INSTALLATION & OPERATING MANUAL

WIRELESS LAN CAMERA

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

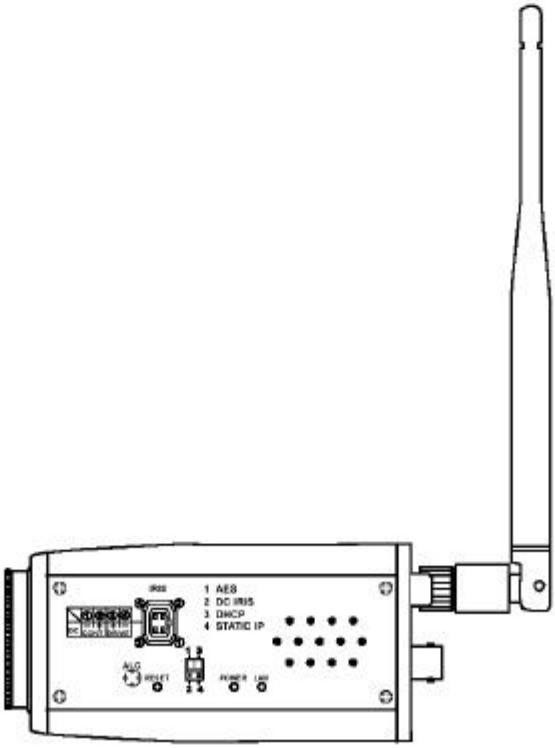


Table Of Contents

SAFETY PRECAUTIONS 4

1. PRODUCT FEATURES 5

1.1 PRODUCT INTRODUCTION..... 6

1.2 PRODUCT FEATURES 7

2. DESCRIPTION OF THE FRONT/REAR VIEW 9

2.1 FRONT PANEL AND REAR PANEL 9

2.2 RS-232 PORT & ALARM I/O..... 10

2.3 FLANK PANEL 11

3. UPDATING SYSTEM SOFTWARE 12

4. NETWORK CONFIGURATION 13

4.1 USE A RS-232 CABLE TO INSTALL A WIRELESS SETTING IN A LANCAM 13

4.2 WIRELESS CONNECTIONS 15

4.3 CONFIGURE YOUR LAN CAMERA NETWORK SETTINGS 17

4.4 TCP/IP COMMUNICATION SOFTWARE 19

4.5 TCP/IP INSTALLATION 20

4.6 TCP/IP CONFIGURATION SETTING 21

4.7 CONNECTION TESTING 22

5. OPERATING INSTRUCTIONS FOR IMAGE SOFTWARE AND NETWORK..... 24

5.1 MICROSOFT INTERNET EXPLORER 24

5.2 THE LAN CAMERA VIEWER..... 49

6. SPECIFICATIONS 71

7. Function of Client PC..... 72

APPENDIX 1. –SCANIP 73

APPENDIX 2. –LAN CAMERA SD card Troubleshooting 76

APPENDIX 3. –FAQ..... 77

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.

FCC Warning Statement:

NOTE: 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.

Notice:

(1) A Unshielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord by used.

(2) Use only shielded cables to connect I/O devices to this equipment.

(3) Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user' s authority to operate the equipment

Safety Information:
In order to maintain compliance with the FCC RF exposure guidelines, this equipment should be installed and operated with minimum distance 20cm between the radiator and your body. Use only with supplied antenna. Unauthorized antenna, modification, or attachments could damage the transmitter and may violate FCC regulations.

FCC RF Radiation Exposure Statement:
This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

1. PRODUCT FEATURES

1.1 Product Introduction

The **WIRELESS LAN CAMERA** is 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. It connects to the wireless LAN rather than the USB or other communication port. 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 principle function of the Wireless LAN CAMERA is remotely viewing and control and recording over a digital network. By using the Wireless LAN CAMERA you can increase your surveillance capabilities and help monitor the store, the house, the factory, the school, 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 user' s needs. Network-attached storages (NAS) can be used as digital storage bins without the problems of consolidating and supporting different Networks (Windows 95/98/NT/2000, Macintosh, Novell and Unix). The digital images that are stored are more convenient in retrieving than analog images, and also enable the user to access the latest status instantly. The user can moreover use multiple modes of accessing images, such as schedule, time, and alarm.

The WIRELESS LAN CAMERA 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 WIRELESS LAN CAMERA, which further supports by default without disrupting the existing network clients. The user needs only to start up a browser such as Microsoft Internet Explorer, and proceed with the connections.

1.2 Product Features

- Wireless access, complies with IEEE 802.11 b.
- A built-in web server and Network Interface.
- Dual purpose: the WIRELESS 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.
- 1/ 3 inch interlaced CCD (charge - coupled device).
- This product is a standard resolution device. It can support a resolution up to 270K pixels (NTSC), 320K pixels (PAL)
- 340 TV lines.
- C / CS Mount Adjustable.
- Automatic white balance programmable (AWB), Automatic gain control (AGC), Backlight Compensation (BLC), 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 3 different Resolution levels the user can choose from：
  (NTSC ：352x224, 720x448, 720x224).
  (PAL ：352x272, 720x544, 720x272).
- The user can regulate the categories of Brightness, Contrast, Saturation, Hue, and Camera Title.
- Protocol for remote control.
- Networking：TCP/IP, DHCP, HTTP, UDP, FTP, SMTP, SNTP, ICMP, DNS, DDNS.
- Alarm sensor Input/Output Terminals.
- Digital mode saves images via E-mail, FTP or SD card.
- The RECORD–SCHEDULE provides seven periods of time and the WIRELESS LAN

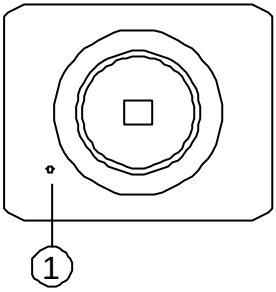
CAMERA starts and stops recording according to the programmed schedule.

- The device will record as long as the alarm input is activated and allow users to set the alarm for certain duration.
- The WIRELESS LAN CAMERA lets users to change the date and time.
- There are 3 levels of users' accounts：Admin, Operator, Viewer. The total number of users' account included under these 3 levels is ten.
- The device is capable of working with various known multiplexers and quad processors.
- 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 WIRELESS LAN CAMERA, which will restart automatically.
- The WIRELESS LAN CAMERA can automatically synchronize the time with the SNTP server.
- The device has a microphone installed in its front panel which records sound.
- Built-in SD card slot for recording video and images to SD card.
- An SD card may be inserted into the SD card slot in the flank panel to update the device.

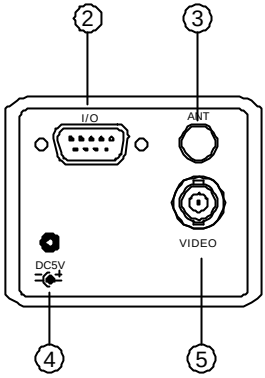
2. DESCRIPTION OF THE FRONT/REAR VIEW

2.1 Front Panel and Rear Panel

-- Front Panel --



-- Rear Panel --



1. **MICROPHONE:**

   The WIRELESS 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 including 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. **ANTENNA:**

   This is one standard wireless access, complies with IEEE 802.11 b.

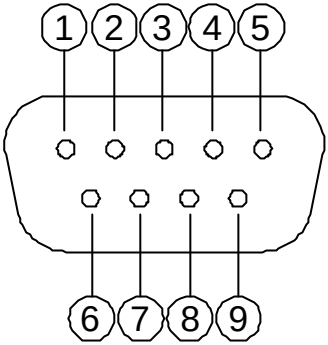
4. **Plug Inlet:**

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

5. **VIDEO OUT Connector:**

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

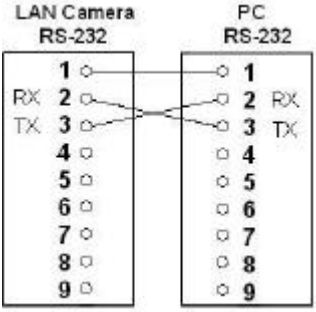
2.2 RS-232 Port & ALARM I/O



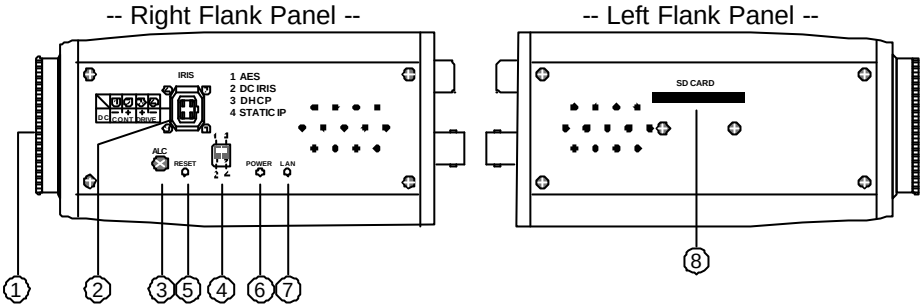
1. **GND:** Ground contact.
2. **RX:** This pin is one of the RS-232 pins. It connects with the TX pin of another device.
3. **TX:** This pin is one of the RS-232 pins. It connects with the RX pin of another device.

   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 WIRELESS LAN CAMERA is used with either C or CS mount lens.
2. **IRIS:** Auto iris connector.

   This camera works with 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 will open the iris and counter-clockwise will close the iris of the camera.
4. **DIP Switch:**

	1. AES: Auto electric shutter.
	2. DC IRIS: Use auto iris (DC drive)
	3. DHCP: Turn On / Turn Off use DHCP protocol. The switch points upwards, the device can get an IP automatically by setting this option, if provided with a DHCP server.
	4. STATIC IP: The switch points down, the device can't obtain an IP address from the DHCP server. This option is need 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 and 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. UPDATING SYSTEM SOFTWARE

If the system software of the WIRELESS 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 system firmware is intact

1. Format a SD card using FAT16 format if it is unformatted; no limitation on SD card' s capacity.
2. Create a directory named LANCAM in the SD card, if it is not existed.
3. Copy the file of UPDATE.BIN to the LANCAM-directory.
4. If LANCAM is running, please power off LANCAM first.
5. Insert the SD CARD into LANCAM.
6. In 5 to 10 seconds, a word of "UPDATE PROCESSING" is shown up on the screen with a blue background; if not, please check out Step 1 to Step 6 carefully or inform your technical support instead, as well as ignore the following steps.
7. DO NOT power off LANCAM while this update process is running until "UPDATE OK RESET PLEASE" appears on the screen; it might take 15 to 30 seconds for waiting.
8. If "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, as well as ignore the following steps.
9. Power off LANCAM when this update process is finished, and removes the SD card from LANCAM.
10. Power ON LANCAM and it will work normally if the entire update procedure is correctly going.
11. Verify the version of the system software.

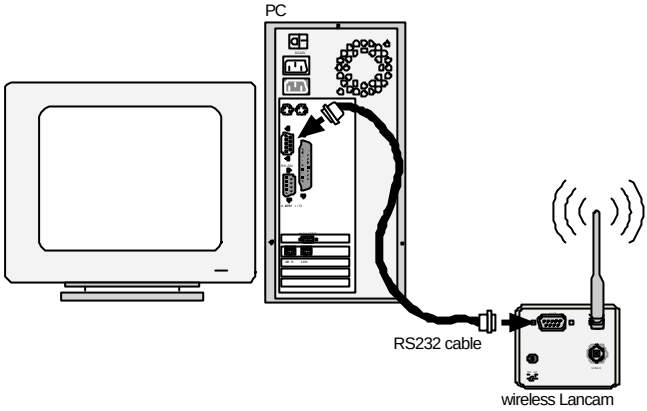
Warning:

1. **Don't use FAT32 or NTFS or other file formats in Step 1.**
2. **Step 1 to Step 3 have to be done on a PC.**
3. **Make sure the file of UPDATE.BIN is a correct one in Step 3, or LANCAM will not work normally after updated.**
4. **If the power of LANCAM is suddenly lost in Step 8, please remove the SD card first and power on LANCAM next for testing its operation. If LANCAM remains working normally, please go back to Step 4; oppositely, please inform your technical support.**
5. **In Step 10, if the SD card is not removed and LANCAM dose not get online as well, the update process will repeat again after rebooting LANCAM.**
6. **Make sure that the SD card is inserted with a correct position in Step 5, or LANCAM will suffer permanent physical damage.**
7. **If "CSUM ERROR" appears in Step 8, it implies a problem on the file of UPDATE.BIN.**
8. **Don' t Interrupt the process while the unit is updating itself and proceed with a SD card containing with no system software of the unit, which would cause the unit hang on.**

4. NETWORK CONFIGURATION

4.1 Use a RS-232 cable to install a wireless setting in a LANCAM

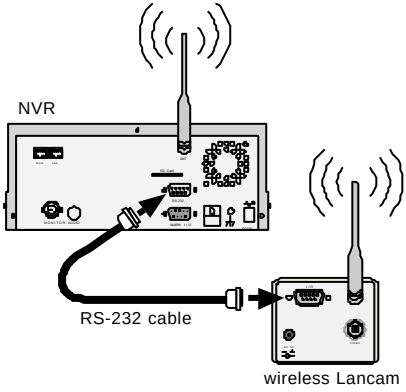
4.1.1 Transferring wireless settings to your PC



1. Install the Wireless Network Viewer with your PC.
2. Connect the PC with a wireless LANCAM via an RS - 232 cable.
3. See section 5.2.5 for further details for controlling your wireless software.

NOTE: Please don't use a general RS -232 cable. Use the special RS -232 cable detailed in section 2.2.

4.1.2 Use a RS-232 cable to connect a wireless NVR



1. Set up all components to both the NVR and LANCAM.
   (Screw up the antenna to both the NVR and LANCAM. Screw up the Lens every LANCAM.)
2. Connect the Monitor to the NVR with a BNC cable.
3. Power on the NVR: plug the NVR power cord into the outlet.
4. Power on every LANCAM: plug every LANCAM power cord into the outlet. Make sure the NVR must power on first before this procedure.
5. Register LANCAM to the NVR:
   i. Connect the NVR and one of the LANCAMs by the RS-232 cable.
   ii. Press the "Setup" button to enter the "MAIN MENU" page.
   iii. Select the item titled "COMMUNICATION" and presses the "Enter" button to access the "COMM. SETTING" page.
   iv. Select the item termed "WIRELESS" and push "Enter" twice to access the "WIRELESS SETTING" page.
   v. Choose the item labeled "OPERATION" and press "Enter" twice to go to the "OPERATIONAL SETTING" page.
   vi. Select the item titled "ESSID" and push "Enter" twice to get into the "ESSID SETTING" page.
   vii. Give "ESSID" your local wireless network name, and use the "<", ">", "^" and "v" buttons to change the existing letters to your network name.
   viii. Press "Enter", select "OK" and go to the "WIRELESS PAGE".
   ix. Push "Enter" to access the "WIRELESS SETTING" page and go to the item termed "LANCAM SETUP".
   x. Press "Enter", choose "RS-232" and push "Enter" again, upon which the terms "Waiting" and "SETUP OK" will flash on at the bottom of the screen.
   xi. Push the "Setup" button to save the setup data.
   xii. When the words "WRITE SETUP DATA, WAITING" flash on and off at the bottom of the screen, if the screen goes blank, you can press the "Power" button to close the device and press it again to resume its operation.
6. Go to the **IP/ACCOUNT** option on the **LANCAM SETUP** page in the NVR setup menu. Choose any channel between 1 to 8 channels to set up the LANCAM IP address. Push the **Search** button to find all LANCAM IP addresses and push the **Enter** button to choose one of them to set the channel. Repeat step 6 to set each LANCAM IP address.

NOTE: Once the LANCAM power cord is plugged into the outlet, it will scan the AP or NVR device automatically and obtain an IP address from a DHCP server. This action will continue until a DHCP server is found. If the LANCAM cannot find it after two minutes, its IP address will change to static IP mode as 192. 168. 1. 168. The user can push the DHCP DIP switch on the side of the LANCAM down and up once to reset the static IP to dynamic IP (DHCP client).

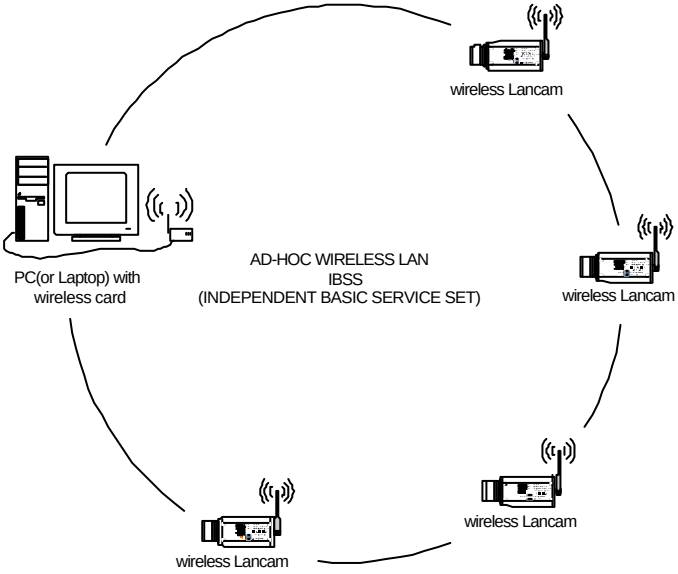
NOTE: If the DHCP server of the NVR is activated, the default NVR IP address is set as 192. 168. 1. 205.

4.2 Wireless Connections

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

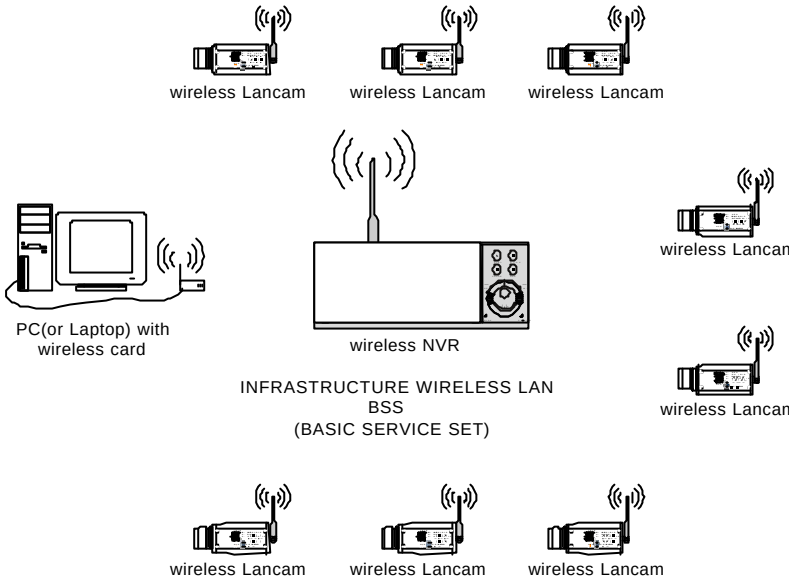
4.2.1 Connect to a computer

THE AD-HOC WIRELESS LAN CONFIGURATION



4.2.2 Via a wireless NVR connecting with a PC (INTRANET)

INFRASTRUCTURE WIRELESS LAN CONFIGURATIONS



NOTE: Once the LANCAM power cord is plugged into the outlet, it will scan the AP or NVR device automatically and obtain an IP address from a DHCP server. This action will continue until a DHCP server is found. If the LANCAM cannot find it after two minutes, its IP address will change to static IP mode as 192. 168. 1. 168. The user can push the DHCP DIP switch on the side of the LANCAM down and up once to reset the static IP to dynamic IP (DHCP client).

4.3 Configure Your LAN CAMERA Network Settings

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

4.3.1 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, the DIP switch points upwards, the device can get an IP automatically by setting this option. In that case please skip the section 4.3.2 (Set IP address) and follow section 4.4 (TCP/IP Communication Software).

4.3.2 Set IP Address

You need to set an IP address for the unit if the LAN that the 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 are 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 contact a qualified MIS professional or your ISP.

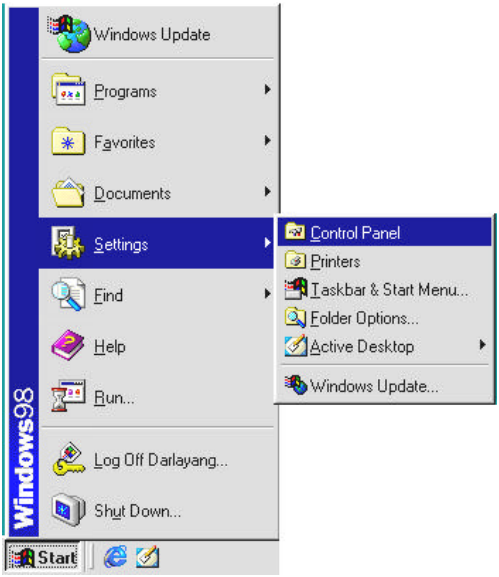
NOTE: When connecting to a network, each connected LAN CAMERA must be assigned a unique IP, which must be in the same class type as your network address. IP

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 contact a qualified MIS professional or your ISP.

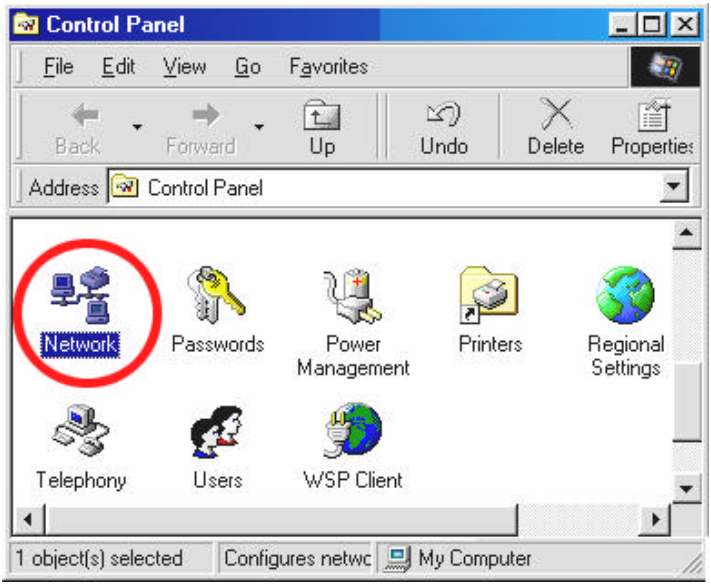
4.4 TCP/IP Communication Software

Follow the instructions below to install the TCP/IP communication program into your computer.

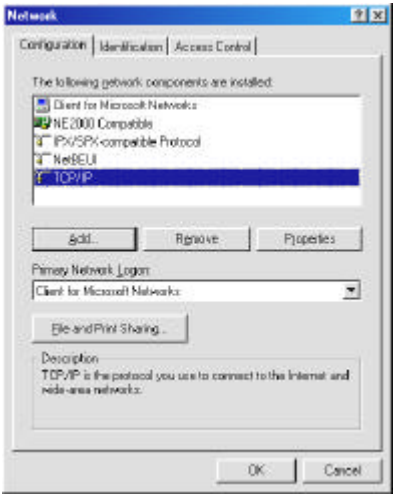
Click the **Start** menu from your computer, and point to the **Settings/Control panel.**



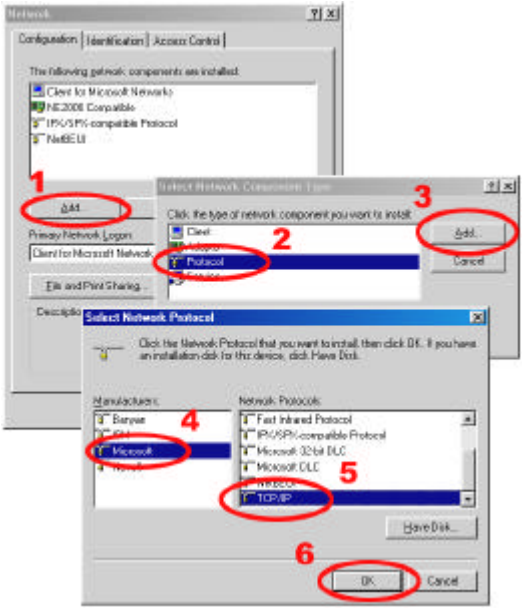
Click the **Network** icon twice to enter the same setting windows.



Click on the **Configuration** tag; check if the TCP/IP is included among the network components list. If the TCP/IP is included, please process section 4.6. If it is not included, please follow section 4.5 to install the TCP/IP.



4.5 TCP/IP Installation



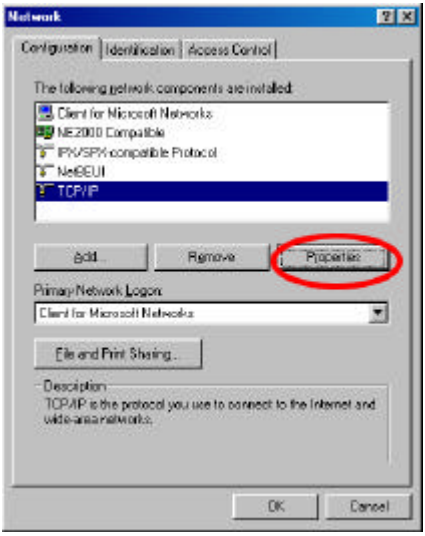
During the installation, you will be requested to insert the Windows CD-ROM. After installation, the PC can be restarted.

4.6 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.



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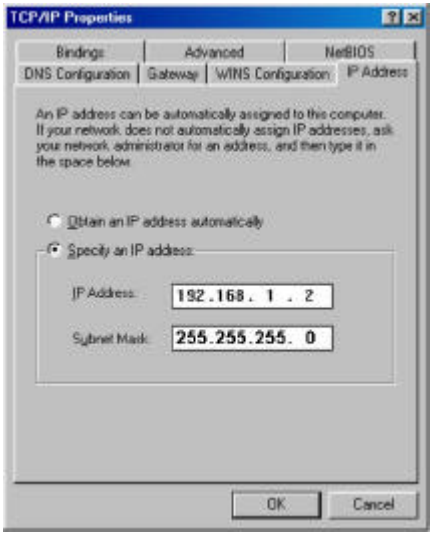


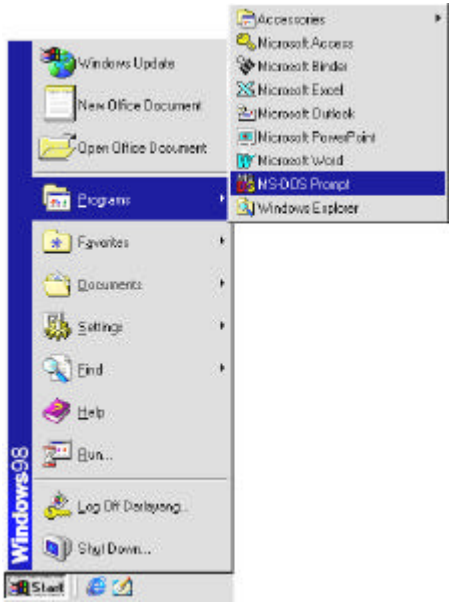
If you are using a DHCP server, please select **Obtain an IP address automatically**. Any assigned IP address for the connected LAN CAMERA s must be in the same class type as the server. If there is no DHCP server, please select **specify an IP address** and type in the IP address of your PC. This IP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

4.7 Connection Testing

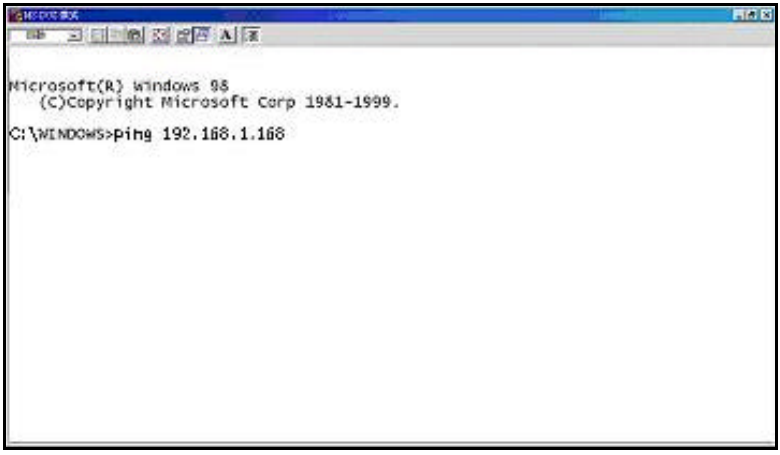
With the previous settings , follow the instructions below to ensure whether you have established the connection successfully.

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

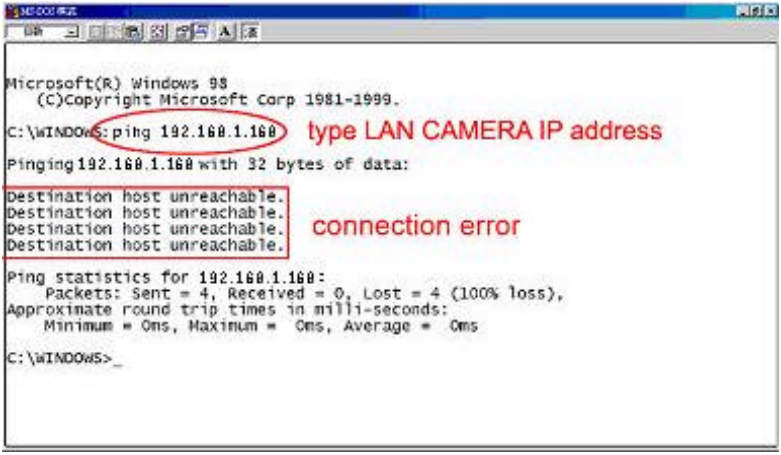


Type in **ping 192.168.1.168** then Enter. (See the sample screen below)

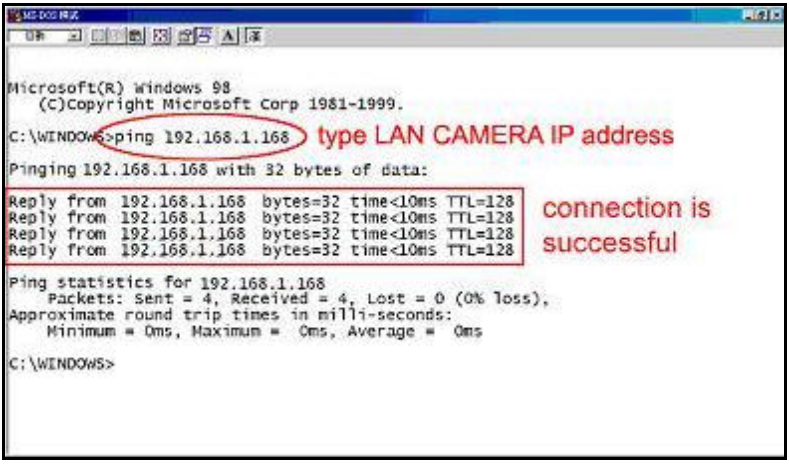
*** This IP is the LAN CAMERA IP address that is assigned for the connected LAN CAMERA in step2.*



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 installation by repeating section 4.1 to 4.7. 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 up with the LAN CAMERA: (1) the Microsoft Internet Explorer; and (2) the LanCam Network 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.
- At least 32-MB RAM
- Window 98, NT, ME, 2000 and XP.
- 4 MB VGA card capable of 24-bit true color display.
- 100 MB free hard-disk space for software installation.
- Wireless Technologies: 802.11 b wireless LAN.
- The Microsoft Internet Explorer 5 above.

5.1 Microsoft Internet Explorer

5.1.1 Connecting the LAN CAMERA

1. Before start up the Microsoft Internet Explorer, please refer to the section 4.1, 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

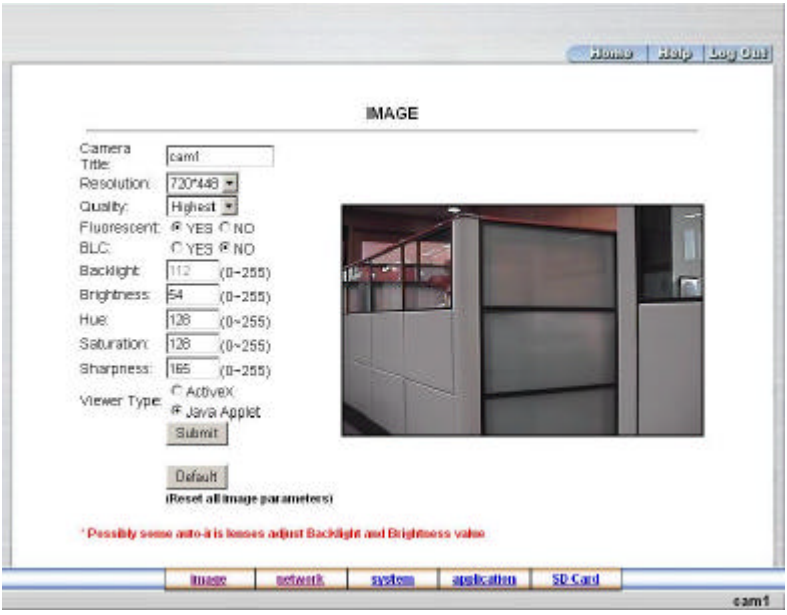
The images from the LAN CAMERA will be displayed on the home page while going online with the LAN CAMERA. There are some buttons provided at the bottom of the home page for further setting:

- 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 SD card is inserted.

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-setting page.



2. Adjust the image setting including “Camera Title”, “Resolution”, “Quality”, “Fluorescent”, “BLC”, “Brightness”, “Hue”, “Saturation”, “Sharpness”, and “Viewer Type” if necessary.
3. Click the **Submit** button to submit the new image setting.
4. 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.)

NOTE: The latest image will delay 3 seconds after any change made.

Description of function keys:

Camera 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, low, or lowest".

Fluorescent: Click "YES" or "NO" as desired.

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

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

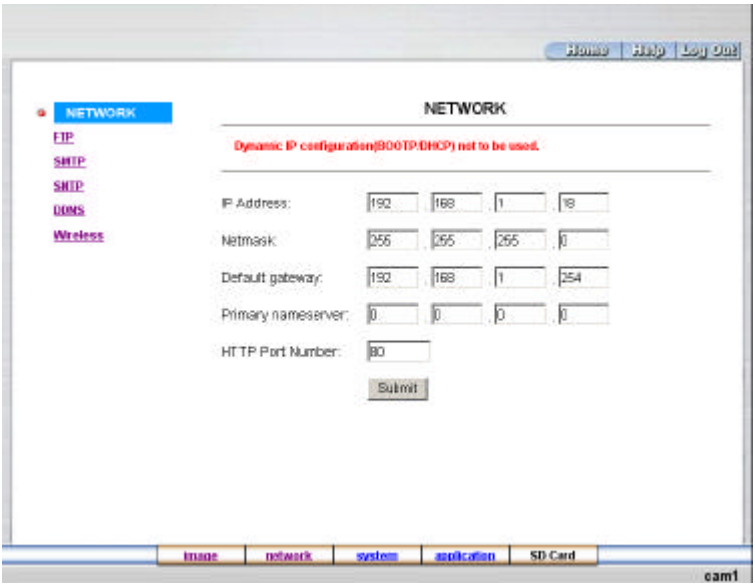
Default: Click this button to install the default settings in all the entries for image parameters on this page.

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 FTP, the SMTP, the SNTP, and the DDNS.
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 between 0 and 255).

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

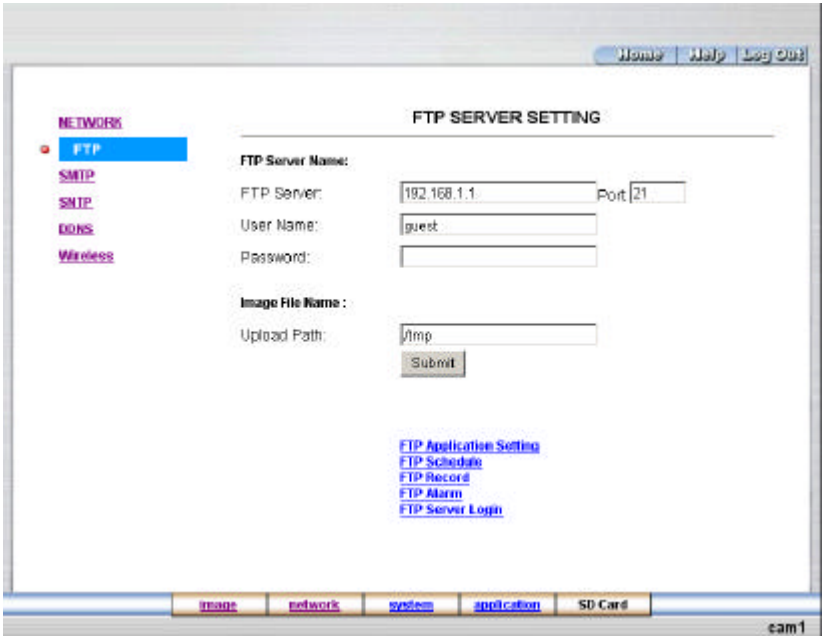
HTTP Port Number: Indicates the specific HTTP Port Number. The default is 80.

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

Change the Network Setting — FTP.

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

1. Click the **FTP** button at top left to enter the "FTP SERVER SETTING" page.



2. Type in the "FTP Server" address, the "User Name", and the "Password" of the FTP Server; and set the "Upload Path" of the image files when necessary.
3. Click the **Submit** button to submit the new FTP setting of the recording.
4. Click the **Home** button to return to the home page.

Description of function keys:

FTP IP Address: Enter the FTP server DOMAIN NAME in the appropriate blank spaces.

User Name: Fill in the FTP login user name in the attached blank space (if the data is not provided, warning messages will show up).

Password: Type in the FTP login password in the attached blank space (if the space is blank, warning messages will show up).

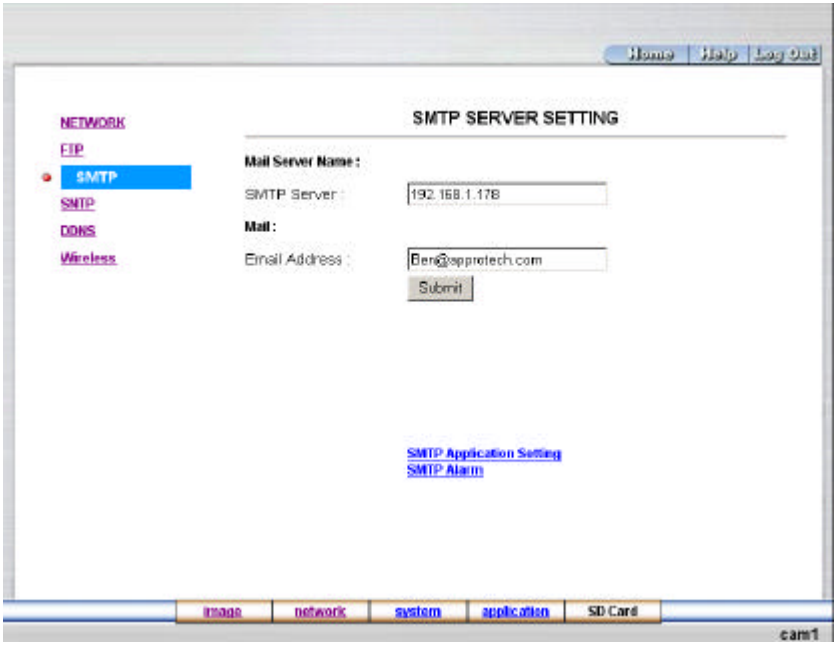
Upload Path: Enter the upload path while doing the FTP.

Submit: Click to submit the new FTP setting to the LANCAMERA.

Change the Network Setting — SMTP.

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

1. Click the **SMTP** button at upper left above to enter the "SMTP SERVER SETTING" page.



2. Fill in the DOMAIN NAME of the SMTP server, and set the recipient's e-mail address if necessary.
3. Click the **Submit** button to submit the new SMTP setting.
4. Click the **Home** button to return to the home page.

Description of function keys:

SMTP Server: Enter the SMTP server DOMAIN NAME in the given blank space.

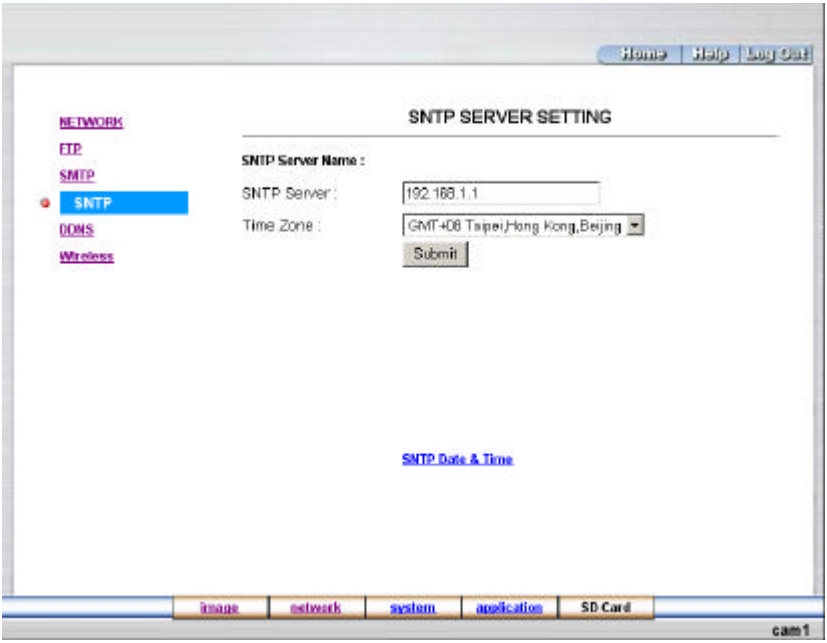
Email Address: The recipient's e-mail address.

Submit: Click to submit the new SMTP 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 SMTP 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.

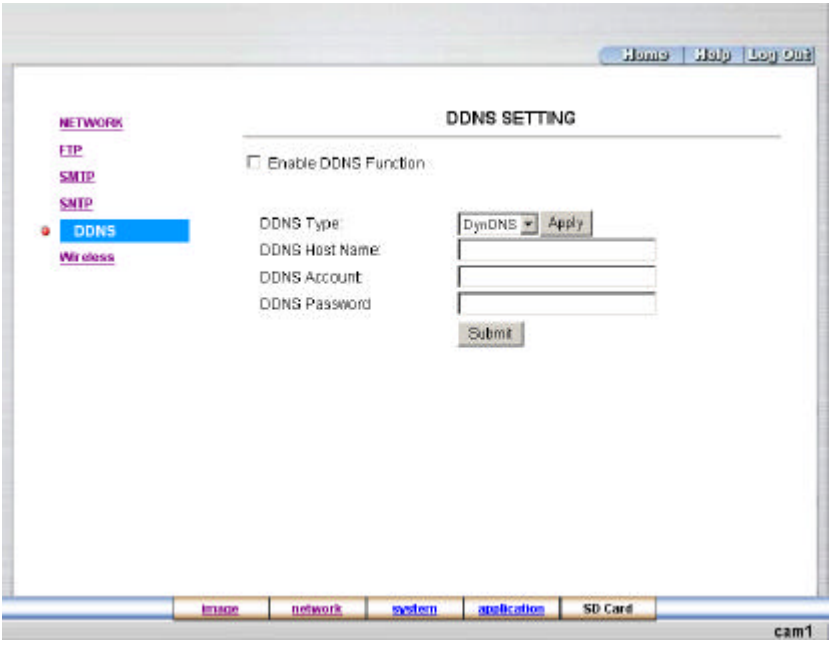
Time Zone: As we know, the globe is divided into various time zones. The user must enter his/her time zone. If this is not done, the time given by the unit may be incorrect.

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 the “Enable DDNS Function” to checkmark the attached box and activate the function.
3. Click the ”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.

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.

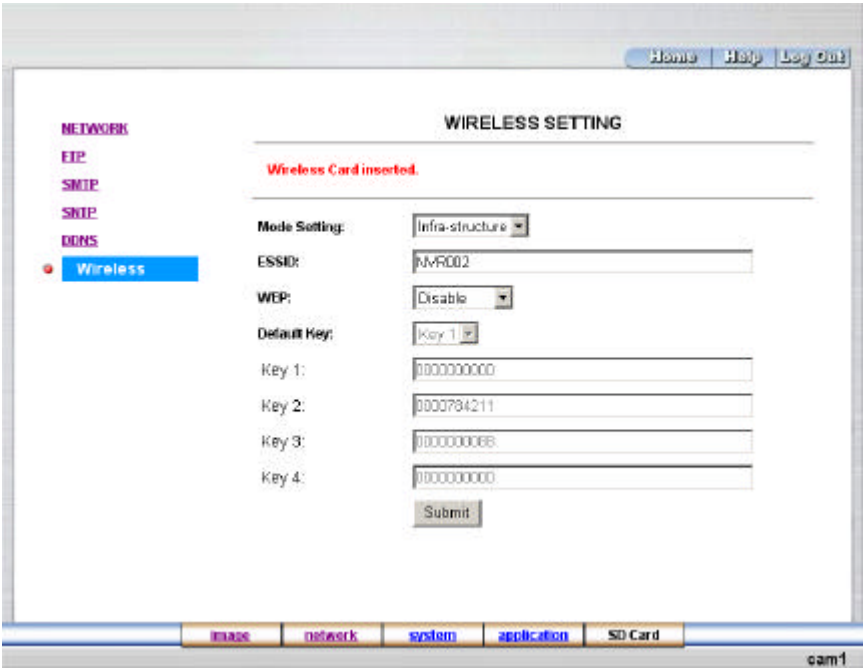
DDNS Password: Enter it in the required space.

Submit: Click to set.

Change the Network Setting — Wireless.

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

1. Click the **Wireless** button at upper left above to enter the "WIRELESS SETTING" page.



2. Set the **Mode Setting** to choose "Ad-hoc" or "Infra-structure".
3. Set the **ESSID** to change the wireless network name.
4. Adjust the wireless setting, including the "**WEP**", and "**DEFAULT KEY**" as and when necessary. If **WEP** is set to "**DISABLE**", the user cannot change the **DEFAULT KEY** and **WEP KEY 1 … WEP KEY 4**. If **WEP** is set to "**WEP64**", the web key can be set to a 10-hex number. If **WEP** is set to "**WEP128**", the web key can be set to a 26-hex number.
5. Click the **Submit** button to submit the new wireless setting.
6. Click the **Home** button to return to the home page.

Description of function keys:

Mode Setting: This item offers you either of two choices, "**Ad-hoc**" or "**Infra-structure**". Click to set one or the other.

Ad-hoc: The most basic WLAN configuration in which one unit will link up directly with a single device.

Infra-structure: A set of WLAN linked by access points in which a device connects via an access point to other devices in its locality.

ESSID: This option enables you to change the wireless network name.

WEP: The encryption setting sets the web encryption mechanism.

DISABLE: This deactivates the encryption function.

WEP64: This enables the short secret code to activate encryption.

WEP128: This enables the long secret code to activate encryption.

DEFAULT KEY: This option selects one of the WEP keys provided. There are 4 levels of WEP key to choose from: **KEY 1, KEY 2, KEY 3** and **KEY 4.**

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

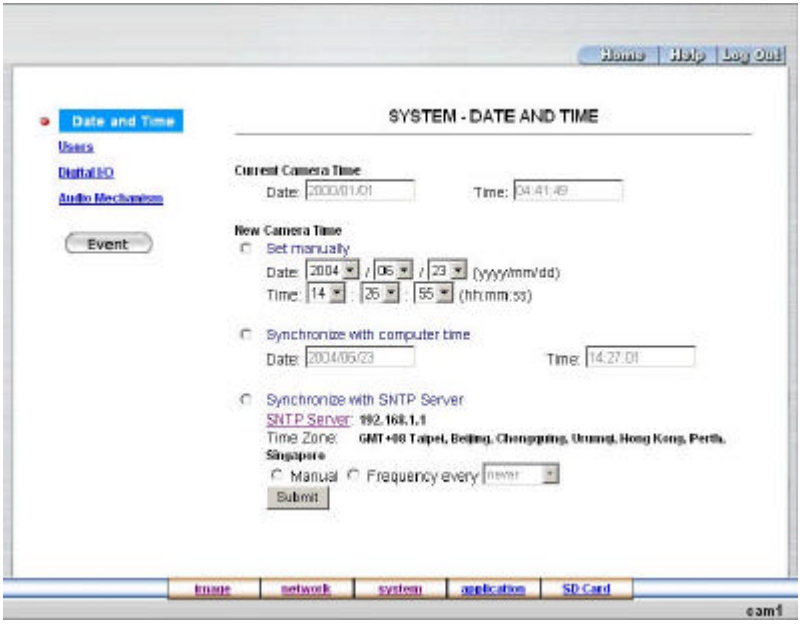
NOTE: If you use more than two access points units, take care not to use the same ESSID name for both, since the client device can only connect with one server each time and will automatically connect with the nearest unit.

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 NTP 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:

Current Camera Time: Shows the current 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.

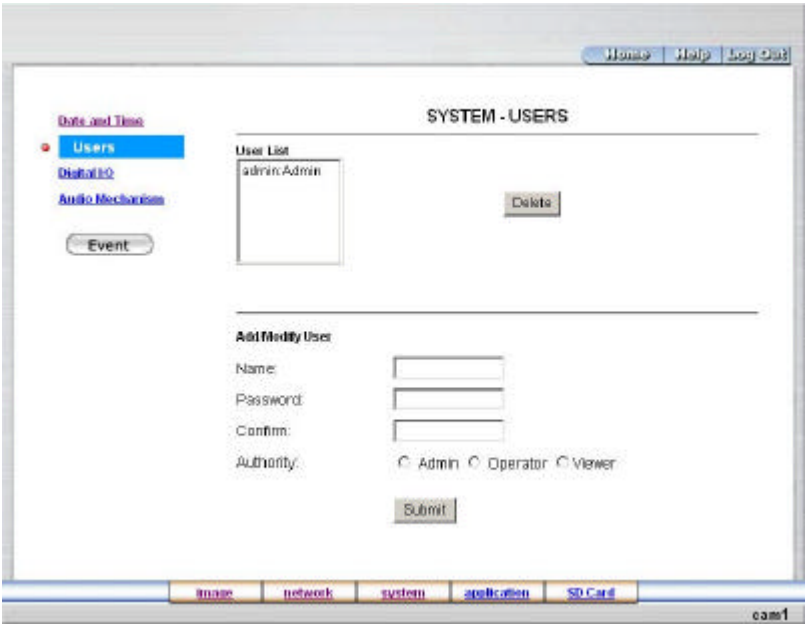
Synchronize with NTP server: Synchronizes with the NTP server. In this mode, two choices of adjusting are provided: doing it manually or setting the frequency to enable the system to do it automatically.

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.

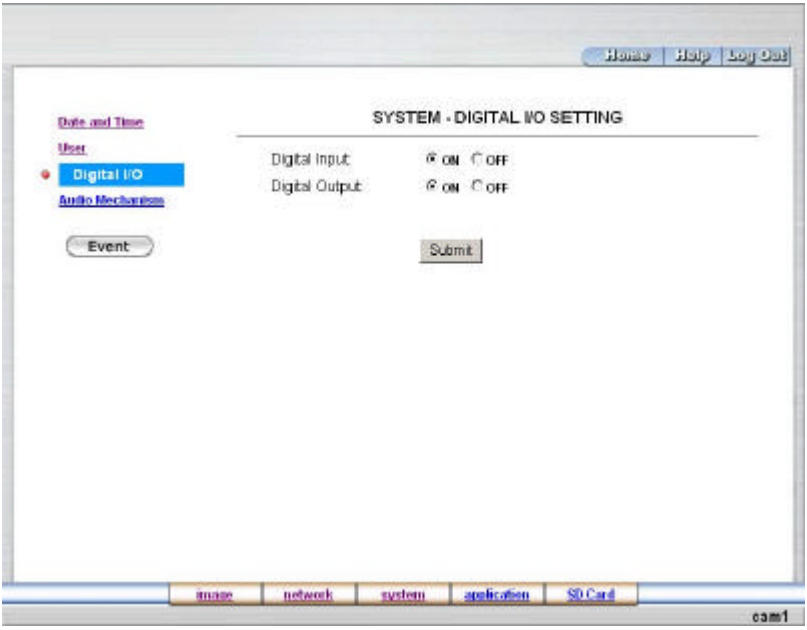
Authority: Choose an authority option of the user's name from: Admin, Operator, and Viewer.

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 "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:

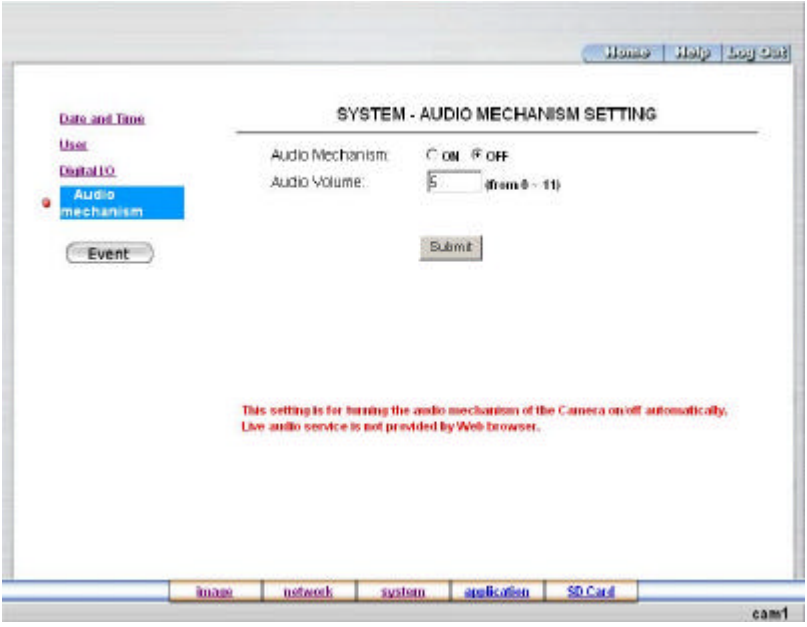
Digital Input: Select "ON" or "OFF" to use the GPIO connector, or shut it down.

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 "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. Live audio service is not provided by the Web browser.

Description of function keys:

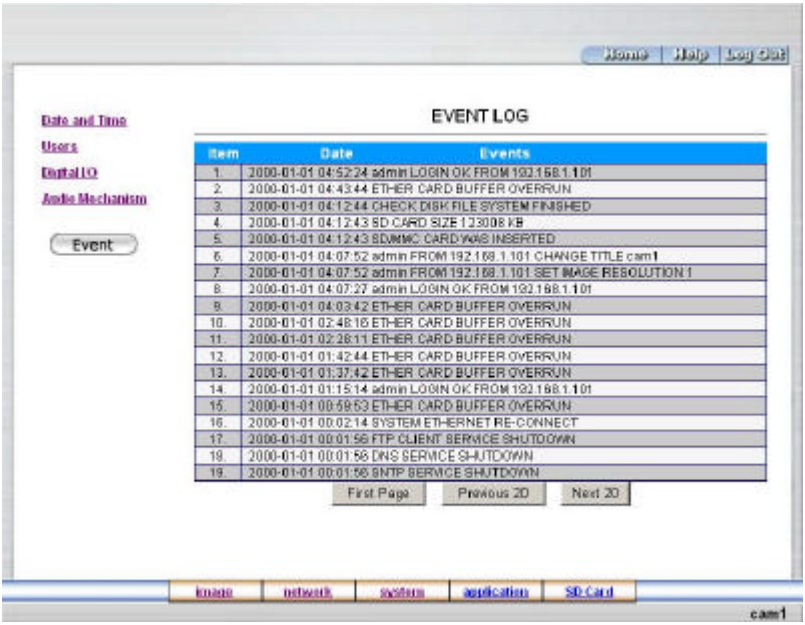
Audio Mechanism: Select "ON" or "OFF" to activate or deactivate the function.

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 page.

Next 20: Displays the next 20 page.

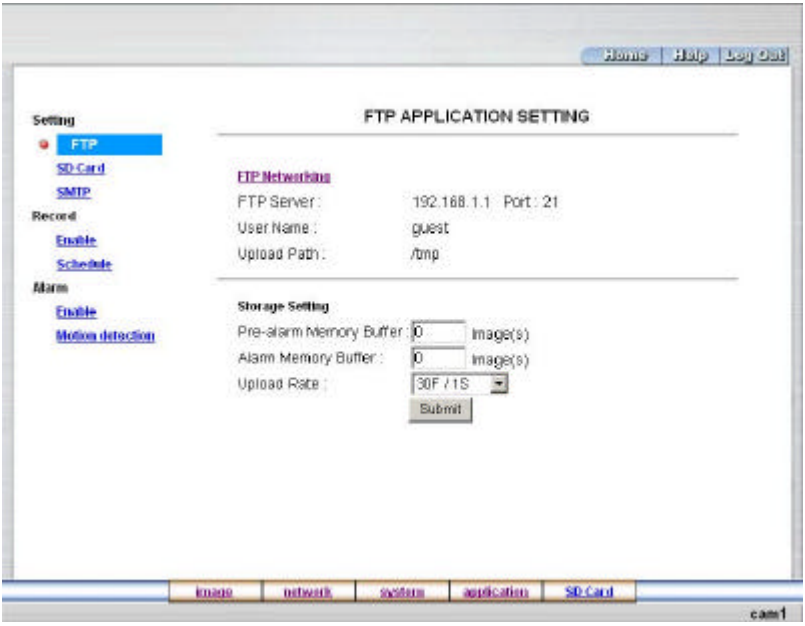
5.1.5 Change the Application Setting

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

Change the Application Setting — FTP APPLICATION SETTING.

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

1. Click the **Application** button on the home page to enter the "FTP APPLICATION SETTING" page (default).



2. For storage setting, type in the respective required numbers of images you wish to set in the "Pre - Alarm Memory Buffer" and the "Alarm Memory Buffer" in their corresponding blank spaces.
3. Enter the "Upload Rate" you have chosen.
4. Click "Submit" after each of the above entries for their setting.
5. Click the "Home" button to return to the home page.

Description of function keys:

Pre – alarm Memory Buffer: Fixes the desired number of images to prelude an alarm.

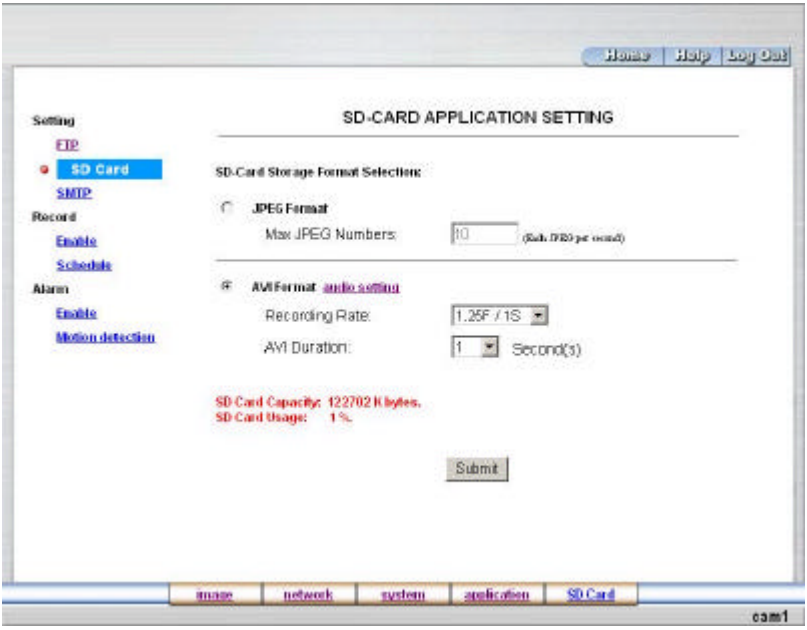
Alarm Memory Buffer: Determines the selected length of the image buffer after an alarm.

Upload Rates: Sets the upload speed rate.

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.

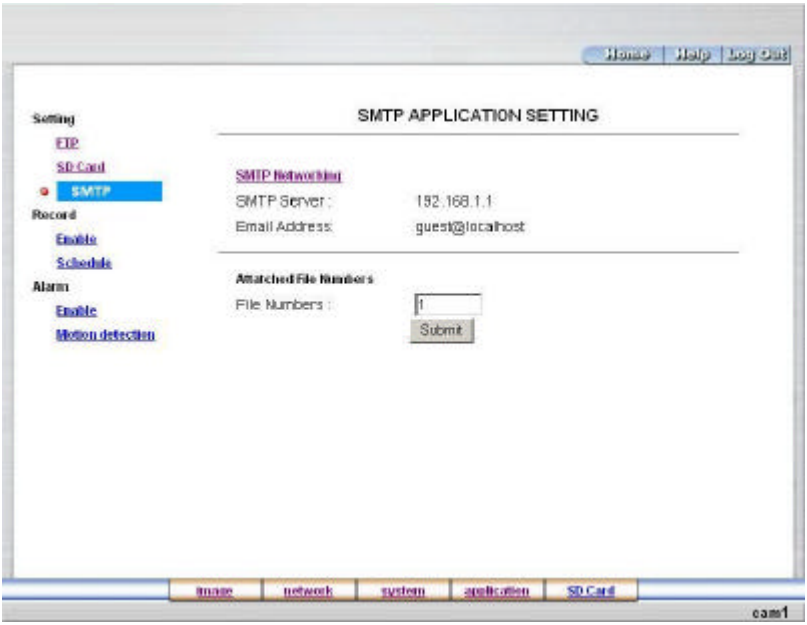
Recording Rate: Sets your chosen frame rate of frames per second.

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

Change the Application Setting —SMTP APPLICATION SETTING.

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

1. Click the **SMTP** button on the left side to enter the "SMTP APPLICATION SETTING" page.



2. Enter the attached file number as and when necessary. The maximum number which can be used is 8

3. Click the **Submit** button to submit the new SMTP setting of the recording.

4. Click the **Home** button to return to the home page.

Description of function keys:

File numbers: Sets the quantity of images per Email.

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 – UPLOAD via FTP" to checkmark the attached box and activate the function.
3. Click "Enable RECORD – SAVE into SD card" to checkmark the attached box and activate the function.
4. Click the **Submit** button to submit the new setting of the recording.
5. Click the **Home** button to return to the home page.

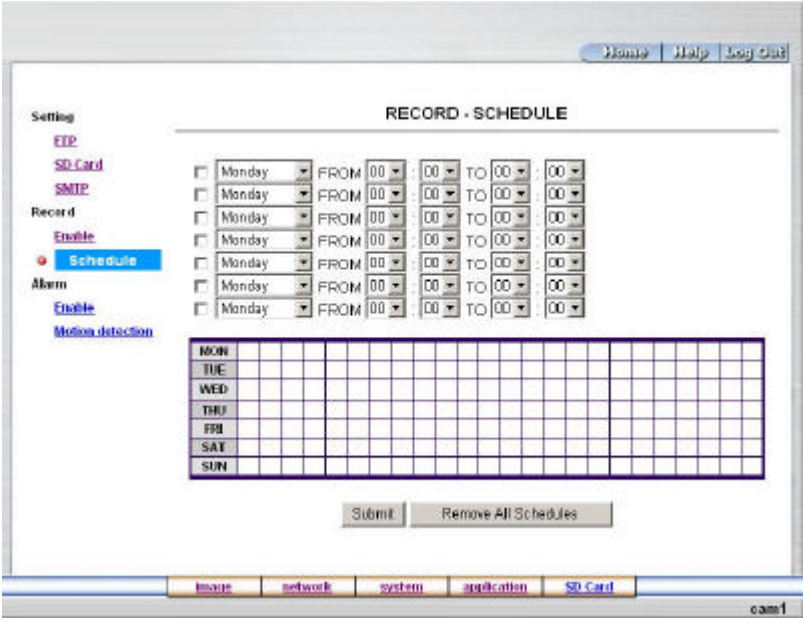
Description of function keys:

Enable Record – Upload via FTP: Activates or deactivates the recording to the FTP server.

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 Schedule** 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.

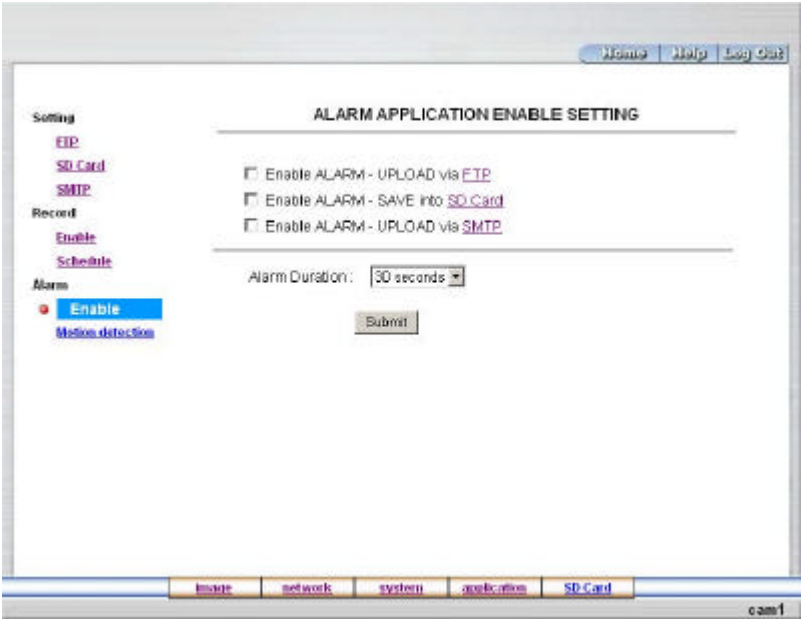
Submit: Click to submit the new setting to the LAN CAMERA.

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 – UPLOAD via FTP" to checkmark the attached box and activate the function.
3. Click "Enable ALARM – SAVE into SD card" to checkmark the attached box and activate the function.
4. Click "Enable ALARM – UPLOAD via SMTP" to checkmark the attached box and activate the function.
5. Enter the "Alarm Duration" you have chosen.
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:

Enable Alarm – Upload via FTP: Activates or deactivates the alarm recording upload to the FTP.

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

Enable Alarm – Upload via SMTP: Activates or deactivates the alarm recording upload to the SMTP.

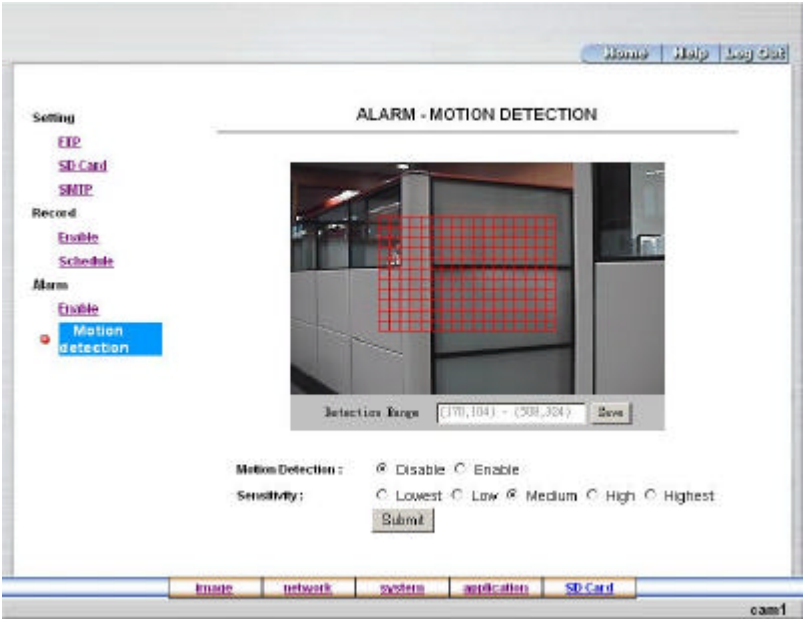
Alarm Duration: Predetermines the length of the alarm.

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.

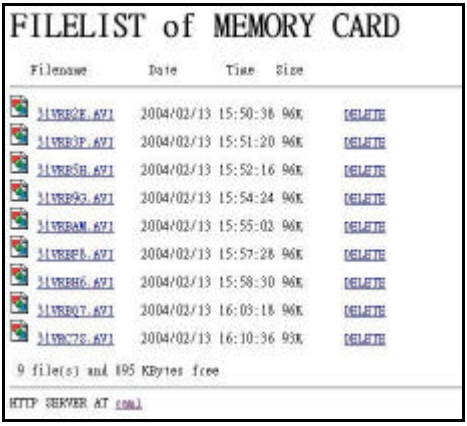
5.1.6 Change the SD card Setting

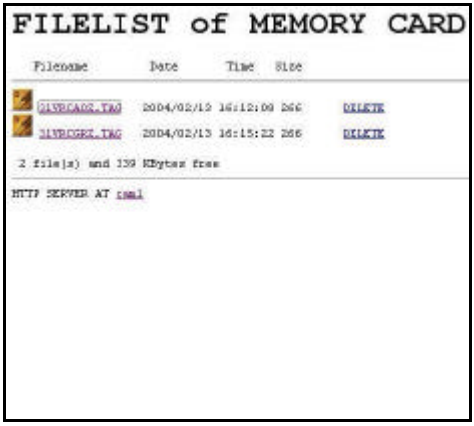
Please follow the steps below to change the SD card setting through the network if necessary.

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**". This procedure is incorrect.

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.

5.2 The LAN CAMERA Viewer

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

5.2.1 Introduction to Network Viewer

The Network Viewer 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 LAN CAMERA.
- Store, search, and review recorded video from the FTP server, PC, and SD card.
- Change the 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 wireless setting to connect the LAN CAMERA to your LAN. Now enter the main menu to set the IP address.

5.2.2 Install the Network Viewer in your PC

Install the Network Viewer 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** / **LanCam Network Viewer** to open up the program selection page as shown below. Click the **LanCam Network Viewer** tag to start the **LanCam Network Viewer** program.

Install the Network Viewer 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 as they appear.

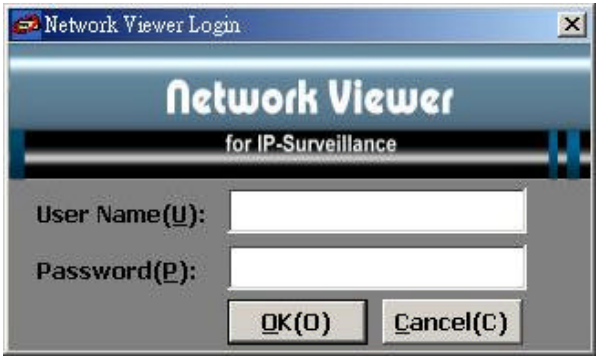
4. After the installation is complete, click the **START** menu from your computer, and point to **Programs / LanCam Network Viewer** to start the **LanCam Network Viewer** program.

NOTE: Please make sure the wireless communication has been properly set and configured in your computer. To check your wireless settings, refer to the section 4.1.

5.2.3.1 Login the LAN CAMERA software

Login the LAN CAMERA software

Once the Network View 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 Network Viewer: both the user name and password must be entered correctly. Click the "**Cancel**" button and exit the login of the Network Viewer.



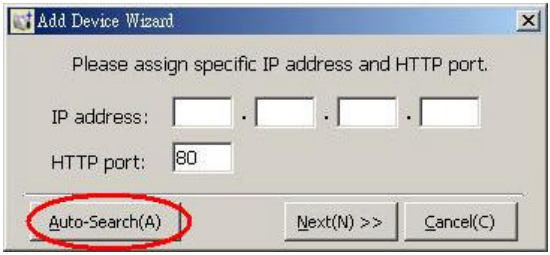
View the LANCAMERA video from a remote PC

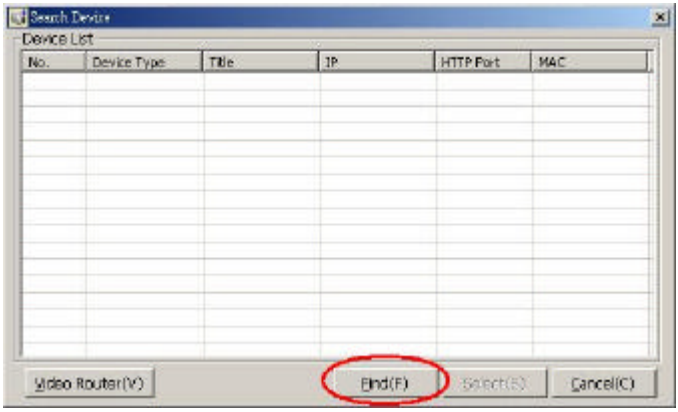
Follow the instructions below to use the Network Viewer to browse a LANCAMERA video from a remote location. Upon entering the Network Viewer, the connection box will appear as follows.

1. Add a channel from the button.

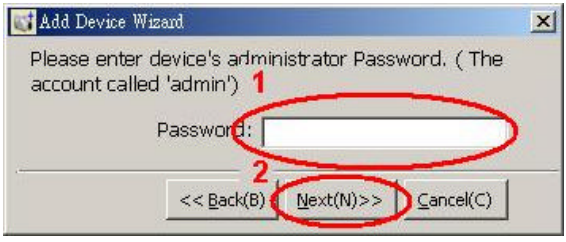
2. **(a)** Click the **Auto - Search** button at the bottom of the "Add Device Wizard " page to discover the connection of the LAN CAMERA - type device in the LAN. Instantly the "Search Device " page will appear. Click "**Find**" at the bottom of the page to access the list of device types. Click the device of your choice and click "**Select**" at the bottom of the page to access the "Add Device Wizard " page again.

   (b) Type in the IP Address and HTTP port of the device and add the device to the Device List.

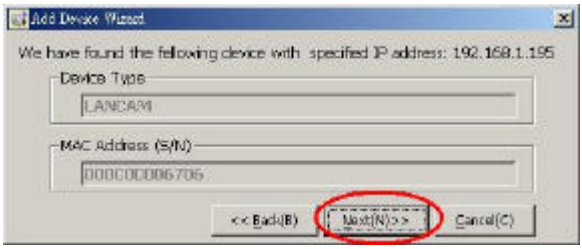




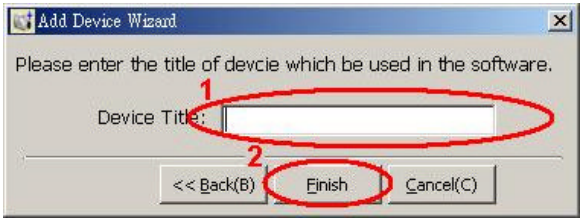
3. Type in the **Password** in the "Add Device Wizard " page. Click "Next" at the bottom of the page to open another "Add Device Wizard" page.



4. This page provides the IP Address, the device type, and the MAC Address. Click "Next" at the bottom of the page to access the next "Add Device Wizard" page.



5. Assign a **Device Title** for the chosen LAN CAMERA.



6. Click the "**Finish**" button to establish the connection between the device and the computer. Click the channel to begin viewing images with this camera from the Device List.

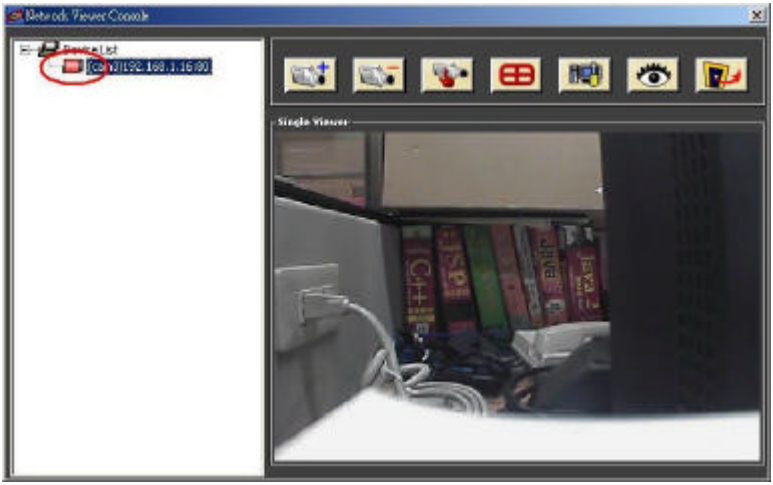
NOTE: Upon connection, if there's a failure to connect, a message stating "Login Error", or "The Password could not be vacuous" appears in the center of the screen. If the password is entered correctly no message appears.

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

Viewing images

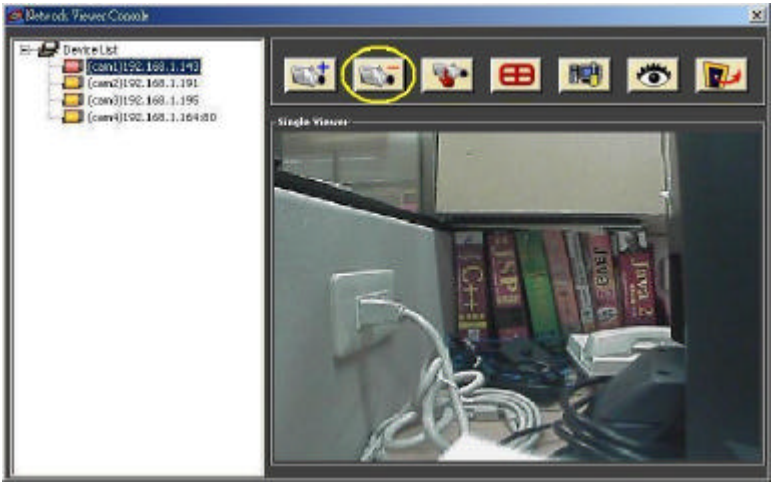
View the connected devices

Once the connection has been established, click the **icon** to enter the single device-mode window. (See the sample screen below) This window on the right side of the **"Console"** page displays the connected device that has been arranged when you established the connection.



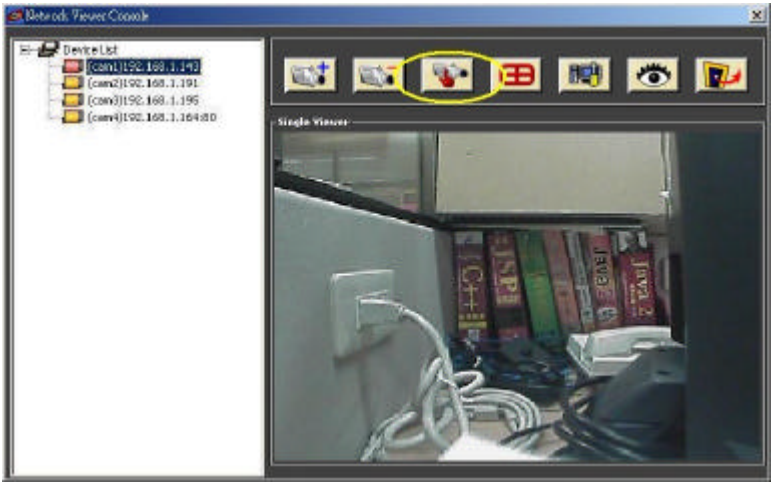
Remove LAN CAMERA

Click the button to remove the connection of a chosen device.

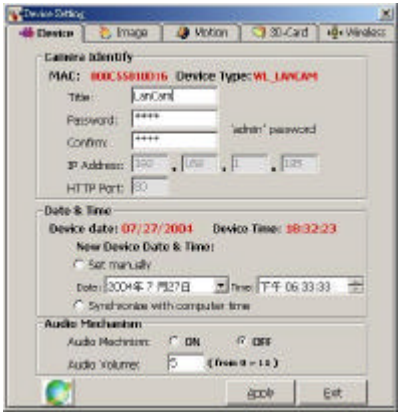


Change the Settings Via the Network

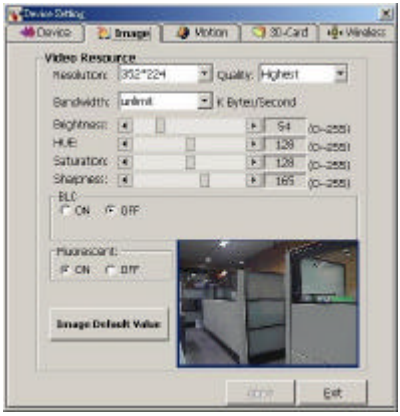
Follow the instructions below to reconfigure the settings via the network.



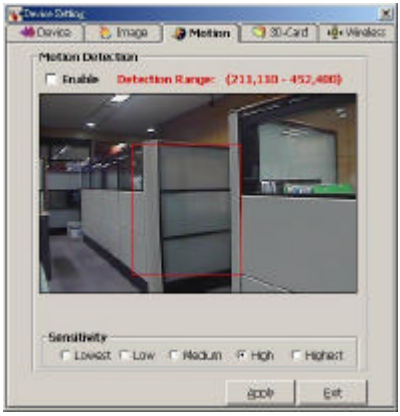
A.



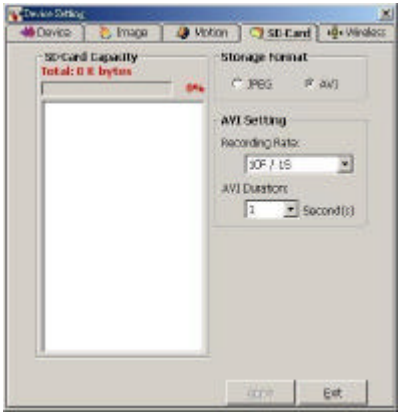
B.



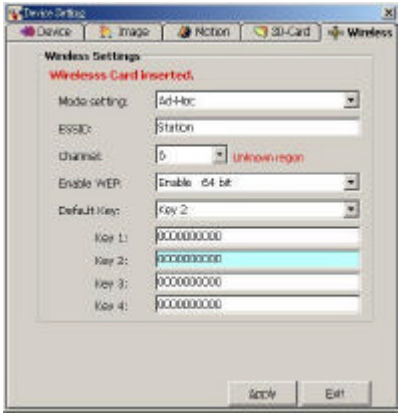
C.



D.



E.



Set the Settings of the Device page.

1. When in the Device List, select a desired channel to enable the button, and click the button to enter the Device Setting page. (See the sample screen as in **A** above)
2. Vary any of the Device settings including the “Title”, “Password”, “Date & Time”, and “Audio Mechanism” if necessary.
3. Click the **Apply** button to submit the new image setting.

Set the Video Resource of the Image page.

1. When in the Device List, select a desired channel to enable the button, and click the button to enter the Device Setting page. (See the sample screen as in **A** above)

2. Click the **Image** button at the top of the page to enter the **Image** page. (See the sample screen as in **B** above)
3. Adjust the image setting including “Resolution”, “Quality”, “Brightness”, “Bandwidth”, “Hue”, “Saturation”, and “Sharpness”, “BLC”, and “Fluorescent” if necessary.
4. Click the **Apply** button to submit the new image setting.

NOTE: Click “Image Default Value” at bottom left to return to default.

Set the Motion Detection of the Motion page.

1. When in the Device List, select a desired channel to enable the button, and click the button to enter the Device Setting page. (See the sample screen as in **A** above)
2. Click the **Motion** button at the top of the page to enter the **Motion Detection** function of the **Motion** page. (See the sample screen as in **C** above)
3. Click the check mark on or off in the “Enable” box at top left to respectively enable or disable the motion detection function.
4. Click and drag the mouse across a targeted zone to draw a red rectangle on the image (coordinates provided above).
5. Click your required level of “Sensitivity” at the button of the page
6. Click the **Apply** button to save the motion detection range.

Set the settings of the SD-Card page.

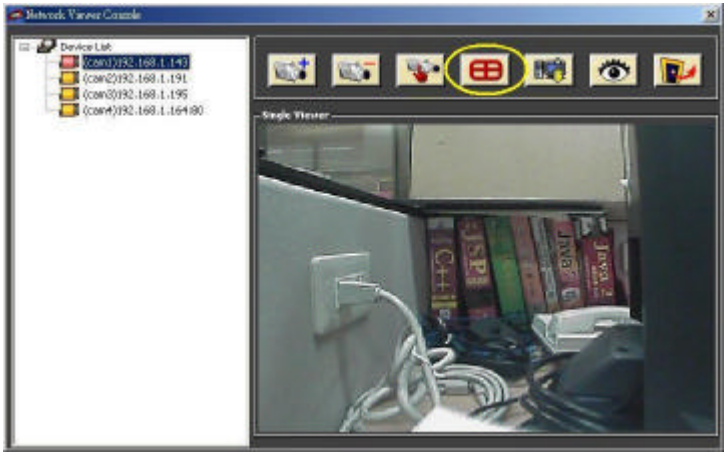
1. When in the Device List, select a desired channel to enable the button, and click the button to enter the Device Setting page. (See the sample screen as in **A** above)
2. Click the **SD-Card** button at top right to enter the **SD-Card** page. (See the sample screen as in **D** above)
3. Click either the ”JPEG” or the “AVI” options under “Storage Format” at top right if necessary.
4. Click the **Apply** button to submit the new **SD-Card** setting of the recording.

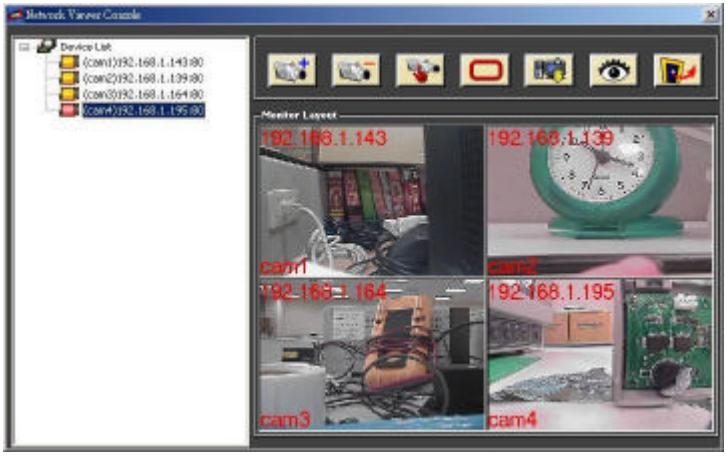
Set the settings of the Wireless page.

1. When in the Device List, select a desired channel to enable the button, and click the button to enter the Device Setting page. (See the sample screen as in **A** above)
2. Click the **Wireless** button at top right to enter the **Wireless** page. (See the sample screen as in **E** above)
3. Set the **Mode Setting** to choose “Ad-hoc” or “Infra-structure”.
4. Set the **ESSID** to change the wireless network name.
5. Adjust the wireless setting, including the “**WEP**”, and “**DEFAULT KEY**” as and when necessary. If **WEP** is set to “**DISABLE**”, the user cannot change the **DEFAULT KEY** and **WEP KEY 1 … WEP KEY 4**. If **WEP** is set to “**WEP64**”, the web key can be set to a 10-hex number. If **WEP** is set to “**WEP128**”, the web key can be set to a 26-hex number.
6. Click the **Submit** button to submit the new wireless setting.
7. Click the **Apply** button to submit the new **Wireless** setting of the recording.

The quad modes and the single-channel

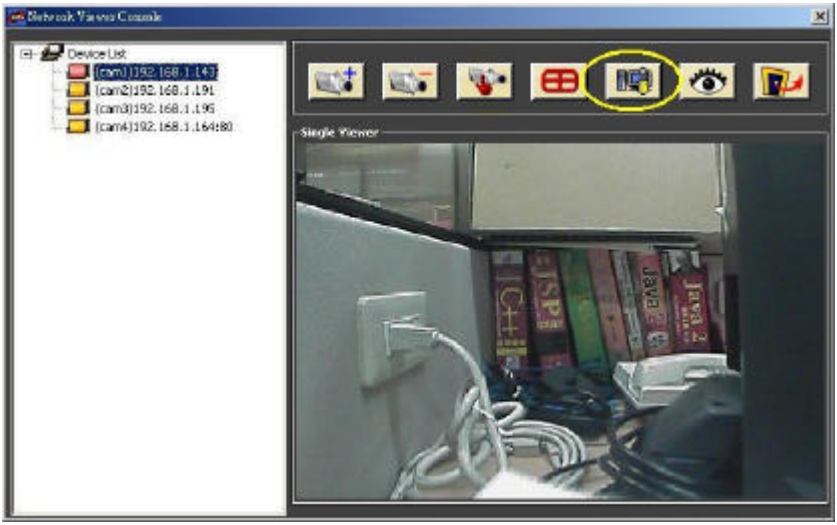
Click the fourth button from the left above the window to alternately turn on the single-channel and the quad modes.



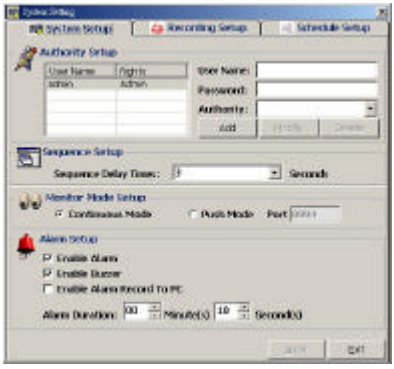


Change the PC SYSTEM SETTING

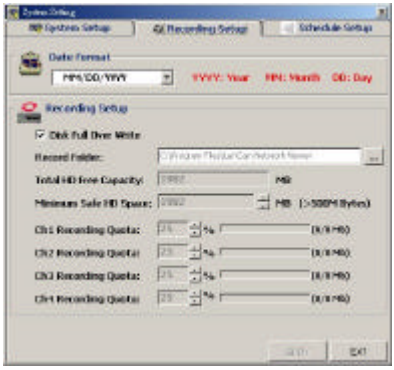
Follow the instructions below to reconfigure the System Setup, Alarm Setup, and Schedule Setup:



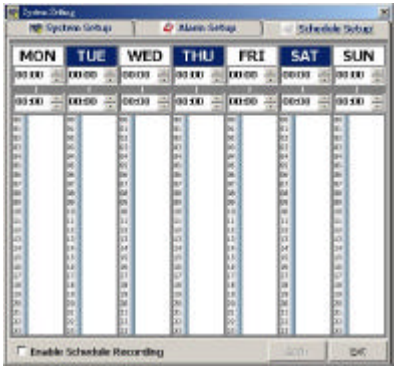
A.



B.



C.



Set the System Setup

1. When in the Network Viewer Console, click the button to enter the **System Setting** page.
2. Click the **System Setup** button to enter the System Setup page. (See the sample screen as in **A** above.)
3. Set the **Authority Setup**、**Sequence Setup**、**Motion Mode Setup** and **Push Mode Setup** functions of this page.
4. Click the **Apply** tag to proceed.

Set the Recording Setup

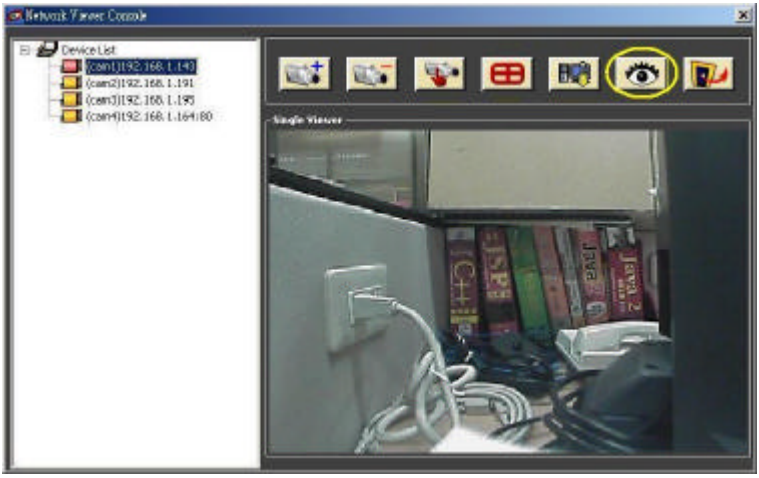
1. When in the Network Viewer Console, click the button to enter the **System Setting** page.
2. Click the **Recording Setup** button to enter the Recording Setup page. (See the sample screen as in **B** above.)
3. Charge the **Date Format** if necessary.
4. Set the disk full to over write to enable the **Disk Full Over Write** setting area.
5. Charge the image file path if necessary.
6. Click the **Apply** tag to proceed.

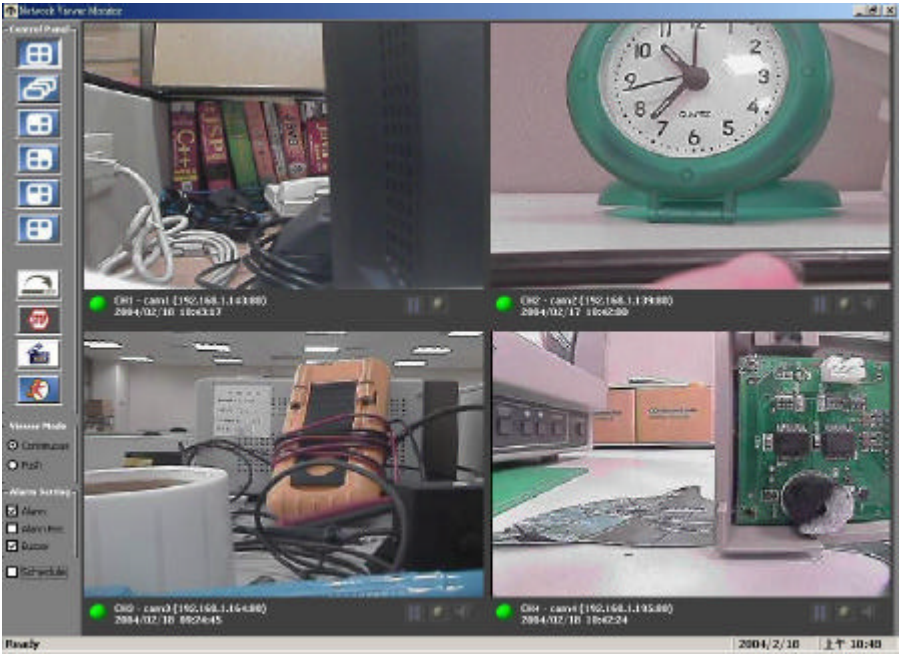
Set the Schedule Setup

1. When in the Network Viewer Console, click the button to enter the **System Setting** page. (See the sample screen as in **C** above.)
2. Click the **Schedule Setup** button to enter the Record Schedule page.
3. If you wish to activate recording for a certain period of time, you can either enter that particular time period in the **Hour : Minute** box given at the top, or you can drag your mouse to cover the entire specified time period in the column below. You can select only one time period per day.
4. When all required settings are completed, click **Apply** tag to proceed.

View the LIVE MONITOR

Follow the instructions below to open the Network Viewer Monitor window:

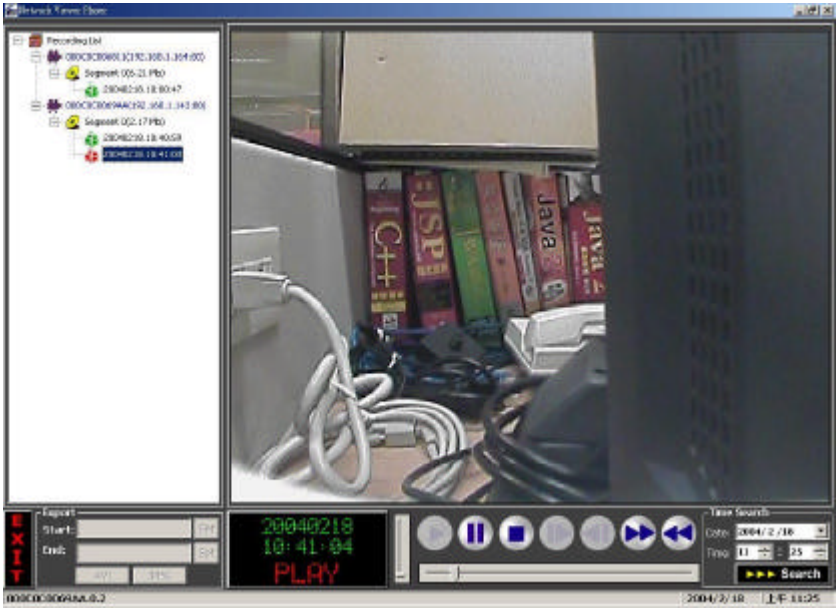


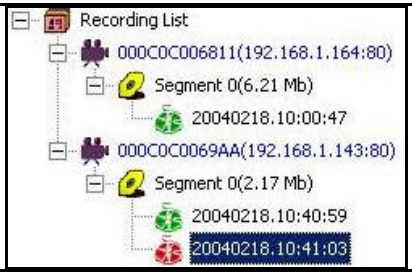


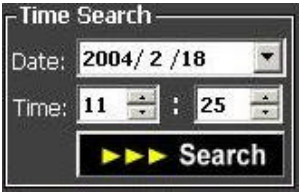
Function Buttons	Description
	Quad screen.
	Sequence.
	Displays a single - channel full screen each time.
	Click to minimize the **Network Viewer Monitor** into a PC system tray..
	Stops receiving.
	Opens the "Network Viewer Player" window.
	Exit and return to the "Network Viewer Console" page.
Viewer Mode Continuous Push Alarm Setting Alarm Alarm Rec Buzzer	Viewer Mode offers a choice between "Continue" (nonstop surveillance) and "Push" (viewing a particular event). Alarm Setting offers three choices.
Schedule	Enables / disables scheduling.
	Click once to alternately enable and disable image motion.
	Click to save the selected device of images viewed to the local computer. A red light on means the device is recording, while a green light signals it is not.
	Audio indicator.

Network Viewer Player

Click the button to view the “Network Viewer Player” window



Function Buttons	Description
	Playback function bar. ● Play. - Click to a recorded video from the PLAY LIST. ● Pause. - Click to freeze the image. ● Stop. - Click to stop playing back a recorded video or cease recording. ● Step. - Click to view images picture-by-picture. ● Reverse Step. - Click to reverse viewed images picture-by-picture. ● FWD. - Click to play a recorded video in the forward direction at speeds which are faster than the recorded speed. ● REV. - Click to play a recorded video in the reverse direction at speeds which are faster than the recorded speed.
	Click to return to the “Network Viewer Monitor” mode.
	Recorded video list box. This box allows you to access all recorded video, which are stored in the HDD of the connected devices.
	During play mode, control the show speed.
	LANCAMERA Status Box. This box indicates the selected device status. **PLAY:** The device is in the playback mode. **LIVE:** The device is in the live display mode. **WAIT:** The device is processing the command. **PAUSE:** Pauses the image.



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 GO to proceed.

Functions to fit the starting and ending points of an image display, when user wants to transfer a file.

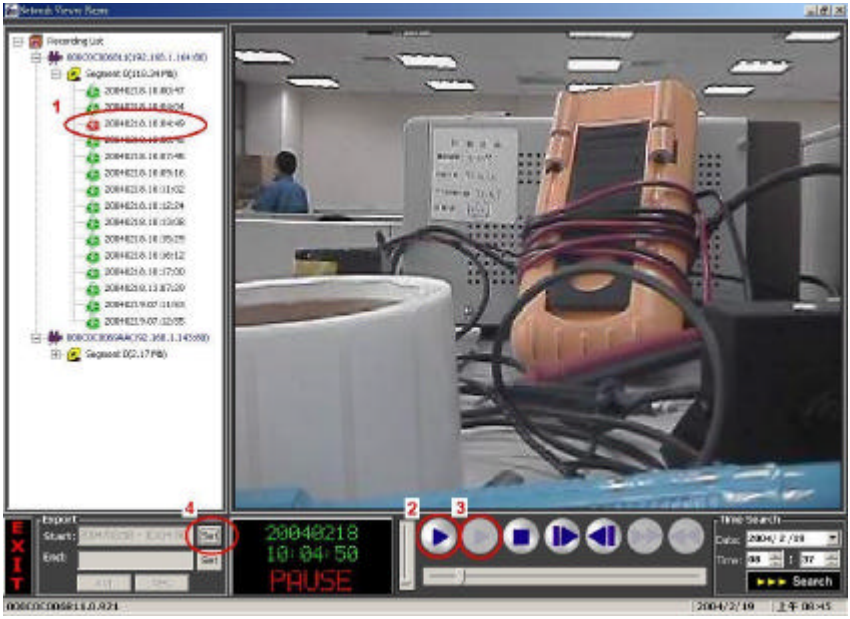
JPEG : Archives images in the JPEG format, to save a single picture in every file.

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

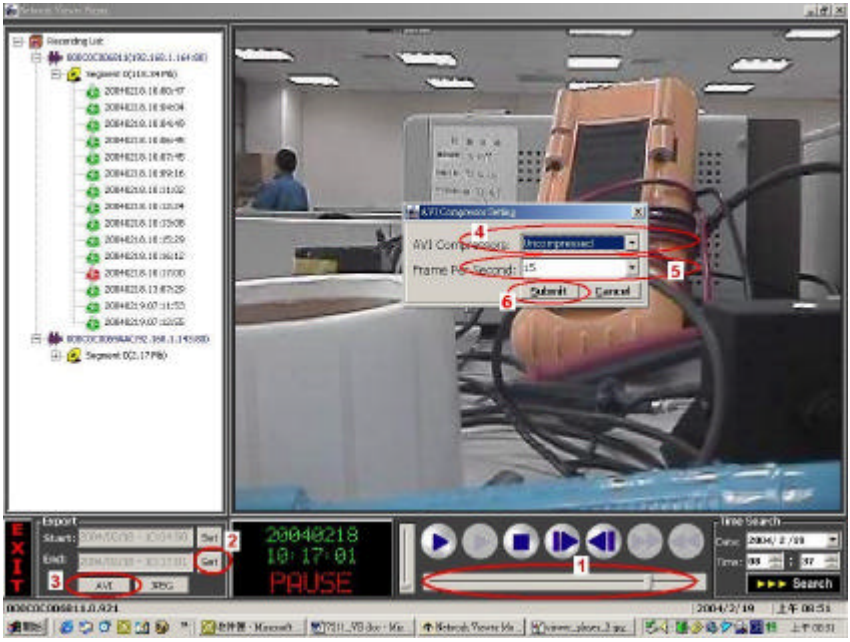
EXPORTING IMAGE FILES

Follow the instructions given below the next two pictures, A and B, in order to view, set, and save image files.

A.



B.



VIEWING AND SETTING IMAGES (A)

1. Select a specific record.
2. Click the play button.
3. Pause at a desired point.
4. Click "Export : **Start**" at lower left to activate viewing, then the date and time of the period displayed will appear in the attached blank space.

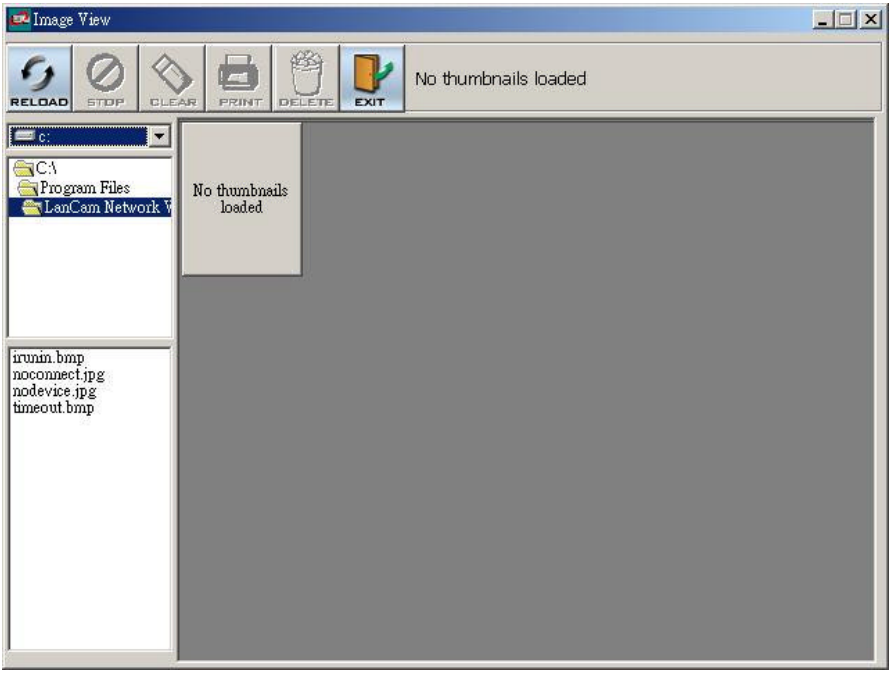
SAVING IMAGES (B)

1. Use the scroll to designate the ending point of desired images.
2. Click "Set" to insert the date and time of the time period viewed.
3. Select either "**AVI**" or "**JPEG**" to export a file of either format, and select the file path via which to send viewed records for storage.
4. If you selected "**AVI**" to export a file, please enter the **AVI Compressors** to determine the size of the file.
5. Enter the **AVI** file **Frame Per Second** (FPS) to determine the speed of the viewing.
6. Click the **Submit** button to submit the setting of the saving.
7. Wait a moment for the selected image file or images to reach your desired storage space.

5.2.4 The Image Viewer

This is image integrity-protect 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 LANCAMERA, the Image Viewer won't display the image and instead will send a warning message" **Wrong File, Can't Open**". Follow the instructions below to open an archived image from a SD card or a HDD.

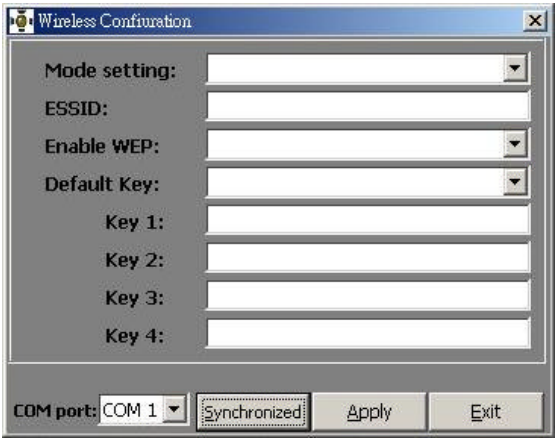
1. Pop up the **START** menu from your computer, and point to **Programs** / **Network Viewer** to open up the program selection page. Click the **Image Viewer** tag to start the **Image Viewer** program. (See a sample screen below.)
2. Click the **PRINT** tag to get a displayed image printed out from a printer.



5.2.5 Using the Wireless Setup

This software connects your PC directly to a LANCAM via an RS - 232 cable, so that you can change the LANCAM's settings.

1. Pop up the **START** menu from your computer, and point to **Programs / LanCam Network Viewer** to start the **Wireless Setup** program. Open the **wireless setup** and you wll see the window shown below.



⇩

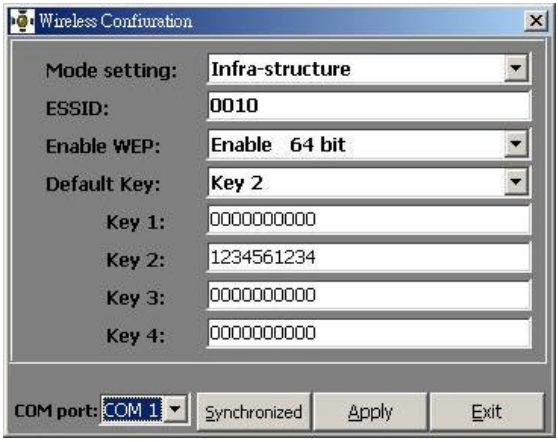
2. Click the "Synchronized " button to load the LANCAM's settings into this window below.

⇩

3. When the loading is complete, the window will show the message on the left. Click "Yes" to close the message.

⇩

4. The window now shows the LANCAM's settings.



⇩

5. If you wish to change any setting, type the new information directly into the window. The "Mode setting" has two options : "Infra - structure" and "Ad - hoc". You can enter either of them as you wish, and click "Apply".

⇩

6. Click the "Apply" button to transfer the new settings to the LANCAM.

⇩

7. Now the settings are complete.

NOTE: Insert a wireless card in your PC, and use the card to search the wireless AP or the wireless station. Connect with the AP or station of your choice.

6. SPECIFICATIONS

Model Number	Wireless LAN CAMERA	
Image System	NTSC	PAL
CCD sensor	1/3 inch interlaced CCD	
CCD resolution	270K pixels	320K pixels
Performance Video throughout Network throughout	Up to 30(25) frames/sec at 352 x 224 (352 x 272) 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	1/50 – 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	
Watermark	Digital Signature	
RS-232	Yes	
Network Interface	802.11b Standard for 2.4GHz Wireless	
Network Protocol	TCP/IP, DHCP, HTTP, UDP, FTP, SMTP,SNTP, ICMP, DDNS, DNS	
Wireless Bit Rate	11, 5.5, 2, 1 Mbps	
Wireless Security	WEP Encryption 64-bits and 128-bits	
Operation Frequency	America	2.412 – 2.462 GHz (11 Ch.)
	Europe CE	2.412 – 2.472 GHz (13 Ch.)
	Janpen	2.412 – 2.484 GHz (14 Ch.)
	France	2.457 – 2.472 GHz (4 Ch.)
Wireless Output Pow	18 dBm +/- tolerance 2dBm (MAX.)	
Motion detecton	Advanced MD (zone, position, sens)	
SD socket	Yes	
Alarm I / O	Yes	
Secure password	Multi-level / Multi-user	
Software Upgrade	Upgrade via SD Card	
Power input	5V DC / 2A	
Operation environmental	Requires proper environmental housing for outdoor use	
Weight	318g	
Dimensions	62 (W) x 50 (H) x 95 (D) mm	
Operation temperature	5 ° C ~ 50 ° C (41 ° F ~ 122 ° F)	
Regulation	FCC, CE	
Provided Accessories	802.11b Wireless Antenna x 1	
	AC Adapter x 1	
	Instruction manual x 1	
	CD-R x 1	

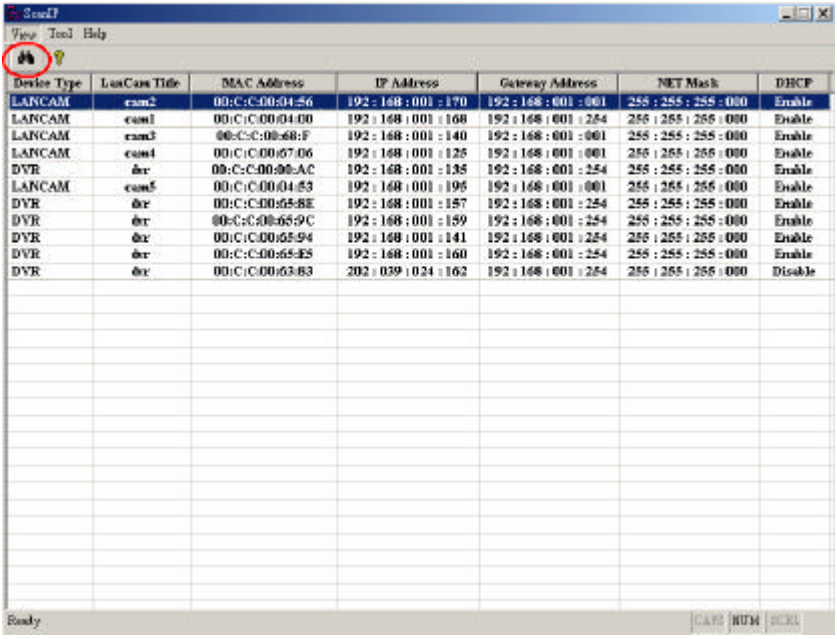
7. Function of Client PC

System requirement	Windows
Browser	IE 5.x 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.

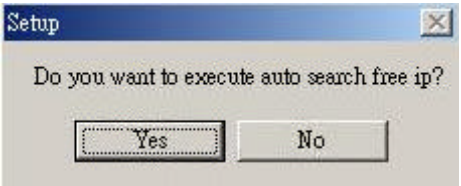
1. Click the button to discover the connection of the all-type device in the LAN. The **Device List** will display the connection of the all-type device.
2. Select the desired device from the **Device List**.
3. Click the desired device to show the window while the LANCAMERA information acts to display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



Device Type	LanCam Title	MAC Address	IP Address	Gateway Address	NET Mask	DHCP
LANCAM	cam2	00:C:C:00:04:56	192 : 168 : 001 : 170	192 : 168 : 001 : 001	255 : 255 : 255 : 000	Enable
LANCAM	cam1	00:C:C:00:04:00	192 : 168 : 001 : 168	192 : 168 : 001 : 254	255 : 255 : 255 : 000	Enable
LANCAM	cam3	00:C:C:00:68:F	192 : 168 : 001 : 140	192 : 168 : 001 : 001	255 : 255 : 255 : 000	Enable
LANCAM	cam4	00:C:C:00:67:06	192 : 168 : 001 : 125	192 : 168 : 001 : 001	255 : 255 : 255 : 000	Enable
DVR	dvr	00:C:C:00:00:AC	192 : 168 : 001 : 135	192 : 168 : 001 : 254	255 : 255 : 255 : 000	Enable
LANCAM	cam5	00:C:C:00:04:63	192 : 168 : 001 : 196	192 : 168 : 001 : 001	255 : 255 : 255 : 000	Enable
DVR	dvr	00:C:C:00:65:8E	192 : 168 : 001 : 157	192 : 168 : 001 : 254	255 : 255 : 255 : 000	Enable
DVR	dvr	00:C:C:00:65:9C	192 : 168 : 001 : 159	192 : 168 : 001 : 254	255 : 255 : 255 : 000	Enable
DVR	dvr	00:C:C:00:65:94	192 : 168 : 001 : 141	192 : 168 : 001 : 254	255 : 255 : 255 : 000	Enable
DVR	dvr	00:C:C:00:65:E5	192 : 168 : 001 : 160	192 : 168 : 001 : 254	255 : 255 : 255 : 000	Enable
DVR	dvr	00:C:C:00:63:83	202 : 039 : 024 : 162	192 : 168 : 001 : 254	255 : 255 : 255 : 000	Disable

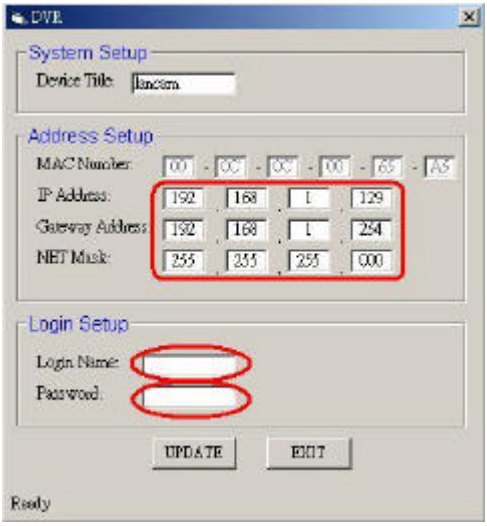
4. Do you want to execute auto search free IP?

   If and when you want to auto search the free IP, select “Yes” or “No”. If clicked “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.



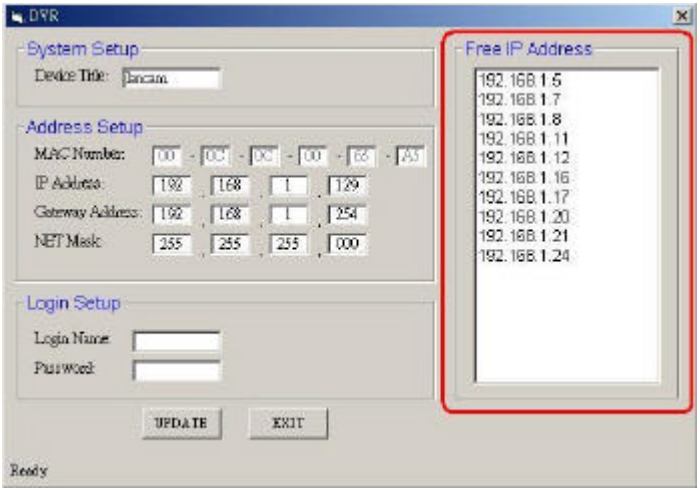
1. Manual insertion of “Free IP Address”.

   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.

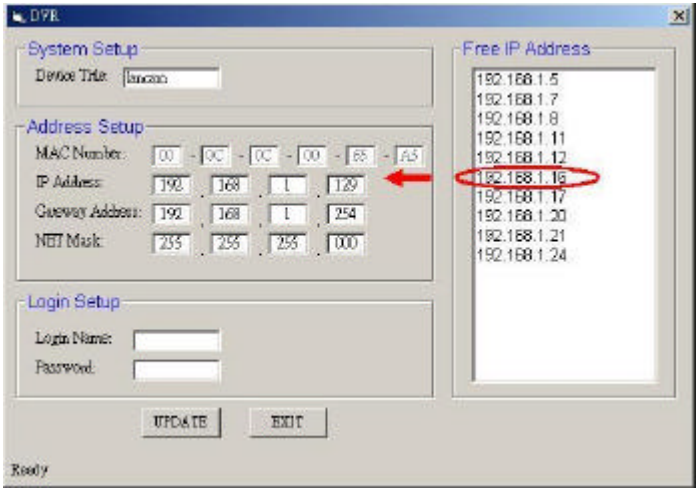


2. Auto search “Free IP Address”.

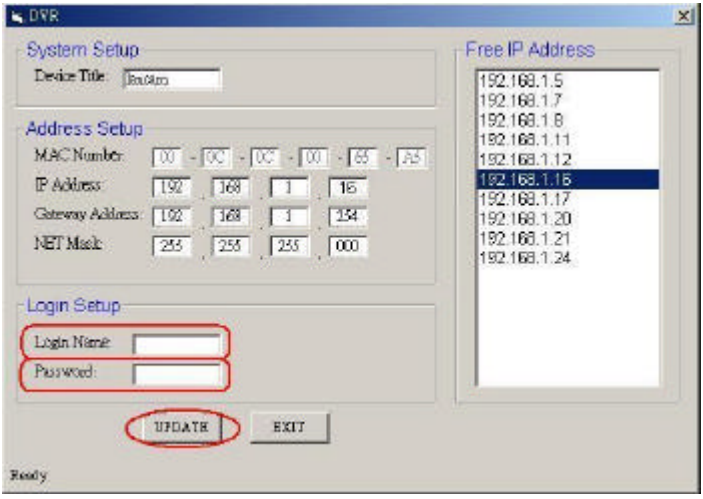
   If you clicked “Yes” the “Free IP Address” box will appear on the right.



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. –LAN CAMERA SD card Troubleshooting

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

   If all the answers are "yes" but the cross sign still exists, please contact your technical support and ignore the following steps.
4. Please make sure the function of "SD CARD ENABLE" is enabled on ALARM and SCHEDULE pages if no cross sign appears beside the "SD" icon on the screen.
5. After recording, read the data through web page of "sdget.htm". If the data cannot be read through networks, please read it by a PC instead and check out the data stored in "LANCAM" directory and, please contact your technical support no matter 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 SD card were removed while storing or accessing data, data would be lost.**
3. **If there is a cross sign beside the "SD" icon, it means the SD card has inserted into LAN CAMERA but cannot perform writing function. Possible reasons are:**
   a. It is not a SD memory card.
   b. SD card is unformatted or formatted with non-FAT16 or non-FAT12 format.
   c. Damage is happened on file system.
   d. The capacity of SD card is full.
   e. SD card is set to be read-only.
4. **Shut the power before inserting the SD card. Otherwise the unit may shut down.**

APPENDIX 3. –FAQ

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

A：Turn the “DIP SWITCH” from “3” to “4” and vary 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”.