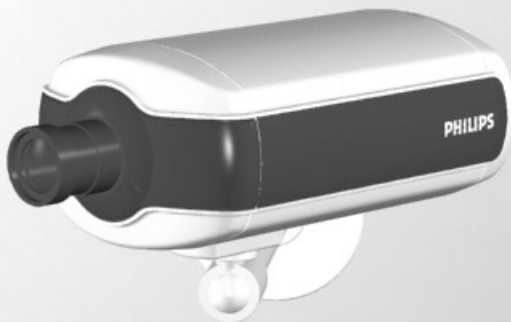


NetCam 4

Installation Instructions

Eng



Lens optional

Default IP address: 211.53.133.92

Administrator login: Password: admin
ID: admin

User login: Password: guest
ID: guest

IMPORTANT SAFEGUARDS

1. **Read Instructions:** All the safety and operating instructions should be read before the unit is operated.
2. **Retain Instructions:** The safety and operating instructions should be retained for future reference.
3. **Heed Warnings:** All warnings on the unit and in the operating instructions should be adhered to.
4. **Follow Instructions:** All operating and use instructions should be followed.
5. **Cleaning:** Unplug the unit from the outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
6. **Power Sources:** This unit should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply you plan to use, consult your appliance dealer.
7. **Power-Cord Protection:** Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
8. **Power Line:** An outdoor system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits.
9. **Overloading:** Do not overload outlets and extension cords as this can result in a risk of fire or electric shock.
10. **Object and Liquid Entry:** Never push objects of any kind into this unit through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electrical shock. Never spill liquid of any kind on the unit.
11. **Servicing:** Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

12. **Damage Requiring Service:** Unplug the unit from the outlet and refer servicing to qualified service personnel under the following conditions.
If liquid has been spilled, or objects have fallen into the unit.
If the unit has been exposed to rain or water.
If the unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation.
If the unit has been dropped or the cabinet has been damaged.
When the unit exhibits a distinct change in performance - this indicates a need for service.
13. **Replacement Parts:** When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
14. **Safety Check:** Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

FCC INFORMATION

Caution: Any changes or modifications to construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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 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.

SAFETY PRECAUTIONS

This label may appear on the bottom of the unit due to space limitations.

**CAUTION**

**RISK OF ELECTRIC
SHOCK. DO NOT OPEN!**



**CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK,
DO NOT OPEN COVERS. NO USER SERVICEABLE PARTS
INSIDE. REFER SERVICING TO QUALIFIED SERVICE
PERSONNEL.**



The lightning flash with an arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**ATTENTION: INSTALLATION SHOULD BE PERFORMED BY
QUALIFIED SERVICE PERSONNEL ONLY IN ACCORDANCE
WITH THE NATIONAL ELECTRICAL CODE OR APPLICABLE
LOCAL CODES.**



Attention: Installation should be performed by qualified service personnel only in accordance with the National Electrical Code or applicable local codes.

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I INTRODUCTION

NetCam4 is an Internet-based high resolution digital network camera. It connects directly to an Ethernet network and provides live motion color pictures over the Internet, using image compression format.

I.1 Description

NetCam4 is a microprocessor-based device that contains a digital color camera, web server functionality, optimized hardware for image compression, and physical Ethernet connection. You simply provide power and connect LAN cable to the NetCam4.

Images are generated in Wavelet format. Wavelet progressively generates pictures from low rates of resolution, so reducing the waiting time for users. The only software required is Netscape Navigator 4.x or above and Microsoft Internet Explorer 4.x or above.

Supporting TCP/IP networking, SMTP e-mail, HTTP and other Internet-related protocols; the NetCam4 can be used in mixed operating system environments, such as, Windows, UNIX, Macintosh and OS/2. It integrates easily into other WWW/Intranet applications.

Using a standard Web browser, you can configure and manage NetCam4 directly from its own Web pages. And, when a new firmware release becomes available, you can simply upgrade all of your NetCam4 camera products remotely over the network.

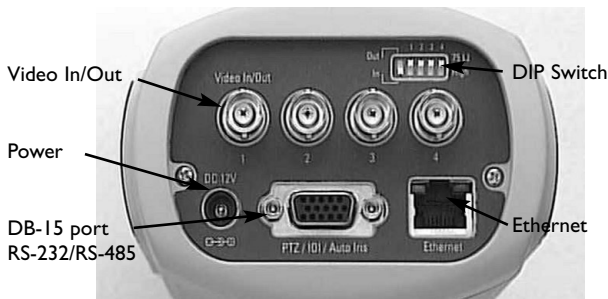
1.2 Unpacking

Unpack carefully. This is electronic equipment and should be handled with care to prevent damage to the unit. Check for the following items:

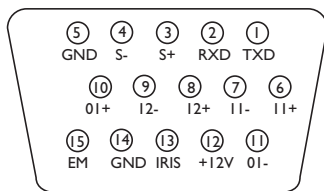
- ☒ NetCam4 - Web Camera Server
- ☒ AC Adapter & Power cable DC 12V, 1A
- ☒ 1 m crossover cable (Red)
- ☒ 2 m direct cable (White)
- ☒ Plug & cable clamp for DB-15
- ☒ Software
- ☒ Manual

Note: The shipping carton is the safest container in which to transport the unit. Save it and all packing materials for future use.

1.3 NetCam4 Rear View and Descriptions



Pin	Connection	Function
1	TXD	RS-232 transmit.
2	RXD	RS-232 receive.
3	S+	NetCam4 RS-485. (half-duplex).
4	S-	NetCam4 RS-485. (half-duplex).
5	GND	Ground
6	Input 1 +	Isolated input port
7	Input 1 -	Isolated input port
8	Input 2 +	Isolated input port
9	Input 2 -	Isolated input port
10	Output 1 +	SSR output port
11	Output 1 -	SSR output port
12	12V +	Power Supply
13	IRIS	Video iris
14	GND	Ground
15	EM	Not used



DB-15 port (RS-232 and RS-485)

Switch	Function
OUT/IN	Configures NetCam4 to accept input (IN) or output (OUT) signal to the BNC connector.
1, 2, 3, 4	75 Ω (ON) or High impedance (OFF) (Loop through).



DIP Switches

2 INSTALLATION

2.1 Setup

- Connect Ethernet and Power to NetCam4 on local network for configuration.
- Install the setup program for NetCam4.
- Assign an IP address to NetCam4 and configure administrator's condition.
- Configure user's condition.
- Locate NetCam4, and re-connect power and Ethernet.
- Adjust the Focus.

2.1.1 Connecting

- Connect Ethernet line to the Ethernet port in the rear.
- Connect the power supply to a power supply port in the rear.
- Confirm that the green LED of the Ethernet port blinks

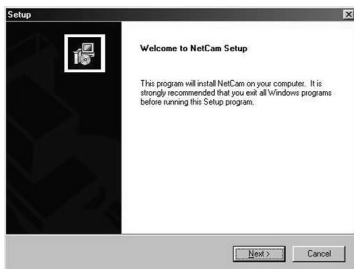
2.1.2 Location

- Place NetCam4 appropriately for your purpose

Warning: Do not expose the camera lens to direct sunlight. When you operate NetCam4 in the glaring light, we recommend using an auto iris lens.

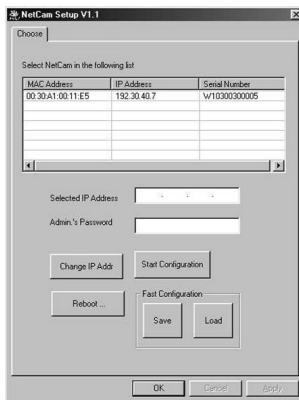
2.2 Installing NetCam4 Setup Program

1. Insert the supplied CD into your CD-ROM drive and copy 'NetCam4.exe' to your PC. Locate and double click. Follow the screen instructions.

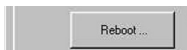


2.3 Assigning IP Address and Starting Configuration

- You can only setup a NetCam4 that is connected on a local network or direct via the Red-cross cable.
- When the setup program is executed, the panel shows every NetCam4 connected at the local network.
- Choose the NetCam4 that you want to assign an IP address or you want to configure. When the NetCam4 is selected, an IP address is displayed, default IP address is '211.53.133.92'.
- Enter a password in the 'Admin's Password' box. (Default ID is 'admin', default password is 'admin').
- To change the IP address, click the 'Change IP Addr' button.



- Enter the new IP address and confirm it with the 'OK' button.
- If NetCam4 has a problem, you can reboot by clicking "Reboot".



2.4 Configuring NetCam4

- After assigning a new IP address to the NetCam4, you may configure the administrator's options. Click 'Start Configuration' button, and you will be connected to the Administrator pages in the NetCam (see Chapter 4).



2.4.1 Fast Configuration

- If you want another NetCam4 with the same setup, you can use 'Fast Configuration'.
- Using the 'Load' button, you can use the saved configuration of another NetCam4. However, some information such as; 'Serial Number', 'Date & Time' and 'IP configurations' need to be setup independantly. You should configure 'Date & Time' and ' IP Configuration' again with setup program. 'Serial Number' cannot be changed.



To save:

After setup, close NetCam4 homepage.

- Click 'Save' button.
- Save the information (select a suitable directory and file name).

To Load:

- Select the directory and file name of the saved NetCam 4.
- Click the 'open' button and click 'ok' to confirm.

2.5 Assigning IP Address with ARP command

If you fail to assign an IP address with the setup program, carry out the process with ARP command.

NetCam4 IP address = IP address to be assigned to the NetCam4.

NetCam4 Ethernet address = MAC printed on the bottom of the NetCam4.

My PC IP address = IP address of the Network Interface Card in your PC>

Note: The NetCam4 and PC IP addresses must be within the same IP address class.

1. Using ARP in Windows 98 and NT

- Start a DOS window and type the following commands.

```
arp -s <NetCam4 IP address> <NetCam4 _____ address>
ping -t <NetCam4 IP address>
```

- Example

```
arp -s 200.243.232.178 00-40-8c-10-00-86
ping -t 200.243.232.178
```

2. Using ARP in Windows 95

- Start a DOS window and type the following commands.

```
arp -s <NetCam4 IP add.> <NetCam4 Ethernet add.> <my PC IP add.>
ping <NetCam4 IP address>
```

- Example

```
arp -s 200.243.232.178 00-40-8c-10-00-86 200.243.232.130
ping 200.243.232.178
```

3. Verifying installation

After completion, the following message (or similar) will be displayed after the ping command:

```
Request timed out
:
Request timed out
Reply from 200.243.232.178: bytes=32 time=2ms TTL=255
Reply from 200.243.232.178: bytes=32 time=2ms TTL=255

Ping statistics for 200.243.232.178:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milliseconds:
        Minimum = 1ms, Maximum = 2ms, Average = 1ms
```

- If you cannot receive the reply by the 'ping' command, try again by pressing 'F3' and 'Enter' keys again. Normally 'Request timed out' messages appear 7 times before you receive proper reply.
- If you succeed in utilizing the above commands, you will receive a continuous connection. Stop the process by pressing <Ctrl>+<C> keys.
- If the statistic shows '100% loss', you should check that the network line and connection status are stable; the IP address which is assigned to NetCam4; and whether a PC has the same local IP address as the NetCam4. (Same local IP address of C grade network means that the first 3 numbers are same but the fourth is different. For example 203.243.232.111 and 203.243.232.112 are the same local network IP addresses).

3 ACCESSING NETCAM4 HOMEPAGE & MONITORING REAL-TIME IMAGE

You can access the NetCam4's own web pages through any standard Web browser.

3.1 Starting Web browser

```
http://<NetCam4 IP address>/
```

- Start your web browser and enter your NetCam4 IP address.

```
http://200.243.232.178/
```

Example

NetCam4 simultaneously supports up to 100 users. Any additional user will receive the message '*Server is full*'.

3.2 Installing NetCam4 Plug-in*

Netscape User: To see the image transferred from NetCam4, initially install the NetCam4 Plug-in. When you connect the NetCam4 for the first time or you have an old Plug-in version, you have to download it. In the Plug-in Download screen click '*Download Plug In*'. Then you click '*Grant*' and '*Install*' buttons respectively when prompted. The Plug-in Download screen is accessible from the various viewers and log-in screens.

MS Explorer User: For a MS Explorer User, Active-X Control is prepared. It will be installed as soon as you connect to NetCam4. For Active-X installation on your PC, just click '*Yes*' to the question. If you cannot see the images, you should check if Active-X Control file is installed correctly, located in the *C:\Windows\Download Program Files*. If the NetCam4 Control file is not installed, carry out the installation procedure again. If the file is already installed but image is not seen, remove the file and re-install it.

* The plug-in and active-X are licenced by WebGate Inc. and approved by Verisign.

Note: Program installation takes less than 1 minute. Do not click any button until the 'Active-X Control' installation is completed.

3.3 Login page and various viewers in NetCam4 homepage

Login Page: Enter your name and password to log in (max 9 characters). Default user's ID and password are 'guest'. The administrator can change them at Admin page.

Name :	guest
Password :	password
Login Reset	

There are 6 viewing options. An administrator may set 3 different viewers as main viewers. Users may monitor real-time images via these main viewers.

The 6 viewers are (default viewer, normal viewer, simple viewer may be set as main viewers):

- Default viewer
- Normal viewer
- Simple viewer
- Server-Push viewer
- Java Applet viewer
- Snapshot viewer

3.3.1 Real-time monitoring through default viewer

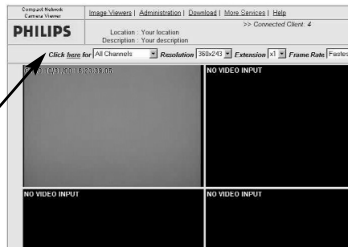
The default view is shown. The user may select 5 other viewing options.

Real-time monitoring

To setup the channel, resolution, expansion, and frame rate select the respective window box.

Channel selection: Select a single channel or all 4 channels.

Resolution: Select the resolution (720x486, 720x243, 360x243, 180x121, 90x60). The higher the resolution, the slower the transmission rate.



Extension: Select the image size of 1X to 4X. Extension (2X to 4X) does not increase the image's resolution, but rather enlarges its size. Therefore, the quality of extended image is not as clear as original image.

Frame rate: Select the image transmission speed. (Transmission speed depends much on network line's capacity and PC performance). NetCam4 transmits maximum 30 frames per second, and total frames transmitted by all 4 channels cannot surpass the maximum rate of 30 fps.

3.3.2 Changing with other image viewer

The default viewer can be changed to any other view option (normal viewer, simple viewer, server-push viewer, java applet viewer, and snapshot viewer).

Simple Viewer
Normal Viewer
Others

Normal viewer and simple viewer, a menu is displayed where you can utilize various buttons for such as pan/tilt/zoom control, gray-image transmission mode, progressive transmission mode, etc.

Other viewers, The server-push viewer, java applet viewer, and snapshot viewer menu options are displayed. Server-push viewer allows you to view images when the NetCam4 is connected on the network with a firewall. Java applet viewer is for a computer that does not utilize MS Windows OS such as Macintosh computer, etc. Snapshot viewer allows you to capture a frozen image.

Service Items	Key Features
Snapshot	▶ Client-pull technology using CGI, HTML ▶ Image file extension - *.jpg ▶ Automatically refresh the page ▶ Easy customizing ▶ You can make your home page which have new image whenever user connects ▶ Supported browsers - Netscape 4.5 or above, IE-explorer 4.0 or above
Server-Push	▶ Server-push technology using MyLisp CGI ▶ MIME Type - application/x-webeye ▶ Image Resolution Control - 720x496, 720x243, 360x243, ... ▶ Frame Rate Control - Fastest, 10 fps, 5fps, ... ▶ Video input selection - internal cam/external cam ▶ Gray mode - 24bits color or gray-color ▶ SingleShot mode - snapshot supported ▶ Security - unsecured/secure mode supported ▶ Supported browsers - Netscape 4.5 or above, IE-explorer 4.0 or above
Java Applet Viewer	▶ Client/Server technology ▶ Image Resolution Control - 720x496, 720x243, 360x243, 180x120, 90x60 ▶ For Macintosh, UNIX system users ▶ Depends on Java VM in system or web browser. ▶ Supported browsers - Netscape 4.5 or above, IE-explorer 4.0 or above

3.3.3 Accessing administrator's page

Click 'Administration' menu, to access the login page for the administrator options.

| [Administration](#) |

3.3.4 More Services

Click the respective button to access the additional services. Information is provided in the respective chapters

| [More Services](#) |

Simple Image Viewer / Normal Image Viewer	▶ Client/Server technology ▶ Image Resolution Control - 720x496, 720x243, 360x243, 180x120, 90x60 ▶ Frame Rate Control - Fastest, ... ▶ Pan/Tilt/Zoom Control ▶ Gray mode - 24bits color or gray-color ▶ Progressive mode - progressively updated for partial images ▶ SingleShot mode - snapshot supported ▶ Quality BOX supported ▶ Security - secure mode supported ▶ Simple Image Viewer - for fast downloading the page ▶ Supported browsers - Netscape 4.5 or above, IE-explorer 4.0 or above
Administration	▶ Web-Based Administration of NetCam configuration ▶ User Configuration - add users, ... ▶ System Configuration - dateTime setting, ... ▶ Video Configuration - calibrating video parameters, ... ▶ Network Configuration - IP/NetMask/DNS address setting ▶ Security Configuration - IP-filtering and Image Encryption for high security ▶ Pan/Tilt/Zoom Configuration ▶ Alarm Configuration - select pre-alarm/post-alarm parameters, ... ▶ Serial Port Configuration - set serial control parameters for Pan/Tilt/Zoom. ▶ Customizing - For changing http's port, ... ▶ Application Configuration ▶ E-Mail ▶ Auto-Emailing, events triggered. ▶ Captured images are attached to an mail. ▶ Periodic transfer supported for monitoring. ▶ Supported events: Sensor-input-Detection (SID), Motion Detection (MD). ▶ FTP ▶ Auto-FTP, event triggered ▶ Captured images are transferred to the specified FTP server. ▶ Periodic transfer supported for uploading to another web server. ▶ Supported events: Sensor-input-Detection (SID), Motion Detection (MD).

3.3.5 Download

NetCam4 compresses images using Wavelet algorithm. You need to install 'Netscape Plugin'. Click the 'Download' menu, and follow the instructions.

| [Download](#) |

3.3.6 Help

You may look up explanations on NetCam4's functions and features by selecting the 'Help' menu. Click 'FAQ' (frequently asked questions) to solve problems confronted during installation or running NetCam4.

| [Help](#) |

3.3.6 Placing a company logo and hyper-linking

You can place your company's logo onto the viewed image. (Refer to Chapter VII for detailed information)

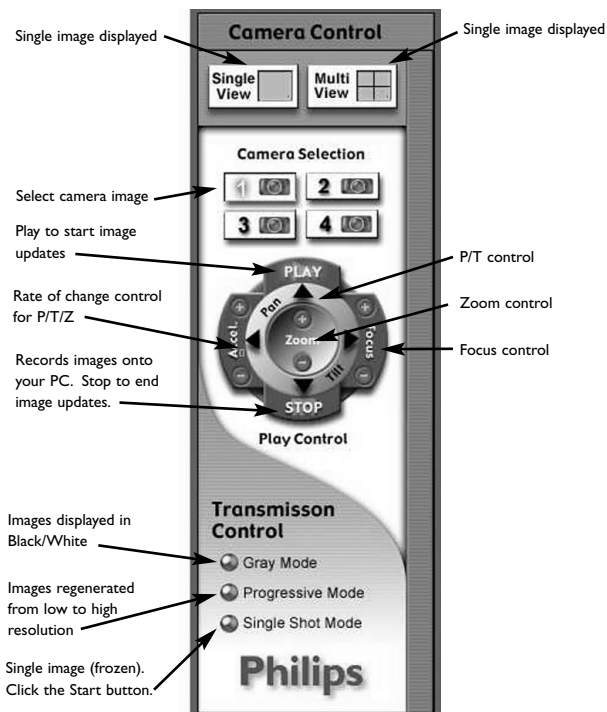
3.3.7 Real-time monitoring through normal viewer



Number of connected users

When more than 100 users, the 101st user cannot view images until another user logs out.

After Login, real-time images are displayed.





Resolution: You can choose 5 resolution levels.

Frame Rate: You can choose the transmission speed.

Extension: You can see images in different sizes 1X to 4X..



Download: Save the image file to the specified location.

Capture: Save a frozen image to file. You can also capture a still image by placing your mouse on the picture, click the right button of your mouse. Click the button 'Save As File'

To Home: Return to the Default viewer.

FAQ: Access the frequently asked questions information.

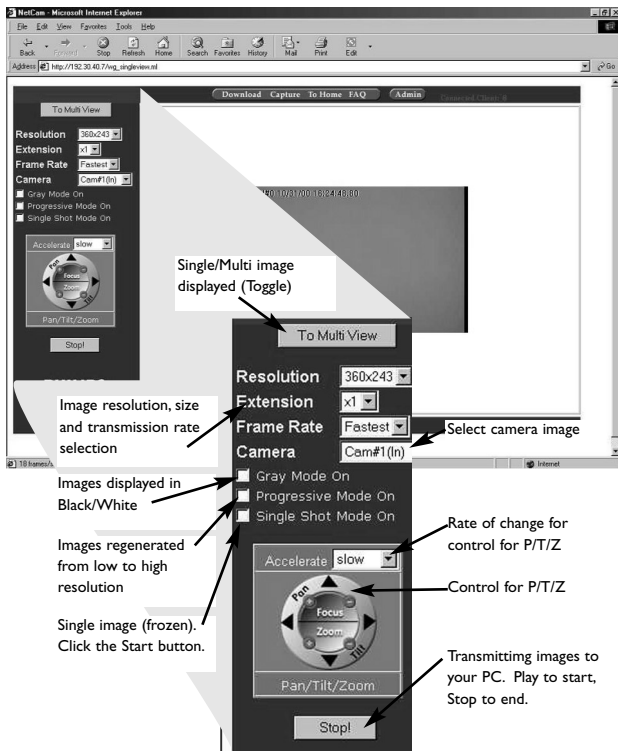
Admin: Access the administration options.

A screenshot of the 'Save As File' context menu. It lists four options: Image Info, Quality Box, Focus Sensitivity, and Image Quality, each with a right-pointing arrow. The 'Save As File' option is at the bottom and is highlighted.

- Image Info. ▶
- Quality Box ▶
- Focus Sensitivity ▶
- Image Quality ▶
- Save As File

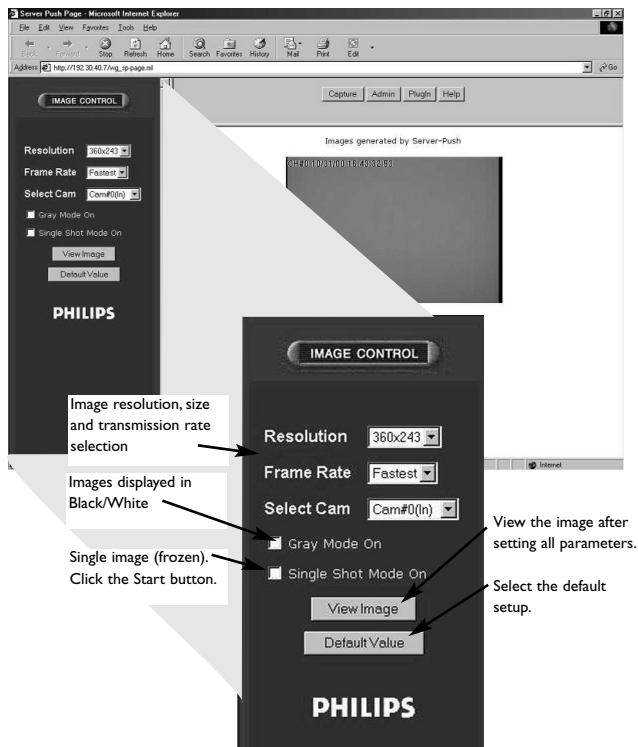
3.3.8 Real-time monitoring through simple viewer

The simple viewer has the same functional menus as normal viewer. It is designed for very simple images (normally no movement) so that its size is decreased dramatically to overcome low speed transmission. (There is no difference between normal viewer and simple viewer in transmitting real-time images).



3.3.9 Real-time monitoring through server-push viewer

If there is a firewall on the network where NetCam4 is connected, you can access the NetCam4 through the server-push viewer to monitor real-time images.



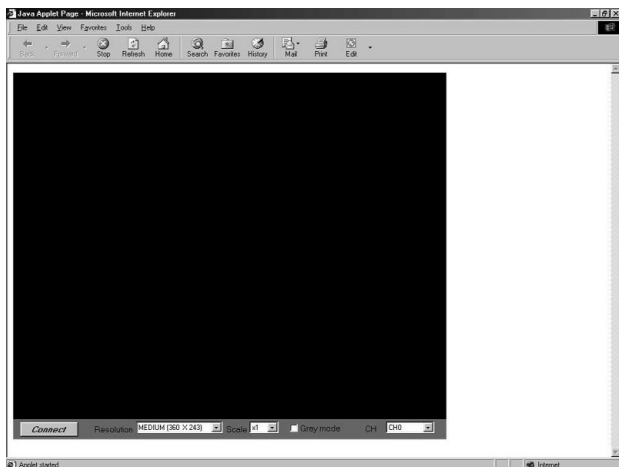
3.3.10 Real-time monitoring through java applet viewer

The Java applet viewer is for the users who access NetCam4 through a computer that does not utilize MS Windows OS such as a Macintosh computer, etc. Java applet viewer is run with java virtual machine that is installed on User's computer.

- Enter ID
- Enter Password

Name :

Password :

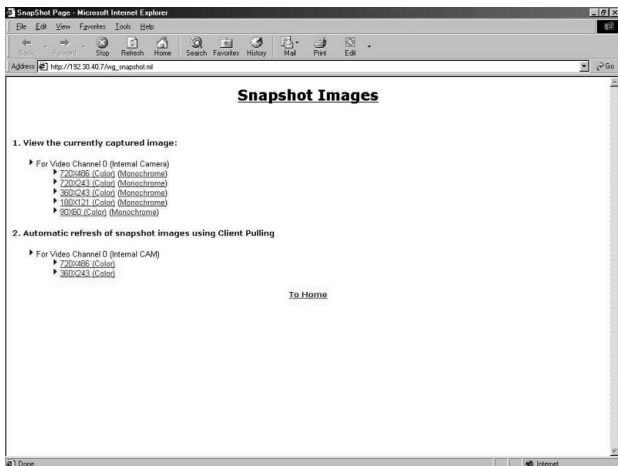


3.3.11 Real-time monitoring through snapshot viewer

Snapshot viewer allows you to view a frozen image before monitoring real-time motion pictures through the other viewers.

Only the video from the internal CCD (Ch0) or from the first external camera (Ch1, providing an external camera is connected) can be viewed.

There are two methods of snapshots. One is to view a single frozen image, the other is to view a changing image every 2 seconds (only available for video from internal CCD (Ch0)).



4 CONFIGURING ADMINISTRATOR'S OPTIONS

4.1 Login

The Administrator option allows system configuration. Access to the Administrator option is available in many ways.

Admin. ID :

Password :

Accessing through setup program

Click on MAC address of NetCam4. Key in the administrator's password and then click 'Start Configuration' button. When you click 'Start Configuration' button, the setup program automatically connects you to Admin page of NetCam4 Homepage. (For more detailed information, refer to Chapter V 'Assigning IP address and Configuring Administrator's Condition').

Accessing through Web browser

On the Web browser, key in IP address of NetCam4 that is being configured. At the login page, key in administrator's ID and password to access the Admin page.

The administrator may also access NetCam4 real-time image viewer, then access to Admin page clicking 'Admin' button.

Admin Menu

- System Configuration
- User Configuration
- Network Configuration
- Dynamic IP Registration
- Security Configuration
- Video Configuration
- Application Configuration
- PTZ Configuration
- Serial Port Configuration
- Digital IO Configuration
- Alarm Configuration
- Customizing.....

PHILIPS

Welcome To Administration Page

System UpTime : 0 Days, 0:13:14

Menu Features

System Configuration - controls the system facilities.	User Configuration - adds, modifies, deletes user authentication.
Network Configuration - assigns the network addresses such as gateway, broadcast, netmask, host, ...	Dynamic IP Registration- registers the IP address in the specified registration server.
Security Configuration - adds, deletes the secure IP addresses used in IP filtering.	Application Configuration - sets up FTP, E-mail applications.
Serial Port Configuration - sets up the serial port control parameters for PTZ.	Video Configuration - selects the video input and controls image quality, sets the quality box on the fly.
Digital IO Configuration - configures the IOI input port and output port and DIO control script.	PTZ Configuration - sets up Pan/Tilt/Zoom control parameters.
Alarm Configuration - configures the actions when an alarm event is active.	Customizing..... - changes the default settings

Both default administrator's ID and password are set as 'admin', and administrator may change them (max 9 characters) at the Admin page.

4.2 Configuring Administrator's Condition at Homepage

4.2.1 System Configuration

Set date & time, name, location, and description of your NetCam4. The model and serial number appear automatically.

Parameter Name	Parameter Value
NetCam Name	NetCam Name
Chassis Version	E104
Serial Number	W10300300005
S/W Version	2.2.5.1.1.0
Installation Location	Your location
Additional Description	Your description
Video Channel Selection for CAM#1	☒ INTERNAL(CH#0) ☐ EXTERNAL(CH#1)
NetCam Current Date&Time	2000-10-31 16:51:22 (yyyy-mm-dd hh:mm:ss)
System(PC) Current Date&Time	2000-10-31 16:51:18 Time Synchronization
Manual Date&Time Setting	2000-10-31 16:51:12 Time Synchronization
Administrator's Email Address	yours@your.org
Initializing Flash Information	Factory Setting
Rebooting NetCam	Rebooting
Confirm Reset Help	

Video Channel Selection for CAM#1: You may decide to use one external CCD camera connecting to the port of 'Ch1' in the rear of NetCam4 or use self-contained CCD module of NetCam4. Note that this menu is only for the first port in the rear of NetCam4 with name 'CH1'.

Date & Time: There are three date & time menus.

- 'NetCam4 Current Date & Time', the date and time set in NetCam4 appears.
- 'System(PC) Current Date & Time', the same date and time set on the administrator's PC appears. You may copy the system (PC)'s date and time into NetCam4 by clicking 'Time Synchronization' button.
- 'Manual Date & Time Setting', you may set date and time. To synchronize manually, set date and time with 'NetCam4 Current Date & Time' by clicking 'Time Synchronization' button.

Administrator's E-mail Address: Set the administrator's e-mail address.

Initialize Flash Info: The administrator initializes almost all the information saved on flash memory. However 'Date & Time', 'Model', and 'Serial Number' in 'System' menu, 'IP configuration' in 'Network' menu, and all items in 'Video' menu are not initialized.

Rebooting: If NetCam4 has any problem, you can reboot without switching off the power supply. This button works as on/off switch.



Rebooting

4.2.2 User Configuration

User ID	User Account	Password	Re-Typed Password	Access Rights
Administrator	admin	password	password	All
User 1	guest	password	password	None
User 2	guest	password	password	None
User 3	guest	password	password	None
User 4	guest	password	password	None
User 5	guest	password	password	None

Allows you to configure IDs and passwords of an administrator and 5 users. If you want to open your NetCam4 to everyone, you may not change IDs and passwords of users. However you should change administrator's ID and password with unique names (max. 9 characters).

It is possible to give and forfeit authorities for users to control pan/tilt/zoom and to control video with such conditions as quality options, QBOX settings, etc. Administrator has full authorities to give a certain user a right to control or not.

4.2.3 Network Configuration

You can set the IP address, Network Mask, Broadcast address, Gateway address, and DNS addresses. By clicking 'Get From Netmask' button after assigning the IP address and Network Mask address, the broadcast address is to set automatically.

Parameter Name	Parameter Value
DHCP Client Protocol	☐ Disable ☒ Enable
IP Address	192.30.40.7
Netmask	255.255.255.0
Broadcast Address	192.30.40.255 Get From Netmask
Gateway IP Address	192.30.40.254
Ethernet(MAC) Address	00:30:A1:00:11:E5
DNS1 Server IP Address	203.255.112.34
DNS2 Server IP Address	203.255.117.34
DNS3 Server IP Address	192.112.36.4
Confirm Reset Help	

When the addresses are not assigned properly, you cannot access NetCam4 remotely. Even on the local network, you are not able to access if you do not assign an IP address to NetCam4 properly.

If you activate the 'DHCP Client Protocol' menu, all the addresses are set automatically by the NetCam4 detecting them from the DHCP server of your ISP. The detected addresses are not seen on the screen.

4.2.4 Dynamic IP Registration Service for ISDN, XDSL Users

Parameter Name	Parameter Value
Auto IP Registration Function	☐ Disable ☒ Enable
Registration Server Address	www.yoursite.com
Registration Interval	3600 secs
Access Token	
Current Registration Status	Not Registered
Confirm Reset Help	

If you install the NetCam4 on the network with a dynamic IP address (floating IP address), you should register the NetCam4 to 'dynamic IP registration server' to give simple connectivity using the NetCam4 name set in the System Configuration menu. If not, no one can access your NetCam4 through the Web browser. This is because no one knows the IP address access of the NetCam4. Contact your re-seller for information.

4.2.5 Security Configuration

Parameter Name	Parameter Value
IP/Subnet Filtering Mode	☒ Disable ☐ Enable
	IP/Subnet Client Address 0 : 0.0.0.0 Allow
	IP/Subnet Client Address 1 : 0.0.0.0 Allow
	IP/Subnet Client Address 2 : 0.0.0.0 Allow
	IP/Subnet Client Address 3 : 0.0.0.0 Allow
	IP/Subnet Client Address 4 : 0.0.0.0 Allow
	IP/Subnet Client Address 5 : 0.0.0.0 Allow
	IP/Subnet Client Address 6 : 0.0.0.0 Allow
	IP/Subnet Client Address 7 : 0.0.0.0 Allow
	IP/Subnet Client Address 8 : 0.0.0.0 Allow
Image Encryption Mode	☒ Disable ☐ Enable
	Encryption PIN Number : XXXX
Confirm Reset Help	

You may temporarily disallow a registered user accessing to NetCam4. You can also change the access IP addresses. If you disable 'IP/Subnet Filtering Mode', anyone can access your NetCam4 through a Web browser with any PC.

You can restrict people from receiving images from your NetCam4, even though they can access it. If you enable 'Image Encryption Mode' and assign a pin number, users have to key in the assigned pin number to see the image after accessing NetCam4 image viewers.

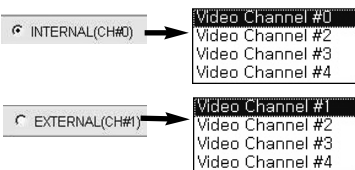
'Security Configuration' is a double-checking function to control accessibility, utilizing 'User Account Configuration' at the same time.

4.2.6 Video Configuration

You can configure each individual channel. Select 'confirm' for one channel to save the information before going to the next.

- Select the Video Channel for the NetCam4.
- Choose the video channels to configure. In the list, there are 4 video channels including 'Ch#0(Internal)' or 'Ch#1(External)', selected at 'System Configuration'.

- If you selected 'Ch#0(Internal)', you can configure video channels 'Ch#0, 2, 3, 4'.
- If you selected 'Ch#1(External)', you can configure video channels 'Ch#1, 2, 3, 4' here.



Video Channel State Control: You can decide whether to utilize video signal from selected channel in NetCam4. If you disable a channel with an external camera connecting to NetCam4, NetCam4 does not show any image from the channel. If you enable a channel without connecting an external camera to NetCam4, NetCam4 is interrupted and cannot transmit image properly.

Parameter Name	Parameter Value
Video Channel Selection	Video Channel #0
Video Channel State Control	☐ Disable ☒ Enable
Camera Color Type	☒ Color ☐ Black/White
Video Signal Type	☐ NTSC ☒ PAL
Calibration Parameters	Brightness : 0 (-127..127)
	Contrast : 0 (-127..127)
	Hue : 0 (-127..127)
	Saturation : 0 (-127..127)
	Horizontal Line Shift : -8 (-127..127)
	Vertical Line Shift : 0 (-127..127)
QBOX View Control	☒ Disable ☐ Enable
QBOX Parameters	LeftTop Placement : (226 , 88) readonly
	RightBottom Placement : (480 , 180) readonly
	Ambient Level : 3
Image Quality Level	9(Highest)
Camera Installation Angle	Normal
	Launch Image Viewer For Visual Monitoring/QBOX Selection
	Confirm Reset Help

Camera Color Type: You can define if external cameras are color cameras or B/W.

Signal Type: You can define the CCD mode, between 'NTSC' and 'PAL'.

Calibration Parameters: You can adjust the screen settings for brightness, contrast, hue, saturation, horizontal line shift, and vertical line shift.

QBOX View Control: If you want to see a specific area of the whole image, you can use the QBOX. An area is set as QBOX, outside this area the image is dark. QBOX has faster image transmission, by reducing data size.

QBOX Parameters: You set the QBOX area with a mouse by 'click and drag' in the 'Launch image viewer'. Selected area shown in 'Left Top Placement' and 'Right Bottom Placement' panels in figures. With the 'Ambient Level' menu, you set the quality level of the unfocused area in the image (out of the focused range). There are 5 levels. You set level 5 (Darker) to make unfocused area dark and increase the transmission speed.

Image Quality Level: You can choose image quality levels from 0 to 9. In level 9, NetCam4 sends the finest image, however, transmission speed will be reduced because of larger sized data. The image level inside the 'QBOX' remains at the same defined level.

Camera Installation Angle: NetCam4 can always show images in right angle. If NetCam4 is located on the wall upside down, you can adjust image angle by selecting '90 deg.' or '270 deg.'

Normal
90 deg
180 deg
270 deg

Launch Image Viewer: You can check the new settings. After changing the setup, you can see the change on the image viewer by clicking the 'Confirm' button. Launch the viewer before clicking the 'Confirm' button. This is useful when you change Calibration Parameters, QBOX Parameters, Image Quality Level, and Camera Installation Angle.



4.2.7 Application Configuration

Parameter Name	Parameter Value
Video Channel Selection	Video Channel #0
Recipient E-mail Address	
Sender E-mail Address	your@your.org
Check E-mail Options	☐ Use Relay Mail Server : mail.yoursite.com Content-Transfer-Type : Quoted Printable
E-mail Event Configuration	☐ Motion Detection ☐ Sensor Input Detection for Input Port 1 ☐ Sensor Input Detection for Input Port 2 ☐ Periodic Sending per 60 minutes Naming Method for the attached image file ☒ DATETIME suffix ☐ SEQNUM suffix ☐ Manually assigned filename Image Filename : IMAGE.EYE Select Image Resolution : 360x243
FTP Server Address	
FTP User Account	
FTP User Password	
FTP User Path	/
FTP Event Configuration	☐ Motion Detection ☐ Sensor Input Detection for Input Port 1 ☐ Sensor Input Detection for Input Port 2 ☐ Periodic Sending per 3600 secs Naming Method for the transferred image file ☒ DATETIME suffix ☐ SEQNUM suffix ☐ Manually assigned filename Image Filename : IMAGE.EYE Select Image Resolution : 360x243
Confirm Reset Help	

Select Video Channel: You select a video channel to configure. The four channels shown are the same as in 'Video Configuration'. Click 'confirm' to save one channel before going to the next.

Recipient & Sender E-mail Address: You designate a person to receive e-mail and another person to take care of the event. The e-mail will be delivered to the person who is defined in 'E-Mail Recipient'. The person who received the e-mail can send a message to a person who is defined in 'E-Mail Sender'.

Check E-Mail Options: Some ISPs are running e-mail servers only pass e-mails that have URLs such as abc@abcdefg.com. It is because there are a lot of spam or junk mail that do not have URLs. NetCam4 only uses IP addresses. To solve the problem, NetCam4 has a function to relay it's e-mail through an available e-mail server, which passes e-mail that has uses IP addresses. After activating 'User Relay Mail Server', you key in a server's URL such as '@abcdefg.com'. E-mail servers support file 'Quoted Printable' format, but other servers do not. In this case, you may select the format as 'Base64'.

E-Mail Event Configuration:

- Event source: You can define when an e-mail is delivered. Click on 'Motion Detection', and the e-mail is sent when motion is detected. Click on 'Sensor Input Detection for input Port 1', and the e-mail is sent when the sensor 1 detects an event. (To utilize sensor input detection, connect a sensor to NetCam4). Click on 'Periodic sending', and the e-mail is sent periodically at the preset time. You can define the interval.
- File name: You can choose how to name image files. Either a file with:
 - Date & time (DATETIME suffix).
 - Serial number (SEQNUM).
 - A fixed name (Manually assigned filename).
- Image quality: You can set the image's resolution that is delivered by e-mail.

FTP information: You assign FTP server address, FTP user account, FTP user password, and FTP user path to receive files when events occur.

FTP event configuration: You can set sending conditions for an FTP event. The setting methods for FTP are same as that for E-mail.

4.2.8 Pan/Tilt/Zoom Configuration

Parameter Name	Parameter Value
Video Channel Selection	Video Channel #0 ▾
PanTilt Function	☒ Disable ☐ Enable
Zoom Function	☒ Disable ☐ Enable
Select Serial Port	1-RS232C ▾
Serial Port Base Address	0
Confirm Reset Help	

Video Channel Selection: You select a video channel to control pan/tilt/zoom. The four channels shown are same as seen in 'Video Configuration'.

Pan Tilt Function: You define pan/tilt control on (Enable) or off (Disable).

Zoom Function: You define zoom control on (Enable) or off (Disable).

Select Serial Port: You select an interface that satisfies a receiver (controller) box. NetCam4 has two interface options. RS232C interface or RS485 (Half-Duplex) interface. Refer to connection figures for details.

Serial Port Base Address: You may connect more than 2 pan/tilt/zoom receivers (controllers) to Serial #2 (RS485 (Half-Duplex)). In this case, you should configure the receiver's (controller's) address to control each pan/tilt/zoom respectively. You may also use a receiver (controller) for all 4 channels. In this case, every pan/tilt driver or zoom lens of the 4 channels will move in the same way.

4.2.9 Serial Configuration

Serial Port Selection: You select a serial port to configure. NetCam4 has two serial ports. Serial #1 is a RS232C interface port, and Serial #2 is a RS485 (Half-Duplex) interface port.

Select Attached Device: User selects a communication protocol that an attached external device uses. You may use any pan/tilt that satisfies the listed protocols.

Parameter Name	Parameter Value
Serial Port Selection	Serial#1 ▾
Port Device Name	1:RS232C
Select Attached Device	Manual Setting ▾
Control Parameters	Baud Rate : 19200 bps ▾
	Stop Bits : 1 bit ▾
	Data Bits : 8 bits ▾
	Parity Check : NONE ▾
PTZ Left CMD	
PTZ Top CMD	
PTZ Right CMD	
PTZ Bottom CMD	
PTZ Home CMD	
PTZ Zoom In CMD	
PTZ Zoom Out CMD	
PTZ Focus Far CMD	
PTZ Focus Near CMD	
Confirm Reset Help	

Control Parameters & PTZ CMD: If you want to a device for which protocol is not listed, you should select 'Manual Setting' at 'Select Attached Device' and configure it manually at 'Control Parameters'. For pan/tilt/zoom, you also has to configure the protocol at the 'PTZ CMD' menus. 'PTZ CMD' configuring methods are different depending on models and manufacturers. Philips will continuously provide 'PTZ CMD' configuring information on models that are demanded in the market. If you have to use a pan/tilt/zoom whose protocol is not listed nor information is provided, contact Philips.

4.2.10 Digital I/O Configuration

You can configure digital input/output states and control script. NetCam4 sends e-mails or/and files when connected external sensors detects an event.

Parameter Name	Parameter Value
Active State for Input Port 1	☒ Low Signal ☐ High Signal
Current Status for Input Port 1	De-Active State
Active State for Input Port 2	☒ Low Signal ☐ High Signal
Current Status for Input Port 2	De-Active State
Active State for Output Port 1	☒ Open ☐ Close
Current Status for Output Port 1	De-Active State
Status Control for Output Port 1	De-Active
Active Condition for Output Port 1	None Active Duration : 0 secs
Confirm Reset Help	

Active State for Input Port 1 and 2: You define the active state of connected input devices such as infrared sensors. Active states of digital devices may differ depending on items or models (select between 'Low' or 'High')

Current State for Input Port 1 and 2: NetCam4 shows the current state of the two connected digital devices. Their states are defined at 'Active State for Input Port 1 and 2' menus.

Active State for Output Port 1: You define the active state of a connected digital device on the output port such as an electronic locker or a switch. Active states of digital devices may differ depending on items or models (select between 'Open' or 'Close').

Current State for Output Port 1: NetCam4 shows the current state of the digital device connected to an output port. Its state is defined at 'Active State for Output Port' menu.

Status Control for Output Port 1: You can control an external device that is connected to the output port. After defining the active state of the device at 'Active State for Output Port 1', you control the device.

Active Condition for Output Port1: You define the active conditions for an external device such as a electric light that is connected to the output port. After defining the active state and controlling status of the device, you define the active conditions from the internal S/W motion detection (MD Event), two external sensors (SID1 & SID2 Event). The 'Active Duration' menu is to set the period of time to activate the external device after detecting an event. If the event lasts for a long period, the NetCam4 activates the device for preset time after the last event detection.

4.2.11 Alarm Configuration

Parameter Name	Parameter Value		
Motion Detection Threshold	300 (0 .. 900)		
Alarm Parameters for E-mail/FTP Application	MD Event	before	Saving 0 Image(s) during 1 sec(s)
		after	Saving 0 Image(s) during 1 sec(s)
	SID1 Event	before	Saving 0 Image(s) during 1 sec(s)
		after	Saving 0 Image(s) during 1 sec(s)
	SID2 Event	before	Saving 0 Image(s) during 1 sec(s)
		after	Saving 0 Image(s) during 1 sec(s)
Confirm Reset Help			

Motion Detection Threshold: You set the threshold for the motion detection function. Threshold '0' is the most sensitive state and '900' is the least sensitive state.

Alarm Parameters for E-mail / FTP Application: You define the image-recording parameters for the NetCam4. If NetCam4 detect events through motion detection function (MD Event) or external sensors (SID1 & SID2 Event). NetCam4 can record 2 frames for 2 seconds before the event and 2 seconds after the event. Its maximum recording rate is 1 frame per second. NetCam4 records the images to send them through E-mail or FTP. If an event lasts long, NetCam4 sends the images by not duplicating regardless of the overlapped time setting.

4.2.12 User Custom Configuration

Parameter Name	Parameter Value
Web Server TCP Port	80
Video Server TCP Port	8080
Select Main Page	Default Single Viewer
Main Title	Your title text
LOGO Image Source URL	/images/logo.jpg
LOGO Image Link URL	http://www.yoursite.com
Background Color	#FFFFFF
Foreground Color	#000000
Confirm Reset Help	

Web Server TCP Port: You assign the TCP port of the NetCam4 through which people can access the NetCam4 and which the NetCam4 sends data. Normally, 80th port is assigned as a Web Server TCP port.

Video Server TCP Port: You assign a port through which the NetCam4 transmits images. Normally, 8839th port is assigned as a video server TCP port.

Select Main Page: You assign a viewer as a main page to show real-time images. You can select from 6 different viewers:

- Default Simple Viewer
- Default Multi Viewer
- Simple Single Viewer
- Simple Multi Viewer
- Normal Single Viewer
- Normal Multi Viewer

Single Viewer is to show image from Ch#0(Internal) and Multi Viewer is to show all images from 4 channels.

Default Viewer editing: 'Default Viewer' is designed for users to easily edit. You can edit:

- **Main Title:** You can change the title that is at the bottom of the default viewer.

- Logo Image Source URL: You designate a URL of a site from which you can obtain a logo. A space on the left top of the viewer is available.
- Logo Image Link URL: You can link the logo to a defined web page. You can link the logo to a company homepage or a personal page.
- Background Color and Foreground Color: You can change the default viewer background colors. You can set the color with RGB values.

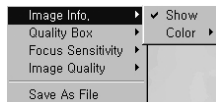
To save the changes, you click 'Confirm' button at every page.

5 CONVENIENT FUNCTIONS OF MOUSE

A small window of 5 functions appears when you click the right mouse button in the video picture. Users who have the authorities can use functions such as 'Image Info', 'Quality Box', 'Focus Sensitivity', and 'Image Quality'.

1 Video Information Setting

This page is to change the color of the time shown on the left top of the image, or hide the time.



2 Configuration of High Qualified Image Area (Focusing Area)

You can overcome the insufficient network bandwidth with this function. Click the right button of your mouse at any place on the picture.

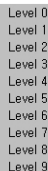


If you want to set a new focusing area, you choose 'New QBOX' button. First you place and click your mouse where you want to start and then click again where to stop. You can also use an existing area to focus again by clicking 'Enable QBOX'. 'Disable QBOX' is to finish.

You may set the quality of the out of focused area with 'Ambient Level'. If you select 'Level 1', the quality is similar to focused area. If you select 'Level 5', the image of the out of focused area is shown as dark.

3 Focus sensitivity

When you use zoom lens on the NetCam4, you can configure the moving range for each mouse click. The sensitivity is from Level 0 to Level 9. By selecting 'Level 9', you zoom in or out at the largest range.



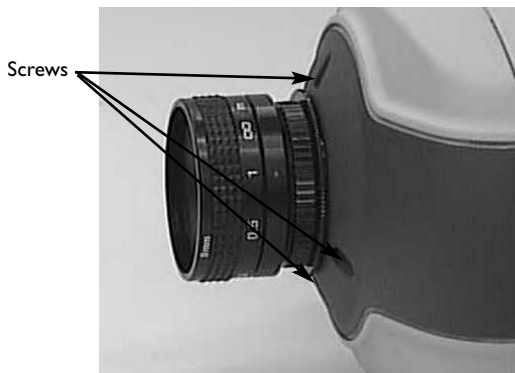
4 Image quality

You set the image quality of the complete image per channel. If you choose 'Level 9', the NetCam4 sends the finest image. However, transmission speed will be reduced because of large sized data. If you choose 'Level 0', the NetCam4 sends lowest quality image but fast.

5 Save File As

You can save a still image from real time images. A still image can be saved as a Wavelet method file (*.eye) or bitmap (*.bmp) file format. Wavelet compression image file can be decompressed and reproduced on Internet browsers such as Netscape or Explorer.

6 ADJUSTING FOCUS



- 1 First, adjust focus of the NetCam4 by turning the front focus ring of the lens.
- 2 If you cannot focus with the lens, loosen the three screws in the rear focus ring.
- 3 Setting the lens at the middle range, focus by turning the rear focus ring.
- 4 When you have focused, tighten the three screws.
- 5 Complete the focus by turning the front focus ring of the lens.

