# Table of Contents

User Interface Overview .......................................................... 4
 CMS UI Overview ........................................................................ 4

Installation ........................................................................... 6
 Begin Installation ........................................................................... 6
   Attention for Windows Vista, Windows 7, Windows 2008 Server users... 7

Launch the Program ............................................................... 10
 Start CMS Software ..................................................................... 10
   Run Setup Wizard First ................................................................. 10
   Start it from the "Start" menu ........................................................ 10
   Start it from the desktop ............................................................... 11
   Attention for Windows Vista, Windows 7, or Windows 2008 Server users 11

Using the Setup Wizard .......................................................... 14
   it’s necessary to use the Wizard ..................................................... 14
   Connect the program with NVR ..................................................... 15
   Automatic Search ........................................................................ 15
   Drag and drop to add .................................................................. 17
   Add NVR Manually with Setup Wizard .............................................. 18
   Remove an NVR to edit its settings ................................................ 19
   PTZ Configuration ...................................................................... 20
   Configuring PTZ Preset Sequence ................................................... 23
   Intelligent Detection Setting ......................................................... 24
   Intelligent Detection Functions ..................................................... 25
   Configuring Motion Detection ....................................................... 26
   Configuring Malicious Attack ....................................................... 30
   Configuring Object Loss ............................................................. 31
   Configuring Tripwire ................................................................. 32
   Users and Groups ....................................................................... 34
   Add a new user ......................................................................... 35
   Edit Group Privilege .................................................................. 37
   Event Handling Configuration ..................................................... 39
   Configure E-Map ........................................................................ 41
   Set up Multiple Monitors ............................................................ 46
   Startup Screen Layout ............................................................... 47
   Event Servers .......................................................................... 49
   Configure Mail Server For Events ................................................ 50
   Configure FTP Server For Events ................................................ 51
   Configure Message Server For Events ........................................... 52
   Configure Sound Server For Events ............................................. 53
   Accessing the main program ........................................................ 54
   Event Export ............................................................................ 57
Using the Main Program ................................................................. 59
Live Video ......................................................................................... 59
   Working with the Live Video Page .................................................. 59
   Video Quick Access Functions ...................................................... 61
   Using PTZ Control Panel ............................................................... 64
   Use Mouse-over-video PTZ ............................................................ 65
   Drag and Drop to Relocate Videos ................................................. 65
   View Window switcher ................................................................. 66
   Support Two Full screen View ....................................................... 66
   Side menu Bar .............................................................................. 67
   Camera Tree list .......................................................................... 68
   Sequence View ............................................................................ 69
   Live View Pattern Groups ............................................................ 70
   Functions available in Full Screen ................................................. 72
   Automatic Sequence View in Full Screen ..................................... 73
Event Monitor .................................................................................... 76
   Playback Events from Event Monitor ............................................. 77
   Filter and Search Events ............................................................... 77
Playback ............................................................................................ 79
   Searching for Playback Videos ..................................................... 79
   Capture Snapshots of a Playback Video ....................................... 81
   AVI Export .................................................................................. 82
E-Map Monitor ................................................................................. 83
Service Mode .................................................................................... 87
NVR Overview .................................................................................. 90
Change Display Language ............................................................... 91
Lock Screen ...................................................................................... 92
Check Camera and NVR Status ....................................................... 94

Technical Specifications .................................................................... 95
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

Simply double-click on your CD-ROM drive icon in “My Computer” to 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 CMS Basic Software

Run Setup Wizard First

You should run the “Setup Wizard” before launching the CMS 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” >> “IVS” >> “CMS basic”
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" >> "IVS", right-click on the "Setup Wizard" or "CMS Basic (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 the CMS 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

It’s necessary to use the Wizard

The majority of the settings of the CMS software rely 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.
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.
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**

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.
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

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.
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 these functions, simply select “Malicious Attack” 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.
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.

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.
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.
You can configure a particular function to be displayed on one particular monitor every time 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 every time 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 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 server 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

You can configure up to three mail servers in which you can select later and use them for different event trigger conditions. When configuring a 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
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**

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)
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 short cut icon located on the desktop.
Or you can access the main program by simply go to “Start” >> “All Programs” >> “IVS” >> “IVS Central”
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
Define a time range for the exporting event data or simply select to export data of one particular event.

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

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

**Sequence View**

You can select how videos are split on the live view area, set the sequence interval, and choose to sequence all cameras or selected ones only.

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 pattern under the “PATTERN” menu.
Live View Pattern Groups

You can create multiple profiles for different live view split layouts. This is an extreme useful function in 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 pattern 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 an 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**

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

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

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**

- AVI Export
- Current status of this channel
- Capture snapshot of the recorded video
- Turn on/off audio from the recorded video
- right-click

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\IVS\IVS Central\AVI”
- The program allows a maximum of one hour of video per channel to be exported
E-Map Monitor

The E-Map provides 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 layer 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.
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
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.

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

Status definition:
Technical Specifications

<table>
<thead>
<tr>
<th>Device</th>
<th>Supported Device:</th>
<th>16 x Network Video Recorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Channels</td>
<td></td>
<td>256</td>
</tr>
<tr>
<td>Video</td>
<td>Compression:</td>
<td>MJPEG/MPEG4/H.264</td>
</tr>
<tr>
<td>Resolution:</td>
<td></td>
<td>MegaPixel/Full D1/CIF/QCIF</td>
</tr>
<tr>
<td>Max. Frame Rate</td>
<td></td>
<td>30 / Full D1</td>
</tr>
<tr>
<td>Audio</td>
<td>Streaming:</td>
<td>Two-way</td>
</tr>
<tr>
<td>Compression:</td>
<td></td>
<td>G.711/G.726</td>
</tr>
<tr>
<td>Live View</td>
<td>Display Mode:</td>
<td>Live View/E-Map View/Event Monitor/Playback/Full Screen x 2</td>
</tr>
<tr>
<td></td>
<td>Split Screen:</td>
<td>1/4/6/9/13/16</td>
</tr>
<tr>
<td></td>
<td>Full Screen:</td>
<td>16 videos x 2</td>
</tr>
<tr>
<td></td>
<td>PTZ Controls:</td>
<td>Pan/Tilt/Zoom/IRIS/Focus/Speed control</td>
</tr>
<tr>
<td></td>
<td>Sequence Mode:</td>
<td>Sequence All/Manually Selected cameras in 1/4/6/9 split view/Self-define patterns</td>
</tr>
<tr>
<td></td>
<td>E-Map Monitor:</td>
<td>Dual Layer E-Map Display</td>
</tr>
<tr>
<td></td>
<td>Snapshot:</td>
<td>Single/Continuous snapshot in JPEG format</td>
</tr>
<tr>
<td></td>
<td>Motion Display:</td>
<td>Edge Paint/Matrix Highlight/ROI (Region of Interest)</td>
</tr>
<tr>
<td></td>
<td>Image Enhancement</td>
<td>Improve visibility of video under low light condition</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>E-Map Monitor</td>
<td>Display:</td>
<td>PIP Video Integrated on E-Map</td>
</tr>
<tr>
<td></td>
<td>Event Trigger:</td>
<td>Pop-up video displayed on the map</td>
</tr>
<tr>
<td>Playback</td>
<td>Split Screen:</td>
<td>1/4</td>
</tr>
<tr>
<td></td>
<td>AVI Export:</td>
<td>Export recorded videos to AVI files</td>
</tr>
<tr>
<td></td>
<td>Search Methods:</td>
<td>Time/Date, Event</td>
</tr>
<tr>
<td></td>
<td>Event Search:</td>
<td>All/Time/Channel/Event Type/Event ID</td>
</tr>
<tr>
<td></td>
<td>Playback Controls:</td>
<td>Play/Pause/Stop/Forward/Reverse /Frame by Frame/Event By Event</td>
</tr>
<tr>
<td>Triggers &amp; Events</td>
<td>Intelligent Detection:</td>
<td>Smart Motion Detection/NVR Digital input &amp; output/Malicious Attack/Object Loss/Tripwire</td>
</tr>
<tr>
<td></td>
<td>Motion Display:</td>
<td>Edge Paint/Matrix Highlight/ROI</td>
</tr>
<tr>
<td></td>
<td>Event Detection:</td>
<td>Motion/Digital input &amp; output/ NVR System Status/Camera Status</td>
</tr>
<tr>
<td></td>
<td>Event Notifications:</td>
<td>On-Screen Alert/On-screen Motion Display/Mail/FTP/Configurable Alert Sound/ Record</td>
</tr>
<tr>
<td>Status</td>
<td>Camera Status:</td>
<td>Disconnected/Connected/Recording/ Event (Motion or sensor)</td>
</tr>
<tr>
<td></td>
<td>System Info:</td>
<td>System Time/Login Users/System Log-out/Network Bandwidth</td>
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<tr>
<td></td>
<td>Motion Display:</td>
<td>ROI (Region of Interest)</td>
</tr>
<tr>
<td>Systems</td>
<td>Min. Hardware Requirement:</td>
<td>CPU: Intel Core 2 Duo or higher @ 2Ghz RAM: Minimum 2GB or above is recommended Graphic Card: Independent graphic card with DirectX9.0c or higher Network: 100 Megabit Network Interface or above OS: Windows XP, Windows Vista, Windows 7</td>
</tr>
<tr>
<td>General</td>
<td>Languages:</td>
<td>English/Trad. Chinese/Smp. Chinese/Japanese/Spanish/Italian/German/ Danish/French/Polish/Czech</td>
</tr>
</tbody>
</table>

- Designs and specifications may change without prior notice for better improvement.
- Screens, photos, illustrations and other diagrams contained in this user's manual may slightly change from actual ones.