B Series——Robot Model

IP Camera

2011-7 V4.18

User Manual

Index

1 Introduction

The IP Camera combines a high quality digital video camera with network connectivity and a powerful web server to bring clear video to your desktop from anywhere on your local network or over the Internet.

1.1 The package includes

- ✓ IP Camera * 1
- ✓ IP Camera Utility CD *1
- ✓ 5V Power Adapter *1
- ✓ Stand of plastic * 1
- ✓ Cable * 1

NOTE :If you select the device with wifi function, it has built-in wifi module and transmitting antenna in package.

1.2 Function and Features

- ✓ With built-in Microphone, it enables user to monitor the sound on the site. User can also connect this equipment to the speaker, and it supports two-way intercom function.
- ✓ It was equipped with pan/tilt function, horizontally 270°and vertically 120°. Its outlook is smart, easy and convenient to install in many sites.
- ✓ Support 802.11b/g protocol, can build up wireless monitoring.
- ✓ Infrared LED for night vision covers 5m area, to realize 24 hours monitoring.
- ✓ Motion detection and alarm pin can be connected to external sensors to detect environmental situation.
- ✓ Alarming record can be stored by email, FTP server. External alarm can be open when detecting something unusuality.
- ✓ It adopts the TCP/IP network protocols and has inner web server. Users can browse video through IE and other browsers. Data is transferred through one port; it is easy for user to do the network setting.
- ✓ Support mobile phone to view.
- ✓ Manufacture attaches a label at the bottom of each IP Camera, providing free DDNS. When IP Camera is connected to the internet, this DDNS can be used to visit the device.
- ✓ Manufacture provides free software, support Multi-view, Long time recording, video replay etc.

1.3 Technical Parameters

Item	Sub Item	Description
Image Capture	Sensor	CMOS sensor
	Total of pixel	300k
	Minimum illumination	IR on，0 Lux
	Lens	f=3.6mm, F=2.0, Fixed Iris
Pan/Tilt	Pan Coverage	270°
	Tilt Coverage	120°
Assistant	Lighting	10pcs 850nm Infrared LEDs, 5m distance
	Lighting Control	Auto control
Video and Audio	Resolution	640*480(VGA)/320*240(QVGA)/160*120(QQVGA)
	Compression	MJPEG
	Frame rate	30fps
	Bit rate	128kbps ~ 5Mbps
	Image Rotation	Mirror /Flip
	Audio Compression	ADPCM
Network	Basic Protocol	TCP/IP、UDP/IP、HTTP、SMTP、FTP、DHCP、DDNS、UPNP、NTP、PPPOE
	Other Protocol	802.11b/g
Other Features	Video control	support
	Dual way audio	support
	Motion Detection	support
	Triggered Actions	Email/FTP/external alarm/send message to alarm server
	User Setting	Three levels
	Date/ Time Setting	support
	Upgrade	Upgrade from network
	DDNS	A free DDNS provided by manufacturer
Hardware Interface	Ethernet	10Base-T/100base-TX
	Alarm In	1 way
	Alarm Out	1 way
	Audio In	Internal mic
	Audio Out	Audio Line-out interface x 1
Physical Index	Weight	245g
	Main body	100mm(L)*99mm(W)*118mm(H)
	Power	DC 5V
	Power consumption	<6W
	Operating	-20℃~ 50℃

	temperature	
	Operating temperature	10% ~ 80% non-condensing
Software(PC Side)	OS Supported	Microsoft Windows 98/2000/XP/Vista etc.
	Browser	Internet Explorer6.0 and Above or Compatible Browser, Firefox, Safari etc.
	Application Software	IPCMonitor.exe

2 Appearance and interface

2.1 Appearance

Figure 1

Note : Status Indicator: the green light is to show that the device is running, Slow flicker (one per 2 second) , indicates the device is searching for network; flicker (one or twice per second) ,indicates the wired network connected; Frequent flicker (2~3 times per second) , indicates wireless network connected.

2.2 Interface of Equipment

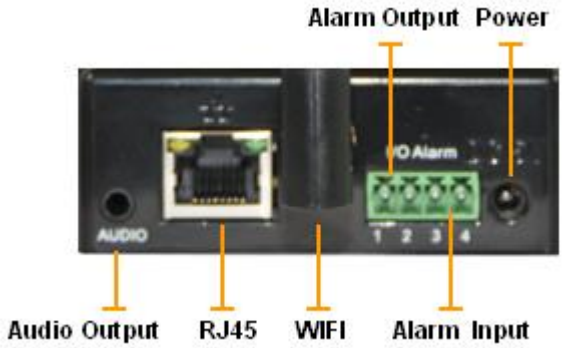

Figure 2

RESET Button: Press the RESET button and hold on more than 10 seconds, the equipment will restart and recover to the factory default settings.

3 Visit IP Camera from LAN

3.1 Lan connection

Figure 3

3.2 Search and set the ip address of the ip camera

Run “BSearch_en.exe” in the CD, the setting interface as figure 4.

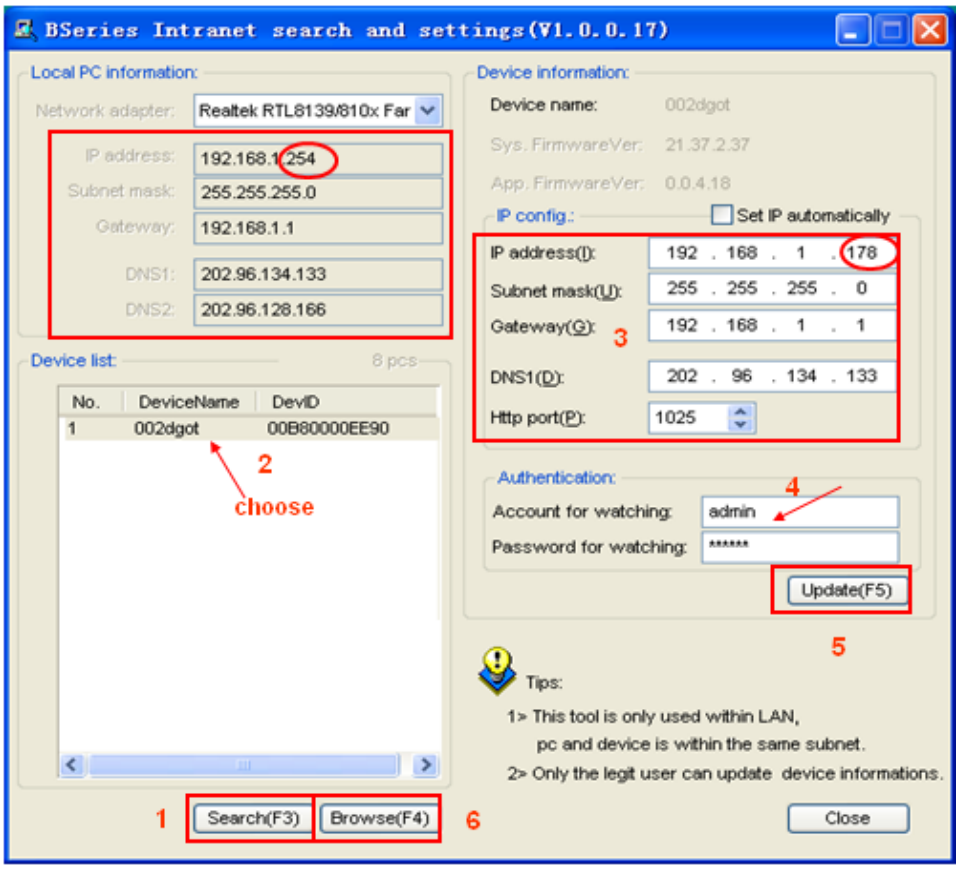

Figure 4

Operation Steps:

1) Click “Search (F3)
2) Choose the device
3) Change the ip address of the ip camera according to the information in the red frame on the left. The numbers in the red circle should not be the same.
4) Put the user name and password into “Authentication” (***By default, the user name is: admin, password is: [empty]***).
5) Click “Update”
6) After successfully update, click “Search (F3)”, choose the device and click “Browse (F4)”. Then you may view the ip camera, like figure 5.

NOTE:

1) If you don’t know how to fill out the content of “IP config”, you could also tick the “Set IP automatically” to get the IP address from the router automatically.
2) If you have the firewall software in your PC, when you run the BSearch_en.exe, it may pop up a window to say “whether you want to block this program or not”, then you should choose not to block.
3) The default ip address is 192.168.0.178 and default http port is 80.

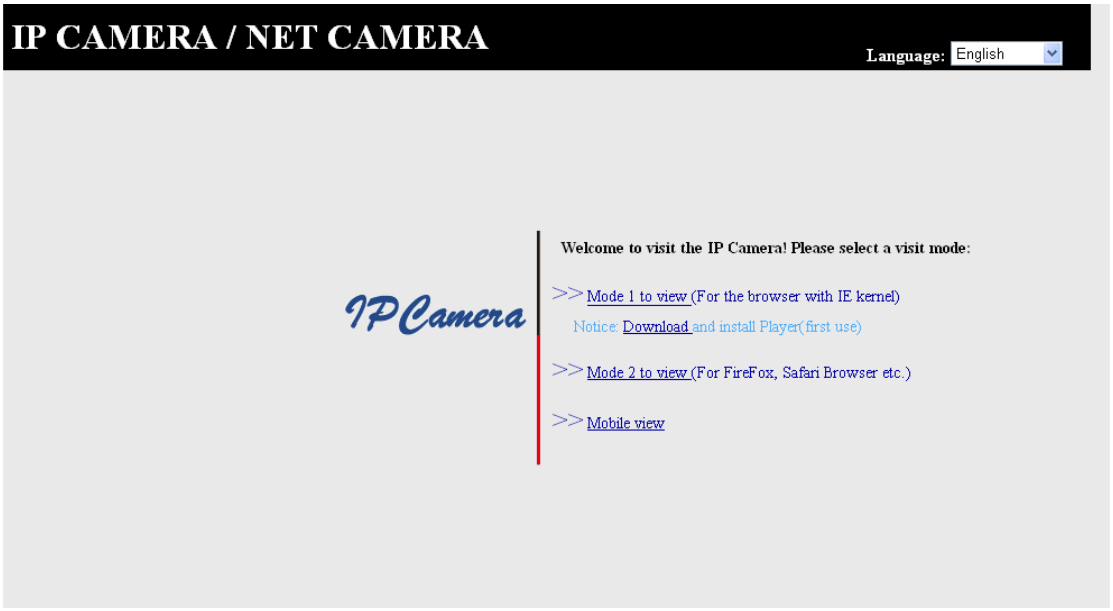

Figure 5

3.3 Visit IP Camera

We suggest using IE kernel browser to view the video （it can provide more functions），but user need to install Player before viewing the video. Click “download and install player (first use)” link, it will popup dialogue box as Figure 6, click Run, it will automatically download player and install.

Figure 6

3.3.1 Video Play Area

After install the plug-ins, click “Mode 1 to view” link in Figure 5 to view the video (video as Figure 7).

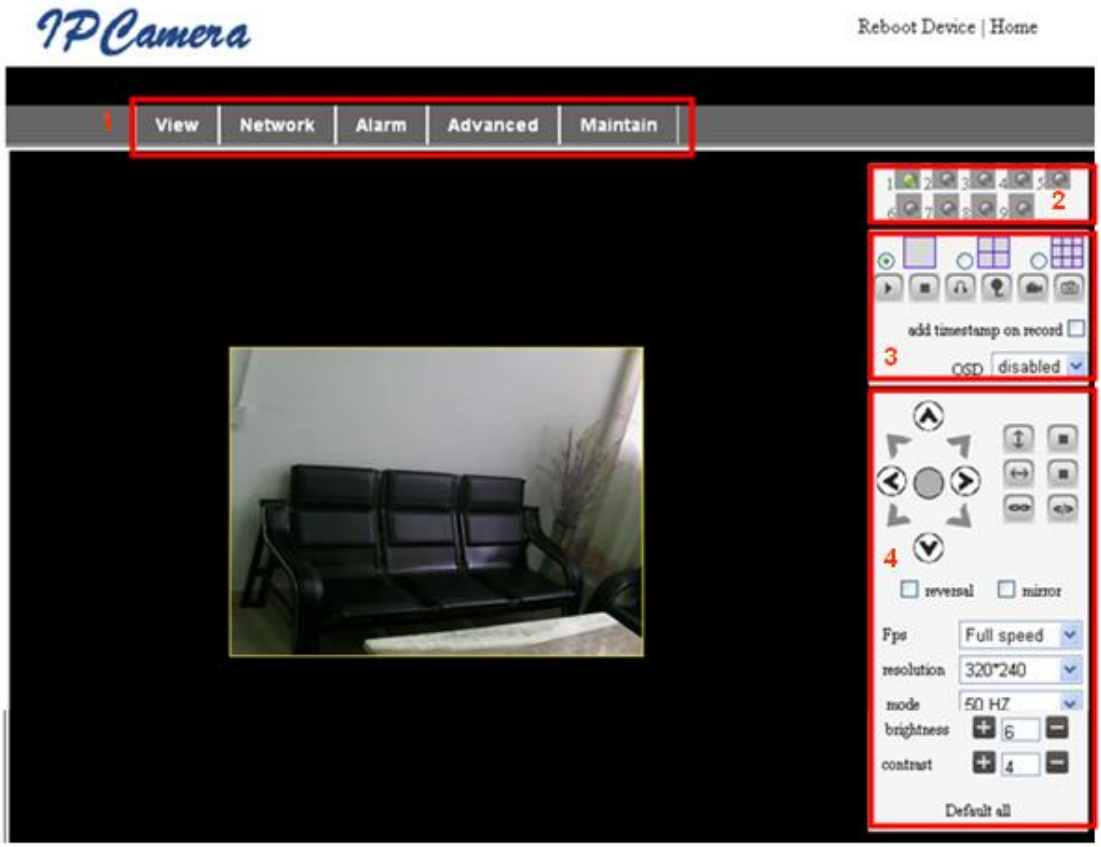

Figure 7

1) Main Menu

The main menu includes the function setting of different submenu

2) Status Displaying Area

In right up corner, it is the status displaying area, to show the 9 devices' status:

- if not connected, button is gray
- if connected, button is green
- If wrong connected , button is yellow
- If alarm , button is red

3) Multi Channel displaying area

If users add multi channel (refer to 5.3.2) , when shift to 4-Ch, 9-CH, and it will automatically show other devices. You select one device, and you can operate it by these keys: play, stop, and record, control Pan/tilt, etc.

These buttons mean start video, stop, monitor, talk, record and snapshot.

P.S.: If you want to click this button  to record the video, please go to advanced—Other Settings to set the Record Path first. Please see below figure8.

Other Settings	
Status LED Mode	Open Indicator LED
PTZ settings	
PTZ Center on Start	No
Horizon Patrol Rounds	1 (NOTE: 0 means infinity)
Vertical Patrol Rounds	1 (NOTE: 0 means infinity)
Manual PTZ Rate	0
Auto Horizon Rate	5
Auto Vertical Rate	5
Path Set	
Record Path	C:\Documents and Settings\All Users\Documents Browse..

Figure 8

4) PT and video control

In Pan/Tilt control area, user can control the position according to the arrow sign: up, down, left, right, middle, horizontal cruise, vertical cruise, and stop etc.

 Means open IO output and Close IO output.

User can also set the device frame rate、resolution, brightness, contrast and other parameters.

4 Visit IP Camera from WAN

4.1 Wan connection

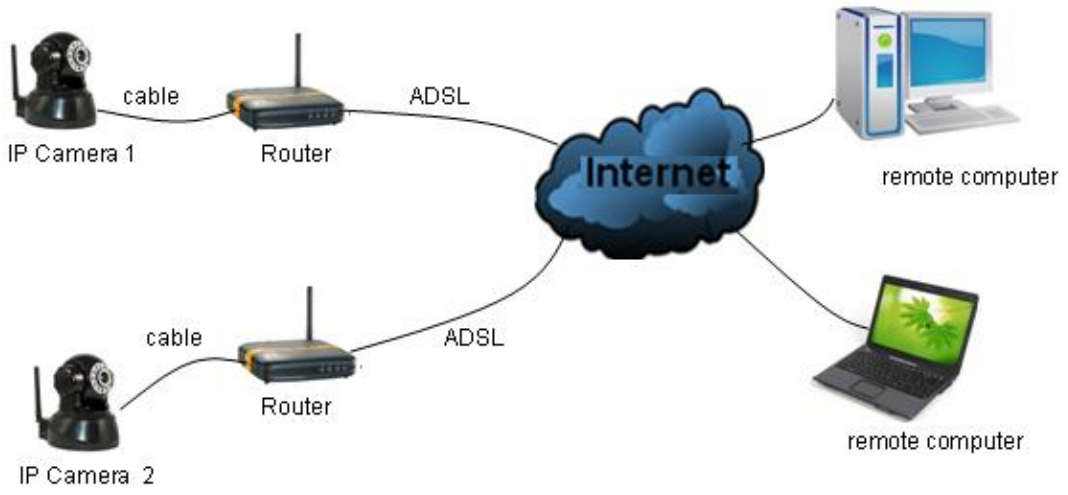

Figure 9

4.2 Port forwarding

If visit IP Camera from WAN, you **must** do port forwarding on the router. Take Netgear router for example.

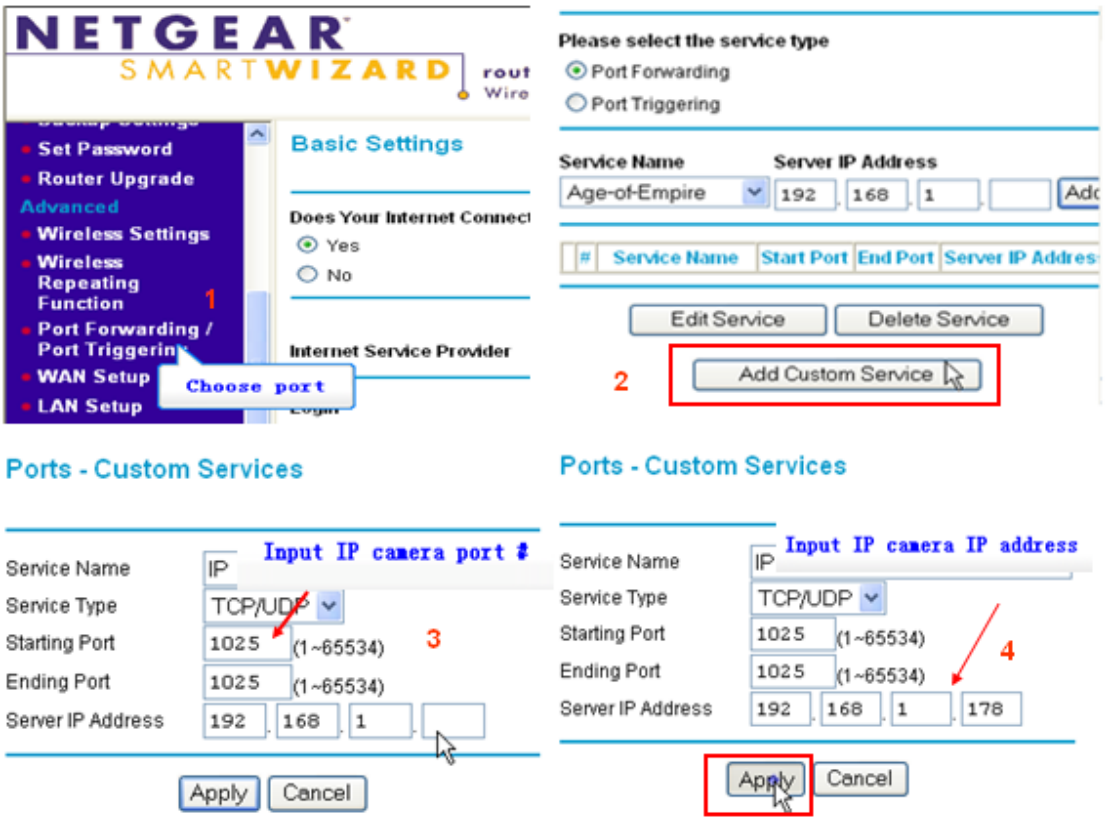

Figure 10

Operation Steps:

1) After login the interface of the router，choose “Port Forwarding”
2) Choose “Add custom Service”
3) Input IP camera port
4) Input IP camera IP address，click “Apply”。(the http port and ip address should be the same as figure 4 which set by you own)

Note: Different router has different settings for port-forwarding; please kindly follow your router guide to do the port-forwarding.

After the port-forwarding is done, you could view the IP Camera from WAN now.

4.3 DDNS

You could also use the manufacturer DDNS to view the device as long as your port-forwarding succeeds.

4.3.1 Manufacturer's DDNS

Device manufacturer has provided a free DDNS. User can find it in network menu, like figure 11.

Figure 11

4.3.2 Third Party DDNS

User can also use third part DDNS, such as www.dyndns.com User must apply a free domain name from this website and fill the info into the below blanks (Figure 12) and save the settings. Then the domain name can be used.

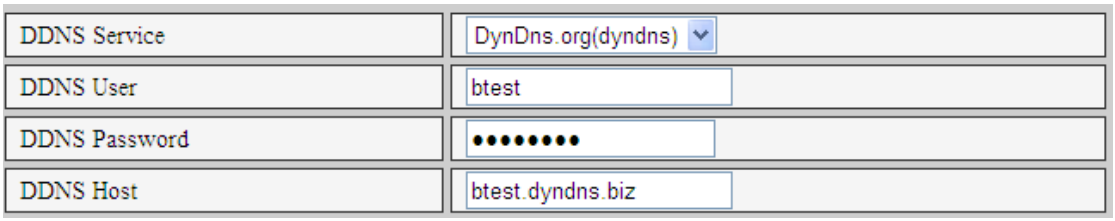

Figure 12

Note: Using the third party domain name, if the http port is not 80, the port number should be adding to the domain name with colon. Example: ***http://btest.dyndns.biz:81. While manufacturer DDNS is no need to add PORT.***

5 Other Settings

5.1 Network Setting

5.1.1 Basic Network Setting

The user can also enter the Basic Network Settings to set the IP address except using the search software. See below Figure 13.

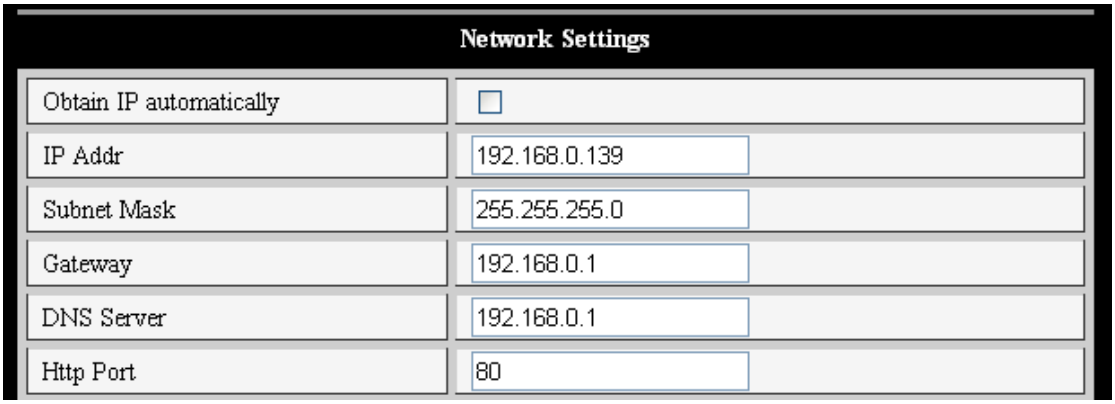

Figure 13

5.1.2 WIFI Setting

If the device is with WIFI, enter the Wireless LAN Setting, just as below Figure 14 shown,

click the “Scan” button, it will show you all the wireless networks detected in the Wireless Network List column. Select one of them and tick “Using Wireless Lan”, then the relevant data of the selected wireless network will be shown in the following blanks. Put in the password and click “Set”, then the WIFI setting is finished.

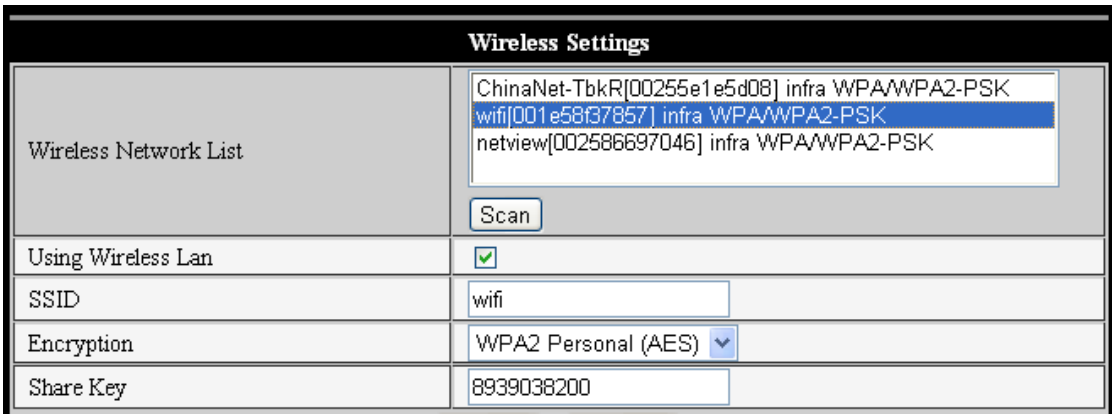

Figure 14

Note1: When the device is connected both WIFI and wired, it will firstly connect to the wired network, if it can’t connect to it, then it will change to connect to the wifi. The IP address and port is the same, either wireless or wired network.

Note2: Before you do the configuration of wireless as shown above; please make sure the device is connected to the network via network cable. After settings succeed, please reboot the device and wireless function takes effect.

5.1.3 ADSL Setting

User could enable the ADSL Dialup according to the below Figure 15 (The ADSL provider will assign the user name and password to you when you apply for ADSL service.) Connect the device directly to the ADSL modem and it is connected to the Internet.

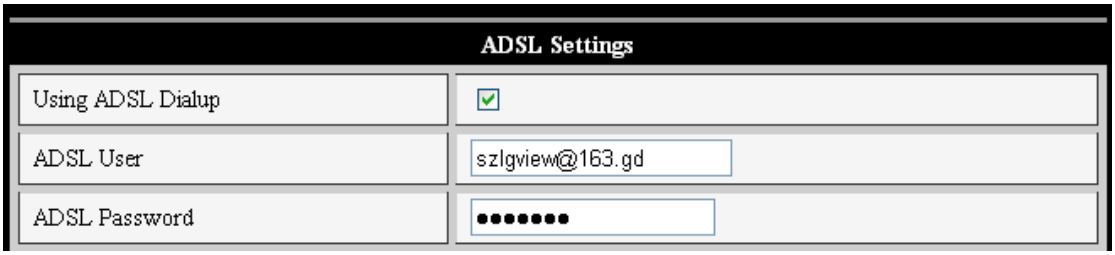

Figure 15

5.1.4 UPnP Setting

If you enable UPNP, once the IP camera is connected into the LAN, it will communicate with the router in the LAN to do the port-forwarding automatically.

Below Figure 16, tick “Using UPNP to Map Port” and the setting are completed. You could check the UPNP succeeds or not in the interface of System Maintenance.

Figure 16

Before using UPNP function, please make sure the router's UPNP function has been triggered. Not all the routers support UPNP perfectly. Please test if the router works well with the equipment, if not, we would suggest you to disable this function and do the port-forwarding manually.

5.1.5 DDNS Setting

Please refer to the content in 4.3.

5.1.6 MSN Setting

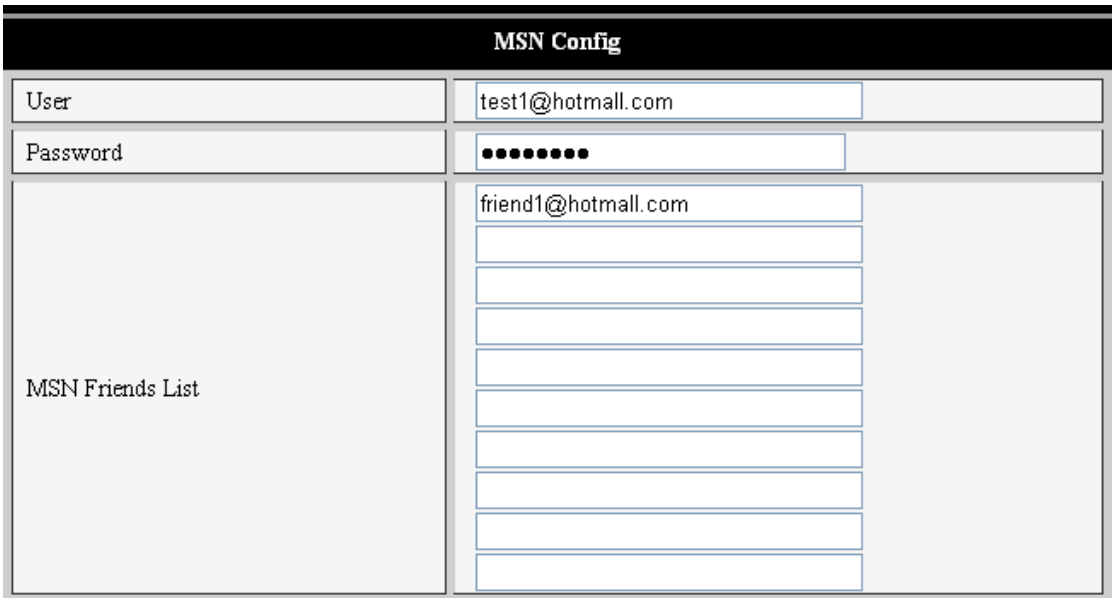

Figure 17

User needs to apply for a MSN account for this device first, for example: test1@hotmail.com. Please put this MSN account and its password as above Figure 17. Then put your MSN account, for example: friend1@hotmail.com, into the 'MSN Friends List. Then on your friend1@hotmail.com MSN list, you can see test1@hotmail.com is online. You just send "url?" to test1@hotmail.com and you will get the WAN ip address of this ip camera. But please make sure test1@hotmail.com and friend1@hotmail.com should be MSN friends before you do the settings.

5.2 Alarm Settings

5.2.1 Alarm Setting

1) Alarm Detect

User can select the motion detection. If there is any motion, it will detect the motion and trigger the alarm. In the motion detect sensibility, the larger the figure, the more sensitive.

As showed in Figure 18, if any external alarm detector is connected, user will be able to tick "Alarm Input Armed". If the external alarm detector is an always on switch alarm,

please choose “open”. If the external alarm detector is always off switch alarm, please choose “close”.

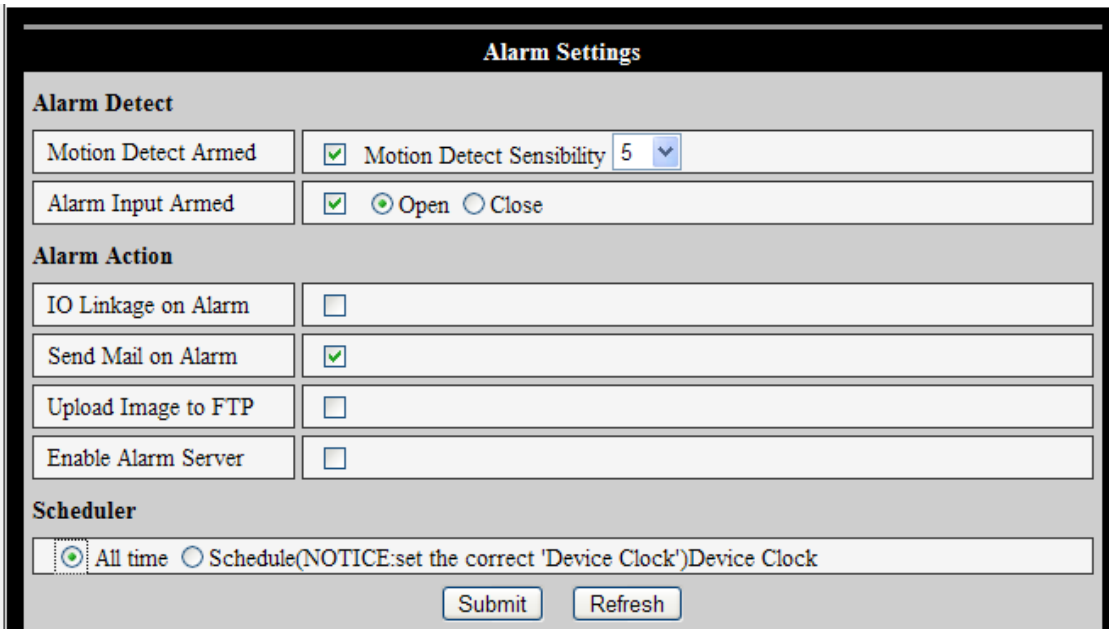

Figure 18

2) Alarm Action

All kinds of alarm modes:-

- IO interface for alarm signal output: when relay is switched on, the external alarm will begin to alarm.
- Send alarm info by email.
- Send the site pictures to the FTP server, user can also set the break time between two pictures.
- Send alarm info to the alarm server.

3) Scheduler

Device will trigger alarm in scheduled time. User can set schedule time to be “all the time”. Before you set “Schedule”, please go to Date and Time settings to set the correct time for the item, as shown in figure 19.

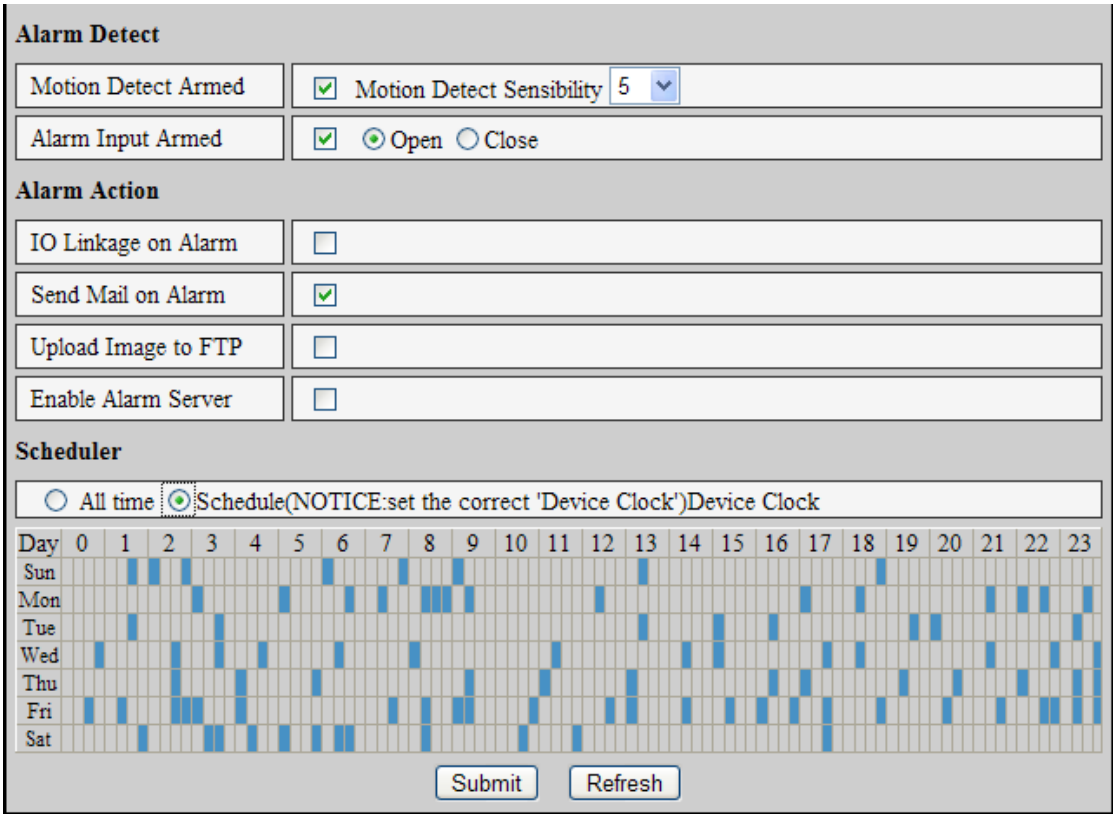

Figure 19

5.2.2 Mail Service Setting

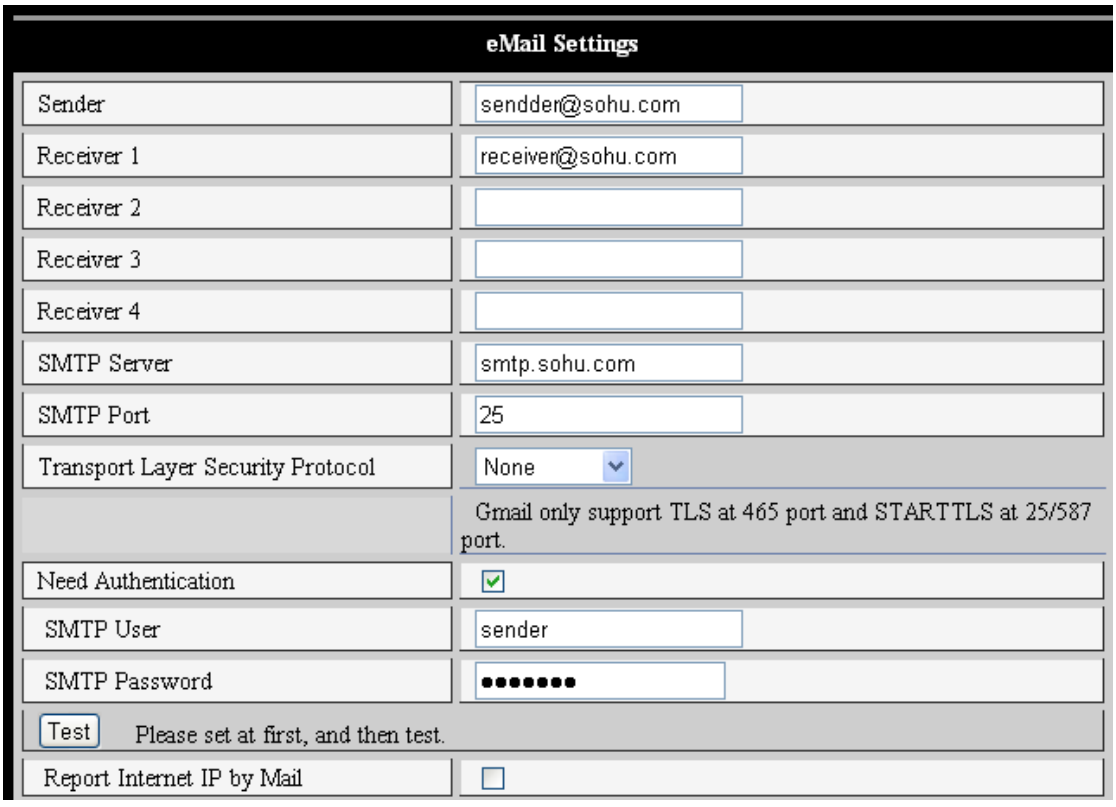

Figure 20

The device will send alarm email to you. You only need to fill out the blanks with your email address as shown in Figure 20. After the setting, please click save and test to check if it works properly. If it is properly set, user can tick to enable “Report Internet IP by mail”. After every restart, the device will send its Internet IP address to user’s email address.

5.2.3 FTP Service Setting

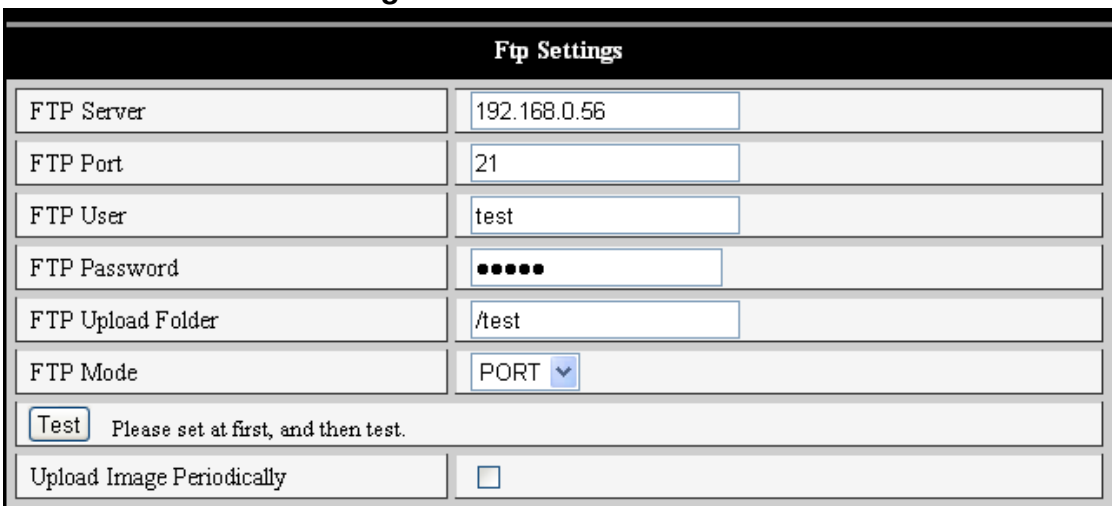

Figure 21

When alarming, device will snap and send the image to FTP server, please make sure the FTP setting is correct. Above Figure 21 of FTP setting for your reference, after the setting is finished, click “Test” to test your settings are correct or not.

After correct setting FTP server, you can use “upload Image Periodically” function. Even no alarm, device can also send the snap image to FTP periodically.

In order to use FTP function, user should apply username and password on the FTP server first. And please apply some storage, and the authority to write and create sub-category into it.

5.2.4 Alarm Server

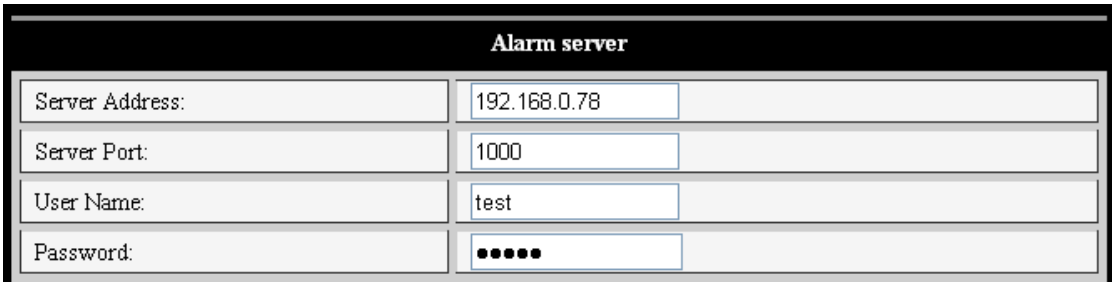

Figure 22

Please confirm if you have connected to alarm server. The alarm message format as follow:

GET /api/alarm.asp ?

username=username&
userpwd=password&
rea=alarm type (1=Motion Detection, 2 =Alarm from Alarm in port)&
io=0

Alarm server needs developing by user. User can extend other functions on this server, like SMS, MMS alarm, and mobile phone etc.

5.3 Advanced

5.3.1 User Setting

There are three levels of authority; they are Administrator/Operator/Visitor. Administrator have the highest authority, it can do any change to the settings. Operator account only can operate the IP camera, can't do changes to the settings. Visitor account only can watch the video, can't do any operation to the IP camera. ***By default, the administrator's user name is admin, password: [empty]***.

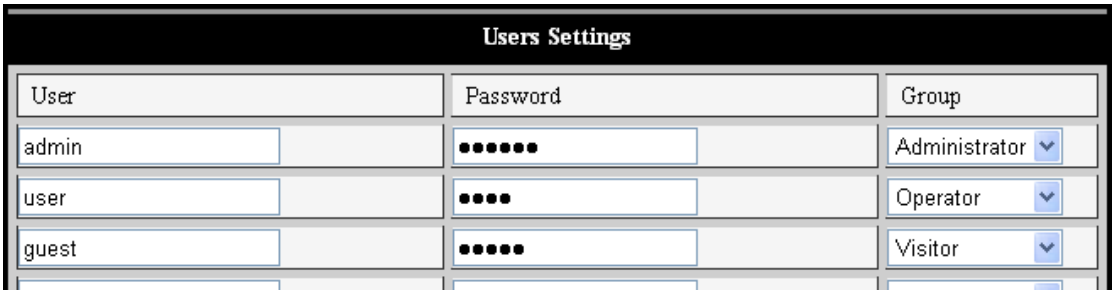

Figure 23

5.3.2 Multi Device Setting

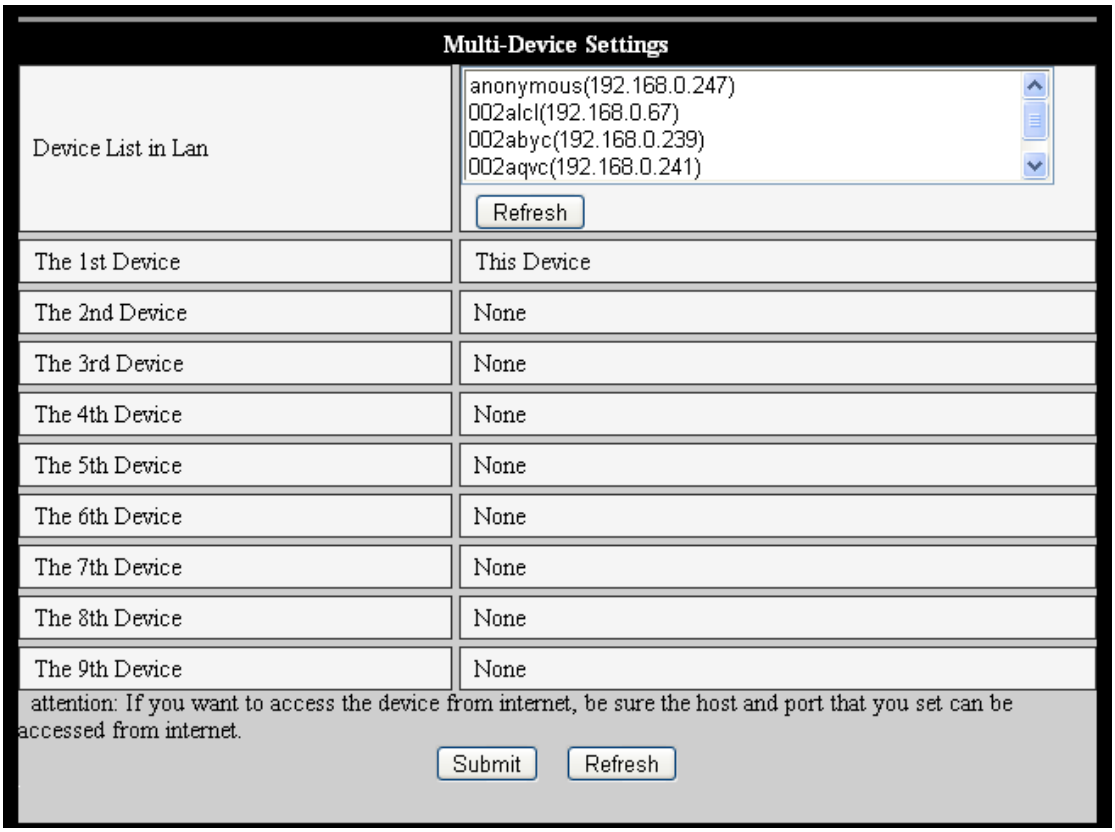

Figure 24

As Figure 24, User can maximum add 9 devices to view the device simultaneously. Click refresh button to check the device in the LAN. When click the device, will popup setting dialogue box and input the device info, as figure 25 and click save. After that, must click submit button to save.

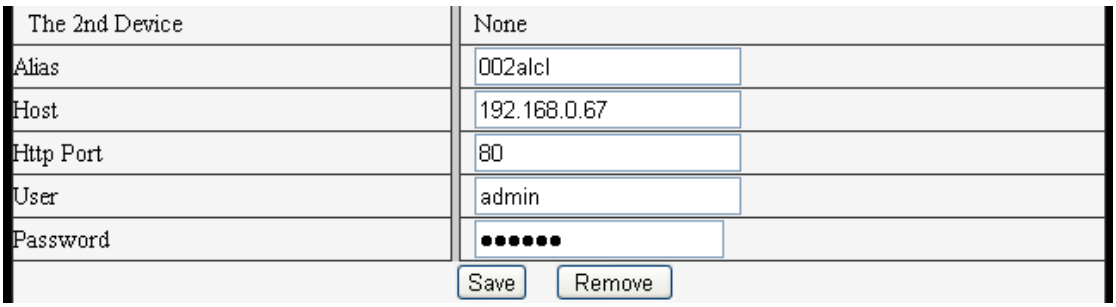

Figure 25

5.3.3 Other settings

You can choose open or close indicator LED. If set PTZ center on start 'Yes', when start device, Pan/Tilt will move to center and then stop. You can also set the Horizon patrol rounds and vertical patrol rounds, when you click patrol on the 'view' interface, it will round according to your setting rounds. You can also set PTZ rate, 0 means fastest.

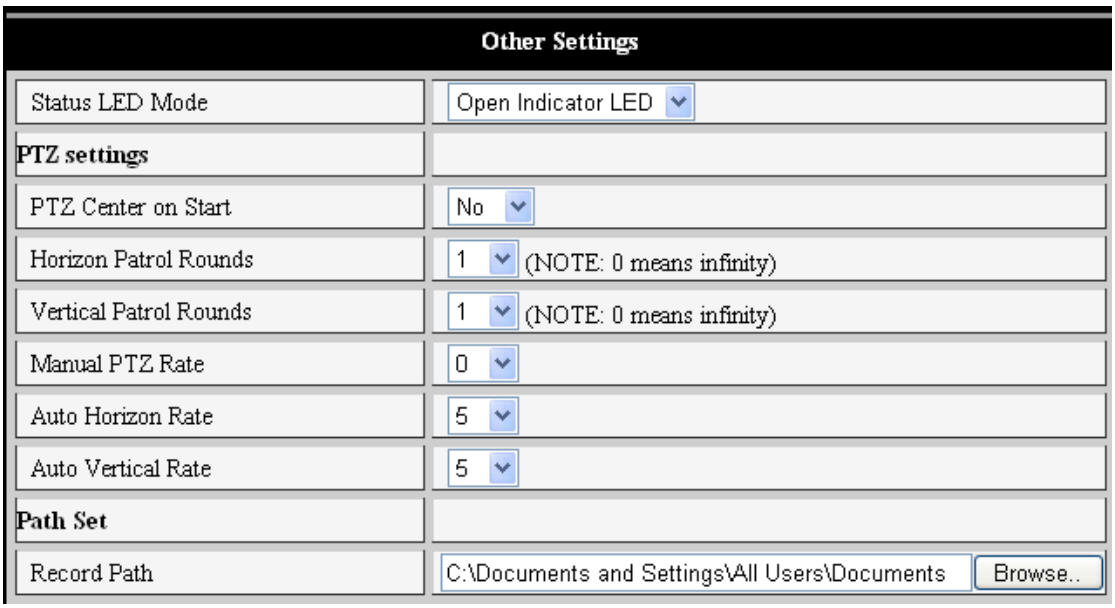

Figure 26

5.4 Maintain

5.4.1 Device Information

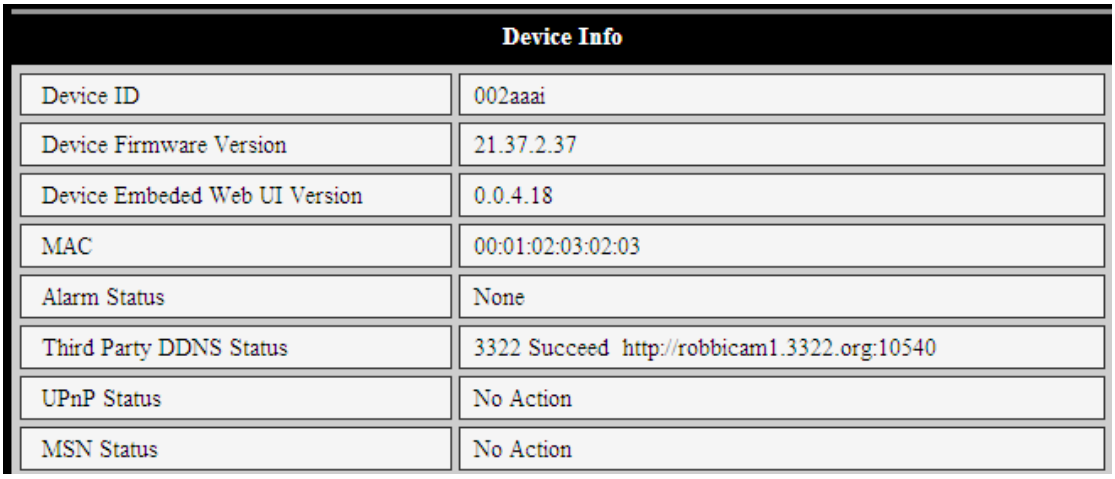

Figure 27

5.4.2 Time Setting

If the device is connected to the Internet, you enable the NTP server to correct the time and select the right time zone. Or you should use the PC's time to correct its time.

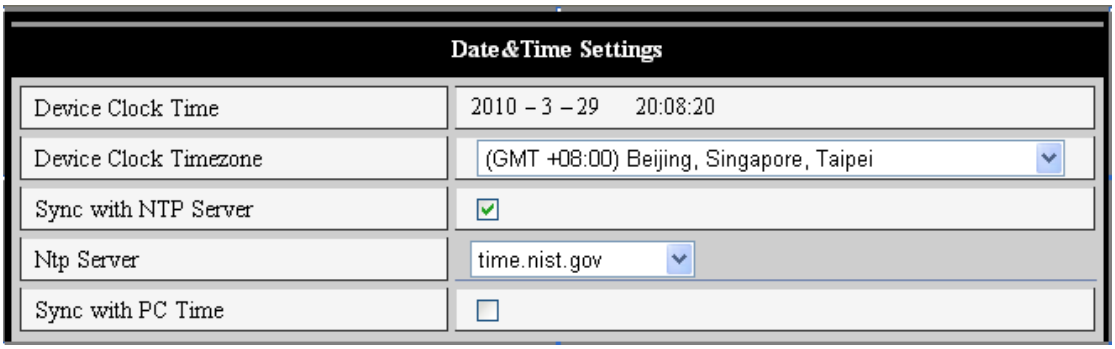

Figure 28

5.4.3 Firmware upgrade

The device runs 2 kinds of programmer, one is system firmware, the other is application firmware. They could be upgraded separately.

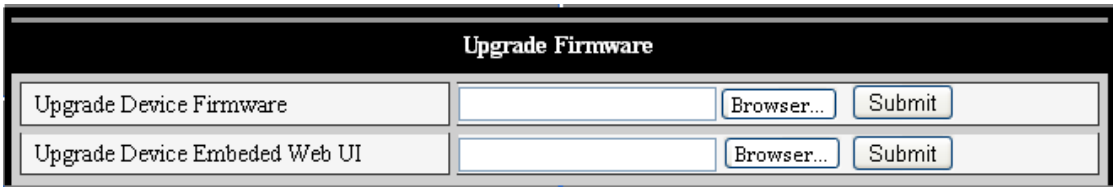

Figure 29

5.4.4 Restore Factory Default

Click “Restore Factory Default”, it will pop up a dialogue to confirm if you really want to restore the factory default. After confirmation, the system will restore the factory default and reboot.

5.4.5 User browsing Log

After enter the log interface, you could view who and when the device is visited.

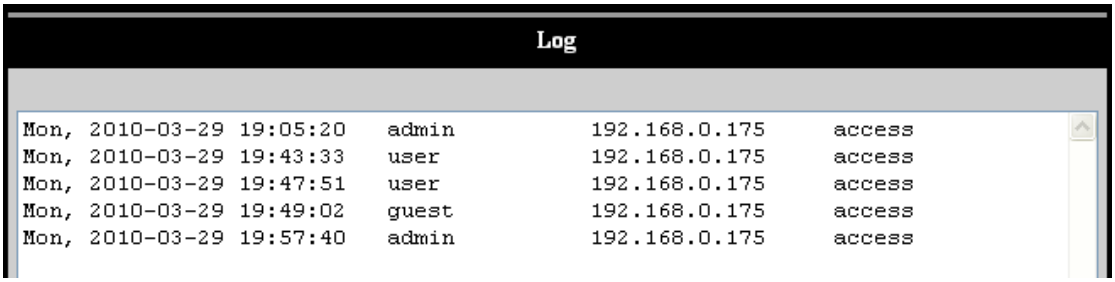

Figure 30

6 Centralization Control

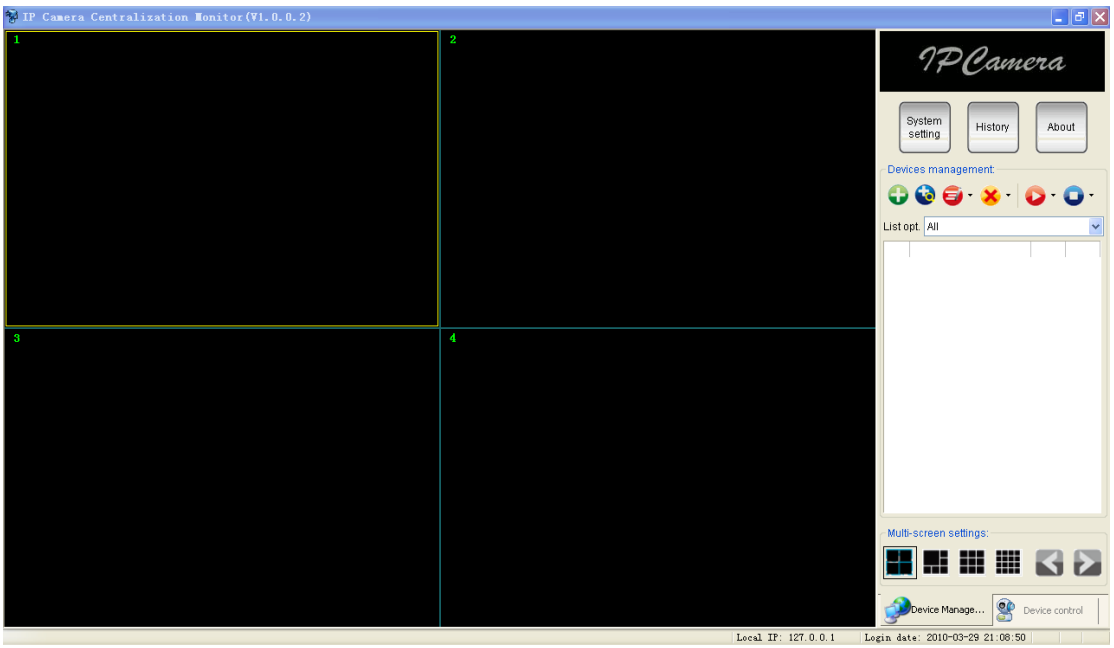

Figure 31

IPCMonitor is a free software offered by factory, several devices on LAN and WAN can be browsed at the same time. The software also supports snap, video record, alarm and so on. The below Figure 31 is the interface.

For more information, pls. refer to the <<IPCMonitor User Manual>> in CD.

7 FAQ

1) Unmatched power adapter will damage the equipment or power adapter

When plug in the power adapter, please check carefully the voltage, it should be 5V adapter for this equipment.

2) Slowly browse speed

This equipment adopts MJEPG compression format, it needs large network bandwidth, the narrow bandwidth will affect the browse speed. The typical bandwidth uses situation as below:

640x480@10fps : 4.0 Megabits ~ 5.0 Megabits

320x240@30fps : 1.2 Megabits ~ 1.6 Megabits

3) Color difference

The default is infrared lens, when visit outdoor or strong infrared light scenes, there are

color differences, the color is not accordance to the real scenes. User can change it to color lens to solve this problem, but color lens can only use under the daylight situation.

4) Can't find equipment via search software after connect to LAN

Make sure the equipment and PC is in the same LAN; if install firewall software, please close it and try again.

5) Can find equipment via search software, but can't visit

If the IP address of IP camera and PC is not in the same Network Segment, you should change them on the same Network Segment before visit. Network Segment is the first three number of IP address. If the IP address of PC is 192.168.0.100, so it can only visit the equipment which IP address is between 192.168.0.1~192.168.0.255.

6) Can visit via public IP address, but can't visit via manufacturer's domain name

Make sure the DNS setting is same as your PC, as below Figure 33, in the search tool, the DNS 1 and DNS 2 on both side should be same.

Figure 32