

EQN2200



User's Manual



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Release: Mar. 2010

Product Name: EQN2200 EverFocus Network Cameras

Model Number(s): EQN2200

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 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°C ~ +40°C / 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 handling 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: 12VDC, 1 A

Power Output: 12VDC, 1 A

Operating Temperature: 0°C ~ 40°C / 32F ~ 104F

External Dimensions: 56 mm x 68 mm x 101 mm / 2.24" x 2.72" x 4.04"

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1. INTRODUCTION

EQN22 series Q-cam is an entry-level network camera which provides competitive price but superior image quality with up to 30fps in 720p (1280x720) resolution. For easy and flexible installation, EQN2200 and EQN2200W offer the choice of either a wireless or a wired connection to the network.

EQN2230 additionally features an integrated PIR sensor for detecting movement even in the dark, and a white LED for illuminating the scene automatically at an event or when requested by the user.

EQN22 series 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.

2. FEATURES

- Built-in H.264 and MJPEG dual stream output at 720p image size with up to 30fps.
- 2 mega-pixel 1/3" progressive scan CMOS sensor
- Integrated fix focus wide angle lens (3.6 mm), adjustable focus
- Built-in PIR sensor and White LED for motion detection (for EQN2230)
- Built-in Microphone and Speaker
- Digital I/O for external sensor or alarm
- Basic intelligence in the camera such as schedule, motion detection, FTP upload, email... (TBD)
- Built-in network interface (10Base-T/100Base-TX) for remote monitoring by PC
- Built-in 802.11b/g WLAN (EQN2200W).
- Two Way Audio for built-in microphone and speaker

3. SPECIFICATIONS

MODEL	EQN2200: wired interface EQN2200W: wired and wireless interface EQN2230: wired interface and PIR sensor, White LED
CAMERA	
Pickup Device	1/3" progressive scan CMOS sensor, 2 Megapixel
Lens	4.3mm/F=1.8
Sensitivity	0.5Lux /F=1.8
VIDEO STREAMING	
Video Compression	H.264M-JPEG (Hisilicon platform)
Video Resolution	1600x1200 to 160x120
Frame Rate	1600x1200@10fps, 1280x960@15fps, 720p @ 30fps
AUDIO	
Microphone & Speaker	Built-in
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 EQN910W)
Supported Protocols	HTTP, TCP / IP, UDP, RTP, RTSP, FTP, SMTP, DHCP, DNS, DDNS, NTP
Client Limit	32 clients simultaneously (max.)
TERMINAL I/O	
Alarm Input/Output	1/1
EVENT MANAGEMENT	
Event Trigger	Alarm Input, Manual Trigger, Motion Detection and Schedule Recording
Notification	Trigger alarm output, Send mail notification, Upload video to FTP, Record video to PC and Network alarm
BUILT IN LIGHT	
Type	1 White LED
Brightness	Directly in front of camera: about 8.5 lux
POWER	
Power Supply	5VDC
Power Consumption	5W Max.
PHYSICAL	
Weight	TBD
Dimension	TBD
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.

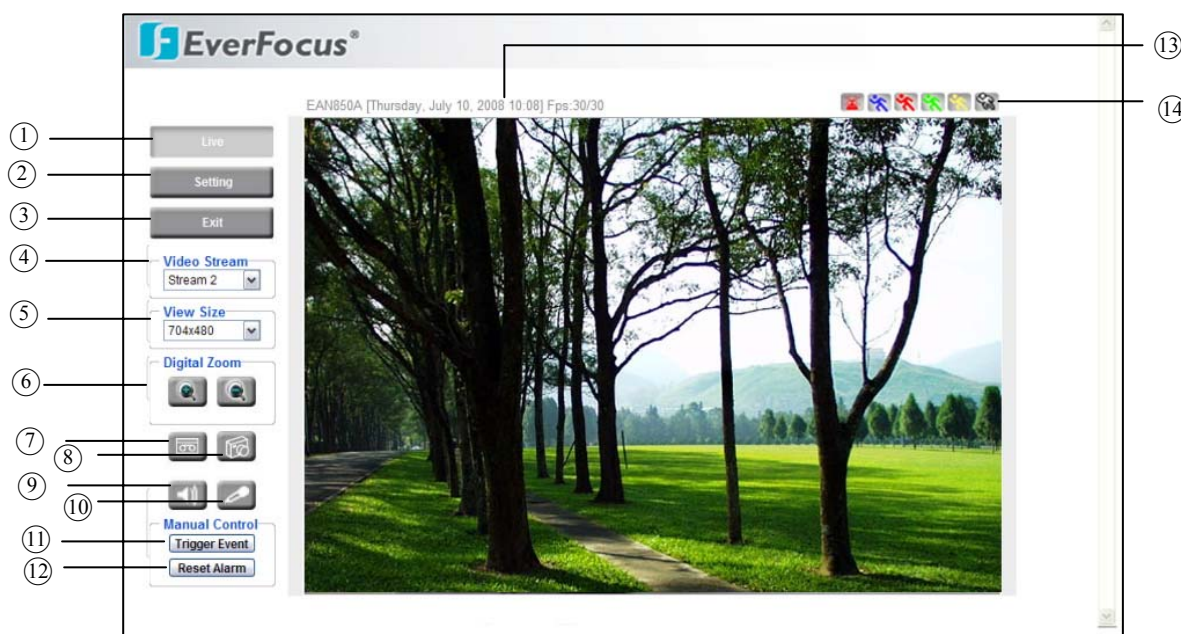
Step 2. Enter the IP address or host name of the camera in the **Location/Address** field of your Internet Explorer browser in the form <http://nn.nn.nn.nn:port>, or <http://ddnsname.everfocusddns.com>. (Please refer to EQN2200 Installation Guide for how to find the IP address by using the IP Finder)

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.



Callouts hard to read on figure and in list below!!!

① Press  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  button to close the EQN2200 network page.



Select the desired Video Stream from Stream 1 / Stream 2, Stream 3 and Stream 4 stream must be enabled in camera Setting menu). Please refer to "Section 4.4.1 Multi Streaming" for further information.

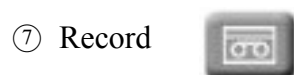


You can select View size to either reduce or enlarge the image to the appropriate view-size.

Select the view size for live images from:
704*480/640*480/352*240/320*240/176*120



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.



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 4.2 User Config" for further information.

Note: Record segment is limited to 1-10 min. If you need to do long recordings, please use schedule recording. For more details about schedule recording, please see "Section 4.7 Event".



The Snapshot button saves a .jpg image of the video image currently being displayed. The location where the snapshot data is saved can be specified in Setting -> User's-Config. Please refer to "Section 4.2 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

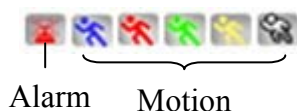
Reset Alarm

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.

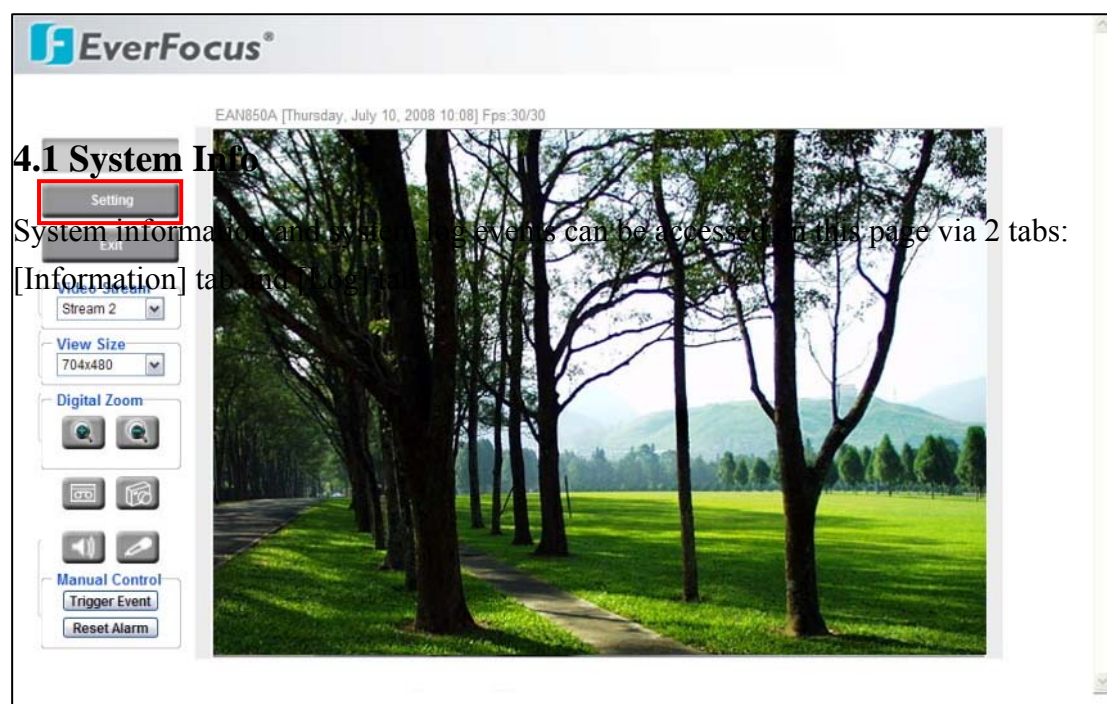
⑭ Event signals



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 4.7.2 Motion” for detailed information about Motion setup.

5. SETTING

Click this button to display the camera setup menu.

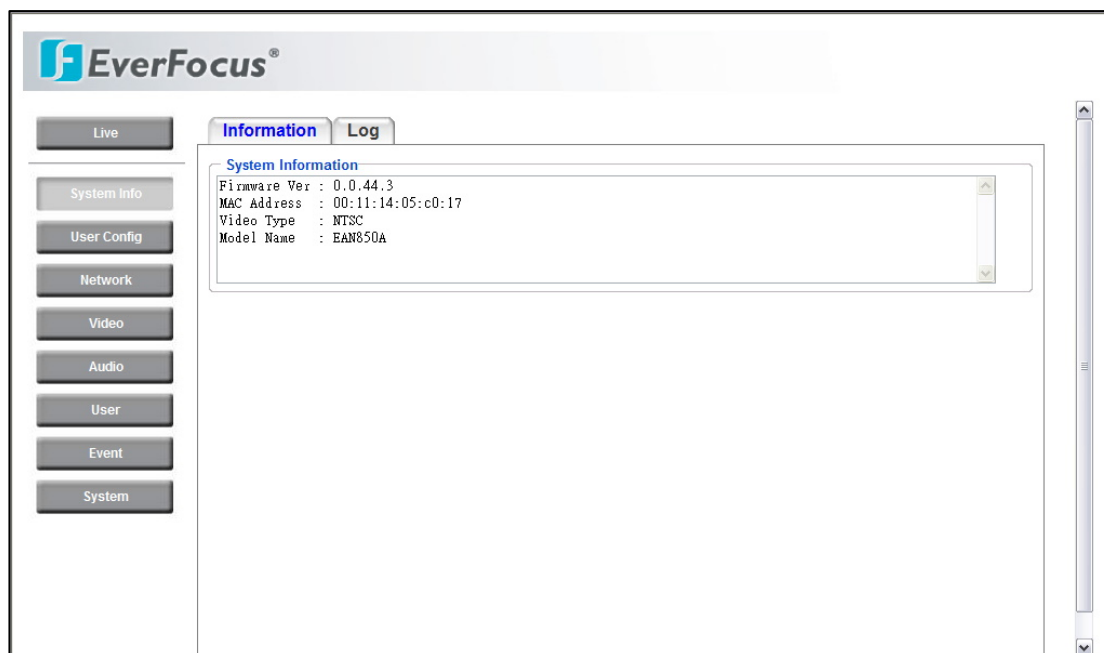


4.1 System Info

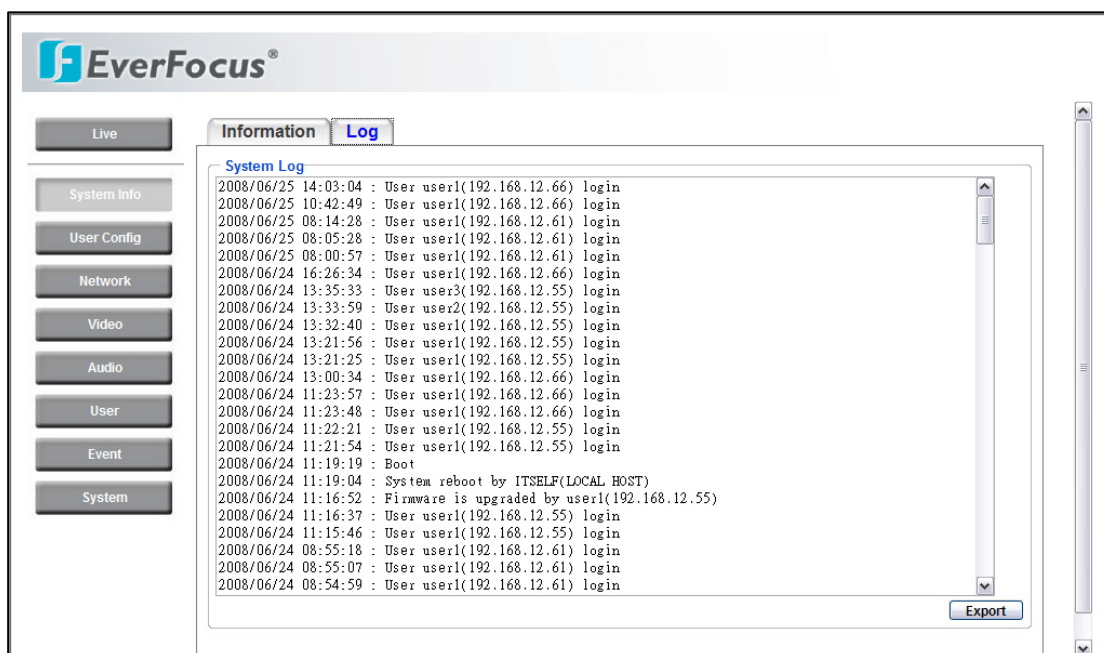
System information and system log events can be accessed in this page via 2 tabs: [Information] tab and [Log] tab.

4.1.1 Information Tab

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



4.1.2 Log Tab



System Log:

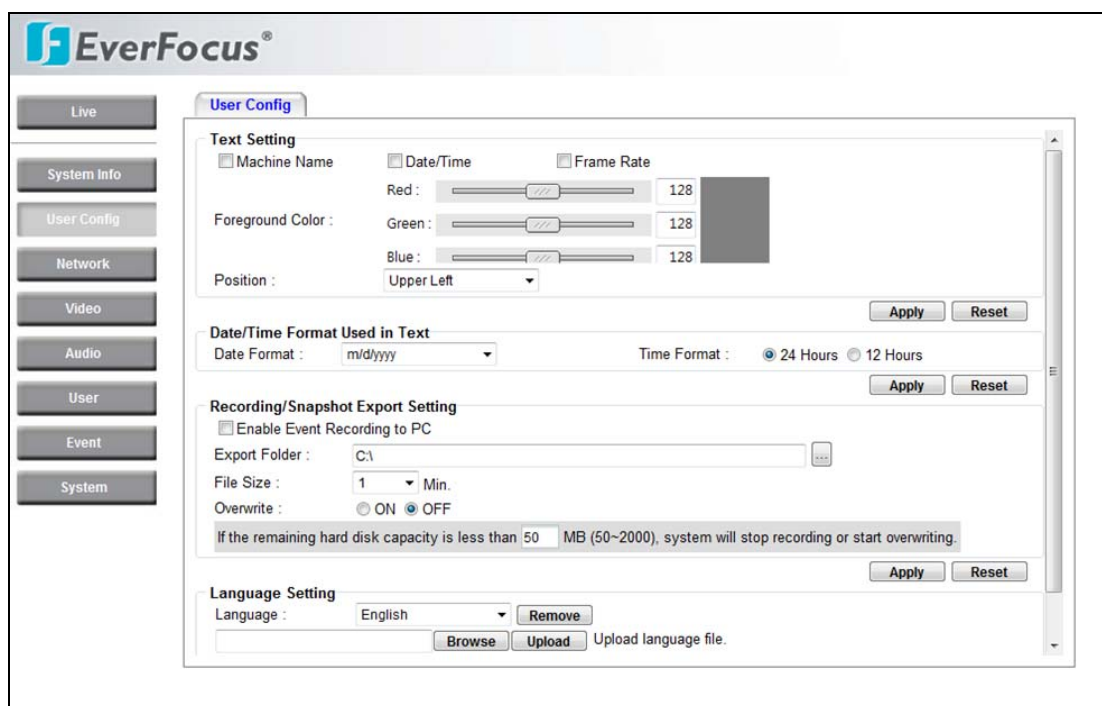
Date/Time: displays date and time of the log event.

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.

4.2 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.

Text Color

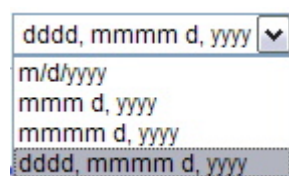
Foreground Color: Select the foreground color of text to be displayed by moving the slide bar between **Red**, **Green** and **Blue** until the desired color is obtained.

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:




* 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 , 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.

Overwrite: Select "ON" for overwriting recording/snapshot file when the disk storage capacity is full.

If the remaining hard disk capacity is less than ____ MB (enter the value you wish to set between 50~2000), the system will stop recording or start overwriting.

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 Load button.

Note:

1. A maximum five languages can be in the language list.
2. Uploading a new language file will reboot the system automatically. Please reconnect to the IP camera after reboot.

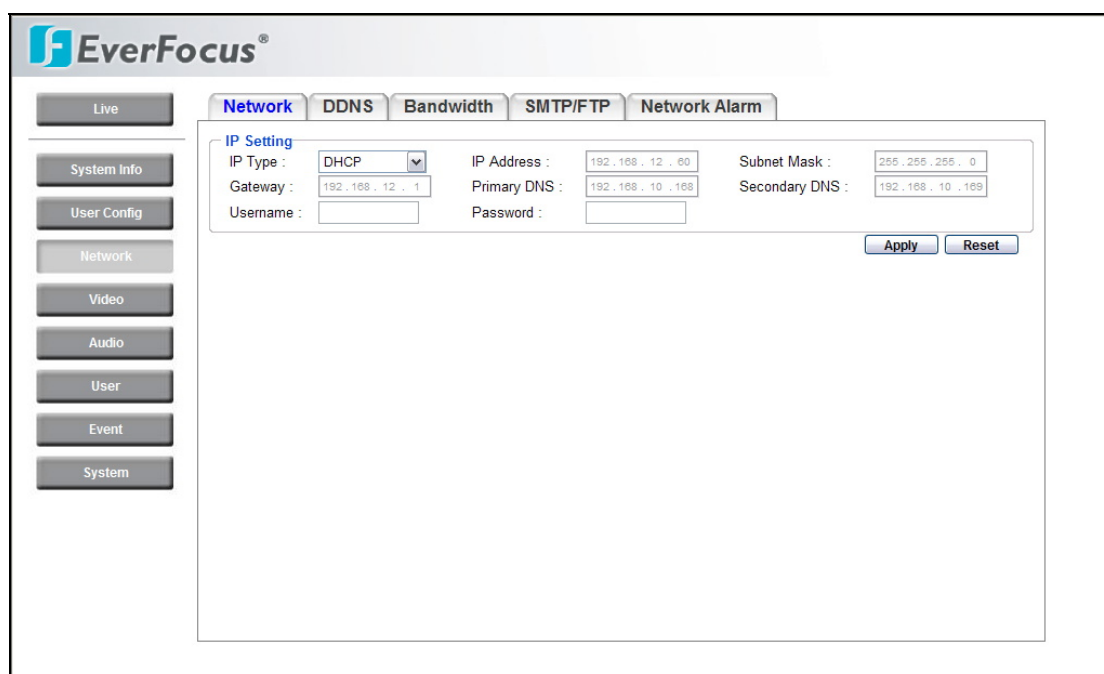
Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

4.3 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 5 tabs: [Network] tab, the [DDNS] tab, the [Bandwidth] tab, the [SMTP/FTP] tab and the [Network alarm] tab.

4.3.1 Network



The screenshot shows the EverFocus web interface for network configuration. On the left is a sidebar with buttons for Live, System Info, User Config, Network (selected), Video, Audio, User, Event, and System. The main area has five tabs: Network, DDNS, Bandwidth, SMTP/FTP, and Network Alarm. The Network tab is active, showing the 'IP Setting' section. It includes fields for IP Type (set to DHCP), IP Address (192.168.12.60), Subnet Mask (255.255.255.0), Gateway (192.168.12.1), Primary DNS (192.168.10.168), Secondary DNS (192.168.10.168), Username, and Password. At the bottom right of the form are 'Apply' and 'Reset' buttons.

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

- 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.

Primary DNS

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.

Secondary DNS

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

Username

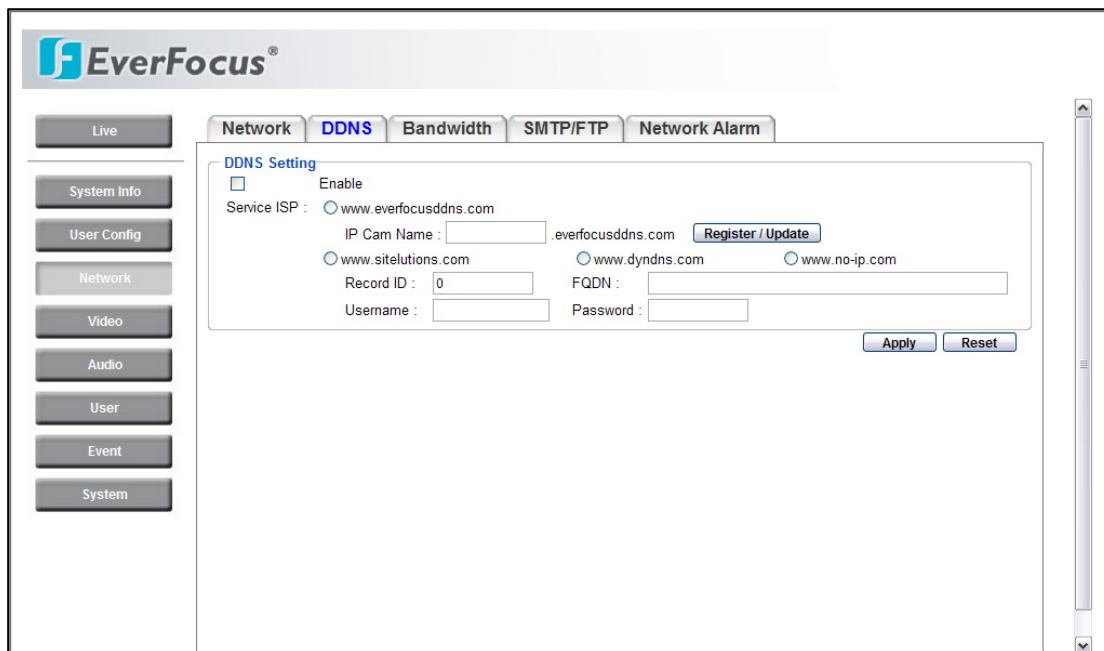
Enter User name of the account (used only for PPPoE).

Password

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

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

4.3.2 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

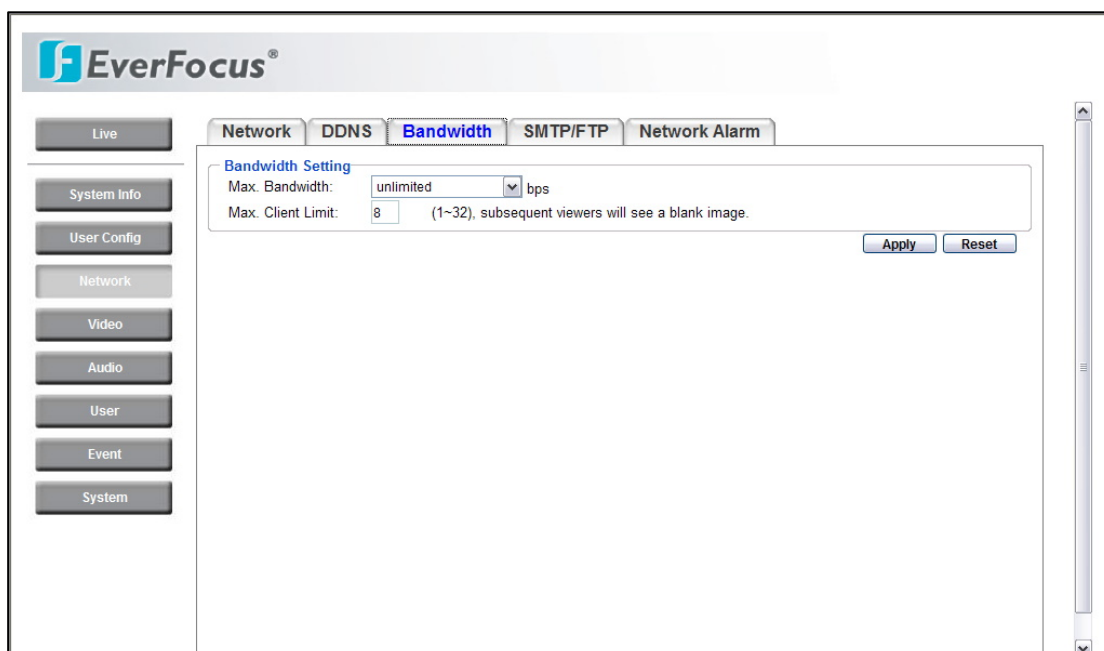
Press button to register or update DDNS account.

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.

4.3.3 Bandwidth

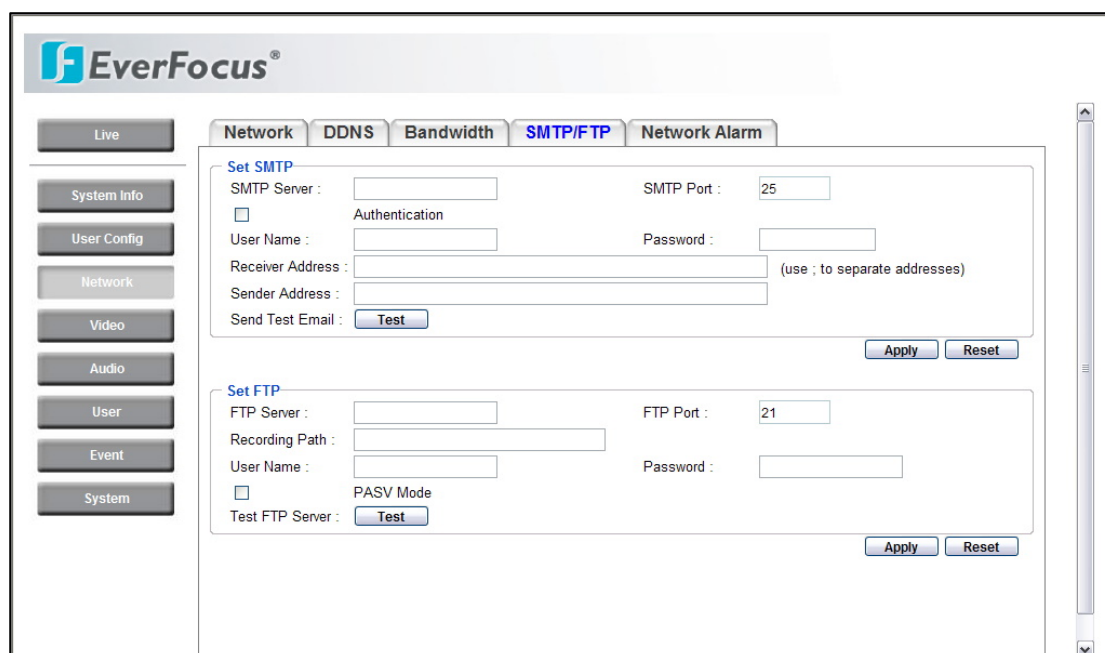


Bandwidth Setting

Max. Bandwidth: Specify, Unlimited / 64 K/ 128 K/ 256 K / 512 K / 1M / 2M / 4M / 8M bps. the maximum bandwidth that the camera is allowed to use on the network. This is a useful function when connecting the camera to busy or heavily loaded networks, or when accessing the camera(s) over a WAN. The default setting is Unlimited.

Max. Client Limit: enter a value here to restrict the number of clients accessing the camera. This is useful if you need to save on bandwidth. Up to 32 clients is allowed to see live video simultaneously. Subsequent viewers will see a blank image.

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



4.3.4 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.

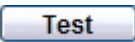
Authentication: Check the box, if the SMTP server requires Authentication (user/password).

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  button to send a test e-mail to the designated address.

Set FTP

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.

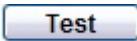
FTP Port: Enter the port number for FTP server. Default is 21.

Recording Path: Assign the recording path.

User Name: Set FTP User name.

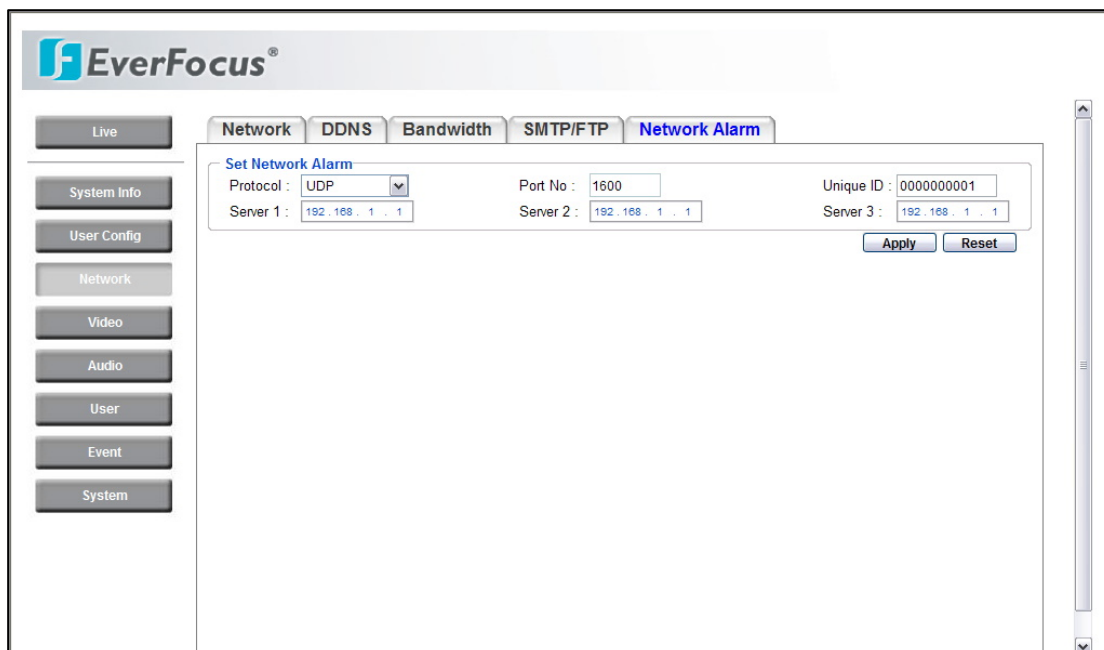
Password: Set FTP password.

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  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.

4.3.5 Network Alarm (reserved for PowerCon)



Set Network Alarm

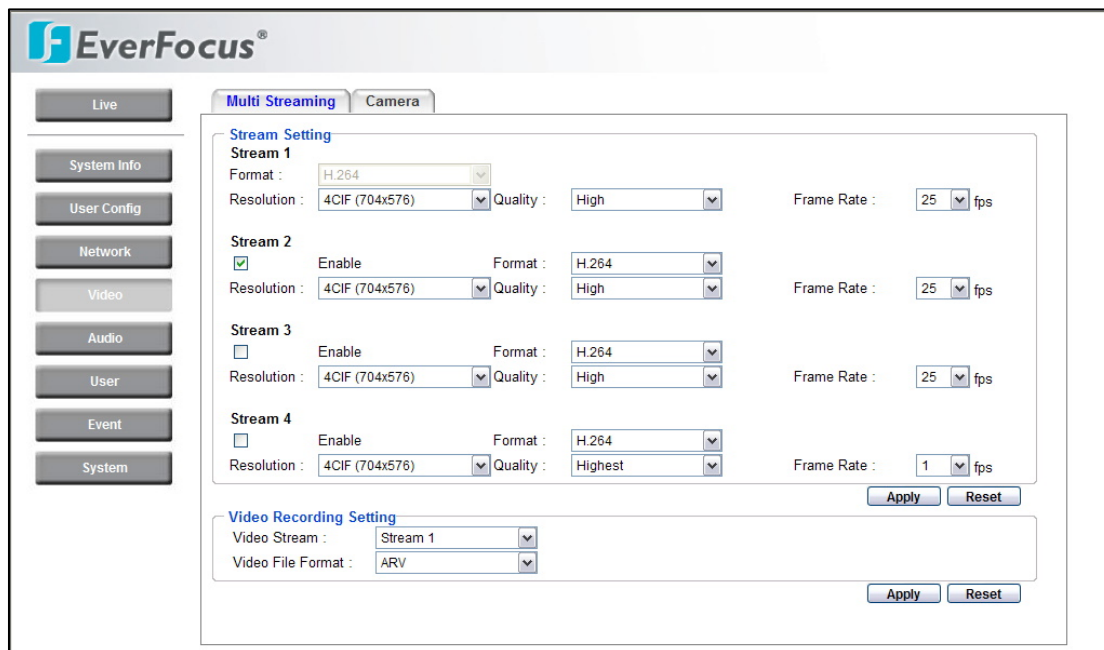
This function is reserved for PowerCon software, for the details regarding these settings please refer to the documentation for the PowerCon network alarm protocol.

4.4 Video

The settings relating video such as streaming, camera OSD can be configured on this page.

The "Video" page has 2 tabs: the [Multi-streaming] tab and the [Camera] tab.

4.4.1 Multi Streaming



The screenshot shows the EverFocus web interface for Multi Streaming configuration. On the left is a sidebar with buttons for Live, System Info, User Config, Network, Video, Audio, User, Event, and System. The main area has tabs for Multi Streaming and Camera. Under Multi Streaming, there's a 'Stream Setting' section with four streams. Stream 1 is always enabled. Streams 2, 3, and 4 have an 'Enable' checkbox. Each stream has dropdowns for Format (H.264), Resolution (4CIF 704x576), Quality (High), and Frame Rate (25 fps). Below this is a 'Video Recording Setting' section for Stream 1, with dropdowns for Video Stream and Video File Format (ARV). 'Apply' and 'Reset' buttons are present at the bottom of each section.

Stream Setting

The system can output 4 video streams simultaneously. For each of them, the user can set compression format, resolution, quality and frame rate individually. Stream 1 is always enabled for live view.

Check “Enable” box to enable other streams.

Format: Select compression format from H.264, MPEG4 and MJPEG.

Resolution: choose from

NTSC: 4CIF (704*480) / VGA (640*480) / CIF (352*240) / QVGA (320*240) / QCIF (176*120)

PAL: 4CIF (704*576) / VGA (640*480) / CIF (352*288) / QVGA (320*240) / QCIF (176*144)

Quality: there are 8 levels of quality, please choose from Highest / Higher / High / Middle / Normal / Low / Lower / Lowest. Bandwidth utilization will be in proportion to the quality setting, with highest quality requiring highest bandwidth.

Frame Rate: select from NTSC: 1 / 3 / 5 / 15 / 30 fps, PAL: 1 / 2.5 / 5 / 12.5 / 25 fps

*Note: Total frame rate cannot exceed 60 fps.
System performance may be influenced if user enables 4 video streams simultaneously.*

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

Video Recording Setting

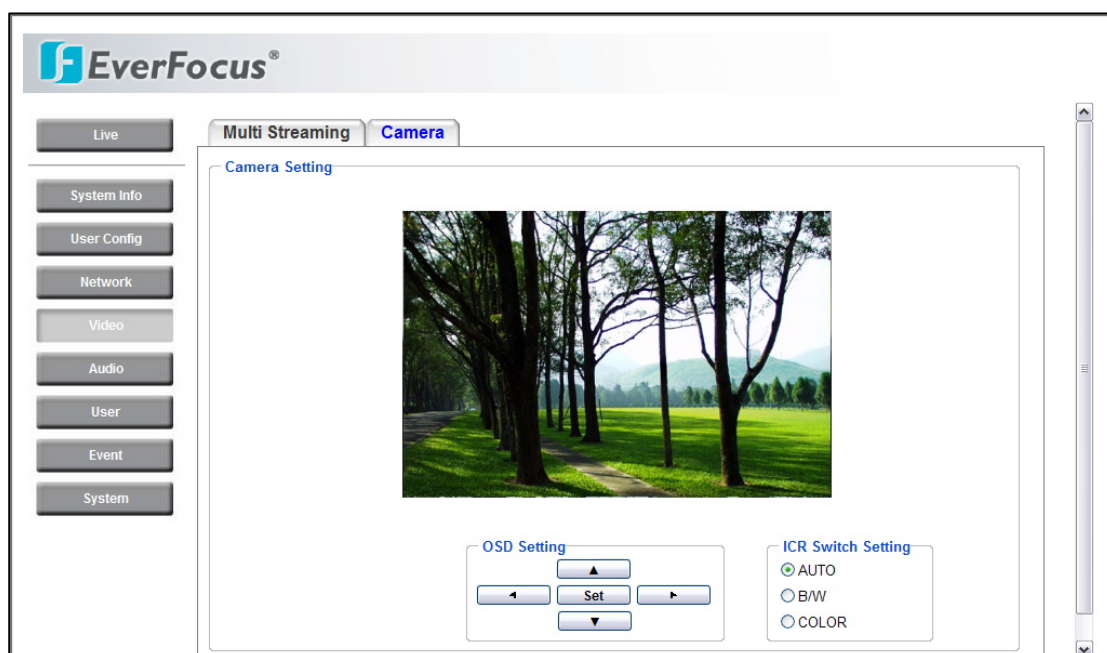
User can set video recording by selecting one of the enabled video streams. This will allow users to view live images while also recording video from another video stream.

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.

4.4.2 Camera



Camera Settings

The "Camera OSD setting" can be displayed on a video monitor and can be

configured using the operation buttons on this tab.

OSD setting:

Use the following buttons on the operation panel to operate the "Camera OSD setting" remotely from a PC. (Please refer to Section 4.4.2.1 for a detailed guide to the Camera OSD Setting menu)



[SET] button:

Click this button to select choices or to bring up the menu and submenus.

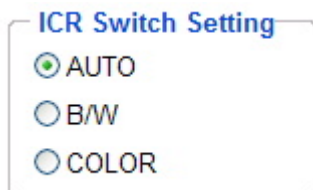
[Left] button/ [Right] button:

Click these buttons to change or select the parameters.

[Down] button/ [Up] button:

Click these buttons to move the cursor.

ICR Switch Setting:



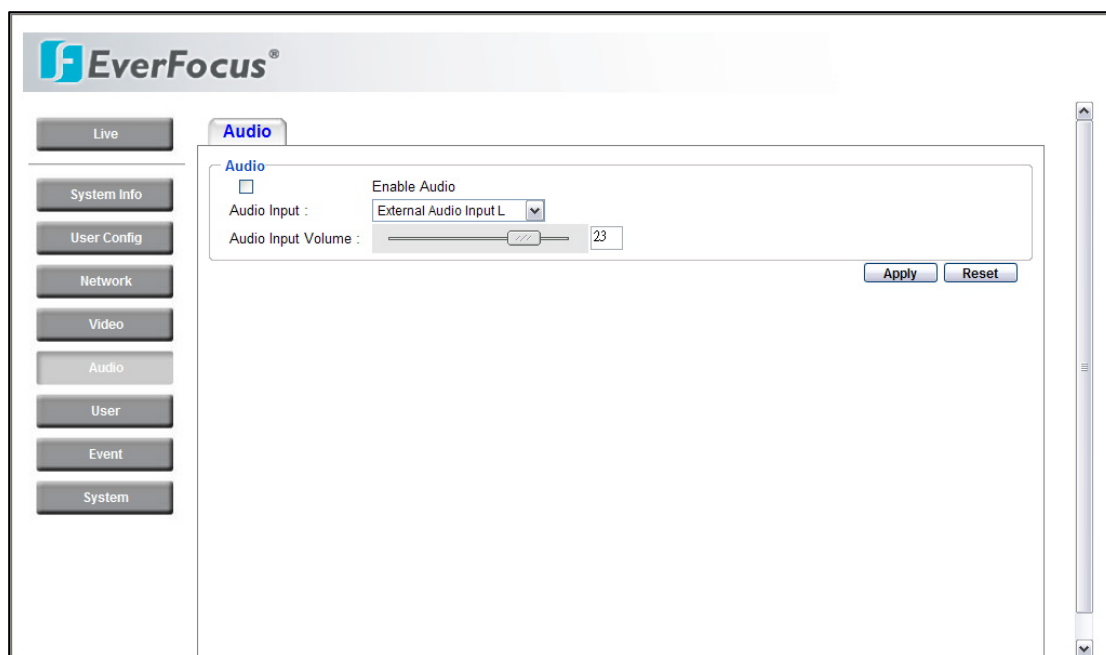
AUTO: ICR switches automatically according to the illumination.

B/W: Select to keep B/W image.

COLOR: Select to keep color image.

4.5 Audio

The EQN2200 camera can transmit audio to client PCs by connecting an external source (line-in), and can play audio received from clients PCs (line-out) into amplified speakers. This section describes how to configure the basic audio settings.



Audio

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

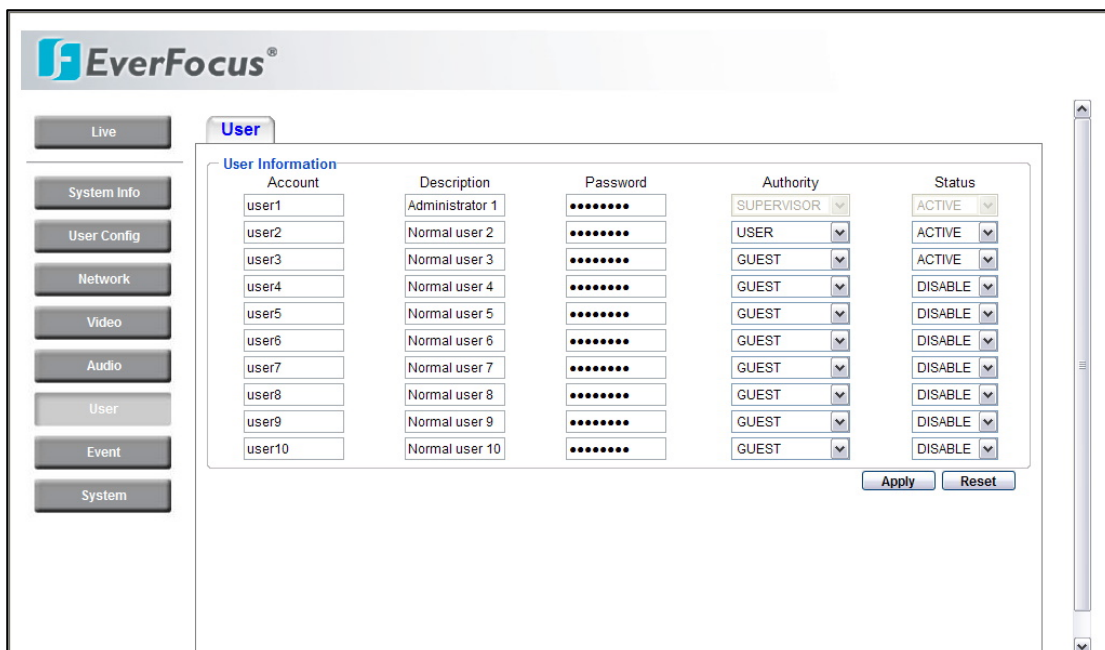
Audio Input: Audio from an internal microphone or a line source can be connected to the Audio connector of EQN2200. The audio source can be selected from Internal Microphone, External Audio Input L and External Audio Input R.

Units designed for use in the US and its territories are not equipped with internal microphones.

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.

4.6 USER



Account	Description	Password	Authority	Status
user1	Administrator 1	.....	SUPERVISOR	ACTIVE
user2	Normal user 2	.....	USER	ACTIVE
user3	Normal user 3	.....	GUEST	ACTIVE
user4	Normal user 4	.....	GUEST	DISABLE
user5	Normal user 5	.....	GUEST	DISABLE
user6	Normal user 6	.....	GUEST	DISABLE
user7	Normal user 7	.....	GUEST	DISABLE
user8	Normal user 8	.....	GUEST	DISABLE
user9	Normal user 9	.....	GUEST	DISABLE
user10	Normal user 10	.....	GUEST	DISABLE

User Information

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.

4.7 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 Action Type	Alarm Input	Manual Trigger	Motion Detection	Schedule Recording	Pre/Post-Alarm
Trigger Alarm	x	x	x		
Send Mail notification	x	x	x		
Upload to FTP**	x	x	x		x
Record to SD Card	x	x	x	x	x
Record to PC*	x	x	x	x	x
Network Alarm	x	x	x		
Re-trigger	x	x	x		

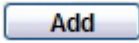
Note: 1. * Record to PC only works when PC and IP camera are connected.
2. **Either Upload to FTP or Record to Network Storage can be selected to record event video to remote site.
3. Up to 10 event types can be configured in the camera, and up to 3 of these can be configured to upload images.

4.7.1 Event


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] tab, [Motion] tab, [Alarm] tab and [Time Mask] tab.



Press  button to add an event condition.

To modify the event list, click on the event and it will be highlighted. Press

 button to modify the setting.

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

Press  button to remove the event.

Check **Enable** checkbox to activate event actions when the event occurs in the specified time zone.

Event List				
Enable	Name	Event Type	Actions	Time Zone
<input type="checkbox"/>	new event	Motion Detection MD1	Trigger Alarm	Always
<input checked="" type="checkbox"/>	motion	Motion Detection MD1	Record to PC	Always

To change the priority of events, click on the event and it will be highlighted. Press

Move Down or **Move Up** button to change the priority of events. The event that has highest priority will be activated first.

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

This example describes how to set the camera to upload images to an FTP site when someone press Manual trigger button:

Enter Event Name :

Event 1

Add Event Type :

Alarm Input

Manual Trigger

Motion Detection

Schedule Recording

=>

Actions :

Trigger Alarm

Send Mail Notification

Upload to FTP

Record to SD Card

Record to PC

Network Alarm

☒ Enable Pre-alarm Buffer

☒ Enable Post-alarm Buffer

☐ Enable Re-trigger

☒ Enable This Event

Event Rule :

When "Manual Trigger" happens

Camera "Upload to FTP"

Time Mask :

Always

OK

Cancel

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. Select "Upload to FTP" as action type.
5. Check "Enable Pre-alarm Buffer" and "Enable Post-alarm Buffer". For pre-and

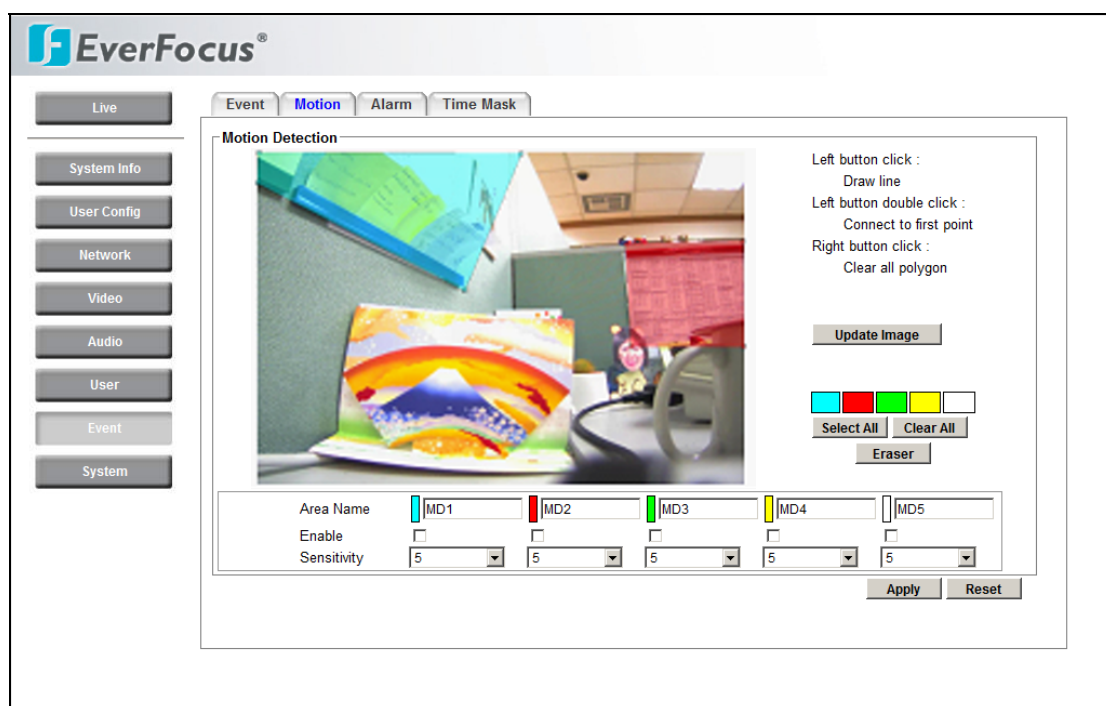
post alarm buffer setting, please refer to “4.7.3 Alarm”.

6. Check “Enable This Event”.

7. Select “Always” for time mask. For detail about Time Mask, please refer to “4.7.4 Time Mask”.

8. Click  to save this event in event list.

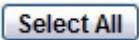
4.7.2 Motion

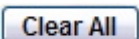


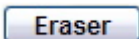
Motion Detection

Users can define the motion areas to be detected by left clicking the mouse to draw lines. Every click is an end point of the line. When the detection area is formed, double click the mouse to have all the lines connected. To remove the selection, simply right click the mouse, the selected polygon will be deleted.

Press  to update the current image.

Press  to have the entire screen selected for motion detection.

Press  to clear all selections.

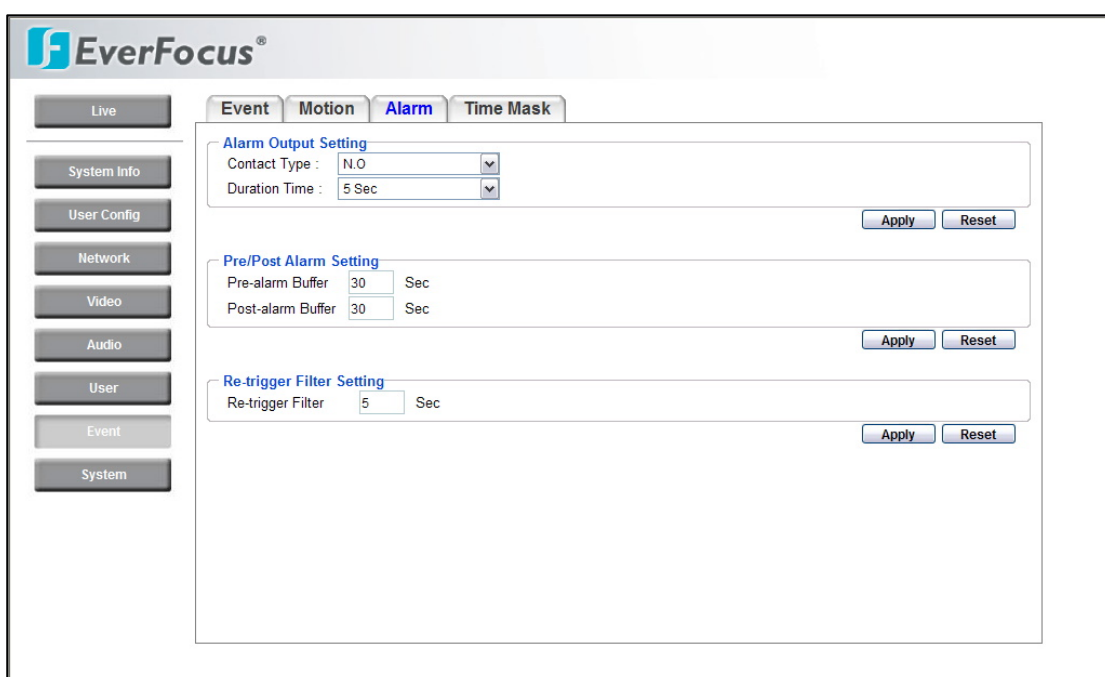
Press  and click on the polygon, to erase that polygon.

There are 5 possible motion trigger areas, which can be distinguished by 5 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” 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).

4.7.3 Alarm



The screenshot shows the EverFocus web interface for the Alarm configuration. The sidebar on the left contains buttons for Live, System Info, User Config, Network, Video, Audio, User, Event, and System. The main content area has tabs for Event, Motion, Alarm (selected), and Time Mask. The Alarm tab is active, showing three configuration sections:

- Alarm Output Setting:** Contact Type is set to N.O. (Normal Open) and Duration Time is set to 5 Sec. There are Apply and Reset buttons.
- Pre/Post Alarm Setting:** Pre-alarm Buffer is set to 30 Sec and Post-alarm Buffer is set to 30 Sec. There are Apply and Reset buttons.
- Re-trigger Filter Setting:** Re-trigger Filter is set to 5 Sec. There are Apply and Reset buttons.

Alarm Output Setting

Contact Type: Normal Close, Normal Open

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 Setting

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.

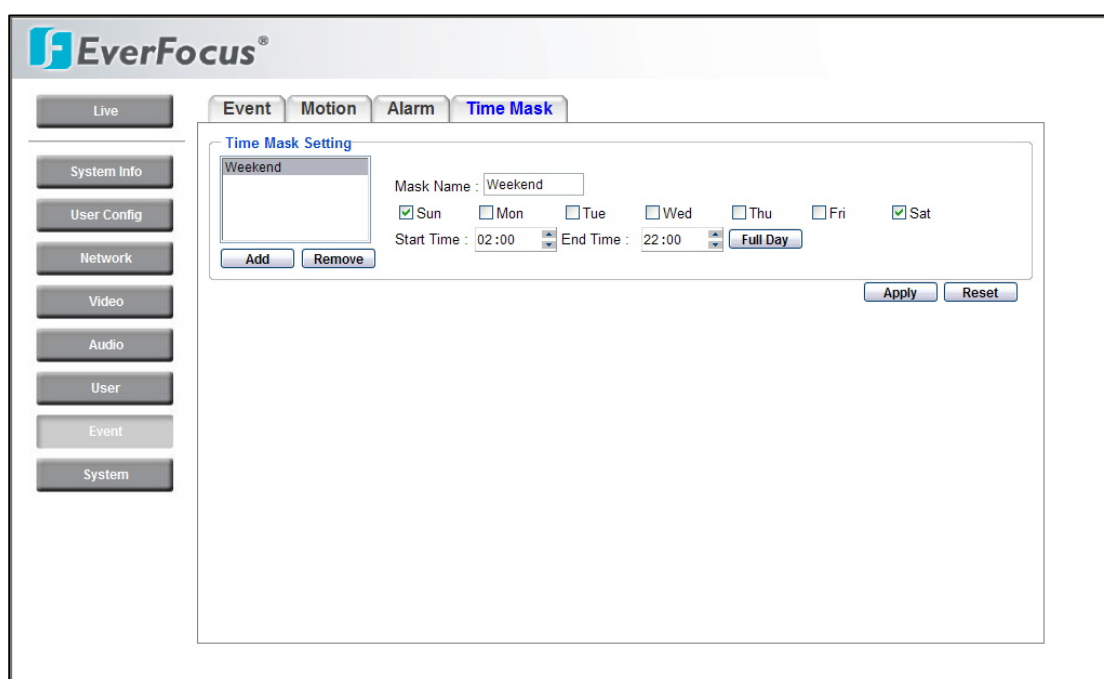
Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

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.

4.7.4 Time Mask

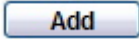


The screenshot displays the EverFocus web interface. On the left is a vertical sidebar with buttons for 'Live', 'System Info', 'User Config', 'Network', 'Video', 'Audio', 'User', 'Event', and 'System'. The main content area has tabs for 'Event', 'Motion', 'Alarm', and 'Time Mask', with 'Time Mask' being the active tab. Below the tabs is a 'Time Mask Setting' section. It features a list box containing 'Weekend'. To the right of the list box, there is a 'Mask Name' field with 'Weekend' entered. Below this, there are checkboxes for days of the week: Sun (checked), Mon, Tue, Wed, Thu, Fri, and Sat (checked). Further right, there are 'Start Time' and 'End Time' fields, both set to '02:00' and '22:00' respectively, with a 'Full Day' button next to them. At the bottom of this section are 'Add' and 'Remove' buttons. At the very bottom of the main content area are 'Apply' and 'Reset' buttons.

Time Mask Setting

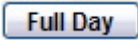
Time mask setting allows you to schedule the times when the system will respond to event actions.

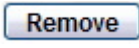
Select **Always** for event action to be taken continuously.

Press  button to add new time period.

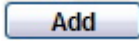
Mask name: Input a mask name for the new time period.

Check the check box for the day to be scheduled: Sun, Mon, Tue, Wed, Thu, Fri & Sat.

Set the **Start time** and **End time** for time mask by clicking Up arrow or Down arrow. Or simply press  for a full day of event action.

Press  button to remove a scheduled time period.

An example on how to set weekend as time mask is as follows:

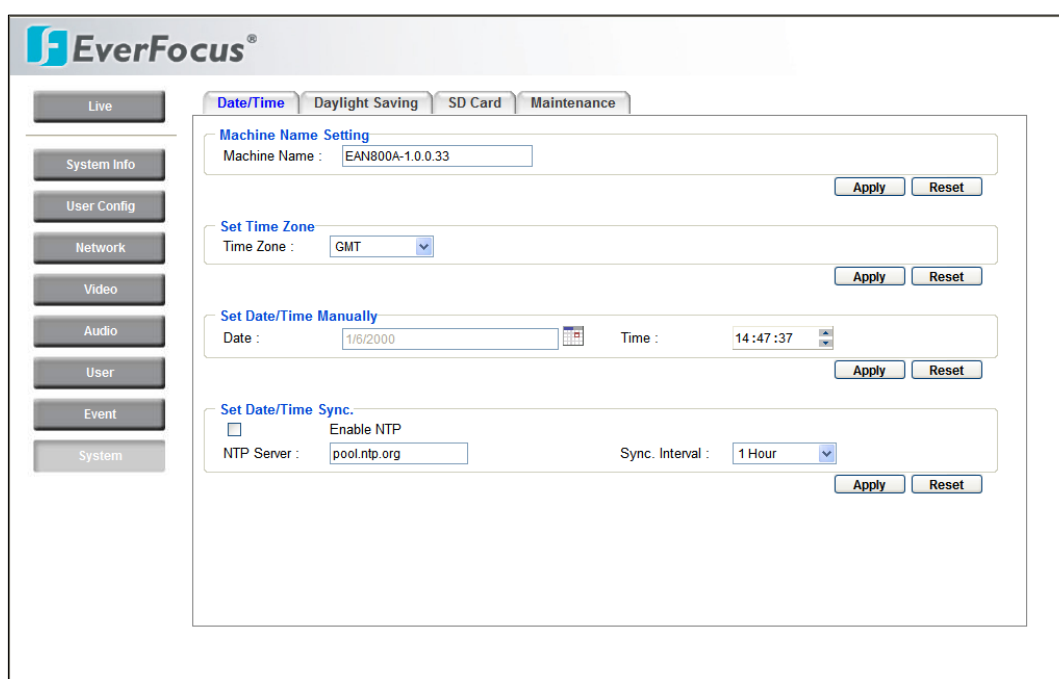
1. Click  from time mask setting.
2. Enter Mask name, e.g. Weekend.
3. Check “Sun” & “Sat” boxes.
4. Select “Start time” and “End time” or “Full day”.

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

4.8 SYSTEM

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

The "System" page has 4 tabs: [Date/Time] tab, [Daylight Saving] tab, [SD card] tab and [Maintenance] tab.



The screenshot shows the EverFocus web interface for the EQN2200 camera. The 'System' page is selected, and the 'Date/Time' tab is active. The left sidebar contains buttons for Live, System Info, User Config, Network, Video, Audio, User, Event, and System. The main content area has four sections: 'Machine Name Setting' with a text field containing 'EAN800A-1.0.0.33' and 'Apply/Reset' buttons; 'Set Time Zone' with a dropdown menu set to 'GMT' and 'Apply/Reset' buttons; 'Set Date/Time Manually' with date and time pickers (1/6/2000 and 14:47:37) and 'Apply/Reset' buttons; and 'Set Date/Time Sync.' with an unchecked 'Enable NTP' checkbox, an 'NTP Server' field containing 'pool.ntp.org', a 'Sync. Interval' dropdown set to '1 Hour', and 'Apply/Reset' buttons.

4.8.1 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 recording and/or snapshot folders created on a user's PC.

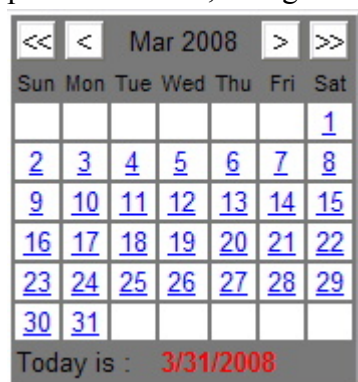
Press **Apply** to apply the setting changes or **Reset** to reset without saving the change.

Set Time Zone

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

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.



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.

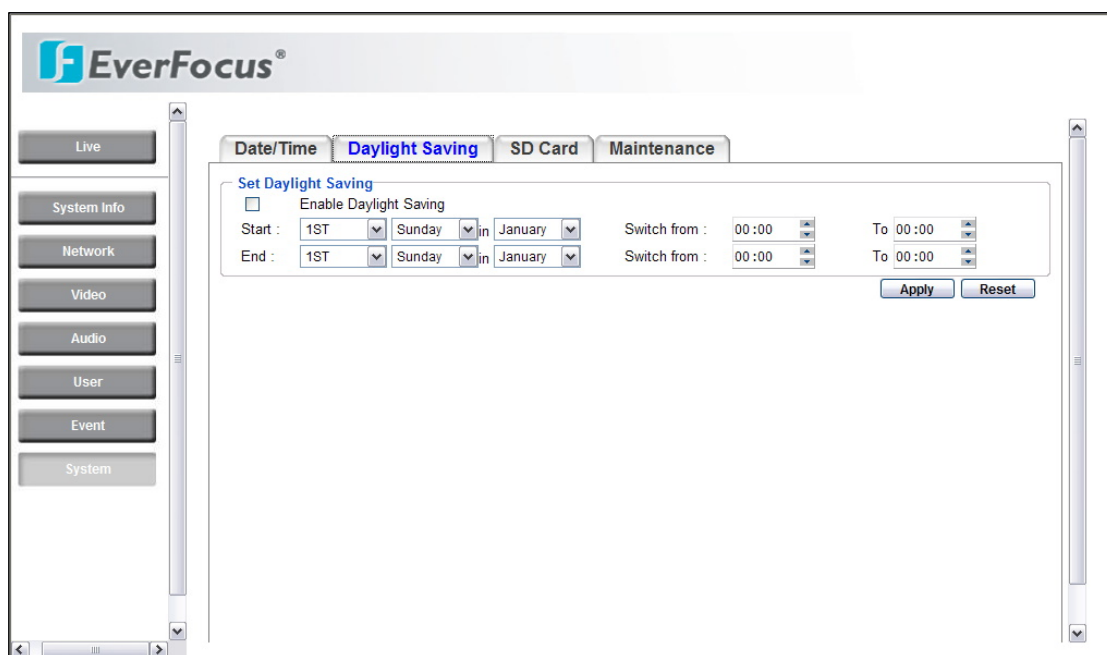
Check Enable NTP checkbox to enable NTP server.

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

Sync. Internal: Select an interval (1 - 24 hours: in 1 hour intervals) to elapse between synchronizations with the NTP server.

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

4.8.2 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

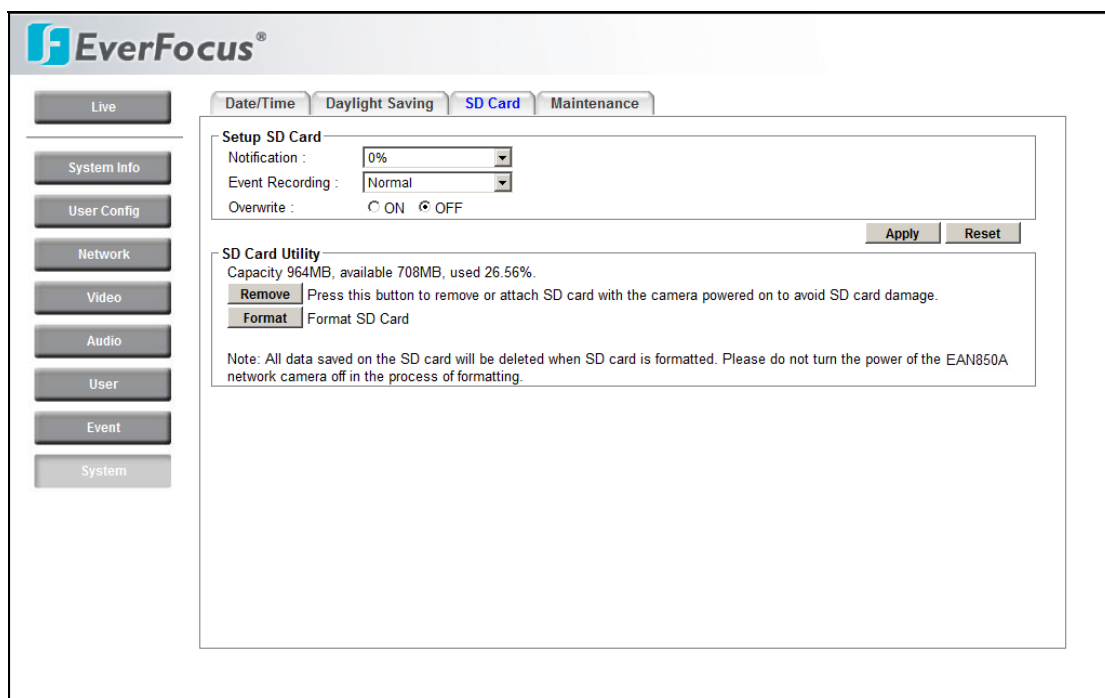
Set the end day of the week from daylight saving time: Sunday / Monday / Tuesday / Wednesday / Thursday / Friday / Saturday

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.

4.8.3 SD Card



Setup SD Card **NEED A DIAGRAM SHOWING WHERE/HOW TO INSERT THE CARD (it's displaying in installation guide)**

Notification: Notification will be made via e-mail when the remaining space of the SD memory card reached the value selected from the following.

50%, 20%, 10%, 5%, 2%, 0%

Notes:

- When "50%" is selected, e-mail notification will be made each time the remaining space reaches 50%, 20%, 10%, 5%, 2% and 0%.
- E-mail notification may not always be made at a very moment when the remaining space of the SD memory card reaches the selected value.

Event Recording:

FTP backup only: Event video will record to the SD card when the network

connection to the FTP server is unavailable.

Normal: Follows the event action settings you have made in the “Event” menu to record event video to the SD card.

Overwrite: Select ON for overwriting older data when the SD card memory is full. Select OFF for not overwriting the SD card data.

Note: no recording can take place if the SD card is full and Overwrite is “Off”.

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

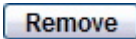
SD Card Utility


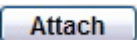
The total size and available size of the SD memory card will be displayed. Depending on the state of the SD memory card, the information will be displayed as follows:

Indication Description

Capacity ____ MB, available ____ MB, used ____ %

Formatting the SD Card

Before formatting the SD memory card, it is necessary to press the  button.

Once the  button is pressed, the  button will be shown for a user to re-insert the SD card.

Press  button to format SD card.

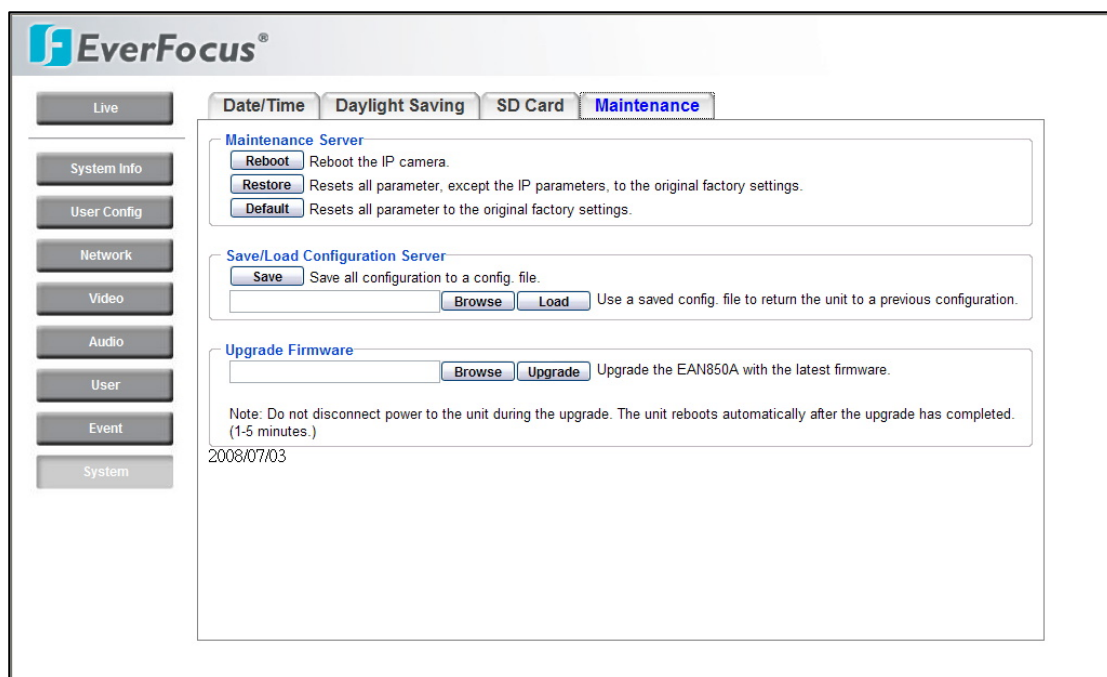
To obtain images from the SD memory card

1. Access the SD card using the Windows command prompt or FTP client software.
→ The window with the user name and password entry fields will be displayed.
2. Enter the user name whose access level is "Administrator" and its password.
→ Log in the camera. **What about SUPERVISOR – will that work??**
3. A directory of all saved data will be displayed. You are now ready to obtain images from SD card.

Note:

- It is impossible to access the SD memory card in the process of formatting.
- All data saved on the SD memory card will be deleted when the SD memory card is formatted.
- Do not turn the power of the camera off in the process of formatting.

4.8.4 Maintenance



Maintenance Tab

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: 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 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.

