INSTALLATION & OPERATION MANUAL

LANCAM
LC-7214

APPRO®

Before trying to connect or operate this product, please read this manual completely

Table Of Contents

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 cord.
- This unit must be grounded to reduce the risk of electric shock hazard.

1. PRODUCT FEATURES

1.1 Product Introduction

The **LC-7214** is the state-of-the-art equipment in its field. It combines many digital video capabilities with the internal functions of the network video camera. The user can immediately connect to a standard network, and the device can transmit the digital images to a remote browser. The LAN Camera is unlike any Web Camera, it connects to the LAN rather than the USB or other communication ports. Since the various types of Web Cameras must initially be connected and installed with a PC, the Web Camera is limited regarding some practical applications. The principal function of the LAN Camera is to remotely view, control and record over a digital network. By using the LAN Camera you can increase your surveillance capabilities and help monitor a store, house, factory, school, other public areas, and so forth. Image size and quality vary according to the user's requirements. Different settings have different picture qualities and compression ratios that can be regulated according to the user's needs. The digital images that are stored are more convenient to retrieve than analog images, and also enable the user to access the latest status instantly. Moreover the user can use multiple modes of accessing images, such as schedule, time, and alarm.

The **LC-7214** is a user-friendly product whose simplified installation and setup procedure make it easy to apply and to handle. Additionally it provides all-weather automation-monitored control. Installation will automatically start up the LAN CAMERA, which further supports by default without disrupting the existing network clients. The user needs only to start up a browser such as the Microsoft Internet Explorer, and proceed with the connections.

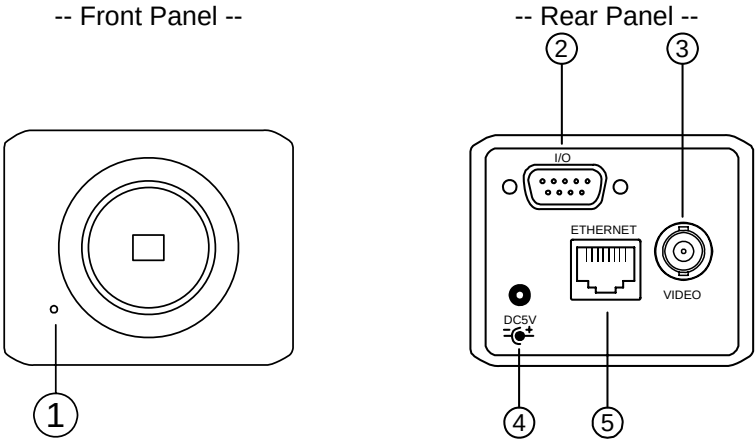
1.2 Product Features

- A built-in web server and Network Interface.
- Dual purpose: the LAN CAMERA can simultaneously export both the traditional analogs and the digital compression images.
- Motion detection: You can select the range and sensitivity of the detection.
- The user can use a java enabled web browser to directly view the images and also modify the settings.
- A 1/ 3 inch interlaced CCD (charge - coupled device).
- This product is a standard resolution device. It can support a resolution of up to 270K pixels (NTSC) or 320K pixels (PAL)
- 340 TV lines.
- Adjustable C / CS Mount.
- Programmable Automatic white balance (AWB), automatic gain control (AGC), backlight compensation (BLC), and electronic shutter speeds :
  (NTSC：1/50-1/100000 sec. PAL：1/60-1/100000sec).
- The sensitivity is 1-2,000,000 Lux.
- Image compression：MJPEG.
- There are 5 levels of image quality the user can select from：Lowest, Low, Medium, High, and Highest.
- There are 4 different Resolution levels the user can choose from：
  【 NTSC ：352x240，720x480(Frame)，720x240，720x480(Field) 】
  【 PAL ：352x288，720x576(Frame)，720x288，720x576(Field) 】
- The user can regulate the categories of Brightness, Contrast, Saturation, Hue, and Camera Title.
- A pair of RJ-45 Fast Ethernet 10 / 100 Base-TX ports. Using an Ethernet cable, the LAN CAMERA can be connected to the network.
- Protocol for remote control.
- Networking：TCP/IP, DHCP, HTTP, UDP, SNTP, ICMP, DNS, and DDNS.
- Alarm sensor Input/Output Terminals.
- The digital mode saves images via E-mail or SD card.

- The RECORD–SCHEDULE provides seven periods of time and the LAN CAMERA starts and stops recording according to the programmed schedule.
- The device will record as long as the alarm input is activated and allow users to set the alarm for a certain duration.
- The LAN CAMERA lets users change the date and time.
- There are 3 levels of users' accounts：Admin, Operator, and Viewer. The total number of users' accounts included under these 3 levels is ten.
- The device is capable of working with various known multiplexers and quad processors.
- An RS-232 communication port.
- Distribution of live and recorded images through the TCP/IP network environment.
- Watchdog：In the event of any malfunction, the Watchdog immediately alerts the LAN CAMERA, which will restart automatically.
- The LAN CAMERA can automatically synchronize the time with the SNTP server.
- The device has a microphone installed in its front panel which records sound.
- A built-in SD card slot for recording video and images to an SD card.
- An SD card may be inserted into the SD card slot in the flank panel to update the device.

2. DESCRIPTION OF THE FRONT/REAR VIEW

2.1 Front Panel and Rear Panel



1. **MICROPHONE:**

   The **LAN CAMERA** has an additional audio function. The device has a microphone built into its front panel which records sound.

2. **ALARM I/O & RS-232 Port:**

   The RS-232 communication port functions as a connector to an external control device. This port includes ALARM OUT, GROUND, ALARM IN, and ALARM RECOVER for connecting with external devices.
   WARNING: You can't use general RS-232 cables to link up with the I/O connectors in the rear panel of the device (please see the next page for further details).

3. **VIDEO OUT Connector:**

   The connector provides the unit's composite video signals to a monitor.

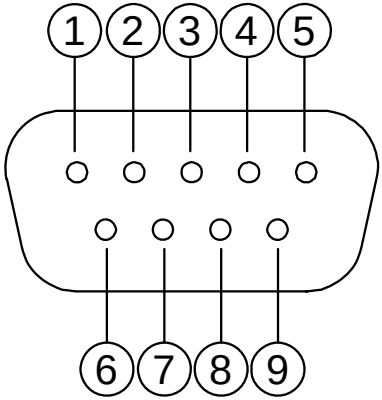
4. **Plug Inlet:**

   A DC 5V inlet that connects to an external power supply.

5. **ETHERNET 10/100 Connector:**

   This is a standard RJ-45 connector for 10/100 Mbps Ethernet networks.

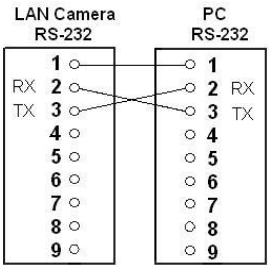
2.2 RS-232 Port & ALARM I/O



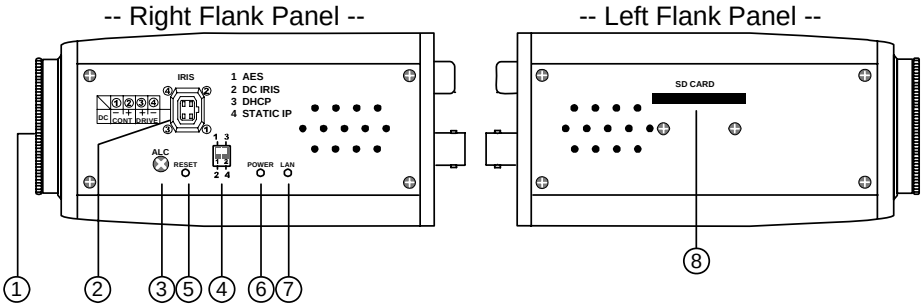
1. **GND:** Ground contact.
2. **RX:** This pin is one of the RS-232 pins. It connects with the TX pin of another device.
3. **TX:** This pin is one of the RS-232 pins. It connects with the RX pin of another device.

   Please refer to the note below on the standard RS-232 9 Pin Cable with Pin 2 and Pin 3 exchanged; see the pin configuration chart below for details.
4. **GND:** Ground contact.
5. **GND:** Ground contact.
6. **ALARM RESET (INPUT):** This pin connects to an alarm-clear device for clearing an alarm. (5V, 20mA / 0V(Active))
7. **ALARM IN (INPUT):** This is an alarm input that can be programmed in the menu system to active low. (5V, 20mA / 0V(Active))
8. **ALARM OUT (OUTPUT):** This is an alarm output trigger. Connect this to external devices such as buzzers or lights. (5V, 20mA / 0V(Active))
9. **AUDIO OUT:** This provides the unit's audio signal to a speaker.

NOTE:



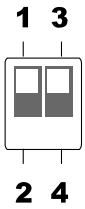
2.3 Flank Panel



1. **Lens Mount:** This LAN CAMERA is used with either a C or a CS mount lens.
2. **IRIS:** Auto iris connector.

   This camera works with a DC drive auto iris lens. Please refer to the pin assignment marked on the camera when connecting the auto iris lens.
3. **ALC VR:** Iris control VR.

   When an auto iris (DC Drive) lens is used, this VR is used to adjust the iris for different lighting environments. Adjust the VR clock-wise to open the iris and counter-clockwise to close the iris of the camera.
4. **DIP Switch:**

	**1. AES:** Auto electric shutter.
	2. DC IRIS: Use an auto iris (DC drive)
	3. DHCP: Turn On / Turn Off to use the DHCP protocol. If the switch points upwards, the device can change the setup of network function (enable/disable) via the network.
	4. STATIC IP: If the switch points down, the device can't obtain an IP address from the DHCP server. This option is needed to configure the network communication settings.

5. **RESET:** Recover to factory default.
6. **POWER Indicator:** Indicates the power status of the unit. The green light indicates the unit is activating. The red light indicates the power is on and the SD card cannot be removed.
7. **LAN Indicator:** Indicates the LAN status of the unit. The green light indicates the 100 Mbps Ethernet network is activating. The red light signals the LAN is data linking.
8. **SD CARD Slot:** This is used for system software updating and archiving / accessing critical images.

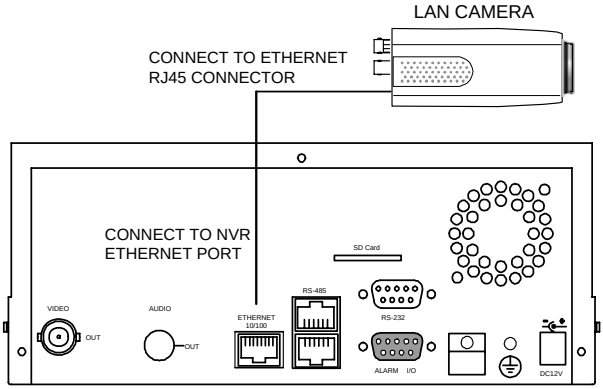
3. INSTALLATION

Please follow the instructions and the diagram below to set up the system.

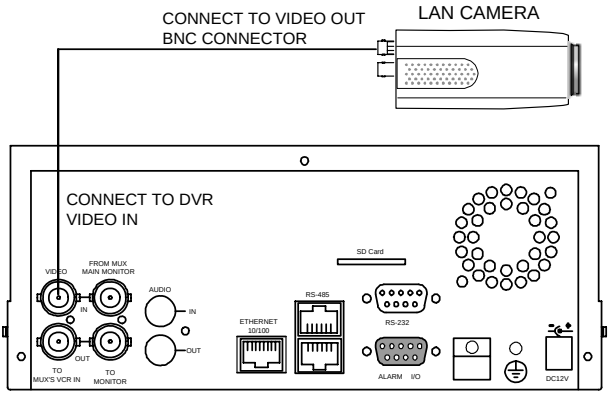
NOTE: The **LAN CAMERA** is linked by its Video Out connection via a BNC connector to a monitor's Video In connection. If this connection is there, you can see some information on the monitor screen, such as the **LAN CAMERA** factory default Static IP address(192.168.1.168). But the **LAN CAMERA** Static IP address can only appear if there is a connection between the **LAN CAMERA** and another device. If there is no such connection, the **LAN CAMERA** factory default Static IP address will not appear on the monitor screen.

3.1 CONNECTING WITH AN NVR

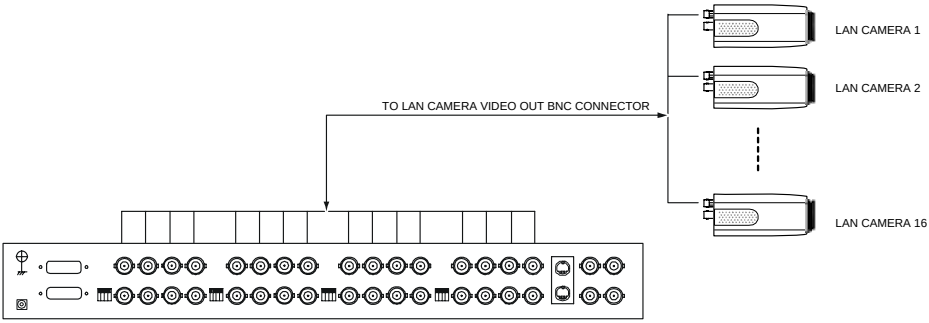
Use a crossover LAN cable to connect directly to an NVR.



3.2 CONNECTING WITH A DVR



3.3 CONNECTING WITH A MULTIPLEXER



3.4 UPDATING SYSTEM SOFTWARE

If the system software of the LAN CAMERA needs to be upgraded, please take the following steps to safely process it.

Important: Before carrying out the following procedures, please ensure the SD card is working and the file of the system firmware is intact

1. Format an SD card using the FAT16 format if it is unformatted; there are no limitations to an SD card's capacity.
2. Create a directory named LANCAM in the SD card if it does not exist.
3. Copy the file of UPDATE.BIN to the LANCAM-directory.
4. If the LANCAM is running, please power it off first.
5. Insert the SD CARD into the LANCAM.
6. Remove the Ethernet cable from the RJ-45 port and then power on the LANCAM.
7. In 5 to 10 seconds, a message reading "UPDATE PROCESSING" will show up on the screen on a blue background; if not, please check out steps 1 to 6 carefully or else inform your technical support while ignoring the following steps.
8. DO NOT power off the LANCAM while this update process is running until the message "UPDATE OK RESET PLEASE" appears on the screen; it might take 15 to 30 seconds to appear.

9. If the message "UPDATE NG RESET PLEASE" appears rather than "UPDATE OK RESET PLEASE", please write down the error messages shown on the screen and inform your technical support, while ignoring the following steps.
10. Power off the LANCAM when this update process is finished, then remove the SD card from the LANCAM.
11. Reconnect the Ethernet cable to the RJ-45 port if necessary.
12. Power ON the LANCAM and it will work normally if the entire update procedure goes correctly.
13. Verify the version of the system software.

Warning:

1. **Don't use FAT32 or NTFS or other file formats in step 1.**
2. **Steps 1 to 3 have to be done on a PC.**
3. **Make sure the file of UPDATE.BIN is a correct one in step 3, or the LANCAM will not work normally after being updated.**
4. **If the power of the LANCAM is suddenly lost in step 8, please remove the SD card first and turn on the LANCAM next to test its operation. If the LANCAM remains working normally, please go back to step 4; otherwise, please inform your technical support.**
5. **In step 10, if the SD card is not removed and the LANCAM dose not get online as well, the updating process must be repeated again after rebooting the LANCAM.**
6. **Make sure that the SD card is inserted in a correct position in step 5, or the LANCAM will suffer permanent physical damage.**
7. **If the message "CSUM ERROR" appears in step 8, it implies a problem in the file of UPDATE.BIN.**
8. **Don't interrupt the process while the unit is updating itself; proceed with an SD card not including any system software of the unit, or else the unit will crash.**

3.5 LAN CAMERA SD card Troubleshooting

1. Check if the SD card position is correct or not. Please refer to the manual for the related information.
2. After powering the LAN CAMERA on, correctly insert the SD card, and a little icon of "SD" will show up in the upper-right corner of the monitor screen. If not, it means the device detection has failed. Please contact your technical support and ignore the following steps
3. If no cross sign appears beside the "SD" icon, please go on to the next step. If a cross sign appears, please check the following:
    a. Is it really an SD "Memory" Card?
    b. Is this SD card formatted in the FAT16 format?
    c. Connect the SD card with a PC and test to see whether the PC can read the data or not.
    d. Does this SD card still have the capacity for storing data?
    e. Is the SD card set to write?

    If all the answers are "yes" but the cross sign still persists, please contact your technical support and ignore the following steps.
4. Please make sure the function of "SD CARD ENABLE" is activated in the ALARM and SCHEDULE pages if no cross sign appears beside the "SD" icon on the screen.
5. After recording, read the data on the web page of "sdget.htm". If the data cannot be read through the network, please read it instead in a PC, check the data stored in the "LANCAM" directory and contact your technical support regardless of whether there is data or not.

Warning:

1. **Performing this troubleshooting process may need a monitor, a PC, a card reader and some cables.**
2. **If the SD card is removed while storing or accessing data, the data will be lost.**
3. **If there is a cross sign beside the "SD" icon, it means the SD card has been inserted into the LAN CAMERA but cannot perform its writing function. Possible reasons are:**
    a. It is not an SD memory card.
    b. The SD card is unformatted or formatted in a non-FAT16 or non-FAT12 format.
    c. The file system is damaged.
    d. The capacity of the SD card is full.
    e. The SD card is set to be read only.
4. **Turn off the power before inserting the SD card. Otherwise the unit may shut down.**

4. Network Configuration

4.1 Cable Connections

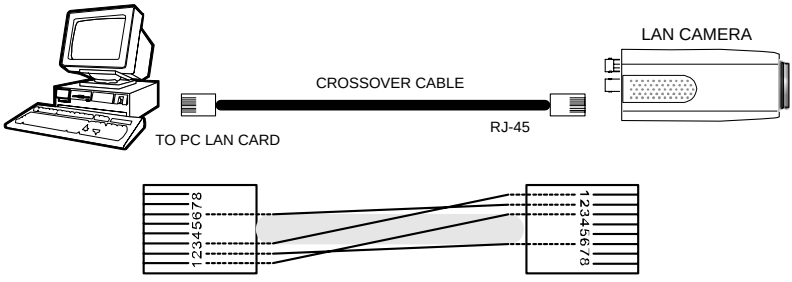
Please follow the instructions below to connect your LAN CAMERA to a computer or a network and to choose a proper RJ-45 cable configuration for connections.

Physical specifications of the RJ-45 cable for Ethernet

Wire Type	Cat. 5
Connector Type	RJ-45
Max. Cable Length	100 m
Hub Wiring Configuration	Straight Through
PC Wiring Configuration	Cross Over

4.1.1 Connect to a computer

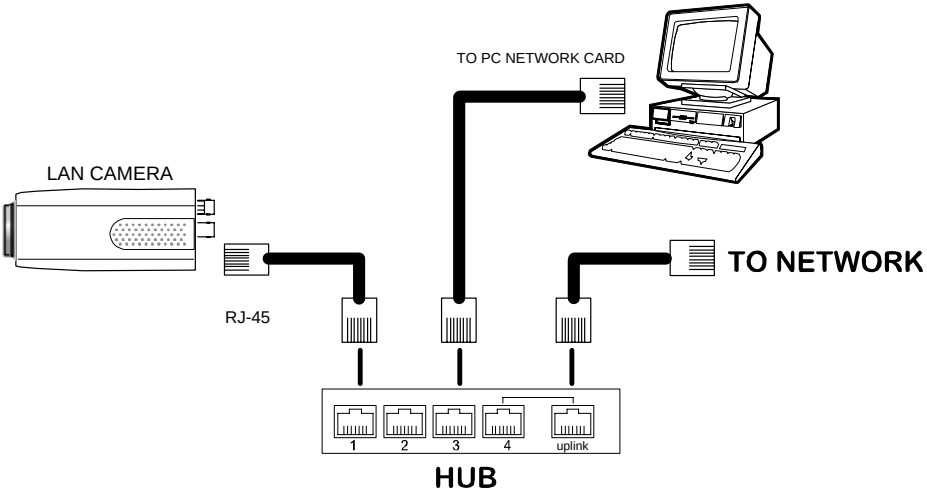
Use a crossover LAN cable to connect directly to a computer.



CROSSOVER CABLE PIN CONFIGURATION

4.1.2 Connect to a LAN Hub (INTRANET)

The RJ-45 PIN configuration for connecting with a LAN Hub is shown below.



4.2 Configure Your LAN CAMERA Network Settings

Upon connecting with the network hardware, you need to activate the network function and configure the proper network settings of the LAN CAMERA.

4.2.1 Enable DHCP Function

This function can only work if the LAN, which the unit is connected to, has a DHCP server. If the DHCP server is working, please move the dip switch points up to **3** on the flank panel; now the LAN CAMERA will obtain an IP address automatically from the DHCP server. In that case, please skip section 4.2.2 (Set IP address) and follow section 4.3 (TCP/IP Communication Software).

4.2.2 Set IP Address

You need to set an IP address for the unit if the LAN unit isn't connected to a DHCP server. Otherwise, please follow the instructions given below:

Set the **IP**, **MASK** and **GATEWAY**. The following is a sample setting.

IP: 192.168.1.X

MASK: 255.255.255.0

GATEWAY: 0.0.0.0

NOTE: When only one unit of the LAN CAMERA is connected to a computer or LAN, you can freely assign an IP address for the LAN CAMERA. For example, there is a range of LAN CAMERA IP addresses from 192.168.1.1 to 192.168.1.255. You can pick one for use from the range of the IP. It's not necessary to set MASK and GATEWAY; leave the settings as default.

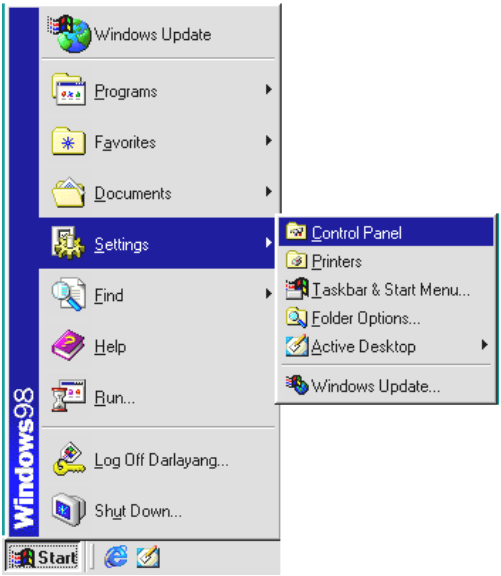
When a LAN CAMERA is connected to a WAN, you must acquire a unique, permanent IP address and correctly configure the MASK and GATEWAY settings according to your network architecture. If you have any questions regarding those settings, please consult a qualified MIS professional or your ISP.

NOTE: When connecting to a network, each connected LAN CAMERA must be assigned a unique IP, which must be in the same class type as your network address. IP addresses are written as four sets of numbers separated by periods; for example, 192.168.1.1 Therefore, if the connected network is identified as Class C, for example, the first three sets of numbers of the LAN CAMERA IP address must be the same as the network address. If the connected network is identified as Class B, the first two sets of numbers of the LAN CAMERA IP address must be the same as the network address. If you have any questions regarding these settings, please consult a qualified MIS professional or your ISP.

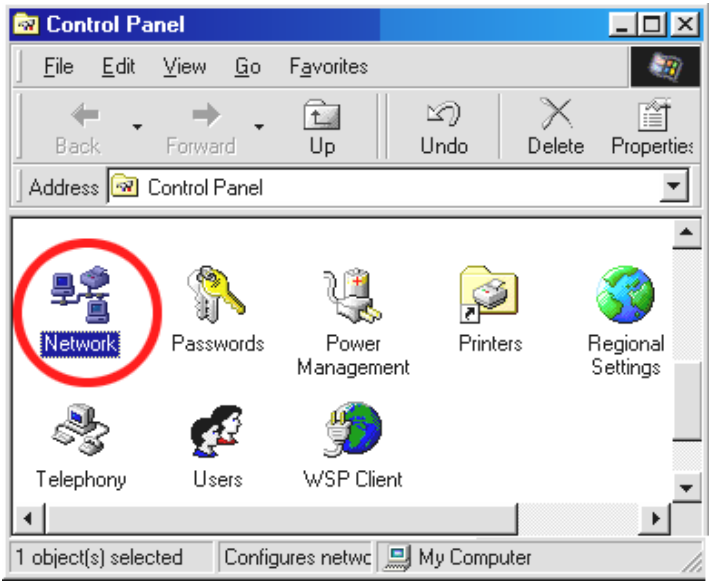
4.3 TCP/IP Communication Software

Follow the procedure below to install the TCP/IP communication program in your computer.

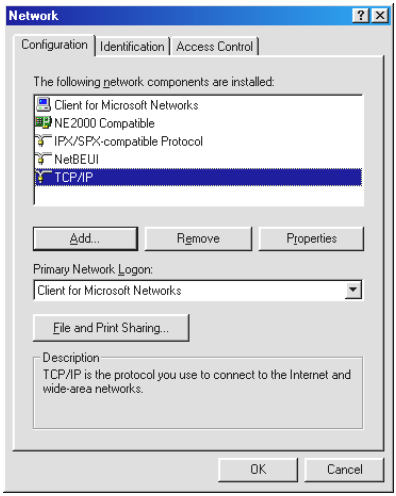
Click the **Start** menu from your computer, and point to the **Settings/Control Panel.**



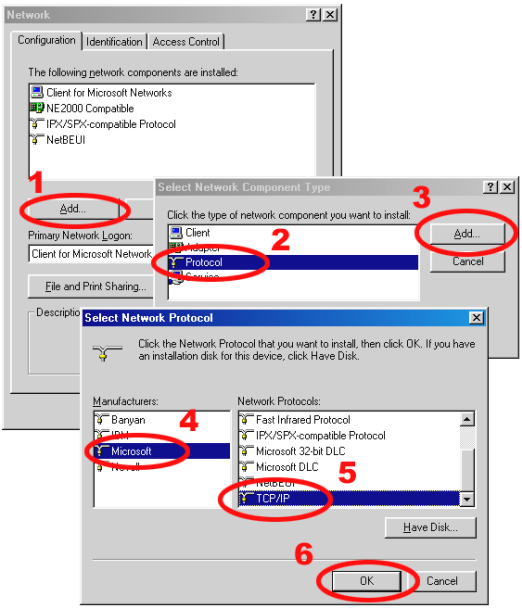
Double click the **Network** icon to enter the windows.



Click the **Configuration** tag, and check if the TCP/IP is included among the network components list. If the TCP/IP is included, please process section 4.5. If it is not included, please follow section 4.4 to install the TCP/IP.



4.4 TCP/IP Installation



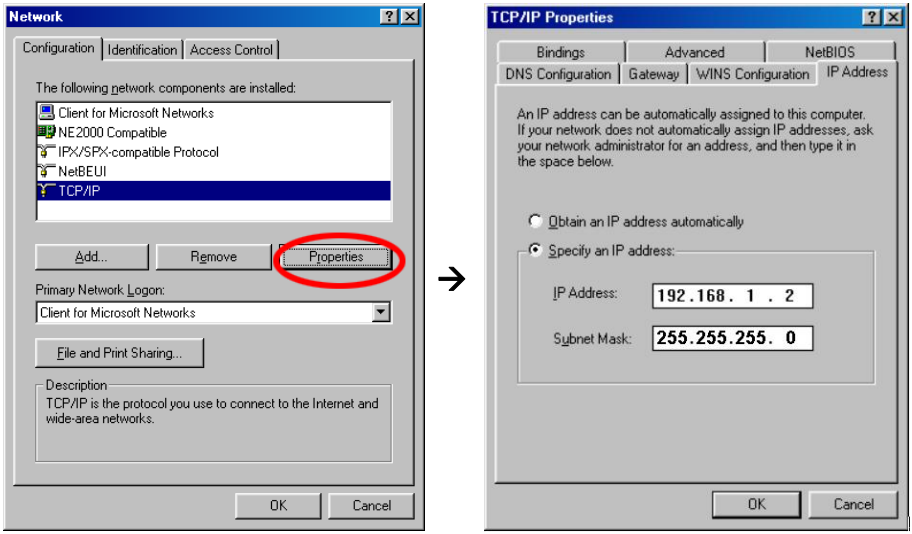
During the installation, you will be requested to insert the Windows CD-ROM. After installation, the PC may be restarted.

4.5 TCP/IP configuration setting

Click Start → Settings → Control Panel → Network**.**

Select TCP/IP**, and then click** Properties**.**

Before processing the LAN CAMERA installation in a WAN, please make sure the Internet connection works properly. If not, please contact your ISP provider.



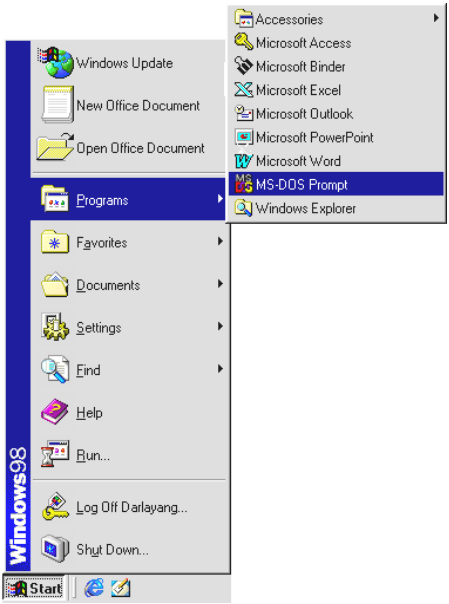
If you are using a DHCP server, please select **Obtain an IP address automatically**. Any assigned IP address for the connected LAN CAMERAs must be in the same class type as the server. If there is no DHCP server, please select **specify an IP address** and type in the IP address of your PC. This IP address must be different from other network IP devices but in the same class type.

NOTE: The IP address of a LAN CAMERA in a network must be unique to itself as opposed to those of the other chosen PCs, but in the same class type.

4.6 Connection Testing

With the previous settings, follow the instructions below to ensure whether you have established the connection successfully.

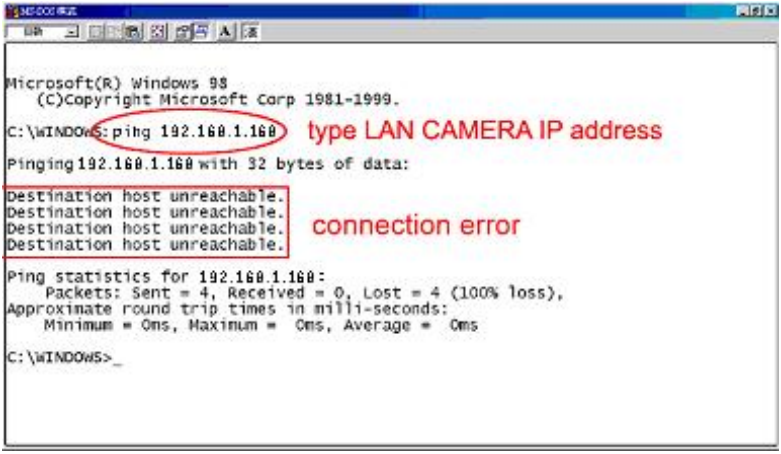
Click **Start → Programs → MS-DOS Prompt**



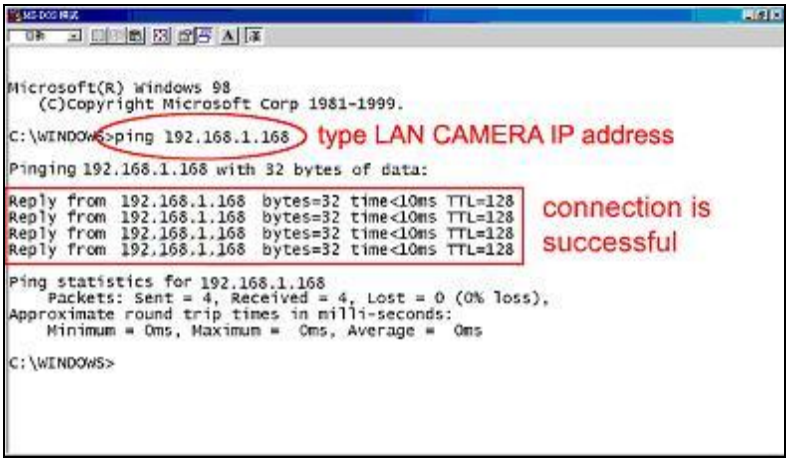
Type in **ping 192.168.1.168,** then enter. (See the sample screen below).

*** This IP is the LAN CAMERA IP address that is assigned for the connected LAN CAMERA in step2.*

If you receive a response as in the sample screen below, the connection hasn't been successfully established. Please re-check all the hardware and software installations by repeating steps 1 to 5. If you still can't establish the connection after rechecking, please contact your dealer.



If you receive a response as in the sample screen below, you have successfully made the connection.



5. Operating Instructions for Image Software and Network

Two choices of software are available for linking with the LAN CAMERA: (1) the Microsoft Internet Explorer; and (2) the LAN CAMERA VIEWER, a network browser in a PC which provides the functions of monitoring remote zones or watching recorded data through the TCP/IP protocol.

The details are listed as follows.

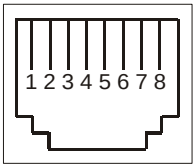
System Requirements

- Intel Pentium 233MHz processor or above.
- 32-MB RAM at least.
- Windows 2000 and XP.
- 4 MB VGA card capable of 24-bit true color display.
- 100 MB free hard-disk space for software installation.
- 10/100 Base-TX network for LAN operation.
- The Microsoft Internet Explorer 6.0 above.

RJ-45 PIN configuration for Ethernet

PIN NO.	PIN Assignment
1.	TX +
2.	TX -
3.	RX +
4.	Not Connected
5.	Not Connected
6.	RX -
7.	Not Connected
8.	Not Connected

RJ-45 socket



Physical specification for Ethernet

Wire type	Cat. 5
Connector type	RJ-45
Max. cable length	100 m
Hub wiring configuration	Straight Through
PC wiring configuration	Cross Over

5.1 Microsoft Internet Explorer

5.1.1 Connecting the LAN CAMERA

1. Start up the Microsoft Internet Explorer, and then follow the steps below to connect the LAN CAMERA.
2. Click the URL block at the top of the window.
3. Enter the URL address of the LAN CAMERA into the URL block and press the “**Enter**” button to enter the home page.
4. Scroll to the bottom of the page, with its five icons, "Image", "Network", "System", "Application" and "SD card". Whichever you click, the page headlined "Enter Network Password" will appear.
5. Type in the "User Name" and "Password" in the appropriate spaces.
6. Click the “**OK**” button to set your entries, and automatically exit the page.

NOTE: The default "User Name" and "Password" are admin and 9999 respectively.

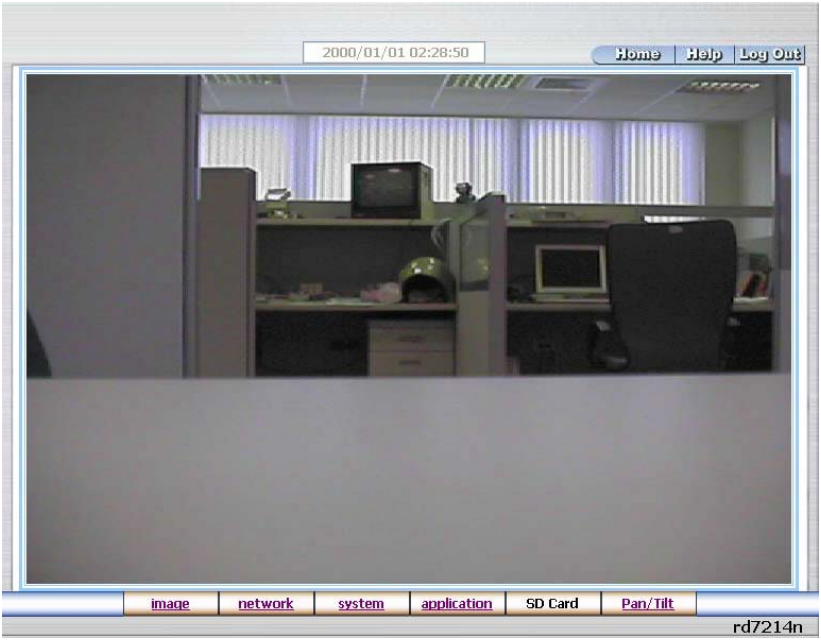
NOTE: The page headlined "Enter Network Password” is shown below. Please enter the user name and password of the LAN CAMERA when you see it. If either the user name or the password is incorrect, please check the input data and rectify it if necessary.

NOTE: Once authorized successfully, it will not appear again until you close the window and reconnect it.

NOTE: 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 revise or change data in the "**SYSTEM USERS**" page, the sequence will alter to initially show the "**Enter Network Password**" page.

Browsing images from the LAN CAMERA

The images from the LAN CAMERA will be displayed on the home page while going online with the LAN CAMERA. There are some buttons provided at the bottom of the home page for further setting:

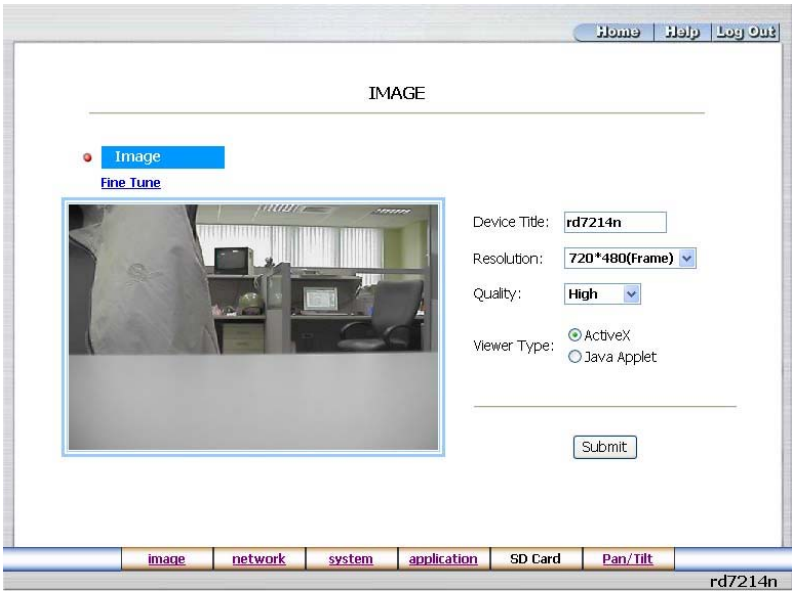


- Click the **image** button to enter the image-setting page.
- Click the **network** button to enter the network-setting page.
- Click the **system** button to enter the system-setting page.
- Click the **application** button to enter the application-setting page.
- Click the **SD card** button to open the SD card- FILELIST of the MEMORY CARD window, if the SD card is inserted.
- **Digital zoom** function: Click the left mouse button on the video display area, and it will show the zoom-in images. Double click the left mouse button to see the maximum size. Click the right mouse button on the video display area, and it will show the zoom-out images. Double click the right mouse button to come back to the normal size.

5.1.2 Change Image Setting

Please follow the steps below to change the image setting through the network if necessary.

1. Click the **image** button on the home page to enter the IMAGE page.



2. Adjust the image setting including “Device Title”, “Resolution”, “Quality” and “Viewer Type” if necessary.
3. Click the **Submit** button to submit the new image setting.
4. Click the **Fine Tune** button to enter the IMAGE FINE TUNE page to set the details of the device including: “Flicker Less”, “BLC”, “Backlight”, “Brightness”, “Hue”, “Saturation”, and “Sharpness”. Click the **Default** button to reset all the settings.

   NOTE: The revised image will appear immediately after any change in made.

5. Click the **Home** button to return to the home page while the new image setting acts on the images to effect the desired changes instantly. (If the setting has not been changed by the above steps, any (re)entry onto the home page will find images in their earlier or original setting.)

Description of function keys:

Device Title: Type in the camera title in the given space.

Resolution: Scroll to choose the image resolution from a range of three sizes.

Quality: Scroll to choose the image quality out of a spectrum of qualities ranging from "highest", "high", "medium", and "low" to "lowest".

BLC: Similarly, click "YES" or "NO" as you require.

Backlight: Type in the backlight level you want, selecting out of an available range of 0 to 255.

Brightness: Enter your desired quality of image brightness from a spectrum of 0 to 255.

HUE: Enter the hue value in the given space (0 to 255).

Saturation: Type in the saturation level in the blank (0 to 255).

Sharpness: Fill in the sharpness level in the blank (0 to 255).

Submit: Click to submit the new image setting to the LAN CAMERA.

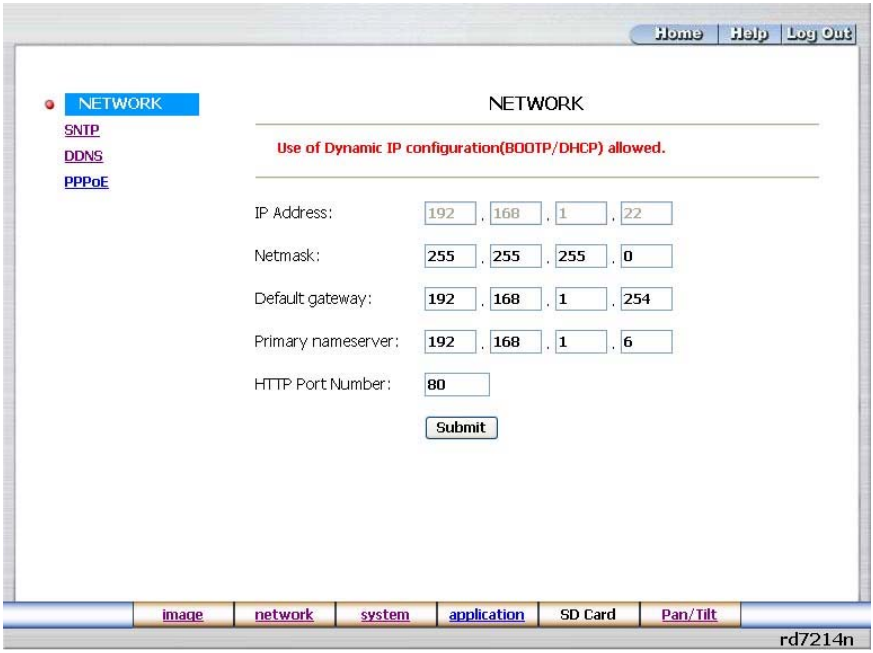
Default: Click this button to install the default settings in all the entries for image parameters on this page.

5.1.3 Change the Network Setting

Please follow the steps below to change the network setting through the network if necessary.

- *Set the network options and IP address.*

1. Click the **network** button in the home page to enter the network-setting page.



2. The accessible networks here are the SNTP, the DDNS and the PPPoE.
3. Fill in the “IP Address”, “Netmask”, “Default gateway”, “Primary nameserver”, and “HTTP Port Number” if necessary.
4. Click the **Submit** button to submit the new network setting.
5. Click the **Home** button to return to the home page.

Description of function keys:

IP Address: Enter the 4-byte IP Address in the appropriate blank space (the value in each box may be anywhere between 0 and 255). Every LAN CAMERA has to own an IP address to be identified on the network.

Netmask: Fill in the 4-byte Subnet Mask in the required blank spaces (usually any numbers between 0 and 255). It is used to identify the subnet where the LAN CAMERA is sited.

Default gateway: Type in the 4-byte Gateway in the relevant blank spaces (each unit value must be between 0 and 255).

Primary nameserver: Enter the 4-byte DNS Server Address in the blank spaces provided (each value unit must be between 0 and 255). The DNS Server is in charge of translating the Domain Name into the IP Address.

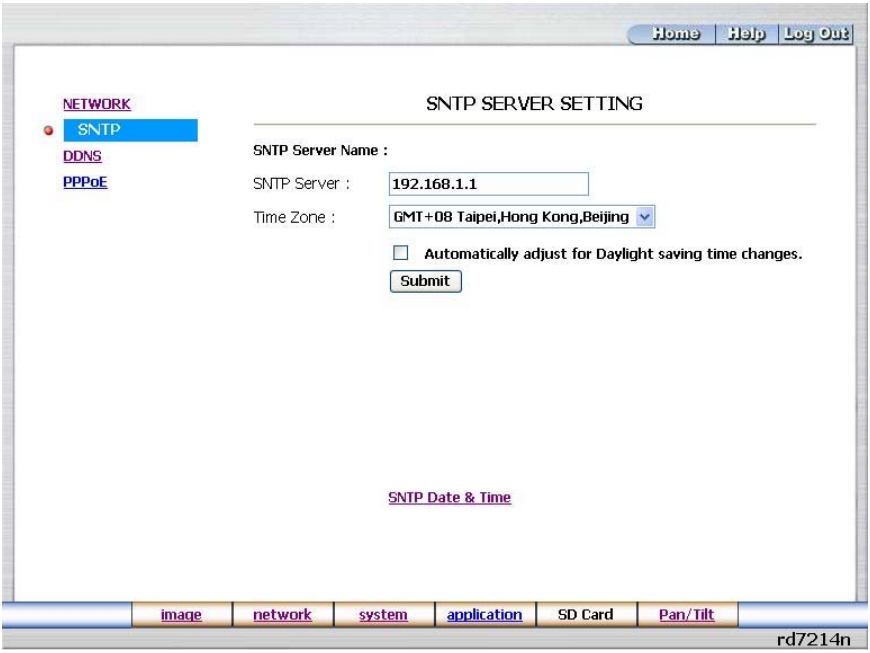
HTTP Port Number: Indicates the specific HTTP Port Number. The default is 80.

Submit: Click to submit the new network setting to the LAN CAMERA.

- *Change the Network Setting — SNTP.*

Please follow the steps below to change the SNTP setting through the network if necessary.

1. Click the **SNTP** button at upper left above to enter the “SNTP SERVER SETTING” page.



2. Enter the IP Address of the SNTP server, and choose one of the time zones as and when necessary.
3. Click the **Submit** button to submit the new SNTP setting.
4. Click the **Home** button to return to the home page.

Description of function keys:

SNTP Server: Enter the SNTP server DOMAIN NAME in the blank space provided.

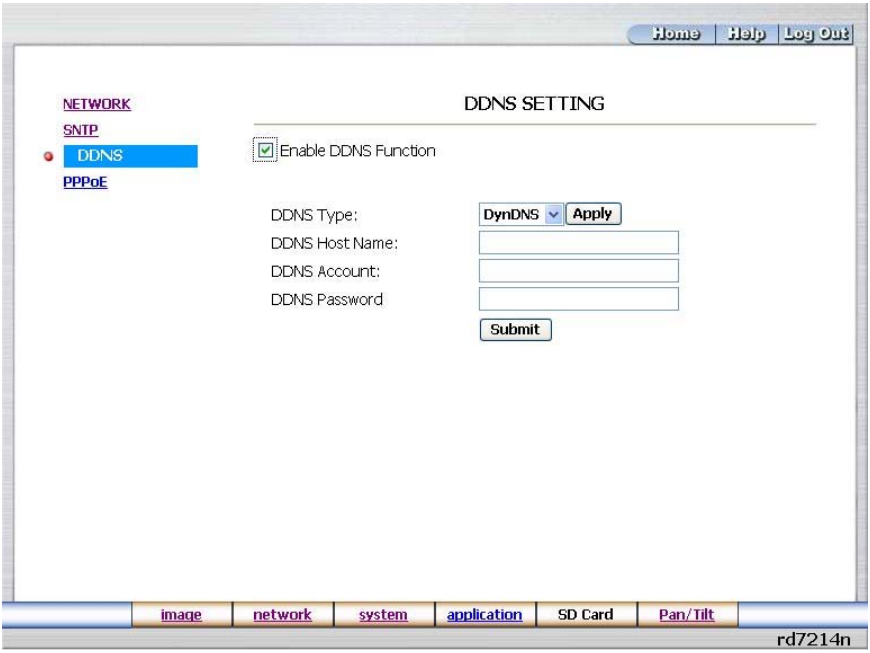
Time Zone: As we know, the globe is divided into various time zones. The user must enter his/her time zone. If this is not done, the time given by the unit may be incorrect.

Submit: Click to submit the new SNTP setting to the LAN CAMERA.

- *Change the Network Setting — DDNS.*

The “Network” page has, on its upper left, the “DDNS” icon. Please follow the steps below to change the DDNS setting through the network if necessary.

1. Click the **DDNS** button at upper left above to enter the “DDNS SETTING” page.



2. Click “Enable DDNS Function” to checkmark the attached box and activate the function.
3. Click ”DDNS Type” to open the list of three DDNS modes to choose from: “DynDNS”, “hn”, and “adsldns”. Click the “Apply” button and connect their website automatically and visit it. Type in your dynamic IP Address and Email Address. If they are accepted by the website, you will get an Email containing your DDNS Account and DDNS Password in your Email box.
4. Type in the “DDNS Host Name”, the “DDNS Account” and the “DDNS Password”.
5. Click the **Submit** button to submit the new setting.
6. Click the **Home** button to return to the home page.

NOTE: Please refer to section 5.1.8 (PPPoE & DDNS) for more details.

Description of function keys:

Enable DDNS Function: Checkmark to activate the function.

DDNS Type: Click to open the list of three DDNS modes to choose from: “DynDNS”, “hn”, and “adsldns”. Click the “Apply” button and connect this website automatically and enter it. Type in your dynamic IP Address and Email Address. If they are accepted by the website, you will get an Email containing your DDNS Account and DDNS Password in your Email box.

DDNS Host Name: Type in your host name in the attached space.

DDNS Account : Enter it in the given space.

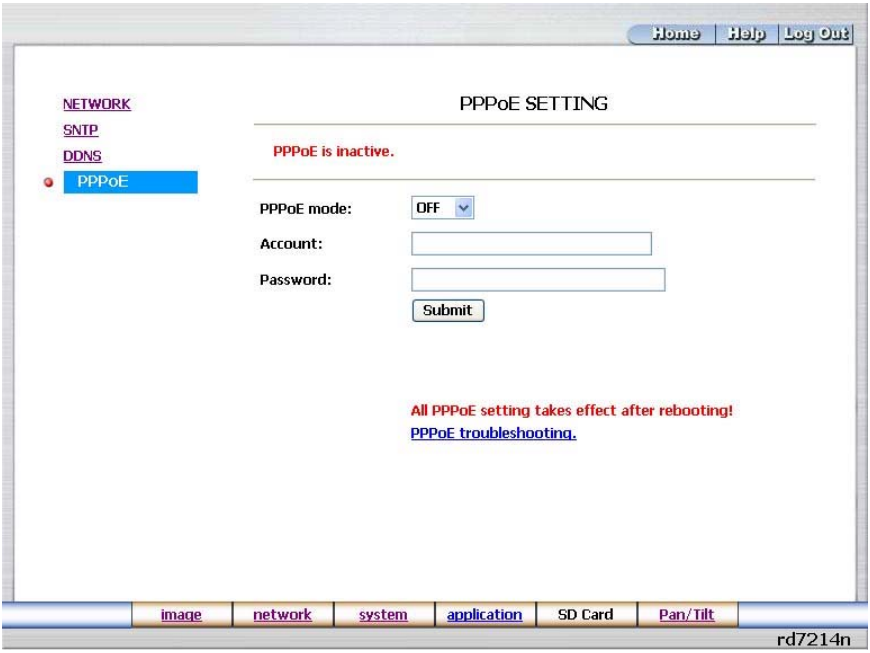
DDNS Password: Enter it in the required space.

Submit: Click to set.

- *Change the Network Setting — PPPoE.*

The “Network” page has, on its upper left, the “PPPoE” icon. Please follow the steps below to change the PPPoE setting through the network if necessary.

1. Click the **PPPoE** button at upper left above to enter the “PPPoE SETTING” page.



2. Click the “PPPoE mode” to activate the function.
3. Type in the PPPoE “Account” and the PPPoE “Password”.
4. Click the **Submit** button to submit the new setting.
5. Click the **Home** button to return to the home page.

NOTE: Please refer to section 5.1.8 (PPPoE & DDNS) for more details.

Description of function keys:

PPPoE mode: Click your choices to enable the PPPoE function

Account: Enter it in the given space.

Password: Enter it in the required space.

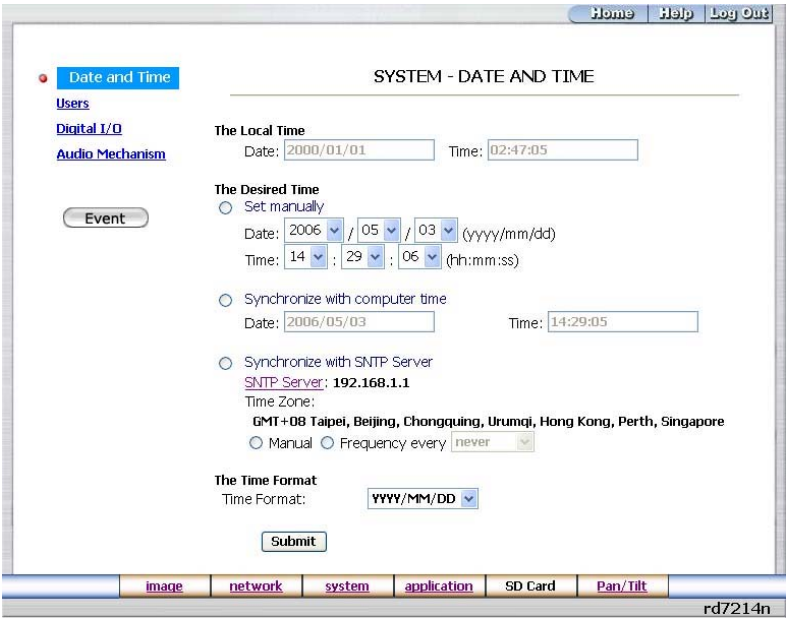
Submit: Click to set.

5.1.4 Change the System Setting

Please follow the steps below to change the date and time of the system setting through the network if necessary.

- *Set the Date and Time of the system*

1. Click the **system** button in the home page to enter the “SYSTEM - DATE AND TIME” page (default).



2. Choose one of the three modes shown on the page to set the Date and Time of the system. The three modes are “Set manually”, “Synchronize with computer time”, and “Synchronize with SNTP server”.
3. Click the **Submit** button to submit the new Date and Time setting.
4. Click the **Home** button to return to the home page.

Description of function keys:

The Local Time: Shows the local date and time of the LAN CAMERA

Set manually: Manually sets the date and time of the LAN CAMERA.

Synchronize with computer time: Synchronizes with the linking computer.

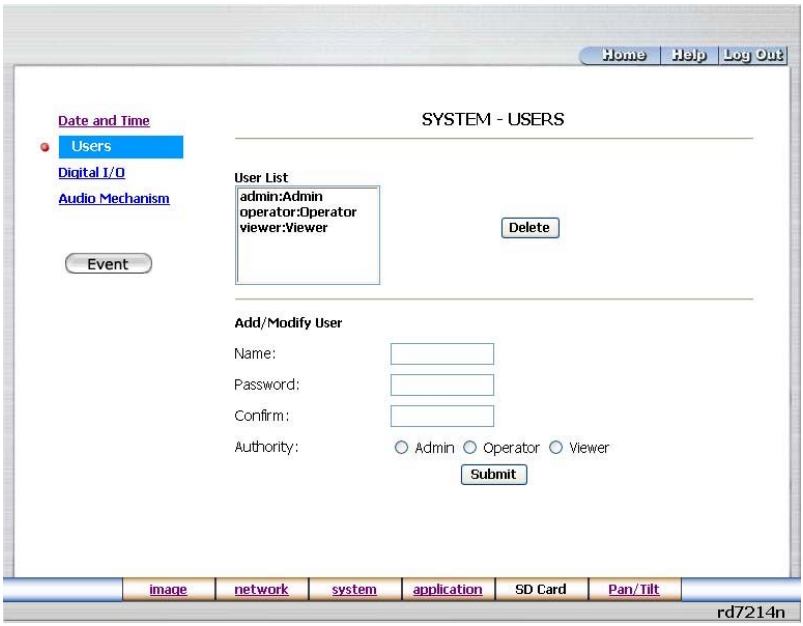
Synchronize with SNTP server: Synchronizes with the SNTP server. In this mode, two choices of adjusting are provided: doing it manually or setting the frequency to enable the system to do it automatically.

Submit: Click to submit the new setting to the LAN CAMERA.

- *Change the System Setting — Users.*

Please follow the steps below to change/add the users' authority through the network if necessary.

1. Click the **Users** button on the left side of the "System - Date and Time" page to enter the "SYSTEM - USERS" page.



2. Add, modify or delete any user's data if necessary.
3. Click the **Submit** button to submit the new user's setting.
4. Click the **Home** button to return to the home page.

Description of function keys:

User List: The list shows the registered user(s) and the corresponding authority.

Delete: Deletes the user selected.

Name: Enter the user's name, which will be added or modified.

Password: Enter the new password of the user's name above.

Confirm: Type in the password again for verification.

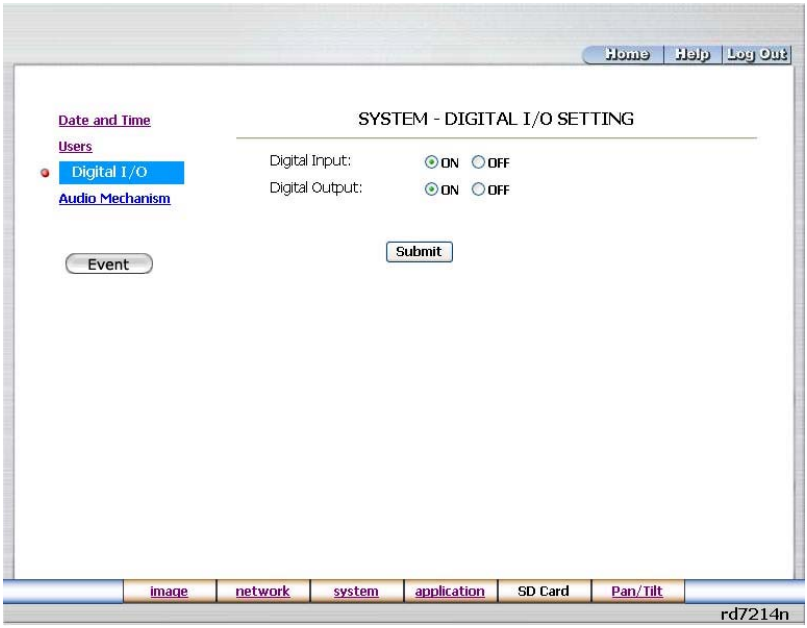
Authority: Choose an authority option of the user's name from: Admin, Operator, and Viewer.

Submit: Click to submit the new setting to the LAN CAMERA.

- *Change the System Setting — Digital I/O.*

Please follow the steps below to change the Digital I/O through the network if necessary.

1. Click the **Digital I/*O*** button on the left side of the “System - Date and Time” page to enter the “SYSTEM – DIGITAL I/O SETTING” page.



2. Mark the “Digital Input” “ON” or “OFF” and the “Digital Output” “ON” or “OFF”. Click your choices to enable.
3. Click the **Submit** button to submit the new user’s setting.
4. Click the **Home** button to return to the home page.

Description of function keys:

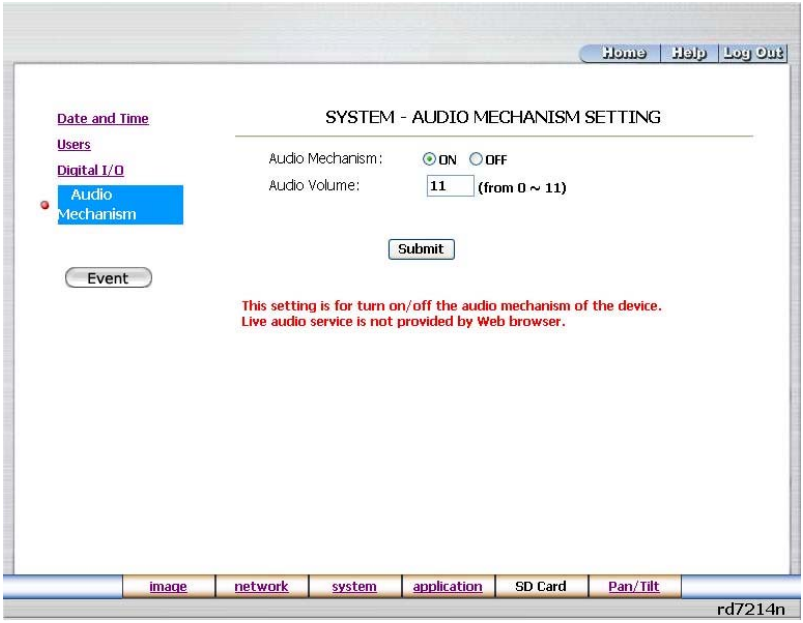
Digital Input: Select “ON” or “OFF” to use the GPIO connector or shut it down.

Digital Output: Select “ON” or “OFF” to use the GPIO connector or deactivate it.

- *Change the System Setting — Audio mechanism.*

Please follow the steps below to change the Audio Mechanism through the network if necessary.

1. Click the **Audio mechanism** button on the left side of the “System - Date and Time” page to enter the “SYSTEM –AUDIO MECHANISM SETTING” page.



2. Mark the “Audio Mechanism” “ON” or “OFF” and type in your desired audio volume level from a range of 0 to 11.
3. Click the **Submit** button to submit the new user’s setting.
4. Click the **Home** button to return to the home page.

NOTE: **This setting is for turning the audio mechanism of the Camera on/off automatically. The Live audio service is not provided by the Web browser.**

Description of function keys:

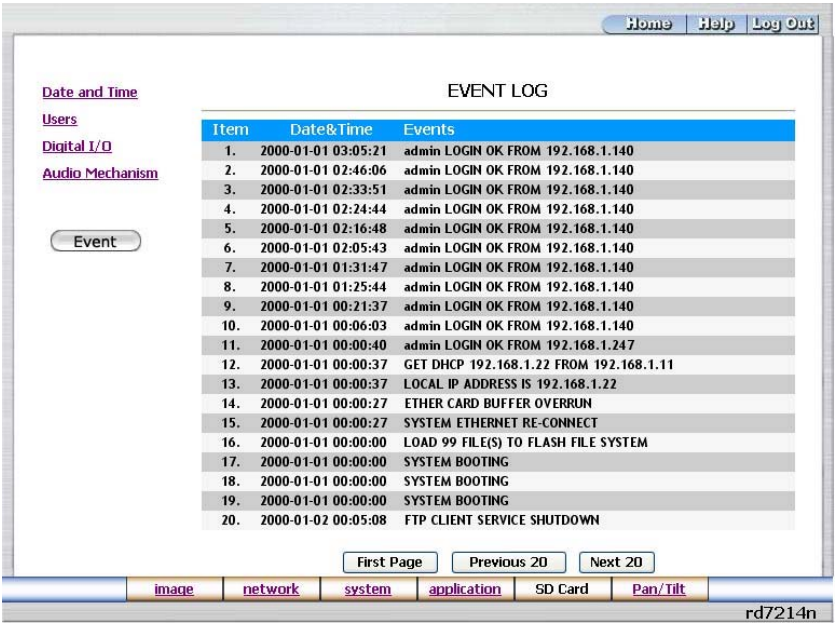
Audio Mechanism: Select “ON” or “OFF” to activate or deactivate the function.

Audio Volume: Enter your desired volume level.

- *View the Event Logs.*

Please follow the steps below to view events through the network if necessary.

1. Click the Event button on the upper left above to enter the “EVENT LOG” page.



2. Choose one of the three buttons shown on the page to view an event when necessary. The three buttons are titled “First Page”, “Previous 20”, and “Next 20”.

Description of function keys:

First Page: Displays the first page.

Previous 20: Displays the previous 20 pages.

Next 20: Displays the next 20 pages.

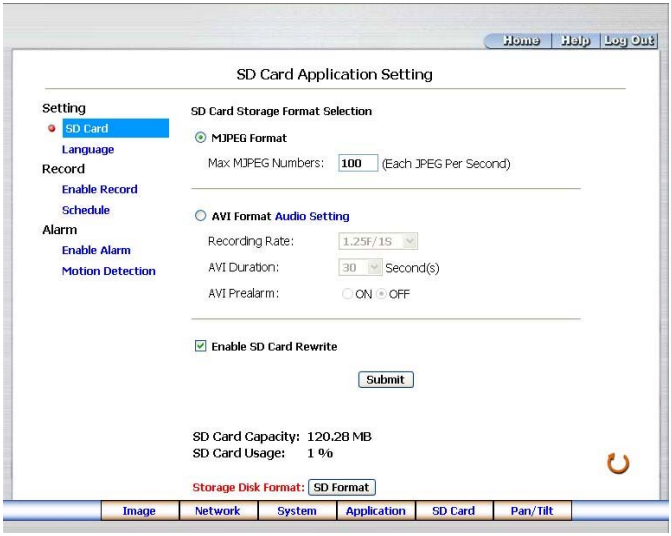
5.1.5 Change the Application Setting

Please follow the steps below to change the application setting through the network if necessary.

- Change the Application Setting — SD CARD APPLICATION SETTING.

Please follow the steps below to change the SD CARD setting via the network if necessary to upload recording data live.

1. Click the **SD card** button on the top left to enter the “SD CARD APPLICATION SETTING” page.



2. You have an option as to which SD - card storage format to use, the JPEG or the AVI. Click your selected format and click "Submit" to set it.
3. If it's JPEG you want, fill in the "Max JPEG Numbers" entry.
4. If AVI is your choice, enter its recording rate and duration in seconds, and click "Submit" for their setting.

Description of function keys:

JPEG Format: One image per file.

Max JPEG Numbers: Sets the number of file sequences you can save per second.

AVI Format audio setting: Unlike a single – image file, this option offers a selected section of a video record.

Recording Rate: Sets your chosen frame rate of frames per second.

AVI Duration: Predetermines the length of each video file in terms of seconds.

SD Card Capacity: The free capacity of the SD card.

SD Card Usage: The percentage of the recorded file on the SD card.

SD Format: Click and press the Yes button to format the SD card.

- Change the Application Setting —RECORD APPLICATION ENABLE SETTING.

Please follow the steps below to change the setting via the network if necessary.

1. Click the **Enable** button on the left side of the record to enter the “RECORD APPLICATION ENABLE SETTING” page.

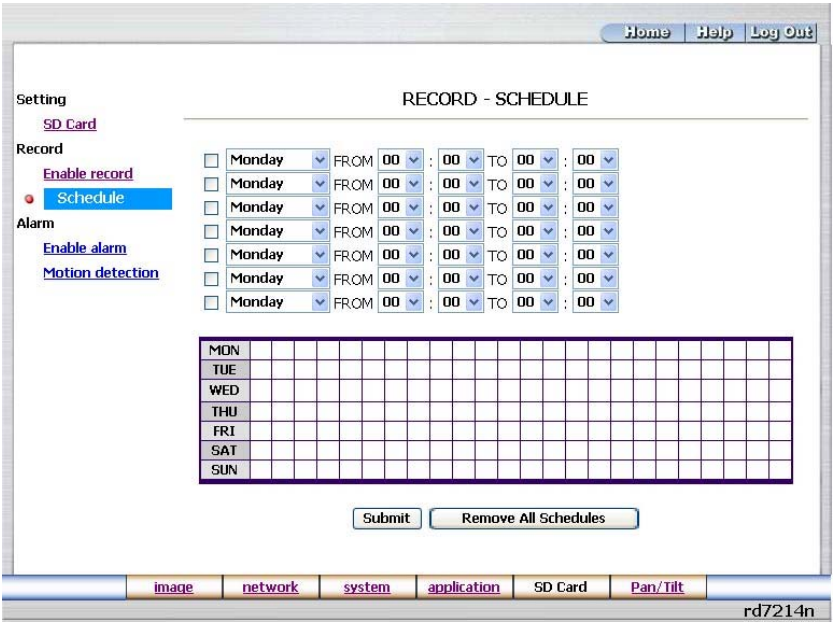
2. Click “Enable RECORD – SAVE into SD card” to checkmark the attached box and activate the function.
3. Click the **Submit** button to submit the new setting of the recording.
4. Click the **Home** button to return to the home page.

Description of function keys:

Enable Record – Save into SD card : Activates or deactivates the recording to the SD card.

- Change the Application Setting —RECORD - SCHEDULE.

1. Click the **Application** button on the home page to enter the “RECORD - SCHEDULE” page.



2. Check/uncheck any/all of the first seven boxes set vertically in the upper half of the “Record-Schedule” page to enable/disable the programmed recording function, and vary the setting of the targeted item while it is enabled.
3. Click the **Submit** button to submit the new schedule setting.
4. Click the **Remove All Schedules** button to clear out all the data of the schedule setting.

Description of function keys:

Schedule: Check / uncheck the first seven boxes in a vertical row on the left to enable/disable the programmed scheduled recording function if necessary. Vary any of the schedules of the recording setting if necessary.【please refer to the above description】

Chart: Schedule list.

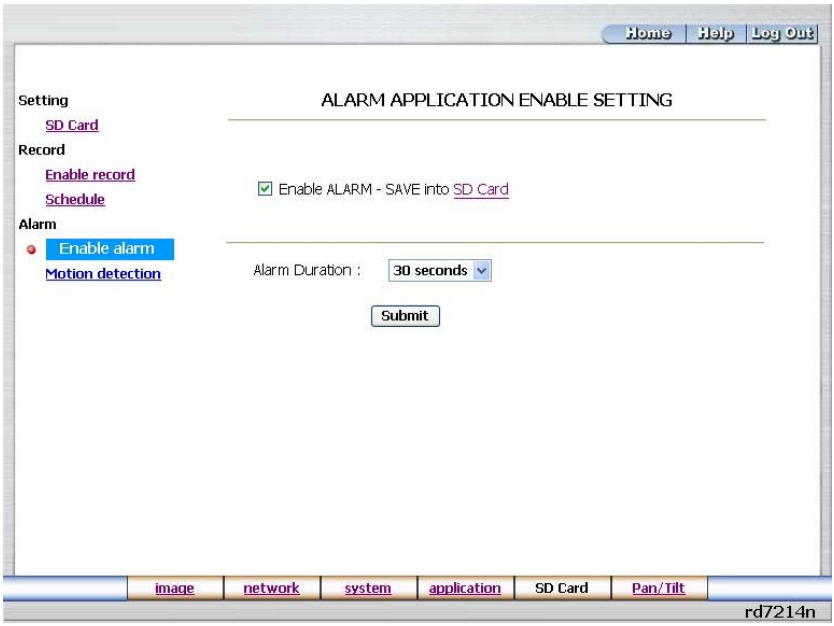
Submit: Click to submit the new setting to the LAN CAMERA.

Remove All Schedules: Click to clear out all the data of the schedule setting.

- Change the Application Setting — ALARM APPLICATION ENABLE SETTING.

Please follow the steps below to change the setting via the network if necessary.

1. Click the **Enable** button on the left side of the record to enter the “ALARM APPLICATION ENABLE SETTING” page.



2. Click “Enable ALARM – SAVE into SD card” to checkmark the attached box and activate the function.
3. Enter the "Alarm Duration" you have chosen.
4. Click the **Submit** button to submit the new setting of the recording.
5. Click the **Home** button to return to the home page.

Description of function keys:

Enable Alarm – Save Into SD card: Activates or deactivates the alarm recording to be saved to the SD card.

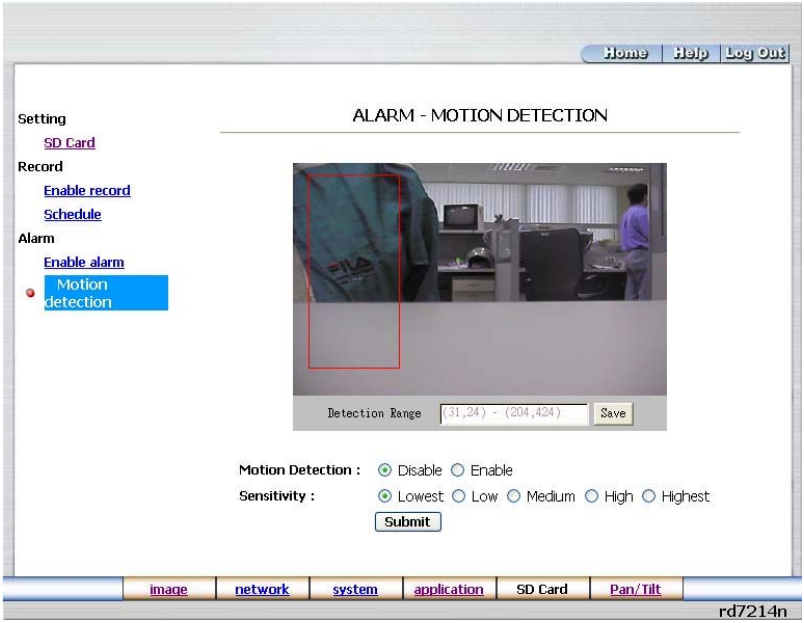
Alarm Duration: Predetermines the length of the alarm.

- Change the Application Setting — ALARM - MOTION DETECTION

Please follow the steps below to enable changes in the motion detection function of the alarm through the network if necessary.

Set the motion detection:

1. Click the **Motion detection** button on the left side of the Alarm to enter the “ALARM – MOTION DETECTION” page.



2. Click and drag the mouse across a targeted zone to draw a red rectangle on the image (coordinates provided below).
3. Click the **Save** button to save the motion detection range.
4. Enables / disables the motion detection function.
5. Set up the signal level.
6. Click the **Submit** button to submit the new setting of the recording.
7. Click the **Home** button to return to the home page.

Description of function keys:

The targeted zone: Click and drag the mouse across the targeted zone to draw a red rectangle on the image.

Detection Range: The red rectangle’s coordinates.

Save: Click to save the motion detection range.

Motion Detection: This option enables / disables the motion detection function

Sensitivity Level: Selects any one of the given options for the setup signal level.

Submit: Click to submit the new setting to the LAN CAMERA.

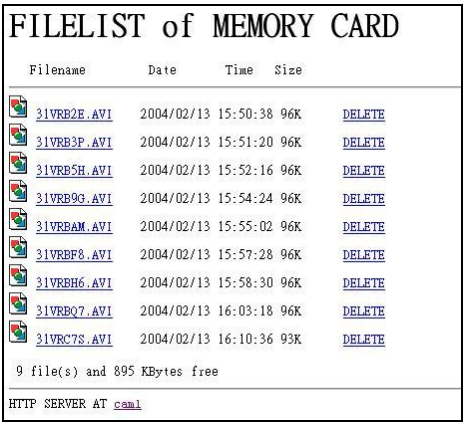
5.1.6 Change the SD card Setting

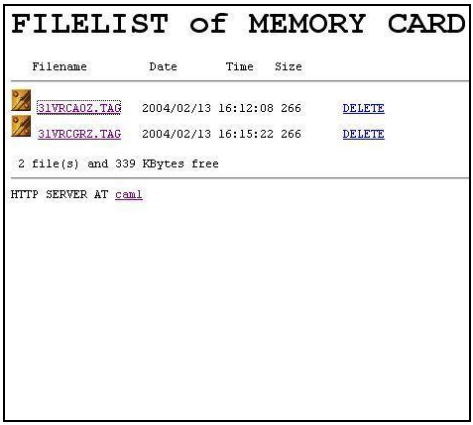
Please follow the steps below to change the SD card setting through the network if necessary.

- Change the SD card Setting — FILELIST of MEMORY CARD.

Please follow the steps below to change the setting via the network if necessary.

1. Click the “SD card” button at the bottom of the home page to enter the page containing the “FILELIST of MEMORY CARD”. The page comes in two modes, the JPEG and the AVI (please refer to the “SD card Application Setting Page”).





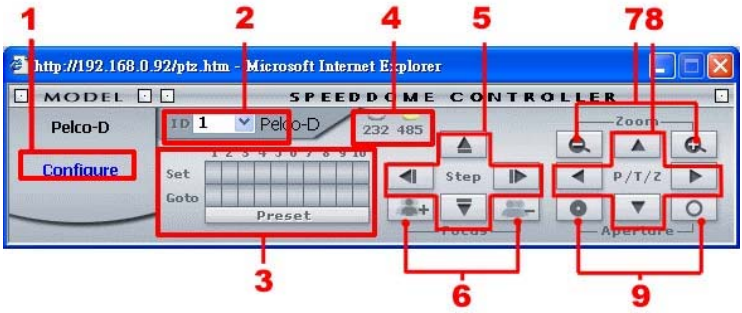
2. Click the desired file to display the images therein.
3. Each file can be deleted by clicking the attached “DELETE” hyperlink.

NOTE: You can't directly click the hyperlink of the file in the "**FILELIST of MEMORY CARD**" page with the right button of the mouse focus and click "**SAVE**".

CAUTION: If you wish to save the SD CARD files from a camera to your computer, you can enter the JPEG column in the "**FILELIST of MEMORY CARD** " page to click in and enter the particular files in the column. When you click in, the images concerned will appear. Move your mouse focus within the image area and click the right button of the mouse. A table of item entries will show up. Click "**Save**" and select the path by which to save your files.

5.1.7 Change the Pan/Tilt setting

Click the **Pan/Tilt** button on the home page to open the Speed Dome Controller.



1. Click "**Configure**" to enter to the RS232 and RS485 setting pages. (please refer to *Change the System Setting — RS232 Setting* & *Change the System Setting — RS485 Setting*).
2. Select a Speed Dome device ID from the drop-down list on the Speed Dome Controller. The Controller will display the corresponding ID.
3. Each of the ten buttons under 'Set' is connected with a specific position and angle of either panning or tilting of the camera. Click each button to activate its particular position and angle. Press the button under 'Preset' to turn the camera angle by angle in the set positions. Each of the ten buttons designated 'Go to' can be clicked to view the particular corresponding angle of the position in which it is set.
4. Select the connecting port. The RS-232 communication port functions as a connector to an external control device. The RS-485 communication ports function as connectors when two or more units are serially connected to an external control device.
5. Upon the buttons being clicked, a camera will move one short step only in any of the four designated directions.
6. Click the buttons to control the Focus setting on the Speed Dome Controller. Click "**+**" button to focus far and click the "**–**" button to focus near.
7. Click the buttons to control the Zoom setting on the Speed Dome Controller. Click "**+**" button to zoom in and click the "**–**" button to zoom out.
8. Upon the buttons being clicked, a camera will turn all the way, without stopping, in one of the four designated directions.
9. Click the buttons to control the Aperture setting on the Speed Dome Controller.

5.1.8 PPPoE & DDNS

Using the PPPoE

1. Install the XDSL software (obtained from your ISP dealer) in your PC.
2. Search your LAN CAMERA's IP address: you can use your Network Viewer's Scan IP program, or just connect the LAN CAM and the Video monitor. The monitor screen will show the IP address on its right side.
3. Change the switch on the LAN CAM's side panel to position # 4.
4. Installing an IP address in your PC or notebook.

   Desktop → Move the mouse focus to the Network neighborhood and click the right key of the mouse → Choose the properties → Choose your local connection → Choose the properties and select the configuration → Select the TCP / IP → Choose the properties → Type in the IP address in a four-part formula, for example “192. 168. 1.101” (the first three parts must be identical to the above numbers, only the last part can be changed to your own number, which must never exceed 255) → Click the mask and the mask input, namely “255. 255. 255. 0” (a fixed formula) → Click “OK” → Click “OK”.
5. Desktop → Choose IE browser → Type in the LAN CAMERA IP address in the URL (check step # 2 above) → Enter → LAN CAM images will appear.

PPPoE Settings

1. Enter the LAN CAMERA home page → Choose the network → Type in “User Name: admin” and “Password: 9999” → Click “OK’.
2. Choose PPPoE → PPPoE mode: Select “ON” → Type in “Account” → Type in “Password” → Submit → Unplug the power connection.
3. Plug in the LAN CAMERA and it will receive an IP address from the ISP dealer (this IP address is dynamic --- every time you unplug and plug in again you’ll get a new IP address).

Test: Go to the Internet.

1. Set your PC to enter the Internet.
2. Desktop → IE browser → Type in the LAN CAMERA IP address (the same address as in the PPPoE settings and step 3 above) → You can see the LAN CAM images.

DDNS settings

1. Check your LAN CAMERA's IP address (Scan IP software or monitor) → open your IE browser → Use the address to connect to the LAN CAM or view the images → Choose the network → Type in "User name : admin" and "Password : 9999" → Click "OK" .
2. Choose the "DDNS" → Click "Enable DDNS" → Enter the "DDNS host name", for example "abc123. homeip.net" → Type in "DDNS Account", for example "abc123" → Enter the "DNS Password", for example "7777" → Submit → The settings are now accomplished → Close the IE browser.
3. Open the IE browser again → Type in the Website address you just applied for, such as "abc123.homeip.net" → You can look at your LAN CAMERA images right away The procedure is complete.

Note: These settings are only for your ADSL Dynamic IP configuration. If your configuration is fixed (true IP), you don't need to proceed with the PPPoE and DDNS settings. The DDNS is just for your convenience.

5.2 The LAN CAMERA IP Surveillance

This section provides instructions for installing and using the IP surveillance and Image Viewer, which are included with the LAN CAMERA. The programs can be operated by a selected PC equipped with the following requirements.

System Requirements

- Intel Pentium 1.5 GHz processor or above (2.8 GHz or higher recommended).
- 128-MB RAM at least (256-MB or higher recommended).
- Windows 2000, XP or above.
- 4 MB VGA card capable of 24-bit true color display.
- 100 MB free hard-disk space for software installation.
- 10/100 Base-TX network for LAN operation.
- The Microsoft Internet Explorer 6 above.

In the multi-channel recording mode, the HD data transfer rates must be 66MB or above (100MB or higher recommended).

5.2.1 Introduction to IP surveillance

The IP surveillance allows you to access many units of the LAN CAMERA from a remote desktop or a laptop in a TCP/IP networking environment. It can perform the following functions.

- View live images from the LANCAMERA.
- Store, search, and review recorded video from the PC, and SD card.
- Change a regular record, event record, and timer properties.

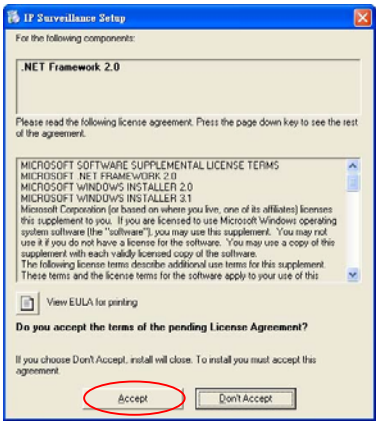
Before you are ready to view images from a desktop, you need to have your LAN CAMERA networked by obtaining a 10/100 base-TX Ethernet data cable (Standard RJ-45) to connect the LAN CAMERA to your LAN/WAN. Now enter the main menu to set the IP address.

5.2.2 Install the IP surveillance in your PC

Install the IP surveillance 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.

   NOTE: It will update the .NET Framework to version 2.0 automatically. Please click “Accept” to continue.



3. After the installation is complete, pop up the **START** menu from your computer, and point to **Programs / IP surveillance / IP surveillance** to open up the program selection page as shown below. Click the **IP surveillance** tag to start the **IP surveillance** program.

Install the IP surveillance for 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 on the 

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 / IP surveillance** to start the **IP surveillance** program.

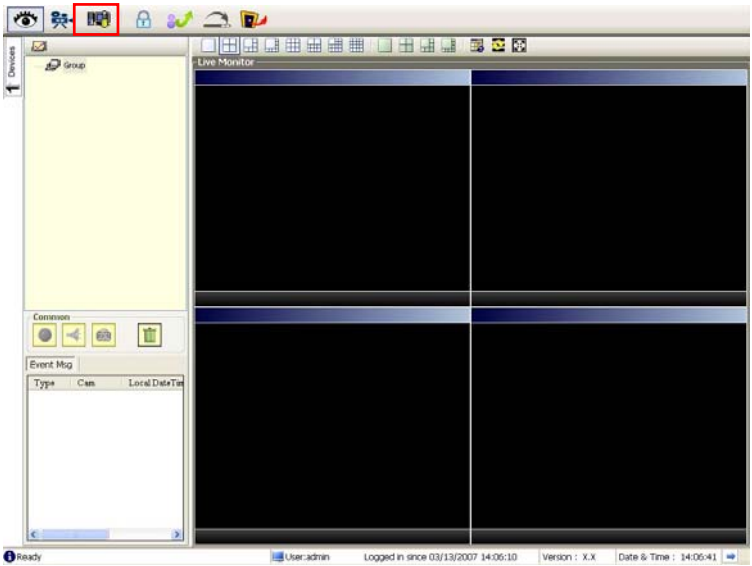
NOTE: Please make sure the TCP/IP communication software has been properly set and configured in your computer. To check your TCP/IP settings, please refer to section 4.5 (TCP/IP configuration setting).

5.2.3 Login the Network camera software

Once the IP surveillance is executed, a Login prompter will appear. You must enter the default User Name: **admin**, and the password: **9999** in the respective spaces. Click the "**OK**" button and enter the console page of the IP surveillance: both the user name and password must be entered correctly. Click the "**Cancel**" button and exit the login of the Network Viewer.

View the Network camera video from a remote PC

Follow the instructions below to use the IP surveillance to browse a Network camera video from a remote location. Upon entering the IP surveillance, a connection box will appear as follows.



1. Press the  button to enter the **Settings** page.

2. Press the  button to add a new device group. After typing in the Group Name, please press the **OK** button.

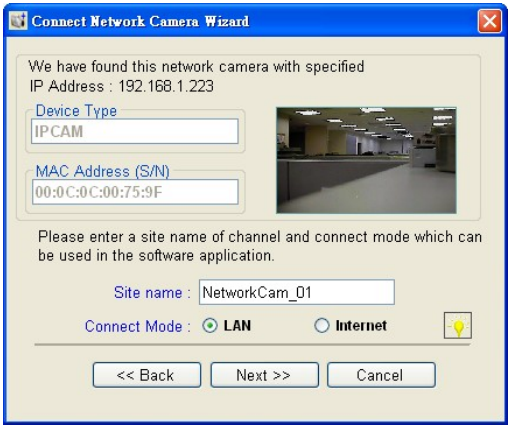
3. Add a channel from the  button.

4. **(1)** Click the **Auto-Search** button at the bottom of the "Connect Network camera Wizard" page to discover the connection of the Network camera - type device in the LAN. Instantly the "Search Network camera " page will appear. Click the device of your choice and click "**Select**" at the bottom of the page to access the "Connect Network camera Wizard" page again.

   (2) Type in the IP Address or the domain name and HTTP port of the device and add the device to the Device List.

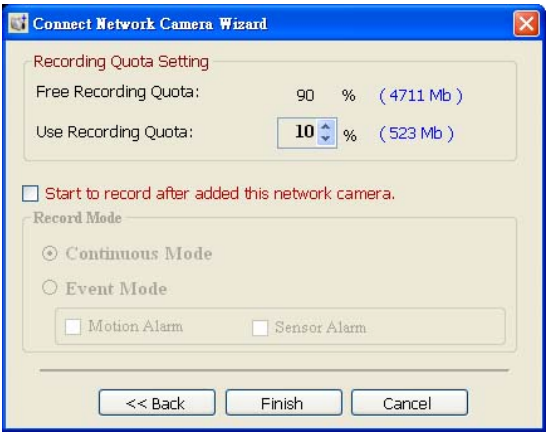
5. Type in the **Password** in the " Connect Network camera Wizard " page. Click "Next" button to open another "Add Device Wizard" page.

6. This page provides the IP Address, the device type, and the MAC Address. After typing the Site name and selecting the Connect Mode, please click the "Next" button to access the next "Connect Network camera Wizard" page.



NOTE: Please click the icon to see the details of the Connect Mode.

7. After finishing the setting of the Device Recording, please click the "**Finish**" button to establish the connection between the device and the computer.



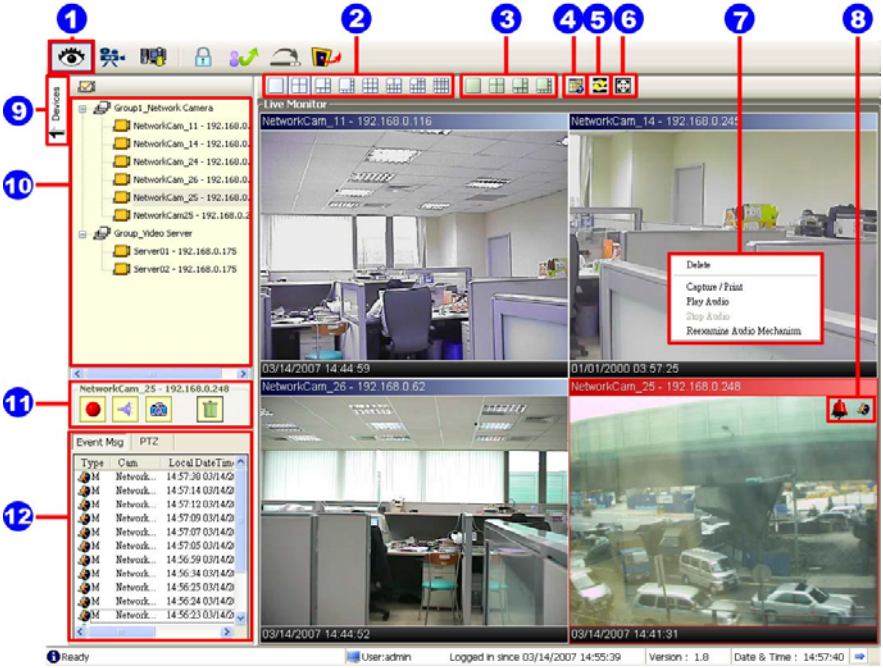
8. Click the devise title to begin viewing images with this camera from the Device List.

NOTE: To add more connections or units to the Network camera, please repeat the above instructions.

5.2.4 Operation

5.2.4.1 Live Monitor

Once the connection has been established, click the  button to enter the Live Monitor window. (See the sample screen below.) On the left side of the window is the connected device that has been arranged when you established the connection.



1. The Live Monitor icon.

   ◇**Add a camera video onto the Live Monitor area:**

   (1) Click on the title of the camera that was connected.

   (2) Hold down the right mouse button and drag onto the droppable Live Monitor area. The video from the new camera will be displayed.

   (3) In the Live Monitor area, if you want to exchange the videos of different cameras, you can drag the video and drop it where you want to locate the video.

2. The Split-Screen display function bar: This allows you to display the connected device in the single channel and multi-format screens.

3. The Sequence configuring button: Press to enter the sequential jumping mode, each

multi-screen, and one sequence; the picture will sequentially switch to different channels according to the Sequence Views setting (refer to 5.2.4.3).

Note: One can't use the common icon (#11) in the Sequence displaying mode or drag the video and drop it as s/he likes. For the further settings of each channel, please select the device title on the left side and click the right mouse key to operate.

4. The Circle configuring button: Click this button to see the following channels.
5. The Group Circle button: Click this button to change the different group of display.
6. The Full Screen button: Click this button to show the full screen for surveillance. If you want to return to the previous mode, please click the Normal Screen button.
7. Motion on/ Alarm on: The warning icons.

    Motion-on icon: When there is a detection of motion in any channel, it will display this icon in the right upper corner of that channel to warn the user.

    Alarm on-icon: When there is a detection of external devices such as a sensor, it will display this icon on the upper right corner of that channel to warn the user.
8. Pop-menu: You can use the mouse to move to each channel. Click the right key of the mouse to show a window. You can select "Delete", "Capture / Print", "Play/Stop Audio" or "Reexamine Audio Mechanism".
9. Click this button to hide the "devices list", "common" and "alarm message list" boxes from view behind the video display screen.
10. The section in the upper left margin will show the information in all the devices and its group names.

    The users can click and hold on the device title on the list and drag it to the Live monitor area to see the live image of the camera.
11. common icons:

     Play Audio: Click the button to play the live audio. Click once again to deactivate.

     Record: Click the button to archive AVI videos into your PC. Click once again to deactivate. In the recording mode, there will appear a red twinkling icon in the upper-right hand corner of the image.

     Capture / Print: Provides the image capturing and printing functions.

     Delete: Drop the view here to delete it.

◇**Delete a camera video from the Live Monitor area:**

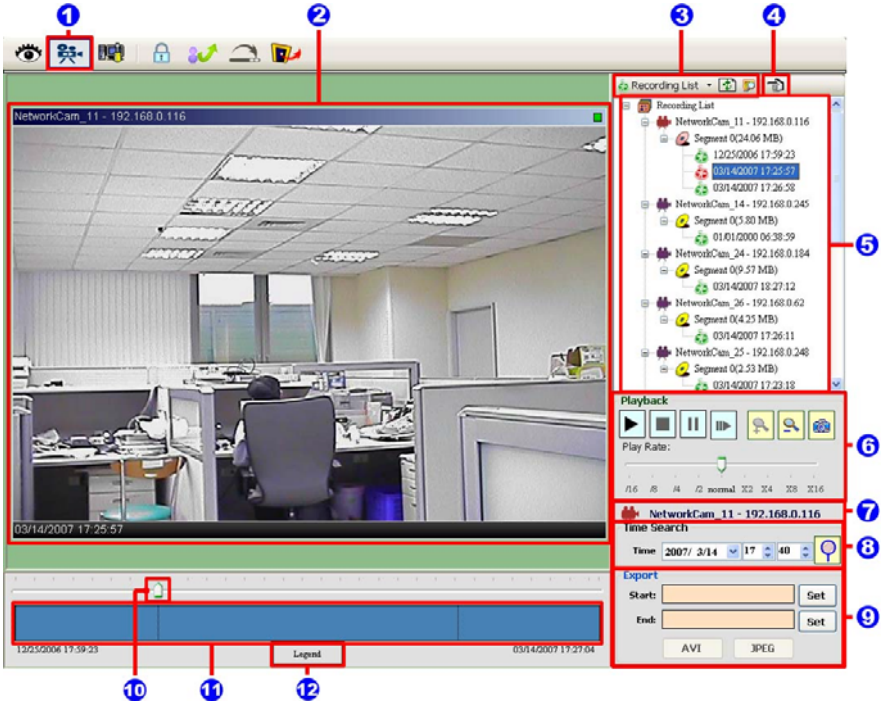
(1) Select the video of the camera which you want to delete.

(2) Press and hold the left mouse button. Then drag it to the trashcan  and release the mouse button.

12. Alarm list / PTZ Control: Shows the alarm types, the device names and the occurrence time. You can press the **PTZ** button to change to the PTZ Control mode.

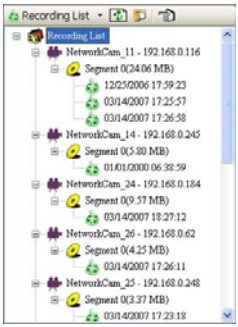
5.2.4.2 Playback Viewer

Press the  button to enter the Playback Viewer setting page.

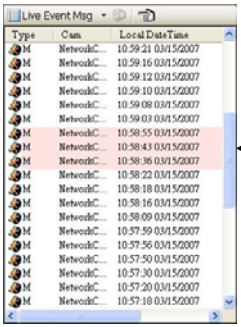


1. The Playback Viewer icon.
2. The display area.
3. Click to choose the  Recording List /  Live Event Msg .

Recording List



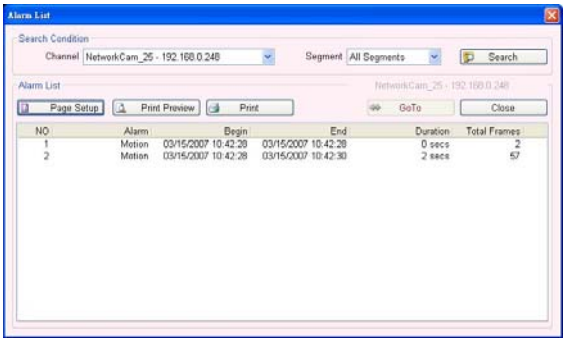
Live Event Message



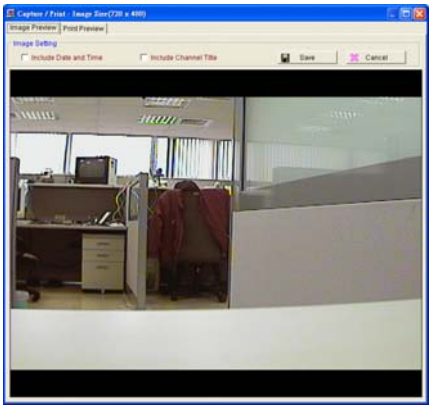
The alarm events which were recorded will be marked in pink color.

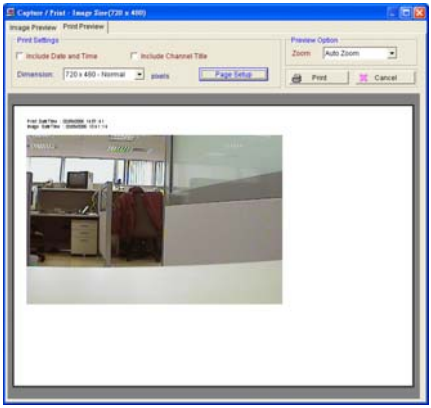
Click  to refresh the recording list.

NOTE: To view the alarm lists of a camera which were recorded, please (1) click the icon (2) the Alarm List window will appear as shown below, (3) select a camera from the drop-down list, then (4) click the “Search” button.



4. Move to the left/right area.
5. Recorded video list box. This box allows you to access all recorded video, which are stored in the HDD of the connected devices.
6. Playback function bar.
   - Play - Click to a recorded video from the PLAY LIST.
   - Stop - Click to stop playing back a recorded video or cease recording.
   - Pause - Click to freeze the image.
   - Step - Click to view images picture-by-picture.
   - Zoom in – Enlarges the displayed image.
   - Zoom out - Narrows the displayed image.
   - Capture / Print: Provides the image capturing and printing functions.

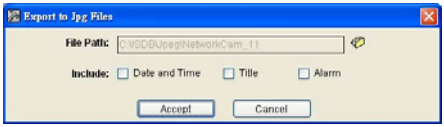




- Play Rate: During play mode, please use the scroll bar to control the show speed.

7. Shows the device title.
8. This allows you to search a recorded video kept in the HDD of the device. Enter the MONTH /DAY /YEAR /HOUR /MINUTE you wish to search and click  to proceed.
9. Functions to fit the starting and ending points of an image display, when the user wants to transfer a file.

   JPEG: Archives images in the JPEG format to save a single picture in every file.

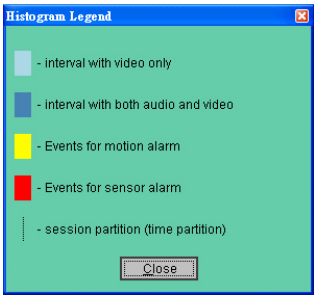


   AVI: Archives images in the AVI format to save a sequence of images in a file.

   Warning: The audio and video signals would likely be unable to play back simultaneously because of incomplete files caused by unstable network transmission or altered setup while doing the AVI backup with the "Include Audio" function.

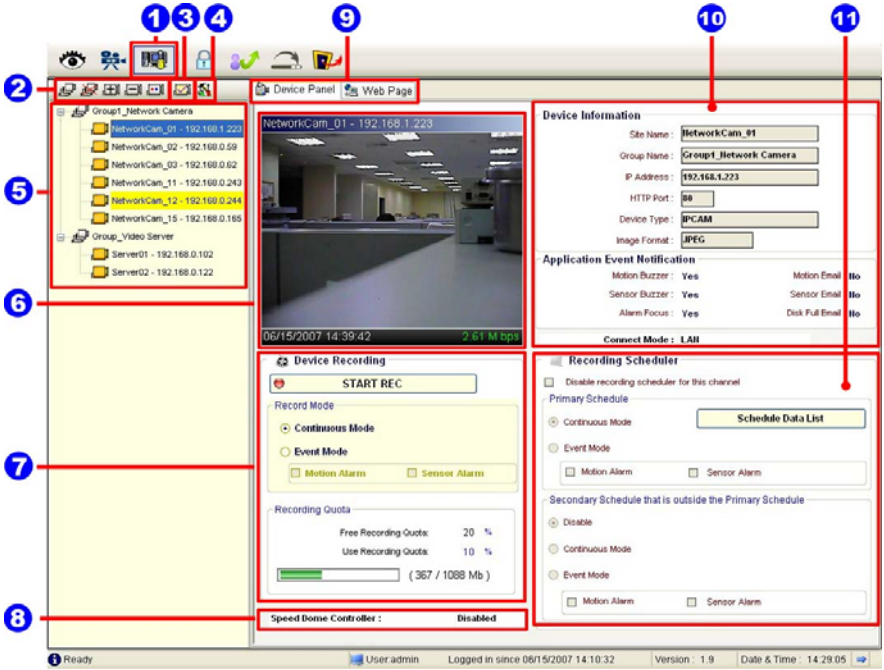
10. Scroll bar for video searching: Drag the square on the bar to search the video. You can click or pull the indicator on the scroll bar to the point you want to see.
11. Displays the recording mode of the video on the histogram.
12. Press the 

button to see the Histogram Legend. You can get the event's location in terms of time, and select a group of events or period from the event histogram area and show it on the display area.



5.2.4.3 Setting

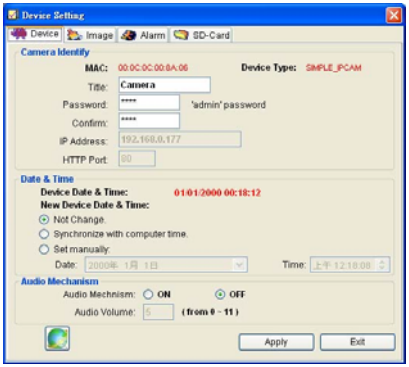
Press the  button to enter the Setting page.



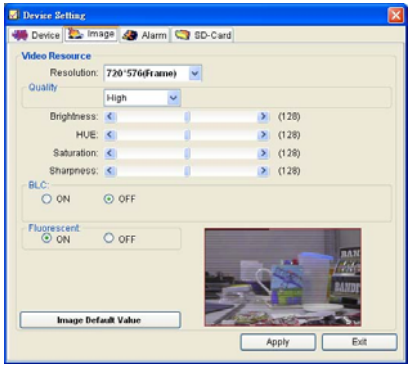
1. The Setting page.
2. Function buttons:
   -  **Add a new device group:** Click this button and type in the new group, then press “OK” to save it.
   -  **Remove a device group:** Click this button and select the group name, then press “OK” to delete the group.
   -  **Add a new camera:** For mode details please refer to section 5.2.3.
   -  **Remove a camera:** Click this button and select the group name and Network camera, then “OK” to delete the device.
   -  **To edit camera:** Please select a device, then click this button to edit the device.

3.  **Device Setting:** Provides four pages of settings.

(1) Device Setting page

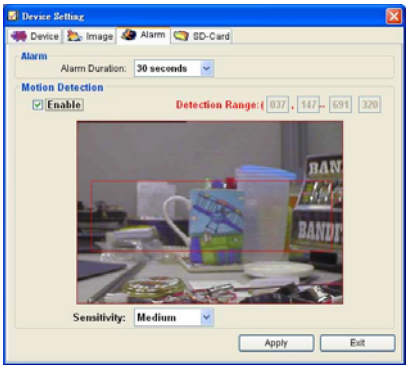


(2) Image Setting page

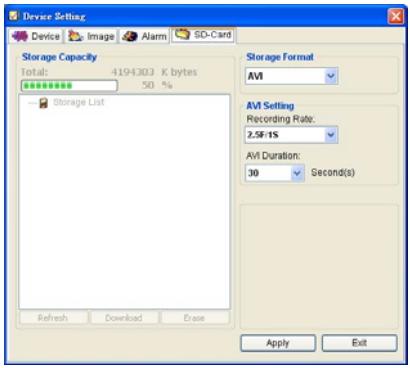


NOTE: The IP Surveillance software connects the Internet to a Network camera. There may be a problem if the bandwidth is not enough, in which case the speed rate of the image transmissions may become too low. So if you want a satisfactory speed rate in your displays, you can click the “Device Setting” button, opening a “Device Setting” screen, and set the settings of the Device page where you can change the “Audio Mechanism” function to “OFF”. Turning it “OFF” will save the bandwidth from wastage, and improve the image display.

(3) Alarm Setting page



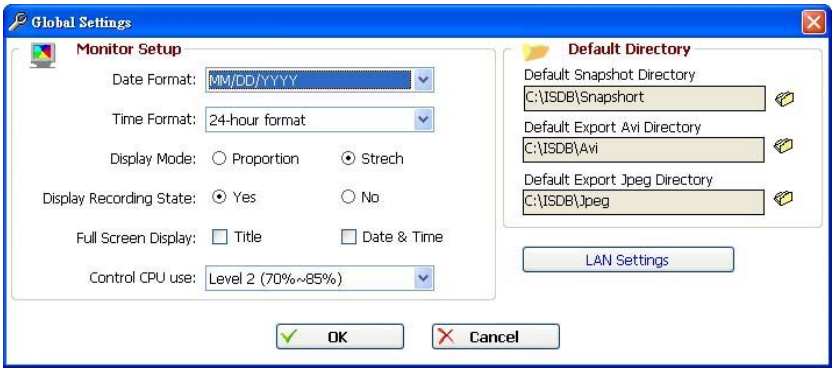
(4) SD-card Setting page



NOTE: Please remember to click the “Apply” button to save the settings.

4.  **System Setting:** Provides six pages of settings: the Global Settings, the Event Notification, the Recording Settings, the Scheduler, the Sequence Views, the Speed Dome and the Authority Setup.

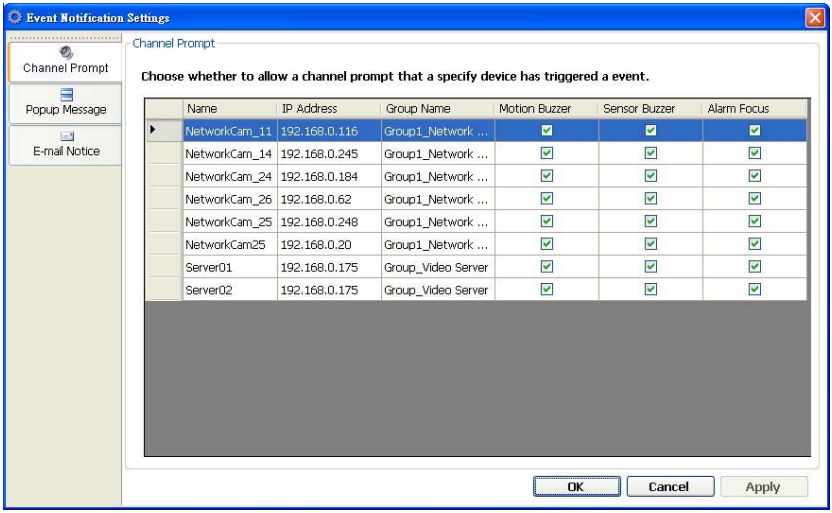
(1) Global Settings



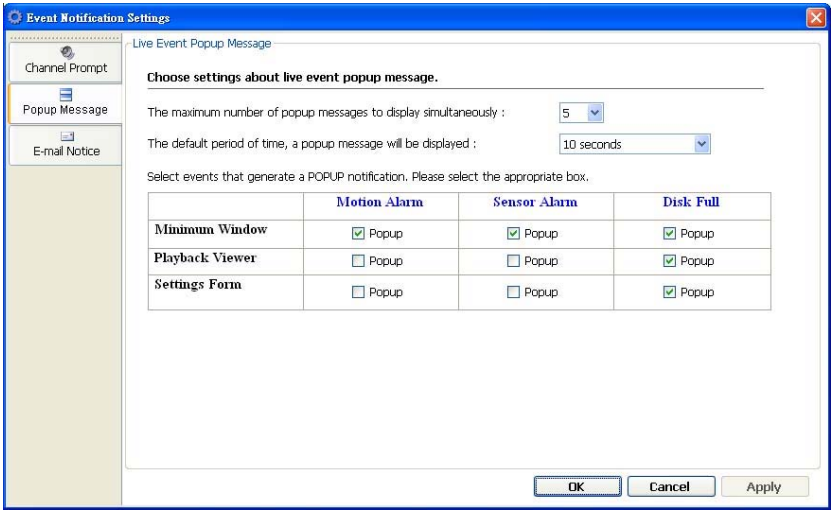
- Monitor setup: Sets the date/time mode and display mode, and controls the CPU use percentage on five levels.
- Default Directory: Sets the default files' saving path. Click  to select the directory.

(2) Event Notification

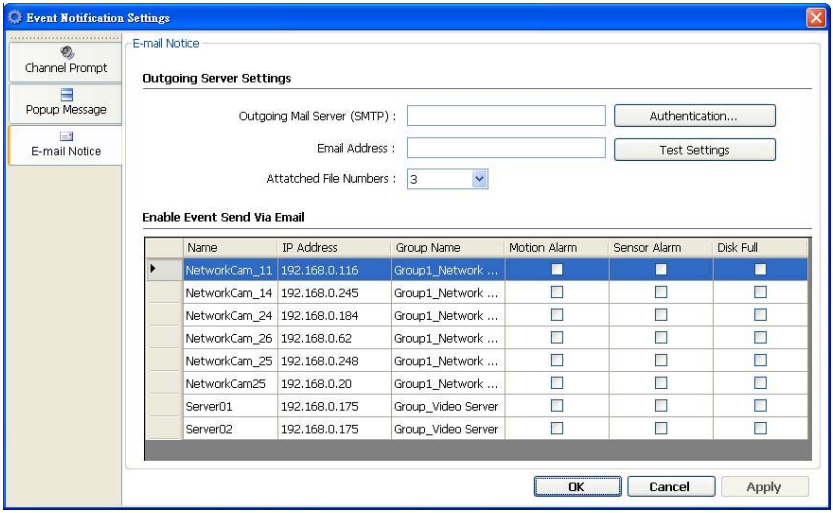
- **Channel Prompt:** Sets each camera to activate or deactivate the three modes of "**Motion Buzzer**", "**Sensor Buzzer**", and "**Alarm Focus**". Tick mark the blank space for each device to activate it.



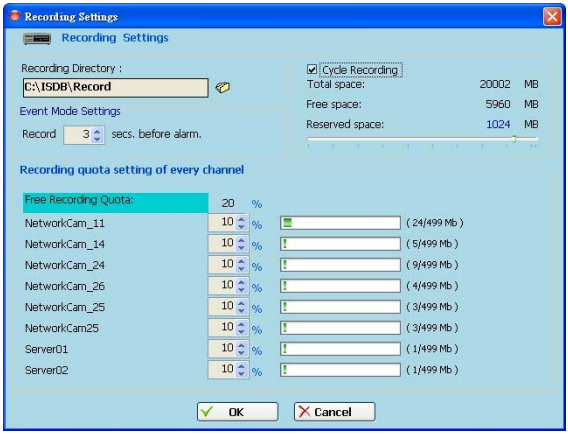
- **Popup Message:** Sets the maximum number of the pop-up messages, the displaying time and the pop-up forms. Tick mark the blank space for each device to activate it.



- **E-mail Notice:** Sets each camera to activate the E-mail Notice function of the three situations: "**Motion Alarm**", "**Sensor Alarm**", and "**DISK Full**". Set the SMTP, the E-mail address and the attached file numbers to mail the user when the alarms occur. Tick mark the blank space for each device to activate it.

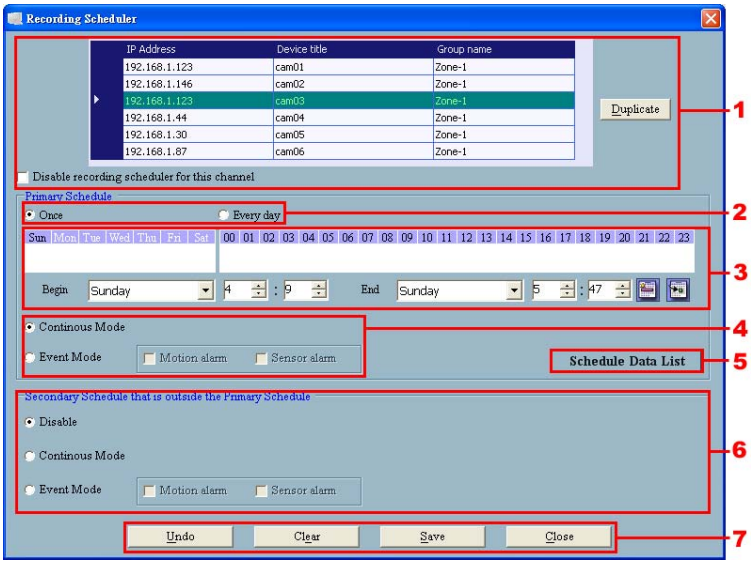


(3) Recording Settings



- **Recording Settings:** You can control the HDD reserved space by using the scroll bar.
- **Recording quota setting:** Set the maximum recording quota of each channel.

(4) Scheduler



(1) Choose one of the devices to set its recording schedule.

(2) Select the period: Click to set to record only once or record every day.

(3) Select the recording time: Sets the periods of time in recording.

Select the Begin time and the End time the time markers will display above. Please use the up (increase) and down (decrease) arrows to adjust the setting.

Add the selected period schedule. You can also hold down the left mouse button to drag a period.

Erase the selected period schedule. You can also use the right mouse button to cancel the period.

(4) Select the recording mode.

(5) Press to show the scheduled recording list.

(6) Set the secondary schedule: Activate or inactivate the other recording modes besides the primary schedule.

(7) Option buttons:

Undo: Undo the latest changes.

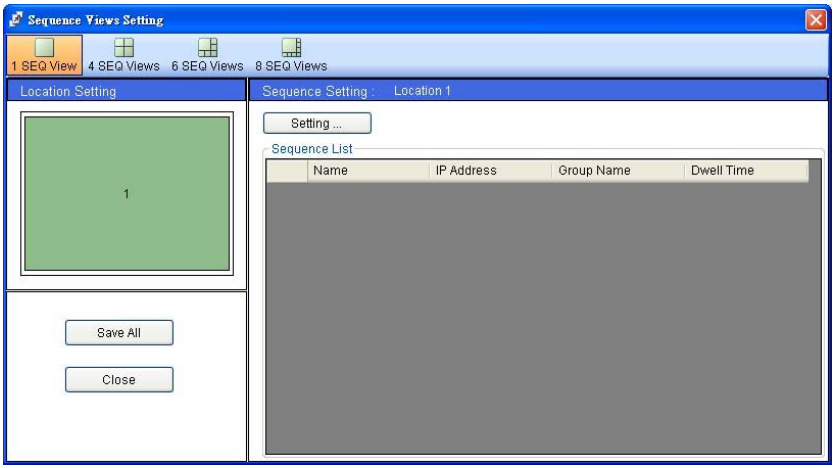
Clear: Clear all the schedule markers in the current editing area.

Save: Apply the changes.

Close: Close the window.

(5) Sequence Views

This function enables you to use four modes to set the sequence of displays you want for the **Sequence Mode** of the **Live Monitor**.



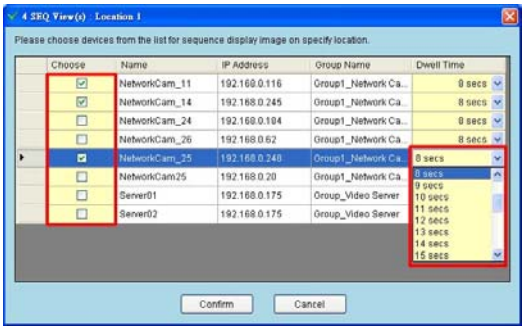
The user has to modify the “Sequence Views Setting” to make it work. For example, if you want to see the **4-window sequence**, please follow the steps given below:

Step 1: Click the Sequence Views button to enter the Sequence Views setting page.

Step 2: Select the **“4 SEQ views”** and the 4-windows will show in the Location Setting area.

Step 3: Select one of the four channels (Location1-4), then click the **“Setting”** button.

Step 4: The 4 SEQ View(s) page will show below. Choose the device(s) and set the Dwell Time (3-30seconds) from the drop-down list, then press the **“Confirm”** button.

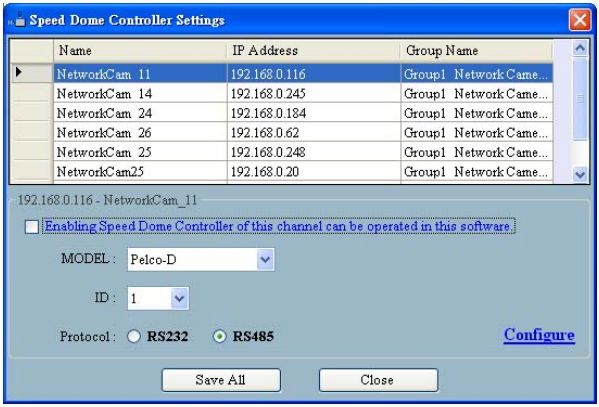


Step 5: Set the other channels as in step 3-4.

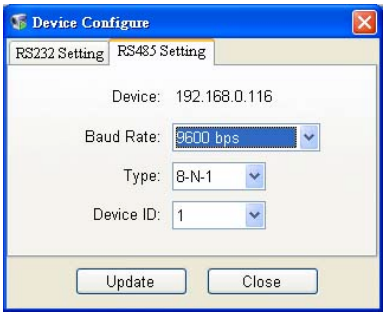
Step 6: Click **“Save all”** button, then press **“Close”** button to exit the setting page.

Step 7: Open the Live Monitor page, then click the (4 SEQ views) button to see the 4-window sequence.

(6) Speed Dome



- Tick mark to activate the Speed Dome Controller function of the selected channel. The user can set the model, ID and the protocol here.
- Click "**Configure**" to enter to the RS232 and RS485 setting pages.

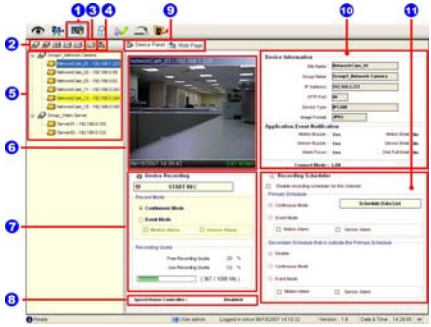


(7) Authority Setup

Authority setup: Change or add the user's authority. There are three different levels of authority , namely Admin, Operator and Viewer.

5. List of cameras and its groups:

   The users can use the icons above the list to change the groups' names, the devices' titles and the channels' display modes.



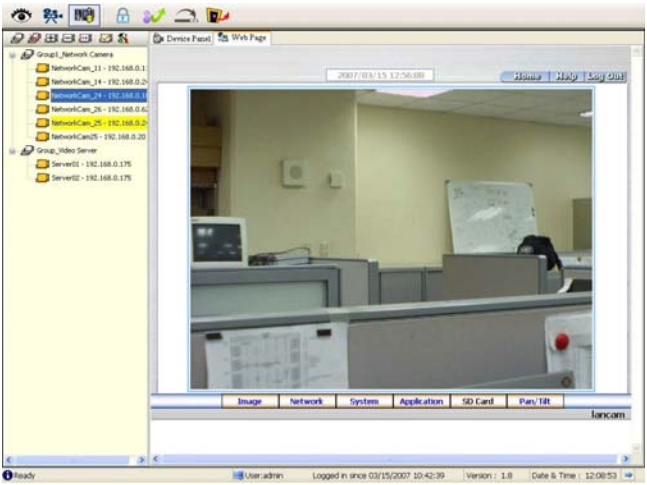
6. Display area: Click the title of the camera, and you will see the live image in this area.

7. Device Recording: Click the "Start Record" button to start the recording mode and click the "Config Record" button to set the details of the recording below.

8. Status of the speed dome controller.

9. You can interchange between two buttons here: the "Device Panel" and "Web page" buttons.

   The web page (please refer to section 5.1 for more details):

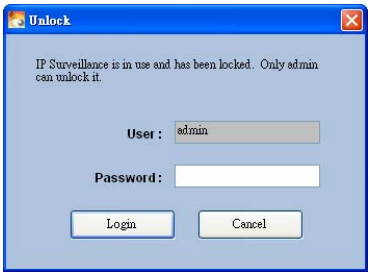


10. Device information: The user can read a camera's information, such as "Site Name", "Group Name", "IP Address", "HTTP Port", "Device type", "Monitor Alarm Process" and the " Connect Mode".

11. Recording Scheduler: Shows the recording information of the selected channel.

5.2.4.4 Lock

Press the  button to lock the operation of this software, and the IP Surveillance monitor will be minimized into the systray*of the Windows taskbar. To unlock the command, please click the  button once, then type in the correct password.

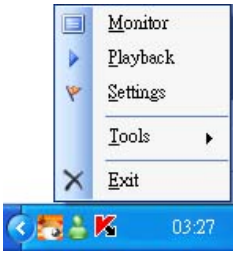


***:** The Microsoft Windows systray is a portion of the Windows 95, Windows 98, Windows ME, Windows NT, Windows 2000, and Windows XP Operating Systems that helps display running programs. The systray is located on the taskbar and is commonly in the bottom right hand corner of the screen next to the time display.

5.2.4.5 Logout

Press the  button to logout the IP Surveillance software and the IP Surveillance monitor will be minimized into the systray of the Windows taskbar.

If you want to return to the IP Surveillance monitor, please click the  button once, then select the page which you want to get into. After typing in the correct user name and password, you can re-login to the software.



5.2.4.6 Tray

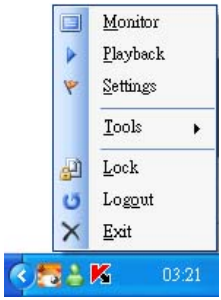
Press the  button to minimize the IP Surveillance monitor into the systray of the Windows taskbar.

Click the  button once to go back to the IP surveillance software.

5.2.4.7 Exit Setting

Press the  button to exit the IP surveillance monitor which is minimized into the systray of the Windows taskbar.

Click the  button to select the functions on the list.



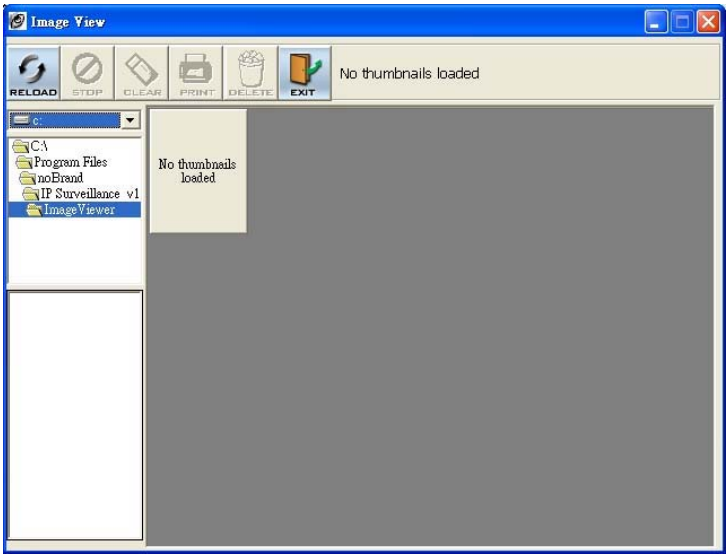
You can also change the password by clicking the “Tools” and “Change password” items on the list. Enter the old password once and the new password twice, then press the “OK” button to save it.

5.2.5 The Image Viewer

The Network camera is equipped with a digital watermark. It's a checking software which protects archived images and informs you whether the images have been modified or not. Follow the instructions below to open an archived image from an SD card or an HDD.

This is image integrity-protection software. It not only allows you to view an archived image from the SD card or HDD of a computer, but also protects an archived image from reproduction or interpolation. If an image isn't in the original format made by a Network camera, the Image Viewer will not display the image and instead will send a warning message, " **Not Correct Image** ", right away. Close this message to enable you to see the image now.

1. Pop up the **START** menu in your computer, and point to **Programs / IP surveillance / Tools** to open up the program selection page. Click the **Image Viewer** tag to start the **Image Viewer** program (see a sample screen below).
2. Click the **RELOAD** tag to load the images from a path.
3. Click the **PRINT** tag to get a displayed image printed out from a printer.



6. SPECIFICATIONS

Model number	LC-7214N
Image system	NTSC
CCD sensor	1/3 inch interlaced CCD
CCD resolution	270K pixels
Resolution (video out)	720 x 480 pixels
Entire video	Up to 30 frame/sec At 352 x 240
Entire network	1.5Mbytes /sec
Video Output	1.0 Vpp, 75 ohm, composite, negative
Audio	8 kHz sample rate
Microphone	Yes
Horizontal resolution	340 TV lines
Exposure	BLC / AGC / AWB
Electronic shutter	1/60 – 1/100000 sec
Sensitivity	0.8 lux @ F1.2
Auto iris type	DC-iris
Compression	MJPEG
Picture size	4 ~ 64 KB
Video fine tune	Brightness, Hue, Saturation, Backlight, Sharpness
Watermarker	Digital Signature
RS-232 Port	Yes
Network interface	Ethernet (RJ-45Wired, 10/100 Base-TX) x 1
Network protocol	TCP/IP, DHCP, HTTP, UDP, SNTP, ICMP, DDNS, DNS
Motion detecton	Advanced MD (zone, position, sensitivity)
SD socket	SD memory card as storage (option)
Day and Night	Yes
Alarm I / O	Yes
Secure password / User name	Multi-level / Multi-user
Upgrade software	Upgrade via Memory Card(SD card)
Power input	5V DC / 2A
Operation environment	Requires proper environmental housing for outdoor use
Weight	306g
Operation temperature	5° C ~ 50° C (41° F ~ 122° F)
Regulation	FCC, CE
Dimensions	62 (W) x 50 (H) x 95 (D) mm
Accessories provided	AC Adapter x 1
	Instruction manual x 1
	CD-R x 1

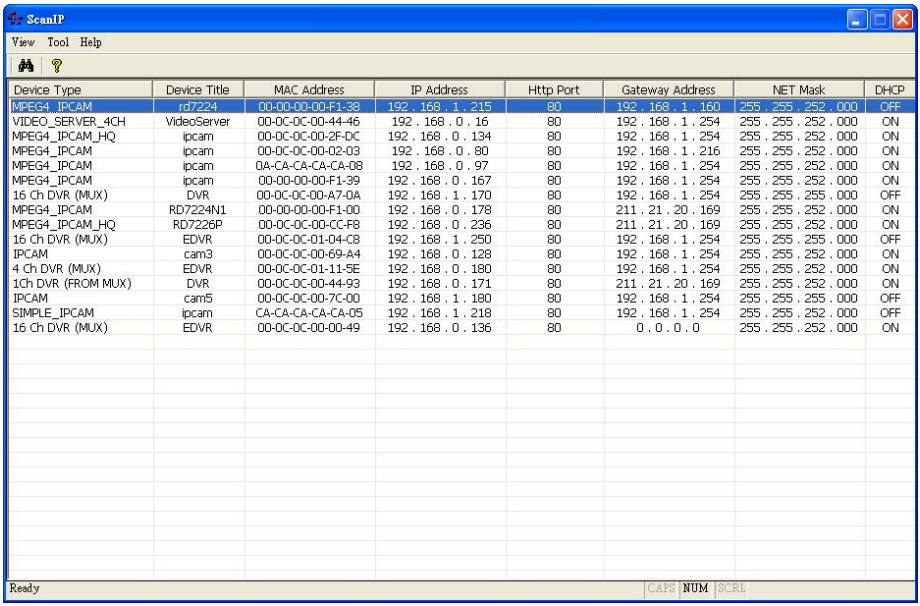
7. Functions of client PC

System requirement	Windows
Browser	IE 6.x
Camera setup	Username / IP / PROXY / Password / Time / Date / Motion / Alarm
Multi-camera link	> 16 camera
Viewer	1 / 4 SPLIT
Save file format	JPEG / AVI

APPENDIX 1. –SCANIP

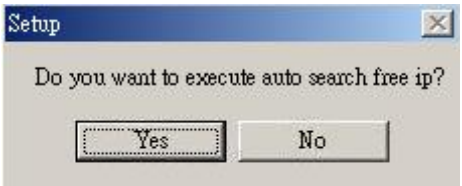
Follow the instructions below to use the SCANIP software to search the LAN CAMERA devices from a local location.

1. Click the  button to discover the connection of the all-type device in the LAN. The **Device List** will display the connection of the all-type device.
2. Select the desired device from the **Device List**.
3. Click the desired device to show the window while the LANCAMERA information acts to display the desired changes instantly.



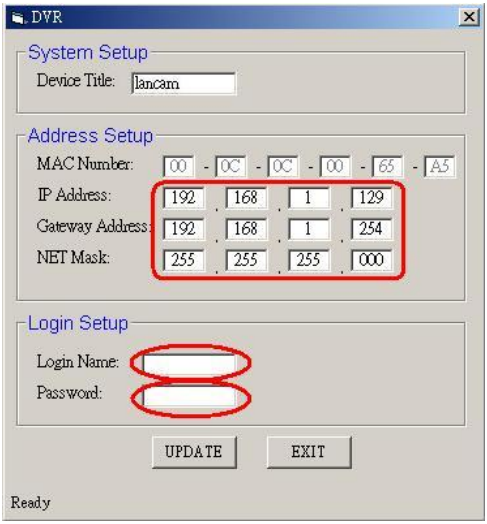
4. Do you want to automatically search free IP?

   If and when you want to automatically search the free IP, select “Yes” or “No”. If you click “Yes” the software will provide the “Free IP Address” boxes on the right side of the window. If you click “No”, these address boxes will not show.



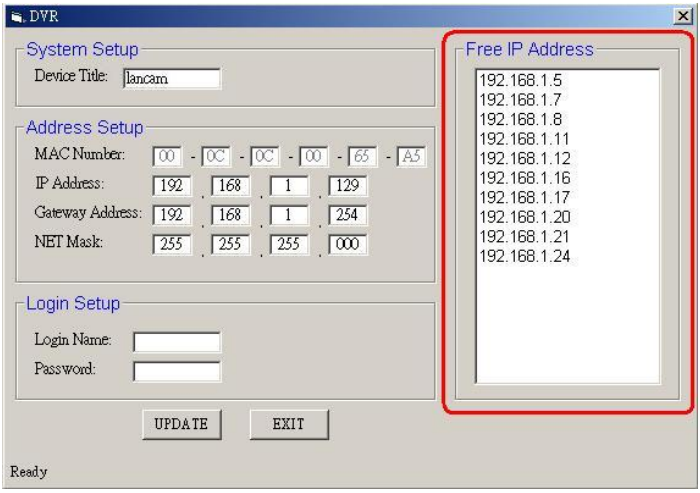
1. Manual insertion of “Free IP Address”.

   If you have clicked “No”, please manually type in insertions as required in the “Free IP Address”, “Gateway Address”, and “NET Mask”. Follow each insertion you make by typing in the “Login Name” and “Password”, and click “UPDATE” to send your alterations to the LAN Camera.

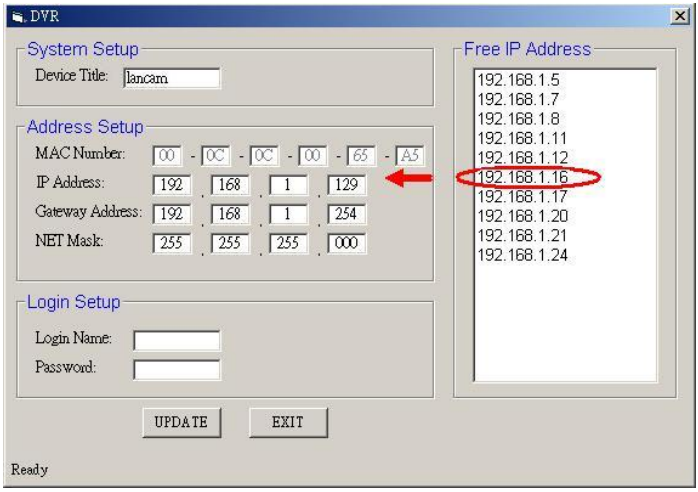


2. Automatically search “Free IP Address”.

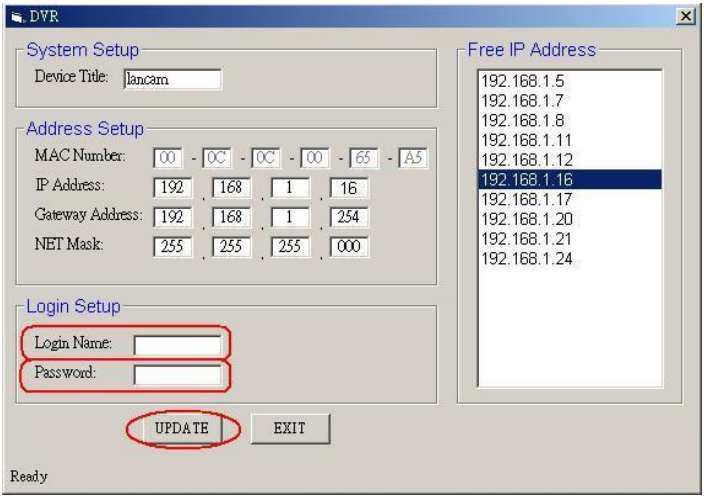
   If you clicked “Yes” the “Free IP Address” box will appear on the right.



3. Select and double click any of the addresses in the “Free IP Address” box on the right to enter it into an IP Address on the left.



4. To change any IP address, type in the new address in the “Free IP Address” box on the right as well as the device “Login Name” and “Password” in their respective blanks at bottom left, then click “UPDATE”, and the new address will automatically be sent to the device.



5. Click “Exit” at bottom right to shut the device.

APPENDIX 2. –FAQ

1. How to disable the DHCP function and use a static IP instead?

A：Turn up the “DIP SWITCH” from “3” to “4” and change the relative network settings, the IP Address, NetMask and Gateway on the image web page.

2. Can the SD card be removed during recording?

A：No, it cannot be removed until the recording comes to a single point. The POWER LED flashing light signals the SD card is operating. The green light indicates the unit is activating. The red light warns the SD card cannot be removed. If the SD card is withdrawn in this mode, the card will break.

3. I’ve set the function of “Motion Detection” but it doesn’t seem to work.

A：Check if “Motion range” and “Sensitivity” have been set before activating the function.

4. My AVI files recorded in the SD card cannot be displayed. What can I do to display the files?

A：Please visit “http://www.morgan-multimedia.com/” to download “Morgan M-JPEG codec” and install it, and then check the selection of the “IJP Core”.

APPENDIX 3. –Register as a DDNS member

The DDNS（dynamic domain name system） is a function which is provided by an American company. Please refer to www.dyndns.com. This chapter provides the user with the basic instructions on how to register a free DDNS service.

Registering for a DDNS

Enter the URL www.dyndns.com. In the upper right-hand corner of the main page, where there is an item, "Sign Up Now", as shown in Figure 1.

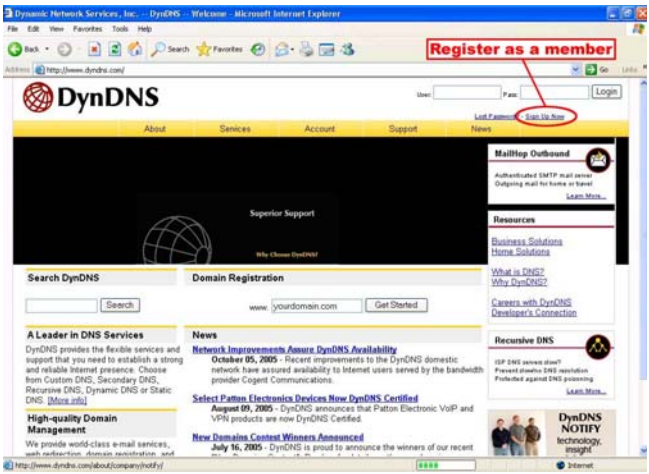


Figure 1

Create an account

After clicking Sign up now, you will enter the Create Account page. Please complete the form at the bottom of the page to create your account. You will receive an e-mail containing instructions to activate your account. If you do not follow the directions within 48 hours, you will need to recreate your account.

Set up the DDNS

After creating the account successfully, please enter your user name and password in the upper right-hand corner of the main page to login, as shown in Figure 2.

After you login successfully, a text will appear saying "My Services", as shown in Figure 3.

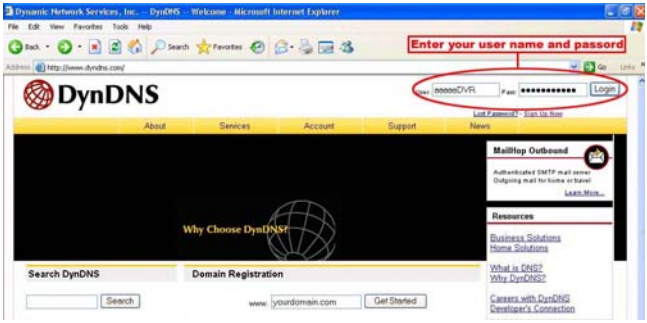


Figure 2

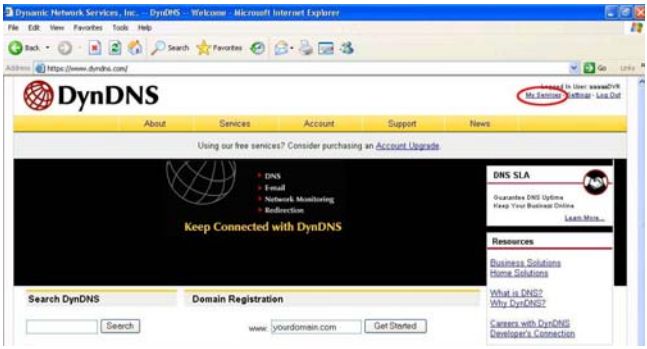


Figure 3

Click “My Services” to enter the service page. Please click the “Add Host Service” item which is below the ”My Hosts“ item, as shown in Figure 4.

Click “Add Host Service”, and its 5 service items will appear. The Add Dynamic DNS Host item helps to add a new DDNS as shown in Figure 5. Each member may have only one free account, and one free account can have only five DDNS.

Click Add Dynamic DNS Host to enter the DDNS setting page as shown in Figure 6.

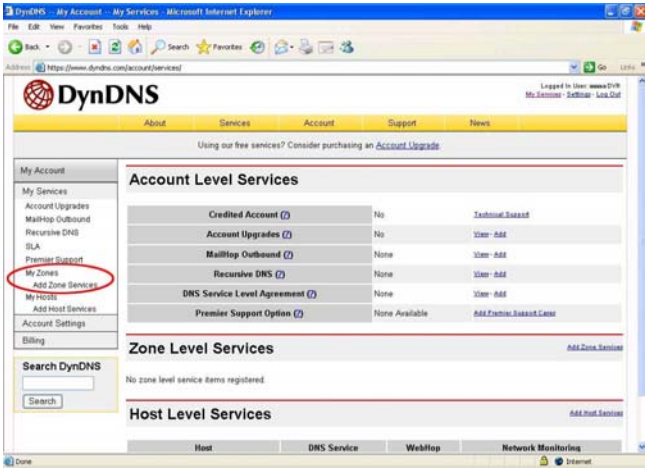


Figure 4

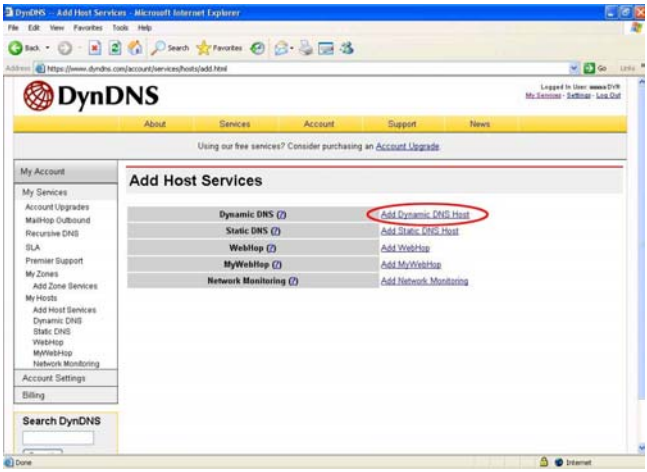


Figure 5

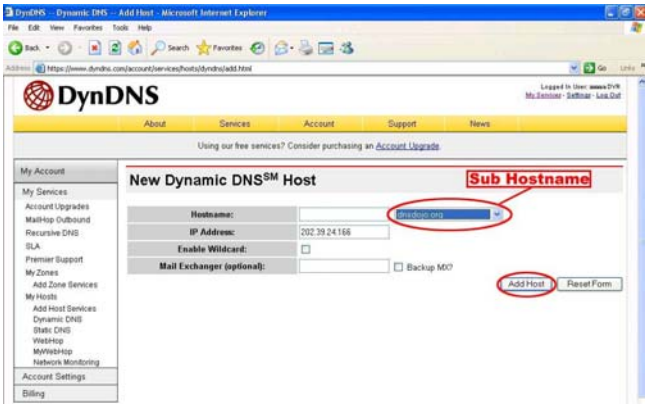


Figure 6

All we have to set in this page is the “Hostname” item. The user can choose a Sub Hostname as s/he likes from the right-hand side of the Hostname’s drop-down list.

NOTE: You don’t have to set the “IP Address” in the same format as the LANCAM’s IP Address. It will renew the IP Address automatically.

After finishing the setting, please press the “Add Host” button as shown in Figure 6.

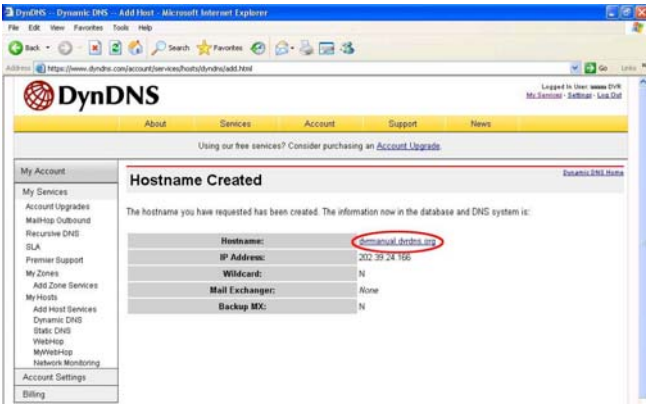


Figure 7