



# **25M Infrared Internet Camera**

## **ICA-312**

### **User's Manual**

Version: 2.00

Date: June. 2008

## **Copyright**

Copyright © 2008 by PLANET Technology Corp. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise, without the prior written permission of PLANET.

PLANET makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties, merchantability or fitness for any particular purpose. Any software described in this manual is sold or licensed "as is". Should the programs prove defective following their purchase, the buyer (and not PLANET, its distributor, or its dealer) assumes the entire cost of all necessary servicing, repair, and any incidental or consequential damages resulting from any defect in the software. Further, PLANET reserves the right to revise this publication and to make changes from time to time in the contents hereof without obligation to notify any person of such revision or changes.

All brand and product names mentioned in this manual are trademarks and/or registered trademarks of their respective holders.

## **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.

## 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 25M Infrared Internet Camera  
Model: ICA-312 (for F/W v 3.0 or above)  
Rev: 2.0 (June, 2008)  
Part No. EM-ICA312v2

# Table of Content

1.	Introduction .....	5
1.1	Overview .....	5
1.2	Features .....	5
1.3	Package Contents .....	6
2.	Basic Setup .....	7
2.1	System Requirements .....	7
2.2	Physical Details .....	8
2.3	Hardware Installation .....	9
2.4	Initial Utility Installation .....	10
2.5	IP Wizard .....	13
2.6	Configure With IP Wizard .....	15
2.7	UPnP Function .....	18
2.7.1	Windows XP .....	18
2.7.2	Windows Vista .....	23
2.8	Setup ActiveX to use the ICA-312 .....	24
2.8.1	Internet Explorer 6 for Windows XP .....	24
2.8.2	Internet Explorer 7 for Windows XP .....	25
2.8.3	Internet Explorer 7 for Windows Vista .....	26
3.	Web-based Management .....	27
3.1	Introduction .....	27
3.2	Connecting to ICA-312 .....	27
3.3	Live View .....	29
3.4	ActiveX Control .....	32
3.4.1	Digital Zoom .....	33
3.4.2	Record .....	33
3.4.3	Snapshot .....	34
3.4.4	Voice .....	34
3.4.5	Statistics .....	35
3.4.6	About .....	35
3.5	Network .....	36
3.5.1	Network .....	36
3.5.2	DDNS server .....	37
3.5.3	PPPoE .....	38
3.5.4	Streaming .....	39
3.5.5	UPnP .....	40
3.5.6	IP Filter .....	41
3.5.7	IP Notification .....	42
3.6	Camera .....	45
3.6.1	Picture .....	45
3.6.2	PTZ Setting .....	46
3.6.3	Preset Setting .....	47
3.6.4	Tour Setting .....	47
3.7	System .....	49
3.7.1	System .....	49
3.7.2	Date & Time .....	50
3.7.3	Maintenance .....	51
3.8	Video .....	53
3.8.1	Common .....	53
3.8.2	MPEG4/VGA .....	54
3.8.3	MPEG4/QVGA .....	55
3.8.4	MPEG4/QQVGA .....	56
3.8.5	VIDEO/JPEG .....	57
3.9	Audio .....	58
3.10	User .....	59

3.11 E-Mail .....	60
3.12 Object Detection .....	61
3.13 Event Server .....	62
3.13.1 FTP Server .....	62
3.13.2 TCP Server.....	63
3.13.3 HTTP Server .....	64
3.14 Event Schedule.....	65
Appendix A: Troubleshooting & FAQ .....	66
Appendix B: PING IP Address .....	69
Appendix C: Bandwidth and Video Size Estimation .....	70
Appendix D: DDNS Application .....	72

# 1. Introduction

This 25M Infrared Internet Camera is an inexpensive fully scalable surveillance technology. Because the 25M Infrared Internet Cameras can be plugged into your existing local area network infrastructure, you will potentially save thousands of dollars on unnecessary cabling.

The 25M Infrared Internet Camera is accessible via the LAN or Internet connection. Connect your 25M Infrared Internet Camera directly to a local area network or xDSL modem, and with Microsoft Internet Explorer you get instant, on demand video streams. Within minutes you can set up the 25M Infrared Internet Camera to capture a video sequence to a PC. The live video image can be uploaded to a website for the world to see or made available only to select users on the network.

## 1.1 Overview

This user's manual explains how to operate the 25M Infrared Internet Camera from a computer. Basically, the user's manual is written to be read on the computer display. However, users might consider printing it out to access easily and read it before you operate the Network Camera.

## 1.2 Features

- AXIS compatible SDK
- High quality 1/3 inch color CCD sensor of 25M IR distance
- Clear and high-image quality pictures in the daytime and at night
- 3GGP for 3G mobile remote application
- Multi-profile encoder supports MPEG-4 and M-JPEG video compression simultaneously
- LED used on ICA-312 are 4 times brighter than ordinary IR LED
- Special mental base enhances lighting and dissipates heat
- Weather-proof protection housing against the various weather
- Plug-N-Watch is able to simplify system integration in an existing network environment
- Because of supporting TCP/IP networking, SMTP e-mail, and HTTP public network standards, ICA-312 can be applied and utilized to a mixed IP network environment
- Easy configuration: the network administrator can configure and manage ICA-312 via Windows-based utility or web interface
- DDNS, PPPoE, FTP upload supports provide more alternative in your surveillance network
- Motion Detection, the motion detection feature can monitor any suspicious movement in specific area

## 1.3 Package Contents

User can find the following items in the package for ICA-312:

- ICA-312 x 1
- Power Adapter x 1
- Camera Mount Kit x 4
- CD Disk 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 ICA-312 packet will cause damage and void the warranty for this product.

## 2. Basic Setup

This chapter provides details of installing and configuring the ICA-312

### 2.1 System Requirements

Network Interface	10/100MBase-TX Ethernet
Monitoring System	Recommended for Internet Explorer 6.0 or later
Basic System Hardware	<ul style="list-style-type: none"><li>· CPU: Pentium 4, 3.0GHz or above</li><li>· Memory Size : 512 MB (512 MB or above Recommended )</li><li>· VGA card resolution : 1024 x 768 or above</li><li>· VGA card memory : 64 MB or above</li><li>· Sound card: Necessary</li><li>· <b>Network bandwidth: In VGA resolution mode, minimum upload bandwidth is 1Mbps.</b></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 Details

### Identification of ICA-312 cables



#### RS-485 & DI/DO:

Connect RS-485 to external scanner and connect to sensor in and alarm out devices.

Cable for I/O connectors:

Name	Cable Color	Function
12VDC	Gray	DC 12V (50mA maximum)
GND	Light purple	GND
D+	Yellow	RS485 data +
D-	Orange	RS485 data -
DI	Stripe purple	Digital signal input
DO	Dark purple	Digital signal output

**NOTE:** The RS-485 of ICA-312 is master that can control external scanner.



#### Local Video output (BNC port):

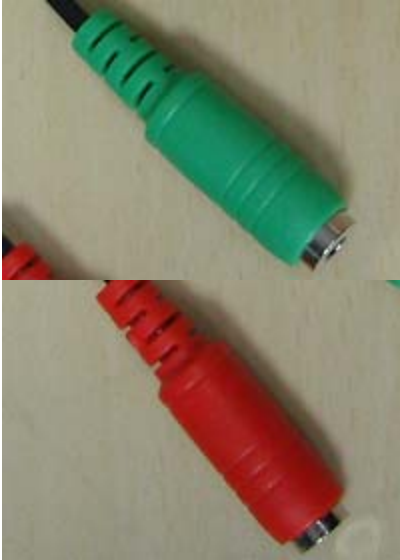
The Network Camera also provides composite video output. User can use BNC video cable to connect the Network Camera with a TV monitor or VCR.

#### DC-in Jack:

The input power is 12VDC. Note that supply the power to the Network Camera with standard power adapter included in package. Otherwise, the improper power adapter may damage the unit and result in danger.

#### RJ45 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 Category 5 “straight through” cable to connect the ICA-312 to a 100Mbps Fast Ethernet network switch or hub.



**Line out (audio out):**

Connect a loud speaker to the ICA-312. This function is for voice alerting and two-way audio.

**Line in (audio in):**

Connect an audio input source to the ICA-312.

## 2.3 Hardware Installation

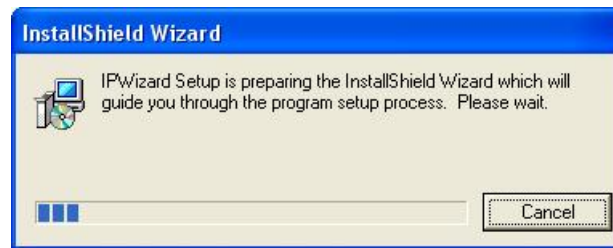
1. Fix ICA-312 to the location with wall mount fixture.
2. Plug-in Ethernet Cable into RJ-45 LAN port. Connect an Ethernet cable to the LAN port on the ICA-312 and connect the other side of the Ethernet cable to a hub/switch.
3. Connect the attached two power adapters to camera and plug-in this two adapters into power outlet.
4. Connect Video BNC connector to a local TV monitor or DVR if necessary.
5. Done.

## 2.4 Initial Utility Installation

This chapter shows how to quick set up your ICA-312. The ICA-312 is with the default settings. However to help you find the networked camera quickly the windows utility-IP Wizard 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 autorun program. Once completed, a welcome menu screen will appear.
2. Click the “IP Wizard” hyperlink; you will see the InstallShield Wizard dialog box as below.

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



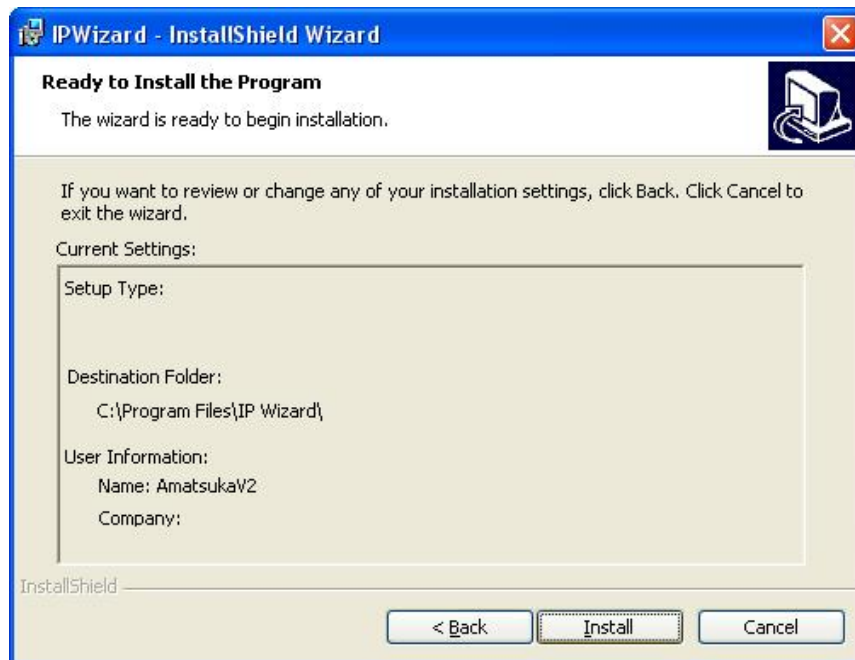
3. The “Welcome to the InstallShield Wizard for IP Wizard” will display on the screen and click “Next” to continue.



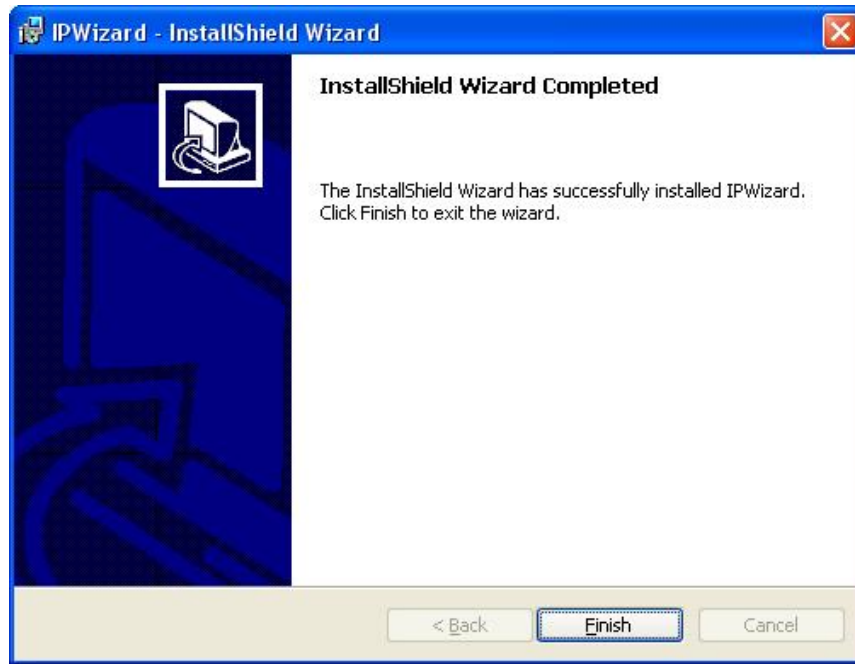
4. Please click “Next” to install with original settings, or you may click “Change...” button to modify the install folder then press “Next” to continue.



5. Please click “Install” to start the installation.



6. Please click "Finish" to complete the installation



7. Please double-click the utility icon on the desktop then you will see the ICA-312 utility.

## 2.5 IP Wizard

When you installed the ICA-312 on a LAN environment, you may execute IP Wizard to discover ICA-312's IP address and set up related parameters in the ICA-312.

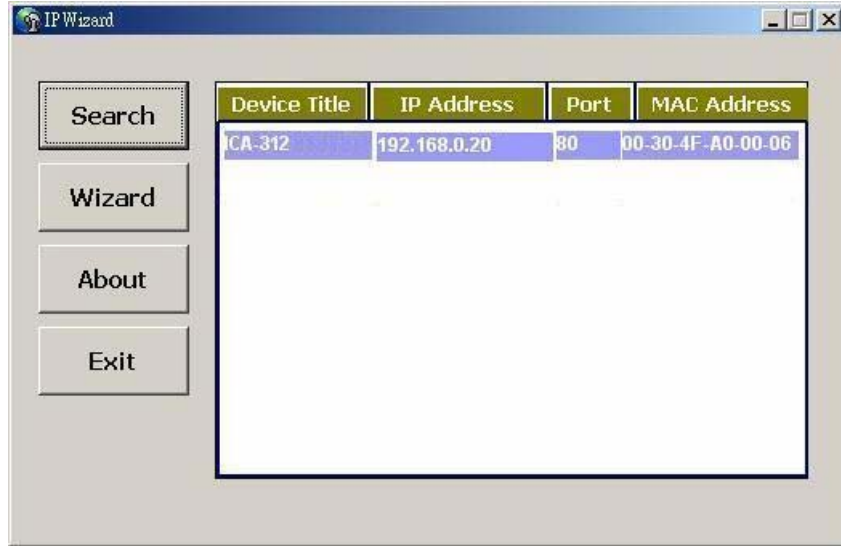
### Search Button:

When click **Search** button, a searching window will pop up. IP Wizard is starting to search ICA-312 on the LAN. The message "No Network Devices Is Found" will appear on this window if IP Wizard cannot find any camera on the LAN. Otherwise, existed cameras will be listed. If total quantity is over, please move the cursor to Information Box. Click on the left button of the mouse and the Information Box of the Listing Window will roll upward automatically; on the contrary, move the cursor to the Information Box on the top of Listing Window and click on the left button of the mouse and Listing Window will roll downward.



**Wizard Button:**

When IP Wizard finds your camera, **Wizard** button will become available. Please select the device you would like to configure in the Information Box. The device will turn into yellow which means this device is selected; please press “**Wizard**” button. Or you could double click the mouse left key on the selected camera. Relative settings will be carried out. Details of Install Wizard will be specified as Section 2.6.



**About Button:**

When click “About” button, you will see the version information of IP Wizard shown in the pop-up dialog box.



**Exit Button:**

Click “Exit” button will close the IP Wizard Program.

## 2.6 Configure With IP Wizard

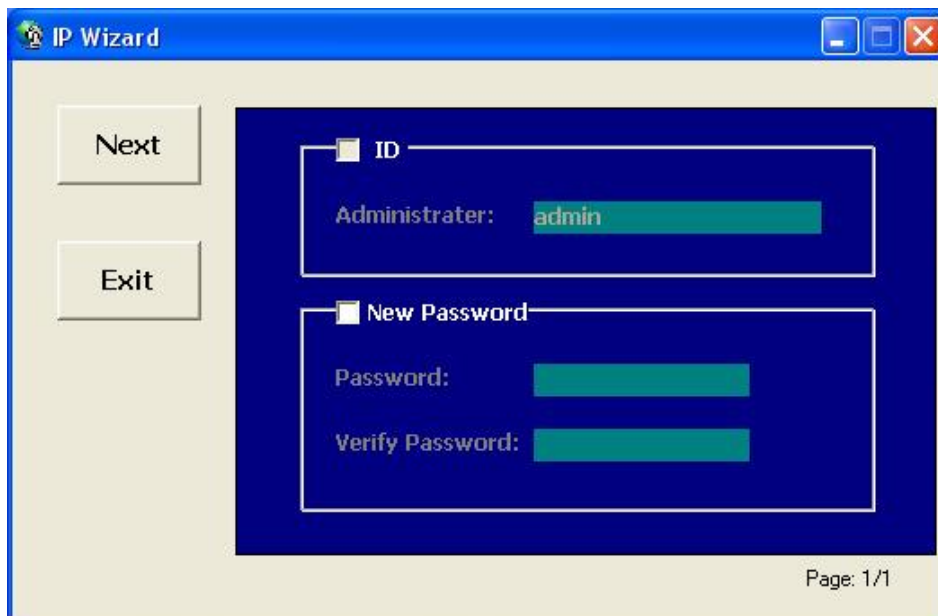
After pressing Installation Wizard, please key in Username and Password of the device when login dialog box appears on the screen. You can login the setup page if authorized name and password is correct. Default **username/password** for machine login: **admin/<no password>**



A screenshot of a 'Login' dialog box. The window has a blue title bar with the text 'Login' and a close button. Inside the window, there is a yellow background with a key icon in the top left. Below the icon, there are two labels: 'Administrater:' and 'Password:'. Each label is followed by a white text input field. At the bottom of the dialog, there are two buttons: 'Submit' and 'Cancel'.

### Wizard Page 1: Username and Password

This page is about the change of the authorized user name and password of the selected device. If you don't want to change them, please click "Next" to move to the next page. Press "Exit" button if you don't want to set up right now. If you want to change authorized name or password, you have to check the box in front of **ID** or **New Password**. Authorized Username should contain at least 5~20 characters and New Password should contain at least 4~8 characters.

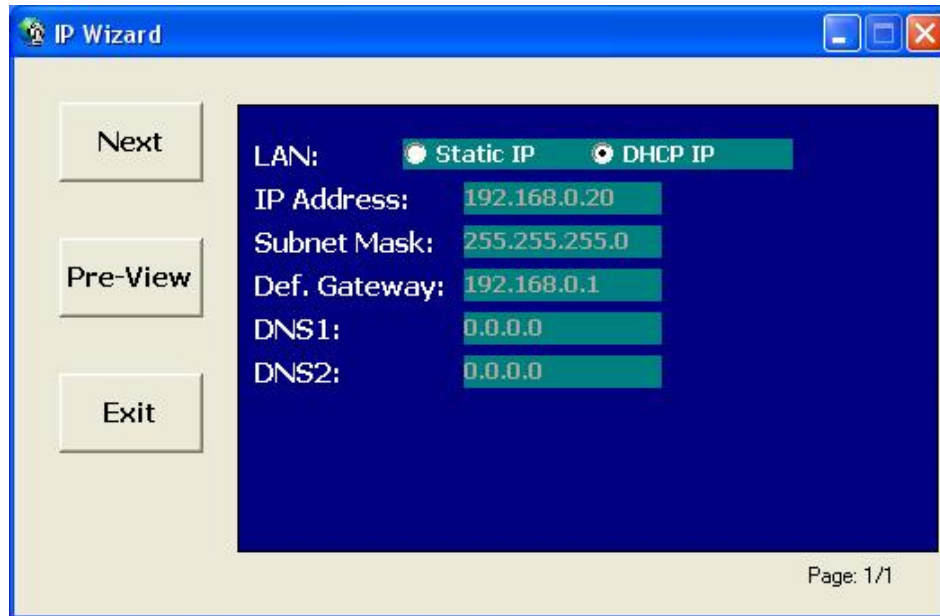


A screenshot of the 'IP Wizard' application window. The window has a blue title bar with the text 'IP Wizard' and standard window controls. The main area has a light beige background. On the left side, there are two buttons: 'Next' and 'Exit'. The central part of the window is a dark blue panel with two sections. The first section is titled 'ID' and has a checkbox that is checked. Below it, there is a label 'Administrater:' followed by a green text input field containing the text 'admin'. The second section is titled 'New Password' and has a checkbox that is unchecked. Below it, there are two labels: 'Password:' and 'Verify Password:', each followed by a green text input field. At the bottom right of the window, there is a page indicator that says 'Page: 1/1'.



## Wizard Page 2: LAN Setting

This page is about the select of Static IP or DHCP ON.



**LAN** You can configure this ICA-312 to obtain its address automatically or manually assign. If there is a DHCP server in your network environment and you select “**DHCP ON**”, ICA-312 can automatically obtain an IP address. If you don't have DHCP server or you want to use fixed IP address, please select “**Static IP**” and fill in the following fields with proper parameters.

**IP Address** IP address is a unique number for identifies this device on the WAN or LAN. These numbers are usually shown in groups separated by periods, for example: 192.168.0.200

**Subnet Mask** Subnets allow network traffic between hosts to be separated based on the network's configuration. In IP networking, traffic takes the form of packets. IP subnets advance network security and performance to some level by organizing hosts into logical groups. Subnet masks contain four bytes and usually appear in the same "dotted decimal" data. For example, a very common subnet mask in its binary demonstration 11111111 11111111 11111111 00000000 will usually be shown in the corresponding, more readable form as 255.255.255.0.

**Def. Gateway** A gateway is a piece of software or hardware that passes information between networks. You'll see this term most often when you either log in to an Internet site or when you're transient email between different servers.

**DNS1** When you send email or position a browser to an Internet domain such as xxxxx.com, the domain name system translates the names into IP addresses. The term refers to two things: the conventions for naming hosts and the way the names are control across the Internet.

**DNS2** The same function as DNS1. It is optional, not necessary

**Note:** If no IP address is assigned after 30 seconds, the ICA-312 will work with its default IP

address **192.168.0.20**. User may now open your web browser, and key in <http://192.168.0.20> in the address bar of your web browser to logon ICA-312's web configuration page.

### Wizard Page 3: Confirmation

This page shows the new configurations. If it is correct, please press "Submit" icon and the setting information will be save to your ICA-312. Click on "Exit" to close this window.

Please make sure all parameters before submit.			
Administrater:	admin	Wireless:	Disable
Password:		SSID:	
IP Address:	192.168.0.20	Channel:	1
Subnet:	255.255.255.0	Key1:	*
Def. Gateway:	192.168.0.1	Key2:	*
DNS1:	0.0.0.0	Key3:	*
DNS2:	0.0.0.0	Key4:	*

Page: 1/1

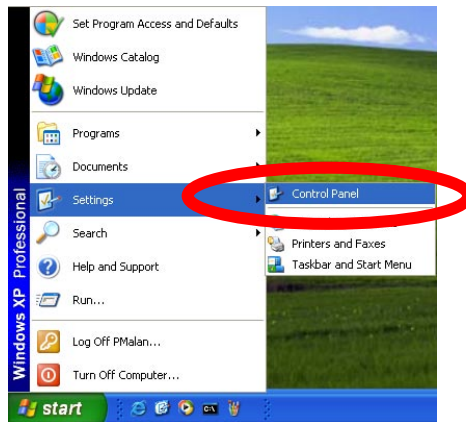
## 2.7 UPnP Function

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

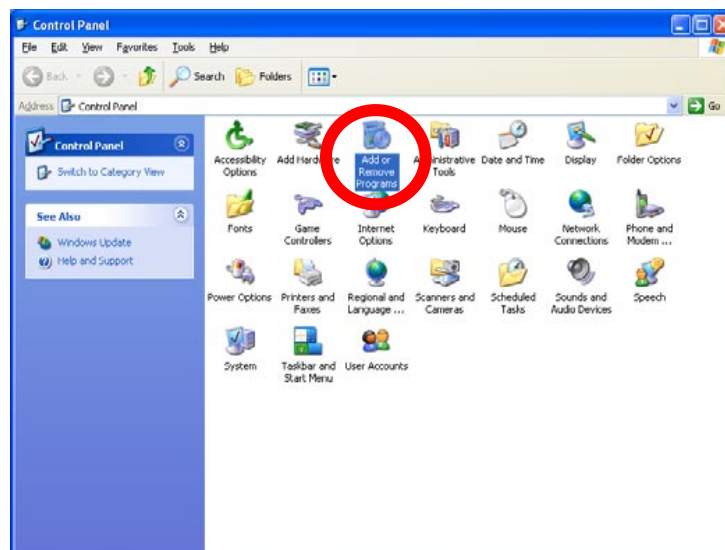
### 2.7.1 Windows XP

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.

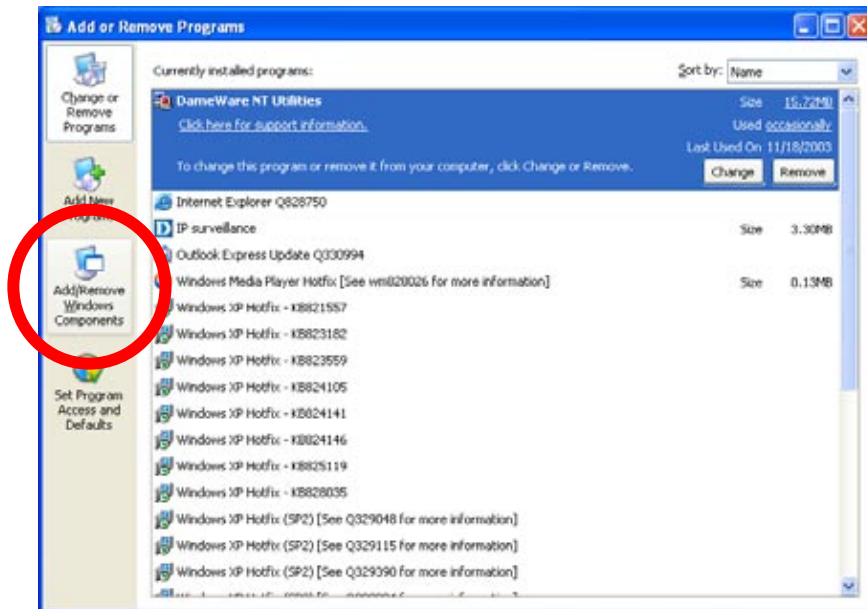
Go to **Start > Settings**, and Click **Control Panel**



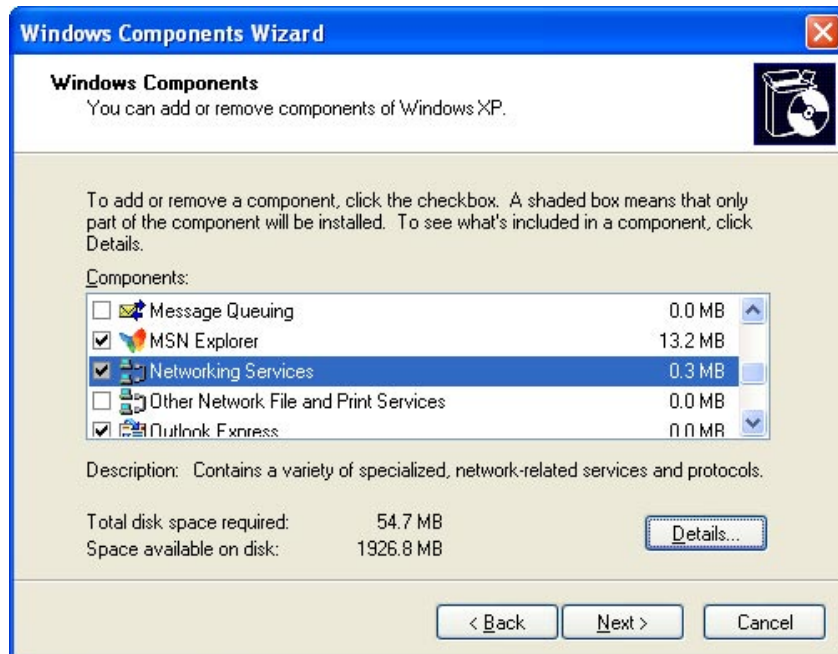
The "Control Panel" will display on the screen and double click **Add or Remove Programs** to continue



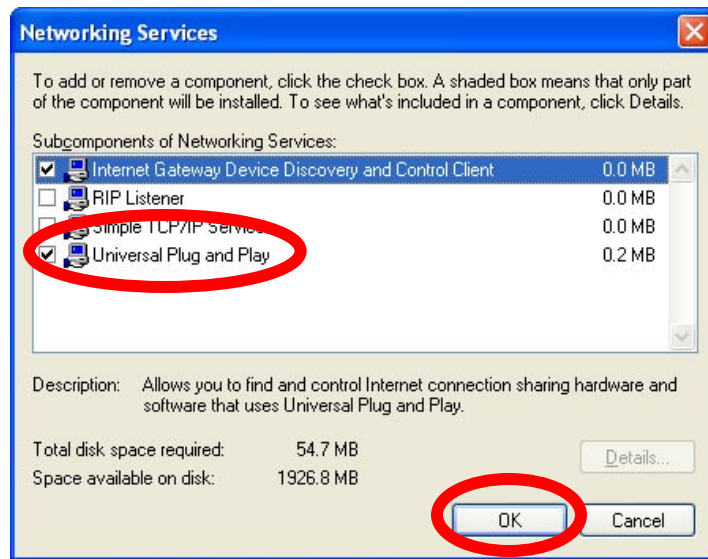
The “Add or Remove Programs” will display on the screen and click **Add/Remove Widows Components** to continue.



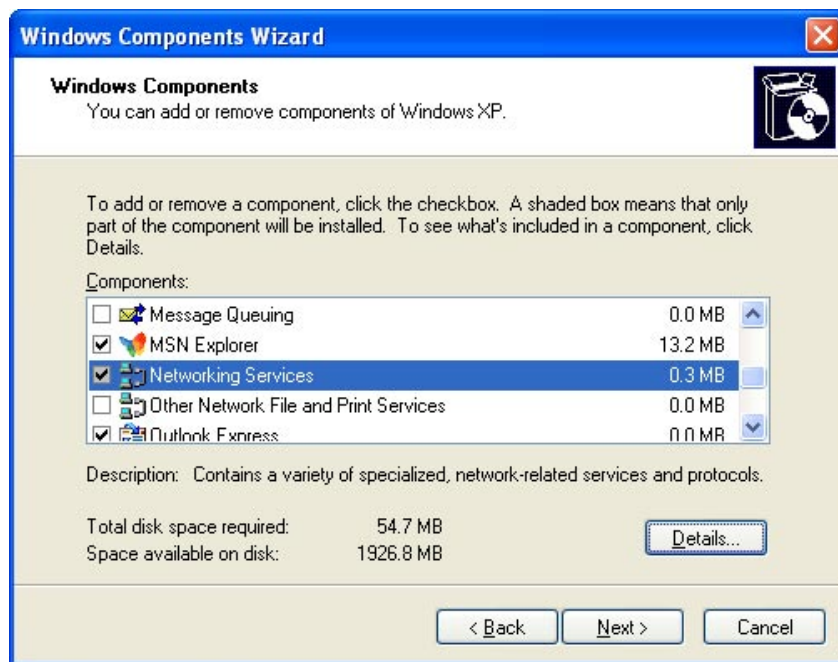
The following screen will appear, select **Networking Services** and click **Details** to continue



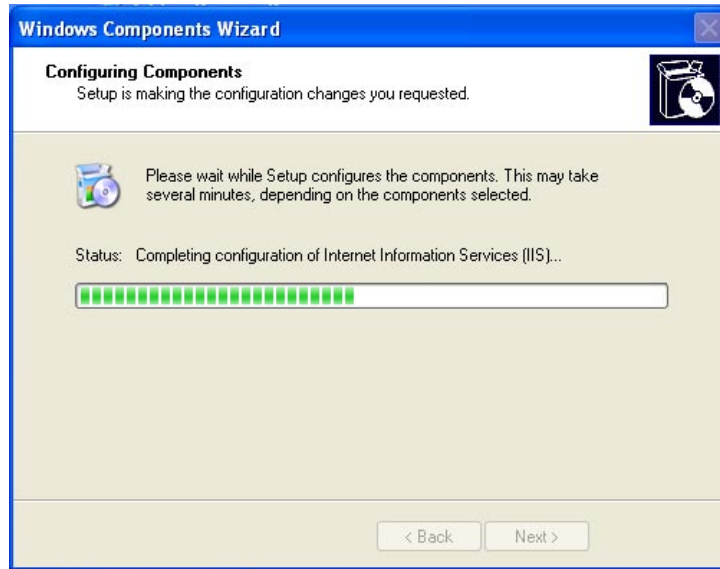
The “Networking Services” will display on the screen, select **Universal Plug and Play** and click **OK** to continue.



Please click **Next** to continue



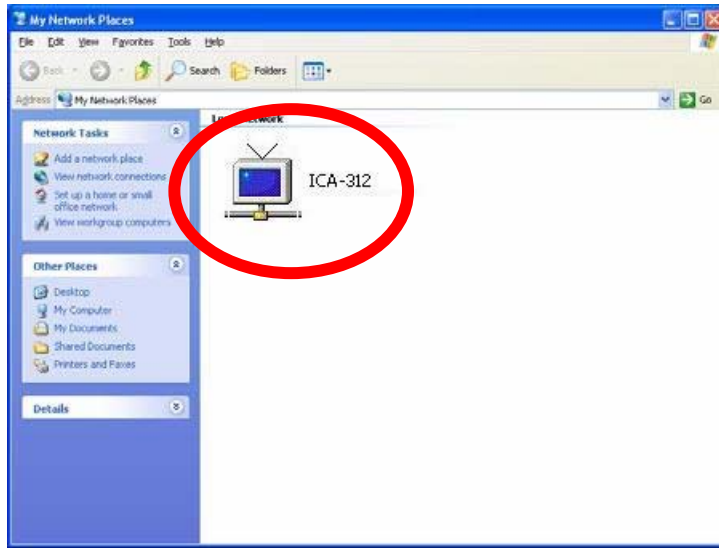
The program will start installing the UPnP automatically. You will see the below pop-up screen, please wait while Setup configures the components.



Please click **Finish** to complete the UPnP installation



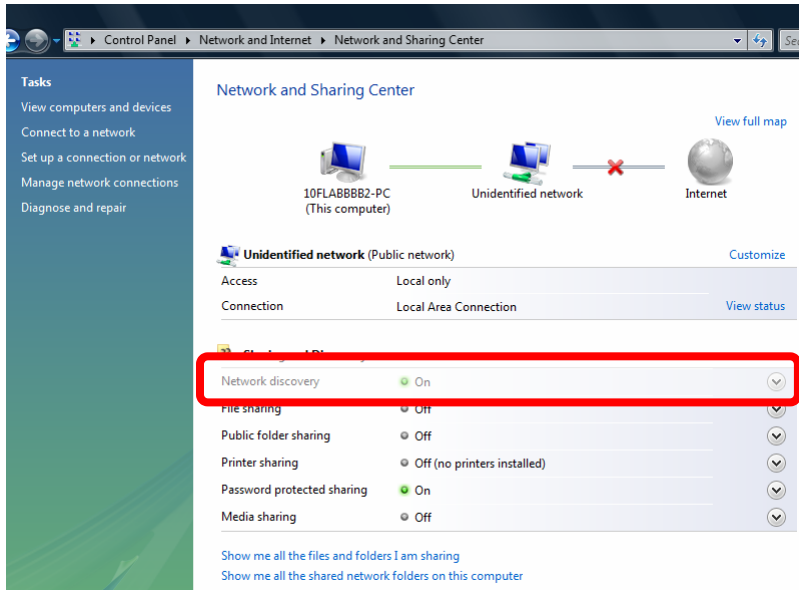
Double-click **My Network Places** on the desktop, the “My Network Places” will display on the screen and double-click the UPnP icon with ICA-312 to view your device in an internet browser.



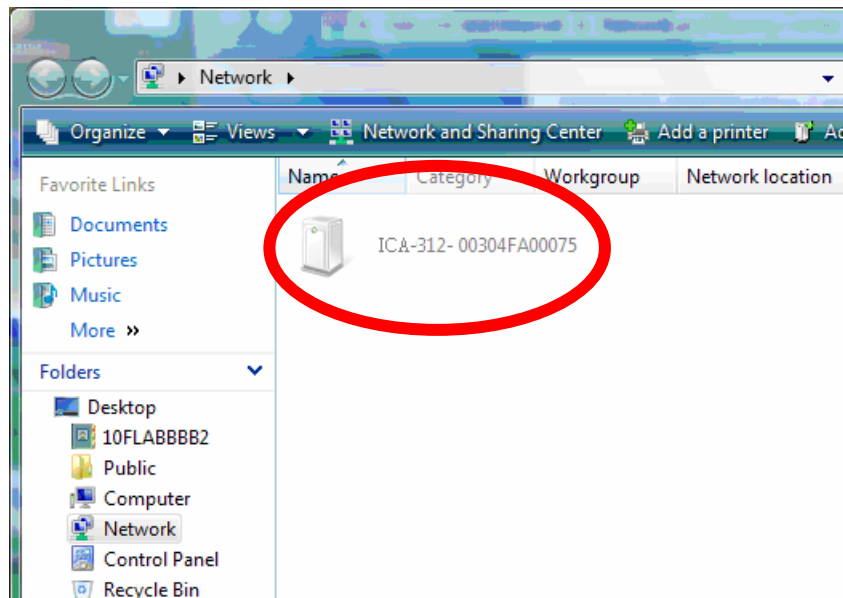
## 2.7.2 Windows Vista

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 ICA-312 to view your device in an internet browser.





## 2.8 Setup ActiveX to use the ICA-312

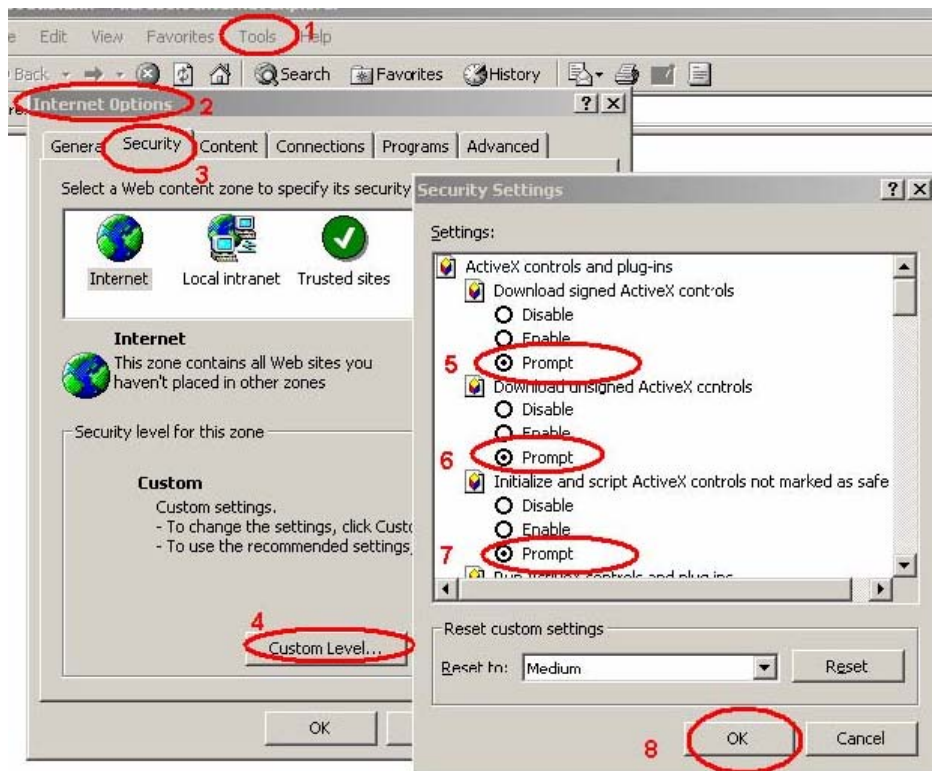
The ICA-312 web pages communicate with the ICA-312 using an ActiveX control. The ActiveX control must be downloaded from the ICA-312 and installed on your PC. Your Internet Explorer security settings must allow for the web page to work correctly. To use the ICA-312, user must setup his IE browser as follows:

### 2.8.1 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*



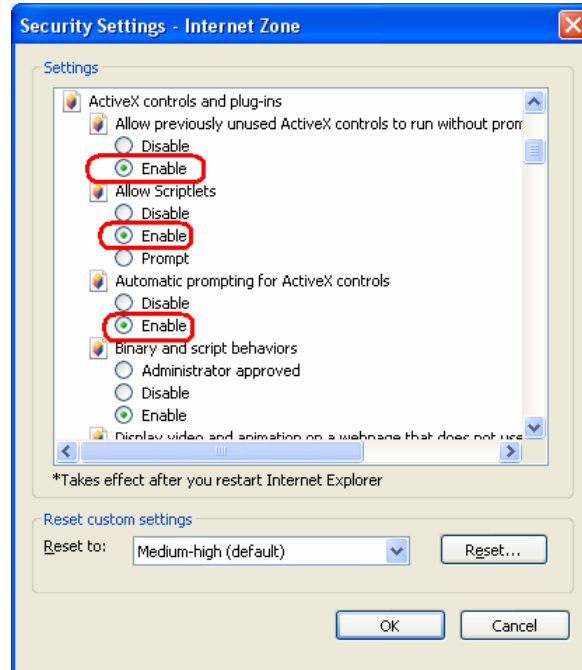
By now, you have finished your entire PC configuration for ICA-312.

## 2.8.2 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*

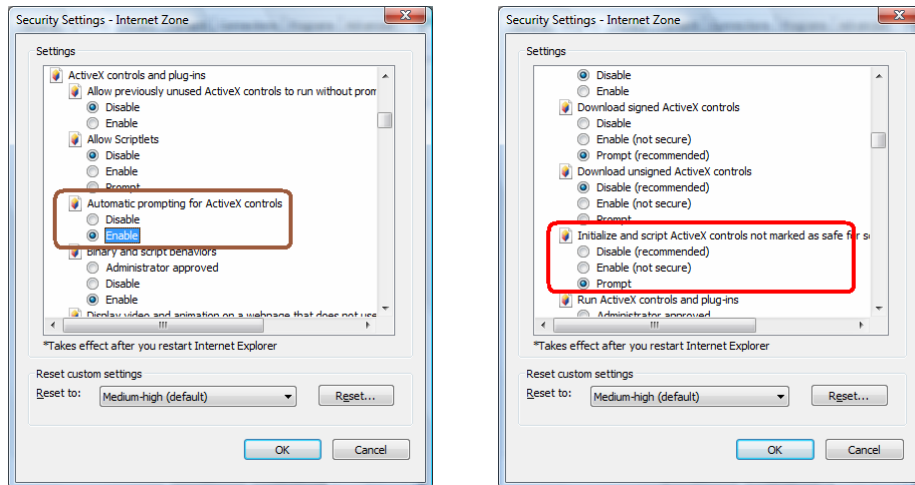


By now, you have finished your entire PC configuration for ICA-312.

### 2.8.3 Internet Explorer 7 for Windows Vista

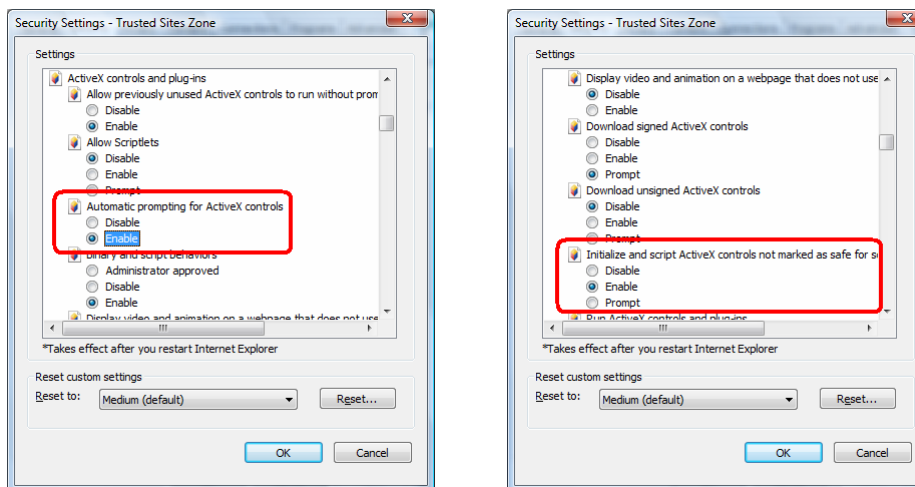
From your IE browse → "Tools" → "Internet Options..." → "Security" → "Internet" → "Custom Level...", please setup your "Settings" as follow.

- 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 ICA-312.

# 3. Web-based Management

This chapter provides setup details of the ICA-312's Web-based Interface.

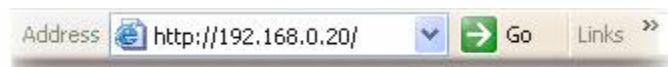
## 3.1 Introduction

The ICA-312 can be configured with your Web Browser. Before configure, please make sure your PC is under the same IP segment with ICA-312.

## 3.2 Connecting to ICA-312

- Use the following procedure to establish a connection from your PC to the ICA-312.
- Once connected, you can add the ICA-312 to your Browser's Favorites or Bookmarks.

Start the web browser on the computer and type the IP address of the ICA-312. The Default IP: "<http://192.168.0.20>"

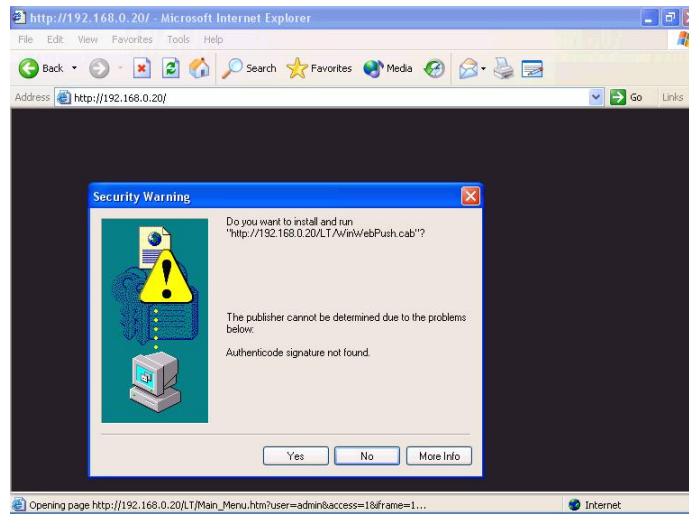


The login window of ICA-312 will appear, Default login **username/password** is : **admin/ <no password>**

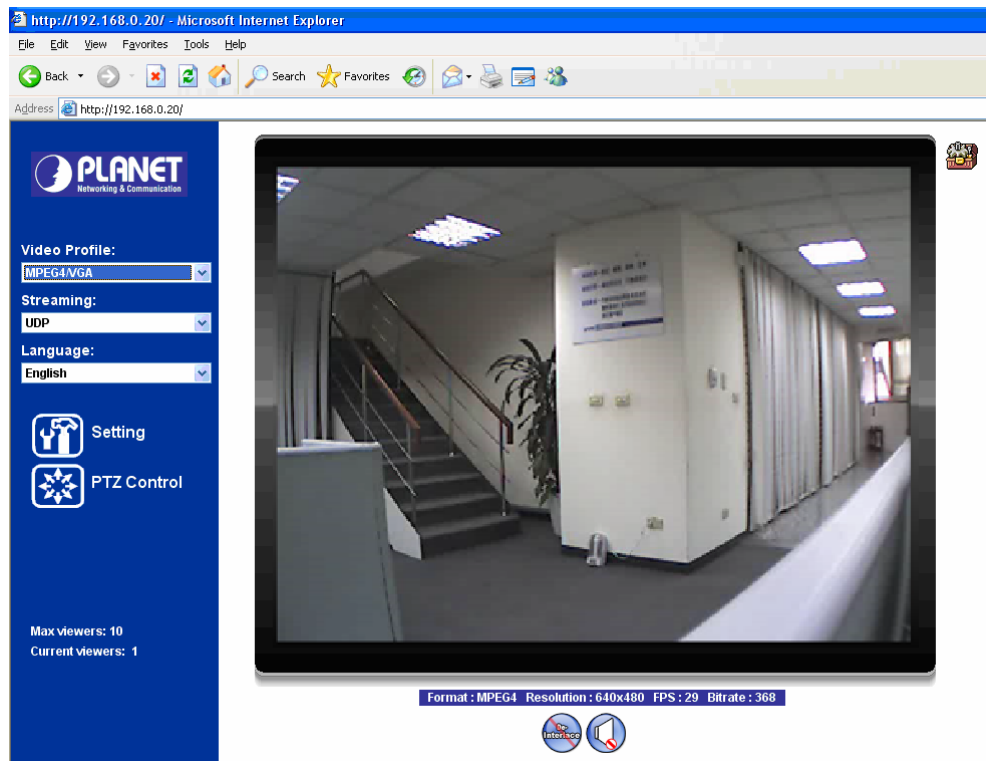


**NOTE:** If the User name and Password have been changed with IP Wizard, please enter the new User name and Password here.

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



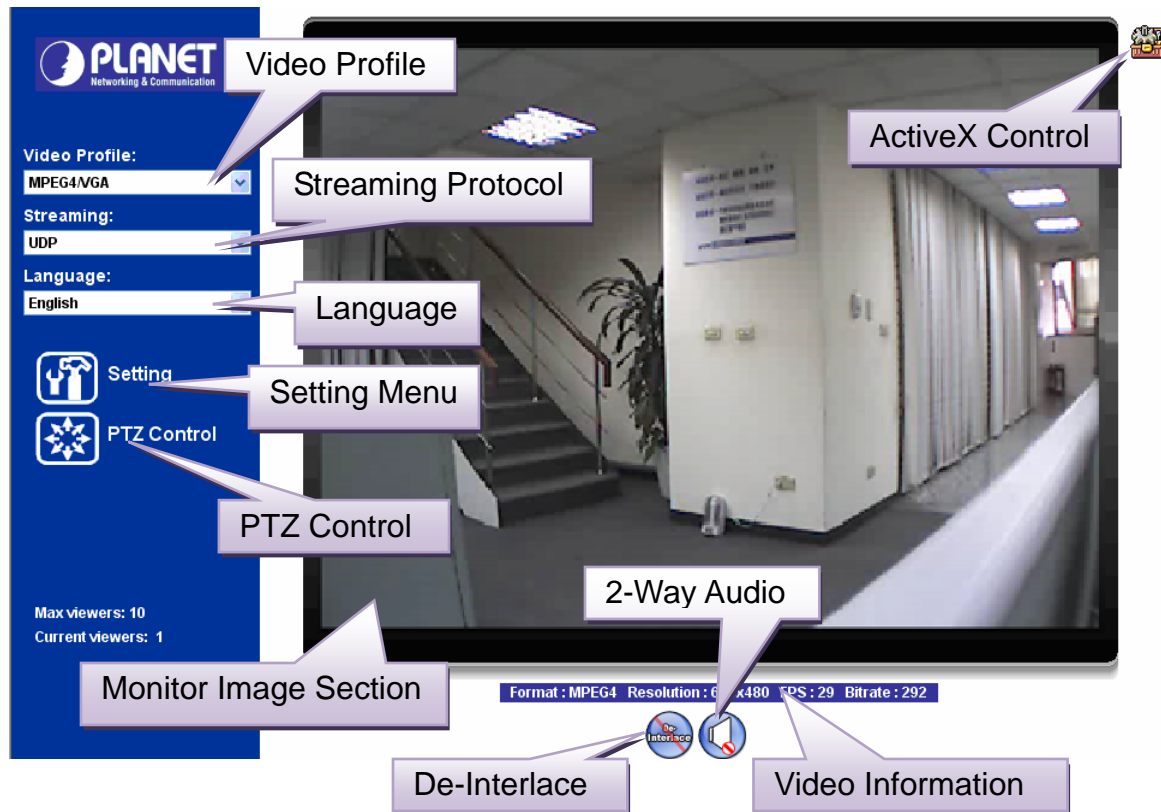
After the ActiveX control was installed and run, the first image will be displayed.



**NOTE:** If you log in the ICA-312 as an ordinary user, setting function will be not available. If you log in the ICA-312 as the administrator, you can perform all the settings provided within the device.

### 3.3 Live View

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



<b>Monitor Image Section</b>	The image shot by the ICA-312 is shown here. The date and time are displayed at the top of the window.
<b>Video Profile</b>	The ICA-312 support multi-profile for both MEPG-4 and M-JPEG simultaneously. User can chose the proper and/or preferred profile here.
<b>ActiveX Control</b>	The plug-in ActiveX control supports a lot of functions by clicking the left mouse button. Note that this feature only supports on the ActiveX control within Microsoft® Internet Explorer.

**2-Way Audio** The ICA-312 supports 2-way audio function. User can chose to enable or disable this function by toggling the icon below



: Disable audio uploading function.



: Enable audio uploading function.

**De-Interlace**

The device also supports de-interlace function inside ActiveX. User can chose to enable or disable this function by toggling the icon below.



: Disable de-interlace function.



: Enable de-interlace function.

**Setting Menu**

This function is detail setting for ICA-312 that only available for user logged into ICA-312 as administrator.

Item	Action
Network	Configure Network settings such as DHCP, DDNS, 3GPP, PPPoE and UPnP
Camera	Adjust camera parameters
System	Configure system information, date & time, maintenance, and view system log file.
Video	Configure bit rate and frame rate of video profiles
Audio	Configure audio parameters
User	Setup user name, password and login privilege
E-Mail	Setup E-Mail configuration
Object Detection	Setup Object detection
Event Server	This device is a client site and configure information to upload images to server
Event Schedule	Configure the schedule while event triggered

**Streaming Protocol**

User can select proper streaming protocol according to networking environment.

**Language**

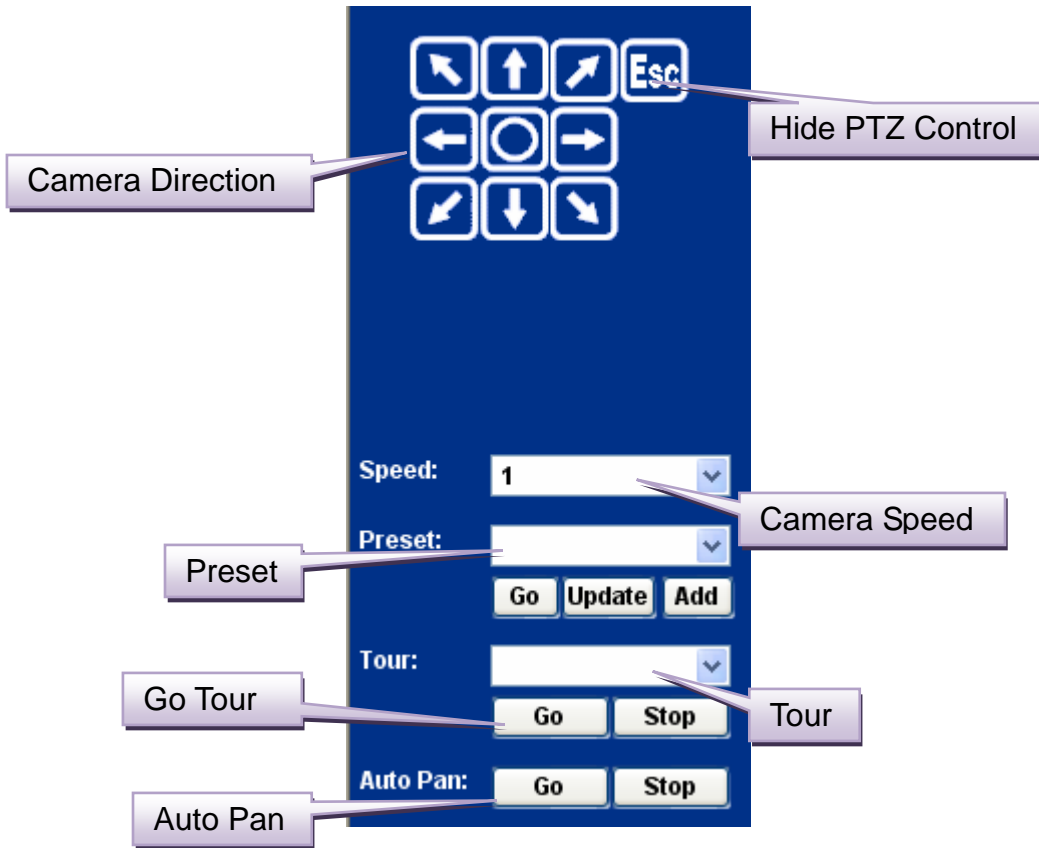
The device could provide multiple languages to meet customer's requirement.

**Video Information**

Display video information including video format, resolution, frame rate and bit rate.

**PTZ Control**

Click to display the following control panel:



**Hide PTZ Control** Click the icon will hide the PTZ control function.

**Camera Direction** Control camera up/down/left/right and home position.

**Camera Speed** Choose the speed of Pan and Tilt.

**Preset** Add/Update the preset positions or go to one of these positions.

**Tour** Select one of the camera tours. Camera tour is comprised by series of preset locations.

**Go Tour** Execute the selected camera tour.

**Auto Pan** Execute the auto pan of camera. While auto pan is running, the camera will swing the camera automatically. Note that the speed of auto pan is fixed and cannot be adjustable.



## 3.4 ActiveX Control

The plug-in ActiveX control supports a lot of functions by clicking the left mouse button. Note that this feature only supports on the ActiveX control within Microsoft® Internet Explorer.

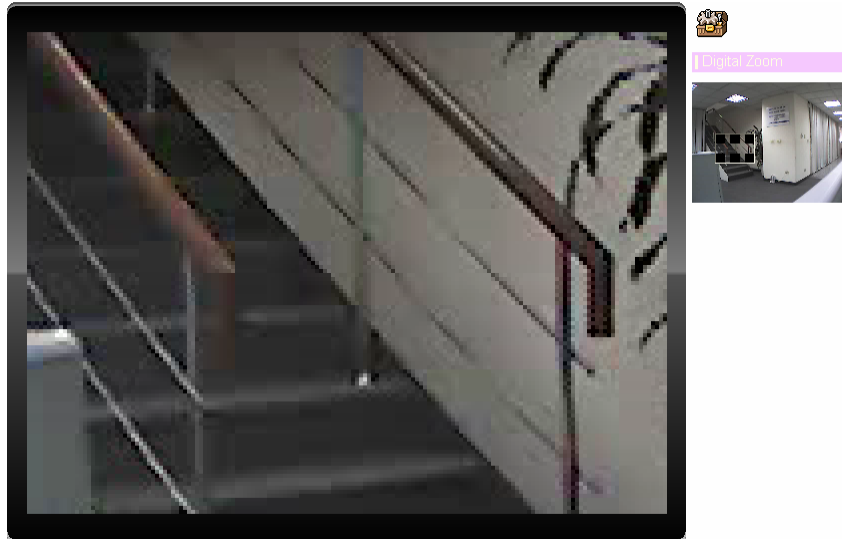
On the ActiveX control icon, click the LeftMouseButton, then a menu pop-up. This menu provides features that are unique to the ActiveX control. These features include:

- *“Digital Zoom”*,
- *“Record”*,
- *“Snapshot”*,
- *“Voice”*,
- *“Statistics”*,
- *“About”*



### 3.4.1 Digital Zoom

Click **Digital Zoom** to activate this function as above. User can drag or scale the box over the video to adjust zoom ratio and position.



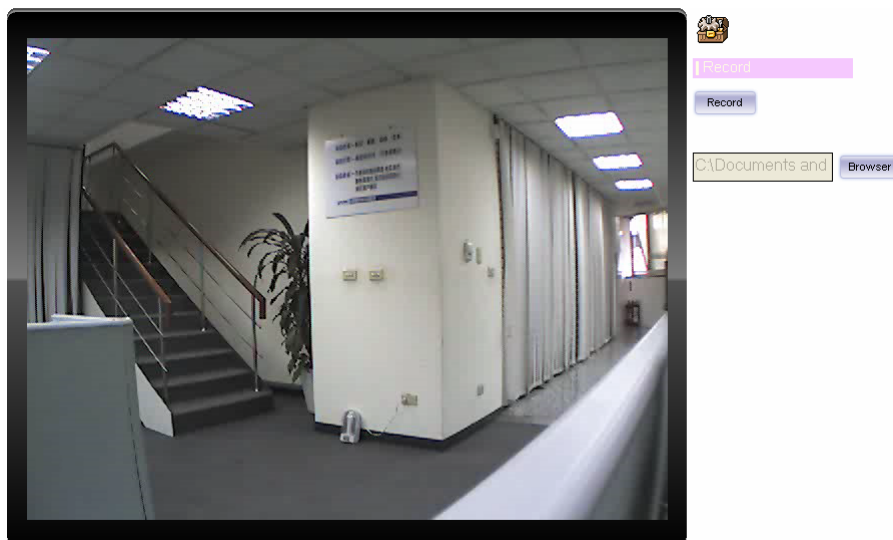
### 3.4.2 Record

Click **Record** to activate this function. Press **Record** button to start recording. The video file is saved as ASF format into your local PC. While you want to stop it, press **Stop** to stop recording. Select **Browser**, the pop-up window to select the save path and file name prefix, select **OK** to continue.

After stop recording, list the files, this file is named as Video\_yyyymmddhhmmss.asf

The ASF files can be display by the standard Windows Media Player, but it needs the DixectX 9.0 or later version to be installed.

**NOTE:** Default save path is "C:\Documents and Settings\All user\Desktop"

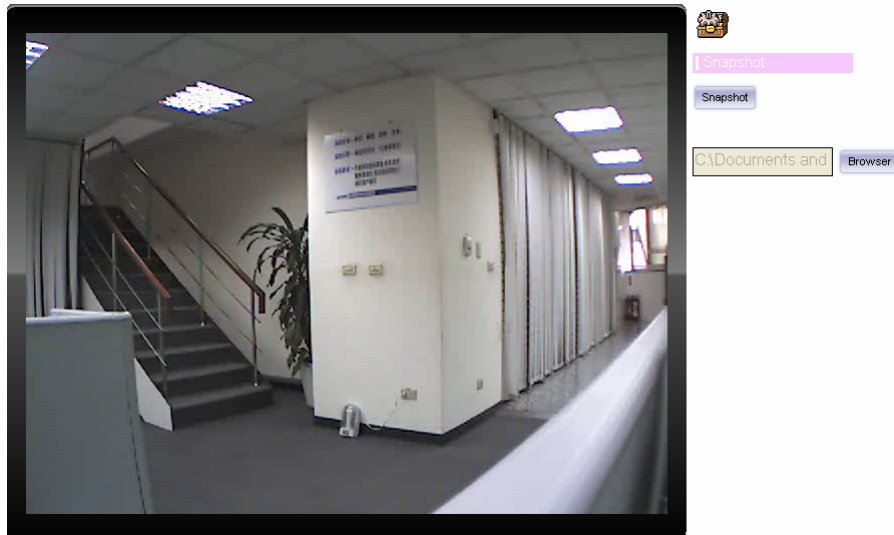


### 3.4.3 Snapshot

Click **Snapshot** to activate this function. Press **Snapshot** button to take a picture. The image file is saved as JPEG format into your local PC. Select **Browser**, the pop-up window to select the save path and file name prefix, select **OK** to continue.

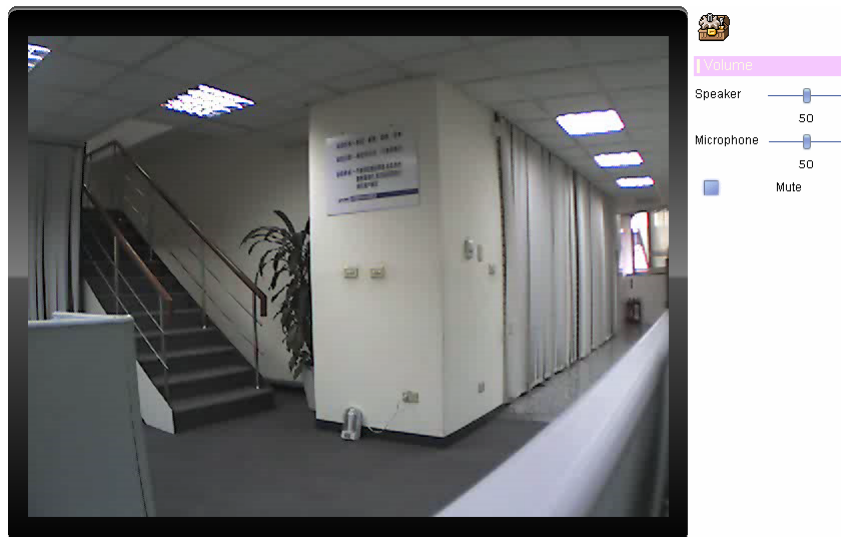
If you like to retrieve the saved image, select the file to display the saved image by using any one of graph editing tools.

**NOTE:** Default save path is "C:\Documents and Settings\All user\Desktop"



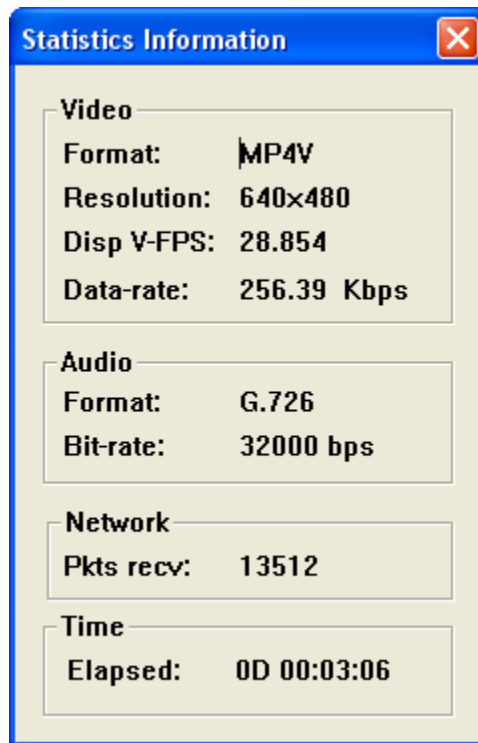
### 3.4.4 Voice

Click **Volume** to activate this function. These have two control bars for speaker and microphone volume. Scroll this control bar to adjust the audio attribute. Check the volume mute will mute the speaker output.



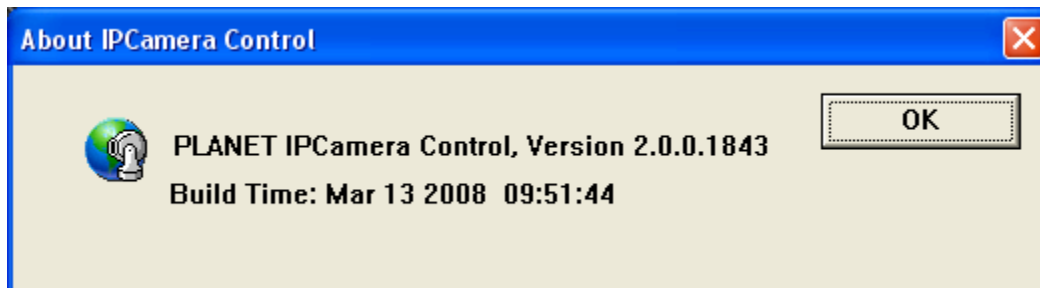
### 3.4.5 Statistics

Click **Statistics** to activate this function. A window will be popup to show the statistics information of the streaming status. **Note** that this information is the statistics between the device and your local PC.



### 3.4.6 About

Click **About** to show the ActiveX information



## 3.5 Network

Use this menu to configure the network to connect the device and the clients.

### 3.5.1 Network

This section provides the menu of connecting the device through Ethernet cable.

Network DDNS PPPoE Streaming UPNP IP Filter IP Notification

MAC Address 00:30:4F:A0:00:A3

Obtain IP address automatically (DHCP)

IP Address 192.168.0.20 Test

Subnet Mask 255.255.255.0

Gateway 192.168.0.254

Obtain DNS from DHCP

Primary DNS

Secondary DNS

HTTP Port 80 (1 - 65535)

**MAC Address** Display the Ethernet MAC address of the device. Note that user cannot change it.

**Obtain an IP address automatically (DHCP)** DHCP: Stands for Dynamic Host Configuration Protocol. Enable this checked box when a DHCP server is installed on the network to issue IP address assignment. With this setting, the IP address is assigned automatically. If this device cannot get an IP address within limited tries, the device will assign a default IP address, 192.168.0.20, by itself as the default IP address.

**IP address, Subnet mask, Gateway, 1st DNS, 2nd DNS server** If you do not select Obtain an IP address automatically, then you need to enter these network parameters by yourself.

**IP Address** This address is a unique numbers that identifies a computer or device on the WAN or LAN. These numbers are usually shown in groups separated by periods, for example: 192.168.0.200

**Subnet Mask** Subnets allow network traffic between hosts to be separated based on the network's configuration. In IP networking, traffic takes the form of packets. IP subnets advance network security and performance to some level by organizing hosts into logical groups. Subnet masks contain four bytes and usually appear in the same "dotted decimal" data. For example, a very common subnet mask in its binary demonstration 11111111 11111111

11111111 00000000 will usually be shown in the corresponding, more readable form as 255.255.255.0.

**Gateway** A gateway is a piece of software or hardware that passes information between networks. You'll see this term most often when you either log in to an Internet site or when you're transient email between different servers.

**Primary DNS** When you send email or position a browser to an Internet domain such as xxxxx.com, the domain name system translates the names into IP addresses. The term refers to two things: the conventions for naming hosts and the way the names are control across the Internet.

**Secondary DNS** The same function as DNS1. It is option not necessary

**Note:** need to reboot the device to take this setting effect.

**HTTP Port** The device supports two HTTP ports. The first one is default port 80 and this port is fixed. This port is very useful for Intranet usage. The second HTTP port is changeable. Users could assign the second port number of http protocol, and the WAN users should follow the port number to login. If the http port is not assigned as 80, users have to add the port number in back of IP address. For example: <http://192.168.0.20:80>.

If multiple devices are installed on the LAN and also required to be accessed from the WAN, then the **HTTP Port** can be assigned as the virtual server port mapping to support multiple devices.

When the configuration is finish, please click "OK" to save and enable the setting.

### 3.5.2 DDNS server

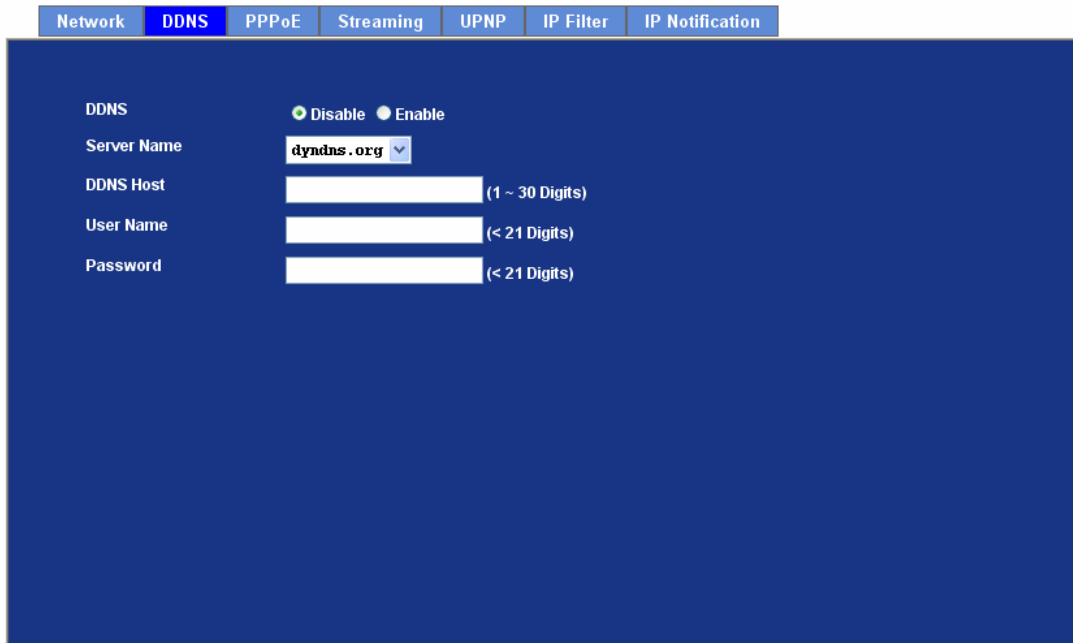
DDNS: Stands for Dynamic Domain Name Server

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 D for more information.



**DDNS** To enable or disable the DDNS service here.

**Server Name** Choose the built-in DDNS server.

**DDNS Host** The domain name is applied of this device.

**User Name** The user name is used to log into DDNS.

**Password** The password is used to log into DDNS.

### 3.5.3 PPPoE

PPPoE: Stands for Point to Point Protocol over Ethernet

A standard builds on Ethernet and Point-to-Point network protocol. It allows ICA-312 connect 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

- Connect to a LAN by DHCP or Fixed IP
- Access the device, enter **Setting → Network → PPPoE** as below

**PPPoE** To enable or disable the PPPoE service here.

**User Name** Type the user name for the PPPoE service which is provided by ISP.

**Password** Type the password for the PPPoE service which is provided by ISP.

**IP Address, Subnet Mask, and Gateway** Shows the IP information got from PPPoE server site.

**Status** Shows the Status of PPPoE connection.

### 3.5.4 Streaming

RTSP is a streaming control protocol, and a starting point for negotiating transports such as RTP, multicast and Unicast, and for negotiating codecs. RTSP can be considered a "remote control" for controlling the media stream delivered by a media server. RTSP servers typically use RTP as the protocol for the actual transport of audio/video data.



Network	DDNS	PPPoE	Streaming	UPnP	IP Filter	IP Notification
RTSP Port	554		(554 ~ 65535)			
RTP Port	50000		~	50999		(1024 ~ 65535)

**RTSP Port** Choose the RTSP port. The RTSP protocol allows a connecting client to start a video stream. Enter the RTSP port number to use. The default value is 554.

**RTP Port** Specify the range of transmission port number of video stream. The default range is 50000 to 50999. User can specify a number between 1024 and 65535.

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

**NOTE:** To use the 3GPP function, it strongly recommends installing 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 URL to access: **rtsp://host/mpeg4/media.3gp**  
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.

### 3.5.5 UPnP

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 Network Camera. If your operating system is UPnP enabled, the device will automatically be detected and a new icon will be added to “My Network Places.” If you do not want to use the UPnP functionality, it can be disabled

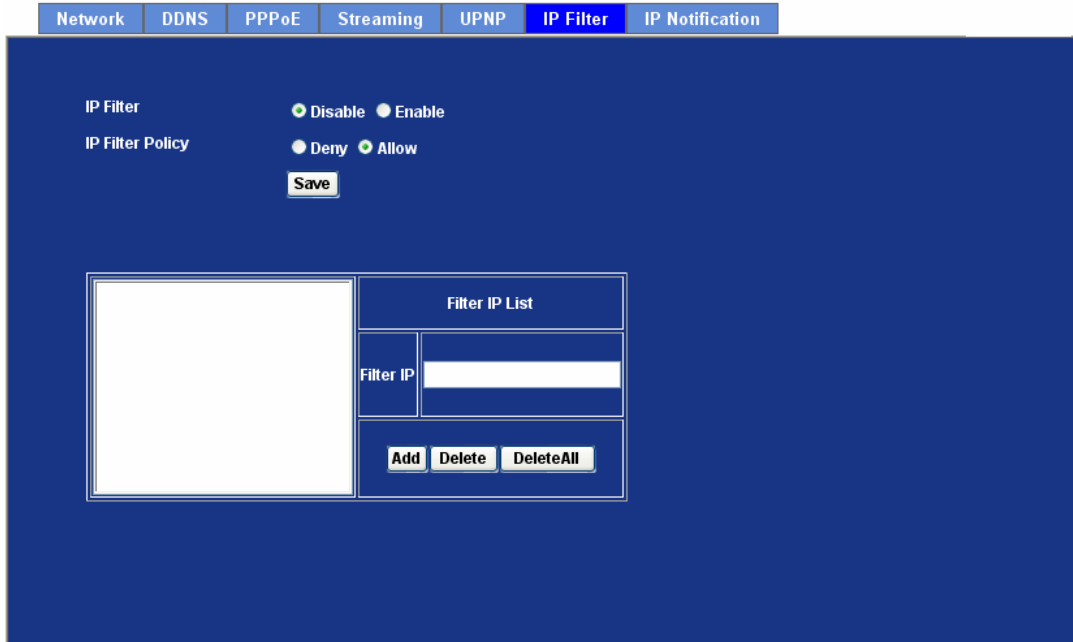
In addition, this device also provides UPnP IGD function for NAT traversal easily. Use NAT

traversal when your device is located on an intranet (LAN) and you wish to make it available from the other (WAN) side of a NAT router. With NAT traversal properly configured, all HTTP traffic to an external HTTP port in the NAT router will be forwarded to the device.

<b>UPnP</b>	To enable or disable the UPnP service here.
<b>Friendly Name</b>	Shows the friendly name of this device here.
<b>UPnP NAT Traversal</b>	When enabled, the device will attempt to configure port mapping in a NAT router on your network, using UPnP™. Note that UPnP™ must be enabled in the NAT router first.
<b>Port Range</b>	The port range will open in NAT router.
<b>External IP Address</b>	Show the IP address and port for WAN access through Internet. If NAT traversal is configured successfully, user can use this IP address and port to access this device.

### 3.5.6 IP Filter

You can enter different user's IP address which are allowing enter or denying by the device.



**IP Filter** To enable or disable the IP filter function here.

**IP Filter Policy** Choose the filter policy where is denying or allowing.

### 3.5.7 IP Notification

In case the IP address is changed, system is able to send out an email to alert someone if the function is enabled.

Network	DDNS	PPPoE	Streaming	UPNP	IP Filter	IP Notification
<p>SMTP Notification(email) <input checked="" type="radio"/> Disable <input type="radio"/> Enable</p> <p>Send To <input type="text"/></p> <p>Subject <input type="text" value="IP notification"/></p> <p>TCP Notification <input checked="" type="radio"/> Disable <input type="radio"/> Enable</p> <p>TCP Server <input type="text"/></p> <p>TCP Port <input type="text"/> (1 ~ 65535)</p> <p>Message: <input type="text"/></p> <p>HTTP Notification <input checked="" type="radio"/> Disable <input type="radio"/> Enable</p> <p>URL <input type="text" value="http://"/> (&lt;60 Digits)</p> <p>HTTP Login Name <input type="text"/> (&lt;21 Digits)</p> <p>HTTP Login Password <input type="text"/> (&lt;21 Digits)</p> <p>Proxy Address <input type="text"/></p> <p>Proxy Port <input type="text"/> (1 ~ 65535)</p> <p>Proxy Login Name <input type="text"/> (&lt;21 Digits)</p> <p>Proxy Login Password <input type="text"/> (&lt;21 Digits)</p> <p>Custom parameters: <input type="text"/></p> <p>Message: <input type="text"/></p>						

**SMTP Notification (e-mail)** If enable this function, then the “**Send to**“ and “**Subject**” field need to be filled.

**Send To** Type the receiver’s e-mail address. This address is used for reply mail.

**Subject** Type the subject/title of the E-mail.

**TCP Notification** If enable this function, then the “**TCP Server**“, “**TCP Port**”, and “**Message**” fields need to be filled.

**TCP Server** Type the server name or the IP address of the TCP server.

**TCP Port** Set port number of TCP server.

**Message** The message will be sent to FTP server.

**HTTP Notification** If enable this function, then the fields below need to be filled.

**URL** Type the server name or the IP address of the HTTP server.

**HTTP Login Name** Type the user name for the HTTP server.

**HTTP Login Password** Type the password for the HTTP server.

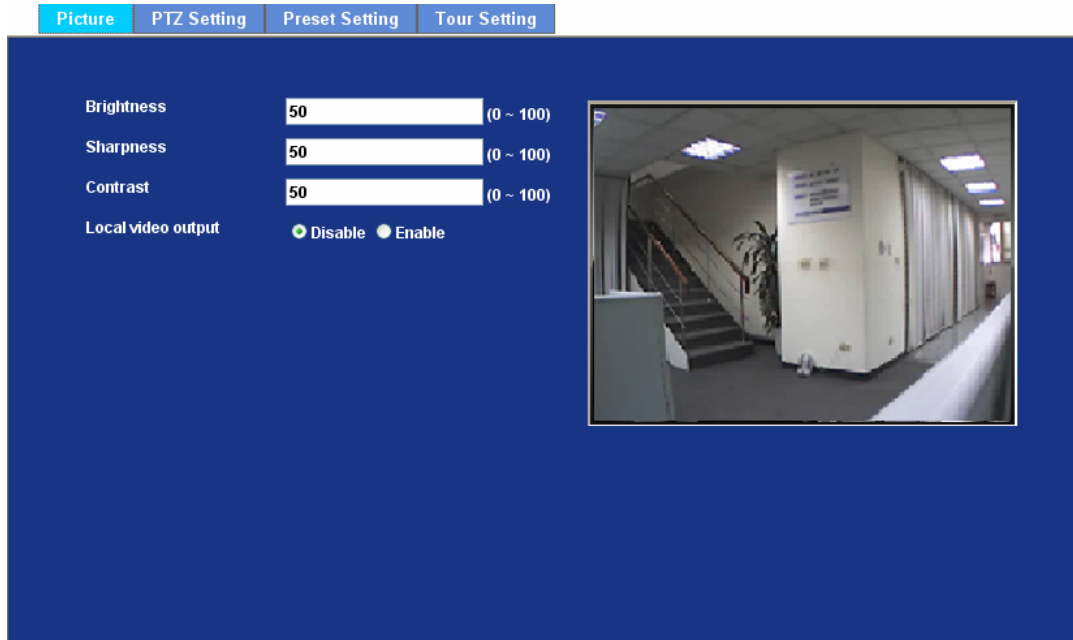
**Proxy Address** Type the server name or the IP address of the HTTP Proxy.

<b>Proxy Port</b>	Set port number of Proxy.
<b>Proxy Login Name</b>	Type the user name for the HTTP Proxy.
<b>Proxy Login Password</b>	Type the password for the HTTP Proxy.
<b>Custom Parameter</b>	User can set specific parameters to HTTP server.
<b>Message</b>	The message will be sent to HTTP server.

## 3.6 Camera

Use this menu to set the function of the camera of ICA-312

### 3.6.1 Picture



**Brightness** Large value will brighten camera.

**Sharpness** Large value will sharpen camera.

**Contrast** Large value will contrast camera heavily.

**Local Video Output** Check this item if a TV or video monitor has been connected to video output of the Network Camera. Un-check it if not any device has been connected. Otherwise, the image will be too brightness

### 3.6.2 PTZ Setting

Picture PTZ Setting Preset Setting Tour Setting

Camera Protocol Pelco-D

Camera Address 1

Baud rate 9600

**PTZ Protocol Type** The Network Camera is connected to built-in ICA-312 and controls this device thru RS485 bus.

**Baud Rate** This is the communication speed between network module and ICA-312. Note that please DO NOT changes the default value except on special purpose. If so, user needs to check and set value properly for both sides

**Camera ID** This is the camera ID set in speed dome camera. Note that please DO NOT changes the default value except on special purpose. If so, user needs to check and set value properly for both sides

### 3.6.3 Preset Setting

This page provides the edit tool to modify or delete the “Preset Setting” item by item.

Picture | PTZ Setting | **Preset Setting** | Tour Setting

Preset Number	Preset Name

Preset List	
Preset Number	<input type="text"/>
Preset Name	<input type="text"/>
<input type="button" value="Modify"/> <input type="button" value="Delete"/>	

### 3.6.4 Tour Setting

Up to 64 positions can be preset, and the camera can be programming to move to the preset position sequentially.

Picture | PTZ Setting | Preset Setting | **Tour Setting**

Tour Number	Tour Name	Running	Sequence	Preset Name	Wait Time

Tour Name	<input type="text"/>	Preset	<input type="text" value="v"/>
Running	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	Wait Time	<input type="text" value="10"/> Seconds
<input type="button" value="Add"/> <input type="button" value="Modify"/> <input type="button" value="Delete"/>		<input type="button" value="Add"/> <input type="button" value="Modify"/> <input type="button" value="Delete"/>	

**Tour Name** The group name of the sequence of camera tour. The maximum number of camera tour is 16.



**Running** Enable or disable this camera tour.

**Preset** Set the sequence of the tour. Maximum 16 points can be assigned. The selected preset position is added in the Sequence list from 1 to 16.

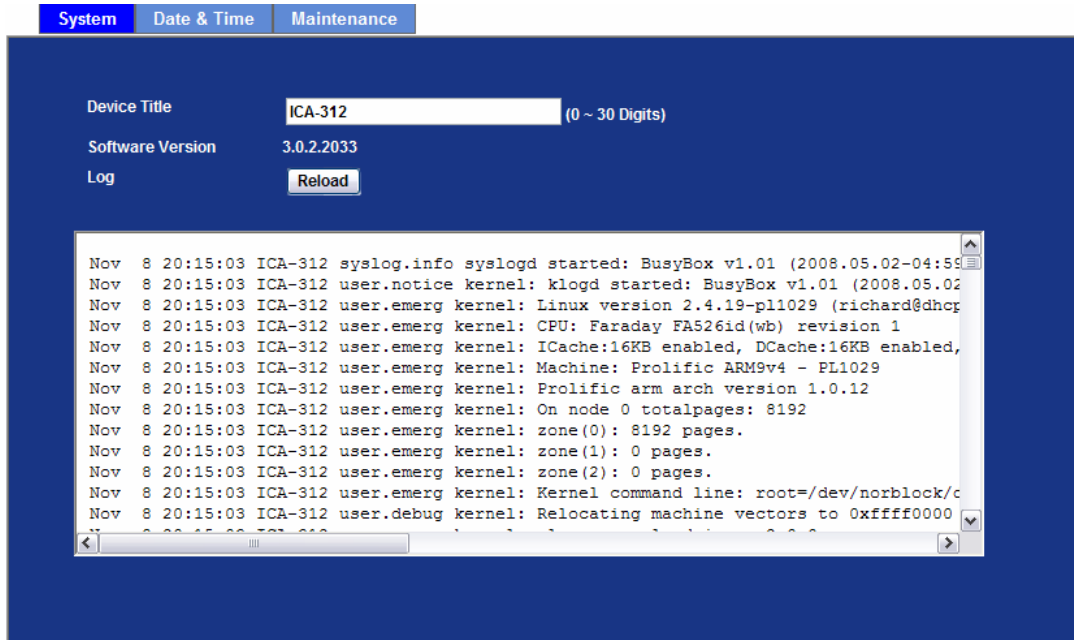
**Wait Time** Type a period of time during which the camera is to stay at each preset point, between 0 to 36000 seconds.

To use the camera tour function, user must preset some camera positions first. The maximum number of preset points is 64.

## 3.7 System

Use this menu to perform the principal settings of ICA-312.

### 3.7.1 System



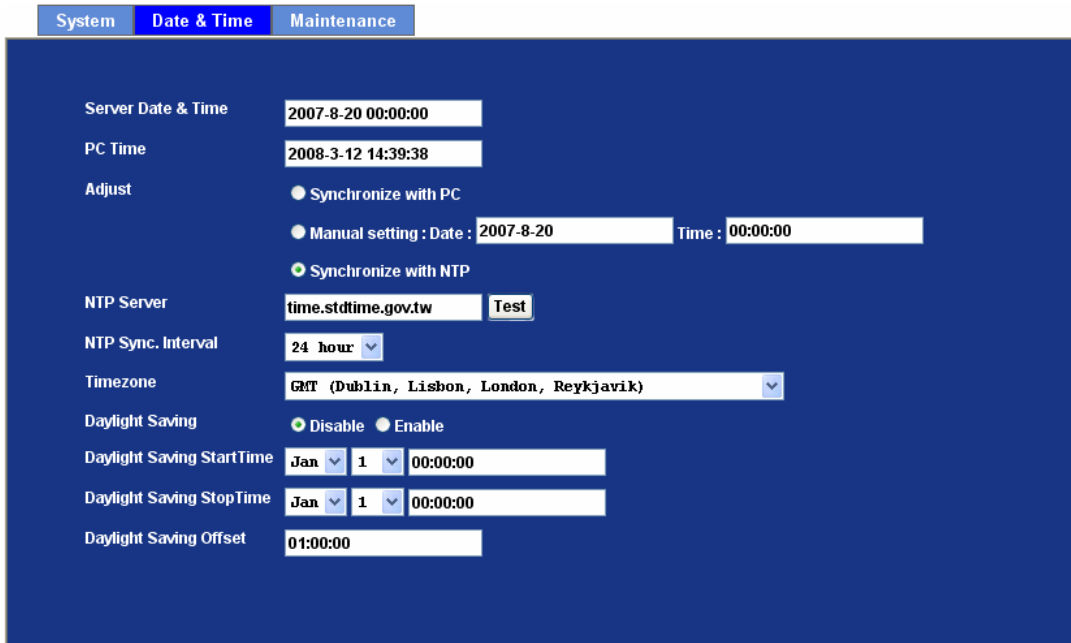
**Device Title** You can enter the name of this unit here. It's very useful to identify the specific device from multiple units.

**Software Version** This information shows the software version in the device.

**Log** User can check the system log information of the device, including the Main Info, Appended Info, Operator IP, and so on ...

### 3.7.2 Date & Time

You can setup the time setting of ICA-312, make it synchronized with PC or remote NTP server. Also, you may select the correct time zone of your country.



**Server Date & Time** Displays the date and time of the device

**PC Time** Displays the date and time of the connected PC

<b>Adjust</b>	<b>Manual setting:</b>	Click this option to set time and date manually
	<b>Synchronize with NTP:</b>	Click this option if you want to synchronize the device's date and time with those of time server called NTP server (Network Time Protocol)
	<b>Synchronize with PC:</b>	Click this option to enable time synchronization with PC time

**NTP Server Name** Type the host name or IP address or domain name of the NTP server.

**NTP Sync. Interval** Select an interval between 1 and 23 hours at which you want to adjust the device's time referring to NTP server

**Time Zone** Set the time difference from Greenwich Mean Time in the area where the device is installed.

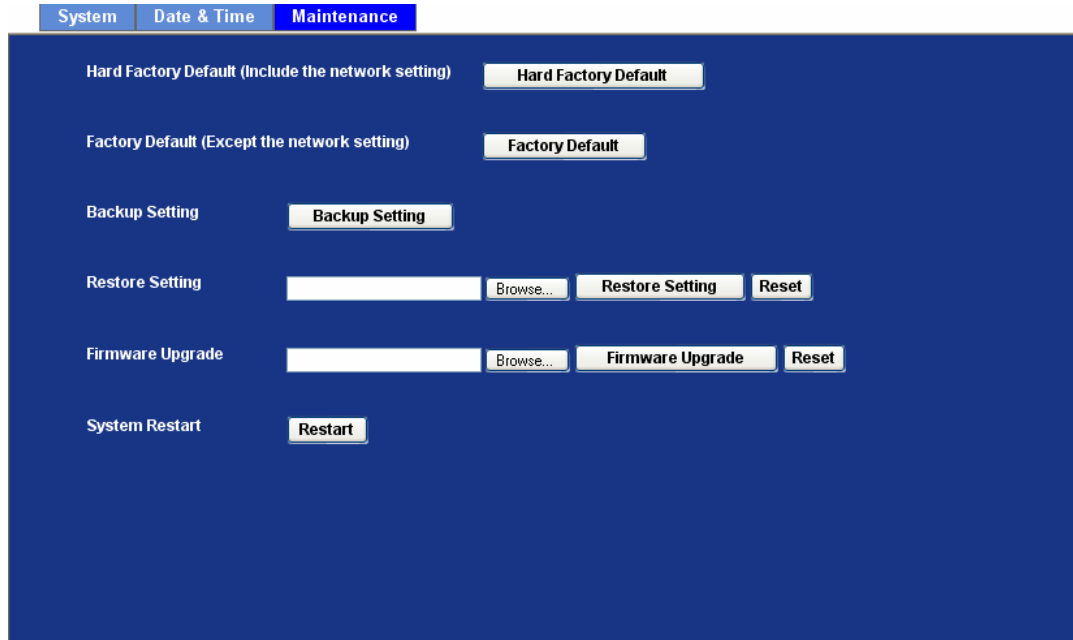
**Daylight Saving** Check this item to enable daylight saving adjustment.

**Daylight Saving Start Time** Sets up the date and time of daylight saving start time.

**Daylight Saving Stop Time** Sets up the date and time of daylight saving stop time.

**Daylight Saving Offset** Sets up the date of daylight saving offset.

### 3.7.3 Maintenance



**Hard Factory Default (Include the network setting)** Recall the device hard factory default settings. Note that click this button will reset all device's parameters to the factory settings (including the IP address).

**Factory Default (Except the network setting)** The unit is restarted and most current settings are reset to factory default values. This action will not reset the network setting.

**Backup Setting** To take a backup of all of the parameters, click this button. If necessary, it will then be possible to return to the previous settings, if settings are changed and there is unexpected behavior.

**Restore Setting** Click the "Browse" button to locate the saved backup file and then click the "Restore Setting" button. The settings will be restored to the previous configuration.

**Firmware Upgrade** The device supports new firmware upgrade.

1. Close all other application programs which are not necessary for firmware update.
2. Make sure that only you access this device at this moment

3. Disable Motion Detection function.
4. Select "**Firmware name**"
5. Select the Firmware binary file. (**Note that it must make sure that the Firmware only applies to this device, once update, it will be burned into FLASH ROM of system.**)
6. Once the firmware file was selected, select "Upgrade".
7. The upgrade progress information will be displayed on the screen.
8. A message will be shown while the firmware upgraded. Once the upgrading process completed, the device will reboot the system automatically.
9. Please wait for 80 seconds, and then you can use IP Wizard to search the device again.

**Warning!!!** The download firmware procedure cannot be interrupted. If the power and/or network connection are broken during the download procedure, it might possibly cause serious damage to the device.

**Please be aware that you should not turn off the power during updating the firmware and wait for finish message.**

**Furthermore, do not try to upgrade new firmware if it's not necessary.**

#### **System Restart**

The device is restarted without changing any of the settings.

## 3.8 Video

This device provides more video profiles as below to support different request to each client simultaneously. Each user can choose his preferred video profile as his request independently.

### 3.8.1 Common

Common MPEG4/VGA MPEG4/QVGA MPEG4/QQVGA VIDEO/JPEG

Text Overlay Setting

- Include Date
- Include Time
- Include Text  (0 ~ 20 Digits)

#### **Text Overlay Setting**

There are some important information can be embedded into image, including date, time, and/or text.

### 3.8.2 MPEG4/VGA

Common MPEG4/VGA MPEG4/QVGA MPEG4/QQVGA VIDEO/JPEG

Video Type MPEG4

Resolution 640 x 480

Rate Control  Quality 90 (1 ~ 100)  Bitrate 2048 Kbps (384 ~ 4096)

Max Frame Rate 30

#### Video Type

It's MPEG4 mode in this profile

#### Resolution

It's VGA mode (640x480) in this profile

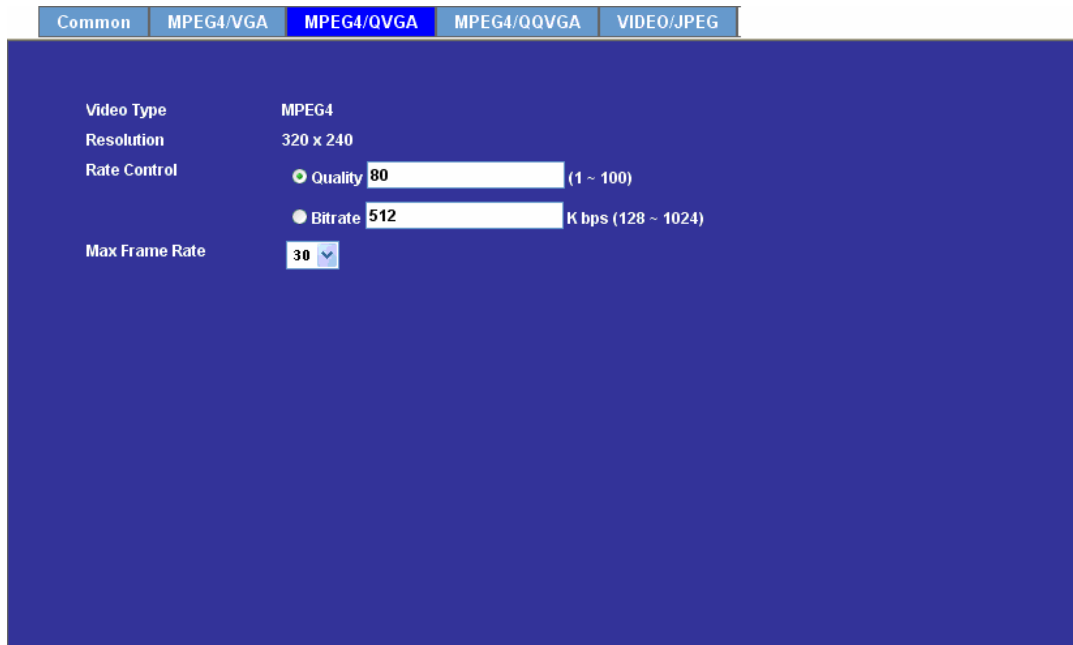
#### Bit rate Control

Defines the rate control method of this profile. There are two options: Constant Bit Rate (CBR) or Variable Bit Rate (VBR). For CBR, the video bit rate is between 384kbps and 4096kbps. User can set the desired bit rate to match the limitation of bandwidth. For VBR, user should choose the quality level to set the video quality rather than bit rate. The quality level is between 1 and 100. The higher value is the better quality.

#### Max Frame Rate

Defines the targeted frame rate of this profile. For example, set the frame rate to 15 fps, then the image will be updated for 15 frames per second. User can set the desired max frame rate versus video quality under the limited bandwidth.

### 3.8.3 MPEG4/QVGA



Common MPEG4/VGA **MPEG4/QVGA** MPEG4/QQVGA VIDEO/JPEG

Video Type MPEG4

Resolution 320 x 240

Rate Control  Quality 80 (1 ~ 100)  Bitrate 512 Kbps (128 ~ 1024)

Max Frame Rate 30

**Video Type** It's MPEG4 mode in this profile.

**Resolution** It's QVGA mode (320x240) in this profile.

**Bit rate Control** Defines the rate control method of this profile. There are two options: Constant Bit Rate (CBR) or Variable Bit Rate (VBR). For CBR, the video bit rate is between 128kbps and 1024kbps. User can set the desired bit rate to match the limitation of bandwidth. For VBR, user should choose the quality level to set the video quality rather than bit rate. The quality level is between 1 and 100. The higher value is the better quality.

**Max Frame Rate** Defines the targeted frame rate of this profile. For example, set the frame rate to 15 fps, then the image will be updated for 15 frames per second. User can set the desired max frame rate versus video quality under the limited bandwidth



### 3.8.4 MPEG4/QQVGA

Common MPEG4/VGA MPEG4/QVGA **MPEG4/QQVGA** VIDEO/JPEG

Video Type MPEG4

Resolution 160 x 120

Rate Control

Quality 80 (1 ~ 100)

Bitrate 128 Kbps (24 ~ 320)

Max Frame Rate 30

**Video Type** It's MPEG4 mode in this profile.

**Resolution** It's QQVGA mode (160x120) in this profile.

**Bit rate Control** Defines the rate control method of this profile. There are two options: Constant Bit Rate (CBR) or Variable Bit Rate (VBR). For CBR, the video bit rate is between 24kbps and 320kbps. User can set the desired bit rate to match the limitation of bandwidth. For VBR, user should choose the quality level to set the video quality rather than bit rate. The quality level is between 1 and 100. The higher value is the better quality.

**Max Frame Rate** Defines the targeted frame rate of this profile. For example, set the frame rate to 15 fps, then the image will be updated for 15 frames per second. User can set the desired max frame rate versus video quality under the limited bandwidth.

### 3.8.5 VIDEO/JPEG

Common MPEG4/VGA MPEG4/QVGA MPEG4/QQVGA VIDEO/JPEG

Video Type JPEG

Resolution 320x240

Rate Control Quality 90 (1 - 100)

Max Frame Rate 30

**Video Type** It's JPEG mode in this profile.

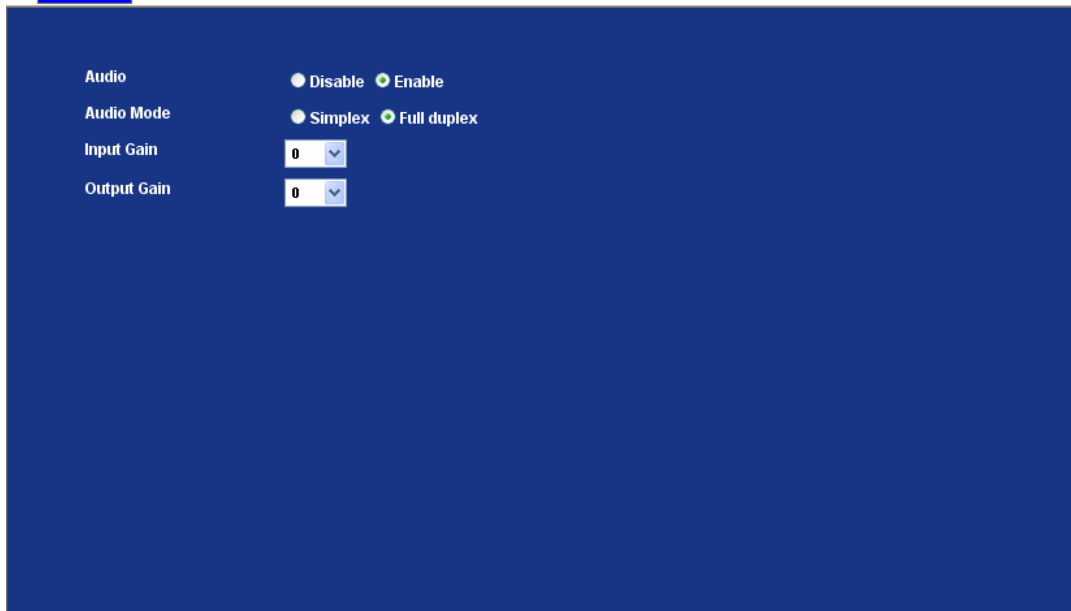
**Resolution** User can select VGA, QVGA, or QQVGA mode as the resolution of this JPEG profile.

**Rate Control** The quality level is between 1 and 100. The higher value is the better quality.

**Max Frame Rate** Defines the targeted frame rate of this profile. For example, set the frame rate to 15 fps, then the image will be updated for 15 frames per second. User can set the desired max frame rate versus video quality under the limited bandwidth.

## 3.9 Audio

### Setting



Audio  Disable  Enable

Audio Mode  Simplex  Full duplex

Input Gain 0 ▾

Output Gain 0 ▾

**Audio** To enable or disable audio function

**Audio Mode** To select Simplex or Full duplex (2-way audio) mode

**Input Gain** To adjust gain of input audio

**Output Gain** To adjust gain of output audio

## 3.10 User

Use this menu to set the user names and password of the Administrator and up to 10 users, and access right of each user.

**Setting**

Viewer Login  Anonymous  Only users in database

User Name	Access Right	User List	
admin	administrator	User Name	<input type="text"/> (1 ~ 20 Digits)
		Password	<input type="text"/> (0 ~ 12 Digits)
		Verify Password	<input type="text"/> (0 ~ 12 Digits)
		Access Right	<input type="radio"/> Administrator <input checked="" type="radio"/> Viewer
		<input type="button" value="Add"/> <input type="button" value="Modify"/> <input type="button" value="Delete"/>	

### Viewer Login

**Anonymous** Choose this to enable anonymous user login.

**Only users in database** Choose this to disable anonymous user login.

### User Name

Enter the user's new account here which you want.

### Password

Enter the user's new password here.

### Verify Password

Please enter the user's new password here again to confirm.

### Access Right

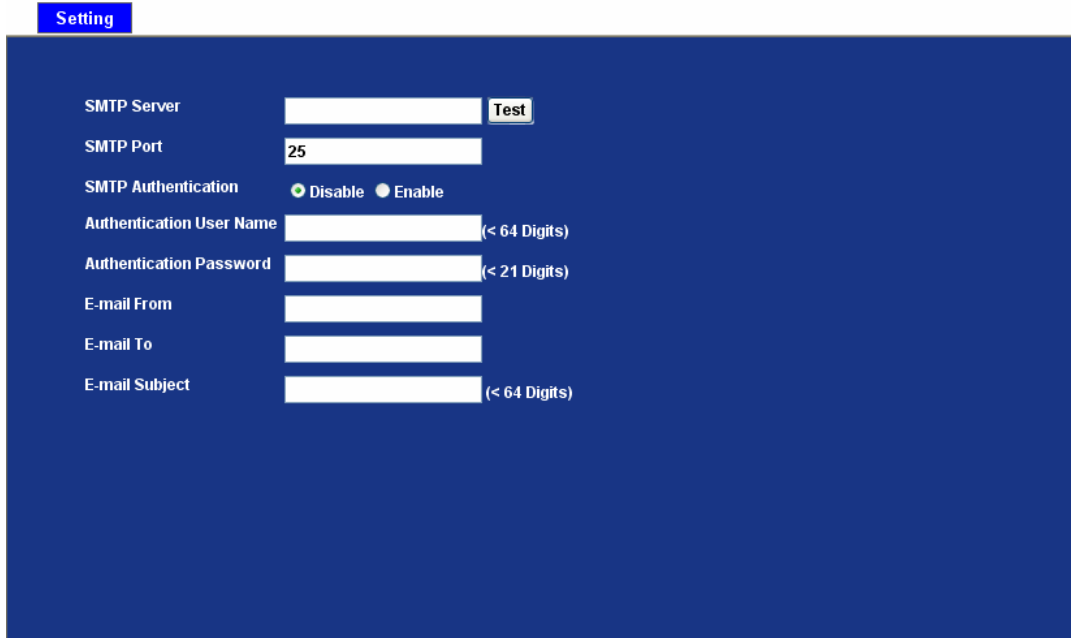
Administrator can access every function in this device. However, Viewers only can view the video and access limited function.

### Add, Update, and Remove

Manage the user's account of viewer user.

## 3.11 E-Mail

You may setup SMTP mail parameters for further operation of Event Schedule. That's, if users want to send the alarm message out, it will need to configure parameters here and also add at least one event schedule to enable event triggering.



**SMTP Server** Type the SMTP server name or the IP address of the SMTP server.

**Test** Send a test mail to mail server to check this account is available or not.

**SMTP Port** Set port number of SMTP service.

**SMTP Authentication** Select the authentication required when you send an e-mail.

**Disable** If no authentication is required when an e-mail is sent.

**Enable** If authentication is required when an e-mail is sent.

**Authentication User Name** Type the user name for the SMTP server if Authentication is Enable.

**Authentication Password** Type the password for the SMTP server if Authentication is Enable.

**E-mail To** Type the receiver's e-mail address.


**E-mail From** Type the sender's E-mail address. This address is used for reply e-mails.

**E-mail Subject** Type the subject/title of the e-mail.

## 3.12 Object Detection

Use this menu to specify motion detection window 1 to window 4 and set the conditions for detection while observing a captured image.

**Motion Detection**



### Add and Del

To add or delete the motion windows. User can specify up to 4 Included and/or Excluded windows to monitor the video captured by this device. By dragging mouse on the image, you can change the position and size of the selected motion window accordingly.

### Included Window or Excluded Window

These windows can be specified as Included or Excluded type.

#### Included

Windows target specific areas within the whole video image

#### Excluded

Windows define areas within an Include window that should be ignored (areas outside Include windows are automatically ignored)

### Name

Name of the specified motion window.

### Object Size

Defines the object size of motion detection. The higher object size will only larger objects trigger motion detection. The lower object size will even small objects trigger motion detection too. Generally speaking, the smaller size will be easier to trigger event.

### Sensitivity

Defines the sensitivity value of motion detection. The higher value will be more sensitivity.

## 3.13 Event Server

Setup FTP/TCP/HTTP server configuration

### 3.13.1 FTP Server

You may setup FTP parameters for further operation of Event Schedule. That's, if users want to send the alarm message to an FTP server, it will need to configure parameters here and also add at least one event schedule to enable event triggering as SMTP.

Name	FTP Server	FTP Port	FTP Path
------	------------	----------	----------

Name	<input type="text"/>	(<21 Digits)
FTP Server	<input type="text"/> <input type="button" value="Test"/>	
FTP Login Name	<input type="text"/>	(<21 Digits)
FTP Login Password	<input type="text"/>	(<21 Digits)
FTP Port	<input type="text" value="21"/>	(1 - 65535)
FTP Path	<input type="text"/>	(<64 Digits)
FTP Passive Mode	<input type="radio"/> Disable <input checked="" type="radio"/> Enable	

**Name** User can specify multiple FTP paths as wish. Therefore, user needs to specify a name for each FTP setting.

**FTP Server** Type the server name or the IP address of the FTP server.

**Test** Check the FTP server whether this account is available or not.

**FTP Login Name** Type the user name for the FTP server.

**FTP Login Password** Type the password for the FTP server.

**FTP Port** Set port number of FTP service.

**FTP Path** Set working directory path of FTP server.

**FTP Passive Mode** Select passive or active mode connecting to FTP server.

### 3.13.2 TCP Server

In addition to send video file to FTP server, the device also can send event message to specified TCP server.

Name	TCP Server	TCP Port
------	------------	----------

Name  (<21 Digits)

TCP Server

TCP Port  (1 ~ 65535)

**Name** User can specify multiple TCP servers as wish. Therefore, user needs to specify a name for each TCP server setting.

**TCP Server** Type the server name or the IP address of the TCP server.

**TCP Port** Set port number of TCP server.



### 3.13.3 HTTP Server

The device also can send event message to specified HTTP server.

Name		HTTP Server		Proxy Address	
Name	<input type="text"/>	(<21 Digits)			
URL	<input type="text" value="http://"/>	<input type="text"/>	(<60 Digits) <input type="checkbox"/> Test		
HTTP Login Name	<input type="text"/>	(<21 Digits)			
HTTP Login Password	<input type="text"/>	(<21 Digits)			
Proxy Address	<input type="text"/>				
Proxy Login Name	<input type="text"/>	(<21 Digits)			
Proxy Login Password	<input type="text"/>	(<21 Digits)			
Proxy Port	<input type="text"/>	(1 ~ 65535)			

<b>Name</b>	User can specify multiple HTTP servers as wish. Therefore, user needs to specify a name for each HTTP server setting.
<b>URL</b>	Type the server name or the IP address of the HTTP server.
<b>Test</b>	Check the HTTP server whether it is available or not.
<b>HTTP Login Name</b>	Type the user name for the HTTP server.
<b>HTTP Login Password</b>	Type the password for the HTTP server.
<b>Proxy Address</b>	Type the server name or the IP address of the HTTP Proxy.
<b>Proxy Login Name</b>	Type the user name for the HTTP Proxy.
<b>Proxy Login Password</b>	Type the password for the HTTP Proxy.
<b>Proxy Port:</b>	Set port number of Proxy.

### 3.14 Event Schedule

This menu is used to specify the schedule of Events and activate the some actions provided by this device.

**Setting**

Name	Enable	Type	Weekday	Start	Duration	Trigger by	Action
Name	<input type="text"/>						
Enable	<input checked="" type="radio"/> Yes <input type="radio"/> No						
Type	<input checked="" type="radio"/> Event Trigger <input type="radio"/> Schedule Trigger						
Enable Time	<input type="checkbox"/> Sun <input type="checkbox"/> Mon <input type="checkbox"/> Tue <input type="checkbox"/> Wed <input type="checkbox"/> Thu <input type="checkbox"/> Fri <input type="checkbox"/> Sat Start from <input type="text" value="0"/> : <input type="text" value="0"/> , Duration <input type="text" value="0"/> : <input type="text" value="0"/> ( max 168:00 hours )						
Trigger by	<input type="checkbox"/> Sensor <input checked="" type="checkbox"/> Active <input type="checkbox"/> Motion Area						
Action	<input type="checkbox"/> Go <input checked="" type="radio"/> Preset <input type="radio"/> Tour <input type="checkbox"/> Voice Alert, Duration <input type="text" value="5"/> ( Seconds ) <input type="checkbox"/> Alarm Out, Duration <input type="text" value="5"/> ( Seconds ) <input type="checkbox"/> Send FTP <input type="checkbox"/> Send TCP <input type="checkbox"/> Send HTTP <input type="checkbox"/> Send E-Mail						

- Name** Name of the Event or Schedule.
- Enable** Enable or disable this Event or Schedule.
- Type** Schedule start with Event trigger or Schedule trigger.
- Enable Time** Define the feasible time slot.
- Trigger by** Select the triggered sources with event trigger.
- Action** Define the actions once event triggered.

**Example.** If you want to upload image from ICA-312 to FTP server periodically. You will need to configure some parameters as below:

Name	FTP Upload
Enable	<input checked="" type="radio"/> Yes <input type="radio"/> No
Type	<input type="radio"/> Event Trigger <input checked="" type="radio"/> Schedule Trigger
Enable Time	<input checked="" type="checkbox"/> Sun <input checked="" type="checkbox"/> Mon <input checked="" type="checkbox"/> Tue <input checked="" type="checkbox"/> Wed <input checked="" type="checkbox"/> Thu <input checked="" type="checkbox"/> Fri <input checked="" type="checkbox"/> Sat Start from <input type="text" value="0"/> : <input type="text" value="0"/> , Duration <input type="text" value="24"/> : <input type="text" value="0"/> ( max 168:00 hours )
Trigger by	<input type="checkbox"/> Motion Area
Action	<input type="checkbox"/> Go <input checked="" type="radio"/> Preset <input type="radio"/> Tour <input type="checkbox"/> Voice Alert, Duration <input type="text"/> ( Seconds ) <input checked="" type="checkbox"/> Send FTP <input type="checkbox"/> Send TCP <input type="checkbox"/> Send HTTP <input type="checkbox"/> Send E-Mail

**NOTE:** ICA-312 will send a 15sec recording file to FTP server every min.

# Appendix A: Troubleshooting & FAQ

Question	Answer or Resolution
<b>Features</b>	
The video and audio codec is adopted in the ICA-312.	The ICA-312 utilizes MPEG4 and M-JPEG dual compression to providing high quality images. Where MPEG4 is a standard for video compression and M-JPEG is a standard for image compression. The audio codec is selectable by either AMR or G.726 compression.
The maximum number of users access ICA-312 simultaneously.	The maximum number of users is 10. However, it also depends on the total bandwidth accessed to this device from clients. The data throughput of the device is around 20~30Mbps. Therefore, the actual number of connected clients is varying by settings of resolution, codec type, frame rate and bandwidth. Obviously, the performance of the each connected client will slow down when many users are logged on.
<b>Install ICA-312</b>	
The network cabling is required for the ICA-312.	The ICA-312 uses Category 5 UTP cable allowing 10 and/or 100 Base-TX networking.
The ICA-312 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. This HTTP port and Video/Audio streaming ports needs to be opened on the firewall.
The username and password for the first time or after factory default reset	Username = <b>admin</b> and leave password blank. Note that it's all case sensitivity.
Forgot the IP address of the ICA-312.	Check IP address of ICA-312 by using the IPWizard.exe program.
IPWizard program cannot find ICA-312.	<ul style="list-style-type: none"> <li>• Re power the ICA-312 if cannot find the unit within 1 minutes.</li> <li>• Do not connect ICA-312 over a router. IPWizard program cannot detect ICA-312 over a router.</li> <li>• If IP address is not assigned to the PC which running IPWizard program, then IPWizard program cannot find ICA-312. Make sure that IP address is assigned to the PC properly.</li> <li>• Antivirus software on the PC might interfere with the setup program. Disable the firewall of the antivirus software during setting up ICA-312.</li> <li>• Check the firewall setting of your PC or Notebook.</li> </ul>
Internet Explorer does not seem to work well with the ICA-312	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.
IPWizard program fails to save the network parameters.	<ul style="list-style-type: none"> <li>• Network may have trouble. Confirm the parameters and connections of the ICA-312.</li> </ul>
Use pan / tilt function	<ul style="list-style-type: none"> <li>• Need external scanner that supports Pelco-D, Pelco-P or K-ZM23S1N protocol at least.</li> <li>• Mount the ICA-312 on external scanner and connect RS-485 of ICA-312 to external scanner.</li> </ul>
<b>Access ICA-312</b>	
Cannot access the login	<ul style="list-style-type: none"> <li>• Maybe the IP Address of the ICA-312 is already being used by</li> </ul>

<p>page and other web pages of ICA-312 from Internet Explorer</p>	<p>another device or computer. To confirm this possible problem, disconnect the ICA-312 from the network first, and then run the PING utility to check it out.</p> <ul style="list-style-type: none"> <li>• May be due to the network cable. Try correcting your network cable and configuration. Test the network interface by connecting a local computer to the ICA-312 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 ICA-312 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 ICA-312 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 ICA-312, default=80, is forward to the ICA-312's private IP address.</li> <li>• The port number assigned in your ICA-312 might not be available via Internet. Check your ISP for available port.</li> <li>• The proxy server may prevent you from connecting directly to ICA-312, set up not to use the proxy server.</li> <li>• Confirm that Default Gateway address is correct.</li> <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 ICA-312 from the Internet with the global IP address of the router and port number of ICA-312.</li> <li>• Some routers reject the global IP address to access ICA-312 on the same LAN. Access with the private IP address and correct port number of ICA-312.</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 ICA-312 to default setting and installed it again.</li> <li>• If the problem is not solved, the ICA-312 might be faulty. Contact your dealer for further help.</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 ICA-312, a pop-up <b>Security Warning window</b> will appear to download ActiveX Controls. When using Windows 2000 or Windows XP, 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>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 <i>unsigned</i> ActiveX controls.</p>
<p>The ICA-312 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 ICA-312 to be accessible outside your LAN.</li> <li>• Make sure that the ICA-312 isn't conflicting with any other web server running on your LAN.</li> </ul>

	<ul style="list-style-type: none"> <li>• Check the configuration of the router settings allow the ICA-312 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 especially in viewing on the Multi-Camera screen.</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>Miscellaneous</b>	
Cannot play the recorded ASF file	Have installed Microsoft's DirectX 9.0 or later and use the Windows Media Player 9 or later to play the ASF filed recorded by the Device.

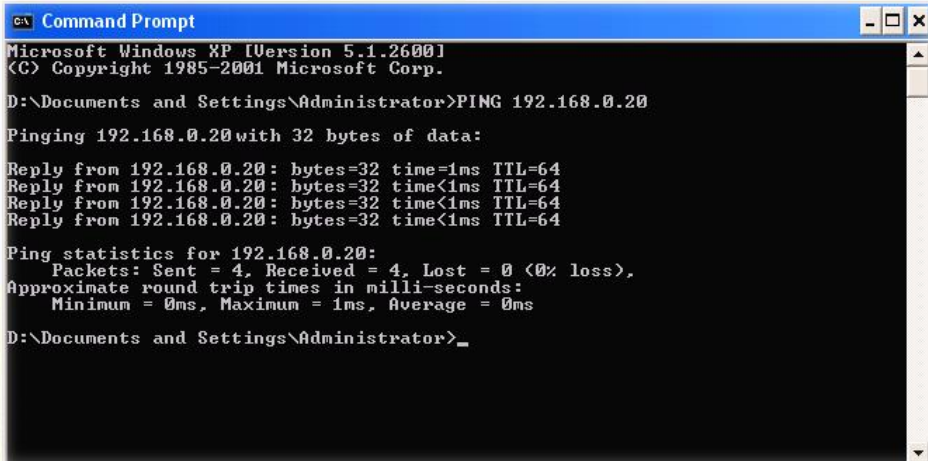
## Appendix B: PING IP Address

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 ICA-312 installed or if the IP address conflicts with any other devices over the network.

If you want to make sure the IP address of ICA-312, 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 ICA-312.

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



```

c:\> 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 ICA-312, also can utilize the PING command but you must disconnect the ICA-312 from the network first.

# Appendix C: Bandwidth and Video Size

## Estimation

The frame rate of video transmitted from the ICA-312 depends on connection bandwidth between client and server, video resolution, codec type, and quality setting of server. Here is a guideline to help you roughly estimate the bandwidth requirements for your ICA-312.

The required bandwidth depends on content of video source. The slow motion video will produce smaller bit rate generally and fast motion will produce higher bit rate vice versa. Actual results generated by the ICA-312 may be varying.

Image Resolution	Average range of Data Sizes for JPEG mode	Average bit rate for MPEG4 mode
160 x 120 (QQVGA)	3 ~ 6k byte per frame	64kbps~384kbps @ 30fps
320 x 240 (QVGA)	8 ~ 20k byte per frame	128kbps~768kbps @ 30fps
640 x 480 (VGA)	20 ~ 50K byte per frame	256kbps~4096kbps @ 30fps

**Note:** Audio streaming also takes bandwidth around 5 kbps to 64kbps. Most xDSL/Cable modem upload speeds may not even reach up to 128 kbps. Thus, you may not be able to receive any video while streaming audio on a 128 kbps or lower connection. Even though the upload speed is more than 128kbps, for optimal video performance, disabling audio streaming will get better video performance.

### MJPEG

Resolution	Quality setting	fps setting	Current stream	Current fps
320*240 CIF	Best	5 fps	around 2300Kbps	5 fps
320*240 CIF	Best	15 fps	around 6700Kbps	14.7fps
320*240 CIF	Best	25 fps	around 14300Kbps	28 fps
320*240 CIF	Normal	5 fps	around 400Kbps	4.2 fps
320*240 CIF	Normal	15 fps	around 1200Kbps	13 fps - 14 fps
320*240 CIF	Normal	25 fps	around 1700Kbps	30fps
320*240 CIF	Lowest	5 fps	around 350Kbps	4.2 fps
320*240 CIF	Lowest	15 fps	around 1100Kbps	13 - 14fps
320*240 CIF	Lowest	25 fps	around 2000Kbps	25 fps

#### MPEG4

Resolution	Stream setting	fps setting	Current stream	Current fps
640*480 VGA	384Kbps	5 fps	373Kbps - 388Kbps	5 fps
640*480 VGA	1024Kbps	5 fps	1024Kbps - 1036Kbps	5 fps
640*480 VGA	2048Kbps	5 fps	around 1800Kbps	5 fps
640*480 VGA	384Kbps	20 fps	around 550Kbps	22 fps
640*480 VGA	1024Kbps	20 fps	around 1400Kbps	20 fps
640*480 VGA	2048Kbps	20 fps	around 2600Kbps	16 - 17fps
320*240 CIF	200Kbps	5 fps	183Kbps - 200Kbps	5 fps
320*240 CIF	1024Kbps	5 fps	760Kbps - 800Kbps	5 fps
320*240 CIF	2048Kbps	5 fps	around 850Kbps	5 fps
320*240 CIF	200Kbps	25 fps	around 240Kbps	28 fps
320*240 CIF	1024Kbps	25 fps	around 1100Kbps	30 fps
320*240 CIF	2048Kbps	25 fps	around 1600Kbps	30 fps
160*120 QCIF	128Kbps	5 fps	117Kbps - 121Kbps	5 fps
160*120 QCIF	1024Kbps	5 fps	around 176Kbps	5 fps
160*120 QCIF	2048Kbps	5 fps	around 220Kbps	5 fps
160*120 QCIF	128Kbps	25 fps	around 155Kbps	30 fps
160*120 QCIF	1024Kbps	25 fps	around 520Kbps	30 fps
160*120 QCIF	2048Kbps	25 fps	around 1000Kbps	30 fps



# Appendix D: DDNS Application

## 1. Preface

If you have a Cable modem or xDSL, this is a great way to host your own Networked Device or other TCP/IP Service. Get your own domain like www.yourname.com, www.yourname.com.tw etc. (Note: This domain must be registered with Internic via registration authorities such as Network Solutions, DirectNIC, Register.com etc). Your domain name's dynamic IP address is automatically tracked by a DDNS server.

Host your own Networked Device and much more no matter what your computer's IP address may be and even if you have dialup, DSL or cable modem internet connection where your computer's IP address changes all the time!! DDNS service supports all top level domain names including but not limited to .com, .net, .org, .to, .uk etc.

## 2. Ethernet Network Environment

Normally, DDNS service is only necessary for the users that could only obtain dynamic IP addresses. As to the users that could obtain the static valid IP address, they do not usually have to apply the DDNS service. Before we decide if DDNS is necessary for the users, we have to check what kind of Ethernet network environment we have to install our Networked Device on.

### (1) Environment of Fixed Valid IP Network

If users could obtain valid IP addresses, they could save the effort to apply DDNS service. Because the IP address in this environment is fixed, users could input the IP address or domain name of demo site directly in the IE browser.

### (2) Environment of Dynamic IP Network

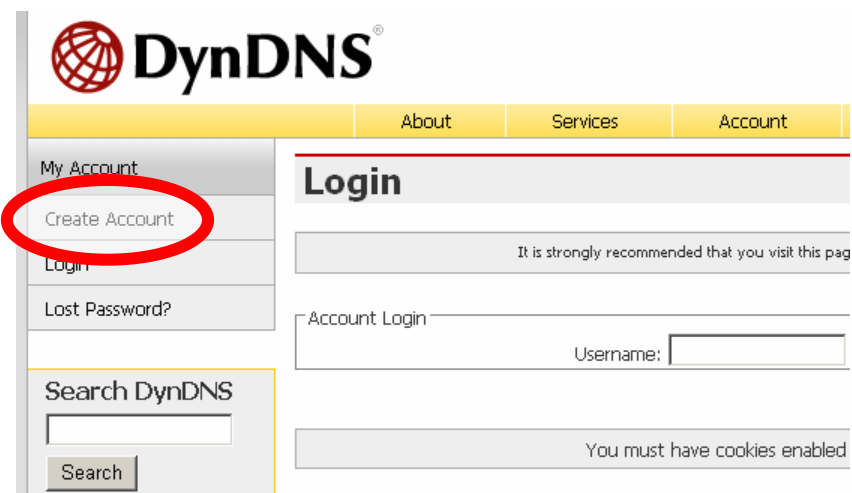
If users is under an environment of dynamic IP network (Dial-up xDSL), they have to apply a domain name in advance. Then apply DDNS service. Finally setup the necessary information of DDNS and PPPoE of the Networked Device in order to let the outside administrator be able to access through internet.

### 3. Application Steps – DDNS & Domain Name

- (1). Visit the following web site: <http://www.dyndns.org/>
- (2). Click “Account”



- (3). After the columns show up at the left side, click “Create Account”.



(4). Fill the application agreement and necessary information.

- a. Username
- b. E-mail address and confirmation
- c. Password and confirmation
- d. Submit all the input information and finish creating an account

**DynDNS** Users:  Pass:  [Lost Password?](#) - [Create Account](#)

About Services Account Support News

My Account  
Create Account  
Login  
Lost Password?

### Create Your DynDNS Account

Please complete the form to create your free DynDNS Account.

It is strongly recommended that you visit this page [securely](#). You are not currently visiting this page securely.

Search DynDNS

**User Information**

Username:

E-mail Address:  Instructions to activate your account will be sent to the e-mail address provided.

Confirm E-mail Address:

Password:  Your password needs to be more than 5 characters and cannot be the same as your username.

Confirm Password:  Choose a password that is a common word, or can otherwise be easily guessed.

#### Terms of Service

Please read the acceptable use policy (AUP) and accept it prior to creating your account. Also acknowledge that you may only have one (1) free account, and that creation of multiple free accounts will result in the deletion of all of your accounts.

Policy Last Modified: February 6, 2006

#### 1. ACKNOWLEDGMENT AND ACCEPTANCE OF TERMS OF SERVICE

All services provided by Dynamic Network Services, Inc. ("DynDNS") are provided to you (the "Member") under the Terms and Conditions set forth in this Acceptable Use Policy ("AUP") and any other operating rules and policies set forth by DynDNS. The AUP comprises the entire agreement between the Member and DynDNS and supersedes all prior agreements between the parties regarding the subject matter contained herein. BY COMPLETING THE REGISTRATION PROCESS AND CLICKING THE "Accept" BUTTON, YOU ARE INDICATING YOUR AGREEMENT TO BE BOUND BY ALL OF THE TERMS AND CONDITIONS OF THE AUP.

#### 2. DESCRIPTION OF SERVICE

I agree to the AUP:

I will only create one (1) free account:

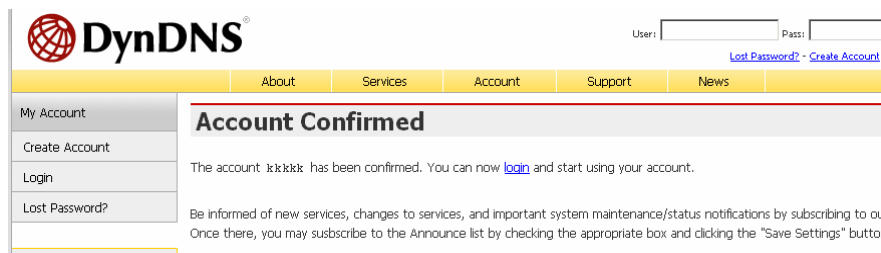
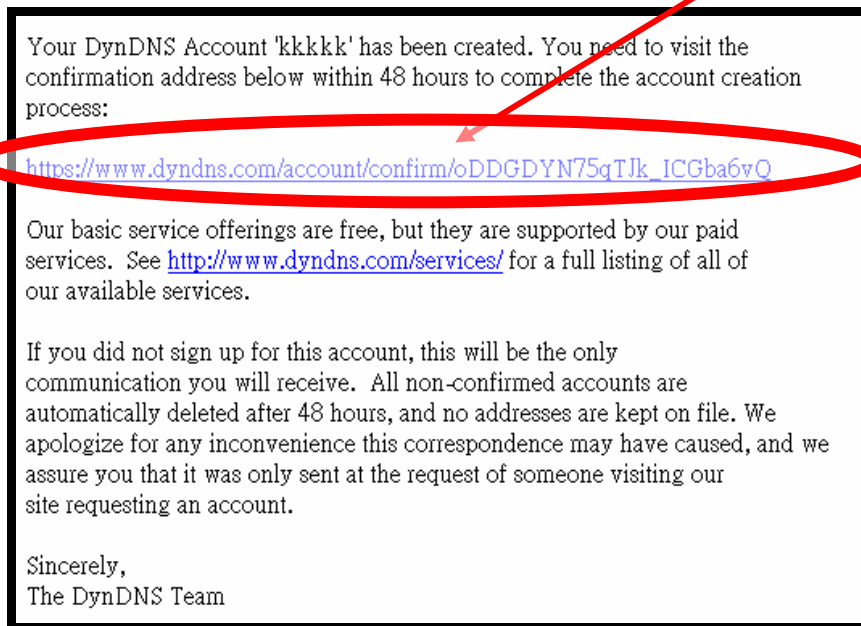
← Click these two options

#### Next Step

After you click "Create Account", we will create your account and send you an e-mail to the address you provided. Please follow the instructions in that e-mail to confirm your account. You will need to confirm your account within 48 hours or we will automatically delete your account. (This helps prevent unwanted robots on our systems)

- (5). Check your e-mail mailbox. There will be an e-mail with a title "Your DynDNS Account Information". Click the hyperlink address to confirm the DDNS service that you just applied. Then DDNS you applied activated.

**Click to confirm**

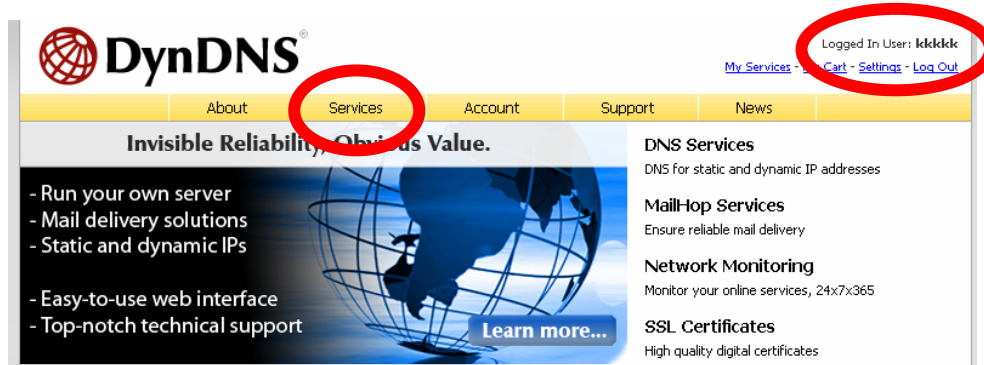


- (6). Enter the web page <http://www.dyndns.org/> again. Input your username and password that you just applied to login administration interface of DDNS server.

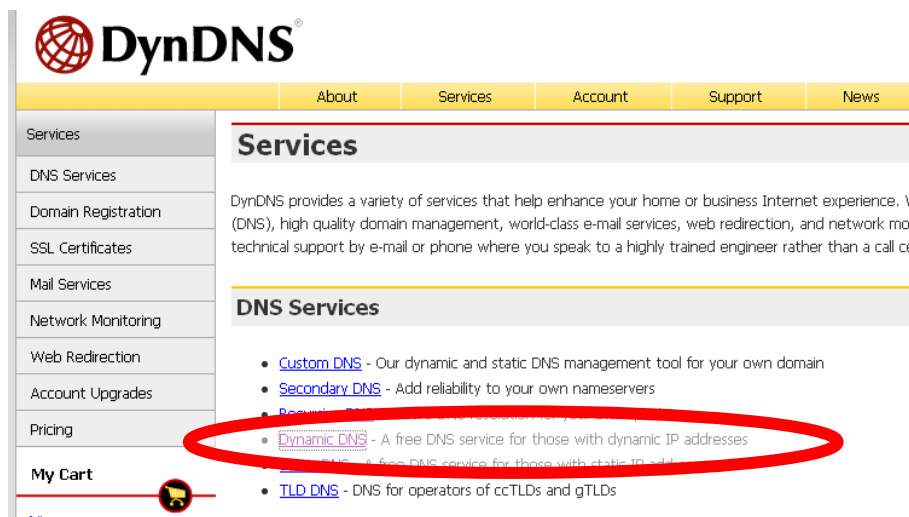


(7). If the correct username and password are input, you can see the following picture at the top-right of the login page.

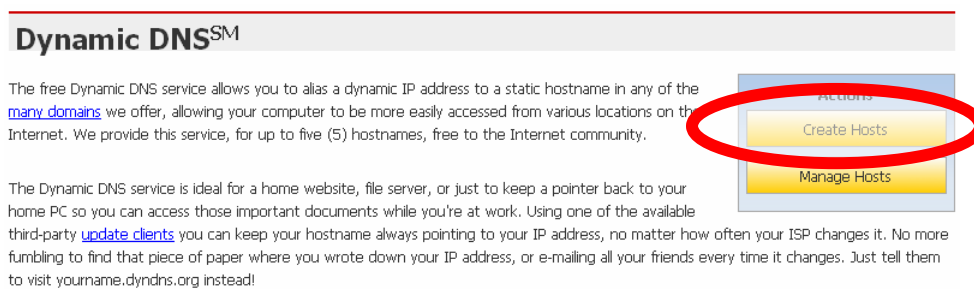
(8). Click the “Services”.



(9). Click the “Dynamic DNS”.



(10). Click the “Create Hosts”.



(11). We could create a domain name without any charge at this step. First, we input the host name. (No.1) Then we pick a domain that is easy to remember. Finally (No.2), click the “Add Host” to submit the domain name information. (No.3)

The image shows a web form titled "New Dynamic DNS Host". The form has four input fields: "Hostname:", "IP Address:", "Enable Wildcard:" (with a checkbox), and "Mail Exchanger (optional)". To the right of these fields is a dropdown menu showing a list of domain options. A red arrow labeled "1" points to the "Hostname:" field. A red arrow labeled "2" points to the dropdown menu, which has "dyndns.org" selected. A red arrow labeled "3" points to the "Add Host" button. There is also a "Reset Form" button to the right of the "Add Host" button.

#### 4. Setup the DDNS and PPPoE of Network Device

At last, users have to enter the web page of Networked Device and setup the necessary information of DDNS and PPPoE after the application of DDNS service. Please check the user manual to access the DDNS and PPPoE pages. After saving the modification, restart the device. The external users could browse the Networked Device by the input of their domain name.