

B5010 VGA Day/Night Bullet IP Camera



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User Manual

Safety Instruction

➤ **Before you use this product**

This product has been designed with safety in mind. However, the electrical products can cause fires which may lead to serious body injury if it is not used properly. To avoid such accidents, be sure to heed the following.

➤ **Legal Caution**

Video and audio surveillance can be forbidden by laws that vary from country to country. Check the laws in your local region before using this product for surveillance purposes.

➤ **Don't open the housing of the product**

Don't try to open the housing or remove the covers which may expose yourself to dangerous voltage or other hazards.

➤ **Don't use the accessories not recommend by the manufacturer**

➤ **Heed the safety precautions**

Be sure to follow the general safety precautions and the "Operation Notice."

➤ **Operation Notice - Operating or storage location**

Avoid operating or storing the camera in the following locations:

- Extremely hot or cold places
(Operating temperature: -10 °C to + 50 °C [14 °F to 122°F])
- Exposed to direct sunlight for a long time, or close to heating equipment (e.g., near heaters)
- Close to water (e.g., near a bathtub, kitchen sink, laundry tub)
- Close to sources of strong magnetism
- Close to sources of powerful electromagnetic radiation, such as radios or TV transmitters
- Locations subject to strong vibration or shock

➤ **In case of a breakdown**

In case of system breakdown, discontinue use and contact your authorized dealer.

➤ **In case of abnormal operation**

- If the unit emits smoke or an unusual smell,
- If water or other foreign objects enter the cabinet.
- If you drop the unit or damage the cabinet: 1 Disconnect the cable and the connecting cables. 2 Contact your authorized dealer or the store where you purchased the product.

➤ **Transportation**

When transporting the camera, repack it as originally packed at the factory or in materials of equal quality.

➤ **Ventilation**

To prevent heat buildup, do not block air circulation around the device.

➤ **Cleaning**

- Use a soft, dry cloth to clean the external surfaces of the device. Stubborn stains can be removed using a soft cloth dampened with a small quantity of detergent solution, then wipe dry.
- Do not use volatile solvents such as alcohol, benzene or thinners as they may damage the surface.

Minimum System Requirement & Product Feature

System Requirement

For normal operation and viewing of the network camera, it's recommended that your system meet these minimum requirements for proper operation:

Item	Requirements
CPU	Minimum Intel® Core 2 Duo or higher (Core i3 or above is recommended)
Graphic Card	256 MB RAM graphic cards (or equivalent on-board graphic cards)
RAM	Minimum 1 GB of RAM,(2GB or above is recommended)
Operating System	Window 2000, 2003, XP, Vista or Windows 7 Mac OS Leopard 10.5
Web Browser	Internet Explorer 6 or later

Note:

- 1. If using Windows 98 or Windows ME, please install IP Installer before using WEB UI to ensure the system runs normally.**
- 2. If not able to view the recorded video file, please install Xvid codec while installing Intelligent IP Installer. (For Windows 98, ME or 2000 server, the codec might not work properly. Please download Xvid codec 1.0 from the internet.)**
- 3. Please keep updating the latest Windows software and service package. (Ex: Net Framework, Windows Media Player, Enhance ActiveX Security)**

Product Features

SYSTEM	
Resolutions	H.264 / MPEG-4 / Motion JPEG
Compressing format	H.264 / MPEG-4 / Motion JPEG
Frame Rate	Up to 30 fps at 640x480
Image settings	Rotation: Mirror, Flip, Mirror Flip
	Brightness / Contrast / Saturation/ Hue
	Overlay capabilities: time, date, text and privacy image
Image snapshot	Yes
Video Recording	Yes
Full Screen Viewing	Yes
Digital Zoom	10x digital
Mobile Phone Live View	Through 2.5 WAP
Alarm Sending	FTP Client / SMTP / Network Storage / HTTP Event
Security	Password Protection / HTTPS encryption / IP Filter
Alarm Buffer	Input: alarm buffer, motion detection
	Output: network storage, FTP, SMTP, Pre-and post alarm buffer
Supported protocols	Bonjour, TCP/IP, DHCP, PPPoE, ARP, ICMP, FTP, SMTP, DNS, NTP, UPnP, RTSP, RTP, RTCP, HTTP, TCP, UDP, 3GPP/ISMA RTSP
Simultaneous Connection	Up to 5 users
Operating conditions	-10 ~ 50°C (14 ~ 122°F)
HARDWARE	
Lens	M12 Board lens
Local Storage	Support MicroSD card
Power	12V DC, 1A
	PoE (Power over Ethernet) Built-in IEEE 802.3af
Housing	IP67
NETWORK	
Ethernet	10 / 100 Base T

Main Page



Toolbar of Main Page





Client Setting	
Profile	Click the drop-down menu to choose video compression mode of Live View among H.264, MPEG-4 and MJPEG. Note: As long as the operating system is not able to afford loading under H.264 mode, please downgrade the mode to MPEG-4 or MJPEG.
View Size	Select the desired view size of image resolution between Fit Screen and Full Screen.
Protocol	Select the transferring protocol among TCP, UDP, and HTTP.
Video Buffer	Turn the Video Buffer function On / Off. The Video Buffer function makes the streaming more smoothly in unsteady network environment, but might cause a little delay in live view.



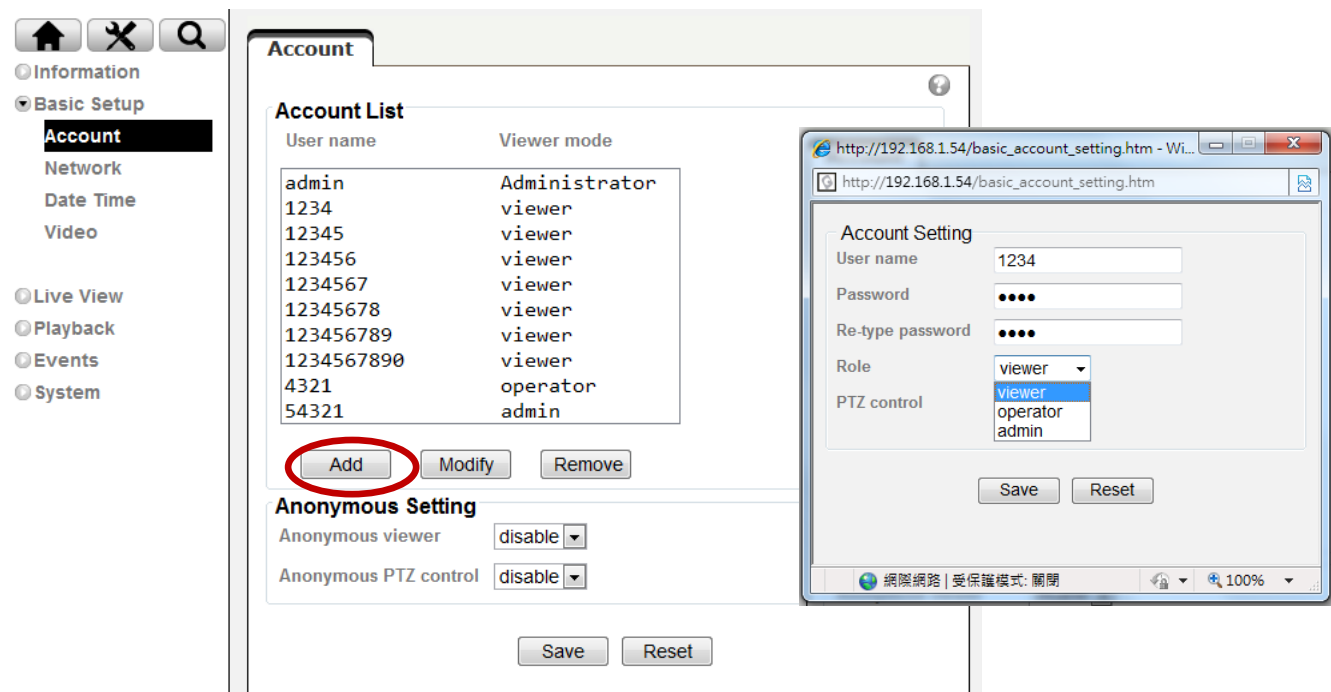
PTZ	
	Click the Home button and it brings you back to the center no matter what position you are at.
	Move the camera view to the direction that the various arrows you click on.
Preset	Use the various direction arrows to steer the camera view to the required position , and name it for the specified position.
Patrol	Before starting this function, it requires to specify Guard tour settings in the Setting.

Basic Setup

Account

Account List

The device default account and password setting is “admin / admin”. That means everyone who knows IP address can access the device including all configuration. It is necessary to create a new password if the device is intended to be accessed by specific ones.



Click “Add” to create the accounts to the specific users. There are 1 default account and 9 accounts that you may assign 3 different viewer modes as you wish. The instruction of 3 viewer modes listed as below:

Viewer	It only allows the user to access to the Live View page.
Operator	It allows to view the Live View page, create and modify events, and adjust certain other settings.
Administrator	It allows the user to watch the live view and access all configurations.

Anonymous Setting

There is a drop-down menu for both “Anonymous viewer” and “Anonymous PTZ control” to disable or enable the function.

Network

TCP/IP

Internet Protocol Version 4 (TCP/IPv4)

Obtain an IP address automatically (DHCP): If a DHCP server is installed on the network, to select this while the IP address is assigned by the DHCP server.

Obtain DNS server address automatically: Select this to obtain the address of DNS server automatically.

Internet Protocol Version 4 (TCP/IPv4)

MAC
00:1B:FE:02:70:C1

Obtain an IP address automatically (DHCP)

Use the following IP address

IP address 192 · 168 · 1 · 54

Subnet mask 255 · 255 · 255 · 0

Default gateway 192 · 168 · 1 · 54

Use the following DNS server address

Preferred DNS server 0.0.0.0

Alternate DNS server 0.0.0.0

Use the following IP address: Select this option when the fixed IP address is set.

- IP address: Enter the IP address of the device.
- Subnet mask: Enter the subnet mask.
- Default gateway: Enter the default gateway.

Use the following DNS server address: Select this when you set the fixed address as the IP address of DNS server.

- Primary DNS server: Enter the IP address of the primary DNS server.
- Secondary DNS server: Enter the IP address of the secondary DNS server, if necessary.

HTTP

HTTP port number: Select **80** in general situations. If you want to use a port number other than **80**, select the text box and enter a port number between 1024 and 65535.

- When you have set the HTTP port number to a number other than 80 on the Network Setting screen in the Setup Program, access the device by typing the IP address of the device on the web browser as follows: Example: when HTTP port number is set to 2000 <http://192.168.1.100:2000/>

HTTP

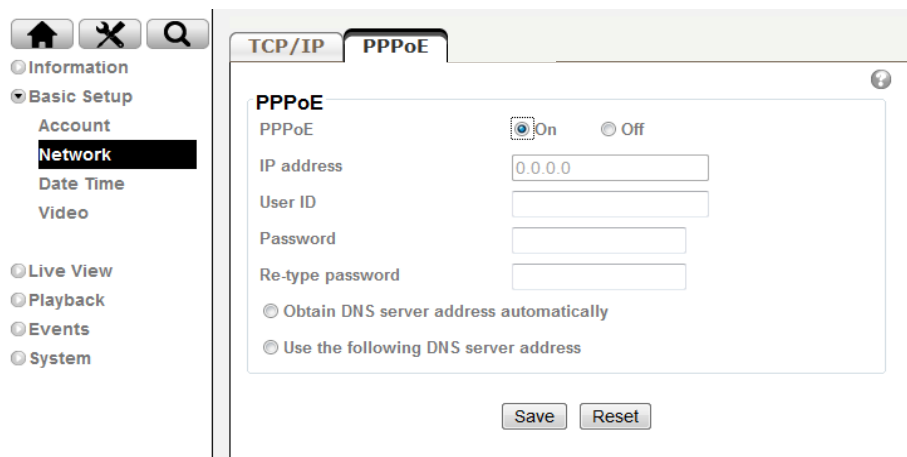
HTTP Port 80 (1124 to 65535)

Note: Reboot the IP Camera after the network setting has been made.

Note: If you connect the IP Camera with your computer directly, the default network domain of camera is 192.168.1.xx

PPPoE

If your ISP provides Dynamic IP with authentication by username and password, type all PPPoE information in this part. When using the PPPoE function, you need to turn on the DDNS or IP Notification function at the same time.



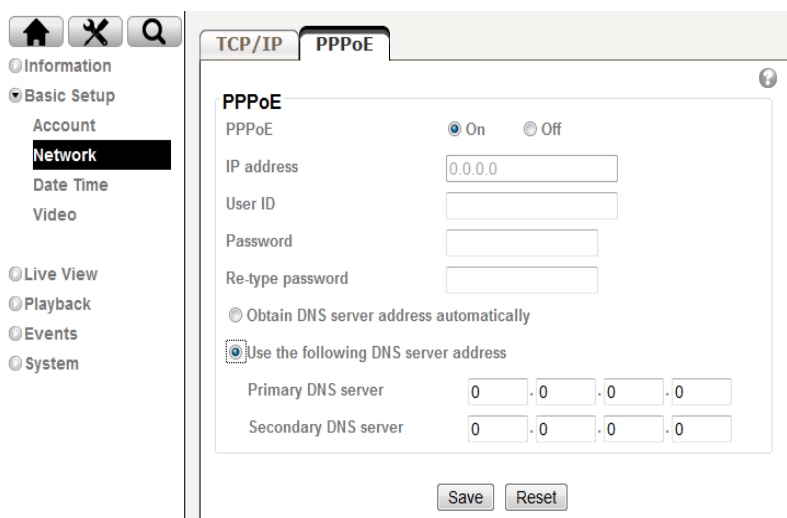
IP address: The IP address obtained at the PPPoE connecting with network.

User ID: Enter the user ID for authentication necessary for PPPoE connections. Type it up to 64 characters.

Password: Enter the password for authentication necessary for PPPoE connections. Type it up to 32 characters.

Re-type password: Re-type the password to confirm.

Obtain DNS server address automatically: Select this to obtain the address of DNS server automatically.



Use the following DNS server address: Select this when you set the fixed address as the IP address of DNS server.

- **Primary DNS server:** Enter the IP address of the primary DNS server.
- **Secondary DNS server:** Enter the IP address of the secondary DNS server.

Note : 1. PPPoE (Point-to-Point Protocol over Ethernet): PPPoE is a network protocol for encapsulating Point-to-Point Protocol frames inside Ethernet frames. PPPoE connection is used mainly with ADSL service where individual users connect to the ADSL transceiver (modem) over Ethernet network. It is also widely used in XDSL (digital subscriber line such as ADSL, VDSL or SDSL)

2. Reboot the IP Camera after the network setting has been made.

3. The IP Camera with Intelligent IP Installer can't be found after turning on the PPPoE and reboot.

Date Time

Current Date / Time

It displays current time and date of IP Camera and PC that you connected, and you may select the Date/Time format as you wish in the drop-down menu.

Note: If you would like the Date / Time information shows on the Live View screen, please check “Basic Setup → Video → Overlay → Overlay Type → Time Stamp ” and save the setting.

Synchronization Method

- **Keep current setting:** Select this mode to keep the current date and time of this IP Camera.
- **Synchronize with Client PC:** Select this mode to keep the date and time of this IP Camera is the same as the monitoring PC.
- **Manual setting:** Select this mode to adjust manually the date and time of this IP Camera.
- **Synchronize with NTP:** Specify the NTP server name and click “Update now” to synchronize the date and time of this IP Camera with those of the time server, known as the NTP server.

Time Zone

Time Zone: Select the Time Zone format of Greenwich Mean Time among different cities. The time display will be the same as the current date / time option.

Daylight Saving Time: There are two modes to choose for setting up daylight saving time.

- **By Date:** Set the start and end time by select month, day, hour, and minute.
- **By Week Number:** Set the start and end time by select month, week, hour, and minute.

Time Zone

Time zone

Daylight Saving Time On Off

Start time By date By week number
 :

End time By date By week number
 :

Note: The NTP server (Network Time Protocol) is the time server which is an Internet standard protocol built on the top of TCP / IP. This assures accurate synchronization to the millisecond of computer clock times in a network of computers.

Video

Video Setting

Image

Image Rotated: Select the screen display “flip”, “mirror”, or “flip + mirror”.

Video clip format: Select **RECORDING compression format** H.264、MPEG-4、MJPEG、3GPP.

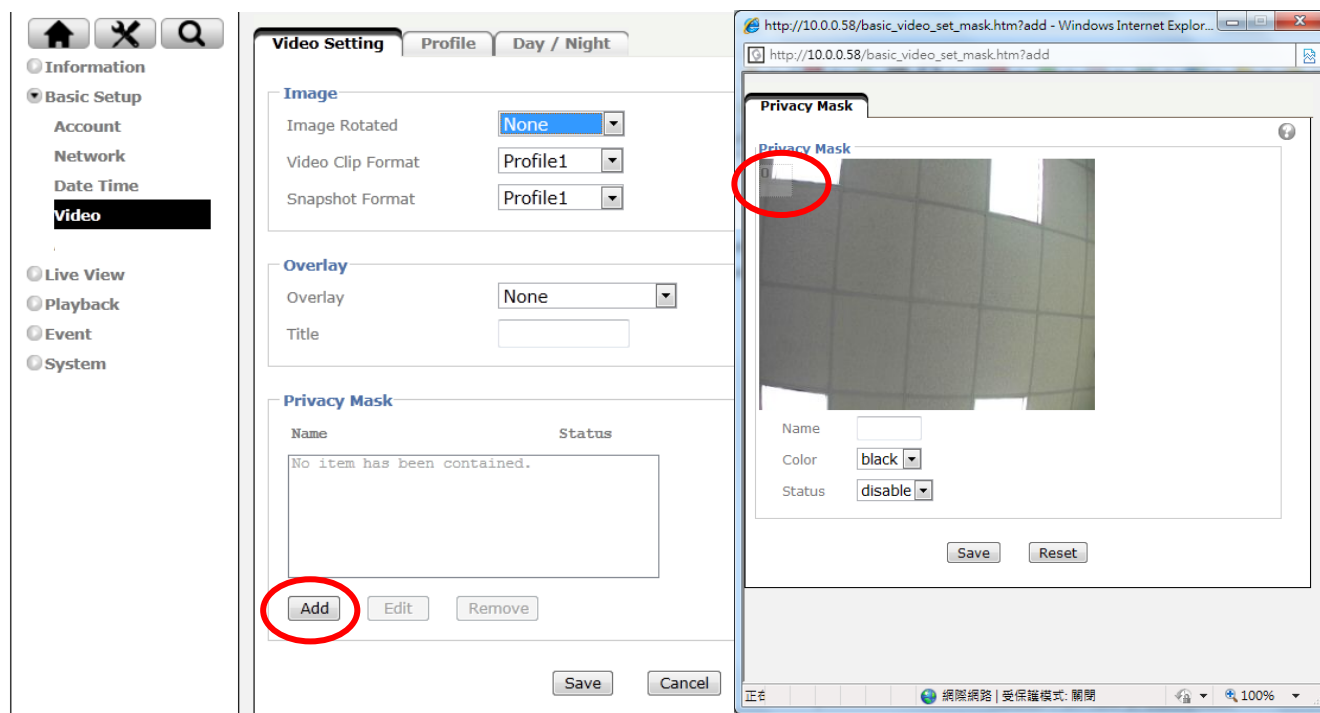
- **Profile1(H.264):** H.264 provides higher compression rate than MPEG-4. Thus, H.264 can decrease the bandwidth usage and further apply on 3G. However, H.264 will occupy more system resources than MPEG-4. As long as the operating system appears operating difficulties under H.264 format, please change to select MPEG-4.
- **Profile2(MPEG-4):** MPEG-4 has the advantage of sending a lower volume of data per time unit across the network (bit-rate) compared to Motion JPEG and therefore provides a relatively high image quality at a lower bit-rate (bandwidth usage).
- **Profile3(MJPEG):** Motion JPEG stream uses considerable amounts of bandwidth, but provides excellent image quality and access to every image contained in the stream.

Overlay

Text information can be showed on the display screen, such as Date / Time and the user-defined title.

Privacy Mask

Privacy Mask is an area of solid color that bans users from viewing part of gmonitored area.



Click “Add” and a setting pop-up window comes out. A translucent rectangle is located at up left of the image, drag it to where you wish to cover and resize it. Enter a descriptive name, select the color and enable it then save.

Profile

There are five stream profiles available for quick set-up. These settings can be adjusted and new customized profiles can be created. Each profile has a descriptive name, describing its usage and/or purpose. The profiles can be selected from the Live View page.

- Edit the stream profile: Click the profile you appoint to modify and click “Edit” to do the further setting.

Profile Description

Profile Name

Profile Description

Video Setting

Encoding

Resolution

Maximum frame rate fps

Quality

Fixed Quality

Fixed Bitrate

Day/Night

IR Cut Filter Mode:

There are 4 modes for IR cut filter to switch Auto, Night Mode, Day Mode, Schedule to make IR cut filter work based on different conditions.

IR Cut Filter Switch Delay:

This is interval time(by seconds) when the IR cut filter switch has been implemented till it indeed works.

IR Mode: Select one among four modes -- auto / active / inactive / schedule. It decides IR working condition.

IR Level: The strength of IR light can be adjusted upon application environment.

Day / Night

IR Cut Filter Mode

IR Cut Filter Switch Delay

IR Cut Filter Threshold Dark Bright

IR Mode

IR Level Dark Bright

Live View

Video

Please refer to p.13~15

Camera Setting

Image Setting

Image Enhancement

- **Brightness:** The image brightness can be adjusted in the range 0-100, a higher value produces a brighter image.
- **Saturation:** Adjust the saturation in the range 0-100, the higher value gets more colorful image.
- **Contrast:** Adjust the image's contrast by raising or lowering the value in the range 0-100.
- **Hue:** Hue is one of the three main attributes of perceived color, affected by different wavelength of color. With higher value of hue, color will be much more vivid.

White Balance

You can choose the white balance to Auto, Fluorescent, Incandescent, Sunny and Cloudy.

Exposure Setting

- **Exposure Frequency:** The default setting of lighting environment is **Auto**. However, you may select **50** or **60** Hz upon the lighting environment of your country. The **hold current** option fixes the current exposure settings
- **Night Mode:** You can choose Auto / Off. **If you choose Auto option**, the camera will adjust automatically to perform well when the environment is dark.

Playback

Client PC

This is for uploading the recorded file saved in the PC and play back to see the video.



1	Click it to upload the recorded file in the PC
2	Click it to stop the current video
3	Click it to pause the playing video
4	Click it to slow down the playing speed
5	Click it to speed up the playing speed
6	It displays the current playing video length
7	It displays the whole video length
8	It displays the current video speed
10	Click it to make digital zoom

Network Storage

Network storage provides the storage function for saving image files to the specified computer and folder connected with the operating computer.

Before using this function you must go to Event Server in Event to configure all settings and make the recording file saved here.

Local Storage

Memory card provides local storage function for saving image files to the specified MicroSD card in your camera. This function can be enabled only when you insert MicroSD card to the camera and the card works well.

Before using this function you must go to SD card in Event to configure all settings and make the recording file saved here.

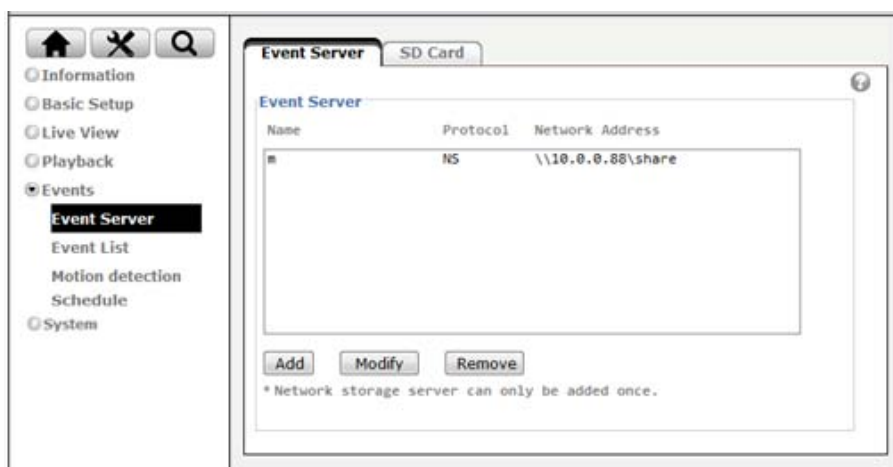
Event

Event Server

Event Server

Click “Add” to create a event server then the setting page pops up. Name it, select your network type put on the storage location. This is optional to create the password for certain group to use it. Then click the “Test” button to see if it works, it will show the information on the pop-up window to see your setting if has been made successfully.

3 types of event transmission offered to select. There is a range 0~7 seconds can be selected individually for pre-event and post-event. 3 suffix options for naming image file by **Name**, **Date Time** and **Sequential Number**.



SD Card

Make sure to insert the SD Card first then click “on”. Create a folder name for event server in SD Card. Optional selection for overwrite the previous file or not, if not, you may set a warning when the capacity below the following percentage:5%, 10%, 25% and 50%.

Event List

Event List

General

Name the event file and make it on or off.

Trigger

You may activate the following trigger types as you wish depends on various conditions:

- **Motion Detection:** Click it on for using Motion Detection function as a sensor. You must configure motion detection function before taking this as the trigger. Set minimum time interval between 2 triggers, and choose the desired detection area. The detection type individually stands for the following meanings:
 - Start:** The trigger would be activated when the target object starts to move.
 - Stop:** The trigger would be activated when the target object stops to move.
 - Start-Stop:** The trigger would be activated during the target object starts to move till it stops.
- **Periodical:** This can be set the certain period(by minute) to start the trigger.
- **On boot:** The event is triggered when the IP Camera has been started over .
- **IR Cut Filter:** This can be set the IR Cut filter mode to start the trigger.
- **Capacity Warning:** This is triggered when SD Card capacity is be below the value you set.
- **Network Link Down:** The event is triggered when the network get disconnected.
- **IP Notification:** The event is triggered when the network being restarted or the IP being changed. And there are optional network types to select, such as **DHCP** 、 **Static IP** and **PPPoE**.

Action

There are multiple choices for action taking which is optional for user to select all of them or part of them: **Send Image** 、 **Send Notification** or **Night Mode**.

- **Send Image:** You may set up where the image sent to, options like event server and SD card. You must configure it first, please refer to **Event Server**.
- **Send Notification:** Firstly got to HTTP server configure the HTTP server URL, port, User ID, Password, and Proxy server settings.
Note: The setting of URL should be the same as CGI.
- **Night Mode:** You may set up this action being activated continually while the event triggered or continually every period(by second) interval.
Note : Only Motion Detection excludes Night Mode

Schedule

You may set up the event schedule as “always” or scheduled by working day, weekend or night mode. You must configure schedule before using it.

Motion Detection

Add the motion detection zone and name it, you can adjust the zone of detection with the mouse. There are 10 for detection zone at maximum. The bar on the top of motion detection area is red when the alarm is triggered.

Threshold: Set the threshold of the alarm in the motion detection zone. The higher threshold is, lesser detections can be triggered.

Sensitivity: Set the sensitivity for motion detection zone. The higher sensitivity is, the more sensitive it gets.

Schedule

The schedule is made for **Event List** to set the recording period. There are already 3 modes(**Working Day**、**Weekend** and **Night Mode**) has been set for user, there are 7 more modes are available to set manually.

System

Maintenance

Restart

Restart button is for reboot the IP Camera digitally, you may reboot the camera manually or automatically.

Click “on” and shows two modes for user to reboot the camera automatically. **Sequential Mode** offers the selection that how many days you would like to reboot, 7 days at most. **Schedule Mode** is able to select the certain day and time to reboot.

Backup/Restore

Default: Click this button to recover this IP Camera to the factory default setting. A confirmation dialogue will appear and then click “OK” to execute. The network indicator on this IP Camera will start to blink. This IP Camera will reboot automatically after completing adjustments to the default setting. Don't turn off this IP Camera until the device reboots. Furthermore, the **IP** and **Date Time** that are already set up can be fixed.

Backup: You can save the setting data of this IP Camera into a file. Click “Save” and follow the instructions on the browser to save the setting data file to the location you specified.

Restore: Download the saved setting data of this IP Camera. Click “Browse” and select saved file. Click “OK” and this IP Camera is adjusted according to the loaded data and then restarted.

Firmware Upgrade

Update the device software. Click “Browse” and select the file for updating. A confirmation dialogue will appear. Click “OK” to start. This IP Camera will reboot upon completion.

Date Time

Please refer to p.12~13

Security

Account

Please refer to p.9

IP Address Filter

Once enabled it, the listed IP address are allowed or denied access to the product. Add the IP Address that you'd like to allow or deny and select allow or deny from the list and save it.

HTTPS

HTTPS is a URL scheme used to indicate a secure HTTP connection. It is syntactically identical to the http:// scheme normally used for accessing resources using HTTP. Using an https://URL/ with a different default TCP port (443) and an additional encryption / authentication layer between the HTTP and TCP. You can use the IP camera through HTTPS easily by using https:// instead of http://.

- **Create & Install:** Create a self-signed certificate for HTTPS to recognize.
- **Installed Certificate:** Display or remove the properties of the installed certificate.
- **HTTPS Connection Policy:** Set HTTPS connection policy for different level of users.
- To use the HTTPS encryption, please set up “**Create self-signed certificate**” for the first time you use the HTTPS function, and then set up the connection policy for different users.

Note: When enable HTTPS with RTSP on mode, the IP Camera only protect the setting such as username and password and do not protect video. When enable HTTPS with RTSP off mode, the IP Camera will protect all setting including video.

Network Basic

Please refer to p.10~12

Network Advanced

RTSP

General

RTP Port Range: The default value of port range is 5000 ~ 7999 and can be changed from 1124 to 65534.

RTSP Port: The default value is 554. If the IP Cameras connected with router and installed outside are over 2 sets and all of them need support RTSP, please fill the value in the blank space in the range from 1124 to 65534.

RTSP Configuration

Configure the RTSP by profile, then enable or disable the authentication.

Multicast

Status: This can be enabled or disabled the multicast.

Access Name: This will be shown and changed along with the profile you select.

Multicast Address: Specify the multicast server address.

Video Port: Specify the transmission port number of the video data, from 1124 to 65534.

Time to Live: Set the maximum TTL that multicast can pass through. The default value is 15.

UPnP

If you have a Router to access to internet and the Router supports UPnP IGD function, you need to turn on the UPnP Port Forwarding function.

- **HTTP port:** Enter the HTTP port number and default HTTP port is 80.
- **SSL port:** Enter the SSL port number and default SSL port is 443.
- **RTSP port:** Enter the RTSP port, default value is 554 for computer view.

Note : UPnP (Universal Plug and Play): UPnP is a set of computer network protocol. It allows devices to connect seamlessly and simplify the implementation of networks in the home and corporate environments.

Bonjour

Bonjour, also known as zero-configuration networking, enables automatic discovery of computers, devices, and services on IP networks. Bonjour uses industry standard IP protocols to allow devices to automatically discover each other without the need to enter IP addresses or configure DNS servers.

- **Device Name:** Enter Device Name you wish.

Note: How to use Bonjour in your Windows Browser UI? Please check the link below:

<http://www.apple.com/support/downloads/bonjourforwindows.html>

DDNS

DDNS is a system which allows the domain name data held in a name server to be updated in real time. The most common use for DDNS is allowing an internet domain name to be assigned to a computer with a varying / dynamic IP Address.

This makes it possible for other sites on the internet to establish connection to the machine without needing to track the IP Address themselves.

- **Server name:** Choose the DDNS Server from the list.
- **User ID:** Enter the user ID for authentication necessary for DDNS connections. Type it up to 64 characters.
- **Password:** Enter the password for authentication necessary for DDNS connections. Type it up to 32 characters.
- **Re-type password:** Re-type the password to confirm.
- **Host name:** Enter the host name that is registered to the DDNS server.
- **Periodical Update:** Update your DDNS information periodically.

LED

This is optional for user to select to show the LED indicator or not to as the IP Camera is turned on. What benefit it gets when LED off is it's not easily to be aware when somebody sneak in the space where the camera installed, especially at the darkness.

System Log

System Log

Enable the remote log to let the log being saved in the remote server in case that the camera being cut down. Put on the server name and select the sever port and save it.