Central Management Software

Cam Viewer 3 Pro

User Manual

Version 1.0.0

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1. System Requirement

The Minimum system requirement

Hardware requirement:

CPU	Intel Core 2 Duo or above
RAM	Minimum 1 GB, 2GB or above is recommended
HDD	SATA 200GB or above is recommended
Display card	Independent display card suggested ■ Make sure your display DPI setting is set to default at 96DPI ■ To set DPI value, right-click on desktop, choose "Settings" tab >> "Advanced" >> "general"
Ethernet interface	10/100Mb Ethernet card or above

Make sure your display DPI setting is set to default at 96DPI To set DPI value, right-click on desktop, choose "settings" tab >> "advanced"

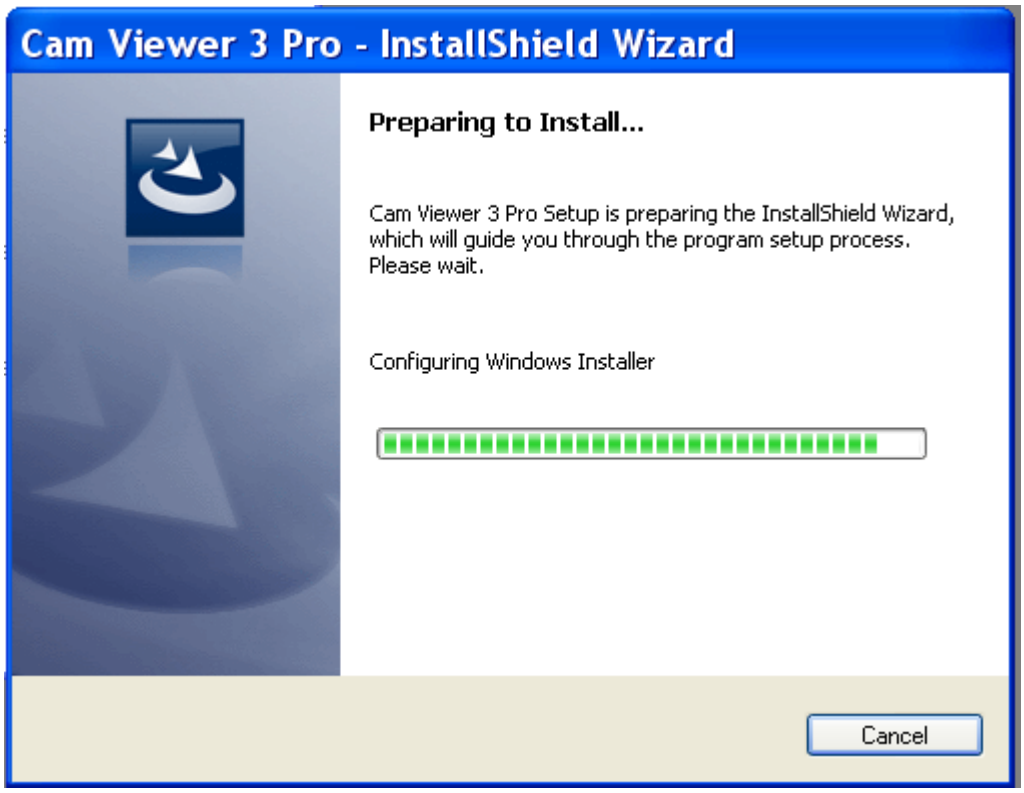
Software requirement:

OS	Windows 2000(SP4), Windows XP, Windows 2003, Windows Vista(32-bit) and Windows 7(32-bit)

2. Software Installation

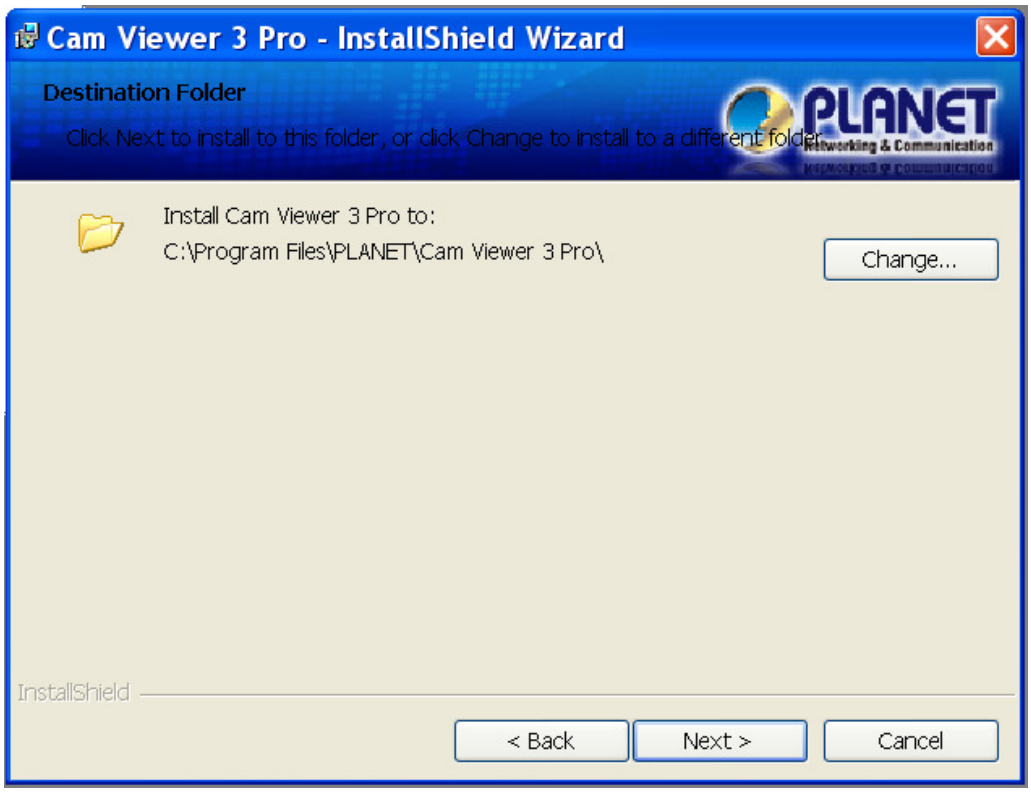
1. Double-click on the setup executable file to initiate the installation:

2. The setup wizard will be initialized and preparing to install:

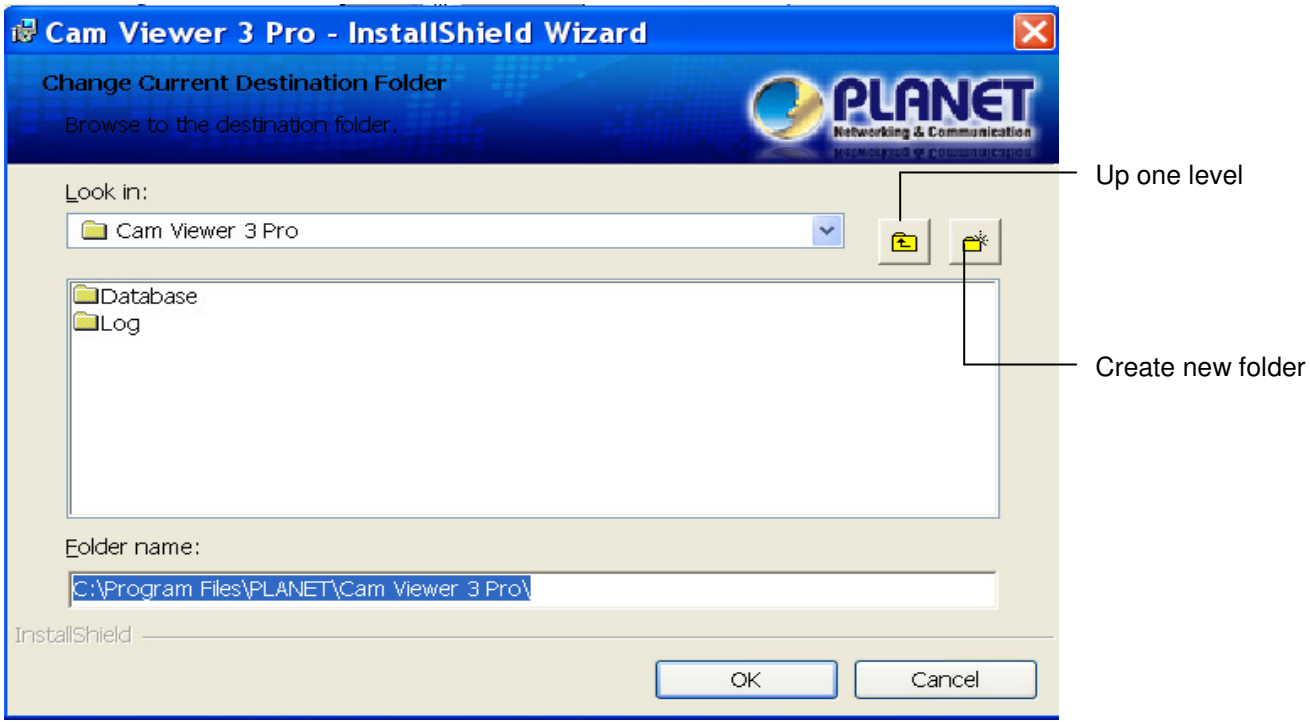


3. Once it finishes initializing, click "Next" to Begin:

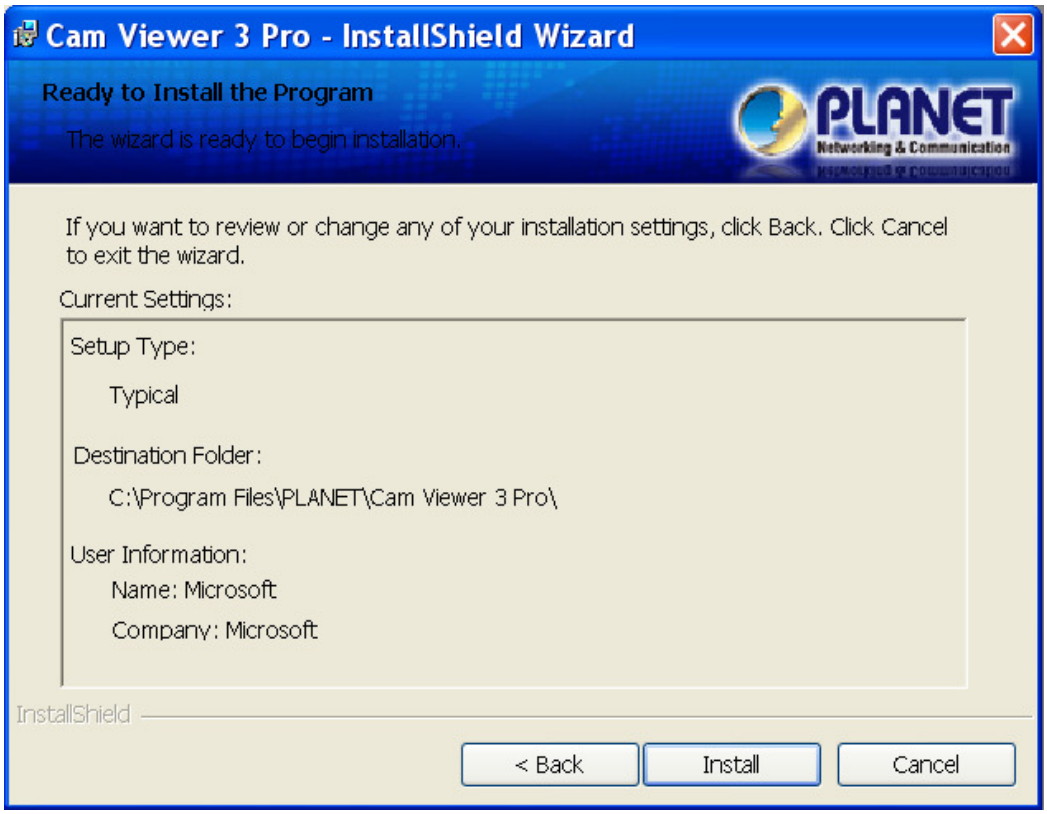
4. Click "Next" to continue, or click "Change" if you wish change the installation directory:



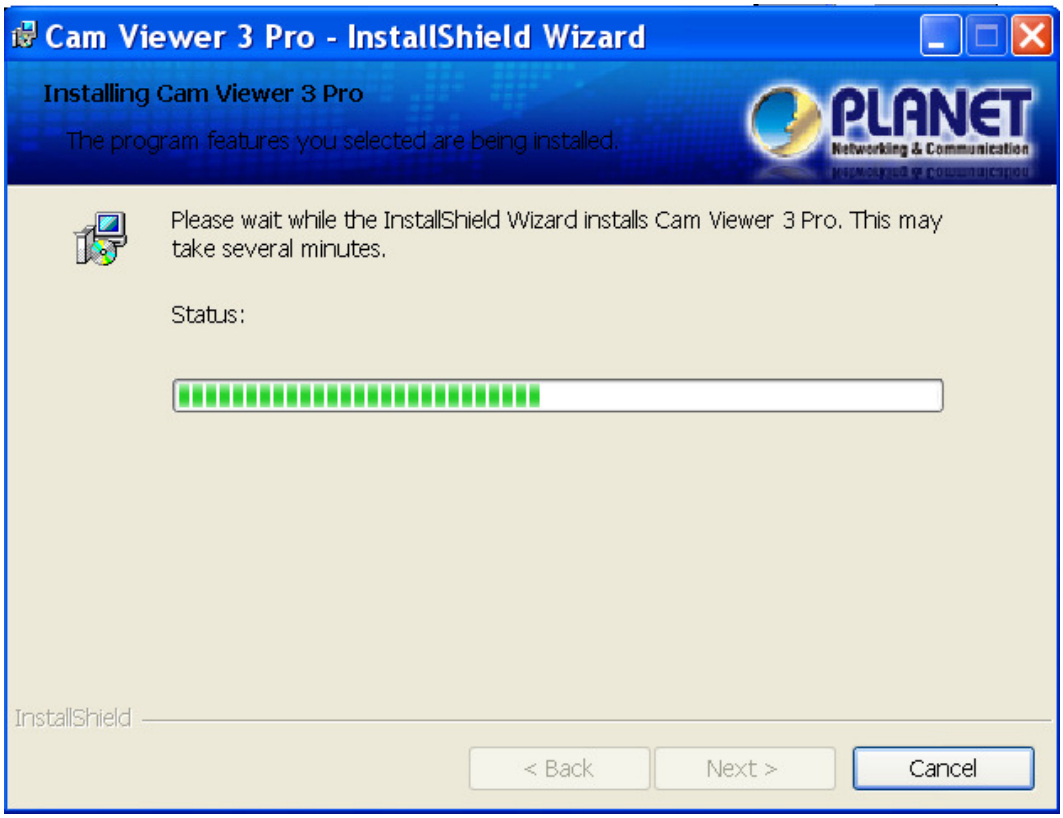
5. Enter a new valid path in the "Folder name" field for new installation directory, or click the icons highlighted below to switch to a desired directory and create a new folder if desire. Afterwards, click "OK" to continue:



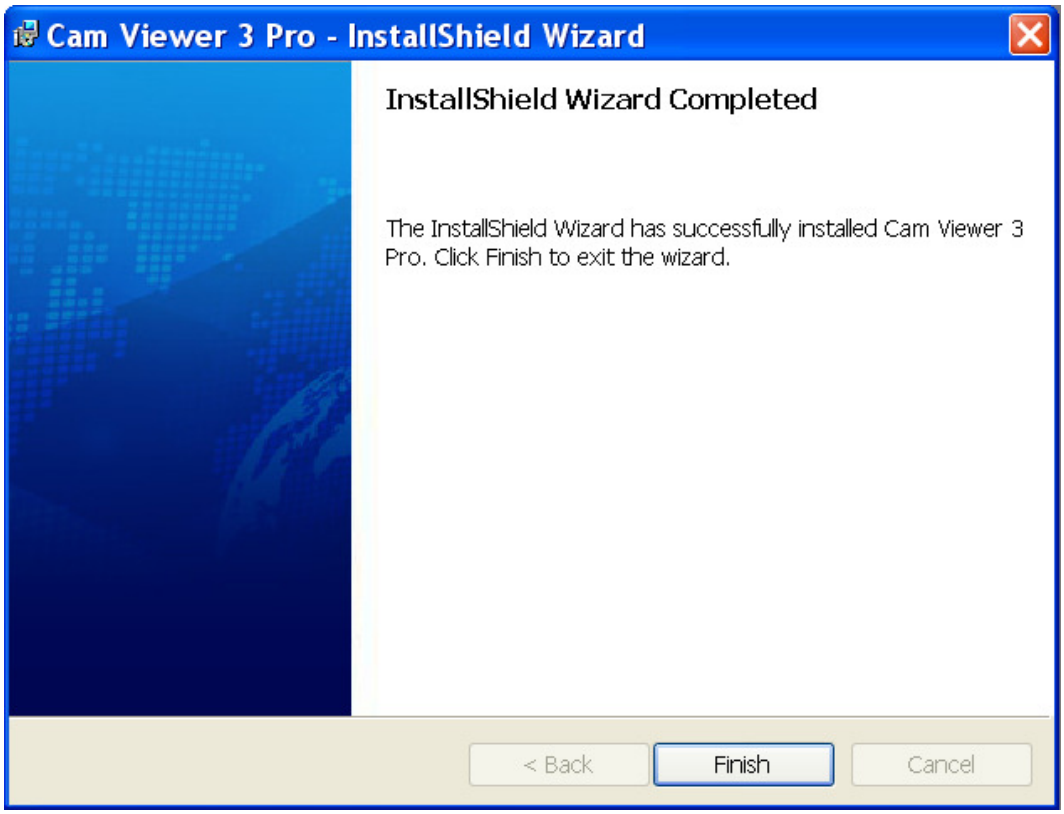
6. Click "Install" to start the installation, or click "Back" to go back and make further changes:



7. The installation process should be displayed:



8. Simply click "Finish" to exit the setup wizard when installation finishes:



3. Configuration Wizard

To configure detail settings to the software, open up the config wizard program to do so. There are two ways of accessing the config wizard:

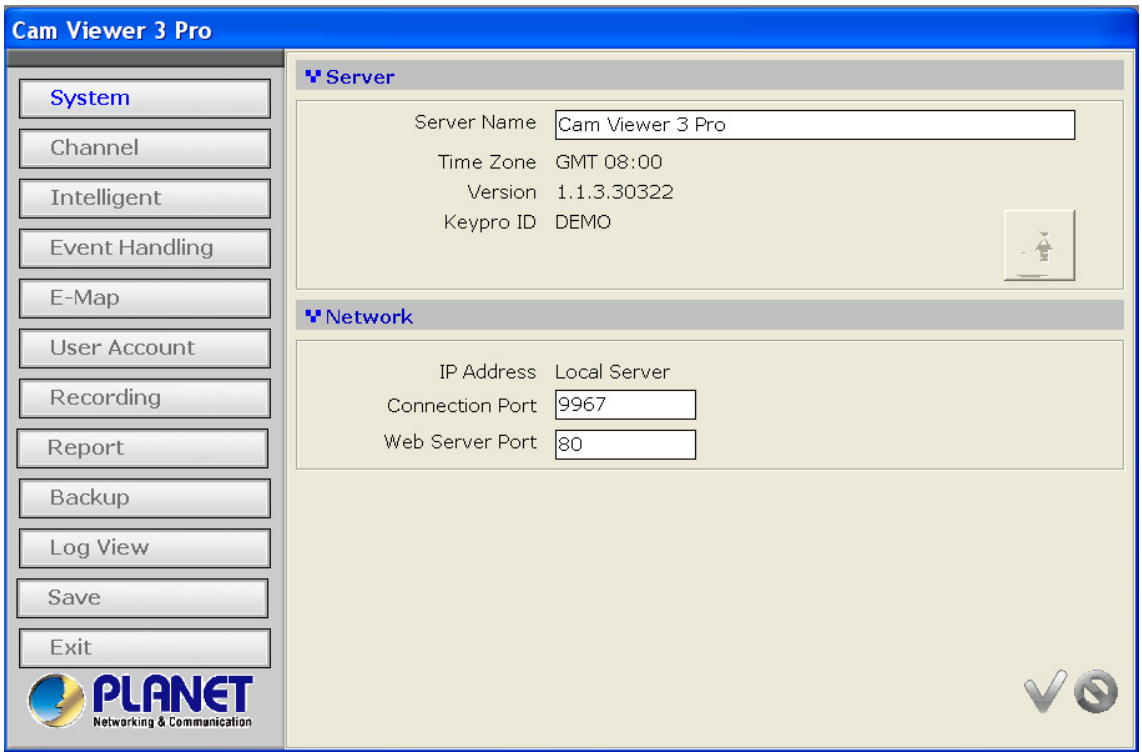
- Accessing the config wizard from the main program:

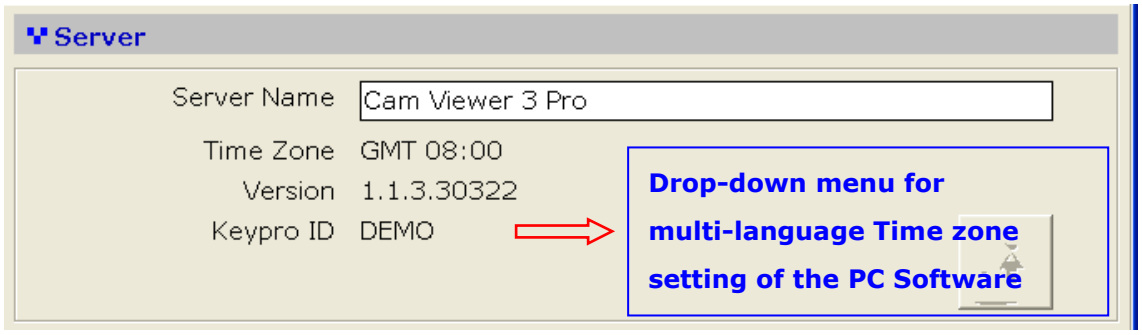
Open up the main program from the desktop shortcut or under the "Start" menu

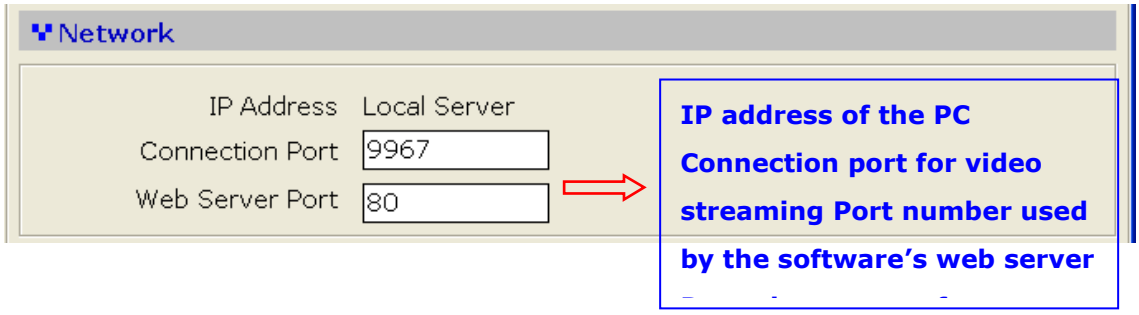
Go to "Start" >> "All Programs" >> "PLANET" >> "Cam Viewer 3 Pro" >> "CV3 Pro Config"

3.1 System

Upon the start of the CV3 Pro Config, the "System" page should be displayed:

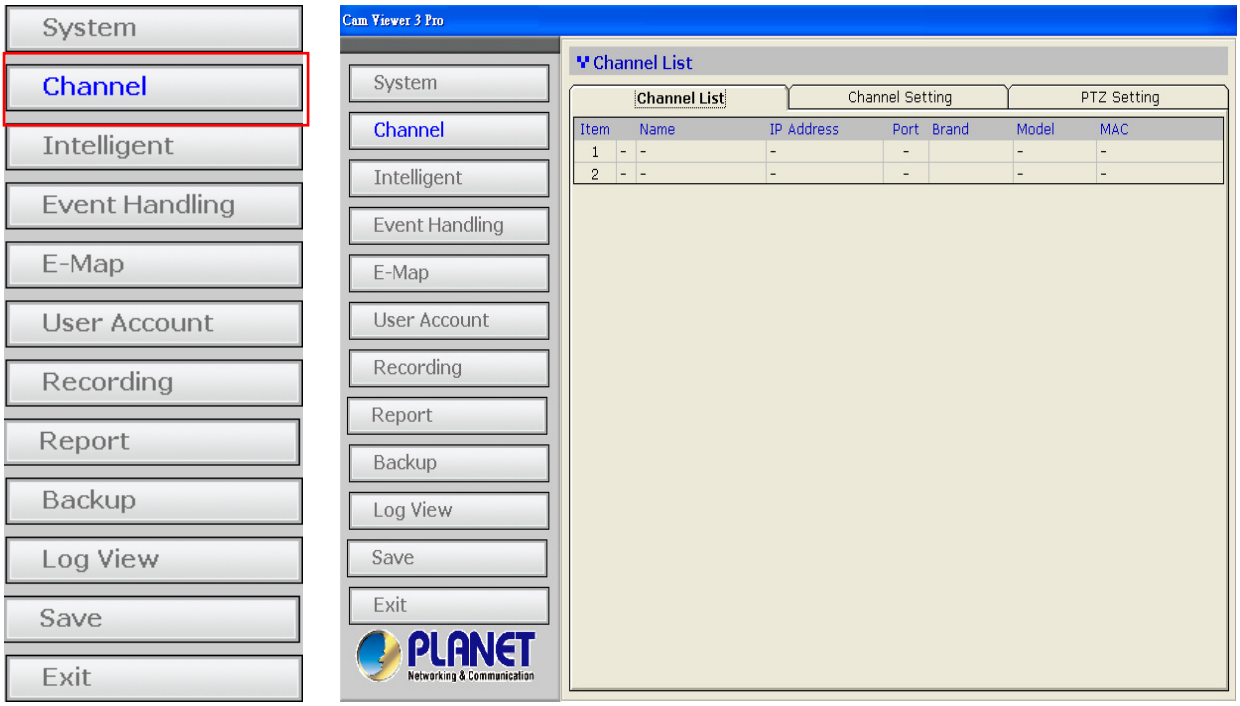






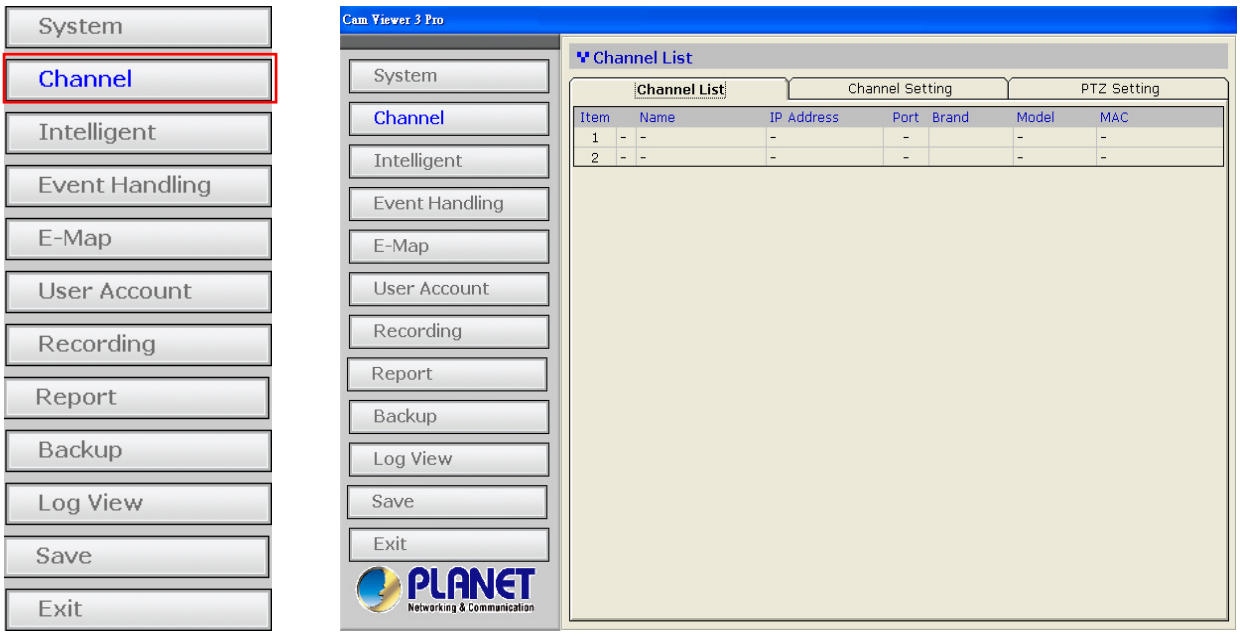
3.2 Channel

The "Channel List" page should be display which is an overview page that displays a list of cameras currently added to the software.

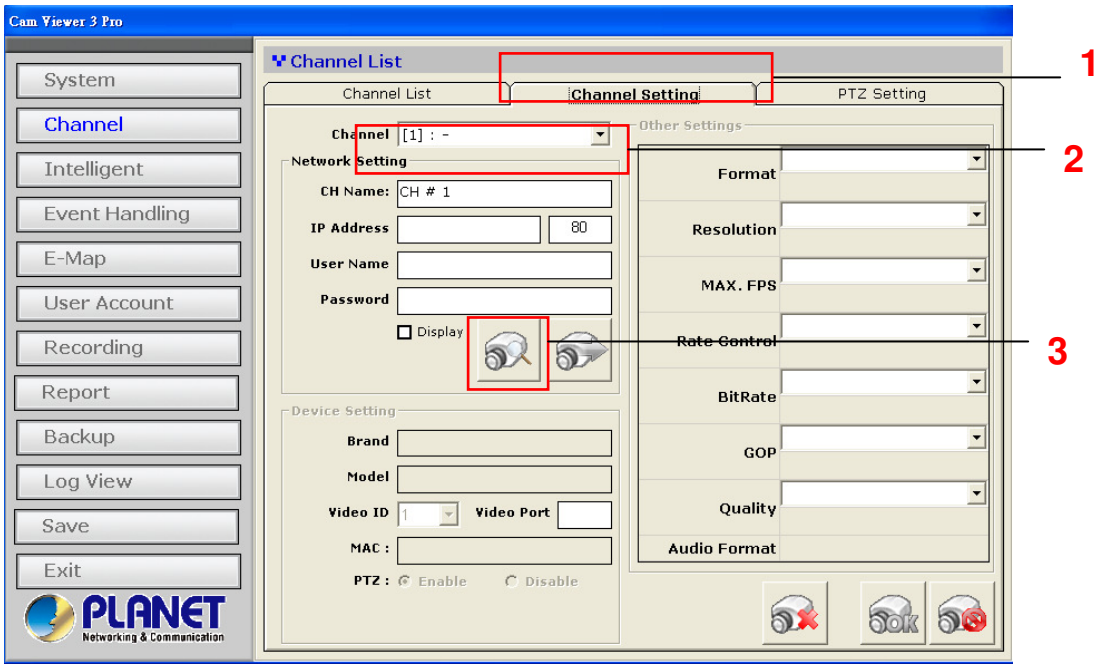


3.2.1 Adding Cameras

To add cameras using the configuration wizard, go to "Channel" from the menu on the left.

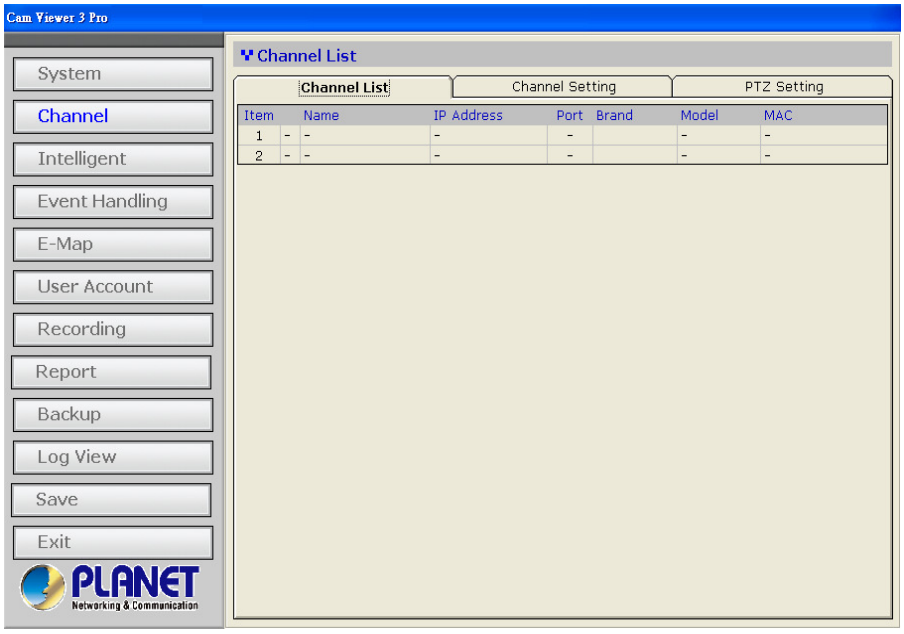


To add a new camera, click on the "Channel Setting" tab and select an available channel from the "Channel" drop-down menu, and then click on "Search" to begin:

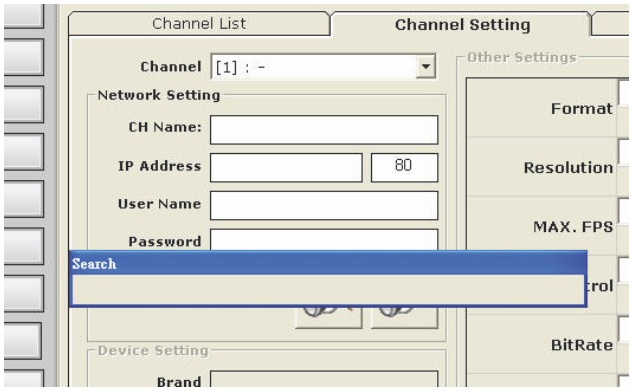


** The "Search" function only works when the cameras are installed in the same subnet as the PC the CV3 Pro software is installed*

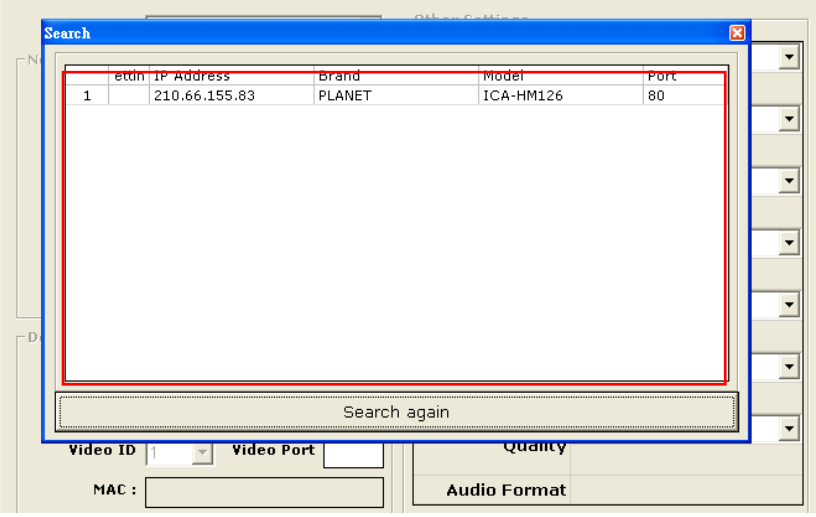
You can also click on any of the empty slot in the Camera List to start searching cameras on the network:



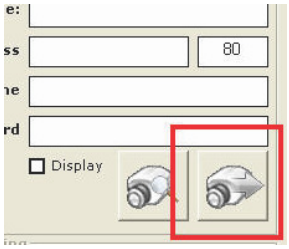
The CV3 Pro software will perform a search and locate the cameras available within the same subnet:



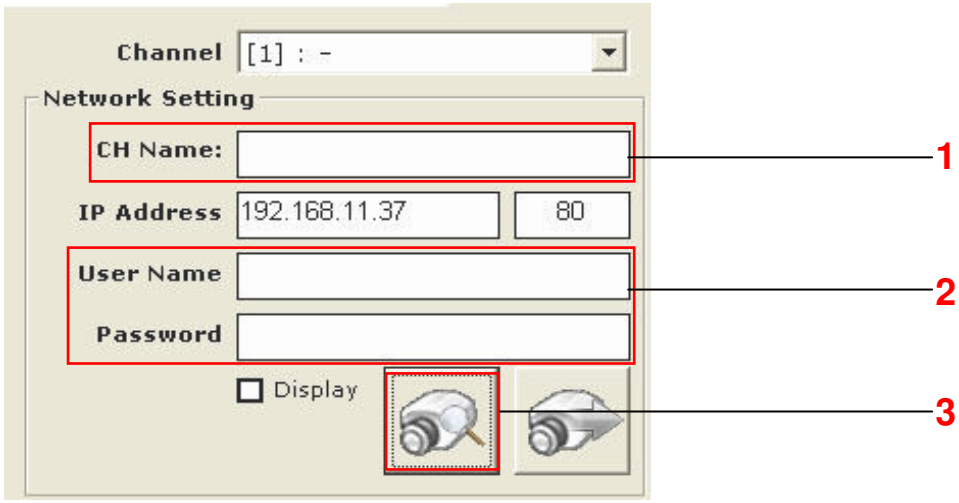
A new dialog should be prompted and displays a list of available cameras:



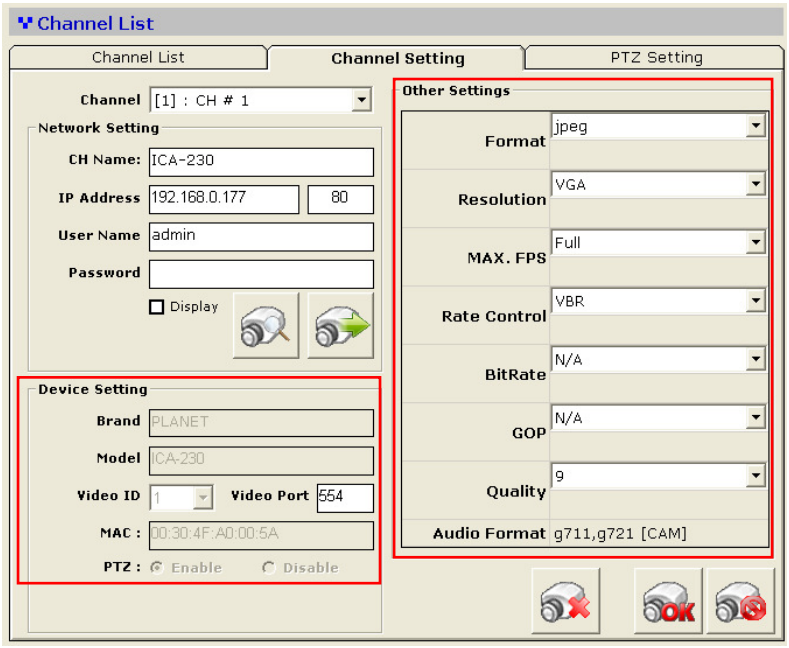
** For cameras located in different subnet (but within the same local network), enter its private IP, HTTP port, user- name and password manually and click "Detect".*



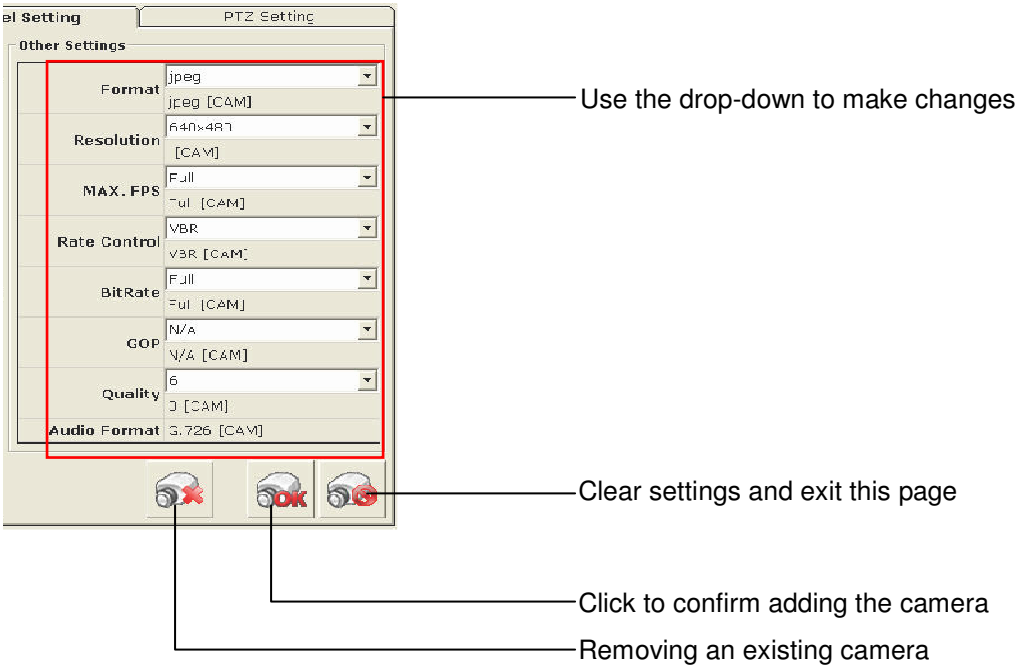
Fill in the camera's username and password (must be the root privilege account) in the corresponding fields shown below and click "Detect":



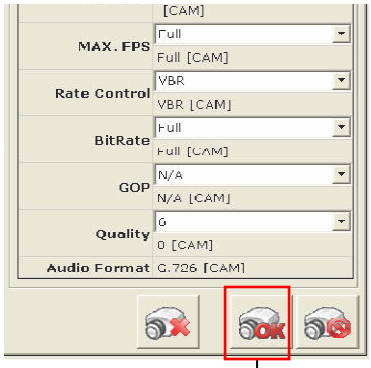
Upon a successful detection, the camera's information and its current settings should be detected: (as shown below)



The settings shown in the "Other Setting" section can be changed by using either the available drop-down menu or by clicking the corresponding cell box:

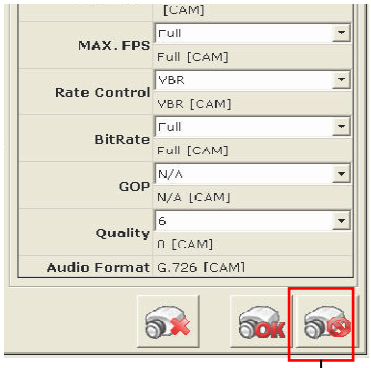


Click the "Add Camera" button to confirm the settings and you should be directed back to the "Channel List" page:



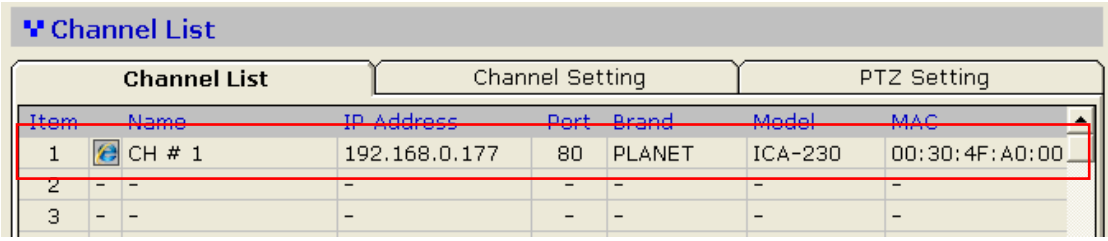
Confirm adding camera

You can click the "Cancel" button to cancel the configuration and you should be directed back to the "Channel List" page:



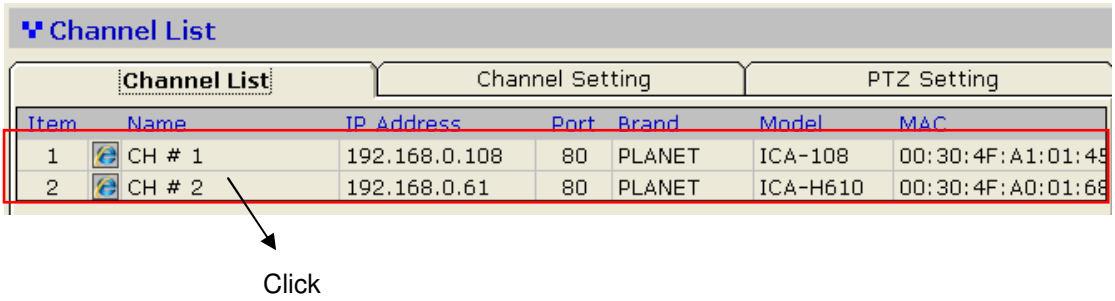
Cancel adding camera

You should now see a list of cameras you've been added to the software from the "Channel List" page:

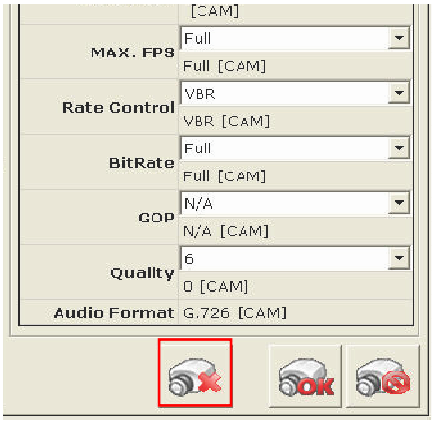


3.2.2 Remove Cameras

To remove a camera, simply click on a camera from the list under the "Channel List" page; it should direct you to the "Channel Setting" page:



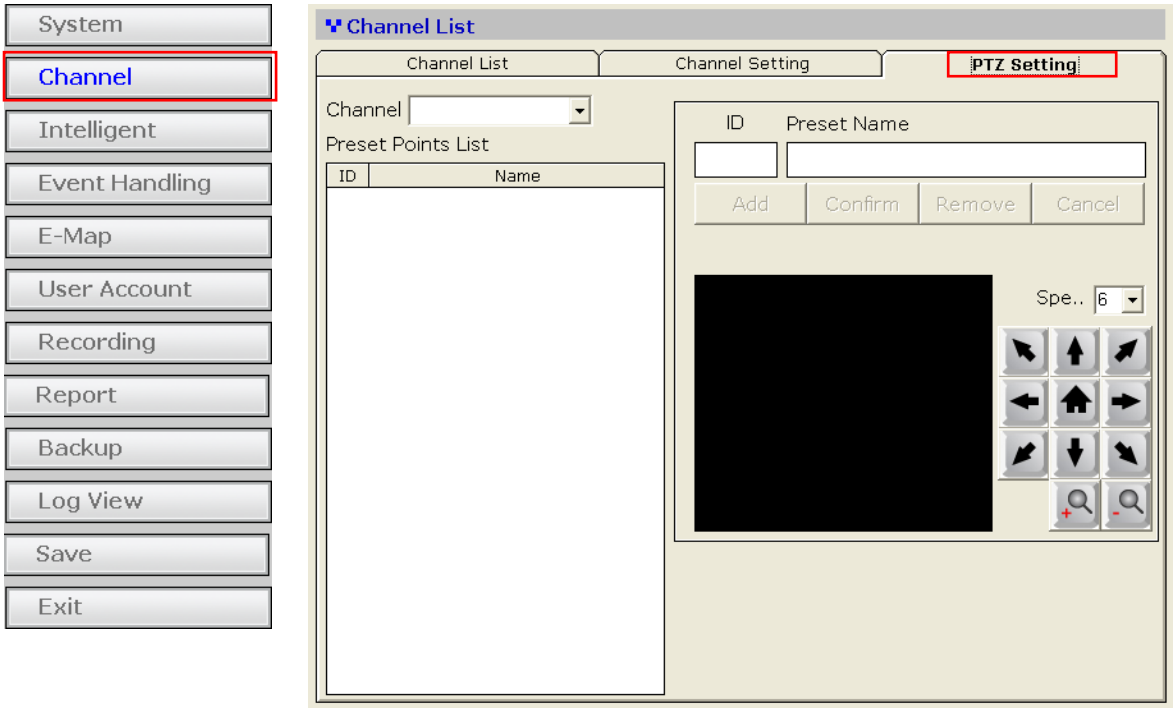
And all settings of the camera you just clicked on will be displayed. Click on the "Remove camera" button to remove the camera:



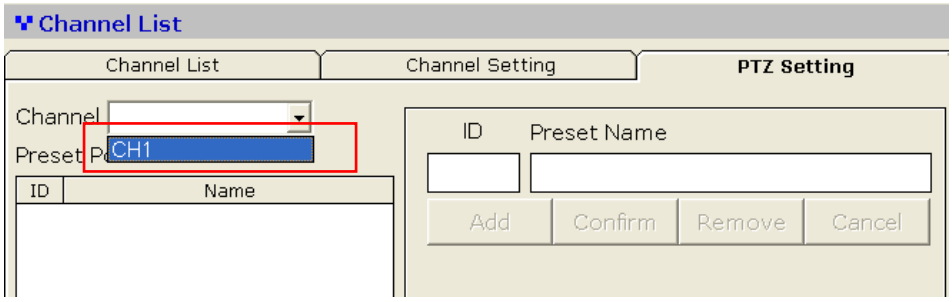
3.2.3 PTZ setting - Preset Point

After adding cameras to the software, all the PTZ cameras will be available in the "PTZ

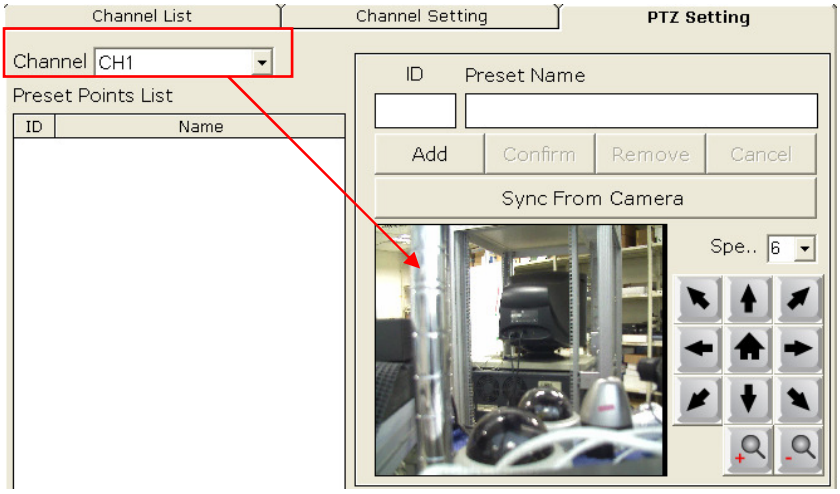
Setting" page (Channel >> PTZ Setting)



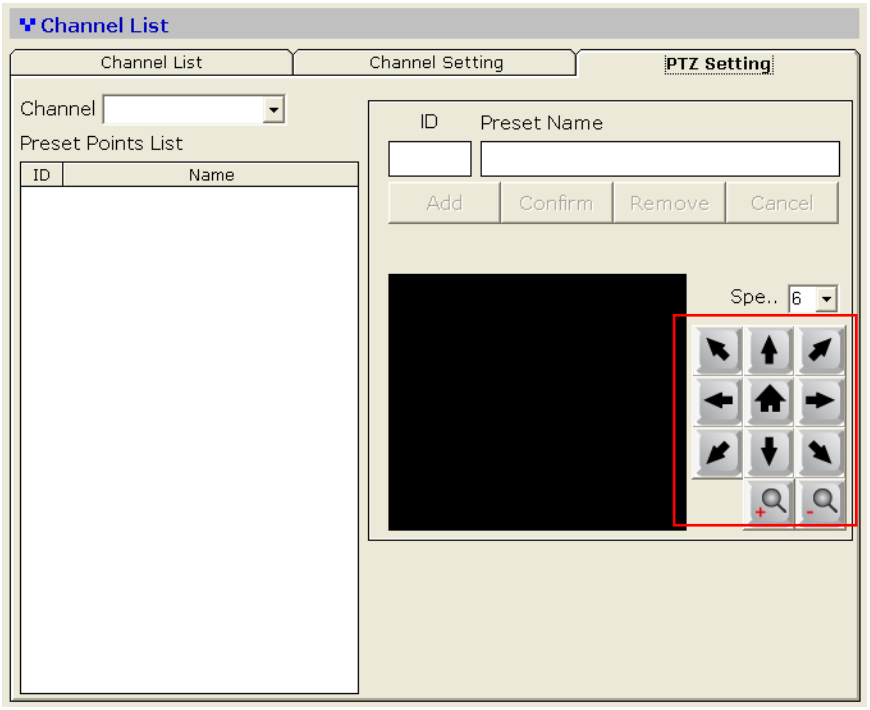
Only PTZ cameras will be listed in the "Channel" drop-down menu: (as shown below)



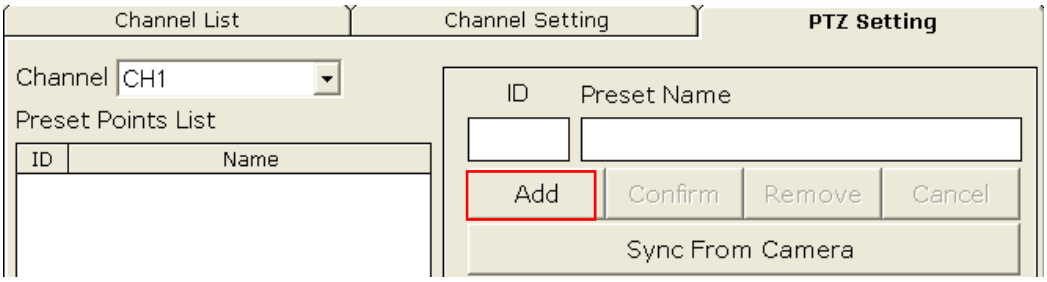
Its live video should then be displayed in the lower-right hand corner:



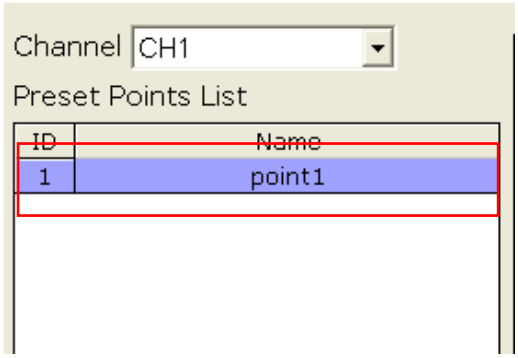
Use the on-screen PTZ panel to move the view point and select PTZ movement speed from the "Speed" drop-down to determine the distance of each movement:



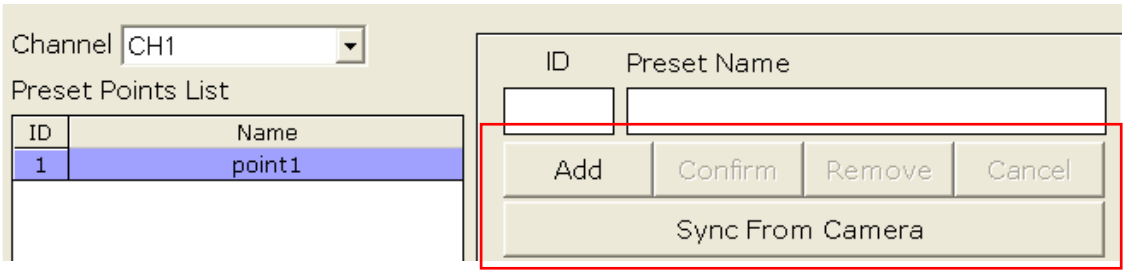
Next, type in a name in the "Preset Point Name" field to name the preset point and click "Add" to finish:



The preset point will then be added and will be available in the "Preset Points List" (as shown below)



Click to highlight the preset point will give you the options to "Confirm", or "Remove" the preset point:

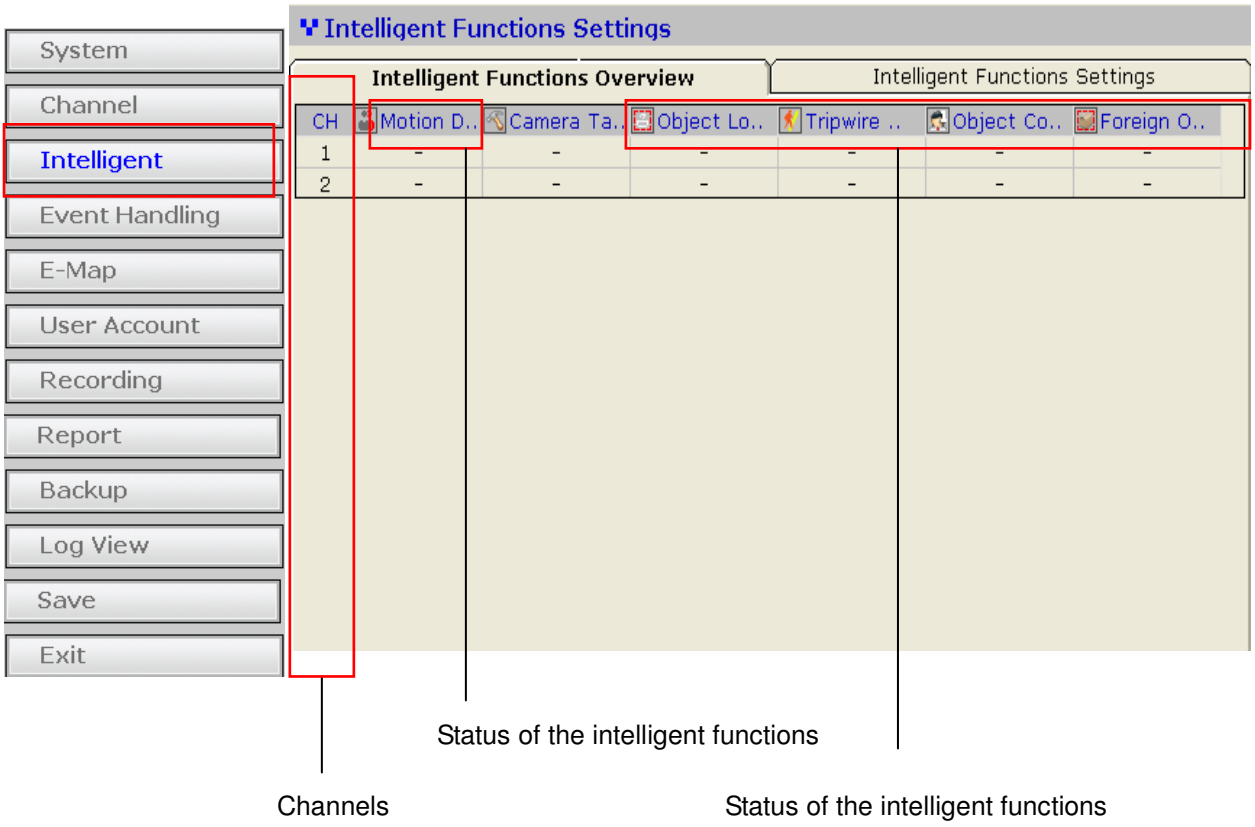


** To confirm an existing preset point, click to highlight the preset point from the list, and then move to a new view point with the PTZ panel. Finally, click "Modify" to confirm and save the new point*

3.3 Intelligent

The software has built-in motion detection function which needs to be configured and enabled in the configuration wizard. The configuration page can be accessed in the configuration wizard under "Intelligent" from the menu on the left. You should be greeted with an overview list when first access this page.

The overview provides the overall configuration status of the motion detection function on the available channels.



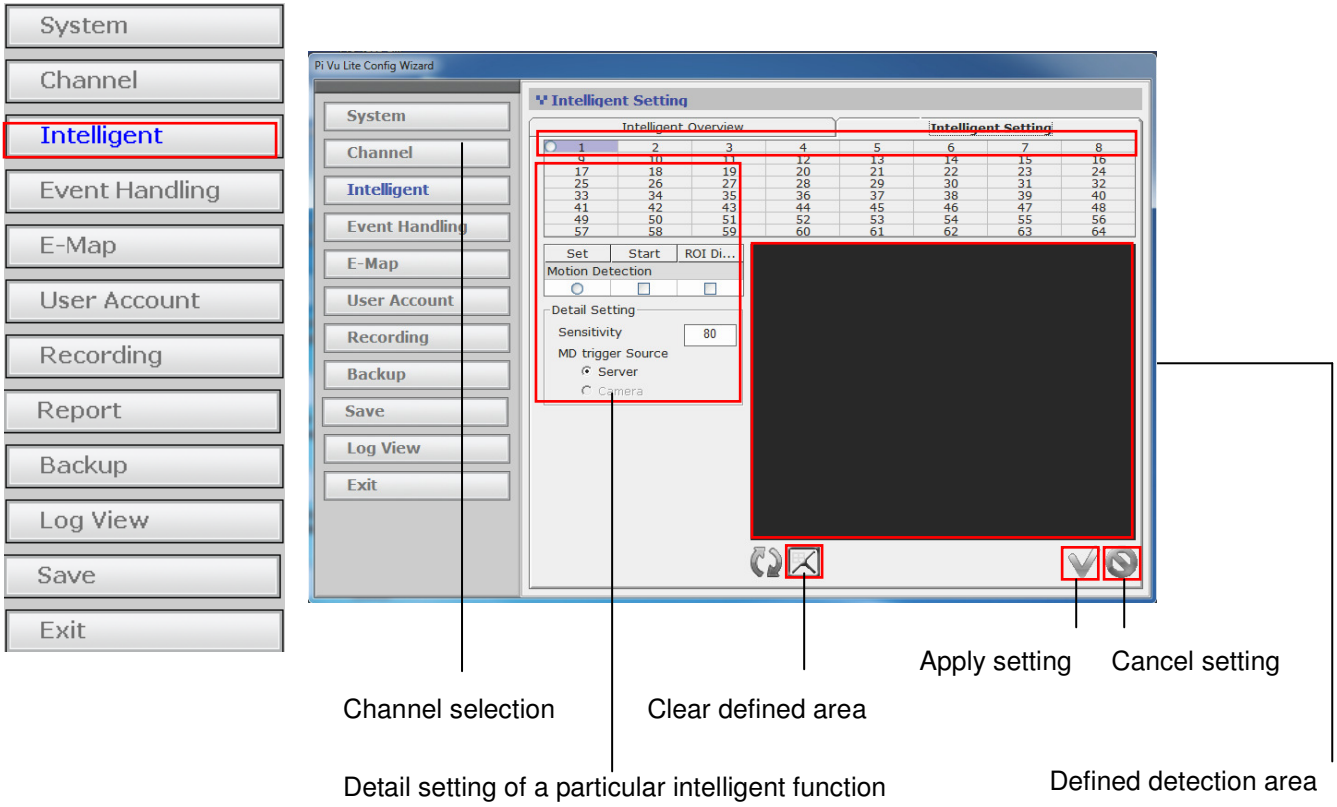
Only the channels that have been configured with cameras (regardless if they are online or not) would have the "X" or O" mark.

X: Disabled

O: Enabled

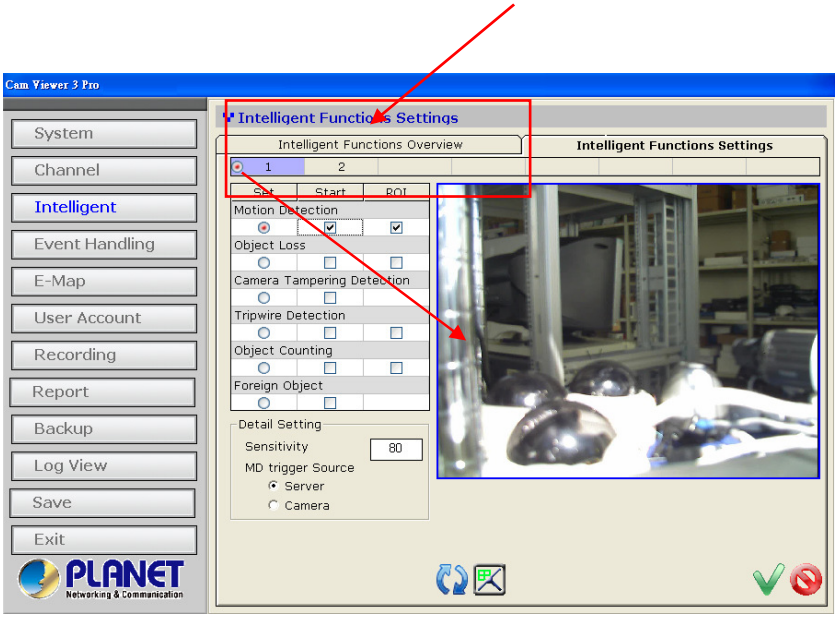
3.3.1 Intelligent - Motion

To configure the detail settings of each intelligent function, click on the "Intelligent Setting" tab to access the detail configurations:

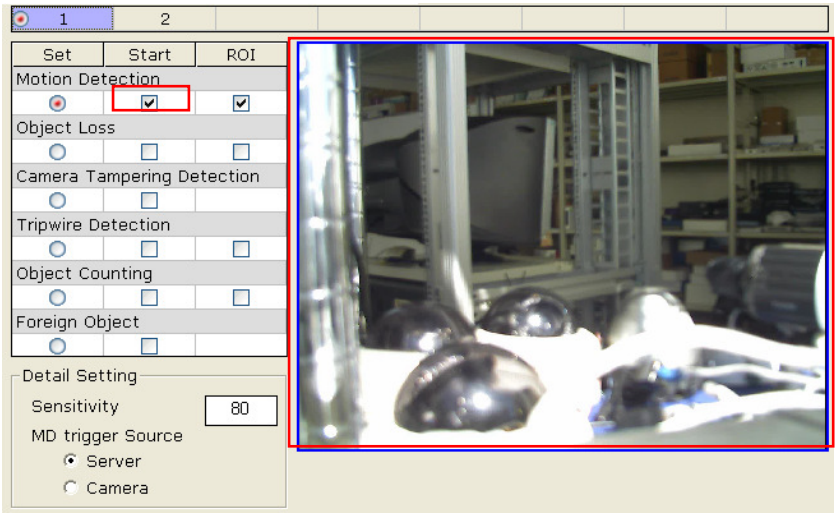


** ROI: Region of Interest*

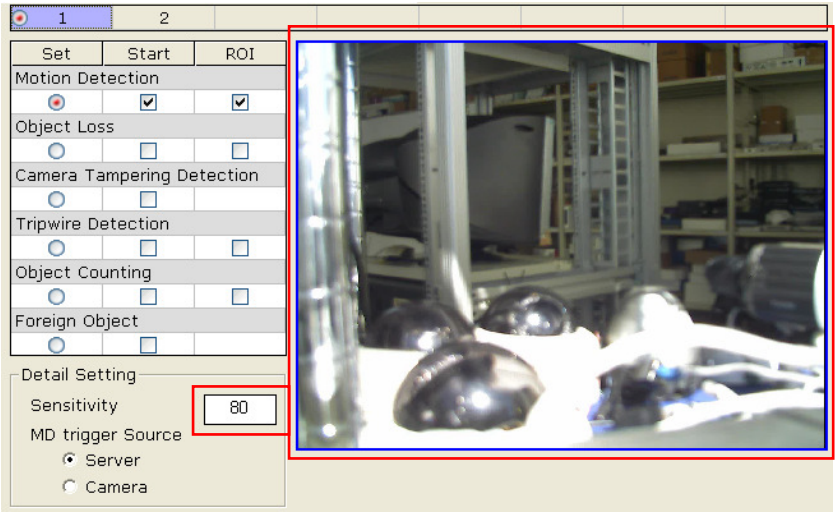
To start configuring the detail settings, select a channel by clicking on the radio button first, and its video should be displayed in the lower-right hand corner:



Check the "Start" checkbox to enable motion detection for the selected channel:

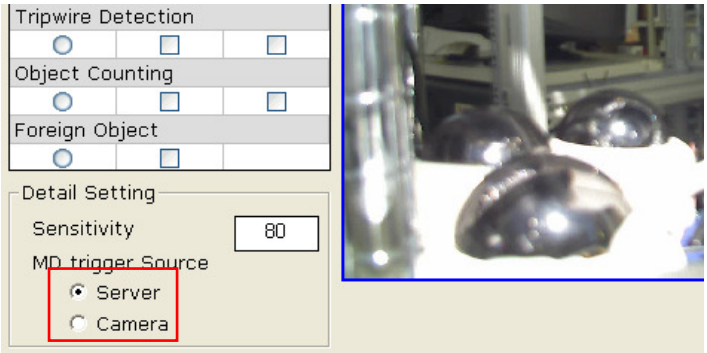


Adjust the detection sensitivity by altering the "Sensitivity" value (smaller number means less sensitive)

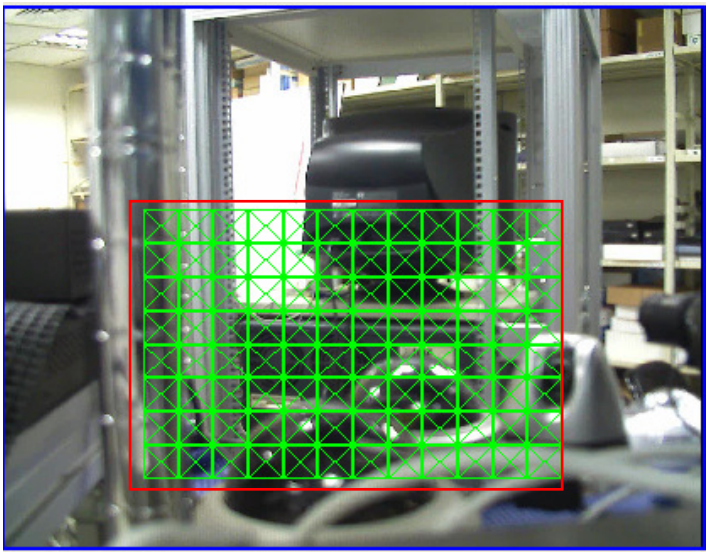


Select the motion detection trigger source:

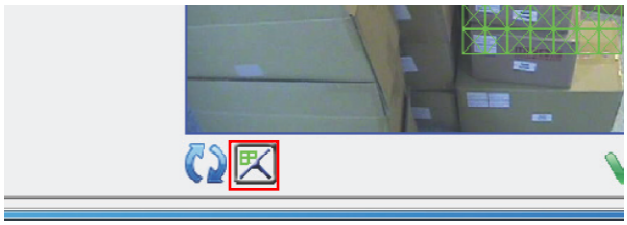
- Server --> Use software's built-in motion detection function
- Camera --> Receive motion detection trigger from the camera



Finally click and hold the mouse left button to draw multiple squares on the video to define motion detection region:



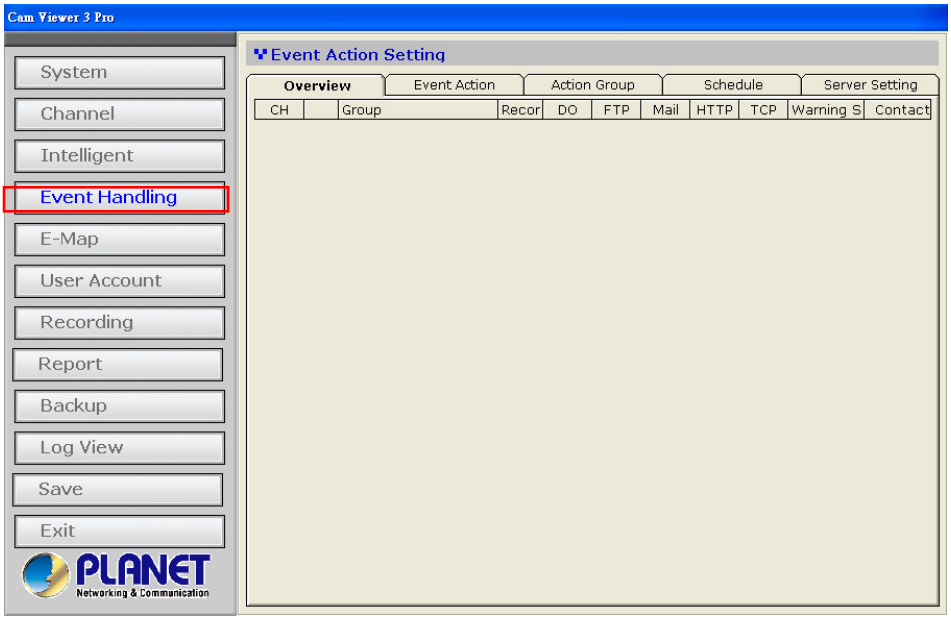
You can click the "Clear" button to remove the defined regions and re-define new motion detection regions:



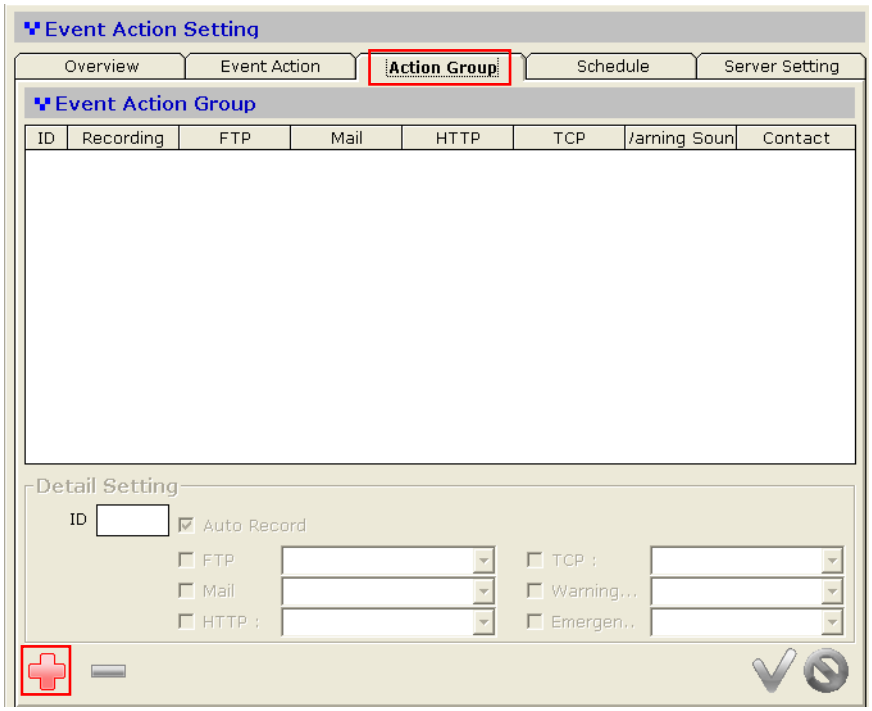
3.4 Event Handling

The software can receive different types of events and respond to certain actions such as performing recording, send warnings to various event servers or FTP an event image...etc.

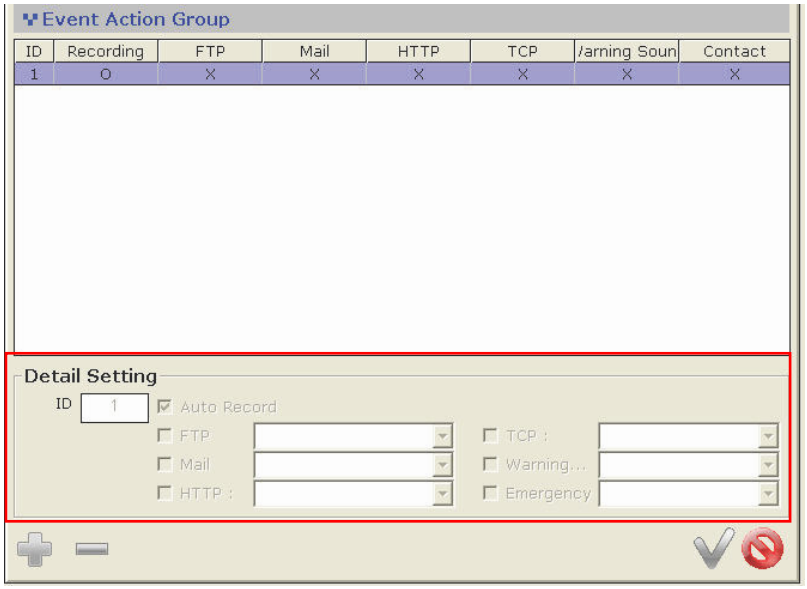
Users can also create an "action group" and apply it to a certain type of event on a particular channel.



To create an event action group, go to the "Action Group" tab and click the "+" button to begin:



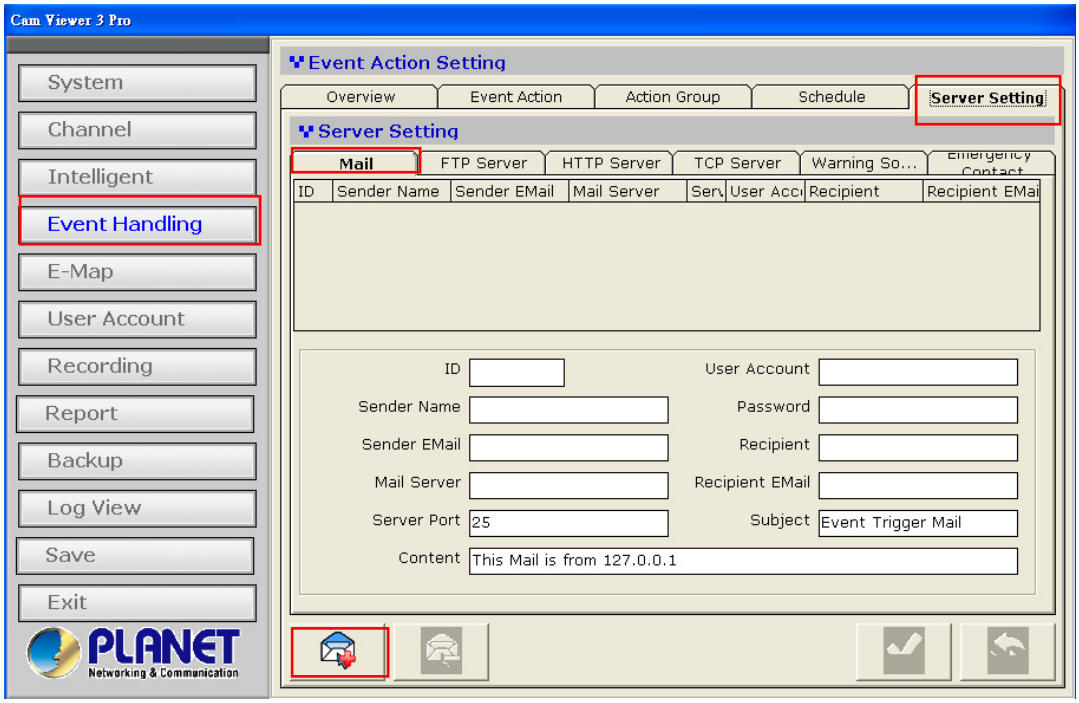
Noticing a new event action group has been added but the "Detail Setting" section is not available for configuration yet:



By default, all the event servers are grayed out as none has been added to the soft- ware yet. Settings of these event servers will be described in the next page.

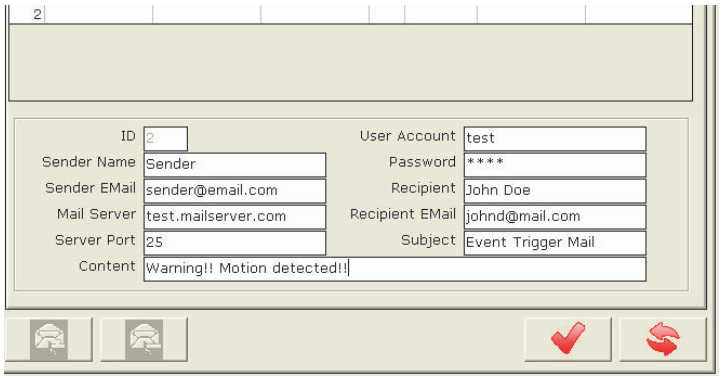
3.4.1 Event Handling - Mail server

Mail servers are used to send warning emails with pre-defined text content to designated recipients when events are triggered.



To add a new mail server, click on the "Add" button at the bottom:

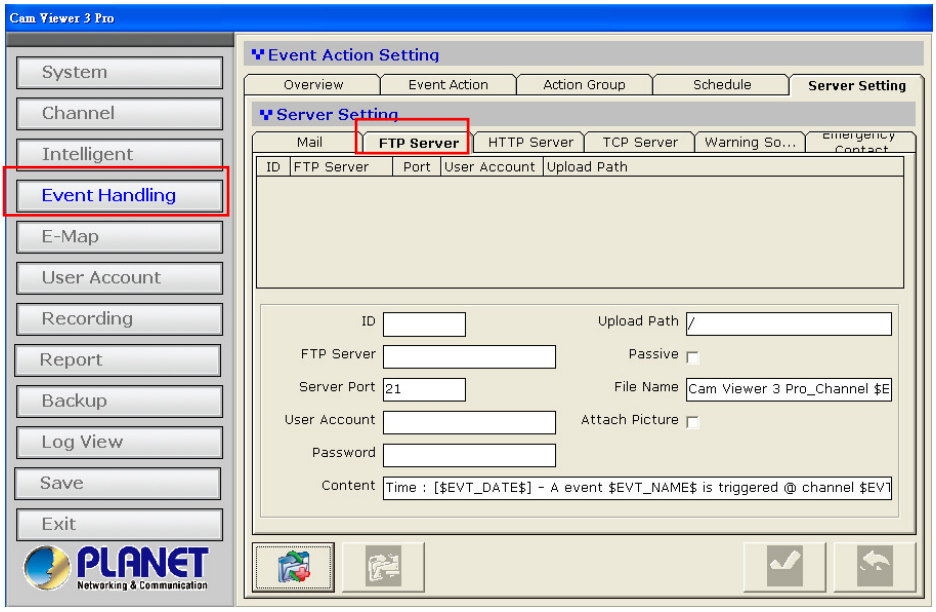
Next, fill in the empty fields like shown below:



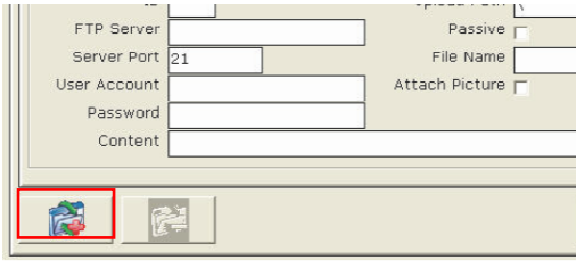
** Enter a valid public IP address or FQDN (Fully Qualified Domain Name) in the "Mail Server" field*

3.4.2 Event Handling - FTP server

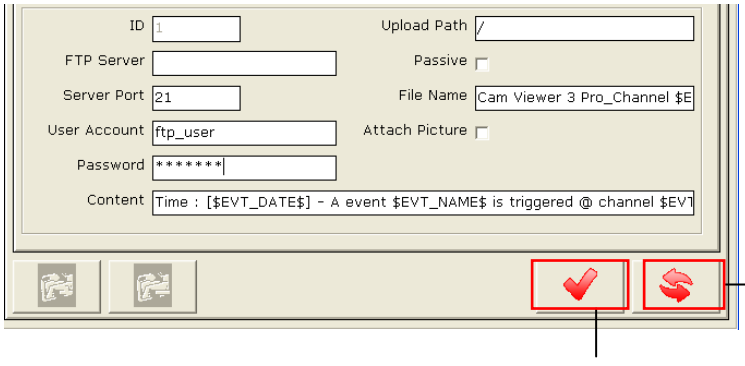
FTP servers are used to send warning with pre-defined text content or camera snapshot to designated FTP servers when events are triggered.



Click "Add" button at the bottom to add a new FTP server:



Fill in the empty fields as illustrated below:

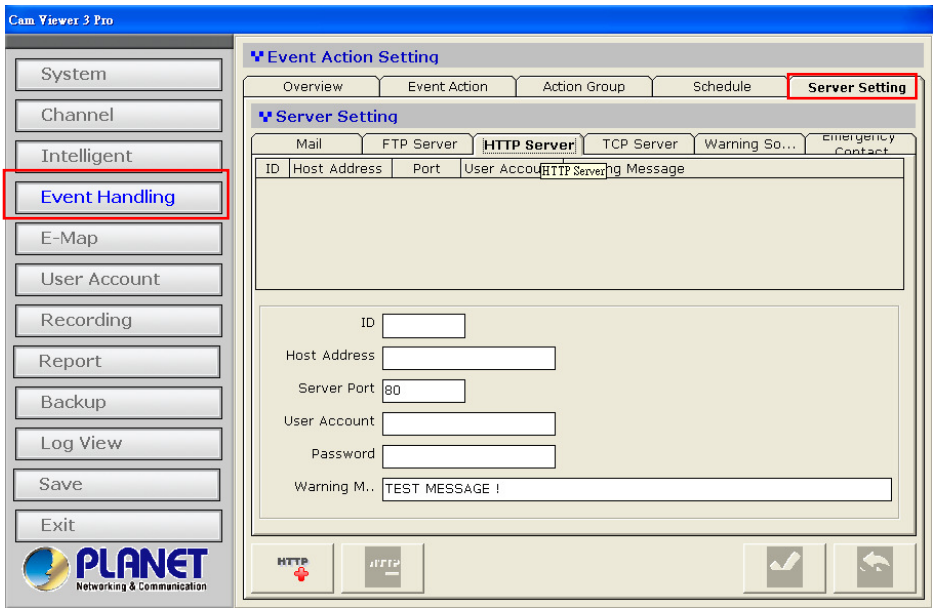


** Enter a valid public IP address or FQDN (Fully Qualified Domain Name) in the "FTP Server" field*

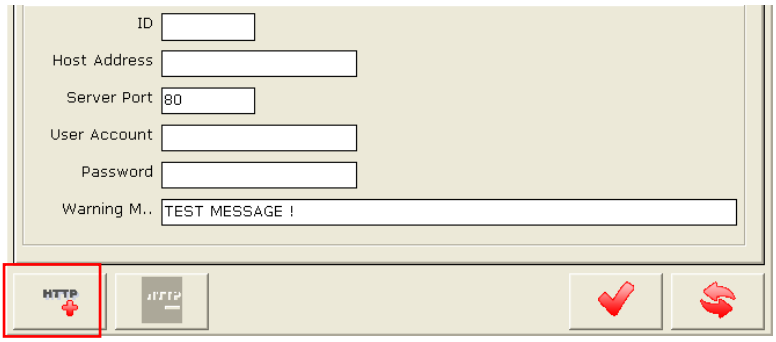
** By default, the software uploads files to the top-level directory of the FTP server. Enter the folder name after the "\" in the "Upload Path" field if you would like to soft- ware to upload to a specific folder.*

3.4.3 Event Handling - HTTP server

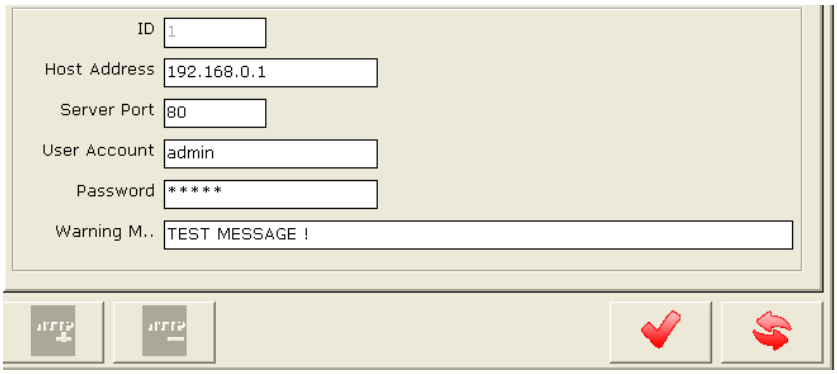
HTTP servers are used to send warning with pre-defined text content or camera snapshot to designated HTTP servers when events are triggered.



Click "Add" button at the bottom to add a new HTTP server:



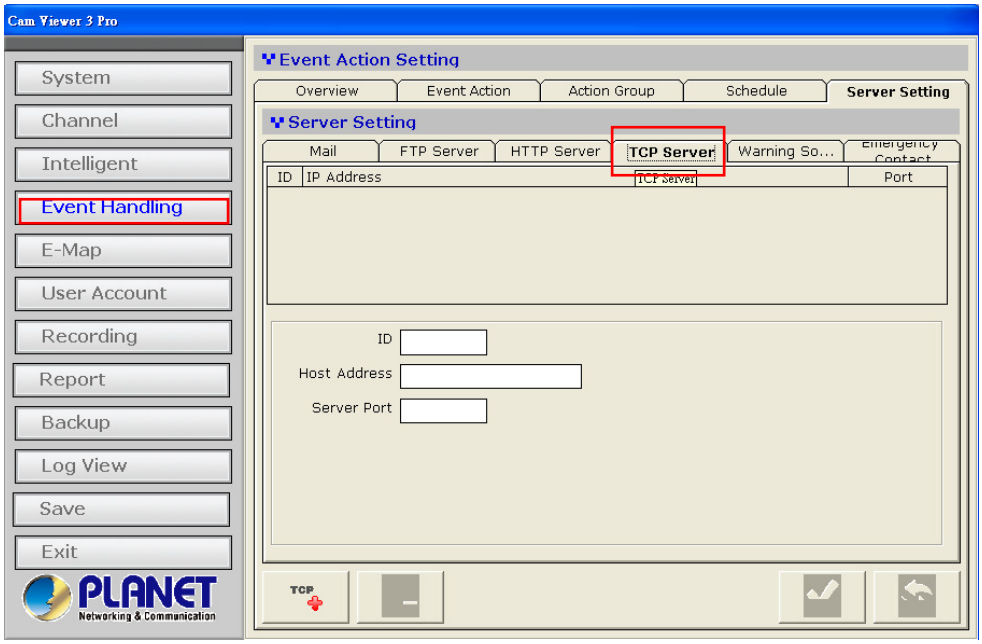
Fill in the empty fields as illustrated below:



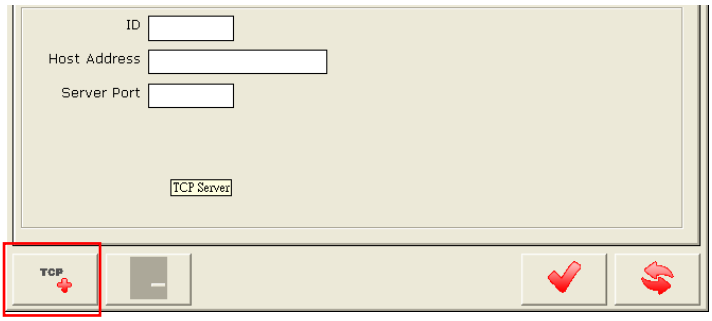
** Enter a valid public IP address or FQDN (Fully Qualified Domain Name) in the "Host Address" field.*

3.4.4 Event Handling - TCP server

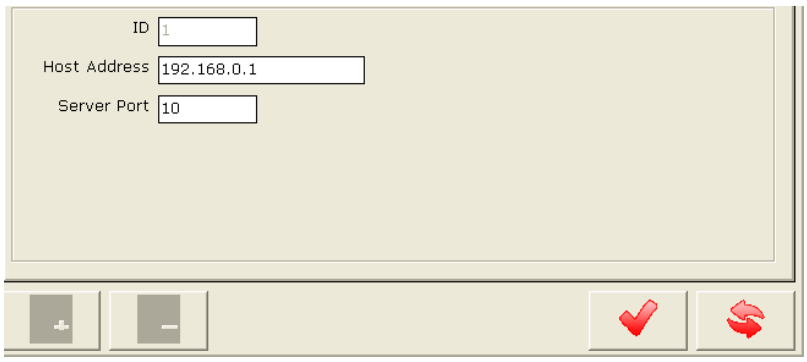
TCP servers are used to send warning with pre-defined text content to designated TCP servers when events are triggered.



Click "Add" button at the bottom to add a new TCP server:



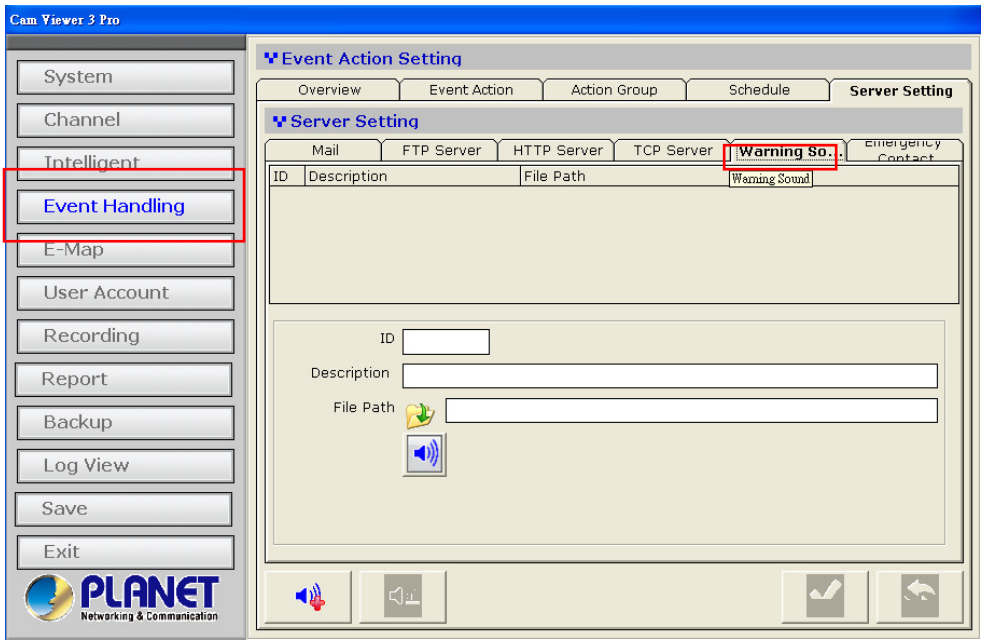
Fill in the empty fields as illustrated below:



** Enter a valid public IP address or FQDN (Fully Qualified Domain Name) in the "Host Address" field.*

3.4.5 Event Handling - Warning Sound

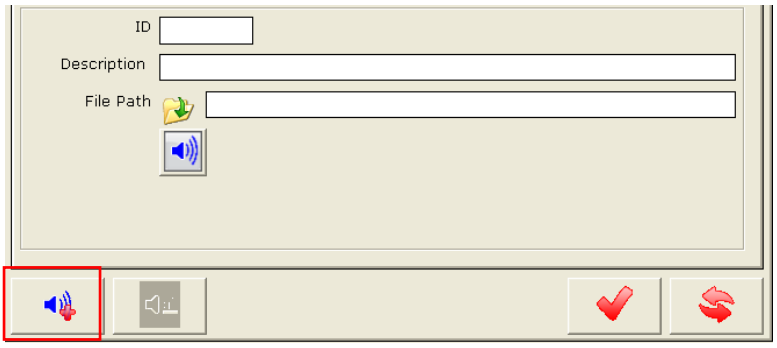
Users can set up sound files in the software and have the software play them when events are triggered. Different warning sounds can be used for different types of triggered events.



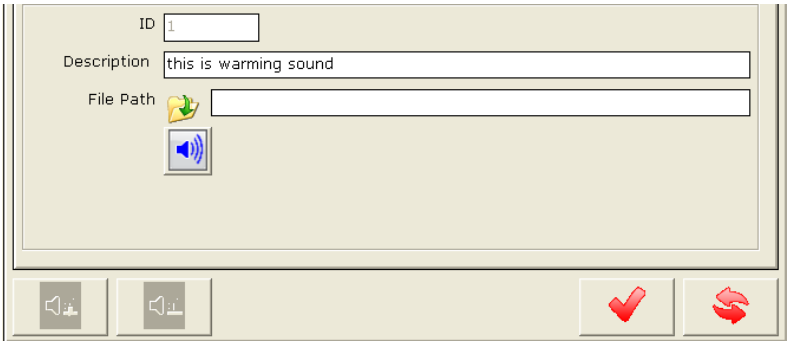
*

Only .Wav file is supported

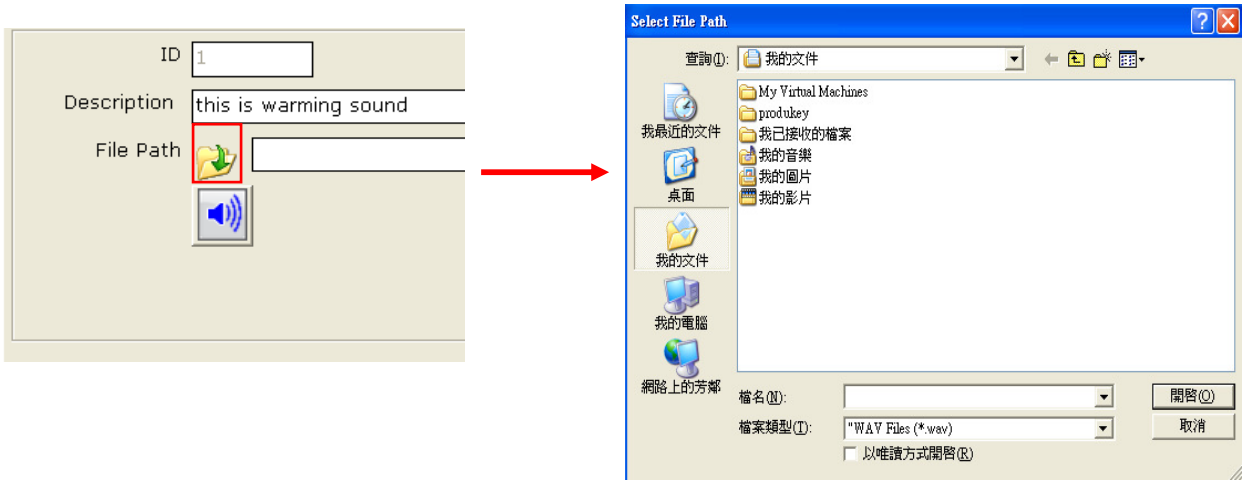
To Configure, click the "Add" button:



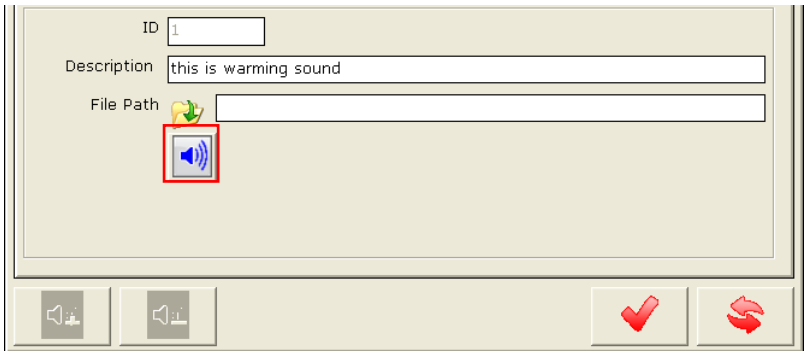
Put in a description for the warning sound in the "Description" field (as shown below):



Click on the "folder" icon to locate the sound file:

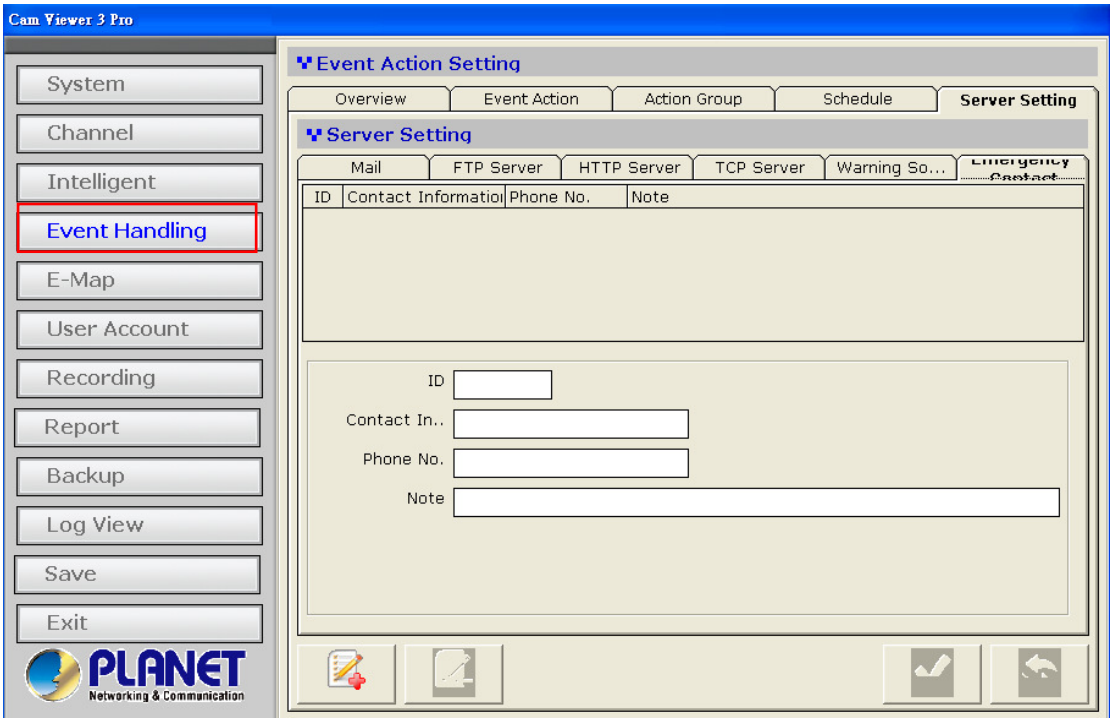


You can preview the sound before applying the new configuration by clicking on the "Speaker" button:



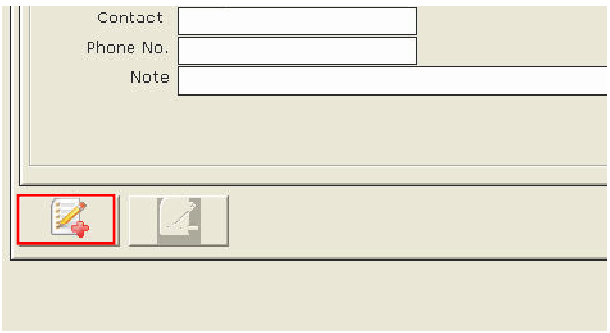
3.4.6 Event Handling - Emergency

This allows users to create emergency contact information and it can be assigned to a particular channel. This information will be shown in the remote client viewer program under the "E-Map Monitor" when a particular channel is selected:

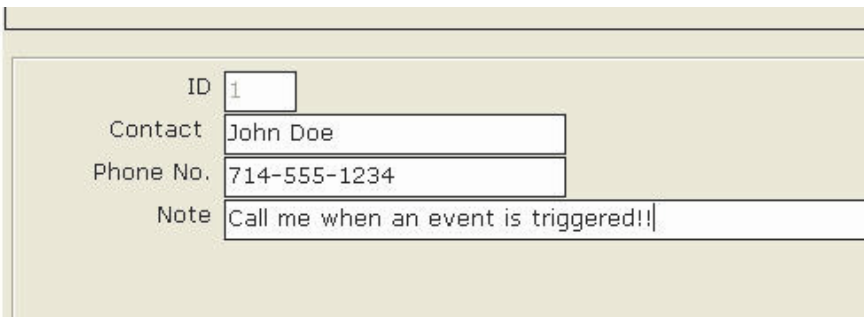


** Refer to page 82 for instructions on how to use E-Map Monitor.*

To add information, click "Add" button:

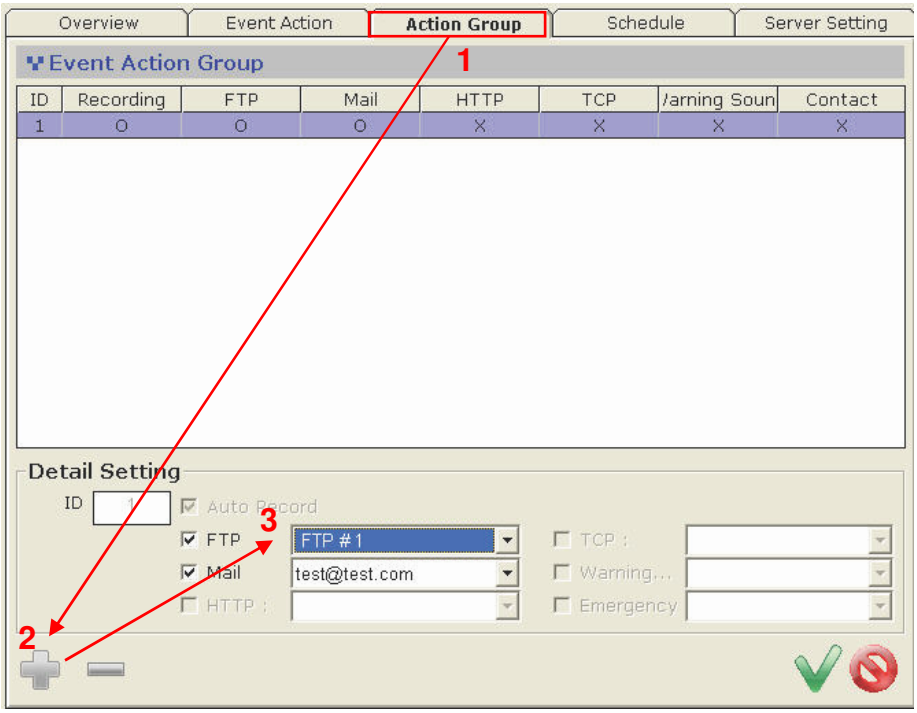


Fill in the empty field with desired information:



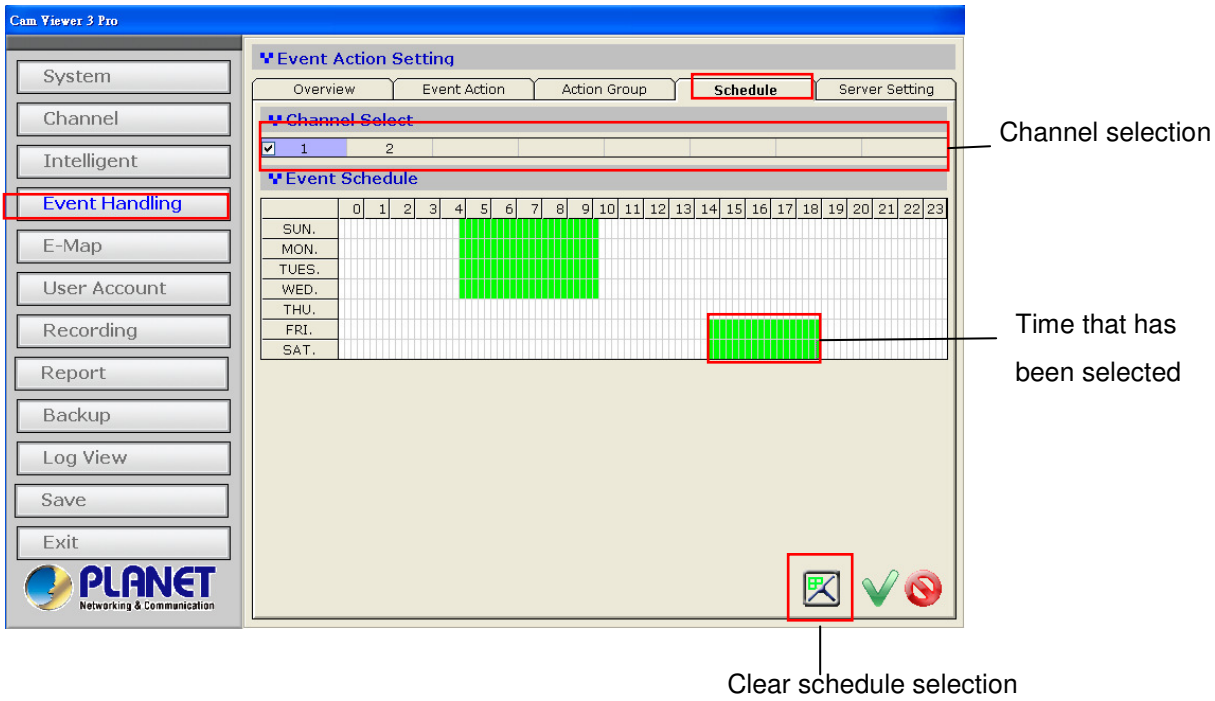
Finishing Configuring Action Group

Once you have all the event servers configured, you can go back to the "Action Group" tab and finish the "Detail Setting" section by selecting the desired event servers for a particular event action group:



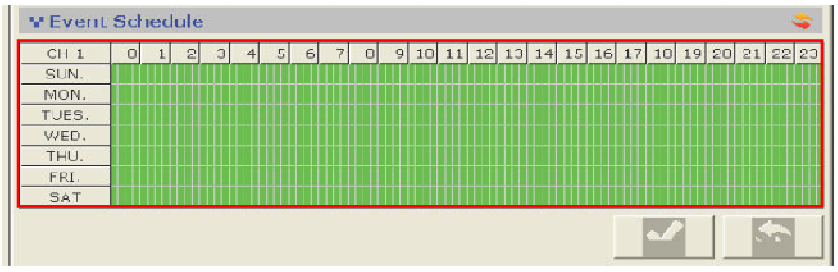
3.4.7 Event Handling - Event Trigger schedule

The software provides users the ability to set one schedule per channel and only events triggered during the defined schedule will be treated as events and the con- figured event actions will be triggered.



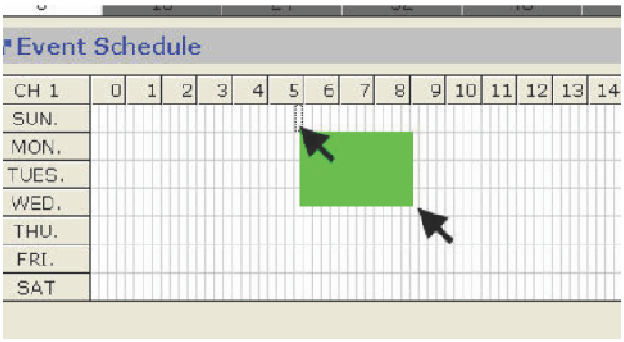
To configure an event schedule for a particular channel, select one from the top (only the ones available will a checkbox next to the channel number):

By default, the schedule is set in full:



To quickly clear the default setting, click on the "Clear" button as shown below:

Click and hold the mouse then move the house cursor from left to right (horizontally or diagonally) to define (add) new hours or days for event trigger:

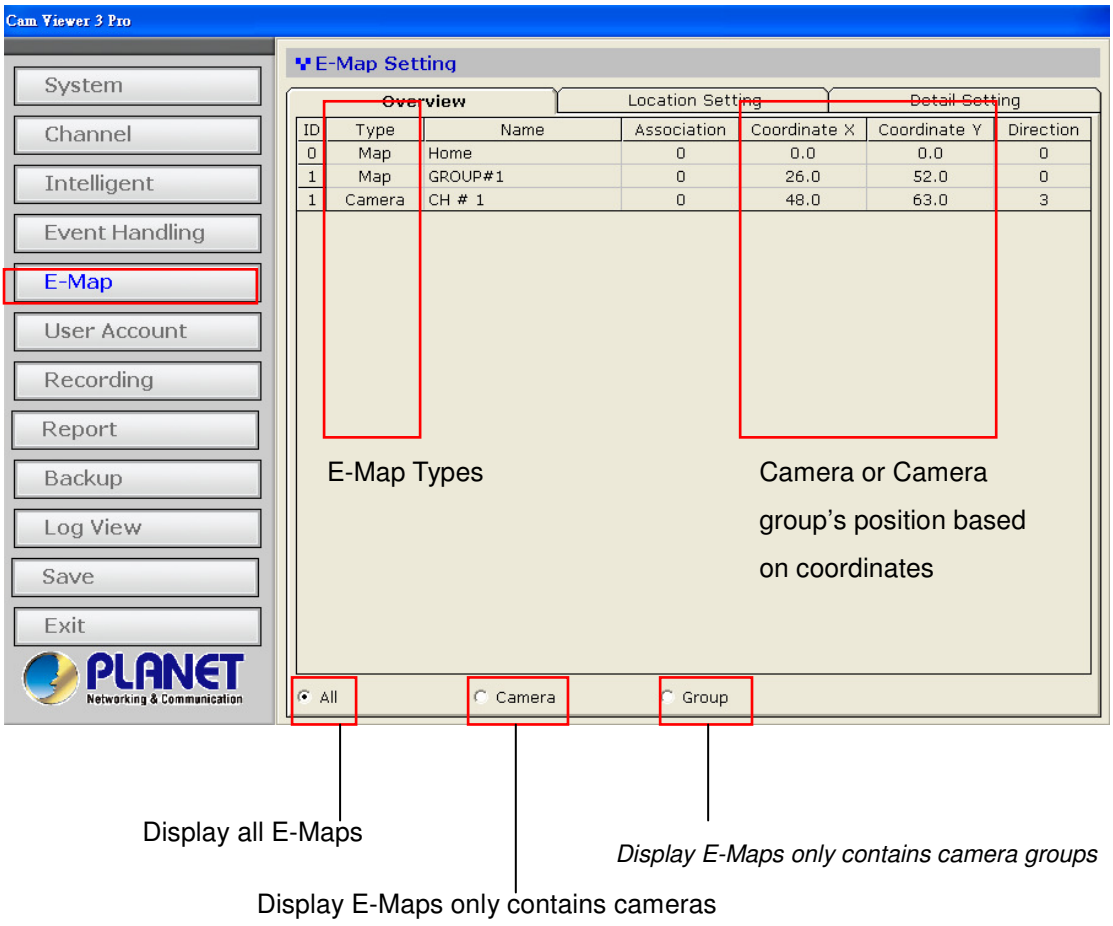


** Click and hold the mouse then move it from right to left (horizontally or diagonally) will erase the previously added hours/days*

3.5 E-map

The software provides E-Map function in a multiple layered structure. Users can place cameras on one map and create a "group" that contains those cameras, and then place the camera "group" on a different map. Users can also create an additional group that contains multiple camera groups and place the new group onto a different map.

When accessing the "E-Map" configuration page in the wizard, you should be prompted with the "Overview" page first:



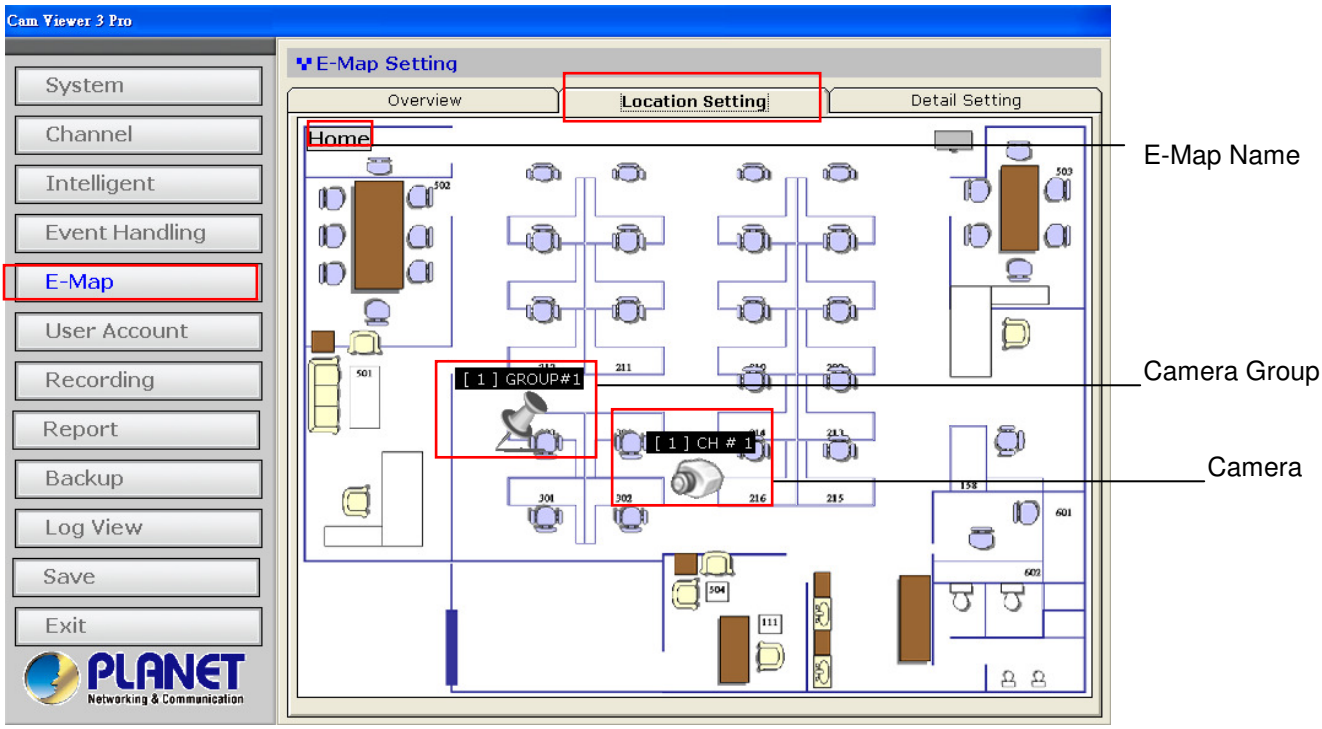
*Cameras and camera groups can exist on the same layer of E-Map

* CV3 Pro supports unlimited layers of e-map.

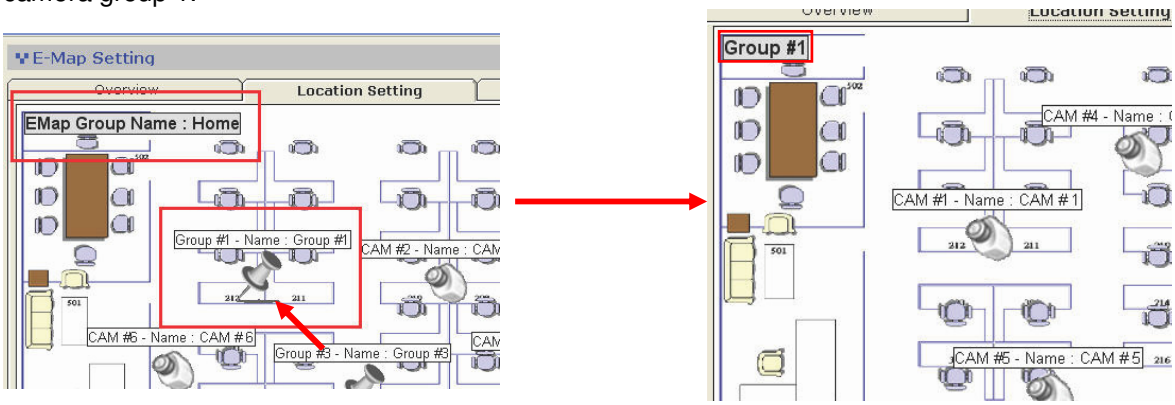
* CV3 Lite supports only 2 layers of e-map.

3.5.1 E-map - Location setting

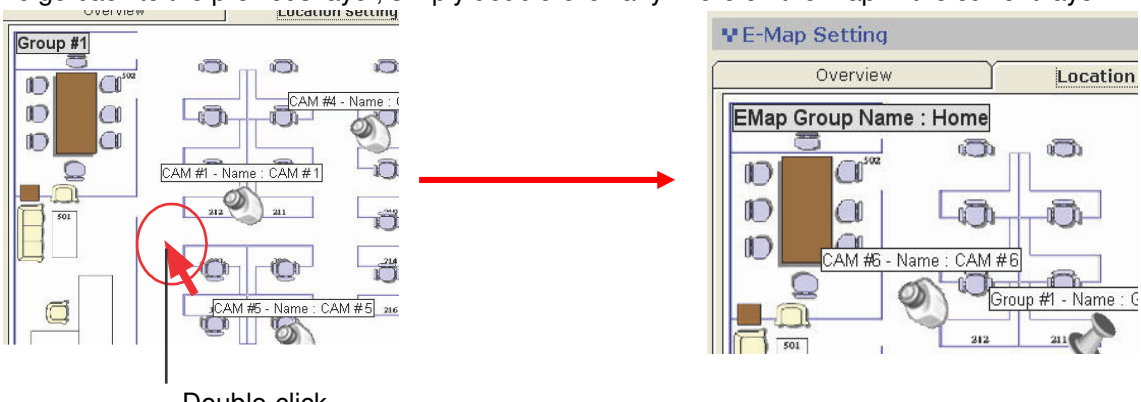
This page is an overview page based on the final E-Map settings. It displays all E-Maps and the positions of each camera (or camera group).



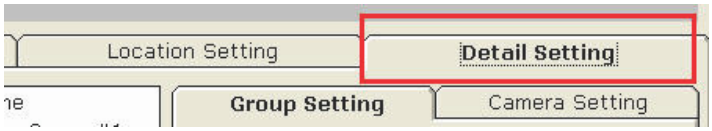
Double-click on a "camera group" (ex. Group 1) icon will direct you to the E-Map that represents camera group 1 and displays the positions of each camera (or cam- era group) in camera group 1.



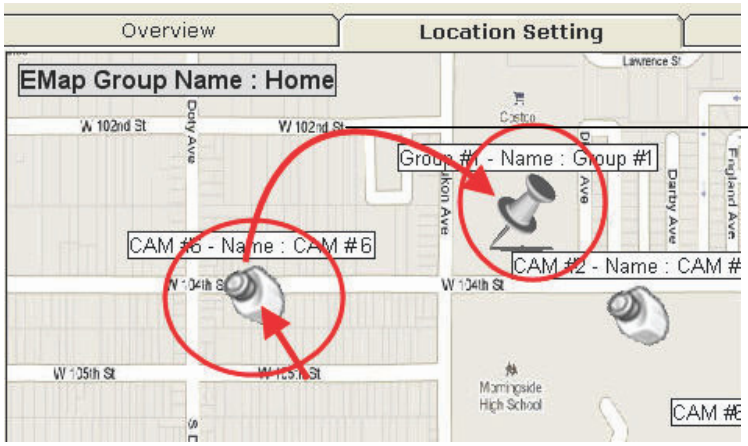
To go back to the previous layer, simply double-click anywhere on the map in the current layer:



** The position of each camera (or camera group) can not be re-arranged in this page. This can only be done in the "Detail Setting" page.*

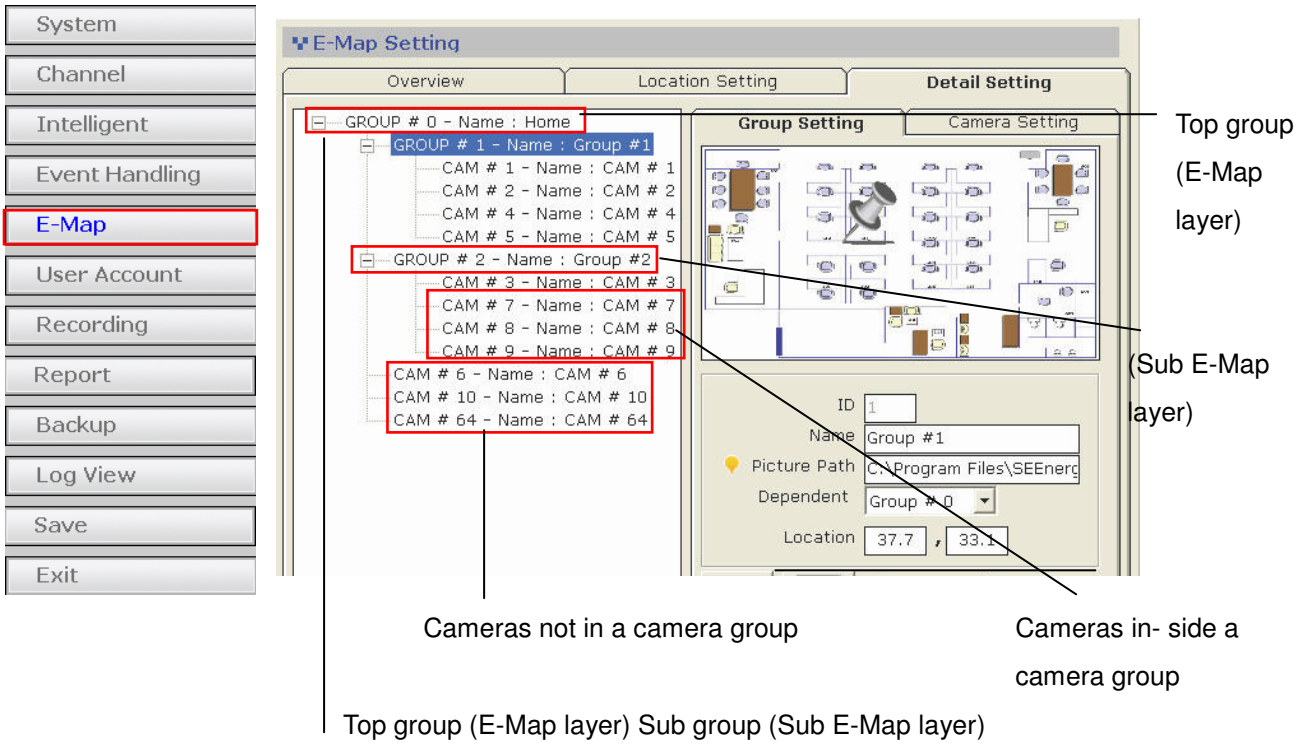


A camera can be quickly placed to a new camera group (a group that's on the same layer) on the fly in this page. To do so, simply click and drag a camera icon then drop it onto a camera group icon:

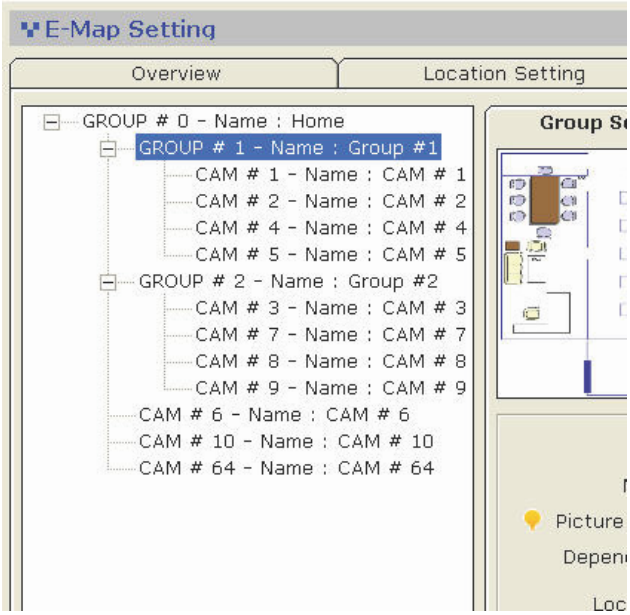


3.5.2 E-map - Detail setting

This page allows users to define new camera groups, E-Map image, and the positions of each camera (or camera group).

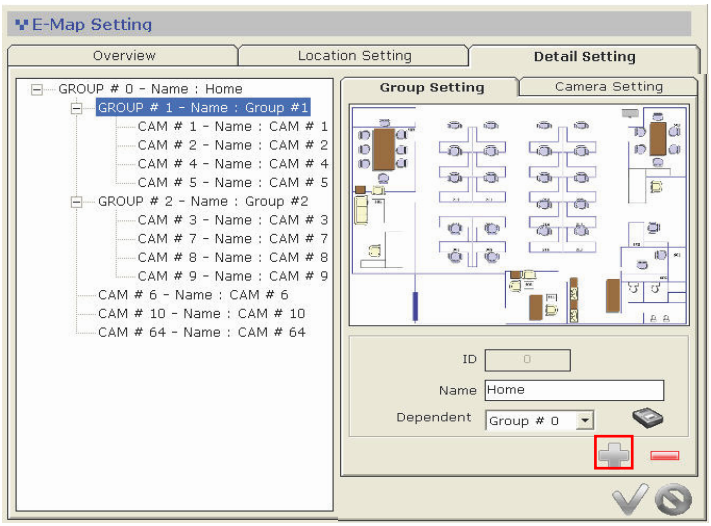


By default, all the cameras should be listed in the tree-view list on the left (as shown below). All cameras should be listed under the "Home" group (or Group#1):

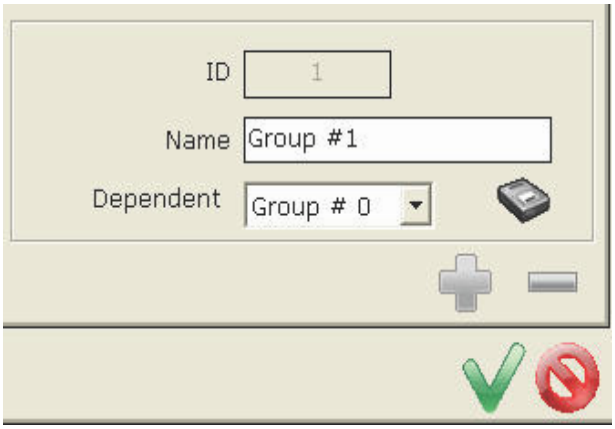


3.5.3 E-map - Detail setting - camera group

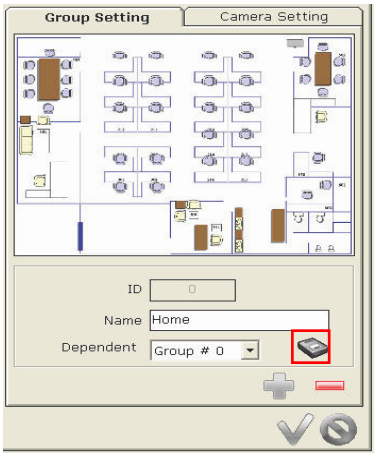
To create a new group, click on the "Add new group" button as shown below:



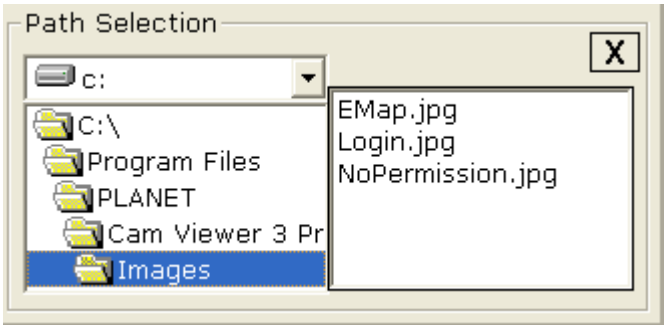
The next available group ID and group name should be automatically filled in to the corresponding fields. If you'd like to configure this group as a sub group of another group, choose the main group from the "Dependent" drop-down menu:



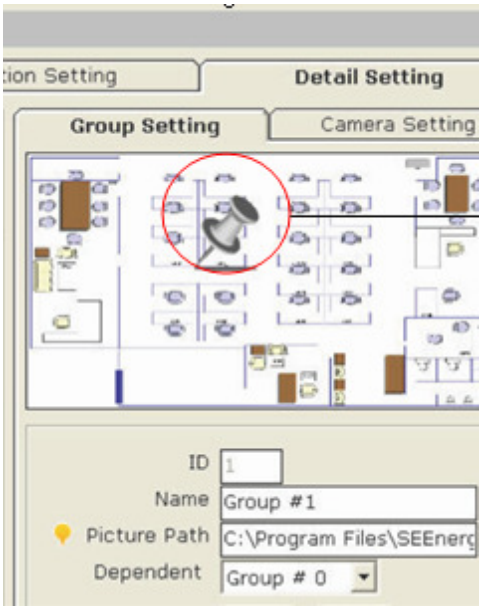
To change the map image, click on the icon (as shown below) to do so:



Then locate the new map image:



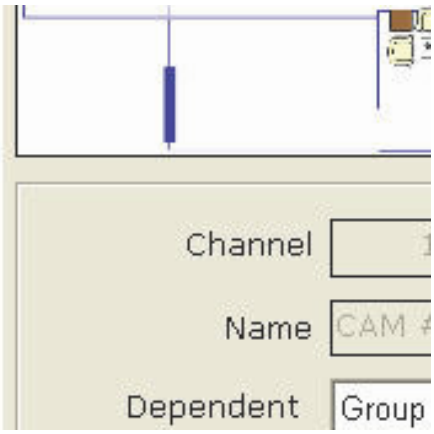
Finally, click on the "camera group" icon and hold the mouse then drag the icon to the desired position on the map to determine its new position.



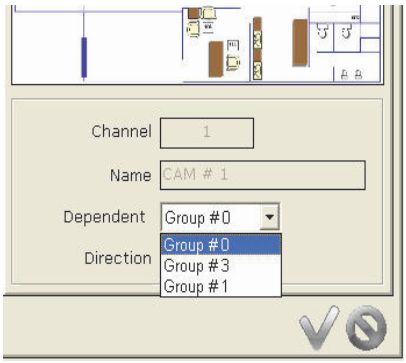
Move the icon on the map to determine its position

3.5.4 E-map - Configure E-Map for a camera

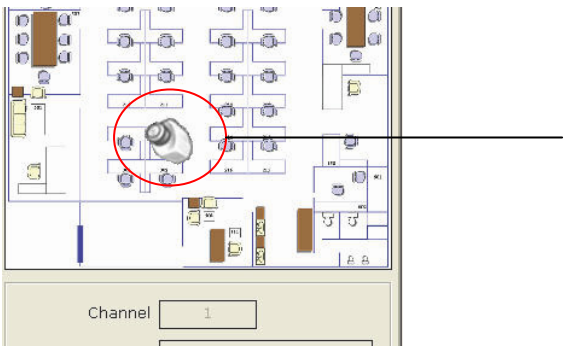
Similar to the instructions described from page 37 ~ 39, except you click on the camera from the list on the left this time:



The "Channel" and "Name" fields will be automatically filled. Simply select a desired camera group this camera will belong to from the "Dependent" drop-down menu:

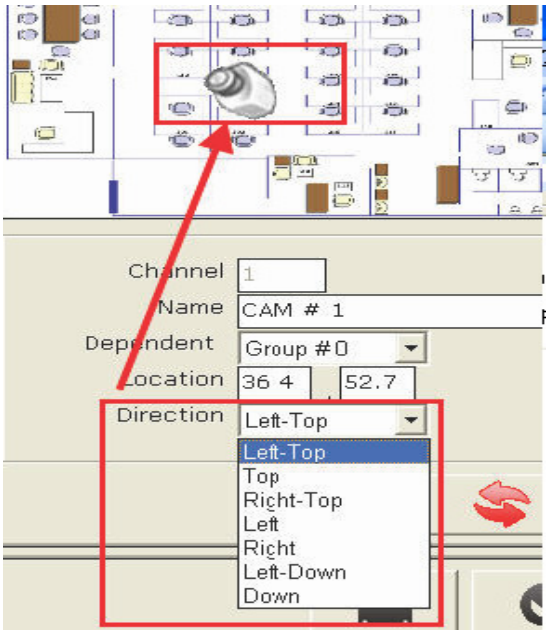


Click and drag the camera icon to determine its new position:



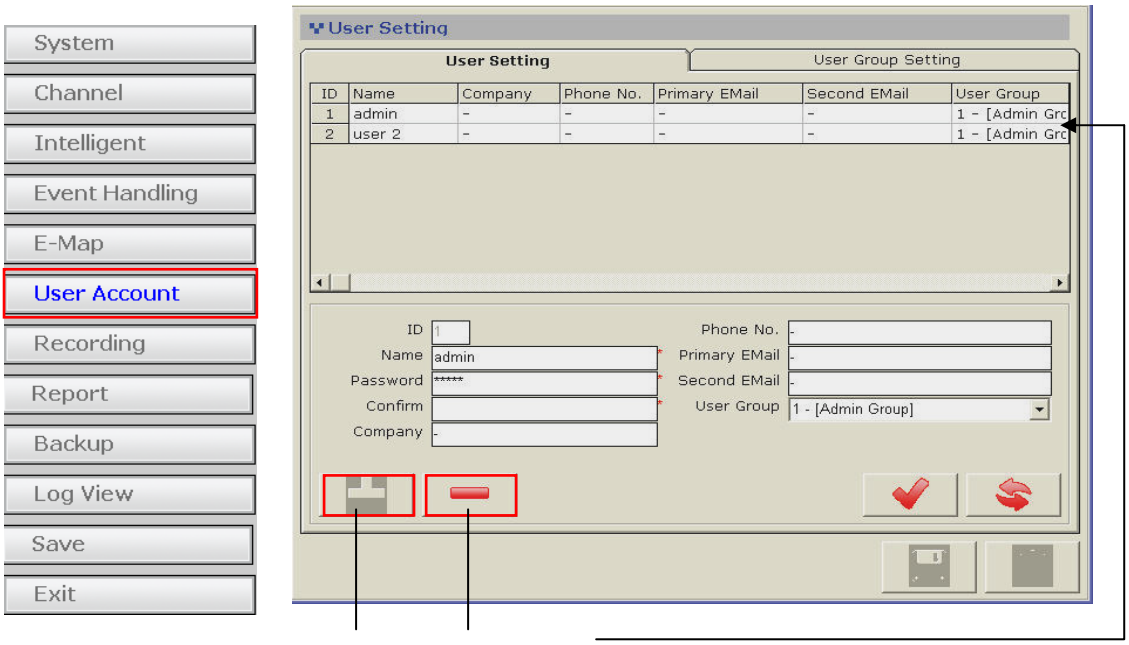
Move the icon on the map to determine its position

You can also change the camera's pointing direction on the map from the "Direction" drop-down menu based on its actual setup in the real world environment:



3.6 User account

The software provides the option to allow users to set different access privileges and they can be assigned to different user groups. Users can then create multiple user accounts and assigned them to different user groups to determine the access privilege of each user account.



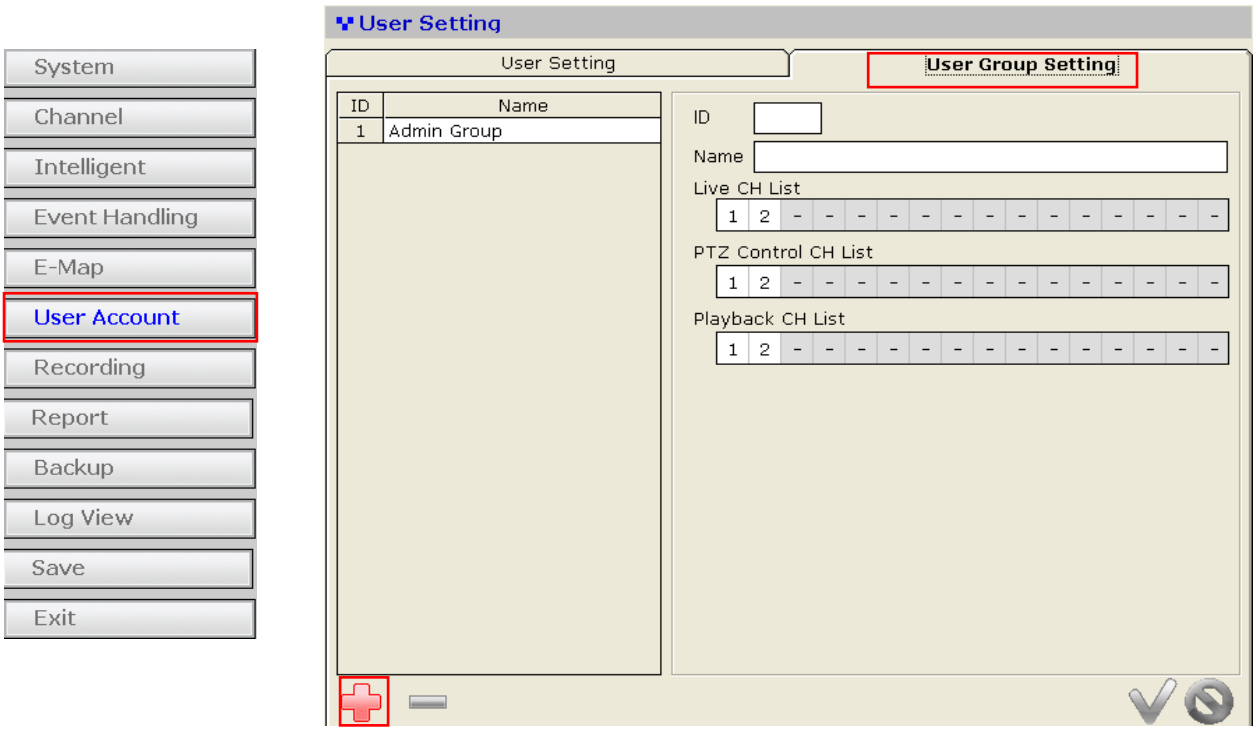
** By default, the software does not have any user account/user group created. It's strongly recommended that you create a user account to prevent unauthorized access to the software.*

** Please do not create an additional user group account that has less access privilege and assign the only user account to that group. You will be asked to log in next time you start the software which you will then only have limited access.*

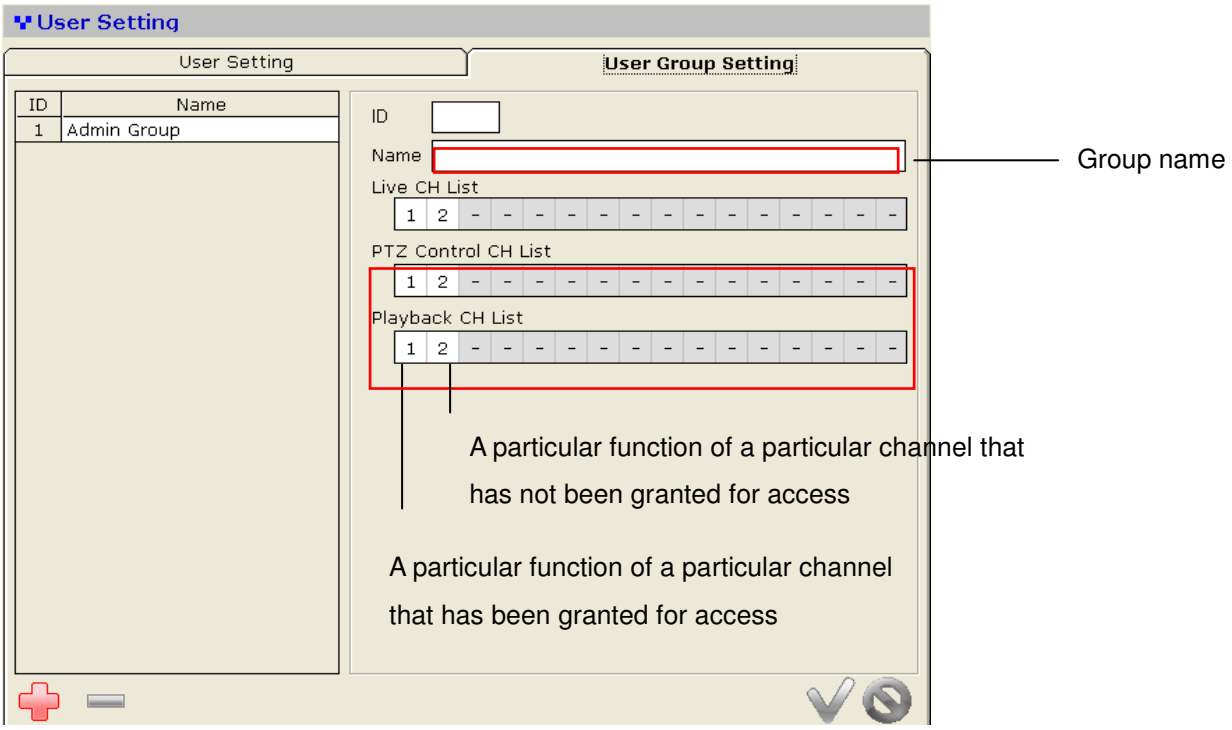
** You can not create a user account until you create a user group (the first user group will be the "Admin" group)*

3.6.1 User account - User Group

To create a new user group account, click on the "User Group Setting" tab and click on the "Add Group" button at the bottom:



You will then be able to assign access privileges to the new group. You may also change the name of the group if you wish:



3.7 Recording

The recording configuration page allows users to configure the followings:

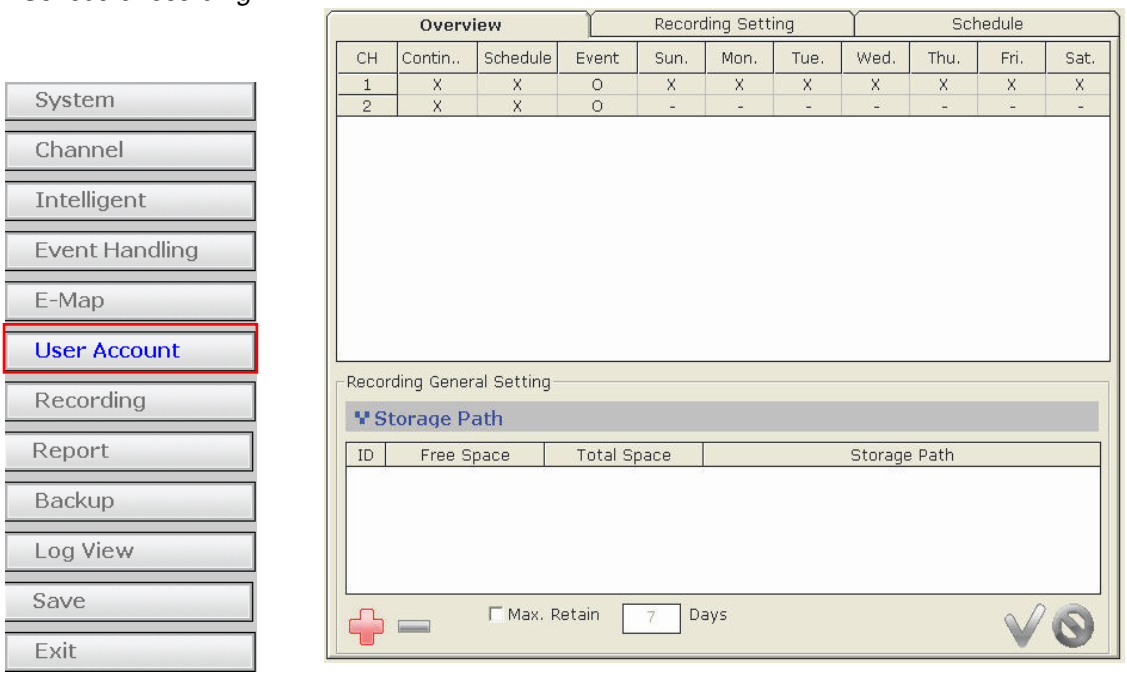
** Quickly enable/disable certain types of recording*

** Recording storage path*

** Recording frame rate of each recording type on each channel*

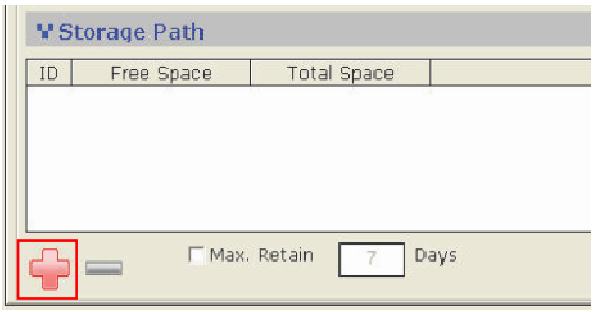
** Pre-alarm/Post-alarm time*

** Schedule recording*

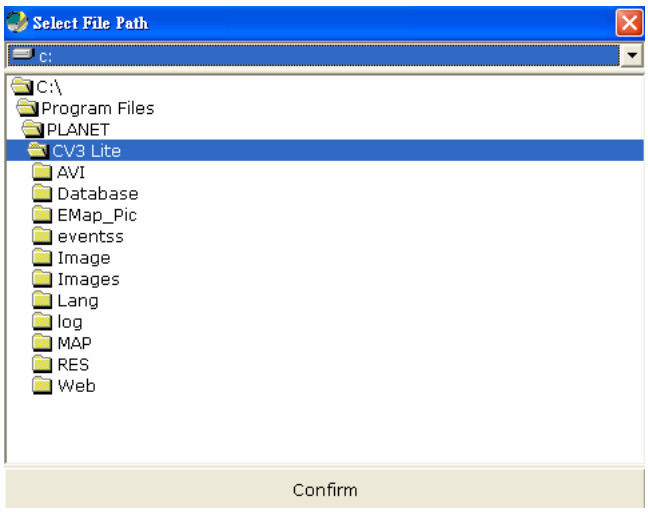


You should first be prompted with the overview page that displays the current recording configurations of each channel and the storage path.

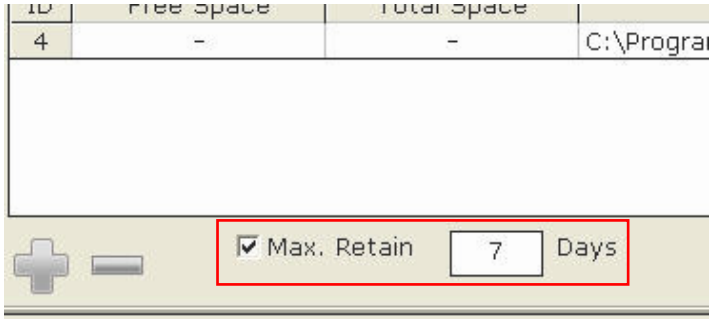
To add a new storage path, click on the "Add" button (as shown below):



A new dialog should be prompted which you can select a new path to store the recording data:



You can also configure the software to always keep the previous number of days of recording data if you wish to do so:



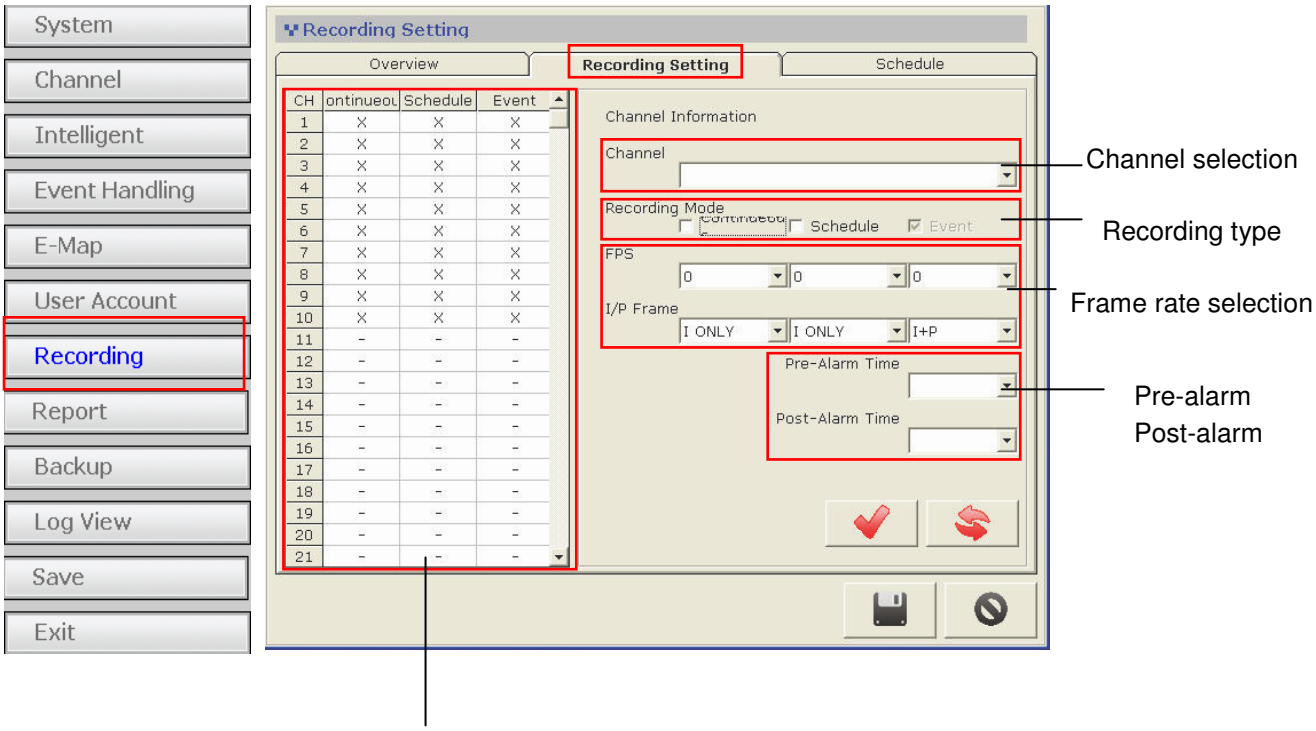
3.7.1 Recording - Setting

You can configure the detail recording settings in the "Recording Setting" page. In this page, you can configure the followings:

** Enable/disable recording types*

** Recording frame rate*

** Pre-Alarm/post-alarm time*

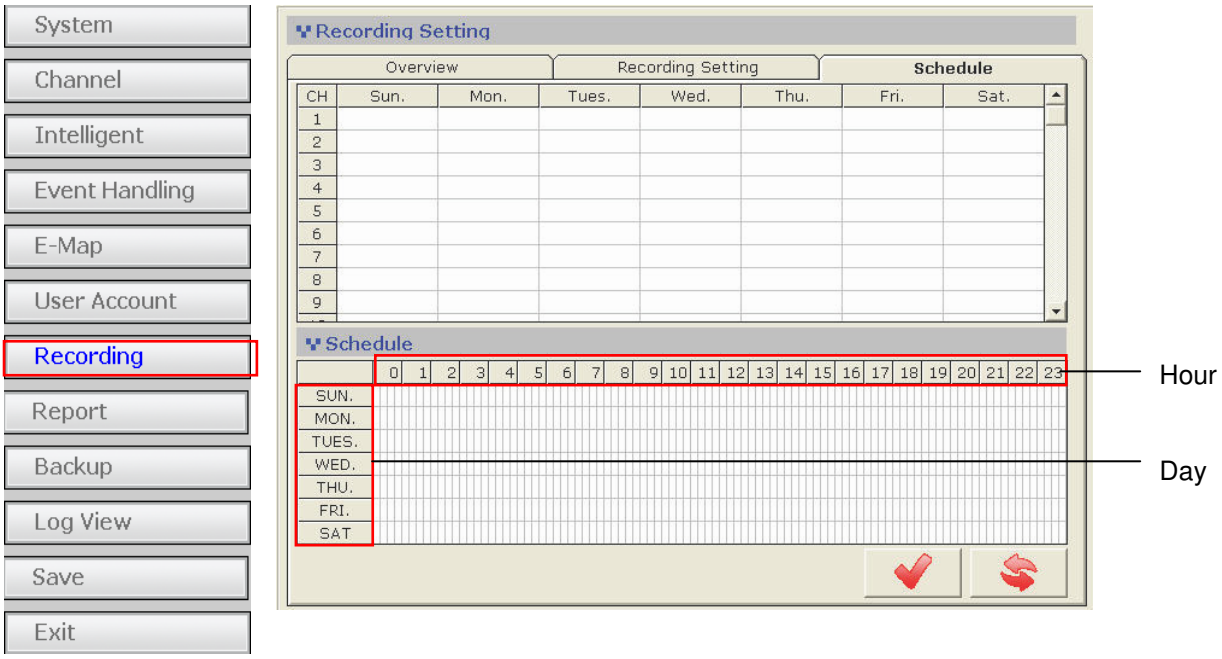


** The "FPS" is available only if the video for- mat of the selected channel is MJPEG.*

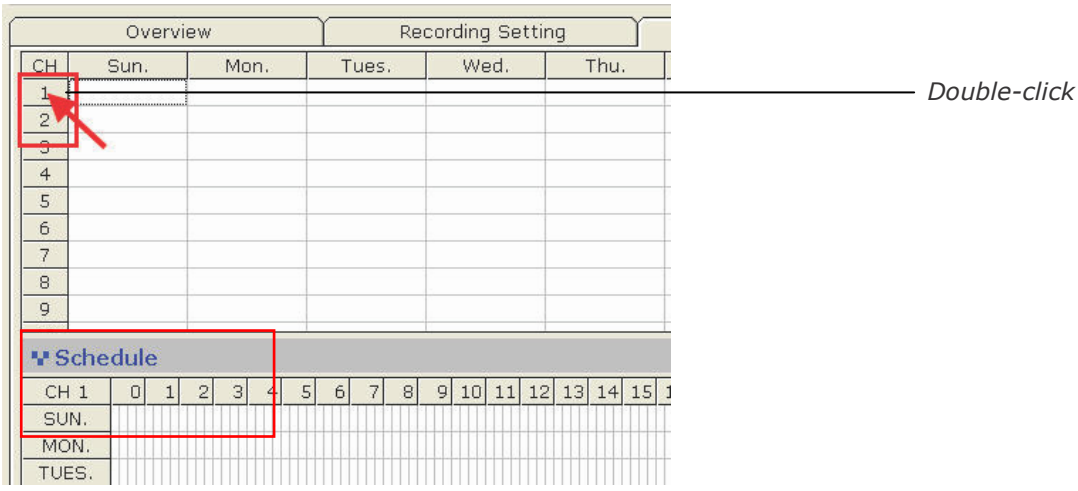
** The "I/P Frame" is available only if the video format of the selected channel is MPEG4 or H.264*

3.7.2 Recording - Schedule

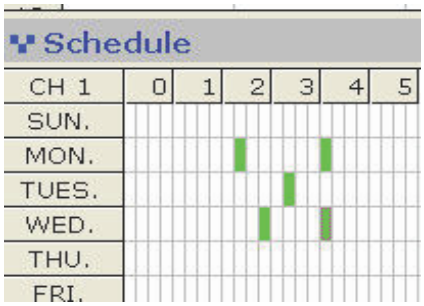
Schedule recording allows users to set the software start and stop recording automatically within the scheduled time frame:



To configure schedule recording for a particular channel, click on one of the channel from the "CH" column in the upper-left hand corner. Then you can edit the recording schedule of the selected channel in the "Schedule" section:



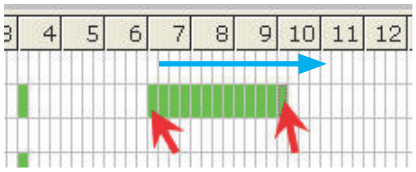
Next, click on the cell boxes on the schedule table to configure the desired recording time. Selected cell boxes will be marked in green which means recording will be started at that particular time of that particular day:



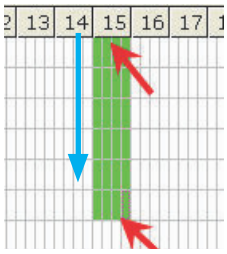
** Each cell box represents 15 minutes*

To set the software to record in consecutive hours on a particular day, click on a cell box (as the starting point) and hold the mouse then move it horizontally. Release the mouse when you are done.

To set the software to record on consecutive days during a particular hour, click on a cell box (as the starting point) and hold the mouse then move it vertically. Release the mouse when you are done.



Click and drag the mouse horizontally to set consecutive hours



Click and drag the mouse vertically to set consecutive days

** Click and drag the opposite direction to clear previously selected time frame*

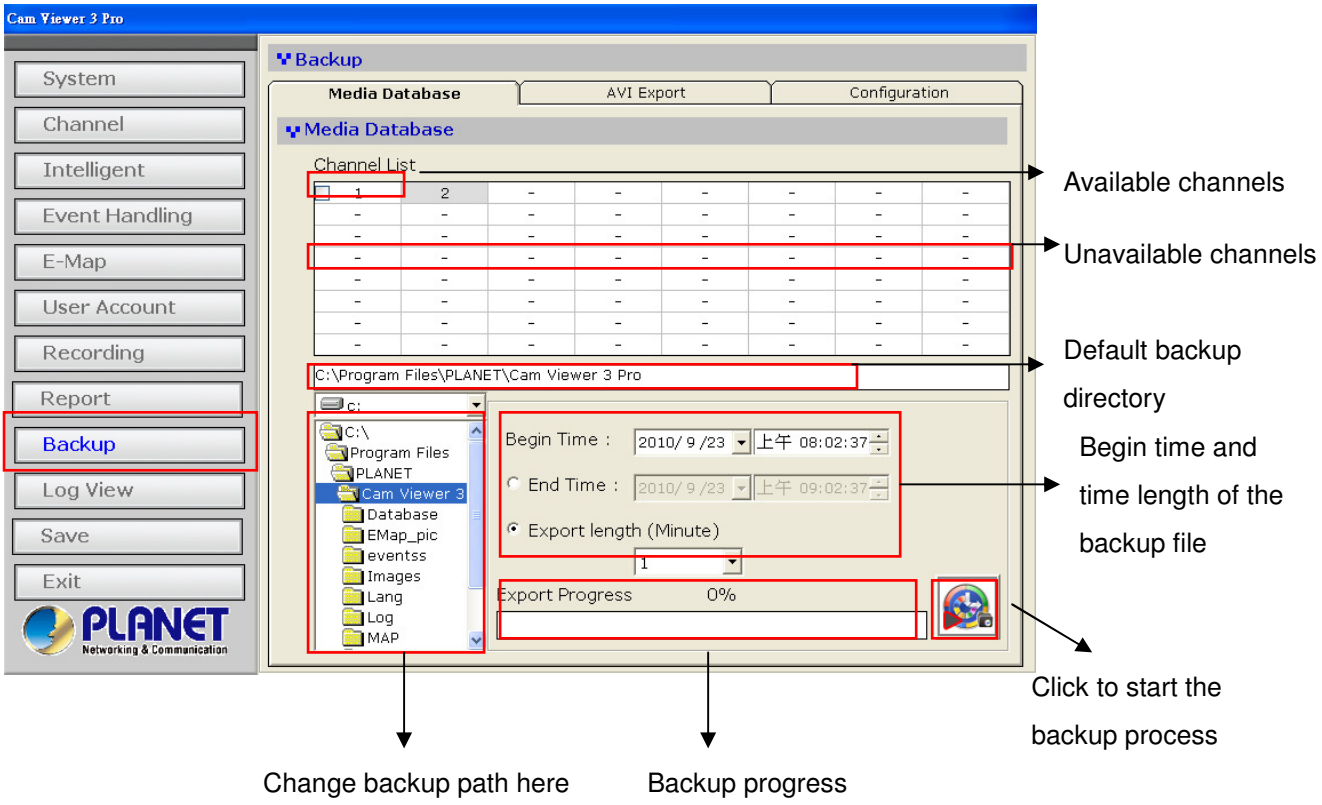
3.8 Backup

The software provides the backup function which can back up the followings:

** Media database: Recorded data in the database format*

** AVI export: Recorded data exported to AVI file format*

** Configuration: The configuration files of the software*



3.8.1 Backup - Backup media Database

To backup the media database, follow the procedures below:

** Select channels from the "Channel List" to back their media database*

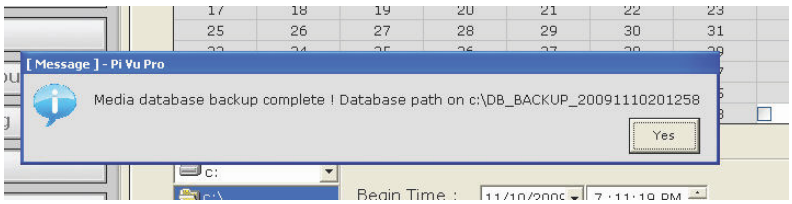
** Change or accept the default backup directory*

** Set the "Begin Time*

** Set the "End Time" or select the "Export length"*

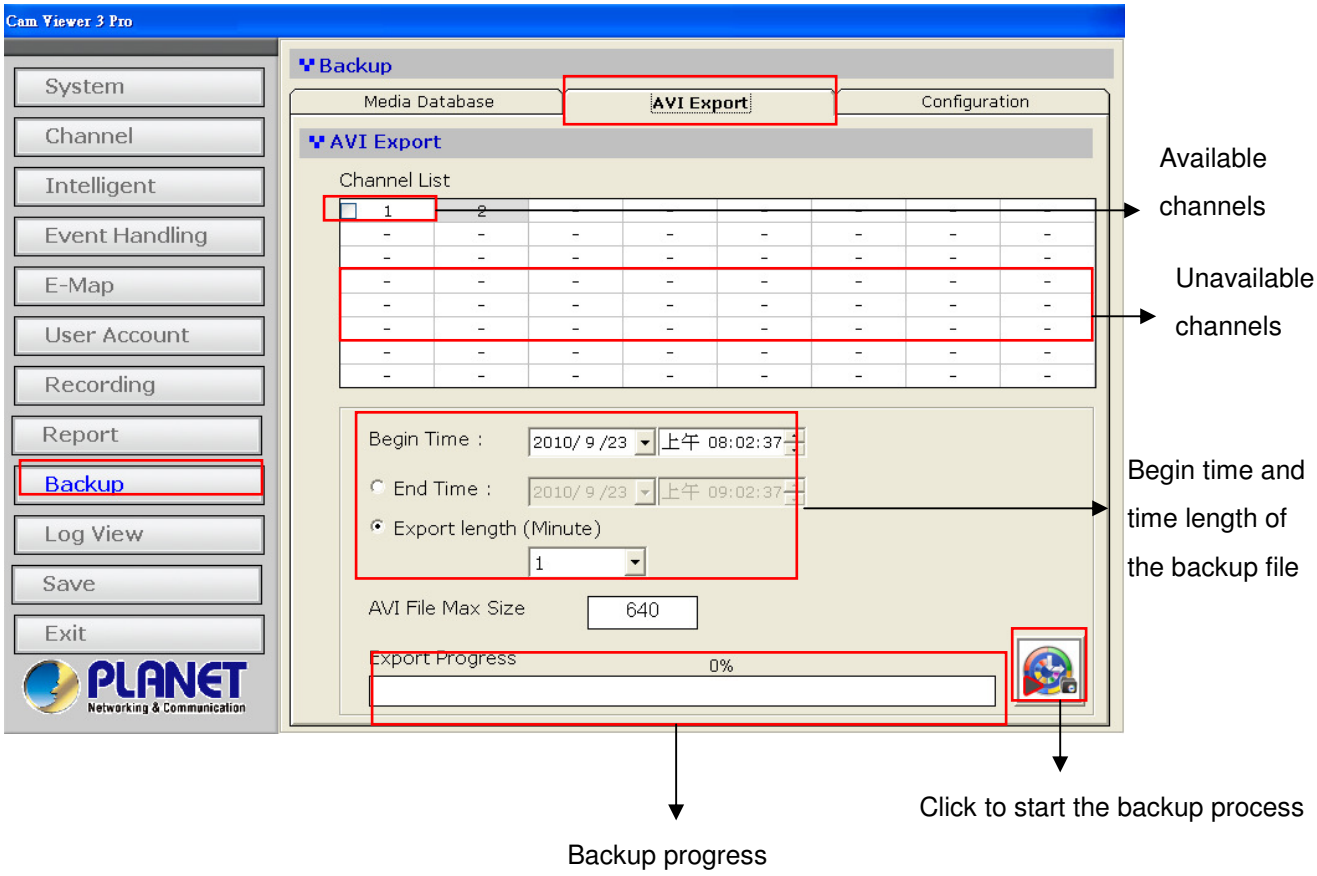
** Click* *to begin the backup process*

You should be notified once the process completes. The stored file name and the storage directory should also be displayed:



3.8.2 Backup - AVI Export

The software provides the function to allow users to backup the recorded file of one or more channels and export them as AVI file format. The file can then be played by the bundled media player.



** The default directory that stores the exported AVI files is C:\Program Files\PLANET\CV3 Pro\AVI and this can't be changed.*

3.8.3 Backup - Configuration Backup

To export the recorded video to AVI, follow the procedures below:

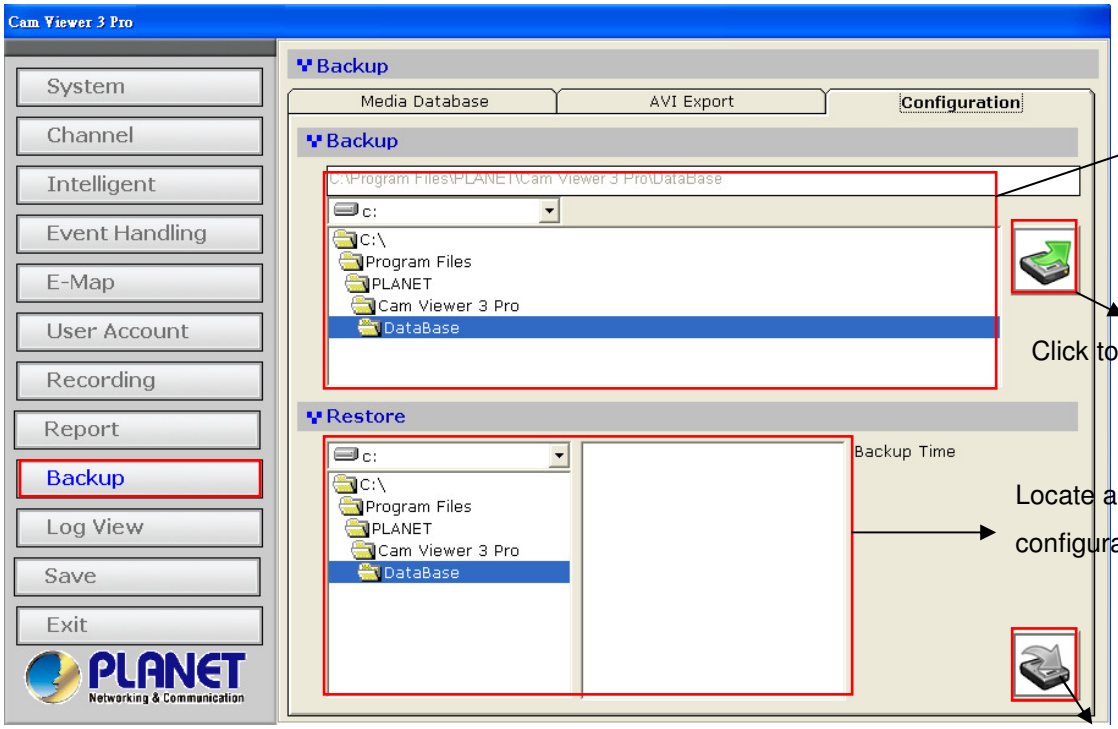
** Select channels from the "Channel List" for AVI export*

** Set the "Begin Time*

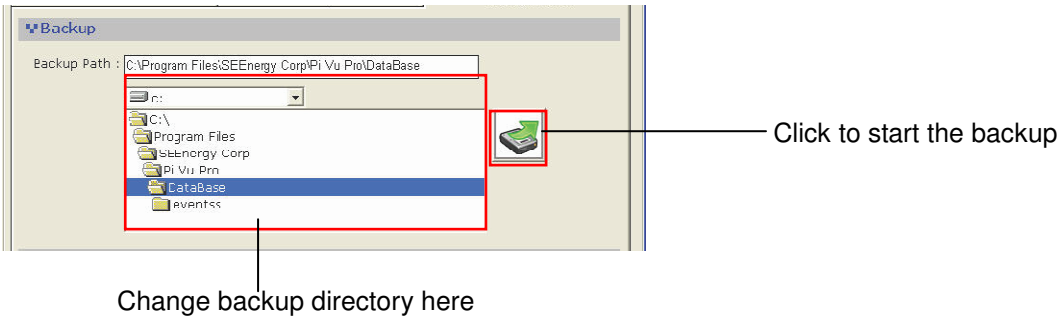
** Set the "End Time" or select the "Duration time"*

** Click* *to begin the backup process*

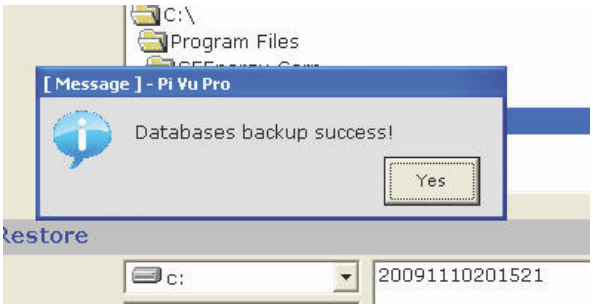
In the "Configuration" page, you can backup the current settings or restore a previously saved configuration file.



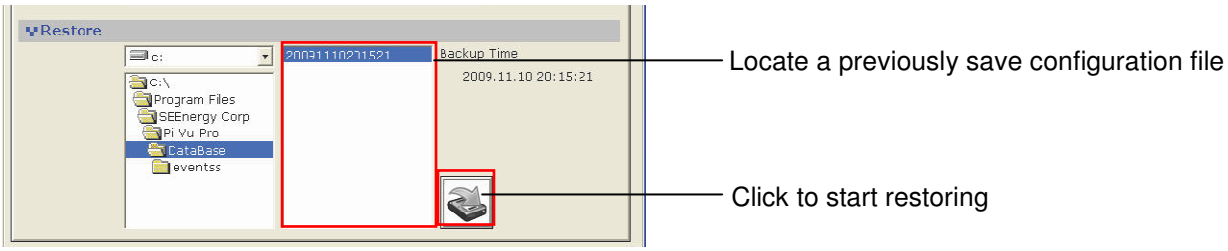
To backup the configuration file, select a folder of where you would like the configuration file to be saved to and click "Backup":



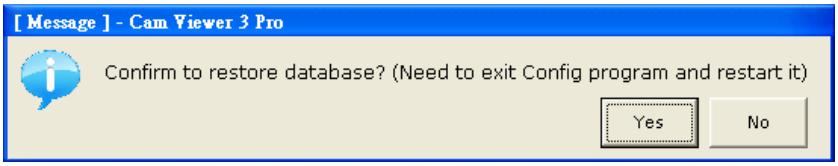
You should be notified once the backup is completed successfully (as shown below):



To restore a previously saved configuration file to the system, locate the file first and then click "Restore"



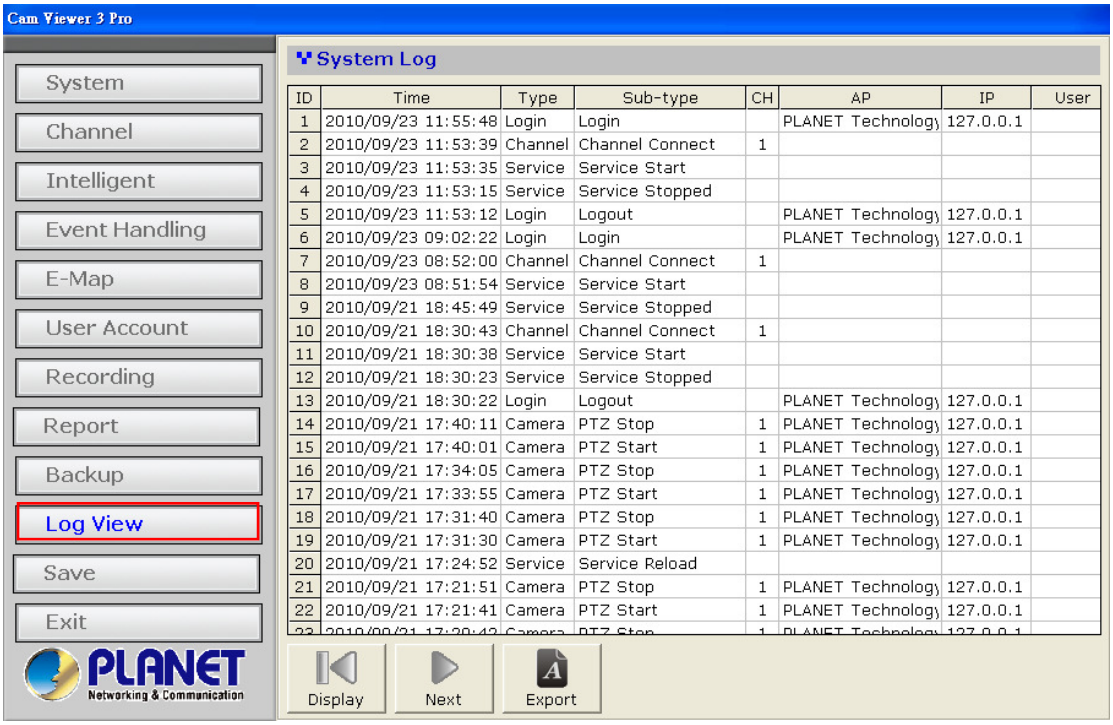
You should be prompted to confirm the restore process: (as shown below)



Click "Yes" and restart the configuration wizard to complete the restoration.

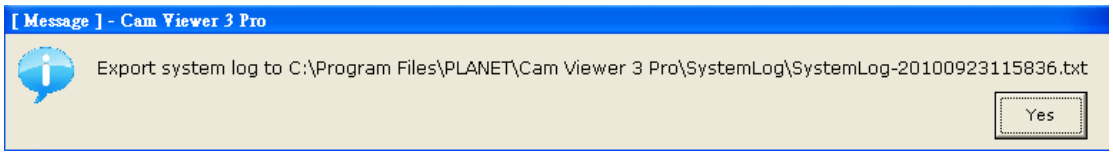
3.9 Backup - Log View

The software provides a detailed log which records what has been done and who has done what to the software:



ID	Time	Type	Sub-type	CH	AP	IP	User
1	2010/09/23 11:55:48	Login	Login		PLANET Technology	127.0.0.1	
2	2010/09/23 11:53:39	Channel	Channel Connect	1			
3	2010/09/23 11:53:35	Service	Service Start				
4	2010/09/23 11:53:15	Service	Service Stopped				
5	2010/09/23 11:53:12	Login	Logout		PLANET Technology	127.0.0.1	
6	2010/09/23 09:02:22	Login	Login		PLANET Technology	127.0.0.1	
7	2010/09/23 08:52:00	Channel	Channel Connect	1			
8	2010/09/23 08:51:54	Service	Service Start				
9	2010/09/21 18:45:49	Service	Service Stopped				
10	2010/09/21 18:30:43	Channel	Channel Connect	1			
11	2010/09/21 18:30:38	Service	Service Start				
12	2010/09/21 18:30:23	Service	Service Stopped				
13	2010/09/21 18:30:22	Login	Logout		PLANET Technology	127.0.0.1	
14	2010/09/21 17:40:11	Camera	PTZ Stop	1	PLANET Technology	127.0.0.1	
15	2010/09/21 17:40:01	Camera	PTZ Start	1	PLANET Technology	127.0.0.1	
16	2010/09/21 17:34:05	Camera	PTZ Stop	1	PLANET Technology	127.0.0.1	
17	2010/09/21 17:33:55	Camera	PTZ Start	1	PLANET Technology	127.0.0.1	
18	2010/09/21 17:31:40	Camera	PTZ Stop	1	PLANET Technology	127.0.0.1	
19	2010/09/21 17:31:30	Camera	PTZ Start	1	PLANET Technology	127.0.0.1	
20	2010/09/21 17:24:52	Service	Service Reload				
21	2010/09/21 17:21:51	Camera	PTZ Stop	1	PLANET Technology	127.0.0.1	
22	2010/09/21 17:21:41	Camera	PTZ Start	1	PLANET Technology	127.0.0.1	

Click "Export" to export the log file to text file. You should be prompted once it's exported successfully and the directory of where it's saves to would also be displayed:



4.0 Client Viewer - Log In

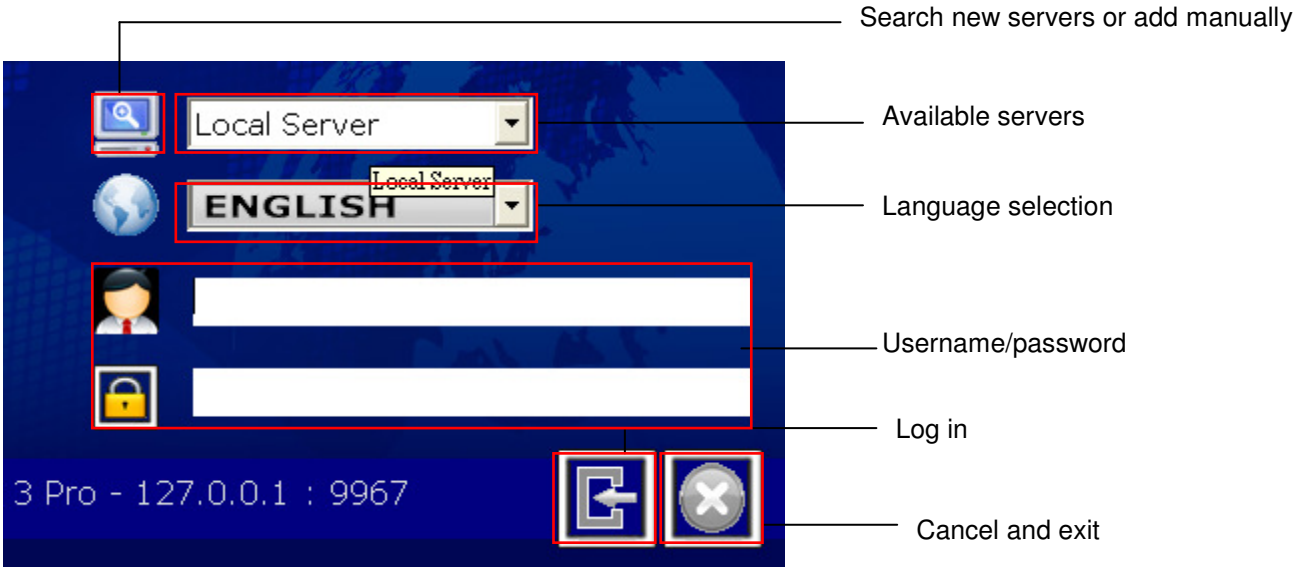
Client Viewer is the program that connects to the Cam Viewer 3 Pro server and performs certain functions to it. Once the client viewer is started, you should be prompted with the login screen.

The login screen provides the following options:

** Connect to a Cam Viewer 3 Pro server (local or remote)*

** Display language*

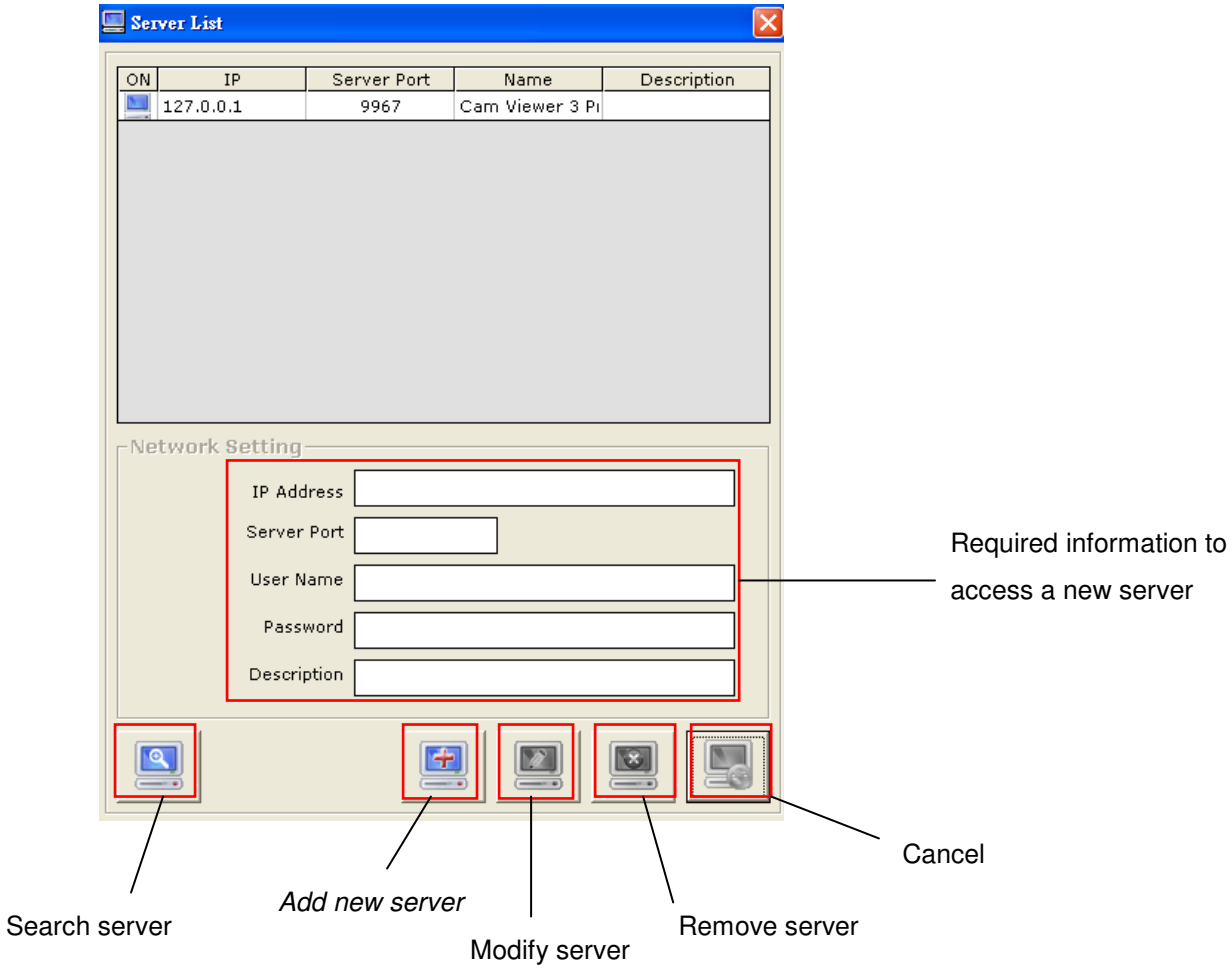
** Login username and password*



4.1 Client Viewer - Add Servers

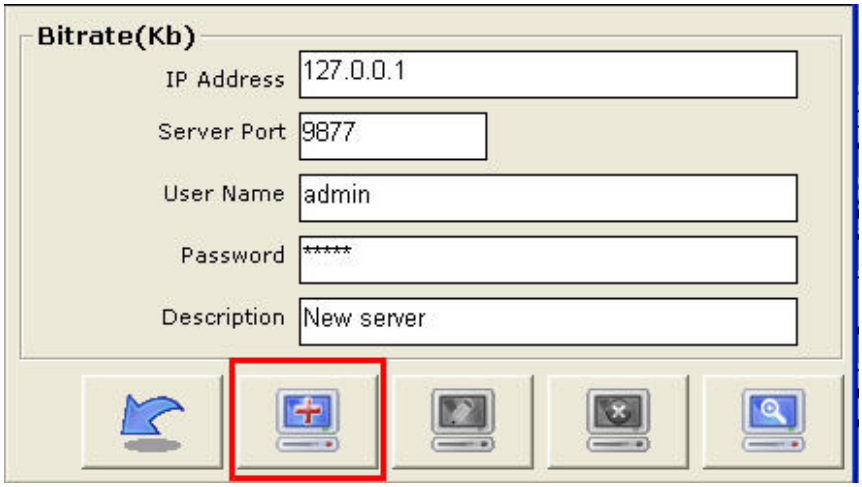
You can select available servers from the drop-down menu at the login screen or you can click on "..." to add new servers.

The server list dialog should be displayed as shown below:



** Cam Viewer 3 Pro can only access servers within the same LAN*

To add a new server manually, enter the corresponding information in all fields on the "Server List" dialog and click "Add":

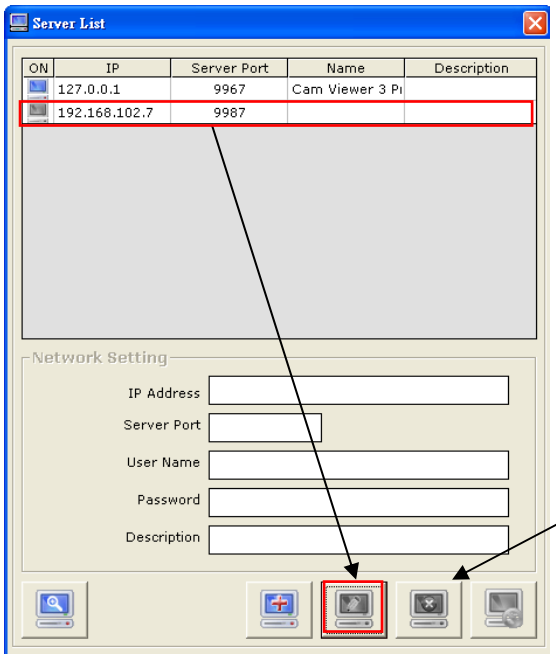


** The "server port" is the port that's used for video streaming. By default, Cam Viewer 3 Pro uses port 9877*

The new server will then be added and you should find it on the server list:

ID	IP	Port	Name	Description
0	127.0.0.1	9877		
1	192.168.102.7	9987		

To change its settings, click on it from the server list and click the "Modify server setting" button:

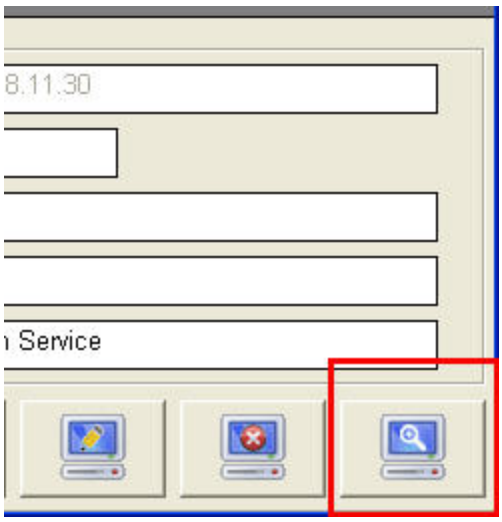


To remove, simply on the "Remove server" button

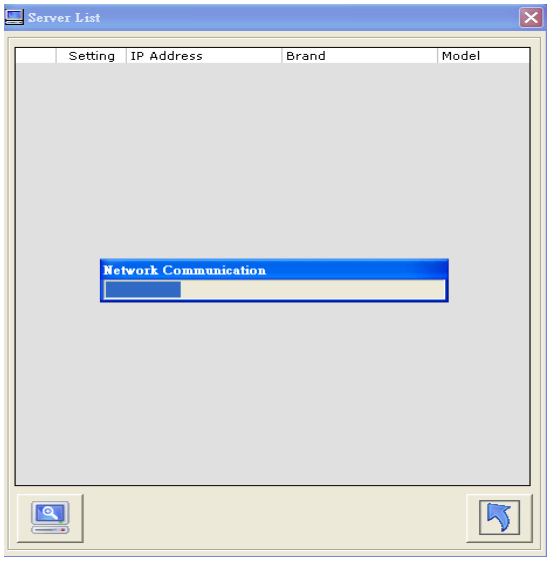
4.2 Client Viewer – Live View

Search New Servers Automatically

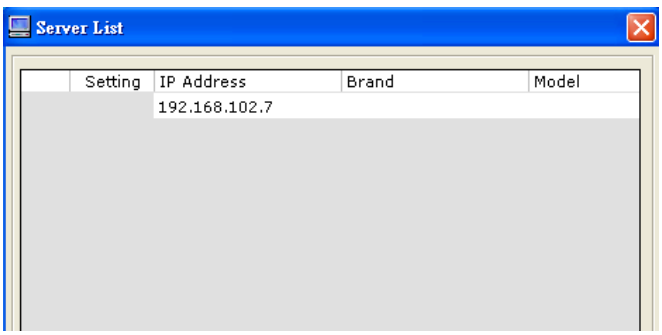
You can also perform an auto search and the software should be able to find servers that are available on the same subnet:



A new dialog should be prompted and displays the search progress:

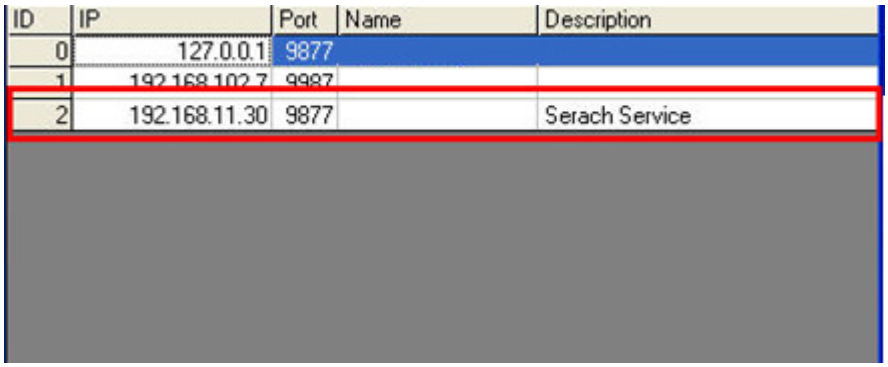


New servers that are found should be listed in the list on the top:

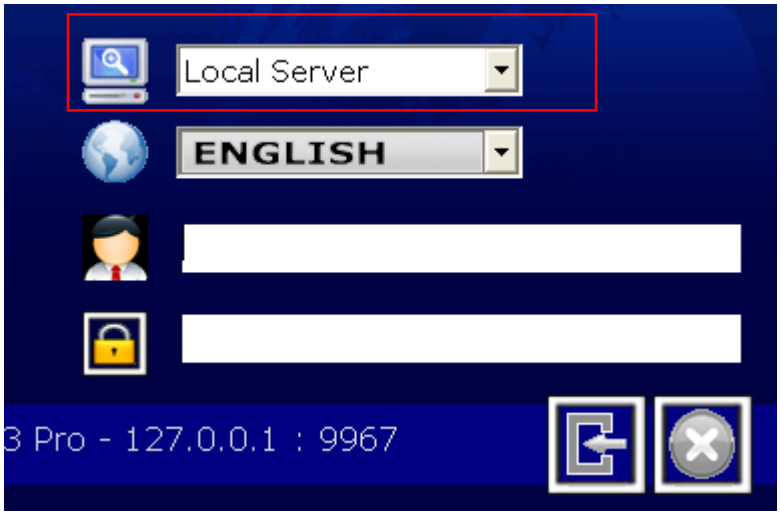


Client Viewer - Add Servers

Double-click on it should direct you back to the previous dialog and you should find it listed on the server list:



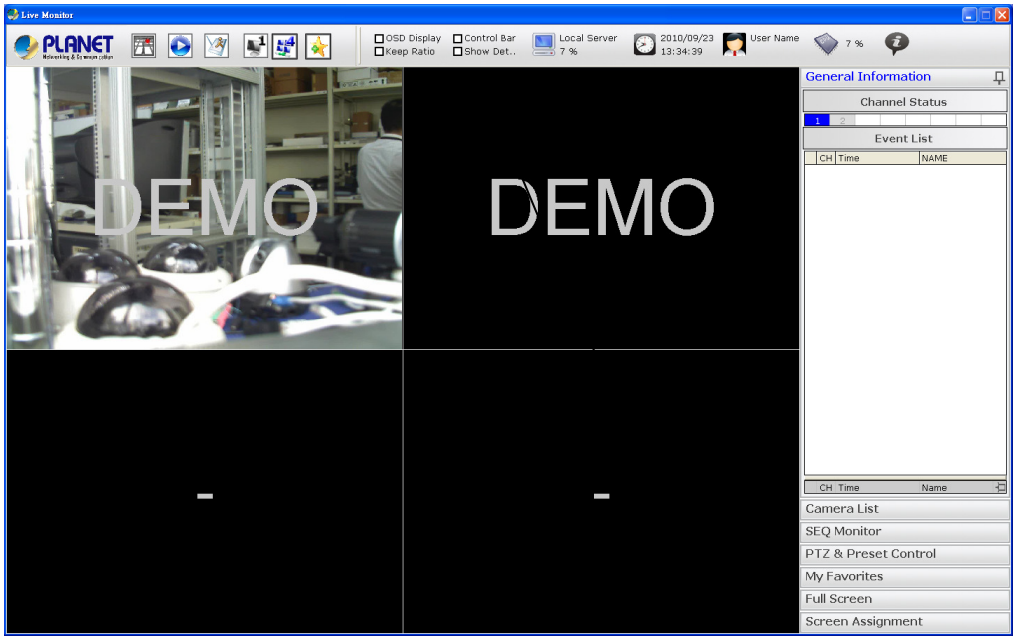
The newly added server would be listed in the drop-down menu at the login screen next time you log in:



4.2.1 Client Viewer - Overview

The software basically provides the following functions for the live view:

* Change screen layout (views in various numbers of split screens)
* Show OSD and sequence viewing
* Display videos in their original ratio
* Server and channel status
* Audio
* Snapshot of live videos
* On-screen event warning
* PTZ and Digital PTZ controls
* Manual recording
* Image enhancement



Top Menu Bar

Split screen selections

Enable/disable video control bar

Current time

E-Map/Playback/Event monitor

Add current live view layout to favorite

Show OSD on video
Display video in original ratio

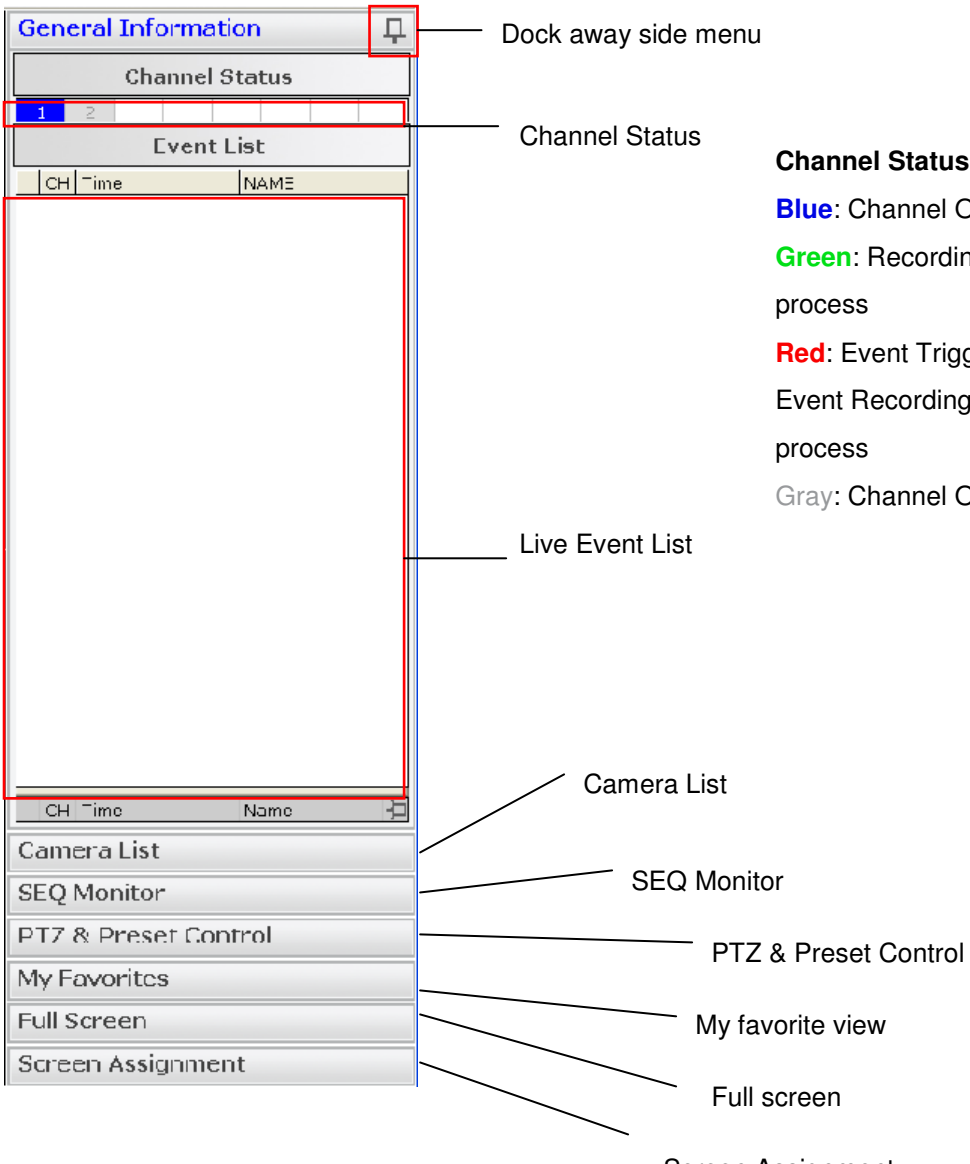
Apply "Event Display on all channels

CPU usage of the remote server

Current logged in

CPU usage of the local viewer

Side Menu



Channel Status:

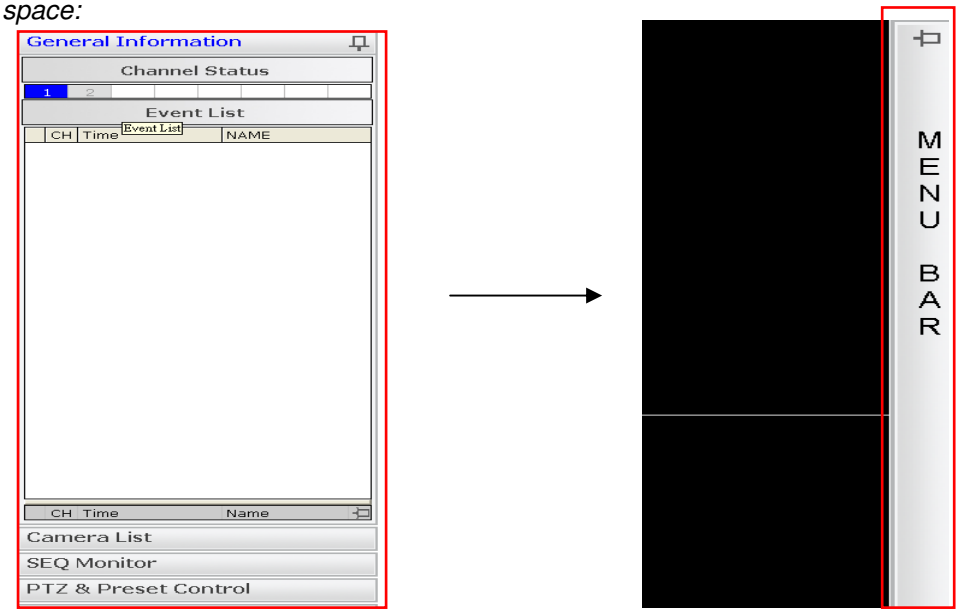
Blue: Channel Online

Green: Recording in process

Red: Event Trigger and Event Recording in process

Gray: Channel Offline

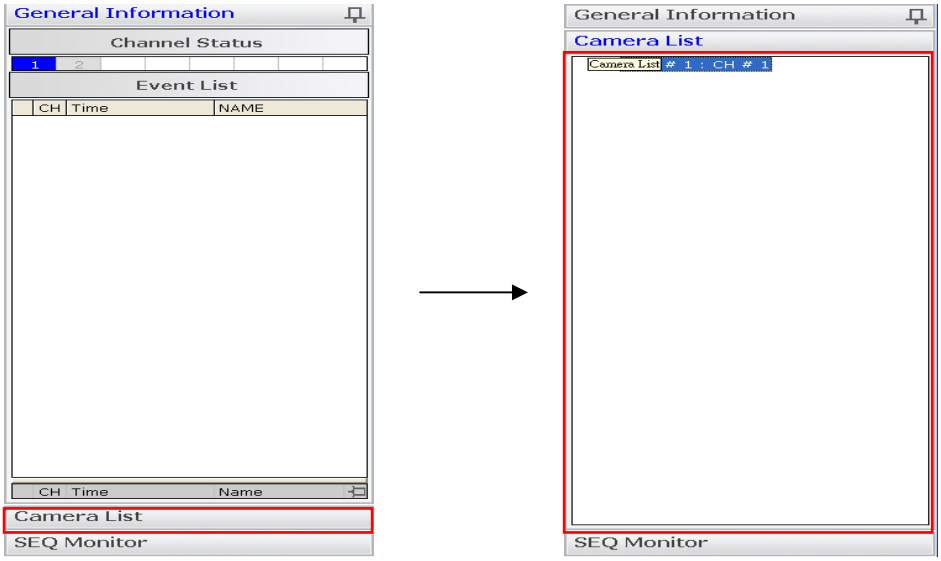
** Despite of full screen mode, the side menu can be "docked away" to allow maximum viewing space:*



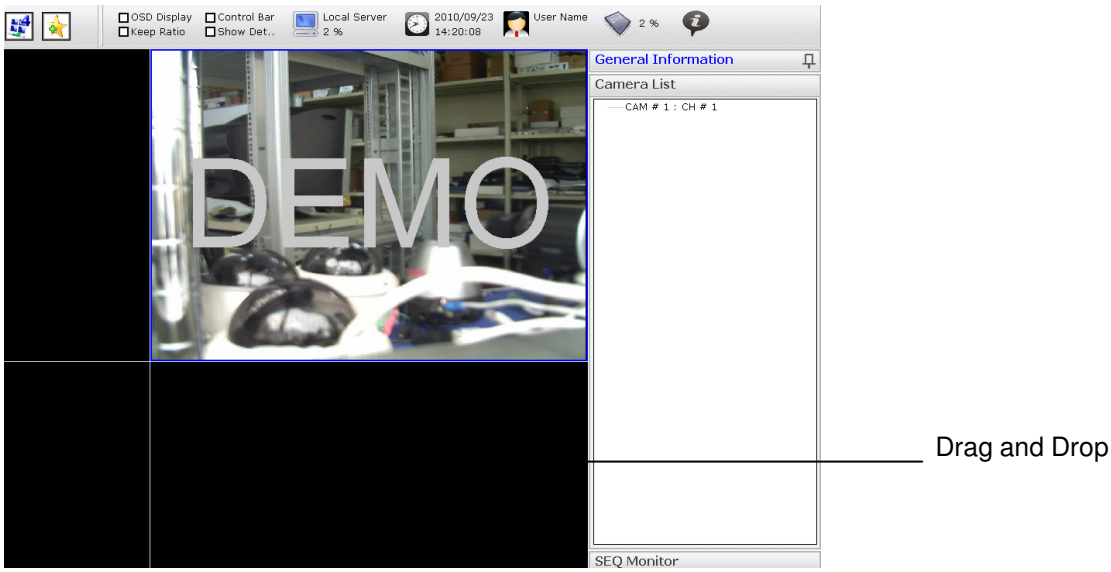
4.2.2 Client Viewer - Adjust Viewing Layout

The software offers various viewing layouts which allow users to determine how many videos can be displayed at once. Users can select from the available split window options on the top to changes the viewing layout:

Once the layout is determined, users can quickly decide which channel they would like to view by selecting cameras from the "Camera List" which is available from the side menu:



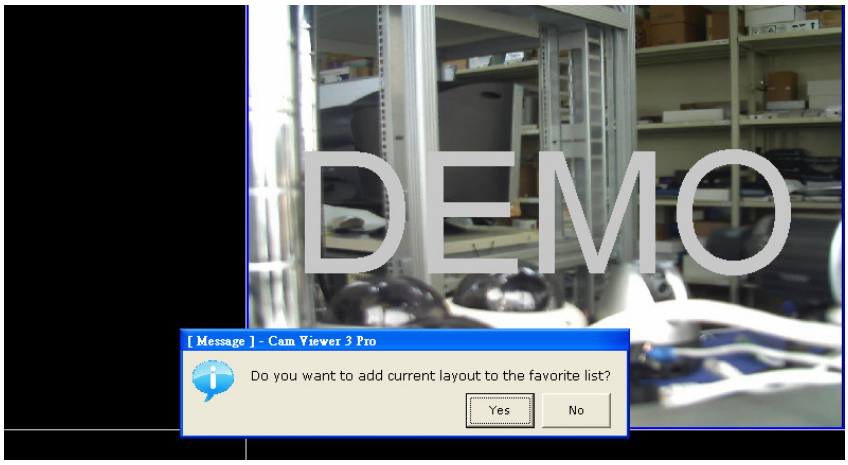
Simply click and drag a camera from the list and drop it onto a desired video window on the left:



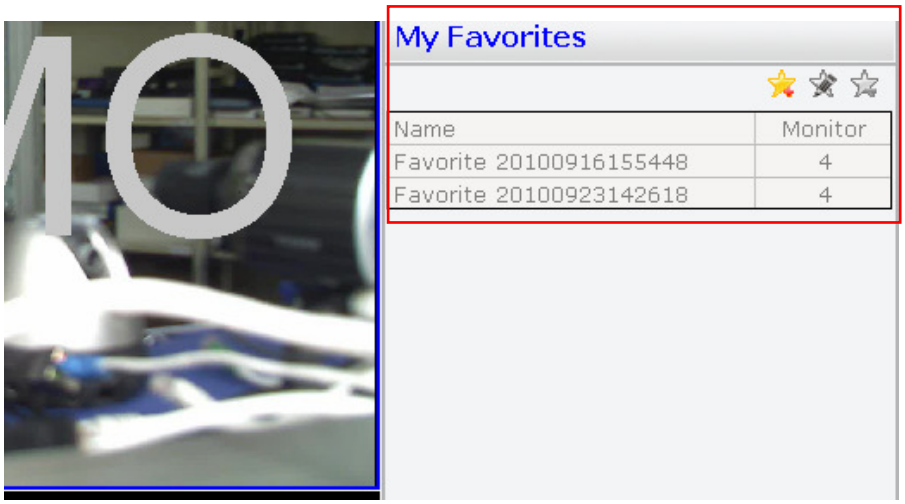
Add Current Viewing Layout to "My Favorite"

Once you have finish placing the desired cameras on the chosen layout, you can click on the "Add Favorite" button to save the layout as a profile:

Click "Yes" to confirm:

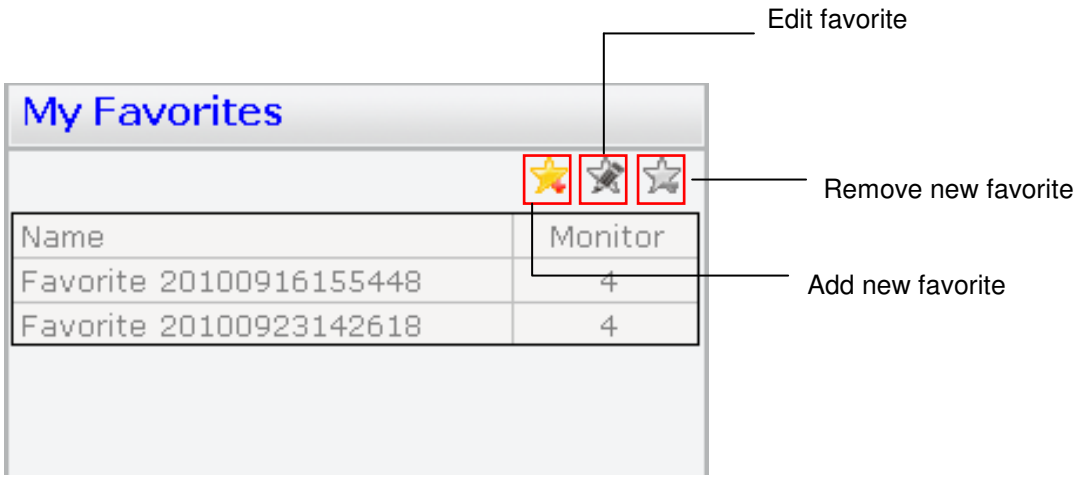


You can find all the "Favorites" from the side menu under "My Favorites":



You can also:

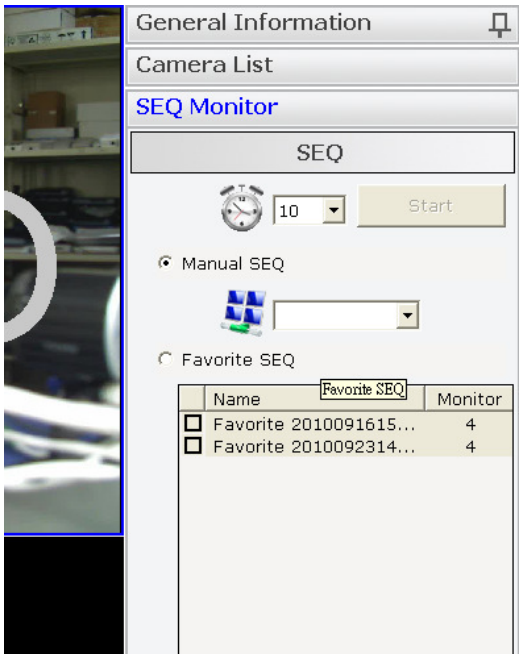
* *Add new favorites*
* *Edit settings of existing favorites*
* *Remove existing favorite's* right from the "My Favorites" side menu:


Edit favorite
My Favorites
Remove new favorite
Name
Monitor
Favorite 20100916155448
4
Favorite 20100923142618
4
Add new favorite

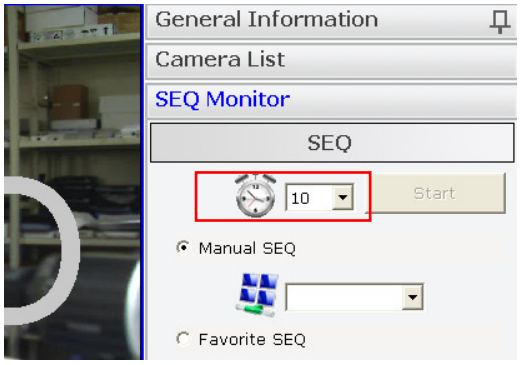
4.2.3 Client Viewer - SEQ Monitor

Manual SEQ

SEQ (Sequence) Monitor is a function that displays videos of the selected channels (or favorites) and they are switched automatically with definable interval. The SEQ Monitor can be accessed from the side menu under "SEQ Monitor":

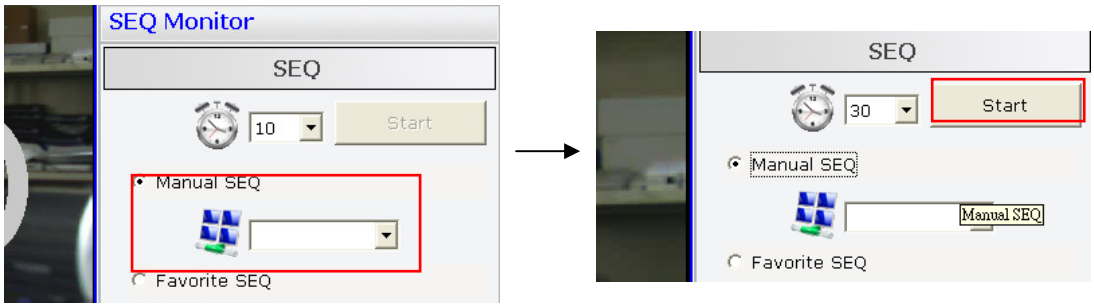


To configure the software to automatically sequence the videos of the selected channels, decide the sequence interval first from the drop-down menu (as shown below):



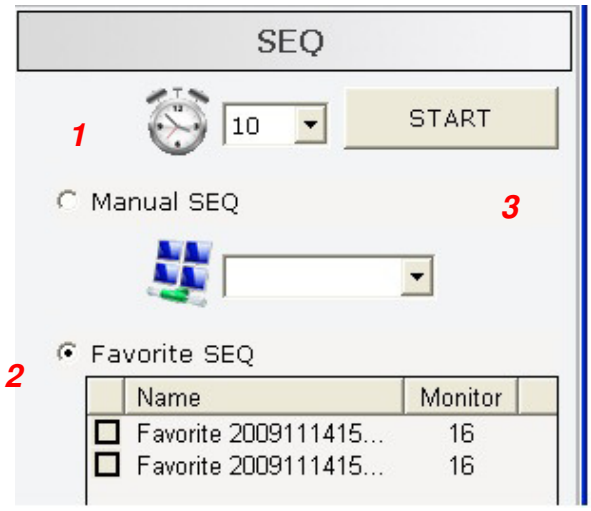
Next, choose how many channels you would like to view at once by choosing an option from the drop-down menu under "Manual SEQ", and then click "Start":

(*Options are given depends on the number of channels available in the software)



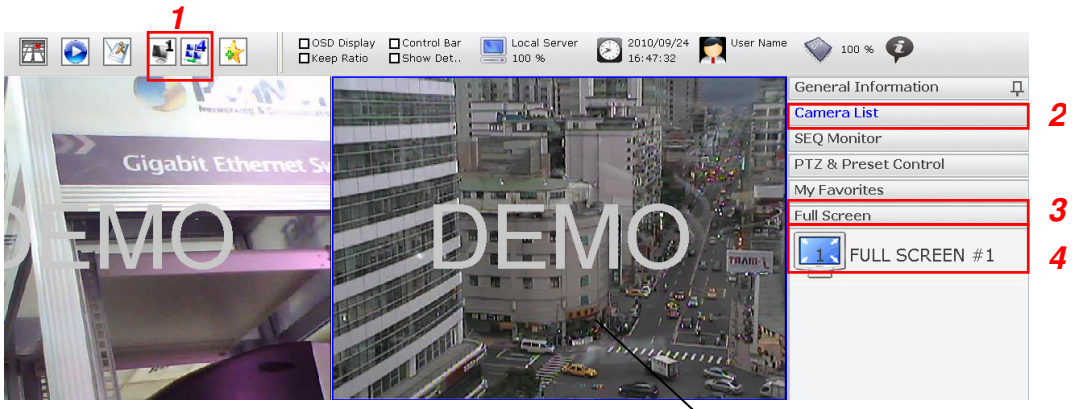
"My Favorites" SEQ

Other than viewing the channels you manually selected in sequence automatically, the software can also be configured to sequence the "My Favorites". Simply check the ones you like from the "Favorite SEQ" list and click "Start":



4.2.4 Client Viewer - Full Screen

The software can detect the number of monitors are currently installed on the PC and display different function pages or live videos onto those monitors. The software supports up to 5 monitors and live videos can be assigned to be displayed onto all 5 monitors in full screen.
*(*Live Monitor only supports 2 full screens)*
The software is capable of displaying up to 16 live videos on each monitor when in full screen.
To enter full screen,
1. Select the screen layout from the top bar
2. Choose the channels in camera list from the side menu and drop them onto the live view area
3. Click "Full Screen" from the side menu
4. Choose the monitor to go full screen



Drag camera and drop them onto the live view area

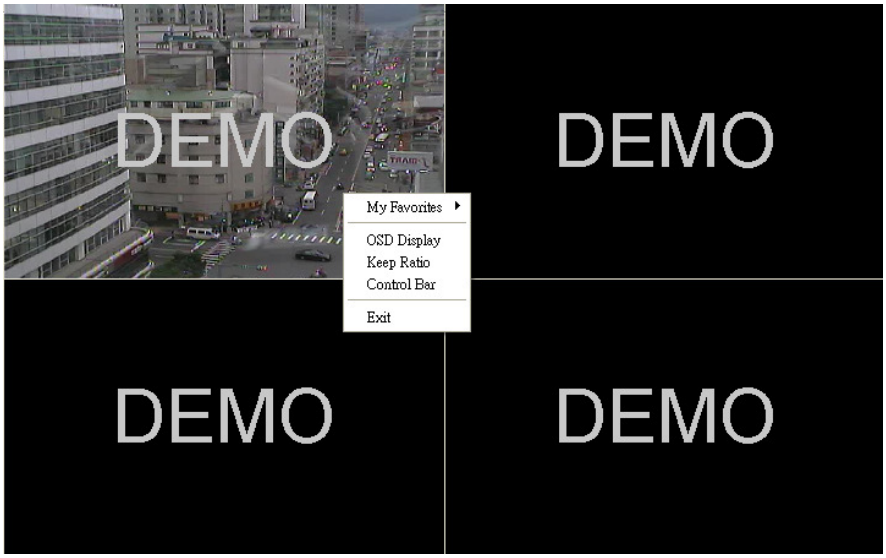
** Windows OS assigns an "ID" number for each monitor installed on the PC; the NVR software uses the same ID number for displaying videos in full screen or different function pages.*

Functions Available When in Full Screen

There are various functions provided when in full screen for maximum flexibility and convenience. You can:

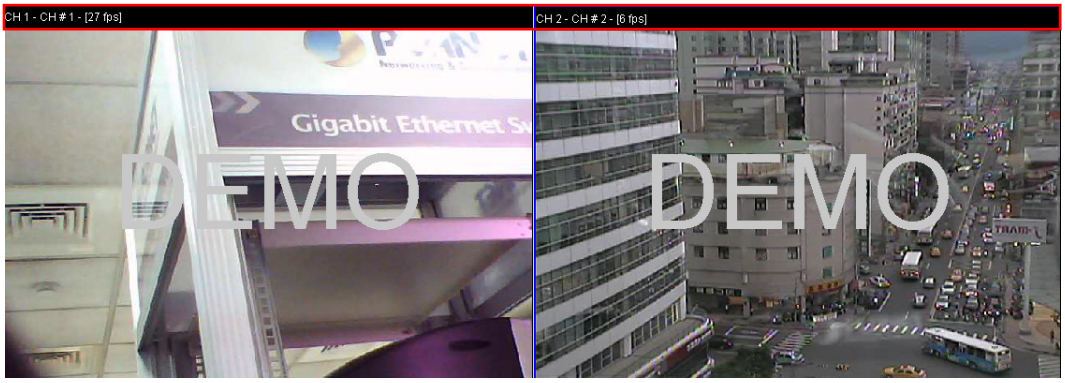
* Switch among different "My Favorite"
* Enable/disable display of OSD
* View all videos in their original ratio
* Turn on/off video window control bar (more details about this function on page)

To access these functions, right-click anywhere on the screen when in full screen:

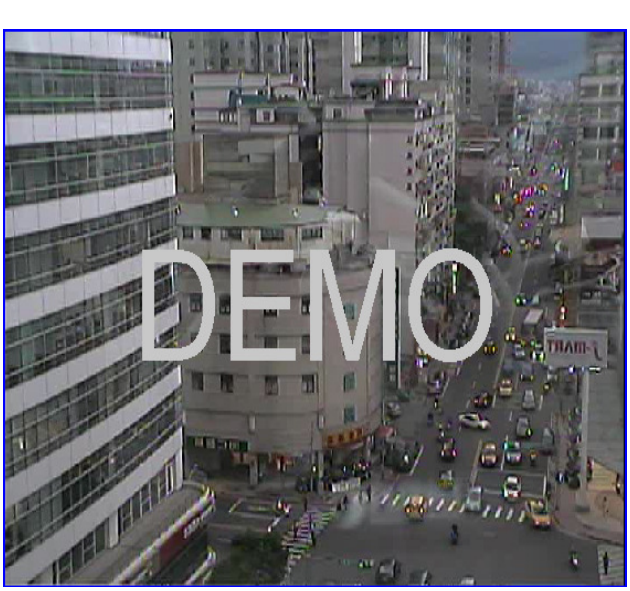


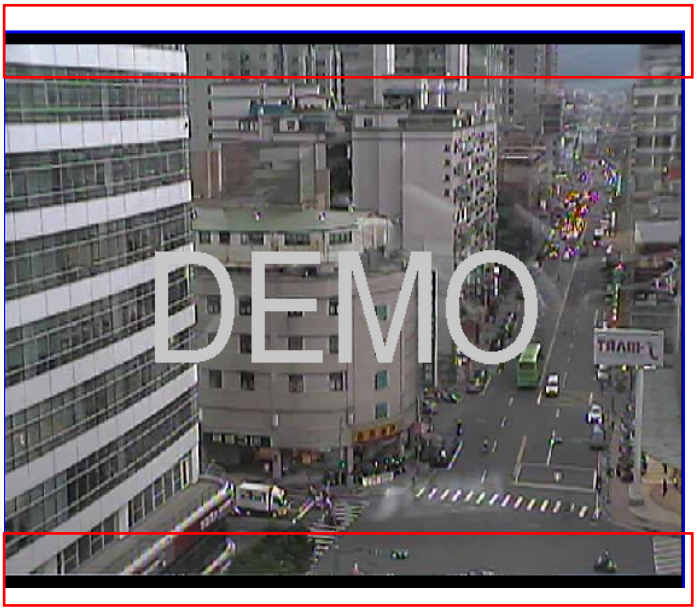
Switch among different "My Favorite" by right-clicking anywhere on the full screen, and go to "Favorite". Select a "Favorite" from the pull-down menu:

If "Show OSD" is clicked, the OSD will be displayed on all videos, which display the channel number and their current frame rate



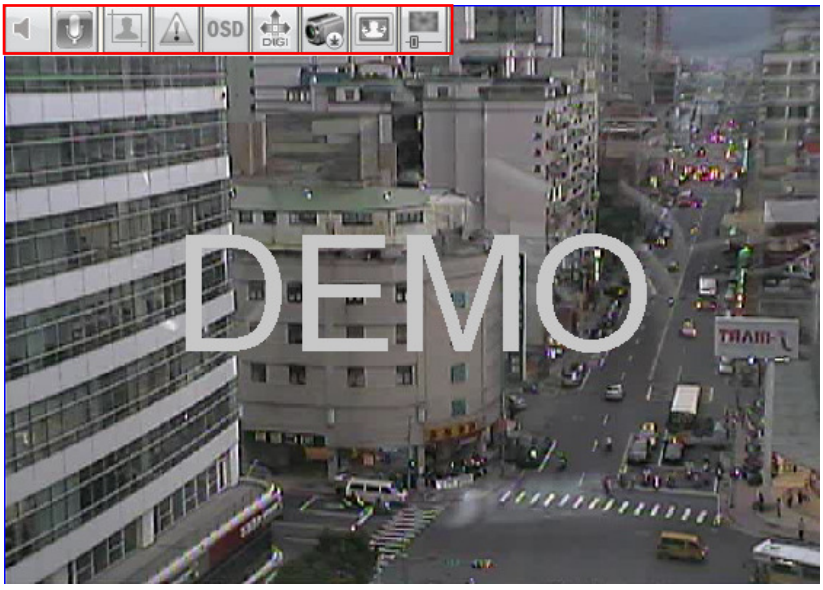
If "Keep Ratio" is clicked, all videos will be displayed in their original ratio:





Before ***After***

To turn on the video window control bar, right-click anywhere on the full screen and click "Menu Show", and then hover the mouse onto any video window:

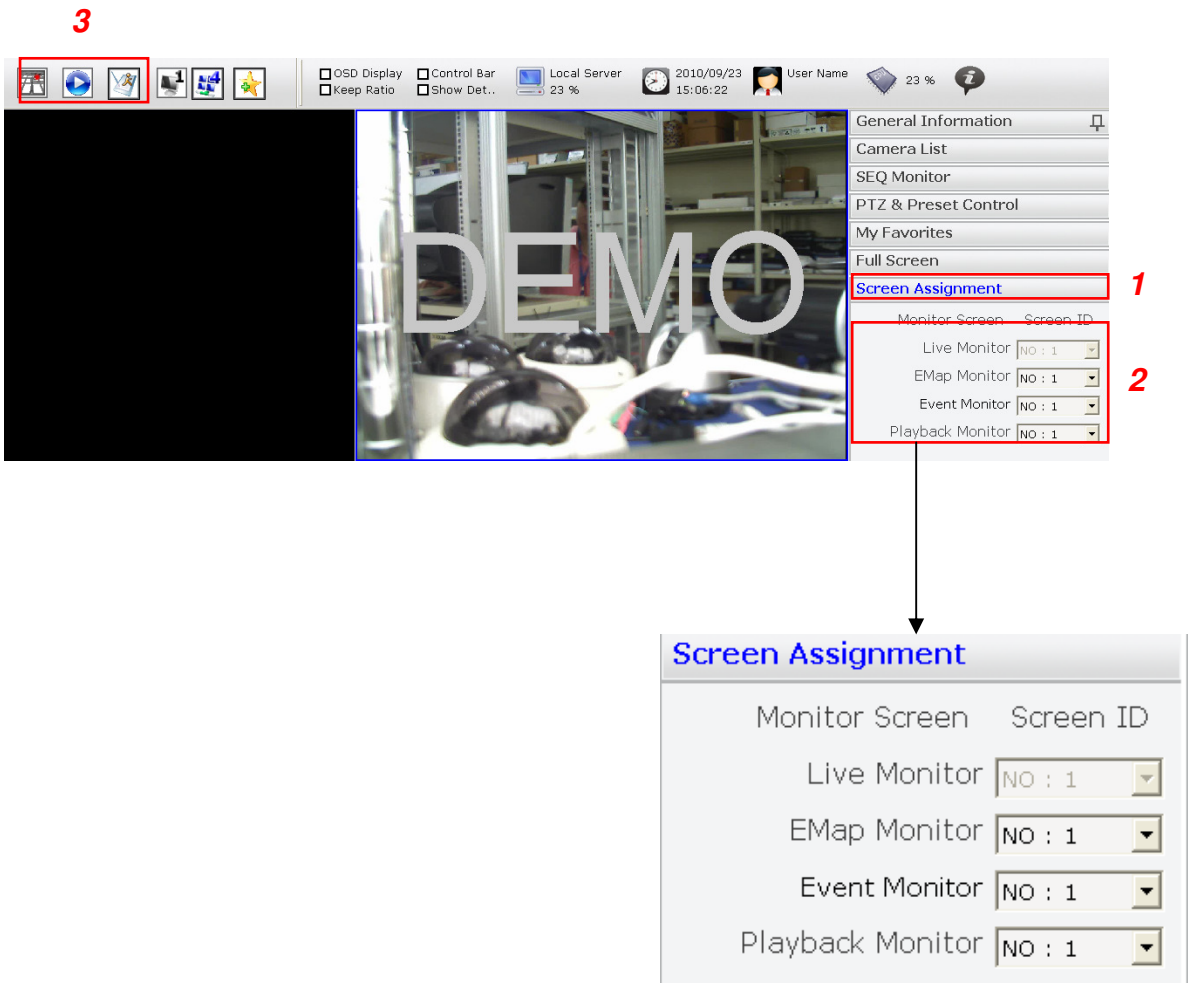


4.2.5 Client Viewer - Screen Assign

As mentioned in the previous page that the software can display either live videos in full screen or different function pages on up to 5 monitors, users can configure which monitor displays which function page.

To do so:

1. Click "Screen Assign" from the side menu
2. Assign monitors based on its ID number in the drop-down menu for the listed function pages
3. Access the function pages from the top bar



4.2.6 Client Viewer - PTZ & Preset Control

The software comes with various controls for PTZ cameras. They are provided in the virtual PTZ panel from the side menu. The control includes:

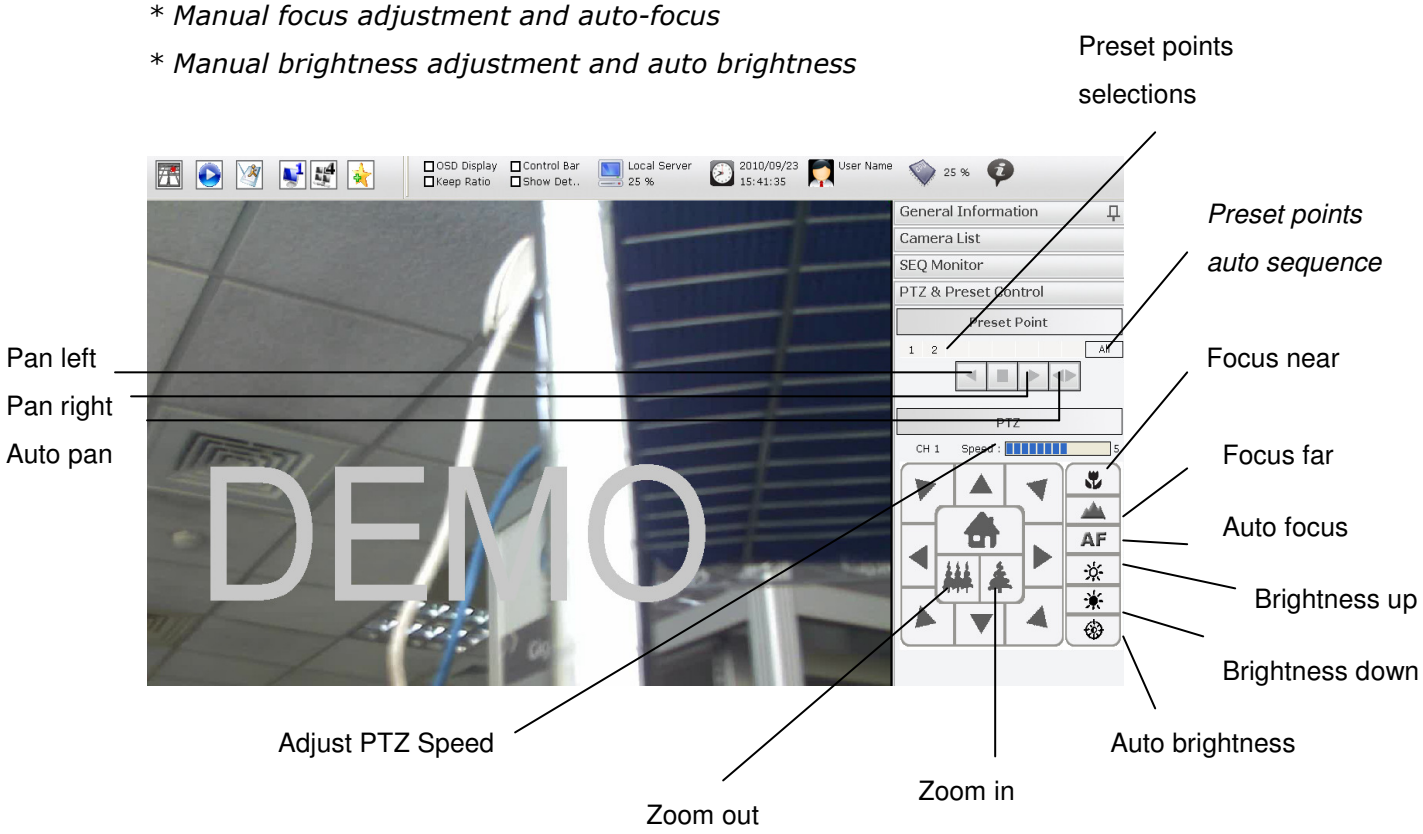
** Pan, tilt, zoom and PTZ speed adjustment*

** Preset points (total 8) monitor, go to preset "Home" point and preset sequence viewing*

** Pan right, pan left, and auto pan*

** Manual focus adjustment and auto-focus*

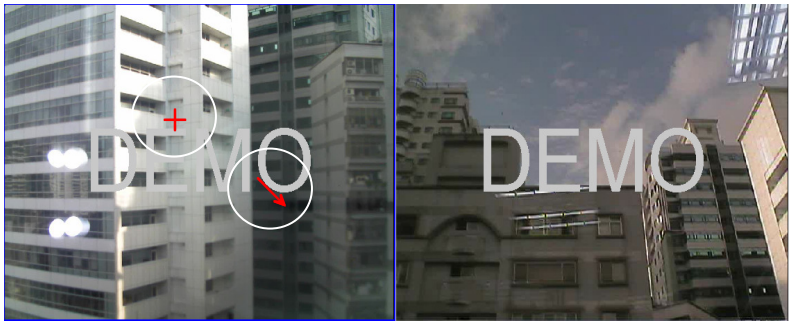
** Manual brightness adjustment and auto brightness*



The software also offers a more intuitive way to control PTZ cameras with the "mouse-over-video" PTZ controls. That is, users can click (right-click) on the video to pan and tilt view points, and to use the mouse scroll button to zoom in/out.

This feature is only available for PTZ cameras and you can tell it is available when the "red cross" and "red arrow" are shown on the video:

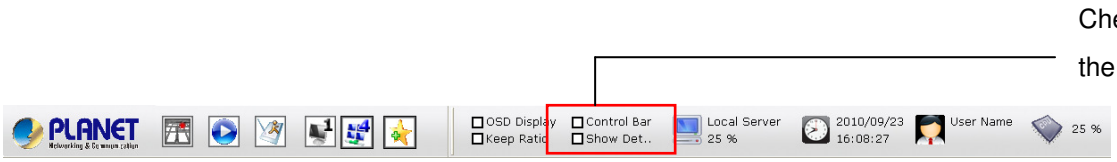
** For "non-PTZ" cameras, the software provides the "digital PTZ" function which is mentioned in page.*



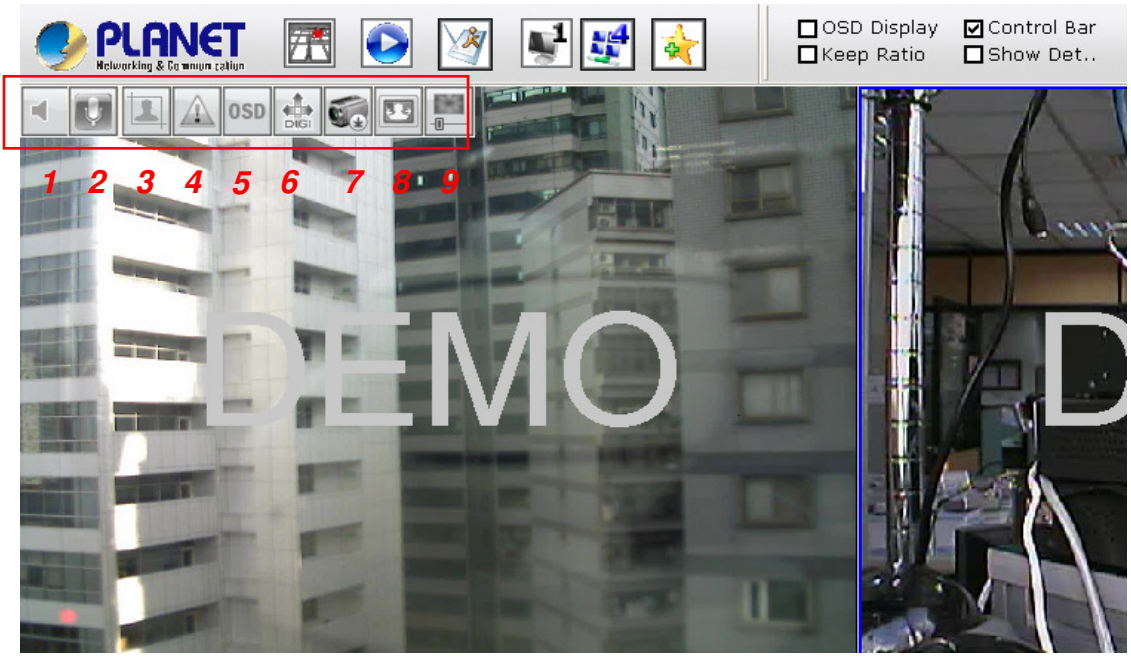
** The closer the red arrow is to the red cross; the lower the PTZ speed will be applied.*

4.2.7 Client Viewer - Video Window Control Bar

The software provides a "quick access" to certain functions for live videos with a "mouse-over-video" control bar. This function is turned off by default and can be turned on from the top bar (as shown below):



Once enabled, hover the mouse onto any video window and the control bar should appear on top of the video window:



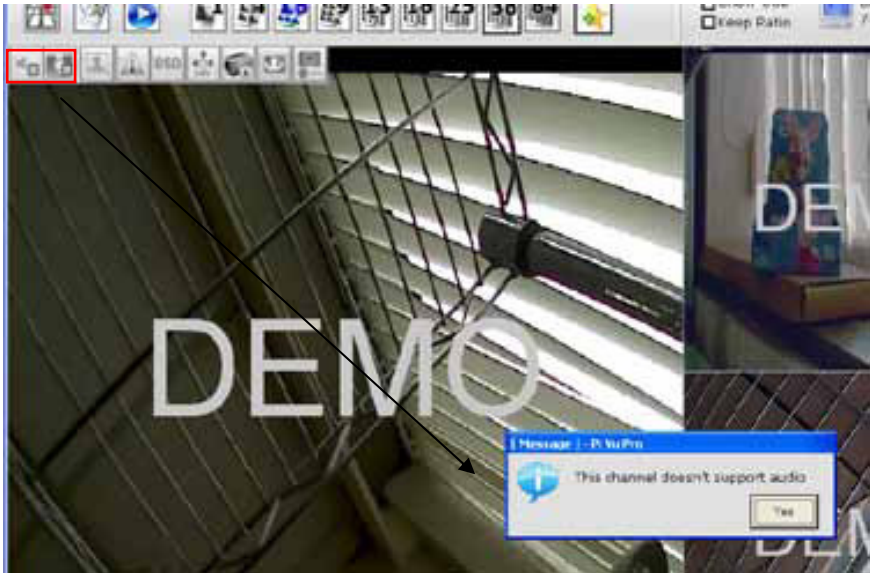
The control bar provides the following functions:

1. Turn on/off audio
2. Audio post
3. Snapshot
4. Display warning on video when an event is triggered (On-Video Event Display)
5. Display OSD
6. Digital PTZ
7. Start/stop manual recording
8. Keep ratio
9. Image enhancement

4.2.8 Client Viewer - Video Window Control Bar

Audio

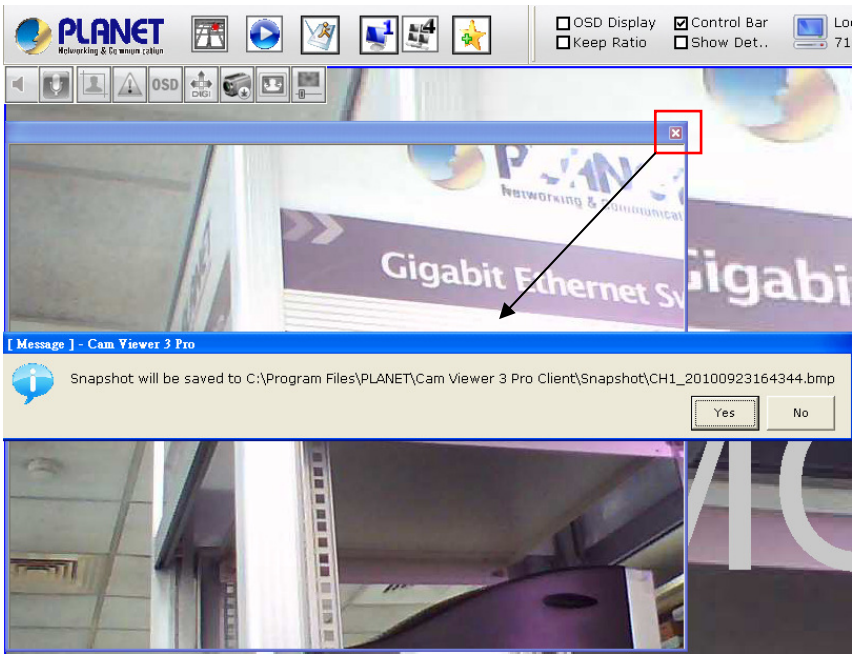
If a camera does not support the audio function, a pop-up message will be displayed when the audio button is clicked. This is to notify the user that this channel does not support the audio function:



Snapshot

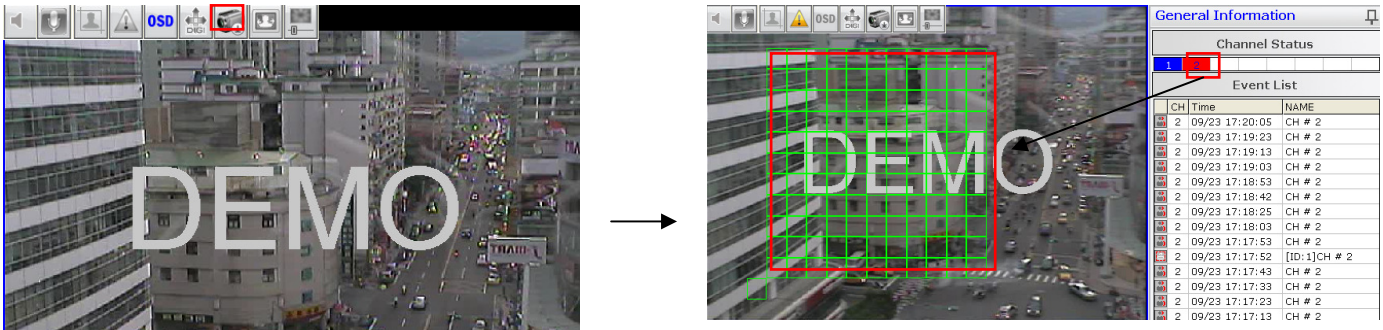
When this button is click, the software takes a snapshot of the video. A new dialog should appear and display the snapshot of the video:

Simply close the dialog window and the snapshot will be saved automatically. A pop-up message indicating where the image is saved will also be displayed:



Event Display

The event display is a function that helps users quickly identify when there are events going on one or more channels. The movement in the video will be marked with small green cubes:



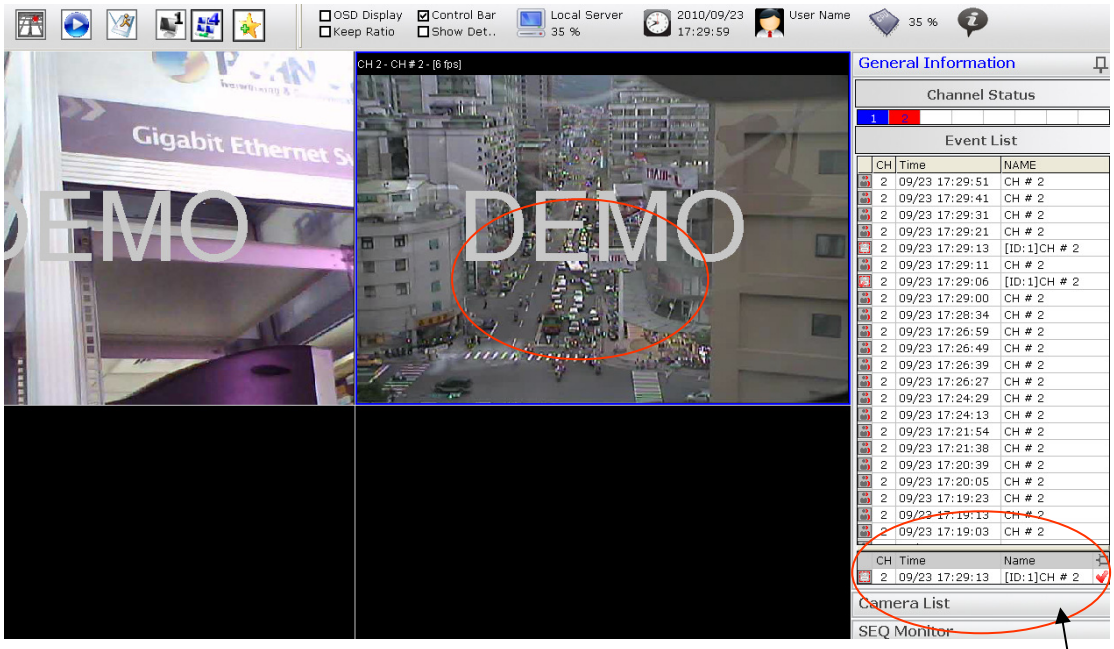
1. Event recording
2. *icon indicates event in general*

** Motion detection must be enabled and configured in the " Config Wizard" before this function can work properly. For configuration regarding motion detection, refer to page 22 for details.*

** You can also enable "Event Display" on all channels by checking "Show Detect" from the top bar*

Certain types of events will be displayed under different section at the bottom of the event display list. They are:

1. Camera Tampering Detection
2. Object Loss Detection
3. Foreign Object Detection

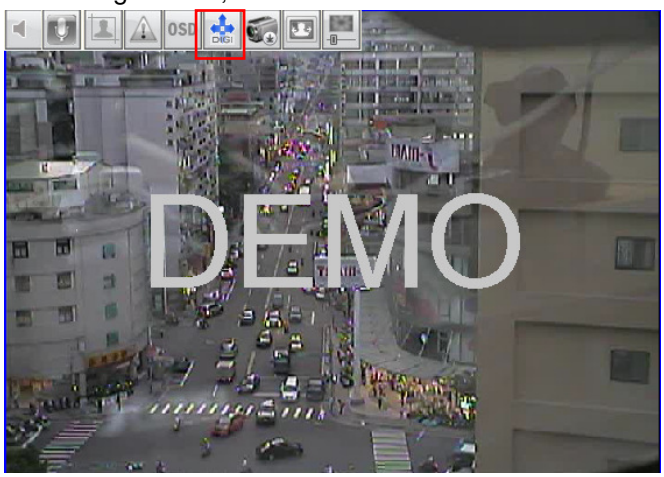


Double-click to reset the detection

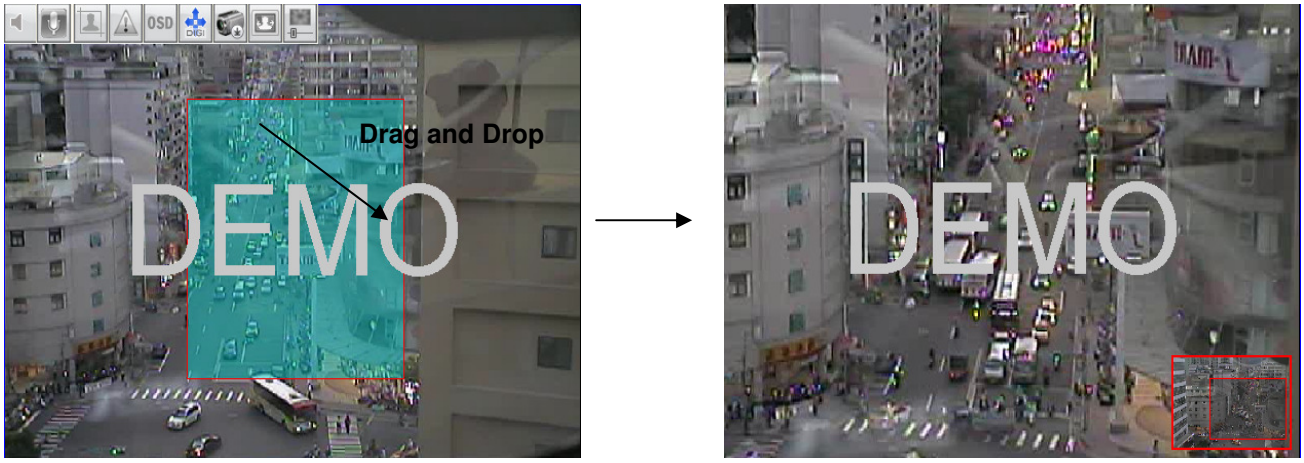
The reason for this is that the software needs the users to manually acknowledge the event detection for the detection to be resettled and start detection over again. Without users manually acknowledging the detection, the warning would stay on the screen in case the users are not in front of the monitor and can then be reminded when they return.

To acknowledge the detection, simply double-click on the red check mark and then the detection would be resettled.

To use digital PTZ, enable the function from the video window control bar first:



The mouse cursor should turn into a magnifier when you hover the mouse onto one of the video windows. Click and drag diagonally on an area you would like to zoom in:



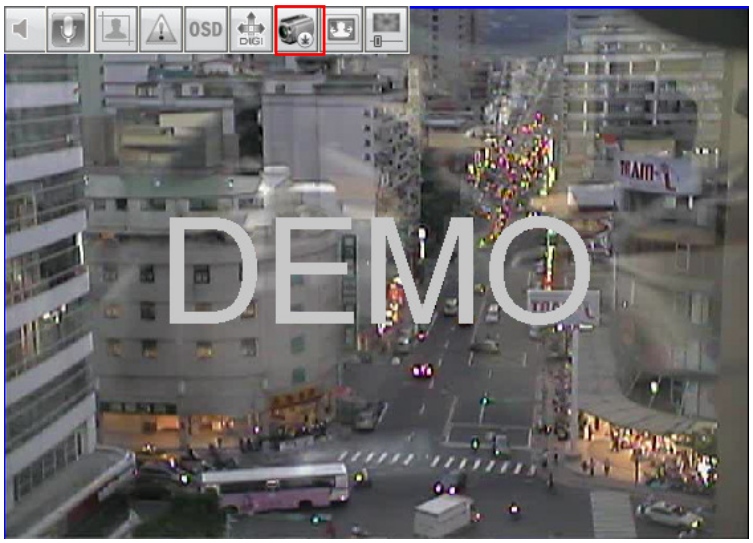
Before ***After***

** Once the video is zoomed in, the mouse cursor will turn into the icon which you can click and drag to move within the zoomed area.*

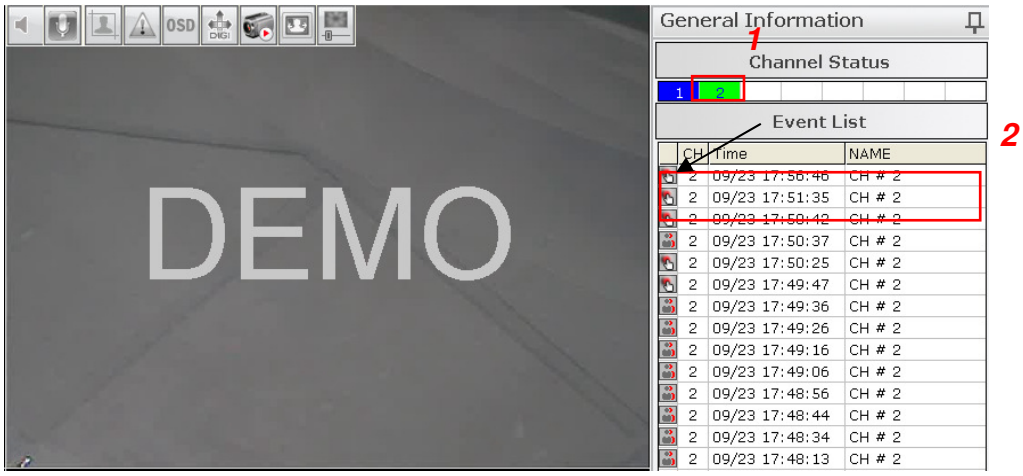
** Use the scroll button on the mouse to zoom in further or zoom out. Right-click on the video to exit the digital PTZ mode.*

Manual Recording

You can quickly start manual recording from the video window control bar when seeing something abnormal from the live video. Click the same button to stop:



Once the manual recording starts. You can find the corresponding changes in the UI in "Channel Status" and "Event List" from the side menu:



** Channels marked in green means "manual recording" is currently in progress.*

icon indicates manual recording

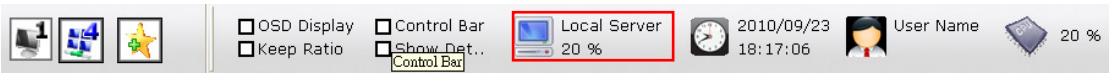
Image Enhancement

This function is aimed to improve the interpretability or perception of information in images for human viewers. Simply enable this function from the video window control bar to see the difference:

Before ***After***

4.2.9 Client Viewer - Server and Channel Status

You can obtain the detail information about the server and the current status of each channel by clicking "Local Service" from the top bar:



It opens up a new dialog which displays detail information of the followings:

** Server CPU usage*

** Total Bandwidth consumption*

** HDD usage and recycle status*

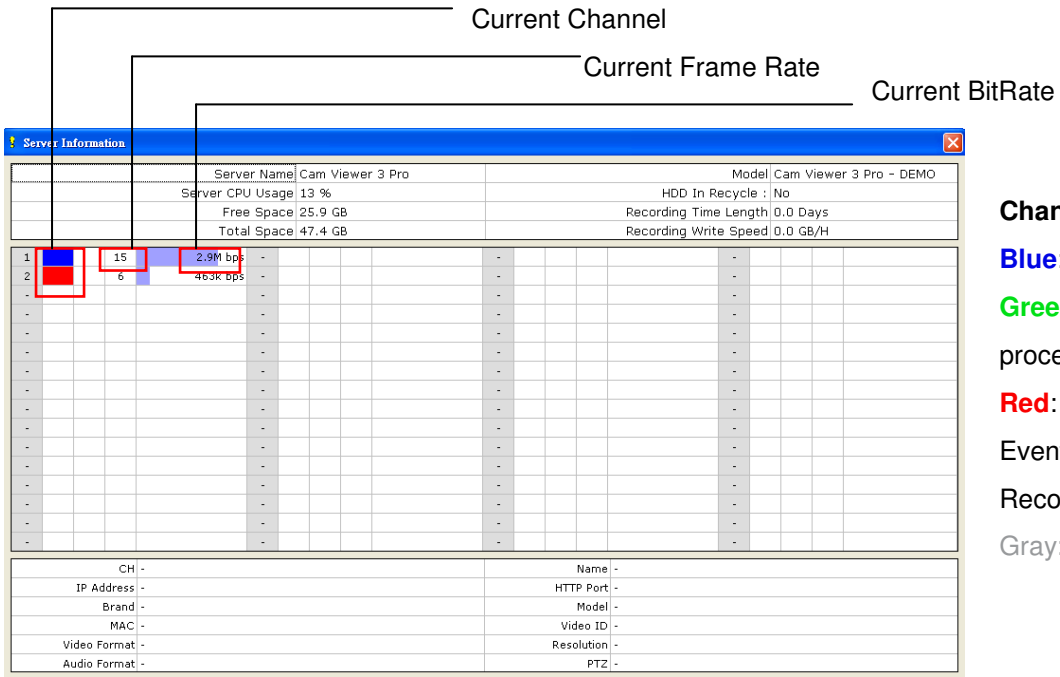
** Channel number and name*

** Channel IP address*

** Channel Status (Connected/Disconnected/Recording...etc)*

** BitRate consumed by each channel*

** Current frame rate of each channel*



Channel Status:

Blue: Channel Online

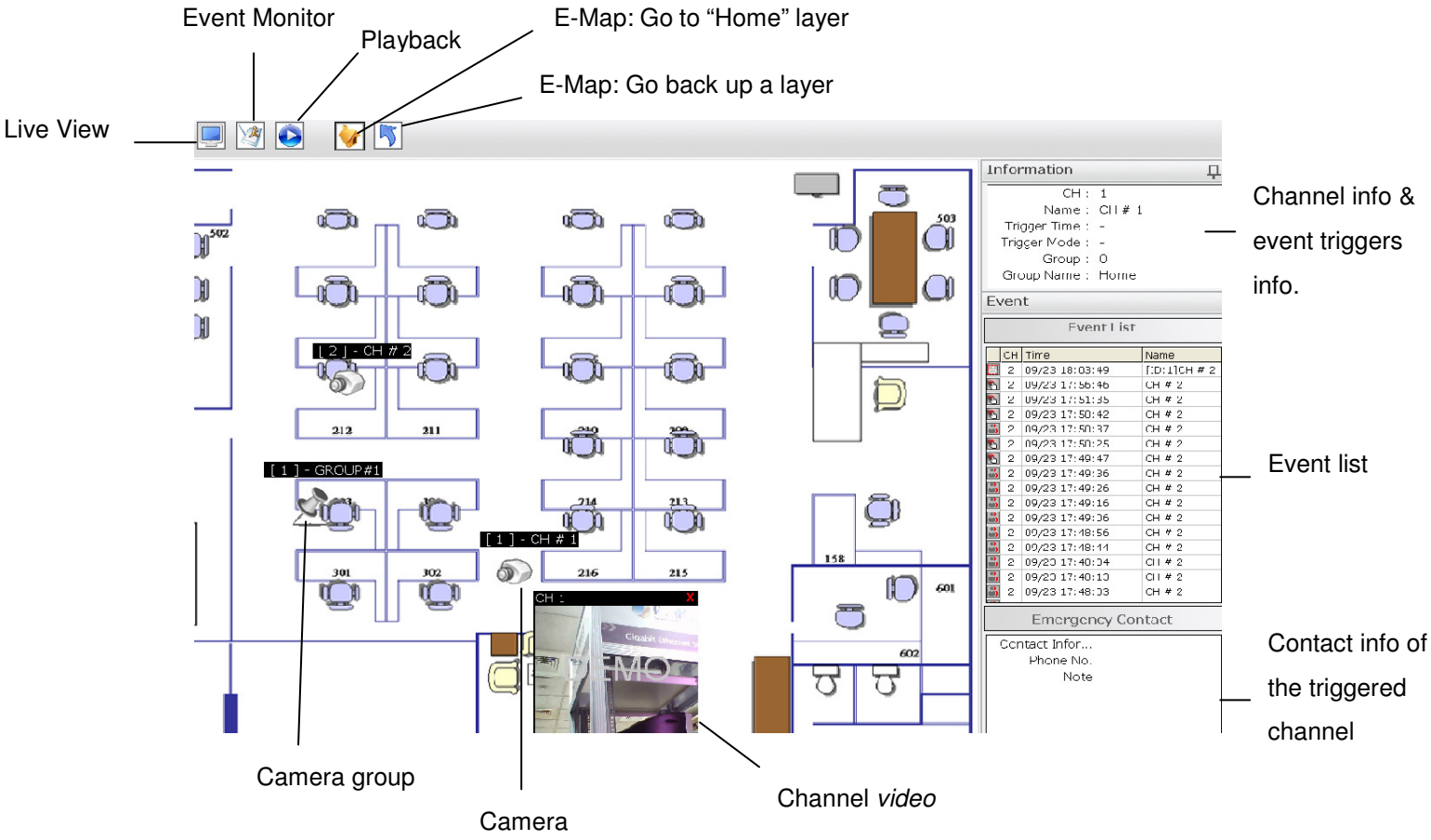
Green: Recording in process

Red: Event Trigger and Event Recording in process

Gray: Channel Offline

4.3 Client Viewer - E-Map Monitor

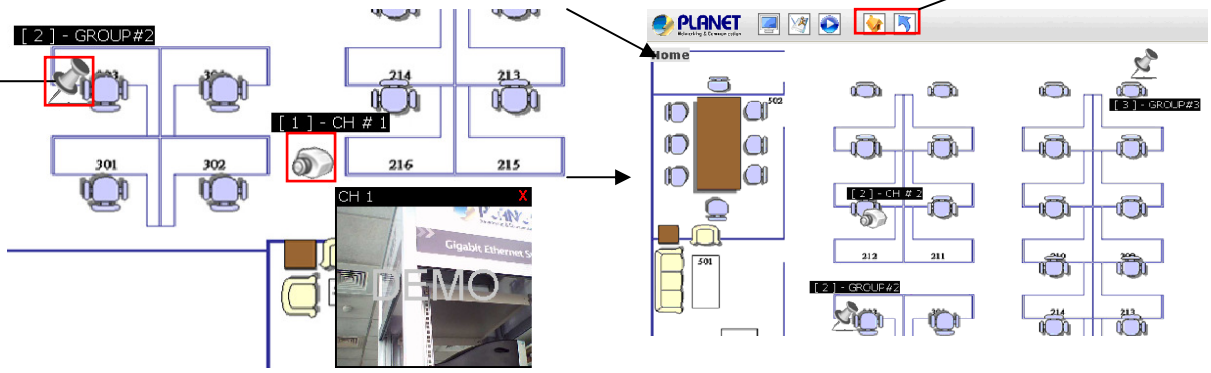
E-Map Monitor provides monitoring with instant event notifications with the geographical information of each camera (and camera group). Small-sized video of a channel will be shown on the map during a trigger of an event.



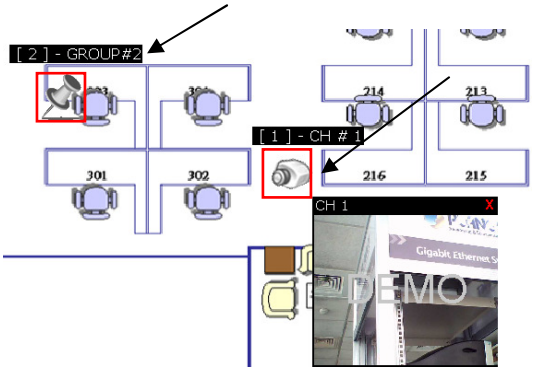
The E-Map Monitor displays the top layer of E-map by defaults. Double-click on the camera group icon to go down a layer and enter the E-map of the camera group.

** Go back to the "Home" layer or previous layer*

Double-click

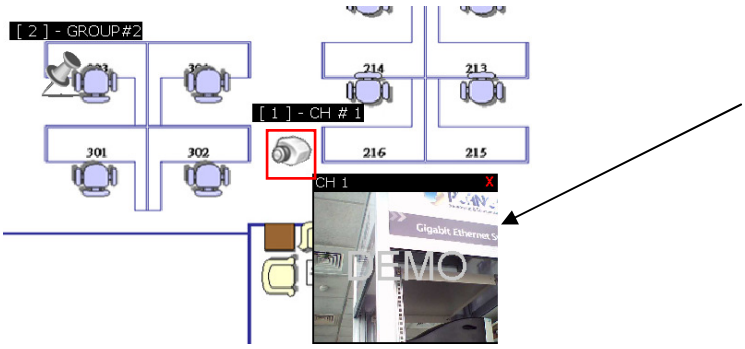


When there is an event going on, the camera icon (or the camera group icon) will be surrounded with red square flashes on the map:

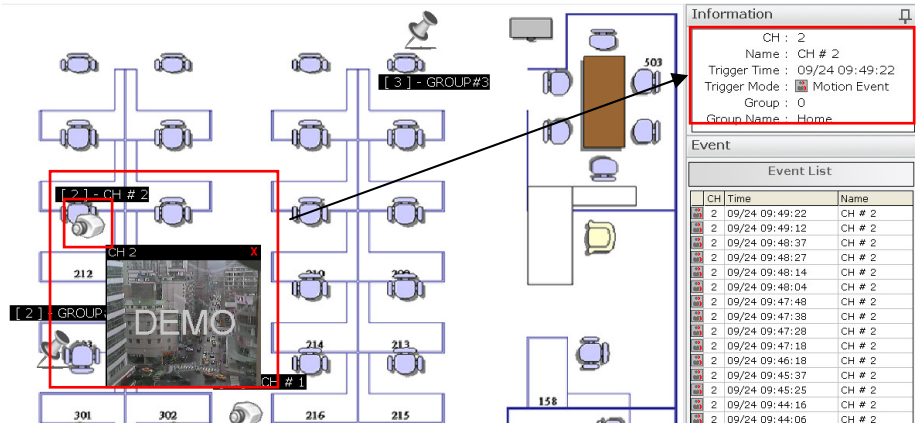


Double-click on the "camera group" icon will direct you to the E-map of that camera group (like what's shown on page 66)

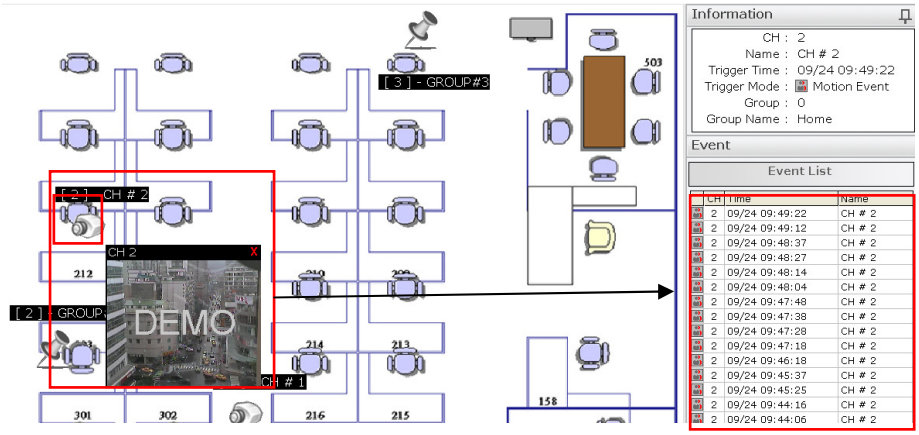
Double-click on the "camera" icon" will display the small-sized video of that channel:



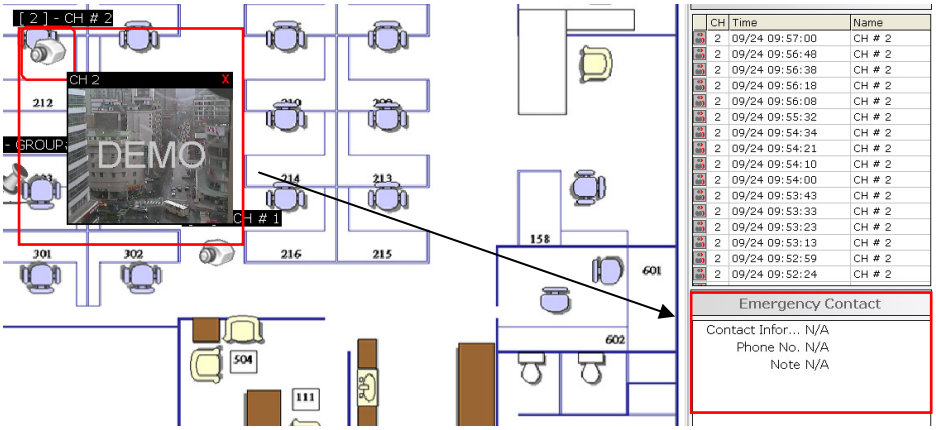
Once the "camera" icon is clicked, its channel information and event trigger information will be displayed on the side bar:



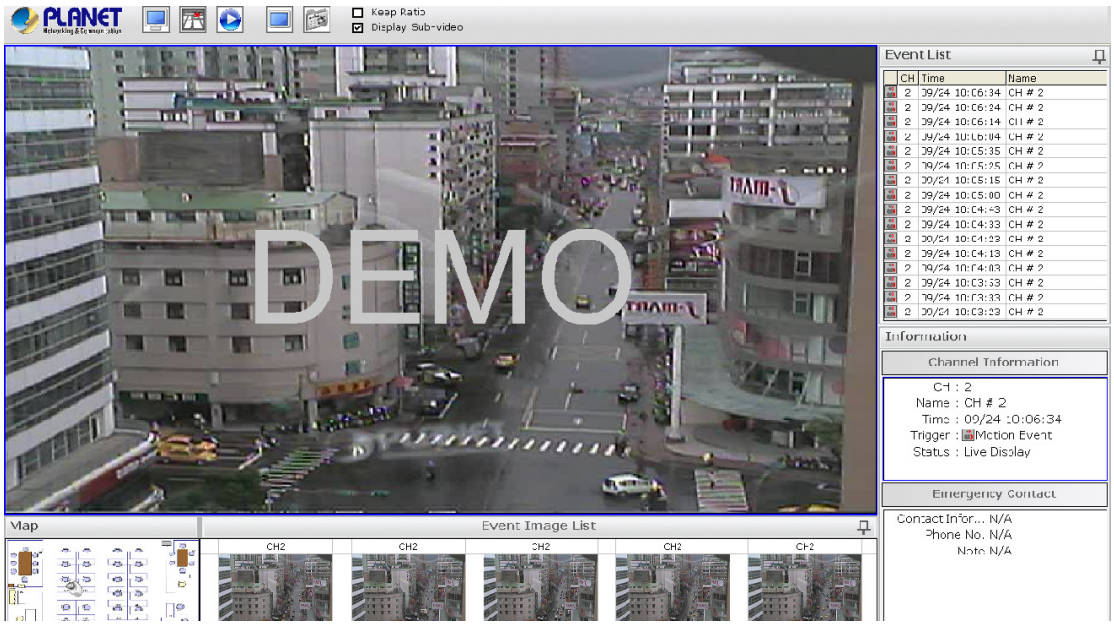
The triggered events will be listed on the side bar:



The contact info of the channel will also be displayed on the side bar if this has been configured in the "Config Wizard":

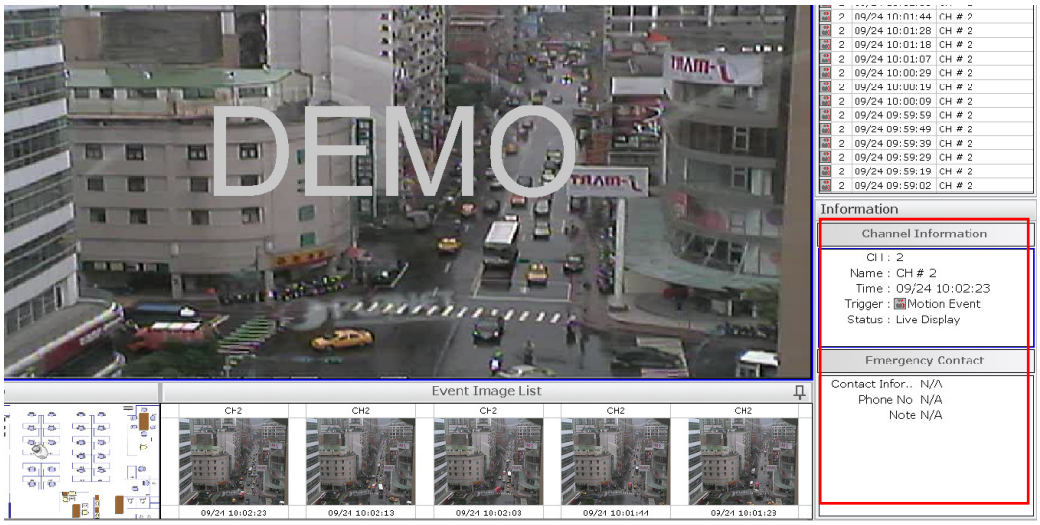


Event Monitor is a function that plays back "event only" videos. It's a convenient tool that allows users to play through a list of event recordings that are happening at the moment:

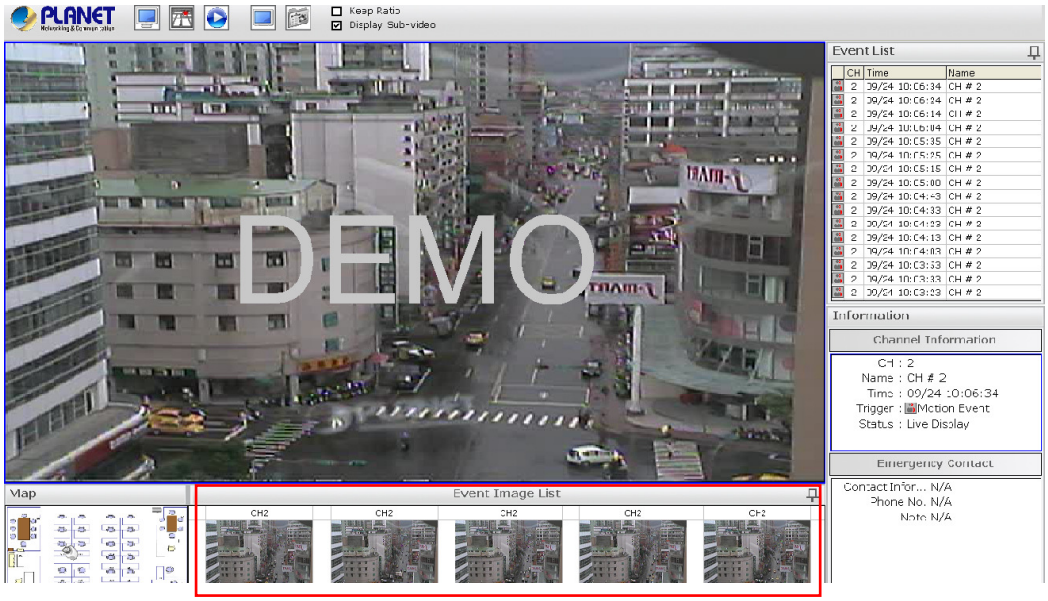


Events will be listed on the side bar and clicking on any one of them will instantly play back the recording:

The channel information and contact information of that particular channel will also be displayed on the side bar:



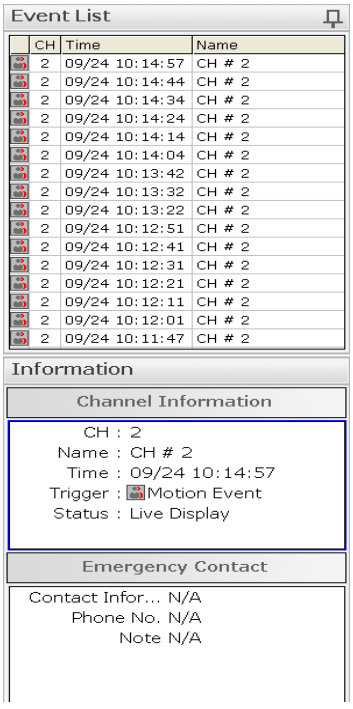
The software also displays thumbnail images of the most recent events. The image gets replaced whenever there are new events coming in:



The mini-sized E-Map available at the lower-left hand corner displays the location of the camera:

History Events

By default, the Event Monitor page displays "live" events which, events listed on the side bar gets refreshed automatically whenever new events are triggered.

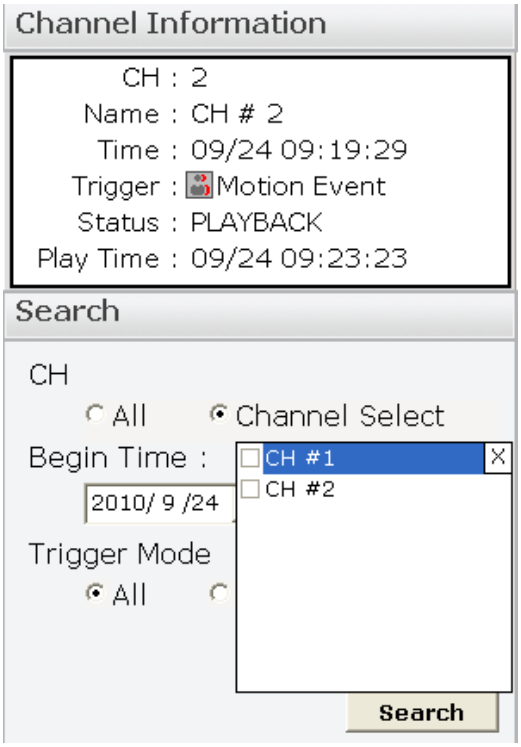


If you want to access the older events without going to the Playback page. You can access the "History Events" from the top bar in Event Monitor page:

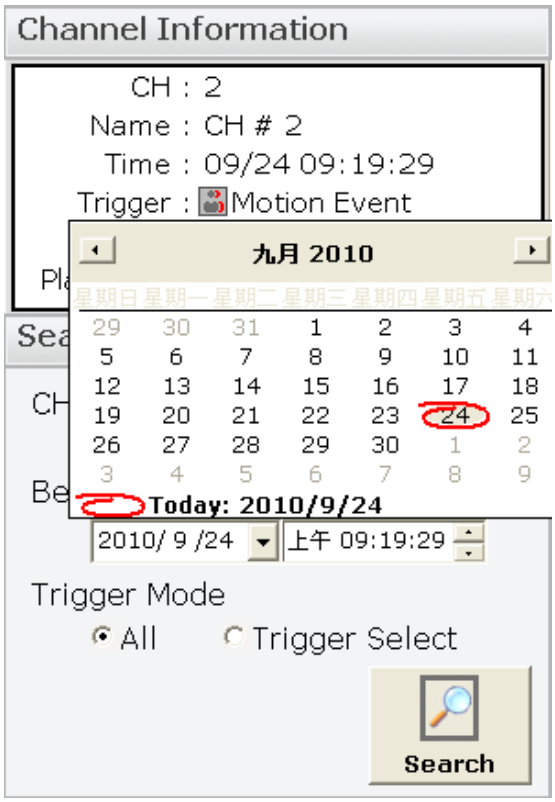
Event History

The History Event page should be displayed with the similar user interface with only the difference of letting users to "search" the older events. The search function is available at the lower-right hand corner on the side bar:

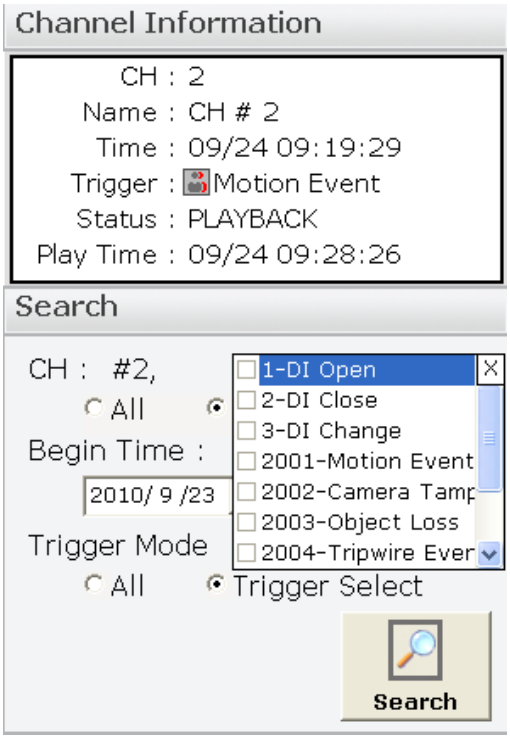
To perform search, select which channels to perform search on by choosing either "ALL" or "SELECT", which gives you a drop-down menu to select channels:



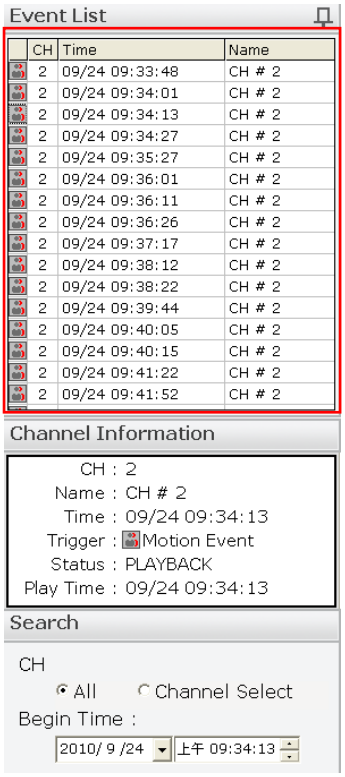
Then determine a start time by using the drop-down menu:



Finally, you can either search all events or set up a filter to search a particular type of event only:



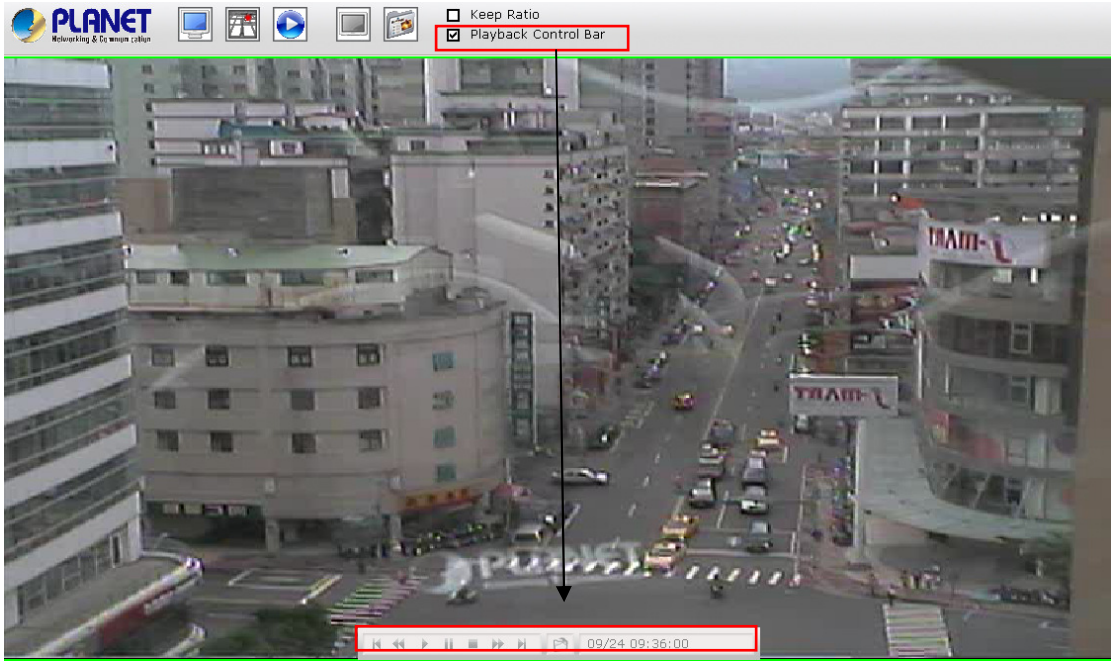
Results will then be listed. Simply click on to start playback:



Playback should then start and the corresponding channel information and camera's geographical information would also be displayed accordingly:

The "Event Image List" at the bottom would display the thumbnail images of the events with the time that is the closest to the event trigger time of the channel that was just selected for playback.

For control of the playback, check "Playback Control Bar" from the top and it should appear in the playback video window:



4.4 Client Viewer – Playback

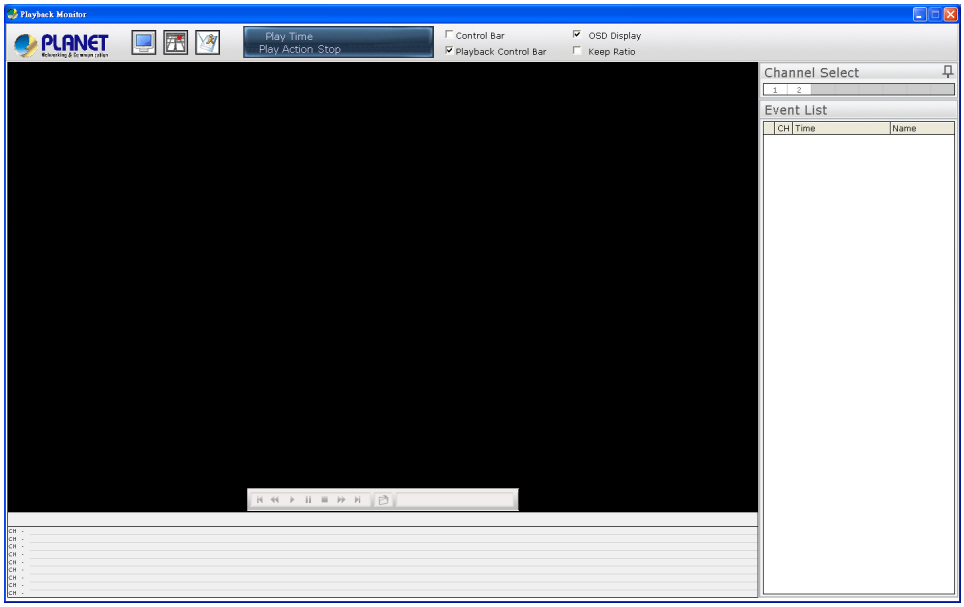
Playback provides functions to allow users to playback all recording data of all channels while offering additional features to assist users to find what they are looking within the shortest period of time and to enhance the playback experience. These features are:

* Display all available recording data at the bottom and display "event only" recordings of the selected channels on the side bar

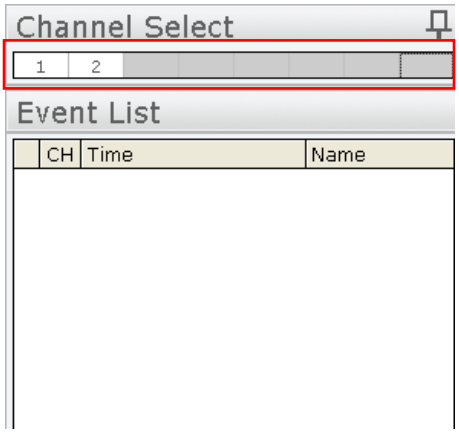
** Capture screenshot*

** Digital PTZ*

** Image Enhancement*

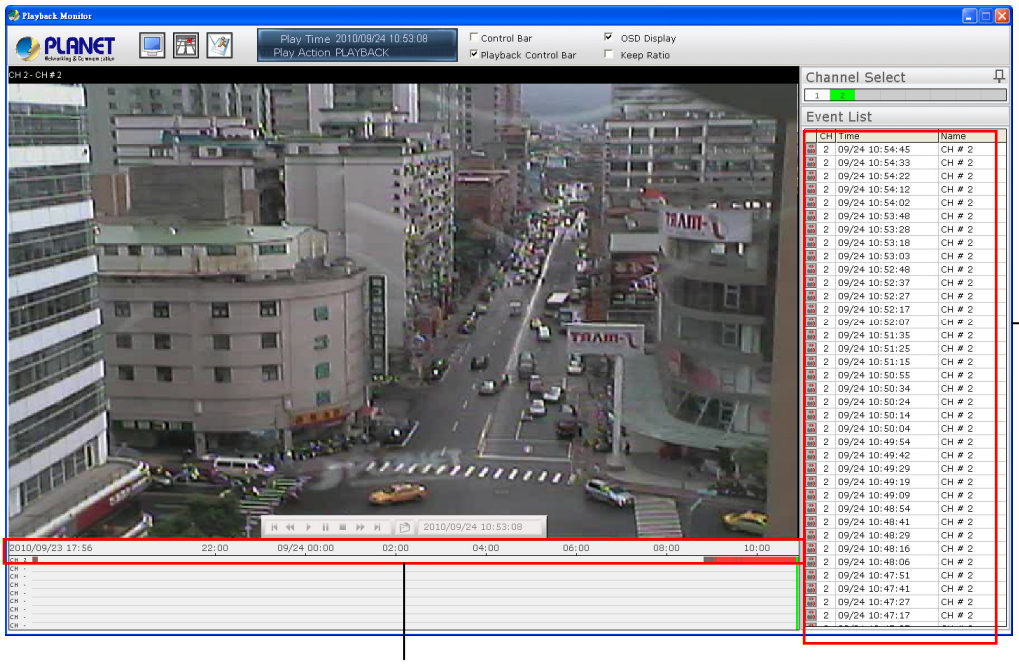


To start search recordings, simply select desired channels from the channel list at the upper-right hand corner:

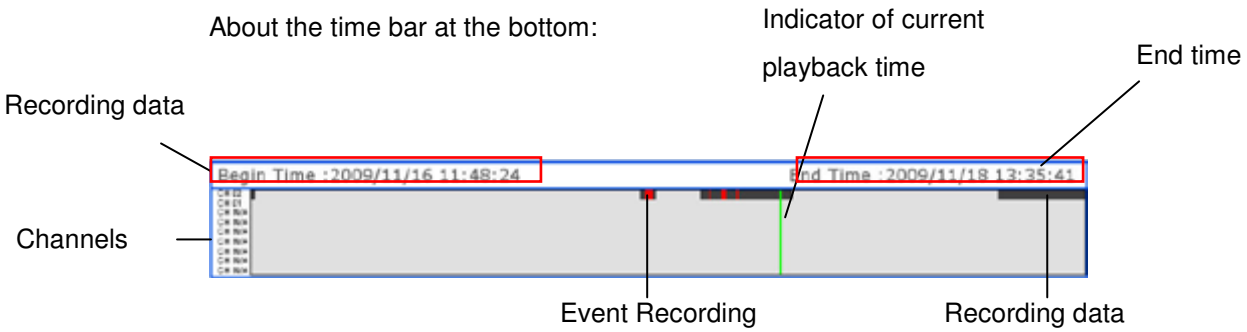


** You can select up to 9 channels as the software supports 9 channel synchronous playbacks.*

As soon as the channels are selected, their recording data should be display in the bottom bar as well as the side bar (If there are event recordings):



About the time bar at the bottom:



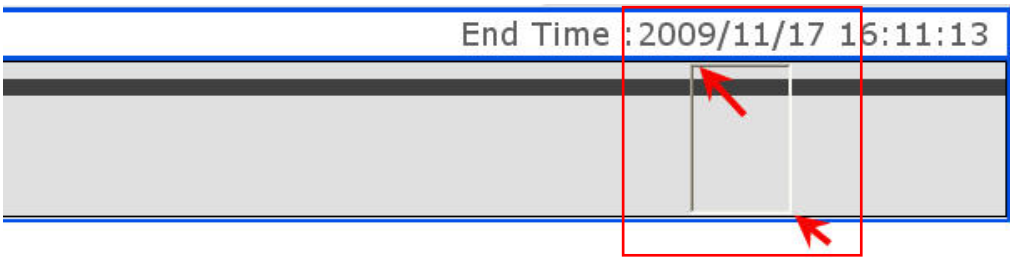
** Areas that are marked in dark gray: regular recording data*

** Areas that are marked in red: event recording data*

** Green Playback indicator: indicating the progress of the playback*

The time bar displays all recording data from the oldest to the latest. You can then ask the software to display a portion of the recording data by selecting on the time bar. Simply click and hold the mouse, then drag it horizontally to select:

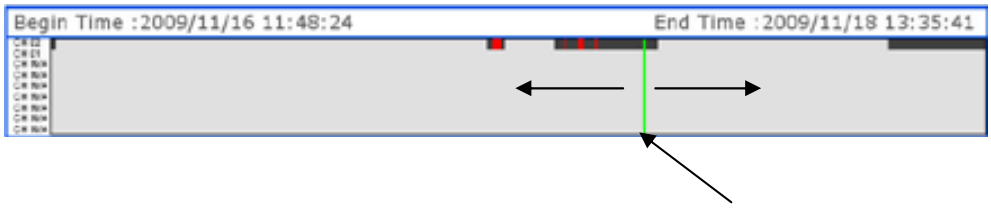
It will then zooms in and display the recording data of that portion. The begin time and end time would also change accordingly.



To go back up a level, simply "right-click" anywhere on the time bar:

Right-click

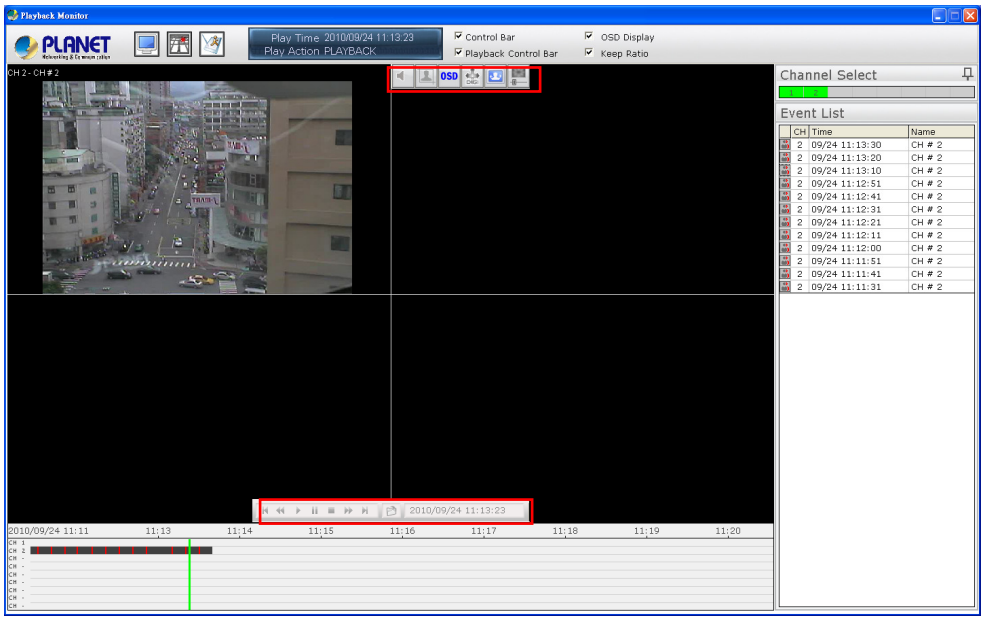
You can click and drag the green indicator horizontally to jump to a specific play time:



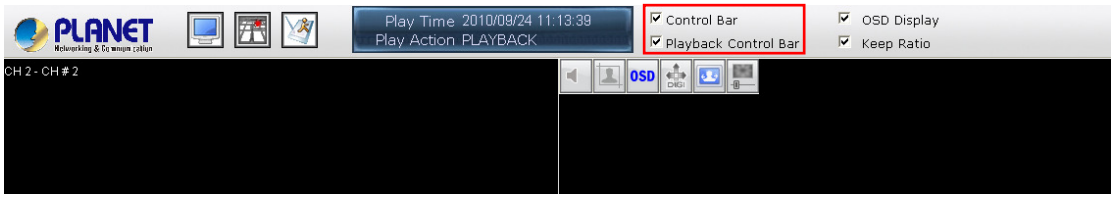
The playback also provides control bars with the following features:

** Playback Control Bar: Single step back/rewind/play/stop/pause/fast forward/single step forward videos*

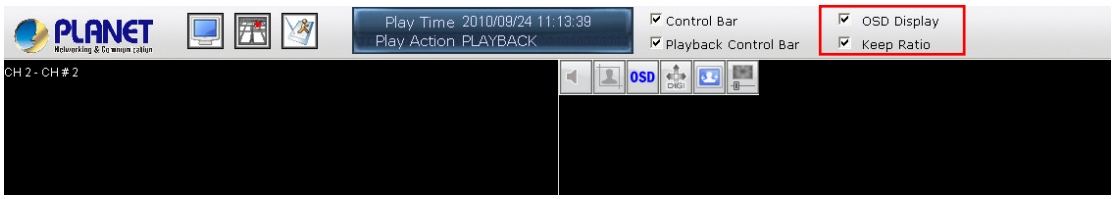
** Playback Video Window Control Bar: Turn on/off audio/snapshot/display OSD/digital PTZ/keep video ratio/image enhancement*



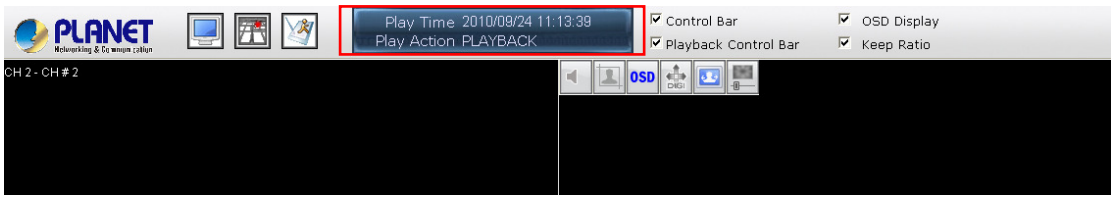
By default, these two control bars are hidden but can be enabled from the top bar:



You can also set to have all playback videos to be displayed in their original aspect ratio and display OSD by checking the options from the top bar:

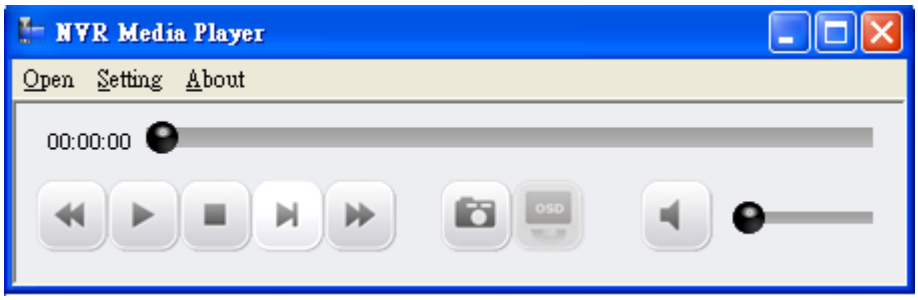


The green indicator in the time bar at the button indicates the progress of the playback and which portion is being played back. You can find the exact playback time from the top bar:



4.5 Media Player

The software comes with a player program which plays the recording files that are in their original database file format or in the AVI file format that were exported by the NVR software:

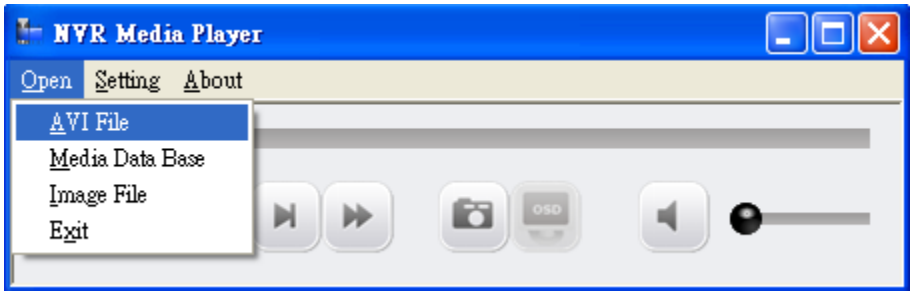


To access the media player, double-click on the shortcut created by the software installer:

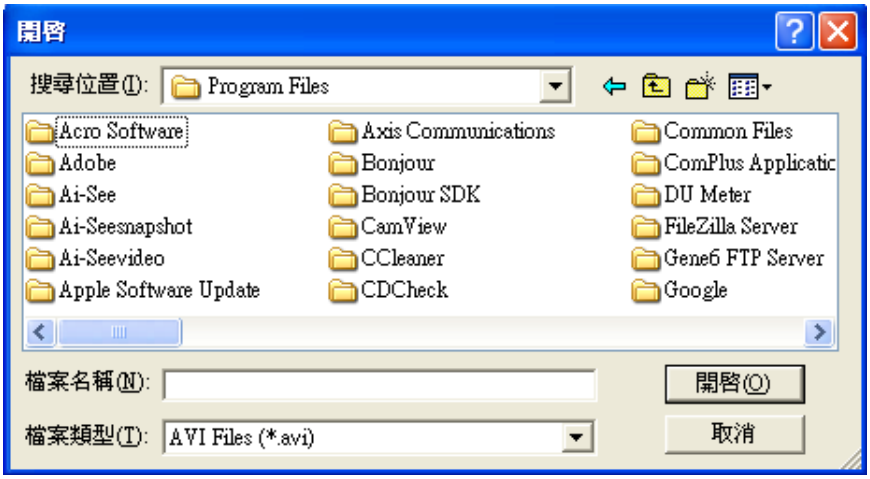
It can also be started from the Windows "Start" menu:

Play the exported AVI file

To playback the exported AVI file, go to "Open" >> "AVI File" from the top menu:

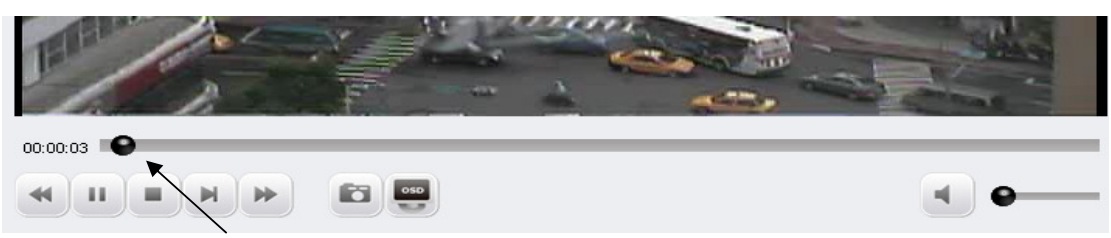


A new dialog will be displayed asking you to locate the AVI file. Go to C:\Program Files\PLANET \Cam Viewer 3 Pro\AVI as it's the default directory of where the exported AVI files are saved:

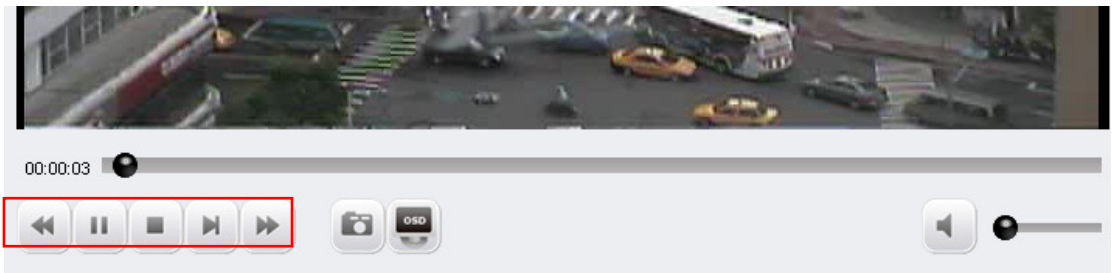


The playback should begin and the video should be played back in its original resolution by default:

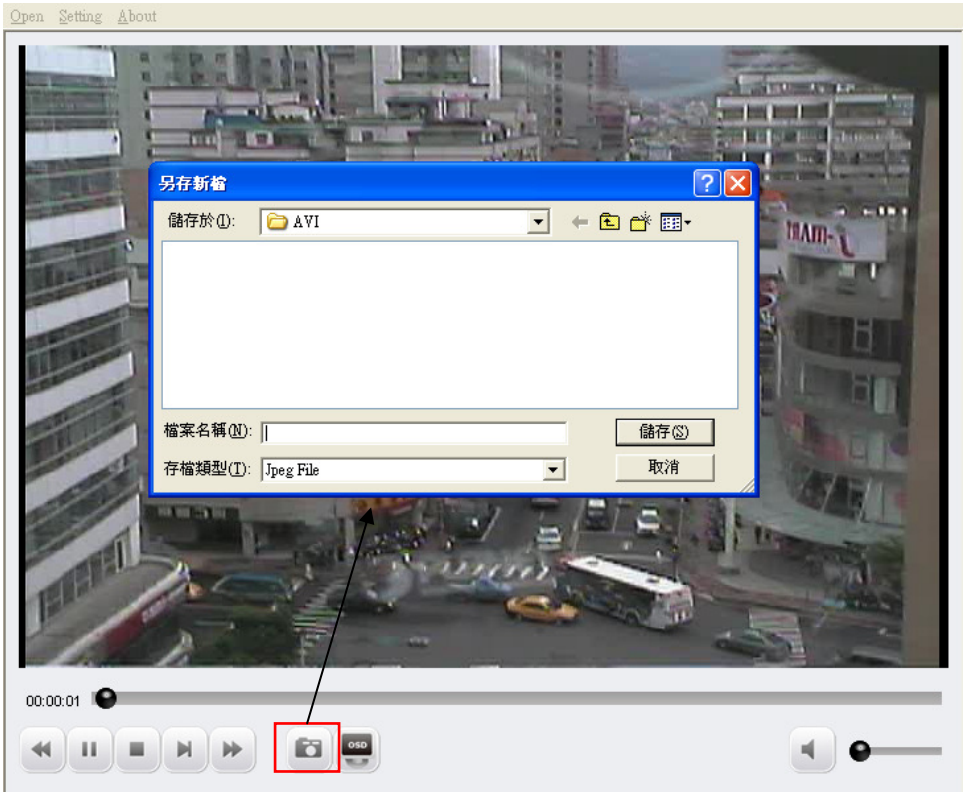
Move the indicator horizontally to jump back and forth to a specific time:



Use the control buttons at the bottom to play/stop/pause/rewind/fast forward the video



You can click on the "Snapshot" button at the bottom to take a snapshot of the video:



** The snapshots can only be saved in "JPEG" format*

Click on the "OSD" button at the bottom displays the OSD on the video:

** The OSD displays in the upper-left hand corner by default. More settings can be done to it such as font size/color and display position. More details about this will be covered in page 94.*

The player also supports the digital function. Simply use the scroll button to zoom in/out. You can also click and hold the house then drag diagonally to select a particular area to zoom in.

Draw a square on the video to zoom in a particular area

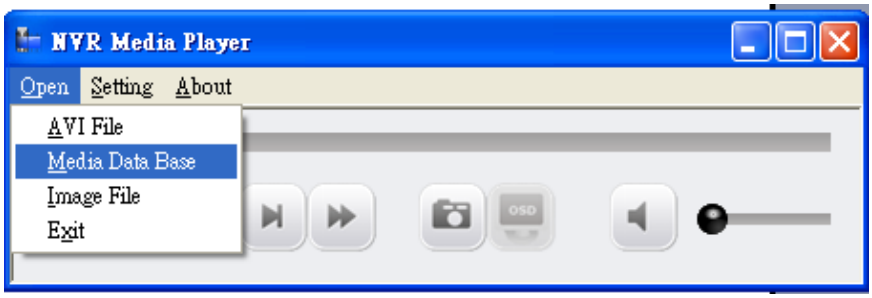
Once the video is zoomed in, click and hold the mouse button then move the mouse to move the zoomed area:

Click and hold the mouse button then move the mouse to move the zoomed in area

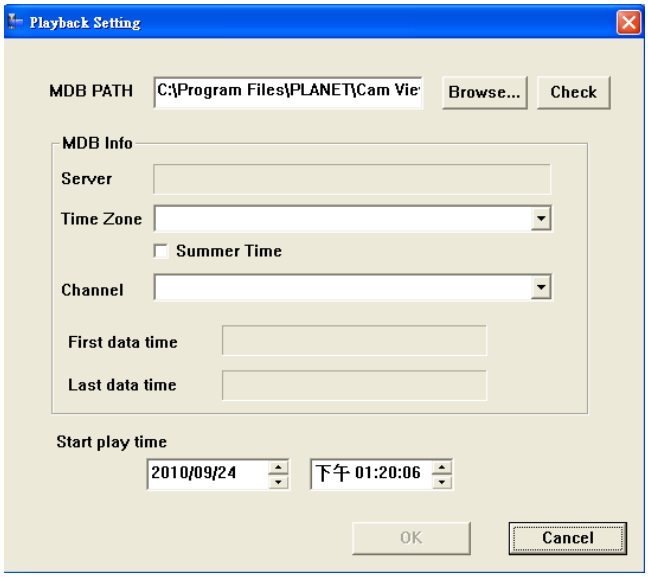
To exit digital PTZ mode, simply right-click anywhere on the video.

Play the database file

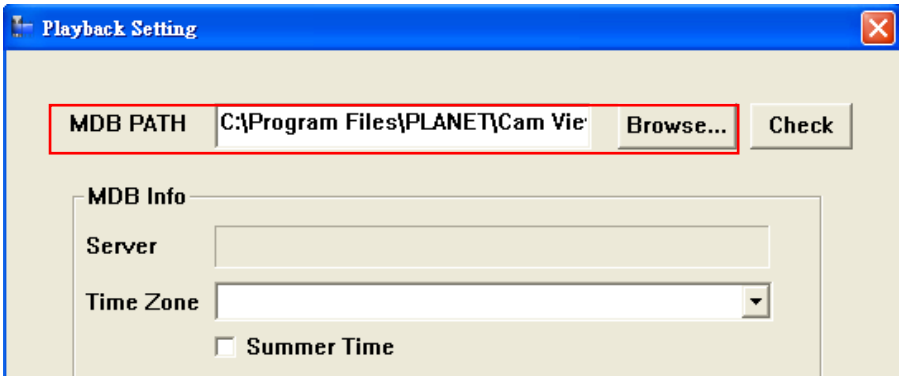
To play the media database file, simply go to "Open" >> "Media Data Base" from the top menu:



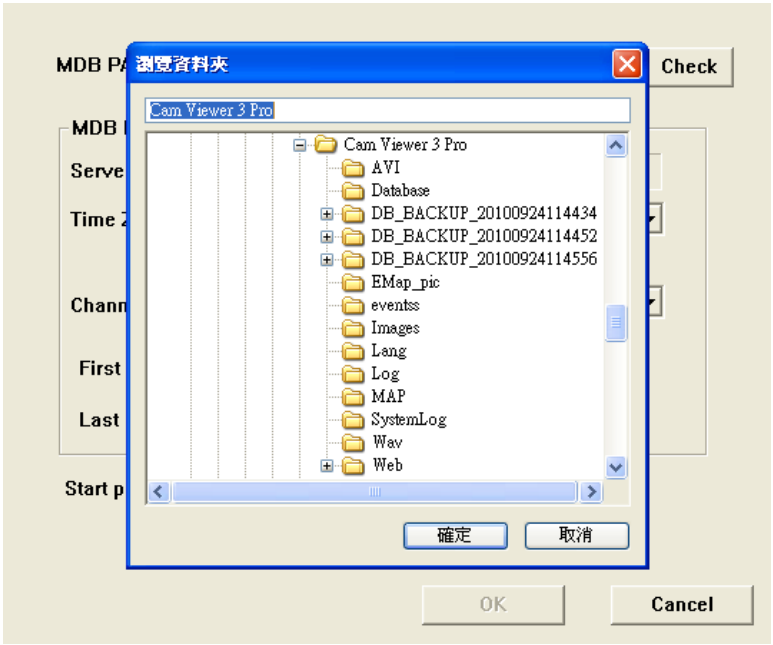
A dialog shown like below should be displayed:



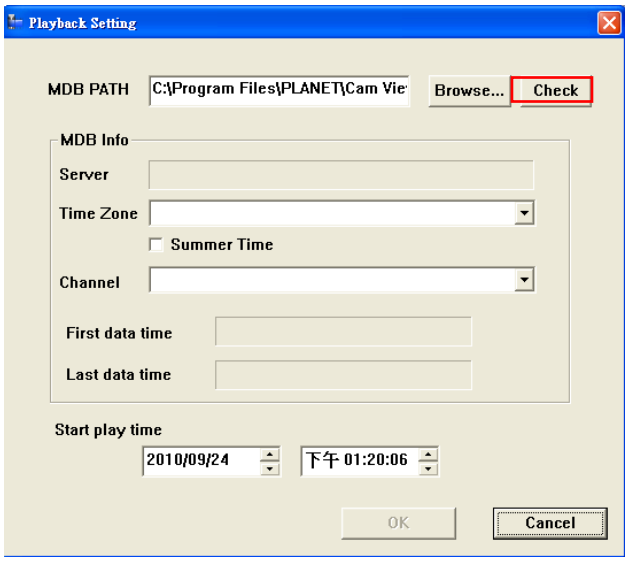
The default MDB path should be displayed. If you have altered the database storage path in the Config Wizard, click "Browse" to locate the new path:



A new dialog should be displayed to allow you to locate the directory of where the database files are stored:



After the directory is selected, click on "Check":



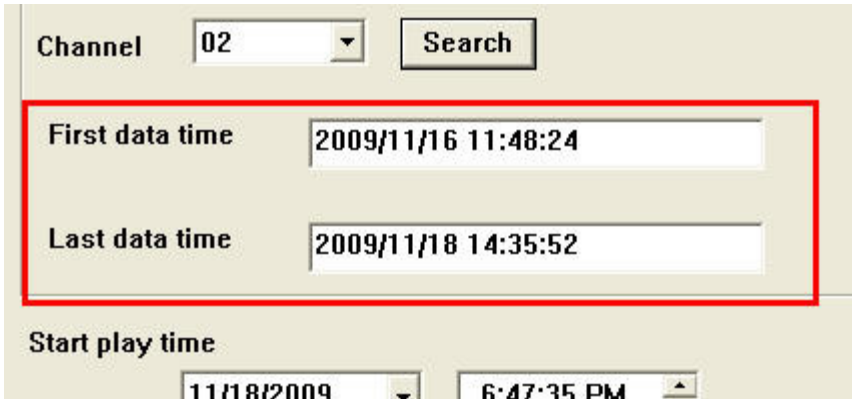
A pop-up message should be displayed once the database is successfully located (as shown below):

Next, select a desired time zone from the drop-down menu:

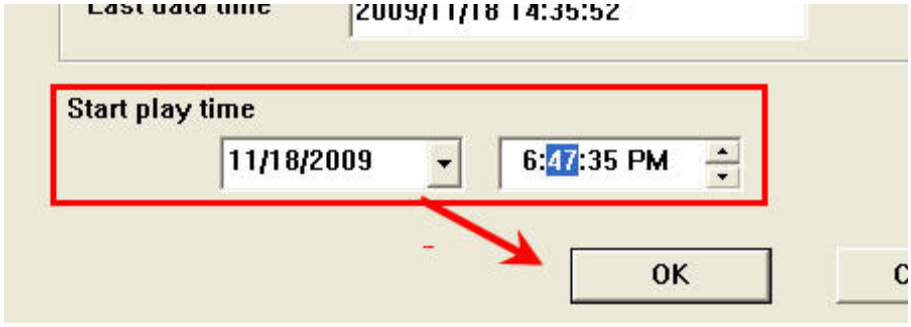
** The MDB file does not contain any time zone information. Simply select a time zone based on your current location or select one if you know the time zone of NVR server where the MDB was exported from.*

The "Channel" drop-down menu lists only the channels that have recording files available. Simply select a channel and press "Search":

The database begins and end time of the selected channel should then be found:



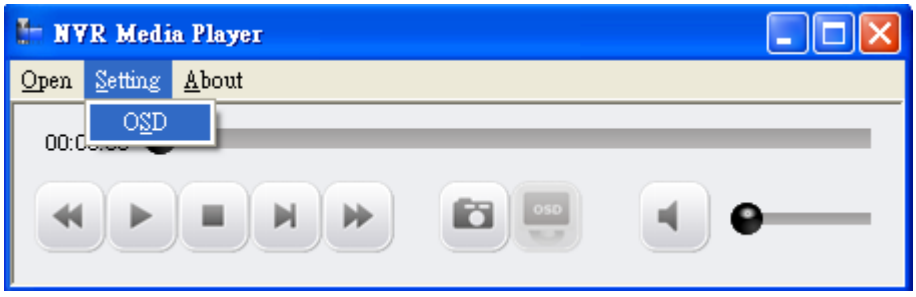
Simply specify the "Start Time" within the range of begin and end time and click "OK" to play the database file:



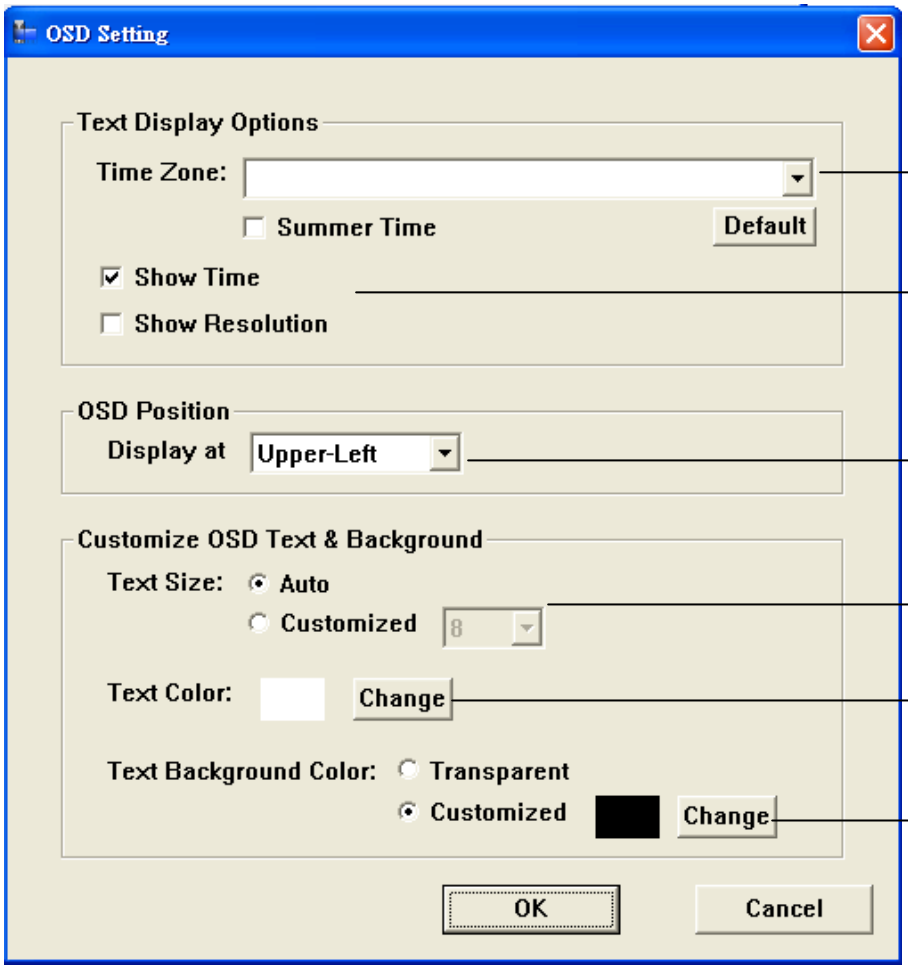
The playback should begin and the video should be played back in its original resolution:

Configuration of the OSD display in media player

To make changes of how OSD is displayed on the playback video, go to "Setting" >> "OSD" from the top menu:



A new dialog should be displayed which lets you change the OSD setting (as shown below):



Choose the time zone of the displayed time

Select to display time or resolution or both

Position of the OSD

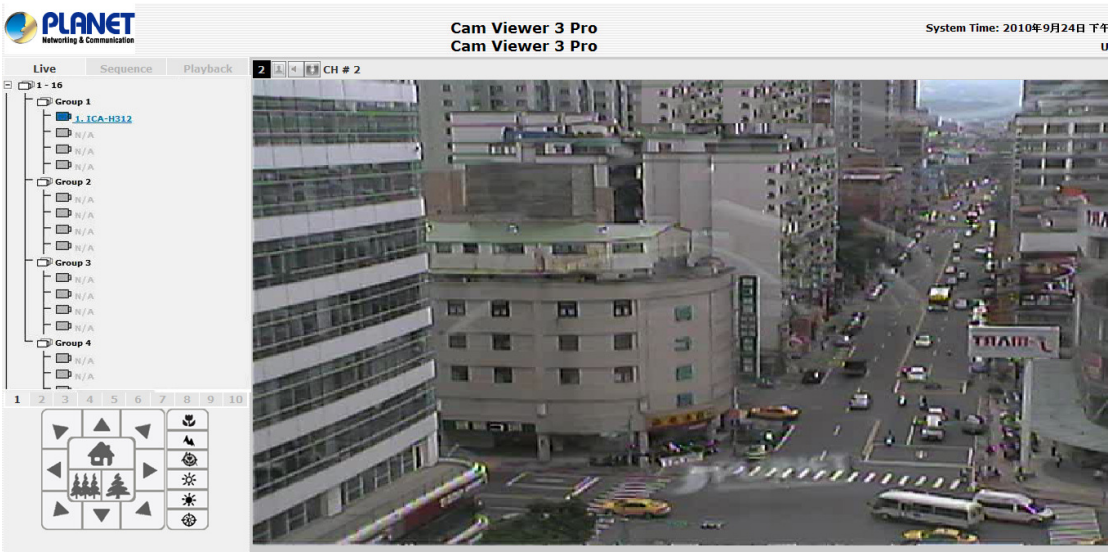
Change OSD text size

Change OSD text color

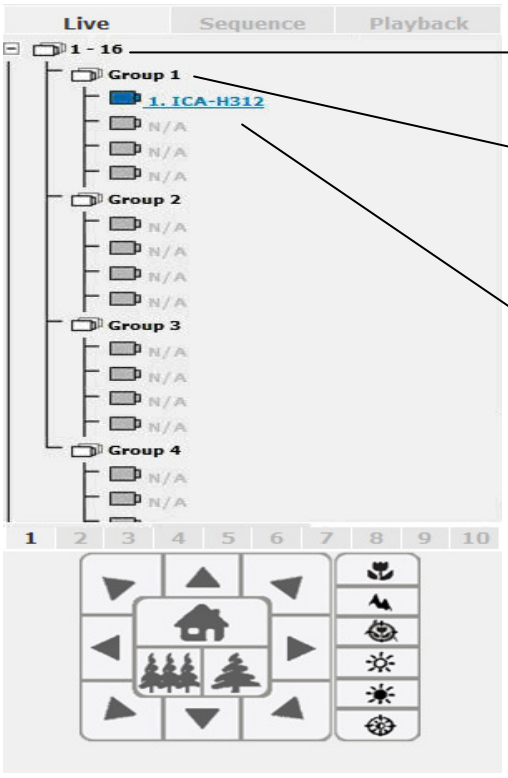
Change the background color of the OSD texts

4.6 Remote Monitor – Web Browser

Cam Viewer 3 Pro has built-in web server which allows users to access the live video and payback video through a web browser remotely. This is convenient because it doesn't require users to install remote application in order to see the live and playback videos.



You can view live videos of up to 16 channels simultaneously through the web browser. As soon as you log in through the web browser, it displays live video of the first available channel in single window view. You can switch the split mode by clicking the camera list on the left:

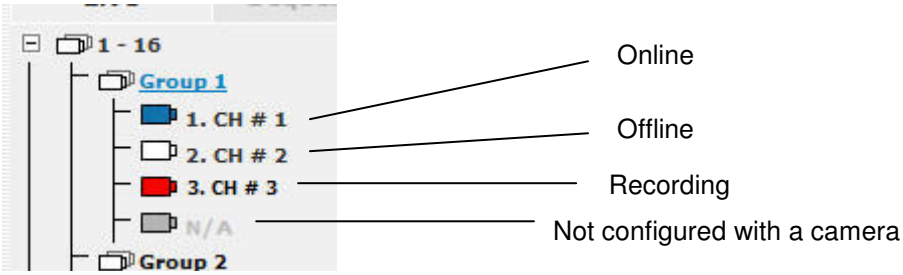


Click to see live videos of first 16 channels in 16 split mode

Click a sub-group to see live videos of the 4 channels in that group in quad window view

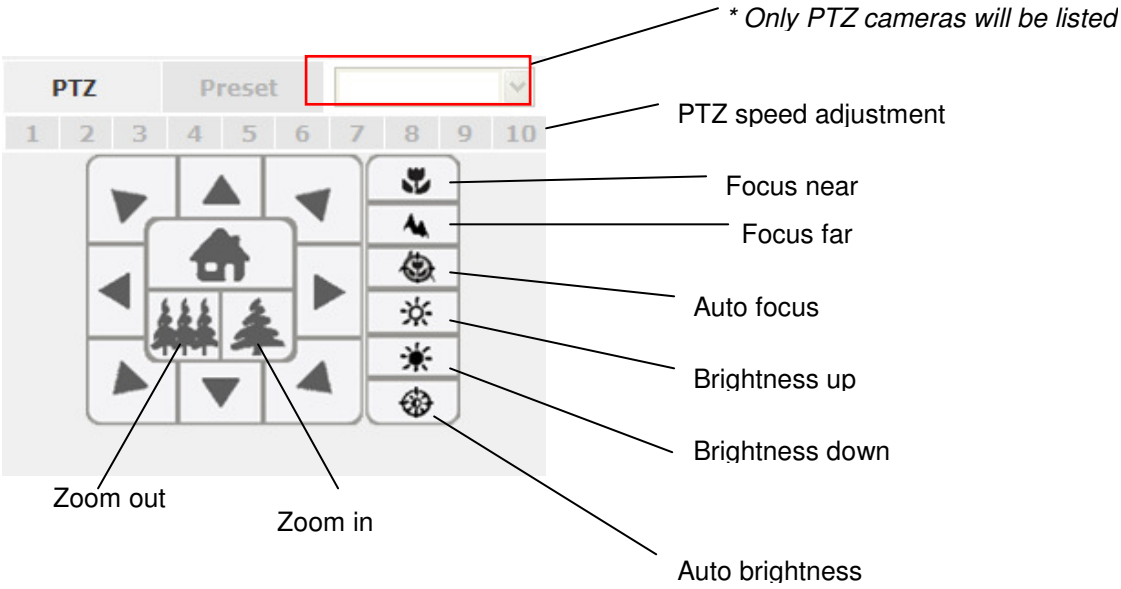
Click the camera icon to see the live video of that channel in single window

The camera icons are marked with different colors representing their current status:



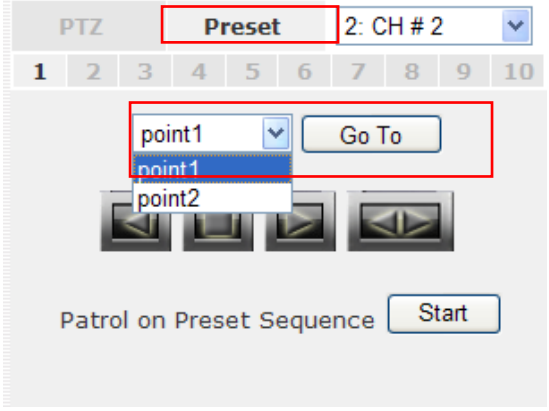
PTZ Control:

The PTZ control is available at the lower-left hand corner. Select a camera from the drop-down menu to use PTZ control:

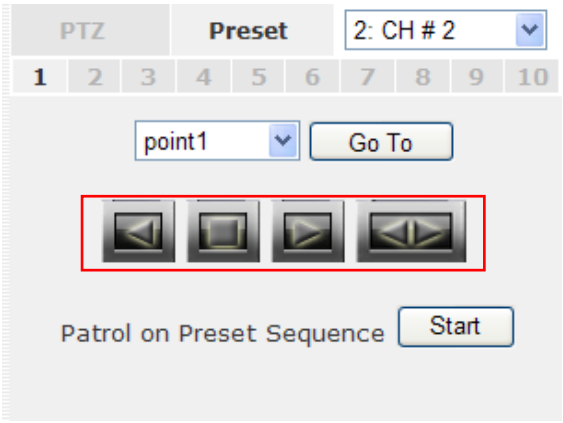


Preset:

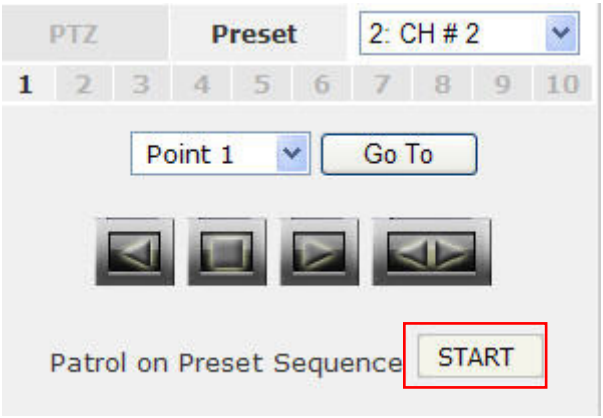
Click on "Preset" to access the preset menu. The drop-down menu should list the available preset points of the selected channel that were previously configured. Simply select one from the list and click "Go to":



The buttons below the drop-down menu allows you to set the camera to pan right or left automatically or pan 360 degrees if the camera supports such function:

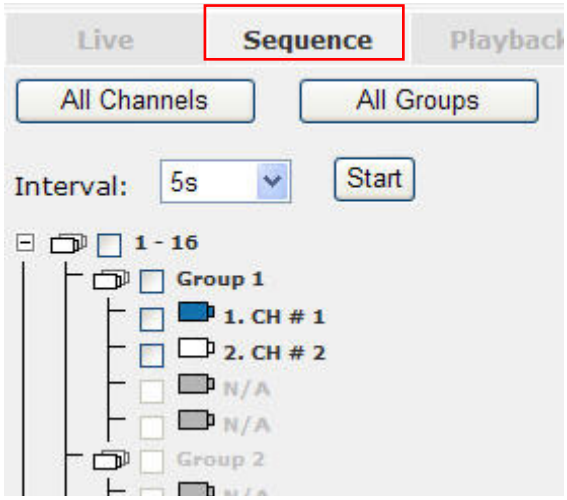


You can also set the camera to "patrol" among the preset points continuously by clicking the "Start" at the bottom:

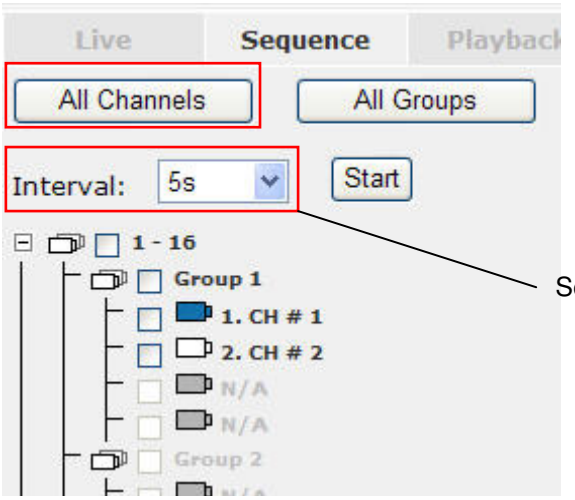


Sequence Viewing:

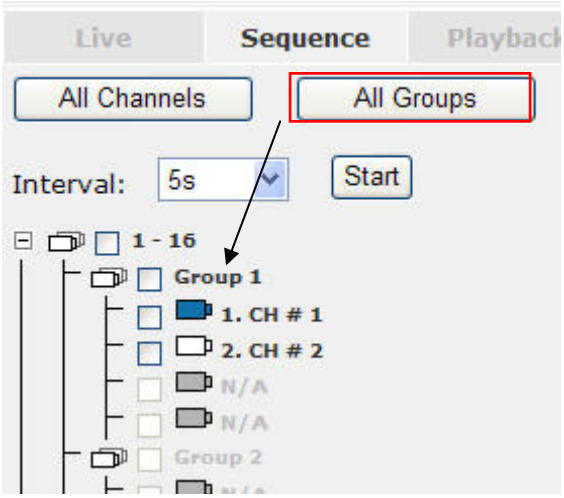
You can also set to view all or selected channels in sequence automatically by going to "Sequence":



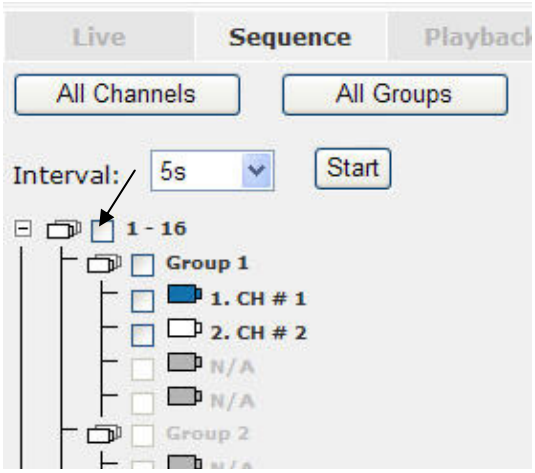
Select "All Channels" to start sequence view on all channels in single window view. You can set the sequence interval by selecting one of the pre-defined options from the "Interval drop-down menu. Click "Start" to begin:



Select "All Groups" to start sequence view in quad window view (4 cameras in one group):



You can also set to start sequence view in 16 window view by checking the "1 - 16", "17 - 32"...etc checkboxes:



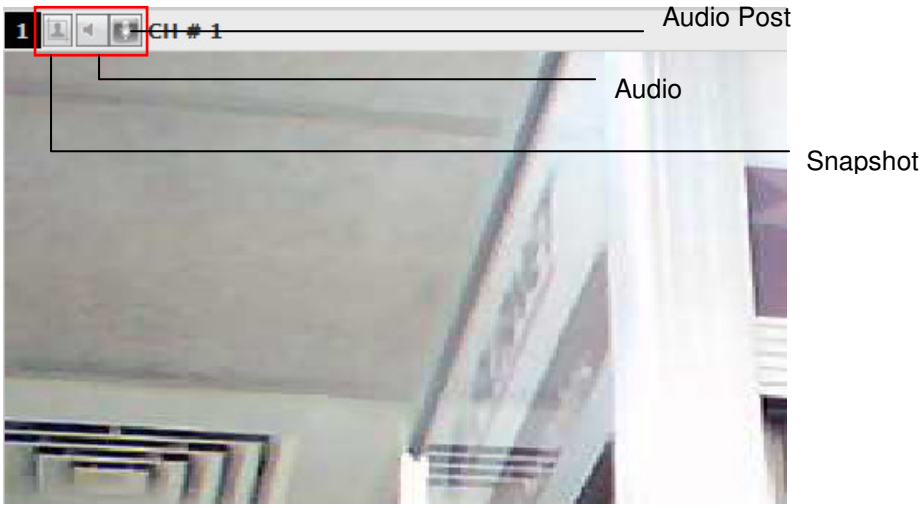
Video Window Control Bar:

Each video window in live view comes with its control bar. The control bar allows users to:

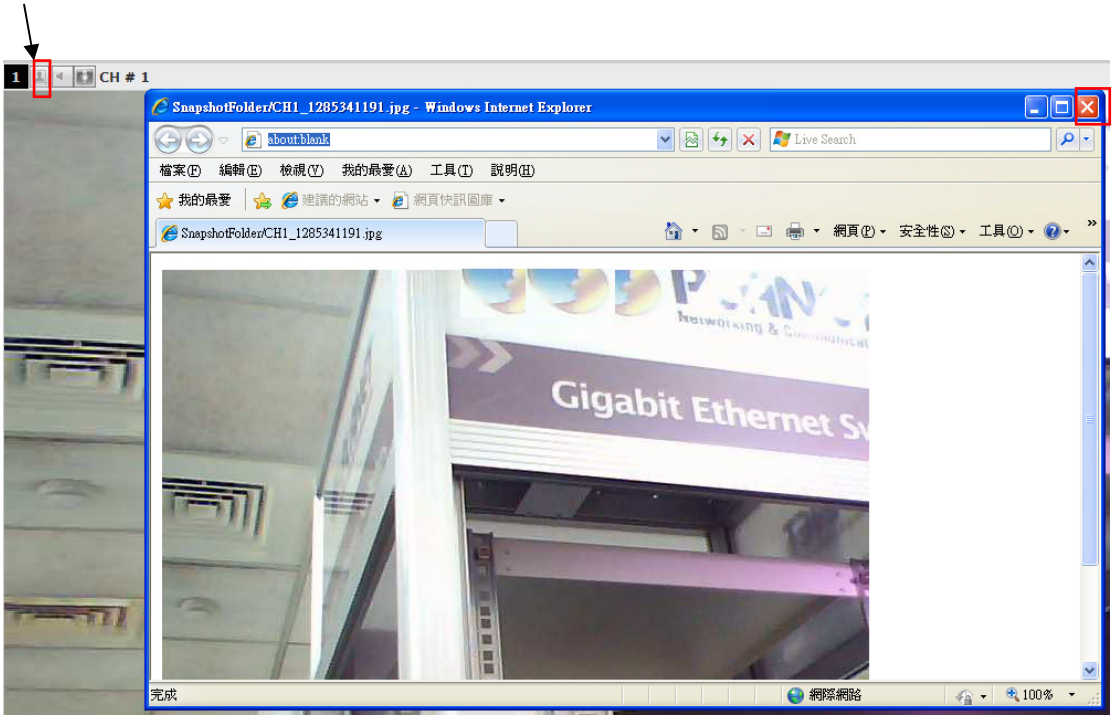
** Take snapshot of the live video*

** Turn on/off audio (speaker)*

** Turn on/off audio post (Mic.)*

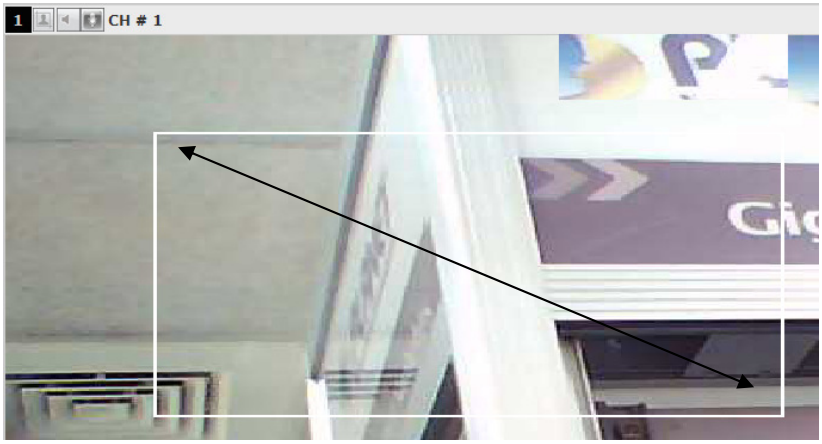


To take a snapshot, click on the snapshot icon and a new window should be displayed. Simply close the window to finish as the snapshot will be saved to C:\SnapshotFolder automatically:

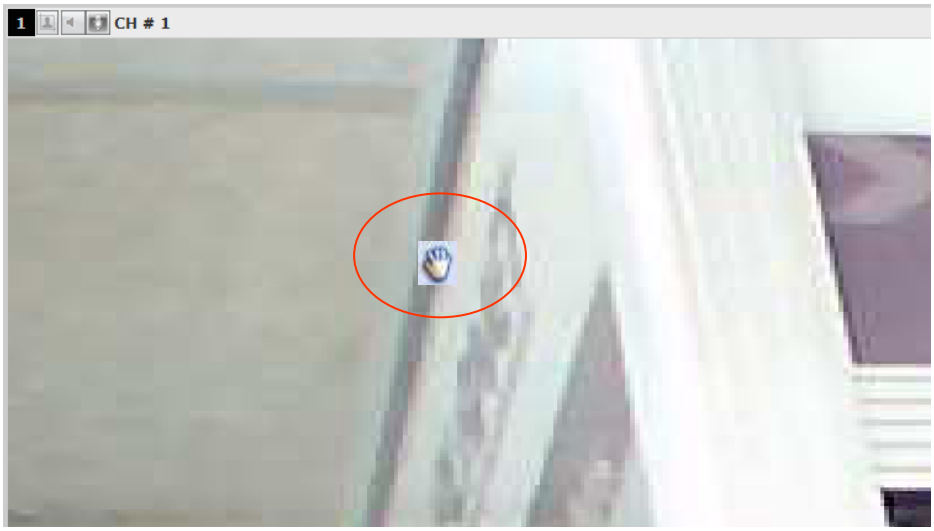


Digital PTZ:

The digital PTZ function is supported to all video windows, which you can click and hold the mouse and drag diagonally to draw a square to zoom in a particular area on the video:



Once zoomed in, an icon will be available on the video. Simply click and hold the mouse and then drag to move the zoomed in area to a desired direction:

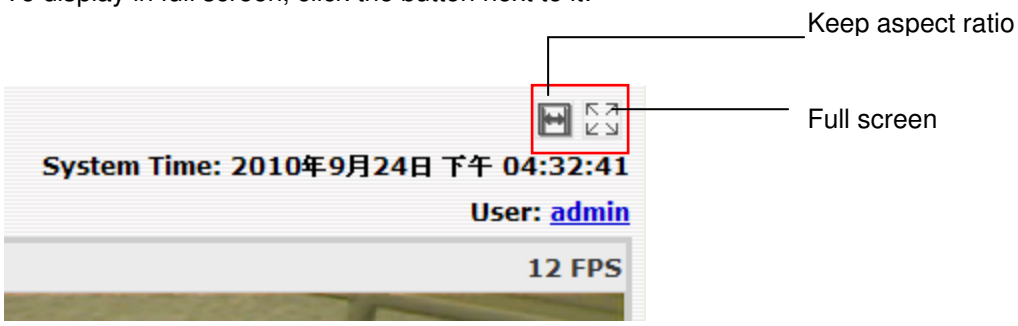


You can right-click anywhere on the video to exit the digital PTZ mode at any time:

Keep video in original aspect ratio and full screen:

At all time, you can set to display all videos in their original aspect ratio by clicking the function button available at the upper-right hand corner.

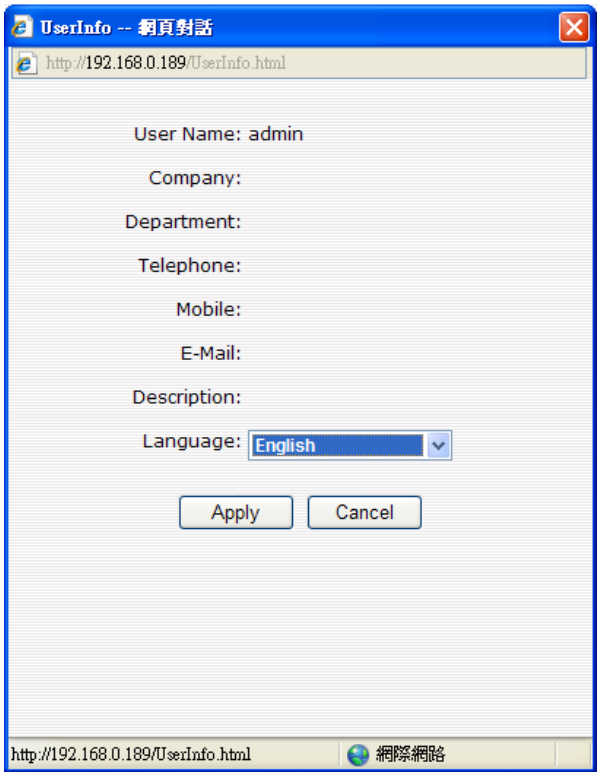
To display in full screen, click the button next to it:



Change display language:

The web user interface supports display in different languages. To change the display language, click the logged in user account at the upper-right hand corner:

A pop-up window should be displayed (as shown below):



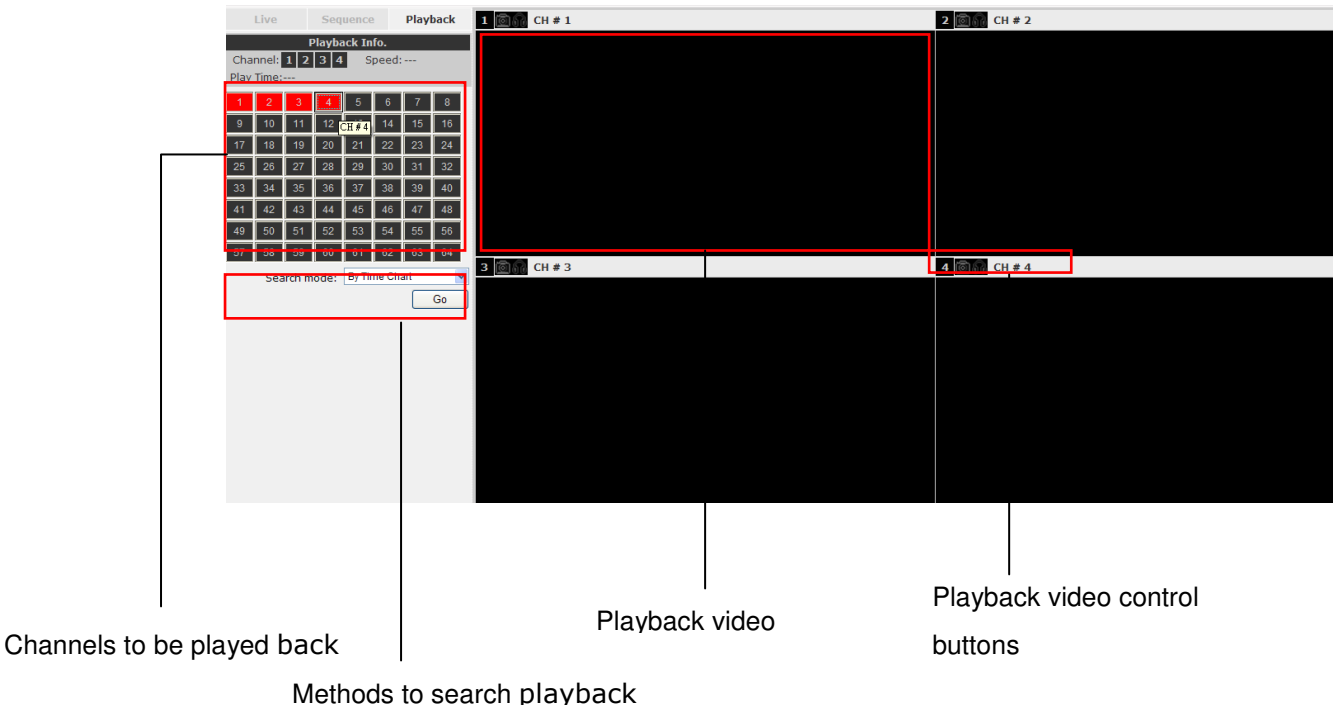
Select a desired language from the "Language" drop-down menu and click "Apply":

Playback:

Playback is a function that allows you to play one or more videos that were previously recorded by a chosen recording method or due to an event trigger. The web interface offers synchronized playback from up to 4 channels and various types of search methods are provided to help you find the footage you need quickly.

You can turn on or off the audio of a recorded video at your choice if audio was also recorded during the recording of the video.

Playback video can be viewed in full screen and snapshots can be taken and saved during a video playback.



Methods to Search Playback Videos

The NVR offers four methods to quickly help users find videos that were previously recorded:

* *Search by time chart: Select a desired date of recording from the time chart*

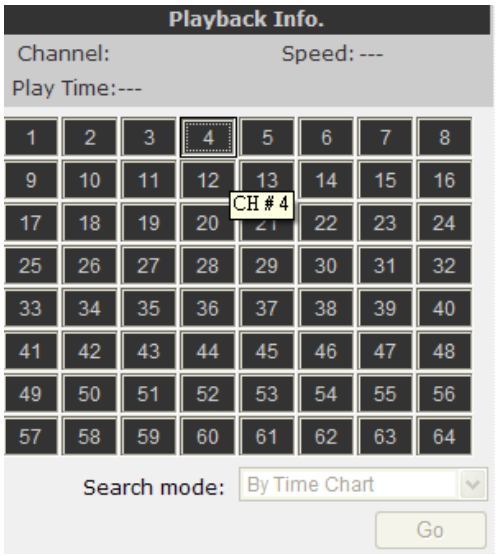
* *Search by specific time: Find videos by specifying a start time*

* *Search by event: Display recording data that were recorded due to event triggers*

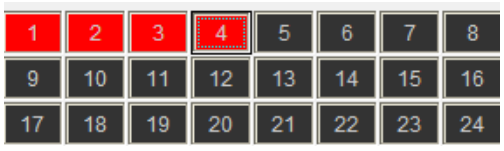
* *Search by event (most recent): Display the most recent event recording data*

Search by time chart

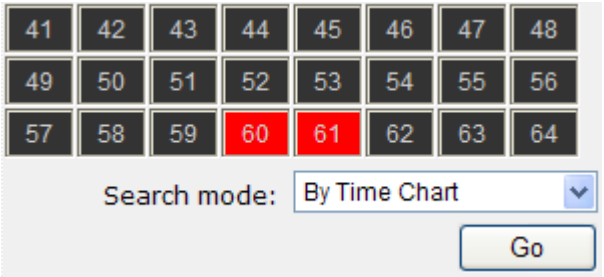
Start by selecting which channel(s) you would like to perform a search on:



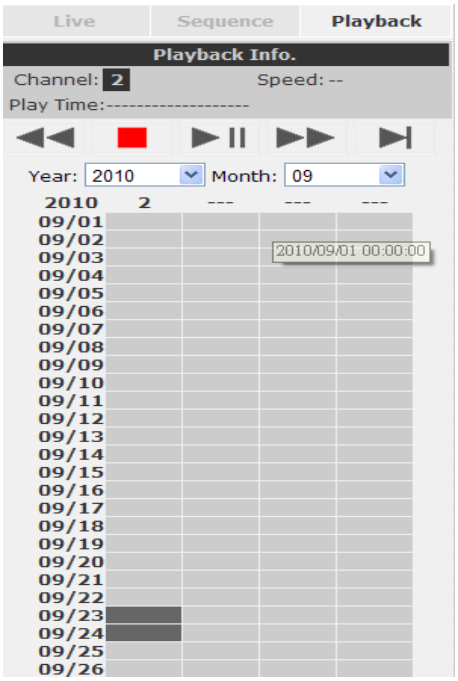
* *Selected channels will be marked in red*



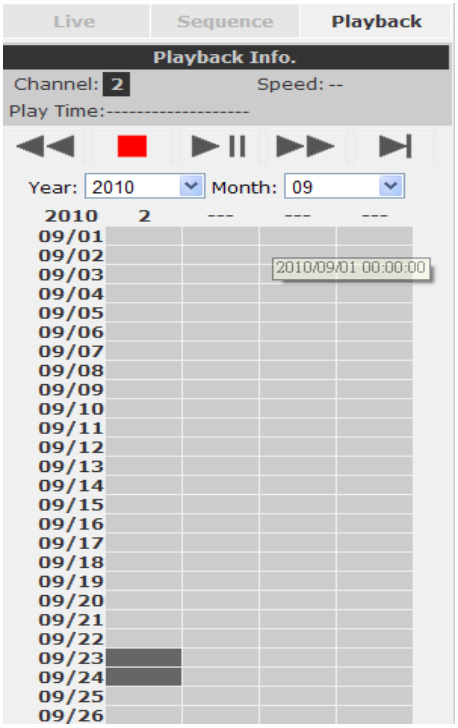
Select "Search by time chart" from the "Search Method" drop-down list and click "Go" to start the search:



Results will then be displayed in a "Date/Channel" table and boxes marked in dark gray represent videos found on those dates:

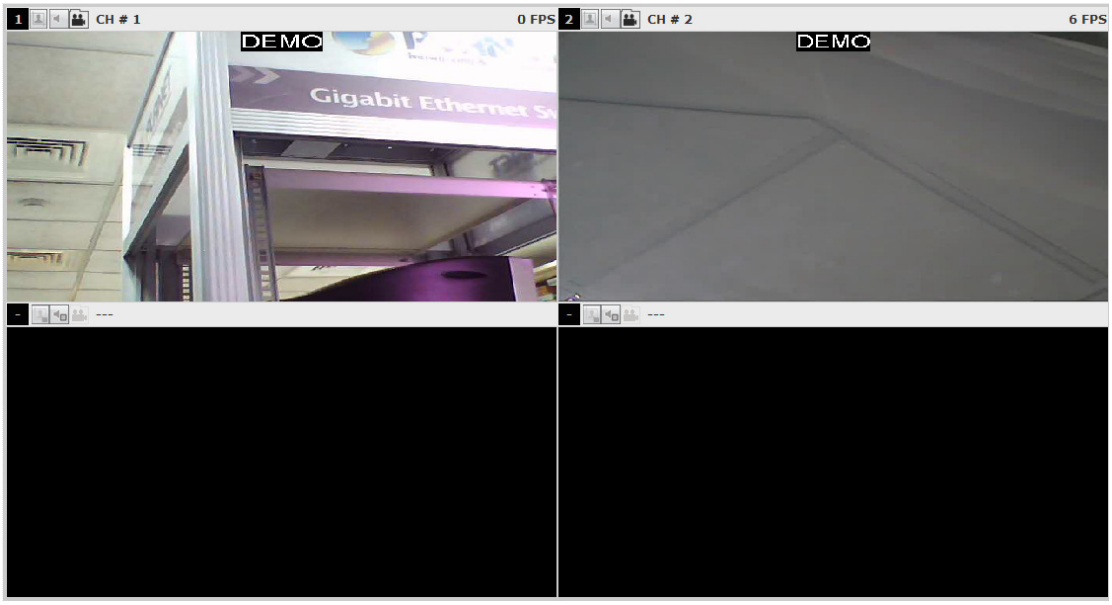


Click on any dark gray cell box should direct you to the hour/channel table if there were multiple videos recorded during that date:



** Videos from other cameras that are recorded on the same date will also be displayed*

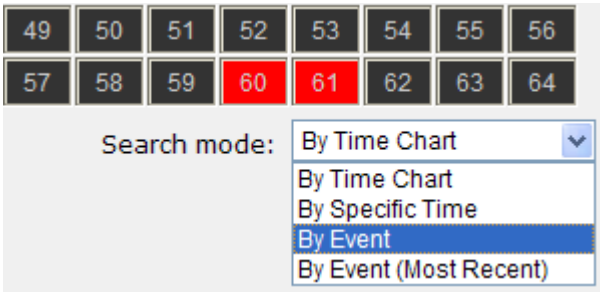
Click on the cell box again will start playing back the videos if you have reached the end of search results:



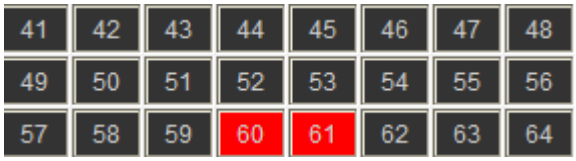
Videos found from other cameras that were recorded at the same time will also be played.

Search by event

Start by selecting which channel(s) you would like to perform a search on:

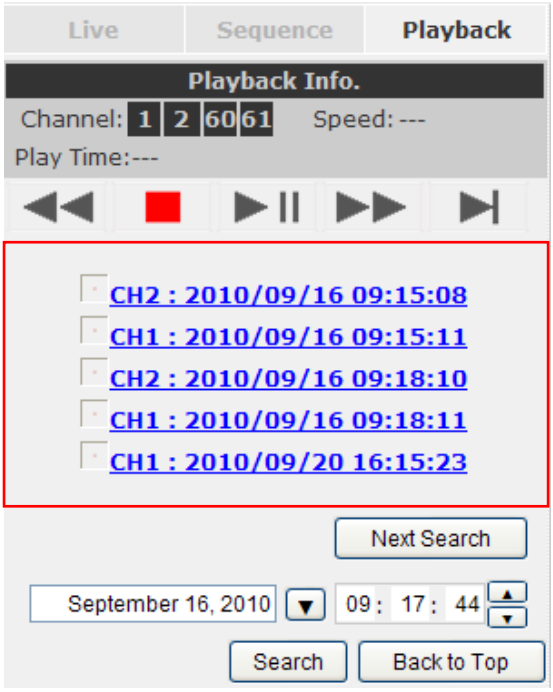


* Selected channels will be marked in red



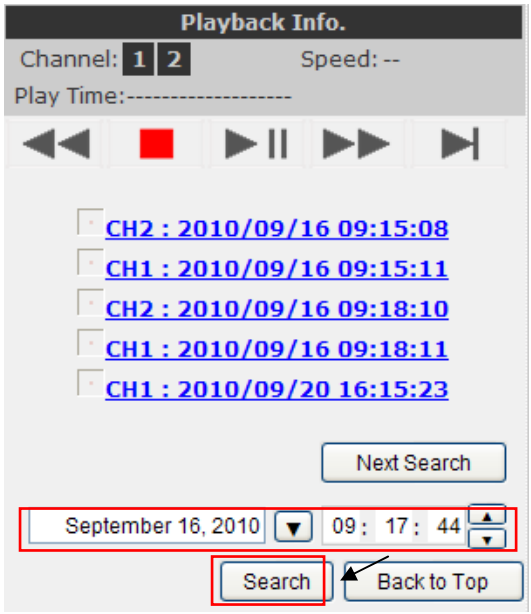
Select "Search by event" from the "Search Method" drop-down list and click "Go" to start the search:

Results will then be listed like what is shown below (displays the oldest record top down). Click on a particular result to start the playback:



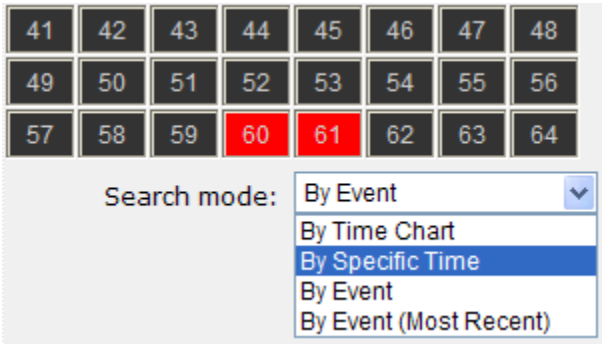
* You can click "Next Search" to display the next 15 results.

You may also specify a new start time to search and display results from then on. You can restrict the number of results to be displayed at once (max. 30) and perform the search again

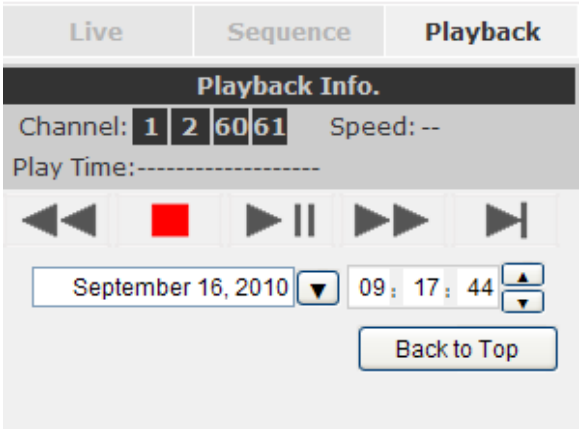


Play by specific time

If you know when a recording was taken place, you may choose the "Play by start time" from the "Search Method" drop-down list

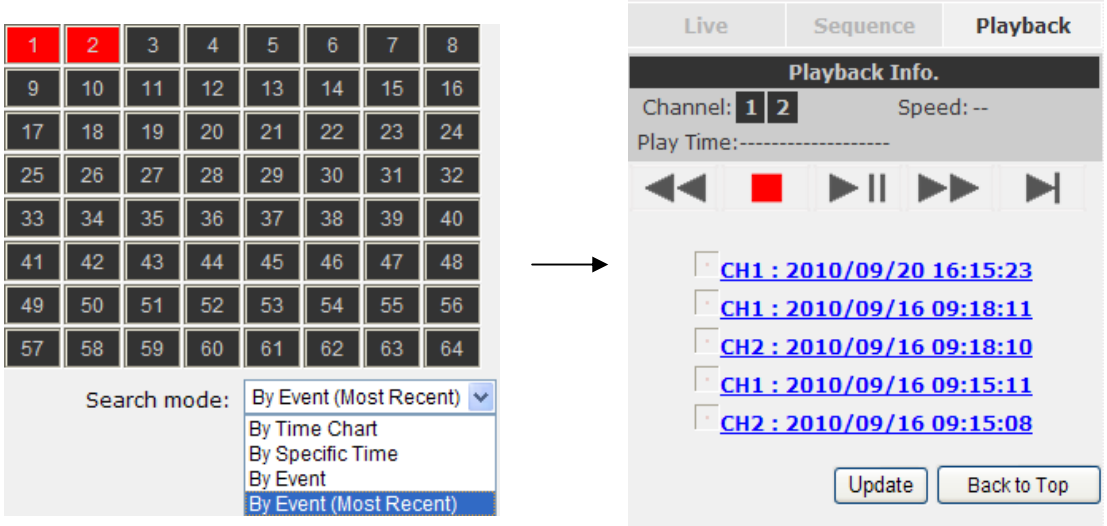


Then you will be prompted to enter a specific time and date for the recorded video.



Search by event (Most Recent)

This function quickly displays the most recent event recordings from the selected channels, displaying the most recent result top down. You may click "Update" to update the list to display the most recent result



Appendix A Specifications

Main Function	
IP Cameras Input(s)	64 Channels
Monitor Output(s)	4 Monitor
Video Format	H.264, MPEG-4, M-JPEG
Max. Resolution	5 Mega-Pixel
Recording Mode	Manual, Scheduling, Event
Scheduling Types	Manual Select, Day Mode, Night Mode, Weekend Mode
E-Map Monitor	Yes (Two-layer)
Snapshot Format	JPEG
PTZ Config	Yes
Joystick	Yes
User Account	Yes
Log Types	Alert, Event, User Access
Triggers & Events	
Intelligent	Motion Detection
Alarm	Mail, FTP Server, HTTP Server, TCP Server, Warring Sound, Emergency, Central Server
Event Recording	Pre/Post Event Settings
Playback	
Concurrent Playback	4 Channel
Search Method	Time/Date, Event
Playback Controls	Play, Pause, Stop. Forward, Reverse, Speed Adjust, Frame by Frame, Event by Event
Recorded Format	AVI
Network & System	
Protocols	TCP, UDP, HTTP, /FTP, /SMTP, DHCP, DNS, ARP, ICMP, NTP, UPnP, RTP, RTSP, RTCP
Mini. Hardware Requirements	CPU: Intel Core 2 Duo or above RAM: Minimum 1 GB, 2GB or above is recommended

	HDD: SATA 200GB or above is recommended Display card: Independent display card suggested Ethernet interface: 10/100Mb Ethernet card or above
Software Requirements	Windows 2000(SP4), Windows XP, Windows 2003, Windows Vista(32-bit), and Windows 7(32-bit)
User Interface	
Multiple Language	English, Traditional Chinese, Simplified Chinese, Japanese, Italian, Spanish, Portuguese, Germany, Danish, Czech, Polish, France