

IEEE 802.11b/g Wireless IP Network Camera

Model: CS-W02G2

User's Manual

Foreword

Explanation of the signals

In order to let you set up and use this product correctly, please pay attention when reading or browsing the manual as you see these signals listed below.



Warning/ Danger

Users should read the explanation carefully and understand it completely, otherwise users might be in danger or even be injured.



Caution/ Be Careful

Remind users to be careful when setting up the product and to avoid damaging the product or its system programs.

Seeking for service or searching for an agent or a distributor

Thank you for purchasing products from Planex Communications Inc. If you have any operational problems while configuring or setting up the product, you may contact with our Customer Service Department or ask the agent or the distributor from which you bought the product for help. Moreover, during warranty, if you find any defect or breakdown of the product, you may bring the product, assembly, and its warranty card to our company or to where you bought the product to ask for repair.

- ★ Every product has different warranty period and contract; please refer to our company for further information or consult the agent or the distributor.

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FCC Certifications



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 the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the 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 of the following measures:

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

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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

CE Mark Warning



Trademarks:

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Table of Contents

FCC Certifications.....	3
Package Contents.....	5
Key Features	6
Physical Description	7
LED Indicators.....	7
System Requirements	7
Installation.....	8
Hardware Installation	8
Software Installation.....	10
Enabling Active X	10
PC Cam Driver and Java Environment Installation.....	12
Using IP Camera with MSN messenger	15
Using IP Camera with Skype	18
Using IP Camera with Yahoo! Messenger	21
Using IP Camera with Windows Movie Maker	27
System Definitions.....	32
Login Window	32
View Window.....	33
System	34
Camera.....	34
User	35
NTP	35
Motion Detection	36
DDNS	36
Network.....	38
LAN Settings.....	38
Wireless LAN Settings	39
Update.....	39
Technical Specification	40

Package Contents

1. CS-W02G2 x1
2. 2dBi Antenna x1
3. Quick Installation Guide x1
4. CD-ROM(User's Manual/Driver & Utility) x1
5. UTP Cable x1
6. Camera Mounting Bracket (Circular Foundation x1, Sustaining Pole x1, Universal Joint x1, Screwx3, Plastic Bolt x3)
7. AC Adapter x1
8. Warranty Card x1

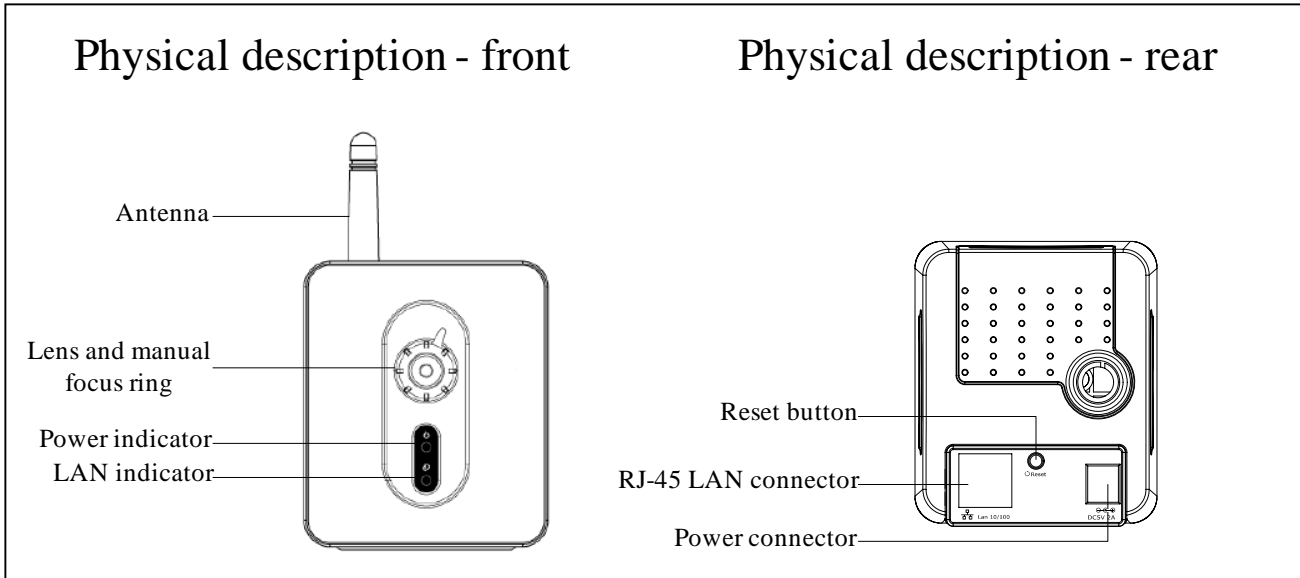
Overview

The CS-W02G2 wireless/wired network camera is a compact-size, easy-to-use and cost-effective solution ideal for home security and entertainment. With 1.3M pixel CMOS sensor technology, CS-W02G2 provides excellent image quality with digital pan/tilt/zoom monitoring capability. CS-W02G2 comes with a built-in web server that can be viewed via a standard browser such like Internet Explorer or Netscape browser. Snapshots and recording can be taken directly from the web interface, stored within or without PC (via optional built-in 512MB~2GB NAND flash storage). Wired and wireless connections are both supported, which enables easy and clear camera installation. Providing a better way for baby or pet monitoring and video sharing, CS-W02G2 IP Camera uniquely features instant messenger interface, turning network camera into a convenient PC camera. CS-W02G2 is breaking the rule that conventional network camera follows.

Key Features

- Stand-alone network camera, no need to attach to PC
- Motion JPEG compression engine
- Built-in web server for monitoring via standard browser
- Local access through Ethernet and 802.11 b/g wireless LAN (CS-W02G2) , remote access through Internet
- 15 levels motion detection
- Digital pan/tilt/zoom
- Support instant messenger video communication (MSN, Skype, Yahoo! Messenger)
- Support Windows Movie Maker, recording as *.wmv file (VC-1 encoding, better compression rate than MPEG-4)

Physical Description



LED Indicators

LED	Color	Description
Power	Green	System ready
LAN	Green	LAN ready
LAN	Red	WLAN ready

System Requirements

The system requires an Ethernet port and an IP address. To view the IP camera images, each computer requires:

- Microsoft Windows 98, ME, NT4.0, 2000, XP or 2003. Mac or Linux based machine.
- Microsoft Internet Explorer 5.x, or later.
- Mozilla FireFox 1.5.0.7 or later

To use instant messenger with IP camera, each computer requires:

- MSN messenger 7.5 or later
- Skype 2.5.1.137 or later
- Yahoo! Messenger 7.5 or later

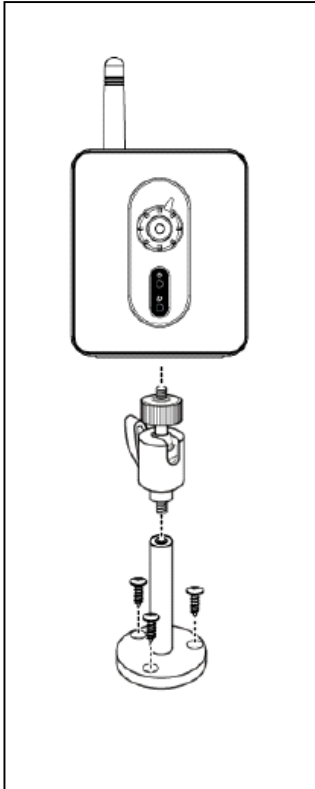
To use Windows Movie Maker, each computer requires:

- Microsoft Windows XP SP2 or later

Installation

Hardware Installation

1. Assemble the stand



Assemble the stand and fix it to the camera as shown.

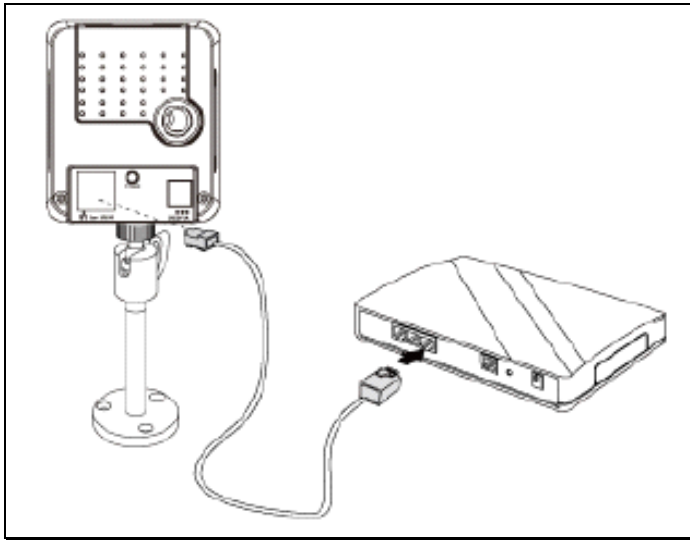
Use the three screws and plugs provided to fix the stand bracket to a wall, or other convenient fixing point.

The stand can be adjusted to allow the camera a full 360° of rotation and a pan and tilt action.

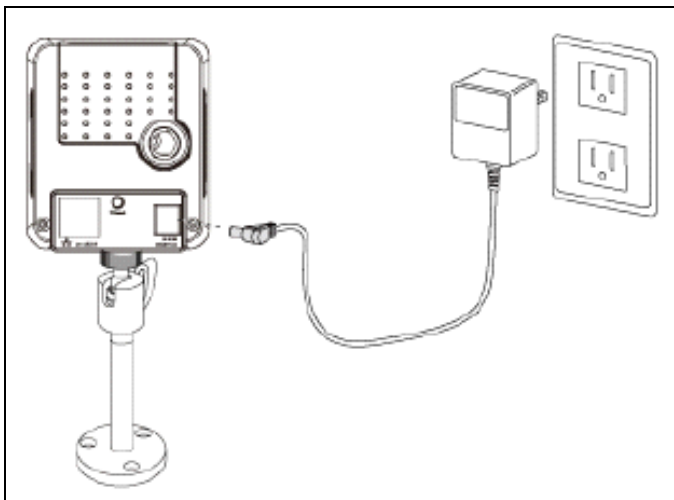
Warning:

The camera is not waterproof and should not be mounted outside or in a position where it could become wet.

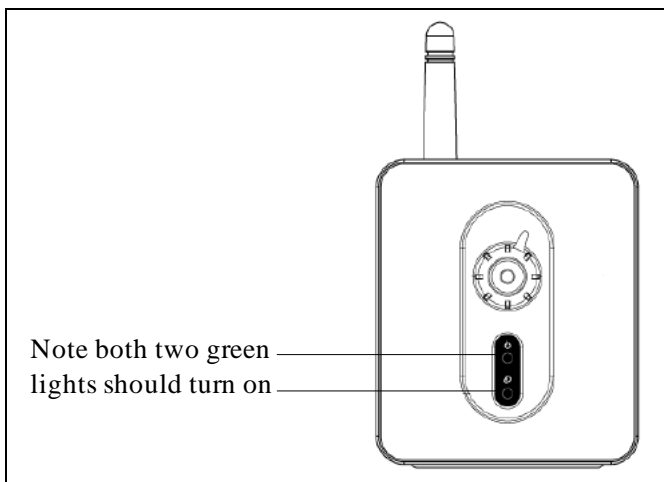
2. Connect to a network hub/router



3. Power on



4. Check status

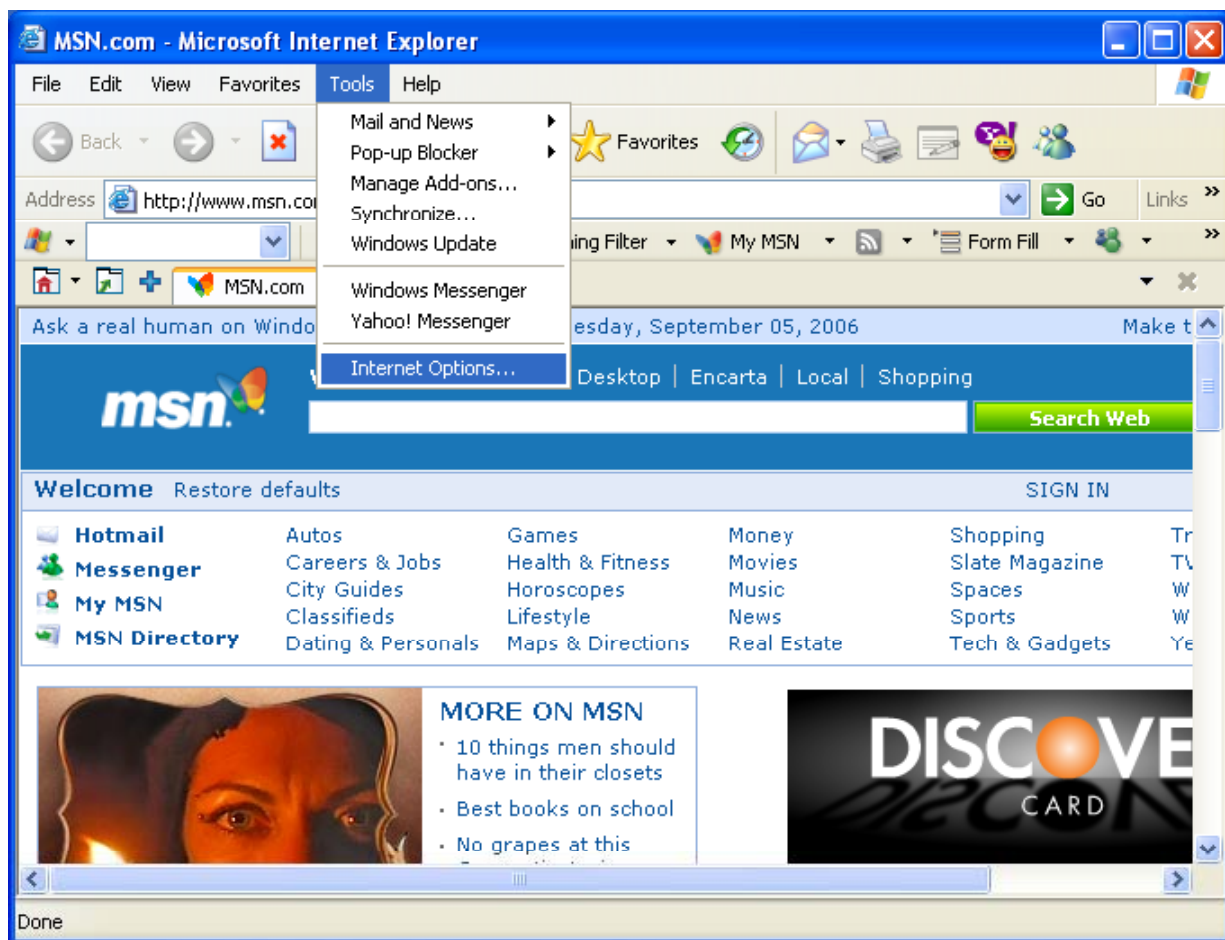


Software Installation

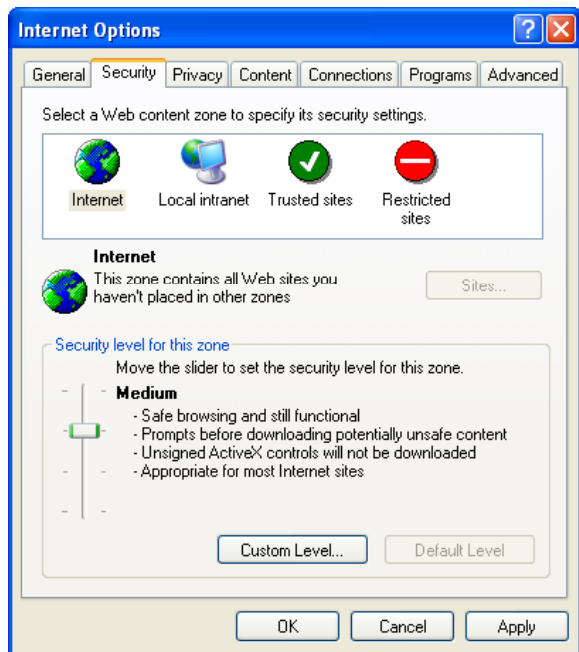
Enabling Active X

Your browser must have Active X enabled to connect to the IP camera. To enable Active X on your browser:

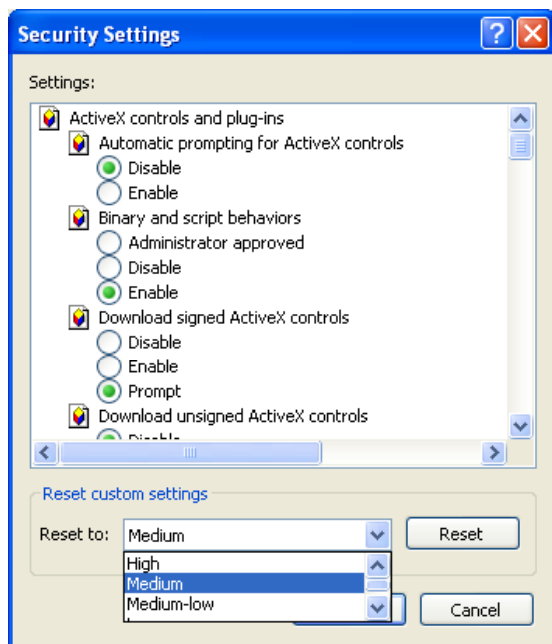
1. Open your internet browser.
2. Click on the tool bar at the top of the screen and select **"Tools"→"Internet Options..."**



3. Select **"Security"** tab from the internet options menu.

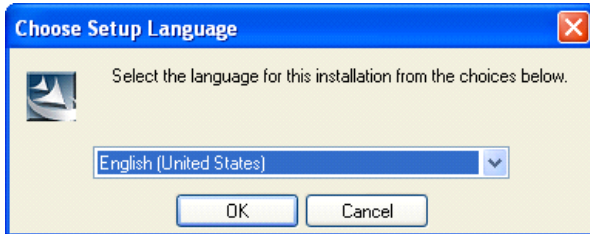


4. Click **"Custom Level"** button and enable all the Active X features in the list and then choose **"Medium"** level from the **"Reset to"** list.



PC Cam Driver and Java Environment Installation

1. Run setup program from software CD

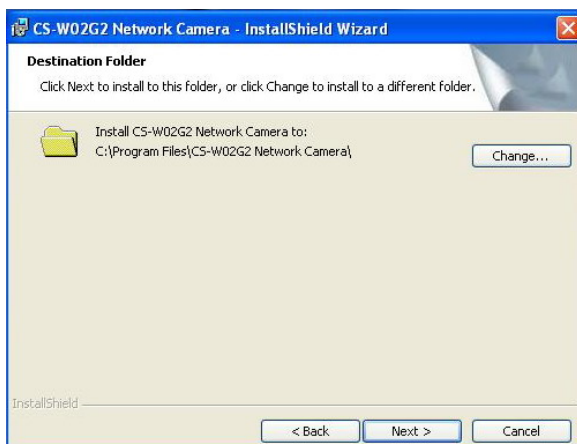


Press **“OK”** to continue setup. If your system has not been installed of Java Run-time Environment, the setup program will install it first and then back to following steps.

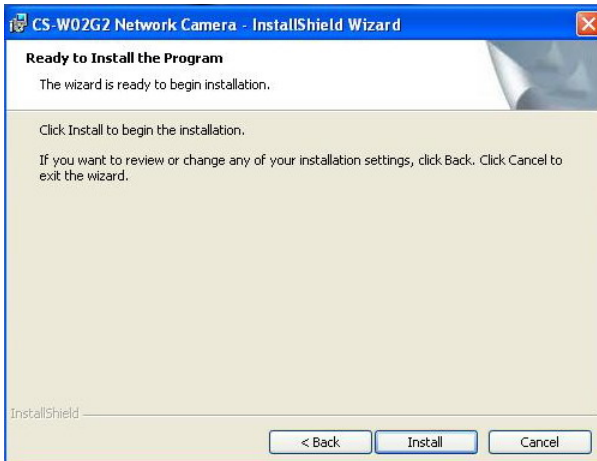
2. Click **“Next”**



3. Click **“Next”**



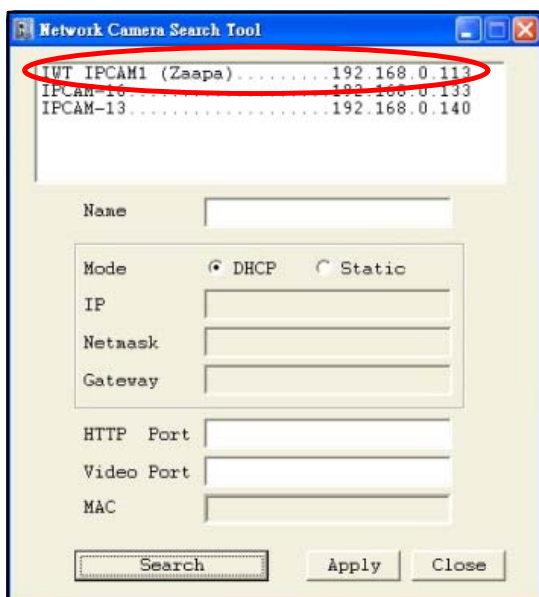
4. Click "Install"



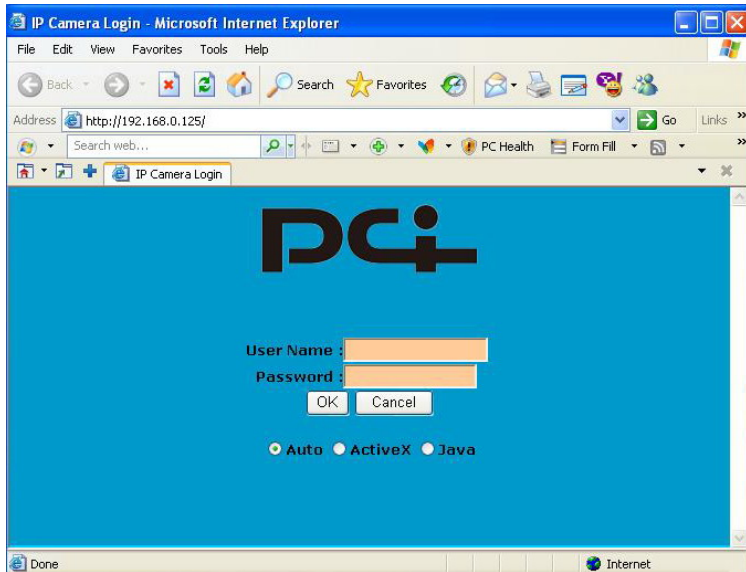
5. Click the check box to launch the network search tool and then click "Finish"



6. Double click on one of the listed item which you want to use to open web browser window



7. Login in as "admin". The default password is "0000".

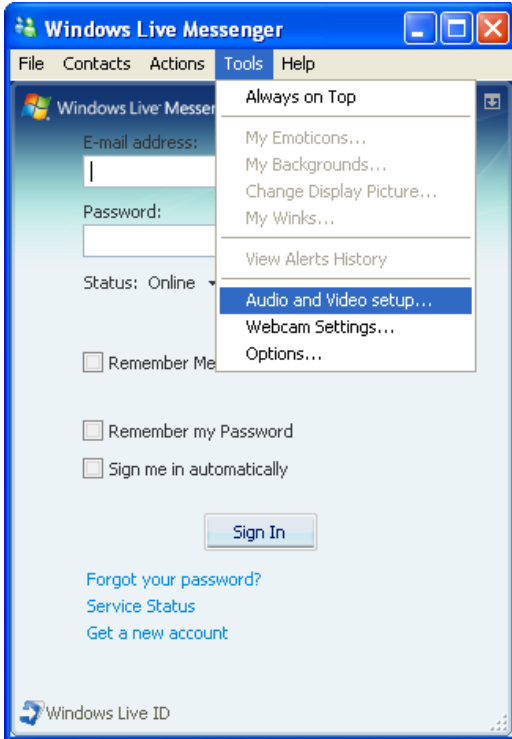


8. Use focus ring to manually adjust the frame to the intended focus.

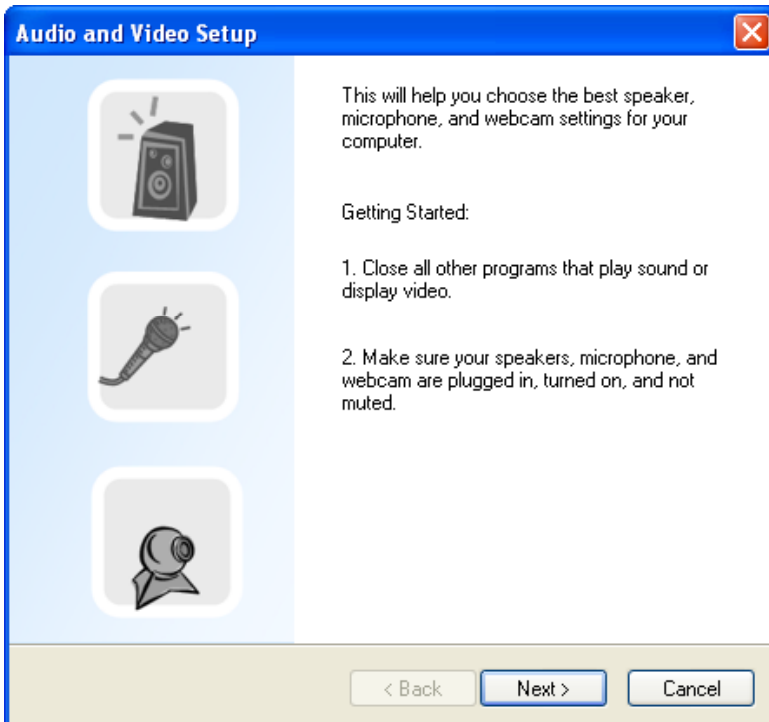


Using IP Camera with MSN messenger

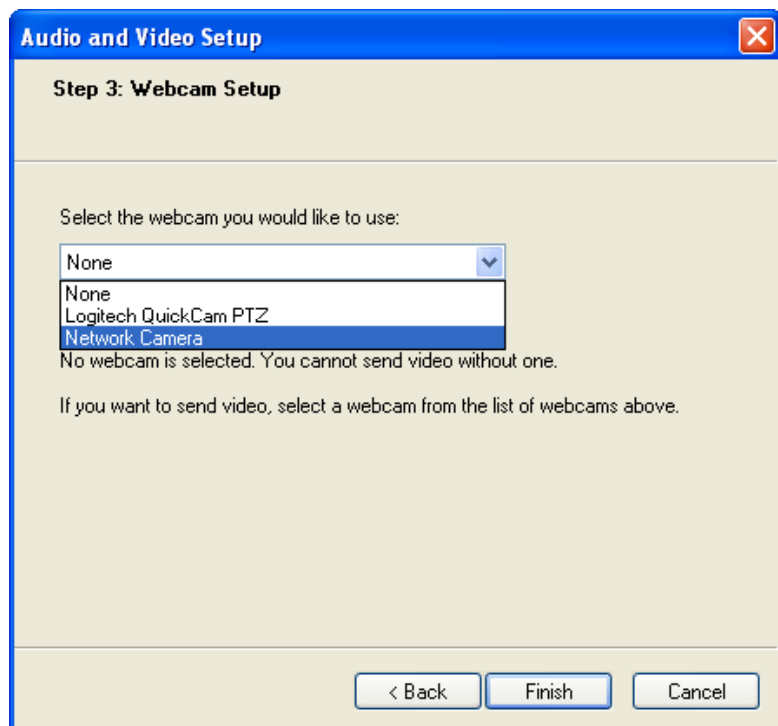
Open MSN, select **"Tools"** and then **"Audio and Video setup..."**



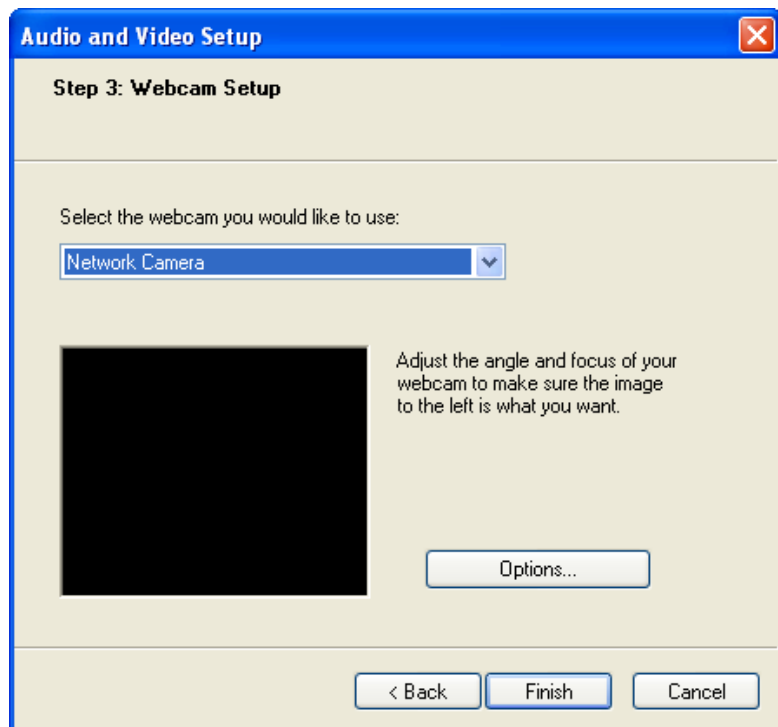
Click **"Next"**.



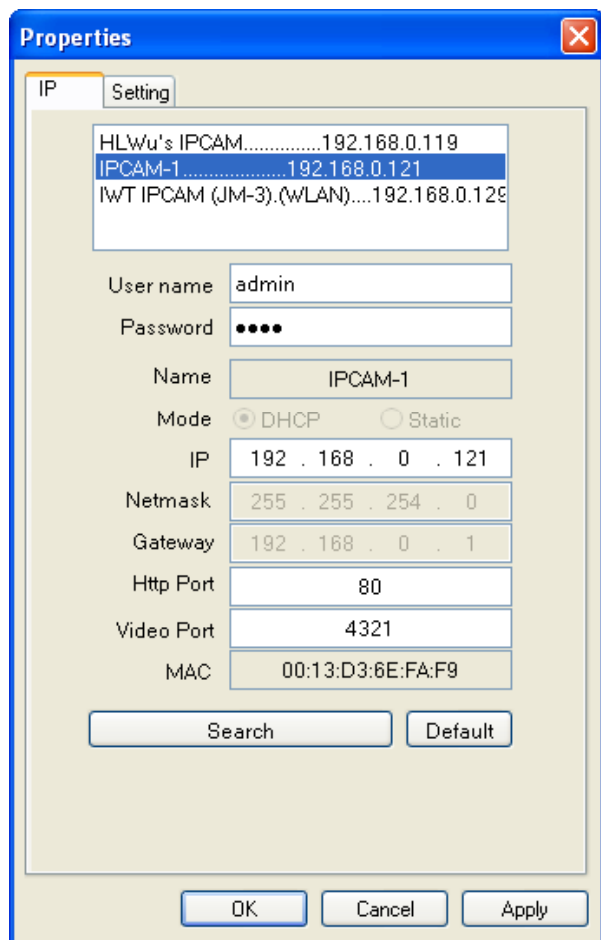
Click next to “**Step 3: Webcam Setup**”. Scroll down the list and select “**Network Camera**” and then click “**Finish**”.



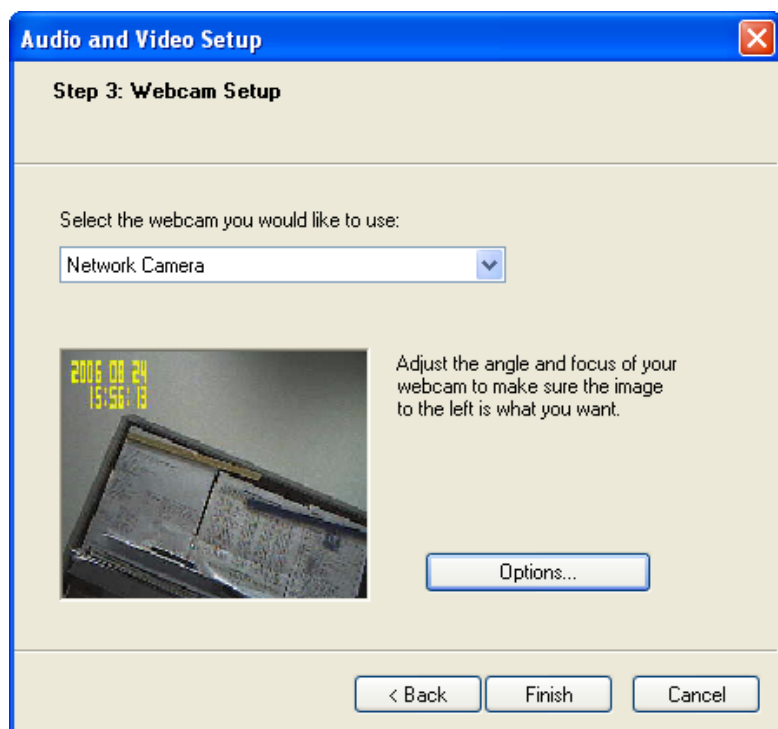
The default screen is blank. Click “**Options...**” to search the IP Camera.



Select the IP Camera which you want to use and then click **“OK”**.

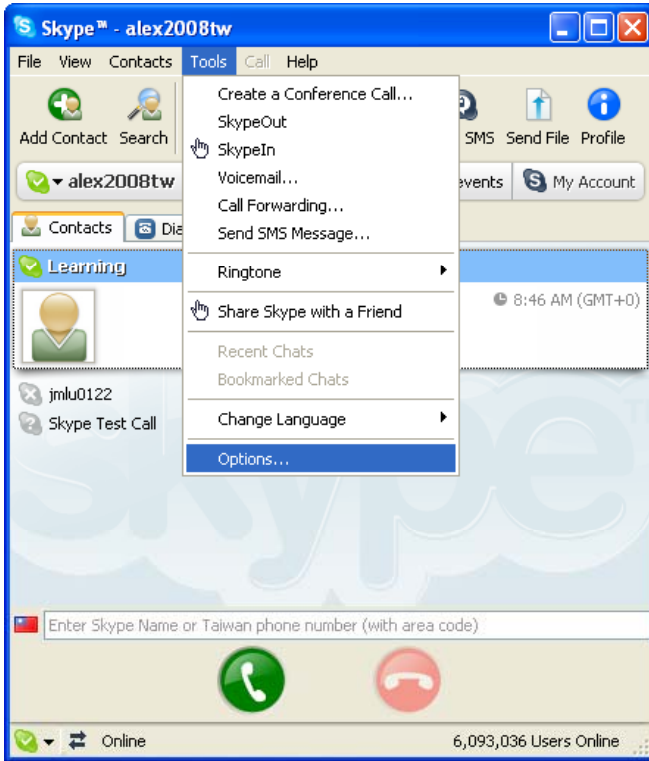


If the screen successfully reflects the viewing image of the IP camera, click **“Finish”**.

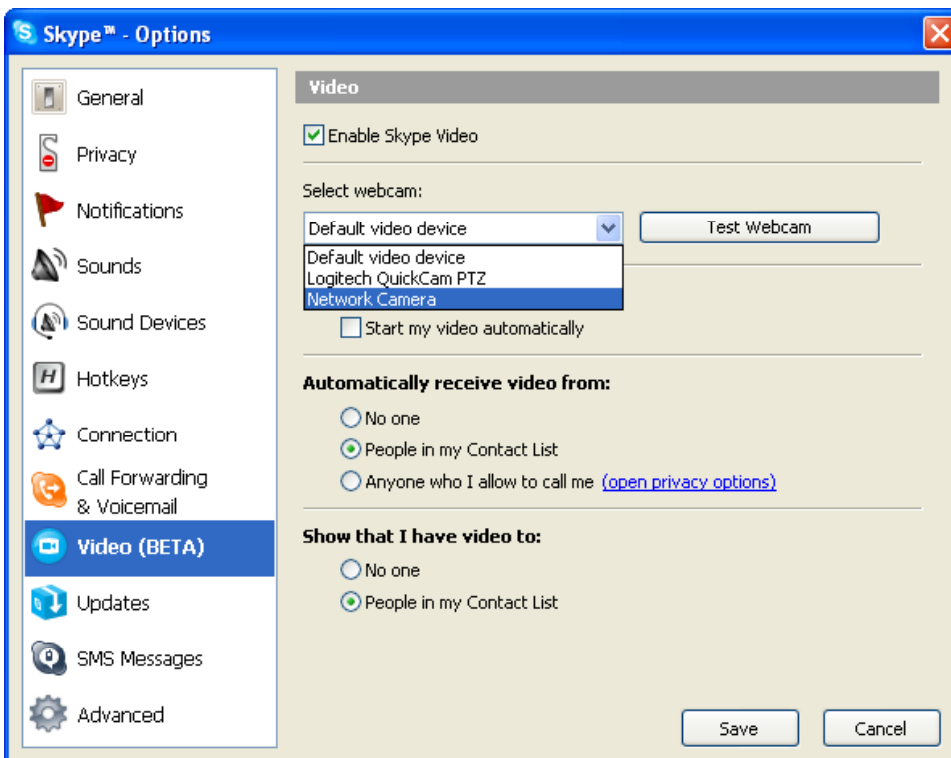


Using IP Camera with Skype

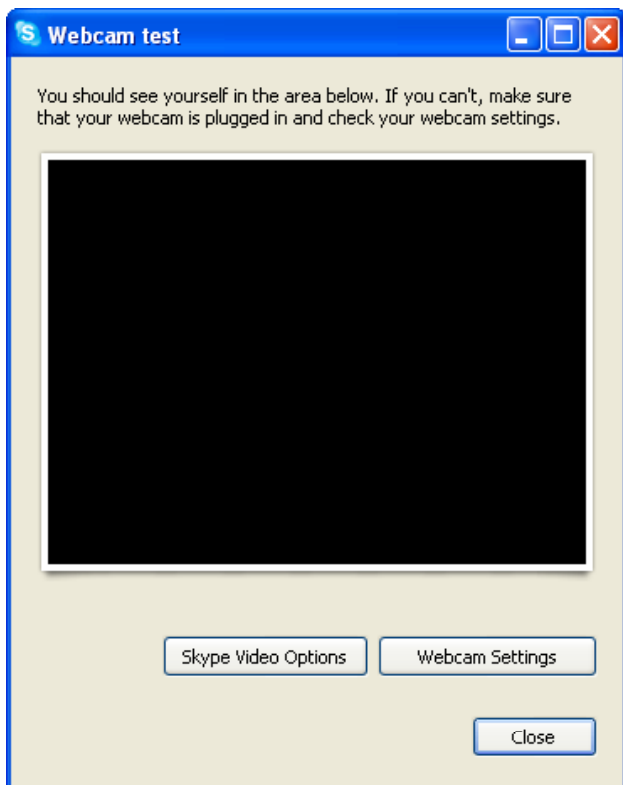
Open Skype, select “Tools” and click “Options...”.



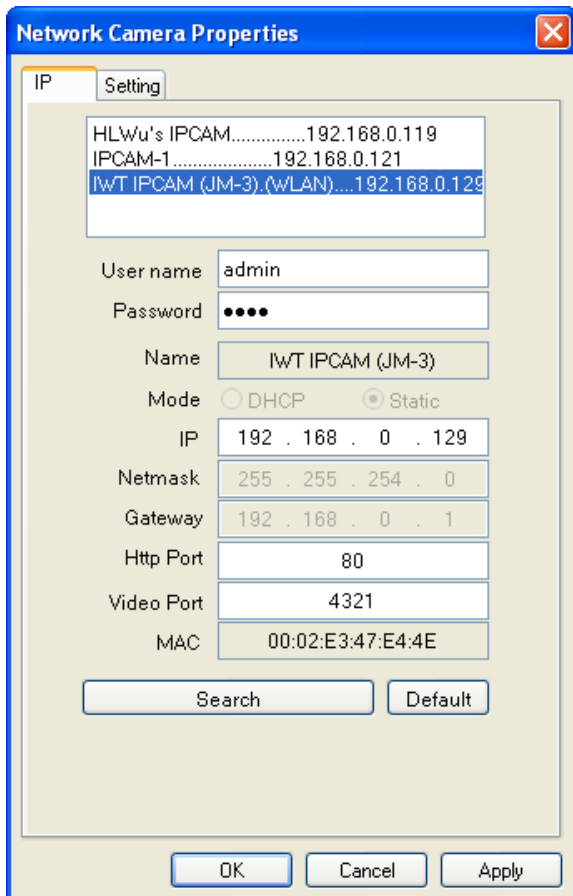
Select “Video (Beta)” tab and scroll down the list to select “Network Camera”. Click “Test Webcam”.



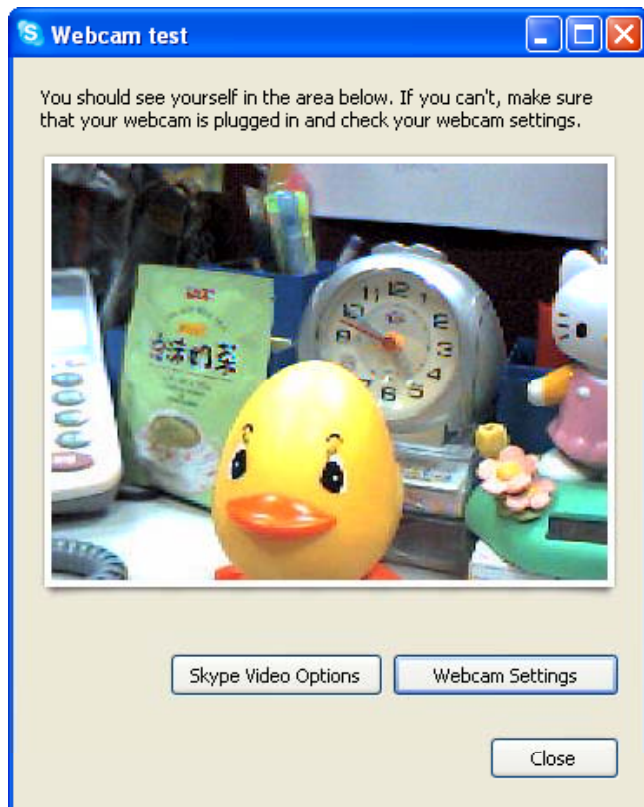
Click **“Webcam Settings”**.



Select the IP Camera which you want to use and then click **“OK”**.



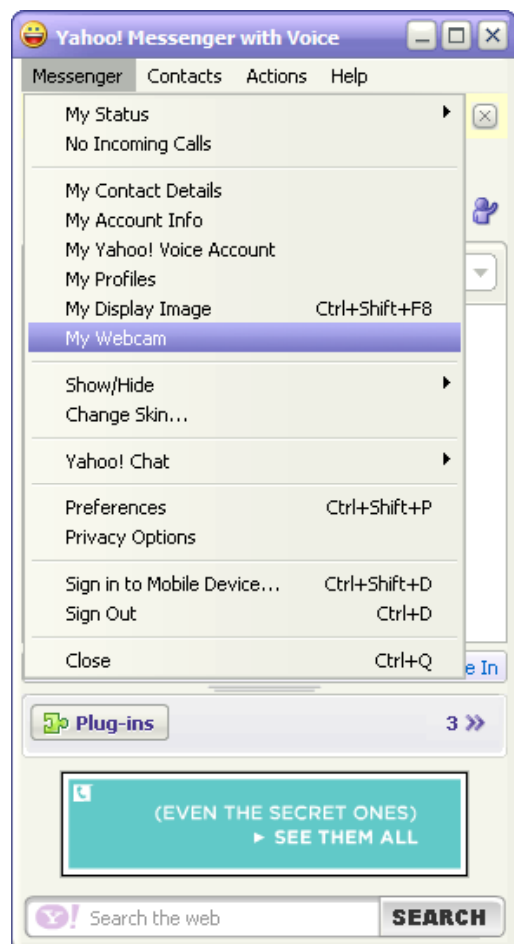
Click **“Close”**.



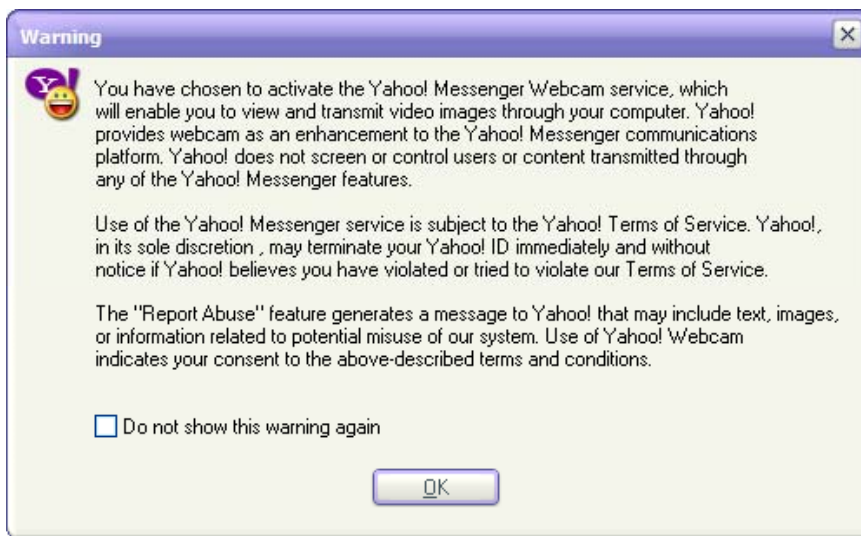
Using IP Camera with Yahoo!

Messenger

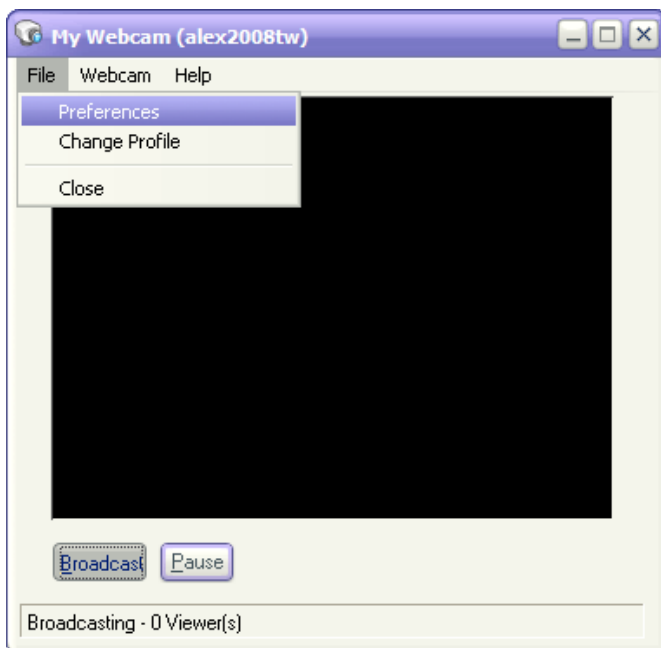
In Yahoo! Messenger, select **"Messenger"** and click **"My Webcam"**.



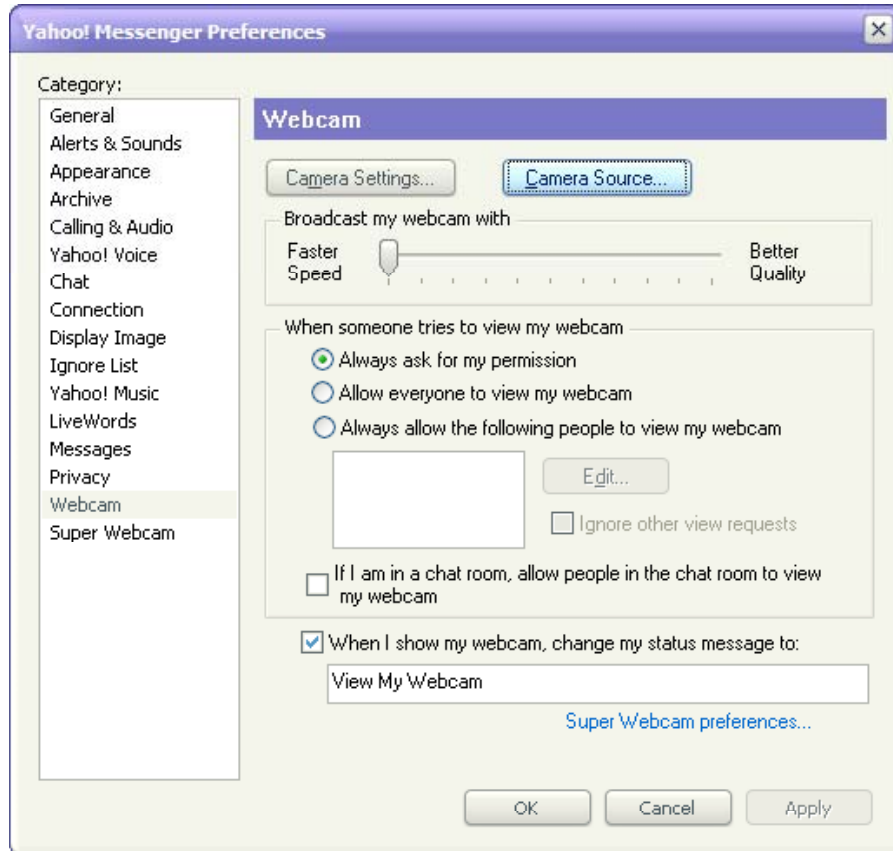
Click **"OK"**.



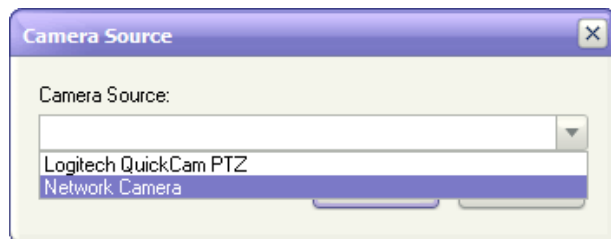
Select **"File"** and click **"Preferences"**.



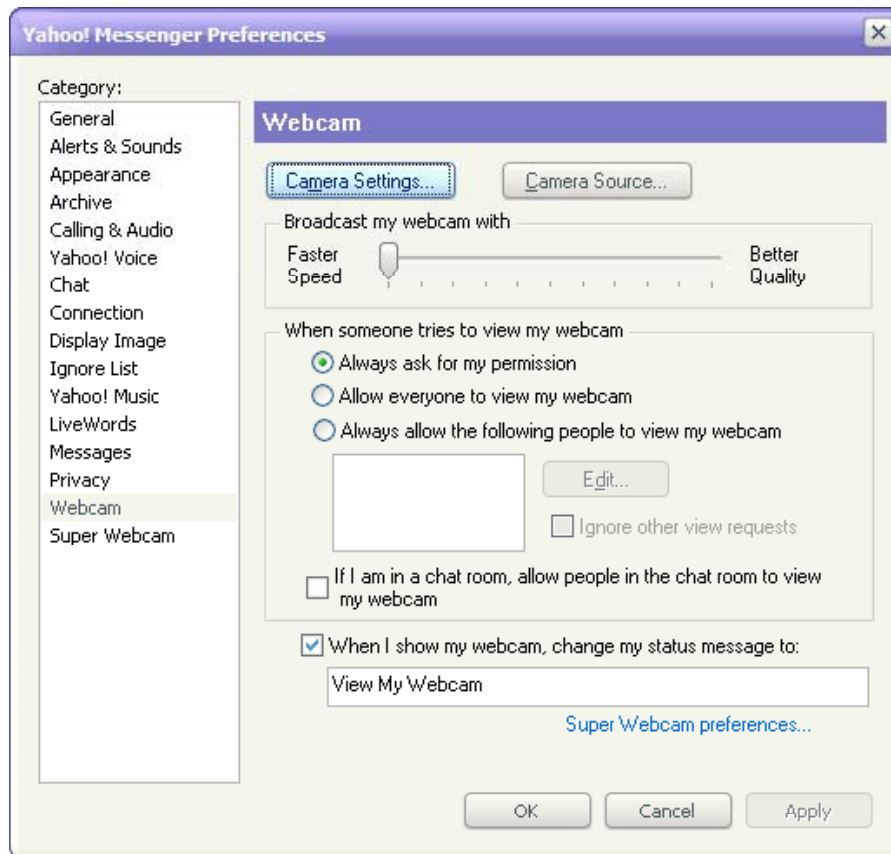
Select "**Webcam**" on the menu and click "**Camera Source...**".



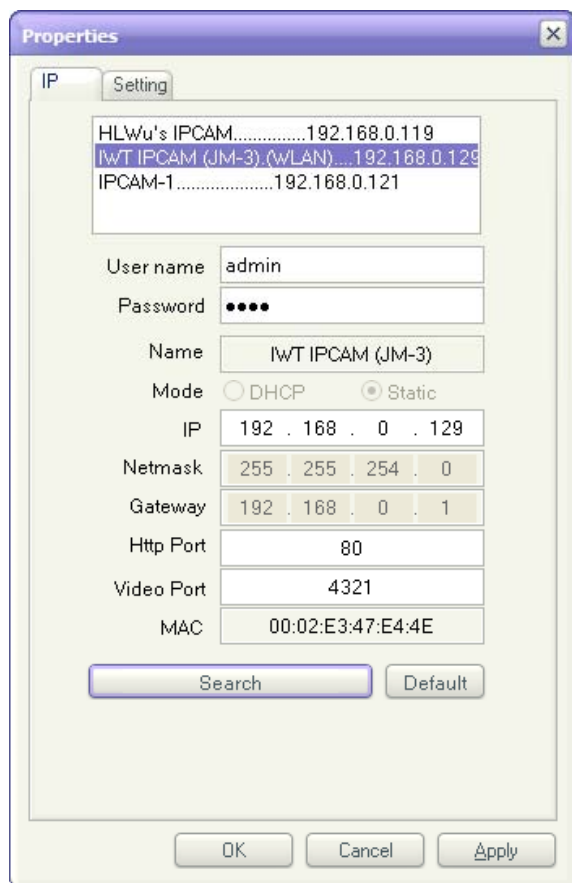
Scroll down the list and select "**Network Camera**" and click "**OK**".



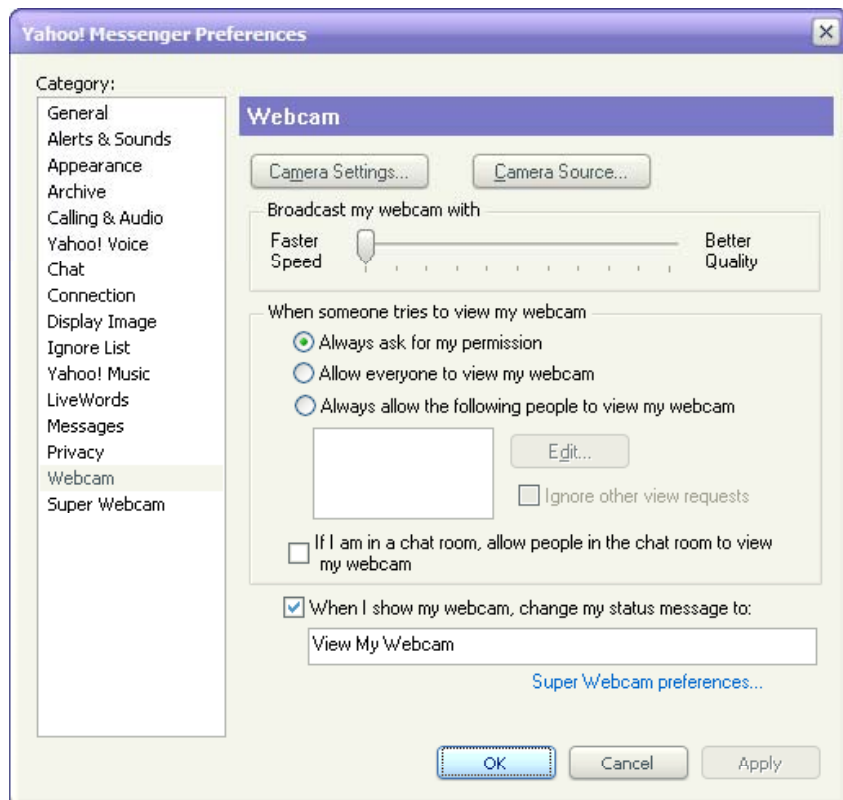
Click "Camera Settings...".



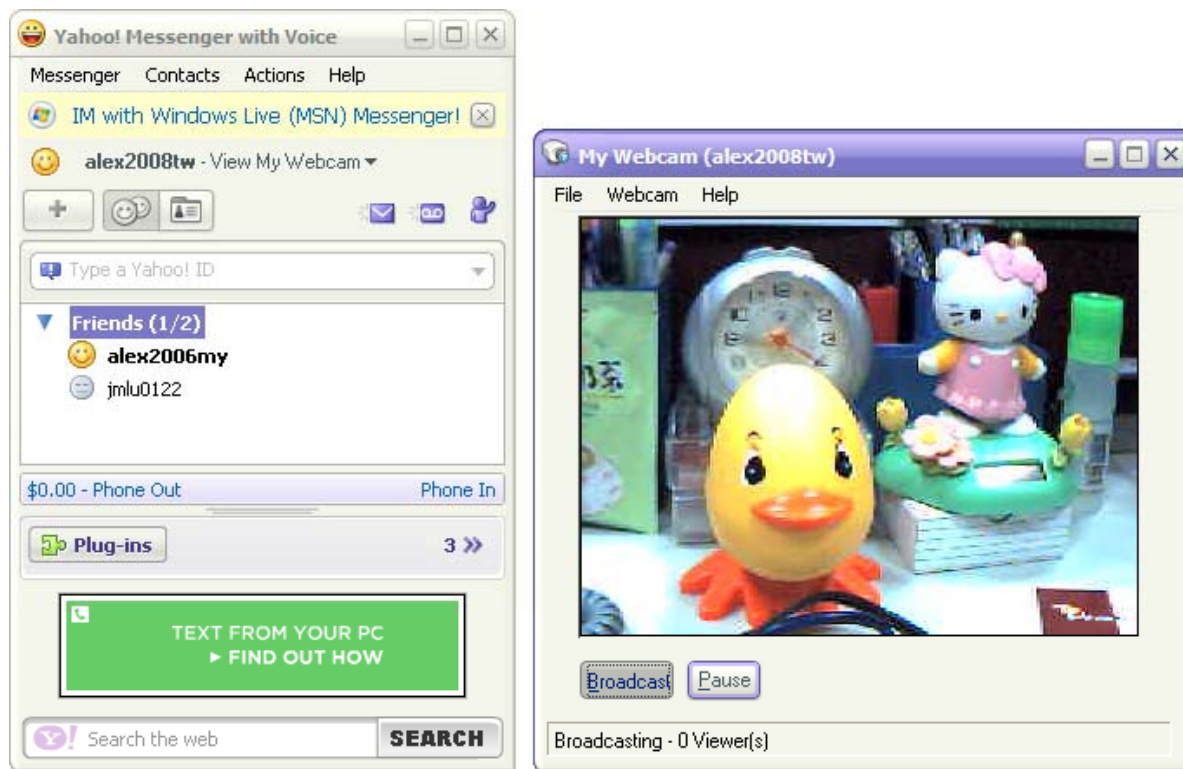
Select the IP Camera which you want to use and click "OK".



Click "OK" to finish.



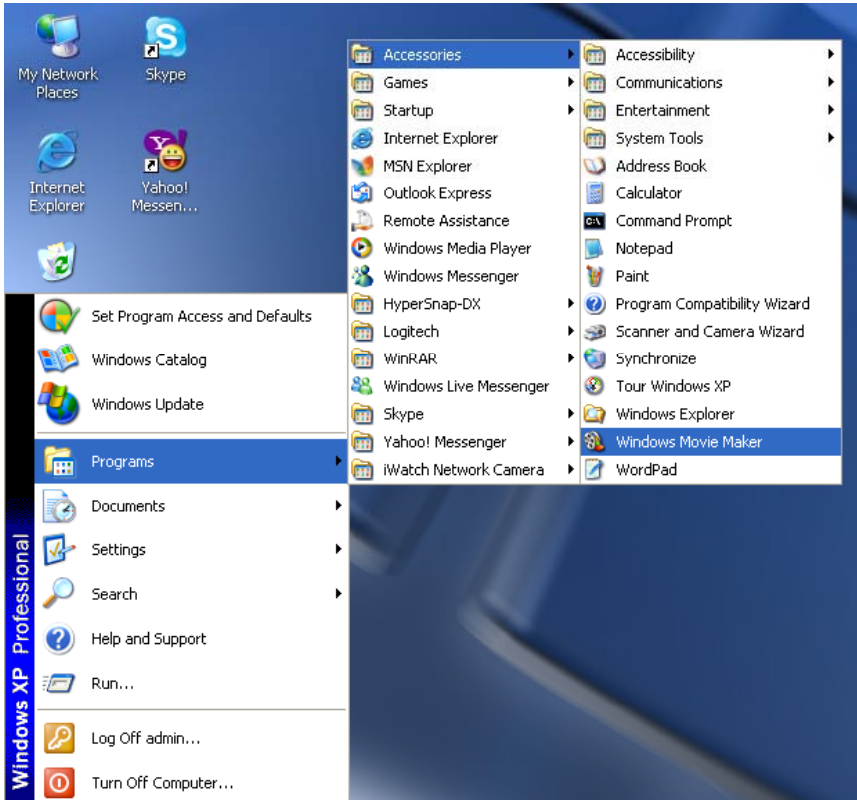
If successfully setting up CS-W02G2, My Webcam screen will show video from CS-W02G2.



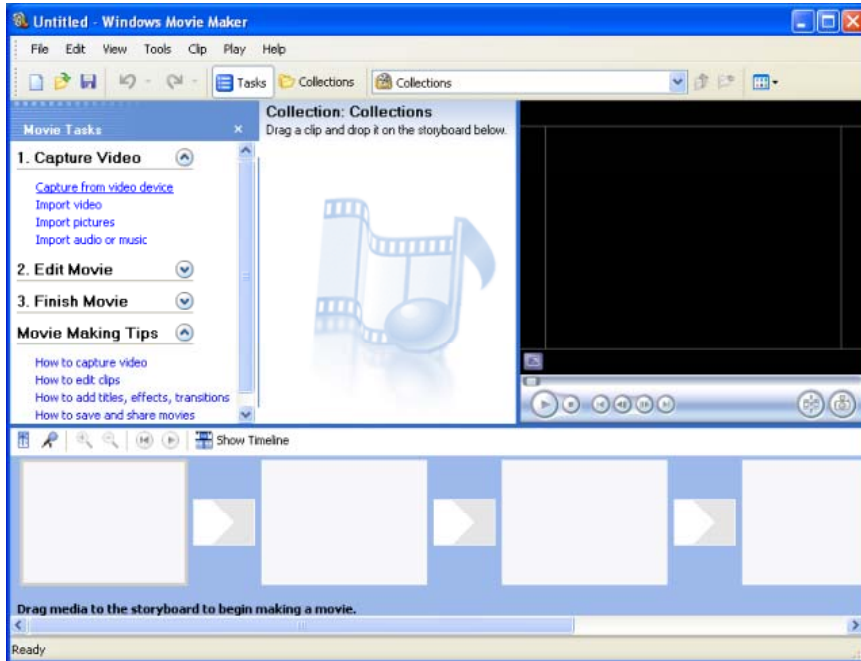
Using IP Camera with Windows Movie Maker

Maker

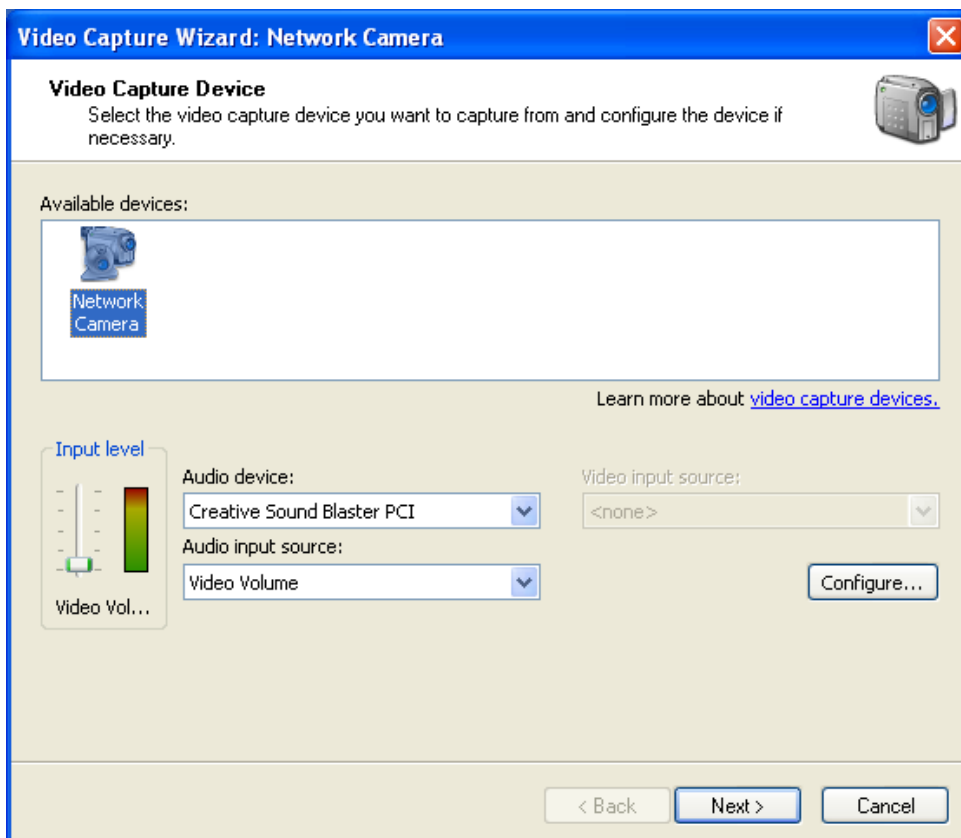
Launch Windows Movie Maker from “**Start**”→“**Programs**”→“**Accessories**”. (Note: Windows Movie Maker is available for Windows XP SP2 or later)



Select "capture from video device".



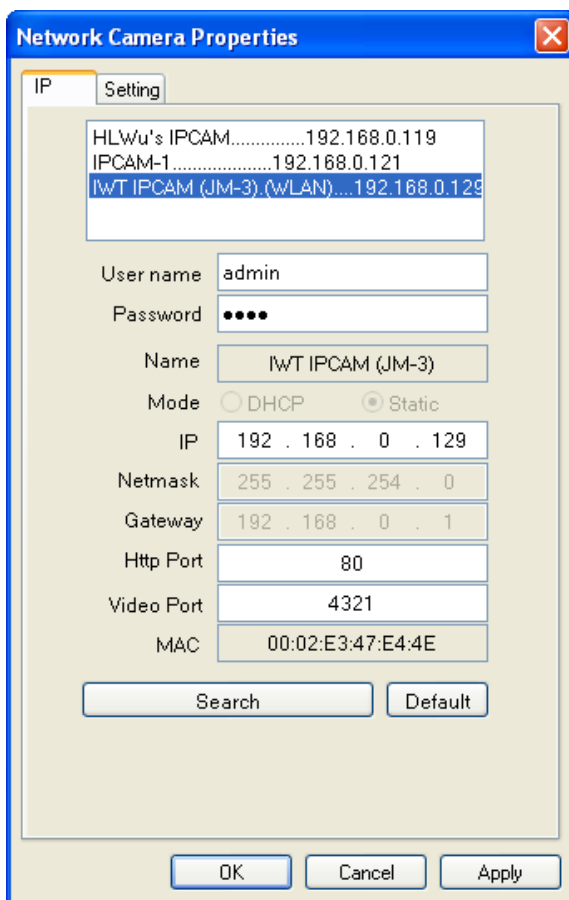
Select "Network Camera" and click "Configure...".



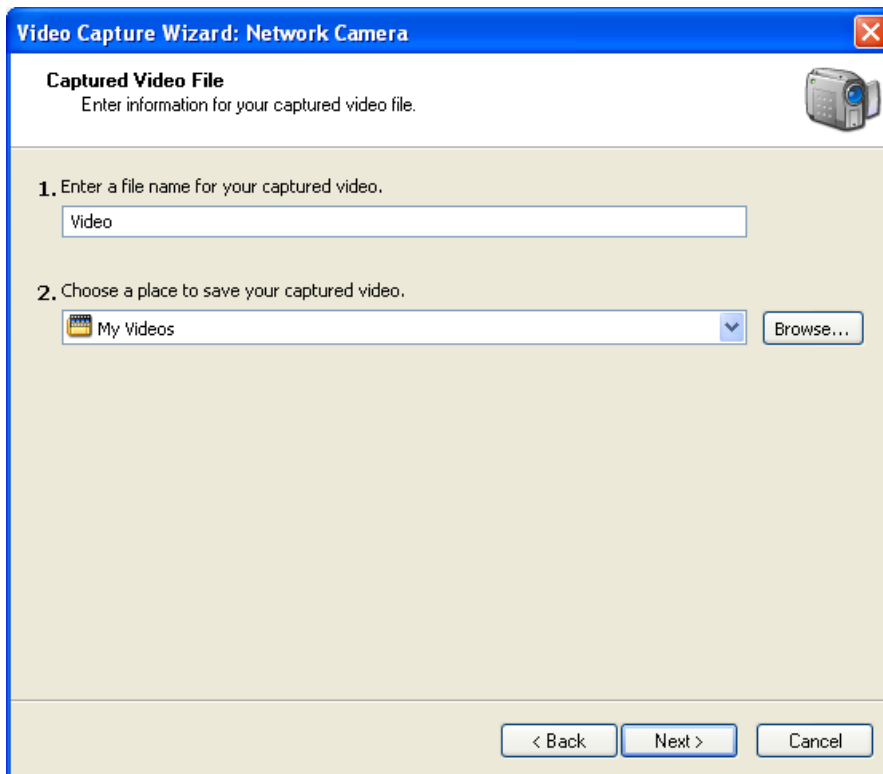
Click **"Camera Settings"**.



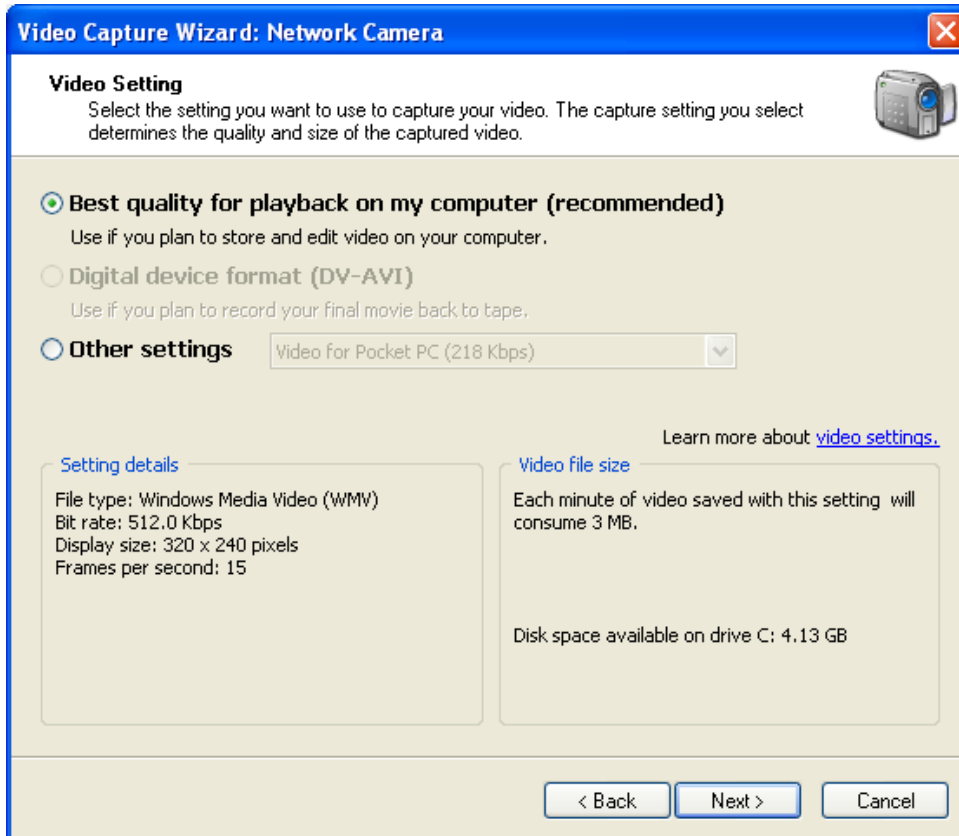
Select the IP Camera which you want to use and then click **"OK"**.



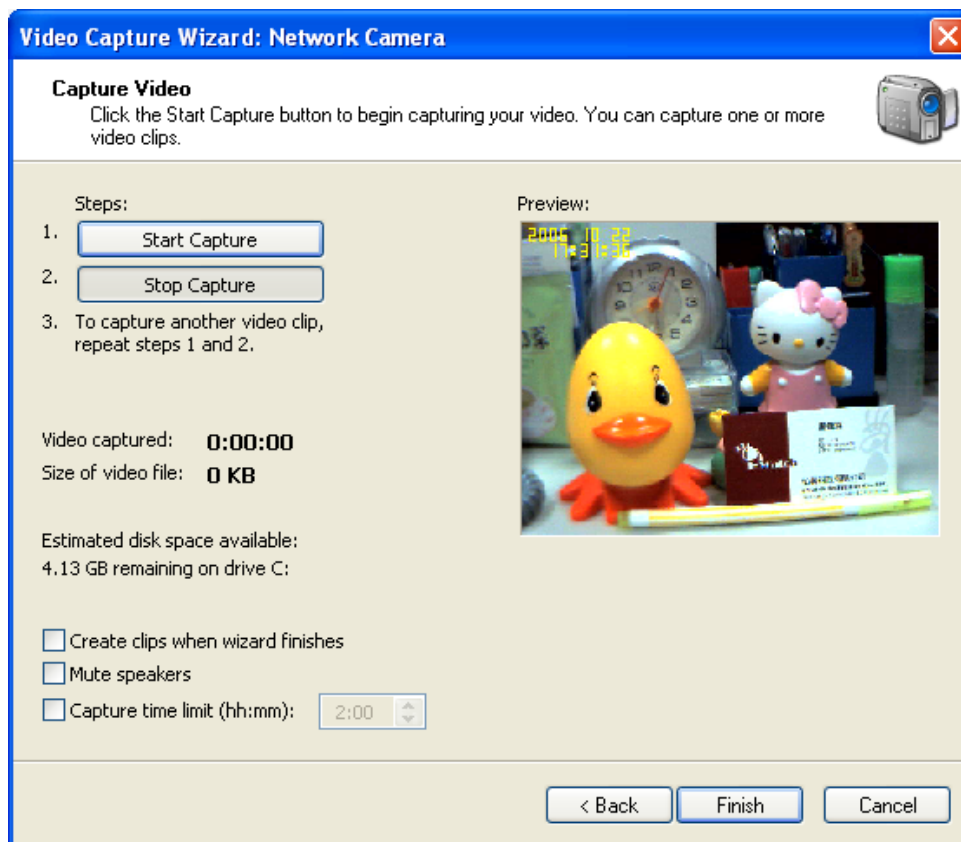
Click **Next**.



Click **Next**.

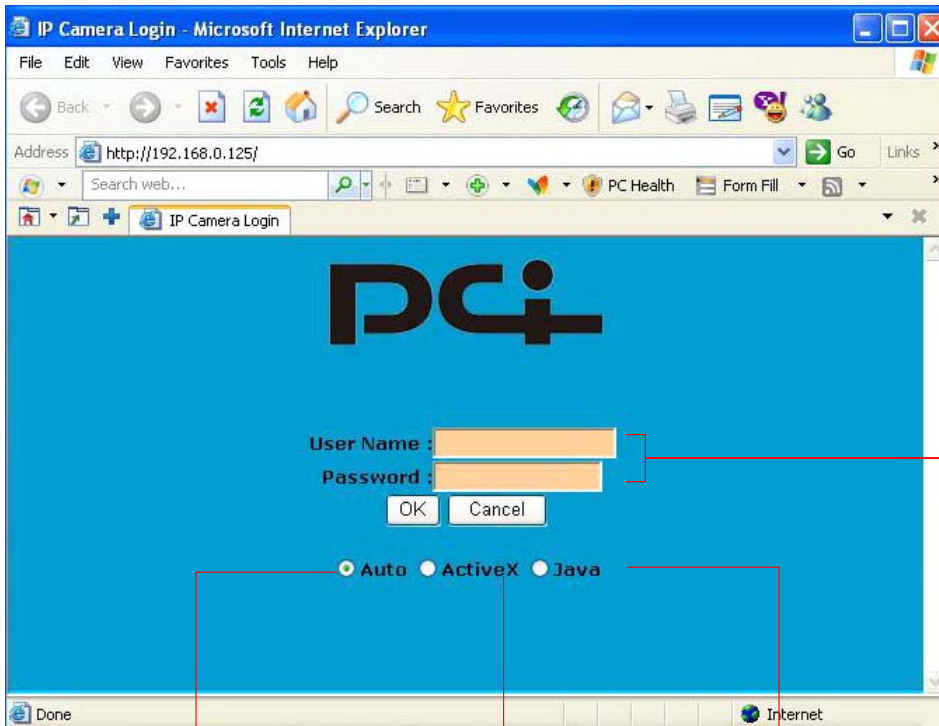


Click **“Start Capture”** to start recording, **“Stop Capture”** to stop, and **“Finish”** when finished.



System Definitions

Login Window



Default user/password is admin/0000

Auto: detected automatically

ActiveX: used for IE browser

Jave: used for Netscape (and FireFox) browser

View Window

The screenshot shows a web browser window titled "Network Camera - Microsoft Internet Explorer" displaying the "ASTAR IPCAM" interface. The main video feed shows a desk with a yellow duck, a clock, and a calculator. A context menu is open over the video feed, showing options: "Show status", "Resolution", "Quality", "Record", and "Snapshot save in c:\webcam". A status bar at the bottom of the video feed displays "640x480 userx1 5.34fps" and "boot since 2006/12/13 17:30".

On the right side of the interface, there is a control panel with the following elements:

- Digital Pan/Tilt**: A set of directional arrows for camera movement.
- Snapshots (to c:\webcam)**: A button to capture a snapshot.
- Logout**: A button to log out of the camera.
- IP Cam Settings**: A button to access camera settings.
- Digital Zoom-in/Zoom-out**: A vertical slider for digital zoom.
- Image Setting**: A list of image quality parameters: Size (640x480), Quality (High), Contrast (High), Brightness (High), Sharpness (High), Saturation (Highest), Time OSD (Yellow), and Frequency (60Hz).
- On-screen display (OSD) (time stamp)**: A "SAVE" button at the bottom of the image settings.
- CMOS sensor Refresh rate**: A "SAVE" button at the bottom of the video settings.

At the bottom of the browser window, a status bar shows "Done" and "Internet".

Annotations and callouts:

- Status: resolution/number of user/frame rate**: Points to the "640x480 userx1 5.34fps" text.
- Note: if displayed in red, it means motion detection occurs**: Points to the "640x480" text.
- Status: IP Camera boot time**: Points to the "boot since 2006/12/13 17:30" text.
- Recording (left click and then right click) in viewing area**: Points to the context menu.

The "Video Recording" dialog box has two sections: "JPEG" and "AVI".

JPEG Section:

- Select**: Save as JPEG, Save as AVI
- Time**: Unlimited, Time: seconds
- Period**: seconds
- Save Path**: c:\webcam\
- Pre Name**: ipcam

AVI Section:

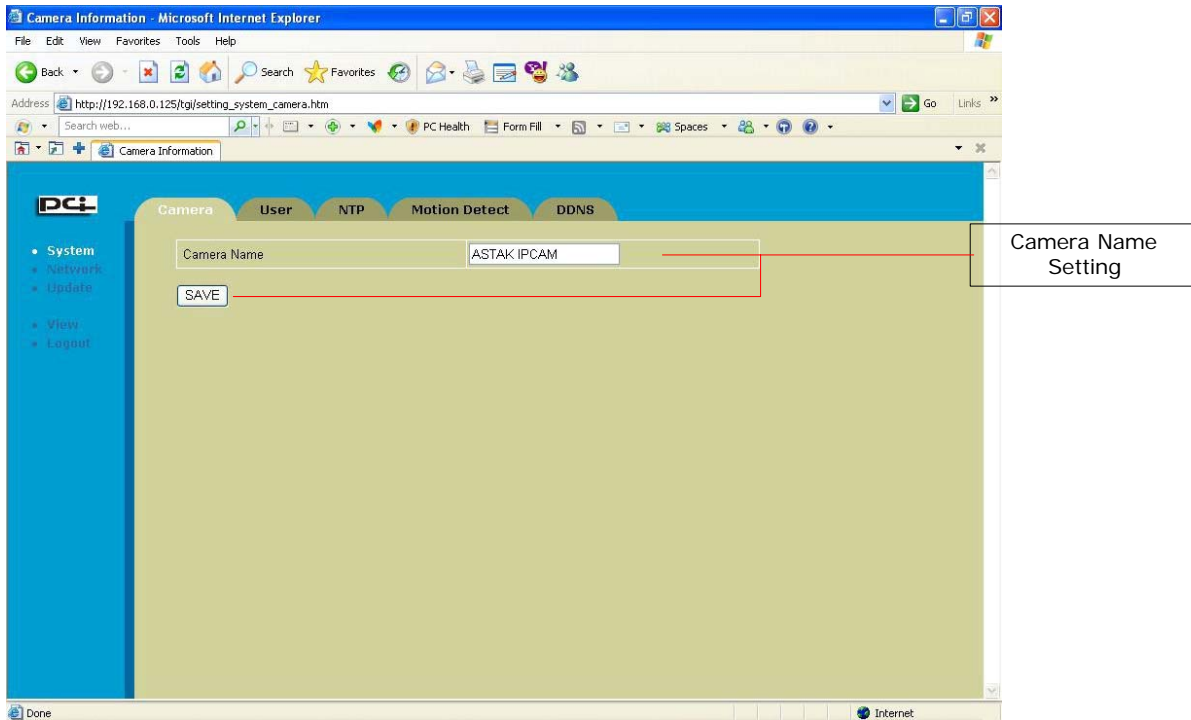
- Select**: Unlimited, Time: seconds
- Save Path**: c:\webcam\
- Pre Name**: ipcam

Buttons at the bottom: **START**, **STOP**, **CANCEL**.

- File format
- File length
- File path
- Pre-file name

System

Camera



User

Existing user listing

Input old password to confirm

Input new user name

Input new password

Confirm new password

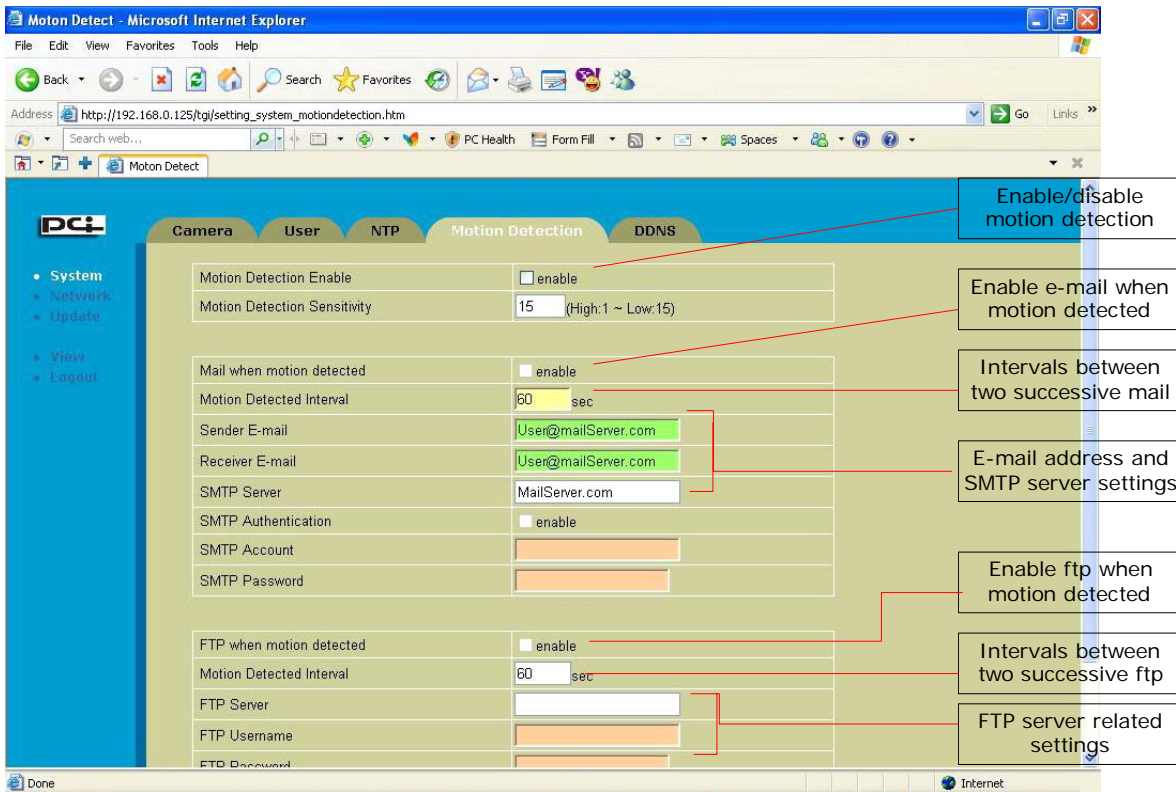
Login user listing

NTP

Synchronize to local PC or time server

Time zone setting

Motion Detection



DDNS

Step 1 - Example of Creating an Account

1. First, please go to www.dyndns.org and create an account there.
2. After creating an account with your preferred e-mail, go to DNS Services, Dynamic DNS. There provides free DNS service for those whom have dynamic Public IP addresses.
3. Create your preferred hostname, e.g. "**webcam**". And select the domain name from the drop down list. After that, your IP address, for example "**203.123.0.189**" will be automatically shown on the IP Address column.
4. Click "**Add Host**".

New Dynamic DNSSM Host

Hostname:	<input type="text" value="webcam"/>	<input type="text" value="dynalias.net"/>
IP Address:	<input type="text" value="203.123.0.189"/>	
Enable Wildcard:	<input type="checkbox"/>	
Mail Exchanger (optional):	<input type="text"/>	<input type="checkbox"/> Backup MX?
		<input type="button" value="Add Host"/> <input type="button" value="ResetForm"/>

Step 2 · Login to CS-W02G2 Configuration Page

1. Login to your IP camera with the local IP address. And enter "**System**"→ "**DDNS**".
2. Check the check box to enable DDNS function.
3. Choose the DDNS provider. (Currently only supports DynDNS server)
4. Enter the Hostname, for example "webcam.dynalias.net". And enter your Account/Username and Password.
5. Click "**Save**" to save the settings.

Dynamic DNS - Microsoft Internet Explorer

Address: http://192.168.0.125/tg/setting_system_ddns.htm

Camera User NTP Motion Detect **DDNS**

• System
← network
← update
+ View
+ Logout

DDNS Function enable

DDNS Server DynDns

Domain Name jmlu0122.viewipcam.com

Account jmlu

Password

SAVE

Enable/disable DDNS function

Currently DynDNS server is supported

Enter domain name, account, and password from DynDNS server



Different routers have different web interface, so you have to remember to open **port 80** on your router for CS-W02G2.

Network

LAN Settings

Setting LAN - Microsoft Internet Explorer

Address: http://192.168.0.125/cgi/setting_network_lan.htm

LAN Settings Wireless LAN Settings

Obtain IP address automatically (DHCP)

Use the following IP settings

IP Address	192	168	0	125
Subnet Mask	255	255	254	0
Default Gateway	192	168	0	1
DNS Server	168	95	1	1

Control port: 80

Video port: 4321

SAVE

Checked: DHCP
Unchecked: Fixed IP

Network settings

IP Camera control and video port. Allow these two ports in port forwarding settings (of router) to enable remote surveillance

Wireless LAN Settings

Setting WLAN - Microsoft Internet Explorer
Address: http://192.168.0.125/tgi/setting_network_wlan.htm

LAN Settings | **Wireless LAN Settings**

SSID: IWT-2
Network Type: infrastructure
Authentication Mode: Open System
Channel: Auto
Wireless Mode: 802.11G

Enable WEP Key
WEP Encryption Type: 128Bit
Default Transmit Key: 1 2 3 4
Key 1: [Masked]
Key 2: [Empty]
Key 3: [Empty]
Key 4: [Empty]

SAVE

Callouts:
- Enter the SSID of the wireless AP (points to SSID field)
- Select infrastructure or adhoc type (points to Network Type dropdown)
- Select open system or share key (points to Authentication Mode dropdown)
- Select 802.11B or 11G mode (points to Wireless Mode dropdown)
- Enable WEP Key data encryption (points to Enable WEP Key checkbox)
- Select 64 or 128 bit WEP type (points to WEP Encryption Type dropdown)
- Set consistent key sequence as AP does (points to Default Transmit Key radio buttons)
- Enter WEP key as wireless AP defines (points to Key 1 field)

Update

Update - Microsoft Internet Explorer
Address: http://192.168.0.125/tgi/setting_upgrade.htm

Maintenance

Reboot Camera: REBOOT
Reload Default: RELOAD
Update Firmware: UPDATE
Firmware Version: C680W-WX-10000-20061213-PCIE-A

Callouts:
- Click to reboot IP camera (points to REBOOT button)
- Click to reload factory default (points to RELOAD button)
- Online firmware update (points to UPDATE button)

Technical Specification

Specifications			
Models	i-Watch 130L i-Watch 130W: With additional wireless interface	Supported protocols	TCP/IP, SMTP client, HTTP server, FTP client, DHCP client, NTP client, DDNS
Image Sensor	1/4" Progressive Scan CMOS sensor 1.3M pixels. Minimum illumination: 2.0 lux @ F2.0	Reset button	Use stick to touch reset button to restore factory default settings
Lens	Fixed focal (6.0 mm, F2.0) with fine tuning Viewing angle 60°	Motion Detection	15 level sensitivity Snapshots transmitted via e-mail/ftp
Video Compression	Motion JPEG 5 level quality selection	OSD function	Image can be overlaid with timestamp
Resolutions	Up to 20 frames at 160x120 Up to 20 frames at 320x240 Up to 15 frames at 640x480	Security	User access with password protection WEP 64/128 bit data encryption
Image setting	Configurable contrast and brightness Configurable sharpness and saturation 3 level digital zoom	LED indicator	Dual color network connection indicator Green: ethernet Red: wireless LAN
Wireless interface (i-Watch 130W)	IEEE 802.11g 6 - 54 Mbps IEEE 802.11b 1 - 11 Mbps 1 - 11 channels Antenna gain: 2.0 dBi	Supported instant messenger	MSN messenger 7.5 or later Skype 2.5 or later Yahoo! Messenger 7.5 or later
Users	5 simultaneous users	Viewing system requirements	Pentium III CPU 500 MHz or higher, or equivalent AMD 256 MB RAM Windows 2000 and XP Internet Explorer 6.0 or later
Connectors	Ethernet RJ45 DC in connector	Dimensions (HxWxD)	85 x 75 x 44 mm (antenna and stand excluded)
Power	5V DC, 2.0 A 4.5 watts consumption	Approvals	FCC / CE / RoHS
Operating conditions	5 - 50 °C (41 - 122 °F) Humidity 20 - 80% RH	Package includes	130L/130W network camera Documentation and software CD Ethernet cable (Cat/5e) AC adapter Quick installation guide Warranty card Camera stand bracket