

# IP-001E

## MISUMI Video Server Products Series

### User Manual & Installation Guide

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## 1. Product Overview

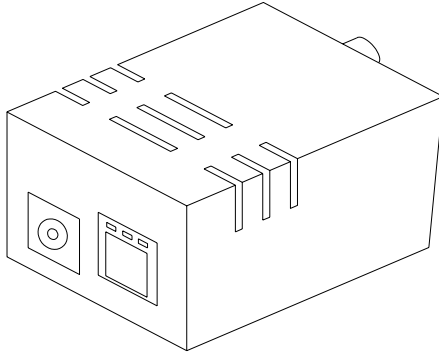
What is MISUMI Video Server?

**MISUMI Video Server is designed for intranet & internet use. Users can view image or change configurations via built-in web server. The two-layer user-validation prevents any illegal user to monitor or change configuration once user validation is enabled**

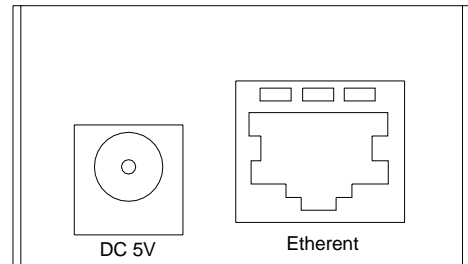
Product Features

MISUMI IP Cameras	CPU: 32 Bits RISC Processor. 16Mb Flash, 64Mb SDRAM Linux OS TCP/IP network remote Video transmission system High performance JPEG/MJPEG compression Built-in Web sever Built-in DHCP Client Built-in Motion Detection Frame Rate Control Administrator / User level password protection Snapshots On-line firmware upgrade Frame Rate: NTSC: 30 frame/sec
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## 2. Physical Connections



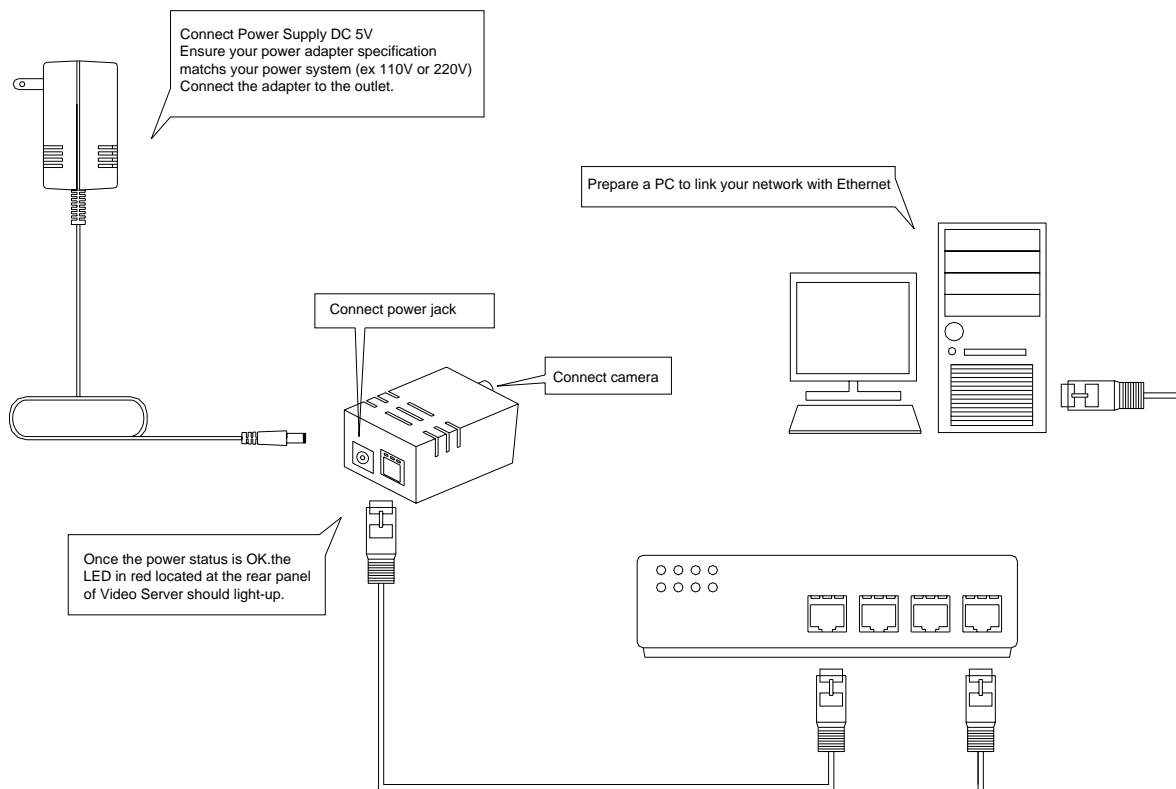
Side Panel Connections



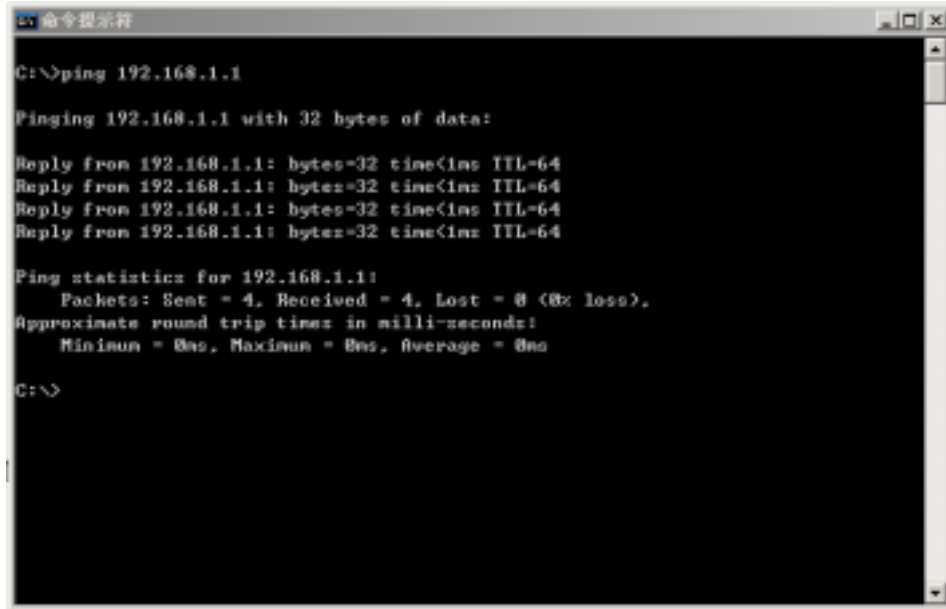
Front Panel Connections

IP-001E

## 3. Installation



## Network connectivity check



```
C:\>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

Please check your network connectivity before you start install the product. Confirm the link status of your LAN is OK. You may try use the following way to check the network.

Assuming you are under Microsoft Windows 2000 desktop, Click on Start button, Programs, Accessories, Command Prompt , Then there will be a blank window appear to wait command input. Please key in the following command to test the network status.

C:\>ping 192.168.1.1 [Enter]

**\*Note:** the target IP address given above may be correct in common scenarios, if your network is not configured by IP segment 192.168.1.x, please change the IP Address to a valid address in your local network. Any difficulties please contact your network administrator for assistance.

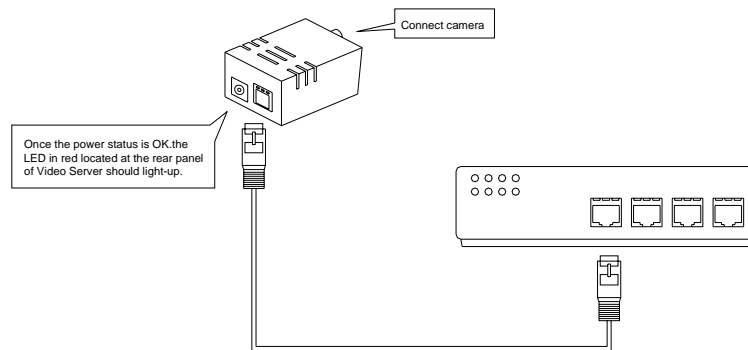
If your network status is OK, the result of above command should like following

Pinging 192.168.1.1 with 32 bytes of data:  
Reply from 192.168.1.1 bytes=32 time=10ms TTL=64

...

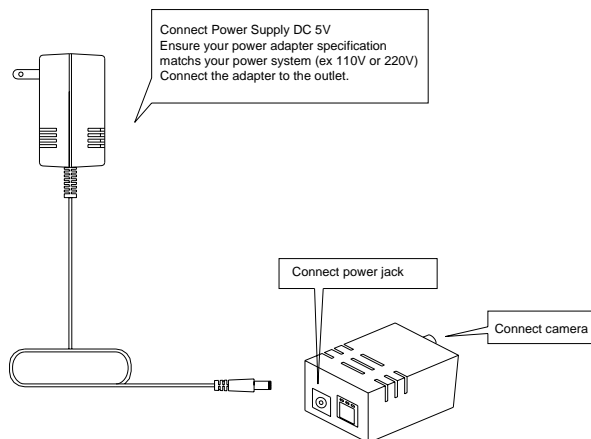
If you have confirmed your network connectivity is OK, Please proceed to next part of installation guide, otherwise, contact your network administrator to recover the problem.

## Connect Video Server to network



**Connect Video Server to your hub/switch by using a normal RJ45 cable, plug the RJ45 cable into the Ethernet connector located at the rear panel of the Video Server, another side connect to your hub/switch.**

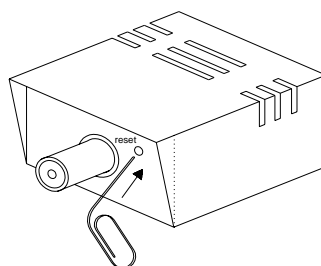
## Connect Power Supply



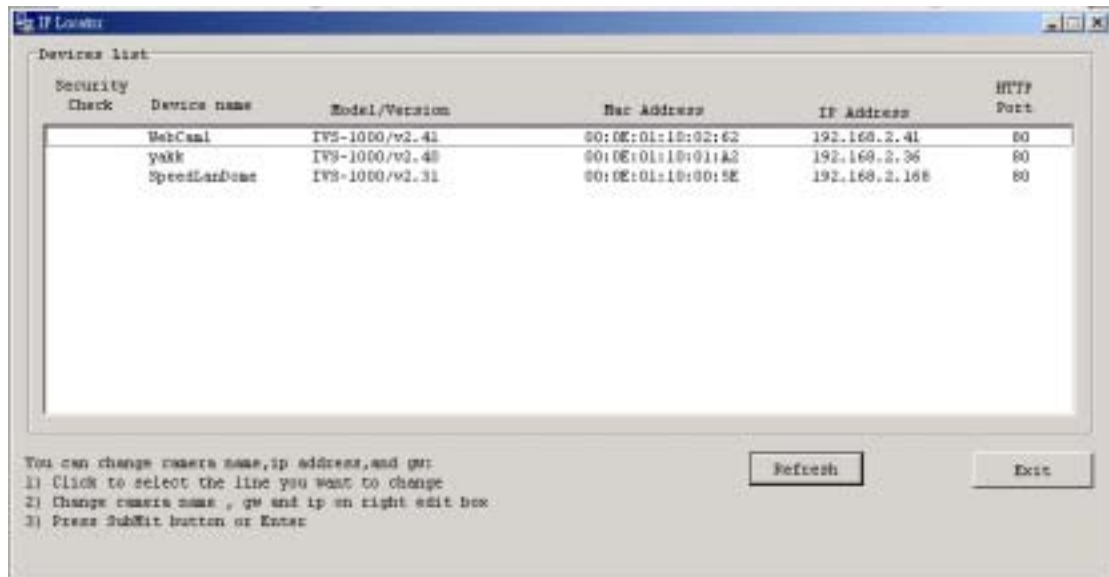
**Connect the Video Server and power source with the adapter provided, plug the power adapter into the DC 5V Connector. Once the power status is OK, the LED in red located at the rear panel of Video Server should light-up.**

## How to reset

### Load Video Server Default Settings



## Start your first time network monitoring



Run the “IPLocator” utility, the newly connected Video Server will be listed in the application window. Please remember its’ IP address.

Open an Internet Explorer Window input the following address into the address textbox:

[http://\[Video Server IP Address provided by IPLocator\]](http://[Video Server IP Address provided by IPLocator])

After you press on the enter key, the main working interface and video picked by the camera should appear after a short period. The installation steps are completed. You may now start your first network monitoring experience.

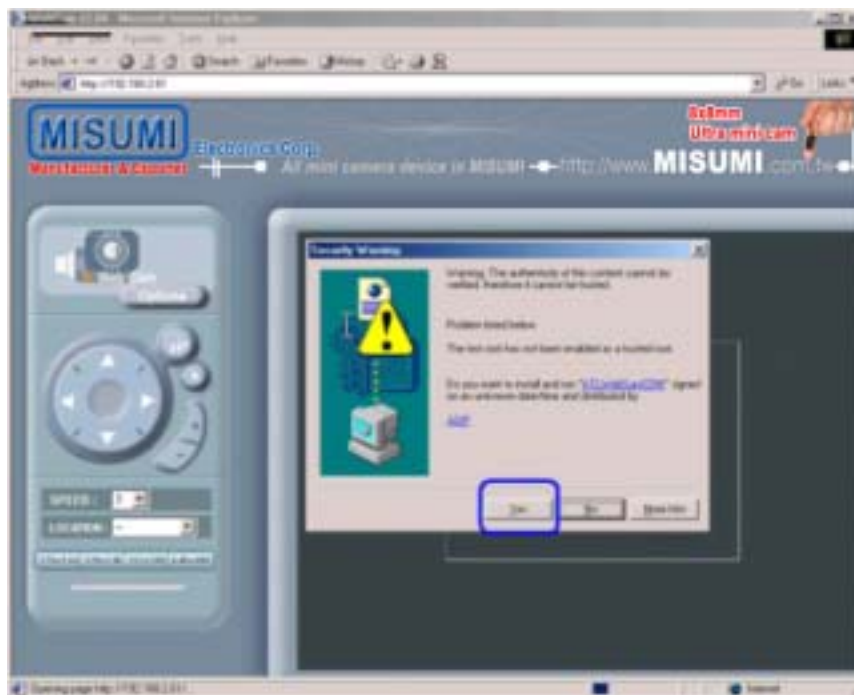
**Note:** when you first time enter the working interface, the browser may ask whether to install a COMWebSurv component, which is used to communicate with our Video Server product, PLEASE CHOOSE YES to install, otherwise the monitoring function may not work.

## How to visit the built-in web

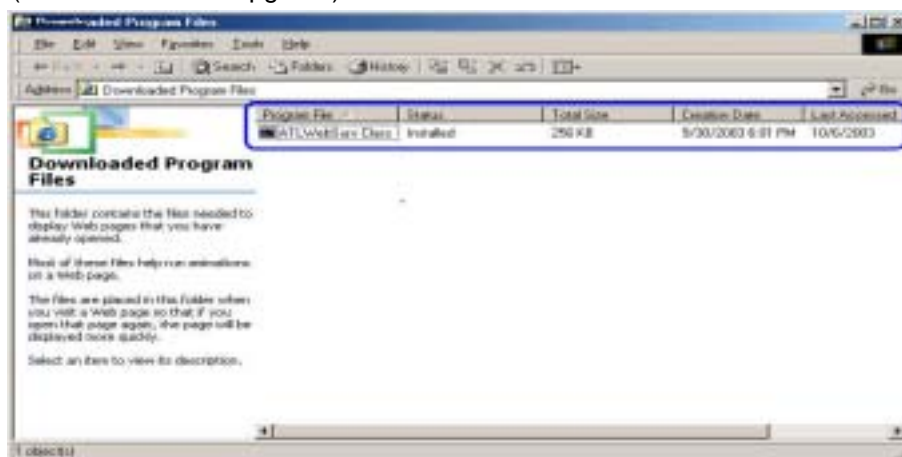
Launch your Internet Explorer (I.E. 6.0 or above) first, then type the Video Server's url. (i.e. <http://192.168.1.100>). The user validation is disabled as default, no login is necessary. The user is same as the system administrator(Default : root/pass).

For the first time user visits the Video Server, the ActiveX(ATLWebSurvCOM) will be downloaded to the **[Downloaded Program File]**. Be sure to click the button **[Yes]** as below.

Notes: Call your system administrator if you have not enough privilege to download the ActiveX. (i.e. Users should be the administrator to download the ActiveX for Windows 2000/XP operation system)



You can find the ActiveX ATLWebSurvCOM will be downloaded to the **[Downloaded Program File]** folder. The above dialog will pop automatically once new ActiveX is available(i.e. after firmware upgrade)





### About the User Interface of Video Server

The upper window is for company logo display (i.e. This is a generic version. The company logo leaves blank). The left side of the window is the control panel. The right window is for image display. (Please switch to full screen mode when the resolution is set to VGA mode)



### How to check the firmware version

Click the WebCam icon and you will read the firmware version



## How to change the configurations

The system administrator: root is the one who has the privilege to change system configuration if user validation is enabled. The following window will appear when you click [Options] icon in the control panel (left side of the window). The follow is the description & field definition.

### [System]:

**Server Info:** Server Model and Firmware Version

**Device Name:** the name of hardware device.

**Video Mode:** Video Mode (NTSC or PAL)

**Time Zone:** Time Zone Setting

### Display Option

**Show Camera Name:** Show Camera Name on Display

**Show Date Time:** Show Date Time on display

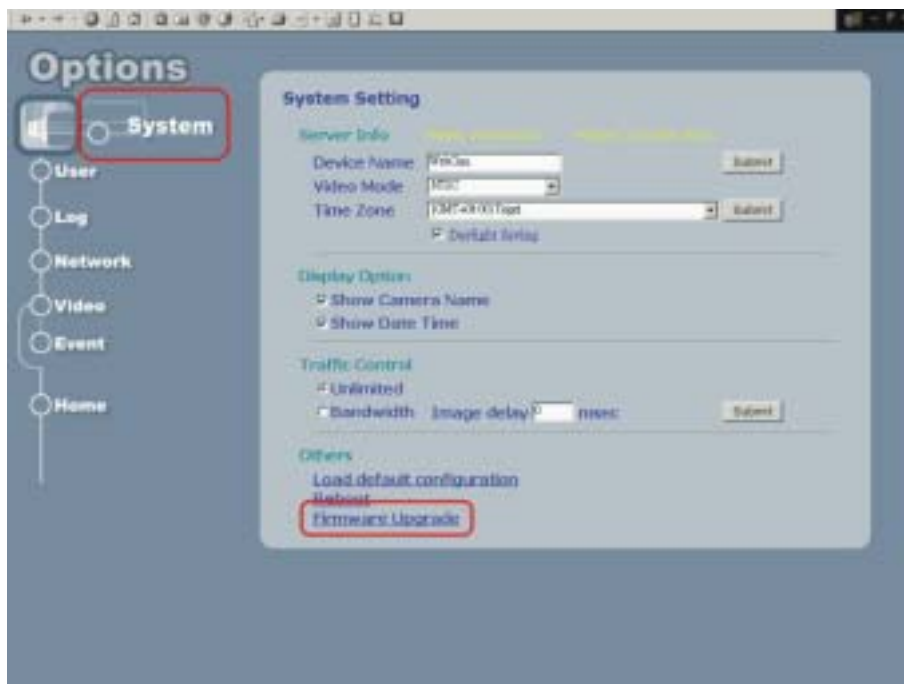
**Traffic Control:** Bandwidth Setting

### Others

**Load default configuration:** Load the factory default.

**Reboot:** Reboot the hardware remotely.

**Firmware Upgrade :** Upload & upgrade the Video Server firmware.

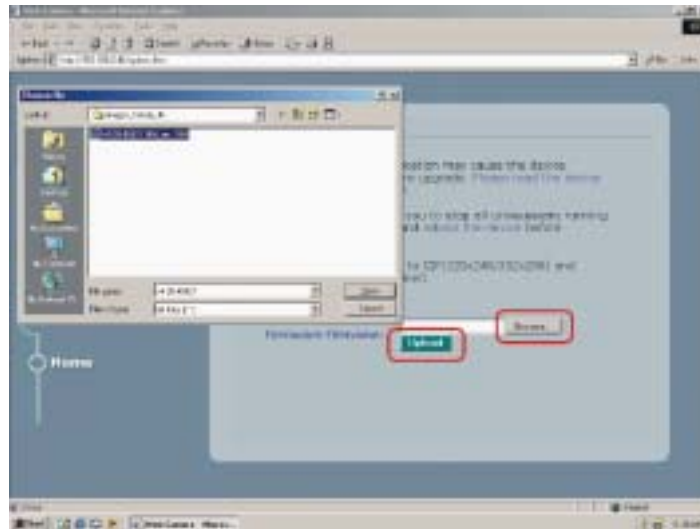


**[Firmware Upgrade]:** Please follow the standard procedure to upgrade firmware.

**Step 0:** Stop all unnecessary running application in your PC.

**Step 1:** Uncheck the **[Browse..]** and **[Upload]** motion images in the Motion Detection Setting and reboot the hardware. **Note: You have to make all event setting to be disable, before you do this step.**

**Step 2:** Upload the firmware: Be sure to upload the correct firmware. Wrong firmware may cause your Video Server malfunction. It's possible to take a few minutes to upload the firmware into memory depending on the network environment. Since too many unknown situation may occur in the Internet, we strongly recommend you to upgrade firmware in the Intranet.



**Step 3:** Write firmware to your Video Server. It will take a few minutes to write firmware into flash. The Video Server will reboot automatically when writing firmware is complete. Please DO NOT reboot the device manually.

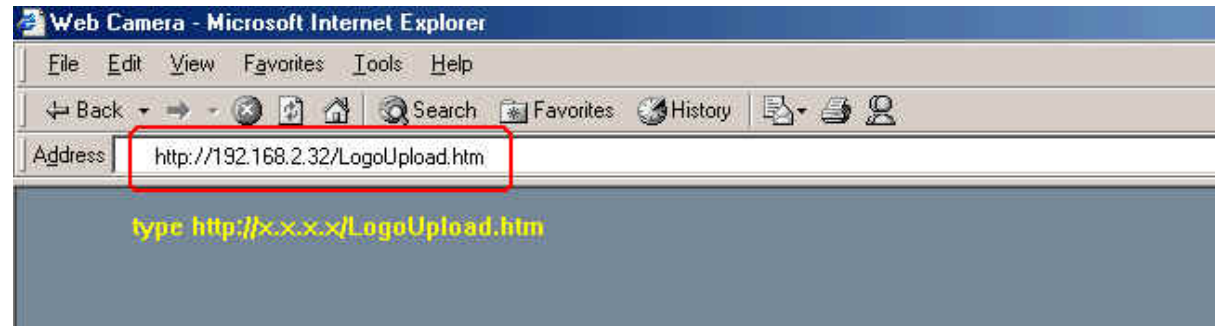
**Note:** Any interrupt during writing will cause the IP cam malfunction. The UPS may prevent the power failure problem.



## How to change User Logo

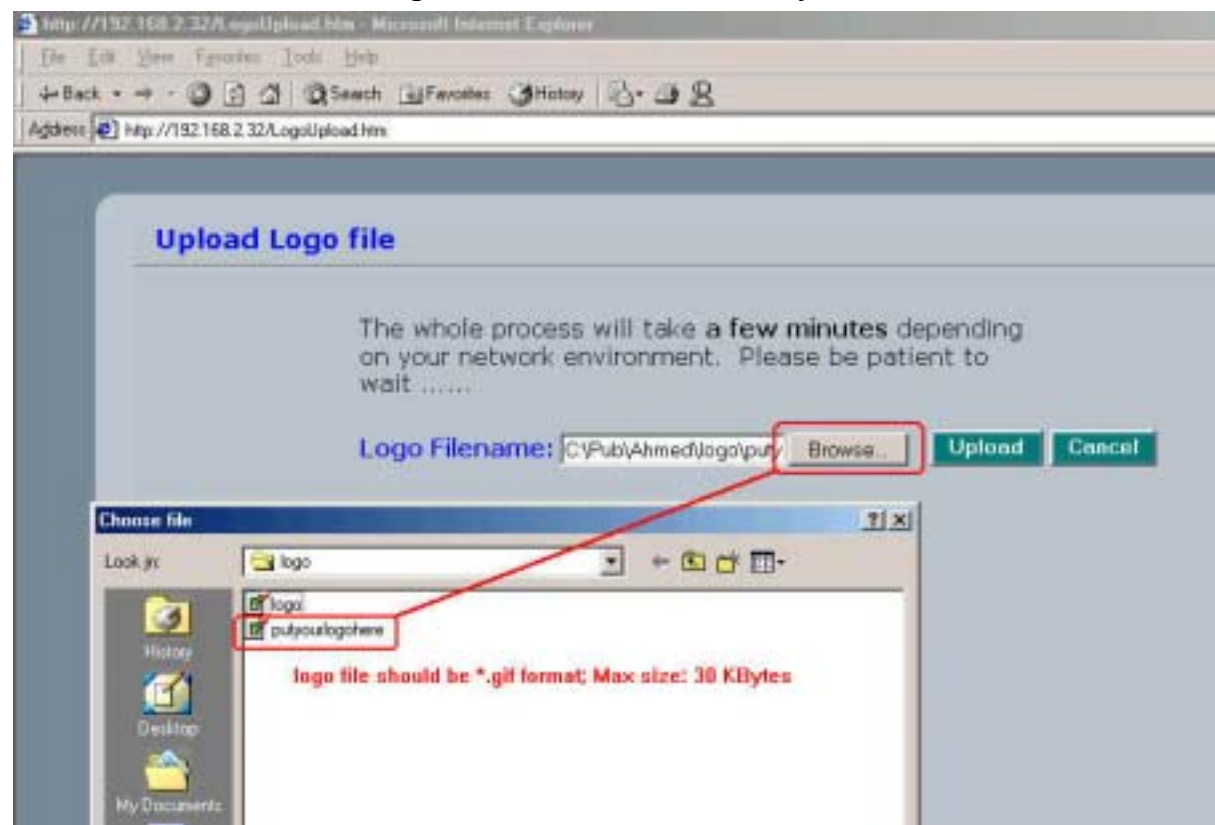
We allow you to use your own logo from version v3.0. User logo will not be erased when you upgrade firmware in the future. The detailed procedures are as follows:

**Step1:** Type <http://Video ServerIP/LogoUpload.htm>

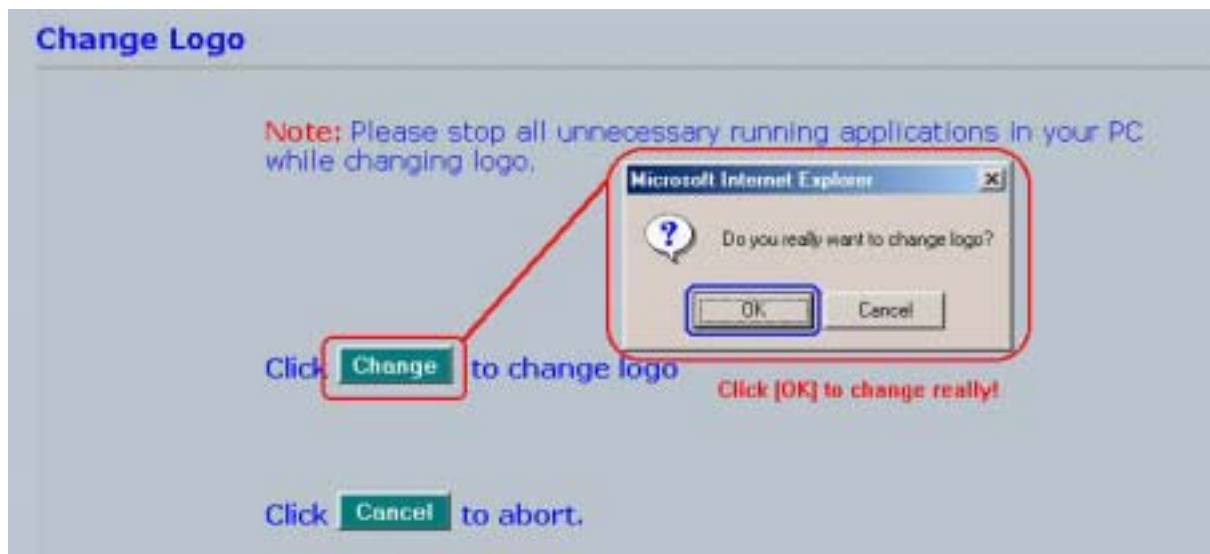


**Step 2:** Browser the logo file to use and upload to upload it.

**Note:** The file format must be gif and the max size is 30 K bytes.



**Step 3:** Click [Change] button to write logo file into flash memory.



**Step 4: Reboot Video Server once ChangeLogo is complete.**

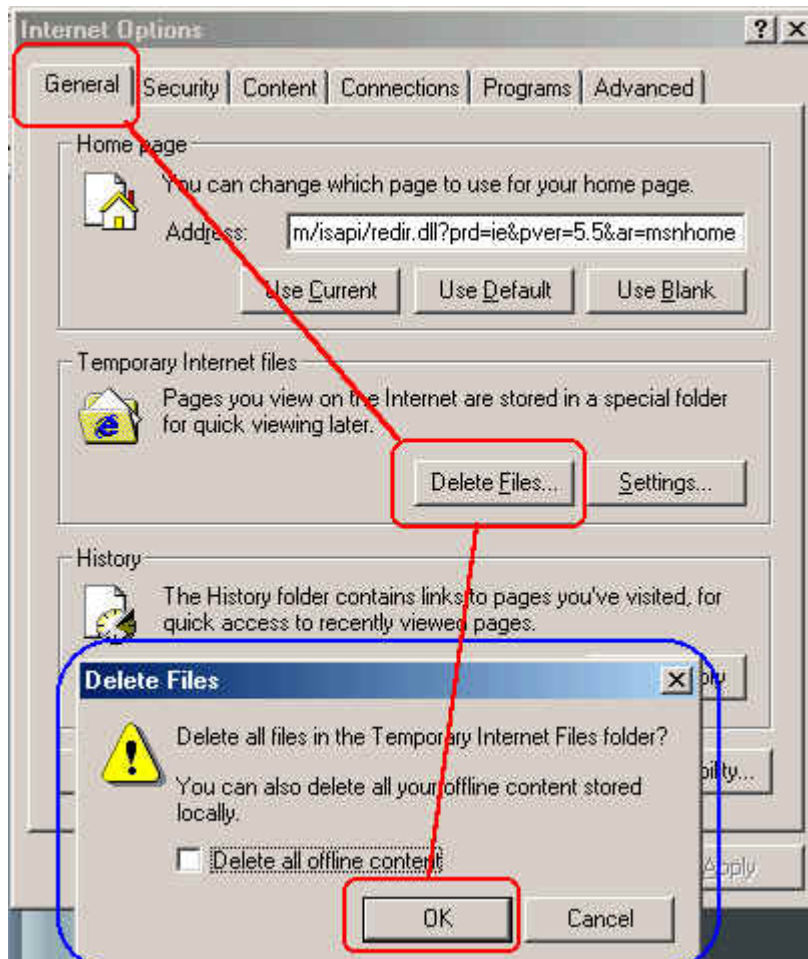




**Step 5:** You have to clear the [Temporary Internet files] to take changes effect since there is always some catch in the I.E. Please click [Tools] [Internet Options..] on the top bar.



**Step 6:** Clear [Temporary Internet files] as follows.

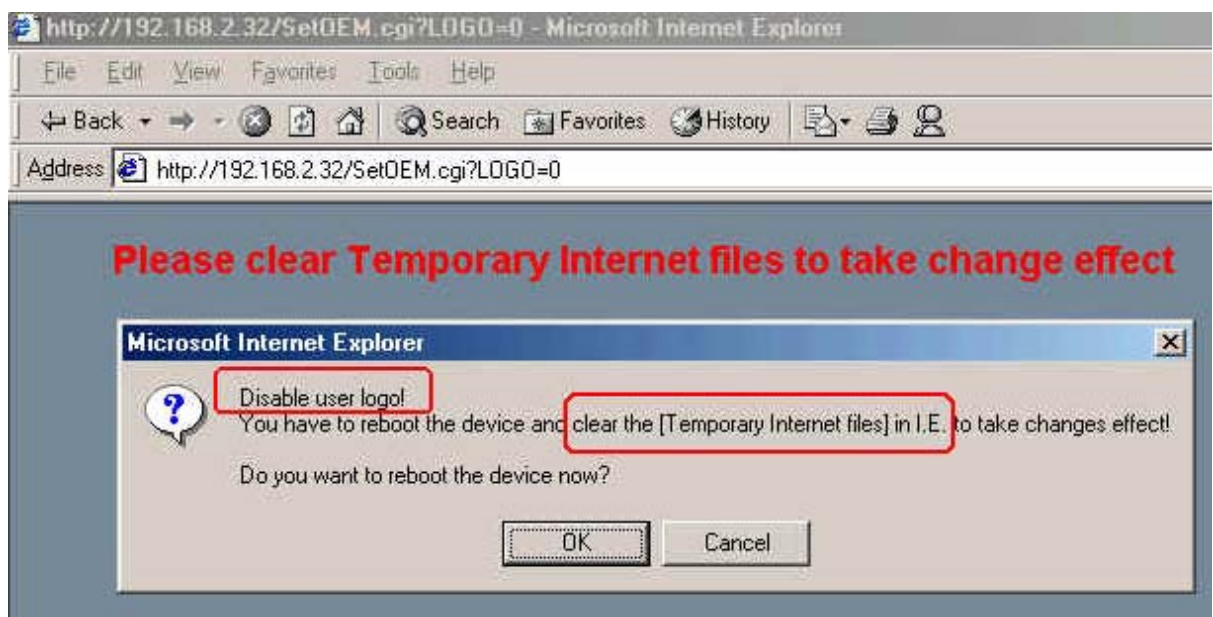


**Step 7: Refresh I.E. (Click F5) to take changes effect. You will see you new logo below.**



How to disable and enable user logo

Type: <http://Video ServerIP/SetOEM.cgi?LOGO=0> to turn off the user logo



or <http://Video ServerIP/SetOEM.cgi?LOGO=1> to turn on the user logo

## User Management

The administrator(root) has the privilege to manage users if User Validation is enabled. Here are the configurations available & field definition.

### [User]:

#### User validation

**Yes** : Enable user check

**No** : Disable user check

**Add/Modify User:** To create new user or modify existing user password

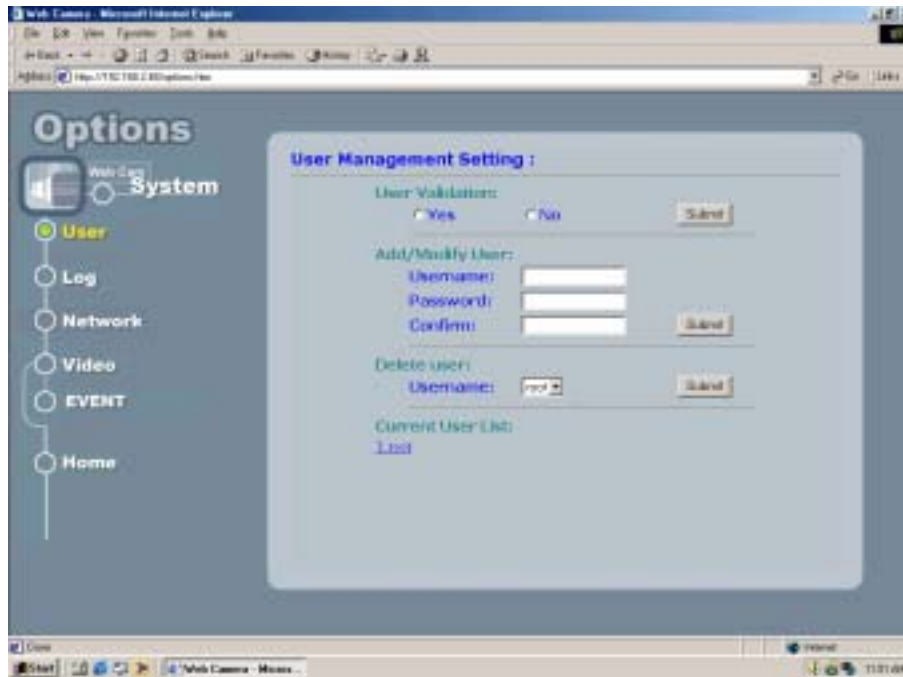
**Username** : user name

**Password**: user password

**Confirm** : user password confirmation

**Delete user:** To delete existing user

**Current User List:** The users in the Video Server





## Log

The system log will be listed in the window when you click **[Log]** icon.

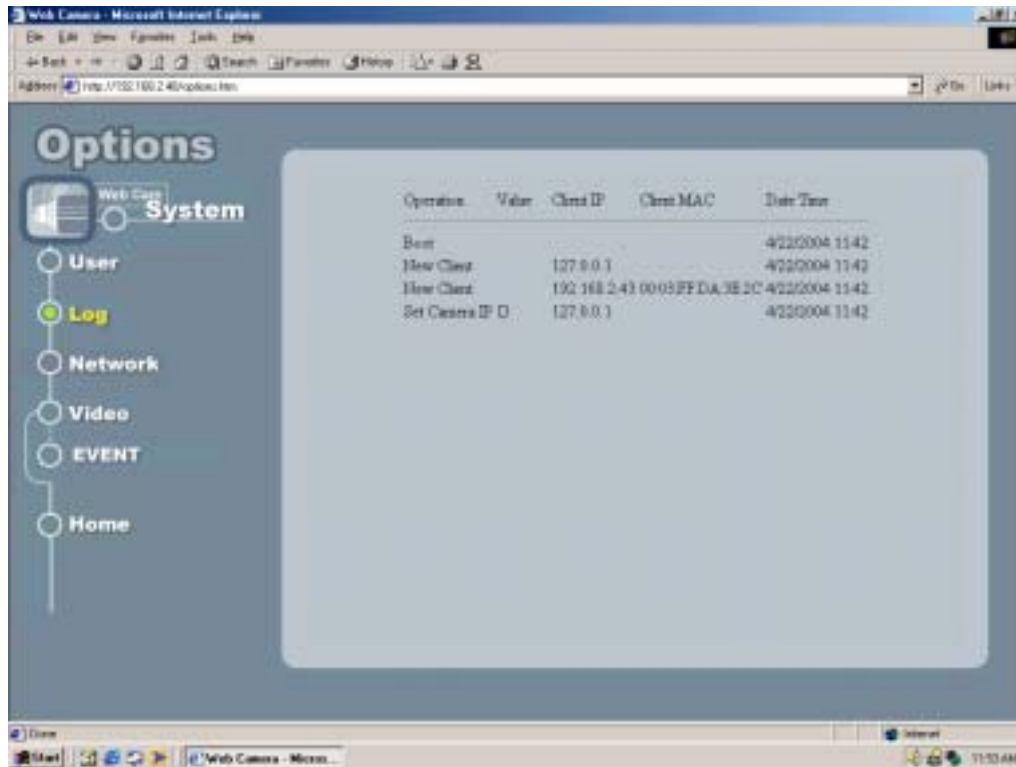
**Operation:** The operation which user operates

**Value:** The value to change

**Client IP:** The IP address of client PC

**Client MAC:** The mac address of client PC

**Datetime:** date-time which operation occurs



## Network

Allows administrator(root) to change network setting when you click **[Network]** icon.

**IP Setting:** Please consult you networking manager for the following values

**Manual:** To set network setting manually.

**DHCP:** To let Video Server get network setting from DHCP server automatically.

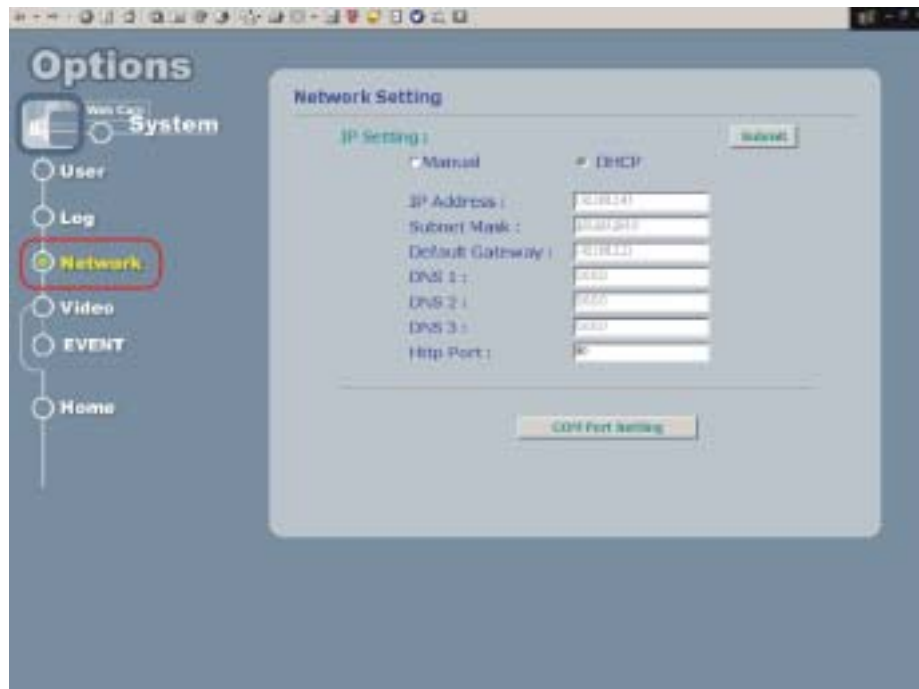
**IP Address:** IP address of Video Server

**Subnet mask:** Subnet mask of Video Server

**Default Gateway:** Default gateway of Video Server

**DNS 1/2/3:** DNS Server IP if necessary

**Http Port:** Change the http port of built-in web server (default 80).  
(i.e. range 80, 1025 ~ 65535)



## Video

Allows administrator(root) to change Image Setting, Traffic Control or Motion Detection.

### Image Setting

**Quality:** Image Quality (Low/Normal/Good/Fine/Excellent)

**Images Size:** 160x120/176x144/320x240/352x288/640x480/704x576

**Rotation:** Normal/180 degree (Upside down)

**Advanced:** Image preference adjustment

**Brightness:** Adjust image brightness

**Contrast:** Adjust image contrast

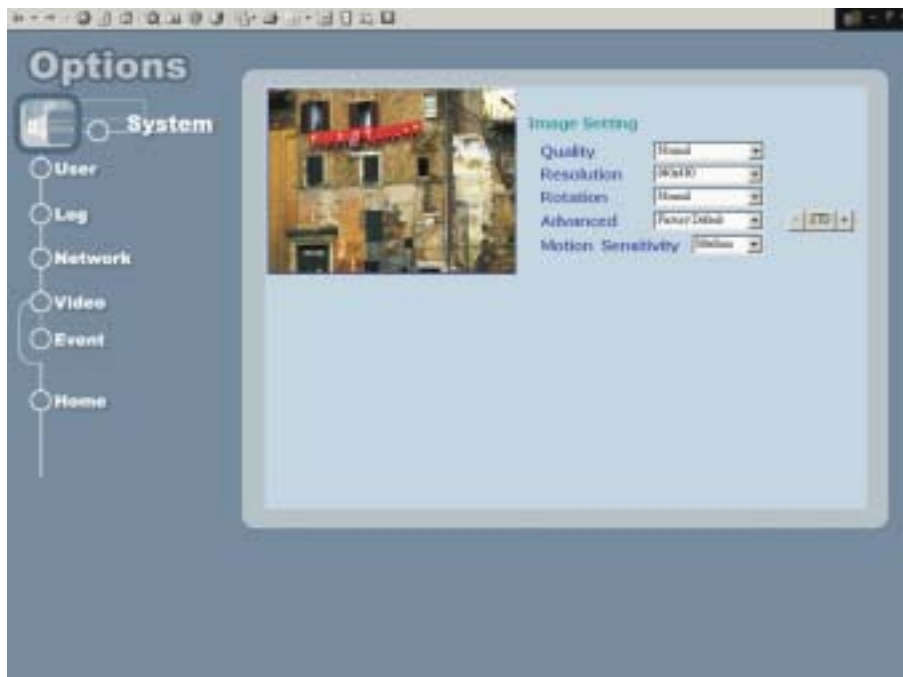
**Hue:** Adjust image hue

**Saturation:** Adjust image saturation

### Traffic Control

**Unlimited:** To send out image at full speed. (up to 30 frames per second)

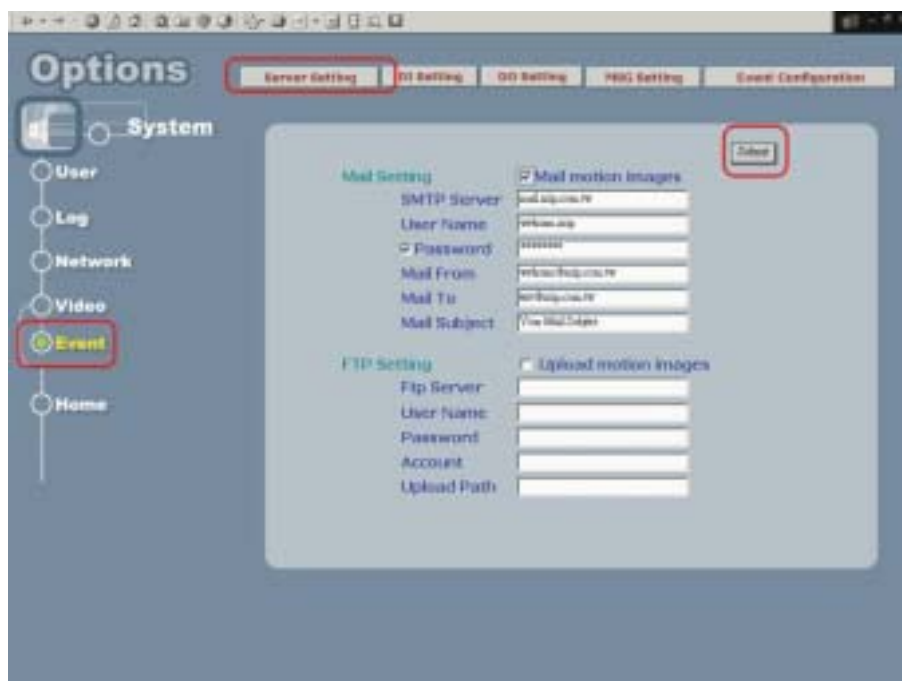
**Frame per second:** Delay to send image every x second(mini-second)



## Event

This Option contains three major functions: Server Configuration, GPIO Configuration and Event Configuration

**Server Configuration:** User can setup Ftp and Mail services that provides the actions in Event setting.



See figure below:

Allows administrator(root) to configure the mail & ftp setting once motion detected

**Mail Setting:** if check on Mail motion images, Device will send motion images

**Mail Server:** Name or IP of Mail server

**Username:** User name

**Password:** User password (Password will be validated if checked)

**Mail From:** Mail sender

**Mail To:** Mail receiver

**Mail Subject:** Mail subject

**FTP Setting:** if check on Mail motion images, Web DVR will upload motion images

**FTP Server:** FTP Server

**Username:** User name

**Password:** User password

**Upload Path:** Images upload path

**GPIO Configuration :** Allow user to define types of digital input and their status.

See Figure below:

**DO Configuration:**



Index: the Index of digital output

DO Type: define type of digital input to : **[Normal Open]** or **[Normal Close]**

DO Status: Disable the DO or Enable it.

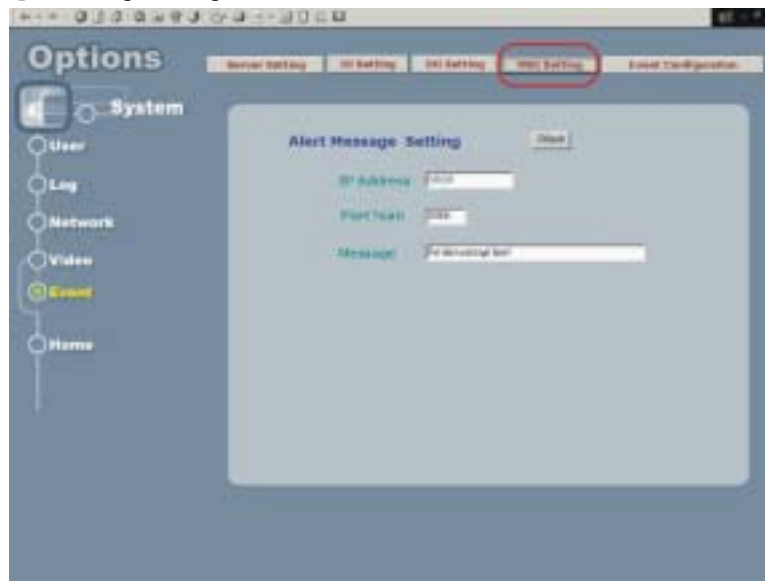
**MSG Setting:**

Alert Message function provides user the ability to send message to a remote server. Device manager can assign ip address , port number and message for remote server. Thus, Remote server can collect related alert messages via network when events are triggered.

**[IP Addresss]:** Server's IP addresss.

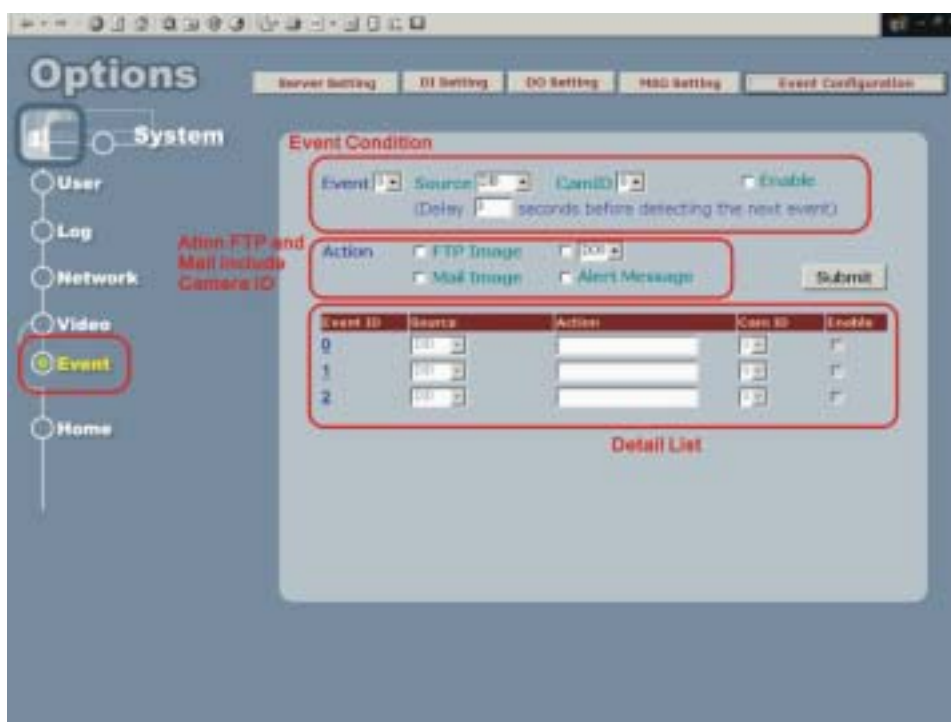
**[Port Num]:** Http port Number.

**[Message]:** Message string.



**[Action]:** Including FTP, MAIL, DO and MSG.

After System accepts trigger condition, related actions can be launched. FTP and MAIL will send image to remote area, thus; [Camera] is necessary for user to specify. DO is related to its index to specify which digital output (Only 0 is enable). MSG can send a string to remote server via TCP protocol which will be released soon.



## 4. Product Specifications

### Models

IP-001E: MISUMI Video Server with serial communication support

### Specifications:

Items	Specifications
<b>Model</b>	IP-001E
<b>Power</b>	
<i>Supply</i>	DC 5V , 1.2A
<i>Consumption</i>	~3 Watts
<b>Networking</b>	
<i>Connectivity</i>	10/100 Ethernet
<i>Protocols</i>	SMTP, FTP, DHCP, HTTP
<i>Internet</i>	Built-In HTTP Web Server, DHCP Client
<b>Event Controls</b>	
<i>Trigger By</i>	Motion Detect
<b>Alarm Notifications</b>	<b>FTP/Mail motion image, Message</b>
<b>Images</b>	
<i>Compression</i>	JPEG/MJPEG
<i>Bandwidth Control</i>	Frame Rate Controls
<i>Format</i>	NTSC:640x480/320x240/160x120 PAL: 640x480/352x288/176x144
<i>Frame Rate</i>	25 fps @ 320x240 20 fps @ 352x288
<i>Quality</i>	5 Level Image Quality
<i>Image adjustments</i>	Brightness / Saturation / Contrast / Hue
<b>Security Controls</b>	
<i>Access Control</i>	Administrator / User Level Password Protection
<i>Configuration</i>	Http Port configurable
<i>Log</i>	Historical Access Log Management
<b>Operating Environment</b>	
<i>Temperature</i>	5°C~50°C(45°F~125°F)
<i>Humidity</i>	20% ~ 80%
<b>LED Indications</b>	Power, Network

<b>Dimension</b>	60mm(W) x 31mm(H) x 84mm(L)
<b>Remote Viewing</b>	Windows 98/2000/XP IE5.X or above

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## 5. Appendix

### Dictation

#### **TCP/IP:**

Transport Control Protocol/Internet Protocol, the protocol used to transmit data between hosts in Internet, which provides data verification and error protection

#### **Web:**

World Wide Web service is used on Internet widely, It's provides interactive rich content by using a web browser

#### **Firmware:**

A program built in hardware, which is used to control the hardware, provides software level functions

#### **MJPEG:**

Motion JPEG compression algorithm, use to compress digital video

#### **MPEG:**

International standard video compression algorithm

#### **DHCP:**

Dynamic host configuration protocol, used on IP network perform IP address, gateway, DNS server assignment, etc for client computers

#### **DNS:**

Domain Name Server/Service is used to translate domain name in to IP address

#### **LAN:**

Local area network

#### **WAN:**

Wide area network, normally Internet

#### **FTP:**

File transportation protocol, used to transmit files between server and client

#### **POP:**

Post office Protocol provides Email storage and receive service

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**SMTP:**

Simple mail transportation protocol, provides Email delivery and relay service

**Hub:**

Physical layer network inter-link device, which simply connect ports together and broadcasting the data packet to all the port.

**Switch:**

Data link layer network inter-link device, which provides end-to-end data packet forwarding,

**Router:**

Network layer device, which connect networks and provides the function named "Routing" to find the best way to transport data from source to destination

**CGI:**

Common gateway interface, a kind of program, running on a web server to provides dynamic data process function and interacts with users' action

**ActiveX:**

Concept and standard gave by Microsoft, which separates program into functioning pieces named ActiveX Control. These control can be embed into users' program to give their specific function.

---

Use CGI command to setup GPIO and Events

How to configure GPIO Process?

### How to setup DI type in the device

[http://ServerIP/SetDIType.cgi? Channel=<1>& Enable=<FALSE | TRUE>& Type=<"NC"|"NO">](http://ServerIP/SetDIType.cgi? Channel=<1>& Enable=<FALSE | TRUE>& Type=<)

Example: Set channel 1 (Input channel) into 'NC' type

<http://192.168.2.1/SetDIType.cgi? Channel=1&Type=NC&Enable=TRUE>

### How to get DI type in the device

<http://ServerIP/GetDIType.cgi>

### How to get DI status into the device

<http://ServerIP/GpioInput.cgi?>

Example: Get channel status from channel 0 to channel 1

<http://192.168.2.1/GpioInput.cgi?>

### How to set Do status into the device

<http://ServerIP/GpioOutput.cgi? Value=ON|OF>

Value - 0: LOW

1: HIGH

Example: Set channel 1 (output channel) into LOW

<http://192.168.2.1/GpioOutput.cgi? Value=ON|OFF>

How to Configure Event Process

### How to setup event status?

[http://ServerIP/SetEvent.cgi?Reset=<FALSE|TRUE>&Index=<Value>&Input\\_](http://ServerIP/SetEvent.cgi?Reset=<FALSE|TRUE>&Index=<Value>&Input_)

Type=<0|1>&Enable\_Flag=<FALSE|TRUE>&Action\_FTP=<ON|OFF>&Action\_MAIL=<ON|OFF>&Action\_DO=<ON|OFF>&Action\_MSG=<ON|OFF>&Action\_PRESET=<ON|OFF>

Index=0~2 event index from 0 to 2

Input\_Type: 0 = Digital Input, 1 = Motion detection

Enable\_Flag:FALSE|TRUE, TRUE=ENABLE, FALSE=DISABLE

Action\_FTP=<ON|OFF>

Action\_MAIL=<ON|OFF>

Action\_DO=<ON|OFF>

Action\_MSG=<ON|OFF>

Action\_PRESET=<ON|OFF>

Input\_index=<Value>

Output\_index=<Value>

Reset=<FALSE|TRUE> clean all the event

Example : Setup an Event=> DI trigger "DO" and "MAIL" in first event(that means index = 0)

[http://192.168.2.1/SetEvent.cgi?Index=0&Input\\_Type=0&Enable\\_Flag=TRUE&Action\\_FTP=ON&Action\\_DO=ON](http://192.168.2.1/SetEvent.cgi?Index=0&Input_Type=0&Enable_Flag=TRUE&Action_FTP=ON&Action_DO=ON)

## How to get event status?

<http://ServerIP/GetEvent.cgi?Index=<0~2>>

Index=0~2

Example: Get Event index =1

<http://192.168.2.1/GetEvent.cgi?Index=1>

Scenario: Use **DI** to trigger **event** and send images through **Mail and FTP**

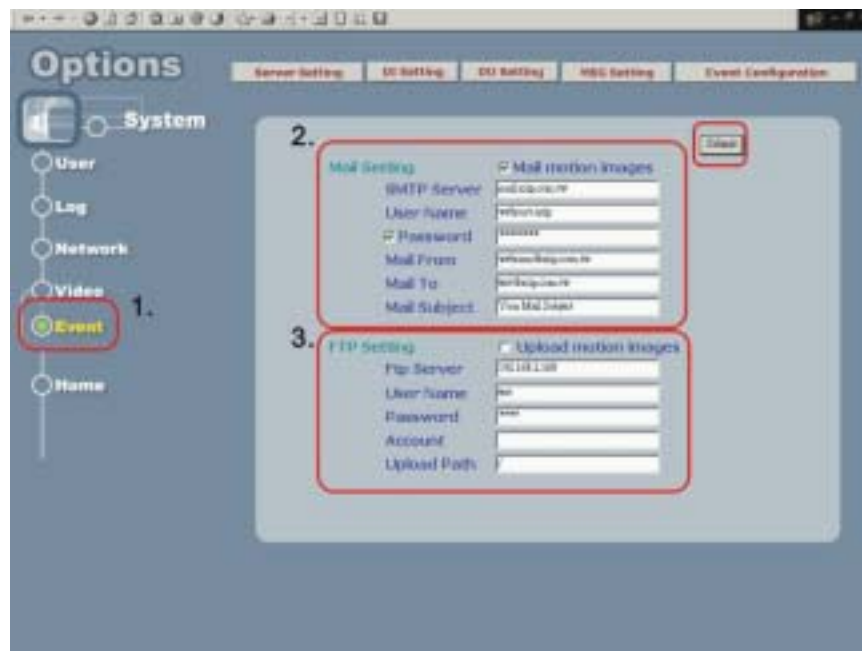
**This scenario can help you to simulate use our digital input to send Mail or FTP into remote side.**

Turn FTP Service on the server

Enable DI status to "ON"

Exp: <http://ServerIP/SetDIType.cgi?Channel=1&Type=NC>

Turn On FTP and Email



Setup Event status

<http://192.168.2.1/SetEvent.cgi?>

Index=0&Input\_Type=0&Enable\_Flag=TRUE&Action\_FTP=ON&Action\_MAIL=ON

Check DI type status

<http://ServerIP/GetDIType.cgi>

Channel = 1

Enable = 1

Type = NO

Check Event Status

<http://192.168.2.38/GetEvent.cgi>

Index =0, Input\_Type=DI, Enable\_Flag=1, Action\_Type= **FTP** **MAIL**

Click on DI and you can check your mail box and FTP services