

How to Use .....	2
<b>1. Initial accessing the video server .....</b>	<b>3</b>
<b>2. Configuration of Main Console .....</b>	<b>4</b>
2.1 Main menu .....	4
2.2 Camera control panel .....	5
2.3 Adjusting the Monitor Image .....	6
2.4 Operating the camera .....	6
2.5 Controlling the camera via the control panel .....	6
2.6 Moving the camera to a preset position .....	6
2.7 Capturing the monitor image .....	7
2.8 Setting the camera .....	7
2.9 Motion Detection .....	8
2.10 Language .....	8
<b>3. Basic .....</b>	<b>9</b>
3.1 System .....	9
3.2 Camera .....	13
3.3 Network .....	15
3.4 Account .....	18
<b>4. Advance .....</b>	<b>19</b>
4.1Preset Position .....	19
4.2 Patrol .....	21
4.3 FTP Client .....	23
4.4 SMTP .....	26
4.5 Alarm Output .....	29
4.6 Alarm Buffer .....	31
4.7 Motion Detection .....	33

# How to Use

This chapter introduces how to monitor the image from the camera using Microsoft web browser. The Zavio video server can be used with Microsoft web browsers and Intelligent IP Installer in Windows operation systems. This document focuses on introducing you to Microsoft web browser. The recommended browser for Windows is Internet Explorer 6.0. If you want to know how to use Zavio video server with Intelligent IP Installer, check how to use Zavio server with Intelligent IP Installer in Windows operation systems.

The functions of the camera should be set by the Administrator. For further instructions on setting the camera, see “Setting the Camera” on page 13.

# 1. Initial accessing the video server

1. Start your web browser, and enter the IP address or host name of the ZAVIO video server in the Location / Address field of your browser. Default IP address is 192.168.1.100.



2. Use the default account "admin" and default password "admin".

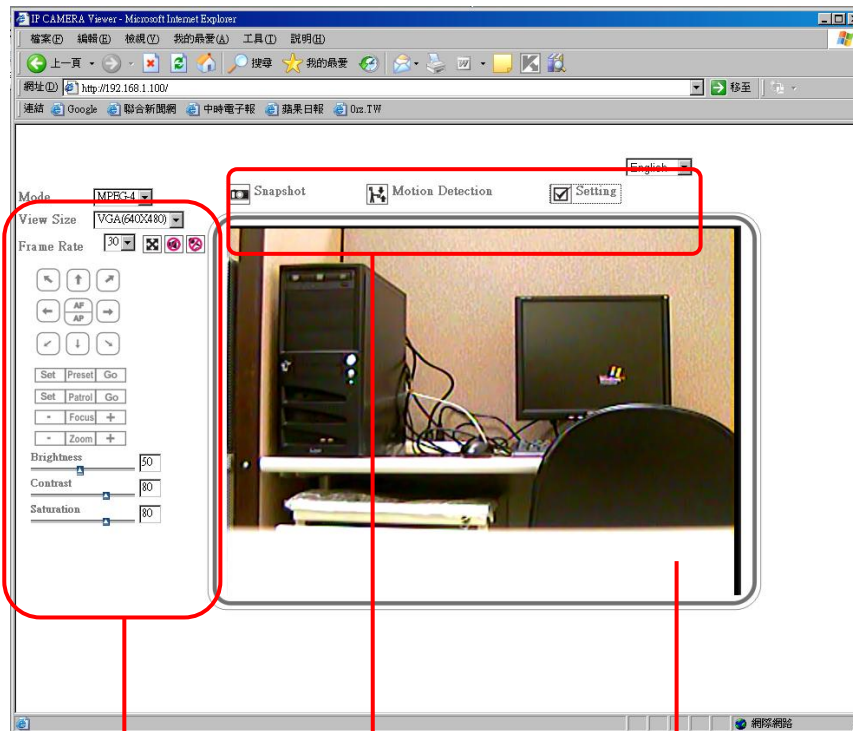
**Note :**

- The default user name "admin" and the password are set at the factory for the administrator. You can change them in the **Account** Menu under **Setting** on page 18.



3. The monitor image will be displayed in your browser.

## 2. Configuration of Main Console



Camera control panel

Main menu

Monitor image Section

### 2.1 Main menu



#### Snapshot

Click this button to capture a live image shot by the camera and store the picture in your computer (See page 7).



#### Motion Detection



Activate the motion detection mode (See page33).



#### Setting

This function is only for the Administrator. Click this button to get into the **Basic** and **Advance settings** menu. (See page 9 and page 19)

## 2.2 Camera control panel

1. Click the pulldown box **Mode**  to choose between MPEG4 and MJPEG video compression mode.
2. Click **View Size** to select the desired display image resolution among VGA 640X480, VGA320X240, and VGA 160X120.
3. Click the frame rate pulldown box **Frame Rate**  to change the Frame Rate.

### Note :

- The number means the frame number transmitted per 1 second. If you choose **30 fps**, the image is sent at the maximum speed. (30 fps is maximum).

### 1. Audio buttons :



 : Speakers turned on.

 : Speakers turned off.

 : Microphone turned on.

 : Microphone turned off.

### Note :

-  It means the speakers of your computer are turned on to transmit the sounds from the connected IP camera(s). Similarly,  means you can broadcast to the connected IP camera(s) via the Ethernet using your microphone.



### 2. Pan / Tilt control buttons :

Click the arrow button of the direction you want the IP camera to move.

### 3. Other camera control functions :



Move the camera toward the preset direction. (See page 19)



Before you start this function, you need to specify **Guard tour settings** in the **Setting Menu** under **Advance / Patrol** setting.



Adjust camera focus.



Adjust camera zoom.



You can use the tool bar to optimize video brightness, contrast, and saturation. You can also modify the **Picture** settings in the **Setting Menu** under **Basic Setting**.

## 2.3 Adjusting the Monitor Image

### Monitoring the camera image

1. Log into the homepage to display the main console.
2. Select between **MPEG4** and **MJPEG** video compression mode.
3. Click the **View Size** box to choose among VGA 640X480, VGA320X240 or VGA 160X120 resolution.
4. When the video compression mode is set to **MJPEG**, click the **Frame rate** button to choose the frame rate to transmit images. You can choose **5, 10, 15, 20, 25** and **30 fps**. The number stands for the number of frames transmitted per second. The maximum image transmission speed is **30 fps**.

## 2.4 Operating the camera

You can control the camera direction, Zoom, Focus, or let the camera automatically monitor according to your settings.

### Note :

- This function is only for P / T / Z camera series.

## 2.5 Controlling the camera via the control panel

### Pan / Tilt control

Click the arrow button of the direction in which you want to move the camera. Keep the button pressed to move the camera continuously.

Click  to move the camera back to the default position.

### Zoom control

Press "+" to zoom in, and "-" to zoom out. Keep the button pressed to continue zooming.



## 2.6 Moving the camera to a preset position

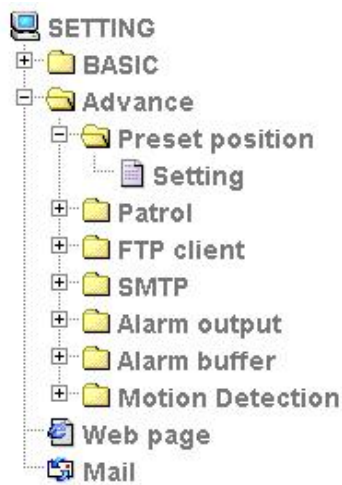
Select a Preset position to move the camera from the Main console or use the advanced preset function from "Preset Position Setting" (See page 19).

### Setting from Main Console

1. Login to the Main console.
2. Press  on the **Preset** section   , and a setting dialog will appear.
3. Click "**Preset 1**" to set the direction, and save.
4. Follow the same step to set the other default preset positions.
5. Click "**OK**" to finish.
6. Press  on the **Preset** section    to make the camera run automatically.

### Setting from the "Setting" menu

1. Click "**Setting**"  in Main console and a **Setting** dialog will appear.
2. Select "Advanced" → "Preset position" → "Setting".



## 2.7 Capturing the monitor image

You can capture a still image shot by the camera and save it in your computer.

1. Press  , and a snapshot window will appear.
2. Click the right button of your mouse and save the picture in your computer.
3. Select **JPEG** or **Bit map** under **Save as type**.
4. Specify **File name**, choose **Save in location**, and click **Save**.
5. Click "**Close**" to return to the **Main console**.

## 2.8 Setting the camera

Press  for setting the camera. Only the administrator has access to the Settings. This section, including Basic (basic operations page 9) and Advance settings (page 19), explains each option and how to use it. For camera control, please see "How to use".

## **How to use Basic setting**

Basic setting options includes System (See page 9), Camera (See page 13), Network (See page 15), and Account (See page 18).

## **How to use Advance setting**

Advance setting options includes Preset position (See page 19), Patrol (See page 21), FTP Client (See page 23), SMTP (See page 26), Alarm output (See page 29), Alarm buffer (See page 31), Motion Detection (See page 33).

## **2.9 Motion Detection**

When you click **Motion Detection** on mail panel menu, the Motion Detection setting menu appears. There are three Motion Detection functions as sensors to set for different detecting zones. Each one has Threshold and Sensitivity inputs which you can adjust to specific zone sequentially. Motion Detection function can support to FTP, SMTP and Alarm output for capturing and sending images or starting alarm output. (Motion Detection setting information see page 33)

## **2.10 Language**

You can click the pulldown box to select system language, including English, Chinese Traditional and Chinese Simplified.

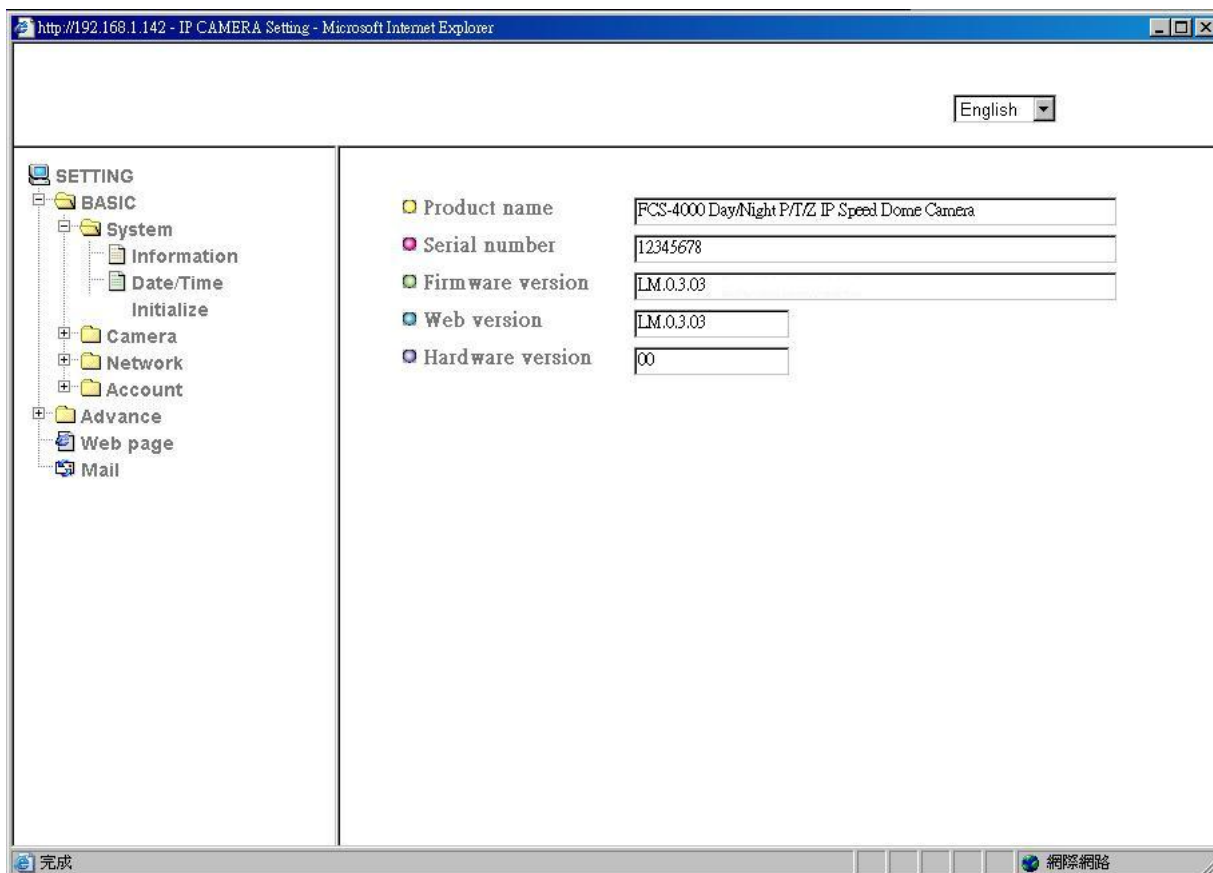
## 3. Basic

Click the “Basic” folder to display the sub folders, including System (See page 9), Camera (See page 13), Network (See page 15), and Account (See page 18).

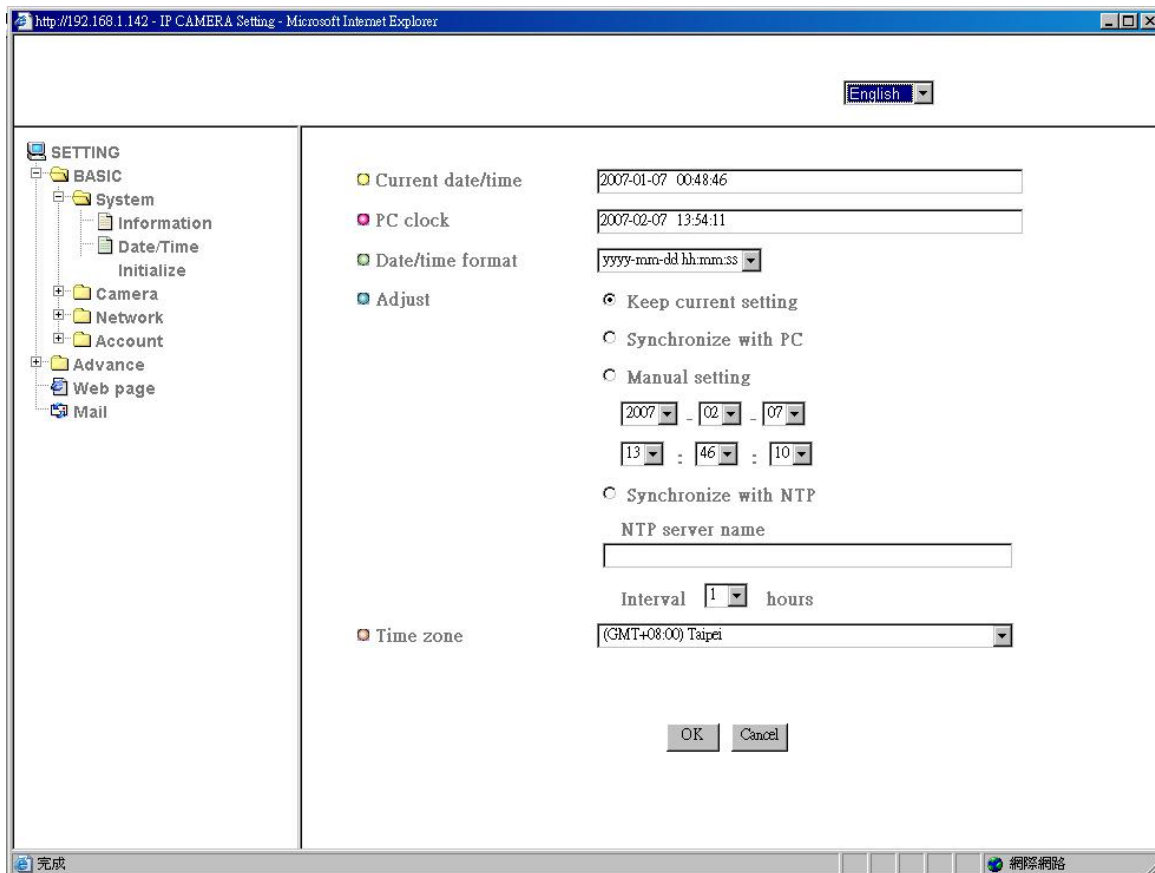
### 3.1 System

#### 3.1.1 Information

The Information page provides you with product factory information, including product name, serial number, firmware version, Web version and hardware version.



### 3.1.2 Day & Time



**Current date & time** : This displays the current date and time of the camera.

**PC clock** : This displays the date and time of the monitoring PC clock.

**Date & time format** : Click the pulldown box to select among different time display formats, including yyyy-mm-dd hh:mm:ss (year-month-day hour:minute:second), mm-dd-yyyy hh:mm:ss (month-day-year hour:minute:second), and dd-mm-yyyy hh:mm:ss (day-month-year hour:minute:second).

**Adjust** : Select one of four time adjusting modes.

**Keep current setting** : Select this mode to keep the current date and time of the camera.

**Synchronize with PC** : Select this mode to make the date and time of the camera the same as the monitoring PC.

**Manual setting** : Select this mode to manually adjust the date & time of the camera.

**Synchronize with NTP** : Specify the **NTP server name** and the Refresh **Interval** to synchronize the date and time of the camera with those of the time server, known as the NTP (Network Time Protocol) server.

**Note:**

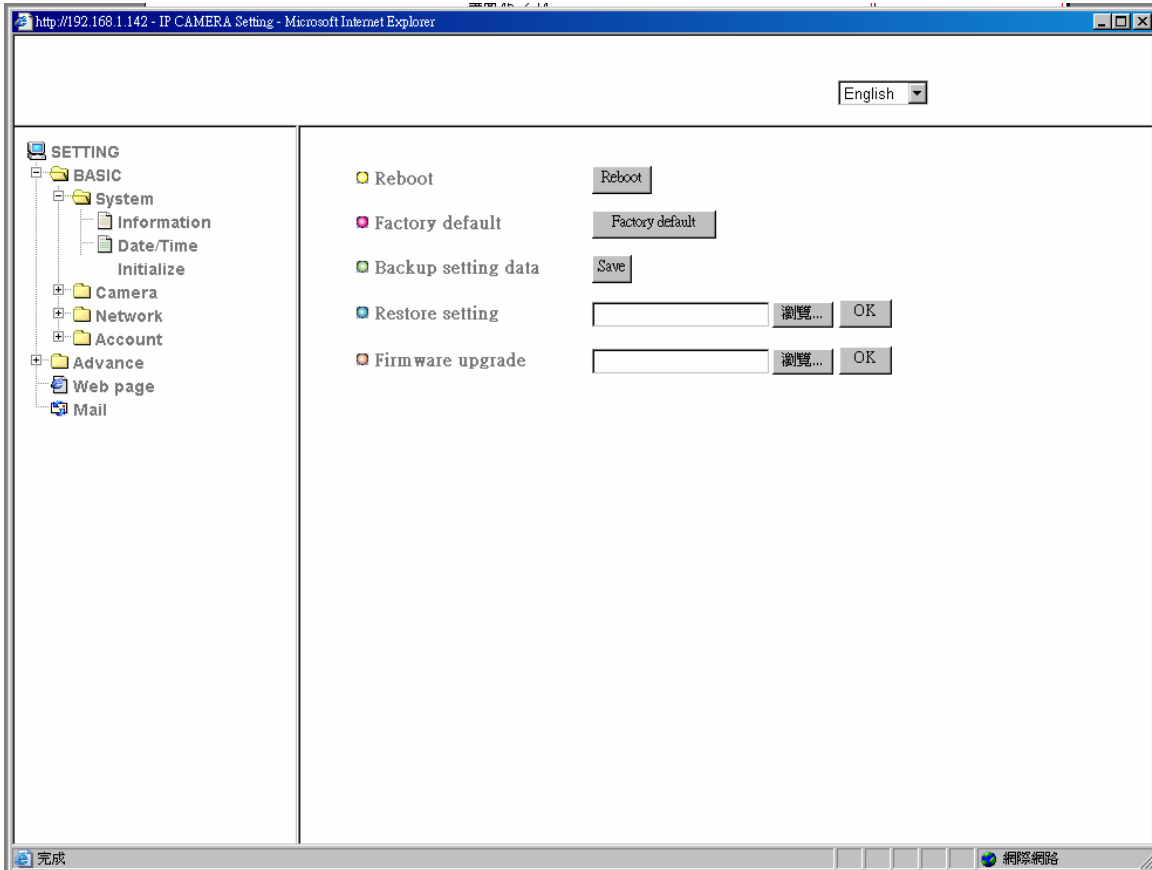
- The NTP server (Network Time Protocol) is the time server which is an Internet standard protocol (built on top of TCP/IP) that assures accurate synchronization to the millisecond of

computer clock times in a network of computers.

**NTP server name** : Type the host name or IP address of the NTP server, up to 64 characters.

**Time zone** : Select the time zone and time difference from Greenwich Mean Time in the area where the camera is installed from the pulldown box.

### 3.1.3 Initialize



**Reboot** : Click this button to reboot the camera. A confirmation dialogue will appear. Click **OK** to proceed. It takes about two minutes to reboot the camera.

**Factory default** : Click this button to reset the camera to the factory default settings. A confirmation dialogue will appear. Click **OK** to proceed, the network indicator on the camera will start to blink. After completing adjustments to the default settings, the camera will reboot automatically. Do not turn off the camera until the camera reboots.


**Backup setting data** : Save the setting data of the camera to a file. Click **Save**, and follow the instructions on the browser to save the setting data file to your specified location.

**Restore setting** : Load the saved setting data of the camera. Click **Browse** and select the file in which the setting data is stored. Click **OK**, and the camera is adjusted according to the loaded data and restarted.

**Firmware update** : Upgrade the camera software. Click **Browse** and select the file for upgrading. A confirmation dialogue will appear. Click **OK** to start upgrading. The camera will

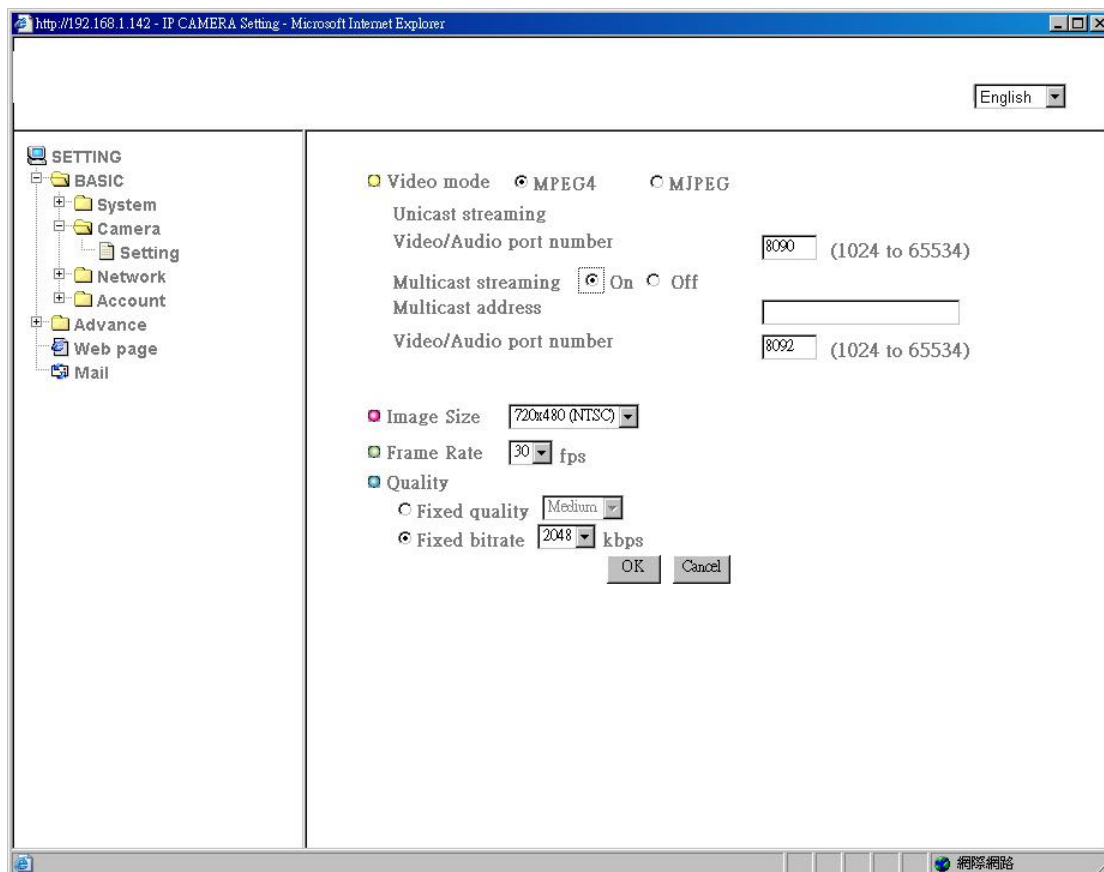
reboot upon completion.

**Note:**

- Use only upgrade files that are special for this camera. Problems may occur otherwise.
  - Do not turn off the camera power or disconnect the network until the upgrading is completed.
- 

## 3.2 Camera

### 3.2.1 Setting



**Video Mode** : Choose between the **MPEG-4** or **MJPEG** video compression format.

#### **MPEG-4 mode**

**Unicast streaming Video/Audio port number** : Specify the transmission port number of the video data. It is initially set to 50000. Specify an even number from 1024 to 65534.

#### **Note** :

- **Unicast streaming** : Specify the transmission port number of the video data and audio data used when **UDP (Unicast)** is selected with the TCP/UDP transmission switching icon in the main viewer, when the Video mode is set to **MPEG4**.
- **Multicast streaming** : Specifies whether the camera uses Multicast streaming or not. It reduces sending load on the camera by making the computer of the same network segment (within the same router) receive the same transmitting data. Select **On** to allow multicast sending and **Off** otherwise.
- When you select **On**, set **Multicast address**, **Multicast video port number** and **Multicast audio port number** properly.

**Multicast address** : Enter the multicast address used on the Multicast streaming.

**Multicast video port number** : Specify the video transmission port number used on the Multicast streaming.

**Image Size** : Specify the image size the network camera transmits. You can choose among **720 × 480 (NTSC)**, **352 × 240(NTSC)**, **384 × 120(NTSC)**, **720 × 576 (PAL)**, **352 × 288(PAL)** and **176 × 114 (PAL)**.

**Frame rate** : Set the frame rate of the MPEG-4 image. Selectable values are 5, 10, 15, 20, 25, 30 fps. The unit “fps” stands for “frames sent per second”.

#### **Quality**

**Fixed quality** : Set the quality of the MPEG-4 image, selectable values are Medium, Standard, Good, Detailed and Excellent.

**Fixed Bitrate** : Set the bit rate of MPEG-4 image transmission for a line. Selectable values are 64, 128, 256, 384, 512, 768, 1024, 1536 and 2048 kbps.

#### **Note :**

- The selected frame rate and bit rate are a tentative value. The actual frame rate and bit rate may be different according to the image size, the shooting scene or the network condition.

#### **MJPEG mode**

**Image Size** : Specify the image size the network camera transmits. You can choose among **720 × 480 (NTSC)**, **352 × 240(NTSC)**, **384 × 120(NTSC)**, **720 × 576 (PAL)**, **352 × 288(PAL)** and **176 × 114 (PAL)**.

**Frame rate** : Set the frame rate of the MPEG-4 image. Selectable values are 5, 10, 15, 20, 25, 30 fps. The unit “fps” stands for “frames sent per second”.

#### **Quality**

**Fixed quality** : Set the quality of the MPEG-4 image, selectable values are Medium, Standard, Good, Detailed and Excellent.

## 3.3 Network

### 3.3.1 Information

English

SETTING

- BASIC
  - System
  - Camera
  - Network
    - Information
      - PPPoE
      - DDNS
    - Account
  - Advance
  - Web page
  - Mail

MAC address

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

HTTP port number  80   (1024 to 65535)

OK Cancel

**MAC address** : Display the MAC address of the camera.

**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.

**Note :**

- When you set **Obtain an IP address automatically (DHCP)**, make sure that the DHCP server is working on the network.

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

**IP address** : Enter the IP address of the camera.

**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.

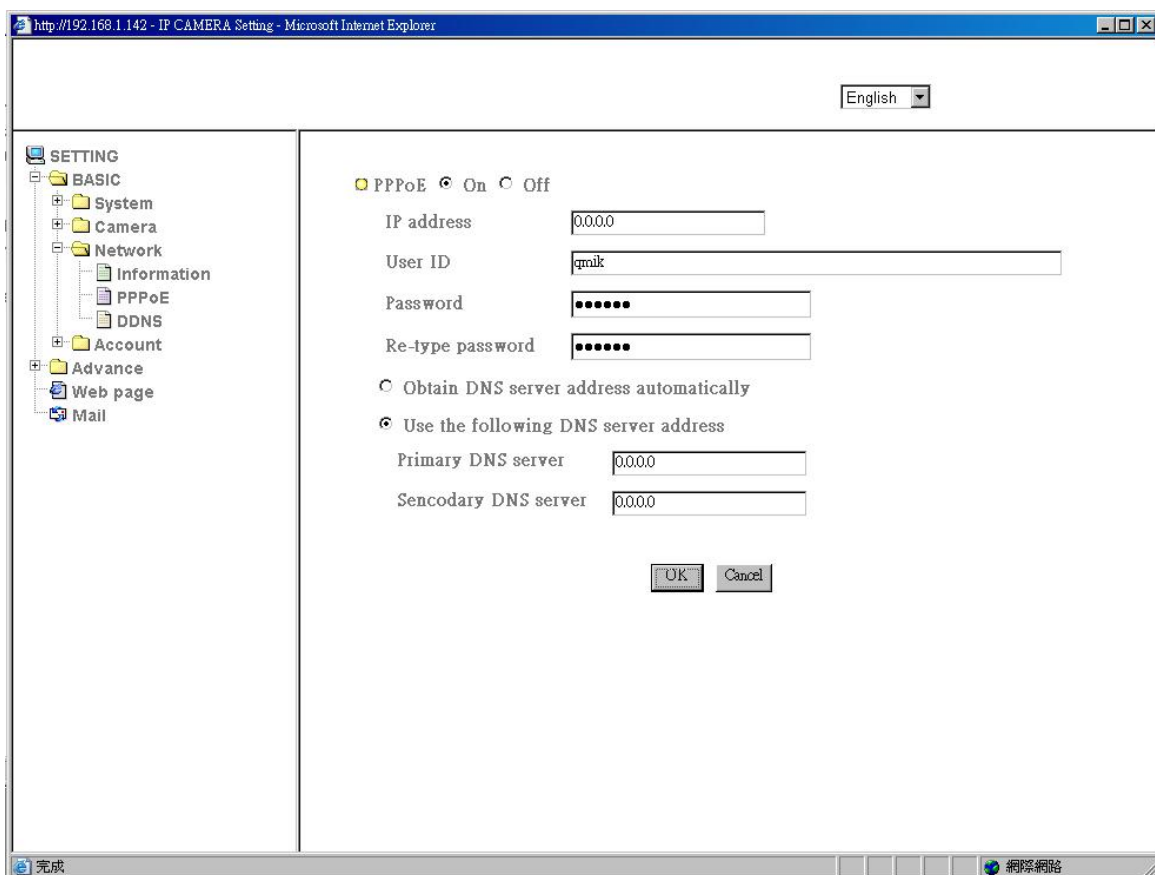
**Note :**

- When you have set the HTTP port number to a number other than 80 on the Network setting page or in the Setup Program, access the camera by typing the IP address of the camera on the web browser as follows:

Example: when HTTP port number is set to 2000 → http://192.168.0.100:2000/

### 3.3.2 PPPoE

Use this when you connect the camera through PPPoE (Point -to- Point Protocol over Ethernet). PPPoE connection is the protocol that is widely used in xDSL (digital affiliate line such as ADSL, VDSL or SDSL) as the authentication and connection system.



**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.

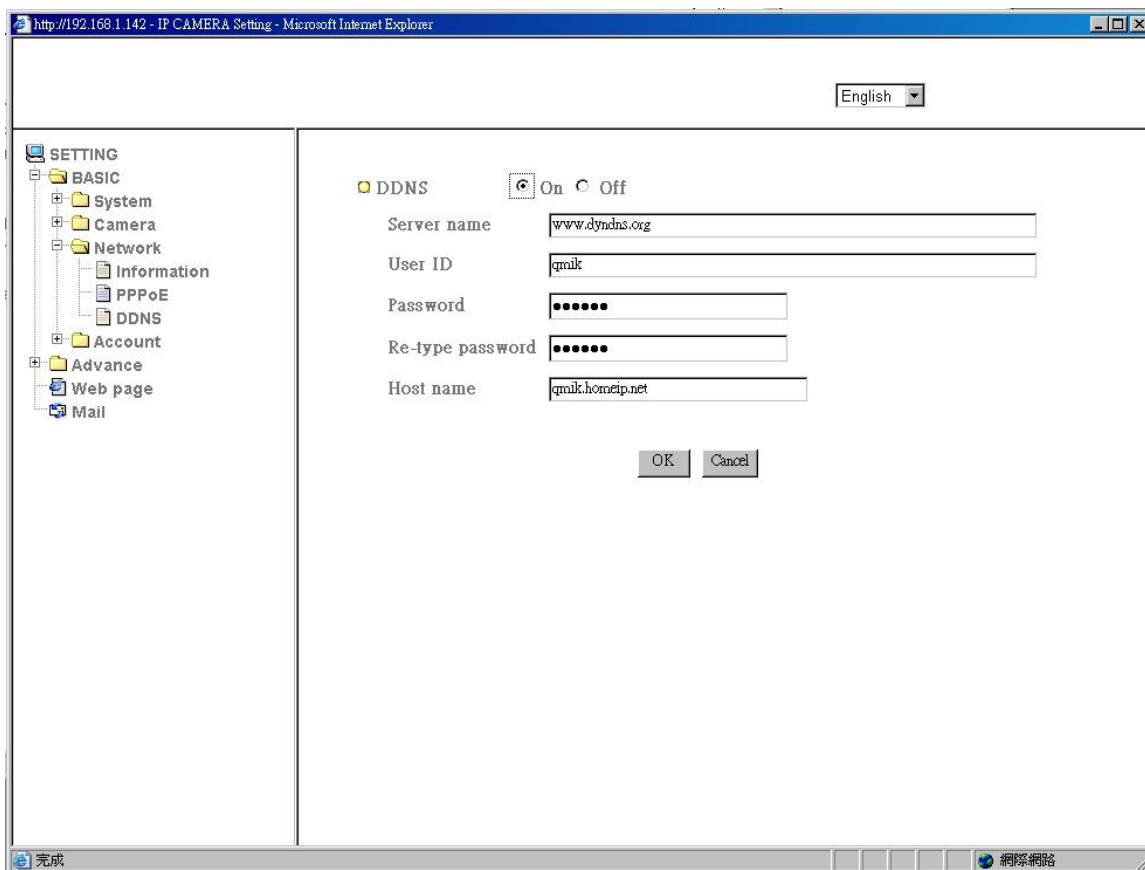
**Obtain DNS server address automatically** : Select this to obtain the address of DNS server automatically.

**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.

### 3.3.3 DDNS



**Server name :** Enter the name of the DDNS Server

**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 :**

- When you want to use DDNS function, you need to register an account in DDNS server first.

## 3.4 Account

The Network Camera default account and password setting is “admin/admin”. That means everyone might access the Network Camera including the configuration as long as the IP address is known. It is necessary to assign a password if the Network Camera is intended to be accessed by others. Use this menu to set the user names and passwords of Administrator and up to 9 different users (User 1 to User 9), and the access right of each user.

### 3.4.1 Setting

User ID	User name	Password	Re-type Password	Viewer mode
Administrator	admin	.....	.....	Admin
User 1				Admin
User 2				Admin
User 3				Admin
User 4				Admin
User 5				Admin
User 6				Admin
User 7				Admin
User 8				Admin
User 9				Admin

**Viewer authentication** : Set whether the user is authenticated or not when the main viewer is displayed. When you select **On**, the main viewer is displayed to suit the authenticated user. When you select **Off**, select the view mode of the main viewer page which is displayed without authentication from among **Admin**, **Operator** or **Viewer**.

**User name** : Set a user name between 5 and 16 characters.

**Password** : Set a password between 5 and 16 characters.

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

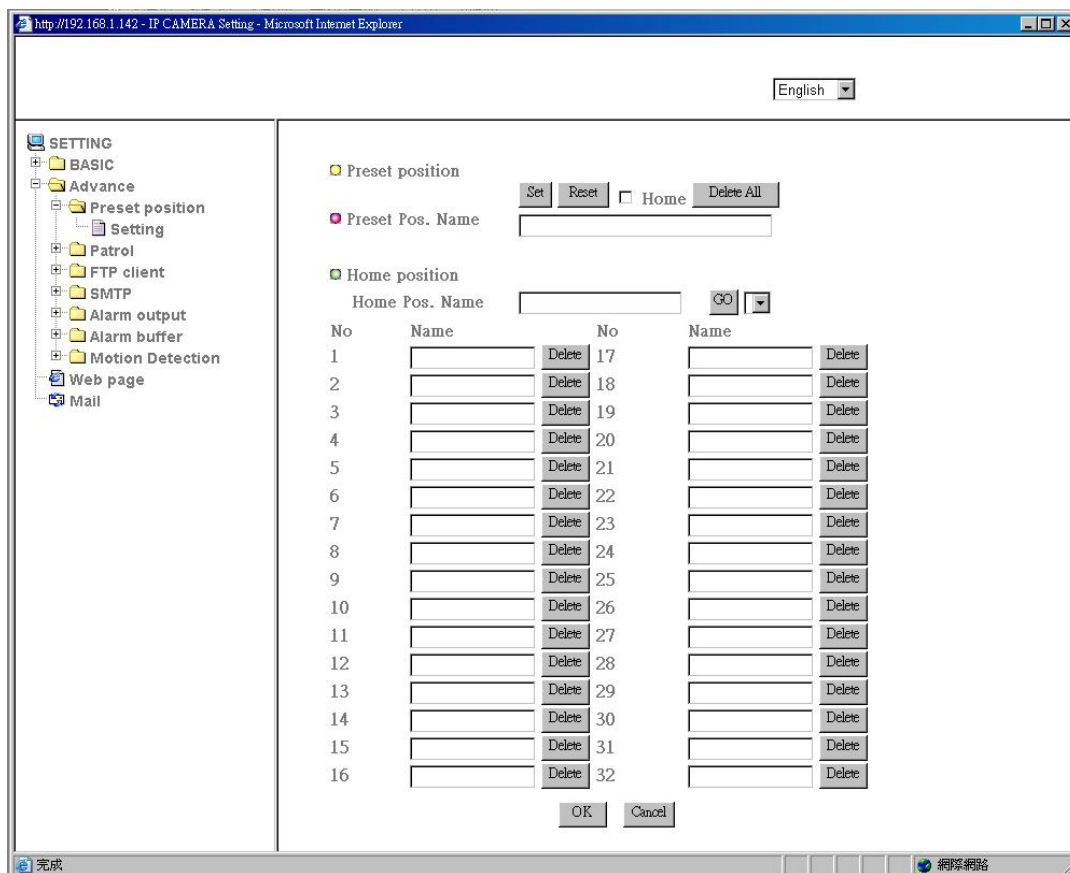
**Viewer Mode** : Set a user to **Admin**, **Operator** or **Viewer** mode.

## 4. Advance

Click the “Advance” folder to display the sub folders, including Preset position (See page 19), Patrol (See page 21), FTP Client (See page 23), SMPT (See page 26), Alarm output (See page 29), Alarm buffer (See page 31), Motion Detection (See page 33).

### 4.1 Preset Position

In this section, up to 32 Pan / Tilt and Zoom positions can be saved, as well as the home position, which the camera faces to when the power is turned on.



#### 4.1.1 Setting

**Set** : Use it to save the camera position to a preset number.

Carry out the following steps.

1. Move the camera to the position to be saved while you are checking the image with the main console.
2. Write the preset position name in Preset Pos. Name text box.
3. Click the **SET**. The camera position is saved.
4. If want to set this position as home position, click Home option on. Click the **SET**. The camera position is saved as home position.

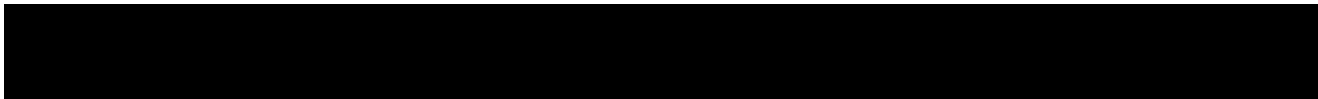
**Note :**

- Setting the new Home position will replace previous Home position.

**Reset :** When writing the preset position name in Preset Pos. Name text box, press **Reset** to clean filed words.

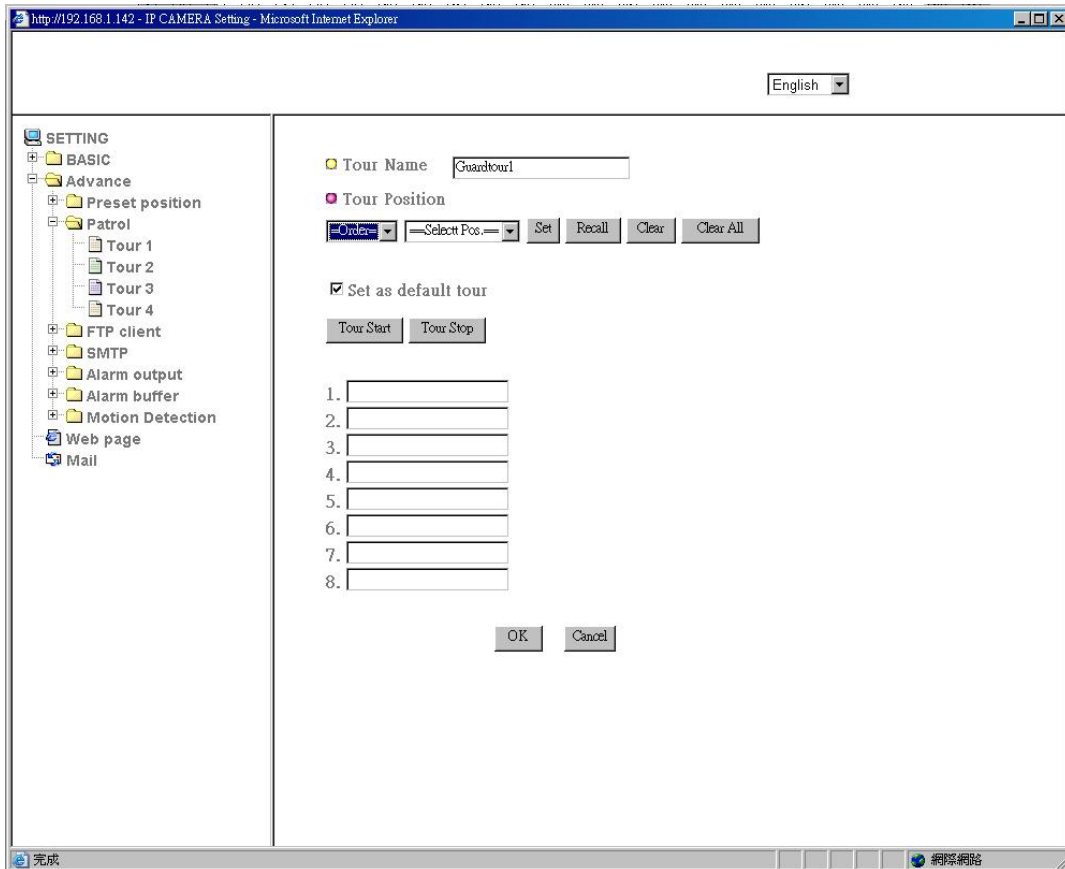
**Delete All :** Be careful! When pressing **Delete All**, all Preset Position information will be deleted.

**Delete :** Select a preset number from 1 to 32 in the list box. Use it to delete specific number preset position setting.



## 4.2 Patrol

There are four patrol tours to set for composing different preset positions. Each one lists up to 8 positions which can be programmed, and the camera moves to the programmed positions sequentially. The camera stops when it moves to the last preset position.



### 4.2.1 Setting

**Tour name** : Rename the tour name.

#### Tour position

**Order** : There are 8 orders to select for camera directions.

**Select Pos.** : There are up to 32 preset positions to choose for each order.

**Recall** : When you click **Recall**, the camera moves to position of the selected preset number.

**Clear** : When setting specific preset number position to tour, click **Clear** to clear this direction information.

**Clear All** : Be careful! When you click **Clear All**, it will clear this tour all information out.

**Set** : Use it to save the camera position to a preset number.

**Set as default tour** : Click it on to set this tour as default.

**Tour Start** : To click **Tour Start**, and the camera moves on patrol tour.

**Tour Stop** : While the camera moves on patrol tour, click **Tour Stop** to stop the patrol tour.

Carry out the following steps :

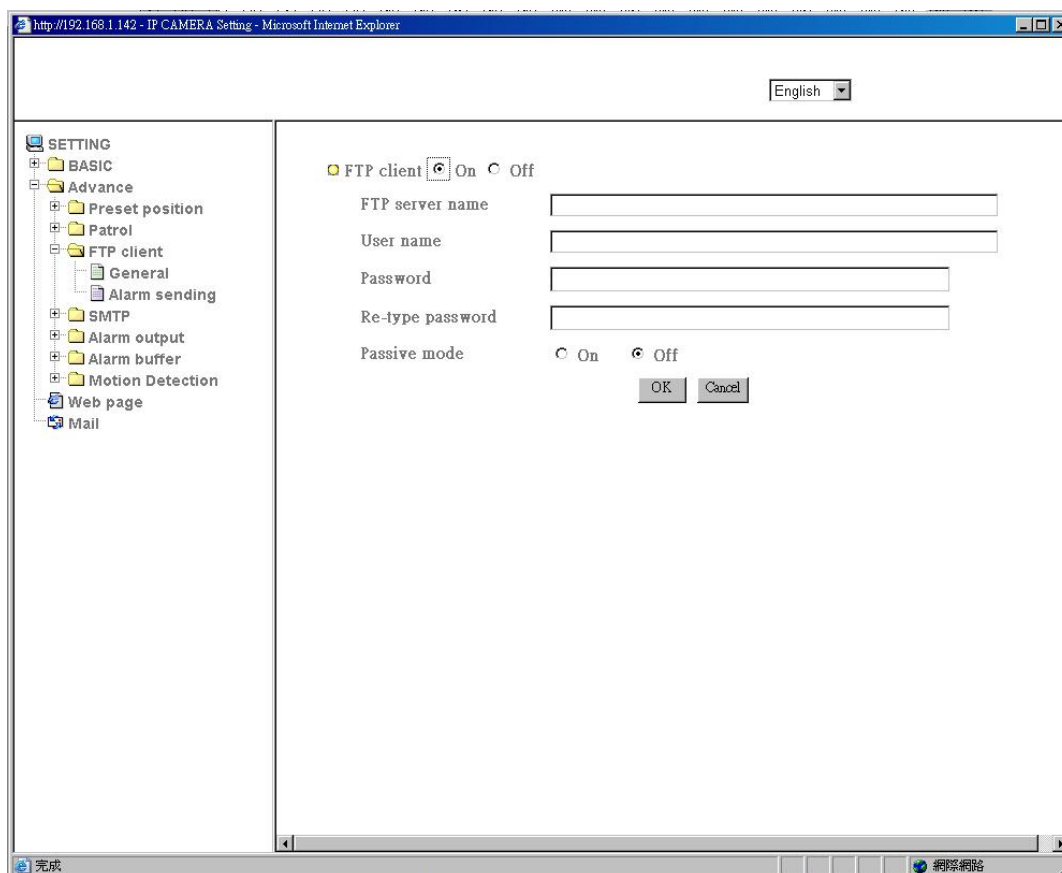
1. Click "**Order**" to choose one of eight orders.
2. Click **Select Pos.** to set the preset position.
3. Click the **SET**. The tour position is saved.
4. Follow the steps to set the other orders.
5. Click the **OK** to save the tour.



## 4.3 FTP Client

Use this menu to set up for capturing and sending images to an FTP server. By using FTP client function, you can send the image and audio file 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 two tabs, **Setting** and **Alarm sending**.

### 4.3.1 Setting



**FTP client function** : To activate the FTP client function, select **On**. The FTP client setting page appears. When you do not wish to use the FTP client function, select **Off**.

**Note :**

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

**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.

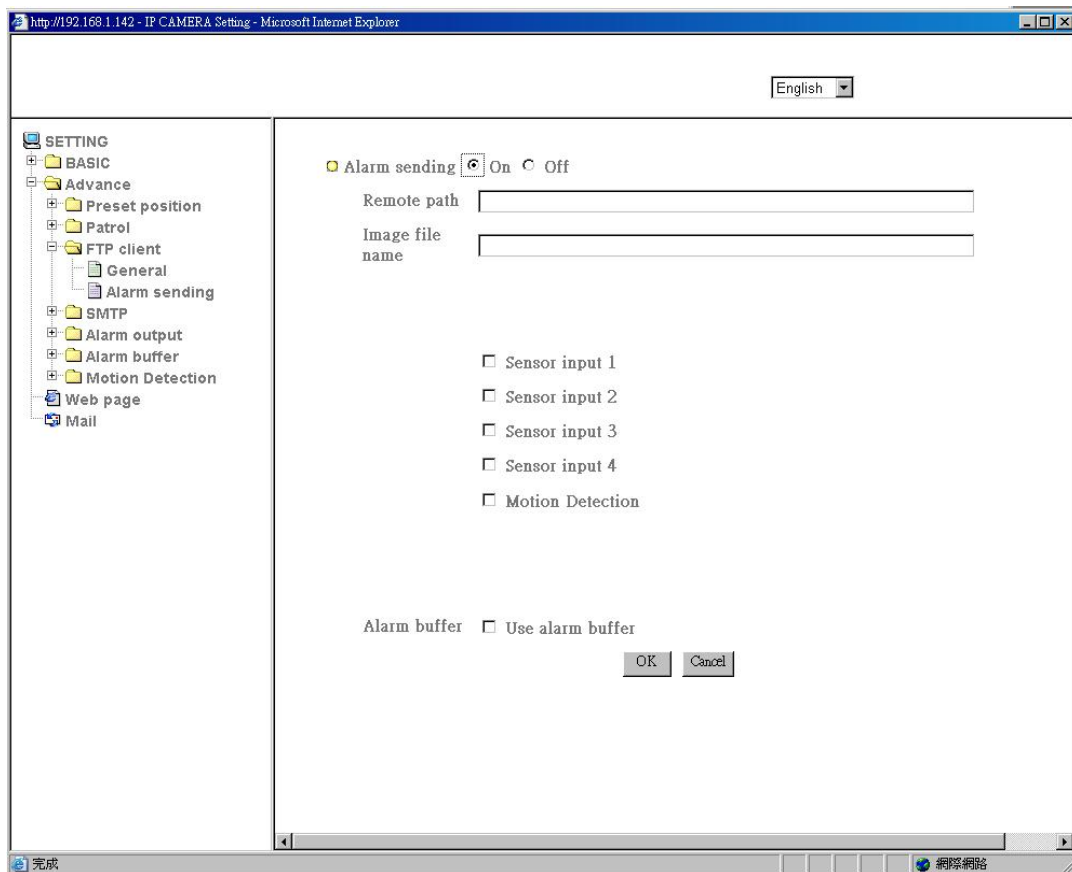
**Password** : Type the password for the FTP server.

**Retype password** : To confirm the password, type the same characters as you typed in the Password box.

**Passive mode** : 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.

### 4.3.2 Alarm sending

Set to forward the image and audio 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 image and audio 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 images when sending to the FTP server. You can use up to 10 alphanumeric characters, - (hyphen) and \_ (underscore) for naming.

**Sensor input 1** : Click it on for using external sensor which is connected to sensor input1 of the camera I/O port.

**Sensor input 2** : Click it on for using external sensor which is connected to sensor input2 of the camera I/O port.

**Sensor input 3** : Click it on for using external sensor which is connected to sensor input3 of the camera I/O port.

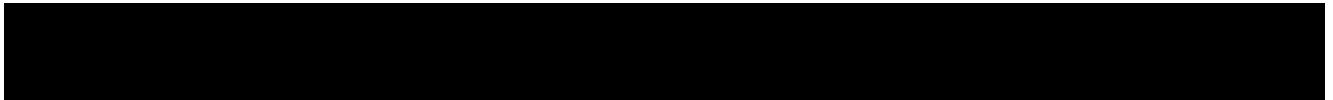
**Sensor input 4** : Click it on for using external sensor which is connected to sensor input4 of the camera I/O port.

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

**Note :**

- **Motion Detection** works only when the Video mode is set to **MPEG-4** and the **Cropping** is set to **Off**.

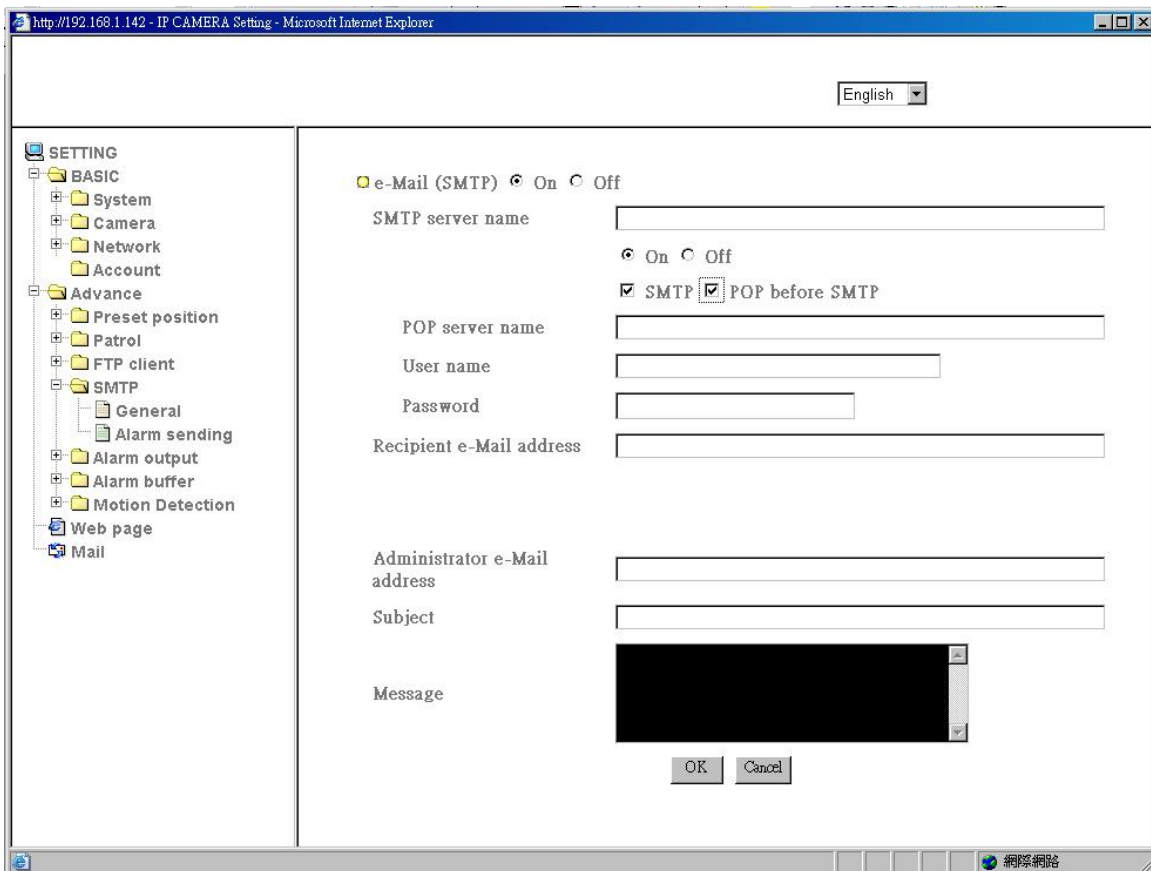
**Alarm buffer**: Select **Use alarm buffer** when you forward the image/ audio of before and after the alarm detection (pre-alarm, post-alarm). If you do not select it, only the image of the moment of the alarm detection is forwarded. Click **Alarm buffer** to display the Alarm buffer setting menu. For details, see “Setting the Alarm Buffer — Alarm buffer setting Menu on page.



## 4.4 SMTP

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

### 4.4.1 Setting



Select **On** when you use the SMTP function. The common setting options are displayed below. If you do not wish to use the e-Mail (SMTP) function, select **Off** and click **OK**.

#### Note :

- During transmission of an image file via mail, the frame rate and operation performance of the monitor image of the main viewer decline.
- While the camera video mode is set to **MPEG-4**, the image of the composite video signal output from the video output connector of the camera may be distorted during mail transmission.
- You cannot send an audio file by using the mail sending function.

**SMTP server name** : Type the SMTP server name up to 64 characters, or the IP address of

the SMTP server.

**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 when an e-mail is sent.

**POP before SMTP**: Select if POP before SMTP authentication is necessary when an e-mail is sent.

**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.

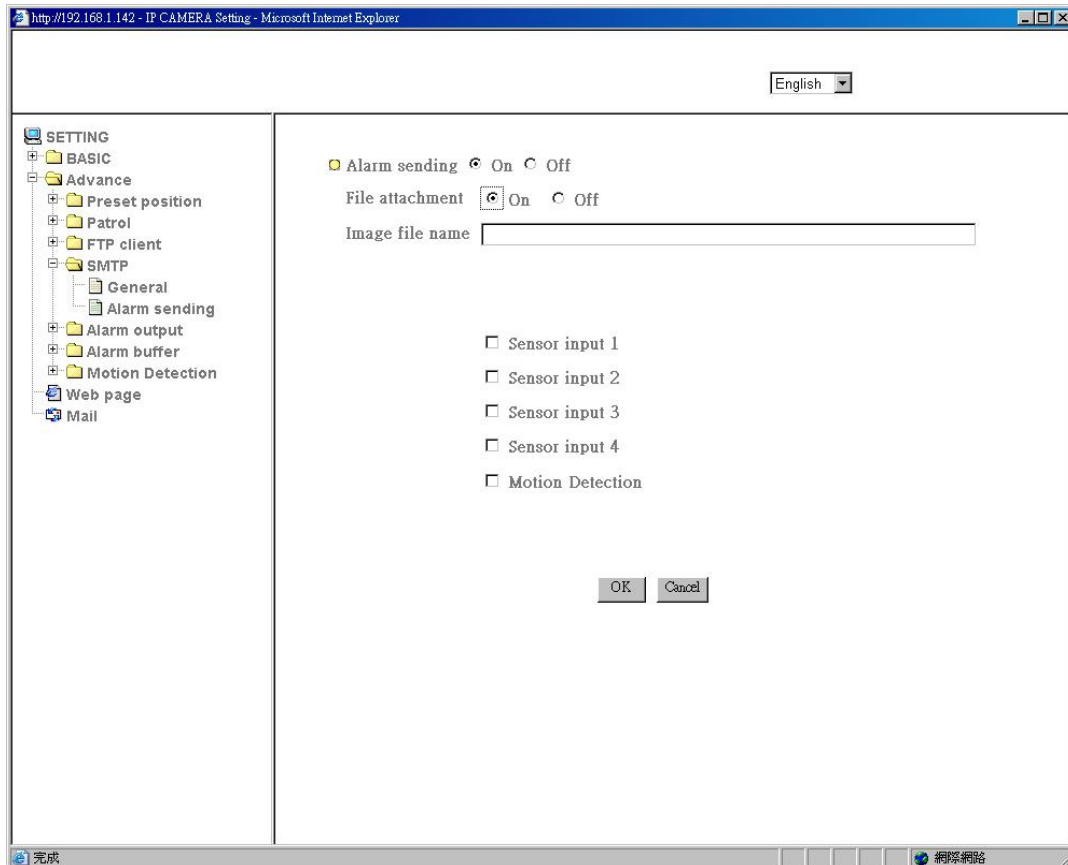
**Administrator e-mail address** : Type the Administrator e-Mail address up to 64 characters. This address is used for reply mail and sending system messages from the SMTP server.

**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.)

## 4.4.2 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.



**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 image to attach a mail. You can use up to 10 alphanumeric, - (hyphen) and \_ (underscore) for naming.

**Sensor input 1** : Click it on for using external sensor which is connected to sensor input1 of the camera I/O port.

**Sensor input 2** : Click it on for using external sensor which is connected to sensor input2 of the camera I/O port.

**Sensor input 3** : Click it on for using external sensor which is connected to sensor input3 of the camera I/O port.

**Sensor input 4** : Click it on for using external sensor which is connected to sensor input4 of the camera I/O port.

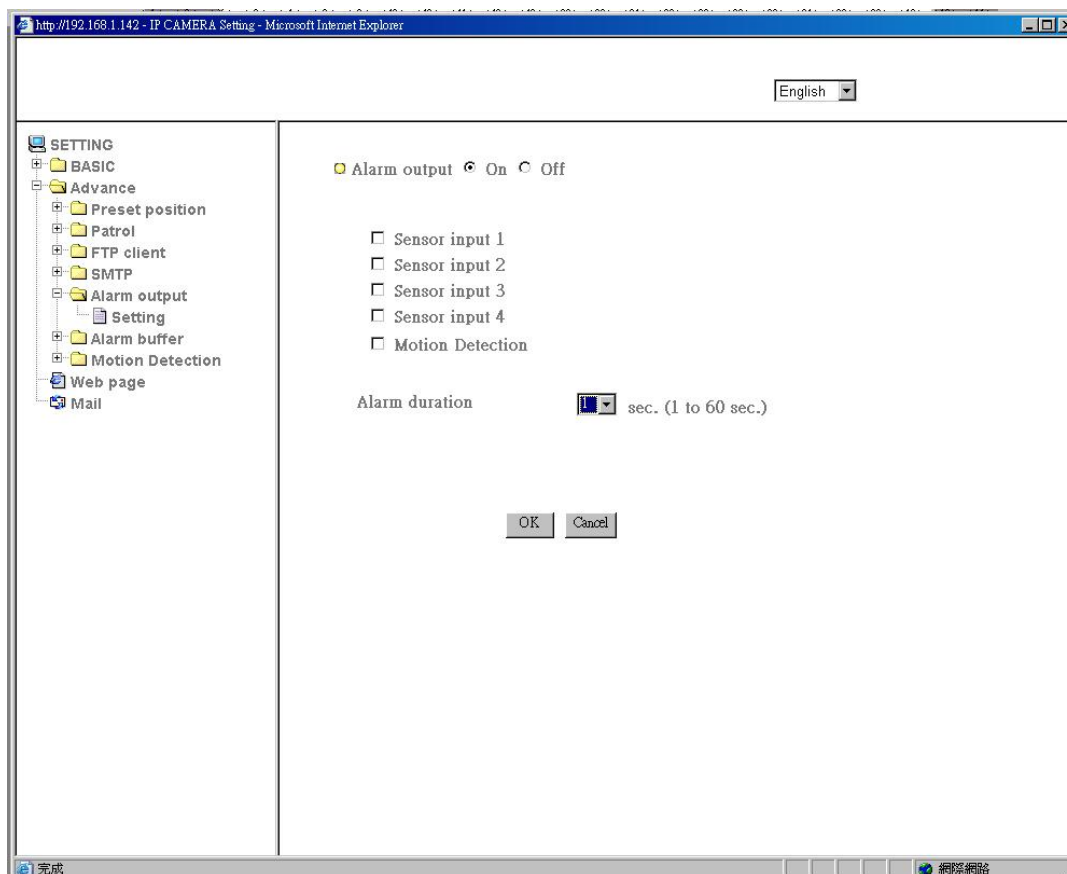
**Motion Detection** : Click it on for using **Motion Detection** function as a sensor. You can set the motion detection function page.

**Note :**

- **Motion Detection** works only when the Video mode is set to **MPEG-4** and the **Cropping** is set to **Off**.

## 4.5 Alarm Output

When you click **Alarm output** on the Advance mode menu, the Alarm output setting menu appears. You can set in this menu to control the alarm out of I/O port on the rear of the camera linked to the alarm detection and the timer.



### 4.5.1 Setting

**Alarm output** : To activate the Alarm output function, select **On**. The basic setting options are displayed below. When you do not use the Alarm output function, select **Off**.

**Sensor input 1** : Click it on for using external sensor which is connected to sensor input1 of the camera I/O port.

**Sensor input 2** : Click it on for using external sensor which is connected to sensor input2 of the camera I/O port.

**Sensor input 3** : Click it on for using external sensor which is connected to sensor input3 of the camera I/O port.

**Sensor input 4** : Click it on for using external sensor which is connected to sensor input4 of the camera I/O port.

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

**Note :**

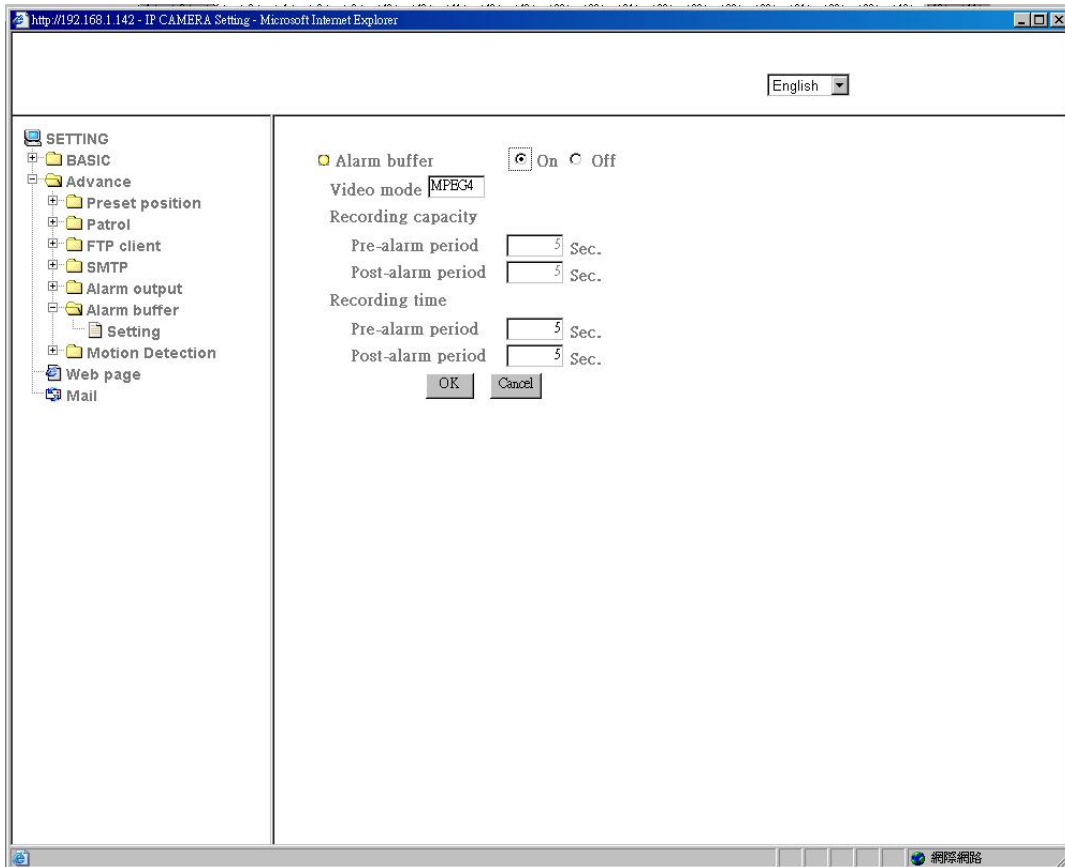
- **Motion Detection** works only when the Video mode is set to **MPEG-4** and the **Cropping** is set to **Off**.

**Alarm duration :** There are up to 60 second options to choose for alarm duration interval.



## 4.6 Alarm Buffer

You can set the Pre-alarm image and audio (the image and audio before the alarm detection) and the Post - alarm image and audio. These can be set when **Alarm sending** FTP client setting menu or Image memory setting menu is set to **On**, and besides when **Use alarm buffer** is selected.



### 4.6.1 Setting

**Alarm output** : To activate the Alarm buffer function, select **On**. The basic setting options are displayed below. When you do not use the Alarm output function, select **Off**.

#### Recording capacity

**Pre-alarm period** : Display the maximum recording capacity of image/audio before the alarm detection.

**Post-alarm period** : Display the maximum recording capacity of image/audio after the alarm detection.

#### Recording time

Set the recording time for the Pre-alarm image/audio and Post alarm image/audio.

**Pre alarm period** : Type it with recording time of the image/audio before the alarm detection.

**Post alarm period** : Type it with recording time of the image/audio after the alarm detection.

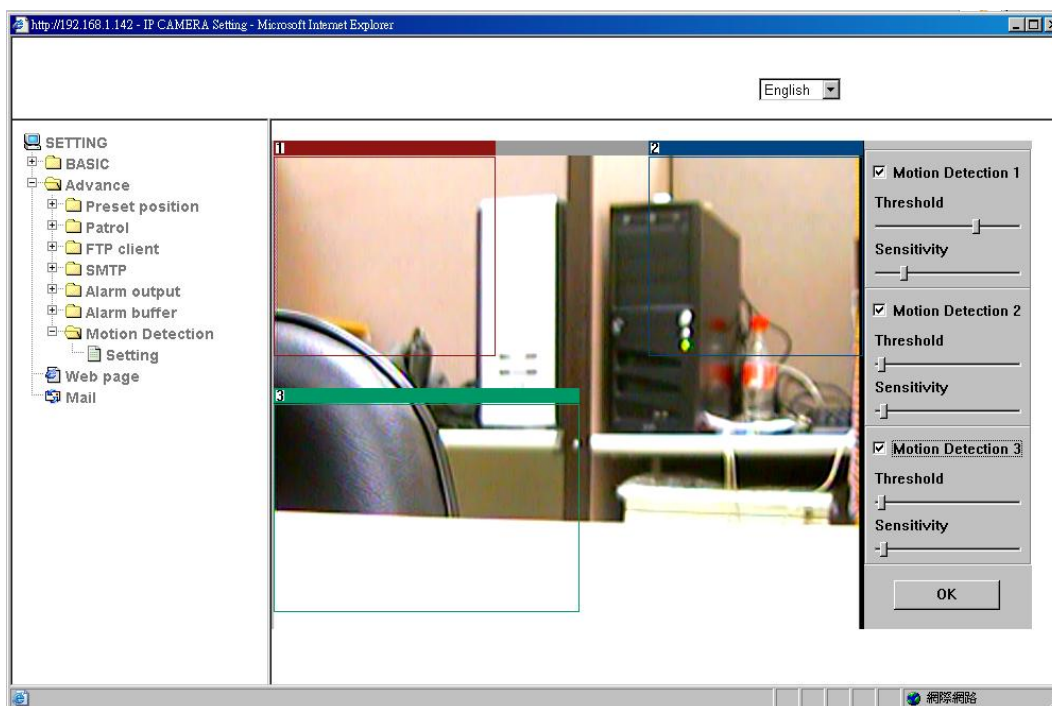
**Note :**

- The value of Recording capacity differs depending on Image size, Bitrate (for MPEG4) and Image quality (for MJPEG-4 and MJPEG) in the camera setting menu.



## 4.7 Motion Detection

When you click **Motion Detection** on the Advance mode menu, the Motion Detection setting menu appears. There are three Motion Detection functions as sensors to set for different detecting zones. Each one has Threshold and Sensitivity inputs which you can adjust to specific zone sequentially. Motion Detection function can support to FTP, SMTP and Alarm output for capturing and sending images or starting alarm output.



Click it **On** when you use the Motion Detection function and detecting zone appears for adjusting and moving. The common setting options are displayed below. If you do not wish to use the Motion Detection function, click it **Off** and press **OK**.

**Motion Detection 1** : Click it on for using **Motion Detection 1** function as a sensor. You can adjust and move the detecting zone by using mouse.

**Motion Detection 2** : Click it on for using **Motion Detection 2** function as a sensor. You can adjust and move the detecting zone by using mouse.

**Motion Detection 3** : Click it on for using **Motion Detection 3** function as a sensor. You can adjust and move the detecting zone by using mouse.

**Threshold** : You can use the tool bar to set up-limit value. When detecting zone signals are over setting value, it would carry on assigned work.

**Sensitivity** : You can use the tool bar to set down-limit value. When detecting zone signals are over setting value, it would carry on assigned work.

Carry out the following steps :

1. Click **On** to Motion Detection 1 choose one of eight orders.
2. A detecting zone 1 appears and use mouse to adjust and move the zone boundaries and

position.

3. Use tool bar to set **Threshold** and **Sensitivity** value.
4. Follow the steps to set the other Motion Detection.
5. Click the **OK** to save the setting.

**Note :**

- Be careful! Motion Detection function don't work with Patrol function at same time.