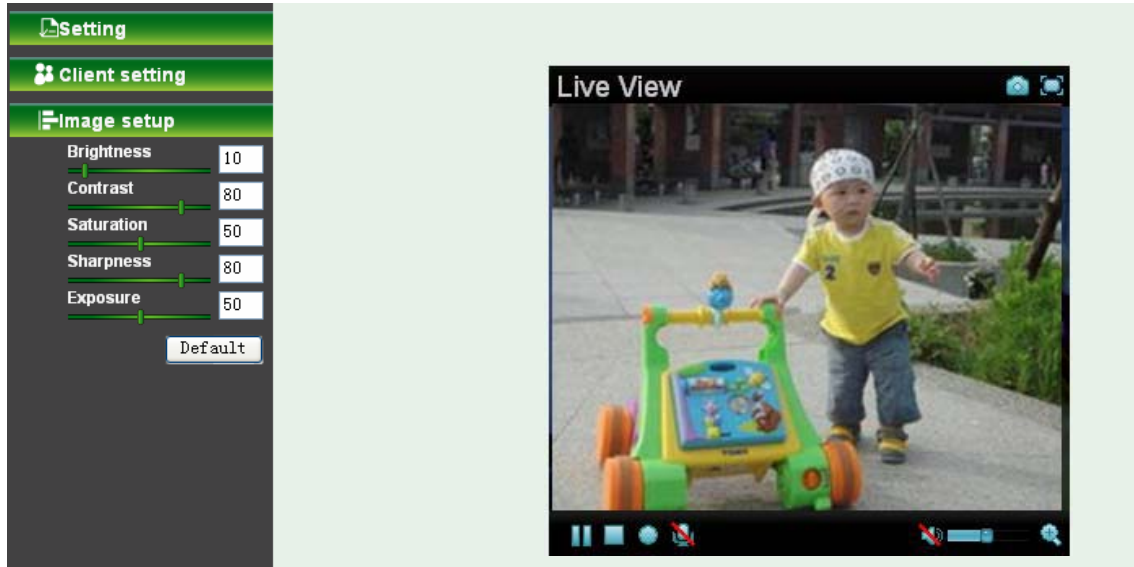


5.3.4 Video Buffer

Turn the Video Buffer function **On / Off**. The Video Buffer function makes the streaming more smooth in unsteady network environment, but might cause a little delay in live viewing.

5.4 Image Setup

The tool bar can be adjusted to optimize video **Brightness, Contrast, Saturation, Sharpness** and **Exposure**.



5.4.1 Brightness

The value range is 0~99. The higher value the brightness is, the brighter the image is.

5.4.2 Contrast

The value range is 0~99. The contrast is a measure of a display system, defined as the ratio of white to black that the system is capable of producing. The higher value the contrast is, the more delicate of color you can have.

5.4.3 Saturation

The value range is 0~99. The saturation of a color is determined by a combination of light intensity and how much it is distributed across the spectrum of different wavelengths. The higher value the saturation is, the more colorful the image will be.

5.4.4 Sharpness

The value range is 0~99. It applies image processing techniques to adjust the sharpness of live view. However, the higher the value is, more the noise is.

5.4.5 Exposure

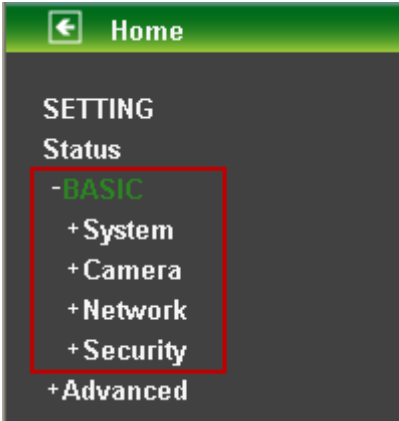
The value range is 0~99. The higher value the exposure is, the brighter the image is.

5.4.6 Default

After the adjustment of all setting, you can still click Default to make the setting back to the original setting.

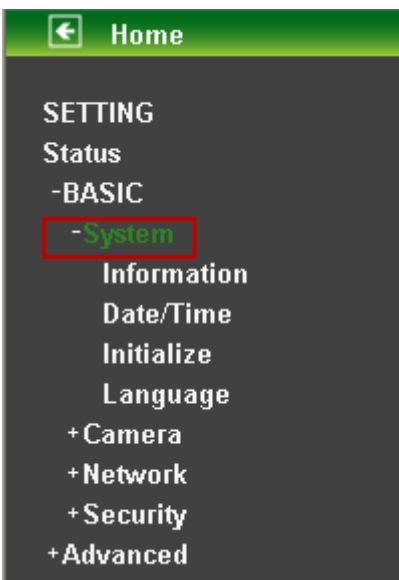
Chapter 6 Setting-Basic

Click the **Basic** folder to display the sub folders including **System**, **Camera**, **Network**, and **Security**.



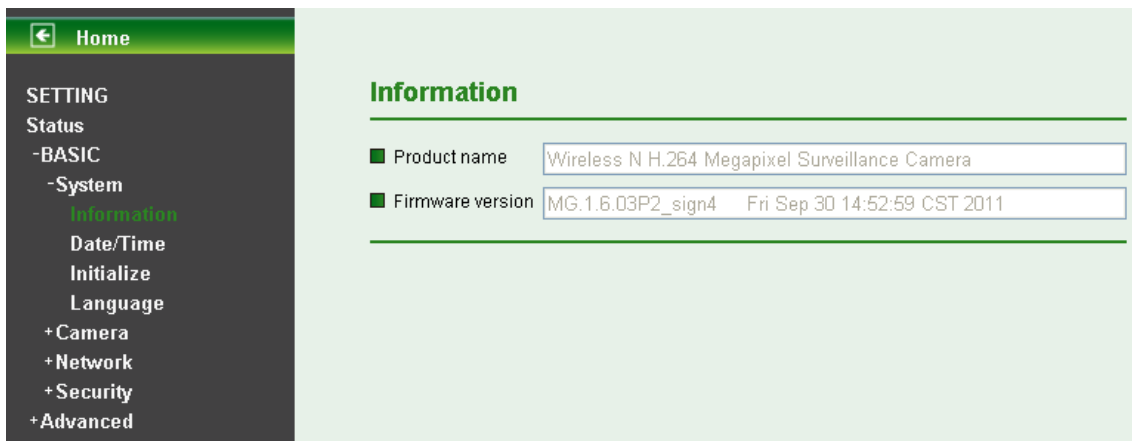
6.1 System

Click the folder of System to display the sub-folders including **Information**, **Date / Time**, **Initialize**, and **Language**.



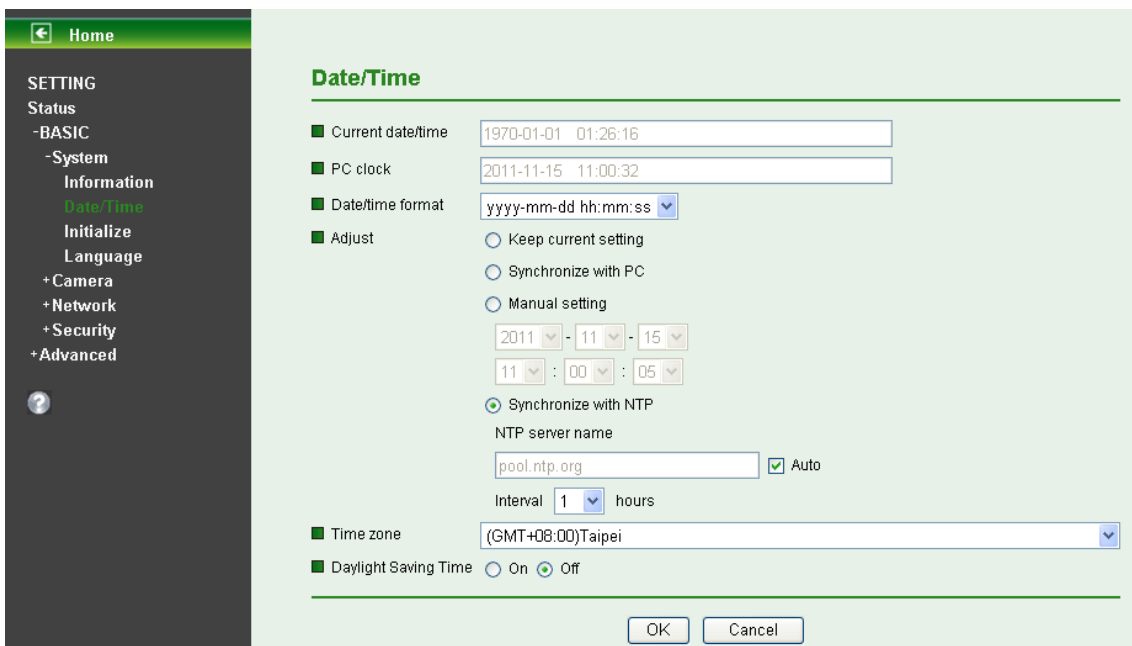
6.1.1 Information

The Information screen provides the product factory information which includes **Product Name**, **Firmware Version**.



6.1.2 Date / Time

The Date/ Time screen displays all options of time setting.



- **Current Date / Time:** This displays the current date and time of this IP Camera.
- **PC Clock:** This displays the date and time of the monitoring PC clock.
- **Date / Time Format:** You can click the pull down box to select different time display formats.

Note:

If you would like the Date / Time information shows on the Live View screen, please check “**Setting** → **Basic** → **Camera** → **General** → **Date / Time**” to execute the setting.

- **Adjust:** You can select one of those four adjusting modes for your IP Camera.
 - **Keep current setting:** Select this mode to keep the current date and time of this IP Camera.
 - **Synchronize:** 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 the Refresh Interval to synchronize the date and time of this IP Camera with those of the time server, known as the NTP server.
- **Time Zone:** Select the Time Zone format of Greenwich Mean Time among different cities. The

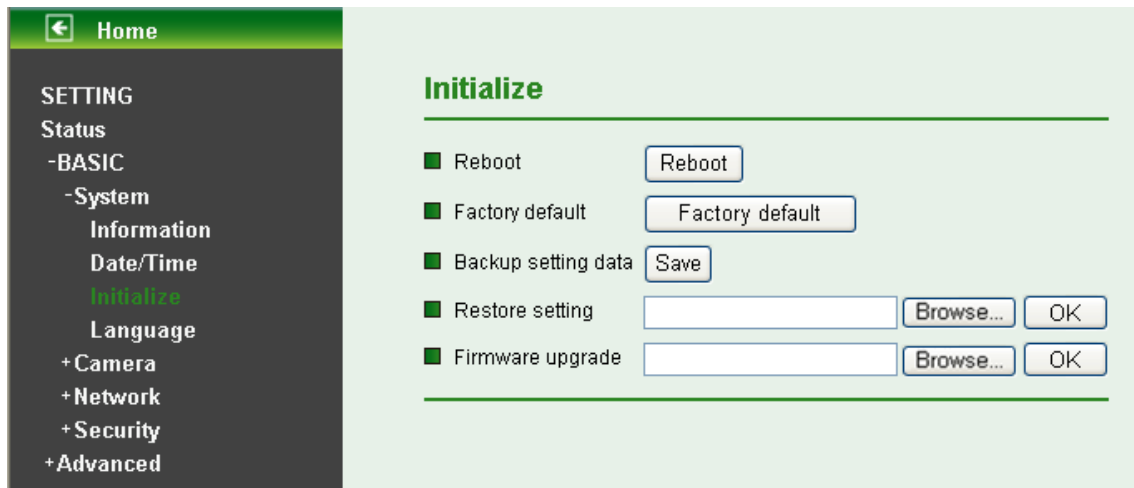
time display will be the same as the current date / time option.

- **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.

 **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.

6.1.3 Initialize

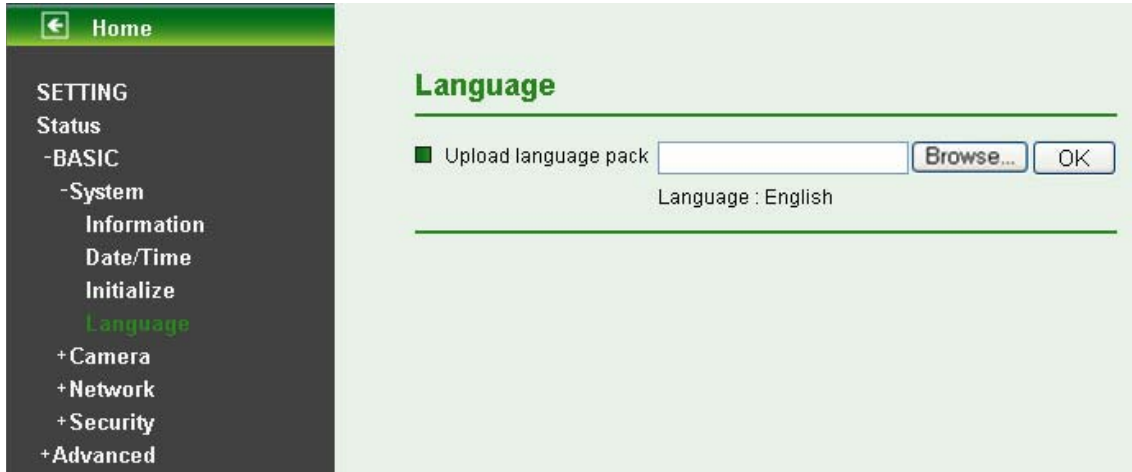


- **Reboot:** Click this button to reboot this IP Camera. A confirmation dialogue will appear and then click **“OK”** to execute. It takes one minute to complete the reboot process.
- **Factory Default:** Click this button to recover this IP Camera to the factory default setting. A confirmation dialogue 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.
- **Backup Setting:** 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 Setting:** 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 Update:** 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.

 **Note:**

When updating the firmware version, please use the file specific for the model. Otherwise, some problems may occur. Unless the updating completed, please don't turn off the power or disconnect the network.

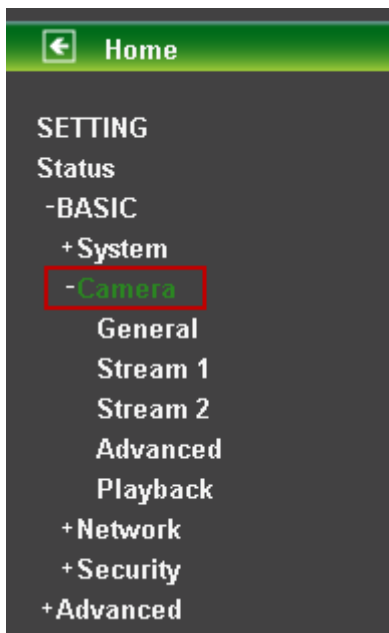
6.1.4 Language



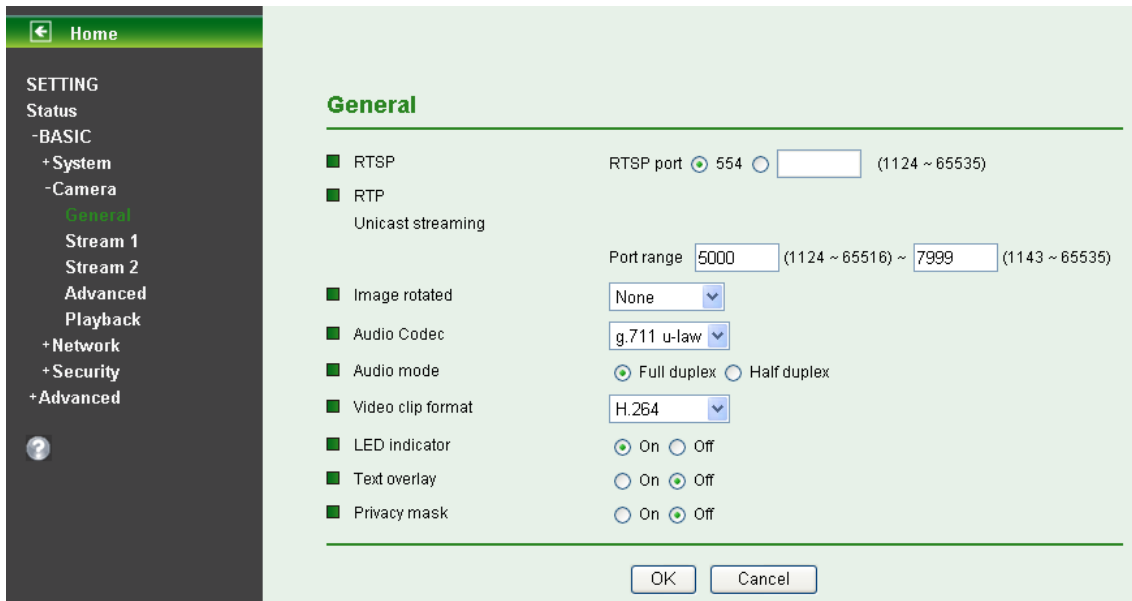
- **Upload Language Pack:** Clicking “Browse” and selecting the file for updating, the present language display of WEB User Interface could be changed. A confirmation dialogue will appear. Click “OK”, then the update will be applied immediately. The default language is “English”.

6.2 Camera

Click the folder of Camera to display the sub folders including **General**, **Stream 1**, **Stream 2**, **Advanced** and **Playback**.



6.2.1 General



- **RTSP:** 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 some value in the blank space in the range from 1024 to 65535.
- **RTP Unicast streaming:** The default value of port range is 5000 ~ 7999 and can be changed from 1024 to 65535.

Note:

Under Unicast streaming mode, streaming video is delivered from the Camera to a single client device.


- **Image rotated:** Select the screen display “None”, “Flip”, “Mirror”, or “Mirror + Flip.”
- **Audio Codec:** Select one audio codec among G.711 U-law / G.711 A-law / AMR Audio / Off.
 - **G.711 U-law:** one codec for “Computer Audio”, used in North America & Japan areas.
 - **G.711 A-law:** another codec for “Computer Audio”, used in Europe and the rest of the world.
 - **AMR Audio:** an audio codec of the third generation communication for MOBIL
 - **Off:** Select Off, audio file won’t be transmitted by IP CAM.
- **Audio Mode:** You can select Full duplex or Half duplex.
 - **Full duplex:** Select it for simultaneous communication in both direction between the connected administrator and IP CAM. It means both parties can speak and be heard at the same time.
 - **Half duplex:** Select it for communication in both directions, but only one direction at a time (not simultaneously). It means one party begins receiving a signal, it must wait for the transmitter to stop transmitting, before replying. Therefore, once one party speak, he can’t hear any voice from the other party, just like the communication by radio set.
- **Video Clip Format:** Select RECORDING compression format H.264 or MPEG-4.
 - **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).
 - **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.
- **LED Indicator:** The status of the LED indicators on the Camera. It’s turned on by default.

- **Text Overlay:** Some information can be showed on the display screen, such as Date / Time and user-defined text. And the background color can be chosen.
- **Privacy Mask:** A specific area of the video image can be covered.

6.2.2 Stream 1

- **Viewer Authentication:**
 - **On:** If the viewer authentication is On, the users will be requested to key-in username and password when using QuickTime Player to have live viewing.
 - **Off:** If the viewer authentication is Off, you can have live viewing on computer by QuickTime Player after entering "rtsp://ip:port/video.h264" on the URL column directly.

- **Multicasting Streaming** (if it's on):
 - **Multicast Address:** The multicast server address will appear automatically.
 - **Video / Audio 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.

 **Note:** **Time-To-Live** option determines the maximum length of time (measure as the number of network routers that can be passed before data arrives at its destination or is dropped) within which a multicast packet must reach its destination.

- **Image Size:** Specify the image size when the network camera transmits. Choose one among 1280 x 1024, 1280 x 720, 640 x 480, and 320 x 240.
- **Frame Rate:** Set the frame rate of H.264 image. Choose one value among 2, 3, 4, 5, 7, 10, 15,

20, 25, and 30 fps. The unit “fps” stands for “frames per second”.

 **Note:**

The frame rate is up to 15 fps at 1280x1024, and up to 30 fps at 640x480. However, if you would like choose frame rate over 15 fps, the IMAGE SIZE of H.264/MPEG-4/MJPEG setting page has to been selected 320x240 or 640x480 at the same time.

➤ **Quality:**

- **Auto:** The quality and bitrate will be adjusted automatically according to the frame rate.
- **Fixed Quality:** Select the value of quality among Medium, Standard, Good, Detailed and Excellent.
- **Fixed Bitrate:** Set the bitrate of H.264 image transmission for a line. Select one among 64Kbps, 128Kbps, 256Kbps, 384Kbps, 512Kbps, 768Kbps, 1Mbps, 1.5 Mbps, 2 Mbps, 3 Mbps, 4 Mbps, 5 Mbps, and 6 Mbps.

 **Note:**

Concerning how to select the suitable image quality for Fixed Quality or Fixed Bitrate, please refer to the **APPENDIX / A. Frame-rate & Bitrate Table**.

- **IP Interval:** It's the ratio of i-frame & p-frame. Select one among 1, 5, 10, 15, 30, 60, and 120. The ratio smaller, the streaming smoother.

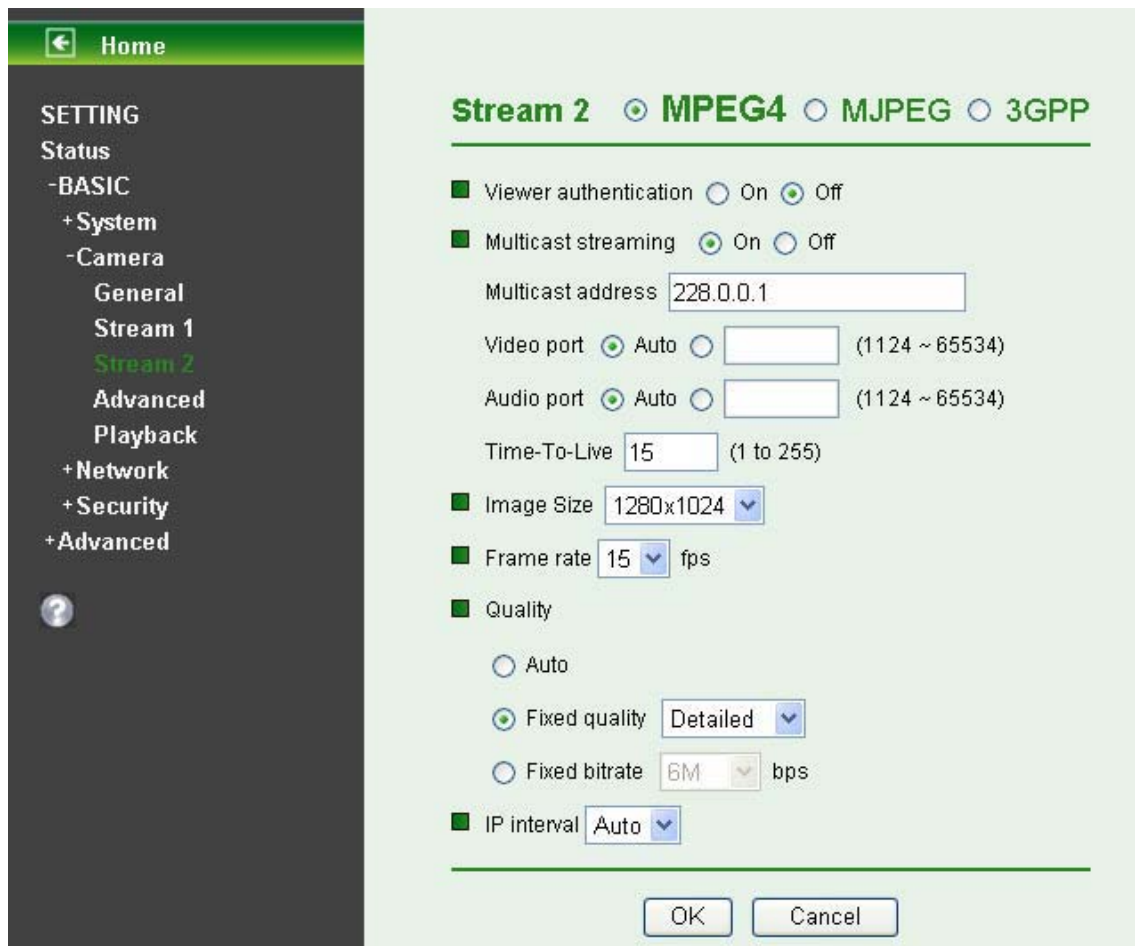
 **Note:**

1. The IP interval value means a ratio of “ P-frame / I-frame “ in a certain section of frame sequences. The ratio lower, the live view clear. However, live view will lag if the bandwidth isn't big enough. In this situation, you have to choose another bigger IP interval value to solve the problem.
2. If Video Clip Format of General Menu (go “**Setting** → **Basic** → **Camera** → **General**”), which is for recording compression, is chosen H.264, the IP interval option will appear “Auto” automatically and can't select. The limit is for avoiding damaging the recording quality of 5 seconds temporary-saved video recorded on FTP server.

6.2.3 Stream 2

There are three modes in Stream 2: MPEG4, MJPEG, and 3GPP.

I. MPEG4



➤ **Viewer Authentication:**

- **On:** If the viewer authentication is **On**, the users will be requested to key-in username and password when using QuickTime Player to have live viewing.
- **Off:** If the viewer authentication is **Off**, you can have live viewing on computer by QuickTime Player after entering “rtsp://ip:port/video.mp4” on the URL column directly.

➤ **Multicasting Streaming** (if it's on):

- **Multicast Address:** Specify the multicast server address.
- **Video / Audio 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.

Note:

Time-To-Live option determines the maximum length of time (measure as the number of network routers that can be passed before data arrives at its destination or is dropped) within which a multicast packet must reach its destination.

- **Image Size:** Specify the image size when the network camera transmits. Choose one among 1280 x 1024, 1280 x 720, 640 x 480, and 320 x 240.
- **Frame Rate:** Set the frame rate of the MPEG-4 image. Choose one from 2, 3, 4, 5, 7, 10, and 15 fps. The unit “fps” stands for “frames per second.”

Note:

The frame rate is up to 15 fps at 1280x1024.

➤ **Quality:**

- **Auto:** The quality and bitrate will be adjusted automatically according to the frame rate.

- **Fixed Quality:** Select the value of quality among Medium, Standard, Good, Detailed and Excellent.
- **Fixed Bitrate:** Set the bitrate of MPEG-4 image transmission for a line. You can select one value among 64Kbps, 128Kbps, 256Kbps, 384Kbps, 512Kbps, 768Kbps, 1Mbps, 1.5 Mbps, 2 Mbps, 3 Mbps, 4 Mbps, 5 Mbps, and 6 Mbps.

Note:

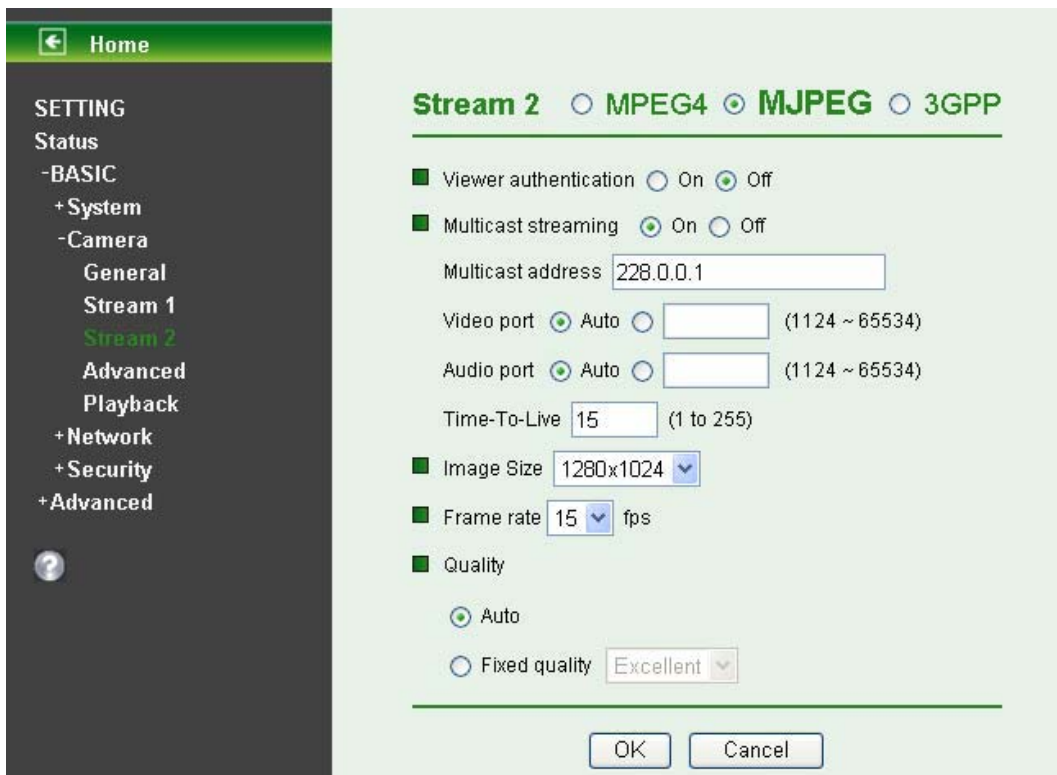
Concerning how to select the suitable image quality for Fixed Quality or Fixed Bitrate, please refer to the APPENDIX / A. Frame-rate & Bitrate Table.

- **IP interval:** It's the ratio of i-frame & p-frame. You can select one among Auto, 5, 10, 15, 30, 60, and 120. The ratio smaller, the streaming smoother.

Note:

1. The IP interval value means a ratio of "P-frame / I-frame" in a certain section of frame sequences. The ratio lower, the live view clear. However, live view will lag if the bandwidth isn't big enough. In this situation, you have to choose another bigger IP interval value to solve the problem.
2. If Video clip format of General Menu, which is for recording compression, is chosen MPEG-4, the IP interval option will appear "Auto" automatically and can't select. The limit is for avoiding damaging the recording quality of 5 seconds temporary-saved video recorded on FTP server.

II. MJPEG



- **Viewer Authentication:**

- **On:** If the viewer authentication is **On**, the users will be requested to key-in username and password when using QuickTime Player to have live viewing.
- **Off:** If the viewer authentication is **Off**, you can have live viewing on computer by QuickTime Player after entering "rtsp://ip:port/video.mjpg" on the URL column directly.

- **Multicasting streaming (if it's on):**

- **Multicast Address:** Specify the multicast server address.

- **Video / Audio 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.

 **Note:**

Time-To-Live option determines the maximum length of time (measure as the number of network routers that can be passed before data arrives at its destination or is dropped) within which a multicast packet must reach its destination.

- **Image Size:** Specify the image size when the network camera transmits. Choose among 1280 x 1024, 1280 x 720, 640 x 480, and 320 x 240.
- **Frame Rate:** Set the frame rate of the MJPEG image. Choose one among 1, 2, 3, 4, 5, 7, 10, and 15 fps. The unit “fps” stands for “frames per second”.

 **Note:**

The frame rate is up to 15 fps at 1280x1024.

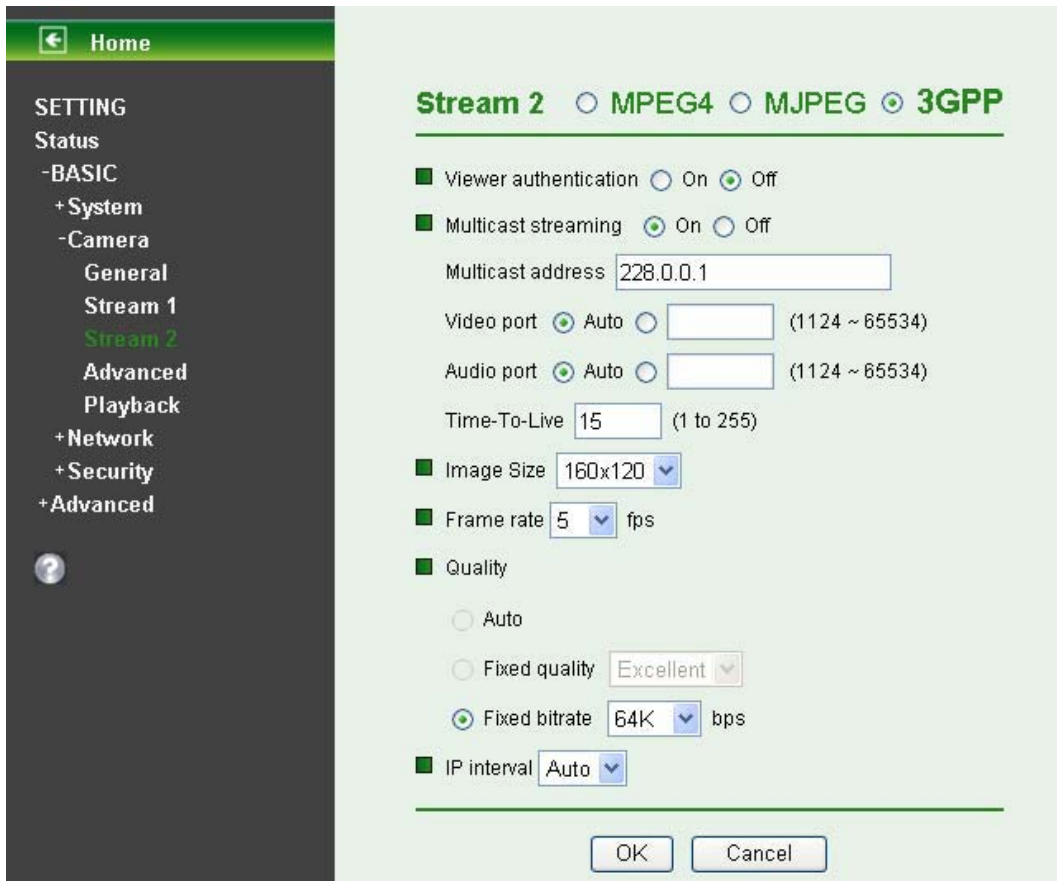
➤ **Quality:**

- **Auto:** The quality and bit rate will be adjusted automatically according to the frame rate.
- **Fixed Quality:** Select the value of quality among Medium, Standard, Good, Detailed and Excellent.

 **Note:**

Concerning how to select the suitable image quality for Fixed Quality or Fixed Bitrate, please refer to the **APPENDIX / A. Frame-rate & Bitrate Table**.

III. 3GPP



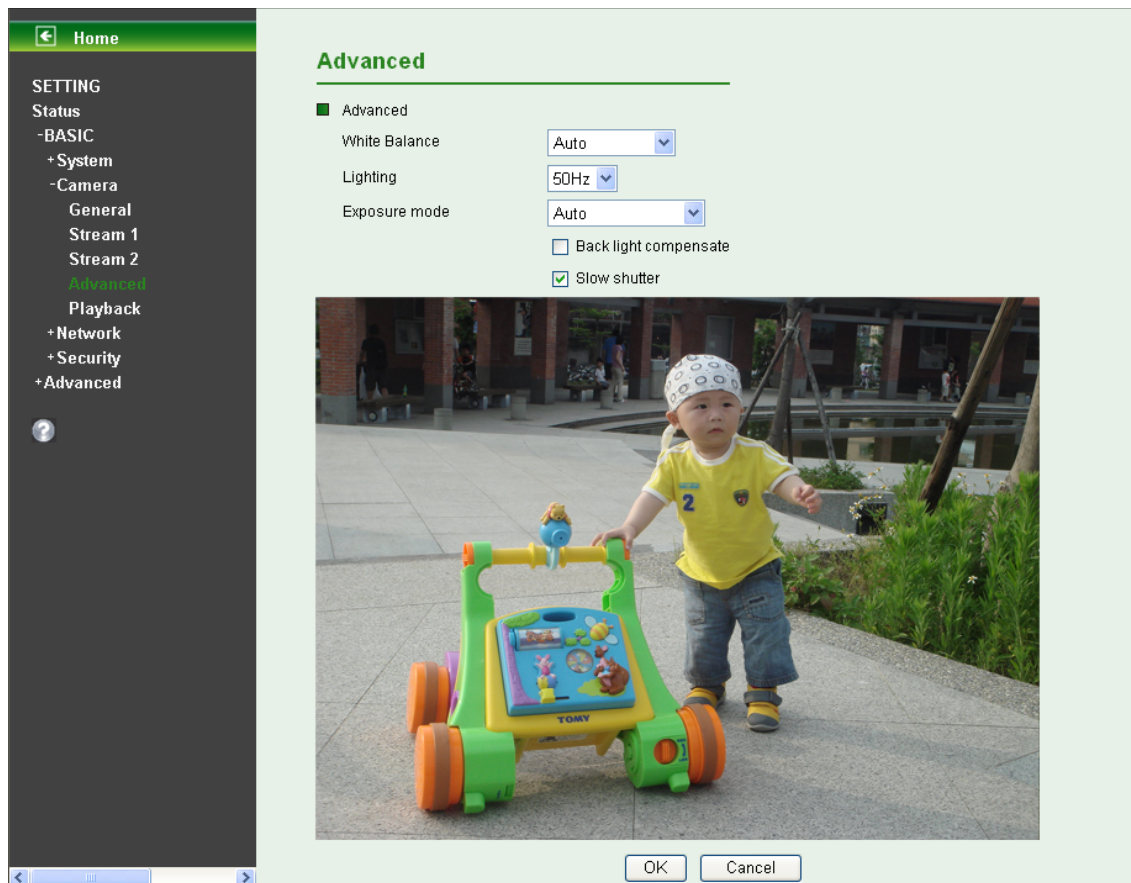
➤ **Viewer Authentication:**

- **On:** If the viewer authentication is **On**, the users will be requested to key-in username and password when using QuickTime Player to have live viewing.
 - **Off:** If the viewer authentication is **Off**, you can have live viewing on computer by QuickTime Player after entering “rtsp://ip:port/video.3gp” on the URL column directly.
- **Image Size:** Image size for 3GPP is 320 x 240 or 160 x 120.
- **Frame Rate:** Set the frame rate of the 3GPP image. Choose one between 5 or 10 fps.
- **Quality:**
- **Auto:** The quality and bit rate will be adjusted automatically according to the frame rate.
 - **Fixed Quality:** This item here can't be selected.
 - **Fixed Bitrate:** Set the bitrate of 3GPP image transmission for a line. You can select one among 256Kbps, 128Kbps, 64Kbps, 48Kbps, 32Kbps and 16Kbps.
- **IP Interval:** It's the ratio of i-frame & p-frame. You can select one among Auto, 5, 10, 15, 30, 60, and 120. The ratio smaller, the streaming smoother.

 **Note:**

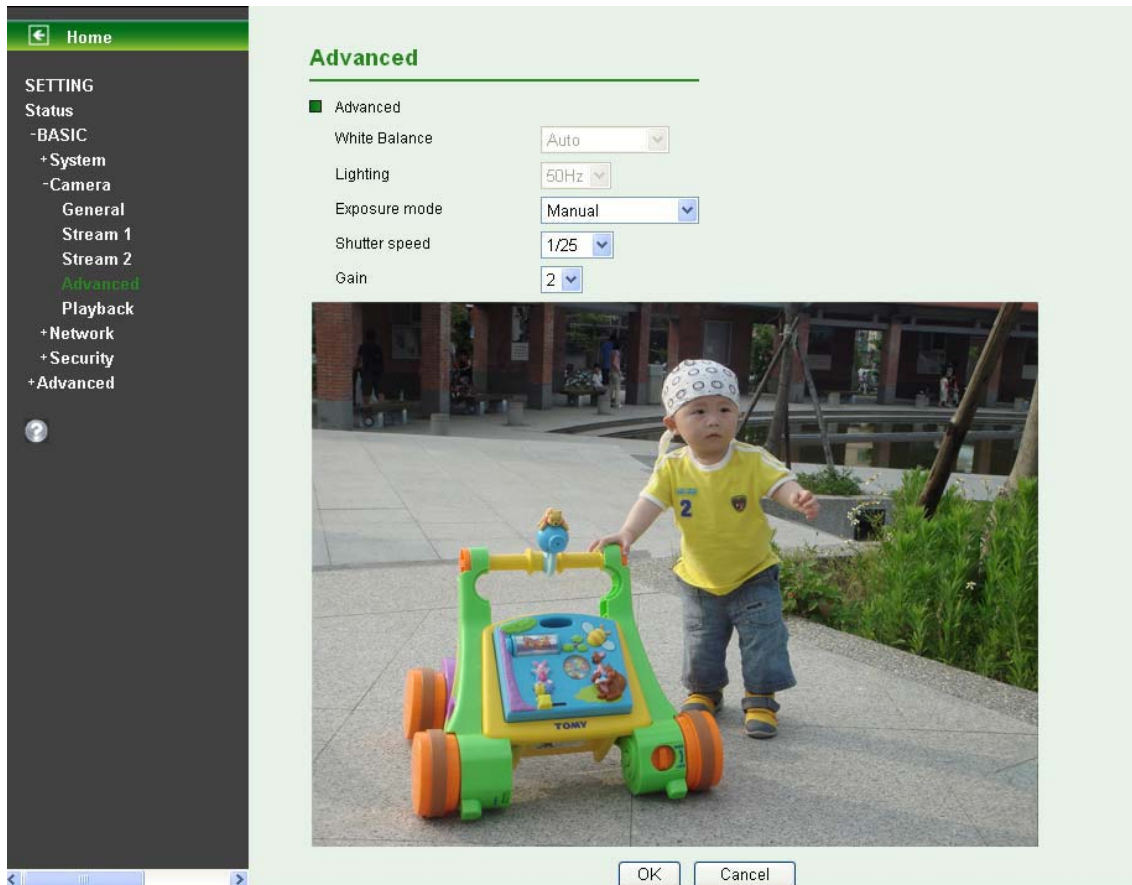
The IP interval value means a RATIO of “P-frame / I-frame” in a certain section of frame sequences. The ratio lower, the live view clear. However, live view will lag if the bandwidth isn't big enough. In this situation, you have to choose another bigger IP interval value to solve the problem.

6.2.4 Advanced



- **White Balance:** Choose the white balance among **Auto**, **Florescent**, **Incandescent**, **Sunny** and **Cloudy**.
- **Lighting:** The default setting of lighting environment is **Auto**. However, you may also choose **50** or **60** Hz upon the lighting environment of your country.
- **Exposure Mode:** Choose **Auto**, **High Speed Mode**, or **Manual** upon the capture environment.

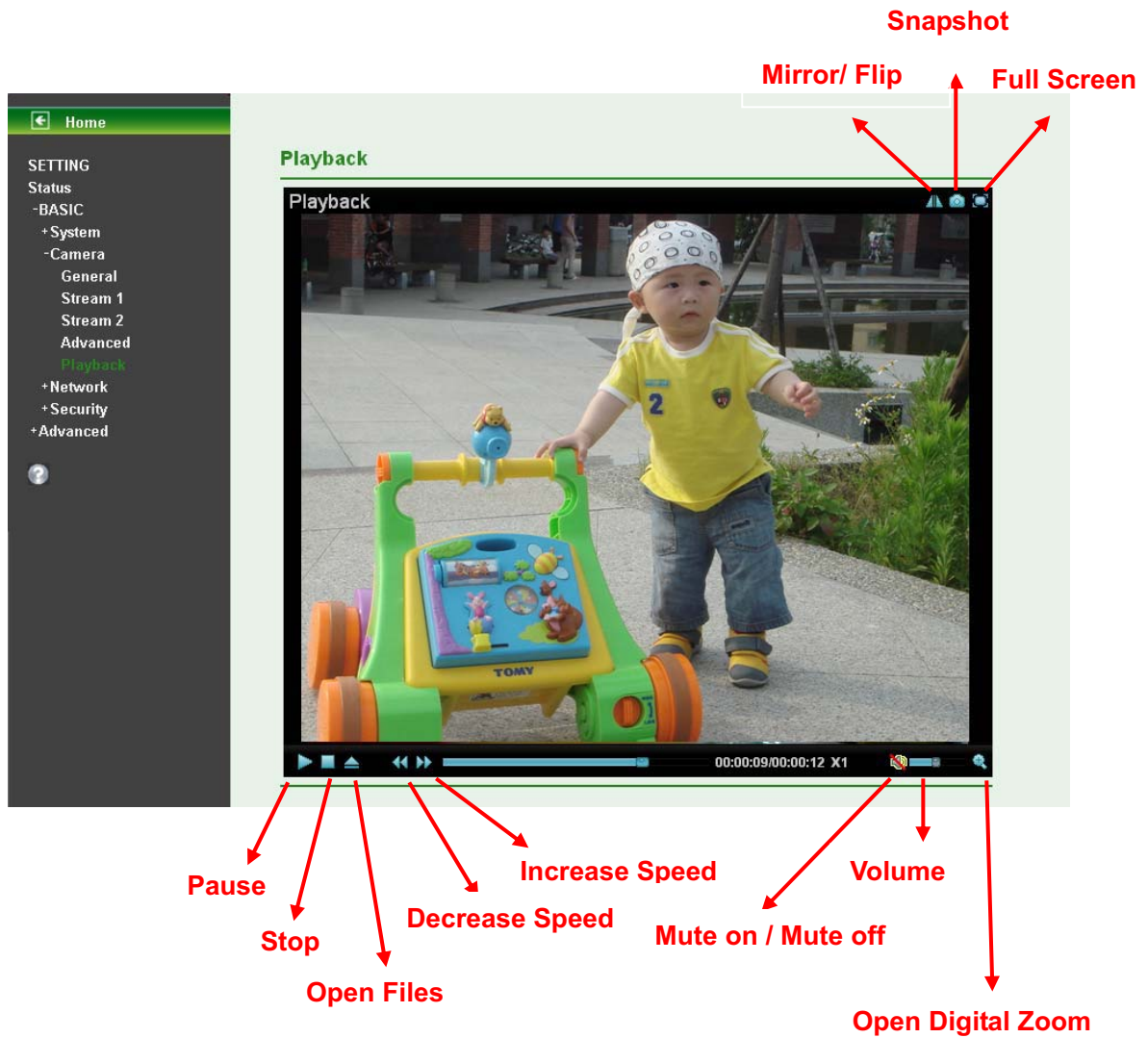
- **Auto:** Choose Auto and you have 3 options to adjust the exposure condition.
 - ✓ **Back Light Compensate:** Click it on and it helps avoid problems in situations where the main subject ends up being too dark, such as when shooting people or other subjects in front of a bright background.
 - ✓ **Slow Shutter:** Click it on and the range of shutter speed will be from 1/5 to 1/120 sec. It will adjust the shutter speed automatically and helpful to capture the clear image when shooting in a dark place.
- **High Speed Mode:** Choose High Speed Mode and the shutter speed will be close 1/120 sec. as far as possible to help to capture the motion image of sports or high-speed phenomena.
- **Manual:** Choose Manual and you can select options, including **Shutter Speed** and **Gain**.



- ✓ **Shutter Speed:** The default value is 1/30 sec. and you can select the value among 1/4, 1/6, 1/12, 1/30, 1/60, and 1/120 sec.
- ✓ **Gain:** The default value is 2 and the value is adjustable among 0~9. It will influence the brightness of the image. The more the value is, the brighter the image is. However, the higher gain value might cause more noise.

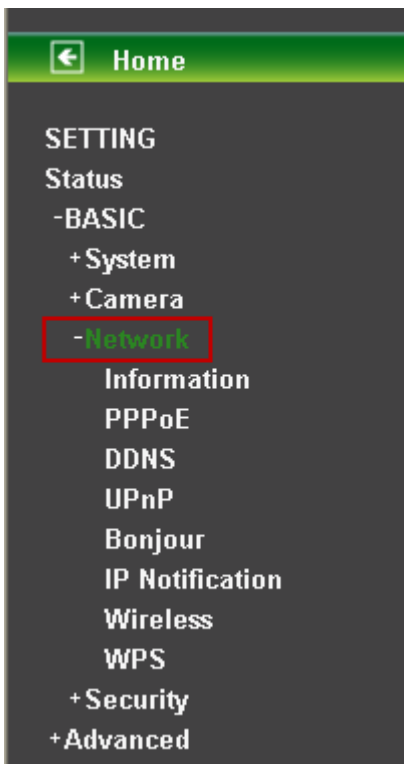
6.2.5 Playback

Click the button of “**Open Files**” and select the video file recorded previous, and you can look for the desired image. Then, you can have the live view in the screen. The function of each button is as below illustration:



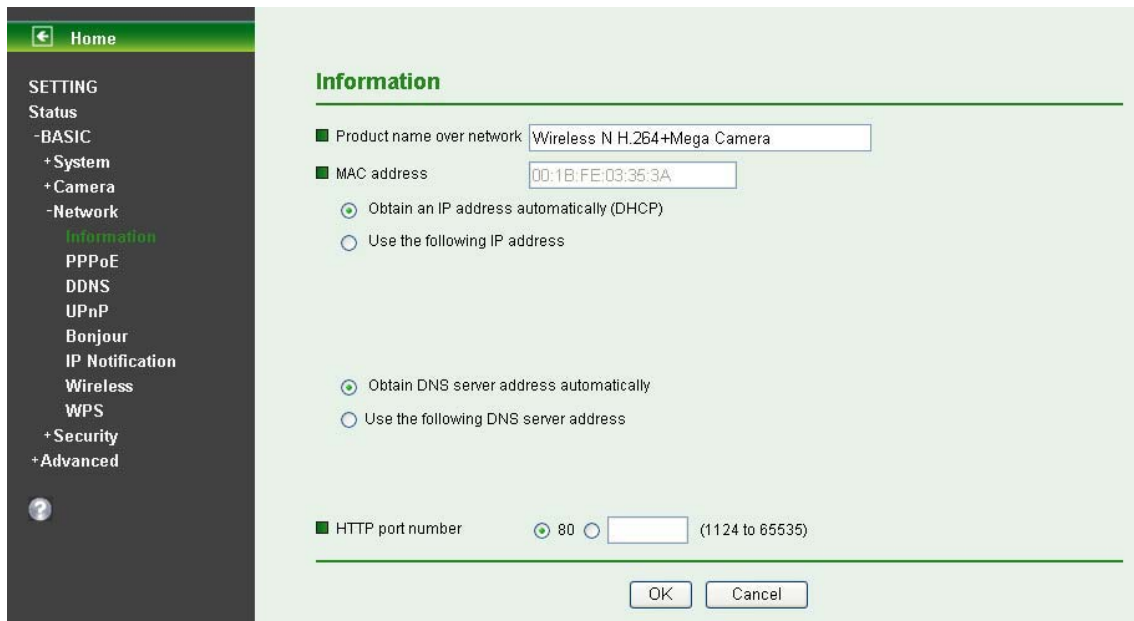
6.3 Network

Click the folder of Network to display the sub folders including **Information**, **PPPoE**, **DDNS**, **UPnP**, **Bonjour**, **IP Notification**, **Wireless** and **WPS**.



6.3.1 Information

Display the MAC address of the device.



- **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.

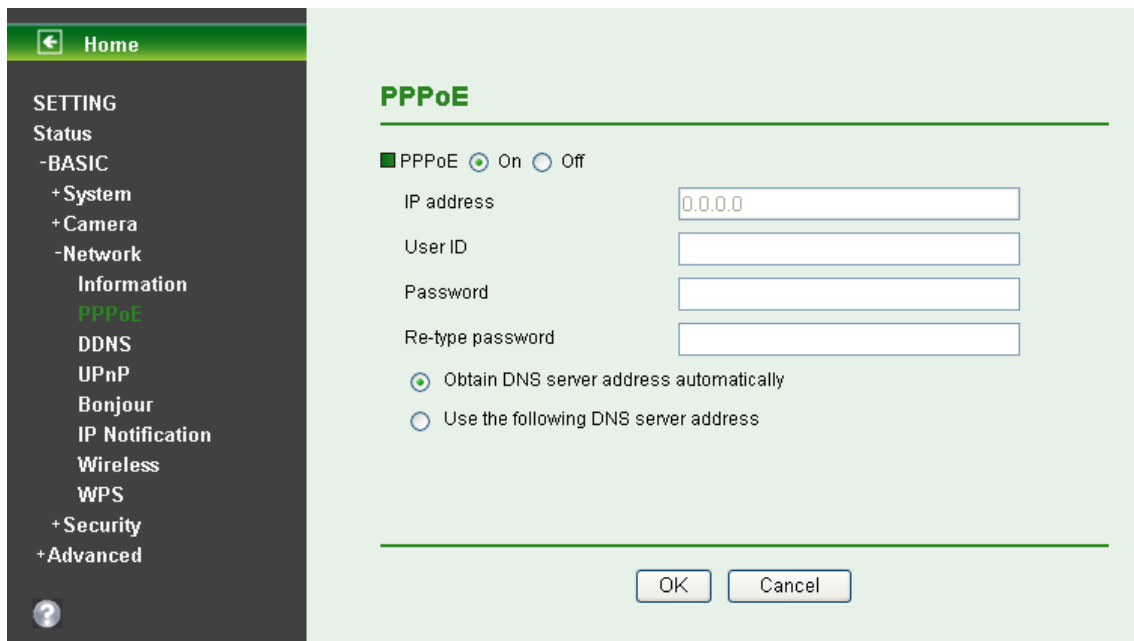
- **Use the following IP address:** Select this option when the fixed IP address is set.
 - **IP address:** Enter the IP address of the device.
 - **Subnet mask:** Enter the subnet mask.
 - **Default gateway:** Enter the default gateway.
- **Use the following DNS server address:** Select this when you 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 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/>

Note:

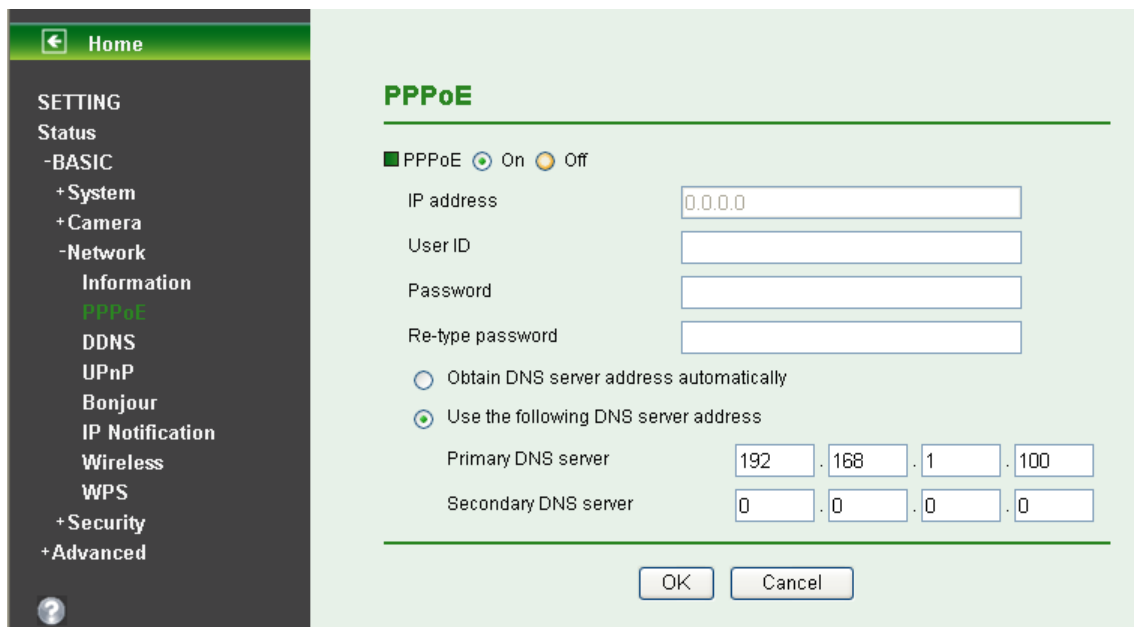
- 1) The IP Camera needs to be rebooted after it finishes changing the network setting completely.
- 2) If you connect the IP Camera with your computer directly, the default network domain of camera is 192.168.1.xx

6.3.2 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 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 work. It is also widely used in XDSL (digital subscriber line such as ADSL, VDSL or SDSL)

- 2) The IP Camera needs to be rebooted after it finishes changing the network completely. For more details, please refer to [Section 6.1.3 Initialize](#).
- 3) The IP Camera with Intelligent IP Installer can't be found after PPPoE is active, but you can get the IP address of the Camera by IP Notification function. For the details, please refer to [Section 6.3.6 IP Notification](#).
- 4) If the IP Notification function is not configured to report the IP address of the Camera, you can reset the Camera to its factory default settings by pressing the Reset button. Then the Camera can be found by Intelligent IP Installer.

6.3.3 DDNS (Dynamic DNS)

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.

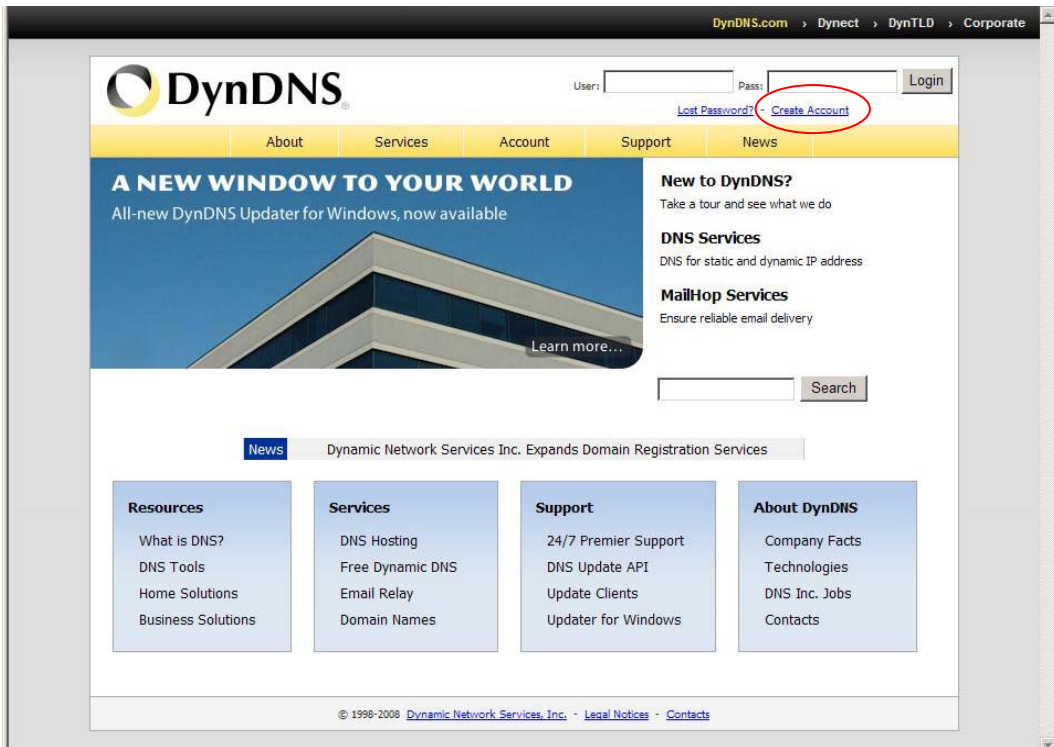
The screenshot shows the DDNS configuration page. On the left is a navigation menu with 'DDNS' selected. The main content area has a title 'DDNS' and a section for 'DDNS' with radio buttons for 'On' (selected) and 'Off'. Below are several input fields: 'Server name' (a dropdown menu showing 'http://www.dyndns.org'), 'User ID' (a text box containing 'ipcamera'), 'Password' (a masked text box with 8 dots), 'Re-type password' (a masked text box with 8 dots), 'Host name' (a text box containing 'ipcamera.homeip.net'), and 'Periodical Update' (radio buttons for 'Auto' and 'Periodical' with a '5' min dropdown). At the bottom are 'OK' and 'Cancel' buttons.

- **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.

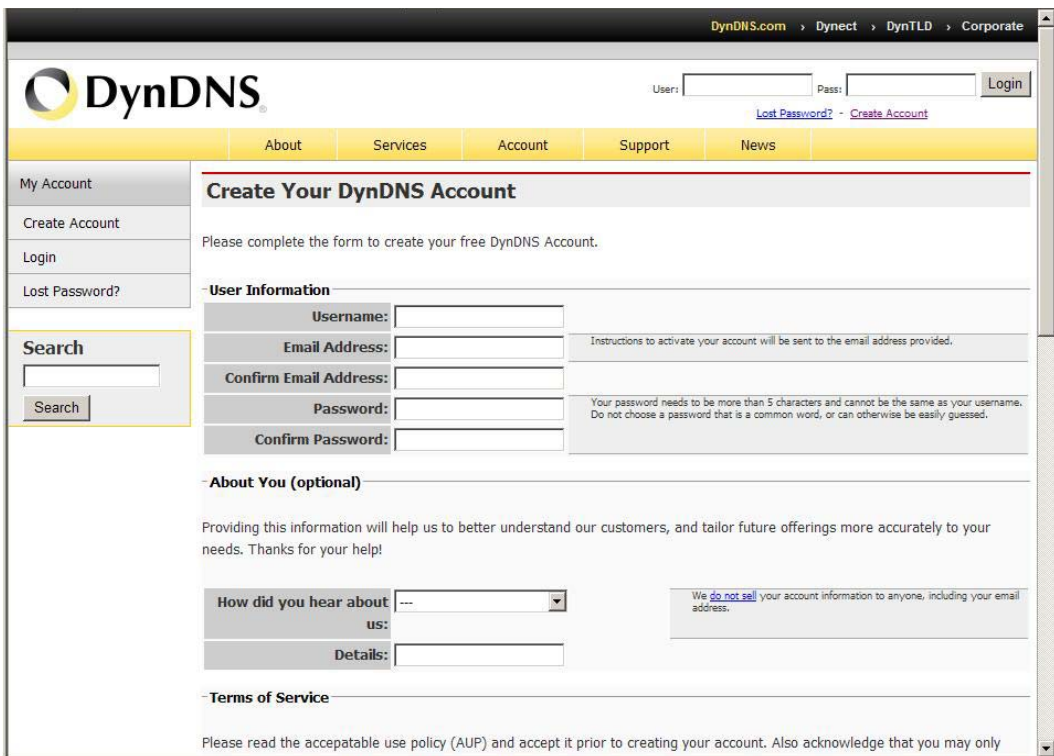
Note:

How to apply DDNS username and Host name? You can apply DDNS username and Host name by the following steps:

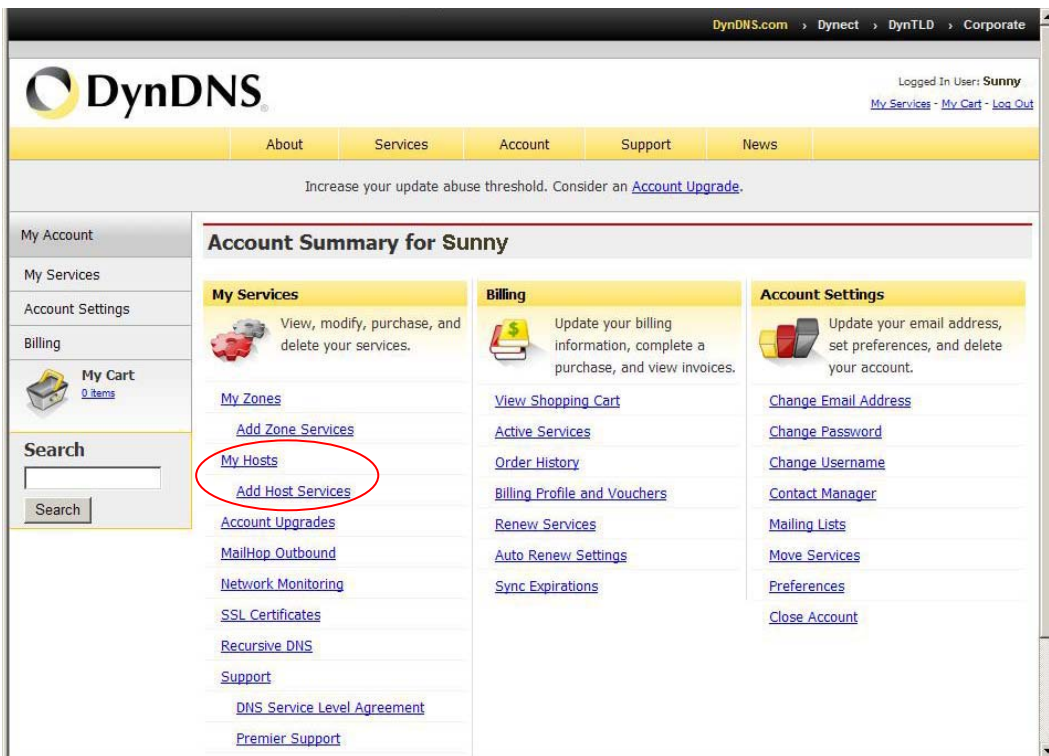
1. Login <http://www.dyndns.org>, click the **Creat Account**.



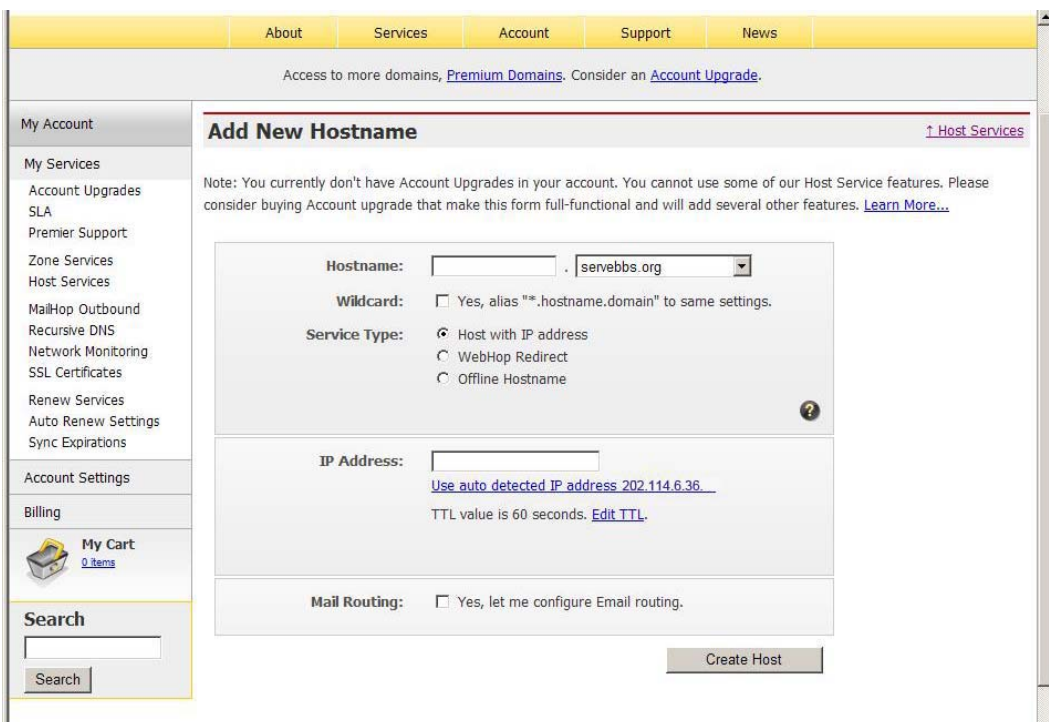
2. Input all information and follow step by step with DynDNS.



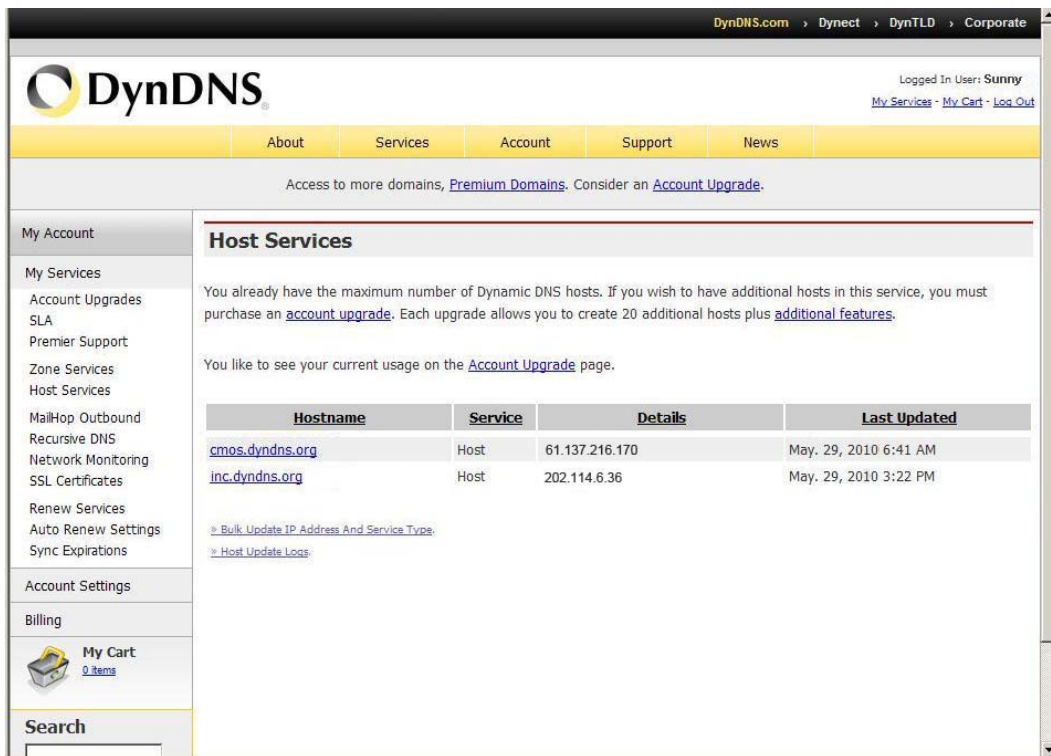
3. Login with new account and click **Account** → **My Hosts** → **Add Host Services**.



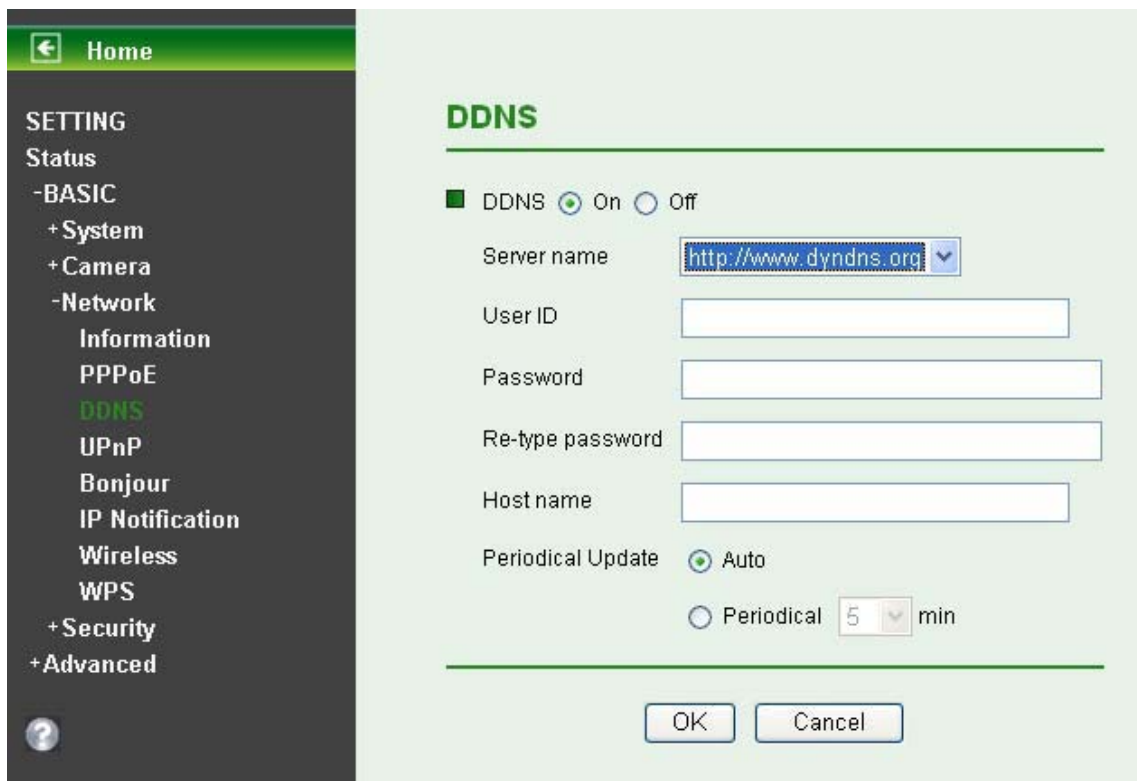
4. Type domain in the **Hostname** field and select **sub-domain**.



5. After typing information, check your DDNS service

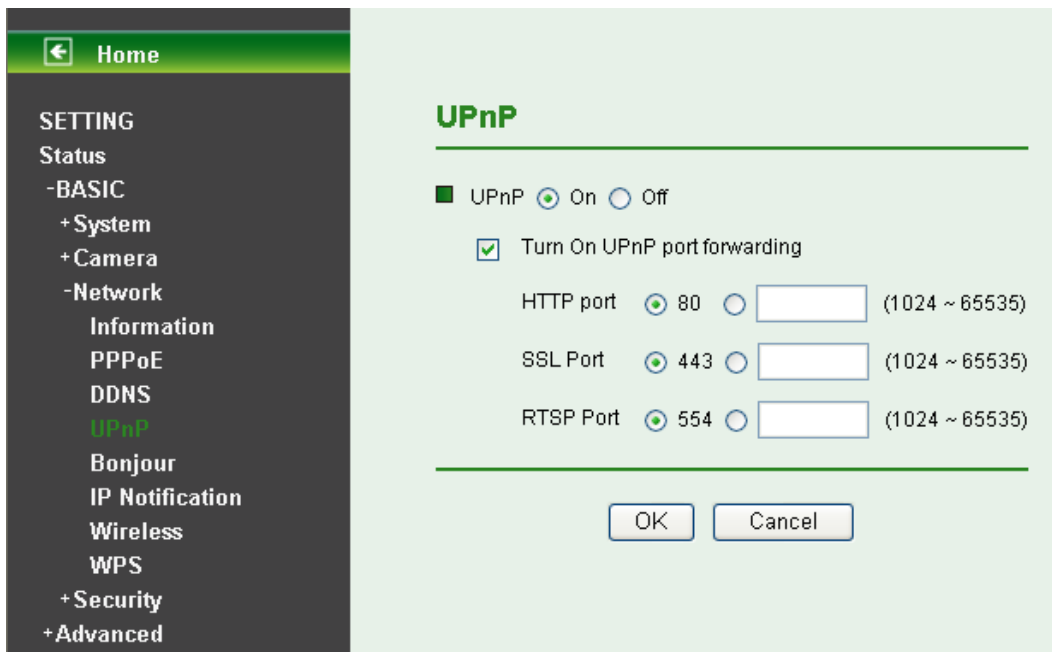


6. Type your DDNS User ID, Password and Host name in **Setting** → **Network** → **DDNS**. After completing setting, reboot IP Camera.



6.3.4 UPnP (Universal Plug and Play)

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.



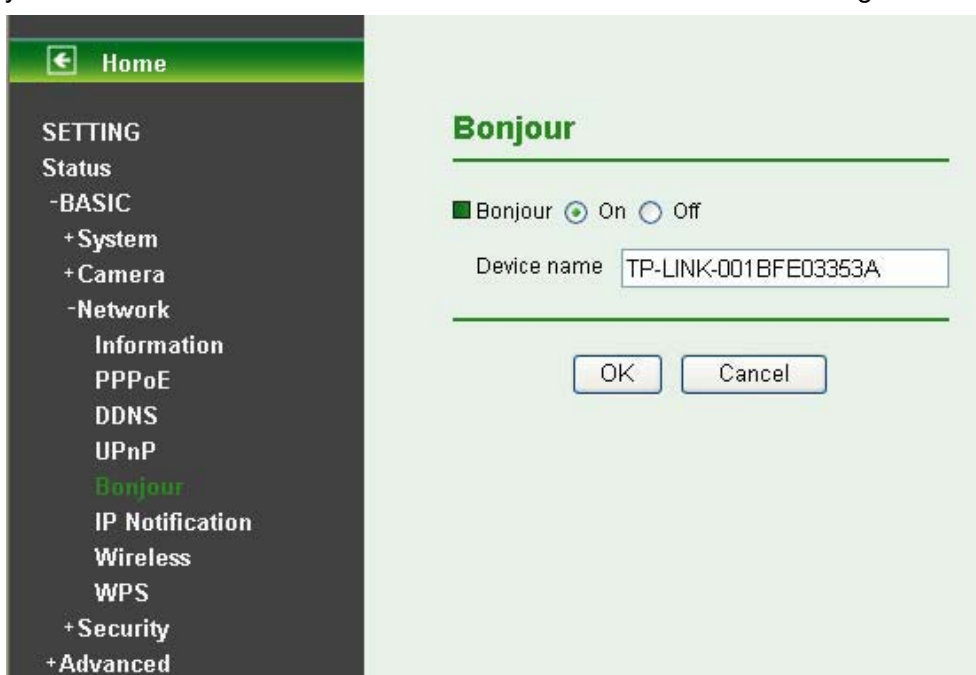
- **HTTP Port:** Enter the HTTP port number and default HTTP port is 80.
- **SSL Port:** Enter the SSL port number and default SSL port is 443.
- **RTSP Port:** Enter the RTSP port, default value is 554 for computer view.

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.

6.3.5 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.



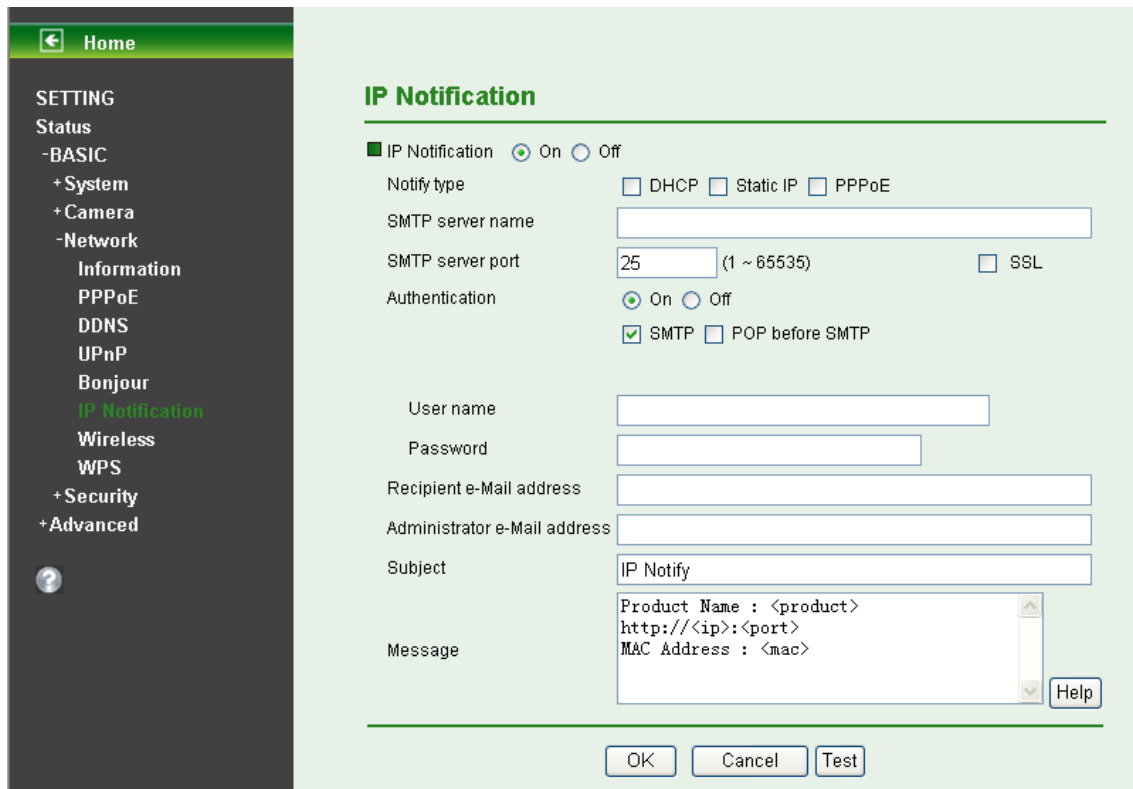
- **Device Name:** Enter Device Name you wish.

Note:

How to use Bonjour in your Windows Browser UI? Please check the link below:
<http://www.apple.com/support/downloads/bonjourforwindows.html>

6.3.6 IP Notification

Once **IP Notification** is set to "On", the Camera will automatically send an e-mail notification to tell users its updated network parameters if the network settings about IP address, network connection type, HTTP port or wireless connection is changed or completed. (Some settings will take effect after rebooting.)



- **Notify Type:** You can select the notify type among DHCP, Static IP, and PPPoE. When the network settings related to the chosen notify type are changed, an e-mail notification will be sent to inform you of the updated network information of the Camera.
- **SMTP Server Name:** Type the SMTP server name up to 64 characters, or the IP address of the SMTP server.
- **SMTP Server Port:** You can set port number from 1~65535 according to your mail server. The default value is 25.
 - **Security setting:** Tick SSL box if the mail server you use has security restriction.

Note:

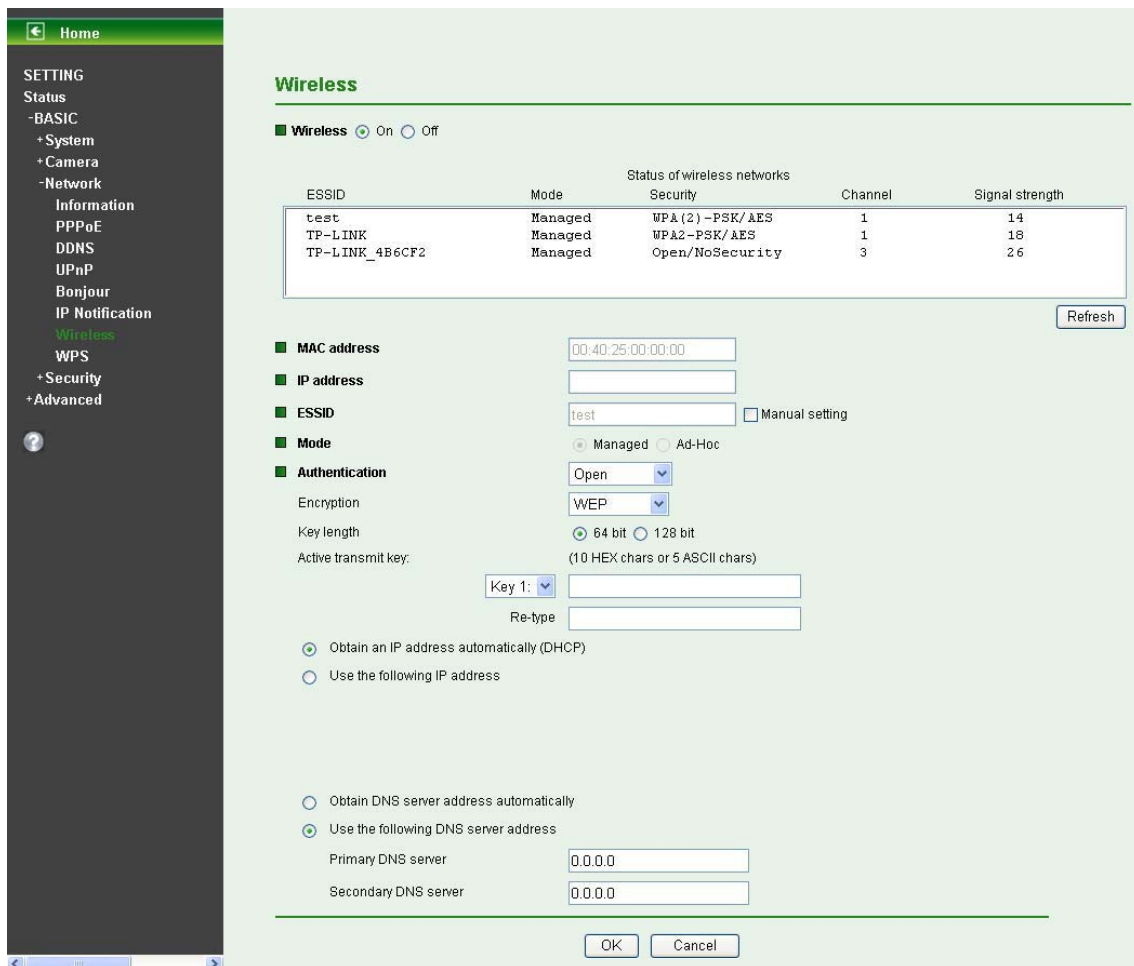
If you use g-mail as your mail server, you should set 25 as your port number and tick SSL box.

- **Authentication:** Select the authentication required when you send an email.
 - **Off:** Select if no authentication is necessary when an email is sent.
 - **On:** When authentication is necessary for sending an e-mail, there are three options: **SMTP**, **POP before SMTP** or **Both**.

- **SMTP:** Select if SMTP authentication is necessary for sending e-mail.
- **POP before SMTP:** Select if POP before SMTP authentication is necessary for sending e-mail.
 - ✓ **POP server name:** It is necessary when the **POP before SMTP** is selected in **Authentication**. Type the POP (receiving mail) server name up to 64 characters, or type the IP address of the POP server. This setting is necessary when the SMTP server which sends e-mails performs authentication using the POP user account.
 - ✓ **User name, Password:** Type the user name and password of the user who has the mail account. This setting is necessary when the SMTP server which sends e-mails performs authentication.
- **Recipient E-mail Address:** Type the recipient e-Mail address up to 64 characters. You can specify up to three recipient E-mail addresses.
- **Administrator E-mail Address:** Type the Administrator e-Mail address up to 64 characters. This address is used for reply mail and sending system messages from the SMTP server.
- **Subject:** Type the subject/title of the e-Mail up to 64 characters. With respect to mail which is sent according to the IP notification.
- **Message:** Type the text of the E-mail up to 384 characters. Default value provides network information including IP, Port, MAC, Model, Firmware Version and Web Version.

6.3.7 Wireless

The wireless network has to be set up by using cable network connection. After setting the Camera correctly, the wireless function can work without cable network connection. Wireless settings must be the same as the access point or ad-hoc device. When changing the settings they should always be made first in the Camera and then in the wireless access point. This ensures that the Camera is always accessible when making changes.



➤ Status of Wireless Networks

The list above is the result of network scan. The network currently linked to will be shown in blue. The following information is provided.

- **ESSID** - The name of a wireless network (or ad-hoc device). If the same name occurs several times this means that several access points for that network were found. The Camera cannot be configured to only associate with one particular access point.
- **Mode** - Shows if the network type is Managed (access point or router) or Ad-Hoc (another client).
- **Security** - Shows which type of security the network uses. See below for the security types supported by the Camera.
- **Channel** - Shows the wireless channel currently in use.
- **Signal strength** - Shows the signal strength.
- **Refresh**: Click the **Refresh** button to rescan the existing wireless networks in the local area.

➤ Wireless Setting

These settings decide how the Camera is connected to the wireless network.

- **MAC address** – This displays the MAC address of the IP Camera.
- **IP address** – Displays the IP address of the IP Camera. It displays blank, 0.0.0.0 or an IP Address. When it is blank, the Camera doesn't establish physical link with access point. The 0.0.0.0 means that physical link is established, and that IP Camera is trying to get the IP address. When it displays an IP address, users can use wireless network.

- **ESSID (ESSID is sometimes written as SSID)** - This is the name of the wireless network to which the Camera is ready to connect. The field accepts up to 32 alphanumeric characters. The name must be exactly the same as that used in the wireless access point; otherwise, the connection will not be established.

Leaving this field blank means the Camera will attempt to access the nearest unsecured network. There are two methods to enter the ESSID field.

- ✓ Method 1: Click the desired wireless network in the network list above, then the field will display the ESSID of that network.
- ✓ Method 2: Tick the box “Manual Setting” behind the field, then enter the ESSID.

- **Mode** – The Managed option means the Camera will attempt to connect to an access point. The Ad-hoc option allows the Camera to connect to other wireless device clients.

- **Authentication** – The authentication of the wireless network. All the parameters for authentication must be the same as that of the desired AP or Router. **64/128-bit WEP, WPA-PSK** and **WPA2-PSK** encryption security are supported by the Camera. Click the desired wireless network in the network list above, the corresponding option will be selected as same as that of the desired AP or Router automatically. Here we select the first item in the network list above for example to introduce how to join in a wireless network.

Select the first item, the figure will display as shown below:

ESSID	Mode	Security	Channel	Signal strength
test	Managed	WPA (2) - PSK / AES	1	14
TP-LINK	Managed	WPA2 - PSK / AES	1	18
TP-LINK_4B6CF2	Managed	Open/NoSecurity	3	26

MAC address

IP address

ESSID Manual setting

Mode Managed Ad-Hoc

Authentication

Encryption

Passphrase

Re-type

(64 HEX chars or 8 to 63 ASCII chars)

Obtain an IP address automatically (DHCP)

Use the following IP address

IP address

Subnet mask

Default gateway

Use the following DNS server address

Primary DNS server

Secondary DNS server

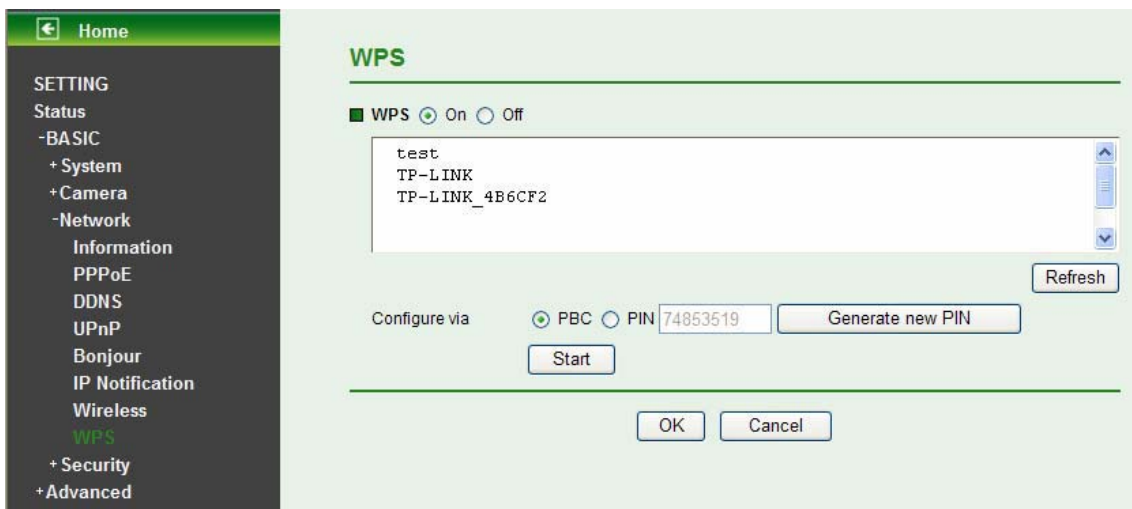
- ✓ **Encryption** – Keep this option the same with that of network **test**.
- ✓ **Passphrase** - Enter the desired AP/ Router’s password here.
- ✓ **Re-type** – Enter the password above again to confirm it.

- ✓ **Obtain an IP address automatically (DHCP)** – If a DHCP server is installed and enabled on the network, to select this for the IP address can be assigned by the DHCP server.
- ✓ **Use the following IP address** - Select this when the fixed IP address is set.
 - ✧ **IP address:** Enter the IP address of the Camera, which must be in the same subnet with that of the desired AP/ Router.
 - ✧ **Subnet mask:** Enter the subnet mask.
 - ✧ **Default gateway:** Enter the default gateway.
- ✓ **Obtain DNS server address automatically** - If you select **Obtain an IP address automatically (DHCP)** above, this entry will display in the figure. 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, if necessary.

6.3.8 WPS

WPS (Wi-Fi Protected Setup) function allows you to add a new wireless device to an existing network quickly.

If the router supports Wi-Fi Protected Setup (WPS) or Quick Setup Security (QSS), you can establish a wireless connection between wireless IP Camera and router using either Push Button Configuration (PBC) method or PIN method.

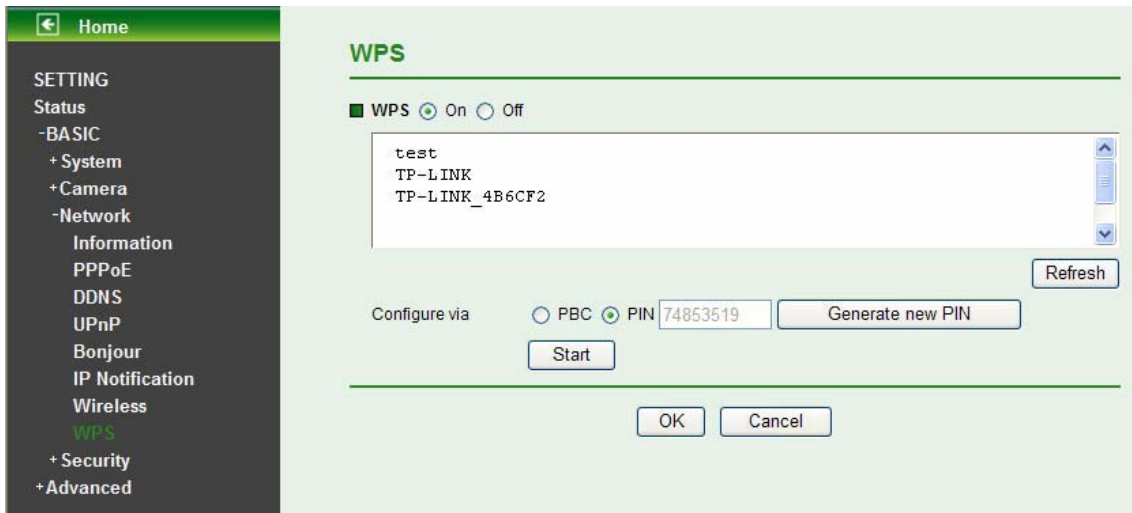


I. PBC (Push Button Configuration) method

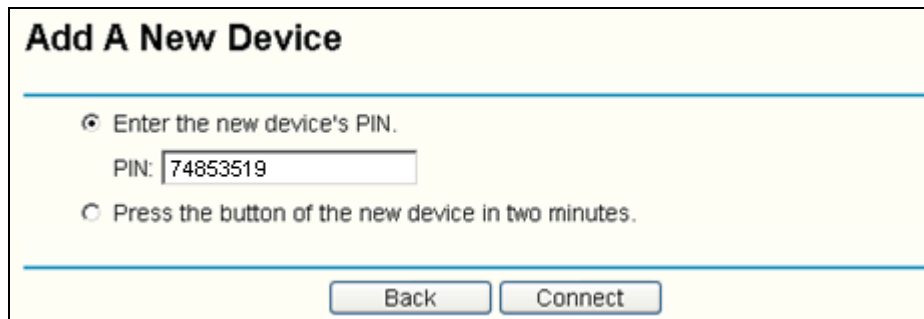
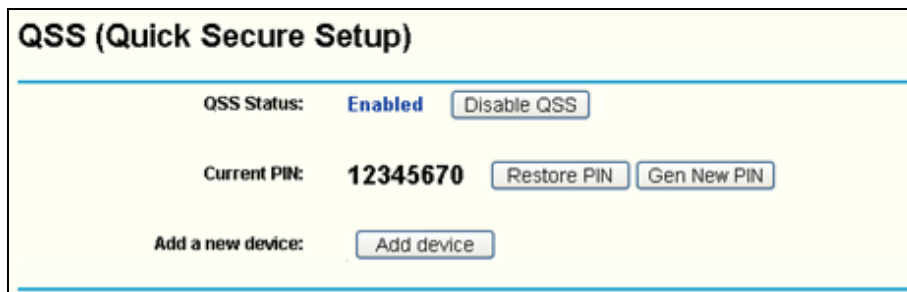
1. Press the QSS button of the router.
2. Press the **WPS** button on the Camera in two minutes.

II. PIN method

1. Firstly, check **PIN** in the following screen. You can also click the **Generate new PIN** to get a new PIN.

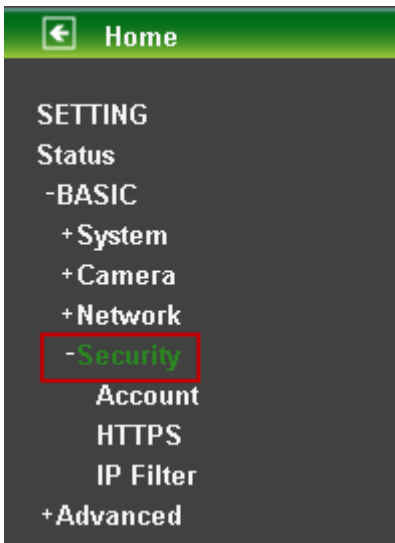


2. Secondly, open the router's Web-based Utility and click **QSS** link on the left of the main menu. Then the following screen will appear. Click **Add device**. And then select **Enter the new device's PIN** and enter the PIN value of the Camera, click **Connect**.



6.4 Security

Click the folder of **Security** to display the sub folders including **Account**, **HTTPS**, and **IP Filter**.



6.4.1 Account

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 assign a password if the device is intended to be accessed by others.

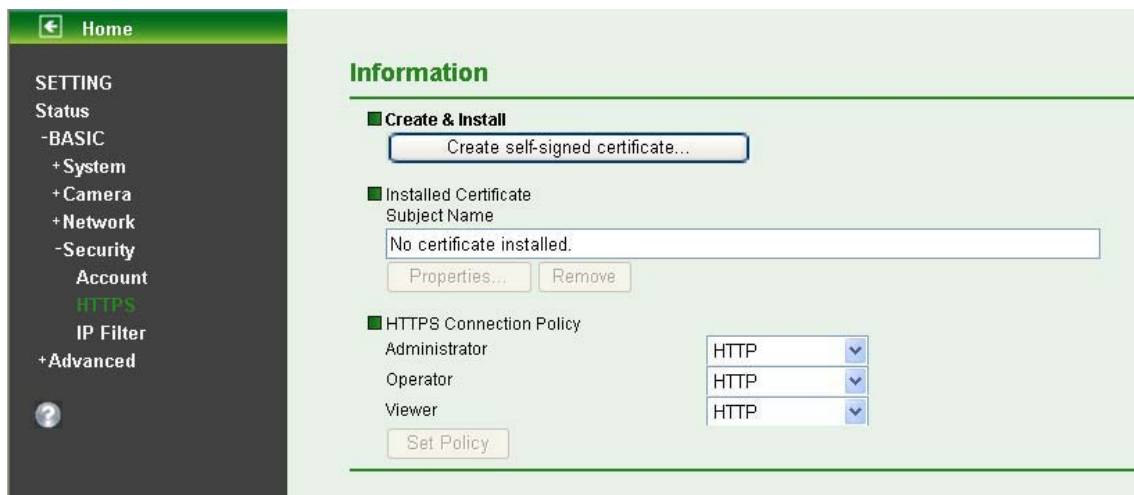
A screenshot of the 'Account' configuration page. The left sidebar is identical to the previous image, but 'Account' is highlighted in green. The main area has a title 'Account' and a table with columns: 'User ID', 'User name', 'Password', 'Re-type Password', and 'Viewer mode'. The 'Administrator' row is pre-filled with 'admin', masked passwords, and 'Admin'. Below it are rows for 'User 1' through 'User 9', each with empty input fields. At the bottom, there is a 'Viewer authentication' section with 'On' selected and 'Off' as an option. 'OK' and 'Cancel' buttons are at the bottom right.

- **User Name:** Set a user name between 4-16 characters.
- **Password:** Set a password between 4-16 characters.
- **Re-type Password:** Re-type the password to confirm.
- **Viewer Mode:** Set the user mode among Admin, Operator, and Viewer. Different viewer mode has different limits of authority.
 - The Admin mode has all authority of configuration.
 - The Operator mode can not only view the Live View but also control the PTZ (only for PTZ models).

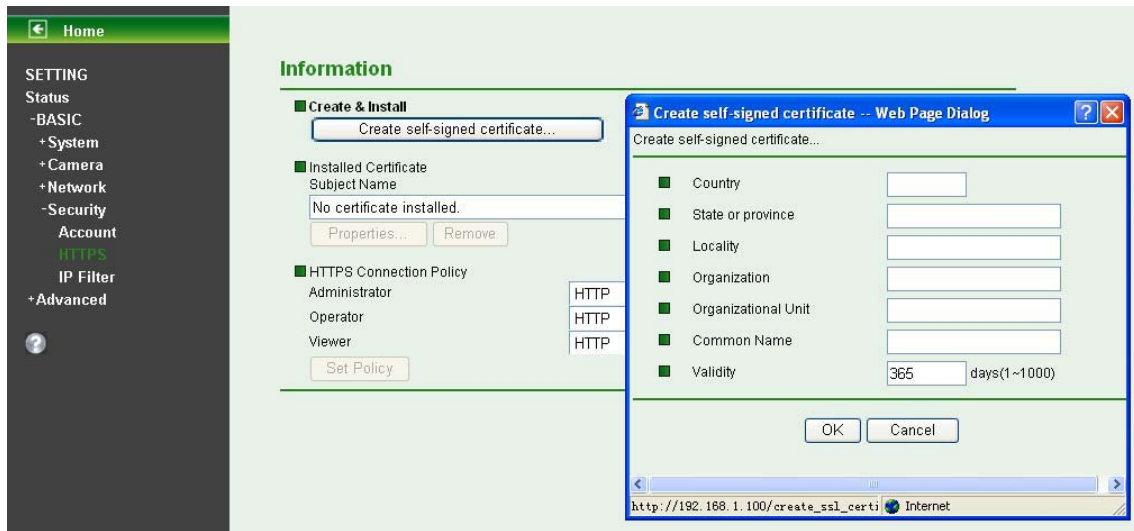
- The Viewer mode only can view the Live View.
- **Viewer Authentication:** Select whether the authentication is needed when users access to live view.
 - **On:** Authentication is required to let different users have different levels of permission to access the Camera view.
 - **Off:** Authentication is not required to access the Camera. Check **Off** and select one (among **Admin**, **Operator** and **Viewer**) from the pull-down list as the permission, then all users can view directly the video with the default permission without entering username and password.
 - * If you want to have a higher authority than the default, you can key in appropriate username and password in the diag box that pops up when performing advanced operations that are only allowed by the higher authority.

6.4.2 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. Use 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.

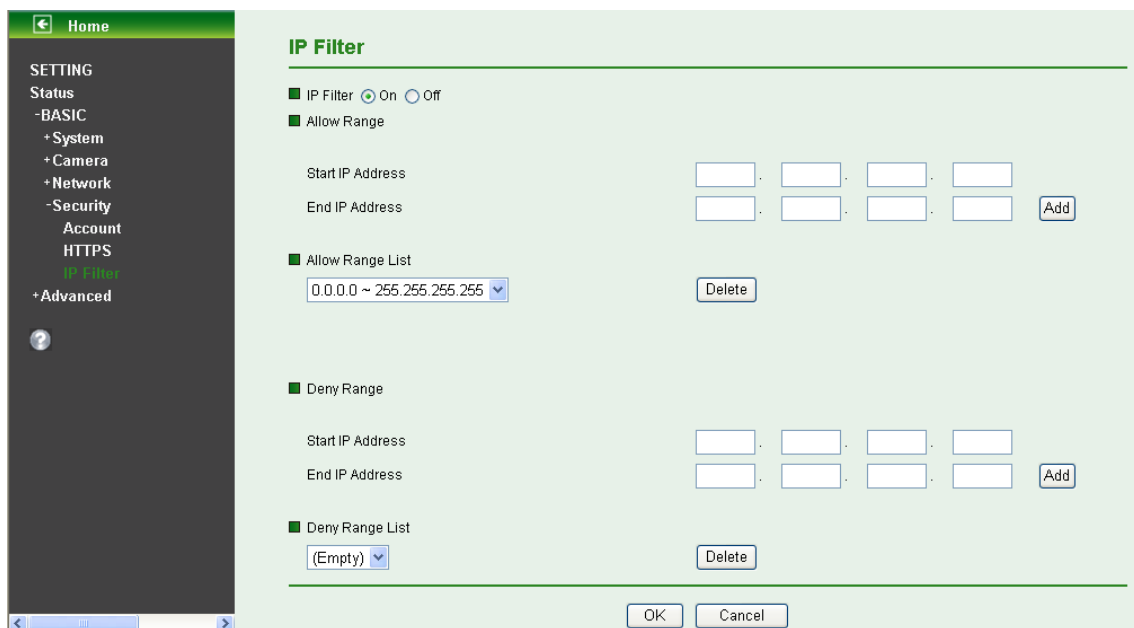


Note:

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

6.4.3 IP Filter

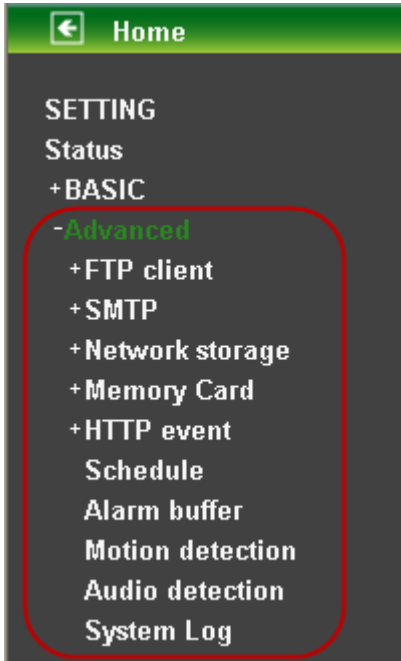
IP Filter provides the function of controlling the range of IP address, similar with firewall service. This feature can only be applied to the users with the right of Operator or Viewer except the Admin users.



- **IP Filter:** Select if you would like to have IP filter function.
- **Allow Range:** The default range is from 0.0.0.0 to 255.255.255.255. Enter the “Start IP address” and “End IP address” in the range, then you can add a new allow range in allow range list.
- **Allow Range List:** Except the default range 0.0.0.0~255.255.255.255, the list allows to add four more sets of allow range at most.
- **Deny Range:** You can define the deny range by entering “Start IP address” and “End IP address”.
- **Deny Range List:** You can define not more than five sets of deny range in the list.

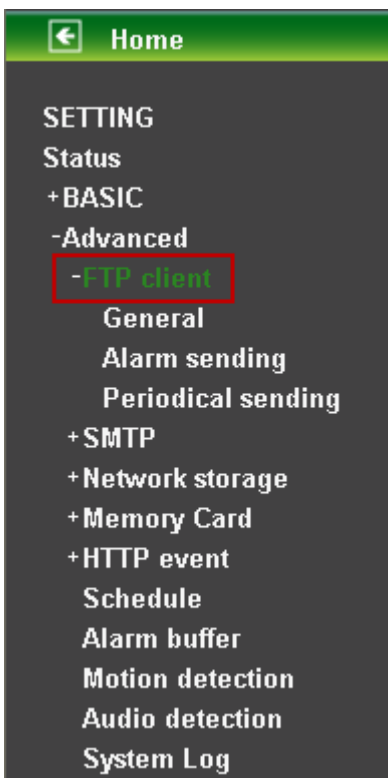
Chapter 7 Setting-Advanced

Click the folder of Advanced to display the sub folders including **FTP client**, **SMTP**, **Network storage**, **Memory Card**, **HTTP event**, **Schedule**, **Alarm buffer**, **Motion detection**, **Audio detection**, and **System Log**.



7.1 FTP Client

Use this menu to set up for capturing and sending an image or video clip to an FTP server. By using FTP client function, you can send files which has been shot and recorded linked with the external sensor input or with the built-in motion detection function to FTP server. FTP client setting menu is composed of three tabs: **General**, **Alarm Sending** and **Periodical Sending**.



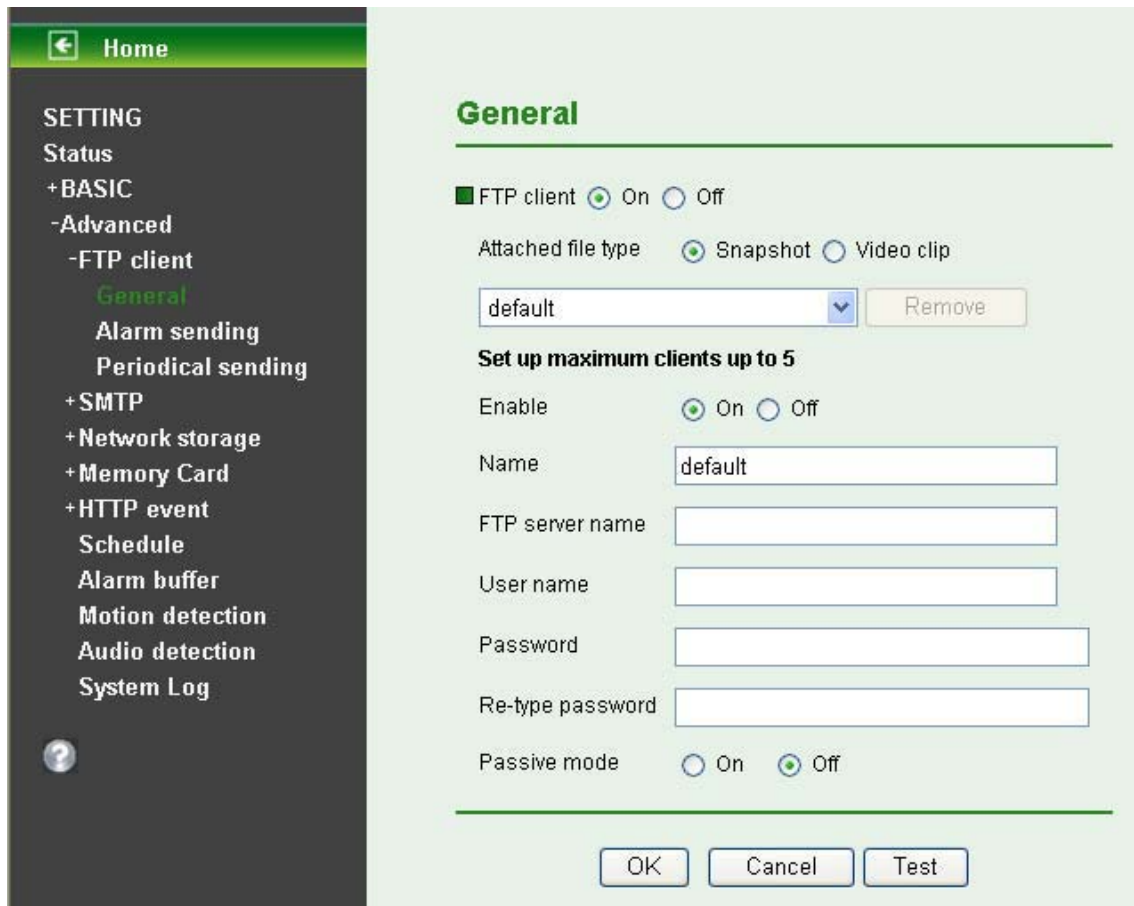
7.1.1 General

Select **On** when you use FTP function. The FTP client Setting screen appears.

Select **Off**, when you do not wish to use the FTP client function.

Note:

The frame rate and operability on the main viewer may decrease while a file is being transmitted by the FTP client function.

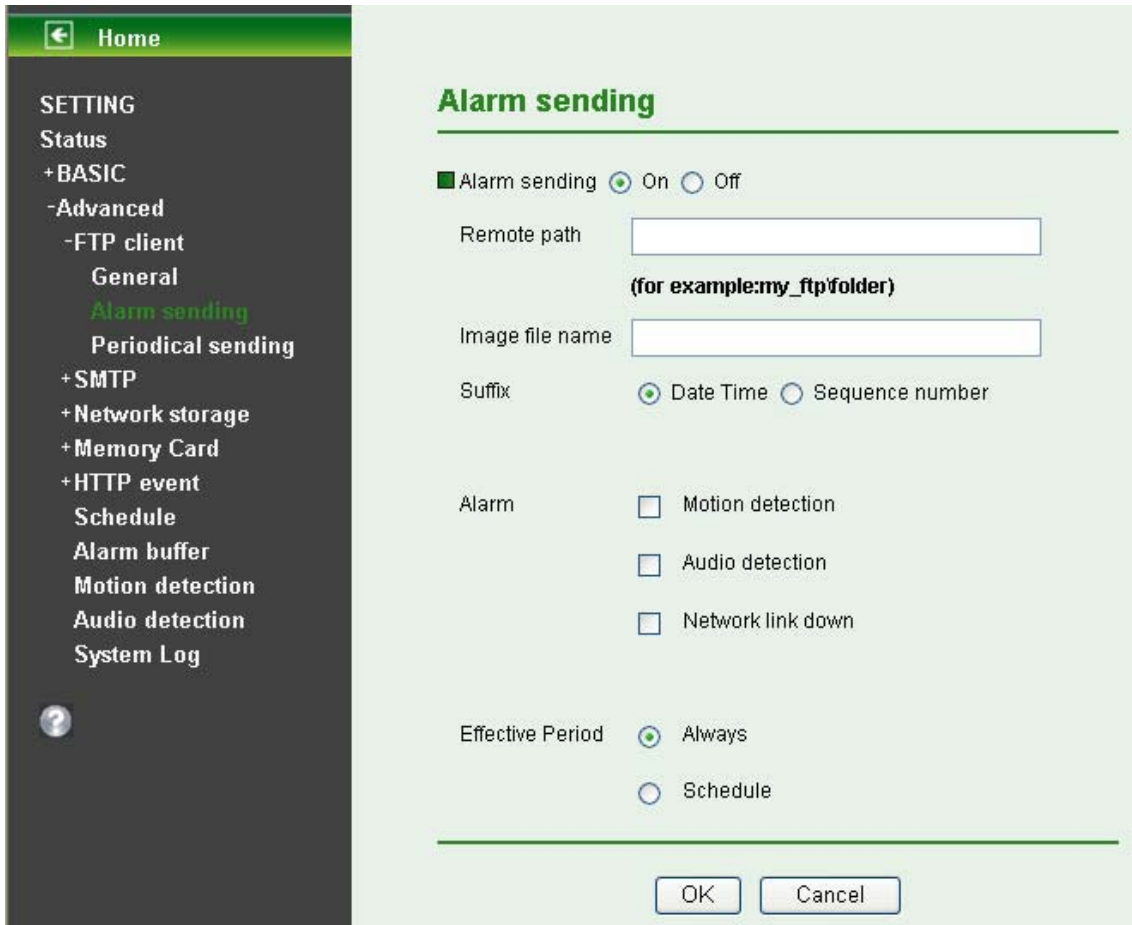


- **Attached file Type:** You can choose snapshot or video clip for alarm sending. Select “Snapshot,” one snapshot will be transmitted to the specified FTP server while motion detection / audio detection triggered. Select “Video clip,” one 5-seconds video clip will be transmitted.
-
- **Name:**
- **FTP Server Name:** Type the FTP server name to upload still images up to 64 characters, or the IP address of the FTP server.
- **User Name:** Type the user name for the FTP server.
- **Password:** Type the password for the FTP server.
- **Re-type Password:** To confirm the password, type the same characters as you typed in the Password box.
- **Passive Mmode:** Set whether you use the passive mode of FTP server or not when connecting to FTP server. Select **On** to connect to FTP server using the passive mode.
- **Test:** After setting the FTP server information, you can tick the test key to test if the connection between IP CAM and FTP server works.

7.1.2 Alarm Sending

Set to forward a snapshot or video clip file to the specified FTP server linked with the alarm detection by

the external sensor input or by the built-in motion detection function. Select **On** to send the file to FTP server linked with the alarm detection.



- **Remote Path:** Type the path to the destination in FTP server up to 64 characters.
- **Image File Name:** Type the file name you want to assign to the files when sending to the FTP server. You can use up to 10 alphanumeric characters, - (hyphen) and _ (underline) for naming.
- **Suffix:** Select a suffix to add to the file name
 - **Date & time:** The date & time suffix is added to the Image file name. The date/time suffix consists of lower two-digits of year (2 digits), month (2 digits), date (2 digits), hour (2 digits), minute (2 digits), second (2 digits), and consecutive number (2 digits), thus 14-digit number is added to the file name.
 - **Sequence number:** A consecutive number of 10 digits between 1 and 4294967295 and two fixed digits 00 is added to the Image file name.
 - **Sequence number clear:** Click **Clear** and the suffix of the sequence number returns to 1.
- **Alarm**
 - **Motion Detection:** Click it on for using **Motion Detection** function as a sensor. You can set motion detection function at the motion detection function screen.

Note:
You can set motion detection at motion detection screen. (Please go “**Setting** → **Advanced** → **Motion Detection** → **Setting**”)
 - **Audio Detection:** Click it on for using **Audio Detection** function as a sensor. You can set audio detection function at the audio detection function screen.

Note:
You can set audio detection at audio detection screen. (Please go “**Setting** → **Advanced**

→**Audio Detection** → **Setting**")

- **Network Link Down:** Click it on to receive a snapshot or a video clip while network link down. If **Attached File Type** (go "**Setting** → **Advanced** → **FTP Client** → **General**") was clicked as **video clip**, you can use **Alarm Buffer** function as a sensor. It's for recording audio file in the IP CAM before and after disconnected network.

 **Note:**

You can set alarm buffer at alarm buffer screen. (Please go "**Setting** → **Advanced** → **Alarm Buffer** → **Setting**")

➤ **Effective Period:** Set the period when the periodical sending is effective.

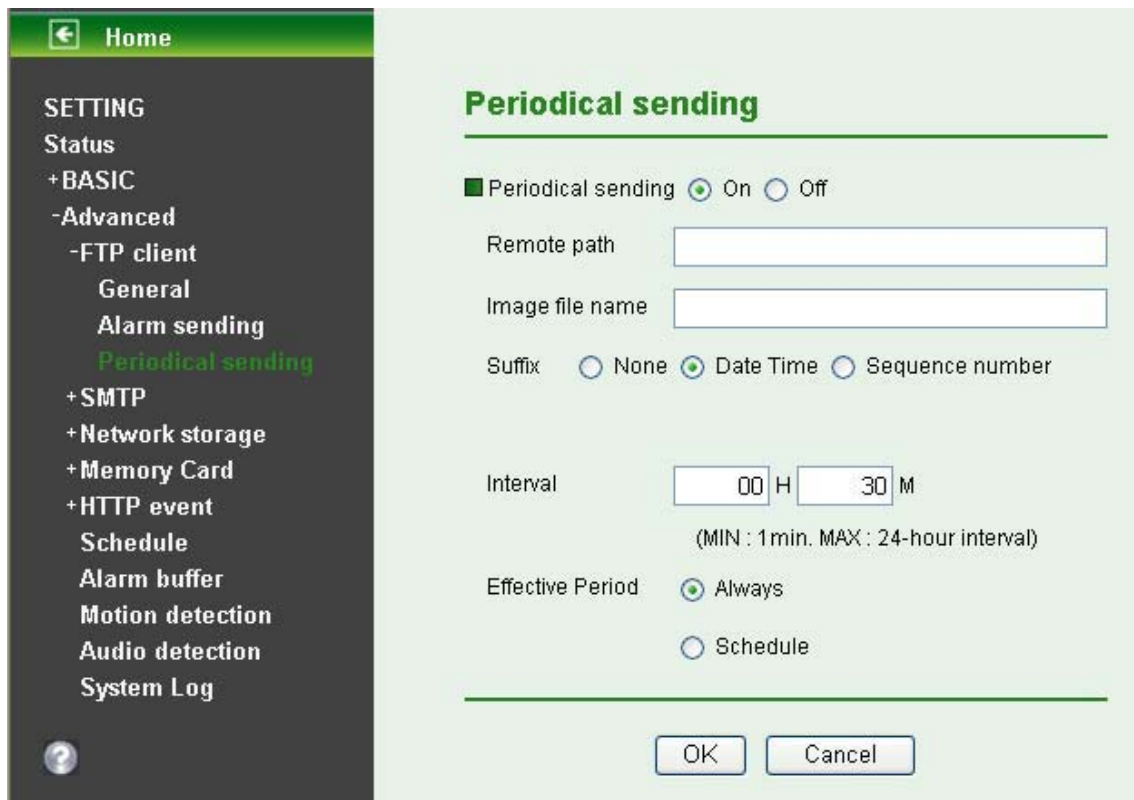
- **Always:** The periodical sending is always effective.
- **Schedule:** You can specify the period when the periodical sending is effective in the Schedule setting in the other section.

 **Note:**

You can set schedule function at schedule screen. (Please go "**Setting** → **Advanced** → **Schedule** → **Setting**")

7.1.3 Periodical Sending

Select **On**, you can set to send an image file to FTP server periodically.



- **Remote Path:** Type the path to storage location of FTP server which you have authorized.
- **Image File Name:** Type the file name of snapshot or video clip up to 10 alphanumeric characters, - (hyphen) and _ (under score).
- **Suffix:** Select a suffix to be added to the file name.
 - **None:** The name of the sent file will be the Image file name.
 - **Date & time:** The date & time suffix is added to the Image file name. The date & time suffix consists of lower two-digits of year (2 digits), month (2 digits), date (2 digits), hour (2 digits), minute (2 digits) and second (2 digits), and consecutive number (2 digits), thus 14-digit

number is added to the file name.

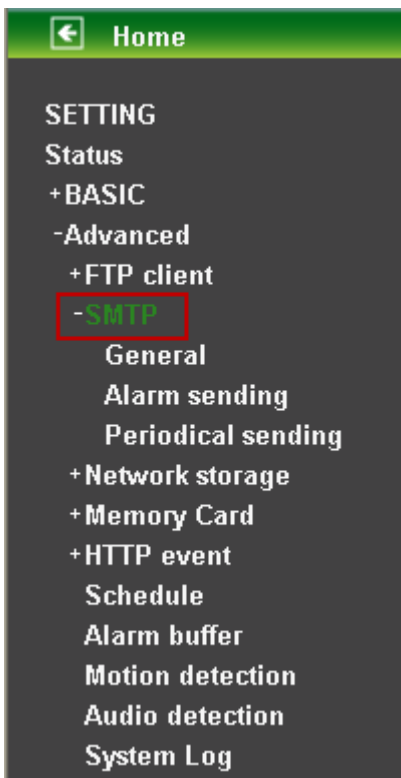
- **Sequence number:** A **consecutive** number is added to the Image file name.
 - **Sequence number clear:** Click **Clear** and the suffix of the sequence number returns to 1.
- **Interval:** Set the periodical sending is effective interval. Min value is 1 min and Max value is 24 hour.
- **Effective Period:** Set the period when the periodical sending is effective.
- **Always:** The periodical sending is always effective.
 - **Schedule:** You can specify the period when the periodical sending is effective in the schedule setting in the other section. **Please check “Setting → Advanced → Schedule →Setting”.**

 **Note:**

You can set schedule function at schedule screen. (Please go “**Setting → Advanced → Schedule → Setting**”)

7.2 SMTP

Set the SMTP menu when you want to send an image or video clip via e-mail. By using Mail (SMTP) function, you can send a mail with attached file which has been shot linked with the external sensor input or with the built-in motion detection function. The file can also be sent periodically. E-Mail (SMTP) setting menu is composed of three tabs, **General**, **Alarm Sending** and **Periodical Sending**.



7.2.1 General

Select **On** when you use the SMTP function. The common setting options are displayed below. Select **Off**, if you do not wish to use the E-mail (SMTP) function.

 **Note:**

The Setting of general part will be the same as IP Notification. (Please check “**Setting → Basic →**

Network → IP Notification”)

The screenshot shows the 'General' settings page for IP Notification. The left sidebar contains a menu with options like 'Home', 'SETTING', 'Status', '+BASIC', '-Advanced', '+FTP client', '-SMTP', 'General', 'Alarm sending', 'Periodical sending', '+Network storage', '+Memory Card', 'Periodical sending', '+Network storage', '+Memory Card', '+HTTP event', 'Schedule', 'Alarm buffer', 'Motion detection', 'Audio detection', and 'System Log'. The main content area is titled 'General' and includes the following settings:

- e-Mail (SMTP):** On Off
- SMTP server name:** [Text input field]
- SMTP server port:** [Text input field with value 25] (1 ~ 65535) SSL
- Authentication:** On Off
 - SMTP POP before SMTP
- POP server name:** [Text input field]
- User name:** [Text input field]
- Password:** [Text input field]
- Recipient e-Mail address:** [Text input field] **Support for up to 3 users. Separate multiple recipients by ";".**
- Administrator e-Mail address:** [Text input field]
- Attached file type:** Snapshot Video clip
- Subject:** [Text input field]
- Message:** [Text area]

At the bottom of the page, there are three buttons: 'OK', 'Cancel', and 'Test'.

- **SMTP Server Name:** Type the SMTP server name up to 64 characters, or the IP address of the SMTP server.
- **SMTP Server Port:** You can set port number from 1~65535 according to your mail server. The default value is 25.
 - **Security setting:** Tick SSL box if the mail server you use has security restriction.

Note:

If you use g-mail as your mail server, you should set 25 as your port number and tick SSL box.

- **Authentication:** Select the authentication required when you send an email.
 - Off: Select if no authentication is necessary when an email is sent.
 - On: When authentication is necessary an e-mail is sent, select one of the authentication methods from the followings.
- **SMTP:** Select if SMTP authentication is necessary for sending e-mail.
- **POP Before SMTP:** Select when POP before SMTP authentication is necessary for sending e-mail.

Note:

When you set to On, be sure to select either or both SMTP or / and POP before SMTP.

- **POP server name:** It is necessary when the **POP before SMTP** is selected in **Authentication**. Type the POP (receiving mail) server name up to 64 characters, or type the IP address of the POP server. This setting is necessary when the SMTP server which sends e-mails performs authentication using the POP user account.
- **User name, Password:** Type the user name and Password of the user who has the mail account. This setting is necessary when the SMTP server which sends e-mails performs authentication.
- **Recipient E-mail Address:** Type the recipient e-Mail address up to 64 characters. You can specify up to three recipient E-mail addresses.
- **Administrator E-mail Address:** Type the Administrator e-Mail address up to 64 characters.

This address is used for reply mail and sending system messages from the SMTP server.

- **Attached File Type:** You can choose snapshot or video clip for alarm sending. Select “Snapshot,” one snapshot will be transmitted to the administrator’s e-mail address while motion detection / audio detection triggered. Select “Video Clip,” one 5-seconds video clip will be transmitted.
- **Subject:** Type the subject/title of the e-Mail up to 64 characters. With respect to mail which is sent according to the alarm detection when **Alarm sending** of the alarm tab is set to **On**, the characters standing for the sensor type added to the subject.
- **Message:** Type the text of the E-mail up to 384 characters. (A line break is equivalent to 2 characters.)
- **Test:** After setting the SMPT server information, you can tick the test key to test if the connection between IP CAM and the SMPT server works.

7.2.2 Alarm Sending

Set to send the mail with connection to the alarm detection by the external sensor input or by the built-in motion detection function. Select On to send the image file to SMTP server linked with the alarm detection.

The screenshot shows the 'Alarm sending' configuration page. The sidebar on the left contains a 'Home' button and a menu with the following items: SETTING, Status, +BASIC, -Advanced, +FTP client, -SMTP, General, Alarm sending (highlighted in green), Periodical sending, +Network storage, +Memory Card, +HTTP event, Schedule, Alarm buffer, Motion detection, Audio detection, and System Log. The main content area is titled 'Alarm sending' and includes the following settings:

- Alarm sending:** On Off
- File attachment:** On Off
- Image file name:**
- Suffix:** None Date Time Sequence number
- Sequence number clear:**
- Alarm:**
 - Motion detection
 - Audio detection
 - Network link down
- Effective Period:** Always Schedule

At the bottom of the page are and .

- **Alarm Sending:** Select **On** to set to send mail with connection to the alarm detection.
- **File Attachment:** Set whether an image file is attached to the mail sent or not. When **On** is selected, the image file made by the settings below is attached. When **Off** is selected, only the message is sent.
- **Image File Name:** Type the file name you want to assign to the file attached to a mail. You can use up to 10 alphanumeric, - (hyphen) and _ (underscore) for naming.
- **Suffix:** Select a suffix to add to the file name
 - **None:** The name of the sent file will be the Image file name.

- **Date & time:** The date & time suffix is added to the Image file name. The date & time suffix consists of lower two-digits of year (2 digits), month (2 digits), date (2 digits), hour (2 digits), minute (2 digits) and second (2 digits), and consecutive number (2 digits), thus 14-digit number is added to the file name.
- **Sequence number:** A **consecutive** number is added to the Image file name.
- **Sequence number clear:** Click **Clear** and the suffix of the sequence number returns to 1.

➤ Alarm

- **Motion Detection:** Click it on for using **Motion Detection** function as a sensor. You can set motion detection function at the motion detection function screen.

Note:

You can set motion detection at motion detection screen. (Please go “**Setting** → **Advanced** → **Motion Detection** → **Setting**”)

- **Audio Detection:** Click it on for using **Audio Detection** function as a sensor. You can set audio detection function at the audio detection function screen.

Note:

You can set audio detection at audio detection screen. (Please go “**Setting** → **Advanced** → **Audio Detection** → **Setting**”)

- **Network Link Down:** Click it on to receive a snapshot or a video clip while network link down. If **Attached File Type** was clicked as **video clip** (go “**Setting** → **Advanced** → **FTP Client** → **General**”) , you can using **Alarm buffer** function as a sensor. It’s for recording audio file in the IP CAM before and after disconnected network.

Note:

You can set alarm buffer at alarm buffer screen. (Please go “**Setting** → **Advanced** → **Alarm Buffer** → **Setting**”)

➤ **Effective Period:** Set the period when the periodical sending is effective.

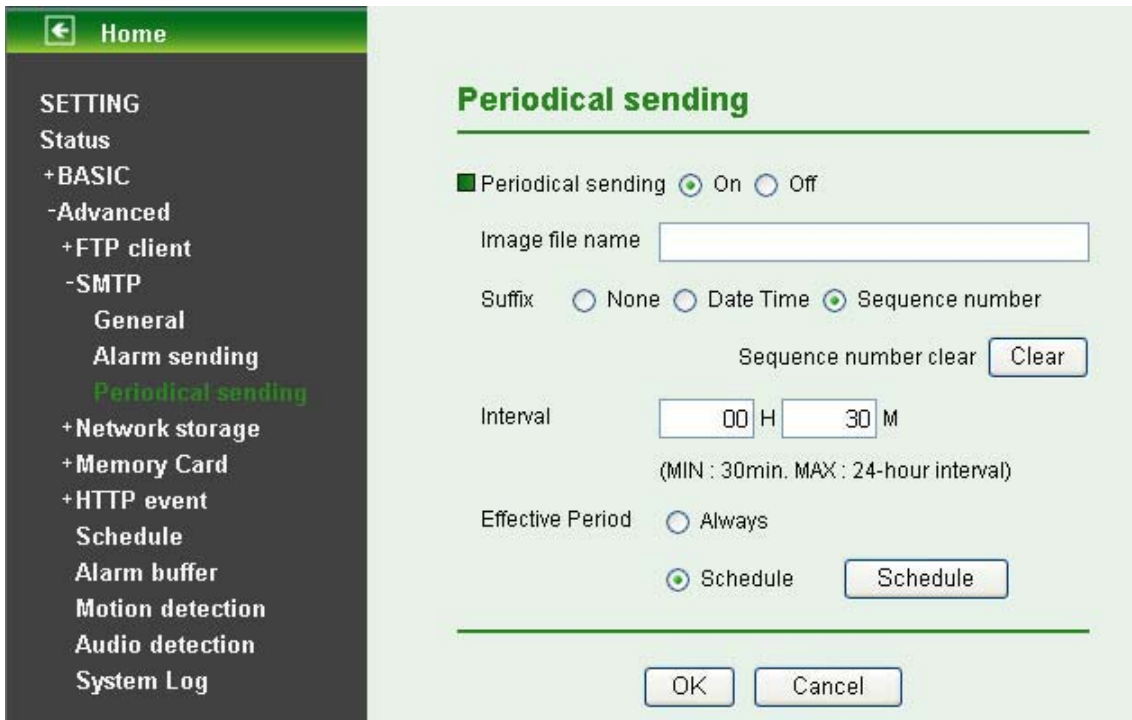
- **Always:** The periodical sending is always effective.
- **Schedule:** You can specify the period when the periodical sending is effective in the Schedule setting in the other section.

Note:

You can set schedule function at schedule screen. (Please go “**Setting** → **Advanced** → **Schedule** → **Setting**”)

7.2.3 Periodical Sending

You can set to send an image file by SMTP server periodically by selecting **On** to send the image file by SMTP server linked with setting period.



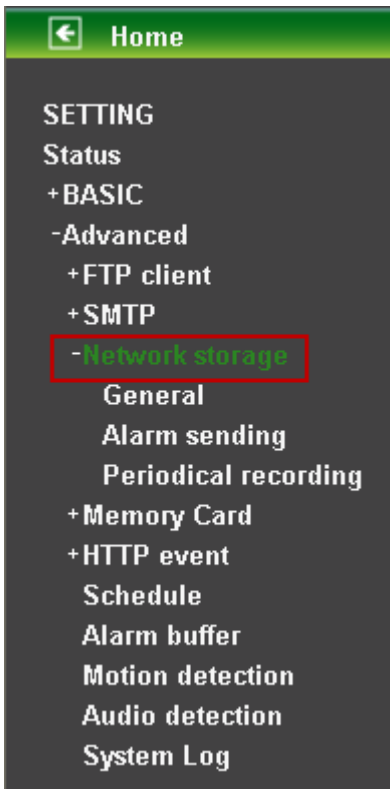
- **Image File Name:** Type the file name of the image sent by SMTP up to 10 alphanumeric characters, - (hyphen) and _ (under score).
- **Suffix:** Select a suffix to be added to the file name sent by SMTP.
 - **Date & time:** The date & time suffix is added to the Image file name. The date & time suffix consists of lower two-digits of year (2 digits), month (2 digits), date (2 digits), hour (2 digits), minute (2 digits) and second (2 digits), and consecutive number (2 digits), thus 14-digit number is added to the file name.
 - **Sequence number:** A consecutive number is added to the Image file name.
 - **Sequence number clear:** Click **Clear** and the suffix of the sequence number returns to 1.
- **Interval:** Set the effective interval of periodical sending. Min value is 1 min and Max value is 24 hour.
- **Effective Period:** Set the period when the periodical sending is effective.
 - **Always:** The periodical sending is always effective.
 - **Schedule:** You can specify the period when the periodical sending is effective in the schedule setting in the other section. **Please check “Setting → Basic → Advanced → Schedule → Setting.”**

 **Note:**

You can set schedule function at schedule screen. (Please go “**Setting → Advanced → Schedule → Setting**”)

7.3 Network Storage

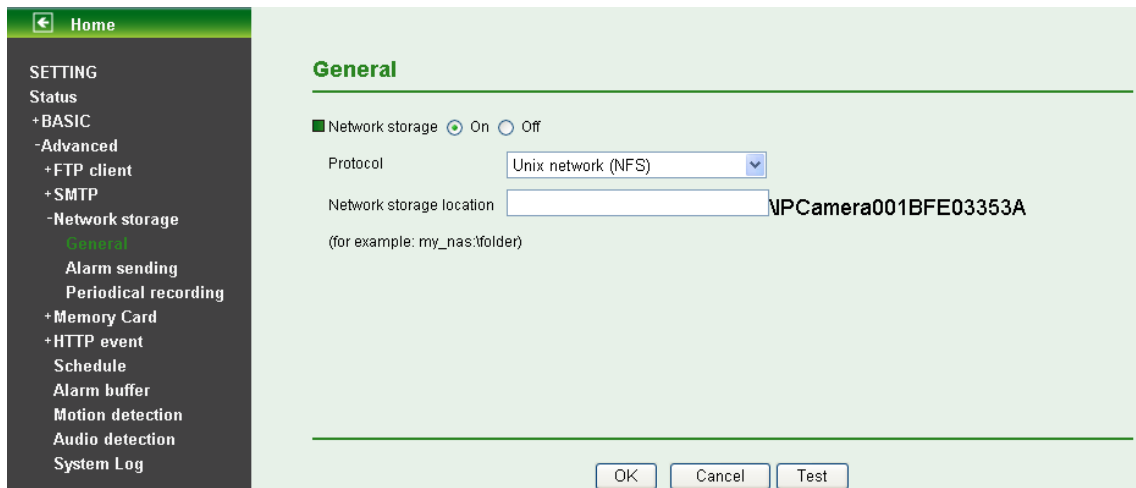
Network storage provides the storage function for saving image files to the specified computer and folder connected with the operating computer.



7.3.1 General

Select On if you would like to use the network storage function. Then choose one protocol between Windows network (SMB/CIFS) and Unix network (NFS).

➤ **Protocol- Unix Network (NFS):**



- **Network storage location:** Type the IP or name of specified computer and folder. For example, //IP/folder name or // my_nas:/folder name.

➤ **Protocol- Windows network (SMB/CIFS):**

The screenshot shows the 'General' settings page for network storage. The 'Network storage' option is checked and set to 'On'. The 'Protocol' is set to 'Windows network (SMB/CIFS)'. The 'Network storage location' is set to '\\PCamera001BFE03353A'. There are empty input fields for 'Workgroup', 'User name', 'Password', and 'Re-type password'. The 'Test' button is visible at the bottom right of the settings area.

- **Network Storage Location:** Type the IP or name of specified computer and folder. For example, \\IP\folder name or \\my_nas\folder name.
- **Workgroup:** Type the name of workgroup which the operating computer belongs.
- **User Name:** Type the name of workgroup. (If none, please leave it blank.)
- **Password:** Type the password for workgroup. (If none, please leave it blank.)
- **Re-type password:** Re-type password for workgroup.

Note:

If the recording video file is assigned to be stored in a low-speed device (ex. low-speed USB storage disk), there might be some problems to complete the storage.

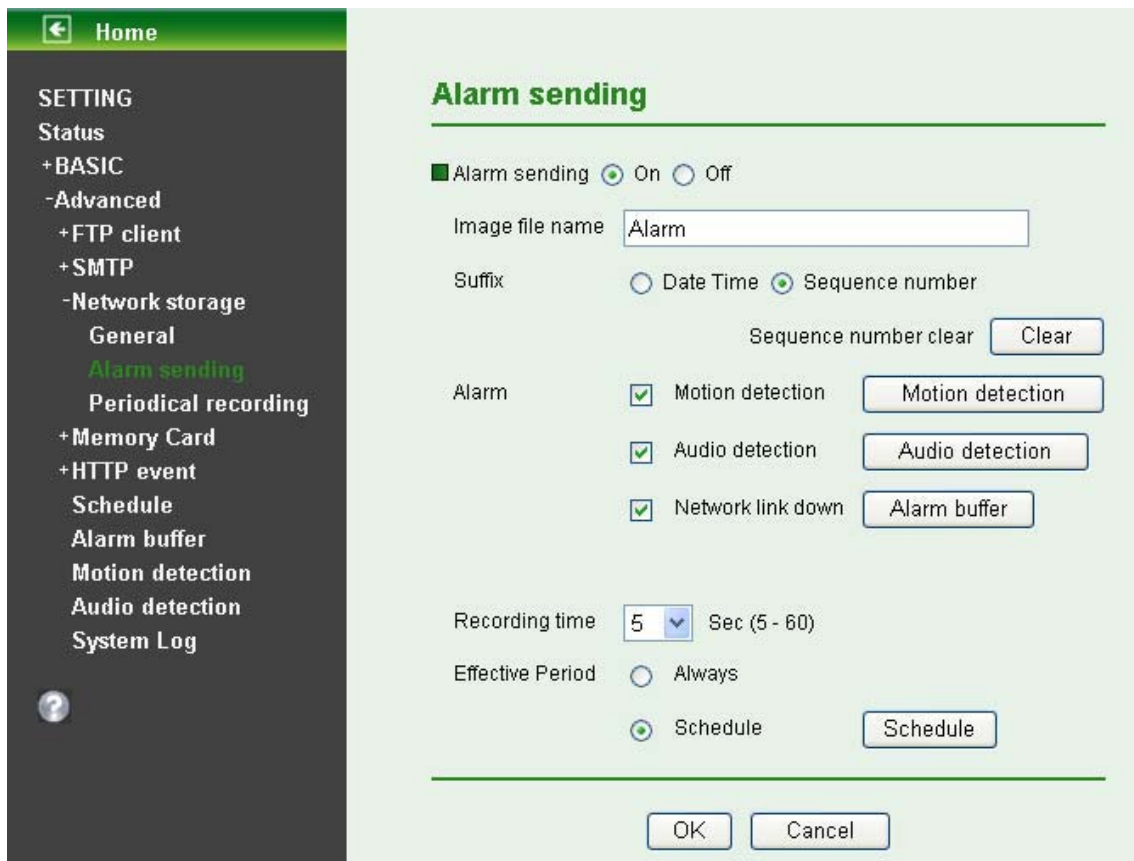
How to set up the network sharing?

In the following description, we take Windows XP for example to explain how to set up the network sharing. The detailed setup is different in various operation systems. If you have any trouble in setting the network sharing, please ask the Technical Support of Microsoft for help.

You can create a simple Samba network sharing drive on your Windows PC by right-clicking a folder, selecting **Sharing and Security...**, and selecting **Share this folder**. Enter a **Share name** you would like to use for the folder, and then check the below box for **Allow network users to change my files**. After completing the corresponding configurations of the Camera, you can click the **Test** button to test your settings.

7.3.2 Alarm Sending

Set to transmit the snapshot or video clip file with connection to the alarm detection by the external sensor input or by the built-in motion detection function. Select On to send the file to network storage location linked with the alarm detection.



- **Alarm Sending:** Select **On** to set to send files with connection to the alarm detection to network storage.
- **Image File Name:** Type the file name you want to assign to the file to attach a mail. You can use up to 10 alphanumeric, - (hyphen) and _ (underscore) for naming.
- **Suffix:** Select a suffix to add to the file name
 - **Date & time:** The date & time suffix is added to the Image file name. The date & time suffix consists of lower two-digits of year (2 digits), month (2 digits), date (2 digits), hour (2 digits), minute (2 digits) and second (2 digits), and consecutive number (2 digits), thus 14-digit number is added to the file name.
 - **Sequence number:** A **consecutive** number is added to the Image file name.
 - **Sequence number clear:** Click **Clear** and the suffix of the sequence number returns to 1.
- **Alarm:**
 - **Motion Detection:** Click it on for using **Motion Detection** function as a sensor. You can set motion detection function at the motion detection function screen.
 - 👉 **Note:**
You can set motion detection at motion detection screen. (Please go “**Setting** → **Advanced** → **Motion Detection** → **Setting**”)
 - **Audio Detection:** Click it on for using **Audio Detection** function as a sensor. You can set audio detection function at the audio detection function screen.
 - 👉 **Note:**
You can set audio detection at audio detection screen. (Please go “**Setting** → **Advanced** → **Audio Detection** → **Setting**”)
 - **Network Link Down:** Click it on to receive a video clip while network link down. It's for recording video file in the IP CAM before and after disconnected network.

 **Note:**

You can set alarm buffer at alarm buffer screen. (Please go “**Setting** → **Advanced** → **Alarm Buffer** → **Setting**”)

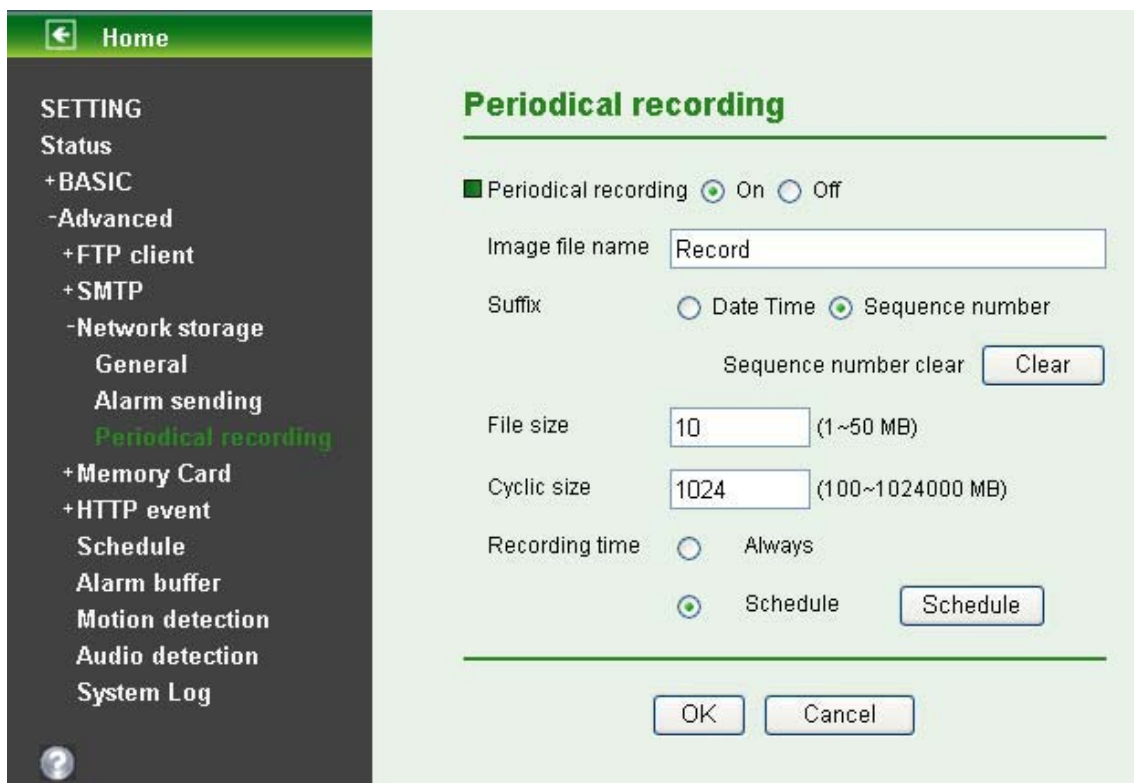
➤ **Effective Period:** Set the period when the periodical sending is effective.

- **Always:** The periodical sending is always effective.
- **Schedule:** You can specify the period when the periodical sending is effective in the Schedule setting in the other section.

 **Note:**

You can set schedule function at schedule screen. (Please go “**Setting** → **Advanced** → **Schedule** → **Setting**”)

7.3.3 Periodical recording



The screenshot shows the 'Periodical recording' configuration screen. On the left is a dark sidebar menu with 'Home' at the top and various settings categories. 'Periodical recording' is highlighted in green. The main content area has a title 'Periodical recording' and a toggle for 'Periodical recording' set to 'On'. Below are input fields for 'Image file name' (containing 'Record'), 'Suffix' (radio buttons for 'Date Time' and 'Sequence number', with 'Sequence number' selected), a 'Sequence number clear' button labeled 'Clear', 'File size' (input '10', range '1~50 MB'), 'Cyclic size' (input '1024', range '100~1024000 MB'), and 'Recording time' (radio buttons for 'Always' and 'Schedule', with 'Schedule' selected). At the bottom are 'OK' and 'Cancel' buttons.

You can set up to transmit image files to the network storage location periodically by selecting **On**.

- **Image file name:** Type the file name you want to assign to the file transmitted to the network storage location. You can use up to 10 alphanumeric, - (hyphen) and _ (underscore) for naming.
- **Suffix:** Select a suffix to add to the file name
 - **Date & Time:** The date & time suffix is added to the Image file name. The date & time suffix consists of lower two-digits of year (2 digits), month (2 digits), date (2 digits), hour (2 digits), minute (2 digits) and second (2 digits), and consecutive number (2 digits), thus 14-digit number is added to the file name.
 - **Sequence number:** A **consecutive** number is added to the Image file name.
 - **Sequence number clear:** Click **Clear** and the suffix of the sequence number returns to 1.
- **File Size:** The file size of image or video clip transmitted to the network storage location can't over 50MB.
- **Cyclic Size:** The total amount of files transmitted to the network storage location has to be in the range from 100 to 1024000MB.

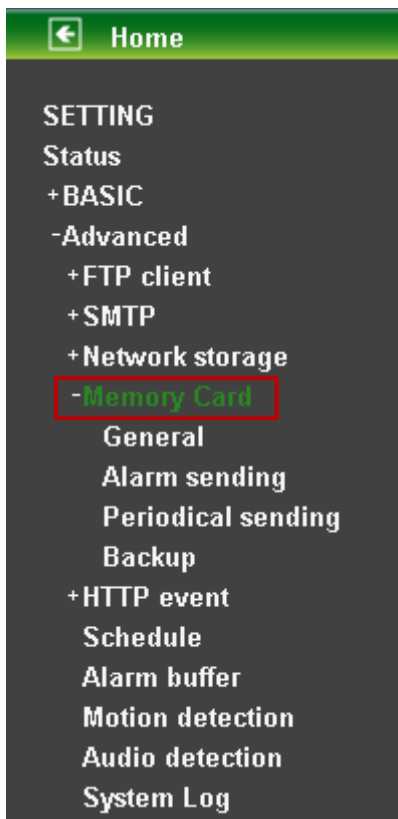
- **Recording Time:** Set the period when the periodical recording is effective.
 - **Always:** The periodical recording is always effective.
 - **Schedule:** You can specify the period when the periodical recording is effective in the Schedule setting in the other section.

 **Note:**

You can set schedule function at schedule screen. (Please go “**Setting** → **Advanced** → **Schedule** → **Setting**”)

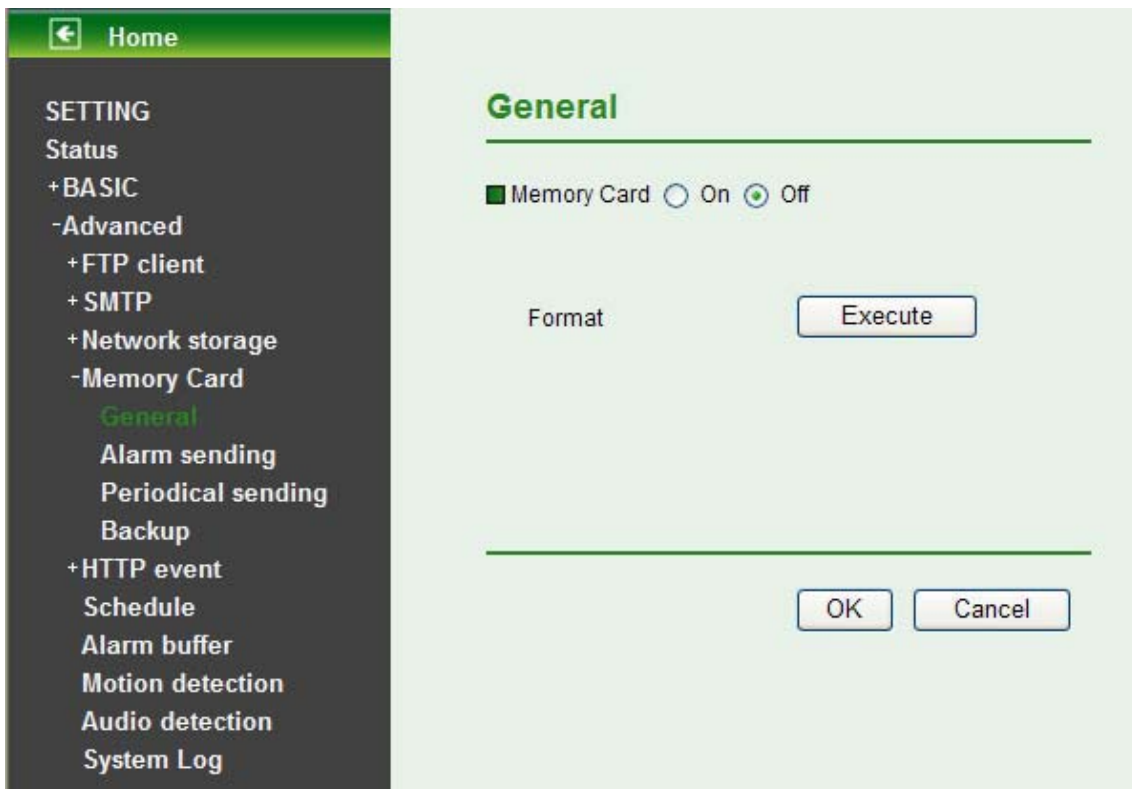
7.4 Memory Card

Memory card provides the storage function for saving image files. Memory Card setting menu is composed of four tabs: **General**, **Alarm Sending**, **Periodical Sending** and **Backup**.

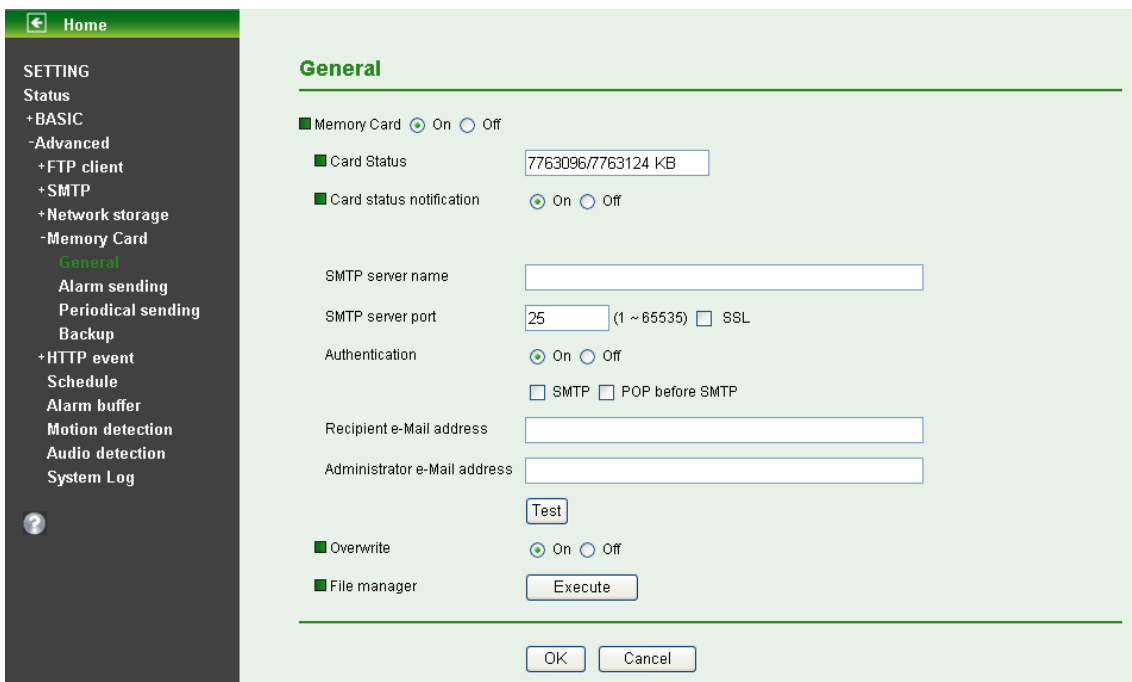


7.4.1 General

Click General, and the corresponding function page will display shown as the following figure. With the memory card slotted in the SD Card Slot, select “**On**” when you want to use the memory card to save images. Then click “**OK**” and the common setting options are displayed below. Select **Off**, if you do not wish to use memory card. You can’t select **On** or **Off** if there is no memory card in the SD Card Slot.



- **Format:** Click **Execute** to clear up the data in memory card.



- **Card Status:** The free space and capacity of memory card.
- **Card status notification:** Select **On** to enable card status notification.
 - **SMTP server name:** Type the SMTP server name using up to 64 characters, or the IP address of the SMTP server.
 - **SMTP server port:** You can set port number from 1~65535 according to your mail server. The default value is 25.
 - **Authentication:** Select the authentication required when you send an email.
 - ✓ **Off:** Select this function if no authentication is necessary for sending e-mail.