



NVR Management Software

User Manual v1.7.7

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System Requirements

The following are minimum system requirements for the system to operate the Network Video Recorder:

Operating System

Microsoft® Windows® XP Professional SP2, Windows Vista, Windows 7, Windows® 2003 Server, or Windows® 2008 Server

Browser

Microsoft Internet Explorer 7 or above

CPU

Minimum Intel® Pentium® 4 2.4 GHz or higher (Dual Core is recommended)

RAM

Minimum 1 GB of RAM, 2GB or above is recommended

Network

Minimum 10/100 Ethernet (Gigabit Ethernet is recommended)

Graphics Adapter

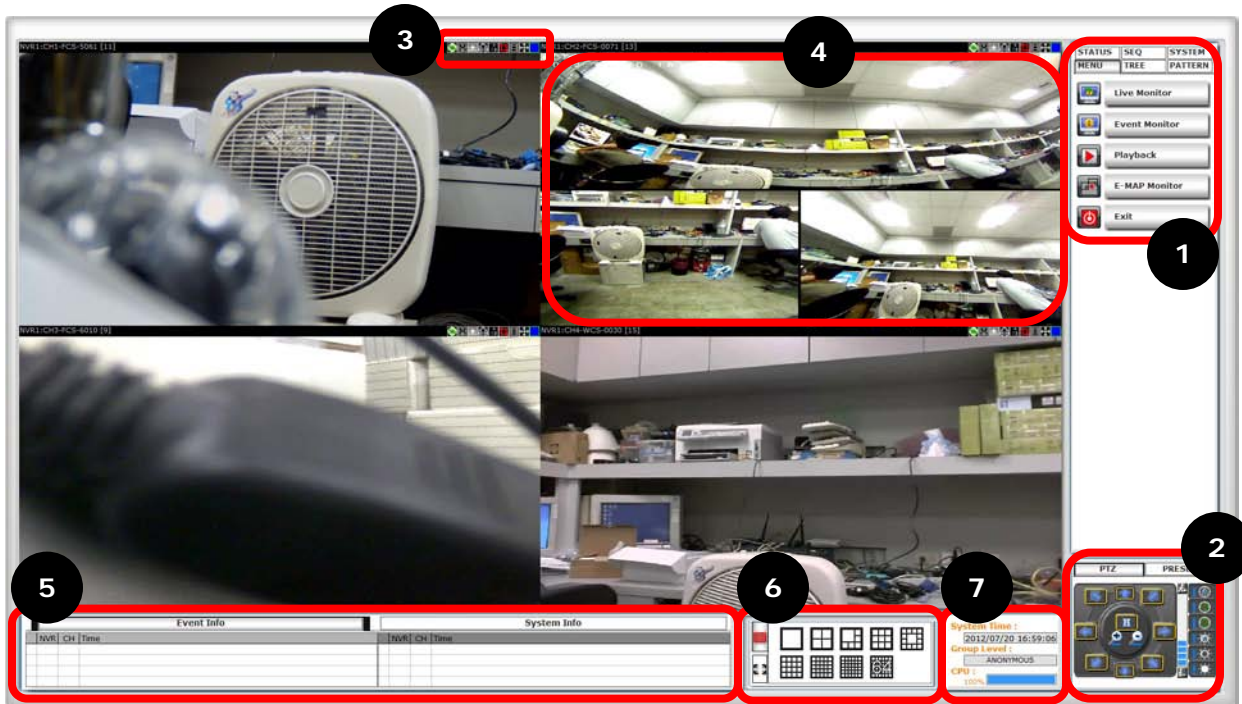
AGP or PCI-Express, minimum 1024×768, 16 bit colors.

(We highly recommend to work above the 1024 x 768 resolution to get the full experience of the software)

- *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"*

User Interface Overview

CMS UI Overview



1. Menu Bar: This is where you can access all functions of the software. Camera list and device status information are also available from the menu bar.

2. PTZ Control Panel: This is where you can pan, tilt, zoom the selected PTZ camera. Functions such as preset point navigation and auto pan can also be accessed here.

3. Quick Access: Each video window comes with quick access buttons, which allows you to quickly take certain actions to the video you are viewing.

4. Live Video: This is where all the videos are displayed. You can decide what channels' videos to be displayed here by dragging cameras from the side menu bar and dropping them anywhere in this section.

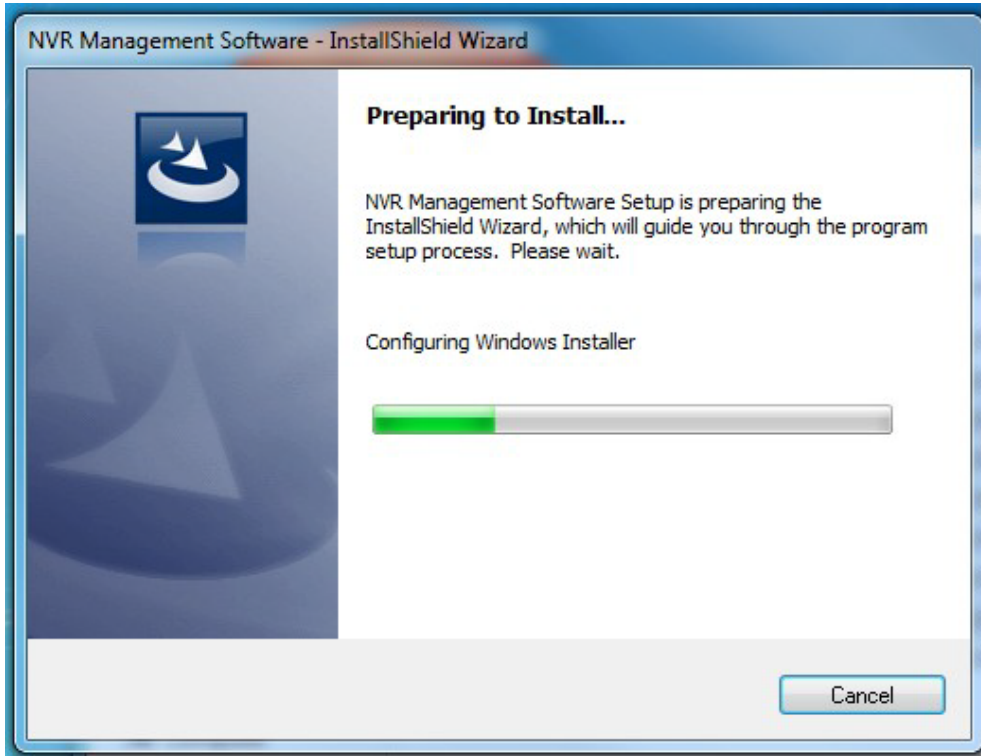
5. System/Event Logs: System status such as motion detection, functions that were accessed or settings that were altered are displayed here.

6. Video Window Management: You can change the video split windows with you desire depends on how many videos you wish to view at a time.

7. System Info: It provides information of current system time, who is currently logged in and the CPU usage that the software is currently consuming.

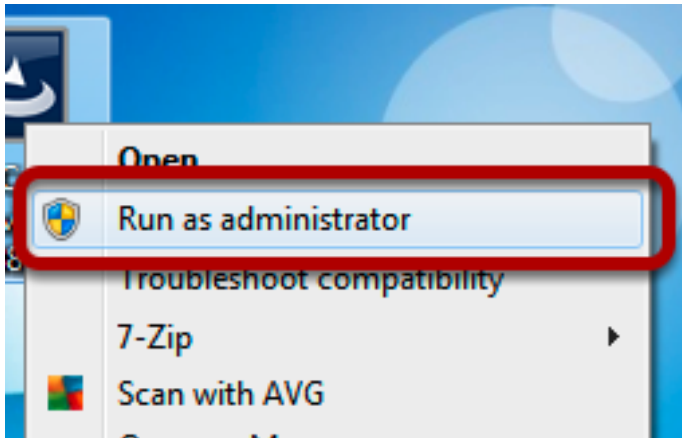
Installation

Begin Installation



The installation should launch as soon as you insert the CD. If not, simply double-click on your CD-ROM drive icon in "My Computer" and locate the NVR Management Software folder and launch the installer. Once the installer is launched, it should start by checking the compatibility with the operating system you are running this installation on.

Attention for Windows Vista, Windows 7, Windows 2008 Server users

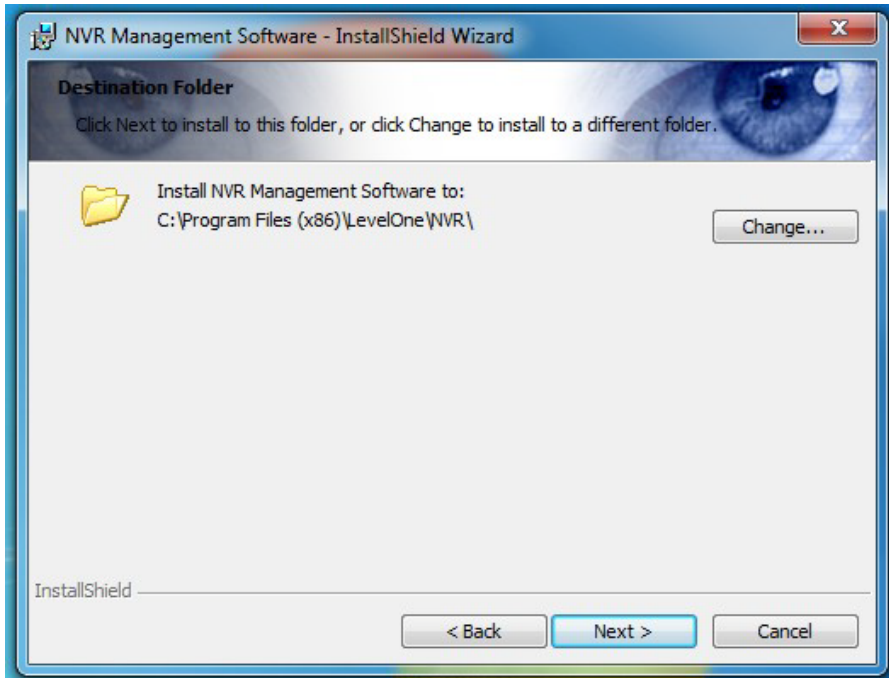


If you are installing the software in Windows Vista, Windows 7, or Windows 2008 Server, please make sure the software is installed with administrator privilege.

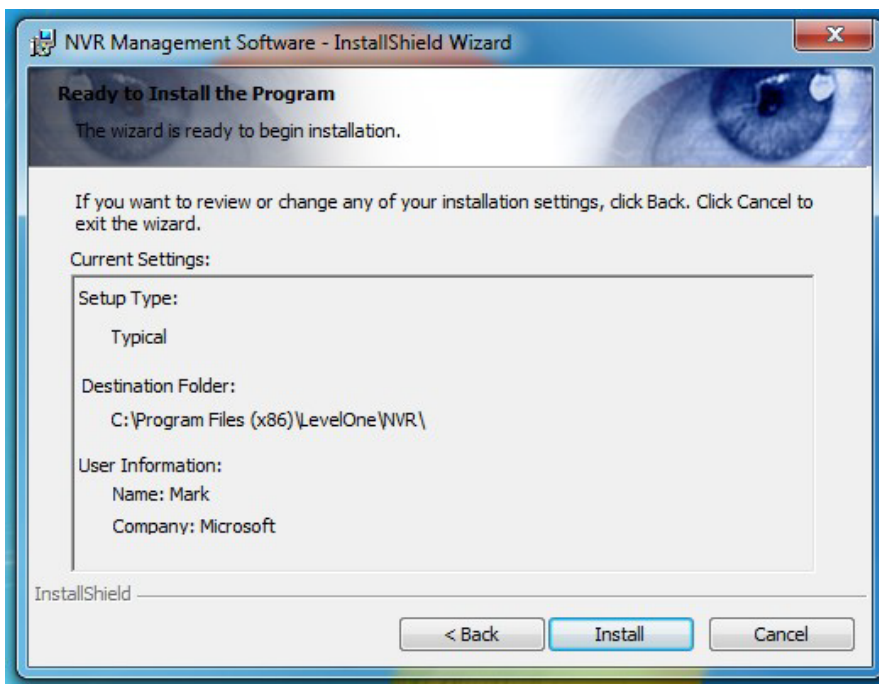
To do so, right-click on the installation file and select "Run as administrator" option from the drop-down menu, or simply log into Windows with the administrator account.



Once the compatibility check is passed, you can begin the installation by clicking "next".



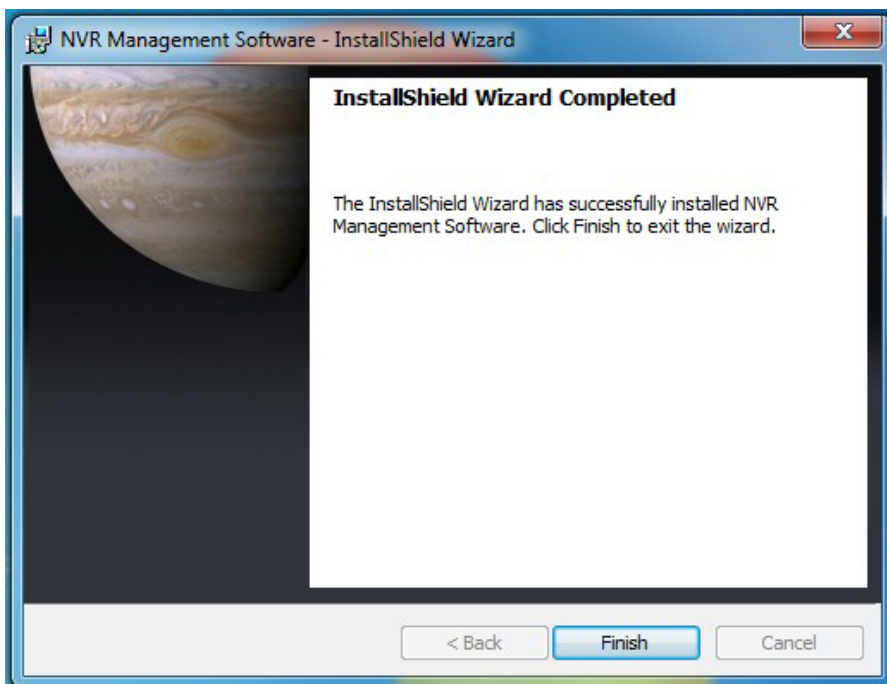
The installer will install the program in a pre-defined directory. You can accept the default and click “Next” to proceed with the installation.



The installer will confirm the installation directory one more time. Click “Install” to begin installation, or click “Back” to change the installation directory.



The installer will display the installation process.

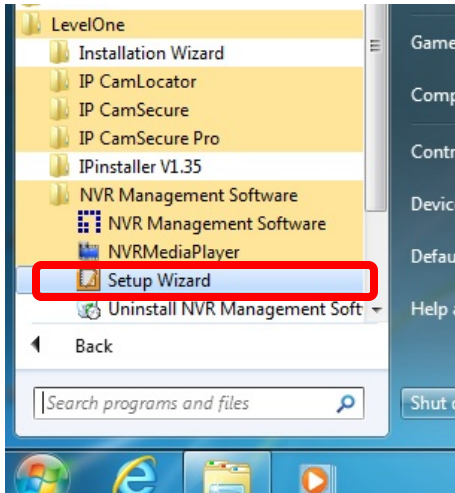


Once the installation is complete, click "Finish" to exit out the installer.

Launch the Program

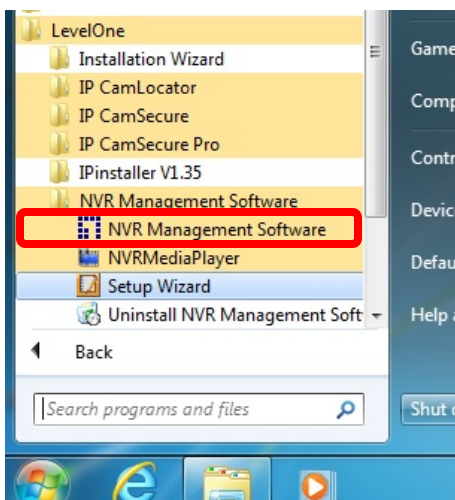
Start NVR Management Software

Run Setup Wizard First



You should run the "Setup Wizard" before launching the software. The Setup Wizard is a separate program which you can launch it the same way you launch the CMS software (from Start menu). The purpose of the Setup Wizard is to help users with certain preliminary settings in order for the program to work with the NVRs.

Start it from the "Start" menu



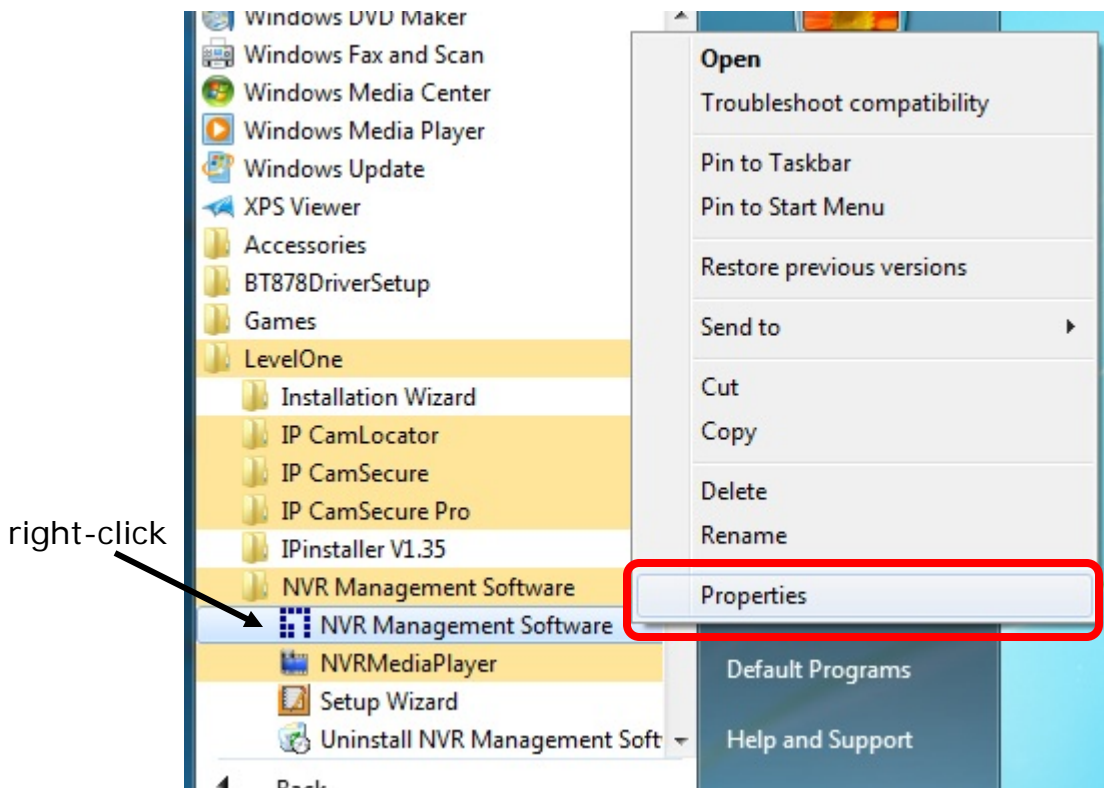
Simply go to "Start" >> "All Programs" >> "LevelOne" >> "NVR Management Software" >> "NVR Management Software"

Start it from the desktop



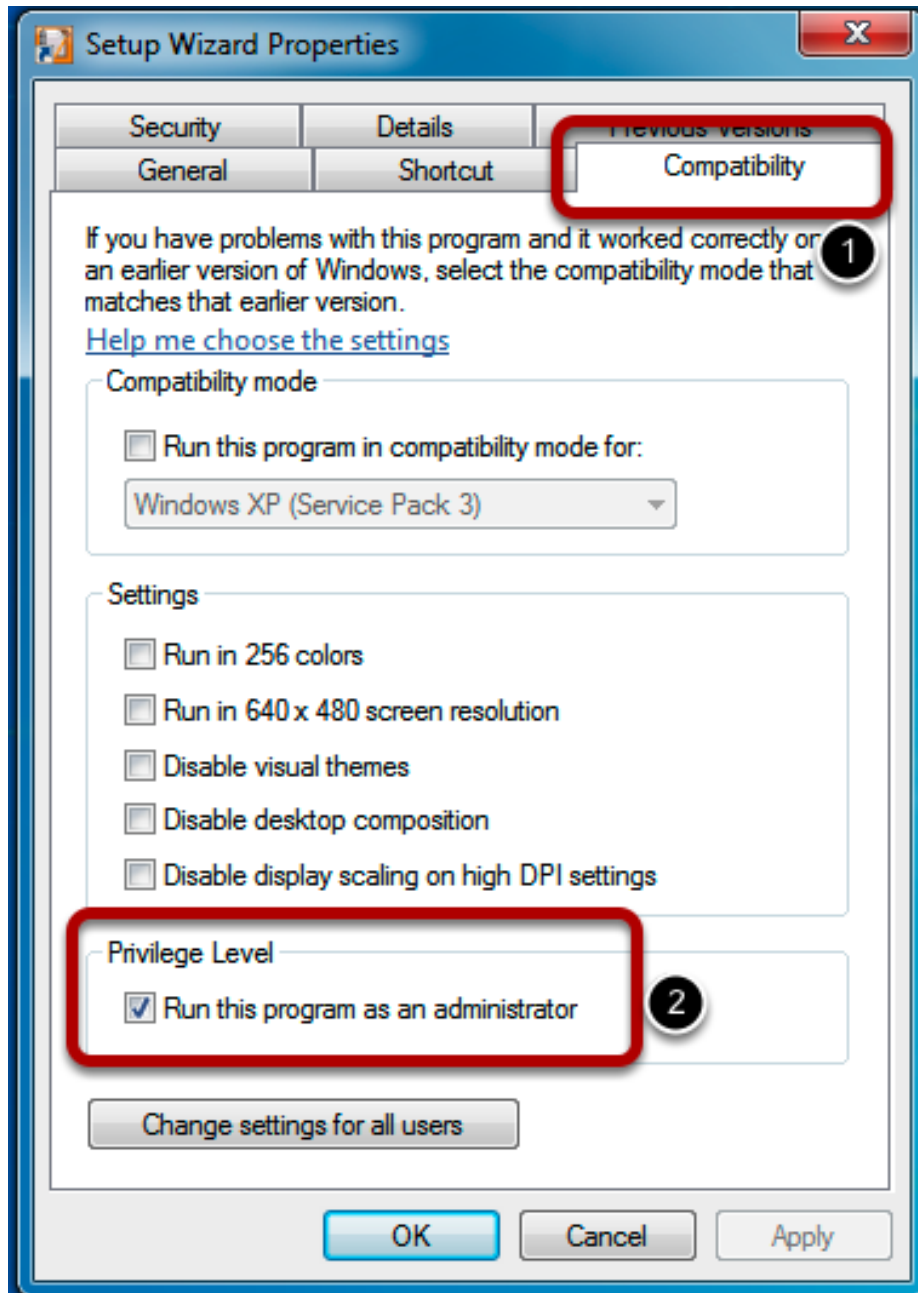
The program automatically creates a shortcut icon on your desktop after it's successfully installed. Simply double-click the icon to launch the program.

Attention for Windows Vista, Windows 7, or Windows 2008 Server users

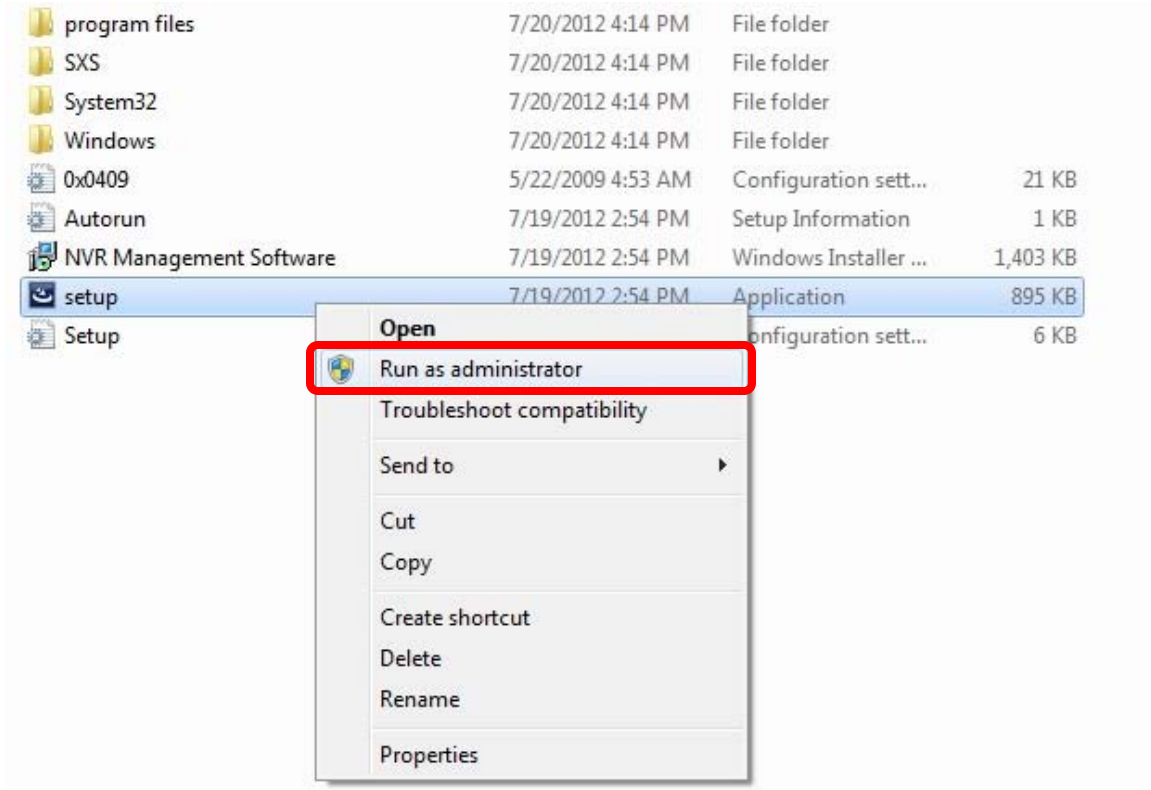


If you are running the CMS software in Windows Vista, Windows 7, or Windows 2008 server, please make sure the "Setup Wizard" and the main program are launched with the administrator privilege.

To do so, go to "Start" >> "All Programs" >> "LevelOne" >> "NVR Management Software", right-click on the "Setup Wizard" or "NVR Management Software" (Main program) and select "Properties" from the drop-down menu.



The Properties dialog should be displayed. Go to "Compatibility" and check the "Run this program as an administrator" option.



Installing NVR Management Software on Windows Vista/7:

Due to the UAC (User Access Control) function introduced in Windows Vista/7, it's required the software to be installed with administrator privilege. To do so, launch the installer by right-clicking the setup file and choose "Run as Administrator".

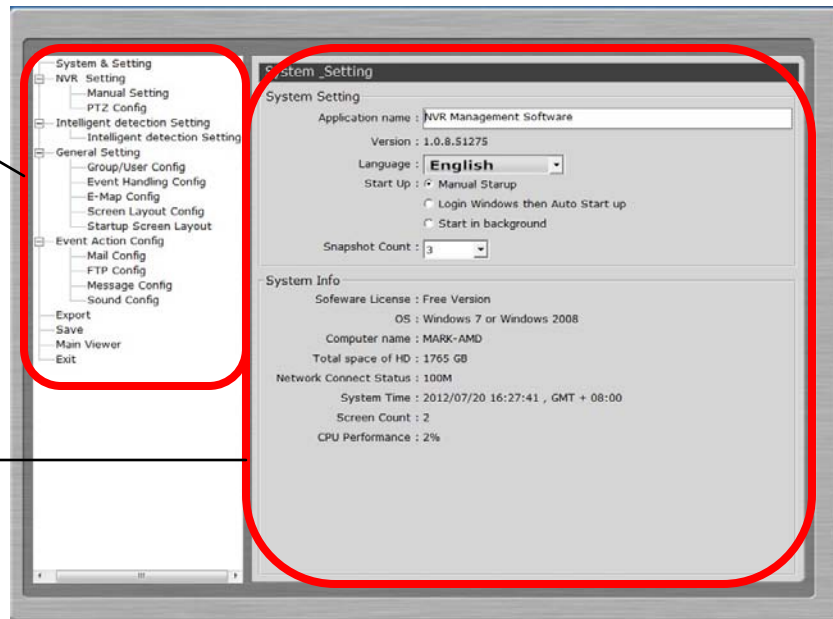
Using the Setup Wizard

Menu options --

Lists all the menu options available in the Setup Wizard

Configuration Window --

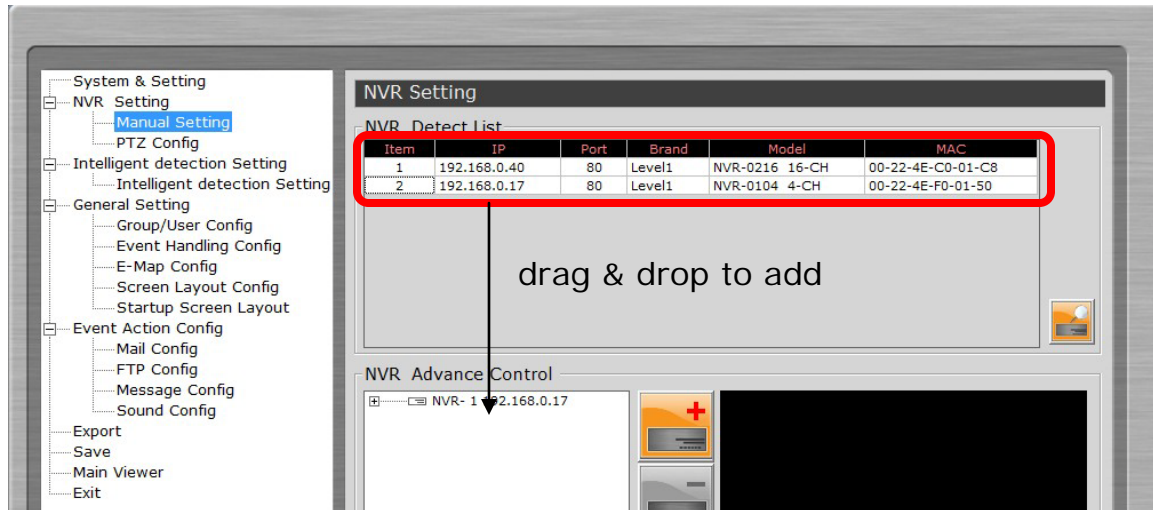
Displays configuration parameters of the selected menu option



The majority of the settings of the CMS software relies on its Setup Wizard. It's necessary that you run the wizard prior to using the software. With the Setup Wizard, you are able to:

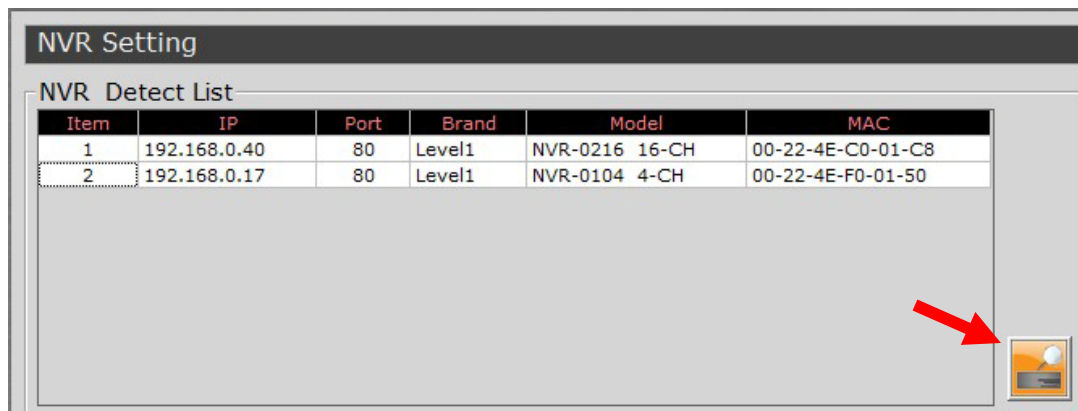
- Add/Remove/Edit one or more NVR
- Configure PTZ preset points
- Configure Intelligent Detection
- Configure user privileges
- Configure how events are handled
- Configure E-map
- Configure multiple monitors
- Configure event actions

Connect the program with NVR



The main purpose of the CMS software is to manage multiple NVRs. Before it can be done, you would need to tell the program which NVR you need it to manage. You do that by adding one or more NVRs to the program through the Setup Wizard.

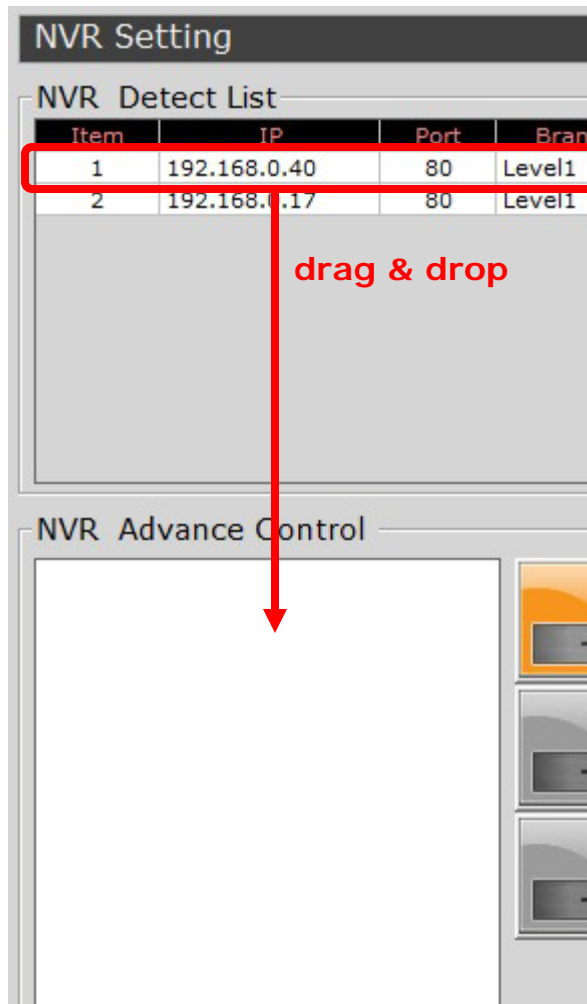
Automatic Search



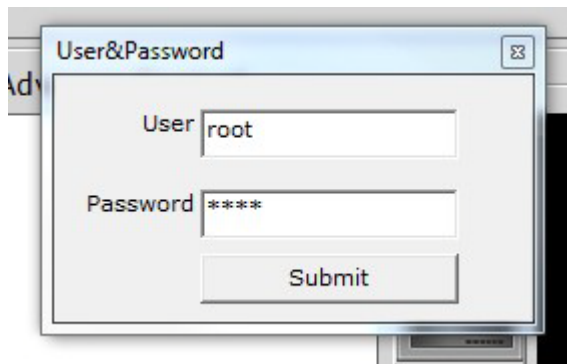
The Setup Wizard is able to find NVR on your local network automatically. Simply click the search button to locate NVRs that are placed on your local network.

Note: If you have personal firewall installed, please allow access for the search function to work properly.

Drag and drop to add

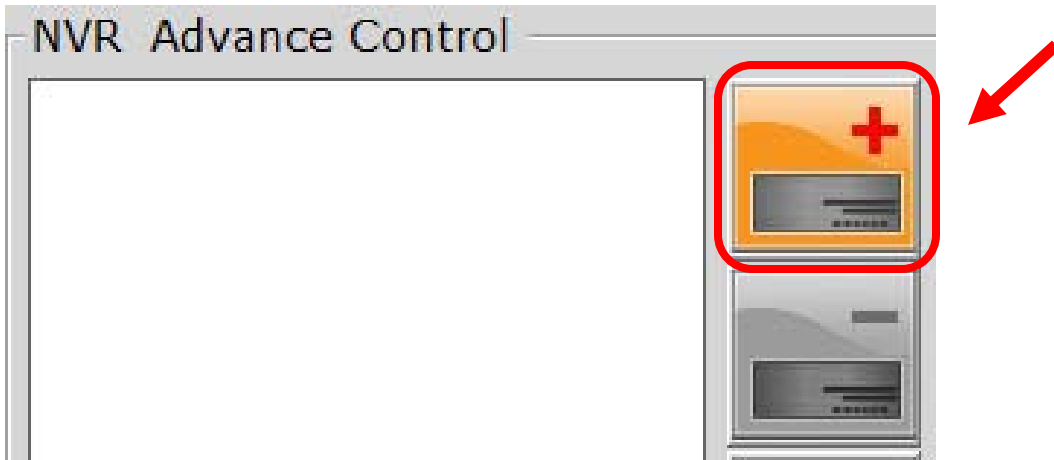


Once the Setup Wizard detects NVR on the network, they will be listed in the "Detect List". Simply drag one from the list and drop it in the "Advance Control List" below to add it



You will then be prompted with its username and password which you need to enter accordingly to complete the action.

Add NVR Manually with Setup Wizard



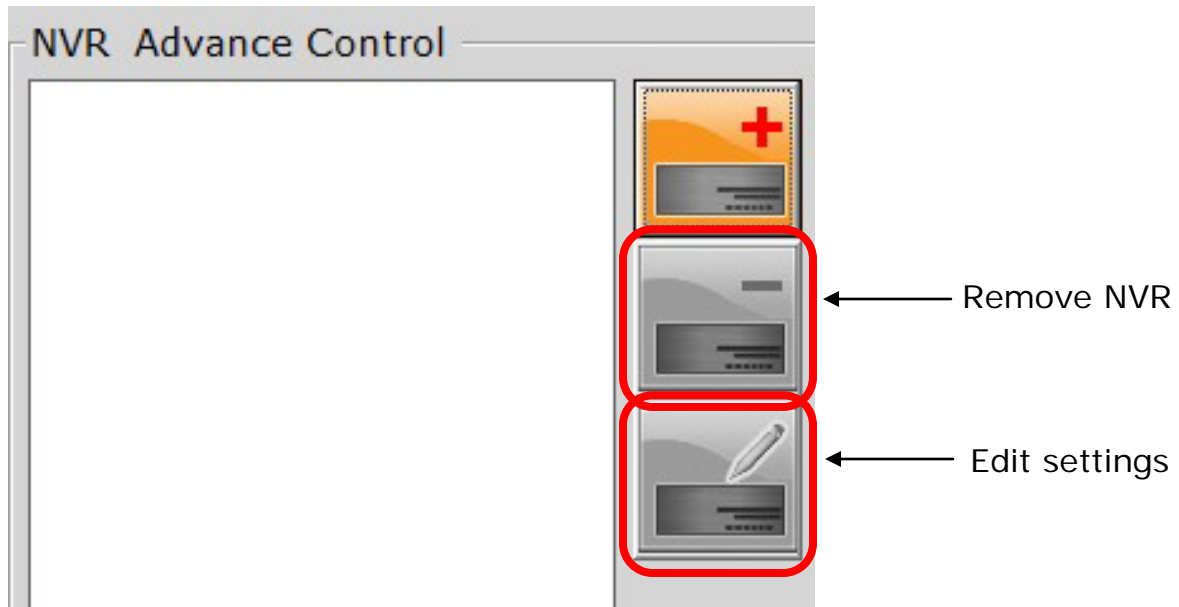
Simply click on the "Add NVR" button in the same page to add it manually.

The image shows a dialog box titled "NVR Add". It contains the following fields and controls:

- NVR NO.**: A dropdown menu with the value "1" selected.
- NVR Name**: A text input field.
- IP Address**: A text input field.
- Http Port**: A text input field.
- User**: A text input field.
- Password**: A text input field.
- Add**: A button located to the right of the User field.
- Cancel**: A button located to the right of the Password field.

You will be asked for the information shown below before successfully adding the NVR to the program.

Remove an NVR to edit its settings



Once you have one or more NVRs added to the program, the "Remove" and "Edit Settings" buttons will become available. Simply click to select an NVR from the list on the left and choose the corresponding button on the right.

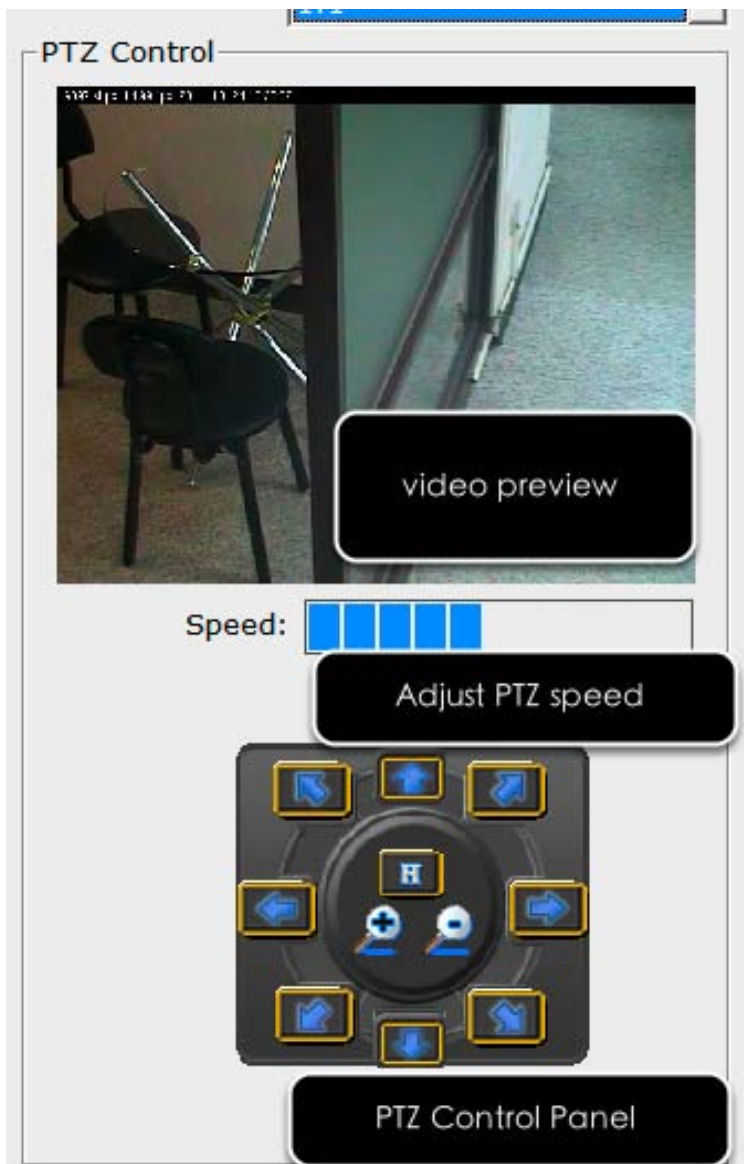
PTZ Configuration

The screenshot shows the PTZ Config window with two tabs: PTZ Preset and PTZ Sequence. The PTZ Preset tab is active, showing a list of preset points (1, 2, 3, 4) with corresponding image thumbnails. Below the list is an 'Edit Preset' section with fields for 'Preset No' and 'Preset Name', and a 'Submit' button. The PTZ Sequence tab is also visible, showing a 'CH' dropdown menu and a 'PTZ Control' section with a video feed and a speed slider.

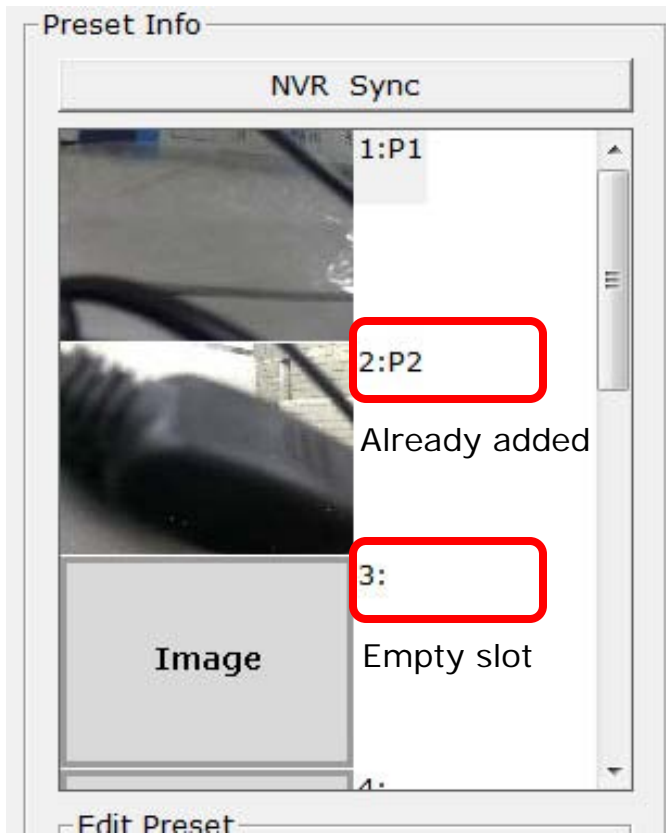
You can synchronize PTZ settings from all cameras connected to the NVR on the network or you can create and add new PTZ preset points to those cameras through the Setup Wizard.

This annotated screenshot of the PTZ Config window highlights two key elements: a circled '1' next to the 'NVR' dropdown menu in the PTZ Preset tab, and a circled '2' next to the 'CH' dropdown menu in the PTZ Sequence tab. The NVR dropdown is currently set to '1:192.168.0.3' and the CH dropdown is set to '3:FCS-6010'.

Simply select a NVR from the drop-down menu first and then select a camera to synchronize or add new PTZ preset points.



Use the provided PTZ control panel to define a PTZ preset point. You may change the speed of the PTZ movements if you will.



You can get a list of the preset points that have been added to the camera as well as the opening slots that are available which you can add new preset points to later on.

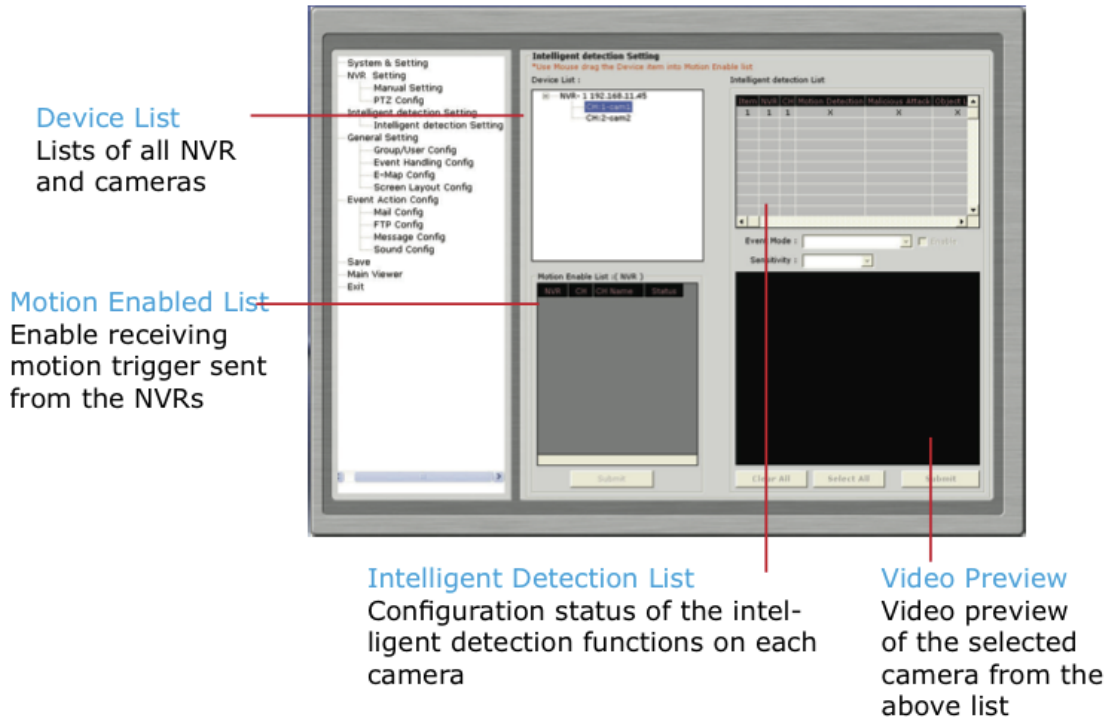
Configuring PTZ Preset Sequence

The image shows the PTZ Config window with two tabs: PTZ Preset and PTZ Sequence. The PTZ Preset tab is active, showing NVR: 1:192.168.0.3 and CH: 3:FCS-6010. The PTZ Sequence tab shows a list of preset points (1:P1, 2:P2) and a list of preset points (3:, 4:, 5:, 6:, 7:, 8:). The PTZ Sequence tab also has up and down arrows for sequence adjustment. The PTZ Preset tab has a Dwell Time: 20 (Sec) field. The PTZ Sequence tab has an Apply button and a Cancel button.

You can configure the PTZ preset sequence after you create and define PTZ preset points for the cameras. To configure PTZ sequence, open the setup wizard and go to NVR setting >> PTZ Config >> PTZ sequence

1. Select an NVR
2. Select a channel
3. Preset points in the camera displayed on the left
4. Move the preset points to the right for sequence viewing
5. Use the "up" and "down" buttons to adjust the sequence order

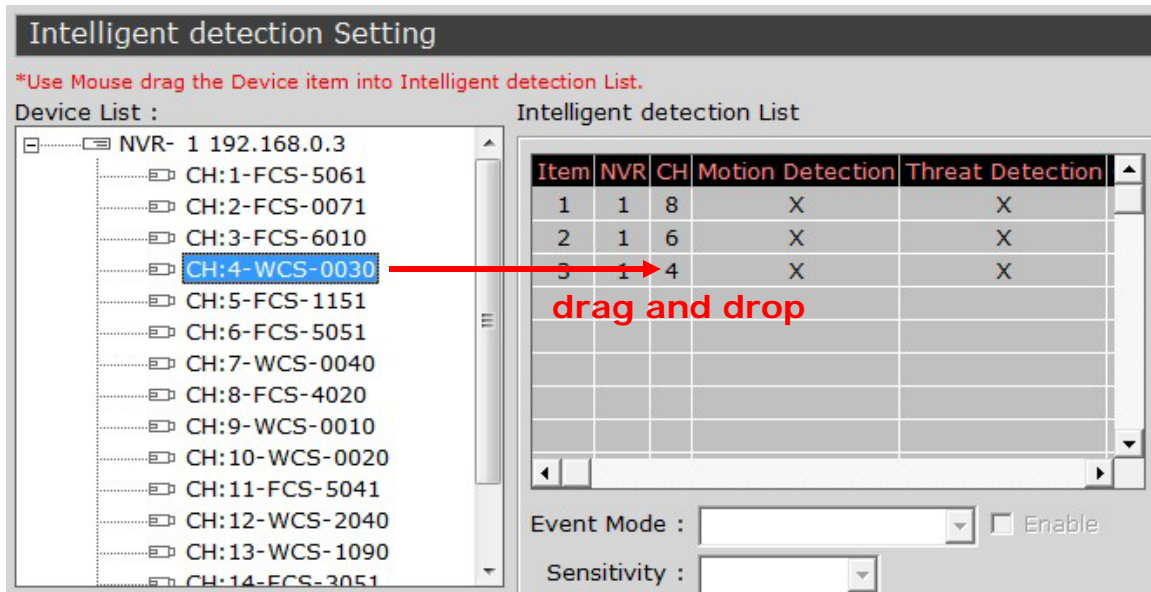
Intelligent Detection Setting



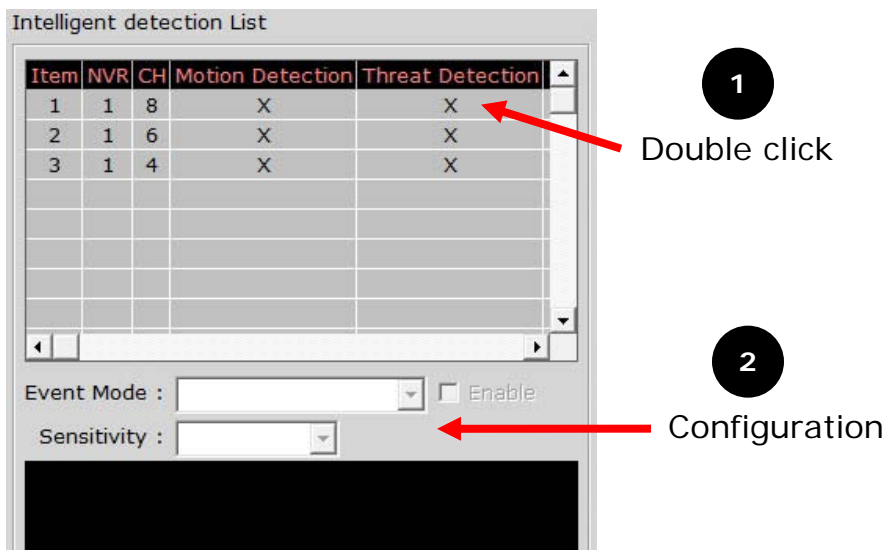
The program can be configured with multiple intelligent detection functions which can then be used to alert users when detecting something abnormal in the scene. The functions are as below:

- Tripwires
- Motion Detection
- Malicious Attack (camera tampering)
- Object Loss Detection

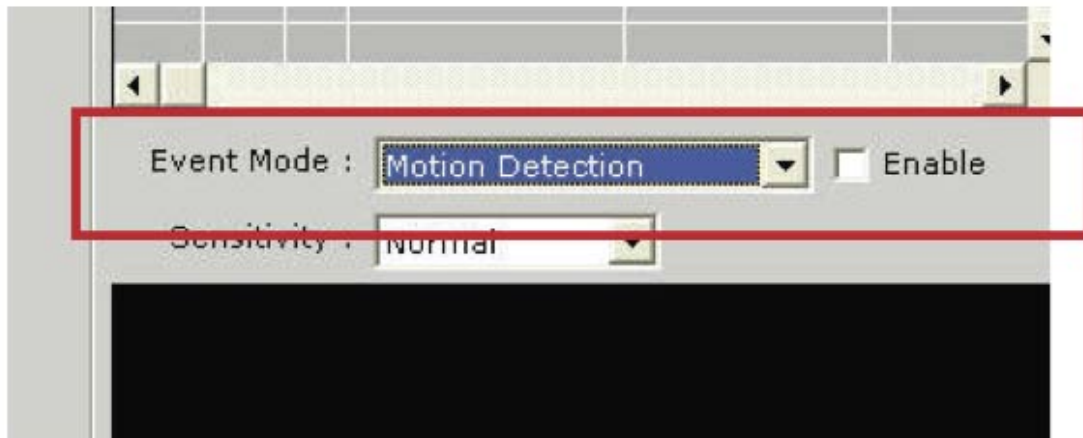
Intelligent Detection Functions



To enable and configure one of the intelligent detection functions for one or more cameras, click and drag the camera from the “Device List” onto the “Intelligent Detection List”:

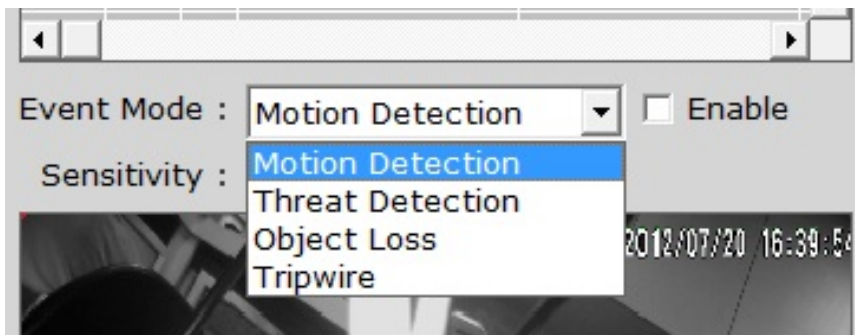


Double click on the desired channel in the “Intelligent Detection List” to enable configuration:

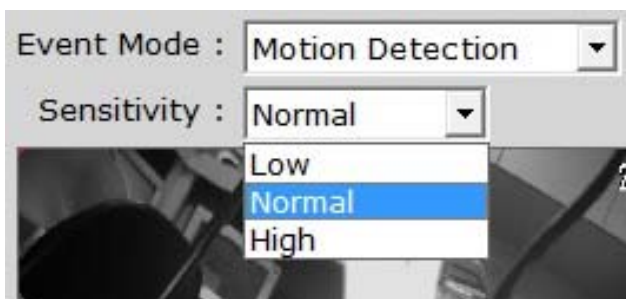


Finally, select the desired intelligent detection function from the “Event Mode” drop-down and make sure “Enable” is ticked

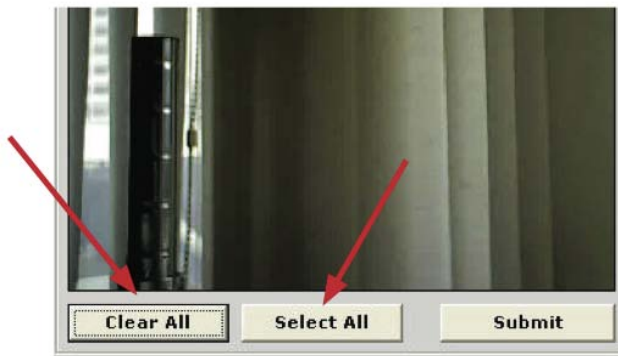
Configuring Motion Detection



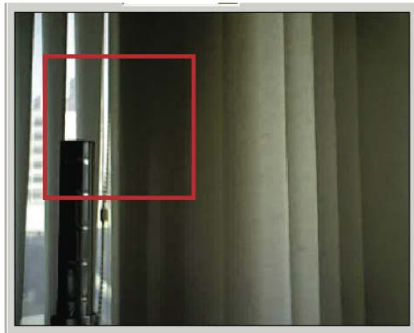
To configure motion detection, select “Motion Detection” from the “Event Mode” drop-down menu:



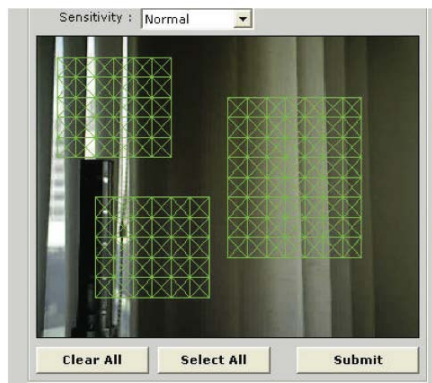
Next, select the desired sensitivity for motion detection



By default, the program does not have any area configured for motion detection; you can quickly click on "Select All" to enable the whole area for motion detection. You can always click on "Clear All" at anytime to start over

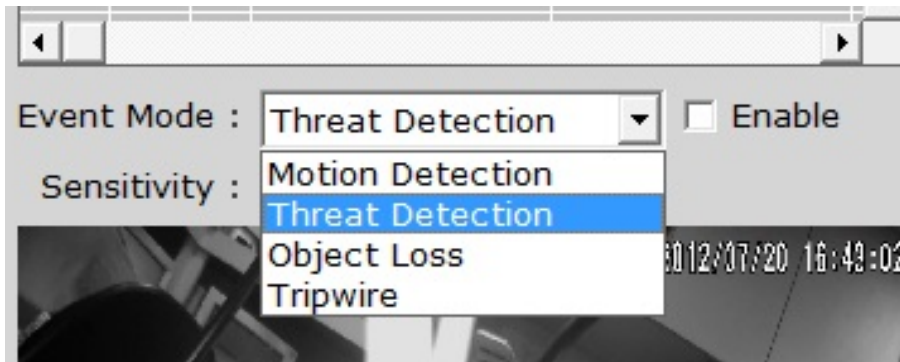


To configure a particular area for motion detection, simply click and hold down the mouse left button and move diagonally to select a desired area. You can do it repetitively to configure multiple areas for motion detection



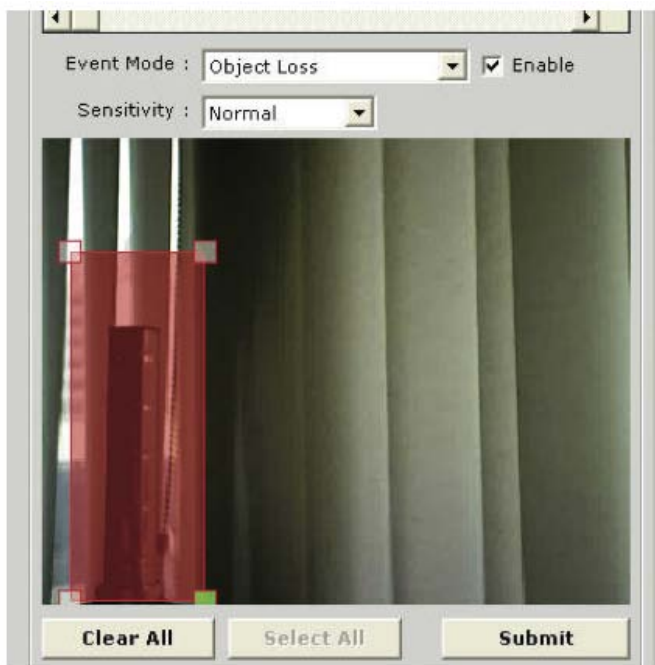
The configured areas will then be highlighted on the video with green cell boxes. Click "Submit" to save the configuration

Configuring Threat Detection



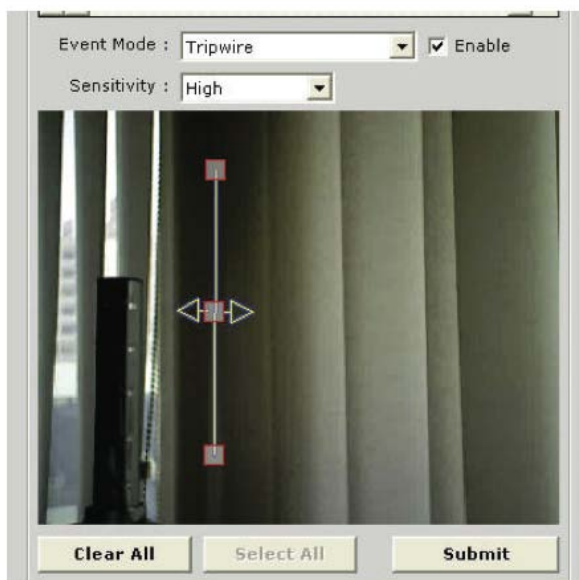
This is the function that when the camera is being physically tampered (sabotaged/or viewing area gets blocked), the CMS can detect such behavior and send out alert to the administrator. To enable this function, simply select "Threat Detection" from the "Event Mode" drop-down menu and click "Submit"

Configuring Object Loss

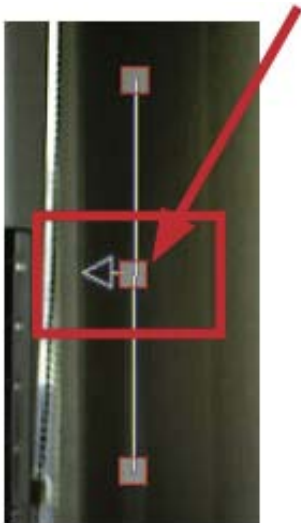


To select this function, select "Object Loss" from the "Event Mode" drop-down menu and then click and hold down the mouse left button and move diagonally to draw an area (select the object in the scene) for object loss detection. The selected area(s) will be highlighted in red color like shown below

Configuring Tripwire



To configure tripwire, select "Tripwire" from the "Event Mode" drop-down menu. Click and hold down the mouse left button to draw a line on the video







The tripwire function can be configured to detect traffic coming from one way or both. Bi-directional detection is enabled by default; to configure detection for one way only, click the cell box in the middle of the line. Click again to change direction

Users and Groups

Group/User Config

Admin
Guest
User1
User2
User3
User4
User5

Group List

| Group | Video | Power | Playback | PTZ | Setup | Audio |
|-------|-------|-------|----------|-----|-------|-------|
| Admin | 1 | | O | O | O | O |
| Guest | 1 | | X | X | X | X |
| User1 | 1 | | X | X | X | X |
| User2 | 1 | | X | X | X | X |
| User3 | 1 | | X | X | X | X |
| User4 | 1 | | X | X | X | X |
| User5 | 1 | | X | X | X | X |

User Detail List

| Account | Company | Telephone | Mail 1 | Mail 2 | Cell Phone | Photo Path | Group |
|---------|---------|-----------|--------|--------|------------|------------|-------|
| | | | | | | | |

The section allows users to add new users and customize each of their access privilege by assigning them to different user groups. The purpose of this function is to limit the number of people to have access to the program, hence, having access to view live videos, playback videos or altering settings of the program.

Once you add users to the program, you will be prompted to enter the username and password of a valid user account.

* There is no user account configured for the program by default. The privileges of the "Admin" and the "Guest" groups are not configurable and the "Guest" account is configured with the "view only" privilege.

Add a new user



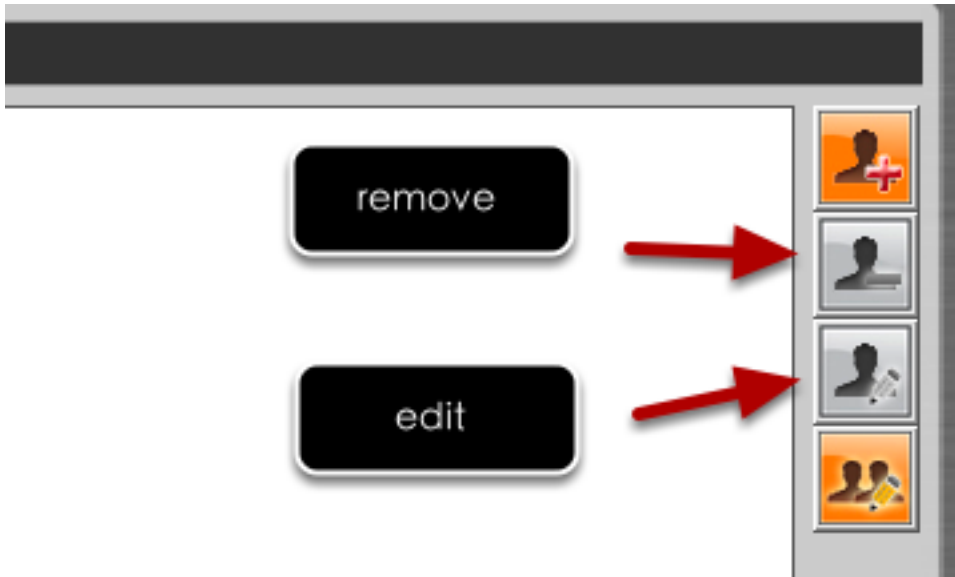
To add a new user, simply click on the “add new user” button available at the upper-right hand corner in the “User/Group Config” page.

A screenshot of the 'User Setting' dialog box. The dialog has a title bar with a user icon and the text 'User Setting'. Inside, there are several fields: 'Photo' with a silhouette and the text '(Dubble Click to Setting)'; '*User Name' with a text box and a 'Check' button; '*Password' with a text box; '*Password Confirm' with a text box; 'Group' with a dropdown menu showing 'Admin'; 'Company' with a text box; 'Telephone' with a text box; 'Mail 1' with a text box; 'Mail 2' with a text box; and 'Cell Phone' with a text box. At the bottom left, there is a red asterisk followed by the text ':Necessary'. At the bottom right, there are 'Submit' and 'Cancel' buttons.

This opens up a new window for you to enter the detail information of the user you are creating.

* The “Username”, “Password” and “Confirm Password” fields are required when creating a new user account. The rest of the fields are optional.

- * You can click the "Check" button to check if the username you are creating for the new account has been used by another account.
- * The "Group" option is unavailable if you are creating the first user.



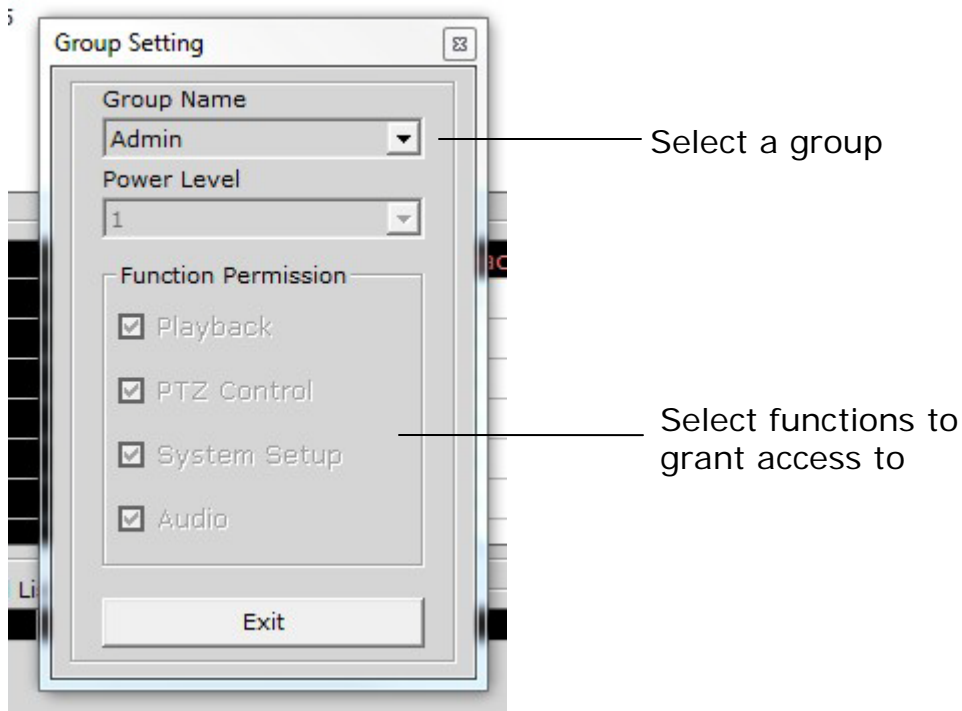
The "Remove" and "Edit" buttons will become available once a user has been created.

Click the "Remove" button to remove an existing user, or the "Edit" button to edit setting of an existing user account

Edit Group Privilege

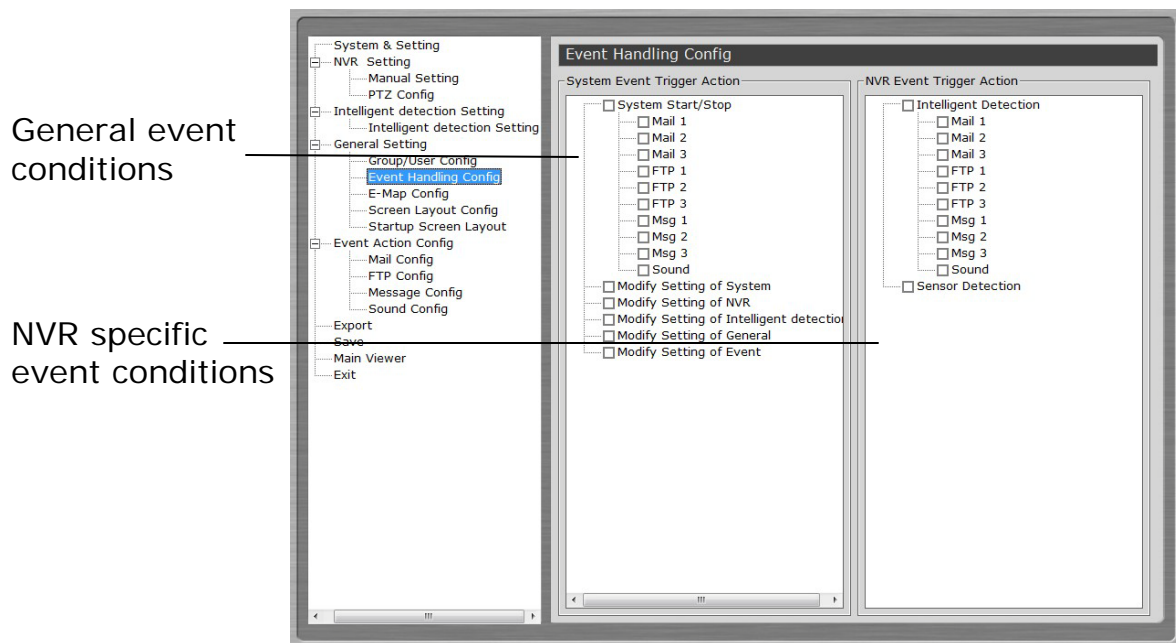


To edit access privilege of a particular user group, simply select a group first then clicks the “Edit Group” button.



This opens up the group privilege configuration dialog. Select a group from the drop-down menu and check which function(s) this group has permission to.

Event Handling Configuration



You can define what constitutes an event with pre-defined conditions and what actions to be taken when these conditions are met.

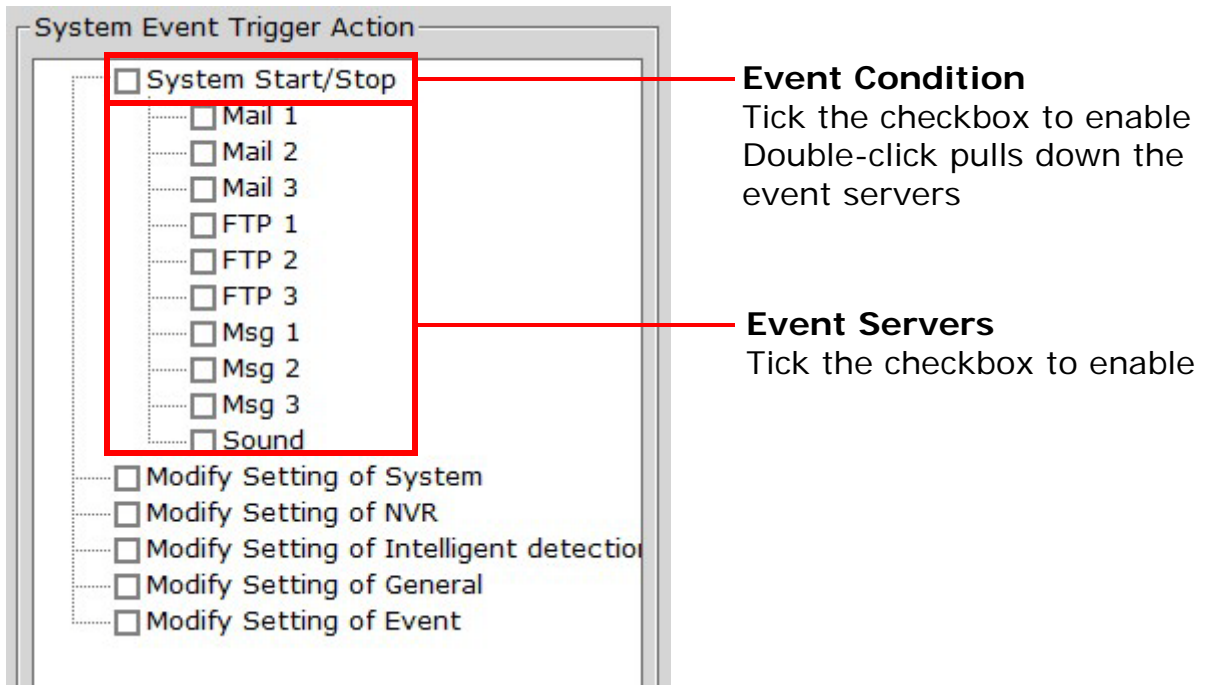
The conditions are divided into two categories:

- [General event conditions](#)

Conditions such as settings being altered

- [NVR-specific event conditions](#)

Conditions such as motion detection

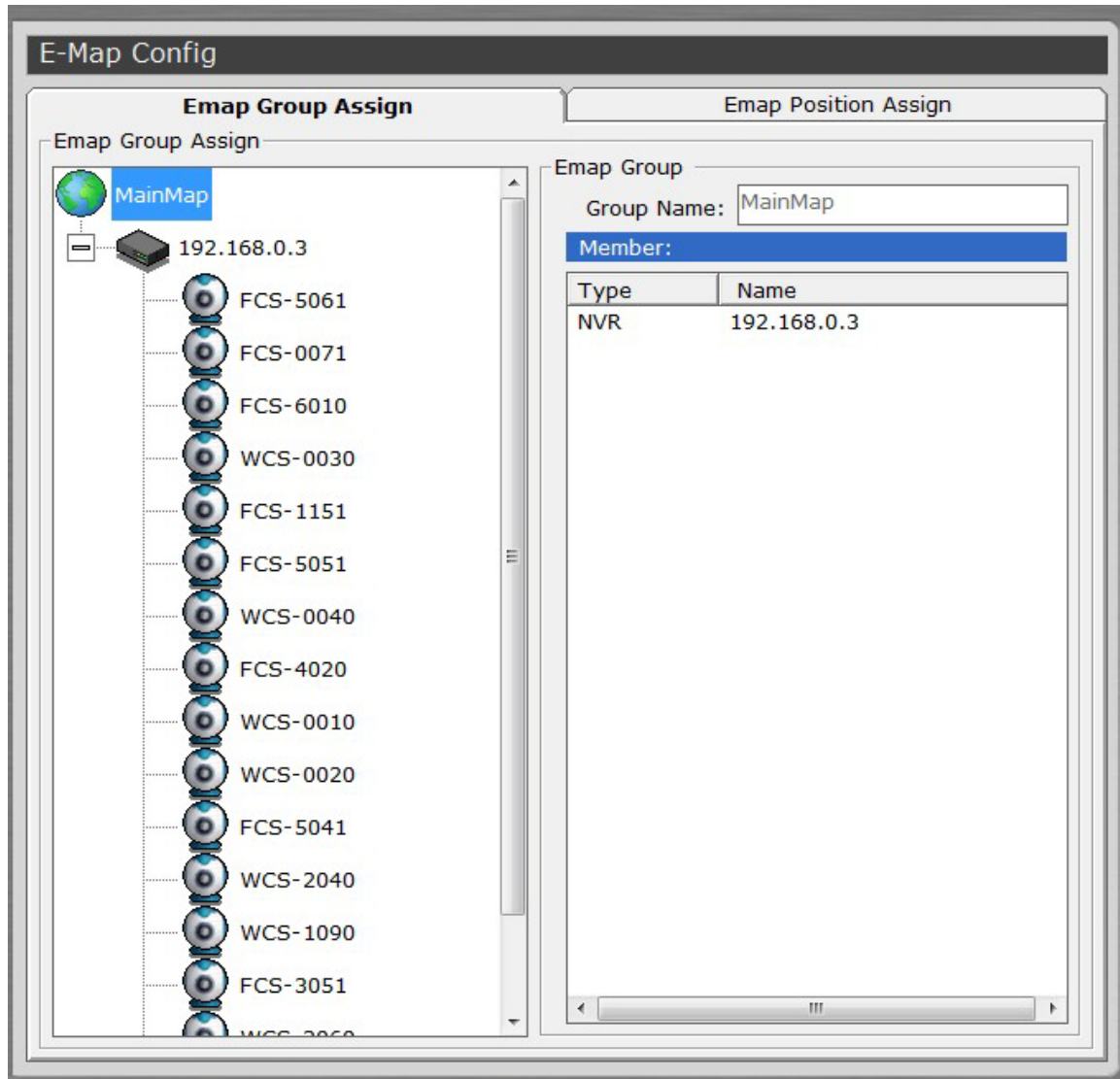


To enable a condition for event trigger, simply tick the checkbox of a particular condition.

Double-click on any condition pulls down the event servers which users can choose to use for that particular condition.

The event servers can be considered as actions that are taken place when events are triggered.

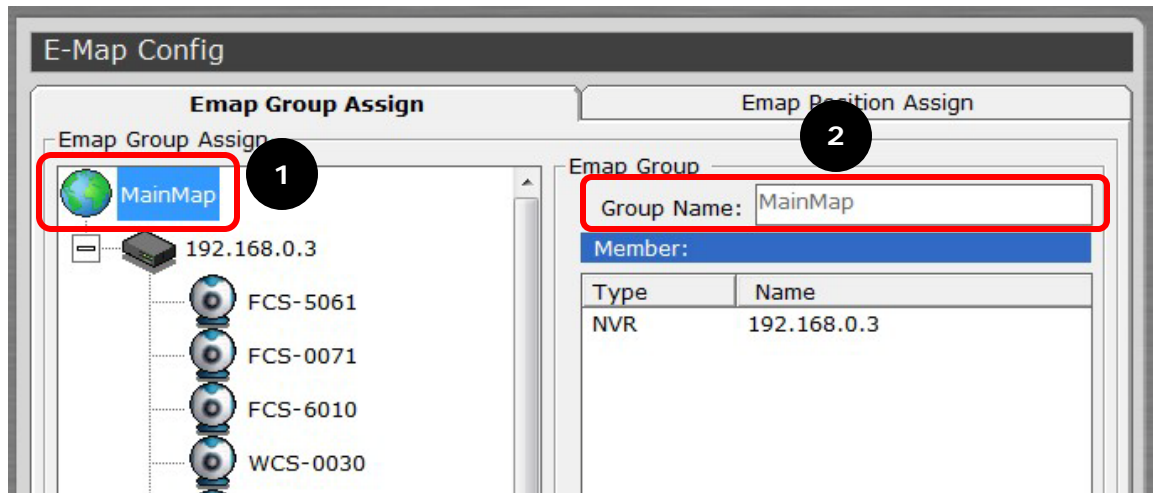
Configure E-Map



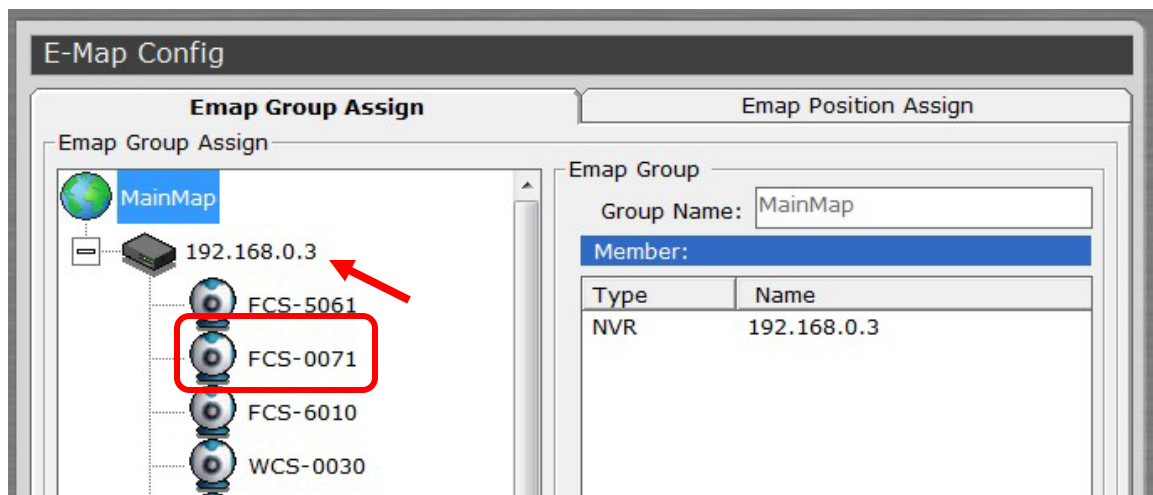
The program provides two-layered e-map, which the top layer displays the location of all NVRs and the second layer (sub-map) displays locations of all cameras connected to one NVR.

* You can create up to 16 sub-maps and one for each NVR.

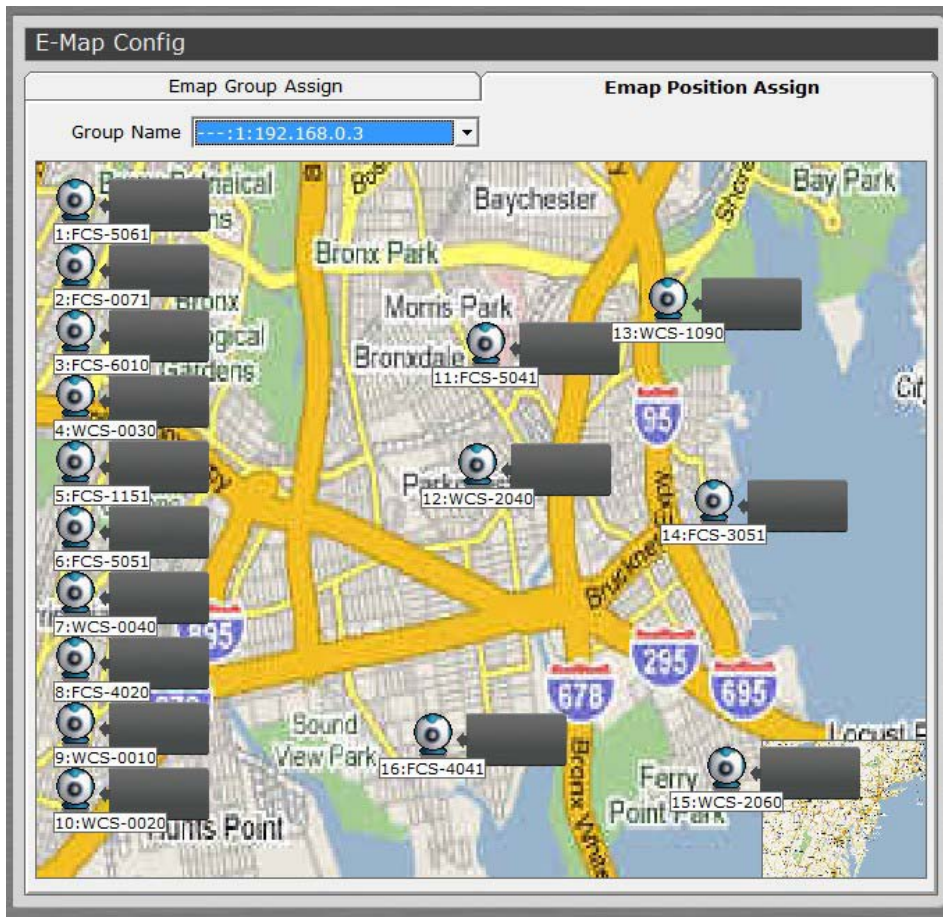
This function is particularly useful when motion detection is configured. You can simply place the e-map on one monitor and whenever there is motion detected, the NVR will be highlighted on the map and live video will be displayed for live event monitoring.



Click on the "MainMap" icon and enter the "Group Name" on the right to create new map for an NVR.

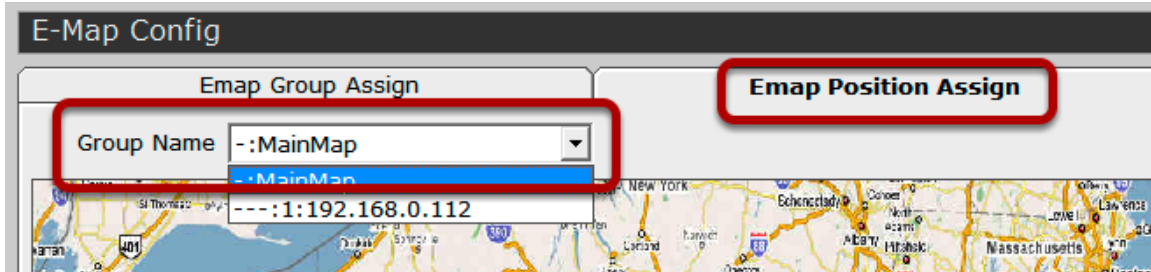


Click and hold the camera icon and drag it to place itself to a desired NVR e-map.

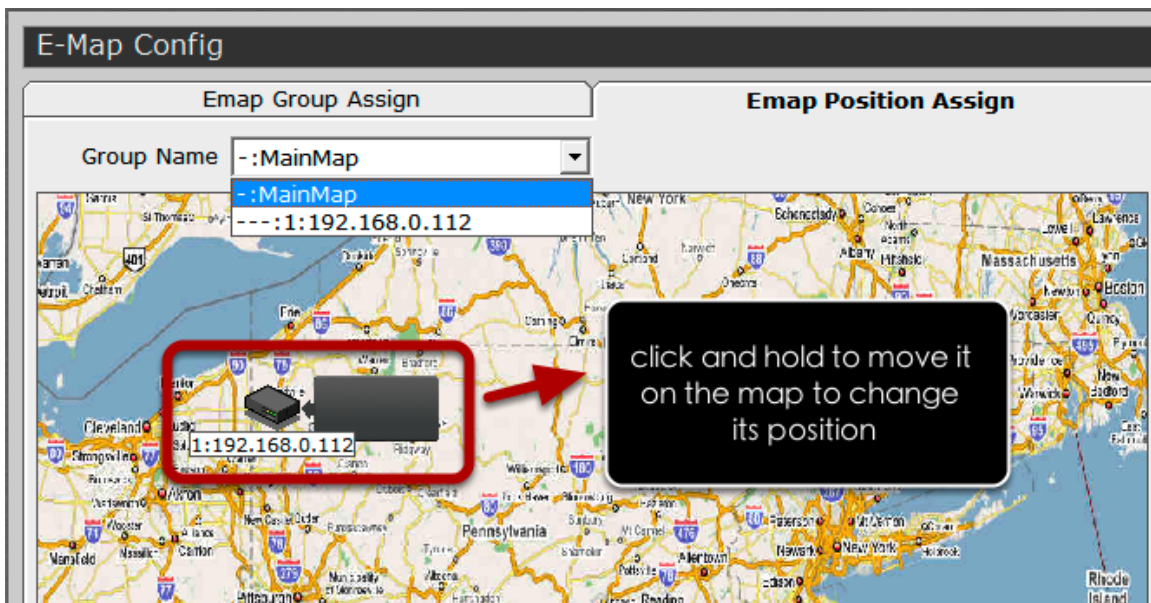


To configure the position of an NVR or cameras on which the map they belong to, double-click on the "MainMap" icon takes you to the NVR layer map (which displays positions of all NVRs), or double-click on an NVR icon, which takes you to the camera layer map (which displays positions of all cameras).

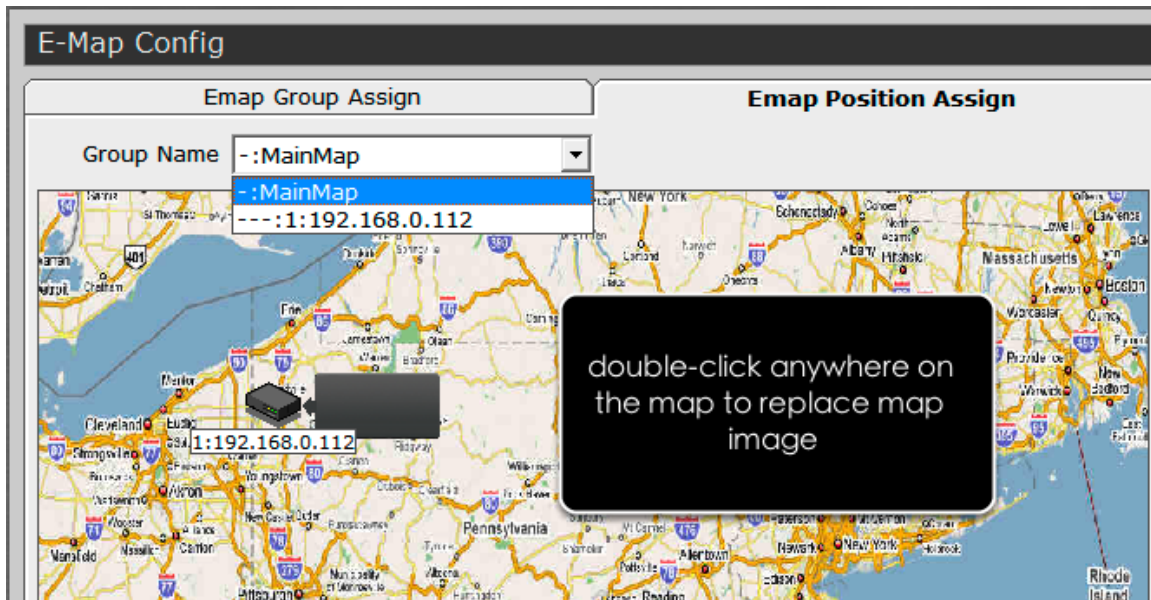
Alternatively, you can just click on the "Emap Position Assign" tab and come to this page shown above.



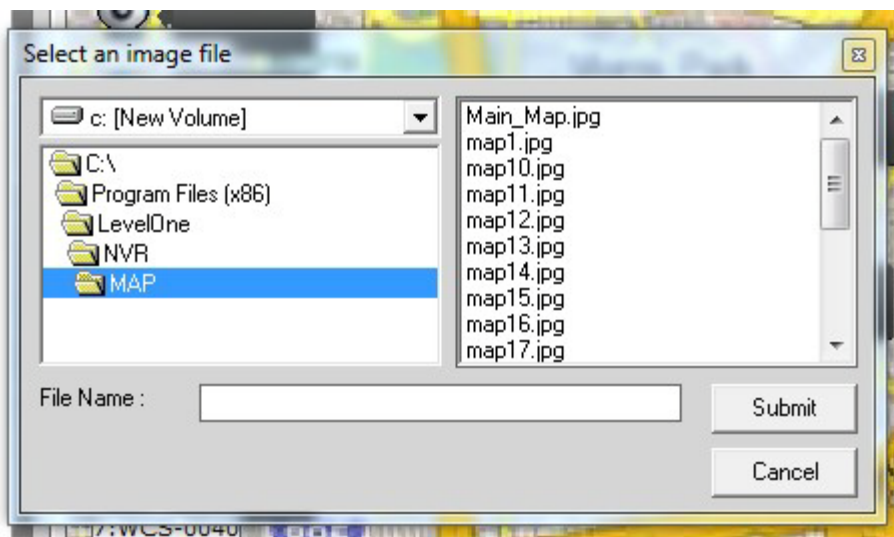
You can use the "Group Name" drop-down and quickly go back to the main map, or a particular NVR layer map.



To change the position of an NVR or a camera, click and hold on an NVR (or a camera) icon to move it on the map.

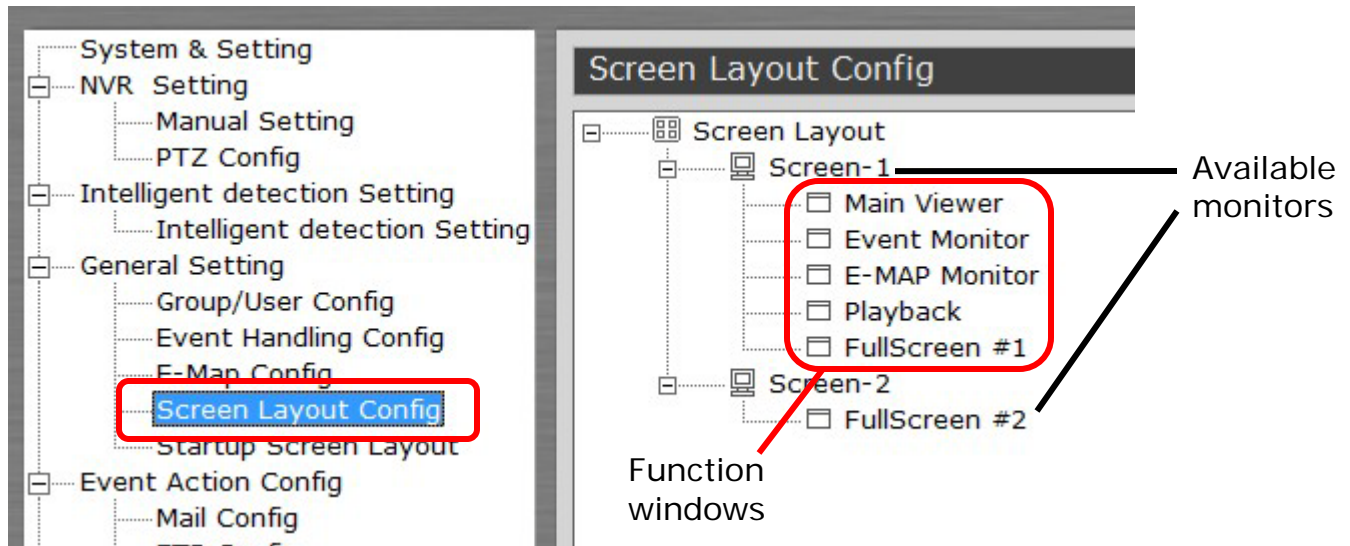


Double-click anywhere on the map allows you to change the map image of your own.



This opens up a new dialog that allows you to select a map image from the local hard drive. It has to be a JPEG file within 100KB in size.

Set up Multiple Monitors



If you have multiple monitors configured in the PC, the CMS setup wizard can automatically detect such configuration and displays the available monitors. You can find that in the setup wizard under "General Setting" >> "Screen Layout Config". You should then see the available monitors on the right (Screen-1, Screen-2...etc).



By default, all the function windows are set to display on Screen-1. You can then drag the desired function window and drop it to the monitor (ex. Screen-2) you wish it to be displayed on.

Startup Screen Layout

Startup Screen Layout

Function default start

| Monitor | Screen#1 | Screen#2 |
|---------------|----------------------------------|-----------------------|
| Live Monitor | <input checked="" type="radio"/> | <input type="radio"/> |
| E-MAP Monitor | <input type="radio"/> | <input type="radio"/> |
| Event Monitor | <input type="radio"/> | <input type="radio"/> |
| Playback | <input type="radio"/> | <input type="radio"/> |
| FullScreen #1 | <input type="radio"/> | <input type="radio"/> |
| FullScreen #2 | <input type="radio"/> | <input type="radio"/> |

Startup assign setting

☒ Fix display mode

☒ Split

Split Video : 16

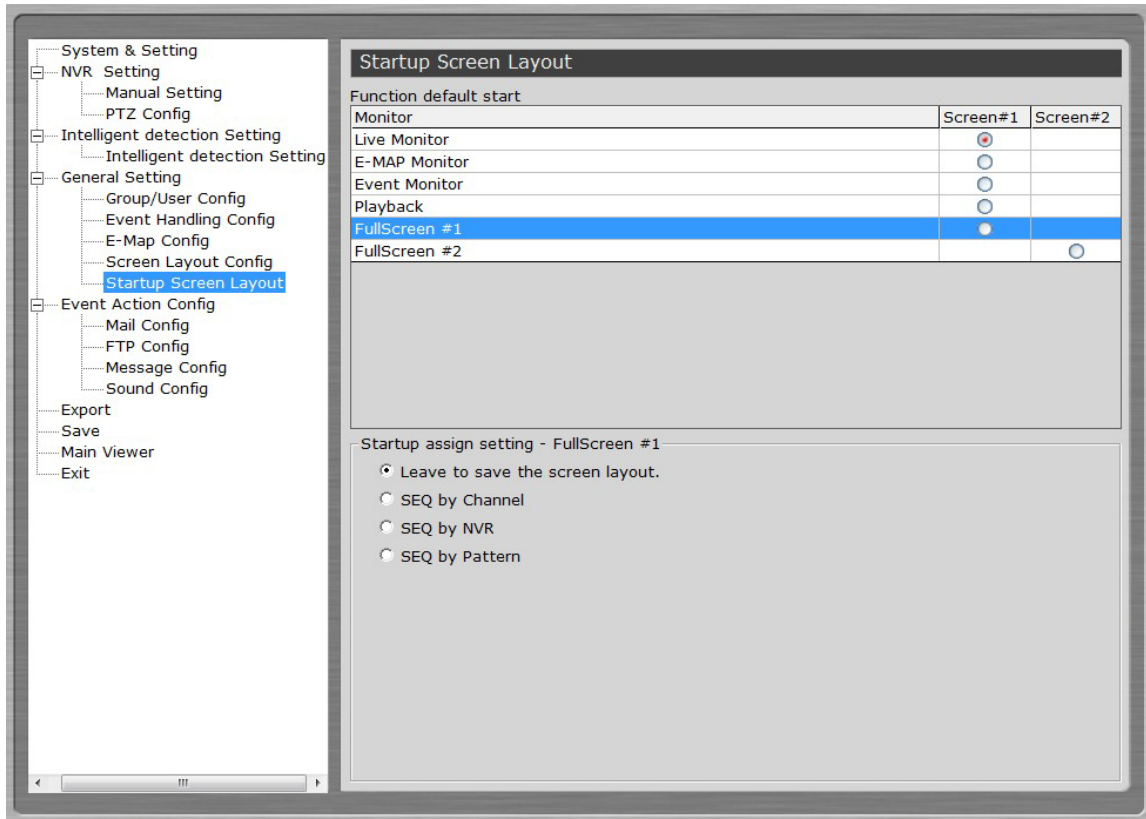
☐ User Pattern
☐ Leave to save the screen layout.

☐ SEQ Mode

☒ SEQ ALL
☐ NVR
☐ Pattern SEQ

You can configure a particular function to be displayed on one particular monitor everytime the CMS starts up.

For the live monitor function, you can configure it to display live videos in a particular split screen layout, pattern layout, or simply remain the same layout from the previous shutdown every time the CMS starts up. You can also configure the CMS to start sequence viewing automatically everytime it's launched.



You are able to configure the program to start automatic sequence view in full screen by selecting the available "Full Screen" option.

Event Servers

System & Setting

- NVR Setting
 - Manual Setting
 - PTZ Config
- Intelligent detection Setting
 - Intelligent detection Setting
- General Setting
 - Group/User Config
 - Event Handling Config
 - E-Map Config
 - Screen Layout Config
 - Startup Screen Layout
- Event Action Config**
 - Mail Config
 - FTP Config
 - Message Config
 - Sound Config
- Export
- Save
- Main Viewer
- Exit

Event Action Config

Mail

| Item | Sender Name | Mail Server | User | Password | Addressee Name | Mail Addrsss |
|------|-------------|-------------|------|----------|----------------|--------------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |

FTP

| Item | Server IP | Server Port | User | Password | Path |
|------|-----------|-------------|------|----------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |

Message

| Item | Server IP | Server Port | User | Password | Text |
|------|-----------|-------------|------|----------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |

Sound

| Item | Sound Description | Sound File Path |
|------|-------------------|-----------------|
| 1 | | |

Event servers are event actions

The program provides four different event servers that can be used when events are triggered.

- Mail server
- FTP server
- Message server
- Sound server

You can add up to three for each servers and pick the one(s) you would like to use for particular event(s).

You can get a configuration overview of all the event servers under the "Event Action Config" page.

Configure Mail Server For Events

| Item | Sender Name | Mail Server | User | Password | Addressee Name | Mail Address |
|------|-------------|-------------|------|----------|----------------|--------------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |

Mail Server
Sender Name
Mail Server
User
Password

Mail to
Addressee Name
Mail Address

You can configure up to three mail servers in which you can select later and use them for different event trigger conditions. When configuring an mail server, it's essential that you provide the following information:

- Mail server address (IP or FQDN domain name)
- Username and password for the mail server (if required)
- Recipient's e-mail address

| Item | Sender Name | Mail Server | User | Password | Addressee Name | Mail Address |
|------|-------------|-------------|------|----------|----------------|--------------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |

Mail Server

Sender Name:

Mail Server:

User:

Password:

Mail to

Addressee Name:

Mail Address:

To start adding a mail server, click on an item field and the setting boxes should become available. Enter the mail server information and click "Submit" to save the settings.

You may click "Test" to verify the settings prior to saving the configurations.

Configure FTP Server For Events

FTP

| Item | Server IP | Server Port | User | Password | Path |
|------|-----------|-------------|------|----------|------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |

FTP Setting

Server IP:

Server Port:

User:

Password:

Path

Path:

You can configure up to three FTP servers in which you can select later and use them for different event trigger conditions. When configuring an FTP server, it's essential that you provide the following information:

- FTP server address (IP or FQDN domain name)
- FTP server port (such as port 21)
- Username and password for the FTP server (if required)
- Path to upload the files to (if not / directory)

Click to add or edit

Enter mail server info

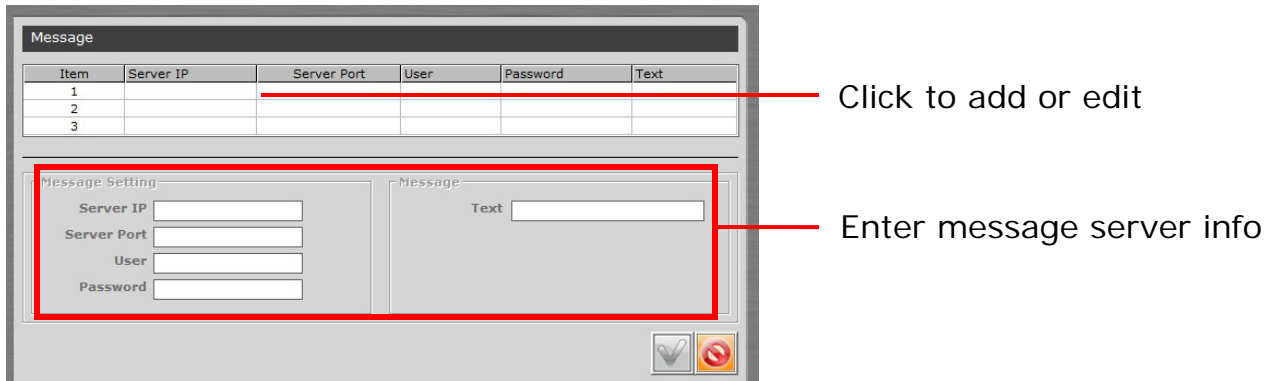
To start adding an FTP server, click on an item field and the setting boxes should become available. Enter the FTP server information and click "Submit" to save the settings.

You may click "Test" to verify the settings prior to saving the configurations.

Configure Message Server For Events

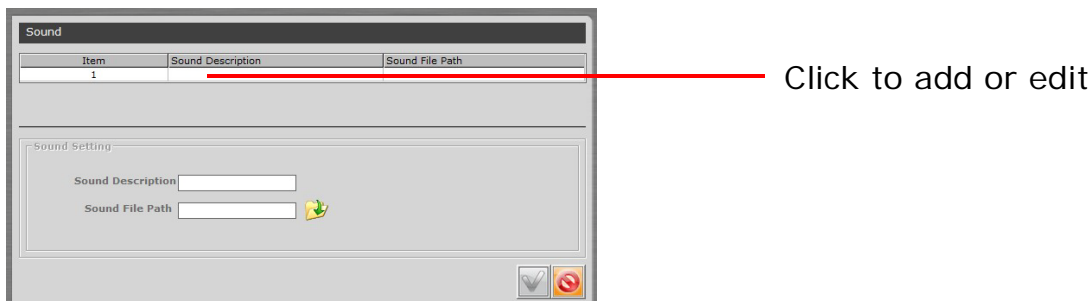
You can configure up to three message servers in which you can select later and use them for different event trigger conditions. When configuring a message server, it's essential that you provide the following information:

- Message server address (IP or FQDN domain name)
- Message server port
- Username and password for the Message server (if required)
- Text to be broadcasted



To start adding a message server, click on an item field and the setting boxes should become available. Enter the message server information and click "Submit" to save the settings. You may click "Test" to verify the settings prior to saving the configurations.

Configure Sound Server For Events

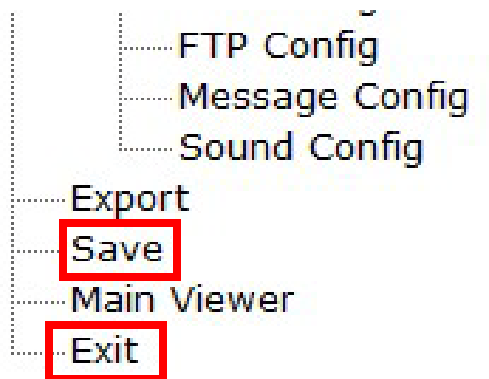


You can configure the program to send warning sound from the system's speaker when events are triggered. To start adding a sound server, click on an item field and the setting boxes should become available.

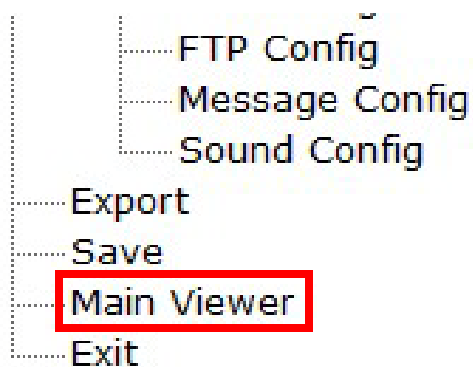


Click on the "folder" icon to locate the sound file. You may select a sound file that is only in the WAV file format.

Accessing the main program



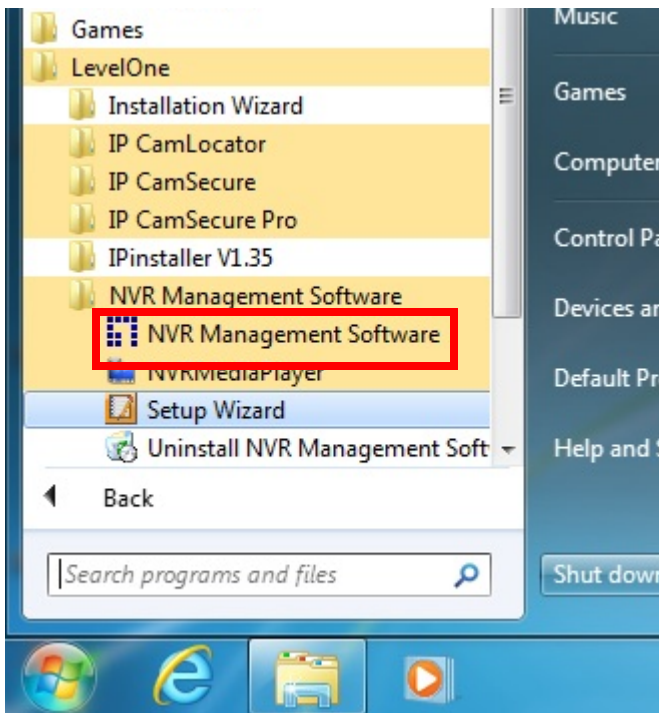
Now that you have finished configuring the main program through its setup wizard, after saving all the settings (which you can do so by clicking on the “Save” button on the left pane tree menu), simply click “Exit” to close the Setup Wizard.



To access the main program, simply click on “Main Viewer” to exit the Setup Wizard and it will be open the main program automatically.

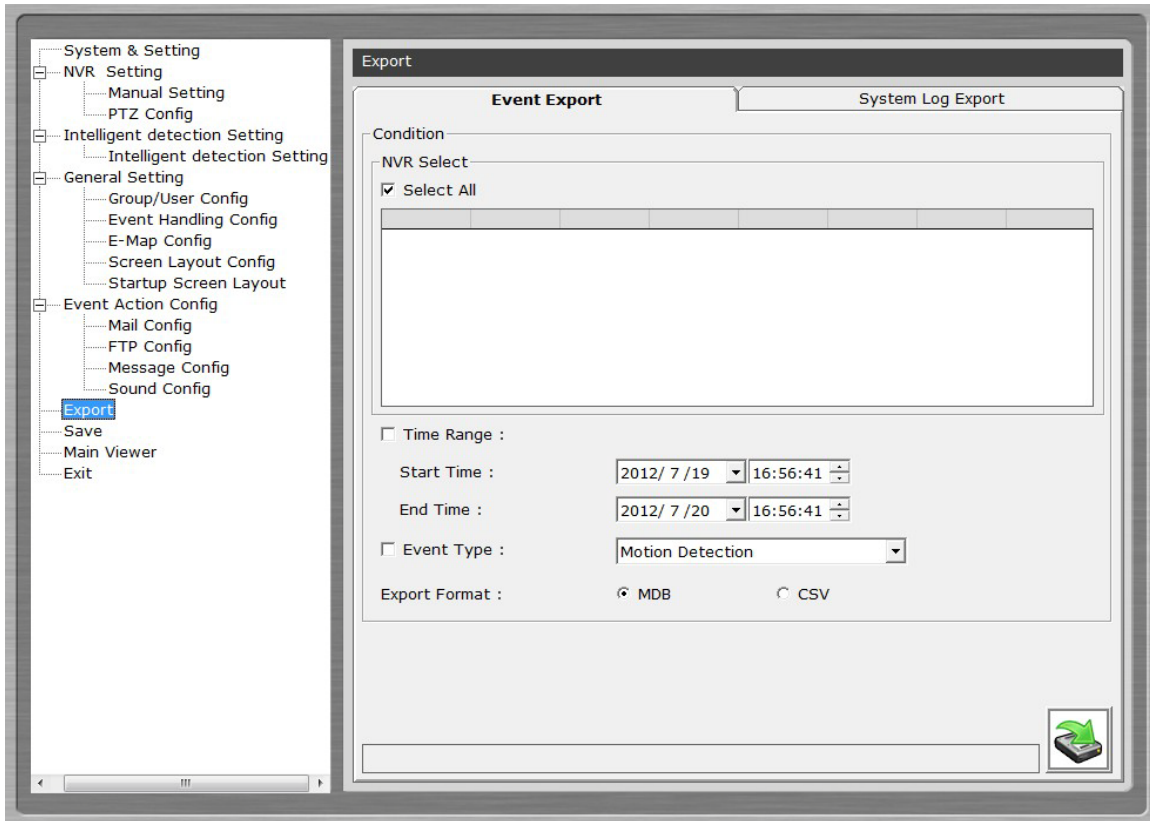


You can then access the main program by double-clicking on the shortcut icon located on the desktop.

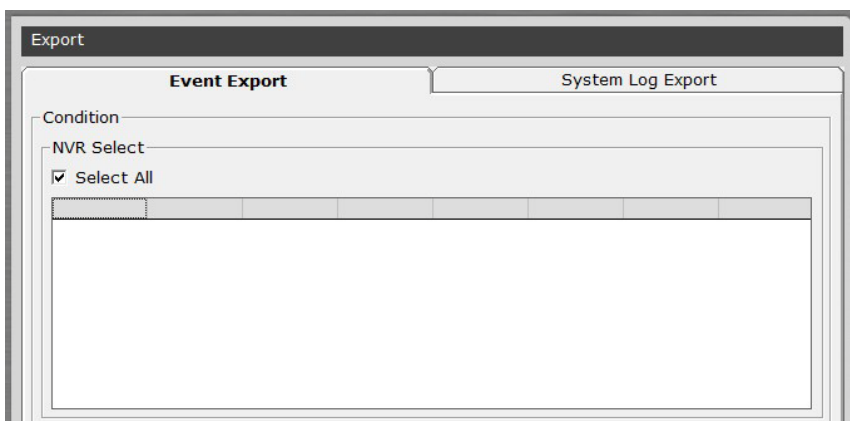


Or you can access the main program by simply go to "Start" >> "All Programs" >> "LevelOne" >> "NVR Management Software" >> "NVR Management Software"

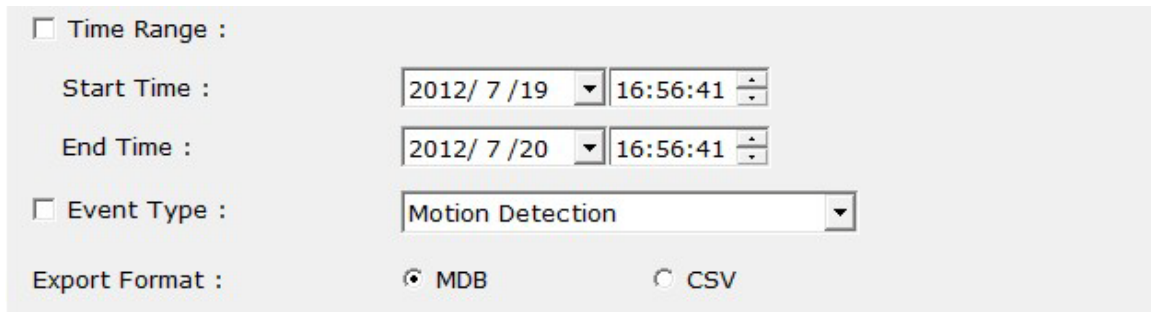
Event Export



The CMS allows users to export the event data for later reference.

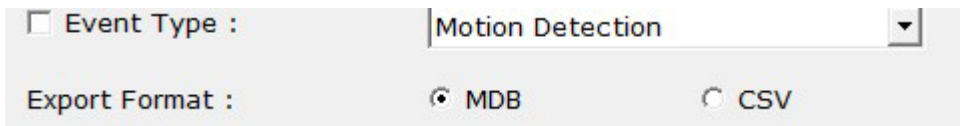


Simply choose which NVR(s) you would like to have their event data exported first



The screenshot shows a configuration window for exporting event data. It includes a checkbox for 'Time Range', fields for 'Start Time' and 'End Time' with date and time pickers, a checkbox for 'Event Type' with a dropdown menu set to 'Motion Detection', and an 'Export Format' section with radio buttons for 'MDB' (selected) and 'CSV'.

Define a time range for the exporting event data or simply select to export data of one particular event



This close-up shows the 'Event Type' dropdown menu set to 'Motion Detection' and the 'Export Format' section with the 'MDB' radio button selected.

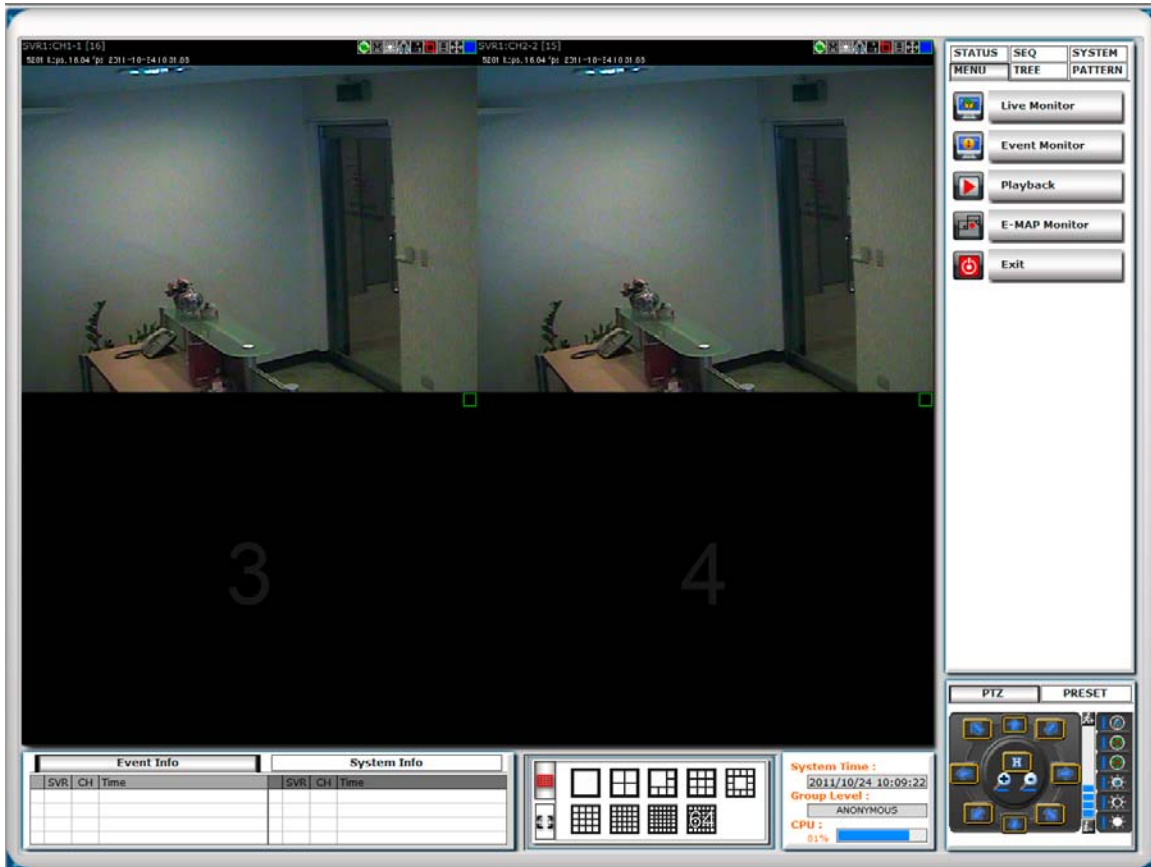
Choose which file type for the data to be exported to, or you can select both.

** Please use Microsoft Access to open the "MDB" file and Microsoft Excel for the "CSV" file.*

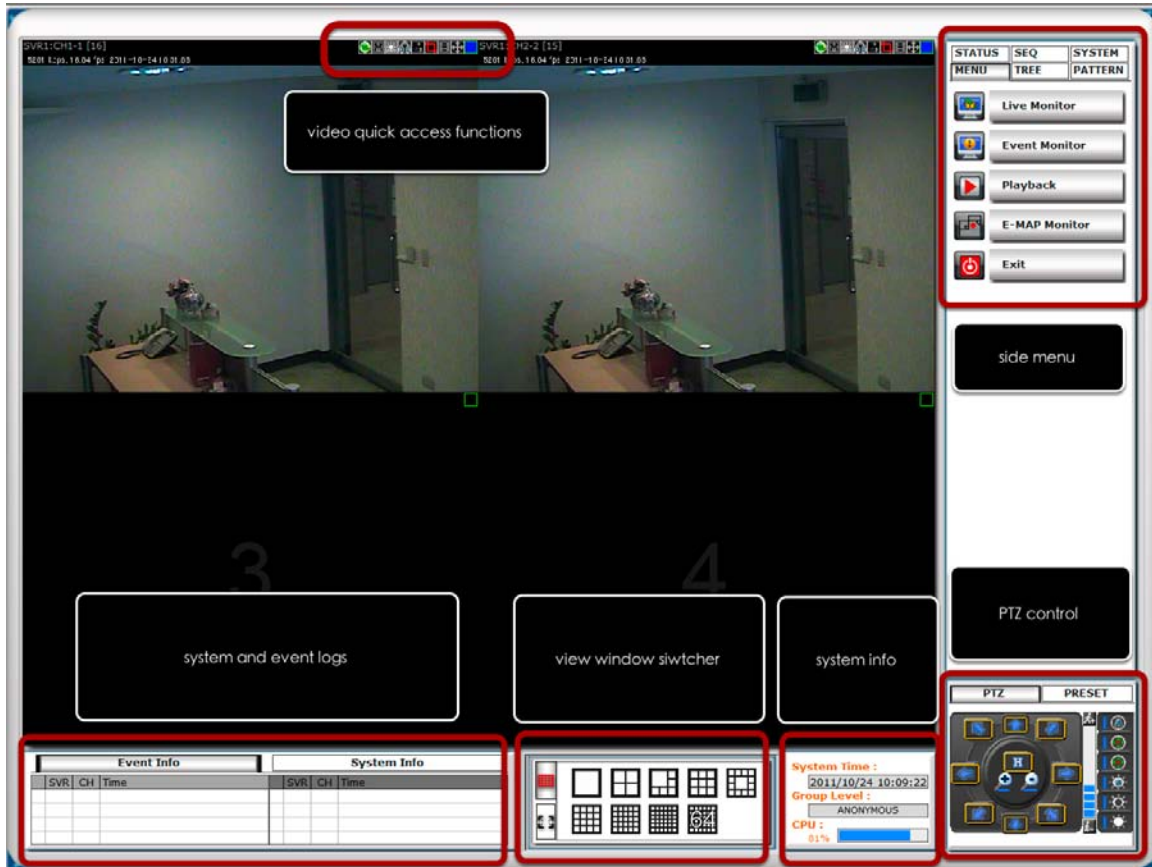
Using the Main Program

Live Video

Working with the Live Video Page

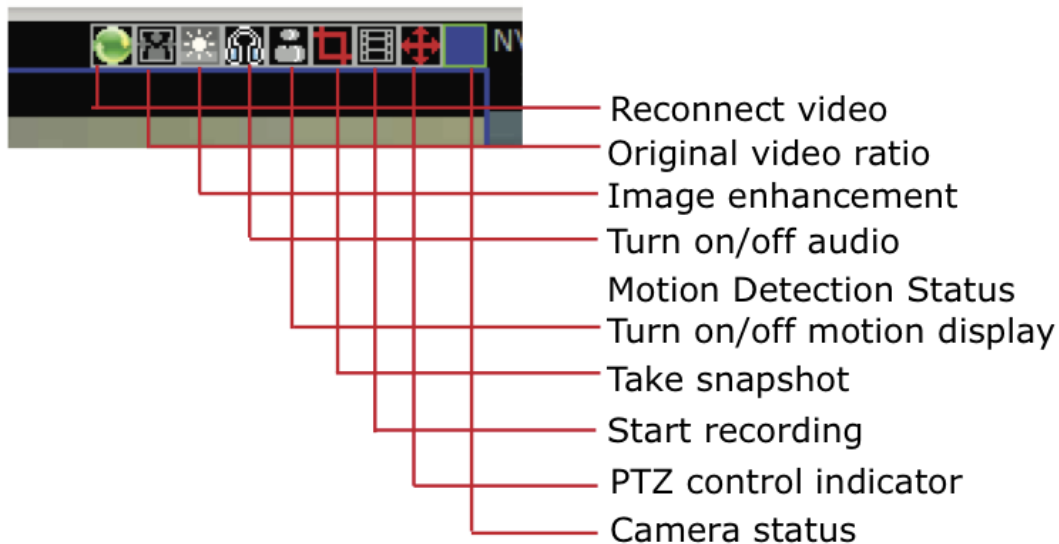


This page basically provides you the ability to view, and manage the video streams of each channel.



This page basically provides you the ability to view, and manage the video streams of each channel.

Video Quick Access Functions



The function bar is available for each video window. The function bar provides the following functions:

Reconnect video

If you find the video is streamed at a lower frame rate than it should or the video is simply lost, you can click this button to re-initiate the connection with the camera and receive the stream again.

Turn on/off audio

If the camera supports audio function, you can click this button to receive audio from the camera.

This function is turned off by default and you can only receive audio from one channel at a time.

Original Video Ratio

The program adjusts its window size according to the size and display ratio of the monitor. By default, videos are configured to fill up their video windows and may not be displayed in its original ratio. Click this button will set the video to be displayed at its original display ratio.

Image Enhancement

This function improves the visibility of the video under low light conditions.

Motion Detection Status

This icon serves the function to display whether motion detection has been configured for this channel.

If it's not configured, the icon is grayed out. If it's configured, it will be in light gray.

Turn on/off Motion Display

Once a channel is configured with motion detection, click the same icon allows you to turn on motion display, which adds highlights on moving objects in the video. The icon will show in red when this function is turned on.

Take a Snapshot

The function allows you to take snapshots of the live video and save them on your local computer.

Simply click on the icon, and the snapshot of the video will be displayed in a pop-up window.

Right-click anywhere on the pop-up window will give you the option to save the snapshot.

** The snapshot is automatically saved in a pre-defined folder under the directory where the program is installed.*

PTZ Control Indicator

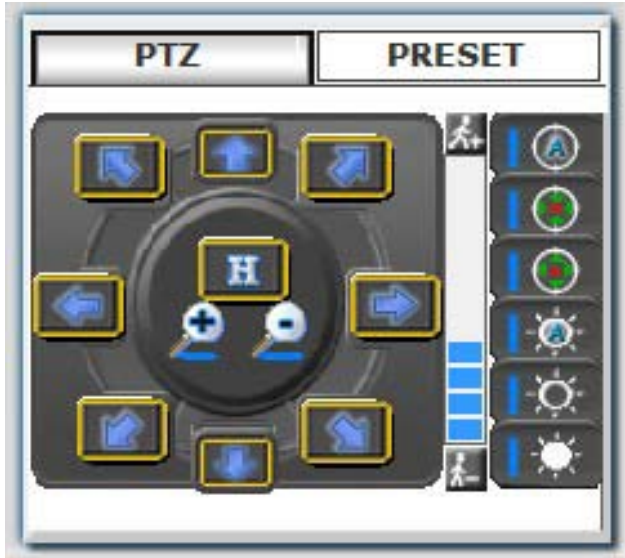
You are able to control one PTZ camera at a time and this icon tells users which camera is currently selected for PTZ action.

The video window will also be highlighted with blue color to indicate it's currently being selected.



PTZ control indicator displays in green --> digital PTZ is enabled

Using PTZ Control Panel



Once a video is selected for PTZ action (**right-click on a video to select**), you are able to do the PTZ with the PTZ control panel.

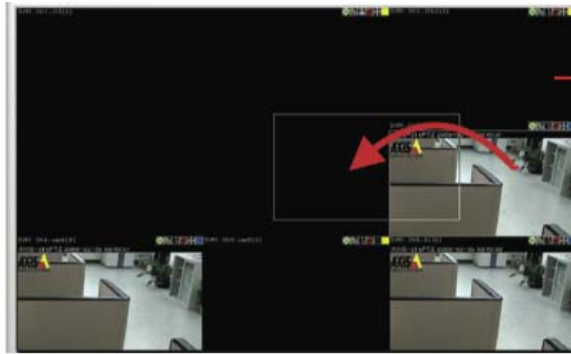
Use Mouse-over-video PTZ



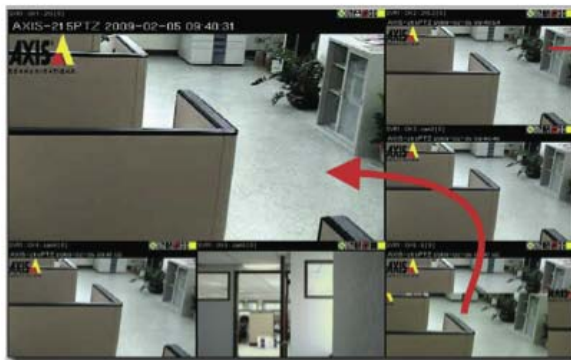
right-click to pan and tilt, use mouse scroll button to zoom in/out

Or you can simply move the mouse onto the video, an arrow and the crosshair should be displayed. Simply right-click on the video to pan and tilt the camera. Use the mouse scroll button to scroll down to zoom in and scroll up to zoom out.

Drag and Drop to Relocate Videos



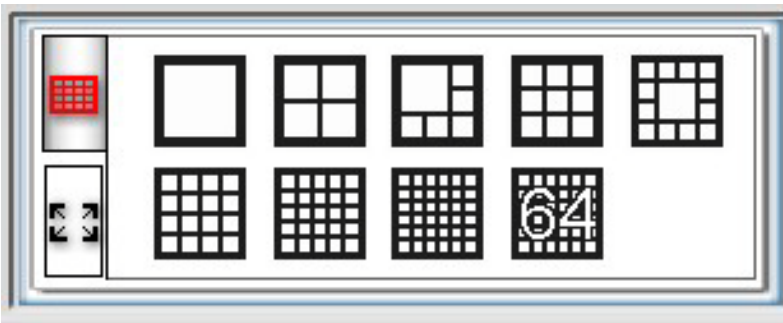
Drag a video and drop it to a new location



Drag a video and switch place with another video

On the live view page, you can simply drag the video to re-arrange its location or switch location with another video.

View Window switcher



You can use this function to switch between different view patterns and set up how videos are displayed on the screen.

Support Two Full screen View



The first full screen displays videos in full screen with its current view pattern layout (if it's displaying videos in a 6 split window view, the same displays in full screen)



The second full screen displays videos in full screen in a 16 split window by default. You can change the layout by right-click anywhere on the screen and make selection from the drop-down menu.

The program supports two full screen views if there are more than one monitors connected to the PC. You can view up to 16 live videos on each full screen with configurable view patterns.

Side menu Bar

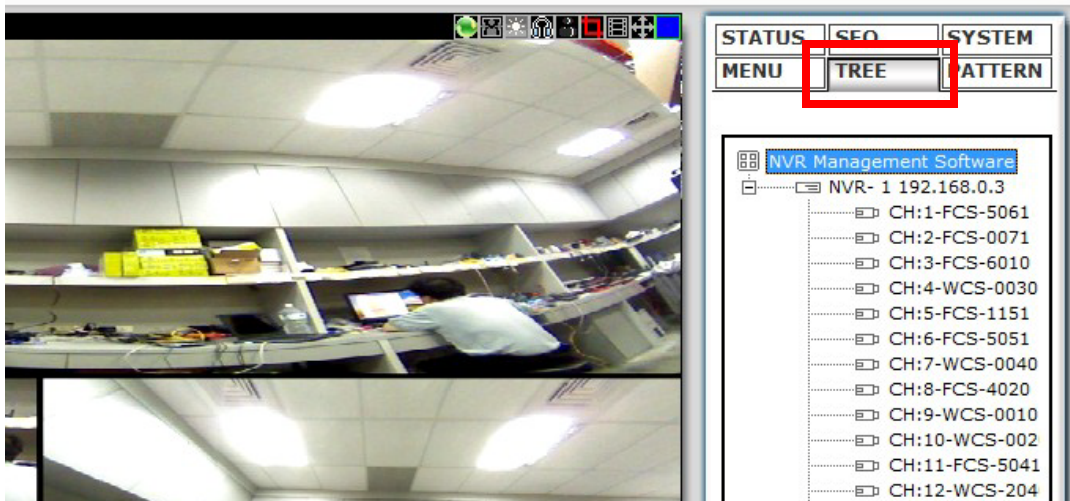


You can access all functions of the program from the side menu bar. Some can be displayed onto different monitors if you enabled this function in the Setup Wizard.

A list of the functions available from the side menu:

- Live Monitor
- Event Monitor
- Playback
- E-Map Monitor
- NVR and Camera Status
- Camera Tree List
- Sequence View
- Create patterns for different split view
- Service Mode
- Check Program Version
- Change Display Language
- Lock screen

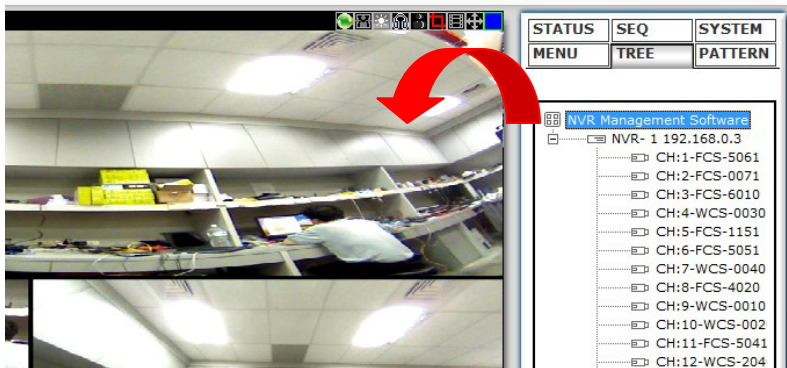
Camera Tree list



You can retrieve a list of the cameras and NVRs from the side menu bar. Simply click on the “TREE” menu to access this function.

By default, only the NVRs are listed. You can double-click on any of them to retrieve the camera list of that NVR.

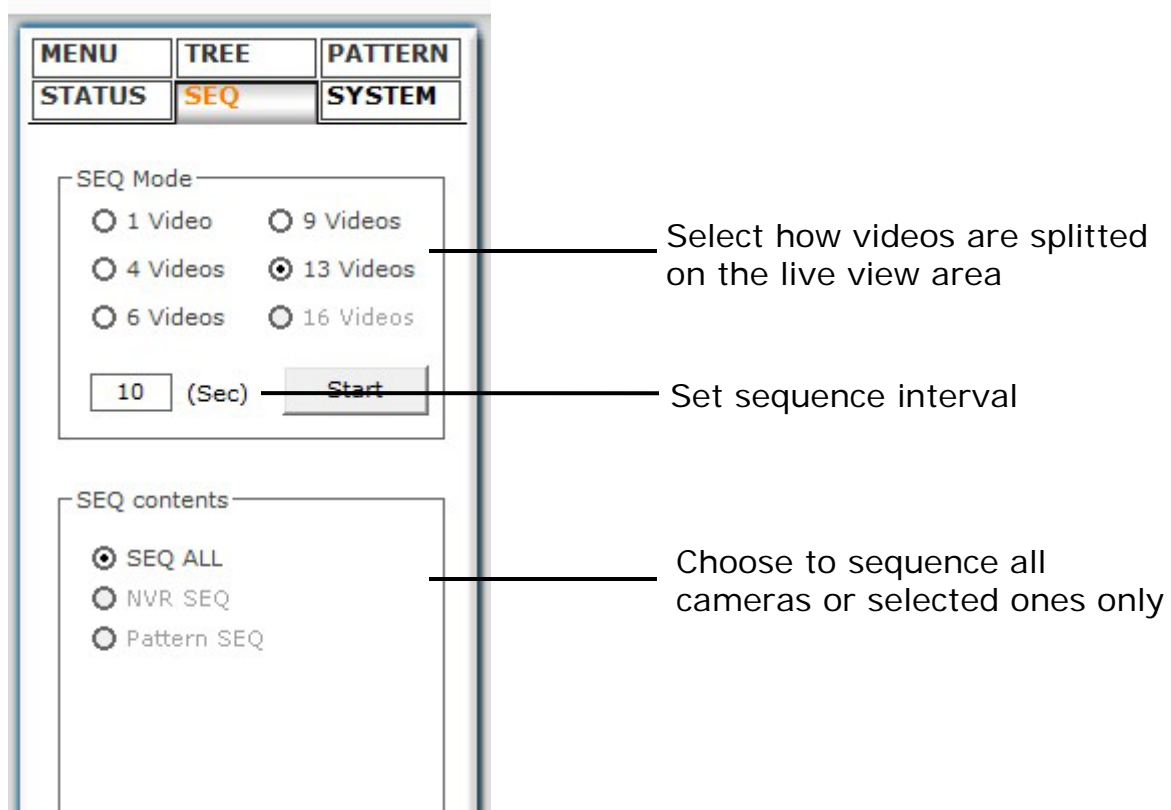
You can then drag an NVR from the list and drop it onto the live video area, in which all cameras' videos will be displayed.



drag and drop

You can also drag one camera from the list and drop it onto any video window to display video from that camera.

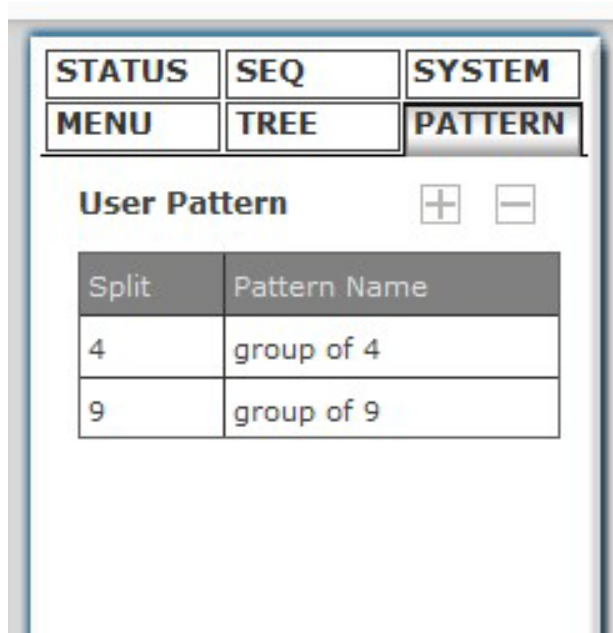
Sequence View



This is a useful tool which you can simply setup the program to display videos from certain or all cameras and the program will automatically switch views for you. You can also set up the sequence interval and decide how long you would like each video to stay on the screen.

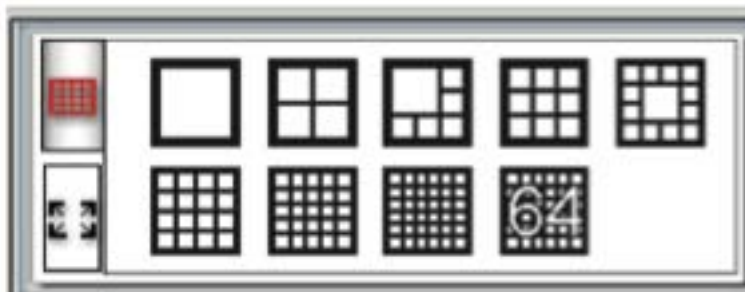
** The "Pattern SEQ" will not become available until you create "patterns" under the "PATTERN" menu * The "Pattern SEQ" will not become available until you create more than one patterns under the "PATTERN" menu*

Live View Pattern Groups



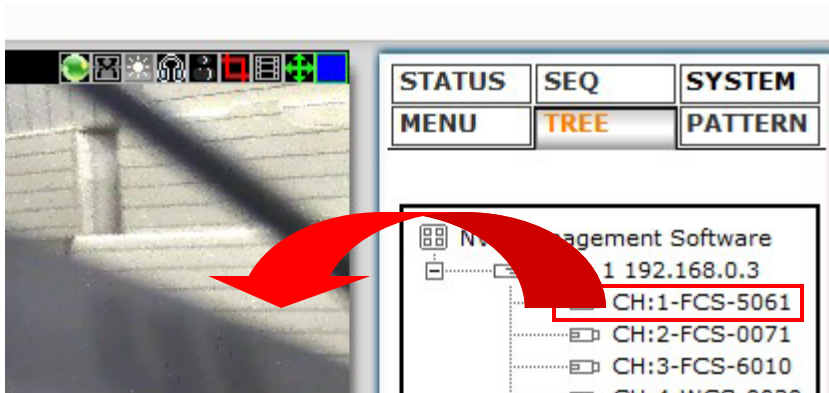
You can create multiple profiles for different live view split layouts. This is a extremely useful function in a larger environments where you have many cameras in place and multiple cameras setup for each area.

After the "patterns" are created, you can head back to the "SEQ" menu and enable the "Pattern SEQ" feature. This will ask the program to display videos from the "pattern" groups in sequence.

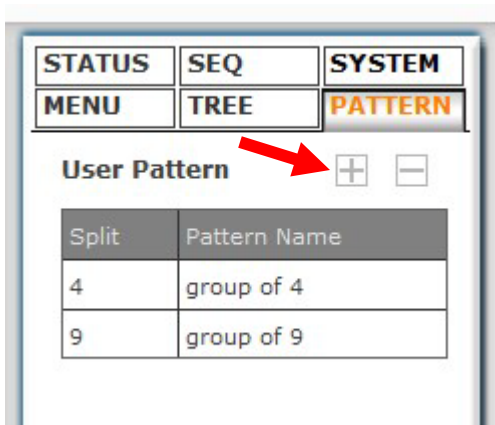


To configure view pattern groups and set it for pat- tern sequence view:

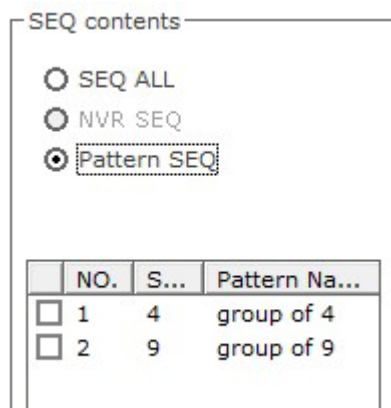
1. Select a view layout first



2. Then, select cameras from the camera tree list and drag and drop videos on the screen to arrange their locations as you desire.

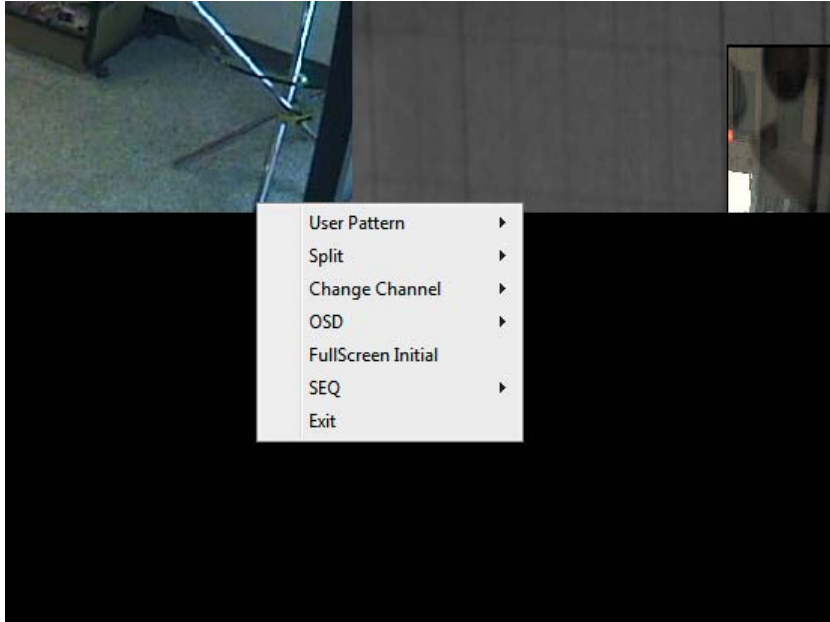


3. Click the “+” sign under the “PATTERN” menu to add it



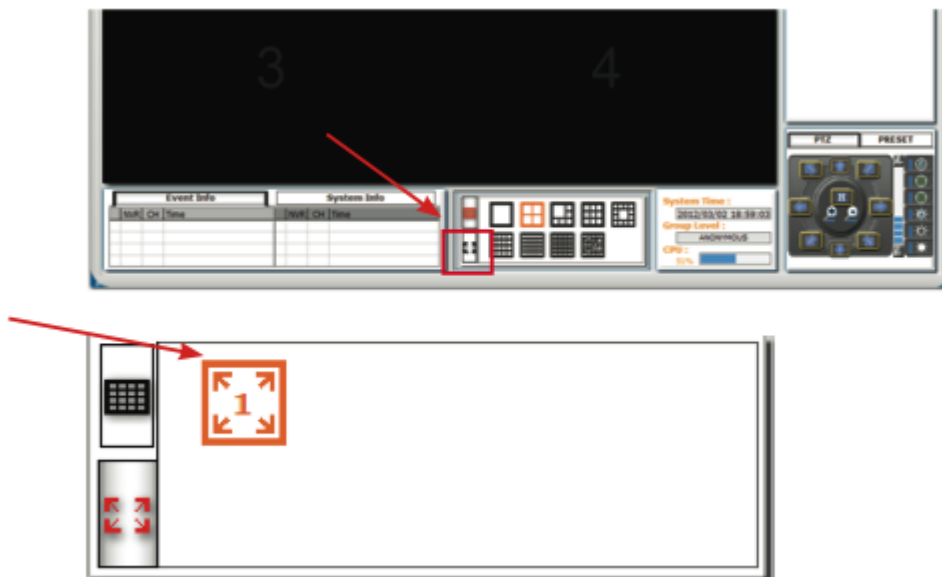
4. Go back to the “SEQ” menu and select “Pattern SEQ” and the patterns should be available.

Functions available in Full Screen



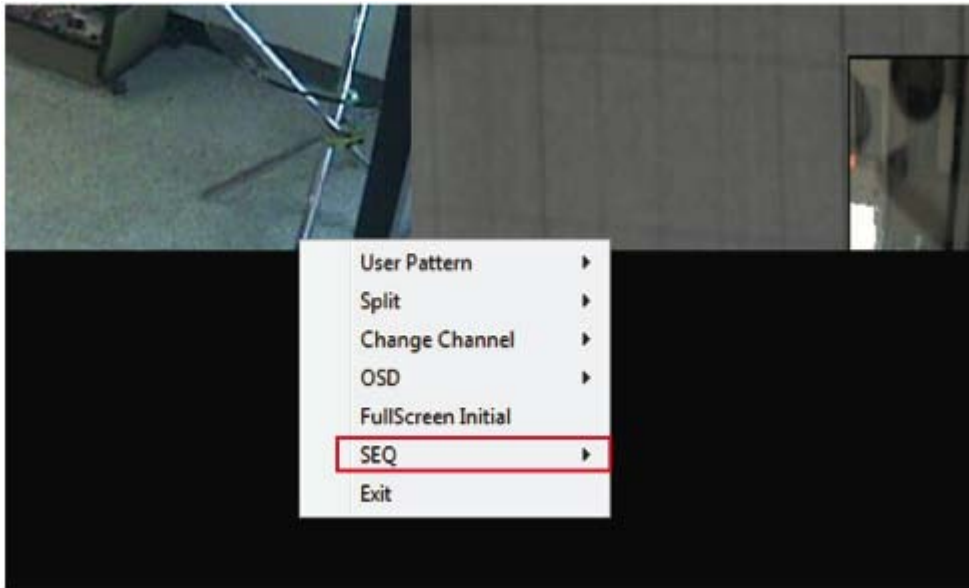
In full screen mode, there are few functions provided which help enhance the monitoring experience. They are:

1. View videos in full screen with pre-defined viewing pattern
2. Change viewing layout on the fly
3. Change channel on any video window
4. Automatically sequence view

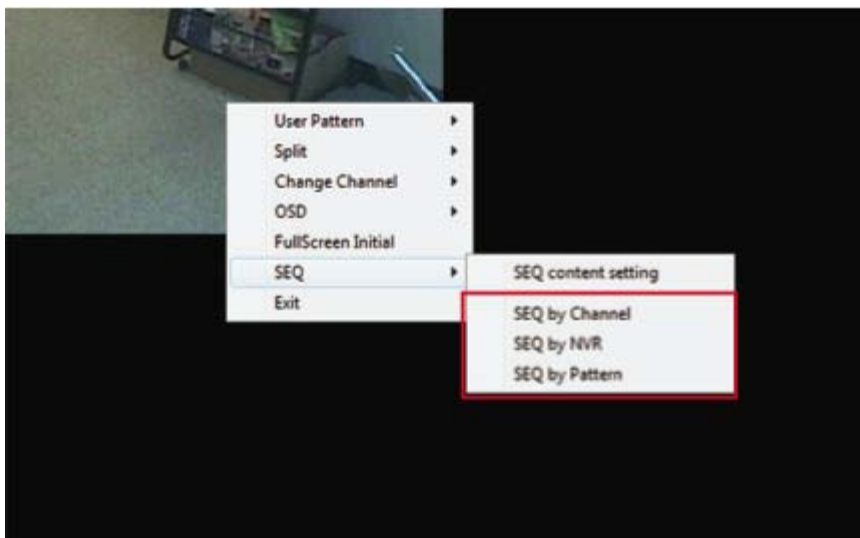


To enter full screen, click the icon shown below in the Live Monitor and click on the available full screen icon (max. 2 if multiple monitors are set up)

Automatic Sequence View in Full Screen



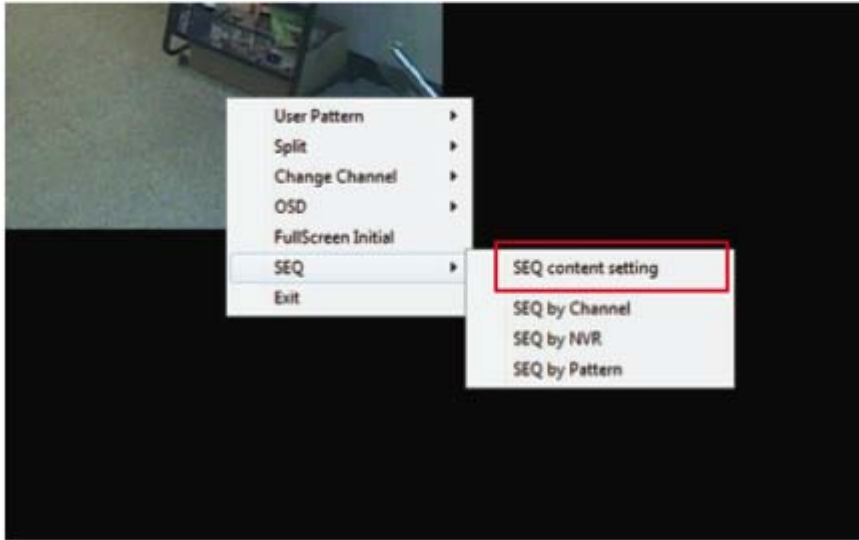
You are still able to run automatic sequence view function in full screen. Once you are in full screen mode, right-click anywhere on the video and choose "SEQ" from the drop-down menu:



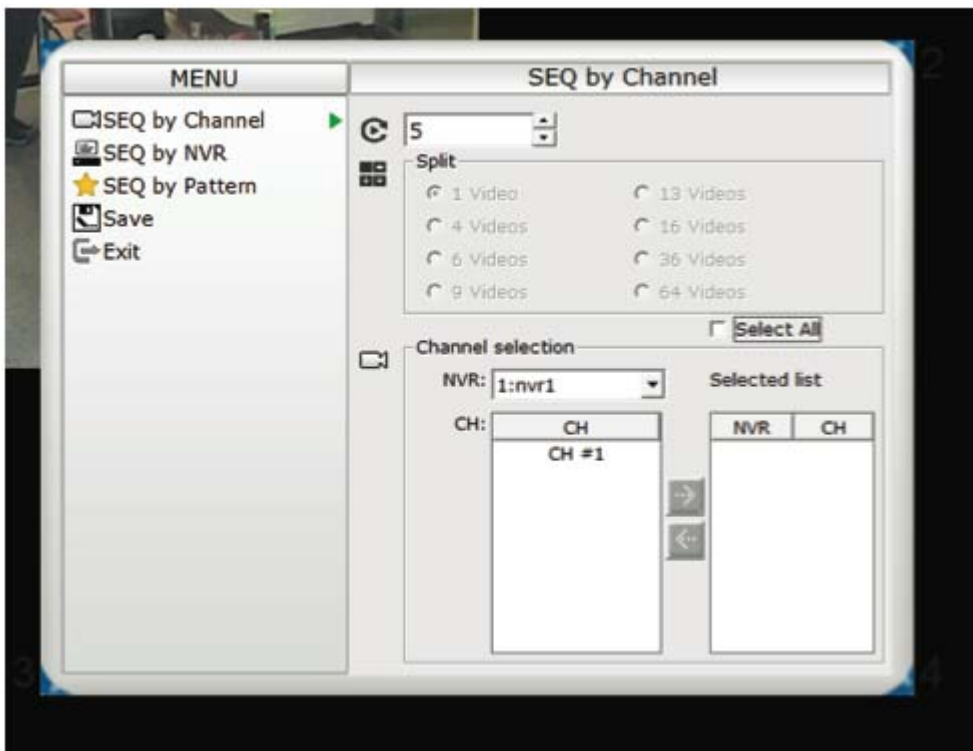
You are able to run sequence view in full screen by:

1. selected channels
2. selected NVRs

3. selected pre-defined patterns.

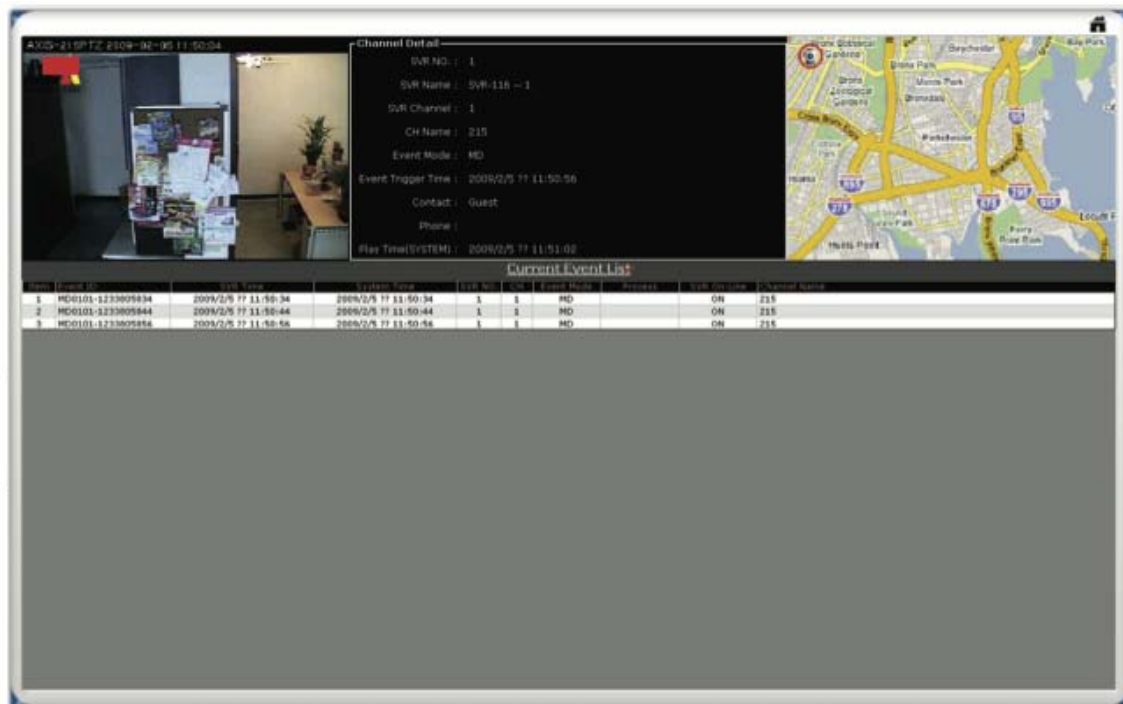


Before choosing any of the viewing options, please configure the viewing contents (what will be selected) first by going to the "SEQ content setting" page.

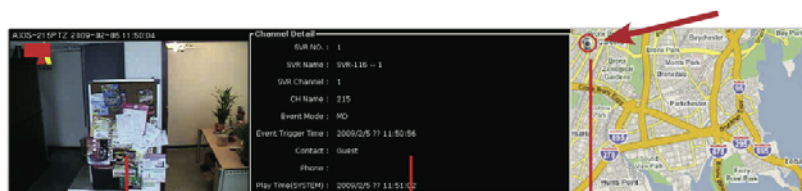


A new dialog will be displayed for configurations.

Event Monitor



** This page can be displayed on another monitor*



Video from the camera that was triggered with event

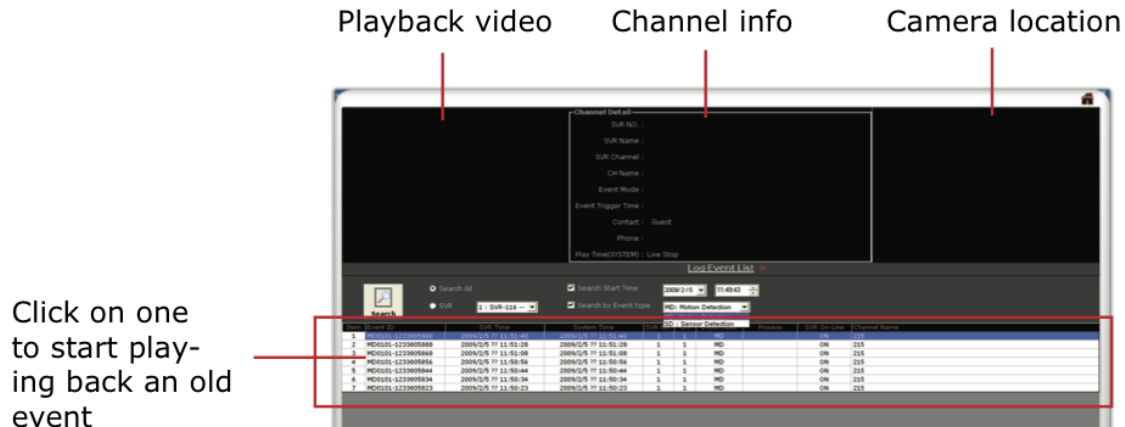
Detail information of the camera, such as channel number, which NVR it's connected to...

The location of the camera will be displayed on the E-Map

The Event Monitor is an advance live video monitor tool that combines functions of:

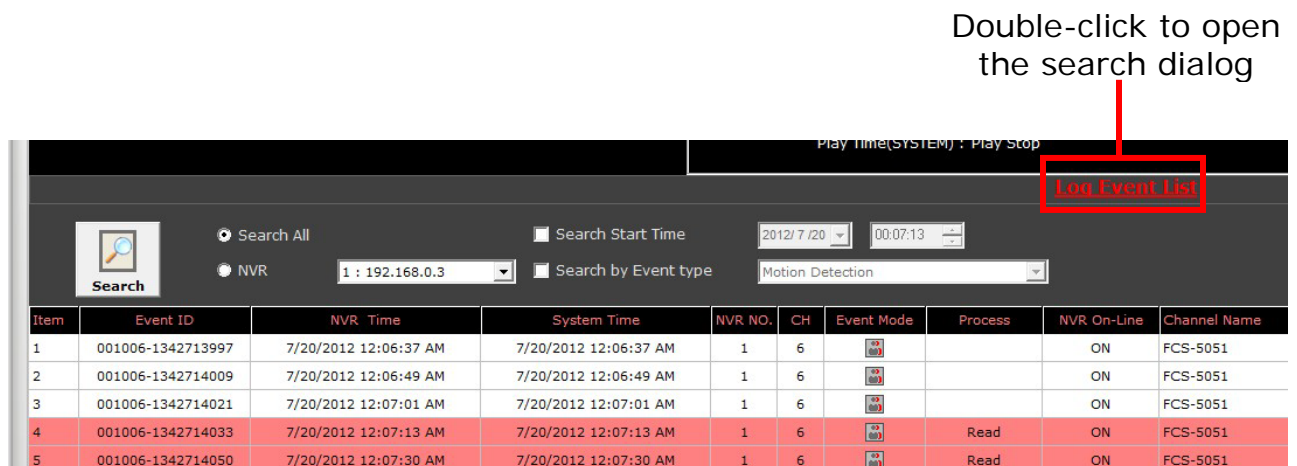
- Single live video view from camera that's triggered with events
- Channel configuration information
- Event log, search, playback
- E-Map displays cameras' locations, which were triggered with events

Playback Events from Event Monitor

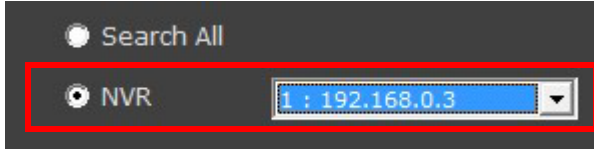


The program will log continuously when new events are triggered. Simply click on one to start playing back the video. Its corresponding configuration and location will also be displayed accordingly.

Filter and Search Events



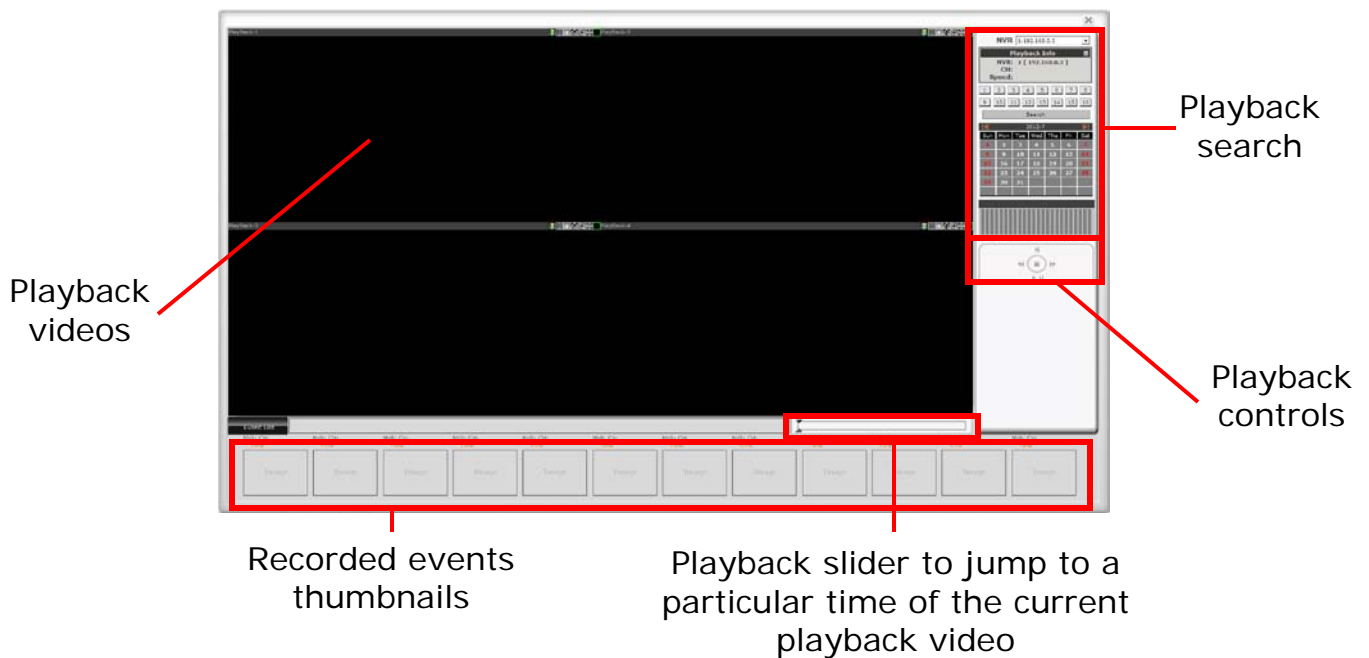
While the event logs keep stacking up the screen, it's difficult to look for a particular event for playback. You can then use the search function and filter the search result by either search from a event start time, search by event type, or both.



You can also narrow the search results by performing search to a particular NVR.

** The event trigger interval is set at 10 seconds*

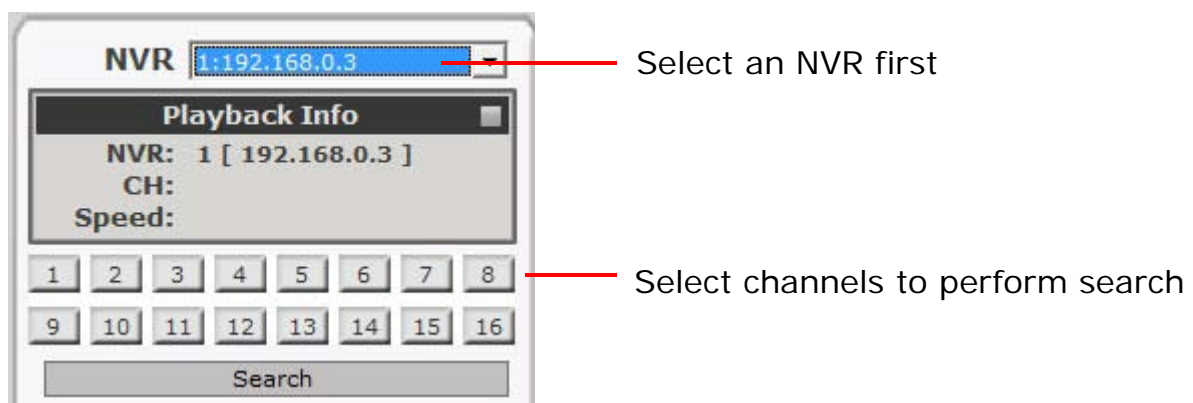
Playback



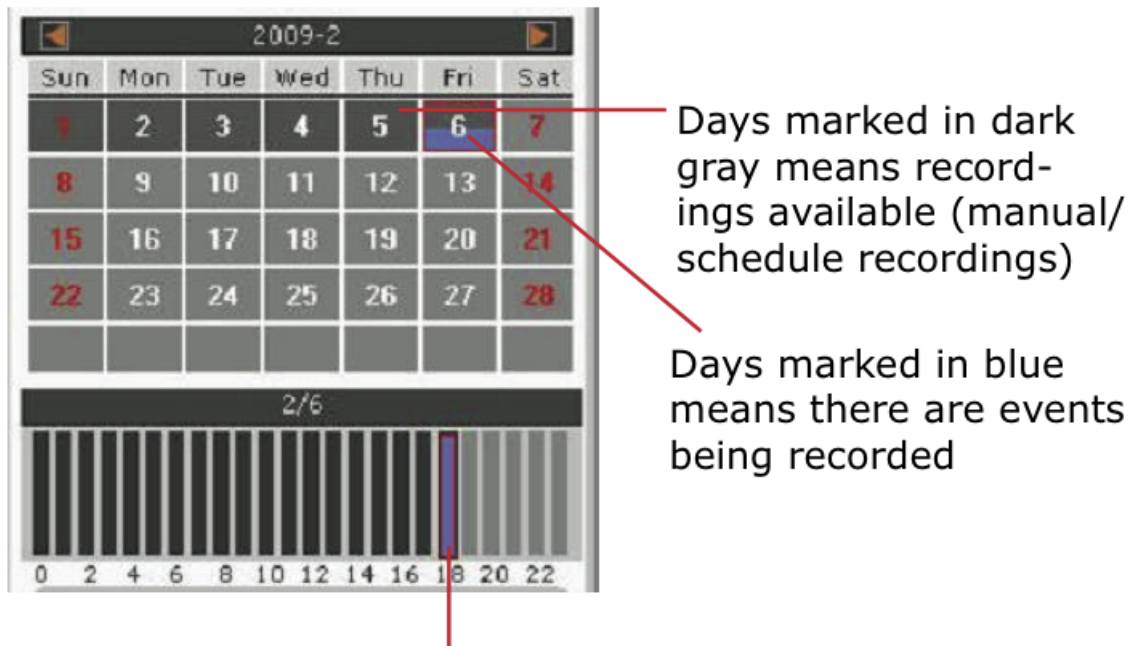
**This page can be displayed on another monitor*

The program supports 4-channel synchronous playback in a quad view layout. Search results that include events will be marked in blue on the calendar and their corresponding event thumbnails will be displayed at the bottom to reduce the search time and effort.

Searching for Playback Videos



To start looking for playback videos, simply select an NVR from the drop-down menu first and select which channels to look for playbacks.



Click on a day will shows what hours of that day recordings were performed. Click on a particular hour to start playing back videos.

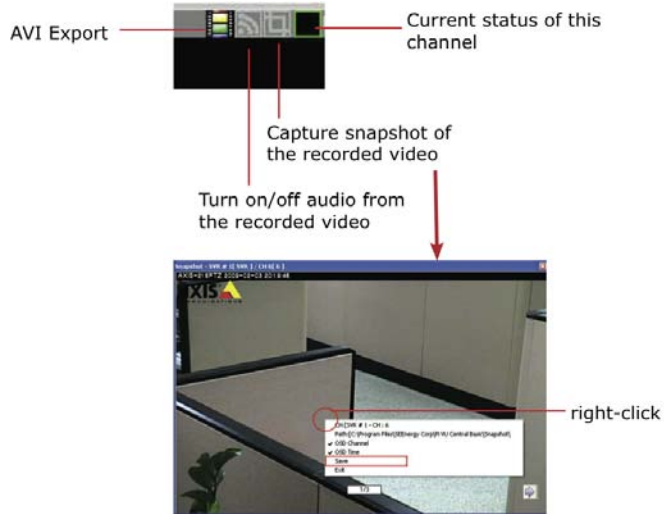
Search results will then be displayed on the calendar indicating which days have recordings available.

If you click on an hour which event recordings were performed, the program will display the thumbnails of the first frame from each trigger at the bottom.

This is useful for users to help them quickly find the footage that's meaningful to them instead of fastwarding few times.

You can also use the time bar and go directly to a particular start time.

Capture Snapshots of a Playback Video



This is the same function that is available in the live view page. Each playback video windows comes with function bar at the upper-right hand corner.

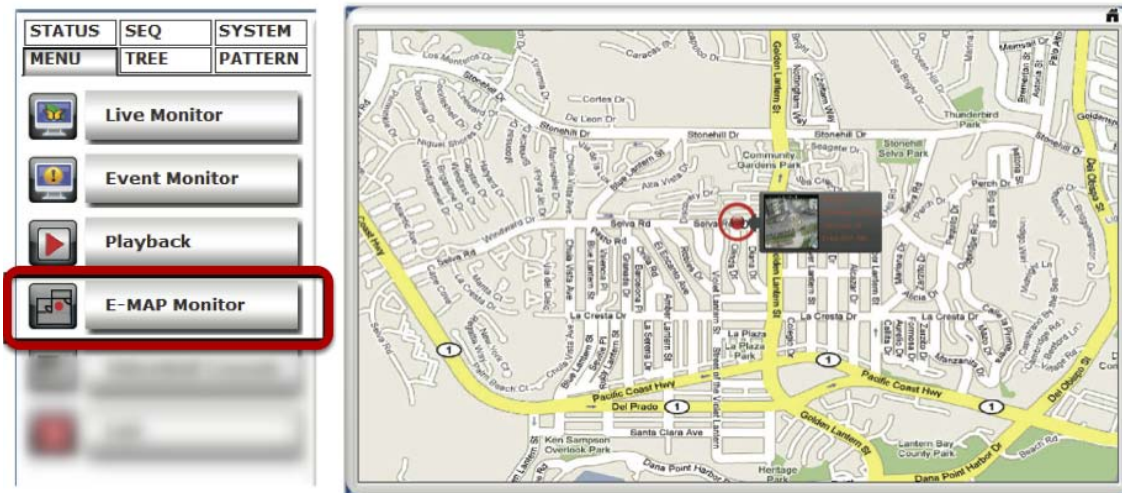
AVI Export



You can export the recorded videos to AVI files and save them onto a local hard disk. Simply click on the "AVI Export" icon while a video is being played back. Click it again to stop the process.

- All exported videos are automatically saved in the "AVI" folder under the program installation directory. "Ex.: C:\Program Files (x86)\LevelOne\NVR\AVI"
- The program allows a maximum of one hour of video per channel to be exported

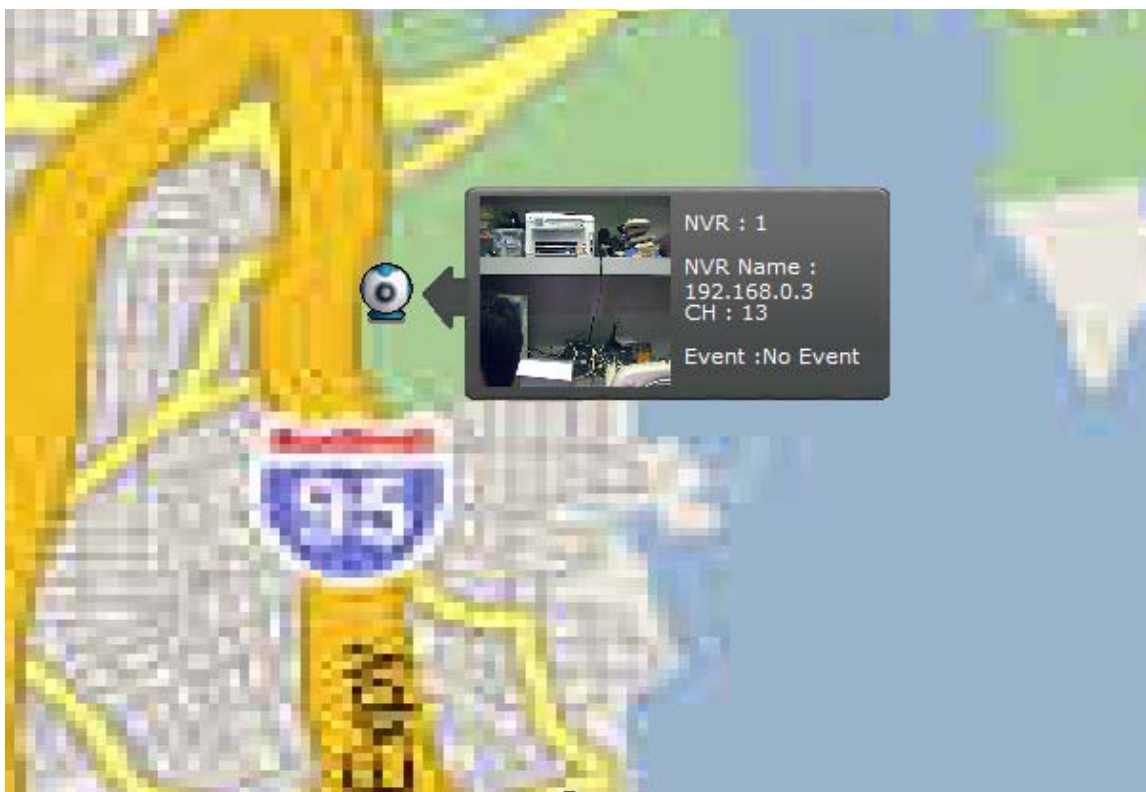
E-Map Monitor



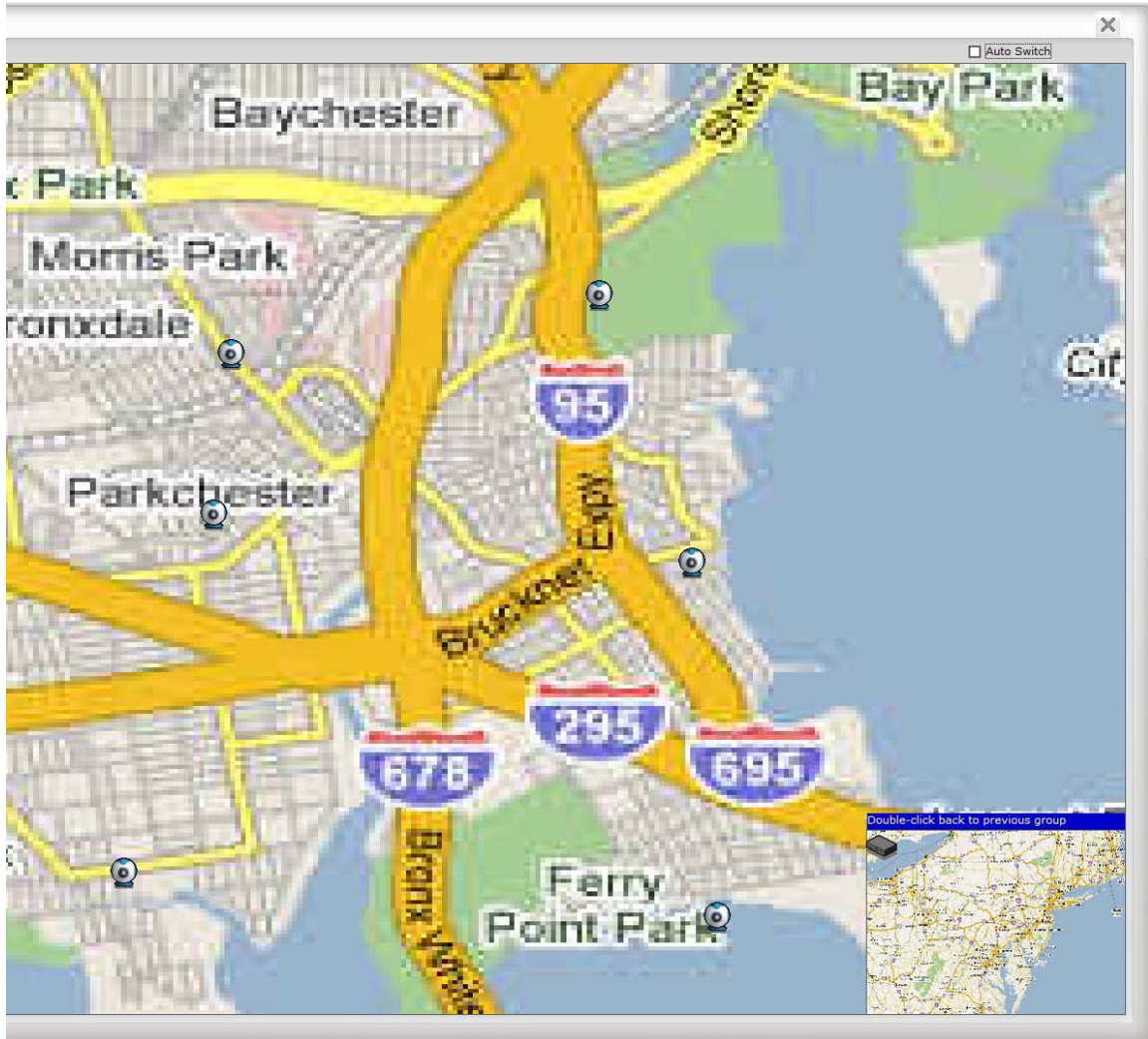
The E-Map provide a simple overview of where events are happening. This allows users to only pay attention to what's meaningful to them. This function comes with two layers of maps where the first layers represents locations of each NVR.

This is normally referred as the main map, which a map with overview of a larger scale area should be used.

Once there's an event triggered from a particular NVR, the location of the NVR will be circled in red to notify users an event has been triggered.

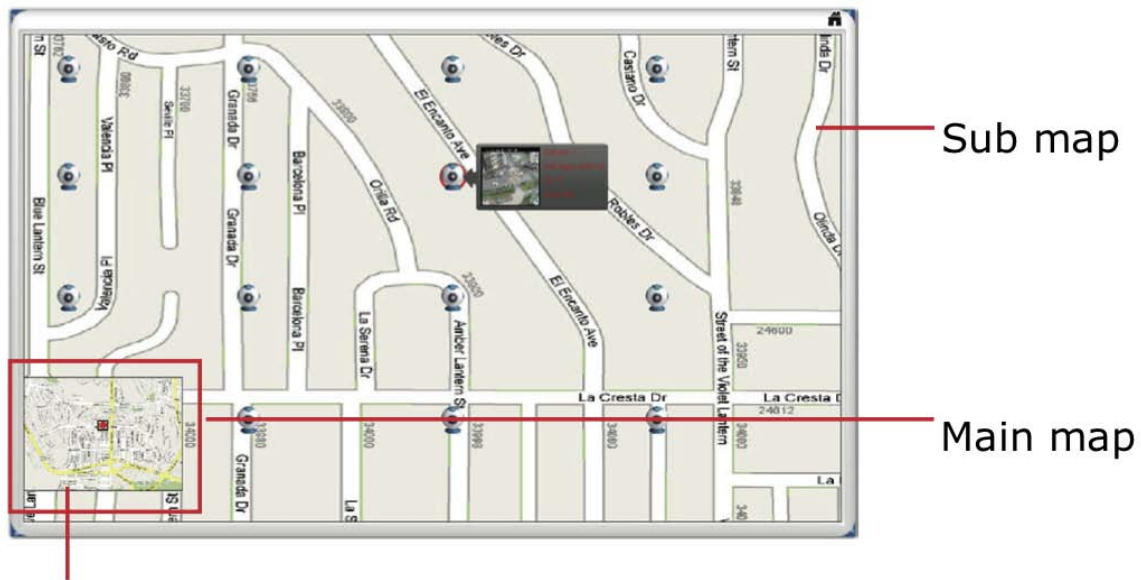


The video and event trigger type are also displayed on the map.



Double-click on the red dot (the location of the NVR) will take you to the sub map where the locations of all the cameras within will be displayed.

The camera of which the event is triggered from will be circled in red to tell the user the location of the event in a more detail manner.

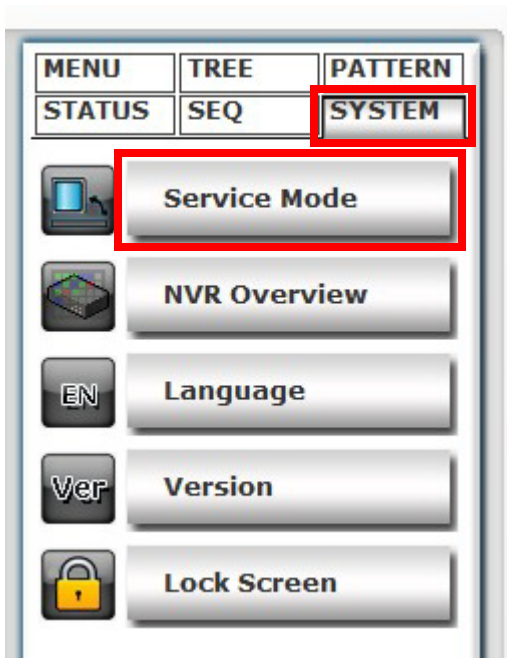


Double-click to go back to main map

The sub map provides the PIP (Picture-in-Picture) view, which the main map is embedded in the sub map so that users can still know if there are events being triggered from other NVRs at the same time.

Simply double-clicking the embedded main map to go back to the main map view.

Service Mode

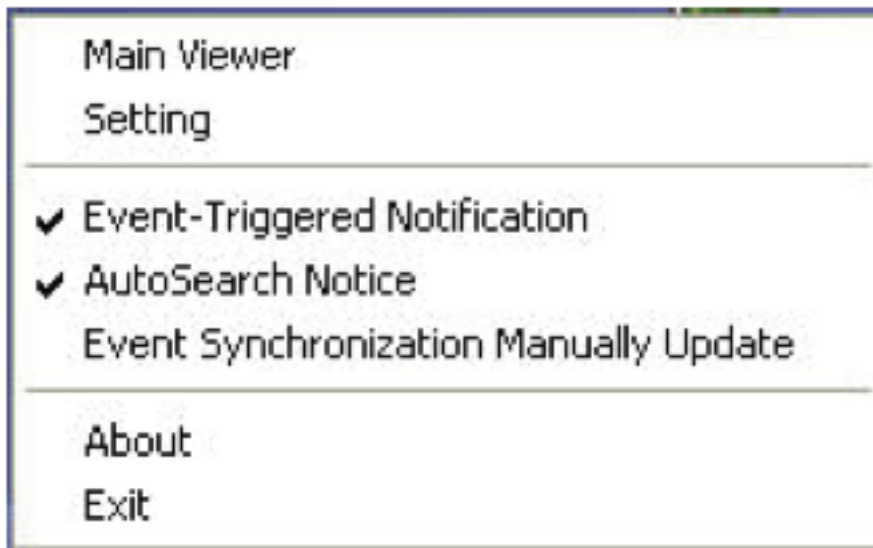


If you are using a PC that is not dedicated to run this program only (working with some other programs at the same time), you can turn on the service mode, which can be accessed from the side menu bar under the "SYSTEM" menu, select "**service mode**".

This will minimize the program to the Windows system tray in the lower-right hand corner.

The function to detect new NVR and event trigger notification will continue to work in the background. You will get notification from the tray if the program has detected a new NVR has been placed on the network.

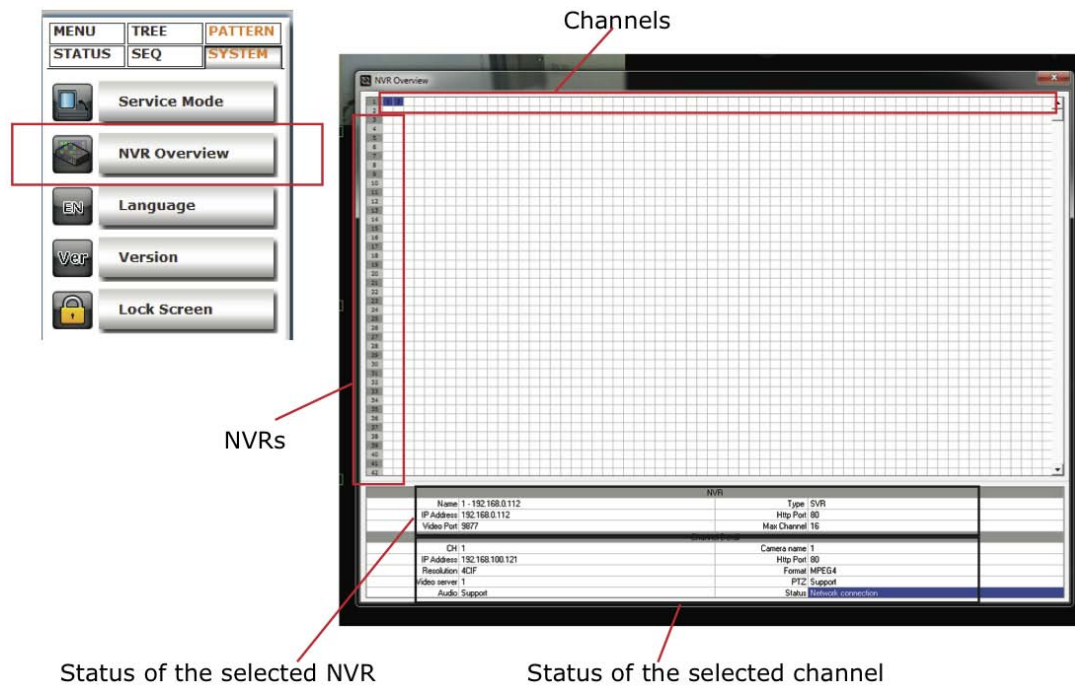
A small video will also be popping out from the tray to notify you that an abnormal motion has been detected.



Right-click on the program tray icon gets you other functions"

- Maximize the program
- Close the main program and open the Setup Wizard
- Turn on/off event notification (on by default)
- Turn on/off NVR Smart Search (on by default)
- Switch to synchronize events manually (off by default)
- Unlock CMS software
- About the program
- Exit the program

NVR Overview



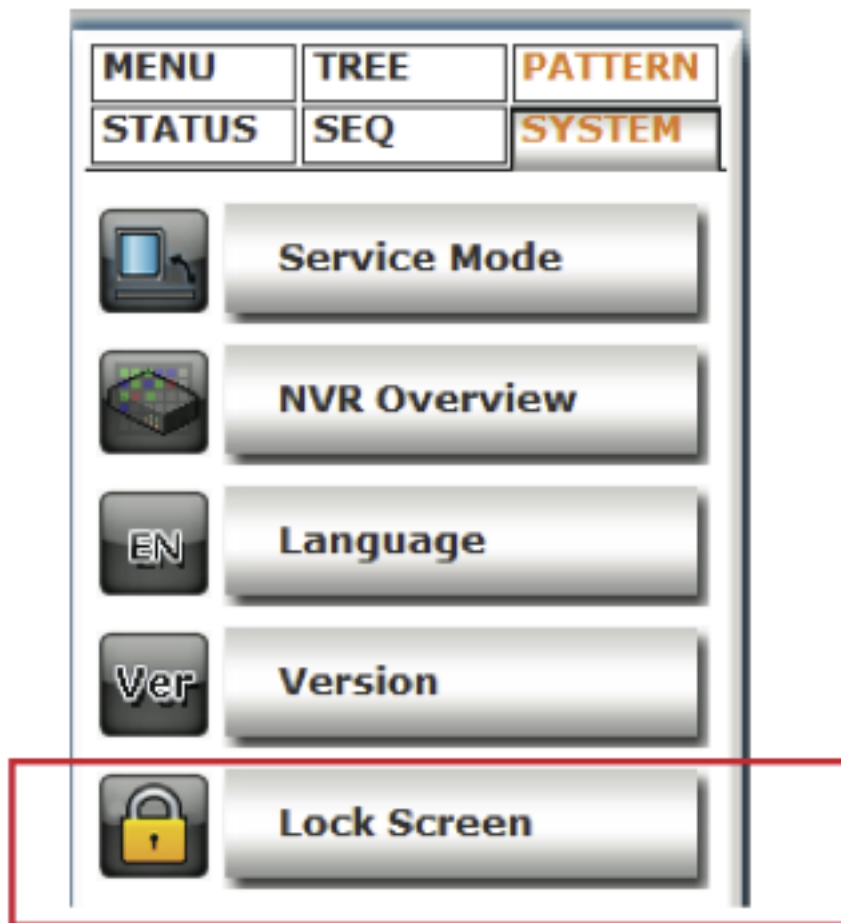
The NVR Overview provides an overall status of all NVRs and channels. To access it, go to "System" in Live View and select NVR Overview.

Change Display Language

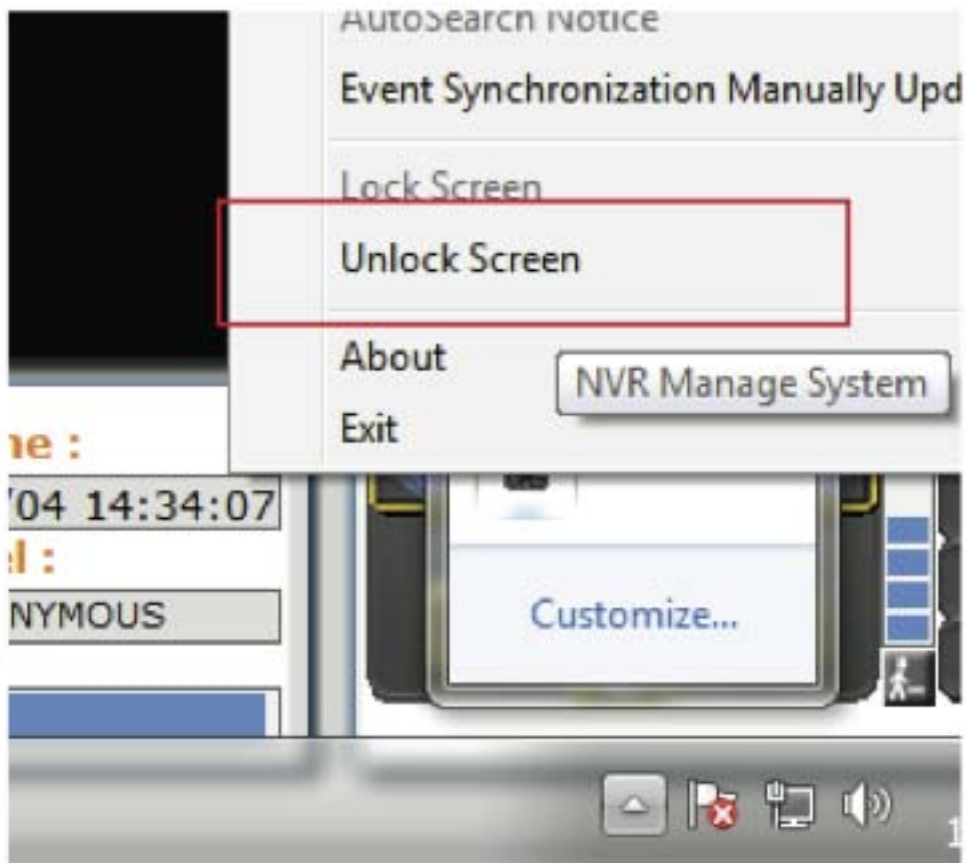


The program provides multiple languages user interface. To change the display language, go to the side menu and select "**SYSTEM**" > > "**language**" and select a desired language from the drop-down menu.

Lock Screen

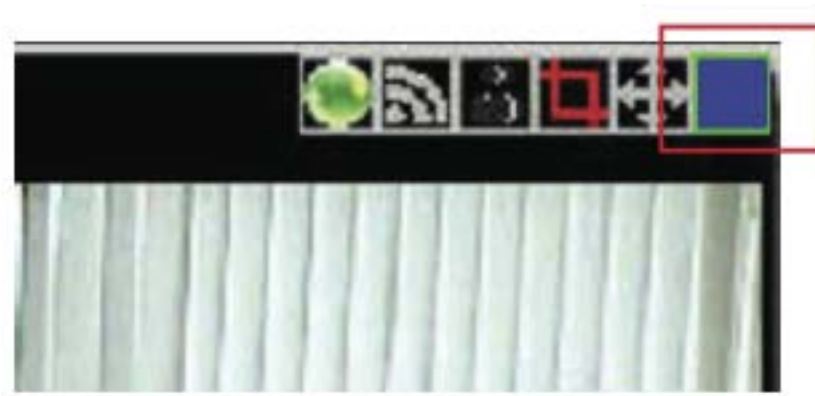


The function prevents users from accessing any function while keeping the program running for viewing purpose.



To unlock, access the program from the Windows task bar at the bottom and right-click on its application icon and select "Unlock Screen"

Check Camera and NVR Status



On the live view page, each camera's current status is displayed in the upper-right hand corner of the video window

| MENU | TREE | PATTERN |
|--------|------|---------|
| STATUS | SEQ | SYSTEM |

SVR Status

| | | | |
|----|----|----|----|
| 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 |

Channel Status (SVR: 1)

| | | | |
|----|----|----|----|
| 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 |

Legend:

- Network Disconnection
- Network connection
- Recording
- Event Trigger
- Connecting
- Video Loss

Status definition

You can, however, obtain status of all NVRs and the cameras from the side menu under "STATUS"