WIRELESS 11N
HD IP CAMERA

User Manual

DN-16026

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Chapter I Introduction

1.1 Highlights of your new Network IP Camera

Congratulations on purchasing this tiny network IP Camera! Its tiny size maximizes portability and eases installation; you can easily install the camera in most places where you need video surveillance. If there's no Ethernet cable available at the place you wish to install this IP camera, you can use built-in wireless network to connect to your network, and saves the cost of cabling.

Other highlights of this network IP Camera include:

- Compact size and lightweight design, installs anywhere.
- Mounting hole located at camera's back, compatible with most of camera tripods.
- Wireless network with data security (encryption), secures data transfer over the air.
- Fixed-focus lens, works with most of environments.

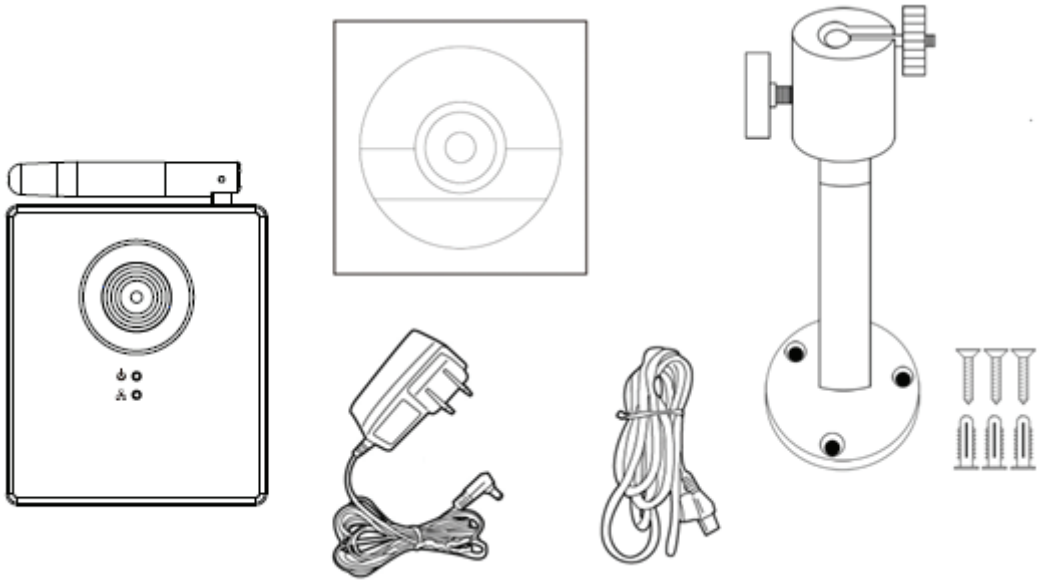
1.2 Safety Instructions

Please obey the safety instructions listed below when you're using this Network IP Camera, or you would harm this camera and / or yourself! Also, the warranty will become void if you disobey these safety instructions.

- This Network IP Camera is sophisticated electronic device; do not drop it from high places.
- Do not place this IP Camera at hot / humid places, and avoid direct sunlight.
- This IP Camera is not a toy; keep it out from the reach of children.
- Do not insert any accessories of this IP Camera into your body.
- If you want to use this IP Camera at any place that may be spilled by water or dirt, a secure and water-proof camera housing is required.
- Do not pull any cord that is connected to this IP Camera by force.
- IP Camera will become hot after long time of use. Refrain from touch IP Camera with hand, or cover this IP camera with paper or cloth.
- If the IP Camera falls into water when powered, do not attempt to retrieve it back by yourself! Find a qualified electric technician for help.

1.3 Packaging Contents

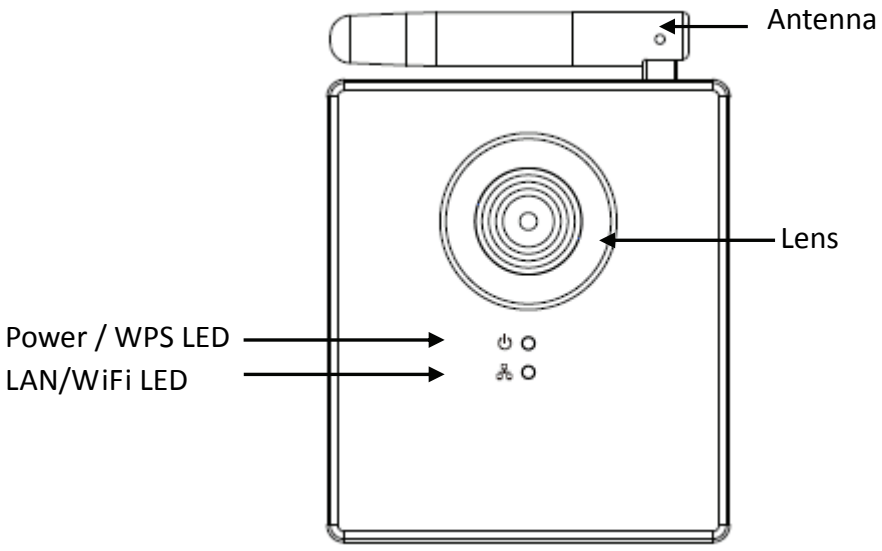
Please check the contents of your new Network IP Camera when you unpack the package. If any item is missing, please contact your dealer of purchase for help.



Item No.	Description	Quantity
1	Network IP Camera	1
2	AC power adapter	1
3	Ethernet cable	1
4	User manual Windows Utility CDROM	1
5	Quick installation guide	1

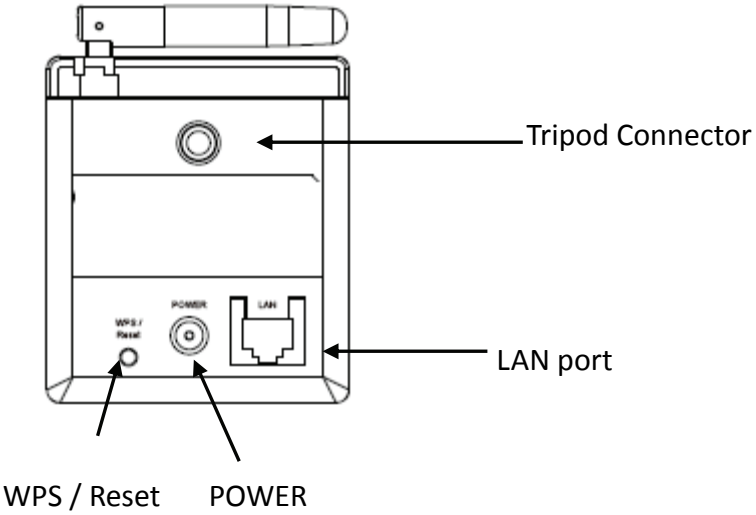
Familiar with your new Network IP Camera

[Front]



Item	Description
1 - Lens	IP Camera's lens. Please keep the lens clean and do not touch by finger.
2 - POWER LED	POWER LED will light when the IP camera is powered on, and will flash when resetting IP camera's settings. (LED light can be switched off even IP camera is powered on when necessary for security reasons)
3 - Network LED	Ethernet LED will light when IP camera is connected to Ethernet network, and it will flash fast when transferring data (It will flash slow when using WPS). (LED light can be switched off even IP camera is powered on when necessary for security reasons)
4 - Antenna	Wireless antenna. Please keep the antenna perpendicular to the ground for best signal reception.

[Back]



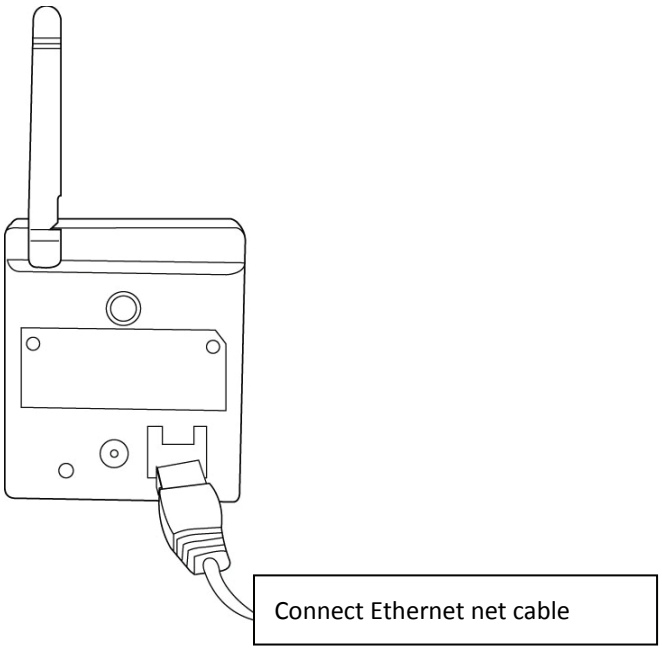
Item	Description
1 - Tripod connector	This mounting hole is compatible with most of camera tripod or camera stand, so you can fix the camera at a secure place.
2 - LAN	Connects to your local area network.
3 - 5VDC	Connects to 5V DC power adapter.
4 - WPS / RESET	When the IP camera is not functioning properly, you can press reset button to reset the IP camera. You can also press and hold this button for more than 10 seconds to clear all settings of IP camera, include administrator password.

1.4 Install IP Camera

Please follow the following instructions to setup your new IP camera.

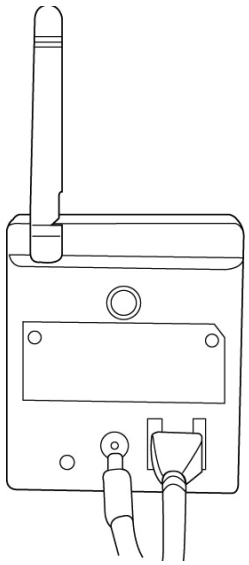
1. Secure the IP Camera to the tripod or camera stand by mounting hole. If you want to place the IP camera on desk, please make sure it will not fall down by accident.

2. Connect Ethernet cable to LAN port. For first-time installation you'll need Ethernet cable to do configuration; If this IP camera is configured to use wireless network, you can skip this step.



3. Plug DC power adapter to power outlet on the wall.

4. Connect DC power cable to IP Camera's DC power connector.



If everything’s ok, you should see the POWER LED light up (and Ethernet LED, if Ethernet cable is inserted). If not, please recheck every step and try again, or ask your dealer of purchase for help.

Please note if you configured IP camera to switch LED lights off, two LED lights won’t light.

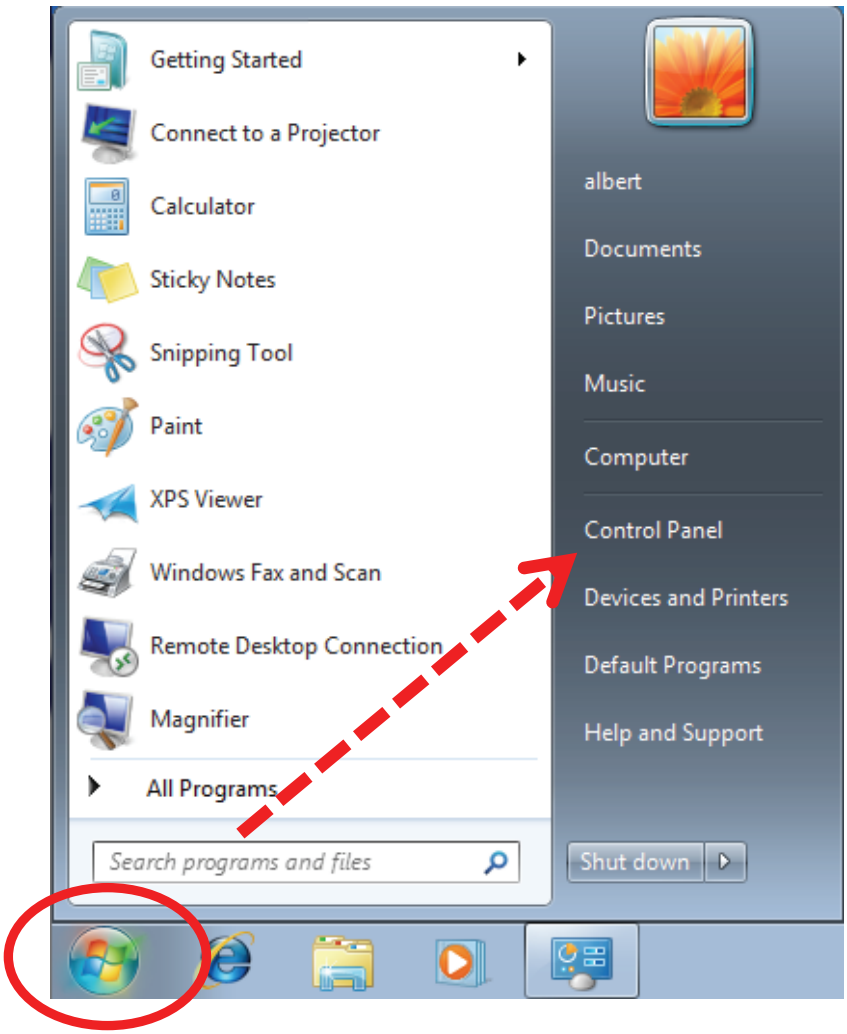
Chapter II Using Network IP Camera by Web Interface

2.1 Network Setup

This IP camera's default IP address is 192.168.2.3, and you must use a computer that uses 192.168.2.x IP address to connect to it.

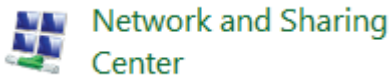
Please follow the following instructions to setup your computer's IP address:

1. Please click 'Start' button and then click 'Control Panel'.



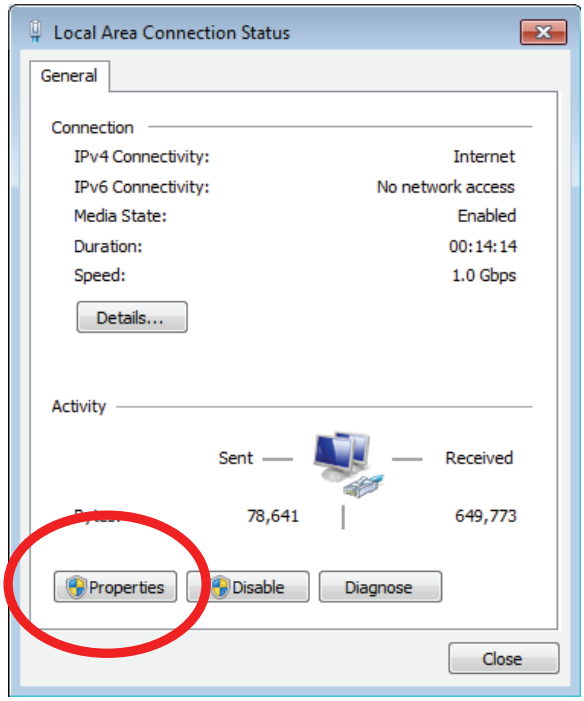
2. Click ‘View network status and tasks’ under ‘Network and Internet’

3. If you didn’t see ‘Network and Internet’ in control panel, please look for ‘Network and Sharing Center’ icon and double-click it.

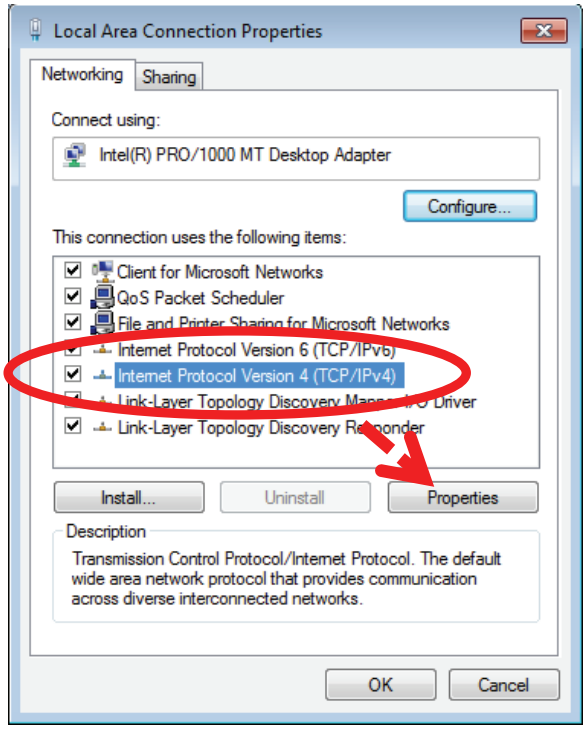


4. Click ‘Local Area Connection’

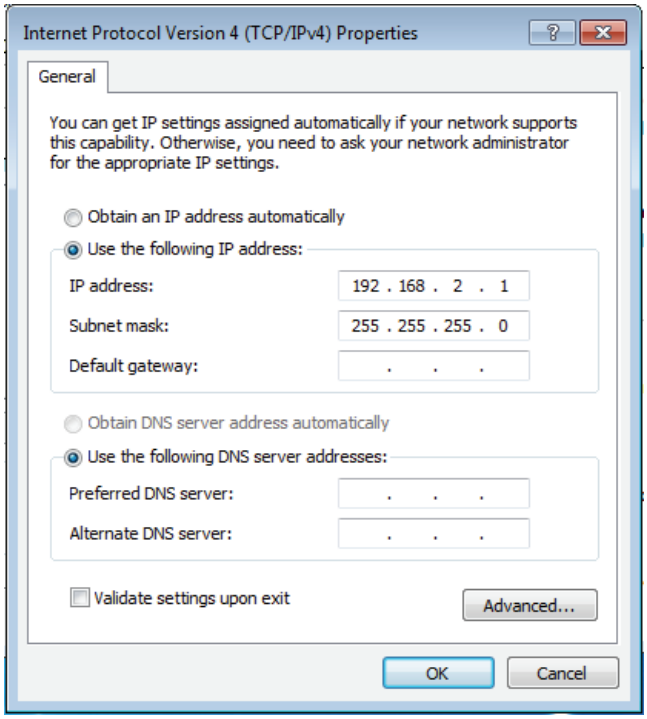
5. Click ‘Properties’



6. Click ‘Internet Protocol Version 4 (TCP/IPv4), and then click ‘Properties’



7. Click ‘Use the following IP address’, and then input ‘192.168.2.1’ in ‘IP address’ and ‘255.255.255.0’ in Subnet mask’, just like shown on the left. Click ‘OK’ when finish, and close all open windows you opened



2.2 Connect to IP Camera's Web User Interface and Install

ActiveX Plugin (for IE browser only)

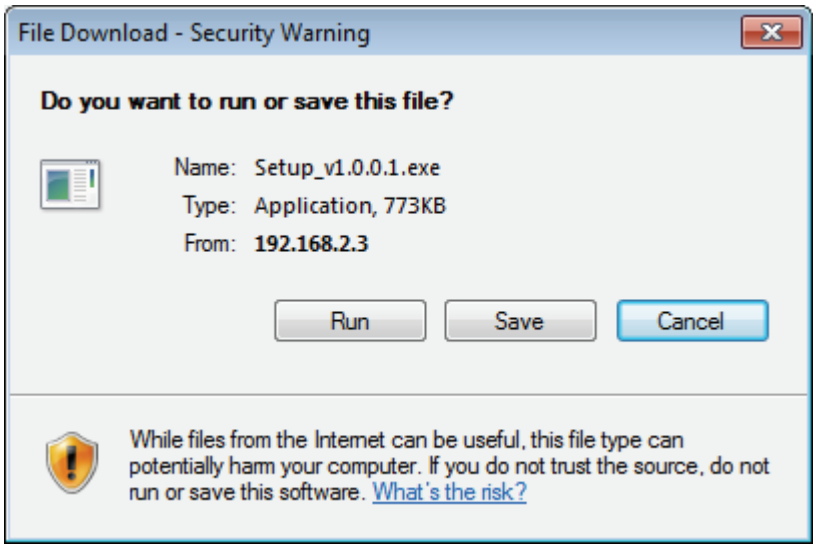
For first-time installation, you can connect to IP camera by Internet Explorer web browser by entering its default IP address: 192.168.2.3 in address bar:

The use login screen will appear when you get connected:

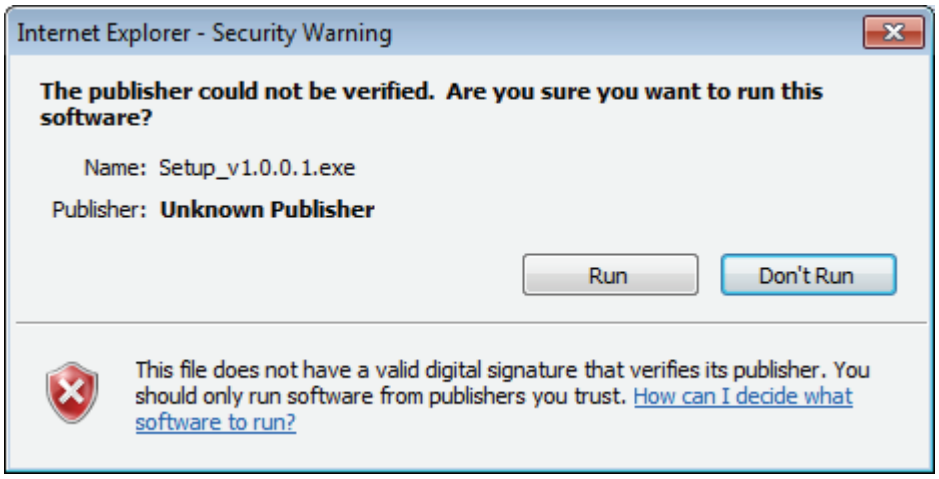
IP Camera's administrator username is 'admin' (lower case) and password is '1234' by default. Click 'OK' button or press 'ENTER' key on your keyboard when you finish entering username and password.

When you connect to IP Camera for the first time, you'll see the following message:

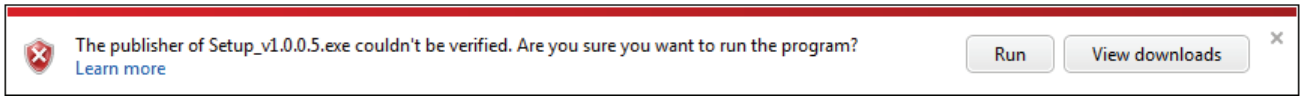
This message prompts you that you need to install ActiveX plugin before you can see the video from IP Camera. *Click 'Download ActiveX' link to install ActiveX plugin:*



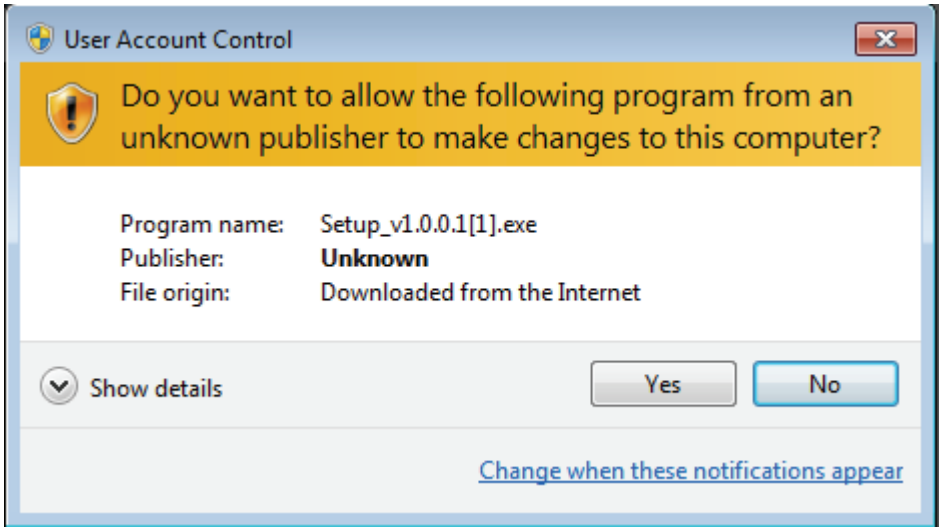
Click ‘Run’ to start installation. After few seconds, you’ll see this message:



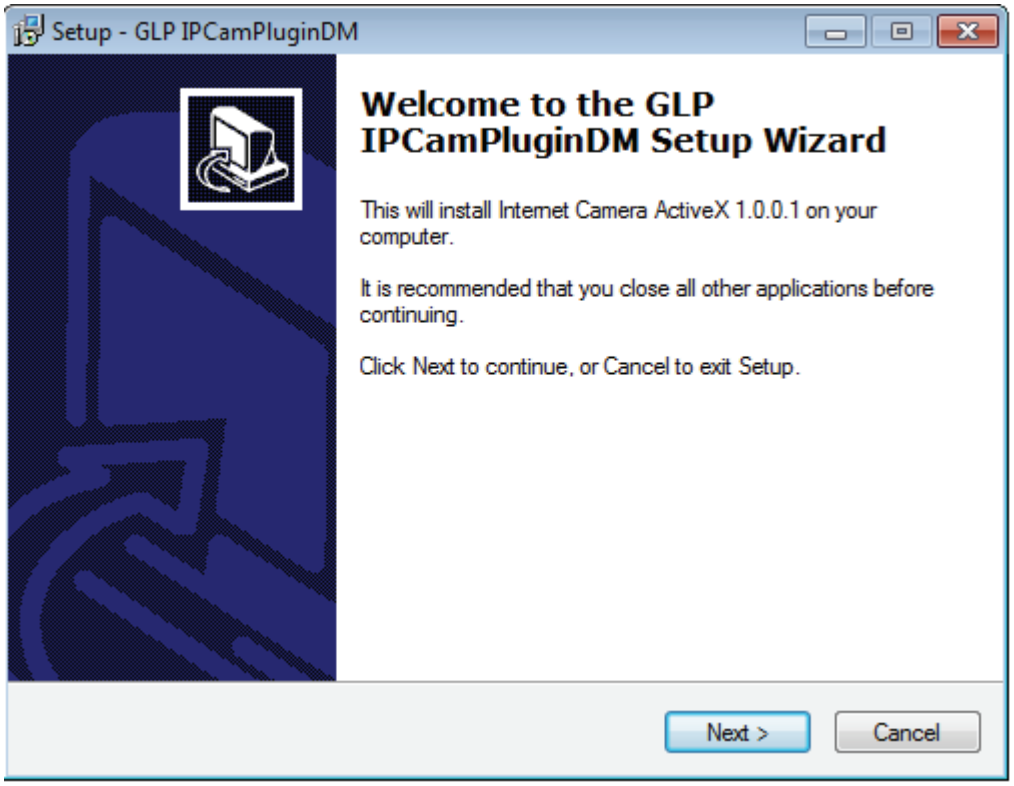
For IE9: The message will appear at the bottom of Internet Explorer:



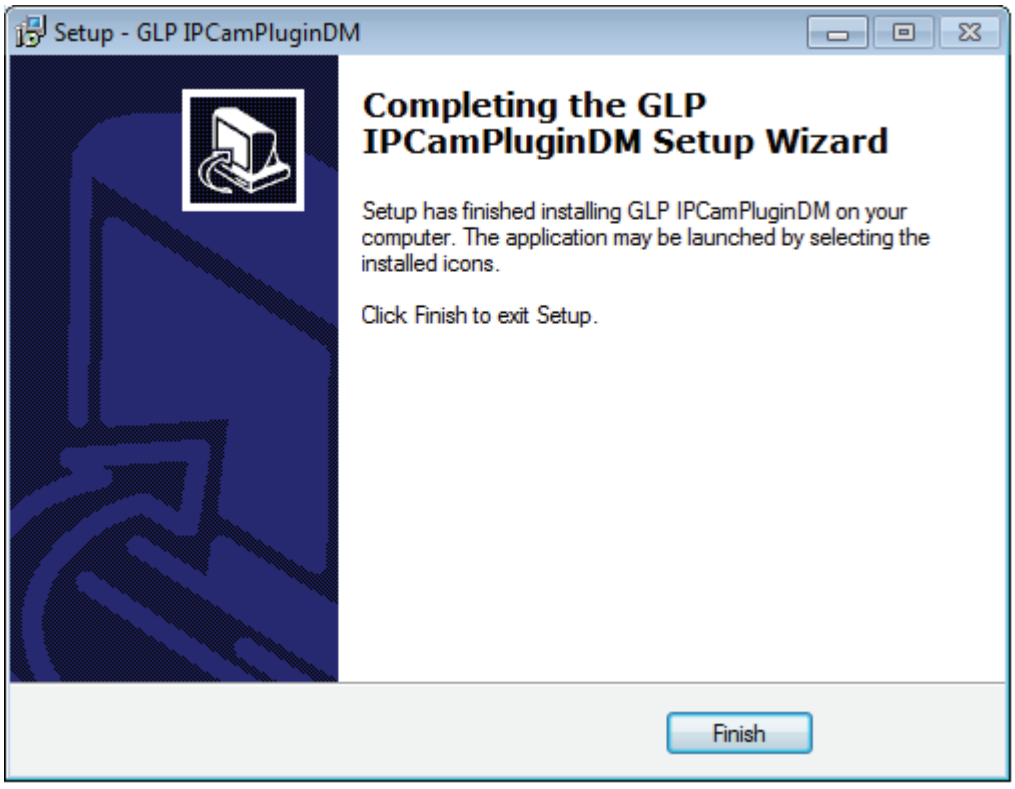
Click ‘Run’ to begin installation. You may see UAC (User Account Control) message after you click ‘Run’ button:



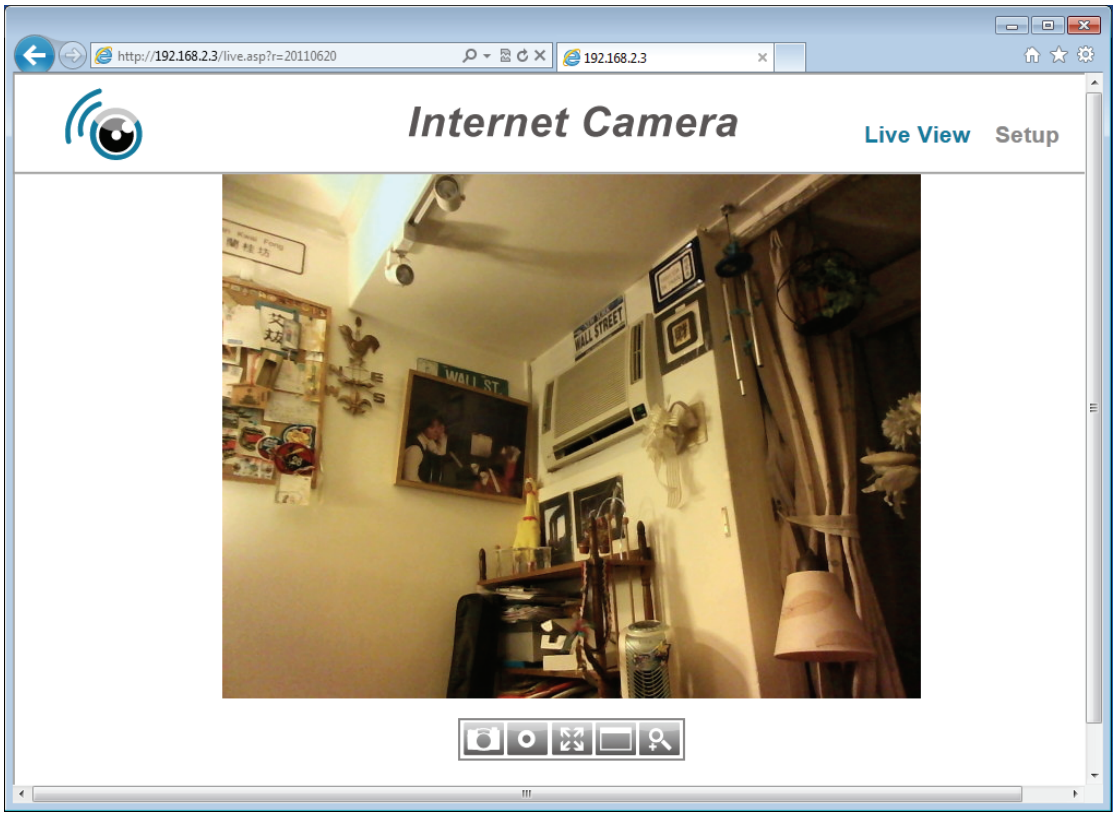
Click ‘Yes’ to continue. Installation procedure will begin:



Click ‘Next’ and ‘Install’ when you’re prompted to install ActiveX control. When you see this message, installation is complete:

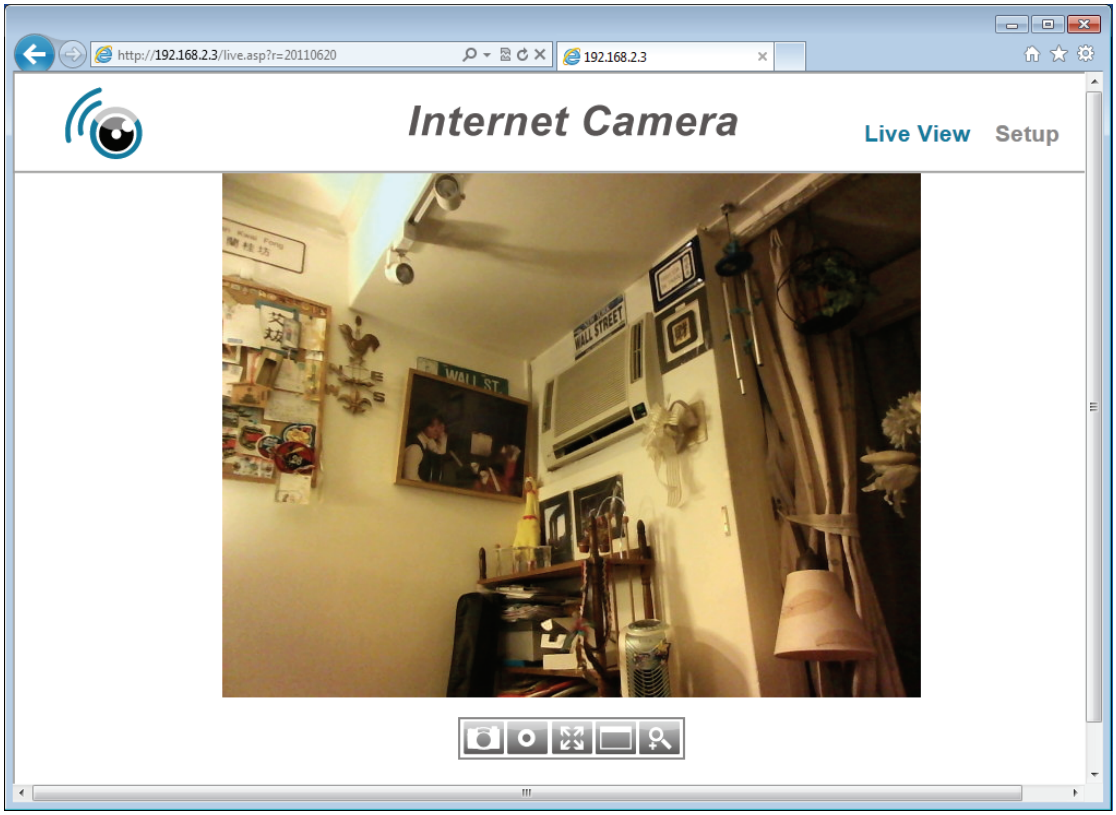


Click ‘Finish’ to close the window. Now, go back to web browser window and login again, you should be able to see camera’s image:

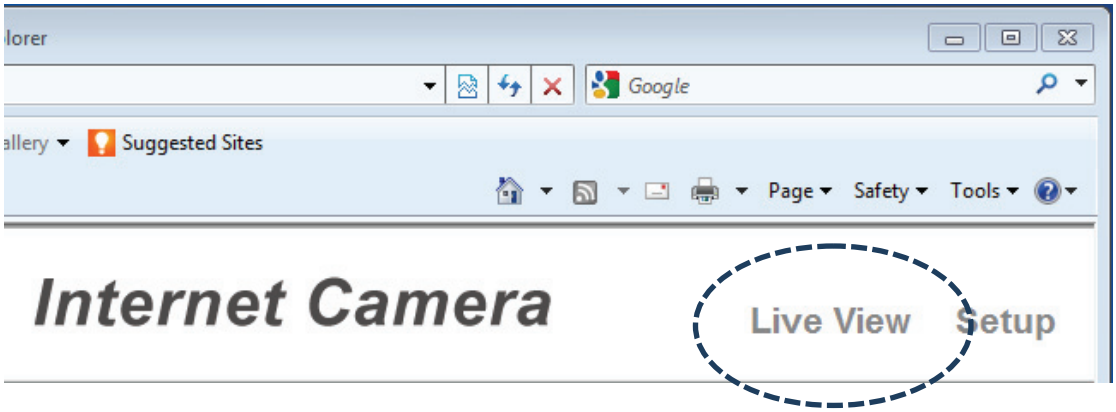


2.3 Viewing Live Video

To view the live video from IP camera, please log onto IP camera's web interface as described in last chapter, and you can see live video view:

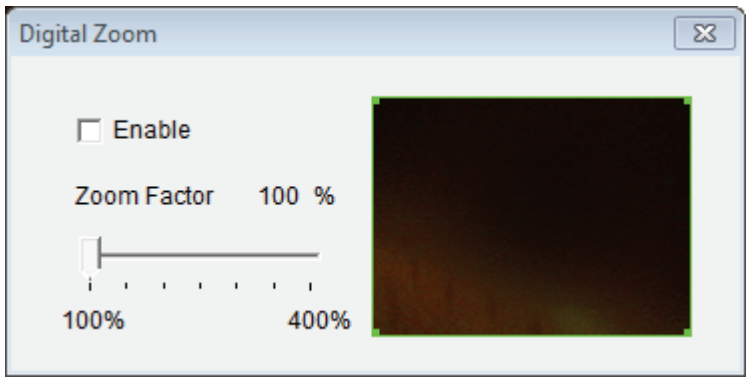


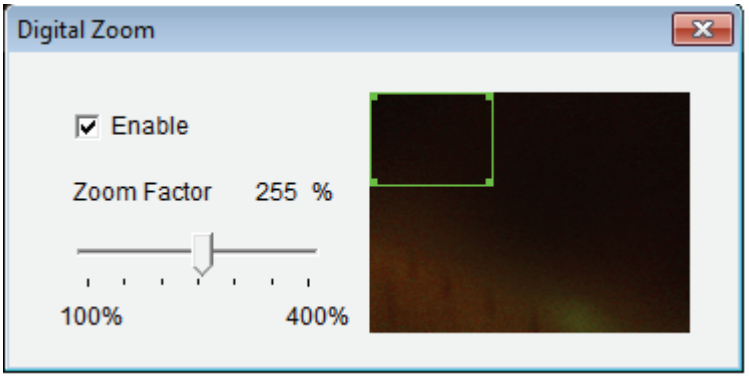
When you're in other setup pages of IP camera, you can click 'Live View' link located at the upper-right corner of IP camera's web interface:



There are also some functions you can use in camera's live view page:

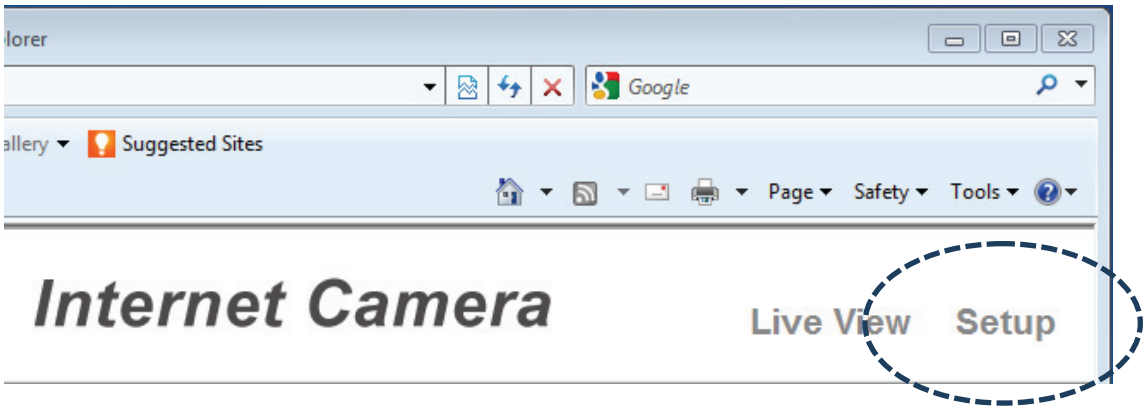
The descriptions of these items are listed below:

Item	Description
Snapshot	Take a snapshot (save a picture) of current live view. Click the folder field ('c:\' by default) and you'll be prompted to select a folder in your computer, and click 'Get snapshot' button to save a picture.
Record	Start recording video. Click the folder field ('c:\' by default) and you'll be prompted to select a folder in your computer, and click 'Start recording' button to start recording.
Fit to window	Click this button and the live view area will adjust according to the size of web browser automatically.
Full Screen	Click this button and the live view will expand and fit the size of your computer monitor. Press 'Esc' key on your keyboard to resume.
Digital Zoom	Click this button and a new window will popup:  Check 'Enable' box to enable digital zoom

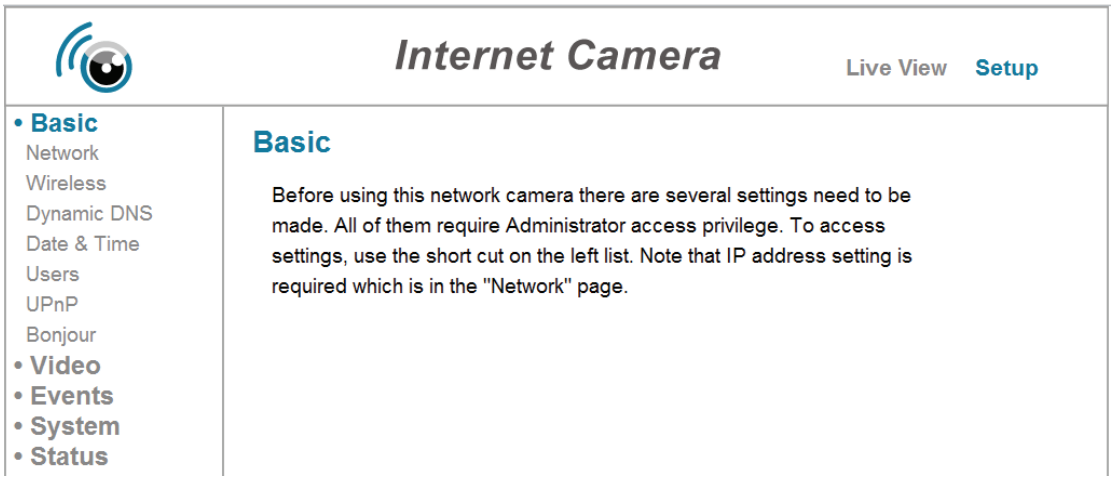
	(enlarge video so you can see objects in detail). Drag the slide bar from 100% (no enlargement) to 400% to enlarge the image. The level of enlargement will be displayed in 'Zoom Factor' field. When you're enlarging image (i.e. Zoom Factor > 100%), a green rectangular will appear in the image area:  Drag the green rectangular to move the position of enlarged area in image.

Chapter III Setup IP Camera

To setup the IP camera, please log onto IP camera's web interface and click 'Setup' link on the upper-right corner:



The setup menu will appear:

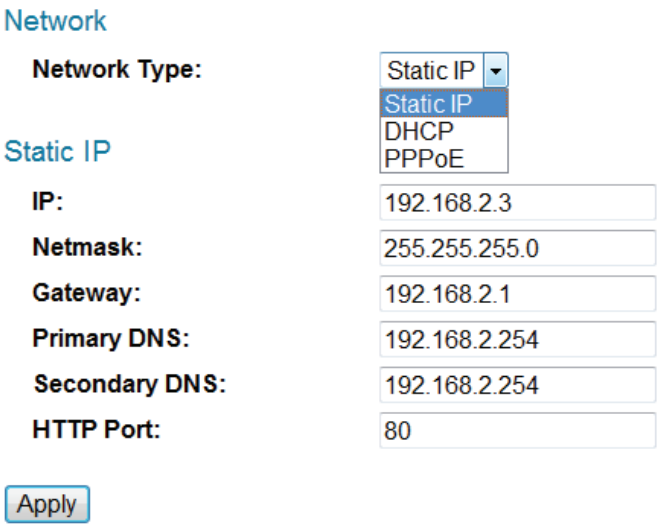


There are five setup categories: Basic, Video, Events, System, and Status, which are located at the left of web interface. When you click on the link of every category, it will expand and show sub-menu.

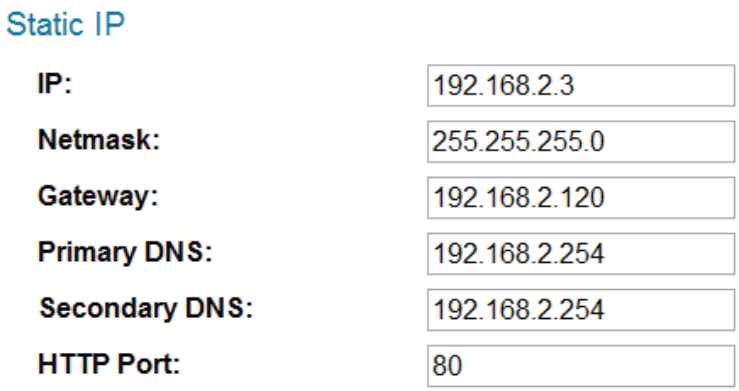
Please refer to following chapters for detailed instructions.

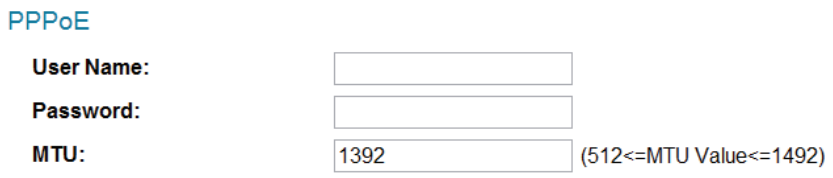
3-1 Basic / Network Settings

In this menu, you can setup Ethernet network settings.
(NOT Wireless Network!)



The descriptions of these items are listed below:

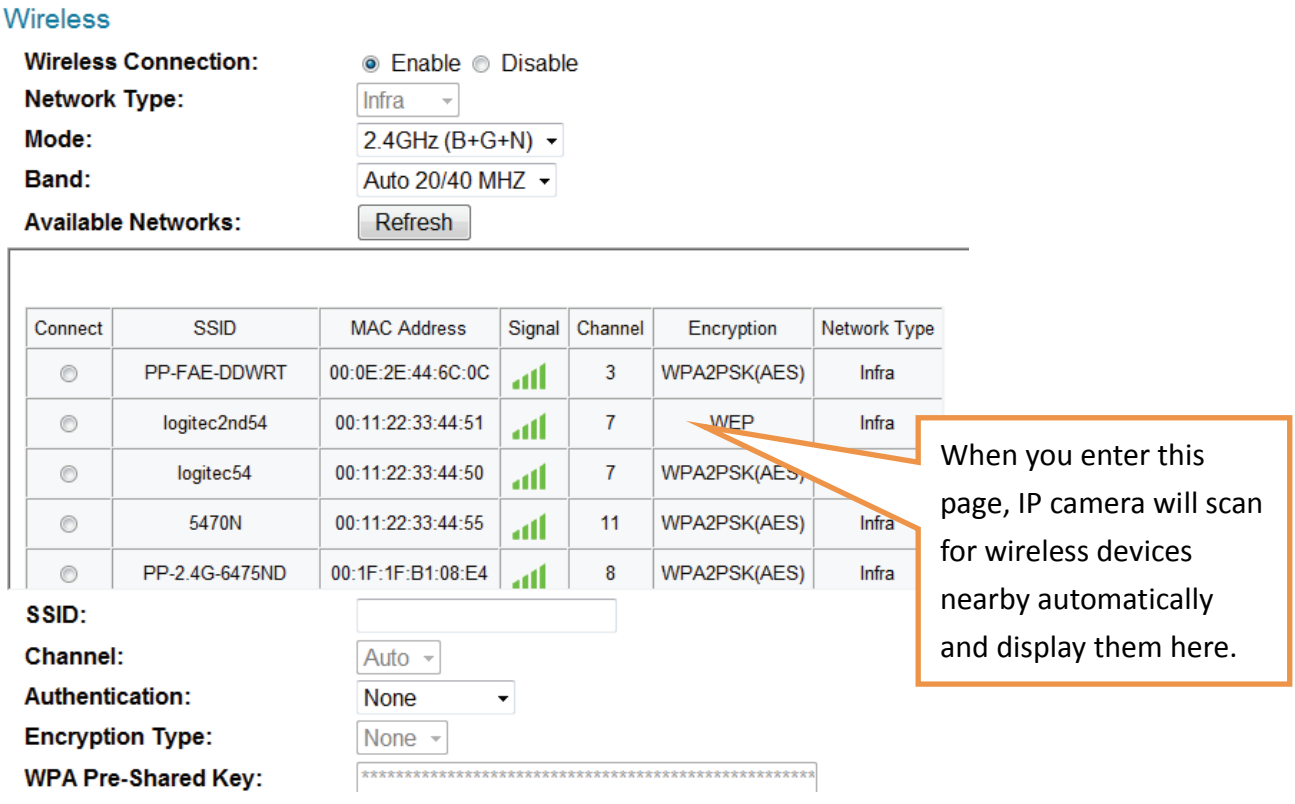
Item	Description
Network Type	Select the type of Ethernet connection: Static IP, DHCP, and PPPoE. Please select one from dropdown menu, if you're not sure, please consult your network administrator or ISP. Static IP:  IP: Please assign an IP address to this IP camera. Netmask: Please input the netmask of IP address. Gateway: Please input the gateway address of your network. Primary DNS: Input the IP address of DNS server. Secondary DNS: Input the IP address of secondary (backup) DNS. You can leave this field blank if no secondary DNS is available. HTTP port: The default web port number is 80, if you want to change it, you can input it from

	1024 ~ 65535 in this field. When you connect to this IP camera next time, you have to add a colon and port number after IP camera's IP address. For example, if the camera's IP address is 192.168.2.3 and HTTP port number is 82, you have to input 'http://192.168.2.3:82' in web browser's address bar. DHCP: IP camera will obtain IP address from DHCP server on your local area network automatically. PPPoE: IP camera will connect to network by PPPoE.  Please input PPPoE user name and password, and input MTU value when required. *Please note: In some cases you can improve network efficiency or correct connection problem by setting a new MTU value, however, In most cases you don't have to change MTU setting.*

Click 'Apply' button to save changes you made.

3-2 Wireless

You can establish wireless connections to other network devices such as network AP.



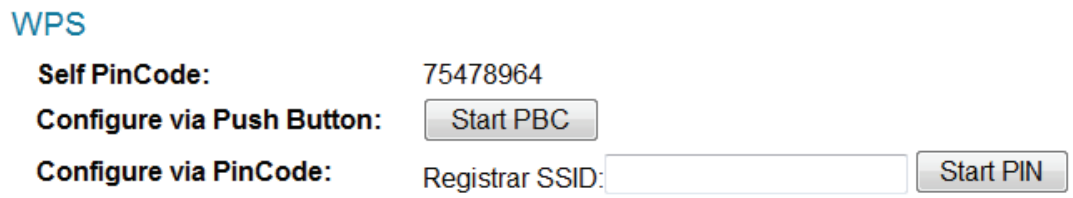
The descriptions of these items are listed below:

Item	Description
Wireless Connection	You can enable or disable wireless functionality here. *Please note: You can switch wireless network off, but you can't switch wired Ethernet off.*
Network Type	Select the type of network you wish to connect: Infra (infrastructure: wireless access point) or Ad Hoc (point to point wireless connection).
Mode	Select the wireless operating mode: B (802.11b, maximum 11mbps) G (802.11g, maximum 54mbps) N (802.11n, maximum 150mbps). You can select mixed mode (2.4GHz B+G+N) so IP camera will work with all kinds of wireless network. If you select B, G, or N only, then IP camera will be able to communicate with wireless network of same operating mode only.
Band	Select wireless band: 20MHz only or 20/40MHz auto switch. It's recommended to select 'Auto 20/40MHz'.
Available Networks	IP camera will list all nearby networks and their parameter in this field. If the network you wish to connect does not appear hear, click 'Refresh' to rescan again. You can click 'Refresh' button for many times until the network you wish to connect appear in the list. If you wish to connect to a specific network, select the radio button of the network you wish to connect (under 'Connect' field), and

	the network's connection parameter will appear in the fields below. *Tips: If you can't see the network you wish to connect after you click 'Refresh' button for many times, please move IP camera closer to the network's access point).*
SSID	Input network's SSID (access point's wireless name) here, or select one network from network list above. If he network you wish to connect is a 'hidden' network (SSID is hidden to the public), you have to input SSID manually.
Channel	Select wireless channel number. Use 'Auto' to select channel automatically.
Authentication	Select authentication type: None: no encryption WEP: use WEP encryption WPA-PSK: Use WPA with PSK encryption. WPA2-PSK: Use WPA2 with PSK encryption. The authentication type you selected here must be identical with the setting of access point.
Encryption Type	Select wireless encryption type. This option will vary depends on the authentication type of the network you wish to connect. The encryption type you selected here must be identical with the setting of access point.

WPA Pre-shared Key	Input WPA pre-shared key here, must be identical with the setting of access point. *(This field is not available when authentication type is none or WEP).*
WEP Key Format	Select WEP key's format: Hex or ASCII. This setting must be identical with the setting of the network you wish to connect.
WEP Key length	Select WEP key's length: 64 or 128-bit. This setting must be identical with the setting of the network you wish to connect.
WEP Key	Input WEP key here. This setting must be identical with the setting of the network you wish to connect.

You can also setup encrypted wireless connection by WPS (Wi-Fi Protected Setup):

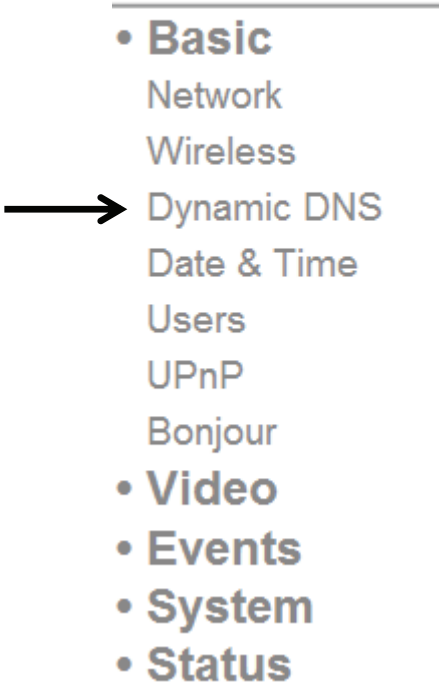


The descriptions of these items are listed below:

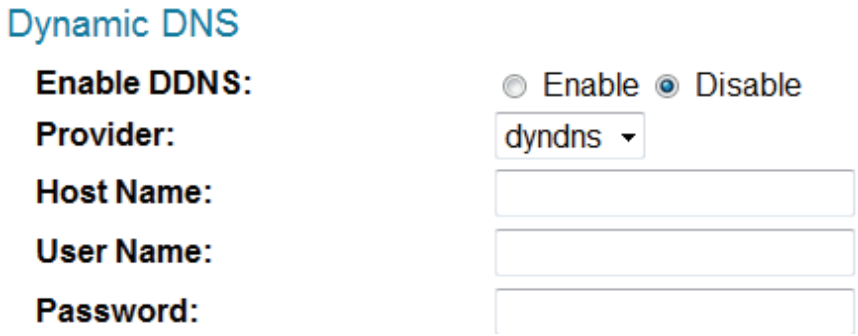
Item	Description
Self PinCode	Displays the 8-digit pin code of this IP camera. Write this number down and you'll need this number so get connected with other WPS-enabled network devices when requested.
Configure via Push Button	Click 'Start PBC' button to start PBC-style WPS pairing sequence: Click this button, and push WPS button of the access point (or click a software button in access point's configuration web page). You must press WPS button of the wireless device you wish to connect within 120 seconds.
Configure via PinCode	Click 'Start PIN' to start PIN-style WPS pairing sequence. You have to input WPS registrar's SSID in 'Registrar SSID' field first.

Click 'Apply' button to save changes you made.

3-3 Dynamic DNS



If your Internet service provider didn't issue you a fixed IP address, you can use this function to report your current IP address to dynamic DNS service provider, so you can locate your IP camera without having a fixed IP address.



The descriptions of these items are listed below:

Item	Description
Enable DDNS	Select ‘Enable’ to enable DDNS functionality, orselect ‘Disable’ to disable DDNS functionality.
Provider	Select Dynamic DNS service provider you’re using from dropdown menu.
Host Name	Input the hostname you registered with DDNS service provider.
User Name	Input the user name you registered with DDNS service provider.
Password	Input the password you registered with DDNS service provider.

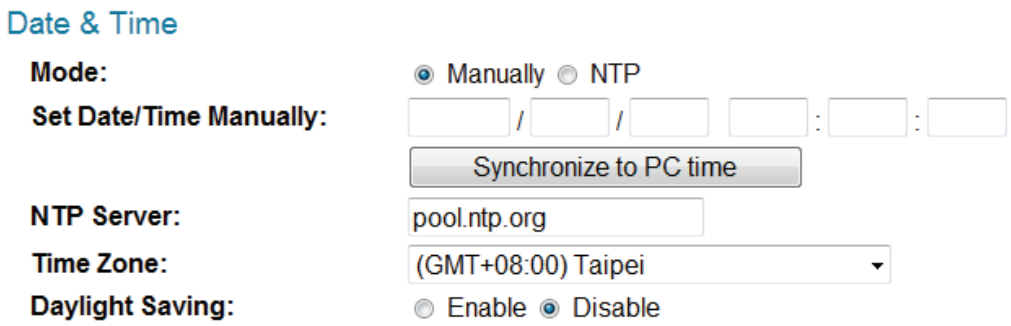
Click ‘Apply’ button to save changes you made.

TIPS: You can register free (or paid) dynamic DNS service from following website:

Dyndns: www.dyndns.org
Refer to Chapter VIII for DDNS application.

3-4 Date & Time

You can setup IP camera's system date and time here. Maintaining a correct system time is very essential when you need to replay recorded video.



The descriptions of these items are listed below:

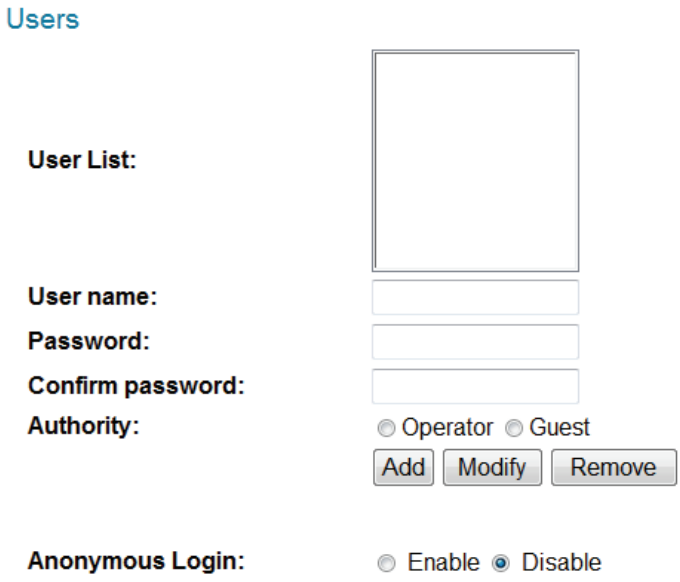
Item	Description
Mode	Select date & time setup mode: Manually: Set time manually. NTP: Use NTP (Network Time Protocol) to setup date and time automatically via network. If you have Internet connection or there's a NTP server on your local network, you can select this function to help you to keep IP camera's date and time correct.
Set Date/Time Manually	There are 6 fields for you to input current date / time. The format is: YYYY/MM/DD HH:MM:SS
Synchronize to PC time	Click this button the fill date / time field with your computer's date and time.
NTP Server	Input NTP server's hostname or IP address.
Time Zone	Select the time zone of the place you live from dropdown menu.
Daylight Saving	If the area you live uses daylight saving, select 'Enable', or select 'Disable' when daylight saving is not used.

Click 'Apply' button to save changes you made.

3-5 Users

Besides default system operator account ‘administrator’, you can add additional operator account or user account here:

Operator accounts can perform all functionalities and do configurations of this IP camera, while guest accounts can view image only.

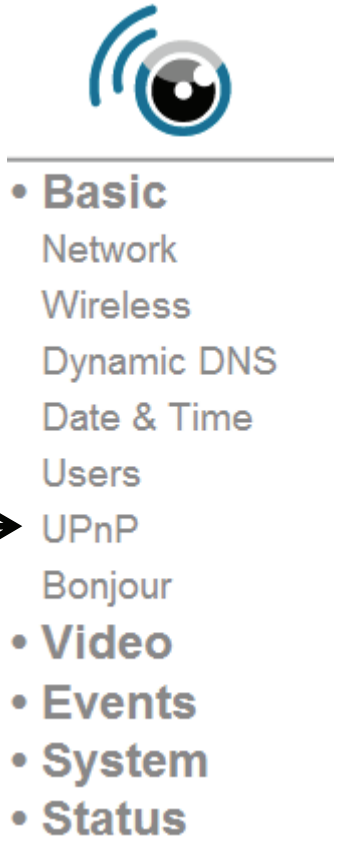


The descriptions of these items are listed below:

Item	Description
User List	Lists all existing operators / users here. To modify an operator / user's setting, click his / her name here first.
User Name	Input user's name here.
Password	Input user's password here.
Confirm password	Input user's password here again for confirmation.
Authority	Select this user's privilege: Operator can view video and go to setup page to change video setting. Guest can view video only.
Add	Click this button to add a new user with settings above.
Modify	Click this button to save changes of an existing user.
Remove	Click this button to remove a user. You must select a user in 'User List' field first.
Anonymous Login	Select 'Enable' to enable anonymous user to login this IP camera and view image. This function is useful when you want to establish a remote video server which welcomes everyone to view the video. If you only want to allow registered user to login, select 'Disable'.

Click 'Apply' button to save changes you made.

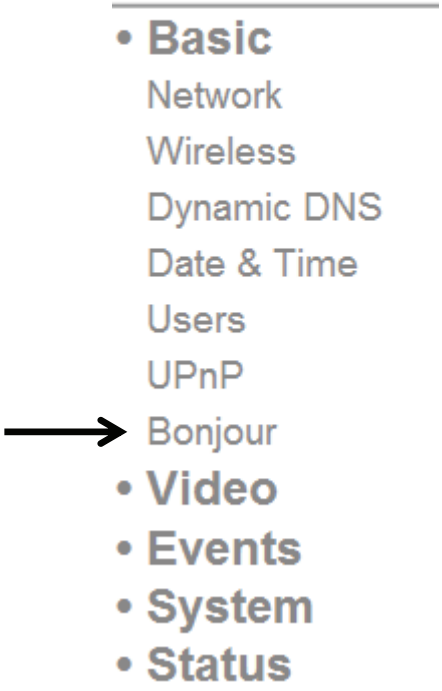
3-6 UPnP



When you enable this function, Windows computers can discover this IP camera from windows network neighbor directly, and you don't have to know this IP camera's IP address in advance (This only works on local area network).

Select 'Enable' to enable this function, or select 'Disable' to prevent users on local area network to discover this IP camera.

3-7 Bonjour



When you enable this function, Macintosh computers can discover this IP camera from safari web browser directly, and you don't have to know this IP camera's IP address in advance (This only works on local area network).

Select 'Enable' to enable this function, or select 'Disable' to prevent users on local area network to discover this IP camera by safari browser.

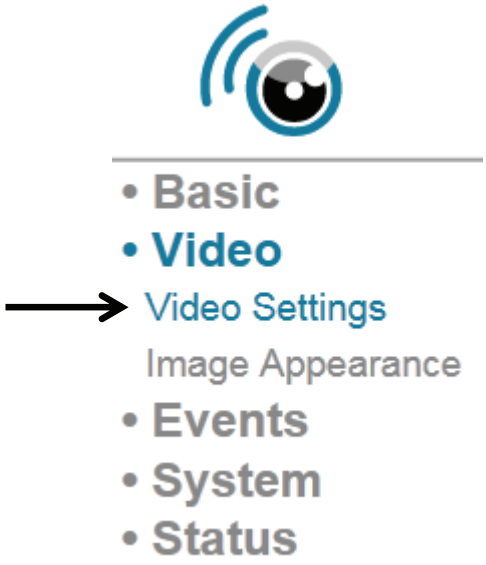
Tips: Bonjour function must be enabled in safari browser first.

Chapter VI Video Configuration

In video configuration setup page, you can change the resolution and frame rate, so you can decide the video quality by the bandwidth you have.

4-1 Video Settings

You can change resolution and frame rate settings here.



The descriptions of these items are listed below:

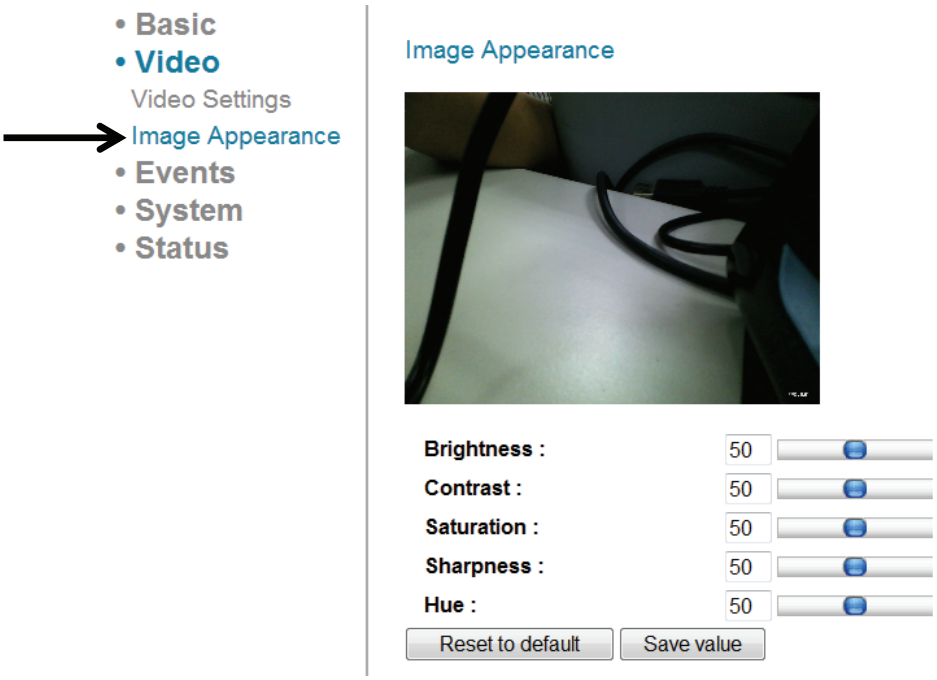
Item	Description
Resolution	Change video resolution from dropdown list. Available resolutions are: SXVGA (1280 x 960) VGA (640 x 480) QVGA (320 x 240) Higher resolution provides mode video details, but requires more bandwidth.

MAX. Frame rate	Select the maximum video frame rate. Higher frame rate provides more fluent video, but also requires more bandwidth. ***Please note: When the environment is dark, this IP camera will automatically adjust frame rate to a lower setting to provide better video quality by using a longer exposure time.***
Power frequency	Select the AC utility power's frequency (50 or 60Hz). This will help reduce the flicker of video when there's certain kind of lamp. If you don't know the frequency of power you're using, you can consult your utility power company.

Click 'Apply' button to save changes you made.

4-2 Image Appearance

You can change video appearance settings here.



The descriptions of these items are listed below:

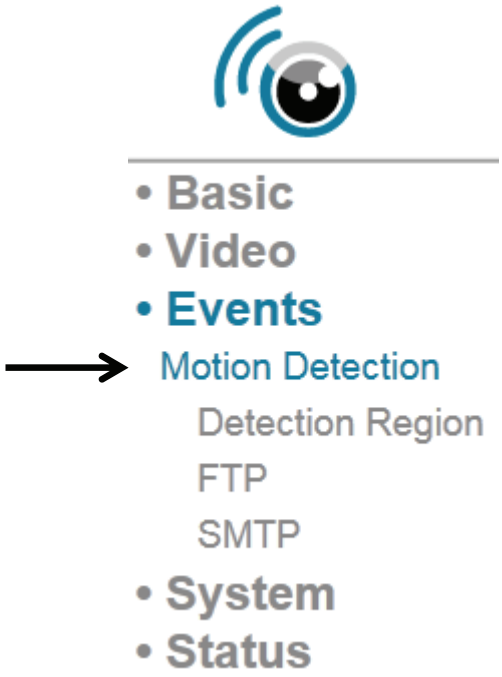
Item	Description
Brightness / Contrast / Saturation / Sharpness / Hue	Change video's appearance. If you think you don't like the video as it appears, you can change these parameters. Drag the blue lever by mouse to change the value.
Reset to default	Click this button to reset all settings back to default value (50).
Save value	Save changes you made.

Chapter V Events Configuration

This IP camera is capable to detect motions. You can use this function to use this IP camera as a security alarm and send the image to you by E-Mail or upload to FTP server when there's motion.

5-1 Motion Detection Setup

You can enable or disable motion detection settings here.



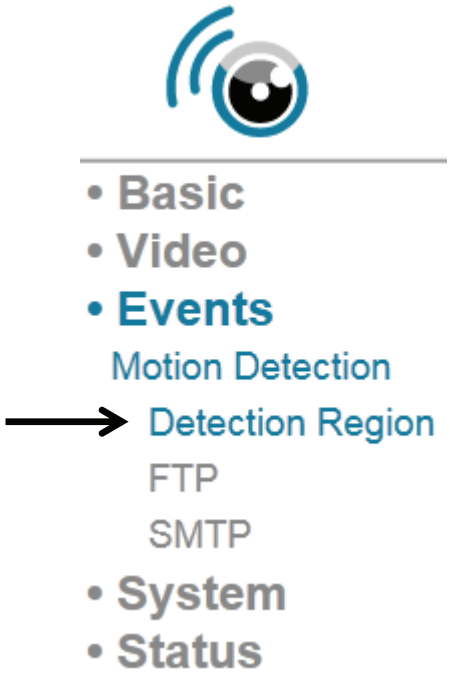
The descriptions of these items are listed below:

Item	Description
Motion Detection enable	Select ‘Enable’ to enable motion detection function, or ‘Disable’ to disable it.
Motion Detection Interval	Select the time interval this IP camera detects motion. To detect minor motions, select a shorter time; to ignore minor motions, select a longer time.
Send snapshot to E-Mail	Select ‘Enable’ to send a snapshot picture to designated email recipient; select ‘Disable’ to disable this function.
Send snapshot to FTP	Select ‘Enable’ to upload a snapshot picture to designated FTP server; select ‘Disable’ to disable this function.

Click ‘Apply’ button to save changes you made.

5-1-1 Detection Region

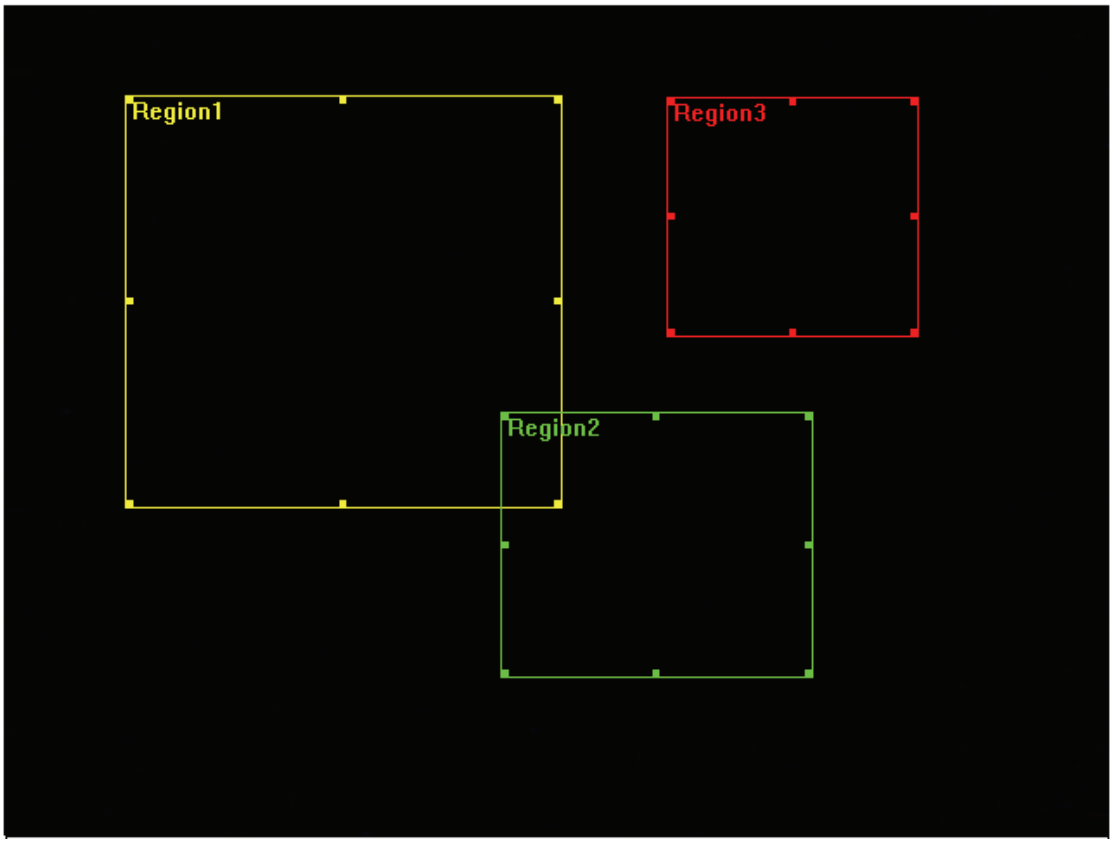
You can setup the area in video where IP camera should detect changes in video (motion). Motions outside of detection region will be ignored by IP camera, and IP camera will do nothing when a motion is detected outside of detection region. This will help you to minimize the chance of false alarm.

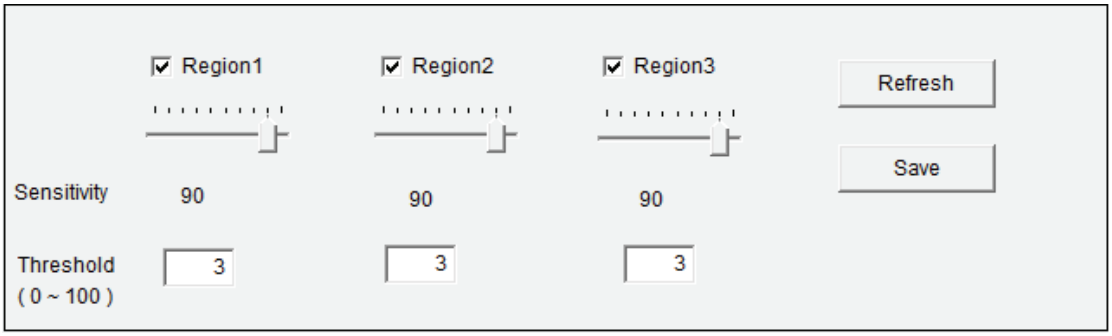


When you select this setup page, you'll see the following setup page:

(The setup page's video view window is intentionally set to black so you can see 3 motion detection regions clearly).

Detection Region





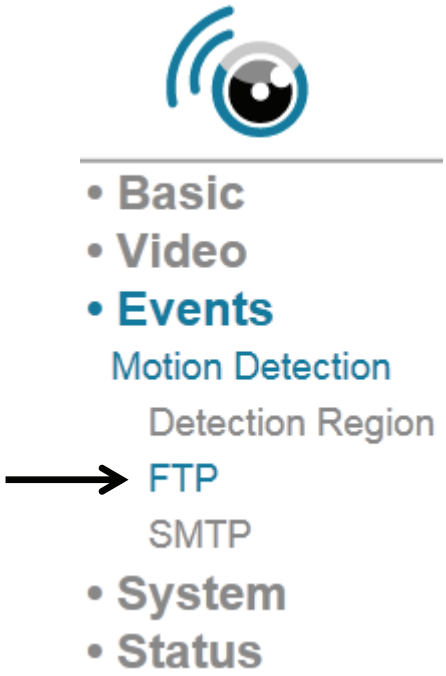
The descriptions of these items are listed below:

Item	Description
Region 1 / Region 2 / Region 3	Check the box to enable this motion detection area. A rectangle will appear on the video view when it's checked (enabled). To change the size of motion detection area: Point the mouse to the upper-left, upper-right, lower-left, lower-right corner of motion

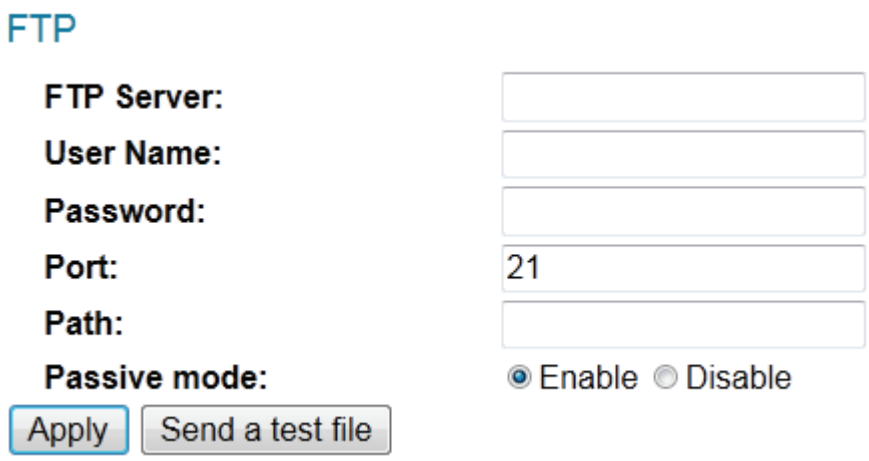
	detection rectangle, and drag the mouse. Move motion detection area: Put the mouse within the motion detection area, and drag the mouse.
Sensitivity	Change the sensitivity of motion detection. Set to a higher value (right) and IP camera will trigger the alarm when there're only small changes in video. If you found that IP camera sends E-mail or uploads picture to FTP too frequently, and there's nothing happen in the snapshot video, you can set to a lower value.
Threshold	Set the motion detection threshold here (input number 0 to 100). A higher value represents IP camera will only trigger alarm when the object in motion detection area is really big.
Refresh	Refresh the reference picture.
Save	Save changes you made in this page.

5-1-2 FTP

You can upload a snapshot picture when motion detected by this IP camera.



When you select this setup page, you'll see the following setup page:



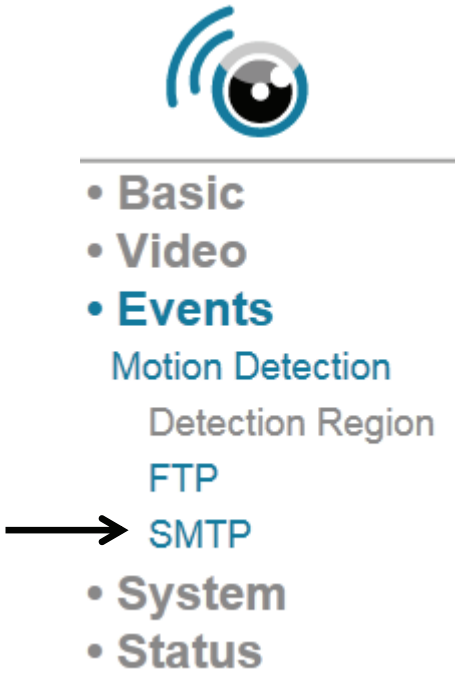
The descriptions of these items are listed below:

Item	Description
FTP Server	Input the IP address or host name of the FTP server.
User Name	Input the user name required by FTP server.
Password	Input the password of FTP server.
Port	Input the port number of FTP server, this should an integer between 1 to 65535. Please don't change this value until instructed by FTP server's administrator.
Path	Input the path (folder) you wish to save snapshot file on FTP server. If you don't want to specify folder, you can leave this field blank, and snapshot files will be saved in the default folder when logged onto FTP server.
Passive mode	Default setting is 'Enable' (use passive mode). If the FTP server you're going to use does not support passive mode (using active mode), select 'Disable' here.

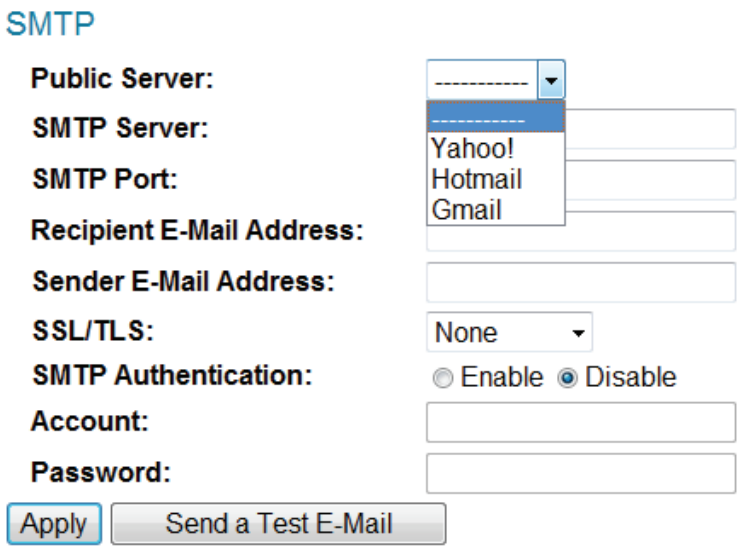
Click 'Apply' button to save changes you made. You can also click 'Send a test file' button to upload a test file to FTP server, and a message box will appear to indicate if the FTP upload is successful, so you can examine if the parameters you set in this page are correct.

5-1-3 SMTP

You can send a snapshot picture by E-Mail when motion detected by this IP camera.



When you select this setup page, you'll see the following setup page:



The descriptions of these items are listed below:

Item	Description
Public Server	If you're using Hotmail, Yahoo mail, or Google mail, select appropriate item from dropdown menu, and IP camera will fill the SMTP server address and port number for you automatically.
SMTP Server	Input the host name or IP address of SMTP server. SMTP server is usually provided by your ISP.
SMTP Port	Input the SMTP port number here. Most of SMTP servers use port number '25', while some SMTP servers uses encrypted connection and port number is '465'. Consult mail server administrator when in doubt.
Recipient E-Mail Address	Input E-mail recipient (receiver)'s E-mail address here.

Sender E-Mail Address	Input an E-Mail address here, which will be used by E-Mail sender's address. This will help you to identify the E-Mail sent by this IP camera, and will help you to prevent problems caused by anti-spam software.
SSL/TLS	Select 'SSL or TLS' when your SMTP server requires encryption. When in doubt, consult your SMTP server administrator.
SMTP Authentication	Select 'Enable' when your SMTP server requires authentication. When in doubt, consult your SMTP server administrator.
Account	Input SMTP account when your SMTP server requires authentication.
Password	Input the password used for SMTP server authentication.

Click 'Apply' button to save changes you made. You can also click 'Send a test E-mail' button to send a test E-mail to SMTP server, and a message box will appear to indicate if the E-mail send is successful, so you can examine if the parameters you set in this page are correct.

Chapter VI System Configuration

You can configure the basic system settings in this setup page, or backup / restore system configurations.

6-1 ‘Basic’ Settings

You can set the camera’s name and password here. You can also change the behavior of LED lights.

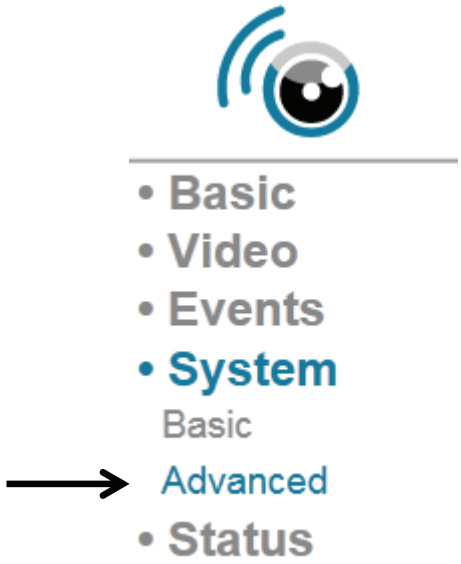
The descriptions of these items are listed below:

Item	Description
IPCamera Name	Set the name of IP camera. It's recommended to use a meaningful name which can describe the location where the IP camera is installed. This will help you to identify IP camera when you have more than one IP cameras.
Administrator Password	Input administrator's new password here if you want to change it.
Confirm Password	Input administrator's new password here again for confirmation.
LED Indication	For security reasons, you can disable the LED lights in front of IP camera by select 'off' here, so other people can't identify if the IP camera is working by them.

Click 'Apply' button to save changes you made.

6-1 ‘Advanced’ Settings

You can save or restore IP camera’s configuration file here. You can also reboot the IP camera remotely here.



The descriptions of these items are listed below:

Item	Description
Firmware Filename	You can improve the functionality of this IP camera by uploading new firmware file when available. Please download new firmware file from our website, and save it to your computer’s hard disk. Then, click ‘Browse’ button to select the file on your hard disk, and click ‘Apply’ button to upload the firmware to IP camera.
Backup Config	Click ‘Apply’ button to download current configuration as a file and save it on your computer’s hard drive.

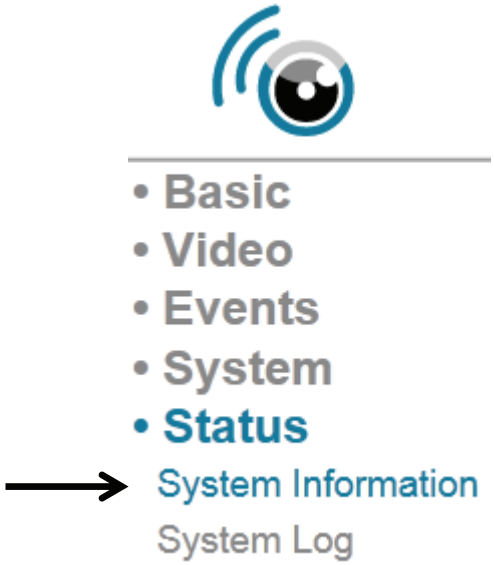
Restore Config	Click ‘Browse’ button to select a previously-saved configuration file on your computer’s hard drive, and then click ‘Apply’ to upload the configuration file.
Reboot Now	Click this button to reboot IP camera. This function is useful when you think IP camera is not working properly.
Reset to default	Reset the IP camera’s setting back to default value. There are 2 options: 1) Keep Network Setting: Reset all settings back to default value, except network settings. You can still use the same IP address to connect to the IP camera. 2) Factory Default: Reset all settings, include network settings. Please reconnect to IP camera by its default IP address: 192.168.2.3 Click ‘Apply’ to reset. You can press and hold ‘WPS / Reset’ button for more than 10 seconds to reset IP camera’s setting to default value.

Chapter VII System Status

You can view the status of this IP camera, which is helpful when you need to do detailed configuration, or debug.

7-1 System Information

You can see system-wide information of this IP camera here.



A system information summary page will appear like this:

System

Firmware Version :	v1.2 (Jun 20 2011 18:11:49)
Device Uptime :	5 min 42 sec
System Time :	1970/01/01 00:05:41

LAN

IP Address :	192.168.2.3
Subnet Mask :	255.255.248.0
Gateway :	192.168.2.120
DNS1 Server :	192.168.2.254
DNS2 Server :	192.168.2.254
MAC Address :	00:0E:2E:44:6B:DF
HTTP Port :	80

Wireless

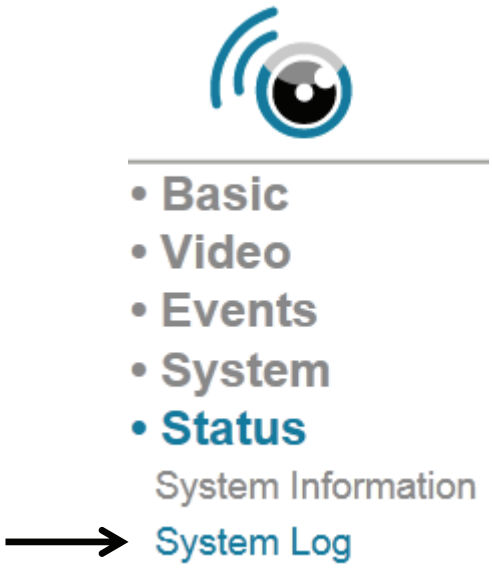
Link Status :	Disconnected
SSID :	
Channel :	
Authentication :	

PPPoE

Link Status :	Disconnected
IP Address :	
Subnet Mask :	

7-2 System Log

The IP camera's usage and actions will be displayed here.



The system log will appear here, you can use scroll bar to view logs, with some adjustable parameters:

The descriptions of these items are listed below:

Item	Description
Log Level	Select the log level from dropdown list. Select 0 and the IP camera will only log very important information, or select 4 to log everything.
Remote Log	This IP camera can send log information to a remote server for archive. Select ‘Enable’ to enable this function. This IP camera supports syslog log server.
Remote Log Server	Input the IP address or host name of log server you wish to use.

Click ‘Apply’ button to save changes you made.

Chapter VIII Advanced Operations

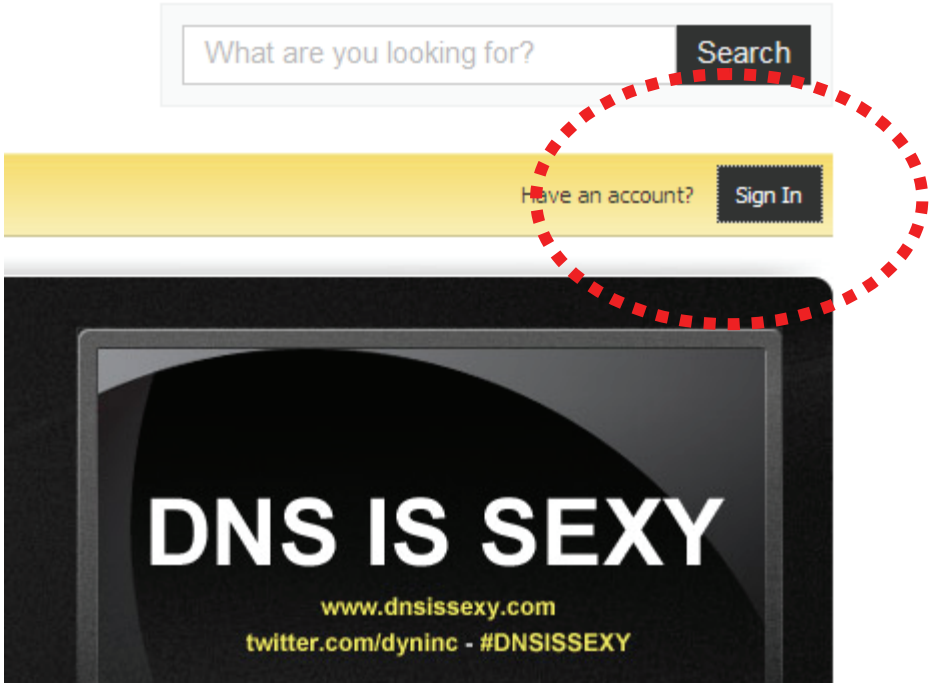
In this chapter, you'll learn how to apply a free DYNDNS account to use with this IP camera when you don't have a fixed IP address, and view the video of this IP camera on your iPhone.

8.1 Apply for free DYNDNS account

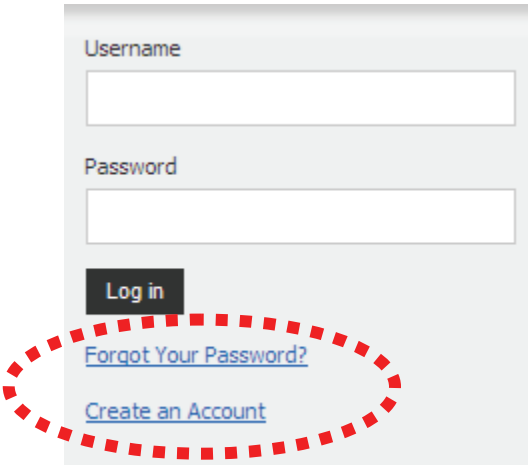
If your ISP issues you with an IP address which is not fixed, please follow the following instructions to apply for a free DYNDNS account to get a host name which is dynamically mapped to your current IP address.

1. Launch your web browser and navigate to http://www.dyndns.org

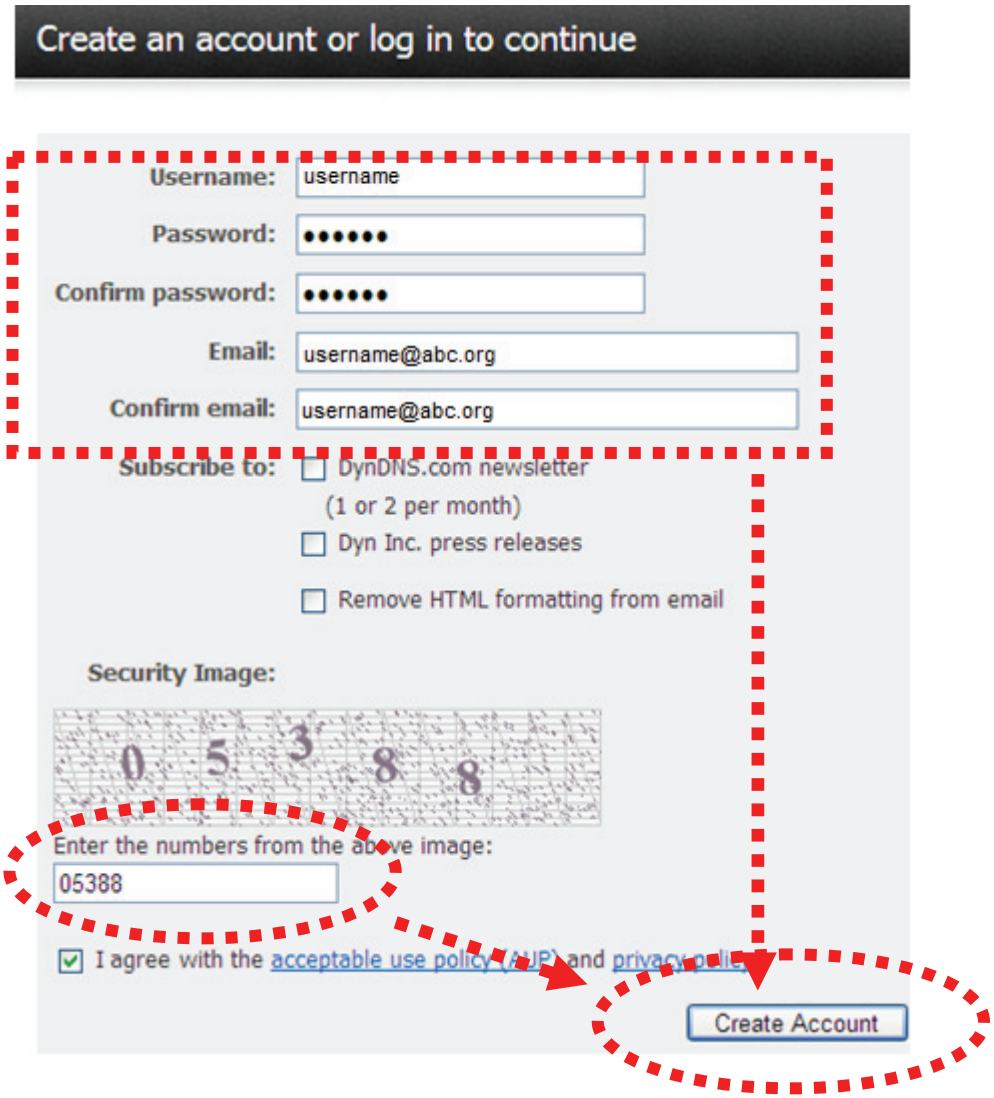
2. Click ‘Sign In’ button (located at upper-right corner of dyndns.org’s webpage)



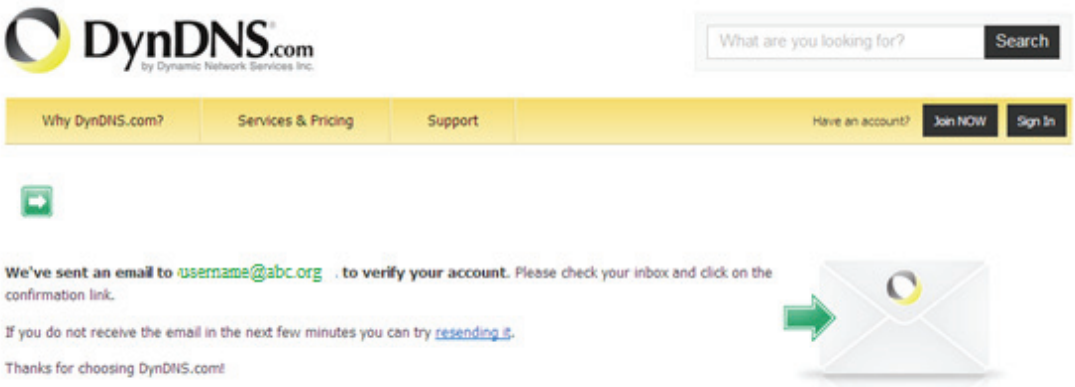
3. Click ‘Create an Account’ in pop-up menu.



4. Fill all fields appear in this menu, and click ‘Create Account’ button to create a new account. You’ll be prompted if the account you selected is not available.

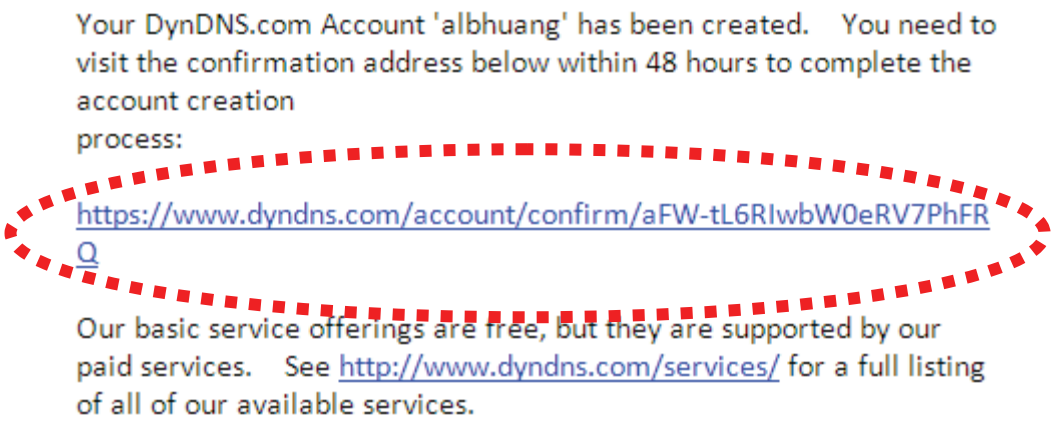


5. When you see this image, you’ll receive an e-mail confirmation at the e-mail box you registered with dyndns.org.



6. Check your e-mail box and you should be able to get confirmation e-mail. Click the link to connect to dyndns.org website and complete registration procedure. If you didn't get the mail, please re-check the e-mail address, or click 'resending it' link in last step.

   Also, if nothing happen after you click the link, please copy the link text and paste it in web browser's address bar.

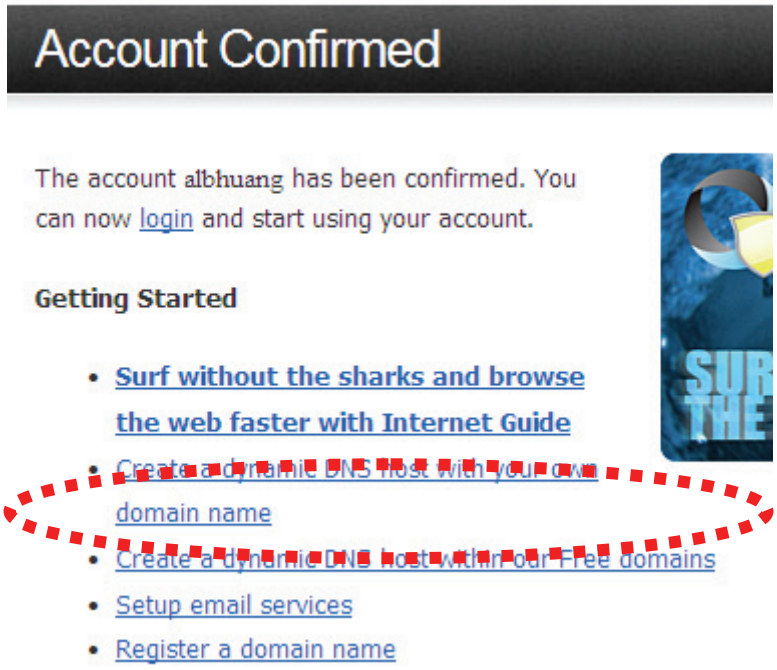


Your DynDNS.com Account 'albhuang' has been created. You need to visit the confirmation address below within 48 hours to complete the account creation
process:

https://www.dyndns.com/account/confirm/aFW-tL6RIwbW0eRV7PhFRQ

Our basic service offerings are free, but they are supported by our paid services. See http://www.dyndns.com/services/ for a full listing of all of our available services.

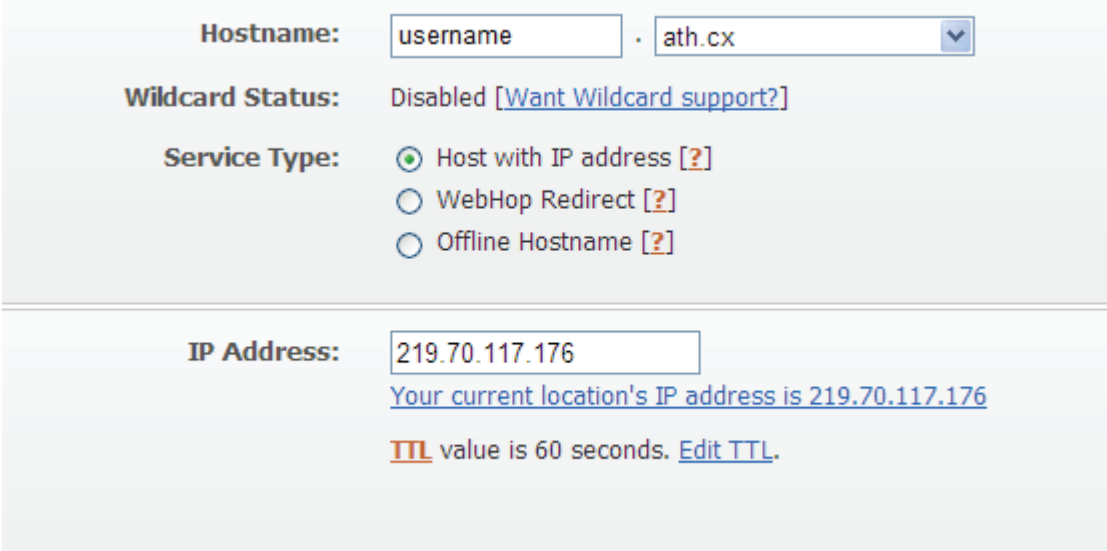
7. When you see ‘Account Confirmed’ webpage, indicates your dyndns.org account has been confirmed and activated. Now you can click ‘Create a dynamic DNS host within our Free domains’ link to continue.



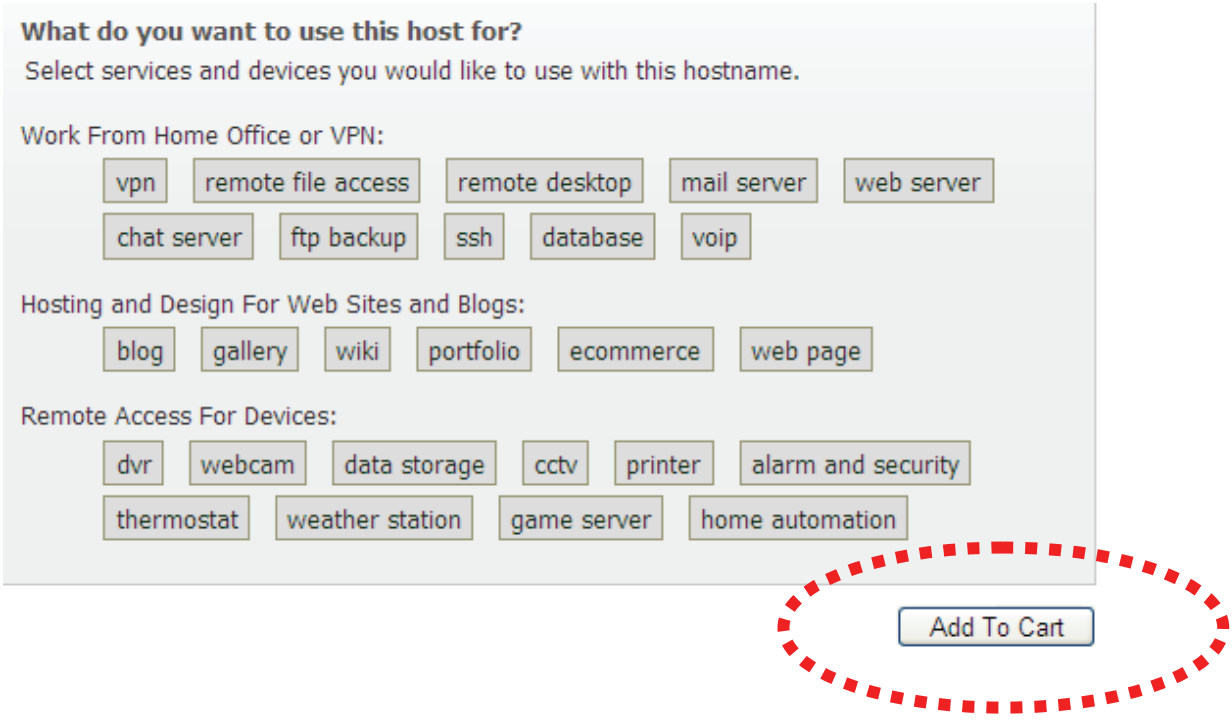
8. Click ‘Create Hostname’ button.

9. In this page:

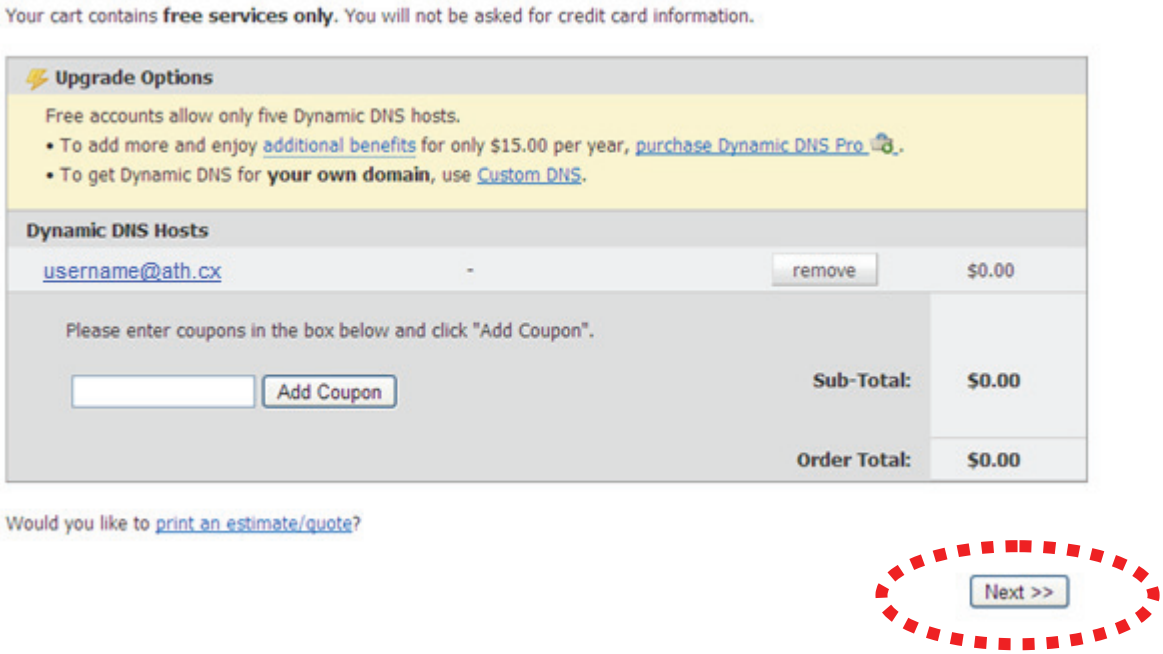
   Input the hostname of your choice in ‘Hostname’ field,
   Select a domain name in dropdown menu,
   Select ‘Host with IP address’ for ‘Service Type’,
   Input current IP address in ‘IP Address’ field (or click the link below to use detected IP address to fill this field’.



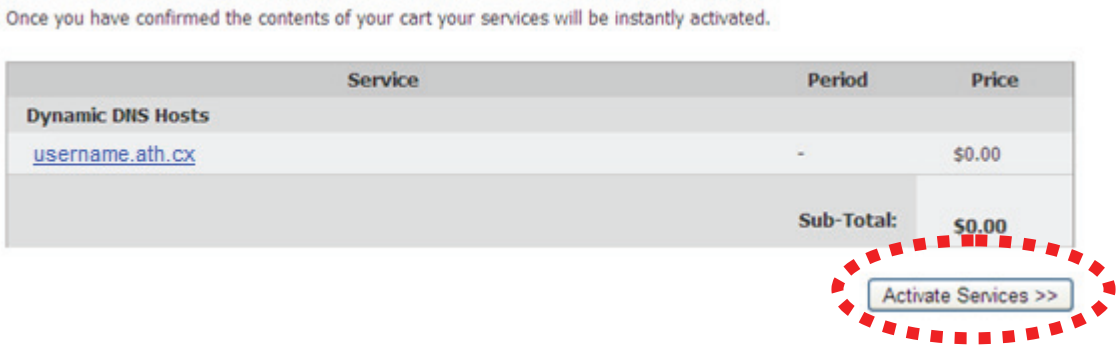
10. Click ‘Add to cart’ continue.



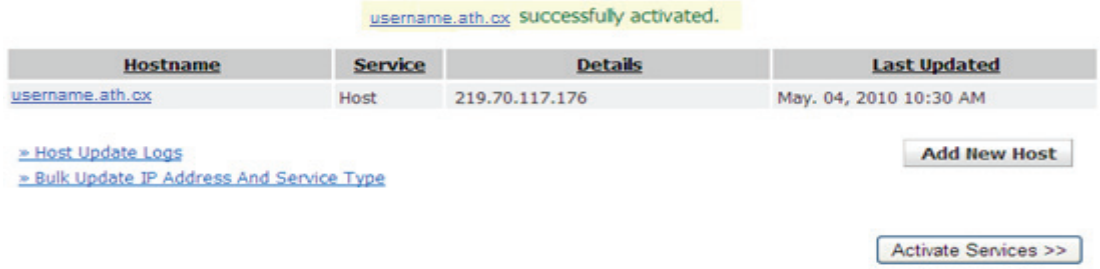
11. Click ‘Next’ to continue.



12. Click ‘Activate Services’ to continue.



13. When you see this message, indicates your free dyndns.org hostname mapping service has been activated. You can go to chapter 2-2-3 to use your dyndns.org username, password, and hostname + domain name to locate your IP camera on Internet even you’re using dynamic IP address!



Chapter IX Windows Surveillance Utility

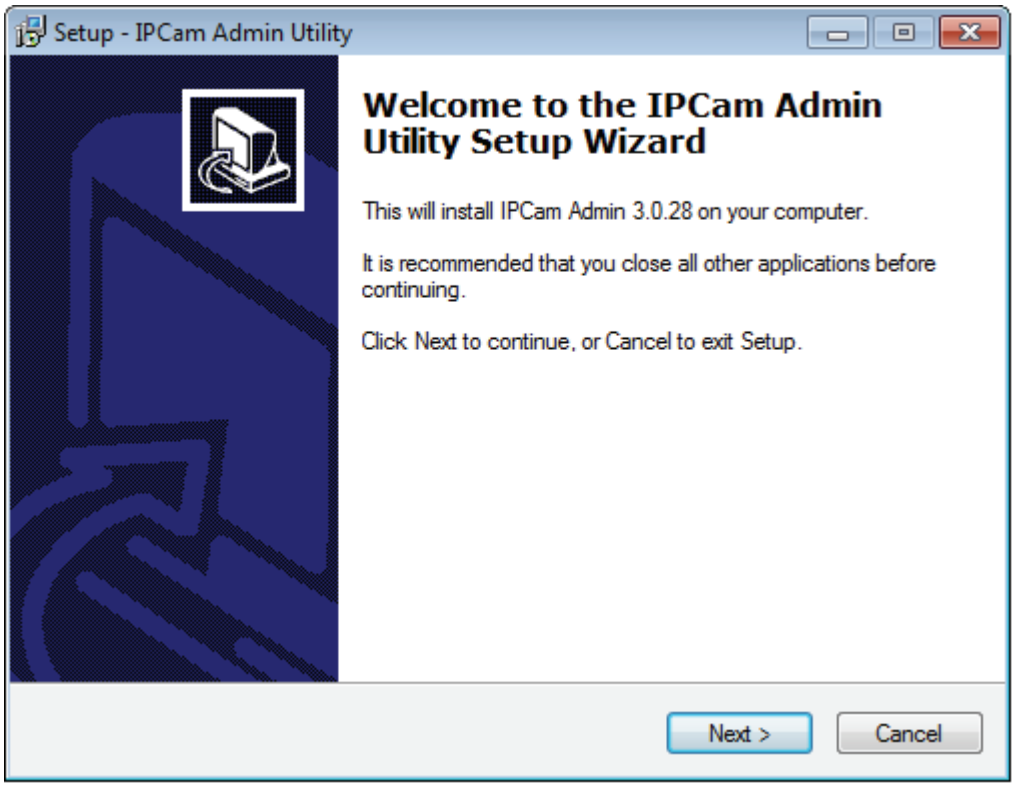
Besides using web browser to operate this IP camera, you can also use windows utility to use this IP camera, which provides faster access to all functions of this IP camera.

9-1 Installing IP Camera Administration Software

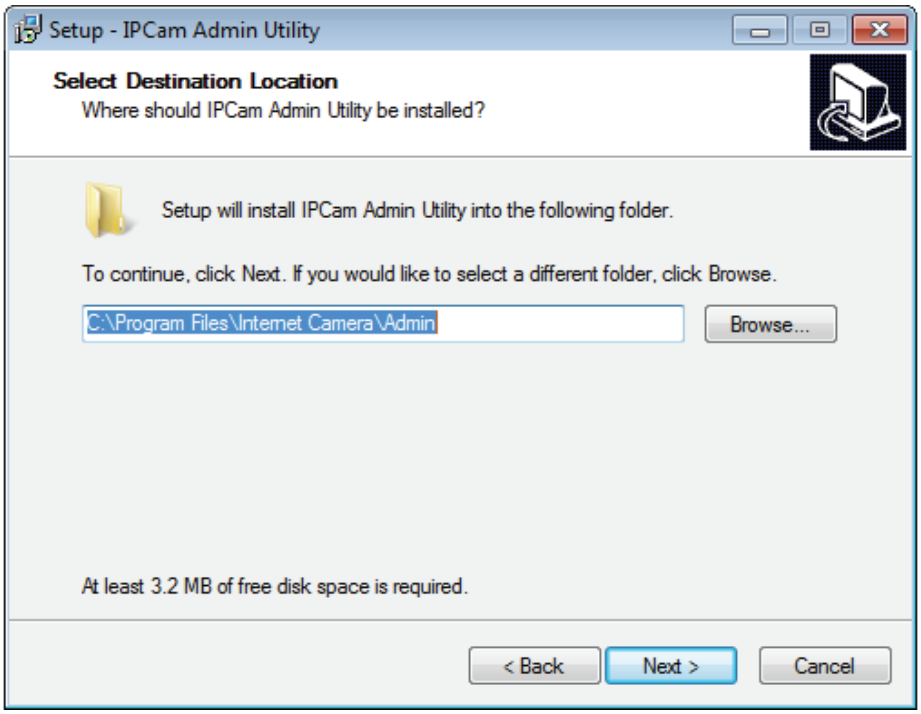
There are two files in the surveillance software's folder: Setup_Admin_xxx and Setup_Viewer_xxx (xxx is version number and will be different as the version number changes). Please install Administration software first. You can use administration software to locate and administer IP cameras on your local area network.

Please note that you still have to configure remote IP cameras (i.e. IP cameras on Internet) manually.

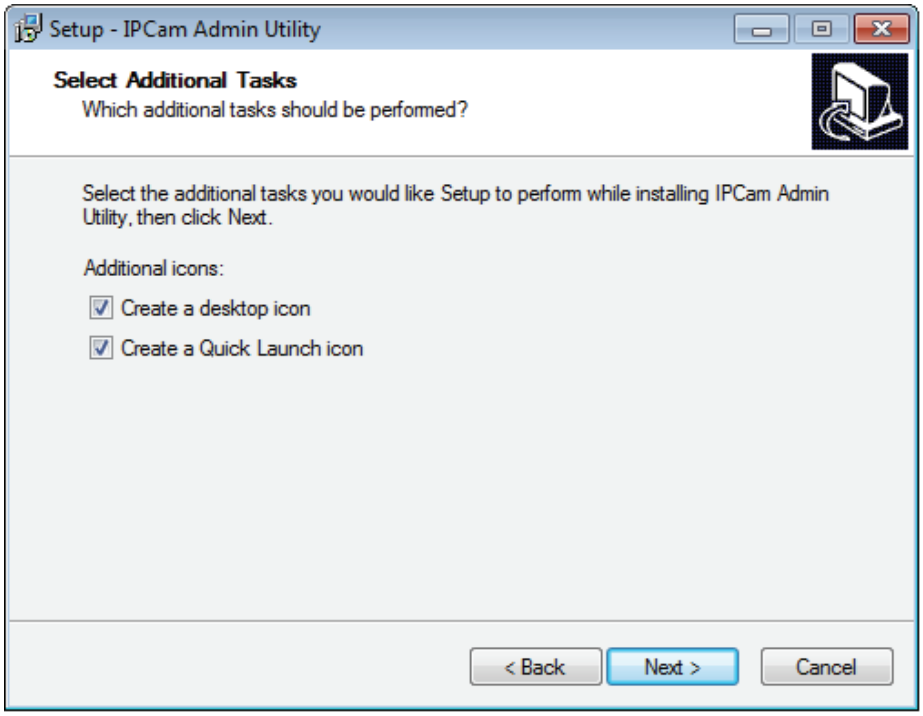
1. Double click the Setup_Admin_xxx file located in 'xxx' folder in supplied CD-ROM, when the following window appears, click 'Next'.



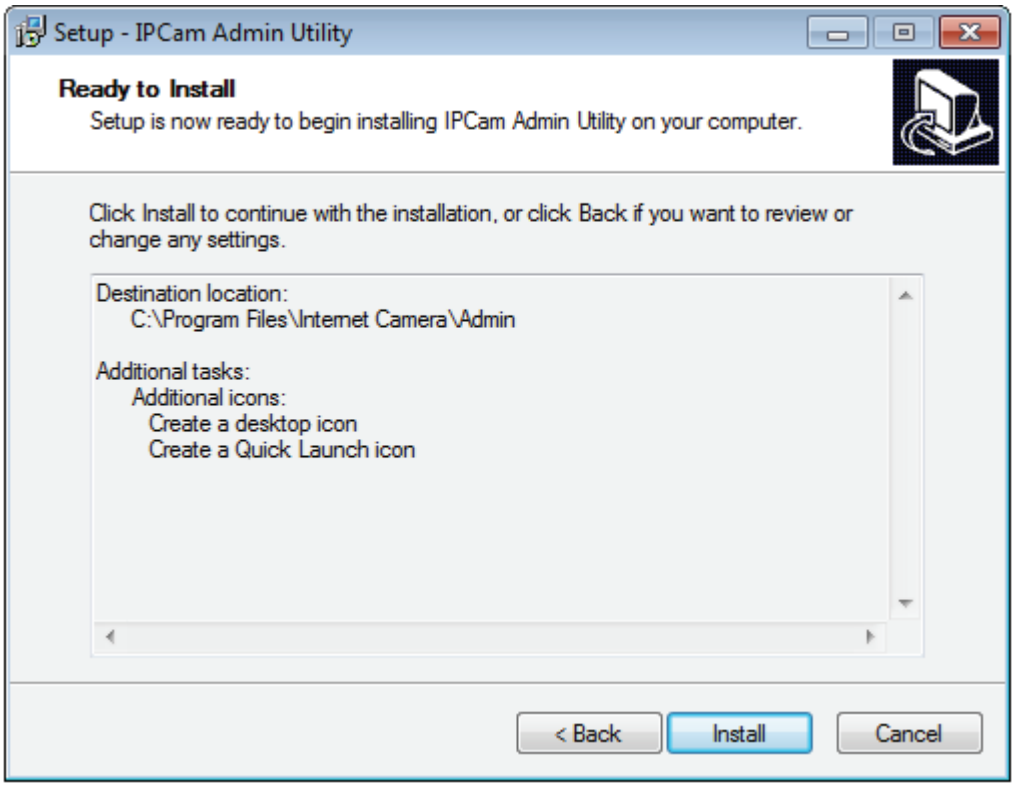
2. You can specify the destination folder of software installation, you can just use the default folder, and click ‘Next’ to continue.



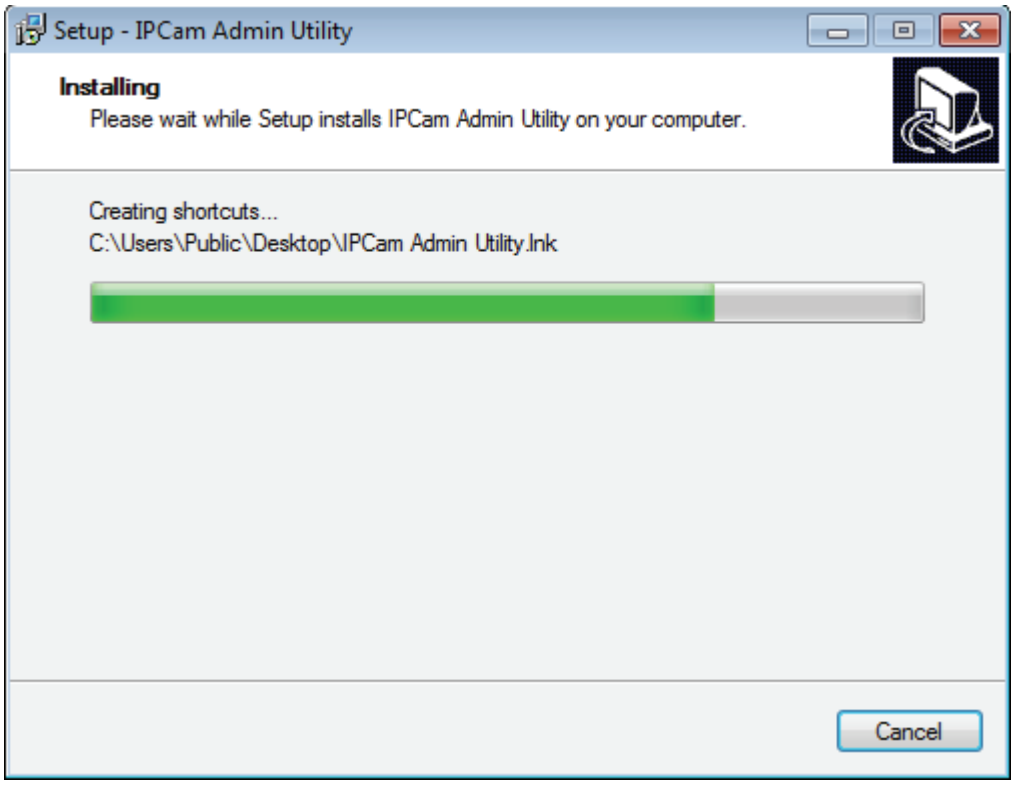
3. If you need installation program to create a desktop icon or a quick launch icon for you, click all items you need here, than click ‘Next’ to continue.



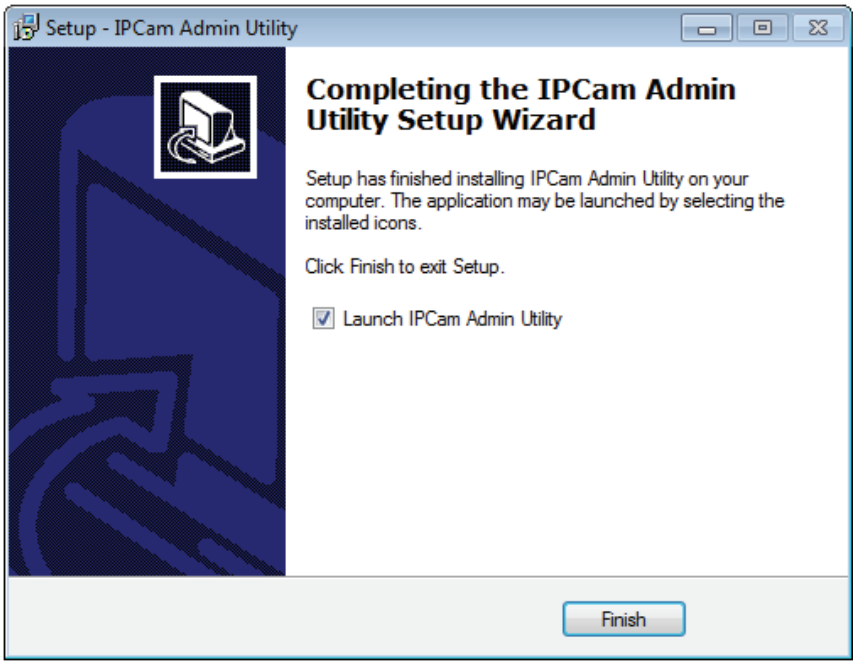
4. Here lists all options you chose in previous steps, if everything's correct, click 'Install' to start installing procedure, or click 'Back' to go back to previous step to modify installing settings.



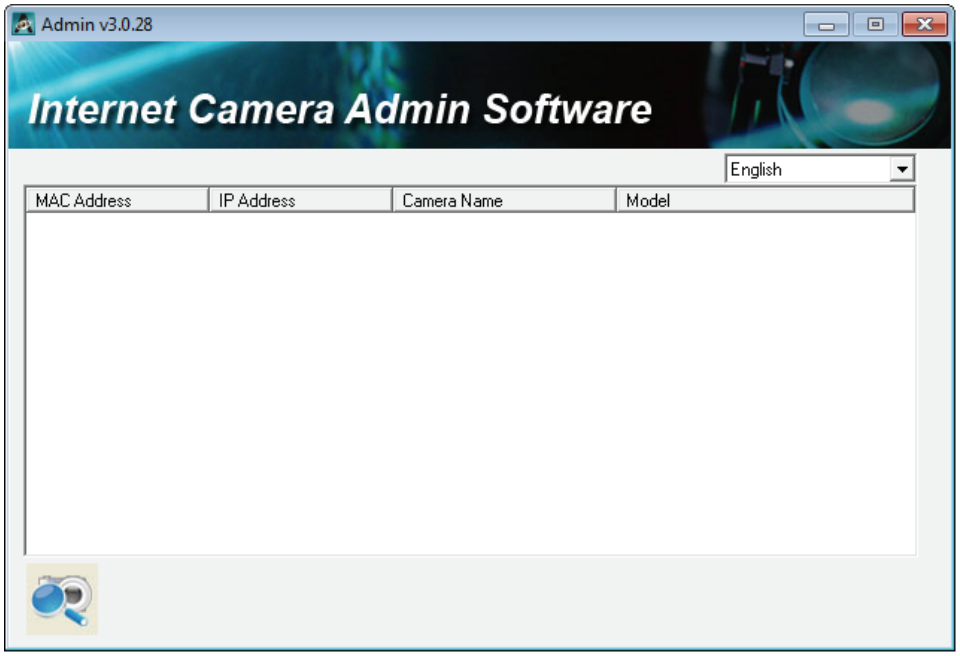
5. The installing procedure will take some time, please be patient.



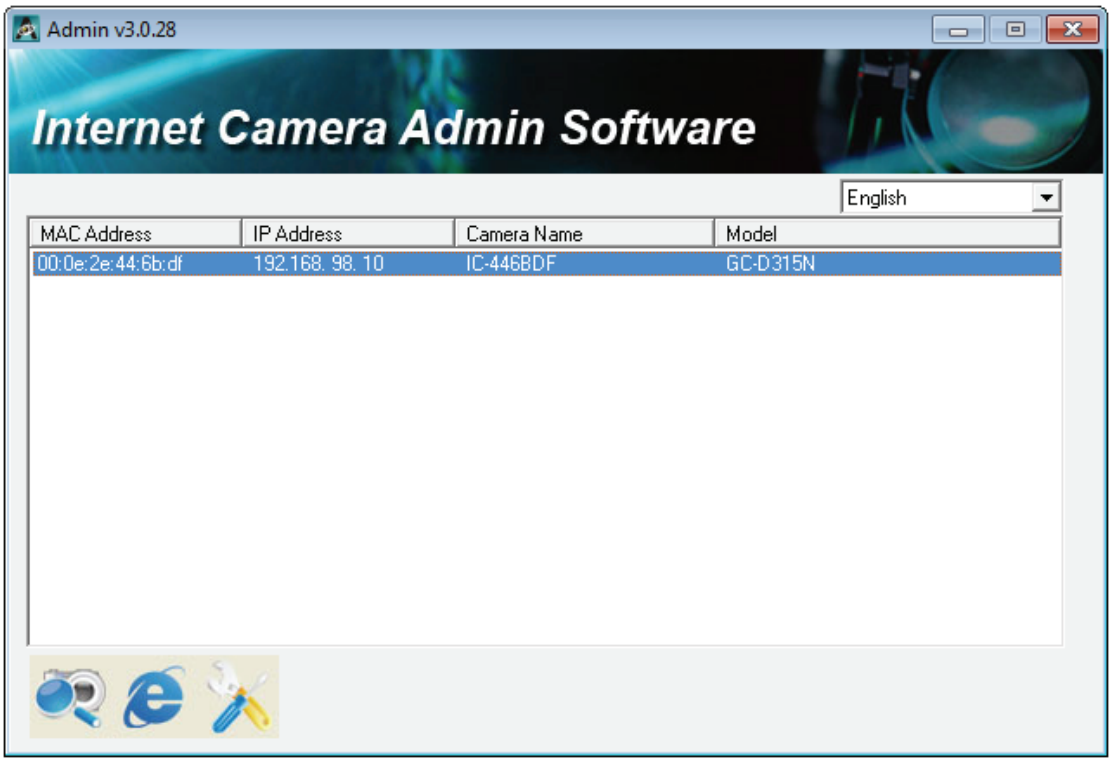
6. When you see this window, it means the software installing procedure is complete. Please click ‘Finish’ to finish the procedure (IP camera surveillance software will start after you click ‘Finish’ button, if you want to start it later, uncheck ‘Launch IPCam Surveillance Software’ box).



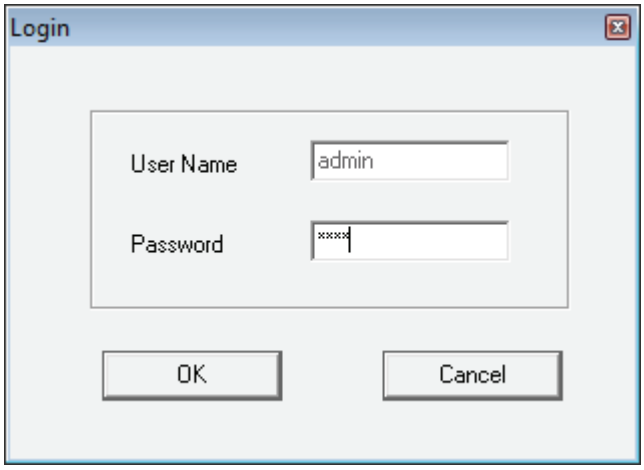
7. After software is launched, you can click button to search for IP cameras on your local area network.



8. When one (or more) IP camera(s) is found:

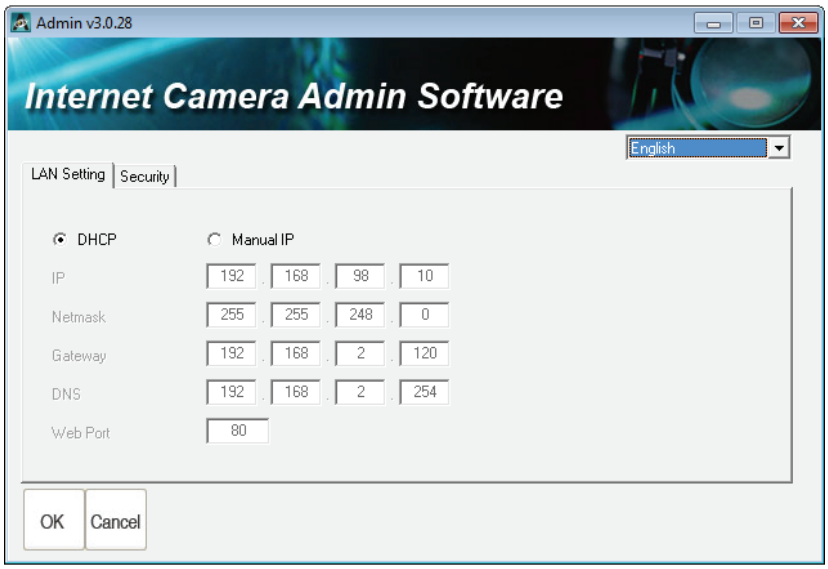


you can click button to connect to IP camera by web browser, or click button to configure its setting. You'll be prompted to input IP camera's administrator username and password if you wish to configure it:



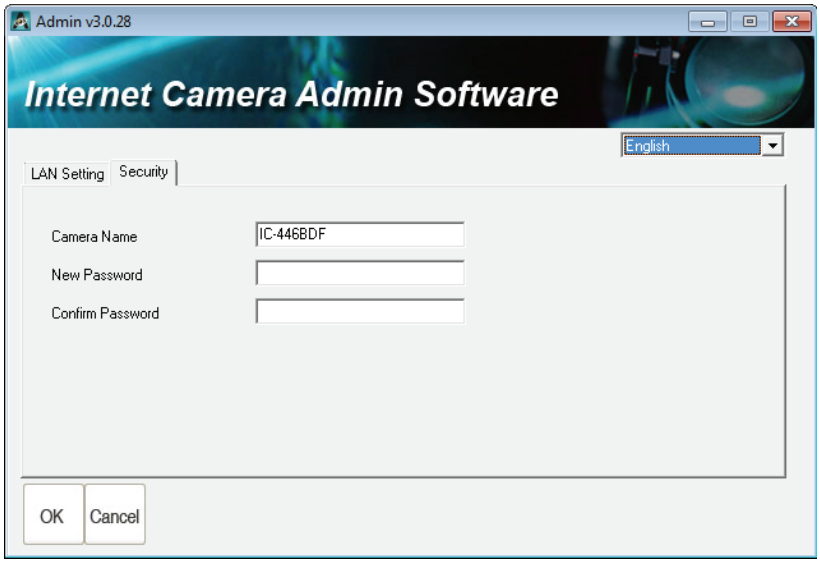
There are two setting pages.

LAN Setting:



You can configure IP camera's IP address setting in this page. You can either use 'DHCP' (IP camera will acquire IP address from DHCP server on your local area network automatically), or 'Manual IP' (you have to input IP address manually).

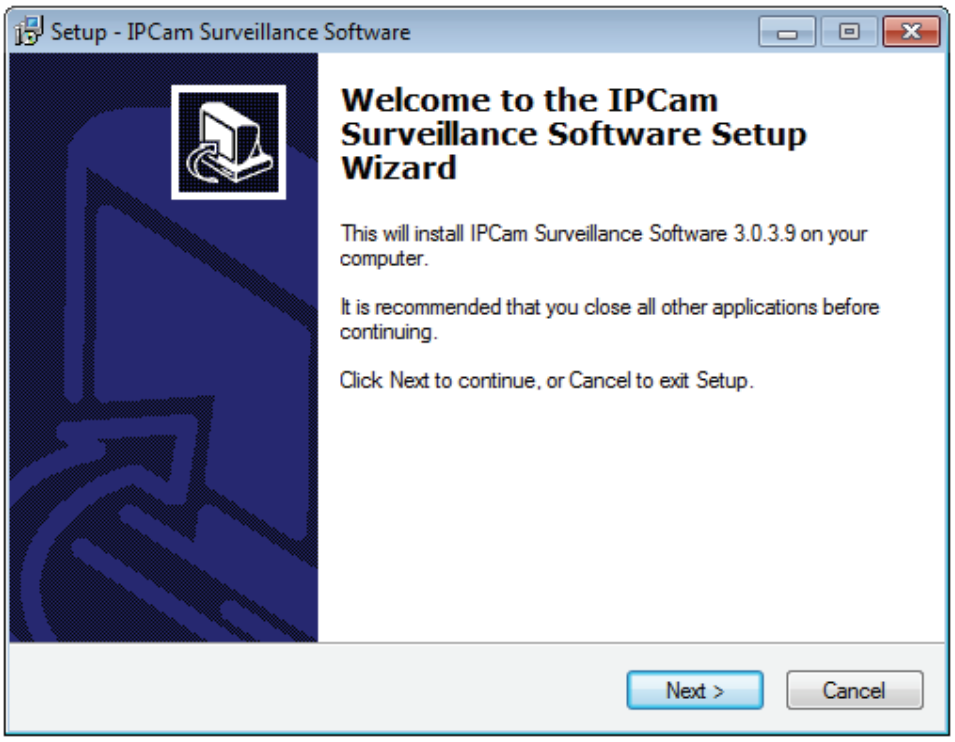
Security:



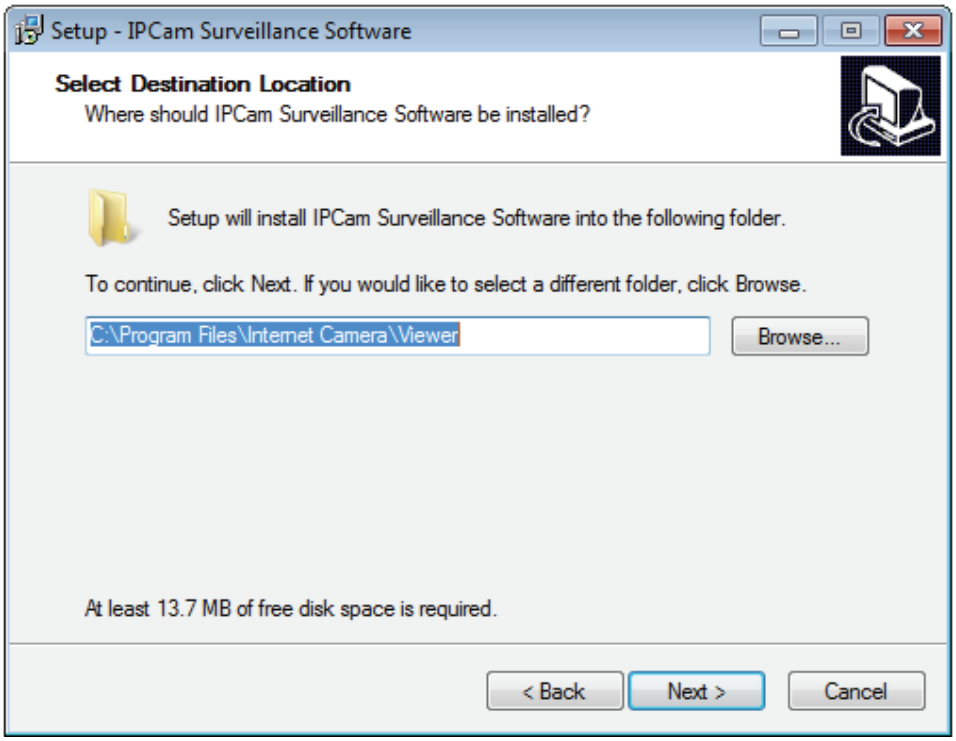
You can change IP camera's name, and change its administrator password here by inputting new password in both 'New Password' and 'Confirm Password' field.

9.2 Install Video Viewer

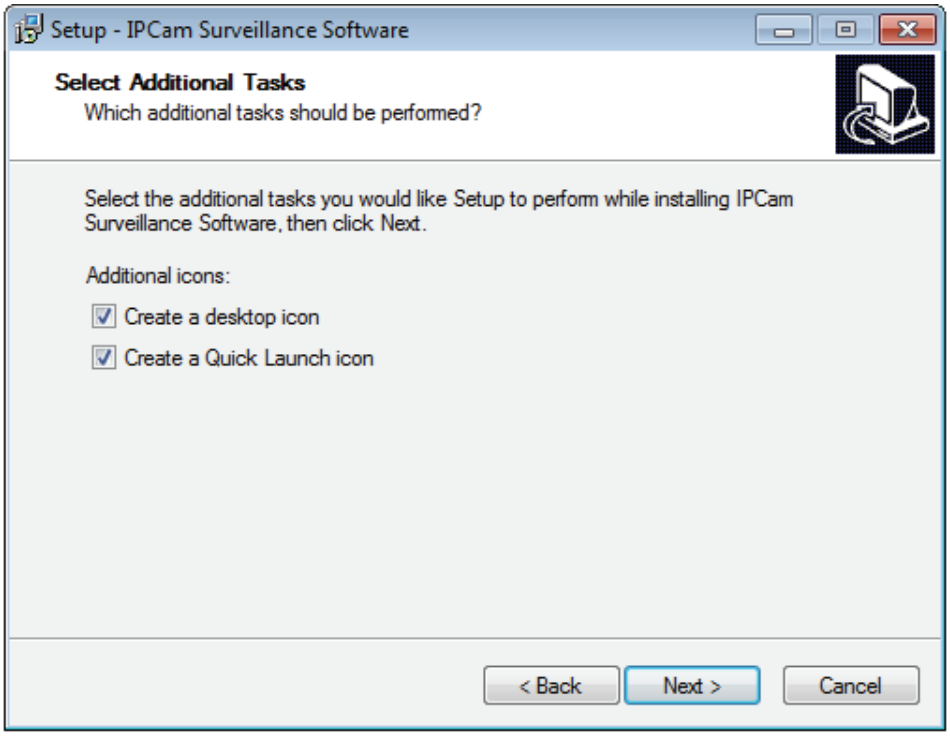
1. Double-click Setup_Viewer_xxx file to start installation.



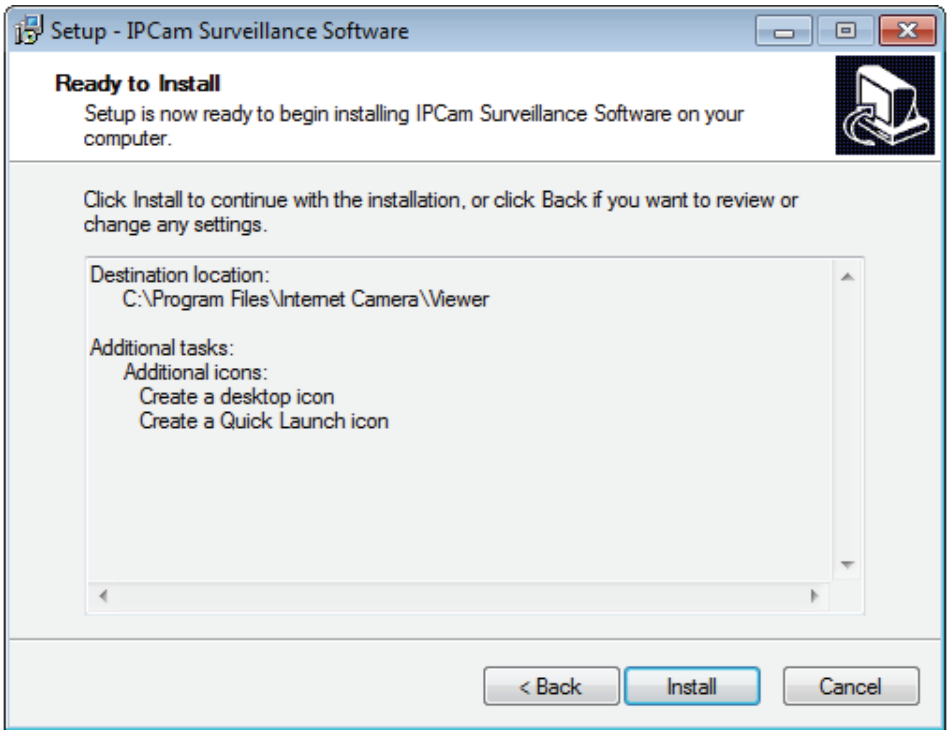
2. Click ‘Next’ to continue.



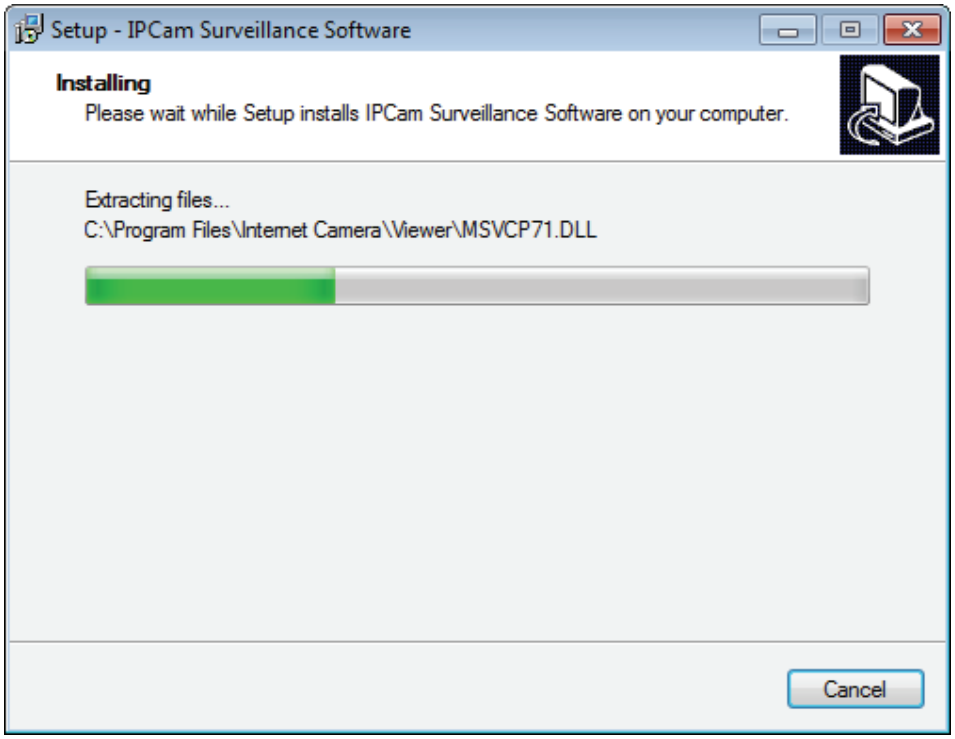
3. You can uncheck the boxes here if you don’t want to create desktop / quick launch icon, and click ‘Next’ to continue.



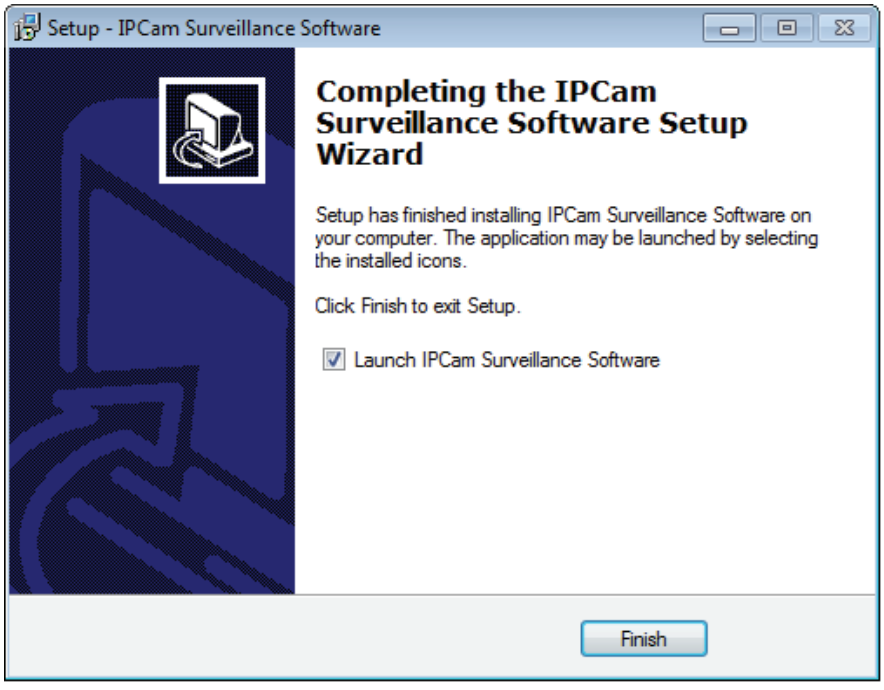
4. Please check if everything’s correct here. If you want to change any setting, click ‘Back’ to go back to previous page, or click ‘Install’ to start installation.



5. Installation procedure takes few seconds to few minutes to complete, please be patient.



6. Installation is complete when you see this message. You can click ‘Finish’ to finish installation procedure and launch utility, or unckeck ‘Launch IPCam Surveillance Software’ box before you click ‘Finish’ button if you don’t want to launch software after installation is complete.



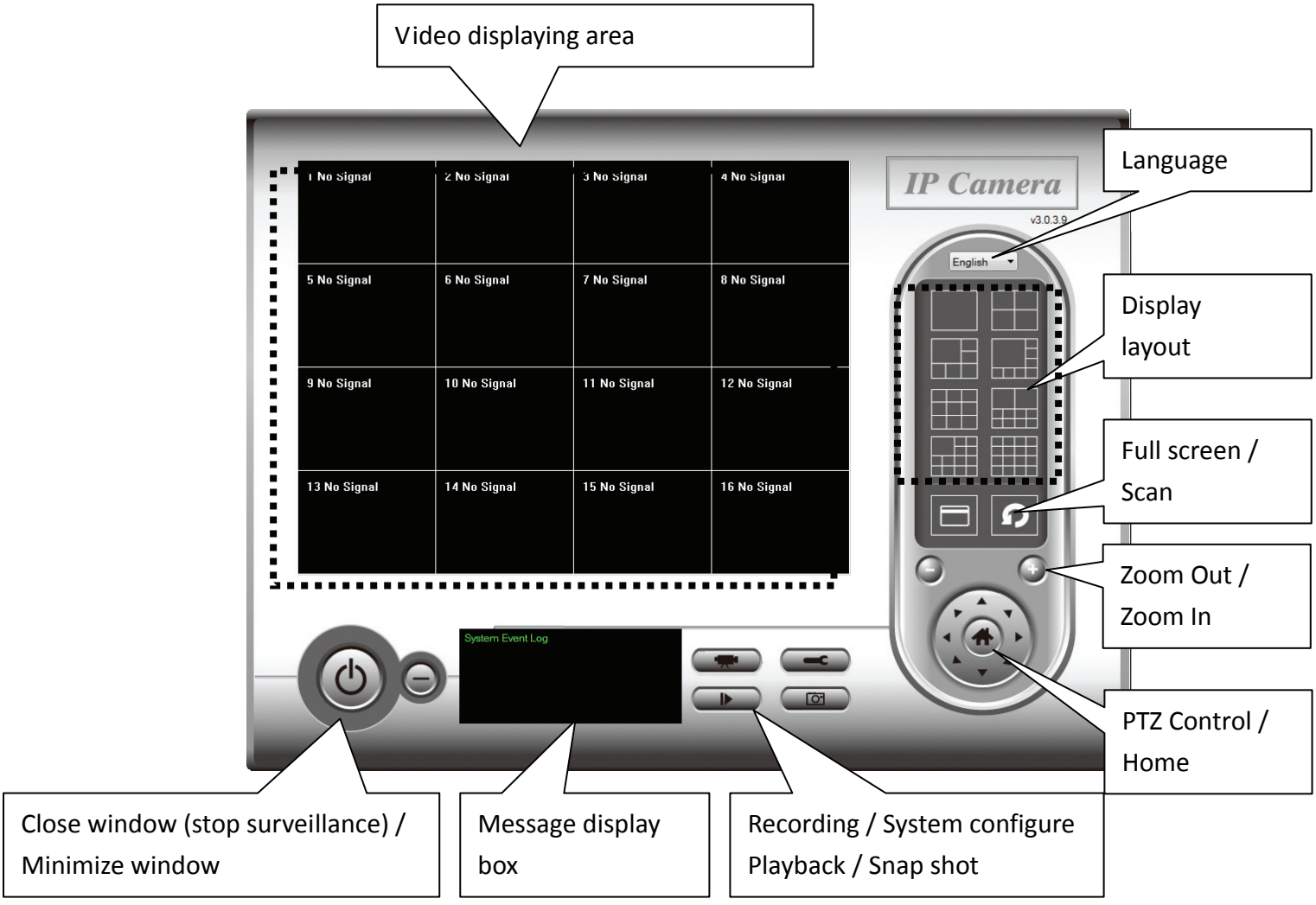
9-2 Using IP camera surveillance software

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

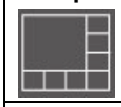
Before you start:

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:

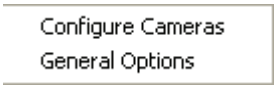
Item	Description
Video displaying area	The image of all connected cameras will be displayed here.
Language	Select a language from this dropdown menu to change display language.
Display layout 	Change camera image display layout (Click a layout icon to change camera display layout). There are 8 kinds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

9-3 Configure IP camera surveillance software

9-3-1 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:

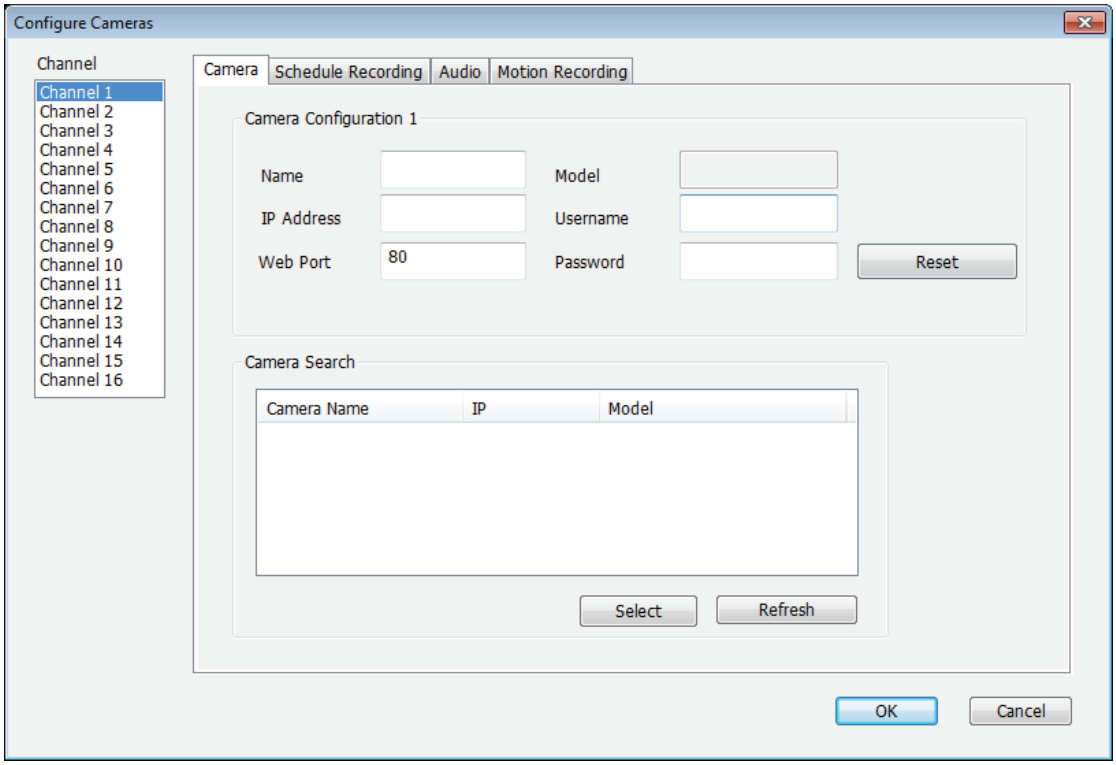


Please select ‘Configure Cameras’ to configure cameras:

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

9-3-1-1 ‘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.

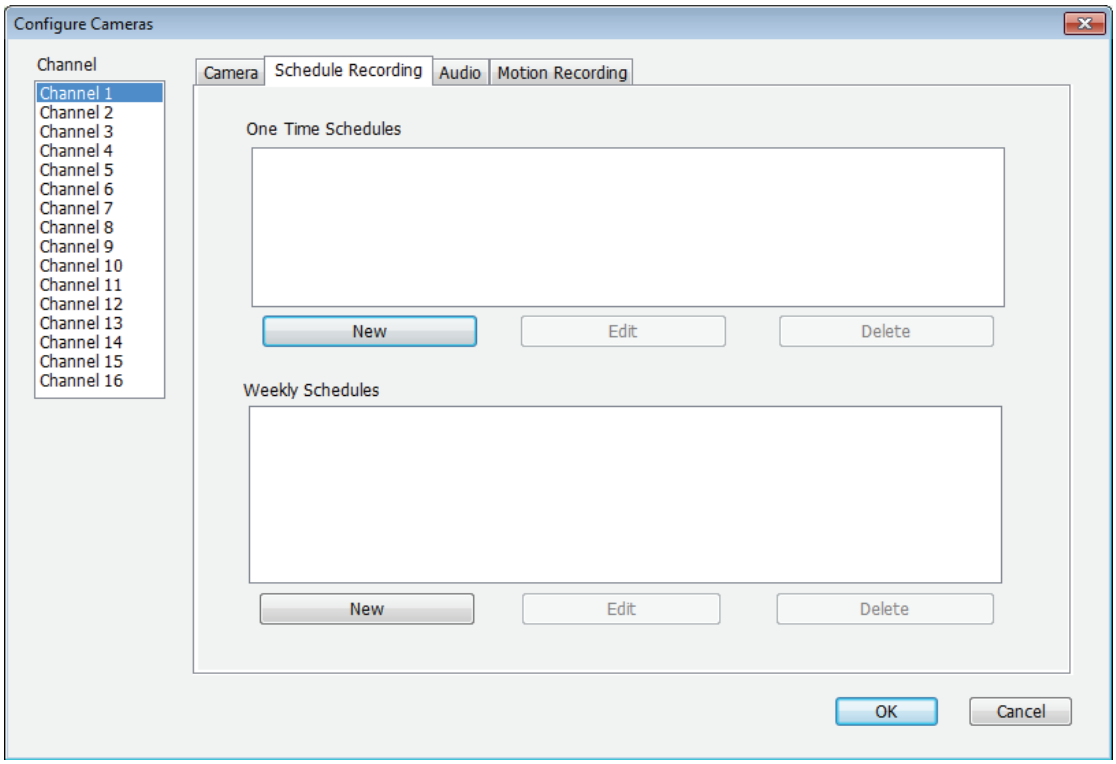
*: It's recommended to use 'Select' button to fill the content of this field.

**: 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:

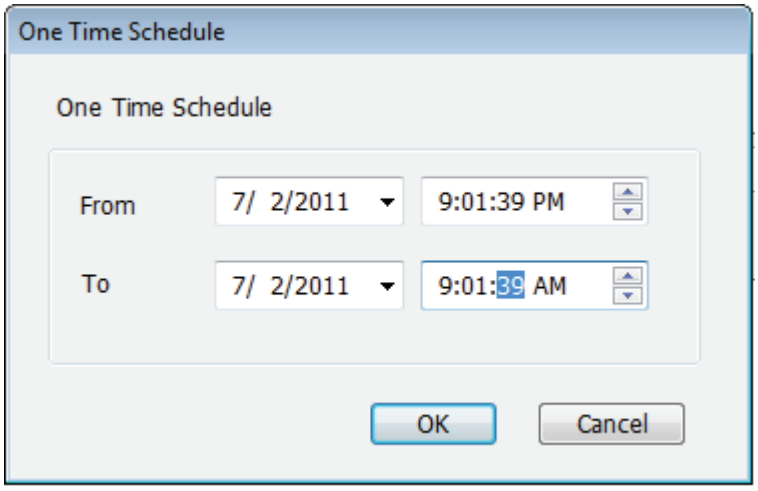
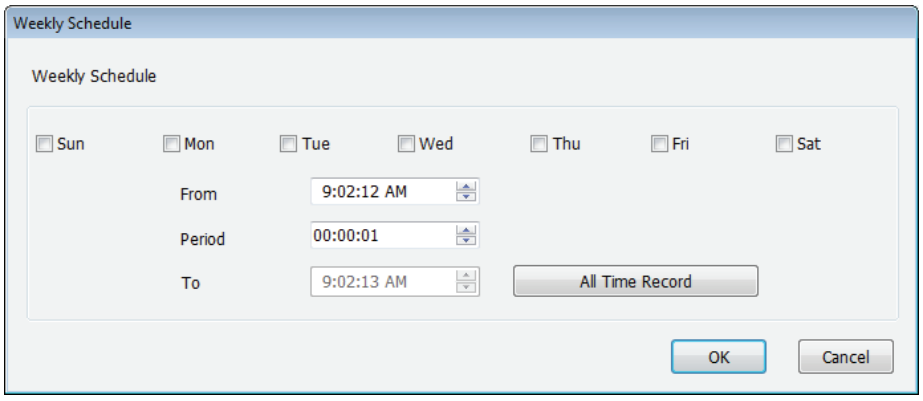
9-3-1-2 Schedule Recording

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:

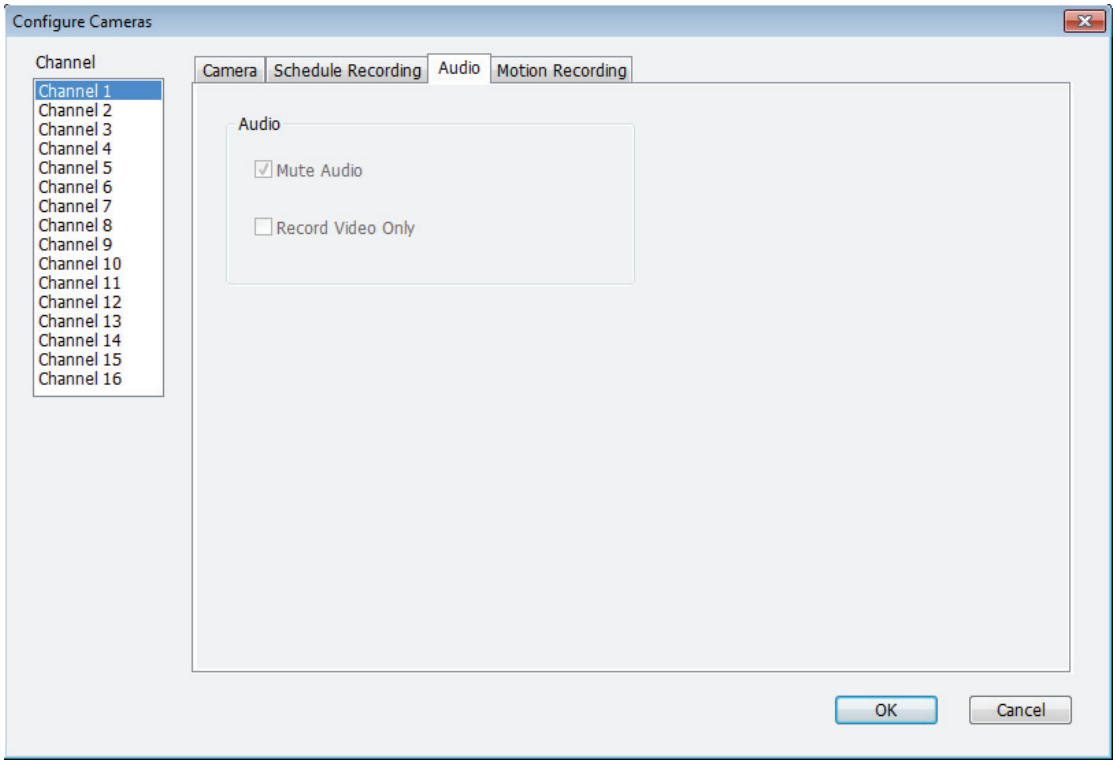
Item	Description
Channel	Select the channel number you wish to set.
One Time Schedules	You can specify the one-time schedule for selected camera; this schedule will be executed once only.

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.

9-3-1-3 Audio

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



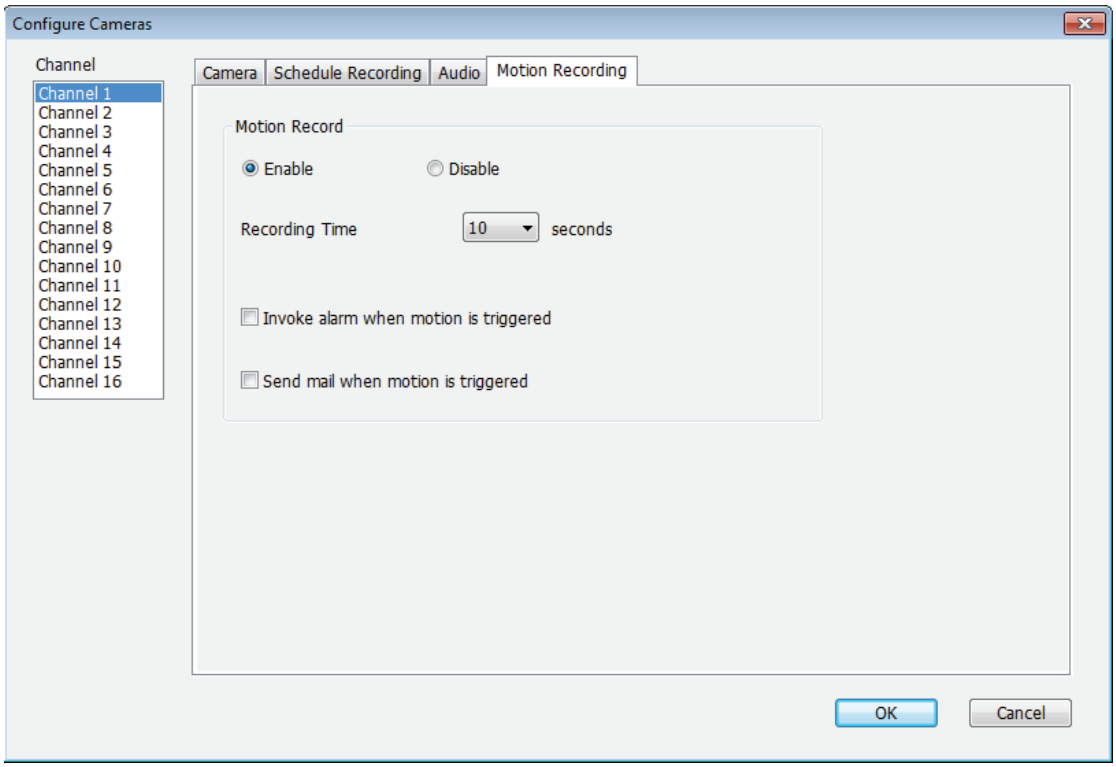
Here are the descriptions of all setting items:

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.

9-3-1-4 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.

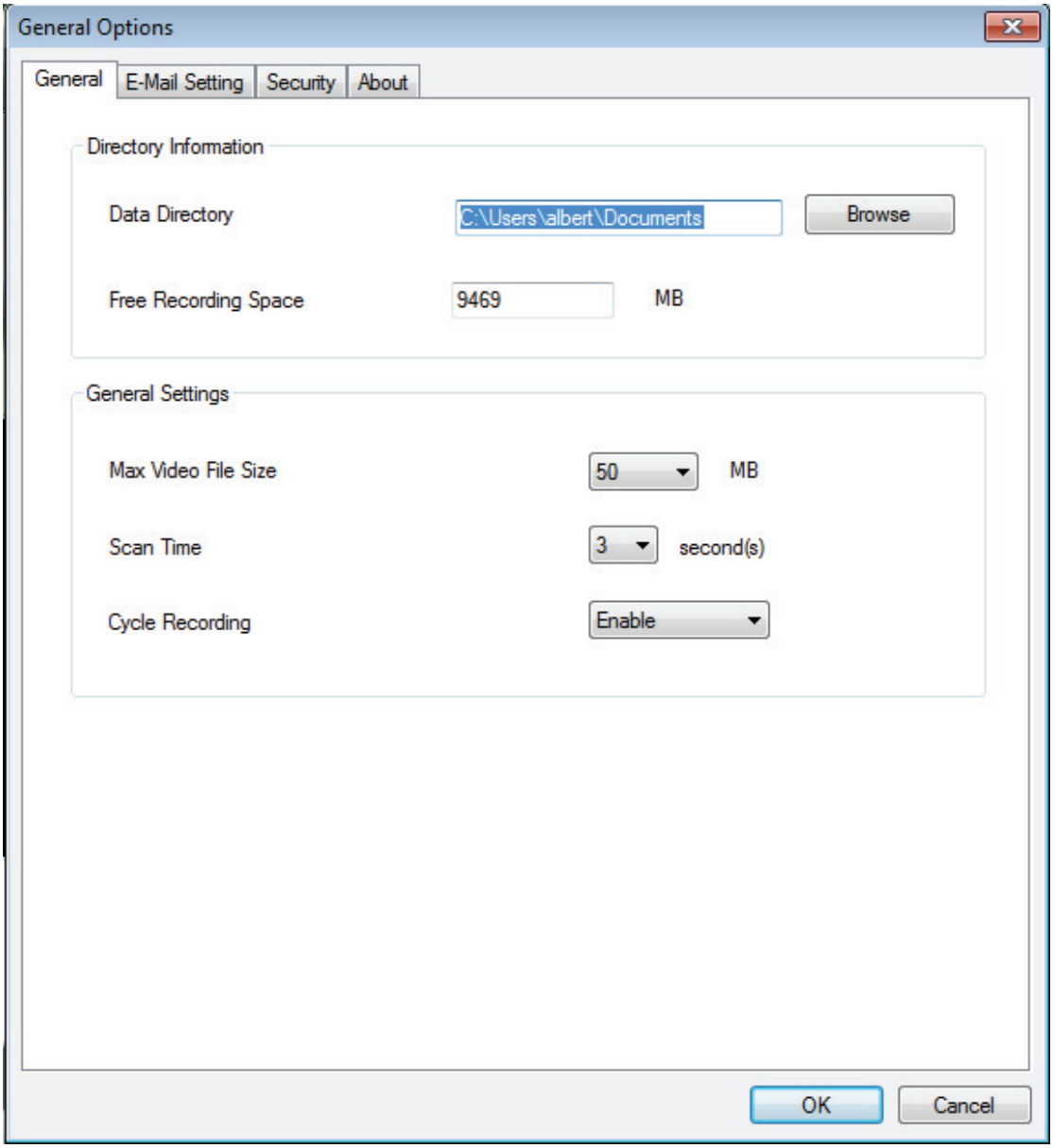
Invoke alarm when motion is triggered	Send an alarm when a motion has been detected by the camera.
Send mail when motion is triggered	Send an email to a pre-defined address when a motion has been detected by the camera.
OK	Save settings in this tab.
Cancel	Discard all settings in this tab.

9-3-2 General Settings

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

9-3-2-1 ‘General’ tab

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

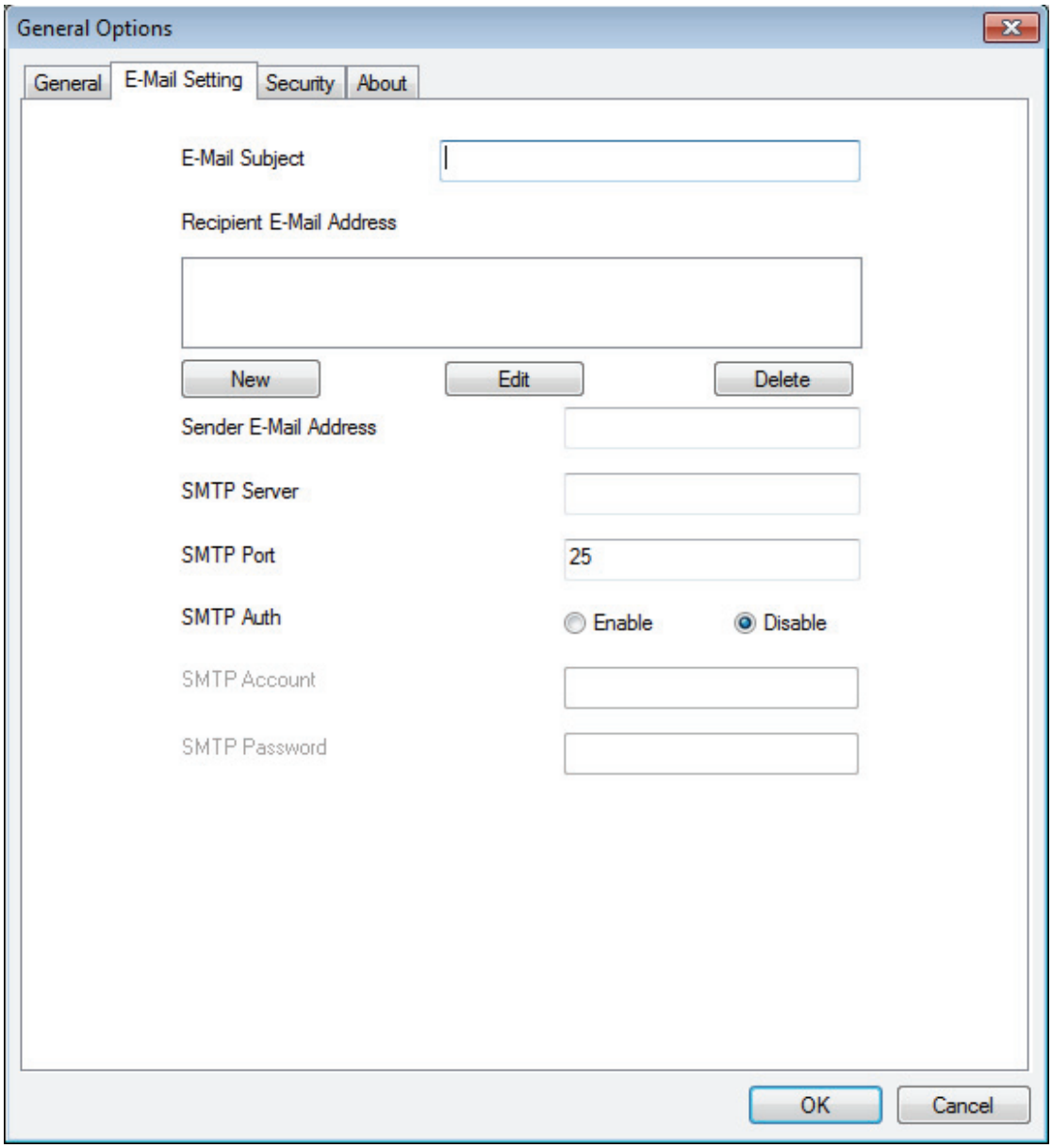


Here are the descriptions of all setting items:

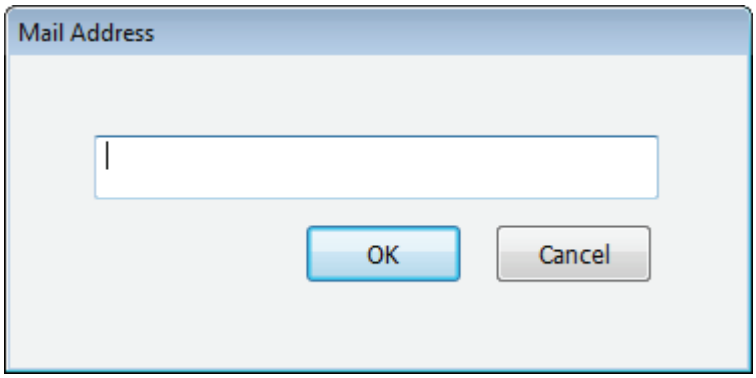
Item	Description
Data Directory	Set the directory (folder) you wish to store the recorded video and captured image. You can click ‘Browse’ button to pick a directory in your hard disk.
Free Recording Space	Displays remaining storage space.
Max Video File Size	Defines the maximum file size of every video 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.

9-3-2-2 ‘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:

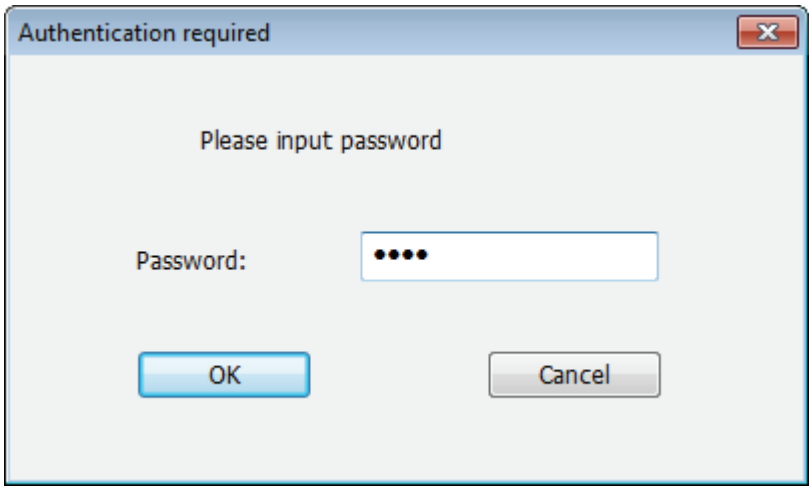
Item	Description
E-Mail Subject	Specify the subject of sending email.
Recipient E-Mail Address	Here lists all email addresses you set.
New	Click this button and you'll be prompted to input the email address. Click 'OK' to save changes. 
Edit	Select an email address from 'Recipient E-Mail Address' box,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

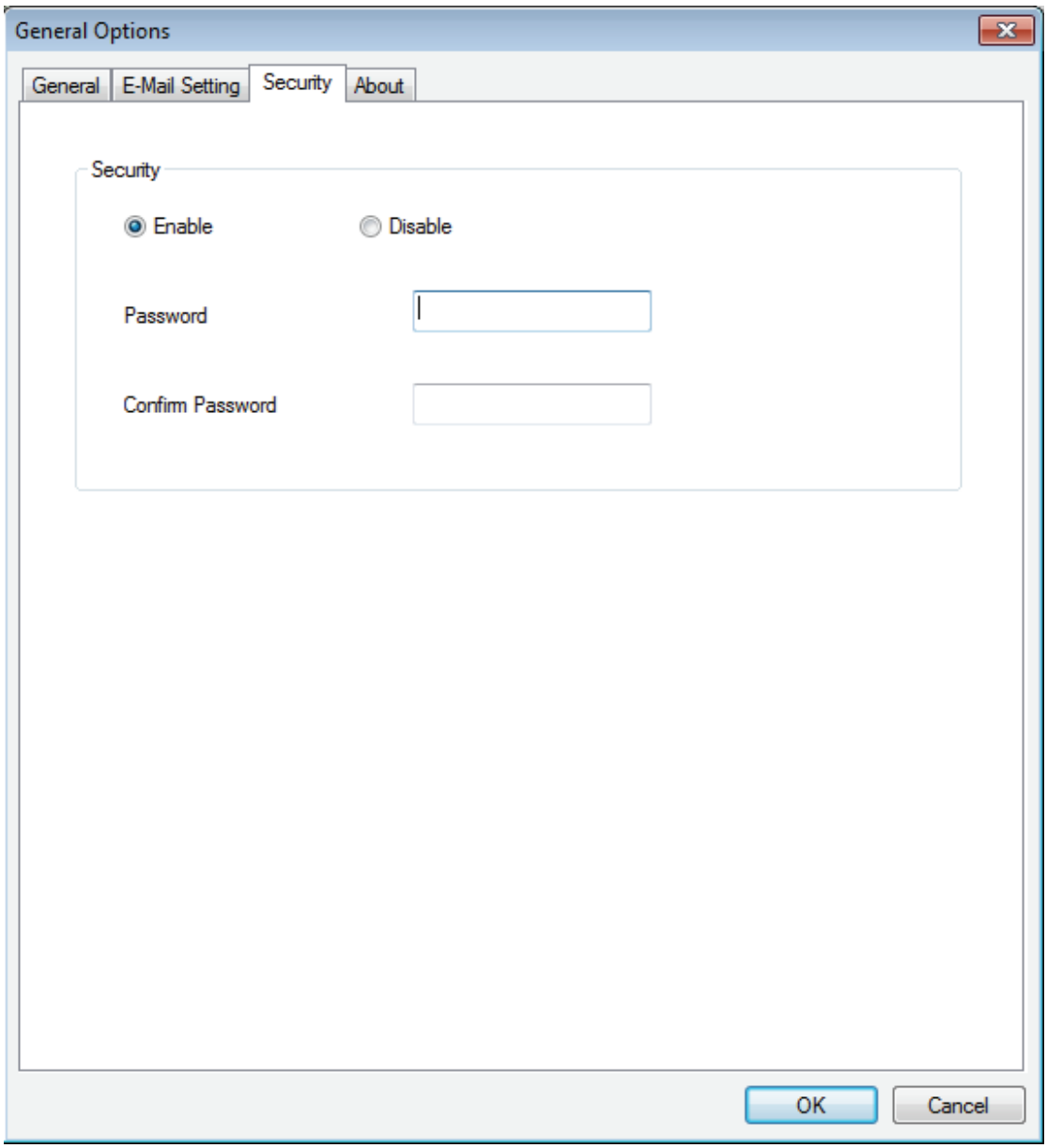
9-3-2-3 Security

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:

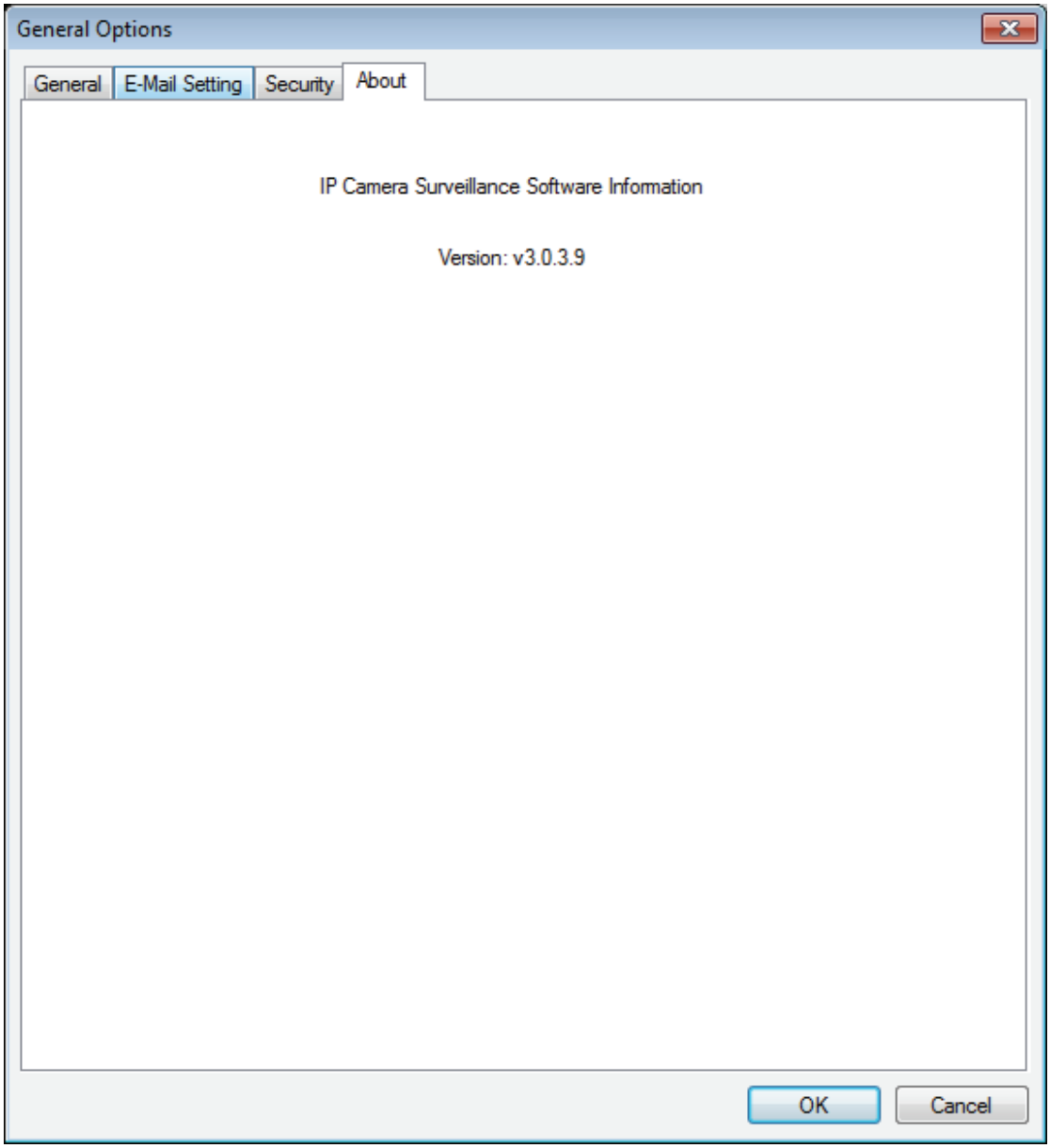


Here are the descriptions of all setting items:

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.

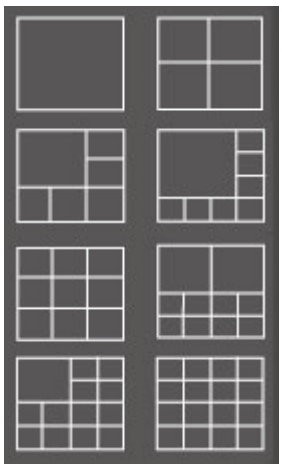
9-3-2-4 About

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

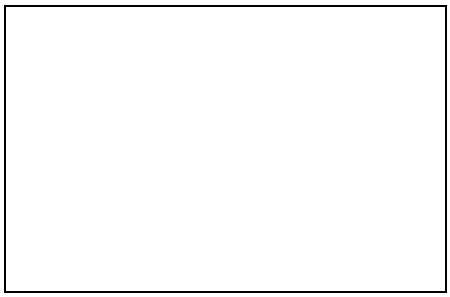
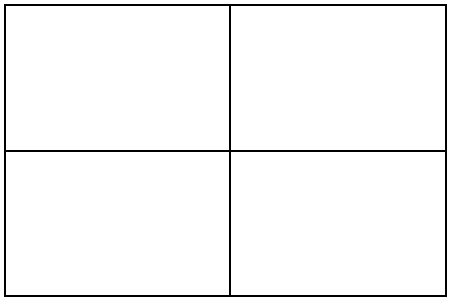


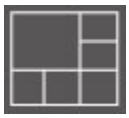
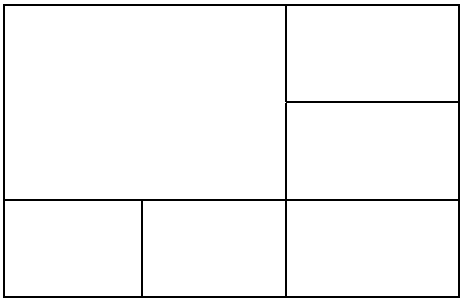
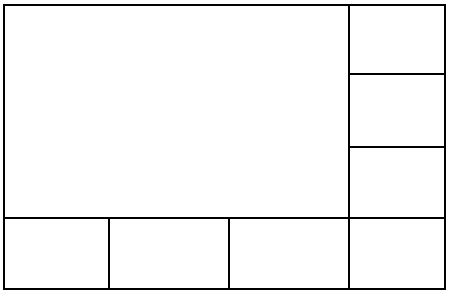
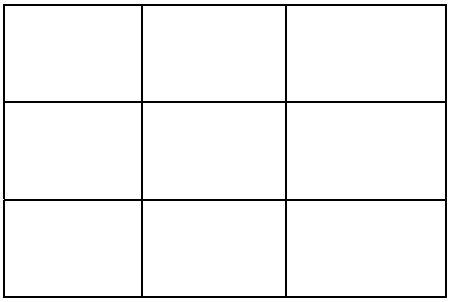
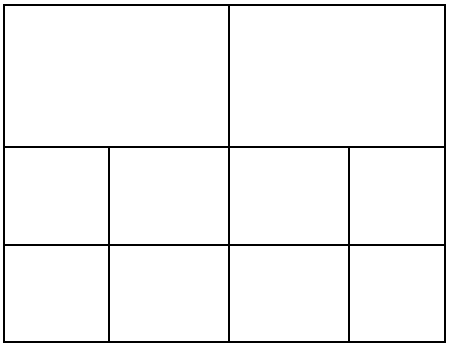
9-4 Change Display Layout

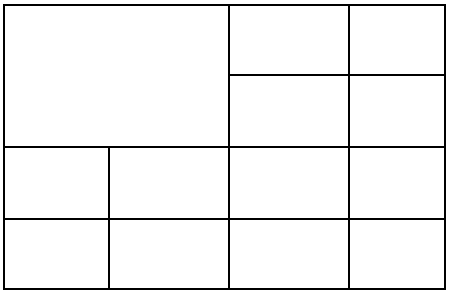
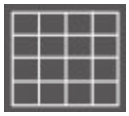
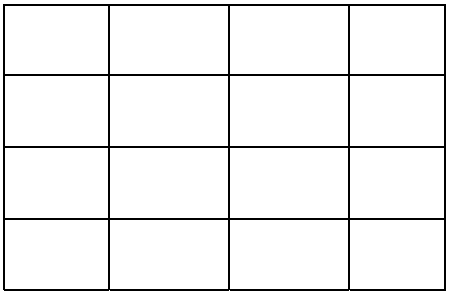
This IP camera surveillance software provides 8 kinds of display layout:



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. 

9-5 Full-screen mode

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.

9-6 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).

9-7 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).

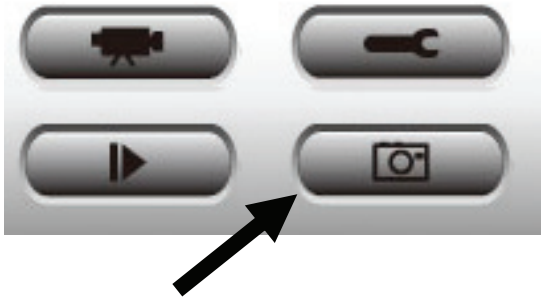
9-8 PTZ

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.

9-9 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.

9-10 Recording

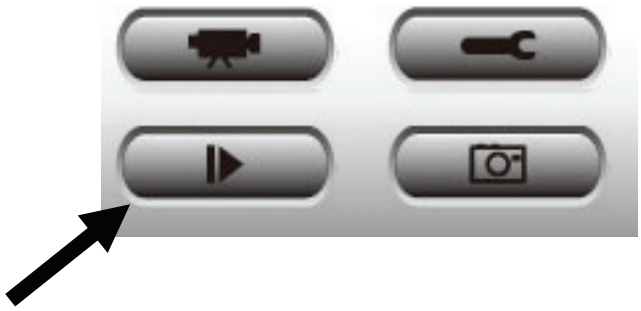
You can start video recording of selected camera manually by clicking ‘Start Recording’ button:

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.

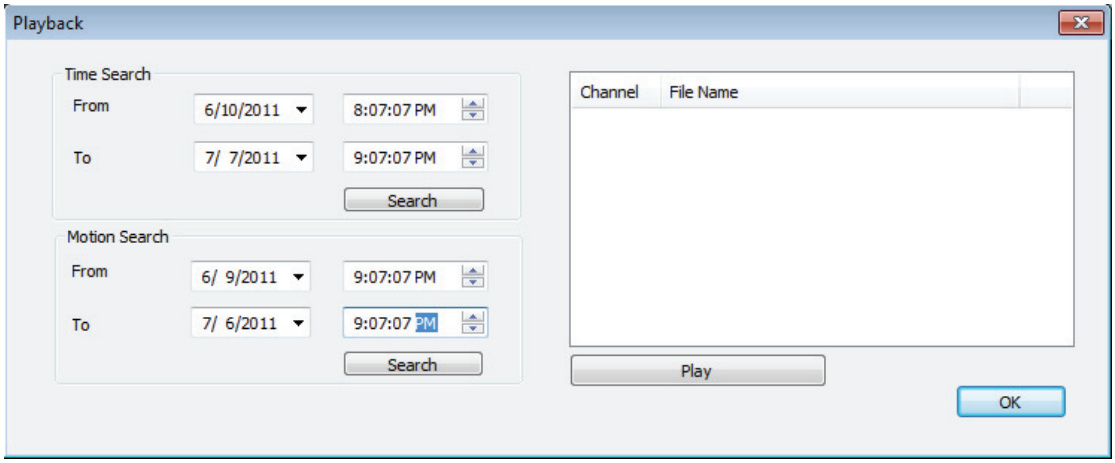
To stop recording, click ‘Start Recording’ button again, and you’ll see a message displayed in message displaying box like ‘1/1 10:00:00, Camera 2 Stop Manual’.

9-11 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 X Appendix

10.1 Troubleshooting

Please don’t panic when you found this IP Camera is not working properly. Before you send this IP Camera back to us, you can do some simple checks to save your time:

Problem description	Possible solution(s)
Can’t connect to IP Camera	1) Please check the IP address of IP Camera again. 2) Please make sure the network cable is correctly connected to your local area network. 3) Please make sure power cable is correctly connected to IP Camera. 4) Please make sure IP Camera is switched on (the LED lights on IP Camera will light up), if LED lights are not switched off by configuration menu (System -> Basic -> LED light).
No IP Camera found	1) ‘Auto search’ function only works on IP Cameras located on local area network.
No image	1) If the place where IP camera is installed is too dark, try to add some lights when possible. 2) Check if there’s anything covering the lens.

10.2 Specification

Hardware Specification

Product	Entry-level 802.11n wireless Internet camera
CPU	MIPS
Wireless	802.11n (1T1R)
DSP	Image backend IC
Flash	4MB
RAM	32MB
Image sensor	Mega pixel CMOS senso
Lens	Fixed focus (F/N 2.8)
LAN	10/100M UTP x 1
AC Adapter	5VDC, 1A
Dimenion	80 x 65 x 27 (mm)
Temperature	0^{o}~ 40^{o}c
Humidity	10~90%, non-condensing
Certification	FCC Class B, CE Mark
Compression	M-JPEG
Frame rate	30 @ VGA / QVGA, 10-15 @ HD
Wireless security	WEP / WPA / WPS
User level	Admin / Operator / Guest
Supported web browser	IE / Safari / Firefox / Chrome / Opera
Supported OS	XP / Vista / Win7
Supported tool	iPhone / ipad / android phone / android pad on browser

Supplied Software

- IPCam Administration Utility
- IPCam Surveillance Utility