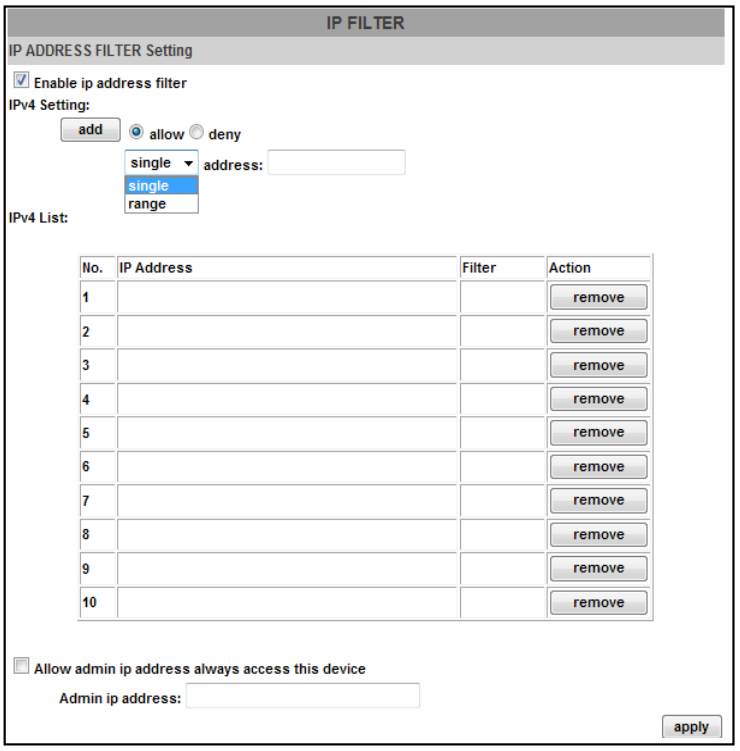
(i) Enable SNMPv1 or SNMPv2 and write the name of Write Community and Read Community.

(ii) Enable SNMPv3, please set Security Name, Authentication Type, Authentication Password, Encryption Type, encryption Password of Write mode and Read mode.

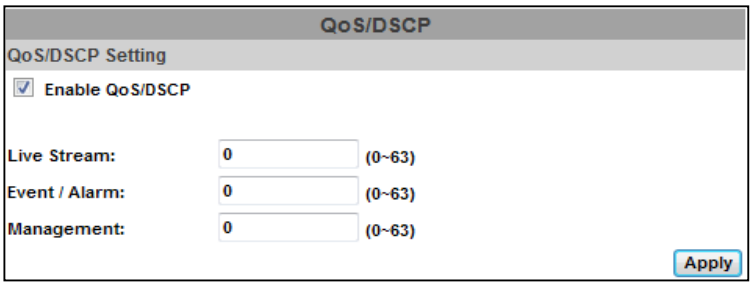
(iii) Enable SNMPv1/SNMPv2 Trap can detect the Trap server.

Please set what event need to detect.

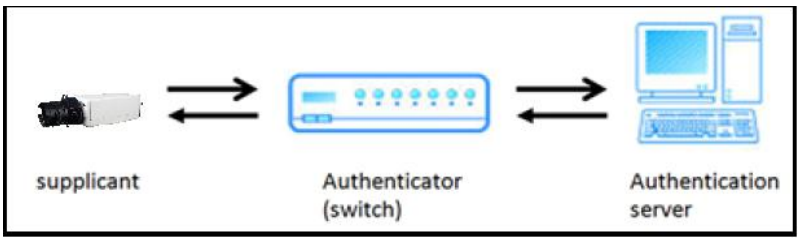
c. Access List: ”Enable IP address filter” can set IP address which can allow or deny to this camera. There are two options, single and range, for user to set the IP address.



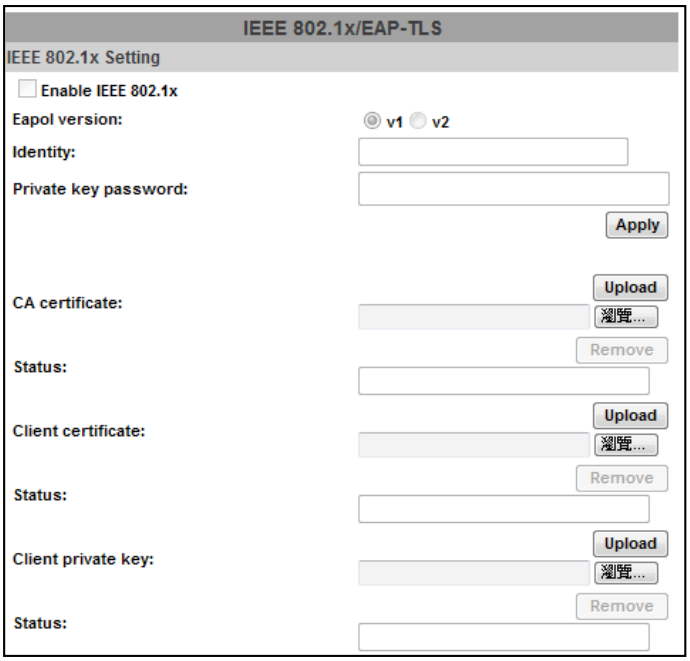
d. QoS (Quality of Server) / DSCP (Differentiated Services Code Point): DSCP specifies a simple mechanism for classifying and managing network traffic and provides QoS on IP networks. DSCP is a 6-bit in the IP header for packet classification purpose. Please define the reserve for Live Stream, Event / Alarm and Management.



e. IEEE 802.1x: IEEE 802.1x is an IEEE standard for port-based Network Access Control. It provides an authentication mechanism to device wishing to attach to a LAN or WLAN. The EAPOL supports service identification and optional point-to-point encryption over local LAN segment.

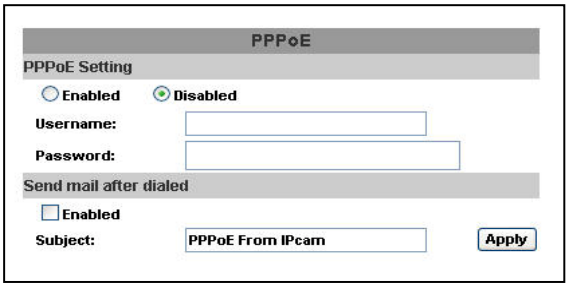


Please check what version of the authenticator and authentication server support. This camera supports EAP-TLS method. Please enter ID, password issued by the CA, then upload related certificates.

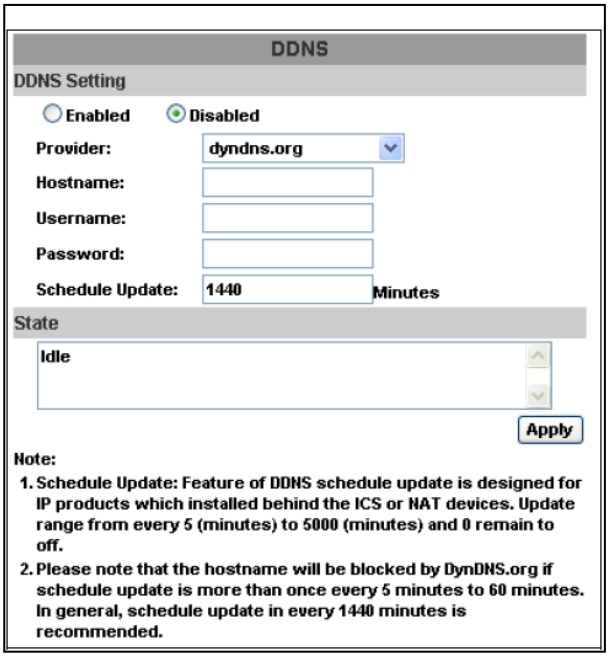


3. PPPoE & DDNS

a. PPPoE: 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.



b. DDNS:



It supports DDNS (Dynamic DNS) service.

(i) Enable this service

(ii) Key-in the DynDNS user name.

(iii) Set up the IP Schedule update refreshing rate.

(iv) Click “Apply”

(v) If setting up IP schedule update too frequently, the IP may be blocked. In general, schedule update every day (1440 minutes) is recommended

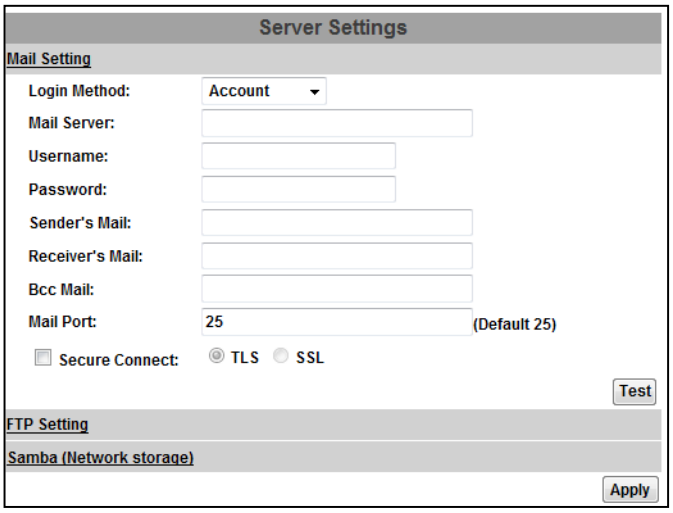
(vi) DDNS Status

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

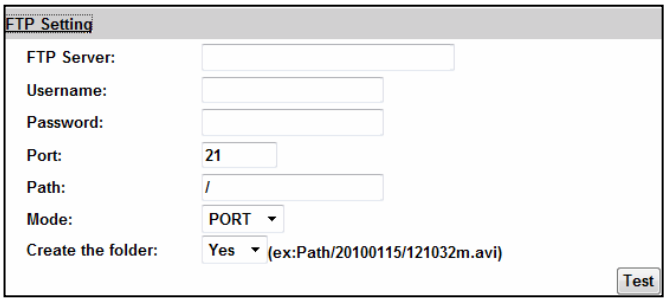
4. Server setting

There are three choices of server types available: Email, FTP and SAMBA. Select the item to display the detailed configuration options. You can configure either one of them, or all of them.

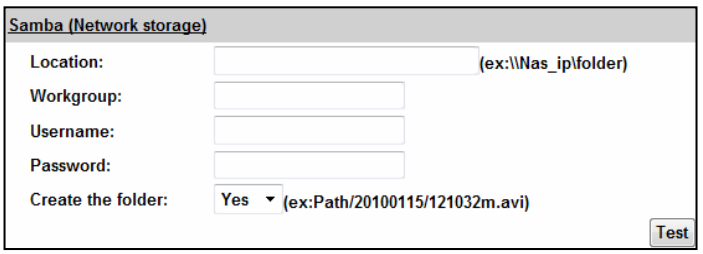
a. Mail Setting: To send out the video via mail of ftp, please set up the configuration first.



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

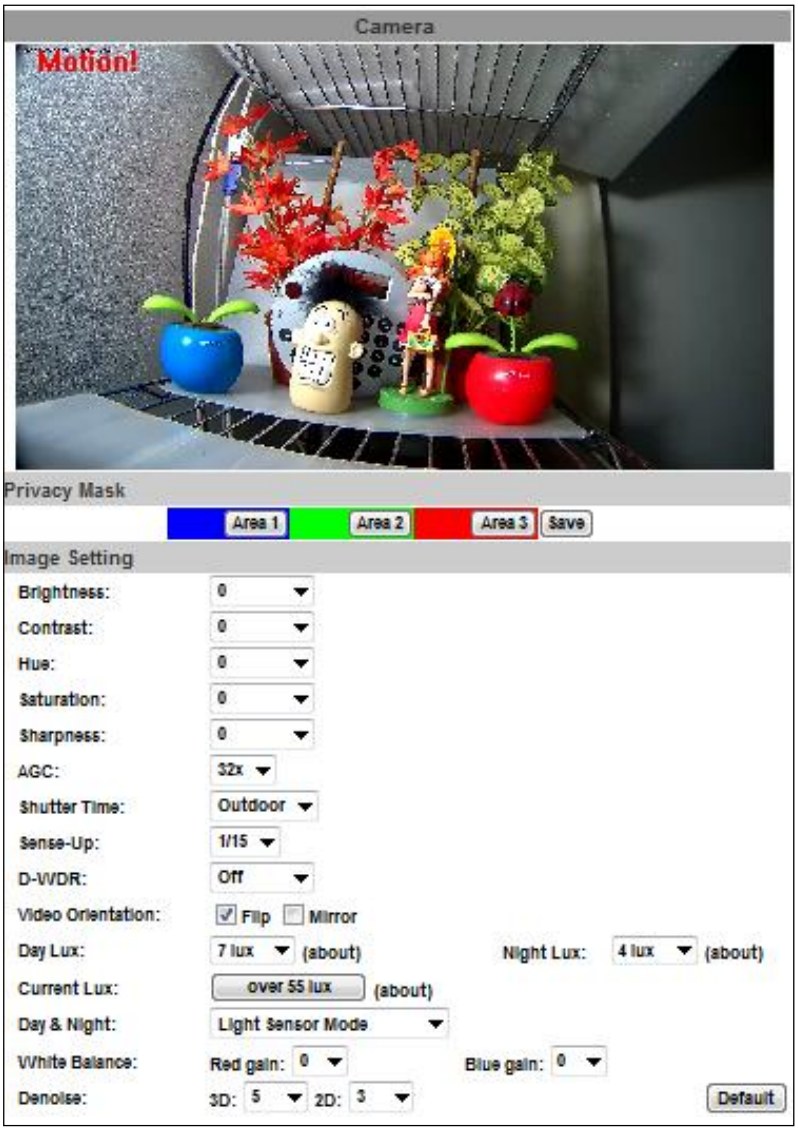


c. Samba: Select this option to send the media files via a network neighborhood when an event is triggered



C. A/V Setting

1. Image Setting



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

Please refer to the details below for Image setting:

a. Brightness, Contrast, Hue, Saturation, Sharpness can be adjusted here.
b. AGC: The sensitivity of camera can adjust with the environmental light, in order to avoid the images too flashing or gloomy.
c. Shutter Time: You can use "Outdoor" or "Indoor" option, or fix it from 1/30 to 1/1000.
d. Sense-Up: Increase the sensitivity of camera to get brighter image at night.
e. D-WDR: Enable this function to reduce the contrast of background with foreground (ex. people).

f. Video Orientation: Flip, mirror, or rotate the image as your requirement.

g. Day & Night: The camera can detect the light level of environment. If selecting "Light Sensor Mode", the image will be turned to black and white at night in order to keep clear. To set light sensor mode, appoint a lux standard of switching D/N here. Current lux value is provided for reference. Under "Times Mode" according to given time. You can also control it by choosing "Color" or "B/W".

h. De-noise: Adjust to reduce the noise, 2D (De-interlace + De-noise); 3D (De-interlace + De-noise + De-comb filter)

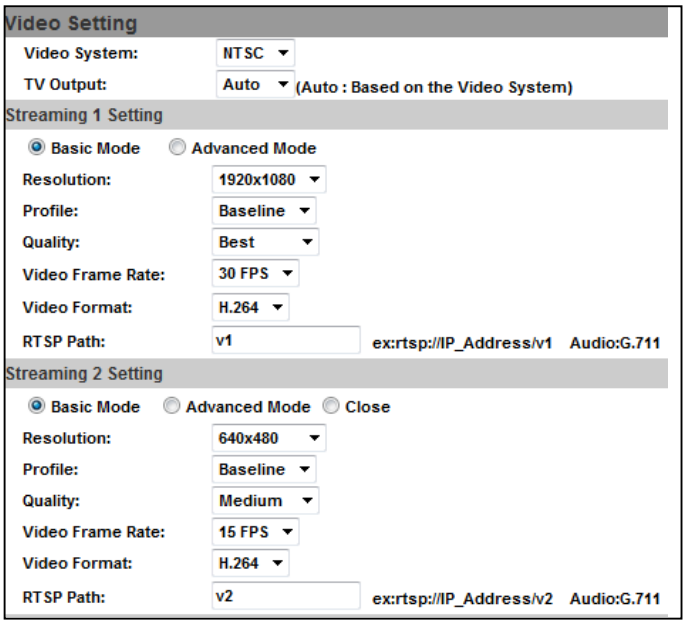
2. Video Setting

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

a. Basic Mode of Streaming 1 and Streaming 2:



(i) Resolution:

There are 5 resolutions can be chosen:

1920x1080, 1280x720, 640x480, 320x240, 176x144

(ii) Quality:

There are 5 levels to choose:

Best/ High/ Standard/ Medium/ Low

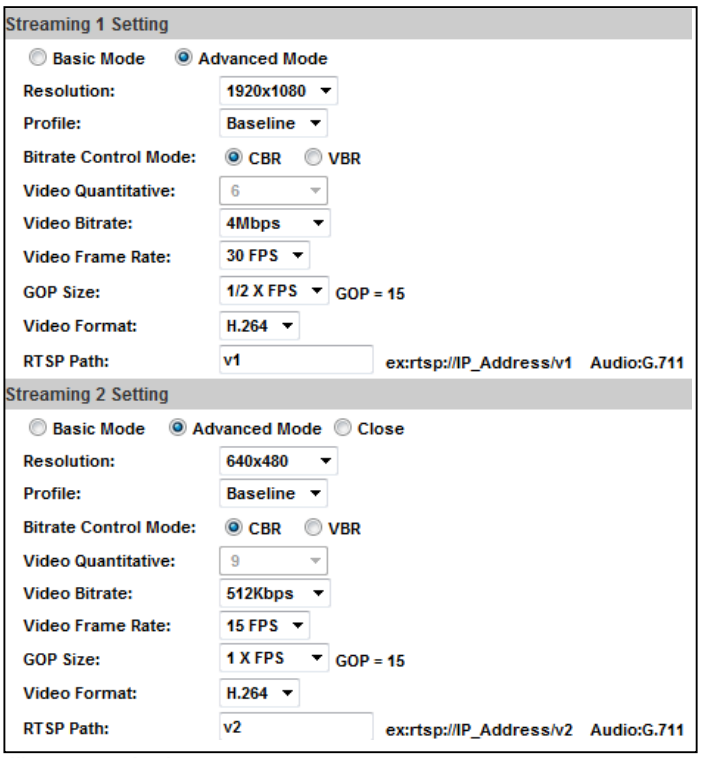
The higher the quality is, the bigger the file size is. It might affect internet transmitting speed if the file gets too large.

(iii) Video Frame Rate: The video refreshing rate per second. In Streaming 1 you can choose up to 30 FPS, while in Streaming 2 only up to 15 fps.

(iv) Video Format: H.264, MPEG4, or M-JPEG

(v) RTSP Path: Set the RTSP output connecting route

b. Advanced Mode of Streaming 1 and Streaming 2:



(i) Resolution

There are 5 resolutions can be chosen:
1920x1080, 1280x720, ,640x480, 320x240, 176x144

(ii) Bit rate Control Mode

There are CBR (Constant Bit Rate) and VBR (Variable Bit Rate) to be chosen.

(iii) Video Quantitative

The quality adjustment of VBR. You can choose 1~10 compression rate

(iv) Video Bit rate

The quality adjustment of CBR. You can choose 32kbps~8Mkbps. The higher the value is, the higher the image quality is.

(v) Video Frame Rate

The video refreshing rate per second. In Streaming 1 you can choose up to 30 FPS, while in Streaming 2 only up to 15 FPS.

(vi) GOP Size

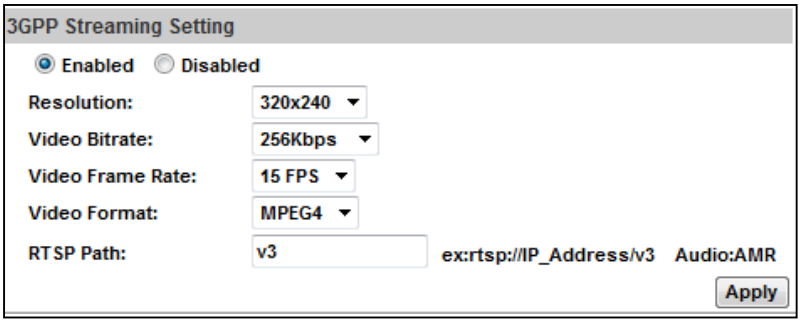
It means “Group of Pictures”. The higher the GOP is, the better the quality is.

(vii) Video Format: H.264, MPEG4, or M-JPEG

(viii) RTSP Path: RTSP output connecting route

In Streaming 2, the option under “Advanced Mode” has no difference with under “Basic Mode”.

c. 3GPP Streaming mode:



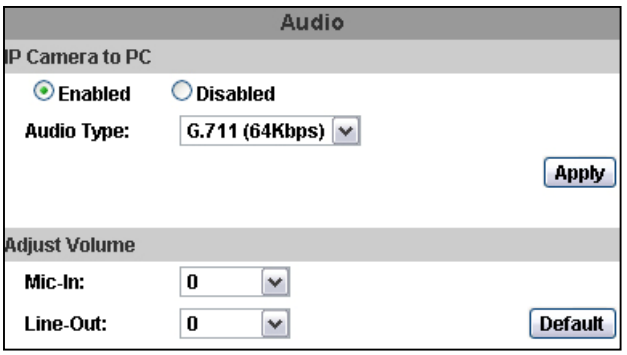
33GPP mode has 640x480, 320x240, 176x144 resolutions, 3~15FPS frame rate levels, H.264 / MPEG4 format

(i) Enable or Disable 3GPP Streaming

(ii) 3GPP Path: 3GPP output connecting route

3. 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 mic to IP Camera's external speaker.



Note: The Audio may not be smooth if the SD card recording is functioned simultaneously.

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

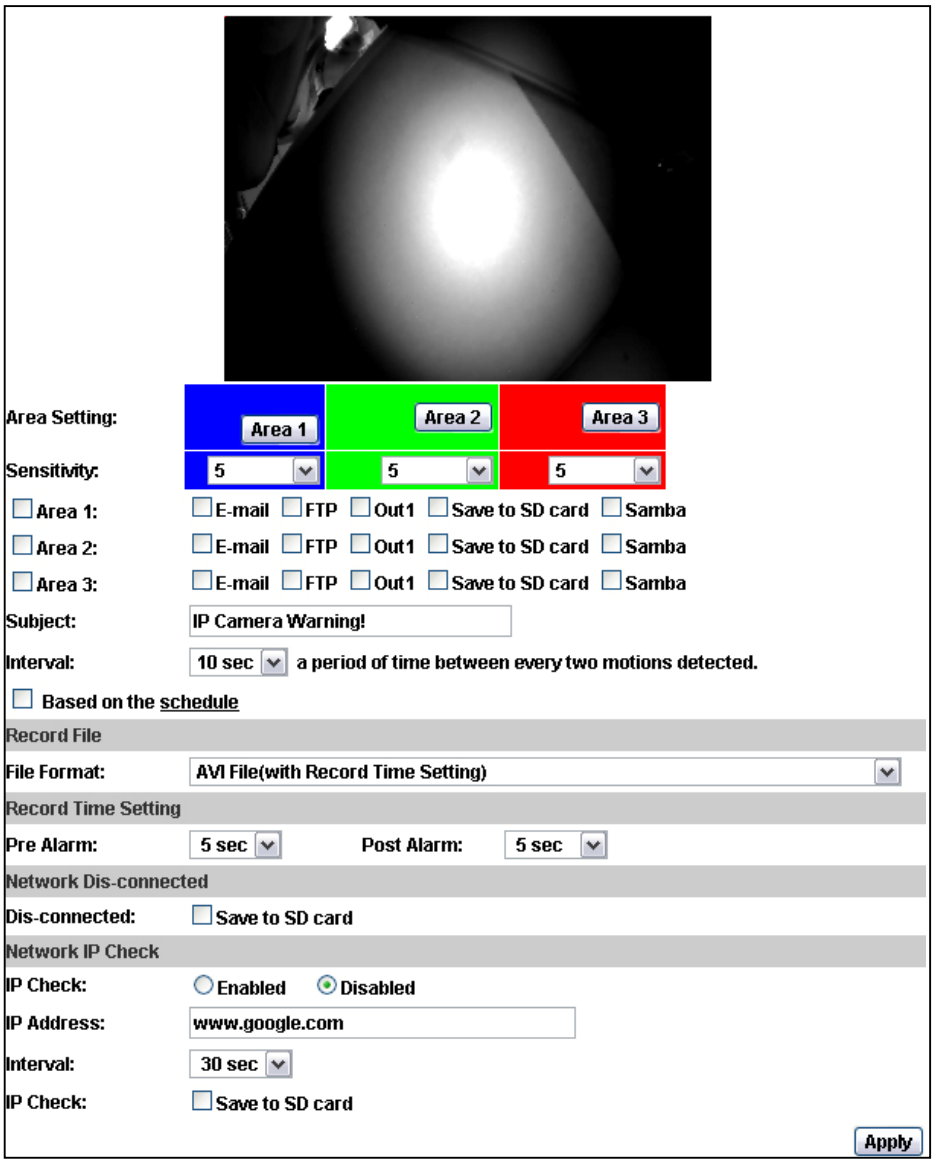
b. Adjust Volume of audio.

c. Check "chatting" in the browsing page, then your voice can be propagated from PC to camera.

D. Event List

IP Camera provides multiple event settings.

1. 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 the video to remote ftp server, and save video to local SD card. 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: Choose AVI or JEPG file

c. Record Time Setting

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

d. Network Dis-connected

When the network is down, it will save the video to local SD card.

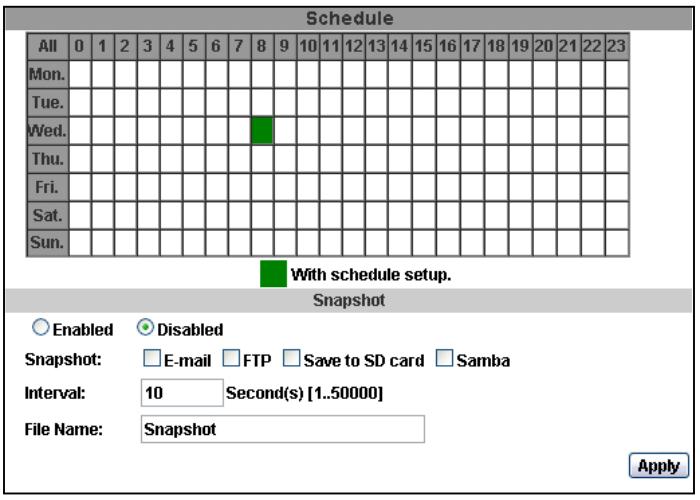
This function is only enabled under wire connection.

e. Network IP check:

Whenever the connection is down, it records the video to SD card. Make sure the video recording is continuous. To use this function, key in the IP address of the PC which has recording software installed. Enable the function of “Save to SD card”, then click “Apply”.

The interval of two video files recorded on SD card is fixed with 30 seconds.

2. Schedule

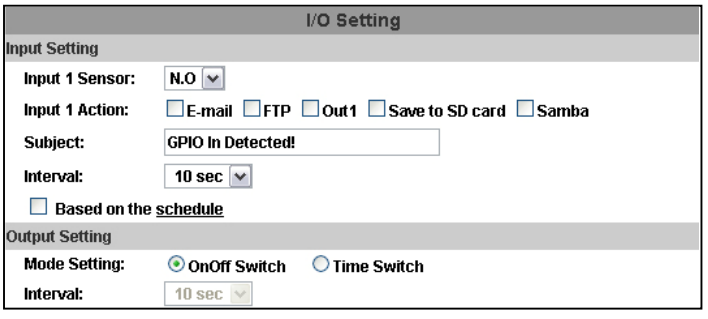


a. Schedule: After complete the schedule setup, the camera data will be recorded according to the schedule setup.

b. Snapshot: After enabling the snapshot function, user can select the storage position of snapshot file, the interval time of snapshot and the reserved file name of snapshot.

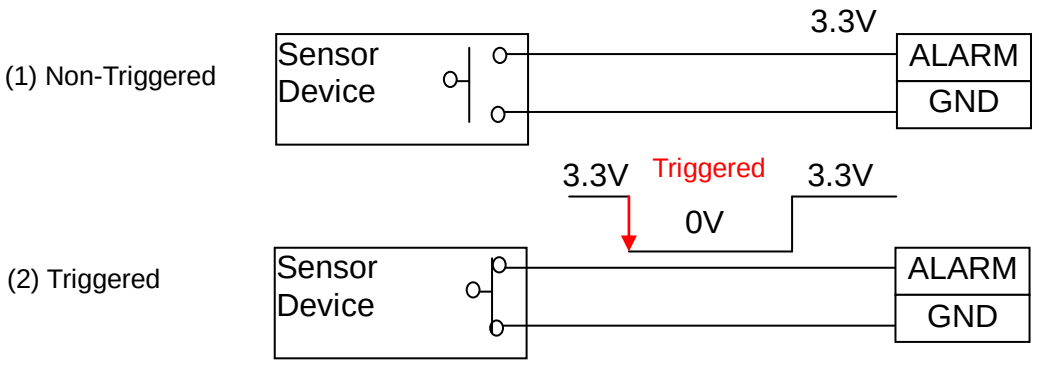
c. Interval: The interval between two snapshots.

3. I/O Setting



CATUTION!!
Please connect to propriety relay box to reduce the risk of electric shock & damaged.

Alarm Input Setting
By GPIO I/O port input that provide related action while I/O input triggered



Relay Output Setting

In relay output setting, the user can setup the output device to perform the related output action.

I/O PIN definition, please refer to the following statement.

ALARM	ALARM INPUT Standard Voltage: 3.3V (internal Voltage). Connect “ALARM” and “GND” two pins.
GND	
N.C.	RELAY OUTPUT Contact Rating: 30V DC/ 1A, 125V AC/ 0.3A. Depends on the devices, the user should connect “N.C.” and “COM” pins or “N.O.” and “COM” pins.
COM	
N.O.	

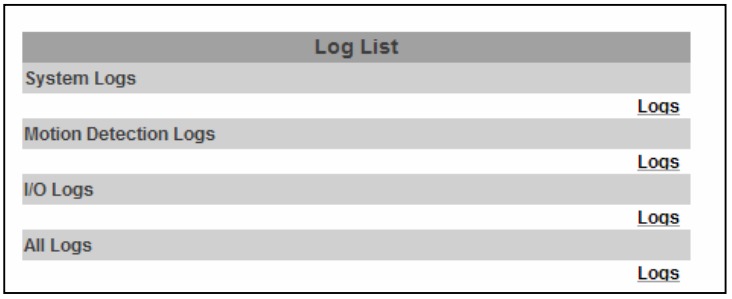
a. Input Setting:

IP Camera supports input and output. When the input condition is triggered, it can send the video to some specific mail addresses, transmit the video to remote FTP server, trigger the relay, save video to local SD card or to SAMBA.

b. Output Setting:

"On/Off Switch" means the camera executes the action when triggered. "Time Switch" means the camera executes the action according to the interval you choose after triggered.

4. Log List

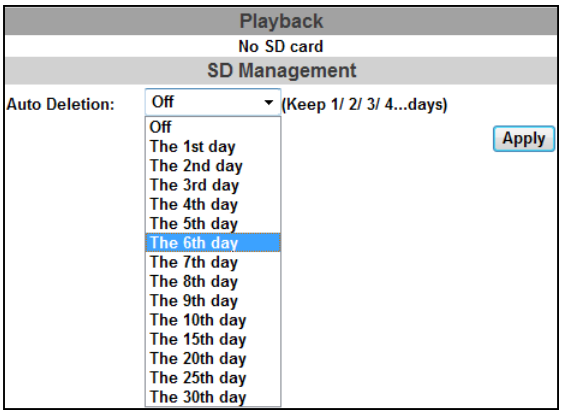


Sort by System Logs, Motion Detection Logs and I/O Logs. In addition, System Logs and I/O Logs won't lose data due to power failure

5. Micro SD card

Choose "The 1st day" means the recoding file will be kept one day.

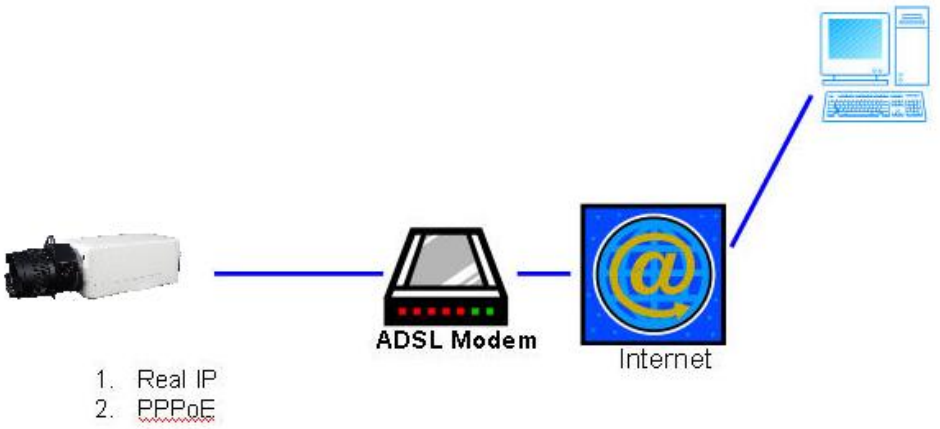
Example: It is five o'clock now. Choose "The 1st day". The files will be kept from five o'clock yesterday to five o'clock today.



Note：The use of the SD card will affect the operation of the IP Camera slightly, such as affecting the frame rate of the video.

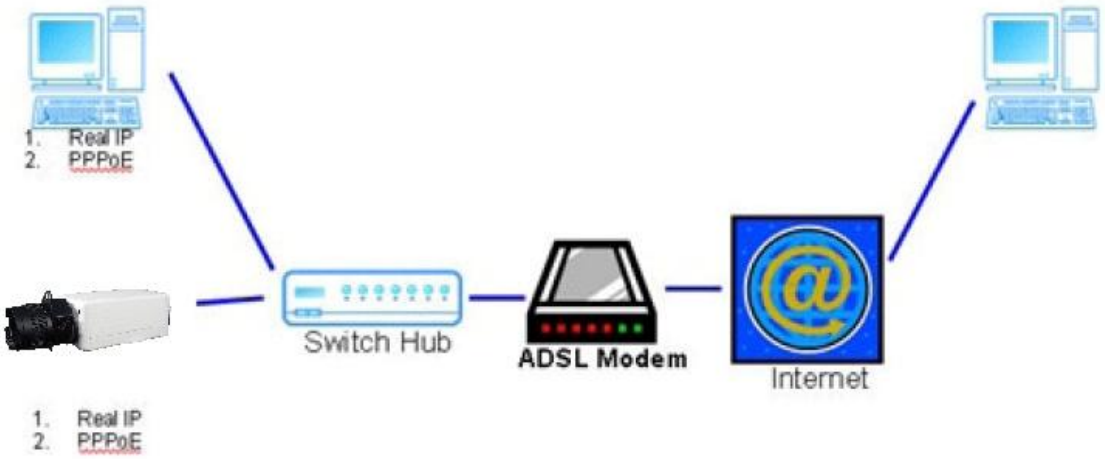
V. Network Configuration

- Configuration 1:



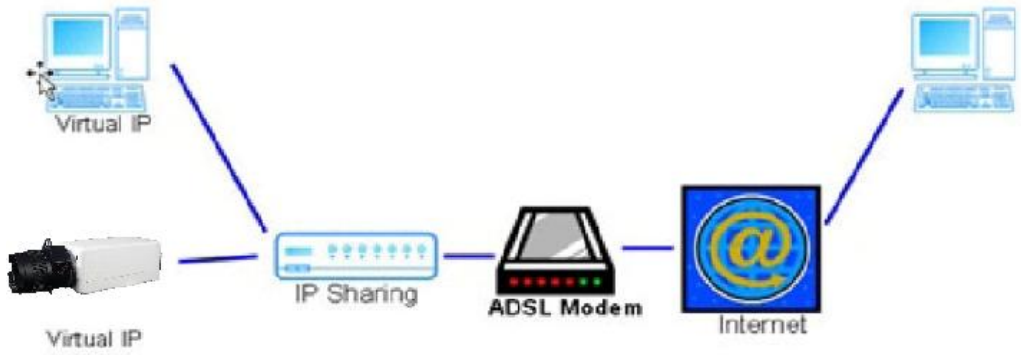
a. Internet Access: ADSL or Cable Modem
b. IP address: One real IP or one dynamic IP
c. Only IP Camera connects to the internet
d. For fixed real IP, set up the IP into IP Camera. For dynamic IP, start PPPoE.

- Configuration 2:



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

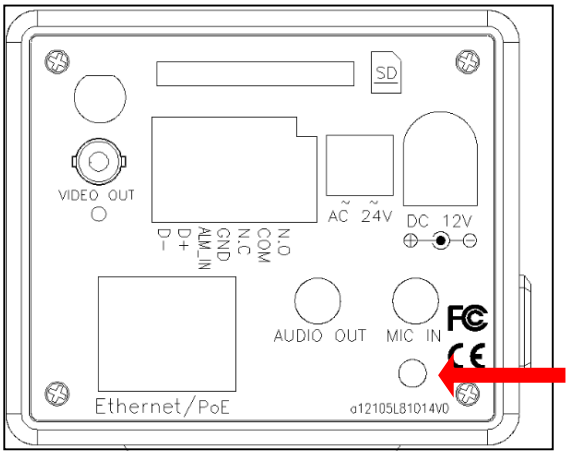
- Configuration 3:



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.

VII Factory Default

- To recover the default IP address and password, please follow the following steps.
- Remove the power, Internet, and the dome cover. Press and hold the button as the picture below.



- Connect power to the camera, and do not release the button during the system booting.
- It will take around 30 seconds to boot the camera.
- Release the button when camera finishes proceed.
- Re-login the camera using the default IP (http://192.168.1.200), and user name (admin), password (admin).

VIII. Package contents

- IP Camera Network Camera
- Adaptor
- CD (Including User manual and IP installation tool)

IX. Appendix I

(I) The following is the Micro SD Card recommended:

Transcend	SDHC class4 16GB SDHC class4 32GB SDHC class4 16GB SDHC class4 32GB SDHC class6 4GB SDHC class6 8GB SDHC class6 16GB SDHC class6 4GB SDHC class6 8GB SDHC class6 16GB SDHC class10 4GB SDHC class10 8GB SDHC class10 16GB
SanDisk	SDHC class4 4GB SDHC class4 8GB SDHC class4 16GB SDHC class4 32GB

X. Appendix II

(II) 2M 1080P IP Cameras – Video Setting – Streaming 1 & Streaming 2 setting table, NVR@ Normal Mode

Co-working with NVR, the listed video setting in Streaming 1 & 2 appendix table:

ITEM	Streaming 1 Setting	Streaming 2 Setting	Test Result
Resolution	1024x1080	1920x1080	Pass
Profile	Baseline	Baseline	
Bit rate Control Mode	CBR	CBR	
Video Frame Rate(fps)	30	5	
Video Bit rate	10Mbps	1Mbps	
Resolution	1280x720	1920x1080	Pass
Profile	Baseline	Baseline	
Bit rate Control Mode	CBR	CBR	
Video Frame Rate(fps)	30	5	
Video Bit rate	10Mbps	1Mbps	
Resolution	640x480	1920x1080	Pass
Profile	Baseline	Baseline	
Bit rate Control Mode	CBR	CBR	
Video Frame Rate(fps)	15	30	
Video Bit rate	10Mbps	1Mbps	
Resolution	320x240	1920x1080	Pass
Profile	Baseline	Baseline	
Bit rate Control Mode	CBR	CBR	
Video Frame Rate(fps)	30	30	
Video Bit rate	10Mbps	1Mbps	
Resolution	176x144	1920x1080	Pass
Profile	Baseline	Baseline	
Bit rate Control Mode	CBR	CBR	
Video Frame Rate(fps)	30	30	
Video Bit rate	10Mbps	1Mbps	
Resolution	1920x1080	1080x720	Pass
Profile	Baseline	Baseline	
Bit rate Control Mode	CBR	CBR	
Video Frame Rate(fps)	30	5	
Video Bit rate	10Mbps	1Mbps	
Resolution	1920x1080	640x480	Pass
Profile	Baseline	Baseline	
Bit rate Control Mode	CBR	CBR	
Video Frame Rate(fps)	30	15	

Video Bit rate	10Mbps	1Mbps	
Resolution	1920x1080	320x240	Pass
Profile	Baseline	Baseline	
Bit rate Control Mode	CBR	CBR	
Video Frame Rate(fps)	30	30	
Video Bit rate	10Mbps	1Mbps	
Resolution	1920x1080	176x144	Pass
Profile	Baseline	Baseline	
Bit rate Control Mode	CBR	CBR	
Video Frame Rate(fps)	30	30	
Video Bit rate	10Mbps	1Mbps	