



User Manual

OUTDOOR DOME IP CAMERA

V1.0_20190503



OUTDOOR DOME IP CAMERA

This is a **1/2.8" Sony Exmor-R CMOS Sensor** Outdoor IP camera with a built-in web server. The user can view real-time video via IE browser. It supports **H.264+**, **H.264** and **M-JPEG** video compression, providing smooth and high video quality. The video can be stored in Micro SD card and playback remotely.

With a user friendly interface, it is an easy-to-use IP camera for security applications.

Topics

Inside the folder '**Topics**' you will find the documentation related with this IP Camera. You can click on '**Read More**' for directly opening the file regarding the topic you would like to read.

[Adobe Acrobat is recommended.](#)

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OUTDOOR DOME IP CAMERA

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Warnings, Cautions and Copyright

WARNING

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

	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.		

COPYRIGHT

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

Product Specifications

Main Features:

- 316L Stainless Steel Housing
 - Anti-corrosion standard : NEMA-4X
 - 2 Megapixel IR Vandal Dome IP Camera
 - H.264+/ H.264/ M-JPEG Compression
 - ROI Function
 - Smart Stream
 - Smart Focus System for Remote Focus Adjustment
 - Digital Noise Reduction
 - Power over Ethernet
 - True Wide Dynamic Range
 - Day & Night Manual Switch Time Control
 - Wide Temperature Range, Operating Temperature -40°C ~ 70°C with Heater
 - IR LED Built-in 25M
 - IR Cut Filter Mechanism
 - IP68/69
 - IK10
 - Micro SD Card Backup (Optional)
 - 2-way Audio
 - Support iPhone/iPad/Android
 - SDK for Software Integration
 - Free Bundle 36 Ch Recording Software
-
-



Hardware	
CPU	Multimedia SoC
RAM	256MB
Flash	32MB
Image Sensor	1/2.8" Sony Exmor-R CMOS Sensor
Sensitivity	Color : 0.005 Lux (AGC ON) B / W : 0.001 Lux (AGC ON)
Lens	2.8-12mm 4.2X Bulid-in Zoom Lens @ F1.4
View Angle	35~93°(H), 19~50 °(V)
ICR	IR cut Filter Mechanism
I/O	1 DI / 1 DO
Video Output	Yes
Audio	G.711(64K) and G.726(32K,24K) audio compression Input : External Audio in Output: External Line out, Support 2-way.
Power over Ethernet	Yes
Power Consumption	DC 12V Max: 5.06 W(IR ON), 3.12 W(IR OFF) PoE Max: 5.69 W(IR ON), 3.72 W(IR OFF)
	Heater DC 12V Max: 7.38 W PoE Max: 8.06 W
Operating Temperature	-40°~70°
Wide Dynamic Range	120dB
S/N Ratio	50dB
Dimensions	136.5mm(Ø) X 101mm(H)
Weight	2kg
IR LEDs	
LEDs	4 Units High Power
IR Distance	35M
Network	
Ethernet	10/ 100 Base-T
Network Protocol	IPv6, IPv4, HTTP, HTTPS, SNMP, SSL, TLS , DNS , ICMP, IGMP, ARP, SNTP, QoS/DSCP, IEEE 802.1X, RTSP/RTP/RTCP, TCP/IP, UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, SAMBA, Bonjour, Google drive, Dropbox, Onvif profile S



System	
Video Resolution[16:9]	1920x1080@30fps, 1280x720@30fps, 640x480@30fps, 320x240@30fps
Video Adjust	Brightness, Contrast, Hue, Saturation, Sharpness, AGC, Night Mode, True-WDR, Flip, Mirror, Noise Reduction, Day&Night Adjustable
Features	ROI, Smart Stream, Motion Detection, Privacy Mask, Anti Fog, Tampering Detection, Corridor Mode, Push Video , P2P(Optional)
Triple Streaming	Yes
Image Snapshot	Yes
Full Screen Monitoring	Yes
Privacy Mask	Yes, 3 different areas
Compression Format	H.264+/ H.264/ M-JPEG
Video Bitrates Adjust	CBR, VBR
Motion Detection	Yes, 3 different areas
Triggered Action	Mail, FTP, Save to SD card, DO, SAMBA , Dropbox , Google Drive
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
Micro SD Card Management (Optional)	
Recording Trigger	Motion Detection, IP check, Network break down (wire only), Schedule, DI
Video Format	AVI, JPEG
Video Playback	Yes
Delete Files	Yes
Web Browsing Requirement	
OS	Windows 7, 8 , 10 ,XP, Microsoft IE 6.0 or above
Mobile Support	iOS 8 or above, Android 4.4.2 or above.
Hardware Suggested	Intel Dual Core 2.8G, RAM, 4GB, Graphic card: 128MB

*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTIFICATION.

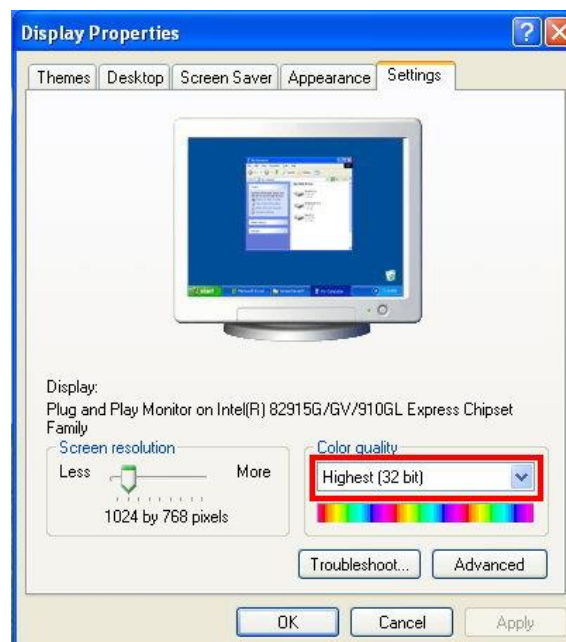
Monitor Settings

Caution: This setting only applies to Windows 7 system users.

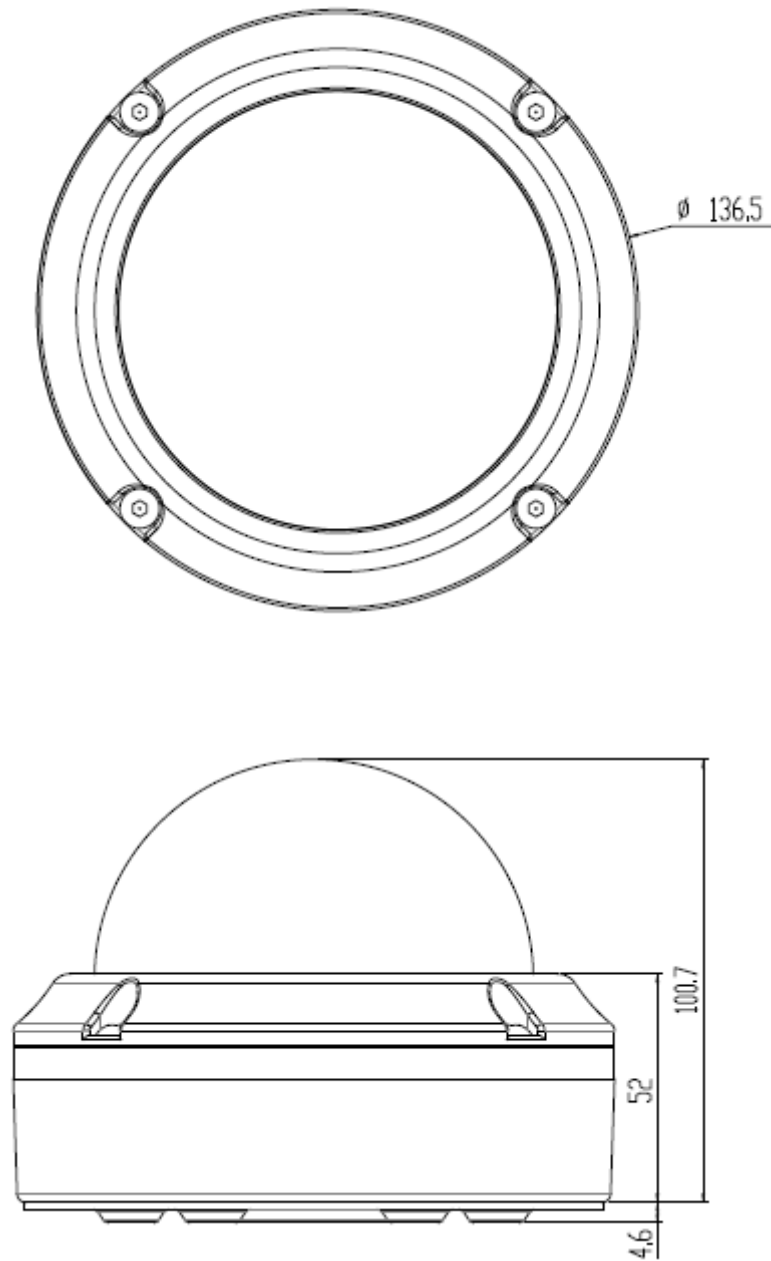
1. Right-Click on the desktop. Select **Properties**



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

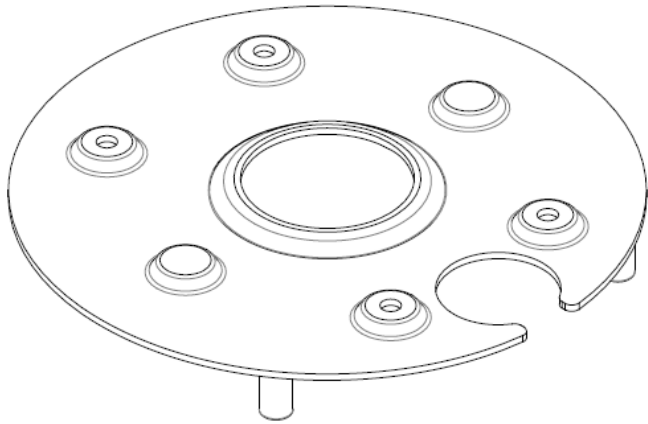


Hardware Installation



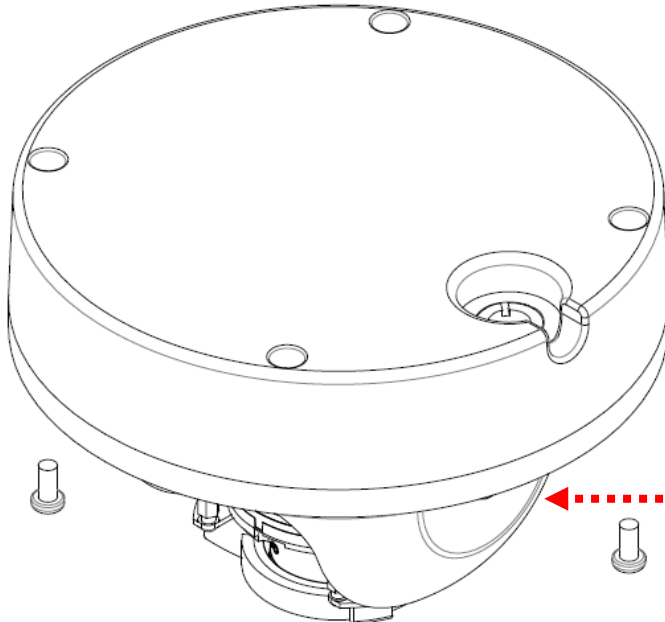
1. Installation Steps

A. With Mounting Plate (Optional)



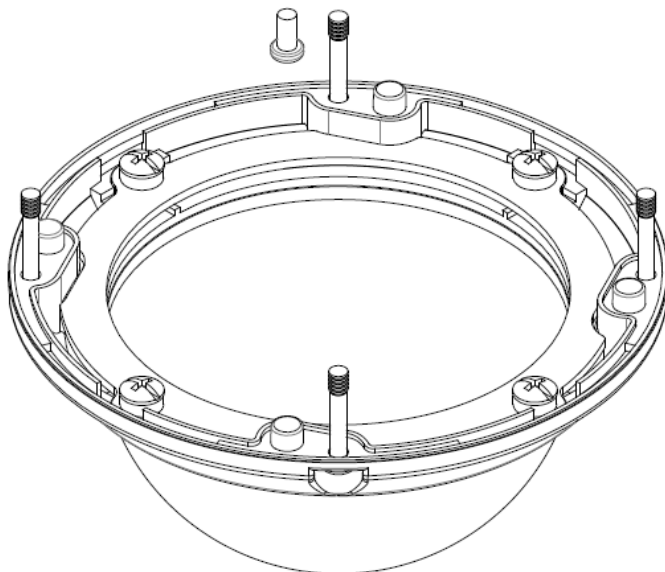
Mount the whole plate onto the surface where the installation takes place first.

It is also recommended that the surface where you mount the camera is smooth and closely flat with the camera.



Match the gaps and the screws with the plate surface facing the direction as the picture depicts.

Attach the Camera body with the Mounting Plate.



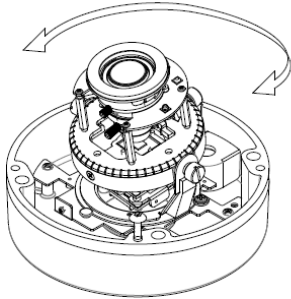
Adjust the 3 Axis Diagram.

Install the Dome Cover

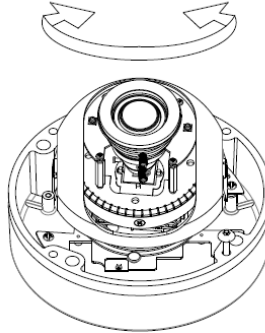
B. Bracket & Lens Adjustment

Adjust the 3-Axis bracket of the camera to appropriate angle.

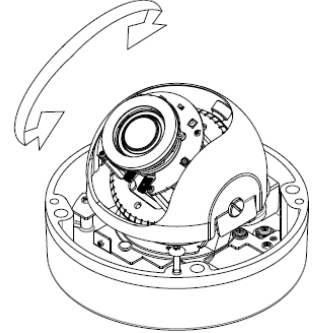
Pan: 360°



Rotation: 360°



Tilt: 60°



- C. To avoid lens fog while the dome housing is open during installation, take out the Silica Gel from the small package and place it inside the dome to reduce the humidity level.



D. Dome Cover Installation

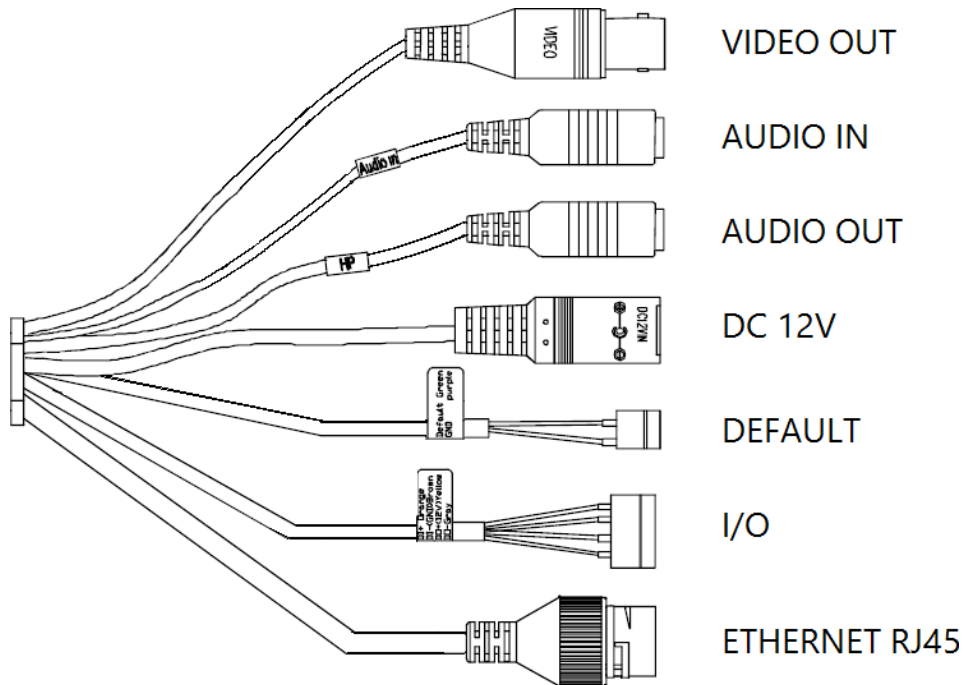
Make sure there are no cables around the screws, and slowly lock the four corners at the same time, applying equal force. Do not fully lock one screw at a time; otherwise the closing might not be equally thorough.



Before you close the dome cover, make sure that the black rubber edge sticks to the cover completely. Crooked or uneven conditions may cause the waterproof defective.

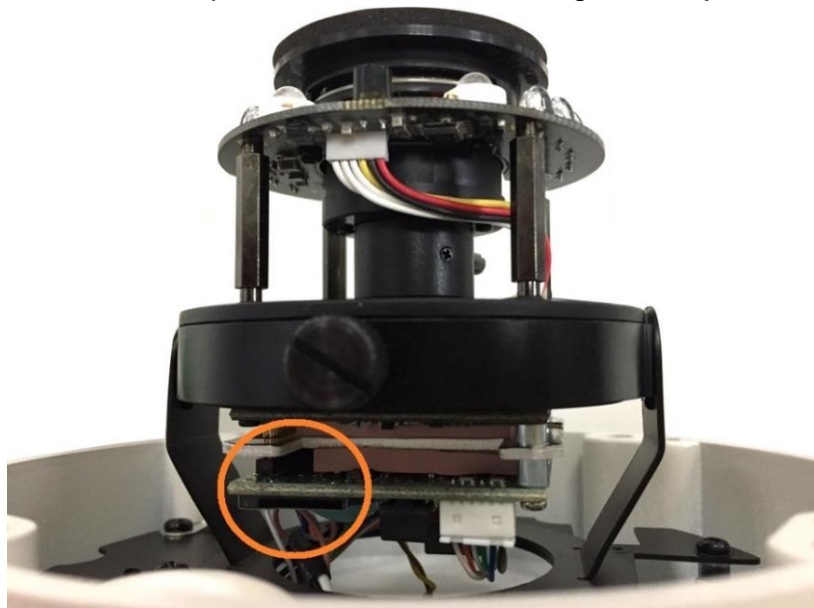
2. Connector Instruction

Connect the power adaptor first, then connect the IP Camera to PC or network, and set up the network configurations according to the network environment.



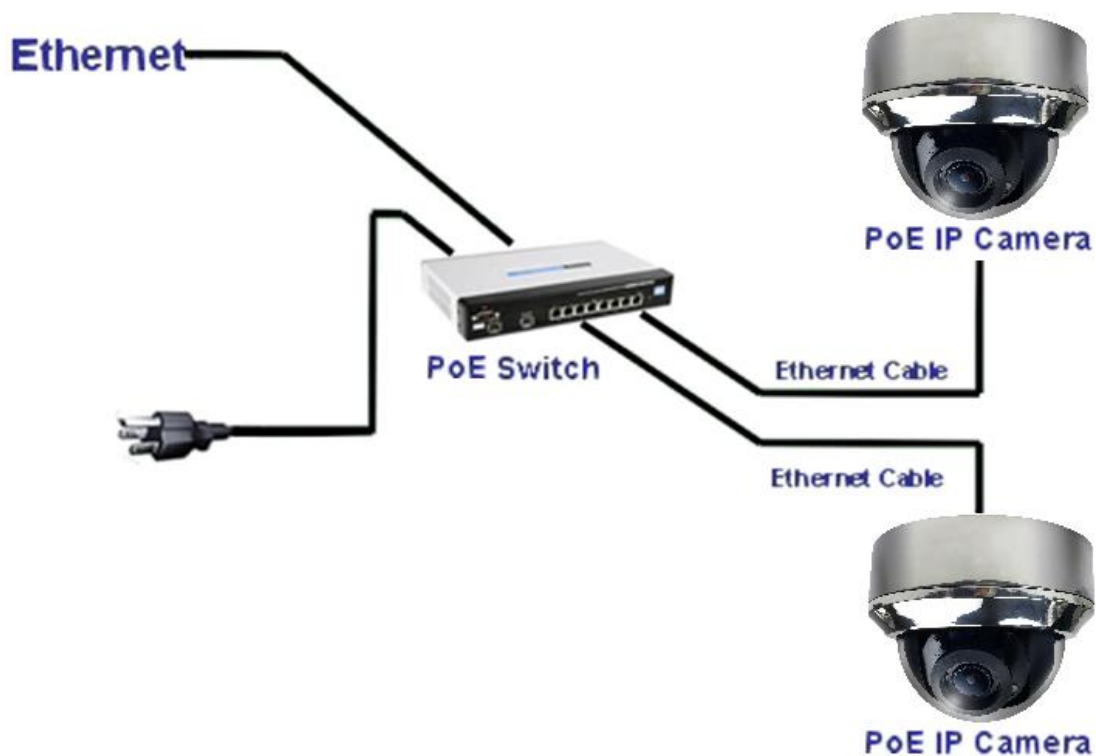
3. Installing Micro SD Card

Insert the Micro SD card into the slot which is right beneath the camera unit for installation, and push the Micro SD card again for ejection.



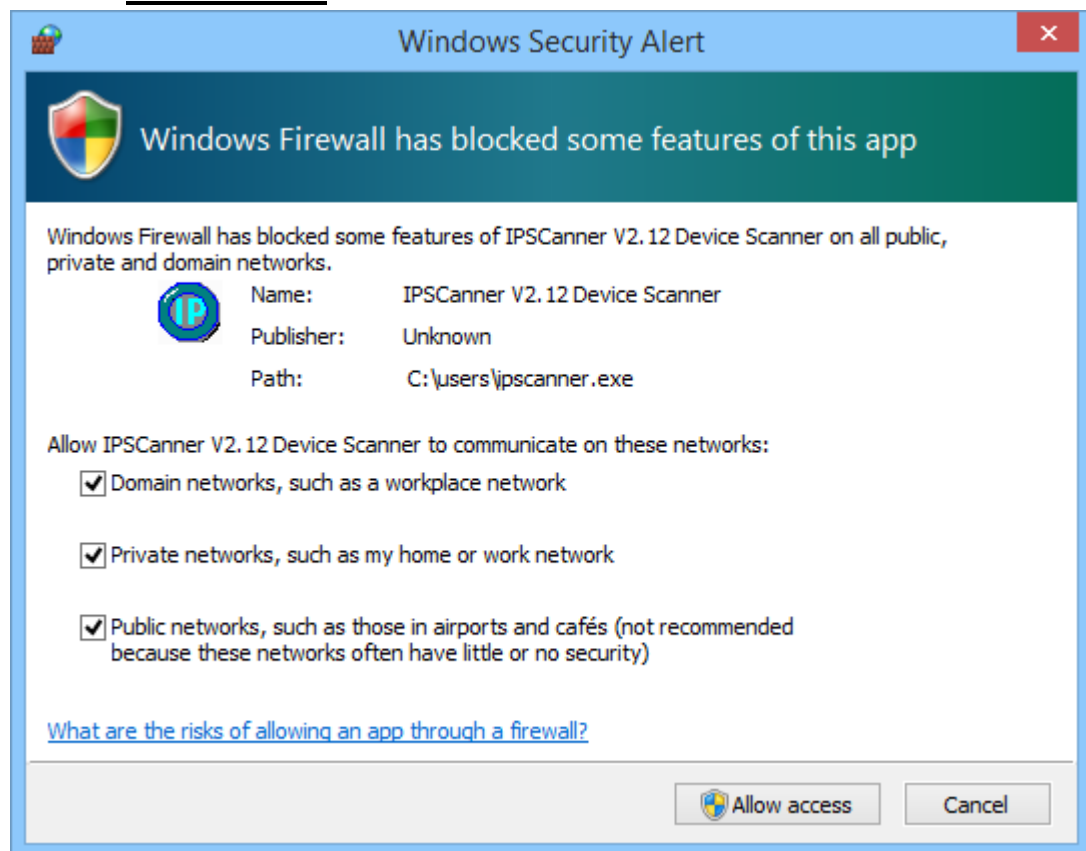
4. PoE (Power Over Ethernet) (Optional) 802.3af, 15.4W PoE Switch is recommended

PoE is a technology that integrates power into a standard LAN infrastructure. It enables power to be provided to a network device, such as a network camera, using the same cable for network connection. It eliminates the need for installed locations without power outlets and enables easier application of uninterruptible power supplies (UPS) to ensure 24 hours a day, 7 days a week operation.

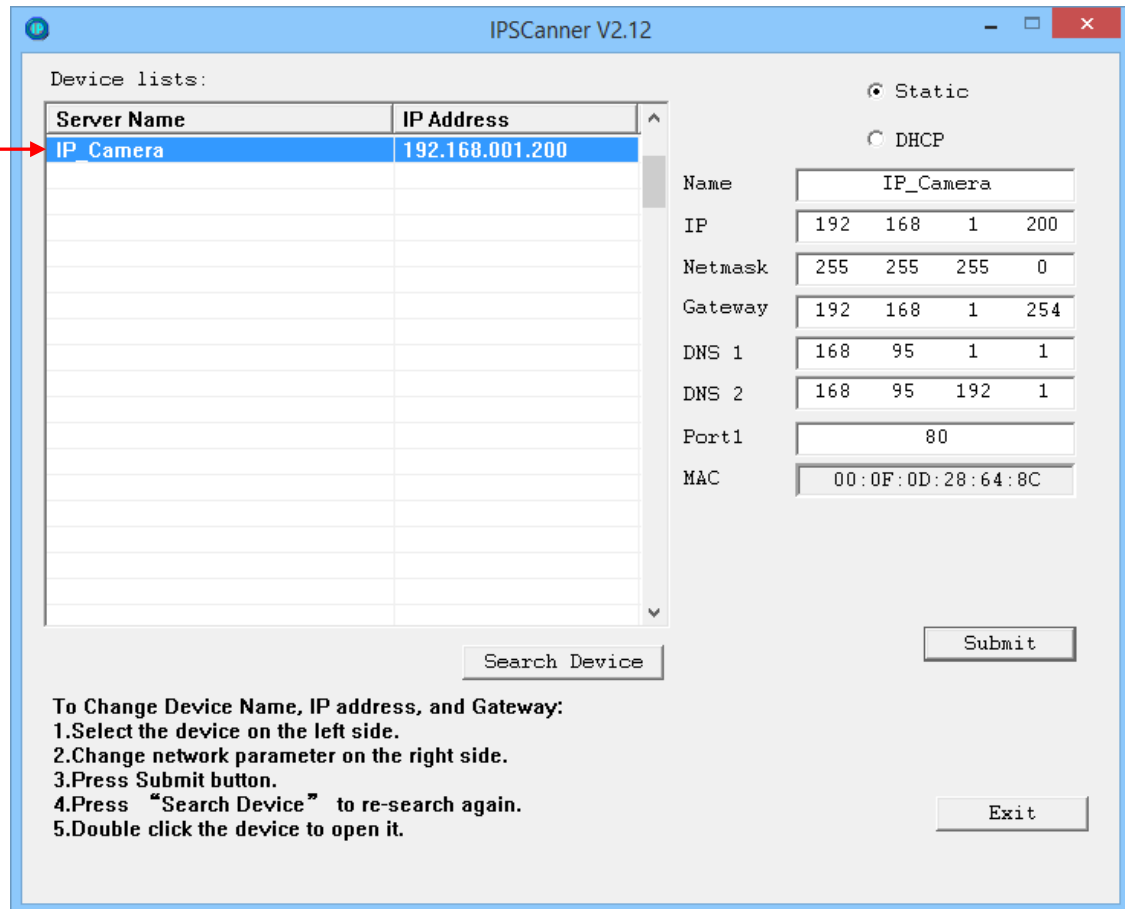


IP Assignment

1. Open the software **IP Scanner** to assign the IP address of the IP Camera. Find this software in the **Applications** folder in the software CD attached to the product's package.
2. **IP Scanner** supports two languages: This manual is for 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 the English version of **IP Scanner: IPScannerENG**
5. For Windows XP SP2 or above, a Windows Security Alert may pop up. Choose the network type based on your surveillance environment, and click on **Allow access**.



6. **IP Scanner** configuration:



7. **IP Scanner** will search for all the IP Cameras connected on the LAN. The user can click **Search Device** to search again.

8. Click one of the IP Cameras listed on the left side. The network configuration of this IP camera will be shown on the right side once you highlight the device with your mouse. You can change the **name** of the IP Camera to your preference (e.g.: Office, warehouse). Change the parameters and click **Submit**.

9. Please make sure the subnet of the PC IP address and the IP Camera IP address are the same.

The same Subnet:

IP Camera IP address: 192.168.1.200
 PC IP address: 192.168.1.100

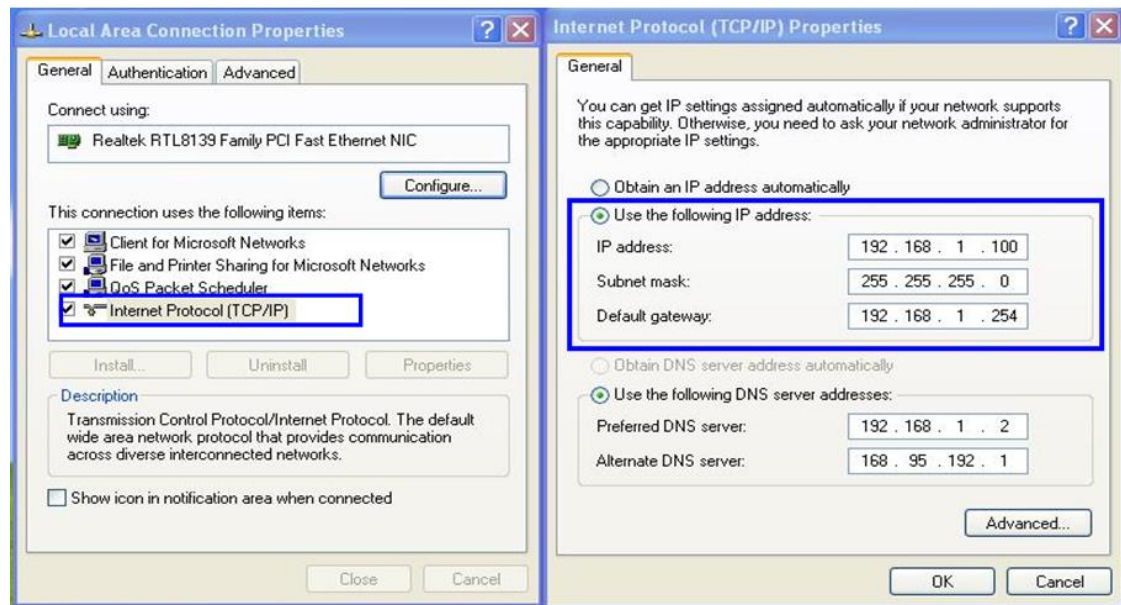
Different Subnets:

IP Camera IP address: 192.168.2.200
 PC IP address: 192.168.1.100

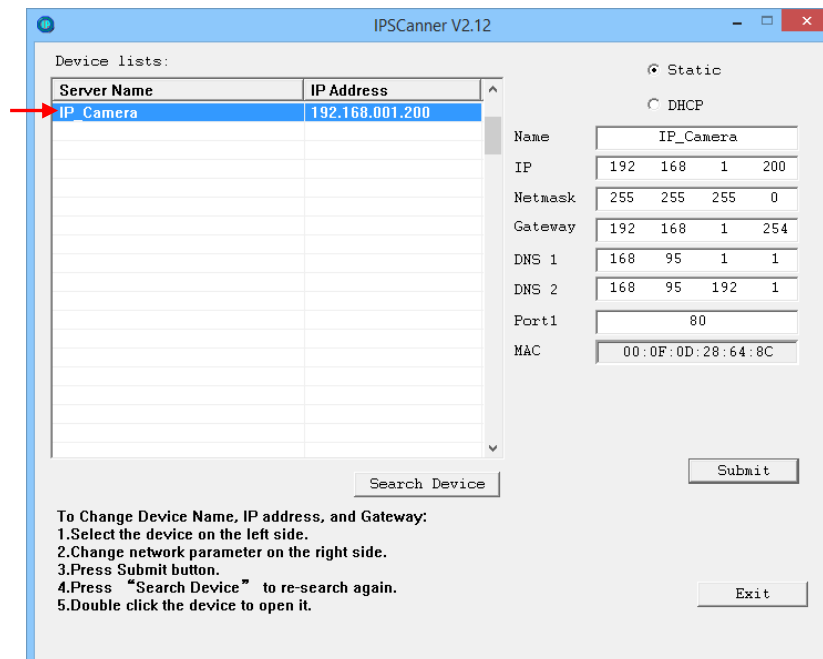
To Change the PC IP address:

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

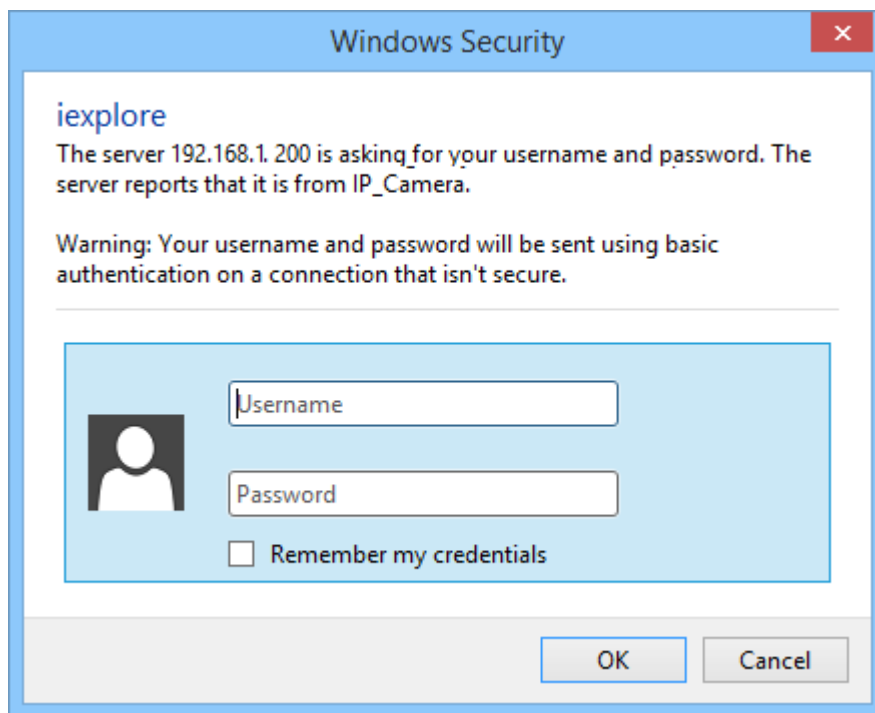
Make sure your IP Camera and PC are in the same Subnet. If not, change the IP Camera subnet or the PC IP subnet accordingly below.



- To quickly access remote monitoring, left-click the mouse twice on the selected IP Camera listed under **Device list** of **IP Scanner**. A default network browser of the camera control interface will open.



- Enter **admin** for both Username and Password to gain access.

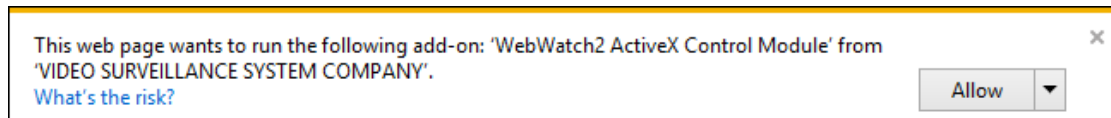


Install ActiveX control

1. For users using IE 6.0 or above:




When viewing the camera video for the first time via IE, the browser will ask you to install the **ActiveX** component.

Choose '**Allow**'

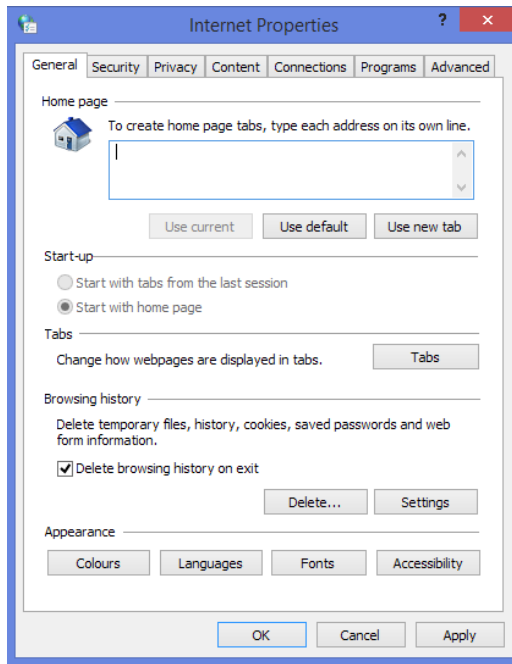


The ActiveX component should then be completed and user will be able to view the live video screen.

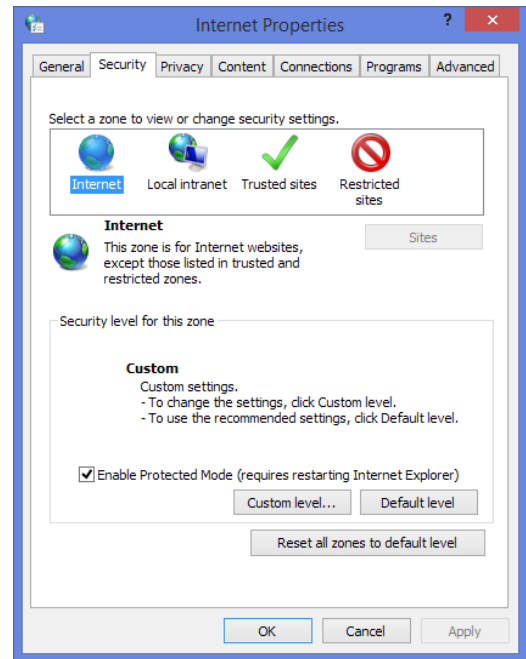
If the installation fails, please check the security settings in the IE browser. Follow the steps below:

- 1) Go to **Start-Up Menu**  on the lower left corner of the **Windows**
- 2) Select **Control Panel** 
- 3) Double-click on  **Internet Options**.
- 4) You will then enter the page of **Internet Properties** settings.
- 5) Starting from **Internet Properties**, proceeding step **A** and **B**:
 - A.** Security → Custom Level → Security Settings → Download unsigned ActiveX controls → Enable or Prompt (recommended).
 - B.** Security → Custom Level → Security Settings → Initialize and script ActiveX controls not marked as safe → Enable or Prompt (recommended).

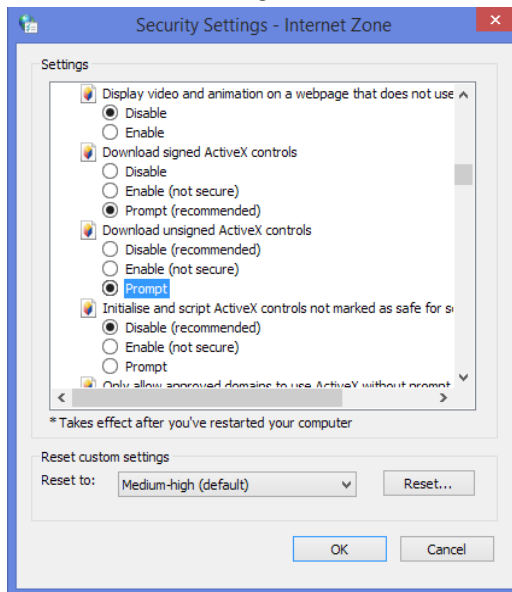
1



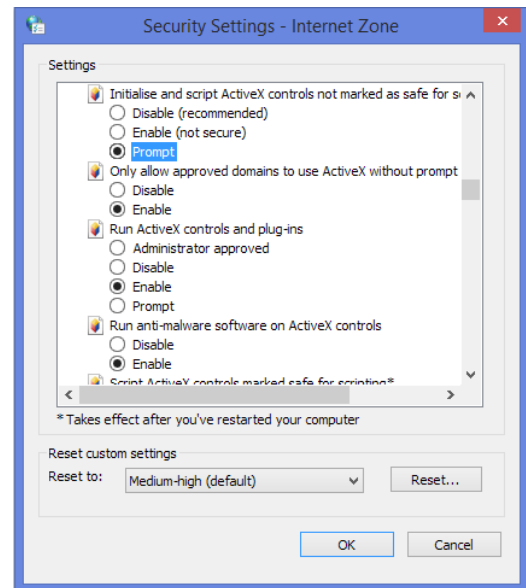
2



3

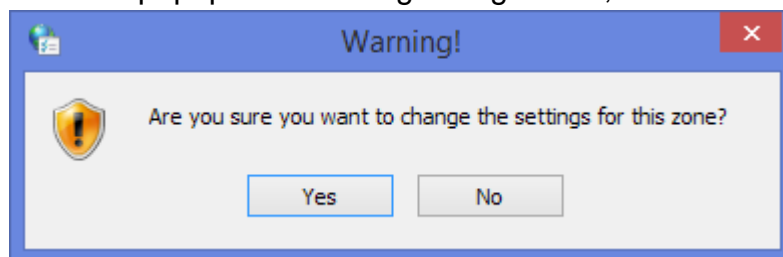


4



5

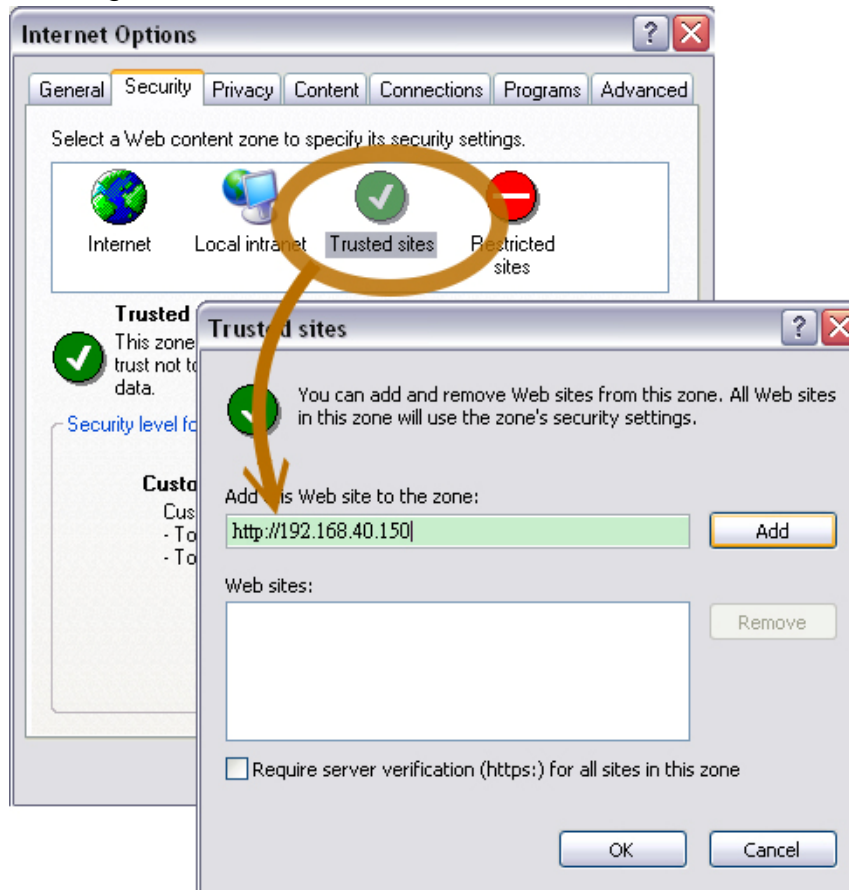
When popup the following dialogue box, click **Yes**.



2. You can choose another method:

Go to: IE→Tools → Internet Options... → Security Tab → Trusted sites → Add the IP address and click **OK**.

In the site list you can key in one single IP address or a LAN address. For example, if you add **192.168.21.***, all the IP address under **21.*** on the LAN will be regarded as trusted sites.

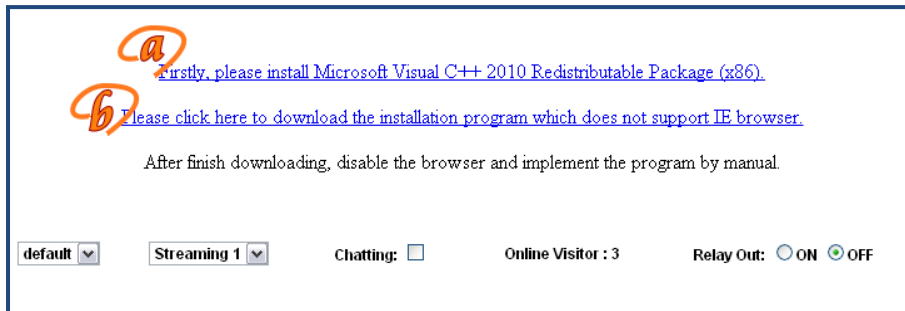


3. For Non-IE Web Browser Users

If you use Firefox or Google chrome to access the IP camera but fails to watch the live video, please follow the steps to install necessary tools: (The following pictures are based on chrome.)

A. You may see the prompt message as the picture below. Click the **a** link:

Firstly, please install Microsoft Visual C++ 2010 Redistributable Package (x86).



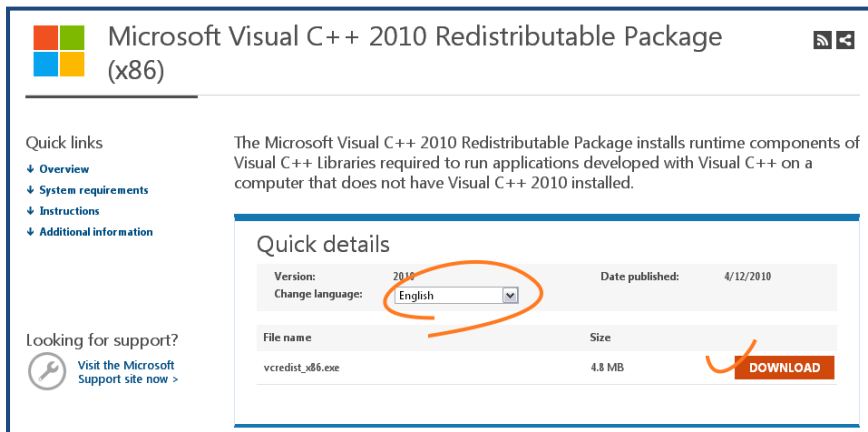
a Firstly, please install [Microsoft Visual C++ 2010 Redistributable Package \(x86\)](#).

b Please click [here](#) to download the installation program which does not support IE browser.

After finish downloading, disable the browser and implement the program by manual.

default | Streaming 1 | Chatting: | Online Visitor : 3 | Relay Out: ON OFF

The link will conduct you to the Microsoft official site where you can download the tools. Please select the language and click **download**.



Microsoft Visual C++ 2010 Redistributable Package (x86)

Quick links
+ Overview
+ System requirements
+ Instructions
+ Additional information

Looking for support?
Visit the Microsoft Support site now >

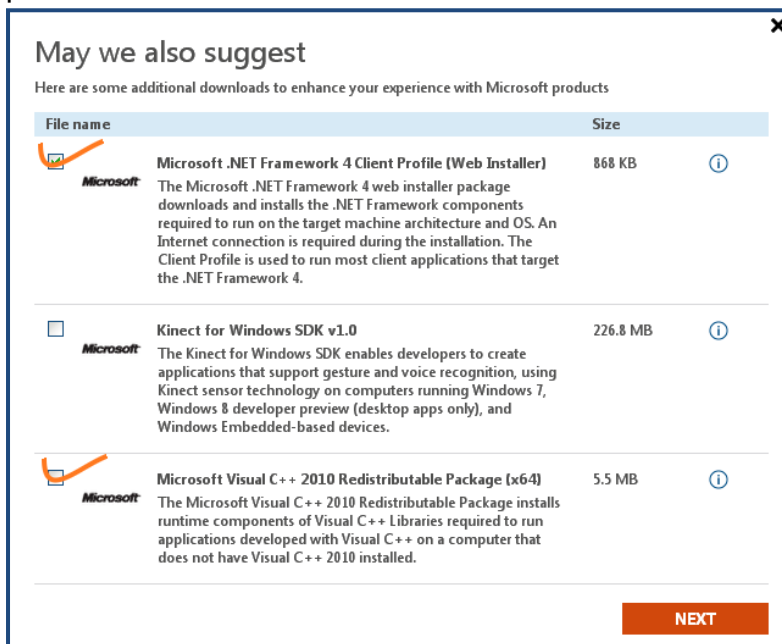
The Microsoft Visual C++ 2010 Redistributable Package installs runtime components of Visual C++ Libraries required to run applications developed with Visual C++ on a computer that does not have Visual C++ 2010 installed.

Quick details

Version:	2010	Date published:	4/12/2010
Change language:	English		

File name	Size	
vcredist_x86.exe	4.8 MB	<input checked="" type="checkbox"/> DOWNLOAD

In the pop-up window, please tick the first and the third file as the picture below.



May we also suggest

Here are some additional downloads to enhance your experience with Microsoft products

File name	Size	
<input checked="" type="checkbox"/> Microsoft Microsoft .NET Framework 4 Client Profile (Web Installer) The Microsoft .NET Framework 4 web installer package downloads and installs the .NET Framework components required to run on the target machine architecture and OS. An Internet connection is required during the installation. The Client Profile is used to run most client applications that target the .NET Framework 4.	868 KB	<input checked="" type="checkbox"/> ⓘ
<input type="checkbox"/> Microsoft Kinect for Windows SDK v1.0 The Kinect for Windows SDK enables developers to create applications that support gesture and voice recognition, using Kinect sensor technology on computers running Windows 7, Windows 8 developer preview (desktop apps only), and Windows Embedded-based devices.	226.8 MB	<input type="checkbox"/> ⓘ
<input checked="" type="checkbox"/> Microsoft Microsoft Visual C++ 2010 Redistributable Package (x64) The Microsoft Visual C++ 2010 Redistributable Package installs runtime components of Visual C++ Libraries required to run applications developed with Visual C++ on a computer that does not have Visual C++ 2010 installed.	5.5 MB	<input checked="" type="checkbox"/> ⓘ

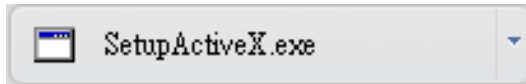
NEXT

Click **Next** to download both **Microsoft .NET Framework 4 Client Profile (Web Installer)** and **Microsoft Visual C++ 2010 Redistributable Package (x64)**.

After finishing downloading, execute the two files respectively to install them. The windows may ask you to reboot the PC when the installation is finished.



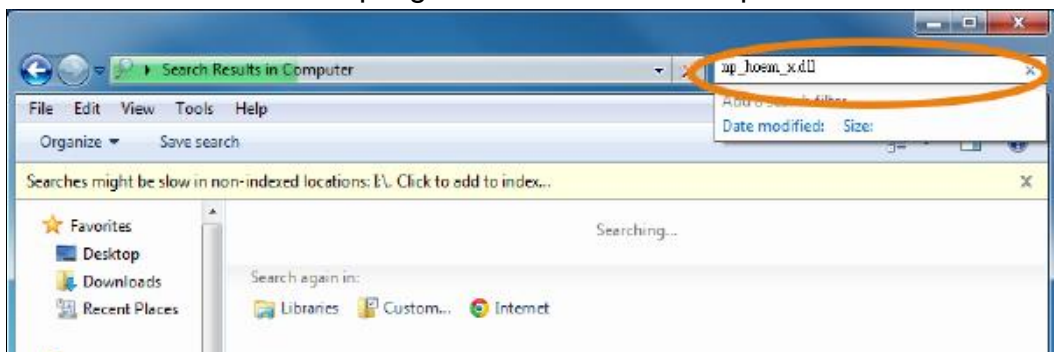
B. Then, click the second link **Please click here to download the installation program which does not support IE browser** to download Setup ActiveX.



After finishing downloading, execute the files to install **ActiveX**. Then restart the browser.

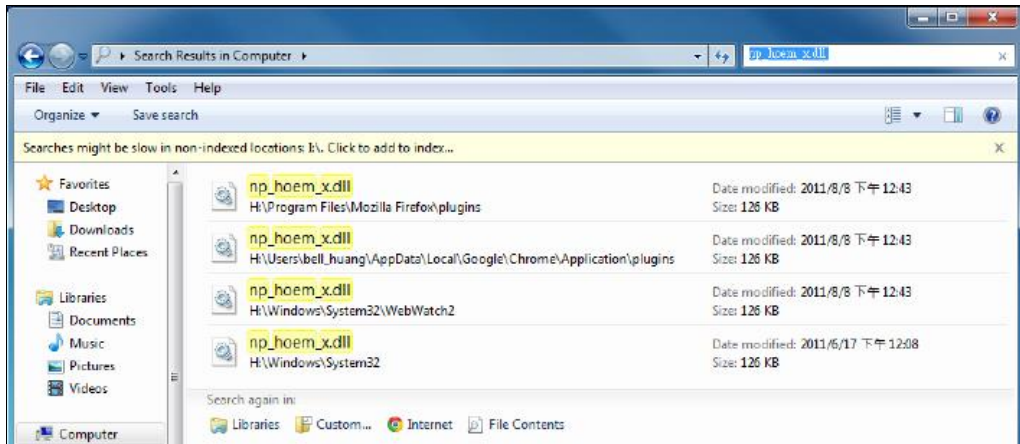
C. If you execute the steps above but still cannot see live video normally, please try the following solution:

Search for the file **np_hoem_x.dll** in your system disk. For Windows XP users, please go to **Start** → **Search** → Search for **All files and folders** and key-in **np_hoem_x.dll**. For Windows 7 users, please use the search bar on the top-right of the Windows Explorer.



Delete all the files named **np_hoem_x.dll**. They're the **ActiveX** control tools installed in your computer, but the old version of **ActiveX** might not be compatible with the new version of the browser.

Therefore, they need to be deleted in order to install the latest **ActiveX** control.



Start your web browser, and repeat the **step A: Download the installation program which does not support IE browser** to download and install **ActiveX**.

a [Firstly, please install Microsoft Visual C++ 2010 Redistributable Package \(x86\).](#)

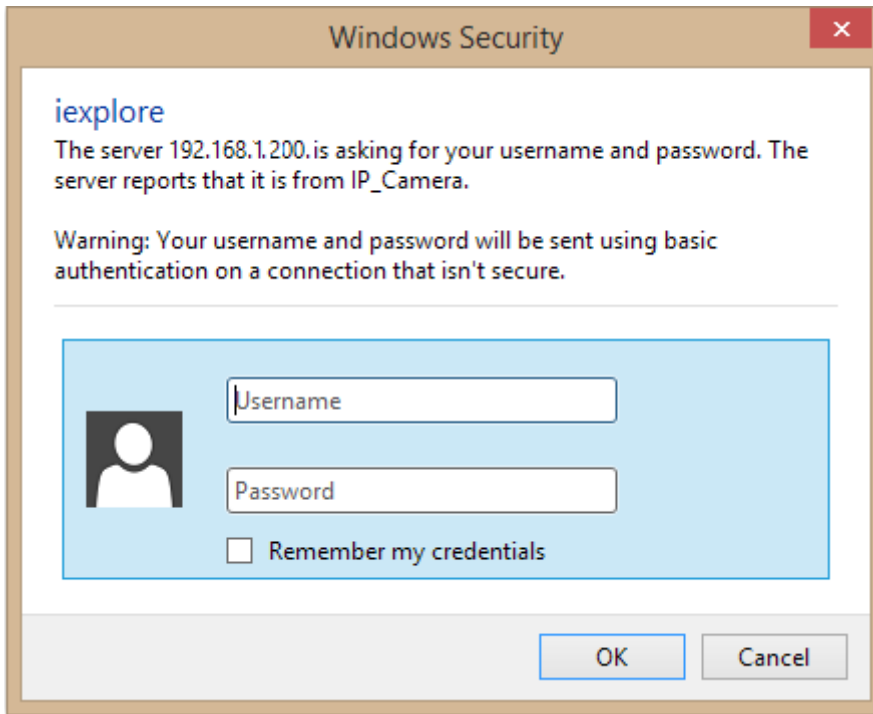
b [Please click here to download the installation program which does not support IE browser.](#)

After finish downloading, disable the browser and implement the program by manual.

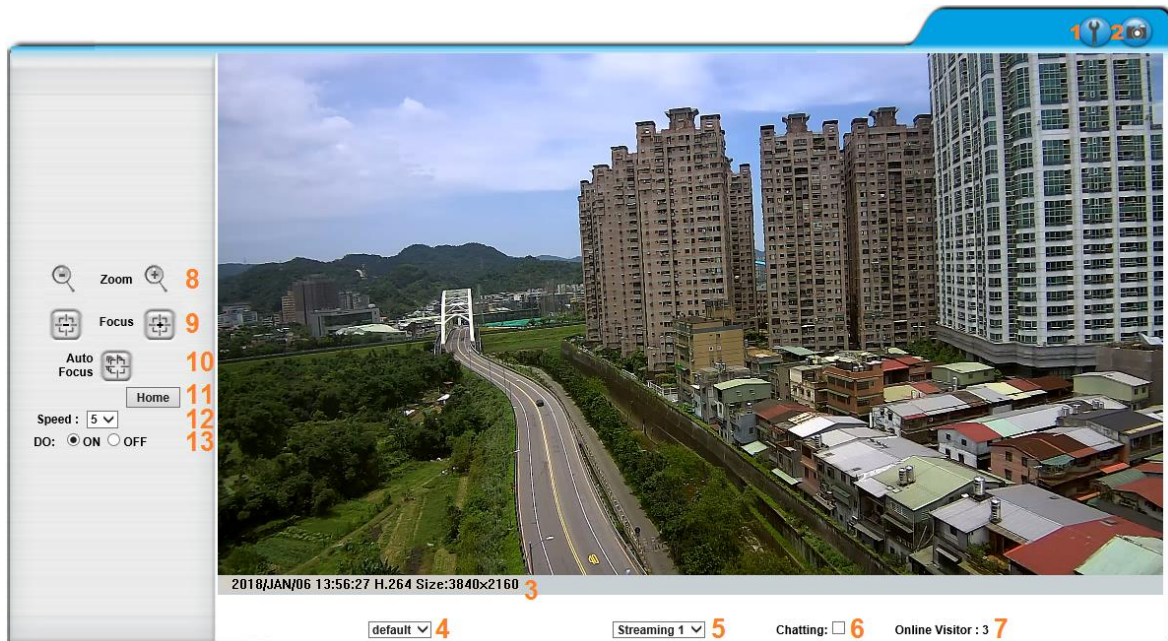
default Streaming 1 Chatting: Online Visitor : 3 Relay Out: ON OFF

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: **admin** and password: **admin**.








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








Full Screen Mode: Double-clicking on the video screen will enter the full screen mode. Press “Esc” on your computer keyboard or double-click the video screen again for returning to normal screen mode.

Please change default password is a sign which flickers on the live view screen as a reminder, to suggest the user to change the default password. You may configure the login settings in [System](#) to secure your account privacy.

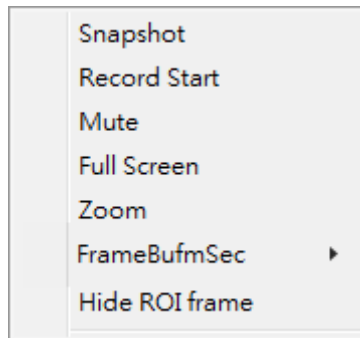
A. Live Video Panel

1. Click  - Get into the administration page.
 2. Click  - A snapshot preview window will appear. Choose  to save the current snapshot or choose  to discard it.
 3. Show the system time, video resolution, and other information.
 4. - Adjust image size by its ratio of 1/2x(default), 1x, and 2x.
 5. - Select the video streaming source: If the streaming 2 is set closed in [Video Setting](#), this function will not be displayed.


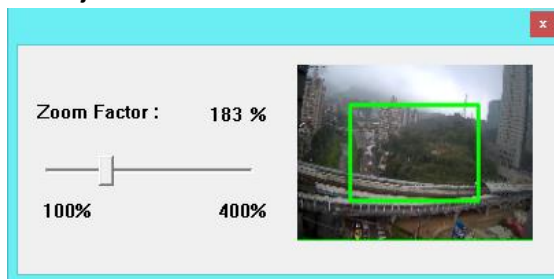
Streaming 2 Setting

Basic Mode Advanced Mode Close
 6. Tick on **Chatting** checkbox to enable two-way audio. You may adjust settings from [Audio Setting](#).
 7. **Online Visitor:** Shows how many people are connected to this device.
 8. Click on   icons to adjust Zoom In / Zoom Out.
 9. **Focus:** Click on   icons to adjust focus.
 10. **Auto Focus:** Click on  icon to automatically adjust focus.
 11. : Click to view without adjustments through Focus & Zoom.
 12. **Speed:** Set the zoom speed.
 13. Control the external output device or DO (digital output) connected to this camera.
-

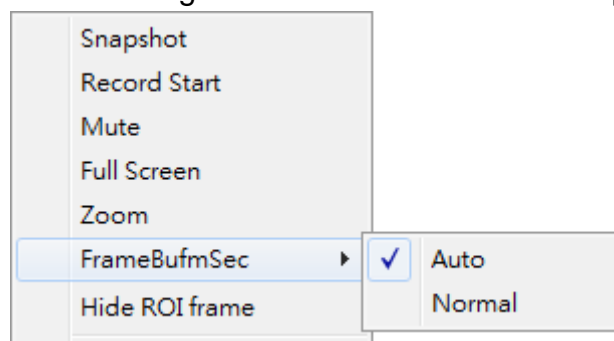
B. Submenu: Right-Click the mouse on the live video screen, a pop-up menu will then appear as below.



1. **Snapshot:** Save a JPEG picture
2. **Record Start:** Record the video to the local PC. The video format is AVI and you will be asked to set up the directory for the video file. To stop recording, right-click again. Select “Record Stop”.
3. **Mute:** Click to turn off the audio. Click again to turn it on.
4. **Full Screen:** Full-screen mode.
5. **Zoom:** Select “zoom” within the pop-up dialogue box and then drag and drop the bar to adjust the zoom factors.



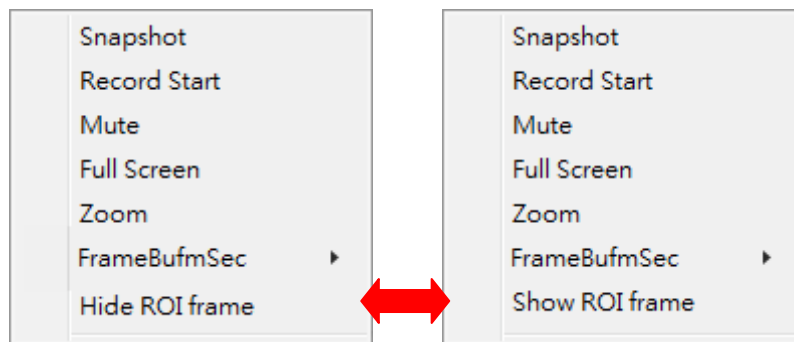
6. **Frame Buffm Sec:** This function aims to build a temporary buffer to accumulate several video frames in a LAN network environment. It can make video streaming smooth when the network speed is slow.



Select **Auto** to allow this function automatically help fix the streaming performance whenever the video happens to be lagging.

Select **Normal** to play the video data based on the current network streaming performance. (Note: the lagging of the video displayed will not be seen as a result of the actual video data)

7. **Hide / Show ROI frame:** Once the ROI frame has been set up from [AV Settings](#), there will be frames in colors appearing on the live view. Choose to hide to make the frames invisible, or choose show to keep the frames.



System



Click



to go back to the

live video page.



The screenshot shows the 'System Information' configuration page in the IP Camera web interface. The left sidebar contains navigation menus for System, Network, and A/V settings. The main content area is divided into several sections:

- System Information**
 - Server Information**
 - MAC Address: 08:0F:3D:26:3E:53
 - Server Name: IPCAM Status Bar
 - LED Indicator: ON OFF
 - 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: 2015/7/27 15:0:43 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: pool.ntp.org
 - Update: 6 Hour
 - Time Shift: 0 Minutes [-1440..1440]
 - Synchronize with PC's time
 - Date: 2015/7/27
 - Time: 13:35:19
 - Manual
 - Date: 2015/7/27
 - Time: 16:3:51
 - The date and time remain the same
 - EasyLink**
 - EasyLink ID: FRPUN6WV3FTG6GURZ1
 - QR Code: 

I. System Information

A. Server Information

Set up the camera name, language, and the camera time.



Server Information

MAC Address: 00:0F:0D:27:4A:4B

Server Name: IP_Camera Status Bar

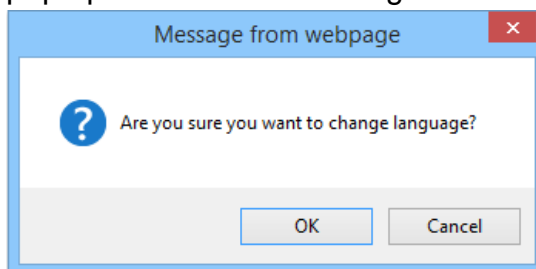
LED Indicator: ON OFF

Language : English 繁體中文 简体中文 French
 Russian Italian Spanish German
 Portuguese Polish Japanese

- a. **Server Name:** This is the Camera name. This name will be shown on the IP Scanner. Tick the checkbox of **Status Bar** to display the **Server Name** in [live video](#). For example, if you key in DEMO, it will be displayed at live video mode at the bottom.

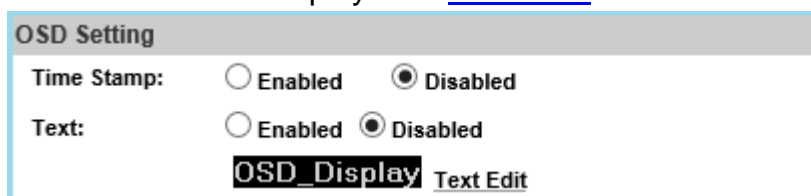
DEMO SEP/17/2018 13:52:25 H.264+ Size:3840x2160

- b. **LED Indicator:** Turn on/off the LED indicator on the camera.
- c. **Language:** English and other languages can be selected. When a language preference is selected, the following dialogue box will pop up to confirm the change.



B. OSD Setting

You can adjust the **Position** for the **Enabled** option of **Time Stamp** or **Text** which will be displayed on [live video](#) screen.



OSD Setting


Time Stamp: Enabled Disabled

Text: Enabled Disabled

OSD_Display Text Edit

Click **Text Edit** for editing the OSD content, including Text size and transparency. Click the **Upgrade** button to apply the settings.

Text Edit



Text Edit

Text

Size

Transparency

C. Time Setting

Select between **NTP**, **Synchronize with PC's time**, **Manual**, **The date and time remain the same** for setting the server time.

Time Setting

Server Time: 2015/7/28 12:43:57 Time Zone: GMT+08:00

Date Format: yy/mm/dd mm/dd/yy dd/mm/yy

Time Zone:

Enable Daylight Saving:

	Month	Day of Week	Time
DST Start:	<input type="text" value="Mar"/>	<input type="text" value="2nd"/>	<input type="text" value="12 am"/>
DST End:	<input type="text" value="Nov"/>	<input type="text" value="1st"/>	<input type="text" value="12 am"/>

NTP :

NTP Server :

Update : Hour

Time Shift : Minutes [-1440..1440]

Synchronize with PC's time

Date :

Time :

Manual

Date :

Time :

The date and time remain the same

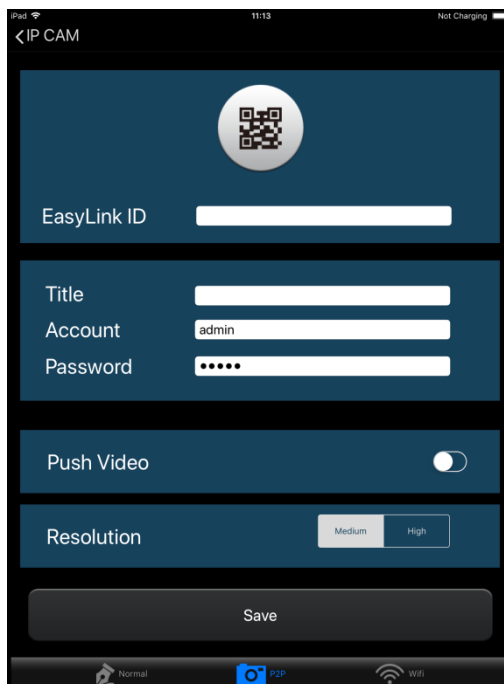
D. EasyLink (Optional)



The image shows a web interface for EasyLink configuration. It has a title bar 'EasyLink'. Below it, there is a label 'EasyLink ID:' followed by a text input field containing the ID 'FRPU8N6WV9FCTG6GUHZ1'. Below that is a label 'QR Code:' followed by a QR code. At the bottom right, there is an 'Apply' button.

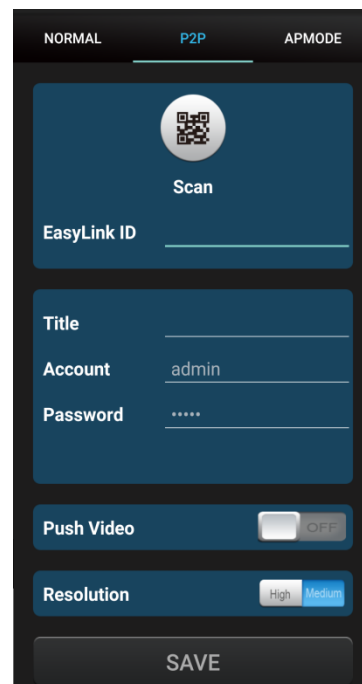
Install **IP Motion App** on your mobile phone to access **EasyLink** operation which allows user to watch IP camera live view on self-owned mobile phones. Once the installation is done, either enter the **EasyLink ID** from the IP camera web browser, or simply scan the **QR Code** to help you log in to your IP camera through **IP Motion App** and watch the live view.

For iOS



The image shows the iOS interface of the IP Motion App. It has a dark blue background. At the top, there is a QR code icon. Below it is a text input field for 'EasyLink ID'. Below that are three more text input fields for 'Title', 'Account' (with 'admin' entered), and 'Password' (with dots). Below these is a 'Push Video' toggle switch which is turned on. Below that is a 'Resolution' section with 'Medium' and 'High' buttons. At the bottom is a 'Save' button. The status bar at the top shows 'iPad', '11:13', and 'Not Charging'.

For Android

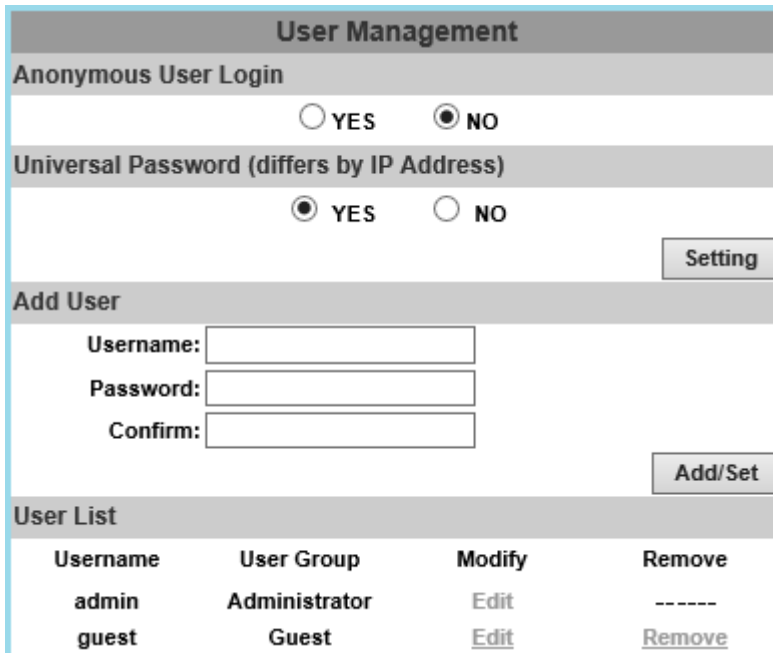


The image shows the Android interface of the IP Motion App. It has a dark blue background. At the top, there are three tabs: 'NORMAL', 'P2P', and 'APMODE'. Below the tabs is a QR code icon and a 'Scan' button. Below that is a text input field for 'EasyLink ID'. Below that are three more text input fields for 'Title', 'Account' (with 'admin' entered), and 'Password' (with dots). Below these is a 'Push Video' toggle switch which is turned off. Below that is a 'Resolution' section with 'High' and 'Medium' buttons. At the bottom is a 'SAVE' button.

Read more about operating **IP Motion App** from the user's manual [document](#) inside the folder [User Manual Mobile Phone APP](#) which comes as part of the [CD contents](#).

Note: Your smartphone must be equipped with a camera and featured with a QR code scanner application.

II. User Management



The screenshot shows the 'User Management' configuration page. It includes sections for 'Anonymous User Login', 'Universal Password (differs by IP Address)', 'Add User', and 'User List'. The 'Anonymous User Login' section has radio buttons for 'YES' and 'NO', with 'NO' selected. The 'Universal Password' section has radio buttons for 'YES' and 'NO', with 'YES' selected. The 'Add User' section has input fields for 'Username:', 'Password:', and 'Confirm:', and an 'Add/Set' button. The 'User List' section is a table with columns for 'Username', 'User Group', 'Modify', and 'Remove'.

Username	User Group	Modify	Remove
admin	Administrator	Edit	-----
guest	Guest	Edit	Remove

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

A. Anonymous User Login

Select **Yes** for allowing access to watch live video of the IP camera without having to enter username and password. Yet when entering the configuration page of the IP camera, the system will do otherwise. Select **No** for requiring a username and login to access the camera.

B. Universal Password

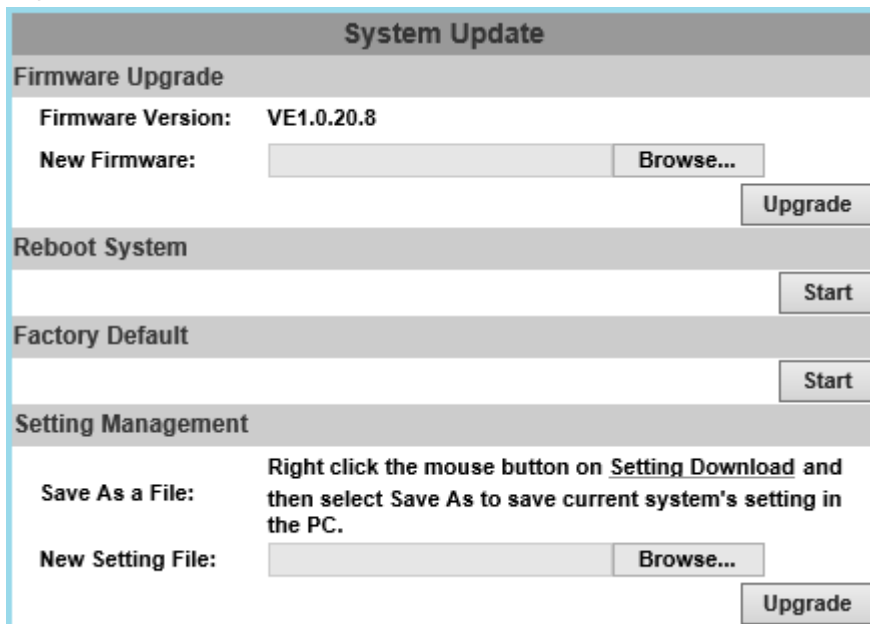
Select **Yes** for allowing login to this IP camera by universal password. Please refer to **Universal Password** chapter for more explanations. Select **No** for disabling universal password.

C. Add User

Type the user name and password, then click **Add/Set**. The guest user can only browse live video page and is not allowed to enter the configuration page.

Click "Edit" or "Remove" 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.

III. System update



The screenshot shows a web interface titled "System Update". It is divided into four main sections: "Firmware Upgrade", "Reboot System", "Factory Default", and "Setting Management".

- Firmware Upgrade:** Shows the current "Firmware Version: VE1.0.20.8". Below it is a "New Firmware:" field with a "Browse..." button and an "Upgrade" button.
- Reboot System:** A section with a "Start" button.
- Factory Default:** A section with a "Start" button.
- Setting Management:** Contains a "Save As a File:" label and a text instruction: "Right click the mouse button on **Setting Download** and then select Save As to save current system's setting in the PC." Below this is a "New Setting File:" field with a "Browse..." button and an "Upgrade" button.

- A. **Firmware Upgrade:** 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 of this IP camera.

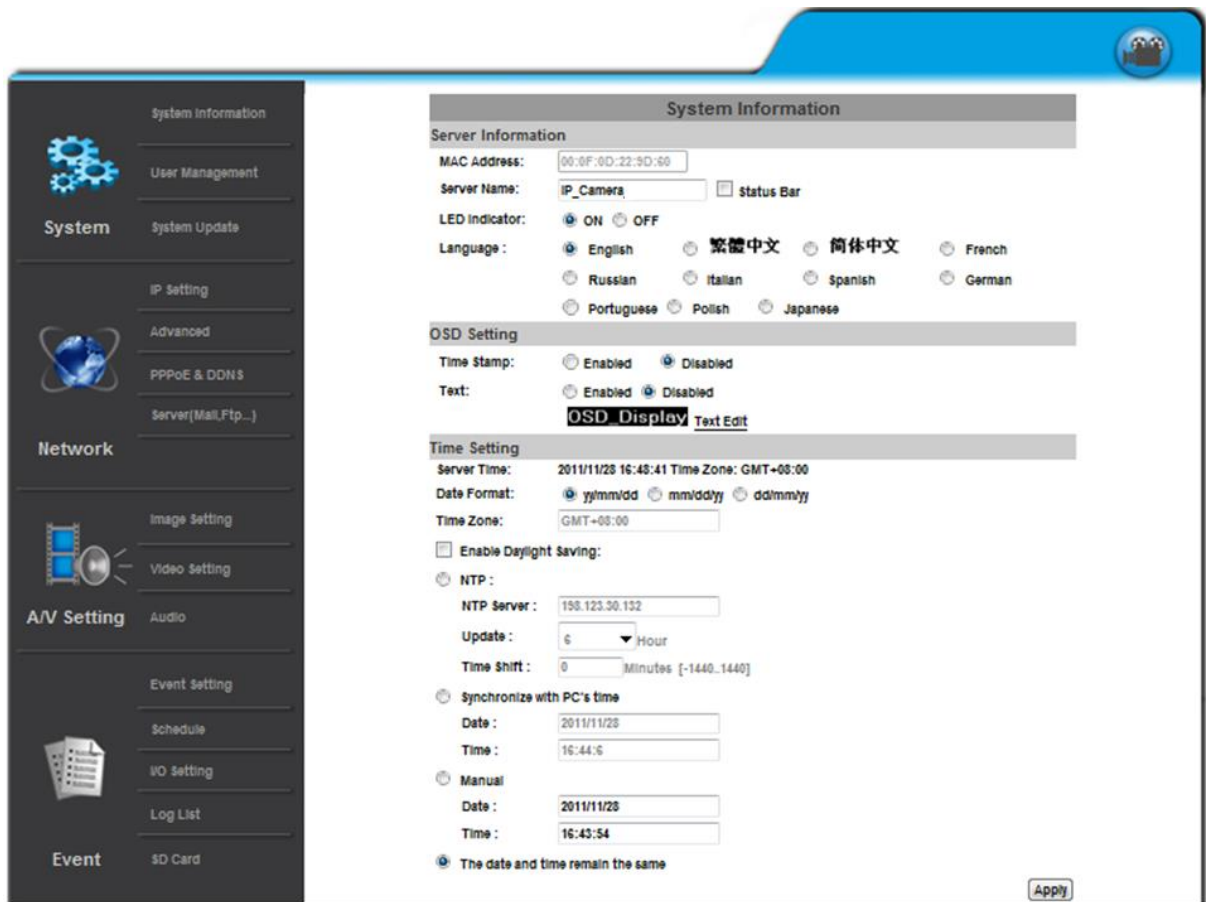
 - D. **Setting Management:** The user can download the current settings to PC, or upgrade from previous saved settings.
 - a. **Setting Download**
Right-click the mouse button on **Setting Download** → Select **Save AS...** to save current IP Camera settings in PC → Select saving directory → Save

 - b. **New Setting File**
To upgrade new settings, click **Browse** to search previous settings from a pop-up window, then click **Open** → **Upgrade** → Settings update confirm. Finally, click **index.html**. to returning to main page.
-

Network



Click  to get into the administration page. Click  to go back to the live video page.



The screenshot displays the IP Camera administration interface. On the left is a dark sidebar with a menu. The 'Network' section is highlighted, containing sub-items: IP Setting, Advanced, PPPoE & DDNS, and Server(Mail,Ftp...). The main content area is titled 'System Information' and contains several configuration sections:

- Server Information:** MAC Address (00:0F:0D:22:9D:00), Server Name (IP_Camera), LED Indicator (ON), and Language (English, 繁體中文, 简体中文, French, Russian, Italian, Spanish, German, Portuguese, Polish, Japanese).
- OSD Setting:** Time Stamp (Disabled), Text (Disabled), and OSD Display (Text Edit).
- Time Setting:** Server Time (2011/11/28 16:48:41), Date Format (yy/mm/dd), Time Zone (GMT+08:00), and NTP settings (NTP Server: 158.123.30.132, Update: Hour, Time Shift: 0).
- Manual Time Setting:** Synchronize with PC's time (Date: 2011/11/28, Time: 16:44:56) and Manual (Date: 2011/11/28, Time: 16:43:54).

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

Enter the **Network** by clicking on titles from **IP Setting**, **Advanced**, **PPPoE & DDNS** and **Server Settings**.

I. IP Settings

A. IP Assignment

The 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"/>

- DHCP: The IP Camera will get all the network parameters automatically.
- Static IP: Type-in the IP address subnet mask, gateway, and DNS.

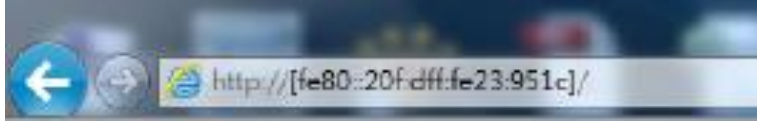
B. IPv6 Assignment

By enabling DHCPv6 you can configure the following IPv6 address settings:

IPv6 Assignment	
<input checked="" type="checkbox"/> IPv6 Enabled:	
<input checked="" type="checkbox"/> Manually setup the IPv6 address:	
IPv6 Address/Prefix:	<input type="text" value="::"/> /
	<input type="text" value="64"/>
IPv6 Gateway:	<input type="text" value="::"/>
IPv6 DNS:	<input type="text" value="::"/>
DHCPv6:	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
IPv6 Address:	
fe80::20f:dff:fe00:284d	

- Manually setup the IPv6 address: Key-in the Address, Gateway, and DNS.
- DHCPv6: If you have a DHCPv6 server, enable it to assign the IPv6 automatically. The assigned IP address will be displayed beside the column.
- Automatically generated IPv6 Address: Indicates a virtual IPv6 address generated automatically by the IP camera. This virtual IPv6 address cannot be used on WAN.

To use IPv6 address to access the IP camera, open the web browser, and key-in the **[IPv6 address]** in the address bar. The [] parentheses mark is necessary.



- a. Port Assignment: The user might need to assign a different port to avoid conflicts when setting up the IP.

Port Assignment		
Web Page Port:	<input type="text" value="80"/>	
HTTPS Port:	<input type="text" value="443"/>	HTTPS Setting

- b. Web Page Port: setup the web page connecting port and video transmitting port (Default: 80)
- c. HTTPSs Port: setup the https port(Default: 443)

C. UPnP

UPnP	
UPnP:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
UPnP Port Forwarding:	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
External Web Port:	<input type="text" value="80"/>
External HTTPS Port:	<input type="text" value="443"/>
External RTSP Port:	<input type="text" value="554"/>

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**.

UPnP Port Forwarding: Enable UPnP Port Forwarding for accessing the IP Camera from the Internet; this option allows the IP Camera to open ports on the router automatically so that video streams can be sent out from a LAN. There are three external ports for being set: **Web Port**, **Http Port** and **RTSP** port. To utilize of this feature, make sure that your router supports **UPnP** and is activated.

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

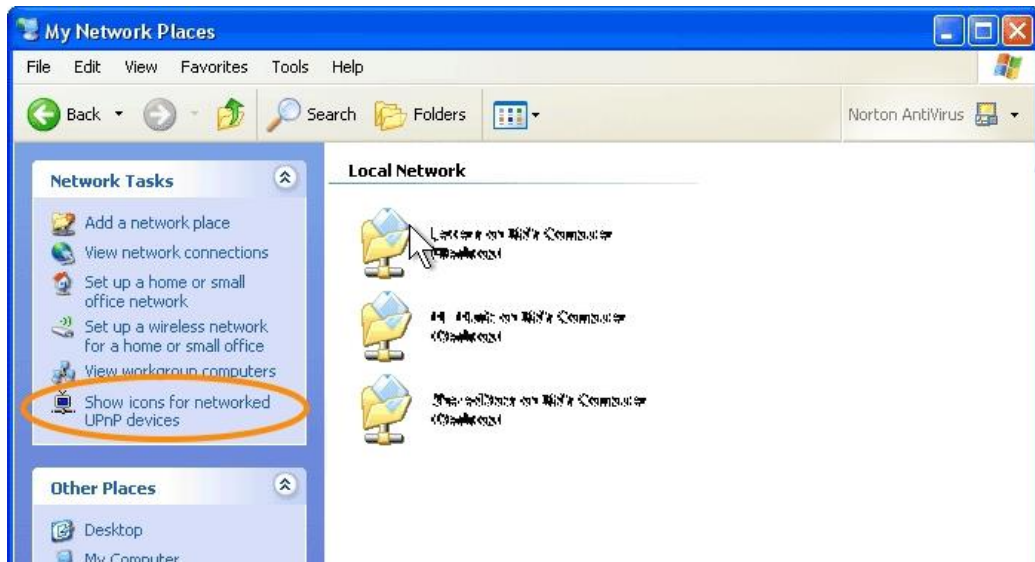
Please follow the procedure to activate UPnP:

<Approach 1>

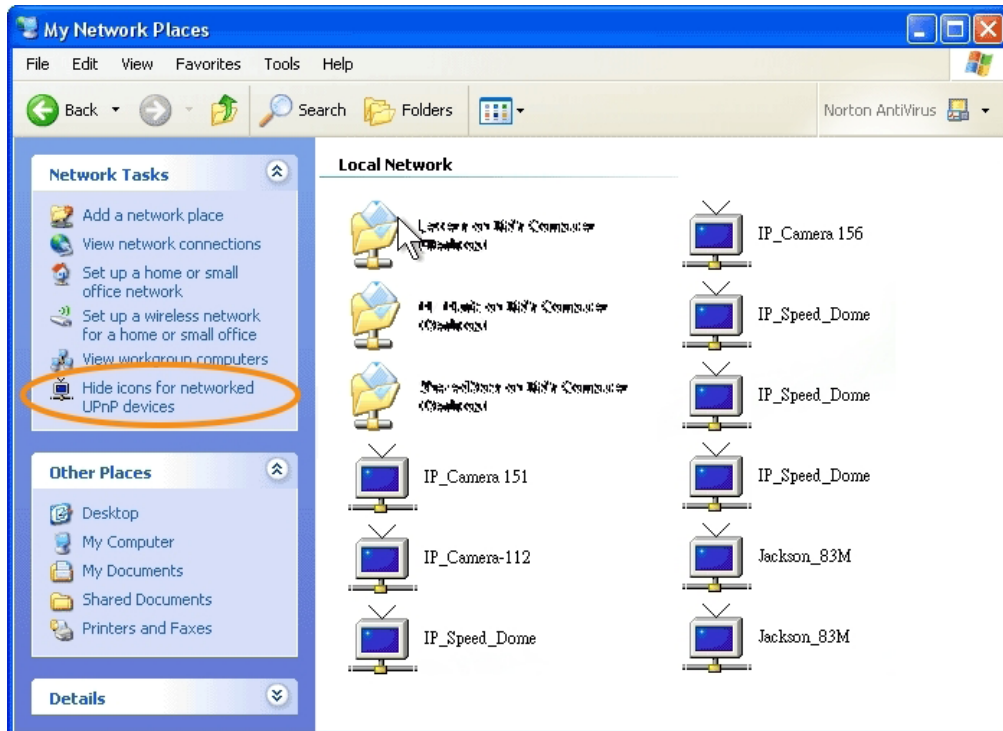
- a. open the **Control Panel** from the **Start Menu**
- b. Select **Add/Remove Programs**
- c. Select **Add/Remove Windows Components** and open **Networking Services** section
- d. Click **Details** and select **UPnP** to setup the service.
- e. The IP device icon will be added to **My Network Places**.
- f. The user may double click the IP device icon to access IE browser

<Approach 2>

- a. Open **My Network Space**
- b. Click **Show icons for networked UPnP devices** in the tasks column on the left of the page.
- c. Windows might ask your confirmation for enabling the components. Click **Yes**.



- d. Now the IP device is displayed under the LAN. Double-click the icon to access the camera via web browser. To disable the UPnP, click **Hide icons for networked UPnP devices** in the tasks column.



D. RTSP setting

RTSP Setting	
RTSP Server:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
RTSP Authentication:	Disable ▾
RTSP Port :	554
RTP Start Port:	5000 [1024..9997]
RTP End port:	9000 [1027..10000]

If you have a media player that supports RTSP protocol, you can use it to receive video streaming from the IP camera. The RTSP address can be set for two streaming transmissions respectively.

a. RTSP Server: enable or disable

Disable means everyone who knows your camera IP Address can link to your camera via RTSP. No username and password are required.

Under **Basic** and **Digest** authentication mode, the camera asks for a username and password before allows access.

The password is transmitted as a clear text under basic mode, which provides a lower level of security than under **digest** mode.

Make sure your media player supports the authentication schemes.

b. RTSP Port: setup port for RTSP transmitting (Default: 554)

- c. RTP Start and End Port: in RTSP mode, you can use TCP and UDP for connecting. TCP connection uses RTSP Port (554). UDP connection uses RTP Start and End Port.

E. Multicast Setting (Based on the RTSP Server)

Multicast Setting (Based on the RTSP Server)		
Streaming 1:		
IP Address:	<input type="text" value="234.5.6.78"/>	[224.3.1.0 ~ 239.255.255.255]
Port:	<input type="text" value="6000"/>	[1 ~ 65535]
TTL:	<input type="text" value="15"/>	[1 ~ 255]
Streaming 2:		
IP Address:	<input type="text" value="234.5.6.79"/>	[224.3.1.0 ~ 239.255.255.255]
Port:	<input type="text" value="6001"/>	[1 ~ 65535]
TTL:	<input type="text" value="15"/>	[1 ~ 255]

Multicast is a bandwidth conservation technology. This function allows several users to share the same packet sent from the IP camera.

For using Multicast, appoint here an IP Address and port. TTL means the life time of packet, the larger the value is, the more users can receive the packet. **For using Multicast, be sure to enable the function Force Multicast RTP via RTSP in your media player. Then key in the RTSP path of your camera: rtsp ://(IP address)/ to receive the multicast.**

- F. **ONVIF**: Choose your ONVIF version and settings.

ONVIF	
ONVIF:	<input checked="" type="radio"/> v2.10/v1.02 <input type="radio"/> v1.01 <input type="radio"/> Disabled
Security:	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
RTSP Keepalive:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled

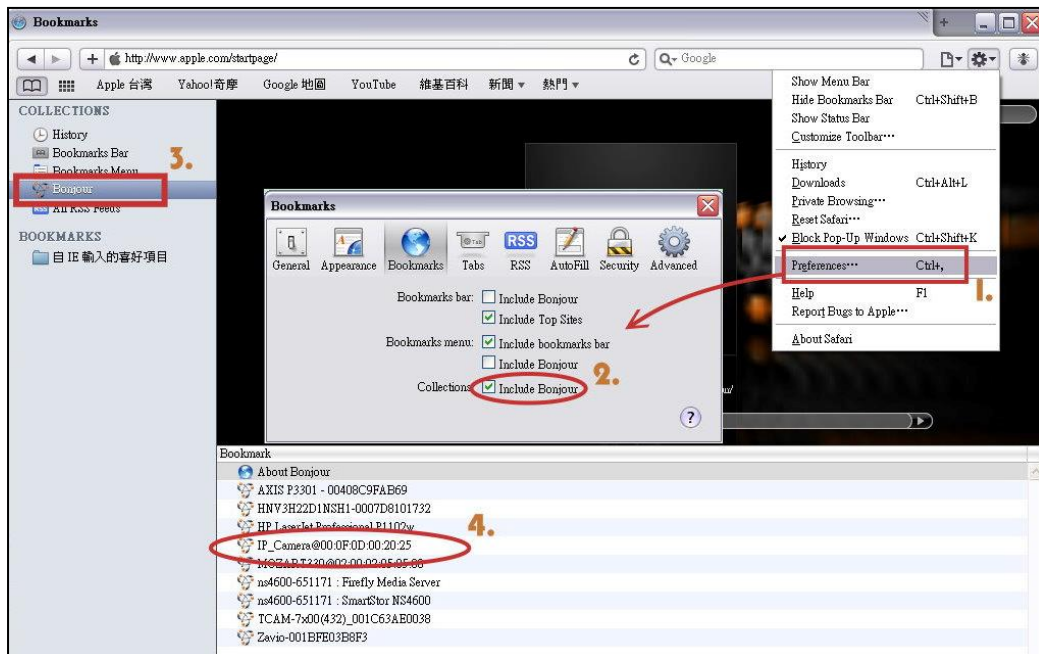
- a. ONVIF: Under ONVIF connection, the video will be transmitted by RTSP. Be sure to enable the RTSP server in IP setting, otherwise the IP Camera will not be able to receive the video via ONVIF.
- b. Security: By selecting **Disable**, the username and password are not required for accessing the camera via ONVIF. By selecting **Enable** the username and password are necessary.
- c. RTSP Keepalive: When the function is enabled, the camera checks once in a while if the user who is connected to the camera via ONVIF is still connected. If the connection has been broken the camera will stop transmitting video to the user.

G. Bonjour

Bonjour	
Bonjour:	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
Bonjour Name:	<input type="text" value="IP_Camera"/> @00:0F:0D:00:28:4D

This function allows Apple systems to connect to this IP camera. On **Bonjour Name** key-in the name here. The web browser **Safari** also has a Bonjour function. Tick **Include Bonjour** in the bookmark setting, for the IP camera to appear under the Bonjour category.

Click the icon to connect to the IP camera. The Bonjour function on Safari browser doesn't support HTTPS protocol. If on the camera you select **https**, the camera will appear on Safari's bookmarks but it cannot be accessed. Take as a reference the following image:



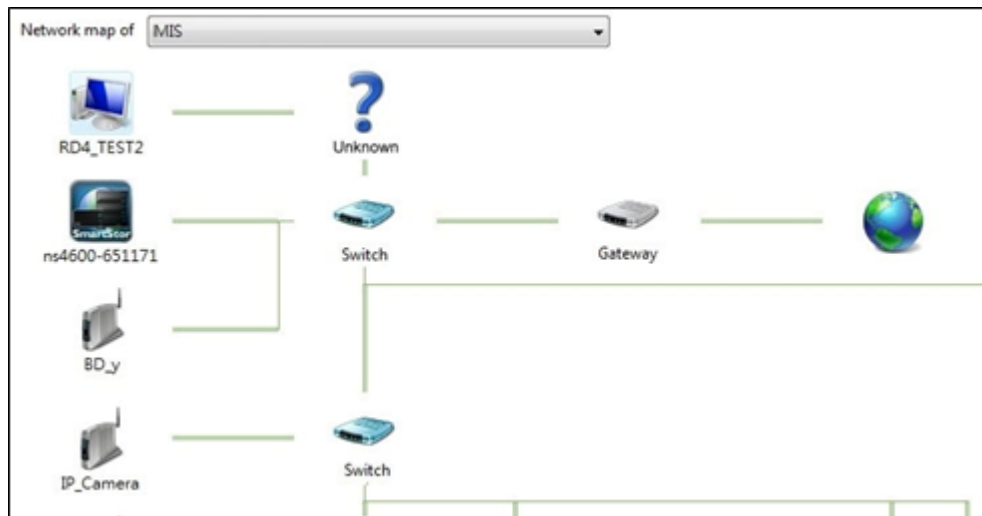
H. LLTD

LLTD (Link Layer Topology Discovery)	
LLTD:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled

If your PC supports LLTD, enable this function for allowing checking the connection status, properties, and device location (IP address) in the network map.

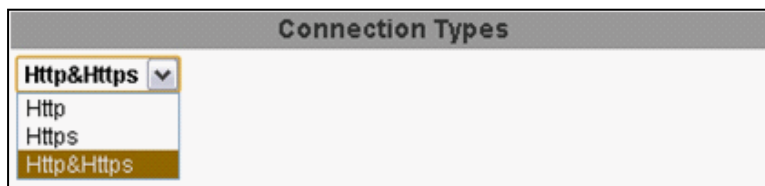
If the computer is running Windows Vista or Windows 7, you can find LLTD through the path:

Control Panel → Network and Internet → Network and Sharing Center → Click **See full map**.



II. Advanced

- A. Https (Hypertext Transfer Protocol Secure):** When the users access cameras via Https protocol, the transmitted information will be encrypted, increasing the security level.



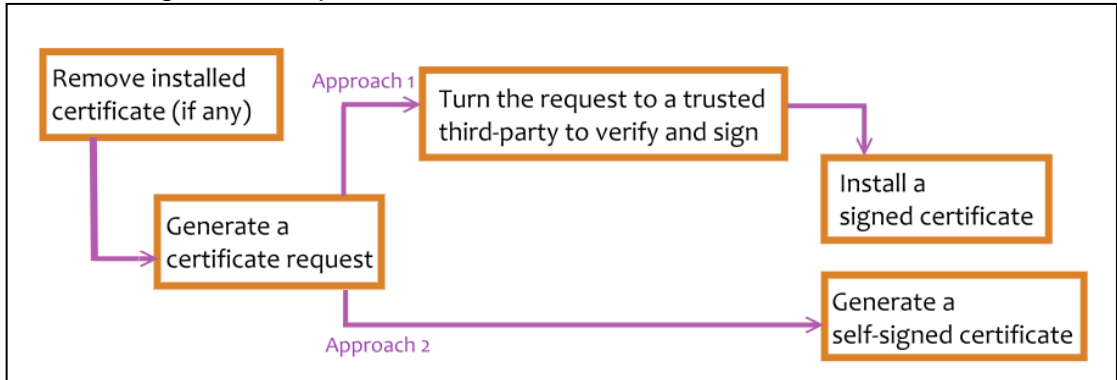
Select the connection type:

- Http: the user can access the camera via the Http path but cannot access it via the Https path.
- Https: the user can access the camera via the Https path but cannot access it via the Http path.
- Http & Https: Both the Http and Https path can be used to access the camera. When you change the connection type settings, it may cause connection error or disconnection error if you switch the protocol directly. Therefore, **Http & Https** mode is necessary.

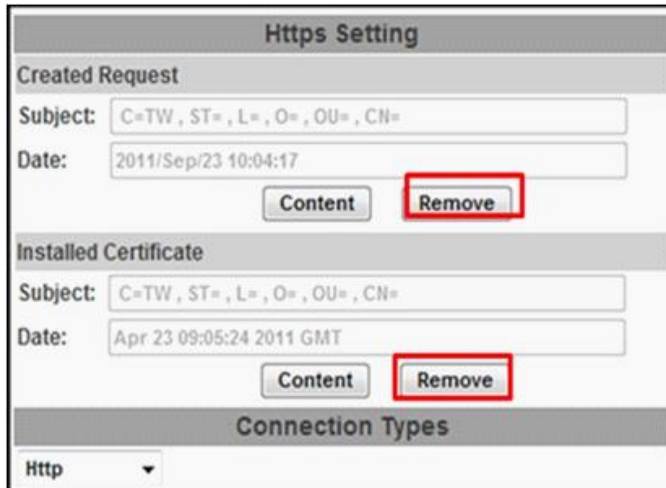
If you want to change from Http to Https, please switch to **Http & Https** mode first, and then switch to **Https** mode and vice versa.

The Https protocol has a verifying mechanism. When the user access a website via Https, the browser will check the certificate of that domain and verify its trustiness and security.

Certificate generation process:



- Remove the existing certificate: Before you generate a new certificate, please remove the installed one. Select the **Http** connection type and click **Remove**. If a dialog box pops up to ask you to confirm, click **Yes**.



The screenshot shows the 'Https Setting' interface. It has two main sections: 'Created Request' and 'Installed Certificate'. Each section contains a 'Subject' field with the value 'C=TW, ST=, L=, O=, OU=, CN=' and a 'Date' field. Below each section are 'Content' and 'Remove' buttons. The 'Remove' buttons in both sections are highlighted with a red box. At the bottom, there is a 'Connection Types' section with a dropdown menu currently set to 'Http'.

- Created Request: Fill-in the following form and click **apply**.



The screenshot shows the 'Https Setting' interface with the 'Create Request' section active. It contains several input fields: 'Country:', 'State or province:', 'Locality:', 'Organization:', 'Organizational Unit:', and 'Common Name:'. An 'Apply' button is located at the bottom right of the form.

- After generating a certificate request, if you choose to turn it & verify it by a trusted third-party, click **Content** and copy all the request content.

<p>Created Request</p> <p>Subject: C=TW, ST=, L=, O=, OU=, CN=</p> <p>Date: 2012/Sep/25 08:49:23</p> <p style="text-align: right;"> <input type="button" value="Content"/> <input type="button" value="Remove"/> </p>	<p>Certificate Request:</p> <p>Data:</p> <p>Version: 0 (0x0)</p> <p>Subject: C=TW</p> <p>Subject Public Key Info:</p> <p>Public Key Algorithm: rsaEncryption</p> <p>Public-Key: (1024 bit)</p> <p>Modulus:</p> <pre>00:b8:cb:17:f7:b6:14:5d:92:99:ae:73:52:7c 09:2a:ad:a6:50:39:5a:3c:09:10:15:85:ad:3c cc:e0:b2:7c:29:3e:d1:e7:15:c4:f2:4f:de:a6 98:f8:71:53:a3:43:0b:2c:1a:20:94:32:76:b3 72:c8:bc:87:35:3f:c7:fc:17:8f:c3:1f:2d:ak 33:3c:9a:28:3b:31:46:d8:c7:26:37:af:fb:5c aa:b0:a1:75:6a:f9:02:ca:c9:be:49:c9:2a:74 cb:b0:95:1e:63:89:f6:07:6c:cf:1c:5b:38:4e 29:a8:55:82:92:95:bc:74:15</pre> <p>Exponent: 65537 (0x10001)</p> <p>Attributes:</p> <p>a0:00</p> <p>Signature Algorithm: sha1WithRSAEncryption</p> <pre>9b:4c:13:01:cc:10:2a:bc:3c:22:f2:10:e7:48:19:52:98:5e c9:ae:5a:f4:76:cb:7d:f8:6c:21:e3:a5:9b:45:60:2a:ba:73 23:ce:7a:90:9c:90:b5:a7:41:36:2c:c4:f4:34:55:e5:d0:92 9d:32:d3:e4:2b:d1:0A:7c:58:9c:6A:Ad:38:e3:a6:73:a0:a5</pre>
---	--

- According to the certificate source, there are two ways to install the certificate: If you had sent the certificate request for signing and receiving a signed certificate, click **browse** and find the certificate file in your computer. Click **Apply** to install it.

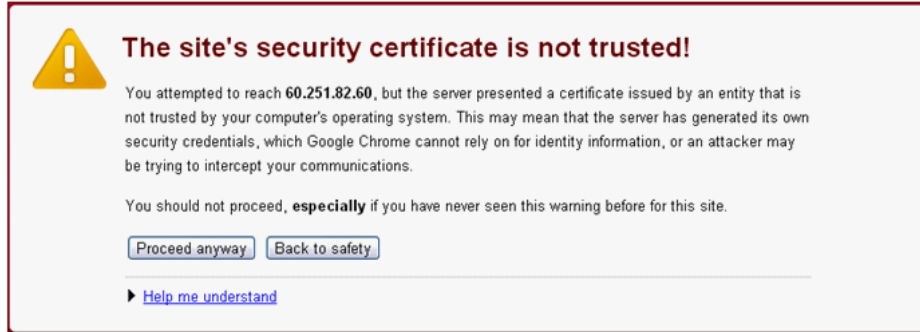
If you choose to generate a self-signed certificate, fill-in the following forms and set the validity day, click **Apply** to finish installed it.

<p>Install Signed Certificate</p> <p>Signed Certificate: <input type="text"/> <input type="button" value="Browse..."/></p> <p style="text-align: right;"><input type="button" value="Apply"/></p>	
<p>Create Self-Signed Certificate</p> <p>Country: <input type="text"/></p> <p>State or province: <input type="text"/></p> <p>Locality: <input type="text"/></p> <p>Organization: <input type="text"/></p> <p>Organizational Unit: <input type="text"/></p> <p>Common Name: <input type="text"/></p> <p>Validity: <input type="text"/> Days</p> <p style="text-align: right;"><input type="button" value="Apply"/></p>	

After finishing the installation, click on **Content** to call out and check the certificate content.

<p>Installed Certificate</p> <p>Subject: C=AC, ST=, L=, O=, OU=, CN=name</p> <p>Date: Oct 4 08:35:29 2012 GMT</p> <p style="text-align: right;"> <input type="button" value="Content"/> <input type="button" value="Remove"/> </p>	
---	--

To use Https to access the camera, open your browser, and key-in **https:// (IP address)/** in the address bar. Now your data will be transmitted via encrypted communications. The browser will check your certificate status. It might show the following warning message:



Meaning that certificate is self-signed or signed by a distrusted institution. Click **Proceed anyway** for continuing to the camera page.

B. SNMP (Simple Network Management Protocol)

- a. **SNMPv1** or **SNMPv2**: write the name of both **Write Community** and **Read Community**.

SNMP	
SNMP Setting	
<input type="checkbox"/> SNMPv1	<input checked="" type="checkbox"/> SNMPv2c
Write Community:	<input type="text" value="write"/>
Read Community:	<input type="text" value="public"/>

- b. **SNMPv3**: Set the Security Name, Authentication Type, Authentication Password, Encryption Type, Encryption Password of Write mode and Read mode.

<input checked="" type="checkbox"/> SNMPv3	
Write Security Name:	<input type="text" value="write"/>
Authentication Type:	<input checked="" type="radio"/> MD5 <input type="radio"/> SHA
Authentication Password:	<input type="text" value="....."/>
Encryption Type:	<input checked="" type="radio"/> DES <input type="radio"/> AES
Encryption Password:	<input type="text" value="....."/>
Read Security Name:	<input type="text" value="public"/>
Authentication Type:	<input checked="" type="radio"/> MD5 <input type="radio"/> SHA
Authentication Password:	<input type="text" value="....."/>
Encryption Type:	<input checked="" type="radio"/> DES <input type="radio"/> AES
Encryption Password:	<input type="text" value="....."/>

Enable **SNMPv1/SNMPv2 Trap** for detecting the Trap server. Please set what event needs to be detected.

SNMPv1/v2c Trap
 Trap Address:
 Trap Community:
 Trap Event: Cold Start Warm Start Link Up
 Authentication Failed SD Detect

- Cold Start: The camera starts up or reboots.
- Setting changed: The SNMP settings have been changed.
- Network Disconnected: The network connection was broken down (The camera will send trap messages after the network is connected again).
- V3 Authentication Failed: A SNMPv3 user account tries to get authentication but failed. (Due to incorrect password or community)
- SD Insert / Remove: A Micro SD card is inserted or removed.

c. **Access list: Enable IP address filter** to allow/reject some IP address a network access. There are two options: **single** and **range**.

IP FILTER

IP ADDRESS FILTER Setting

Enable ip address filter

IPv4 Setting:

allow deny

address:

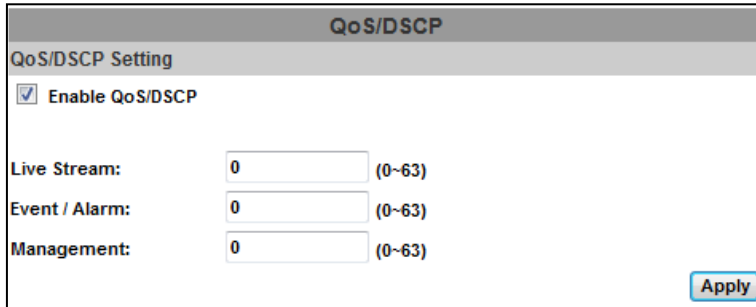
IPv4 List:

No.	IP Address	Filter	Action
1			<input type="button" value="remove"/>
2			<input type="button" value="remove"/>
3			<input type="button" value="remove"/>
4			<input type="button" value="remove"/>
5			<input type="button" value="remove"/>
6			<input type="button" value="remove"/>
7			<input type="button" value="remove"/>
8			<input type="button" value="remove"/>
9			<input type="button" value="remove"/>
10			<input type="button" value="remove"/>

Allow admin ip address always access this device

Admin ip address:

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

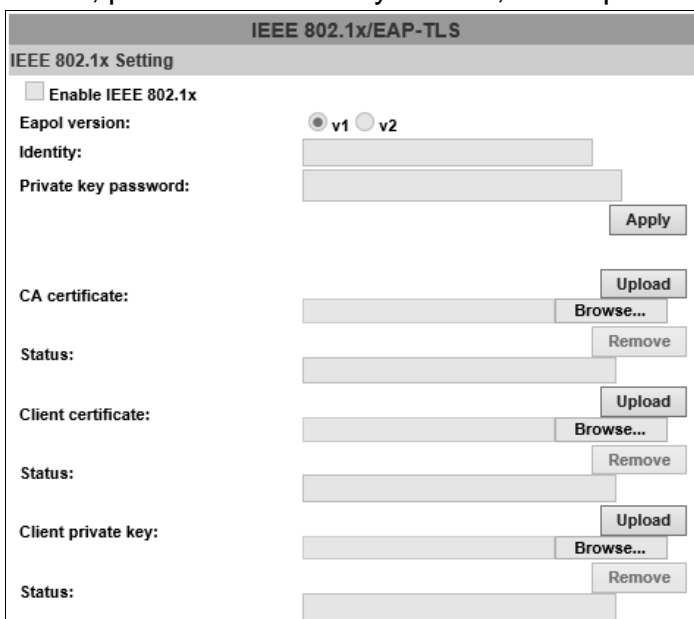


The screenshot shows the 'QoS/DSCP Setting' window. It has a title bar 'QoS/DSCP' and a sub-header 'QoS/DSCP Setting'. There is a checked checkbox for 'Enable QoS/DSCP'. Below this are three input fields: 'Live Stream:' with value '0' (range 0~63), 'Event / Alarm:' with value '0' (range 0~63), and 'Management:' with value '0' (range 0~63). An 'Apply' button is located at the bottom right.

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



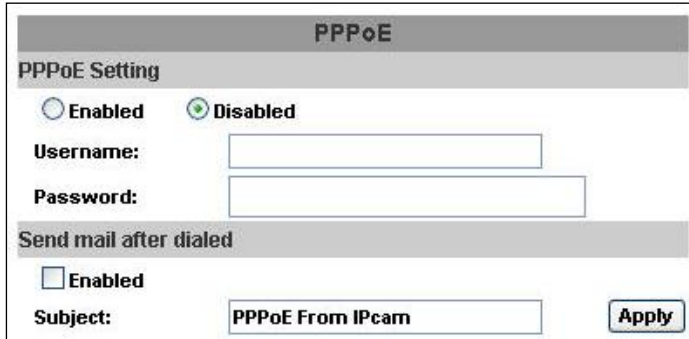
Please check what version supports the authenticator and authentication server. This camera supports EAP-TLS method. Enter the ID, password issued by the CA, then upload related certificates.



The screenshot shows the 'IEEE 802.1x/EAP-TLS' configuration window. It has a title bar 'IEEE 802.1x/EAP-TLS' and a sub-header 'IEEE 802.1x Setting'. There is an unchecked checkbox for 'Enable IEEE 802.1x'. Below this are two radio buttons for 'Eapol version:' with 'v1' selected. There are three input fields: 'Identity:', 'Private key password:', and 'Status:'. An 'Apply' button is to the right of the 'Private key password' field. Below these are three certificate sections: 'CA certificate:', 'Client certificate:', and 'Client private key:'. Each section has an 'Upload' button, a 'Browse...' button, and a 'Remove' button.

III. PPPoE & DDNS

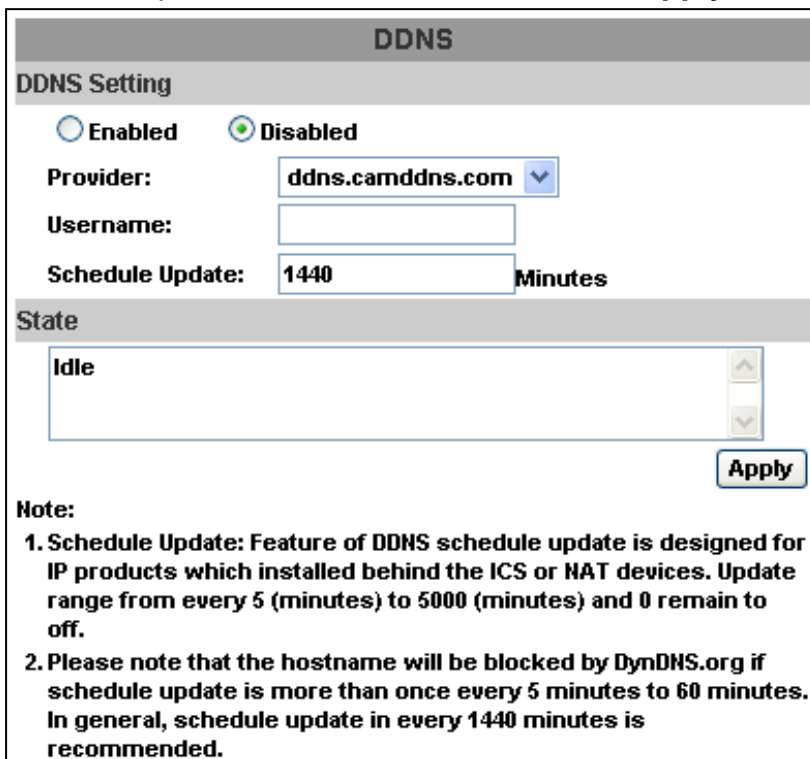
A. **PPPoE**: Select **Enabled** to use PPPoE. Key-in the the Username and password for ADSL connection.



The screenshot shows the 'PPPoE' configuration window. Under 'PPPoE Setting', the 'Disabled' radio button is selected. There are input fields for 'Username' and 'Password'. Below this, under 'Send mail after dialed', the 'Enabled' checkbox is unchecked. The 'Subject' field contains the text 'PPPoE From IPcam', and an 'Apply' button is visible at the bottom right.

Send mail after dialed: When connected to the internet, the camera will send a mail to a specific mail account.

B. **DDNS (camddns example)**: Enable this service→Input username→IP schedule update→Default: 5 minutes→Click **Apply**



The screenshot shows the 'DDNS' configuration window. Under 'DDNS Setting', the 'Disabled' radio button is selected. The 'Provider' dropdown menu is set to 'ddns.camddns.com'. There are input fields for 'Username' and 'Schedule Update', which is set to '1440' minutes. Below this, under 'State', a dropdown menu is set to 'Idle'. An 'Apply' button is at the bottom right. A 'Note' section at the bottom provides instructions: '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.' and '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.'

DDNS Status

(1) **Updating**: Information update

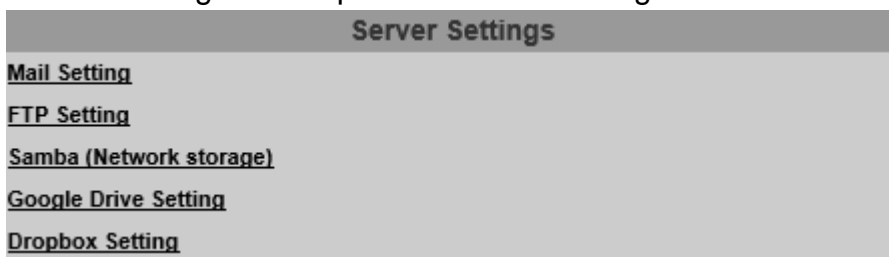
(2) **Idle**: Stop service

(3) **DDNS registration successful, can now log by**
<http://<username>.ddns.camddns.com>: Register successfully.

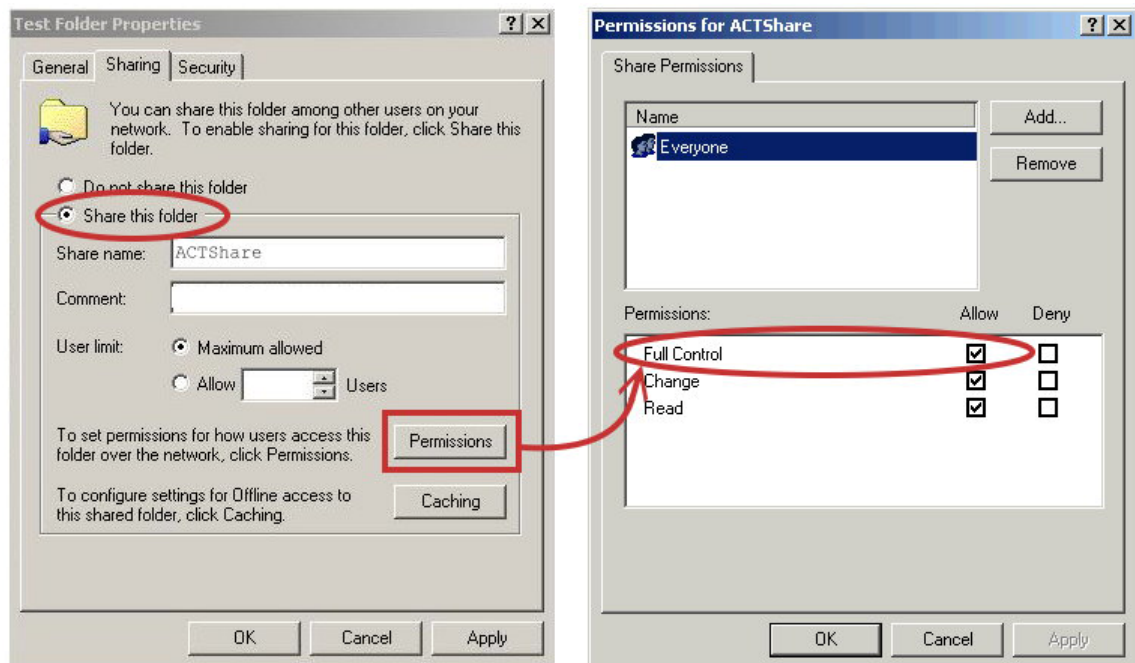
- (4) **Update Failed, the name is already registered:** The user name has already been used. Please change it.
- (5) **Update Failed; please check your internet connection:** Network connection failed.
- (6) **Update Failed, please check the account information you provided:** The server, user name, and password may be wrong.

IV. Server Settings

There are several server types available. Select the item to display detailed configuration options. You can configure either one or all of them.

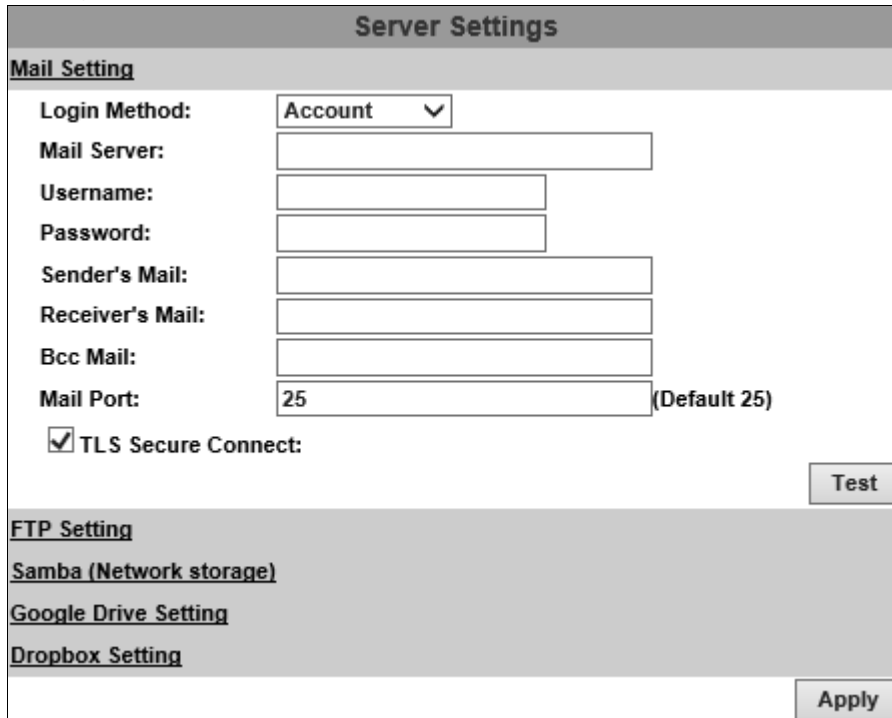


Click **Apply** to save settings at the bottom of **Server Settings**, then click **Test** icon to test the server connection. A message box will tell you **OK!** if it works, and a test document will be created in the location.



If the testing fails, check the sharing setting of your location folder. The folder properties must be **shared** and the permissions must be **Full Control**.

- A. Mail Setting:** To send out the video via mail of FTP, please set up the configuration first.



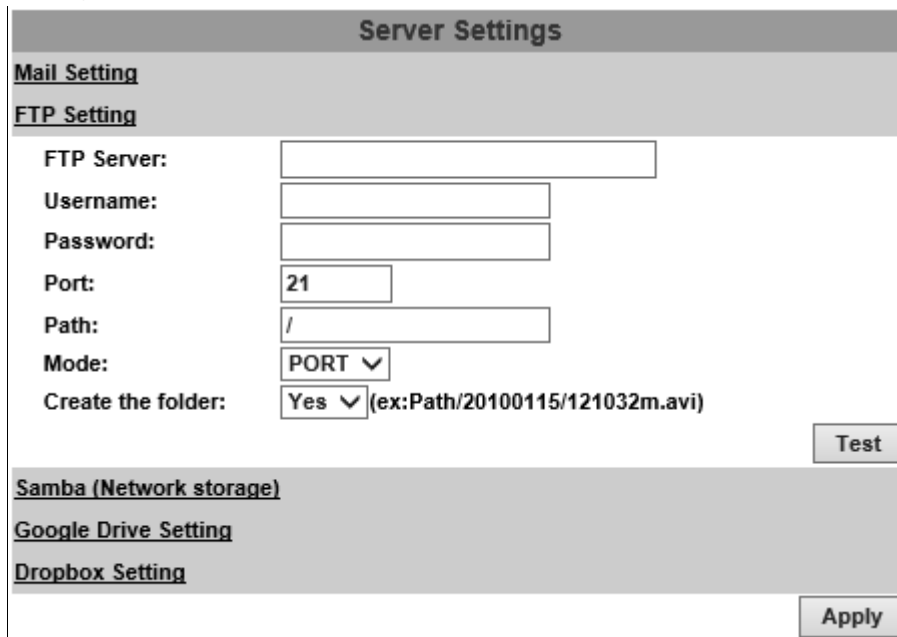
The screenshot shows the 'Mail Setting' section of the 'Server Settings' interface. It includes the following fields and options:

- Login Method:** Account (dropdown menu)
- Mail Server:** [Empty text box]
- Username:** [Empty text box]
- Password:** [Empty text box]
- Sender's Mail:** [Empty text box]
- Receiver's Mail:** [Empty text box]
- Bcc Mail:** [Empty text box]
- Mail Port:** 25 (text box) (Default 25)
- TLS Secure Connect:**

Buttons: **Test** (top right), **Apply** (bottom right)

Click **Apply** to confirm settings at the bottom of **Server Settings**, then click **Test** icon to test the server connection.

- B. FTP Setting:** To send out the video via mail of FTP, please set up the configuration.



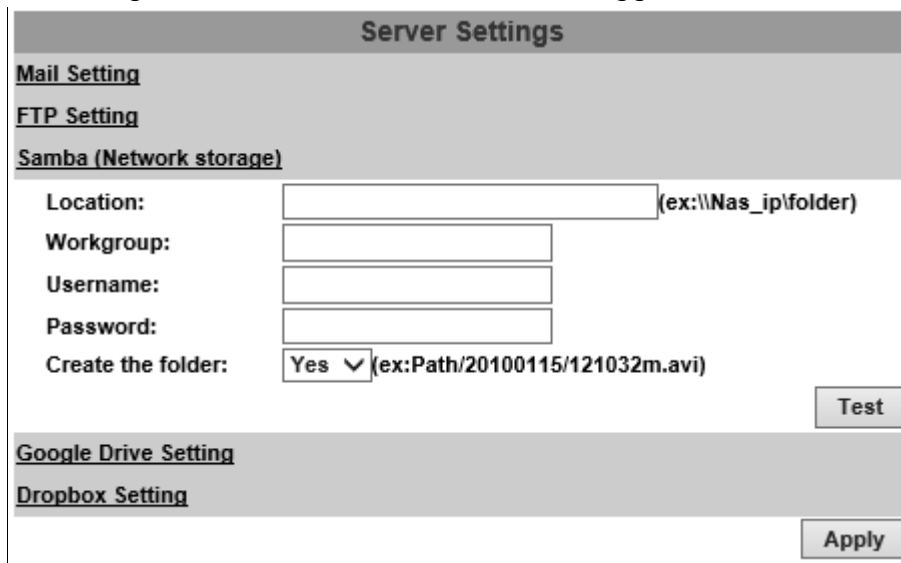
The screenshot shows the 'FTP Setting' section of the 'Server Settings' interface. It includes the following fields and options:

- FTP Server:** [Empty text box]
- Username:** [Empty text box]
- Password:** [Empty text box]
- Port:** 21 (text box)
- Path:** / (text box)
- Mode:** PORT (dropdown menu)
- Create the folder:** Yes (dropdown menu) (ex:Path/20100115/121032m.avi)

Buttons: **Test** (top right), **Apply** (bottom right)

Click **Apply** to confirm settings at the bottom of **Server Settings**, then click **Test** icon to test the server connection.

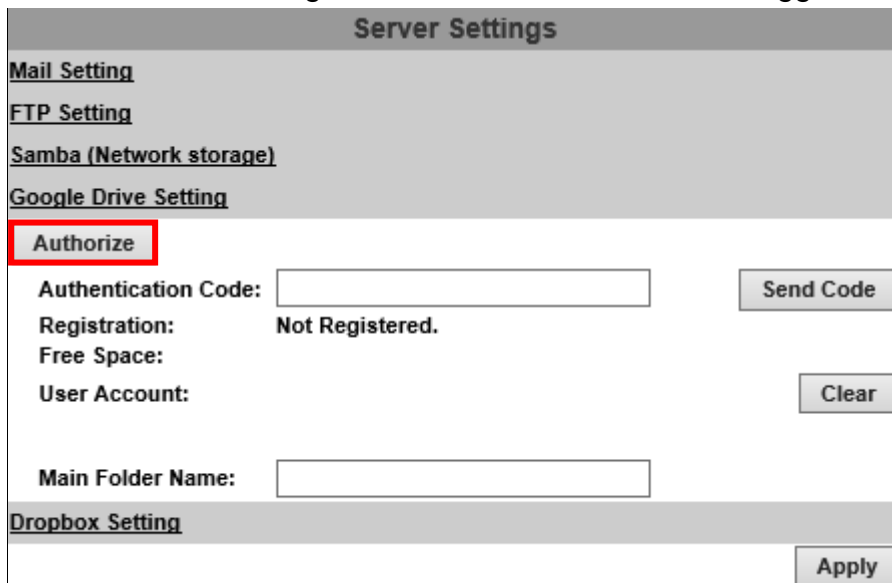
C. Samba (Network Storage): Select this option to send the media files via a neighbor network when an event is triggered.



The screenshot shows the 'Server Settings' window with the 'Samba (Network storage)' section selected. The fields are: Location (text input with example '(ex:\\Nas_ip\folder)'), Workgroup (text input), Username (text input), Password (text input), and Create the folder (dropdown menu with 'Yes' selected and example '(ex:Path/20100115/121032m.avi)'). There is a 'Test' button to the right of the 'Create the folder' field and an 'Apply' button at the bottom right of the window.

Click **Apply** to confirm settings at the bottom of **Server Settings**, then click **Test** icon to test the server connection.

D. Google Drive Setting: Select this option to send the media files unto the cloud server Google Drive whenever an event is triggered.



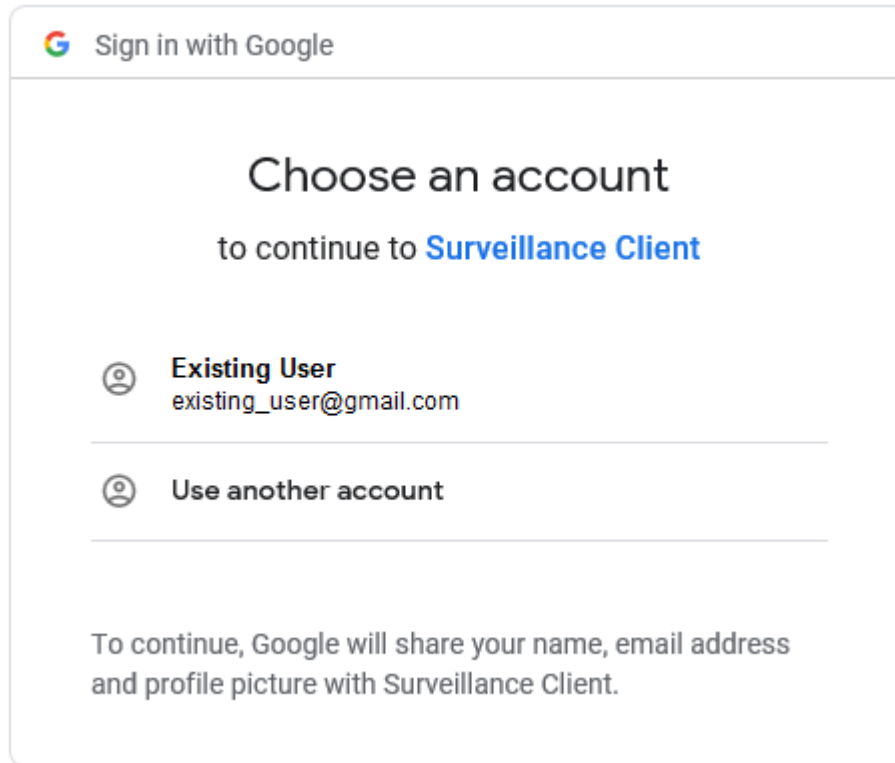
The screenshot shows the 'Server Settings' window with the 'Google Drive Setting' section selected. The 'Authorize' button is highlighted with a red box. Below it are: Authentication Code (text input with 'Send Code' button), Registration (text 'Not Registered.'), Free Space (text input), User Account (text input with 'Clear' button), and Main Folder Name (text input). There is an 'Apply' button at the bottom right of the window.

You will have to sign in to the [Google Drive](#) network before you start the operation. If you have not yet been a Google user, the [online registration](#) will be required, and you will need to [sign in](#) first as a Google account user.

Here are the steps:

Click **Authorize** to begin the online-registration operation.

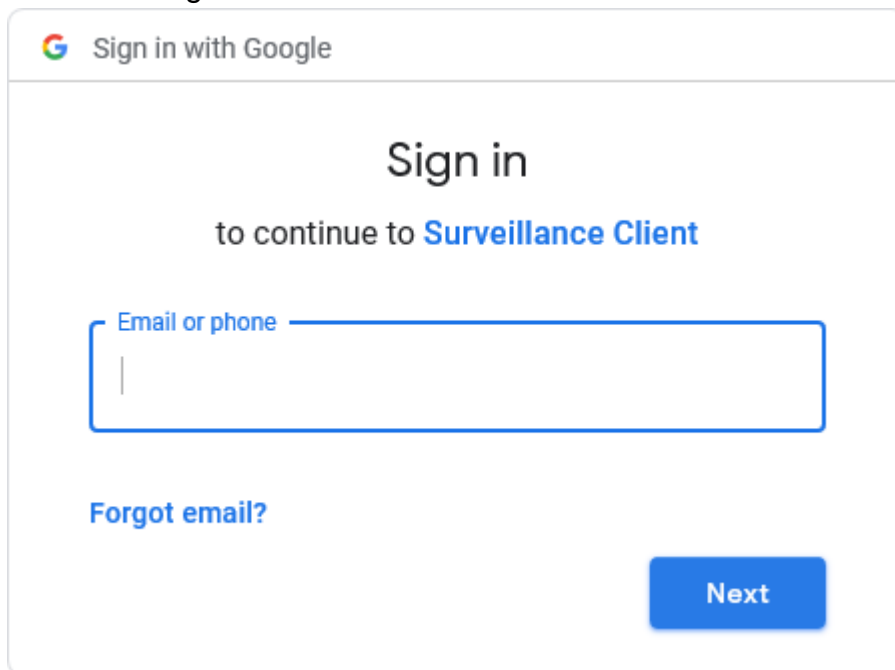
A window will pop up and require you to sign in for a Surveillance Client account directed by Google Drive server.



The screenshot shows a Google sign-in window titled "Sign in with Google". The main heading is "Choose an account" with the subtitle "to continue to Surveillance Client". There are two options: "Existing User" with the email "existing_user@gmail.com" and "Use another account". A disclaimer at the bottom states: "To continue, Google will share your name, email address and profile picture with Surveillance Client."

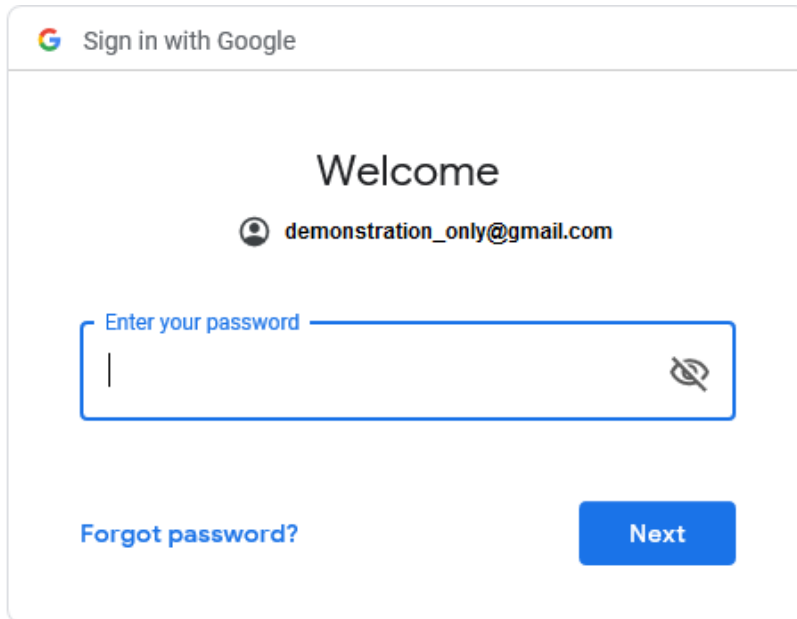
Choose **Existing User** to continue the operation if you have already owned a Google Drive account.

Otherwise, you may choose **Use another account** and sign in as another Google account user.



The screenshot shows a Google sign-in window titled "Sign in with Google". The main heading is "Sign in" with the subtitle "to continue to Surveillance Client". There is a text input field labeled "Email or phone" with a vertical cursor. Below the field is a link for "Forgot email?". A blue "Next" button is located at the bottom right.

Enter the password and click **Next**.



Sign in with Google

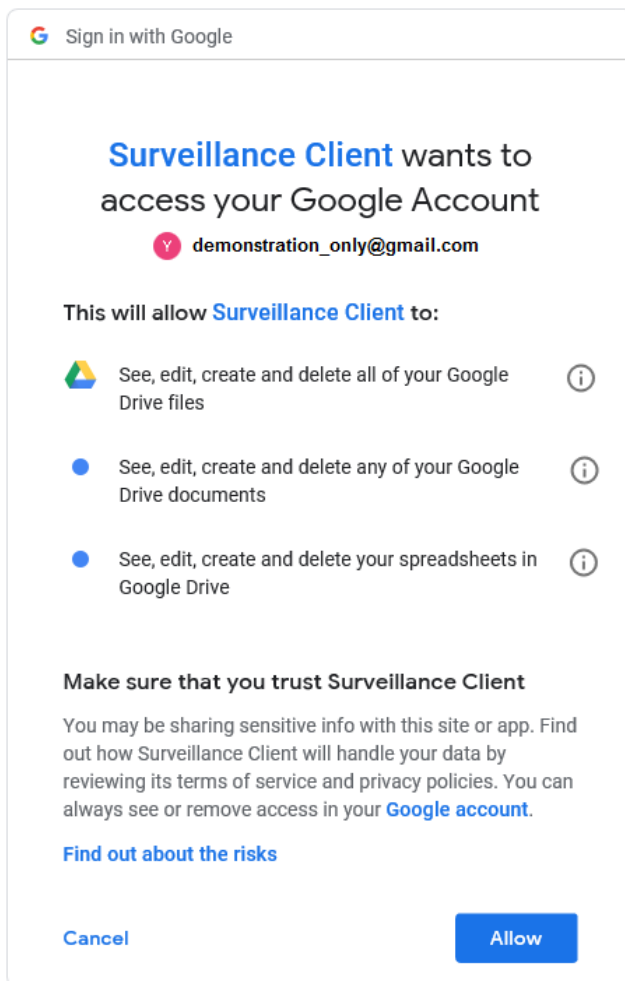
Welcome

demonstration_only@gmail.com

Enter your password

Forgot password? **Next**

Click **Allow**.



Sign in with Google

Surveillance Client wants to access your Google Account

demonstration_only@gmail.com

This will allow **Surveillance Client** to:

- See, edit, create and delete all of your Google Drive files
- See, edit, create and delete any of your Google Drive documents
- See, edit, create and delete your spreadsheets in Google Drive

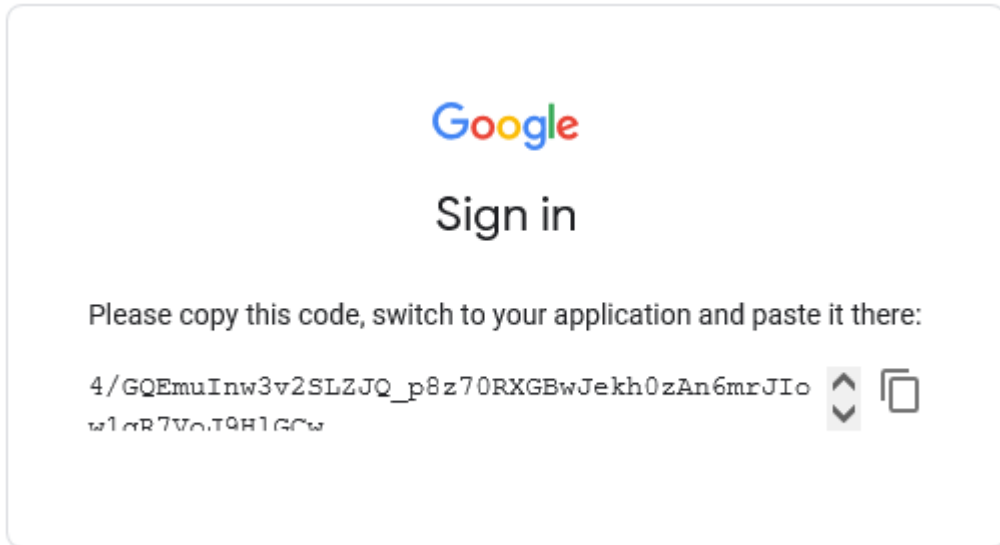
Make sure that you trust Surveillance Client

You may be sharing sensitive info with this site or app. Find out how Surveillance Client will handle your data by reviewing its terms of service and privacy policies. You can always see or remove access in your [Google account](#).

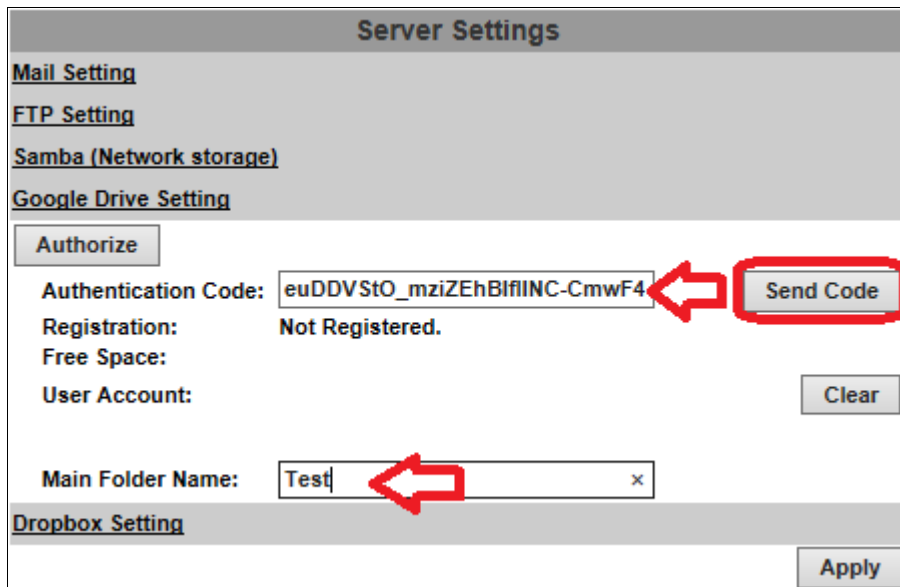
[Find out about the risks](#)

Cancel **Allow**

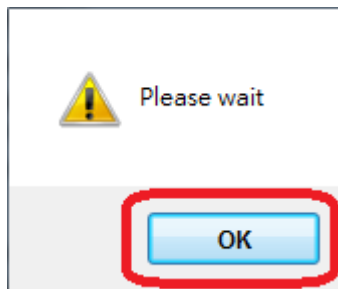
Authentication Code will be generated by Google server.



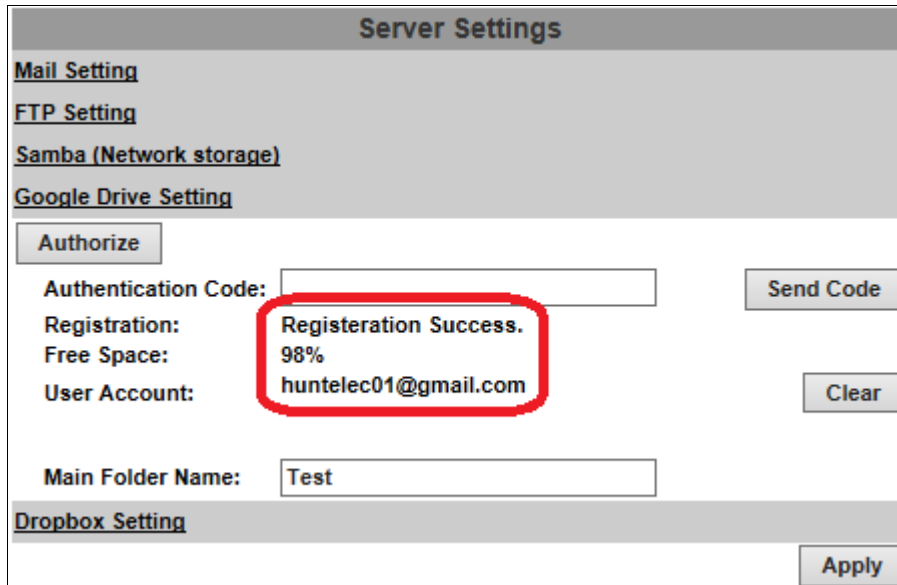
Paste the **Authentication Code** acquired from Google server in the required field, input the **Main Folder Name** of your preference and click **Send Code**.



Please wait for around 15 seconds before clicking OK.



If the application is successful, you will be able to see a list of status displayed, as circled in red in the demonstration image.



Server Settings

[Mail Setting](#)

[FTP Setting](#)

[Samba \(Network storage\)](#)

[Google Drive Setting](#)

Authentication Code:

Registration: **Registration Success.**

Free Space: 98%

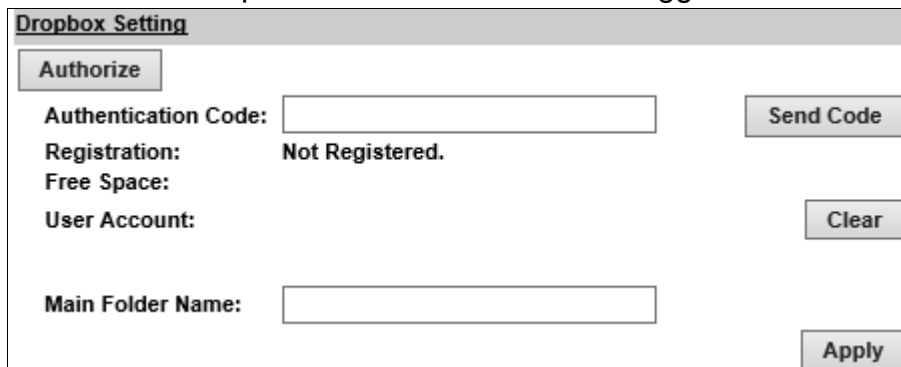
User Account: huntelec01@gmail.com

Main Folder Name:

[Dropbox Setting](#)

Click **Apply** to confirm settings at the bottom of **Server Settings**.
Click **Clear** to delete the current account registered for this server.

- E. Dropbox Setting:** Select this option to send the media files unto the cloud server Dropbox whenever an event is triggered.



Dropbox Setting

Authentication Code:

Registration: **Not Registered.**

Free Space:

User Account:

Main Folder Name:

You will have to sign in to the [Dropbox](#) network before you start the operation. If you do not own an account, you will also need to register one for free from the website.

If you have already created a Dropbox account, you may click **Authorize** to start the operation. A window from the Dropbox server will open to ask you for signing-in.

Enter **Authentication Code** in the required field and click **Send Code**.
Click **Clear** to delete the current account registered for this server.
Click **Apply** to confirm settings at the bottom of **Server Settings**.

V. Wireless Setting (Optional): Support 802.11 b/g/n

For setting up the IP camera via wireless network, first, use the Ethernet cable to connect the camera.

Wireless Setting			
Status of Wireless Networks			
SSID	Mode	Security	Signal Strength
H	Infrastructure	WPA2PSK/AES	86
IPCAM	Infrastructure	WPA2PSK/AES	45
000000000000	Infrastructure	WPA2PSK/AES	26
R	Infrastructure	WPA1WPA2PSK/AES	57
T	Infrastructure	WPA2PSK/AES	26
TEST	Infrastructure	WPA1WPA2PSK/TKIPAES	44
e	Infrastructure	WPA1WPA2PSK/TKIPAES	26
G	Infrastructure	WPA2PSK/TKIPAES	26
D	Infrastructure	WPA1WPA2PSK/TKIPAES	26

After finishing the wireless settings and saving them, remove the Ethernet cable.

Note: The IP address is the same under both wireless and wired network. If the Ethernet cable is plugged in the camera, the IP camera will use it to link to the Internet instead of the wireless router.

A. Status of Wireless Networks - Wireless Setting

The camera scans and shows the SSID, Mode, Security, and Signal strength of the wireless network.

Wireless Setting	
MAC Address:	00:0D:F0:64:27:AC
Mode:	Ad-hoc
Operation Mode:	Auto
SSID:	Default
Domain:	FCC (1~11Ch)
Channel:	6
Security:	None

Mode: **Infrastructure** mode is used to link to the wireless router. **Ad-hoc** mode is used to link to the PC directly.

Domain and **Channel** options appear only in the Ad-hoc mode.

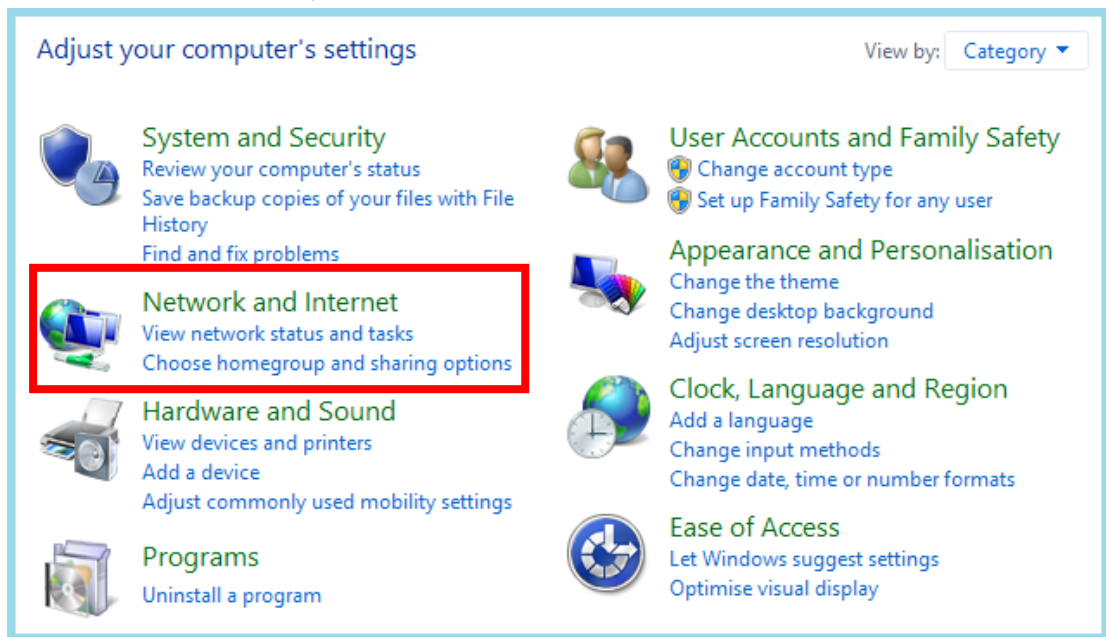
Ad-hoc is a short term derived from wireless ad hoc network, known as **WANET**. This type of network is only established temporarily, and does not rely on a pre-existing network through a router or Wireless Access Point.

B. How to connect to an ad-hoc Wi-Fi network in Windows 8.1

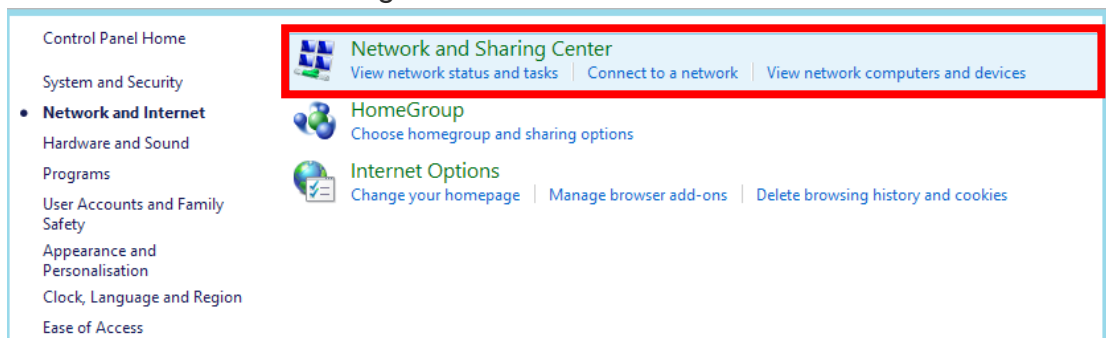
To make the Ad-hoc mode available, follow the steps below.

This is done manually. Note that this demonstration applies to Windows 8.1 since the Windows 8.1 system no longer shows Ad-hoc network in the Wi-Fi list. The following example is based on another type of IP camera.

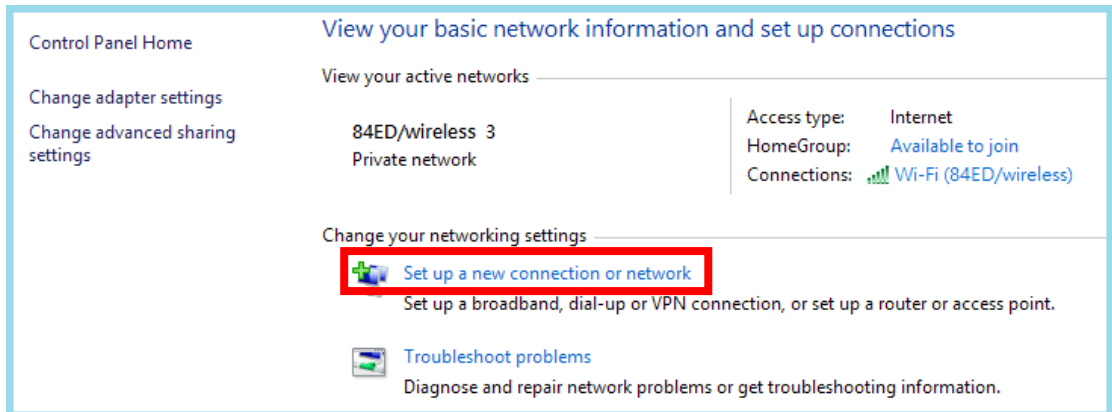
Go to “Control Panel”, then “Network and Internet”.



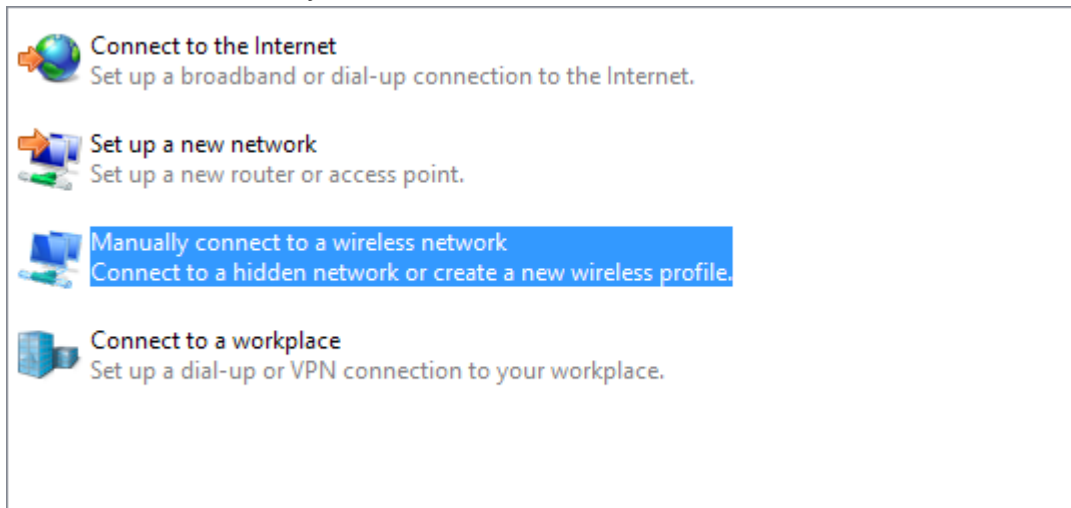
Click "Network and Sharing Center".



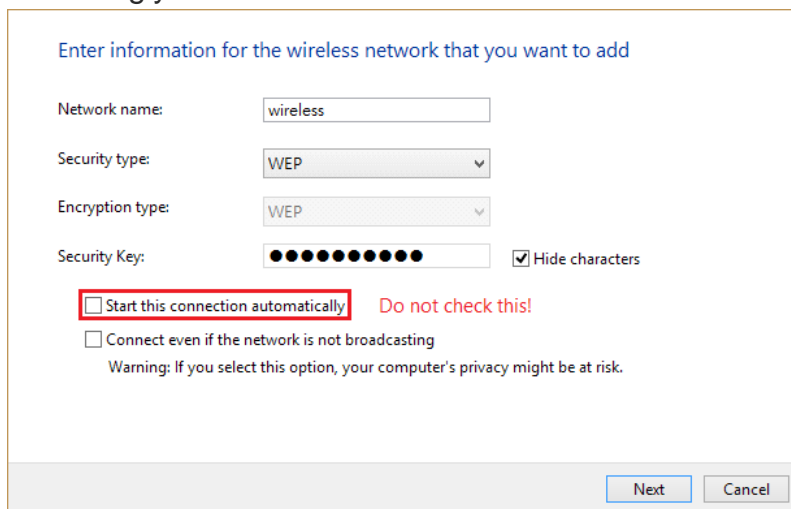
Click "Set up a new connection or network".



Double click "Manually connect to a wireless network".

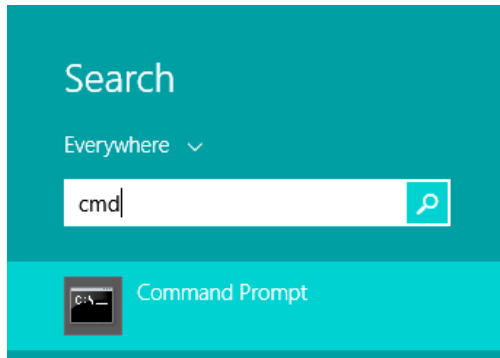


Enter the SSID of the ad-hoc network (as shown by "netsh wlan show networks") into the "Network name" field. Configure security settings accordingly.

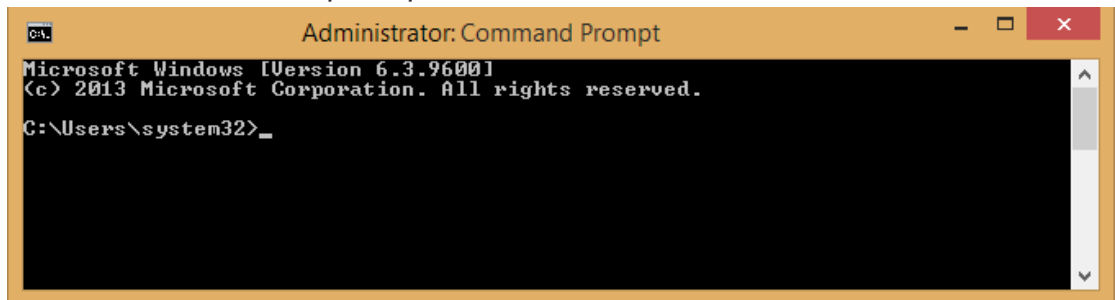


Make sure that "Start this connection automatically" is unchecked, click "Next", then "Close"

Open the search window (Windows key+Q) and search for "cmd"

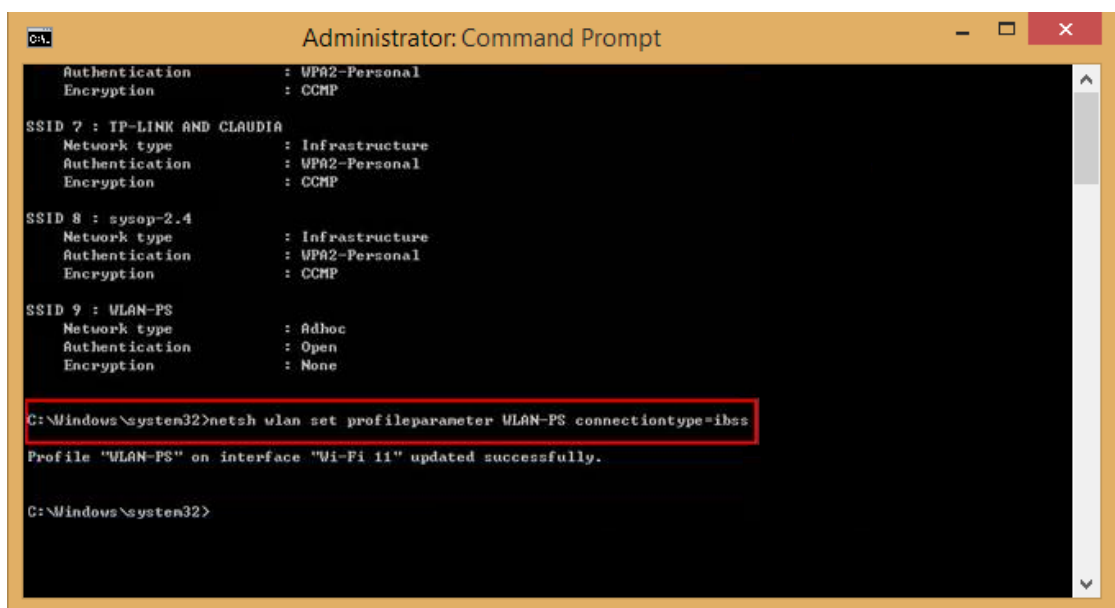


Run the command to open up a new window.

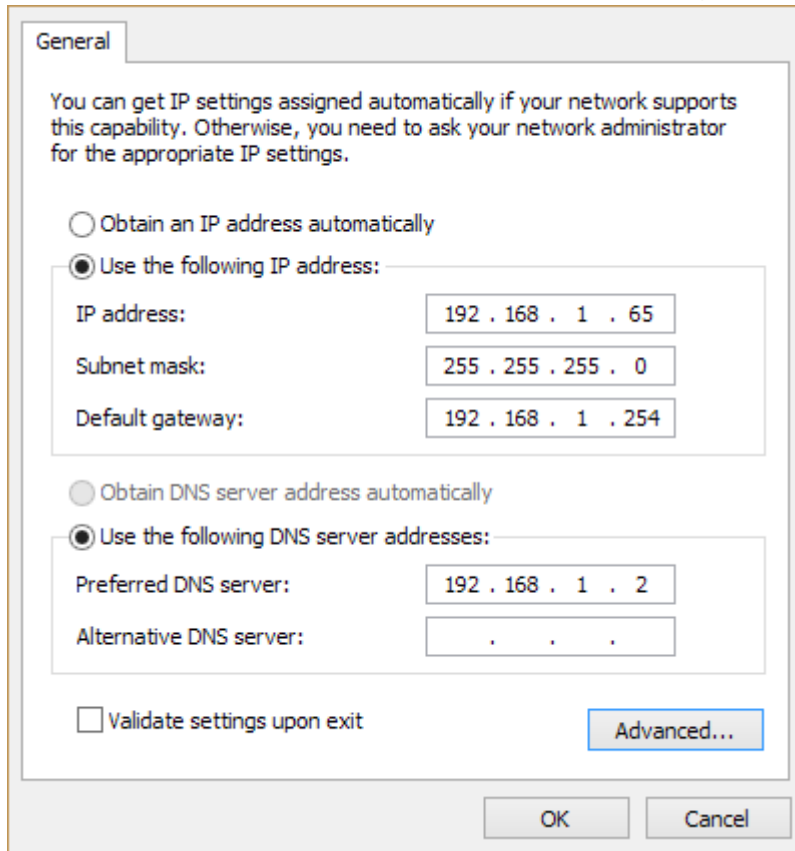


Enter the messages below.

- (1) > netsh wlan set profileparameter <ssid> connectiontype=ibss
- (2) > netsh wlan connect <ssid>



Now **Ad-hoc** mode is available after the IP settings completion.



General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

Obtain an IP address automatically

Use the following IP address:

IP address:

Subnet mask:

Default gateway:

Obtain DNS server address automatically

Use the following DNS server addresses:

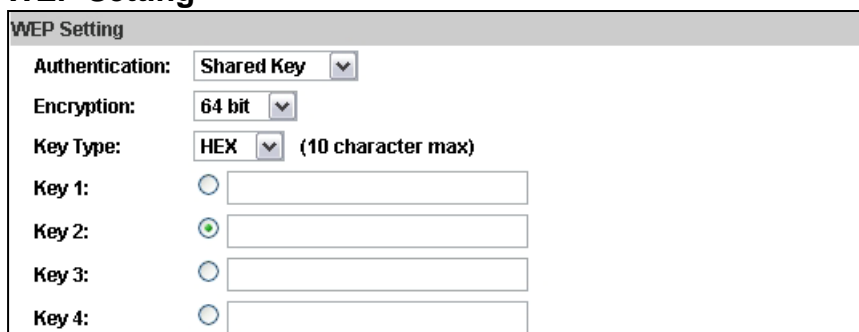
Preferred DNS server:

Alternative DNS server:

Validate settings upon exit

- **SSID:** The ID of the wireless network service.
- **Domain:** The wireless network standards are different in each region. Please select the wireless standard of you location. FCC is the American standard. ETSI is the European standard. JP is the Japanese standard.
- **Channel:** Assign a channel for the camera in order to avoid interference.
- **Security:** Select WEP, WPA-PSK, or WPA2-PSK according to your wireless router settings.

C. WEP Setting



WEP Setting

Authentication: ▼

Encryption: ▼

Key Type: ▼ (10 character max)

Key 1:

Key 2:

Key 3:

Key 4:

- **Authentication:** **Open System** or **Shared Key**, according to your wireless router.
- **Encryption:** The option determines the length of the key password. In **HEX** type, 10 characters are allowed if you select 64 bit; 26 characters are allowed if you select 128bit; In **ASCII** type, 5 characters are allowed if you select 64 bit; 13 characters are allowed if you select 128bit.
- **Key Type:** In **HEX** type, the key password can only be hexadecimal numbers. In ASCII type, the key password can be any letter and number. (Capital and lowercase letters are regarded as different.)
- **Key 1~4:** Key in the key password according to your wireless router setting. The length and type must be consistent with the settings above.



D. WPA-PSK/ WPA2-PSK Setting

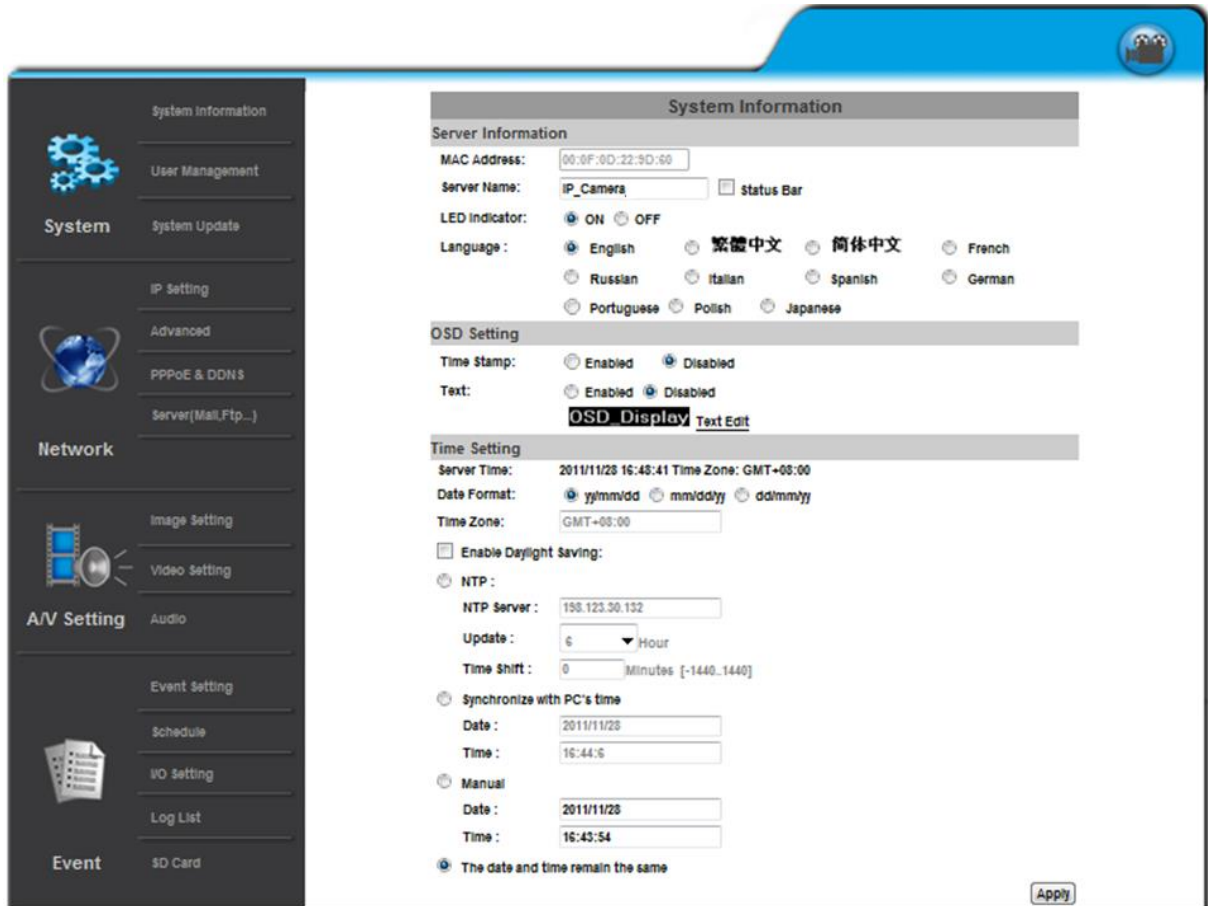
WPA-PSK Setting	
Encryption	TKIP <input type="button" value="v"/>
Pre-Shared Key:	<input type="text" value="23133690"/> (ASCII format, 8~63)

- **Encryption:** **TKIP** or **AES**, according to your wireless router.
- **Pre-Shared Key:** Key-in the key password according to your wireless router settings. Any letters and numbers are allowed. (Capital and lowercase letters are regarded as different.)

A / V Settings



Click  to get into the administration page. Click  to go back to the live video page.



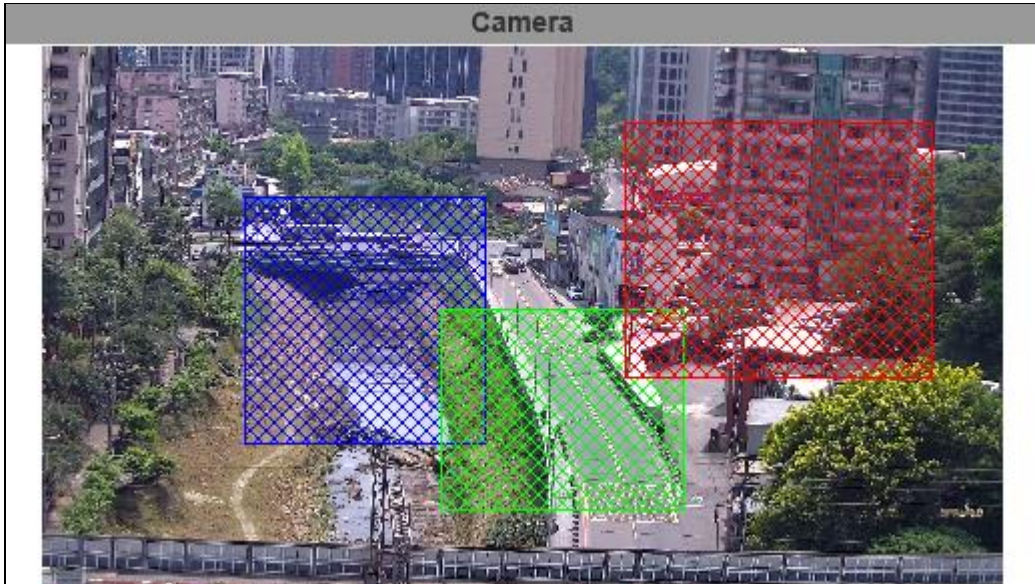
The screenshot displays the IP Camera web interface. On the left is a dark sidebar with navigation menus: System (System Information, User Management, System Update), Network (IP Setting, Advanced, PPPoE & DDNS, Server(Mail,Ftp...)), A/V Setting (Image Setting, Video Setting, Audio), and Event (Event Setting, Schedule, IO Setting, Log List, SD Card). The main content area is titled 'System Information' and contains the following settings:

- Server Information:** MAC Address: 00:0F:0D:22:9D:50; Server Name: IP_Camera; LED Indicator: ON; Language: English.
- OSD Setting:** Time Stamp: Disabled; Text: OSD_Display.
- Time Setting:** Server Time: 2011/11/28 16:48:41; Date Format: yy/mm/dd; Time Zone: GMT+08:00; NTP: 158.123.30.132; Synchronize with PC's time: 2011/11/28 16:44:56.

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

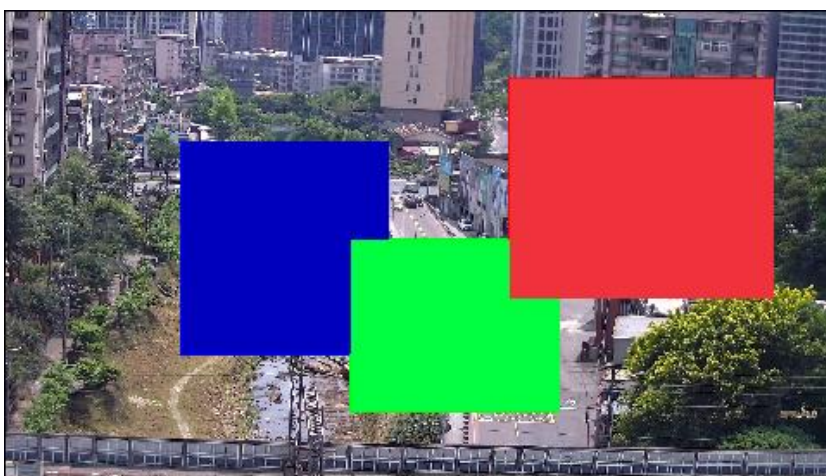
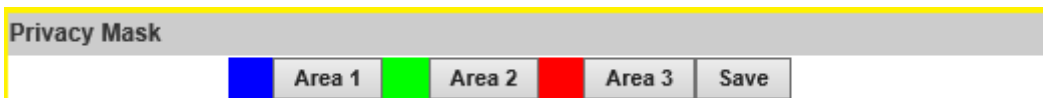
1. Image Setting

A. Camera: Previewing the result of the settings made in **Image Setting**.



Please refer to the details below for image settings:

B. Privacy Mask: An area on the monitoring screen can be masked as a block of particular color only in live view for security and privacy purposes, but will not be visible in the video recorded. You can create up to 3 privacy masks.



Click any **Area 1/2/3** button first, and then draw an area on the preview image screen with mouse. Click **Save** to apply settings and create the mask.

Click **Area 1/2/3** button again, and click **Save** to discard the masked area previously set.

C. Image Setting: Settings can be adjusted under **Day Profile & Night Profile** drop-down lists. Activate these profile settings by enabling **Times Mode** from **Day & Night**, the configurations from **both Day & Night Profiles** will be automatically adjusted between daytime and nighttime.

There are two types of **Image Setting** to switch with depending on what **Input Resolution** from **Video Setting** you have applied to the camera.

Input Resolution without WDR feature:

Video Setting		
Input Resolution:	1920x1080 @ 30fps	
Image Setting	Day Profile	Night Profile
Brightness:	0	0
Contrast:	0	0
Hue:	0	0
Sharpness:	0	0
D-WDR:	1 (Low)	1 (Low)
Denoise 3D:	2	2
Denoise 2D:	1	1
AGC:	64x	64x
Shutter Time:	Outdoor	Outdoor

Input Resolution with WDR feature:

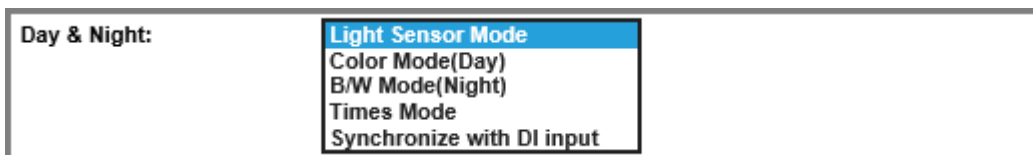
Video Setting		
Input Resolution:	1920x1080_WDR @ 30fps	
Image Setting	Day Profile	Night Profile
Brightness:	0	0
Contrast:	0	0
Hue:	0	0
Sharpness:	0	0
True WDR:	4	0 (Low)
Denoise 3D:	7	2
Denoise 2D:	6	1
AGC:	40x	40x
Shutter Time:	Outdoor	Outdoor
AE Strategymode:	Lowlight priority	

-
- a. **Brightness / Contrast / Hue / Sharpness**: Different values can be adjusted here.
 - b. **D-WDR**: It enables the camera to reduce the contrast in the view to avoid dark zones as a result of over & under exposure.
 - c. **True-WDR**: It enables the camera to combine the over & under exposures to smooth out dark zones for best image quality.
 - d. **Denoise 3D & 2D**: Filter the noise and blur from the image and show a clearer view. You can set the values for **3D & 2D** filters.
 - e. **AGC**: The sensitivity of the camera can be adjusted according to its environmental lighting. Enable this function to get brighter images on low light, but the level of noise may also increase.
 - f. **Shutter Time**: Choose the location of your camera or a fixed shutter time. The shorter the shutter time is the less light the camera receives and the image becomes darker.
Note: When you select a number in **Shutter Time**, the shutter time will vary in a range and be controlled by camera automatically. The following table shows the shutter time options and corresponding range.
 - g. **AE Strategymode**: Select **Lowlight Priority** or **Highlight Priority** to adjust the view in preference of lightening or darkening the contrast.

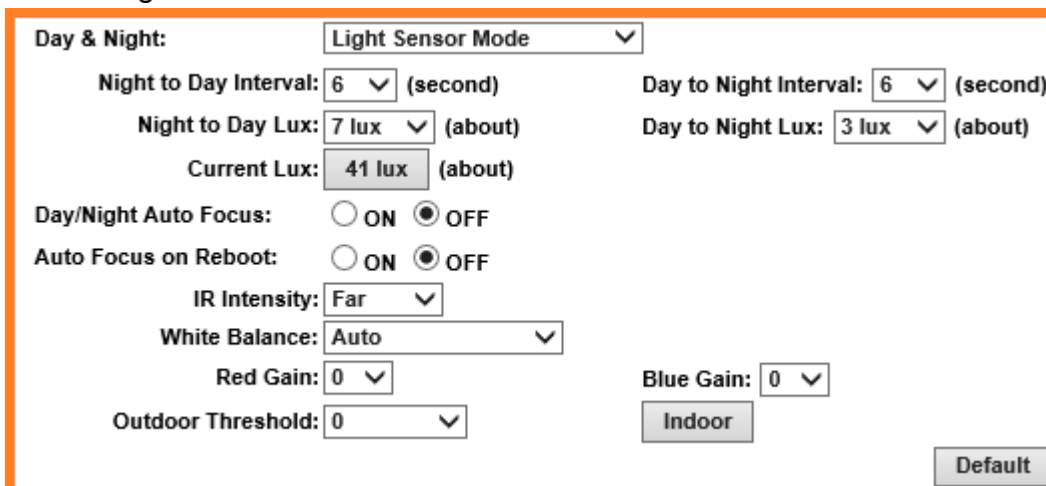
Sense-Up:	1/15 ▾
Saturation:	0 ▾
Low Lux Auto-adjust:	<input checked="" type="checkbox"/>
Anti Fog:	<input type="checkbox"/> Enable
Lens Distortion Correction:	Off ▾
Video Orientation:	<input type="checkbox"/> Flip <input type="checkbox"/> Mirror

- h. **Sense-Up**: This function increases the sensitivity of camera to get brighter image at night. The smaller value you select, the slower shutter speed becomes so that the image will get brighter, and moving subjects might be blurred.
 - i. **Saturation**: Adjust the saturation values here.
 - j. **Low Lux Auto-adjust**: Click to enable the camera to adjust its low lux level automatically in different lighting environments.
-

- k. **Anti Fog:** Improve the image clarity on environments presenting high levels of fog or smoke.
- l. **Video Orientation:** Flip or mirror the image.
- m. **Day & Night:** Select a mode from its drop-down menu and adjust the camera to detect the light level for different environments. Settings vary when modes are shifted. An extra sub-function may appear to be available after a setting is adjusted.



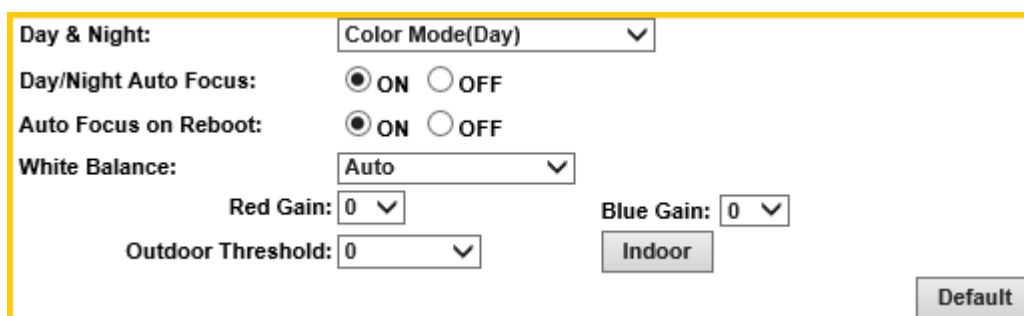
Light Sensor Mode: Automatically adjust itself depending on the light of the monitoring scene.



- ◆ **Night to Day Interval & Day to Night Interval:** Set up the duration of how long before the Day time shifts to Night time (or the other way around).
- ◆ **Day to Night Lux & Night to Day Lux:** Appoint desired lux values as a standard for switching Night to Day Interval & Day to Night Interval.
- ◆ **Current Lux:** Provided as a reference to adjust the Day to Night Lux & Night to Day Lux.
- ◆ **Day/Night Auto Focus:** Select ON to enable the camera to automatically adjust its focus to maintain a clear video image during the day / night time.
- ◆ **Auto Focus on Reboot:** Select ON to enable the camera to automatically execute the Day/Night adjustment after rebooting.
- ◆ **IR Intensity:** Adjust the IR intensity level from Far, Middle or Near.

- ◆ **White Balance:** Apart from **AUTO**, which continuously adjusts image color balance according to any change of lightings in various scenes, the other 5 modes are designed for specific lighting conditions such as **Tungsten Lamp, Fluorescent Lamp, Sunlight, Cloudy, and Cloudy Days**.
- ◆ **Red & Blue gain:** Adjust levels in red & blue contrasts in the image. Be aware that when these levels are increased, the image quality will become sharper to a point that noise of the image will also be increased.
- ◆ **Outdoor Threshold:** Values applied for this feature will define how sensitive the motion detection is triggered for outdoor scenes. The lower the number, the less motion will be conditioned for triggering.
- ◆ **Indoor:** Click to enable operation for any indoor motion detections.
- ◆ **Default:** Click on button to restore the default settings.

Color Mode: Recommended to use for daytime.



Day & Night: Color Mode(Day) ▾

Day/Night Auto Focus: ON OFF

Auto Focus on Reboot: ON OFF

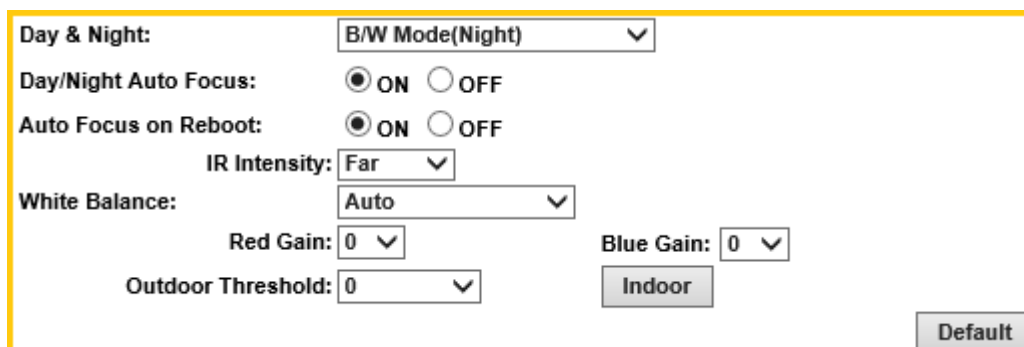
White Balance: Auto ▾

Red Gain: 0 ▾ Blue Gain: 0 ▾

Outdoor Threshold: 0 ▾

- ◆ Please refer to **Light Sensor Mode** for repeated functions.

B/W Mode: Recommended to use for nighttime.



Day & Night: B/W Mode(Night) ▾

Day/Night Auto Focus: ON OFF

Auto Focus on Reboot: ON OFF

IR Intensity: Far ▾

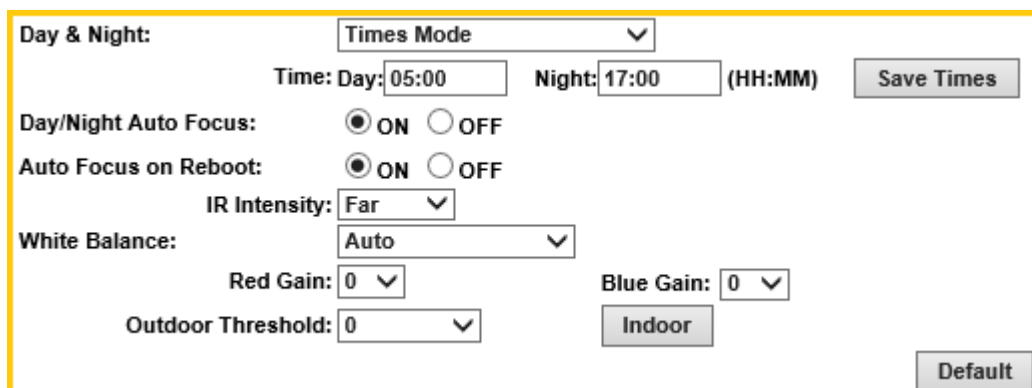
White Balance: Auto ▾

Red Gain: 0 ▾ Blue Gain: 0 ▾

Outdoor Threshold: 0 ▾

- ◆ Please refer to **Light Sensor Mode** for repeated functions.

Times Mode: Set the values in **Brightness, Contrast, Sharpness,** and **Denoise(3D&2D)** for both **Day Profile** and **Night Profile** to be performed according to the **Time** arranged from **Day** to **Night**.



- ◆ **Time:** The user can define when the daytime (**Day**) starts by filling in the digits such as 05:00 or 12:35. (Hours range: 0~23, minutes range: 0~59) Take the example below:

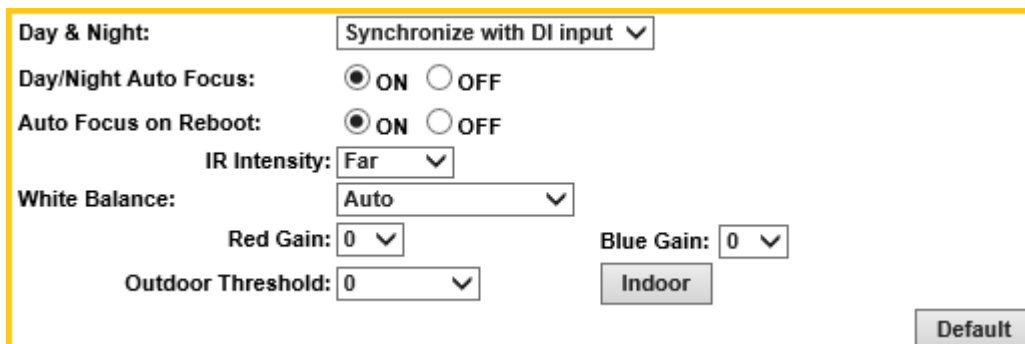
Time: Day: Night: (HH:MM)

If the time range is inaccurate, a window will pop up to remind you. Same way applies to filling the nighttime (**Night**).

Click when settings are completed.

- ◆ Please refer to **Light Sensor Mode** for repeated functions.

Synchronize with DI input: Settings are adjusted according to DI input functions.



- ◆ Please refer to **Light Sensor Mode** for repeated functions.

2. Video Setting

A. Video System

- **Input resolution:** Click to assign input resolution for captured video files. Features vary in FPS (frames-per-second) and will modify the options from **Image Setting**.

Input Resolution without WDR features:

Video Setting	
Input Resolution:	1920x1080 @ 30fps
Video System:	NTSC
TV Output:	Auto (Auto : Based on the Video System)
Corridor Mode:	none



Input Resolution with WDR features:

Video Setting	
Input Resolution:	1920x1080_WDR @ 30fps
Video System:	NTSC
TV Output:	Auto (Auto : Based on the Video System)
Corridor Mode:	none

- **Video System:** Choose from **NTSC** or **PAL** for video signal.
- **TV Output:** Choose Auto or select between **NTSC** and **PAL** signal.
- **Corridor Mode:** Set the degree of the camera angle for monitoring purpose. The relation of the image and the camera would be as the following:

Corridor mode: None

Degrees	Position	Image
0 degrees		
90 degrees		

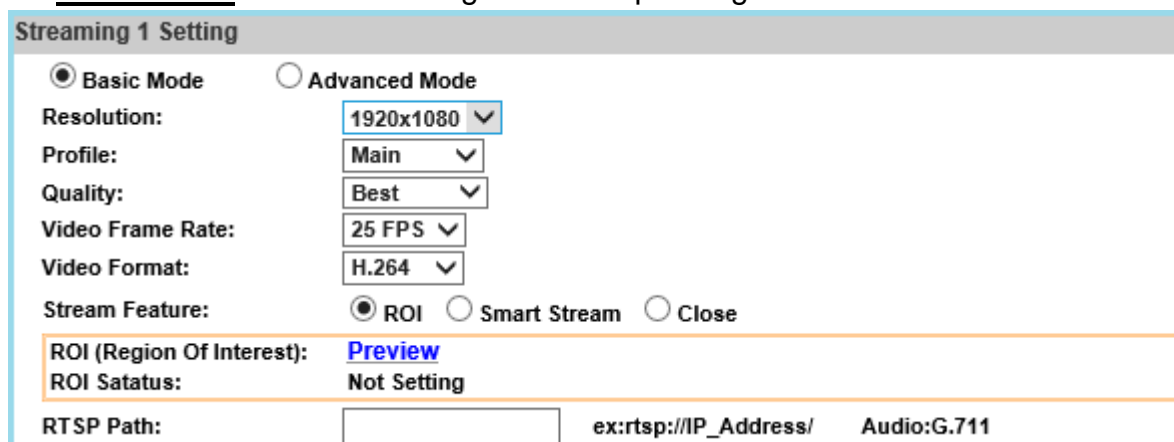
<p>270 degrees</p>		
------------------------	---	--

Corridor Mode: 90 or 270 degrees

Degrees	Position	Image
<p>90 degrees</p>		
<p>270 degrees</p>		
<p>0 degrees</p>		

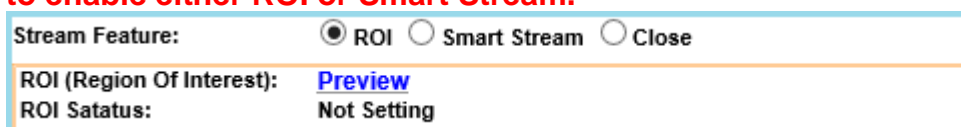
B. Streaming 1 Setting & Streaming 2 Setting

a. **Basic Mode:** Resolution range varies depending on different modes.



- **Resolution:** Choose a set for the camera resolution from **1920x1080@30fps**, **1280x720@30fps**, **640x480@30fps**, **320x240@30fps**
- **Profile:** Chose from **Main** or **Baseline** based on bandwidth consumption of the recorded video to be replayed for different applications.
- **Quality:** Levels vary from **Best**, **High**, **Standard**, **Medium** to **Low**. The higher the quality, the bigger the file size. Not ideal for internet transmission.
- **Video Frame Rate:** Adjust the video refreshing rate for each second.
- **Video Format:** Select from **H.264+**, **H.264** or **JPEG**
- **Stream Feature:** Select from the options for operating different features.

Note: You **MUST** click **at the bottom after selecting the feature to enable either ROI or Smart Stream.**

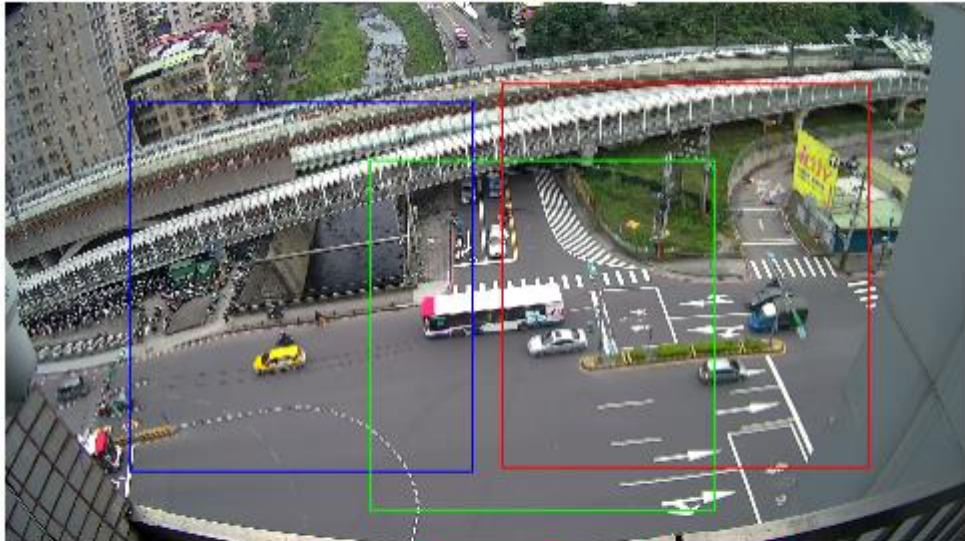


- **ROI (Region of Interest)**

This function helps refine any specific part of the monitoring area which can be dragged out with the mouse at a time, improving efficiency in image observation and management in video compression rate.

Click [Preview](#) to enable ROI the function. Click on any of the colors in **Area Setting** to draw an ROI area on the preview screen by dragging your mouse. You can set up to approximately 3 ROI areas.

ROI (Region Of Interest): ON OFF [Preview](#)



Area Setting: Area 1 Area 2 Area 3 Save

ROI Area Quality: 5 5 5

FPS of None ROI: 25 FPS (ROI FPS equals to Video Frame Rate)

Adjust the **ROI Area Quality** and **FPS of None ROI** values of each area from each drop down list.

You can see the **ROI Status** once **ROI** is activated.

Stream Feature: ROI Smart Stream Close

ROI (Region Of Interest): [Preview](#)

ROI Status: Area1_ON,Area2_ON,Area3_ON,FPS of None ROI=5,ROI Area Quality=Best

- **Smart Stream:** Enable this mode, set the range of FPS and Bitrate to limit its stream capacity, in order to preserve a better performance of image quality and save more bandwidth.

Stream Feature: ROI Smart Stream Close

Smart Stream FPS: 3 FPS

Smart Stream Bitrate: 512Kbps

- **RTSP Path:** Offers the RTSP output connecting path.

b. Advanced Mode: Resolution range varies depending on different modes.

Streaming 1 Setting

Basic Mode **Advanced Mode**

Resolution:

Profile:

Bitrate Control Mode: CBR **CVBR**

Video Quantitative:

Video Bitrate Limit:

Video Frame Rate:

GOP Size: GOP = 25

Video Format:

Stream Feature: **ROI** Smart Stream Close

ROI (Region Of Interest): [Preview](#)

ROI Satatus: Not Setting

RTSP Path: ex:rtsp://IP_Address/ Audio:G.711

- **Resolution:** Choose the resolution of the video image from **1920x1080@30fps**, **1280x720@30fps**, **640x480@30fps**, **320x240@30fps**
- **Profile:** Chose from **Main** or **Baseline** based on bandwidth consumption of the recorded video to be replayed for different applications.
- **Bitrate Control Mode:** There are **CBR**(Constant Bit Rate) and **CVBR**(Constrained Variable Bit Rate) modes.
 - **CBR: Video Bitrate Limit: (32Kbps~8Mbps)**
The higher the CBR is, the better the video quality is.
 - **CVBR: Video Quantitative: 1(Low) ~10(High)**
The higher the compression rate, the lower the picture quality is; vice versa. Avoid image breaking up or lagging by setting the bandwidth limit for CVBR streaming.
- **Video Frame Rate:** The video refreshing rate per second.
- **GOP Size:** It means "Group of Pictures". The higher the GOP is, the better the quality is.
- **Video Format:** H.264+, H.264 or JPEG
- **Stream Feature:** Select from the options for operating different features.

Note: You MUST click at the bottom after selecting the feature to enable either ROI or Smart Stream.

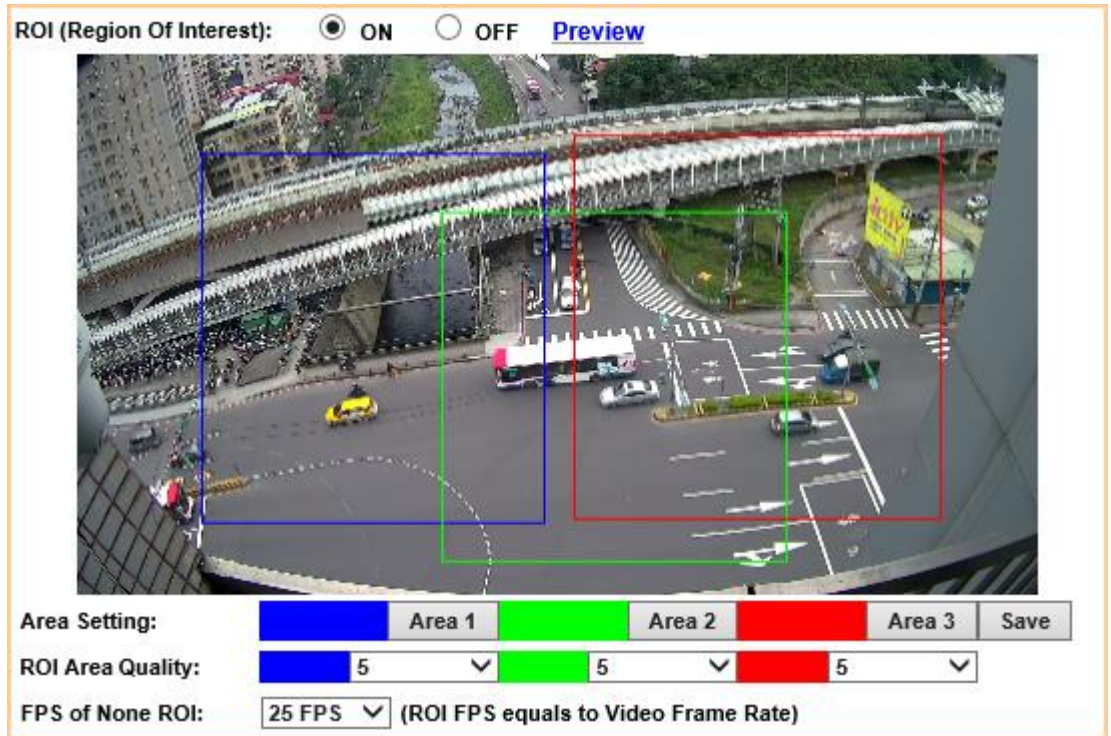
Stream Feature: **ROI** Smart Stream Close

ROI (Region Of Interest): [Preview](#)

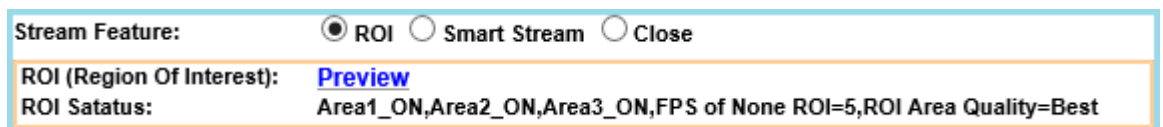
ROI Satatus: Not Setting

- **ROI (Region of Interest)**

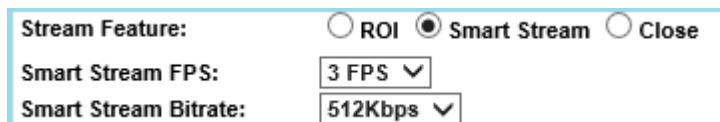
This function helps refine any specific part of the monitoring area which can be dragged out with the mouse at a time, improving efficiency in image observation and management in video compression rate.



Click [Preview](#) to enable ROI the function. Click on any of the colors in **Area Setting** to draw an ROI area on the preview screen by dragging your mouse. You can set up to approximately 3 ROI areas. Adjust the **ROI Area Quality** and **FPS of None ROI** values of each area from each drop down list. After the **ROI** is set in the **Stream Feature**, you can see the **ROI Status** once **ROI** is activated.



- **Smart Stream**



Enable this mode, set the range of FPS and Bitrate to limit its stream capacity, in order to preserve a better performance of image quality and save more bandwidth.

- **RTSP Path:** Offers the RTSP output connecting path.

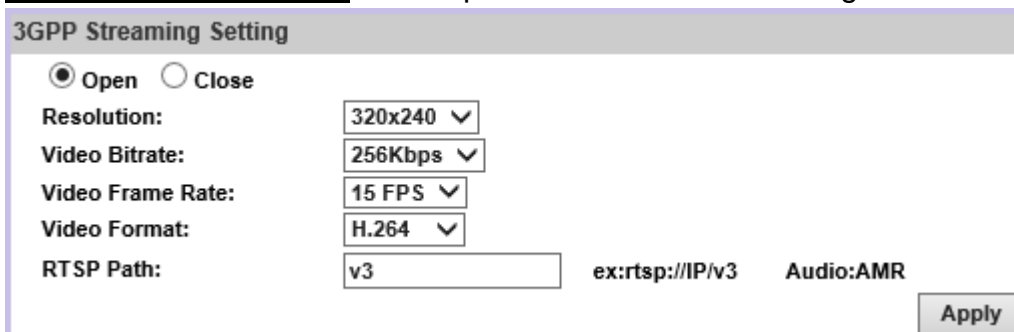
C. **Snapshot Setting:** Select the image quality from 1(Low) ~10(High).



Snapshot Setting

Quality: 8

D. **3GPP Streaming mode:** TV output will be shut down during this mode.



3GPP Streaming Setting

Open Close

Resolution: 320x240

Video Bitrate: 256Kbps

Video Frame Rate: 15 FPS

Video Format: H.264

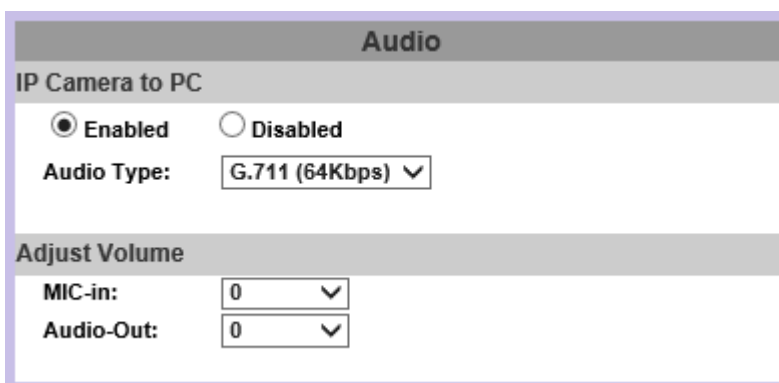
RTSP Path: v3 ex:rtsp://IP/v3 Audio:AMR

Apply

- Resolution:** 640x480@15fps, 320x240@15fps
- Video Bitrate:** The higher Video Bitrate, the better the video quality is.
- Video Frame Rate:** The video refreshing rate per second.
- Video Format:** H.264+, H.264
- RTSP Path:** Offers the RTSP output connecting path.

Please click on the  button to keep the changes when all the settings are completed and confirmed.

3. Audio



Audio

IP Camera to PC

Enabled Disabled

Audio Type: G.711 (64Kbps)

Adjust Volume

MIC-in: 0

Audio-Out: 0

The user can send audio from the IP Camera built-in microphone to the remote PC and audio from remote PC to IP Camera's external speaker.

A. **IP Camera to PC:** Select **Enabled** to start and select the audio type. Tick **chatting** in the live browser to enable **PC to IP Camera** audio function.

The Audio may not be smooth when the SD card is recording.

Chatting:

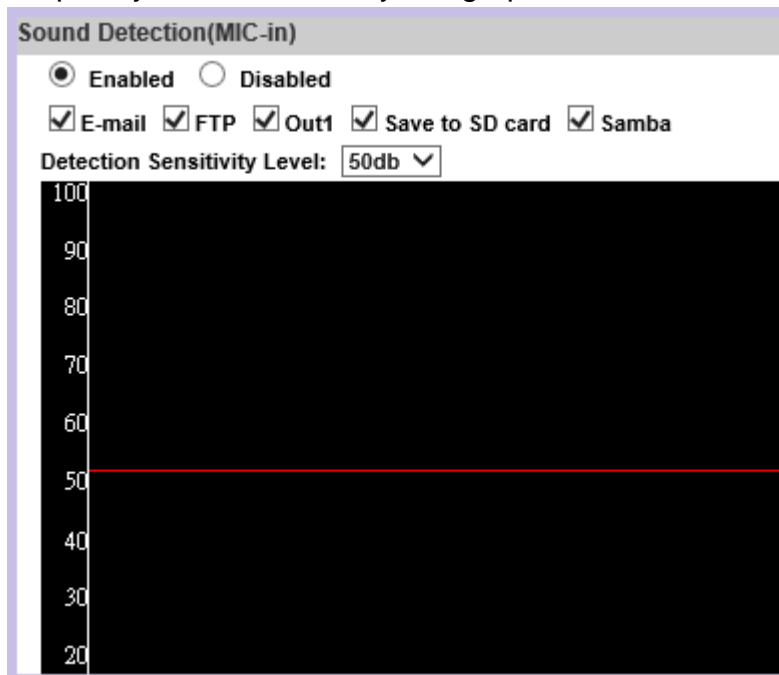
Online Visitor : 1

B. Adjust Volume: Select the volume of both **Mic-in** & **Audio-out**.



Click on the button to keep all the changes.

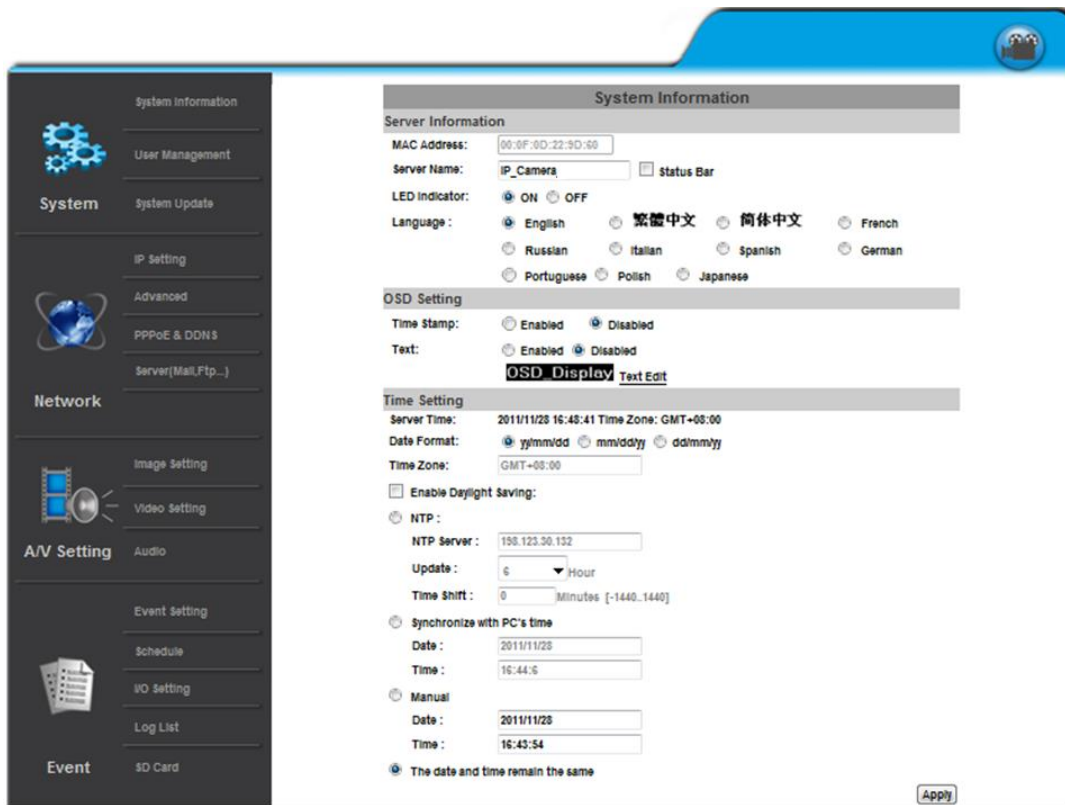
C. Sound Detection: Test the audio volume and sound quality first by selecting **Enabled**. Tick the output destination of the audio file recorded.

Adjust the **Detection Sensitivity Level** from 40~90db to display the audio frequency level in the analytical graph below.



Event List

Click  to get into the administration page. Click  to go back to the live video page.



The IP Camera provides multiple event settings.

1. Event Setting

Please change default password is a sign which appears on the preview screen as a reminder, to suggest you change login settings in [System](#) to secure your account privacy.

A. Motion Detection

A motion detection operation allows user to define a certain area which detects anything moving or changing its position within. It helps user to target on details inside a smaller picture, and effectively identify various surroundings of the monitored environment.



Whenever a motion is detected inside the framed area, the word **Motion!** will appear on live screen, and the data of notification can be sent to assigned directory for remote user.



Area Setting:	<input checked="" type="checkbox"/> Area 1	<input checked="" type="checkbox"/> Area 2	<input checked="" type="checkbox"/> Area 3
Sensitivity:	<input type="checkbox"/> 5	<input type="checkbox"/> 5	<input type="checkbox"/> 5
<input checked="" type="checkbox"/> Area 1:	<input checked="" type="checkbox"/> E-mail	<input type="checkbox"/> FTP	<input type="checkbox"/> Out1
<input type="checkbox"/> Area 2:	<input type="checkbox"/> E-mail	<input checked="" type="checkbox"/> FTP	<input checked="" type="checkbox"/> Out1
<input type="checkbox"/> Area 3:	<input type="checkbox"/> E-mail	<input type="checkbox"/> FTP	<input checked="" type="checkbox"/> Out1
Log :	<input checked="" type="checkbox"/> E-mail	<input checked="" type="checkbox"/> FTP	<input checked="" type="checkbox"/> Samba
Subject:	<input type="text" value="IP Camera Warning!"/>		
Interval:	<input type="text" value="10 sec"/> a period of time between every two motions detected.		
<input checked="" type="checkbox"/> Based on the schedule			

- **Area Setting:** Click any of the Area 1 Area 3 Area 2 icons to start drawing 3 areas on the preview screen with your mouse in 3 different colors. Click any **Area** icon again to discard the motion area which has been made.
- **Sensitivity:** Adjust the level of the responsiveness defined as motion detection. The higher number assigned, the more sensitive, vice versa.
- **Area 1/2/3:** Data of events triggered within the motion area can be assigned by marking the checkboxes of the source and destination. For example, if you mark the **Save to SD card** checkbox from **Area 3**, the video or snapshot triggered in **Area 3** motion area will be saved to the **Micro SD card**.
- **Log:** Popped up after **Save to SD card** checkbox is ticked by your mouse. Check **E-mail/ FTP/ Samba** checkboxes on the **Log** option to send the motion detection log to **E-mail/ FTP/ Samba** simultaneously.
- **Subject:** Type in the message you would receive when motion is detected. The default message is “**IP Camera Warning!**”.
- **Interval:** For example, when selecting **10 sec**, once the motion is detected and the action is triggered, it cannot be triggered again within 10 seconds.
- **Based on the schedule:** Assign the timetable managed from **Schedule** to enable motion detection after the option checkbox is ticked.

B. Tampering Detection

Tampering Detection

Tampering: Enabled Disabled

E-mail FTP Out1 Save to SD card Samba

Interval: ▼

When the camera view is covered, moved, hit by strong light, or out of focus, the tampering detection will be triggered, and send snapshot to mail/FTP/Samba/SD card, or trigger the external alarm. For example:

Before Tampering Detection



Tampering Triggered (Defocused)



Before Tampering Detection



Tampering Triggered (Lens Covered)



Before Tampering Detection



Tampering Triggered (Glare)



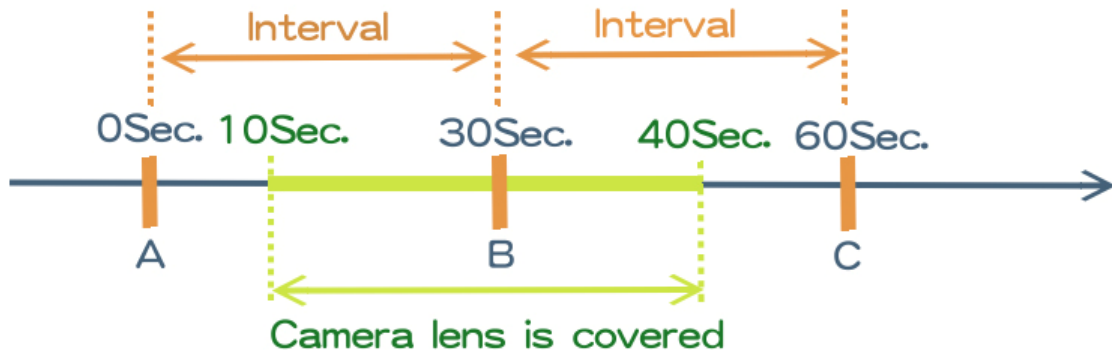
Before Tampering Detection



Tampering Triggered (Camera Moved)



- **Interval:** The tampering detecting interval. Take the diagram below as example. The interval is set for 30 second; the camera lens is covered during 10 - 40 sec. At time point B, the camera compares the view with time point A, and sends an alarm when it finds that the lens is covered. At time point C, the camera compares the view with time point B, and sends an alarm when it finds that the lens is uncovered.



C. Record File

Record File	
File Format:	AVI File(with Record Time Setting) ▼

When an event occurs, the IP camera will record a video clip or take snapshot, and then send to mail/ FTP/ Samba. Select the file format to be saved.

- **AVI File (with Record Time Setting):** Save AVI video file. The video length is according to the value set in Record Time Setting.
- **JPEG Files (with Record Time Setting)*Only Streaming 1 with JPEG file format.:** Only when selecting "JPEG" in streaming 1 video format of Video Setting, this option can be enabled. Select this option to save several JPEG picture files. The successive picture files cover a period of time according to the value set in Record Time Setting.
- **JPEG File (Single File with Interval Setting):** Save single JPEG picture file when the event occurs.

D. Record Time Setting

Record Time Setting			
Pre Alarm:	5 sec ▼	Post Alarm:	5 sec ▼

When an event occurs, the IP camera can record a video clip or take a snapshot, and then send it via mail/ FTP/ Samba. Select the video recording length before and after the event is detected.

Motion Detection

Area 3: E-mail FTP Out1 Save to SD card Samba Google Drive Dropbox

Subject: IP Camera Warning!

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

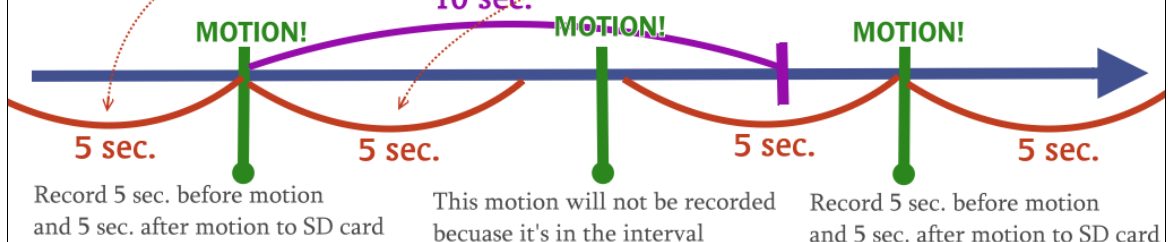
Based on the schedule

Record File

File Format: AVI File(with Record Time Setting)

Record Time Setting

Pre Alarm: 5 sec Post Alarm: 5 sec



Record 5 sec. before motion and 5 sec. after motion to SD card

This motion will not be recorded because it's in the interval

Record 5 sec. before motion and 5 sec. after motion to SD card

E. Network Dis-connected:

Network Dis-connected

Dis-connected: Save to SD Card

(When Schedule Record Enable, it'll stop saving to SD card)

The IP Cam will scan the network. The image will be recorded to the SD card after the IP Camera detects network dis-connected, if set "Save to SD card".

F. Network IP Check:

Network IP Check

IP Check: Enabled Disabled

IP Address: www.google.com

Interval: 30 sec

Check failed: Connection failed four times. Reboot IP Camera.

Save to SD card

(When Schedule Record Enable, it'll stop saving to SD card)

(When IP check failed, first step will save to SD card, continuing other saving storage)

Apply

After enabling IP Check, the IP camera can check if the network server is connecting. If the IP camera checking fails for 4 times, the camera will reboot.

Click to update all the settings adjusted.

2. Schedule

A. Schedule: Tick the grids on the calendar to manage your schedule time.

Schedule

Profile1

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.

Profile:

Profile1 Name:

- **Profile:** Select a Profile from the drop down list.
- **Profile(1,2,3) Name:** Input & assign a profile name for each profile.

Schedule

Profile2

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.

Profile:

Profile2 Name:

Schedule

Profile3

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.

Profile:

Profile3 Name:

B. Snapshot & Record

- **Record:** After completing the **Schedule**, the camera data will be recorded according to the schedule made from the calendar.

Snapshot & Record

Record
 Snapshot
 Close

Record

Save to SD card
 Disabled

Record Memory:

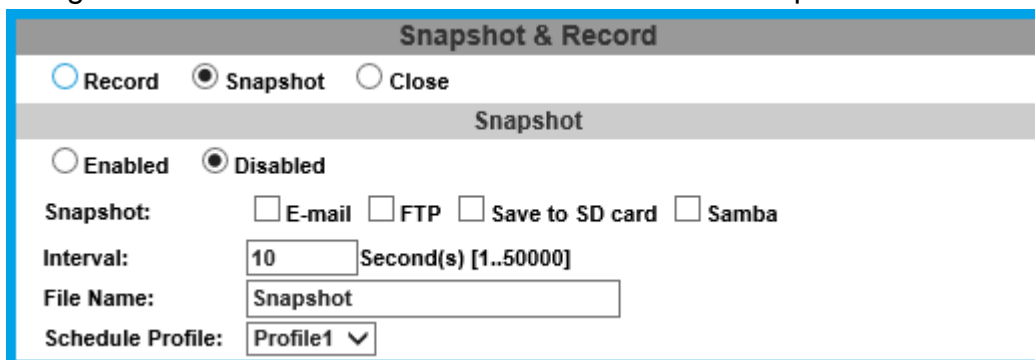
Schedule Profile:

Beware that SD cards may fail in time for being recorded for a long period of time. You may set up how much you would like the SD card memory to be used in order to estimate the right time to swap a new one.

Assign the **Schedule Profile** time selected from the drop-down list first.

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

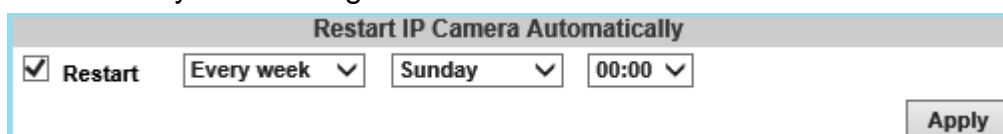
Assign the **Schedule Profile** time selected from the drop-down list first.



Interval: Users can set the interval between two snapshots.

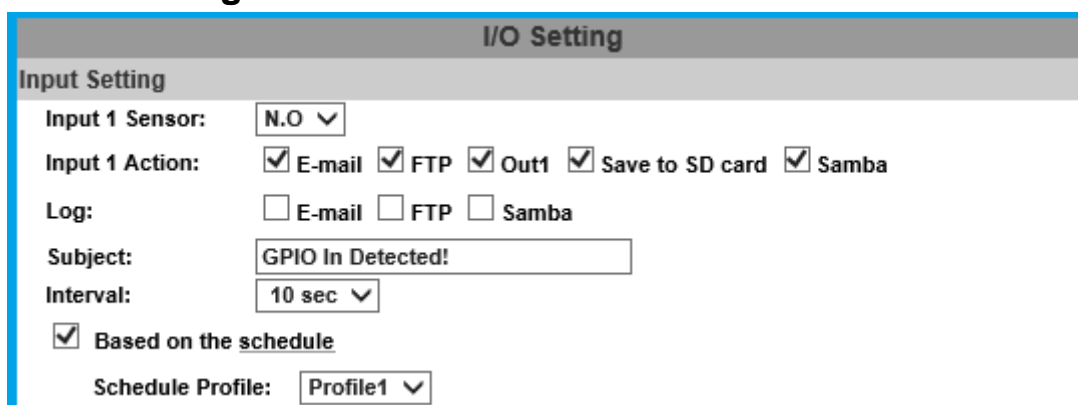
File Name: Enter the file name of your snapshot file.

- **Restart IP Camera Automatically:** Set up the time for IP camera to restart automatically after ticking **Restart** to enable access.



Click **Apply** to update all the settings adjusted.

3. I/O Setting



- A. Input Setting:** The IP camera supports input and output. When the input condition is triggered, the relay will be also triggered & a notification will be sent depending what checkboxes are ticked.

- **Log:** Tick the **Save to SD card** checkbox to enable the **Log** which you would like to save data with.
- **Subject:** Input or edit the message you would like to receive for triggered alarm.
- **Interval:** For example, if you select "10 sec" here, once the motion is detected and action is triggered, it cannot be triggered again within 10 seconds.
- **Based on the schedule:** Tick its checkbox to assign timetable from **Schedule**. Once the option is activated, only during the selected schedule time the I/O is enabled. Assign the **Profile** timetable selected from the drop-down list first.

Schedule

Profile1

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.

Profile:

Profile1 Name:

Take the schedule timetable above as an example, at 1 o'clock on Tuesday has not been colored in the schedule table, then no action will be triggered during that hour.

B. Output Setting: The output mode affects the DO or relay out duration.

Output Setting

Mode Setting: OnOff Switch Time Switch

Normal status:

Interval:

• **Mode Setting**

- (i) **ON/Off Switch:** The camera triggers the external device and lasts for 10 seconds. While in **Output Setting**, enable the **OnOff Switch** by clicking beside the title. You can turn off the alarm manually by clicking "off" at the right bottom of the live video page.



Select **Open** (N.O) or **Close** (N.C) for its sensor from **Normal Status**.

- (ii) **Time Switch:** The camera triggers the external device and lasts for certain time according to the internal setting, and the user is not allowed to break off the alarm manually. Enable **Time Switch** by clicking beside the title, and then adjust the **Normal Status & Interval** to your desired level.

Click on the button to keep all the changes.

4. Log List

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

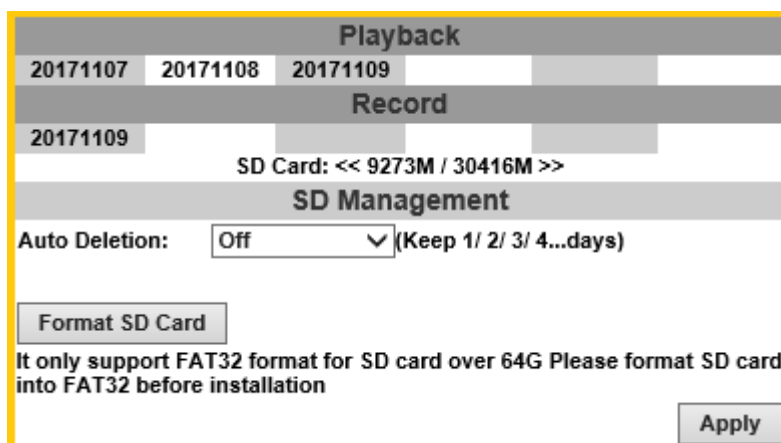
The log keeps data for user to check through events which have occurred during the monitoring operation. **System Logs** won't lose data due to power failure. Choose **All Logs** to list out all the events from **Motion Detection Logs** to **I/O Logs**.

All Log	
<System>	[2014/11/25 17:56:16] 192.168.23.65 login by admin.
<System>	[2014/11/25 17:42:31] 192.168.23.65 login by admin.
<Motion Detection>	[2014/11/25 17:32:28] Area 3 Motion Detection.
<Motion Detection>	[2014/11/25 17:32:28] Area 2 Motion Detection.
<Motion Detection>	[2014/11/25 17:32:28] Area 1 Motion Detection.
<Motion Detection>	[2014/11/25 17:18:49] Area 3 Motion Detection.
<Motion Detection>	[2014/11/25 17:18:49] Area 2 Motion Detection.
<Motion Detection>	[2014/11/25 17:13:41] Area 3 Motion Detection.

5. SD card

A. Playback

Please Insert the Micro SD card before use it. Make sure to push the Micro SD card into the slot completely.



Click the date under the **Playback** title and a list of files will pop up. For example, if the date **2017/11/07** is clicked, all the events happened within that time frame will then appear in a list like the one below.

2017/11/07			Del
Time	Video	Event Type	<input type="checkbox"/>
21:46:01	214601m.avi	Motion Detection	<input type="checkbox"/>
21:46:24	214624m.avi	Motion Detection	<input type="checkbox"/>
21:47:14	214714m.avi	Motion Detection	<input type="checkbox"/>
21:55:15	215515m.avi	Motion Detection	<input type="checkbox"/>
21:55:27	215527m.avi	Motion Detection	<input type="checkbox"/>
21:56:13	215613m.avi	Motion Detection	<input type="checkbox"/>
21:56:24	215624m.avi	Motion Detection	<input type="checkbox"/>
21:56:55	215655i	IVS	<input type="checkbox"/>
21 o'clock	21 o'clock	Schedule Snapshot	<input type="checkbox"/>
22:02:45	220245i	IVS	<input type="checkbox"/>

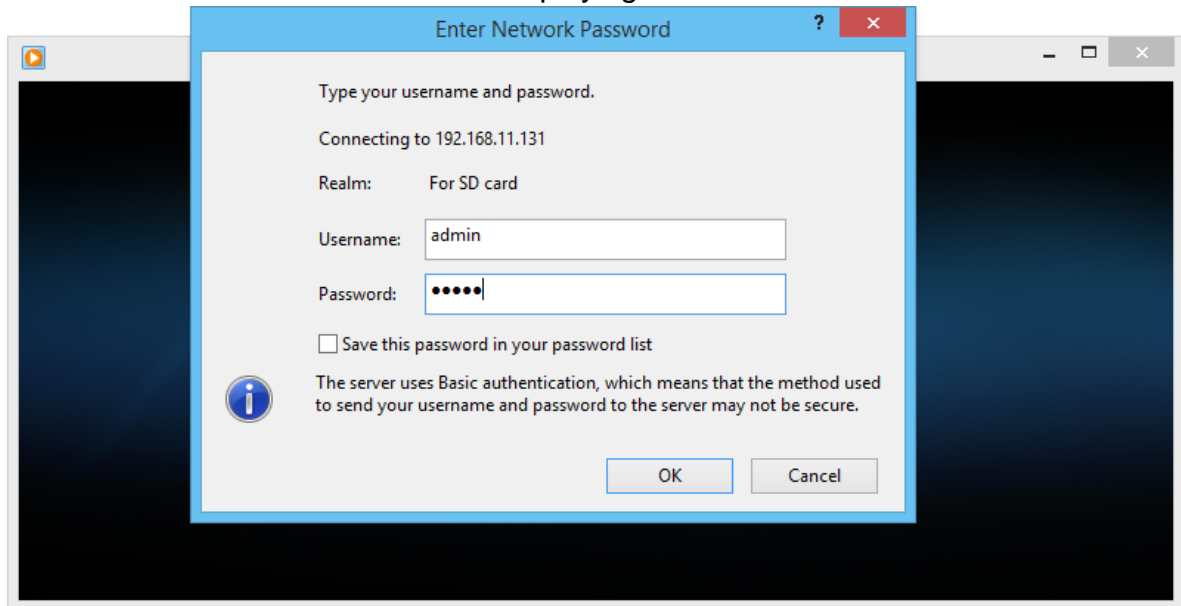
Files link daily.

The enlisted files under **Video** category are files representing an event. There are 3 types of file formats, and each is different for its own **Event Type**. Notice how the file name formations under the **Video** category represent the time when a file is created.

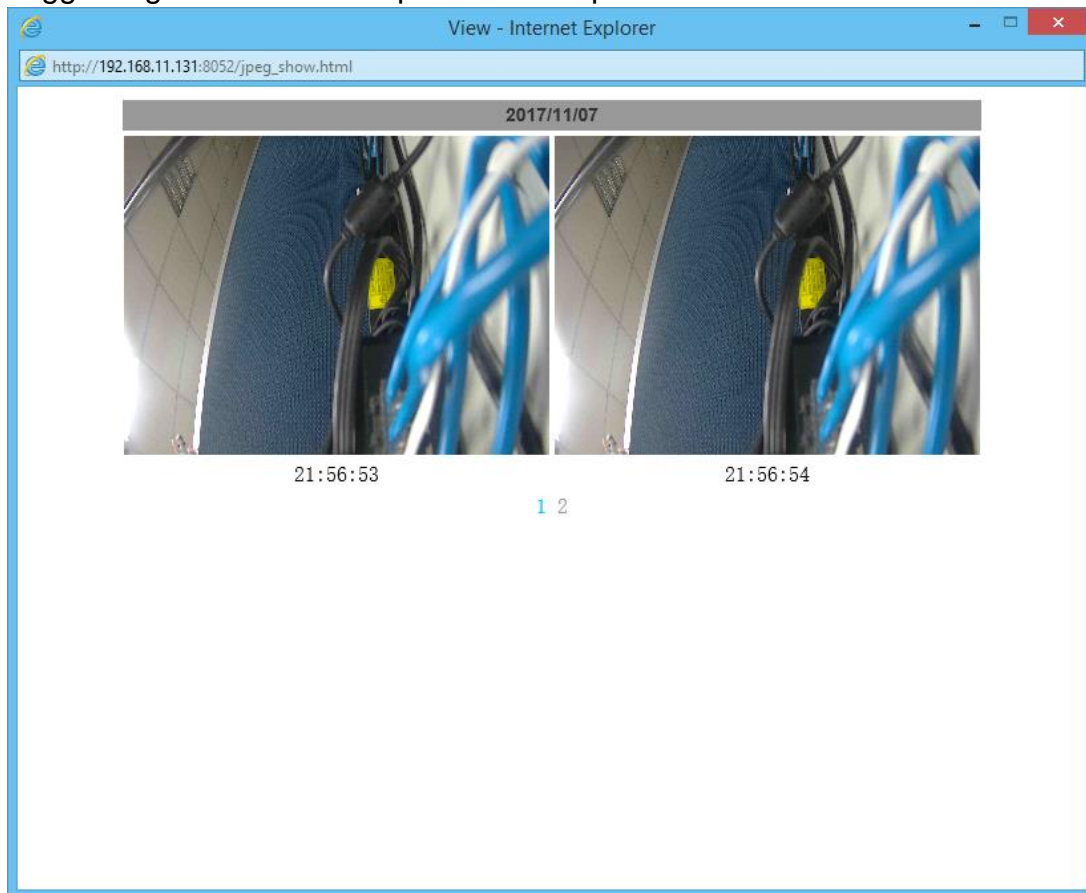
For instance, the file name “**214601m.avi**” means the video is recorded at **21:46:01** today, **m** means **Motion Detection**, and **avi** represents the file format.

Click on the file name to open the file. For **avi** files, you need Microsoft Media Player which is supposedly built-in in your PC.

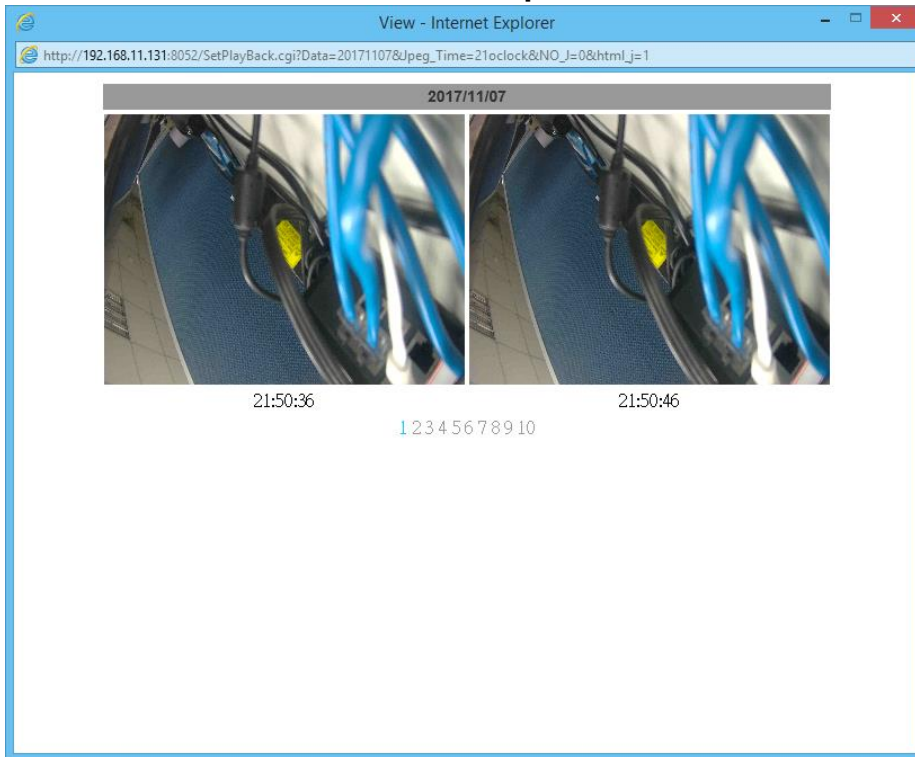
The default Username & Password for playing the video file are both **admin**.



Clicking on an **IVS** file (such as **215655i**) will bring out a pop-up window suggesting an **IVS** event captured as snapshots as the one below:



Clicking on any title that is labeled with “**time unit**” (such as **21 o’clock**) at the end will bring out a pop-up window indicating the snapshot taken as scheduled in **Schedule** mode and enabled in **Snapshot** mode.



Click the icon to delete any file by marking on the checkbox under the **Del** category with a mouse click.

B. Record

The recording mode is enabled after **Record** is set in **Schedule** mode. Take the schedule calendar below for example, the grids coloured in green between 3~12 are scheduled to start recording from 3 o’clock to 12 o’clock from Monday to Thursday.

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.

Once the recording mode is on, the video data recorded will be found and labelled as **2017/11/09**.



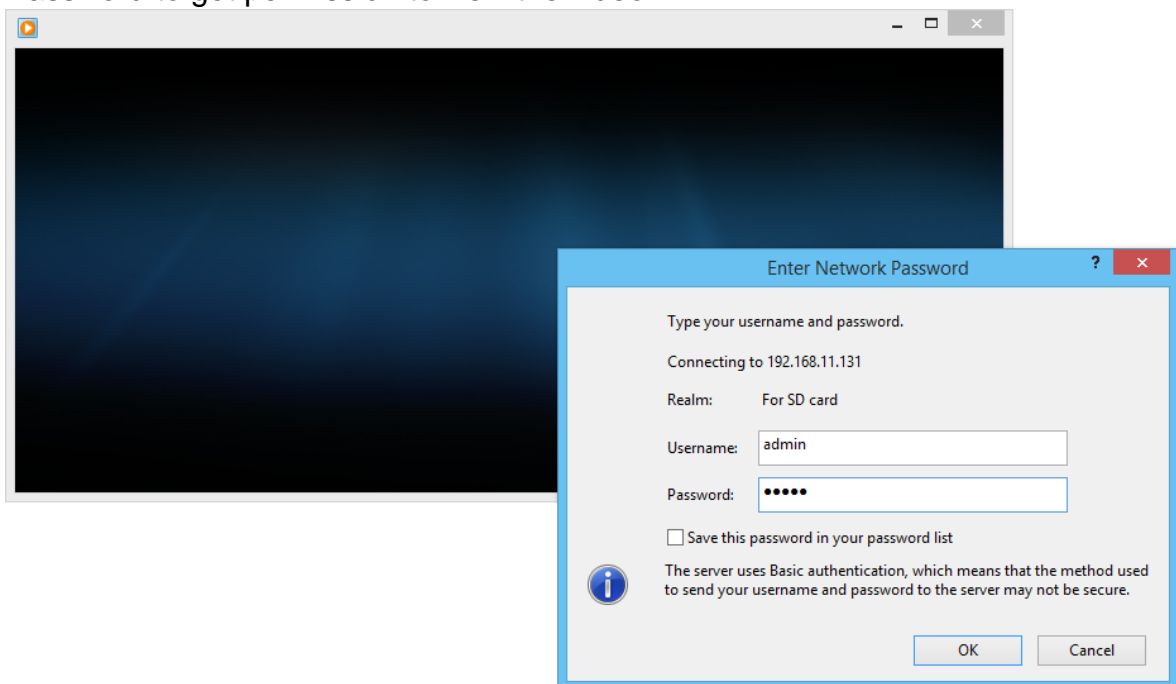
Click on **2017/11/09** to enter the next page where all files recorded on that date are enlisted.

2017/11/09			Del
Time	Video	Event Type	<input type="checkbox"/>
03:00:00	030000r	Record	<input type="checkbox"/>
04:00:00	040000r	Record	<input type="checkbox"/>
05:00:00	050000r	Record	<input type="checkbox"/>
06:00:00	060000r	Record	<input type="checkbox"/>
07:00:00	070000r	Record	<input type="checkbox"/>
08:00:00	080000r	Record	<input type="checkbox"/>
09:00:00	090000r	Record	<input type="checkbox"/>
10:00:00	100000r	Record	<input type="checkbox"/>
11:00:00	110000r	Record	<input type="checkbox"/>
12:00:00	120000r	Record	<input type="checkbox"/>

12

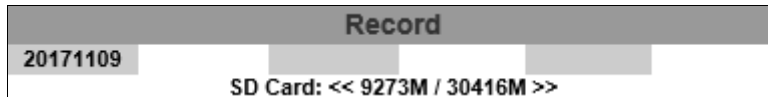
Files link daily.

Click on any video title to open Microsoft Media Player (supposedly already built-in in your PC) and play the video file. Key-in **admin** for both Username & Password to get permission to view the video.




The number at the bottom indicates the distributive law of the current SD Card memory which is divided and assigned to different types of recording purposes.

The left side shows how much memory is still available, and the right side shows how much the total memory is.

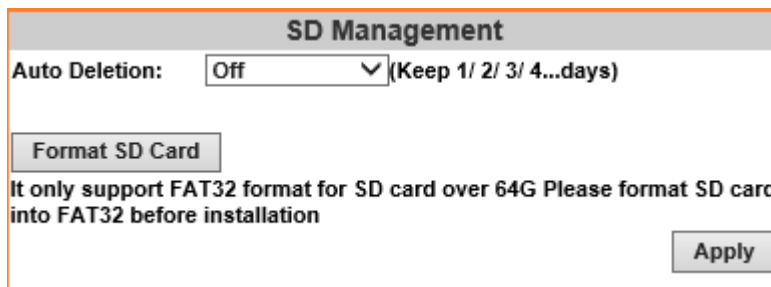


If the memory of the SD card is **over 128G**, **70%** of the memory will be used for scheduled recording, and **30%** will be used for event recording.

If the memory of the SD card is **below 128G**, **50%** of the memory will be used for scheduled recording, and **50%** will be used for event recording.

Click the  icon to delete any file by marking on the checkbox under the Del category with a mouse click.

C. SD Management



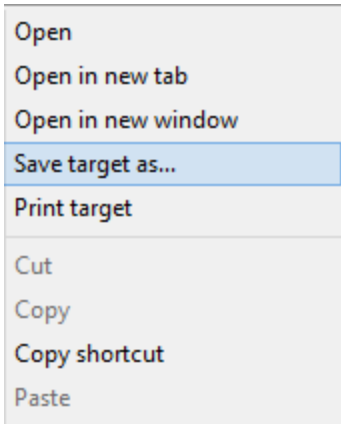
The "SD Management" interface includes an "Auto Deletion" dropdown menu set to "Off" with a sub-menu option "(Keep 1/ 2/ 3/ 4...days)". Below this is a "Format SD Card" button. A warning message states: "It only support FAT32 format for SD card over 64G Please format SD card into FAT32 before installation". An "Apply" button is located at the bottom right.

- a. **Auto Deletion:** Choosing "The 1st day" means the recording file will be kept for 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. The oldest file will be deleted if the Micro SD card is full.

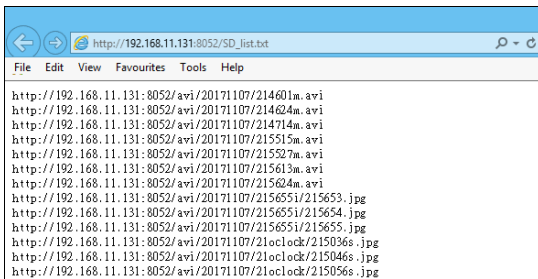
Note : The use of the SD card will slightly affect the operation of the IP Camera, such as affecting the frame rate of the video.

- b. **Format SD Card:** Click the icon to process the SD Card formatting into FAT32 format. Be cautious that since it only supports FAT format for SD Card over 64G, please format SD Card into FAT32 before installation.

D. SD Card Files



- a. **Downloading the Files:** For both **Playback** and **Record** mode, after entering a date data to see the **Video** and **Event Type**, right-click on a title under the **Video** list, and choose “**Save Target As...**” from its pop-up window to start downloading the file.
- b. **Linking the Files:** For both **Playback** and **Record** mode, find the **Files link daily.** link at the right corner of the bottom after entering a date data to see the **Video** and **Event Type**. Click on the link, a window will pop up.

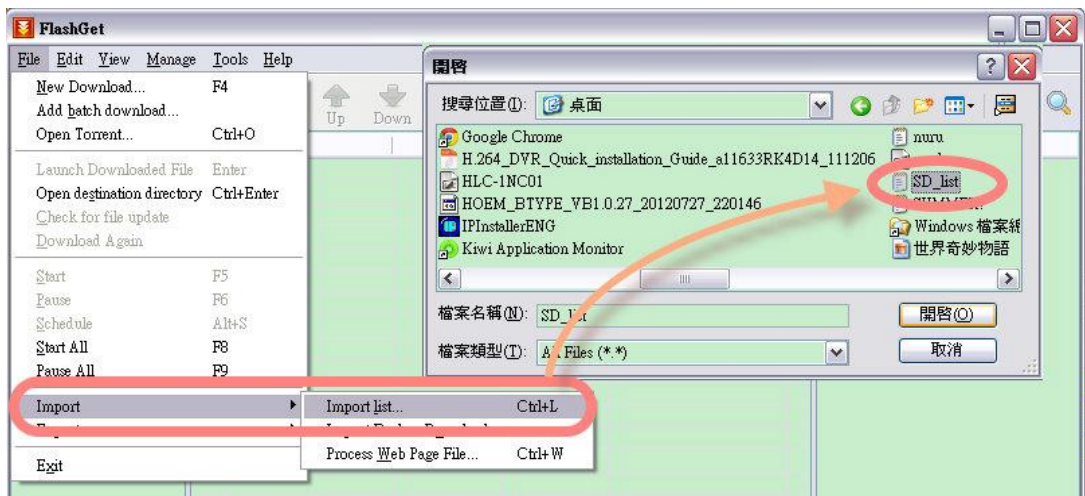


You may copy any of the protocol provided in the window and paste it on a web browser as a URL address to look at each file.

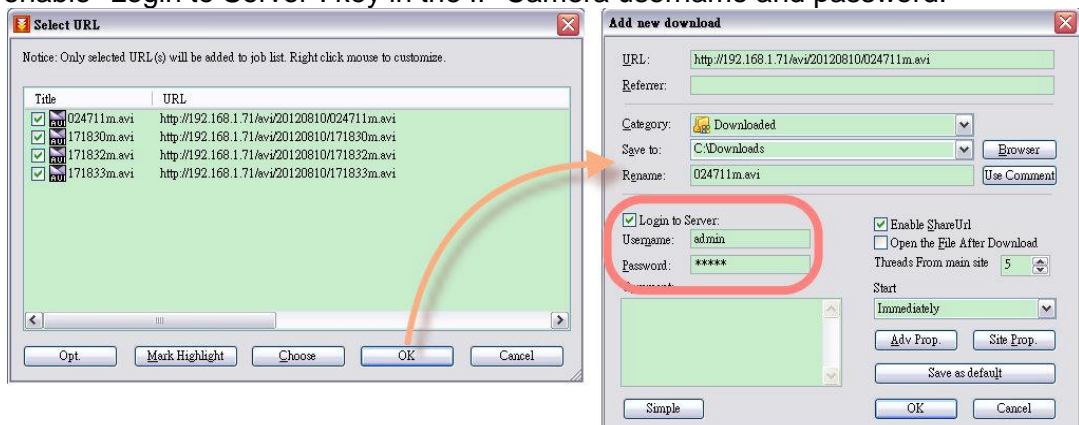
- c. **Copy to PC:** You can insert the Micro SD card to the PC and read the files directly, or use FlashGet instead to download the files from the IP camera. (In this way you do not need to pull out the Micro SD card from the camera.) To use FlashGet for downloading image and video data from the Micro SD card, please follow the steps:
 - i. Enter data list and right-click “**Files link daily.**”, select “save target as...” then save the link list to PC.



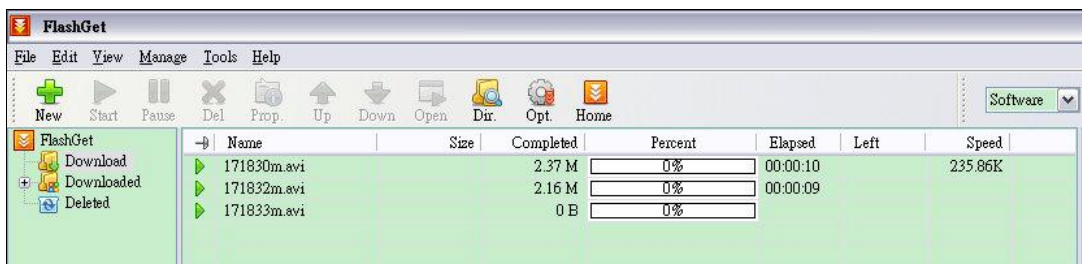
- ii. Open FlashGet, select "File" → "Import" → "Import list", and find the link list file you just saved. The file name may be called “SD_list”.



- iii. FlashGet will show you the link list, and you can tick the files you want to copy to your PC. Give the directory path in the new download window, and remember to enable "Login to Server": key in the IP Camera username and password.



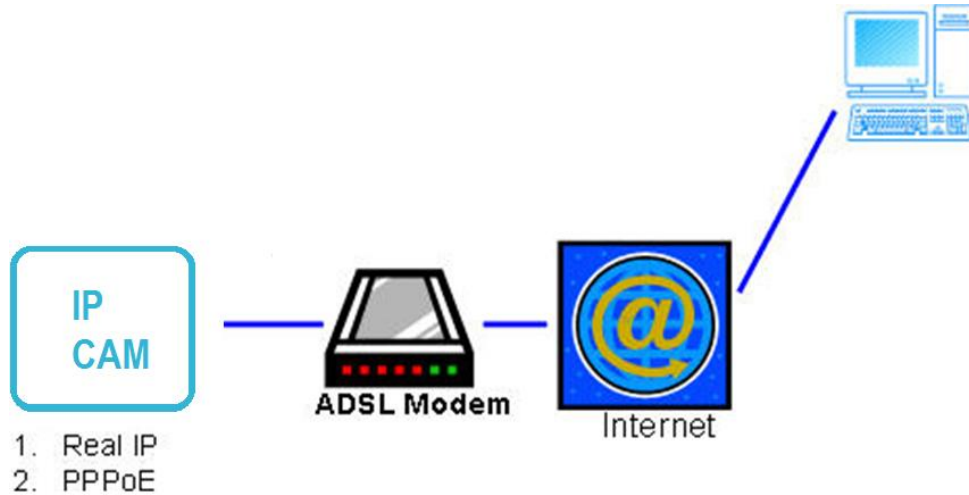
- iv. Click OK to start download.



- FlashGet is free software that can be downloaded from FlashGet official website. The example above is based on FlashGet ver.1.9.6.

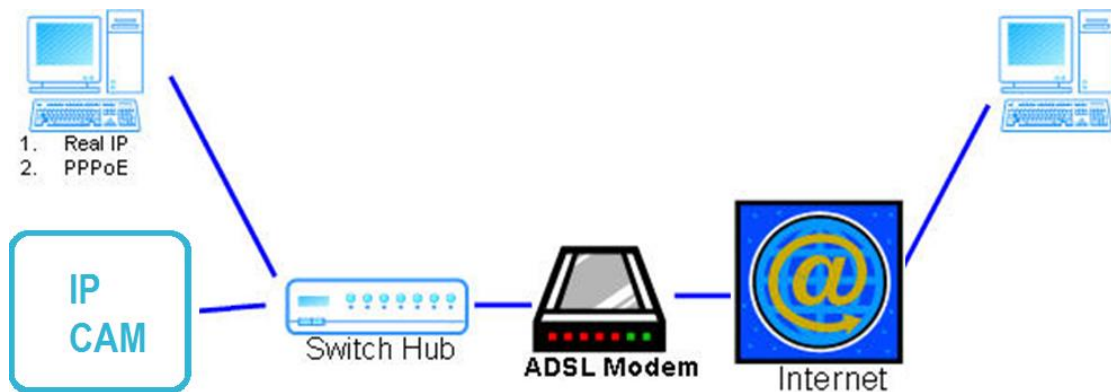
Network Configuration

Configuration 1



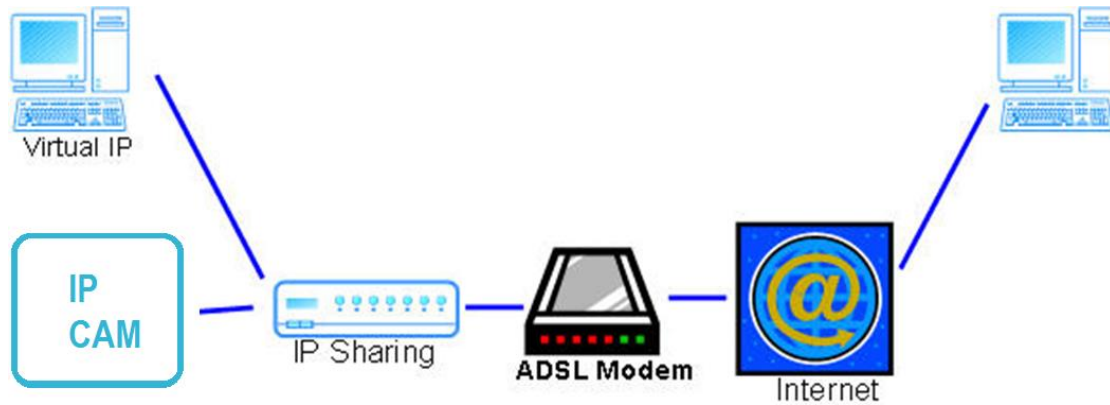
- Internet Access: ADSL or Cable Modem
- IP address: One real IP or one dynamic IP
- Only the IP Camera is connected to the internet
- For fixed real IP, set up the IP into IP Camera. For dynamic IP, start PPPoE.

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.

Configuration 3

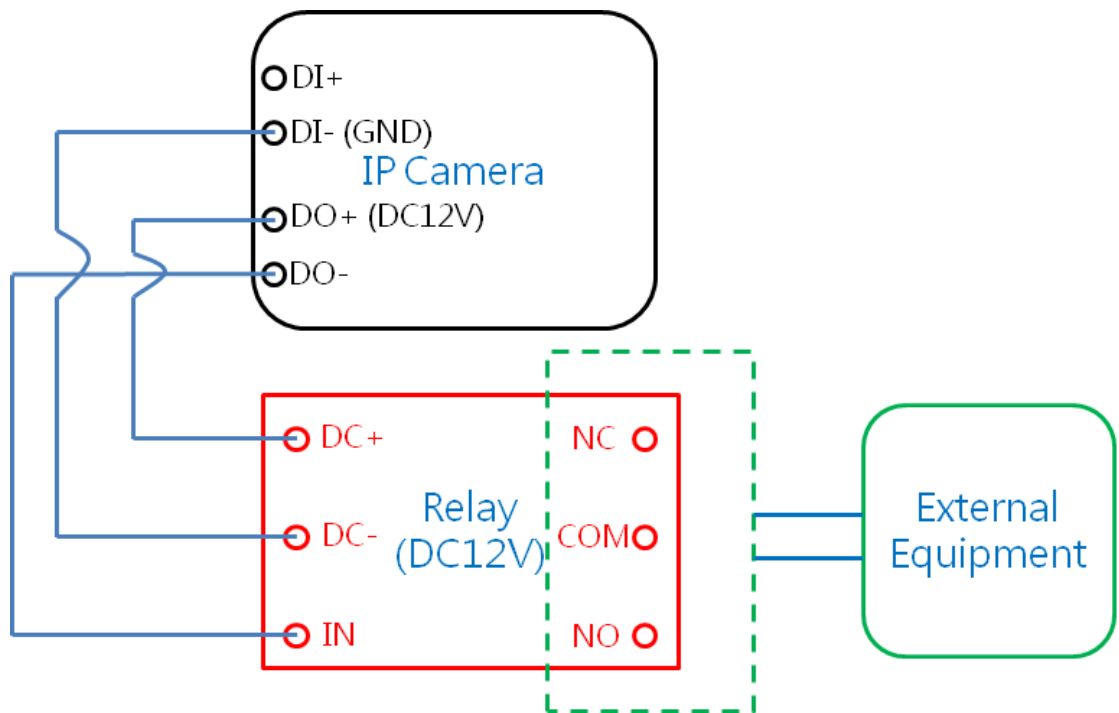


- a. Internet Access: ADSL or Cable Modem
- b. IP address: one real IP or one dynamic IP
- c. IP Camera and PC connect to the internet
- d. Device needed: IP sharing
- e. Use virtual IP, set up port forwarding in IP sharing

I / O Configuration

1. I/O Connection

- a. Connect the GND & DO pin to the external relay (buzzer) device.
- b. Connect the GND & DI pin to the external trigger device.

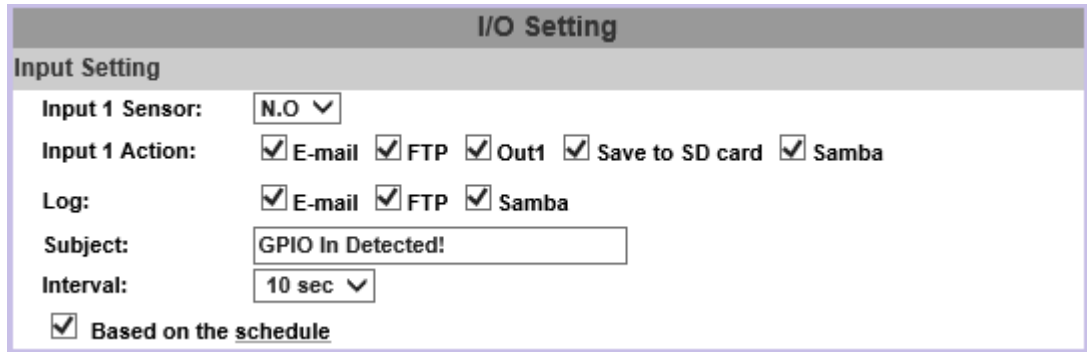


- c. I/O PIN definition
 - GND (Ground): Initial state is LOW
 - DO (Digital Output): Max. 50mA ,.DC 12V
 - DI (Digital Input): Max. DC 6V

2. I/O Setup

Click I/O Setting from the system setup page via IE, and check "Out1" to enable I/O signal.

- a. **Input Setting:** The IP Cam supports input and output. When the input condition is triggered, the relay will be also triggered & a notification will be sent depending what checkboxes are ticked.



I/O Setting

Input Setting

Input 1 Sensor:

Input 1 Action: E-mail FTP Out1 Save to SD card Samba

Log: E-mail FTP Samba

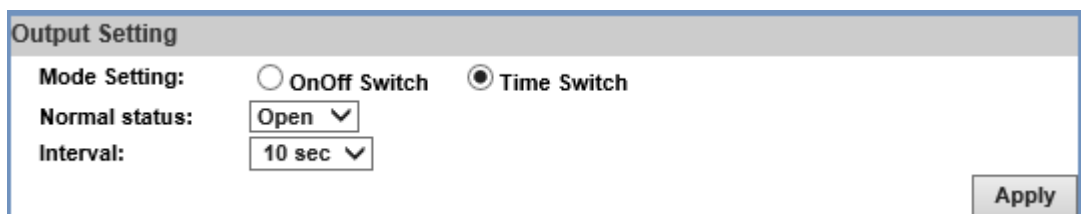
Subject:

Interval:

Based on the schedule

- **Log:** Tick the **Save to SD card** checkbox to enable the **Log** which you would like to save data with.
- **Subject:** Input or edit the message you would like to receive for triggered alarm.
- **Interval:** For example, if you select "10 sec" here, once the motion is detected and action is triggered, it cannot be triggered again within 10 seconds.
- **Based on the schedule:** When the option box is ticked, only during the selected schedule time the I/O is enabled. That is, for example, the 11th hour of Monday has not been colored in the schedule table, then no action will be triggered even if the camera detects input signal during 11:00~12:00 on Monday.

- b. **Output Setting:** After the external input and output hardware are installed, you can enable the "Relay Out" function on the live video page to test if DO / Relay Out works.



Output Setting

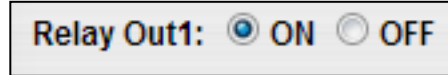
Mode Setting: OnOff Switch Time Switch

Normal status:

Interval:

- **Mode Setting**

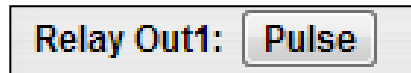
- (i) On Off Switch mode: Clicking "ON" will trigger the external output device for 10 seconds.



For example, your alarm buzzer will continuously ring for 10 seconds. After 10 seconds the buzzer stops ringing, or you can manually break off the output signal by clicking "OFF".



- (ii) Time Switch mode: The camera triggers the external device and lasts for certain time according to the internal setting, and the user is not allowed to break off the alarm manually.



Click "Pulse", the camera will trigger the external output device for several seconds; the duration length is according to the "interval" setting in Output Setting.

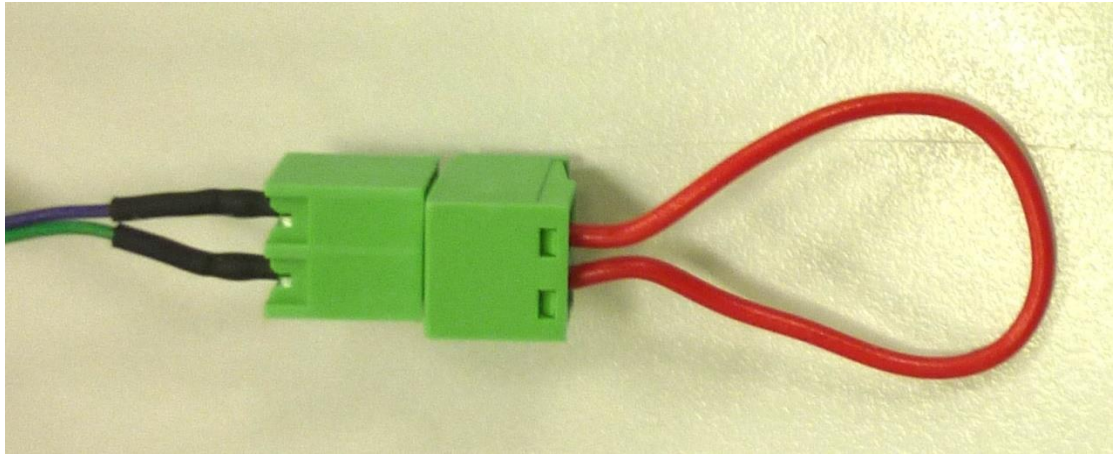
While in **Output Setting**, enable the **Time Switch** by clicking beside the title, and then adjust the **Normal Status & Interval** to your desired level.

Click on the button to keep all the changes.

Factory Default

If you forget your password, please follow the steps to revert back to default value.

- Remove the power and Ethernet cable.
- Join the **GND** and **Default** ports inside the terminal block with an electronic wire, as the picture demonstrated below.



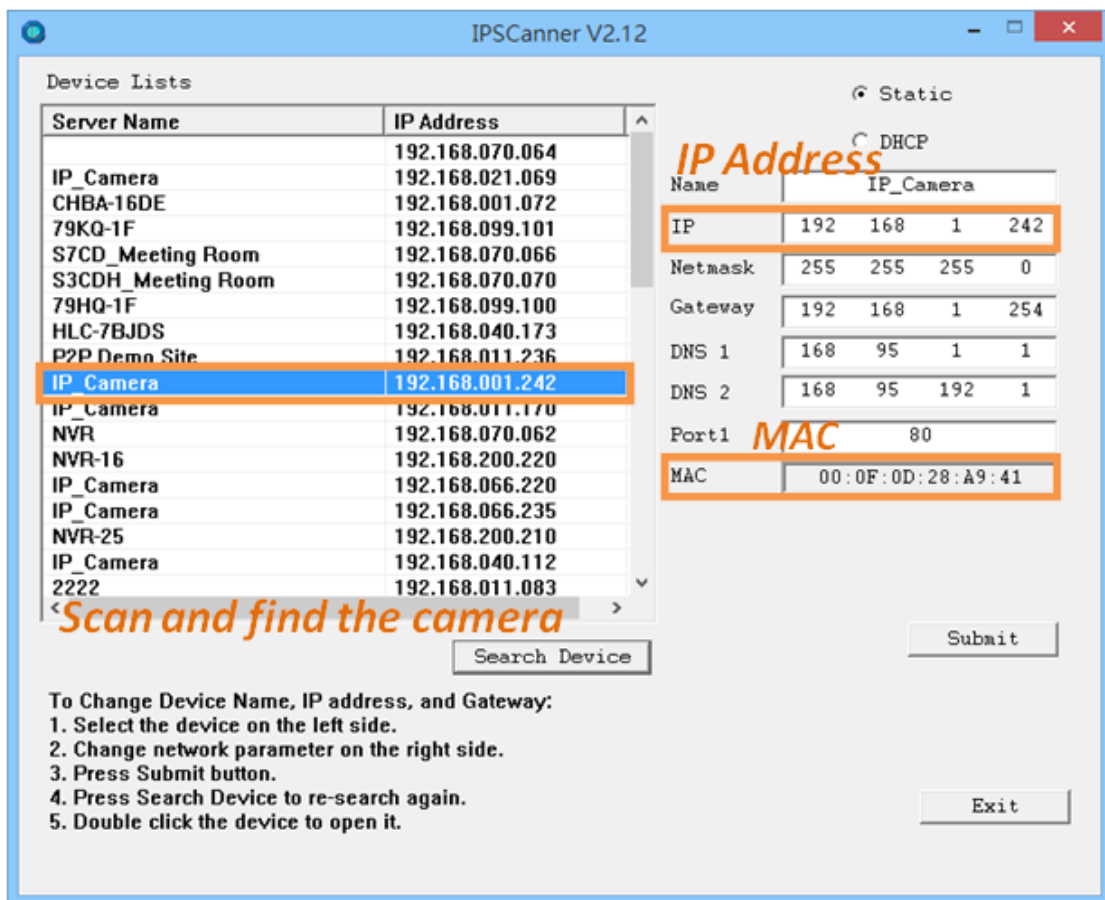
- Connect the power to the camera again. It takes around 30 seconds to boot the camera.
- Remove the wire and plug in the Ethernet cable after the camera finishes booting.
- Log in the camera using the default IP (<http://192.168.1.200>), and user name (admin), password (admin).

Universal Password

If you forgot the password of your IP camera, you can reset the camera to factory default, or follow the procedure below to generate a universal password.

Note: Universal password will be valid only when you enable the function in **User Management**.

1. First, you need to know the IP address and MAC address of your IP camera. You can use **IP Scanner** to scan the LAN, and see the IP address and MAC address on the side column.



The screenshot shows the IPScanner V2.12 interface. On the left, a table lists discovered devices. The 'IP Camera' with IP address 192.168.001.242 is highlighted. On the right, network configuration options are shown for the selected device, including IP address (192.168.1.242), Netmask (255.255.255.0), Gateway (192.168.1.254), DNS 1 (168.95.1.1), DNS 2 (168.95.192.1), Port1 (80), and MAC address (00:0F:0D:28:A9:41). A 'Submit' button is visible below the configuration fields.

Server Name	IP Address
IP_Camera	192.168.070.064
CHBA-16DE	192.168.021.069
79KQ-1F	192.168.001.072
S7CD_Meeting Room	192.168.099.101
S3CDH_Meeting Room	192.168.070.066
79HQ-1F	192.168.070.070
HLC-7BJDS	192.168.099.100
P2P Demo Site	192.168.040.173
IP_Camera	192.168.011.236
IP_Camera	192.168.001.242
NVR	192.168.011.170
NVR-16	192.168.070.062
IP_Camera	192.168.200.220
IP_Camera	192.168.066.220
NVR-25	192.168.066.235
IP_Camera	192.168.200.210
2222	192.168.040.112
	192.168.011.083

IP Address

Name	IP_Camera
IP	192 168 1 242
Netmask	255 255 255 0
Gateway	192 168 1 254
DNS 1	168 95 1 1
DNS 2	168 95 192 1
Port1	MAC 80
MAC	00:0F:0D:28:A9:41

MAC

Submit

Exit

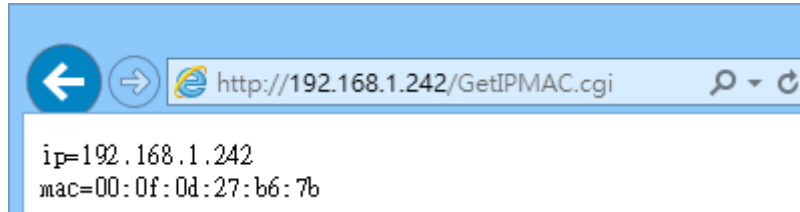
Scan and find the camera

Search Device

To Change Device Name, IP address, and Gateway:

1. Select the device on the left side.
2. Change network parameter on the right side.
3. Press Submit button.
4. Press Search Device to re-search again.
5. Double click the device to open it.

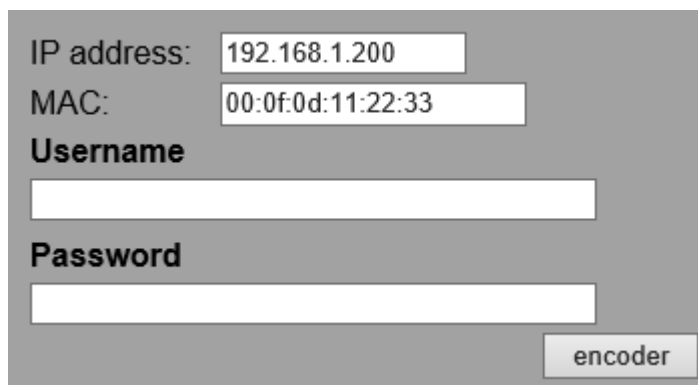
Or else, if you already know the IP address of camera: Open the web browser, key in **http:// (IP address) /GetIPMAC.cgi** and press enter. The IP address and MAC address will be displayed on browser.



2. Locate the .html file named **Universal Password_V1.1** in the Universal Password from the Applications folders in CD-ROM. Open it with a web browser.



3. The camera IP address and MAC address will be displayed automatically in both **IP Address** and **MAC** columns.



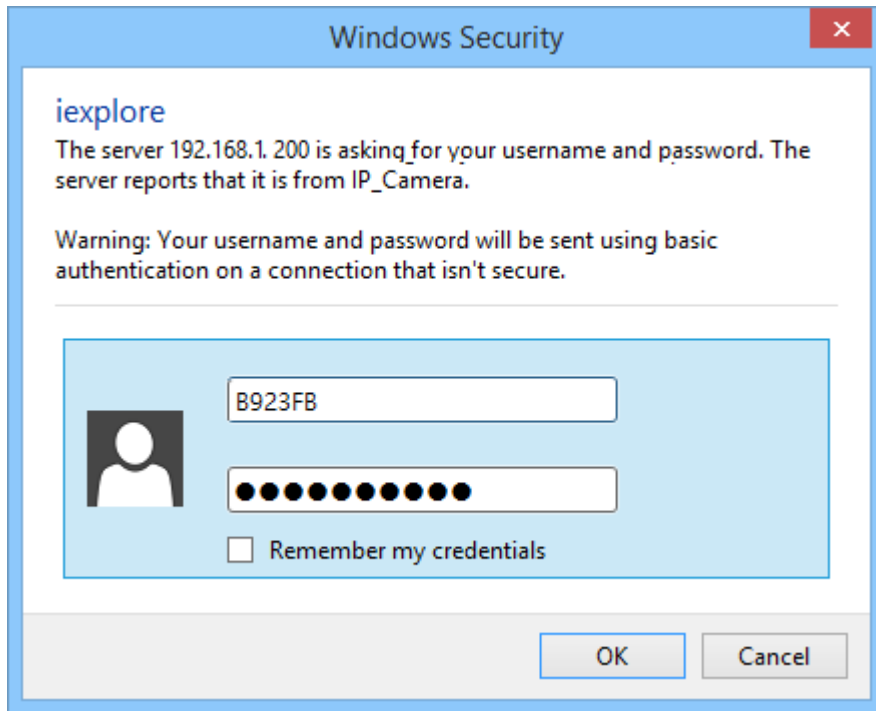
A screenshot of a web form. It contains the following fields and elements:

- IP address:** A text input field containing the value "192.168.1.200".
- MAC:** A text input field containing the value "00:0f:0d:11:22:33".
- Username:** A text input field that is currently empty.
- Password:** A text input field that is currently empty.
- encoder:** A button located at the bottom right of the form.

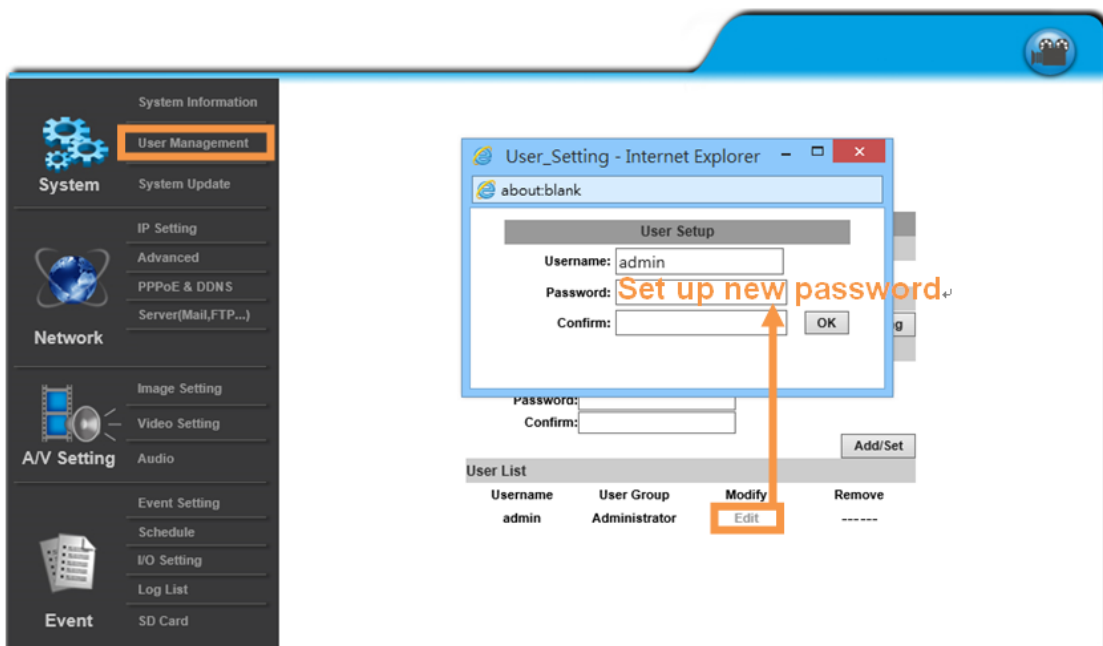
After clicking on **encoder**, a set of username and password will appear.

The universal username and password are generated from the IP address and MAC address you key-in, so if you change the camera IP address the universal password changes, too.

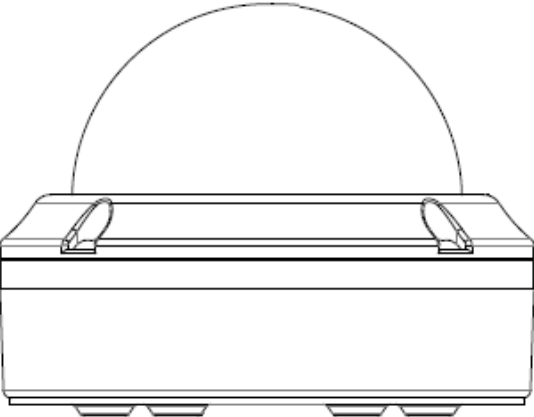
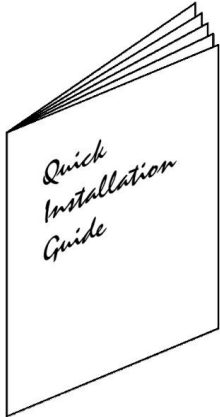
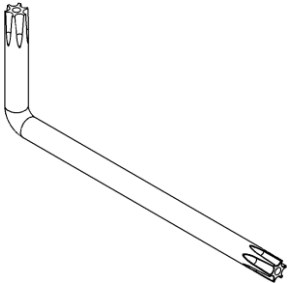
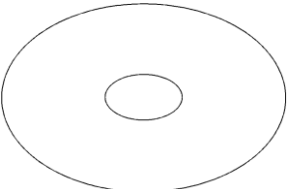
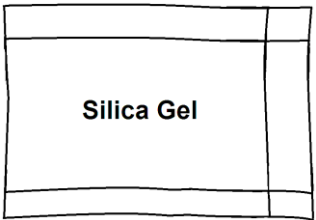
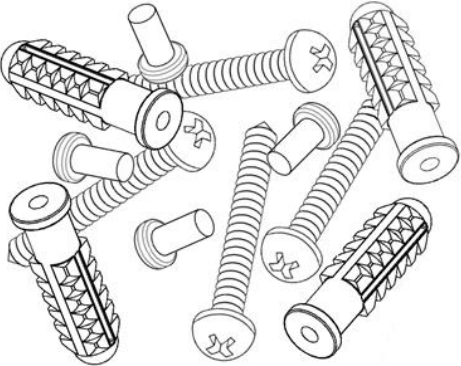
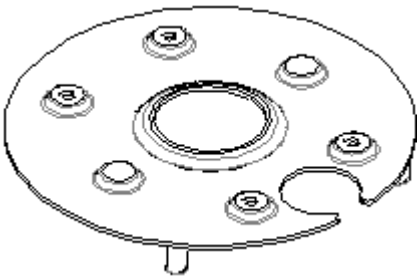
4. Use the generated username & password to log in the camera account.



5. Now you can login as administrator. Turn to **User Management** page. The use of universal password does not affect the previous user setting, so the administrator account password does not change until you edit it. Please click **Edit** to give a new administrator password.



Package Contents

IP Camera 		Quick Installation Guide 	
Star Wrench 	CD 	silica Gel 	
Screws Pack 		Mount Plate 	

- The CD includes user manual and software tools

Micro SD Card Compatibility (Optional)

The following are the recommended Micro SD Cards:

Transcend	SDHC class4 16GB
	SD class4 16GB
	SDHC class4 32GB
	SD class4 32GB
	SD class6 4GB
	SDHC class6 4GB
	SD class6 8GB
	SDHC class6 8GB
	SD class6 16GB
	SDHC class6 16GB
	SDHC class10 4GB
	SDHC class10 8GB
	SDHC class10 16GB
	SDHC class 10 Max. 64GB
	SanDisk
SDHC class4 16GB	
SDHC class4 32GB	
SDHC class10 Max. 128GB	