Network Solutions
NxMS
User Manual

DW DIGITAL WATCHDOG

Everything's Digital

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1 INTRODUCTION

1.1 PRODUCT DESCRIPTION

   NxMS is a powerful, feature-rich network management software. A variety of DVRs, servers, and IP cameras can be connected and centralized under a single software.

   NxMS is not only an efficient way to watch live and recorded video, but it is also easy to control and record the connected DVRs and IP cameras from anywhere.

1.2 KEY FEATURES

- Multi-Site Access [Up to 256 from 1 Remote Workstation]
- 256 Cameras [Across 3 Monitors] Live View for Total Awareness
- Email Hub for Alarms and Alerts from Any DW DVR Connected to It
- Visual Awareness Using Video and CAD Image Features
- Easy Setup
- Function and Camera Security
- Full DVR Playback Functions
- PTZ Control and Setup Support
- Remote DVR Software Upgrade
- Backup Locally Saved Video to CD, DVD, HDD, etc.
- Backup Proprietary Video from All Supported DVRs

1.3 PC REQUIREMENTS

These are the hardware requirements for a proper operation of the NxMS Software:

Minimum Requirements:
- Intel Core 2 DUO 2.8Ghz
- 1GB System Memory
- 256 MB + Nvidia or ATI Video Card
- 256k Network Connection or higher
- Microsoft Windwos® 7, Vista or XP
- 32 Bit Color Depth
- 1280x1024 Optimal Display Resolution
- TCP/ IP Installed

Recommended Requirements:
- Intel Quad Core i7
- 2GB System Memory
- ATI 5750 Video Card
- 512k Network Connection

2 GETTING STARTED

2.1 INSTALLING NxMS

You can find the NxMS software in the CD included with your DVR or on our website at
www.digital-watchdog.com

1. Click S**etup** file.

2. The **InstallShield Wizard** appears as shown below. Follow the instructions on the
   screen to complete the installation.

3. Click the **Next** button to start installing the program.
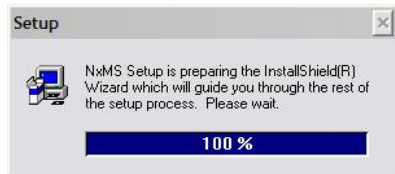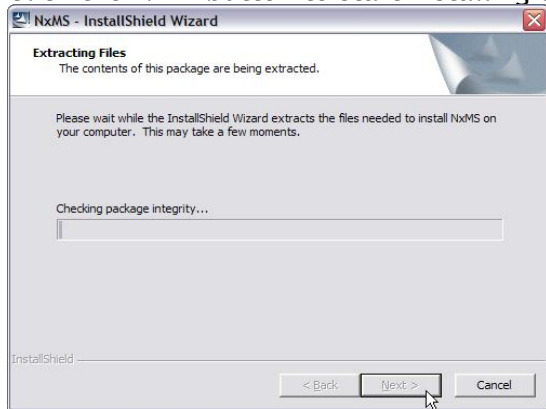
4. The **InstallShield Wizard** will extract and load the files needed to install **NxMS** on
   your computer.

2.1 INSTALLING NxMS

5. If you want to change the directory to install **NxMS**, click **Browse** and select your preferred the folder.
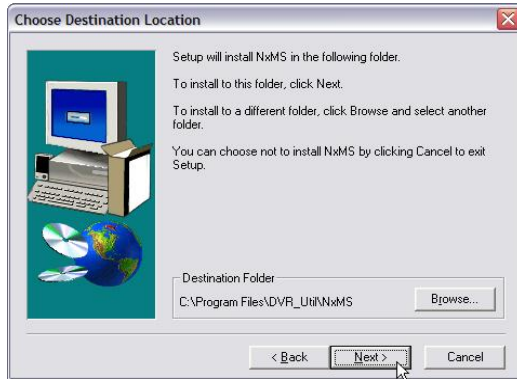
6. Go to the **Next.**
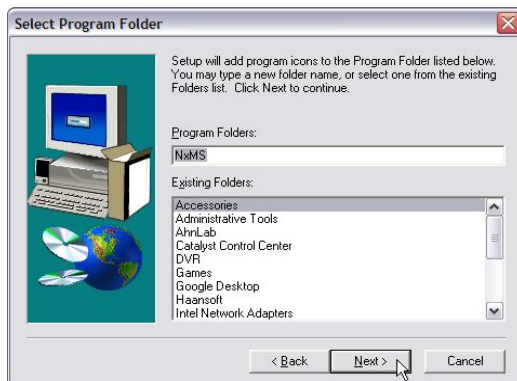
7. You can add this program icons in the program group, input the name and go to the **Next.**
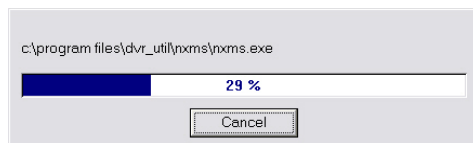
8. File is being copied to the folder you've assigned.

2.1 INSTALLING NxMS

9. The **InstallShield Wizard** is preparing to install the **NxMS** as shown below.
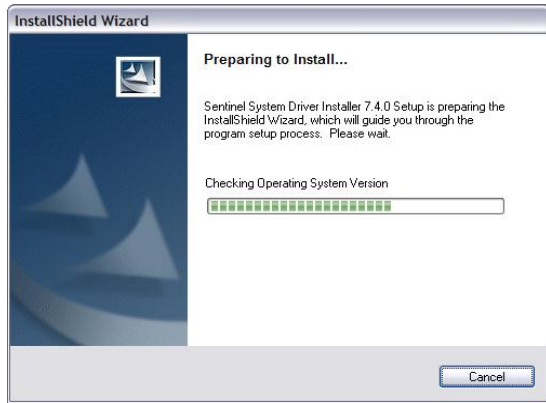
10. If **NxMS** has been correctly installed, you can see the following window.

11. Congratulations!! Setup is complete. Click **Finish.**

2.2 FIRST STARTING NxMS

1. Click **Start**, go to **Programs.**
2. Click **NxMS** icon under **NxMS** program group.

4. The login window pops up.
5. Input "administrator" for user ID and press the **Enter.** *(The factory default password of administrator is <blank>)*
6. After logging in, you will see the main **NxMS** window below.
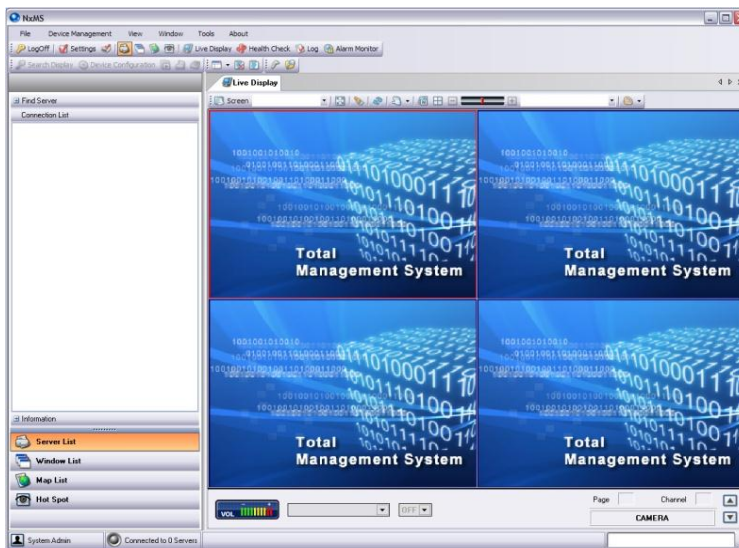
7. To exit the NxMS, click on the ⊠ button on the top right of the screen.

2.3 INTRODUCING THE MAIN WINDOW

The main window Includes four main parts: **Main Menu**, **Toolbar**, **Control**, and **Display Pane**

Main Menu · Live Display Toolbar · Toolbars · Live Display Control Button · Device List · Live Screen · Switching Tab · Status bar · Live Screen Info

MAIN MENU & TOOL BARS

- **Menu:** includes the following– **File**, **Device Management**, **View**, **Window**, **Tools**, and **About**.
- **Toolbars:** Enables you to quickly access the different menus, including: Log Off, Settings, Server List, Windows List, Map feature, Hot Spots, Live Display, Health Check, Log reports, Alarm Monitor settings, Search video, Device Configuration, and different searching options.
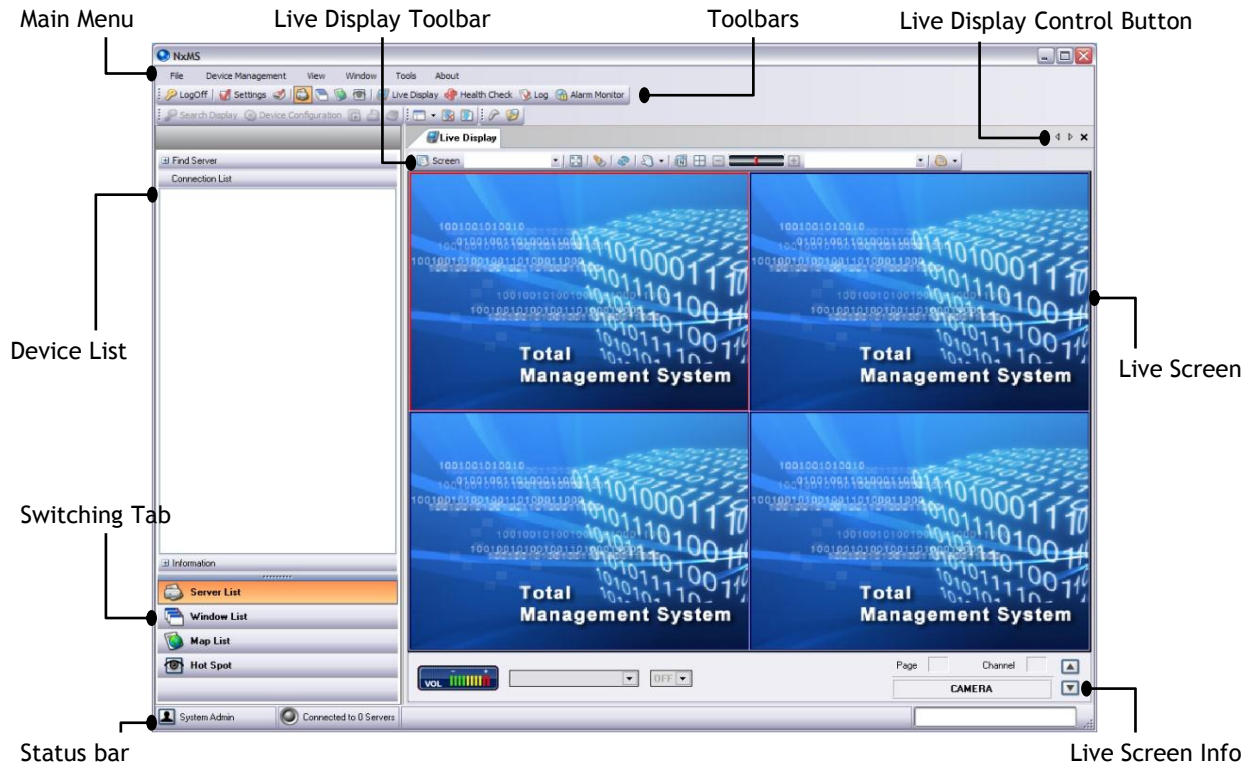
CONTROL PANE

- **Server List:** Displays the status of the device you've added. You may also add, modify, and delete a node and also configure details of a device.
- **Switching Tab:** Click each tab to switch the list displayed above to – **Server**, **Window**, **Map**, and **Hot Spot**.

DISPLAY PANE

- **Live Toolbar:** Enables you to control live screen and switch to another live screen mode.
- **Live Screen:** Shows a channel's live video.
- **Live Screen Info:** Displays page number and channel number being selected.

3 ⟩ BASIC OPERATION

3.1 ADDING/UPDATING/DELETING CONNECTIONS

To add, update, and remove DVRs or IP cameras on the **Server List**, please follow the instructions below.

1. Click **Tools** on **Main Menu** and go to **Settings.**
2. Go to **DVR List Setup o**n the list of options at the left-hand side.
3. You will see the **NxMS** option window below.

3.1.1 ADDING A CONNECTION

① **Server Type:** Select the type of device you'd like to add.

② **Server Name:** Input a text for **Server Name**. **Server Name** can be up to 40 characters.

③ **IP/URL:** Input a **IP address** or **URL** of a remote device.

④ **PORT#:** Input a **Port Number** being used on the device connection. Please consult your DVR or IP camera's Network settings to locate this information.

⑤ **User ID:** Type **User ID** to access to a remote device. Please consult your DVR or IP camera's Network settings to locate this information.

⑥ **Password:** Type **Password** to access to a remote device. Please consult your DVR or I P camera's Network settings to locate this information.

⑦ **Group:** Input a text to create a new **Group** or join an existing **Group**. The default **Group** is a **DVR Group**.

⑧ **ADD:** Click **Add** to add new connection into Connection List. (*To add more nodes, go back to number ① and follow the procedure from number ① to ⑧ again.*)

3.1 ADDING/UPDATING/DELETING CONNECTIONS

3.1.2 UPDATING A CONNECTION

① Select a node you'd like to modify from **DVR List Setup.** Clicking on a device will automatically display the device's information, ready to be modified.
② Make changes with **DVR information/Additional information.**
③ Click **Update.**

3.1.3 DELETING A CONNECTION

④ Select a node you'd like to remove from **DVR List Setup.**
⑤ Click **Delete.**

3.1.4 RETURNING TO THE MAIN WINDOW

Click **Save and Close** when you are finished. The settings window will close and the NxMS will display the Live Screen.

3.2 CONNECTING AND ASIGNNING CHANNELS

NxMS enables you to remotely access and configure your DVRs, Servers, and IP cameras from anywhere, anytime.

3.2.1 CONNECTING DEVICE

EXPLANATION OF ICON

- The following table explains what each icon on **Server List** stands for.

Icon	Explanation
	The device is disconnected.
	The device is establishing a connection.
	The device connection has failed.
	The device is connected.
	A channel is not being displayed on **Live Screen**
	A channel being displayed on **Live Screen**
	A channel is not being recorded – *Available only in devices that are set to record live video*.

SINGLE-CONNECT

- **NxMS** enables you to simply connect a device at one click.
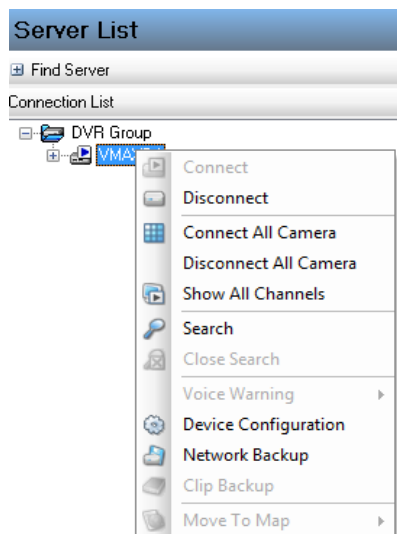
1. Right-click any node you'd like to access to.
2. Click the **Connect.**

3.2 CONNECTING AND ASIGNNING CHANNELS

- The icon next to the selected device will be changed into ⬛ meaning the device is connected.
- Click on the '+' icon next to a DVR name to expand the device's list and view all cameras connected to the DVR.
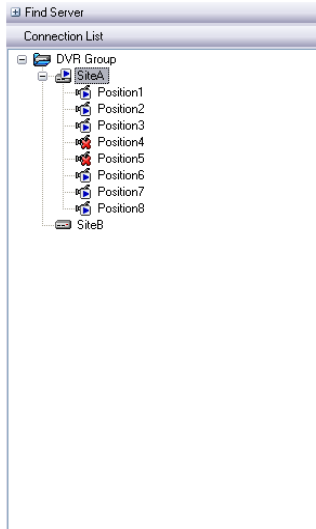
GROUP-CONNECT

- You may also establish a connection with multiple devices in the same group or all ones in **Server List** at the time. This function is active only on the device item - ⬛ -, not on the group item.
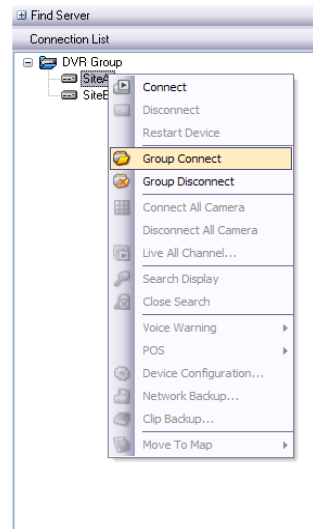
1. Right-click 📂 item in the group you'd like to make a connection with.

2. Select **Group Connect** to connect all devices in the group or **Group Disconnect** to disconnect all devices in the group.

3. You will notice ⊟ is changed into ⊟ when **NxMS** finish establishing a connection.
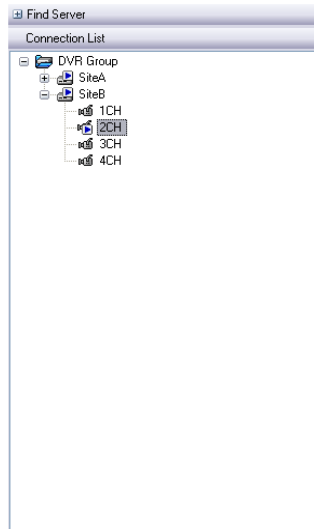
- After connecting to devices, you can expand/collapse each device and examine its state by clicking **"+/-"**.
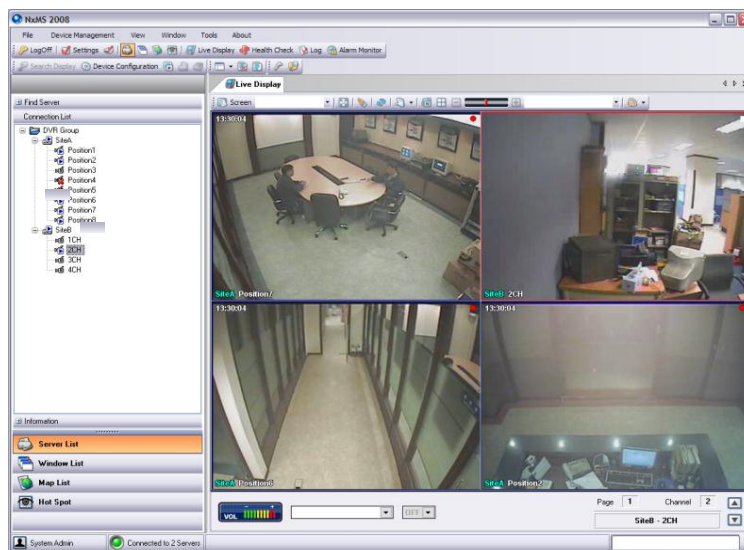
3.2 CONNECTING AND ASIGNNING CHANNELS

3.2.2 ARRANGING CHANNELS ON LIVE DISPLAY PANE

•   NxMS enables you to monitor all channels in live video mode. you can also select only specific cameras from each device and arrange them on the Live Display Panel anyway you want.

SIMULTANEOUSLY ASSIGNING ALL CHANNELS INTO LIVE SCREEN

1.   Right-click ![icon] item and go to **Connect.**
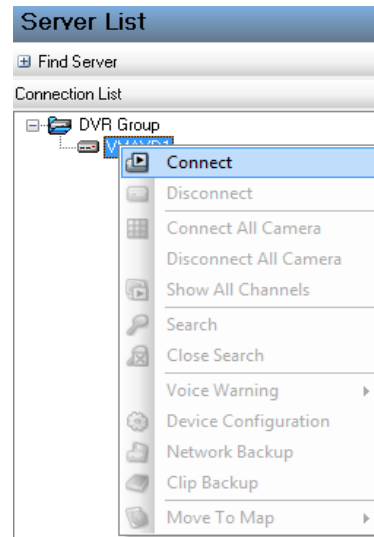
2.   When the device is connected, you will notice the cameras will be displayed in the live screen area. The cameras that are successfully connected will change their icon from ![icon] to ![icon]

3.2 CONNECTING AND ASIGNNING CHANNELS

ASSIGNING A CHANNEL INTO A LIVE SCREEN BY DRAG-AND-DROPPING

1. As you see the picture below, select any camera you'd like to monitor.
2. Drag-and-drop it on any **Live Screen** you'd like to assign into.
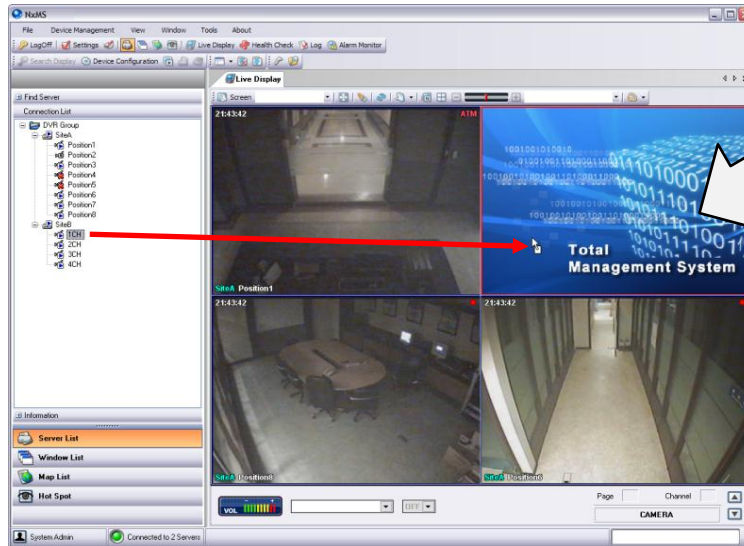
ASSIGNING A CHANNEL INTO A LIVE SCREEN BY DOUBLE-CLICKING

1. Double-click any camera you'd like to monitor.
2. The channel with a camera is assigned into the first empty **Live Screen**.
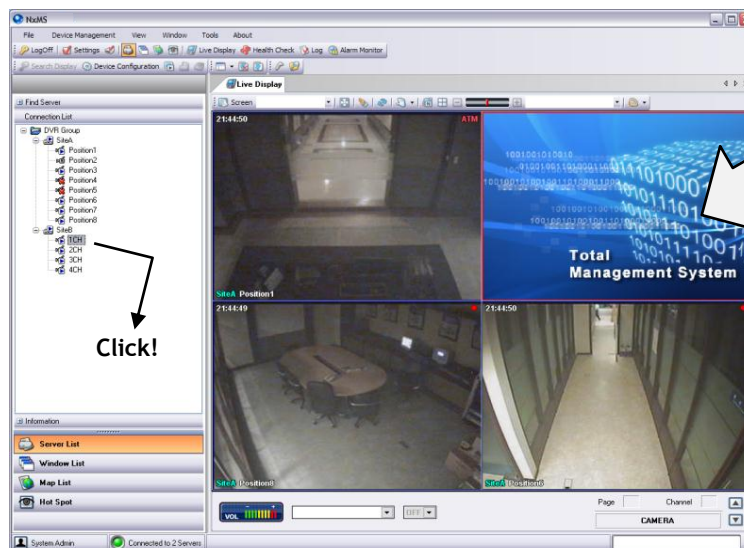
3. The channel you double-clicked will show up in the first empty Live Screen

REARRANGING LIVE SCREENS

1. Select a **Live Screen** you want to move to a different location on the display screen.
2. Drag-and-drop it on any **Live Screen** you'd like to place.
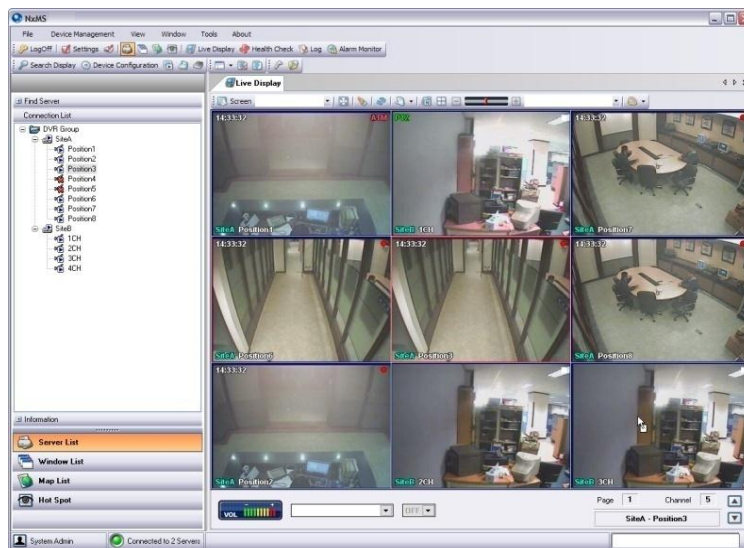
3.2 CONNECTING AND ASIGNNING CHANNELS

3. Once you complete steps #1 and #2, you may notice the **Live Screen** you've drag-and-dropped is rearranged.
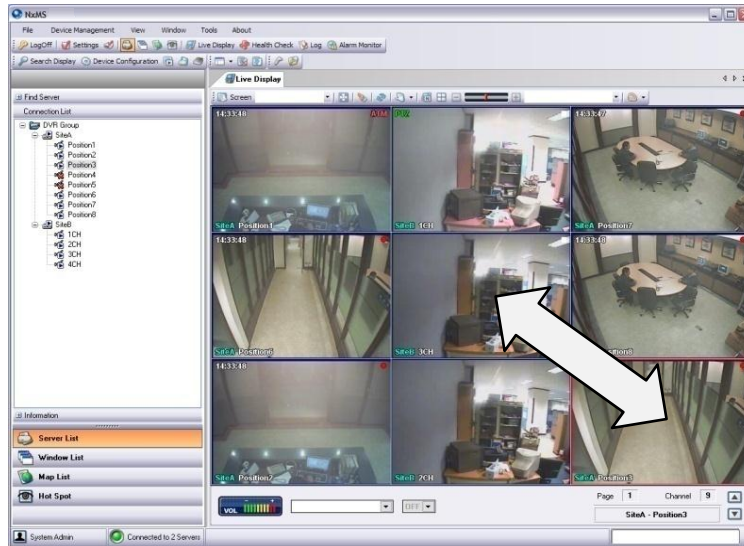
3.3 CLOSING LIVE SCREEN

You can disconnect a single channel from your live view screen.
1. Right click a **Live Screen** you'd like to close.
2. Go to **Close.**
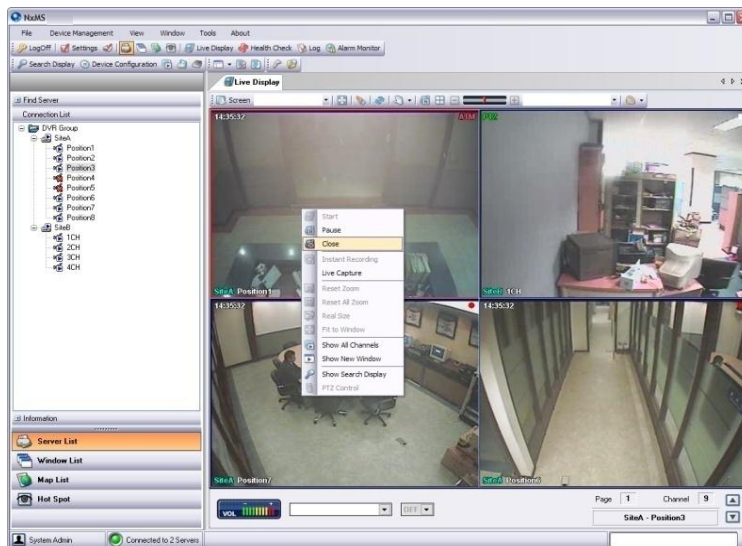
3.4 SERVER LIST

   Server List in **Control Pane** displays a list of devices. You can efficiently examine the status of your channels in each device. Also, you can obtain any information such as name, type, and version of device. You can also quickly search **Server List** for a particular device.

3.4.1 FINDING A SERVER

- **Find Server** enables you to quickly and easily search a device among the devices on **Server List** by its name.

1. Expand the **Find Server** tab by clicking on **"+".**
2. Either type **Server Name** in text box or select one from drop-down list by clicking on **"▼"** as you see below.
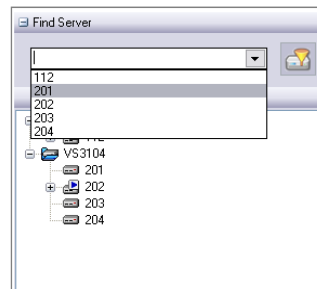
   The filter icon makes **Server List** display only devices connected.
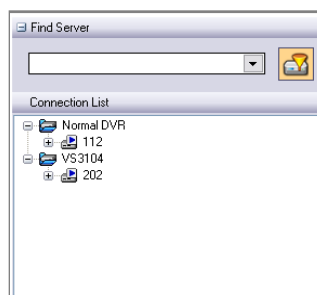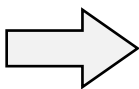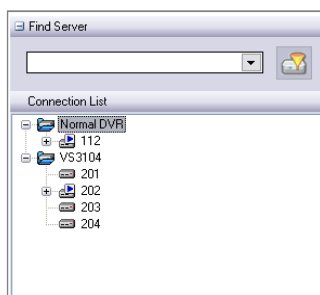
3.4.2 GETTING DETAILS WITH A DEVICE

- You can easily view the device's details, such as type, IP, channel and maximum frame. This information can be found in the **Information Tab** below the **Connection List** window.

- Expand **Information** by clicking on **"+".**
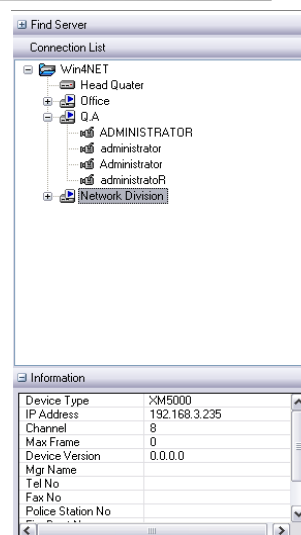
3.5 LIVE SCREEN

Live Screen displays a live video image transferred from each channel. You can control PTZ(Pan/Tilt/Zoom) camera on the **Live Screen** as well as zoom in/out and capture live video.

3.5.1 SINGLE SCREEN MODE

1. Double click the desired channel to view it in single screen mode.
2. Double-click the **Live Screen** again to return to the multi-channel **Live Screen** mode.
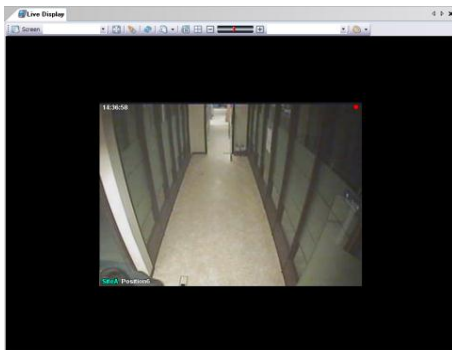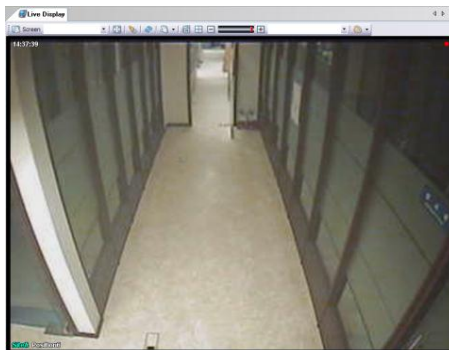
< 704 x 480 >   < 352 x 240 >

• Notice each live video being shown in different size. This is because the video is being shown adjusted to the device's resolution. This is done to prevent distortion of the image.

3.5.2 FULL SCREEN MODE

You can also view a single screen in full screen mode.

• To switch to full screen mode, click on **Live Display Toolbar**.

• To exit full screen mode, right-click a **Live Screen** and go to **Fit to Window** or press **ESC** button on the keyboard.
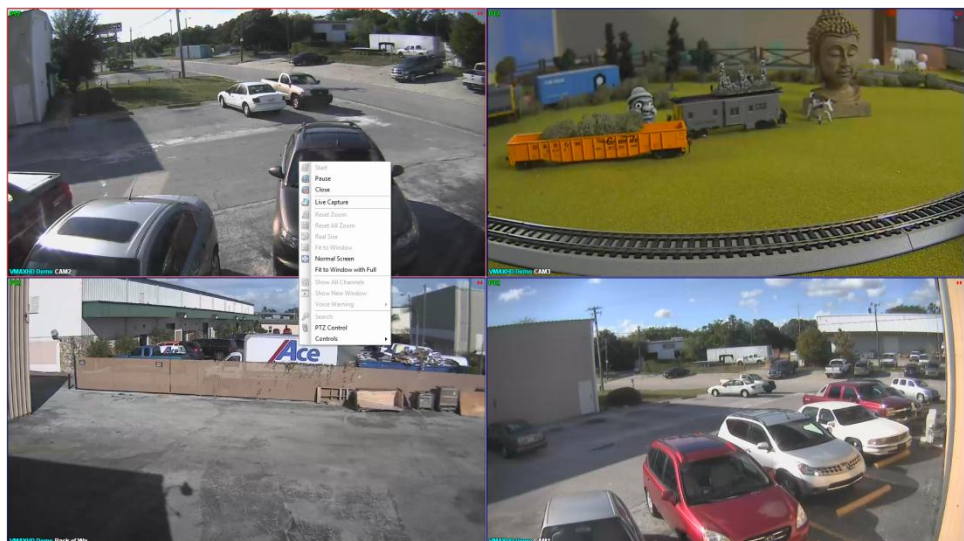
3.5 LIVE SCREEN

3.5.3 TO PAUSE LIVE VIDEO

1. Right-click the **Live Screen** you'd like to view and go to **Pause**.
2. The live video will stop playing.
3. To make the live video start playing again, right-click the **Live Screen** and select
Start.

3.5.4 CAPTURING LIVE VIDEO

1. Right-click the **Live Screen** you want to capture and go to **Live Capture**.
2. Save it either as **JEPG** or **BMP** file.
3. Click **Save.**
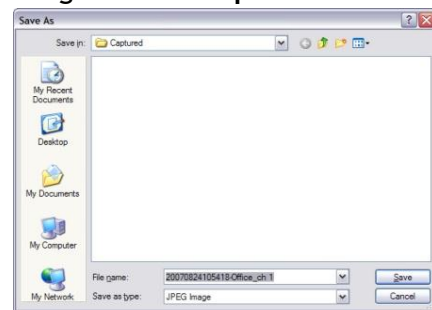
3.5.5 SWITCHING TO ANOTHER SPLIT LIVE SCREEN MODE

1. Click ⊞ for **Live Display Toolbar**.
2. NxMS will list down 11 types of multiple **Live Screen** mode, as seen below.
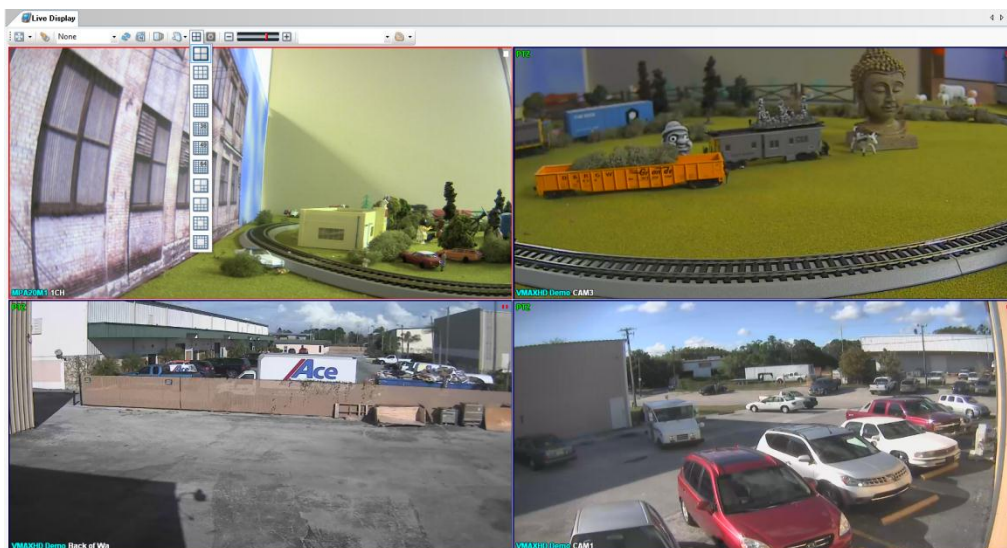
3.5 LIVE SCREEN

3.5.6 ZOOMING IN/OUT LIVE VIDEO

- You can digitally zoom in/out using the following slide bar in **Live Display Toolbar.**

Zoom out by clicking on **"-"**   Zoom in by clicking on **"+"**

Zoom in/out by
- drag-and-dropping the red pin on any point of the slide bar
- clicking on any point of the slide bar
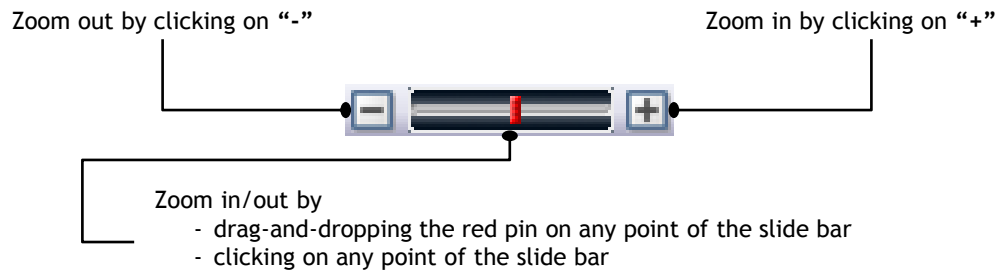
- To return the screen to its original size, right-click on the screen and select **Real Size.**

3.5 LIVE SCREEN

3.5.7 DEVICE SETUP

- **NxMS** enables you to configure any device's options such as recording resolution, frame-modes, and type of alarm events, on your local computer.

CONFIGURING A DEVICE REMOTELY

1. Right-click [icon] . *(Make sure the device you are trying to access is properly connected)*.
2. Select **Device Configuration**.
    You can also click on the **Device Configuration** button in the toolbar above the **Server List**.
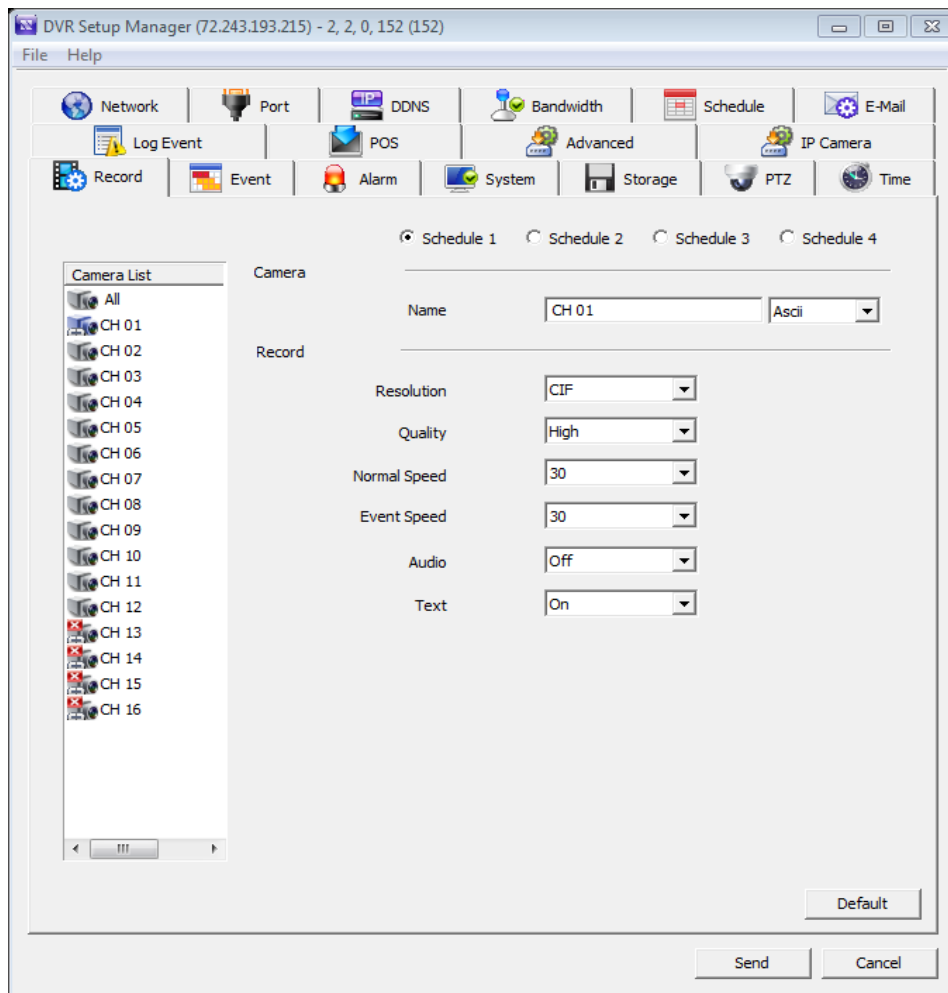
- You can configure all the main features of your device remotely. (*For recommended settings and additional information, please refer to the DVR's manual*).

3.5 LIVE SCREEN

3.5.8 POS in Live

- **NxMS** supports the view of live video with POS text overlay on supporting devices. Please see section 5.1.6 for setup and configuration.

Viewing live video with POS text overlay

1. Connect to the desired device.
2. Right-click on the device and select POS→ TURN ON.
3. You can also select only specific channels to display the POS overlay. To do so, right-click on the desired channel and select- POS→ ON

Hide POS Text in live video

1. Connect to the desired device.
2. Right-click on the device and select POS→ TURN OFF.
3. You can also select only specific channels to hide the POS overlay. To do so, right-click on the desired channel and select- POS→ OFF

- *Make sure the device you are trying to view supports POS feature and is set to record POS text.*

3.6 MAP

NxMS enables you to efficiently manage your remote sites using a graphical **Map**.

3.6.1 USING MAP

1. Click **Map List** on **Control Pane** to switch to the **Map List.**
2. Right-click **Map List** area and select the **Add Map** on the context menu.
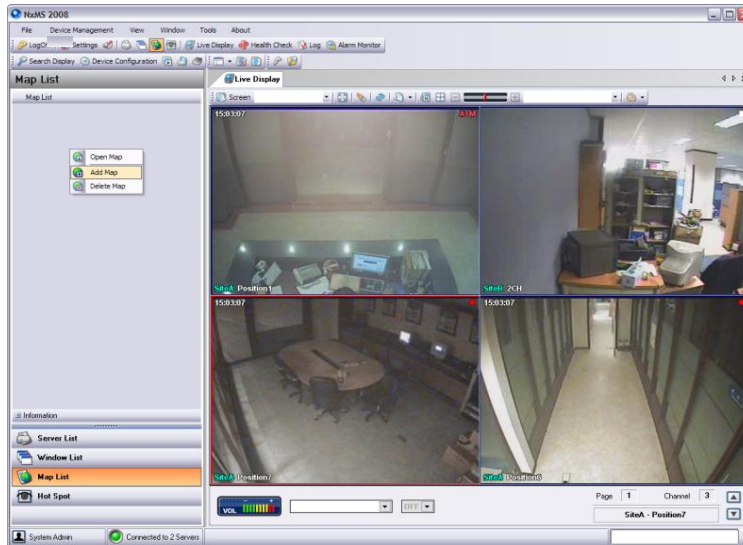
3. Click **Find** when the following window pops up.
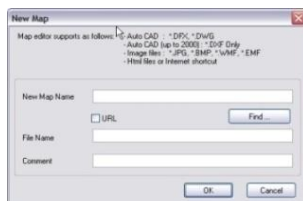
4. The following dialog box will appear.
5. Choose your preferred map file and click **OK** button.
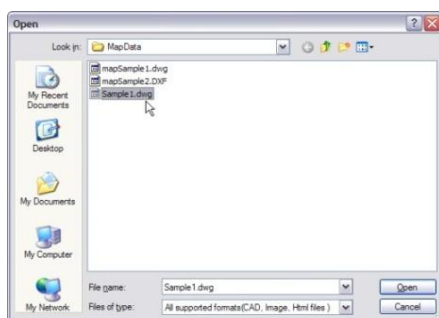
3.6 MAP

6. Input text in **New Map Name** and type text in **Comment** for optional detail.
7. Click the **OK** button.
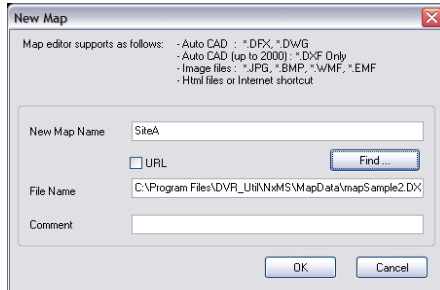
8. Right a Map on the **Map List** and go to **Open Map** to display it on the **Main Display** pane.
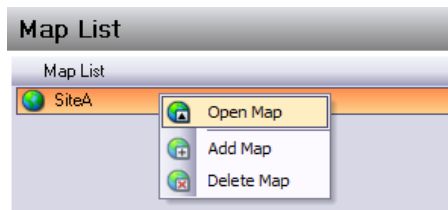
9. The map will be displayed on **Main Display** pane as seen below.
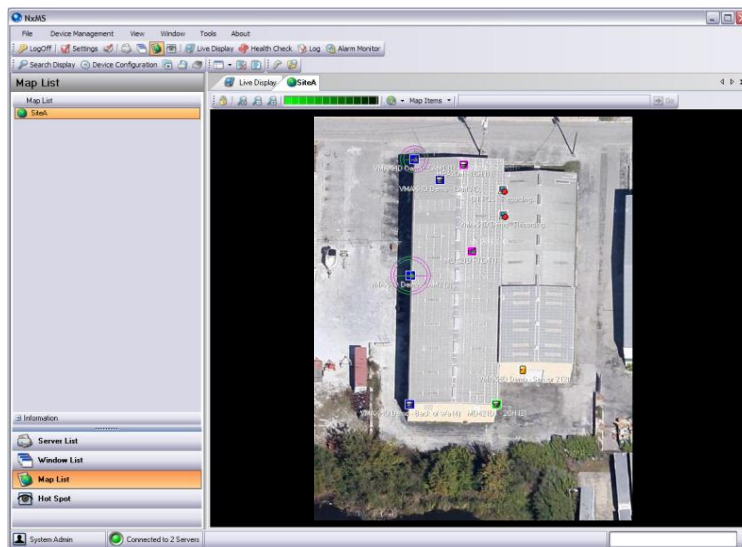
3.6 MAP

3.6.2 ADDING A DEVICE ON THE MAP

•   You can locate Cameras, Sensors, Relays, DVRs, Dome Cameras in the map according to their physical location. This feature allows you to monitor individual cameras and devices spread across a location, make sure they are properly working, and get instant notifications when a sensor or an alarm are triggered. You can also connect an item in one map with a different map by selecting the - - icon.

1. Right-click ▼ behind **Map Item** on **Live Display Toolbar.**

2. Choose one icon from the list. The mouse pointer will turn to a drop icon as seen below.

3. Point the mouse to the corresponding point in the map where the device you selected is physically installed. Click on that location to place the device icon.
4. Select **Server**, **Camera,** and **Icon Size** and enable/disable the **Use Audio** feature.
5. Click **OK** button.
6. If an event occurs, the device will display green radiating signals from the camera indicating an event was triggered as seen below.
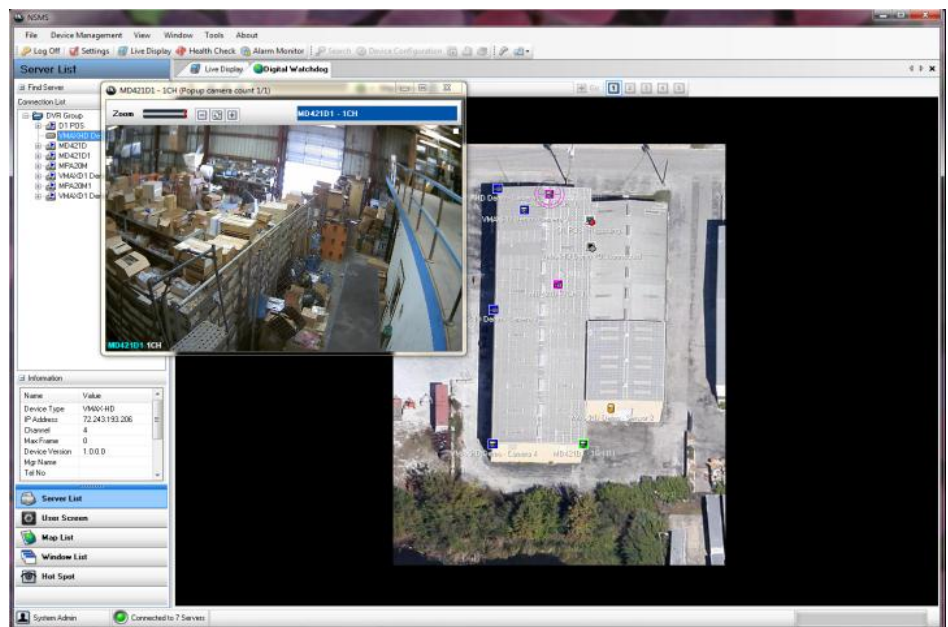
(For instructions how to setup alarm-action, see section 4.1.1-Map Alarm Event.)

3.6 MAP

3.6.3 JUMPING TO MAP DISPLAY

- After setting the map for a certain device, you can directly jump to the map display. To do so, complete the following steps.

    1. Right-click the device on the **Server List** which has the linked map.
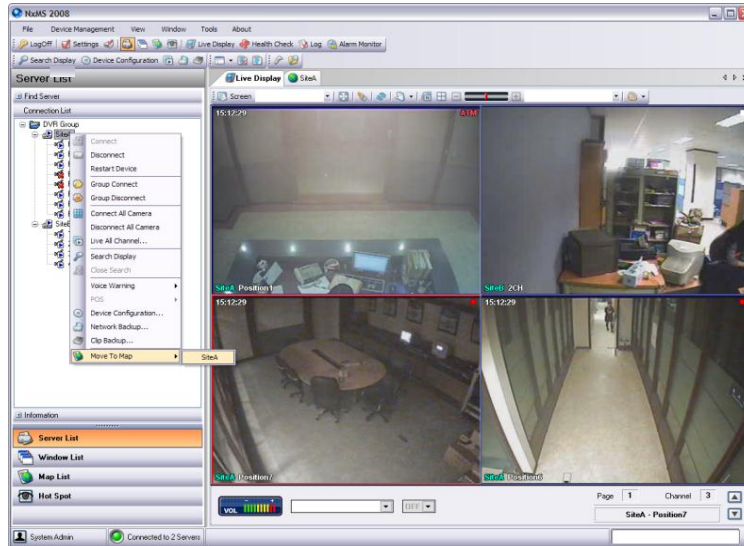
    2. Go to **Move To Map** and click the desired map.
    3. The linked map will be displayed on the **Display Window** as you see below.
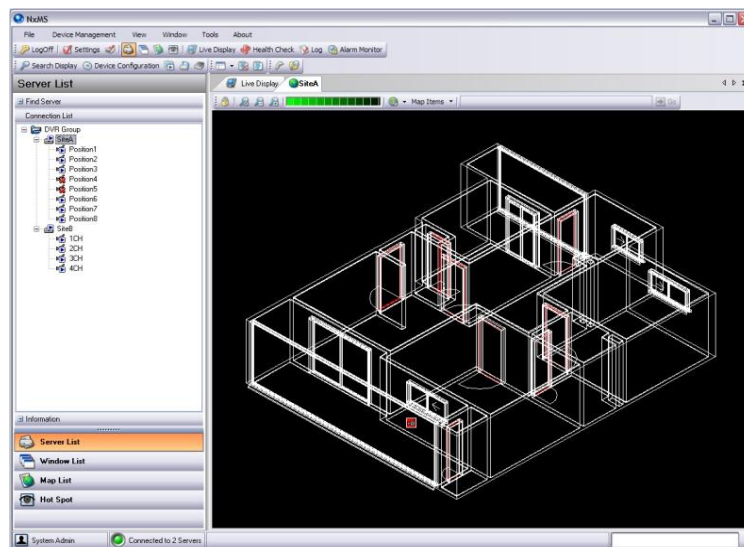
3.7 HOT SPOT

   Hot Spot enables you to select one **Live Screen** from **Live Display** and show it in a separate window for PTZ control. You can control a **PTZ Camera** using **PTZ Control** functions - **Pan**, **Zoom**, **Focus** and **IRIS** – You can focus on a particular area in its **Live Screen.** You can also set the camera to presets, tours and patterns according to the camera's settings.

3.7.1 HOT SPOT

1. Click **Hot Spot** tab on the **Control Pane.**
    - Or click **View** on the main menu, go to **Windows** and select **Hot Spot.**
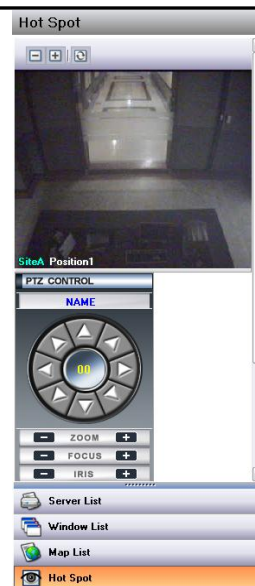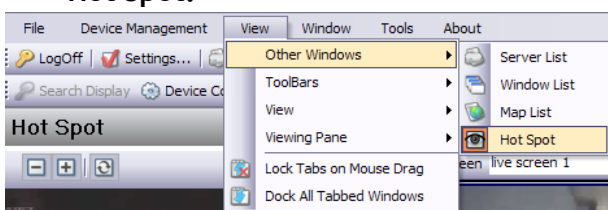
2. Select one of **Live Screens** on **Live Display.**
3. That **Live Screen** will be shown on **Hot Spot**'s **Live Screen.**

NOTE: To use the PTZ controller feature, make sure the camera you are accessing is a Pan, Tilt, Zoom (PTZ) camera.

3.7.2 PTZ CONTROL

•   Use the 8-direction arrow buttons to move your camera left, right, up, and down.
•   Use the +/- buttons to adjust the camera's Focus and Iris, and to move the camera to zoom in/out.
•   You can also set the camera to a predetermined preset, tour, or scan.
•   (Note: Make sure the presets, scans, and tours are setup in the camera first)
•   To expand to **advanced PTZ control**, click ▼ on the following menu bar.

•   With **PTZ control**, you can setup and configure your PTZ camera all from the convenience of your computer.

- Normal -

- Advanced -

3.7 HOT SPOT

3.7.3 ZOOM

- The **Hot Spot** pane allows you to digitally zoom into a camera's selected area in Live or Search modes.

Select a **Live Screen** from **Live Display** you'd like to show on **Hot Spot** and click it
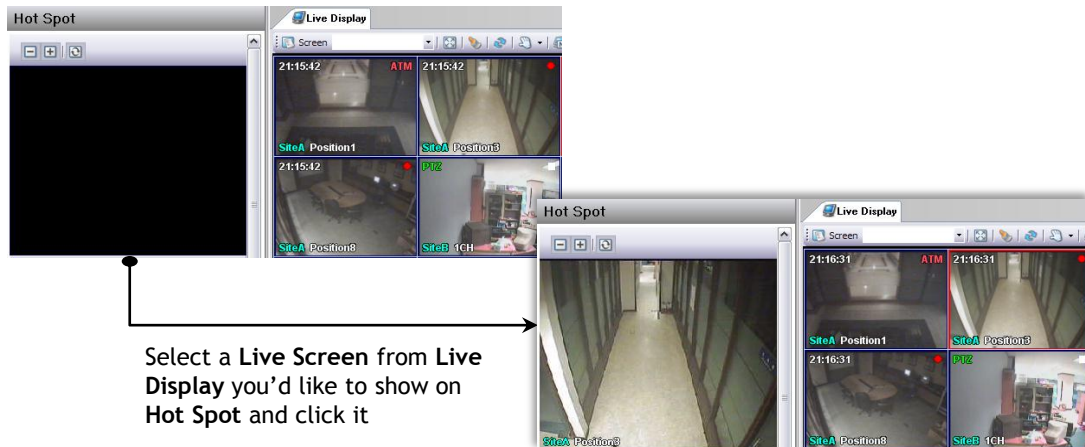
- Make a rectangle area on **Hot Spot Live Screen** by right-clicking on the screen and dragging the mouse. The selected area will be displayed in the Live Display. The smaller the rectangle, the more the camera will digitally zoom into the selected spot.

To remove a rectangle area from **Hot Spot Live Screen**, click **refresh** button.

To increase a rectangle area
  1. Click **"+"** on the tool bar below.
  2. Point your mouse on the green dots and drag-and-drop

To move a rectangle area, point at the center of the rectangle with the mouse and drag-and-drop the box to the position you'd like to move.

To reduce a rectangle area
  1. Click **"-"** on the tool bar above.
  2. Point your mouse on the green dots and drag-and-drop
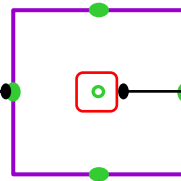
3.8 ALARM MONITOR

NxMS enables you to receive event data and pinpoint where the events happened.

3.8.1 ALARM SETUP

• You should set IP address of the alarm device being monitored in **NxMS** system to manage it. *(For details about configuration with your device, please refer to its manual or contact your customer support)*

• **NxMS** records event logs in the pre-defined directory and alert you using a sound and a pop-up window. *(For details, refer to chapter 4.1.4 Alarm Monitor)*

3.8.2 ALARM EVENTS

• To open the **Alarm Monitor,** click either the ![Alarm Monitor...] button or the **Window** on the main menu, and go to **Window→ Alarm Monitor**...
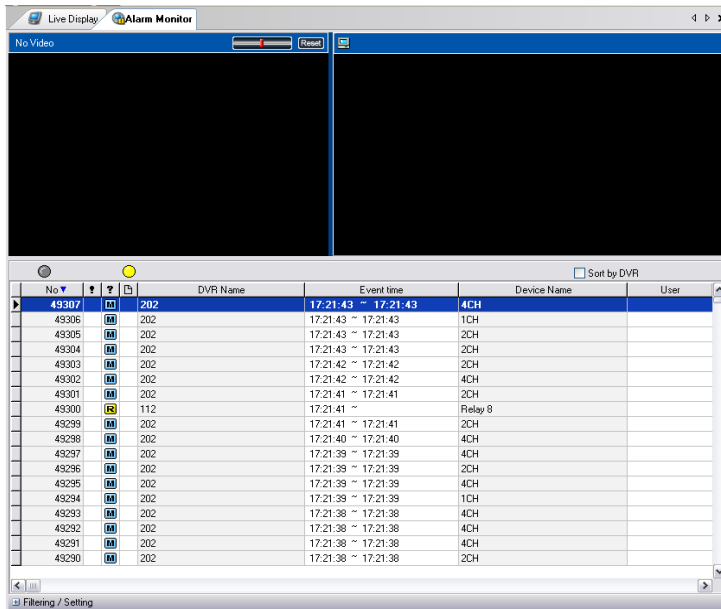
• If **Alarm monitor** is correctly configured, the event messages will be displayed chronologically– *the latest event is always on the first row* .

• Alarm events displays event number, event type, name of device, and channel in which event occurs.

• Each symbol stands for a type of event as you see below.
  - **[M]** motion
  - **[R]** relay
  - **[S]** sensor
  - **[X]** video loss
  - **[N]** no signal

3.8 ALARM MONITOR

- Double-click a particular line on the event list to view live display from the corresponding camera.
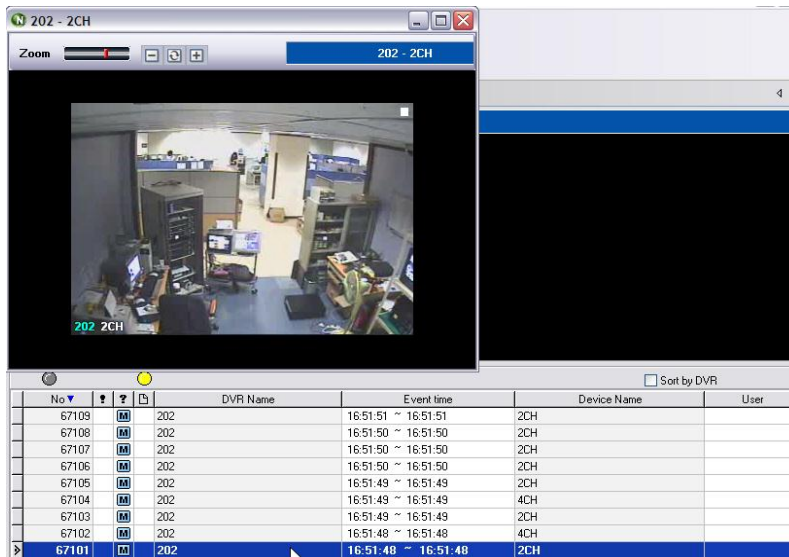
- To sort events by device, click **Sort by DVR**.
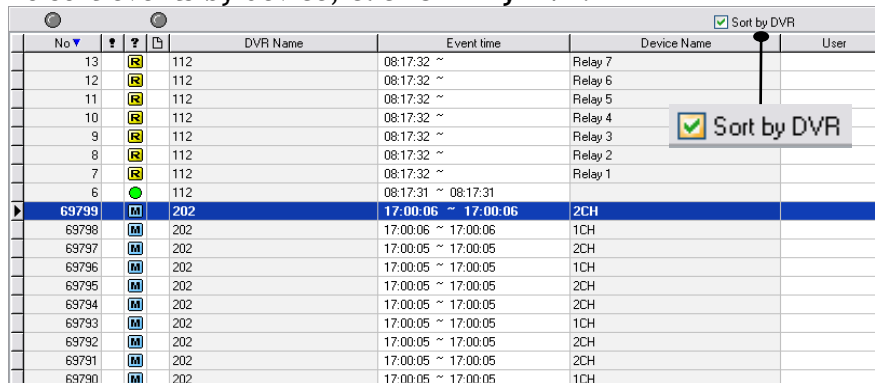
3.8.3 FILTERING

- **NxMS** enables you to effectively search the events through **Filtering**, which offers numerous options for making your searches more precise and getting more useful results.
- To expand **Filtering** information, click ⊞ Filtering / Setting at the bottom of the screen.
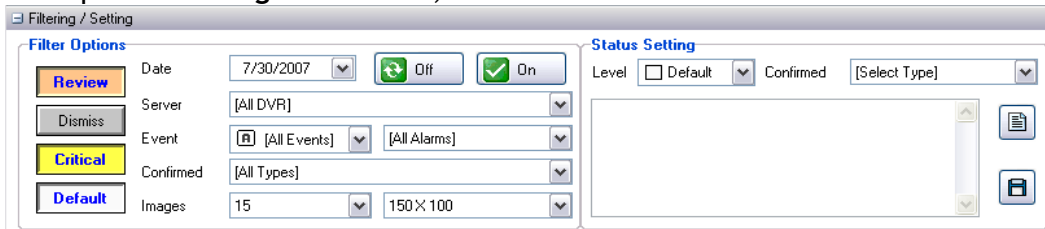
3.8 ALARM MONITOR
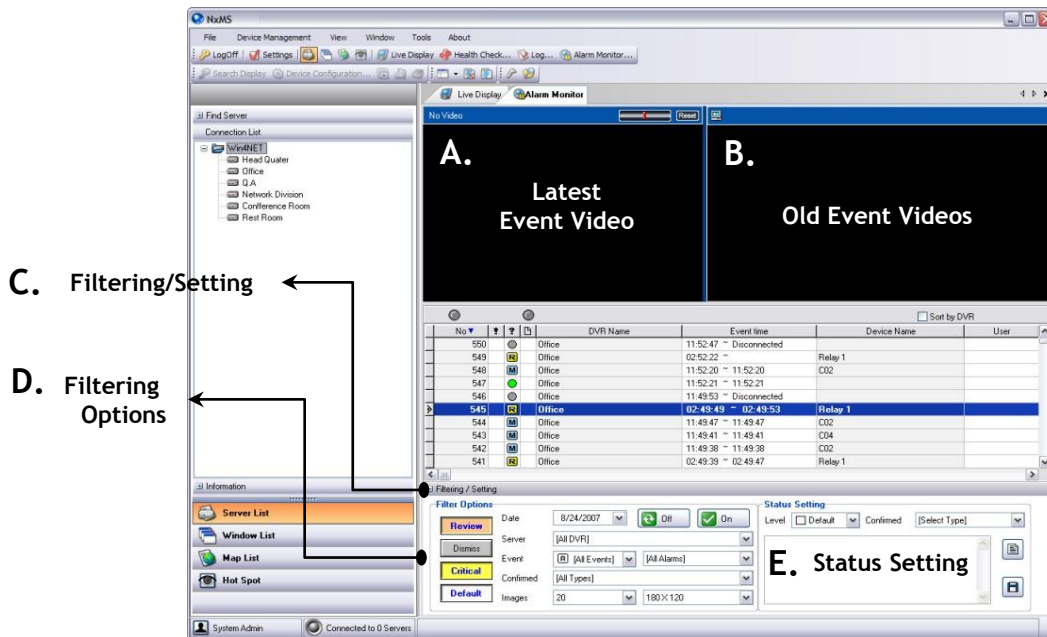
A. Latest Event Video
- Displays the latest occurred event video.

B. Old Event Videos
- Displays the previously occurred event video.

C. Filtering/Setting
- Click this to either expand Filtering/Setting configuration or to collapse it.

D. Filtering Options
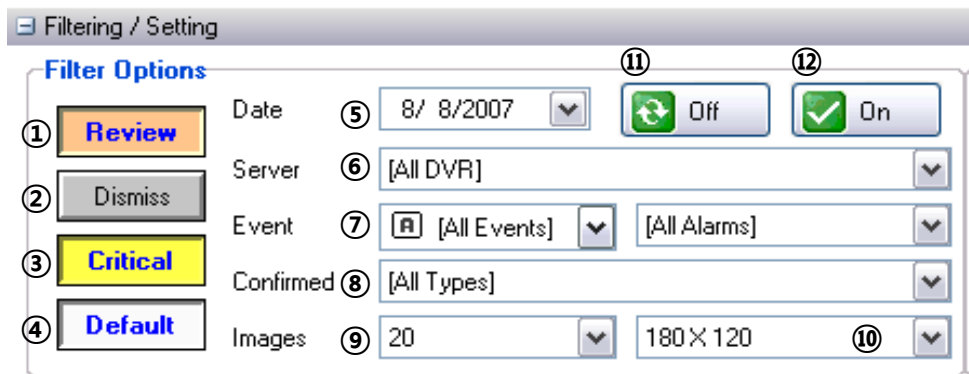
- With Filtering Options, you can search only for events:
    - ① marked as **Review**
    - ② marked as **Dismiss**
    - ③ marked as **Critical**
    - ④ marked as **Default**

⑤ occurred on a certain date

⑥ occurred on either a certain device or all devices

⑦ Select only specific alarm types from the drop-down list.

⑧ Grouped by customized item you've added on **Alarm Confirm List.**

- On the **Image** item:

⑨ Assign a number of the event video screen that is displayed on **B - Old Event Videos.**

⑩ Select the resolution of the event video from the drop-down list.

⑪ Click it to turn off event **Filtering.**

⑫ Click it to turn on event **Filtering.**

E. Status Setting
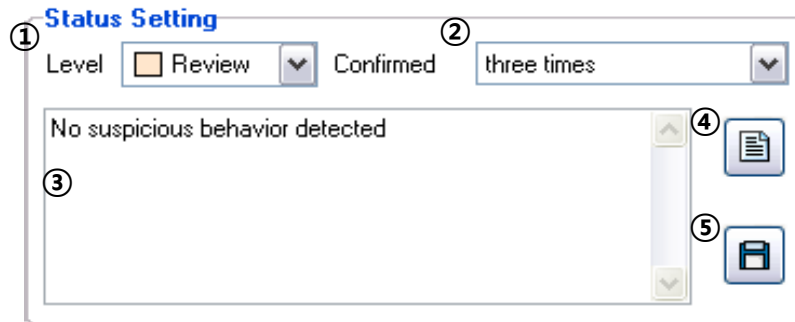
- On **Status Setting**, you can give a note on each event, assign event levels and export reports.

① Assign a level of importance to an event.

② select a type of confirmation from the drop-down list. *(You can create customized items on **Tools > Settings > Alarm Monitor**. For more details, refer to **4.1.4 Alarm Monitor**)*

③ You can add a short comment or memo about the event.

④ Click to save the log details you've monitored on a selected event.

⑤ Click the **button** to export event logs to another file format such as html, xls, csv, and txt by completing the following steps.

1. Click to open the export setup window as seen below.
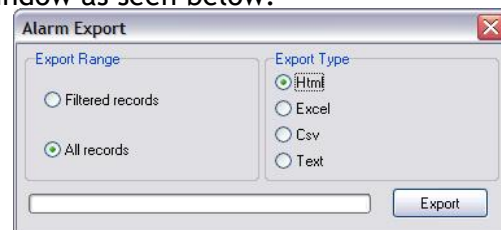
2. Select whether you export **Filtered records** or **All records.**

3. Choose a file format on the list – html, xls, csv, and txt.

3.8 ALARM MONITOR

4. Click **Export** button.
5. Type a name of file and click **Save**.
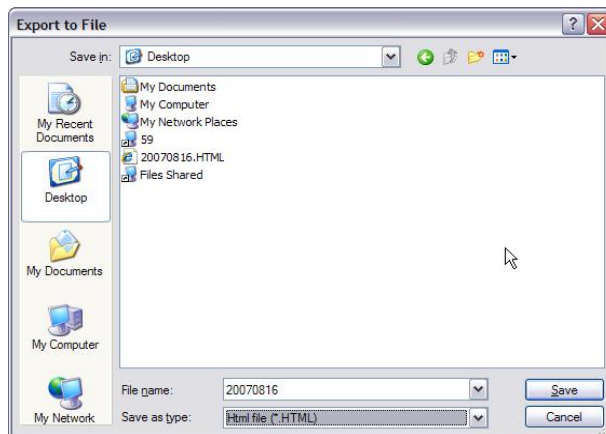
6. The following is the exported file opened on the web browser.

NxMS LOG DATA EXPORT [2007-08-16]

No	Alarm Monitor	Alarm Type	Memo	DVR Name	Event time	Device Name	User	Confirmed Time	Confirmed
0	N		No suspicious behavior detected	202	07:21:00 ~ 07:21:00		administrator	08-16 08:00:27	three times
1	N	X		202	07:21:01 ~	1CH			
2	N	X		202	07:21:18 ~ 07:21:33	2CH			
4	N	X		202	07:44:44 ~ 07:44:57	2CH			
5	N	X		202	07:44:44 ~ 07:44:57	3CH			
6	N	X		202	07:52:32 ~ 07:52:48	2CH			
7	N	X		202	07:52:32 ~ 07:52:48	3CH			
8	N	X		202	07:57:37 ~ 07:58:00	2CH			
9	N	X		202	07:57:37 ~ 07:58:00	3CH			
10	N	M		202	08:02:36 ~ 08:02:36	2CH			
11	N	M		202	08:02:36 ~ 08:02:36	2CH			
12	N	M		202	08:02:36 ~ 08:02:36	2CH			
13	N	M		202	08:02:36 ~ 08:02:36	2CH			
14	N	M		202	08:02:36 ~ 08:02:36	2CH			
15	N	M		202	08:02:37 ~ 08:02:37	2CH			
16	N	M		202	08:02:40 ~ 08:02:40	2CH			
17	N	M		202	08:02:41 ~ 08:02:41	2CH			
18	N	M		202	08:02:41 ~ 08:02:41	2CH			
19	N	M		202	08:02:42 ~ 08:02:42	2CH			
20	N	M		202	08:02:42 ~ 08:02:42	2CH			
21	N	M		202	08:02:42 ~ 08:02:42	2CH			
22	N	M		202	08:02:42 ~ 08:02:42	2CH			
23	N	M		202	08:02:43 ~ 08:02:43	2CH			
24	N	M		202	08:11:37 ~ 08:11:37	2CH			
25	N	M		202	08:11:37 ~ 08:11:37	2CH			
26	N	M		202	08:11:38 ~ 08:11:38	2CH			
27	N	M		202	08:11:38 ~ 08:11:38	2CH			
28	N	M		202	08:11:39 ~ 08:11:39	2CH			

4 SEARCH

4.1 SEARCH

The **NxMS** provide users with convenient searches that can be used in a variety of situations.

4.1.1 SINGLE DEVICE SEARCH

- For devices with storage function, the **NxMS** allows the user to remotely search recorded data. All kinds of searches used in a connected device can be available on the **NxMS** as well.

- To perform **Network Search,** please follow the steps below:

1. Right click the desired device icon on the **Connection List**, and click **Search.**

2. You can also go to search mode by clicking on the **Search** button in the toolbar above the **Server List**.

3. The **Display Pane** opens a search display for the device.
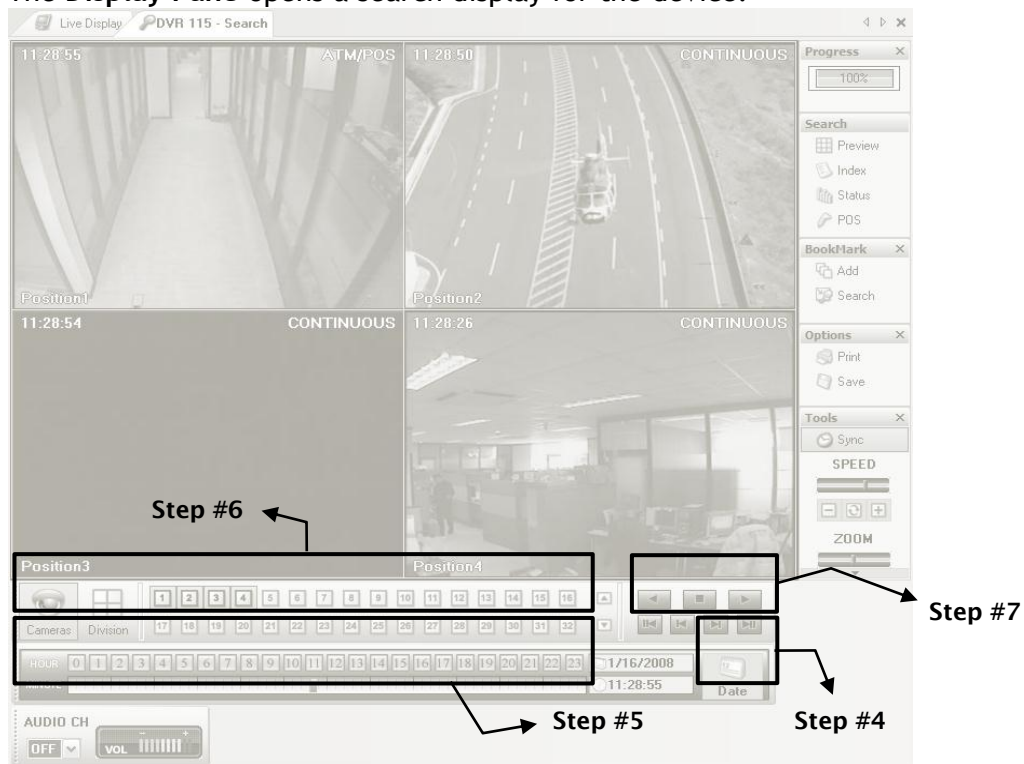
Red marked date contains recording data

4.1 SEARCH

4. In the search mode, click the Date button and select the desired date.

5. Select the desired time.

6. Select the desired camera(s).

7. When you are done setting up the playback time, press the play button to start viewing recorded video.

8. Using the playback controls, search the recording(s) of the selected camera(s).

4.2 BOOKMARK SEARCH

The Bookmark search allows users to quickly access a specific section of a recording by a previously user-defined index. A bookmark, can index multiple cameras(channels) at once. The user can also modify predefined bookmarks' details at a later time.

4.2.1 BOOKMARKING SECTION OF RECORDING

- To bookmark a section of a recorded video, please complete following steps:
    1. Go to the search mode (**Search Display** or **Storage Search**).

Search Display Pane

Step #8

Step #7

Step #6

Step #5   Step #4
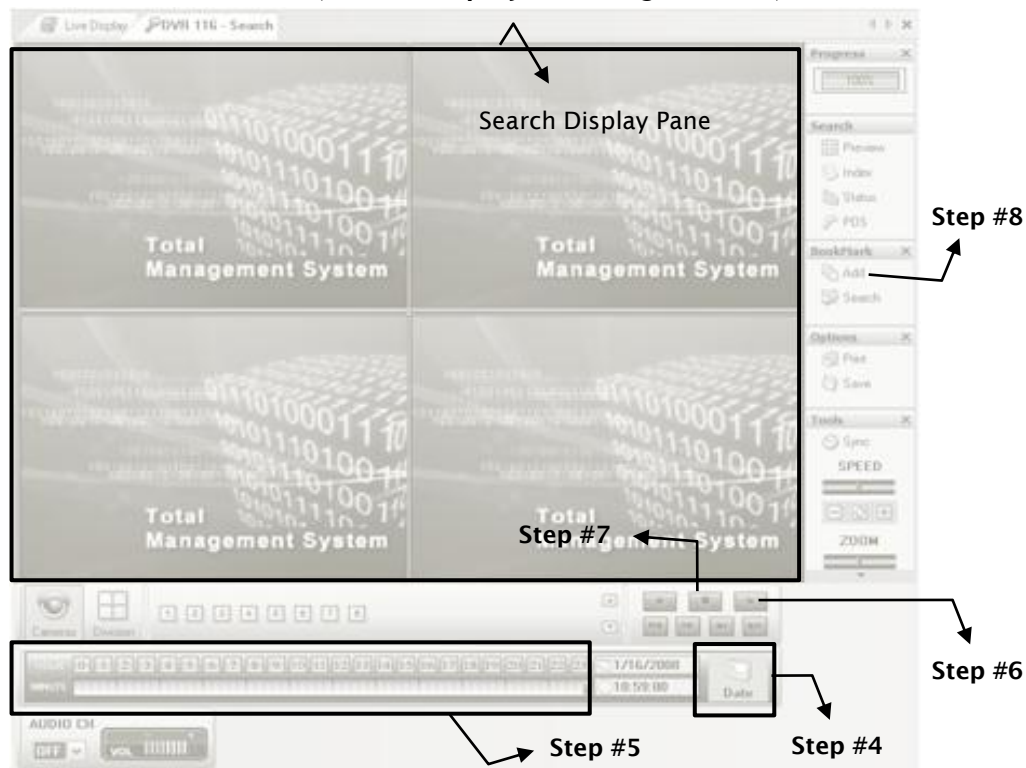
2. he **Date** button and select the desired date.

Red marked date contains recording data

3. Select the desired time to bookmark.

4.2 BOOKMARK SEARCH

6. Select the desired camera(s) and play it by clicking the ► button to make sure that recorded video is what you want to bookmark.

7. If so, click the ■ button to stop the playback.

8. Click the **Add** button on the **BookMark** menu section.

9. The **Add BookMark** window appears.

Select which cameras you wish to bookmark.

Step #11

Step #10

Step #11

Step #12

Reverse current selection

Click to deselect all cameras

Click to select all cameras
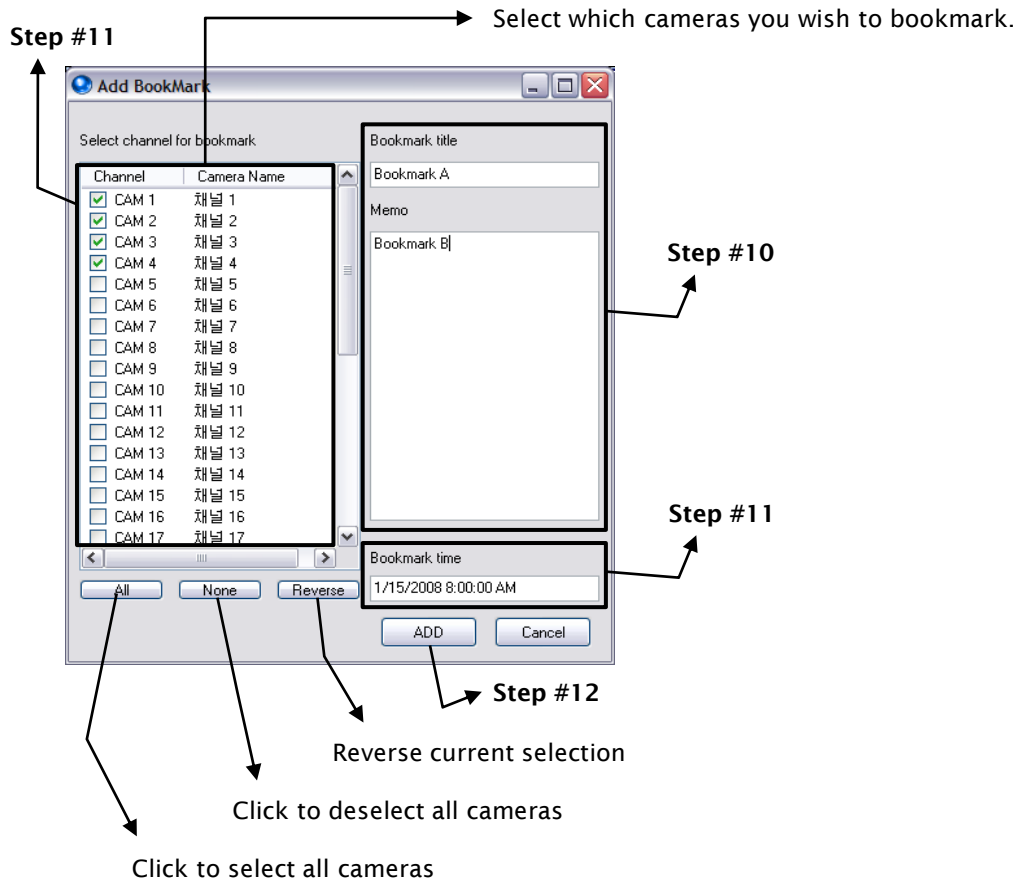
10. Specify the bookmark name and add a description.

11. Confirm the camera(s) and bookmarking date and time you have selected.

12. Click the **Add** button.

4.2 BOOKMARK SEARCH

4.2.2 BOOKMARK SEARCH

- To perform the **Bookmark** Search, please complete the following steps:
    1. In the search mode, click the **Search** button on the **BookMark** menu section on the right side of the screen.
    2. Select the desired bookmark from the bookmark list.
    3. Click the **Search** button.

Click to modify the selected bookmark

Click to delete the selected bookmark
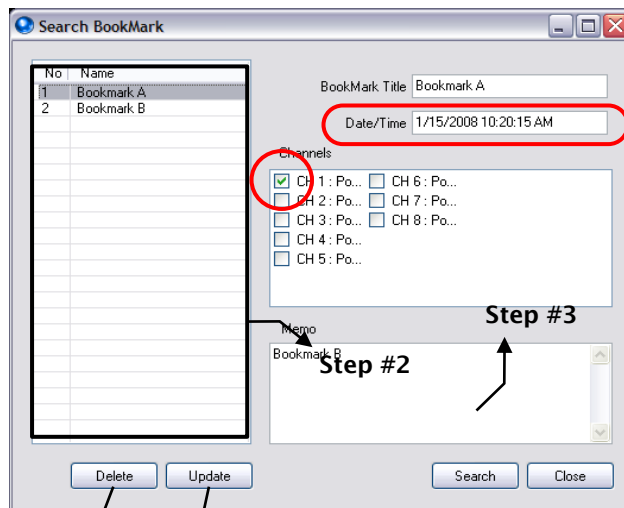
    4. You will see that **NxMS** take you to the bookmarked section of the recording.

4.3 PREVIEW SEARCH

The Preview search feature enables users to quickly find the exact moment where an event occurred. The Preview Search displays a 24-hour visual overview of a single camera by separating each hour into an image.
The search can then be further narrow down by selecting one hour. Then, the system will display each 10 minutes into an image, followed by one single image per minute.
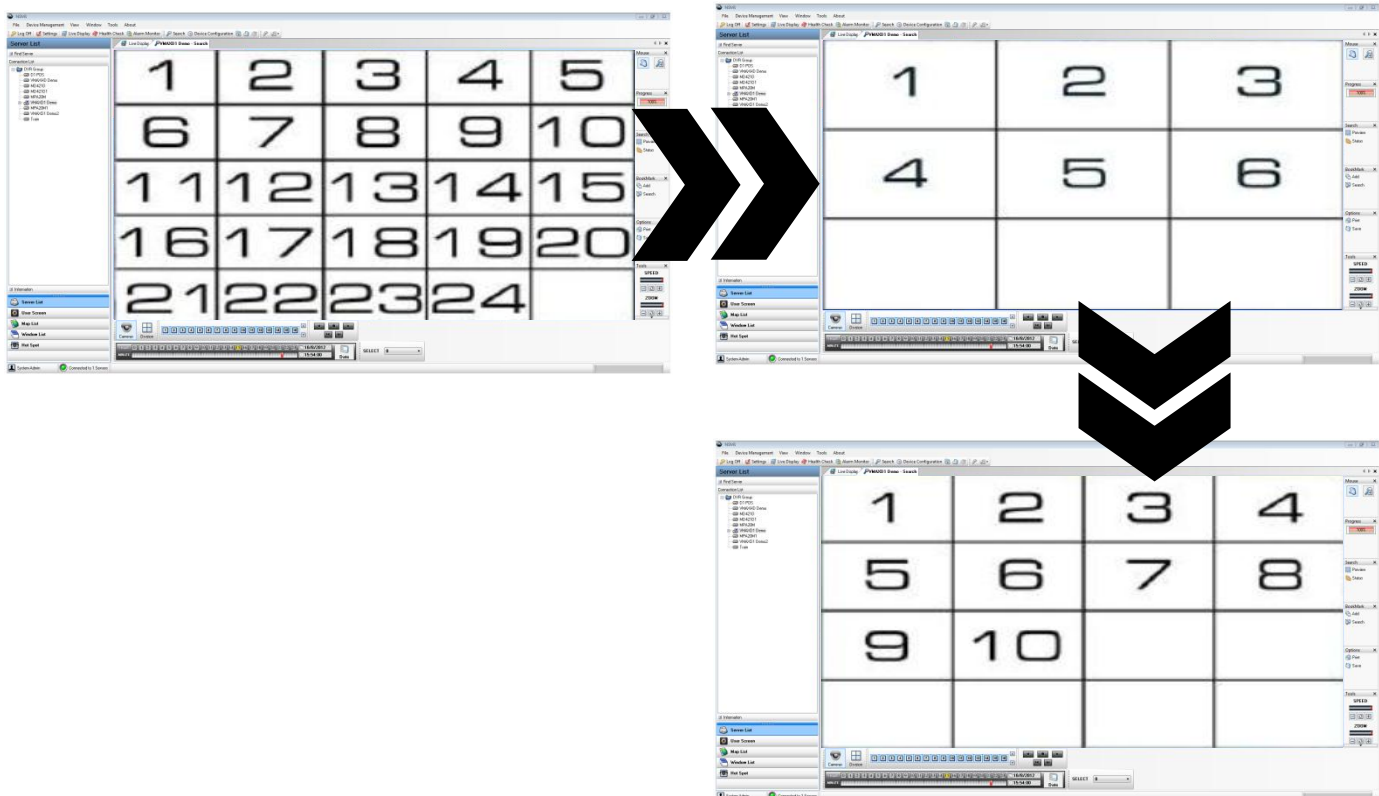
To perform a Preview Search:
1.   Right-click a camera in the Server List and select 'Search' (Make sure the camera you select has recorded video available).
2.   The system will switch to playback mode.
3.   Click on the calendar icon to select the day you wish to view in Preview Search.
4.   Click on the 'Preview' button on the right-side panel. Please allow the system 5-10 minutes to populate video from the selected 24 hours. If there is no recorded video during a portion of the day, "No Image" will be displayed in place of an image.
5.   Refine the search by double-clicking an image to display six 10-minute increment images.
6.   Refine the search by double-clicking an image to display ten 1-minute increment images.
7.   Double-click an image to display a 1-minute segment of video. Return to previous display by right clicking an image.
8.   Use the playback controls to play the video segment
9.   To exit Preview Search, click the Preview Search button.

4.4 STATUS SEARCH

The Status Search option displays a timeline in graph format. Scroll through multiple cameras and easily locate hours of recorded video.

24 Hours (0-23) AM & PM

Cameras

Recorded Video

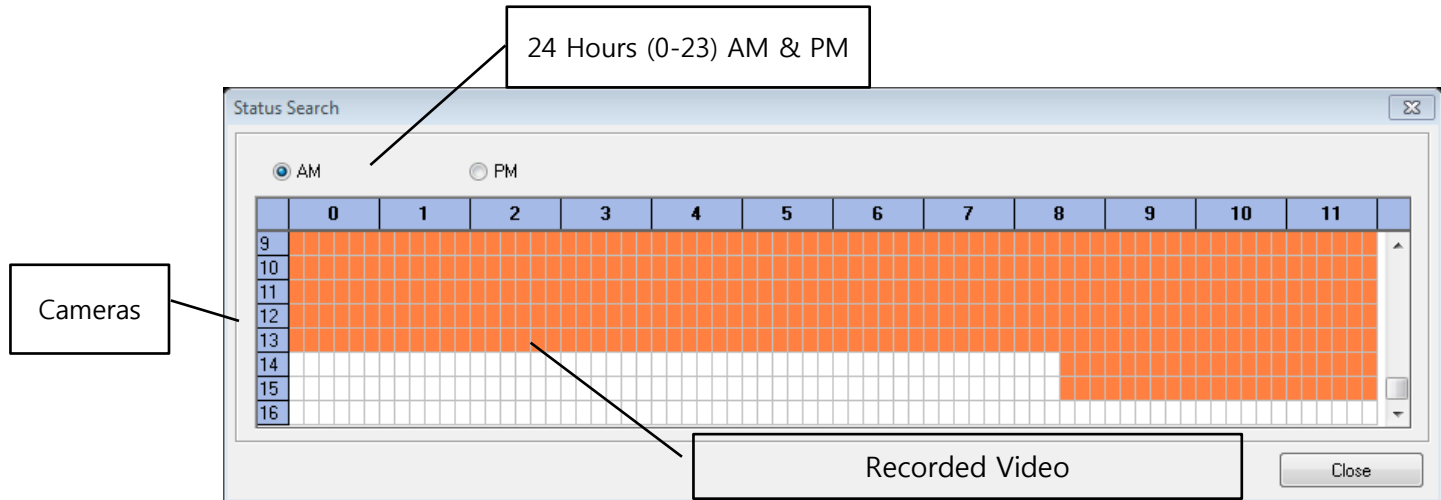Performing a Status Search:
1. Right-click a camera in the server list and select "Search" (Make sure the camera you select has recorded video available).
2. Click the Date button to and select a date.
3. Click on Click on the Status button. Please allow the system up to 5 minutes to process the information.
4. Click on an orange block to view video recorded from that camera at that time.
5. After locating the desired video, you may close the status window.
6. Use the playback controllers to play the selected video.
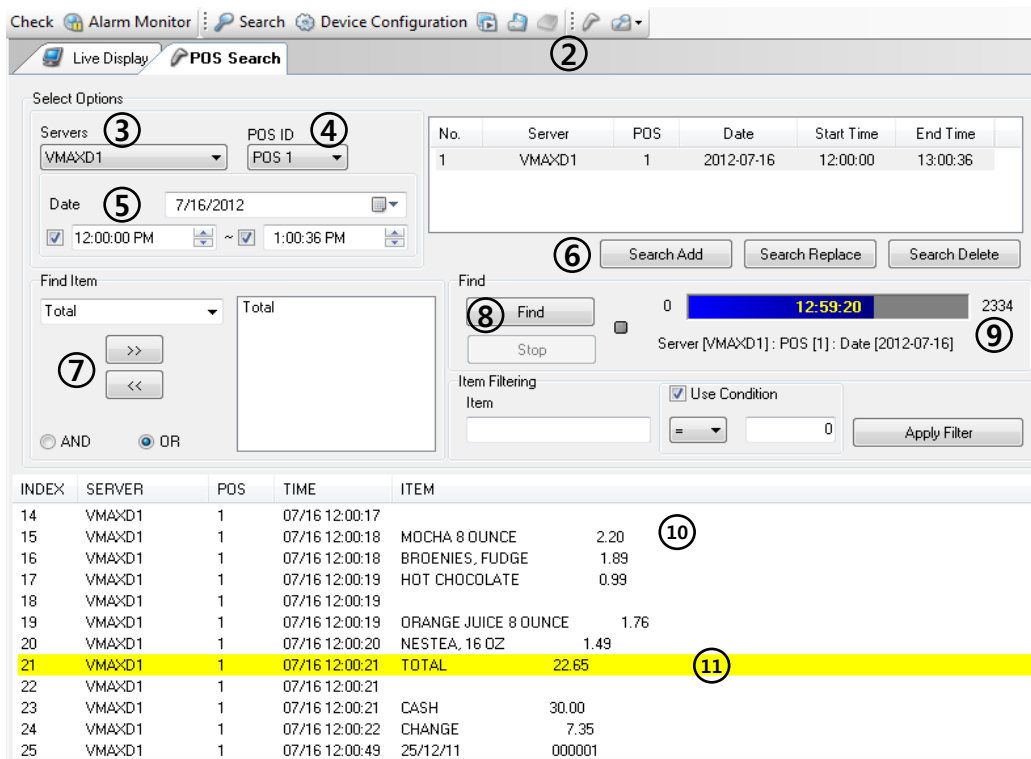
4.5 POS SEARCH

4.5.1 POS SEARCH

To perform the **POS** Search:

1. Make sure you are viewing a device that has been setup to record POS data (See 5.1.6 POS Setup on page 75 for additional information).
2. Click on the ⟋ icon on the tool bar to enter the POS search.
3. Select the device you want to search from the Servers drop-down list.
4. If you have more than one POS box connected to your DVR, select the POS ID you wish to search.
5. Set the date & time of your search.
6. Click on "Search Add".
7. To search for a specific item, type an item to the "Find Item" section and click the arrows pointing right to add it to the search.
   To search a general list of all POS entries recorded on your DVR, leave the "Find Item" empty.
8. To begin the search, click "Find".

9. The search progress will appear on the search bar, indicating how many POS entries have been found.
10. When the POS search is complete, the entire POS log report will appear at the bottom of the window.
11. The 'Find Item" search results are highlighted in YELLOW.

4.5 POS SEARCH

4.5.2 POS Filter

- You can filter the POS search log by selecting specific values on the filter section.
- To view filter your POS search results:
  1. Enter the word to the 'Filter Item' section
  2. If applicable, use the conditions (smaller than, greater than) to adjust the filter.
  3. Click 'Apply Filter'
  4. The POS results will display only the items that match the filtering specifications. To return to the full search results list, click 'Apply Filter' again.

4.5 POS SEARCH

4.5.3 POS PLAYER

- To view POS playback:
    1. To view POS playback, select an item and double-click on it. The POS playback will display a still image of 1 item prior to the item you have selected.
    2. You can use the arrows to playback forward or rewind.
    3. You can adjust the speed of the playback by adjusting the speed bar at the top of the screen.
    4. You can jump to the beginning or end of a complete transaction.
    5. You can view images from different cameras corresponding to time of the selected POS entry or view all cameras.
    6. You can Export an image of the event you are searching. Click "Export" and select the file type (.avi/ .jpeg) and the location on your PC where the image will be saved.
    7. You can also print a still image of your POS search, including the date & time and notes, for your records.
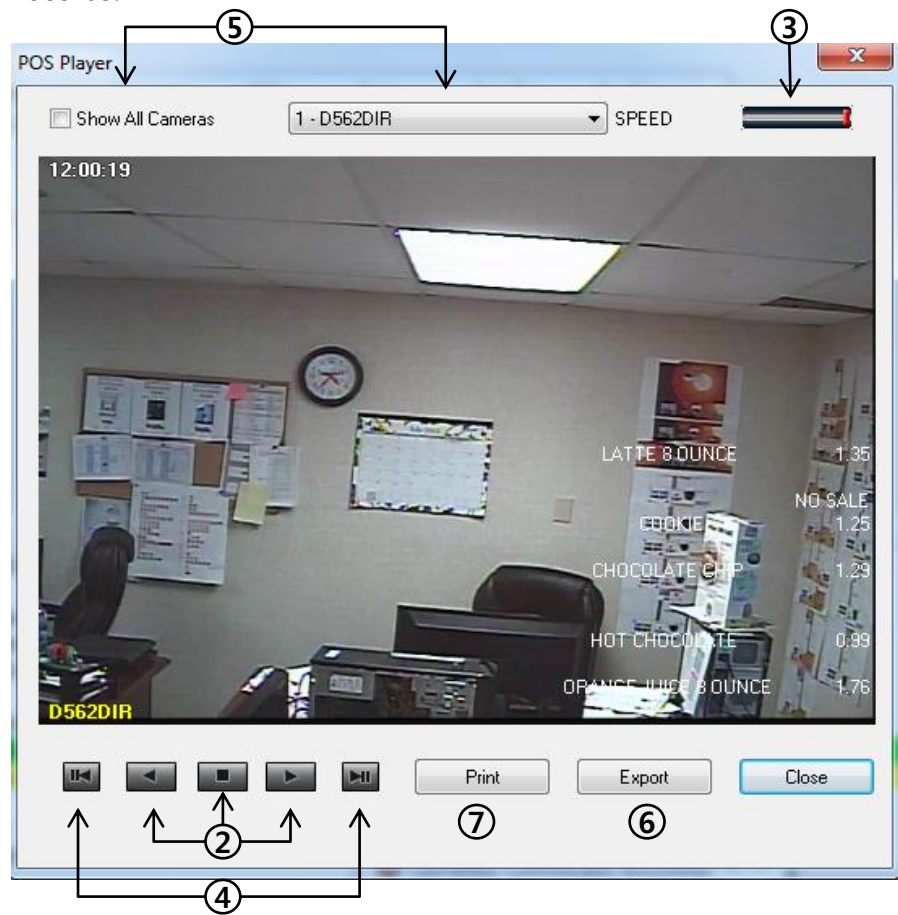
5 SETUP

5.1 ADVANCED SETUP

By adjusting configuration, you can use **NxMS** more suitable for your field requirements and conditions.

To open the setup menu, go to **Tools** and select **Settings**. You can also click on the **Settings** button in the toolbar.

5.1.1 GENERAL

- **General** item enables you to check user information and change details such as a password and alarm event.
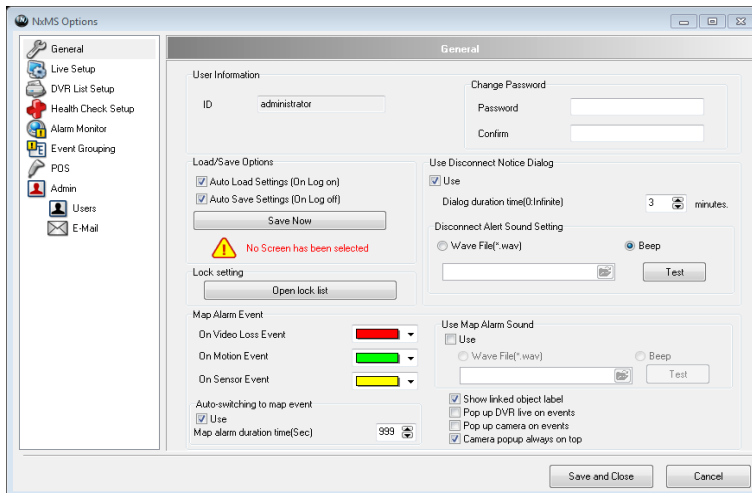
USER INFORMATION AND CHANGING PASSWORD

- **User Information:** Displays information about a user you've logged in as. *(For details, refer to ADMIN in this chapter.)*
- **Change Password:** Input new password twice to change. Modification is applied only when you click the **OK** button.

LOAD/SAVE OPTION

- **Auto Load Settings:** Check it to load a layout-info and display your custom settings next time you log in.

  ※ We strongly encourage you to check this option with checking Auto Save Settings.

- **Auto Save Setting:** Check it to keep a layout-info of Live Displays you've arranged in **NxMS**. If you check it, you will NOT lose your layout-info even after logging out. *(For details about arranging channels on Live Display Pane, refer to 3.2.2 Updating a Node)*

5.1 ADVANCED SETUP

<u>LOCKING FUNCTION</u>

- To protect your **NxMS** from unauthorized access, you can set auto-logout for each function.
- When selecting a specific function in the Locking list, the function will log off after the set waiting time. To access the function again, users will have to input their password to re-activate it.
- To set up auto-logout for the specific function, please follow those steps below:
  1. Enter the setup mode by going to **Tools** >> **Settings**.
  2. Select **General** and click the **Lock Function Configuration** button.
  3. The **Function Lock Setting** window appears as shown below.

Step #4

Step #5   **Step #6**
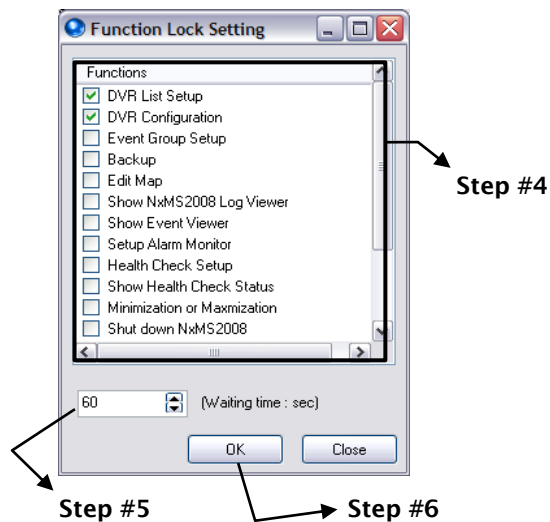
  4. Select the desired functions you want to protect.
  5. Specify an amount of time for no operation period.
  6. Click the **OK** button.

<u>USE DISCONNECT NOTICE DIALOG</u>

- **NxMS** will notify of a disconnection event. Check **"Use Disconnection Notice Dialog"** to be automatically informed when any device is accidentally disconnected or failing to establish a connection.
- **Dialog duration time:** is the preferred time to keep the dialog-box opened. If you set it at "0", it will NOT be closed until you close clicking "x" or pressing the **ESC** on the keyboard. *(measured in min)*
- **Disconnect Alert Sound Setting:** select a type of alarm sound between **WAV** file and the beep. You can also listen to it by clicking the **Test** button.

5.1 ADVANCED SETUP

MAP ALARM EVENT

- **NxMS** is able to display location of devices such as cameras and sensors on the 3D map. This will also notify of the events associated with a device that may experience loss of video or when motion is detected.
- **Color drop-down-list:** Choose a color to efficiently display a particular predefined event. You can select your preferred color from this list.
- **Use Map Alarm Sound:** Select a type of alarm sound between **WAV** file and the beep. You may also listen to it by clicking on **Test** button.
- **Popup map display on map alarm:** Check this option to pop up the registered map when any event occurs in that map area.
- **Map display Duration Time:** Specify the duration (in secs). The map will be shown for the pre-defined length of time. Select from 2~999 seconds.
- **Pop up camera on events:** Check to pop up the associated live screen when the emergency alarm occurs.
- **Camera popup always on top:** Check this option to make event camera popup window be always on top.

5.1 ADVANCED SETUP

5.1.2 LIVE SETUP

LIVE DISPLAY

- **Auto Switching Time:** is time until the next channel *(only being connected)* group begins to be shown on **Live Screen** when Sequence 🔁 on **Live Display Toolbar** is being pressed. The number in a group is dependent on the pieces of **Live Screen** on a current **Live Display.** *e.g. If the current multiple Live Screen mode is 8-split-mode, the group must have 8 numbers. (measured in sec, step in sec, up to 120 from 3)*

- **PTZ controller transparency setting:** Select one of 4 degrees – **None**, **High**, **Medium** and **Low** – to adjust the **PTZ Control** transparency level.
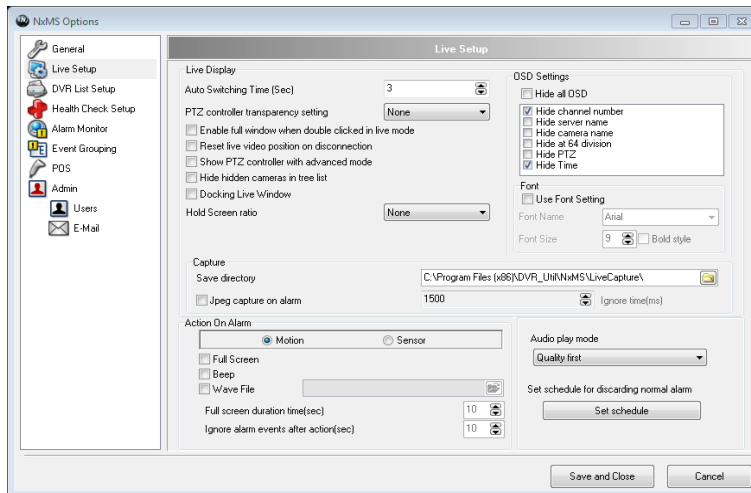
- **Enable full window when double clicked in live mode**: Check it to make **Live Screen** automatically fit into **Live Display** pane when you go to one **Live Screen** mode by double-clicking. *(For details, refer to 3.5.1)*

- **Reset live video position on disconnection:** Check it to erase a **Live Screen** position-info memorized in each channel if device is disconnected

- **Show PTZ controller with advanced mode:** Check it to display **PTZ Control** in advanced mode every time it pops up.

- **Hide cameras not set to record:** Check it to hide the channels – 📷 not being recorded – on **Server List**.

- **Hold Screen Ratio:** setup the NxMS to maintain the ratio and size of the screens when they are displayed in different multi-channel modes and single channel mode.

5.1 ADVANCED SETUP

- **Show Server Code OSD (*On-Screen Display*):** Check it to display server-code usi ng OSD. Server-code is automatically assigned to a device in sequence when a device is added.

- **Hide OSD (*On-Screen Display*):** Check it to remove OSDs on **Live Screen**.

- **Use Font Setting:** Modify the font type and size as you need. *(Default font type: Arial, size: 9)*

- **Image Save directory:** enables you to change the default directory for saving an image captured. *(For details about capturing live video, refer to 3.5.4)*

- **Use JPEG Capture On Alarm:** Check to save the still image to the pre-defined folder when an alarm is notified. To avoid multiple image captures, you can set the **Ignore Time.** During the specified period (in ms), the program discards alarm notifications after saving one image for the first event time.

ACTION ON ALARM

- **Full screen on motion alarm**: Check it to automatically show a particular **Live Screen** in single channel mode when motion event occurs in that channel.
- **Full screen on sensor alarm**: Check it to automatically show a particular **Live Screen** in single channel mode when a sensor event occurs in that channel.
- **Beep on alarm:** Check it to activate a beep sound every time motion or sensor events occur on a single channel.
- **Wave File on alarm:** check it to activate a specific audio file every time motion or sensor events occur on a single channel.
- **Full Screen Duration Time:** is a period of time for showing a particular **Live Screen** in which a motion/sensor event occurs at one **Live Screen** mode. *(Setup 3~120 seconds)*

IGNORE ALARM EVENTS AFTER ACTION

- Select the desired alarm types. Then select how many the time (in seconds) between each alarm. If an alarm will go off in less than the assigned time, the system will ignore it.

SET SCHEDULE FOR DISCARDING NORMAL ALARM

- You can use this schedule feature to setup specific days and hours where the system will discard any normal alarm events. You can select specific days, hours, and specific alarms to be ignored, or click on All Select/Unselect to set the schedule to all days and hours of the week.
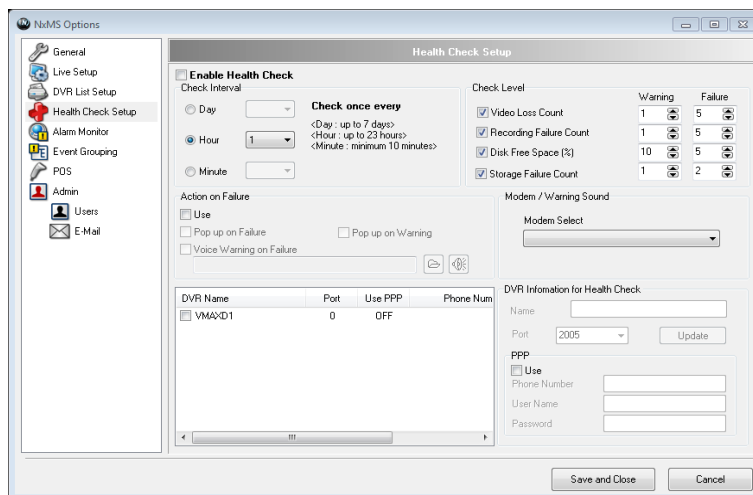
5.1 ADVANCED SETUP

5.1.3 DVR LIST SETUP

- This setup menu allows you to add, modify, and delete devices from your NxMS remote viewer software. *(For more information, see section 3.1.2- Updating a Connection.)*

5.1.4 HEALTH CHECK SETUP

- **NxMS** enables you to analyze states of device and events history. This function is able to run only on PC-Based DVRs. *(Stand-alone DVRs, IP cameras, and Video Servers non-supported)*
- To use the Health Check feature, check the **Enable** box at the top of the window.
- Select whether the system will perform the health check every day/ hour/ minute, and when.
- Select which features would be tested in the Health Check:
  - Video Loss Count.
  - Recording Failure Count.
  - Disk Free Space.
  - Storage Failure Count.
- Select what action the system will take if it detects failure.
  - Pop Up on Failure.
  - Voice Warning on Failure (Select a Wave file to enable this feature.)
  - Pop Up on Warning
- Select the devices you wish to enable Health Check on them.
- You can enter the DVR's name, port and use PPP connection (if available).
- When you are done, click **Save and Close**.

5.1 ADVANCED SETUP

5.1.5 ALARM MONITOR

- **NxMS** logs events to the directory set on the local HDD and alert you using a sound and a pop-up window.
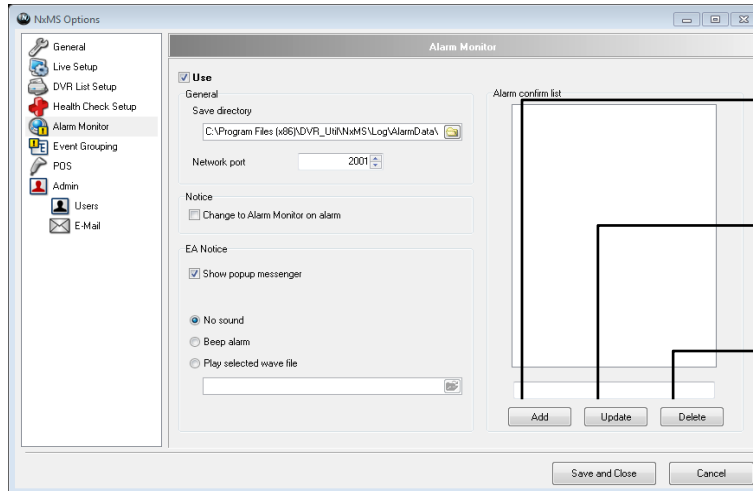
To add a customized item on **Alarm confirm list,** type a name of it and click **Add.**

To modify a customized item on **Alarm confirm list,** select one and click **Update.**

To delete a customized item on **Alarm confirm list,** select one and click **Delete.**

GENERAL

- **Save directory**: enables you to set the folder to save sensor or motion triggered events.
- **Network port**: Input a port number to receive a event data. This must be the same number as the connected device uses.

NOTICE

- **Show popup messenger**: Check to notify you of events with a pop-up window.
- **Switch to Alarm Monitor on events:** Check this option to switch the display mode to the **Alarm Monitor** when events occur.
- **Sound option**: Select one of three – **No sound**, **Beep alarm** and **Play selected** - to set a type of sound.

5.1 ADVANCED SETUP

5.1.6 POS

- **NxMS** can receive POS data if a connected device supports POS *(Point Of Sale)* data transferring protocol. This function enables you to set keywords and automatically search POS transaction data with them. You are also able to sort out unwanted data by item filtering.

- POS functions are active only if a device supports POS data transferring protocol. The POS feature is not available on IP cameras.
    - Select **Enable POS.**
    - Setup the desired normal font style and size.
    - Setup the desired alert font style and size.
    - Add search words that would trigger the alert font style.
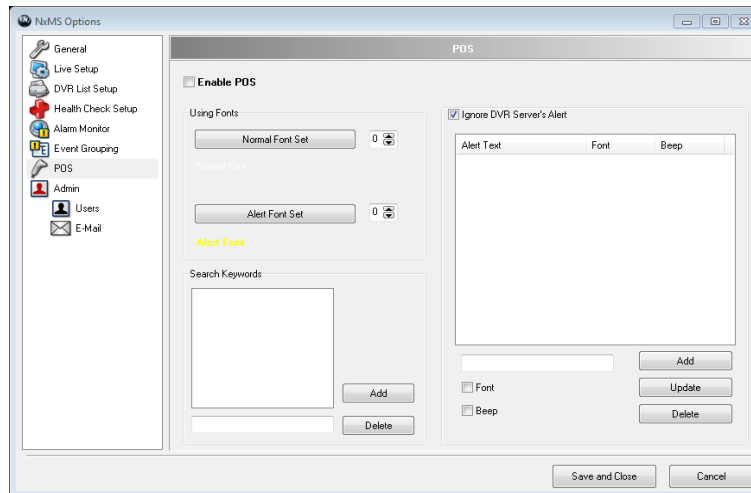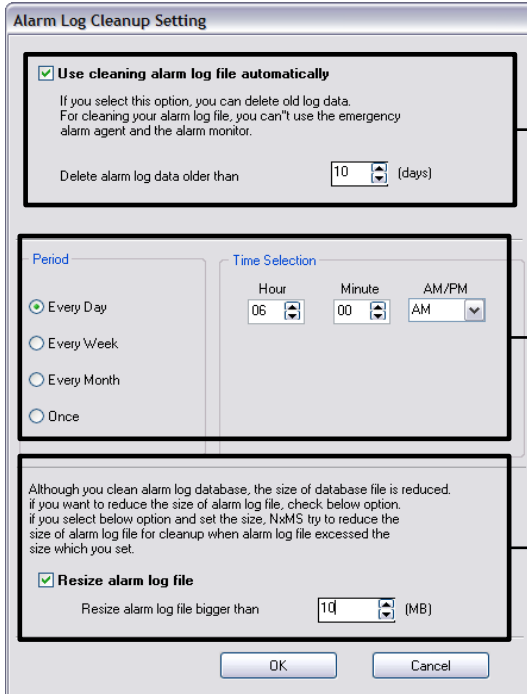
5.1.7 ADMIN
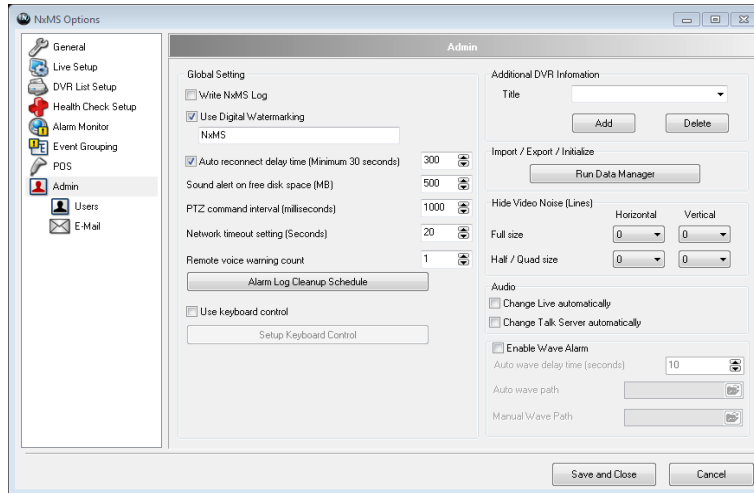
GLOBAL SETTING

- **Write NxMS Log**: Check it to record user events such as log-in/off and connecting/disconnecting, into a local computer as a file.

- **Auto reconnect delay time:** Check it to change an interval between when a device gets disconnected and when it starts trying to reconnect. Carefully consider your system capacity so it does NOT cause traffic overload.

※ These features will only work with PC-Based DVRs, NOT with IP Cameras and Video Servers.

- **Sound alert on free disk space:** Check it to be notified when disk space become lower than defined setting. *(It is going to continuously makes a beep.)*

- **Remote voice warning count:** Input the amount of times for an alert sound in case a particular event occurred. You will listen to the sound by right-clicking on the device. Please see Alarm Log Cleanup Schedule in the next page for more information. *(This function is active only for PC-Based DVR)*

- **Network timeout setting**: Input time *(measured in sec)* to disconnect a device which stops transmitting a video stream to **NxMS**. The time you would set is an interval between when the video stream stops and when device is disconnected by **NxMS**.

- **PTZ Command Interval:** Set the time interval between each PTZ command (in milliseconds)

- **Enable Wave Alarm:** Select a wave file from your directory that would be used as an alarm sound.

- **Alarm Cleanup Schedule Setting:** Click this button - [Alarm Log Cleanup Schedule] and the **Alarm Log Cleanup Setting** window will appear.

-

Alarm Log Cleanup Setting

☑ **Use cleaning alarm log file automatically**

If you select this option, you can delete old log data.
For cleaning your alarm log file, you can"t use the emergency
alarm agent and the alarm monitor.

Delete alarm log data older than   10 ⏺ (days)

Check this option and specify the duration (in days) to limit the number of days for which the event logs will be stored.

Period   **Time Selection**

Hour   Minute   AM/PM

⦿ Every Day   06 ⏺   00 ⏺   AM ▾

○ Every Week

○ Every Month

○ Once

Select the cycle of the cleanup process and specify its time.

Although you clean alarm log database, the size of database file is reduced.
if you want to reduce the size of alarm log file, check below option.
if you select below option and set the size, NxMS try to reduce the
size of alarm log file for cleanup when alarm log file excessed the
size which you set.

☑ **Resize alarm log file**

Resize alarm log file bigger than   10 ⏺ (MB)

[OK]   [Cancel]

Specify the amount of storage (in MB) to resize the database file during the cleanup process if the free space is bigger than the user-defined size.
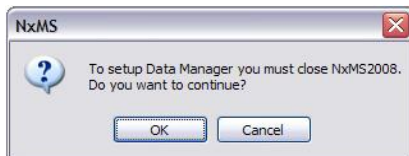
- **Use keyboard control**: Check it to use an external control keyboard connected on RS-232 serial port. *(This function is active only on PC-Based and Stand-alone DVR)*

ADDITIONAL DVR INFORMATION

- Input a name as you like to change titles with **Additional Information** on **DVR List Setup.** *(For details about DVR List Setup, refer to chapter 3.1)*
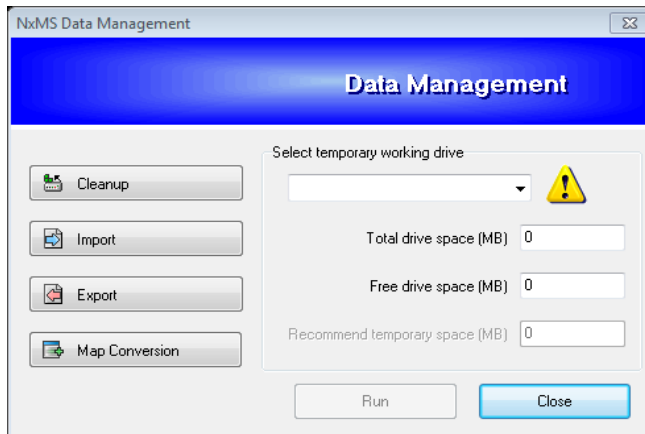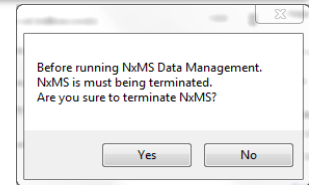
IMPORT/EXPORT/INITIALIZE

- This is a tool for managing all kinds of data related to **NxMS**.
- Click **Run Data manager,** then you will meet the window below which alerts you "**NxMS** must be closed". Click **OK** button if you want to continue.

NxMS

To setup Data Manager you must close NxMS2008.
Do you want to continue?

[OK]   [Cancel]

5.1 ADVANCED SETUP

- You might also have another message box. This is to notify that settings have NOT been configured. *(It is NOT going to pop up after an initial configuration.)*

- The following picture is **Data Manager Main Window.**

- To initialize data, click **Cleanup** on the main window.
- You may initialize settings and clean alarm events up on the window below.
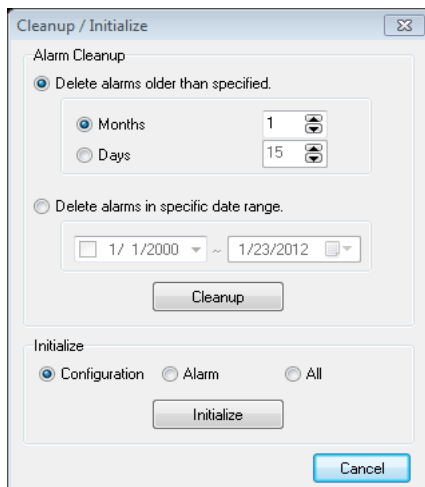
- **Import**: To import data previously saved, click **Import**, select the file and click OK
- **Export**: To export data to a saved folder, click **Export,** select what location to save to and click OK. The system will display the estimated file size. If necessary, adjust your external memory drive accordingly.
- **Map Conversion**: Use this option to convert legacy Map CFG files to updated Map CFG Files. Select the location where the old file is, and select the location where you would like the converted file to be saved.

HIDE VIDEO NOISE

- Input the amount of lines to take it away on **Live Screen**. The lines will be removed starting from outline.
- **Full size item:** is for high resolutions, like 720x480 and 640x480.
- **Half /Quad size:** is for lower resolutions, like 720x240 and 360x240 or CIF size.

AUDIO

- **Change Live automatically:** Check it to listen to the audio with the **Live Screen** when you select it. It is active only on a DVR that supports audio function.
- **Change Talk Site automatically:** Check it to turn on two-way audio function.
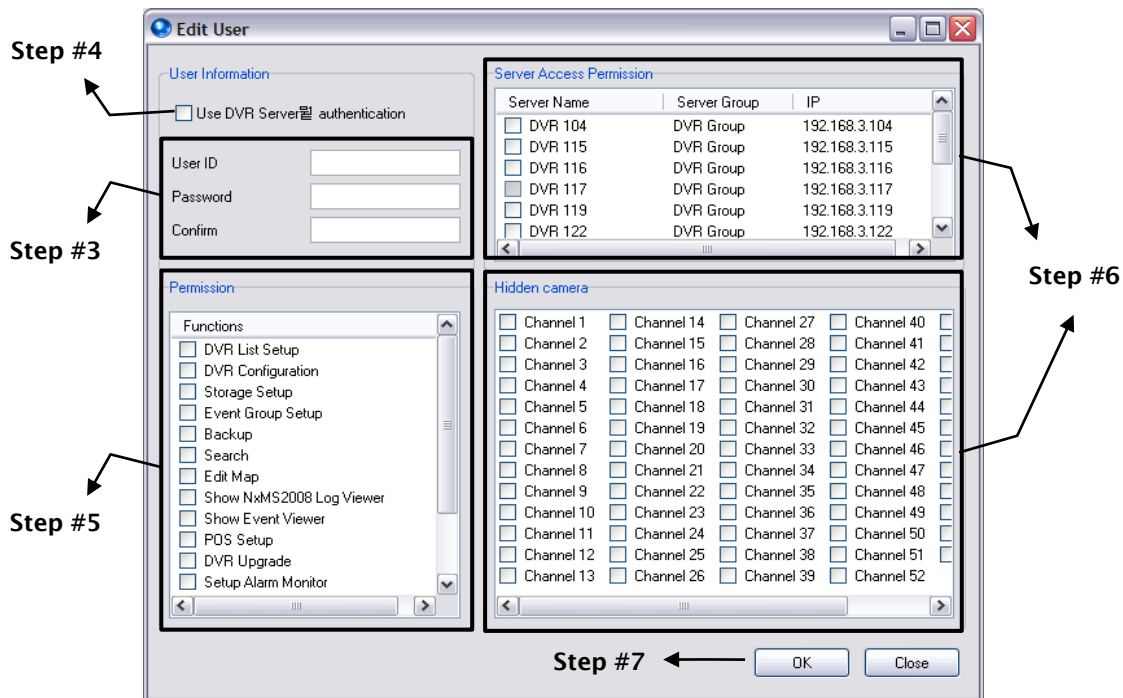
5.1 ADVANCED SETUP

5.1.8 USERS

- In this setup mode, you can create, modify, and delete user accounts. You can also give different permission for each user.

NOTE: Only the administrator can add, modify, or delete user accounts.
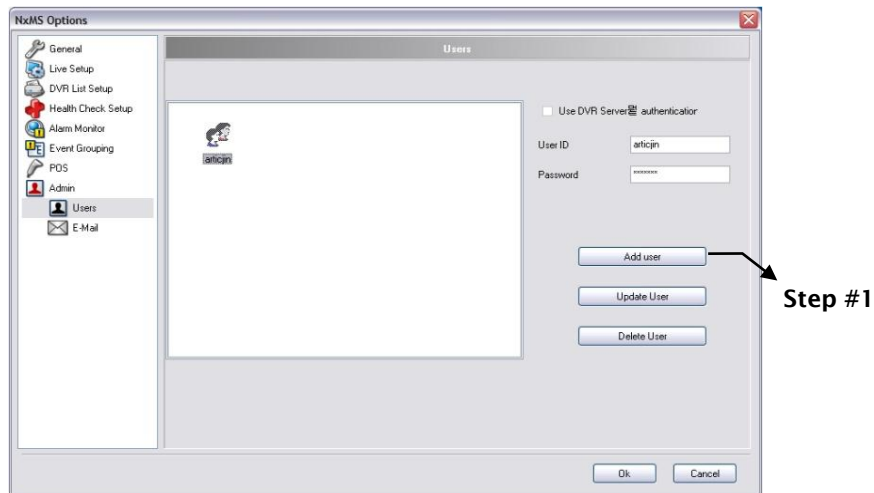
- To create a new user account, please follow those steps:
    1. Click the **Add user** button.
    2. The **Edit User** window appears.

3. Input the desired ID and password for the **User ID** and **Password/Confirm** field.

4. If you want to use the same password for login to the remote device, check the **Use DVR Server authentication** check box.

5. Select the desired items from the **Permission** list to authorize those functions to a new user.

6. Select the devices from the **Server Access Permission** list to authorize access to them. By selecting the camera(s) in the **Hidden camera** list, you can also give a new user permission for individual cameras.

7. Click the **OK** button.

8. You can see that a new user account is created.

- To modify an existing user account, please follow those steps:
   1. Select the user account you wish to modify.
   2. Click the **Update User** button.
   3. The **Edit User** window appears.
   4. Modify the options you want to change or password if required.
   5. Click the **OK** button.

- To delete an existing user account, please follow those steps:
   1. Select the user account you wish to delete.
   2. Click the **Delete User** button.
   3. You can see that the selected user account is deleted.
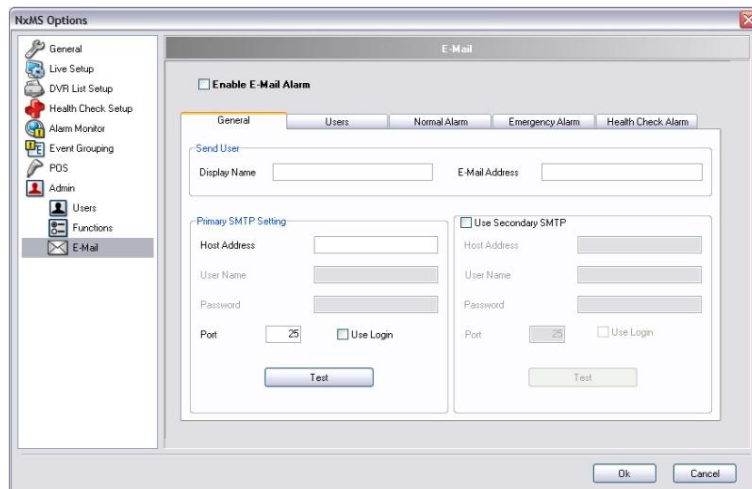
5.1 ADVANCED SETUP

5.1.9 EMAIL

- **NxMS** can notify you of events by email. This option enables you to configure the details regarding which events cause email notifications.

ENABLE EMAIL ALARM

- Check it to receive a notification through email.

GENERAL

- You can configure the necessary details to setup an email account to receive event notification.

- **Send User:** Input the name for **Display Name** and the email address for **E-Mail Address** to be displayed when **NxMS** sends an email.
- **Primary SMTP Setting:** Input details for **Host Address, Port number, User Name, and Password.** You can test by clicking on **Test** button whether the information is correctly inputted.
- **Use Secondary SMTP:** Check it to enable a second SMPT Server in case the primary SMTP server fails to connect.
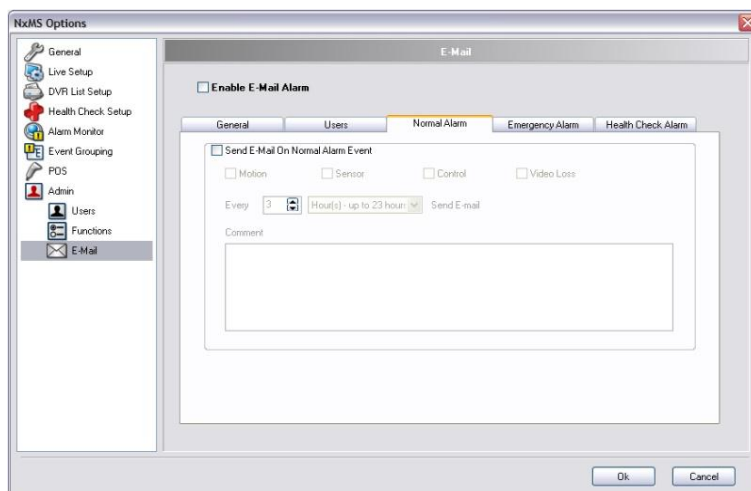
5.1 ADVANCED SETUP

USERS

- You are able to make a list of recipients and set a type of alarm with this option.
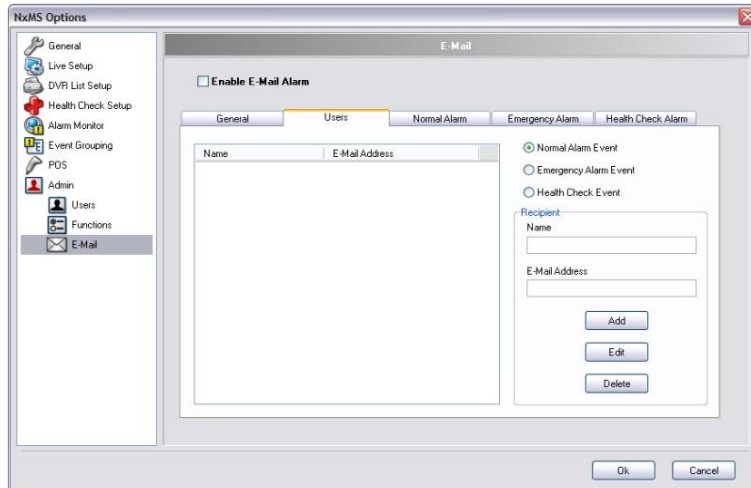
- **Recipient:** Input details for **Name** and **E-mail Address** in **Recipient** portion.
- **Set a type of alarm:** Select one of three – Normal, Emergency and Health Check Alarm Event.
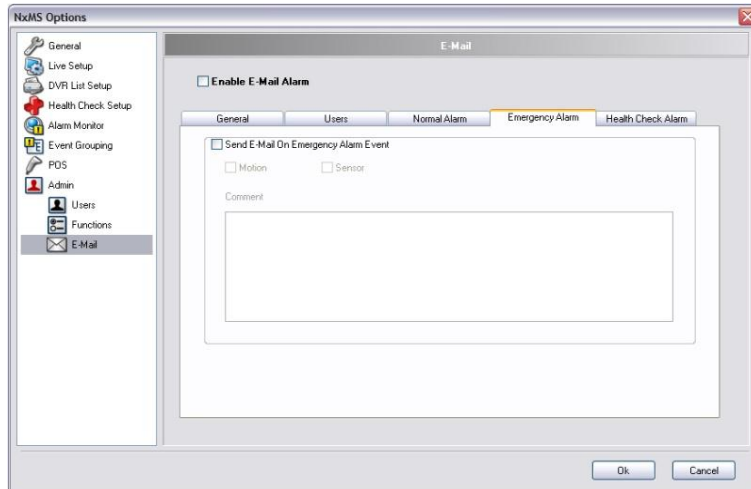
NORMAL ALARM

- You can assign the type/s of normal event such as **Motion, Sensor, Control, and Video Loss,** and then a notification would be sent to the recipients you've added.
- You can also type text on **Comment** portion.
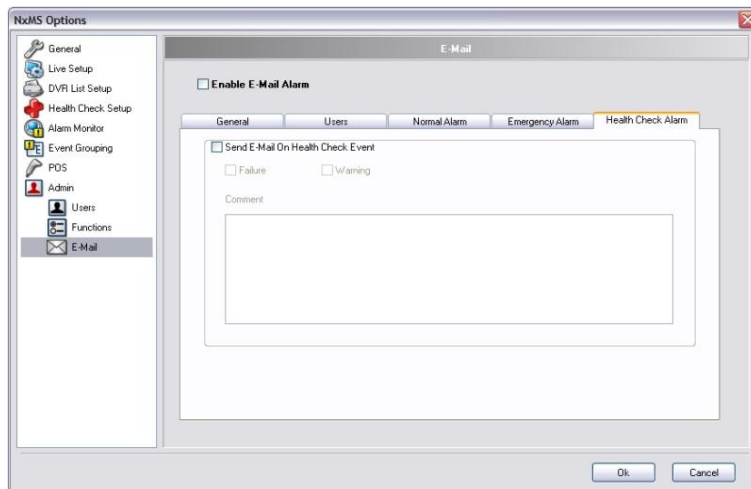
5.1 ADVANCED SETUP

EMERGENCY ALARM

- You can assign the type/s of critical events, **Motion and Sensor** and then a notification would be sent to the recipients you've added.

- You may also type text on the **Comment** portion.

HEALTH CHECK ALARM

- You can assign the type/s of health check event, **Failure and Warning** and then a notification would be sent to the recipients you've added.

- You may also type text on the **Comment** portion.

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