IP camera

User Manual

Chapter 1.Introduction

    IP-06-3 is a compact stand-alone camera with built-in web-server. It can be accessed from anywhere in the world via a standard browser by entering the IP address, account and password.

IP camera with built-in a HUB, can support to connect with another usb camera , such as infrared and pan/tilt camera,to view two different images simultaneously, Remote user just need to enter ip address or domain name into browser,then

can view two stream video images. Allow to set 8 User Accounts and Passwords, 30 Remote Viewers for each camera,motion detect,email notify,A software is supplied to monitor multiple cameras on one screen

It is easy to install the IP camera, it can be connected with ADSL/CABLE MODEM directly PPPoE matching with DDNS to use or setting NAT functions on router or IP sharer to monitr

Section 1 :Features Introduction:

*Built-in Web Server, support multi languages

*10/100M bps hight speed Ethernet auto detect

* Support any Java-Enabled Web Browser

*32 bits RISC CPU 4MB flash disk, 16MB dynamic memory

*1 piece WebCAM can be connected with a extension

*Support Up to 30 Remote Viewers for each camera

*Allow Up to 8 User Accounts and Passwords

*Motion detect Email notify

* Wireless network, Support to connect with USB Dongle as wireless device

* RS232 interface, support wireless smoke detector, wireless security detector

* USB HUB interface, Support USB Flash disk record(up to 8GB), Support USB Hard Disk(120GB)

*Work temperature 0°C ~ 60°C

* Operating Humidity: 10% ~ 90%

* For Indoor Use. Protective housing required for outdoor use

* Resolution: 640x480 (VGA), 352x288 (CIF), 320x240 (QVGA), 176x144 (QCIF), 160x120 (QQVGA).

* Frame Rate: Up to 20fps in 320 x 240, up to 15fps in 640 x 480

* Motion JPEG streaming video

*MJPEG compression

*Protocol:HTTP,TCP/IP,UDP,SMTP,PPPoE,DynamicDNS,DNS Client,SNTP,BOOTP,DHCP,FTP,SNMP

Section2. WebCAM as a Remote Surveillance System

After finishing IP camera installtion , user can view the image on any computer using a standard web browser. The user can monitor and control these cameras simply by entering the IP address of the camera into a Web Browser from anywhere in the world.
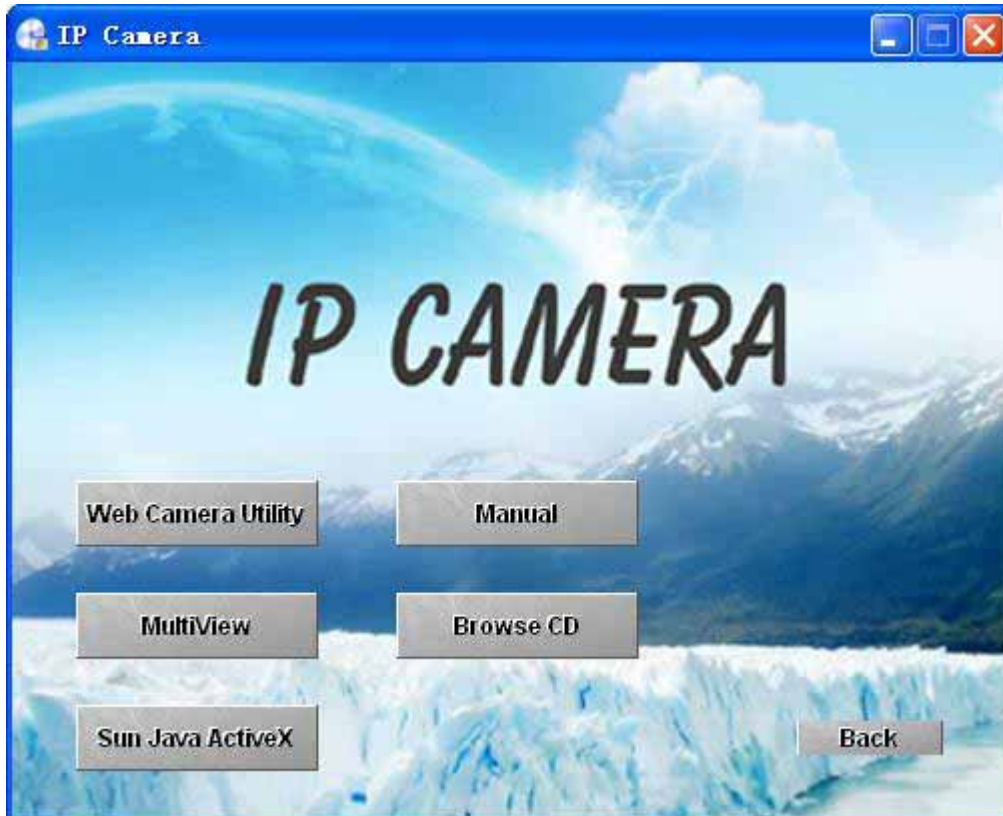
Section3. Package Contents

Your IP Camera package should contain the following items;

1.Camera

2. Utility CD, which contains;

- a. Utility: to configure camera IP address, update the firmware, etc.
- b. iMultiView: Windows platform to monitor multiple cameras.
- c. IP Camera User manual
- d. IP Camera Windows Driver

e. Power adapter

Chapter 2 Installation Procedure

Before using IP camera, you will need to set-up both the hardware and software. The following is a flow chart on the installation procedure:

1. Connect WebCAM
USB Camera and the Network cable
(Chapter 3)

2. Connect Network cable to ROUTER
/ HUB / xDSL modem

3. Install WebCAM Utility (Chapter 4)
and WebCAM (Chapter 6)

4. Use Internet Explorer (>5.0) to
access WebCAM Web Manager
(Chapter 5).

5. WebCAM set-up completed

Chapter 3: IP Camera and the Network

The following details is the installation procedure of IP cameras

Step 1 Connect the network cable to the IP camera RJ45 port.	

Step 2 Connect the power adapter	
Step 3 Connect the extension equipment	
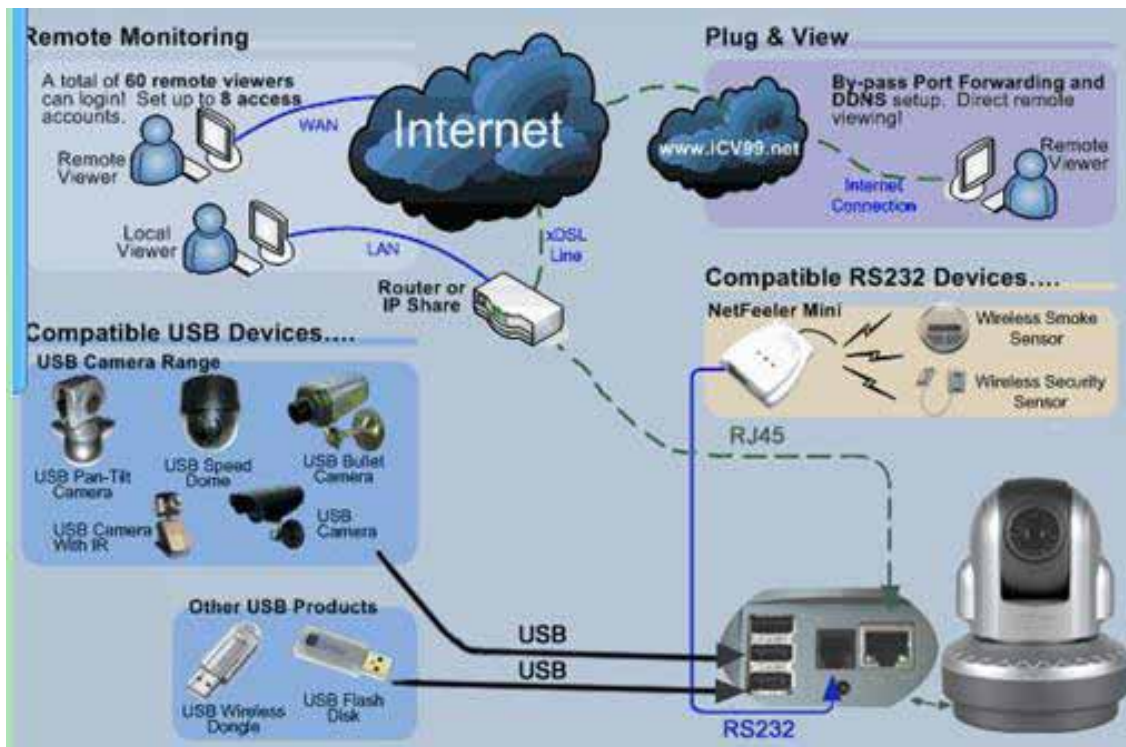
Chapter 4: Using WebCAM Utility to Setup IP & Update Firmware

Setion 1: Installing WebCAM Utility

1 Insert the enclosed WebCAM CD into the CD-ROM. The following menu will show up. Click the buttons on the left to install the programs you want
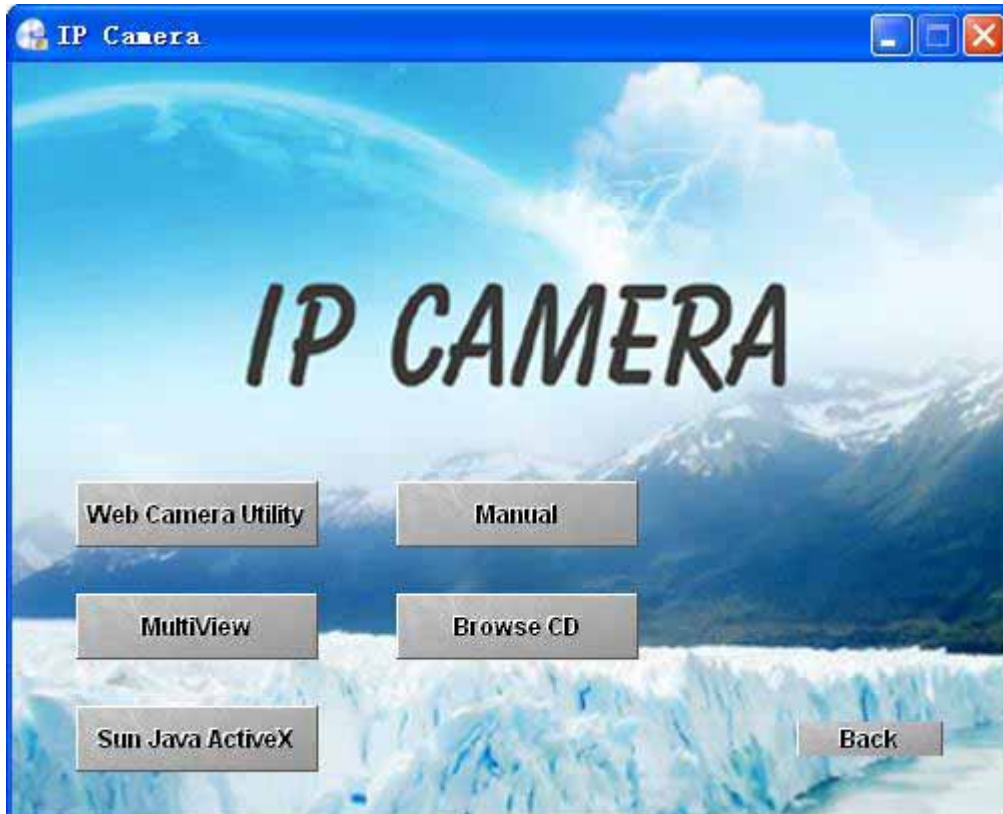
WebCAM Utility -This is a program that helps the user run quick installation. It will detect the current configuration and take user through the necessary network setup.

Multiview—a software support to monitor multiple cameras on one screen

Sun java ActiveX :Install browse ActiveX

Install use manual

Browse CD

2. Click the 'WebCAM Utility' button to install.

3.After the step by step installation is completed, the WebCAM Utility group will appear in   Windows 'Start' WebCAM Utility 'Program Group'. Click this to start the program.

4. Click the 'WebCAM Utility' button, then you can do the configuration at the following main menu

Section 2. Using WebCAM Utility

The WebCAM Utility main menu is shown below. The selection menu is located on the left. The Serial No., current Firmware and IP Address of every IP camera connected to the LAN will be displayed on the table to the right.

1   Use "Setup Wizard" to take you through the basic configurations necessary to start using WebCAM.

2   Start-up WebCAM

3   Once you have finished with the above Setup Wizard, either click "Launch WebCAM" or double click on the WebCAM listed on the table to launch it.

Once you have done the above setting, the WebCAM login screen will appear. Input the administrator account number and password that you setted before (if you did not set them, just press ENTER or click on the "OK").

The WebCAM webpage will appear. Click ActiveX for Camera A to view the Video images

4　IP Address configuration

　About WebCAM IP address, you can select this function straightly to configure, except through to Setup Wizard

　　IP Address –configure WebCAM IP address

　"Obtain an IP address by DHCP"

Choose this if you do not know your basic Network Configurations

"Use the following IP Address"

Enter an appropriate internal IP Address, Subnet Mask and Gateway for WebCAM (Refer to Appendix C for an explanation of IP Addresses)

-Bootp

"Obtain an IP address by Bootp"

　　Allow WebCAM to obtain an IP address using Bootp protocol.

5　Advanced

　-Set password

　This section sets security password against unauthorized access to devices through WebCAM Utility.

WARNING:

**　Do not lose this password. If the password is lost, you can not access the device to make changes.**

　- Management Protocol

The administrator can determine the parameter settings when providing access via HTTP (web) to WebCAM. For security reasons, the administrator can choose to use either an open or advanced port setting to control these access.

1) The default values are set to port number 80 for HTTP

2   Uncheck to disable this function
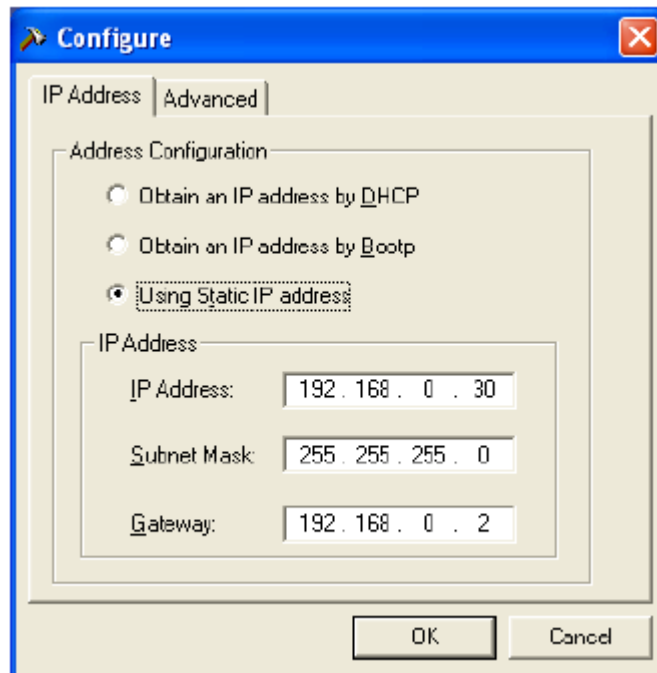
3) Once the HTTP port number is set to another port (other than 80), the full IP

   Address must be entered in order to access the Website.

For example: If a value of 81 is set as the HTTP port number, then http://192.168.0.177:81 must be entered as the web address in order to access WebCAM website.

5   Upgrade Firmware

WebCAM Utility offers a convenient method to upgrade WebCAM firmware..

1. Click "Upgrade Firmware" to bring up to the Wizard

1. If you have downloaded the latest firmware to your local hard drive, check "Upgrade the WebCAM firmware with file saved on the local hard drive" and browse to the file location.

2. Click "Next >" to check for the latest available firmware.

3. Select new firmware file (*.bin) and,

4. Click "Start".

The WebCAM red and yellow LED will flash alternately to indicate that firmware upgrading is in progress. Once completed, WebCAM will reboot.

Please check the following URL on a regular basis for the latest firmware;

NOTE:

If the downloading /upgrade process is interrupted or the data is corrupted, WebCAM will keep its default firmware to avoid complete data loss. If this happens, repeat the above firmware upgrade procedure.

Chapter 5: WebCAM Web Manager

Section1. Introduction

After you finishing the setting of hardware and IP address for WebCAM, you will   be able to go to WebCAM web site to monitor and control the   cameras. All you have to do is entering the new IP address into any web browser.

1. Start the Web Brower (Netscape or Internet Explore)

2. Enter the WebCAM IP Address that was set before using "Setup Wizard" (e.g. 211.21.67.51)

3. A login screen will appear. Enter the Administrator User Name and Password if you have setted these in the "Setup Wizard". Otherwise, just press ENTER.

Section2. WebCAM Web Manager Interface

The WebCAM webpage is divided into two sections. The selection menu on the left and display menu on the right. The selection menu consists of the following options:

2.1 Web-Camera Selection

2.2 Information

2.3 Basic Settings

2.4 Advanced Settings

2.5 Viewing images using a PDA / Web Enabled Phone

When using WebCAM first time, you must set the following to ensure that WebCAM works smoothly;

a. Set the necessary parameters in the "Configuration" menu. In particular, the "Anti Flicker" under "Camera Settings" should be set to 50Hz or 60Hz (change this to 60Hz or 50Hz / Outdoor if video output continues to flicker).

b. Make sure the IP camera lens is adjusted to the best position. By default the above Camera Settings page is displayed when you login.

1. Camera A/ Camera B

Click on either "ActiveX" or "Sun Java" from Camera, A or B to view the camera images.

By default IP camera will be note as "Camera A" , the other USB camera will be note as "camera B"

Note: ActiveX can only function on Window platform and a plug-in has to be installed on the client's computer. If this is prohibited for safety reasons you will have to use Sun Java to view the video feed. Sun Java also allows users who are not using Windows based Operating System to view the video feed.

Click 🌐 / ☕ to view video

CAMERA A

🌐 ActiveX
☕ Java VM

CAMERA B

🌐 ActiveX
☕ Java VM

▼ Information
▼ Basic Settings
▼ Advanced Settings
▼ USB Disk

Once you click on "Camera A" the following image will appear. Make sure the IP camera lens is adjusted to the best position Click the controls along the Window to control the camera.	
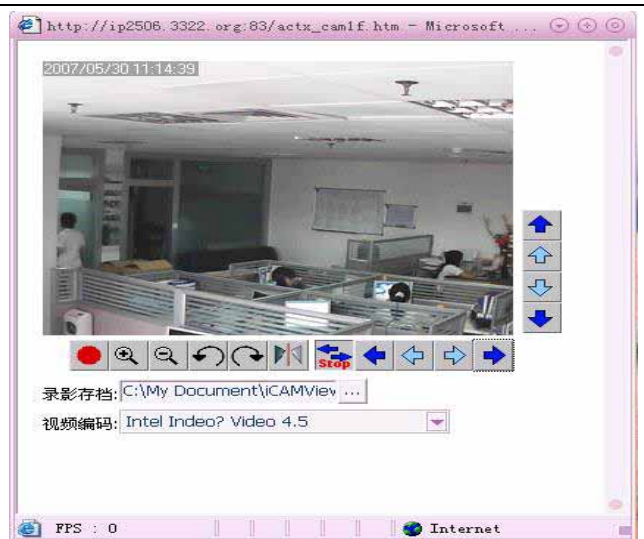
Click ● to record the current image to the selected directory. The default directory

is C:\Program Files\ Megatec\ iMultiView, To change the saved location and

filename. Click ⌐ and the "Save As" window will

pop up. Choose an alternate location and filename. Click the "Save" button to confirm

changes.　To change Video Codec, click

🔍+ 🔍-	Digital Zoom In, Digital Zoom Out
↶ ↷	Rotate Left, Rotate Right

	Flip the image vertically.
	Auto Pan the camera 355 degree
	Pan Left by 5 deg / Pan Left by 1 deg.
	Pan Right by 1 deg / Pan Right by 5 deg.
	Tilt Up by 5 deg / Tilt Up by 1 deg.
	Tilt Down by 1 deg / Tilt Down by 5 deg

Note:

The pan and tilt controls will only work with cameras which has this function built-in.

2.2.1 System Status

This section displays all the information of   WebCAM.

i.   System Information

This section shows WebCAM System Information such as the Hardware and Firmware Version, the serial number, current / local System Time, the system name, contact, location and uptime. These values are either provided by WebCAM or set by user

ii.   System Information

This section shows WebCAM Network settings. The MAC Address is unique to every WebCAM. All the other values are set by the user in Setup Wizard.
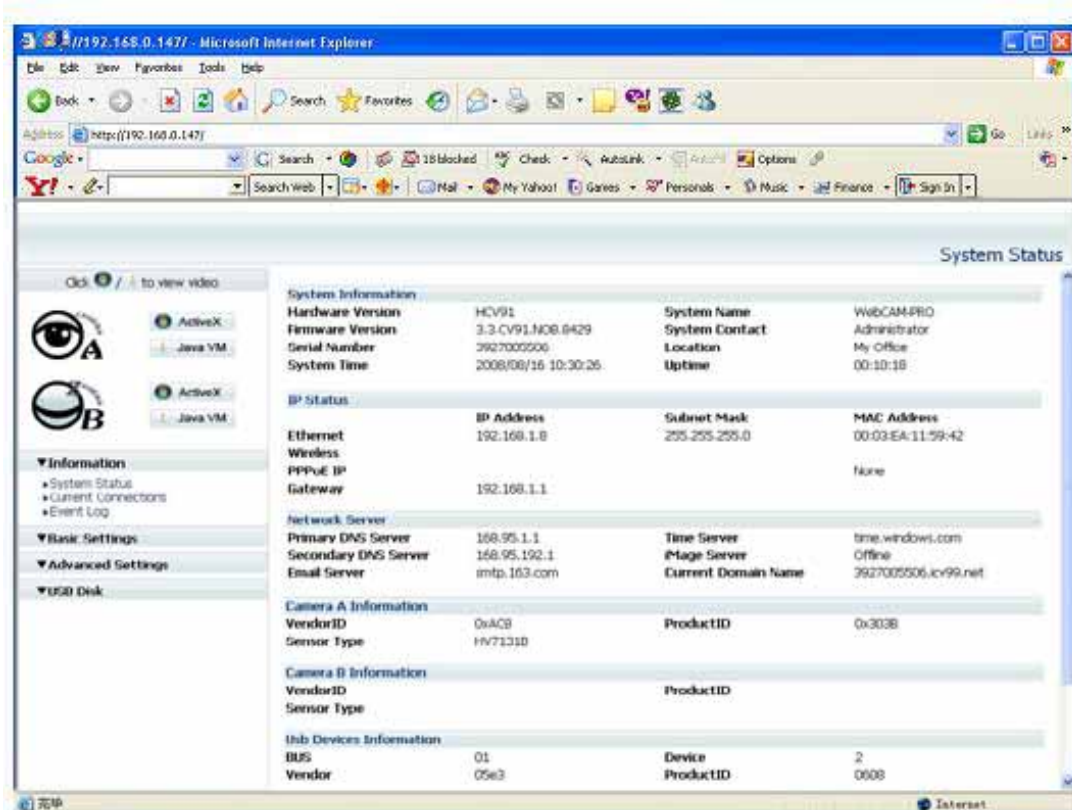
2.2.2 Current Connections

This section will show all the users currently viewing either Camera A or Camera B. It also lists, the login time, and total bytes received. The user has an option to block the IP or even disable the account of any errant viewer (The administrator privilege will be required for this feature).   A total of 10 connections can be displayed at the same time.

Note: If you do not have Administrator's privilege, the IP and Account details will be hidden.
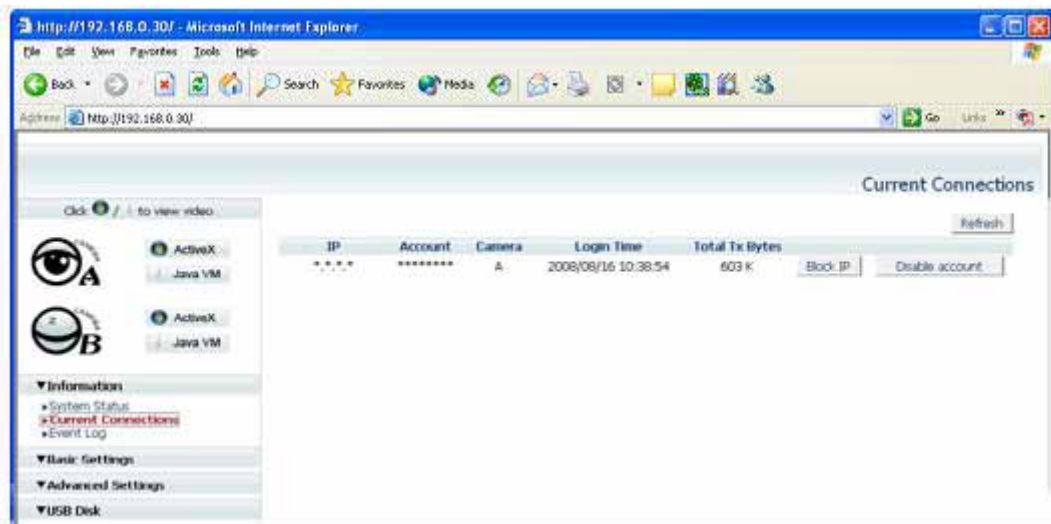
2.2.3 Event Log

This section will keep a record of all events that occurred in WebCAM. The user can Refresh, Clear or Save the log file. There is also an option to sort the logs according to "Level" or "Type" WebCAM can log up to 2,000 events

Note: If you do not have Administrator privilege, the User Name and IP will be hidden.

"Camera A: user ******** connected from IP: *.*.*.*"
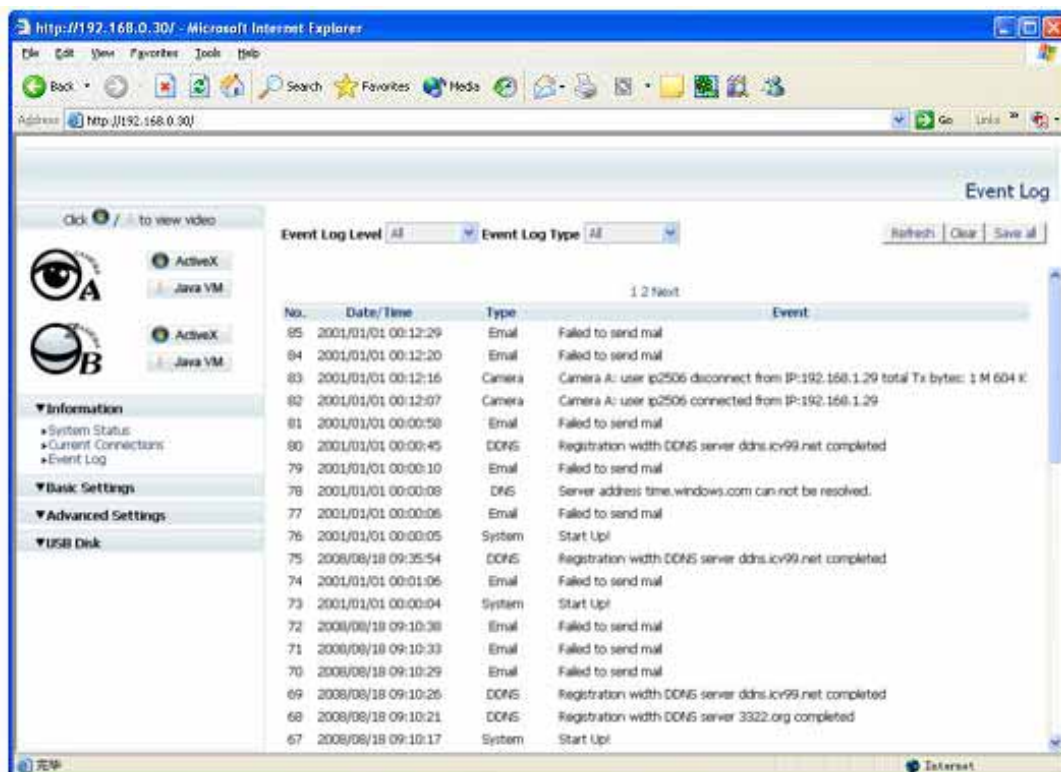
2.3 Basic Settings

Please ensure that each of the following option is set correctly. Otherwise,

WebCAM may not work properly.

2.3.1 Camera Settings

2.3.2 Network

2.3.3 Account Settings

2.3.1 Camera Settings

Use this section to set up the USB camera.

1. Setting up Camera A (Similar with Camera B)

"Anti Flicker"

Choose between 50Hz, 60Hz or Outdoors. Note: If you do not choose the right frequency, the image will flicker or lines will appear on the images.

"Maximum Number of Connections (1-30)"

Use this to limit the number of users that can connect to this camera.

"Location"

Enter a suitable location / name for the camera.

"Light Compensation"

Choose "Yes" and WebCAM will increase the lighting of the image. This is useful when monitoring indoors.

Choose　"No" if you do not want WebCAM to adjust the light and view the images as is.

"Color"

Choose "Yes" for color and "No" for black and white display.

"Camera Position"

Choose from the automatic "0 degree (upright)", to 90, 180 (upside down), and 270 degree position of the camera. This is to facilitate the ability to reposition the camera in any way the user desires.

Click "Apply" to save changes. Otherwise, all changes will be lost.

"Pan Control"

Choose from "Normal" or "Reverse". This is to set the mirror function of the

camera and fix the image the way the user desires each time the user logs on to view.

"Tilt Control"

Choose from "Normal" or "Reverse". This is to set the image to its right side up.

Similar to the "Pan Control" function.

2.3.2 Network

The WebCAM Network settings is up to this option

-IP Address

"IP Address" "Subnet Mask" "Gateway"

These items were all setup before in Setup Wizard. Enter new address and click "Apply" to change.

"IP Address"

WebCAM IP Address.

"Subnet Mask"

This item sets WebCAM Subnet Mask. The value is normally 255.255.255.0

"Gateway"

This item is to set WebCAM Gateway.

"Obtain an IP address"

This allows user to choose either to set WebCAM IP Address manually or via DHCP. WebCAM will reboot after the above settings have been changed.

DNS Server IP address

"Primary DNS Server IP"

This item sets WebCAM primary DNS Server IP address.

"Secondary DNS Server IP"

This item sets WebCAM secondary DNS Server IP address. WebCAM will use the secondary DNS Server IP address if the Primary DNS

Server IP address is not working.

Port Number

"HTTP Port Number"

By default the port number is 80.

"Communication to Camera Port Number"

By default the port number is 9001.

This setting request setting the router port mapping, in the virtual server of router

The protocol of HTTP is TCP,video access protocol is UDP

Please make sure the IP address of IP camera is the same with that in the router setting

- Dynamic DNS

Enable WebCAM free Domain Name,first must log on http://ddns.icv99.net to activate your free Domain Name

The WebCAM can be configured to register the current IP to a dynamic DNS provider. This will enable you to locate WebCAM's IP every time the IP changed due to an ADSL connection redial.

Service Provider"

Before you use this function, you will have to register with either one of these
five service providers;

·None   Select this to disable the DDNS function

·3322.org

·dhs.org

·dyndns.org

·myddns.com

"Domain Name"

Enter the Domain Name you have created from one of the five websites.

"Login Name"

Enter your login name for the above domain name.

"Login Password"

Enter your password.

"Use Public IP to register"

Choose "Yes" or "No".   WebCAM will automatically send the WAN IP to the
DDNS server. This ensures that DDNS is notified of your current Dynamic IP.

-PPPoE

Use this option to allow WebCAM dial-up directly using your xDSL modem and
connect to the Internet. Once set-up, WebCAM will be able to stream the video
images directly to the Internet without going through a router.

"When Connection should be made"

The user has a choice of;

Disabled   :   Default setting. WebCAM does not dial in

Connect always: WebCAM will automatically dial in.

Wireless setting

This section allows user to set up the wireless function through connecting USB Dongle.

-Wireless

Connect to wireless AP

Choose "YES"

Search wireless AP

You can find the WEP Key from wireless router setting

Click, it can search the nearby compatible wireless router device

Note:The camera must be connected with RJ45 cable to configure the wireless system,

-IP Address

-DNS Server IP

DNS Server IP

Primary DNS Server IP	168.95.1.1
Secondary DNS Server IP	168.95.192.1

Account Settings

This page supports to set up 8 users connecting WebCAM account.

-User Account

User Name

This section allows you to set up to Eight (8) user account with different permissions for WebCAM. If the blank is null, all IP user can access WebCAM to view the image.

Password

This section allows you to set up the user name and password.

Permission

Determine the permission level to one of "Administrator", "Operator", "Viewer" or

"No Access"

Administrator: An Administrator has full access including write permission to all sections. Only an Administrator can see the "User Name" and IP details or set the "Permit Hours" for Camera viewing to Operator or Viewer accounts.

Operator: This permission level allows the user access to WebCAM menus, but without the permission to amend them.

Viewer: This permission level allows the user to access WebCAM at specific time as set in permit Hours" for seeing camera. The user does not have write permission and can only access the "Camera" and "Information" section.

No Access: This is to revoke either of the above two permission levels given to a user. This disables the user account.

WARNING: If you did not setup the Administrator account in Setup Wizard; you MUST now set an Administrator permission level BEFORE setting either "Operator", "Viewer" or "No Access". Failure to do so will result in you being locked out of WebCAM Web Manager!

"IP Filter"

Visitor can only login from the IP address specified here for security consideration. You can restrict a user access only from 192.168.1.0/24 by setting up "192.168.1.*". Otherwise, leave it as "*.*.*.*" to allow the user to login from any place.

"Max FPS"

This allows the administrator to determine the frames per second ("FPS") allocated to each type of account. By limiting the FPS, the administrator can manage the   limited bandwidth available. The administrator can set a figure between 1 to 30 and unlimited FPS.

Permit Hours

> When the Permission level is set to either "Operator" or "Viewer", the Administrator can configure and determine the time to which either permission level can access the camera. Click "Configure" to bring up the following window. You can set up to 4 different. Permit Hours (in 24hr format). Click "Apply" to save and "Close" to exit.

Blocked IP list

Operator can block IP address here. Limit some IP address user to view WebCAM images

Advanced Settings

Please ensure that each of the following option is set correctly. Otherwise, WebCAM may not work properly.

2.4.1 Event Notification

2.4.2 Motion Detection

2.4.3 Image Recording

2.4.4 Email / FTP

2.4.5 System Settings

2.4.6 Language

2.4.7 About

Finish setting; please remember click "Apply",

2.4.1 Event Notification

This section sets a event notify to send to a email address by WebCAM. WebCAM can send notifications to up to 8 email recipients.

Note: You must have Administrator privilege to edit this section.

-"Send Email"

To activate Event Notification, you will need to set "Send Email" to "Yes". Select "No" if you do not wish to send out any notification.

-"Email Server"

A valid "Email Server" with username and password (if authentication is required) must be made available for this feature to work. If you do not have this setup, or wish to change the settings, click on "Edit".

-"Email Address Book"

There must be at least one valid email address in the address book. The default email is just a sample. If you wish to add or delete entries in your address book, click "Edit".

nobody@nobody.com just is a sample.

-"Recipients"

WebCAM can send email notification to up to 8 valid email accounts.

To add to an email to the recipient list, click [>], to remove, click [<]

-"Events"

There are three types of events, Information, Warning and Error. Click"select" to select from the list of events you wish these recipients to be notified of.

By default, all the events are selected; you must click "Apply" to activate them. Close the window to return to the Event Notification Page. Click "Apply" to save your settings

Motion Detection

This page allows the administrator to set motion detection functions for the cameras.

i.   Camera A (or Camera B)

"Enable"

To activate motion detect, the administrator has two options;

a.   "Always On" or

b.   "On Schedule", the administrator can set up to 4 different time slots

for motion detection.

"Detection Sensitivity"

This will determines level of change before motion capture is triggered.

"Send image every"

Select a value between 1 to 5 seconds.

"Stop sending emails after ## email(s) or image idle for ## second(s)"
WebCAM will stop sending on the lower of the two conditions. You can set between 1, 3, 5, 7 and 10 seconds.　　　Emails can be set from 1 to 99999 pieces or 0 for stop sending email only when image idle occurred.

"Schedule"

If set "On Schedule" in the above section, the administrator can then input the four preferred schedule time slots for motion detection. Time must be entered in 24hr format.

"Send to FTP Server"

This option allows the administrator to send and store the motion detected images on a FTP site. This is useful for future reference and recording purpose.
Click "Yes" to activate.

"ftp://<empty>/<folder>"
This box allows the administrator to determine the file location within the FTP site. If you have not entered a FTP server, the above will be left <empty>.

To setup the FTP server, click "Edit" to go to the Email / FTP Page. Once you have entered the FTP server, login name and password, click

"Apply" and then Click on "Motion Detect" to return here.

Enter a directory or folder name in <folder>. Click "Apply" when done.

"System Defined / User Defined"

The administrator can also determine to either have the system automatically assign the filenames for the pictures saved. Or assign these filenames.

"Filename"

Give the motion detected JPG images a standard filename prefix, to be followed by looping number suffix.

"Loop from ## to ##"

This will determine the number of suffixes preceding the above filename. Once the last number is reached, the first file will be replaced by the most current image.

"Digits"

This will determine the number of digits assignable for the above number suffix.

The administrator can choose to assign between 1 to 6 digits. Click for an example

Example
image_(*).jpg, from 0 to 9, digits = 2;
will produce a loop from image_00.jpg to image_09.jpg

OK

完毕   Internet

"Send Email"

To send an email notification of Motion Detection with image, choose "Yes", otherwise choose "No"

"Email Server"

The administrator will have to set this up. Otherwise, click "Edit" to go to the Email / FTP Page to make the necessary configuration. Click on Motion Detection to return here.
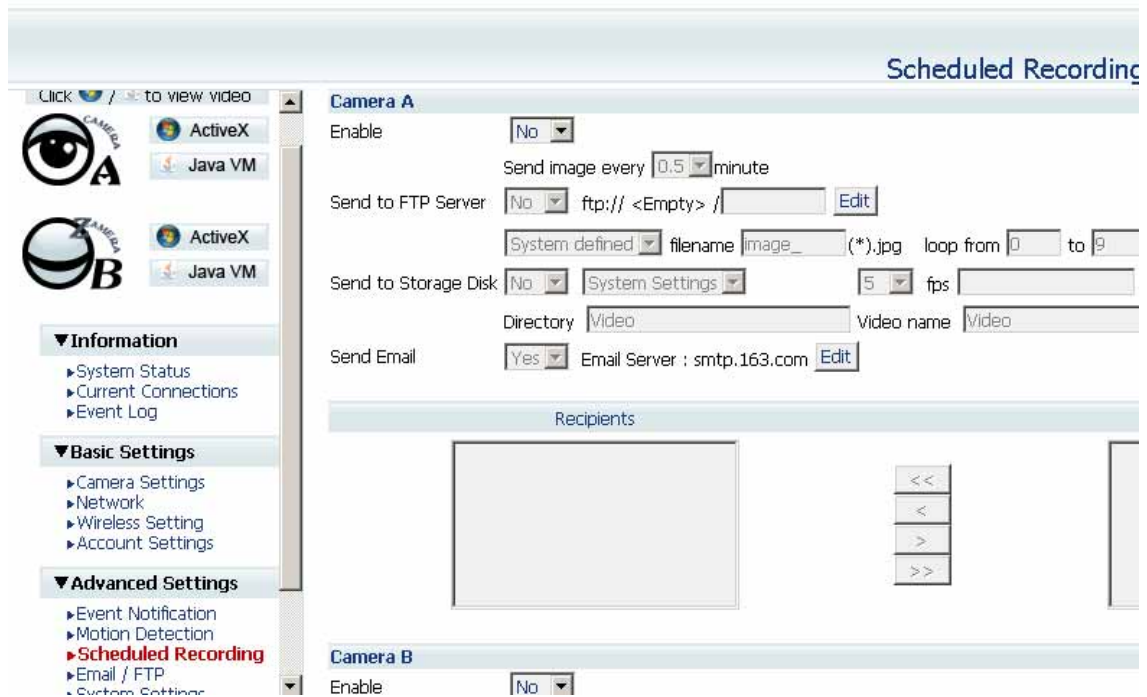
"Recipient" & "Email Address Book"

The administrator can determine who shall receive email notification. To add to the recipient list, either double click on the email in the address book or click [<], To add all the email address at once, click [<<],To remove an entry click [>] ,or [>>] to remove all entries from the recipient list. Click "Apply" to confirm and save the above settings.

Image Recording

Image recording allows the user to receive an image to either their email account or to a FTP server. The images will be sent over a predetermined interval and a certain period

- Camera A (or Camera B)

"Begin – End (hh:mm)"

The administrator can determine up to 2 time slots when Image Recording is active. The time is in 24hrs format.

"Send image every ## minute(s)"

The administrator can determine the exact interval at which WebCAM capture and send an image. Choose among 1, 3, 5, 7 and 10 minutes

"Send to FTP Server" & "Send Email"

This is similar to the function available in Motion Detection Page. Please refer to section 2.4.2 for details.

E-mail / FTP

This section sets up the necessary Email and FTP server information. The administrator will have to enter a valid Account Name and Password to the Email server and/or FTP server. This information is necessary to allow email notification and ftp file sending features in Advanced Settings.

- FTP Settings

- "FTP Server"

- The administrator will have to enter the FTP server address here.

- "Account Name"

- Enter the FTP account name here.

-

- "Password"

- Enter the corresponding password.

-

- Click "Apply" to save the above settings.

- Email Settings

"E-mail Server"

The administrator will have to enter the Email server address here.

"Sender's Email Address"

This will determines WebCAM's Email address.

"Email Server Requires Authentication"

If set to "YES", the administrator will have to provide the account name and password in order to access the Email server. Otherwise, enter "NO".

"Account Name"

Enter the account name or login name to the Email server.

"Password"

Enter the password for the above account name.

Click "Apply" to save the above changes.

Sending Test Mail

You must have the "Email Setting" section configured to proceed with "Test Mail".

One that is done click "Test Mail" and the following will appear
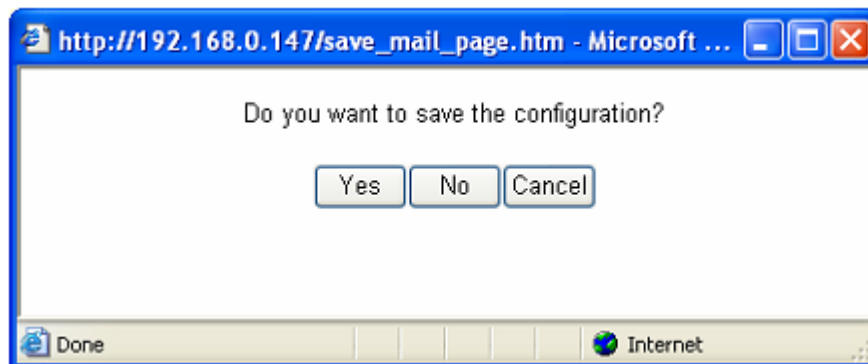
Click "Yes" to confirm sending and the following window will appear.

Enter the "Test mail Recipient" email address and click"Send". If the Test Mail is successful, you'll receive the following email message;
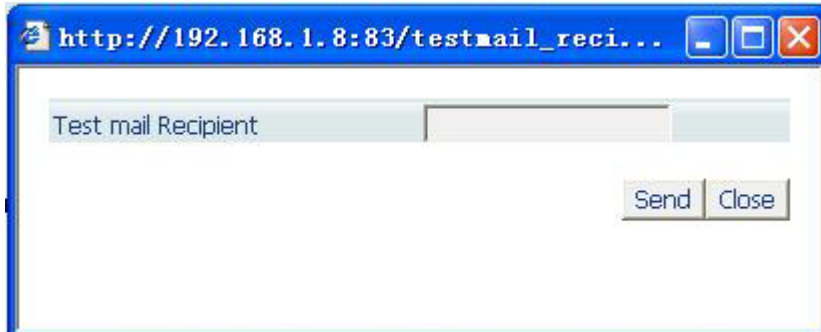
Email Address Book

Enter an Email address in the box provided and click "Add Email Address". The new email address will be added to the list. The administrator can store up to 20 email addresses here. To delete an Email address, just press "Delete".

System Settings

This page allows the administrator to set WebCAM SNMP settings so it can be used By a NMS (Network Management System) like iMultiView
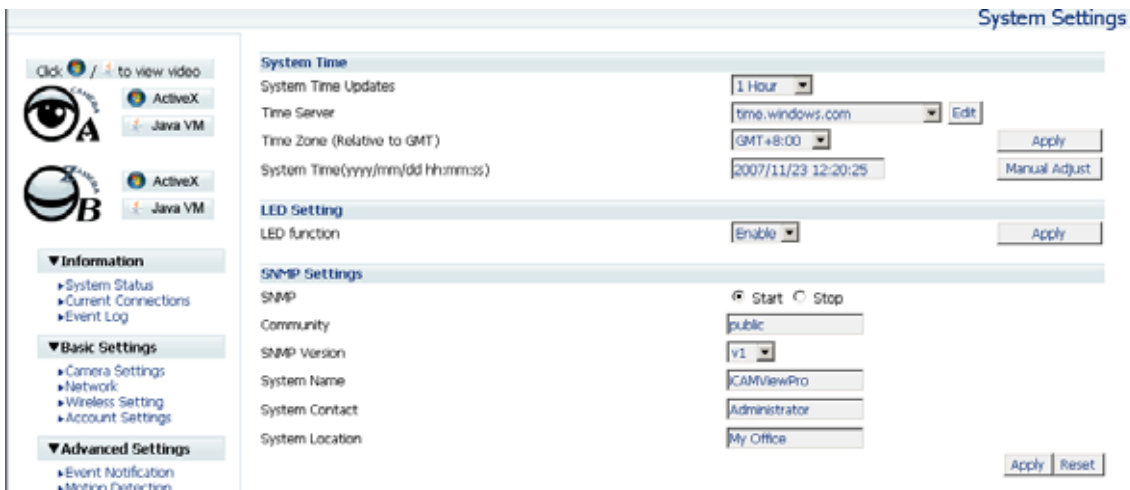
- System Time

"Time Between Automatic Updates"

> The administrator can set an interval for time synchronization. Select either1, 3, 12 hours or 1, 10 & 30 days.

"Time Server"

> Choose the nearest Time Server to your WebCAM location. The administrator can choose from the list of a maximum of 30 Time Servers.

> To add a new Timer Server the administrator must first make space by deleting some Time Servers. Once this is done, the add dialog box will appear as below.

> Click "Back" to return to the System Settings Page.

"Time Zone (Relative to GMT)"

> Select the appropriate time zone for your area. Click "Apply" to save.

"System Time (yyyy/mm/dd hh:mm:ss)"

This section is to manually set WebCAM System Time. The format is pre-determined to: yyyy/mm/dd hh:mm: ss. Click "Manual Adjust" to save any manual changes.
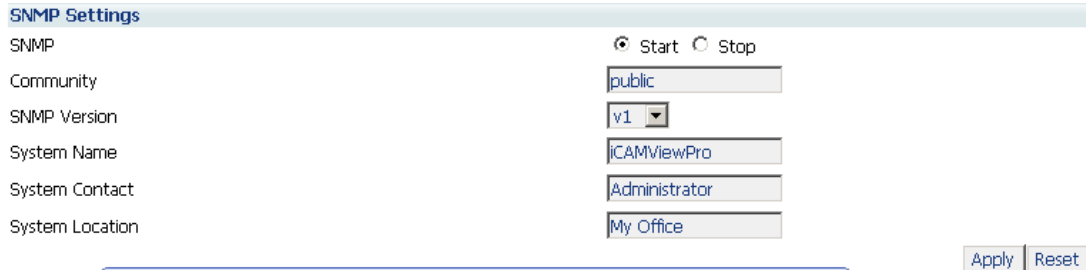
Led Setting

"LED function"

> The administrator can enable or disable the LED (except the Power LED)
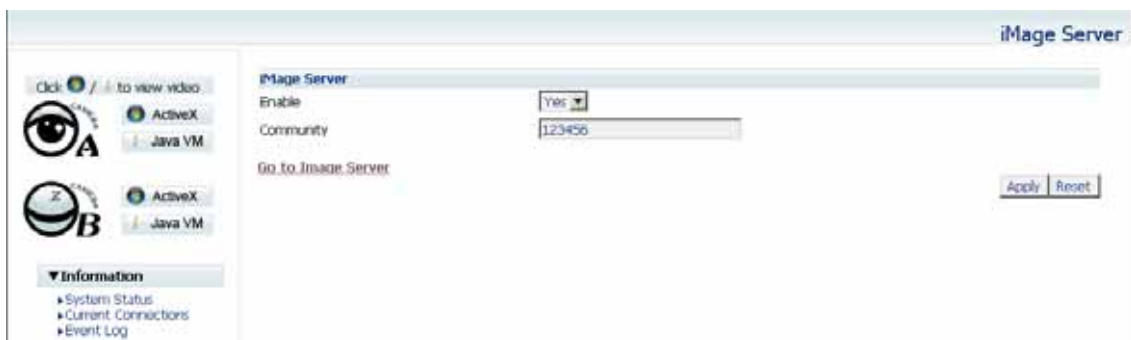
on WebCAM here. Click "Apply" to save settings.

- SNMP Settings

Image server

Choose "Yes" to enable this feature. User can change the Community number to his familiar one. Click "Apply" to confirm all changes.

Press "Go to Image Server", then access http://www.icv99.net.(Please refer as the manual of setting up gateway)

Language

This section can set up the different language for convenient cooperation.

About

- About

This section gives crucial information about WebCAM's Firmware Version, Hardware Version and Serial Number. These are required information for service calls.

- Save / Restore Settings

Click "Save" to save the current settings and configuration to your PC. The text file will have a default format of YYYY_MMDD_####.cfg. The administrator can change this, if necessary.
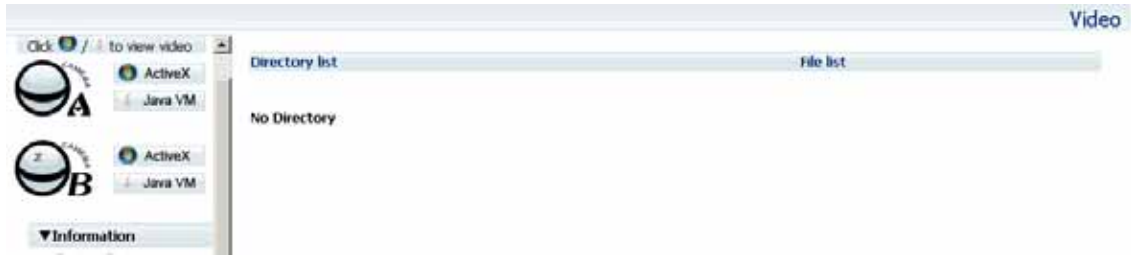
- Restore previous configuration

This function is only available if a setting has been saved initially.   Browse to the location where the file is saved and click "Restore"

- Reset to factory default

This function will reset all settings to its default value.

- USB Flash Disk

Video

Directory list will show the record image to the user.