

User Manual

IR IP Camera





WARNINGS

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MISTURE.

DO NOT INSERT ANY METALLIC OBJECT THROUGH VENTILATION GRILLS.

CAUTION

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
<p>CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>		

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THE TRADEMARKS MENTIONED IN THE MANUAL ARE LEGALLY REGISTERED TO THEIR RESPECTIVE COMPANIES.

Content

I. PREFACE.....	4
II. PRODUCT SPECIFICATIONS.....	4
III. PRODUCT INSTALLATION.....	7
A. MONITOR SETTING.....	7
B. HARDWARE INSTALLATION AND I/O PIN ASSIGNMENT.....	8
C. IP ASSIGNMENT	11
D. INSTALL ACTIVE X CONTROL:.....	13
IV. LIVE VIDEO.....	15
V. SYSTEM CONFIGURATION.....	18
A. SYSTEM.....	19
B. NETWORK	23
C. A/V SETTING	29
D. EVENT LIST.....	35
VI. NETWORK CONFIGURATION.....	41
VII. PACKAGE CONTENTS	42
APPENDIX I	42

V1.0_110829

I. Preface

IR IP CAMERA is a professional CCD IP camera. It has built-in web server which enables user to view real-time video via IE browser. It also supports simultaneously H.264, MPEG-4&JPEG video compression and dual streaming which provides smooth and high video quality. The video can be stored in the SD card, and can be playback remotely.

IR IP CAMERA is an easy-to-use IP Camera which is designed for security application.

II. Product Specifications

- D-WDR system
- Next Generation 3D DNR
- Sense-Up function
- IP66
- External Vari-focal lens adjustment
- True Day/Night Function
- Mechanism IR Cut Filter Available
- Fan Built-in
- IR Distance: 50/40/30 Meter
- H.264/ JPEG/ MPEG4 compression
- Support Cell Phone/PDA/3GPP
- Triple streaming
- SDK for Software Integration
- Free Bundle 36 ch recording software
- 8 Step shutter Adjustment

Specifications

Hardware	
CPU	ARM 9 ,32 bit RISC
Memory	256MB
Flash	16MB
Sensor	1/3" CCD sensor

Sensitivity	0 Lux(IR on)
Lens	30m: Vari-Focal Auto Iris 3.7~12mm 40m: Vari-focal Auto Iris 9~22mm 50m: Vari-focal Auto Iris 9~22mm
Fan	Always On
ICR	Yes
LED	50M:21 Unit 5ψ 850nM infrared LED, E-Powerx7 40M:56 Unit 5φ 850nM infrared LED 30M:42 Unit 5φ 850nM infrared LED
IR DISTANCE	50M/40M/30M
I/O	1 in/ 1out(Relay Out)
Video Out	1
Power Consumption	AC90~260V
Water Resistance	IP66
Dimensions	114mm(ψ) x 260mm(D) (With Shield) 99.4mm(ψ) x 225mm(D) (Without Shield)
Network	
Ethernet	10/ 100 Base-T
Network Protocol	HTTP, UDP,TCP/ IP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP
Wireless (Optional)	
Wireless	802.11b/g
Security	WEP,WPA-PSK,WPA2-PSK
System	
Video Resolution	NTSC: 720x480, 704x480, 352x240, 176x144
	PAL: 720x576, 704x576, 352x288, 176x144
Video adjust	Brightness, Contrast, Saturation, Hue, Sharpness, 8 Step shutter Adjustment
Triple Streaming	Yes
Image snapshot	Yes
Full screen monitoring	Yes
Privacy Mask	Yes
Compression format	H.264/JPEG/MPEG4 (3GPP only)
Video bitrate adjust	CBR, VBR
Motion Detection	Yes, 3 different areas

Triggered action	Mail, FTP, Relay
Pre/ Post alarm	Yes, configurable
Security	Password protection
Firmware upgrade	HTTP mode, can be upgraded remotely
Simultaneous connection	Up to 10
Web browsing requirement	
OS	Windows 2000, XP, 2003, Microsoft IE 6.0 or above
Hardware	
Suggested	Intel Dual Core 1.66G, RAM: 1024MB, Graphic card: 128MB
Minimum	Intel-C 1.6G, RAM: 256MB, Graphic card: 32MB

*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

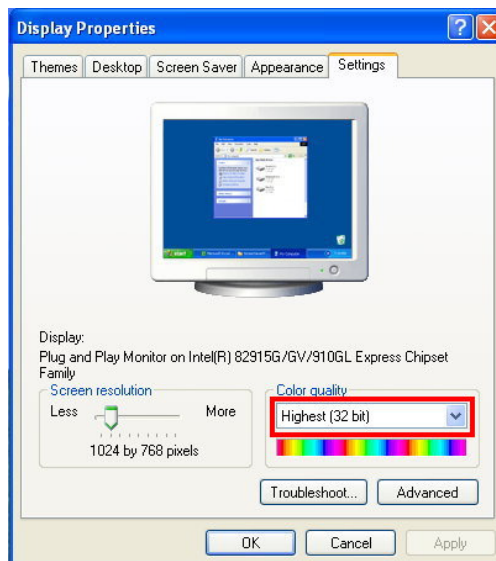
III. Product Installation

A. Monitor Setting

- i. Right-Click on the desktop. Select “ Properties”



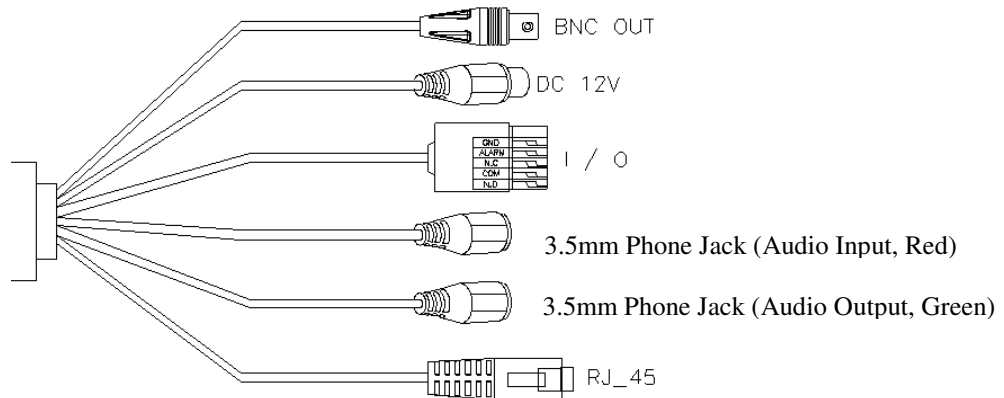
- ii. Change color quality to highest (32bit).



B. Hardware Installation and I/O Pin Assignment

Assignment

- i. Connect a power adapter and IP Camera to PC or local network



- ii. I/O Control Instruction

I/O terminal connector – used in application, for e.g., motion detection, event triggering, alarm notifications. It provides the interface to:

1 Digital Input (GND+Alarm) – An alarm input for connecting devices that can toggle between an open and closed circuit, for example: PIRs, door/window contacts, glass break detectors, etc. When a signal is received the state changes and the input becomes active.

Relay output (COM +N.O.) / (COM+N.C.) – An output to Relay switch, for example: LEDs, Sirens, etc

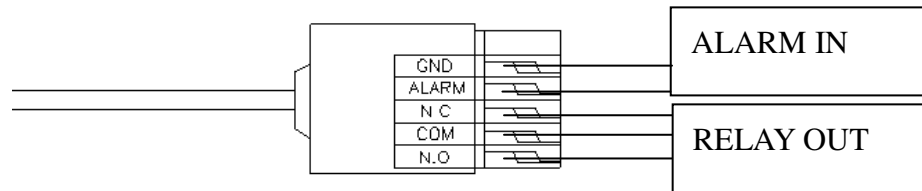
- iii. Digital Input

Alarm Input

1. GND (Ground) : Initial state is LOW
2. Alarm : Max. 50mA, DC 3.3V

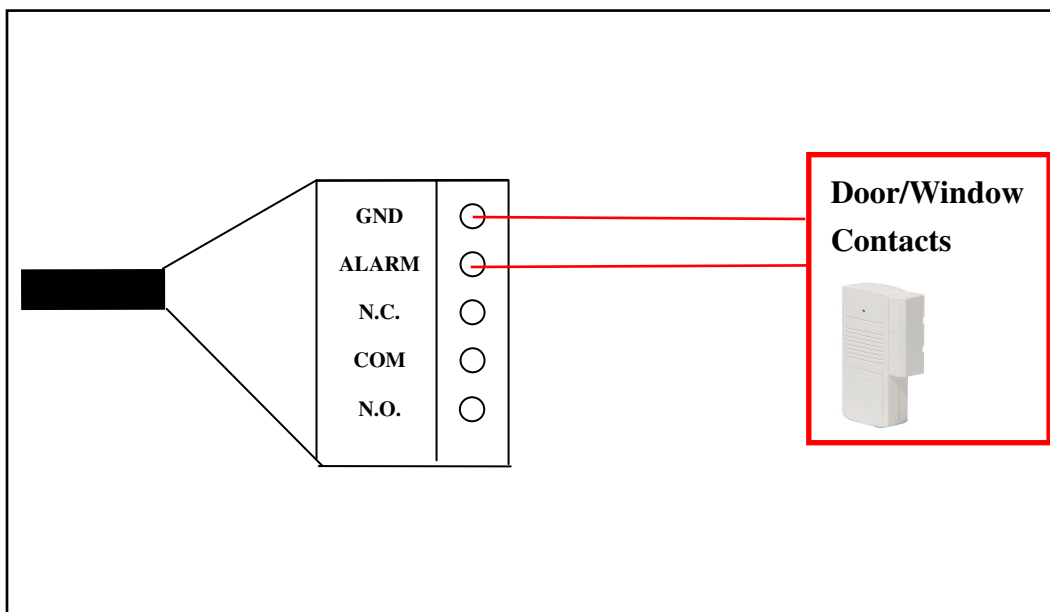
Relay Output

1. N.C. (Normally Close): Max. 1A, 24VDC or 0.5A, 125VAC
2. COM: (Common)
3. N.O. (Normally Open): Max. 1A, 24VDC or 0.5A, 125VAC

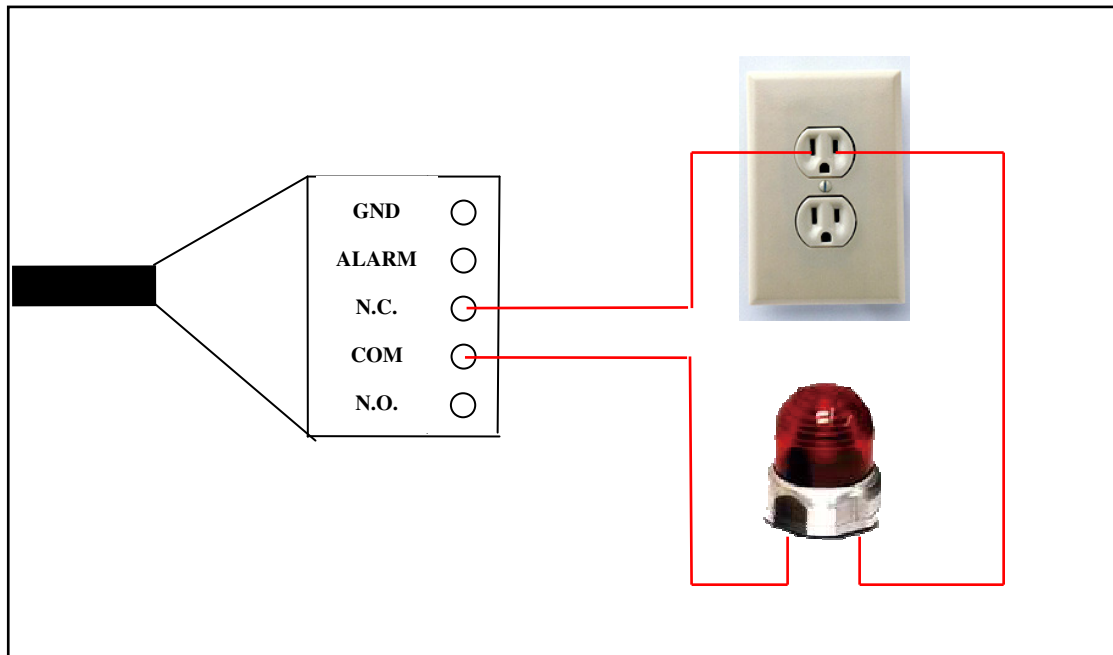


iv. Relay

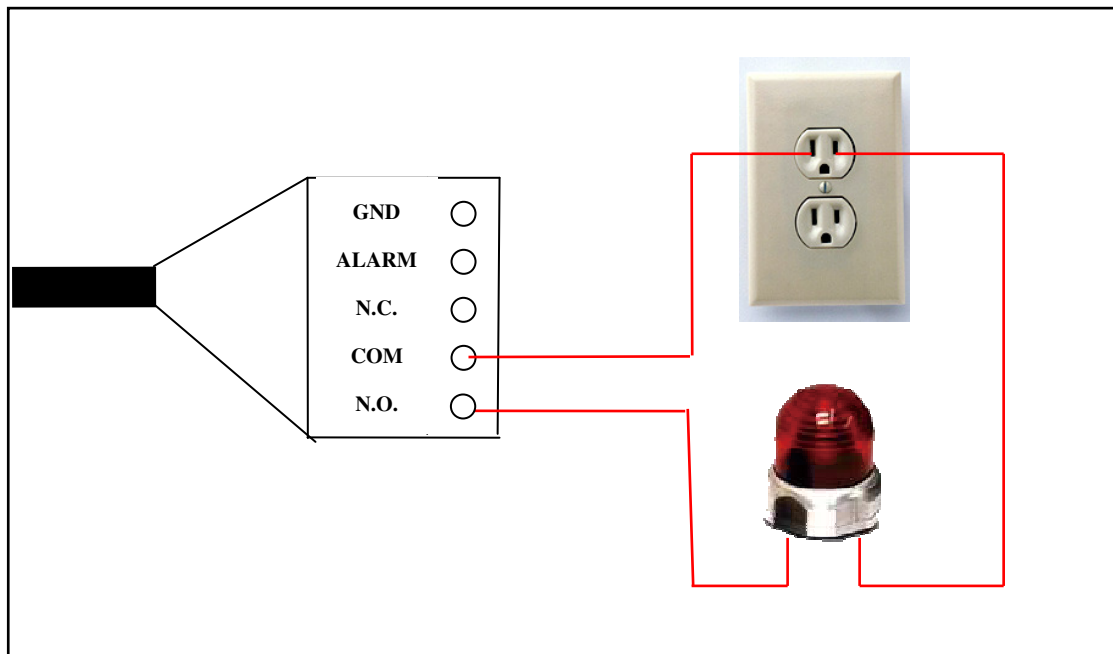
1. Digital Input connection



2. Relay Output Connection



Or

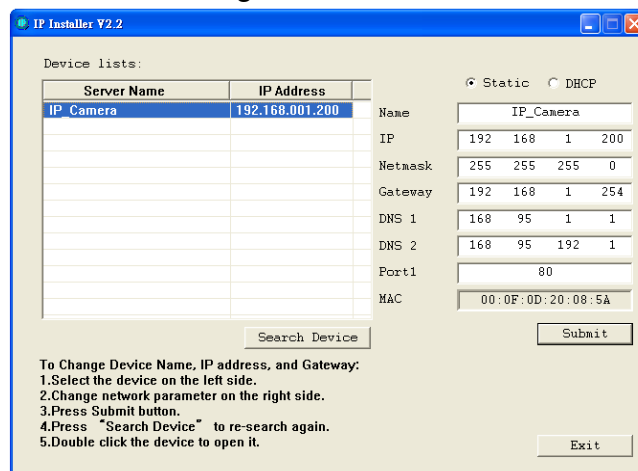


C. IP Assignment

- i. Use the software, “IP Installer” to assign the IP address of IP CAMERA. The software is in the attached software CD.
- ii. IP installer supports two languages
 - a. IPInstallerCht.exe : Chinese version
 - b. IPInstallerEng.exe : English version
- iii. There are 3 kinds of IP configuration.
 - a. Fixed IP (Public IP or Virtual IP)
 - b. DHCP (Dynamic IP)
 - c. Dial-up (PPPoE)
- iv. Execute IP Installer
- v. For Windows XP SP2 user, it may popup the following message box. Please click “Unblock”.

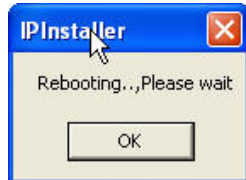


- vi. IP Installer configuration:



- vii. IP Installer will search all IP Cameras connected on Lan. The user can click “Search Device” to search again.

- viii. Click one of the IP Camera listed on the left side. The network configuration of this IP camera will show on the right side. You may change the “name” of the IP Camera to your preference (eg: Office, warehouse). Change the parameter and click “Submit” then click “OK”. It will apply the change and reboot the Device.



- ix. Please make sure the subnet of PC IP address and IP CAM IP address are the same.

The same Subnet:

IP CAM IP address: 192.168.1.200

PC IP address: 192.168.1.100

Different Subnets:

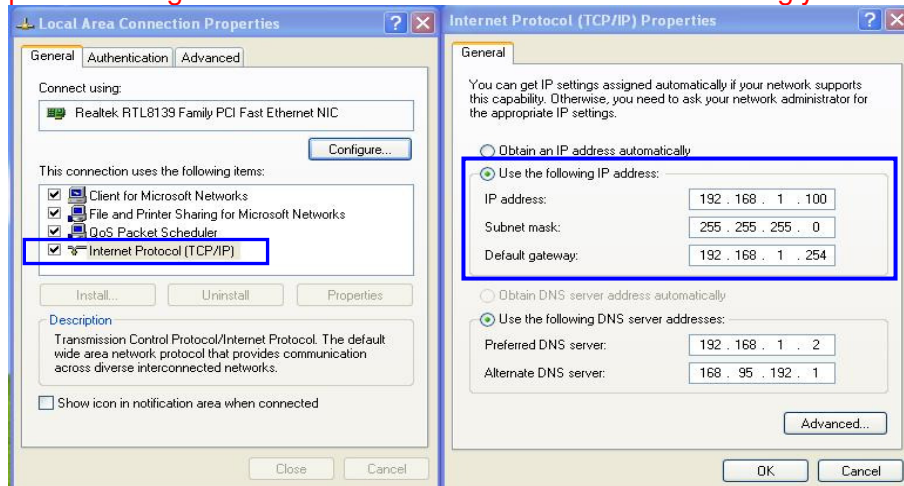
IP CAM IP address: 192.168.2.200

PC IP address: 192.168.1.100

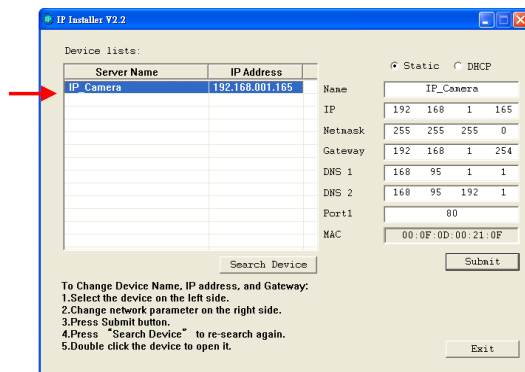
To Change PC IP address:

Control Panel→Network Connections→Local Area Connection Properties→Internet Protocol (TCP/IP) →Properties

Please make sure your IP Camera and PC have the same Subnet. If not, please change IP Camera subnet or PC IP subnet accordingly.



- x. A quick way to access remote monitoring is to left-click the mouse twice on a selected IP Camera listed on “Device list” of IP Installer. An IE browser will be opened.

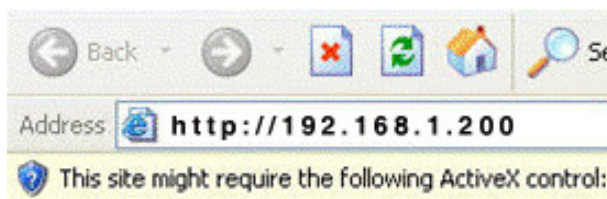


- xi. Then, please key in the default "user name: admin" and "password: admin".



D. Install ActiveX control:

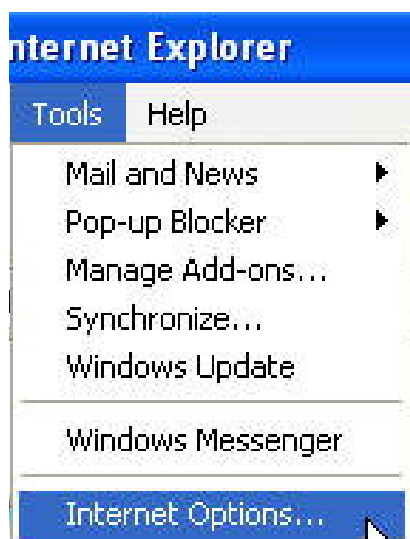
For the first time to view the camera video via IE, it will ask you to install the ActiveX component.



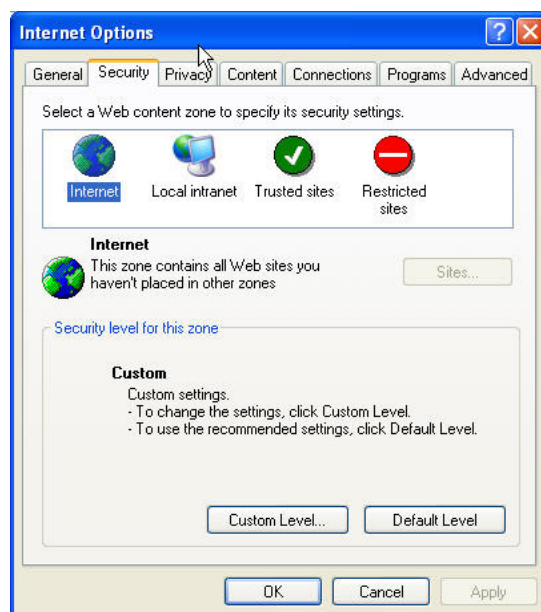
If the installation failed, please check the security setting for the IE browser.

- IE → Tools → Internet Options... → Security Tab → Custom Level... → Security Settings → Download unsigned ActiveX controls → Select "Enable" or Prompt.
- IE → Tools → Internet Options... → Security Tab → Custom Level... → Initialize and script ActiveX controls not marked as safe → Select "Enable" or Prompt.

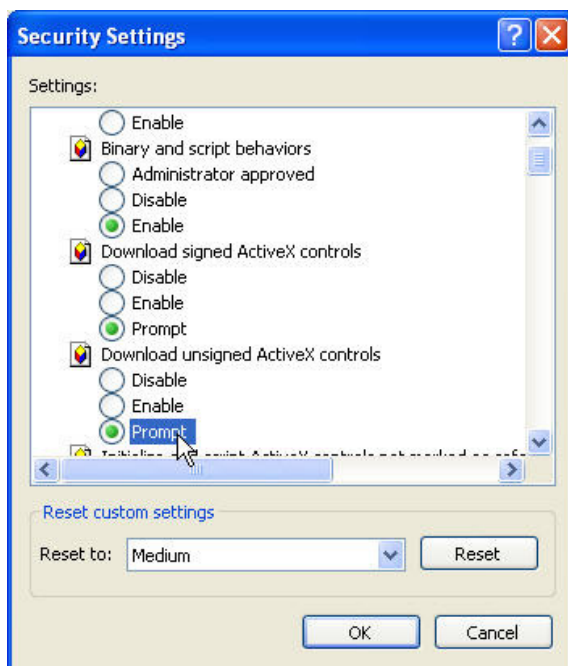
1



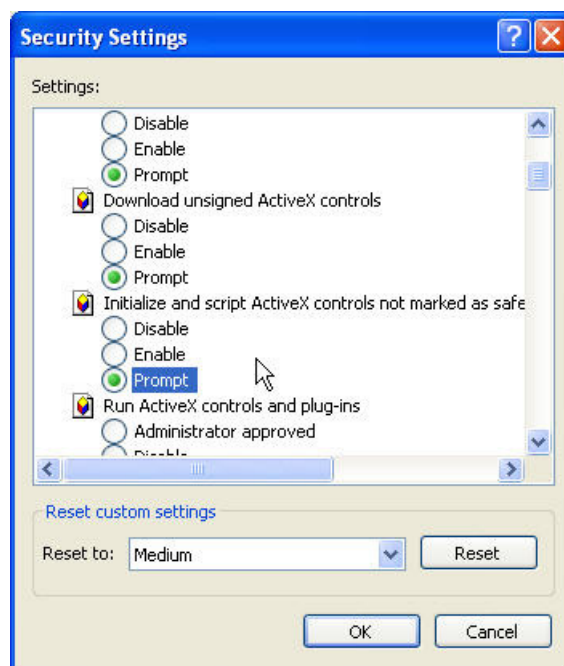
2



3

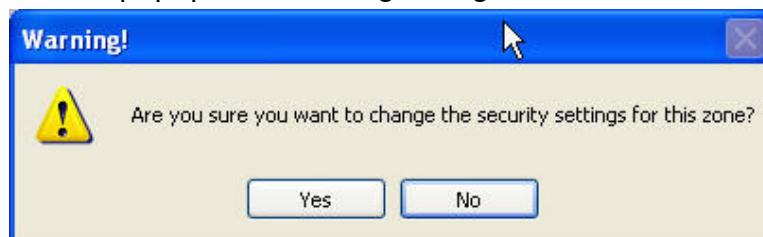


4



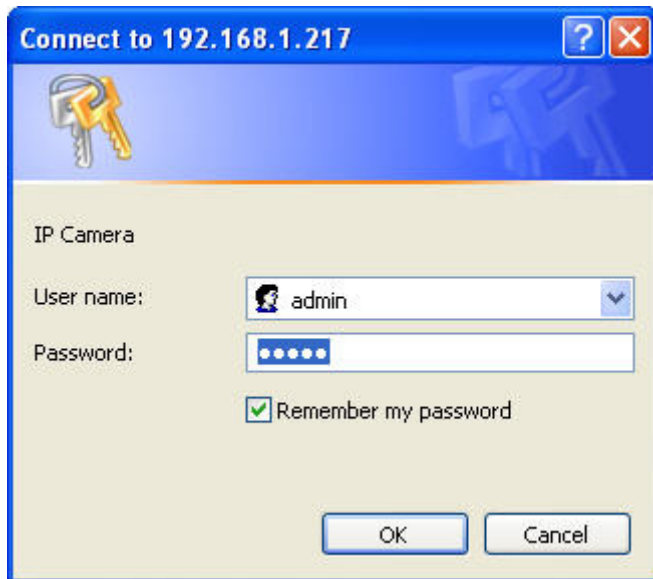
5

When popup the following dialogue box, click "Yes".



IV. Live Video

Start a IE browser, type the IP address of the IP camera in the address field. It will show the following dialogue box. Key-in the user name and password. The default user name and password are “**admin**” and “**admin**”.



When connect to the IP CAMERA ◦ The following program interface shows.



1. **Real-Time Display** panel shows live streaming of video information remotely.



2. **Snapshot an Evidence** of important event in still JPEG format.



3. **Recording** as AVI files continuously. For details, see next section.



4. **Digital Zoom** for bringing up an area of interest closely. For details, see next section.



5. **Playback SD Archives** of important events captured and stored in local SD Card medium.



6. **System Configuration** for user accounts, system, network, video, audio, events, etc.

7. **Status Bar** shows system time, video resolution, and current video frame rate.

8. **Dual Streaming Channel** enables secondary viewing device (such as mobile or PDA phones) to receive real-time streaming at lower-yet-appropriate frame rate per second. This feature is available only if **Streaming 2** is being enabled in **Video** setting.

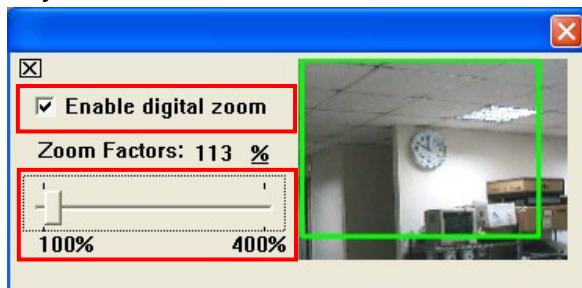
9. **Bi-directional Audio Communication** enables full-duplex voice communication between local and remote surveillance sites. To speak, click on [Communication] box. To listen, enable **Incoming Audio** in **Audio** setting.

Double-click the video, it will change to full screen mode. Press “Esc” or double-click the video again, it will change back to normal mode.



Right-Click the mouse on the video, it will show a pop-up menu.

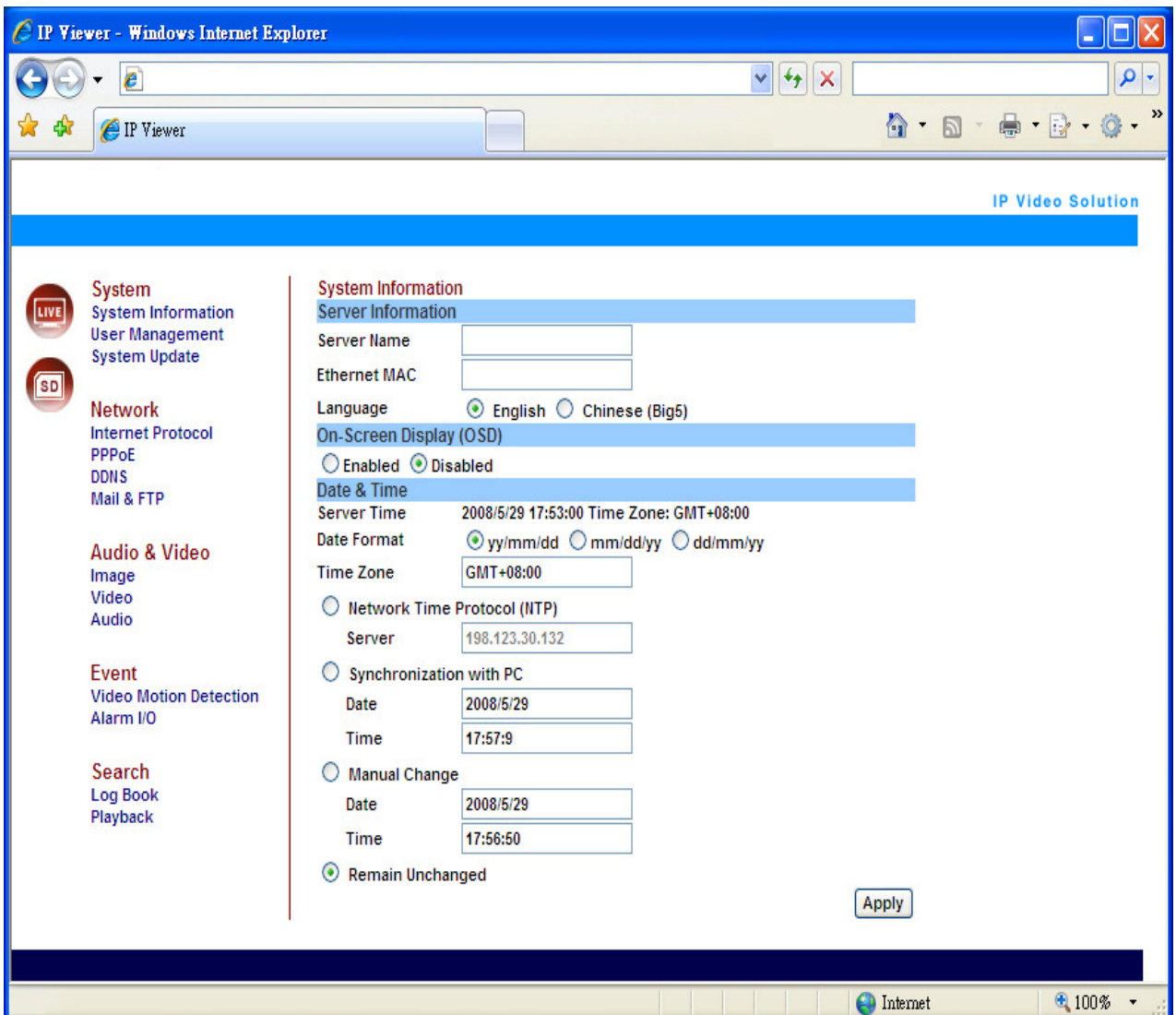
Snapshot
Record Start
Mute
Full Screen
Zoom

1. Snapshot : Save a JPEG picture
2. Record Start : Record the video in the local PC. It will ask you where to save the video. To stop recording, right-click the mouse again. Select “Record Stop”. The video format is AVI. Use Microsoft Media Player to play the recorded file.
3. Mute : Turn of the audio. Click again to turn on it.
4. Full Screen : Full-screen mode.
5. ZOOM: Enable zoom-in and zoom-out functions. Select “Enable digital zoom” option first within the pop-up dialogue box and then drag and drop the bar to adjust the zoom factors.



V. System Configuration

Click  to get into the administration page. Click  to go back to the live video page.



IP Viewer - Windows Internet Explorer

IP Video Solution

System
System Information
User Management
System Update

Network
Internet Protocol
PPPoE
DDNS
Mail & FTP

Audio & Video
Image
Video
Audio

Event
Video Motion Detection
Alarm I/O

Search
Log Book
Playback

System Information

Server Information

Server Name

Ethernet MAC

Language ☒ English ☐ Chinese (Big5)

On-Screen Display (OSD)

☐ Enabled ☒ Disabled

Date & Time

Server Time 2008/5/29 17:53:00 Time Zone: GMT+08:00

Date Format ☒ yy/mm/dd ☐ mm/dd/yy ☐ dd/mm/yy

Time Zone

☐ Network Time Protocol (NTP)

Server

☐ Synchronization with PC

Date

Time

☐ Manual Change

Date

Time

☒ Remain Unchanged

Apply

A.System

i、System Information

- a. Server Information: Set up the camera name, select language, and set up the camera time.
 1. Server Name : This is the Camera name. This name will show on the IP Installer.
 2. Select language : There are English, Traditional Chinese, and Simplified Chinese to select. When change, it will show the following dialogue box for the confirmation of changing language.

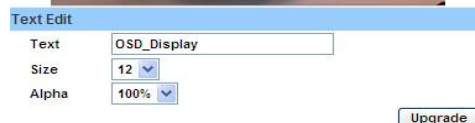


- b. OSD Setting: Select a position where date & time stamp / text showing on screen.



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

Text Edit



Upgrade

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

the same”.

Date & Time

Server Time: 2011/8/19 15:8:31 Time Zone: GMT+08:00

Date Format: ☒ yy/mm/dd ☐ mm/dd/yy ☐ dd/mm/yy

Time Zone: GMT+08:00

☐ Enable Daylight Saving:

☒ NTP :

NTP Server : 198.123.30.132

Update : 6 Hour

Time Shift : 0 Minutes [-1440..1440]

☐ Synchronize with PC's time

Date : 2011/8/19

Time : 15:8:45

☐ Manual

Date : 2011/8/19

Time : 15:1:17

☐ The date and time remain the same

ii 、 User Management

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

User Management

Anonymous User Login

☒ YES ☐ NO Setting

Add User

Username:

Password:

Confirm:

Add/Set

User List

Username	User Group	Modify	Remove
admin	Administrator	Edit	

- Anonymous User Login :
Yes : Allow anonymous login
No : Need user name & password to access this IP camera
- Add user :
Type the user name and password, then click “Add/Set”.
- Click “edit” or “delete” to modify the user.



The image shows a screenshot of a web browser window titled "User_Setting - Microsoft Internet Explorer". The browser's address bar is empty. The main content area displays a "User Setup" form. The form has a title bar "User Setup" and three input fields: "Username:" with the value "admin", "Password:", and "Confirm:". An "OK" button is located to the right of the "Confirm:" field. A mouse cursor is pointing at the "User_Setting - Microsoft Internet Explorer" title bar.

User_Setting - Microsoft Internet Explorer

User Setup

Username: admin

Password:

Confirm:

OK

iii 、 System update :

The screenshot shows the 'System Update' section of the iProSecu web interface. It contains several functional areas: 'Firmware Upgrade' with a 'Firmware Version' field showing 'V1.0.28_I', a 'New Firmware' file selection field with a '瀏覽...' (Browse...) button, and an 'Upgrade' button; 'Reboot System' with a 'Start' button; 'Factory Default' with a 'Start' button; and 'Profile Management' with 'Export' and 'Import' options, a 'Download' link, a file selection field with a '瀏覽...' (Browse...) button, and an 'Upgrade' button.

- a. To update the firmware online, click “Browse...” to select the firmware. Then click “Upgrade” to proceed.
- b. Reboot system : re-start the IP camera
- c. Factory default : delete all the settings in this IP camera.
- d. Setting Management : User may download the current setting to PC, or upgrade from previous saved setting.
 1. Setting download:
Right-click the mouse button on Setting Download → Select “Save AS...” to save current IP CAM setting in PC → Select saving directory → Save
 2. Upgrade from previous setting
Browse → search previous setting → open → upgrade → Setting update confirm → click [index.html](#). to return to main page

B.Network

i、 IP Setting

IP Camera supports DHCP and static IP.

Internet Protocol	
Address	
Mode:	<input type="radio"/> DHCP <input checked="" type="radio"/> Static
IP Address:	<input type="text" value="192.168.1.200"/>
Subnet Mask:	<input type="text" value="255.255.255.0"/>
Gateway:	<input type="text" value="192.168.1.254"/>
DNS 0:	<input type="text" value="168.95.1.1"/>
DNS 1:	<input type="text" value="168.95.192.1"/>
Port	
Web Page:	<input type="text" value="80"/>
UPnP	
UPnP:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
UPnP Port Forwarding:	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
External Web Port:	<input type="text" value="80"/>
External RTSP Port:	<input type="text" value="554"/>

- a. DHCP : Using DHCP, IP Camera will get all the network parameters automatically.
- b. Static IP : Please type in IP address, subnet mask, gateway, and DNS manually.
- c. Port Assignment: user may need to assign different port to avoid conflict when setting up IP assignment.
 1. Web Page Port: setup web page connecting port and video transmitting port (Default: 80)
 2. RTSP Port: setup port for RTSP transmitting (Default: 554)
 3. RTP Start and End Port: in RTSP mode, you may use TCP and UDP for connecting. TCP connection uses RTSP Port (554). UDP connection uses RTP Start and End Port.

d. UPnP

This IP camera supports UPnP, If this service is enabled on your computer, the camera will automatically be detected and a new icon will be added to “My Network Places.”

Note: UPnP must be enabled on your computer.

Please follow the procedure to activate UPnP

1. open the Control Panel from the Start Menu
2. select Add/Remove Programs
3. Select Add/Remove Windows Components and open Networking Services section
4. Click Details and select UPnP to setup the service
5. The IP device icon will be added to “MY Network Places”
6. User may double click the IP device icon to access IE browser

ii 、 PPPoE :

PPPoE

Setup

☐ Enabled ☒ Disabled

Username:

Password:

Send mail after dialed

☐ Enabled

Subject:

Select “Enabled” to use PPPoE.

Key-in Username and password for the ADSL connection.

Send mail after dialed : When connect to the internet, it will send a mail to a specific mail account. For the mail setting, please refer to “Mail and FTP” settings.

iii 、 DDNS :

It supports DDNS (Dynamic DNS) service.

a. DynDNS :

The screenshot shows a web interface for configuring DDNS. It has two main sections: 'Setup' and 'State'. In the 'Setup' section, there are radio buttons for 'Enabled' and 'Disabled', with 'Disabled' selected. Below these are input fields for 'Provider' (a dropdown menu showing 'dyndns.org'), 'Hostname', 'Username', and 'Password'. There is also a 'Schedule Update' field with the value '30' and a 'Minutes' label. The 'State' section shows a dropdown menu with 'Idle' selected. An 'Apply' button is located at the bottom right of the 'State' section. Below the 'State' section is a 'Note' section with two numbered points.

DDNS

Setup

☐ Enabled ☒ Disabled

Provider:

Hostname:

Username:

Password:

Schedule Update: Minutes

State

Apply

Note:

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

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

b. Camddns service :

DDNS

Setup

☐ Enabled ☒ Disabled

Provider: ddns.camddns.com(TW) ▾

Username:

Schedule Update: Minutes

State

Idle

⬆
⬇
⬆

Apply

Note:

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

1. Please enable this service
 2. Key-in user name.
 3. IP Schedule update is default at 5 minutes
 4. Click "Apply".
- c. DDNS Status
1. Updating : Information update
 2. Idle : Stop service
 3. DDNS registration successful, can now log by
<http://<username>.ddns.camddns.com> : Register successfully.
 4. Update Failed, the name is already registered : The user name has already been used. Please change it.
 5. Update Failed, please check your internet connection : Network connection failed.
 6. Update Failed, please check the account information you provide : The server, user name, and password may be wrong.

iv 、 Wireless Setting (Wireless Network Optional)

Supports 802.11 b/g wireless connection.

Notice : Wireless network and Ethernet network use the same IP, the user has to unplug Ethernet cable, if Ethernet cable is not unplug, wireless setting can not be executed.

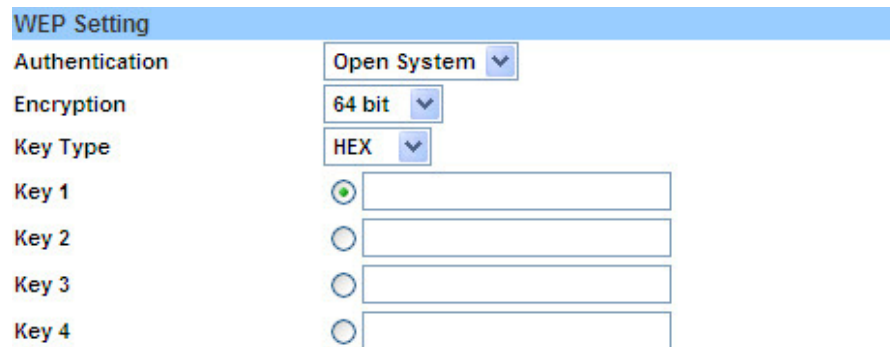
Wireless

Available Wireless Networks			
SSID	Mode	Security	Signal Strength
Wireless Router 1	Infrastructure	OFF	79
Wireless Router 2	Infrastructure	WEP	41

Setup	
Wireless MAC	00:08:A1:A3:A7:C1
Mode	Infrastructure ▼
Operation Mode	Auto ▼
SSID	<input type="text"/>
Security	None ▼
<input type="button" value="Apply"/>	

- a. Status of Wireless Networks ;
scan all wireless services.
- b. Wireless Setting :
 1. **Mode** : There are Infrastructure and Ad-hoc. Infrastructure is for connecting with the router. Ad-hoc is for connecting with PC. There is "Channel" to select only when user uses Ad-hoc mode.
e.g. If one PC's channel is 1, the other's channel has to 1, too.
 2. **SSID** : Based on AP setting.
 3. **Channel** : This is only be used when the user selects Ad-hoc mode in order to avoid conflict.
 4. **Security** : It supports "None", "WEP", "WPA-PSK" security encryption based on the setting of the Router.

5. WEP :



WEP Setting

Authentication: Open System

Encryption: 64 bit

Key Type: HEX

Key 1: ☒

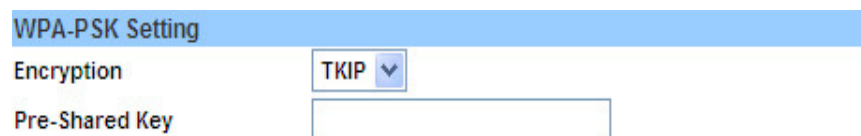
Key 2: ☐

Key 3: ☐

Key 4: ☐

- Authentication : There are Open System and Shared Keys, it is based on different encryptions. This has to be the same as the Router's setting.
- Encryption : There are 64 bits and 128 bits. This is based on Key Type based on the Router's setting.
- Key Type : There are HEX and ASCII. When selecting HEX, the user only can input 0~9 characters and use A, B, C, D, E, and F.
- When selecting ASCII, the user can input any character.
(Case sensitive)
- Key 1~4 : Based on Key Type to input characters.

6. WPA-PSK :



WPA-PSK Setting

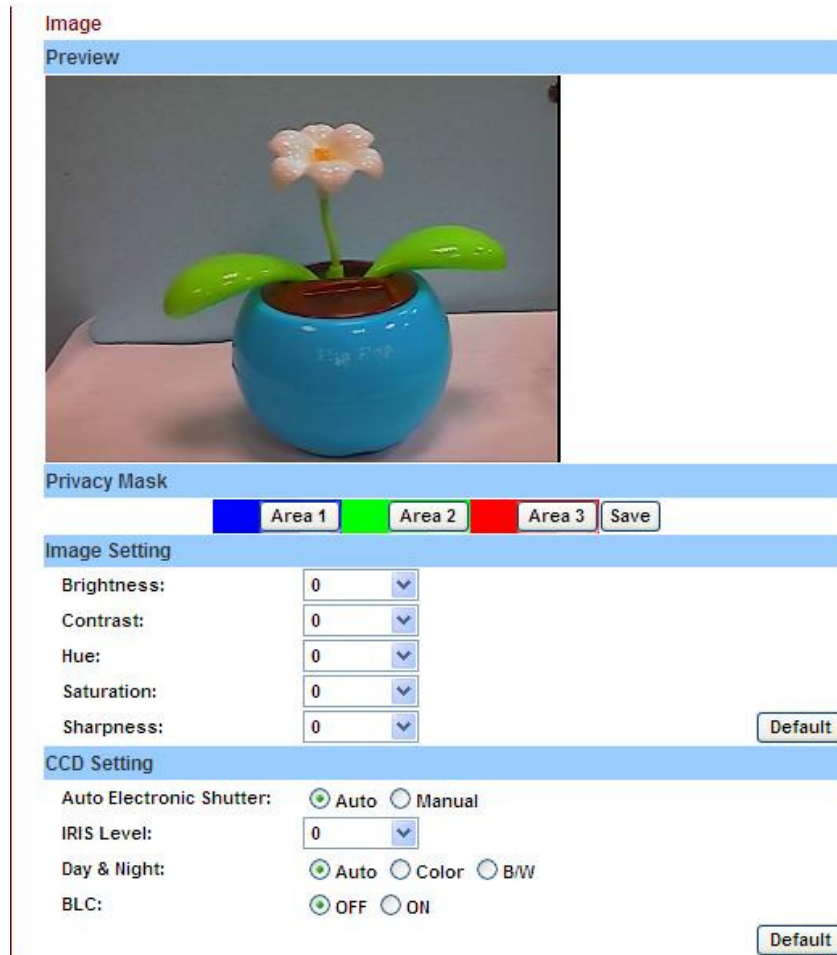
Encryption: TKIP

Pre-Shared Key:

- Encryption : There are TKIP and AES.
- Pre-Shared Key : Allow any characters .(Case sensitive)

C. A/V Setting

i、Image Setting



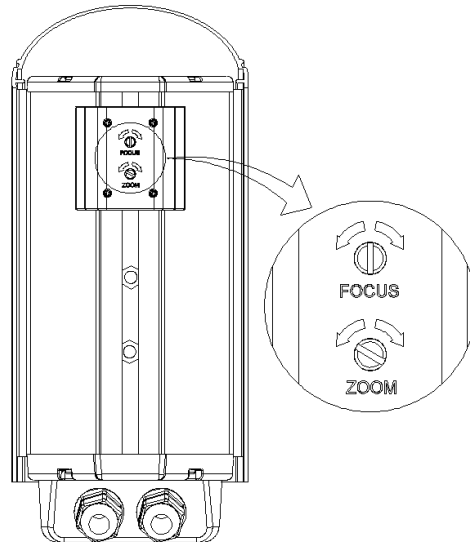
The screenshot displays the 'Image Setting' window of the iProSecu software. It features a 'Preview' section at the top showing a live video feed of a potted plant. Below the preview is the 'Privacy Mask' section, which includes three colored buttons labeled 'Area 1' (blue), 'Area 2' (green), and 'Area 3' (red), along with a 'Save' button. The 'Image Setting' section contains five sliders for 'Brightness', 'Contrast', 'Hue', 'Saturation', and 'Sharpness', all currently set to 0, and a 'Default' button. The 'CCD Setting' section at the bottom includes radio buttons for 'Auto Electronic Shutter' (Auto selected), 'IRIS Level' (0), 'Day & Night' (Auto selected), and 'BLC' (OFF selected), with another 'Default' button.

For the security purpose, there are three areas can be setup for privacy mask. Click Area button first and pull a area on the above image. Finally, click **Save** button to reserve the setting.

Adjust “Brightness”, “Contrast”, “Hue”, “Saturation” to get clear video. Moreover, IP CAMERA supports “Back Light Compensation”, “Night Mode” and “Video Orientation”.

Among CCD Setting, user can adjust “Electronic Shutter”, “IRIS Level” with drop down list and other settings such as BLC Mode, Day & Night, Night Mode, 3D DNR, WDR Mode and Video Orientation.

This IP camera belongs to external varifocal lens adjustment camera. Please adjust “**ZOOM**” first and “**FOCUS**” in the following to complete the adjustment.



ii 、 Video Setting

User may select 2 streaming output simultaneously:

Streaming 1 Setting: Basic mode and Advanced mode

Streaming 2 Setting: Basic mode, Advanced mode, and 3GPP mode

(Max Video Frame Rate for both streaming combined is 30 FPS)

a. Streaming 1 Basic Mode :

Streaming 1 Setting	
<input checked="" type="radio"/> Basic Mode	<input type="radio"/> Advanced Mode
Resolution:	D1 - 720x576 ▼
Quality:	Standard ▼
Video Frame Rate:	25 FPS ▼
Video Format:	H.264 ▼
RTSP Path:	<input type="text"/> ex:rtsp://IP_Adress/ Audio:G.711

1. Resolution :

There are 4 resolutions can be chosen.

D1 – 720 x 480

4CIF – 704 x 480

CIF – 352 x 240

QCIF – 176 x 144

2. Quality :

There are 5 levels to adjust:

Best/ High/ Standard/ Medium/ Low

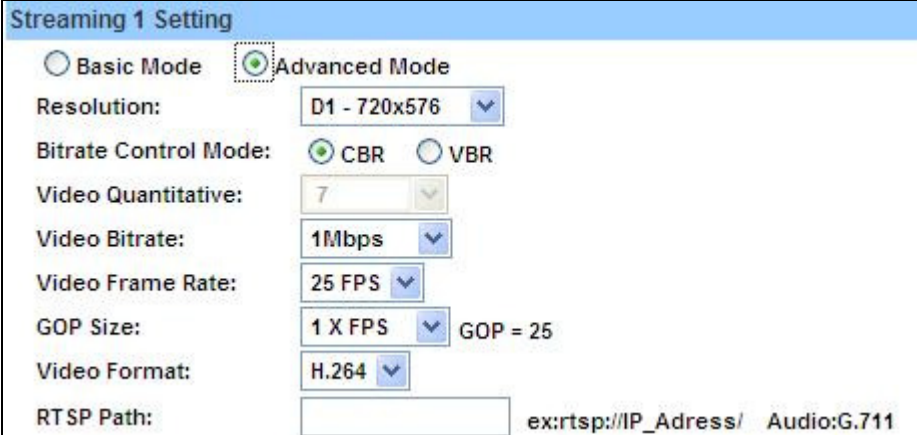
The higher the quality is, the bigger the file size is. Also not good for internet transmitting

3. Video Frame Rate : The video refreshing rate per second.

4. Video Format : H.264 or JPEG

5. RTSP Path: RTSP output name

b. Streaming 1 Advanced Mode :



The screenshot shows the 'Streaming 1 Setting' dialog box with the 'Advanced Mode' tab selected. The settings are as follows:

- Resolution:** D1 - 720x576
- Bitrate Control Mode:** CBR (selected), VBR
- Video Quantitative:** 7
- Video Bitrate:** 1Mbps
- Video Frame Rate:** 25 FPS
- GOP Size:** 1 X FPS, with a note 'GOP = 25'
- Video Format:** H.264
- RTSP Path:** (empty field) with an example 'ex:rtsp://IP_Adress/' and 'Audio:G.711'

1. Resolution :

There are 4 resolutions can be chosen.

D1 – 720 x 480

4CIF – 704 x 480

CIF – 352 x 240

QCIF – 176 x 144

2. Bitrate Control Mode


There are CBR (Constant Bit Rate) and VBR (Variable Bit Rate) to use.

CBR : 32Kbps~4Mbps (the higher the CBR is, the better the video quality is)

VBR : 1(Low)~10(High) – Compression rate, the higher the compression rate, the lower the picture quality is; vise versa. The balance between VBR and network bandwidth will affect picture quality. Please carefully select the VBR rate to avoid picture breaking up or lagging.

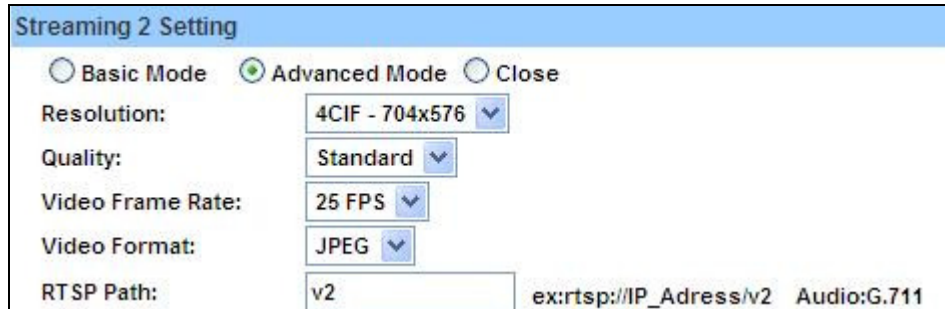
3. Video Frame Rate
The video refreshing rate per second.
NTSC: Max 30 frames/second PAL: Max 25 frames/second
4. GOP Size
It means "Group of Pictures". The higher the GOP is, the better the quality is.
5. Video Format : H.264 or JPEG
6. RTSP Path: RTSP output connecting route

c. Streaming 2 Basic Mode :



1. Resolution :
There are 4 resolutions can be chosen.
D1 – 720 x 480
4CIF – 704 x 480
CIF – 352 x 240
QCIF – 176 x 144
2. Quality :
There are 5 levels to adjust:
Best/ High/ Standard/ Medium/ Low
The higher the quality is, the bigger the file size is. Also not good for internet transmitting
3. Video Frame Rate : The video refreshing rate per second.
4. Video Format : H.264 or JPEG
5. RTSP Path: RTSP output connecting route

d. Streaming 2 Advanced Mode :



Streaming 2 Setting

☐ Basic Mode ☒ Advanced Mode ☐ Close

Resolution: 4CIF - 704x576

Quality: Standard

Video Frame Rate: 25 FPS

Video Format: JPEG

RTSP Path: v2 ex:rtsp://IP_Address/v2 Audio:G.711

1. Resolution :

There are 4 resolutions can be chosen.

D1 – 720 x 480

4CIF – 704 x 480

CIF – 352 x 240

QCIF – 176 x 144

2. Quality :

There are 5 levels to adjust:

Best/ High/ Standard/ Medium/ Low

The higher the quality is, the bigger the file size is. Also not good for internet transmitting


3. Video Frame Rate :

The video refreshing rate per second.

4. Video Format : H.264 or JPEG

5. RTSP Path: RTSP output name

e. 3GPP Streaming mode:



3GPP Streaming Setting

☐ Enabled ☒ Disabled (Resolution=176x144, FPS=5, Format=MPEG4)

3GPP Path: 3g ex:rtsp://IP_Address/3g Audio:AMR

ex:rtsp://IP_Address/3gx No Audio

Apply

3GPP mode suggested setting: 176x144 resolution, 5FPS, MPEG4 format

1. Enable or Disable 3GPP Streaming

2. 3GPP: 3GPP output name

iii 、 Audio :

IP CAMERA supports 2-way audio. User can send audio from IP Camera Built-in mic to remote PC; User can also send audio from remote PC to IP Camera's external speaker.

- a. Audio from IP camera built-in mic to local PC: select "Enable" to start this function.



- b. Audio from local PC to IP Camera: Check "Communication" in the browsing page.



The Audio will not be smooth when enable SD card recording function simultaneously.


D.Event List

IP CAMERA provides multiple event settings.

i、Event Setting

Video Motion Detection

Preview



Setup

Area	Area 1	Area 2	Area 3	
Sensitivity	5	5	5	
<input type="checkbox"/> Area 1	<input type="checkbox"/> E-Mail	<input type="checkbox"/> FTP	<input type="checkbox"/> Out 1	<input type="checkbox"/> Save to SD Card
<input type="checkbox"/> Area 2	<input type="checkbox"/> E-Mail	<input type="checkbox"/> FTP	<input type="checkbox"/> Out 1	<input type="checkbox"/> Save to SD Card
<input type="checkbox"/> Area 3	<input type="checkbox"/> E-Mail	<input type="checkbox"/> FTP	<input type="checkbox"/> Out 1	<input type="checkbox"/> Save to SD Card
Subject	IP Camera Warning!!			
Interval	10 sec a period of time between every two motions detected.			
<input type="checkbox"/> Based on the <u>schedule</u>				

a. Motion Detection :

IP CAMERA allows 3 areas motion detection. When motion is triggered, it can send the video to some specific mail addresses, transmit the video to remote ftp server, trigger the relay, and save video to local SD card. To set up the motion area, click "Area Setting". Using mouse to drag and draw the area. The same operation for area 2 and 3.

b. Record File Setting: IP CAMERA allows 3 different types of recording file to change its record size.

When motion/alarm is triggered, there are 3 different types of record mode.

1. AVI File (With Record File Setting)
 2. Multi-JPEG (With Record File Setting), only with JPEG compression format.
 3. Single JPEG (Single File with Interval Setting)
- c. Record Time Setting :
- Pre Alarm and Post Alarm setups for video start and end time when motion detected, I/O, or other devices got triggered.
- Note: Pre/Post Alarm record time is base on record time setting and IP Cam built-in Ram memory. Limited by IP Cam built-in Ram Memory, When information is too much or video quality set too high, it will cause recording frame drop or decrease on post alarm recording time.
- d. Network Dis-connected :
- When the network is down, it will save the video to local SD card.
- This function is only enabled in wire connection.**
- e. Network IP check
- When the connection is down, it records the video to SD card. Make sure the video recording is continuous. To use this function, key in the IP address of the PC which has recording software installed. Enable the function of "Save to SD card", then click "Apply".
- The interval of two video files on SD card is fixed with 30 seconds.**
- ii 、 Schedule
- a. Schedule: After complete the schedule setup, the camera data will be recorded according to the schedule setup.
 - b. Snapshot: After enable the snapshot function, user can select the storage position of snapshot file, the interval time of snapshot and the reserved file name of snapshot.

Schedule

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

☒ With schedule setup.

Snapshot	
Enabled	<input checked="" type="radio"/> Disabled
Snapshot:	<input type="checkbox"/> E-mail <input type="checkbox"/> FTP <input type="checkbox"/> Save to SD card <input type="checkbox"/> Samba
Interval:	<input type="text" value="10"/> Second(s) [1..50000]
File Name:	<input type="text" value="Snapshot"/>
<input type="button" value="Apply"/>	

iii 、 I/O Setting

IP CAMERA supports 1 input/ 1 output. When input is triggered, it can send the video to some specific mail addresses, transmit the video to remote ftp server, trigger the relay, and save video to local SD card.

Alarm I/O

Input Setup	
Input 1 Sensor:	<input type="text" value="I.O"/>
Input 1 Action:	<input type="checkbox"/> E-mail <input type="checkbox"/> FTP <input type="checkbox"/> Out1 <input type="checkbox"/> Save to SD card <input type="checkbox"/> Samba
Subject:	<input type="text" value="GPIO In Detected!"/>
Interval:	<input type="text" value="10 sec"/>
<input type="checkbox"/> Based on the schedule	
Output Setting	
Mode Setting:	<input checked="" type="radio"/> OnOff Switch <input type="radio"/> Time Switch
Interval:	<input type="text" value="10 sec"/>
RS485 Setting	
<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled	
<input type="button" value="Apply"/>	

CATUTION!!

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

Alarm Input Setting

By GPIO I/O port input that provide related action while I/O input triggered.

GPIO Output Setting

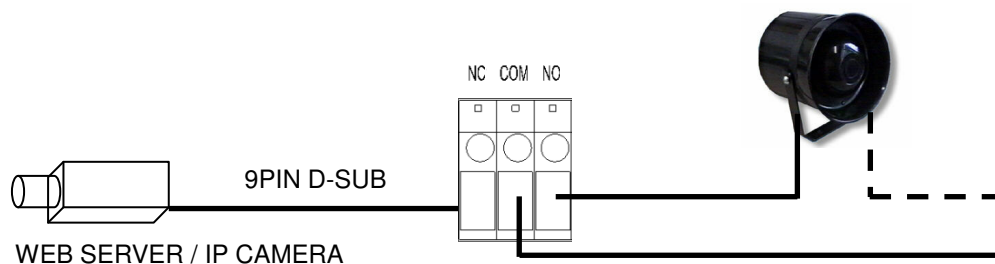
By GPIO I/O port output that provide OnOff Switch, Slide Switch & Pan/Tilt Module for using with relay box.

GPIO pin define please refer to the part of Front / Back plane & I/O port pin assignment

GPIO 0	ALARM INPUT
GPIO 1	Normal: 3.3V (The voltage differential from GPIO pin & GND) Active: 0V (GPIO 0 & GPIO1 link to PIN2 GND)
GPIO 2	ALARM OUTPUT
GPIO 3	Normal: 3.3V (The voltage differential from GPIO pin & GND) Active: 0V (GPIO 0 & GPIO1 link to PIN2 GND)

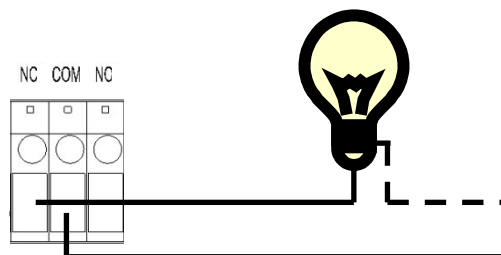
GPIO INSTALLATION EXAMPLE 1

Trigger a normal off (Normal Open) alarm siren on when event/motion occur at COM:



GPIO INSTALLATION EXAMPLE 2

Trigger the normal on (Normal Close) indoor illumination off when event / motion occur at COM:



iv 、 Mail & FTP

To send out the video via mail of ftp, please set up the configuration first.

Mail & FTP & Samba Server

Mail Setting

Login Method:

Mail Server:

Username:

Password:

Sender's Mail:

Receiver's Mail:

Bcc Mail:

Mail Port: (Default 25)

Test

FTP Setting

Samba (Network storage)

Apply

FTP Setting

FTP Server:

Username:

Password:

Port:

Path:

Mode:

Create the folder: (ex:Path/20100115/121032m.avi)

Test

v 、 Log List

Log Book

System Event	Generate
Video Motion Detection Event	Generate
Alarm I/O Event	Generate
All Event	Generate

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

vi 、 SD card

Please Insert SD card before use it. Make sure pushing SD card into the slot completely.

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

Playback :

Playback
20110819

SD Card: << 3768M / 3770M >>

SD Management

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

1. It will show the capacity of the SD card. Click the date listed on this page. It will show the list of the video.

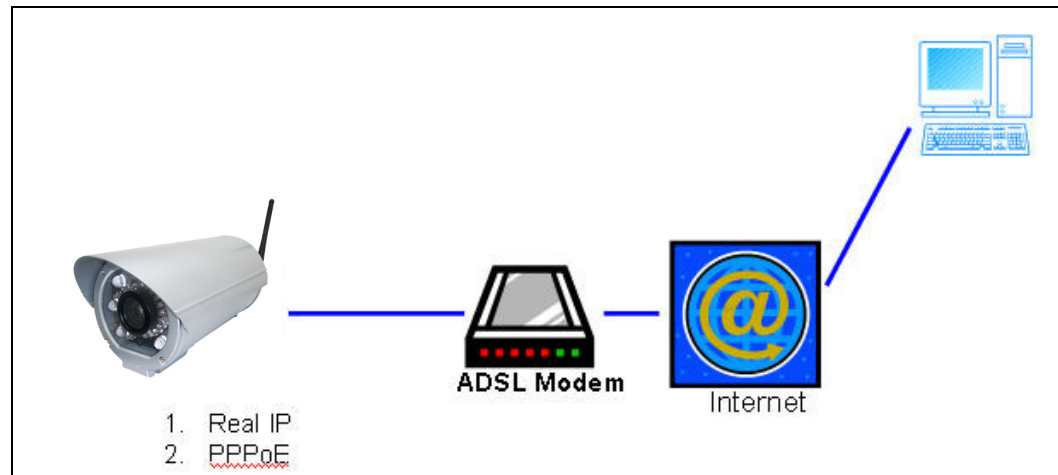
2011/08/19			Del
Time	Video	Event Type	<input type="checkbox"/>
16:31:59	163159m.avi	Motion Detection	<input type="checkbox"/>
16:32:09	163209m.avi	Motion Detection	<input type="checkbox"/>

[Files link daily.](#)

2. The video format is AVI. Click the video to start Microsoft Media Player to play it.
3. To delete the video, check it, then click **Del**. When the SD card is full, it will remove the oldest video automatically.

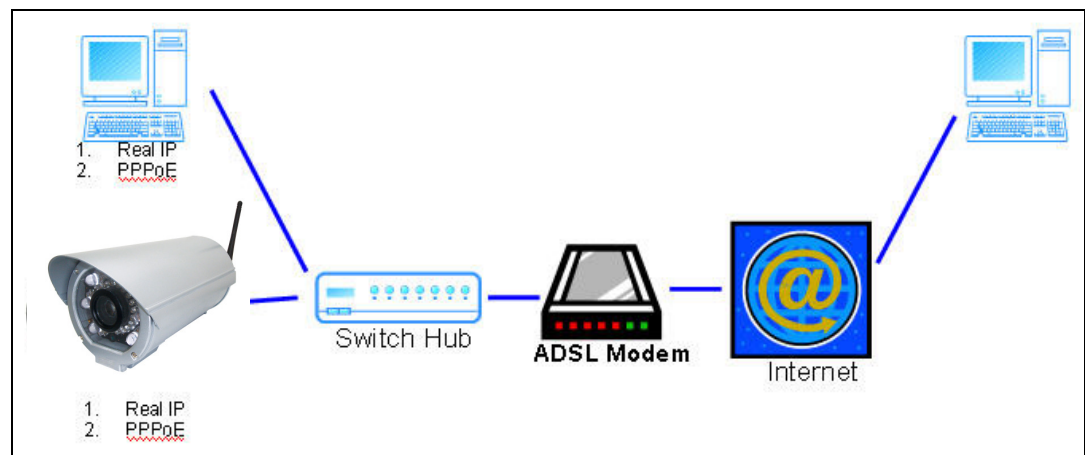
VI. Network Configuration

i 、 Configuration 1 :



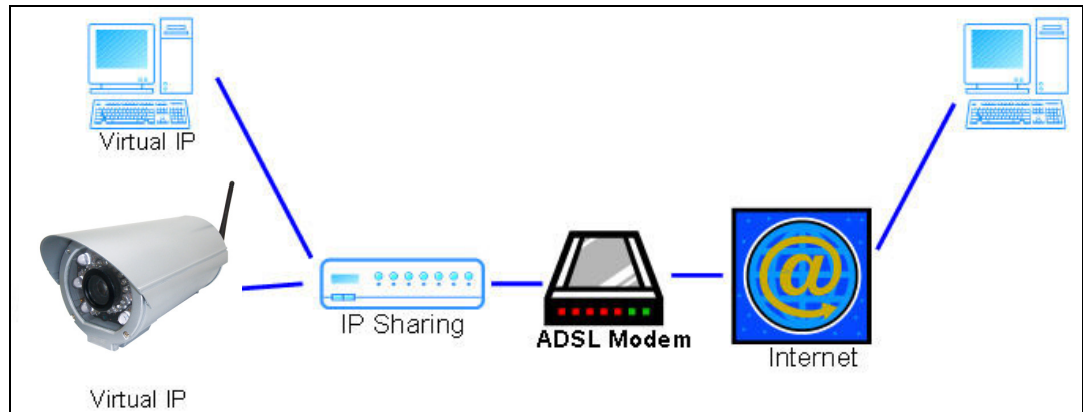
- a. Internet Access : ADSL or Cable Modem
- b. IP address : One real IP or one dynamic IP
- c. Only IP CAMERA connects to the internet
- d. For fixed real IP, set up the IP into IP CAMERA. For dynamic IP, start PPPoE.

ii 、 Configuration 2 :



- a. Internet Access : ADSL or Cable Modem
- b. IP address : More than one real IP or one dynamic IP
- c. IP CAMERA and PC connect to the internet
- d. Device needed : Switch Hub
- e. For fixed real IP, set up the IP into IP CAMERA and PC. For dynamic IP, start PPPoE.

iii 、 Configuration 3 :



- a. Internet Access : ADSL or Cable Modem
- b. IP address : one real IP or one dynamic IP
- c. IP CAMERA and PC connect to the internet
- d. Device needed : IP sharing
- e. Use virtual IP, set up port forwarding in IP sharing.

VII. Package contents

- i 、 IP CAMERA Network Camera
- ii 、 Adaptor
- iii 、 Ethernet Cable
- iv 、 CD title (User manual, IP installation Utility)

Appendix I

SD Card Recommended :

SanDisk 128M	Tracend 128M 80X
SanDisk 256M	Tracend 256M 80X
SanDisk 512M	Tracend 512M 80X
SanDisk 1G	Tracend 1G 80X
SanDisk 2G	Tracend 2G 80X
SanDisk 4G	Tracend 4G 80X