



# Network Camera

## *Brickcom Software User's Manual*

For Firmware Release V3.2.x.x

Product name: Network Camera v3.2.3.5.6 Firmware

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Web site: [www.brickcom.com](http://www.brickcom.com)

Email: [support@brickcom.com](mailto:support@brickcom.com)

[info@brickcom.com](mailto:info@brickcom.com)

Editor: Tracy Cho

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## Table of Contents

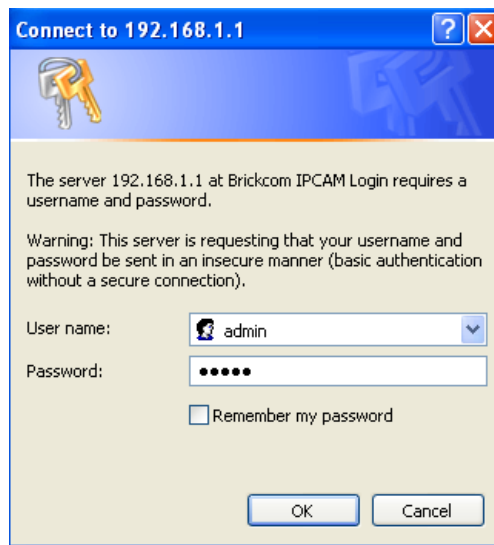
Log in the Camera.....	3
Installing the Plug-In.....	4
Live View .....	5
Image Dewarping (MD-500Ap-360P, MD-300Np-360P, and CB-500Ap-360P Only) .....	6
Status Icons .....	10
Configuration .....	13
Camera/Video/Audio .....	13
Camera .....	13
Video.....	17
Advanced Setting .....	20
Audio .....	20
Focus Easy (*).....	22
Multicast .....	23
Privacy Mask Control .....	24
Camera Control.....	25
Preset Point.....	25
Patrol Settings .....	26
PTZ Configuration .....	27
Network .....	28
Network Settings .....	28
IEEE 802.1X .....	32
UPnP.....	32
EasyLink™ .....	35
Wireless.....	37
HTTP/HTTPS .....	45
Event.....	47
Event Settings.....	47
Motion Detection.....	51
Digital Input .....	52
Audio Detection .....	52
Temperature Detection.....	53
PIR (Professional Cube Only) .....	53
Notifications .....	54
FTP Settings.....	54
E-mail Settings.....	55
Samba Settings.....	56

HTTP Settings .....	57
Digital Output (DO) .....	57
Video Clip/Snapshot .....	58
LED Light (Professional Cube Only) .....	60
<b>System</b> .....	61
System Log .....	61
Date and Time .....	63
Time Synchronization.....	63
Device Information .....	64
Storage Management.....	66
LED Indicators .....	67
VMS Compatibility .....	68
<b>VMS Compatibility</b> .....	68
<b>ONVIF</b> .....	68
<b>Video Encoder Configuration (ONVIF)</b> .....	68
<b>Maintenance</b> .....	69
User Management.....	69
Language.....	70
IP Filter .....	70
Firmware Upgrade .....	71
Configuration .....	71
Reset to Default .....	72
Reboot .....	72




## Log in the Camera


To access the camera's live view, open a web browser and enter the IP address of the camera. The log-in window will pop requesting a username and password. As stated on the previous page, for the default username and password are "admin" and "admin". For accounts other than the administrator's account, the user can choose to remember the password for future convenience. It is not recommended to check this box when viewing the camera feed from a public computer.



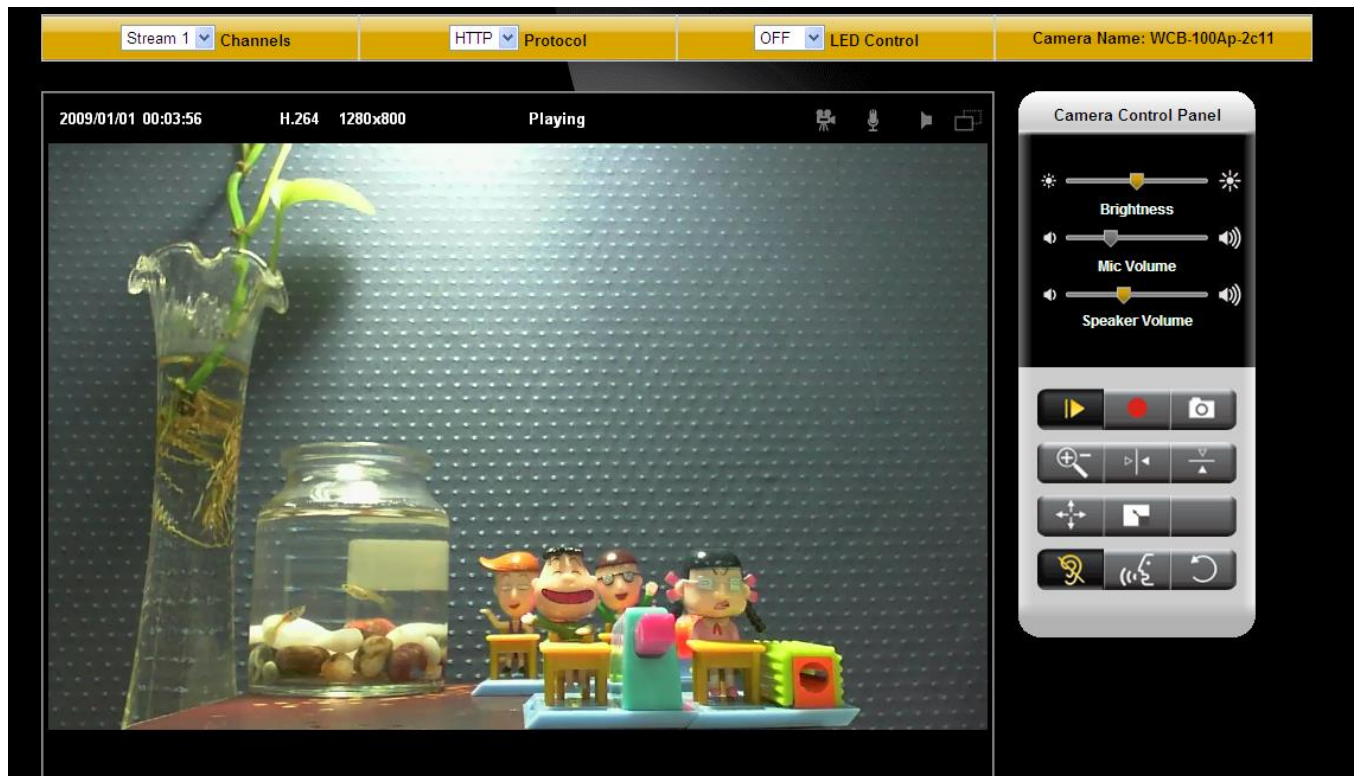
## Installing the Plug-In

For the initial access to the camera in Windows, the web browser may prompt the administrator for permission to install the plug-in for Internet Explorer. Permission request depends on the Internet security settings of the user's PC or notebook. If the highest security level is set, the computer may prohibit any installation and execution attempt. This plug-in has been registered for certificate and is used to display the video in the browser. Click  to proceed. If the web browser does not allow the administrator to continue the installation, check the Internet security option and lower the security levels or contact the networking supervisor or IT for help.



 **NOTE** – If an error occurred or the plug-in fails to install, it is because the version of the Electronic Signature is newly released and the VeriSign has not been submitted to Microsoft Windows update for validation. Therefore, plug-in will not have its root certificate. If IE discovers that there is no root certificate after the user's PC connects to the camera, it will automatically redirect to VeriSign Web site to download and install the latest root certificate to make the installation successfully. If the user's computer is able to connect to camera but unable to access the internet, then the installation will fail since the computer will not be able to download the latest root certificate. This problem can be resolved if computer can be connect to the internet and the camera at the same time and will not recur when Windows update patches become available.

## Live View



**!** **NOTE** - (\*) These are optional features. Please refer to the Product List for the full list of optional features available for the product.

**Live View** is the default page that opens when accessing the camera. Live video is displayed directly in the browser window.

- **Channels**

The network camera offers simultaneous multiple streams. This drop-down list allows the user to switch between different video channels. For further detail, please go to **Configuration** → Camera/Video/Audio → Video.

- **Protocol**

**HTTP** – This unicast method can be used to traverse firewalls. Firewalls are commonly configured to allow the HTTP protocol, thus allowing RTP to be tunneled.

**TCP** - This protocol guarantees the complete delivery of streaming data and provides better video quality. The downside of using this protocol is that the quality of its real-time effect is less than that of the UDP protocol.

**UDP** - This protocol allows for more real-time audio and video streams. However, network packets may be lost due to network burst traffic and images may be broken. Activate UDP connection time-sensitive responses are more important than video quality.

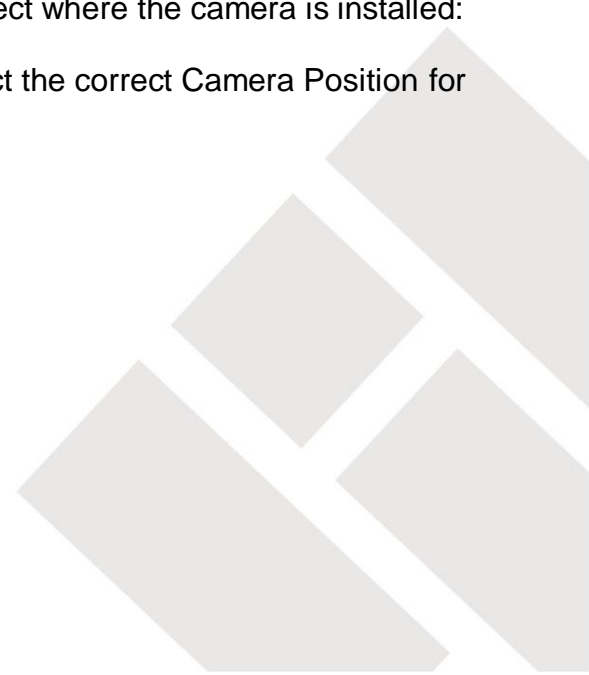
**LED Control** (CB-series Professional only) – Use the drop-down menu to adjust the brightness of the camera's LED.

### **Image Dewarping** (MD-500Ap-360P, MD-300Np-360P, and CB-500Ap-360P Only)

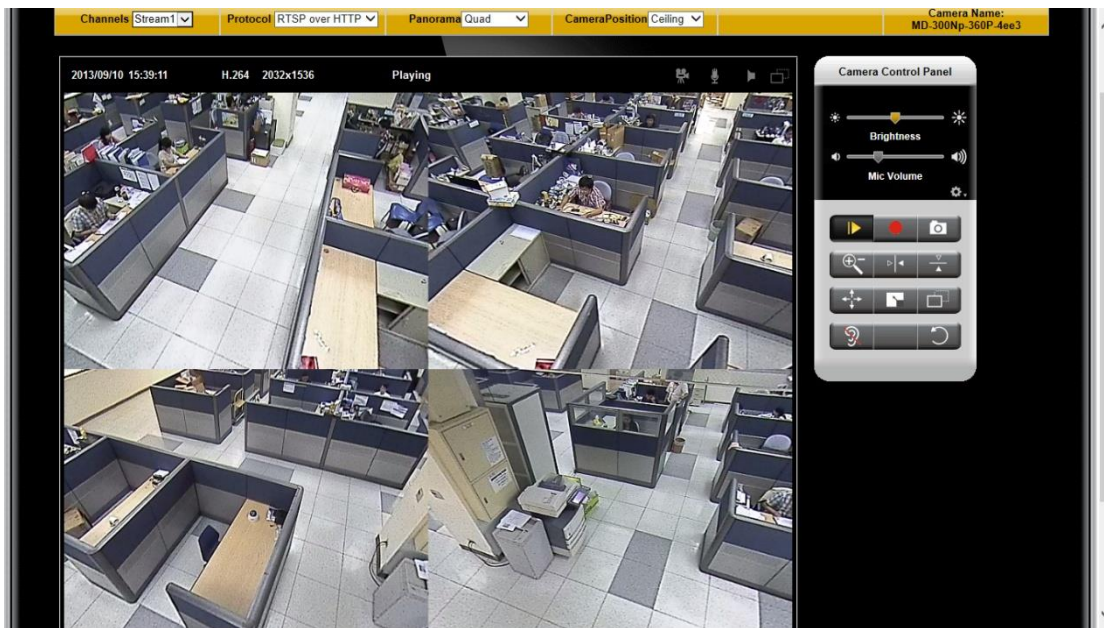
The image dewarping function is only provided for these cameras on the Live View page with the Internet Explorer.

- **Camera Position: Ceiling, Ground, Wall**

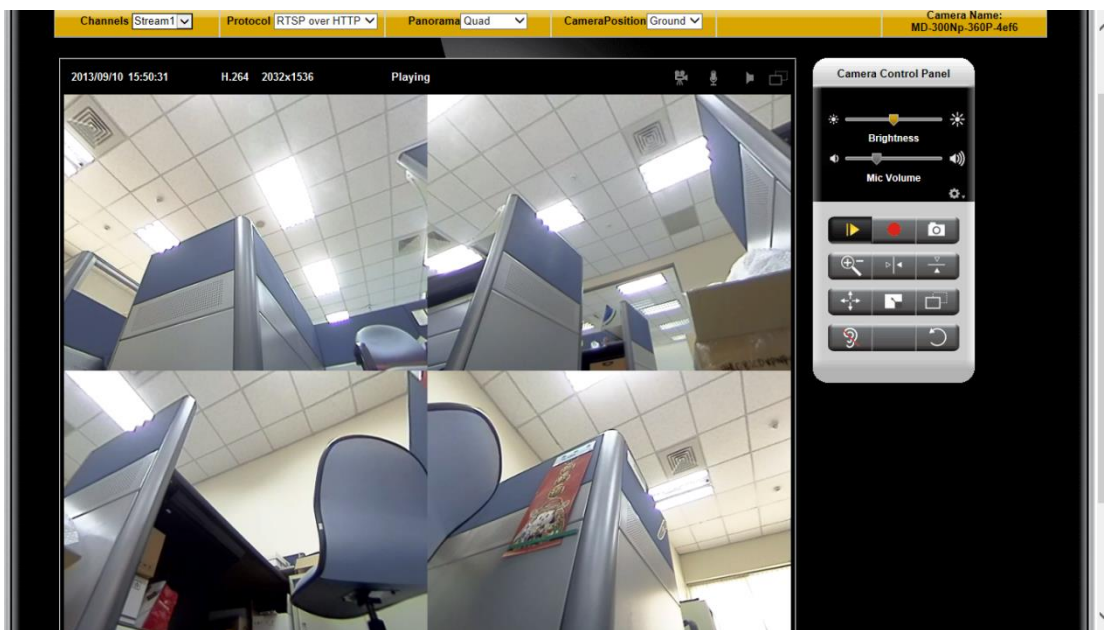
The Camera Position list box offers 3 modes which reflect where the camera is installed: Ceiling, Ground, and Wall. Please make sure you select the correct Camera Position for the best user experience.



**Ceiling** – When the camera is fixed on the ceiling, or is installed to shoot in the top-down direction, please choose this mode.

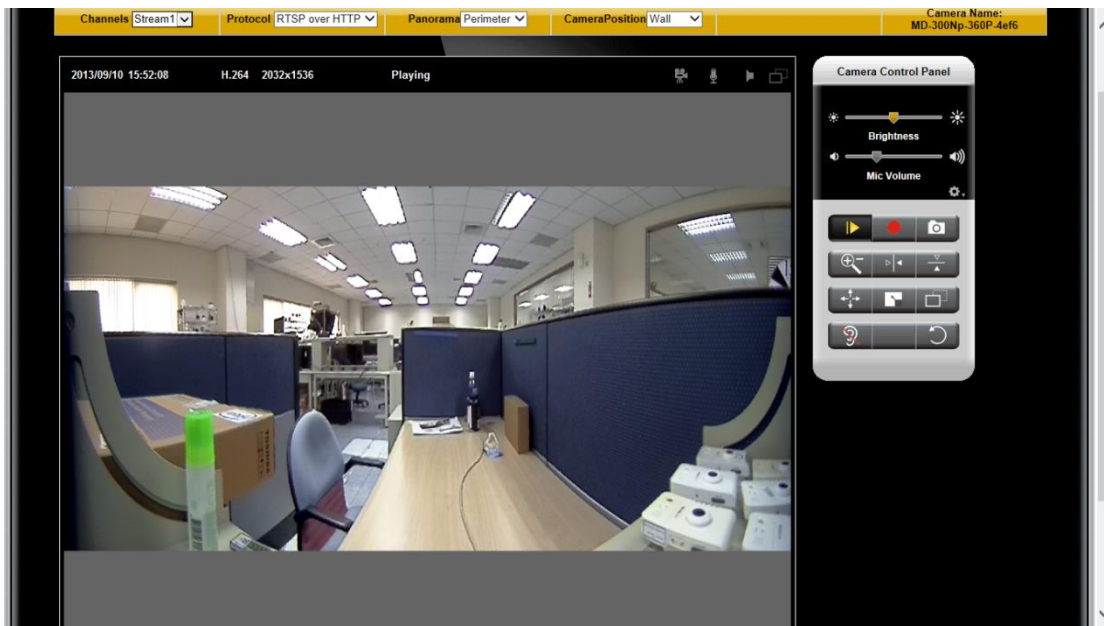


**Ground** – When the camera is fixed on the ground or table, or is installed to shoot in the bottom-up direction, please choose this mode.





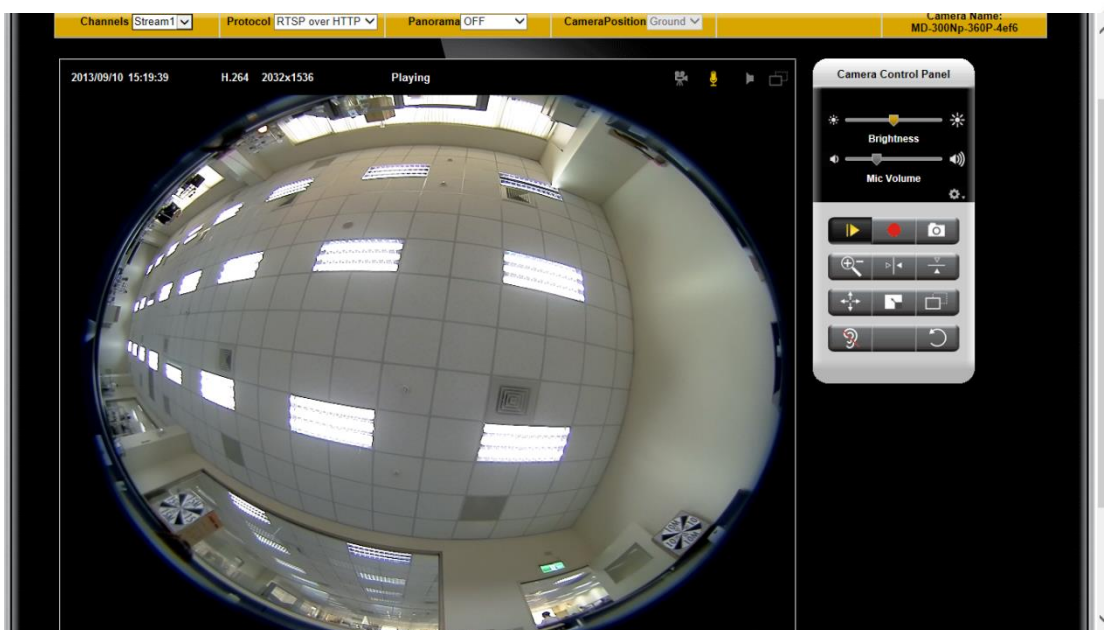
**Wall** – When the camera is fixed on the wall, or is installed to shoot in the horizontal direction, please choose this mode.



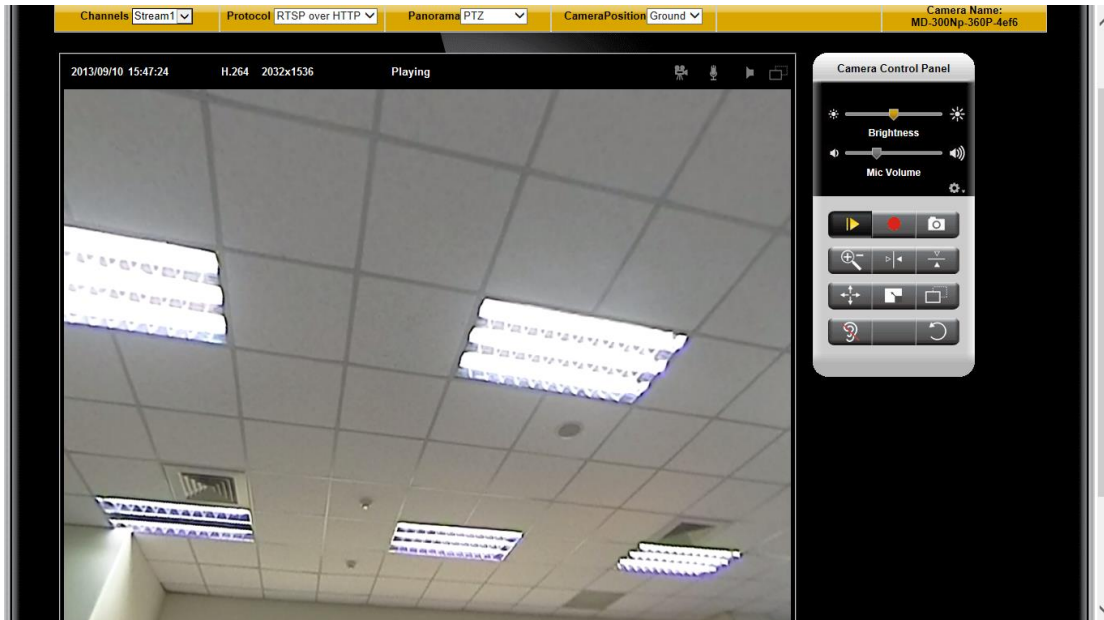
- **Panorama: OFF, PTZ, Quad, Perimeter**

The Panorama list box offers 4 display modes: OFF, PTZ, Quad, and Perimeter. Please select the display mode that best meets your needs.

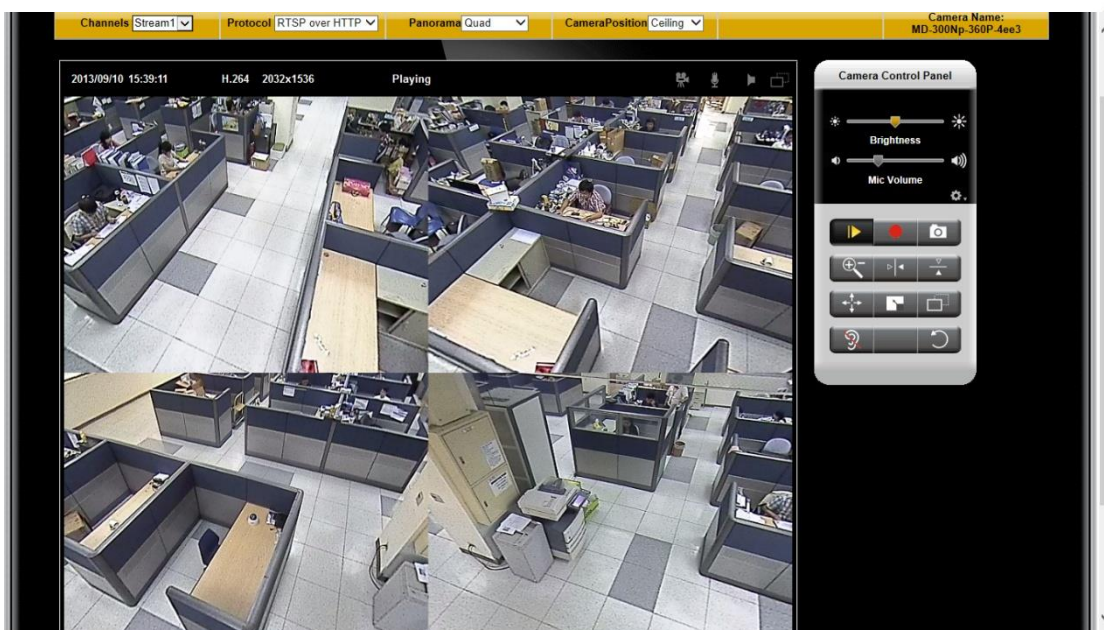
**OFF** - This is the default display mode, and shows the original elliptical image of the camera.



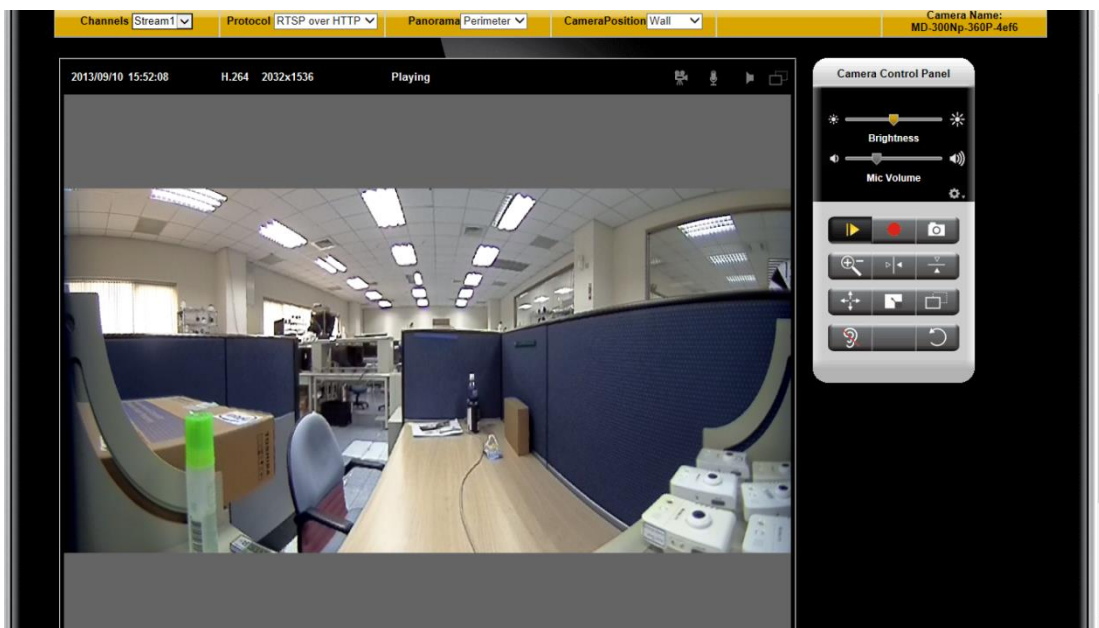
**PTZ** – This display mode can operate the pan, tilt, and zoom functions via the mouse. Drag the mouse when you want to view in different directions. Scroll the mouse wheel when you want to zoom in and zoom out the view. PTZ is typically used when the camera is installed on the ceiling or ground.



**Quad** – This display mode shows four separate PTZ windows. Each window can operate the pan, tilt, and zoom functions. Quad is typically used when the camera is installed on the ceiling or ground.



**Perimeter** – This display mode can dewarp the elliptical image and show the 180-degree view. Perimeter is typically used when the camera is installed on the wall.



## Status Icons



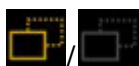
Recording on/off - Displays the status of recording video



MIC on/off - Displays the status of the MIC volume



Speaker on/off - Displays the status of the Speaker



MD on/off - Displays the status of Motion Detection

- **Brightness** - Drag the slider bar to adjust the image brightness level.
- **Mic volume** - Drag the slider bar to adjust the microphone volume.
- **Speaker volume** - The built-in speaker will play sound from an audio clip from the computer microphone when it is enabled.

For more Audio settings, please refer to the Audio configuration page.



Player Stop - Play or stop the video.



Recording - Record video to a computer.



Snapshot - Capture and save still images.



Digital Zoom - Enable the digital zoom operation.



Mirror - Horizontally reflect the display of the live video.



Flip - Vertically reflect the display of the live video.



Real Size - View the object in real size. Press it again to switch back to normal mode.



Full Screen - Switch to full screen mode. Press the “Esc” key to return to normal mode.



Motion Detection Alert - Enable the motion detection alert function. (Please refer to Motion Detection on P.47)



Mute – Turn off the sound.



Talk (\*) – To send the voice from the users side to the camera



Set Default – Reset to default settings.

## PTZ Control (OSD series and PZ-040 series only)



Patrol - Enable the patrol function. If a designated patrol has not been set for that time period, the first patrol group on the patrol list will be enabled.



Pan/Tilt Control - Click on the arrows to pan and tilt the camera. Click the center of icon to return to the home position.



Joystick Mode – Scroll over the live view window to move the camera view in the direction of the mouse pointer.



Center Mode - Click on a point in the live view window to center the camera view on that point.



Edit the live view snapshot and video clip saved file folders.

Recording Folder Path

Path C:\Users\Mars\Documents\Brickcom Browse...

Snapshot Folder Path

Path C:\Users\Mars\Documents\Brickcom Browse...

Type JPEG

These settings are used for Recording and Snapshot functions in the Live View page.

Apply Cancel

**Recording folder path** – Click Browse to specify the full path of the folder for saving the recorded video files.

**Snapshot folder path** - Select the format from the drop-down menu. Click Browse to specify the full path of the folder for saving the snapshot files.



### NOTE

The <Camera Control Panel> functions have no effect on the recorded video.

## Configuration

Click <Configuration> on the main page to change the camera settings pages.



**NOTE** - Only Administrators can access the Configuration page.

## Camera/Video/Audio

### Camera

**Profile** – Up to five profiles can be used for different lighting environments. Day and night are default profiles and users can create additional profiles. Select a profile from the drop-down menu or select different icons to change profile settings.

**Name** – Name of the **Profile**

**Brightness** - Drag the bar to adjust the image brightness level.

**Contrast** - Drag the bar to adjust the image contrast level.

**Sharpness** - Drag the bar to adjust the image sharpness level.

**Saturation** - Drag the bar to adjust the image saturation level.

**Exposure Control** – Five presets are available (General, Indoor, Car Plate, Extremely Low Light, and Shutter Priority) for users to select for different situations. Users can adjust the value of Dynamic Shutter and Dynamic Gain for the best user experience or simply choose Fixed Shutter and Fixed Gain.

**Metering Option** – Center-weighted average metering.

**Flicker-Free** – Eliminates the problem of flicker.

**EV Compensation** – Drag the bar to adjust the EV (exposure value) compensation level.

**AE Speed** – Automatically control exposure speed from 1 to 3.

**Auto Iris** – Enable this function if the auto iris lens is used with camera.

**De-Noise** – De-Noise can be set to auto, or between 1 and 10, with 10 giving the best de-noise effect.

### **Mirror and Flip**

**Mirror** - Enable to horizontally reflect the display of the live video.

**Flip** - Enable to vertically reflect the display of the live video.

**IR Cut (\*)** (Only available for models with the IR Cut) - Deactivate or activate the IR cut filter

**IR LED (\*)** (Only available for models with the IR LED) – Enable to turn on the IR LED. The intensity of the IR can be fixed to a certain level from 1 to 10, or Auto.

### **Color Effect**

**Color:** Select to display color or black and white video streams.

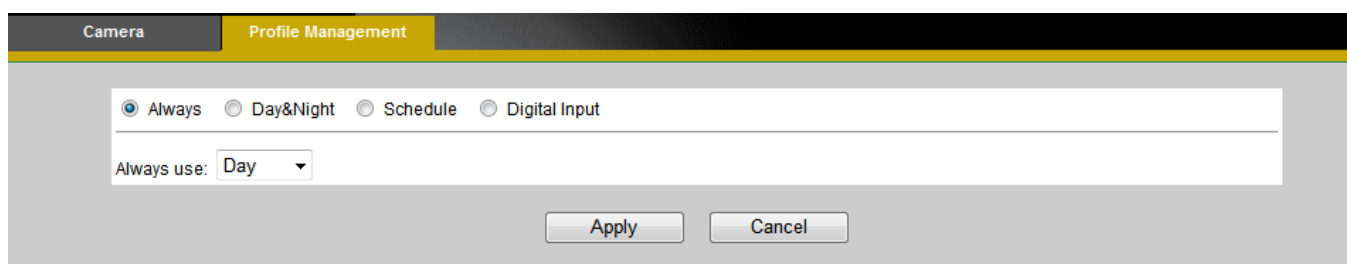
**White Balance:** White balance is a camera setting that adjusts for lighting in order to make Black & white. White Balance can be simply set to auto, or select the desired level from the drop-down menu.

**WDR (\*):** Check "Enable" to see things clearly even if the objects are in strong backlight.

**Test in Full Screen:** Click to access full screen mode.

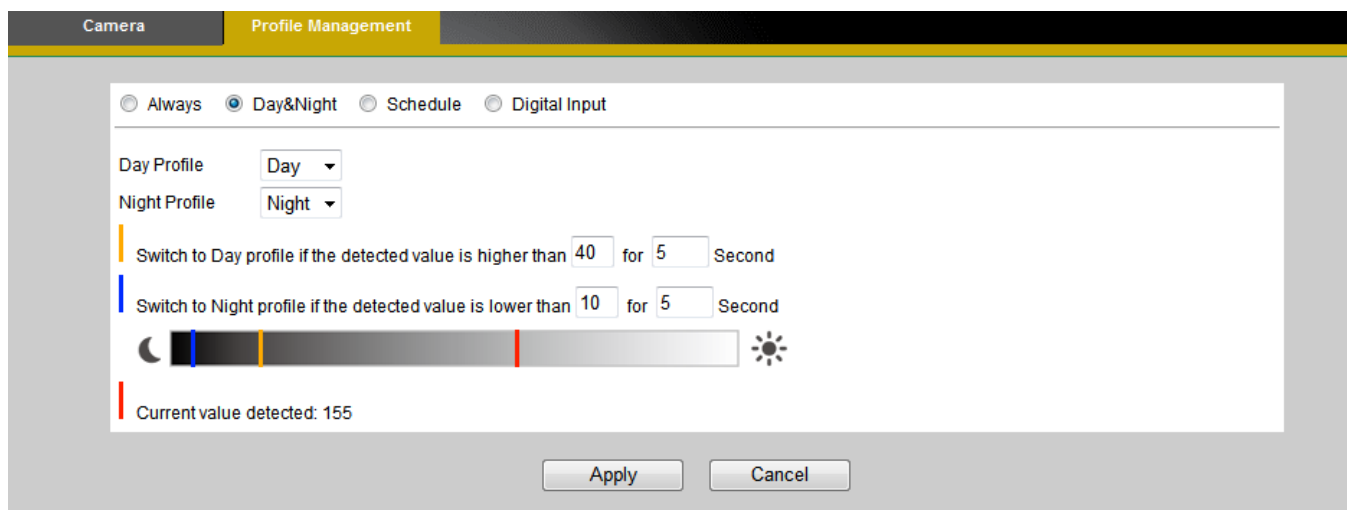
Click **Apply** to apply settings or **Cancel** to cancel changes.

**Profile Management:** Profiles can be scheduled to change at scheduled times or under different lightening changes.



The screenshot shows the 'Profile Management' tab in a camera interface. At the top, there are two tabs: 'Camera' and 'Profile Management'. Below the tabs, there are four radio button options: 'Always' (selected), 'Day&Night', 'Schedule', and 'Digital Input'. Underneath, there is a dropdown menu labeled 'Always use:' with 'Day' selected. At the bottom, there are two buttons: 'Apply' and 'Cancel'.

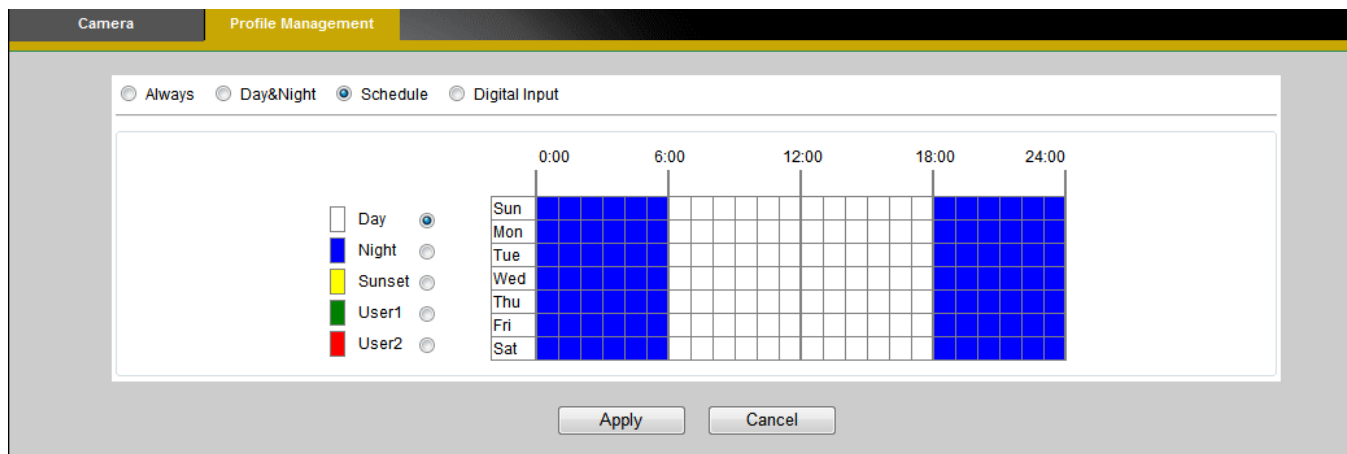
**Always-** Select Always to use a single profile. Select the profile from the drop down menu.



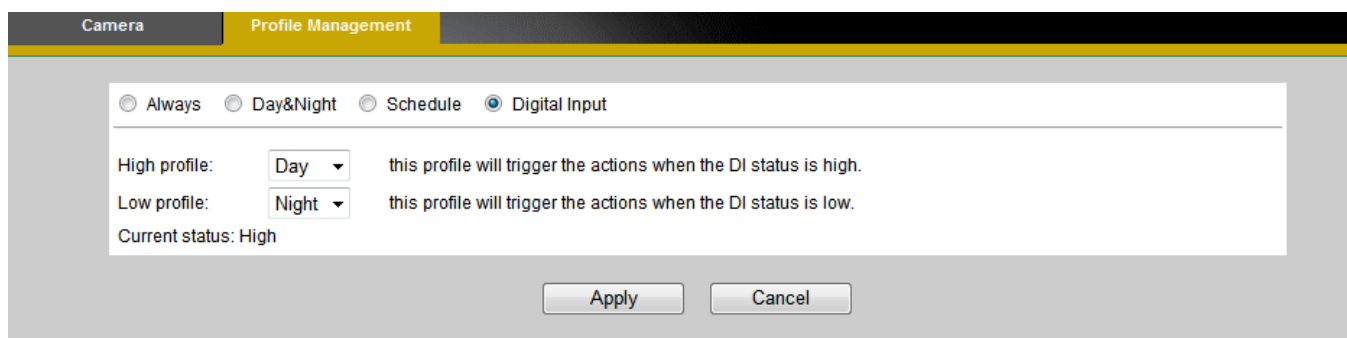
The screenshot shows the 'Profile Management' tab with the 'Day&Night' radio button selected. Below the radio buttons, there are two dropdown menus: 'Day Profile' with 'Day' selected and 'Night Profile' with 'Night' selected. There are two lines of text with input fields: 'Switch to Day profile if the detected value is higher than 40 for 5 Second' and 'Switch to Night profile if the detected value is lower than 10 for 5 Second'. Below this is a horizontal light sensor scale with a moon icon on the left and a sun icon on the right. A red vertical line indicates the 'Current value detected: 155'. At the bottom, there are two buttons: 'Apply' and 'Cancel'.

**Day & Night (\*)** (Only available for models with the light sensor) - Select Day & Night to schedule two profiles for day and night. Select profiles from the drop down menu for the Day and Night Profiles.





**Schedule** – Select Schedule to schedule specific time periods for different profiles.



**Digital Inputs (\*)** (Only available for models with the DI interface) - Select Digital Input to have the profile management controlled by an external sensor. Select profiles from the drop down menu. Profiles will be changed depending on the status of DI (Digital Input). Click **Apply** to apply settings or **Cancel** to cancel changes.

## Video

The Network Camera offers multiple streams for different viewing options.

Video

Stream
Video Overlay
RTSP Server
TV-out
Advanced Settings

Stream 1	
Video Codec	H.264
Video Resolution	1920x1080
Frame Rate	30
Bitrate Mode	Constant Bitrate
Bitrate	8000 Kbps. (64~12000)
Quality	3
GOP	0 (0~30,0:auto)

Stream 2	
TV-out	<input checked="" type="checkbox"/>
Enable	<input type="checkbox"/>
Video Codec	MJPEG
Video Resolution	640x480
Frame Rate	25
Bitrate Mode	Variable Bitrate
Bitrate	64 Kbps. (64~12000)

### For each stream, the following settings are available:

**Video Codec** - The Network Camera offers three choices of video codec standards for real-time viewing: H.264, MPEG-4 and MJPEG.


**Video Resolution** - Select from the drop-down menu to choose the best resolution recording settings.


**Frame Rate** - Select the frame rate from the drop-down menu. Set a higher frame rate for the smoother video.

**Bitrate Mode** – Select the bitrate mode from the dropdown menu. Select Variable Bitrate to manually configure the video quality. Select Constant Bitrate to manually configure the bitrate. Set the higher bitrate/ quality for the better video.

**Quality** – Select MJPEG video codec to configure the video streaming using Quality. The video quality can be set between Level 1 to Level 6, with Level 6 producing the best image quality.

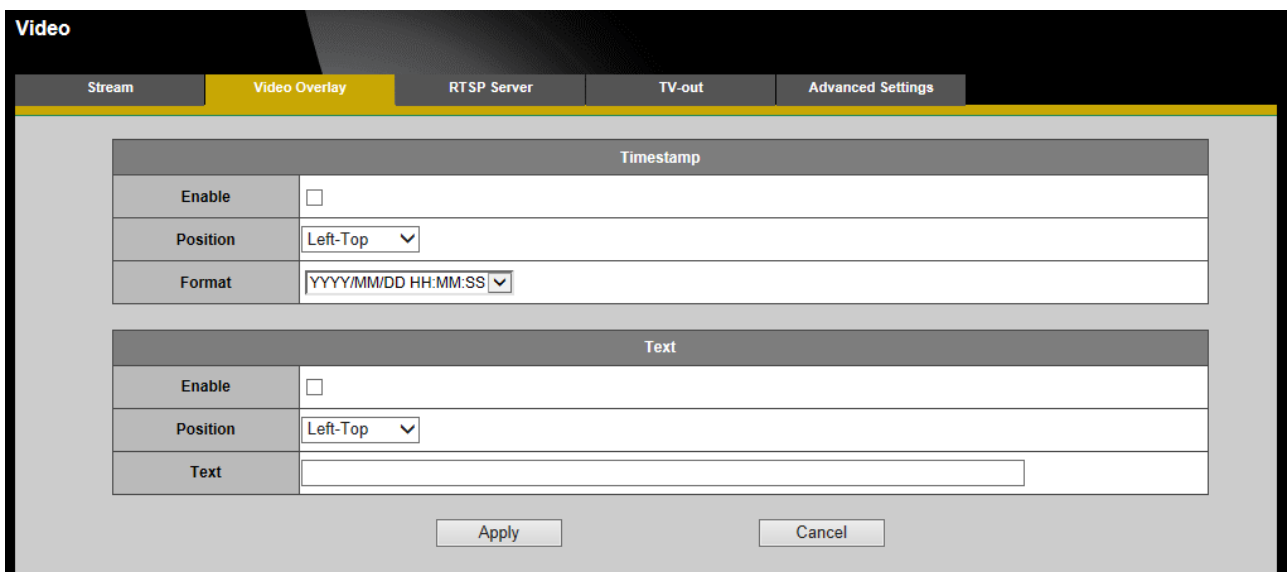
**GOP** – Set a higher GOP (group of picture) value for the smoother video transmission on the network. Select 0 to have the camera produce one i-frame per second regardless of the frame rate.

 **NOTE** - a higher bitrate will use higher network bandwidth.

 **NOTE** – HTTP Transport is for non-IE browser used only.

Click **Apply** to apply settings or **Cancel** to cancel changes.

## Video Overlay




### Timestamp

To display the date and time on the screen during live view, check “Enable” to enable the timestamp function and select the display position from the drop-down menu.

### Text

To make a note about the camera, check “Enable” and select the display position from the drop-down menu. Enter a video description in the text box.

Click **Apply** to apply settings or **Cancel** to cancel changes.

 **NOTE** – For the 1 megapixel models, the video overlay will only takes effect on stream 1.

## RTSP Server

The screenshot shows a web-based configuration interface for an RTSP server. The interface is titled "Video" and has several tabs: "Stream", "Video Overlay", "RTSP Server", "TV-out", and "Advanced Settings". The "RTSP Server" tab is currently selected. Below the tabs, there are two main sections. The first section is titled "RTSP Server" and contains two fields: "Port" with a text input field containing "554", and "Authentication" with a dropdown menu set to "NONE". The second section is titled "RTP/RTCP" and contains one field: "RTCP Mode" with a dropdown menu set to "Without SR". At the bottom of the configuration area, there are two buttons: "Apply" and "Cancel".

To utilize RTSP authentication, the user must first set a password for the camera. RTSP (Real-Time Streaming Protocol) controls the delivery of streaming media. By default the port number is set to 554.

**Authentication** - Depending on the network security requirements, the camera provides two types of security settings for streaming via RTSP protocol: NONE, BASIC and DIGEST.

If DIGEST authentication is selected, user credentials are encrypted using MD5 algorithm, thus providing better protection against unauthorized access.

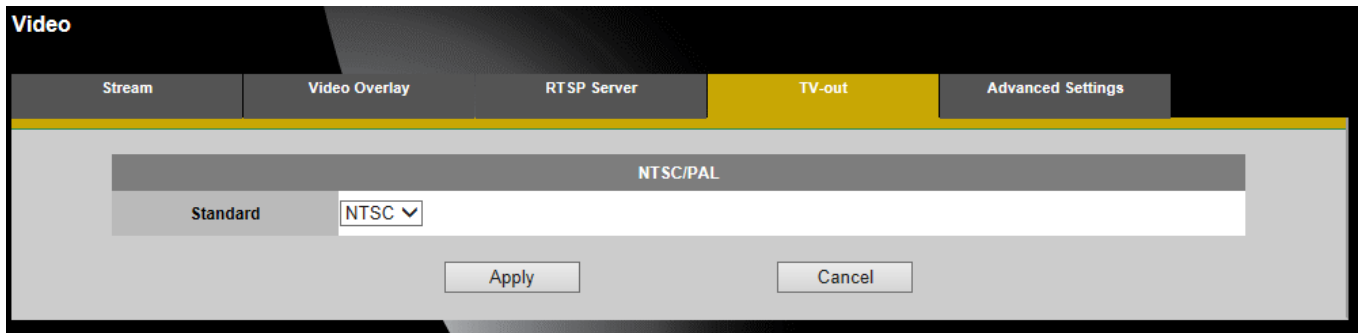
### **RTP/RTCP-**

**RTCP without SR** - RTCP without SR (Sender Report) is the default option. Under this option, audio and video received from the IP camera are played immediately and independent of each other.

**RTCP with SR** - RTCP with SR option allows synchronization between video and audio on live viewing. Choose this option if audio and video become unsynchronized.

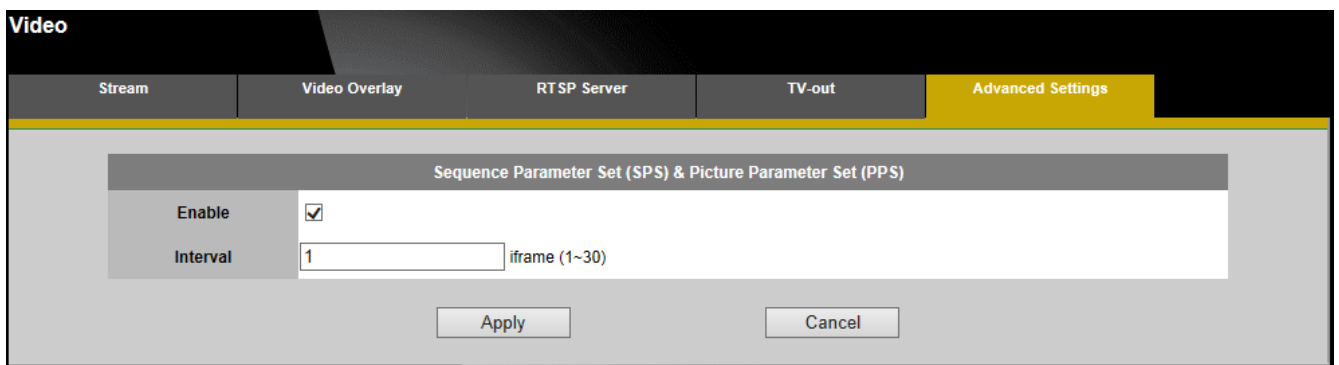
Click Apply to apply settings or Cancel to cancel changes.

## TV Out



Both the NTSC and PAL formats are available.

## Advanced Setting



The setting mainly addresses the compatibility issues, and the default setting works fine in most cases.

## Audio

The administrator can set up multiple separate streams for the camera for different viewing devices. The administrator can enable or disable the audio function for each stream. If audio is enabled, select the desirable audio codec from the drop-down menu.

The screenshot shows a web interface for configuring streams. At the top, there are two tabs: 'Stream' and 'Advanced Settings'. The 'Advanced Settings' tab is active. Below the tabs, there are three sections, each representing a stream:

- Stream 1:** 'Enable' checkbox is unchecked, 'Audio Codec' dropdown is set to 'G.711'.
- Stream 2:** 'Enable' checkbox is unchecked, 'Audio Codec' dropdown is set to 'G.711'.
- Stream 3:** 'Enable' checkbox is unchecked, 'Audio Codec' dropdown is set to 'G.711'.

At the bottom of the form, there are two buttons: 'Apply' and 'Cancel'.

## Advanced Settings

The screenshot shows the 'Advanced Settings' page. At the top, there are two tabs: 'Stream' and 'Advanced Settings'. The 'Advanced Settings' tab is active. Below the tabs, there are three sections for configuring camera audio:

- Camera MIC:** 'MIC Type' dropdown is set to 'Built-in MIC', 'Volume' dropdown is set to '-0db'.
- Camera Speaker:** 'Enable' checkbox is checked, 'Volume' dropdown is set to '50%'.
- Echo Cancellation:** 'Enable' checkbox is unchecked.

At the bottom of the form, there are two buttons: 'Apply' and 'Cancel'.

The Network Camera supports two-way audio communication so that operators can transmit and receive audio simultaneously and communicate with people over there.

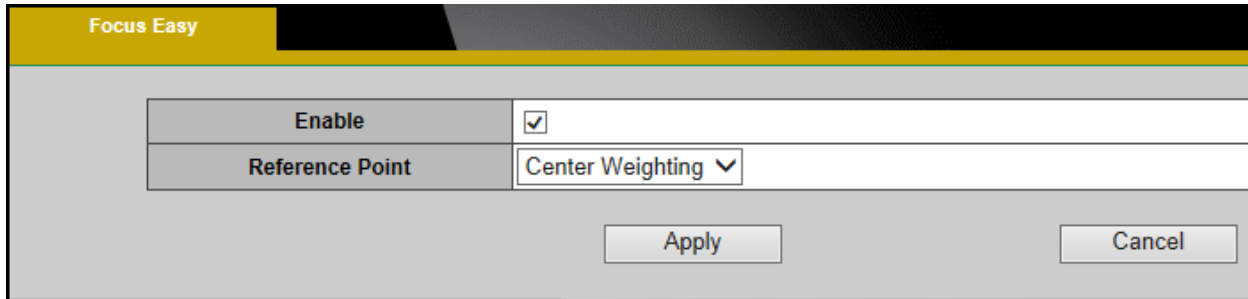
**Camera MIC** - Select the desirable type of camera microphone and adjust the volume for the user applications.

**Camera Speaker** - Check "Enable" and adjust the volume from the drop-down menu.

**Echo Cancellation** - Check "Enable" to if echo cancellation is required.

Click **Apply** to apply settings or **Cancel** to cancel changes

## Focus Easy (\*)



Focus Easy	
Enable	<input checked="" type="checkbox"/>
Reference Point	Center Weighting ▾

Apply Cancel

FocusEasy™ is Brickcom's patented technology that makes focusing the camera easy and fast without the help of a monitor. This function is available for the V5 professional manual vari-focal cameras, including the FB-300Np V5, OB-502Ap V5, OB-302Np V5, VD-502Ap V5, VD-302Np V5, etc. This function can be enabled or disabled. When this function is enabled, the user can select either **Full Screen** or **Center Weighting** to meet the needs.

 **NOTE – For the FocusEasy™ supported models, please release the push button immediately after hearing the activation/de-activation sound.**



## Multicast

Multicast

Stream 1				
Enable	<input type="checkbox"/>			
Multicast Address	234	1	2	3
Port	10000			

Stream 2				
Enable	<input type="checkbox"/>			
Multicast Address	234	1	2	3
Port	20000			

Stream 3				
Enable	<input type="checkbox"/>			
Multicast Address	234	1	2	3
Port	10000			

Apply Cancel

Multicast sends a video stream to the multicast group address and allows multiple clients to acquire the stream at the same time by requesting the video stream from the multicast group address. Therefore, multicast can effectively save Internet bandwidth. The RTSP (Real-Time Streaming Protocol) controls the delivery of streaming media.

Click “Enable” to enable the stream needed. Use different port numbers for different streams. It is recommended to use the default values.



**NOTE** - Using the IP address of the Network Camera enables access to the video.

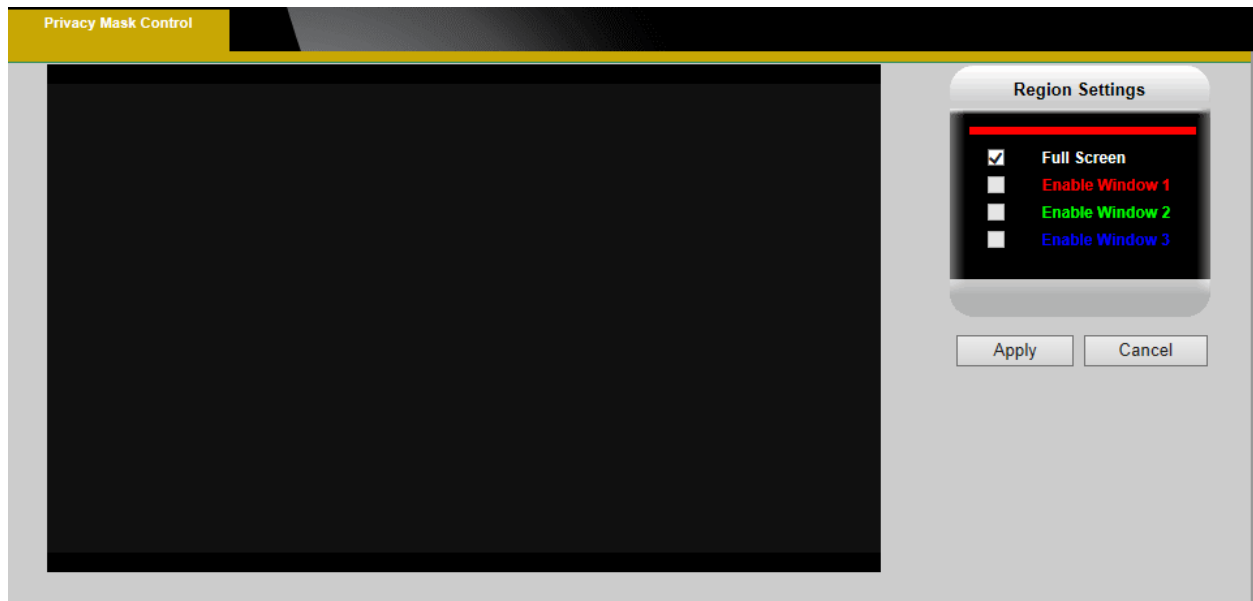
Example: `rtsp://192.168.1.1/channel1`

Click **Apply** to apply settings or **Cancel** to cancel changes.



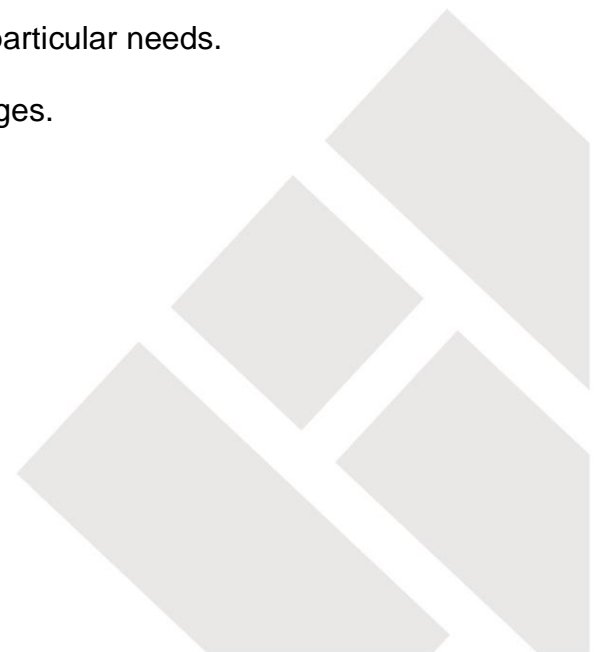
## Privacy Mask Control

The camera supports the privacy mask function, which allows users to mask the camera's live view. The user can cover certain areas on the camera image with black to keep privacy in specific circumstances.



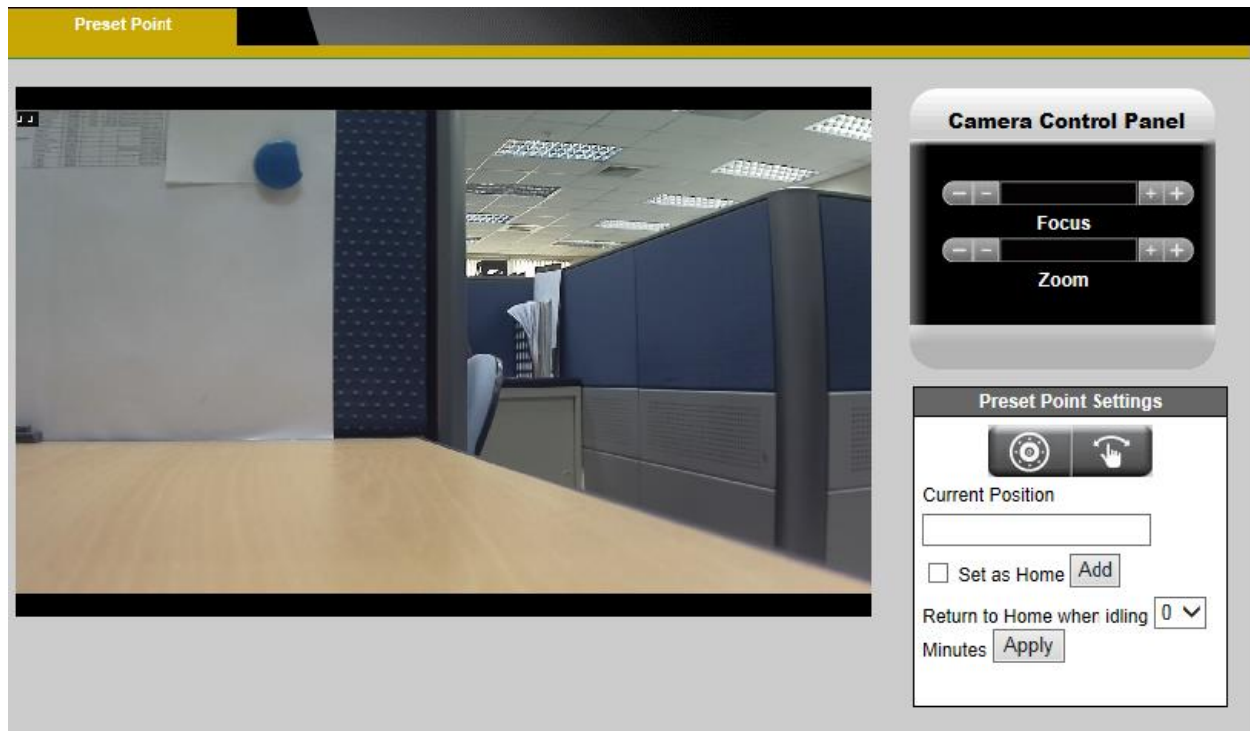
**Privacy Mask Control** –Region Settings allows the user to select specific area(s) to eliminate from the live view and recording to meet the particular needs.

Click **Apply** to apply settings or **Cancel** to cancel changes.



**Camera Control** (User who use IE11 Brower need to access to the tool menu, then select the compatibility view settings item in the drop-down menu to enable the camera control functions.)

## Preset Point



A preset position is a pre-defined camera view that can be used to quickly move the camera view to a specific location. To create a preset position:

- Use the Pan, Tilt and Zoom (PTZ) controls to steer the camera view to the required position.
- Enter a descriptive name under Current Position and click **Add**.
- The camera position and focus settings will be saved as a preset position.



**NOTE** – A total of sixteen preset points can be set.

- Preset Positions can be assumed at any time by selecting the preset position's name from the available positions drop-down list. One position can be set as the **Home** position, which is readily accessible by clicking the **Home** button in the PTZ panel.



**NOTE** - The name of the preset point set as **Home** will have (H) added; for example, Gate (H).

- e. The camera can be configured to return to the **Home** position when the camera has been inactive for a specified length of time. Select the length of time from the drop-down menu and click **Apply**. Setting the time to zero prevents the camera from automatically returning to the Home position.

## Patrol Settings

Description	Running
Morning	Stop

Description:

Preset Positions	Patrol Positions	Movement Speed	Viewing Duration	Delete
123 <input type="checkbox"/>	123 <input type="checkbox"/>	0 [1..100]	0 Second	Delete
456 <input type="checkbox"/>	456 <input type="checkbox"/>	0 [1..100]	0 Second	Delete

Add Cancel

The camera can be set to patrol a group of preset points. For each patrol group, the user can configure the preset point order, movement speed, and viewing duration.

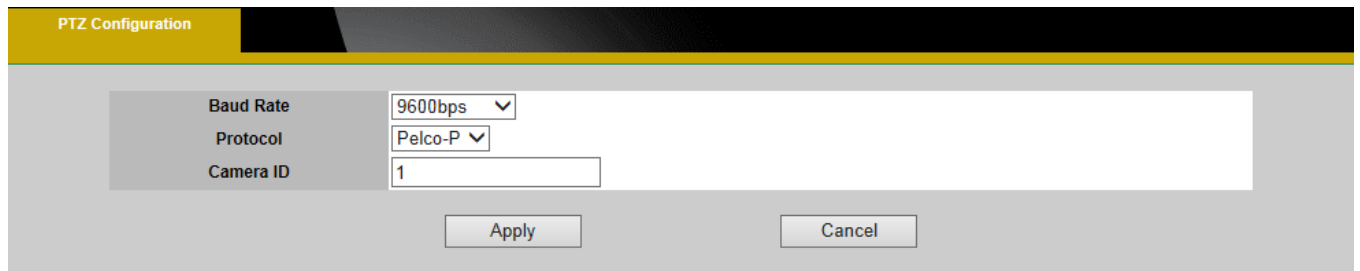
To create a patrol group:

- a. Click on **Add** and enter a descriptive name in **Description**.
- b. Add preset points to the patrol group by clicking the  next to the desired preset point.
- c. Use the arrow buttons to change the order of the preset positions by using the Adjust the sequence of positions, and enter **Movement Speed** and **Viewing Duration** for each preset point.
- d. Click on **Apply** to save the patrol group.
- e. Enable a patrol set by clicking on **Start/Stop**.

### NOTE

1. A total of sixteen preset points can be assigned to a patrol group.
2. A total of four patrol groups can be assigned to a network camera.

## PTZ Configuration



Baud Rate	9600bps
Protocol	Pelco-P
Camera ID	1

Apply Cancel

PTZ allows users to change the shooting direction and zoom level of the network camera. The panning, tilting, and zooming functions can be controlled remotely so operators can follow activity and focus in on specific details.

**Baud Rate** – Select the Baud Rate from the drop-down menu to match the user’s needs.

**Protocol** – Select the Protocol from the drop-down menu (Pelco-P/Pelco-D).

**Camera ID** – Enter the Camera ID



## Network

### Network Settings

This section explains how to configure a wired network connection for the camera. There are several ways to setup the camera over the Internet: (1) obtain an available dynamic IP address assigned by a DHCP server, (2) use a static IP, or use PPPoE (Point-to-point over Ethernet). Select the desire setup mode from the IP settings drop-down menu.

The screenshot shows a web interface for network settings. At the top, there's a yellow header with 'Network Settings' and a black header with 'IEEE 802.1X'. Below that, there are two main sections: 'Wired Settings' and 'MTU Option'. In 'Wired Settings', the 'Mode' is set to 'DHCP' in a dropdown menu. In 'MTU Option', the 'Enable' checkbox is unchecked, and the 'MTU Value' is set to '1500' in a text input field, with '(1280~1500)' shown to the right. At the bottom, there are 'Apply' and 'Cancel' buttons.

1. **DHCP** –If this option is selected, the camera will automatically obtain an available dynamic IP address from the DHCP server each time it connects to the LAN.  
**MTU (Maximum Transmission Unit) Option** – Check “Enable” and adjust the MTU value for the user’s application. In most cases, there is no need to enable this function.




Wired Settings	
Mode	Static IP
IPv4	
IP Address	168 . 192 . 1 . 102
Subnet Mask	255 . 255 . 0 . 0
Default Gateway	0 . 0 . 0 . 0
Primary DNS	0 . 0 . 0 . 0
Secondary DNS	0 . 0 . 0 . 0
IPv6	
IPv6 Address	
Subnet Prefix Length	0
IPv6 Default Gateway	
IPv6 Primary DNS	
IPv6 Secondary DNS	
MTU Option	
Enable	<input type="checkbox"/>
MTU Value	1500 (1280~1500)

2. **Static IP** - Select this option to manually assign a static IP address to the camera. Enter the static IP address, Subnet mask, Default Gateway, Primary and Secondary DNS provided by the ISP.

**MTU (Maximum Transmission Unit) Option** – Check “Enable” and adjust the MTU value for the user’s application. In most cases, there is no need to enable this function.

Wired Settings	
Mode	PPPoE
Username	
Password	

3. **PPPoE (Point-to-point over Ethernet)**: Use this mode if connecting to the Internet through a DSL Line.  **NOTE** - To utilize this feature, it requires an account provided

by an Internet Service Provider. Enter the user name and password provided by the ISP.

Click **Apply** to apply settings or **Cancel** to cancel changes.

4. **3G (\*)** – Use this option if using a 3G SIM card to set up the wireless connection to transmit the video/audio.

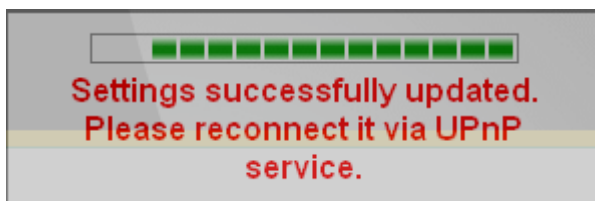


**NOTE** - This function is only available for the GOB models.

Mode	3G
APN	internet
Dial Number	*99#
PIN Code	0000
Username	
Password	

Apply Cancel

- a. Enter the APN (Access Point Number), Dial Number, PIN Code, User Name and Password provided by the ISP.
- b. Click **Apply** to apply the settings. The message below will be displayed if the 3G settings were successfully applied.



- c. Before disconnecting the network cable of the network camera, please obtain the IP Address by using EasyConfig. The 3G connection IP Address will be displayed in the IP Address column.





## IEEE 802.1X

IEEE 802.1X is an IEEE Standard for Port-based Network Access Control (PNAC). It provides an authentication mechanism to devices wishing to attach to a LAN or WLAN.

Enable	<input type="checkbox"/>
Protocol	EAP-TLS
Username	<input type="text"/>
Private Key Password	<input type="password"/>
Client Certificate	<input type="text"/> 瀏覽... <input type="button" value="Upload"/> No Client Certificate uploaded
CA Certificate	<input type="text"/> 瀏覽... <input type="button" value="Upload"/> No CA Certificate uploaded

- Check “Enable” and select the desired Protocol from the drop-down menu.
- Enter the Username and Private Key Password.
- Upload the client certificate and CA Certificate for use with the authentication.


## UPnP

Universal Plug and Play (UPnP) simplifies the process of adding a camera to a local area network. Once connected to a LAN, the camera will automatically appear on the intranet. Click “Enable” to enable this function and enter an UPnP name which the camera will appear under on the intranet.

Enabled	<input checked="" type="checkbox"/>
UPnP Name	WCB-100Ap-2c11

Click **Apply** to apply settings or **Cancel** to cancel changes.

## DDNS (dynamic domain name service)

DDNS links a domain name to an IP address, allowing users to easily access their camera even with a changing IP address. Brickcom network cameras are compatible with three DDNS service providers (1) DynDNS, (2) TZO, and (3) No-IP.  **NOTE** - Before utilizing this function; please apply for a dynamic domain account from a DDNS provider.

DynDNS	TZO	NO-IP								
<table border="1"><tr><td>Enable</td><td><input type="checkbox"/></td></tr><tr><td>Username</td><td><input type="text"/></td></tr><tr><td>Password</td><td><input type="password"/></td></tr><tr><td>Hostname</td><td><input type="text"/></td></tr></table>	Enable	<input type="checkbox"/>	Username	<input type="text"/>	Password	<input type="password"/>	Hostname	<input type="text"/>		
Enable	<input type="checkbox"/>									
Username	<input type="text"/>									
Password	<input type="password"/>									
Hostname	<input type="text"/>									
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>										

**DynDNS** – Enable the DynDNS to allow the camera to have a fixed host and domain name. Refer to the DynDNS website ([www.dyndns.com](http://www.dyndns.com)) to apply for a dynamic domain account. When an account has been created, enter the username, password and hostname. Click **Apply** to apply settings or **Cancel** to cancel changes.

## TZO

DynDNS	TZO	NO-IP								
	<table border="1"><tr><td>Enable</td><td><input type="checkbox"/></td></tr><tr><td>Email Address</td><td><input type="text"/></td></tr><tr><td>TZO Password</td><td><input type="password"/></td></tr><tr><td>Domain Name</td><td><input type="text"/></td></tr></table>	Enable	<input type="checkbox"/>	Email Address	<input type="text"/>	TZO Password	<input type="password"/>	Domain Name	<input type="text"/>	
Enable	<input type="checkbox"/>									
Email Address	<input type="text"/>									
TZO Password	<input type="password"/>									
Domain Name	<input type="text"/>									
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>										

**TZO** is a DDNS provider which allows users to create a dynamic DNS. Refer to the TZO website (<http://www.tzo.com/>) to apply for a dynamic domain account. When an account has been created, enter the e-mail address, password and domain name. Click **Apply** to apply settings or **Cancel** to cancel changes.

## No-IP

DynDNS	TZO	No-IP									
<table border="1"><tr><td>Enable</td><td><input type="checkbox"/></td></tr><tr><td>Email Address</td><td><input type="text"/></td></tr><tr><td>Password</td><td><input type="text"/></td></tr><tr><td>Hostname</td><td><input type="text"/></td></tr></table>				Enable	<input type="checkbox"/>	Email Address	<input type="text"/>	Password	<input type="text"/>	Hostname	<input type="text"/>
Enable	<input type="checkbox"/>										
Email Address	<input type="text"/>										
Password	<input type="text"/>										
Hostname	<input type="text"/>										
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>											

**No-IP** is a DDNS provider which offers DNS services, email, network monitoring and SSL certificates. Email services include POP3 email, outbound SMTP email, backup mail services and mail reflection and filtering. Refer to the No-IP website ([www.no-ip.com](http://www.no-ip.com)) to apply for a dynamic domain account. When an account has been created, enter the e-mail address, password and domain name.

Click **Apply** to apply settings or **Cancel** to cancel changes.



## EasyLink™

EasyLink™ is a unique Brickcom function which allows users to assign a unique EasyLink name to their network camera's IP address. There is no need to configure the router to open up ports or remember hard-to-memorize IP addresses. When this function is enabled, users can log onto [uniqueEasyLinkname].mybrickcom.com to view the camera's web GUI and live view.

1. Check the box to enable EasyLink™.
2. If Auto mode is selected, the following page will be displayed.



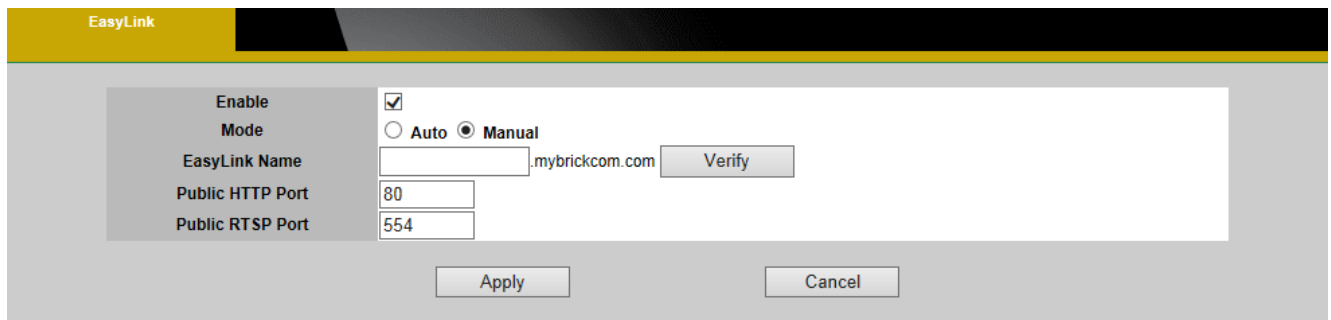
**NOTE** - This mode is recommended.

3. Enter a unique EasyLink name whose length must be between 5-32 characters. Click Verify to test if the EasyLink name is available.
4. Click START to do the Self-Diagnostic.

The screenshot shows a web interface for configuring EasyLink. At the top left, there is a yellow header with the text "EasyLink". Below this, there is a form with the following elements:

- Enable**: A checked checkbox.
- Mode**: Two radio buttons, "Auto" (selected) and "Manual".
- EasyLink Name**: A text input field containing "983b164bc542" followed by ".mybrickcom.com". To the right of the input is a "Verify" button.
- Self-Diagnostic**: A "START" button.
- At the bottom of the form are two buttons: "Apply" and "Cancel".

5. If Manual mode is selected, the following page will be displayed.



6. Enter a unique EasyLink name whose length must be between 5-32 characters. Click Verify to test if the EasyLink name is available.

7. Manually enter the Public HTTP Port and RTSP Port or leave the default values.

Click **Apply** to apply settings or **Cancel** to cancel changes.



**NOTE** - The following conditions may cause EasyLink fail to work:

1. The camera is behind more than 1 router.
2. The camera's IP address and port setting has a conflict with the router's port forwarding setting.
3. EasyLink uses UPnP to exchange port information with the router. The camera must connect to the internet through a router which supports UPnP.

## Wireless

These settings control how a Network Camera interacts with a wireless network. Users can identify the wireless network and enable wireless encryption.



**NOTE** – This function is only available for WCB, WOB and WMB models.

### Basic Settings

Basic Settings	Advanced Settings	Wi-Fi Protected Setup
Enable	<input type="checkbox"/>	
Network Name (SSID)	<input type="text" value="Brickcom"/>	<input type="button" value="Site survey"/>
Security	Disable <input type="button" value="v"/>	
Wireless Channel	Disconnected	
Wireless Signal Strength	Disconnected	
Status	Disconnected	

**Site Survey List**

Click the Site Survey button to update the list.

**Network Name (SSID)** - The Service Set Identifier (SSID) is the network name used to identify the wireless signal emitted from a wireless camera. It is case-sensitive and can be up to 32 characters long.

Wireless devices have a default SSID set by the factory. Brickcom wireless products use **Brickcom** as the default name. Users have to ensure that the SSID setting matches the home network setting to enable the wireless devices.



**NOTE** - Be careful when including personal information when naming the SSID as it is viewable by anyone browsing for wireless networks.

**Site Survey** – Survey the local area for available wireless networks. The user should select their Local Area Network (LAN) from the Site Survey List.

Basic Settings		Advanced Settings		Wi-Fi Protected Setup	
Enable	<input checked="" type="checkbox"/>				
Network Name (SSID)	Brickcom	<input type="button" value="Site survey"/>			
Security	Disable				
Wireless Channel	36				
Wireless Signal Strength	90%				
Status	Connected				
		<input type="button" value="Apply"/>		<input type="button" value="Cancel"/>	

Site Survey List						
SSID	Mode	Security	Channel	Signal	Type	Select
Brickcom	11a/n	NONE	40	99%	Infrastructure	<input type="button" value="Select"/>
LP-2596K	11a/n	WPAPSK/AES	36	18%	Infrastructure	<input type="button" value="Select"/>
FAE_Kelsey	11a/n	WPA2PSK/AES	36	63%	Infrastructure	<input type="button" value="Select"/>
BRICKCOM-5G-001	11a/n	NONE	36	37%	Infrastructure	<input type="button" value="Select"/>
Stream19294	11a/n	WPA2PSK/AES	36	31%	Infrastructure	<input type="button" value="Select"/>
Brickcom	11a/n	NONE	40	13%	Infrastructure	<input type="button" value="Select"/>

**Security** - Encryption protects data transmitted over a wireless network. WEP (Wired Equivalent Privacy), WPA-Personal (Wi-Fi Protected Access Personal) and WPA2-Personal offer different security levels for the wireless communication. A network encrypted with WPA2-Personal is more secure than WPA-Personal and WEP. To protect the information as it passes through the airwaves, it is recommended to enable the highest level of encryption supported by the network equipment. The WPA-RADIUS and WPA2-Enterprise are for the advanced users.

**WEP-** Wired Equivalent Privacy (WEP) is a basic encryption method which transmits network broadcast messages by using radio signals.

Basic Settings		Advanced Settings	Wi-Fi Protected Setup
Enable	<input checked="" type="checkbox"/>		
Network Name (SSID)	Brickcom	<input type="button" value="Site survey"/>	
Security	WEP		
TX Key	1		
WEP Encryption	40/64 bits (10 hex digits)		
Key 1	<input type="text"/>		
Key 2	<input type="text"/>		
Key 3	<input type="text"/>		
Key 4	<input type="text"/>		
Authentication	Shared Key		
Wireless Channel	36		
Wireless Signal Strength	88%		
Status	Connected		

**Tx Key** - Select a key from the drop-down menu.

**WEP Encryption** - Select the level of WEP encryption that matches the user's wireless network setting.

**Key 1-4** - Enter the WEP key(s) manually.

**Authentication** – Users can select the way of authentication from the drop-down menu that matches the user's application. Click **Apply** to apply settings or **Cancel** to cancel changes.

## WPA-Personal

Basic Settings		Advanced Settings	Wi-Fi Protected Setup
Enable	<input checked="" type="checkbox"/>		
Network Name (SSID)	Brickcom	<input type="button" value="Site survey"/>	
Security	WPA-Personal		
Encryption	TKIP		
Shared Key	<input type="text"/> (8 to 63 characters)		
Wireless Channel	36		
Wireless Signal Strength	95%		
Status	Connected		

**Encryption** - Supports two encryption methods with dynamic encryption keys: Temporal Key



Integrity Protocol (TKIP) and Advanced Encryption Standard (AES). Select the algorithm type that matches user's wireless network setting.

**Shared Key** - Enter a password of 8-63 characters.

Click **Apply** to apply settings or **Cancel** to cancel changes.

## WPA2-Persona I

Basic Settings		Advanced Settings	Wi-Fi Protected Setup
Enable	<input checked="" type="checkbox"/>		
Network Name (SSID)	<input type="text" value="Brickcom"/>	<input type="button" value="Site survey"/>	
Security	WPA2-Personal ▾		
Encryption	AES ▾		
Shared Key	<input type="text"/> (8 to 63 characters)		
Wireless Channel	36		
Wireless Signal Strength	95%		
Status	Connected		

**Encryption** - WPA2 supports AES encryption method with dynamic encryption keys.

**Shared Key** - Enter a password of 8-63 characters.



**NOTE** - If using WPA or WPA2, each device in the wireless network must use the same WPA or WPA2 method and shared key or else the network will not function properly.



## WPA-RADIUS

Basic Settings	Advanced Settings	Wi-Fi Protected Setup
Enable	<input checked="" type="checkbox"/>	
Network Name (SSID)	Brickcom	Site survey
Security	WPA-RADIUS	
Encryption	TKIP	
Protocol	EAP-TLS	
Username		
Private Key Password		
Client Certificate	<input type="text"/> 瀏覽...	Upload No Client Certificate uploaded
CA Certificate	<input type="text"/> 瀏覽...	Upload No CA Certificate uploaded
Wireless Channel	40	
Wireless Signal Strength	92%	
Status	Connected	

**Encryption** - Supports two encryption methods with dynamic encryption keys: Temporal Key Integrity Protocol (TKIP) and Advanced Encryption Standard (AES). Select the algorithm type that matches user's wireless network setting.

**Protocol** – Select the type of protocol from the drop-down menu that matches the user's application. While the users select "EAP-PEAP" for protocol, the default inner EAP protocol will set up MS-CHAP v2 automatically.

**Username** – Enter the username.

**Private Key Password** – Enter the private key password.

**Client certificate** - Upload the client certificate for use with the authentication.

**CA Certificate** - Upload the CA Certificate for use with the authentication.

While the users select "**EAP-PEAP**" for protocol, the users can check "Validate Server Certificate" to enable the function and upload the CA Certificate for use with the authentication.

## Advanced Settings

Basic Settings	Advanced Settings	Wi-Fi Protected Setup						
<table border="1"><tr><td>Network Mode</td><td>ABGN-Mixed</td></tr><tr><td>Radio Band</td><td>Auto-20/40MHz Channel</td></tr><tr><td>WMM (802.1e QoS)</td><td>Enable</td></tr></table>			Network Mode	ABGN-Mixed	Radio Band	Auto-20/40MHz Channel	WMM (802.1e QoS)	Enable
Network Mode	ABGN-Mixed							
Radio Band	Auto-20/40MHz Channel							
WMM (802.1e QoS)	Enable							
<p style="text-align: center;"><input type="button" value="Apply"/> <input type="button" value="Cancel"/></p>								

**Network Mode** - From the drop-down menu, select the wireless standards running on the network

- If there are Wireless-B, Wireless-G and Wireless-N (2.4GHz) devices on the network, select **BGN-Mixed**.
- If there are Wireless-B and Wireless-G devices on the network, select **BG-Mixed**.
- If there are only Wireless-B devices on the network, select **Wireless-B only**.
- If there are only Wireless-G devices on the network, select **Wireless-G only**.
- If there are only Wireless-N (2.4GHz) devices on the network, select **Wireless-N only**.
- (\*)If there are Wireless-A and Wireless-N devices on the network, select **AN-MIXED**.
- (\*)If there are Wireless-A, Wireless-B, Wireless-G and Wireless-N (2.4GHz) devices on the network, select **ABGN-Mixed**.
- (\*)If there are only Wireless-A devices on the network, select **Wireless-A only**.
- (\*)If there are Wireless-A, and Wireless-N (5GHz) devices on the network, select **Wireless-N\_5G only**.

**NOTE** - (\*) These are optional features. Please refer to the Product List for the full list of optional features available for the product.

**Radio Band** - The settings are available for the Auto-20/40MHz channel and Standard-20 MHz channel.

**Enable WMM** (802.1e QoS) - WMM is a wireless Quality of Service feature that improves quality for audio, video, and voice applications by prioritizing wireless traffic. To use this feature, the wireless client devices on the network must support Wireless WMM. The default setting is **Enabled**. To disable this feature, select **Disable**.

Click **Apply** to apply settings or **Cancel** to cancel changes




## Wi-Fi Protected Setup

Wi-Fi Protected Setup	
<b>PIN Mode</b>	Enter the PIN number <b>15087867</b> into the AP device's WPS interface. Enter the AP's SSID <input type="text" value="Brickcom"/> Click Register to begin WPS. <input type="button" value="Register"/>
<b>PBC Mode</b>	Click the right button to begin WPS. 
<b>Wi-Fi Protected Setup Status</b>	Not Configured.

Hardware WPS Button	
<b>Enable</b>	<input checked="" type="checkbox"/>

Use this method if the client device has a Wi-Fi Protected Setup PIN number.

1. Enter the AP's SSID from the device in the field.
2. Click <Register> to start WPS.
3. Click  to start WPS.
4. Click "Enable" to enable the WPS Button. If this feature is not enabled, the user will not be able to use the WPS button.
5. Click **Apply** to apply settings or **Cancel** to cancel changes.

## HTTP/HTTPS


HTTP/HTTPS	
<b>HTTP</b>	
Enabled	<input checked="" type="checkbox"/>
Port	<input type="text" value="80"/>
<b>HTTPS</b>	
Enabled	<input type="checkbox"/>
Port	<input type="text" value="443"/>

**HTTP** – (HyperText Transfer Protocol) - This protocol allows for TCP protocol quality without having to open specific ports for streaming. Users inside a firewall can utilize this protocol to allow streaming data through.

**HTTPS** - (Hypertext Transfer Protocol over SSL) - This protocol allows authentication and encrypted communication over SSL (Secure Socket Layer). It helps protect streaming data transmission over the Internet on a higher security level than HTTP.

For HTTPS to work properly, users have to create and install a certificate of their own.

1. Click "Continue to this website" to install.



**There is a problem with this website's security certificate.**

---

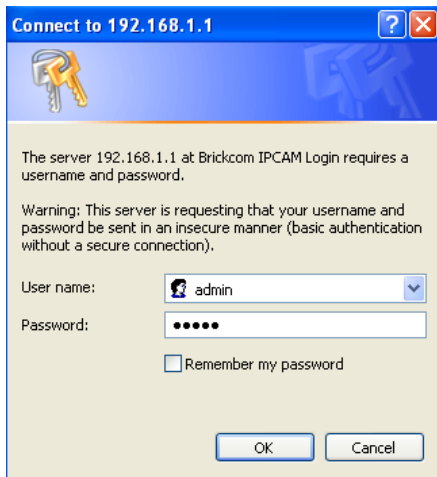
The security certificate presented by this website was issued for a different website's address.

Security certificate problems may indicate an attempt to fool you or intercept any data you send to the server.

**We recommend that you close this webpage and do not continue to this website.**

- [Click here to close this webpage.](#)
- [Continue to this website \(not recommended\).](#)
- [More information](#)

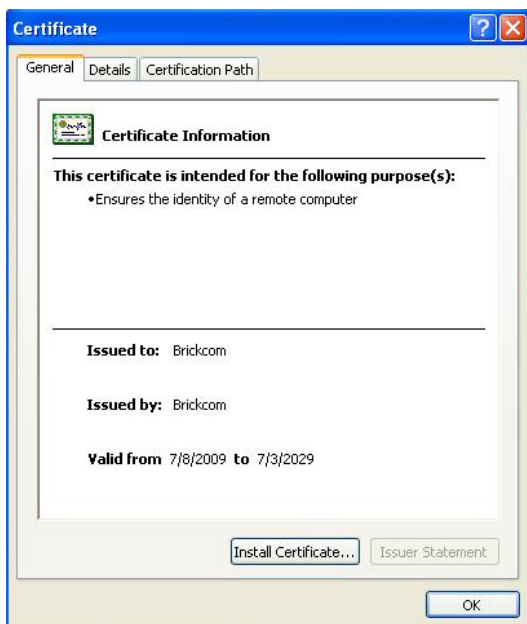
2. Enter the User name and Password of the camera.



3. Click “Certificate Error” on the top right corner of the window to view the certificate.



4. Click “Install Certificate” and follow the steps to finish the installation.

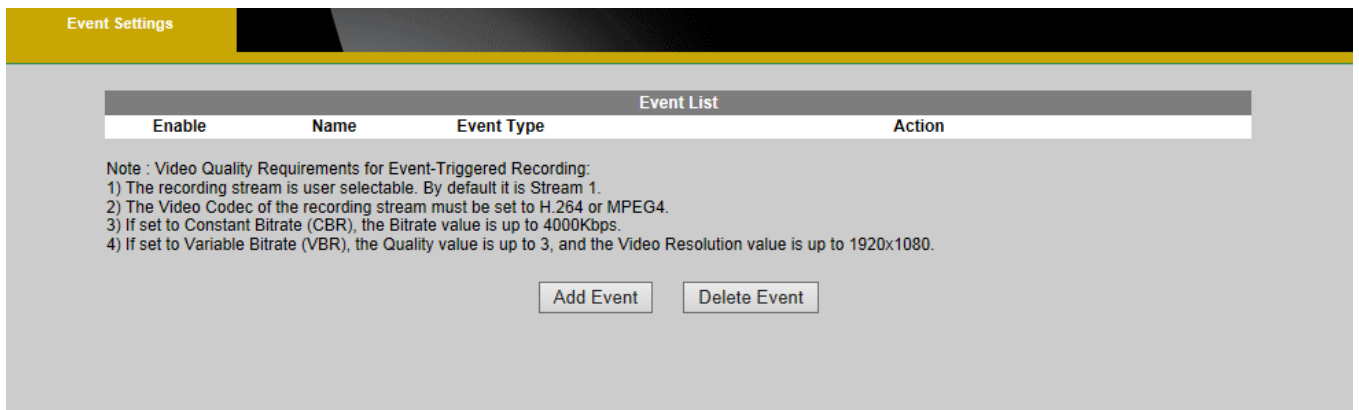


## Event

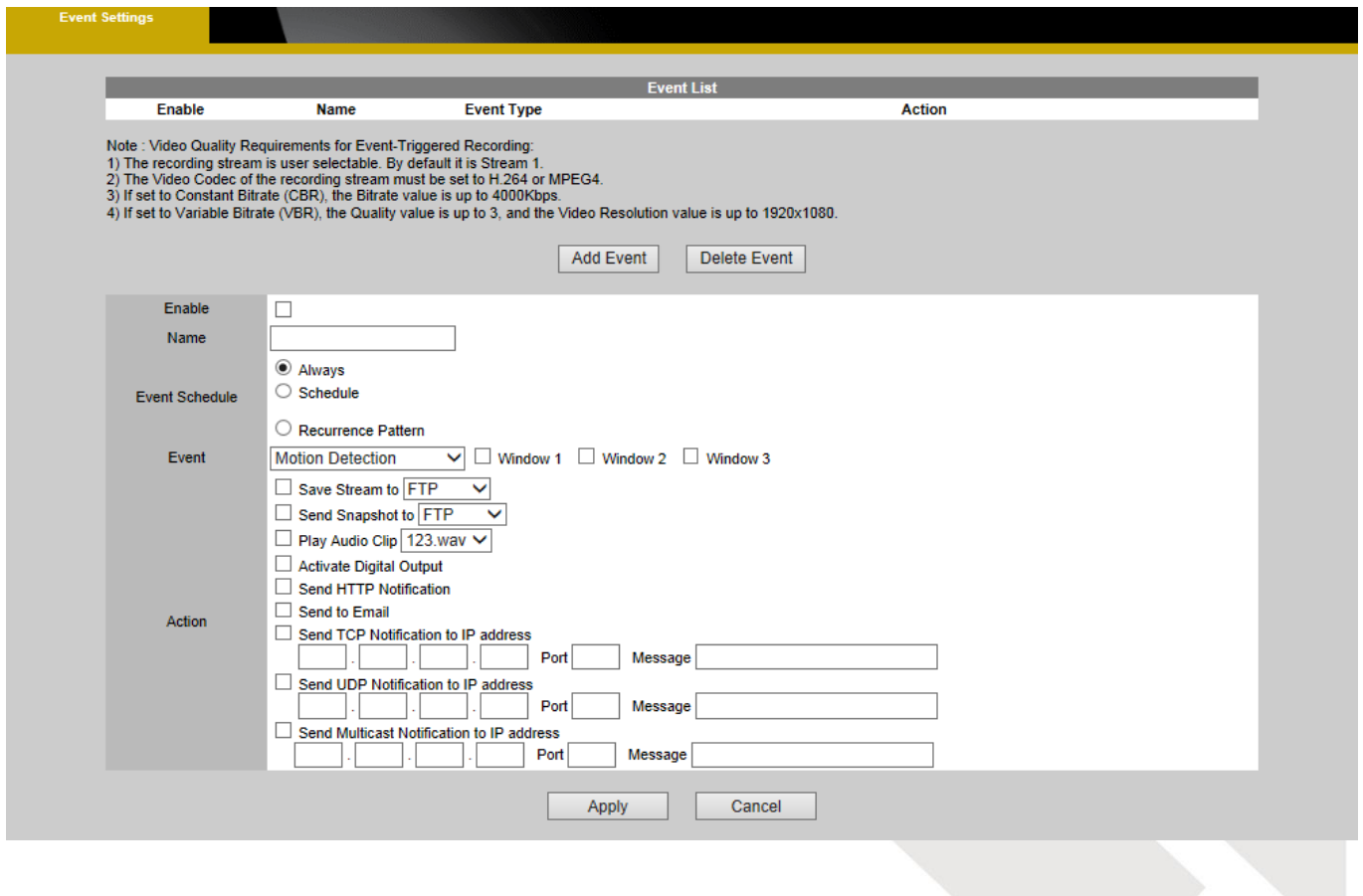
### Event Settings

When an event (such as unauthorized movement) occurs, the camera can be scheduled to perform certain actions. An Event Type is a set of parameters that defines these actions.

This section describes how to configure the camera to perform certain actions when events occur.



Click <Add Event> on the Event Settings page. The Event Setup page will appear.







b. If Recurrence Pattern is selected, the following page will be displayed.

Enable	<input type="checkbox"/>
Name	<input type="text"/>
Event Schedule	<input type="radio"/> Always
	<input type="radio"/> Schedule
	<input checked="" type="radio"/> Recurrence Pattern
	<input type="checkbox"/> Sun <input type="checkbox"/> Mon <input type="checkbox"/> Tue <input type="checkbox"/> Wed <input type="checkbox"/> Thu <input type="checkbox"/> Fri <input type="checkbox"/> Sat
	Start <input type="text" value="00"/> : <input type="text" value="00"/> Duration <input type="text"/> Minutes
Event	<input type="text" value="Motion Detection"/> <input type="checkbox"/> Window 1 <input type="checkbox"/> Window 2 <input type="checkbox"/> Window 3
	<input type="checkbox"/> Save Stream to <input type="text" value="FTP"/>
Action	<input type="checkbox"/> Send Snapshot to <input type="text" value="FTP"/>
	<input type="checkbox"/> Play Audio Clip <input type="text" value="123.wav"/>
	<input type="checkbox"/> Activate Digital Output
	<input type="checkbox"/> Send HTTP Notification
	<input type="checkbox"/> Send to Email
	<input type="checkbox"/> Send TCP Notification to IP address <input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/> Port <input type="text"/> Message <input type="text"/>
	<input type="checkbox"/> Send UDP Notification to IP address <input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/> Port <input type="text"/> Message <input type="text"/>
	<input type="checkbox"/> Send Multicast Notification to IP address <input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/> Port <input type="text"/> Message <input type="text"/>

- c. An event schedule can be programmed to recur at different times according to the user's needs. Select the days for the event schedule to occur. Select a start time and specify the duration.
- d. Define what will trigger an event to occur by selecting an option from the Event drop-down list.
- e. Select the Actions that will occur when the event is triggered.



When <Send to Email> is selected, the following page will be shown:

Enable	<input type="checkbox"/>
Name	<input type="text"/>
Event Schedule	<input type="radio"/> Always
	<input type="radio"/> Schedule
	<input checked="" type="radio"/> Recurrence Pattern
	<input type="checkbox"/> Sun <input type="checkbox"/> Mon <input type="checkbox"/> Tue <input type="checkbox"/> Wed <input type="checkbox"/> Thu <input type="checkbox"/> Fri <input type="checkbox"/> Sat
	Start <input type="text" value="00"/> : <input type="text" value="00"/> Duration <input type="text"/> Minutes
Event	<input type="text" value="Motion Detection"/> <input type="checkbox"/> Window 1 <input type="checkbox"/> Window 2 <input type="checkbox"/> Window 3
	<input type="checkbox"/> Save Stream to <input type="text" value="FTP"/>
Action	<input type="checkbox"/> Send Snapshot to <input type="text" value="FTP"/>
	<input type="checkbox"/> Play Audio Clip <input type="text" value="123.wav"/>
	<input type="checkbox"/> Activate Digital Output
	<input type="checkbox"/> Send HTTP Notification
	<input checked="" type="checkbox"/> Send to Email
	<input type="checkbox"/> Send TCP Notification to IP address
	<input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/> Port <input type="text"/> Message <input type="text"/>
	<input type="checkbox"/> Send UDP Notification to IP address
	<input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/> Port <input type="text"/> Message <input type="text"/>
	<input type="checkbox"/> Send Multicast Notification to IP address
<input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/> Port <input type="text"/> Message <input type="text"/>	
Email	Sender <input type="text"/>
	TO <input type="text"/>
	CC <input type="text"/>
	Sender's Name <input type="text"/>
	Subject <input type="text"/>

1. Sender - Enter the email address of the sender.
2. Recipient - Enter the email address of the recipient. To enter multiple recipients, separate each by using a comma.
3. Sender's Name – Enter the sender's name that will appear in the recipient's inbox.
4. Subject - Enter the title of the email.

When complete, click **Apply** to save new event or **Cancel** to delete the event. The new event will appear on the event list. To edit an event setting, please select the event from the list. To remove an event setting from the list, select an event name from the list and then click <Delete Event>. Click <Add Event> to add more events.



**NOTE** - Refer to the Audio Clip section for more details about the "Play Audio Clip" action.

## Motion Detection

Motion can be detected by measuring changes in the speed or vector of objects in the monitored area. This section explains how to configure the Network Camera to enable motion detection.

**Detection Settings**

**Region Settings**

- Enable Window 1
- Enable Window 2
- Enable Window 3

Sensitivity

Threshold

Use the mouse to resize or move the Motion Detection Window. The chart below records the amount of activity within the MD Window. The user can choose to receive notifications when the activity level is above the threshold. Use the Event Settings tool to configure the notification settings..

※The MD setting is only available for the stream 1 with H.264 codec.

※The minimum frame rate for the Motion Detection function is 5 fps.

Apply Cancel

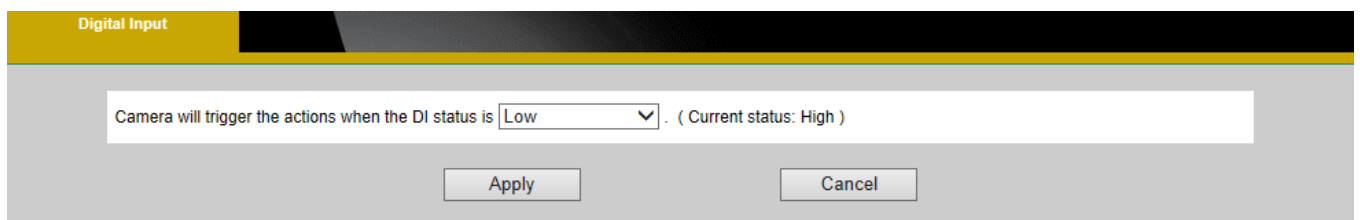
**Detection Setting** – Use this setting to enable and define the motion detection windows. The user can defined up to three areas on the live view window for motion detection.

1. Select <Window1>, <Window2>, or <Window3> to adjust the motion detection window.
2. Check the box to enable the window.
3. Use the mouse to resize or move the motion detection window.
4. Adjust the “Sensitivity” level. Lower sensitivity levels will result in more activity needed to trigger an event.
5. Adjust the “Threshold” level. The higher the threshold is, the more proportion of the region is needed to trigger an event.
6. The chart below the Live View window indicates the activity in the Motion Detection

window. When motion in the motion detection window is detected by the camera, a vertical bar will be displayed in the chart; when the motion is detected and the motion activity level is over the defined threshold, the color of the bar will change. Users can use this feature as a trigger source to send photos or videos to a remote server via email or FTP.

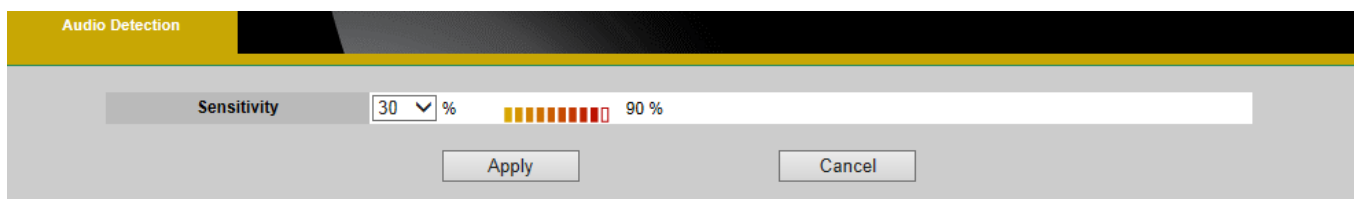
Click **Apply** to apply settings or **Cancel** to cancel changes.

## Digital Input




The users can select the desired DI status from the drop-down menu. When the DI status meets the specified condition, the camera will be triggered to take the corresponding actions.

## Audio Detection

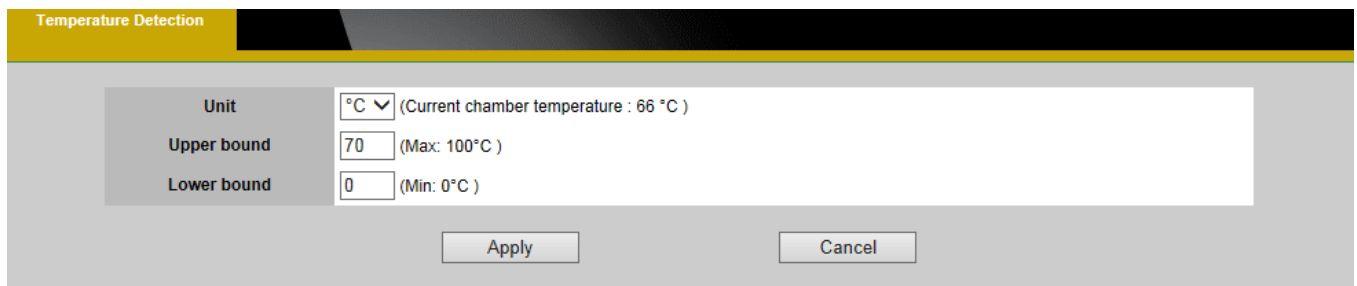


Users can schedule an event to be triggered if there is a change in the sound level of a monitored area. Audio detection can be used to measure change in the ambient voice. Select the sensitivity from the drop-down menu.

 90 % Display the current sound level.

Click **Apply** to apply settings or **Cancel** to cancel changes.

## Temperature Detection

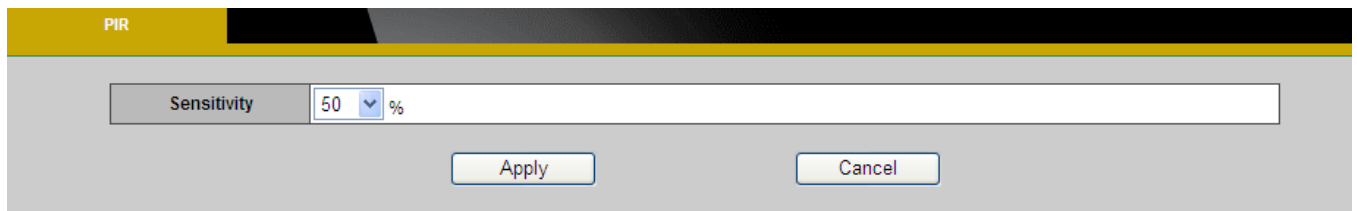


The temperature detection function is used to report the current chamber temperature of the camera. The camera can also be programmed to trigger an event if the current chamber temperature of the camera is higher than the upper bound or lower than the lower bound.

Unit – Set the unit of measurement to Fahrenheit (°F) or Celsius (°C).

Upper bound & Lower bound – Set the temperature boundaries. The applicable values range from 0 °C to 100 °C (32 °F to 212 °F).

## PIR (Professional Cube Only)



The PIR (Passive InfraRed) sensor measures infrared light radiating from objects in its field of view. This can be used to detect a moving object, such as a person, in dimly lit areas.

Sensitivity – Adjust the sensitivity of the PIR Sensor from the drop-down menu. Higher sensitivity levels will increase the range of the PIR Sensor.

## Notifications

Use the tools in this section to specify what type of notification will be sent when an event occurs. The camera can send buffered images to an FTP server, Samba, Email, or HTTP.

### FTP Settings

File Transfer Protocol (FTP) is used as an application component to automatically transfer files for program internal functions. Select “Primary FTP Server” from the Server Selection drop down menu to send media files to a FTP server when an event is triggered. Enter the FTP IP address or hostname. By default, the FTP port server is set to 21. Enter the account name, password and FTP Path to configure the settings.

FTP Settings	
Server Selection	Primary FTP Server
FTP Address	IP Address 0 . 0 . 0 . 0
FTP Port	21
Account Name	
Account Password	
FTP Path	

Apply Test Cancel

Click **Apply** to apply settings or **Cancel** to cancel changes.

## E-mail Settings

Select “Primary Email Server” option from the Server Selection drop down menu to send media files to an email server when an event is triggered.

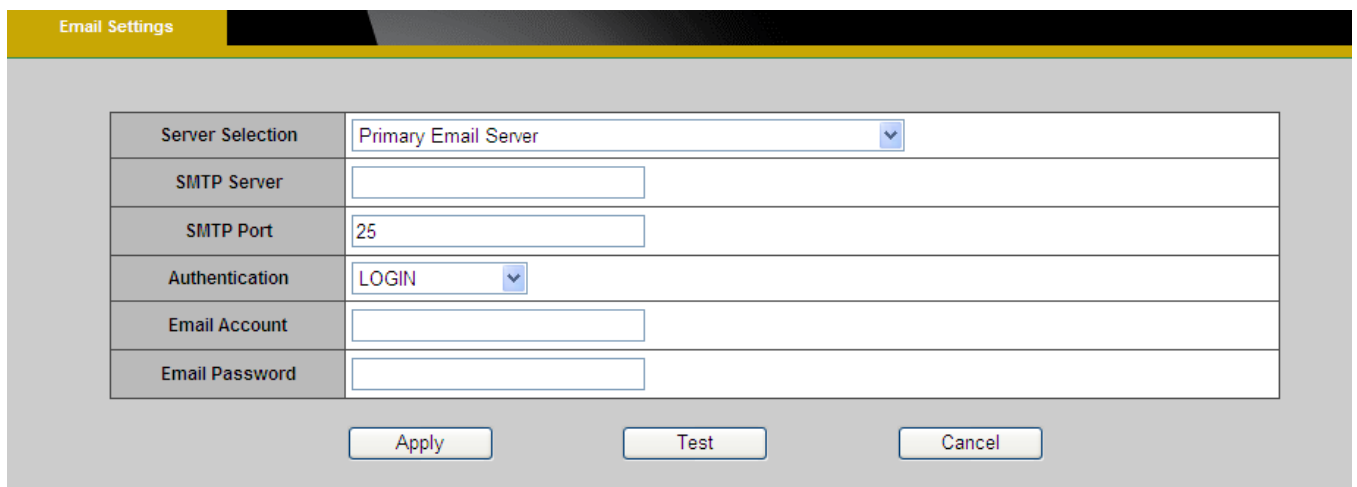
SMTP Server - Enter the server host name of the email server.

SMTP Port - Enter the port number of the email server; by default, the SMTP port is set to 25.

Authentication - Select the authentication type from the drop-down menu.

Email Account - Enter the user name of the email account if necessary.

Email Password - Enter the password of the email account if necessary.



The screenshot shows a web interface for configuring email settings. At the top left, there is a yellow header with the text "Email Settings". Below this is a form with a table structure. The table has six rows, each with a label on the left and a corresponding input field on the right. The first row is "Server Selection" with a dropdown menu showing "Primary Email Server". The second row is "SMTP Server" with an empty text input field. The third row is "SMTP Port" with a text input field containing the number "25". The fourth row is "Authentication" with a dropdown menu showing "LOGIN". The fifth row is "Email Account" with an empty text input field. The sixth row is "Email Password" with an empty text input field. Below the table, there are three buttons: "Apply", "Test", and "Cancel".

Server Selection	Primary Email Server
SMTP Server	
SMTP Port	25
Authentication	LOGIN
Email Account	
Email Password	

Apply Test Cancel

Click **Apply** to apply settings or **Cancel** to cancel changes.



## Samba Settings

Select this option to send the media files via a network neighborhood when an event is triggered.

Server Address - Enter the IP address of the Samba server.

User Name - Enter the user name of the Samba server.

Password - Enter the password of the Samba server.

Work Group - Enter the workgroup of the Samba server.

Shared Folder - Enter the share folder of the Samba server.

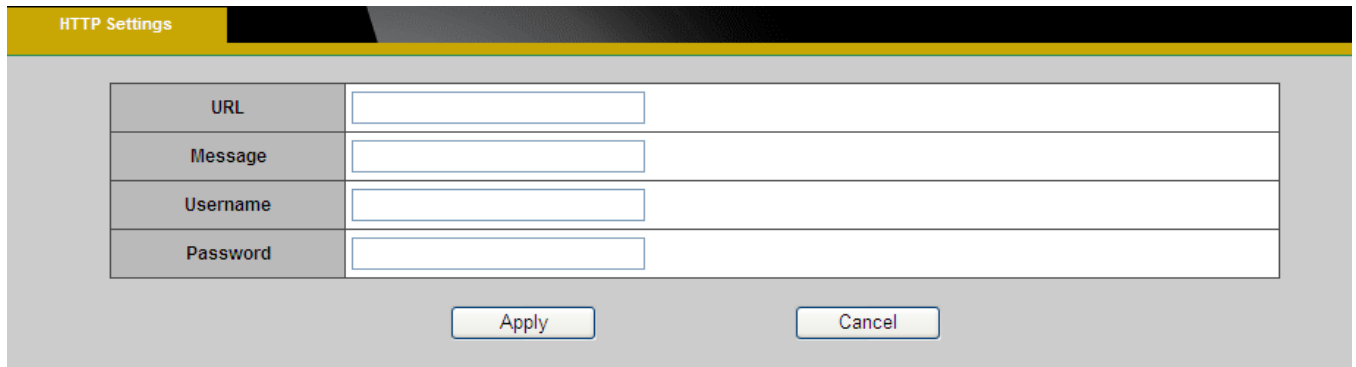
Samba Settings	
Server Address	IP Address [v] 0 . 0 . 0 . 0
Username	<input type="text"/>
Password	<input type="text"/>
WorkGroup	<input type="text"/>
Shared Folder	<input type="text"/>

Apply Test Cancel

Click **Apply** to apply settings or **Cancel** to cancel changes.

## HTTP Settings

Select this option to send the notification message via an HTTP connection when an event is triggered.



URL	<input type="text"/>
Message	<input type="text"/>
Username	<input type="text"/>
Password	<input type="text"/>

**URL** –Specify the URL to send HTTP requests. The URL is normally written as:

[http://ip\\_address/notification.cgi?parameter](http://ip_address/notification.cgi?parameter)

ip\_address – IP address or host name of the HTTP host.

parameter – the notification parameter(s) to send to the HTTP host, if necessary.

Example

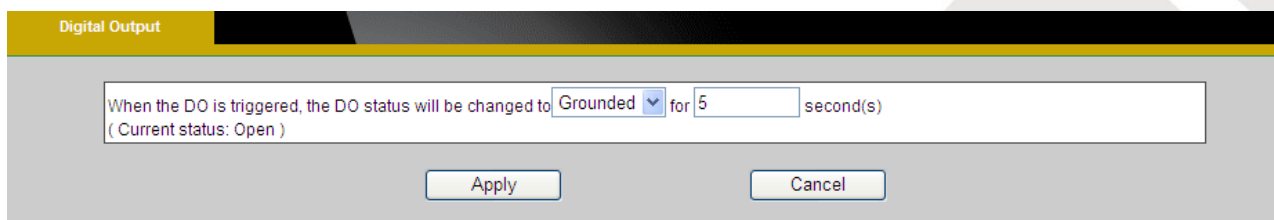
<http://192.168.1.1/notification.cgi?event=MD&camera=FB-100A>

**Message** - Enter the message notification that will be sent when an event is triggered.

Enter the user name and password if necessary.

Click **Apply** to apply settings or **Cancel** to cancel changes.

## Digital Output (DO)



When the DO is triggered, the DO status will be changed to  for  second(s)  
( Current status: Open )

The DO socket allows the IP camera to send output to an external device. While executing the DO notification action, the status of the camera's DO interface will be changed to the specified setting (OPEN or GROUNDED) for the specified number of seconds to activate the connected external device.



**NOTE** – Users should select the option according to the specification of their external device.

## Video Clip/Snapshot

Video Clip/Snapshot	
<b>Video Clip</b>	
Pre-Alarm Buffer	<input type="text" value="5"/> Seconds ( 0 ~ 10 )
Post-Alarm Buffer	<input type="text" value="5"/> Seconds ( 1 ~ 30 )
Maximum Buffer Size	<input type="text" value="3072"/> Kbytes ( 128 ~ 6144 )
<b>Snapshot</b>	
Pre-Alarm Snapshot	<input type="text" value="0"/> Frame(s) ( 0 ~ 7 )
Post-Alarm Snapshot	<input type="text" value="1"/> Frame(s) ( 1 ~ 7 )

These settings are used for the Save Stream notifications triggered by Motion Detection, Digital Input, Audio Detection or PIR. Schedule event and Offline recording are not included.

This function is used to determine when video clips or snapshots will be recorded and stored after an event is triggered.

**Pre-Alarm Buffer** – Up to 10 seconds of video before the event is triggered can be stored in the local storage or uploaded to the server. Enter the desired length of time.

**Post-Alarm Buffer** – Up to 30 seconds of video after the event is triggered can be stored in the local storage or uploaded to the server. Enter the desired length of time.

**Maximum Buffer Size** –Specify the maximum file size allowed.

Click **Apply** to apply settings or **Cancel** to cancel changes.

**Pre-Alarm Snapshot** – Up to 7 Snapshot before the event is triggered can be stored in the local storage or uploaded to the server. Enter the desired number of frame.


**Post-Alarm Snapshot** - Up to 7 Snapshot after the event is triggered can be stored in the local storage or uploaded to the server. Enter the desired number of frame.

## Audio Clip

Audio Recording – Audio clips can be recording and played when an event occurs.

The screenshot shows the 'Audio Recording' interface. At the top, there is a yellow header with the text 'Audio Recording'. Below this is a section titled 'Audio Clip List' containing a table with two columns: 'Index' and 'File Name'. The first row of the table has the value '1' in the 'Index' column and '11111.wav' in the 'File Name' column. Below the table are four buttons: 'Play', 'Stop', 'Delete', and 'Export'. Underneath these buttons is an 'Import' section with the text 'Please select a file to import' followed by a text input field, a 'Browse...' button, and an 'Import' button. At the bottom is the 'Audio Recording Settings' section, which includes a 'File Name' input field, a 'Duration' dropdown menu set to '5' with 'Second' next to it, and a 'Record' button.

Click **Browse** to import a file from a local hard drive or network disk. Select the file and click **Import**.

 **NOTE** – The camera can only play audio clips which are saved as **.wav** files with G.711 u-law encoding in 8000 Hz sampling rate.

To record a new clip using the camera's microphone:

1. File Name-Enter a file name.
2. Duration - Enter the number of seconds to record.
3. Click **Record** to record the new audio clip.
4. The new audio clip will appear on the audio clip list.
5. Select an audio clip file from the Audio Clip List.
  - a. Play- Select to hear the audio clip
  - b. Stop- Select to stop playing the audio clip.
  - c. Delete- Select to delete an audio clip.
  - d. Export- Select to export the audio clip to a local hard drive or network disk.

## LED Light (Professional Cube Only)

LED Light	
Mode	<input checked="" type="radio"/> Keep active during event <input type="radio"/> Keep active for <input type="text" value="1"/> Sec (1~10)
LED Control	Activate <input type="text" value="On"/> Inactivate <input type="text" value="Off"/>

Apply Cancel

Mode – Select “Keep active during event” or “Keep active for” a specific amount of time when an event is triggered.

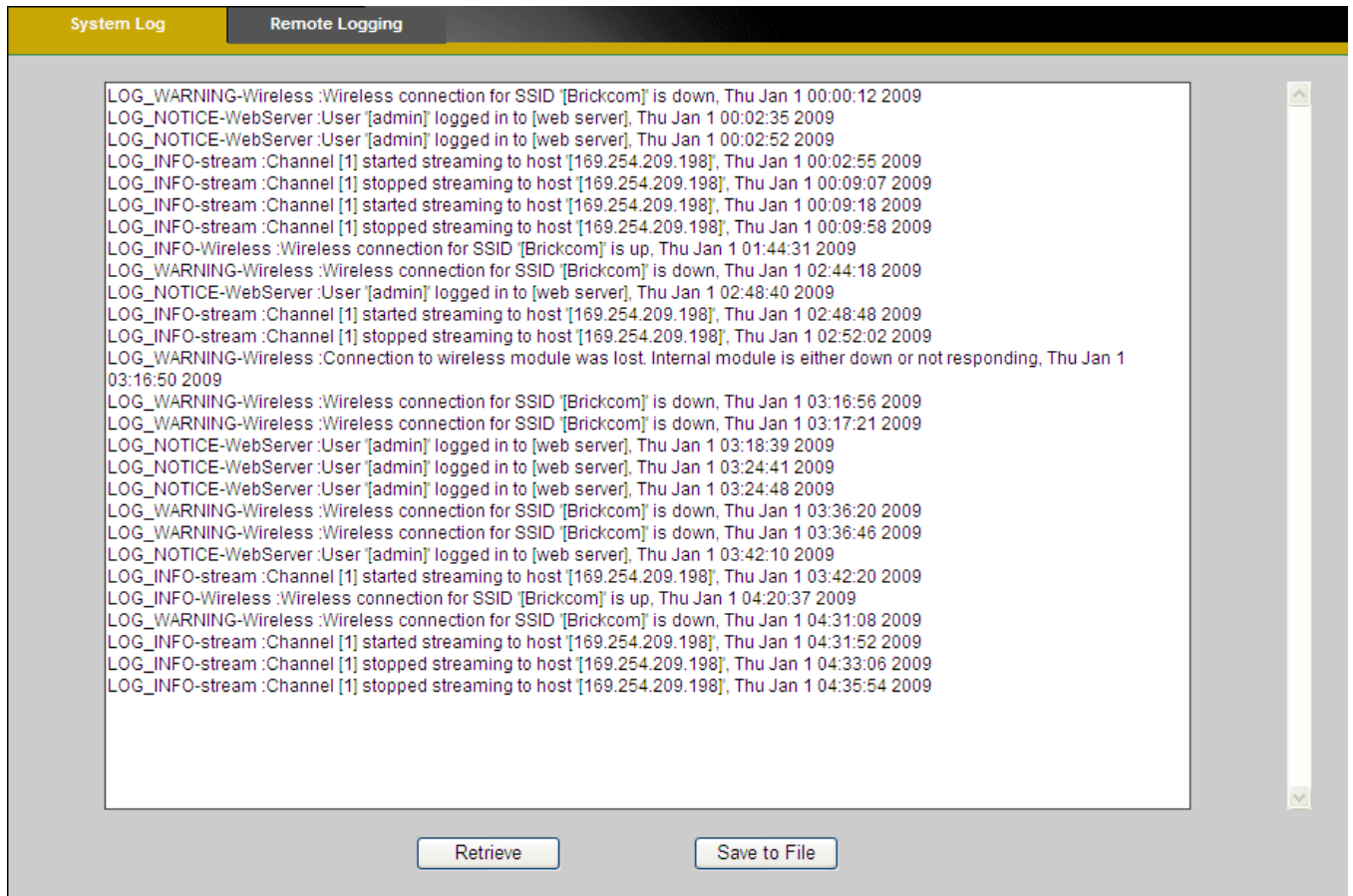
LED Control - The LED on the front of the camera can be set to flash at a configurable interval when an event is triggered. From the Activate drop-down menu, select a percentage which the LED will brighten to. When the LED reaches the selected percentage, it can be configured to fade to off or turn off. Select the option from the Inactive menu.

Click **Apply** to apply settings or **Cancel** to cancel changes.

## System

### System Log

**Log** – Set up the camera to record a system log when an event is triggered.



The screenshot shows a web interface with two tabs: 'System Log' (selected) and 'Remote Logging'. Below the tabs is a large text area containing a list of log entries in chronological order. The entries include various system events such as wireless connection status changes, user logins, and streaming channel activities. At the bottom of the interface, there are two buttons: 'Retrieve' and 'Save to File'.

```
LOG_WARNING-Wireless :Wireless connection for SSID [Brickcom] is down, Thu Jan 1 00:00:12 2009
LOG_NOTICE-WebServer :User [admin] logged in to [web server], Thu Jan 1 00:02:35 2009
LOG_NOTICE-WebServer :User [admin] logged in to [web server], Thu Jan 1 00:02:52 2009
LOG_INFO-stream :Channel [1] started streaming to host [169.254.209.198], Thu Jan 1 00:02:55 2009
LOG_INFO-stream :Channel [1] stopped streaming to host [169.254.209.198], Thu Jan 1 00:09:07 2009
LOG_INFO-stream :Channel [1] started streaming to host [169.254.209.198], Thu Jan 1 00:09:18 2009
LOG_INFO-stream :Channel [1] stopped streaming to host [169.254.209.198], Thu Jan 1 00:09:58 2009
LOG_INFO-Wireless :Wireless connection for SSID [Brickcom] is up, Thu Jan 1 01:44:31 2009
LOG_WARNING-Wireless :Wireless connection for SSID [Brickcom] is down, Thu Jan 1 02:44:18 2009
LOG_NOTICE-WebServer :User [admin] logged in to [web server], Thu Jan 1 02:48:40 2009
LOG_INFO-stream :Channel [1] started streaming to host [169.254.209.198], Thu Jan 1 02:48:48 2009
LOG_INFO-stream :Channel [1] stopped streaming to host [169.254.209.198], Thu Jan 1 02:52:02 2009
LOG_WARNING-Wireless :Connection to wireless module was lost. Internal module is either down or not responding, Thu Jan 1
03:16:50 2009
LOG_WARNING-Wireless :Wireless connection for SSID [Brickcom] is down, Thu Jan 1 03:16:56 2009
LOG_WARNING-Wireless :Wireless connection for SSID [Brickcom] is down, Thu Jan 1 03:17:21 2009
LOG_NOTICE-WebServer :User [admin] logged in to [web server], Thu Jan 1 03:18:39 2009
LOG_NOTICE-WebServer :User [admin] logged in to [web server], Thu Jan 1 03:24:41 2009
LOG_NOTICE-WebServer :User [admin] logged in to [web server], Thu Jan 1 03:24:48 2009
LOG_WARNING-Wireless :Wireless connection for SSID [Brickcom] is down, Thu Jan 1 03:36:20 2009
LOG_WARNING-Wireless :Wireless connection for SSID [Brickcom] is down, Thu Jan 1 03:36:46 2009
LOG_NOTICE-WebServer :User [admin] logged in to [web server], Thu Jan 1 03:42:10 2009
LOG_INFO-stream :Channel [1] started streaming to host [169.254.209.198], Thu Jan 1 03:42:20 2009
LOG_INFO-Wireless :Wireless connection for SSID [Brickcom] is up, Thu Jan 1 04:20:37 2009
LOG_WARNING-Wireless :Wireless connection for SSID [Brickcom] is down, Thu Jan 1 04:31:08 2009
LOG_INFO-stream :Channel [1] started streaming to host [169.254.209.198], Thu Jan 1 04:31:52 2009
LOG_INFO-stream :Channel [1] stopped streaming to host [169.254.209.198], Thu Jan 1 04:33:06 2009
LOG_INFO-stream :Channel [1] stopped streaming to host [169.254.209.198], Thu Jan 1 04:35:54 2009
```

This page displays the system's log in chronological order. The system log is stored in the camera's buffer area and will be overwritten when the buffer area is full.

Click **Retrieve** to retrieve the log or click **Save to file** to save the system log.

## Remote Logging

System Log	Remote Logging
Enabled	<input type="checkbox"/>
IP Address	<input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> Port <input type="text" value="514"/>

The user can configure the camera to send the system log file to a remote server as a log backup.

Click to enable remote log and enter the IP address of the remote server.

Enter the port number of the remote server.

Click **Apply** to apply settings or **Cancel** to cancel changes.



## Date and Time

### Time Synchronization

#### Mode

1. **Set Manually** – The user can enter the desired date and time, or check “Clone” to copy the date and time of the computer to the camera.

Time Synchronization	
Mode	<input checked="" type="radio"/> Set Manually <input type="radio"/> Synchronize with NTP server
Date	2014 / 9 / 26 (yyyy/mm/dd)
Time	13 : 23 : 28 (hh:mm:ss)
Clone from PC	<input type="checkbox"/> Clone (Current Time: 2014/9/26 14:19:49)

2. **Synchronize with NTP server** – NTP is a protocol for synchronizing the clock of a computer system. Enter the address of the desired NTP servers in NTP Server 1 and Server 2.

Time Synchronization	
Mode	<input type="radio"/> Set Manually <input checked="" type="radio"/> Synchronize with NTP server
NTP Server1	tick.stdtime.gov.tw
NTP Server2	clock.stdtime.gov.tw

**Time Zone** - Select the local time zone from drop-down menu, or choose the “User Defined” from drop-down menu and enter the country name and adjust the offset (Hours and Minutes).

TimeZone	
TimeZone	(GMT+08:00)Taipei
Country	
Offset	Hours: +0 Minutes: 00

**Daylight Saving Time** - Enable this option to update for Daylight Saving Time.

Daylight Saving Time	
Daylight Saving	<input type="radio"/> Disable <input checked="" type="radio"/> Enable Manual
Type	Date
Start Date	Month: 1 Day: 1
End Date	Month: 1 Day: 1



Click **Apply** to apply settings or **Cancel** to cancel changes.

## Device Information

**System Information** – Displays the complete system information of the camera.

System Information	Network Settings	Video/Audio Settings	Client Information
LAN MAC Address	98:3B:16:4B:C5:42		
Firmware Version	v3.2.3.5.6		
Product Name	FB-300Np		
UPnP Name	FB-300Np-c542		

**Network Settings** – Displays the complete network settings information of the camera.

System Information	Network Settings	Video/Audio Settings	Client Information
<b>IP Information</b>			
IP Setting Type	Static		
<b>IPv4</b>			
IP Address	192.168.1.102		
Subnet Mask	255.255.0.0		
Default Gateway	0.0.0.0		
Primary DNS	0.0.0.0		
Secondary DNS	0.0.0.0		
<b>IPv6</b>			
IP Address	/0		
Default Gateway			
Primary DNS			
Secondary DNS			
<b>Network Services</b>			
UPnP	Enable		
DynDNS	Disable		
TZO	Disable		
NO-IP	Disable		

**Video/Audio Settings** – Displays the complete video/audio settings information of the camera.

System Information	Network Settings	Video/Audio Settings	Client Information
<b>Stream 1</b>			
Video Codec	H.264		
Video Resolution	1920x1080		
Video Frame Rate	30 fps		
Video Bitrate	8000 Kbps		
Audio Codec	N/A		
Multicast IP	N/A		
<b>Stream 2</b>			
Video Codec	MJPEG		
Video Resolution	640x480		
Video Frame Rate	25 fps		
Video Quality	3		
Audio Codec	N/A		
Multicast IP	N/A		
<b>Stream 3</b>			
Video Codec	H.264		
Video Resolution	320x180		
Video Frame Rate	30 fps		
Video Bitrate	256 Kbps		
Audio Codec	N/A		
Multicast IP	N/A		

**Wireless (\*)** - Displays the complete wireless information of the camera.

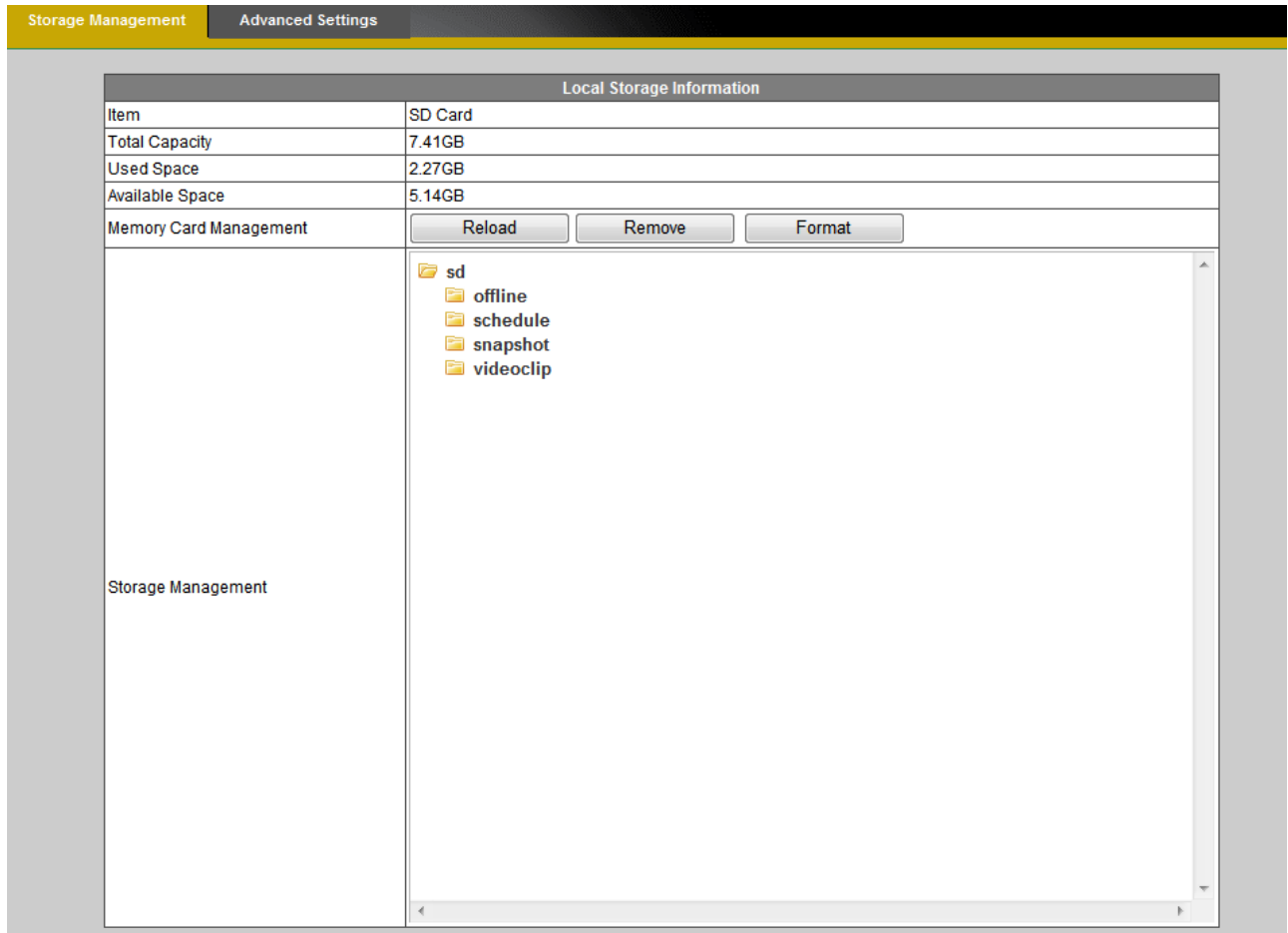
System Information	Network Settings	Video/Audio Settings	Wireless
Wireless MAC Address	00:26:82:1B:DB:92		
Radio Band	Auto-20/40MHz Channel		
Network Mode	BGN-Mixed		
Security	Disabled		
Network Name (SSID)	Brickcom_MARS		
Wireless Channel	6		
Wireless Signal Strength	85%		
Status	Connected		

**Client Information-** Displays the RTSP Client .You will see a list of RTSP clients with the following information: IP Address and channel.

System Information	Network Settings	Video/Audio Settings	Client Information
Index	IP Address	Channel	
			<input type="button" value="Refresh"/>

## Storage Management

Storage Management is used to view all the recorded files in the inserted memory card. Depending on the model used, the SD/SDHC/SDXC card or the micro-SD/SDHC/SDXC card may be used.



Click **Reload** to refresh the list of recorded files.

Click **Remove** to safely remove the memory card.

Click **Format** to format the memory card.

Left click on the folder to list the recorded files. The user can either play the snapshot of the recorded files by moving the mouse pointer over the file or double click on a file to play it.

Right click on the folder to download, play or delete the recorded files.



**NOTE – The user may need to install QuickTime multimedia framework to play the video clips.**

## Advanced Settings

Storage Management		Advanced Settings	
<b>Automatic Recycle</b>			
Enable	<input checked="" type="checkbox"/>		
Maximum Saving Days	<input type="text" value="0"/>	Days ( 0~7, 0: Disable)	
<b>Offline Record</b>			
Enable	<input type="checkbox"/>		
<b>FTP Service</b>			
Enable	<input type="checkbox"/>		
<small>If the Automatic Recycle function is disabled, there must be at least 50MB Hard Drive space available for the network camera to record video. If the Automatic Recycle function is enabled, it will automatically overwrite the recorded files when the available space remaining is less than 100MB.</small>			
<input type="button" value="Apply"/>		<input type="button" value="Cancel"/>	

**Automatic Recycle (\*)** – Enable to automatically overwrite older files when the available space remaining on the memory card is less than 100MB. If the Automatic Recycle function is disabled, there must be at least 50MB hard drive space available for the camera to be able to record video files. Enter the maximum saving days to fit your needs.

**Offline Record** – Enable to keep recording if the Network Camera is offline.

**FTP Service** – Click “Enable” to activate the FTP service of the camera for the users to download the video/snapshot files with an FTP client.

## LED Indicators

The LED on the front of the camera can be configured to remain unlit. Check “OFF” to enable this function.

LED Indicators	
<b>LED Indicators Configuration</b>	
OFF	<input type="checkbox"/>
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>	

Click **Apply** to apply settings or **Cancel** to cancel changes.

## VMS Compatibility

## VMS Compatibility

ONVIF	
WS-Security	<input type="checkbox"/>
Core Specification	1.0
GetStreamUriResponse	Synchronization

Apply Cancel

## ONVIF

The parameters are used to address the compatibility issues. In most cases, the users can use the default values.

Video Encoder Configuration (ONVIF)	
Video Codec	H.264
Video Resolution	1920x1080
Frame Rate	30
Bitrate	8000 Kbps.
Quality	30 (1~100)

Apply Cancel

## Video Encoder Configuration (ONVIF)

The users can configure the “customized” ONVIF default profile to fit the application.

**Video Codec** - The Network Camera offers three choices of video codec standards for real-time viewing: H.264, MPEG-4 and MJPEG.

**Video Resolution** - Select from the drop-down menu to choose the best resolution recording settings.

**Frame Rate** - Select the frame rate from the drop-down menu. Set a higher frame rate for the smoother video.

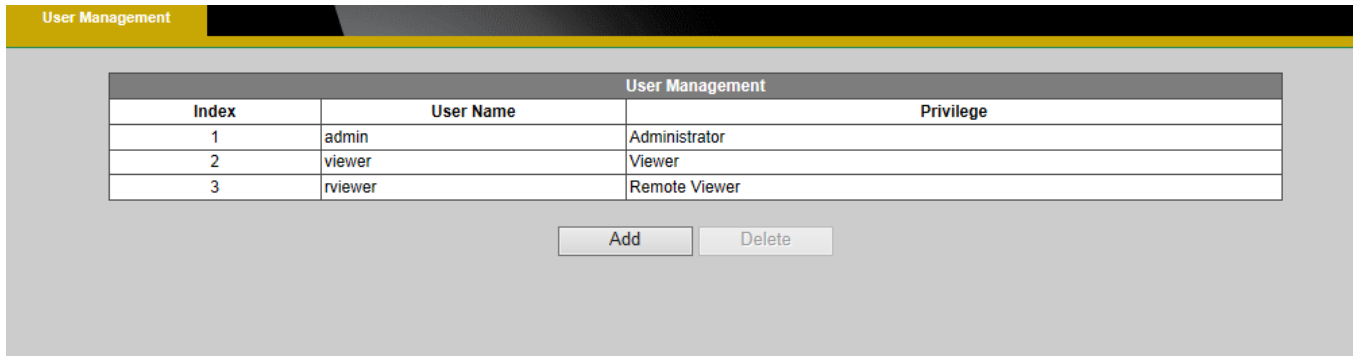
**Bitrate** - Select the Bitrate from the drop-down menu. Set the higher bitrate for the better video.

**Quality** – Enter the number of quality to fit the user’s application.

## Maintenance

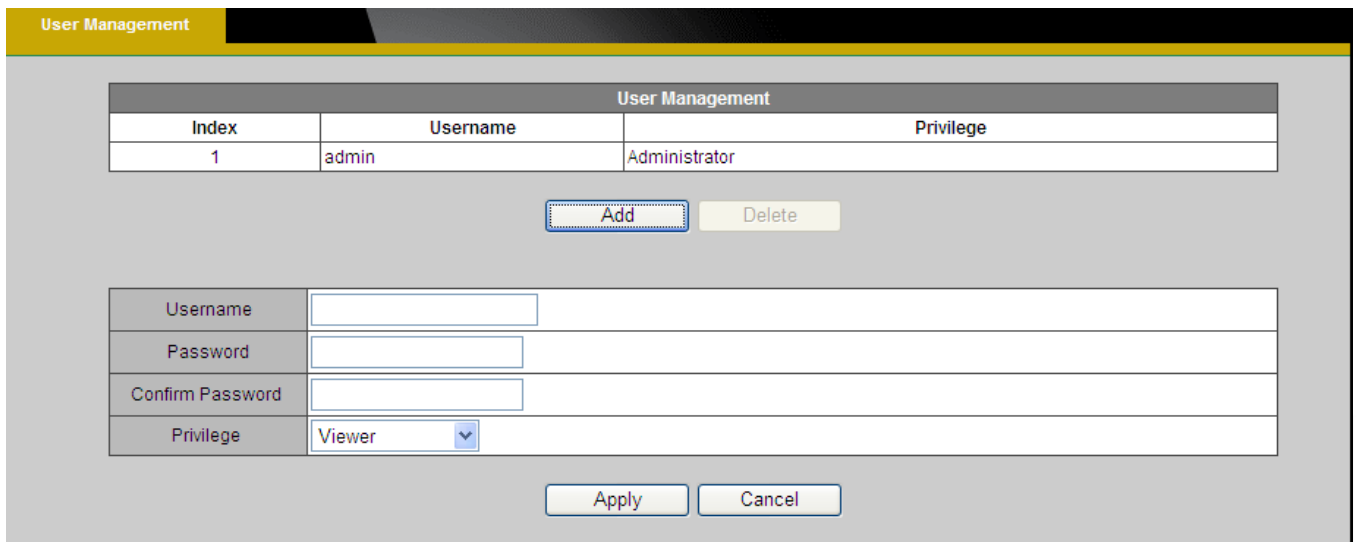
### User Management

This section explains how to enable password protection and create multiple accounts.



The administrator account name is “admin”, which is permanent and cannot be deleted.

Click **Add** to create an account.

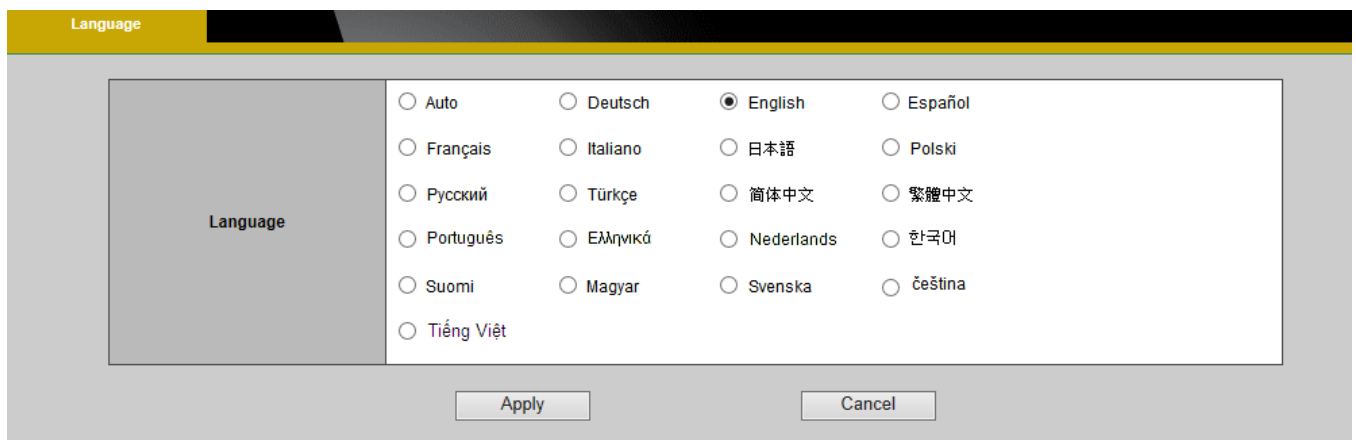


Enter the new user’s name, password and confirm password. Administrators can add up to 10 user accounts.

Select the privilege level for the new user account from the drop-down list. Privilege levels can be assigned as:

- ◆ Administrator - user has access to view and change the Configuration page. Users with administrator privilege can change other user's access rights and delete user's accounts. Click **Delete** or **Update** to delete or modify a user's account.
- ◆ Viewer - user can only access the main page for live viewing.
- ◆ Remote Viewer - user can only access the main page for live viewing **by** using TCP protocol.

## Language



Language

Auto     Deutsch     English     Español

Français     Italiano     日本語     Polski

Русский     Türkçe     简体中文     繁體中文

Português     Ελληνικά     Nederlands     한국어

Suomi     Magyar     Svenska     čeština

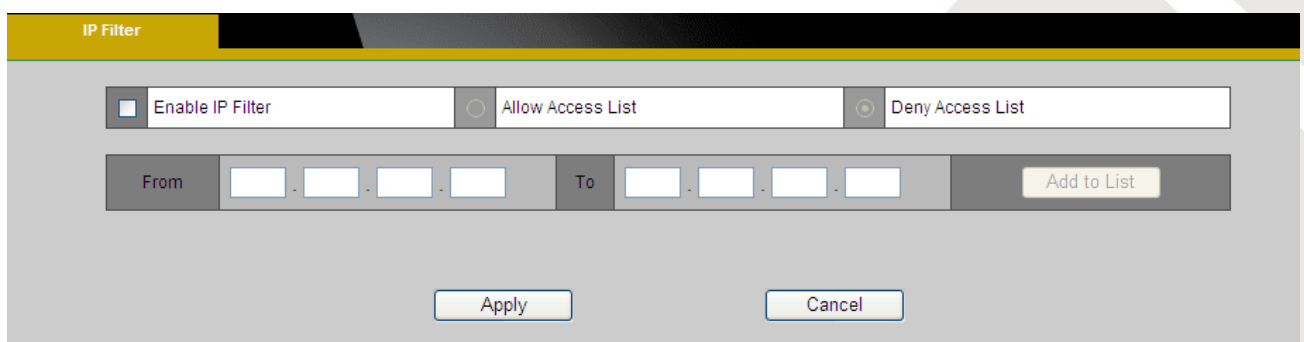
Tiếng Việt

Select the desired language from the radio button. Click **Apply** to apply settings or **Cancel** to cancel changes.

## IP Filter

The IP Filter is used to filter the IP addresses which are able to access the network camera. Enable the IP Filter and select to allow or deny a range of IP addresses access to the server. Click **Add to list** to add the IP range to the IP filter list.



IP Filter

Enable IP Filter     Allow Access List     Deny Access List

From  .  .  .     To  .  .  .

Click **Apply** to apply settings or **Cancel** to cancel changes.

## Firmware Upgrade

This feature allows the user to upgrade the camera firmware. It will take a few minutes to complete the process.

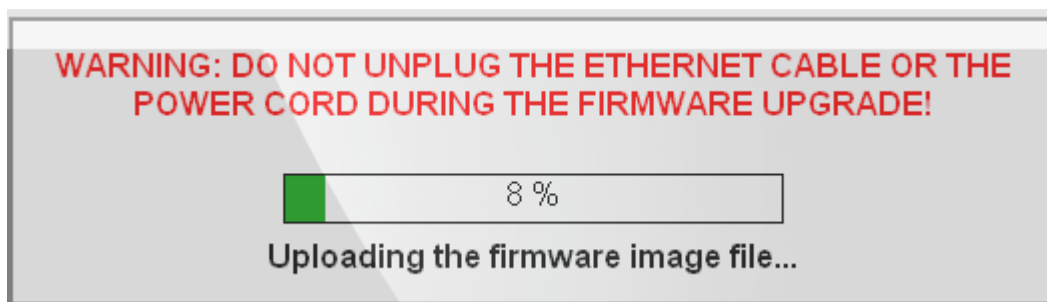


**NOTE** - Do not power off the camera or interrupt the camera during the upgrade.

Click **Browse** and specify the firmware file, then click **Upgrade**. The camera will be upgraded and reboot automatically when the upgrade is finished.

The screenshot shows a web interface for firmware upgrade. At the top, there is a yellow header with the text 'Firmware Upgrade'. Below the header, there is a grey panel containing a file selection area. On the left of this panel is a button labeled 'Select a File'. To its right is a white text input field. Further right is a button labeled 'Browse...'. On the far right of the panel is a button labeled 'Upgrade'.

The following message will show during the firmware upgrading process.



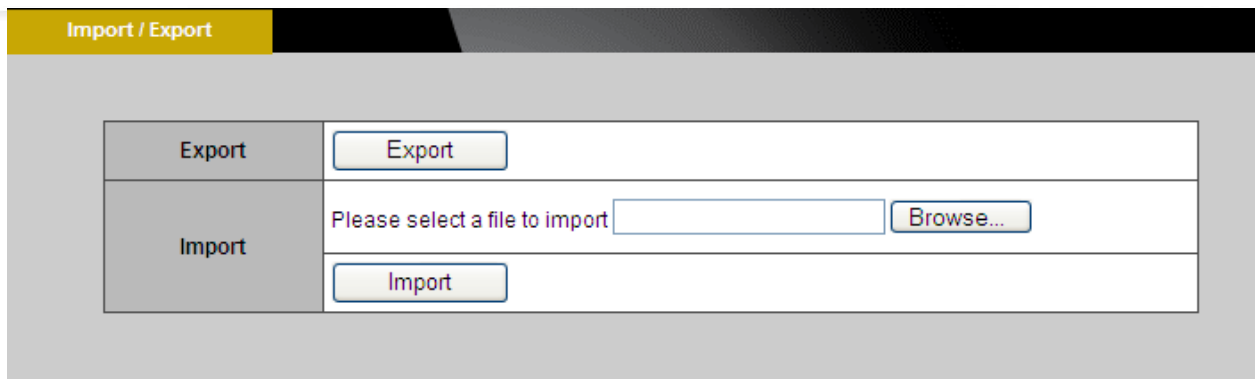
## Configuration

This feature allows the user to export/import the configuration files of the network camera.

**Import/Export** - Click **export** to pop up a dialog to indicate the location and file to export.

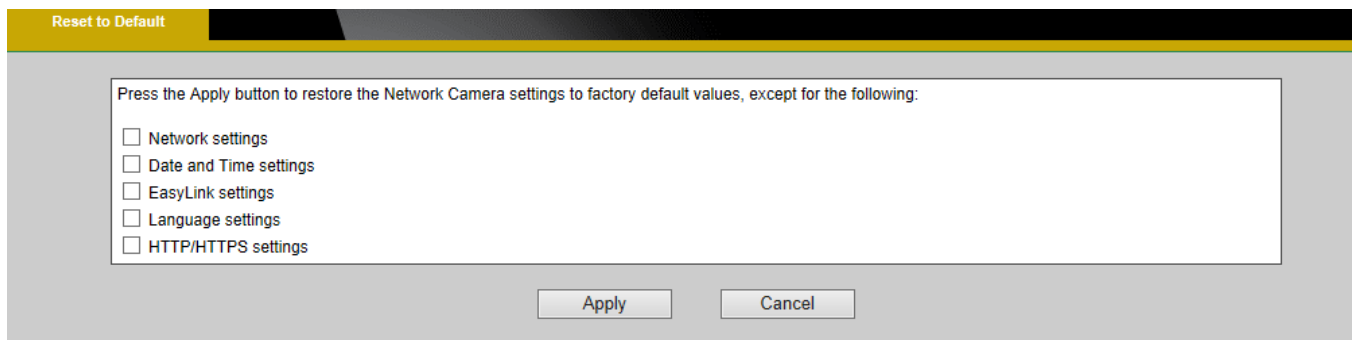
Click **browse** to indicate the location and file of the camera configuration and click **import** to import the configuration file back into the network camera.



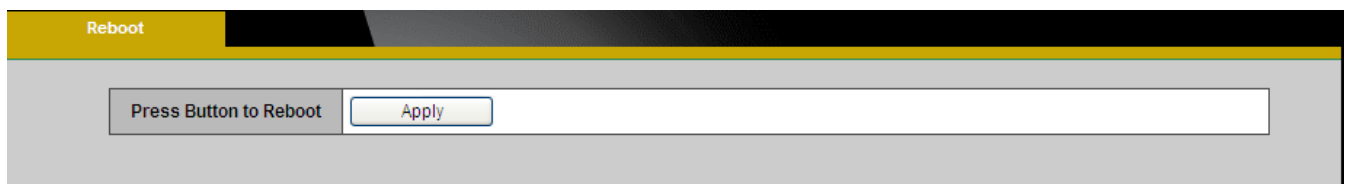


## Reset to Default

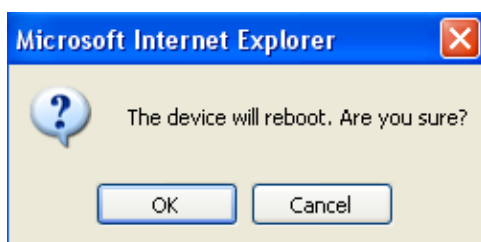
This section is used to restore the camera to default factory settings. Check the boxes to preserve the Network settings, Date and Time settings, EasyLink, settings, Language settings and HTTP/HTTPS settings. Click **Apply** to restore the camera to default factory settings.



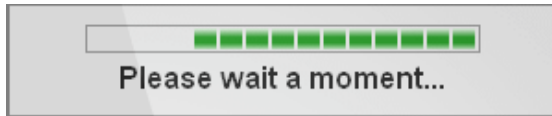
## Reboot



This feature will reboot the camera. Click **Apply** to begin. A message will pop up asking "The device will reboot. Are you sure?" Click "OK" to continue. The camera will take about one minute to reboot.



The following message will show during the rebooting process.



When completed, the live video page will be displayed in the web browser.

