Digital Network IP Camera

User Manual

Company: Shenzhen Quick Zoom Technology Co., Ltd.

Model No.: IPA01-725

Content

1. Packing List

(1) 1* IP Camera

(2)1* Bracket

(3)1* Power Adapter

(4) 1*CD

(5) 1* Network Cable

2. Precautions

- Please CHANGE the PASSWORD before you operate the device, the original password is in the label attached to the bottom of the device and in the label on the CD.
- This device is NOT waterproof; please do NOT put any container with water on the device or nearby.
- Please keep the device far away from moisture or high temperature environment.
- Please take care when moving the device, make sure of security, and avoid being damaged by dropping from high place.
- Install the device with the accessories coming with it.
- The device can be installed vertically
- Connect the accessories before power on.
- Cut off power when insert or pull out SD card in order not to shatter machine.
- Cut off power when move the device.

3. Product Overview

3.1 General Description

IPA01 series Pan-Tilt IP Camera is a new generation and high performance device which is designed and produced for enabling user to realize remote, high definition and intelligent surveillance over internet.

It is built-in web server, and adopts H.264 (M-JPEG) video compression and G.726

audio compression. Live video and audio is transmitted based on TCP/IP protocol; user can monitor the real-time video and audio by web browser (Firefox, Google ect.) and PC CMS (Center-Management-System) via computer and smart phone in LAN and WLAN at any time in everywhere.

It is very easy to use and generally served in store, house, factory, schools and so on.

3.2 Main Features

- Pan 355°and tilt 120°let you have big large of monitoring area
- Built-in motion detection can trigger recording and notify you via e-mail
- Built-in microphone allows you to listen in to the camera's surroundings
- Support DHCP, the camera will be designated a IP address automatically always, no worry about IP change problem
- Support P2P function, plug and play, which enables user operate the device so easy
- Built-in DDNS system, dedicated domain name for user to visit IP Camera freely
- Support remote monitoring via mobile (iPhone, Windows Mobile, BlackBerry, Symbian, Android)
- Provide web browser, CMS(center manage software) to monitor and manage camera
- Support TF/SD card storage
- Support talk back, people around the computer and IP Camera can talk with each other
- Support I/O for connecting external sensor and alarm
- Built-in IR-CUT, let the video clear in day and night time; IR night vision: 5-10M
- Wireless WIFI
- Support connection with HVR/NVR
- Minimum illumination: 0.1Lux @ (F1.2,AGC ON),0 LUX with IR

5. Specification

Model No. / Parameter		IPA01-725		
Camera				
Environment	Indoor			
Image Sensor		1/4" CMOS		
Lens	3.6MM/6MM Optional			
Shutter	1/50(1/60)s ~1/100,000 s			
S/N Ratio	> 48Db			
Rotation	Pan: 355°, Tilt: 120°			
Video				
Resolution		704*576		
Compression		H.264		
Frame Rate	25fps			
Minimum illumination	0.1Lux @ (F1.2,AGC ON),0 LUX with IR			
Audio				
Input & Output	Input: Built-in microphone Output: one channel linear output			
Talk Back	People around the computer and IP Camera can talk with each other			
Alarm				
Alarm Detection	built-in motion detection, external input			
Alarm notifications	file upload via FTP, notification via e-mail			
Monitor and Record				
Monitor by mobile	Support monitoring via mobile on line(such as Ios,Android OS,Symbian OS, WindowsPhone7)			
Monitor by PC	Monitor via Web Brower(Internet Explorer 6.0 or higher version, firefox, chrome)			
CMS	1,4,9,16,25 channel monitor , centralized monitor, remote record and playback , Skype message alarm, skype telephone alarm			
Recording	Manual; automatic - motion detection, timer, external input			
Storage	Video can be stored onto SD card and computer			
Network				
Socket	RJ-45 10/100Mb self-adaptable Ethernet slot			
Protocol	TCP/IP, HTTP, TCP, ICMP, UDP, ARP, IGMP, SMTP, FTP, DHCP, DNS, DDNS, NTP, UPnP, RTSP, PPPoE , etc			
WIFI	WIFI 802.11 b			
Visitors Online	Support 4 visitors viewing on line at the same time			
Others				
Power		DC12V		
Temperature	-10~50℃			
Humidity	10%~85%			
Weight & Size	Weight :400G Size: 91*103*135MM			
Security	user ID/password, SSL			

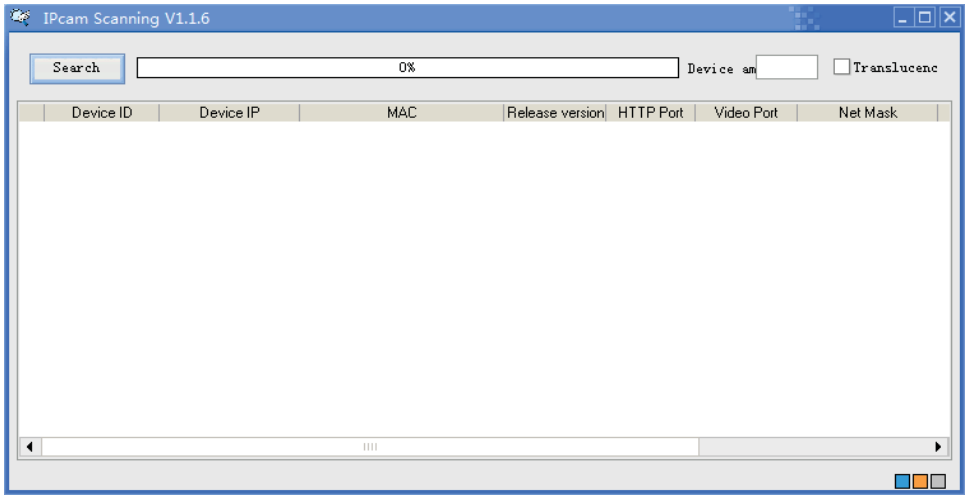
6. Visit and Manage Camera by Web Browser

6.1 Quick Connect Camera to Internet

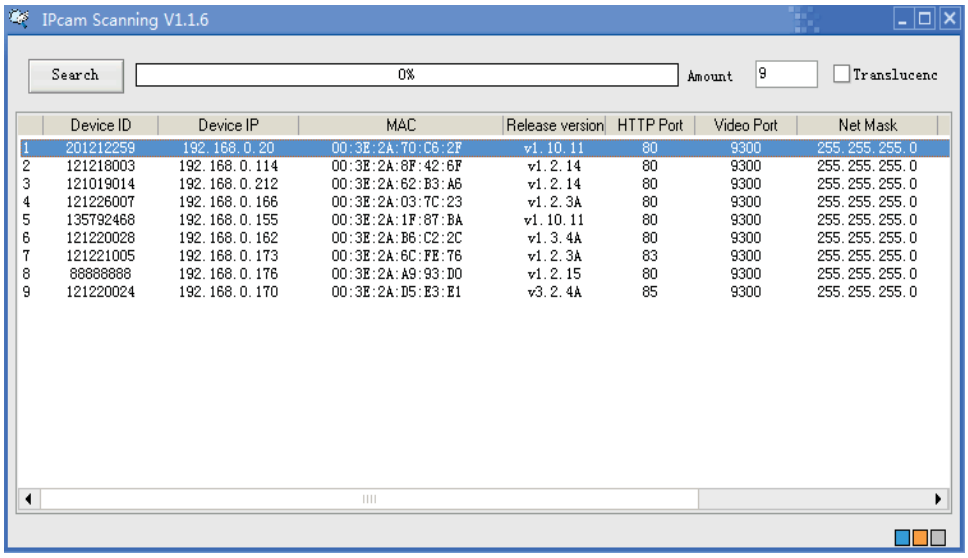
Please connect camera to internet like the following way

6.2 Search IP Camera and Login

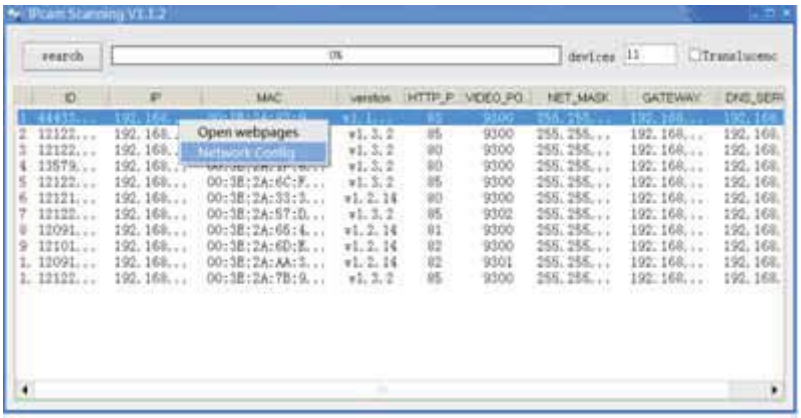
Please insert CD to computer and install Camera finder software-“IPcam Scanning”



Click  Button, Search IP Cameras in LAN.

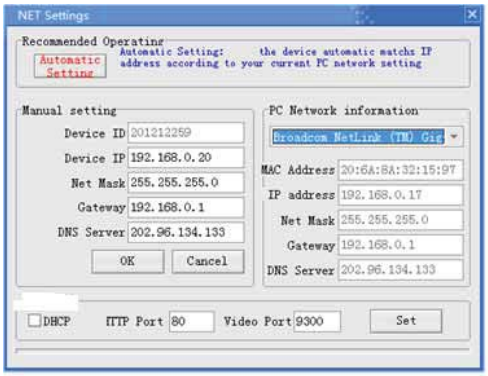


Select IP camera, i.e.: the IP camera with IP 192.168.0.150, Right Click the IP, select "Network Config"

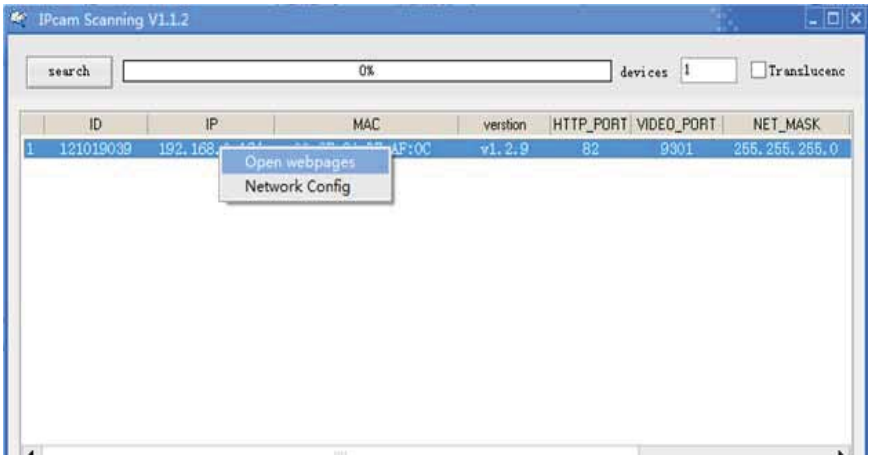


Click 

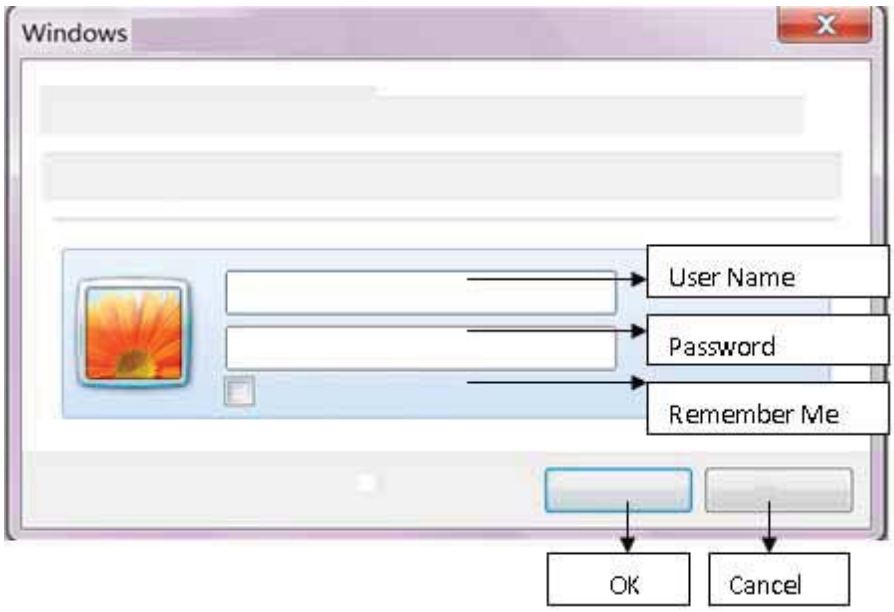
"Automatic setting" button, device will set network parameters automatically, and it will give a clue once it sets successfully, then please close the setting window like below



When the setting is already OK, Right Click Device IP to open Web page like below



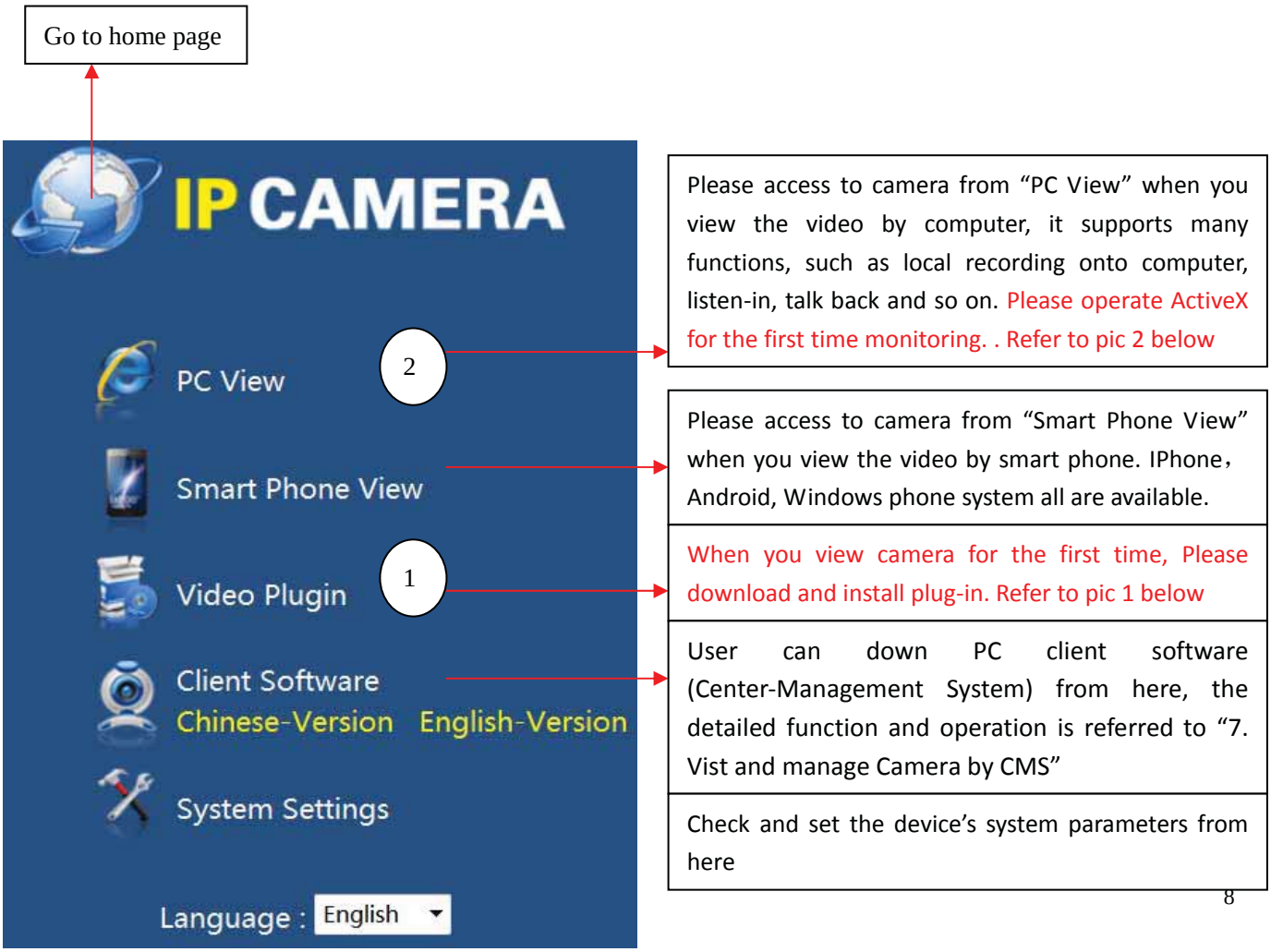
Go to login window as follows



Fill in (User name): Admin

Fill in(Password): every camera produced by us has a unique password, please find out the original password in the label attached to the bottom of device and the in the label onto the CD.

Click(OK)button to go to the Web interface like below



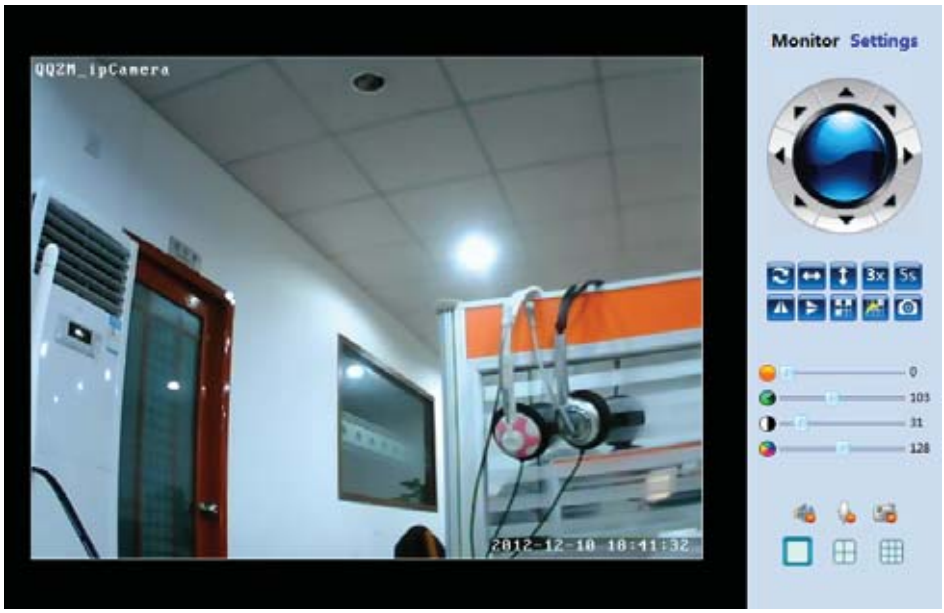
Pic 1

1. Right Click “Video Plug-in”, then click “Save target as” to download and install plugin

Pic 2

2. When you view the camera for the first time, please accept and operate ActiveX. When you operate ActiveX, please click “Allow for all websites”, which enables you to view camera on any website

After the video plug-in installed successfully, click “PC View”, you will access to the view window like below. Please operate ActiveX for the first time monitoring.

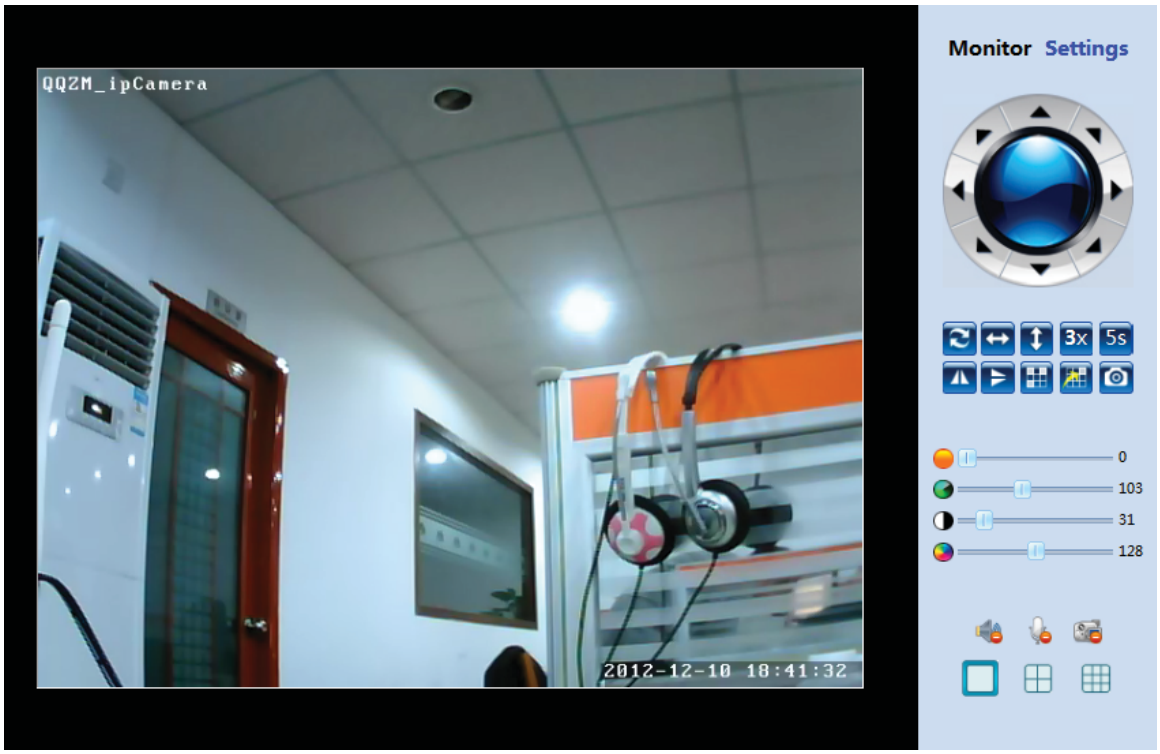


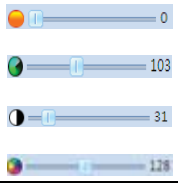
6.3 Function Operation

6.3.1 Real-time Monitor

Click“PC View”, Access to IP Camera Web monitoring interface below

The left side is the real-time video monitrong interface, the right side is operational button panel



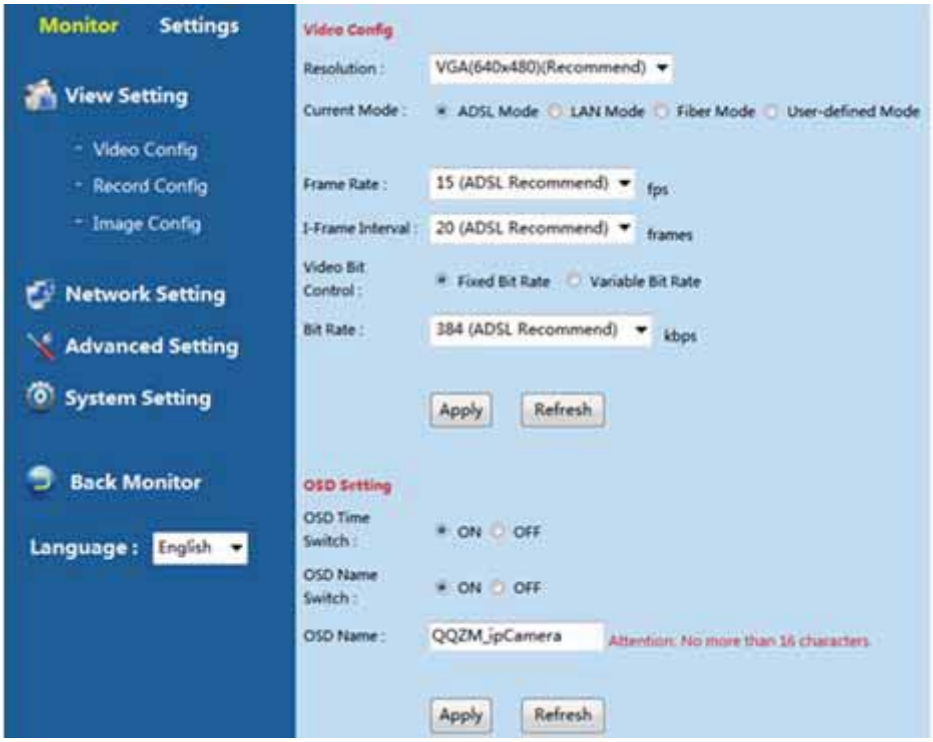
Introduction of the operational button		
Button	Definition	Description
	Pan-Tilt Control	Change the mentoring direction and area
	Panoramic cruise	Rotate as horizontal 355 ,vertical 120 and go back to middle position
	Horizontal cruising	Change the mentoring direction and area horizontally
	Vertical cruising	Change the mentoring direction and area vertically
	Rotate Speed	Set Rotate speed, "1"means the slowest speed, "5" means the fastest speed
	Cruise Interval	Set the cruise frequency, you can select from 1 to 60s.
	Horizontal Image	Turn the image from left to right or from right to left
	Vertical Image	Turn the image from up side to down side or from down side to up side
	Preset Location	Pre-set desired monitoring location to realize fixed point monitoring function. The device supports to set 16 desired locations. Operation steps: 1. Click Pan-tilt control button  to set a diresd monitoring direction and area (for example: you change the direction and area to front door) 2. Click  to define a digital to the front door, for example, you define “1” to front door, which means you have already set the first desired monitrong location success, it is the front door 3. Repeat the steps above to set the second desired monitoring location; you can set 16 locations in total.
	Enable Preset Location	1. Click  . 2. Select the number, the camera will move to the direction and area corresponded with the number
	Snapshot	Click it to take a snapshot and set a saving path to computer
	Video adjust	Adjust the brightness, contrast, saturation of video
	Listen in	listen in to the camera's surroundings from the web browser side
	Talkback	People around the computer and IP Camera can talk with each other (there should be speaker connected to IP Camera)
	Record	Click it to take a record video and set a saving path to computer

6.3.2 Parameter Setting

6.3.2.1 View Setting

Video Config.

Customer can set video from the patch “Settings-View Setting-Video Config”.



Parameters Description:

Video Config.

(Resolution): Support D1(704 * 576) VGA(640*480)CIF(320*240). The bigger resolution is, clearer image will be. On the other hand the bit rate is bigger and takes more bandwidth.

(ADSL Mode): When you monitoring remotely via Domain name, please choose ADSL Mode;

(LAN Mode): When you visit device in LAN and require high quality image, please choose LAN Mode.

(Fiber Mode): When you use Fiber Network and require high quality image, please choose Fiber Mode.

(User-defined Mode):You can custom video parameters according to your network conditions and image quality requirements. Specific parameters as below:

(Frame Rate):Higher frame rate means better quality video and bigger data size, which needs it needs high enough bandwidth .

(I-Frame Interval): When you choose User-defined Mode , we recommend 20fps. When you select other mode, just skip it.

(Video Bit Control): Video Bit Control is divided into Fixed Bit Rate and Variable Bit Rate(The device will select the appropriate bit rate automatically according to the network environment)

(Bit Rate): Higher bit rate means better quality video and bigger data size, which needs high enough bandwidth.

Note: When you visit camera in WAN and find out the video is not so fluent, please set Frame Rate and Bit Rate to a lower level.

OSD Setting

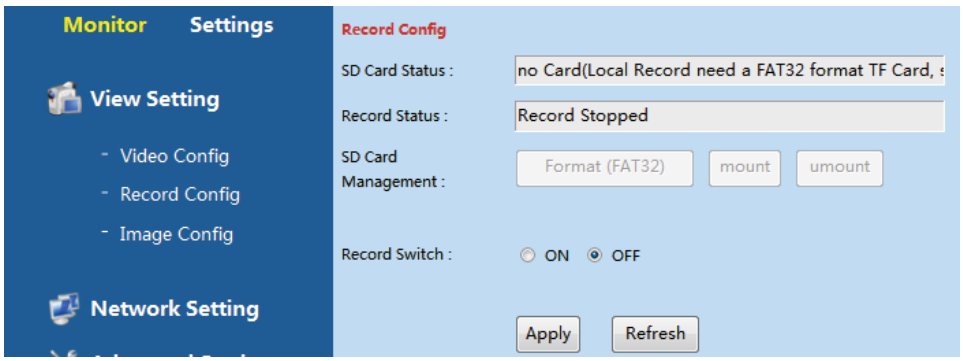
(OSD Time Switch):Overlay time onto the video screen or not (ON means Yes, OFF means NO)

(OSD Name Switch):Overlay name onto the video screen or not (ON means Yes, OFF means NO)

(OSD Name):User can add name or other information on monitor screen. Such as “supermarket”, it is means the camera is working in supermarket. The name doesn’t exceed 16 characters.

Record Config.

Customer can set the TF (SD) card recording from the path “Setting-View Setting-Record Config”.



Parameters Description:

(SD Card Status):Showing SD card is available for recording or not, the remaining capacity and the total capacity of this SD card(SD card format is FAT32)

(Record Status):Showing the working status of SD card (it is recording or not)

(SD Card Management) :Format SD Card if any problem with SD Card

(Record Switch):Open or close recording function.

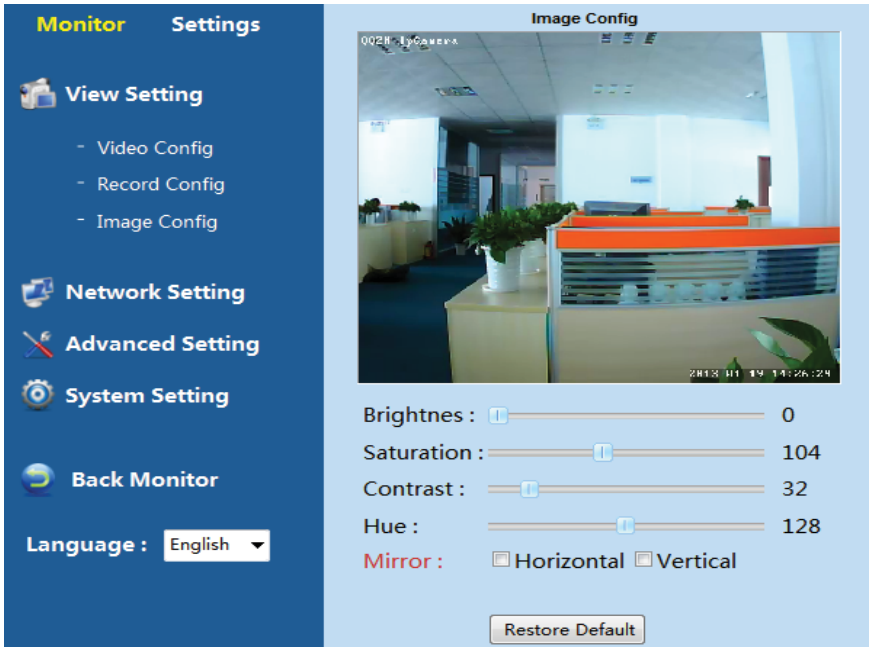
(Audio Switch):Recording audio or not when recording video.

(Record File Duration Time):Set the duration time of the recording video, for example, if you set it to “30”, which means a video file will be created every 30 minutes.

Image Config

Set the following parameter of image

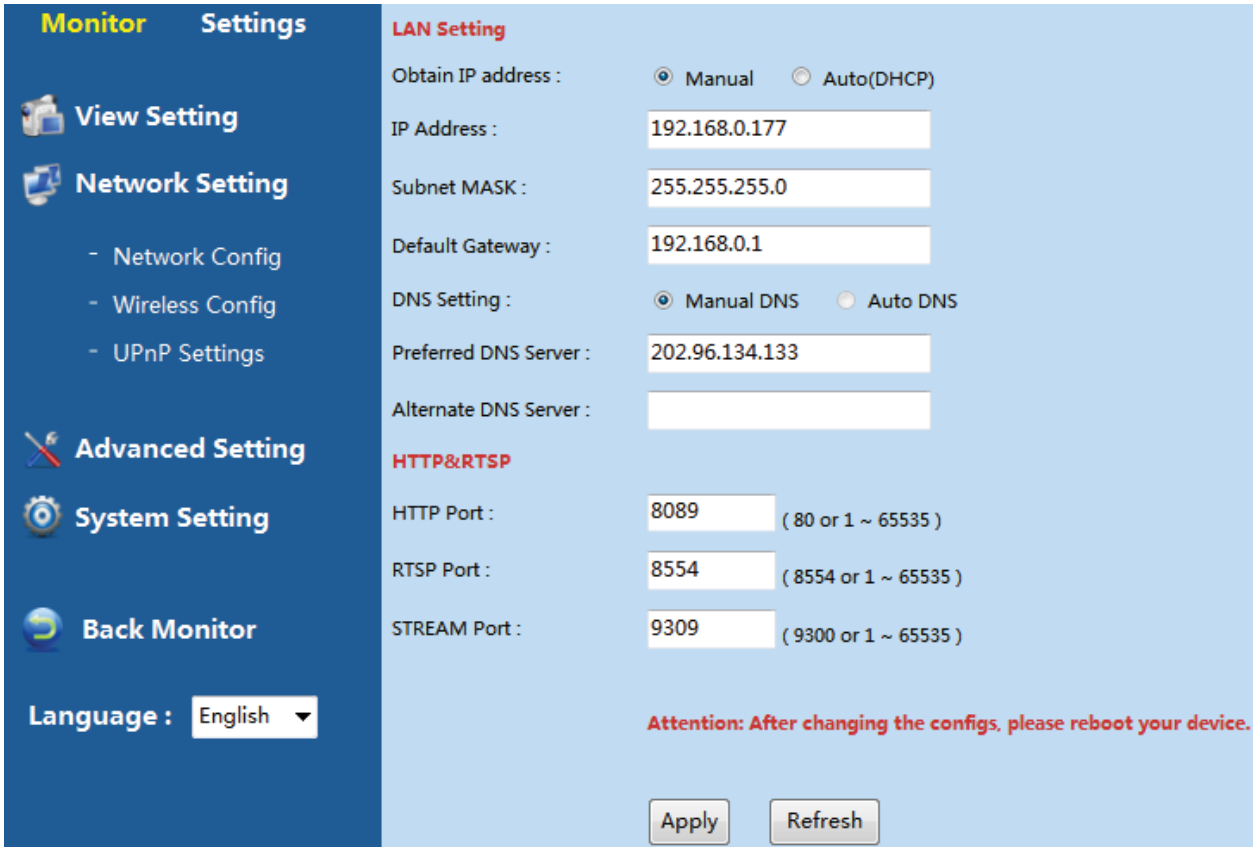
Brightness, Saturation, Contrast, Color ,Horizontal Image, Vertical Image and Restore Default.



6.3.2.2 Network Setting

Network Config.

User can check the basic network config information from the path “Settings-Network Setting-Network Config.”



Parameters Description:

LAN Setting:

[Manual]: Manual setup the IP address, Subnet MASK, Default Gateway and DNS information

[Auto (DHCP)]: IP camera is designated an IP address, Subnet MASK, Default Gateway and DNS under DHCP mode

HTTP & RTSP:

[HTTP Port]: The default port No. is 80. If not, please use the following format to open http page, it is “http:// camera’s IP address: Port No.” , for example, if the port is 85, you need to input “http://192.168.0.150:85” to open the http page.

[RTSP Port]: IP Camera support RTSP agreement, user can VLC to view video. The format of RTSP is rtsp::://camera's IP address: RTSP port/ipc, such as rtsp://192.168.0.150: 8554/ipc

Note: After setting the config, please restart the device.

Wireless Config. (WIFI Config)

Set wireless config. of device from the path "Settings-Network Setting-Wireless Config"

Parameters Description:

[Current Network Type]: Showing current network connecting types of device, including "LAN" and "WLAN" status

[WIFI Connect Status]: Showing the WIFI connecting status of the device. Including "not connected" and "connected"

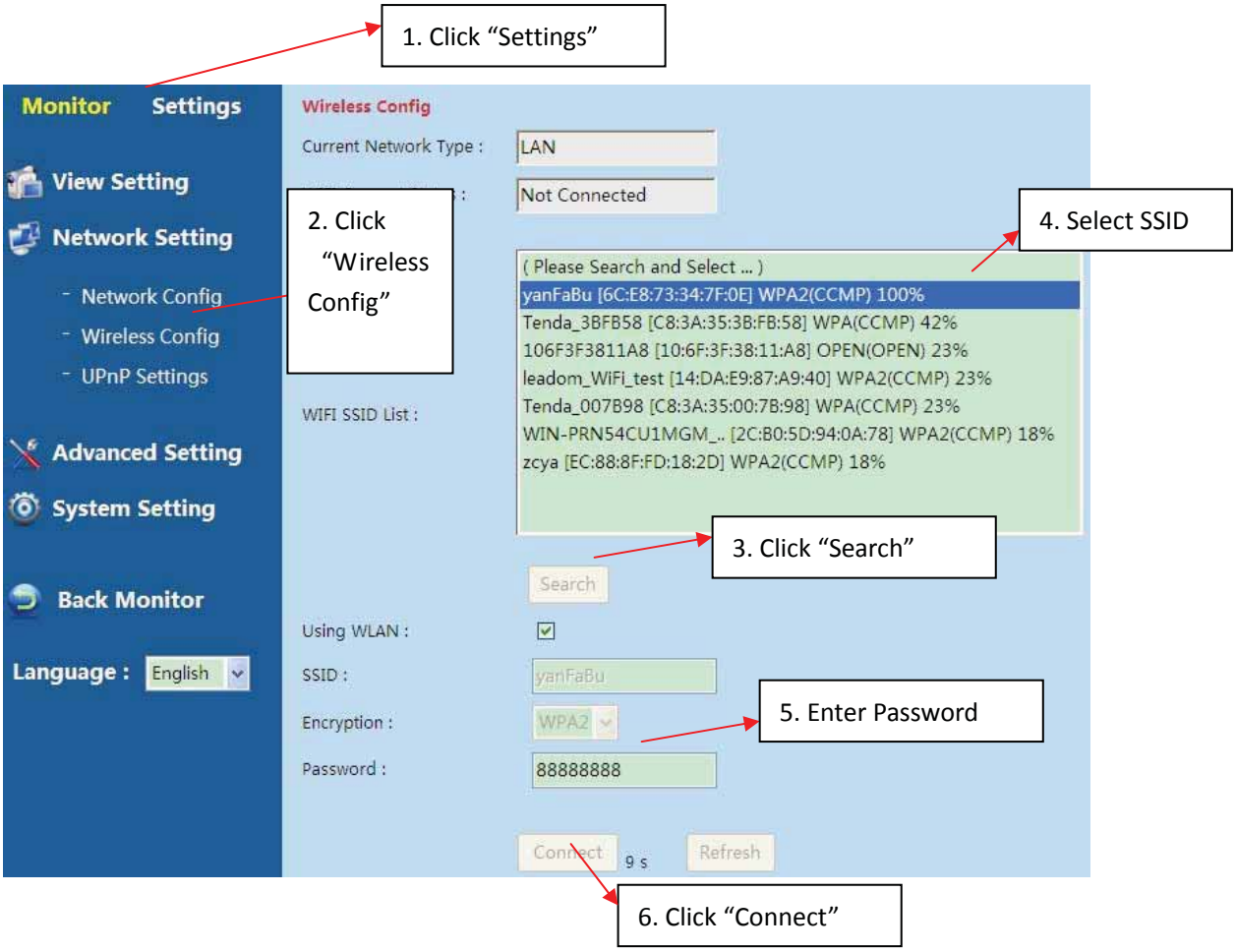
[WIFI SSID List]: Click button of "search", it lists the available WIFI around.

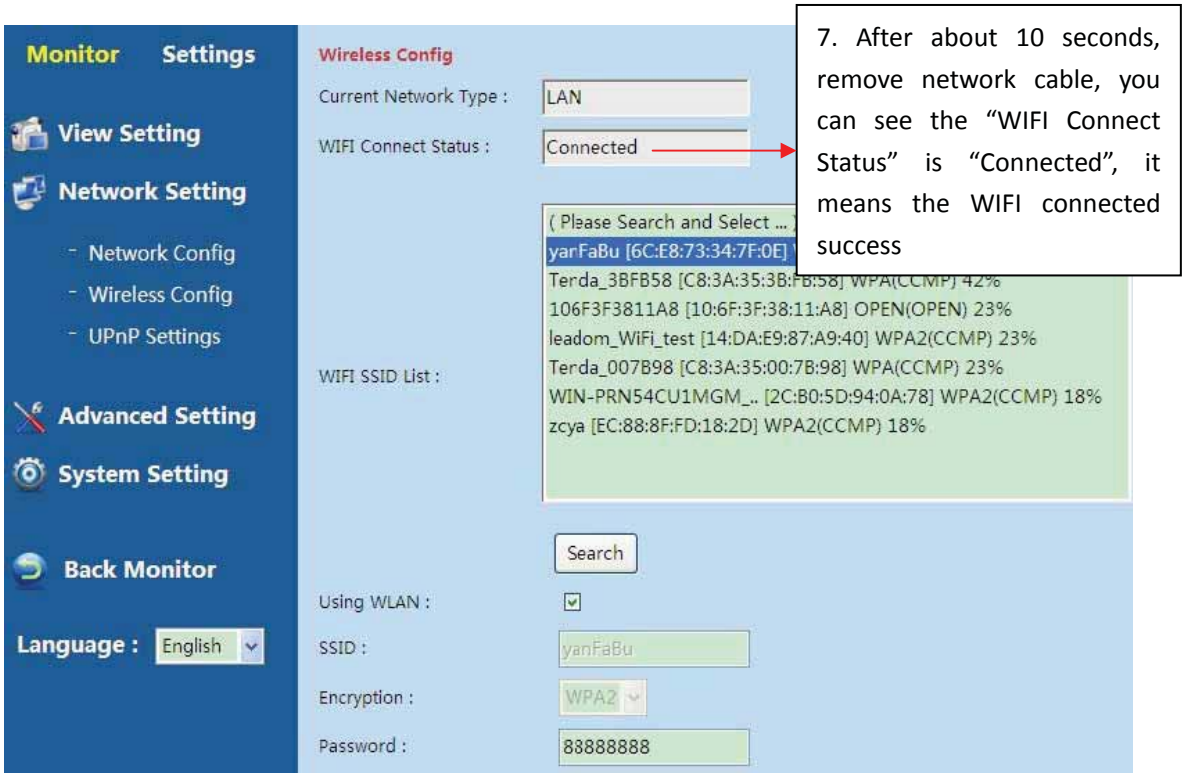
[SSID]: Showing the selected WIFI network name.

[Encryption]: Showing the selected WIFI Encryption type, including wpa/wpa2 and wep

[Password]: Enter WIFI password

WIFI Config Steps



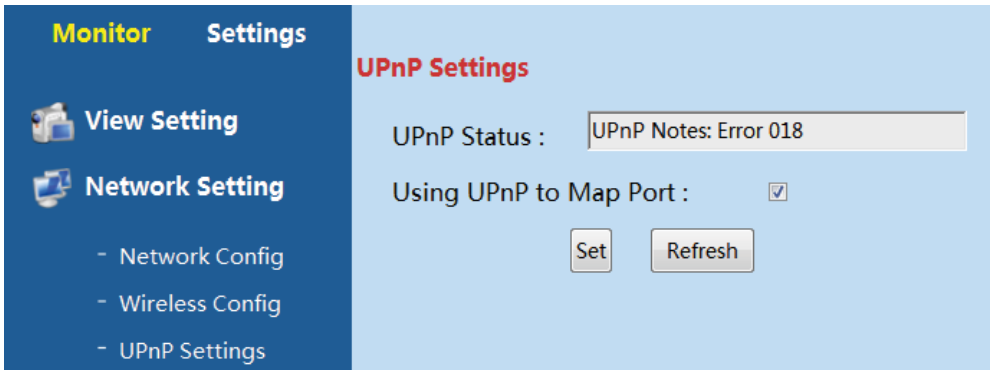


UPnP Settings

UPnP is recommended open, please go from the path “Settings->Network Setting->UPnP Settings” to use UPnP to map port.

[UPnP Status]: UPnP Succeed/Failed. UPnP means IP Camera can connect to other device automatically

[Using UPnP to Map Port]: This function enables camera to do port forwarding automatically, which lets user to visit camera easily.

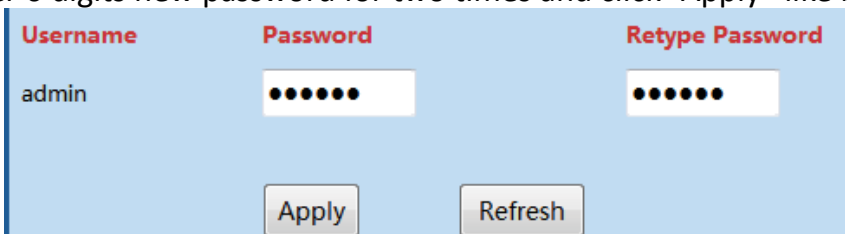


6.3.2.3 Advanced Setting

User Management

User can change the password of device from the path “Settings->Advanced Settings->User Management”

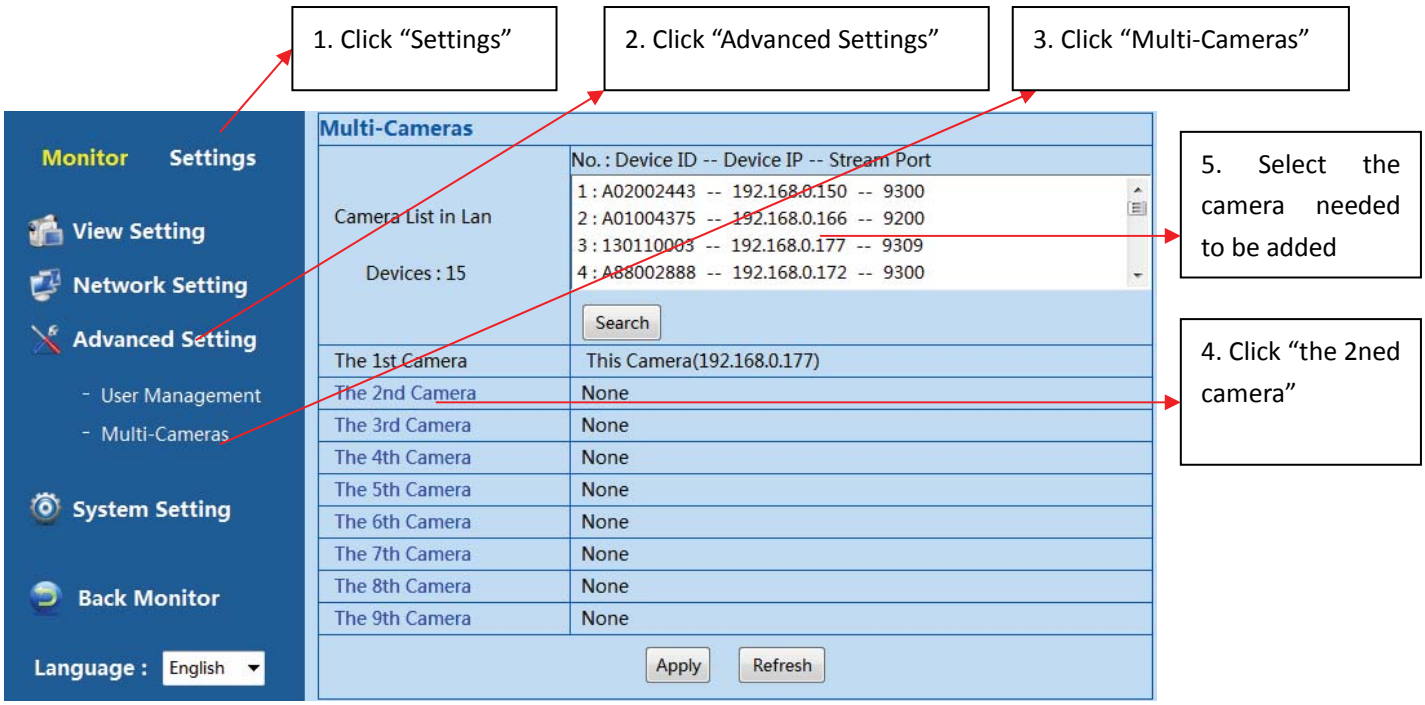
Enter 6 digits new password for two times and click “Apply” like below

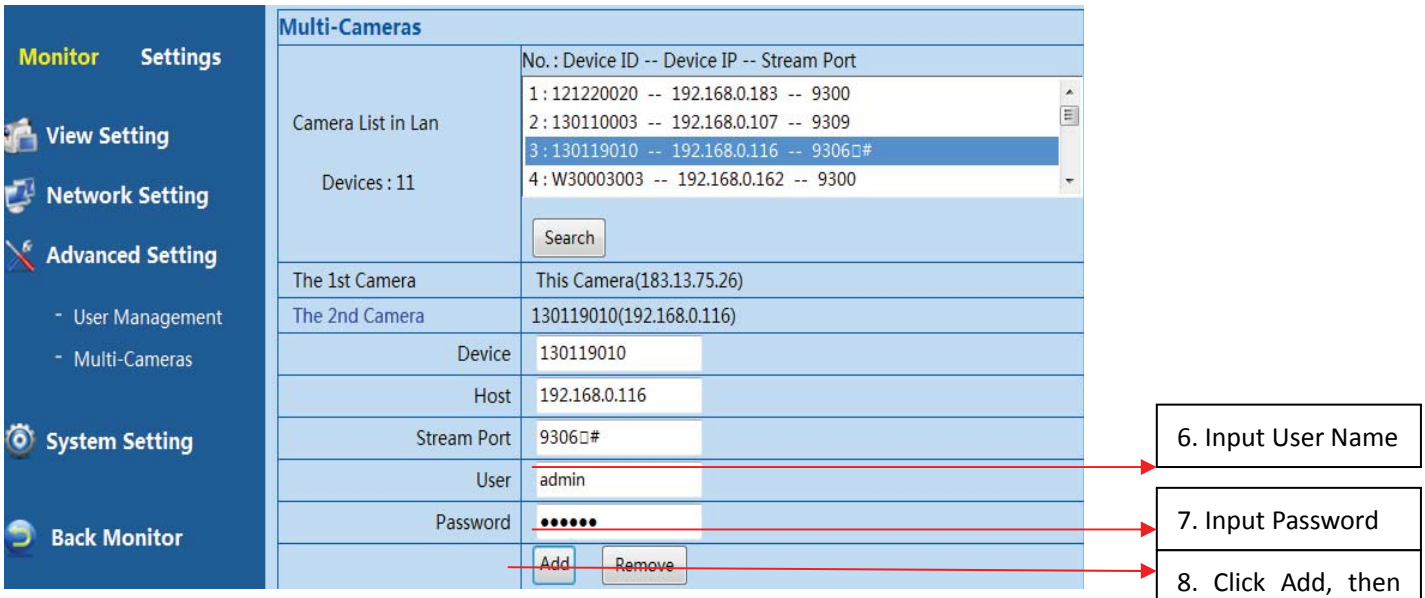


Multi-Cam Management

User can click  to view 1, 4 and 9 cameras at the same time. Please add more than 1 camera before you view more than 1 camera at the same time.

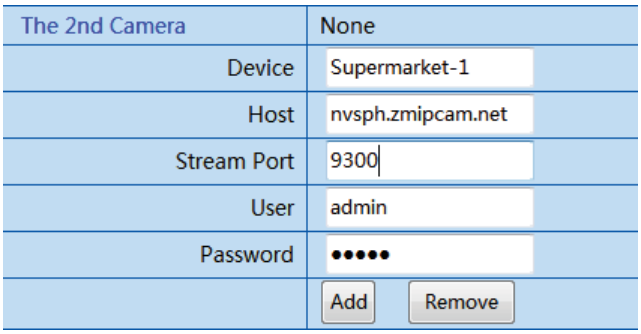
1.Add cameras from the same LAN





2. Add Camera from WAN

The steps from 1 to 5 are same as “add cameras from the same LAN “above, the following steps after step 5 are as follows (just fill in the information in the blank below)



Step 6, Define the name of device, such as “Supermarket-1”

Step 7, Fill in the sole Domain name of IP Camera (please refer to the label on the CD)

such as： nvsph.zmipcam.net

Step 8,Default is 9300 or fill in the number range of“1 ~ 65535”

Step 9, Default is **“admin”**

Step 10,Please refer to the label on the CD

Click 

and 

to finish adding

6.3.2.4 Alarm Setting

(This function of IP Camera is under updating)

Set the alarming function. IP camera supports motion detection and outer alarming input. The motion detection means IP camera detects the live picture. It will call alarm in case circumstances change. You can set 10 class sensitivity. The less class, the higher sensitivity.

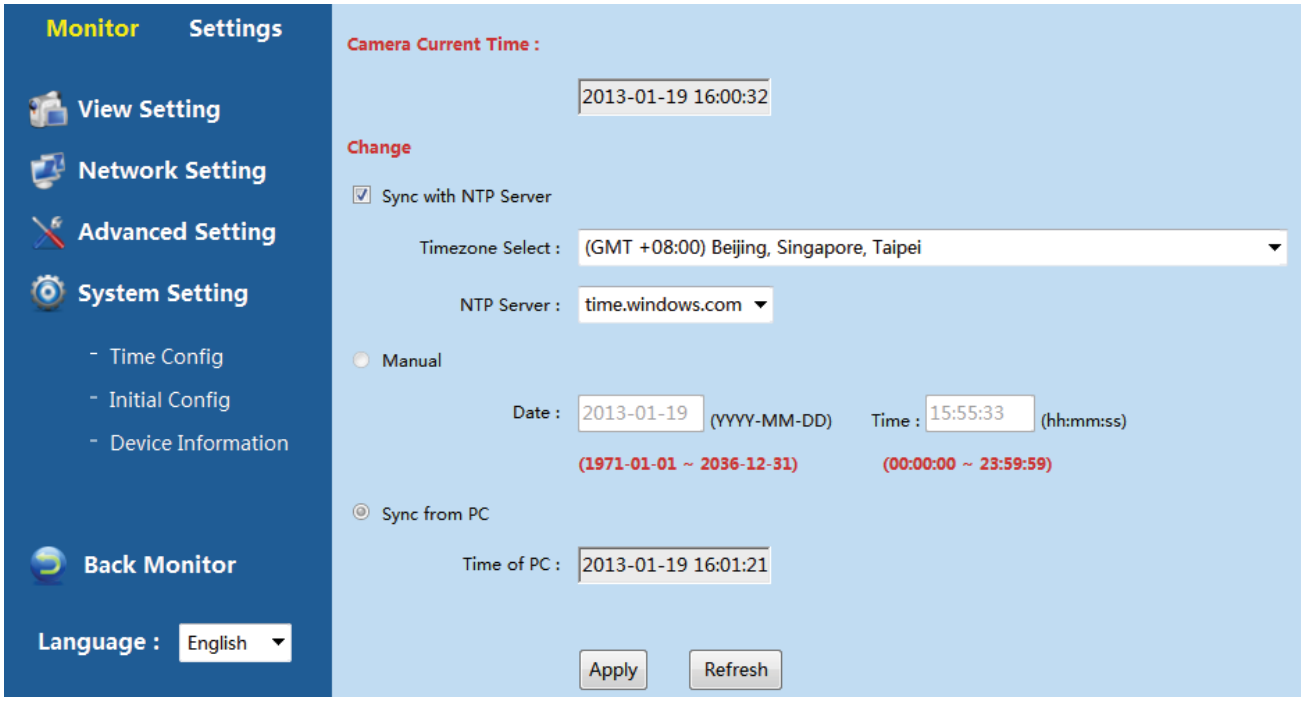
Alarming action includes preset, alarming output, mail notification and FTP uploading pictures.

6.3.2.5 System Setting

Time Config.

User can manually synchronize the time of camera with PC from the path

“Settings->System Setting->Time Config”



Parameters Description

1. Camera Current Time: Display the system time of device.

2. Change: the camera provides 3 models for synchronizing camera’s time.

Sync with NTP Server location

(Time zone Select)： Select the time zone of your location

(NTP Server): Select the NTP Server in the list.

Manual: input the correct time manually.

Sync from PC: synchronize the time with local computer.

Note: Please ensure the parameter of Gateway and DNS server is valid when you use NTP server to correct time.

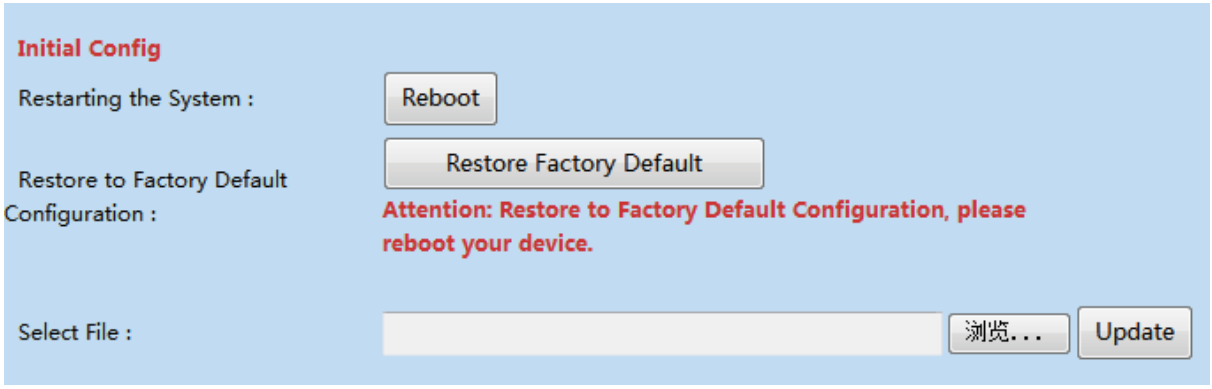
Initial Config.

User can restart, restore camera to factory default configuration and upgrade the firmware of the camera from the path “Settings-System Setting-Initial Config”.

(Restart the system): Restart the Camera.

(Restore to Factory default Configuration): Please restart the device after restore default setting.

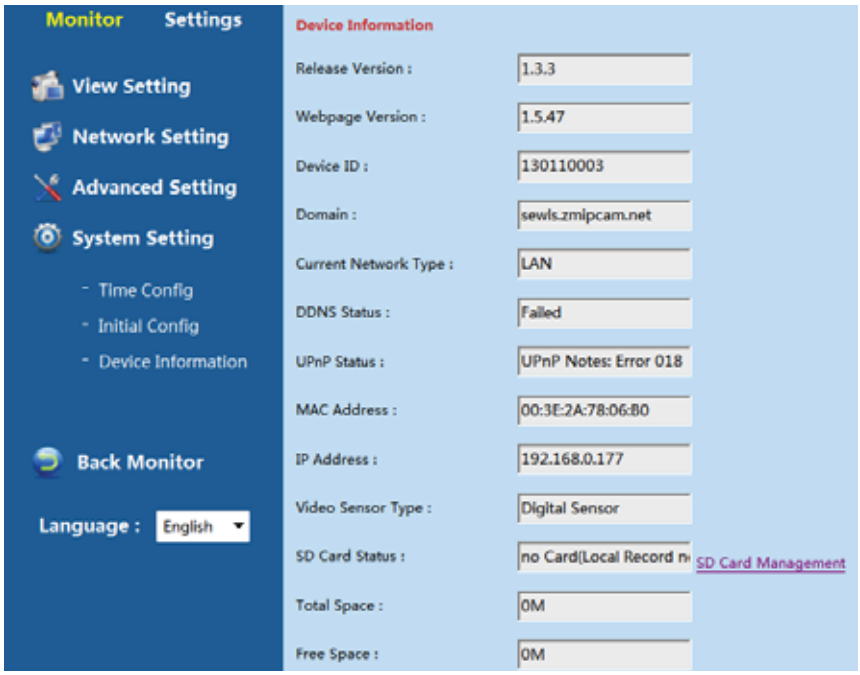
(Select the file): Select the related upgrade file, then click to upgrade.



Note: Please DO NOT cut off the power to camera when update the camera, otherwise the camera will be ruined.

Device Information

User can check the basic configuration information of the device from the path “Setting-System Setting-Device information”



Parameters Description：

(Release Version): Software version.

(Webpage Version): Web version number of the Built-in web browser.

(Device ID): Every camera has an unique ID set by provider.

(Domain): Every camera has an unique domain set by provider, it is use for accessing to camera remotely.

(Current Network Type):The situation of the network type of device, it includes wired or wireless.

(DDNS Status):Showing status of DDNS, failed or success

(UPnP Status): Showing status of UPNP, failed or success

(MAC Address):Network MAC address of the device.

(IP Address):Network IP address of the device.

(Video Sensor Type):Show video sensor type, It includes digital and analog.

(SD Card Status): Showing SD card available or not

(Total Capacity)Showing the total capacity of SD Card

(Remain Capacity): Showing the remain capacity that is available for recording

(SD Card Management):Details refer to “Video Configuration” under the “Audio Configuration” menu.

Note:

1. If UPNP or DDNS is failed, user can not visit camera via domain.
2. When UPNP is faild, please check wether the routher has the UPNP function(or open UPNP function) or not.

6.4 DDNS

Manufacturer’s domain name:

Manufacturer has established a DDNS, and designated a dynamic domain name to every device, the domain name is unique and has been integrated into device when producing. For example, enter domain name, the brower will connect the device and display IP

address.

Customer can find out the domain name from the lable attached onto the camera or from the path”Setting---System Setting—Device Information—Domain”.

7. Vist and manage Camera by CMS (Center Management System)

7.1 Installation CMS

7.1.1 Hardware Requirement

1. Pentium IV Series Processor;
2. Memory Capacity: 2G or above;
3. Hard disk Capacity: 120G or above;
4. Monitor Resolution: 1024*768 or above.

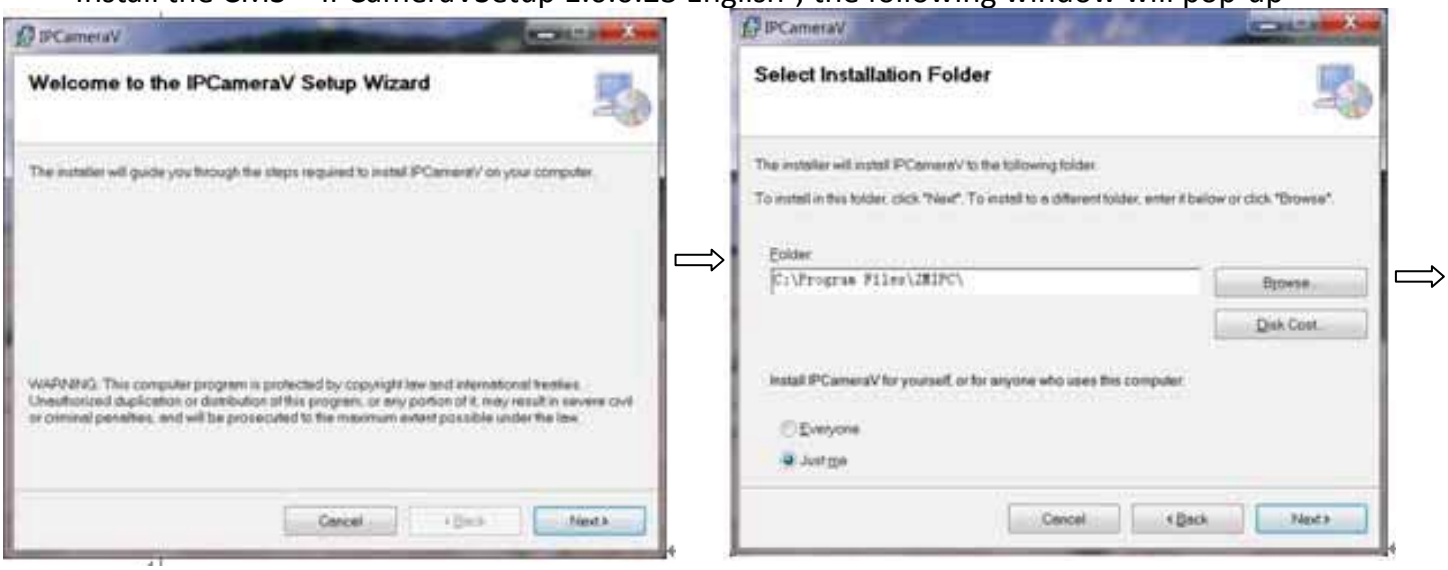
7.1.2 Software Requirement

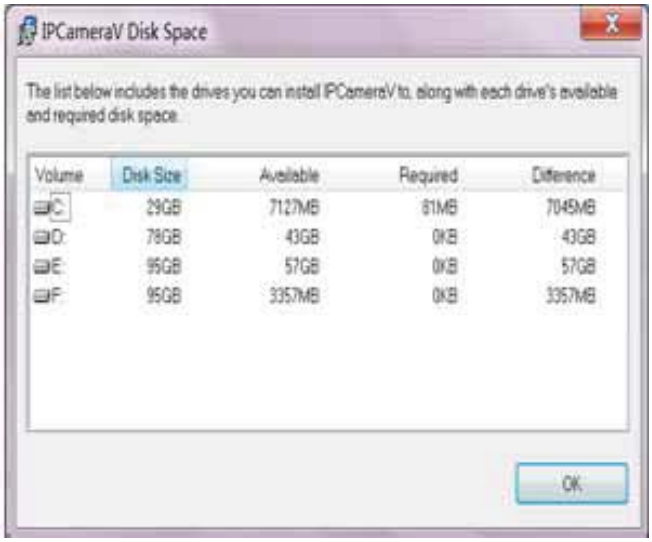
Windows2000/Windows XP/Windows2003/Windows Vista/Windows7 is available, and Windows XP is better.

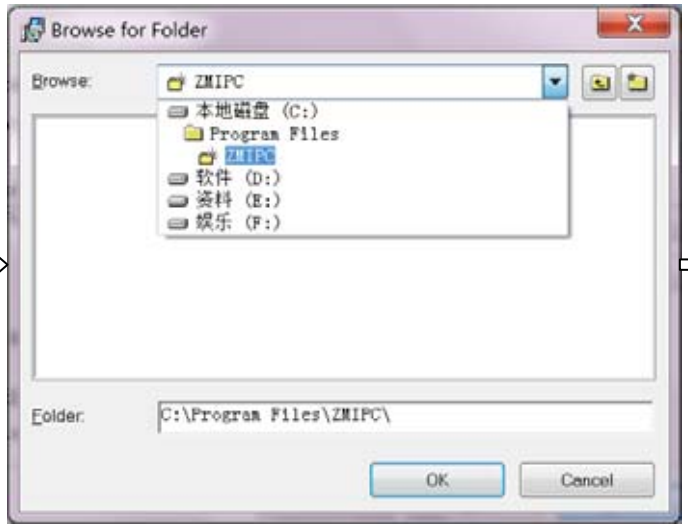
Note: CMS (“IPCameraV”)and the Camera Finder (“ipcamScanning ”)could not be operated in a computer at the same time

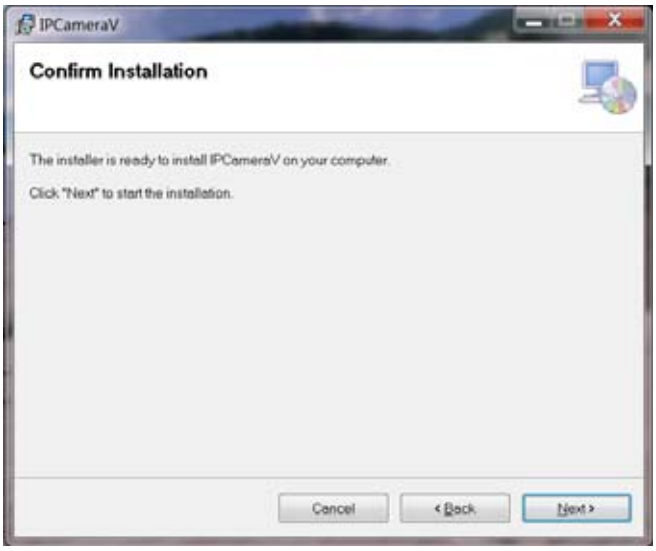
7.1.3 Install Steps

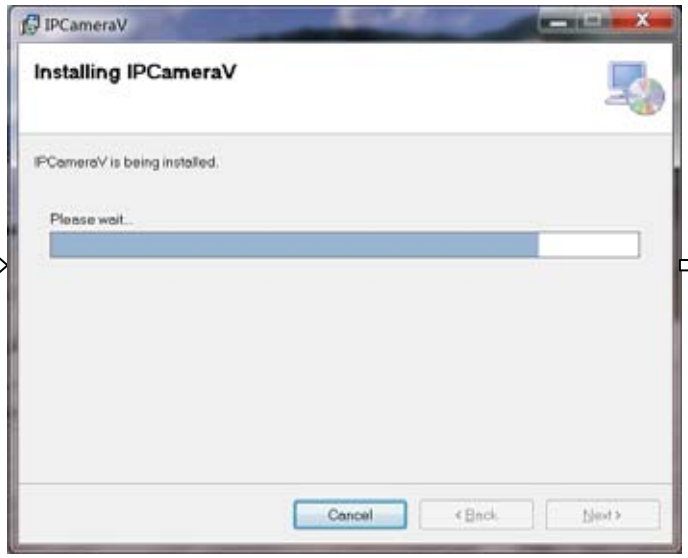
Install the CMS “IPCameraVSetup 1.0.0.23 English”, the following window will pop-up

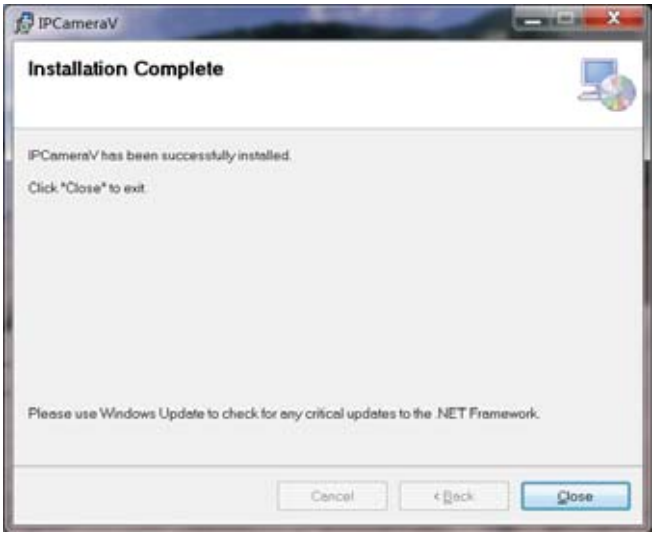










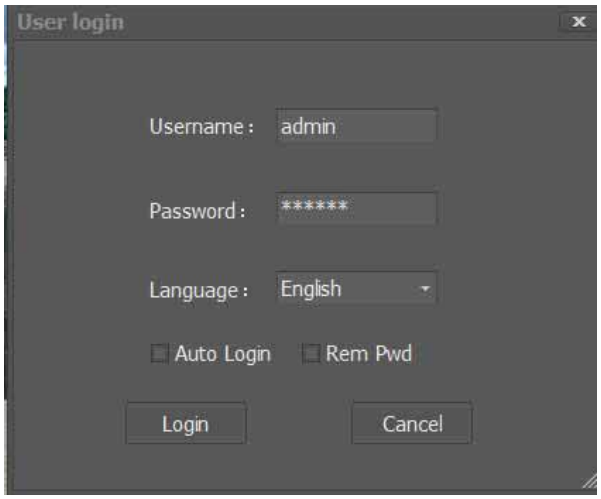


After install success, the ICON above will arise on your desktop

7.2 User login and management

7.2.1 User Login

Double click the ICON "IPCameraV" on desktop; the following login interface will pop up



(Username): Default username is "admin"

(Password): Default password is "123456"

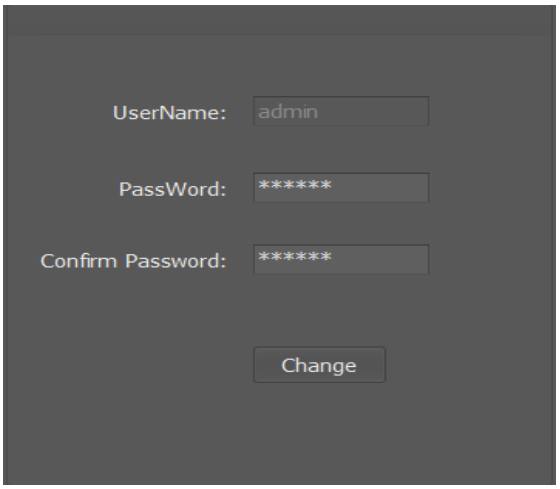
(Language): Please select "English"

(Auto Login): The software runs automatically when the computer is on

(Rem Pwd): The software will remember the password.

7.2.2 Change Password

User can change the password from the path "Label Bar->(Manage)->User Manage->Change Password"

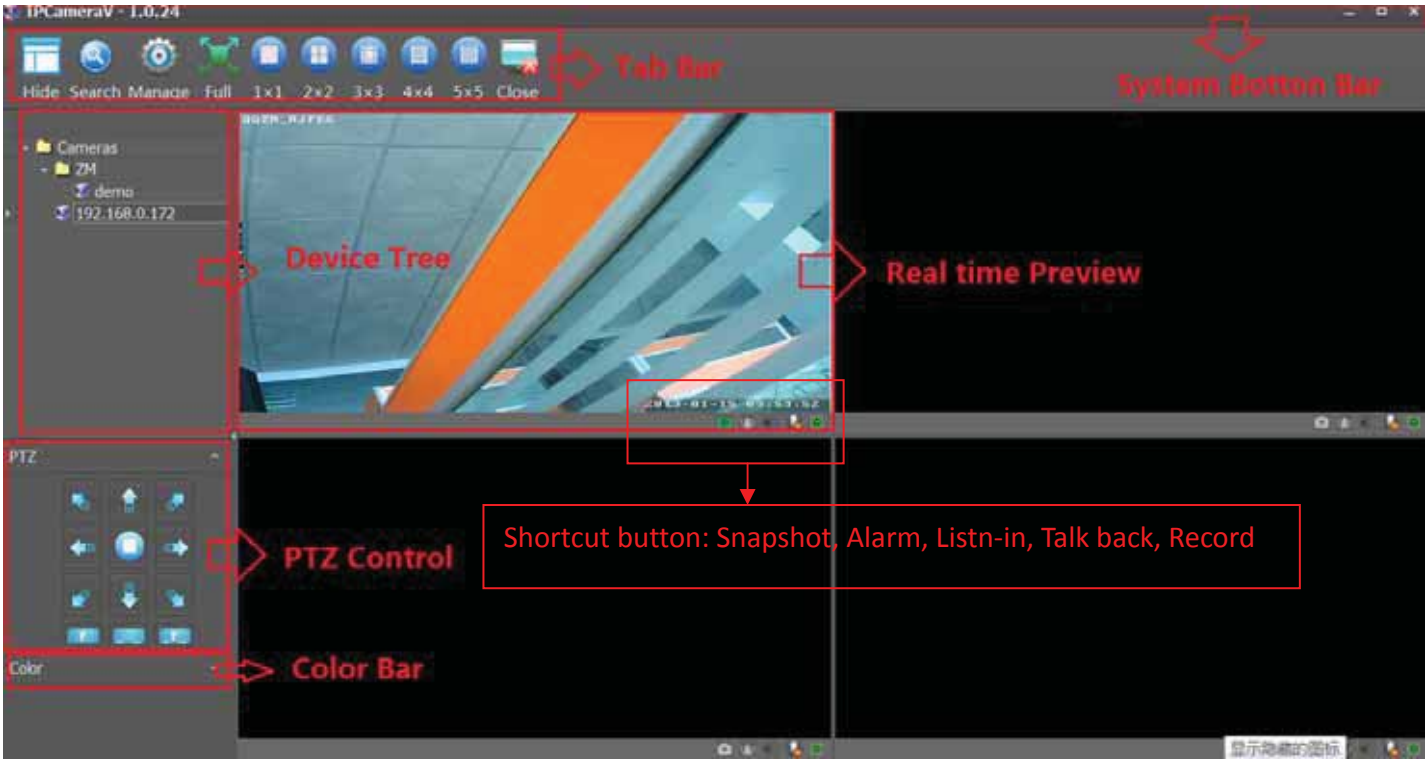


(Password): Input new 6 digits password

(Confirm Password): Input new 6 digits password again

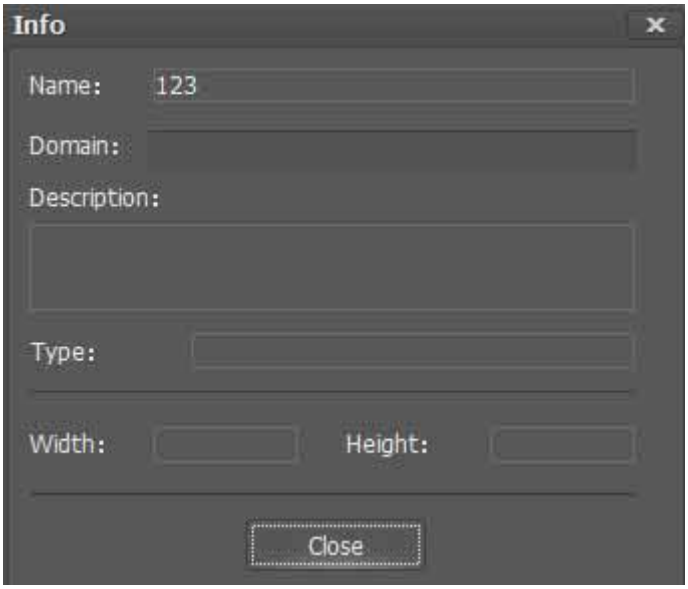
Note:The password can be set to NULL(Empty)

7.3 CMS Software Interface introduction



Tips: How can user find out the video corresponded with which camera?

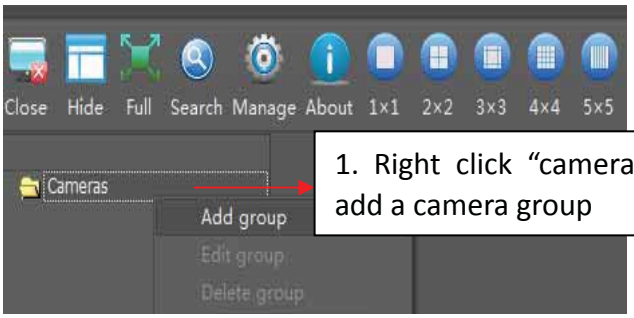
Put the mouse onto the displayed video --- right click the mouse---click property---the following window will pop up, you can find out the camera name and domain and description information.



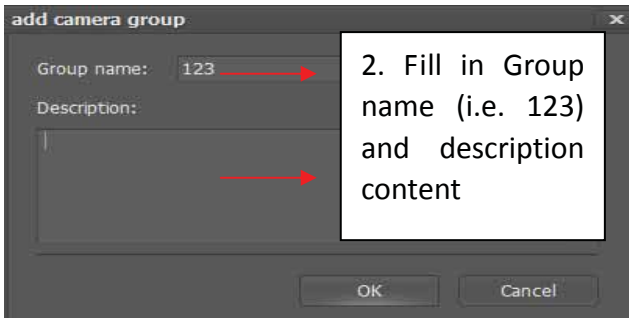
7.4 Image Preview and PTZ control

7.4.1 Add device

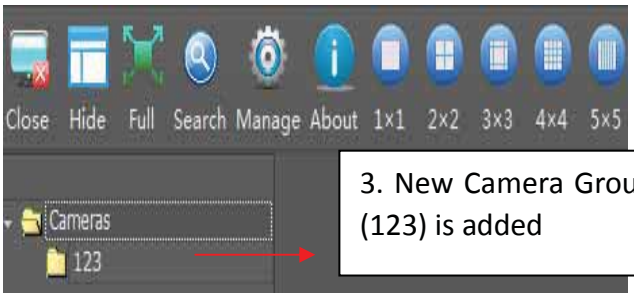
Add Camera from LAN



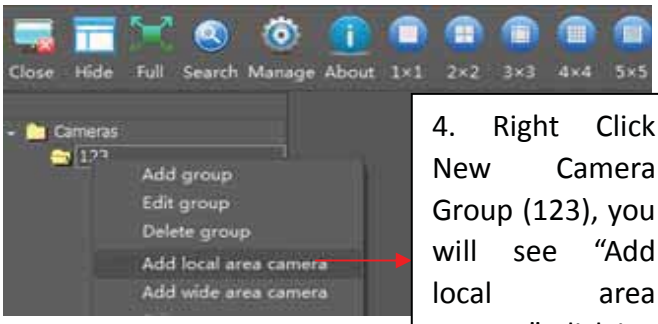
1. Right click “cameras” to add a camera group



2. Fill in Group name (i.e. 123) and description content

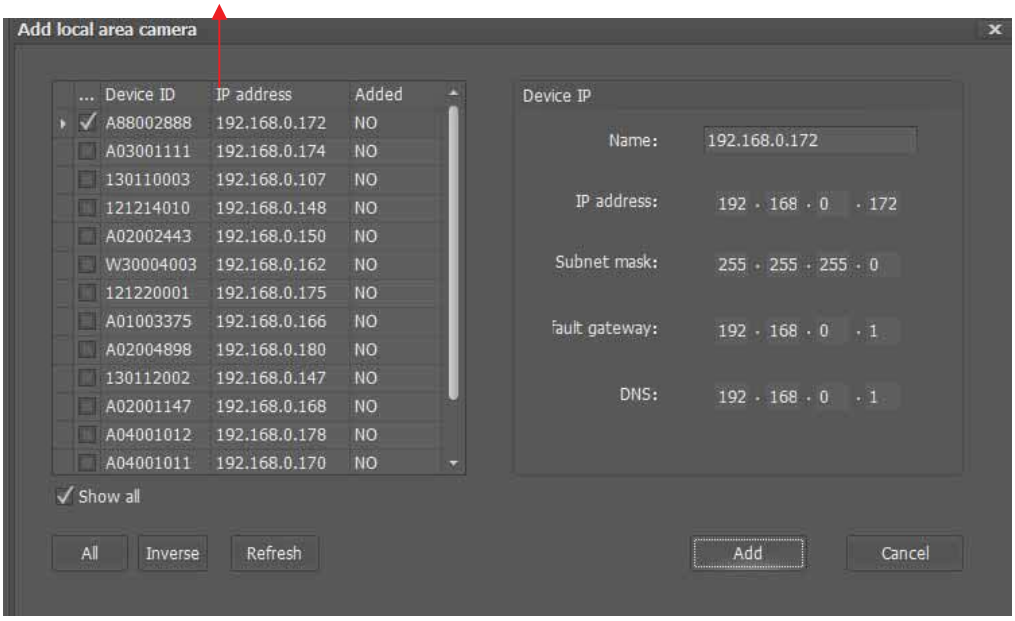


3. New Camera Group (123) is added



4. Right Click New Camera Group (123), you will see “Add local area camera”, click it

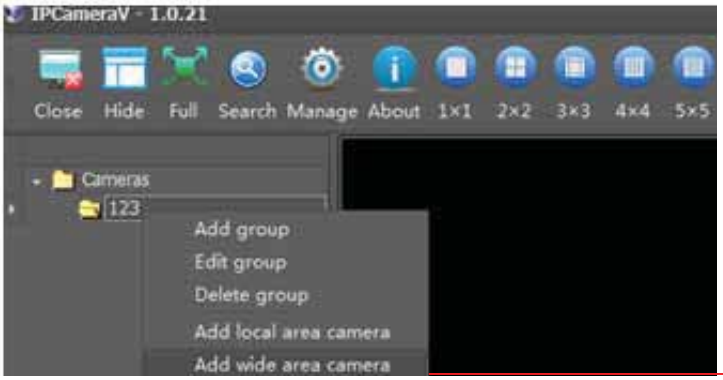
5. The following window will pop-up, all the cameras in the LAN will list in the left side, check the camera you need to add, and click the button Add, the selected camera will be added



6. Once you add camera success, you can see the camera is in the camera group (123), double click this camera, you will see the video in the software transmitted by this camera

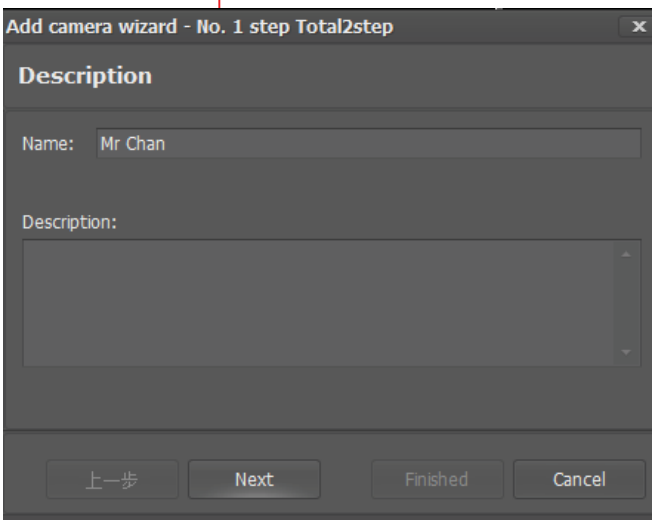
Add Camera from WAN

The step 1, step 2 and step 3 are same with "**Add Camera from LAN**" above

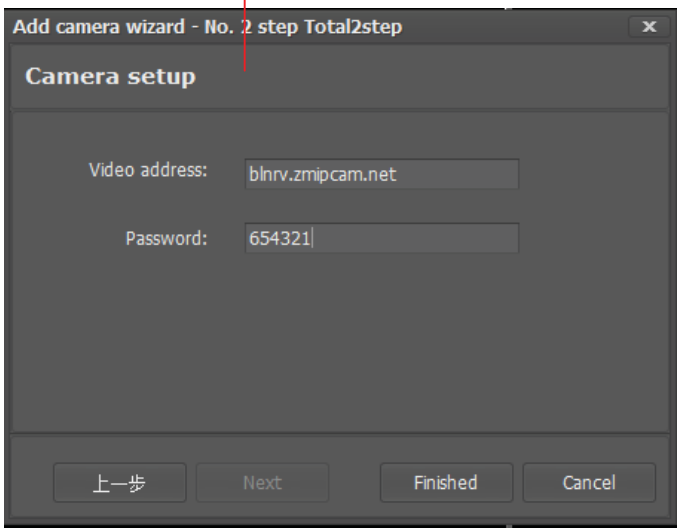


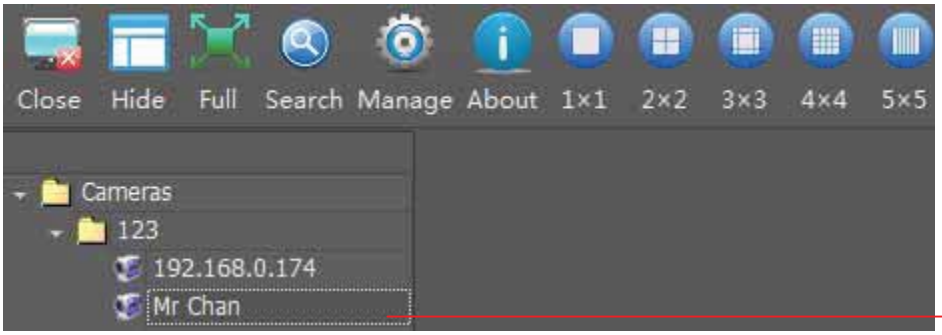
4. Click "Add wide area camera"

5. The following window will pop-up, please fill in Name (i.e. Mr Chan) and Description content, and click Next



6. Please fill in video address (domain) and password, and click Finished, the camera will be added





7. Once you add camera success, you can see the camera in the camera group, it is "Mr Chan", double click it, you will see the video in the software transmitted by the camera from WAN

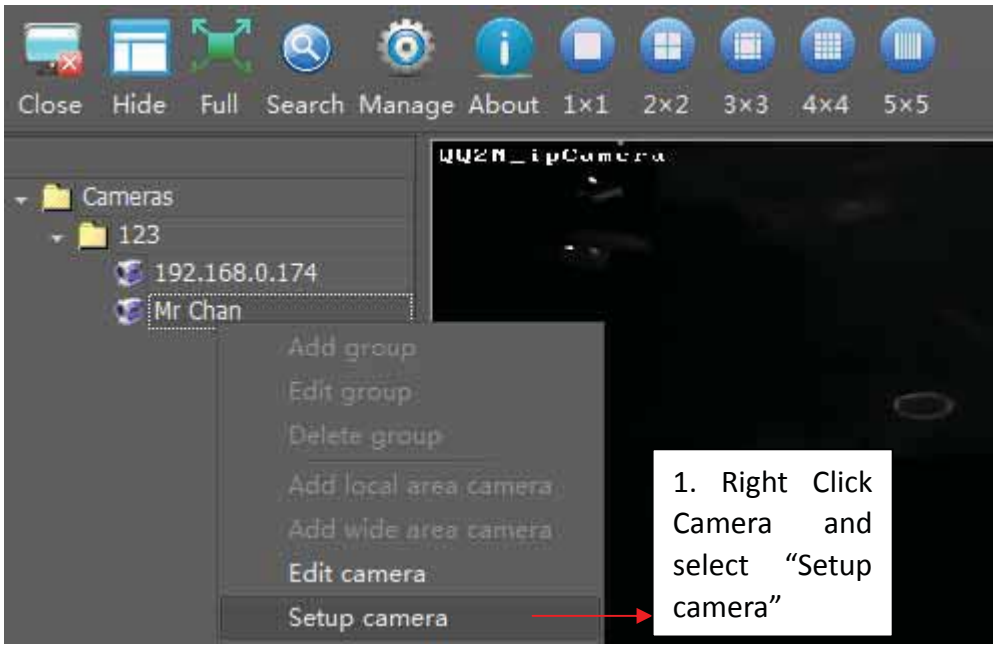
7.4.2 Image Preview

After cameras are added, double click the camera, the video will be shown in the following interface; user can start previewing image in the following interface. User can select view 1 camera, 4 cameras, 9 cameras, 16 cameras and 25 cameras at the same time

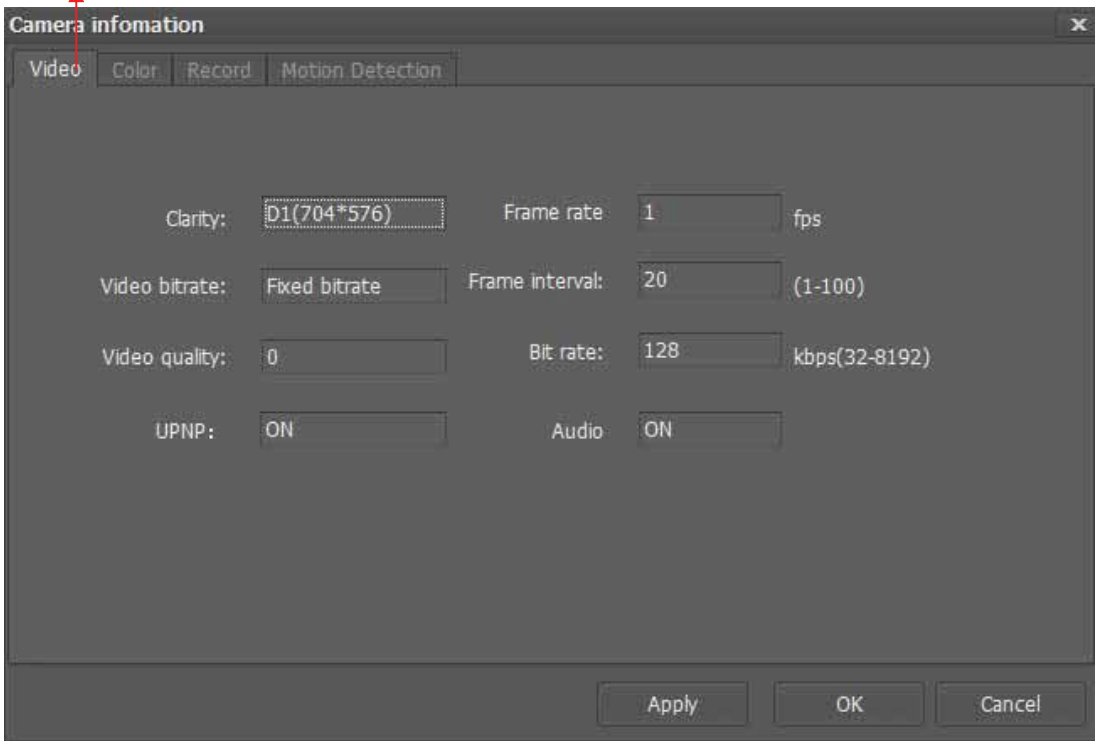
7.5 Record Management

7.5.1 Record onto TF/SD Card

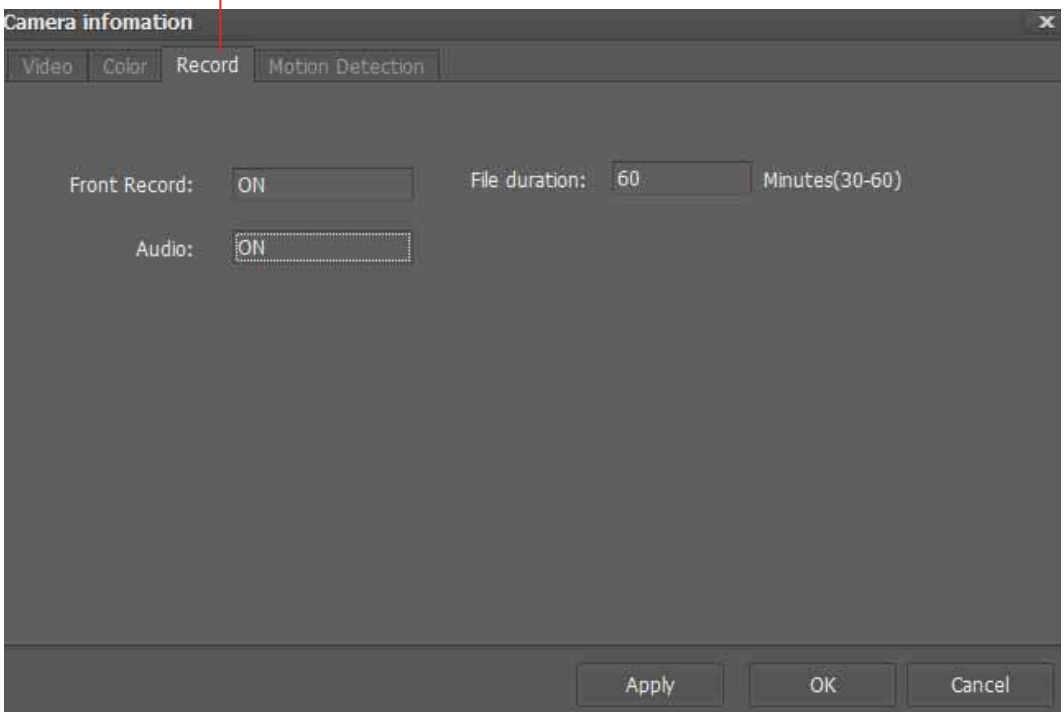
(Front-end Record)



2. Click "Video" and fill in the parameters into the following window,
The parameter of video is also applying for the video when preview image



3. Click “Record” and select “ON” after “Front Record”, write the video file length (30-60 minutes available), if camera support audio, select “ON” after “Audio”, then click button Apply and OK.

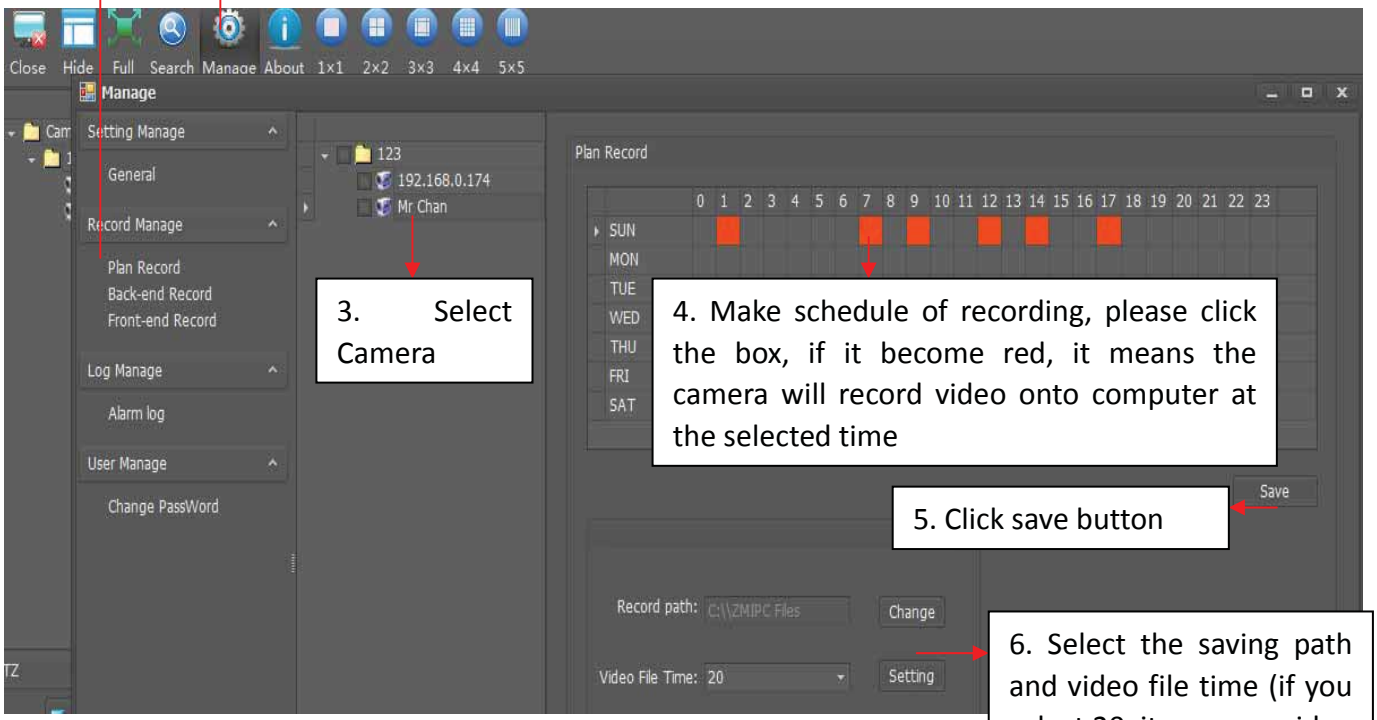


7.5.2 Record onto computer

(Back-end Record)

2. Click Plan Record

1. Click button manage 



3. Select Camera

4. Make schedule of recording, please click the box, if it become red, it means the camera will record video onto computer at the selected time

5. Click save button

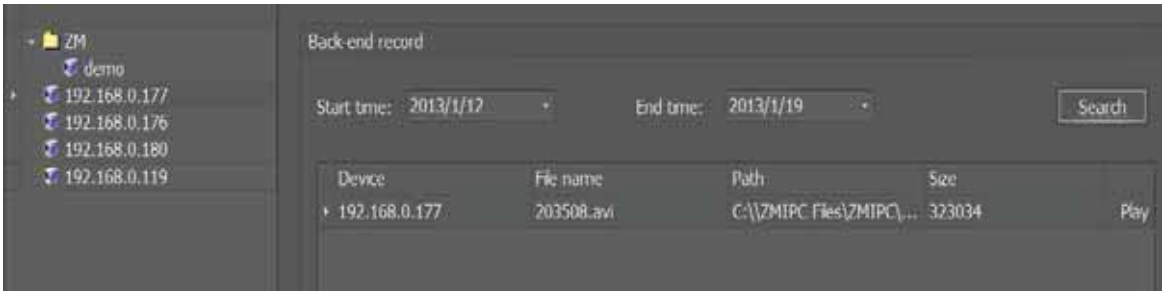
6. Select the saving path and video file time (if you select 20, it means a video file will be created every 20 minutes)

7.5.3 Playback Video

Playback the video recorded onto computer

User can enter back-end record interface through “Tab bar ->Manage ->Record Manage ->Back-end record” to inquiry, manage and play the video file.

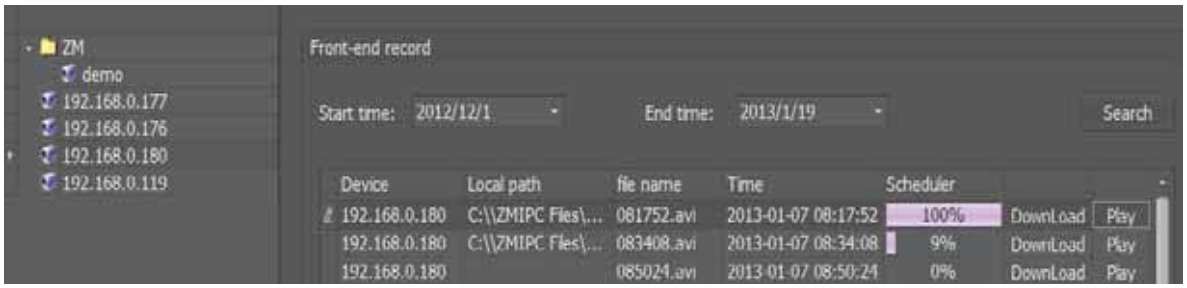
Select camera, start time and end time and click search, the video file will be listed like the following way, click “Play” to playback the video



Playback the video recorded onto TF card

Go From the path “Tab bar ->Manage ->Record Manage ->Front-end Record” to inquiry, download and playback the video file recorded onto TF card.

Select camera, start time and end time, then click “search”, the video file will be listed like the following way, click “download”, then click “Play” to playback the video



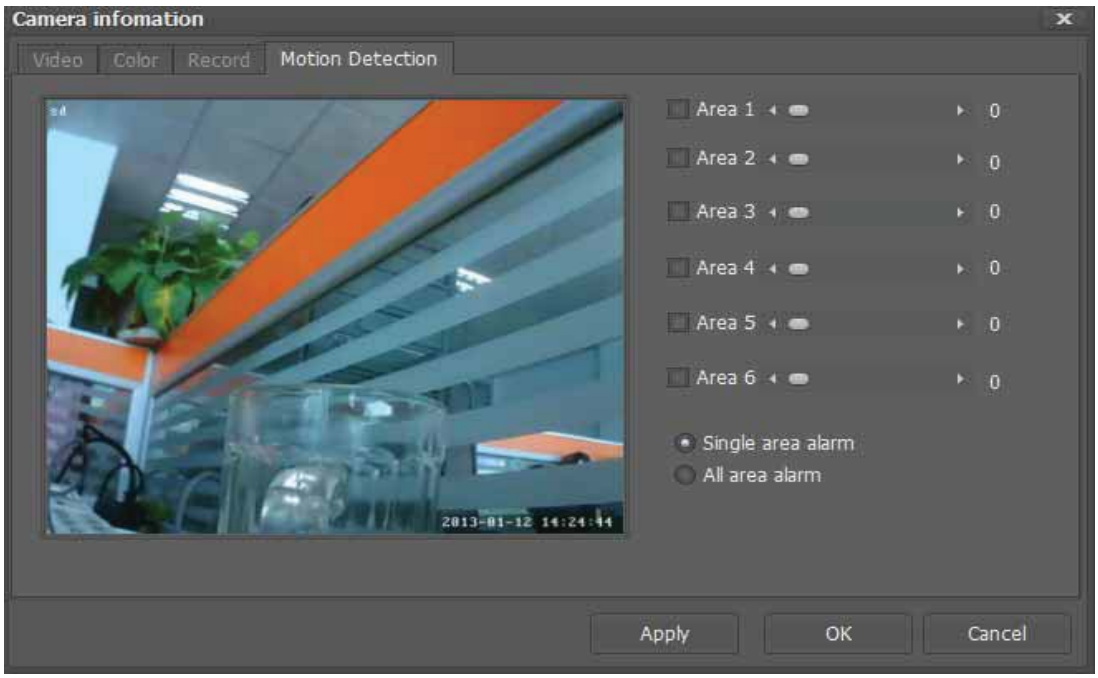
Note: When you playback the video recording onto TF card, please remember “DOWNLOAD” it. The video only can be played after downloading success.

7.6 Alarm Management

7.6.1 Motion detection alarm setting

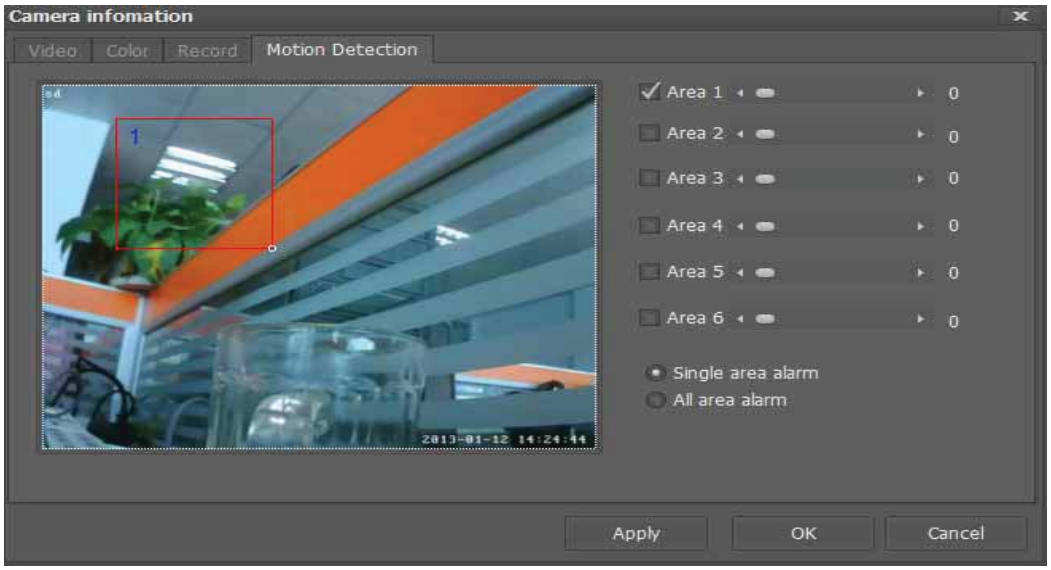
Setup the motion detection alarm from the path “Right click the camera in device tree -> setup camera->motion detection”. In this interface, user needs to setup 3 main

parameters: Set particular area, objects moving speed, and select single area alarm or all area alarm.



Single area alarm

1. Click “Single area alarm”
2. select the alarm area. Like “area 1”
3. draw a red box and move it to adjust the size of the motion detection area;
4. Adjust the move speed of the objects that will trigger alarm



All area alarm

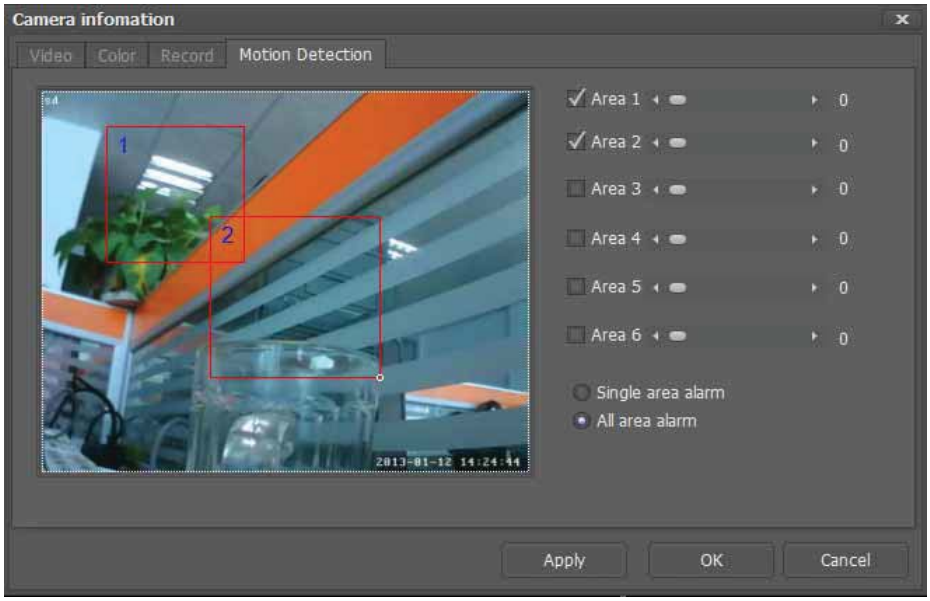
1.Click”All area alarm”;

2. Select all alarm area, like” area 1”, “area 2” ;

3. draw two red boxes and move them to adjust the size of the two motion detection area;

4. Adjust the move speed of the objects that will trigger alarm

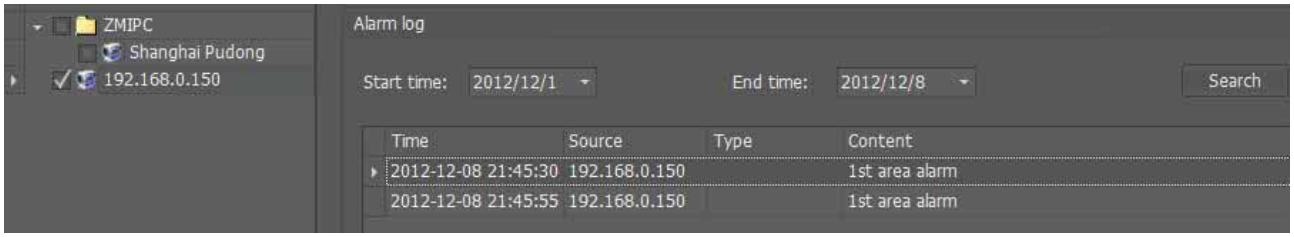
Note: When select all area alarm, only when all motion diction areas detect moving object, the alarm will be triggered.



7.6.2 Alarm Log Management

User can inquiry the alarm log through “Tab bar ->manage ->log manage ->alarm log” Alarm log mainly records alarm trigger information of the camera. Select IP camera and date which need to inquiry, click “search”

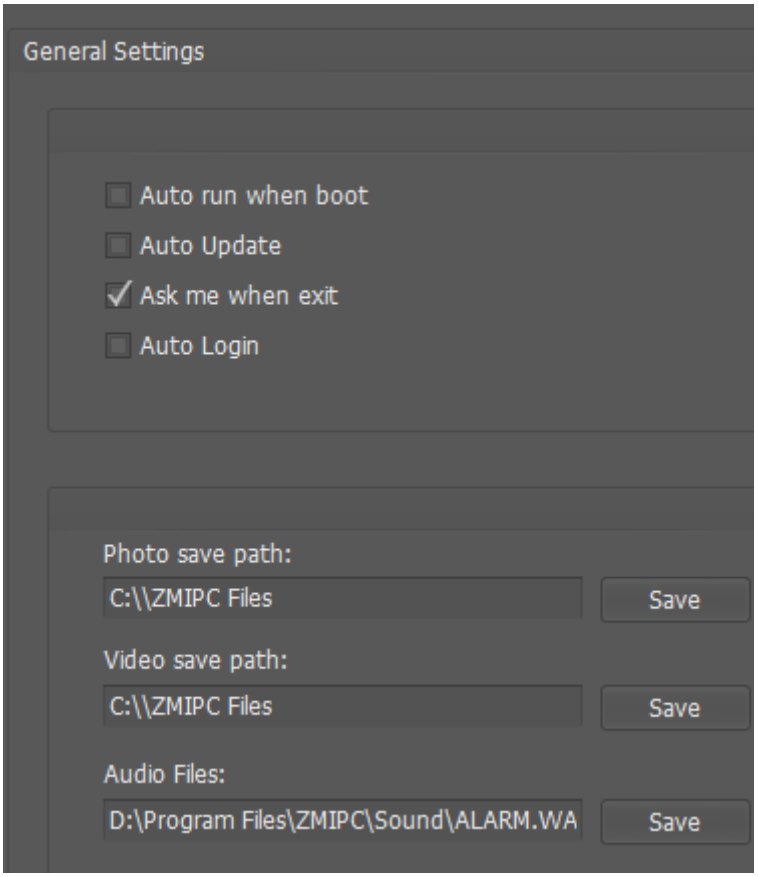
For example: the following picture shows the camera’s (IP address is 192.168.0.150) alarm log from 2012/12/1 to 2012/12/8



8. General Setting

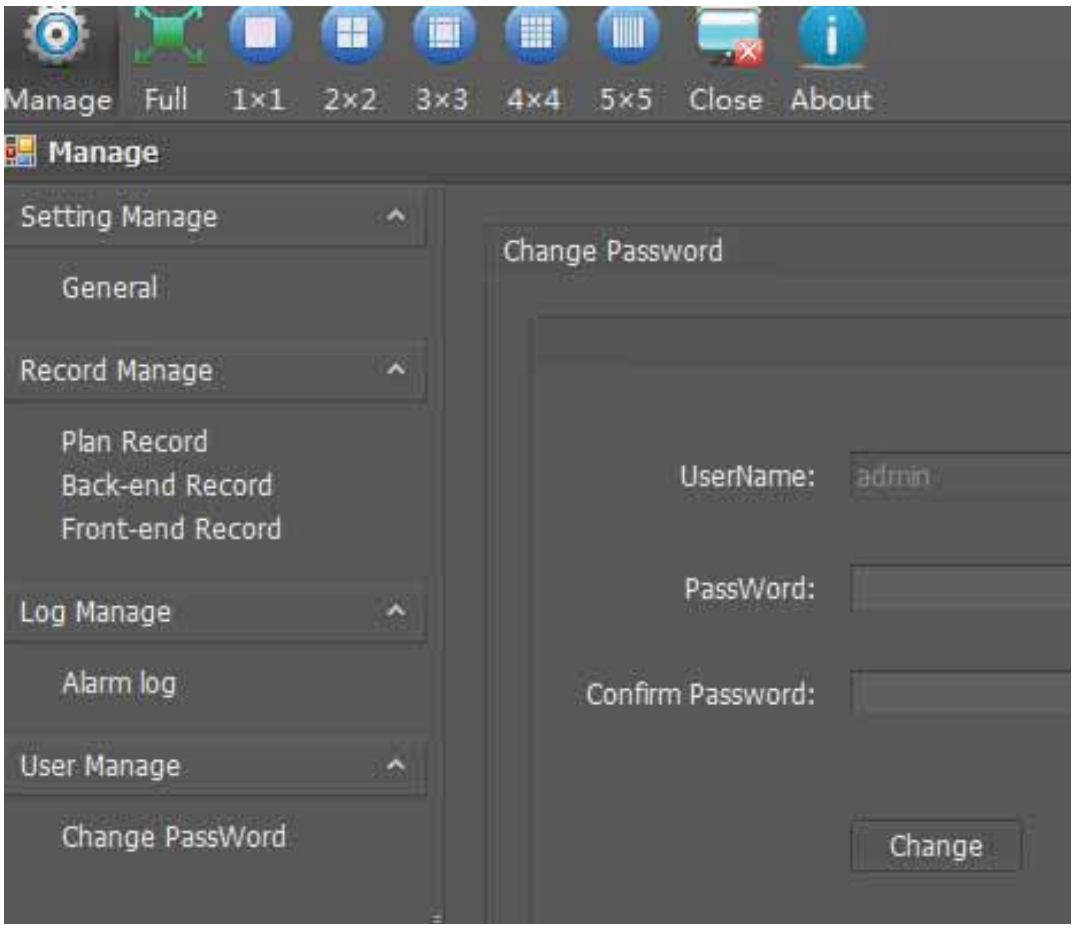
User goes from the path “Mange—Setting Manage—General” to set some general information like below

Set photo save path, video save path and audio save path



9. User Manage

We recommend user change the login password after you login in the CMS software, please change it from the path “Manage—User Manage—Change Password” like below



FCC Certification Requirements

Caution: Any changes or modifications in construction of this device which are 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.

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user’s authority to operate the equipment.

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 or more 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.

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.