IP CAMERA

User Manual

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┌─────────────────────────────────────────────────┐
│  ⚡    │        CAUTION          │      ⚠       │
│ (lightning) │  RISK OF ELECTRIC SHOCK.   │              │
│       │     DO NOT OPEN!        │              │
├─────────────────────────────────────────────────┤
│              CAUTION :                           │
│      TO REDUCE THE RISK OF ELECTRICAL SHOCK,     │
│         DO NOT OPEN COVERS (OR BACK).            │
│       NO USER SERVICEABLE PARTS INSIDE.          │
│          REFER SERVICING TO QUALIFIED            │
│             SERVICE PERSONNEL.                   │
└─────────────────────────────────────────────────┘
```

It is advised to read the Safety Precaution Guide through carefully before operating the product, prevent any possible danger.

⚠ **WARNING:** This symbol is intended to alert the user to the presence of un-insulated "dangerous voltage".

⚠ **CAUTION:** This symbol is intended to alert the user to presence of important operating and maintenance (Servicing) instructions in the literature accompanying the appliance.

Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems).

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product. The power cord is the main power connection. Therefore, constantly plug and unplug of the power cord might result in malfunction of the product.

Do not install the product in an environment where the humidity is high.
Unless the product is waterproof or weatherproof, otherwise it can cause the image quality to be poor.

Do not drop the product or subject them to physical shocks.
Except for vandal-proof or shockproof product, otherwise it will result malfunctions to occur.

Never keep the product to direct strong light.
It can damage the product.

Do not spill liquid of any kind on the product.
If it gets wet, wipe it dry immediately. Alcohol or beverage can contain minerals that corrode the electronic components.

Do not expose to extreme temperatures.
Use the product at temperatures within 5℃ ~ 45℃.

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.

The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

To comply with the FCC RF exposure compliance requirements, this device and its antenna must not be co-located or operating to conjunction with any other antenna or transmitter.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to part 15 of the 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 instruction, may cause harmful interference to radio communication. However, there is no grantee that interference will not occur in a particular installation. If this equipment dose 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:

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

CONTENTS

VER.: 1.0, CD

1. INTRODUCTION

1.1 Product Introduction

The Day & Night (optional) IP Camera is a high performance camera, with simple connection- no PC required. It can be viewed and controlled from the PC site using the IE browser or apply the free bundled 16-CH viewing software, to enable real-time remote site control and supports 3GPP for mobile surveillance. Efficient real-time observation, recording and image capture can occur simultaneously.

The camera uses Mpeg-4 and Mjpeg compression technology to provide quality image, stable and smooth Mpeg-4 streams. Requires less hard drive space, saves motions on the SD card or by e-mail notification to enable the most up-to-date information. Flexible online connection methods: LAN, PPPOE, and DDNS.

1.2 Application

The product is for indoor use only.

- **Security:**
  ATM (auto teller machine), bank, gas station, shop, and parking lot.
- **Factory/ Office:**
  Factory, warehouse, remote technology support, and conference room.
- **Home:**
  Indoor, Elevator, doorway, community safety, and hotel.
- **Hospital/ Kindergarten:**
  Hospital and isolated ward, home for the aged, kindergarten, and baby nourishing center.
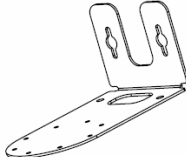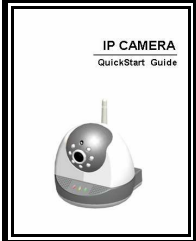
2. FEATURES

- Compact size Pan/Tilt IP camera, support Preset/Auto-pan functions.
- CMOS camera with VGA Resolution.
- Flip and mirror the videos and overlay time, date or text.
- Built-in MPEG4/ MJPEG compression format and VGA/ QVGA video resolution.
- Built-in 3GPP video compression format and QQVGA video resolution.
- Adjustable image quality, resolution and frame rate settings.
- Support remote-site recording, frame capture, and motion detection notification.
- Motion Detection with maximum 3 detection areas and 5 sensitivity level setups.
- SD card allowing motion- event data local storage, remote storage or delete, and SD card formation.
- Motion detection event-triggered alarm notification via e-mail (alarm images can be sent with e-mail as attachments) or FTP server forwarding (images).
- Network Protocol：HTTP, DNS, SMTP, FTP, NTP, DHCP, PPPoE, DDNS, and RTP/ RTSP.
- Built-in microphone for one-way or two-way audio.
- Auto search software for LAN connected IP camera.
- Power-loss or video-loss, designed to reboot and online reconnection.
- Explorer application software for easy monitoring, recording and setting.
- Simultaneously display and record live videos from multiple cameras (up to 16CH) on a single PC.
- Live Video via 3G mobile phone surveillance application.
- Superior low light performance.
- Easy to install and configure.

Optional Functions:

- Built-in 7 pieces IR LED, supports remote-site Manual/ Schedule control (ON/ OFF). With two-stage filter, 400 – 650nm visible spectrum and 800 – 900nm infrared spectrum Band Pass.
- Support 802.11 b/g wireless functions.

3. PACKING LIST

Check to make sure all of the items shown below are included in your product package. If something is missing, contact your dealer as soon as possible.

Item	Item Description	Item Picture	Qty.
1	IP camera (Option Function: Wireless and IR LED)		1
2	Camera Stand		1
3	Power Adaptor Input：100~240V Output：12V / 1A		1
4	Network Cable		1
5	DI/DO Cable		1
6	Quickstart Guide		1
7	CD-ROM		1

4. INSTALLATION

4.1 Software Installation

Please use the enclosed CD-ROM to precede the IP CAM Viewer software and follow the procedures to setup the software's below:

● Local LAN IP camera search Software (Discoverer).
● IE Browser ActiveX Compression Software (New ActiveX software updates may be directly downloaded by the IP camera).
● 16CH IP Camera Viewing Software (IP CAM Viewer).

Setup Wizard start window:
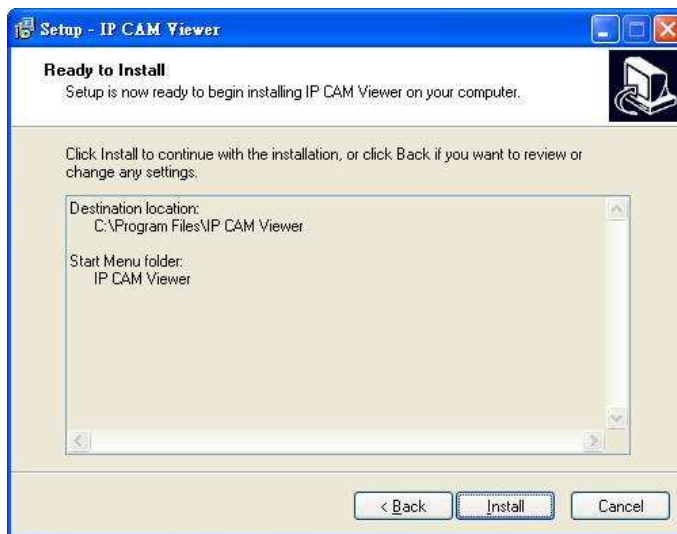

Select Destination Location.
The default folder is C:\Program Files\IP CAM Viewer.
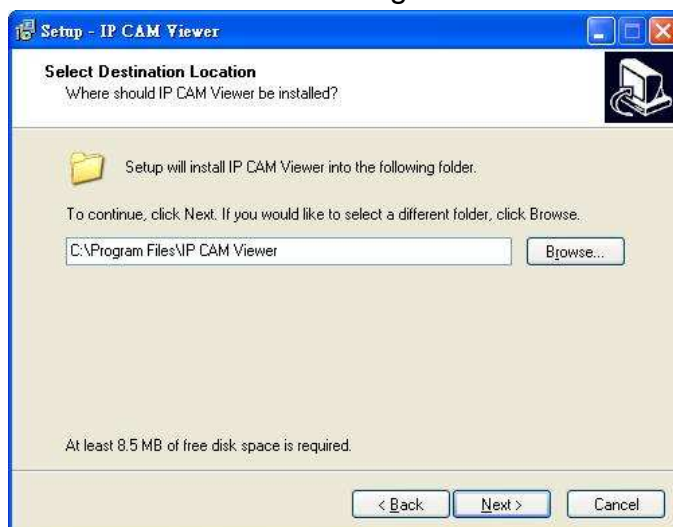
Select Start Menu Folder. The default folder is IP CAM Viewer.
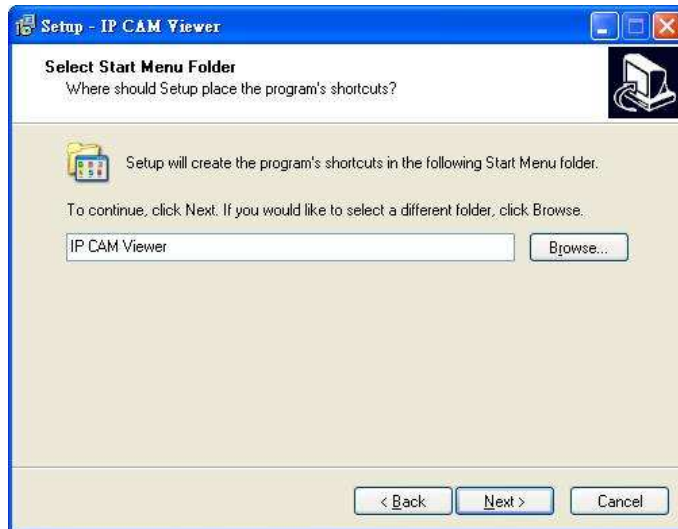
Select if you want to create a desktop icon or not.
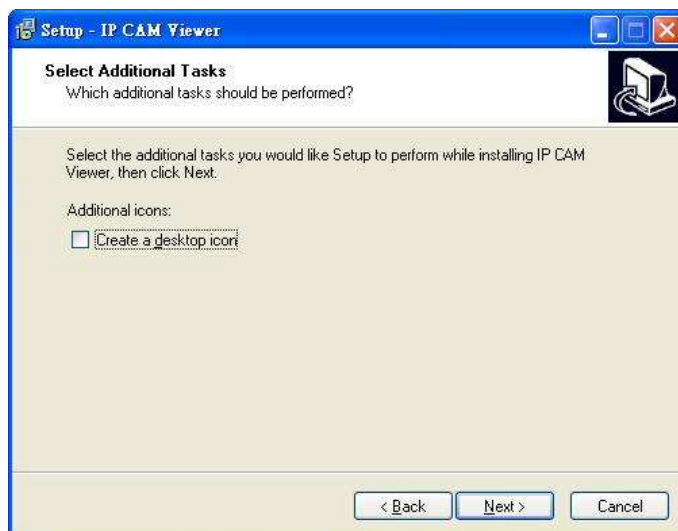
Click "Install" button to start installation process.

Installation completed.
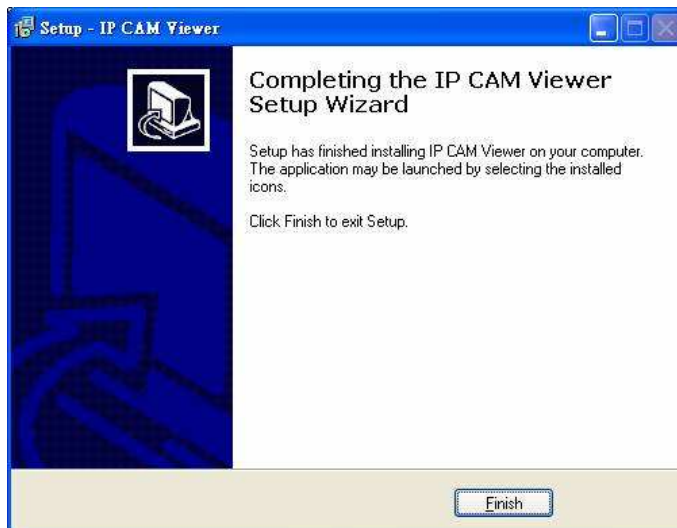
4.2 System Configuration

Connect the IP Camera online, transfer video image through LAN/ WAN to the PC terminal, and monitor from the IE browser, 16CH viewing software, or 3G Mobile phone.
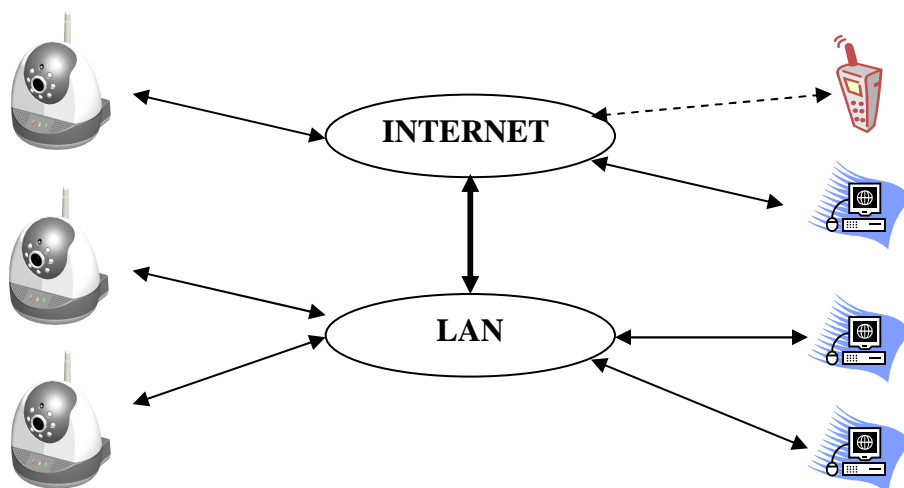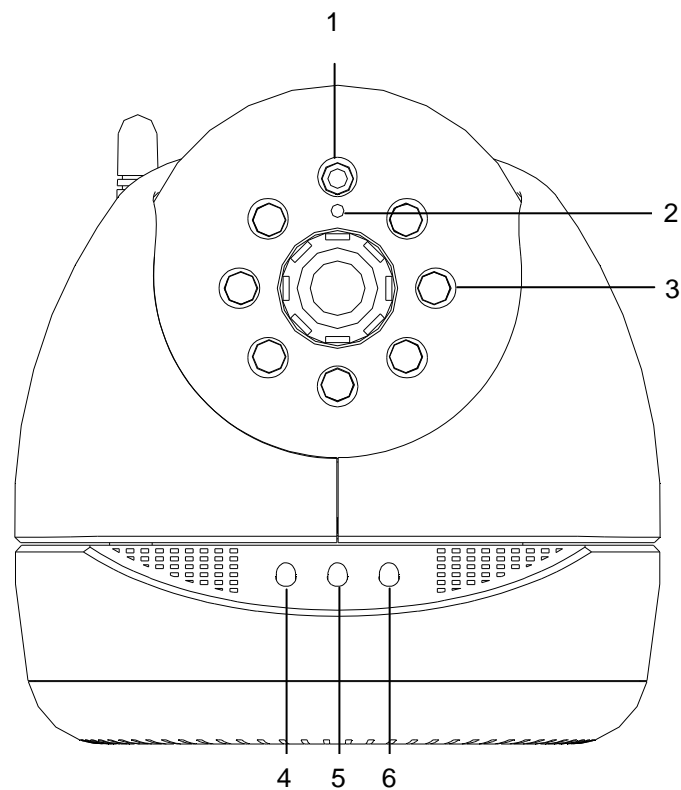

4.3 Suggested Computer Equipment

CPU	3.0 GHz (or above)
RAM	512 MB (or above)
Sound Card	For audio requirement
Operating System (OS)	Microsoft XP/ Microsoft Vista
Monitor Resolution	1024 x 768 (recommended)

5. Location and Control

5.1 Front Panel

1	Photo Sensor	2	Microphone
3	IR LED	4	ACT/LINK Indicator
5	LAN Speed Indicator (Flashing green. LED unlit indicates activity on a 10Mbps Ethernet network, LED lit indicates activity on 100Mbps Ethernet network).	6	Power Indicator (Red)

⚠ NOTE: The Wireless and IR LED functions are optional items.

5.2 Rear Panel
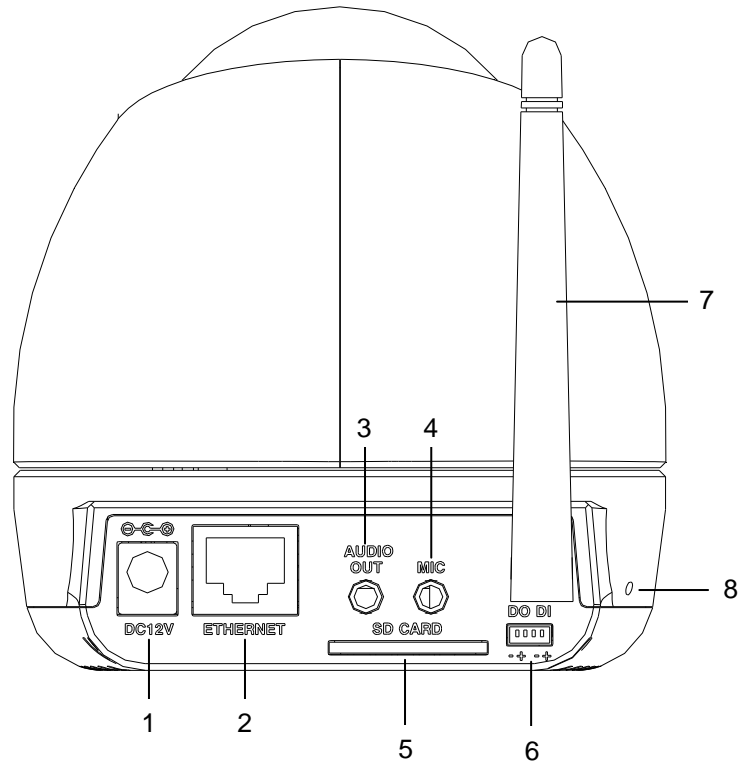
1. DC IN
2. RJ45 network terminal
3. Audio output terminal
4. Microphone terminal
5. SD card slot (Supports hot-swap function)
6. DI/DO Input/Output terminal
7. Wireless network antenna (Option)
8. Reset button

⚠ NOTE 1: To properly insert the SD card the brass fingers on the card should be facing down and towards the rear of the IP camera. Insert the card until you hear a click when the card is fully seated. It is a "Push to Click in and Push to Click out (Eject)" mechanism.

⚠ NOTE 2 : Use the tool stylus, or some object such as a paperclip to push the reset button inside the hole to reset the system. Any changes made so far will be lost and the system auto connects to the default IP address (IP ADD: 192.168.100.100, Network Mask: 255.255.0.0, and Admin Password: admin).

6. IP CAMERA SETUP

Before using the IP Camera, you need to first change the default IP Address and setup the environment for future application. If you do not know the IP address of the IP Camera; first connect the PC to the IP Camera and search for it using the Discover software, change the IP address and finish the setup.

⚠ NOTE : Before using PPPoE and DDNS connection method, one must first use the Discoverer software to setup an IP Address.

6.1 Connect to IP Camera

Three Methods for Connecting IP Camera:

1. Get a Dynamic IP from DHCP Server
Please refer to 6.2 On the LAN using Discoverer.

2. Static IP Connection
Please refer to 6.2 On the LAN using Discoverer.

3. PPPoE Connection
Please refer to 7.4 IP Settings (Setup IP via PPPoE).
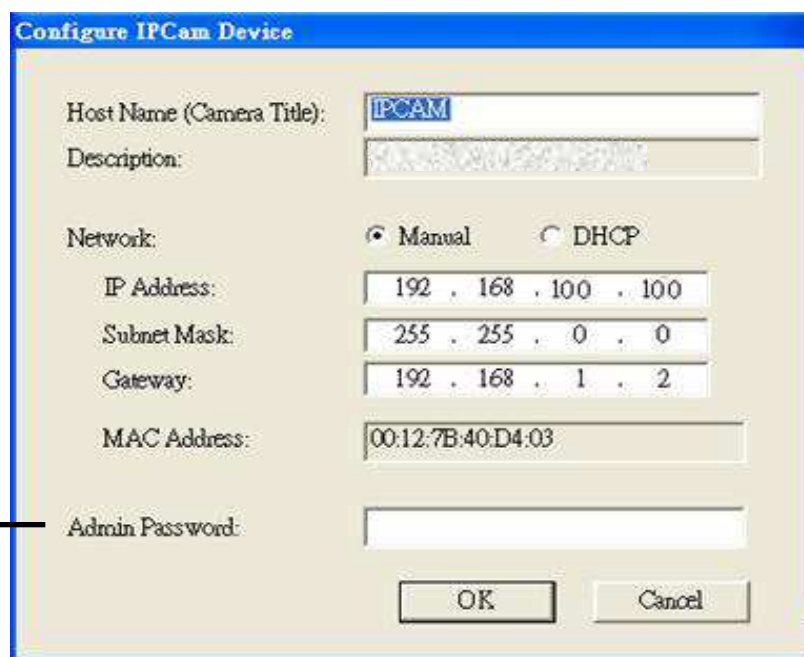
6.2 On the LAN using Discoverer

Please assign an IP address to the IP Camera; either by using a fixed IP or DHCP assigned IP address. Then enter the relevant IP Address, Subnet Mask and Gateway value (Default: IP 192.168.100.100 and Subnet Mask 255.255.0.0).
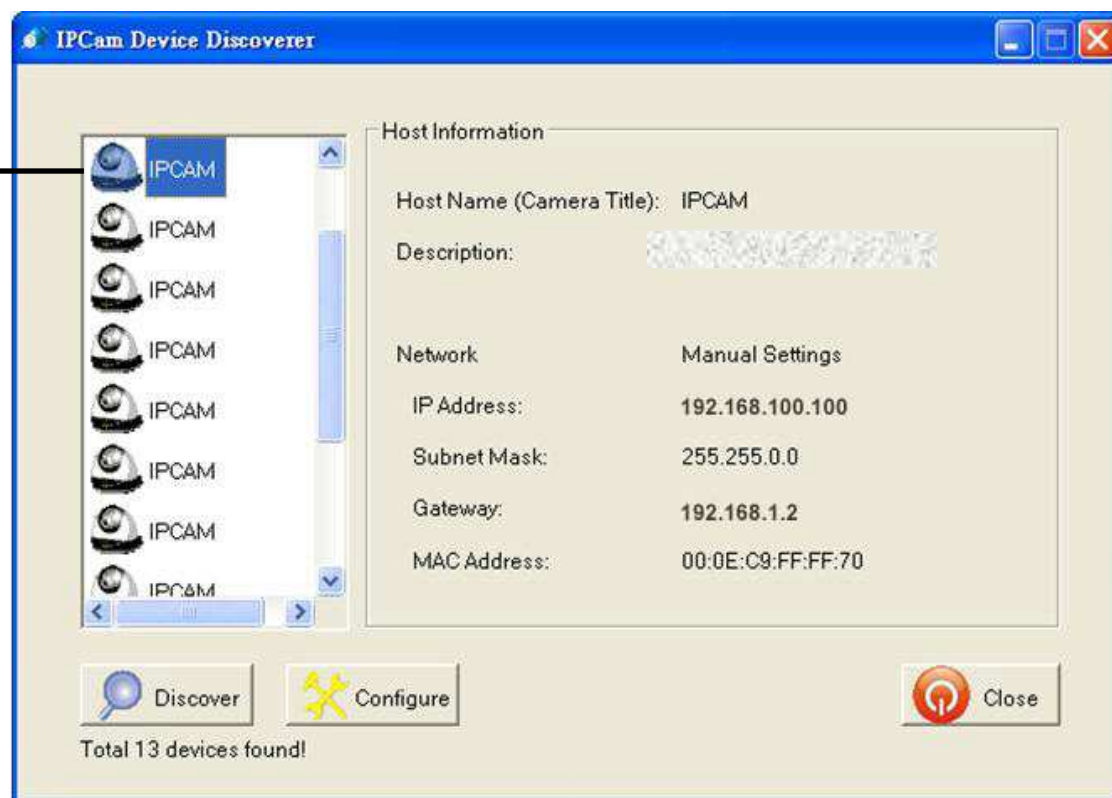
On the LAN using Discoverer

- After start-up, the system will auto track LAN connected IP Camera.
- After 4 seconds of search, the system will display the IP Cameras connected on LAN.
- From the box list, select and double click the desired IP Camera, the system opens an IE browser and auto connects to the selected IP Camera.
- To afresh the search for LAN connected IP Camera, click Discoverer button and after 4 second the system will display the updated IP Camera list.
- Click Close button to terminate the software.
- Click Configure button, the system will open up a Configure Network Device Dialog.

On the LAN using Configure

In the field "Host Name (Camera Title)" enter applicable alphanumeric characters, otherwise a dialog window pops up (Invalid Character).
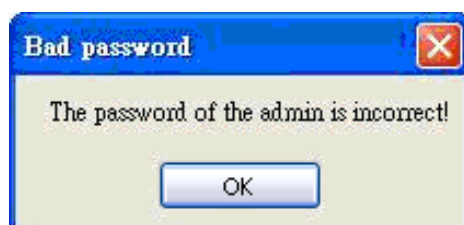

1. To modify network setup, press Configure button and a dialog window pops up (Configure Network Device). After new network setup, enter admin password (Default Password: admin).
2. Press OK button and after 8 seconds the modification setup will be completed.
3. When password authentication fails, a dialog window pops up (Bad password).

When there is no reaction, please press Discover button and the system will undergo search once more.

6.3 IE Connection

Open up the IE browser and enter the IP address of the IP Camera or double click the IP Camera icon in the Discoverer software.

When a dialog box appears, enter the username and password (Default User Name: admin and Default Password: admin).

6.4 Install ActiveX

Once you have logged in, your browser will go to the main IP CAM home page. The first time you visit, you may see a pop-up pointing out that there is an information bar requiring your attention (mouse right click to install ActiveX Control).

13
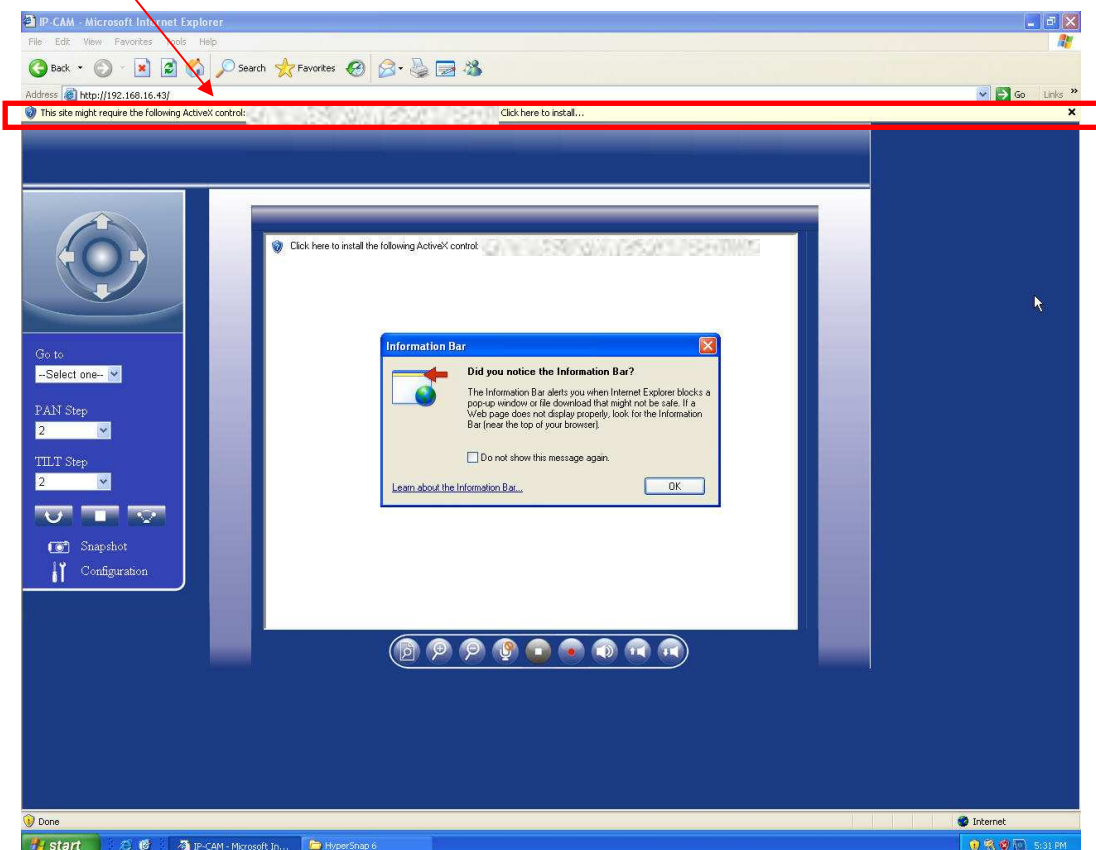
Then a window will appear asking you to confirm whether or not you want to install the ActiveX control.

Select **"Install"** and the installation will take care of itself.

If you are unable to install ActiveX Control, please try again following the procedures below:

1. On the IE browser Menu item bar, select [Tools] → [Internet Options] item.
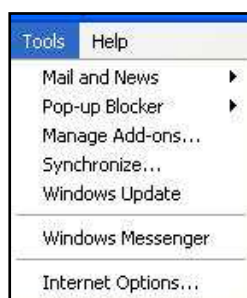

Tools → Internet Options

2. Select [Security] → [Internet] and then click [Custom Level].
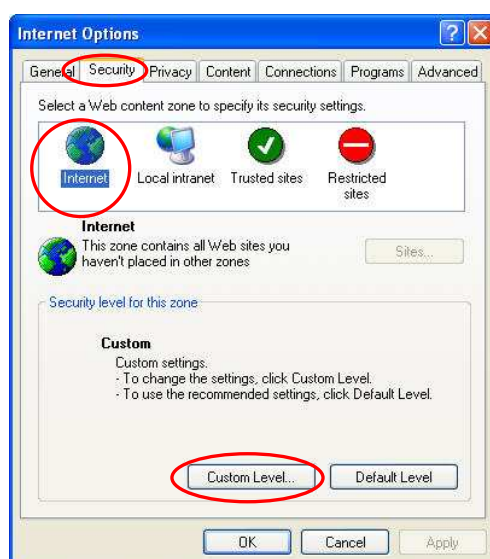
Security →Internet Options→ Custom Level

3. After clicking on [Custom Level …] button, a security settings window appears. Please follow the steps below to change items to "Enable" or "Prompt".

- Download unsigned ActiveX controls: [Prompt]
- Download signed ActiveX controls: [Prompt]
- Automatic prompting for ActiveX controls: [Enable]
- Initialize and script ActiveX controls not marked as safe: [Enable]
- Run ActiveX control and plug-ins: [Prompt]
- Script ActiveX controls marked safe for scripting: [Enable]
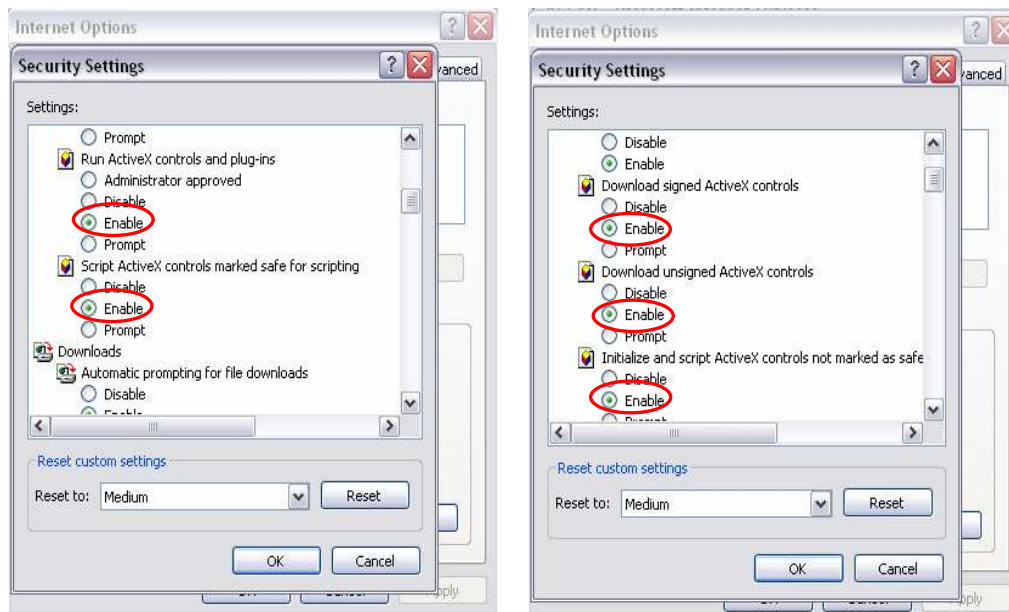
Activate ActiveX Control

4. Select [Security] → [Trusted sites] and then click [Custom Level].
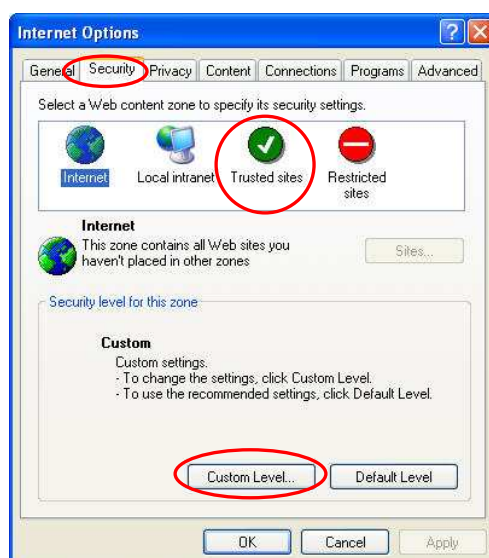
5. After clicking on [Customer Level…] button, a security settings window appears. Please follow the steps below to change items to "Enable" or "Prompt".

- Download unsigned ActiveX controls: [Prompt]
- Initialize and script ActiveX controls not marked as safe: [Prompt]
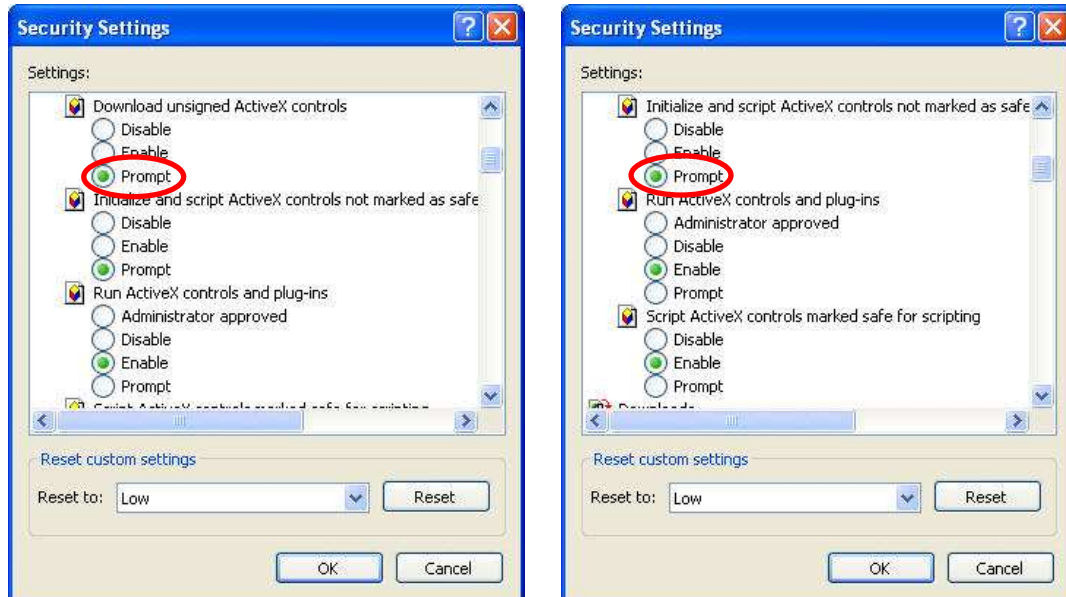
Download ActiveX Control

After Active Control has been successfully setup, live images will be displayed on the IE browser.
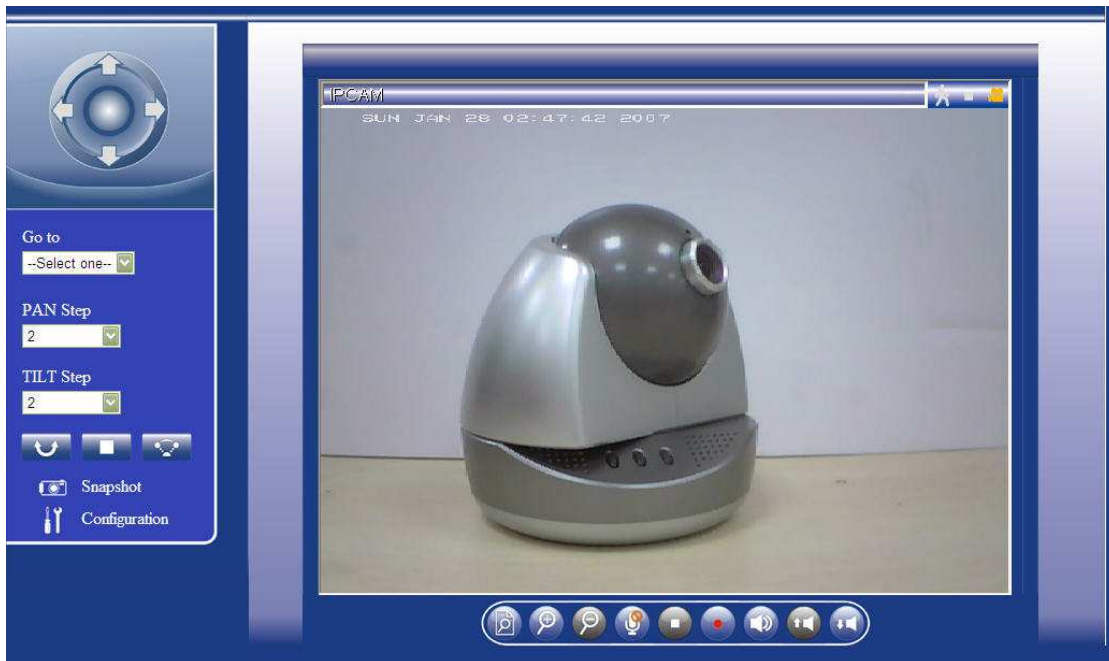
Connect to IP Camera through IE browser

⚠ NOTE: Up to a maximum of 5 users can access one IP Camera at the time. The 6th user may only implement function setup, but unable to view the display.

7. FUNCTION SETUP

7.1 Home Page

Optimum Resolution: 1024*768
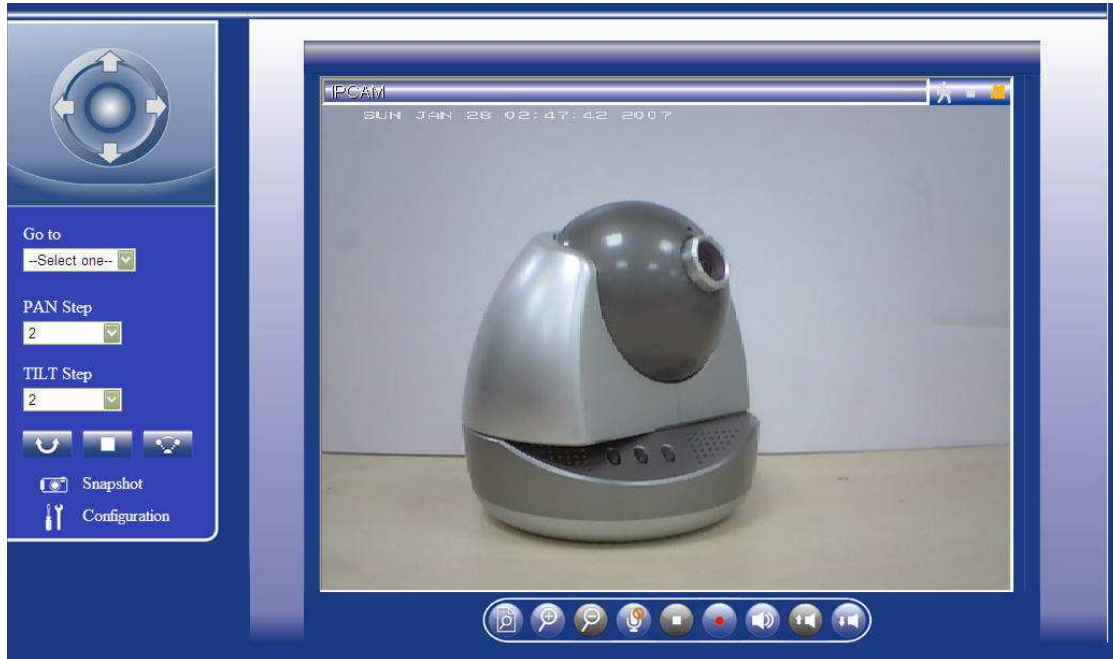
Image Control Buttons

1. Show original Image Size
2. Zoom In (Magnification - close up view)
3. Zoom Out（Range: Original Size - 300%）
4. Microphone On/Off
   (Only admin-level has the authority to switch the PC microphone On/ Off and Enable/ Disable 2-way audio (listen and also talk to the camera site) function. User-level can only listen.)
5. Stop
6. Record
7. Speaker On/Off
8. Speaker Volume up
9. Speaker Volume down (Volume Level: 5 Level)

Function Control Buttons

1	Direction Buttons (Up/Down/Left/Right): For camera position adjustment.
2	Home: Return to the camera default position.
3	Go to: Go to the selected Preset Point.
4	PAN Step：Horizontal Movement 01(Short)/02/03/04/05/06(Medium)/07/08/09/10/11(Long)
5	Tilt Step：Vertical Movement 01(Short)/02/03/04/05/06(Medium)/07/08/09/10/11(Long)
6	Enable the Auto Pan Function
7	Stop the Auto Pan Function
8	Enable the Patrol Function
9	SnapShot: Screen SnapShot
10	Configuration：Enter the Camera Setup pages

**About the Patrol function settings, please refer to 7.14 PT Control.
** The snapshots will be saved in the default path, please refer to 7.15 System Settings.

The popup menu is displayed by right mouse click, as shown below:
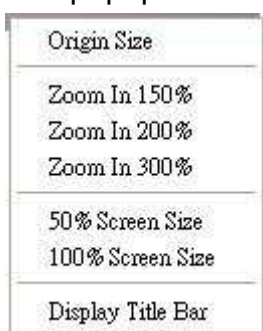
Click the last item "Display Title Bar". The title bar will be displayed across the top of the screen display, as shown below:

IPCAM, rtsp://192.168.16.19:554/, VGA, 10 FPS, 441 kbps, 100 %

| Camera Name | IP Address | Frames per Second | Display Percentage |

| Image Resolution | Bite Rate |

Motion Detection Inactivated	Motion Detection Activated
Stop Recording	Recording
Camera Unconnected	Camera Connected
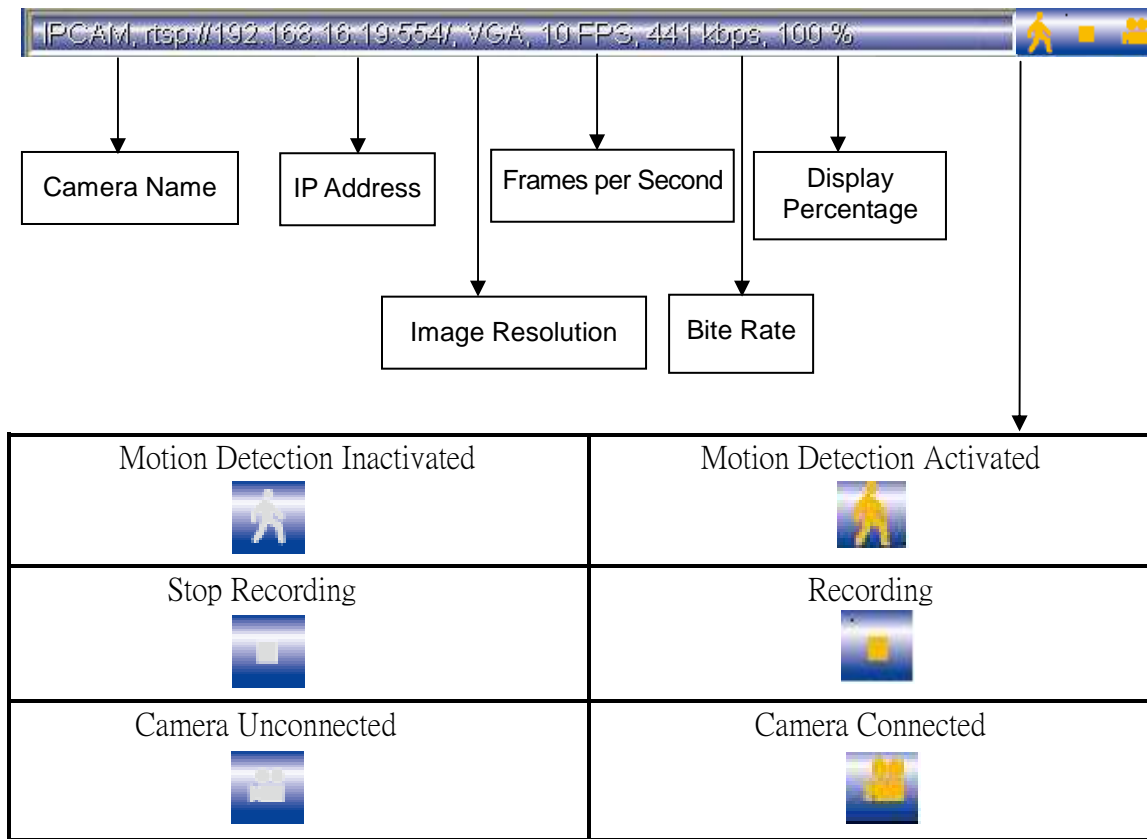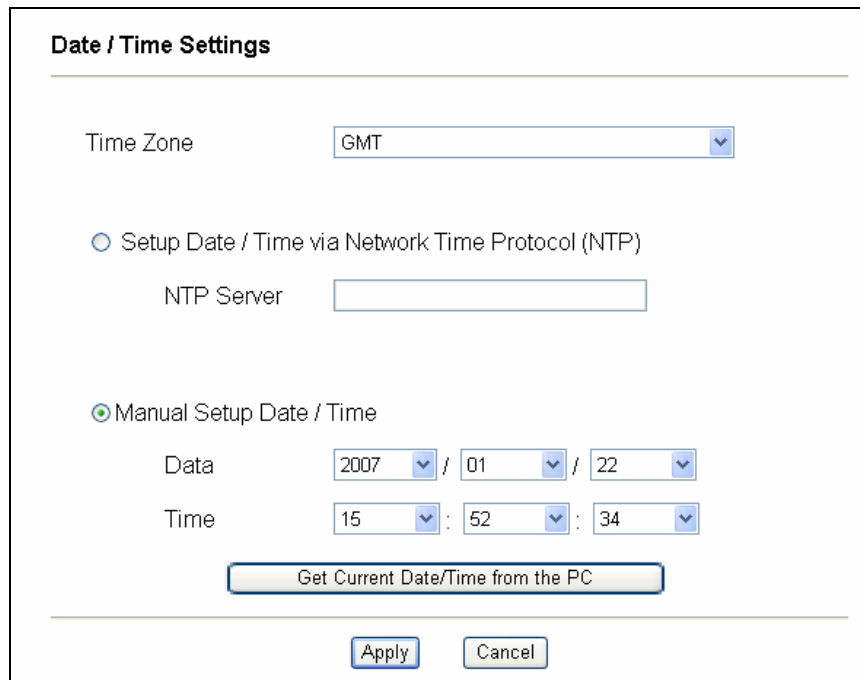
⚠ NOTE： Due to the layout of the "Display Title Bar" display, Live image display looks as if it is pushed downward and partly cut off.

Windows Internet Explorer

❓ The recording is still working . If you want to stop, please press "OK" button, or you can press "CANCEL" button to keep recording.

OK   Cancel

⚠ Note: Click [Setup] during recording or exiting LIVE page, a message pops up "**The recording is still working. If you want to stop, please press "OK" button, or you can press "cancel" button to keep recording**". This means you may click [OK] to stop current recording or click [Cancel] to remain on the current page and continue recording.

7.2 Date/ Time Settings
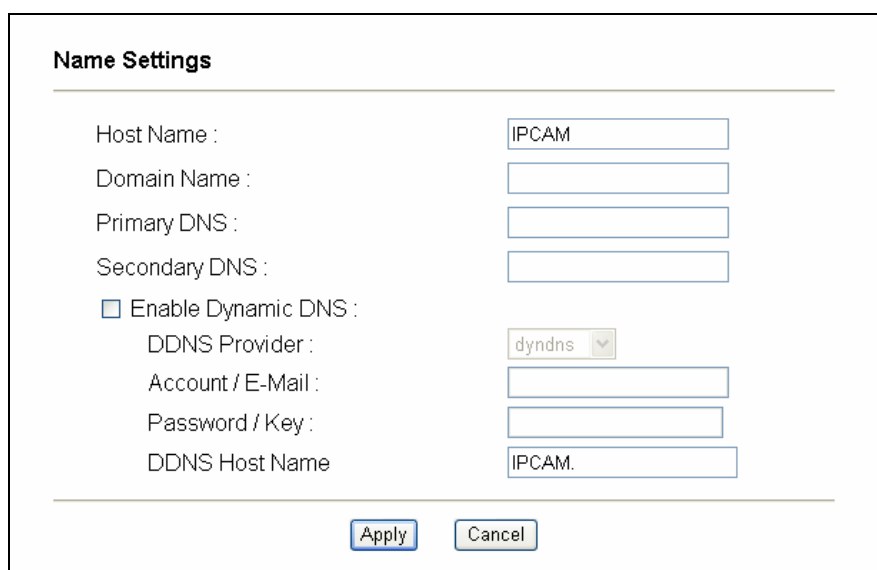
1 Time Zone：Select the local time zone.
2 Setup Date / Time via Network Time Protocol (NTP)：Synchronize date/ time with the time server.
   - NTP Server：Enter the IP address or domain name of the time-server.
3 Manual Setup Date / Time：
   - Date：Select Date.
   - Time：Select Time.
4 Get Current Date/ Time from the PC：Synchronize date/ time through user PC.
   - Click to synchronize date/ time with the PC.

Click [Apply] button to complete the setup.

7.3 Name Settings

1. Host Name：Enter IP CAM host name.
   Tip ： Applicable alphanumeric characters ： Underline (_), hyphen (-), numbers (0 - 9) and alphabet (a - z, A - Z).
2. Domain Name：Enter domain name (optional field, administrator login only)。
3. Primary DNS：Enter IP address for DNS1 (required field, for example 168.95.1.1）.
4. Secondary DNS：Enter IP address for DNS2（optional field, used as reserved DNS name）.
5. Enable Dynamic DNS：Select to enable DDNS, but first register an account with the dynamic DNS service (optional field, relevant only to IP CAM using dynamic IP address).
   - DDNS Provider：Select websites that provides Dynamic DNS services that lets you gain access to monitor your IP CAM on a local network when the internet address of that network is constantly changing. Suggested Dynamic DNS service provider: dhs, dyndns, dyns, easydns, gnudip, justlinux, ods, pgpow, and tzo (please refer to 11 APPENDIX for detailed information).
   - Account / E-Mail：Enter Account or E-mail field for logging in the DDNS server or notify the user of the new IP address.
   - Password / Key：Enter the password or key to get the DDNS service.
   - DDNS Host Name：The field is created automatically when the Host Name and the Domain Name that is registered in the DDNS serer has been entered.

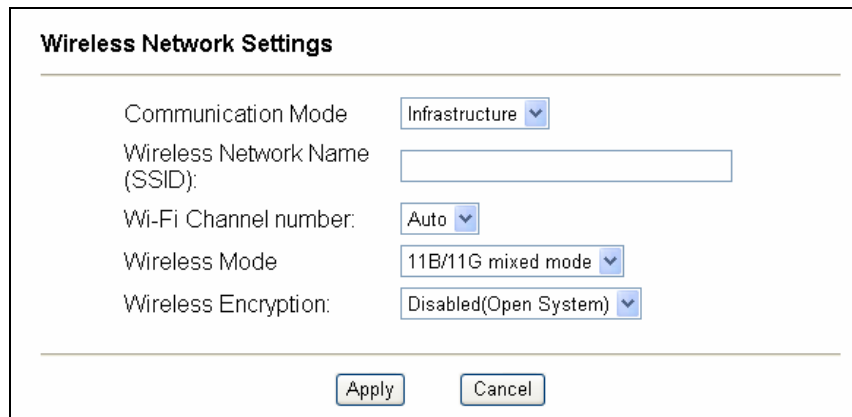Click [Apply] button to complete the setup.

7.4 IP Settings

1   IP Settings：
   (1) Setup Dynamic IP (DHCP)：Assign an IP address via DHCP server.
        Enable DHCP to allow centralized assignation of IP addresses.
   (2) Setup Static IP：Setup fixed IP address manually.
      ● IP Address：Enter fixed IP address.
      ● Subnet Mask：Enter subnet mask.
      ● Gateway：Enter network gateway.
   (3) Setup IP via PPPOE：
      ● User Name：Enter user account（provided by the Internet Service
        Provider）.
      ● Password ： Enter password （ provided by the Internet Service
        Provider）.
   (4) Wireless Interface IP Settings：
      ● Take wireless interface as backup device ： Wireless network
        connection method is applied when cable network connection failure
        occurs.
      ● Disable wireless interface：Wireless network connection method will
        not be applied when cable network connection failure occurs.

Click [Apply] button to complete the setup.

7.5 Wireless Network Settings

1   Communication Mode：Setup communication mode (Infrastructure or Ad-Hoc, normally apply Infrastructure).
2   Wireless Network Name (SSID)：Setup wireless network name.
3   Wi-Fi Channel number：Setup channel (Auto, 1~11)
4   Wireless Mode：Select wireless mode (11B/11G mixed mode, 11G only, or 11B only.
5   Wireless Encryption：Select wireless encryption mode (Disable/ WEP).
    (1) Disabled (Open system)：Disable wireless encryption mode.
    (2) WEP (Shared Key)：Select shared key.
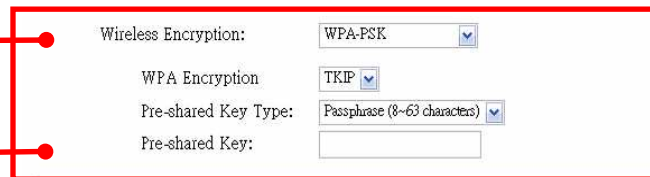
- WEP Mode：Select 64-bit or 128-bit, normally apply 64-bit.
- Default Key ID：Select shared key (1~ 4).
- Key Entry Method：Select enter method [ASCII (5 characters) or Hex (10 digits)], normally apply ASCII.
- Key 1~4：Setup maximum of 4 shared keys.

(3) WPA-PSK

Wireless Encryption:	WPA-PSK
WPA Encryption	TKIP
Pre-shared Key Type:	Passphrase (8~63 characters)
Pre-shared Key:	

- WPA Encryption：Select TKIP or AES.
- Pre-shared Key Type：Select shared key type [Passphrase (8-63 characters) or Hex (64 digits)].
- Pre-shared Key：Enter password.

Click [Apply] button to complete the setup.

Windows Internet Explorer

⚠ When DHCP mode is enabled, Communication Mode can't be set as "Ad-Hoc".

OK

⚠ Note: When "Setup Dynamic IP (DHCP)" is set under IP Settings page and "Ad-Hoc" is set under Wireless Communication Mode, a message pops-up "**When DHCP mode is enabled, Communication Mode can't be set as "Ad-Hoc"**".

7.6 Video Settings


1   Video Property Settings：Setup video property.
- Brightness, Contrast, Saturation, Hue adjustment (Setup Range: 0 - 255)
- Flip：Flip image (up/ down, Setup Range: 0 - 255).
- Mirror：Mirror image (left/ right, Setup Range: 0 - 255).
- OSD Timer：Display OSD timer (Setup Range: 0 - 255).
- Flip：Flips an image upside.
- Mirror：Reverses image left and right.
- OSD Timer：Reveal time on OSD display.
- Out/In Door：Select outdoor when camera is installed outdoor to avoid overexposure. And use indoor camera if it is installed indoor, please setup using fluorescent lights 60/ 50 Hz (Default: 60 Hz).

⚠ NOTE：To store applied setup within your IP Cam, please make sure to click [**Apply**] button.
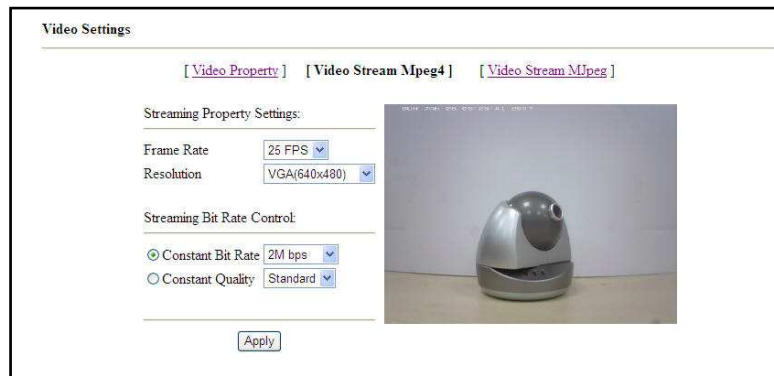
2 Video Stream Mpeg4 (Mpeg4 stream settings)
(1) Streaming Property Setting：
- Frame Rate：Select fps [5, 10, 15, 20, 25FPS].
- Resolution：Select resolution [QVGA (320 x 240) or VGA (640 x 480)].

⚠ NOTE：Two types of video stream: MPEG-4 and MJPEG (total of 30 FPS).
MPEG-4 (default) provides 25FPS, while MJPEG provides only 5FPS.
User can adjust the frame rate size according to preference.

(2) Streaming Bit Rate Control：Select streaming bit rate.
- Constant Bit Rate：Depends on Bit Rate [16K bps~3M bps].
- Constant Quality：Depend on quality [OK, Medium, Standard, Good, or Great].

3 Video Stream MJpeg (MJpeg stream settings)
(1) Streaming Property Setting：
- Frame Rate：Select fps [5, 10, 15, 20 or 25].
- Resolution：Select resolution [QVGA (320 x 240) or VGA (640 x 480)].

⚠ NOTE：Due to 5FPS is auto provided ones 3GPP function has been activated.
Therefore, the video frame rate for MPEG-4 video stream is decreased to
25FPS.

(2) Streaming Bit Rate Control：Select streaming bit rate.
- Constant Bit Rate：Bit Rate value is fixed, 16K bps - 3M bps
- Constant Quality：Depend on quality [OK, Medium, Standard, Good, or Great].

Please refer to "7.15 System Settings" before 3GPP setup.
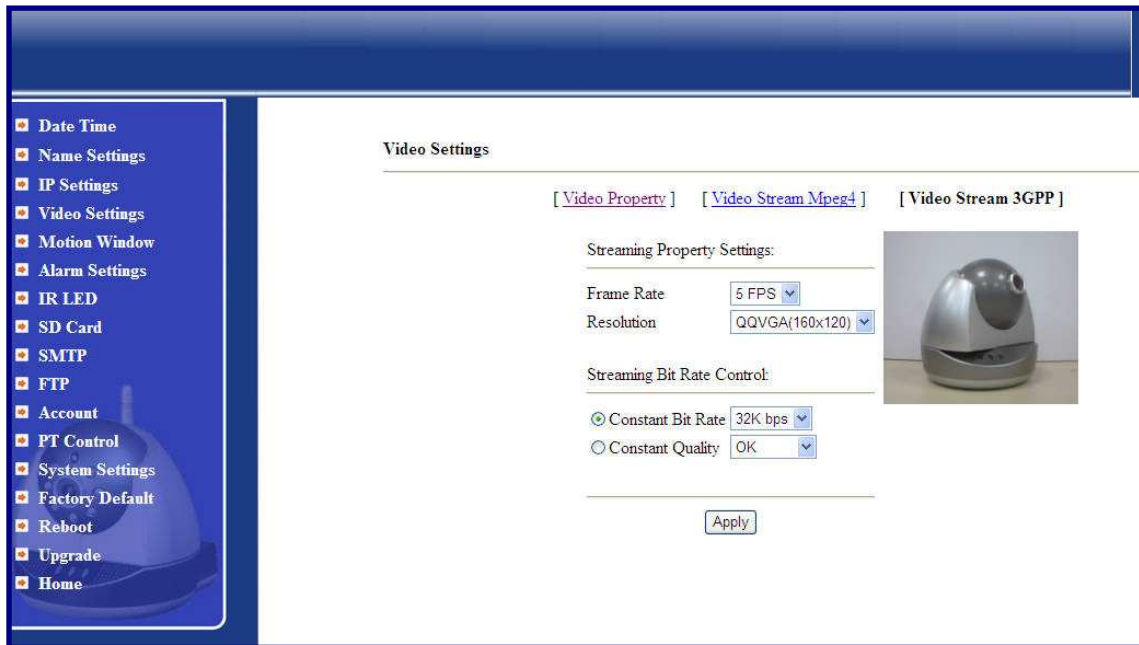
4 Video Stream 3GPP
(1) Streaming Property Setting：
- Frame Rate：Select 5fps.
- Resolution：Select resolution [QQVGA (160x120)].

(2) Streaming Bit Rate Control：Select streaming bit rate.
- Constant Bit Rate：Bit Rate value is fixed, 16K bps – 64K bps
- Constant Quality：Depend on quality [OK, Medium, Standard, Good, or Great].

Click [Apply] button to complete the setup.

A connection with low bandwidth, the system automatically reduces the Frame Rate and Bit Rate. When no users are connected, the system automatically restores the Frame Rate and Bit Rate to user setting.
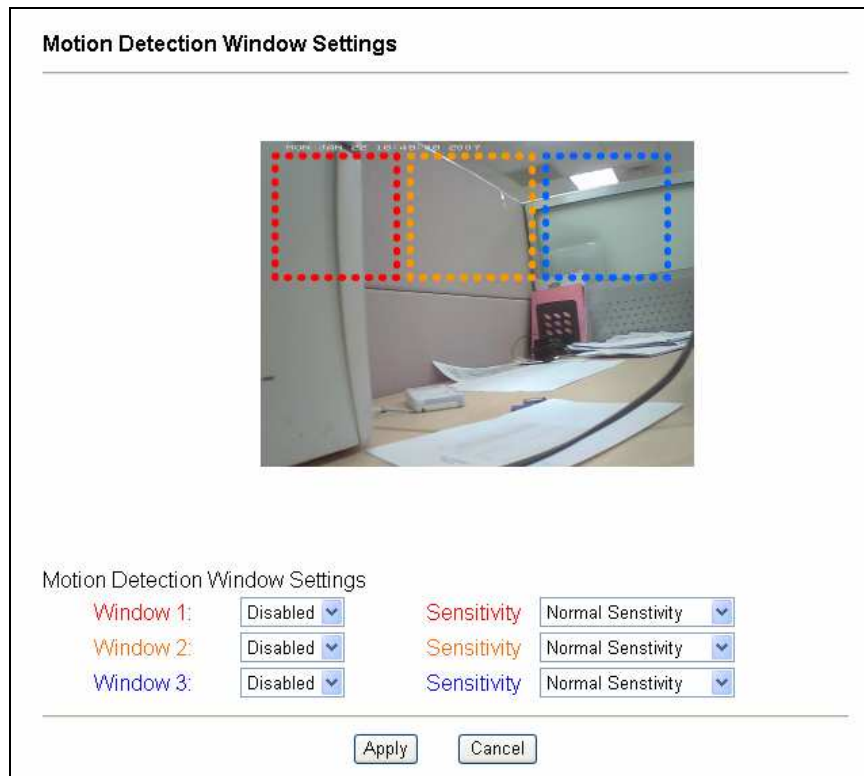

NOTE：Use professional software（ex: VLC）to directly receive Mjpeg data stream and to record more vivid videos.
Enter rtsp://IP add/jpegmp2 to receive Mjpeg video stream
rtsp://IP add/3gv2 to receive 3GPP video stream

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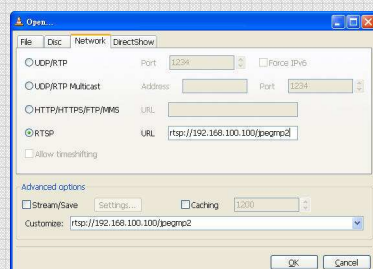
7.7 Motion Detection Windows

Motion Detection Window Settings：Use the mouse to click, hold and drag the window frame, remember to click [Apply] in order to validate the change.

1 Motion Detection Window Settings ： Setup motion detection area parameters.
- Window 1, 2, 3：[Enable/ Disable] motion detection setup for window 1-3.
- Sensitivity 1, 2, 3：[Very High, High, Normal, Low, or Very Low] sensitivity rate setup for window 1-3.

Click [Apply] button to complete the setup.

7.8 Alarm Settings

1. Enable DI Alarm：You can select following two DI Alarm types
   - DI Normal Close(N.C.)：The sensor is close in normal time.
   - DI Normal Open(N.O.)：The sensor is open in normal time.
2. Enable Motion Alarm：Issue alarm when motion detected.
3. Enable DO Control：
   - DO Normal Open(N.O.)：The sensor is open in normal time.
   - DO Normal Close(N.C.)：The sensor is close in normal time.
4. Save the snapshot to a JPG file：When Motion/ DI event occurs, saves snapshot to a JPG file. When Motion/ DI event occurs, the first image captured will be stored as the first Motion/ DI event image. Therefore, if continuous Motion/ DI event occurs; the system will only capture the first image. When the Motion/ DI event stops for 3 sec. the next Motion/ DI event will begin.
   - Save the snapshot JPG file to the SD Card：Select to save the snapshot to the SD card.
   - Send the snapshot via an e-mail：Select to send snapshot by e-mail.
   - Save the snapshot JPG file to the FTP server：Select to save snapshot file to FTP server.
5. Save to an AVI file on the SD Card：When Motion/ DI event occurs, saves images to an AVI file.
   - Pre-Alarm Image Number：0–15 Images.
   - Post-Alarm Image Number：3–15 Images.

⚠ Note: Select either one of the function [Save the motion snapshot to a JPG file] or [Save motions to an AVI file on the SD Card], but not both.

6.　Alarm OFF/ Alarm On/ Alarm Schedule

When you select the Alarm Schedule, the above alarm settings will be triggered only within the scheduled timeline. Move the cursor to any white grid area, hold the left button and move the cursor to draw the grid from white to blue (each grid represents half an hour).

Click [Apply] button to complete the setup.

⚠ Note: When the condition of the bandwidth is inadequate, unstable, or SMTP setup is incorrect. The system may not be able to send the motion event notification by e-mail and a message appears: "**Some Motion Detection JPG files are failed to be sent via email or upload to FTP due to unstable bandwidth or wrong SMTP/FTP settings. To ensure you can receive the email or upload to FTP accurately, please make sure the quality of network or check the SMTP/FTP settings**". To ensure that user can successfully receive e-mail or upload, it is suggested that the user should determine the quality of the bandwidth and check whether SMTP/ FTP has been correctly setup.

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7.9 IR LED Control

1   IR LED Control
   - IR LED OFF ： Disable IR function.
   - IR LED ON ：Enable IR function.
   - Schedule ON ：Enable IR LED Schedule
   - IR LED AUTO ：Enable or Disable IR LED by IP Camera automatically.
2   Daily Schedule
   - Select IR LED ON from time 0:00 to 24:00. One grid indicates half an hour.
   - Move the cursor to any white grid area, hold the left button and move the cursor to draw the grid from white to blue indicates the area where the IR LED is ON.
   - Move the cursor to any blue grid area, hold the left button and move the cursor to draw the grid from blue to white indicates the area where the IR LED is OFF.
   - Select start and end time, from the starting time hold the left button and drag along to the selected ending time. This enables multiple grids to be selected at once.
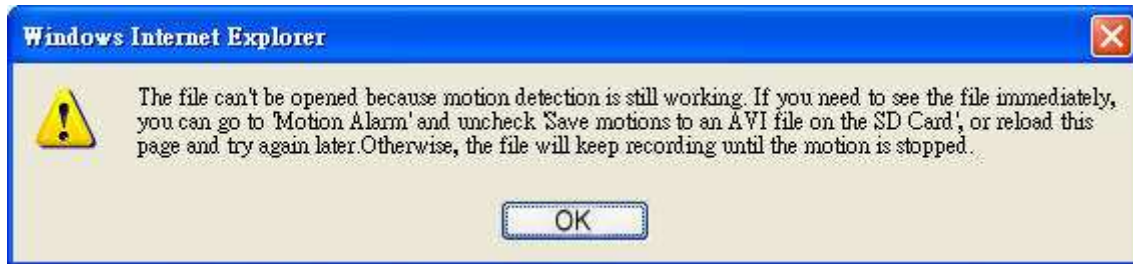
Click [Apply] button to complete the setup.

7.10 SD Card File Management

1 SD Card status: Indicates SD card current storage status.
2 File list：Insert the SD card to the IP camera to display file list stored in the SD card.
  - Back：Click to return to previous folder.
  - Select All：Select all files in the file list.
  - Delete Select：Delete selected file in the file list.
  - Folder in the File Size field indicates a folder. Click File Name connection to enter the relevant folder.
  - File Size field indicates the size of the file. Click the right button to download the file.
  - File Delete：Click [Delete] to delete file.
  - Reload：Update current folder.
3 Safely Remove SD Card：Indicate it is safe to remove the SD card.
  - Remove：After confirming "Save motion to AVI files on the SD card" function has been disabled. Click [Remove] button and wait for the message "SD Card not installed" to appear. Then, withdraw the SD card from the IP camera site. Thus, prevents data-damage during SD card hot swap process.
  - Install：Clicking [Remove] button without withdrawing the SD card from the SD card slot. Enables you to click [Install] button to use the SD card again.
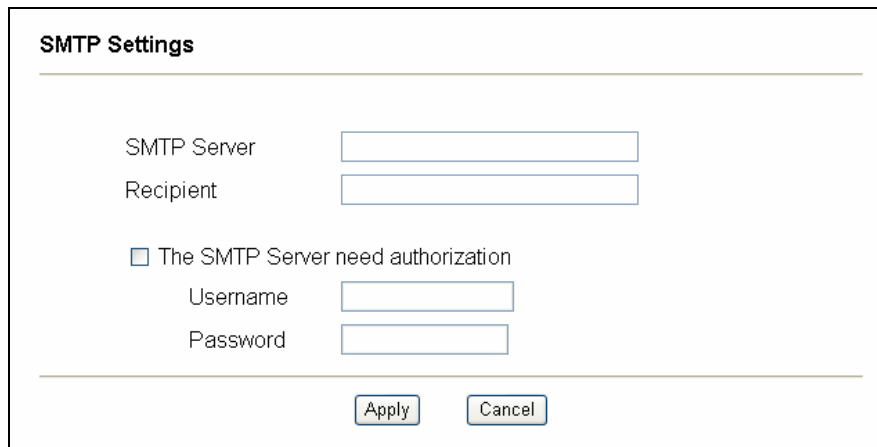
⚠ Note：When "Save motion to AVI files on the SD card" function is enabled, "Format SD Card" function is disabled.

4 Format SD Card：Click [FORMAT] button to format SD card. All recorded data in the SD card will be deleted. After format, two files "AlarmPicture and AlarmVideo" will be created and motion-event data will be stored in these two files.

5 When motion recording is activated it will be stored instantly onto the SD card. Do not attempt to open recording files during recording as error may occur and the following message will appear. To view the file immediately, uncheck "Save motions to AVI file on the SD card" under Motion Alarm page, or refresh the web page and try again later, you may also take no action at all and allow Motion Recording to continue until it stops.

Windows Internet Explorer

⚠ The file can't be opened because motion detection is still working. If you need to see the file immediately, you can go to 'Motion Alarm' and uncheck 'Save motions to an AVI file on the SD Card', or reload this page and try again later. Otherwise, the file will keep recording until the motion is stopped.

OK

7.11 SMTP Settings

1 SMTP Server：Setup simple mail transfer protocol to transfer mail reliably and efficiently（similar to mail function setup）.

2   Recipient：Enter recipient's e-mail address.

3 The SMTP Server need authorization：The user needs to give valid user name and password to send email via the server.

- Username：Enter the user name of the e-mail address.
- Password：Enter password.

Click [Apply] button to complete the setup.

7.12 FTP Settings

1 FTP Server：Enter FTP address, to enable file transfer via FTP when a Motion/ DI event occurs.
2 FTP Port：Enter FTP Port（normally apply 21）.
3 Username：Enter active user name of FTP server.
4 Password：Enter FTP user password.
5 Remote Folder：Create a remote folder; it should be the same name as your relative root folder. For example, if you setup an FTP account name user1 and wants to store a jpg file to"/home/user1/FolderName/", then you need only to enter "/FolderName". If the file is not found on the FTP server, it is auto created. When the file is found, enable the authority of the file ($chmod 777 /home/user1/FolderName).

⚠ Note：The folder is created only when a motion-event occurs.

6 Passive Mode：Select passive mode.

Click [Apply] button to complete the setup.

7.13 Account Settings

Current User: Displays the current user.

1   Change Password
   ● New Password: Enter new password.
   ● Confirm: Enter the new password again to reconfirm.
   ● Click [Change] to validate the setup.
2   Add New Account (Maximum 32 user accounts)
   ● Account: Enter user account.
   ● Password: Enter user password.
   ● Confirm: Enter user password again to reconfirm.
   ● Click [Add] to validate the setup.

> ⚠ NOTE：**Account**
>   Applicable alphanumeric characters (Maximum 10units)： numbers (0 - 9) and alphabet (a - z, A - Z).
>
> **Password**
> Applicable alphanumeric characters (Maximum 12units)： numbers (0 - 9) and alphabet (a - z, A - Z).

3   Delete Account or Reset User Password
   ● Select a user first.
   ● Click [Delete] to delete the user.
   ● Password: Enter new user password.
   ● Confirm: Enter new user password again to reconfirm.
   ● Click [Set Password] to validate the setup.

> ⚠ NOTE: Only the Admin has full control authority, the rest has view and password modification access only.

7.14 PT Control

1. Pan/Tile Config：
   - Up/Down/Left/Right：For IP Camera position adjustment. You can see the images in the preview window.
   - Home：Relocate the IP camera to the original position.
   - Patrol：Enable the Patrol function. IP camera will follow the preset points in the Patrol List to do the multi points patrol.
   - Stop：Stop the Patrol function.

2. PT Config（Horizontal and Vertical Movement Configuration）：
   - Pan Step：Horizontal Movement Adjustment
     01 (Short)/ 02/ 03/ 04/ 05/ 06 (Medium)/07 /08 /09 /10 /11 (Long).
   - Tilt Step：Vertical Movement Adjustment
     01 (Short)/ 02/ 03/ 04/ 05/ 06 (Medium)/07 /08 /09 /10 /11 (Long).

3. Preset List：User can set the desired camera position and save it as Preset point in the Preset List. It is a preset user-defined camera position; user can move the camera position very quickly when needed. 100 preset points are allowed in the Preset List.
   - Use the Up/Down/Left/Right buttons to adjust the camera position, and then input the preset point name in the right column of Preset List.
   - Click "Add" button to add to Preset List.
   - Select the desired Preset Point and then click "Go To" button, camera will move to the Preset Point position.
   - Click "Delete" button to delete the selected Preset Point.
   - Click "Select" button to add a selected Preset Point into Patrol List.

⚠ NOTE：You have to click [Apply] button after you adding a Preset Point into the Patrol List.

4. Patrol List：IP camera will follow the Preset Points in the Patrol List to do the sequential patrol (Maximum 20 Patrol List).
   - Move Up/Move Down：To adjust the sequence of Preset Point in the Patrol List.
   - Click "Delete" button to delete the selected Preset Point.

7.15 System Settings

Image Path：The saving path of the image snapshots (*.JPG/*.AVI). The default path is C:\IPCam\.

Main Video Stream：Default is Mpeg-4 (this function is read only).
Second Video Stream：You can select 3GPP (Output to 3G mobile phone) or Mjpeg format.

⚠ NOTE：The Profile is stored in PC and not in IP CAM. If you reinstall or renew your PC the parameter previously setup will not be stored in your new PC and the same happens when you click [Reset] button, it will not restore to factory default settings.

7.16 Restore Factory Default

Restore Factory Default

This action will restore factory default settings and reconnect to the factory default IP

[Restore]

⚠ NOTE：The system can only restore factory default settings of the parameter profiles within the IP CAM, but invalid to parameter profiles store on PC.

Click [Restore] to restore the factory default settings. Any changes made so far will be lost and the system auto connects to the default IP address (Http://192.168.100.100).

7.15 Reboot

Reboot

This action will reboot the device.

[Reboot]

Click [Reboot] and the IP camera will start rebooting.

7.18 Firmware Update

Firmware Update (Current Version : 0.0.13)

Browsing Upgrade

Warning: Upgrading firmware may take a few minutes, please don't turn off the power or press the reset button.
Upgrade must NOT be interrupted !

To install firmware updates for your IP camera. Click [Browsing] and select the firmware file named "IPCAM Firmware (bin file)", and then click [Upgrade]. The whole process needs a few minutes, so please don't turn off the power or press the reset button during a firmware update.

Note：
1 Please confirm the connection quality and make sure that the IP camera maintains uninterrupted connection to the network.
2 When the speed of Firmware upload is very slow, please remove proxy settings first. Please follow the steps below to disable proxy server:
   ● Open IE and click [Stop] button. Click [Tools] --> [Internet Options].

- In the [Internet Options] window click the [Connections] tab. Next, click the [LAN Settings...] button.
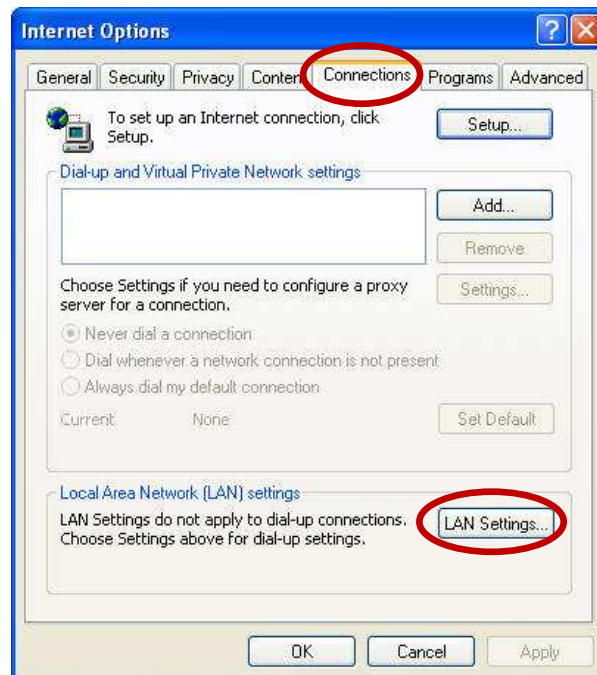
- In the "Proxy Server" area, remove the check mark next to "Use a proxy server for ....", and then click [OK] button.
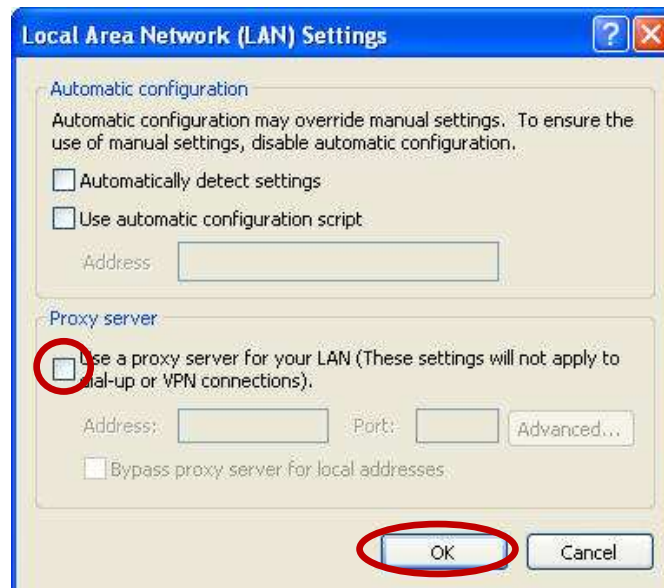
When firmware update failure occurs, first store the firmware file (bin file) to the SD card and then reboot the device to enable auto update. Please do not unplug the power supply or pull-out the SD card while upgrading.

9. 3G MOBILE PHONE MONITORING

1. Please follow the setup on 8.6 Video Settings and select item "Enable 3G Streaming".

2. Enable 3G Mobile Phone Streaming Media program.

3. Connect to the IP address of the IP camera, using URL format "rtsp://[IP address]/3gv2" (remember to add 3gv2 at the end of the IP address), as shown below:
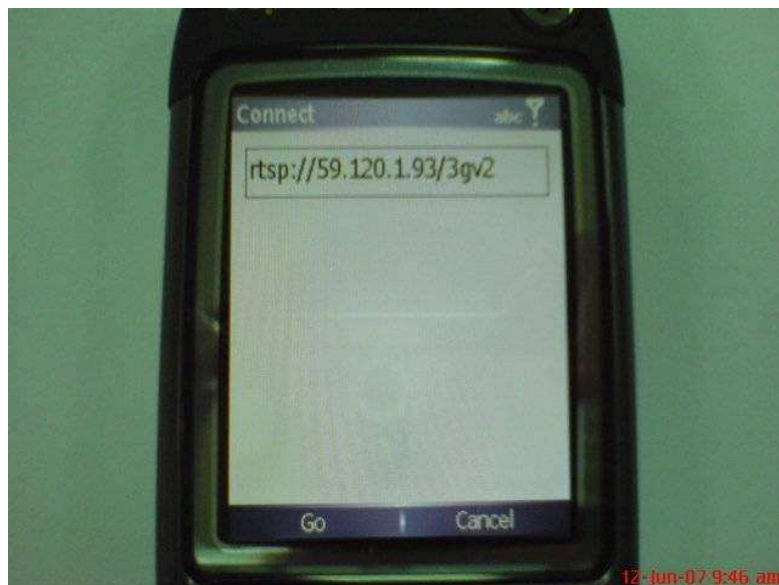
4. When online connection is successful, image will be displayed on the mobile phone screen display.

Supported cell phone brand type, listed below:

Brand	Nokia				Motorolla		Sony Ericsson				Dopod	
Type	N90	N80	N93	N95	E107	V3X	K608i	W900i	K610i	Z800i	595	CHT 9100

10. SPECIFICATION

Image	Image Compression	MPEG-4/MJPEG
	Resolution	Up to 30 fps at 640x480(VGA)
	Video Bitrate (Compression Type)	Support both CBR & VBR Adjustable quality frame rate and bit-rate Time Stamp and text caption Flip& Mirror
Audio	Two-Way Audio	Build in standard 3.5mm MIC and Speaker (Audio-In/Out) connector
	Microphone	Omni-directional Frequency 50-16000Hz S/N ratio more than 60dB
	Audio Compression	ADPCM / GSM-AMR(for 3GPP)
Network	Mobile Support	3GPP
	Protocol Support	UPnP, TCP/IP, RTSP/RTP/HTTP, SMTP, FTP, NTP, DNS, DDNS, PPPoE, DHCP
	Security	Username/ Password
	Network Interface	RJ-45, 10/100base-T
	Wireless Support	802.11b/g wireless Lan (option)
Camera	CCTV Senser	1/4" color CMOS sensor AGC,AWB,AES
	Effective Pixels(HxV)	307,200 pixel (VGA)
	Min. Illuminatiion	1.0 lux/F2.0
	Lens	3.6mm, F2.0
	Pan & Tilt Support	Pan: range 350°(+175°~ -175°) Tilt: Range 125°(+90°~ -35°) Auto Pan mode Auto Patrol
	Electronic Shutter	1/60 to 1/15,000 sec
	Digital Zoom	4x digital zoom
	IR-LED	IR-LED x7(option) + Photo Sensor x 1
Operating Environment	Operating Temperature	+5℃ to +45℃

	Operating Humidity	85% RH
	Input Voltage	12V DC /1A
Motion Detection	3 detection window sensitivity adjustable Recording Size/Snapshot No. adjustable after Triggered Pre Alarm , Post Alarm	
Storage	SD CARD	
Viewing system requirement	Support Windows XP, Vista32 Browser: Intenet Explorer 6.0 or above Cellphone: 2.5G/3GPP player	
Bundled software	Free 16Ch recording/viewing software Free IP Searcher software Support SDK for SI integration	

⚠ NOTE：Design and Specifications are subject to change without notice.

11. APPENDIX

Example 1：If you don't understand DDNS application, you may refer to the mentioned example (DynDNS). Please go to http://www.dyndns.com/ and sign up a free account：

1. Enter DynDNS website. On the top right hand corner click "Create Account" to start creating an account. Please remember your account and password, because this account will be your future login account.
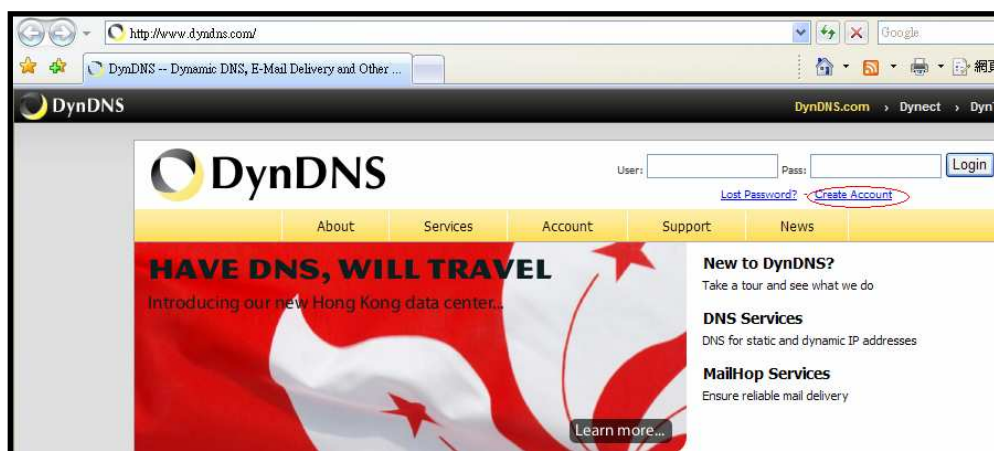
2. Click "Create Account", then DynDNS will ask you to create a DynDNS account. Please follow the instructions below to create your DyNDNS Account:
   a. Username: Enter your account name. If the account name that you've entered has already been created, please select another account name.
   b. E-mail Address: Enter your E-mail address and Dyndns will email the instruction to your specified E-mail address for enabling your account. Enter again in the Confirm E-mail Address field to confirm E-mail address.
   c. Password: Enter your DynDNS password and enter again in the Confirm Password field to confirm the password.

3. Please read Acceptable Use Policy (AUP) and accept it prior to creating your account. Check "I agree to the AUP" and "I will only create one (1) free account", and make sure the information is correct, then click [Create Account].

4. Then, you will see the screen "Account Created", and Dyndns will email the instructions to your specified E-mail address for enabling your account.
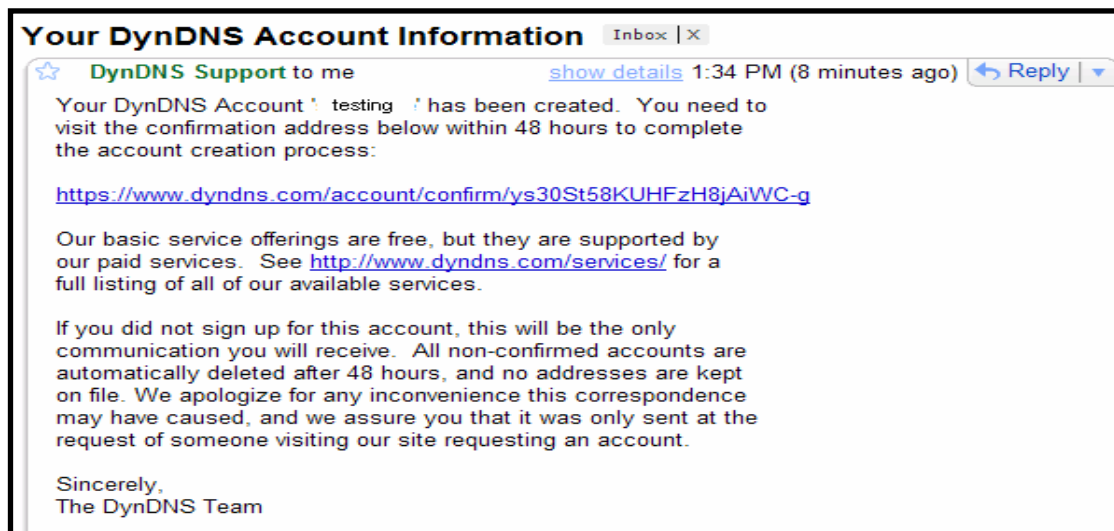
5. Press the link in the mail and you will see "Account Confirmed". Your account is created successfully now and then login with your account
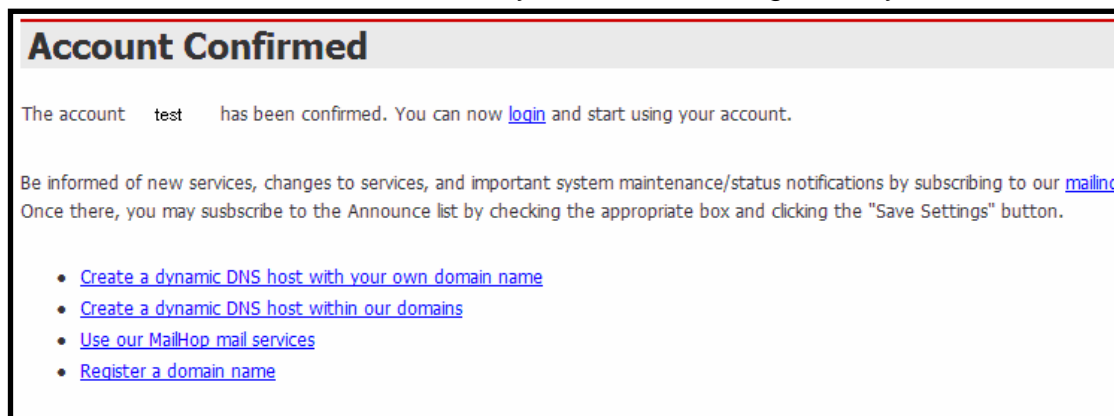
6. Please return to DynDNS website. On the top right hand corner enter the "User" and "Pass" field that you just created. Then click [Login] to enter.
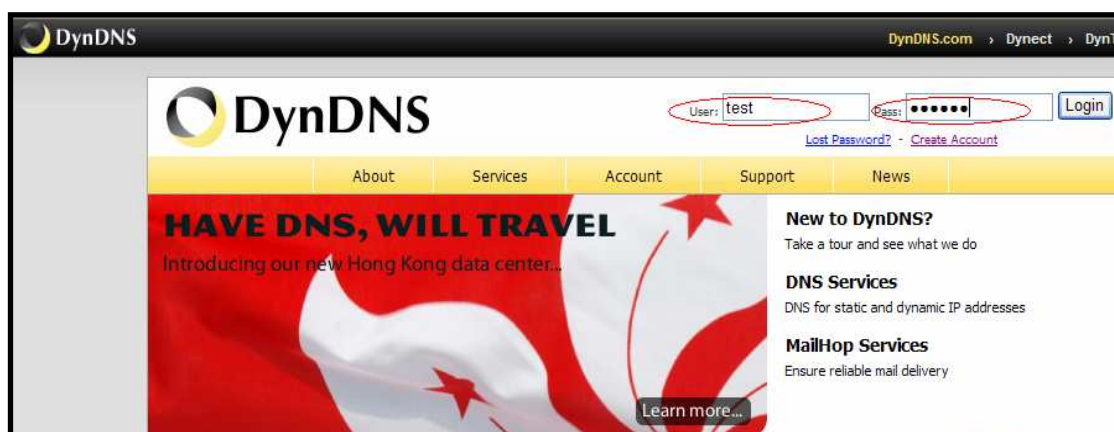
7. After login successfully, click "My Service".

8. Please click "Dynamic DNS' icon.

9. Then click "Get Started" to setup new dynamic domain name.

10. Enter and choose the desired host name (ex: IPCAM) and its IP Address (The IP Address may be the same as your IPCAM IP Address). Click "Create Host" after setup has been completed. Fixed IP users can fill-in Fixed IP and Dynamic IP users can click "Use Auto Detected IP Address" and acquire auto detected IP Address.

11. Below shows that you have created the host name. You will be connected to the corresponding IP address whenever you enter this

host name.

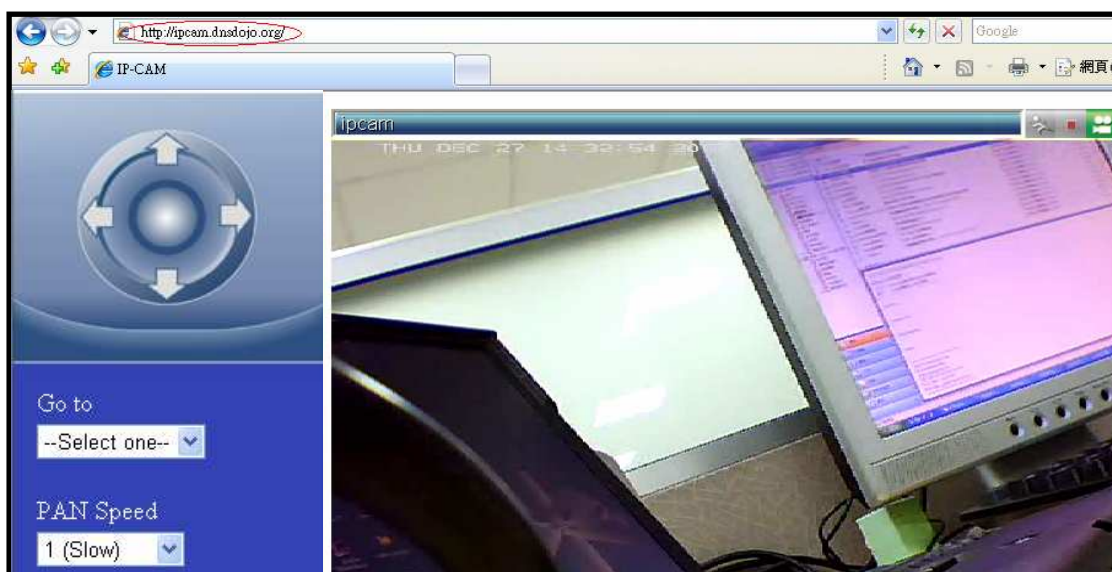12. When you have completed the above setup, you are no longer restricted by PPPoE application with your existing DDNS equipment (IP Camera).

13. When you have completed the above setup, connect the IP Camera from the network site by entering the host name.

When you have setup the IP Camera in the LAN, to connect the router and the hub of the LAN through Intranet you have to setup the NAT Table in the router or bandwidth router so that the device IP Address matches with the Internet IP Address.

Device IP Address:
192.168.100.100

NAT Table
80
554
9060
9061

Router

Internet IP Address:
xxx.xxx.xxx.xxx

NAT Table
80
554
9060
9061