



# User's Manual

Full HD Outdoor IR  
PoE IP Camera

▶ ICA-3250V



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**Federal Communication Commission Interference Statement**

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

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

**FCC Caution**

To assure continued compliance. (Example-use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

**Federal Communication Commission (FCC) Radiation Exposure Statement**

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

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**Safety**

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

**CE Mark Warning**

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

**WEEE Regulation**

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

**Revision**

User's Manual for PLANET Full HD Outdoor IR PoE IP Camera

Model: ICA-3250V

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## Table of Content

<b>1.Introduction</b> .....	<b>6</b>
<b>1.1 Features</b> .....	<b>6</b>
<b>1.2 Product Specification</b> .....	<b>8</b>
<b>1.3 Package Contents</b> .....	<b>9</b>
<b>2.Basic Setup</b> .....	<b>10</b>
<b>2.1 System Requirements</b> .....	<b>10</b>
<b>2.2 Physical Description</b> .....	<b>11</b>
<b>2.2.1 Identification of ICA-3250V cable</b> .....	<b>11</b>
<b>2.2.2 ICA-3250V I/O Control Instruction</b> .....	<b>12</b>
<b>2.3 Hardware Installation</b> .....	<b>15</b>
<b>2.3.1 Physical Installation</b> .....	<b>15</b>
<b>2.4 Initial Utility Installation</b> .....	<b>17</b>
<b>2.4.1 Search and Configure Network by PLANET IP Installer</b> .....	<b>17</b>
<b>2.5 Setup ActiveX to use the Internet Camera</b> .....	<b>21</b>
<b>2.5.1 Internet Explorer 6 for Windows XP</b> .....	<b>21</b>
<b>2.5.2 Internet Explorer 7 for Windows XP</b> .....	<b>22</b>
<b>2.5.3 Internet Explorer 7 for Windows Vista</b> .....	<b>23</b>
<b>3. Web-based Management</b> .....	<b>24</b>
<b>3.1 Introduction</b> .....	<b>24</b>
<b>3.2 Connecting to Internet Camera</b> .....	<b>24</b>
<b>4.Live View</b> .....	<b>26</b>
<b>5.Configuration</b> .....	<b>28</b>
<b>5.1 System</b> .....	<b>29</b>
<b>5.1.1 System Information</b> .....	<b>29</b>
<b>5.1.2 User Management</b> .....	<b>31</b>
<b>5.1.3 System Update</b> .....	<b>32</b>
<b>5.2 Network</b> .....	<b>33</b>
<b>5.2.1 IP Setting</b> .....	<b>33</b>
<b>5.2.2 Advanced</b> .....	<b>36</b>
<b>5.2.3 Using UPnP of Windows XP or Vista</b> .....	<b>42</b>
<b>5.2.3.1 Windows XP</b> .....	<b>42</b>
<b>5.2.3.2 Windows Vista</b> .....	<b>47</b>
<b>5.2.4 PPPoE</b> .....	<b>50</b>
<b>5.2.5 DDNS</b> .....	<b>50</b>
<b>5.2.6 Mail &amp; FTP &amp; SAMBA</b> .....	<b>53</b>
<b>5.3 A/V Setting</b> .....	<b>55</b>
<b>5.3.1 Image Setting</b> .....	<b>55</b>
<b>5.3.2 Video Setting</b> .....	<b>56</b>
<b>5.3.3 Audio</b> .....	<b>60</b>
<b>5.4 Event List</b> .....	<b>61</b>
<b>5.4.1 Event Setting</b> .....	<b>61</b>
<b>5.4.2 Schedule</b> .....	<b>62</b>
<b>5.4.3 I/O Setting</b> .....	<b>63</b>
<b>5.4.4 Log List</b> .....	<b>65</b>

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<b>5.4.5 SD card .....</b>	<b>66</b>
<b>5.4.5.1 Playback .....</b>	<b>66</b>
<b>5.4.5.2 SD Management.....</b>	<b>66</b>
<b>5.4.5.3 Copy to PC .....</b>	<b>66</b>
<b>Appendix A: Factory Default.....</b>	<b>69</b>
<b>Appendix B: PING IP Address .....</b>	<b>70</b>
<b>Appendix C: 3GPP Access.....</b>	<b>71</b>
<b>Appendix D: Planet DDNS Application .....</b>	<b>72</b>
<b>Appendix E: Configure Port Forwarding Manually .....</b>	<b>73</b>
<b>Appendix F: Troubleshooting &amp; Frequently Asked Questions .....</b>	<b>76</b>
<b>Appendix G: Micro SD Card Compatibility .....</b>	<b>80</b>

# 1.Introduction

## **Superb Full HD Quality for Professional Surveillance**

The ICA-3250V, 25 meters IR / Vari-Focal Outdoor PoE IP Camera, supports the highest video compression – H.264, which provides small video size and save you lots of bandwidth usage. The new video compression is the best solution for Internet video transmission.

## **Dual Streaming / Multi Profiles**

The Multi-Profile function enables the ICA-3250V to generate H.264 / MPEG-4 / M-JPEG streaming simultaneously to differentiate users in different resolutions. This state-of-the-art design is considerable to fit in various network environments. The ICA-3250V provides 2-Way audio function for surveillance. It can remotely talk to anyone at the ICA-3250V site with additional speaker connected to the camera.

## **PoE Support Enables Installation Anywhere and IP-66 protection for outdoor application**

Compliant with IEEE 802.3af PoE interface, the ICA-3250V can be located in places where there are no power outlets. Through Power over Ethernet function and with UPS installed in the network center, the administrators are fearless of any power breakdown.

## **Vari-Focal IR Lens**

With water-proof & Vari-Focal IR lens, the ICA-3250V meet various demand of installations, for instance, traffic monitoring on two more lanes or focus on one specified lane. The IR function makes the monitoring 24/7 both in day and night.

## **Day & Night Operations**

The ICA-3250V features zero-lux illumination. Its 35 IR illuminators built around the lens bring the clearest vision at night. Via the new LED technology, the illuminator ensures high-quality monochrome images in complete darkness up to 25 meters. With the aluminum rugged all-weather waterproof housing, the ICA-3250V performs reliable operation in any environment. It can work with the PLANET Cam Viewer 3 Lite/Pro Management software and Network Video Recorder products for various field demands in surveillance network.

## 1.1 Features

### ➤ **Camera**

- 2 Mega-Pixel COMS Sensor with Vari-Focal Lens in 25 meters IR distance
- IP-66 protection for outdoor application
- Maximum resolution 1920 x 1080 (30fps)

### ➤ **Video / Audio**

- 2-Way audio supported with external speaker and microphone
- Cut filter brings better video quality in the daytime and nighttime
- Supports H.264, MPEG-4 and M-JPEG video compression

### ➤ **Network and Configuration**

- Compliant with IEEE 802.3af PoE interface
- DDNS, PPPoE and FTP upload supports more alternatives in surveillance network
- Motion Detection feature can monitor any suspicious movement in specific area

- Supports IPv6 protocol in addition to the standard IP protocol version 4 (IPv4)
  
- **Easy Installation & Management**
- Easy configuration and management via Windows-based utility or web interface
- Support 3GPP and JAVA for iPhone and Windows mobile for remote view
- Supports ONVIF v1.02 / v1.01 Standard
- Easy setup through cable management

## 1.2 Product Specification

<b>Model</b>	ICA-3250V
<b>Camera</b>	
<b>Image Device</b>	1/2.7" 2Mega-Pixel CMOS Sensor
<b>Effective Pixels</b>	1920 x 1080@30fps
<b>Sensitivity</b>	0.05lux
<b>Lens</b>	3.6 ~ 16mm Vari-focal lens with auto iris and IR cut filter/ F1.2
<b>Illuminator</b>	0 Lux IR on
<b>View Angle</b>	H: 23.6~97.9 Degree / V: 14.2~51.6 Degree
<b>Video</b>	
<b>Video Encoder</b>	H.264, MPEG4 and Motion JPEG simultaneously (Tri-encoders)
<b>Video Profile</b>	13 profiles simultaneously - H.264 1080p / 720p / VGA / QVGA / QCIF - JPEG 1080p / 720p / VGA / QVGA / QCIF - MPEG4 VGA / QVGA / QCIF (Only for 3GPP)
<b>Frame Rate</b>	HD-1080p / 720p / VGA / QVGA / QCIF Up to 30fps
<b>Image Setting</b>	Brightness, sharpness, contrast, AGC, Night Mode Text, time and date overlay
<b>Streaming</b>	Simultaneously multi-profile streaming M-JPEG streaming over HTTP Supports 3GPP mobile surveillance Controllable frame rate and bandwidth Constant and variable bit rate (MPEG4 / H.264)
<b>Audio</b>	
<b>Audio Encoder</b>	RTSP:G.711 / G.726 3GPP:AMR
<b>Audio Streaming</b>	One-way or Two-way
<b>Microphone</b>	External microphone input
<b>Audio Output</b>	Phone Jack
<b>Network and Configuration</b>	
<b>Network Standard</b>	IEEE 802.3 / IEEE 802.3u
<b>Supported Protocols</b>	IPv4, IPv6, TCP, UDP, HTTP, SMTP, FTP, NTP, DNS, DDNS, DHCP, UPnP, RTSP, RTP, RTCP, PPPoE, 3GPP, ICMP
<b>Security</b>	Password protection, user access log
<b>Users</b>	10 simultaneous unicast users
<b>Ethernet</b>	10/100M auto negotiation
<b>System Integration</b>	
<b>Application Programming Interface</b>	Open API for software integration SDK
<b>Alarm Triggers</b>	Intelligent video motion detection and external input
<b>Motion Detection</b>	3-zone video motion detection

<b>Alarm Events</b>	File upload via FTP, email and SAMBA. External output activation
<b>Video Buffer</b>	Pre- 5sec and post- 10 sec alarm buffering
<b>General</b>	
<b>Power Supply</b>	12V DC external power adapter
<b>PoE</b>	IEEE 802.3af
<b>PoE Consumption</b>	Max 7.68 W while IR LED ON Max 4.8 W while IR LED OFF
<b>Illumination LED</b>	IR LEDS
<b>IR LED</b>	Infrared LED ×35pcs
<b>IR Wavelength</b>	850nm
<b>IR Distance</b>	25M
<b>Power Consumption</b>	IR on: 5.76W IR off: 3.84W
<b>Protection Class</b>	IP-66 classification
<b>Operating Temperature</b>	-20 ~ 50 degree C
<b>Viewing System</b>	
<b>OS</b>	Windows® XP, Vista 32bit, Win7 32bit, Server 2003
<b>Browser</b>	IE 8.0 or latter
<b>Cell Phone</b>	With 3GPP player
<b>Video Player</b>	VLC, Quick Time, Real Player
<b>Software</b>	
<b>Monitor/ Recording / Management</b>	PLANET CV3P (2-ch Cam Viewer Three Pro Trail Version) PLANET CV3L (64-ch Cam Viewer Three Lite Bundle Version)
<b>Search &amp; Installation</b>	PLANET IP Installer

## 1.3 Package Contents

The package should contain the followings:

ICA-3250V x 1

Power Adapter x 1

Screw package x 1

Female to Female RJ-45 connector x 1

User's Manual CD x 1

Quick Installation Guide x 1

- NOTE:**
1. If any of the above items are missing, please contact your dealer immediately.
  2. Using the power supply that is not the one included in Internet camera packet will cause damage and void the warranty for this product.

## 2.Basic Setup

This chapter provides details of installing and configuring the Internet camera

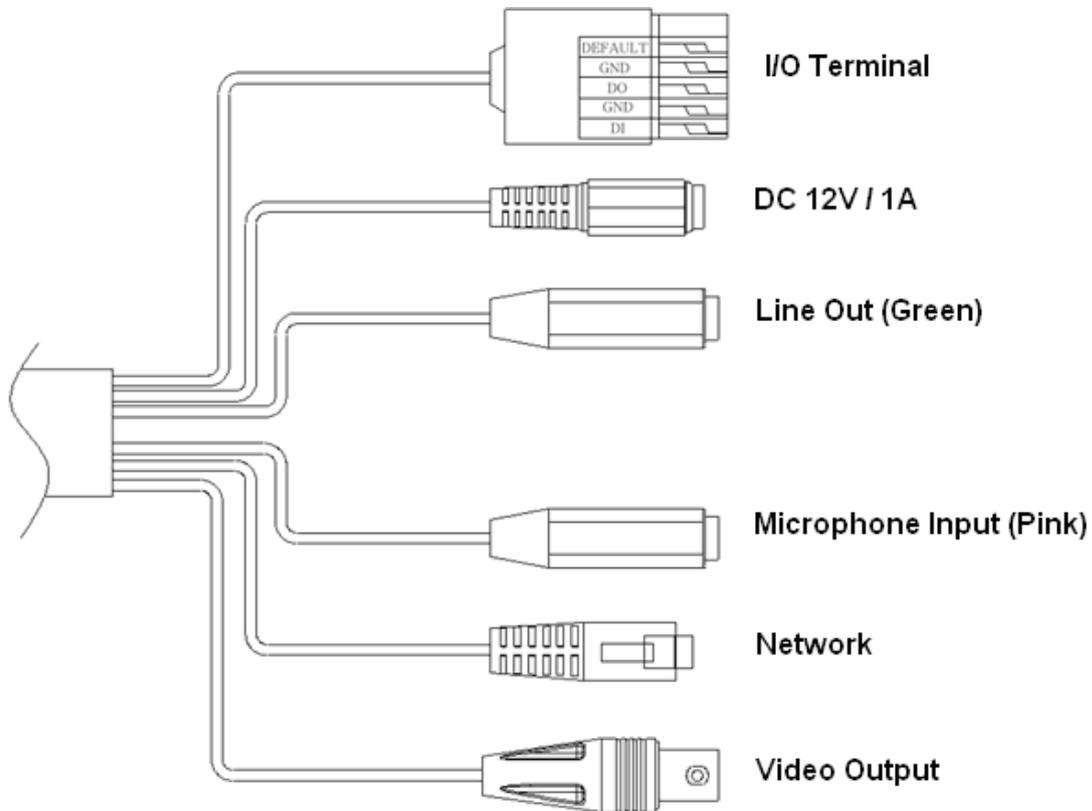
### 2.1 System Requirements

Network Interface	10/100Base-TX Ethernet
Monitoring System	Recommended for Internet Explorer 8.0 or later
System Hardware (Suggested)	<ul style="list-style-type: none"><li>· CPU: Intel Core i3-530</li><li>· Memory Size : 2048 MB (1024 MB or above Recommended )</li><li>· VGA card resolution : 1920 x 1200</li><li>· VGA card memory : 512 MB or above</li></ul>
System Hardware (Minimum)	<ul style="list-style-type: none"><li>· CPU: Intel C-2.8G</li><li>· Memory Size : 512 MB</li><li>· VGA card resolution : 1280 x 1024</li><li>· VGA card memory : 64 MB</li></ul>

**NOTE:** The listed information is minimum system requirements only. Actual requirement will vary depending on the nature of your environment.

## 2.2 Physical Description

### 2.2.1 Identification of ICA-3250V cable



**1. RJ-45 LAN socket:** Connect to PC or Hub/Switch.

For connect to 10Base-T Ethernet or 100Base-TX Fast Ethernet cabling. This Ethernet port built N-Way protocol can detect or negotiate the transmission speed of the network automatically. Please use CAT-5 cable to connect the Network Camera to a 100Mbps Fast Ethernet network switch or hub.

**2. Power Jack:** The input power is DC 12V.

**NOTE:** ONLY use package power adapter supplied with the Internet. Otherwise, the product may be damaged.

**3. I/O Control Instruction**

I/O terminal connector – used in application, for e.g., motion detection, event triggering, alarm notifications

**4. Video Output**

The internet camera also provides composite video output. User can use BNC video cable to connect the internet camera with a TV monitor or VCR.

**5. MIC in (audio in)**

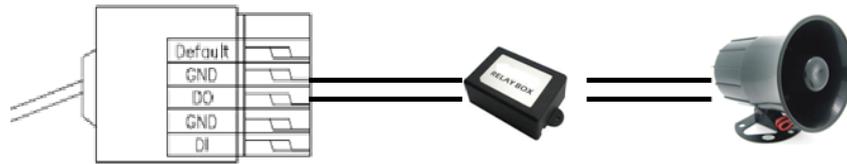
Connect a microphone to the network camera.

**6. Line out (audio out)**

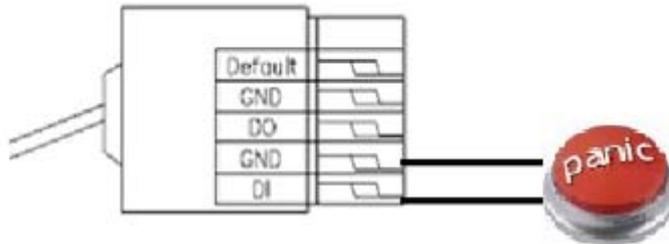
Connect a loud speaker to the network camera. This is for voice alerting and two-way audio.

## 2.2.2 ICA-3250V I/O Control Instruction

1) Please connect the GND & DO pin to the external relay (buzzer) device.



2) Please connect the GND & DI pin to the external trigger device.



3) I/O PIN definition

- GND (Ground): Initial state is LOW
- DO (Digital Output): DC 5V
- DI (Digital Input): Max. 50mA, DC 5V

4) I/O Setup

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

**I/O Setting**

**Input Setting**

Input 1 Sensor:

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

Subject:

Interval:

Based on the schedule

**Output Setting**

Mode Setting:  OnOff Switch  Time Switch

Interval:

### 5) Output Test

After the external input and output hardware is installed, you can use the "Relay Out" button on the live video page to test if DO / Relay Out works.

- **On/Off Switch mode:**

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



- **Time Switch mode:**

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



**Note: Relay out function need extra purchase relay box. Relay out box need connected to I/O terminal connector will provide relay out function with ICA-3250V.**

## 2.3 Hardware Installation

### 2.3.1 Physical Installation

#### 1. Connect an Ethernet cable

Connect the LAN cable on the camera to the network device (hub or switch).

**NOTE:** If there has an IEEE802.3af PoE switch in your network, you can connect the camera LAN cable to this PoE switch to obtain power. The power adapter is unnecessary when Internet camera is connected to a PoE switch.

#### 2. Attach the power supply

Plug in power adapter and connect to power source. After power on, the camera will start to operate.

**NOTE:**

1. Only use the power adapter supplied with Internet camera. Otherwise, the product may be damaged.
2. The power adapter is unnecessary when Internet camera is connected to a PoE switch. Otherwise, the product may be damaged when Internet camera is connected to a PoE switch and power adapter simultaneously.

#### 3. Attach BNC connector

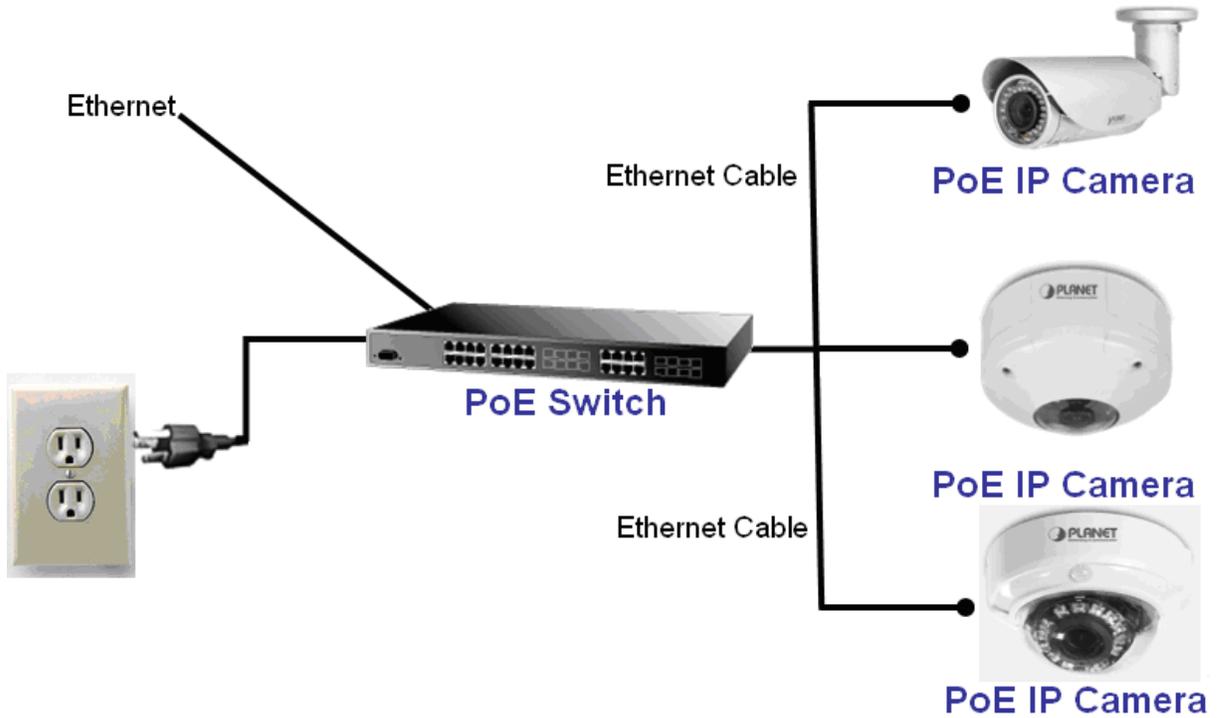
Connect the video BNC connector to a monitor set if necessary check camera viewing angle and focus.

#### 4. Attach Speaker to camera (option)

If user needs not only video stream but also audio stream, then the speaker should be attached to camera.

### 5. PoE (Power over Ethernet)

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



## 2.4 Initial Utility Installation

This chapter shows how to quick set up your H.264 camera. The camera is with the default settings. However to help you find the networked camera quickly the windows utility PLANET IP Installer can search the cameras in the network that shall help you to configure some basic setting before you started advanced management and monitoring.

1. Insert the bundled CD into the CD-ROM drive to launch the auto-run program. Once completed, a welcome menu screen will appear.
2. Click the "PLANET IPInstaller II" hyperlink; you will see the dialog box as below.

**NOTE:** If the welcome screen does not appear, click "Start" at the taskbar. Then, select "Run" and type "D:\Utility\PLANETIPinstaller\PLANETIPinstaller.exe", assume D drive is your CD-ROM drive.

When you installed the camera on a LAN environment, you may execute PLANET IP Installer to discover camera's IP address and set up related parameters in the camera.

### 2.4.1 Search and Configure Network by PLANET IP Installer

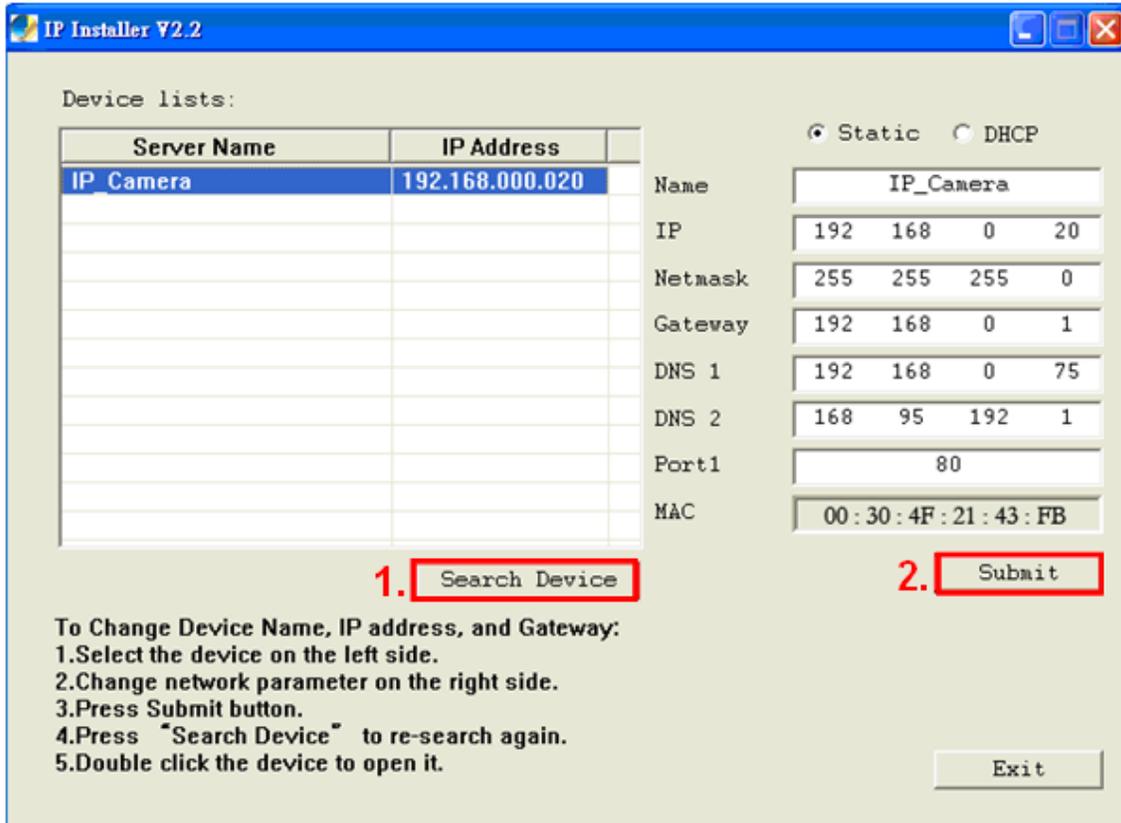
When you installed the Camera on a LAN environment, you have two easy ways to search your Cameras by PLANET IP Installer or UPnP discovery. Here is the way to execute PLANET IP Installer to discover Camera's IP address and set up related parameter in a Camera.

#### Search and Configure Network

1. OS: Windows XP SP2 or above. If the following "Windows Security Alert" popup, please click "Unblock".



3. The GUI of IP Installer is as follows (Default IP: 192.168.0.20).

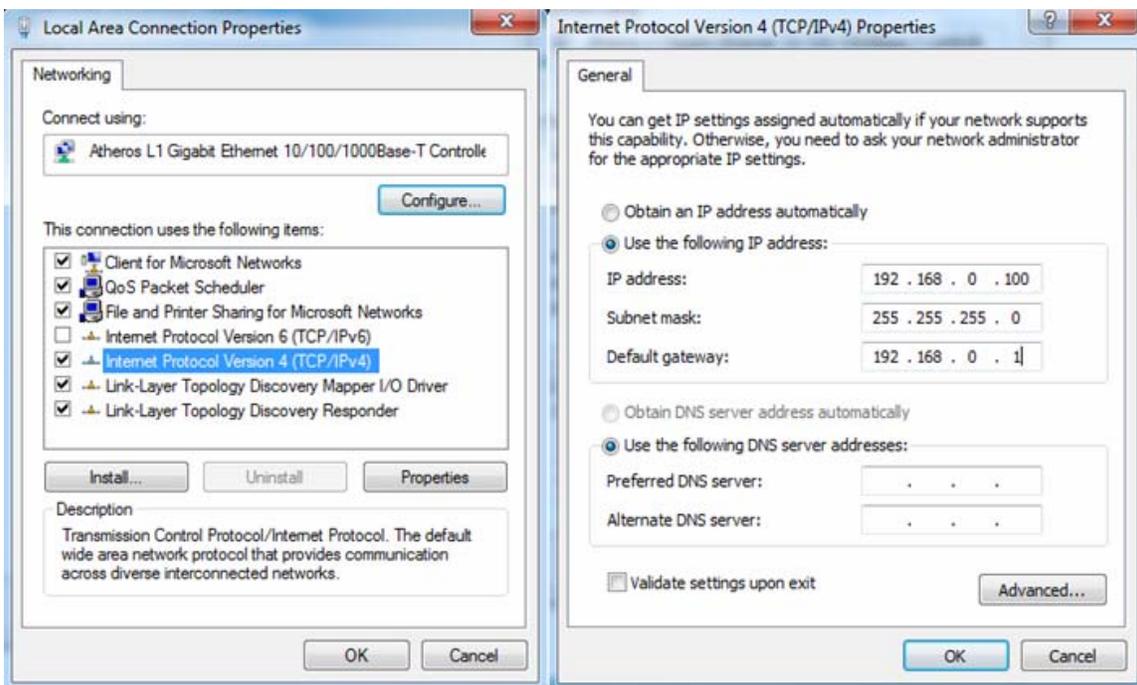


(1) IP Installer will search all IP Cameras connected on LAN. The user can click “**Search Device**” to search again.

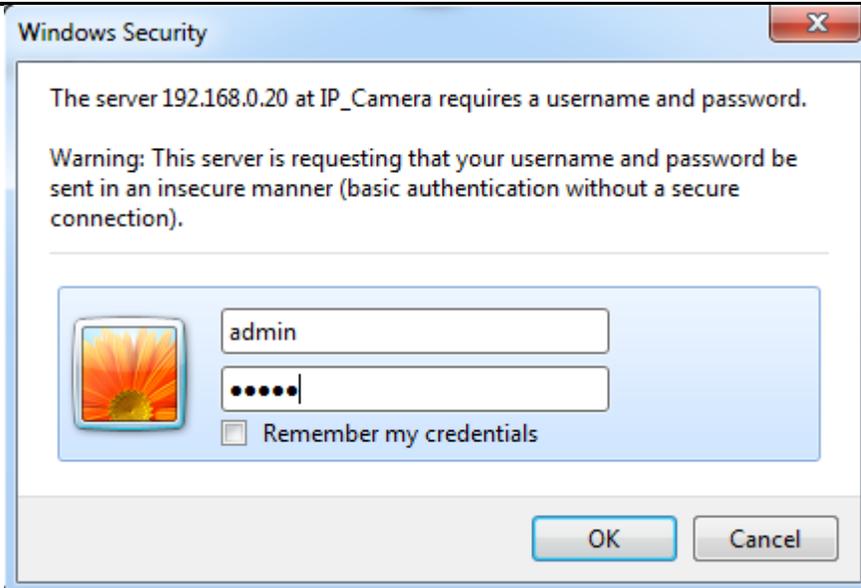
(2) Click one of IP Cameras listed on the left side of IP Installer, then the network configuration of that IP Camera will be listed on the right side. If parameters changed, click on “**Submit**”. Then, the network configuration will be changed. Just click “**OK**” to reboot.



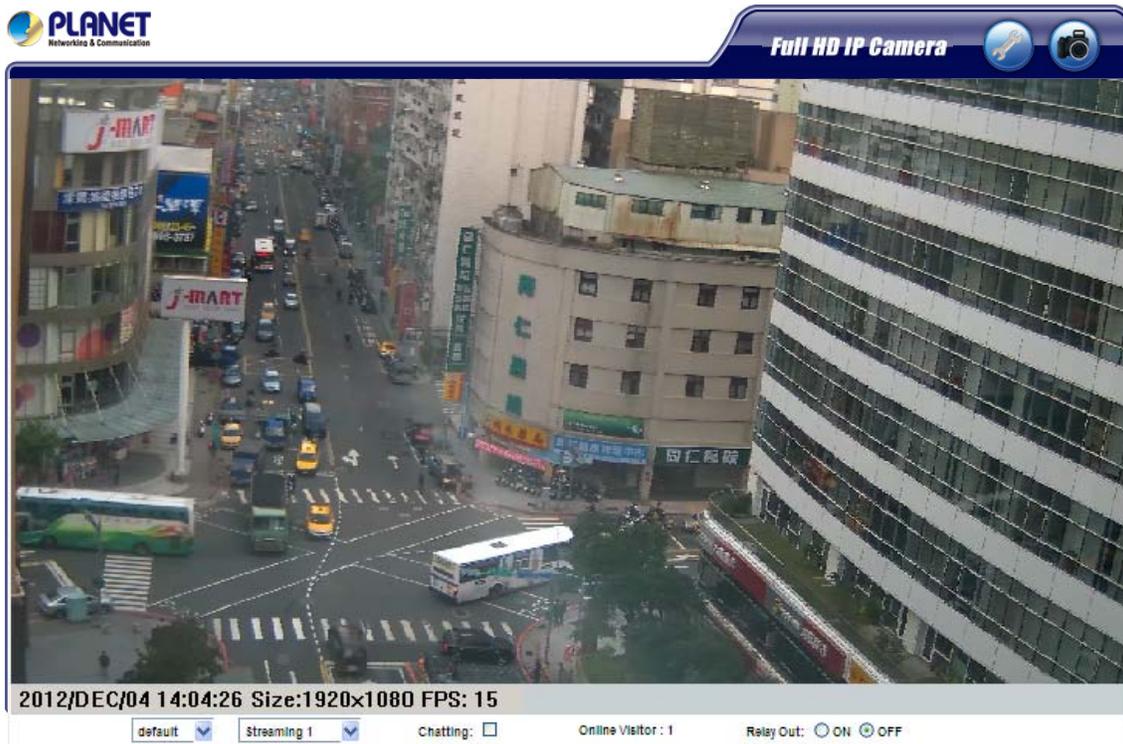
- (3) Please make sure the subnet of PC IP address and IP CAM IP address are the same.  
IP CAM IP address: 192.168.0.20  
PC IP address: 192.168.0.100
- (4) Different Subnets:  
IP CAM IP address: 192.168.0.20  
PC IP address: 192.168.1.100
- (5) To Change PC IP addresses:  
Control Panel→Network Connections→Local Area Connection Properties→Internet Protocol (TCP/IP) →Properties  
Please make sure your IP Camera and PC have the same Subnet. If not, please change IP Camera IP subnet or PC IP subnet accordingly.



- (6) A quick way to access remote monitoring is to left-click the mouse twice on a selected IP Camera listed on "Device list" of PLANET IP Installer. An IE browser will be opened.
- (7) Then, please key in the default "**Username: admin**" and "**Password: admin**" in the following message box.



(8) If the user name and password are input correctly, the following web page will be displayed.



## 2.5 Setup ActiveX to use the Internet Camera

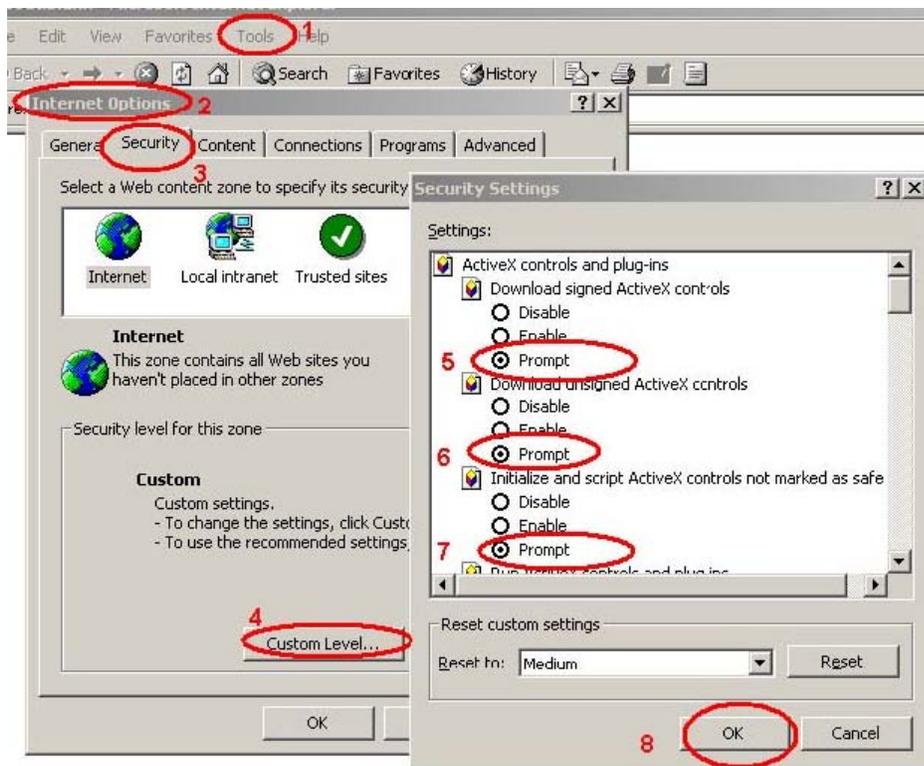
The Internet camera web pages communicate with the Internet camera using an ActiveX control. The ActiveX control must be downloaded from the Internet camera and installed on your PC. Your Internet Explorer security settings must allow for the web page to work correctly. To use the Internet camera, user must setup his IE browser as follows:

### 2.5.1 Internet Explorer 6 for Windows XP

From your IE browse → "Tools" → "Internet Options..." → "Security" → "Custom Level...", please setup your "Settings" as follow.

Set the first 3 items

- Download the signed ActiveX controls
- Download the unsigned ActiveX controls
- Initialize and script the ActiveX controls not masked as safe to Prompt



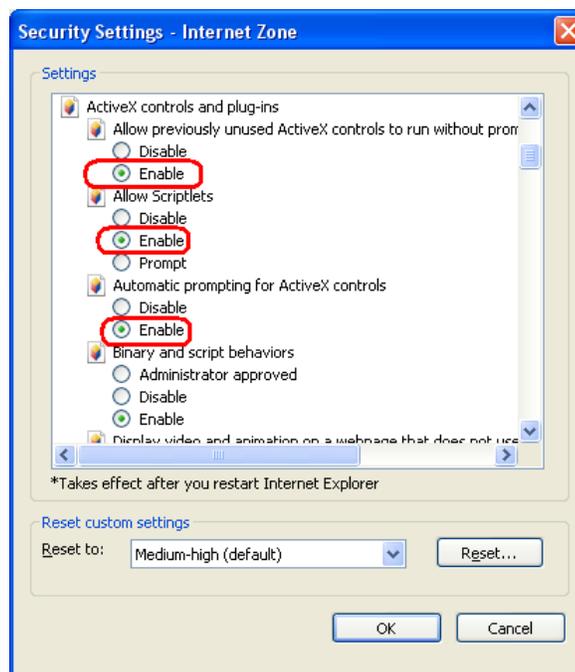
By now, you have finished your entire PC configuration for Internet camera.

## 2.5.2 Internet Explorer 7 for Windows XP

From your IE browse → "Tools" → "Internet Options..." → "Security" → "Custom Level...", please setup your "Settings" as follow.

Set the first 3 items

- *Allow previously unused ActiveX control to run...*
- *Allows Script lets*
- *Automatic prompting for ActiveX controls*

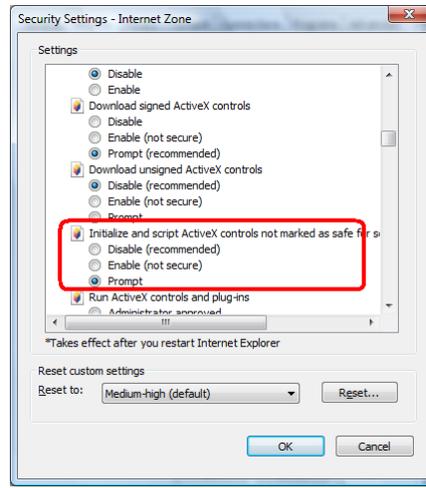
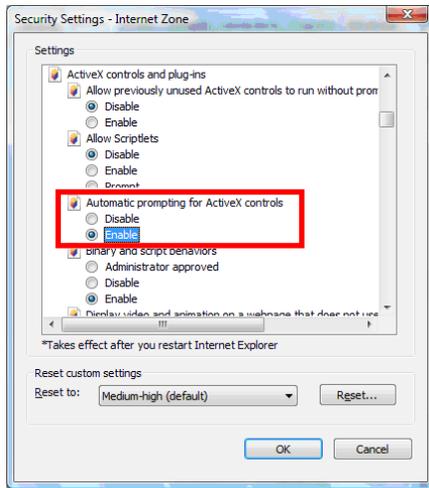


By now, you have finished your entire PC configuration for Internet camera.

### 2.5.3 Internet Explorer 7 for Windows Vista

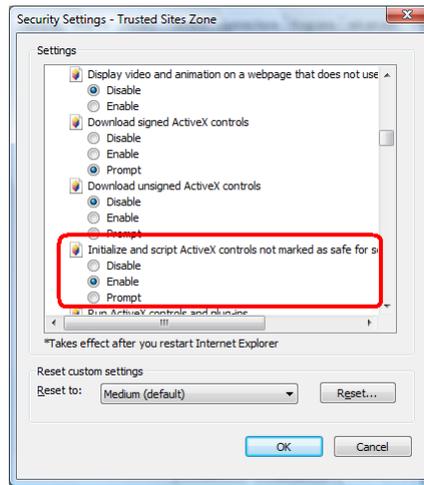
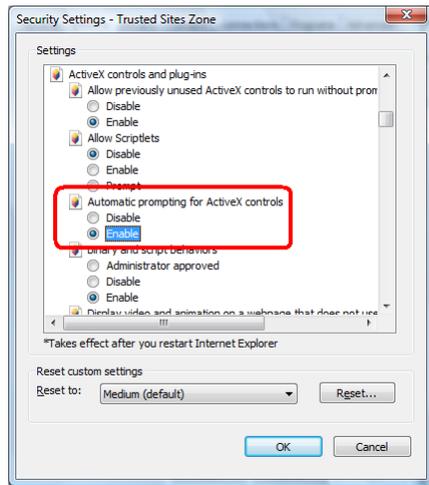
From your IE browse → "Tools" → "Internet Options..." → "Security" → "Internet" → "Custom Level...", please setup your "Settings" as follow.

- Enable "Automatic prompting for ActiveX controls"
- Prompt "Initialize and script active controls not marked..."



From your IE browse → "Tools" → "Internet Options..." → "Security" → "Trusted Sites" → "Custom Level...", please setup your "Settings" as follow.

- Enable "Automatic prompting for ActiveX controls"
- Prompt "Initialize and script active controls not marked..."



By now, you have finished your entire PC configuration for Internet camera.

## 3. Web-based Management

This chapter provides setup details of the Internet camera's Web-based Interface.

### 3.1 Introduction

The Internet camera can be configured with your Web Browser. Before configure, please make sure your PC is under the same IP segment with Internet camera.

### 3.2 Connecting to Internet Camera

- Use the following procedure to establish a connection from your PC to the camera.
- Once connected, you can add the camera to your Browser's Favorites or Bookmarks.

Start the web browser on the computer and type the IP address of the camera. The Default IP: "<http://192.168.0.20>"

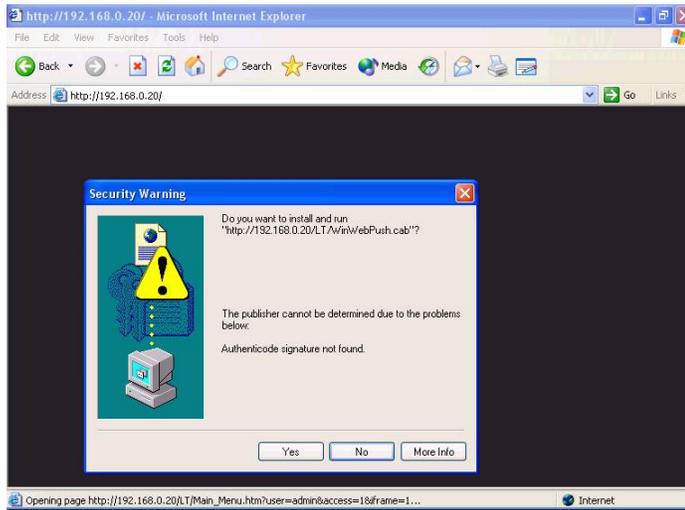


The login window of Internet camera will appear, Default login **username/password** is:  
**admin / admin**

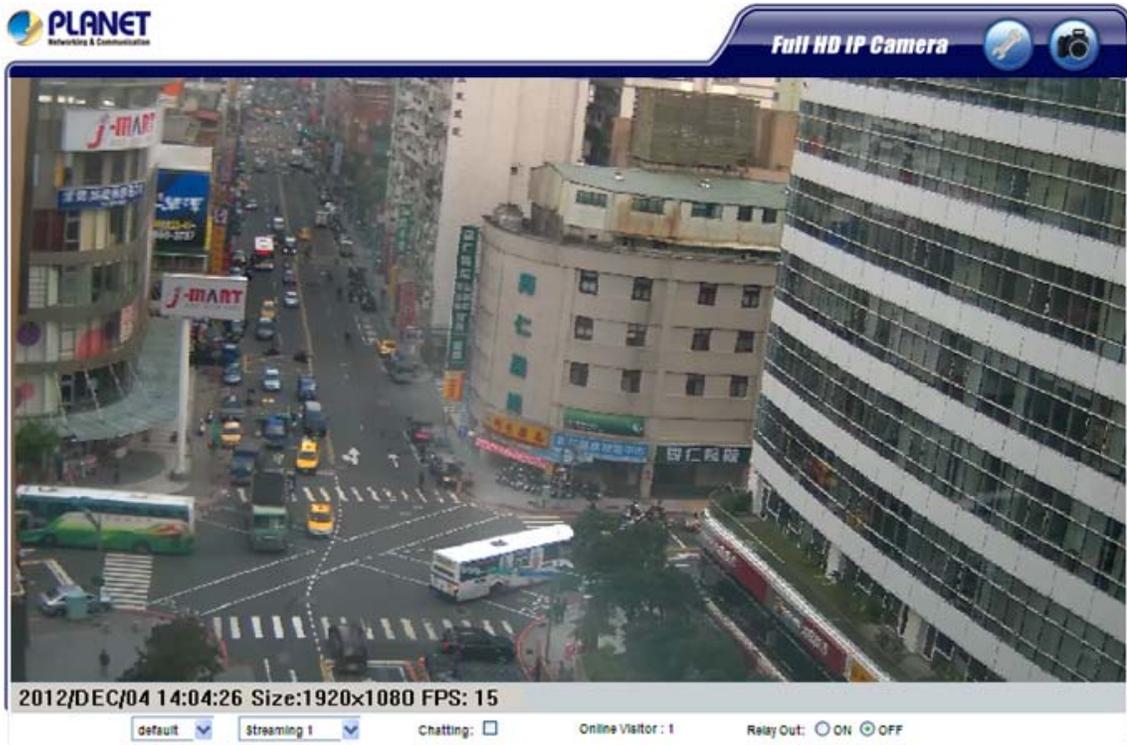


**NOTE:** If the User name and Password have been changed with PLANET IP Installer, please enter the new User name and Password here.

Web browser may display the “**Security Warning**” window, select “**Yes**” to install and run the ActiveX control into your PC.



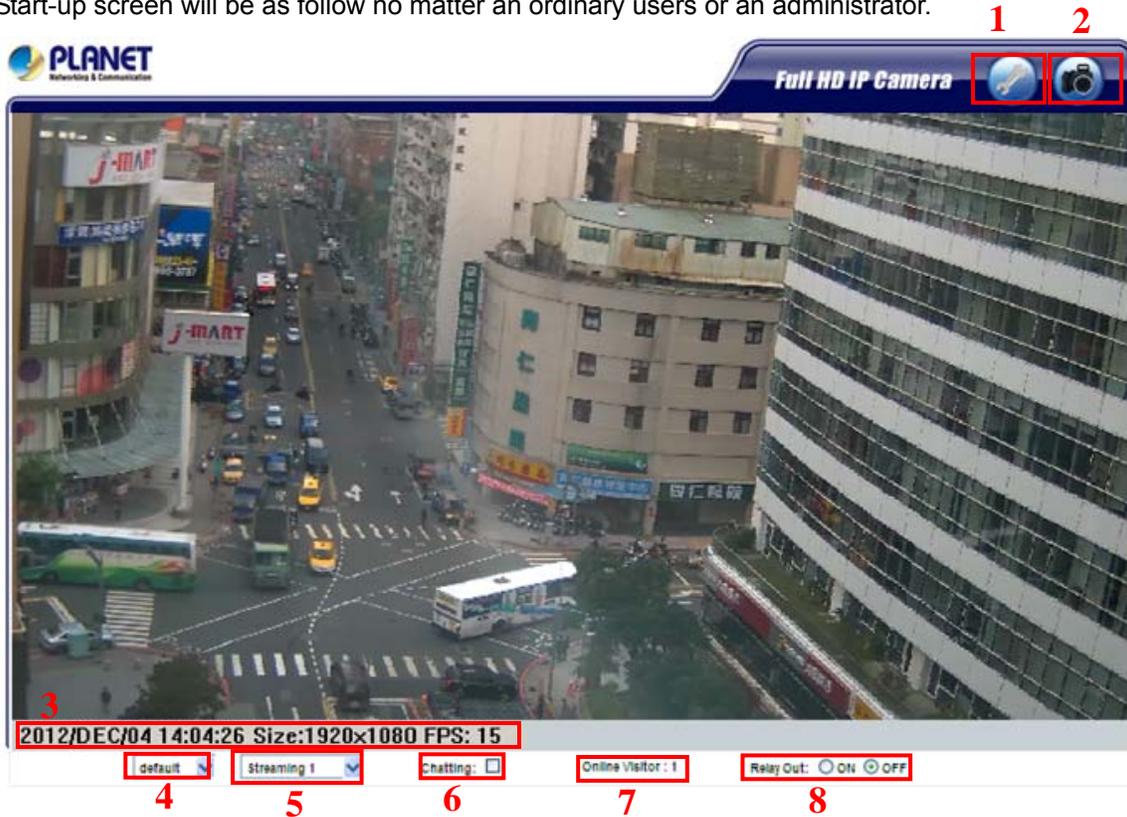
After the ActiveX control was installed and run, the first image will be displayed.



**NOTE:** If you log in the camera as an ordinary user, setting function will be not available. If you log in the camera as the administrator, you can perform all the settings provided within the device.

## 4.Live View

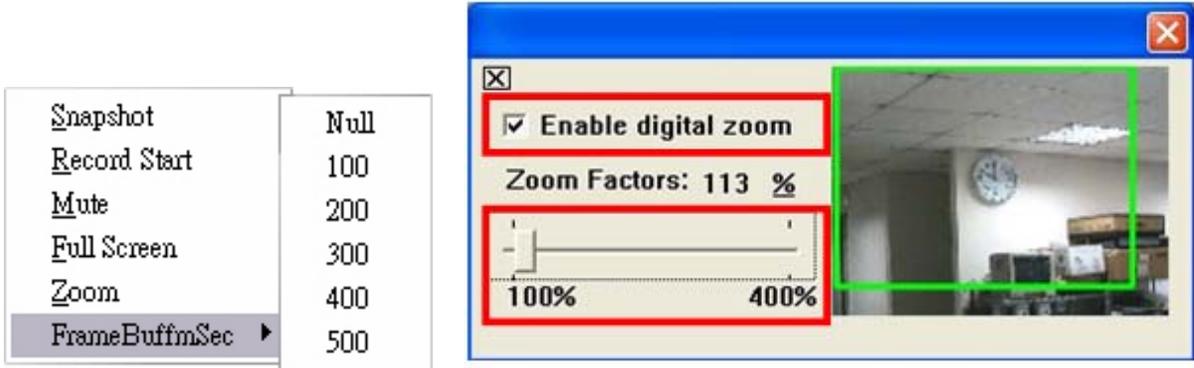
Start-up screen will be as follow no matter an ordinary users or an administrator.



(1)Configure	 Get into the administration page.
(2)Snapshot	 Video Snapshot
(3)Status Bar	Show system time, video resolution, and video refreshing rate.
(4)Screen Size	Select video screen “ <b>default, 1/2x, 1x, 2x</b> ” for view currently camera screen size.
(5)Streaming Select	Select video streaming source (When streaming 2 setting in 『Video Setting』 is closed, this function will not display)
(6)Chatting Function	IP Camera supports 2-way audio. Click the “ <b>Chatting</b> ” check box. Then you can use microphone which connects to the PC to talk to server side, which is IP Camera side
(7)Online Visitor	Shows how many people connect to this IP camera.

<b>(8)Relay Control</b>	Control the relay which is connected to this camera.
-------------------------	------------------------------------------------------

Double-click the video; it will change to full screen mode. Press “**Esc**” or double-click the video again, it will change back to normal mode. Right-Click the mouse on the video, it will show a pop-up menu.



<b>(1)Snapshot</b>	Save a JPEG picture.
<b>(2)Record Start</b>	Record the video in the local PC. It will ask you where to save the video. To stop recording, right-click the mouse again. Select “ <b>Record Stop</b> ”. The video format is AVI. Use Microsoft Media Player to play the recorded file.
<b>(3)Mute</b>	Turn of the audio. Click again to turn on it.
<b>(4)Full Screen</b>	Full-screen mode.
<b>(5)ZOOM</b>	Enable zoom-in and zoom-out functions. Select “ <b>Enable digital zoom</b> ” option first within the pop-up dialogue box and then drag and drop the bar to adjust the zoom factors.
<b>(6)FrameBufferSec</b>	Build a buffer to accumulate several video frames and play at a regular interval. This function can make video smooth-going when the Network speed is slow and lag. If you select “100”, the interval between every frame is fixed to 100 mSec. The slower the Network is, the bigger value should be selected. The default value is null.

## 5. Configuration



Click

to get into the administration page. Click



to go back to the live video page.

System Information

---

User Management

---

System

System Update

---

IP Setting

---

Advanced

---

PPPoE & DDNS

---

Server(Mail,FTP...)

---

Network

---

Image Setting

---

Video Setting

---

AV Setting

Audio

---

Event Setting

---

Schedule

---

I/O Setting

---

Log List

---

Event

SD Card

System Information

**Server Information**

MAC Address:

Server Name:   Status Bar

LED Indicator:  ON  OFF

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

**OSD Setting**

Time Stamp:  Enabled  Disabled

Text:  Enabled  Disabled  
 [Text Edit](#)

**Time Setting**

Server Time: 2012/12/7 11:11:51 Time Zone: GMT+08:00

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

Time Zone:

Enable Daylight Saving:

NTP :

NTP Server :

Update :  Hour

Time Shift :  Minutes [-1440..1440]

Synchronize with PC's time

Date :

Time :

Manual

Date :

Time :

The date and time remain the same

## 5.1 System

### 5.1.1 System Information

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

System Information	
Server Information	
MAC Address:	<input type="text" value="00:30:4F:21:43:FB"/>
Server Name:	<input type="text" value="ICA-3250V"/> <input type="checkbox"/> Status Bar
LED Indicator:	<input checked="" type="radio"/> ON <input type="radio"/> OFF
Language :	<input checked="" type="radio"/> English <input type="radio"/> 繁體中文 <input type="radio"/> 简体中文 <input type="radio"/> French <input type="radio"/> Russian <input type="radio"/> Italian <input type="radio"/> Spanish <input type="radio"/> German <input type="radio"/> Portuguese <input type="radio"/> Polish <input type="radio"/> Japanese

<b>Server Name</b>	This is the Camera name. This name will show on the IP Installer.
<b>Select language</b>	There are English, Traditional Chinese, Simplified Chinese, French, Russian, Italian, Spanish, German, Portuguese and Polish to select. When change, it will show the following dialogue box for the confirmation of changing language.



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

OSD Setting	
Time Stamp:	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
Text:	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
	<b>Test</b> <u>Text Edit</u>

Moreover, click Text Edit can entry to adjust the OSD contents which is including Size and Alpha of text. Finally, click

button to reserve the setting.

Text Edit



Text Edit

Text

Size

Alpha

3. Server time setting : Select options to set up time - "NTP", "Synchronize with PC's time", "Manual", "The date and time remain the same".

Time Setting

Server Time: 2012/12/4 11:44:03 Time Zone: GMT+08:00

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

Time Zone:

Enable Daylight Saving:

NTP :

NTP Server :

Update :  Hour

Time Shift :  Minutes [-1440..1440]

Synchronize with PC's time

Date :

Time :

Manual

Date :

Time :

The date and time remain the same

### 5.1.2 User Management

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

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

<b>Anonymous User Login</b>	Yes : Allow anonymous login No : Need user name & password to access this IP camera
<b>Add user</b>	Type the user name and password, then click " <b>Add/Set</b> ".

Click "**edit**" or "**delete**" to modify the user

### 5.1.3 System Update

**System Update**

**Firmware Upgrade**

Firmware Version: VC1.0.10\_PL

New Firmware:  瀏覽...

Upgrade

**Reboot System**

Start

**Factory Default**

Start

**Setting Management**

Save As a File: Right click the mouse button on Setting Download and then select Save As to save current system's setting in the PC.

New Setting File:  瀏覽...

Upgrade

<b>Firmware Upgrade</b>	To update the firmware online, click " <b>Browse...</b> " to select the firmware. Then click "Upgrade" to proceed.
<b>Reboot System</b>	Re-start the IP camera.
<b>Factory default</b>	Delete all the settings in this IP camera. <b>(not include IP address)</b>
<b>Setting Management</b>	User may download the current setting to PC, or upgrade from previous saved setting.

Setting download:

Right-click the mouse button on Setting Download → Select "**Save AS...**" to save current IP CAM setting in PC → Select saving directory → Save

Upgrade from previous setting:

Browse → search previous setting → open → upgrade → Setting update confirm → click [index.html](#). To return to main page

## 5.2 Network

### 5.2.1 IP Setting

IP Camera supports DHCP and static IP.

IP Setting	
<b>IP Assignment</b>	
<input type="radio"/> DHCP	
<input checked="" type="radio"/> Static	
IP Address:	<input type="text" value="192.168.0.20"/>
Subnet Mask:	<input type="text" value="255.255.255.0"/>
Gateway:	<input type="text" value="192.168.0.1"/>
DNS 0:	<input type="text" value="168.95.1.1"/>
DNS 1:	<input type="text" value="168.95.1.2"/>
<b>IPv6 Assignment</b>	
<input checked="" type="checkbox"/> IPv6 Enabled:	
<input type="checkbox"/> Manually setup the IPv6 address:	
DHCPv6:	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
IPv6 Address:	<input type="text" value="fe80::20f:dff:fe24:933e"/>
<b>Port Assignment</b>	
Web Page Port:	<input type="text" value="80"/>
HTTPS Port:	<input type="text" value="443"/> <a href="#">HTTPS Setting</a>
<b>UPnP</b>	
UPnP:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
UPnP Port Forwarding:	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
External Web Port:	<input type="text" value="80"/>
External HTTPS Port:	<input type="text" value="443"/>

External RTSP Port:

**RTSP Setting**

RTSP Server:  Enabled  Disabled

RTSP Authentication:

RTSP Port :

RTP Start Port:  [1024..9997]

RTP End port:  [1027..10000]

**Multicast Setting (Based on the RTSP Server)**

Streaming 1:

IP Address:  [224.3.1.0 ~ 239.255.255.255]

Port:  [1 ~ 65535]

TTL:  [1 ~ 255]

Streaming 2:

IP Address:  [224.3.1.0 ~ 239.255.255.255]

Port:  [1 ~ 65535]

TTL:  [1 ~ 255]

**ONVIF**

ONVIF:  v2.10/v1.02  v1.01  Disabled

Security:  Enabled  Disabled

RTSP Keepalive:  Enabled  Disabled

**Bonjour**

Bonjour:  Enabled  Disabled

Bonjour Name:  @00:0F:0D:24:93:3E

**LLTD (Link Layer Topology Discovery)**

LLTD:  Enabled  Disabled

<b>DHCP</b>	Using DHCP, IP Camera will get all the network parameters automatically.
<b>Static IP</b>	Please type in IP address, subnet mask, gateway, and DNS manually.
<b>IPv6 Assignment</b>	IPv6 is a newer numbering system that provides a much larger address pool than IPv4, which accounts for most of today's Internet traffic. You can set up IPv6 manually by key in Address, Gateway, and DNS, or enable DHCP to assign the IP automatically.
<b>Port Assignment</b>	User may need to assign different port to avoid conflict when setting up IP assignment. (1) Web Page Port: setup web page connecting port and video transmitting port (Default: 80) (2) RTSP Port: setup port for RTSP transmitting (Default: 554) (3) RTP Start and End Port: in RTSP mode, you may use TCP and UDP for connecting. TCP connection uses RTSP Port (554). UDP connection uses RTP Start and End Port.

<b>UPnP</b>	<p>This IP camera supports UPnP, If this service is enabled on your computer, the camera will automatically be detected and a new icon will be added to "My Network Places."</p> <p>Note: UPnP must be enabled on your computer.</p>
<b>UPnP Port Forwarding</b>	<p>When the camera is installed under a router, Enable UPnP Port Forwarding to let the router open ports so that the video streams can be sent out from a LAN. Set Web Port, Http Port, and RTSP port, and make sure your router supports UPnP and the function has been activated.</p>
<b>RTSP Server</b>	<p>enable or disable RTSP server</p>
<b>RTSP Authentication</b>	<p>"Disable" means everyone who knows your camera IP Address can link to your camera via RTSP. No username and password are required.</p> <p>Under "Basic" and "Digest" authentication mode, the camera asks the user to give username and password before allows accessing. The password is transmitted as clear text under basic mode, which provides a lower level of security than under digest mode.</p> <p>Make sure your media player supports the authentication schemes</p>
<b>RTSP port</b>	<p>RTSP Port: setup port for RTSP transmitting (Default: 554)  RTSP Start and End Port: in RTSP mode, you may use TCP and UDP for connecting. TCP connection uses RTSP Port (554).  UDP connection uses RTSP Start and End Port.</p>
<b>Multicast Setting (Based on the RTSP Server)</b>	<p>Multicast is a bandwidth conservation technology. This function allows several users to share the same packet sent from IP camera. To use Multicast, appoint IP Address and port here. TTL means the life time of packet, The larger the value is, and the more users can receive the packet.</p> <p><b>To use Multicast, be sure to enable the function "Force Multicast RTP via RTSP" in your media player. Then key in the RTSP path of your camera: "rtsp://(IP address)" to receive the multicast.</b></p>
<b>ONVIF</b>	<p>The IP camera supports ONVIF v1.01 / v1.02 / v2.10 standard for to integration.</p> <p>Under ONVIF connection, the video will be transmitted by RTSP. Be sure to enable the RTSP server in IP setting, or you're not able to receive the video via ONVIF.</p>
<b>RTSP Keepalive</b>	<p>When the function is enabled, the camera checks once in a while if the user who links to the camera via ONVIF still keeps connecting. If the connection had been broken, the camera stop transmitting video to user.</p>
<b>Bonjour</b>	<p>This function enables MAC systems to link to this IP camera.</p> <p>Key in the name here.</p> <p>The web browser "Safari" also has Bonjour function. Tick "Include Bonjour" in the bookmark setting, and you can see the</p>

	IP camera appearing under the Bonjour category. Click the icon to connect the IP camera.
LLTD	<p>If your PC supports LLTD, enable this function then you can check the connection status, properties, and device position (like IP address) of this IP Camera in the network map.</p> <p>In the computer running Windows Vista or Windows 7, you can find LLTD through the path:          Call out the Control Panel → Network and Internet → Network and Sharing Center → Click "See full map"</p>

## 5.2.2 Advanced

### 5.2.2.1 Https (Hypertext Transfer Protocol Secure)

**HTTPS Setting**

Created Request

Subject:

Date:

Installed Certificate

Subject:

Date:

**Connection Types**

Http

Http

Https

Http&Https

Https can help protect streaming data transmission over the internal on the higher security level. You can select the connection type. "Https" means user cannot connect the camera via Http protocol. The Https path will be: "https://(IP address)". If you select "Http & Https", both the Http and Https path can be used to access the camera.

Remove the existing setting: Before setting new request, please remove old secure identification. Select "Http" connection type and click "Remove".

**Https Setting**

**Created Request**

Subject:

Date:

---

**Installed Certificate**

Subject:

Date:

---

**Connection Types**

Http

Created Request: Setting the secure identification and apply it

**Https Setting**

**Create Request**

Country:

State or province:

Locality:

Organization:

Organizational Unit:

Common Name:

There are two ways to set Certificate- Install Signed Certificate or Create Self-Signed Certificate.

**Install Signed Certificate**

Signed Certificate:

---

**Create Self-Signed Certificate**

Country:

State or province:

Locality:

Organization:

Organizational Unit:

Common Name:

Validity:  Days

### 5.2.2.2 SNMP (Simple Network Management Protocol)

SNMP provides a simple framework for administering networked hardware. To manage the IP camera, you have to prepare a MIB browser or similar tools first. SNMPv1, SNMPv2c, and SNMPv3 can be enabled simultaneously.

SNMPv1 and SNMPv2:

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

The term "Community name" in SNMPv1 and SNMPv2c can be roughly regarded as key. The person who has the community name has the authority to read or edit the information of IP camera via SNMP. Tick the box to enable SNMPv1 or SNMPv2c protocol, and specify the community name for write (read and write) and read (read-only). The user who use read community name to access the IP camera cannot modify any data of this camera.

SNMPv3:

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

For data security reason, the authentication and encryption assurances are added when developing SNMPv3. The user has to give not only the security name (the same as "community name" in v1&v2c, or sometimes we call it "context name") but the password in order to access the IP camera. Please set security name, authentication type, authentication password, encryption type, encryption password of write and read respectively. The password must be 8~64 bits in length. Different from in SNMPv1 and v2c, the user have to create an account when using SNMPv3. In the account parameters, key in the security name and password you set in the camera to get accessing.

SNMPv1/SNMPv2 Trap:

**SNMPv1v2c Trap**

Trap Address:

Trap Community:

Trap Event:

Cold Start    Setting Changed    Network Disconnected

V3 Authentication Failed    SD Insert/Remove

Trap is a mechanism that allows the managed device to send messages to manager instead of waiting passively for polling from the manager. Specify the trap event. When those events happen, the camera will send the ring message to the Trap Address, which is usually the manager's IP address. Trap Community means the community that can receive the trap message.

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

### **5.2.2.3 Access List**

**IP FILTER**

**IP ADDRESS FILTER Setting**

Enable ip address filter

IPv4 Setting:

allow  deny

range  address:  -

IPv4 List:

No.	IP Address	Filter	Action
1	192.168.50.159	allow	<input type="button" value="remove"/>
2	192.168.50.151-192.168.50.161	deny	<input type="button" value="remove"/>
3			<input type="button" value="remove"/>
4			<input type="button" value="remove"/>
5			<input type="button" value="remove"/>
6			<input type="button" value="remove"/>
7			<input type="button" value="remove"/>
8			<input type="button" value="remove"/>
9			<input type="button" value="remove"/>
10			<input type="button" value="remove"/>

Allow admin ip address always access this device

Admin ip address:

You can deny an IP address or a range of IP address so that they cannot access the IP camera. Tick the "enable" box, key in the IP address you want to deny, select "deny" then click "Add" to add it to the list.

You can also choose to deny a range of IP address but allow one or several IP address of them. Take the picture above for example, IP address 192.168.50.151~161 are not allowed to connect to the camera, but only 192.168.50.159 can access. **Note: In the list "allow" condition must be ranked before "deny" condition.** For example, if we exchange the sequence, set "Deny: 192.168.50.151~192.168.50.161" for the first item and "Allow:192.168.50.159" for the second item in the list, the IP "192.168.50.159" turns out to be denied by the camera because the "deny" condition has the priority according to our ranking way.

### 5.2.2.4 QoS/DSCP (Quality of Server/Differentiated Services Code-point)

**QoS/DSCP**

**QoS/DSCP Setting**

Enable QoS/DSCP

Live Stream:  (0~63)

Event / Alarm:  (0~63)

Management:  (0~63)

DSCP specifies a simple mechanism for classifying and managing network traffic and provide QoS

on IP networks. DSCP is a 6-bit in the IP header for packet classification purpose.

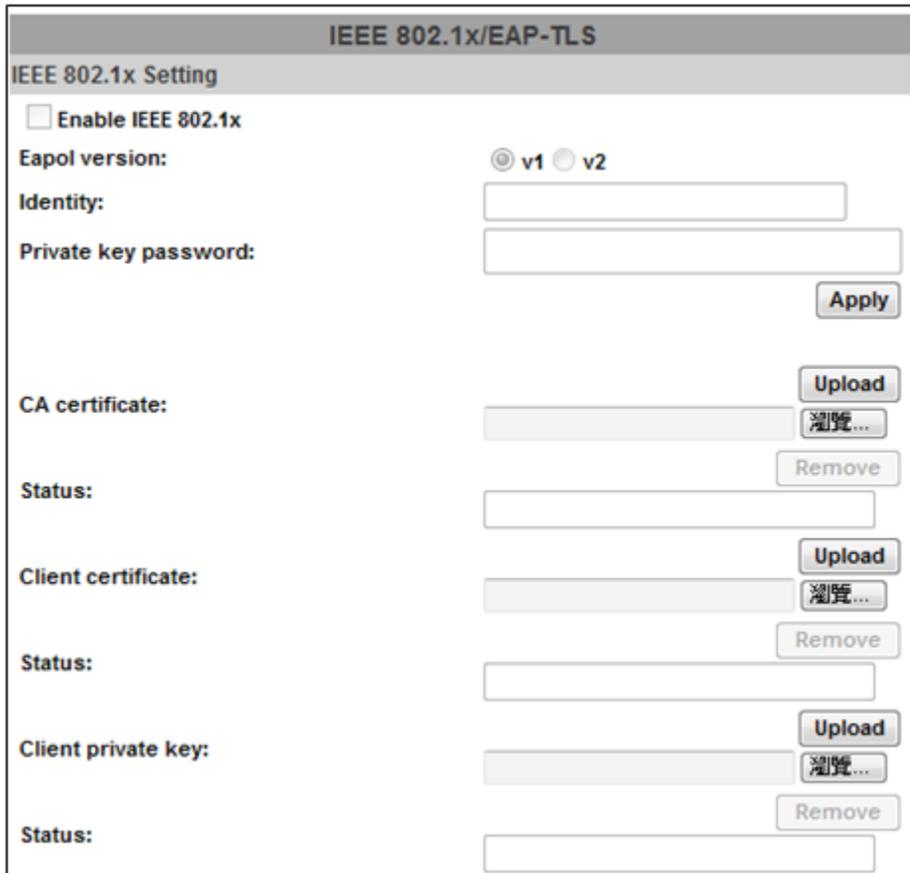
The number 0~63 for Live Stream, Event / Alarm, and Management represent the ratio that the bandwidth is divided. For example, if you set 5, 10, and 20 for the three items, then the bandwidth of the three items is 5:10:20. There is no difference between setting "0, 0, 0" or "63, 63, 63" because under these two setting the three items will get equal bandwidth (1/3).

The three stream control the protocols respectively:

- Live Stream (Video and audio): RTP / RTSP
- Event/Alarm : FTP / SMTP / SAMBA / SIP
- Management: HTTPS / HTTP / SNMP

**Note: The "Management" stream handles both the live view and the setting area of the web page on which the data is transferred via http/https protocol. If you prefer to distribute more bandwidth when using the web browser to access the camera, please adjust the Management stream.**

### 5.2.2.5 IEEE 802.1x



IEEE 802.1x is an IEEE standard for port-based Network Access Control. It provides an authentication mechanism to device wishing to attach to a LAN or WLAN.

The EAPOL protocol support service identification and optional point to point encryption over the local LAN segment.

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

### 5.2.3 Using UPnP of Windows XP or Vista

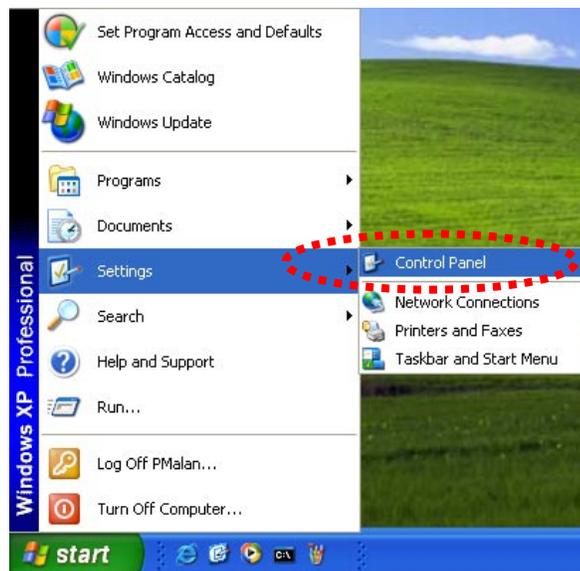
Please follow the procedure to activate UPnP

#### 5.2.3.1 Windows XP

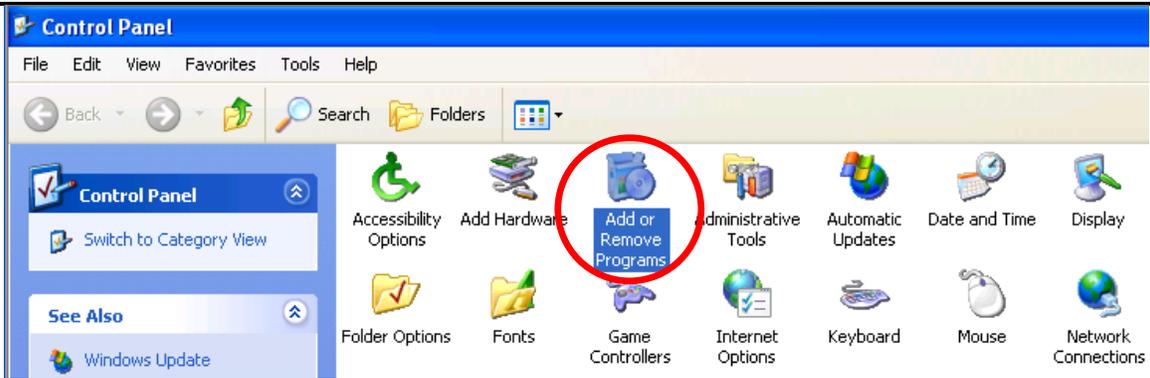
UPnP™ is short for Universal Plug and Play, which is a networking architecture that provides compatibility among networking equipment, software, and peripherals. This device is an UPnP enabled device. If the operating system, Windows XP, of your PC is UPnP enabled, the device will be very easy to configure. Use the following steps to enable UPnP settings only if your operating system of PC is running Windows XP.

**NOTE:** Windows 2000 does not support UPnP feature.

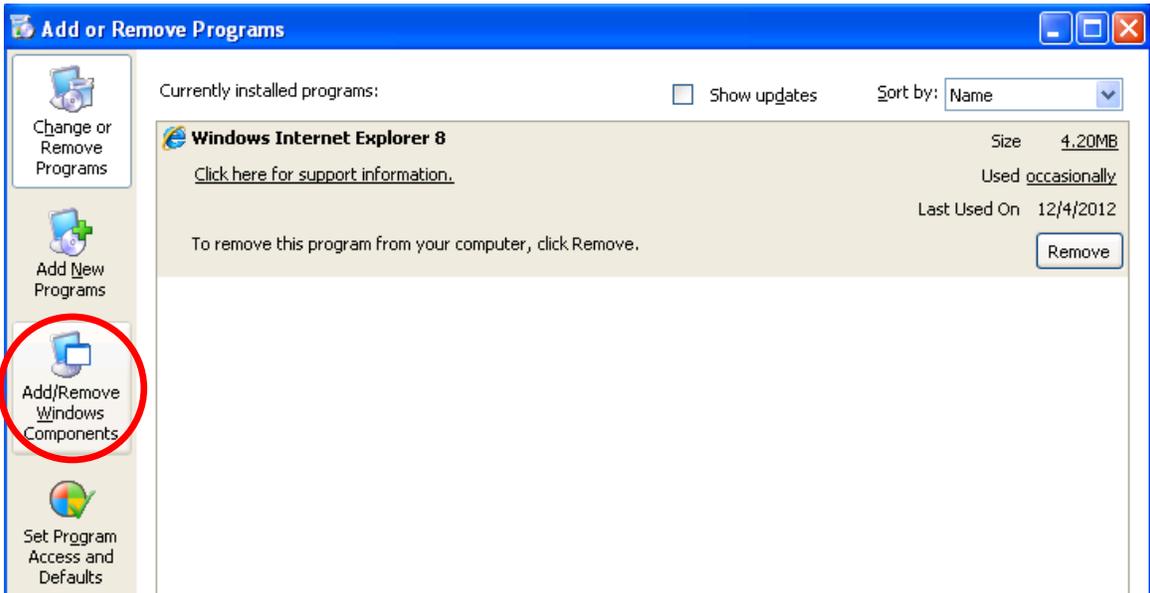
Go to **Start > Settings**, and Click Control Panel



The “**Control Panel**” will display on the screen and double click “**Add or Remove Programs**” to continue



The "Add or Remove Programs" will display on the screen and click **Add/Remove Windows Components** to continue.



The following screen will appear, select **"Networking Services"** and click **"Details"** to continue



The “**Networking Services**” will display on the screen, select “**Universal Plug and Play**” and click “**OK**” to continue.

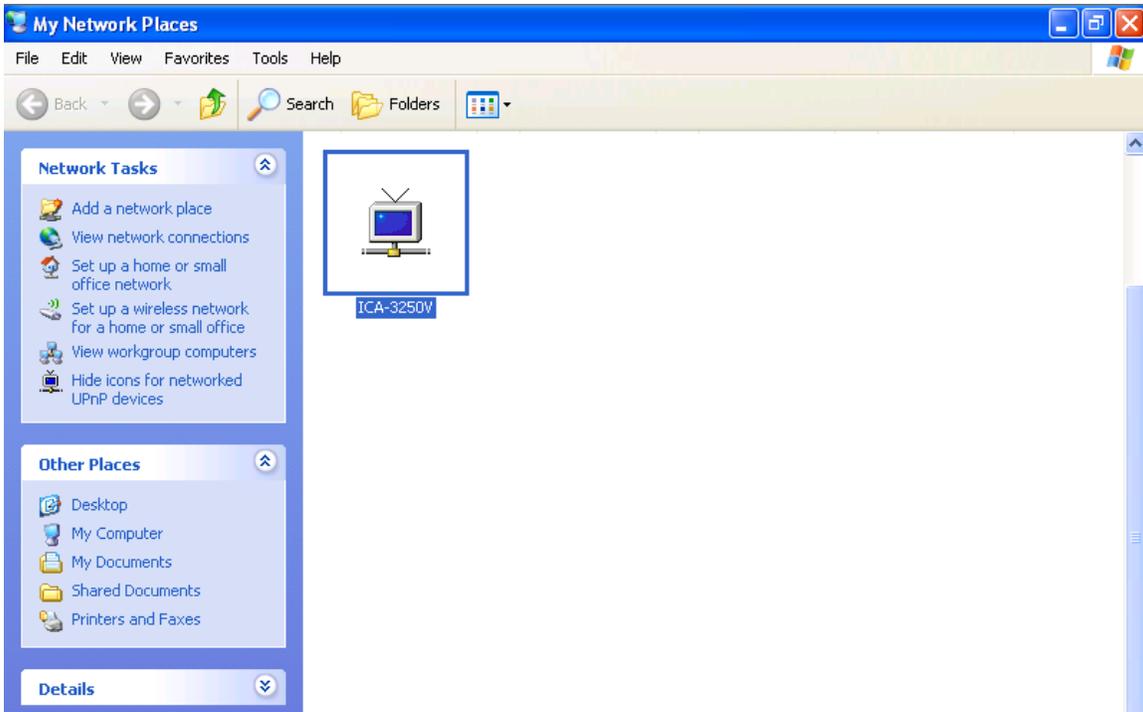


Please click “**Next**” to continue





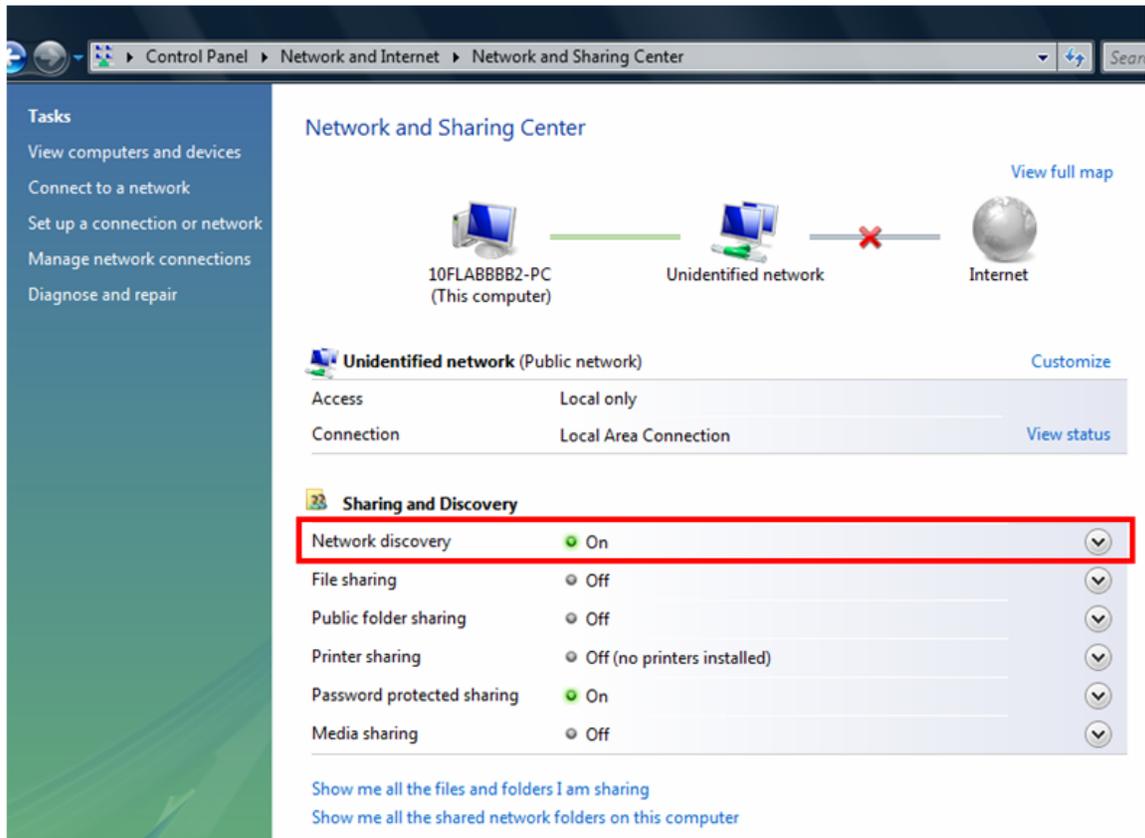
Double-click **“My Network Places”** on the desktop, the **“My Network Places”** will display on the screen and double-click the UPNP icon with Internet camera to view your device in an Internet browser.



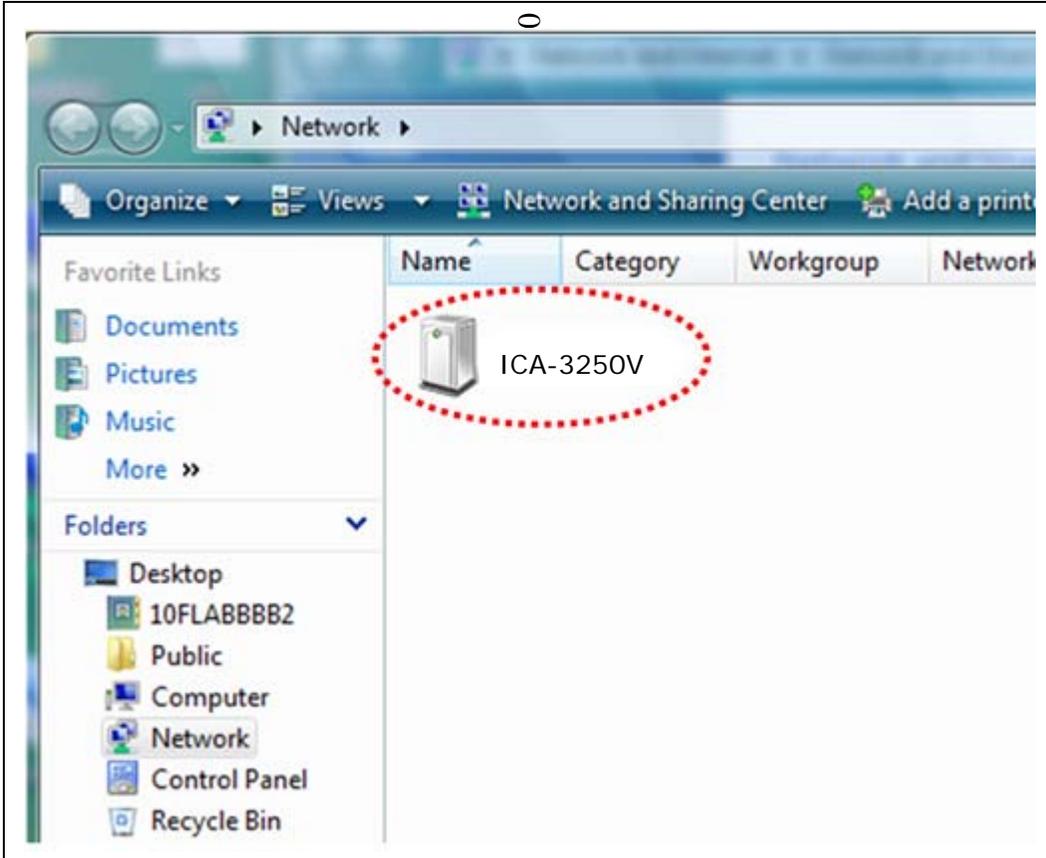
### **5.2.3.2 Windows Vista**

UPnP™ is short for Universal Plug and Play, which is a networking architecture that provides compatibility among networking equipment, software, and peripherals. This device is an UPnP enabled device. If the operating system, Windows Vista, of your PC is UPnP enabled, the device will be very easy to configure. Use the following steps to enable UPnP settings only if your operating system of PC is running Windows Vista.

Go to **Start > Control Panel > Network and Internet > Network and Sharing Center**, and turn on **“Network Discovery”**.



Double-click “My Network Places” on the desktop, the “My Network Places” will display on the screen and double-click the UPnP icon with Internet camera to view your device in an Internet browser.



### 5.2.4 PPPoE

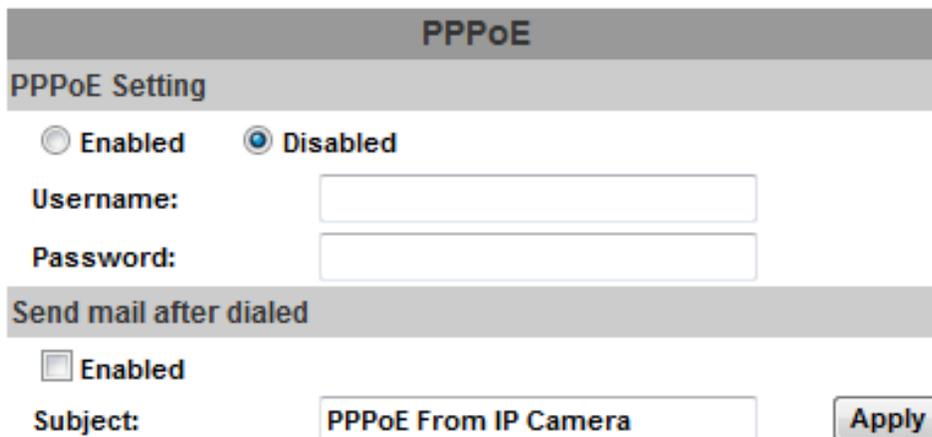
PPPoE: Stands for Point to Point Protocol over Ethernet.

A standard builds on Ethernet and Point-to-Point network protocol. It allows Internet camera connects to Internet with xDSL or cable connection; it can dial up your ISP and get a dynamic IP address. For more PPPoE and Internet configuration, please consult your ISP.

It can directly connect to the xDSL, however, it should be setup on a LAN environment to program the PPPoE information first, and then connect to the xDSL modem. Power on again, then the device will dial on to the ISP connect to the WAN through the xDSL modem.

The procedures are:

- (1) Select “**Enabled**” to use PPPoE.
- (2) Key-in Username and password for the ADSL connection.
- (3) Send mail after dialed : When connect to the Internet, it will send a mail to a specific mail account. For the mail setting, please refer to “**Mail and FTP**” settings.



PPPoE

PPPoE Setting

Enabled  Disabled

Username:

Password:

Send mail after dialed

Enabled

Subject:

### 5.2.5 DDNS

DDNS: Stands for Dynamic Domain Name Server

The device supports DDNS If your device is connected to xDSL directly, you might need this feature. However, if your device is behind a NAT router, you will not need to enable this feature. Because DDNS allows the device to use an easier way to remember naming format rather than an IP address. The name of the domain is like the name of a person, and the IP address is like his phone number. On the Internet we have IP numbers for each host (computer, server, router, and so on), and we replace these IP numbers to easy remember names, which are organized into the domain name. As to xDSL environment, most of the users will use dynamic IP addresses. If users want to set up a web or a FTP server, then the Dynamic Domain Name Server is necessary. For more DDNS configuration, please consult your dealer.

Your Internet Service Provider (ISP) provides you at least one IP address which you use to connect to the Internet. The address you get may be static, meaning it never changes, or dynamic, meaning it's likely to change periodically. Just how often it changes, depends on your ISP. A dynamic IP address

complicates remote access since you may not know what your current WAN IP address is when you want to access your network over the Internet. The solution to the dynamic IP address problem comes in the form of a dynamic DNS service.

The Internet uses DNS servers to lookup domain names and translates them into IP addresses. Domain names are just easy to remember aliases for IP addresses. A dynamic DNS service is unique because it provides a means of updating your IP address so that your listing will remain current when your IP address changes. There are several excellent DDNS services available on the Internet and best of all they're free to use. One such service you can use is [www.DynDNS.org](http://www.DynDNS.org). You'll need to register with the service and set up the domain name of your choice to begin using it. Please refer to the home page of the service for detailed instructions or refer to Appendix E for more information.

**DDNS Setting**

Enabled  Disabled

Provider:

Hostname:

Username:

Password:

Schedule Update:  Minutes

**State**

**Note:**

1. Schedule Update: Depends on the input time of Schedule Update, it will update DDNS's web site automatically. The time range is from 5 to 5000 minutes.  
\*0: It will not update.
2. dyndns.org & 3322.org: Update once per day is recommended (1440 minutes per day). If updated too frequently, it will be blocked.

**DynDns.org**, the procedures are:

- (1) Enable this service
- (2) Key-in the DynDNS server name, user name, and password.
- (3) Set up the IP Schedule update refreshing rate.
- (4) Click "**Apply**"
- (5) If setting up IP schedule update too frequently, the IP may be blocked. In general, schedule update every day (1440 minutes) is recommended.

DDNS Setting, the procedures are:

- (1) Please enable this service
- (2) Key-in user name.
- (3) IP Schedule update is default at 5 minutes
- (4) Click "**Apply**".

### DDNS Setting

Enabled    Disabled

Provider:

Hostname:

Username:

Password:

Schedule Update:  Minutes

---

### State

Note:

1. Schedule Update: Depends on the input time of Schedule Update, it will update DDNS's web site automatically. The time range is from 5 to 5000 minutes.  
\*0: It will not update.
2. dyndns.org & 3322.org: Update once per day is recommended (1440 minutes per day). If updated too frequently, it will be blocked.

### DDNS Status

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

### 5.2.6 Mail & FTP & SAMBA

To send out the video via mail, FTP and Samba, please set up the configuration first.

#### Mail setting

Server Settings	
<u>Mail Setting</u>	
Login Method:	Account <input type="button" value="v"/>
Mail Server:	mail.planet.com.tw
Username:	admin
Password:	•••••
Sender's Mail:	support@planet.com.tw
Receiver's Mail:	planet.test@gmail.com
Bcc Mail:	
Mail Port:	25 (Default 25)
<input type="checkbox"/> Secure Connect: <input checked="" type="radio"/> TLS <input type="radio"/> SSL	
<input type="button" value="Test"/>	
<u>FTP Setting</u>	
<u>Samba (Network storage)</u>	
<input type="button" value="Apply"/>	

#### FTP setting

Server Settings	
<u>Mail Setting</u>	
<u>FTP Setting</u>	
FTP Server:	192.168.0.174
Username:	admin
Password:	•••••
Port:	21
Path:	/VOLUME2/ADMIN/test
Mode:	PORT <input type="button" value="v"/>
Create the folder:	Yes <input type="button" value="v"/> (ex:Path/20100115/121032m.avi)
<input type="button" value="Test"/>	
<u>Samba (Network storage)</u>	
<input type="button" value="Apply"/>	

## Samba setting

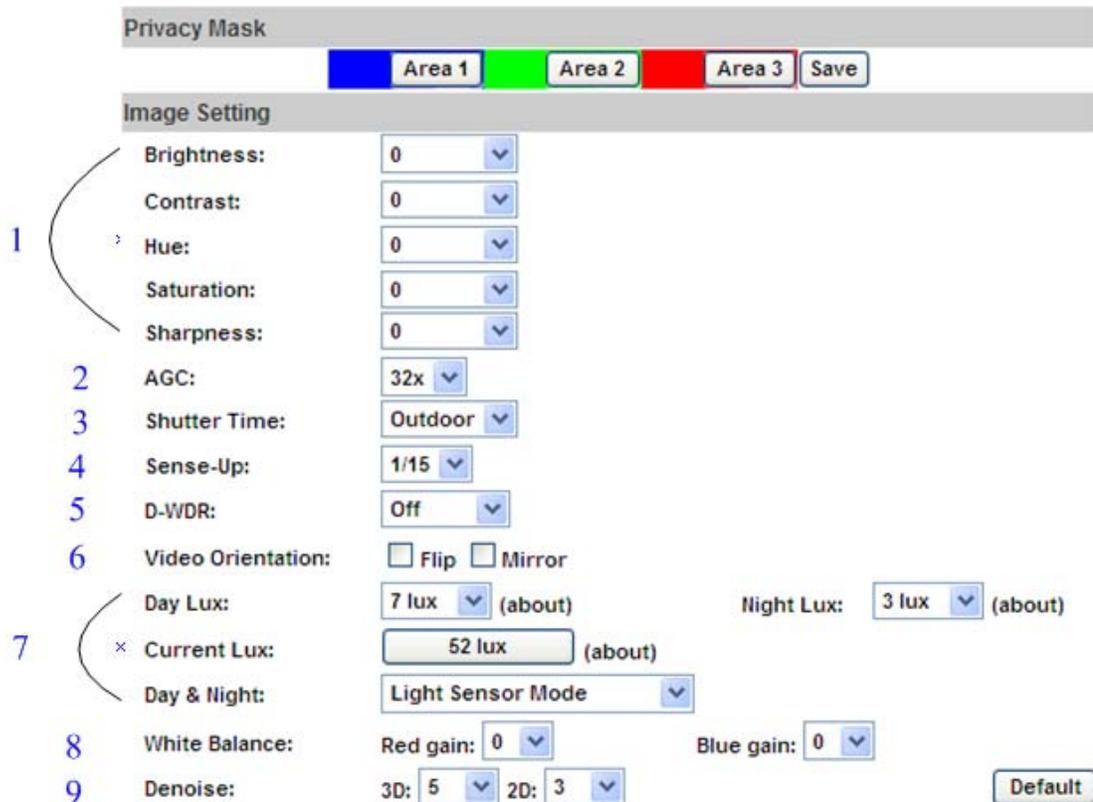
Server Settings	
<u>Mail Setting</u>	
<u>FTP Setting</u>	
<u>Samba (Network storage)</u>	
Location:	<input type="text" value="192.168.0.124\share"/> (ex: \\Nas_ip\folder)
Workgroup:	<input type="text" value="workgroup"/>
Username:	<input type="text" value="admin"/>
Password:	<input type="password" value="•••••"/>
Create the folder:	<input type="checkbox"/> Yes <input type="checkbox"/> No (ex: Path/20100115/121032m.avi)
<input type="button" value="Test"/>	
<input type="button" value="Apply"/>	

**Note: Samba only support one layer folder**

## 5.3 A/V Setting

### 5.3.1 Image Setting

For the security purpose, there are three areas can be setup for privacy mask. Click **"Area"** button first and pull an area on the above image. Finally, click **"Save"** button to reserve the setting. Adjust **"Brightness"**, **"Contrast"**, **"Hue"**, and **"Saturation"** to get clear video. Moreover, the ICA-3250V supports **"Back Light Compensation (BLC)"**, **"Night Mode"** and **"Video Orientation"**.



<b>(1) Image adjust</b>	Brightness, Contrast, Hue, Saturation, and Sharpness can be adjusted here.
<b>(2) AGC</b>	Automatic gain control. The sensitivity of camera can adjust with the environmental light. Enable this function and the brighter image can be got under dim light, but the level of noise may also increase
<b>(3) Shutter Time</b>	Choose as the location of your camera or fixed shutter time. The shorter the shutter time is the less light the camera receives and the image becomes darker.

<b>(4) Sense-Up</b>	This function increases the sensitivity of camera to get brighter image at night. The smaller the value you select, the slower the shutter speed becomes so that the image will get brighter, and moving subjects might be blurred.
<b>(5) D-WDR</b>	Digital wide dynamic range. This function enables the camera to reduce the contrast in the view to avoid the dark zones resulting from over and under exposure.
<b>(6) Video Orientation</b>	Flip or mirror the image as your requirement.
<b>(7) Day &amp; Night</b>	The camera can detect the light level of environment. If you choose "Light Sensor Mode", the image will be turned to black and white at night in order to keep clear. To set light sensor mode, appoint a lux standard of switching D/N here. Current lux value is provided for reference. Under "Times Mode" the switch time of Color / Black and white is according to the given time. You can also control it by choosing "Color" or "B/W"
<b>(8) White Balance</b>	Enhance red / blue color in the image.
<b>(9) Denoise</b>	This function is able to filter the noise and blur from the image and show a clearer view. "3D" and "2D" are two different denoising approaches. 3D denoise analyzes successive pictures to detect the noise places while 2D denoise analyzes only single picture.

### 5.3.2 Video Setting

User may select 2 streaming output simultaneously:

<b>Streaming 1 Setting</b>	Basic mode and Advanced mode.
<b>Streaming 2 Setting</b>	Basic mode, Advanced mode, and 3GPP mode

**NOTE:** Max Video Frame Rate for both streaming combined is 30 FPS.

**5.3.2.1 Video System:** click the drop down list to select the system type "NTSC/PAL" and TV Output (analog signal).

**Video Setting**

Video System:  ▼

TV Output:  ▼ (Auto : Based on the Video System)

### 5.3.2.2 Basic Mode of Streaming 1 and Streaming 2:

#### Streaming 1 Setting

Basic Mode     Advanced Mode

Resolution:

Profile:

Quality:

Video Frame Rate:

Video Format:

RTSP Path:

ex:rtsp://IP\_Address/ Audio:G.711

#### Streaming 2 Setting

Basic Mode     Advanced Mode     Close

Resolution:

Quality:

Video Frame Rate:

Video Format:

RTSP Path:

ex:rtsp://IP\_Address/v2 Audio:G.711

<b>Resolution</b>	There are 5 resolutions can be chosen. 1920x1080,1280x720 , 640x480, 320x240, or 176x144
<b>Profile</b>	Profiles are different compression way of H.264. High profile provides better coding efficiency. Note that some devises do not support every profile. For example, iPhone4 only supports Main profile.
<b>Quality</b>	The higher the quality is, the bigger the file size is. It might affect Internet transmitting speed if the file gets too large.
<b>Video Frame Rate</b>	The video refreshing rate per second. The max Value is affected by the input resolution you choose.
<b>Video Format</b>	H.264 or JPEG.
<b>RTSP Path</b>	Set the RTSP output connecting route.

### 5.3.2.3 Streaming 1 and 2 Advanced Mode :

#### Streaming 1 Setting

Basic Mode     **Advanced Mode**

**Resolution:**            1920x1080 ▾

**Profile:**                High ▾

**Bitrate Control Mode:**     CBR     VBR

**Video Quantitative:**    9 ▾

**Video Bitrate:**         8Mbps ▾

**Video Frame Rate:**     20 FPS ▾

**GOP Size:**             1 X FPS ▾    GOP = 20

**Video Format:**         H.264 ▾

**RTSP Path:**            
  
                                   ex:rtsp://IP\_Address/ Audio:G.711

#### Streaming 2 Setting

Basic Mode     **Advanced Mode**     Close

**Resolution:**            640x480 ▾

**Quality:**                Standard ▾

**Video Frame Rate:**    15 FPS ▾

**Video Format:**         JPEG ▾

**RTSP Path:**            
  
                                   ex:rtsp://IP\_Address/v2 Audio:G.711

<b>Resolution</b>	There are 5 resolutions can be chosen. 1920x1080,1280x720 , 640x480, 320x240, or 176x144
<b>Profile</b>	High profile provides better coding efficiency. Note that some devices do not support every profile. For example, iPhone4 only supports Main profile.
<b>Bitrate Control Mode</b>	There are CBR ( Constant Bit Rate ) and VBR ( Variable Bit Rate ) to use. <b>CBR</b> : 32Kbps~10Mbps (the higher the CBR is, the better the video quality is) <b>VBR</b> : 1(Low)~10(High) – Compression rate, the higher the compression rate, the lower the picture quality is; vise versa. The balance between VBR and network bandwidth will affect picture quality. Please carefully select the VBR rate to avoid picture breaking up or lagging.

<b>Video Frame Rate</b>	The video refreshing rate per second.
<b>GOP Size</b>	It means " <b>Group of Pictures</b> ". The higher the GOP is, the better the quality is.
<b>Video Format</b>	H.264 or JPEG.
<b>RTSP Path</b>	RTSP output connecting route.

**5.3.2.4 3GPP Streaming mode:**

**3GPP Streaming Setting**

Enabled  Disabled

Resolution:

Video Bitrate:

Video Frame Rate:

Video Format:

RTSP Path:

ex:rtsp://IP\_Address/v3 Audio:AMR

<b>Enable or Disable</b>	Enable or Disable 3GPP Streaming.
<b>Resolution</b>	640x480, 320x240, or 176x144
<b>Video Bitrate</b>	The higher the value is, the higher the image quality is.
<b>Video Frame Rate</b>	The video refreshing rate per second.
<b>Video Format</b>	H.264 or MPEG4
<b>3GPP Path</b>	3GPP output connecting route. If the IP address of your camera is 192.168.40.150, and you key in "3g" in the column, the 3GPP path will be rtsp://192.168.40.150/3g.

The RTSP here is separated from the RTSP setting in the "IP SETTING".

3GPP Streaming can still work even you select "disabled" in the RTSP server option of IP

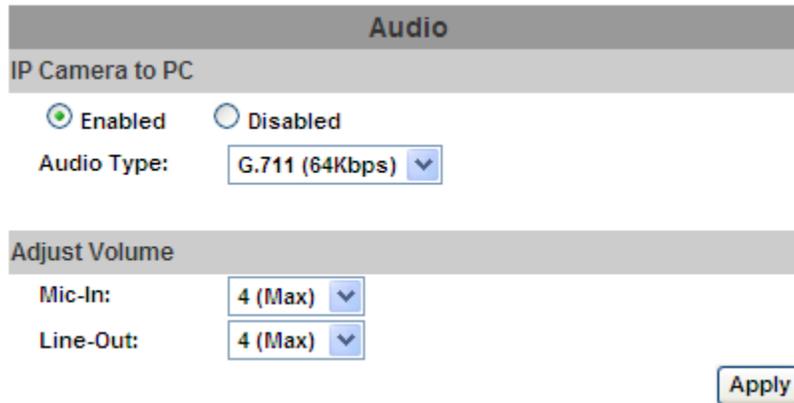
**Setting.**

**5.3.3 Audio**

The ICA-3250V supports 2-way audio. User can send audio from ICA-3250V Built-in microphone to remote PC; User can also send audio from remote PC to ICA-3250V's external speaker.

(1) Audio from IP camera built-in microphone to local PC: select “**Enable**” to start this function.

The Audio compression format can be choosing from 3 options. You can also adjust the volume of 2-way audio.



**Audio**

IP Camera to PC

Enabled  Disabled

Audio Type:

Adjust Volume

Mic-In:

Line-Out:

(2) Audio from local PC to ICA-3250V: Check “**chatting**” in the browsing page.



## 5.4 Event List

The ICA-3250V provides multiple event settings.

### 5.4.1 Event Setting

**Event Setting**

**Motion Detection**



**Area Setting:**

Area 1	Area 2	Area 3
--------	--------	--------

**Sensitivity:**

5	5	5
---	---	---

Area 1:     E-mail    FTP    Out1    Samba

Area 2:     E-mail    FTP    Out1    Samba

Area 3:     E-mail    FTP    Out1    Samba

**Subject:**

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

Based on the schedule

**Record File**

**File Format:**

**Record Time Setting**

**Pre Alarm:**          **Post Alarm:**

**Network Dis-connected**

**Dis-connected:**     Save to SD card

**Network IP Check**

**IP Check:**         Enabled     Disabled

**IP Address:**

**Interval:**

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

Save to SD card

<b>Motion Detection</b>	IP CAMERA allows 3 areas motion detection. When motion is triggered, it can send the video to some specific mail addresses, transmit the video to remote ftp server and SAMBA, and trigger the relay. To set up the motion area, click "Area Setting". Using mouse to drag and draw the area. The same operation for area 2 and 3.
<b>Interval</b>	For example, if you select "10 sec" here, once the motion is detected and action is triggered, it cannot be triggered again within 10 seconds.
<b>Based on the schedule</b>	When the option box is ticked, only during the selected schedule time the motion detection is enabled. That is, for example, the 11th hour of Monday has not been colored in the schedule table, then no action will be triggered even the camera detects motion during 11:00~12:00 on Monday.
<b>Record File Setting</b>	IP CAMERA allows 3 different types of recording file to change its record size. When motion/alarm is triggered, there are 3 different types of record mode. (1) AVI File (With Record File Setting ) (2) Multi-JPEG (With Record File Setting), only with JPEG compression format. (3) Single JPEG (Single File with Interval Setting)
<b>Record Time Setting</b>	Pre Alarm and Post Alarm setups for video start and end time when motion detected, I/O, or other devices got triggered.  Note: Pre/Post Alarm record time is base on record time setting and IP Cam built-in Ram memory. Limited by IP Cam built-in Ram Memory, When information is too much or video quality set too high, it will cause recording frame drop or decrease on post alarm recording time.
<b>Network Dis-connected</b>	To avoid video loss, the camera will start to save the video to local SD card when it detects no network connection. The video recording will continuously be saved into SD card and divided into every 10 minutes a file until the network is reconnected successfully. The oldest file will be deleted if the capacity of SD card is full.
<b>Network IP check</b>	Key in the target IP address and interval. The camera checks once in a while according to the setting interval time that if it can link to the target IP address. If connection failed, the camera starts to save the video to SD card

### 5.4.2 Schedule

<b>Schedule</b>	After complete the schedule setup, the camera data will be recorded according to the schedule setup.
<b>Snapshot</b>	After enable the snapshot function, user can select the storage position of snapshot file, the interval time of snapshot and the reserved file name of snapshot.

<b>Interval</b>	The interval between two snapshots.
-----------------	-------------------------------------

**Schedule**

All	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Mon.																								
Tue.																								
Wed.																								
Thu.																								
Fri.																								
Sat.																								
Sun.																								

With schedule setup.

**Snapshot**

Enabled     Disabled

Snapshot:     E-mail    FTP    Save to SD card    Samba

Interval:     Second(s) [1..50000]

File Name:

### 5.4.3 I/O Setting

The ICA-3250V supports 1 input/ 1 output. When input is triggered, it can send the video to some specific mail addresses, transmit the video to remote ftp server, and trigger the relay and SAMBA.

**I/O Setting**

**Input Setting**

Input 1 Sensor:   

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

Subject:   

Interval:   

Based on the schedule

**Output Setting**

Mode Setting:     OnOff Switch    Time Switch

Interval:

**NOTE:** Please connect to propriety relay box to reduce the risk of electric shock & damaged.



<b>Alarm Input Setting</b>	By GPIO I/O port input that provides related action while I/O input triggered.
<b>Interval</b>	For example, if you select "10 sec" here, once the motion is detected and action is triggered, it cannot be triggered again within 10 seconds.
<b>Based on the schedule</b>	When the option box is ticked, only during the selected schedule time the I/O is enabled. That is, for example, the 11th hour of Monday has not been colored in the schedule table, then no action will be triggered even the camera detects input signal during 11:00~12:00 on Monday.
<b>GPIO Output Setting</b>	By GPIO I/O port output that provides On Off Switch, Slide Switch & Pan/Tilt Module for using with relay box.
<b>On Off Switch</b>	The camera triggers the external devise and lasts for 10 seconds. You can turn off the alarm manually by click "off" at the right bottom of the live video page.
<b>Time Switch</b>	The camera triggers the external devise and lasts for certain of time according to the interval setting, and the user is not allowed to break off the alarm manually.

#### 5.4.4 Log List

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

Log List	
System Logs	<a href="#">Logs</a>
Motion Detection Logs	<a href="#">Logs</a>
I/O Logs	<a href="#">Logs</a>
All Logs	<a href="#">Logs</a>

## 5.4.5 SD card

### 5.4.5.1 Playback

Please Insert Micro SD card before use it. Make sure pushing Micro SD card into the slot completely. Click the date listed on this page and it shows the list of the video. The video format is AVI. Click the video to start Microsoft Media Player to play it. To delete the video, check it, and then click "Del".

2006/04/17			Del
Time	Video	Event Type	<input type="checkbox"/>
09:05:22	090522f.avi	Network Dis-connected	<input type="checkbox"/>
09:05:52	090552f.avi	Network Dis-connected	<input type="checkbox"/>
09:06:22	090622f.avi	Network Dis-connected	<input type="checkbox"/>
09:06:52	090652f.avi	Network Dis-connected	<input type="checkbox"/>
09:07:22	090722f.avi	Network Dis-connected	<input type="checkbox"/>
09:07:52	090752f.avi	Network Dis-connected	<input type="checkbox"/>
09:08:22	090822f.avi	Network Dis-connected	<input type="checkbox"/>
09:08:51	090851f.avi	Network Dis-connected	<input type="checkbox"/>
09:09:21	090921f.avi	Network Dis-connected	<input type="checkbox"/>
09:09:51	090951f.avi	Network Dis-connected	<input type="checkbox"/>

### 5.4.5.2 SD Management

Choose "The 1st day" means the recoding file will be keep one day. Example: It is five o'clock now. Choose "The 1st day". The files will be kept from five o'clock yesterday to five o'clock today. The oldest file will be deleted if the Micro SD card is full.

Playback

No SD card

SD Management

Auto Deletion: Off (Keep 1/ 2/ 3/ 4...days)

Off

The 1st day

The 2nd day

The 3rd day

The 4th day

The 5th day

The 6th day

The 7th day

The 8th day

The 9th day

The 10th day

The 15th day

The 20th day

The 25th day

The 30th day

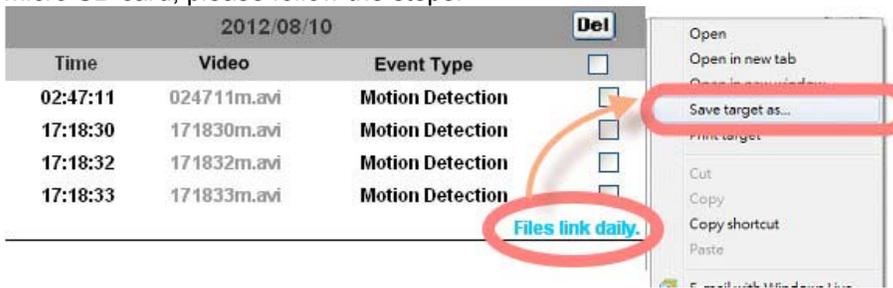
Apply

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

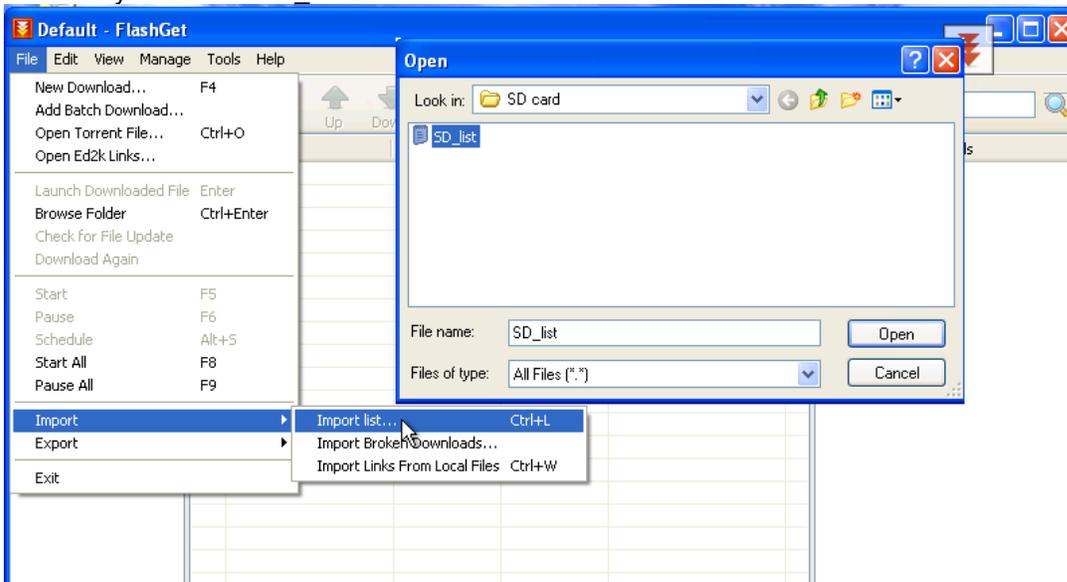
### 5.4.5.3 Copy to PC

You can insert the Micro SD card to PC and read the files directly, or use FlashGet instead to download

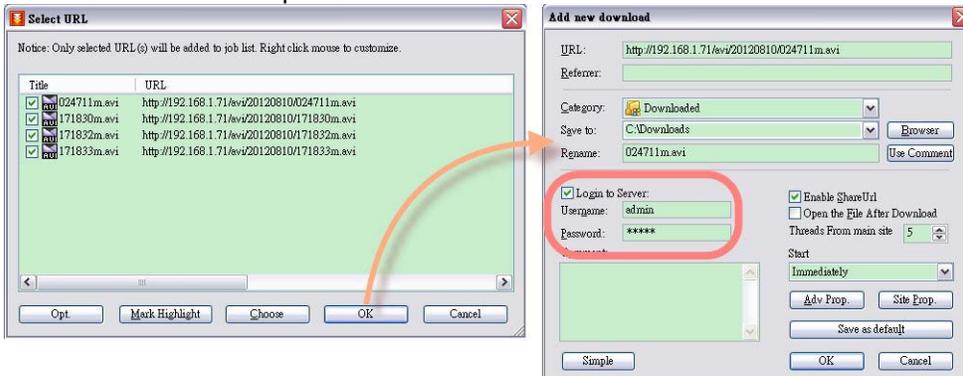
the files from IP camera. (In this way you do not need to pull out Micro SD card from the camera.)  
 To use FlashGet for downloading the image and video data from the Micro SD card, please follow the steps:



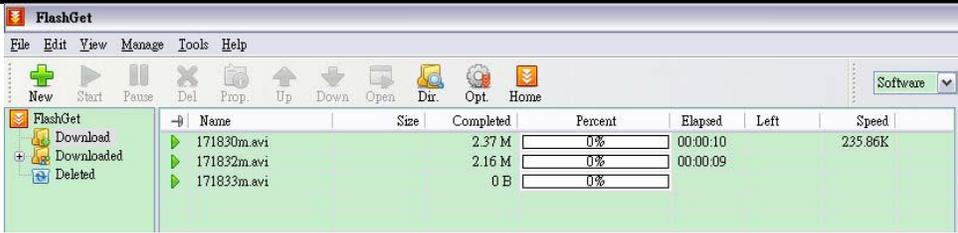
Open FlashGet, select "File" → "Import" → "Import list", and find the link list file you just saved. The file name may be called "SD\_list".



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



**Click OK to start download**



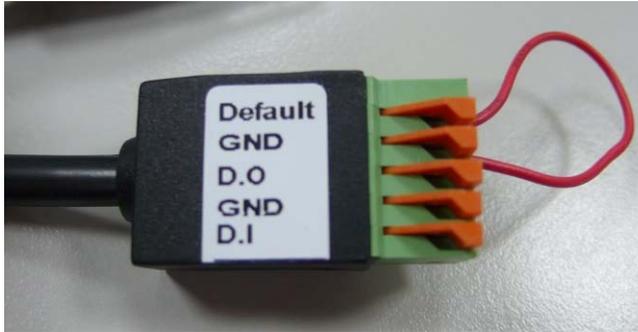
- **FlashGet is a free software that can be downloaded from FlashGet official website. The example above is based on FlashGet ver.1.9.6.1073**

## Appendix A: Factory Default

To recover the default IP address and password, please follow the following steps.

Remove the power and Ethernet cable.

- Take an electronic wire, plug one side of the wire into "Default" and the other side into "GND" on the terminal block as the picture below.



- Connect power to the camera again. It takes around 30 seconds to boot the camera.
- Remove the wire and plug in the Ethernet cable after the camera finishes booting.
- Re-login the camera using the default IP (<http://192.168.0.20>), and user name (admin), password (admin)

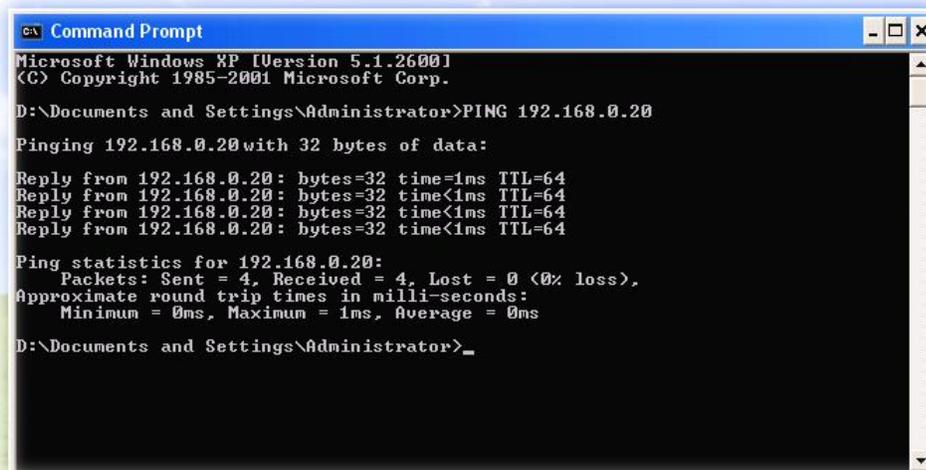
## Appendix B: PING IP Address

The PING (stands for Packet Internet Groper) command is used to detect whether a specific IP address is accessible by sending a packet to the specific address and waiting for a reply. It's also a very useful tool to confirm Internet camera installed or if the IP address conflicts with any other devices over the network.

If you want to make sure the IP address of Internet camera, utilize the PING command as follows:

- Start a DOS window.
- Type ping x.x.x.x, where x.x.x.x is the IP address of the Internet camera.

The replies, as illustrated below, will provide an explanation to the problem.



```
ca\ Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

D:\Documents and Settings\Administrator>PING 192.168.0.20

Pinging 192.168.0.20 with 32 bytes of data:

Reply from 192.168.0.20: bytes=32 time=1ms TTL=64
Reply from 192.168.0.20: bytes=32 time<1ms TTL=64
Reply from 192.168.0.20: bytes=32 time<1ms TTL=64
Reply from 192.168.0.20: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.0.20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

D:\Documents and Settings\Administrator>_
```

If you want to detect any other devices conflicts with the IP address of Internet camera, also can utilize the PING command but you must disconnect the Internet camera from the network first.

## Appendix C: 3GPP Access

To use the 3GPP function, in addition to previous section, you might need more information or configuration to make this function work.

**Note:**

That to use the 3GPP function, it strongly recommends to install the Networked Device with a public and fixed IP address without any firewall protection.

**RTSP Port:**

Port 554 is the default for RTSP service. However, sometimes, some service providers change this port number for some reasons. If so, user needs to change this port accordingly.

**Dialing procedure:**

1. Choose a verified player (PacketVideo or Realplayer currently)
2. Use the following default URL to access:

**rtsp://IP-Address/3g**

Where *host* is the host name or IP address of the camera.

**Compatible 3G mobile phone:**

Please contact your dealer to get the approved list of compatible 3G phone.

**Note:**

Besides IP camera and 3G mobile phone. You will also need to make sure the ISP and company has provided the 3GPP service to you.

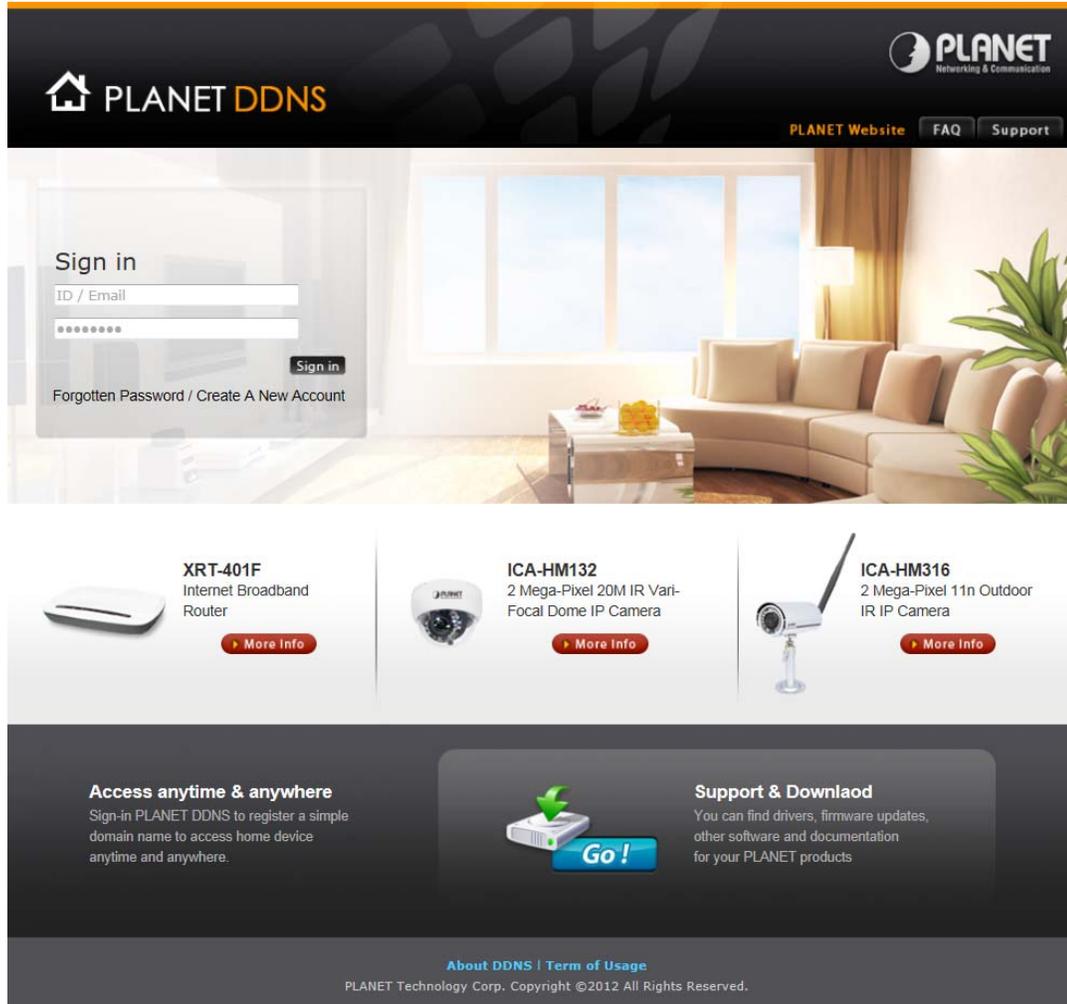
## Appendix D: Planet DDNS Application

Configure PLANET DDNS steps:

**Step 1** Enable DDNS option through accessing web page of ICA-2500.

**Step 2** Select on DDNS server provide, and register an account if you do not use yet.

Let's take dyndns.org as an example. Register an account in <http://planetddns.com>



**PLANET DDNS**

PLANET Website FAQ Support

**Sign in**

ID / Email

.....

Sign in

Forgotten Password / Create A New Account

**XRT-401F**  
Internet Broadband Router  
More Info

**ICA-HM132**  
2 Mega-Pixel 20M IR Vari-Focal Dome IP Camera  
More Info

**ICA-HM316**  
2 Mega-Pixel 11in Outdoor IR IP Camera  
More Info

**Access anytime & anywhere**  
Sign-in PLANET DDNS to register a simple domain name to access home device anytime and anywhere.

**Support & Download**  
You can find drivers, firmware updates, other software and documentation for your PLANET products

**Go!**

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## Appendix E: Configure Port Forwarding Manually

The device can be used with a router. If the device wants to be accessed from the WAN, its IP address needs to be setup as fixed IP address, also the port forwarding or Virtual Server function of router needs to be setup. This device supports UPnP traversal function. Therefore, user could use this feature to configure port forwarding of NAT router first. However, if user needs to configure port forwarding manually, please follow the steps as below:

Manually installing the device with a router on your network is an easy 3–step procedure as following:

1. Assign a local/fixed IP address to your device
2. Access the Router with Your Web browser
3. Open/Configure Virtual Server Ports of Your Router

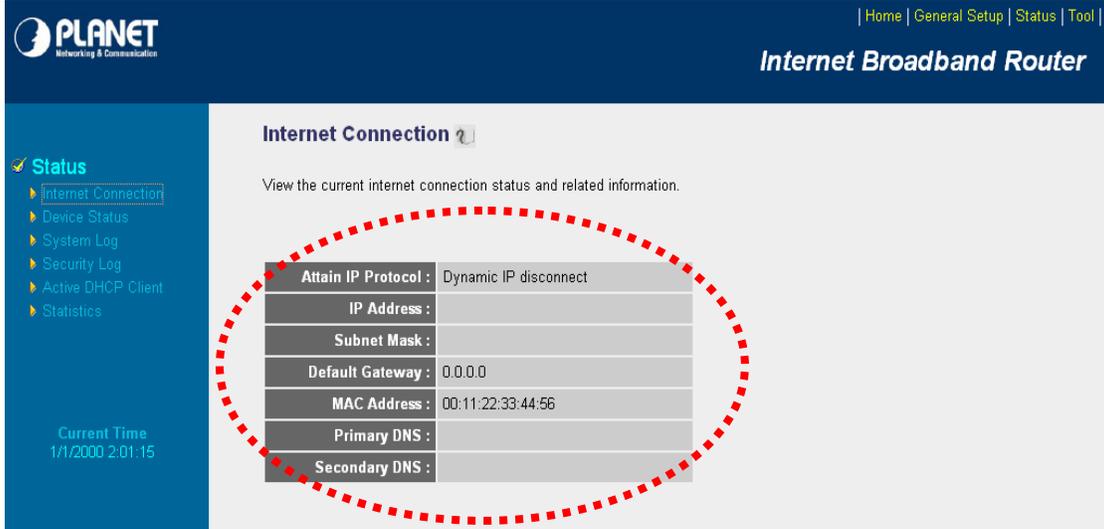
### 1. Assign a local/fixed IP address to your device

The device must be assigned a local and fixed IP Address that allows it to be recognized by the router. Manually setup the device with a fixed IP address, for example, *192.168.0.100*.

### 2. Access the Router with Your Web browser

The following steps generally apply to any router that you have on your network. The PLANET WNRT-620 is used as an example to clarify the configuration process. Configure the initial settings of the router by following the steps outlined in the router's **Quick Installation Guide**.

If you have cable or DSL service, you will most likely have a dynamically assigned WAN IP Address. 'Dynamic' means that your router's WAN IP address can change from time to time depending on your ISP. A dynamic WAN IP Address identifies your router on the public network and allows it to access the Internet. To find out what your router's WAN IP Address is, go to the **Status** screen on your router and locate the WAN information for your router. As shown on the following page the WAN IP Address will be listed. This will be the address that you will need to type in your web browser to view your camera over the Internet. Be sure to uncheck the **Reset IP address at next boot** button at the top of the screen after modifying the IP address. Failure to do so will reset the IP address when you restart your computer.



Your WAN IP Address will be listed here.

### 3. Open/set Virtual Server Ports to enable remote image viewing

The firewall security features built into the router and most routers prevent users from accessing the video from the device over the Internet. The router connects to the Internet over a series of numbered ports. The ports normally used by the device are blocked from access over the Internet. Therefore, these ports need to be made accessible over the Internet. This is accomplished using the **Virtual Server** function on the router. The Virtual Server ports used by the camera must be opened through the router for remote access to your camera.

Follow these steps to configure your router's Virtual Server settings

- Click **Enabled**.
- Enter a unique name for each entry.
- Select **Both** under **Protocol Type (TCP and UDP)**
- Enter your camera's local IP Address (e.g., **192.168.0.100**, for example) in the **Private IP** field.
- If you are using the default camera port settings, enter **80** into the **Public** and **Private Port** section, click **Add**.

A check mark appearing before the entry name will indicate that the ports are enabled.

**NOTE:** Some ISPs block access to port 80. Be sure to check with your ISP so that you can open the appropriate ports accordingly. If your ISP does not pass traffic on port 80, you will need to change the port the camera uses from 80 to something else, such as 8080. Not all routers are the same, so refer to your user manual for specific instructions on how to open ports.

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### Internet Broadband Router

#### Virtual Server ?

You can configure the Broadband router as a Virtual Server so that remote users accessing services such as the Web or FTP at your local site via Public IP Addresses can be automatically redirected to local servers configured with Private IP Addresses. In other words, depending on the requested service (TCP/UDP) port number, the Broadband router redirects the external service request to the appropriate internal server (located at one of your LAN's Private IP Address).

Enable Virtual Server

Private IP	Private Port	Type	Public Port	WAN Port	Comment
<input type="text"/>	<input type="text"/>	Both	<input type="text"/>	WAN1	<input type="text"/>

Add Reset

**Current Virtual Server Table:**

Private IP	Private Port	Type	Public Port	WAN Port	Comment	Select
192.168.0.100	80	TCP+UDP	80	WAN1	ICA-HM230	<input type="checkbox"/>

Delete Selected Delete All Reset

Apply Cancel

Enter valid ports in the **Virtual Server** section of your router. Please make sure to check the box on this line to enable settings. Then the device can be access from WAN by the router's WAN IP Address.

By now, you have finished your entire PC configuration for this device.

# Appendix F: Troubleshooting & Frequently Asked Questions

Features	
The video and audio codec is adopted in the device.	<p>The device utilizes H.264, MPEG-4 and M-JPEG triple compression to providing high quality images. Where H.264 and MPEG-4 are standards for video compression and M-JPEG is a standard for image compression.</p> <p>The audio codec is defined as AMR for 3GPP and G.711 for RTSP streaming.</p>
The maximum number of user accesses the device simultaneously.	The maximum number of users is limited to 10. However, it also depends on the total bandwidth accessed to this device from clients.
Install this device	
The network cabling is required for the device.	The device uses Category 5 UTP cable allowing 10 and/or 100 Base-T networking.
The device will be installed and work if a firewall exists on the network.	If a firewall exists on the network, port 80 is open for ordinary data communication. The HTTP port and RTSP port need to be opened on the firewall or NAT router.
The username and password for the first time or after factory default reset	<p>Username = <b>admin</b> and Password = <b>admin</b>.</p> <p>Note that it's all case sensitivity.</p>
Forgot the username and password	<p>Follow the steps below.</p> <p>(1)Remove power, and press and hold the button in the back of IP CAMERA.</p> <p>(2)Power on the camera. Don't release the button during the system booting.</p> <p>(3)It will take around 30 seconds to boot the camera.</p> <p>(4)Release the button when camera finishes proceed.</p> <p>(5)Re-login the camera using the default IP (<a href="http://192.168.0.20">http://192.168.0.20</a>), and username (admin), password (admin).</p>
Forgot the IP address of the device.	Check IP address of device by using the PLANET IP Installer program or by UPnP discovery or set the device to default by Reset button.
PLANET IP Installer program cannot find the device.	<ul style="list-style-type: none"> <li>● Re-power the device if cannot find the unit within 1 minutes.</li> <li>● Do not connect device over a router. PLANET IP Installer program cannot detect device over a router.</li> <li>● If IP address is not assigned to the PC which running PLANET IP Installer program, then PLANET IP Installer program cannot find</li> </ul>

	<p>device. Make sure that IP address is assigned to the PC properly.</p> <ul style="list-style-type: none"> <li>● Antivirus software on the PC might interfere with the setup program. Disable the firewall of the antivirus software during setting up this device.</li> <li>● Check the firewall setting of your PC or Notebook.</li> </ul>
Internet Explorer does not seem to work well with the device	Make sure that your Internet Explorer is version 6.0 or later. If you are experiencing problems, try upgrading to the latest version of Microsoft's Internet Explorer from the Microsoft webpage.
PLANET IP Installer program fails to save the network parameters.	Network may have trouble. Confirm the parameters and connections of the device.
<b>UPnP NAT Traversal</b>	
Can not work with NAT router	Maybe NAT router does not support UPnP function. Please check user's manual of router and turn on UPnP function.
Some IP cameras are working but others are failed	Maybe too many IP cameras have been installed on the LAN, and then NAT router is out of resource to support more cameras. You could turn off and on NAT router to clear out of date information inside router.
<b>Access this device</b>	
Cannot access the login page and other web pages of the Network Camera from Internet Explorer	<ul style="list-style-type: none"> <li>● Maybe the IP Address of the Network Camera is already being used by another device or computer. To confirm this possible problem, disconnect the Network Camera from the network first, and then run the PING utility to check it out.</li> <li>● Maybe due to the network cable. Try correcting your network cable and configuration. Test the network interface by connecting a local computer to the Network Camera via a crossover cable.</li> <li>● Make sure the Internet connection and setting is ok.</li> <li>● Make sure enter the IP address of Internet Explorer is correct. If the Network Camera has a dynamic address, it may have changed since you last checked it.</li> <li>● Network congestion may prevent the web page appearing quickly. Wait for a while.</li> </ul> <p>The IP address and Subnet Mask of the PC and Network Camera must be in the same class of the private IP address on the LAN.</p> <ul style="list-style-type: none"> <li>● Make sure the http port used by the Network Camera, default=80, is forward to the Network Camera's private IP address.</li> <li>● The port number assigned in your Network Camera might not be available via Internet. Check your ISP for available port.</li> <li>● The proxy server may prevent you from connecting directly to the Network Camera, set up not to use the proxy server.</li> <li>● Confirm that Default Gateway address is correct.</li> </ul>

	<ul style="list-style-type: none"> <li>● The router needs Port Forwarding feature. Refer to your router's manual for details.</li> <li>● Packet Filtering of the router may prohibit access from an external network. Refer to your router's manual for details.</li> <li>● Access the Network Camera from the Internet with the global IP address of the router and port number of Network Camera.</li> <li>● Some routers reject the global IP address to access the Network Camera on the same LAN. Access with the private IP address and correct port number of Network Camera.</li> <li>● When you use DDNS, you need to set Default Gateway and DNS server address.</li> <li>● If it's not working after above procedure, reset Network Camera to default setting and installed it again.</li> </ul>
<p>Image or video does not appear in the main page.</p>	<ul style="list-style-type: none"> <li>● The first time the PC connects to Network Camera, a pop-up <b>Security Warning</b> window will appear to download ActiveX Controls. When using Windows XP, or Vista, log on with an appropriate account that is authorized to install applications.</li> <li>● Network congestion may prevent the Image screen from appearing quickly. You may choose lower resolution to reduce the required bandwidth.</li> </ul>
<p>How to check the device's ActiveX is installed on your computer</p>	<p>Go to C:\Windows\Downloaded Program Files and check to see if there is an entry for the file "<b>Web Watch2 Control</b>". The status column should show "Installed". If the file is not listed, make sure your Security Settings in Internet Explorer are configured properly and then try reloading the device's home page. Most likely, the ActiveX control did not download and install correctly. Check your Internet Explorer security settings and then close and restart Internet Explorer. Try to browse and log in again.</p>
<p>Internet Explorer displays the following message: "Your current security settings prohibit downloading ActiveX controls".</p>	<p>Setup the IE security settings or configure the individual settings to allow downloading and scripting of ActiveX controls.</p>
<p>The device work locally but not externally.</p>	<ul style="list-style-type: none"> <li>● Might be caused from the firewall protection. Check the Internet firewall with your system or network administrator. The firewall may need to have some settings changed in order for the device to be accessible outside your LAN.</li> <li>● Make sure that the device isn't conflicting with any other web server running on your LAN.</li> <li>● Check the configuration of the router settings allow the device to be accessed outside your local LAN.</li> <li>● Check the bandwidth of Internet connection. If the Internet bandwidth is lower than target bit rate, the video streaming will not work correctly.</li> </ul>

The unreadable characters are displayed.	Use the operating system of the selected language. Set the Encoding or the Character Set of the selected language on the Internet Explorer.
Frame rate is slower than the setting.	<ul style="list-style-type: none"> <li>● The traffic of the network and the object of the image affect the frame rate. The network congestion causes frame rate slower than the setting.</li> <li>● Check the bandwidth of Internet connection. If the Internet bandwidth is lower than target bit rate, the video streaming will not work correctly.</li> <li>● Ethernet switching hub can smooth the frame rate.</li> </ul>
Blank screen or very slow video when audio is enabled.	<ul style="list-style-type: none"> <li>● Your connection to the device does not have enough bandwidth to support a higher frame rate for the streamed image size. Try reducing the video streaming size to 160x120 or 320x240 and/or disabling audio.</li> <li>● Audio will consume 32 kbps. Disable audio to improve video. Your Internet connection may not have enough bandwidth to support streaming audio from the device.</li> </ul>
Image Transfer on e-mail or FTP does not work.	<ul style="list-style-type: none"> <li>● Default Gateway and DNS server address should be set up correctly.</li> <li>● If FTP does not work properly, ask your ISP or network administrator about the transferring mode of FTP server.</li> </ul>
<b>Video quality of the device</b>	
The focus on the Camera is bad.	The lens is dirty or dust is attached. Fingerprints, dust, stain, etc. on the lens can degrade the image quality.
The color of the image is poor or strange.	<ul style="list-style-type: none"> <li>● Adjust White Balance.</li> <li>● To insure the images you are viewing are the best they can be, set the Display property setting (color quality) to 16bit at least and 24 bit or higher if possible within your computer.</li> <li>● The configuration on the device image display is incorrect. You need to adjust the image related parameters such as brightness, contrast, hue and sharpness properly.</li> </ul>
Image flickers.	<ul style="list-style-type: none"> <li>● If the object is dark, the image will flicker. Make the condition around the Camera brighter.</li> </ul>

## Appendix G: Micro SD Card Compatibility

The following is the Micro SD Card recommended:

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