VIVOTEK
Lab
User's Manual

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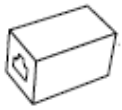
Chapter 1 Preparation

1.1 Lab Necessary Components

■ IP7161 / IP7160

■ RJ45 Female/Female Coupler



■ RJ45 Cross Cable

■ Notebook or PC

Operating System Windows XP Professional (32 and 64 bit), Windows Vista Business

CPU Intel Pentium 4 or higher (Inter Xeon recommended), minimum 2.0 GHz

RAM Minimum 1 GB for Windows XP Professional, 2 GB for Windows Vista Business

Network Interface Card Ethernet, 1 Gbit recommended

Graphics Adapter AGP or PCI-Express, minimum 1024×768, 16 bit colors

Hard Disk Type ATA-100, SATA, SCSI, SAS (7200 rpm or faster)

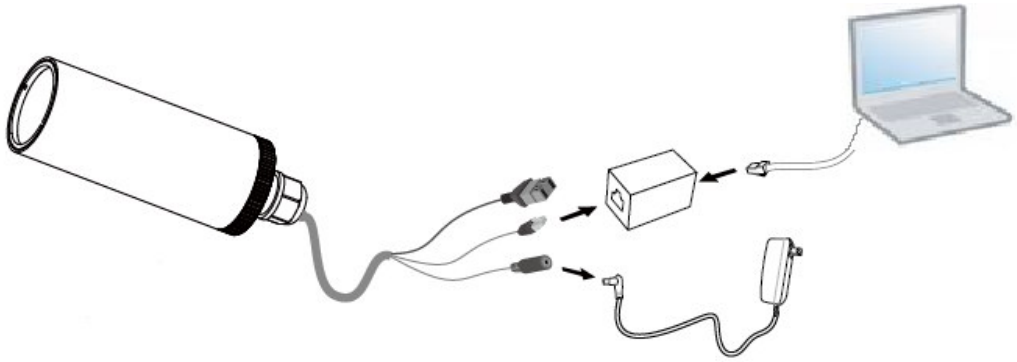
Hard Disk Space 40 GB free

■ Software package

It contains **IW2_Setup.exe**, **ST7501_Setup.exe** two installation files.

1.2 Connect The Camera

1. Use the supplied RJ45 female/female coupler directly connected to the notebook with the cross cable.
2. Connect the power cable from the Network Camera to a power outlet.



Chapter 2 Installation And Setting

2.1 Installation Wizard 2 Installation

The following are steps for the Installation Wizard 2 installation.

STEP 1: Run the installation program of Installation Wizard 2. The Installation Wizard 2 Installation Window will appear as Figure 2-1

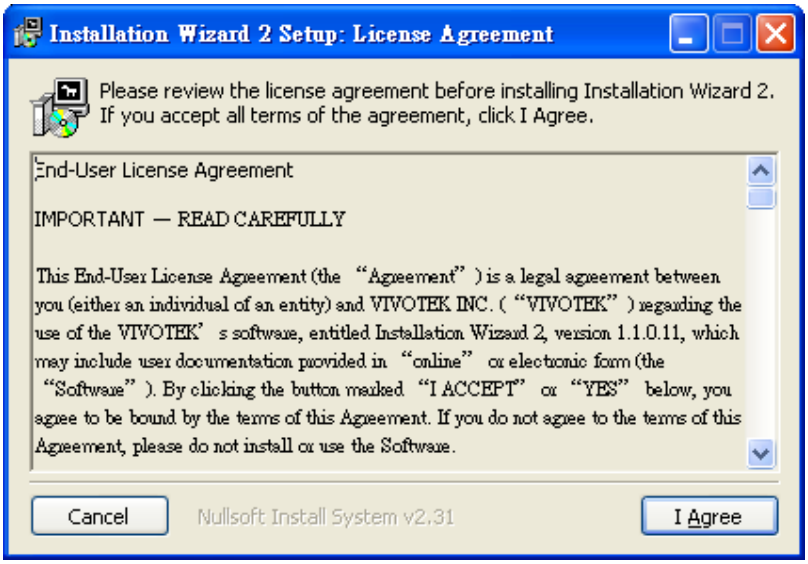


Figure 2-1 Installation Wizard 2 Installation Window

STEP 2: Please read the license agreement first, and then click on "I Agree" to continue the installation process. The install process will go on and then Figure 2-2 will appear. This page is for you to select the additional component you want to install. The component "Create shortcut on desktop" will create a shortcut on the desktop. It is more convenient for you to launch Install Wizard 2. After selecting the components, please click on the **"Next"** Button to continue.

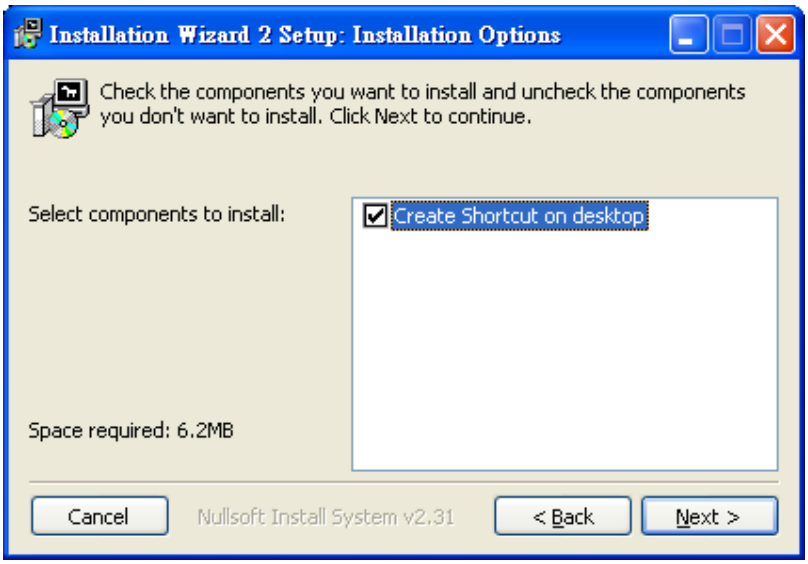


Figure 2-2 Select components to install for the Installation Wizard 2

STEP 3: Select the installation directory for this application software and click on "Install" button. You can also change the installation directory by clicking on "Browse…" button. After the proper directory chose, please click on the "Install" button to continue.

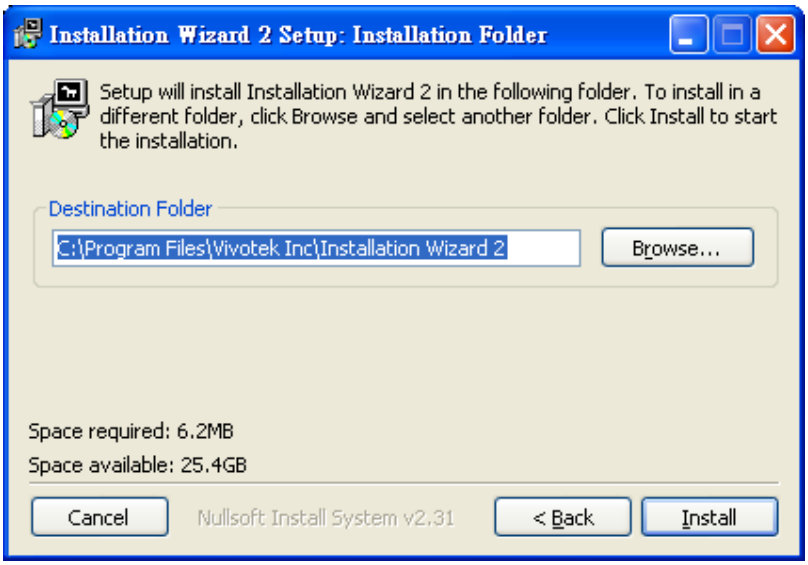


Figure 2-3 Destination Location for Installation

STEP 4: After clicking "Install" button, the install system will install the Installation Wizard 2 to your computer, and a progress bar will display on the dialog. After completed the installation, please click on the "Close" button.

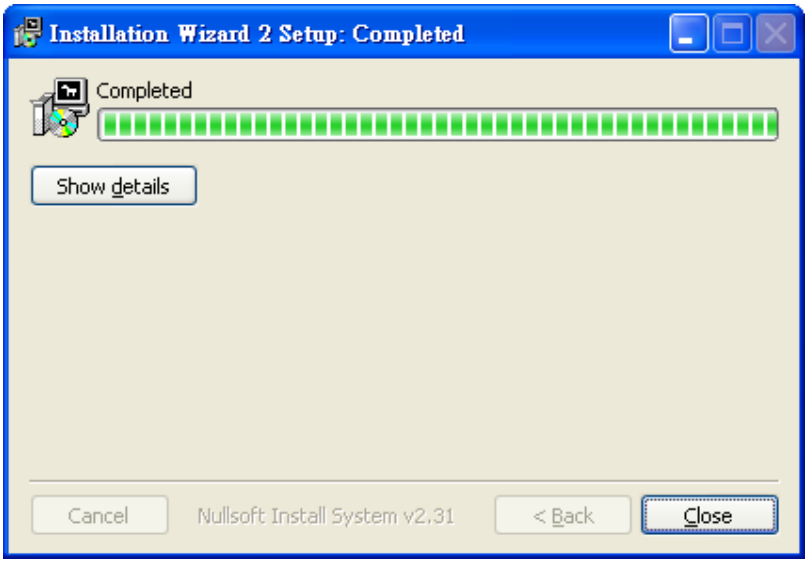
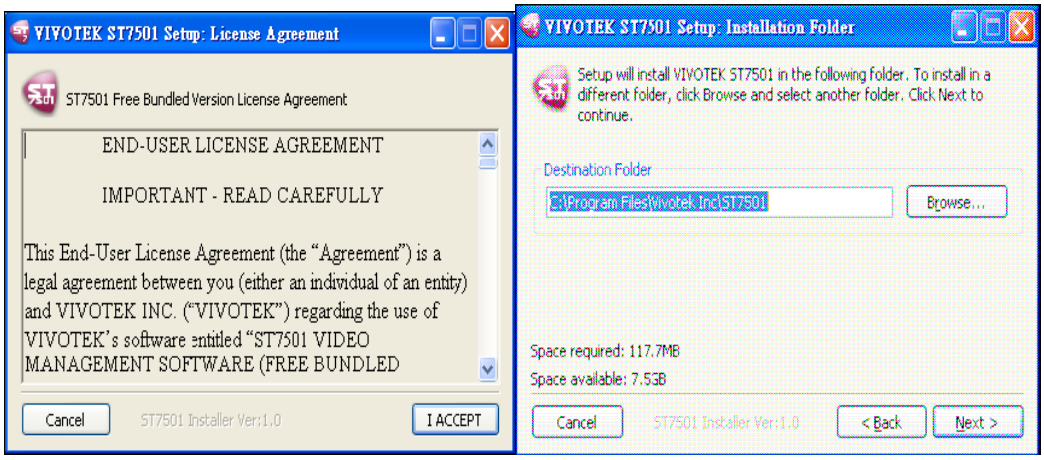


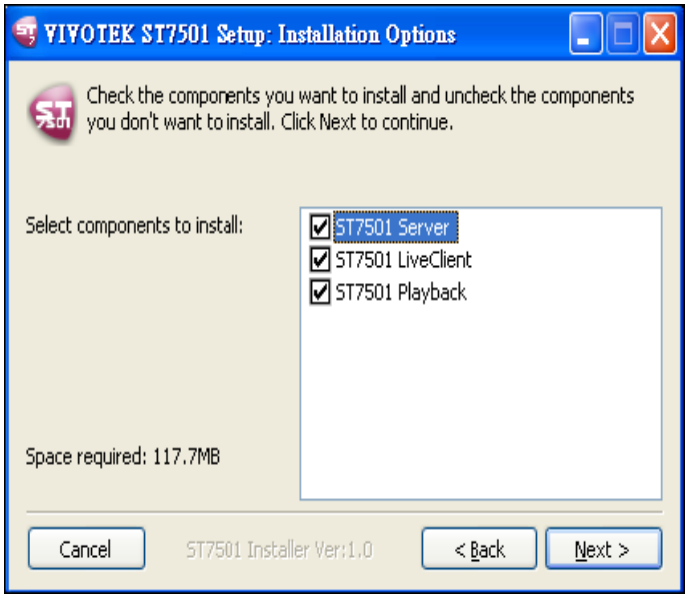
Figure 2-4 Completed

2.2 ST7501(Client/Server) Installation

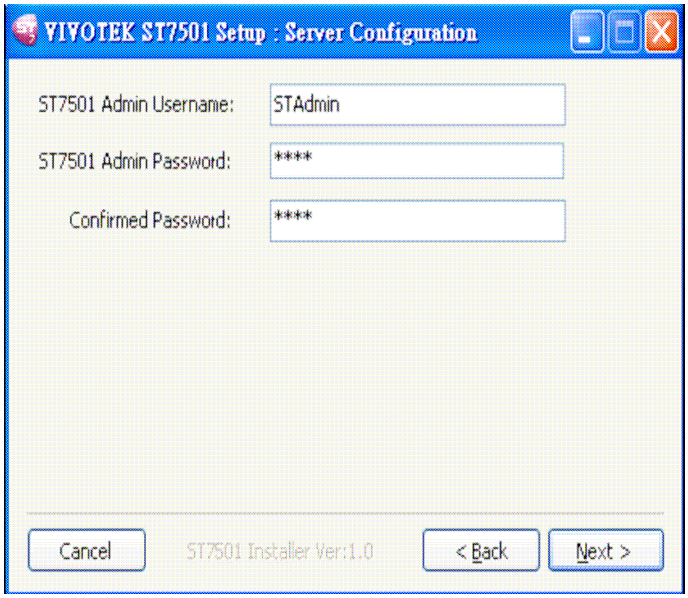
1. Run the ST7501_Setup.exe program on your computer. Click I ACCEPT for the License Agreement and specify a location to install..



2. Select all items to install, and then click Next to continue.



3. Assign administrator username and password for ST7501 Server which will run on this computer and then click Next.



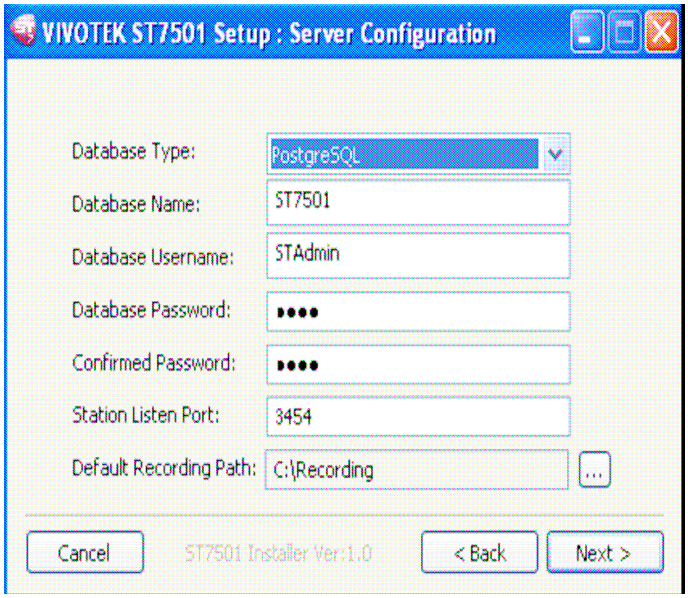
4. Install a database for your server. There are two options--PostgreSQL or SQL server.

PostgreSQL

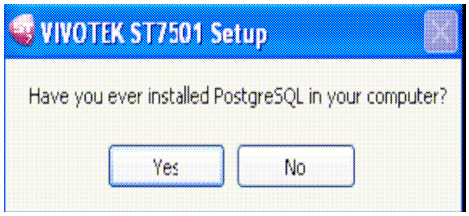
If you don't have a database, we recommend you to select PostgreSQL (8.2 version above is recommended) as your database since ST7501 will instruct you to finish the installation procedure.

Please note that PostgreSQL may be interrupted by some antivirus program. If you cannot use ST7501 without antivirus program, please use SQL server as your database engine.

a. Select it on the drop-down list and assign a password. ST7501 will default store the recorded media file under c:\Recording. If you plan to store data under other path, you could click Browse in the dialog to change the path. Then click Next to continue.

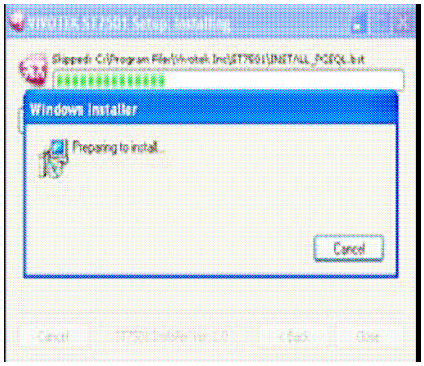


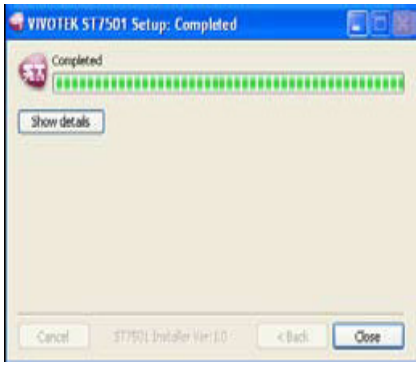
b. A dialog will pop up.



If you don't have PostgreSQL installed on your computer, click No to begin the installation.

c. Wait for the installation process to complete and then click Close to exit the installation program.

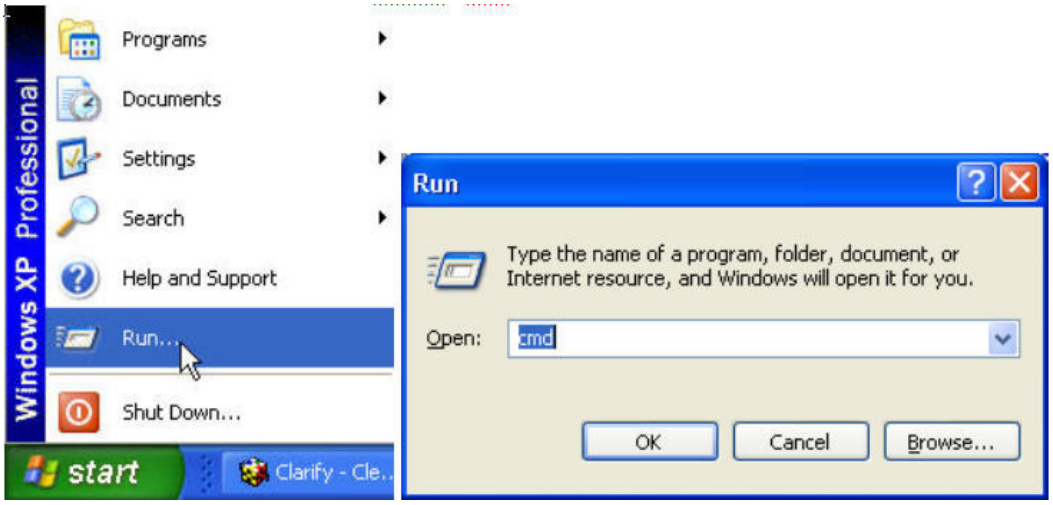




2.3 Check IP Configuration.

STEP 1: Enter the cmd mode

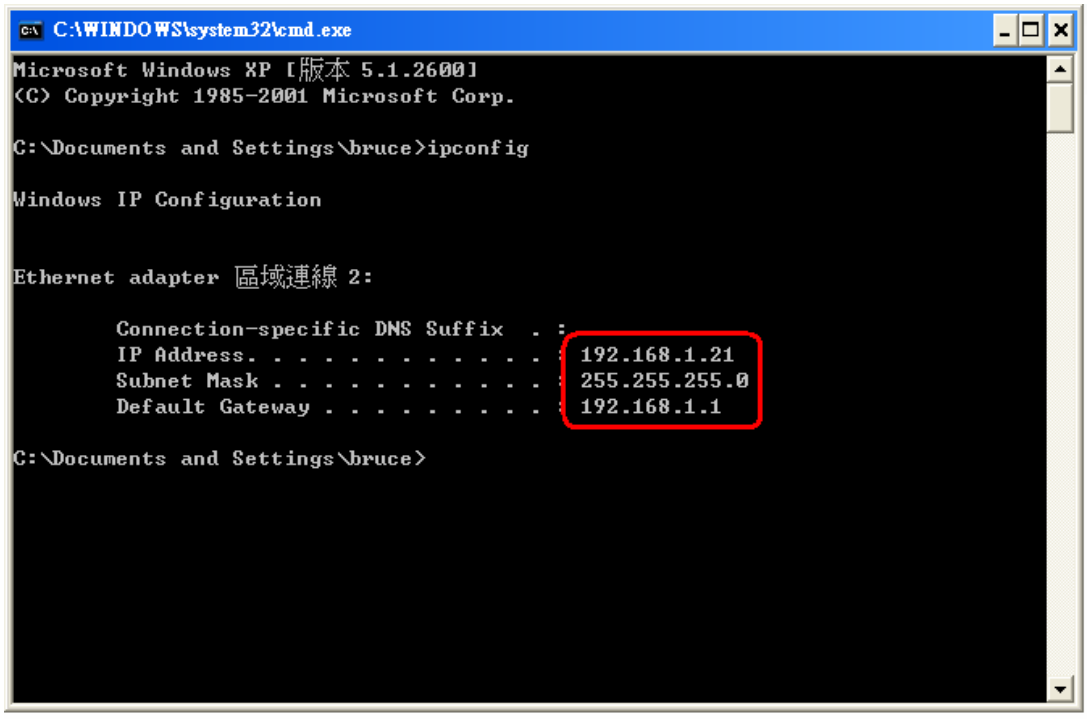
Click Start button->Run. And type cmd in Run dialogue and Click OK to enter cmd mode.



STEP 2: Get the IP configuration.

Type ipconfig and press Enter.

IP configuration will show up. Remember your IP configuration and it will be very useful in later lab testing.


C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [版本 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\bruce>ipconfig
Windows IP Configuration
Ethernet adapter 區域連線 2:
Connection-specific DNS Suffix . :
IP Address. . . . . : 192.168.1.21
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.1.1
C:\Documents and Settings\bruce>

Chapter 3 Using Installation Wizard 2

3.1 User Interface

Figure 3-1 Analyze network environment

The Installation Wizard 2 had distributed the network type into 6 groups, such as *Private fixed IP*, *Private DHCP*, *PPPoE*, *Public fixed IP*, *Public DHCP* and *No Connection to Internet*. Once you run the Installation Wizard 2, it will do some analysis toward your network environment like Figure 3-1. Then, the dialog window

will display your network type after finished the detection. For example, if there is a DHCP server on your LAN, using DHCP function to set up the device may easier than the other option. Our lab network analyze will show No Connection to Internet. Please click on the **"Next"** button to continue the program. After a short searching time, you will see the user interface as shown in Figure 3-2.

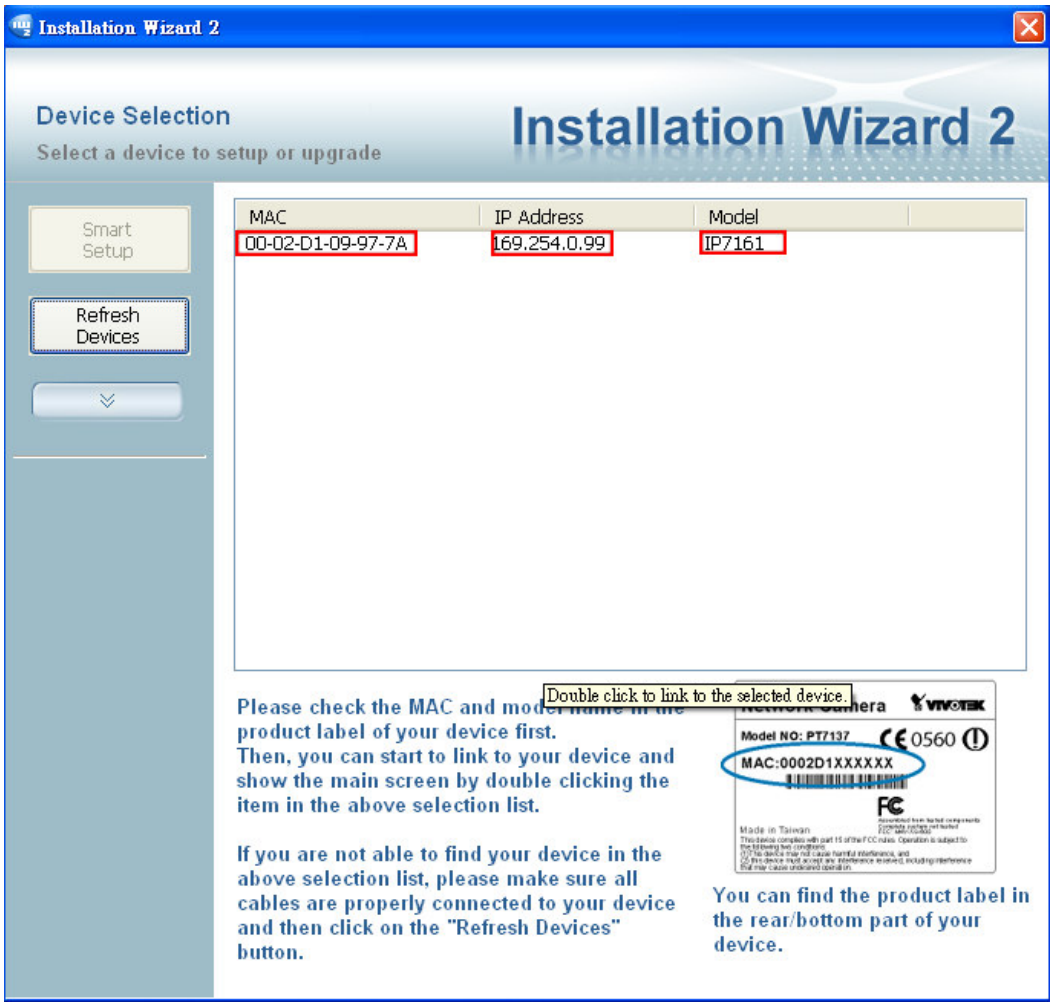
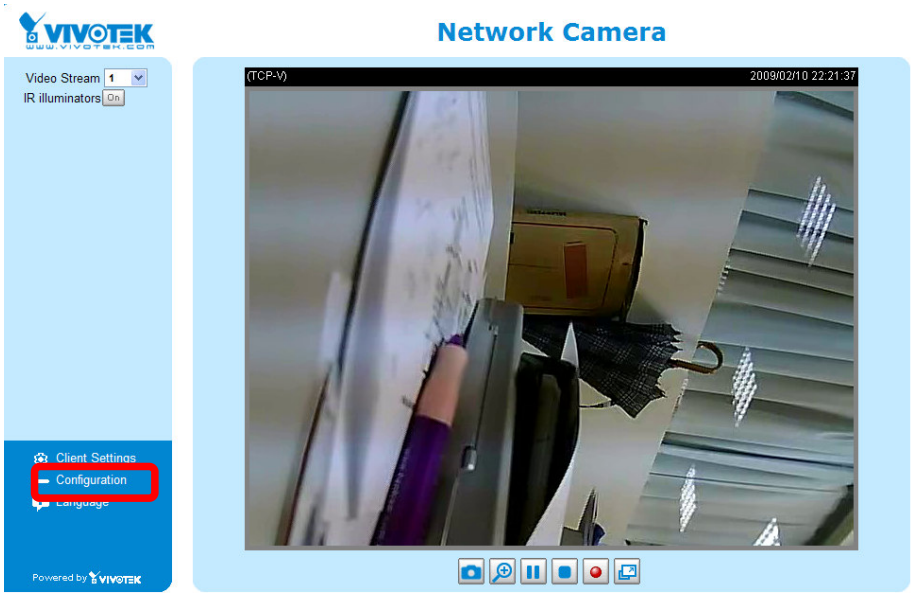


Figure 3-2 The Search Result Window

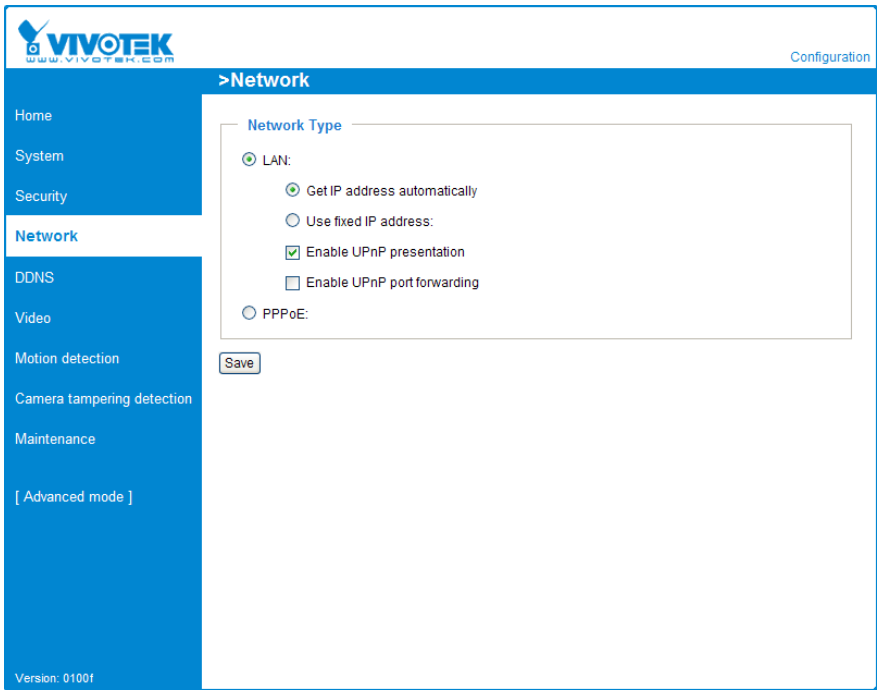
Because 169.254.XXX.XXX is not normal used IP address, we need to assign s static IP to the network camera. We will use Brower to completed the setting.

Double click the item, Internet Explore will show up.

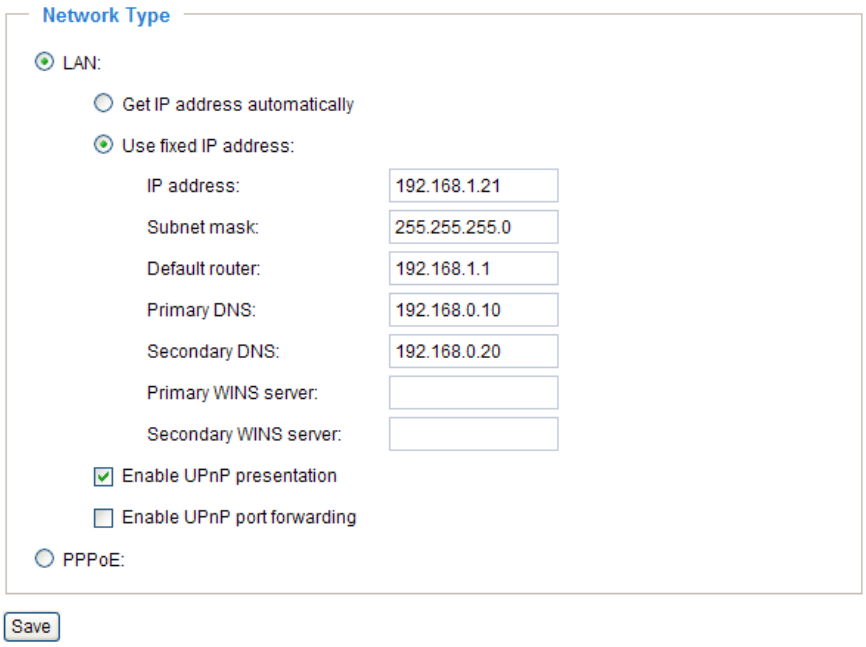
Click Configuration button to access the configuration page of Network Camera.



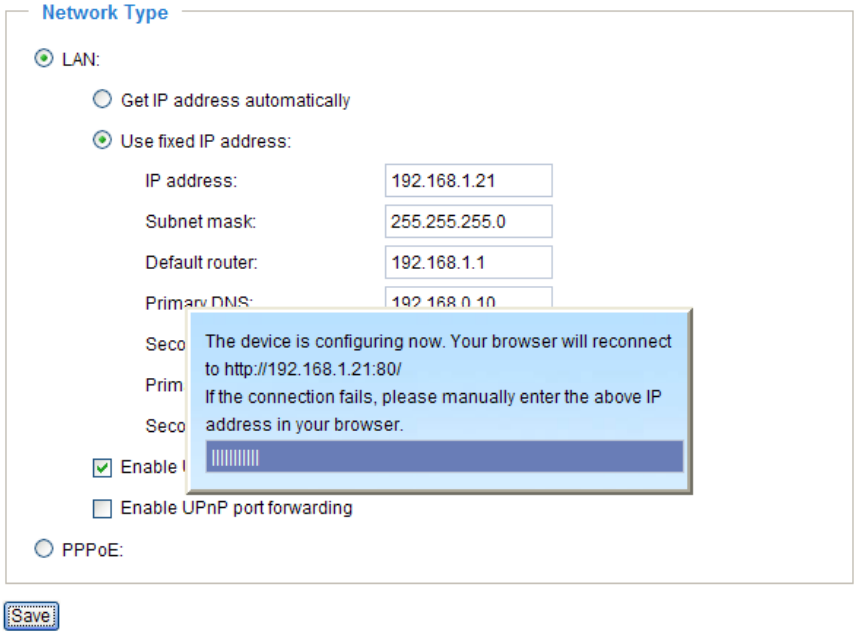
Click Network link to access Network setting page of Network Camera.



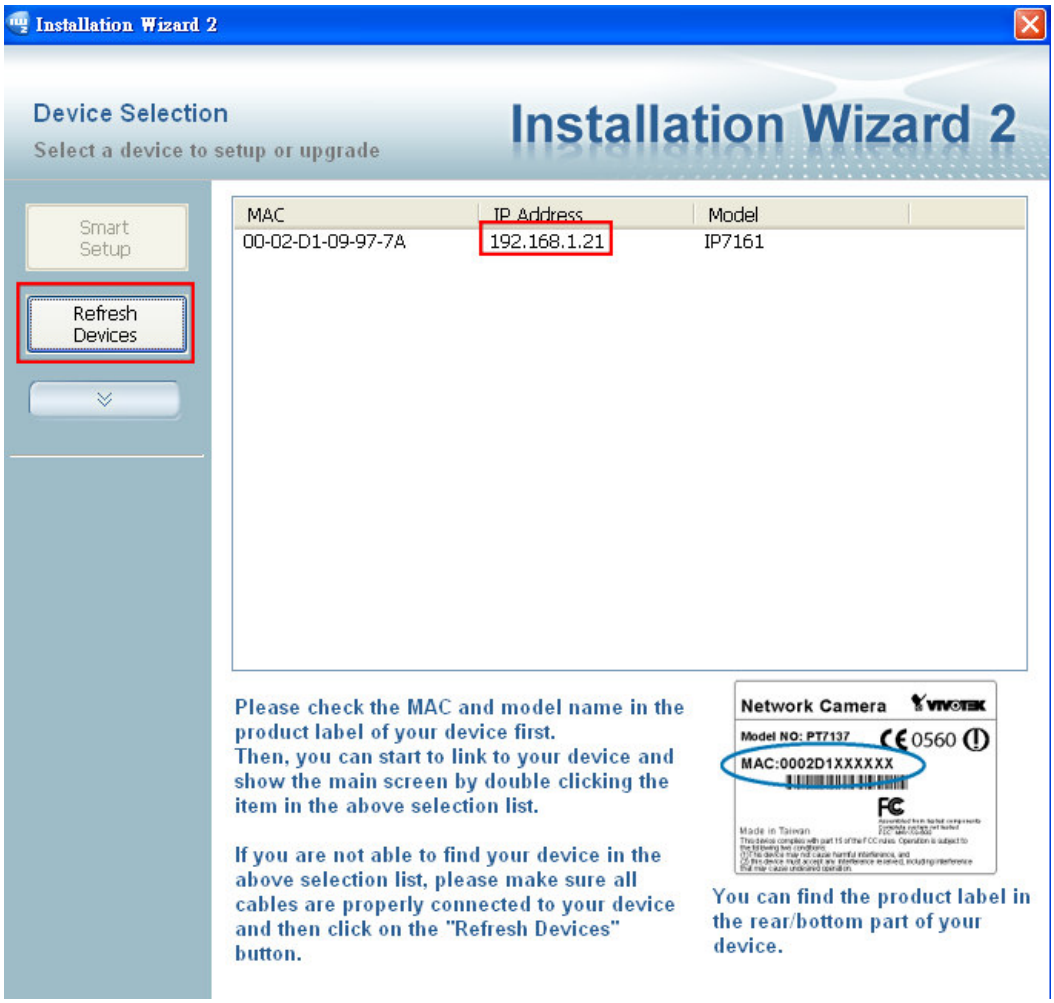
Choose **Use Fixed IP Address** to use the static IP address in lab testing.
The static IP should be in the same subnet with your notebook' IP configuration.
Press Save to save the setting.



After setting is done, the Brower will reconnect to new IP address.



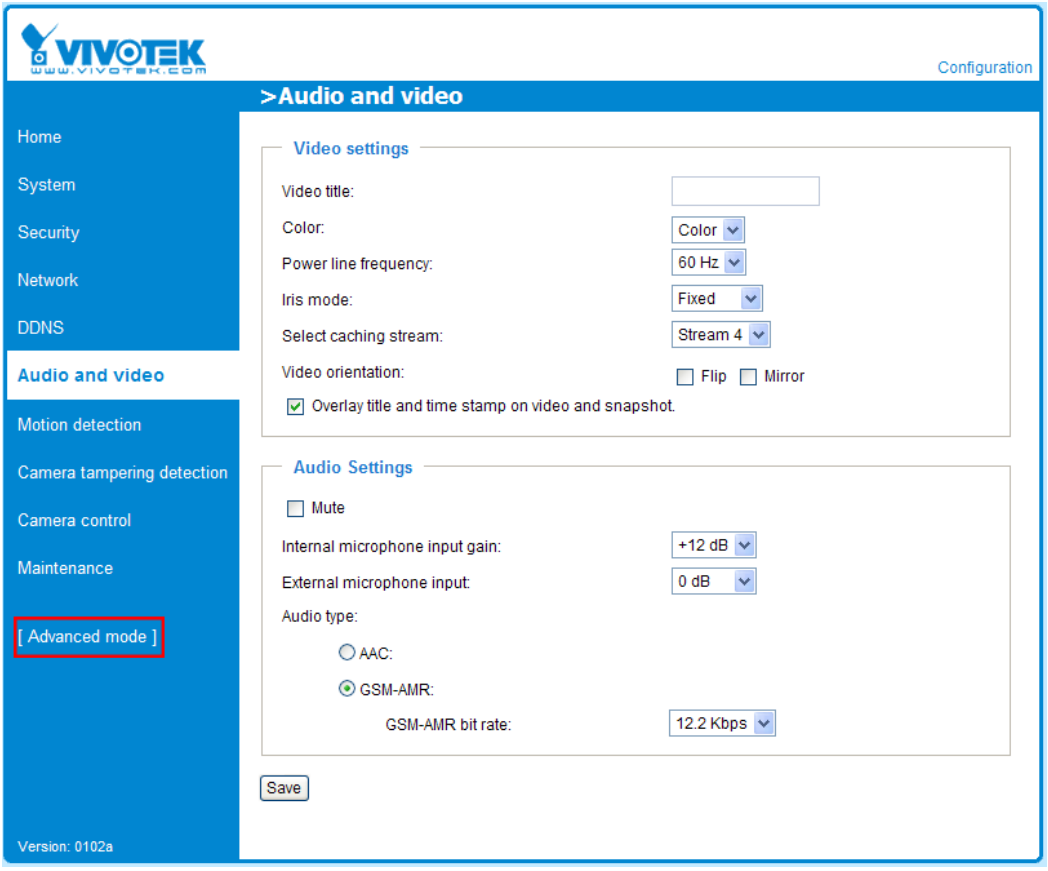
Click Refresh Devices button, it will show the new IP setting on the search result.



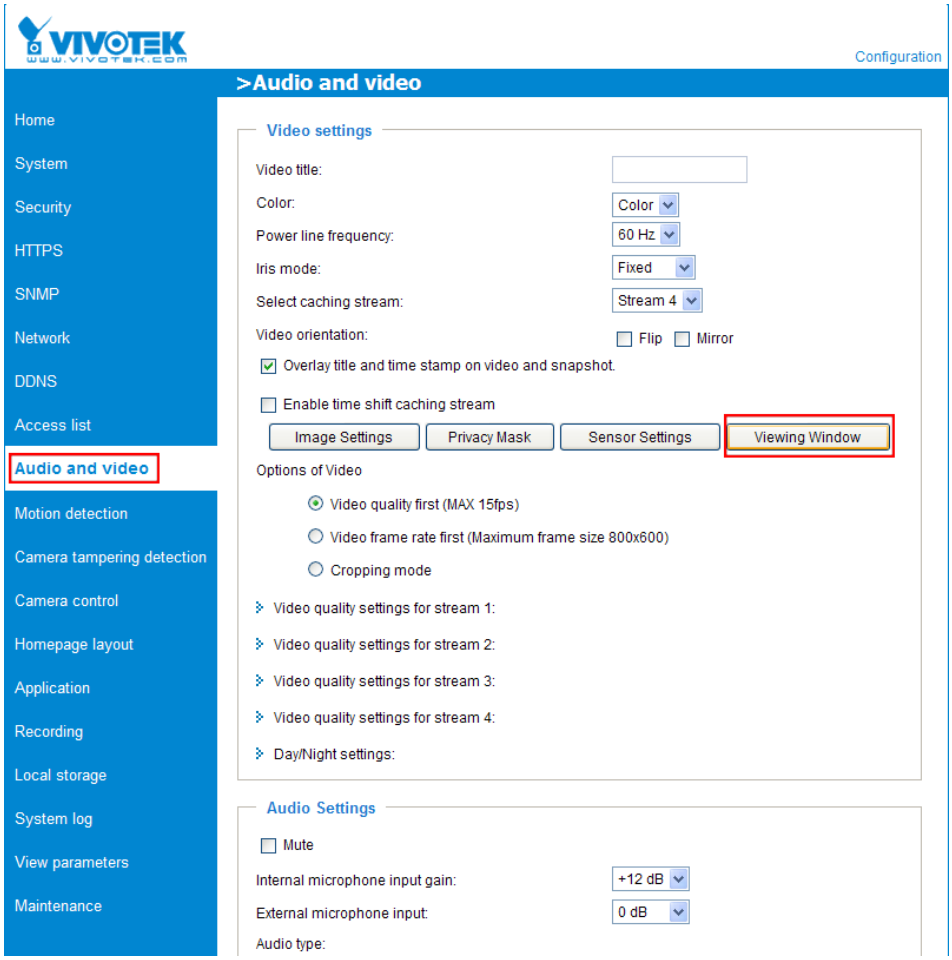
Chapter 4 Camera Configuration

4.1 Cropping

This section will instruct how to configure cropping function.
Cropping function is in the advance category. We need to setup our browser in advance mode. If your page is like the figure below, you need to click [Advanced mode] to enter **Advance mode**.



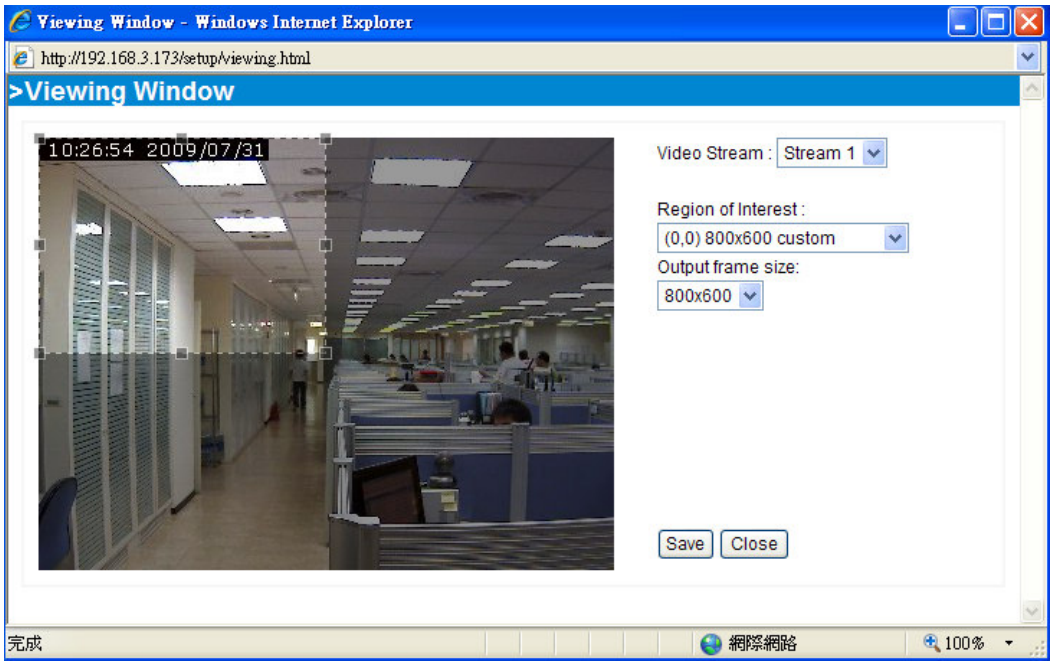
Then you need to enter the **Viewing Window** page where we can configure this advanced feature..



Before entering Viewing Window, you will receive the warning message like

This message reminds you that in the following what you do about viewing window will be reset once any user changes the setting of video. Because the video setting is the foundation of ePTZ algorism, we need to do this to assure ePTZ normal working .

Viwing Window Page:

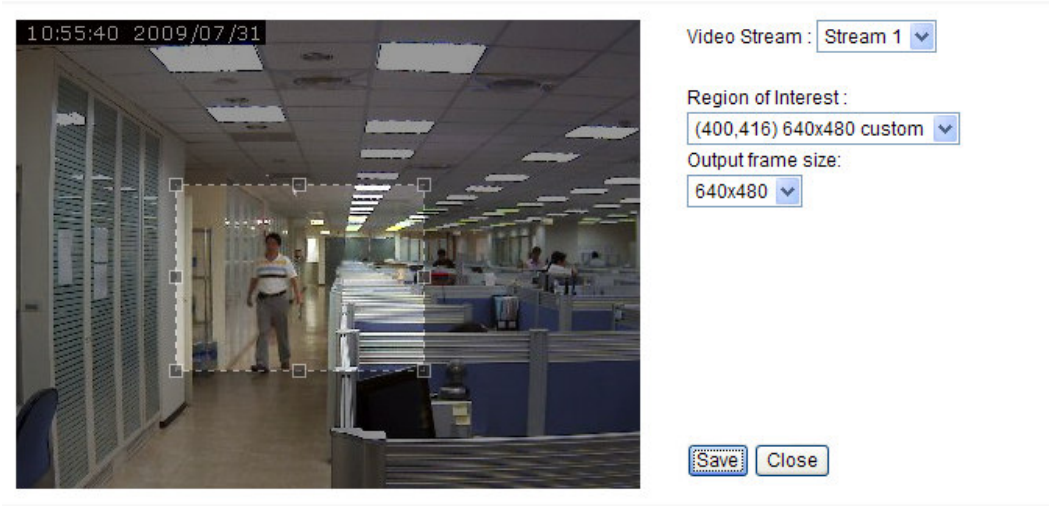


■ **Video Stream**: There are 3 streams can be configured as cropping stream.

■ **Region of Interest**: Default size options of cropping region.

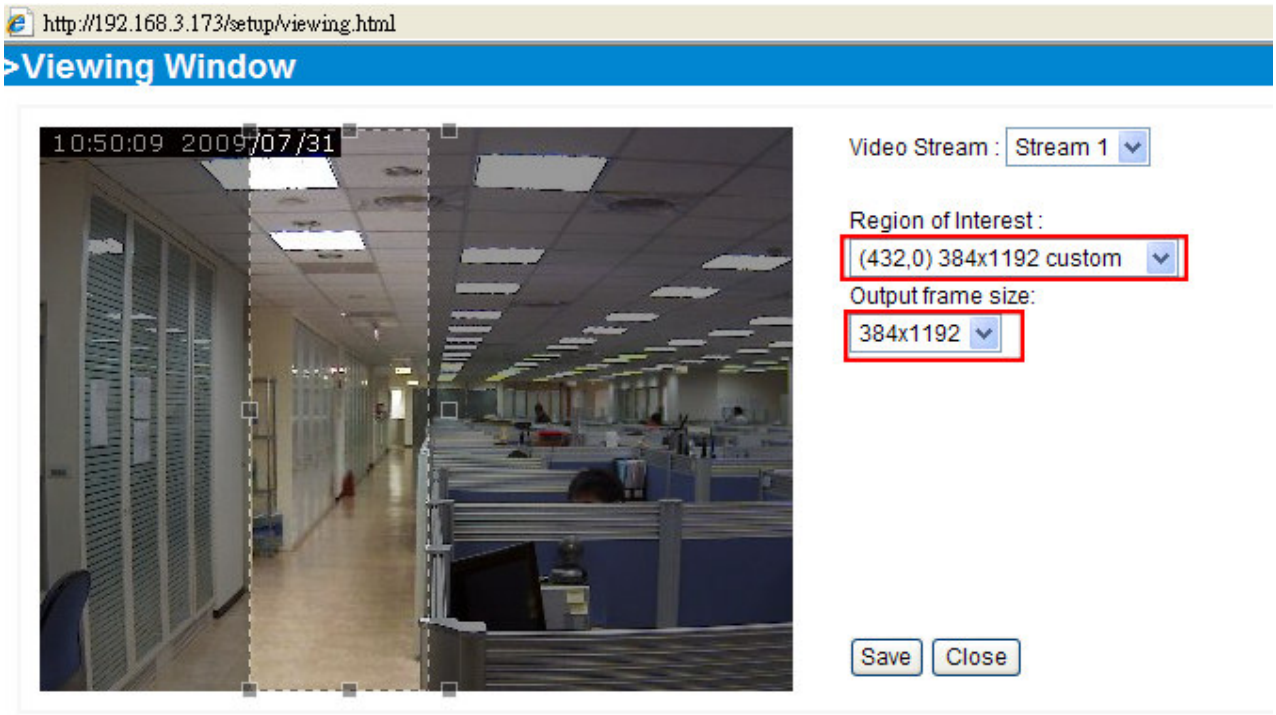
■ **Output of frame size**: The output frame size which is keep aspect ratio with ROI.(Region of Interest)

1. Choose one stream you want in the **Video Stream** combobox.
2. Choose one default size of ROI in **Region of Interest** combobox.
3. Choose one out put frame size in **Output frame size** combobox.
4. Move the region to where you really want to monitor.
5. Click **Save** and then complete the setting
6. Click **Close** and leave.



Above are standard steps of setting traditional video size. You still can choose the region are not so normal like following.

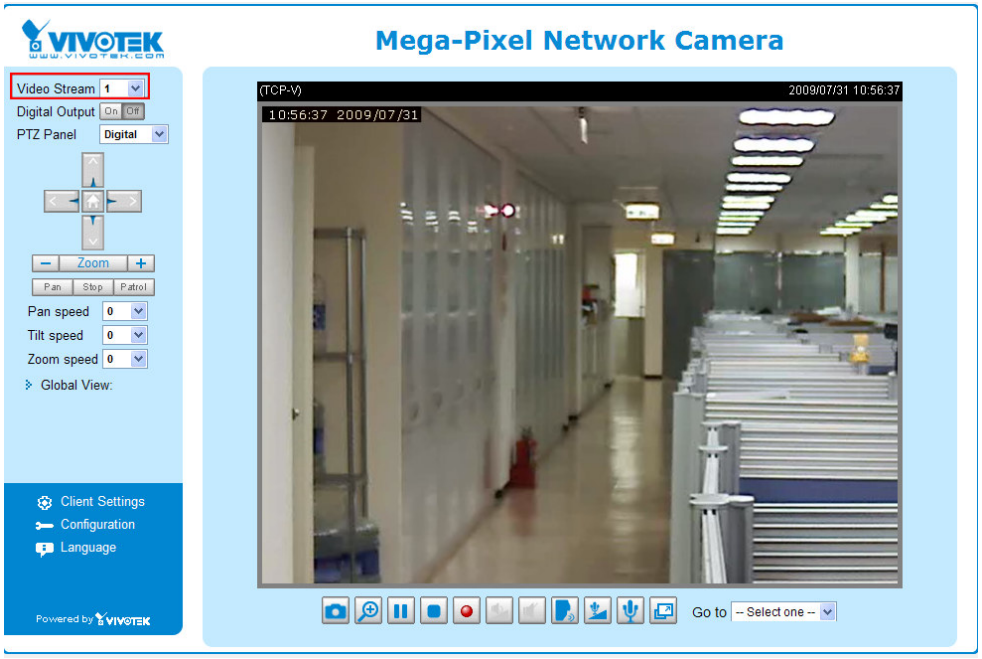
All you need to do is drag the the retangle of ROI to any where you want.



The size of ROI will show in the **Region of Interest** and **Output frame size.**

Choose **Home** check the video.

Swith the stream index you set in the **Viewing Window** page. And then check if the video setting is exact what you want.



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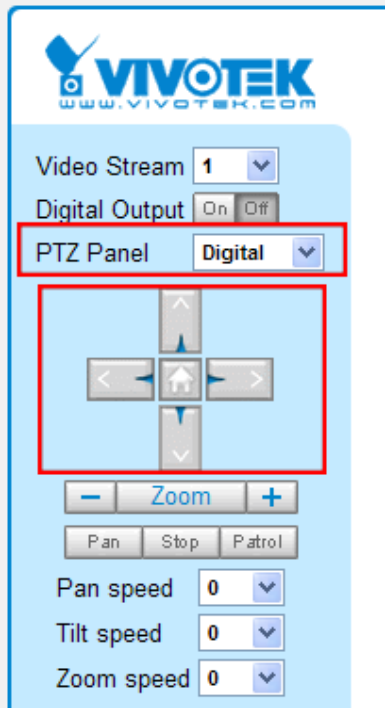
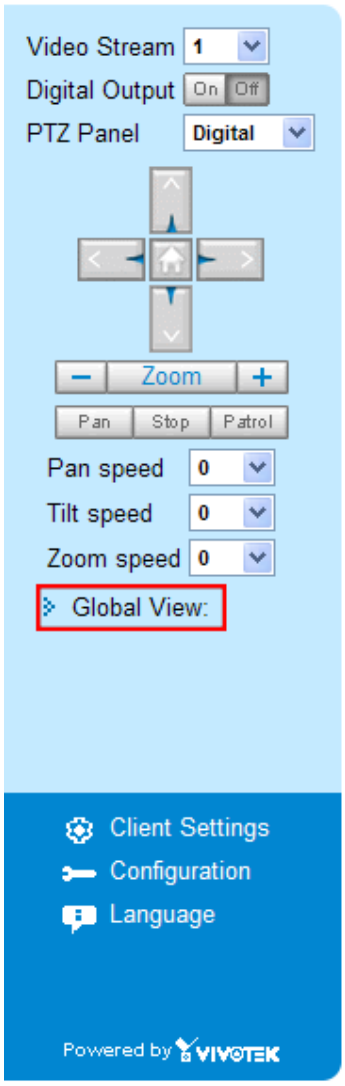
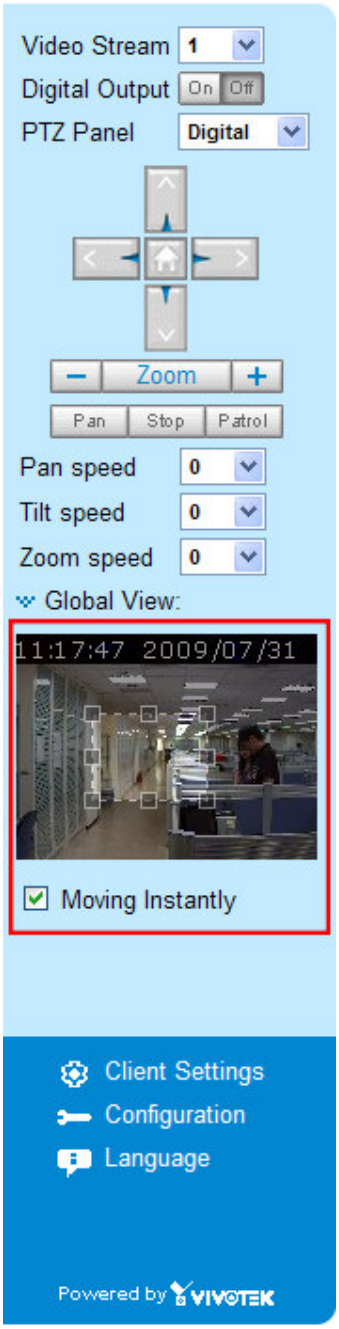
4.2 ePTZ

The ePTZ function is base on the cropping function we set up last setion. **You can use control panel to control ePTZ, the video will move by your command.**



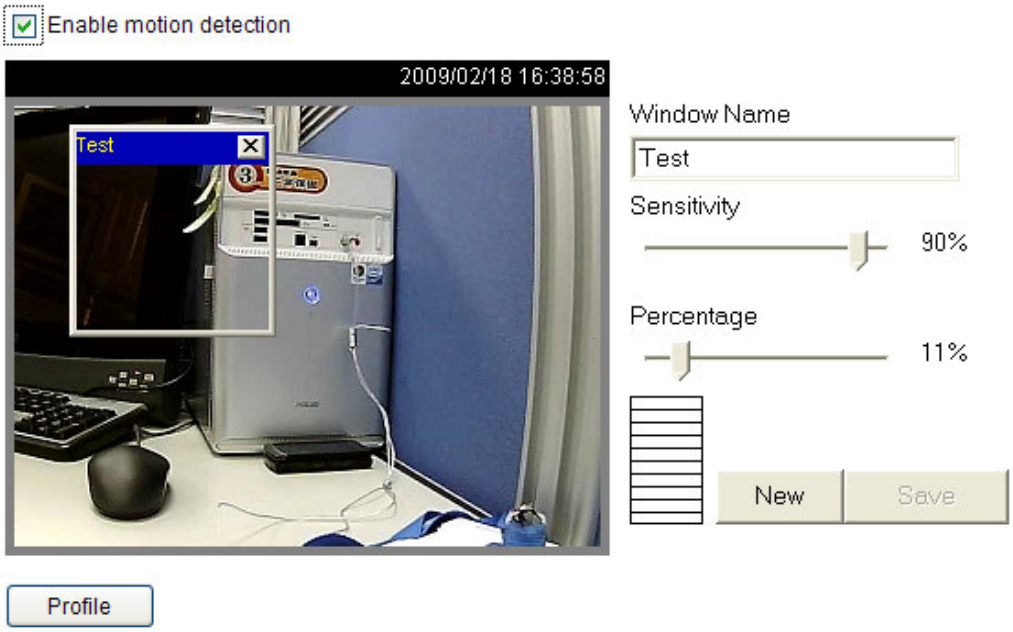
Click Global View will show cropping window, you can also move the **ROI. This is an alternative way of ePTZ**





4.3 Motion Detecion

This section explains how to configure the Network Camera to enable motion detection. A total
of three motion detection windows can be configured.



Follow the steps below to enable motion detection:

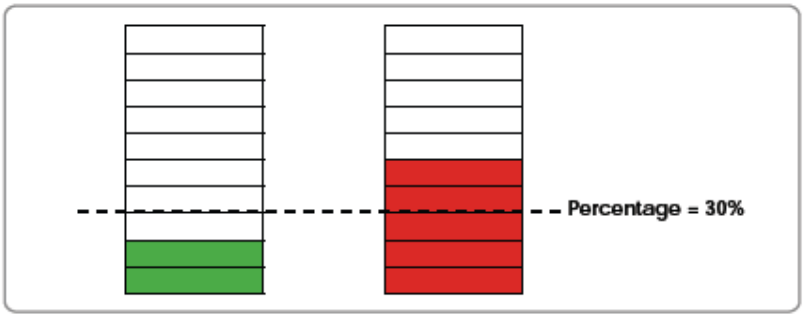
1. Click **New** to add a new motion detection window.
2. In the Window Name text box, enter a descriptive name for the motion detection window.

- To move and resize the window, drag-drop the window.

- To delete window, click X at top right of the window.

3. Define the sensitivity to moving objects and the space ratio of all alerted pixels by moving the
Sensitivity and Percentage slider bar.
4. Click **Save** to take effect.
5. Check **Enable motion detection** to enable this function.

The Percentage Indicator will rise or fall depending on the image variation. When motions are detected by the Network Camera and are judged to exceed the defined threshold, a red bar rises. Meanwhile, the motion detection window will be outlined in red. Photos or videos can be captured instantly and configured to send to the remote server (Email, FTP) by utilizing this feature as a trigger source.



A green bar indicates that even though motions are detected, the event will not be triggered because the
image variations are still falling under the defined threshold.

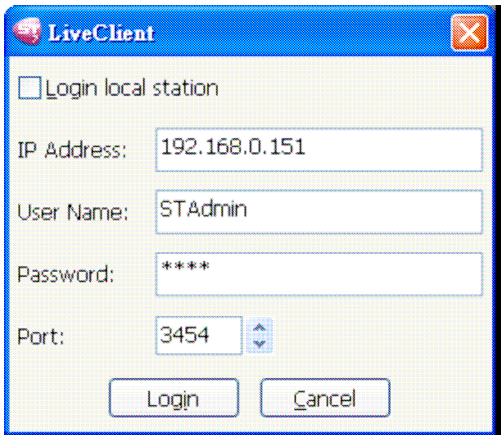
Chapter 5 Using ST7501

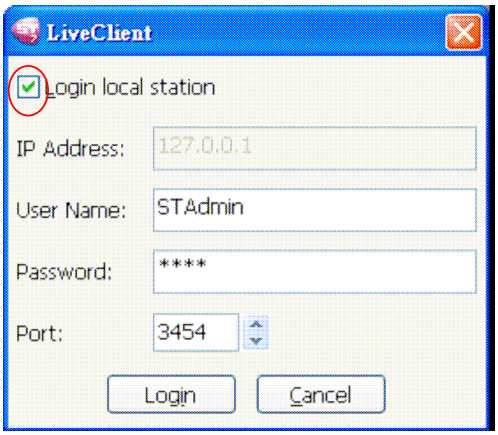
5.1 Login LiveClient

1. Run the **ST7501 LiveClient** program.

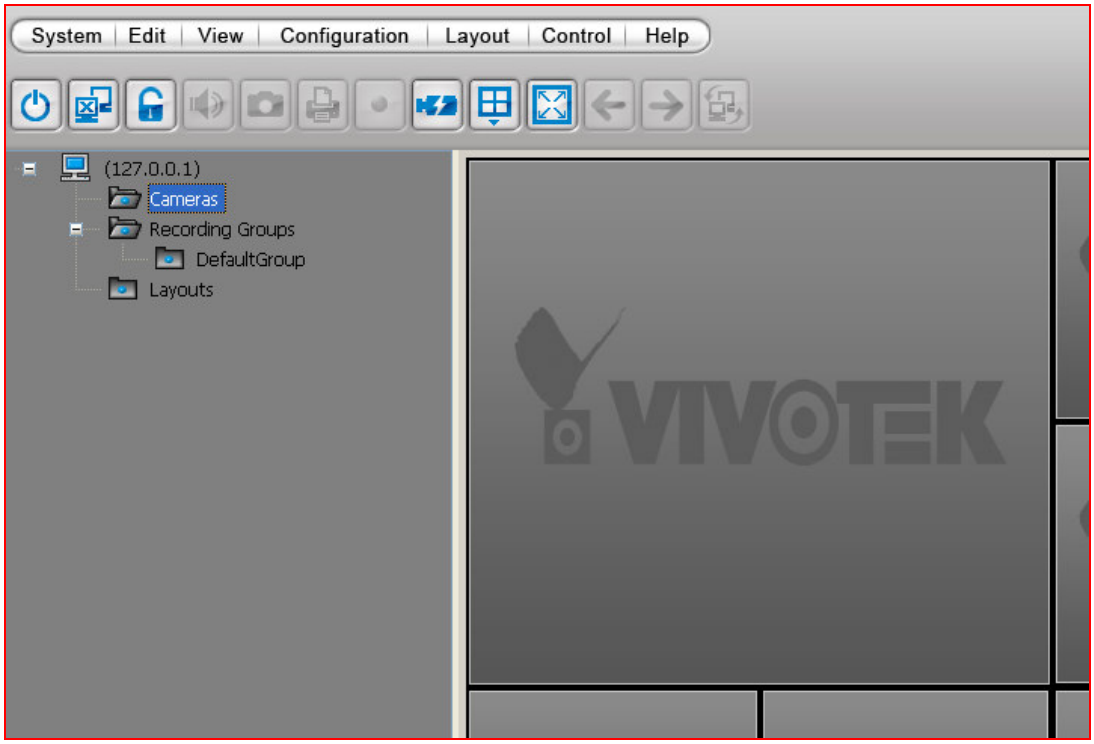
2. A **Login** window will pop up. Enter the blanks as below:

If you want to login to a remote ST7501 server, enter the **IP address**, **user name**, **password** and **communication port** of the server to login. Click **Login** to login the target server or **Cancel** to exit the system. If you want to login to your local host which is currently running ST7501 server, check **Login local station** checkbox, then the local IP address will show up automatically. Enter the **username**, **password**, and **communication port** of the local server to login. Click **Login** to login the target server or **Cancel** to exit the system.





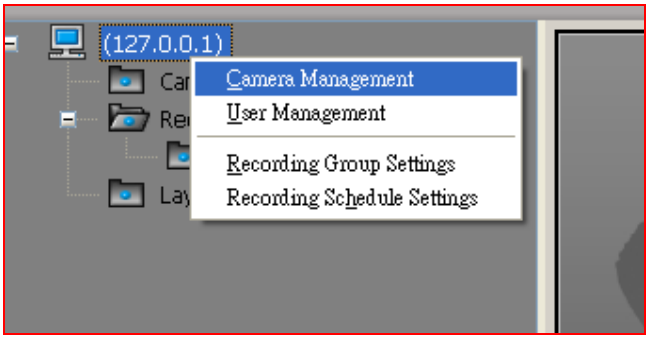
3. The ST7501 LiveClient monitoring window will be displayed.



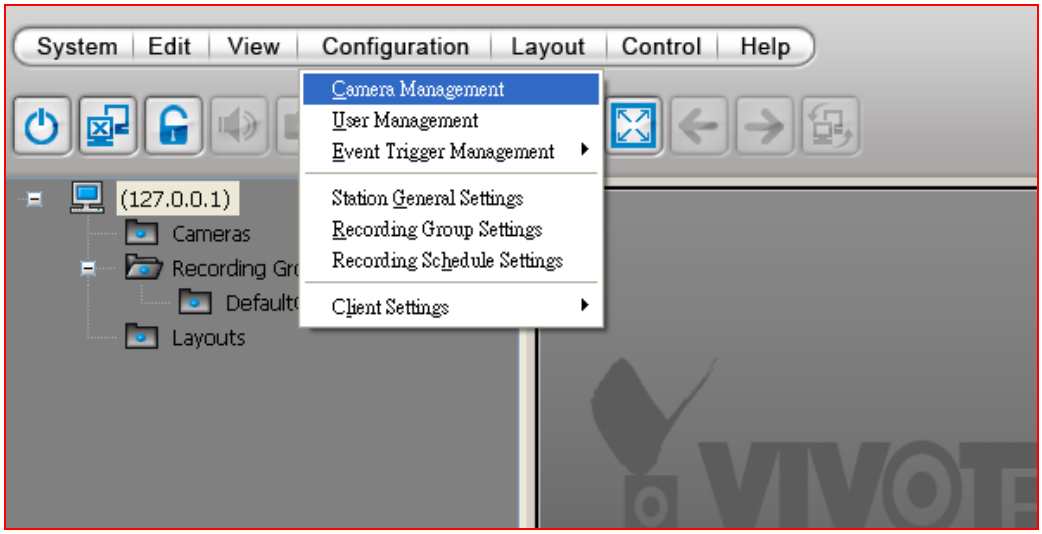
5.2 Camera Insertion

There are two methods to manage devices under a station:

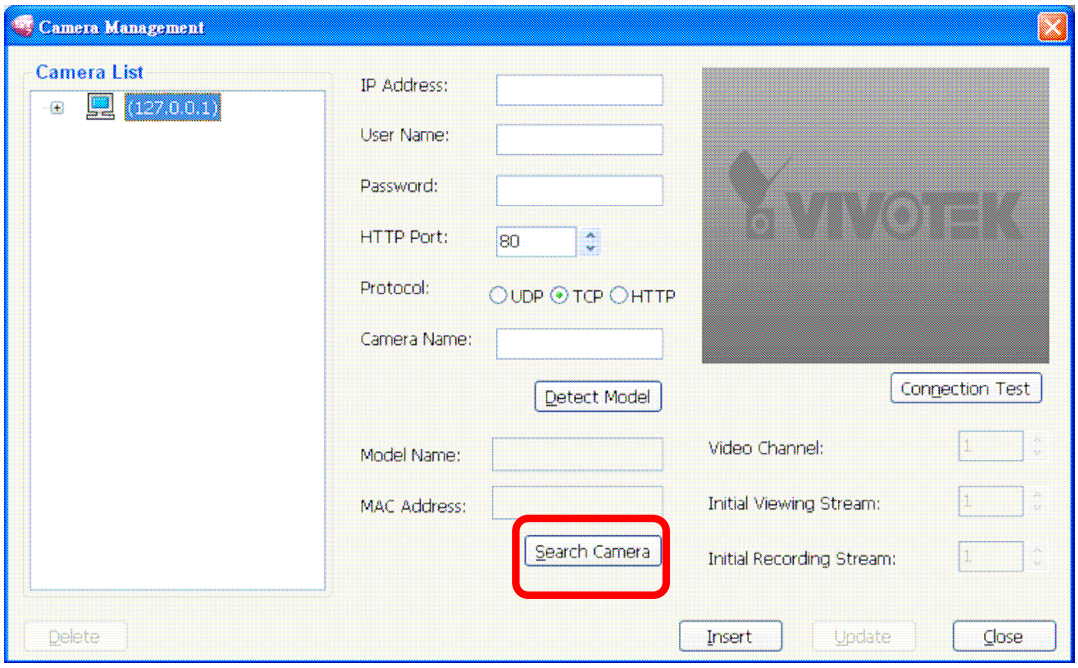
a. Right click the station on the device tree and then select **Camera Management**



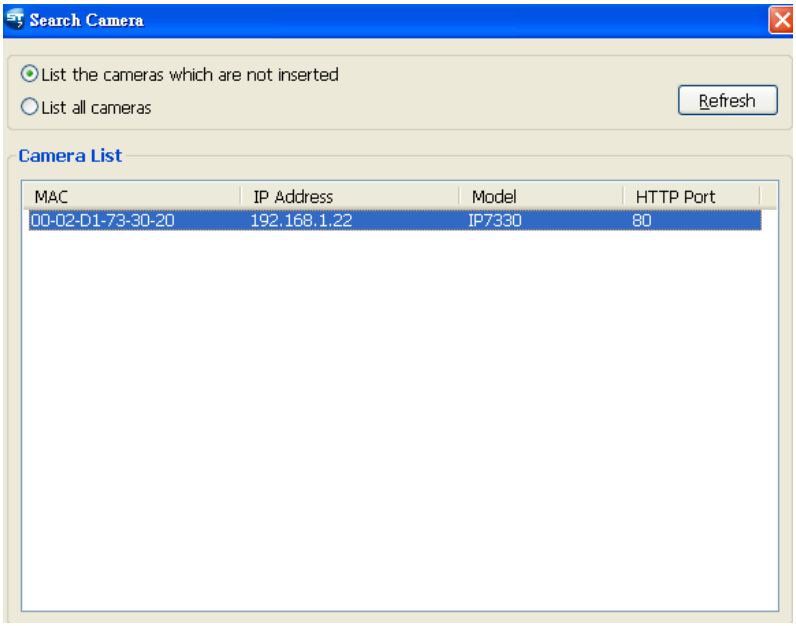
b. Click **Configuration > Camera Management** on the menu bar (or **right-click** the station, and then select **Camera Management**).



The **Camera Management** window will pop up. Then you can begin insert or update devices under the station.



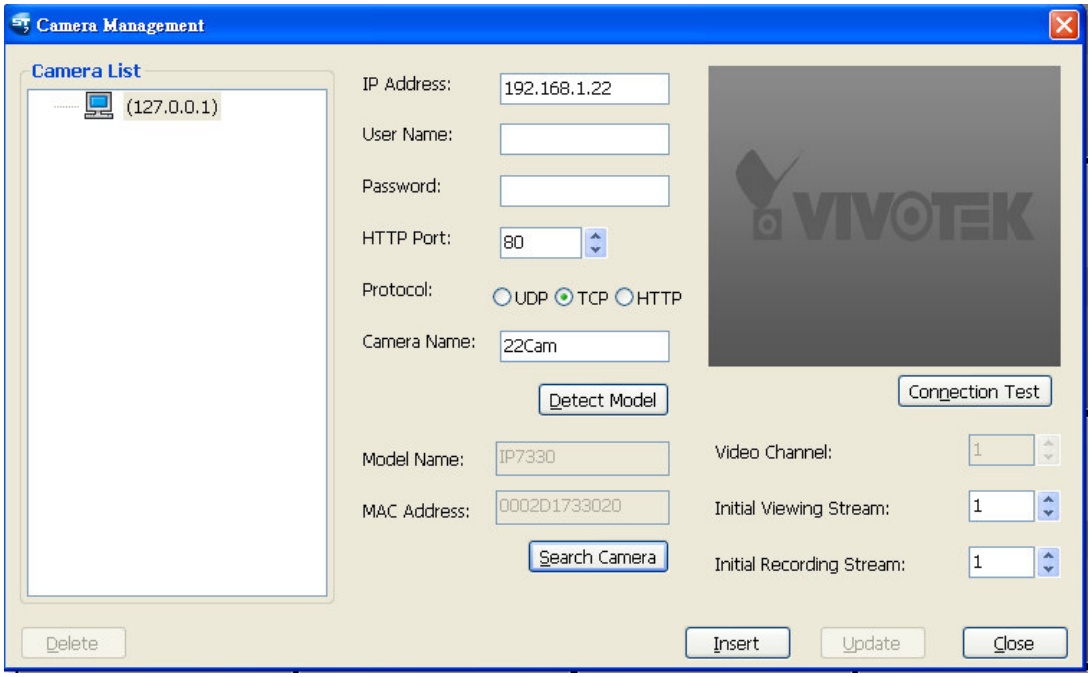
You can insert devices in LAN easily by using our convenient camera searching function. Click **Search Camera** to detect all VIVOTEK's network cameras/video servers in LAN



Select a device from the list you want to insert to the station. Its **IP address, model name, MAC** and **HTTP port** information will automatically show up in the corresponding blanks in Camera Management window.

Enter the device's **Camera Name**, (**User Name** and **Password if necessary**).

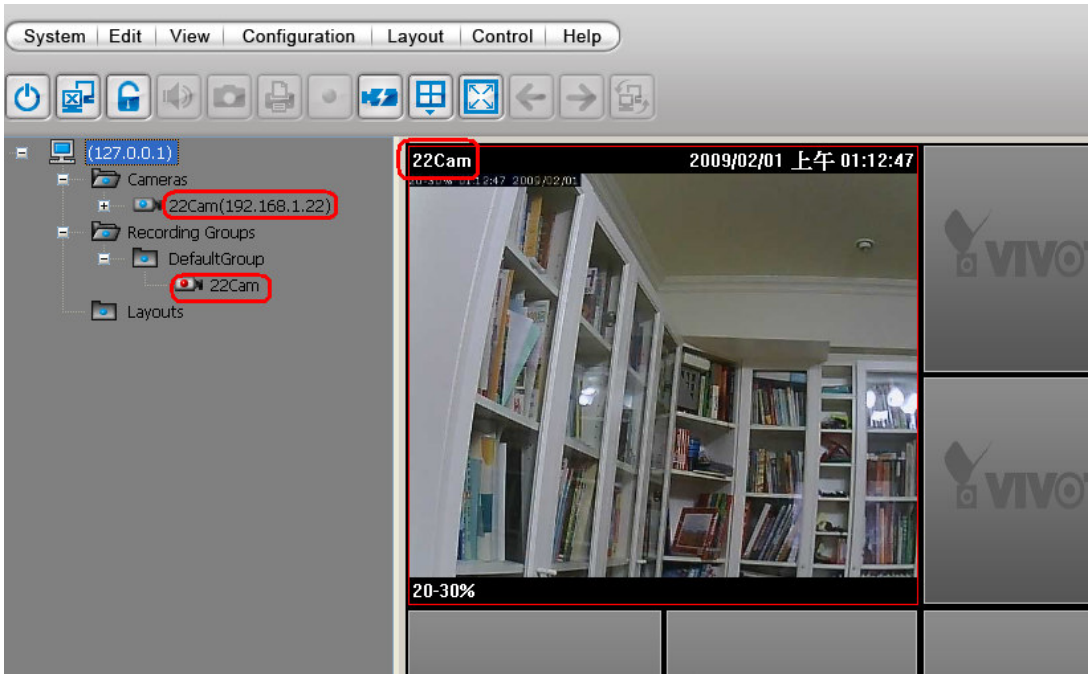
Specify the channel index for a multi-channel video server; specify the recommended monitoring and recording stream for a camera.



When all settings are done, click **Insert** to add the device to the station. The device will show up under the device tree.

When completed, click **Close** to exit the camera management window and return to the monitoring window.

Back to the main window, you will find the newly inserted devices appear under the station and show up in the video cell.

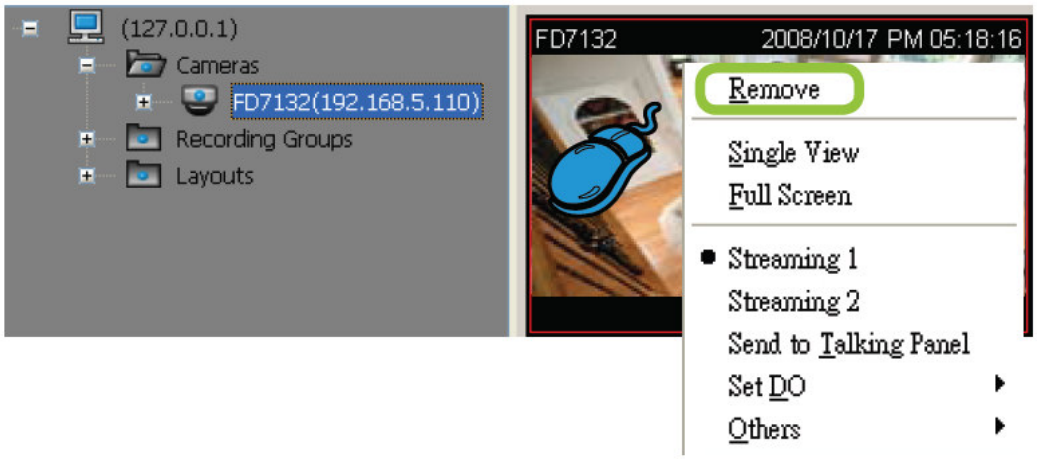


5.3 Live View

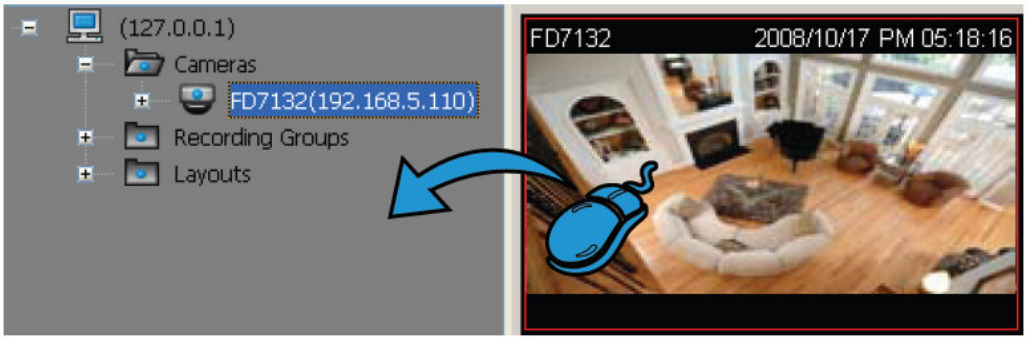
Remove Live Video from the Video Monitoring Window

There are two ways to remove a live video from the video cell:

1. **Right-click** the video cell and select **Remove**.



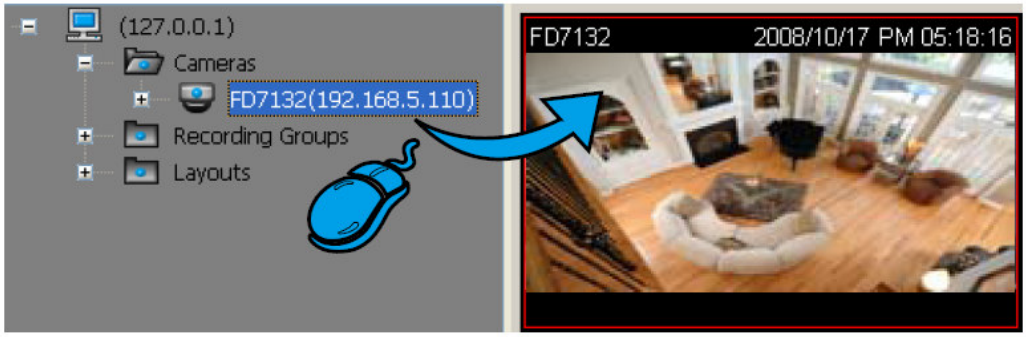
2. **Drag-and-drop** the live view from the video cell to the device tree window.



If you want to remove all live videos from the video cells, please click on the menu bar.

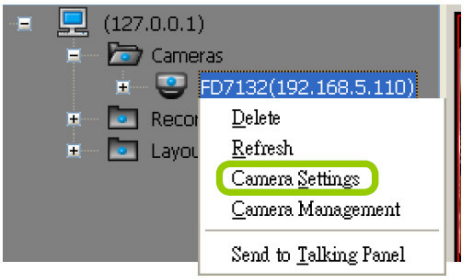
View Live Videos

The server will automatically add newly-inserted device to video cell for live viewing. You also can **double-click** the target device or **drag-and-drop** the target device from the device tree window to the video cell in the live video monitoring window.

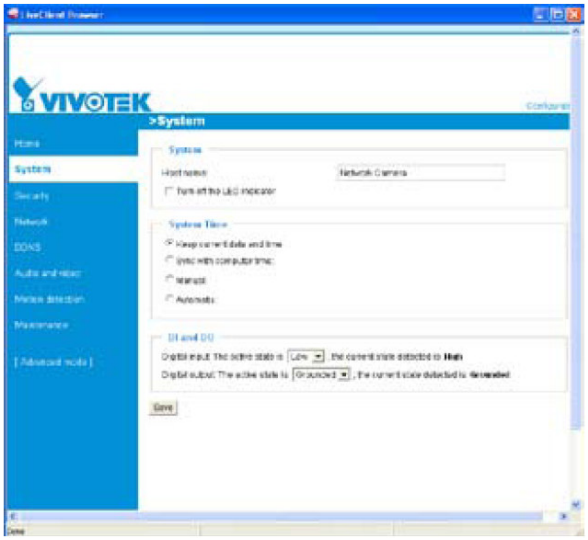


Camera Settings

Click **Camera Settings** to open LiveClient Browser to configure detailed settings

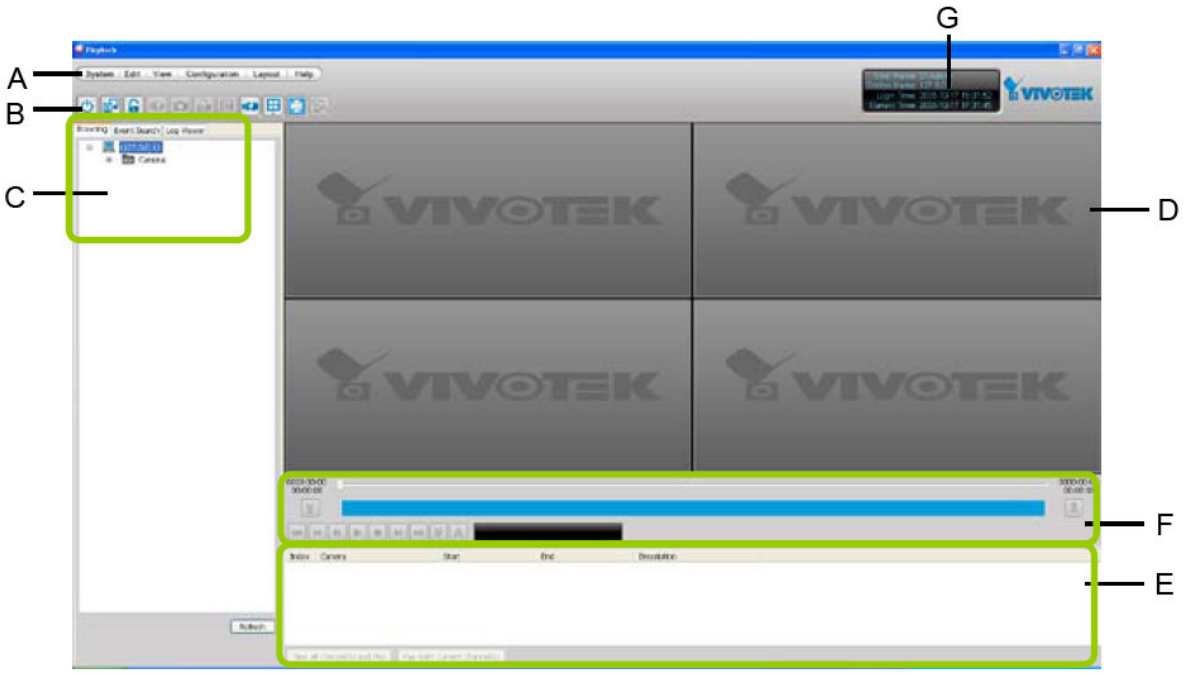


Some functions in the browsing window in ST7501 will be disabled dual to limitation. If you really need to change the settings, use your own browser to connect to the device directly.



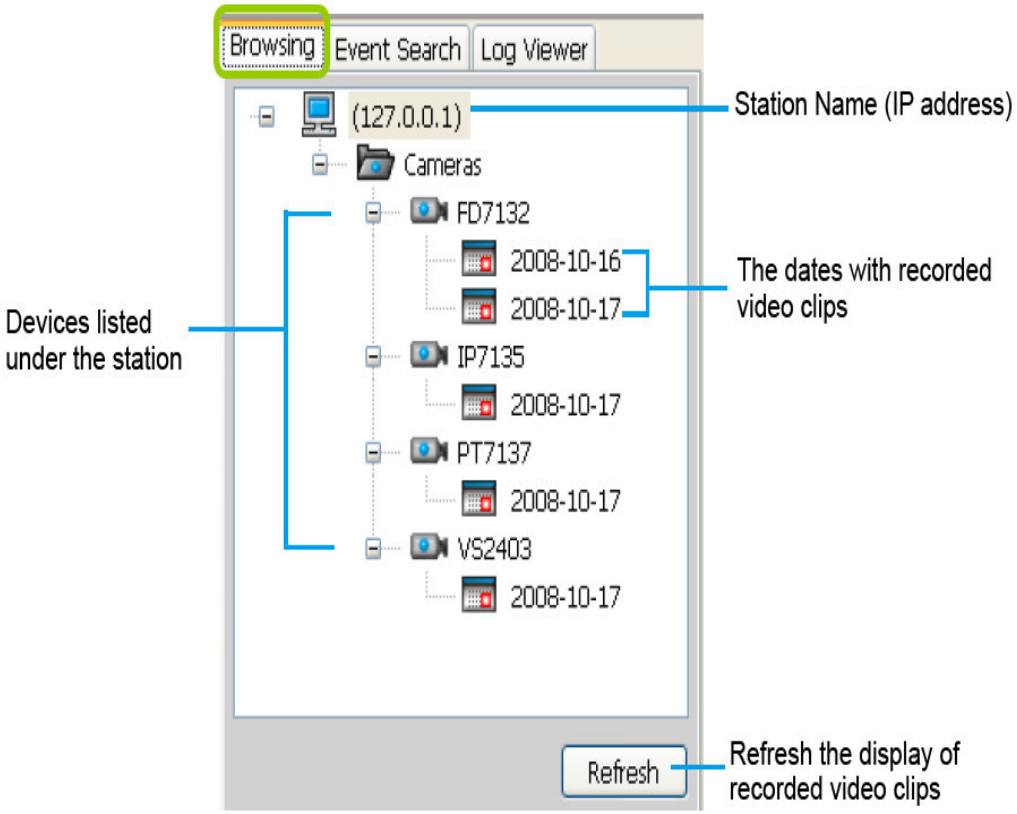
5.4 Playback

User Interface of ST7501 Playback

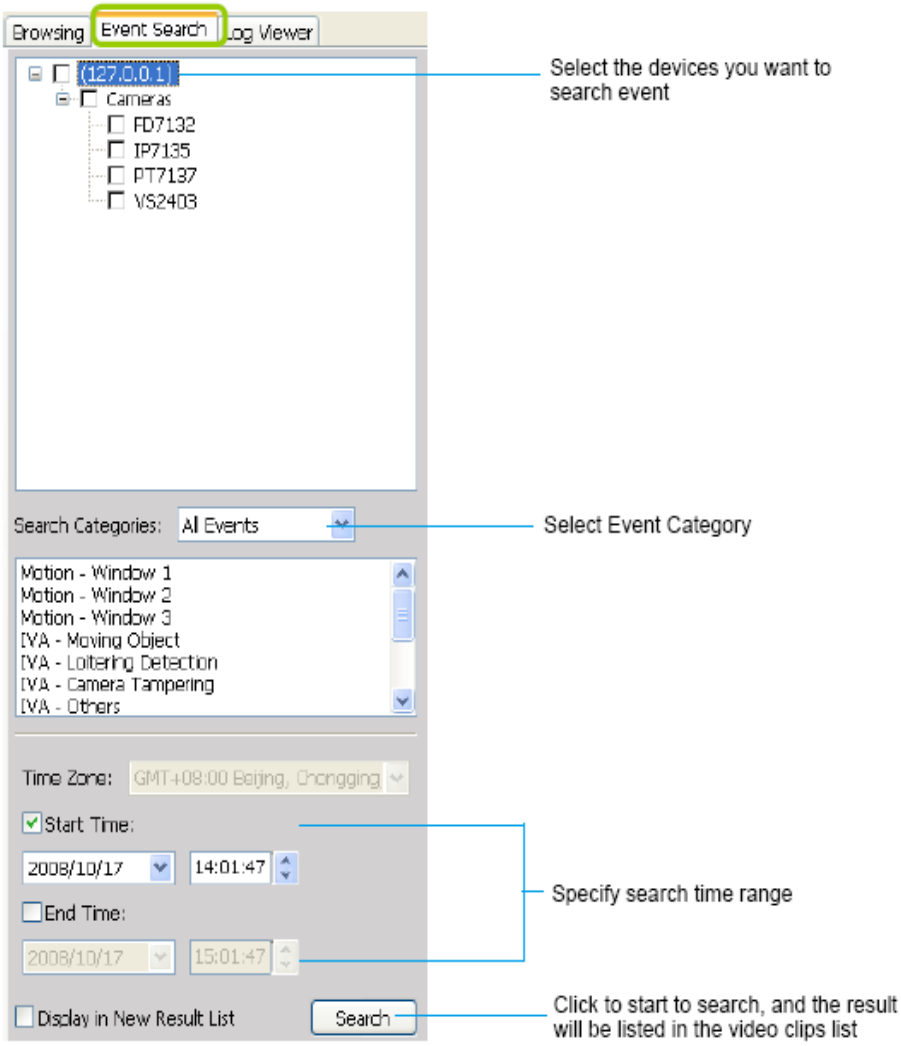


A. Menu bar B. Quick access bar C. Query panel (Browsing/Event search/Log viewer) D. Recorded video playback window E. Video clips list F. Playback control panel G. Status panel

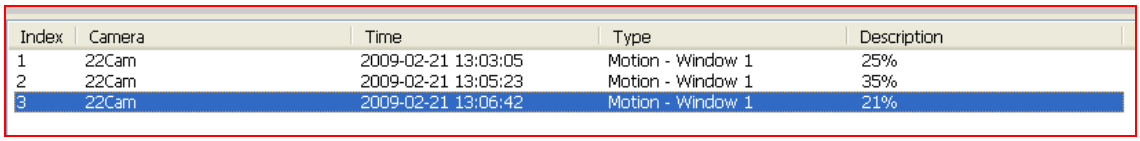
Query Panel-- Browsing Page



Query Panel-- Event Page



Search the Motion-Window1 event and the result will show in the grid.



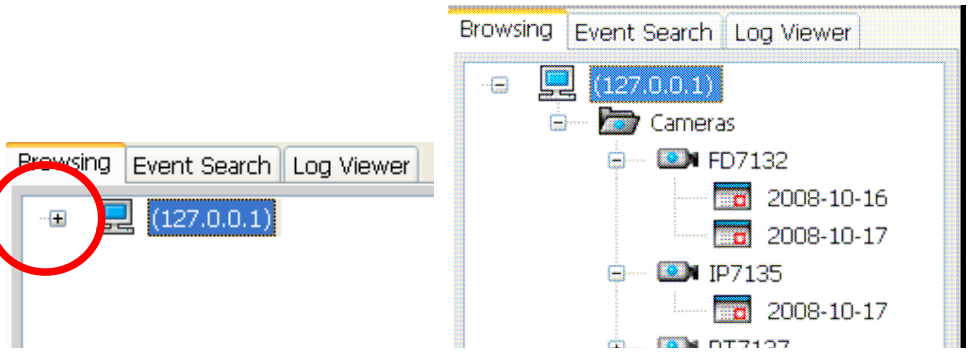
Index	Camera	Time	Type	Description
1	22Cam	2009-02-21 13:03:05	Motion - Window 1	25%
2	22Cam	2009-02-21 13:05:23	Motion - Window 1	35%
3	22Cam	2009-02-21 13:06:42	Motion - Window 1	21%

How to View Recorded Video

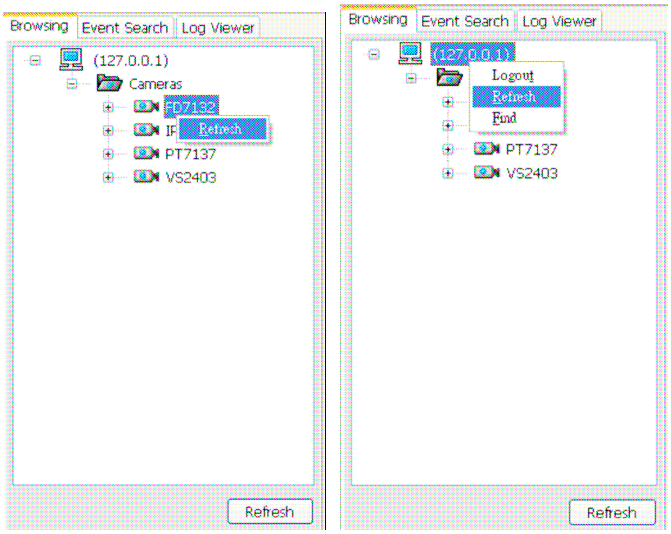
Select a Recorded Video Clip

Please follow the steps below to select a video clip:

1. In the **Browsing** page, click the plus sign (+) to expand the device tree.



2. **Right-click** a device on the devices tree, and then click **Refresh** to display the recorded video clips. (or click the item, and then click **Refresh** on the bottom of the brewing page.) Note that if you want to update all video clips of a station click the station on the device tree and Refresh it.



3. There are two ways to view the video clips of a date.

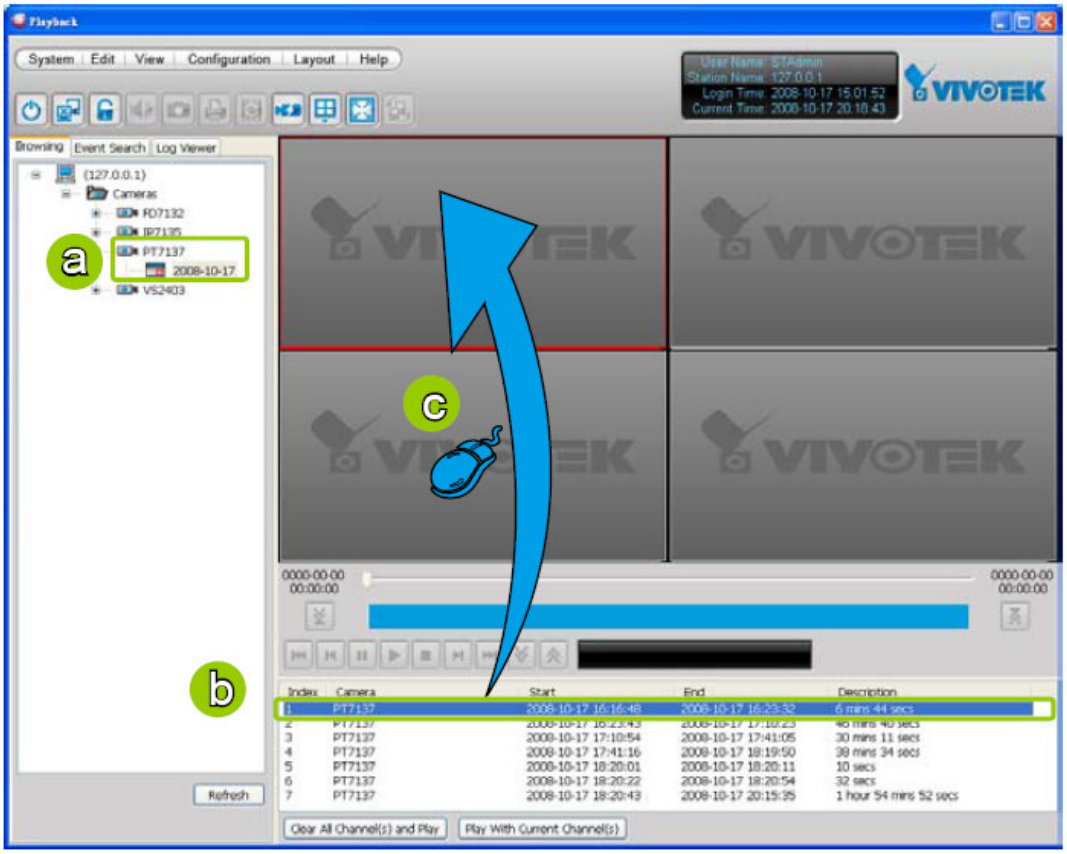
View one of the video clips of a date:

a. Click a **date** item on the device tree. The corresponding recorded video clips will be listed in the video clip list window.

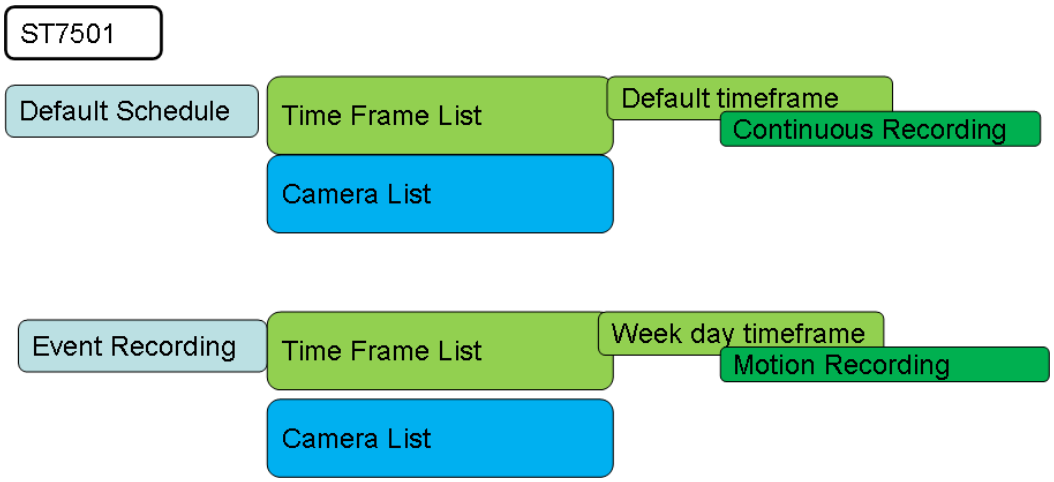
b. Select one video clip in video clip list window.

c. **Double-click** the video clip; it will start to play in an available video cell. (You can

also directly **drag-and-drop** the video clip to a desired video cell in recorded video playback window. The video clip will start to play.)



5.5 Event Trigger Recording



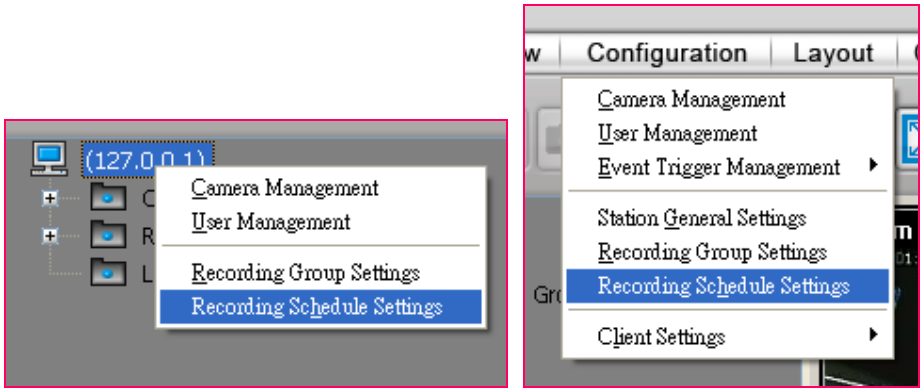
By default setting, all devices are assigned to the default recording schedule Therefore, once you insert a device to the station, the ST7501 server will begin to record live video according to the default recording schedule. You can manually remove a device from the default recording schedule.
Now we want to add one event trigger recording schedule. We will do following steps.

1. Remove the camera from the camera list of the “Default Recording Schedule”
2. Create “Event Recording Schedule”.
3. Add a timeframe which is motion detection recording setting.
4. Add the camera into the camera list of “Event Recording Schedule”

Enter the Recording Schedule page

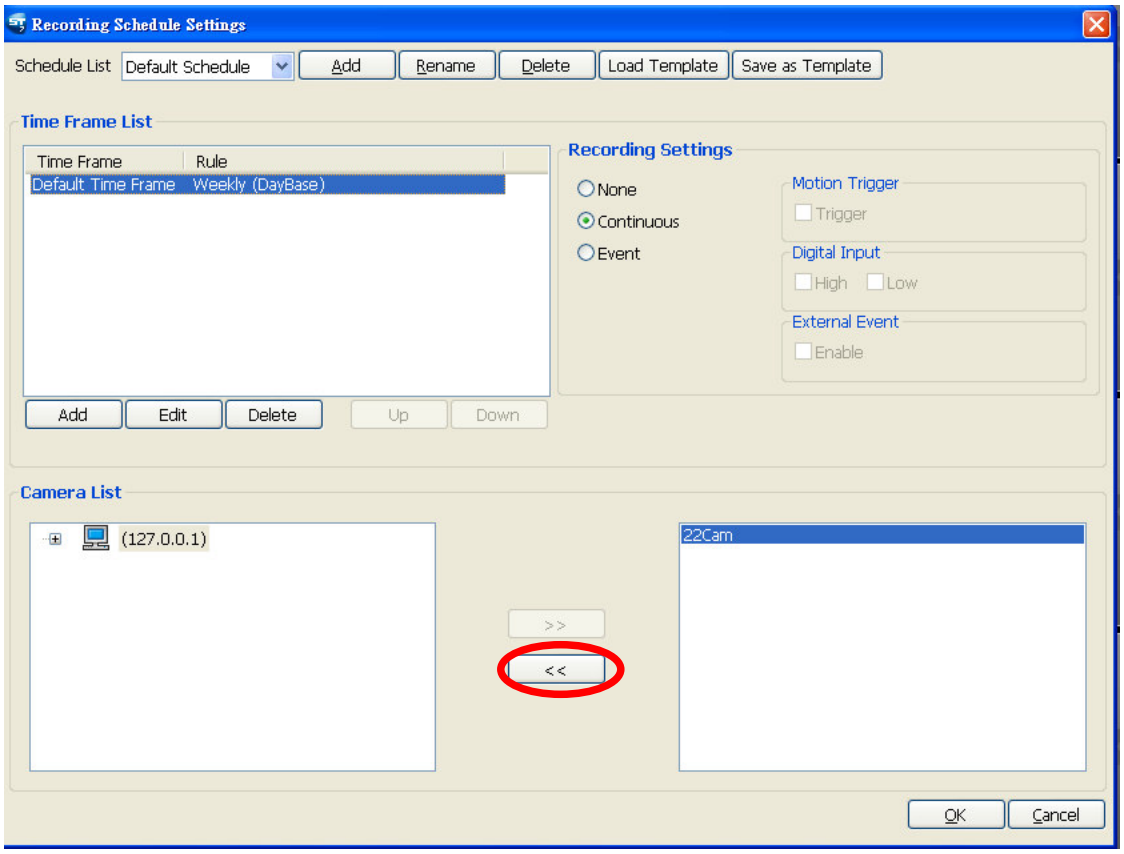
a. Right click the station on the device tree and select **Recording Schedule Settings**

b. Click **Configuration > Recording Schedule Settings** on the menu bar (or **right-click** the station, and then select **Recording Schedule Settings**).



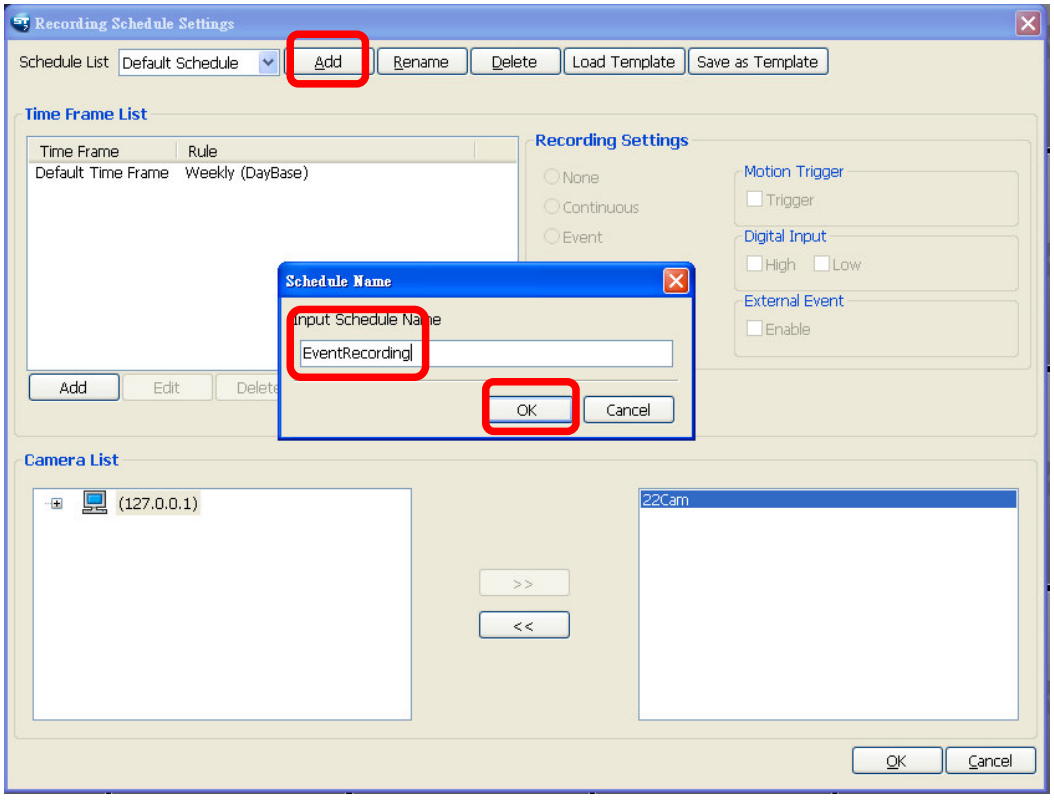
Step1: Remove the camera from the camera list

The **Recording Schedule Settings** window will pop up. Click **<<** to remove the camera list from Default schedule. Press **OK** to update it.

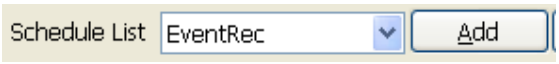


Step2 Add new recording schedule

Click **Add** button, the **Schedule Name** dialoged will pop up to ask you to input the schedule name. Enter name of the schedule and click **OK** to complete the input.

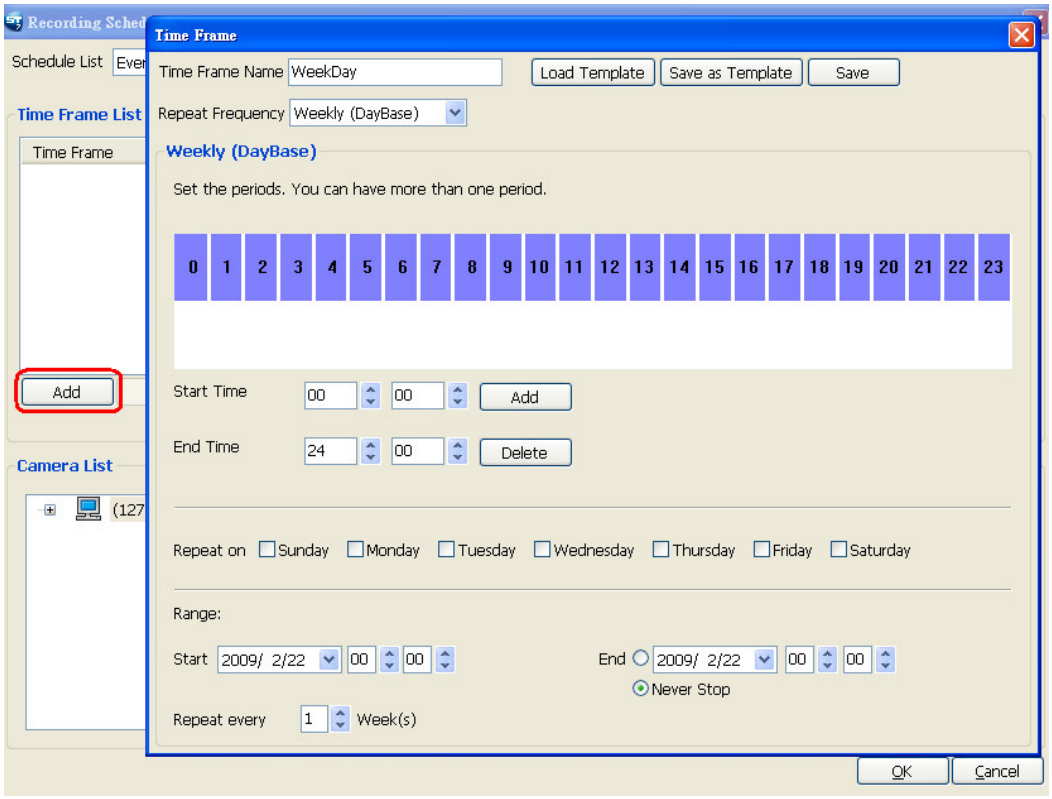


The new schedule will be added into **Schedule List.**



Step3 Add new time frame.

Click **Add** to add new time frame. **Time Frame** dialoged will show up.



Time Frame Name: Input the name

Repeat Frequency: Choose Weekly(DayBase)

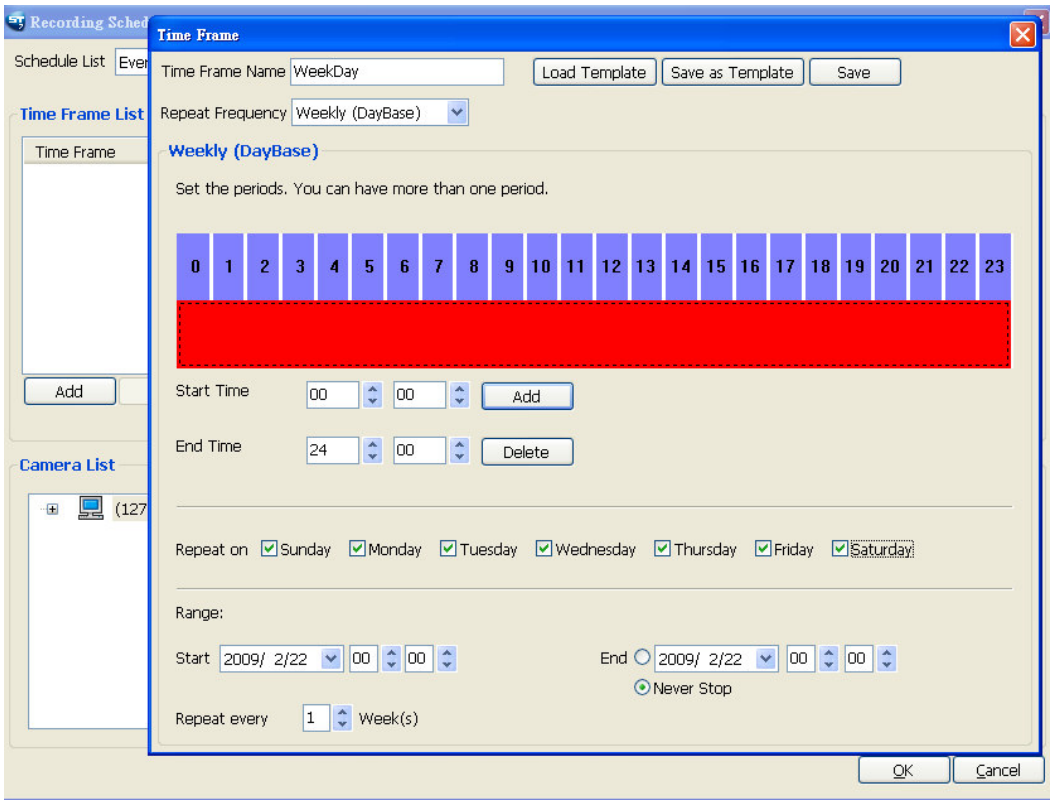
End Time Hour: Type or choose 24. Click **Add** to add a period.

The Time bar will show 24 hour are red.

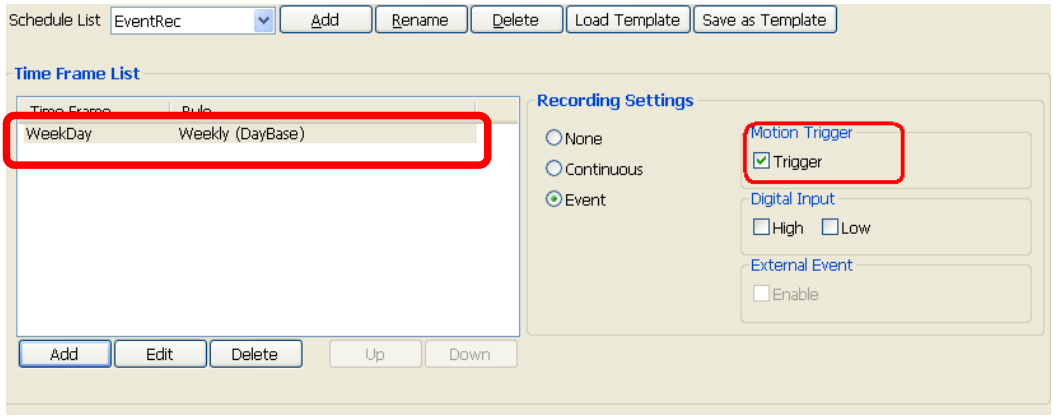
Repeat On: Check all days.

Range: make sure today is in the rage.

Click **Save** to save this new time frame.



The new time frame will be added into timeframe list.



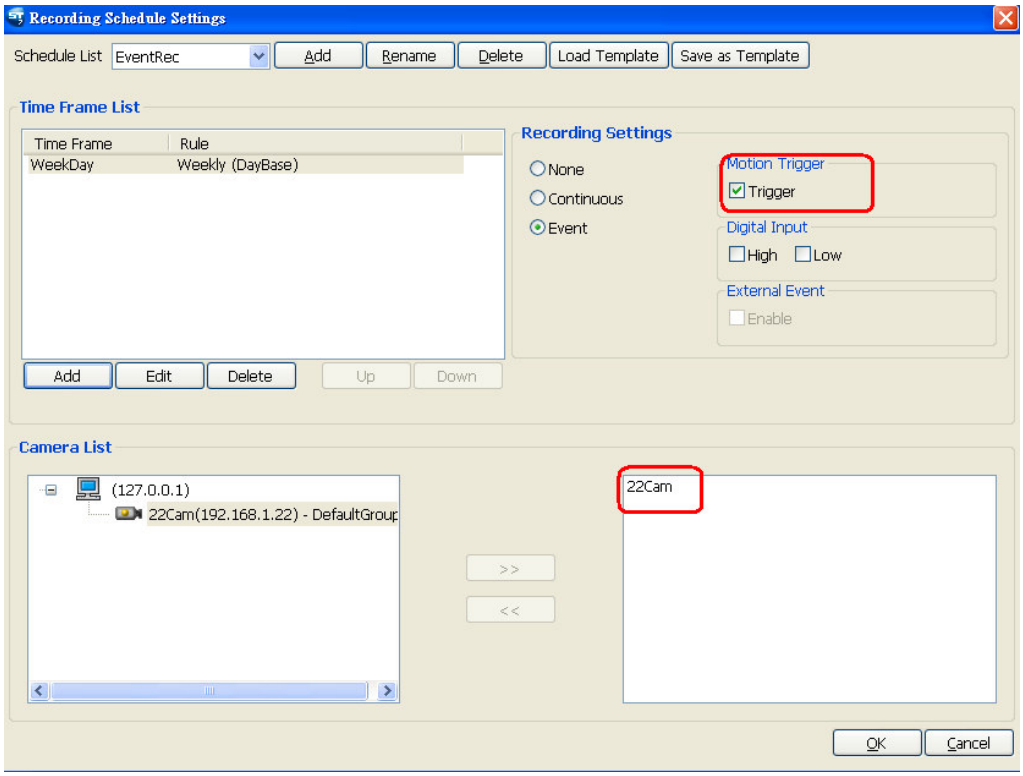
Set up Recording Setting

Recording Settings: Choose Event as recording option.

Motion Trigger: Set it as true.

Step4 Add the camera into new schedule.

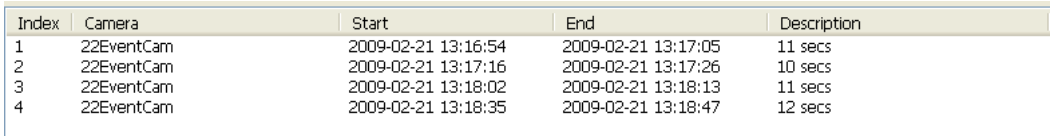
Click **>>** to add the camera into the camera list. The camera will be added into the camera list.



Press **OK** to update the setting to server. The server will apply the new recording schedule.

Step5 Use Playback to check if motion trigger recording schedule take effect or not.

Motion trigger recording video data are more fragment



Index	Camera	Start	End	Description
1	22EventCam	2009-02-21 13:16:54	2009-02-21 13:17:05	11 secs
2	22EventCam	2009-02-21 13:17:16	2009-02-21 13:17:26	10 secs
3	22EventCam	2009-02-21 13:18:02	2009-02-21 13:18:13	11 secs
4	22EventCam	2009-02-21 13:18:35	2009-02-21 13:18:47	12 secs