ANVIZ®
Intelligent . Security

IP CAMERA SERIES

OPERATION GUIDE

V1.0

About this Document

This manual is intended for administrators and users of the Anviz Network Cameras. It includes instructions for using and managing the product on your network. Previous experience of networking will be of use when using this product. Some knowledge of UNIX or Linux-based systems may also be beneficial, for developing shell scripts and applications. Later versions of this document will be posted to the Anviz website, as required. See also the product's online help, available via the web-based interface.

Legal Considerations

Video surveillance can be regulated by laws that vary from country to country. Check the laws in your local region before using this product for surveillance purposes. This product includes one (1) H.264 decoder license. To purchase further licenses, contact your reseller.

Liability

Every care has been taken in the preparation of this document. Please inform your local Anviz office of any inaccuracies or omissions. Anviz Communications cannot be held responsible for any technical or typographical errors and reserves the right to make changes to the product and manuals without prior notice. Anviz Communications makes no warranty of any kind with regard to the material contained within this document, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Anviz Communications shall not be liable nor responsible for incidental or consequential damages in connection with the furnishing, performance or use of this material. This product is only to be used for its intended purpose.

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Anviz has intellectual property rights relating to technology embodied in the product described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the patents listed at http://www.anviz.com/en-us and one or more additional patents or pending patent applications in the US and other countries.
This product contains licensed third-party software. See the menu item "About" in the product's user interface for more information.

Equipment Modifications

This equipment must be installed and used in strict accordance with the instructions given in the user documentation. This equipment contains no user-serviceable components. Unauthorized equipment changes or modifications will invalidate all applicable regulatory certifications and approvals.

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Federal Communications Commission Statement

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one 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.

Warning: Changes or modifications to the equipment that are not expressly approved by the responsible party for compliance could void the user's authority to operate the equipment.

European Community Compliance Statement

This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to European Standard EN 55022 and EN 55024. In a domestic environment, this product may cause radio interference in which cause the user may be required to take adequate measures.

IMPORTANT

The use of surveillance devices may be prohibited by law in your country. The Network Camera is

not only a high-performance web-ready camera but can also be part of a flexible surveillance system. It is the user's responsibility to ensure that the operation of such devices is legal before installing this unit for its intended use.

IMPORTANT

It is important to first verify that all contents received are complete according to the Package Contents listed below. Take note of the warnings in the Quick Installation Guide before the Network Camera is installed; then carefully read and follow the instructions in the Installation chapter to avoid damage due to faulty assembly and installation. This also ensures the product is used properly as intended.

Safety Precautions

All the following safety and operational instructions to prevent harm or injury to the operator(s) or other persons should be read carefully before the unit is activated.

WARNING

- To prevent fire or shock hazard, avoid exposing this unit to rain or moisture.
- Do not block ventilation openings.
- Do not place anything on top of the unit that might spill or fall into it.
- Do not attempt to service this unit yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Please refer all servicing to your distributor/ retailer.
- Do not use liquid cleaners or aerosols for cleaning.
- To prevent fire or electric shock, do not overload wall outlets or extension cords
- PoE warning : If the PoE injector is used instead of the supplied power adaptor, all of the wiring to and from the injector must be routed/ installed inside a building/ plant and never routed/ installed outside of the building/ plant.

CAUTION

Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

CONTENTS

How to Use This Operation Guide

This Guide explains how to operate the Network Camera from a computer. The User's Guide is designed to be read on the computer display. This section gives tips on making the most of the User's Guide-read it before you operate the camera.

Jumping to a related page

When you read the Operation Guide on the computer display, you can click on a sentence to jump to a related page.

Software display examples

Note that the displays shown in the Operation Guide are explanatory examples. Some displays may be different from the ones that appear in actual use.

Printing the Operation Guide

Depending on your system, certain displays or illustrations in the Operation Guide, when printed out, may differ from those that appear on your screen.

Installation Guide (printed matter)

The supplied Installation Guide describes the names and functions of parts and controls of the Network Camera, connection examples, and how to set up the camera. Be sure to read the Installation Guide before hand.

System Requirements

The following computer environment is necessary for the computer to display images and the controls of the camera.

OS

Microsoft Windows XP, Windows Vista (32bit version only), Windows 7 (32-bit version only)
Authorized editions:
Windows XP: Professional
Windows Vista: Ultimate, Business
Windows 7: Ultimate, Professional
Microsoft DirectX 9.0c or higher

Web Browser

Microsoft Internet Explorer Ver. 8.0, Ver. 9.0, Ver. 10.0

CPU

Intel Core 2 Duo, 2 GHz or higher

Memory

2 GB or more

Display

1600 × 1200 pixels or higher
(2560 × 1600 pixels or higher is recommended)

1 Accessing the Network Camera

This chapter explains how to access the Network Camera through web browsers.

1.2 Network Deployment

1.2.1 Setting up the Network Camera over the Internet

This section explains how to configure the Network Camera to an Internet Network.
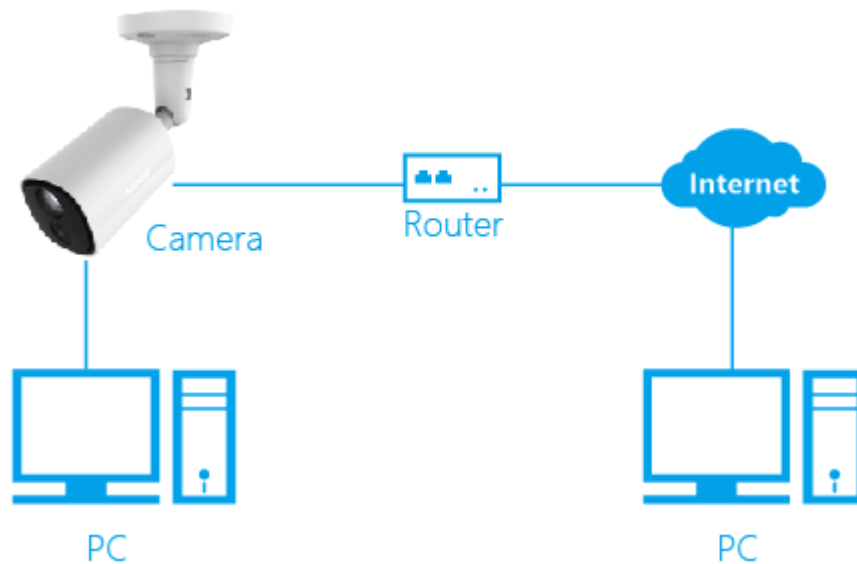
- Internet connection with static IP

Choose this connection type if you are required to use a static IP for the Network Camera.

- Internet connection via a router

Before setting up the Network Camera over the Internet, make sure you have a router and follow the steps below.

1. Connect your Network Camera to a router.
2. Assign a LAN IP address, the subnet mask and the gateway. Please refer to Software Installation on chapter **Network Setting(DM)** for details.
   Default configuration of IPC:
   - IP address: 192.168.100.100
   - User name: admin
   - Password: admin
3. Save the static IP in the router.
4. Set port mapping, E.g., 80, 8000, 8200 and 554 ports. The steps for port mapping vary depending on different routers. Please call the router manufacturer for assistance with port mapping.
5. Visit the network camera through a web browser or the client software over the internet.

1.2.2 Enable DHCP Function

This function can only work if the LAN, which the unit is connected to, has a Router / DHCP server. If the Router / DHCP server is working in the LAN, please plug the net cable into the router / switch and the other end of the connector in the camera. Set the Network setting and turn on the DHCP setting to use the DHCP protocol. The IP Camera will obtain an IP address automatically from the Router / DHCP server.

Note: The IP Camera default setting is DHCP OFF. Users can obtain an IP address automatically from the DHCP server.

1.2.3 Network Setting (DM)

Installation IntelliSight DM, free-bundled software included on the product CD, helps you set up your Network Camera on the LAN.

1.2.3.1 DM Installation

Install the DM from the supported CD-R:
1. Exit all applications currently running in the selected PC.
2. Insert the supported CD in the CD-ROM drive. The program will execute the installation automatically. Follow the on-screen instructions to proceed with the rest of the installation procedure as they appear.
3. After the installation is complete, pop up the START menu from your computer, and point to Programs DM to open up the program selection page as shown. Click on the DM tag to start the DM program.

Install the DM from the ZIP file:
1. Save the ZIP file to your PC and extract the file to a designated directory.
2. Open the extracted folder. The folder contains 1 file.
3. Click the setup icon to execute the installation and then follow the on-screen instructions to proceed with the rest of the installation procedure.
4. After the installation is complete, click the START menu from your computer, and point to Programs DM to start the DM program.

Note: Please make sure the TCP/IP communication software has been properly set and configured in your computer.

The program will list all Anviz network devices on the same LAN

1.2.3.2 DM Operation

Search:

Search the cameras in the same LAN; Include the following information of the camera: IP address, Mac address, Version, Hardware, Model, Sensor, SN, Vendor;

Network:

Check or modify the network information (IP address, Netmask, Gateway) of the appointed camera; Click "Apply" to apply the operation, or click "Cancel" to cancel the operation. Then click "OK" to exit this window.

1.2.3.3 IP Setting

Make sure that you have been added the IP address which in the same network segment with the camera network before access the camera.

Kindly follow the below steps to do the setting.
1. Click Start > Control Panel > Network and Internet
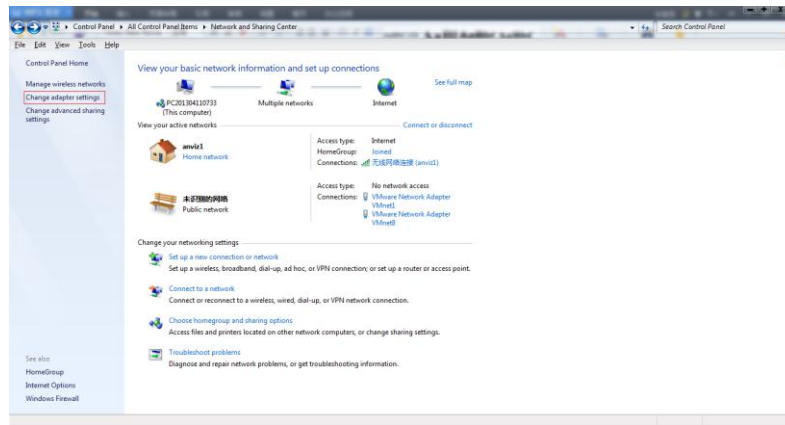
2. Click Change adapter settings > Local Area > Properties
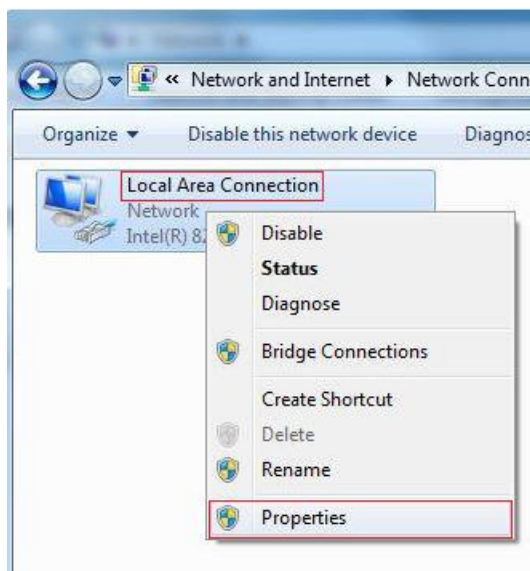
3. Double click the **Internet Protocol Version 4 (TCP/IP4)** to open the properties setting page.
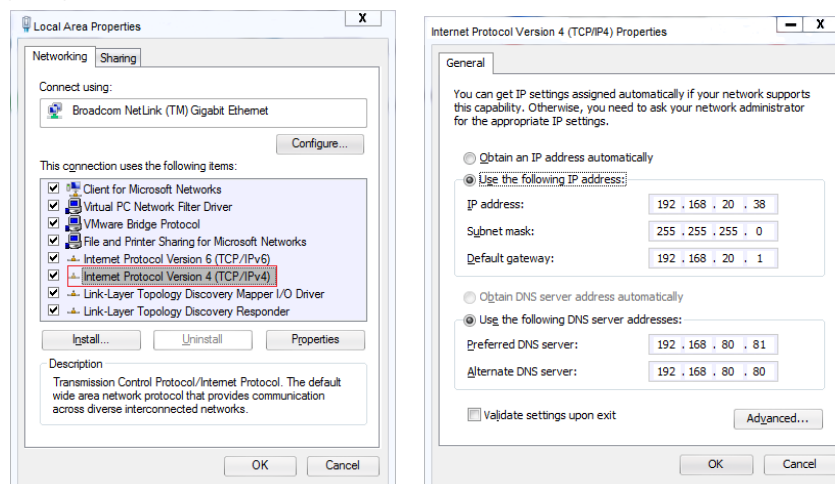
4. Click the **Advanced** setting to open the adding page.
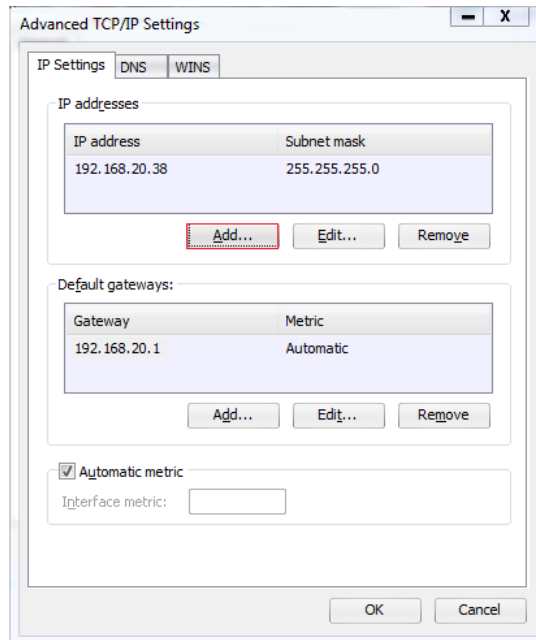
5. Click the **Add** to add another network, which is within the same network with camera.
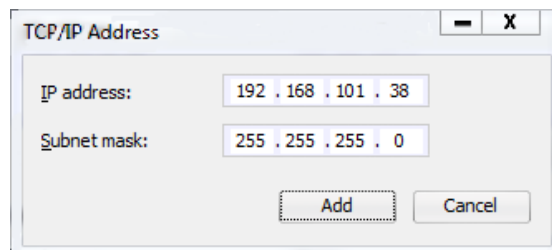
6. Click the **Add** to finish this setting. Then click ok to enable this changing.
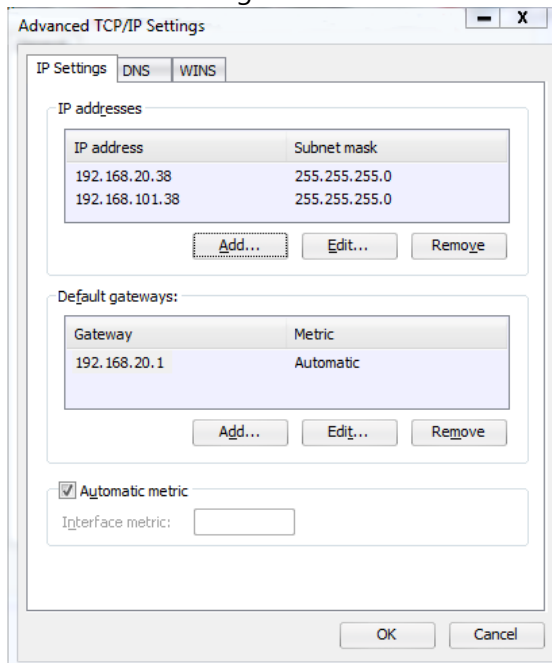
7. Click on the MAC and model name which matches the product label on your device to connect to the Network Camera via Internet Explorer.

1.3 Web Server Access

Use Installation DM to access to the Network Cameras. If you do not want to use the DM, kindly follow these steps to access the Network Camera.

1. Start up the Microsoft Internet Explorer, and then follow the steps below to connect the IP camera.
2. Click on the URL block at the top of the window.
3. Enter the URL address of the IP camera into the URL block and press the "**Enter**" button to enter the home page.
4. Enter the "User Name" and "Password" in the appropriate spaces.
5. Click on the "**OK**" button to set your entries, and automatically exit the page.
6. If it is the first time installing the Anviz network camera, an information bar will pop up as shown below. Follow the instructions to install the required plug-in on your computer.

Note:
1. The default "User Name" and "Password" are "admin" and "admin", respectively.
2. The page headlined "Enter Network Password" is shown below. Please enter the user name and password of the IP camera when you see it. If either the user name or the password is incorrect, please check the input data and rectify it as necessary.
3. Once authorized successfully, the login page will not appear again until you close the window and reconnect it.
4. The initial sequence of proceeding is to type in your IP address and click the "Enter" button to access the home page. If and when you reviseor change data in the "SYSTEM USERS" page, the sequence will alter to initially show the "Enter Network Password" page.
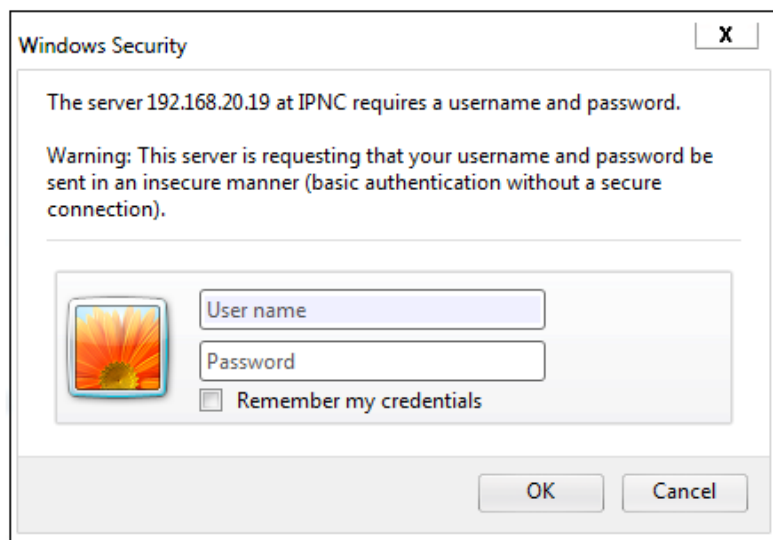
ActiveX Control Installing

Open the IE Browser, input the camera's IP in the address, and input username and password to login. There would be one prompt to require you to install our "Anviz Cameras' ActiveX" for the first time login.
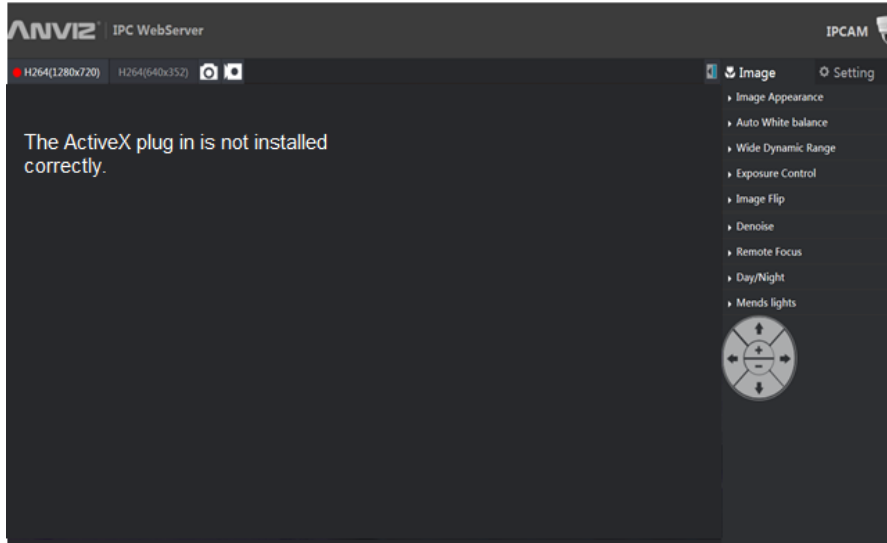
You will see the below reminder:

This website wants to install the following add-on: 'gipncActiveX' from 'ANVIZ Global Inc.'.   What's the risk?   Install   ×

Click the "Install" button to install this plug-in.
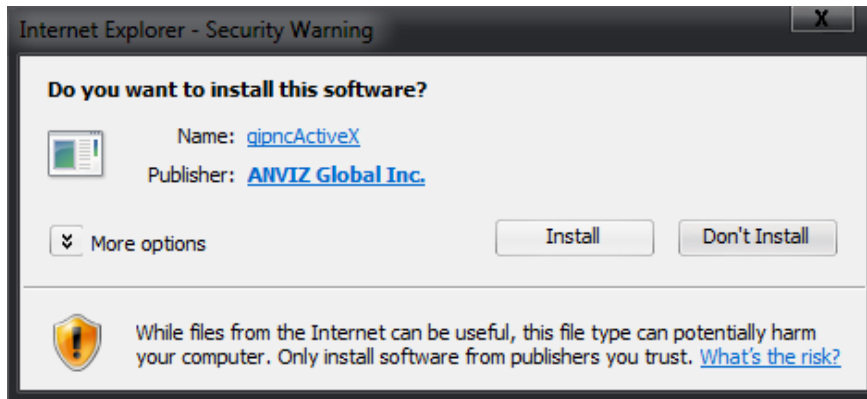
After processing auto-finished, the homepage of webserver would display normally.

2 Setting

This chapter explains the layout of the main page, and how to configure the camera and saving options on the local computer. When completed with the settings on this page, click Save on the page bottom to enable the settings.

2.1 Main Page

The Live Video from the IP camera is displayed on the home page when your PC is online with the IP camera. There are also additional settings provided on the home page.
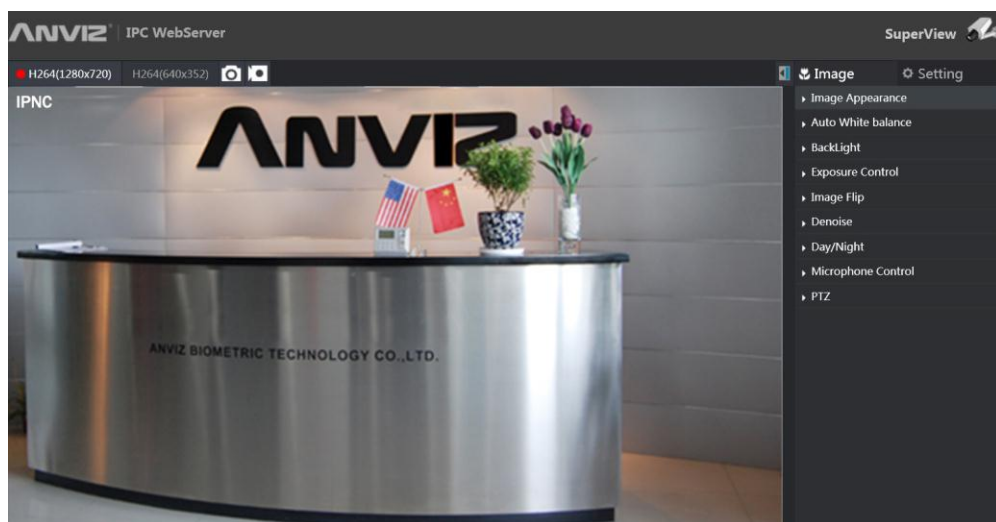
- **● H264(1280x720)** Main stream Video Icon: Change the pairs of resolution and quality which you already arranged in the "Video" setting page.

- **● H264(640x352)** Sub stream Video Icon: Change the pairs of resolution and quality which you already arranged in the "Video" setting page.

- Snapshot: Click on the [icon] button to take a snapshot. The snapshot would display in one new page while working effectively.

- Click on the [icon] button to record a video clip. The icon will change to the red color [icon] while working effectively. And the icon will be back to black color while you click the second time to stop recording. At the same time, there would be one prompt information display as below.

⚠️ Recoding file has been saved as:c:\201414121517.avi , please check.

● Click on the ⬛ button to hide the operation menu. The main menu will display while you click the second time.

● Full Screen: Double Click the video display pictures to enter into the full screen mode. The pictures would be back to normal size while you double click the second time.

● This page is used to adjust the video display image.

🌷 Image   ⚙ Setting

▸ Image Appearance

▸ Auto White balance

▸ BackLight

▸ Exposure Control

▸ Image Flip

▸ Denoise

▸ Day/Night

▸ Microphone Control

▸ PTZ
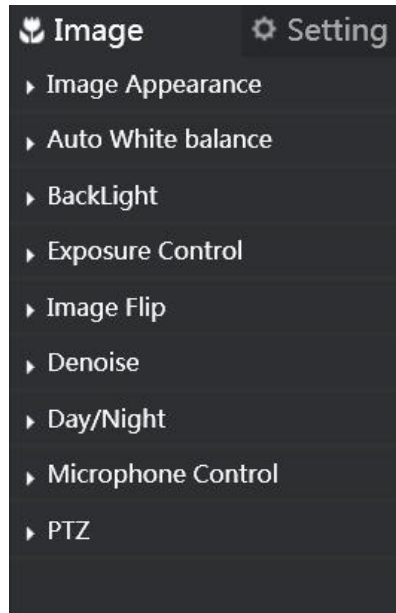
● This page is used to set the relative parameters.

🌷 Image   ⚙ Setting

Video   Audio

Events   Network

Storage   System
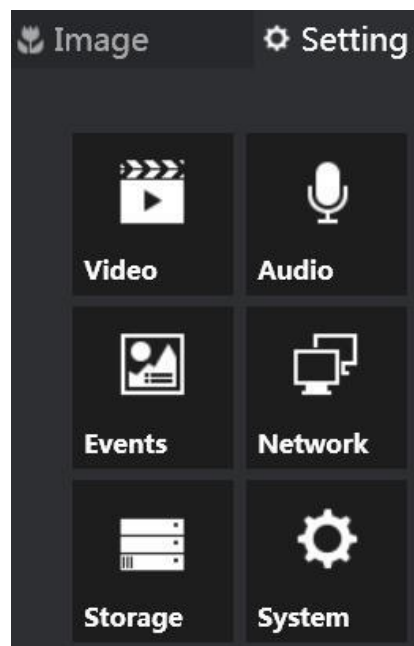
2.2 Image Setting

This chapter explains how to set the image and saving options on the local computer.

2.2.1 Image Appearance

Please follow the steps below to change the "Image Appearance" function through the network as necessary.

1. Click on the "Image Appearance" item on the right side of the "Image" page to unfold this page.
2. Click the symbol "-" to decrease, click the symbol "+" to increase. The button default position is "128", range from "0-255", shift unit is "1". The setting would be working while you do the modification.

● Brightness: An adjustable setting to compensate for backlit scenes.

Brightness [0-100] 63

● Contrast: The measurement for color intensity/strength.

Contrast [0-100] 54

● Sharpness: An adjustable setting to set the clarity of detail in the images.

Sharpness [0-100] 48

● Saturation: This setting controls the strength of colors from black and white to bold

Saturation [0-100] 47

2.2.2 Auto White Balance

White balance is the process of removing unnatural shades of color, so that objects which appear white in reality are rendered white in the images.

Auto White Balance Close   Auto White Balance Open

Please follow the steps below to change the "Auto White Balance" function through the network as necessary.

1. Click on the "Auto White Balance" item on the right side of the "Image" page to unfold this page.

2. The default icon status is off , and it would change to open and work while you click to enable this function.

2.2.3 WDR/BLC

1. Wide dynamic backlight technology supports the image processing of high-contrast and backlighting, which can fix the overexposure in bright areas and increase the brightness and clarity in dark areas, thereby providing a clear picture of the whole scene.
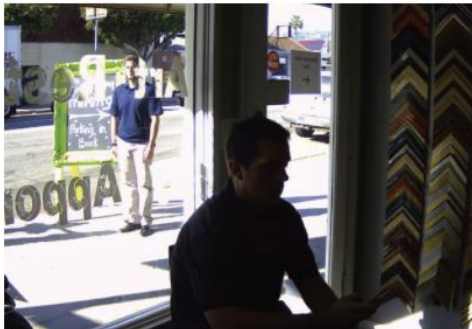
Wide Dynamic Range Close   Wide Dynamic Range Open
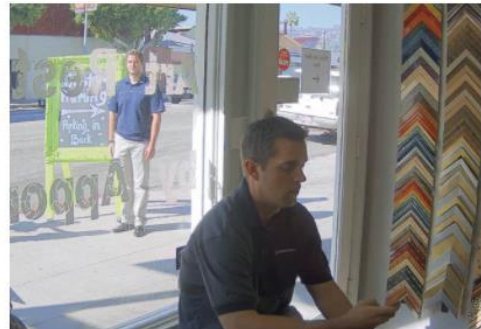
2. Click on the "BackLight" item on the right side of the "Image" page to unfold this page.

3. The default icon status is off , and it would change to open

 while you click to enable this function.

4. BLC is a feature provided by the Digital Signal Processor (DSP) in a security camera that optimizes exposure in the foreground and background of security video. It splits the video scene into different regions, and uses a different exposure for each of these regions. It corrects regions with extremely high or low levels of light to maintain a normal and usable level of light for the object in focus.

5. Click on the "BackLight" item on the right side of the "Image" page to unfold this page.

6. The default icon status is off , and it would change to open

 while you click to enable this function.

2.2.4 Exposure Control

Exposure time is controlled in a camera by shutter speed and the illumination level by the lens aperture. This option allows the user to choose the exposure time.
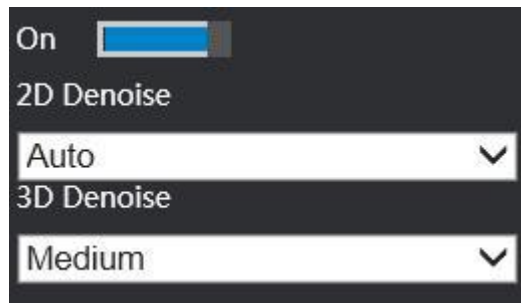
Please follow the steps below to change the "Exposure Control" function through the network as necessary.

1. Click on the "Exposure Control" item on the right side of the "Image" page to unfold this page, there are two modes Auto Exposure / Manual Exposure as below.
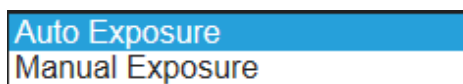
2. Choose the "Auto Exposure" mode to use, the default status is as below.

3.   There are two status of the "Flicker Control" – 50hz / 60hz, the default status is "50hz". Click the button ⌄ to unfold this page to choose.

4.   There are nine status of the "Max Shutter" – 1, 1/2, 1/8, 1/15, 1/20, 1/25, 1/30, 1/50, 1/100, the default status is "1/50". Click the button ⌄ to unfold this page to choose.

5.   To adjust the "Max Gain" Function. Click the symbol "-" to decrease, click the symbol "+" to increase. The button default position is "5", range from "0-10", shift unit is "1".

6.   Choose the "Manual Exposure" mode to use, the default status is as below.

7.   Click the symbol "-" to decrease, click the symbol "+" to increase. The button default position is "1", range from "1-10", shift unit is "1".

2.2.5 Image Flip

To flip the camera's lens. Please follow the steps below to change the "Image Flip" function through the network as necessary.

1. Click on the "Exposure Control" item on the right side of the "Image" page to unfold this page, there are four modes None / Horizontal / Vertical / Both as below.

2. Click the button ⌄ to unfold this page to choose.

3. Choose the "None" mode to use, the picture would be no changes.

4. Choose the "Horizontal" mode to use, the picture would flip 180 degrees at X Position. Below is the actual working scene.

None Mode | Horizontal Mode

5. Choose the "Vertical" Mode to use, the picture would flip 180 at Y Position. Below is the actual working scene.

None Mode | Vertical Mode

6. Choose the "Both" mode to use, the picture would flip 180 degrees both X Position and Y Position. Below is the actual working scene.

None Mode | Both Mode

2.2.6 Denoise

3DNR Technology is a method of suppressing noise in an image, appearing in low light. With 3DNR function, the cameras can offer 24/7 hour monitoring service with clear images.

3D Denoise Close   3D Denoise Open

Please follow the steps below to change the "Denoise" function through the network as necessary.

1. Click on the "Denoise" item on the right side of the "Image" page to unfold this page.

2. The icon default status is off . The status would change to open

    while you click to enable this function.

   Below is the actual working scene.

3. Choose the "on" mode to use, the default status is as below：

4. There are five status of the "2D Denoise" –Auto/High/ Medium/Low/Close, and the

   default status is "Auto". Click the button to unfold this page to choose.

5. There are three status of the "3D Denoise" –High/ Medium/Low, and the default

   status is "Medium". Click the button to unfold this page to choose.

2.2.7 Remote Focus

To enable you to remote adjust the distance from the lens to film's surface. Please follow the steps below to change the "PTZ" function through the network as necessary.

1. Click on the "PTZ" item on the right side of the "Image" page to unfold the "PTZ" page.

3D Position   Auto Focus / Focus / Iris / Zoom
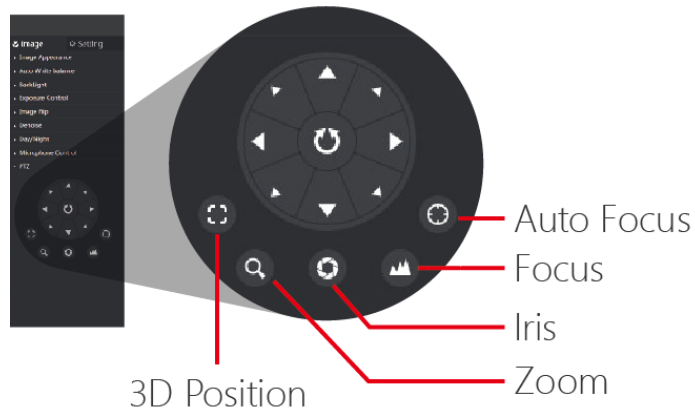
2. Click the "Auto Focus" button, refocus the lens.

3. To set Focus [+ ▲ −], click the symbol "-" to decrease, click the symbol "+" to increase.

4. To set Iris [+ ◎ −], click the symbol "-" to decrease, click the symbol "+" to increase.

5. To set Zoom [+ ◎ −], click the symbol "-" to decrease, click the symbol "+" to increase.

6. Click the 3D Position button, enable/disable the 3D position function.

2.2.8 Day/Night

Equipped with extremely stable IR-Cut filter, the cameras reflect or block mid-infrared wavelengths while passing visible light, and produce accurate color images as the human eye sees them during the day. As light diminishes below a certain level, the cameras will automatically switch to night mode to make full use of near infrared light to deliver high-quality, black and white images.
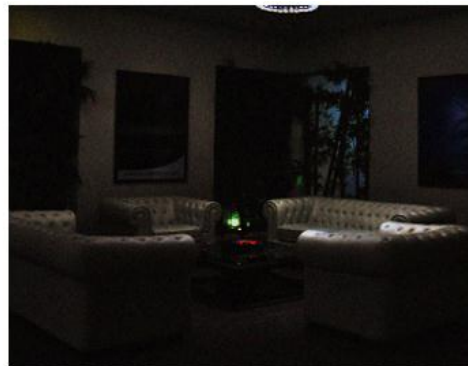
Day mode   Night Mode

Please follow the steps below to change the "Day/Night" function through the network as necessary.

1. Click on the "Day/Night" item on the right side of the "Image" page to unfold the "Day/Night" page, there are two modes Manual / Manual.
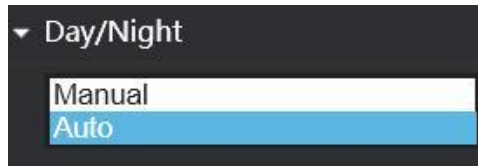
2. Choose "Manual" mode to use, the default status is off as below.
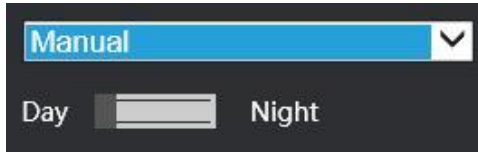
The status would change to Day while you click to enable

this function.

3. Choose "Auto" mode to use, the default status is as below.
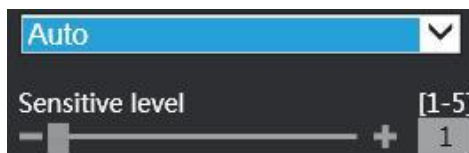
For "Sensitive level" setting, this is the value to display current lights' performance. Click the symbol "-" to decrease, click the symbol "+" to increase. The button default position is "1", range from "1 - 5", shift unit is "1".

Description of the function keys:

Manual	The default status is always be "Day". After you enable it, the status would always be "Night".
Auto	The Day would auto-change to Night when the value reaches the "D-N shift" setting value. The Night would auto-change to Day when the value reaches the "N-D shift" setting value.

2.2.9 Mends lights

There is white light to provide a certain amount of lights according to the current circumstance.
Please follow the steps below to change the "Mends lights" function through the network as necessary.

1. Click on the "Mends lights" item on the right side of the "Image" page to unfold the "Mends lights" page, there are two modes Auto / Manual as below.
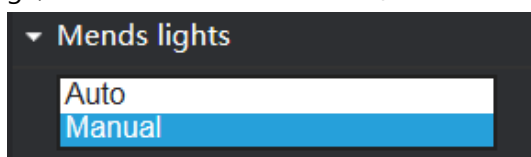
2. Choose the "Auto" mode to use.
3. Choose the "Manual" mode to use,. Click the symbol "-" to decrease, click the

symbol "+" to increase. The button default position is "0", range from "0 - 100", shift unit is "1".
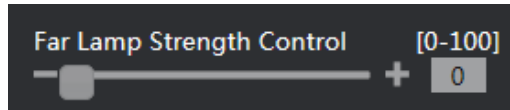
Description of the function keys:

Auto	The strength of the white light would execute the auto adjustment.
Manual	To adjust the strength of the white light by manually

2.3 Setting

2.3.1 Video Setting

Click on the video button of the setting to enter the video page to set the details of the device. You may configure video profiles with different settings for your camera. Hence, you may setup different profiles for your computer and mobile displays. In addition, you may also configure your audio setup for your camera. Click "save" to activate your changes.

Please follow the steps below to change the "Video" function through the network as necessary.

1. Click the "Setting > Video" to enter into the video setting. And there are three main menus Video Combo / OSD Overlay / Privacy Masks as below.
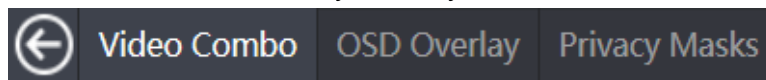
2. Click the button to return to the Webserver home page.
3. Choose the different to enter into the different menus.

2.3.1.1　Video Combo Setting

Please follow the steps below to change the "Video Combo" function through the network as necessary.

1. Click the "Setting > Video > Video Combo" menu to enter into the below shot.

2. Set the "Encoding Parameter", "Resolution", "Frame Rate", "Image Quality", "Rate Control", "Max Bit Rate" of the Main stream as necessary.

3. Set the same details of the Sub stream.

4. Click on the save button ![Save] to submit the new setting.

5. Another new page would appear to show the current processing status as below.

6. The system would take a few seconds to activate this changing while finished submitting.

Sending Request,Please Wait!
Waiting....
Set Up Accomplish!

Ok

Description of function keys:
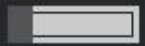
Encoding Parameter	Click on the drop-down list to choose the audio encoding of "Main", "Baseline", "High".(Default is High)
Resolution	Main Stream: Click on the drop-down list to choose the Resolution of 1080P(1920x1080) "960p:1280x960", "720p:1280x720", "D1:704x576".(Default is 720p:1280x720) Sub Stream: Click on the drop-down list to choose the Resolution of "D1:704x576", "VGA:640x352", "QVGA:320x192".(Default is VGA:640x352)
Frame Rate	Main Stream: Click on the drop-down list to choose the frame rates of "8", "15", "20", "25" ,"30".(Default is 25) Sub Stream: Click on the drop-down list to choose the frame rates of "8", "15", "20", "25" ,"30".(Default is 25)
Image Quality	Main Stream: Click on the drop-down list to choose the frame rates of "High", "Medium High", "Medium", "Medium Low", "Low", "Very Low".(Default is High) Sub Stream: Click on the drop-down list to choose the frame rates of "High", "Medium High", "Medium", "Medium Low", "Low".(Default is medium High)
Rate Control	Main Stream: Click on the drop-down list to choose the "VBR", "CBR".(Default is VBR) Sub Stream: Click on the drop-down list to choose the "VBR", "CBR".(Default is CBR)
Max Bit Rate	Main Stream: Click on the drop-down list to choose the frame rates of "2M" ,"3M", "4M", "5M".(Default is 4M) Sub Stream: Click on the drop-down list to choose the frame rates of "2M" ,"1M", "512KB".(Default is 1M)

2.3.1.2 OSD Overlay Setting

Overlays are superimposed over the video stream, to display a text string.
Please follow the steps below to change the "OSD Overlay" function through the network as necessary.

1. Click the "Setting > Video > OSD Overlay" menu to enter into the below shot.
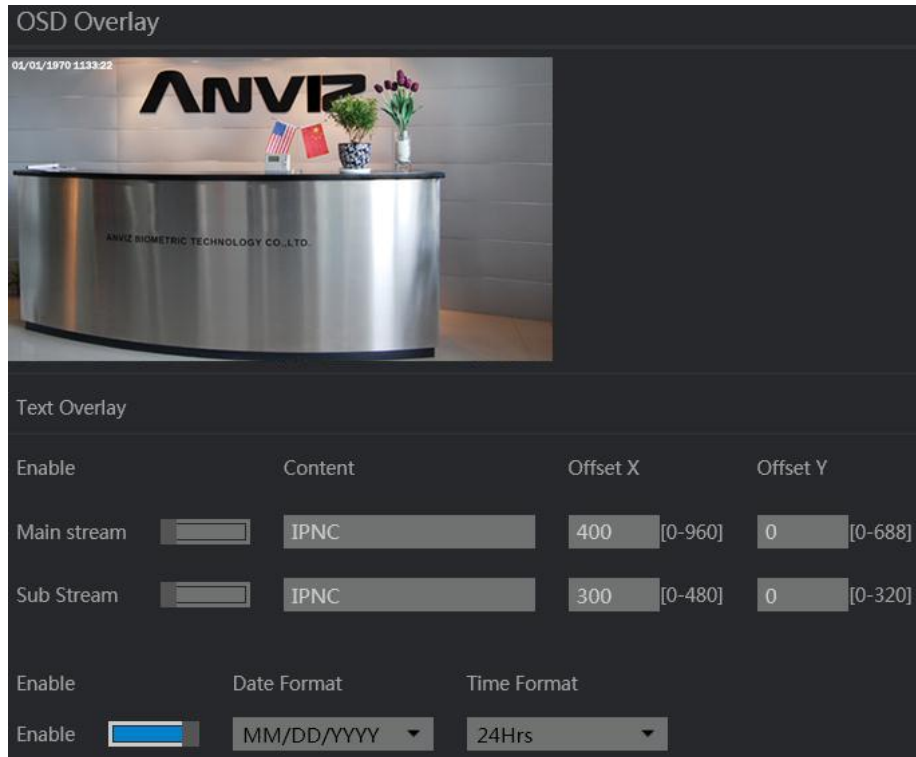
2. To enable the Text Overlay function. The default icon status is off ,

   and it would change to open while you click to enable this function.

3. Input the display content on the text diagram, the length is from 0 -47 characters.
4. Input the display X and Y position of the display pictures, the size is related with the resolution you set. e.g. The resolution of Main Stream you set is 720P:1280x720, then the X position is from 0 – 1280; Y position is from 0 – 720.
5. The content display default position is beyond the time display, the content display as the red one.

Before Adding Content   After Adding Content

6. To change the time setting. The default icon status is on [image], and it would change to disable [image] while you click to enable this function.

Enable the time display   Disable the time display

The Date Format has three types:
● YYYY / MM / DD
● MM / DD / YYYY
● DD / MM / YYYY
The default date format is YYYY / MM / DD
The Time Format has two types: 24Hrs / 12Hrs
The default date format is 24Hrs.

2.3.1.3　Privacy Masks Setting

Privacy masks is an area of solid color that prohibits users from viewing parts of the monitored area. Please follow the steps below to change the "Privacy Masks" function through the network as necessary.

1. Click the "Setting > Video > Privacy Masks" menu to enter into the below shot.

2. Click Edit button **Edit** of Item 1.

   Choose one area as you want to hide, then there would be one red circle.

3. Click the apply button **Apply** to submit this changing, the area you choose would change to black as below.

4. After you Apply the changing, the value of the Item 1 would be also auto changed.

Enable	X	Y	Width	Height
	275	291	205	121

5. Click the delete button **Delete** or Reset button **Reset** to cancel the previous setting, the picture would back to the default display.

6. Using the step 2 to step 6 the same way to set the Item 2, Item 3, Item 4

2.3.2 Audio Setting

This section explains how to configure the Audio settings of the Network Camera. Please follow the steps below to change the "Audio" function through the network as necessary.

1. Click the "Setting > Audio " menu to enter into the below shot.
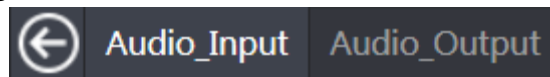
2. Click the button to return to the Webserver home page.
3. Choose the different to enter into the different menus.

2.3.2.1 Audio Input Setting

Please follow the steps below to change the "Audio Input" function through the network as necessary.
1. Click the "Setting > Audio > Audio Input" menu to enter into the below shot.
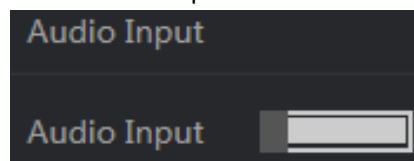
2. To enable it. The status would change to open while you click to enable this function.
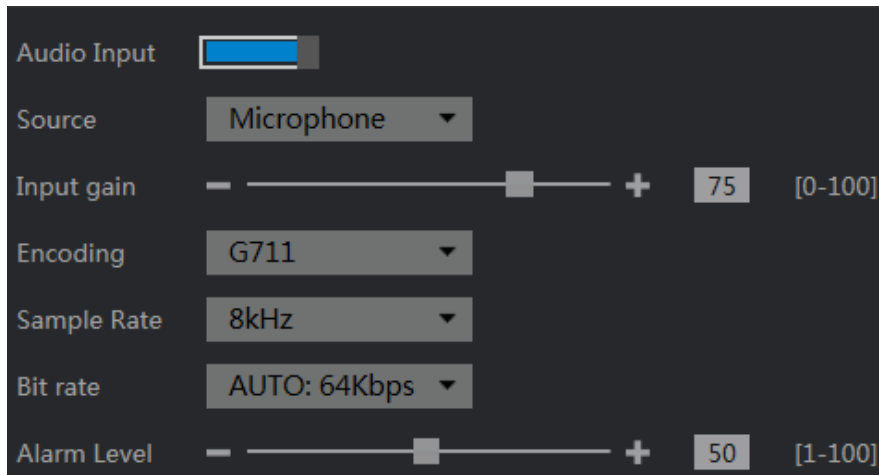
3. Set the "Source", "Input gain", "Encoding", "Sample Rate", "Bit rate", "Alarm Level" of the Audio Input as necessary.

Description of function keys:

Source	Click on the drop-down list to choose the source of "Microphone".(Default is Microphone)
Input gain	To adjust the volume of input voice. Click the symbol "-" to decrease, click the symbol "+" to increase. Range from "0 - 100", shift unit is "1".(Default is 32)
Encoding	Click on the drop-down list to choose the Encoding of "G711".(Default is G711)
Sample Rate	Click on the drop-down list to choose the Sample Rate of "8kHz".(Default is 8kHz)
Bit rate	Click on the drop-down list to choose the Bit rate of "AUTO:64Kbps".(Default is AUTO:64Kbps)
Alarm Level	To adjust the Alarm of sensitivity. Click the symbol "-" to decrease, click the symbol "+" to increase. Range from "1 - 100", shift unit is "1".(Default is 50) Please enable Audio alarm and Audio input function while you set this.

2.3.2.2 Audio Output Setting

Please follow the steps below to change the "Audio Output" function through the network as necessary.

1. Click the "Setting > Audio > Audio Output" menu to enter into the below shot.
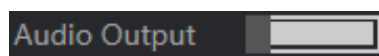
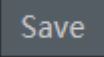2. To enable it. The status would change to open while you click to enable this function.

3. Set the "Output gain" of the Audio Output as necessary.

Description of function keys:

Output gain	To adjust the volume of output voice. Click the symbol "-" to decrease, click the symbol "+" to increase. Range from "0 - 100", shift unit is "1".(Default is 75)

2.3.3 Events Setting

The Anviz product can be configured to perform actions when different events occur, for example, start a recording when motion is detected. The set of conditions that defines how and when the action is triggered is called an Action Rule. Please follow the steps below to change the "Events" function through the network as necessary.

1. Click the "Setting > Events " menu to enter into the below shot.
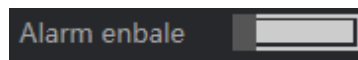
2. To enable it. The status would change to open while you click to enable this function.
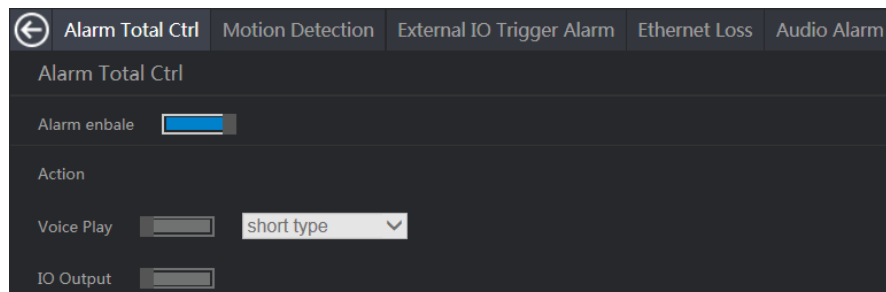
3. To enable the voice play. The status would change to open while you click to enable this function. Then there would be two types short type / long type, which is the length of the voice.

4. To enable the IO Output. The status would change to open while you click to enable this function.

5. Set the "Motion Detection", "External IO Trigger Alarm", "Ethernet Loss", "Audio Alarm" of the Events as necessary.

2.3.3.1 Motion Detection

Motion detection is used to generate an alarm whenever movement starts or stops in the camera view. Please follow the steps below to change the "Motion Detection" function through the network as necessary.

1. Click the "Setting > Events > Alarm Enable > Motion Detection" menu to enter into the below shot.

2. To enable it. The status would change to open while you click to enable this function.

3. Moving the pointer to choose the area you want to detect. The color would be changed to green when the pointer moving to one area

4. Single Click to choose the detecting area, the area would change to the below shot.

5. Click "Save" button to submit this changing request.

6. After camera finished the request, there would appear the finishing shot. Then click the "ok" button to close this page to activate the changing.
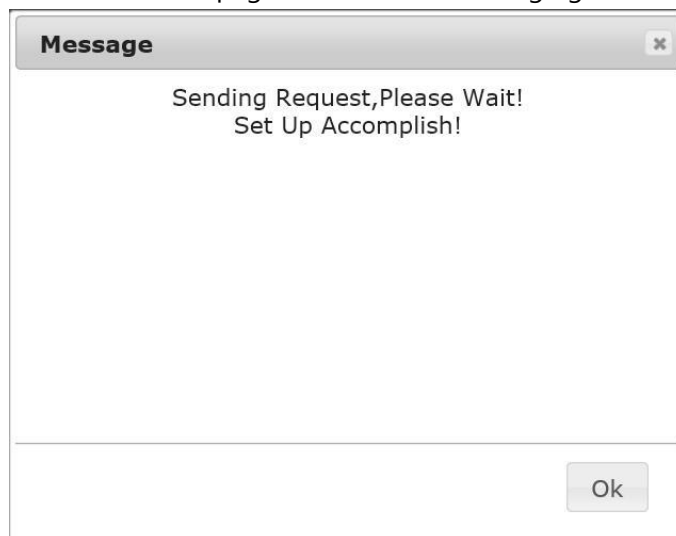
7. If there is any abnormally action in the area you set, there would be one prompt information – "MotIon," to reminder the supervisor.

8. Click the "Select All" button `Select All` to choose all the areas of the picture, the total areas you could choose is twelve.

9. Click the "Clear all" button `Clear all` to clear your previous setting.

10. The picture would back to the default picture.
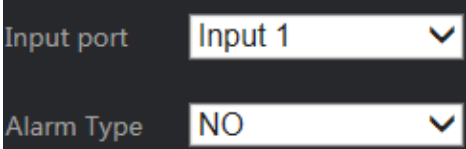
11. Click on the drop-down list to choose the Sensitivity levels of "Low", "Medium", "High". (Default is Medium)

2.3.3.2 External IO Trigger Alarm Setting

Please follow the steps below to change the "External IO Trigger Alarm" function through the network as necessary.

1. Click the "Setting > Events > Alarm Enable > External IO Trigger Alarm " menu to enter its setting page.

2. To enable it. The status would change to open while you click to enable this function.

3. Click on the drop-down list to choose the Input port of "Input 1". (Default is Input 1)

4. Click on the drop-down list to choose the Alarm Type of "NO". (This is to set the alarm trigger type, Default is NO)

2.3.3.3 Exception Alarm Setting

Please follow the steps below to change the "Exception Alarm" function through the network as necessary.

1. Click the "Setting > Events > Alarm Enable > Exception Alarm" menu to enter its setting page.

2. To enable it. The status would change to open while you click to enable this function.

3. Click on the drop-down list to choose the Exception Alarm. (Default is Disk Full).

2.3.3.4 Audio Alarm Setting

Please follow the steps below to change the "Audio Alarm" function through the network as necessary.

4. Click the "Setting > Events > Alarm Enable > Audio Alarm" menu to enter its setting page.

5. To enable it. The status would change to open while you click to enable this function.

2.3.4 Network Setting

Please follow the steps below to change the "Network" function through the network as necessary.

1. Click the "Setting > Network" to enter into the Network setting. And there are three four menus "TCP/IP", "Wireless", "Streaming Media", "FTP" as below.
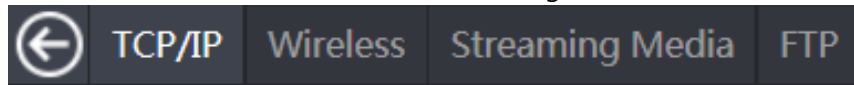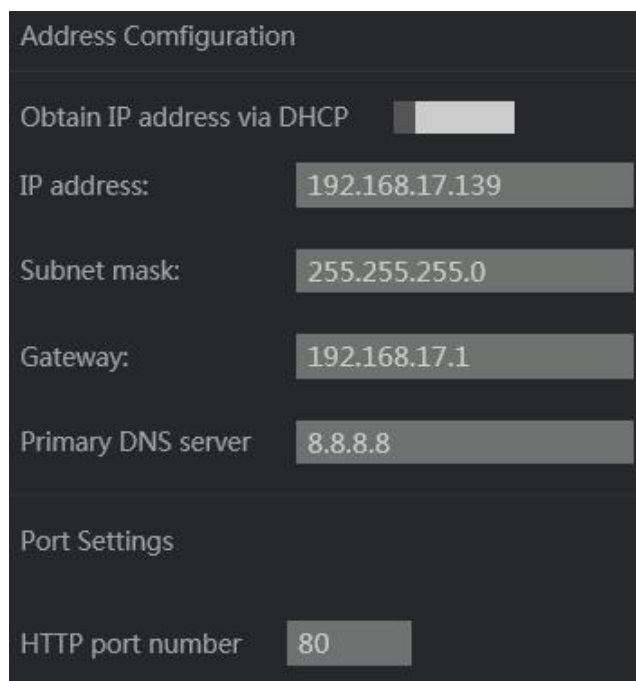
2. Click the button to return to the Web server home page.

3. Choose the different to enter into the different menus.

2.3.4.1 TCP/IP Setting

Please follow the steps below to change the "TCP/IP" function through the network as necessary.

1. Click the "Setting > Network > TCP/IP" to enter into the TCP/IP setting.

2. To enable the "Obtain IP address via DHCP" function, the status would change to open while you click to enable this function. Then the DHCP server would set one IP to the device.
3. Set the "IP address", "Subnet mask", "Gateway", "Primary DNS server" , "HTTP port number" of the TCP/IP as necessary.

Description of function keys:

Primary DNS server	(The Domain Name System) is an Internet service that translates domain names into IP addresses (i.e. 192.168.0.20). The address can be obtained from your ISP or network gateway.
HTTP port number	HTTP ports allow you to connect to the camera via a standard web browser. This port can be set to a number other than the default HTTP port 80. A corresponding port must be opened on the router. For example, if the port is changed to 8080, users must type in the web browser 'http://192.168.0.100:8080' instead of http://192.168.0.100'.

2.3.4.2 Wireless Setting

Please follow the steps below to change the "Wireless" function through the network as necessary.

1. Click the "Setting > Network > Wireless" to enter into the Wireless setting.
2. To enable the "Wireless" function, the status would change to open while you click to enable this function.

3. Click on the drop-down list to choose the Connection Way of "Normal", "WPS-PBC"(Default is Normal)

● Normal Setting

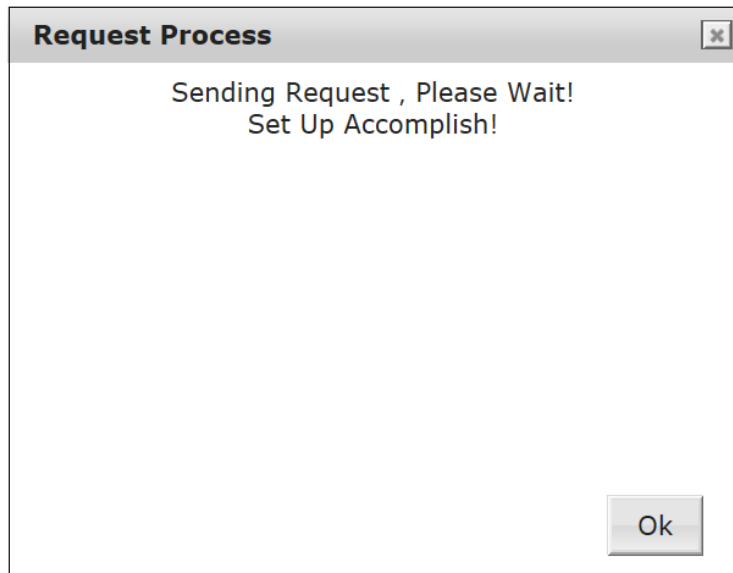Please follow the steps below to change the "Normal" function through the network as necessary.
1. Click the "Setting > Network > Wireless > Normal" to enter into the Normal setting.

2. To input the wireless network name into the SSID diagram or Click on the

   drop-down list to choose the compatible wireless network.

3. To input the password of the wireless network you choose.

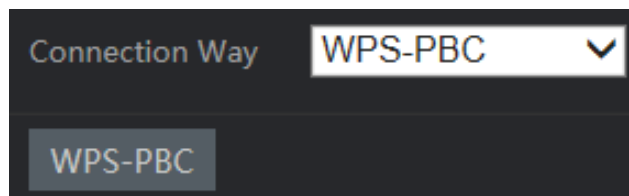4. Click "Save" button to submit this changing request.

5. After camera finished the request, there would appear the finishing shot. Then click the "ok" button to close this page to activate the changing.
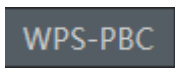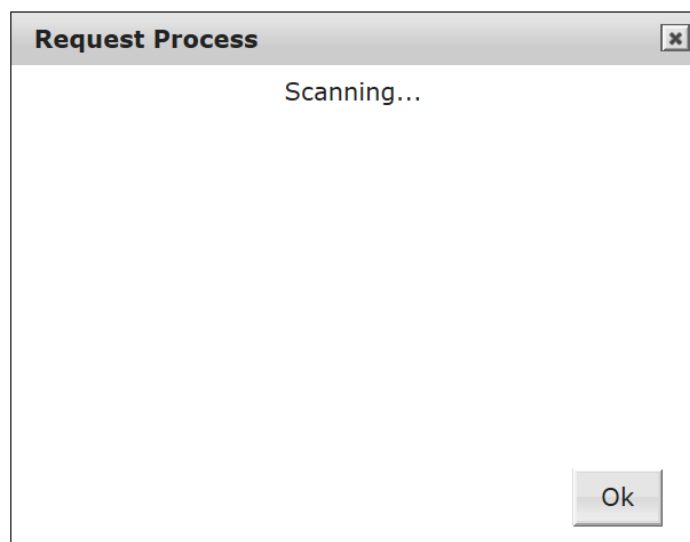
● WPS-PBC Setting

Please follow the steps below to change the "WPS-PBC" function through the network as necessary.

1. Click the "Setting > Network > Wireless > WPS-PBC" to enter into the WPS-PBC setting.
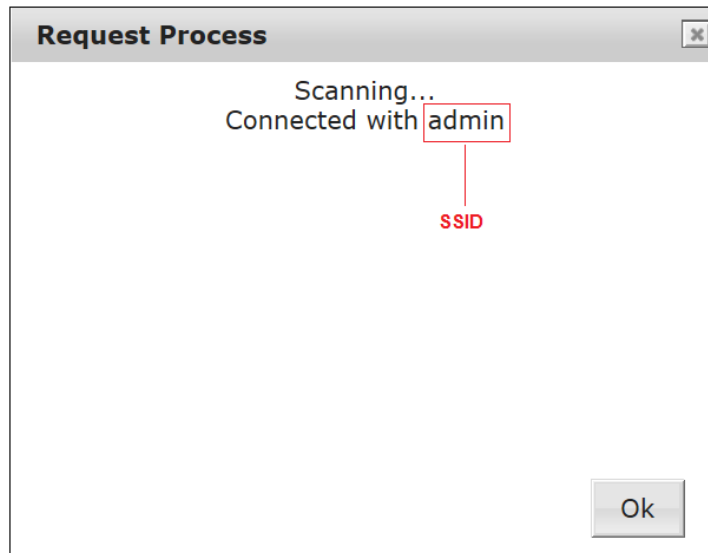

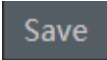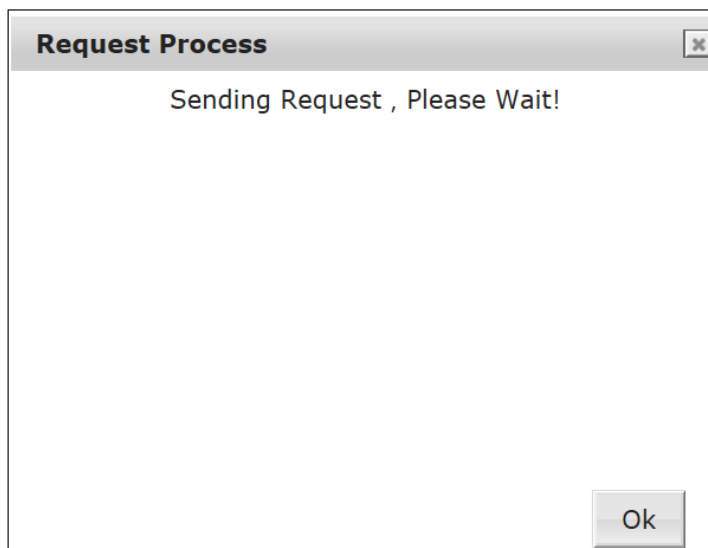2. Click the WPS-PBC button to enter into the scanning page.

3. At the same time, click the WPS button on the wireless router.

4. After detected, the system would have one picture to show the successful information.

Request Process ⊠

Scanning…
Connected with admin

SSID

Ok

5. Click "Save" button Save to submit this changing request.

Request Process ⊠

Sending Request , Please Wait!

Ok

6. After camera finished the request, there would appear the finishing shot. Then click the "ok" button to close this page to activate the changing.
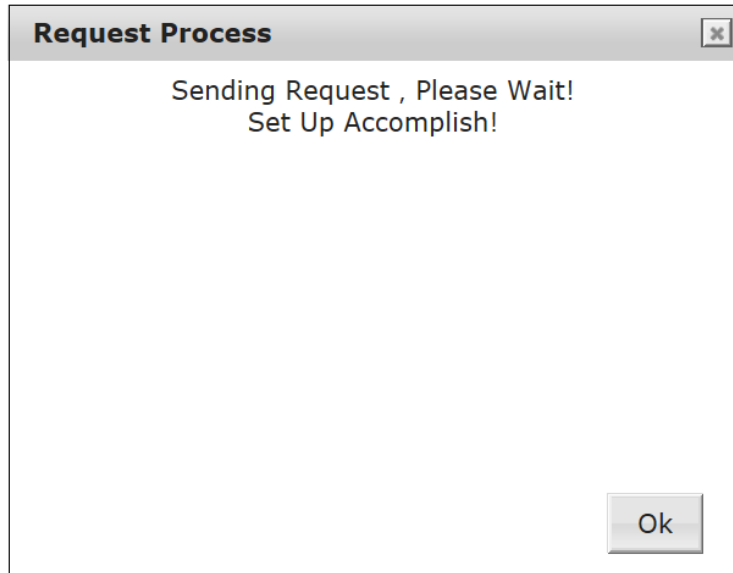
"Obtain IP address via DHCP" Setting

Please follow the steps below to change the "Obtain IP address via DHCP" function through the network as necessary.
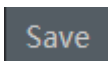
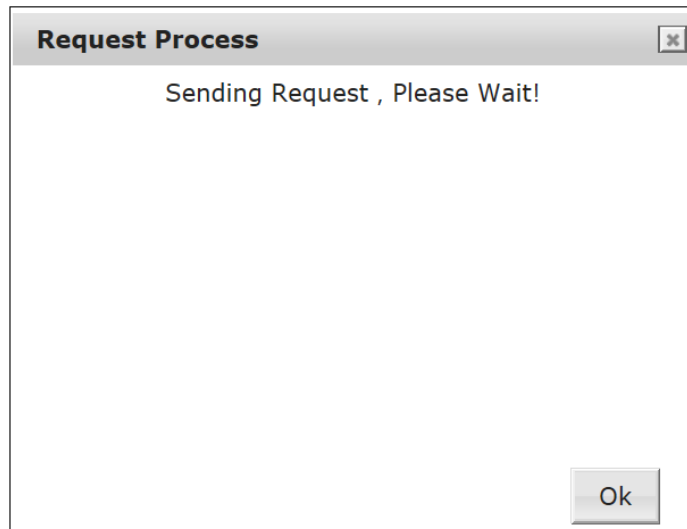1. Click the "Setting > Network > Wireless" to enter into the Obtain IP address via DHCP setting.

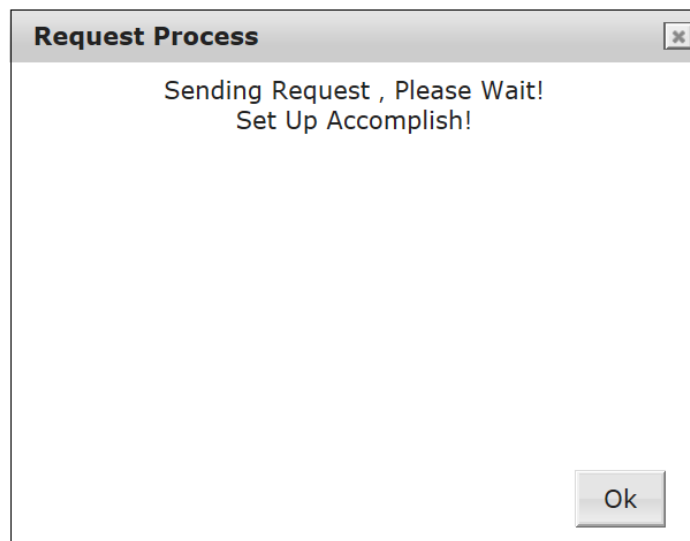2. The icon default status is on .. The status would change to off while you click to disable this function.

3. Set the "IP address", "Subnet mask", "Gateway", "DNS server" as necessary.

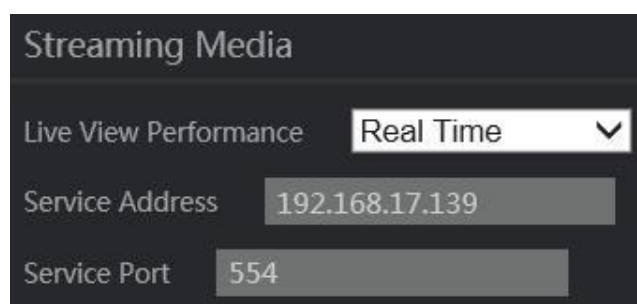4. Click "Save" button to submit this changing request.

5. After camera finished the request, there would appear the finishing shot. Then click the "ok" button to close this page to activate the changing.
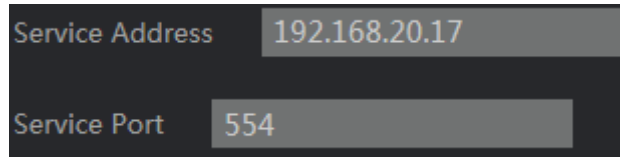

2.3.4.3   Streaming Media Setting

Please follow the steps below to change the "Streaming Media" function through the network as necessary.

1. Click the "Setting > Network > Streaming Media " menu to enter into the below shot.
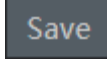
2. Click on the "Live View Performance" item on the right side of the "Image" page to unfold this page, the three modes are Real Time / Balanced / Fluency(Default is Real Time).

3. Set the "Service Address", "Service Port" as necessary.

4. Click "Save" button [Save] to submit this changing request after camera finished the request, there would appear the finishing shot. Then click the "ok" button to close this page to activate the changing.
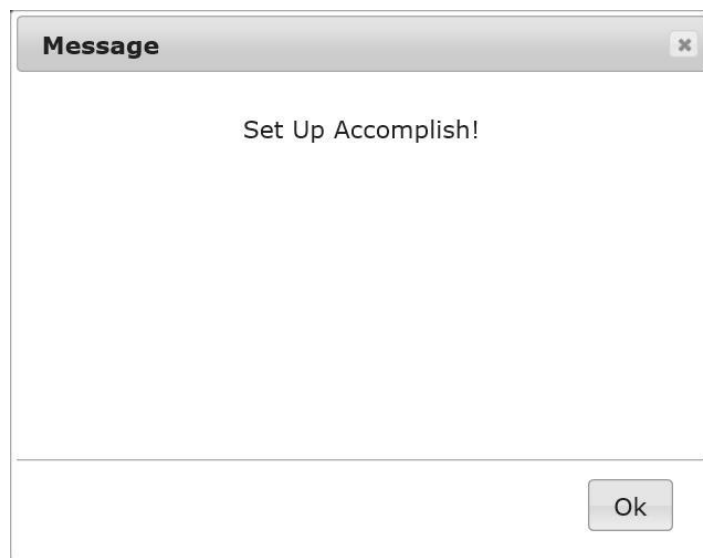
5. To view the MPEG-4 streaming media using RTSP players, you can use the player which supports RTSP streaming.

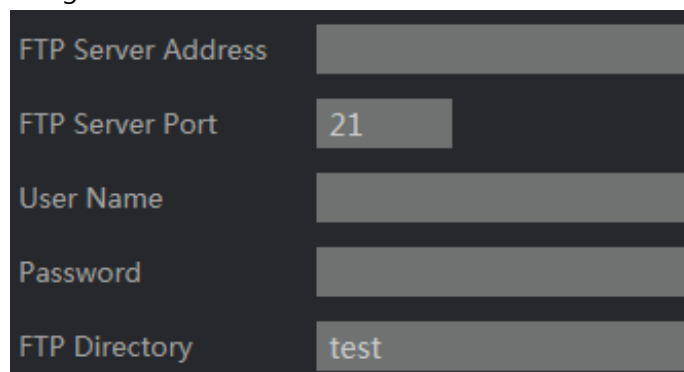The live video will be displayed in your player.
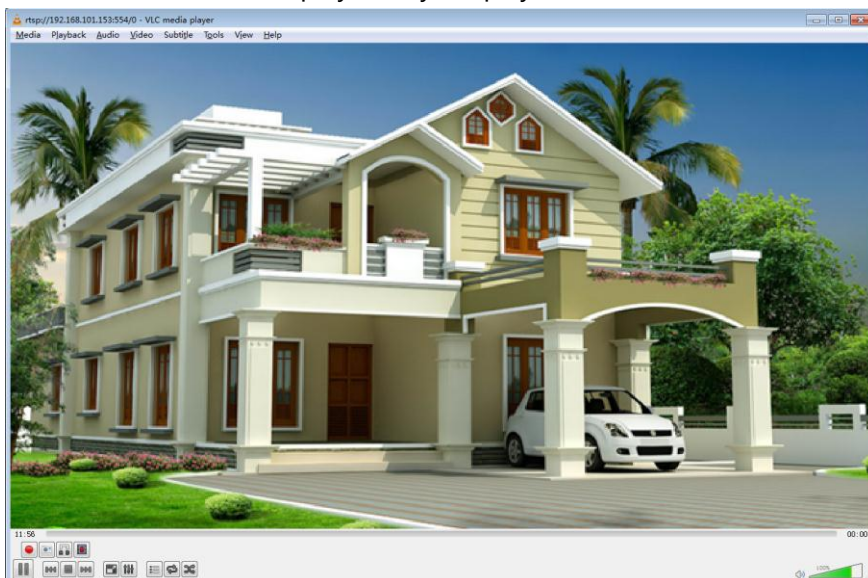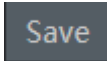
Description of function keys:

Service Address	The portion that identifies the local network (subnet) in an IP address
Service Port	A port used to communicate between the RTSP media player and network camera, such as VLC media player

2.3.4.4 FTP Setting

Please follow the steps below to change the "FTP" function through the network as necessary.

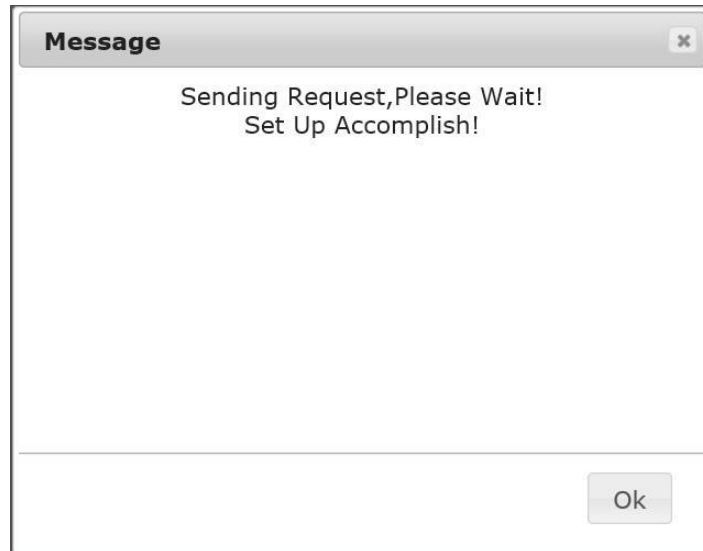1. Click the "Setting > Network > FTP " menu to enter into the below shot.

2. Set the "FTP Server Address", "FTP Server Port", "User Name", "Password", "FTP Directory" as necessary.

3. Click "Save" button [Save] to submit this changing request.

4. After camera finished the request, there would appear the finishing shot. Then click the "ok" button to close this page to activate the changing.

Description of function keys:

FTP Server Address	Enter IP address of FTP
FTP Server Port	Enter IP port of FTP
User Name	Enter your user name used to connect to the FTP
Password	Enter your password used to connect to the FTP
FTP Directory	To input the directory of FTP by manually

2.3.5 Storage Setting

Please follow the steps below to change the "Storage" function through the network as necessary.
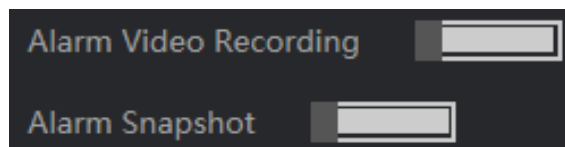
1. Click the "Setting > Storage" menu to enter into the below shot.
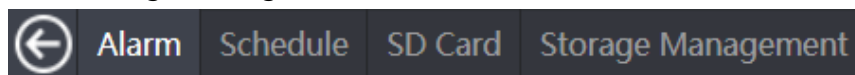
2. Click the button to return to the Web server home page.
3. Choose the different to enter into the different menus.

2.3.5.1 Alarm Setting

1. Click the "Setting > Storage > Alarm" menu to enter into the below shot.

2. To enable the "Alarm Video Recording" function. The icon default status is off

 . The status would change to on while you click to disable this function.
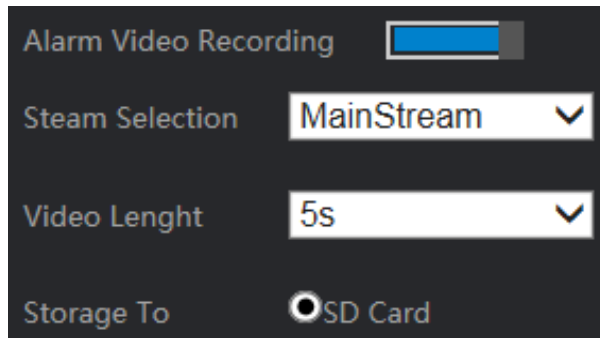
3. To enable the "Alarm Snapshot" function. The icon default status is off .

   The status would change to on while you click to enable this function.
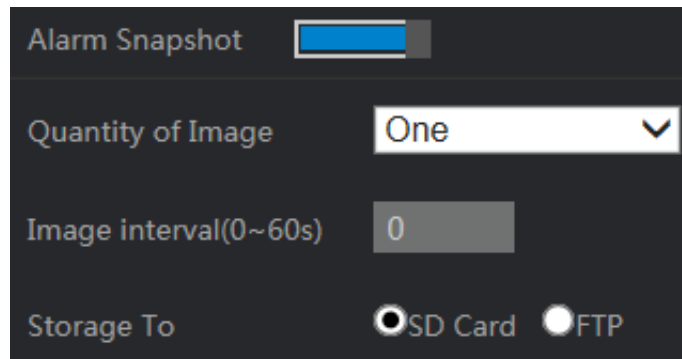
4. Set the "Steam Selection", "Video Lenght", "Storage To", "Quantity of Image", "Image interval(0~60s)" as necessary.

5. Click "Save" button to submit this changing request.

6. After camera finished the request, there would appear the finishing shot. Then click the "ok" button to close this page to activate the changing.
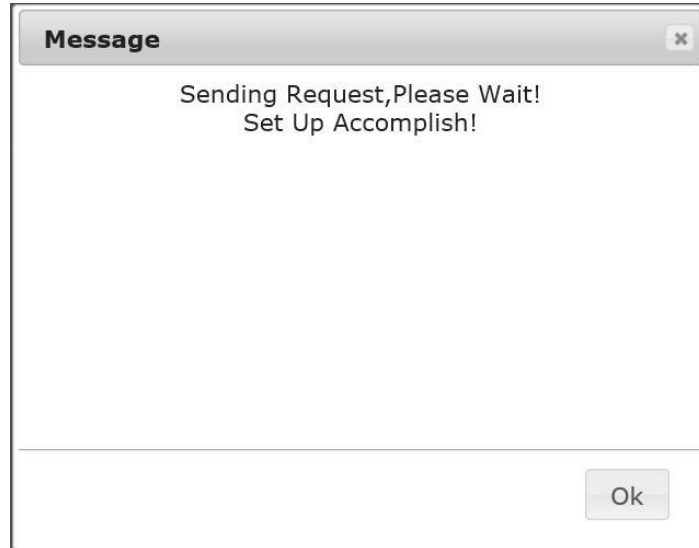
Description of function keys:

Steam Selection	Click on the drop-down list to choose the Steam Selection of "Main Stream", "Sub Stream".(Default is Main Stream)
Video Lengt	Click on the drop-down list to choose the Video length of "5s", "10s", "30s".(Default is 5s)
Storage To	To choose the storage method of "SD Card", "FTP".
Quantity of Image	Click on the drop-down list to choose the Quantity of Image of "One", "Two", "Three".(Default is One)
Image interval(0~60s)	To input the Image interval, range from 0 - 60.(Default is 0)

2.3.5.2 Schedule Setting

Schedules can be used as action rule triggers or as additional conditions, for example to record video if motion is detected outside office hours. Use one of the predefined schedules or create a new schedule as described below.
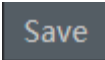
1. To enable the Video Recording Plan. The icon default status is off .. The

   status would change to on while you click to enable this function.
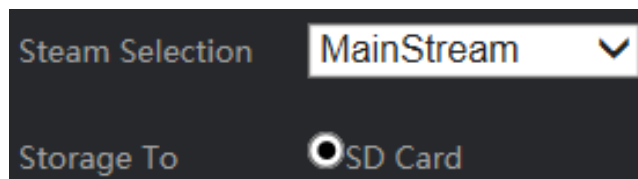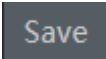
2. To enable the Snapshot Plan function. The icon default status is off ..

The status would change to on while you click to enable this function.
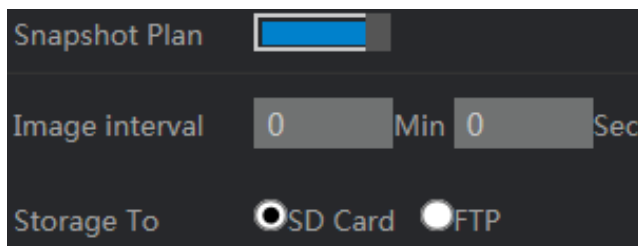
3. Set the "Stream Selection", "Video Length", "Image interval" as necessary.
4. To set Recording Schedule as you want.
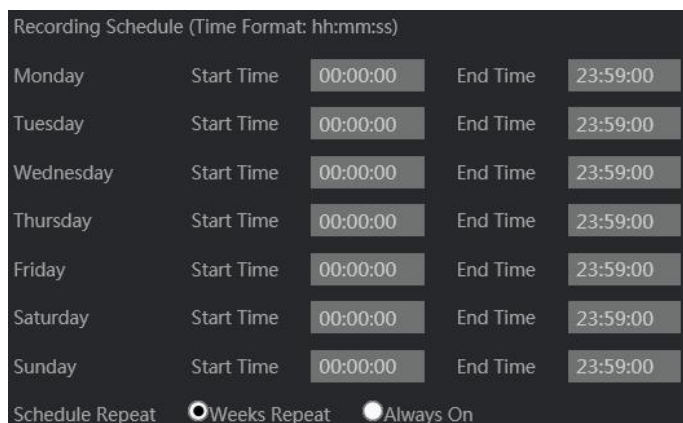
5. Click "Save" button to submit this changing request.

6. After camera finished the request, there would appear the finishing shot. Then click the "ok" button to close this page to activate the changing.
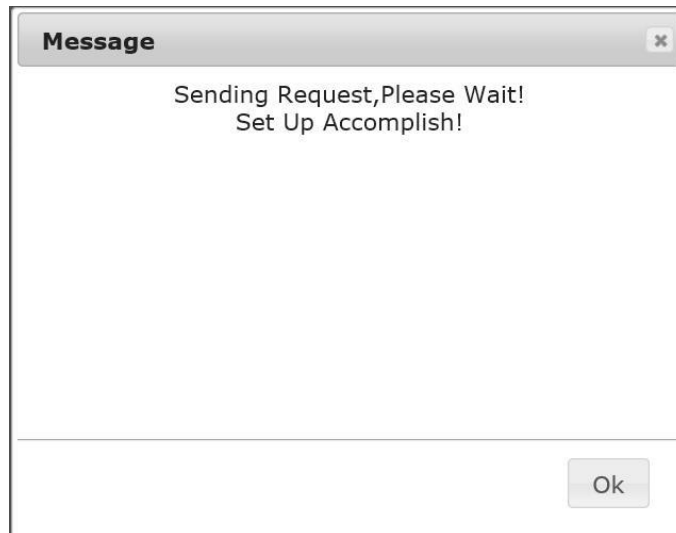
Description of function keys:

Steam Selection	Click on the drop-down list to choose the Steam Selection of "Main Stream", "Sub Stream".(Default is Main Stream)
Storage To	To choose the storage method of "SD Card", "FTP".
Image Interval	To input the Image interval, range from 0 - 60.(Default is 0)

2.3.5.3　SD Card Setting

Please follow the steps below to change the "SD Card" function through the network as necessary.

1. Click the "Setting > Storage > SD Card" menu to enter into the default page.
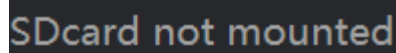
2. Insert the SD Card into the camera.

3. Click the Mount SD button to install the SD Card, then there is one new page to show the finishing process.
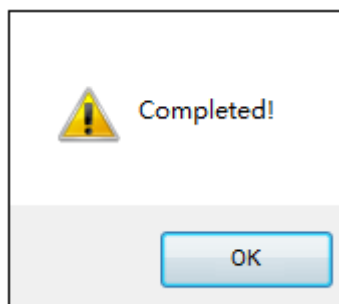
4. Click the Ok button to finish the Mount SD process to enter into the SD Card display page. This page would show the SD card capacity, Used Size, Available Size, Total Size as below shot.
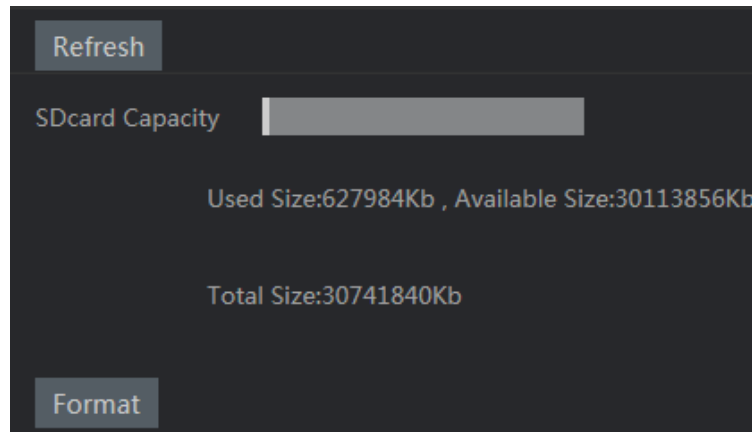
5. Click the Unmount button to remove the SD Card you insert. There is one new page to show the finishing process.
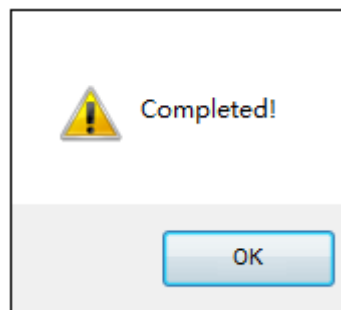
6. Click the Ok button to back to the default page.

Note: You could use the **Format** to enable the SD card into the factory default status.

2.3.5.4 Storage Management Setting

Please follow the steps below to change the "Storage Management" function through the network as necessary.

1. Click the "Setting > Storage > Storage Management" menu to enter into the below shot.

FileName	File Date	File Time	Size	Operate
alarm	1980/01/01	08:00:00	16K	
schedule	1980/01/01	08:00:00	16K	

file: 2 total:2   Home Next Prev End   page: 1/ 1

2. Click the "alarm > snap > 1970-01-01" to enter into the this day's snap list.

mmc/alarm/snap/1970-01-01

FileName	File Date	File Time	Size	Operate
A_LNC-Q111-W_19700101_081115600.jpg	1980/01/01	08:00:00	197K	Delete
A_LNC-Q111-W_19700101_081117021.jpg	1980/01/01	08:00:00	281K	Delete

3. Click the "alarm > video > 1970-01-01" to enter into the this day's video list.

mmc/alarm/video/1970-01-01

FileName	File Date	File Time	Size	Operate
A_LNC-Q111-W_0_0_19700101_081527.avi	1980/01/01	08:00:00	2034K	Delete
A_LNC-Q111-W_0_0_19700101_081627.avi	1980/01/01	08:00:00	2260K	Delete

4. Click the "alarm > schedule > video > 1970-01-01" to enter into the this day's schedule video list.

mmc/schedule/video/1970-01-01

FileName	File Date	File Time	Size	Operate
S_LNC-Q111-W_0_0_19700101_081924.avi	1980/01/01	08:00:00	122306K	Delete
S_LNC-Q111-W_0_0_19700101_082425.avi	1980/01/01	08:00:00	122408K	Delete

2.3.6 System Setting

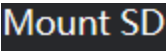This section explains how to configure the basic settings for the Network Camera, such as the system time. Please follow the steps below to change the "System" function through the network as necessary.

1. Click the "Setting > System" menu to enter into the below shot.
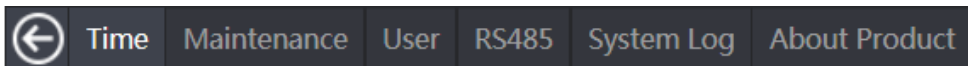
2. Click the button to return to the Web server home page.
3. Choose the different to enter into the menu of "Time", "Maintenance", "User", "RS485", "System Log", "About Product".

2.3.6.1 Time Setting

Please follow the steps below to change the "Time" function through the network as necessary.

1. Click the "Setting > System > Time" menu to enter into the below shot.
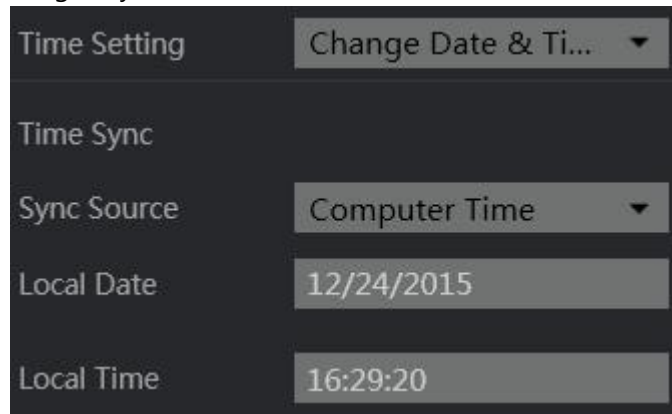
2. Set "Time Setting", Click on the drop-down list ⌄ to choose "Change Time Zone" from the drop-down menu to enter into the below shot to choose your "Time Zone".
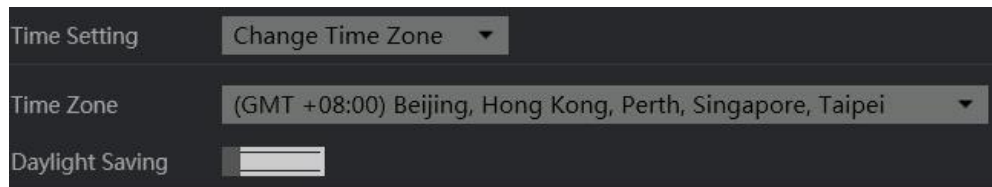
3. To set the "Sync Source"—Click on the drop-down list ⌄ to choose from the drop-down menu:
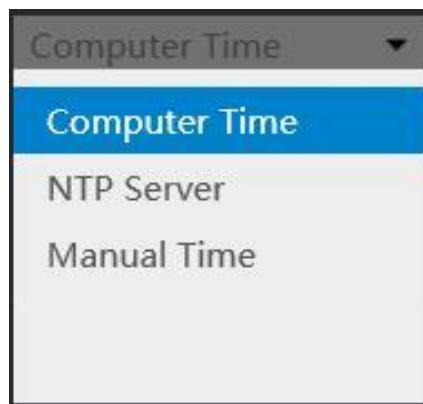
4. Click "Save" button [Save] to activate this changing.

Description of function keys:

Computer Time	Set the Synchronize with computer time.
NTP Server	Set the Automatic Time Configuration and enter the address of the NTP Server.
Manual Time	Set the time manually.

2.3.6.2 Maintenance Setting

This chapter explains how to restore the Network Camera to factory default, upgrade firmware version, etc.

Please follow the steps below to change the "Maintenance" function through the network as necessary.

1. Click the "Setting > System > Maintenance" menu to enter into the below shot.
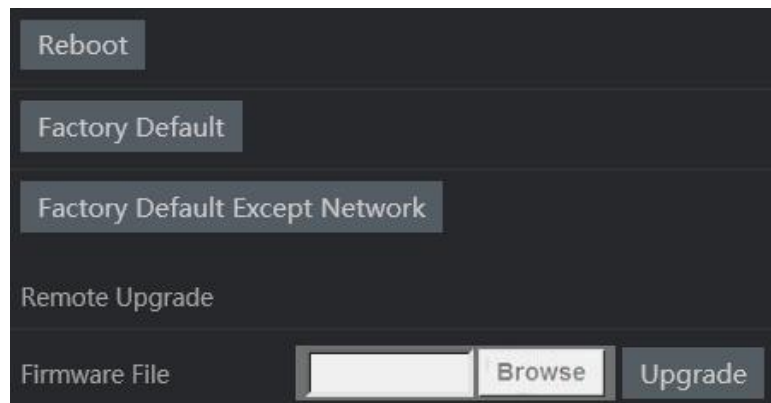
2. There are four menus of "Reboot", "Factory Default", "Factory Default Except Network", "Upgrade" in the Maintenance.

2.3.6.2.1 Reboot Setting

Please follow the steps below to change the "Reboot" function through the network as necessary.

1. Click the "Setting > System > Maintenance > Reboot" menu to enter into the below shot.
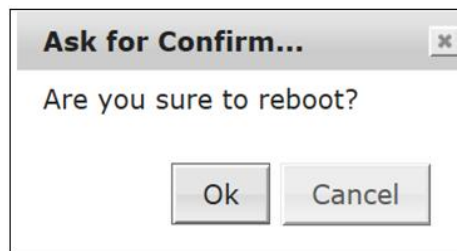
2. Click the ok button to confirm this operation to enter into the request processing page.

3. The system would finish the rebooting, kindly click the ok button to enter into the previous setting page.
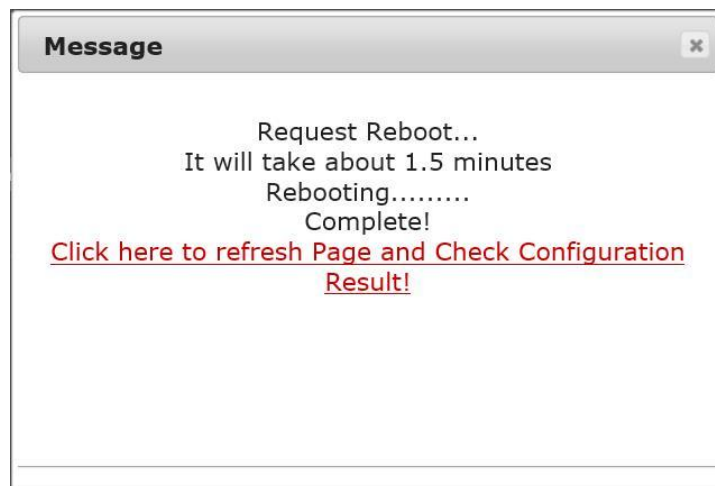
2.3.6.2.2 Factory Default Setting

The Reset Button operation can be reset back to default. Press the Reset Button for about 5 seconds. Dark blue screens will be displayed, and a text saying "Configuration restored, Rebooting... wait a moment and relogin with the default IP please" will appear. The device auto reboots. All settings are back to default. Please follow the steps below to change the "Factory Default" function through the network as necessary.

1. Click the "Setting > System > Maintenance > Reboot" menu to enter into the below shot.

2. Click the ok button to confirm this operation to enter into the request processing page.

3. The system would finish the rebooting, kindly click the ok button to enter into the previous setting page.
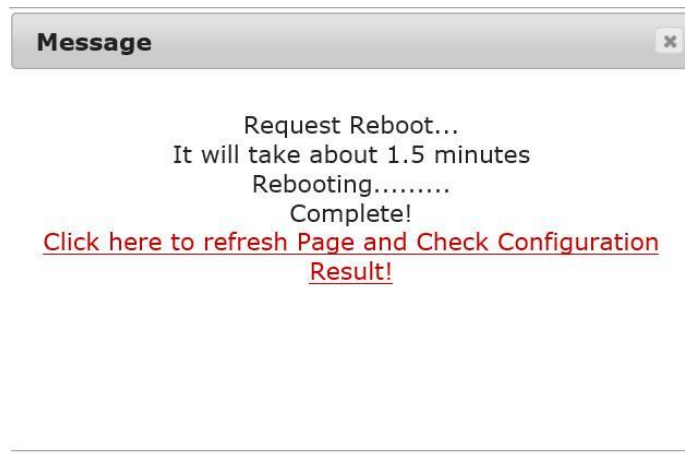
2.3.6.2.3 Factory Default Setting

1. Click the "Setting > System > Maintenance > Factory Default" menu to enter into the below shot.

2. Click the ok button to confirm this operation to enter into the request processing page.

3. The system would finish the rebooting, kindly click the ok button to enter into the previous setting page.
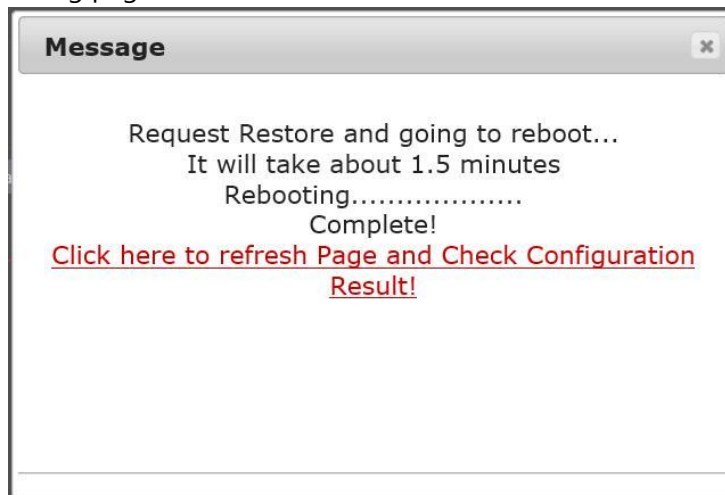
2.3.6.2.4 Factory Default Except Network Setting

4. Click the "Setting > System > Maintenance > Factory Default Except Network" menu to enter into the below shot.
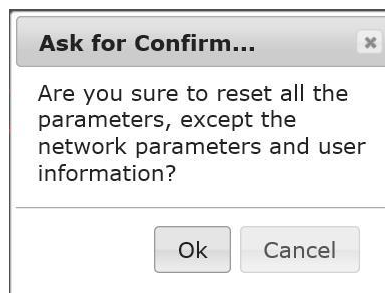
5. Click the ok button to confirm this operation to enter into the request processing page.

6. The system would finish the rebooting, kindly click the ok button to enter into the previous setting page.
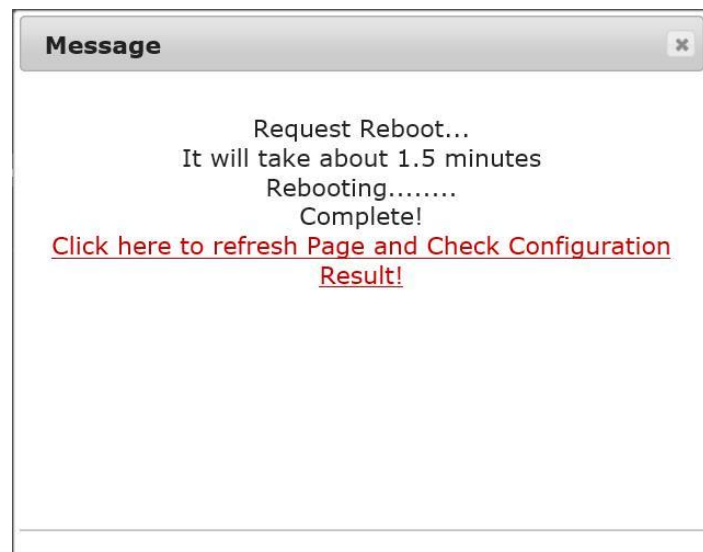
2.3.6.2.5 Upgrade Setting

Firmware is software that determines the functionality of network devices. One of your first actions when troubleshooting a problem should be to check the current firmware version. The latest version may contain a correction that fixes your particular problem. The current firmware version in the Anviz product is displayed in the page **Setting** > **System** > **About Product** > Software Version. When you upgrade the product with the latest firmware from Anviz website, the product receives the latest functionality available. Always read the upgrade instructions and release notes available with each new release, before upgrading the firmware. If the system software of the IP Camera needs to be upgraded, please take the following steps to safely process it.

Important: Before carrying out the following procedures, please ensure the file of the

system firmware is intact.

1. Download the correspondent firmware file from our Anviz official website.
2. Inject the Ethernet cable from the RJ-45 port and then power on the IP Camera.
3. Input the device default IP in the IE browser address.
4. Execute the user verification to enter into the device web server page.
5. Enter into the firmware upgrade page as below sequence -
6. "Setting" – "System" – "Maintenance" – "Firmware".
7. If the IP Camera is running, please power it off to repeat step 1-5s.
8. Click the browse button to choose the firmware file.
9. Click the upgrade button to execute the upgrading.
10. One dark blue screen will be displayed, and a text saying "File create success. Firmware update success save data success. Please **Reboot** the device to take effect"
11. Click the "Reboot" button to restart the device
12. One dark blue screen will be displayed, and a text saying "Rebooting...wait please!"
13. After about 1 minute later, the device would finish auto – restart. During this period, the device status led would change to green from red.
14. Input the device default IP in the IE browser address and user verify, to enter into the device normal using page.
15. That's all.

Note:
● Step 1 to 2 have to be done on a PC.
● Make sure the file of firmware is a correct one in step 6, or the IP Camera will not work normally after being updated.
● If you there choose the wrong file to update, there would be one prompt " File create success Unknown file format"
● Do not interrupt the process while the unit is updating itself, or else the unit will crash.
● Ensure the power and network normally during the upgrading process.

2.3.6.3   User Setting

You may modify the name and administrator's password of your camera, as well as add and manage the user accounts for accessing the camera. You may also use this section to create the unique name and configure the OSD setting for your camera. Please follow the steps below to change/add the users' authority through the network as necessary.
1. Click the "Setting > System > User" menu to enter into the below shot.
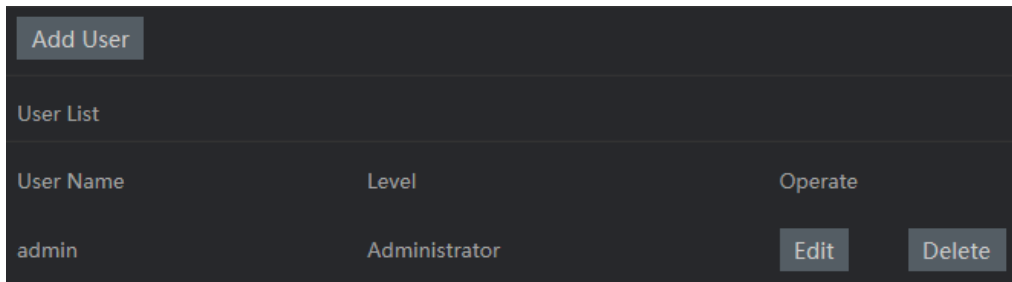
2. Click the Edit button modify the admin user. To modify the user level to administrator / operator, input the password.

3. Click the Create/Edit button to activate this changing.
4. As the step1 -3, to click the add user button to add new user.

2.3.6.4   RS485 Setting

Please follow the steps below to change the "RS485" function through the network as necessary.

1. Click the "Setting > System > RS485" menu to enter into its setting page.

2. To enable the RS485 support function. The icon default status is off ..

The status would change to on while you click to enable this function.

3. Set the "Baud Rate", "Data Bit", "Stop Bit", "Parity Check", "PTZ Protocol" of the RS485 support as necessary.

Description of function keys:

Baud Rate	Click on the drop-down list to choose the baud rate of "1200", "2400", "4800", "9600","19200","".(Default is 2400)
Data Bit	Click on the drop-down list to choose the data bit of "5", "6", "7", "8".(Default is 8)
Stop Bit	Click on the drop-down list to choose the stop bit of "1", "2".(Default is 1)
Parity Check	Click on the drop-down list to choose the parity check of "None", "Even", "Odd", "Space".(Default is None)
PTZ Protocol	Click on the drop-down list to choose the ptz protocol of "pelco-d", "pelco-p", "User-Defined".(Default is pelco-d)

2.3.6.5   System Log Setting

Provide information about system events. Please follow the steps below to check the logs through the network as necessary.
1. Click Setting > System > System Log.
2. The normal display will show the log list page.

2.3.6.6   About Product Setting

This is used to display the camera's related information. Please follow the steps below to check the camera information through the network as necessary.
1. Click Setting > System > About Product.
2. The normal display will show the log list page.
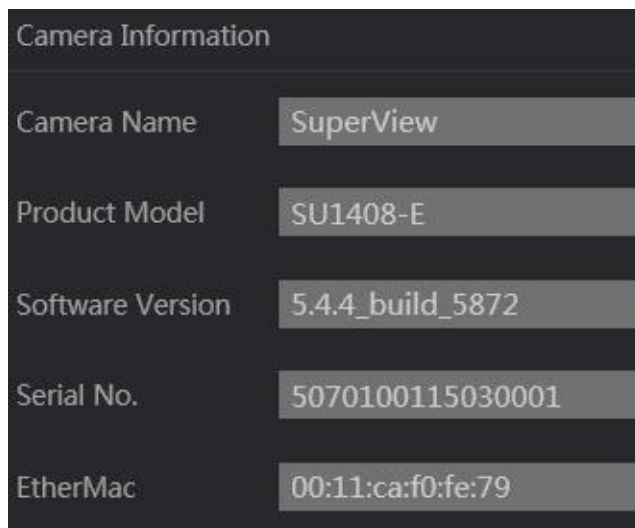
3 Q&A

3.1 How do I set up the motion detection area and its sensitivity

1. Activate the Web browser and key in the camera IP Address.
2. Setting > Events >Motion Detection button.
3. Click to enable the Motion Detection.
4. Set up the target zone you want and setup the Sensitivity.
5. Click the save button to submit the setting.
6. When any person or object moves within the target zone under a setting, the Motion Detection will display the response signal in the Live Video and Video Out.

3.2 How do I add or modify the users and their authority

Entering the setting page
1. Click the System button in the Setting page.
2. Click the User button on the top side of the page to enter the "USER" page.

Add a new user
1. Please enter the user name, the password, the confirmed password and choose the authority.
There are two different levels of authorities, Admin, Operator.
Admin: The user who accesses with the admin name and password has the full rights to change the settings of the IP camera.
Operator: The suggested choice for normal use.
2. Click the **Create / Edit** button to submit the new user's setting.

Modify the user
1. Click the user name you want to modify on the USER LIST.
2. Enter the password, the confirmed password and choose the authority.
3. Click the **Create / Edit** button to submit the new setting.

Delete a user
1. Click the user name you want to delete on the USER LIST.
2. Click the Delete User button.

4 Glossary

ActiveX control

A component program object that can be used with web pages or other application programs. The technology for creating ActiveX control is part of software developed by Microsoft.

Contrast

The difference in tone between the lightest and darkest portions of the image.

Default gateway

Device that can be used to access another network.

DHCP server

Acronym for Dynamic Host Configuration Protocol server. The IP address of a terminal without an individual IP address can be automatically distributed by the Dynamic Host Configuration Protocol (DHCP). The DHCP server assigns the IP addresses to the terminals.

DNS server

Acronym for Domain Name System server. As an IP address required for connecting to the device on an IP network is numerical and difficult to remember, the Domain Name System was established. A domain name is alphabetic and is easier to remember. When a client computer uses a domain name to connect to another computer, it asks a DNS server to translate the name into the corresponding IP address. The client computer can then obtain the IP address of the computer to be connected.

Frame rate

The number of frames of a moving image that can be transmitted per a second.

FTP server

A server to be used to transfer files via a network.

HTTP port

A port used to communicate between the web server and the web client, such as a web browser.

H.264

An image compression format. The standard written by the JVT (Joint Video Team) a joint organization for standardization (composed of ISO and ITU-T. H.264), is capable of transmitting video data at a higher compression rate than that of MPEG4.

IP address

Acronym for Internet Protocol Address. An individual IP address is basically assigned to each piece of equipment connected to the Internet.

MAC address
A network address that uniquely identifies each LAN card.

MPEG4
Acronym for Moving Picture Experts Group4. One of the MPEG standards for image compression format aiming to transmit images at a high compression rate with lower picture quality.

Network address
The portion that identifies the local network (subnet) in an IP address.

NTP server
Network time server that transmits and receives time information over the networks.

Primary DNS server
One of the DNS servers that can first reply to a request by connected devices or other DNS servers.

Sharpness
The degree to which the boundary of two portions is clearly distinguished.

SNMP
A protocol for monitoring and managing network devices.

Subnet mask
32-bit stream used to distinguish the subnet address from an IP address.

TCP
Acronym for Transmission Control Protocol. A standard protocol used for Internet connection. Compared with the other protocol, UDP, TCP provides reliable communication but communication speed is slower.

UDP
Acronym for User Datagram Protocol. A standard protocol used for Internet connection. Compared with the other protocol, TCP, UDP can transmit data faster, but reliable communication is not guaranteed.

802.1X
A standard that performs user authentication and dynamic key generation and traffic on a LAN.