EDIMAX
NETWORKING PEOPLE TOGETHER

Wired / Wireless Pan & Tilt Internet Camera

IC-7000PT V2 / IC-7000PTn V2

User Manual

Version 1.0 / July, 2009

ErP Announcement

Product: Internet Camera (IP CAM)
Purpose: 24 hours surveillance and transfer the picture for safety and health of intended use.

Detail description:
Health purpose: User can pass through the internet (from everywhere) to control the product (IP CAM). To watch and listen the people who needs to be cared in house and automatically send e-mail and phone to warn you and ask your attention. The product also provides a record function to keep all images and voice information for record.

Safety purpose: User can initial "motion detect" function, to record and send email to warn you when your door or window was opened by someone.

General purpose: Record/monitor environment images and sound and storage the images and sound into hard disk as a record.

We won't know when the situation we want will happen, therefore, we need to keep the product work everytime.
If the product got into "standby/off" mode, that will impact the record and warning functions. User won't get the information they want.

Base on the ErP official journal of European Union

Directives 2009/125/CE of the European parliament and of the council of 21 October 2009 Article 15 sector 5 part (a) and (b) as below:
"Implementing measures shall be no significant negative impact on the functionality of the product, from the perspective of the user."
"Health, safety and environment shall not be adversely affected."

We announce the product doesn't need comply with the (EC) No 1275 S*tandby* and *on/off mode* function of Implementing Measurement.

We will follow up the newest Implementing Measurement in the future if related this product.

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The product you have purchased and the setup screen may appear slightly different from those shown in this QIG. For more detailed information about this product, please refer to the User Manual on the CD-ROM. The software and specifications are subject to change without notice. Please visit our web site www.edimax.com for the update. All rights reserved including all brand and product names mentioned in this manual are trademarks and/or registered trademarks of their respective holders.

Notice according to GNU/GPL-Version 2

This product includes software that is subject to the GNU/GPL-Version 2. You find the text of the license on the product cd/dvd. The program is free software and distributed without any warranty of the author. We offer, valid for at least three years, to give you, for a charge no more than the costs of physically performing source distribution, a complete machine-readable
copy of the corresponding source code.
Please contact Edimax at: Edimax Technology co., Ltd, NO. 3, Wu-Chuan 3rd RD Wu-Ku-Industrial Park, Taipei Hsien, Taiwan. R.O.C., TEL : +886-2-77396888, FAX : +886-2-77396887, sales@edimax.com.tw

Federal Communication Commission Interference Statement

FCC Part 68

This equipment complies with Part 68 of the FCC Rules. On the bottom of this equipment is a label that contains the FCC Registration Number and Ringer Equivalence Number (REN) for this equipment. You must provide this information to the telephone company upon request.

The REN is useful to determine the quantity of devices you may connect to the telephone line and still have all of those devices ring when your number is called.

In most, but not all areas, the sum of the REN of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area.

If the modem causes harm to the telephone network, the telephone company may discontinue your service temporarily. If possible, they will notify you in advance.

But if advance notice isn't practical, you will be notified as soon as possible. You will be advised of your right to file a complaint with the FCC.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the proper operation of your equipment.

If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

If you experience trouble with this modem, please contact your dealer for repair/warranty information. The telephone company may ask you to disconnect this equipment from the network until the problem has been corrected or you are sure that the equipment is not malfunctioning.

This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs.

Installation

This device is equipped with a USOC RJ11C connector.

FCC Part 15

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio technician for help.

FCC Caution

This equipment must be installed and operated in accordance with provided instructions and a minimum 20 cm spacing must be provided between computer mounted antenna and person's body (excluding extremities of hands, wrist and feet) during wireless modes of operation.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate equipment.

Federal Communication Commission Radiation Exposure Statement

This equipment must be installed and operated in accordance with provided instructions and a minimum 20 cm spacing must be provided between computer mounted antenna and person's body (excluding extremities of hands, wrist and feet) during wireless modes of operation.

The equipment version marketed in US is restricted to usage of the channels 1-11 only.

R&TTE Compliance Statement

This equipment complies with all the requirements of DIRECTIVE 1999/5/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL of March 9, 1999 on radio equipment and telecommunication terminal Equipment and the mutual recognition of their conformity

(R&TTE).
The R&TTE Directive repeals and replaces in the directive 98/13/EEC (Telecommunications Terminal Equipment and Satellite Earth Station Equipment) As of April 8, 2000.

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

EU Countries Intended for Use

The ETSI version of this device is intended for home and office use in Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.
The ETSI version of this device is also authorized for use in EFTA member states: Iceland, Liechtenstein, Norway, and Switzerland.

EU Countries Not intended for use

None.

CE Mark Warning

This is a class B product. In a domestic environment, this product may cause radio interface, in which case the user may be required to make adequate measures.
A CE declaration of conformity is available on www.edimax.com

Chapter I: Familiar with your Internet IP Camera

1.1 Package Contents

Thank you for purchasing this IP camera! Before you start to use this IP camera, please check the package contents. If anything is missing, please contact the dealer of purchase and return the package to claim for missing contents.

	Item Name	Quantity
1	IP Camera	1
2	Antenna	2
3	Power Adapter	1
4	Ethernet Cable	1
5	Driver and User Manual CD-ROM	1

1.2 Basic Introduction

Thank you for purchasing this Internet IP camera! This IP camera is an ideal product for all kinds of video-surveillance purposes, like home/office safety, kid/pet monitoring, and remote video acquire etc. Unlink conventional close-circuit vide camera, you're not limited to the length of cable! Once this IP camera is connected to Internet, you can receive video from anywhere in the world where Internet access is available.

If you have problem installing a new cable from the place the camera is installed to your monitoring computer, don't worry! This IP camera also supports wireless network, that is, you can link to this camera wirelessly! You only have to provide this IP camera with 12V power by the power adapter that comes with the product package, and you don't have to set a new network cable between the IP camera and monitoring computer.

Worry about the content will be intercepted by unauthorized person when the video is transmitted over the air? That's also not a problem! Unlink conventional analog wireless camera, which video will be intercepted by anyone who got a compatible video receiver, this IP camera supports data encryption (WEP & WPA), which will provide ultimate data security level. All video transmitted over the air is encrypted; therefore no one will be able to get the video captured by the IP camera, expect yourself.

Some people may concern that there will be some places which will not be covered by camera, but this problem is completely solved by this IP camera. With built-in pan-tilt function, you can point the camera to the position where you wish to look at with user interface. You can even define a preset path, and the camera will guard along the path you defined. You can discover more useful functions in next section!

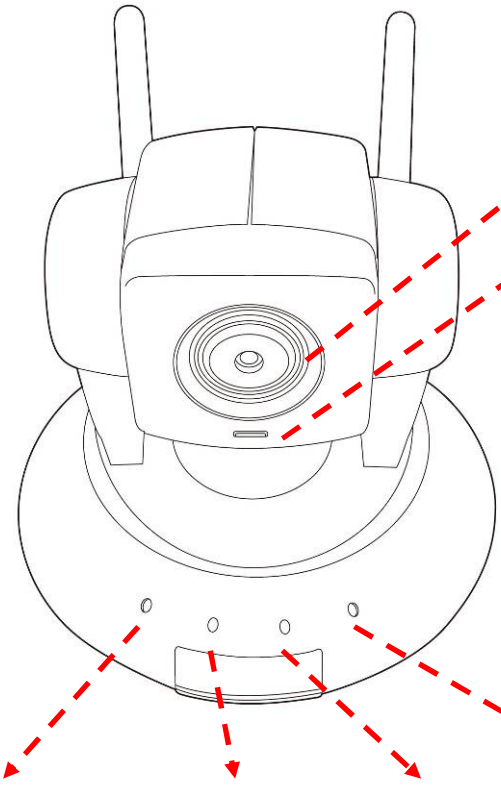
1.3 Product Highlights

- No pre-loaded software required - all you need is a browser like Internet Explorer 6 (and above, with plugin installed).
- With supplied video surveillance software, you can connect up to 16 video cameras and view images captured by every camera at the same time.
- Supports 3 video resolutions: MPEG4 XGA (1024 x 768), VGA (640 x 480), and QVGA (320 x 240). MJPG: SXGA (1024 x 1280), VGA (640 x 480), and QVGA (320 x 240)
- Anti-flicker function (eliminates flash caused by fluorescent lights, 50 / 60Hz selectable).
- Video control functions, like brightness and zoom-in / zoom-out.
- Pan-tilt control.
- Wired and wireless network (802.11b / 802.11g / 802.11n) support, supports up to 100Mbps for wired network and 100Mbps for wireless network.
- Wireless data encryption (WEP / WPA / WPA2)
- Supports DHCP and PPPoE protocol, you can also assign a fixed IP address to the camera also.
- Supports Dynamic DNS (used to allocate the IP camera's Internet address, when the ISP you're using does not assign you with a fixed Internet address).
- Supports UPnP, Windows XP (and above) will discover this IP camera in network neighbor automatically.
- Send captured picture and video by Email or FTP when motion is detected.
- Configurable motion detection sensitivity (6 levels from most sensitive to least sensitive).
- Built-in real-time clock, date and time information will be recorded with every captured picture / video clip (also supports auto time synchronization via network time protocol).
- Upgradeable firmware - enjoy new functions without buying a new camera!
- Supports up to 16 users, and you can set different password to different user.
- Usage and event logging.
- Supports pre-recording + post-recording up to 5 seconds for the triggered event

1.4 Familiar with Key Components

Front View

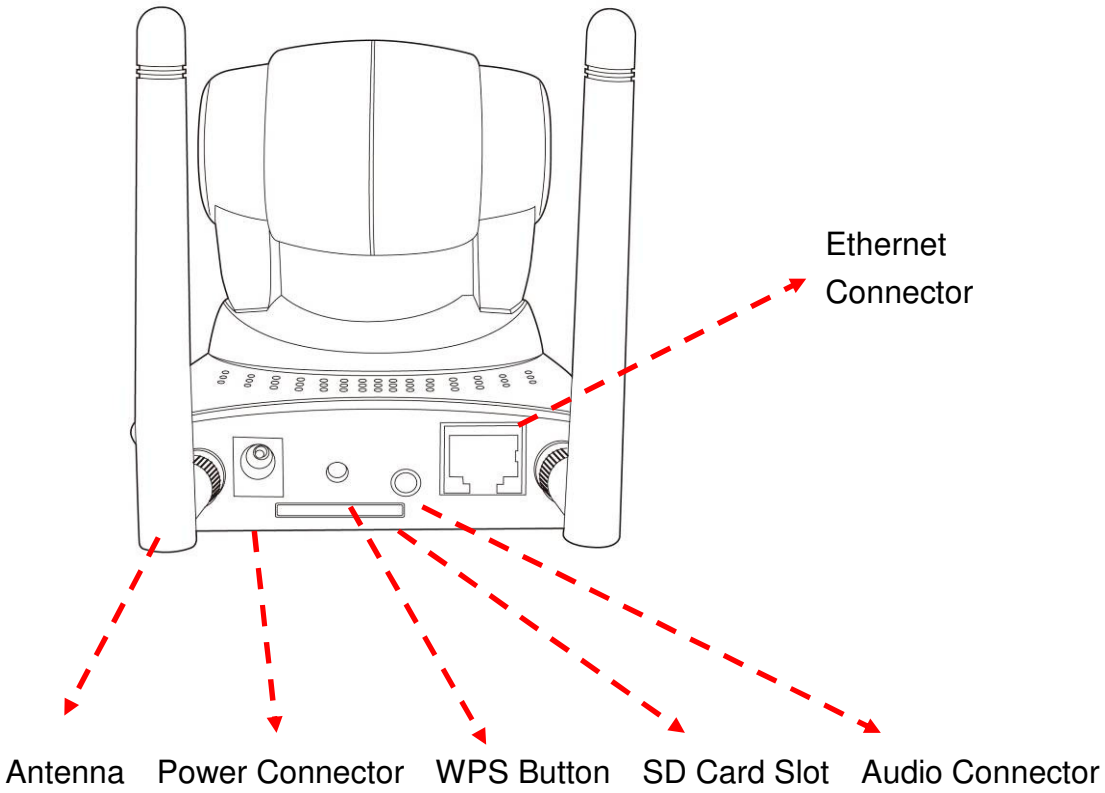
The picture is similar with IC-7000PT(n) V2



IC-7000PTn V2	Power LED	Audio LED	LAN LED	WLAN LED
IC-7000PT V2	Power LED	Audio LED	ACT LED	LAN LED

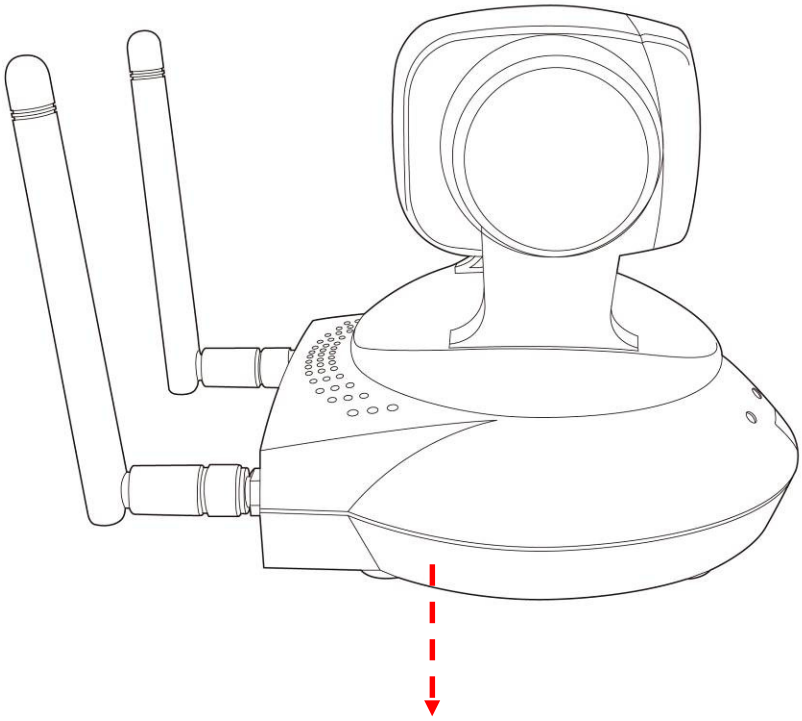
- Power LED: Indicates power status
- Audio LED: Indicates Audio status
- LAN LED: Indicates LAN activity
- ACT LED: Indicates Data activity
- WLAN LED: Indicates Wireless LAN activity
- Focus Ring: Adjusts focus

Back View



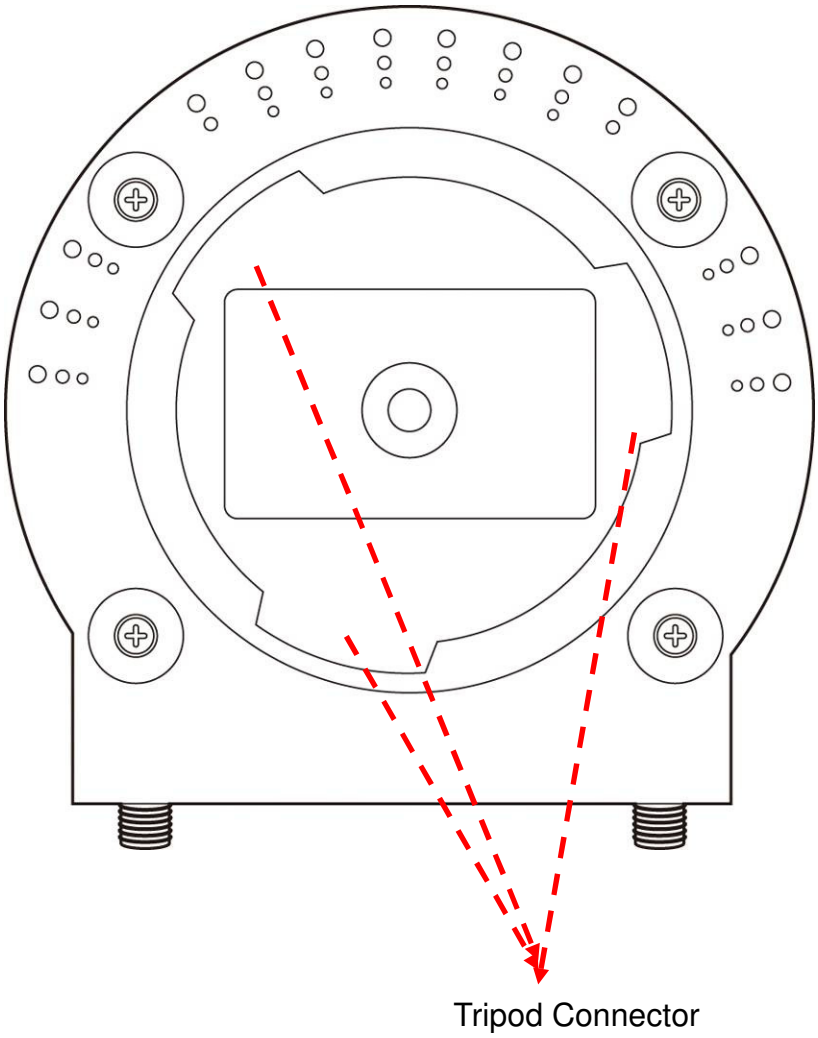
- Antenna: Connects to supplied antenna (IC-7000PTn V2 only)
- Power Connector: Connects to A/C power adapter
- SD Card Slot: Accepts SD / SD-HC memory card for image / video storage
- WPS Button: click the bottom on IP Cam and click it on the AP you want to connect for wireless
- Audio Connector: Connects to external speaker for audio output
- Ethernet Connector: Connect to your local area network

Side View



Reset Button: Press the button with pen nib and hold for 5 seconds to reset the camera settings to factory default value.

Bottom View



Tripod Connector: Connects to tripod to secure the camera when the camera is not put on a horizontal surface.

1.5 Descriptions for LED Indicators

For IC-7000PTn V2

LED Name	Status	Description
Power	Off	Camera is not powered (camera off)
	On	Camera is correctly powered (camera on)
LAN	Off	LAN port not in use
	On	LAN port in use
	Flash	Transferring data via LAN port
WLAN	Off	Wireless LAN not in use
	On	Wireless LAN in use
	Flash at low speed	Waiting for WPS connection from AP and flash speed is once a second.
	Flash	Transferring data via wireless LAN
Audio	Off	Audio function is disabled (Volume 0)
	On	Audio function is enabled
	Flash	Two way audio is working

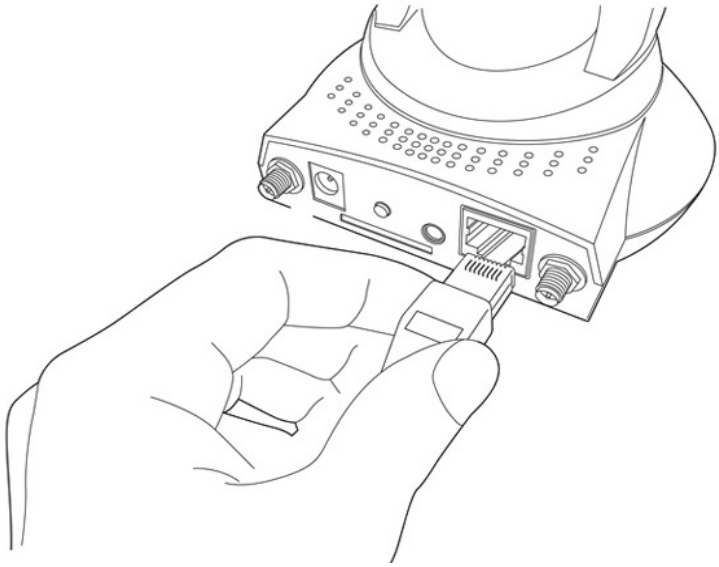
For IC-7000PT V2

LED Name	Status	Description
Power	Off	Camera is not powered (camera off)
	On	Camera is correctly powered (camera on)
ACT	Off	Data is not transfer
	On	Transferring data
LAN	Off	LAN not in use
	On	LAN in use
Audio	Off	Audio function is disabled (Volume 0)
	On	Audio function is enabled
	Flash	Two way audio is working

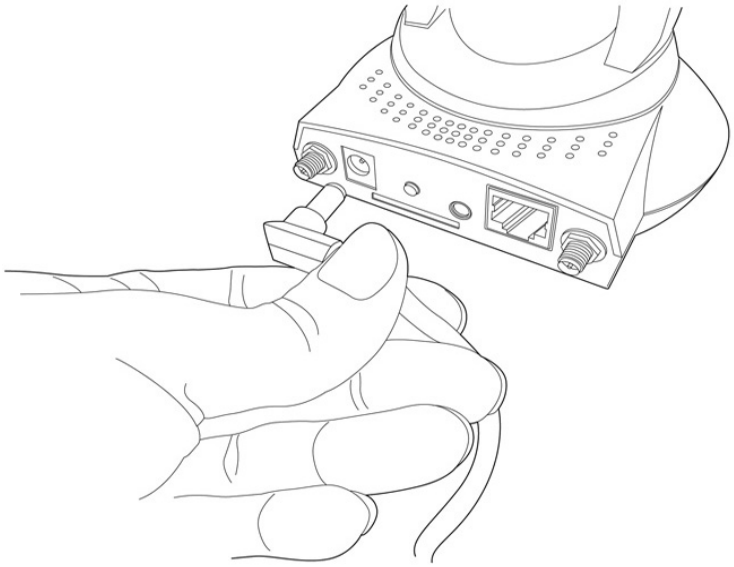
1.6 Camera Installation

Please follow the following instructions to set your IP camera up.

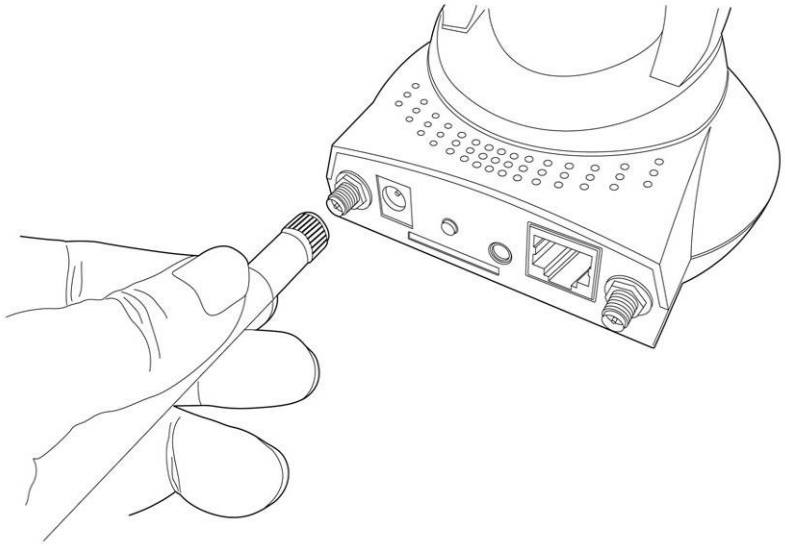
1. Unpack the product package and check if anything's missing.
   Connect the Ethernet cable to your local area network, and connect the other end to the LAN jack of this IP camera.
   NOTE*: You can skip this step if you plan to use wireless LAN only.*



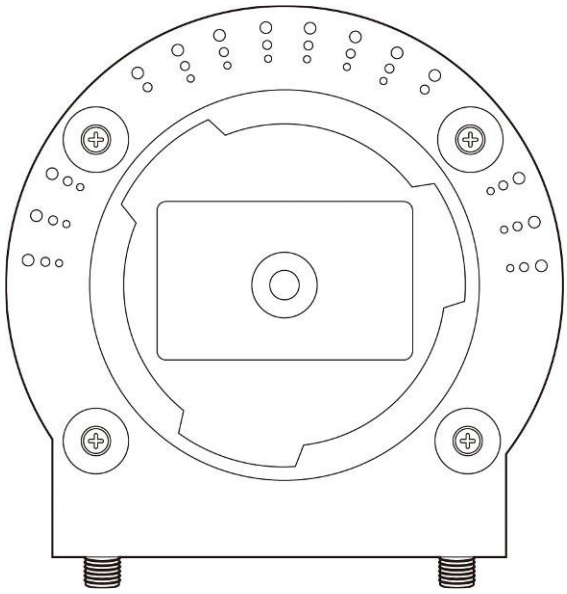
2. Plug the power adapter to wall socket, and connect the power connector to the power jack located at the bottom of the IP camera.



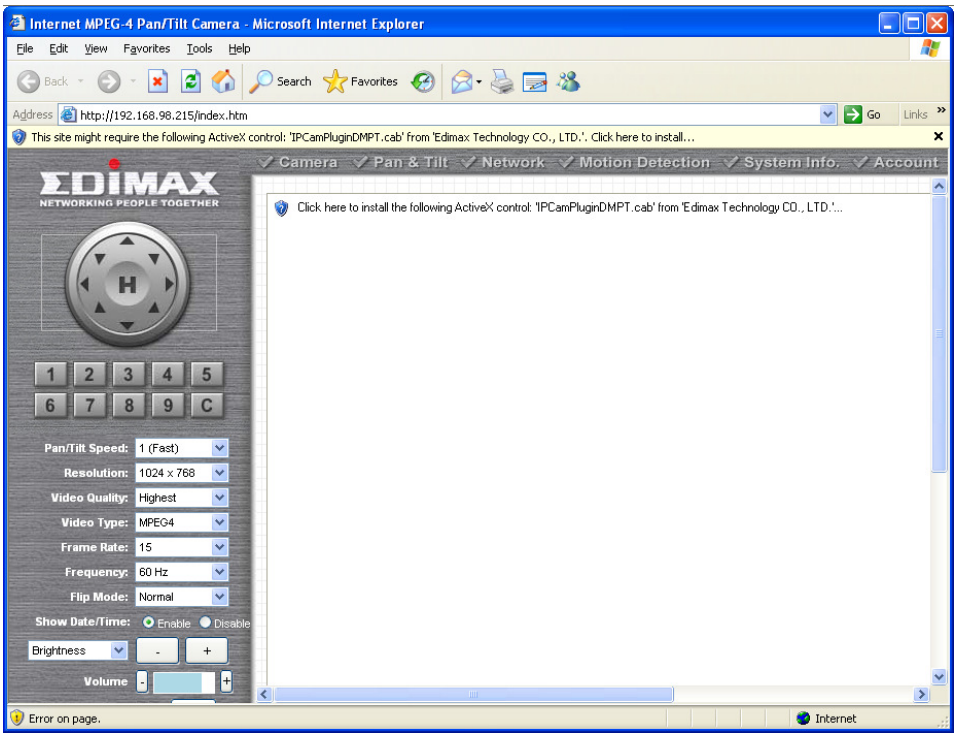
3. Connect two antennas to the antenna bases, which is located at the back of this IP camera.



4. Place the camera at a secure place, and point the camera to the place you wish to monitor. If you wish to hang the camera on the ceiling or wall, please use the tripod connector (located at the bottom of the camera) to secure the camera.



5. Launch Internet Explorer on your computer, and following the instructions given in next section to set the IP camera.



Chapter II: Using Web Management Interface

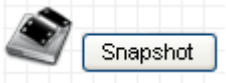
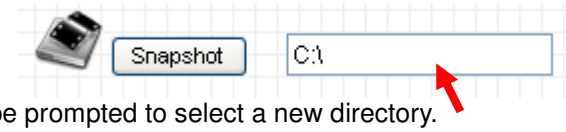
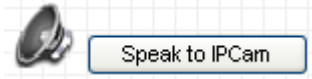
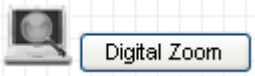
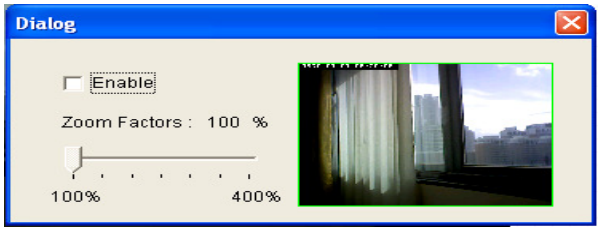
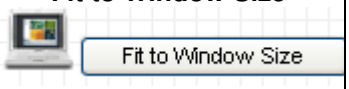
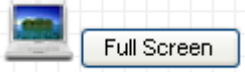
2.1 Camera Settings

The first menu after you logged onto web management interface is ‘Camera’, and this is the only menu you can see the real-time image from camera.

You can always back to this menu by clicking ‘Camera’ on the top of web management interface.

The descriptions of every setting in this menu will be given below:

Item	Description
Pan/Tilt Speed	Specifies the moving speed when you use pan / tilt function to point the camera to a new direction. Available options are 1 (fastest) to 5 (slowest). Select 1 to move the camera by a faster speed, but you will not be able to control the movement precisely. If you wan to move the camera in a more accurate manner, select a slower speed.
Resolution	Specifies the video resolution. Available options are 1024 x 768, 640 x 480, and 320 x 240 @ MPEG4 or 1280x1024, 640x480 and 320x240 @ MJPG Higher resolution provides more details about the objects captured by camera, but will consume more bandwidth, which will make the image refreshes very slow. If you have a slow Internet connection, you may want to use a lower resolution to make the image refresh faster. Selecting the resolution of 320 x 240 may cause the image become too small on a high-resolution computer monitor. If you want to save bandwidth while selecting a high resolution, please select a lower image quality (see below).
Video Quality	Specifies the quality of image captured by camera. There are 5 options from 'Highest' to 'Lowest'. Just like resolution, higher image quality will provide more details about the objects captured by camera, but the cost is bandwidth. Sometimes you just want to see if there's anything moving at the place where camera points to, you can select a lower image quality to get a higher image refresh rate.
Video Type	Select the video encoding type. Available options are 'MJPEG' and 'MPEG4'.
Frame Rate	The highest image refresh rate of this IP camera is 30, which is the same as TV. However, if you are using an Internet connection with limited bandwidth, and you don't need a fast image refresh rate, you can limit the maximum refresh rate (frame rate) to a certain value. Available options are 30, 15, 10, 5, and 3.
Frequency	If the place where this IP camera points to has a (or more) fluorescent light(s), the image may look flashing. In this case, you can adjust this setting to the frequency of electrical power; this can improve the image quality effectively. If you don't know which one you should use, just try any of them and select one with less flicker.
Flip Mode	If you're not putting this camera on a horizontal surface but hang the camera on the ceiling or wall, you can use this function to rotate the displaying image.
Brightness / **Saturation** / **Sharpness**	Select brightness, saturation, and sharpness from dropdown menu, and click ' - ' or ' + ' button to increase or decrease brightness / saturation / sharpness setting value. In certain environment, adjust brightness, saturation, and / or sharpness will help improve video quality.
Volume	Adjust the volume of audio output. Press '+' or '-' button to increase or decrease volume.
Multi-Camera Display 	Click one of these buttons to select 1 / 4 / 6 / 9 multi-camera view. See chapter 2.2.3 for detailed instructions.

NOTE: When you change any setting(s) listed above, please click 'Apply' button so the change(s) will take effect. For following functions, changes will take effect right away.	
Pan / Tilt Control 	Moves camera to a new direction. Press one of 8 directional buttons to move the camera, and press 'H' to move the camera back to 'home' (original) position.
Preset Points 	You can set up to 9 preset points of camera position; press the number to move the camera to preset point instantly. See next chapter for detail instructions of how to set preset points. Press 'C' and the camera will guard between all preset points automatically.
Snapshot 	Click 'Snapshot' button to save the displaying image as an image file, a message box will appear after you click 'Snapshot' button, showing the filename and location of saved image file (default filename is current date and time). Default directory used to save image file is 'C:\', you can change the directory by clicking the text input box located at the right of 'Snapshot' button:  and you'll be prompted to select a new directory.
Recording 	Press this button to record the displaying image as a video file in AVI format, and you can play the video file back by Windows Media Player. To stop recording, press 'Stop Recording' button (the same button). You can also change the directory used to save video file.
Speak to IP Cam 	You can transmit the voice received by your computer's microphone to the camera's external speaker. Press and hold this button, then speak to the microphone. Please note that external speaker must be connected to this camera.
Digital Zoom 	If you wish to enlarge certain portion of the captured image, you can click this button to set digital zoom:  Click 'Enable' to enable digital zoom function, then you can drag the slide bar to adjust zoom ratio. You can also use your mouse to drag the zoom area (the yellow square) to reposition the zoom area.
Fit to Window Size 	Click this button and the image size will be adjusted to fit the size of browser window.
Full Screen 	Click this button to display the image in full-screen mode (uses all available space to display the image captured by this camera).

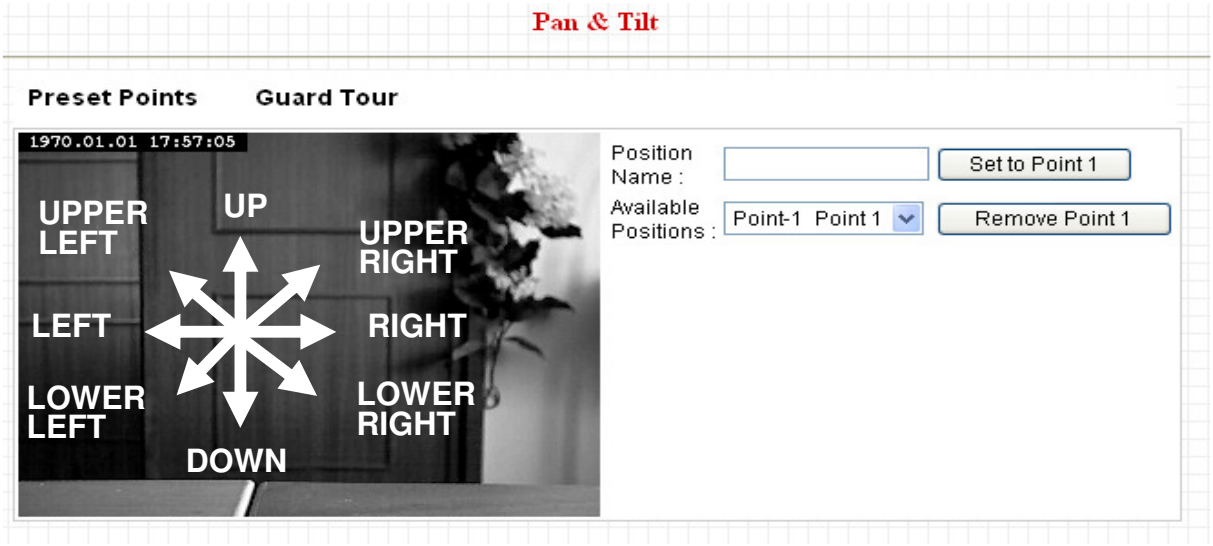
2.2 Pan and Tilt

This IP camera supports pan and tilt function, as you explored in last section. You can also make the camera move automatically in pan and tilt menu by defining a set of pre-defined path.

You can access this menu by clicking ‘PTZ’ on the top of web management interface.

2.2.1 Preset Points

You can define the camera position and save the position so you can recall the position later again. This camera provides 9 memory slots; follow the following instructions to move the camera and set a new preset point:



1. Select a memory slot from ‘Available Positions’ dropdown menu first.

2. To move the camera, click the position of labeled text (not shown on image) on the image to move the camera to the direction. You may need to set the Pan / Tilt speed to a slower setting, so you can move the camera in a more accurate manner.

3. When you move the camera to the position you want, type a name in ‘Position name’ field, and click ‘Set to Point *n*’ (where ‘n’ is the number of memory slot) button to save the position to selected memory slot.

After you set the position, you can recall the position from ‘Camera’ menu (click the position number button), and the camera will move to preset position instantly.

If you want to remove a preset position, select the memory slot from ‘Available Positions’ dropdown menu, and then click ‘Remove Point *n*’, (where ‘n’ is the number of memory slot you wish to clear position setting).

2.2.2 Guard Tour

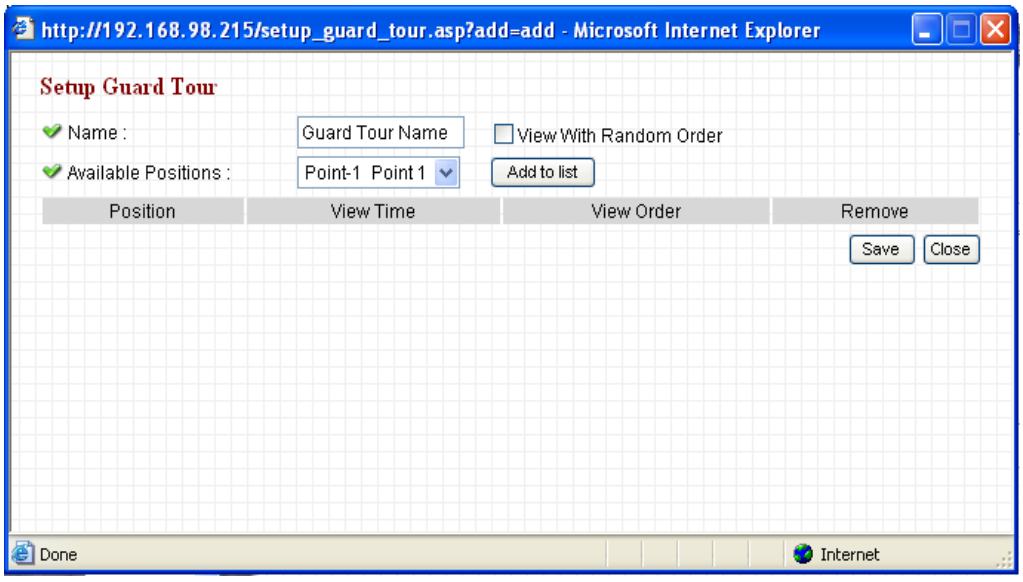
You can make the camera move between many pre-defined positions, and define the time you wish to pause at every position; this is called as ‘Guard Tour’.

Before you can use this function, you have to define at least 2 positions in ‘Preset Points’ section (refer to last section for detailed information).

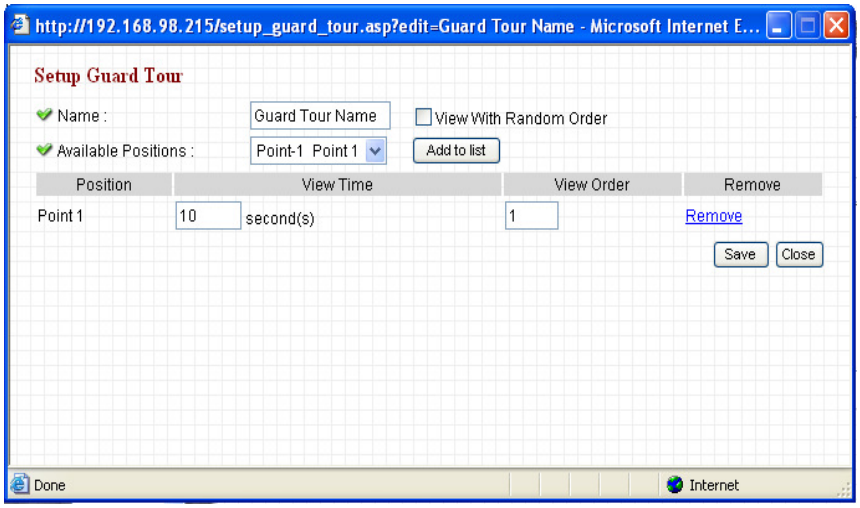
The descriptions of every setting in this menu will be given below:

Item	Description
Add	Add a new set of guard tour (see instructions below)
Edit	Edit a selected guard tour. The parameters for an existing guard tour will be recalled and you can modify them.
Start / Stop	Select a guard tour and click this button to start grand tour, click again to stop it. After a guard tour has been started, go to ‘Camera’ menu to see it in action. Only one guard tour can be activated at the same time.
Remove	Remove a guard tour from the list.

If you wish to add a new set of guard tour, click ‘Add’ to start to add a new guard tour set:



The descriptions of every setting in this menu will be given below:

Item	Description
Name	Input the name of this set of guard tour here. As you may have many sets of guard tour, please give it a meaningful name so you can remember the main purpose of this set.
View with random order	Do not visit all positions in this guard tour by order; visit them randomly instead.
Available positions	Select preset points from dropdown menu here, then click 'Add to list' to add this position to this guard tour. When you click 'Add to list', you'll be prompted to set these parameters:  *View Time: Define the time you wish the camera to stop at this position in seconds.* *View Order: Give this position a number greater than 1 and not the same with other positions, and* guard *tour will start visiting positions by order (from 1 to last number, and then start from 1 again).* *Remove: Remove this position from list.* *Save: Save settings for this position.* *Close: Close this window and discard all changes.*

2.2.3 Multi-Camera Display

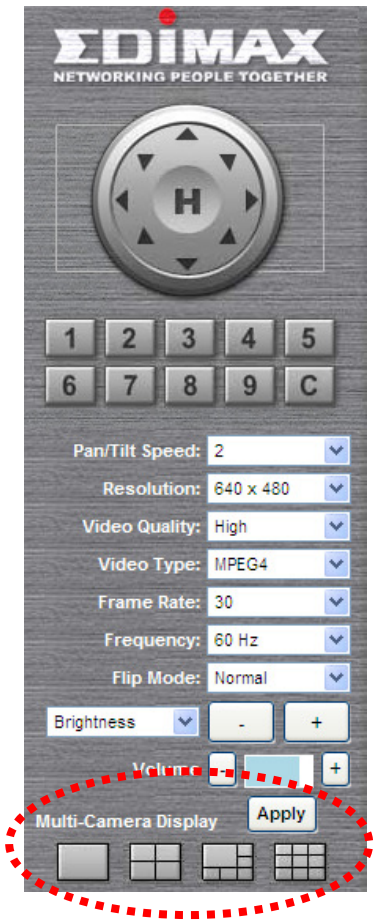
If you have more than one IC-7000PT(n) V2 IP camera, you can view up to 9 videos captured by every camera, so you can monitor up to 9 places at the same time.

Before you do this, please collect the following information:

a. The IP address of each camera

b. The port (default: 80) of each camera

You can get above information from 'Network' menu of each camera, and then you can log onto the web management interface of any camera, and select one type of multi-camera display:



You can select one type of multi-camera display:

a. One-camera view: Only one camera's video will be displayed, and you can only see the video of the camera you logged onto.

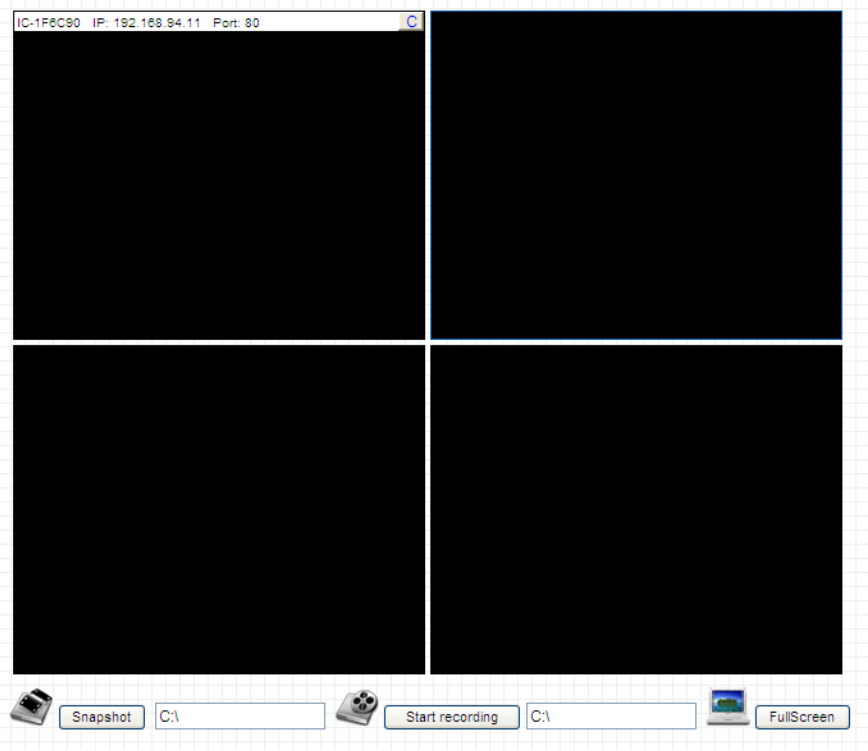
b. Four-camera view: You can see the video of up to 4 cameras.

c. Six-camera view: You can see the video of up to 6 cameras, and one camera's view is larger than others.

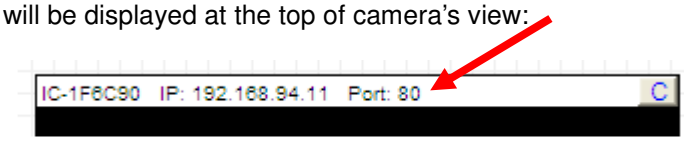
d. Nine-camera view: You can see the video of up to 9 cameras.

Please note that the upper-left camera view always show the video of the camera you connected to and cannot be changed.

The following example uses four-camera view as example, and the video of the camera you connected to is displaying at upper-left view:

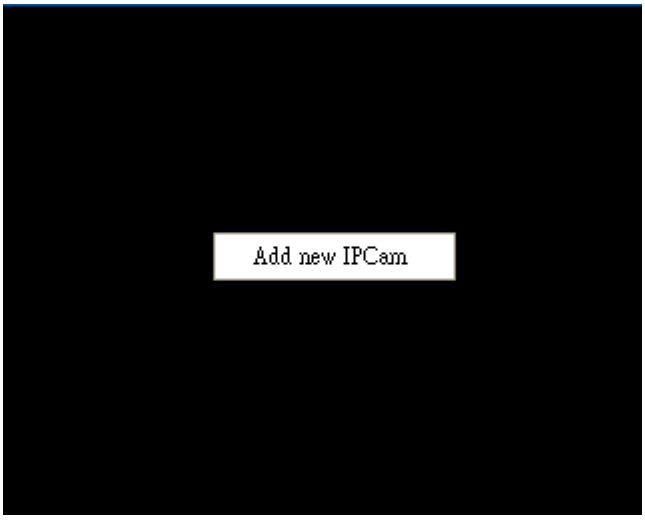


The IP address and port will be displayed at the top of camera's view:

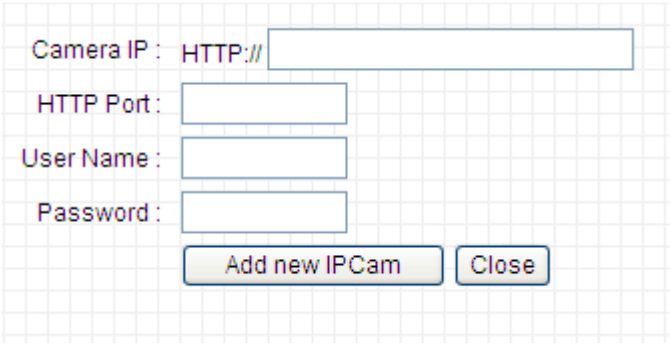


When IP and port information is displayed on the top of camera's view, indicates the camera is configured. You can also click the image to point the camera to a new position, as instructed in chapter 2.2.1. To point the camera to center position, click 'C' mark located at upper-right corner.

If you wish to configure new camera for a specific camera view, please right-click on the camera view and select 'Add new IPcam':

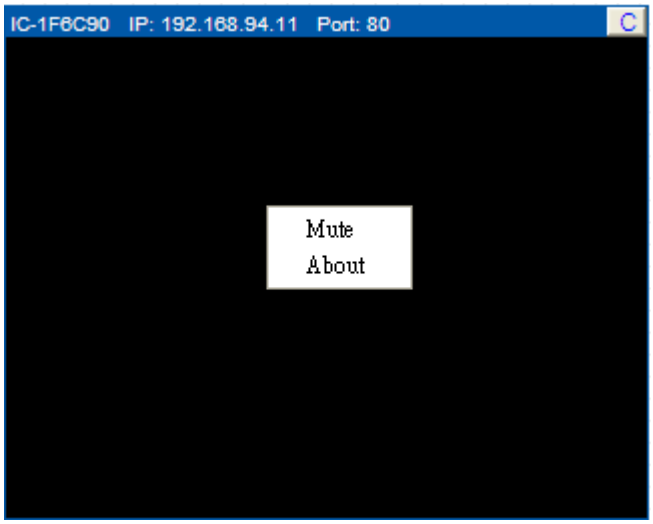


A new popup window will appear to allow you to set the information of camera. If you have popup blocker installed, you may have to disable it temporarily so you can see the popup window:

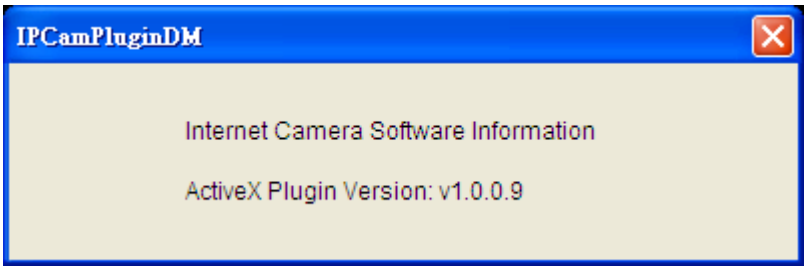


Please input the information in respective field (Camera IP, HTTP Port etc.), then click 'Add new IPCam' button to connect to this IP camera and display it's view in camera view. If you don't want to add the camera now, click 'Close' button and the popup window will be closed.

When a camera is connected, you can also right-click on camera's video and a sub-menu will appear:



Click 'Mute' and you won't hear the voice captured by this camera, and you can also click 'About' to check the version information of camera's ActiveX plug-in:

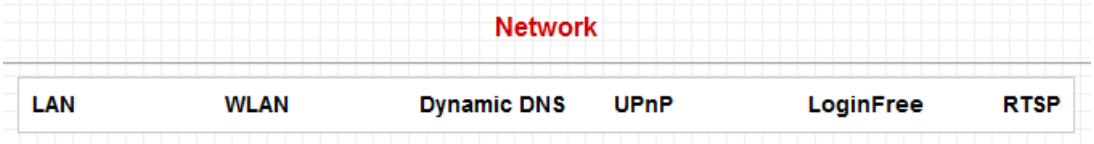


2.3 Network Settings

All network-related settings can be found in this menu, and you have to specify TCP/IP parameters in this menu if you want to change IP address, use PPPoE, Dynamic DNS, and activate UPnP function.

You can access this menu by clicking 'LAN' on the top of web management interface.

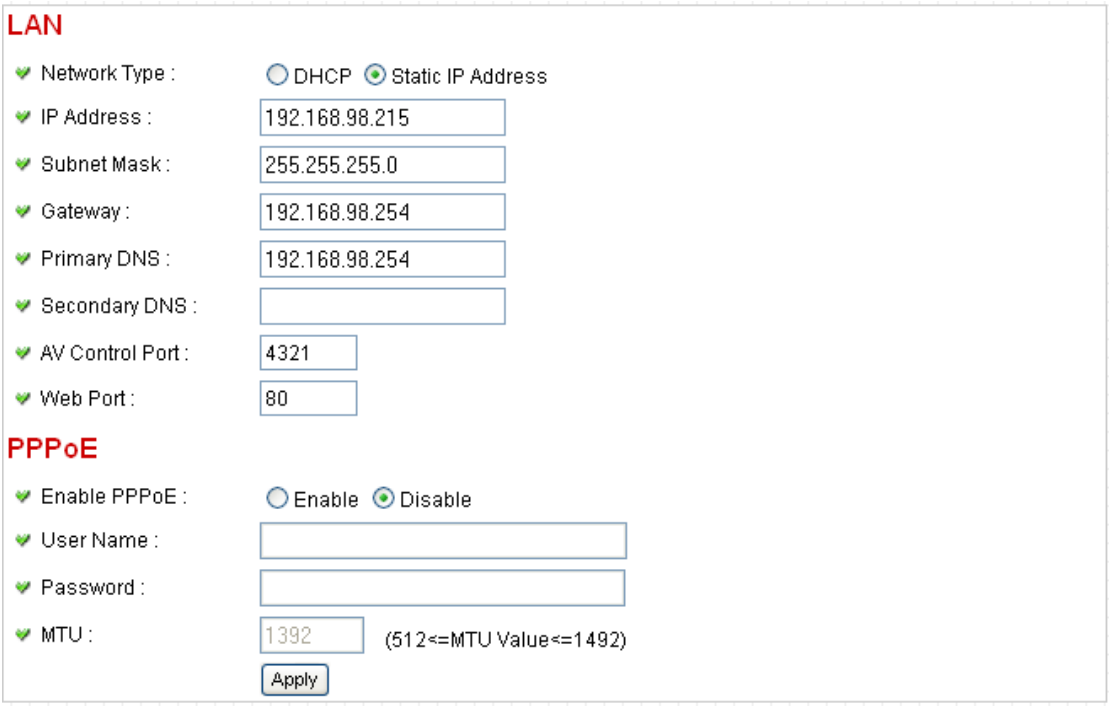
After you selected 'Network', network setting menu will appear. There are 5 sub-menus available here:



Please click the network setting you wish to set, and then refer to instructions given below:

2.3.1 LAN

You can define IP address and select the port number you wish to use here.

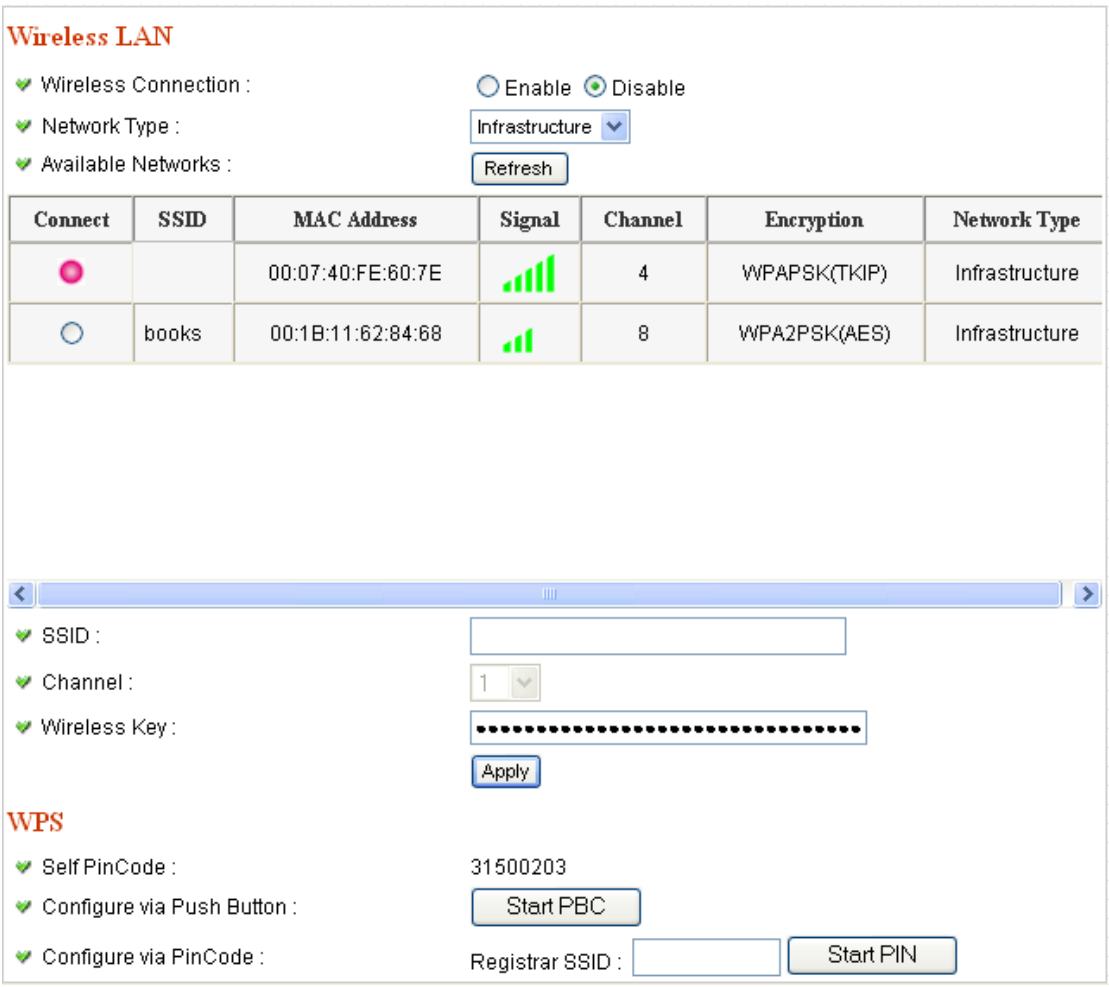


The descriptions of every setting in this menu will be given below:

Item	Description
Network Type	This camera can obtain the IP address from DHCP server automatically (if you have one), or set a fixed IP address. Select 'DHCP' to obtain IP address automatically or 'Static IP Address' to assign this IP camera with a fixed IP address. When 'DHCP' is selected, IP address parameters below will be grayed out.
IP Address	Specify the IP address for this IP camera here.
Subnet Mask	Specify the subnet mask for this IP camera here.
Gateway	Specify the gateway address of the local network here.
Primary DNS	Specify the IP address of DNS server here. Please input IP address only. If you don't know the address of DNS server, ask network administrator or your ISP for help.
Secondary DNS	Specify the IP address of backup DNS server here. When primary DNS is unreachable, IP camera will use the IP address specified here as DNS server. This field is optional.
AV Control Port	Specify the port number of video transfer here. If you have firewall on your network, you need to allow computers on Internet to access this port number of the IP address of IP camera, or you'll not be able to view video from Internet.
Web Port	Specify the port number of web management interface here. If it's not 80, you'll have to add ':*port'* after the IP address / hostname of this IP camera. For example, if the HTTP port number you specified here is 90 and the IP address of IP camera is 10.20.20.30, then you have to input *'http://10.20.20.30:90'* in the address bar of Internet explorer.
Enable PPPoE	Select 'Enable' to activate PPPoE function of this IP camera, select 'Disable' to disable it.
User Name	Input the PPPoE username assigned by your ISP here.
Password	Input the PPPoE password assigned by your ISP here.
MTU	Input the MTU (Maximum Transmission Unit) given by your ISP here. Ask your ISP if you don't know what value you should input here. Default value should work with most of ISPs and will give you a nice network performance.

Click 'Apply' to save settings and make the new settings take effect.

2.3.2 WLAN



The descriptions of every setting in this menu will be given below:

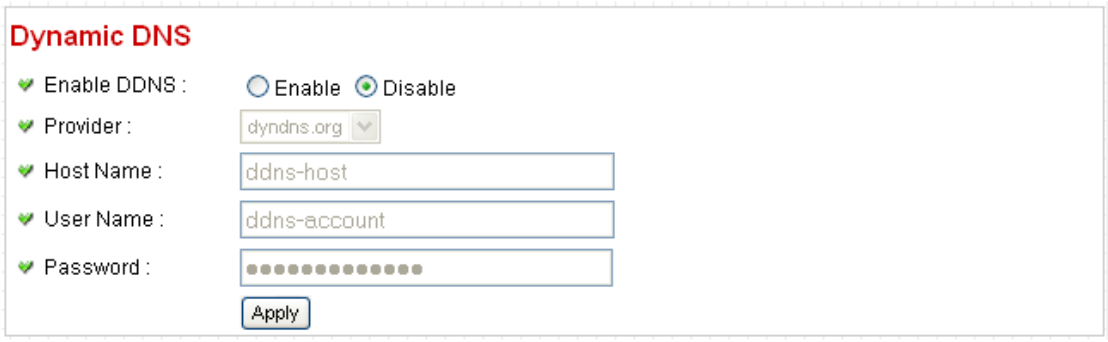
Item	Description
Wireless Connection	Select 'Enable' to activate wireless network function of this IP camera, select 'Disable' to disable it.
Network Type	Select the network type of wireless connection. Available options are 'Infrastructure' (Connect the IP camera to a wireless access point), and 'Adhoc' (This IP camera will become a stand-alone wireless network point, other wireless computers / devices can discover this IP camera and connect to it without wireless access point). You can set to 'Adhoc' when you don't have any wireless access point, but your computer has wireless network card. Set to 'Infrastructure' when you have wireless access point, and you have computers with wired network connection.
Available Networks	Here shows all wireless access points found by this IP camera. Please note not all access points will be displayed at the same time, if the access point you expected to connect does not appear, you may have to click 'Refresh' button for several times until it appears. The descriptions of all fields is listed below: Connect: You can select the wireless access point you wish to connect here. SSID: the SSID of all found wireless access points will be shown here. Some wireless access point may hide their SSID; in this case, you have to identify them by their MAC address.

	MAC Address: If you there are many wireless access points in proximity or some wireless access point hides it's SSID, you can use MAC address to distinguish them. Signal: Shows the radio signal strength in percent. Channel: Shows the radio channel of this wireless access point. Encryption: Shows the encryption type used by this wireless access point. You must use the same encryption type if you wish to connect to a certain wireless access point. If the wireless access point does not use encryption, 'Disabled' will be displayed here. Network Type: Shows the network type of a certain wireless access point (Infrastructure or Adhoc).
SSID	Input the SSID of the wireless access point you wish to connect. It should be less than 32 alphanumerical characters. When you select a wireless access point above, it's SSID will be filled in this field automatically. However, if the SSID is not displayed (the wireless access point you selected choose to hide it's SSID), you have to know it's SSID and input it here, or you will not be able to connect it.
Channel	Select the radio channel you wish to use here. When network type is 'Infrastructure', the radio channel is auto-selected according to the channel that wireless access point uses. You can only select the channel number when network type is 'Adhoc'.
Wireless Key	Input the encryption key of selected wireless access point here. This is required when access point you wish to connect uses encryption.
Self PinCode	Here displays the WPS pin code used to connect to WPS-enabled wireless access points. You have to input this number into the WPS enabled access point to establish WPS connection.
Configure via Push Button	Click this button and this camera will enter PBC-style WPS connection state for 120 seconds. Please push 'Start PBC' button on the wireless access point you wish to connect within 120 seconds to establish WPS connection (The remaining time will be displayed on the button). If connection can not be established after 120 seconds, you'll be prompted by a message box, and you can press 'Start PBC' button to try again.
Configure via PinCode	If you have wireless access point's WPS PIN code, you can input it here and press 'Start PIN' button to start to establish PIN-style WPS connection.

2.3.3 Dynamic DNS

If your ISP does not give you a fixed Internet IP address (i.e. the Internet address you're using when you access the Internet is not always the same – ask your ISP for detailed information), you can use this function to help you locate the IP address of this IP camera when you're away from home or office.

Before you can use this function, you'll need to apply for an account at dyndns.org (http://www.dyndns.org). Detailed instructions of how to apply a new account can be found on dyndns.org's website.



The descriptions of every setting in this menu will be given below:

Item	Description
Enable DDNS	Select 'Enable' to activate Dynamic DNS function of this IP camera, select 'Disable' to disable it.
Provider	Select dynamic DNS service provider here. Only dyndns.org is available currently.
Host Name	Input dynamic DNS host name here.
User Name	Input dynamic DNS user name here, must be the same as the one you applied on dyndns.org.
Password	Input dynamic DNS password here, must be the same as the one you applied on dyndns.org.

Click 'Apply' to save settings and make the new settings take effect.

2.3.4 UPnP

When UPnP function is activated, all UPnP-compatible computers / network devices will be able to discover this IP camera automatically (only those in the same local network).

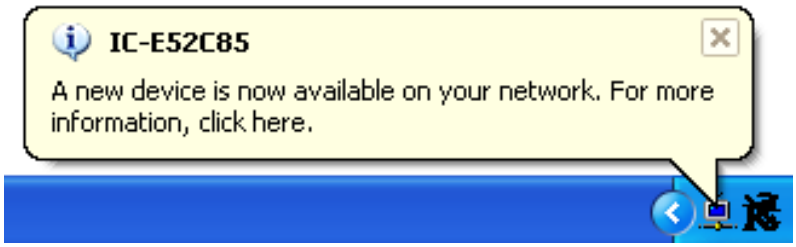
This function is useful and you don't have to remember the IP address of this IP camera. Simply open 'Network neighbor' and it's there!

The descriptions of every setting in this menu will be given below:

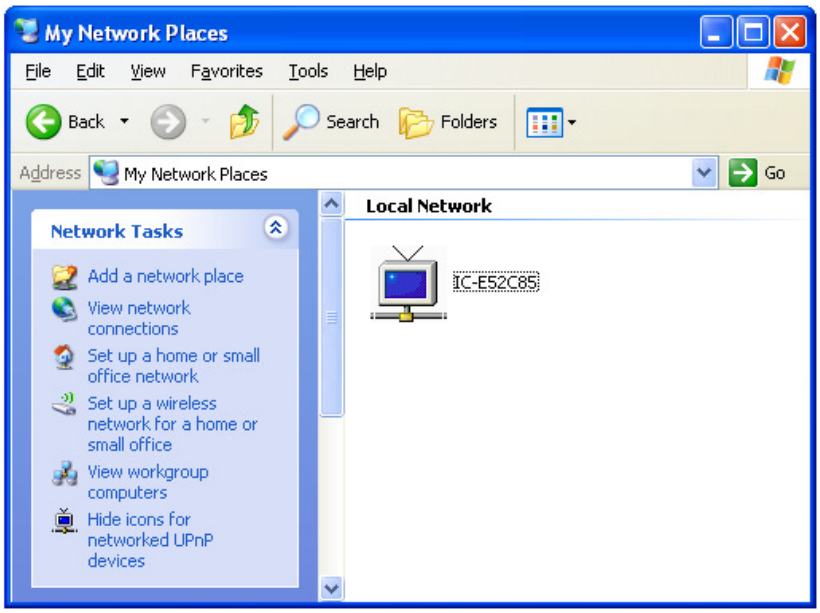
Item	Description
Enable UPnP	Select 'Enable' to activate UPnP function of this IP camera, select 'Disable' to disable it.

Click 'Apply' to save settings and make the new settings take effect.

After UPnP function is activated, a popup message will appear:



Click the message to open 'My Network Places', and you'll see the IP camera:



You can double-click the icon to launch Internet Explorer and log onto IP camera's web management interface directly.

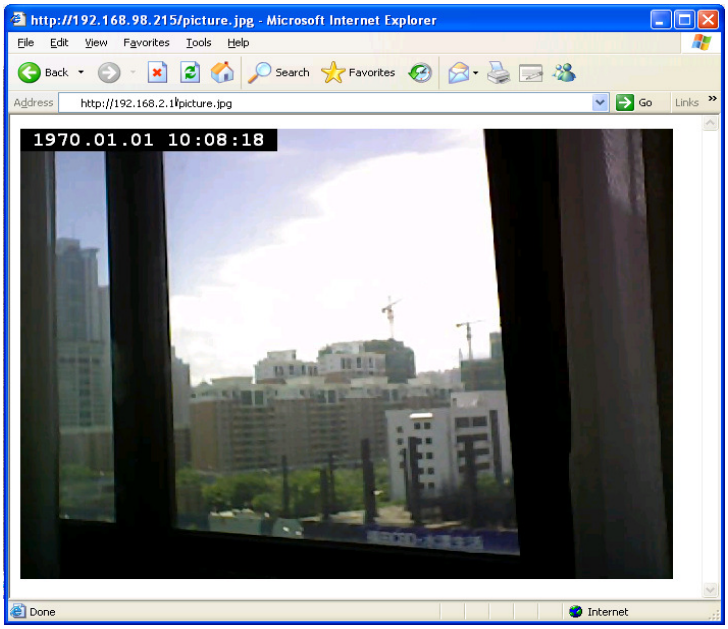
2.3.5 Login Free

This camera provides a method to let unauthorized users to view the image captured by this camera, which is called as 'LoginFree'. When you wish to let everyone to view the image captured by this camera, or integrate the image with your own web application, you can use this function:

Input the filename here, and click 'Apply' to save settings, then other users can access the image by this filename with .jpg extension with the camera's IP address as prefix. For example, if your camera's IP address is '192.168.2.1' and the filename you set here is 'picture', then everyone on the web can access the image captured by this camera by using the following address:

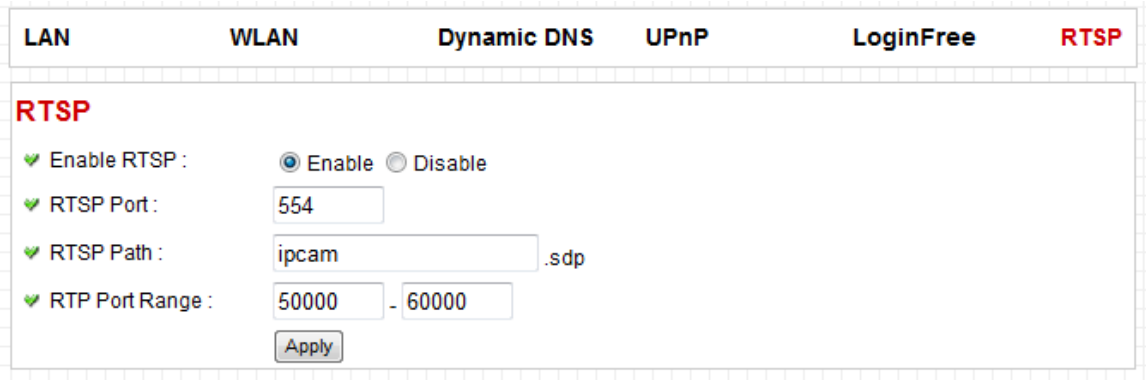
http://192.168.2.1/picture.jpg

Please note that no authentication will be required to see the captured image. If you wish to disable this function, clear the text in 'Filename' field and click 'Apply.



2.3.6 RTSP

Before using RTSP player to view video image from camera, you will need to configure the RTSP settings in this menu.



Item	Description
Enable RTSP	You can select 'Enable' when you wish to use RTSP player to view video image from camera.
RTSP Port	This option allows you to enter RTSP port. The default value of RTSP port is 554. Please make sure the RTSP port applied on the RTSP player shall be same as the RTSP port applied on the IP cam.
RTSP Path	You can input RTSP path here. Please make sure the RTSP path applied on the RTSP player shall be same as the RTSP path applied on the IP cam.
RTSP Port Range	You can input the RTSP port range here. The default value of RTSP port range is 5000 -60000

2.4 Motion Detection

When you wish to use this camera to monitor the activities, motion detection function will be very useful. Camera will detect the motion in captured image, and take a snapshot or video recording when motion is detected. So you can use this camera to keep the safety of the belongings you have.

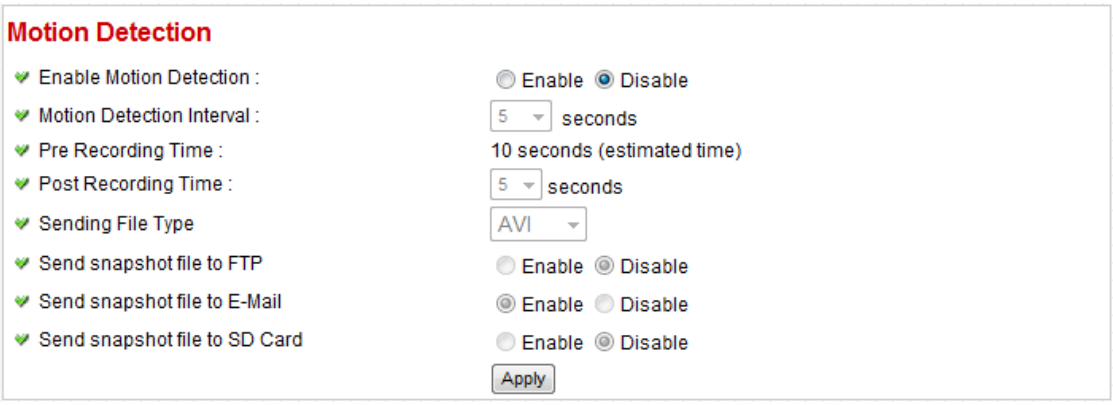
To use motion detection, click the following link from the top of menu:

After you selected 'Motion Detection', a sub-menu will appear. There are 5 sub-menus available here:

Detailed descriptions of every setting will be given below.

2.4.1 Motion Detection

You can use this menu to setup basic motion detection settings:



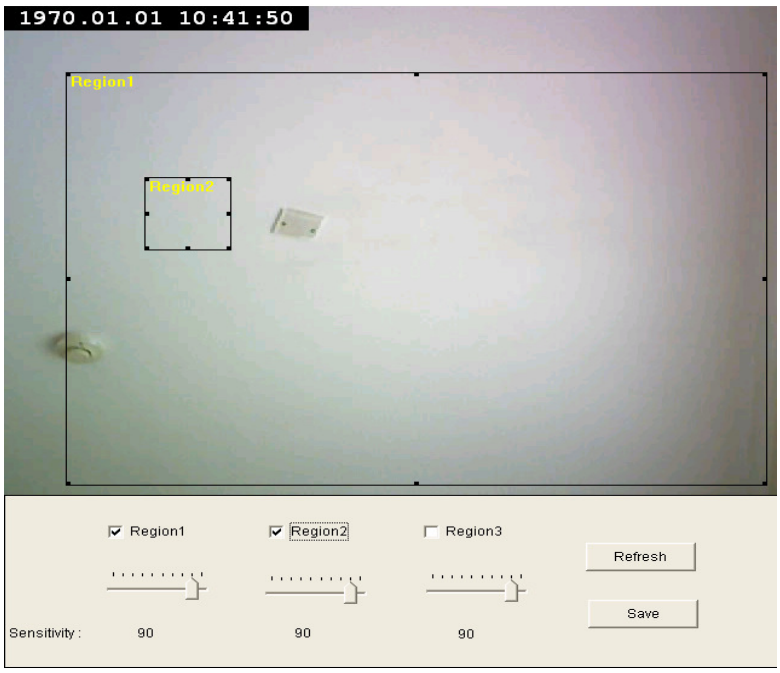
The descriptions of every setting in this menu will be given below:

Item	Description
Enable Motion Detection	Select 'Enable' to enable motion detection, and select 'Disable' to disable this function.
Motion Detection Interval	Select the time interval between two motions from dropdown menu. When a motion is detected, camera will not detect any motion again within the time interval you specified here. Available options are from 0 second (always detect new motion) to 60 seconds.
Pre Recording Time	This option allows the IP cam to capture additional image frames prior to the event. The duration of pre-recording is based on the settings of Resolution, Video Type, and Frame Rate and estimated by the IP cam automatically. For example, if the Resolution is 640x480@MPEG4 and Frame Rate is 15fps, the pre-recording time is about 2 sec.
Post Recording Time	Select the duration you wish this camera to record image when a motion is detected from dropdown menu. The available option of the duration is based on the settings of Resolution, Video Type, and Frame Rate. For example, if the Resolution is 640x480@MPEG4 and Frame Rate is 15fps, the available options of are 1, 2, and 3 (second).
Sending File Type	Select the file type that will be saved when a motion is detected. Select 'JPEG' and a still picture in JPEG format will be saved; and select 'AVI' to save a motion video clip.
Send snapshot file to FTP	Select 'Enable' to send the saved file to appointed FTP server when a motion is detected, select' Disable' to disable this function. You have to configure FTP server parameters in 'FTP Configuration' menu first, so this function will take effect (see below).
Send snapshot file to E-Mail	Select 'Enable' to send the saved file to appointed E-mail address when a motion is detected, select' Disable' to disable this function. You have to configure mail server parameters in 'FTP Configuration' menu first, so this function will take effect (see below).
Send snapshot file to SD Card	Select 'Enable' to send the saved file to SD card when a motion is detected, select' Disable' to disable this function. You have to insert a working SD card into the SD slot of this camera first, so this function will take effect.

Click 'Apply' to save settings and make the new settings take effect.

2.4.2 Motion Region

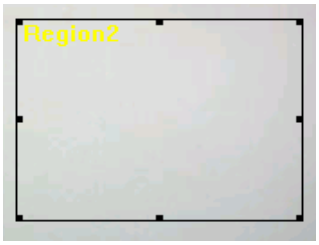
You can define the motion detection region within the image that camera captures, so this camera will ignore motions which are not covered by the motion region setting, and reduce the chances of false alarm.



The descriptions of every setting in this menu will be given below:

Item	Description
Region 1 – 3	Check the box to enable motion detection region 1 to 3. You can check multiple boxes to enable multiple motion detection regions. When you checked a box, a new region (and region number) will be displayed on captured image.
Sensitivity	Move the slide bar to change the motion detection sensitivity setting: Drag the slide to the right to increase sensitivity (camera will detect minor changes in the image), and drag the slide to the left to decrease sensitivity (camera will only detect major changes in the image).
Refresh	In case the objects of the image captured by the camera moved, click this button to reload the image captured by camera, so you can decide the motion detection region more precisely.
Save	Save motion detection region settings.

To change the motion detection region, you can ‘resize’ and ‘reposition’ it:

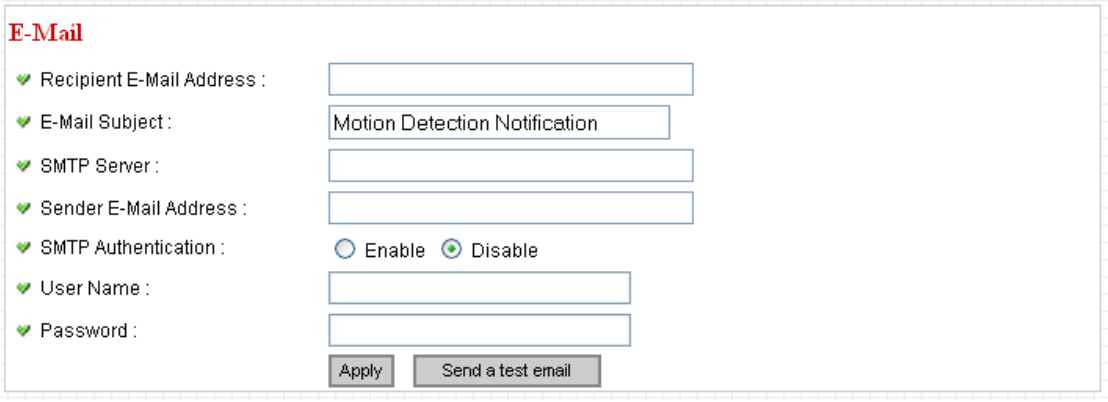


Move the mouse cursor to the eight dots located at the border of motion detection region, and the mouse cursor will switch to ↔ , ↘, or ↕. You can click and hold mouse button and move the mouse to resize the motion detection region.

To move reposition the motion detection region, move the mouse within the motion detection region, and the mouse cursor will switch to ✥. Click and hold mouse button and move the mouse to reposition the motion detection region.

2.4.3 Email

You can define the destination address of E-mail sending and mail server parameters here.



The descriptions of every setting in this menu will be given below:

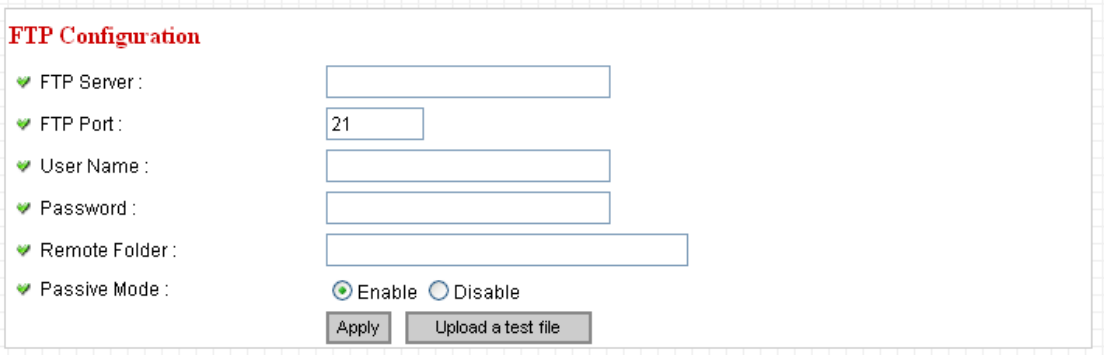
Item	Description
Recipient E-Mail Address	Input the email recipient's Email address here.
E-Mail Subject	Specify the title of sending email, so you can identify the mail sent from this camera from others quickly.
SMTP Server	Input the IP address or host name of the SMTP server (the server that delivers the Email for you) here. If you don't know, please refer to the SMTP server you're using in your Email software (like Outlook, Outlook Express etc.), or ask your network administrator or ISP.
Sender E-Mail Address	Input the Email address of mail sender, this will help you to identify the Email sent by this IP camera by sender's Email address. *NOTE: Some mail server would reject to deliver the Email from unknown sender, it's recommended to input your own Email address here, or any other actual one.*
SMTP Authentication	Some SMTP server requires mail senders to be authenticated before they can send Email. If your SMTP server requires you to do so, please select 'Enable', or select 'Disable' to disable it. If you don't know, please refer to the SMTP server you're using in your Email software (like Outlook, Outlook Express etc.), or ask your network administrator or ISP.
User Name	Please input the user name of SMTP server here, if your SMTP server requires the use of authentication.
Password	Please input the password of SMTP server here, if your SMTP server requires the use of authentication.

Click 'Apply' to save settings and make the new settings take effect.

After that, you can click 'Send a test email' to send a testing Email to the address you set here, so you can make sure the setting you specified here is correct and working.

2.4.4 FTP Configuration

You can set FTP server's parameters here.



The descriptions of every setting in this menu will be given below:

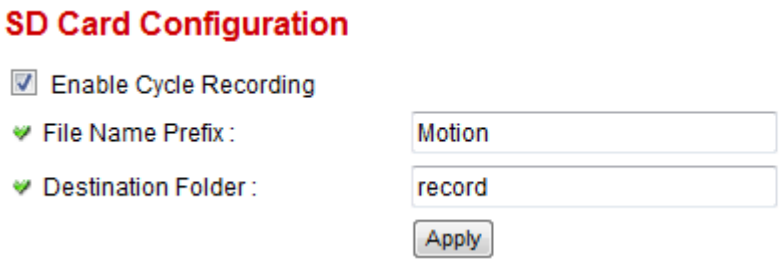
Item	Description
FTP Server	Input the IP address or host name of the FTP server you wish to use here.
FTP Port	Input the port number of the FTP server you wish to use here.
User Name	Input the user name of the FTP server you wish to use here.
Password	Input the password of the FTP server you wish to use here.
Remote Folder	Input the remote folder name on the FTP server here. If nothing is specified here, all uploaded image files will be placed in FTP server's root directory. Please ask FTP server's administrator to know which folder you should use. Certain user name may have restrictions and therefore can not place the file in the directory not owned by the user.
Passive Mode	Select 'Enable' to use passive mode to send file, or select 'Disable' to not to use passive mode to send file. Some FTP servers require passive mode, if you don't know, please ask FTP server's administrator; most of FTP servers will work fine with both modes, but if you found that non-passive mode is not working, you can try to use passive mode.

Click 'Apply' to save settings and make the new settings take effect.

After that, you can click 'Upload a test file' to send a file to the FTP server you set here, so you can make sure the setting you specified here is correct and working.

2.4.5 SD Card Configuration

You can define the filename and destination folder when saving a file in SD card.



The descriptions of every setting in this menu will be given below:

Item	Description
Cycle Recording	This option allows the IP cam to delete the oldest saved files when the capacity of the SD card is full for saving the latest recorded image.
File Name Prefix	Specify the filename prefix (the texts which will be added before the file sequence number).
Destination Folder	Specify the folder name that camera will store the saved image or video clip.

Click ‘Apply’ to save settings and make the new settings take effect.

2.5 System Info

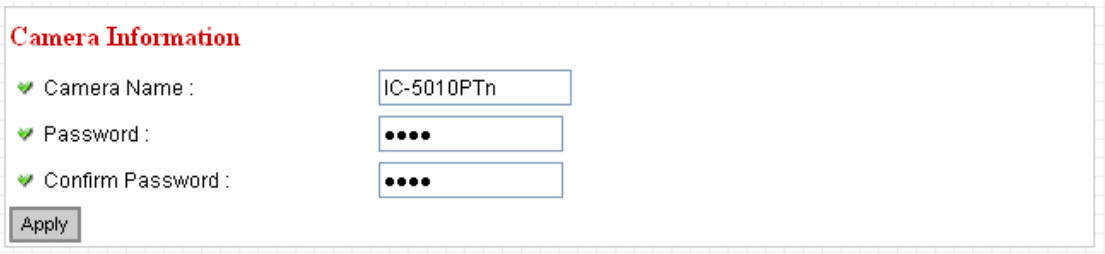
You can use this menu to get the operational information of this camera:
…

After you selected ‘System Info.’, a sub-menu will appear. There are 4 sub-menus available here:

Detailed descriptions of every setting will be given below.

2.5.1 Camera Information

Camera information allows you to set the name and administrator’s password of this camera.



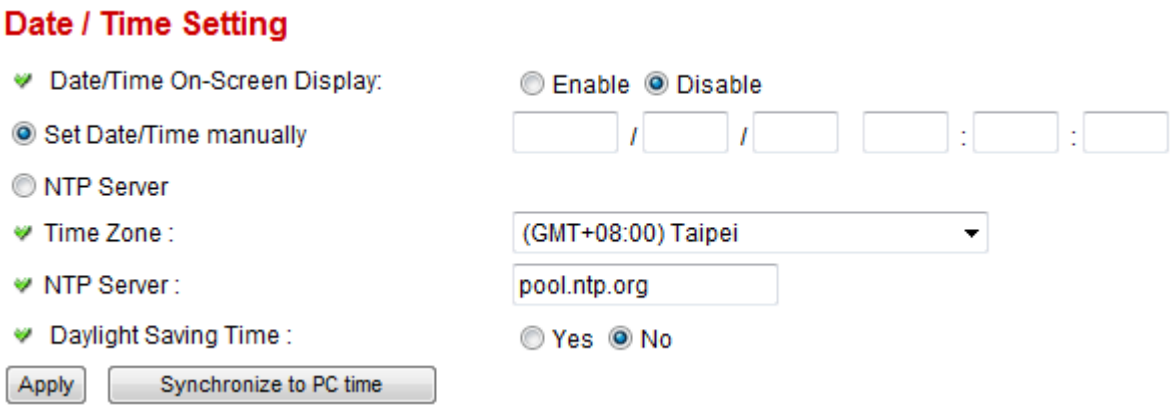
The descriptions of every setting in this menu will be given below:

Item	Description
Camera Name	Please specify the name of this IP Camera here. This can be used to identify your camera on the network when you have more than one IP camera in the same network. Default name begins with ‘IC-‘ plus the last 6 characters of the MAC address of this IP camera. You can modify the name to the one you can remember and meaningful to you, but never give all IP cameras in the same network with same name.
Password	Please specify user name ‘admin’ ‘s password here. (The one you need when you log onto web management interface and use ‘admin’ as user name.
Confirm Password	Please input the same password again, to make sure there’s no typo.

Click ‘Apply’ to save settings and make the new settings take effect.

2.5.2 Date / Time Setting

This setting allows you to change the date and time of the real time clock in this IP camera. You can set the time manually, or use network time protocol (NTP) to set the time automatically.



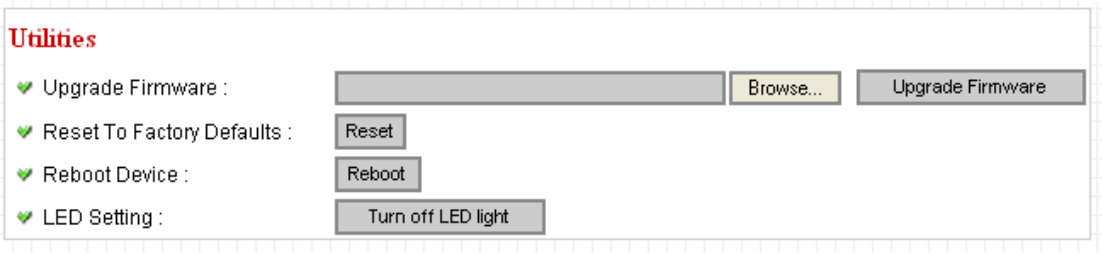
The descriptions of every setting in this menu will be given below:

Item	Description
Date/Time On-Screen Display	Select 'Enable' to display Date/Time on real-time image from camera, or select 'Disable' to not to display Date/Time on real-time image from camera.
Set Date/Time manually / NTP Server	If you select 'Set Date/Time manually', you can set the date and time of this camera manually. Please input the date and time you wish to set here. Date / time format is YYYY / MM / DD HH:MM:SS Time is in 24-hour format. You can click 'Synchronize to PC time' to use the time of the computer you're using. *Example: 24th August 2007 = 2007/ 08 / 24,* *and PM 9:24:30 = 21:24:30* If you select 'NTP Server', the camera will get the date and time from NTP Server automatically.
Time Zone	Please select the time zone of the country / city of resident from dropdown menu here.
NTP Server	Please input the IP address or host name of NTP server here. You can use default value 'pool.ntp.org', or ask your ISP for the IP address or host name, if they have one.

Click 'Apply' to save settings and make the new settings take effect.
If you wish to use the date and time setting of the computer which is connecting to the camera, click 'Synchronize to PC time' button. The date and time setting of the computer will be filled to date and time setting in this page.

2.5.3 Utilities

This menu allows you to upgrade firmware, clear all settings, reboot the IP camera, and switch LED lights on/off.



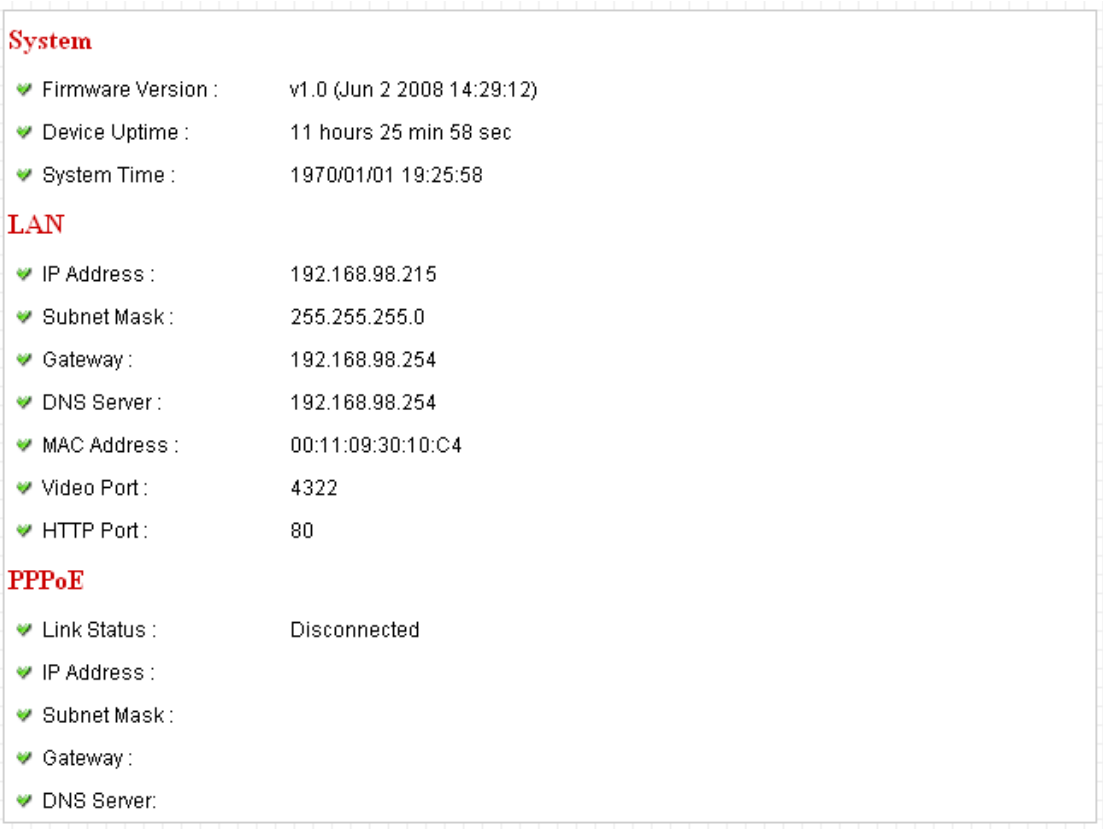
The descriptions of every setting in this menu will be given below:

Item	Description
Upgrade Firmware	If you downloaded latest firmware file from our website, you can click 'Browse' button to pick a firmware file located on your computer's hard drive and you can upload the firmware file to the IP camera later. After you selected a proper firmware file from your computer, click 'Upgrade Firmware' button to start upgrade. DO NOT DISCONNECT NOW! If the firmware file you provided is invalid of you didn't provide the firmware file, you'll be prompted to select another valid firmware file again. The IP camera will reboot after the upgrade procedure is done. **PLEASE NOTE THAT THE IP ADDRESS OF THE CAMERA WILL RESET TO DEFAULT VALUE: 192.168.1.61**
Reset to Factory Defaults	Clear all settings in the camera. Please think again before you do this, and then click this button to reset all settings. *NOTE: IP address will be reset to default value '192.168.2.3' also. You'll need to change the IP address setting of your computer if the IP address of your computer does not begin with '192.168.2', and subnet mask is not '255.255.255.0', or you'll not be able to connect to this IP camera again.*
Reboot Device	If you found the IP camera is responding slowly or behaves strange, you can click this button to try to reboot the IP camera, this may help.
LED Setting	Click 'Turn off LED light' button to switch the LED light of this IP camera off, so all LEDs on the IP camera will stop working, in case you don't want other people know the camera is transferring data. You can click this button again to switch LED lights on again.

Click 'Apply' to save settings and make the new settings take effect.

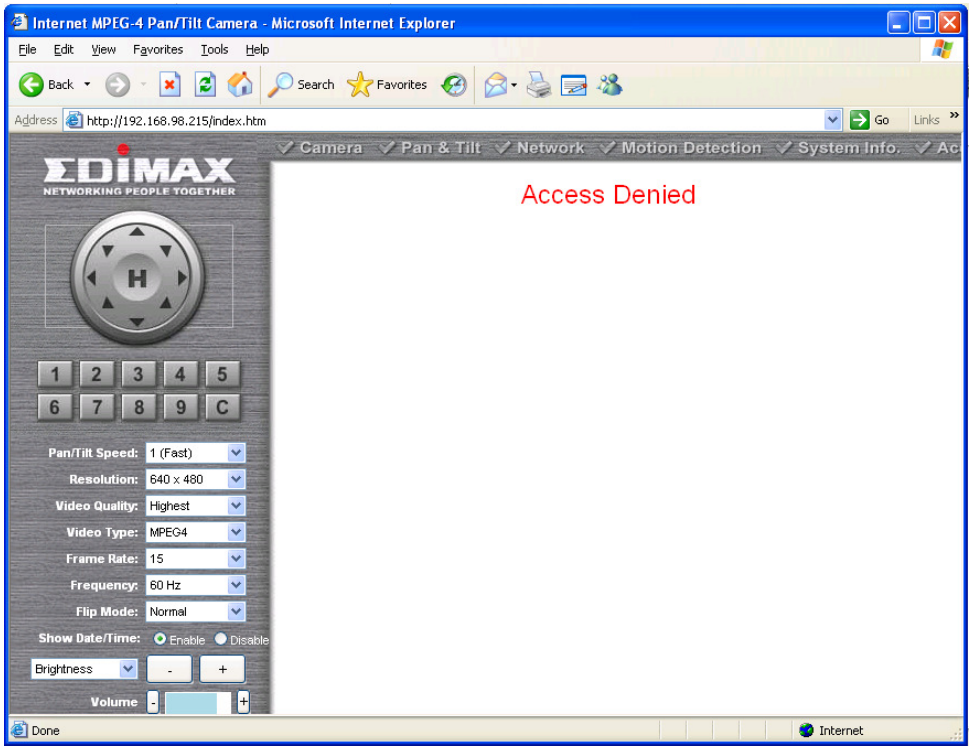
2.5.4 Status

This menu provides all information about this IP camera, like firmware version, system uptime, date / time, and network information.



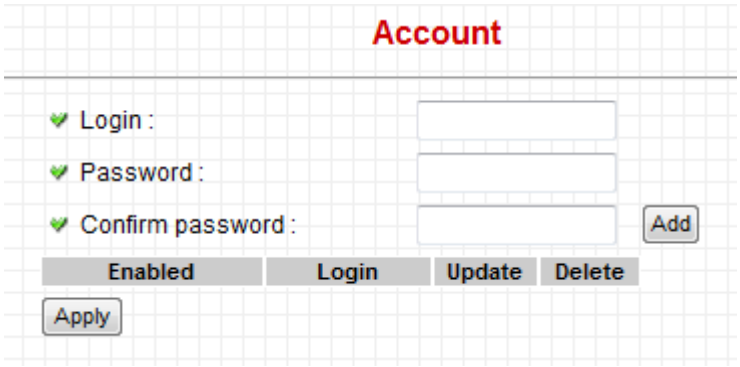
2.6 Account

If you wish to allow other people to view the live image captured by this camera, but don't want to allow them to modify system settings, you can give them user-level user name and password, so they can only view the image and can not change any system setting. When they want to click menus other than 'Camera', they will see the following message informing that they don't have permission to do that:



This camera supports up to 16** users.

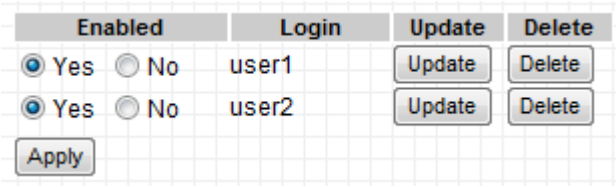
After you selected 'Account', you'll be prompted to input user account information:



The descriptions of every setting in this menu will be given below:

Item	Description
Login	Input the login name (user name) of this account.
Password	Input the password of this user here.
Confirm password	Input the password of this user here again for confirmation.
Add	Click this button to add the account.

When a user is added, it will be listed:



The descriptions of every setting in this menu will be given below:

Item	Description
Yes / No	Enable or disable this user account. If you just want to remove the access privilege of certain account and will give the privilege back later, you don't have to delete it, you can set to 'No' for this account when you want to remove the privilege temporarily, and set to 'Yes' for this user when you want to give the privilege back.
Update	Update the account's user name and password. You can input the user name and password for this account again, and click 'Add' to change its setting.
Delete	Delete this account. Please note that account will be detected right away when you click this button, so think again before you do it.

Click 'Apply' to save settings and make the new settings take effect.

Please note: only one user (including administrator) will be able to view the image of IP camera at the same time.

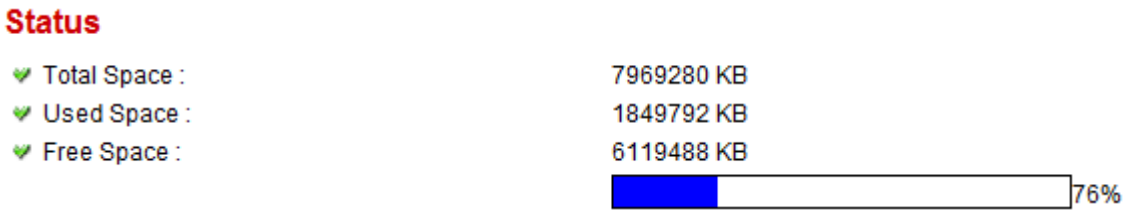
2.7 SDHC

After you selected ‘System Info.’, a sub-menu will appear. There are 4 sub-menus available here:

Please click the SD card setting you wish to set, then refer to instructions given below:

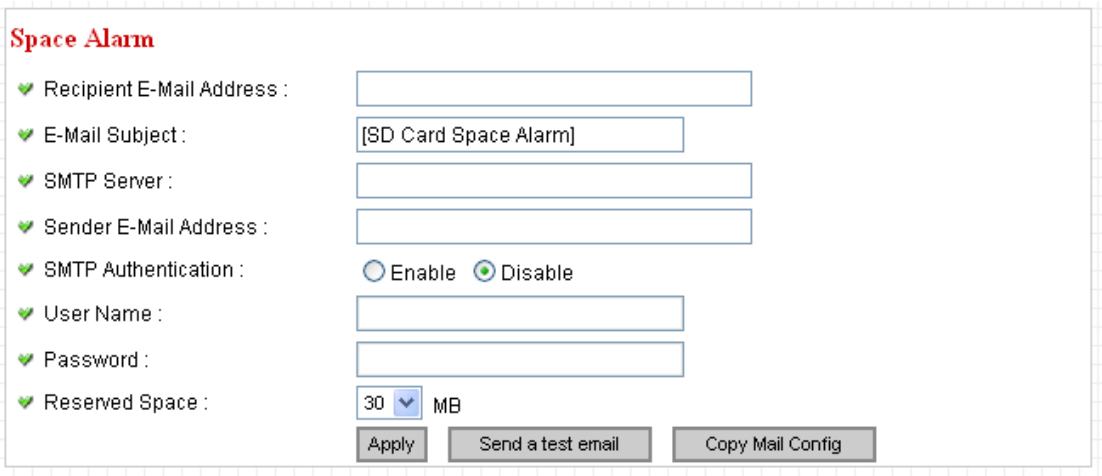
2.7.1 Status

Here shows the remaining card space for you.



2.7.2 Space Alarm

When you're using SD card to store captured image and video clip, you can have this camera to send an E-mail to you when there's only little remaining space left on SD card.



Please note: If you have set E-mail settings in 'Motion Picture' function, you can click 'Copy Mail Config' button to use the same setting. However, you can use a different setting here.

The descriptions of every setting in this menu will be given below:

Item	Description
Recipient E-Mail Address	Input the E-mail address you wish to receive space alarm.
E-Mail Subject	Input the title of space alarm E-mail.
SMTP Server	Input the SMTP server address you wish to use to send E-mail.
Sender E-Mail Address	Input the sender E-mail address of the space alarm E-mail.
SMTP Authentication	Select 'Enable' if the SMTP server you're using requires authentication, and input the username and password below; If the SMTP server you're using does not require authentication, select 'Disable' here. If you're not sure, ask your ISP or network administrator.
Reserved Space	Select the amount of SD card space which will be reserved and will not be used from dropdown menu.

Click 'Apply' to save settings and make the new settings take effect.

You can click 'Send a test email' button to send a test E-Mail by the configuration you set here.

2.7.3 File Management

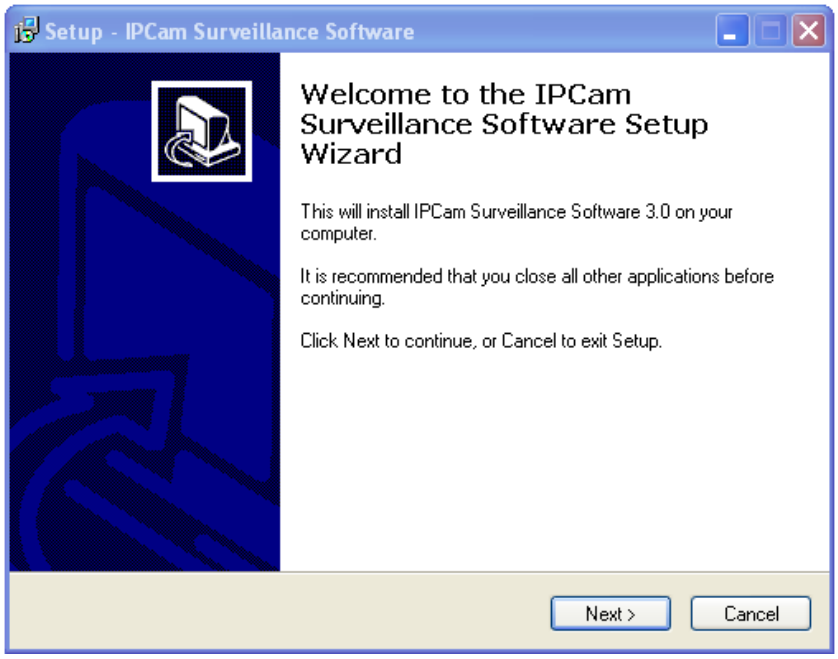
You can use this menu to manage the files stored on SD card.

Chapter III: Using Surveillance Software

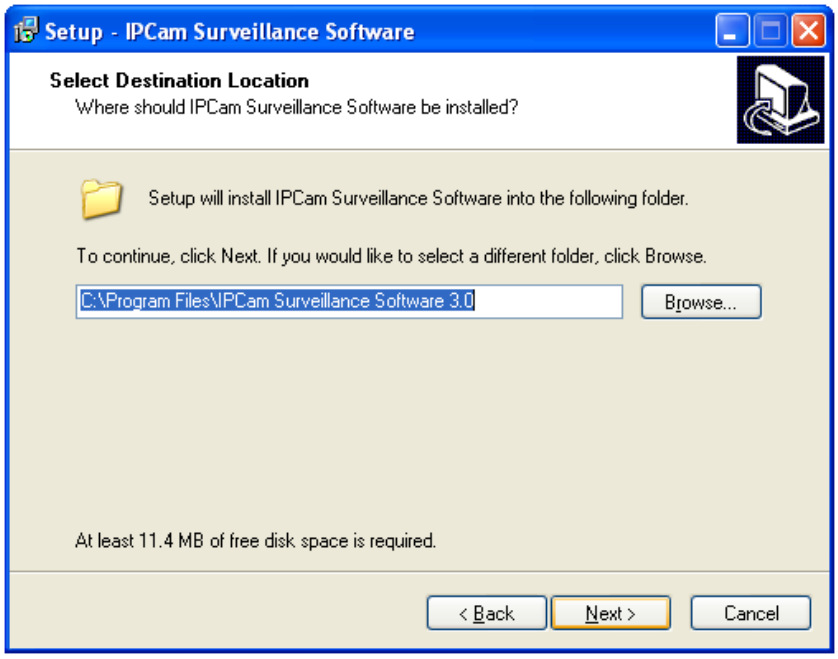
3-1 Installing IP Camera Surveillance Software

The IP camera surveillance software provides various functions like video recording, after this software is installed, you can use your IP camera to safeguard your property. Please follow the following instructions to install the surveillance software.

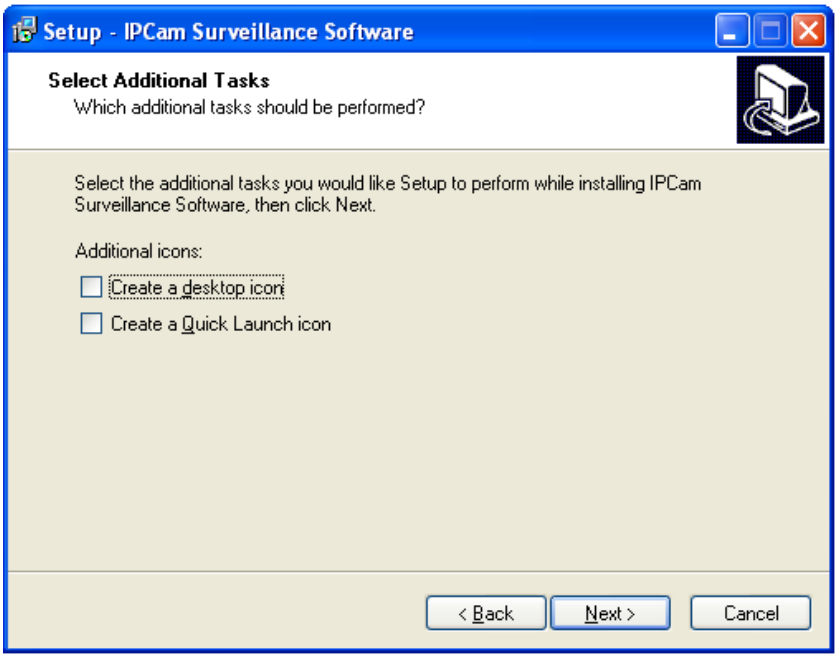
1. Double click the setup file located in 'xxx' folder in supplied CD-ROM, when the following window appears, click 'Next'.



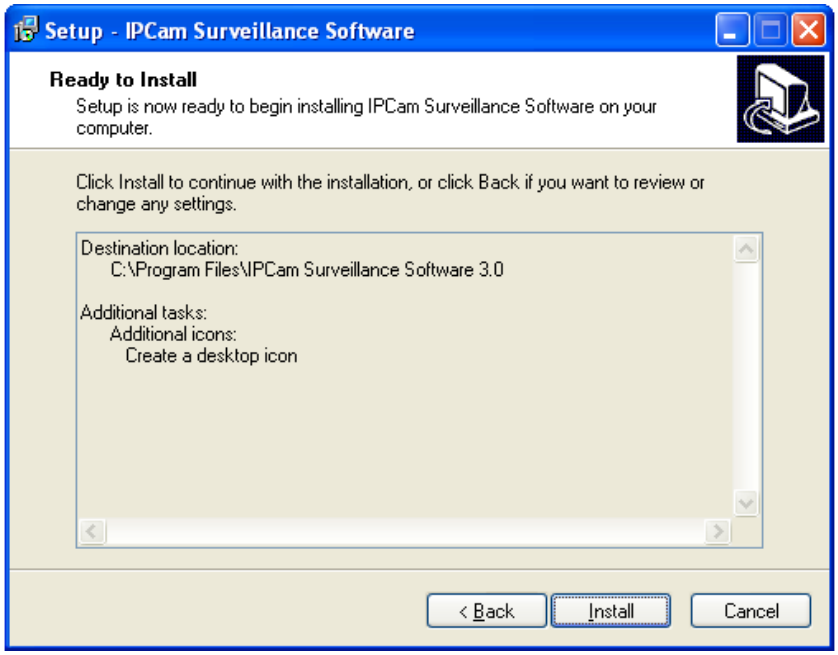
2. You can specify the destination folder of software installation, you can just use the default folder, and click 'Next' to continue.



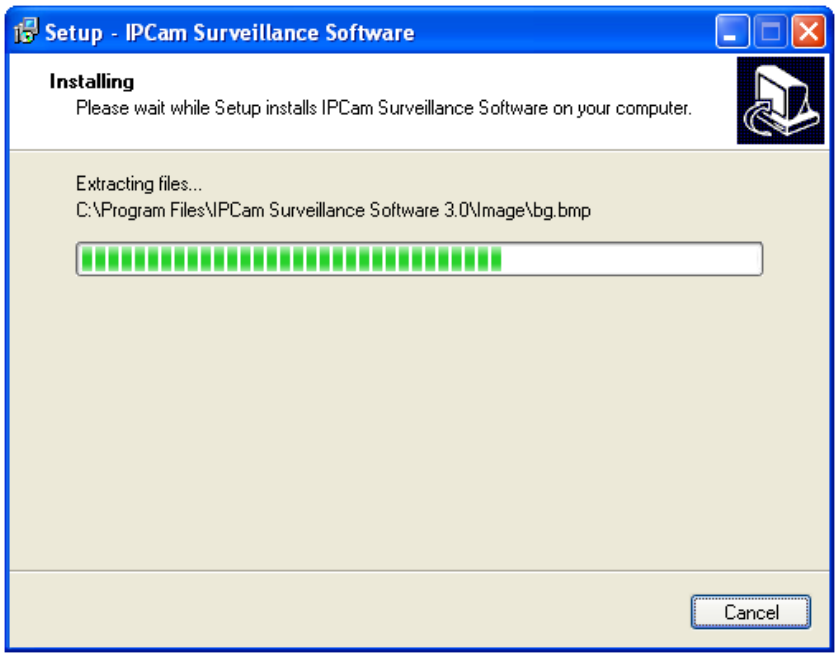
3. If you need installation program to create a desktop icon or a quick launch icon for you, click all items you need here, than click ‘Next’ to continue.



4. Here lists all options you chose in previous steps, if everything’s correct, click ‘Install’ to start installing procedure, or click ‘Back’ to go back to previous step to modify installing settings.



6. The installing procedure will take some time, please be patient.



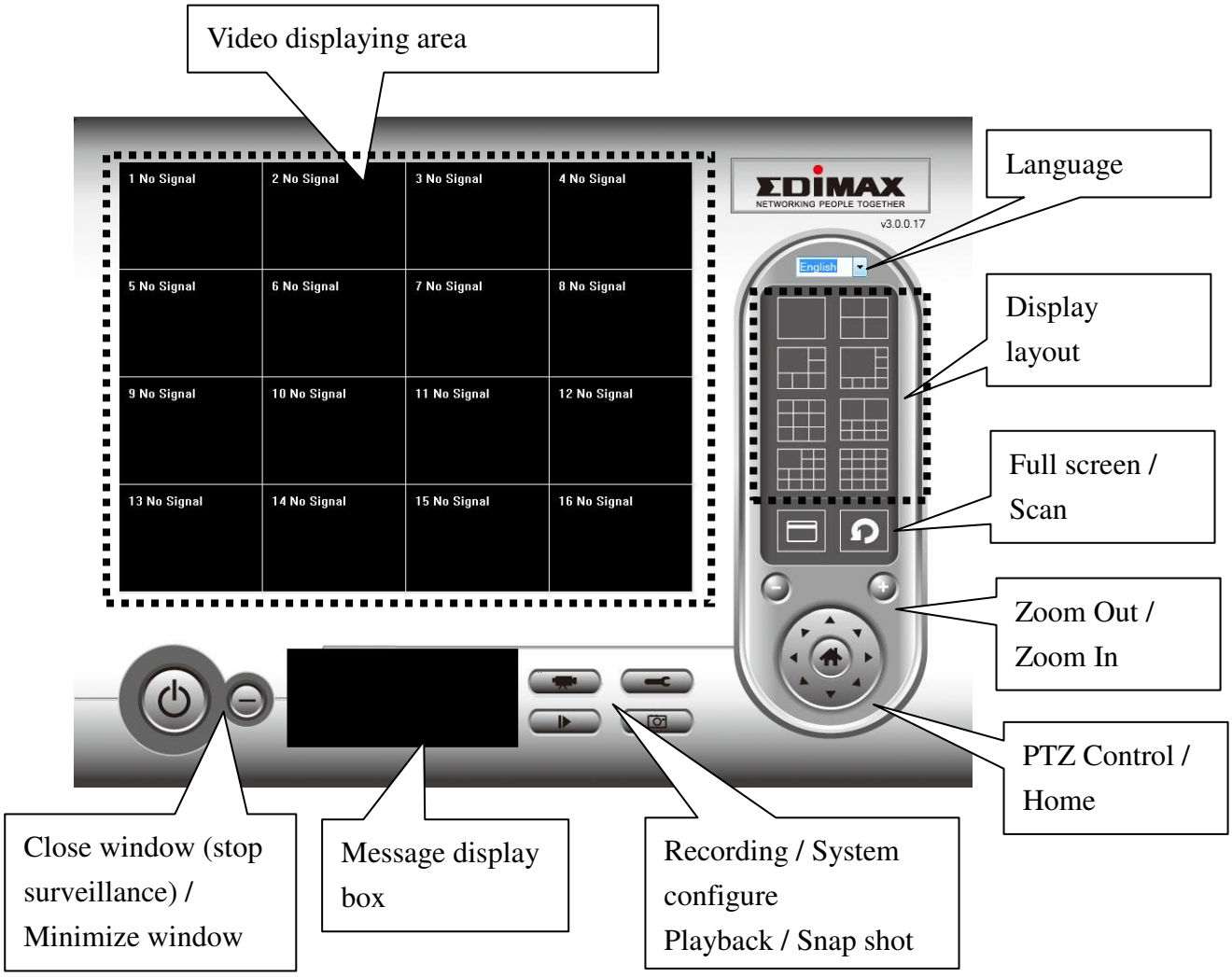
6. When you see this window, it means the software installing procedure is complete. Please click 'Finish' to finish the procedure (IP camera surveillance software will start after you click 'Finish' button, if you want to start it later, uncheck 'Launch IPCam Surveillance Software' box).

3-2 Using IP camera surveillance software

You can click 'IPCam Surveillance Software' icon from desktop, quick launch bar, or start menu to start the IP camera surveillance software.

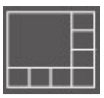
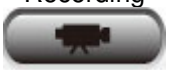
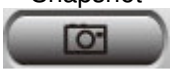
> ***Before you start:***
>
> ***IP camera surveillance software will only work when your monitor's resolution is '1024 x 768'. Please change the resolution before you use IP camera surveillance software, or it won't start.***

Here are descriptions for all components of IP camera surveillance software:



You can put the mouse cursor on a certain component and see its button name, and here're detailed descriptions of all buttons:

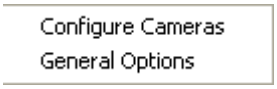
Item	Description
Video displaying area	The image of all connected cameras will be displayed here.
Language	Select a language from this dropdown menu to change display language.
Display layout	Change camera image display layout (Click a layout icon to change camera display layout). There are 8 kinds of available display layouts.

	
Full screen	Click this button to switch to full screen mode (only display all camera's image), press 'ESC' key to quit full screen mode.
Scan	Click this button and the IP camera surveillance software will switch displaying the image of all connected camera automatically. Click this button once to activate scan function (scan icon will become blue), click again to stop scanning (scan icon will become white).
Zoom out	Zoom-out (To see more objects). This function is only available for supported cameras.
Zoom In	Zoom-in (Too see more details). This function is only available for supported cameras.
PTZ control	There are 8 directions in PTZ control ring. If the camera you connect support PTZ, you can use PTZ control ring to change the direction that camera points to. This function is only available for supported cameras.
Home	Click this button to return the camera to 'Home' (default) position. This function is only available for supported cameras.
Recording 	Start video recording.
Configure	Software / camera configuration.
Playback	Playback a recorded video file.
Snapshot 	Take a snapshot of current camera.
Message display	Displays all system messages like camera is disconnected etc.
Close window (stop surveillance)	Terminates IP camera surveillance software.
Minimize window	Minimizes IP camera surveillance software window.
Video displaying area	Displays the image of all cameras by the display layout you selected.

3-3 Configure IP camera surveillance software

3-3-1 Configure cameras

Before you use this IP camera surveillance software, you must configure the camera(s) you wish to connect. Please click 'System configure' button and a popup menu will appear:

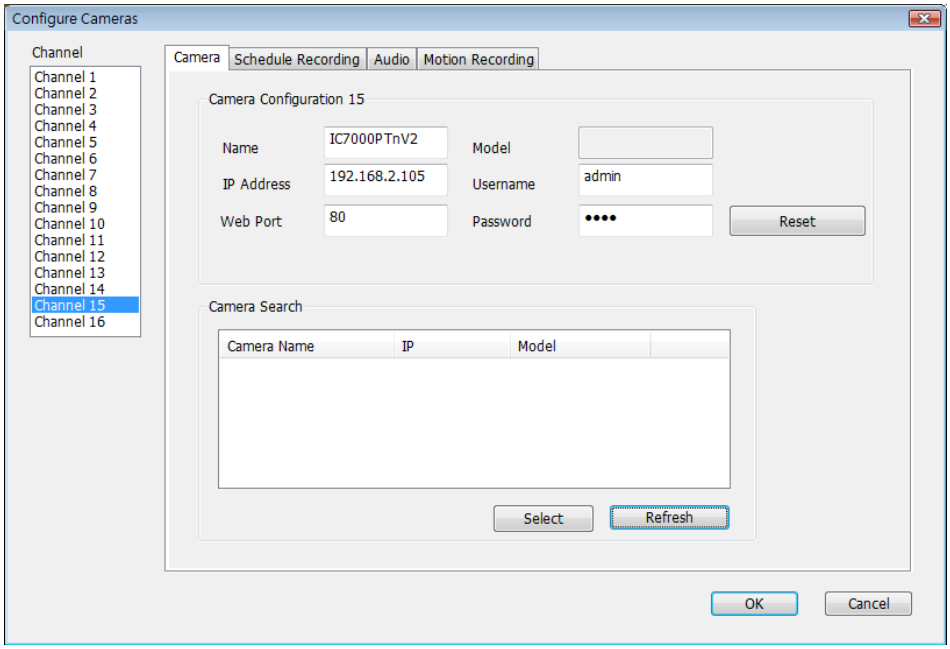


Please select 'Configure Cameras' to configure cameras:

Note: If you're prompted by a windows security alert which asks you if you want to block 'IPCam Viewer' program, please click 'Unblock' button, of IP camera surveillance software will not be able to function correctly.

3-3-1-1 'Camera' tab

In this tab you can configure all cameras you wish to connect. Up to 16 cameras can be connected simultaneously:



Here are the descriptions of all setting items:

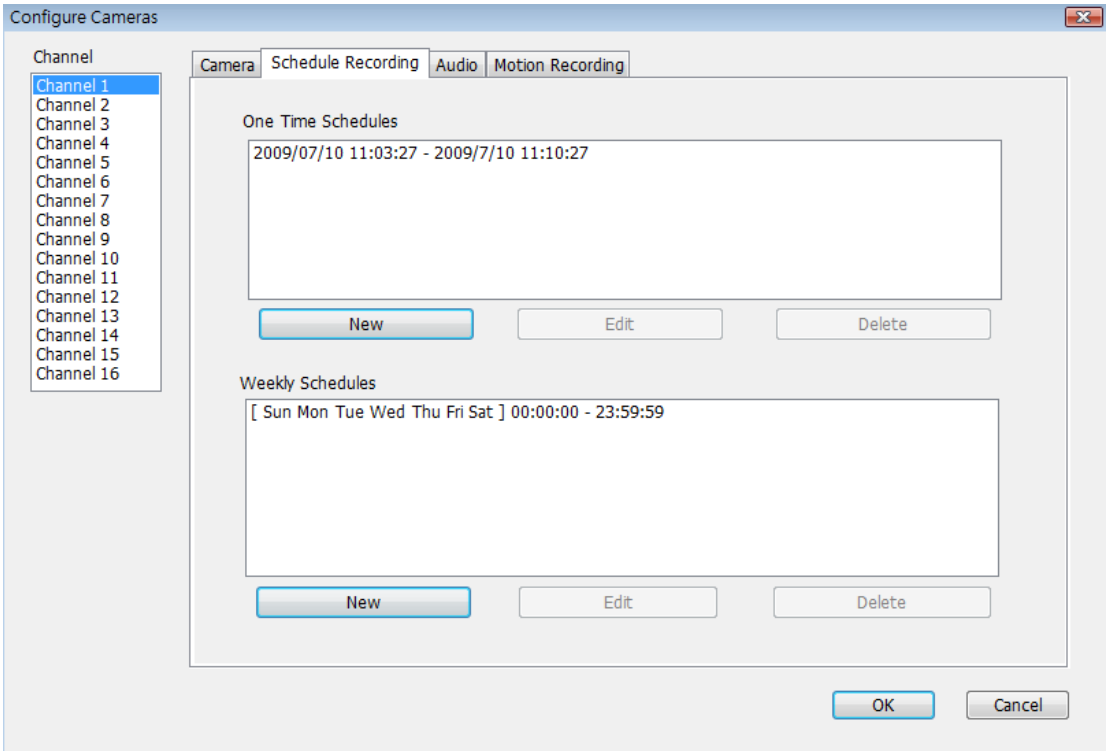
Item	Description
Channel	Select the channel number you wish to set.
Camera Search	All cameras found on your local network will be displayed in 'Camera Search' box.
Select	Select a camera listed in 'Camera Search' box, and click 'Select' button to fill all parameters of selected camera in every camera configuration fields.
Refresh	Rescan all cameras on your local network. If you didn't see the camera you expected in 'Camera Search' box, or new cameras has been joined to your local network after last scan.
Name*	Input the name of camera here. Default value is the first 6 bytes of camera's MAC address, you can change the name of camera so you can remember the camera's location of purpose easily.
Model	Displays the model of selected camera, this field can not be changed.
IP*	Input the IP address of camera.
Username*	Input the user name of camera.
Web Port*	Input the web port of the camera. By default it's '80'.
Password	Input the password of camera. Default value is '1234'. You should change the password if you changed the password of selected camera.
Video Format**	Select the video encoding format of this camera (MJPEG or MPEG4).
Reset	Clear all fields in 'Camera Configuration' section.
OK	Save settings in this tab.
Cancel	Discard all settings in this tab.

*: It's recommended to use 'Select' button to fill the content of this field.
**: Only available for cameras support this function.

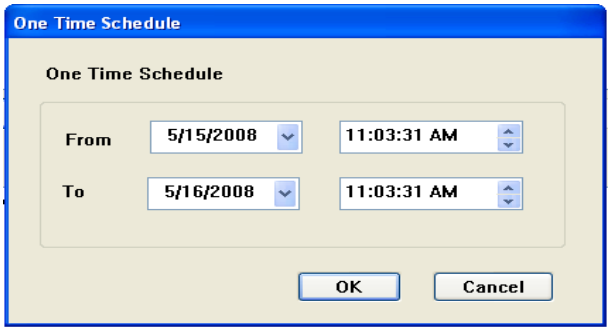
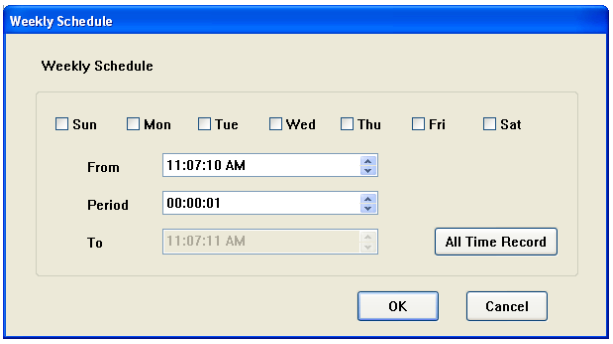
After you've set all channels you wish to set, click 'OK' to save settings, and if everything's correct, you'll see the camera's image in IP camera surveillance software's main menu:

3-3-1-2 Schedule Recording

In this tab, you can setup scheduled video recording, so you can record the video captured by all cameras you have by a pre-defined schedule.

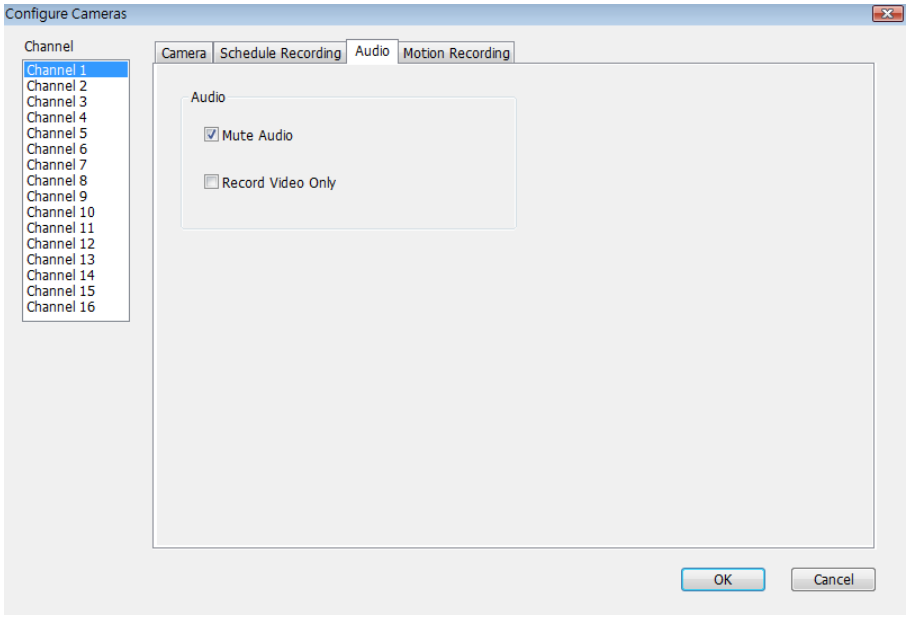


Here are the descriptions of all setting items:

Item	Description
Channel	Select the channel number you wish to set.
One Time Schedules	You can specify the one-time schedule for selected camera; this schedule will be executed once only.
New (One Time Schedules)	Click this button and a new window will appear:  Please specify the time duration of this one-time schedule (the date and time of 'From' and 'To'), then click 'OK' to save settings. Please note you must set a schedule that will be happened in the future, you can not set a schedule in the past.
Edit	You can modify a scheduled recording item. Select a schedule in 'One Time Schedules' list, and click 'Edit' button to edit the start and end time of this schedule.
Delete	Delete a selected schedule item.
New (Weekly Schedules)	Click this button and a new window will appear:  You can define recording schedule that will be executed at the specified time of certain weekday(s) in a week. Please check all weekdays that applies, and set the start time in 'From' field. You can set the duration of video recording in 'Period' field (format is HH:MM:SS), and the end time will be calculated automatically and displayed in 'To' field. You can also click 'All Time Record' button to define a recording schedule that will be executed every weekday, from 12:00:00AM to 11:59:59PM. Click 'OK' to save changes.
Edit	You can modify a scheduled recording item. Select a schedule in 'One Time Schedules' list, and click 'Edit' button to edit the start and end time of this schedule.
Delete	Delete a selected schedule item.
OK	Save settings in this tab.
Cancel	Discard all settings in this tab.

3-3-1-3 Audio

For cameras that support audio, you can use this tab to decide if you wish to hear the audio captured by selected camera.



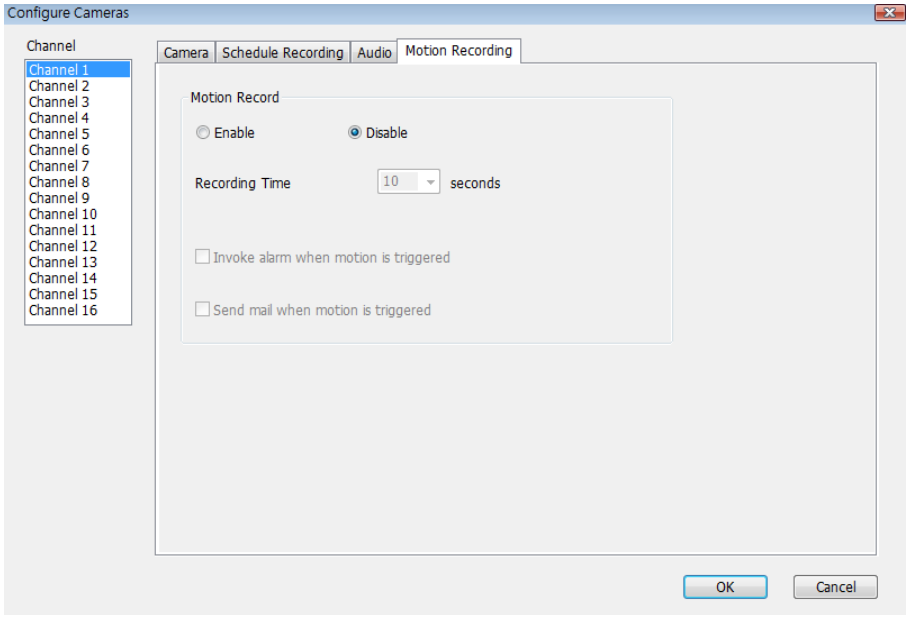
Here are the descriptions of all setting items:

Item	Description
Channel	Select the channel number you wish to set.
Mute Audio	Check this box and the IP camera surveillance software will not play the audio captured by this camera.
Record Video Only	Check this box and the IP camera surveillance software will not record the audio captured by this camera.
OK	Save settings in this tab.
Cancel	Discard all settings in this tab.

3-3-1-4 Motion Record

With this function activated, only motions captured by the camera will be recorded, so you don't have to waste hard disk storage space on images you don't need to pay attention to.

> ***WARNING: For applications that security is highly concerned, it's not recommended to use this function since some tiny changes you may need to know may not be able to trigger the camera and the camera will not start recording.***



Here are the descriptions of all setting items:

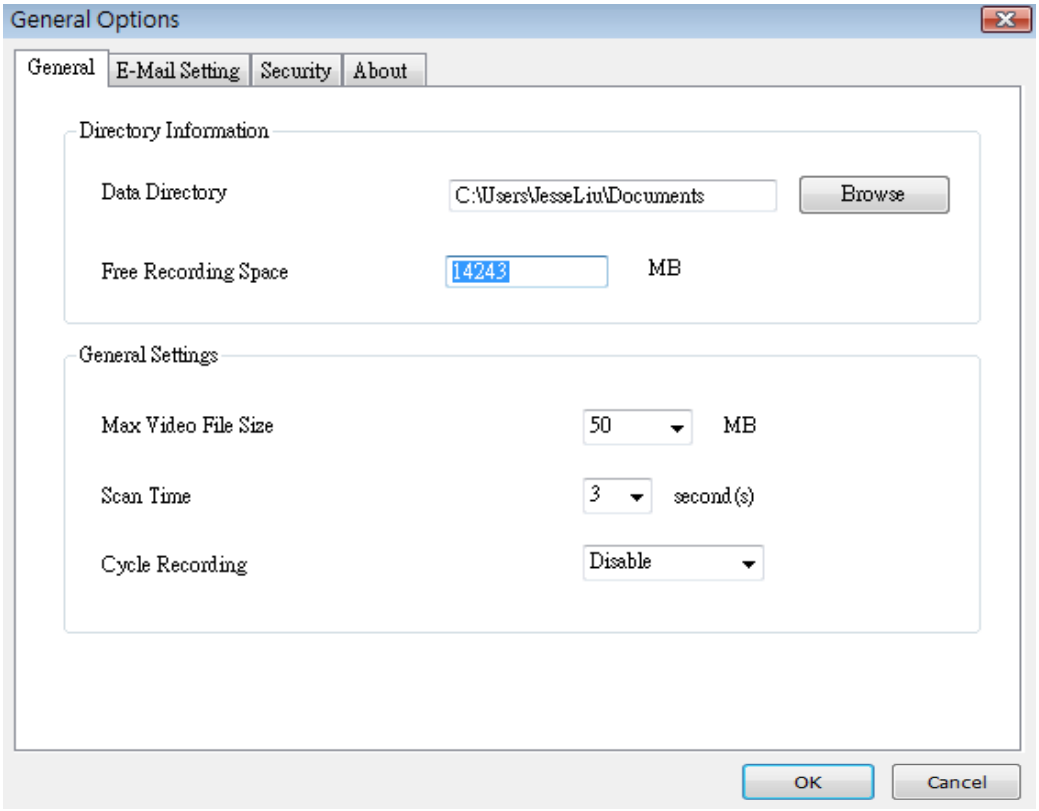
Item	Description
Channel	Select the channel number you wish to set.
Enable	Enable motion record function.
Disable	Disable motion record function.
Recording Time	Select the time duration that camera will record when a motion has been detected from dropdown menu in seconds.
Invoke alarm when motion is triggered	Send an alarm when a motion has been detected by the camera.
Send mail when motion is triggered	Send an email to a pre-defined address when a motion has been detected by the camera.
OK	Save settings in this tab.
Cancel	Discard all settings in this tab.

3-3-2 General Settings

You can set system-wide settings of this IP camera surveillance software in this menu.

3-3-2-1 'General' tab

All general settings like file storage directory and recording spaces can be set here.

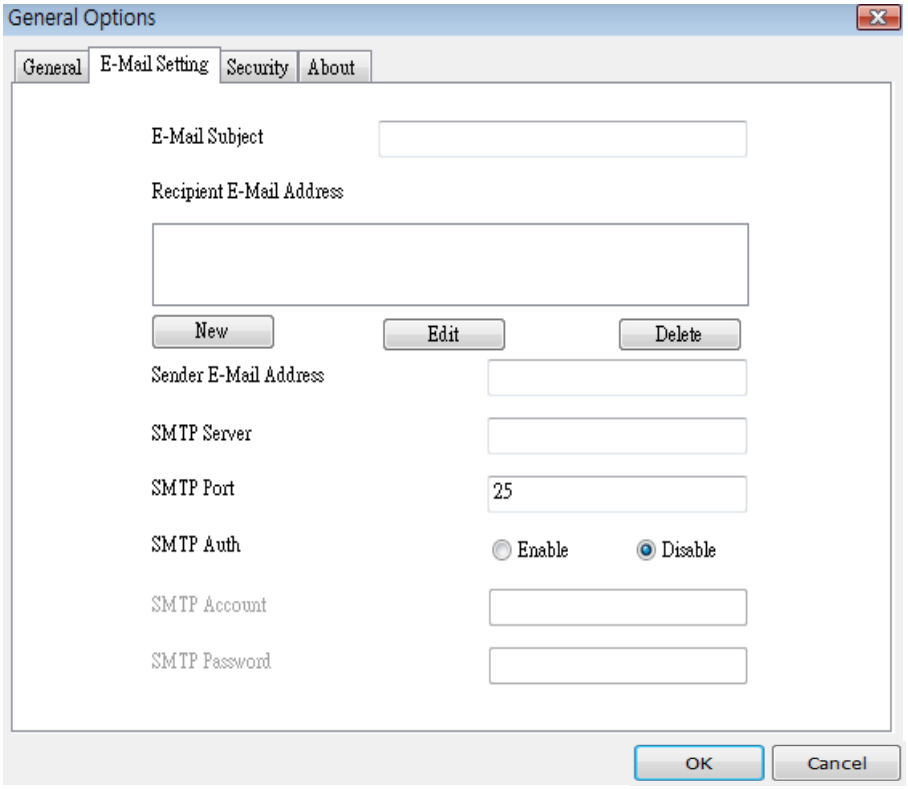


Here are the descriptions of all setting items:

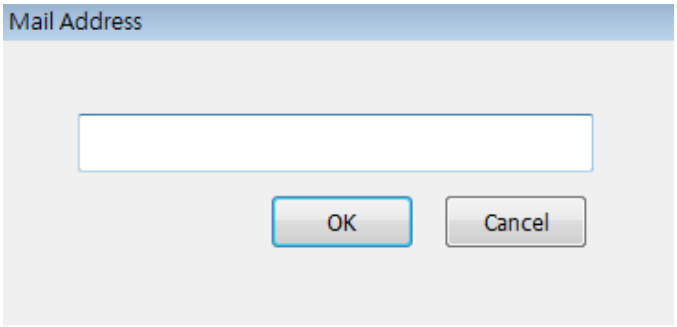
Item	Description
Data Directory	Set the directory (folder) you wish to store the recorded video and captured image. You can click 'Browse' button to pick a directory in your hard disk.
Free Recording Space	Displays remaining storage space.
Max Video File Size	Defines the maximum file size of every video file. When the size of file exceeds this value, IP camera surveillance software will open another file to record the video.
Scan Time	Define the time period to pause between every camera switch when you activate 'Scan' function.
Cycle Recording	You can decide the behavior when hard disk space is full: Disable: Do not overwrite recorded video files. Enable: Overwrite recorded video files.
OK	Save settings in this tab.
Cancel	Discard all settings in this tab.

3-3-2-2 'E-Mail Setting' tab

If you want to use motion detection function and wish to get an email that contains the image captured by the camera, please setup your email related parameters here first.



Here are the descriptions of all setting items:

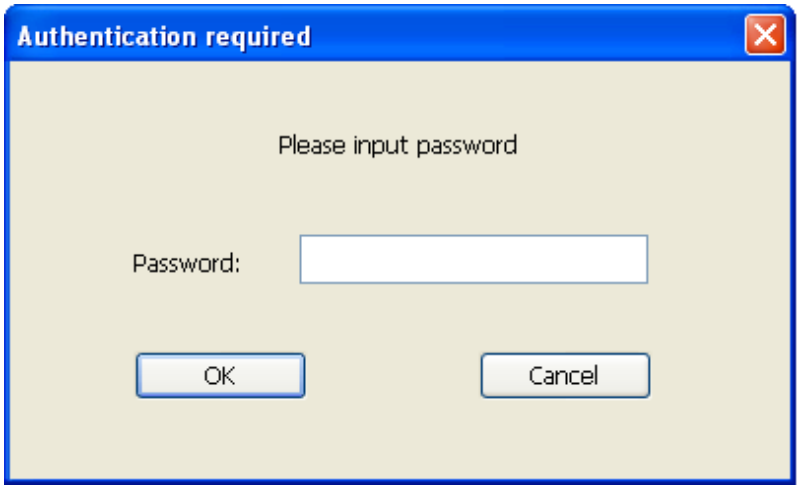
Item	Description
E-Mail Subject	Specify the subject of sending email.
Recipient E-Mail Address	Here lists all email addresses you set.
New	Click this button and you'll be prompted to input the email address. Click 'OK' to save changes. 
Edit	Select an email address from 'Recipient E-Mail Address' box, and click 'Edit' to edit the email address.
Delete	Delete selected email address.
Sender E-Mail Address	Specify the email address of email sender.

SMTP Server	Specify the IP address or host name of the SMTP server you wish to use. For most of ISPs they will only allow its subscriber to use their SMTP server, if you don't know which SMTP server you should use, please refer to the setting of your email software or ask your ISP / network administrator.
SMTP port	Specify the port number of the SMTP server you wish to use here. By default (and the setting of most of SMTP servers) it's '25'.
SMTP Auth	Select 'Enable' if your SMTP server requires authentication, select 'Disable' if it's not required. If you don't know if your SMTP server requires authentication, please refer to the setting of your email software or ask your ISP / network administrator.
SMTP Account	Input the SMTP account (username) of your SMTP server here. In most cases, it's the same with your POP3 username (the one you used to receive email). Please refer to the setting of your email software or ask your ISP / network administrator if you're not sure about this.
SMTP Password	Input the SMTP password of your SMTP server here. In most cases, it's the same with your POP3 password (the one you used to receive email). Please refer to the setting of your email software or ask your ISP / network administrator if you're not sure about this.
OK	Save settings in this tab.
Cancel	Discard all settings in this tab.

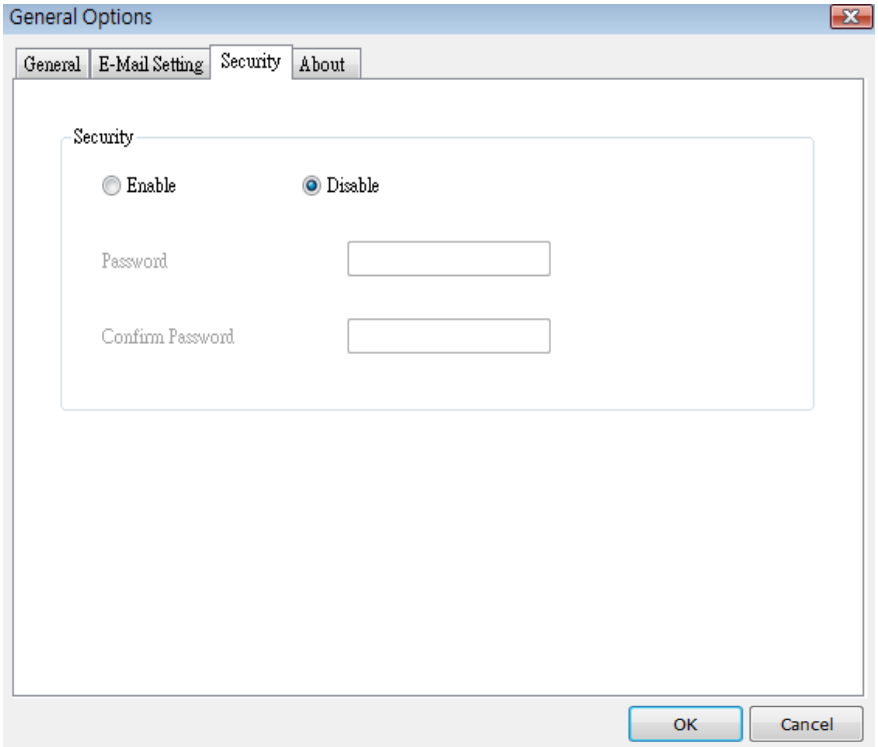
3-3-2-3 Security

If you don't want other people to access this IP camera surveillance software, you can set a password to protect it.

You'll need to input the password every time you wish to use this IP camera surveillance software:



To set password, please use 'Security' tab in 'General Options' menu:

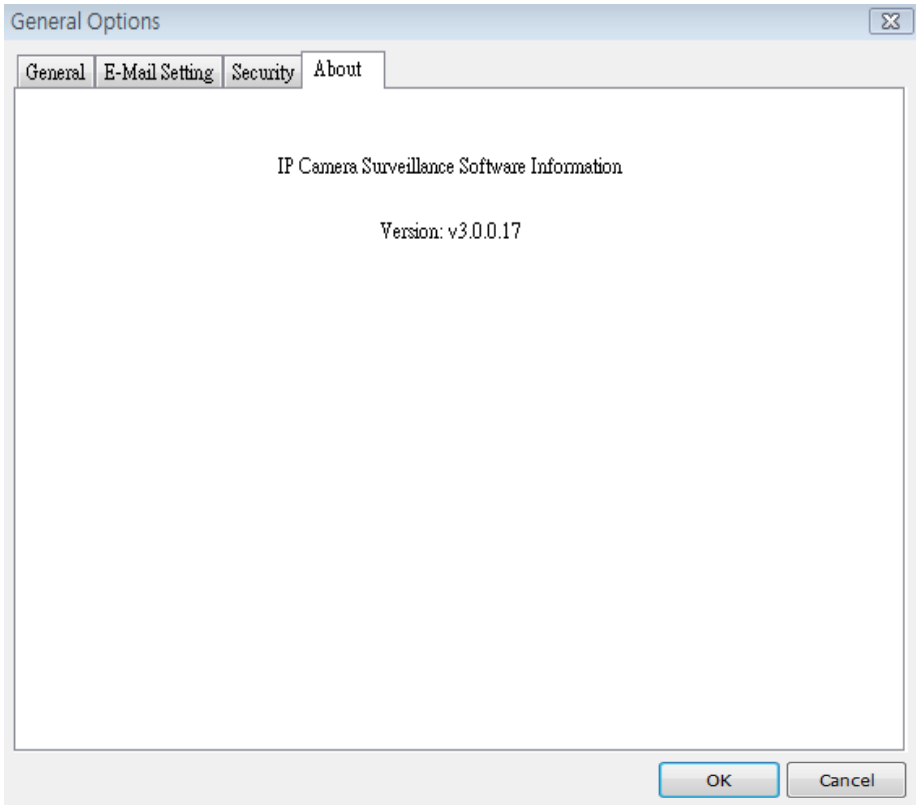


Here are the descriptions of all setting items:

Item	Description
Enable	Requires password authentication when this software starts.
Disable	Password authentication is not required when this software starts.
Password	Input the password you wish to use here.
Confirm Password	Input the password you wish to use here again.

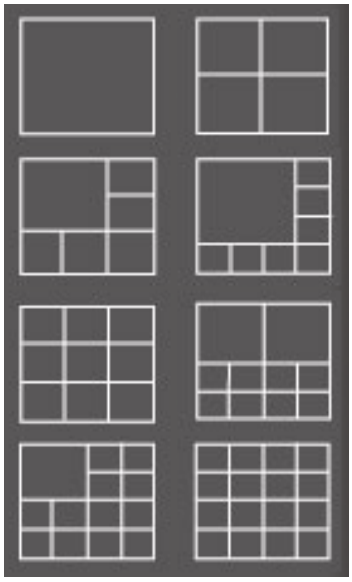
3-3-2-4 About

This tab shows the version number of the IP camera surveillance software you're using.

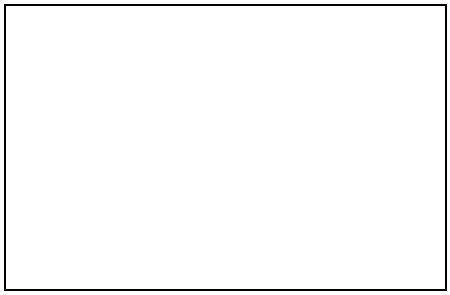
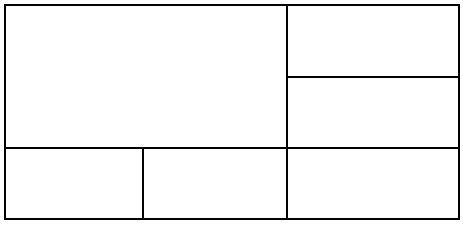


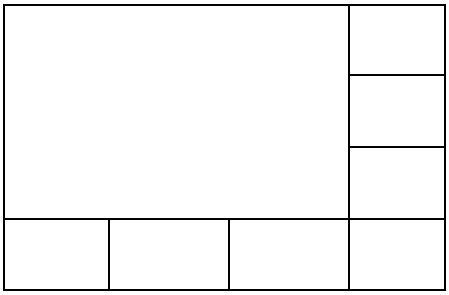
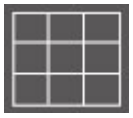
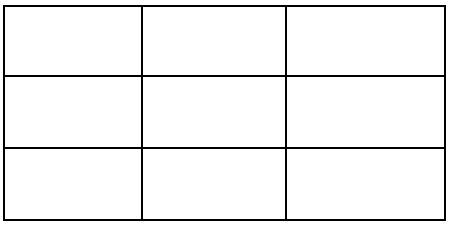
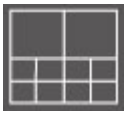
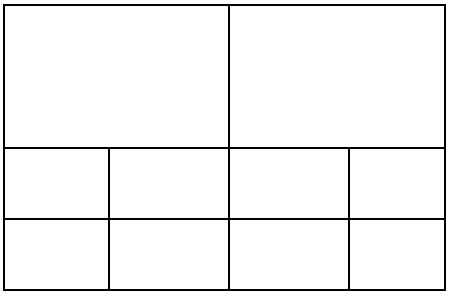
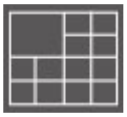
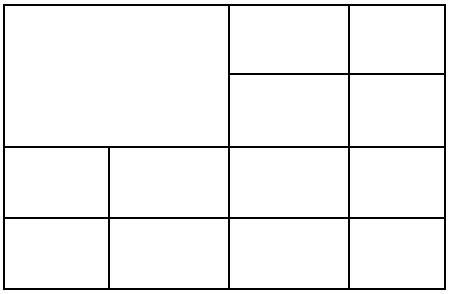
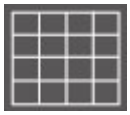
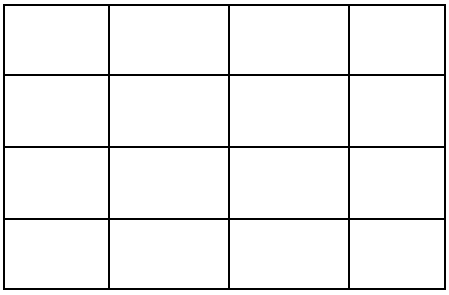
3-4 Change Display Layout

This IP camera surveillance software provides 8 kinds of display layout:



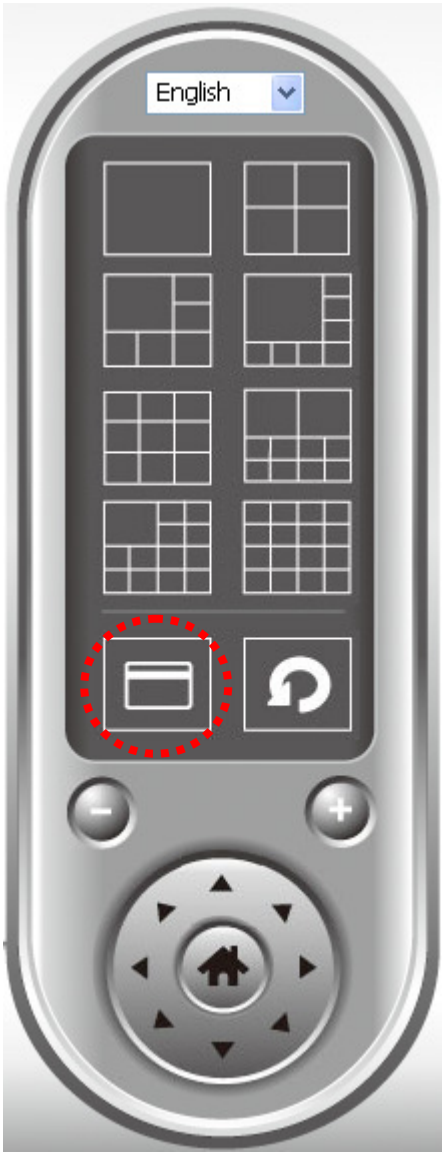
Every layout displays different number of camera and camera arrangement, you can click the icon that presents a specific kind of layout, and the video displaying area will change accordingly.

Layout style 1: 1 Camera only	Displays the video of 1 camera only. 
Layout style 2: 4 Cameras	Displays the video of up to 4 cameras.
Layout style 3: 6 Cameras	Displays the video of up to 6 cameras. 

Layout style 4: 8 Cameras	Displays the video of up to 8 cameras. 
Layout style 5: 9 Cameras 	Displays the video of up to 9 cameras. 
Layout style 6: 10 Cameras 	Displays the video of up to 10 cameras. 
Layout style 7: 13 Cameras 	Displays the video of up to 13 cameras. 
Layout style 8: 16 Cameras 	Displays the video of up to 16 cameras. 

3-5 Full-screen modes

If you want to use all available spaces on your monitor to display surveillance image, you can click ‘Full Screen’ button to switch display mode to full-screen mode.

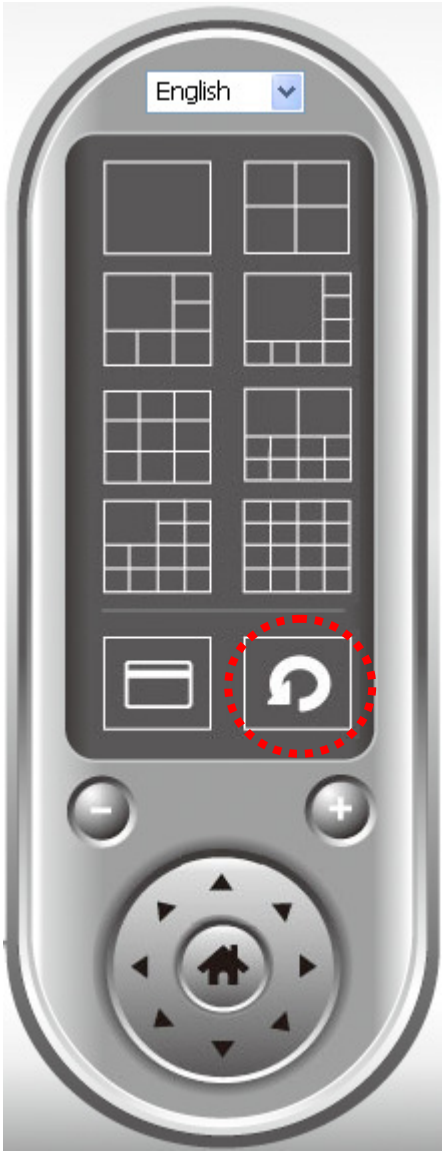


To exit full-screen mode, press ‘ESC’ key.

3-6 Scan

If you have more than one camera configured, and you wish to switch the displaying image between cameras, you can click ‘Scan’ button to switch between all configured cameras.

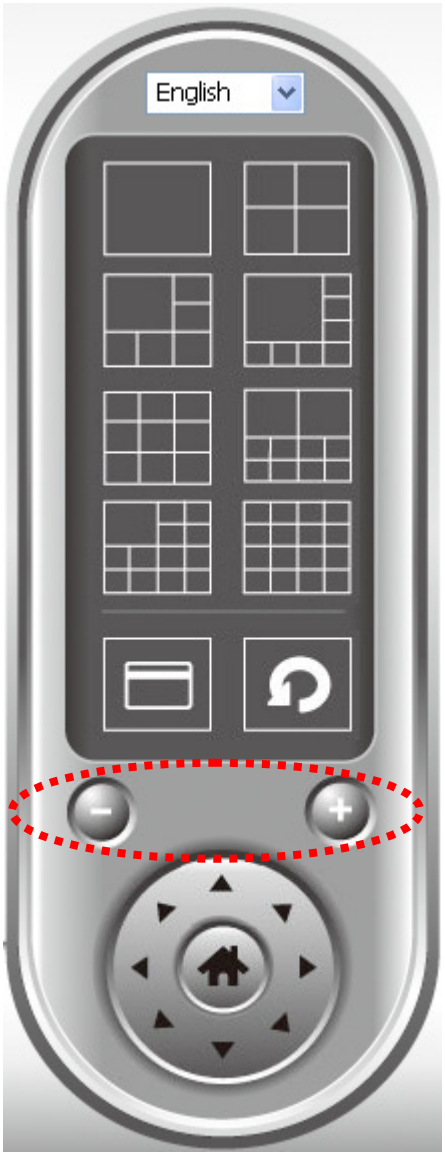
NOTE: If a camera is configured but disconnected, it will still be displayed in a scan sequence (you’ll see nothing and you’ll see ‘Disconnected’ text displayed at the upper-left corner of display image).



Click ‘Scan’ button once to activate scan function (scan icon will become blue), click again to stop scanning (scan icon will become white).

3-7 Zoom-in / Zoom-out

For cameras that support zoom-in / zoom-out function, you can use this function to see more objects that fall in the scope of camera's view, or enlarge the image size of a certain object to see its detail.



Please select a camera in video displaying area by clicking on its image, then click button to see more objects that fall in the scope of camera's view, or click to enlarge the image size of a certain object to see its detail (Before zoom-in, you may need to use PTZ buttons - described in next section) to find an object you wish to see its detail).

3-8 PTZ

For cameras that support pan - tilt function, you can change the position that camera points to, to see different places that fall in the scope of camera's view.

Please select a camera in video displaying area by clicking on its image, and then click the directions you wish the camera to move to (total 8 directions available). Click 'Home' button ( ) to return to camera's home (default) position.

3-9 Snapshot

You can take a snapshot of selected camera and save it to ‘Snapshot’ sub-folder of pre-defined data directory.

Click snapshot button once to take a snapshot; you can take as much snapshot as you want before hard disk is full.

3-10 Recording

You can start video recording of selected camera manually by clicking ‘Start Recording’ button:

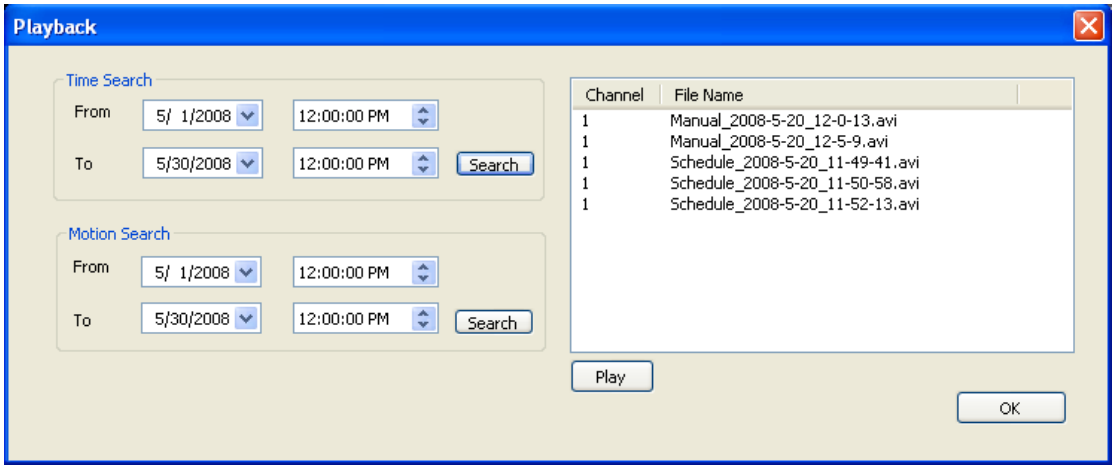
When recording starts, you’ll see a message displayed in message displaying box like ‘1/1 10:00:00, Camera 2 Start Manual’, which means camera 1 starts recording manually on 1/1 at 10:00:00.

To stop recording, click ‘Start Recording’ button again, and you’ll see a message displayed in message displaying box like ‘1/1 10:00:00, Camera 2 Stop Manual’.

3-11 Video Playback

You can playback all recorded video by clicking this button.

A new window will appear:



You have to search the video file before you can play it. There are two kinds of video search: Time Search (search all videos file that falls in a specific period of time) and Motion Search (search all videos recorded by motion detection function and falls in a specific period of time).

Please define the start and end date / time of the time period you wish to search, and then click ‘Search’ button (of ‘Time Search’ of ‘Motion’ Search’). All found videos will be displayed, select the video you wish to play and click ‘Play’ button to playback.

Chapter IV: Appendix

4.1 Specification

Max Resolution: 1.3Mega @ MJPG; 800K @ MPEG4
Sensor: 1.3M pixels 1/4" color CMOS sensor
Gain control: Automatic
Exposure: Automatic
White Balance: Automatic
Focal Length: 4.8 mm
Aperture: F=1.8

Image (Video Setting)
Image compression: MJPEG & MEPG4 Image Video
Digital 24-bit Color
Frame rate: 30fps@QVGA, 20fps@VGA, 10-15@XGA, SXGA
Video resolution: 320x240, 640x480, 1024x768 @MJPEG
320x240, 640x480, 1280x1024 @MPEG4

System Hardware
LAN Connector: One RJ-45 port to connect to 10/100Mbps Ethernet
Wireless: IEEE 802.11b/g/n (*Wireless Model Only)
LED Indicator: LAN LED (Green), WLAN LED (Green), Power LED (Green), Video(Green)

HTTP/Utility
Includes easy-to-use Viewer & Recorder utility
Provides Admin utility & WEB browser Management
View multiple cameras simultaneously - Up to 16 cameras at a time
Manual/Schedule Record, Video Playback/Stop/Forward/Pause
Supports four additional user accounts for viewing camera
Auto sending Snap Shot by E-mail or FTP
Support DDNS and UPnP functions
Supports Windows 2000/XP/Vista
Firmware Upgradeable

EMI & Safety
FCC, CE

4.2 Troubleshooting

If the IP camera is not working properly, before you contact the dealer of purchase for help, please check the troubleshooting list here, this may help you to solve the problem by yourself and therefore saves your valuable time.

Scenario	Possible Solution
I can not connect to IP camera	a. Please confirm the IP address setting of the computer you're using. If they're not in the same subnet, they will not be able to communicate with each other. b. Please make the IP address you used to connect to the IP camera is correct. c. If you forget the IP address of the IP camera, you will have to reset it to factory default value (which is 192.168.2.3) by pressing 'reset' button at the bottom of the IP camera. You'll need a pen or pin to be able to press the reset button. Press and hold reset button for 5 seconds, then try to connect to the IP camera with IP address '192.168.2.3' again. d. Please make sure IP camera is correctly powered (the 'Power' LED should be on). e. If you're trying to connect to the IP camera from Internet, please make sure the port that IP camera uses (Video and HTTP port, see section 2.3.1) is not blocked by firewall or other software / hardware. f. Contact dealer of purchase for help, if above solutions do not work.
Image refreshes very slow	a. Try a higher frame rate setting, if it's not 30. b. Try a lower resolution. c. If you're connecting this camera from Internet, it could be caused by a slow Internet connection, and it's not a problem caused by camera. However, when the network connection is slow, you should use lower frame rate / resolution. d. Adjust the antenna if you're using wireless connection. The antenna should be perpendicular to the ground to get best reception, and the distance between IP camera and computer / wireless access point should not be too far. e. Try to adjust 'MTU' setting if you're using PPPoE to connect to Internet. Ask your ISP or network administrator for detailed instruction.
IP camera is not responding	a. Is the network cable or wireless connection disconnected? Please check it. b. Unplug the power adapter from wall socket and plug it in again after 10 seconds, then try to connect to the IP camera again. c. If IP camera is correctly powered ('Power' LED is on), but you still can not connect to the camera when you're sure that IP address is correct, please contact dealer of purchase for help).
Image is fuzzy	a. Adjust the focus ring on the camera until the image becomes clear. b. Use a soft cloth to clean the lens on the camera. You can use cloth with water, but *DO NOT* use alcohol or other chemical solution. c. Try to adjust brightness setting. d. If there's any light at the place where IP camera is located, switch it on and see if image looks better.

I set the IP camera to send image by Email or FTP, but nothing is received	a. If the image is send by Email, please make sure it's not blocked by any anti-spam mechanism. b. Please make sure you have enough permission for FTP uploading (You can try this by clicking 'Upload a test file' button). c. Make sure the user name and / or password of SMTP server is correct, if your SMTP server requires authentication (You can try this by click 'Send a test Email' button). d. Please check log, if FTP upload or Email sending is failed, it will be logged, and this may give you some clue on how to solve the problem. e. Change the threshold to a more sensitive setting.
I heard strange sound when I use pan / tilt function	a. Please check if anything jams the camera, remove it. a. If the camera does not respond to you when you're trying to use pan / tilt function, the servo motor inside the camera may dead. Please return the camera to the dealer of purchase and ask for help.
Nothing is heard at the camera side when I use 'Speak to IPCam' function	An external speaker is required to playback the voice received at computer side.

EDIMAX Technology Co., Ltd.

www.edimax.com