IP Camera

Operation Manual

V3.1.0

Mar. 5, 2016

Preface

Thank you for buying our product very much.

Description

- This operation manual takes a gun-type IP camera as an example, and describes the operation method and performance index of the IP camera in detail.
- The IP camera mentioned in the text refers to the IP camera.
- The IP address of the IP Camera in the text sets the network parameter by taking 192.168.1.100 as an example.
- Before using the IP Camera, we advise you to read this operation manual carefully, install and use this system according to the steps described in the manual.
- The bold typeface in the text is the part which needs special attention.

Statement

This manual may include inexact part technically, or the part unmatched with the product function, or the part with wrong printing. We will update the content of this manual according to the enhancement of the product function, and improve or update the product or procedure described in this manual regularly. The updated content will be added in the new version of this manual without notice.

Safety Instructions

This content aims to ensure that user can use this product correctly in order to avoid risk or financial loss. Before using this product, please carefully read this operation manual and carefully store it for future reference.

As shown below, the precautionary measures are divided into “warning” and “notice”:

Warning: it may cause serious injury for ignoring the warning matters.

Notice: it may cause the financial loss if ignoring the matters needing attention.

 **Warning:**

1. Please use the power source which satisfies the requirement of safe low-voltage, and make sure rated voltage of the limited power source is 12 V DC supply.
2. If the equipment cannot work normally, please contact the service center where you bought this device or the service center nearby, do not dismantle or change the device in any way (user shall be responsible for the problems caused by change or repair without permission)
3. In order to reduce fire disaster or shock hazard, prevent this product from raining or wetting.
4. This installation should be carried out by professional service staff, and shall accord with the provisions by local laws and regulations.

 **Notice**

5. Before running the camera, please check whether the power supply is correct.
6. Do not throw the product on the ground or seriously strike it.
7. Do not contact the optical element of the image sensor directly; if it is necessary to clean, please wipe the dust by a clean soft cloth after being wetted by high concentration ethanol; when the camera is not in use, please cover it with the anti-dust cover.
8. Avoid wet, dusty, extremely hot, extremely cold (normal working temperature: 10 below DEG C-70 DEG C), strong electromagnetic radiation, and other places.
9. Prevent water and any fluid from flowing into **IP Camera** in use.
10. When **IP Camera** is conveyed, package it by the pack or the material with the same quality when it leaves factory

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1 Product Overview

The IP Camera adopts an embedded RTOS design; it has high sensitivity; the snapped moving image is free from saw tooth; it has pure hard compression, watchdog, stability and reliability, and extremely low power consumption. The IP Camera is completely separated from the PC platform, and the system scheduling efficiency is high; the code is solidified in FLASH, thus the system running is more stable and reliable.

By adopting the advanced H264 and H265 compression technology, the IP Camera is able to compress the video signal; the compressed data can be transmitted. Through the network, user can perform the real-time video and sound preview; it supports ONVIF 2.2, GB 28181 protocol, stream protocol (RTP/RTCP, RTSP), IE browse, full-duplex speech talkback, multi-linguistic support, “My EYE” function, and PUSH ALARM phone alarm function.

1.1 Main function and characteristics

Basic function

Adopt advanced H264 and H265 compression technology; the compression ratio is high and the treatment is very flexible;

- Support the on-line monitoring of multiple users at the same time; support C/S model; the built-in embedded type Web server of IP Camera can provide convenient B/S model access for you;
- Multi-user privilege management can ensure the safety of the system;
- Support one RS-485 interface (optional), support the PTZ equipment of the third party or the other serial equipment, and support the transparent transmission;
- Powerful alarm management and affair handling ability; the video lost, video movement alarm, probe input, alarm output, alarm linkage, automatic connection of alarm, and alarm log can help you to handle various emergencies easily; I path of switching value triggers the alarm input, and 1 path of probe triggers the alarm output.

Compressing function

- IP Camera supports 1 path of sound video signal and can compress the image with the highest resolution with 25 frames above per second in real time; by adopting the H264 and H265 compression standard, the code stream control can be carried out by two methods of fixing code stream and fixing quality. When the video image quality is set, the compression code stream of the video image can be defined;
- Support three-code stream, main code stream, sub-code stream, and phone code stream;
- Support OSD, set the position of the described information, multiple displaying styles of date and time;
- Support at most five video shield and set video shield at any position in the video image;

Network function

- Support one 10M/100M compatible Ethernet port;
- Support TCP/IP protocol, set parameter through application software or IE browser, browse video and audio signals in real time, check IP Camera state; perform the network alarm, and

store the compression code stream through network;

- Network controls the rotation of a holder and relevant parameter of the camera, such f-number, and distance of focal length, etc;
- Upgrade through network and achieve Setting maintenance;
- Support RTSP/RTP/CGI/FTP/PPPOE/DHCP/DDNS/NTP/UPnP, and other network protocols.
- Support ONVIF 2.4, GB 28181 protocol, compatible with NVR of domestic and foreign standard ONVIF protocols; compatible with monitoring software of domestic and foreign standard ONVIF protocols.
- Support PUSH ALARM phone pushing function, and check alarm video through mobile phone at any time.
- Support IMAC system monitoring, support the monitoring of iPhone, Android, Saipan, Blackberry, and other mobile phones, support Setting configuration of mobile phone, local video, local playback, and other functions.
- Support “My EYE”, and access device through network at any time and any place.
- Support operations of Firefox, Google Chrome, and other browsers.

1.2 Application Field

It is suitable for various fields where the network Setting monitoring is required, e.g.

- Network monitoring of ATM, bank teller, supermarket, factory, and other places
- Setting monitoring service provided for nursing home, kindergarten, and school
- Smart access control system
- Smart mansion, intelligent residential district management system
- Unattended operation system of electric power station and telecom base station
- Outdoor equipment monitoring management
- Traffic status monitoring system of bridge, tunnel, and intersection
- Monitoring of production line, supervision of storehouse
- Supervision of road traffic for 24 hours
- Setting monitoring of forest, water source, river resource
- Other application field

2 Appearance and Installation

2.1 Running environment of PC

The PC working environment of IP Camera is defined as follows:

The lowest configuration of PC hardware environment

CPU: 1 .6GHz 32-bit or 64-bit processor

Memory: 1GB and above

Display card: Support for DirectX 9 256M and above

Sound card: it needs voice monitoring; and it is necessary during the duplexing talkback

Hard disk: if the image is required to record, the image should not be less than 40G

Recommended configuration of PC hardware environment

CPU: 2.5Ghz 32-bit or 64-bit processor

Memory: 2GB and above

Display card: Support for DirectX 9 1GB and above

Hard disk: 500 G

PC operation system

Support 32/64bit Windows2000/XP/2003/VISTA/WIN7/WIN8/WIN10 operation systems in Chinese/English.

Support IMAC system.

Software environment

Support IE8, IE9,IE10,IE11 versions

Support operations of Firefox, Google Chrome, and other browsers.

DirectX9.0 above version

TCP/IP network protocol

2.2 Appearance structure of IP Camera and definition of interface

Please pay attention to the following matters at the same time during the installation and operation:

1) Please carefully check the package box when it is opened, and confirm that the matters therein are in accordance with the list;
2) Please carefully read the operation manual before installation;
3) When the IP Camera is installed, please do not close power sources of all relevant devices;
4) Check the supply voltage and prevent the equipment damage caused by unmatched voltage.
5) Installing environment: do not use it under wet or hot environment, keep good ventilation, and prevent the ventilation opening from being blocked. Horizontal place it and avoid the installation under the serious shocking environment.

2.2.1 Definition of panel interface

1) Home Network Camera panel interface definition, As shown in Figure 2-2-1:

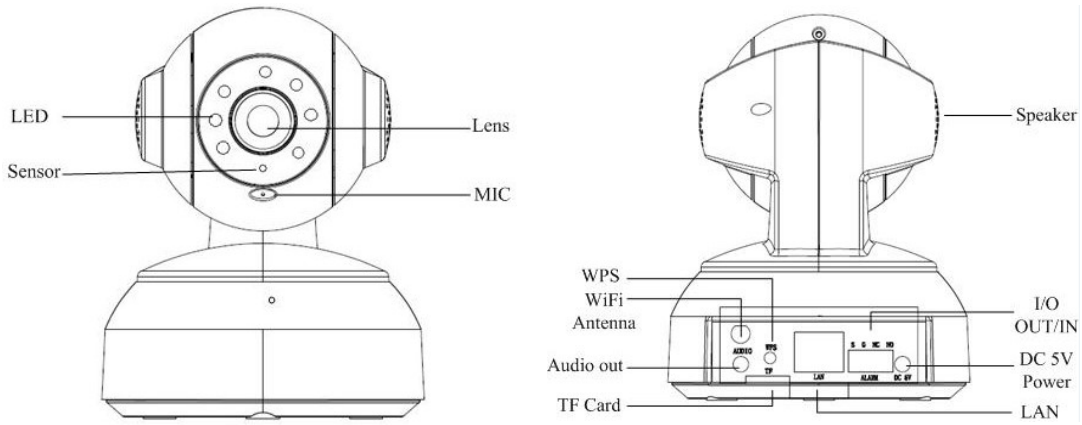


Figure 2-2-1 Home Network Camera panel interface

Introduction of interface:

『DC5V』power interface, which is connected with 5V DC power through a voltage stabilizer; please use a matched power supply of the voltage stabilizer

『LAN』standard network RJ 45 interface

『ALARM OUT/IN』Alarm input and output interface

2) Definition of panel interface of infrared waterproof, fixed hemisphere, spherical IP Camera, As shown in Figure 2-2-2:

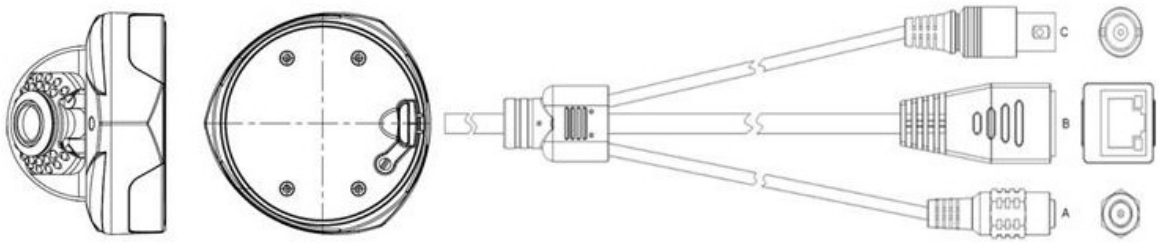


Figure 2-2-2 Infrared and hemisphere panel interfaces

Introduction of interface:

A. 『DC12V』power interface, which is connected with 12 V DC power through a voltage stabilizer; please use a matched power supply of the voltage stabilizer

B. 『LAN』standard network RJ45 interface

C.『VIDEO OUT』analog video output interface, standard BNC interface

2.3 Topological graph of camera connection

There are two common-used connection methods between the IP Camera and the computer, and the methods are shown as Figure 2-3-1 and 2-3-2:

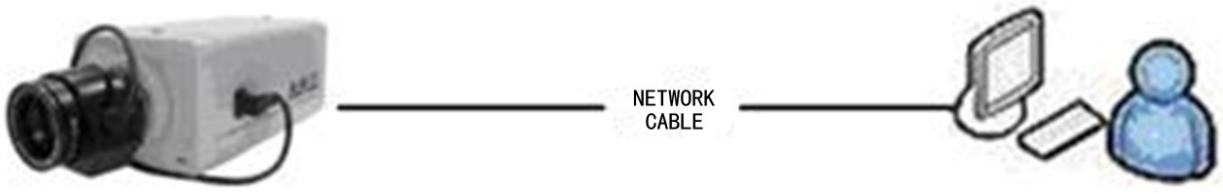


Figure 2-3-1 Direct connection through a network cable

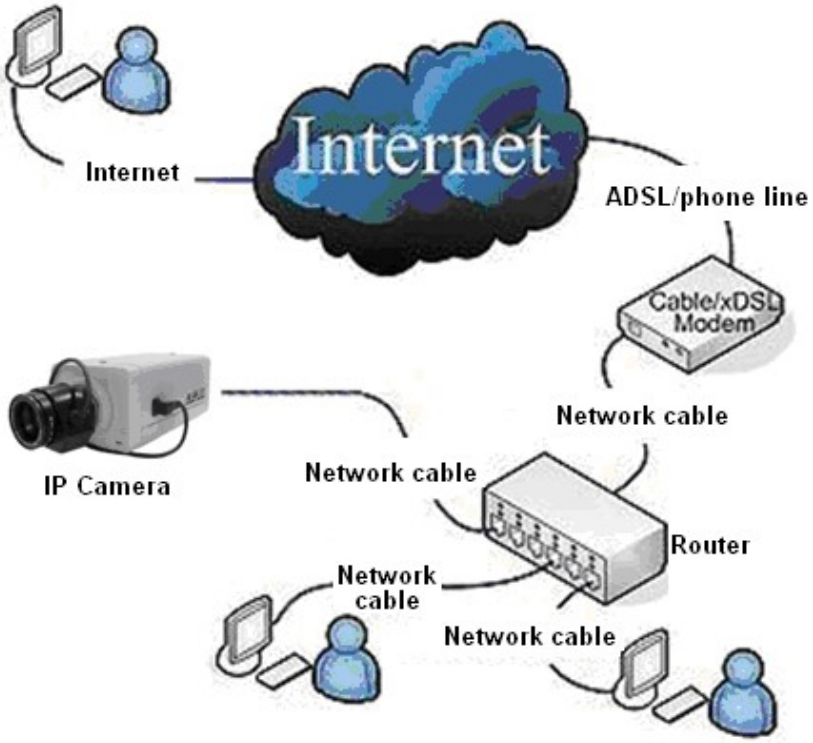


Figure 2-3-2 Connection through an exchange and a router

Notice: when the power supply connected by POE, do not access IP Camera by using a 12V adapter; otherwise, it is likely to cause the equipment damage.

Before accessing the IP Camera through network, obtain IP address thereof at first; search the IP address of the network camera through the SearchTools software.

By running the SearchTools software in the random optical disk, the software will automatically display the IP address, Port, MAC address, DHCP state and version information, and so on of the running IP Camera in the current LAN; it is shown as Figure 2-3-3:

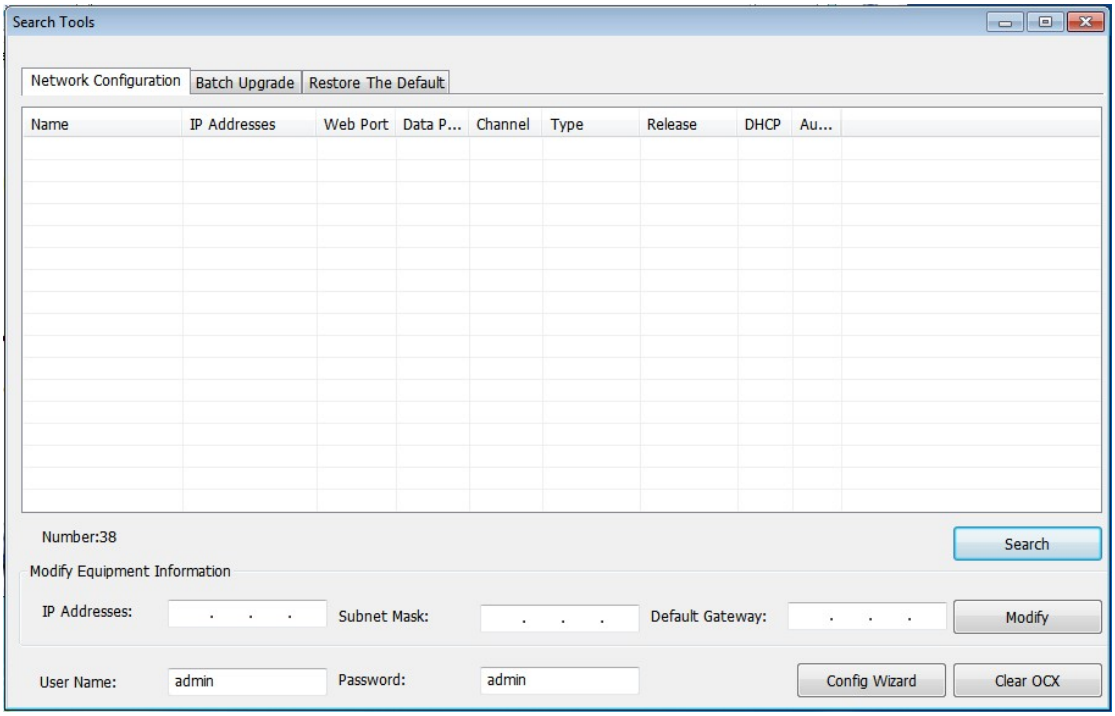


Figure 2-3-3 Search IP address

3 IP Camera Access

3.1 PC network setting

The defaulted IP address of IP Camera: DHCP, Direct Connect IP: 192.168.1.100. Add an IP address capable of accessing IP Camera mutually to the computer, for example:

- 192.168.1.99, the specific operation method is as follows:

If you use Windows 2003/XP operation system:

After entering the operation system, click [Start] → [Set] →[Control panel] of the task bar; open "Network and Dial connection" menu, click the mouse once and select the "Local Connection" icon corresponding to the network card connected with the video server; click right button once and select "Property"; select "Internet Protocol (TCP/IP)" from the popup "Routine" page, check "Property", and pop up the following page, shown as Figure 3-1-1:

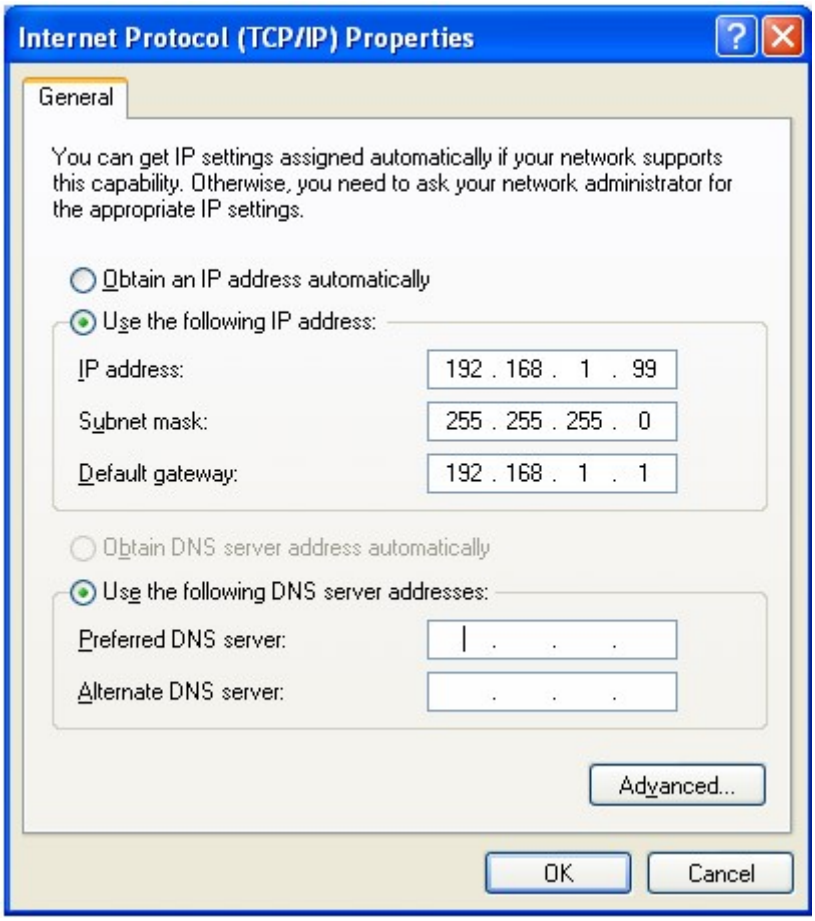


Figure 3-1-1 Set network parameter of computer

Select the "Use the following IP address", and fill the IP address **192.168.1.99** (the other IP address which is not conflict with 192.168.1.100 in the same one network segment); the subnet mask is 255.255.255.0, and defaulted gateway is 192.168.1.1. The others are not required to set; click "Confirm" on this page and the "Confirm: on the page of "Local connection property". Wait for the configuration of the system.

If you use Windows Vista /Windows 7/8/10 operation system:

After entering the operation system, click [Start] →[Control panel] of the task bar, open "Network and Share center" and select "Network connection"; click mouse once and select the "Local Connection" icon corresponding to the IP Camera network card connecting the IP Camera; click the right button and select "Properties"; select "Internet Protocol Version 4 (TCP/IPv4)" from the popped page "Local connection property", check "Properties", and pop up the following pages, and show as Figure 3-1-2:

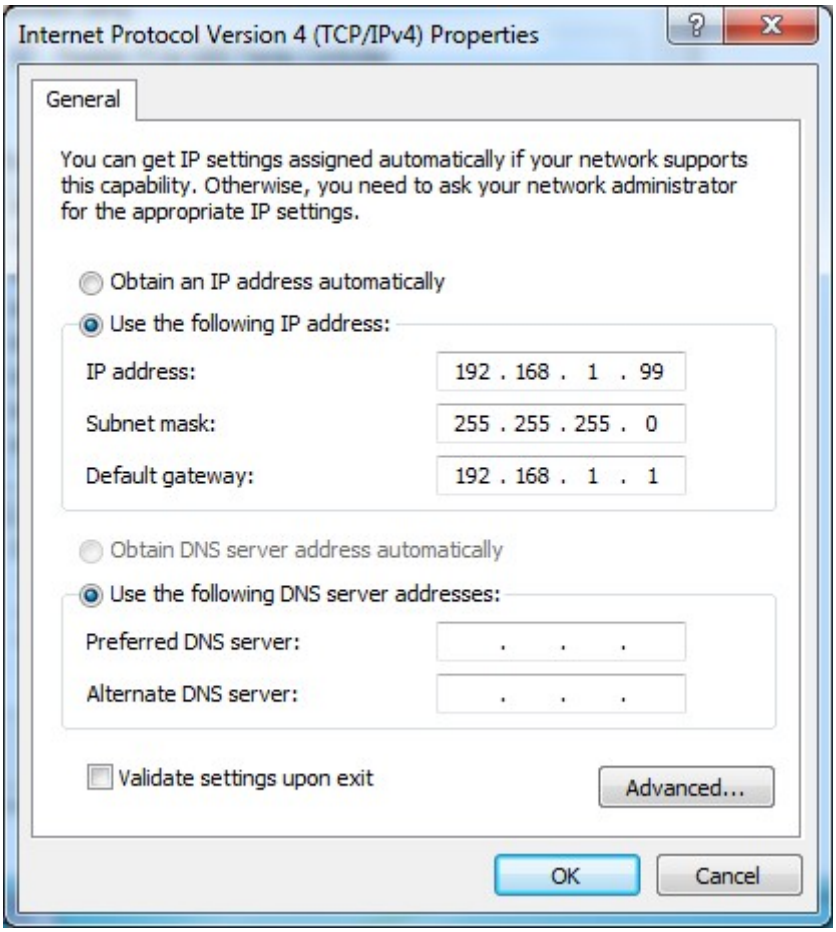


Figure 3-1-2 Set network parameter of computer

Select “Use the following IP address”, fill the IP address 192.168.199 (or the other IP address which is not conflict with 192.168.100 in the same network section); the subnet mask is 255.255.255.0, and defaulted gateway is 192.168.1.1. The others are not required to set; click “Confirm” on this page and the “confirm: on the page of “Local connection property”. Wait for the configuration of the system.

3.2 Access through IE browser

3.2.1 Video Preview

Step I: Install plug-in unit

Input IP address of camera in the IE address bar, and then press Enter in the keyboard, pop up a prompt of installing Active X plug-in unit as Figure 3-2-1; click the prompt once and select [OK] to select the download plug-in unit; after downloading the plug-in unit, run and install as the dialog box of the installation of Active X plug-in unit in Figure 3-2-1; click [Next] and install the plug-in unit.

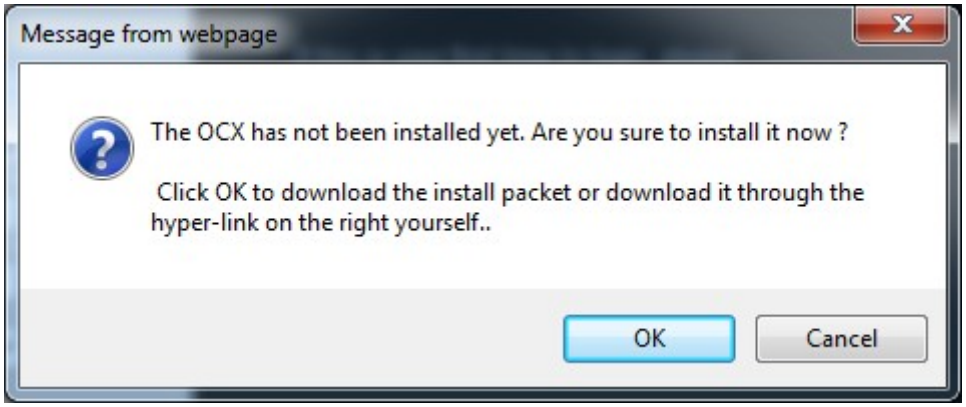


Figure 3-2-1 Prompt of installation of Active X plug-in unit

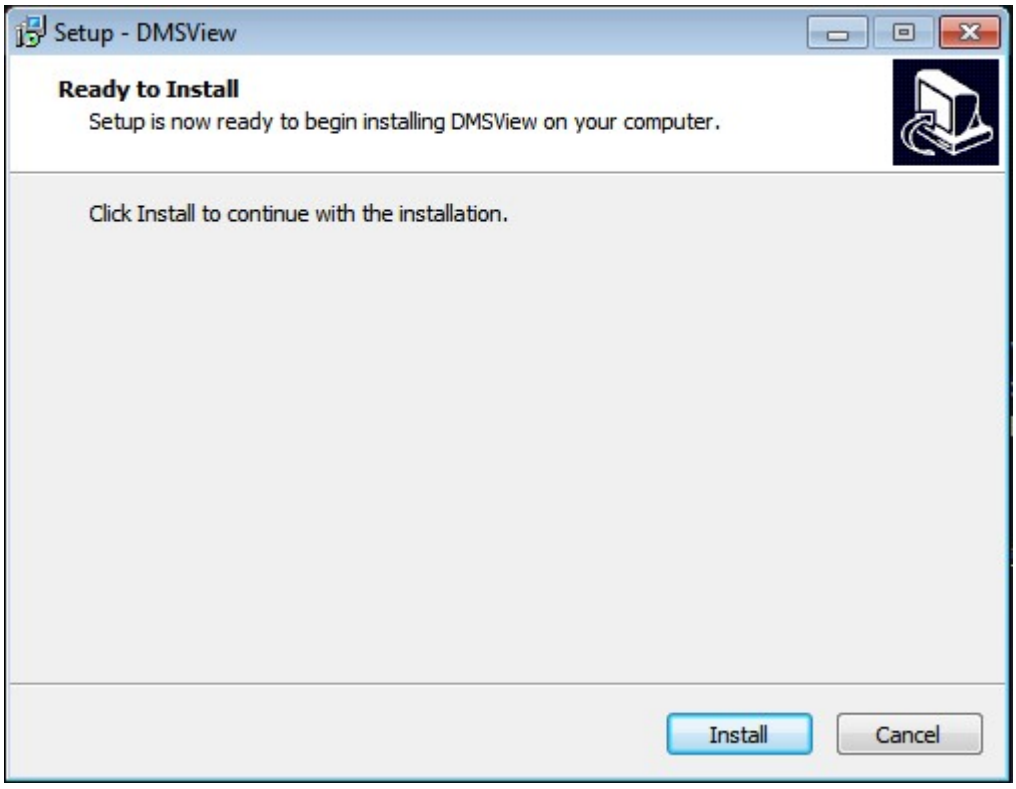


Figure 3-2-2 Installation of Active X plug-in unit

Notice: Download the ActiveX, if prompted to download is blocked, it is required to set the safety grade of the browser, thereby facilitating the installation of the plug-in unit. Open the IE browser, enter the menu [Tool/Internet Option/Safety/Self-Definition Grade…]; change “Active control and plug”, “download: in the set to be use or prompt; set the safety grade as “Safety grade-low”, show as Figure 3-2-1.

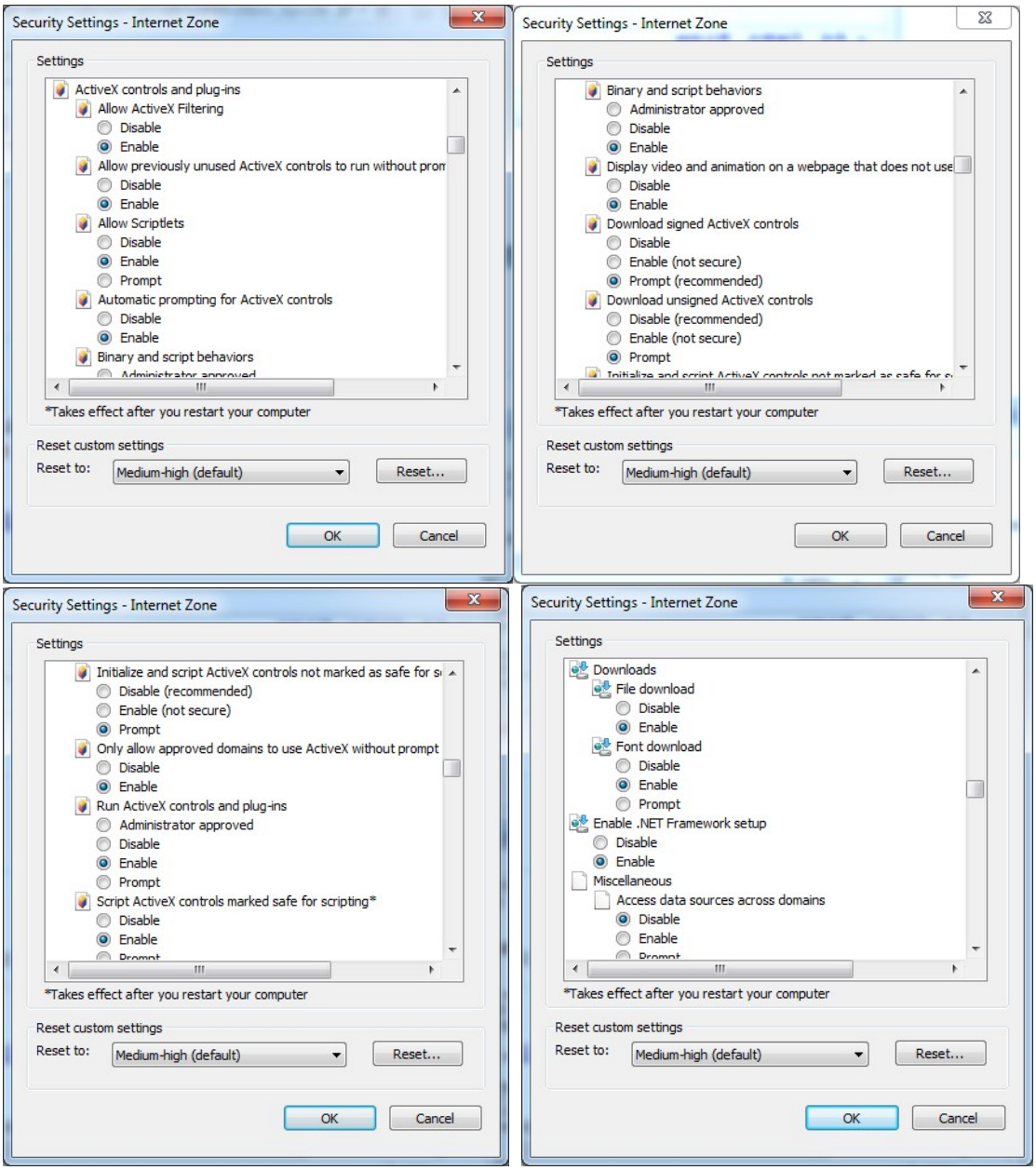


Figure 3-2-3 Safety grade set of IE

Step II: Login and preview

After the plug-in installation is complete, refresh the web and appears as shown in Figure 3-2-3, select Cancel download and install, are allowed to Run Add-on to load items.

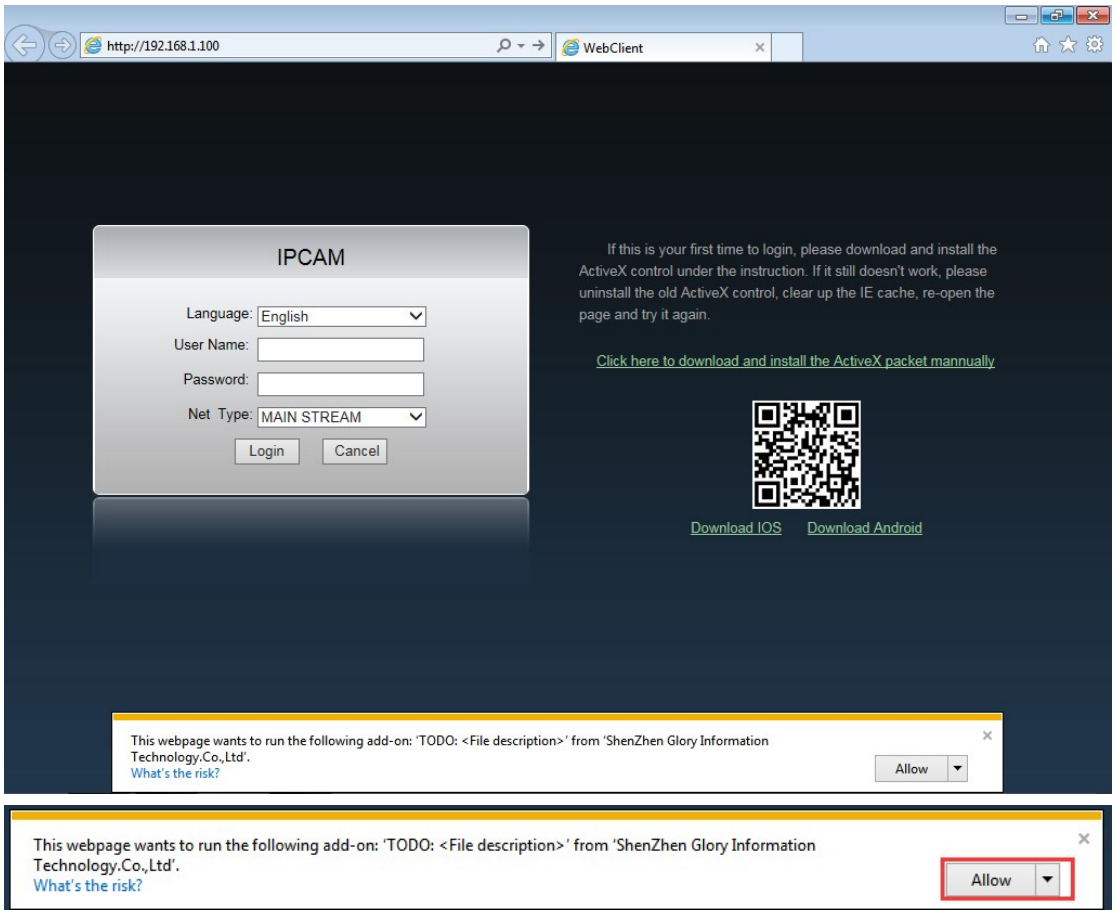
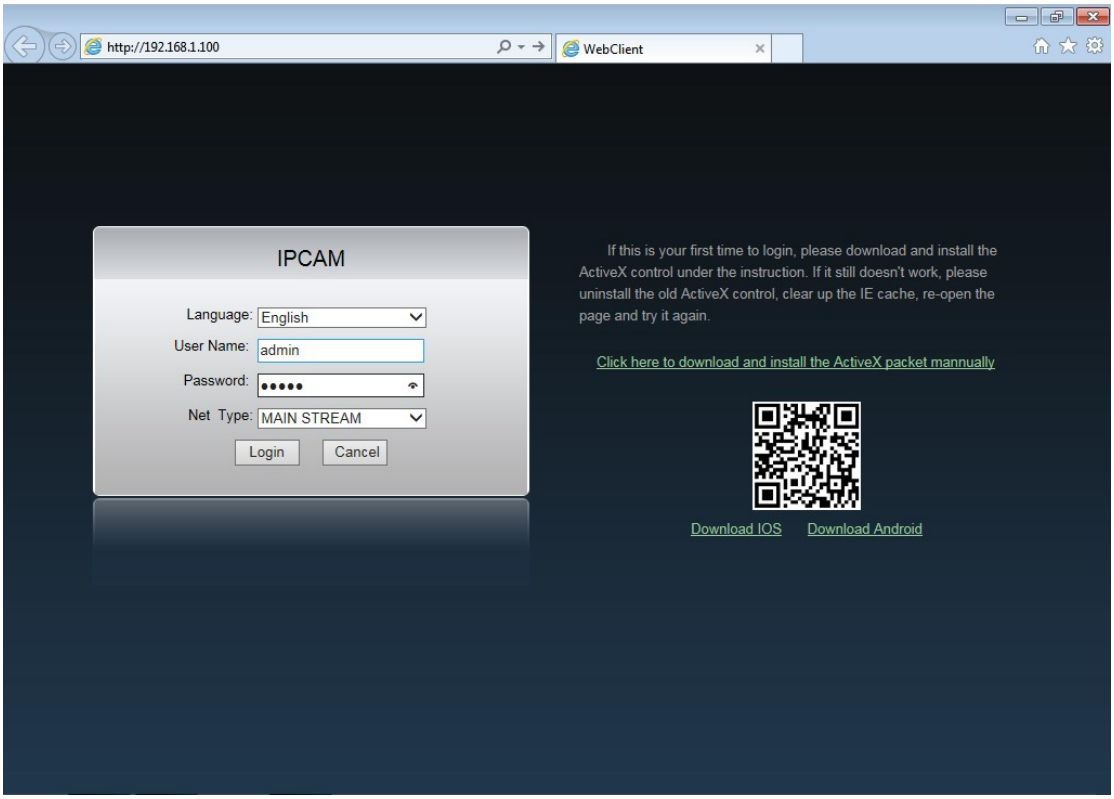


Figure 3-2-4 ActiveX Run Add-on

Input user name **(Default: Admin), password (Default: Admin), port number (Default: 80)** of the IP Camera on the IE interface, show it as Figure 3-2-4; press Enter in the keyboard, and preview the image.



Step IV: click the login button and enter the video previewing interface, show as Figure 3-2-5

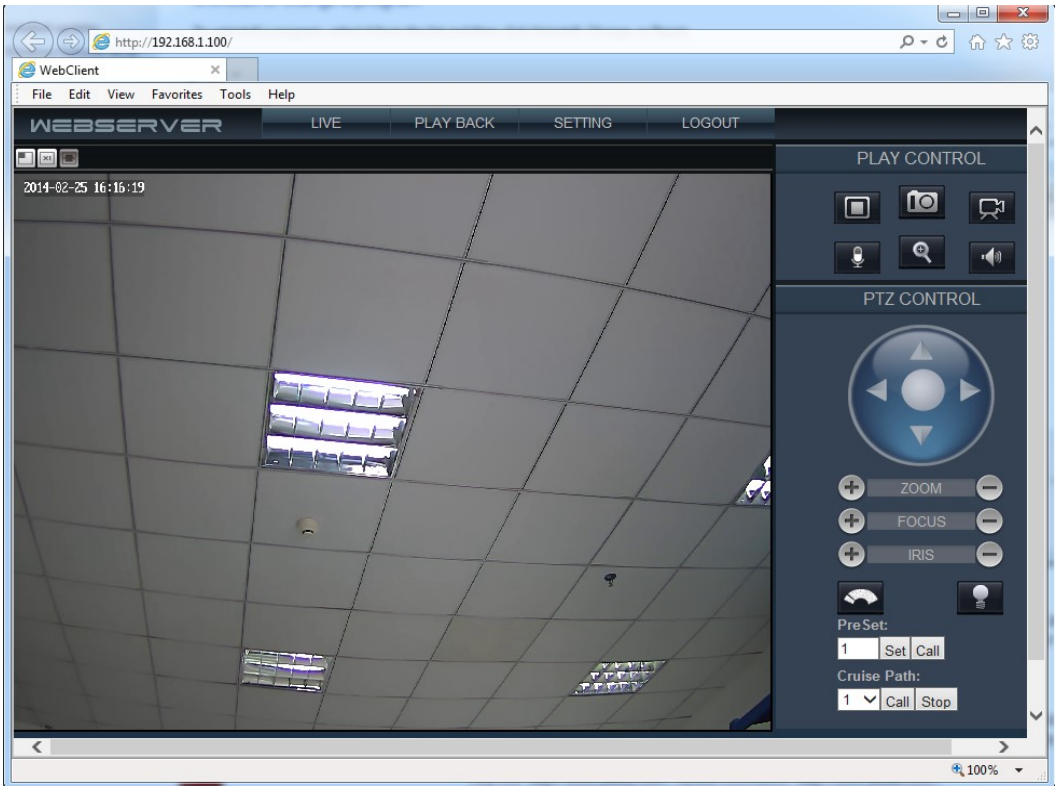


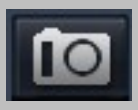
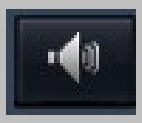
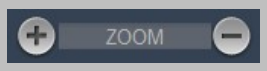
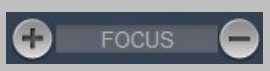
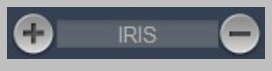
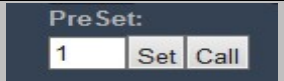
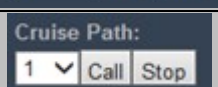
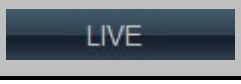
Figure 3-2-5 Preview interface

3.2.2 IE preview function

Perform the record, snapshot, talkback, holder, and other operations of the video image on the IE

real-time preview page

Description of interface function

Icon	Characters	Function description
	Open channel	Click this button, open the channel picture, or close the channel picture
	Snap	Click this button and snapshot the front video
	Record	Click this button and start/stop recording
	Talk	Click the button, start the talkback function with the front IP Camera
	Voice switch	Click this button and switch the turning on and off of the audio
	Wipper	Click the button and start the windshield wiper function
	Light	Click the button and start the lighting function
	PTZ Control	Automatically control all sides of the camera console
	Zoom	Amplify or zoom out the video image
	Focus	Adjust the focal length of lens
	Iris	Adjust size of aperture
	Preset of console	Set and call the preset position of the console
	Cruise path	Call and stop cruising route
	Real-time preview	Click this menu and switch to real-time preview interface

PLAY BACK	Playback	Click the button and switch to the record playback interface
SETTING	Set	Click the button and pop up the parameter setting dialog box
LOGOUT	Logout	Click the button and log out

3.3 Access through client

3.3.1 Installation of CMS

Double click the installation program document of the video monitoring management software, and appear the dialog box shown as Figure 3-3-1 below:

Select language to be used in the course of installing: simplified Chinese, English, Russian or Portuguese; click [OK] and click [Next] according to the prompt until the [Finish] button is appeared; click [Finish] and finish the installation.

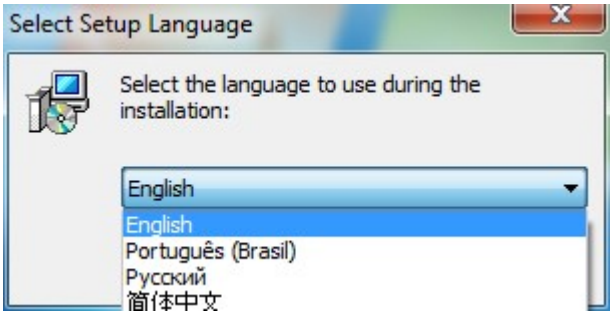


Figure 3-3-1 Language selection for client installation

3.3.2 Client preview image

After installing client NVClient_V6, click “NVClient” in the menu “Start” —→“Program” —→“NVClient_V6” of the Windows operation system, run the software, and pop up the user login interface, and then input user name and password (the default user name when the NVClient is used for the first time: admin; the password is empty), click [login] and enter the software interface. **(The detailed operation introduction of NVClient_V6 shall refer to *Video Surveillance Management Software*)**

Click the [Device Config]→ [Device] on the menu bar, pop up the dialog box of the equipment management

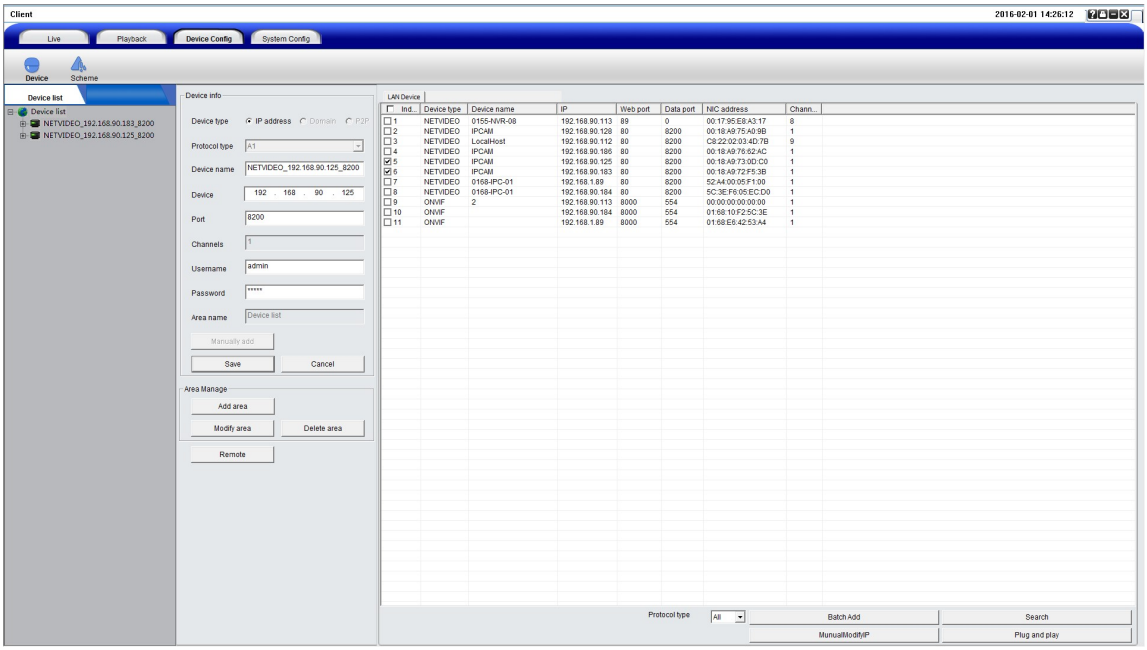


Figure 3-3-2 Equipment administration interface

The IP Camera adding method in the local LAN is as follows:

Method I:

Search adding:

Click [Search] button of [Device]

Step I: select equipment list node, and then select the equipment to be added from the search list, show as Figure 3-3-3; input the self-defined Device name, user name and password of user.

Step II: click [Apply] button on the [Device], add pointed equipment to the pointed equipment zone (click the equipment in the search list twice and directly add the equipment to the pointed equipment zone, wherein the added equipment user name and password clicked twice are admin)

Method I I:

Manually add:

Step I: select the equipment list node, click [Manually Add] once, show as Figure 3-3-3, and input the self-defined device name, device, port, channels, username and password of user.

Step II: click [Apply] button on the [Device], add pointed equipment to the pointed equipment zone

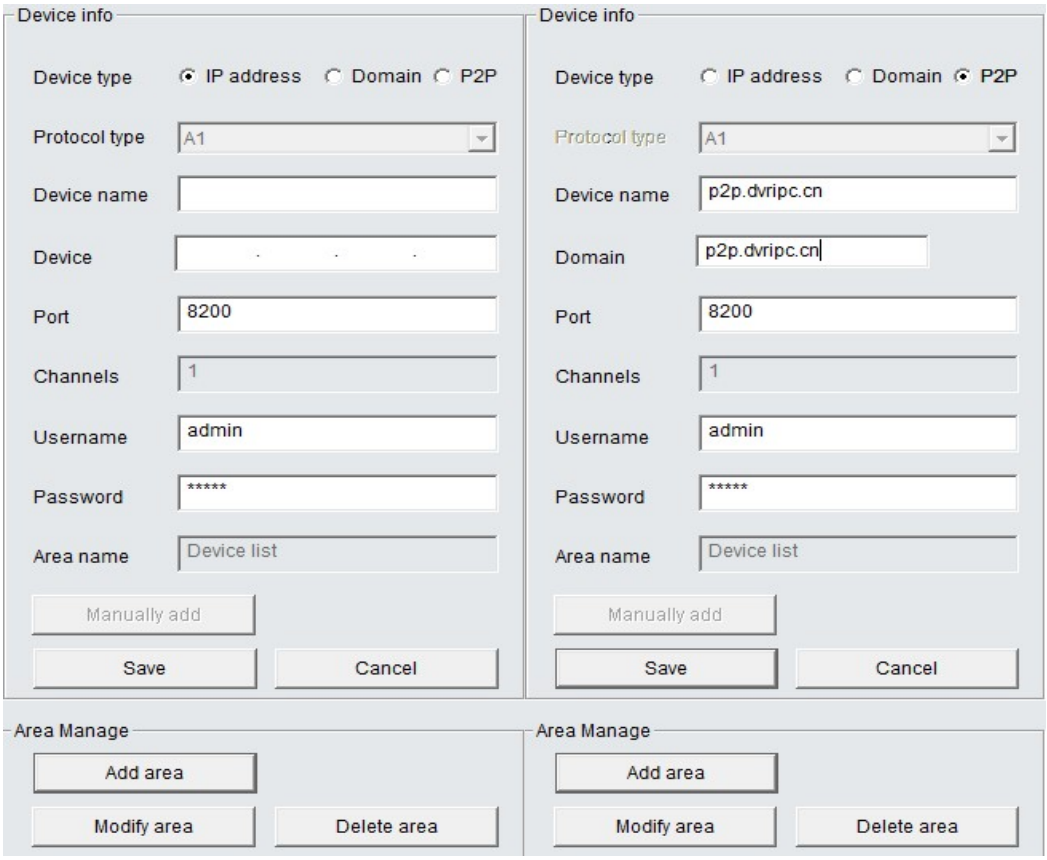


Figure 3-3-3 Add equipment by LAN

Figure 3-3-4 Add equipment by WAN

After adding equipment through method I or method II, return the software real-time preview interface, and double click the channel under the equipment in the equipment list, and then preview the video.

The adding method of IP Camera of WAN is as follows:

For the client software is only able to automatically search the network equipment in the local LAN, it is required to manually add IP Camera when user is required to intensively manage the Setting equipment,

The manual adding method of IP Camera includes the following steps:

Step I: select the equipment list node, click [Manually Add] once, show as Figure 3-3-4; input the Setting address (Fill IP address or domain name) of the equipment in the address bar; input user defined local name port number, channel number, user name, and password in the port, (The port number of equipment is defaulted as **8200,** the port can be customized and modified according to the data port in the network set; please check **Chapter 4.4 Network Setting for details)**

Step II: click [Apply] button on the [Device], and add the pointed equipment to the pointed equipment zone

After adding equipment, return the software real-time preview interface, click the channel under the equipment twice in the equipment list, and then preview the video.

4 IP Camera Parameter Setting

There are three methods to enter the IP Camera Setting parameter setting interface, the specific operation is as follows:

Method I: Access IP Camera through IE; after logging, click [SETTING] on the preview page and then enter the parameter setting interface of the IP Camera.

Method II: Add IP Camera through the video monitoring management software (CMS); after selecting the equipment, click the [Setting] on the software menu and enter the parameter setting interface of the IP Camera.

Method III: Add IP Camera through the video monitoring management software (CMS); select the equipment through the right button, click the [Setting] on the right button menu, and enter the parameter setting interface of the IP Camera.

4.1 Local Setup

Open [Settings] → [System Parameter] → [Local Setup]: set the storage path of local record and snapshot, network cache, image display method, and other parameter, show as Figure 4-1-1.

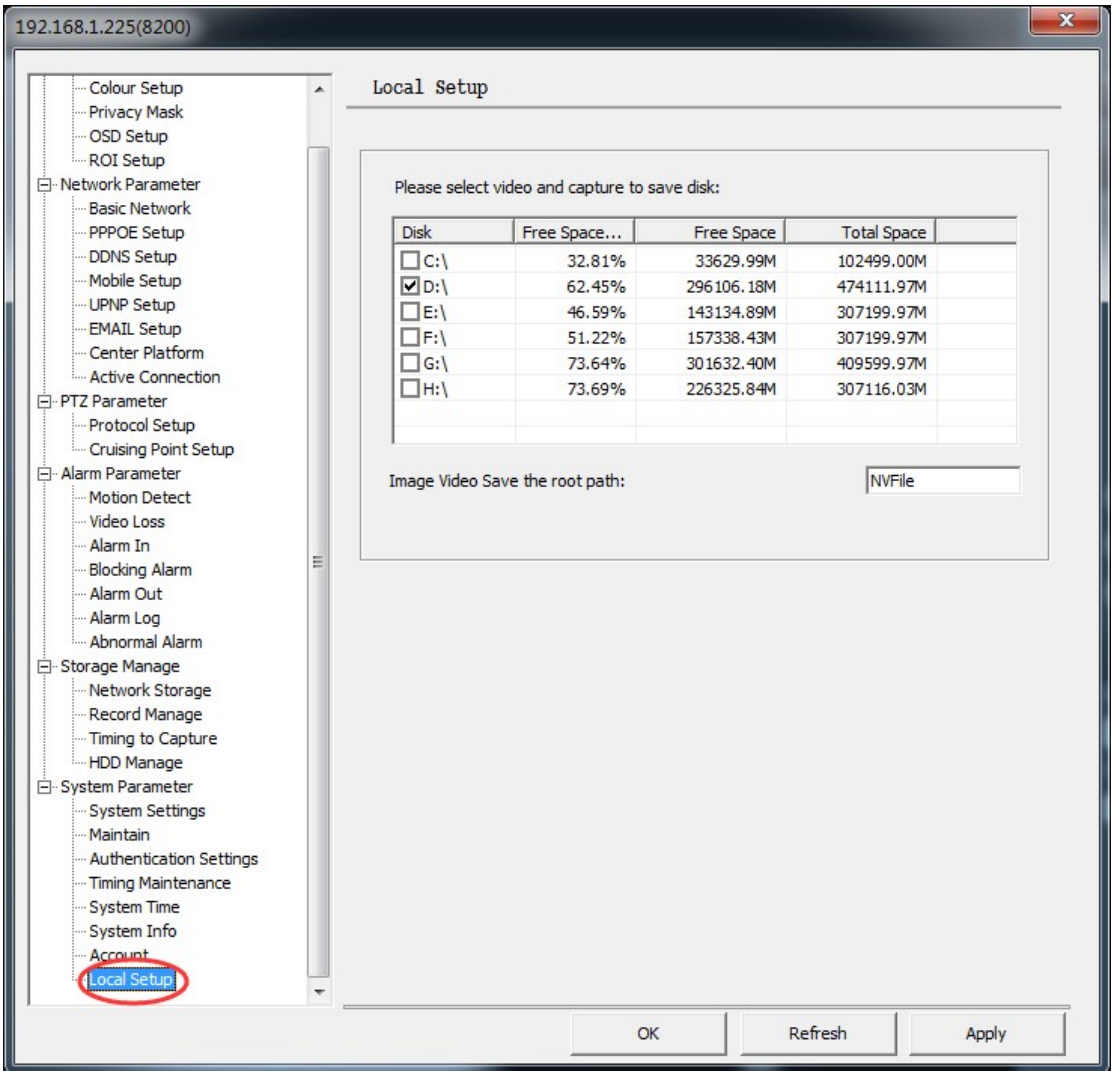


Figure 4-1-1 Local setting

Description of detailed parameter configuration:

[Record Disk Setup] Check the drive of the record to be stored from the magnetic disk list. It is defaulted as system disk D.

[Image Root Path] set the name of the image record storage root catalog as NVFile.

The storage path of the record document is defaulted as D:\NVFile\date, the preview screenshot storage path is defaulted as D:\NVFile\Capture.

4.2 Network Setup

4.2.1 Basic Network

Static IP

Open [Settings] →[Network Parameter] →[Basic Network]: set “IP Address”, “Mask”, “Gateway”,

"DNS Server", "Data Port", "Web Port", and "RTSP Port" of the IP Camera according to the actual demand; set the method of automatically obtaining the IP address.

Notice:

1. When the IP address is set, prevent the IP address from conflicting with the IP address of the other equipment of the LAN; the conflict of the IP address will cause that the equipment cannot login normally

2. After modifying the network parameter, click [OK] to modify; Please use the new IP address to log in again. By selecting 

(Use the following IP address), you can distribute one legal IP address manually on the IP address bar as Figure 4-2-1

[IP address] The IP address must be the only one and cannot conflict with the other any host or work station on the same one network section.

[Mask] is applied to classify the subnet section.

[Gateway] When the IP Camera is accessed by spanning the net section, the address is required to set.

[DNS] Analyze the server IP address of the dynamic IP address and set a correct DNS address after starting the DDNS function.

[Media port] The audio/video media port of IP Camera, wherein the port scope is 1025-66535, the defaulted value is 8200.

[Web port] The default value of the service port accessed by IP Camera WEB is 80; if the Settings is changed, it is required to input **http:// IP address:Web port** in the course of logging again.

[RTSP port] The default value of the RTSP port of the IP camera is 554, the RTSP port is applied to the video transmission of the RTSP protocol.

[Apply] When the Settings is finished, the Settings can be finished by clicking the button.

Do remember: after clicking [Apply]-[OK], Please use the set new IP address to log in.

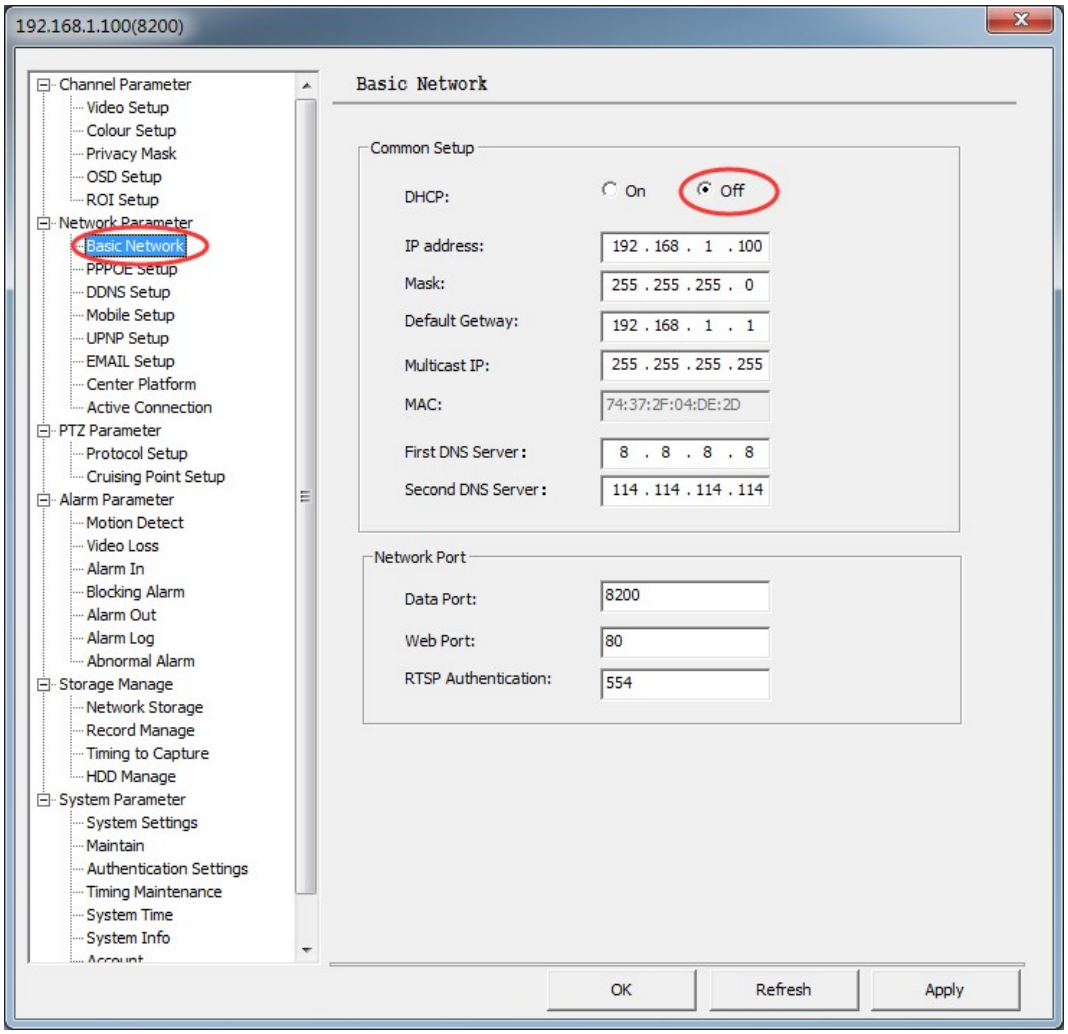


Figure 4-2-1 Network Settings

DHCP

Open[Settings]→[Network Parameter]→[Basic Network], select 

(Automatically obtain an IP address), click [OK] to modify; the IP Camera will automatically store and restart; after restarting, the equipment can obtain "IP address", "Mask", and "Gateway" through the DHCP server; the IP address can be checked through the search tool or the DHCP server.

4.2.2 PPPOE dialing

PPPoE configuration process

Step I: Open [Settings] →[Network Parameter]→ [PPPOE Setup]

Step II: Fill PPPoE [Username] and [Password] (obtained from the network server)

Step III: Click [Apply] once, store the parameter Settings so that the equipment can login the WAN through dialing directly.

4.2.3 DDNS Setup

Open [Settings] →[Network Parameter]→ [DDNS Settings],tick Enable DDNS (Enable DDNS), show as Figure 4-2-2.

Step I: Select the DDNS service provider, and then select the type of DDNS server address; ISP can choose MyEYE,3322, Dyndns, nightowldvr, no-ip; where MyEYE is Division I offer free domain.

Step II: default the DDNS server port as 80; not modify if the address of the server is 80 port.

Step III: input customized domain name, user name, and password.

Step IV: set the update cycle of domain name, where in the minimum cycle is 30 seconds, and the maximum cycle is 2 hours.

Step V: after confirming that the configuration is right, click [Apply],quit and store.

[DDNS Status] displays the current status of DDNS. "Success" represents DDNS network connection is successful;

"Network connect fail" indicates DDNS network connect fail, and this time you need to check whether the correct IP address of the network.

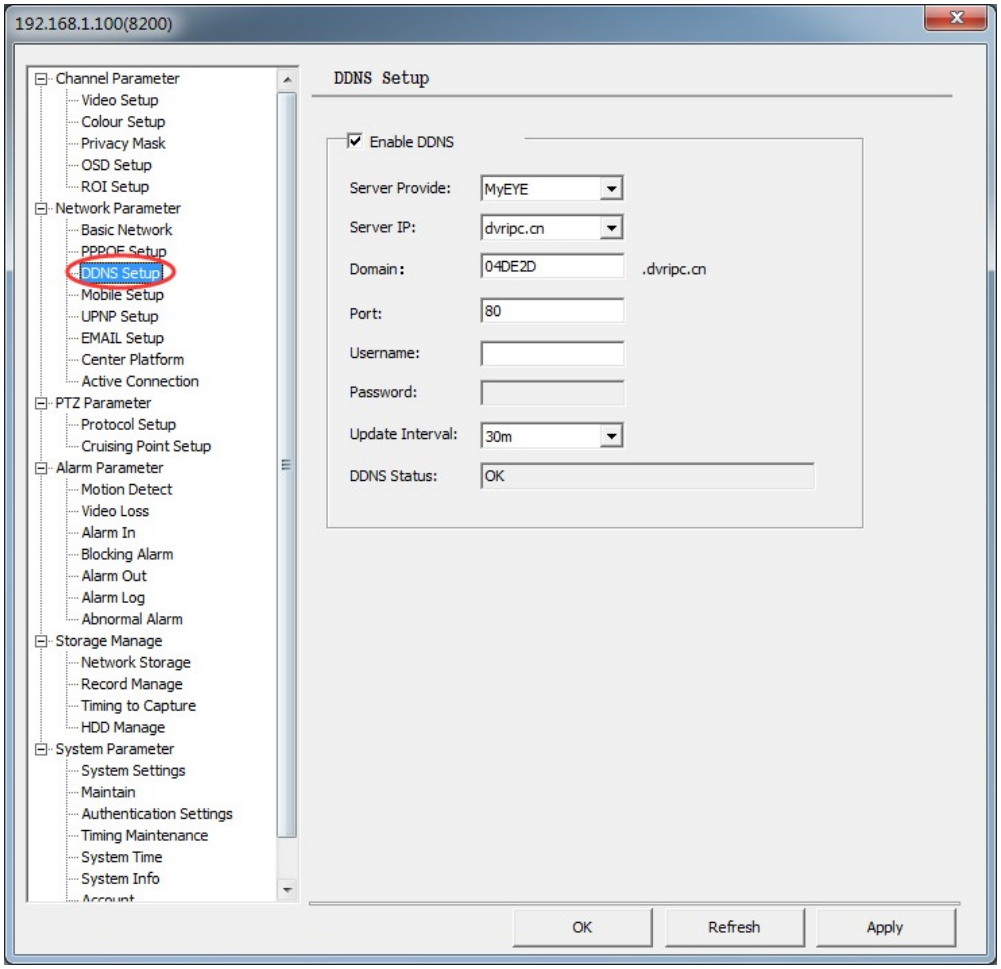


Figure 4-2-2 DDNS Setup

4.2.4 Mobile Setup

Open [Settings] →[Network Parameter]→ [Mobile Setup], show as Figure 4-2-3.

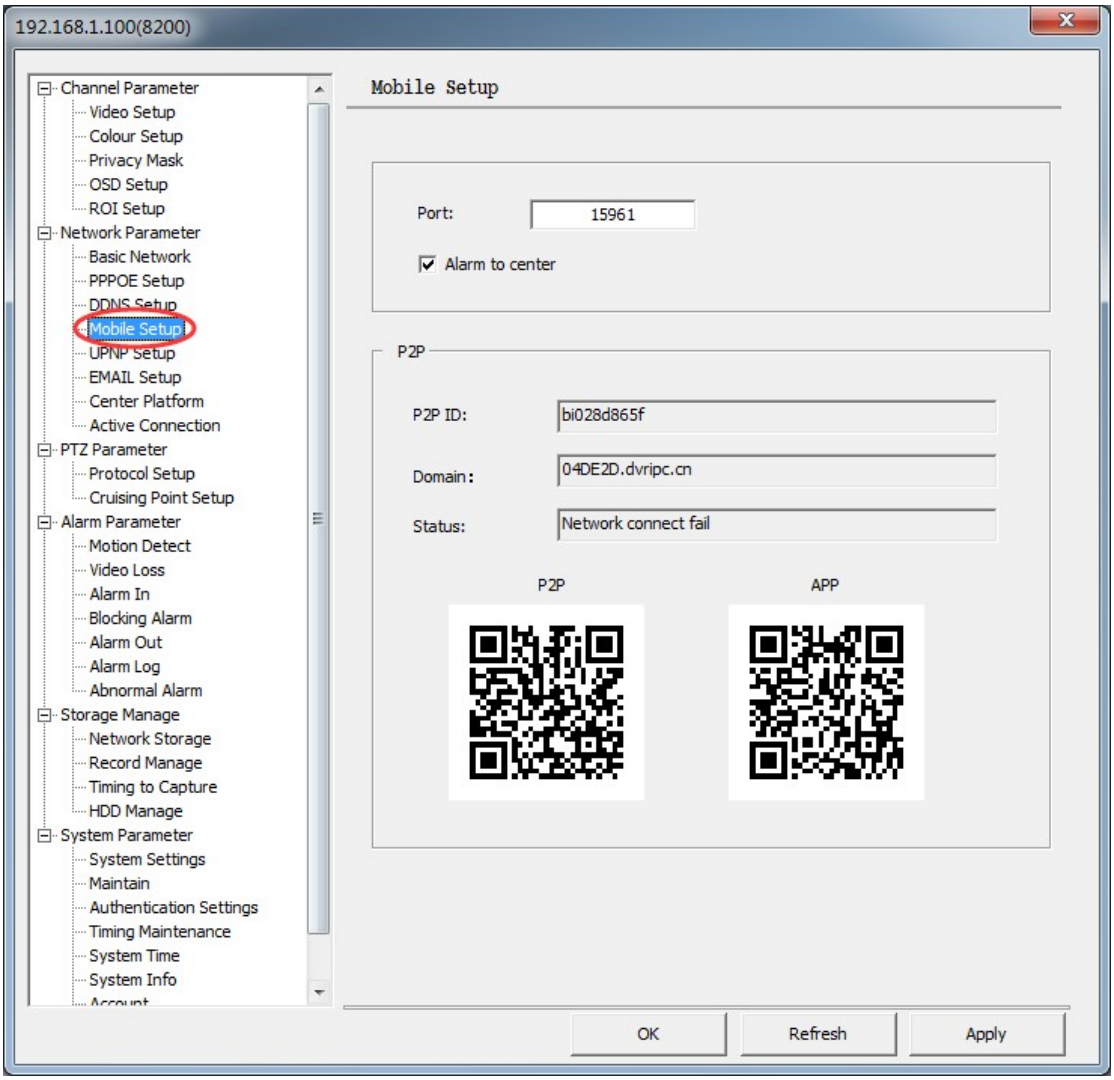


Figure 4-2-3 Mobile Setup

[Port] To set the phone port, using the IP address of the phone APP add, need this port

[Alarm Upload Center] APP phone to receive alarm push, we need to turn this feature on.

[P2P] Display device P2P ID, domain name, P2P state.

[Two-dimensional code] P2P: Mobile APP add devices to scan the two-dimensional code; IOS: IOS phone system scans this two-dimensional code to download mobile APP; Android: Android phone to scan the two-dimensional code to download mobile APP.

P2P domain names refer to the "**Appendix III MyEYE domain**"

4.2.5 UPNP Setup

After opening UPNP function, make you IP Camera achieve plug and play by cooperating with DDNS. The “UPNP Setup” mainly includes: **[Enable UPNP],[Work Mode],[Network Card Type],[Local data port],[Remote data port]**,And other Settings as shown in Figure 4-2-4:

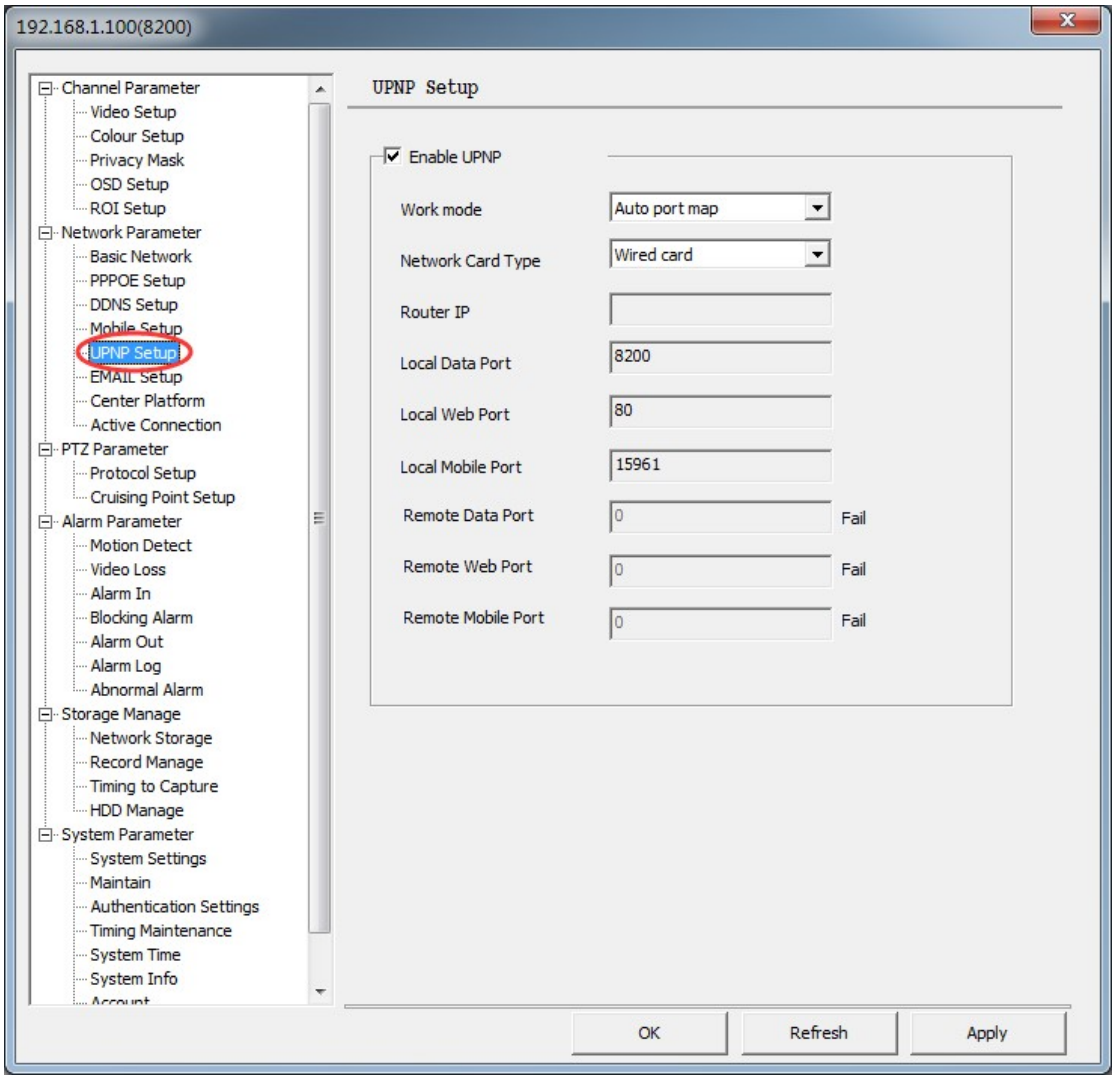


Figure 4-2-4 UPNP Setup

[Enable UPNP] The default of the camera does not use UPNP; when the UPNP function is going to use, choose [Enable UPNP]; select **[Work Mode]** and **[Network Card Type]** as required, and click **[Apply].**

[Work Mode] There are two optional working methods, which are automatic port mapping and manual port mapping; after Settings it to be automatic port mapping, the IP Camera can automatically distribute the mapping Settings port through the router; after Settings it to be the manual port mapping, it is required to manually set “Settings data port”, “Settings network port” and “Settings mobile phone port”.

[Network Card Type] Select wire network card or the wireless network card to achieve the UPNP function.

[Local data port] IP Camera local access port is required to set the local port in the network parameter.

[Remote data port] Display the port information of the Settings mapping or manually modify the Settings mapping port.

4.2.6 EMAIL Setup

Email alarm uploading means that when the alarm happens and it is required to send pictures to the Email, IP Camera will automatically send the alarm information and the snapshot pictures to the pointed Email.

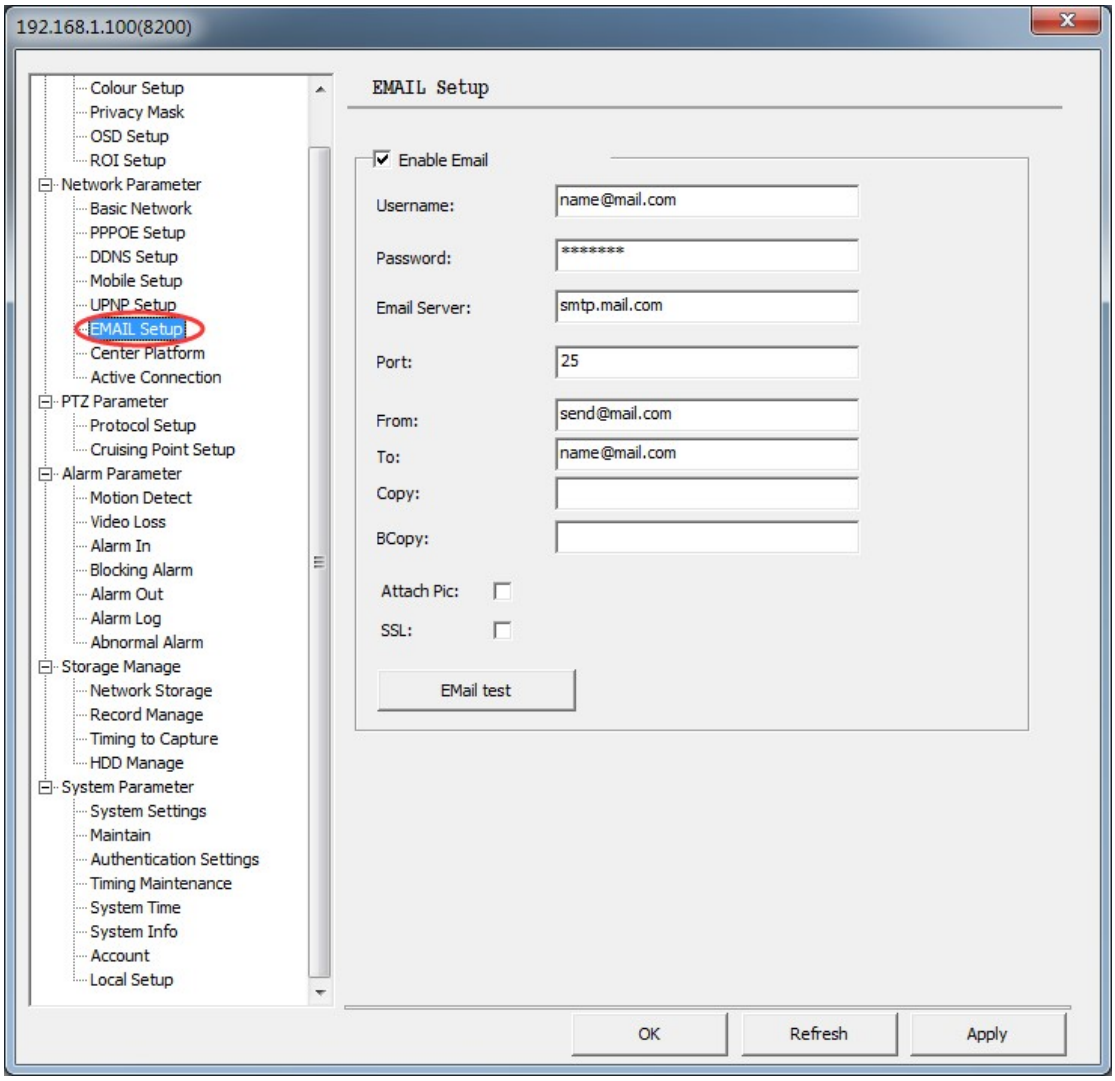
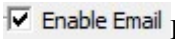


Figure 4-2-5 Email Setup

The Email Settings step:

Step I: open [Settings]→ [Network Parameter]→ [Email Setup] as Figure 4-2-5;



Enabling this feature.

Step II: set [Email server] and [Port],wherein the Email server refers to the Email server address used by the mailbox of the sender; the port number refers to the port of the Email server (if the port is unknown, please check it by logging in the official website of the Email server according to the set Email server At present, **it supports smtp.qq.com,smtp.sohu.com,smtp.163.com,smtp.126.com,smtp.sina.com,smtp.hotmail.com,smtp.gmail.com,smtp.yahoo.com,smtp.yeah.net, and other Email servers at home and abroad**

Step III: set [Username, Password],and input corresponding user name and password according to the mailbox of the sender.

Step IV: set sender, receiver, copy, blind carbon copy, attached picture

[From] refers to the mailbox address used by the sender, and sender use must fill it

[To] refers to the mailbox address used by the receiver, and receiver user must fill it

[Copy] refers to that the mail your wrote can send to the mailbox wrote at the copy bar except for the receiver, and receiver knows that you have sent the mail to him and the person with the mail address input to the copy bar.

[BCopy] refers to that the mail you wrote will be sent to the mailbox address at the blind carbon copy bar except for the receiver, but the receiver does not know that you have sent the mail to the person with the mail address input to the blind carbon copy bar.

[Attach Pic] this option represents that pictures are automatically snapshot when alarm happens and uploaded through Email, and receiver can check the snapshot pictures through the attachment.

[SSL] Enabled, the mail servers use SSL encryption to send.

[EMail test] Verify that the email settings are correct.

4.2.8 Center Platform

When users access the platform, front-end equipment required to set the parameter access center platform.

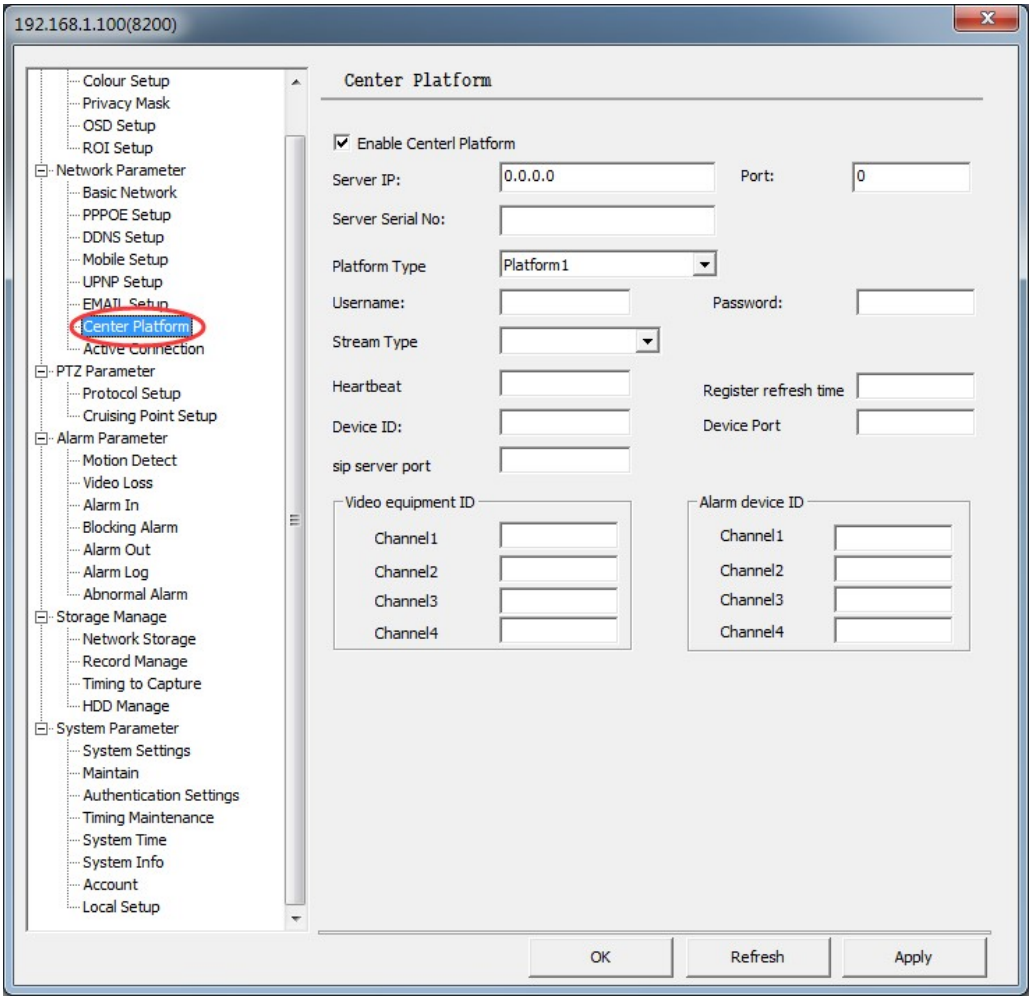


Figure 4-2-6 Center Platform

Platform 1: GB28181

4.2.8 Active Connection

Active connection refers to the camera active registered with the CMS client, need the V6 version CMS supports the use of this function.

Depending on the installation of the CMS PC host computer's IP address and port CMS settings active, enable and fill these two pieces of information, the time interval is set according to user needs. Click "OK" to complete the setup.

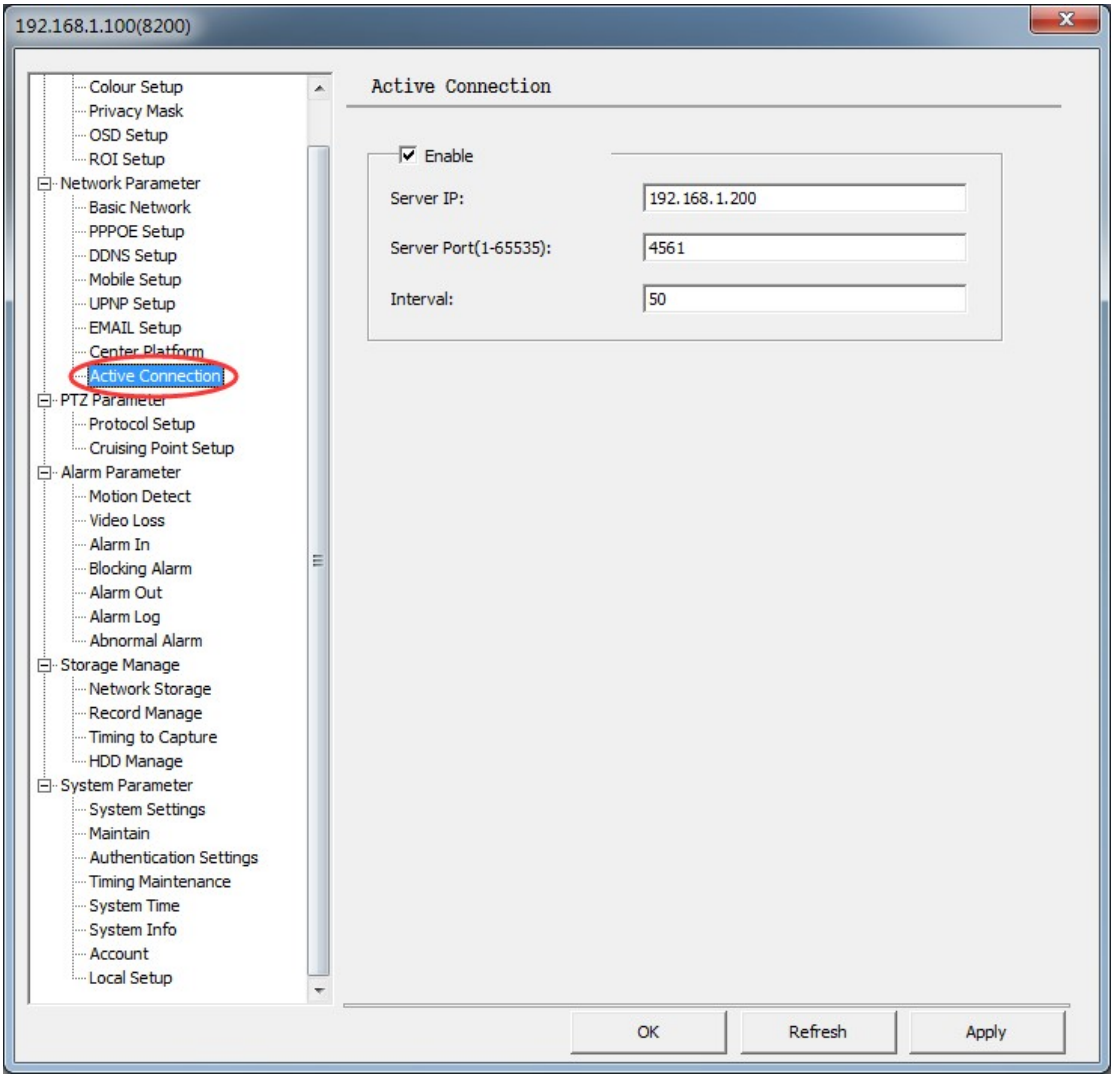


Figure 4-2-7 Active Connection

4.3 Channel Parameter

4.3.1 Video Setup

Open [Settings] →[Channel Parameter]→[Video Setup]: the channel Settings interface is shown as Figure 4-3-1; in this Settings option, configure the channel name, video code, audio parameter, and other options of the IP Camera.

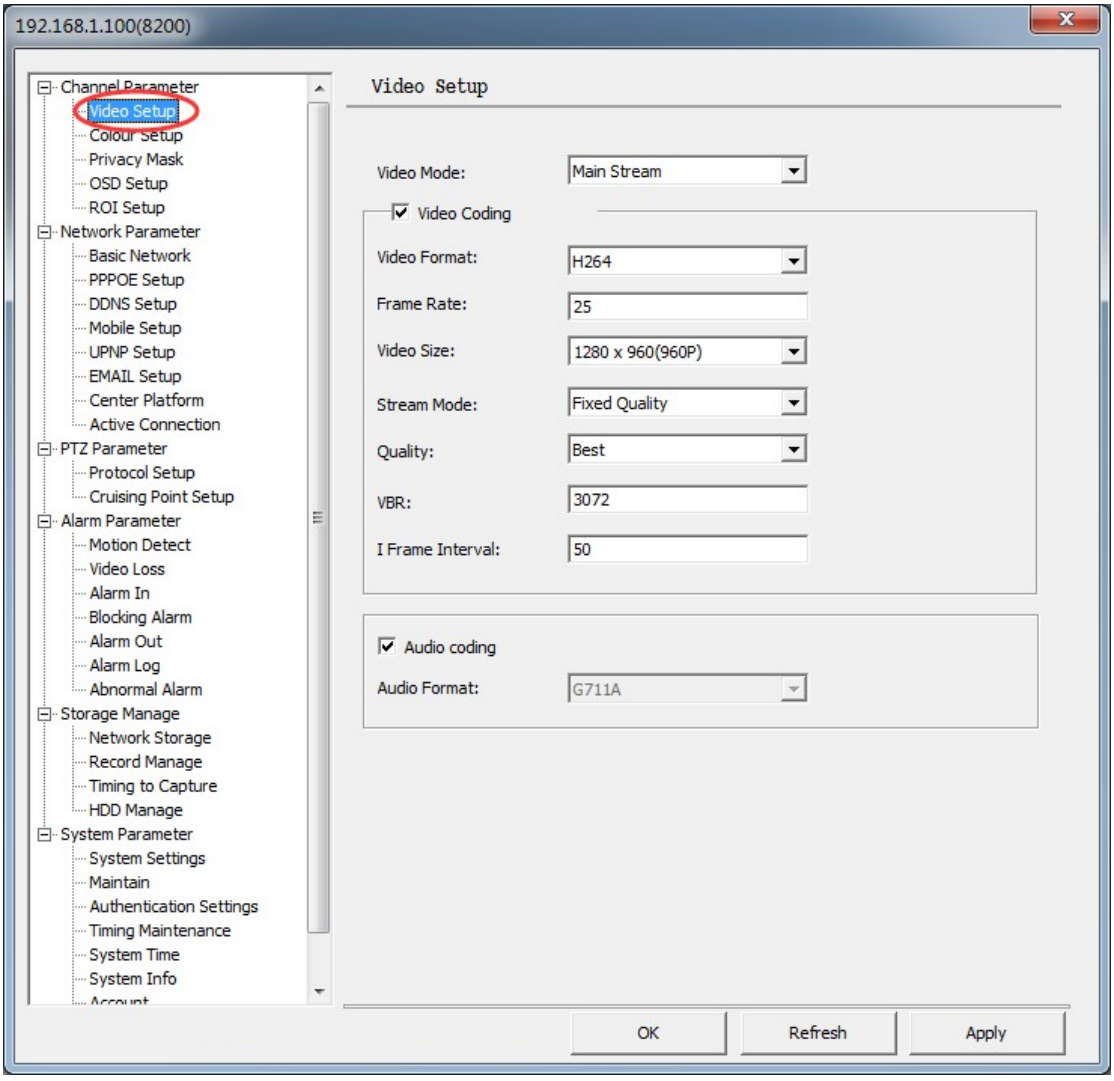


Figure 4-3-1 Video Setup

Description of option function

[Encode Mode] support three code streams, which are respectively: main stream, sub stream, and Mobile stream.

[Video Format] set the coding format, and support H.264, H.264_Baseline,MJPEG.

[Frame Rate] set the coding frame rate, which refers to the number of the pictures coded by the IP Camera per second. PAL format up to 25 frames; NTSC format up to 30 frames.

[Video size] set the picture size of the coded video of the IP Camera; perform the corresponding Settings according to the coding model

[Stream model] constant bit rate and constant quality are optional; when the constant bit rate is selected, the camera can code according to the set fixed code rate; when the constant quality is selected, code is carried out according to the [coding quality] option and the highest code rate
[Quality] five coding qualities can be selected, which are: best, good, normal, not so good, and bad
[Highest Byte] the IP Camera is coded according to the constant bit rate
[I frame interval],which refers to the number of the P frame or B frame between the key frames (I frames) in the frames (I frame, B frame, P frame) coded by the IP Camera, namely, one key frame is appeared until the number of the coded frame is enough.
[Code rate] the code rate refers to the number of the code stream coded by the coder per second, and is represented by bps or bit per second; the scope is continuous and adjustable from 16k to 20000k.

4.3.2 Color Setup

Open [Settings]→[Channel Parameter] →[Color Setup]: the color Settings interface is shown as Figure 4-3-2; in this Settings item, configure the video Lightness, Contrast ,Saturation, Hue, WDR, and other options of the IP Camera.

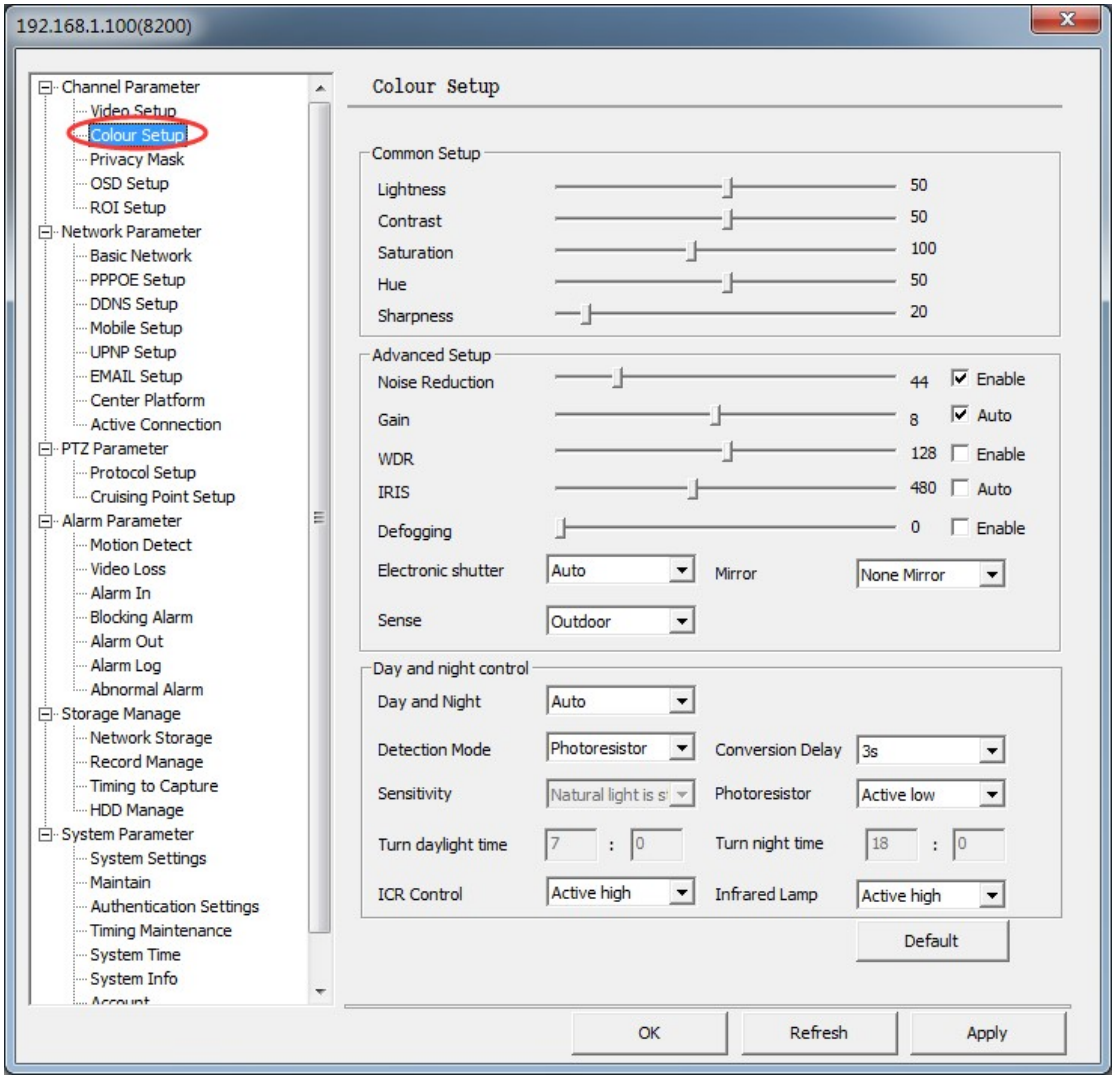


Figure 4-3-2 Color Setup

Introduction of option function

Common Setup

[Lightness] adjust the degree of brightness of the picture

[Contrast] adjust the ratio between the brightest and darkest zones of the picture

[Saturation] adjust the bright-colored degree of the color of the picture

[Hues] adjust the tone of the picture

[Sharpness] Adjust the definition of every fine image texture and its border on the picture

Advanced Setup

[Noise Reduction] adjust the digital noise value

[Gain] when automatic gain is opened, prompt small signal so that the noise electric level is correspondingly improved.

[WDR] the bright zone and dark zone, foreground and background of the picture can be saw clearly

[IRIS] adjust the amount of light of the lens of the automatic diaphragm

[Defogging] Some models support image defogging function

[Electronic shutter] The electronic shutter time is from 1/100s—1/200000s; the electronic shutter of the camera is ordinarily set to be automatic electronic shutter model; the shutter time can be adjusted according to the environmental brightness, thereby obtaining clear picture.

[Sense] the pull-down list has outdoor, indoor, manual and automatic options for choose

[Mirror] the pull-down list has Not Mirror, op-Bottom, Left-Right and Top-Bottom Left-Right

Day and night control

[Day and Night] Optional auto, Night, Day.

[Detection mode] Optional Automatic, Photoresistor, Video, Time

[Conversion delay] Optional Black and white conversion time can be set from 0 to 10 seconds

[Sensitivity] In the video detection mode, you can set the sensitivity

[Photoresistor] In the photosensitive resistance detection mode can be set Active low or Active high

[ICR control] According to ICR can be set high or low

[infrared lamp control] Can be set to high or low according to the type of infrared light

4.3.3 Video Blind

Open [Settings]→[Channel Parameter] →[Video Blind]: show as Figure 4-3-3.

Increase in the video image occlusion, can block some of the privacy of users. In the video and screenshots cannot show the blocked content.

Step 1: 

enable video-blocking function.

Step 2: the left mouse button and drag the image anywhere you want to draw a shaded area, the right mouse button to clear the area. the device supports only one block area.

Step 3: Click the 'Apply' can be in the live display video blind.

If you want to clear the blocked area, click on the "Clear", then click the 'Apply', you can remove video blind.

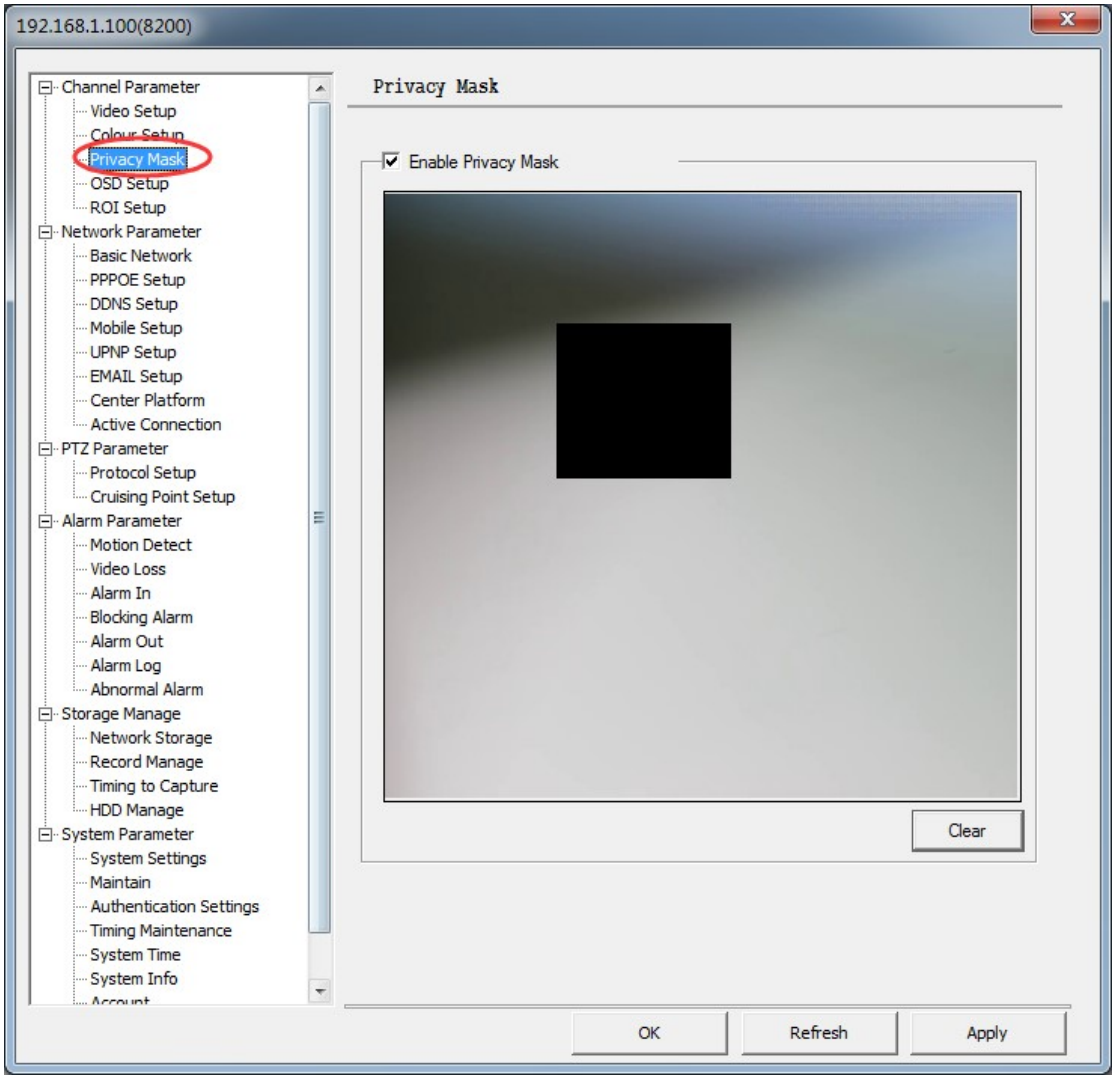
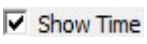


Figure 4-3-3 Video Blind

4.3.4 OSD Setup

OSD is the abbreviation of On Screen Display; the character superimposition in the video image to generate some special characters or figures, thus user can obtain some helpful information. The superimposition character time and content can be displayed in the course of recording and snapshot.



the represents that corresponding optional function is enabled; Enabled by default.
[Show time]: According to actual needs by the time position (X, Y) "X coordinate" and "Y coordinate" ,Select the display position. As shown in Figure 4-3-4. (X coordinate in the range of 0 ~ 704, Y coordinate ranges from 0 to 576), Click [Apply] ,to display the device current time in the live.

[Show Info]: According to actual needs by the Channel Name(X, Y) "X coordinate" and "Y coordinate" ,Select the display position. As shown in Figure 4-3-4. (X coordinate in the range of 0

~ 704, Y coordinate ranges from 0 to 576) , Click [Apply] ,to display the device channel name in the live.

[Custom name]: According to actual needs by the Channel Name(X, Y) "X coordinate" and "Y coordinate" ,Select the display position. As shown in Figure 4-3-4. (X coordinate in the range of 0 ~ 704, Y coordinate ranges from 0 to 576) , Click [Apply] ,to display the device channel name in the live.

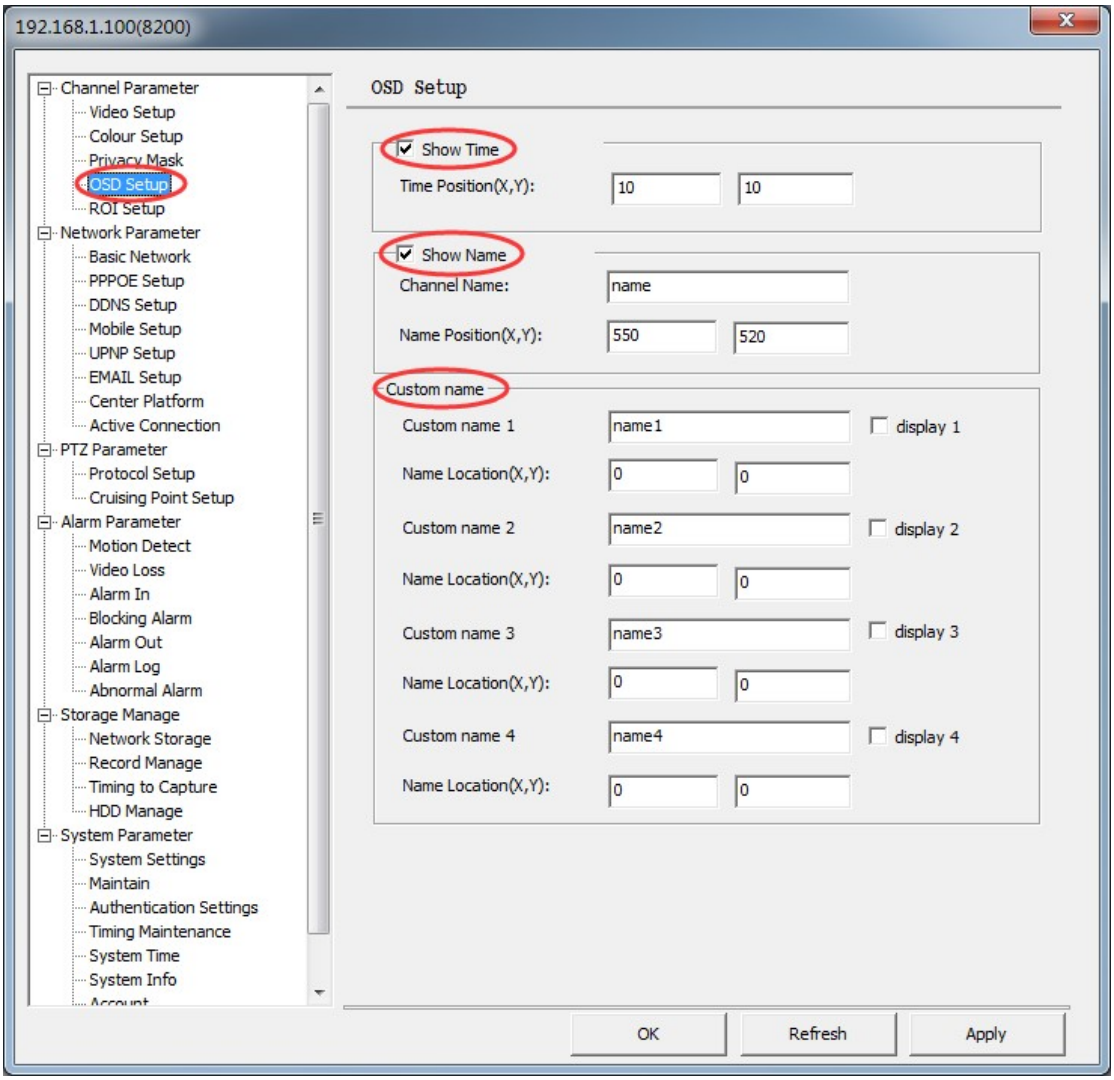


Figure 4-3-4 OSD Setup

4.3.5 ROI Setup

ROI is an area enhanced video clarity. Selective enhancement stream type area, enable ROI, custom name. Divided designated areas. Click [App]. ROI supports three area.

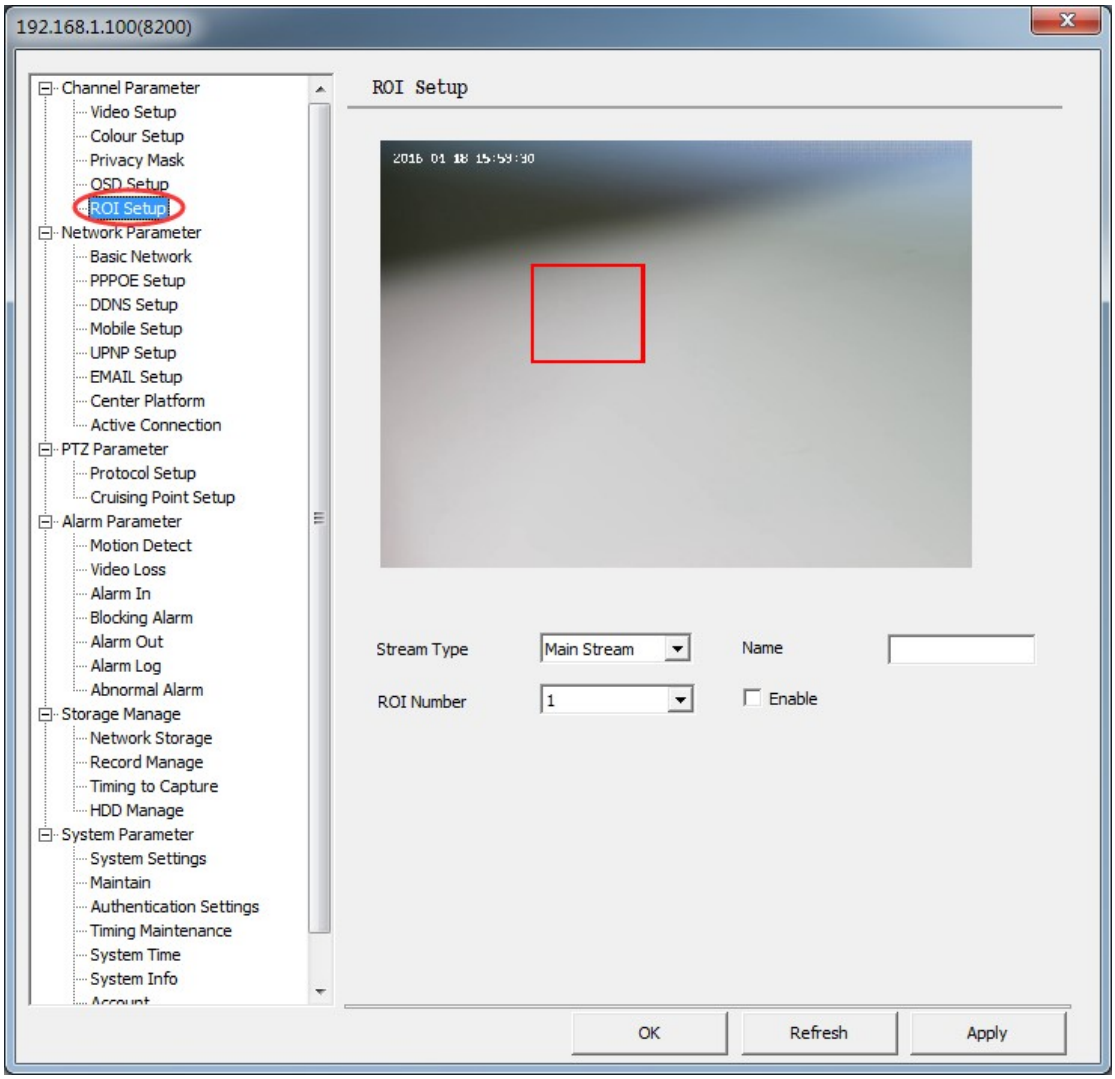


Figure 4-3-5 ROI Setup

4.4 PTZ

4.4.1 Protocol Setup

Open [Settings] → [PTZ Parameter] → [Protocol Setup]: All IP Cameras of this company support 13 types of common ptz protocols; the equipment for connecting the holder is required to set the parameter of the RS 485 interface at this option, such as the PTZ proto, address, Baud rate of the holder.

Settings steps:

Step I: please correctly set the protocol, address and Baud rate of a ball machine or the holder.

Step II: correctly connect the 485 communication line of the ball machine or the holder with the IP Camera 485 communication port.

Step III: set [Address],[Baud Rate],[Data],and [Stop bit]; correspond to the front ball machine or the holder.

Step IV: select your required protocol from the pull-down menu (matched with the ball machine or the holder); the server supports 13 types of common holder protocols; if the down-pull menu is free from your required protocol, you can upload your own protocol, the server supports transparent transmission, and is defaulted as pelco-d.

Step V: set [Speed],you can freely set the running speed of the ball machine here (0-64 optional) After confirming the right Settings of the holder, click [Apply],quit the "Settings" interface, and control the holder through the IE or client, Shown as Figure 4-4-1.

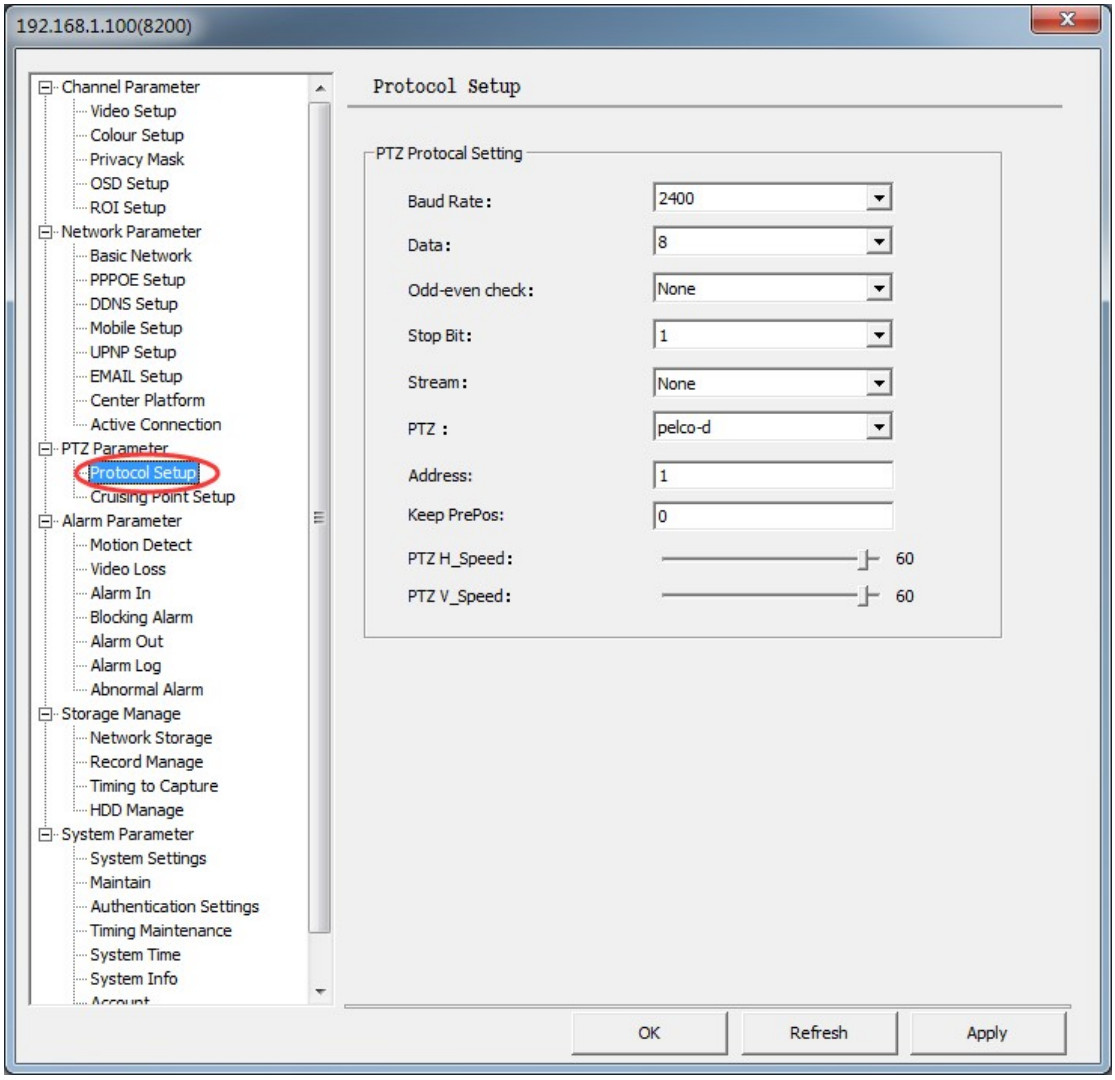


Figure 4-4-1 Protocol Setup

4.4.2 Cruise Setup

Open [Settings] → [PTZ Parameter] → [Cruising Point Setup], Double-click or right mouse button to enter the cruise path is set, you can add and delete cruise points.

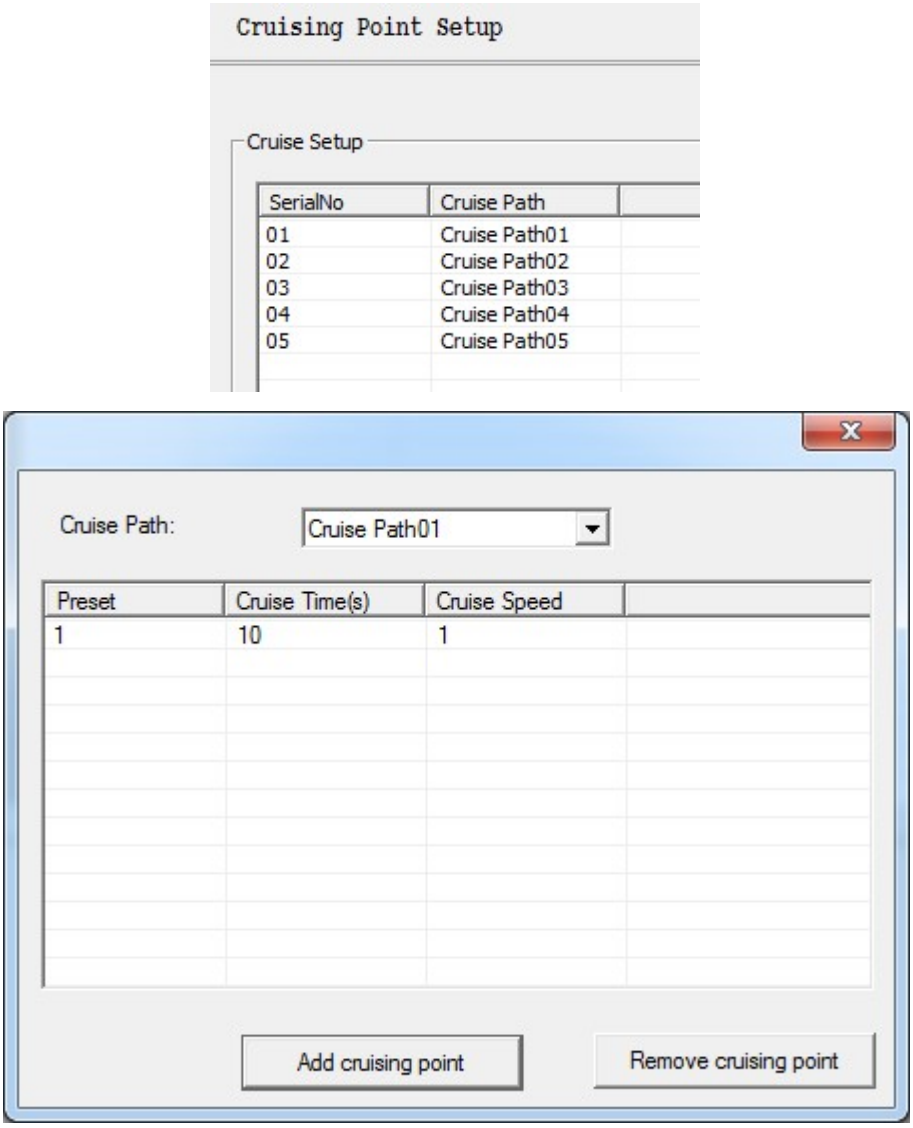


Figure 4-4-2 Cruising Point Setup

4.5 Alarm Parameter

4.5.1 Motion Detect

Open [Settings] →[Alarm Parameter] →[Motion Detect]

After using the video mobile alarm, when there is movement in the picture under the set zone and the set time, the IP Camera will perform the alarm treatment according to the set action, e.g. linkage snapshot jpg picture, linkage record, linkage probe output; send the alarm to the client, and then process it by the client according to the local Settings.

Set the video mobile alarm

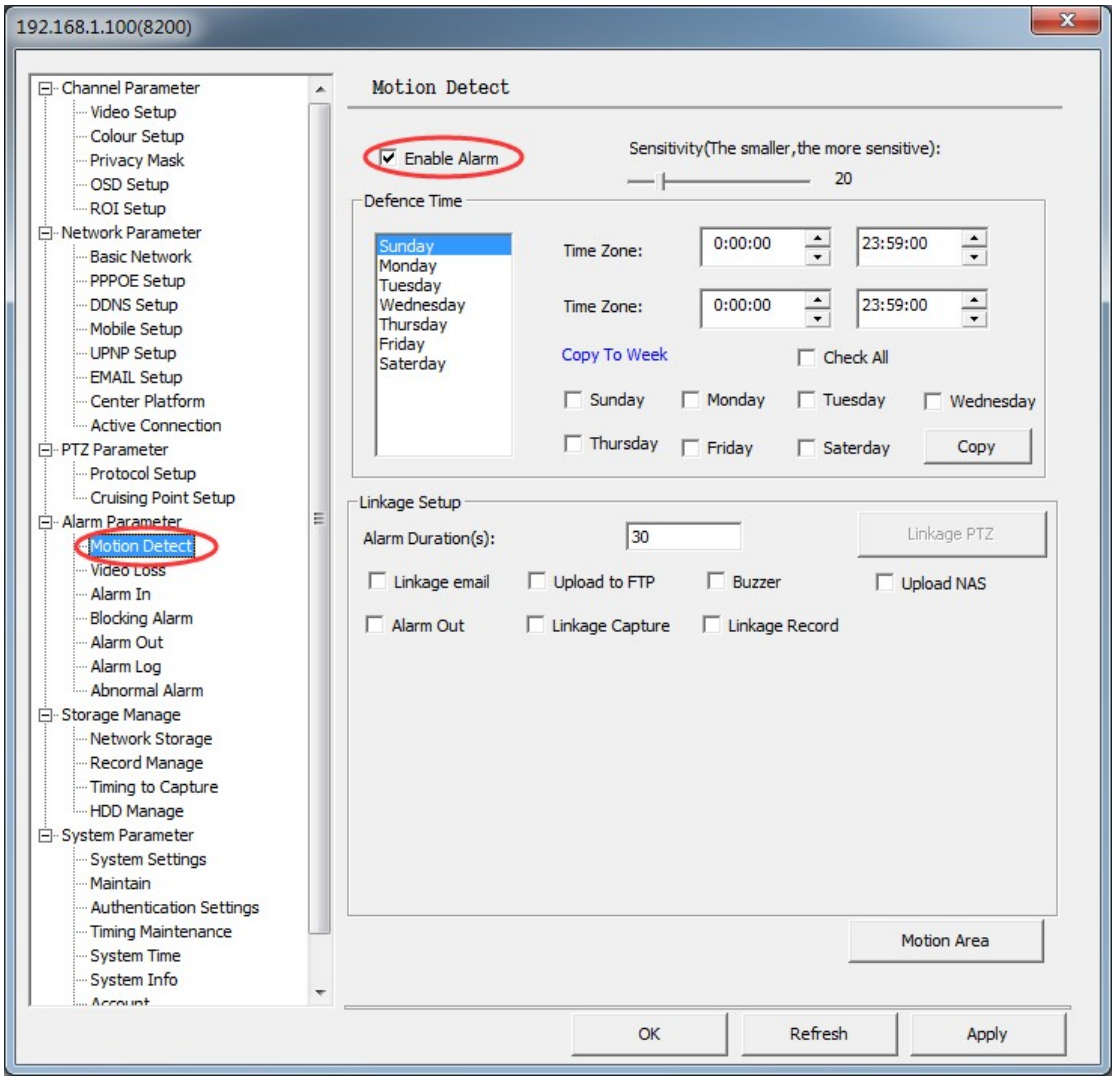


Figure 4-5-1 Motion Detect

Settings step is shown as Figure 4-5-1

Step I: Enable Alarm enable Motion Detect function.

Step II: set the alarm time section from the [Defence Time] option, select from Monday to Sunday or every day; And then set the deployment time section one and time section two (0:00:00-0:00:00 represents that it is not used during the deployment time section), You can quickly copy arming time.

Step III: set [Sensitive],wherein the numerical value of the sensitivity is smaller and the sensitivity is higher (5-100 optional), Default 20.

Step IV: set [Alarm clear time] (1-255 seconds optional)

The alarm eliminating time means that the time of the continuous alarm can automatically eliminate output; namely, the alarm interval time triggered again

Step V: tick [Linkage Setup] (optional); the trigger alarm is linkable; alarm output, alarm record, Upload to FTP, Linkage email, Linkage Capture, Upload NAS.

StepⅥ:Motion Area

In [Video Detect] option, click open [Motion Area] set the video detection area, as shown in Figure 4-5-2

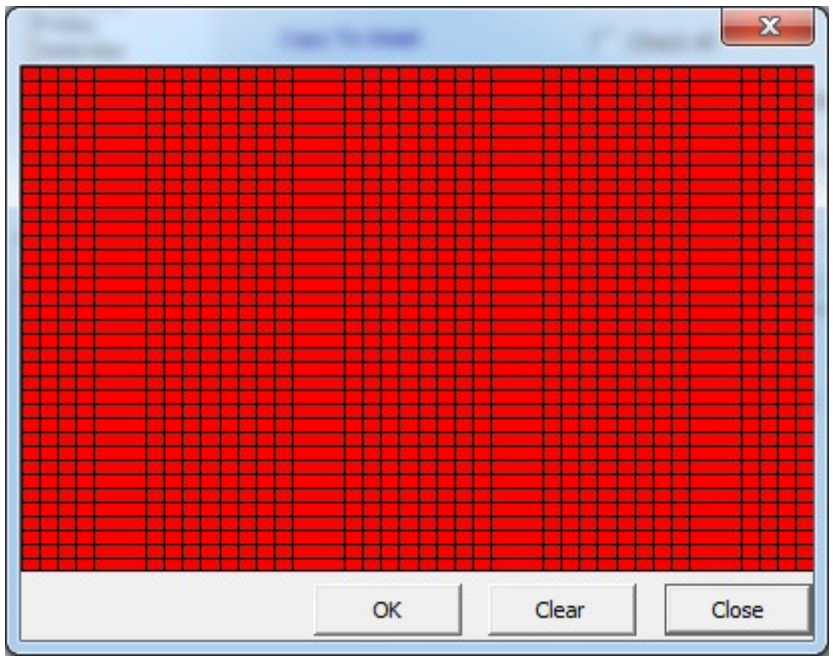


Figure 4-5-2 Motion Area

The picture is partitioned into 36 lines and 44 rows,1584 zones in total can set the dynamic detection; the system out of the set zone will not be detected dynamically; the red display represents that "the zone is picture dynamic detecting zone"; click the right button of the mouse and drag mouse in the picture, and then loose the right button of the mouse, thus the drawing of one zone is finished. Multiple zones can be drawn in the picture.

Setting Tips:

1. In order to avoid the movement of small matters in the picture and cause unnecessary alarm, set the sensitivity to be higher.
2. Set the sensitivity to be higher at the place with relatively frequent movement in case of frequently alarm
3. Set the sensitivity value to be lower if very refined movement alarm is required (except for very sensitive),it is recommended that the value of the sensitivity should be higher in the other cases.

Step VII: after confirming the right Settings, click [Apply] and quit the "Video Detect" interface.

Alarm Record Settings :Please check 4.6.4 Alarm Record Settings.

4.5.2 Video Loss

IP Camera does not support video lost, this function can only take effect in the DVS device settings.

4.5.3 Alarm In

Alarm In Setup:

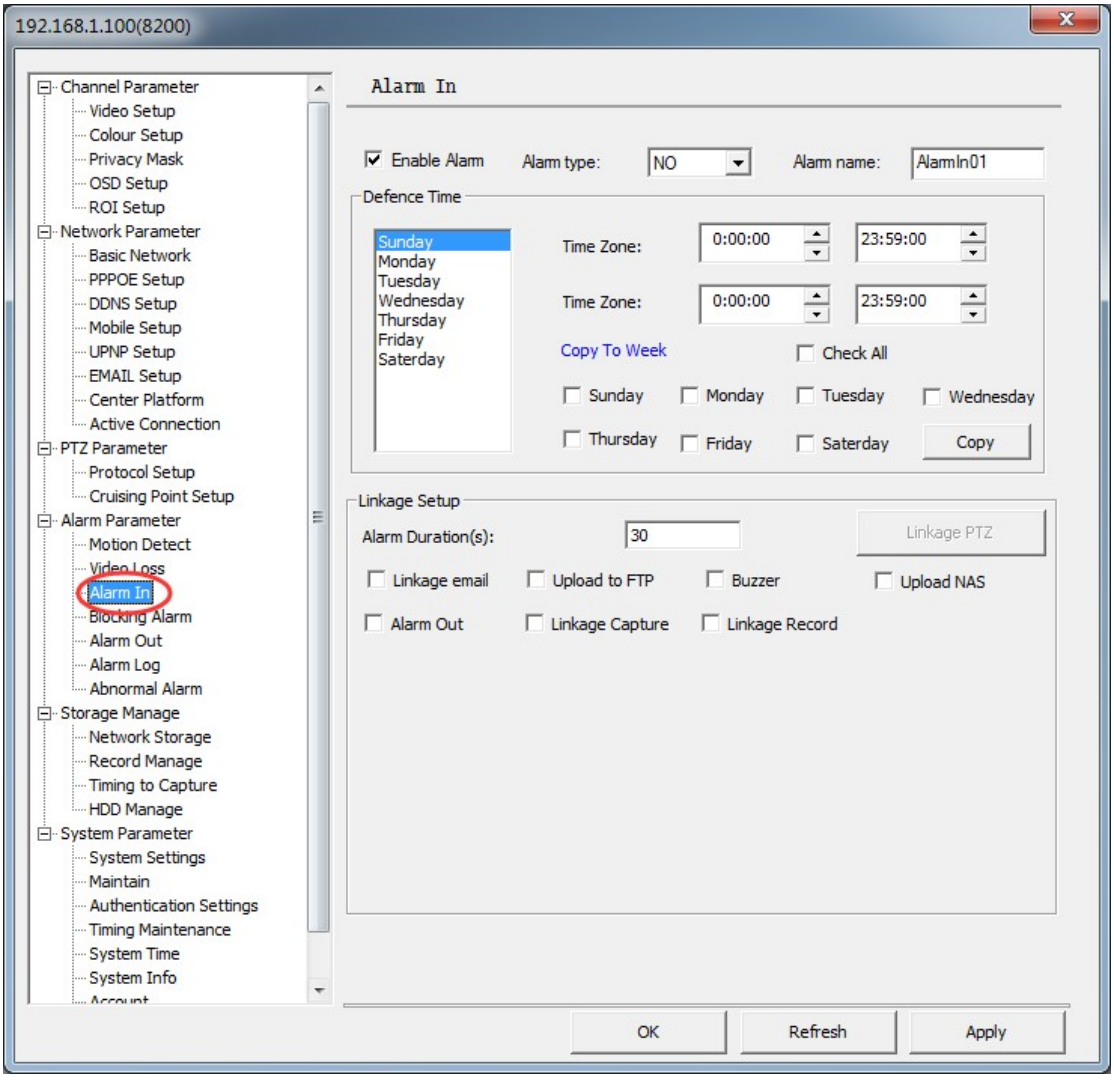


Figure 4-5-3 alarm input

Step I: hardwire connection, correctly connect the alarm input device to the alarm input interface of the IP Camera

Step II: open [Settings] → [Alarm Parameter] → [Alarm In], as shown in Figure 4-5-3

Step III: according to the type of the accessed probe, select [Alarm Type],and customize the [Alarm Name].

Step IV: Enable Alarm enable Alarm function., select from Monday to Sunday or every day; And then set the deployment time section one and time section two (0:00:00-0:00:00 represents

that it is not used during the deployment time section), You can quickly copy arming time.

Step V: set [Alarm Duration] (1-255 seconds optional); the alarm release time means that the alarm lasts to the set time and then automatically eliminates the output, namely the alarm interval time triggered again.

Step VI: tick [Linkage Setup] (optional); the trigger alarm is linkable; alarm output, alarm record, Upload to FTP, Linkage email, Linkage Capture, Upload NAS.

Alarm Record Settings :Please check 4.6.4 Alarm Record Settings.

4.5.4 Blocking Alarm

open [Settings] → [Alarm Parameter] → [Blocking Alarm]

After using the video mobile alarm, When the image occurs in the setting area and set time completely blocked or missing objects, the IP Camera will perform the alarm treatment according to the set action, e.g. linkage snapshot jpg picture, linkage record, linkage probe output; send the alarm to the client, and then process it by the client according to the local Settings.

Set the video blocking alarm

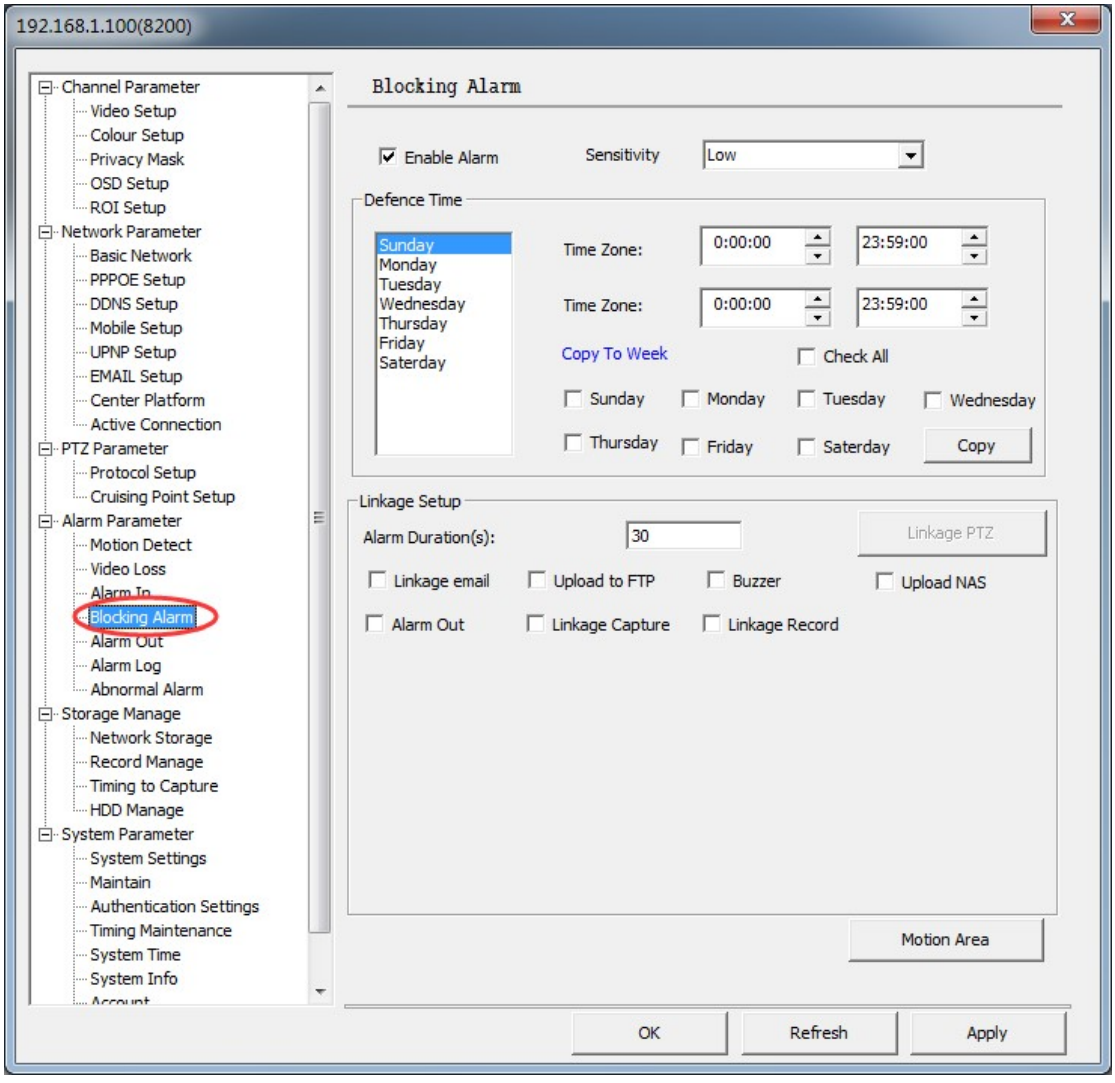


Figure 4-5-4 Blocking Alarm

Settings step is shown as Figure 4-5-5

Step I: ☑ Enable Alarm enable Blocking Alarm function.

Step II: set the alarm time section from the [Defence Time] option, select from Monday to Sunday or every day; And then set the deployment time section one and time section two (0:00:00-0:00:00 represents that it is not used during the deployment time section), You can quickly copy arming time.

Step III: set [Sensitive], Default low. Can be adjusted according to the demand, have high, middle and low three sensitivity,

Step IV: set [Alarm clear time] (1-255 seconds optional)

The alarm eliminating time means that the time of the continuous alarm can automatically eliminate output; namely, the alarm interval time triggered again

Step V: tick [Linkage Setup] (optional); the trigger alarm is linkable; alarm output, alarm record, Upload to FTP, Linkage email, Linkage Capture, Upload NAS.

StepⅥ:Motion Area

In [Video Detect] option, click open [Motion Area] set the video detection area, as shown in Figure 4-5-5

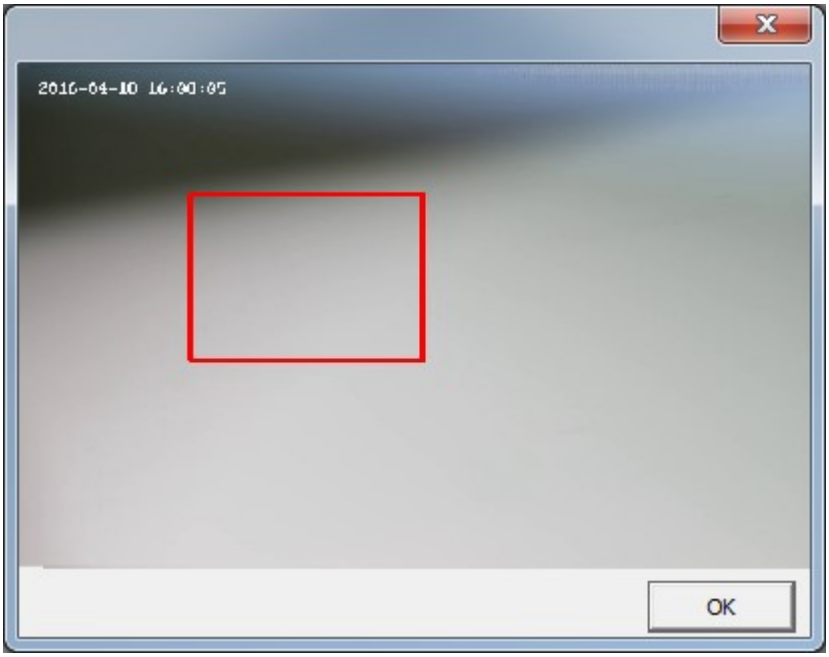


Figure 4-5-5 Blocking Alarm Area

Blocking area divided area with the mouse, the red rectangle area is effective within the area.

Setting Tips:

1. In order to avoid the movement of small matters in the picture and cause unnecessary alarm, set the sensitivity to be higher.

2. In order to avoid the moving object in the image, resulting in unnecessary blocking alarm, blocking alarm trigger condition is completely obscured, blocking area and keep out of more than 3 seconds time will trigger.

Step VII: after confirming the right Settings, click [OK] and quit the “Video Detect” interface.

Alarm Record Settings :Please check 4.6.4 Alarm Record Settings.

4.5.5 Alarm output

Open [Settings] →[Alarm Parameter] →[Alarm Out], as shown in Figure 4-5-6:

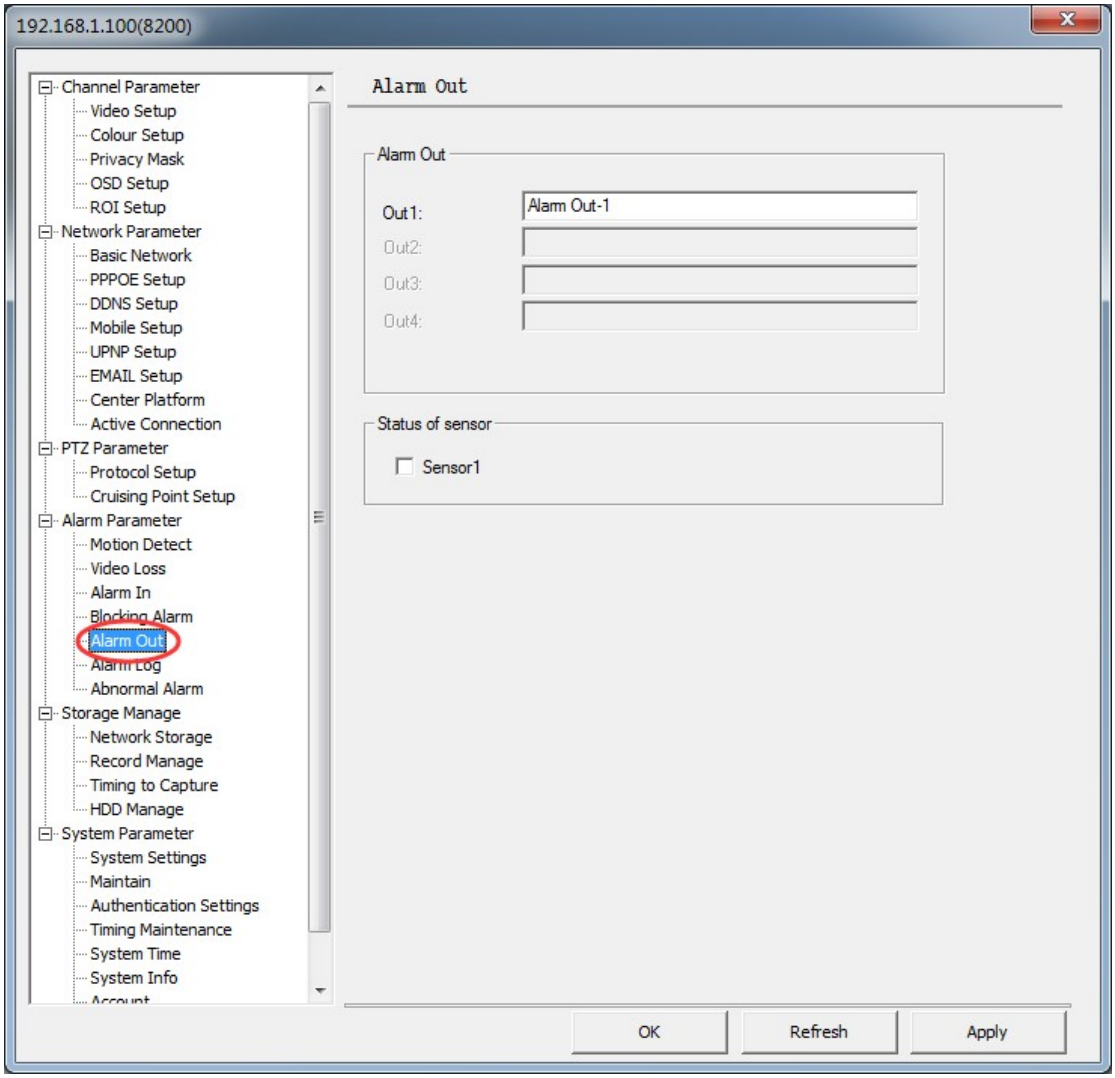
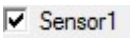


Figure 4-5-6 Alarm output

[Output1] customize the name of the switch and also can select default

[Status of sensor] Status of sensor,  Expressed alarm output is enabled

4.5.6Alarm Log

Open [Settings] → [Alarm Parameter] → [Alarm Log]; check the probe alarm information, mobile detecting alarm information, abnormal error of mobile disk, and other information in real time. as shown in Figure 4-5-7:

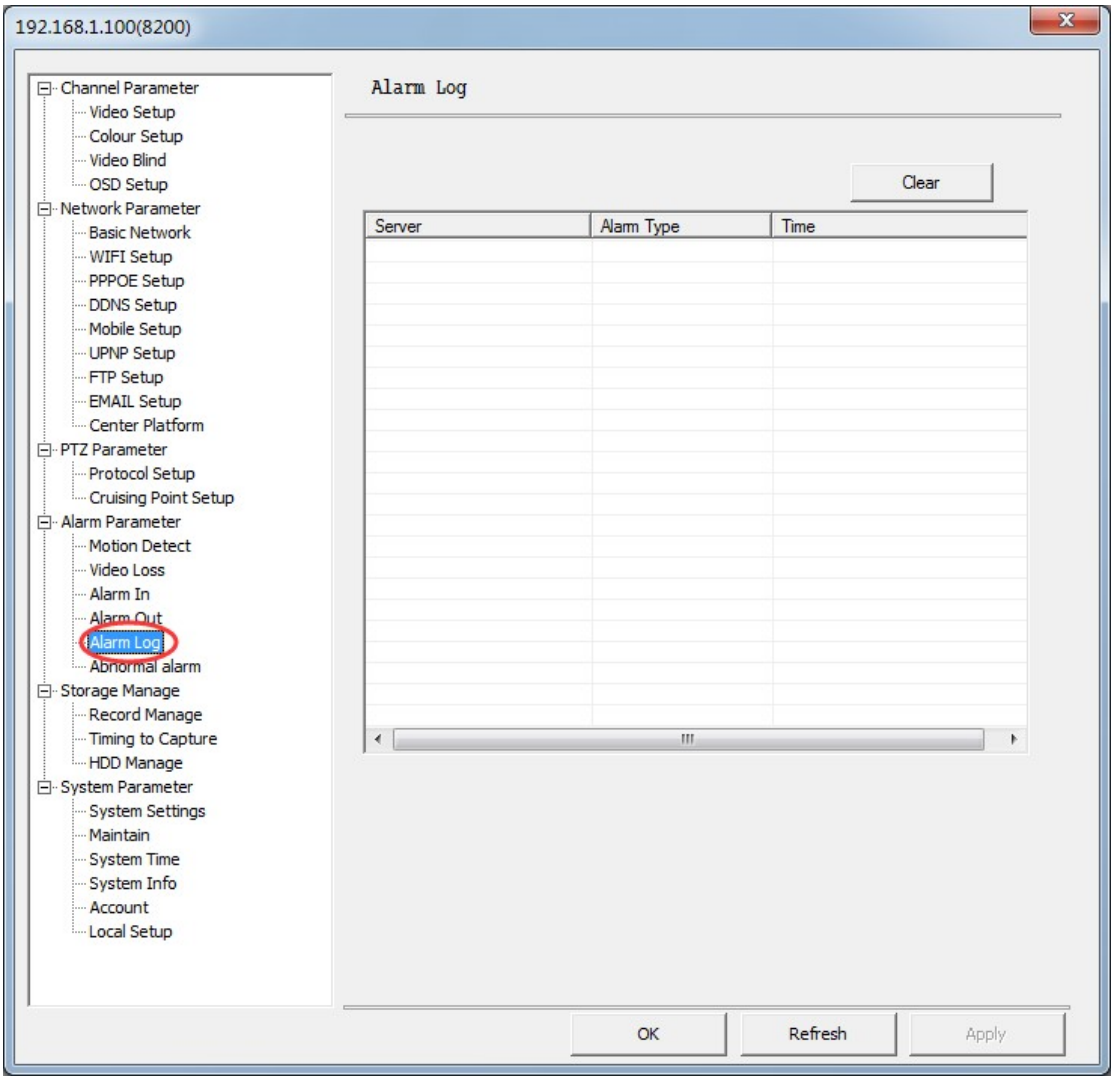


Figure 4-5-7 Alarm log

4.5.7 Abnormal alarm

Open [Settings] → [Alarm Parameter] → [Abnormal alarm], as shown in Figure 4-5-8: Abnormal alarm and alarm linkage.

Abnormal alarm:

[Disk Full]

[Disk Error]

[Net Disconnection]

[IP Conflicts]

[Access Violation]

[Video Format Mismatch]

Alarm linkage: alarm output, alarm record, Upload to FTP, Linkage email, Linkage Capture.

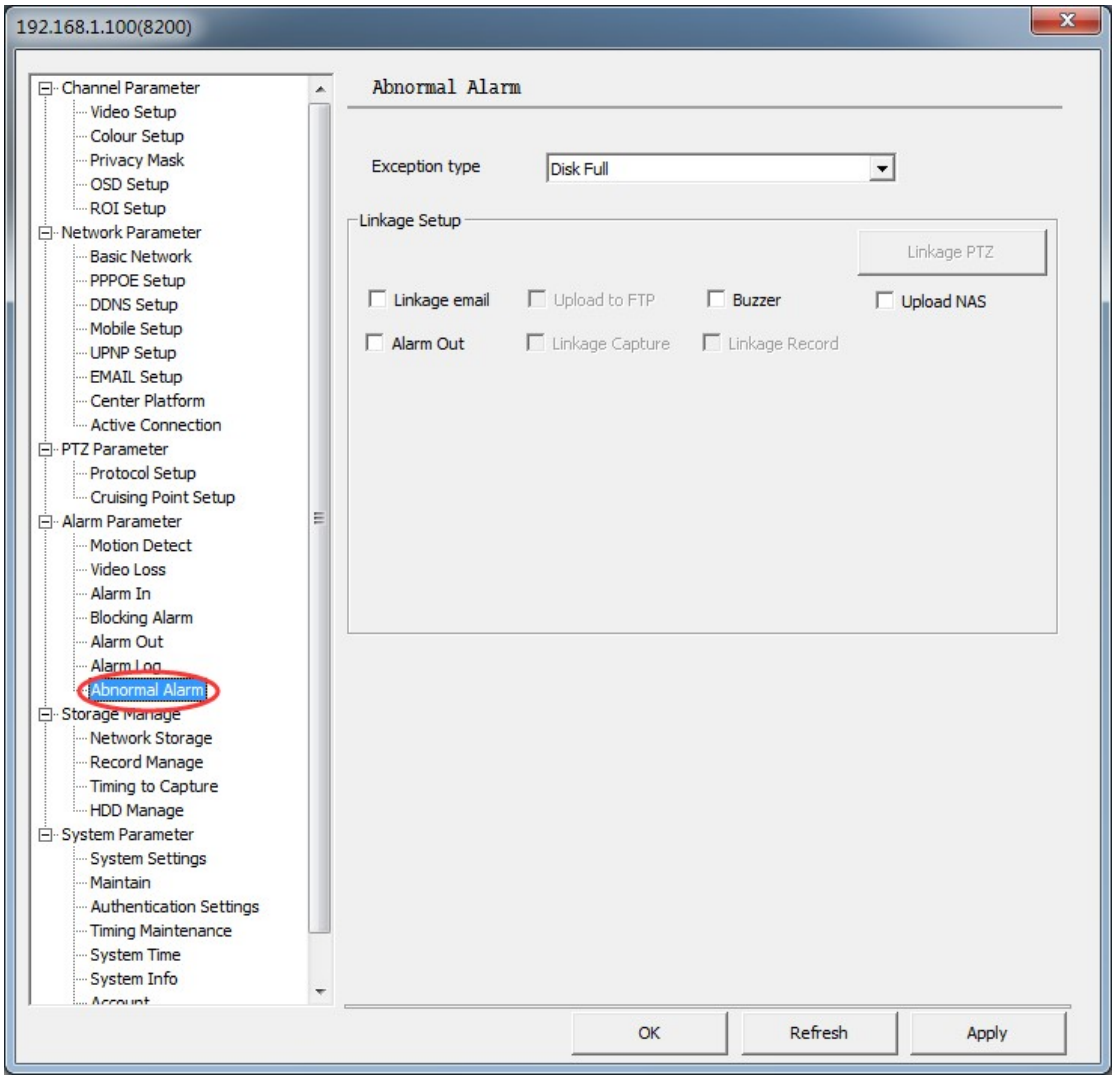


Figure 4-5-8 Abnormal alarm

4.6 Storage Manage

4.6.1 Network Storage

4. 6.1.1 FTP Setup

FTP alarm uploading that when the alarm happens and it required to upload pictures to one FTP server on the network, the IP Camera can upload the picture to the FTP server automatically.

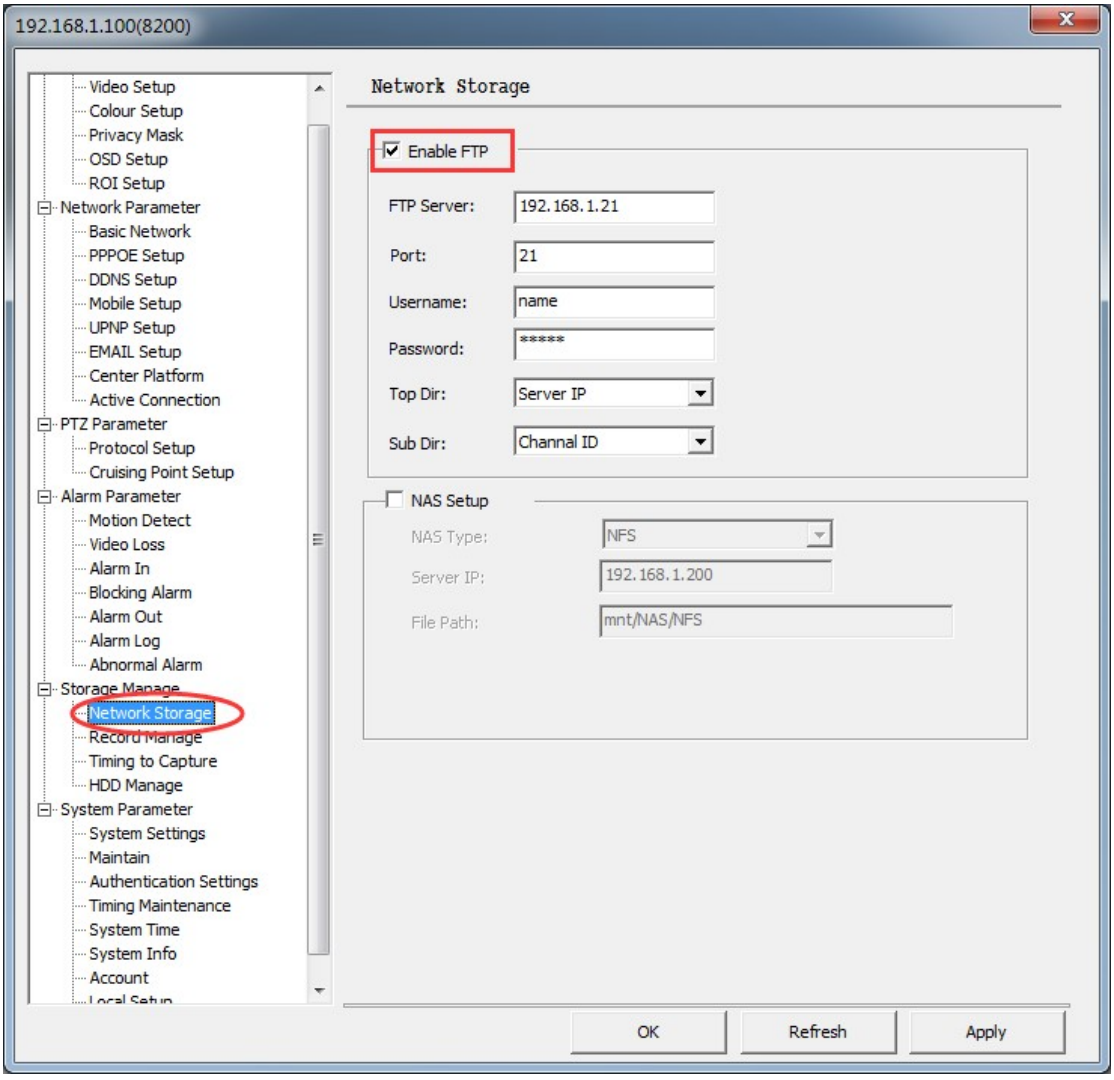


Figure 4-6-1 FTP Setup

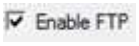
Configuration step of FTP

After Settings the following options correctly, the FTP uploading function can be realized

Step I: install FTP server **(please consult the enterprise network administrator for the specific installing method)**

Introduction: the Serv-U series FTP server software is recommended

Step II: open [Settings]→ [Storage Manage] → [Network Storage]→ [FTP Setup], show as

Figure 4-6-1: 

Enable FTP function indicates, which represents that the FTP function is used.

Step III: according to the Settings of the FTP server, fill correct supporting IP address and domain name,[Port],[Username],and [Password] of the [FTP server]

Step IV: set [Top Dir, Sub Dir],which refers to the naming method of the picture file stored on the FTP server; OFF represents that the catalogue is not set up

Step V: click [OK] once, quit and store parameter

4.6.1.2 NAS Storage

NAS storage only support the NFS protocol.

NAS storage server address, and the file path, please according to the NAS server configuration information related Settings.

Fill in the NAS server address and the NAS server file path. Click "ok" to complete setup, as shown in figure 4-6-2:

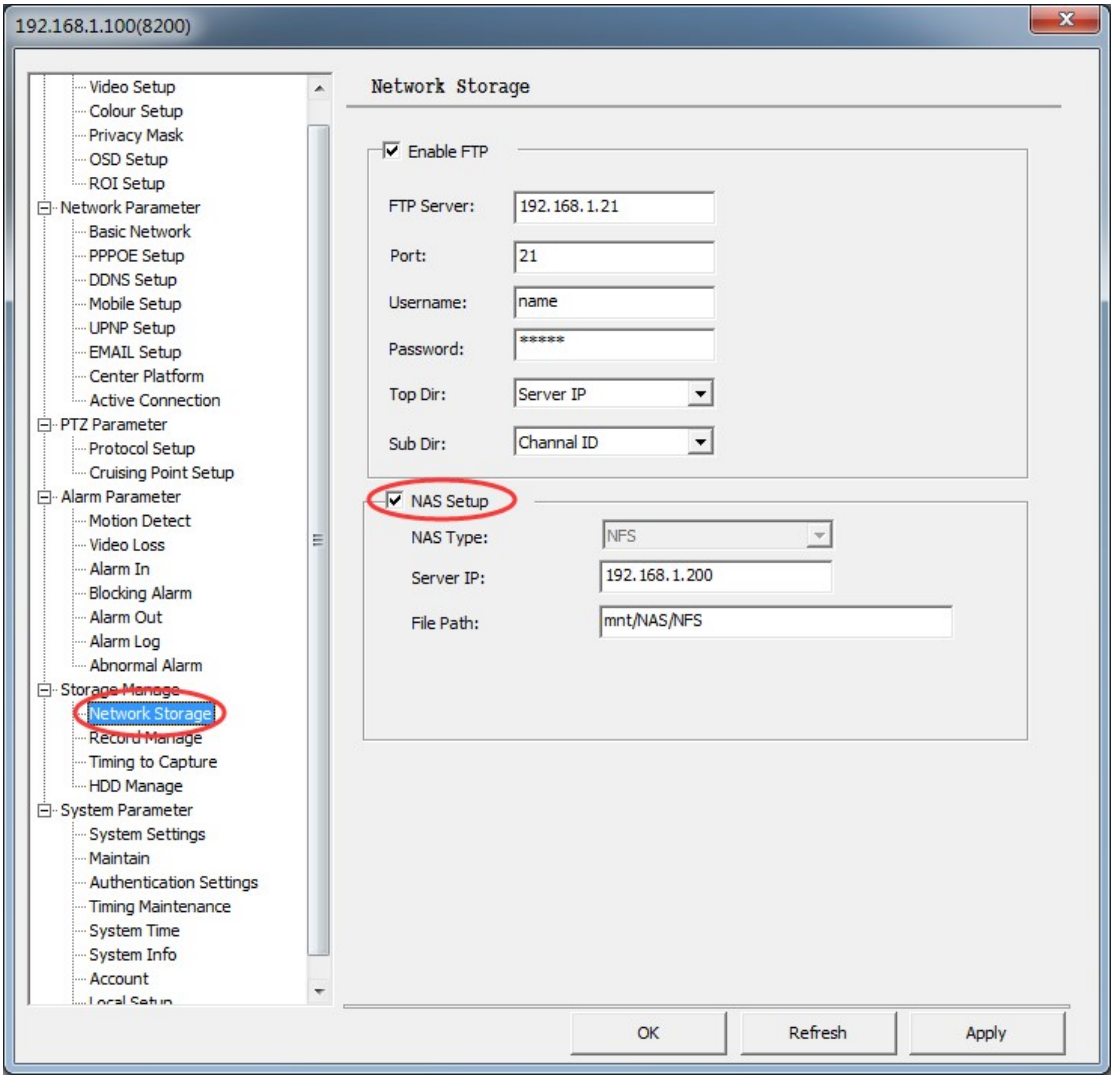


Figure4-6-2 NAS setup

4.6.2 Record Manage

Open [Settings] → [Storage Manage] → [Record Manage], as shown in Figure 4-6-3:
[Record Stream] you can choose [main stream] and [sub stream]
[Record Mode] you can choose [Plan record] , [Startup record] and [Forbid record]
[Startup record] After the device starts recording starts, only manually stop recording.
[Plan record] You can set the alarm, motion detection, timing. Alarm recording and motion detection alarm needs to check the video settings in the linkage, the specific setting procedure see **"4.6.4 Alarm Recording"**
You can quickly copy the scheduled time.
You can quickly remove the scheduled time by clearing function.

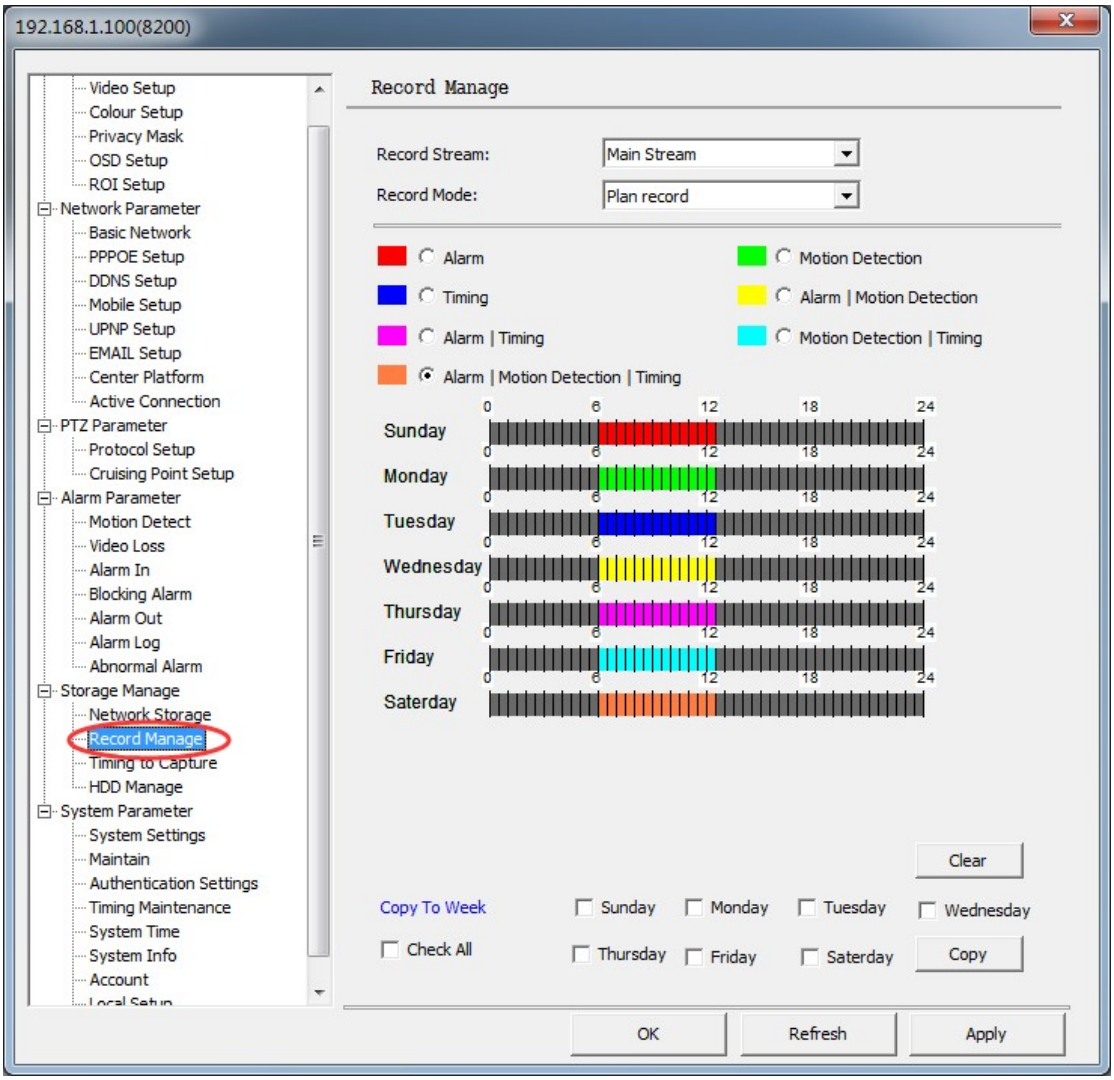


Figure 4-6-3 Plan record

4.6.3 Timing to Capture

Open [Settings] → [Storage Manage] → [Timing to Capture], as shown in Figure 4-6-4:

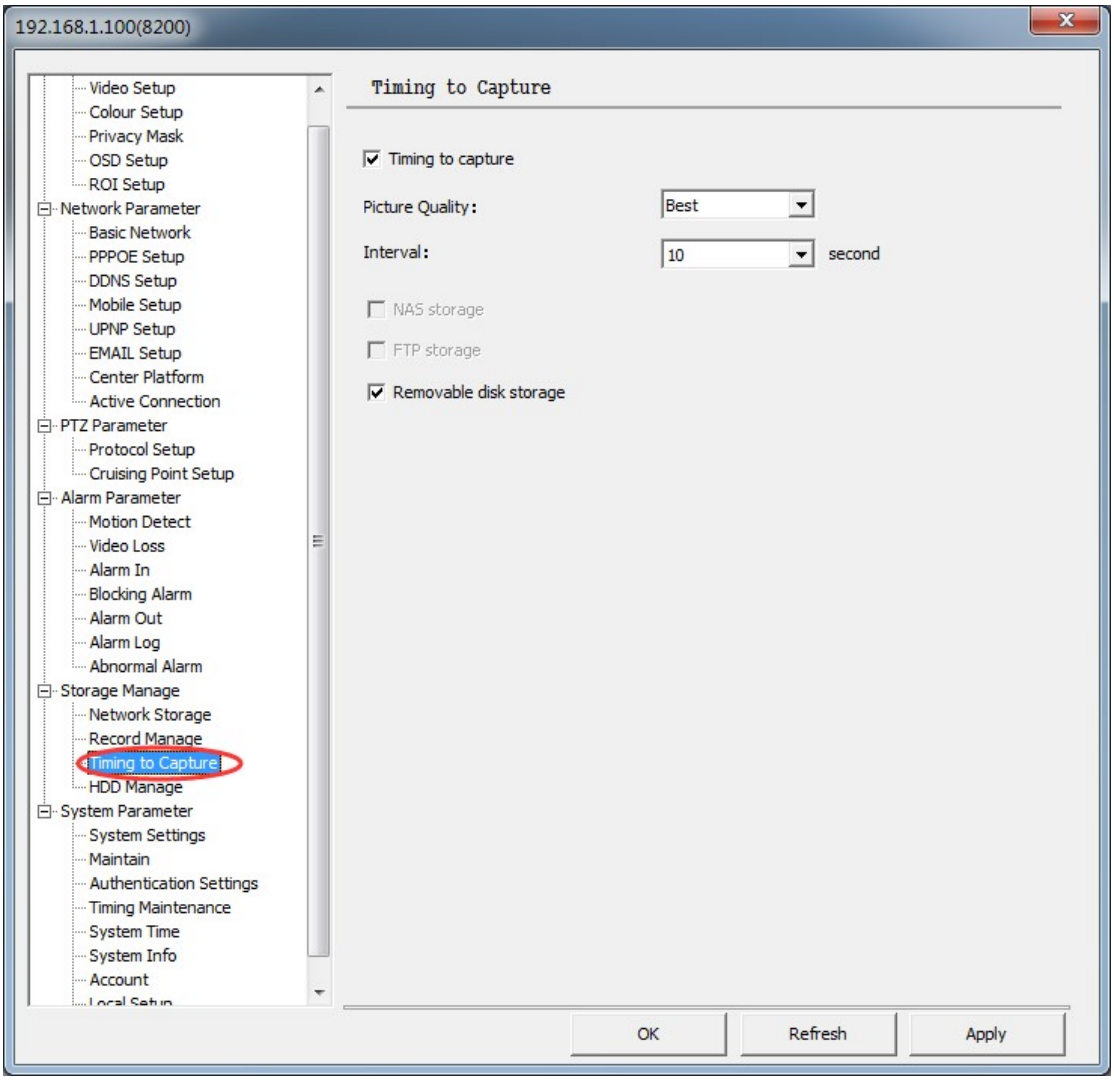
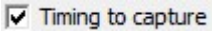


Figure 4-6-4 Timing to Capture



Timing to Capture is enabled.

[Picture Quality] you can choose [best],[good],[normal],[bad] ,[worse]

[Interval] Set the time capture time interval, Many choices between 0.1 s to 60 s

[Storage Location] you can choose local memory [NAS storage] [FTP storage] [Removable disk Storage]

4.6.4 HDD Manage

IP Camera if support for built-in SD card and external USB disk recording, maximum support capacity of 64G

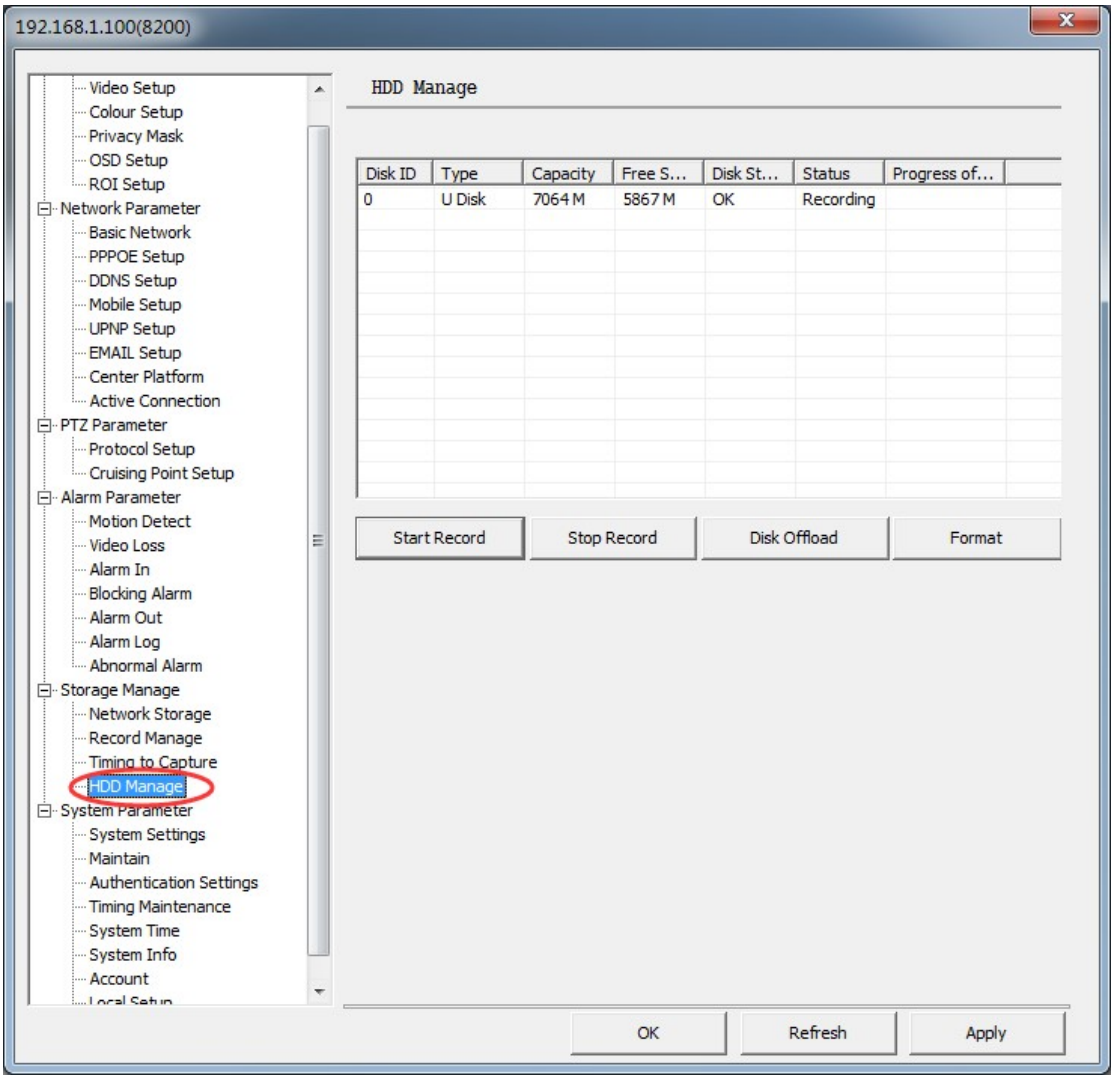


Figure 4-6-5 HDD Manage

If the plan is not set record, IP Camera installation of a disk, boot auto start recording.

Format Disk:

Step I: Select the disk

Step II: Click the "Format"

Step III: When formatting the disk, click "refresh" Viewing Disk Status.

Disk Offload:

Step I: Click the "Stop Record"

Step II: Click the "Disk Offload"

Step III: Remove the SD card or USB disk

[Start Record] Manually start recording

[Stop Record] Manually stop recording

4.6.5 Alarm Record Setup

Step I: Insert the SD card to the IP Camera SD card interface or connect the built-out USB interface to the mobile disk

Step Ⅱ: Open [Settings] → [Storage Manage] → [Record Manage], as shown in Figure 4-6-3:

[Record Stream] you can choose [main stream] or [sub stream]

[Record Mode] choose [Plan record]

[Plan record] You can set the alarm, motion detection, timing. Alarm recording, "OK" save.

StepⅢ: [Video Detect] open alarm, check [Linkage Record] → [OK]

StepⅣ:[System Settings] set [Video package time] → [OK]; the default package for 10 minutes, no need to set.

When a video trigger motion detection, disk start recording

4.6.5 IE record playback

Select **[Playback]** from the IE interface; playback the local recording document at the record playback page; search, playback and download the record file recorded by the Settings mobile disk. Shown as Figure 4-6-6:

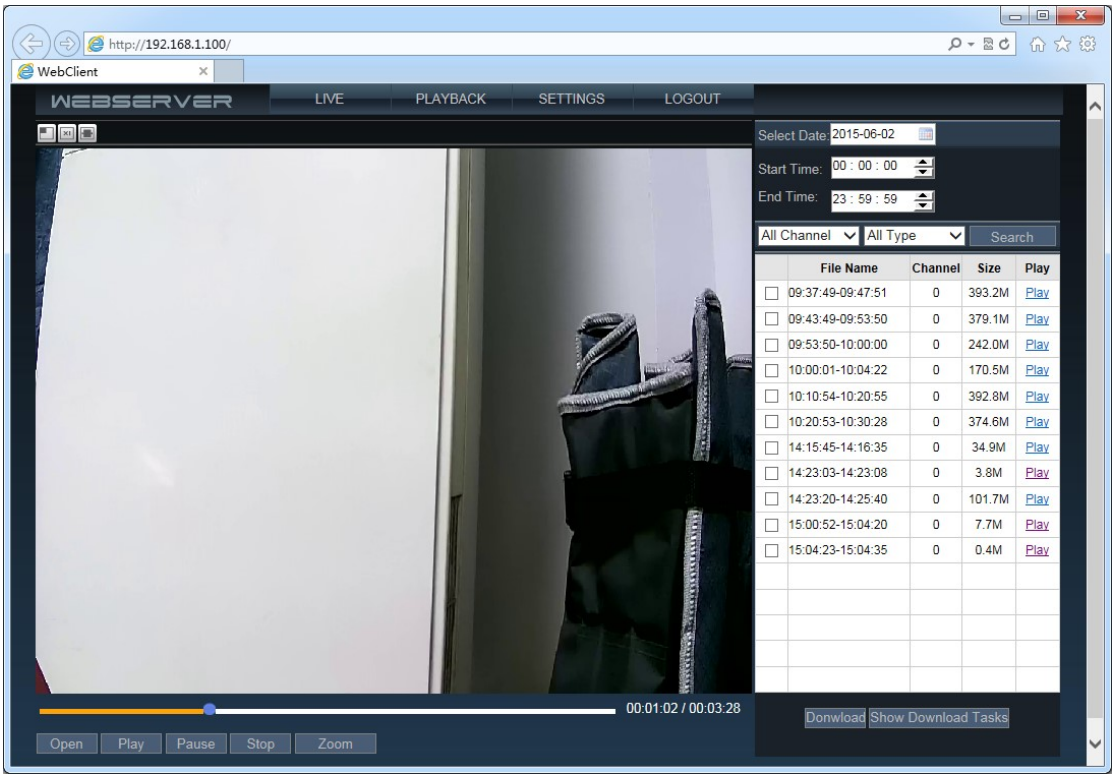
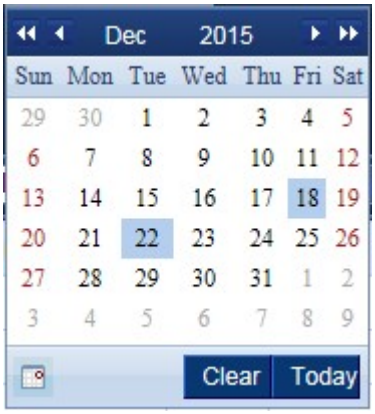
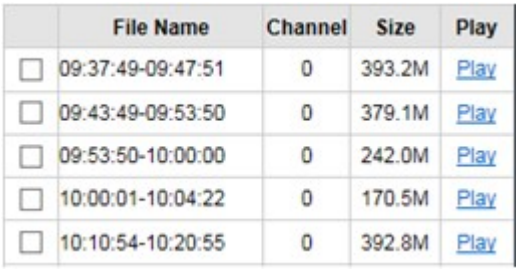
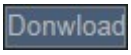
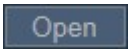
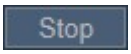
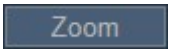


Figure 4-6-6 IE playback interface

Introduction of interface function

	Settings of time section of record searching
	Search result and click the recording file to play
	Select the file to be downloaded and then click this button to download the recording file
	Click this button , check the download task
	Click this button, browse and play the downloaded record file
	Click the button and play the recording file
	Click this button, and pause the playing of the recording file
	Click this button and stop playing the recording file
	Playback zoom up

4.6.7 Client recording playback

For the detailed introduction of the client recording playback, please refer *Using Manual of Video Monitoring Management Software*

4.7 System Parameter

4.7.1 System Settings

Open [Settings] → [System Parameter] → [System Settings], Shown as Figure 4-7-1:

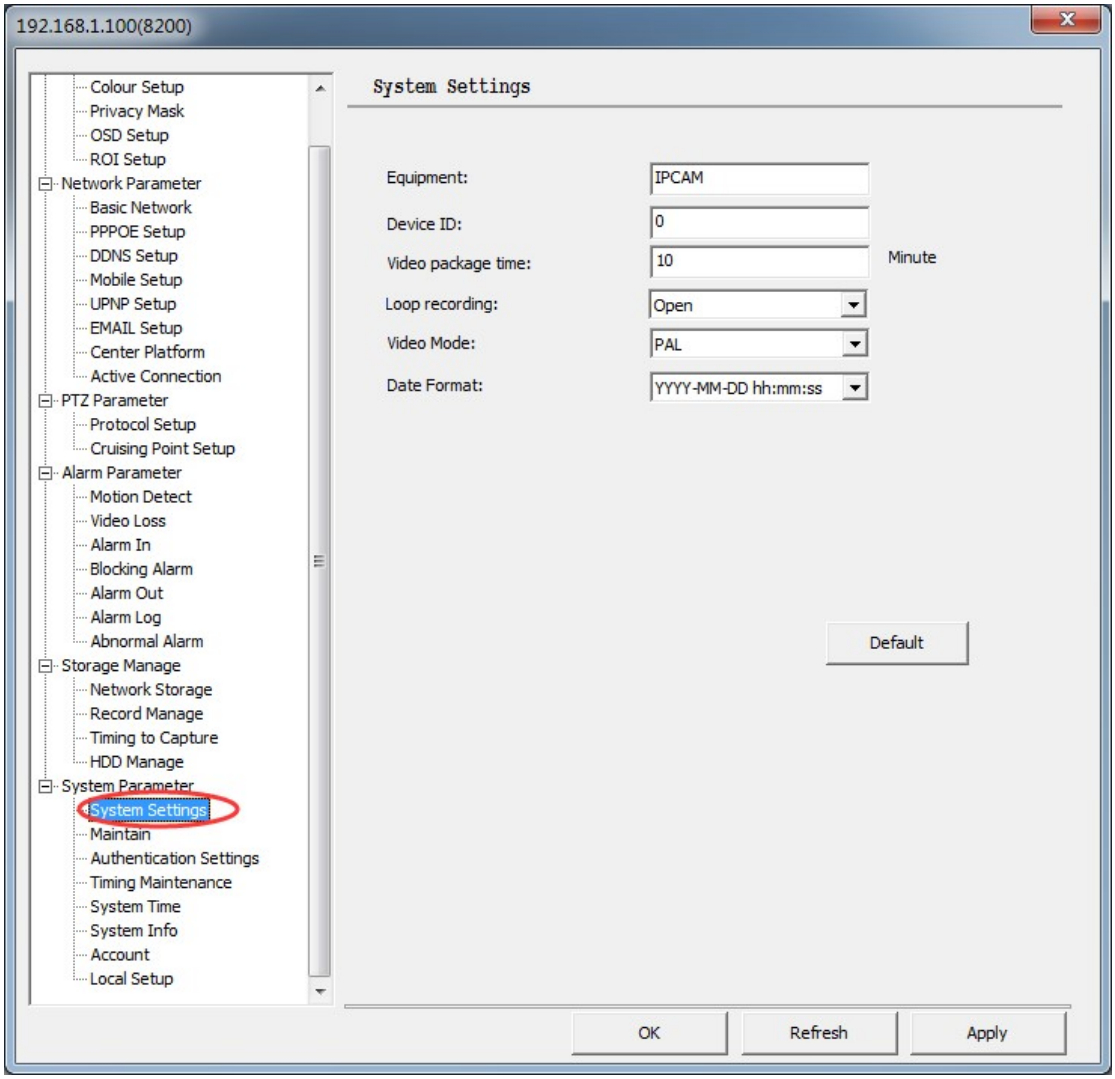


Figure 4-7-1 System Settings

[Equipment] Device Name Description, the user can customize. Default IPCAM

[Device ID] Device ID

[Video package time] The length of time for each video file

[Loop recording] When the disk is full, you can set loop recording.

[Video Mode] PAL and NTSC

[Date Format] Date format options, supports 6 formats

[Default] The default system settings

4.7.2 Maintain

The IP Camera Maintain, open [Settings] →[System Parameter] [Maintain], Shown as Figure 4-7-2:

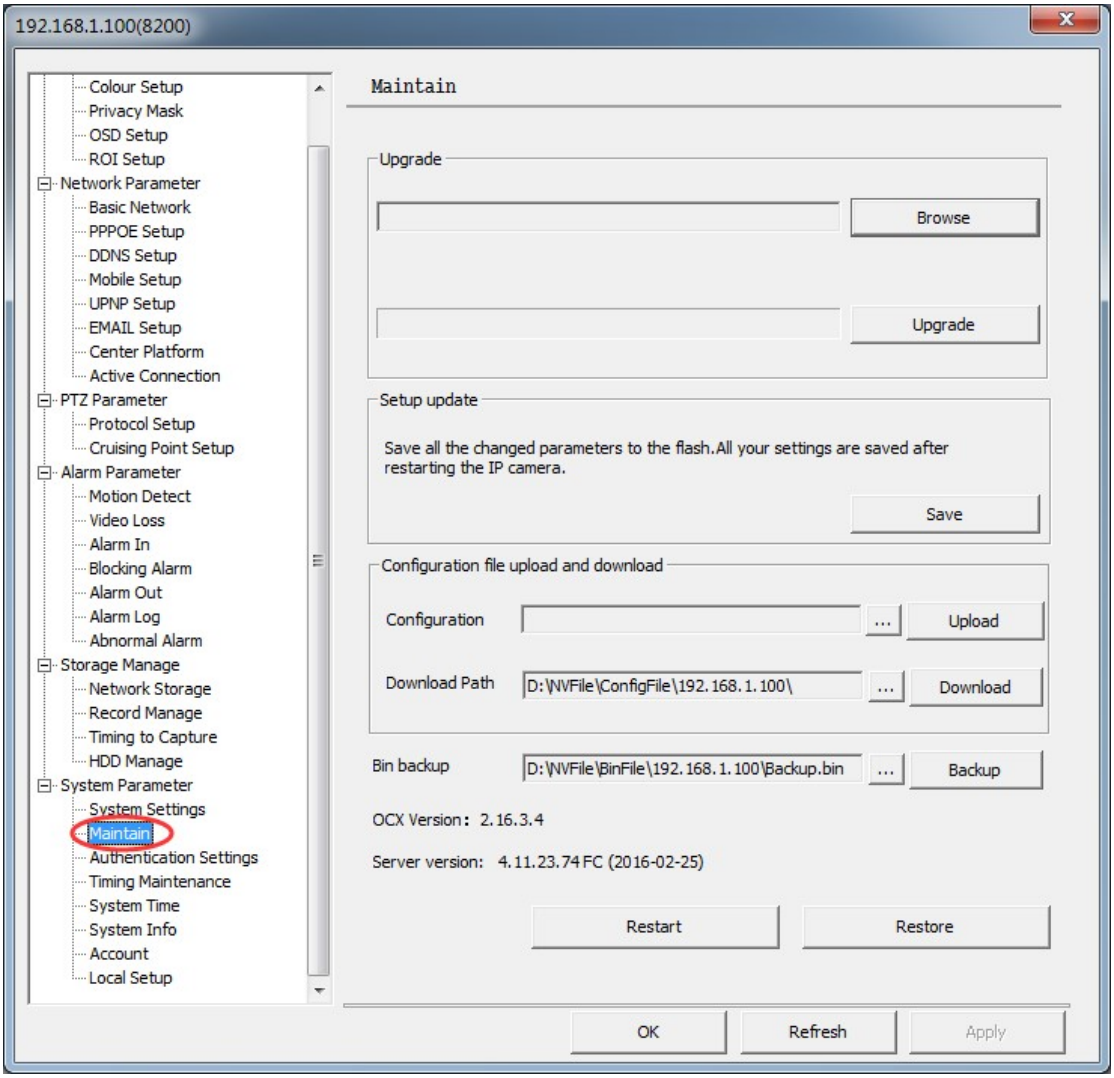


Figure 4-7-2 Maintain

[Upgrade] Update device firmware. Refer to **"Appendix I Firmware Upgrade"**

[Save] You can save remote configuration parameters

[Configuration file upload and download]Users can download save configuration file according to your needs, download a configuration file can be uploaded to the same model of the camera.

[BIN backup]BIN backup use to Flash.

[Restart] Software Reboot

[Restore] Software restore settings. It does not restore the IP address and video mode.

[OCX Version] OCX version information display

[Server version] Server version information displayed

4.7.3 Authentication Settings

ONVIF authentication and RTSP authentication Settings. ONVIF authentication turned on and off is immediate effect.

RTSP certification is divided into: no authentication, BASIC64 certification, DIGEST authentication.

RTSP URL is RTSP stream address, MCAST URL is RTSP multicast address.

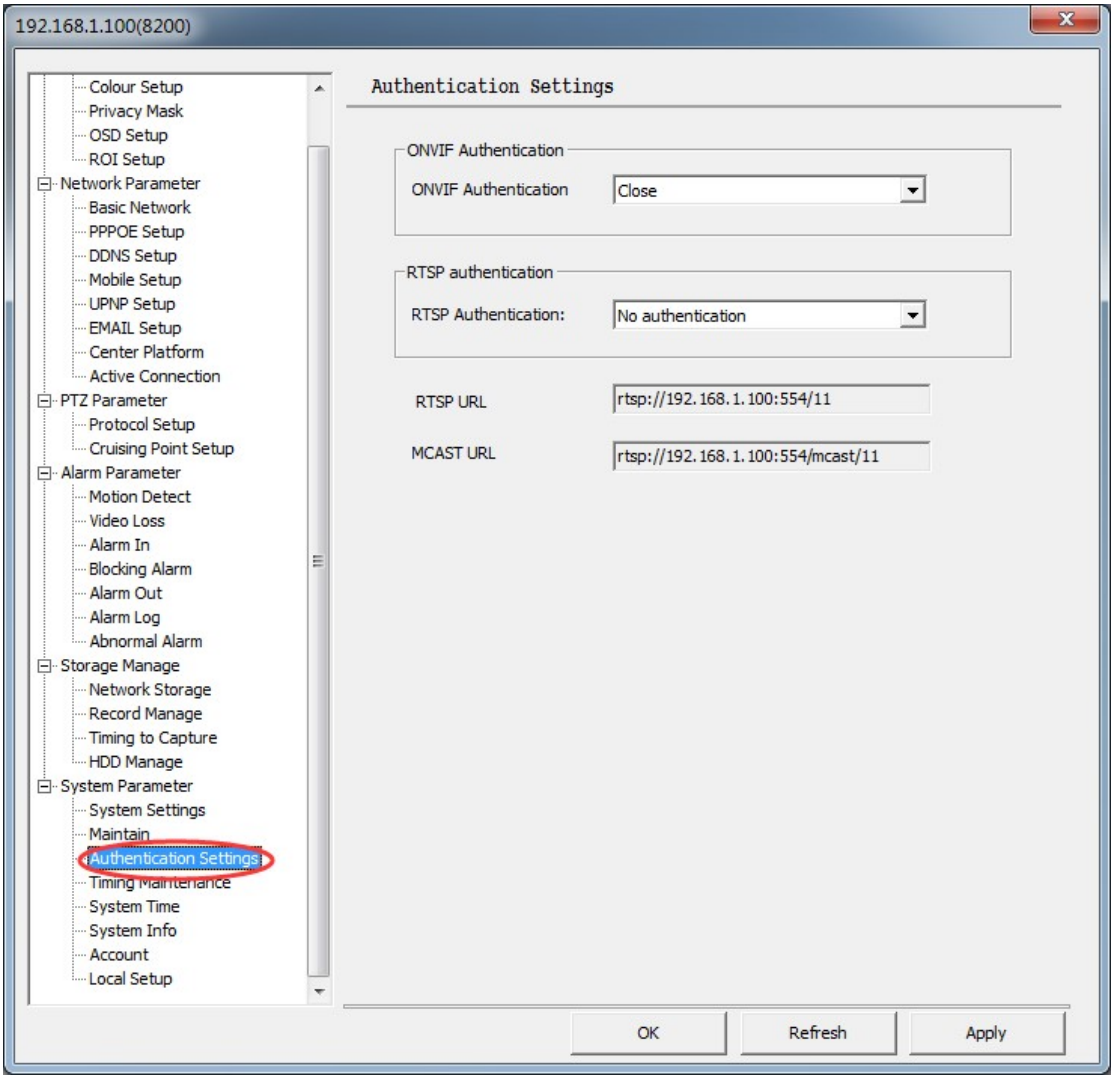


Figure 4-7-3 Authentication Settings

4.7.4 Timing Maintenance

Timing Maintenance is the camera according to the set date/time automatically restart, achieve maintenance.

Enable the timing, set the maintenance date and maintenance time.

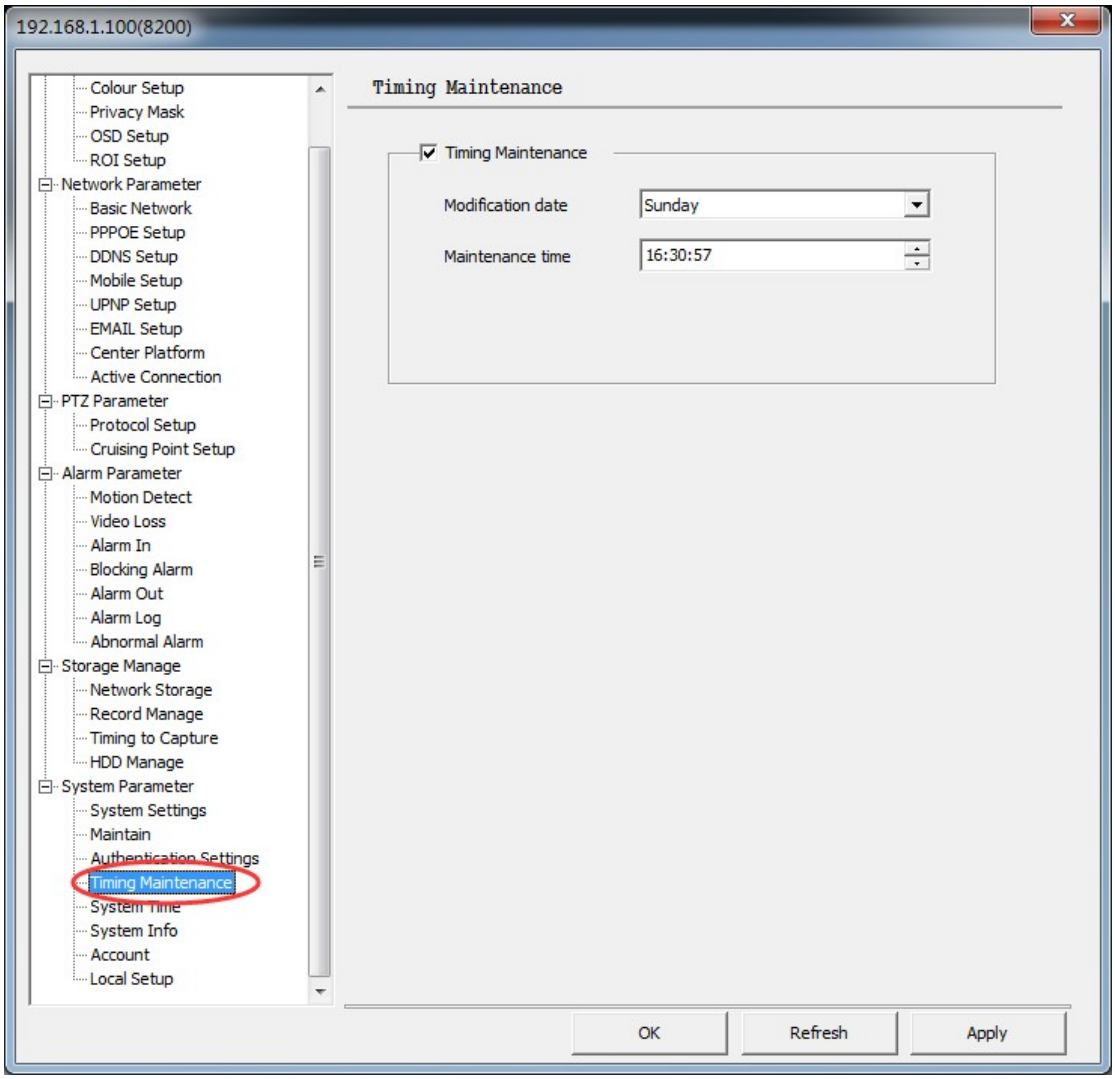


Figure 4-7-4 Timing Maintenance

4.7.5 System Time

The time correction has two methods; open [Settings] → [System Parameter] → [System Time]:

I. **[NTP Time Sync]:** the system provides automatic NTP time correction; the network of the IP Camera is required to access the public network, please configure the network according to "Chapter 4.2 Network Parameter". According to the actual demand: tick **[NTP Time Sync]** and use it as Figure 4-7-5,select **[Time Zone]** (capable of Settings 24 time zones throughout the world),set NTP server address, NTP port, and time interval. Click **[Set]**,store parameter. The defaulted NTP server address: time.windows.com; port: 123; the time interval is the integer from 1 hour to infinite.

II. **[Manual correction]**: the system provides the Settings IP Camera and PC time correction function; after confirming that the time of PC is correction, the IP Camera will correct time with the PC by clicking [Set]

Note: [Manual correction] is carried out according to the PC terminal time; therefore, when it is required to the time of IP Camera, time of PC terminal is only required to modify, and then the time correction can be carried out.

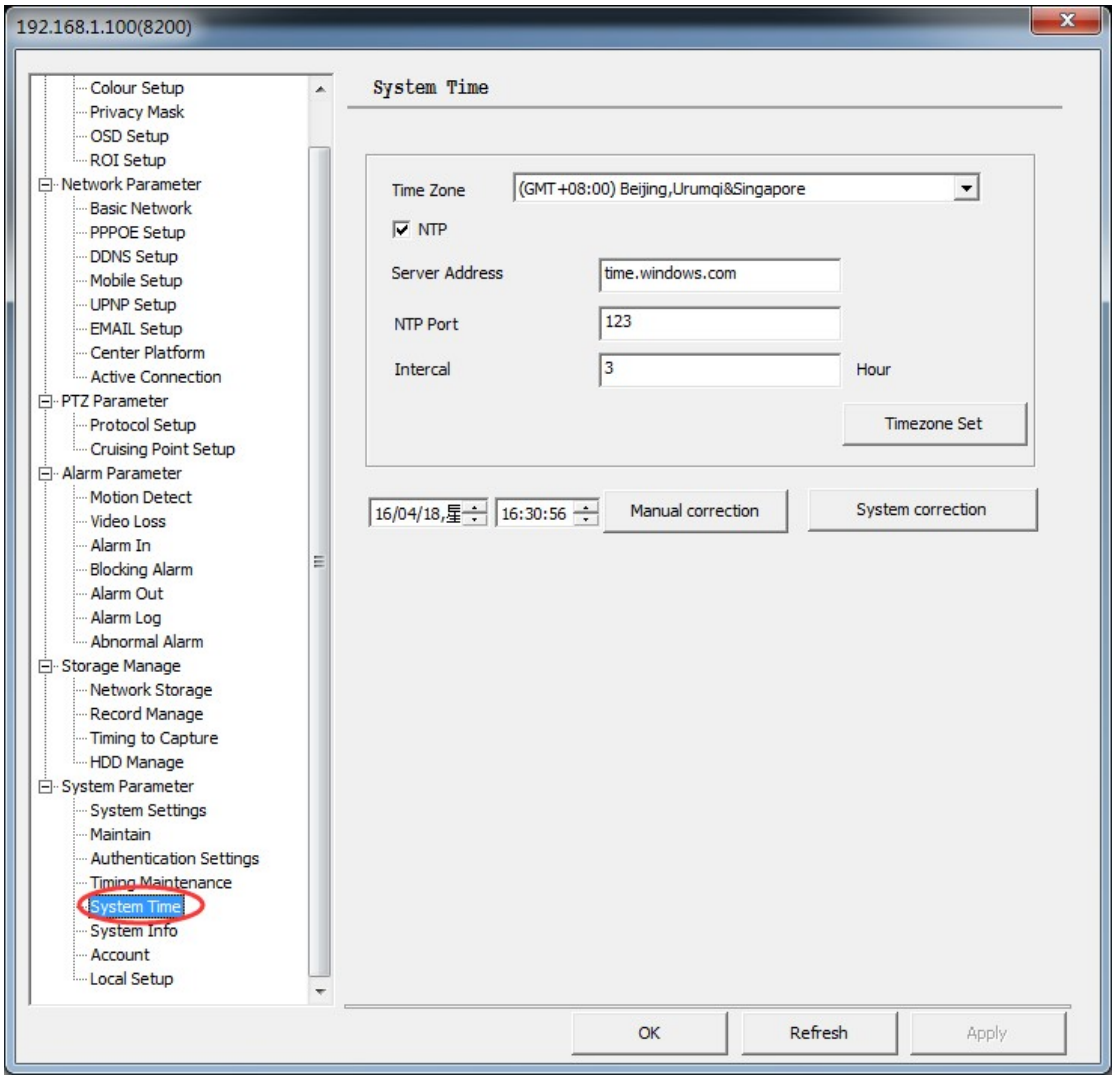


Figure 4-7-5 System Time

4.7.6 System Info

open [Settings] → [System Parameter] → [System Info],_Display the system information, Shown as Figure 4-7-6:

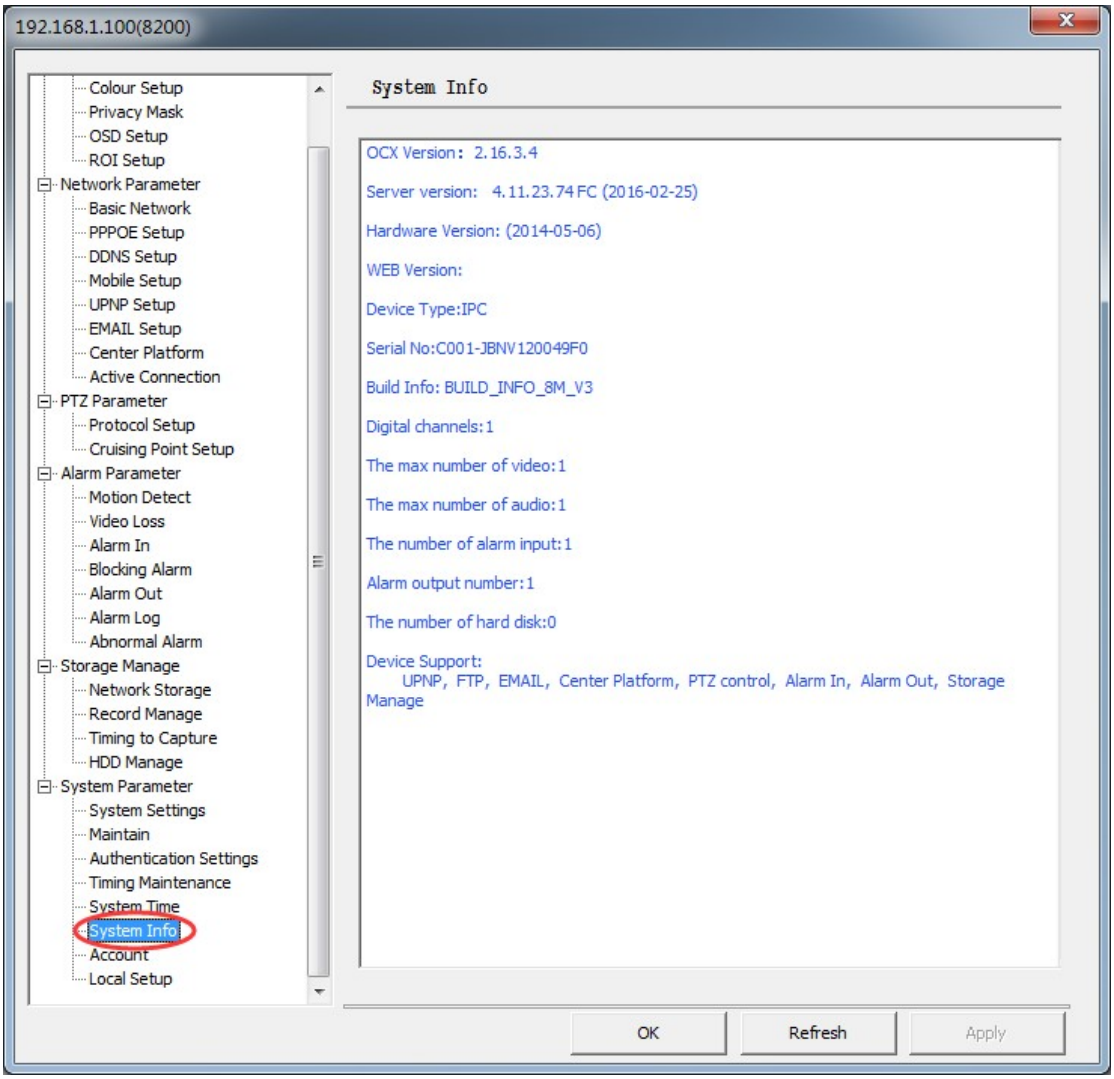


Figure 4-7-6 System Info

[OCX Version] OCX Version

[Server version] Server version

[Hardware Version] Hardware production date

[WEB Version] WEB Version

[Device Type] Device Type

[Serial No] Serial number of the device, each serial number is unique

[Digital channels] Digital channels

[The max number of video] The max number of video

[The max number of audio] The max number of audio

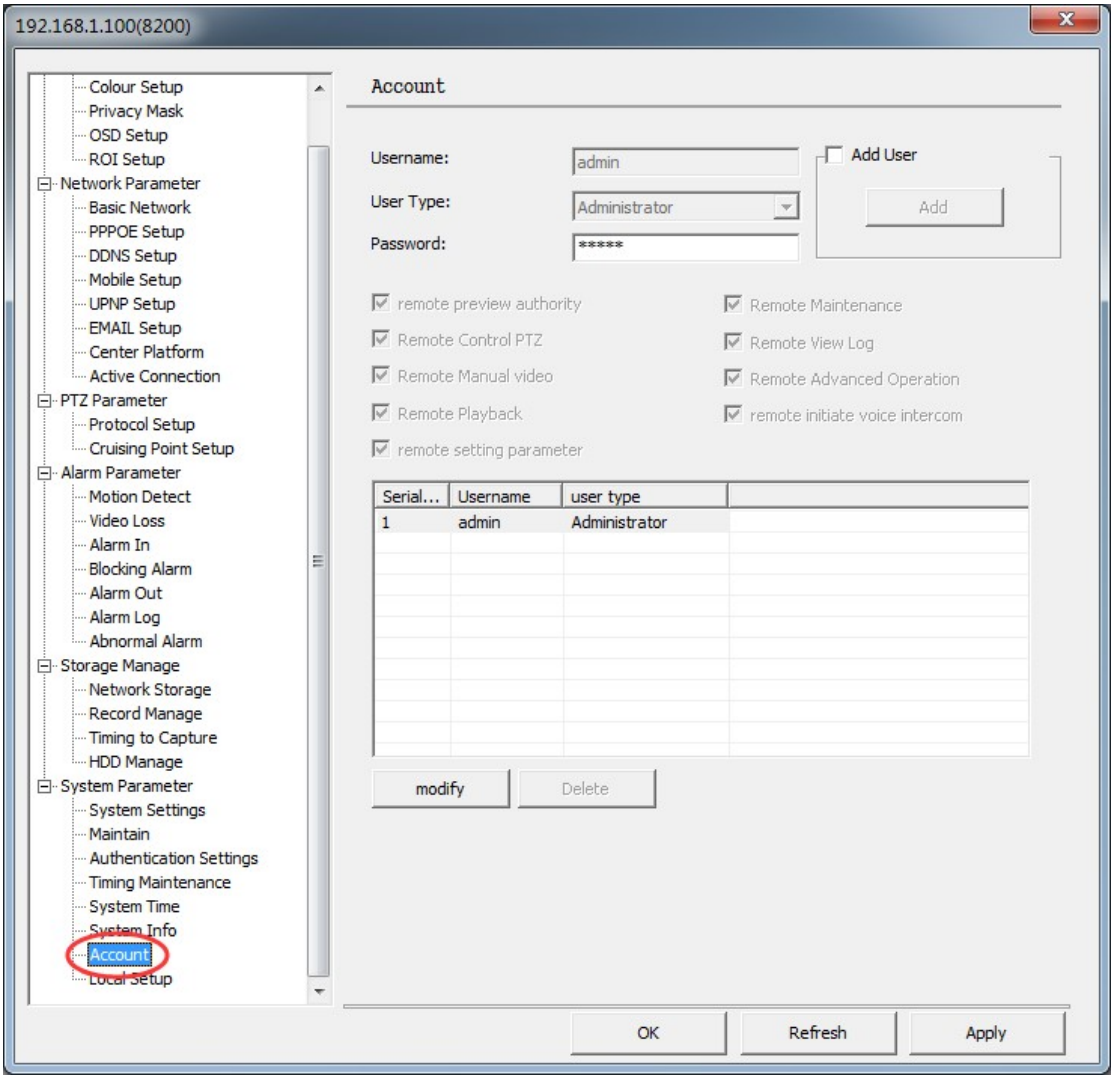
[Alarm input number] Alarm input number

[Alarm output number] Alarm output number

[The number of hard disk] The number of hard disk

[Device Support] This device support the features

4.7.5 Account



4-7-7 Account

The server supports ten users at most. Every user can set independent right;

The admin user right cannot be modified.

Add user settings step:

Step I: open [Settings] → [System Parameter] →[Account],show as Figure 4-7-7, Check the "add user" and enter the user name and password, select the user type (operator and normal users)

Step II: Add user rights assignments, gray non-operating authority.

Step III: After the user name, password, and permissions assignment is complete, click "add" Completing the Add User, click [OK]

Users to modify:

Step I: select the need to modify the user can modify the user name, user type, and password, user privileges.

Step II: Click "Modify" click "OK" to finish.

Users to delete:

Step I: Select the user you want to delete, click "Delete" click "OK" to complete the removal.

5 Wireless Access

5.1 Access through Wi-Fi

5.1.1 Configuration of wireless parameter of wireless router

Log in the wireless router and select wireless parameter; (take TP-LINK wireless router as an example): configure SSID number, encryption mode and password.

5.1.2 Configuration of wireless parameter of camera

 **Note: Before Settings WIFI parameter, please confirm that your camera has been equipped with the WIFI net card and antenna**

Open [Settings] →[Network Parameter] →[WIFI Setup],wherein the wireless state selects [Static IP] or [DHCP] mode. Two methods can configure the wireless Settings.

Method I:

Search wireless configuration: click the Settings interface [search wireless] once, and search all wireless ID, encryption mode, signal intensity, and MAC address of wireless router within the current signal scale; double click and select the wireless ID required to add; and then manually configure wireless IP address, gateway, sub-net mask, DNS, working mode, and encrypted content; show as Figure 5-1-2

[Encrypted content]: the wireless password must be in accordance with the PSK password for wireless router.

Method II:

Manually add wireless configuration: manually configure wireless IP address, gateway, and subnet mask, DNS, ESSID, working mode, character format, and encrypted content, show as Figure 5-1-2

[ESSID]: the name of the wireless network is the same as the wireless router;

[Operation Mode]: select “infra”

[Password]: the wireless password must be in accordance with the PSK password for wireless router.

[Character format]: select HEX or ASCII encrypted character format according to the encryption mode of the wireless router

[Encryption mode]: select “WPAPSK-AES” or “WPA2PSK-AES”

After Settings above parameter through method I or method II, click [Apply]-[OK]; select [Yes] from the popped storage parameter dialog box.

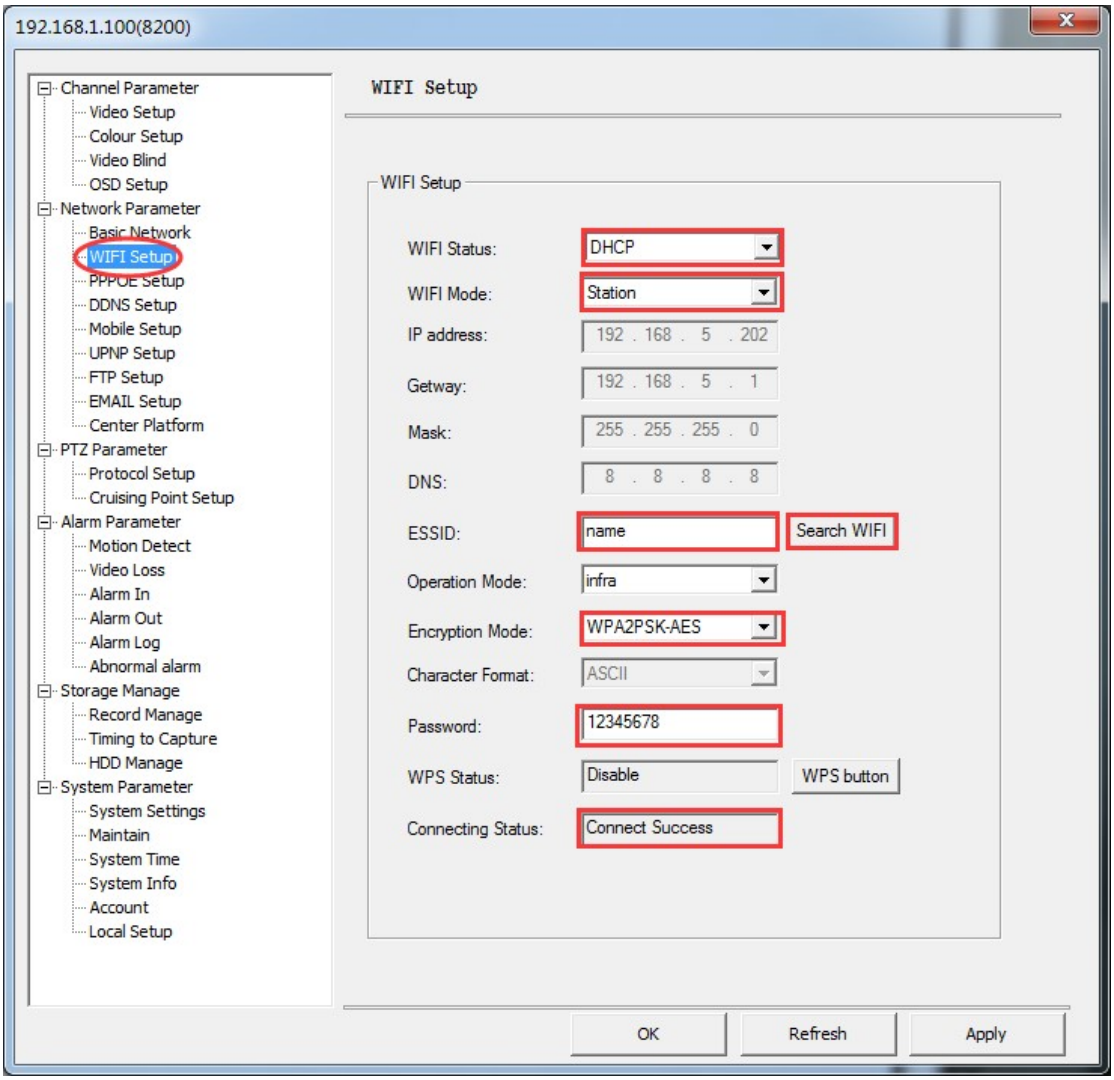


Figure 5-1-2 Wireless Settings interface

5.1.3 Access camera through wireless IP

Add wireless IP through video monitoring management software or input wireless IP address at the IE address bar directly so as to connect the camera. As for the method of adding the camera to the client, please refer to **"Chapter 3.3 Access through client"**

5.2 Access through mobile phone

5.2.1 Configuration of camera and mobile phone parameter

Open [Settings] →[Network Parameter] →[Mobile Setup]; set port of the mobile phone; the default is 15961; P2P Information: P2P dimensional code, mobile software download, shown as Figure 5-2-1:

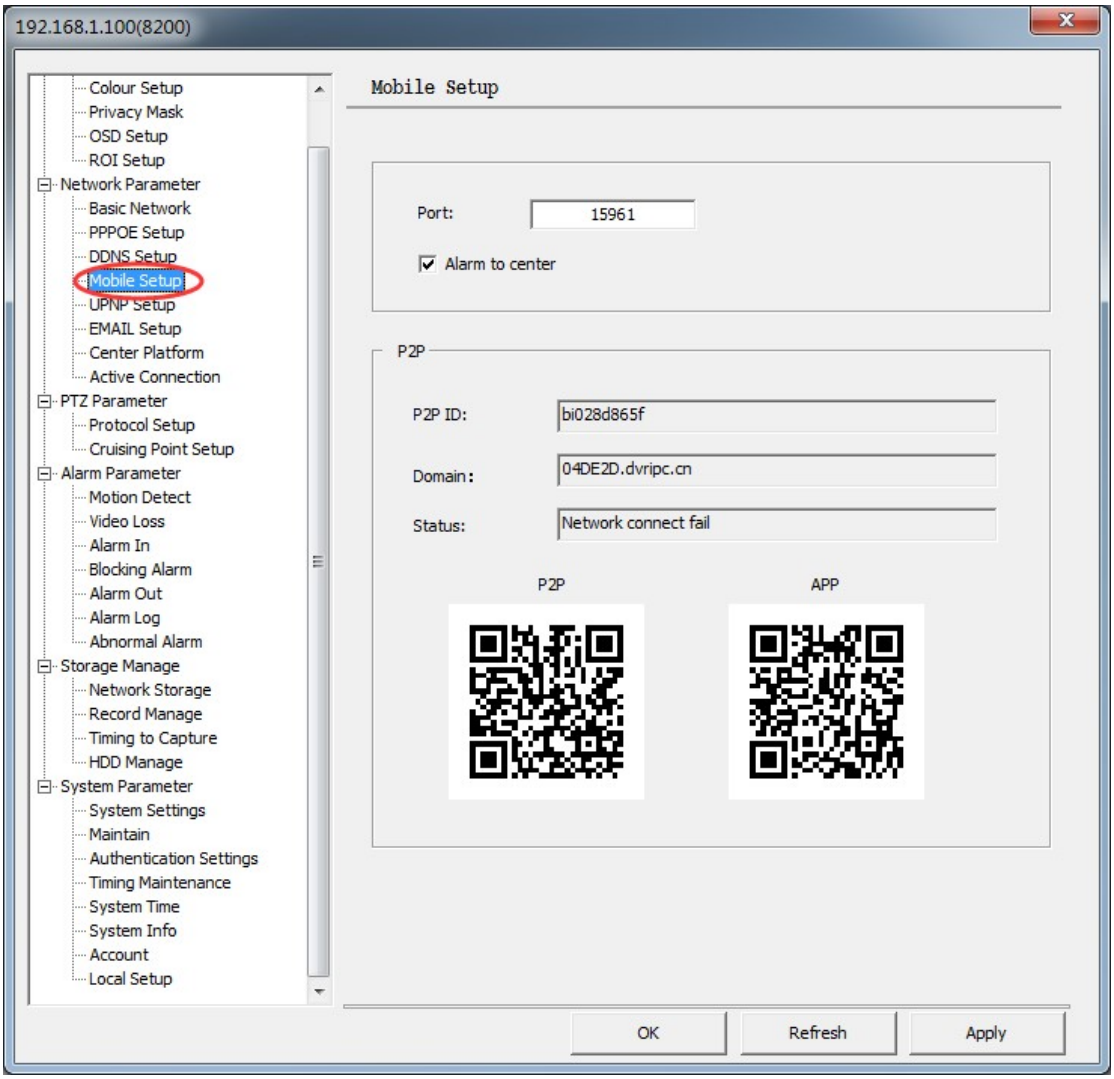


Figure 5-2-1 Mobile phone access Settings

5.2.2 P2P access

Download and install CamViews phone APP, two-dimensional code scanning P2P add devices. CamViews detailed instructions please refer to the ***"CamViews Mobile Client User Guide"***

5.2.3 Mobile phone access

When access camera in LAN though mobile, the network of ip camera and mobile need to be at the same network segment. When remote access camera though WAN, make sure that camera is connected to WAN and mobile is also connect to network or enable 3G/4G.. As for the installation and access of the mobile phone software, please refer to the ***CamViews Mobile Client User Guide*** attached by the light disk matched at random, and the mobile phone monitoring software.

5.2.4 Mobile phone alarm

Set [Alarm uploading],wherein we call “mobile phone alarm uploading” as [Mobile phone Push Alarm] function; tick and use the [Alarm uploading center],and the network of the IP Camera can access the public network; meanwhile, the mobile phone software is required to open the Push Alarm; please refer to ***Instruction Book of Mobile Phone Monitoring Software*** about the operation instruction of the mobile phone. When the IP Camera triggers alarm,the mobile phone will receive the alarm prompt information and check video in real time.

5.3 Access through 4G

5.3.1 4G parameter Settings

 **Note: Before Settings 4G parameter, please confirm that your camera has been equipped with 4G net card and antenna, Support: Telecom 4G, Unicom 4G, mobile 4G**

Open [Settings] →[Network Parameter] →[4G Setup]; select “4G Mode”;Click [Apply] and save parameter. The first dialing time is about 1 minute. After dialing successfully, it can be used; if the dialing of 3G card is successful, the 4G state will show “**Dial Success**”, and the IP address will show the obtained IP address.

Support modem type: Huawei E3276 (4G), Huawei E171 (3G), Huawei E352 (3G), Huawei ME909S (4G), Long Shang U8300W (4G)

5.3.2 4G access

Please use the DDNS domain name access

6 WAN Access

6.1 Access through DDNS

6.1.1 DDNS Settings

According to user's demand, if user is required to access IP Camera through the domain name, set it by selecting the DDNS supported by IP Camera; at present, five types of DDNS servers are supported, which are: www.3322.org; www.dyndns.com; www.nightowldvr.com; www.on-ip.com; MyEYE（MyEYE is DDNS provided by our company for free, which is www.dvripc.cn; www.dvripc.net; "cn" is the domain name of domestic server; "net" is domain name of foreign server）. For the detailed Settings of the MyEYE domain name, please refer to "***Appendix Ⅲ MyEYE domain name***"

Log in the website of the domain name analyzing sever and register a domain name; then access the IP Camera through the registered domain name. MyEYE is not required to register; if IP Camera is indirectly connected to the public network through the router,it is required to perform the port mapping on the router or use the UPNP port mapping (it needs that the router starts the UPNP function).

The detailed configuration process of the port mapping, please refer to *"Appendix Ⅱ Port mapping method"*

6.1.2 DDNS domain name access

Through the video monitoring management software, add domain name or directly input domain name in the IE address bar so as to connect to the camera. As for the method of adding domain name to the video monitoring management software, please refer to **Chapter 3.3 Client access**

6.2 Access through P2P

Configure P2P according to the ex-factory demand of user, use the spot-to-spot mapping technology of the P2P cloudy server, and support Telecom/China Netcom/Unicom/Mobile internet/Cable network/Railcom/GWBN/ FTTX LAN, and other various networks.

By applying the P2P technology to IP Camera, the IP Camera is added with the following characteristics:

1. Plug and play
2. Check and remember the free domain name of IP Camera only; if the third party software is successfully set,it is not required to remember any domain name or IP of the camera,watch it easily. All problems can be solved by network wherever and whenever.
3. P2P technology makes the IP Camera suffer from the neck restriction between different network

operators, and can reach the mutual smooth communication among Telecom, Railcom, GWBN, China Netcom, and FTTX LAN.

4. Reduce the band width occupied by the WAN access of IP Camera

Add domain name through the video monitoring management software or directly input domain name at IE address bar so as to connect to the camera. The P2P transmission method can support the mobile access at the same time.

The P2P cloudy service of our company is bound with the MyEYE domain name; the machine with ex-factory set P2P is only required to set the MyEYE domain name instead of P2P separately; through the domain name, IP Camera can be accessed easily

As for the detailed Settings of the MyEYE domain name, please refer to**"Appendix Ⅲ MyEYE domain name"**

Appendix I Firmware Upgrade

Step I: Open [Settings] →[System Parameter] [Maintain]，click [Browse] , and show as Figure 7-1-1

Step II: select upgrade document, and show as Figure 7-1-1

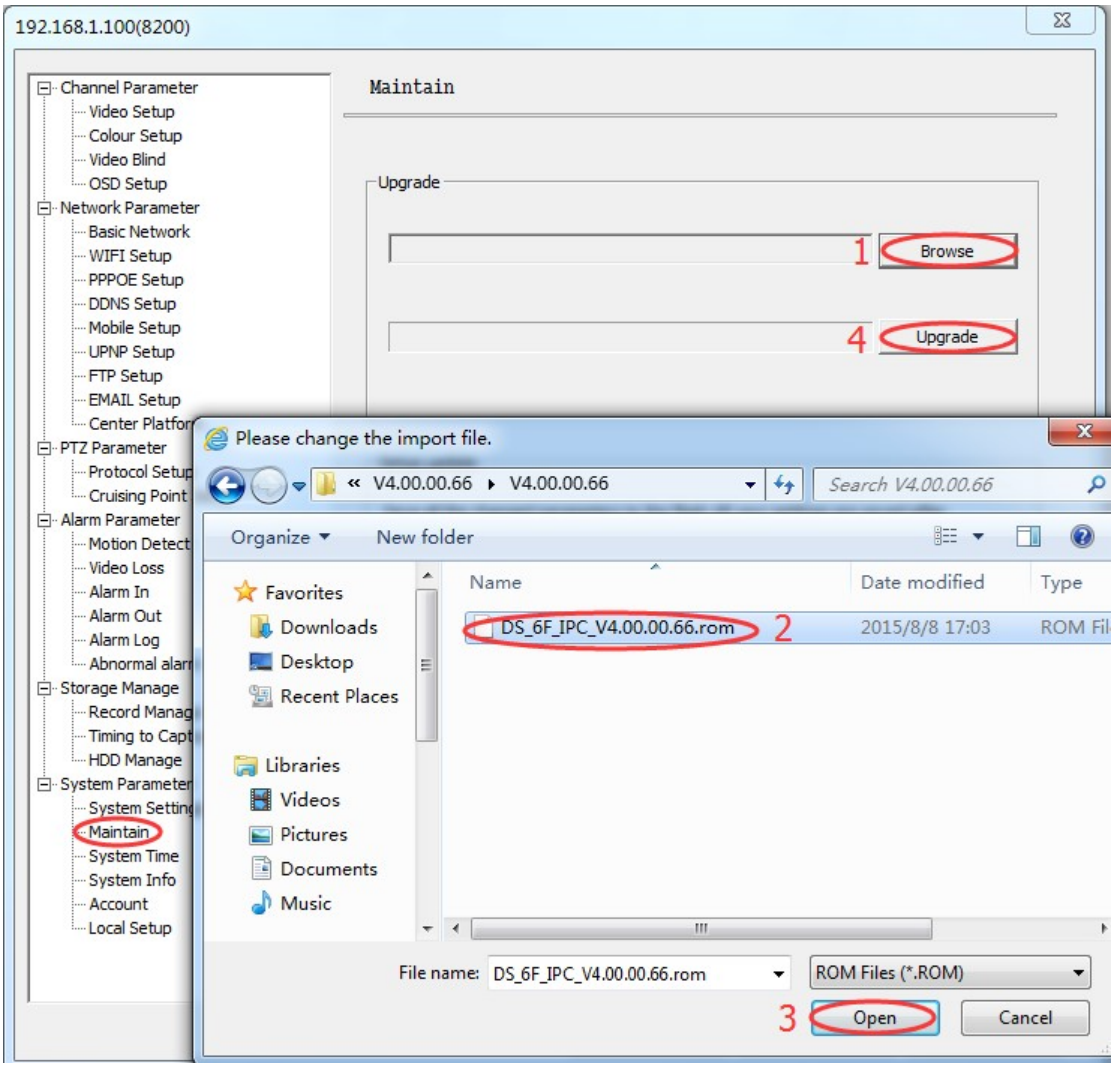


Figure 7-1-1 Browse file

Step III: click [Upgrade],and wait for the completion of the server upgrade

Note:

- **Before upgrading, please contact with our technician, and upgrade it under the guidance of the technician**
- **The network cannot be disconnected during the upgrading process**
- **The power supply of the IP Camera must be stable during the upgrading process**

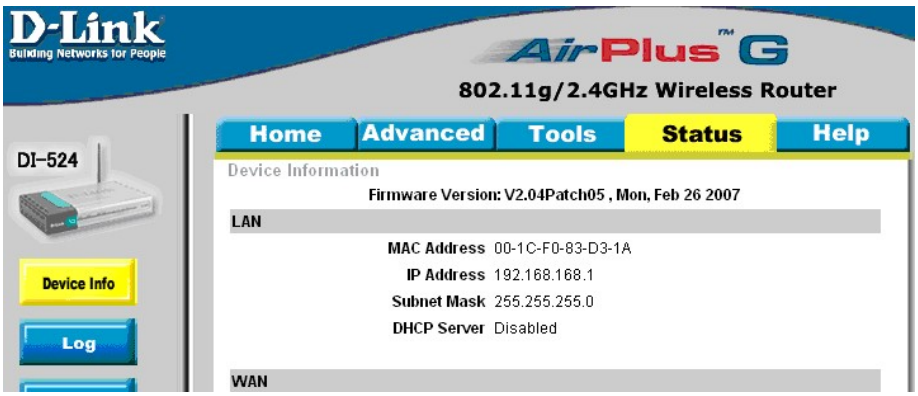
After completion of upgrading, the UP Camera will be restarted automatically; before re-running the system, do not perform any operation

Appendix Ⅱ Port mapping method

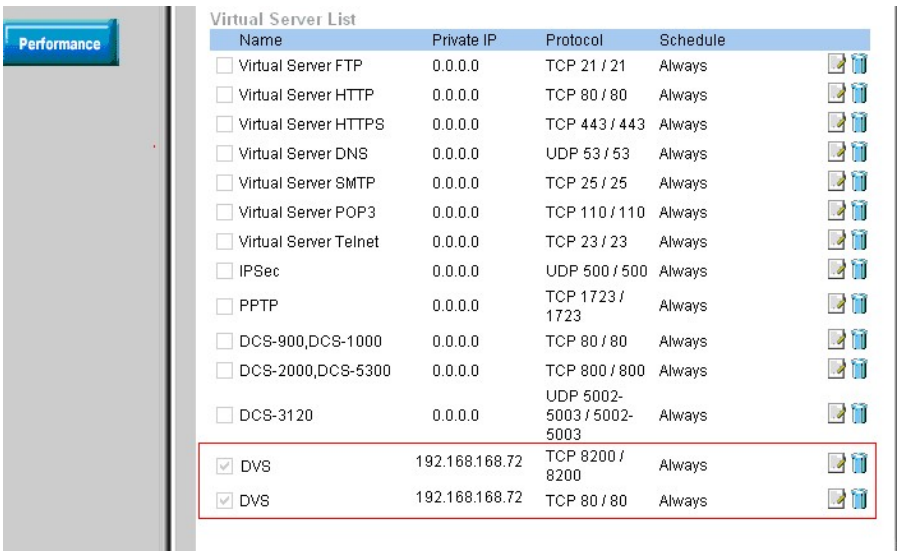
Note: the description below takes the configuration interface of the TP-LINK router (model is TL-R410) as an example, the configuration interface of the other router may be different.

Step I: firstly, select internet access method from the "setup guide" of the network router where the IP Camera locates.

Step II: set "network parameter" of router, wherein the Figure below is the parameter Settings of LAN port, it includes the mask and gateway of LAN; the IP address 192.168.168.1 is the gateway of the internal network.



Step III: perform the port mapping in the option "Transfer rule" →"Virtual server" of the router. The port number of the IP Camera is 80,8200,554; IP is 192.168.1.90; select All or TCP in the protocol and select use; after storing corresponding Settings, realize the port mapping function, show as the Figure below



Through the Settings above, the 80,8200,554 port mapping of the router is mapped to 192.168.190 of IP Camera, thus the 80,8200,554 port of the router is access 192.168.168.72.

Note: the port number of the IP Camera cannot conflict with the other port number; if the web administration port number of the router is 80,it is required to modify the port number of the router or the IP Camera so as to avoid conflict.

Appendix Ⅲ MyEYE

Note: MyEYE is the latest free dynamic secondary domain name of our company which solves the problems that the Settings monitoring requires fixed IP and the update of the domain name is slow; the new generation of domain name is possessed of quick refresh time and stable domain name and supports the uniform management of multiple domain name; it is not required to register user. Wherein the dvripc.cn belongs to the domestic domain name server; dvripc.net belongs to the foreign domain name server. Hong Kong, Macao and Taiwan use .net domain names.

MyEYE is turned on by default. MyEYE P2P domain access points and access to two kinds of port mapping.

A. P2P access

Step I: log in client software or IE preview interface-->open [Settings] →[PPPOE&DDNS Setup]-->Enable DDNS-->select MyEYE DDNS network provider. Shown as Figure 7-3-2

Step II: input domain name on the DDNS Settings interface, where in the default domain name is the last 6 digit numbers of MAC address; click “Apply” and store. **The MyEYE not requires the user name and password.**

Step III: View DDNS status and P2P status , P2P state is shown in 7-3-1:

DDNS state and P2P states are showing "success", Means the P2P domain can access. Such as status displays "network connect fail", please check the network if there are problems. If you have questions, please contact the technician.

Step IV: Add domain through CMS or in the IE address bar, enter the domain name can be connected to the camera

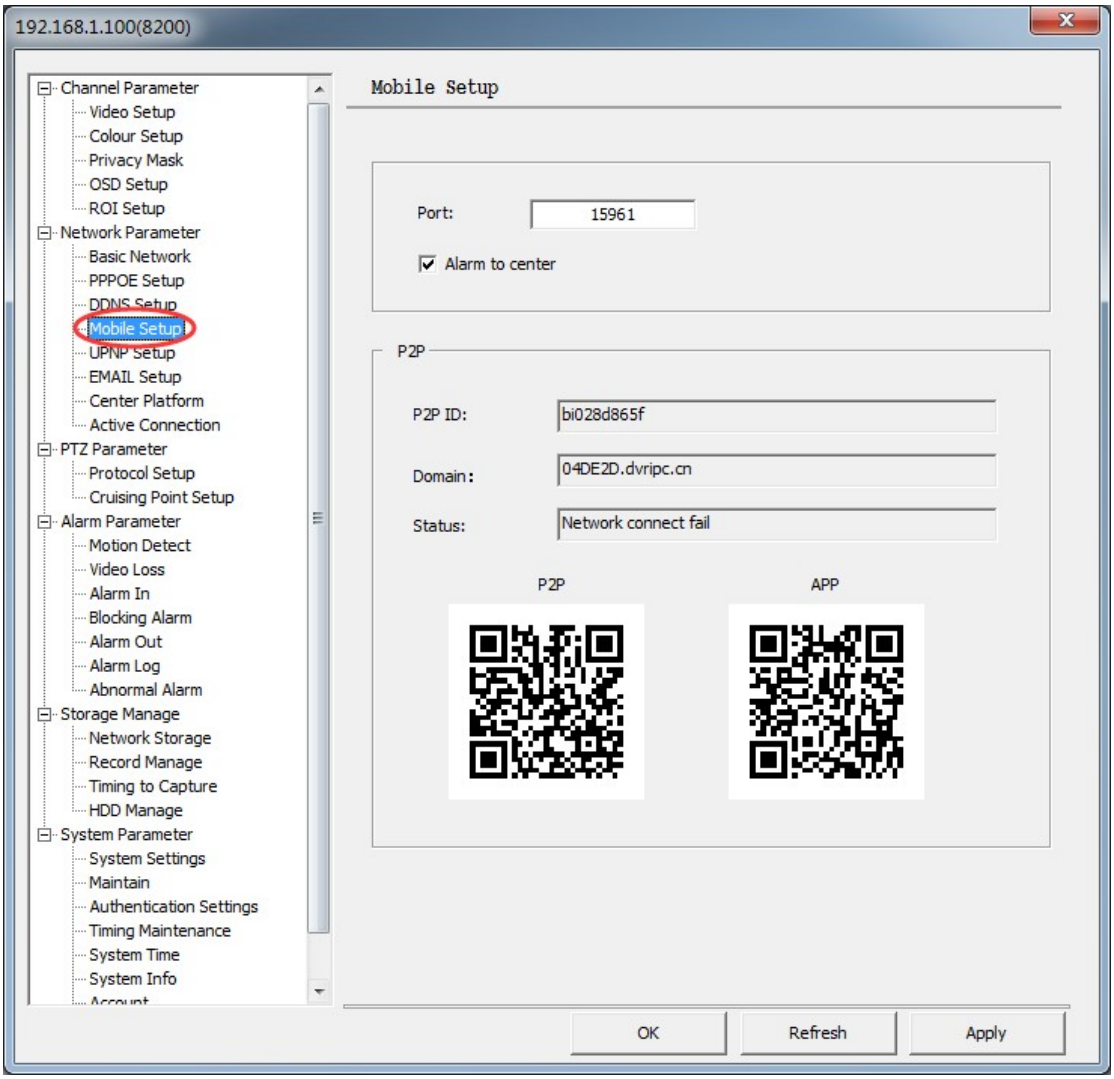


Figure 7-3-1 Mobile P2P

B. Port mapping

Step I: log in client software or IE preview interface-->open [Settings] →[PPPOE&DDNS Setup]-->Enable DDNS-->select MyEYE DDNS network provider. Shown as Figure 7-3-2

Step II: input domain name on the DDNS Settings interface, where in the default domain name is the last 6 digit numbers of MAC address; click "Settings" and store. **The MyEYE not requires the user name and password.**

Step III: set UPNP or set port mapping on the router. As for the port mapping method, please refer to "Appendix Ⅱ Port mapping method"

Step IV: Add domain through CMS or in the IE address bar, enter the domain name can be connected to the camera

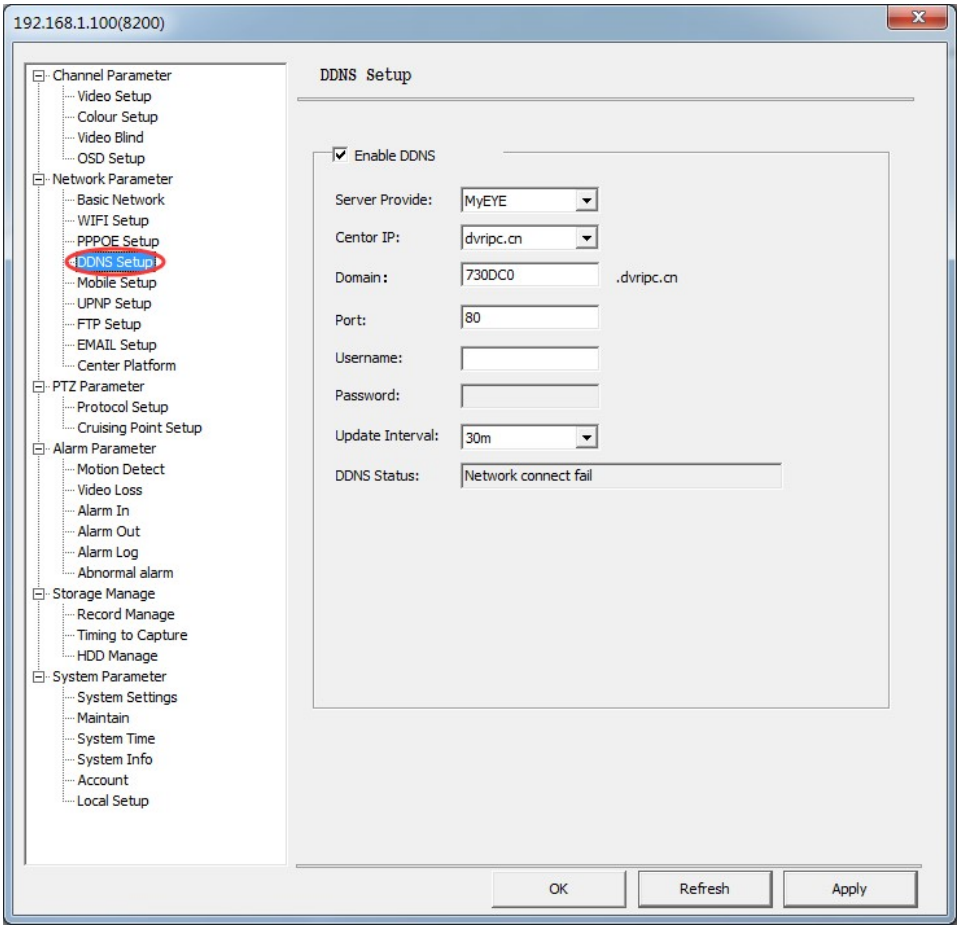


Figure 7-3-2 MyEYE Setup

Appendix III Default Parameter

1 Network parameter

1) Network video server and default parameter of IP Camera

Parameter	Default
IP address	DHCP(Direct Connect IP:192.168.1.100)
Subnet mask	255.255.255.0
Gateway	192.168.1.1
DNS	8.8.8.8
Data port	8200
web port	80
RSTP port	554
Mobile phone access port	15961

2. Username and password

Parameter	Default
Username	admin
Password	admin

Appendix IV Common troubleshooting instructions

Q: How to quickly connect the new machine and preview pictures?

A: Please read *IP Camera Quick User Guide* before using the equipment

Q: Why the searching tool for opening the IP Camera cannot search the equipment IP?

A: Reason 1: the IP Camera is not connected with the power supply or does not use the power adaptor meeting the standard;

Solution: supply power to the equipment by using the standard power adaptor of the IP Camera, check whether the power indicator lamp (PWR) of the equipment is lighted, and whether the equipment running light (RUN) is flashed normally.

Reason 2: the network wire is bad or the network wire is too long;

Solution: manufacture the cable again, wherein the length of single network cable shall not exceed 80 meters; try to use the more than five types or six types of shield network cables with good quality; after connecting the network cable, please check whether the network connection indicator lamp is lighted.

Reason 3: the computer firewall stops the searching tool;

Solution: before opening up the searching tool, please try to close the firewall of the computer temporarily; after normally connecting the equipment, open up the firewall of the computer.

Reason 4: Other reasons

Solution: press the Reset key of the equipment under the charging state for about 5 seconds and set free after the network light is turned off, thus the equipment will be restored to the ex-factory default parameter. The equipment default ex-factory IP address is **192.168.1.100**,

Q: Why the picture is dim or has color cast after connecting the picture?

A: Reason 1: the lens is dirt, and the lens hasn't adjusted the focal length well or the used lens is not accordance with the IP Camera;

Solution: clean the lens carefully by using a professional lens cloth, re-adjust the focal length of the lens; please use the megapixel lens if it is the megapixel IP Camera with.

Reason 2: the brightness, contrast ratio, definition and color parameter are not well adjusted;

Solution: fine adjust the brightness, contrast ratio, definition and color parameter again according to the specific installing environment.

Q: Why the IP camera cannot be accessed through internet?

A: Reason 1: there is no access environment of internet or no access right.

Solution: please install the internet access environment in advance, e.g. open up the ADSL network or fixed IP address of internet; if there is no network access right, please contact with the network administrator to open up the relevant access right.

Reason 2: there is not well set network parameter, port mapping and DDNS;

Solution: the correctly set network parameter of the IP Camera includes IP address, subnet mask, gateway, DNS and network access port so as to ensure that your equipment network address can be normally connected with the internet; normally configure the port mapping, apply and configure correct DDNS domain name.

Q: Why the video image is not smooth or has big delay when the IP Camera is accessed through internet?

A: Reason: the network bandwidth for uploading or downloading is not enough;

Solution: optimize or promote the uploading bandwidth of the IP Camera access and improve the downloading bandwidth of the access port network; reduce the coding rate and frame rate of IP Camera.