EQN2200/2201

User's Manual

EverFocus®

Product Name: EQN2200/2201 EverFocus Network Cameras

Model Number(s): EQN2200/2201

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

EverFocus Electronics Corp.

12F, No. 79, Sec. 1, Shin-Tai Wu Rd., His-Chi,

Taipei Hsien, Taiwan, R.O.C.

EQN2200/2201 complies with CE and FCC rules.

About this document

All the safety and operating instructions should be read and followed before the unit is operated. This manual should be retained for future reference. The information in this manual was current when published. The manufacturer reserves the right to revise and improve its products. All specifications are therefore subject to change without notice.

Safety Notices

-These limits are designed to provide reasonable protection against interference. This equipment may generate, 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 these separations 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.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

⚠ To reduce risk of fire or electric shock, do not expose this camera to rain or moisture.

⚠ Do not attempt to disassemble the camera.   To prevent electric shock, do not remove screws or covers.   There are no user-serviceable parts inside.   Contact qualified service personnel for maintenance. Handle the camera with care. Do not strike or shake, as this may damage the camera.

⚠ Do not use strong or abrasive detergents when cleaning the camera body. Use a dry cloth to clean the camera when it is dirty.   When the dirt is hard to remove, use a mild detergent and wipe gently.

⚠ Do not operate the camera beyond its specified temperature, humidity or power source ratings. Do not use the camera in an extreme environment where high temperature or high humidity exists. Use the camera at temperature within 0℃ ~ +40℃ / 32F~ 104F and a humidity below 90%. The input power source for this camera is 12 VDC & 802.3af PoE.

⚠ Use only the recommended power supplies. Power supplies must comply with the requirement of the latest version of IEC60950-1. Substitutions may damage the unit or cause a fire or shock hazard.

⚠ Electrostatic-sensitive device. Use proper CMOS/MOSFET handing precautions to avoid electrostatic discharge.

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

Terms and Trademark

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Support

If the unit ever needs repair service, the customer should contact the nearest EverFocus Electronics Corp. Service Center for return authorization and shipping instruction.

About this AC Adaptor

Specifications for AC adaptor

Power Supply: 5VDC, 2 A

Power Output: 5VDC, 2 A

Operating Temperature: 0℃ ~ 40℃ / 32F ~ 104F

External Dimensions: 56.5 mm x 37.5 mm x 27 mm / 2.23" x 1.48" x 1.06"

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1. INTRODUCTION

EQN2200/EQN2201 is a 2 Megapixel network camera which has a highly compact housing design but superior image quality with up to 30fps in 720p resolution.
For easy and flexible installation, EQN2200/EQN2201 offers the choice of either a wireless or a wired connection to the network.
EQN2200/EQN2201 also provides two-way audio support with built-in microphone and speaker, allowing remote listening in on an area, as well as communication with individuals directly or using uploaded or recorded audio clips.

Using a network resolves many of the limitations that exist for installing and using conventional analogue cameras, to greatly expand your business opportunities through Zero Distance Management.

2. FEATURES

- 2 Megapixel Image Capture (Max. Resolution : 1600x1200)
- Built in H.264 and M-JPEG dual stream output at 720p image size with up to 30fps
- Integrated fix focus wide angle lens (4.3 mm), adjustable focus
- Full Screen Monitoring
- Two-way Audio Capability
- Built-in Microphone & Speaker (optional)
- Image Transfer by Motion Detection, Digital I/O
- Smart wizard event management
- Plug-and-play Installation
- Image Date and Time Stamp
- Built-in 802.11g/b Wireless (EQN2201)
- PSIA/ONVIF compliant

3. SPECIFICATIONS

MODEL	EQN2200: wired interface
	EQN2201: wired and wireless interface
CAMERA	
Pickup Device	1/3" progressive scan CMOS sensor, 2 Megapixel
Lens	4.3mm/F=1.8
Sensitivity	2 Lux /F=1.8
VIDEO STREAMING	
Video Compression	H.264/M-JPEG
Video Resolution	1600x1200 to 160x120
Frame Rate	1600x1200@10fps, 1280x960@15fps, 720p lower @ 30fps
AUDIO	
Microphone & Speaker	Built-in (optional)
Operation Mode	Two-way audio
NETWORK	
Interface	10Base-T/100Base-TX auto-negotiation, RJ-45 socket
	Support MDI/MDI-X auto crossover function
	Built-in IEEE 802.11b/g WLAN (for EQN2201)
Supported Protocols	HTTP, TCP / IP, UDP, RTP, RTSP, FTP, SMTP, DHCP, DNS, DDNS, NTP, ONVIF, PSIA
TERMINAL I/O	
Alarm Input/Output	1/1
EVENT MANAGEMENT	
Event Trigger	Alarm Input, Manual Trigger, Motion Detection
Notification	Trigger alarm output, Send mail notification, Upload video to FTP and Network alarm
POWER	
Power Supply	5VDC
Power Consumption	EQN2200: 3.5W Max.
	EQN2201: 4W Max.
PHYSICAL	
Weight	140g / 0.31lbs
Dimension	97 (H) x 66 (W) x 55 (D) mm / 3.8" x 2.6" x 2.2"
ENVIRONMENTAL	
Operating Temp.	0°C ~ 40°C / 32°F ~ 104°F
Humidity	< 90% not condensing

4. ACCESSING THE CAMERA MENU

Step 1.Start an Internet Explorer browser session.

Step 2. Enter the IP address or host name of the camera in the

Location/Address field of your Internet Explorer browser in the form

http://nn.nn.nn.nn:port, or http://ddnsname.everfocusddns.com. (Please refer to

EQN2200/2201 Installation Guide for how to find the IP address by using the IP

Finder)

Step 3. At the login popup window enter "Username" and "Password". Default

Username is "user1" and default password is "11111111".

Step 4. Click "Login" button.

Step 5. You might be required to download Active X files, which are required to

process camera video. Please click "Yes".
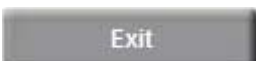
Step 6. Congratulations!! You should now be able to see the live image.

① Press [Live] button to display the "Live" page.

Double click on the image to show a full screen display, double click again or press

ESC to return to the normal display.

② Press   button to enter the camera Setting page. In the Setting page, there are 8 sections: [System Info], [User Config], [Network], [Video], [Audio], [User], [Event] and [System]. Please refer to "Section 5.Setting" for further information.

③ Press   Exit   button to close the EQN2200/2201 network page.

④ Video Stream

Video Stream
H.264

Select the desired Video Stream from H.264 and MJPEG. Please refer to "Section 5.4.1 Video Streaming" for further information.

⑤ View Size

View Size
800x608

You can select View size to either reduce or enlarge the image to the appropriate size.

Select the view size for live images from:
1600x1200/1280x920/1280x720/1024x768/800x608/640x480

⑥ Digital Zoom

Digital Zoom

Press "+" or "-" button to magnify / reduce the displayed image. (max. is X10) Clicking on a magnified image will re-center the image around that point.
A smaller picture pops up at the lower-right side. To zoom in or out on a different area of the scene, press and hold the left button of mouse anywhere in the picture, and then move the mouse in any direction. A red frame inside the smaller picture indicates which part of the video is working on.

⑦ Record

The record button is used to record the current video stream. The location where the image file is saved can be specified in Setting -> User Config. Please refer to "Section 5.2 User Config" for further information. The "Record" icon turns into red when it is recording.

Note: Record segment is unlimited, but if switch to another page, recording process will stop automatically.
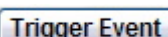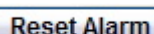
⑧ Snapshot

The Snapshot button saves a .jpg image of the video image currently being displayed with excellent quality. The location where the snapshot data is saved can be specified in Setting -> User Config. Please refer to "Section 5.2 User Config" for further information.

⑨~ ⑩ Play Audio/Transmit Audio

Click the "Play Audio" and "Transmit Audio" buttons to switch the sound off and on for the audio input and output, respectively.

⑪ Manual Control – Trigger Event   Trigger Event
Press "Trigger Event" button to trigger an event directly from the live view page, and event actions will be initiated if they have been set up in the "Event" menu. (Please refer to "Section 4.7.1 Event")

⑫ Manual Control – Reset Alarm   Reset Alarm
Press "Reset Alarm" button to reset an alarm condition remotely.

⑬ Status Display
The name of the camera currently being viewed, current date/time and current frame rate will be displayed.

*Note: Date/Time format is configured under user config.*

⑭ Event signals

When an alarm or motion event is triggered, a signal icon will flash to alert the user. The first icon is for alarm events and the other 5 icons are for motion events. The motion event icons, which differ by color, correspond to the motion trigger areas set in the Motion menu. Please refer to "Section 5.7.2 Motion" for detailed information about Motion setup.

Alarm   Motion
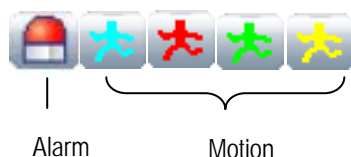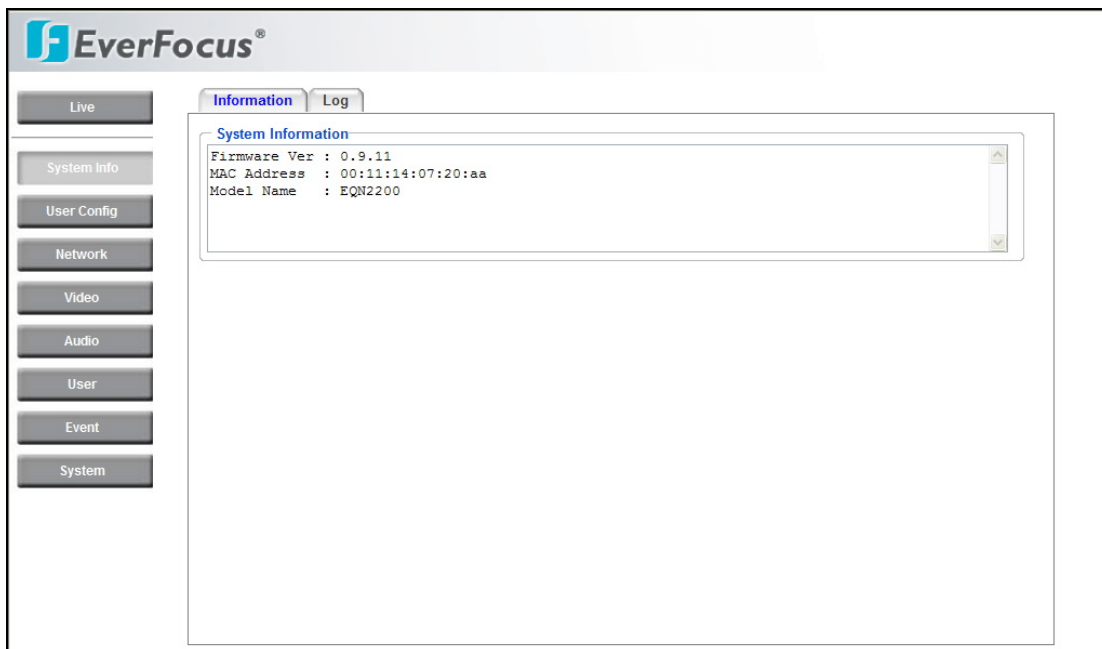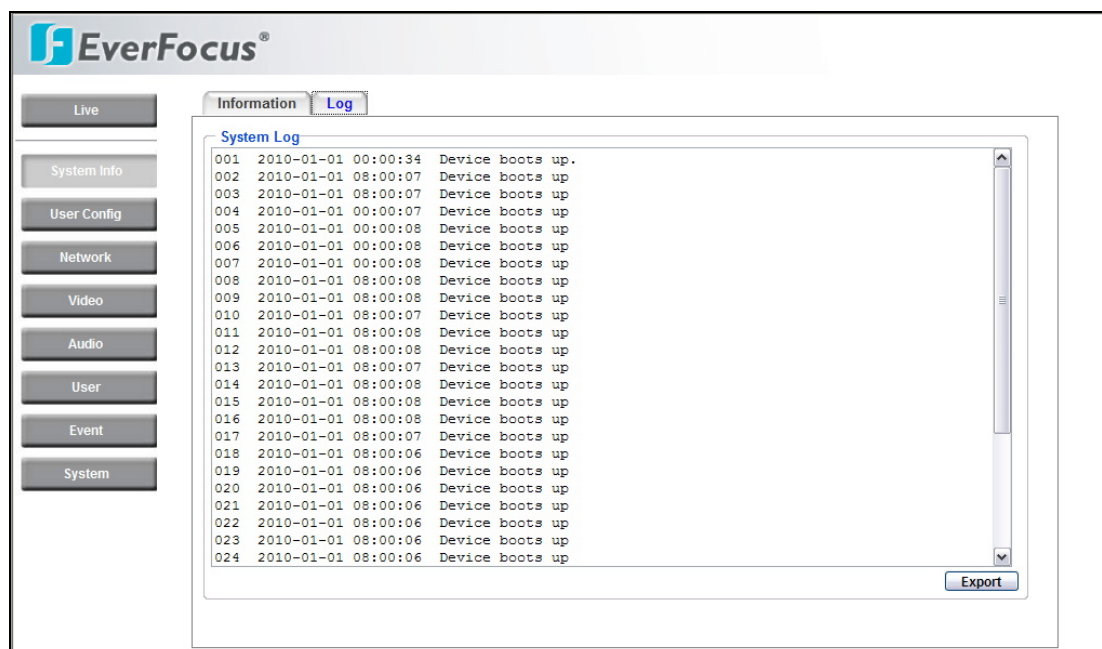
5. SETTING

Click this button to display the camera setup menu.
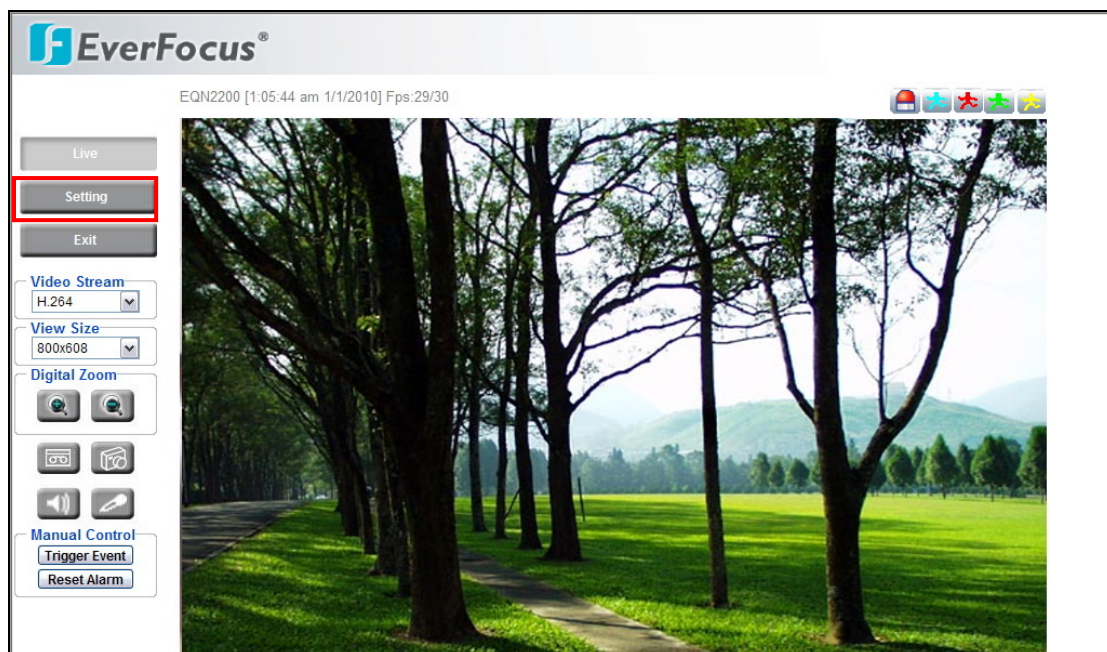
5.1 System Info

System information and system log events can be accessed on this page via 2 tabs: [Information] tab and [Log] tab.

5.1.1 Information Tab

System Information: Firmware version, MAC address and Model number. (this data may not be changed in this page and is for reference only)

5.1.2 Log Tab
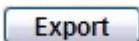
System Log:
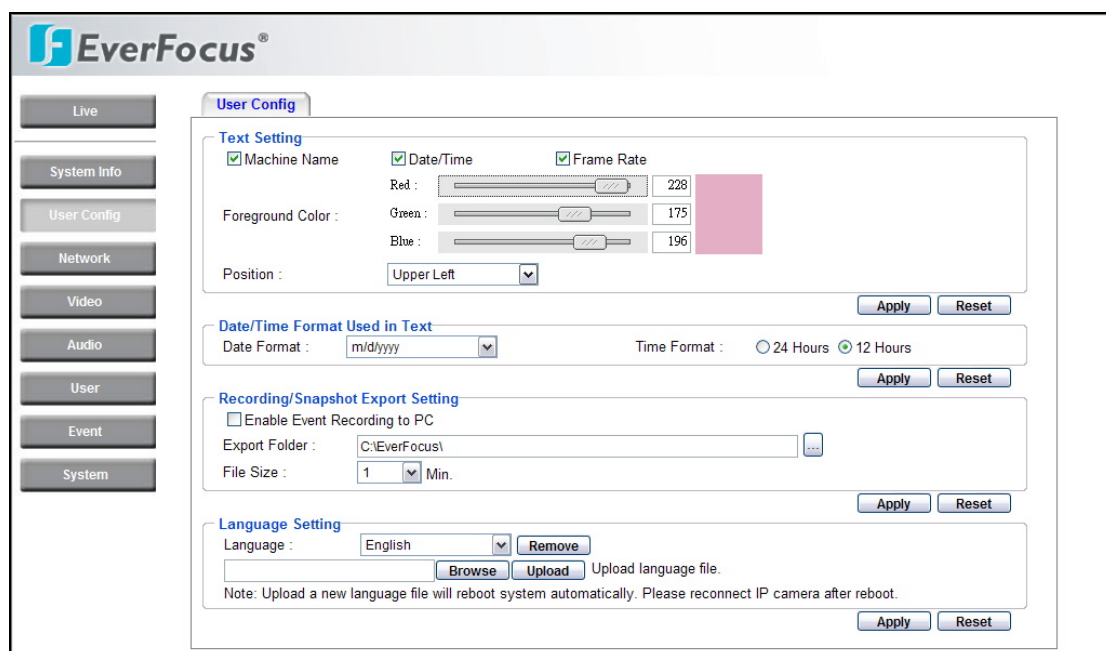
Date/Time: displays date and time of the log event.

Log message: all information and event message, including login, user's IP, reboot, firmware upgrade, load factory default, configuration reset and event detected. System will keep the newest 256 records.

Press [Export] button to export the system log into a ".txt" file and select the location where the exported log file will be saved.

5.2 User Config

The configuration and operation of the Live View screen can be changed based on the login user ID. The settings which can be customized for each of the 10 possible login IDs are:

Text Setting

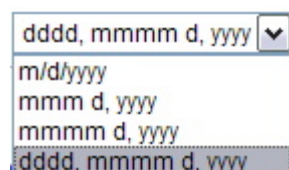Check the box to enable display of the **Machine name**, **Date/Time** or **Frame Rate** on the screen.

Foreground Color: Select the foreground color of text to be displayed by moving the slide bar between **Red**, **Green** and **Blue** until the desired color is obtained.

Position: Select the position where the text will be displayed: Upper Left / Lower Right / Lower Left.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the changes.

Date/Time Format Used in Text

Select Date/Time Format from the following options:

dddd, mmmm d, yyyy ▼
m/d/yyyy
mmm d, yyyy
mmmm d, yyyy
dddd, mmmm d, yyyy * day of week, Month, date, year

Time Format: choose between 24 Hours or 12 Hours.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

Recording/Snapshot Export Setting

Enable Event Recording to PC: Allow event video recorded to users' PC if any events have been set to record to PC.

Export folder: Select Export folder by clicking on ⎡...⎤ button, then direct to the folder to be exported.

File size: Set the limit for the size of the single recording file in minutes. When the single recording file size exceeds the time you set, the system will create a new file to continue recording.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the changes.

Language Setting

Language: Select the language to be displayed in web page. Default language is English. To add a new language which is not listed in the original configuration, press the **Browse** button to locate the new language file (.evb) and then click the **Upload** button. To remove a language from the list, select the language and press the **Remove** button.

> **Note:**
>
>   1. All languages can be removed, except English.
>   2. A maximum of five languages can be added in the language list.
>   3. Uploading a new language file will reboot the system automatically.
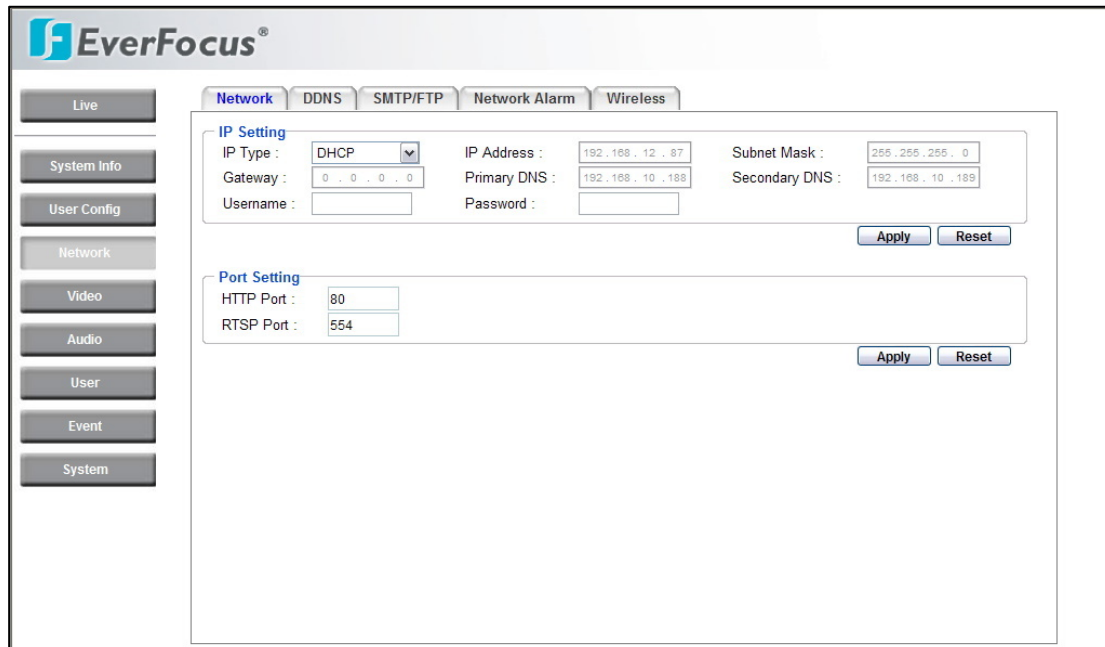>   Please reconnect to the IP camera after reboot.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

5.3 Network

The network settings and the settings relating to DDNS, Bandwidth, SMTP/FTP and Network Alarm can be configured on this page.
The "Network setup" page has 4 tabs: [Network] tab, the [DDNS] tab, the [SMTP/FTP] tab, the [Network alarm] tab and the [Wireless] tab.

5.3.1 Network

The following information is required to configure the network settings. Contact the network administrator or your Internet service provider.

IP Settings

• IP Type

• IP address

• Subnet mask

• Gateway (when using the gateway server/router)

• Primary DNS, Secondary DNS (when using DNS)

IP Type

DHCP: Configure the DHCP server not to assign the same IP addresses used for the other network cameras and PCs whose IP address is unique.
Refer to the network administrator for the settings of the server.
Default: DHCP.

Static IP: User can manually set the static IP for network connection.

PPPoE: This is for a DSL DIRECT connection application; the ISP will require a user name and password. (That is, if a single camera is connected directly to the DSL modem.)

> *Note*: *If PPPoE is used as IP type, IP Utility software will not be able to detect the device.*

IP address

When not using DHCP, enter the IP address of the camera. Avoid address conflicts; do not enter an IP address already used for a PC or other network cameras. Every device on an IP network must have a unique IP address.

Subnet Mask

This field is to set the netmask for your network so as the IP camera will be recognized within the network. Example: 255.255.255.000 typical for a Class "C" network. When DHCP is selected, the DHCP server will assign this value automatically.

Gateway

This field is to set the gateway for your network so the IP camera will be recognized within the network. When DHCP is selected, the DHCP server will assign this value automatically.

<u>Primary DNS</u>

An IP address of DNS server that is provided by ISP. This address may be assigned automatically if DHCP is used.   A correct DNS IP is essential if DDNS will be used.

<u>Secondary DNS</u>

If your ISP provides you an IP address secondary DNS, please set it here.

<u>Username</u>

Enter User name of the account (used only for PPPoE).

<u>Password</u>

Enter Password of the account (used only for PPPoE).

<u>Port Settings</u>
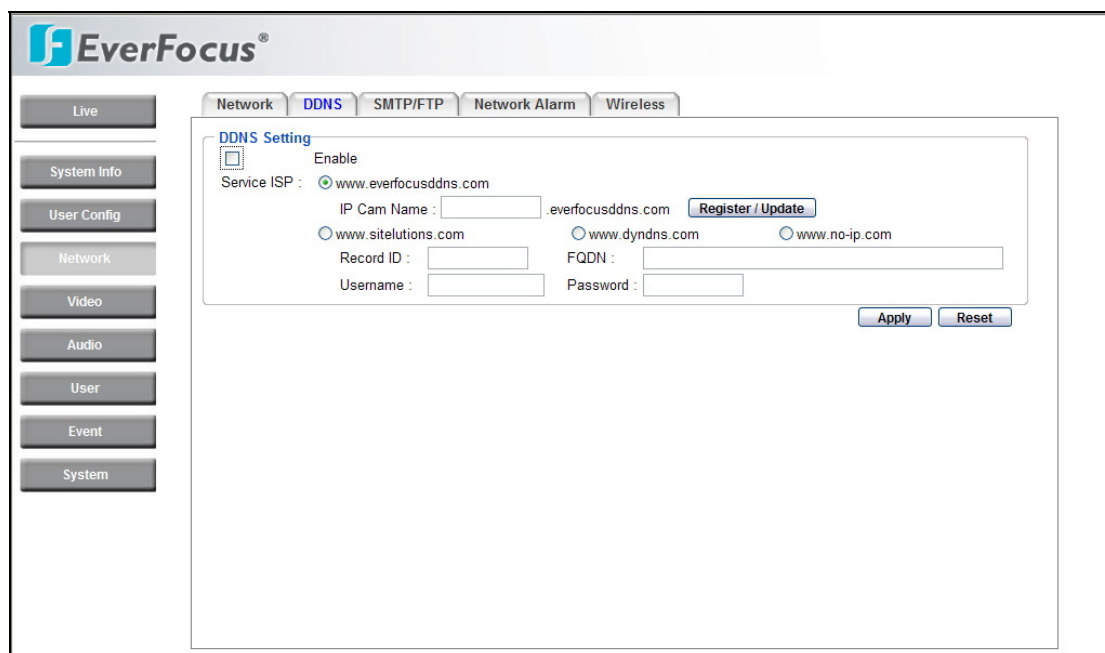
<u>HTTP Port</u>

Enter HTTP port number.

<u>RTSP Port</u>

Enter RTSP port number.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

5.3.2 DDNS

DDNS setting

When accessing the camera via the Internet in a network environment where the site IP address is obtained using DHCP, the DDNS function is necessary.
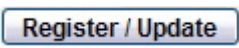To use the DDNS function, it is necessary to connect to the dedicated DDNS server. We support 4 DDNS server providers as follows:
○ www.everfocusddns.com
○ www.sitelutions.com
○ www.dyndns.com
○ www.no-ip.com

Enable: Check the box to enable DDNS setting.

Service ISP: If you choose EverFocus DDNS server, you can easily register a DDNS name and obtain free DDNS services from EverFocus at "www.everfocusddns.com".

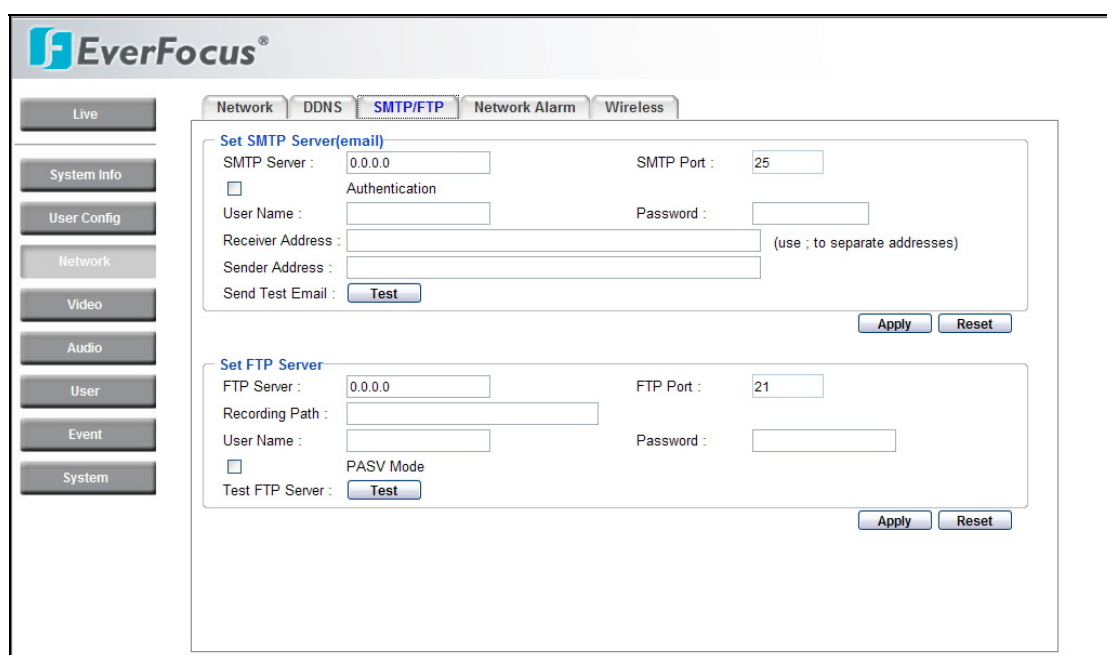Enter an IP Cam Account Name: _____.everfocusddns.com
Press [Register / Update] button to register or update DDNS account.

If you wish to get a domain name from another DDNS provider, it may be

necessary to configure Record ID, FQDN, Username and password and register in advance for DDNS services. Refer to the web site for further information about the DDNS provider.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

5.3.3 SMTP/FTP

Set SMTP

The settings relating to the mail server used to send the e-mail notification from the camera to predefined addresses via SMTP can be configured.

SMTP Server: Enter the IP address or the host name of the SMTP server used to send e-mails.

SMTP Port: Enter the port number for SMTP. Default is 25.

Authentication: Check the box if the SMTP server requires Authentication (user/password).

User name: Input the login user ID if the SMTP server requires Authentication.

Password: Input the password if the SMTP server requires authentication.

Receiver Address: Input the e-mail address to receive an e-mail message when the EVENT is enabled and triggered. Please use "**;** " to separate address.

Sender Address: Input sender's e-mail address, so that receiver can recognize the sender when an event message is sent out.

Send Test Mail: Press [Test] button to send a test e-mail to the designated address.

<u>Set FTP</u>

The settings relating to an FTP server to be used to receive alarm images can be configured.

FTP Server: Enter the IP address or the host name of the FTP server.

FTP Port: Enter the port number for FTP server. Default is 21.

Recording Path: Assign the recording path.
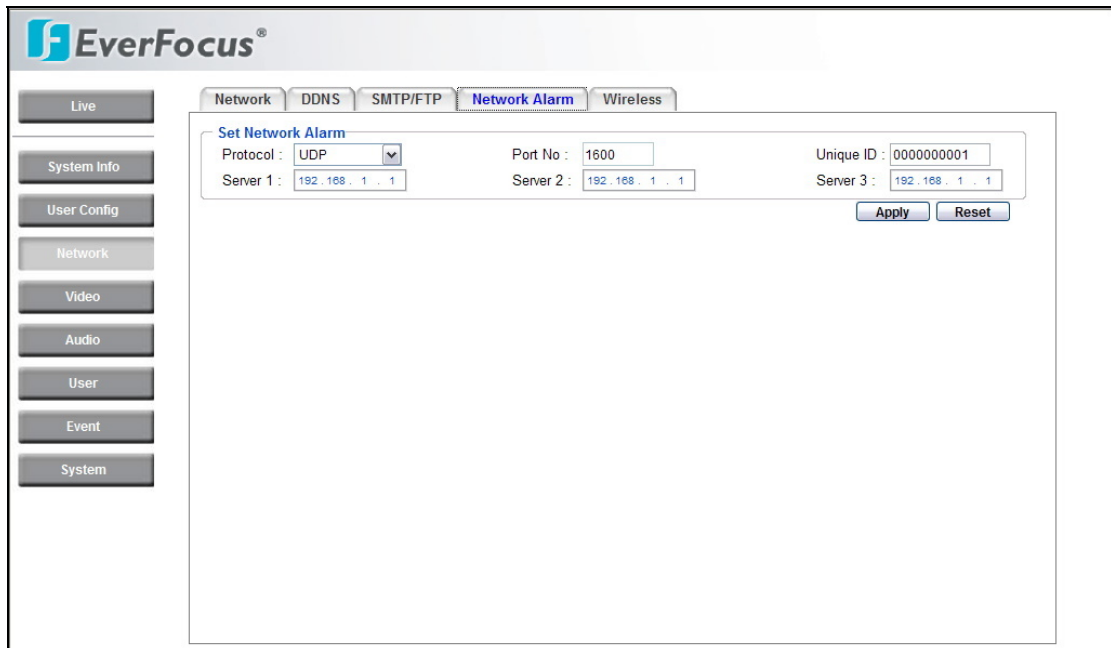
User Name: Set FTP User name.

Password: Set FTP password.

PASV mode: Check to enable Passive mode (most sites normally require Passive mode). If unable to establish a connection, uncheck "PASV" mode.

Test FTP Server: Press [Test] button to send a test file to the designated FTP server.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

5.3.4 Network Alarm (reserved for PowerCon)
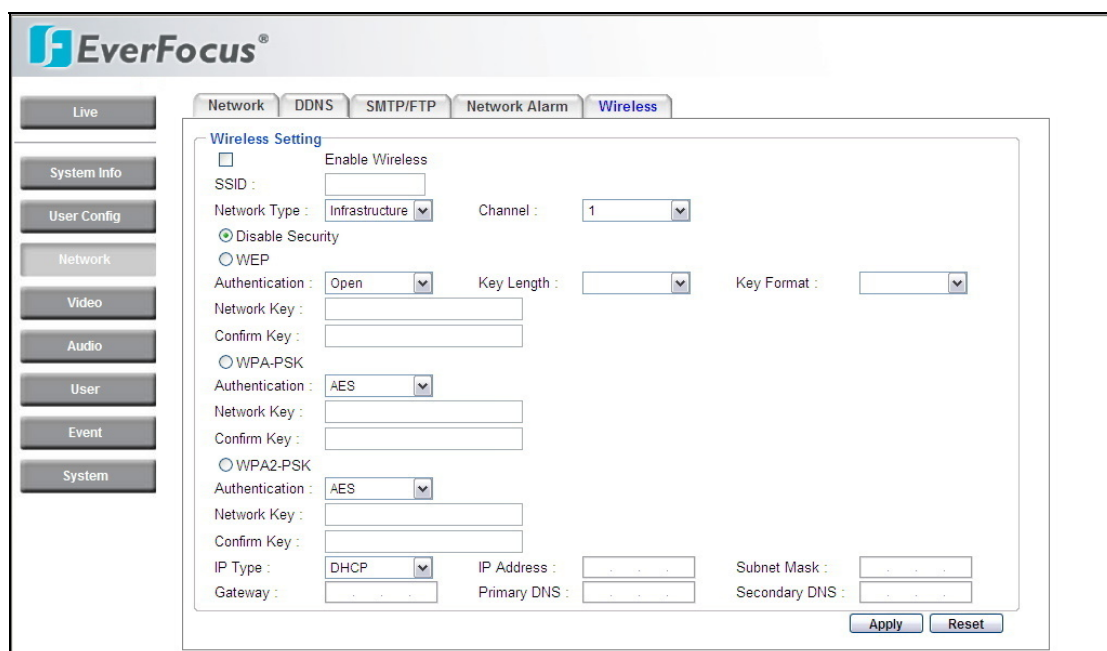
Set Network Alarm

This function is reserved for PowerCon software, for the details regarding these settings please refer to the documentation for the PowerCon network alarm protocol.

5.3.5 Wireless (For EQN2201 only)

Wireless Setting

Enable Wireless (Default: disable)

SSID: Name of the wireless network the camera is configured for. The field accepts up to 32 alphanumeric characters. The name must be exactly the same as the one used in the wireless access point or the connection will not be established.

Network Type: Infrastructure or Ad-Hoc (Default: Infrastructure)
-"Infrastructure" makes the Network Camera connect to the WLAN via an Access Point.
-"Ad-Hoc" makes the Network Camera connect directly to a host equipped with a wireless adapter in a peer-to-peer environment.

Channel: Shows the wireless channel currently in use. (Default: 1)

Disable Security: Check the box to disable Security

◆ **When selecting WEP:**
WEP (Wired Equivalent Protection) key should follow either one of the following rules:
- As 5 characters for 64-bit WEP and 13 characters for 128-bit WEP.
- As 10 hexadecimal (0-9, A-F) characters for 64-bit WEP and 26 hexadecimal (0-9,

A-F) characters for 128-bit WEP.)

Authentication: Open or Shared (Default: Open)

"Open" – communicates the key across the network.

"Shared" – allows communication only with other devices with identical WEP settings.

Key Length: 64 or 128 bits (Default: 64 bits)

Key Format: HEX or ASCII (Default: HEX)

Network Key: Entering a key in either hexadecimal or ASCII format.

Confirm Key: Double confirm network key.

◆ **When selecting WPA-PSK/WPA2-PSK:**

WPA (Wi-Fi Protected Access) key should follow either one of the following rules:

- As 64 hexadecimal (0-9, A-F) characters.

- As 8 to 63 ASCII characters.

Authentication: AES or TKIP (Default: AES)

Network Key: Entering a key in either hexadecimal or ASCII format.

Confirm Key: Double confirm network key.

IP Status: Show IP status when wireless connection, including IP Type, IP Address, Subnet mask, Gateway, Primary DNS, Secondary DNS.
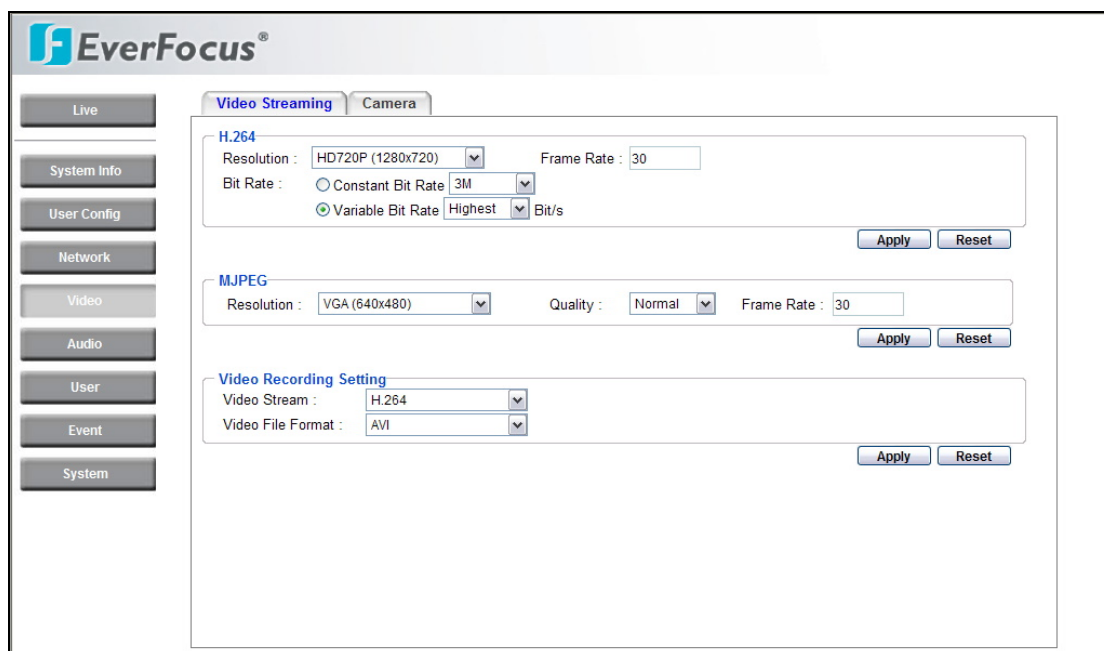

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

5.4 Video

The settings relating video such as streaming, camera OSD can be configured on this page.
The "Video" page has 2 tabs: the [Video Streaming] tab and the [Camera] tab.

5.4.1 Video Streaming

The system can output dual streams of H.264 and MJPEG simultaneously. For each of them, user can set resolution, quality and frame rate individually.

H.264

Resolution:1600x1200 (UXGA), 1280x960, 1280x720 (HD720P), 1024x768 (XGA), 800x608 (SVGA), 640x480 (VGA), 320x240 (QVGA), 160x112

Frame Rate: 10fps@1600x1200 (UXGA), 15fps@1280x960, 30fps@1280x720 (HD720P)/1024x768 (XGA)/800x608 (SVGA)/640x480 (VGA)/320x240 (QVGA)/160x112

Bit Rate: The bit rate can be set as Variable Bit Rate (VBR) or Constant Bit Rate (CBR).

- Constant Bit Rates: 3M/2M/1.5M/1M/750K/500K/384K/256K/128K/64K/32K bit/s
   CBR allows you to set a fixed Target bit rate that consumes a predictable amount
   of bandwidth. As the bit rate would usually need to increase for increased image
   activity, but in this case cannot, the frame rate and image quality are affected
   negatively.

- Variable Bit Rates: Highest/High/Normal/Low/Lowest
   VBR adjusts the bit rate according to the image complexity, using more bandwidth
   for increased activity in the image, and less for lower activity.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the
change.

MJPEG

Resolution: 1600x1200 (UXGA), 1280x960, 1280x720 (HD720P), 1024x768
(XGA), 800x608 (SVGA), 640x480 (VGA), 320x240 (QVGA), 160x112

Quality: Highest/High/Normal/Low/Lowest

Frame Rate: 10fps@1600x1200 (UXGA), 15fps@1280x960, 30fps@1280x720
(HD720P)/1024x768 (XGA)/800x608 (SVGA)/640x480 (VGA)/320x240
(QVGA)/160x112

Press **Apply** to apply the setting changes or **Reset** to reset without saving the
change.

Video Recording Settings

User can set video recording by selecting one of the enabled video streams. This
will allow users to view live images while also recording video from another video
stream.

Video Stream: Select video recording stream from any enabled stream.

Video File Format: Recording file will be saved as AVI or ARV, select which file
format is to be used.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the
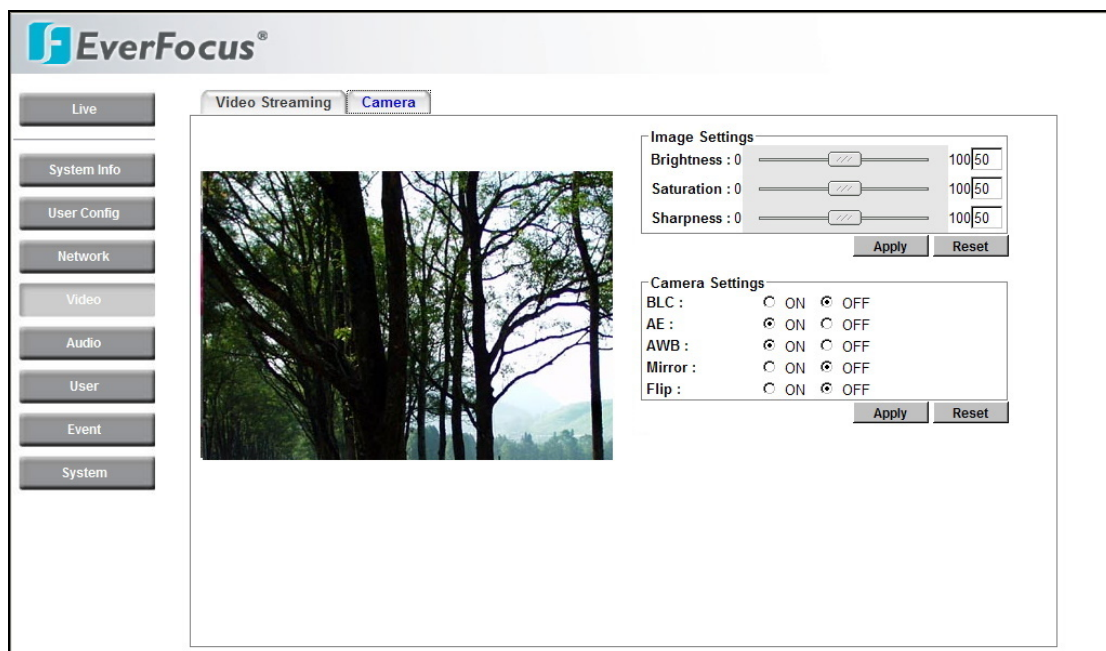
change.

5.4.2 Camera

Image Settings

Brightness: to increase or decrease object contrast of images. It is adjustable from 0~100.

Saturation: to increase or decrease color saturation of video images. It is adjustable from 0~100.

Sharpness: to increase or decrease object sharpness of images. It is adjustable from 0~100.

Camera Settings

BLC: Select ON or OFF for Backlight Compensation.

ON: When the background of the subject is very bright and the subject itself is dark, set the BLC ON. The BLC will measure the light of the image center and the lens iris will automatically set for optimum image quality.

OFF: Backlight will not be compensated.

AE: Select ON or OFF for Auto Exposure.

ON: The camera continuously adjusts the shutter speed from 1/60 (NTSC),

1/50 (PAL) second to 1/100,000 second according to the luminance conditions of the scene.

OFF: The shutter speed is fixed at 1/60 (NTSC), 1/50 (PAL) second.

AWB: Select ON or OFF for AWB.

ON: the camera will determine the color temperature of the light and automatically adjust for that color temperature.

Off: disable AWB function.

Mirror: Select ON or OFF for Mirror.

ON: Sets a horizontal image inversion.
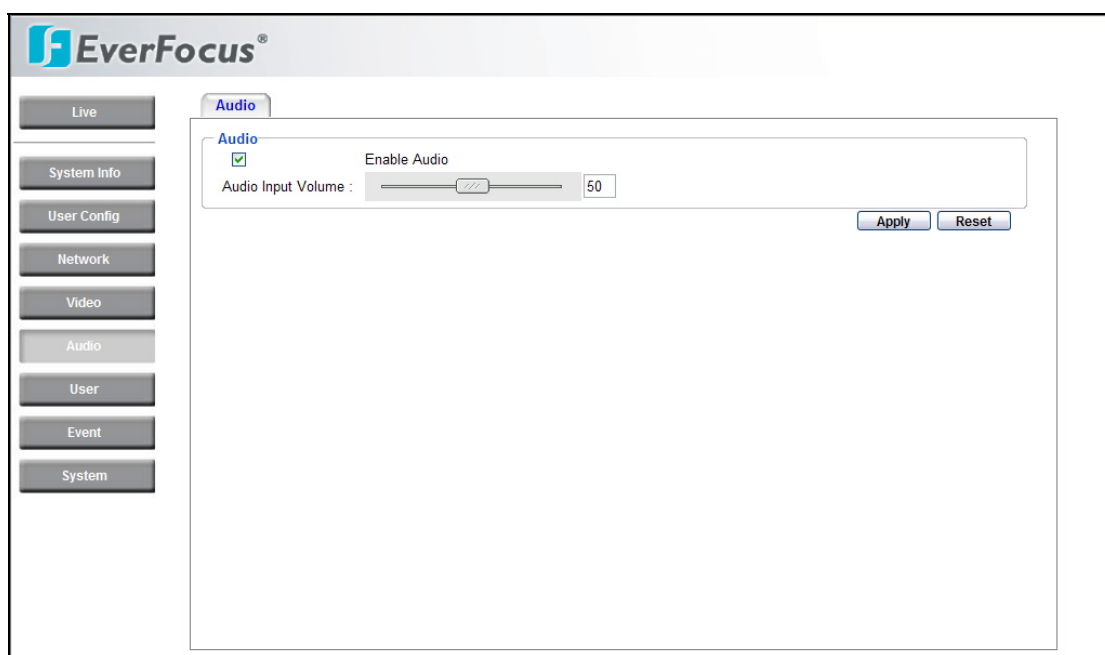
OFF: disable mirror function.

Flip: Select ON or OFF for Flip.

ON: Sets a vertical image inversion

OFF: disable flip function.

5.5 Audio

The EQN2200/2201 camera can transmit audio to client PCs by built-in microphone, and can play audio received from client PCs into built-in speaker. This section describes how to configure the basic audio settings.
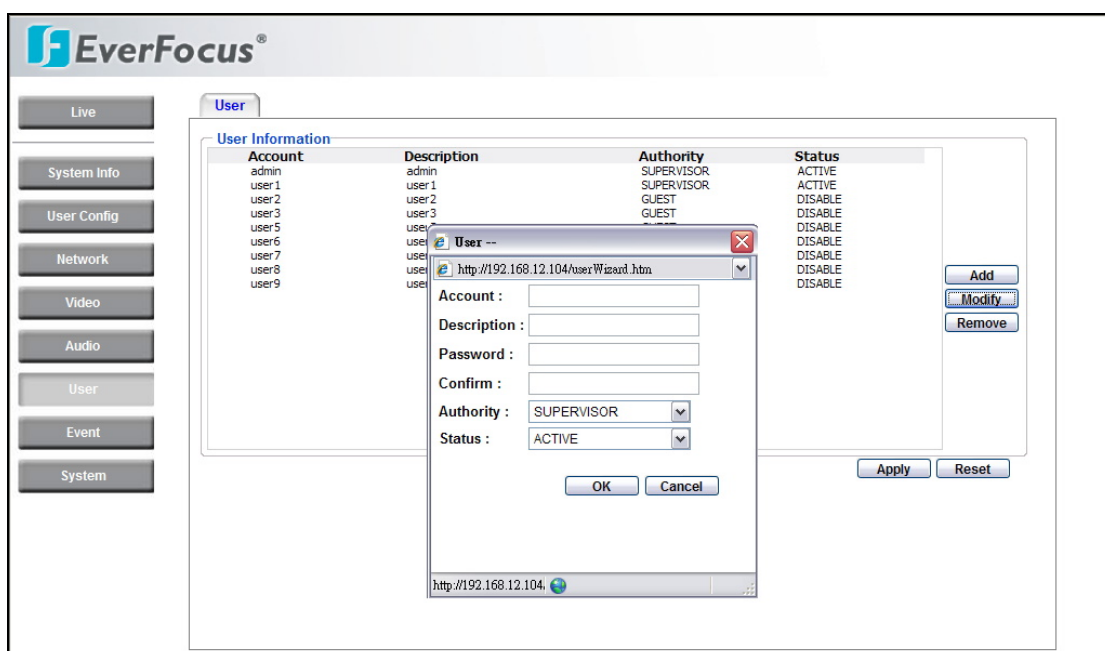
Audio

Check **Enable Audio** box to enable audio function.

Audio Input volume: Adjust the Audio Input Volume for the audio input devices connected to the camera if there are problems with the sound input being too low or high.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the changes.

5.6 USER

Press **Add** to add a user, press **Modify** to modify a user, press **Remove** to remove a user.

User Information

Account: Enter account name.
Description: Enter description.
Password: Enter a password.
Authority: Select authority type from Supervisor, Administrator, User and Guest.
Status: Status of the account, select from Active and disable.

Maximum 10 user IDs can be created to access the IP camera. The **user information screen** displays the authorized IDs. Access levels are:

• **Supervisor/Administrator** –a supervisor/administrator has unrestricted access to the Setting menus and can determine the registration of all other users. However, an administrator is not allowed to change a supervisor's account and password.

• **User**- can view the Live View page, system info, network, video, audio, and adjust user config settings. The User level does not have access to the "user", "event" and "system pages".

• **Guest**- the lowest level of access, which only allows access to the Live View page.

Note: Please select Active in Status section to activate an account.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the changes.

5.7 EVENT

An event in the camera is when an Event Type is activated and causes certain actions to be performed. The event type is the set of conditions that specifies how and when which actions will be performed.
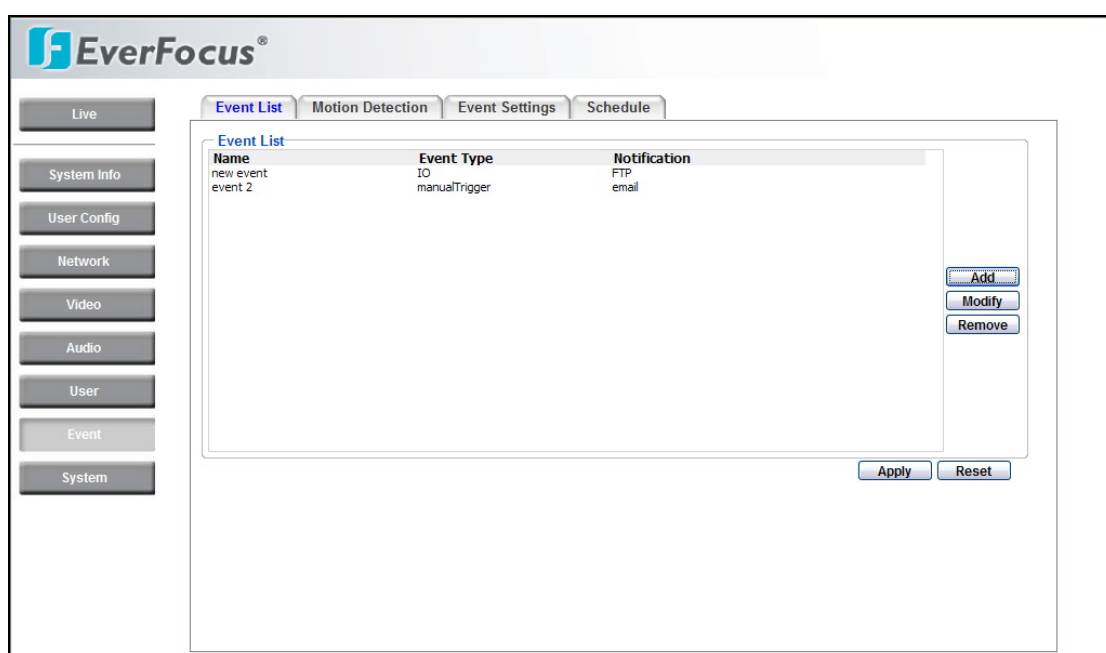This table describes how to setup action types and event type.

Event Type / Notification Type	Alarm Input (I/O)	Manual Trigger (MT)	Motion Detection (VMD)	Pre/Post-Alarm	Action Settings
Trigger Alarm output (I/O)	x	x	x		Contact Type: N.O./N.C. Duration Time: 5sec~5min
Send Mail notification (Email)	x	x	x		Notification only
Upload to FTP (FTP)	x	x	x	x	Video Stream: H.264/MJPEG Video File Format: AVI or ARV
Network Alarm (NA)	x	x	x		Video File Format: I-fram.jpg
Re-trigger Alarm	x	x	x		--

Note: Up to 4 events can be configured in the camera, and up to 3 of these can be configured to upload images.

5.7.1 Event List

The settings relating to event occurrences such as settings for motion, alarms and time mask can be configured on this page.
The "Event" page has 4 tabs: [Event List] tab, [Motion Detection] tab, [Event Settings] tab and [Schedule] tab.

Press [Add] button to add an event condition.
To modify the event list, click on the event and it will be highlighted. Press
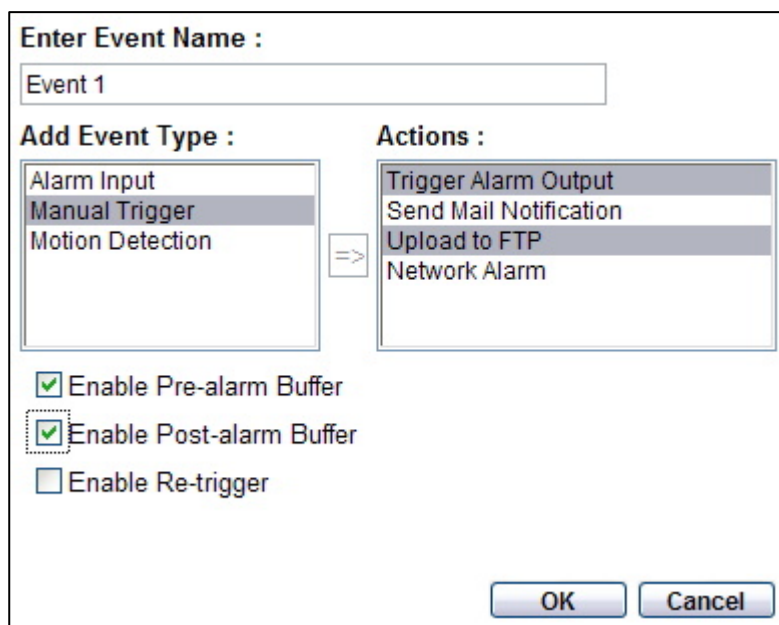
[Modify] button to modify the setting of an event.

To remove an event from event list, click on the event and it will be highlighted.

Press [Remove] button to remove an event.

Note: Up to 3 events can be configured in the camera.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

This example describes how to set the camera to trigger alarm output as well as to upload image to FTP when someone presses Manual Trigger button:


1. Click [Add] button in Event page.

2. Enter an event name for the event, e.g. Event 1

3. Select "Manual Trigger" as event type.

4. Ctrl + click to multi-select notification types.　Select "Trigger Alarm Output" and "Upload to FTP" as notification types.

5. Check "Enable Pre-alarm Buffer" and "Enable Post-alarm Buffer".

> **Note:**
>
> 1. If "Pre-alarm Buffer" is active, the camera will provide up to 120 sec pre-alarm record additional to the event record.
>
> 2. If "Post-Alarm Buffer" is active, the camera will provide up to 120 sec post-alarm record to the event record.
>
> 3. If "Enable Re-Trigger" is active, the alarm timeout duration will be restarted in case of a repeating event during the previous alarm period.

Press **Apply** to apply the setting changes or **Cancel** to cancel without saving the change.

5.7.2 Motion Detection
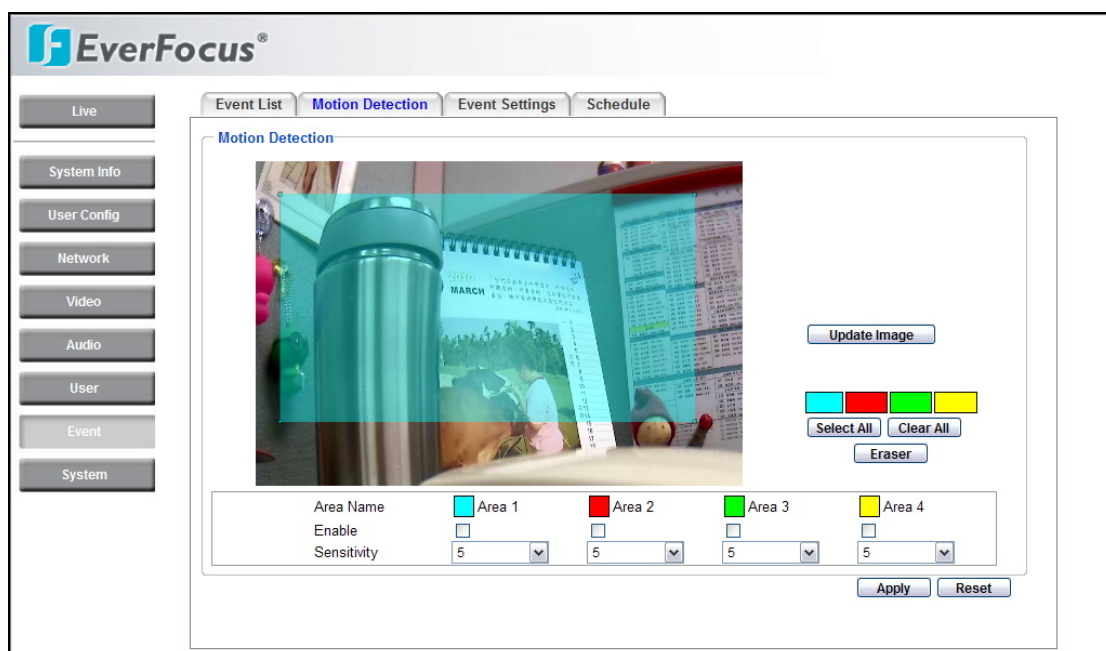
Motion Detection

Users can define the motion areas to be detected by left clicking the mouse to set the start point. Then click the mouse again at the end point, a rectangle will be formed as the motion detection area.

Press **Update Image** to update the current image.
Press **Select All** to have the entire screen selected for motion detection.
Press **Clear All** and click on the rectangle, to clear that rectangle.
Press **Eraser** and click on the selected rectangle to remove the selection.

There are 4 possible motion trigger areas, which can be distinguished by 4 different colors. Check the **Enable** checkbox to enable event actions related to that area.
For each area, you can set the event action in response to motion detection in that area. Event actions can be set in "Event List" section.
In addition, you can set the **Sensitivity** level for the motion trigger separately for each area by selecting from 1 (low), 2, 3, 4, 5, 6, 7, 8, 9 to 10 (high).

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

5.7.3 Event Settings

Alarm Settings

Input Triggering Type: Select from Normal Close or Normal Open.

Output Contact Type: Select from Normal Close or Normal Open.

Output Duration Time: Select duration time of alarm output from 5 sec, 10 sec, 20 sec, 30 sec, 60 sec, 2 min, 3 min and 5 min.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

Pre/Post Alarm Settings

This function is used to be able to review what happened immediately before and after a trigger, e.g. 5 seconds before or after a motion has been detected, or after motion detection ceases.

Pre-Alarm Buffer: Image saved internally in the camera from the time immediately preceding the trigger. Input the desired length of pre-trigger buffer time. It can be set up to 120 seconds.

Post-Alarm Buffer: Image saved internally in the camera from the time immediately after the trigger condition has ceased/been reset. Input the desired length of post-trigger buffer time. It can be set up to 120 seconds.
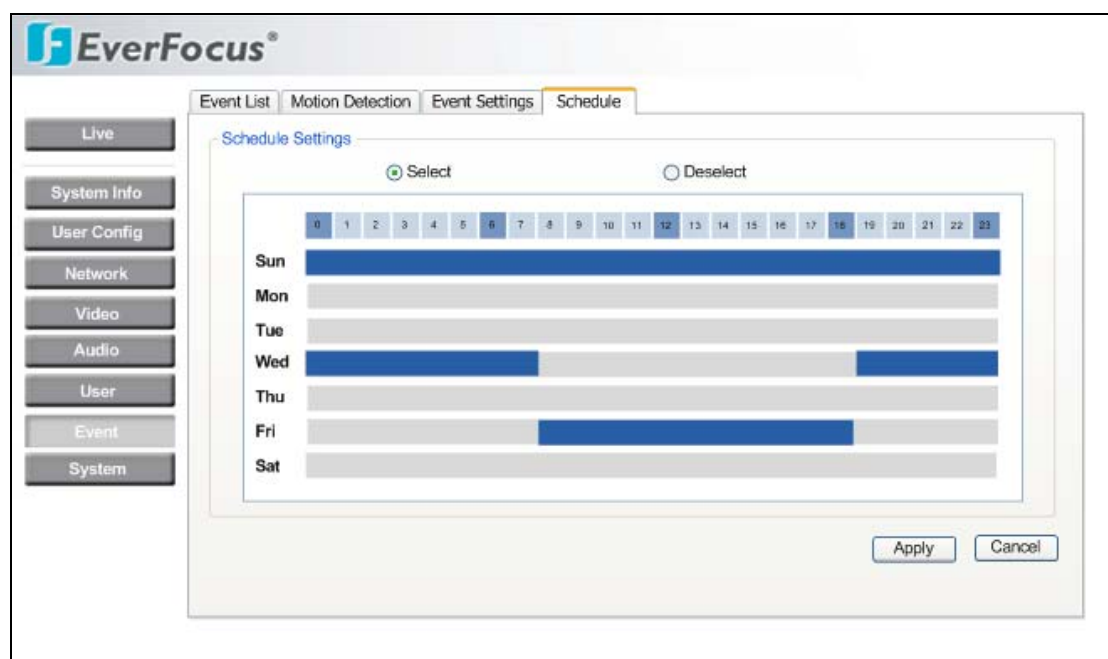
Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

Re-trigger Filter Setting

Re-trigger Filter: Set a re-trigger filter time, if another event is triggered during this time, this triggered event will be ignored.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

5.7.4 Event Schedule

Schedule Settings

The event will start at the specified schedule. After selecting a time zone, the block will show the time zone settings.

How to set a schedule:

Select the edit actions of "select" or "deselect".

There are 24 blocks (one block = 1hr) on the time bar representing 24 hours respectively. Set a schedule start time by clicking on a desired start time block on a time bar. The selected blocks will turn blue, which means this blue timezone has been set to the event schedule. The deselected blocks will turn back the original background color, which means the timezone has not been set to the event schedule.
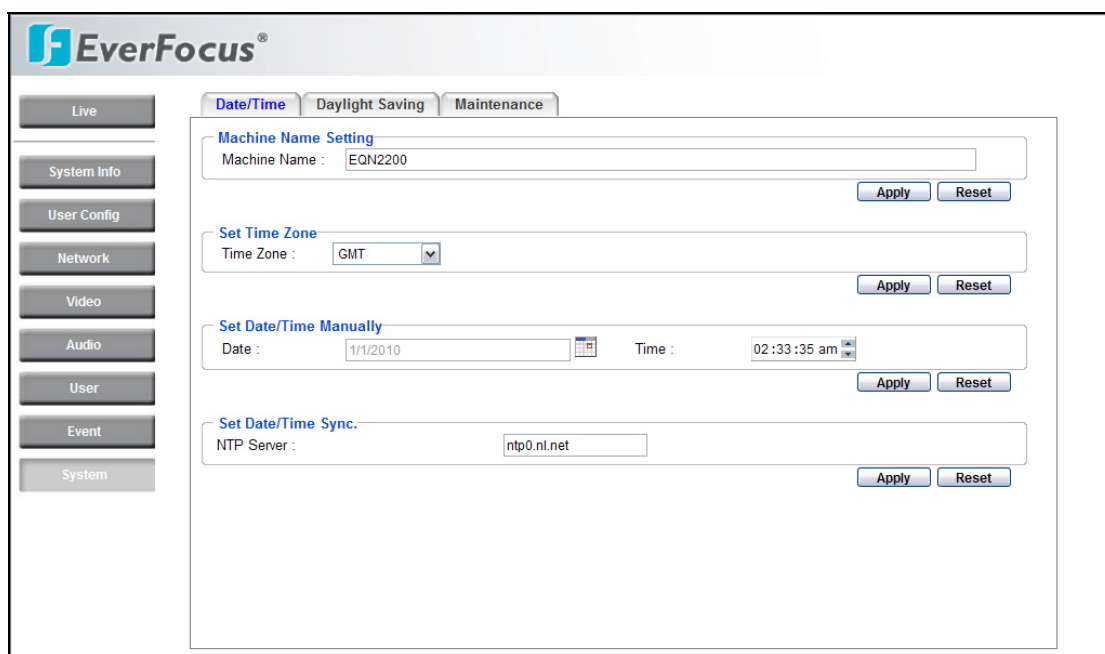
Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

5.8 SYSTEM

Date/Time, Daylight Saving, SD card and Maintenance settings can be accessed on this page.

The "System" page has 3 tabs: [Date/Time] tab, [Daylight Saving] tab and [Maintenance] tab.

5.8.1 Date/Time

Machine Name Setting

Machine Name: Enter the name for the camera. The entered name will be displayed in the status display area, and used to label any recoding and/or

snapshot folders created on a user's PC.

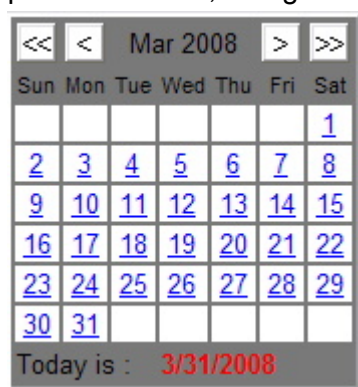Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

Set Time Zone

Time Zone: Select a time zone according to where the camera is located.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

Set Date/Time Manually

Date: Click the calendar and pick the date. Press << to go previous year, < to go previous month, > to go next month and >> to go next year.

<<	<	Mar 2008			>	>>
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					
Today is :	3/31/2008					

Time: Click on Hour, Minute, Seconds, am/pm; then use up arrow to increase value and down arrow to decrease value.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.
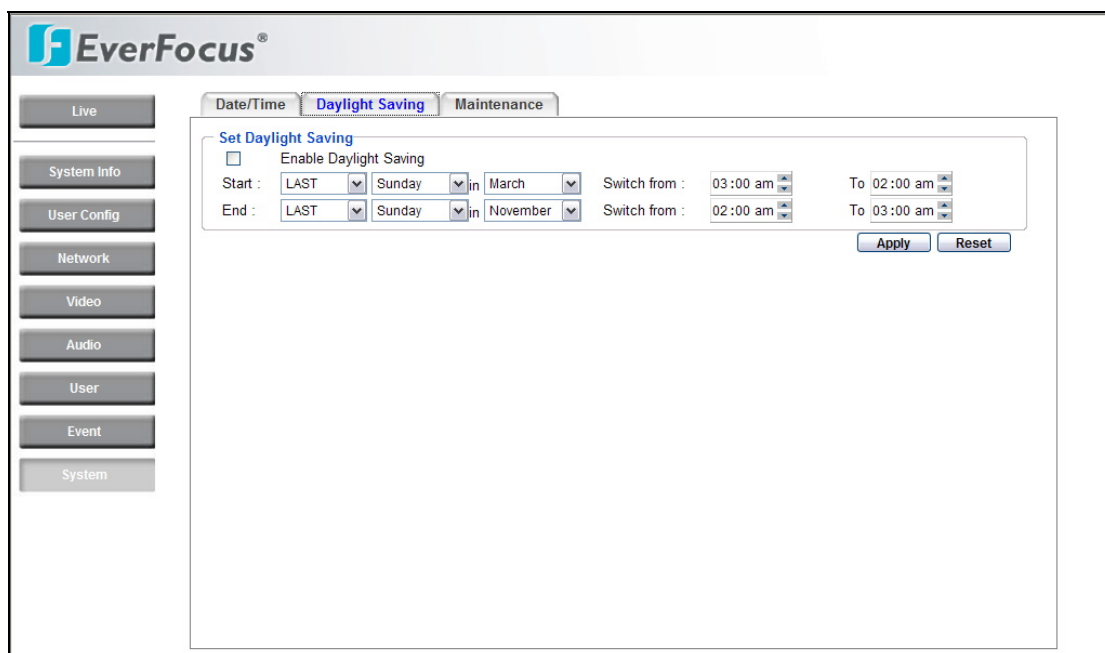
Set Date/Time Sync.

Check Enable NTP checkbox to enable NTP server.

NTP server: Time automatically adjusted by synchronizing with NTP server will be used as the standard time for the camera.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

5.8.2 Daylight Saving

Set Daylight Saving

Check **Enable Daylight Saving** checkbox to enable daylight saving.

Set the start time for daylight saving time.
Set the start week for daylight saving time: 1st / 2nd / 3rd / 4th / Last
Set the start day of the week for daylight saving time: Sunday / Monday / Tuesday / Wednesday / Thursday / Friday / Saturday
Set the start month for daylight saving time: January / February / March / April / May / June / July / August / September / October / November / December.
Set the starting time for the change to daylight saving time: Choose the "From" time and "End" time when daylight saving starts.

Set the end time from daylight saving time.
Set the end week from daylight saving time: 1st / 2nd / 3rd / 4th / Last
Set the end day of the week from daylight saving time: Sunday / Monday / Tuesday / Wednesday / Thursday / Friday / Saturday
Set the end month from daylight saving time: January / February / March / April / May / June / July / August / September / October / November / December.
Set the ending time for the change from daylight saving time: Choose the "From" time and "End" time when daylight saving ends.

Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

5.8.3 Maintenance
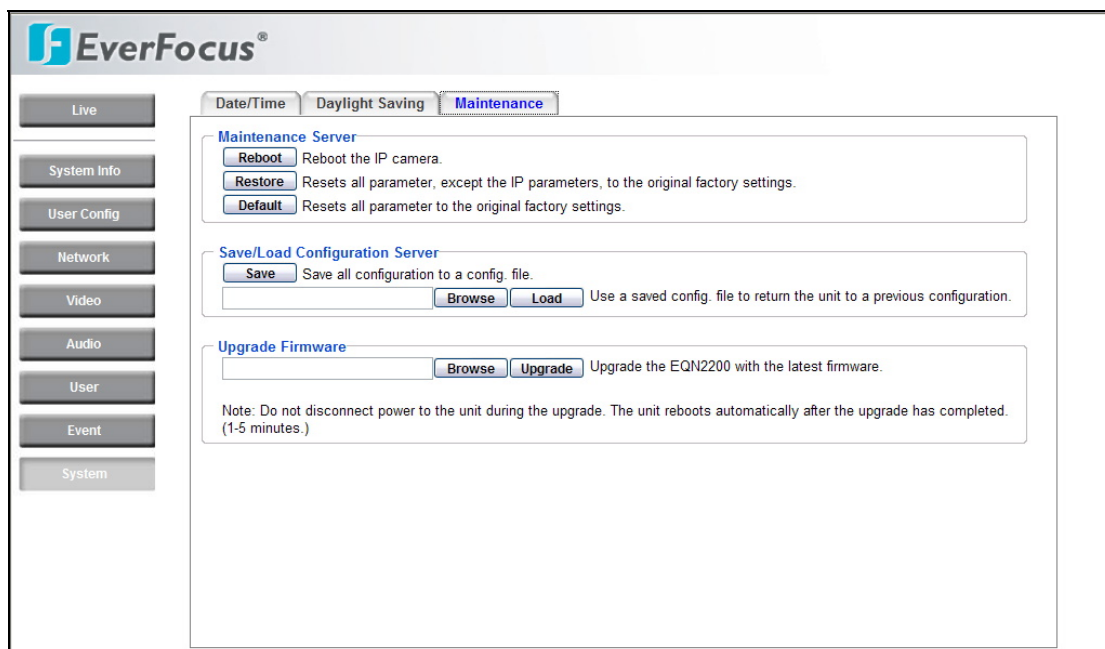
<u>Maintenance Server</u>

Reboot: The unit is rebooted without changing any of the settings. Use this method by pressing **Reboot** button if the unit is not behaving as expected.

Restore: Resets all parameter, except the IP parameters and Daylight Saving settings, to the original factory settings.

The unit is restarted and most current settings are reset to the factory default values by pressing **Restore** button. The only settings saved are:

- IP setting
- DDNS setting

Default: The **Default** button should be used with caution. Pressing this button will return all of the camera's settings, including the IP address, to the factory default values. The camera will then have to be re-installed.

Save/Load Configuration Server

To take a backup of all of the settings in the current configuration, press **Save** to save the configuration to a config. file. Once saved, it is then possible to return to the previous settings if/when desired.

To return to a previously saved configuration, press the **Browse** button to locate and select the saved config. file (see above) and then click the **Load** button. The settings will be restored to the previous configuration.

Upgrade Firmware

Upgrade the EQN2200/2201 with the latest firmware.
Press the **Browse** button to locate the firmware file. Press the **Upgrade** button to upgrade the firmware.

> ***Note*** *1: Do not disconnect power to the unit during the upgrade. The unit reboots*
> *automatically after the upgrade has completed. (1-5 minutes.)*
> *2: During upgrade process, all event recording actions will be stopped.*
> *They will resume after the camera is rebooted.*

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