VMS Lite
HD Video Management System

User Manual
Rev. 1.0

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VMS User Manual

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FCC

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

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Introduction

The Watch*NET* VMS Lite software is a Video Management System intended for use with Watch*NET* DVRs, NVRs, Hybrids and TriBrid Recorders . The VMS Lite software can connect to these systems over an IP network to allow for monitoring, archive searches and playback of recorded surveillance video. In addition, it provides the user the ability to adjust specific recorder settings remotely.

The VMS Lite is a highly sophisticated system designed specifically for the security professionals. The software resides on a PC server and utilizes Microsoft Windows 64-bit technologies to provide the user with the critical video and data information on the status of their DVR/NVR servers over their IP network.

Key Features

- Supports interoperability for all Watch*NET* IP Megapixel cameras, Analog cameras, XVi cameras, Watch*NET* NVRs, DVRs, TriBrid NDVRs
- Supports unlimited camera connections with multiple VMS Clients
- Versatile live monitoring modes, multi-monitor, unlimited floating windows for multiple user views, event pop-up alerts and auto-switching camera mode
- Supports video notification for system and event alerts
- Secure remote access from mobile devices such as tablets and smartphones
- Auto pop-up and thumbnail for snapshot and backup viewing
- System event pop-up for network disconnection, disk failures and other system errors
- Integrates to 360 Fisheye cameras and Video Analytic cameras
- Supports multi-screen viewing monitors

The VMS Lite supports an unlimited amount of DVR/NVR sites and unlimited amount of viewing stations.   Each viewing station is limited to a maximum of 2 monitors depending on the PC server hardware.

VMS Lite Software Installation

After you have downloaded the VMS Lite software and copied it onto your computer, you need to locate the **VMS_Lite_x.x.x.zip** file on your computer and extract the compressed zip file. You then double-click on the **setup.exe** file to launch the installation process. After you have successfully installed the software, you will see the *VMS Lite* icon placed on your Windows desktop.
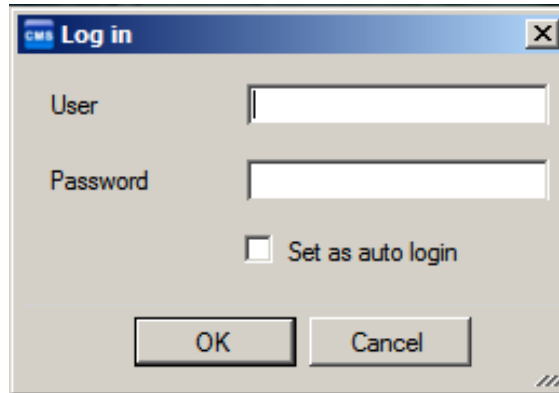
Start-up and Main User Interface

Start-Up

After correctly installed VMS Lite software, the shortcut icon will be shown on the windows desktop.

Double click to run VMS Lite, and the **Log In** menu will appear as shown below:

Login using the following defaults:

User: admin
Password: 1234

Main User Interface

After logging into the VMS Lite, the **Main User Interface** screen will appear (figure 1.0)
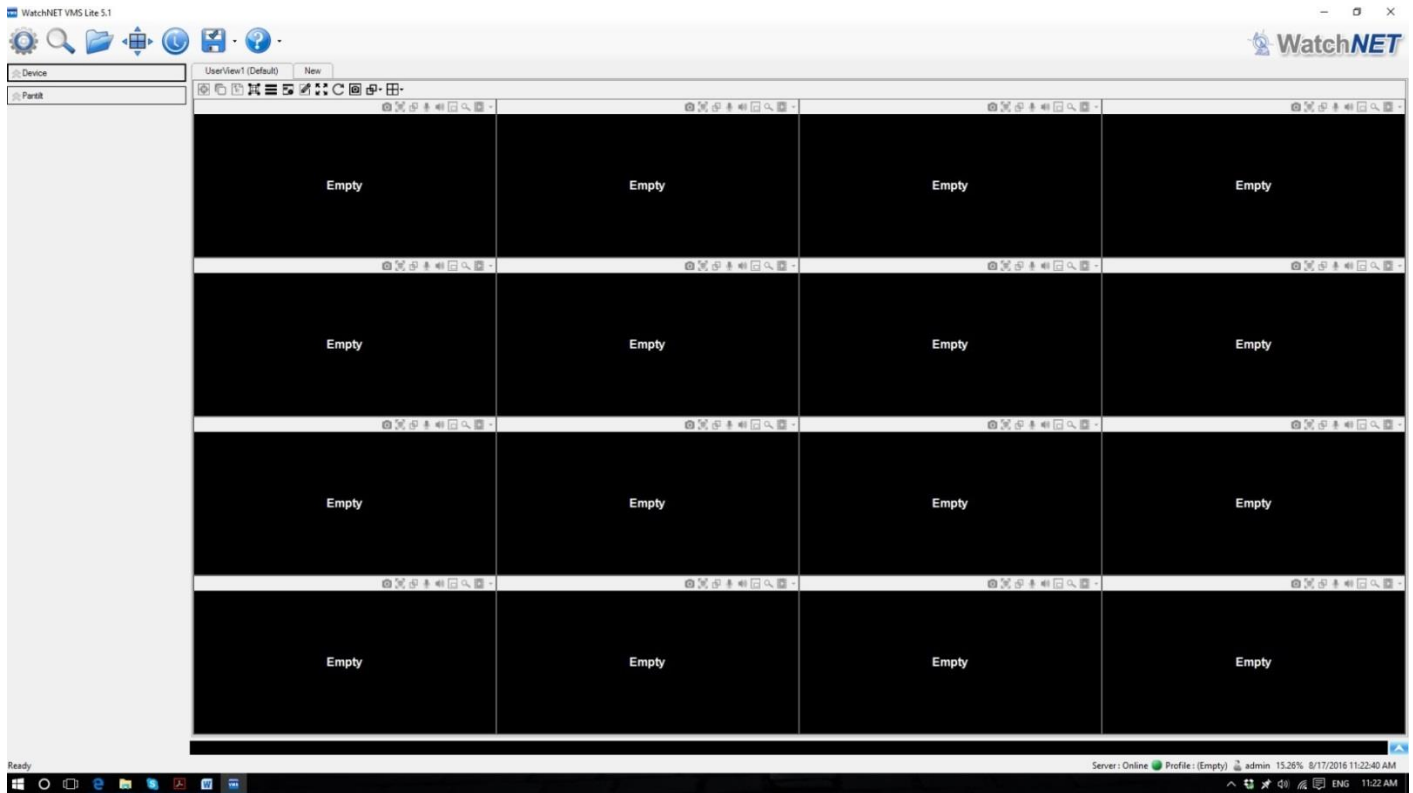
Figure 1.0

Show Tips

When your mouse pointer moves closely or stops above a function button on the main user interface, a balloon with written descriptions will appear to define its function.

Main Toolbar

Easily accessible main toolbar is located at the top left of the screen as shown in figure 1.1

Figure 1.1

1. Select ⚙ **Server Setup** so you can add or edit your devices (DVR, NVR, TriBrid Recorder)
2. Select 🔍 **Search** to allow playback of video from a specified device or camera.
3. Select 📂 **View Log** for viewing of application-related events such as application start, network start, user admin, device connection.
4. Select ✛ **Full Screen** to change the viewing of the main screen from window size to full screen. There are 3 viewing modes that will be displayed as you step through it.
5. Select 🕐 **Auto Switch** to go between the various layouts. If you have more than one *UserView* tab programmed, using this will cycle through each added tab and its cameras.
6. Select 💾 **Save**, **Load** or **Edit** a profile. If you are only viewing certain cameras or have different layouts, you can save the profile so that you do not have to reset your preferred layouts each time you login.
7. Select ❓ **Help** for general settings, event settings and about the VMS software version installed. General tab sets auto login, auto switching intervals. Event tab is for alert settings. About shows the VMS Lite software version.

Layout Properties

1. There is a default folder tab labelled as **UserView1** *(Default)* which can display device cameras up to a 64 channel split-screen display grid (figure 1.2). You can setup a combination of different cameras from different devices (NVRs) to be placed within the same grid. You can also add IP cameras direct to a grid.
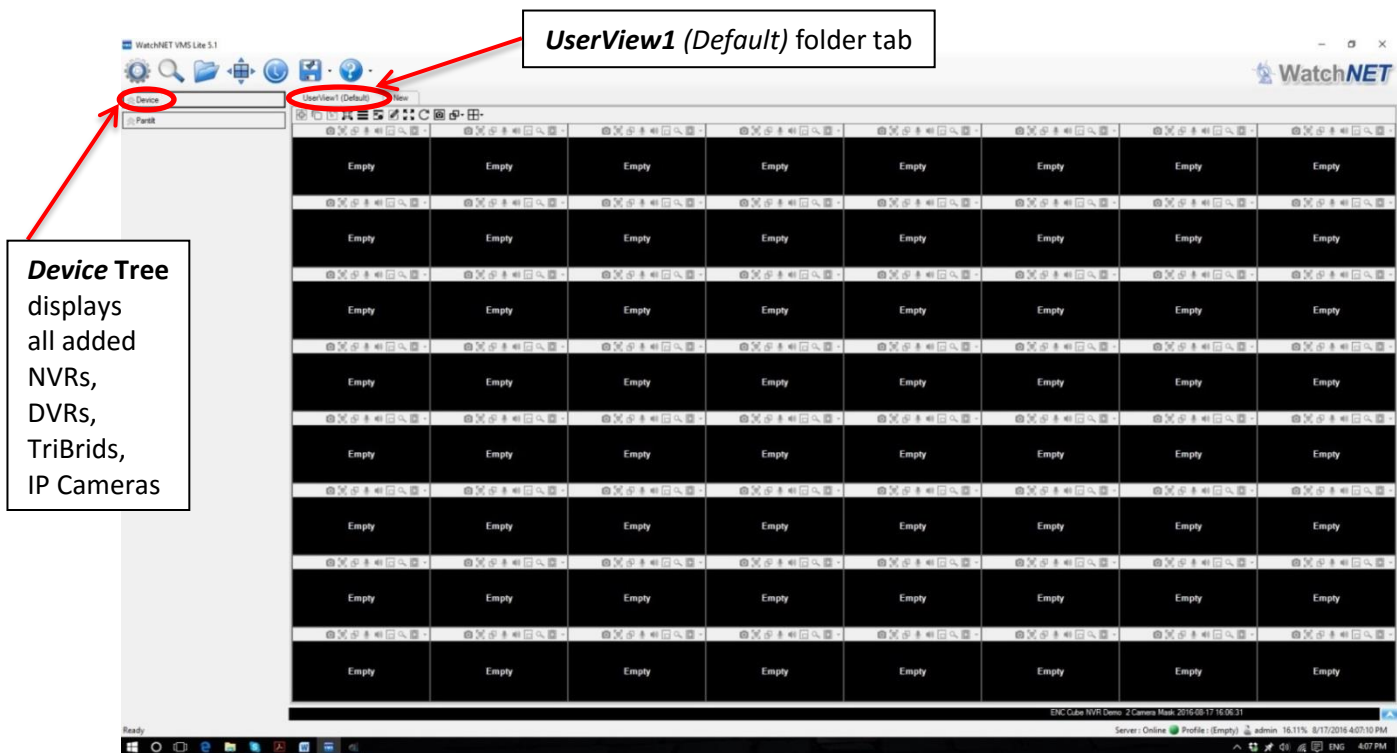

Figure1.2

2. Adding a *New* view allows the user to add multiple different grid layouts and different profiles for a number of different combinations. Just select *New*, enter a Title in the field box for the tab name, select the Type of view (Normal, Auto Switch, Event Pop-up), then choose the grid layout and apply *(figure 1.3)*
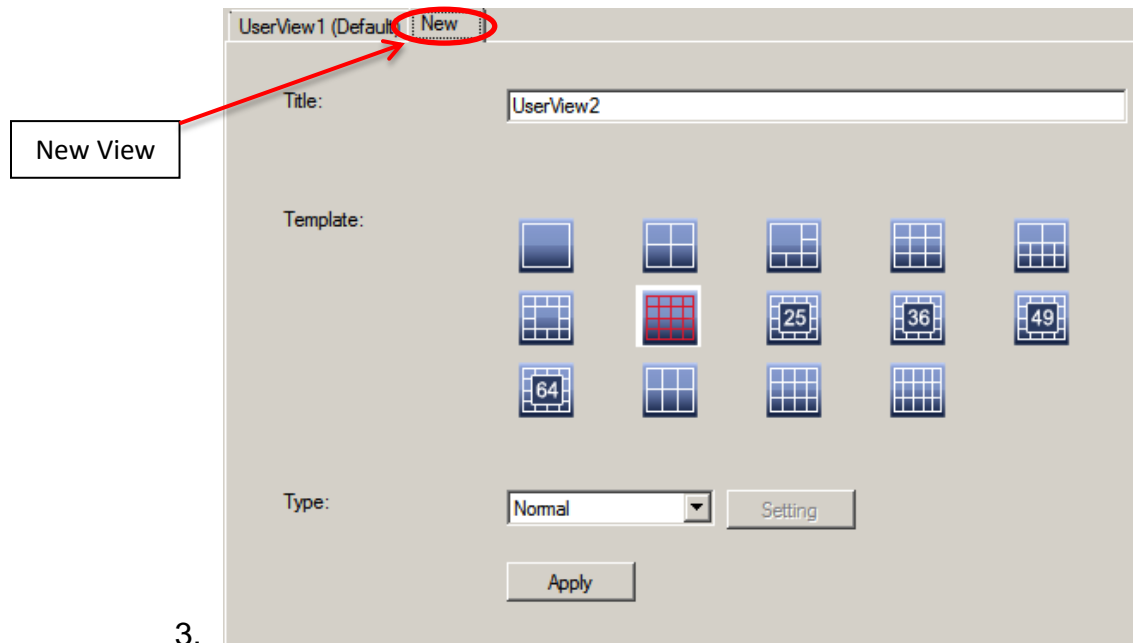
New View

3.

Figure1.3

UserView Toolbar

Figure 1.4a

UserView Toolbar *(figure 1.4a)*

1. Select ⊕ **Delete** to permanently remove the current UserView selected.

2. Select 🔲 **Float** to invidualize the display window as a separate floating window.

3. Select 🔳 **Set Default** for the tab to be viewed as the default display.

4. Select 🔳 **Set Original Ratio** for the initial aspect ratio of the display grid.

5. Select ☰ **Close All** to remove all the cameras within the selected tab.

6. Select 🔳 **Hide Toolbar** within each display grid.

7. Select ✎ **Change Name** of your UserView tab title.

8. Select ⤢ **Full Screen** of display grid to remove side panel and toolbar. Enlarges viewing screen of live cameras.

9. Select ↻ **Live View All** to toggle display to live viewing mode for all channels.

10. Select ◙ **Keep Live Stream** to toggle display to live viewing mode for individual channels.

11. Select ⊞ **Change Quality All** for adjusting image between Main Stream and Sub-stream.

12. Select ⊞ **Change View** to adjust your display screen layout from 1 channel view to 64 channel view in 16:9 aspect ratios and in three 4:3 aspect ratios (W6/W12/W15)
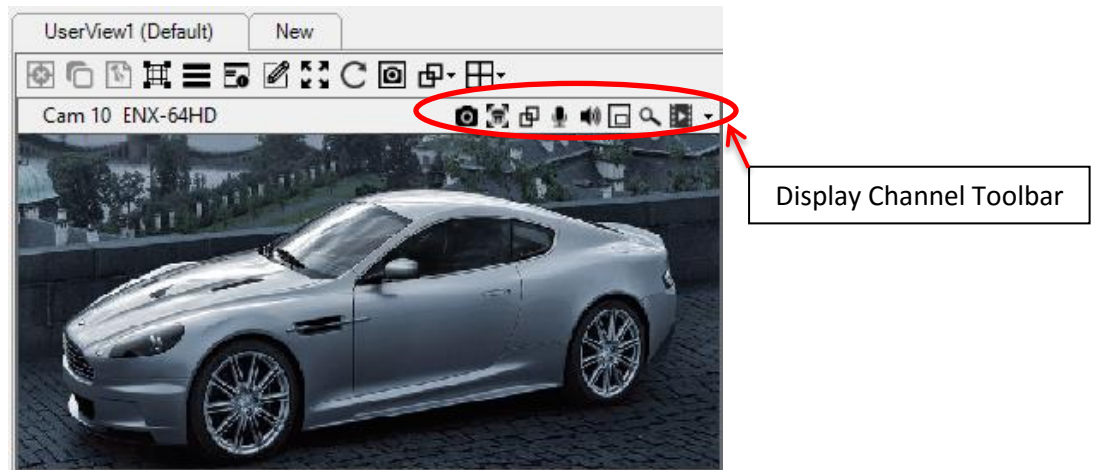

Figure 1.4b

Display Channel Toolbar (figure 1.4b)

1. Select ◙ **Capture Image** for a snapshot of the current live camera stream. It will create a digital still image and display it in a pop-up pane.

2. Select 🔳 **PTZ** for enabling pan/tilt/zoom function for PTZ equipped cameras only. The button will change from black to red when it is in PTZ mode.

3. Select ⊞ **High Quality** to choose between main stream video and sub-stream video.

4. Select 🎤 **Talk** to enable the microphone for speaking to the camera side for systems equipped with a speaker at the camera side. The button will change to red when enabled.

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5. Select 🔊 **Audio** to enable the speaker for hearing audio from the channel. The button will change to red when enabled.

6. Select ▭ **Digital Zoom** for digital zoom in live view mode. You highlight a box area to zoom using the cursor. The button will change to red when enabled.

   Functional with fixed type cameras and allows for digital PTZ function by dragging the ✛ multi- directional arrow cursor over the live camera display.

7. Select 🔍 **Magnifier** for enlarging the live image by hovering the maginfier over the live camera. The button will change to red when enabled.

8. Select 🎞 **Instant Playback** for immediate playback of the last 30 seconds of recording.

PTZ Function

The Pan/Tilt function supports mechanical PTZ equipped cameras only. The Pantilt menu can be displayed by clicking on the *Pantilt* button as shown in figure 1.4. Then the Pantilt control panel will appear as shown in figure 1.4a
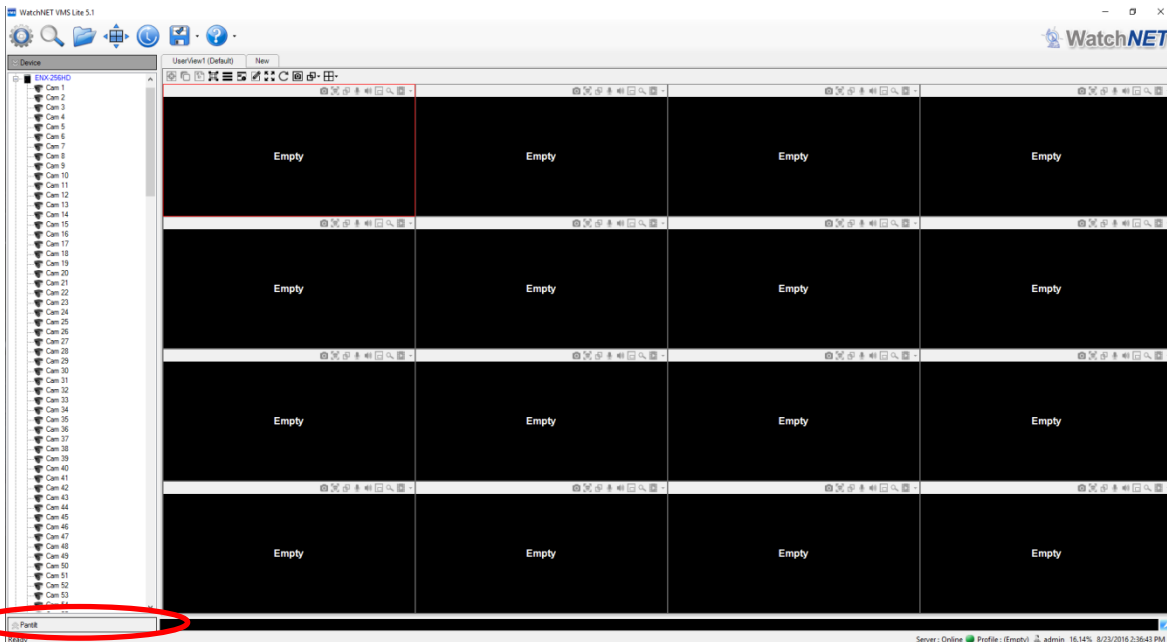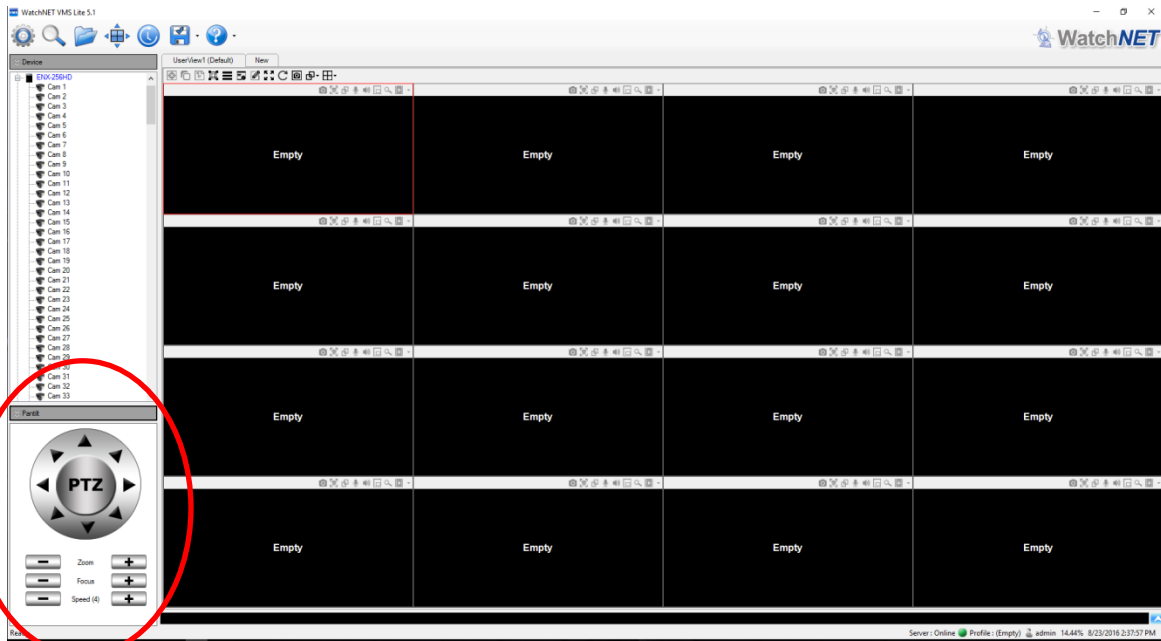

Click here for **PTZ Control Panel**

Figure 1.4

Figure 1.4a

PTZ Control Panel

PTZ Operation

1. Enlarging the screen and pressing the 🔳 icon enables the PTZ functions through your mouse

2. Centering your mouse in the enlarged window will give you the option for zooming 🔵

3. Left clicking the mouse will zoom in 🔵 and right clicking will zoom out 🔵

4. OSD icons will point the camera in 1 of 8 directions 🔷

Event Viewer

As the main interface is opened and devices are added, an events log is kept for recent events such as hard disk errors, system restart, video loss, etc.

1. Select 🔼 **UP arrow** button located at the bottom right hand of the screen to display the Event Viewer window (figure 1.5a). Select 🔽 **Down arrow** button to hide Event Viewer.
2. Event Viewer will be shown (figure 1.5b) in a table at the lower portion of the screen. Events will be displayed with a colored background (red, green, yellow) indicating the priority level.
3. You can select any event with a single left mouse click to highlight it in blue, then double click it to launch in a floating window for full details of the event (figure 1.5c)
4. Select *View event video clip* button to start video clip of the recorded event.
5. To toggle back to live channel view, select *View live stream* button (figure 1.5d)
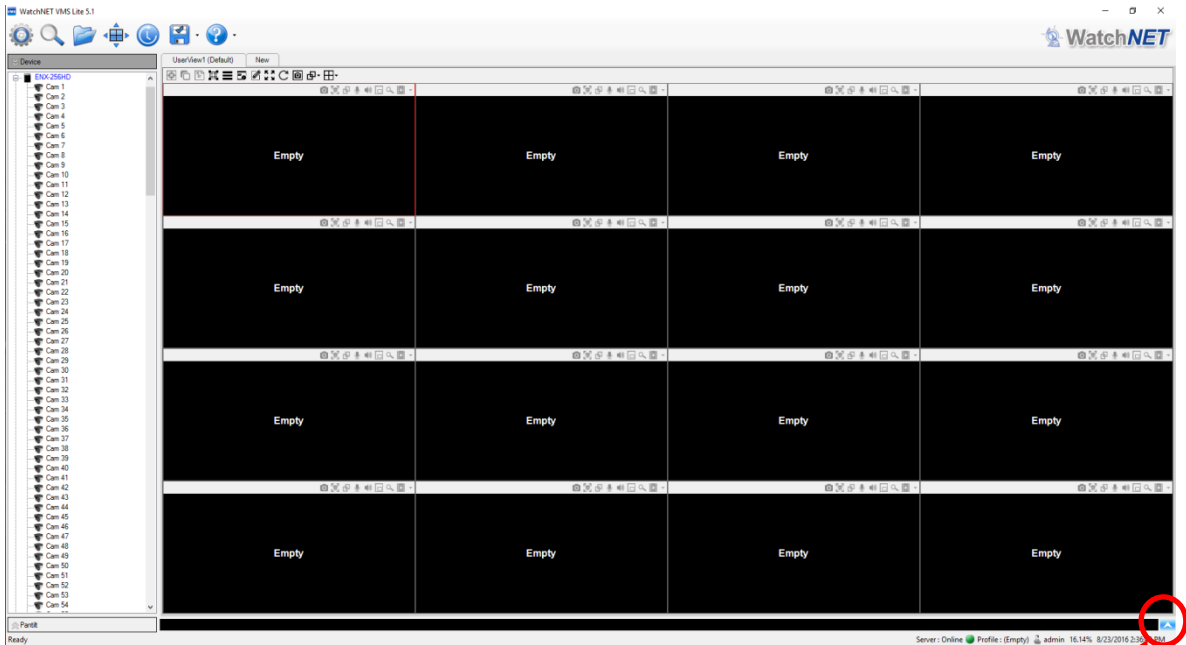
Figure 1.5a

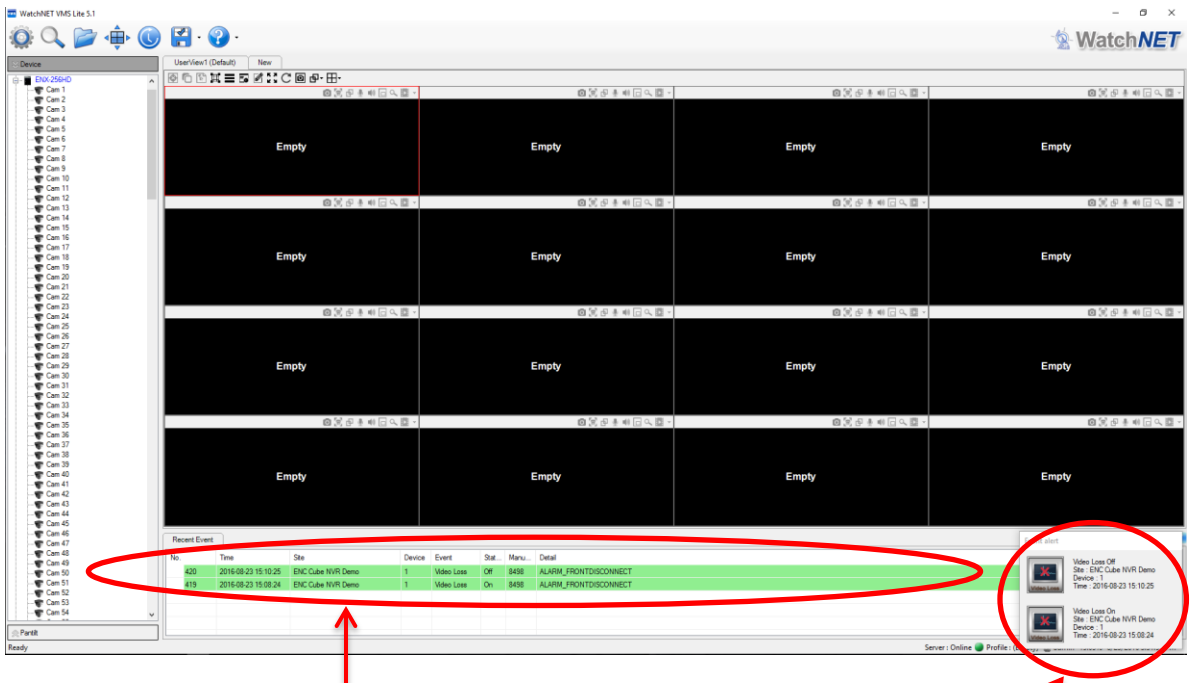Click UP arrow to view events

Figure 1.5b

Event Alerts displayed in floating pop-up window

All events will be displayed chronologically with detailed information.
Double click an event to launch the event details with video and snapshot image
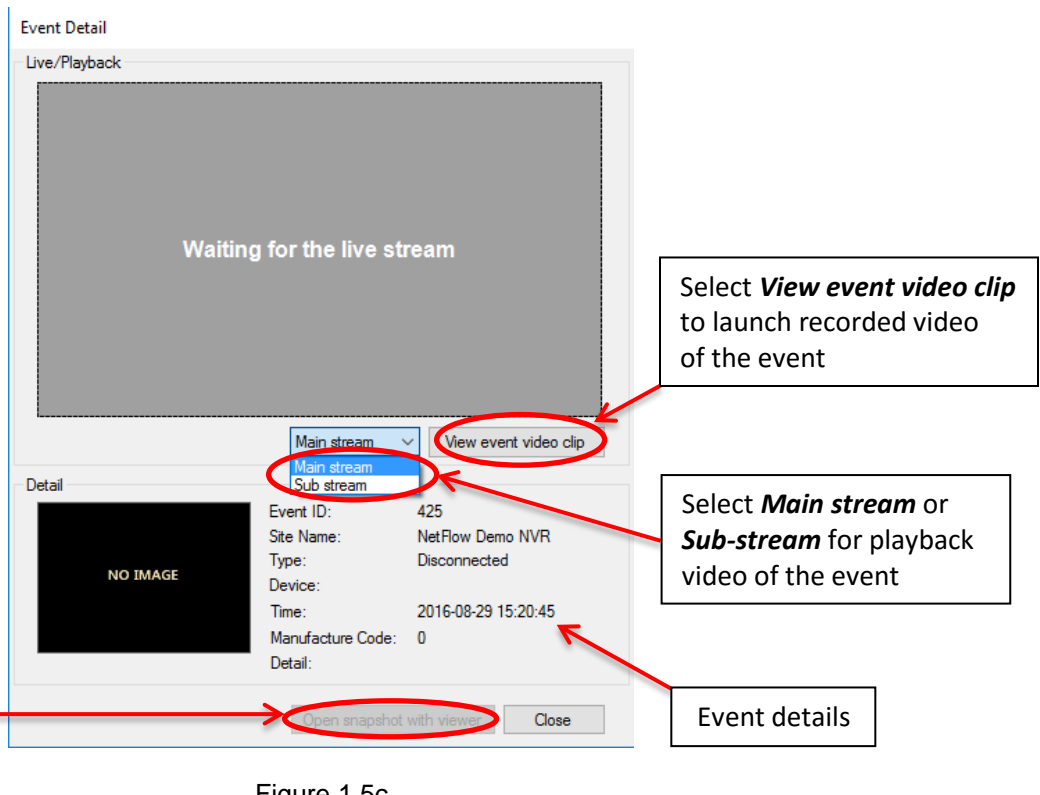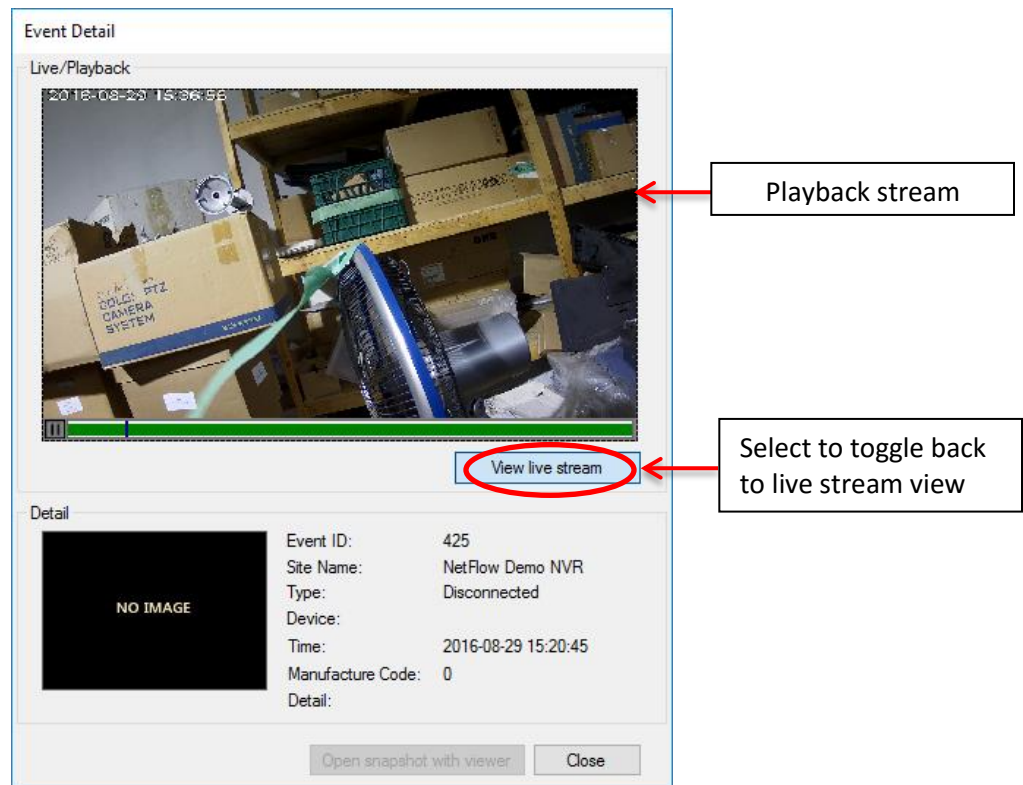
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Event Detail

Live/Playback

Waiting for the live stream

Main stream ▾   View event video clip
  Main stream
  Sub stream

Select *View event video clip* to launch recorded video of the event

Select *Main stream* or *Sub-stream* for playback video of the event

Detail

NO IMAGE

Event ID: 425
Site Name: NetFlow Demo NVR
Type: Disconnected
Device:
Time: 2016-08-29 15:20:45
Manufacture Code: 0
Detail:

Open snapshot with viewer button will be highlighted and displayed if setup in Events menu as an action

Open snapshot with viewer   Close

Event details

Figure 1.5c

Event Detail

Live/Playback

2016-08-29 15:36:56

COLOR PTZ
CAMERA
SYSTEM

Playback stream

View live stream

Select to toggle back to live stream view

Detail

NO IMAGE

Event ID: 425
Site Name: NetFlow Demo NVR
Type: Disconnected
Device:
Time: 2016-08-29 15:20:45
Manufacture Code: 0
Detail:

Open snapshot with viewer   Close

Figure 1.5d

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Server Config

1. Select ⚙ **Server Setup** button from main menu toolbar to open the server configuration settings menu as shown in figure 1.6
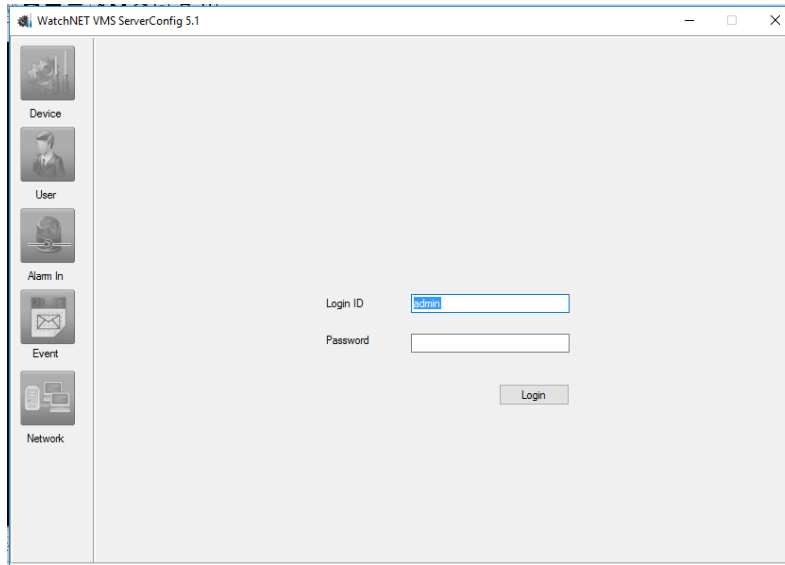

Figure 1.6

2. Login using defaults:

   Login ID: admin
   Password: 1234

3. *VMS ServerConfig* menu will appear (figure 1.7)

Add a recorder or IP camera

To add/edit users

Alarm in setup

Event settings

Network settings

Opens device setup menu in a web-browser if required

Save updates all changes

Export and import configuration file

Figure 1.7

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Adding a Device

1. Select [Device] **Device** button located in the *VMS ServerConfig* menu.
2. Select the **Add** button to add a new recorder or IP camera.
3. You have several methods to add a device:
   a. Select the **Search** button to scan the LAN for devices to add. Then select the checkbox(s) for all the devices you wish to add to the VMS (figure 1.8a)
   b. You can search by an **IP range** by selecting the dropdown box at the search by **Type** field, then selecting *Search by IP range*. This is helpful if you have a large amount of devices on a LAN and if you know the exact IP address of an IP camera or recorder and wish to add only those devices (figure 1.8)
   c. You can **Search by Type** (select DVR/NVR or MPIX cameras)
   d. You can **Manually Add** a device (figure 1.8b)
   e. To change camera names that appear in the Device Tree, select *Edit Names* (figure 1.8c)

Search by type <u>or</u> **Search by IP range**
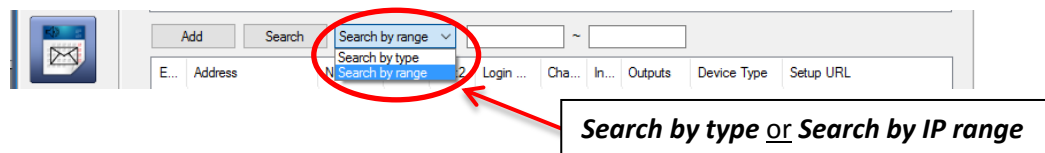
Figure 1.8

Device setup

Available devices will auto populate upon a search

Search LAN for recorders and IP cameras

Manually add a device

Delete a device

Save to load updates

Figure 1.8a

Note: for all changes performed in the Server Config menu, you must select the *Save* button to update.

Device Register

Manually enter a **Device**

Add a remote NVR/DVR/IP camera. Use a DNS or WAN IP

Allows selection of cameras to enable from the NVR/DVR

Retrieves info on cameras enabled and monitored on motion detection

Allows selection of cameras to monitor on motion from NVR/DVR

For editing camera titles (figure 1.9c)

Done to accept changes

Figure 1.8b

Edit Camera Names

Enter camera title

Done to accept changes

Figure 1.8c

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User Management

Select ![User icon] **User** button located in the *VMS ServerConfig* menu for adding/editing a user, a group of users, user password and users authority (figure 1.9)

1. Select **New** button to create a new user.
2. Create a user name and user password (alpha numerics, upper/lowercase accepted).
3. Select the **Group** dropdown for choosing between an administrator, a user or guest.
4. Select the checkboxes for the specific function(s) that you want enabled.
5. Click on **Save** button when done.
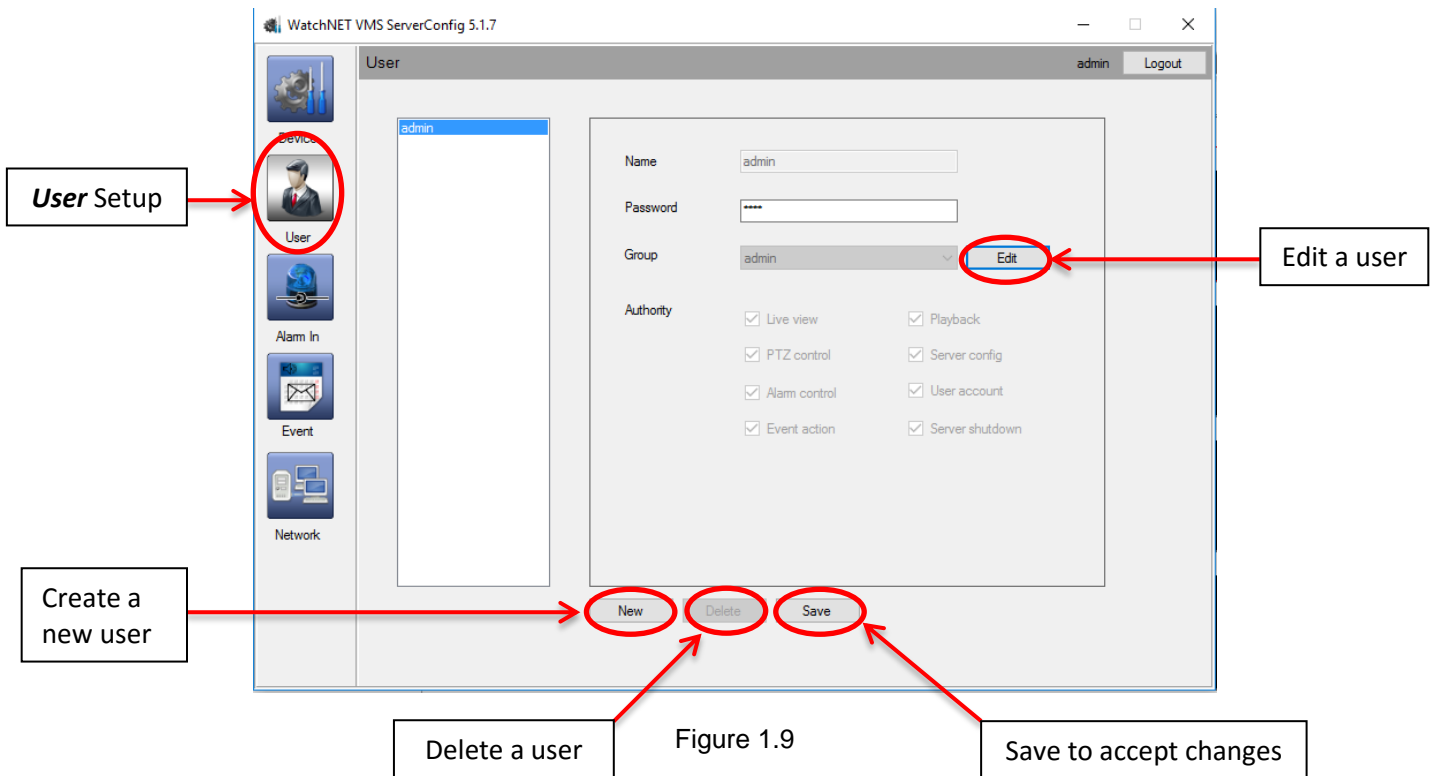
Figure 1.9

Alarm In

Select ![Alarm In icon] **Alarm In** button located in the *VMS ServerConfig* menu for alarm input to camera channel assignment (figure 2.0)

1. Select the device from the displayed list.
2. Select the dropdown to show the camera channel list to assign to the alarm input.
3. You can assign up to 3 channels per alarm input. The available number of alarm inputs will vary depending on the model of DVR/NVR or IP camera.
4. Click *Save* button when done.

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Available devices to setup

Alarm Input No.

Channel selection

Alarm In setup

Save to accept changes
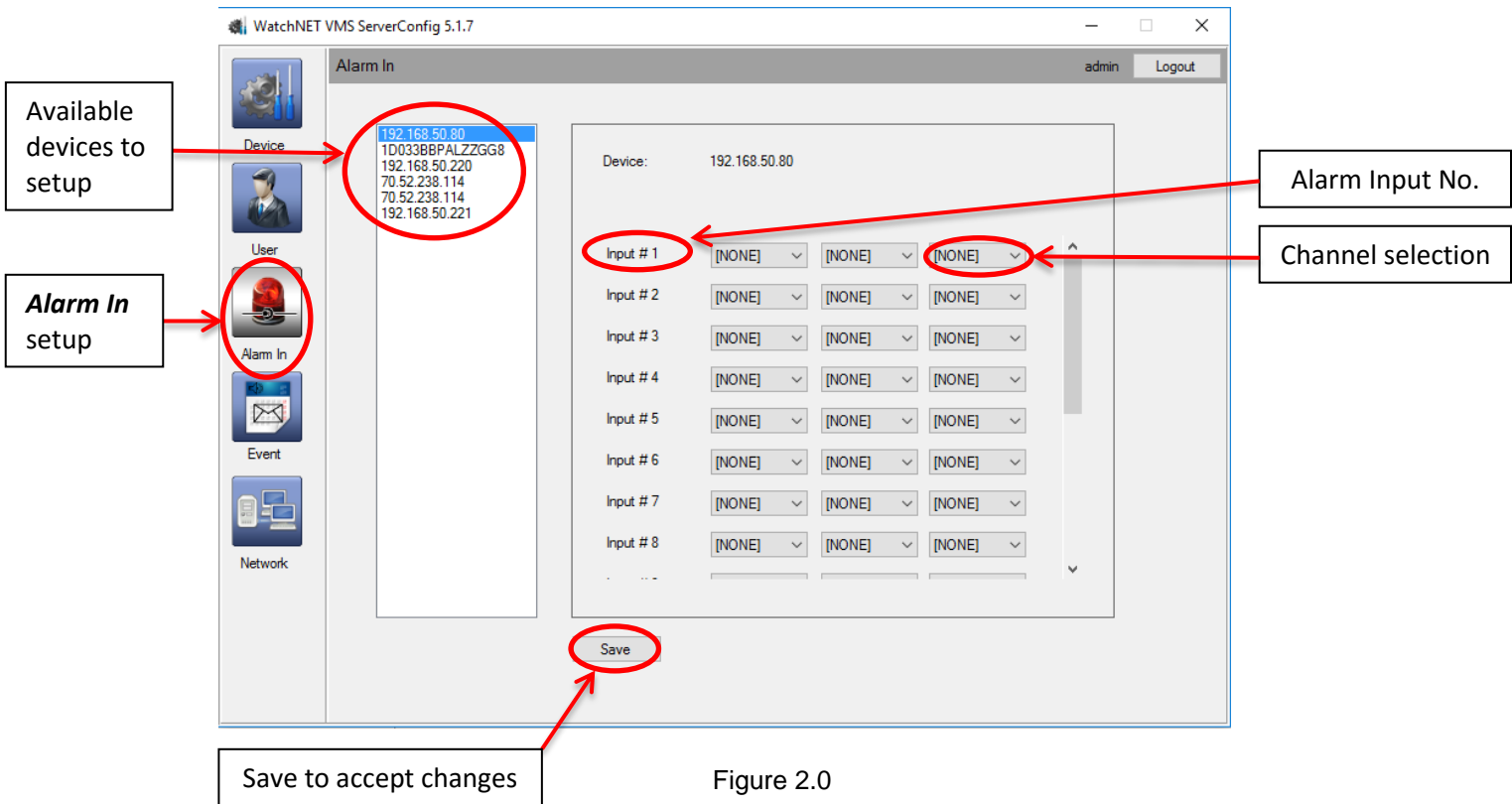
Figure 2.0

Event

Select **📧 Event** button located in the *VMS ServerConfig* menu for programming the type of action to be accomplished upon receipt of an alarm condition (figure 2.1)

1. Select the type of Event to trigger from the left list.
2. Select the "Act as critical" checkbox for checking all the available actions to indicate it is critical.
3. Select the Action(s) to be performed.
   a. *Popup* for floating window when an event is triggered.
   b. *Snapshot* for a still image when an event is triggered.
   c. *Event Alert* displays all triggered events.
   d. *Email* sends an email to a recipient when an event is triggered.
   e. *Display Alert Message* prompts all alert messages.
4. *Email setup* is for configuring email to be sent to a recipient (figure 2.1a)
   a. Select *Email Setup* button.
   b. Enter recipient name and email address (person to receive the email notification).
   c. Select *Setup Mail Server* button to configure the SMTP server settings (figure 2.1b)

Note: Depending on the event, some of the actions will be greyed out and not selectable.

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Select the event trigger

Select checkbox for all the available actions to indicate it is critical

Event setup

Select the Action to be performed after an event trigger

Email settings

Select *Save* when done

Figure 2.1

Enter all recipient names and Email addresses

Enter up to 3 recipients

SMTP Email server settings

Select *Done* to save

Figure 2.1a

Enter all the SMTP mail server details

Select *Done* to save

Figure 2.1b

Note: Consult with customer's IT technical advisor for network and email server settings.

Network

Select ![icon] **Network** button located in the *VMS ServerConfig* menu for setting up the LAN configuration (figure 2.2)

Logout when the Server Config is completed and click *Yes* to enable the changes (figure 2.2a). Then re-log into the VMS Lite client.

Figure 2.2

Figure 2.2a

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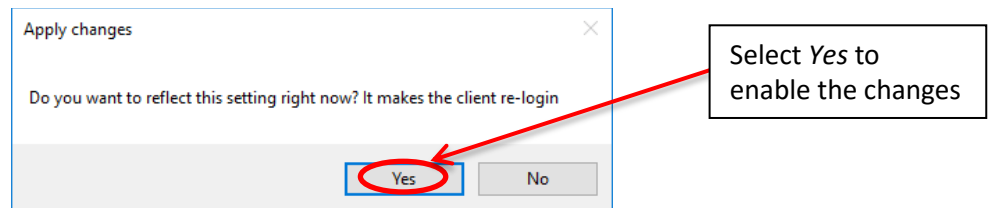
Live Viewing

To start a live view you have three (3) methods as follows:

1. Select the desired channel(s) connected to a specific recorder from the device tree and drag and drop to an empty display window. Up to 64 channels can be selected at a time. You can select different channels from different recorders to create a mix of cameras on a single view (figure 2.3)
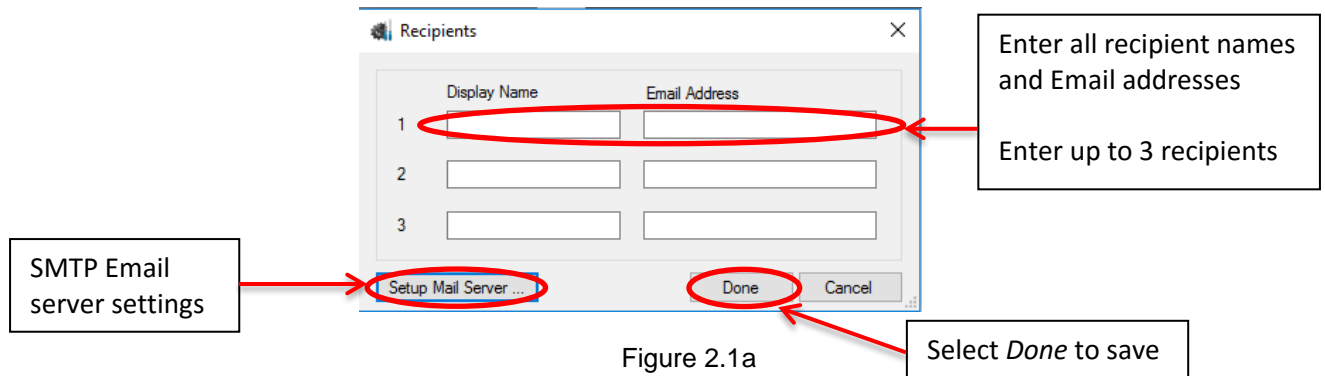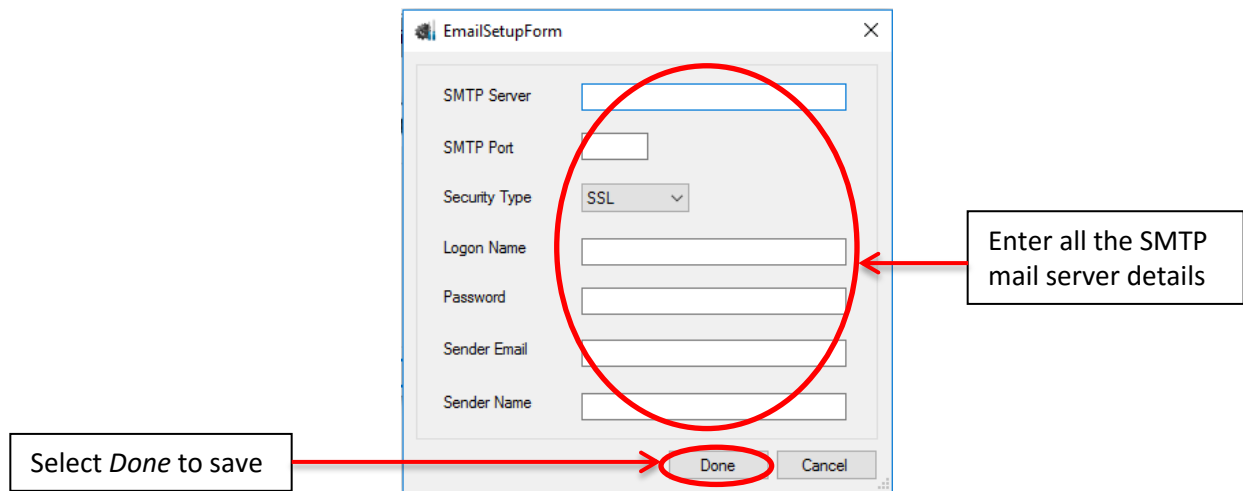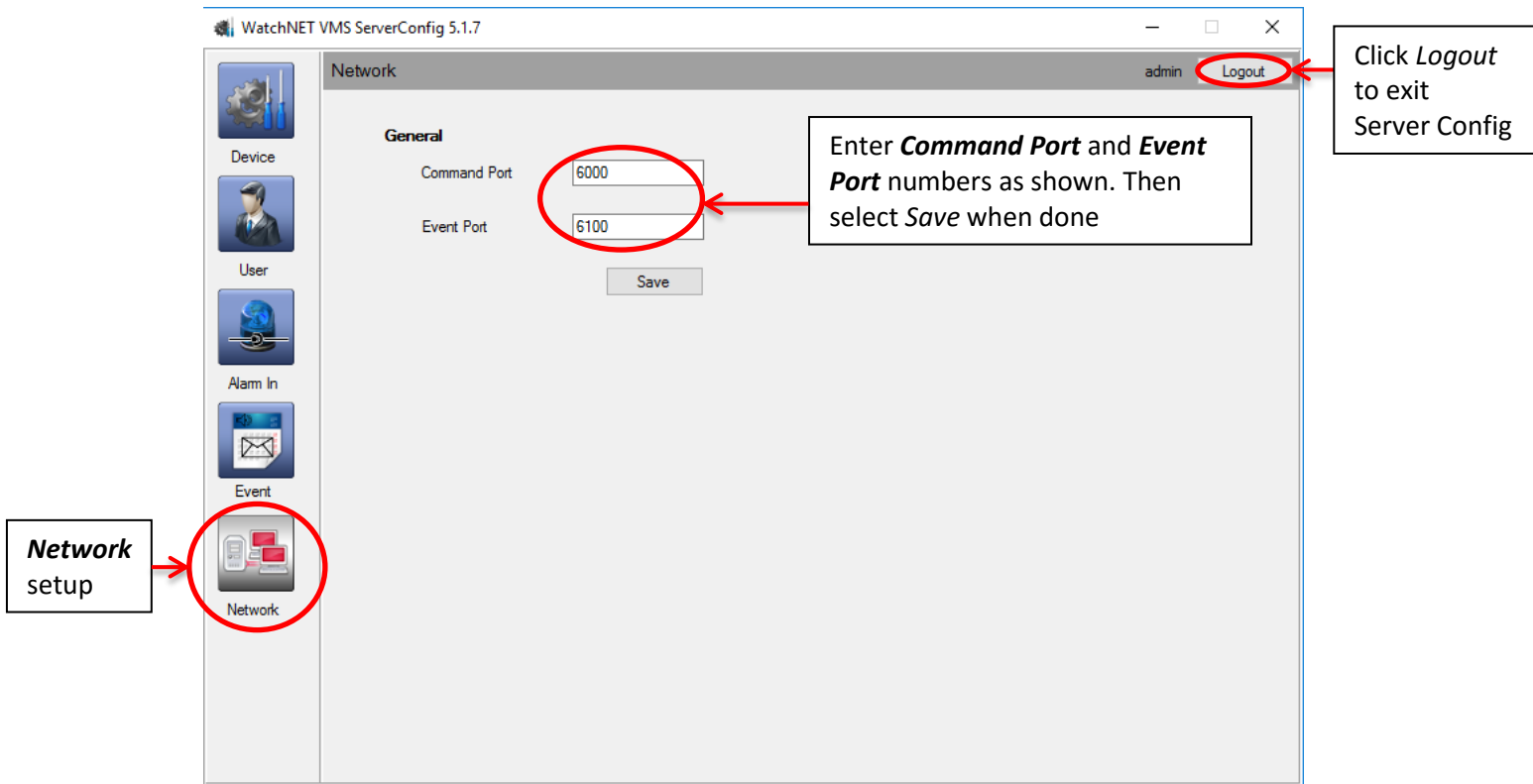2. Select the desired NVR or DVR or TriBrid from the device tree and drag and drop to an empty display window. The max. number of cameras that can be dropped in a single view is 64 channels.
3. Select the desired IP camera(s) from the device tree and drag and drop to an empty display window. Max. of 64 channels can be selected.

Note: you can arrange the channel order displayed by dragging and dropping each camera within the grid.

Figure 2.3

Select an NVR/DVR/TriBrid recorder and drag & drop to an *Empty* window

Or select individual cameras and drag & drop to an *Empty* window

Archive Search

1. Select 🔍 **Search** button at the main menu toolbar (figure 2.4) to open the Search menu (figure 2.4a)
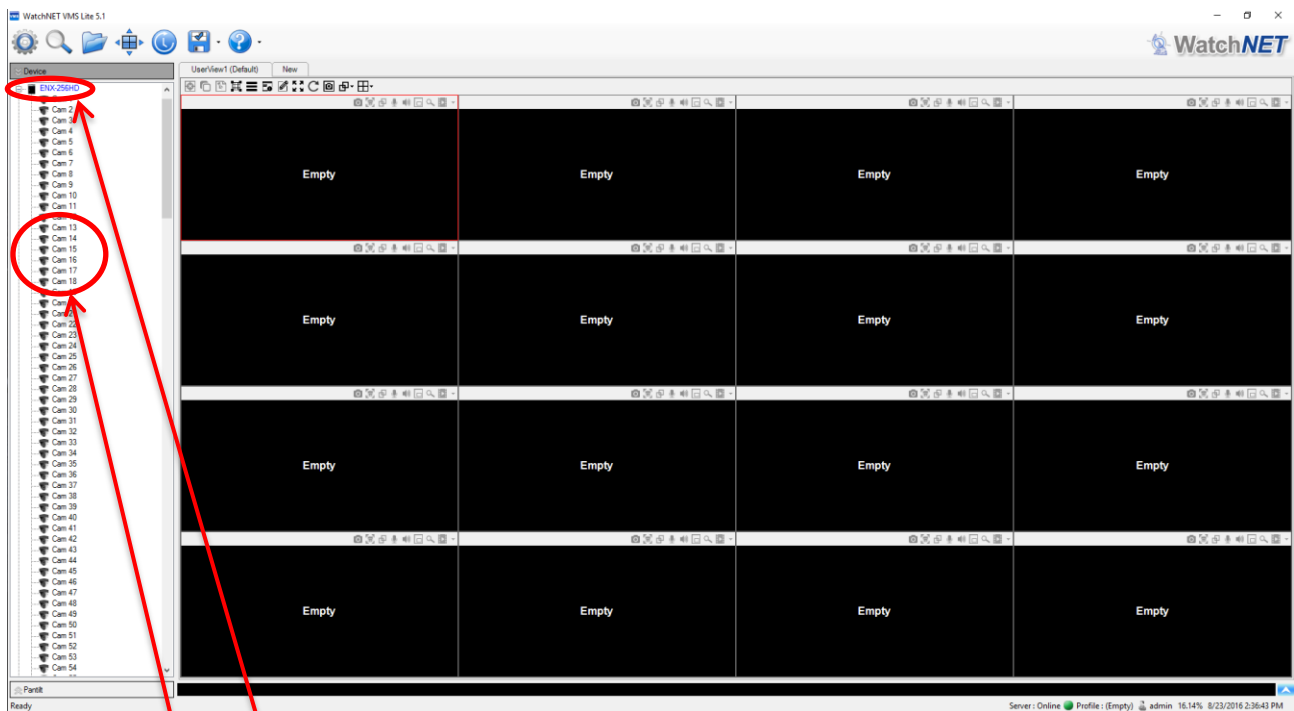2. Select the **camera**(s) to search by ticking the checkbox(s) to the left of the camera channels listed in the device tree or if you wish to select all channels on the NVR, tick the checkbox beside the NVR (figure 2.4a)
3. Select a **date** on the calendar that you wish to search for archived video (figure 2.4b)
4. Click on the **SEARCH** button located to the right of the calendar (figure 2.4b)
   The video from the selected device(s) will load into the timeline bar and the playback video will auto display in the window(s). Blue bar is main-stream, green bar is sub-stream (figure 2.4c)

Main Menu Toolbar *Search* button

Figure 2.4

Select the checkbox beside the NVR to select first 16 cameras. This is useful for selecting 16 channels with one tick

Select the checkbox(s) beside the camera(s) for the ones to be searched
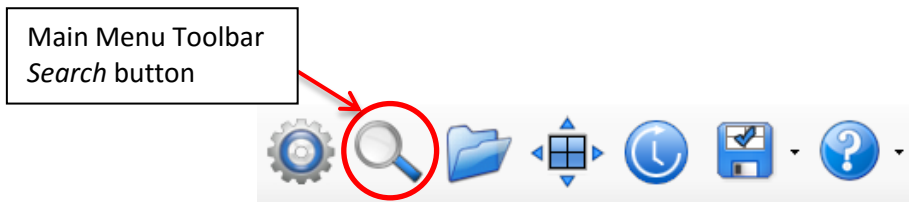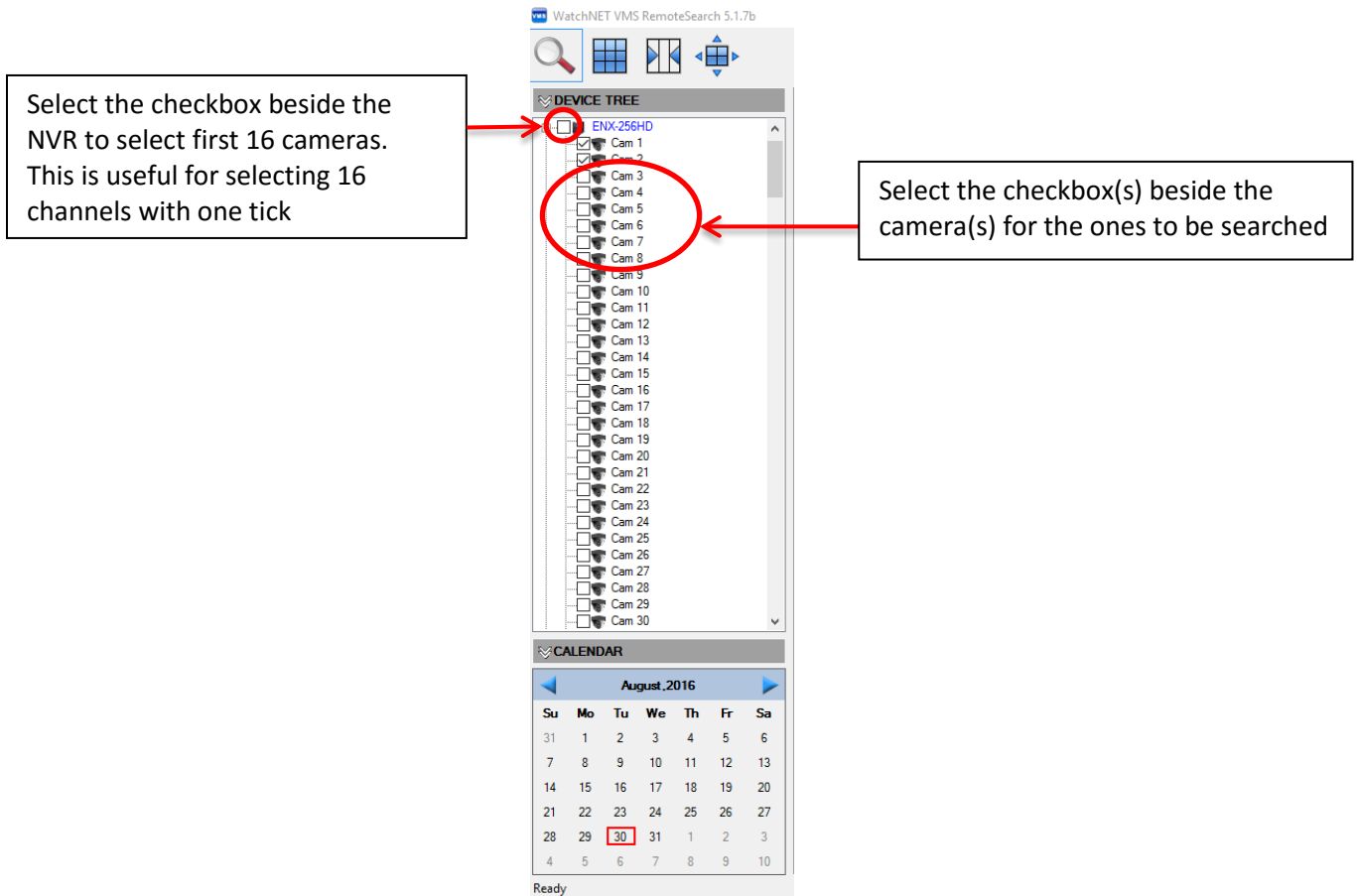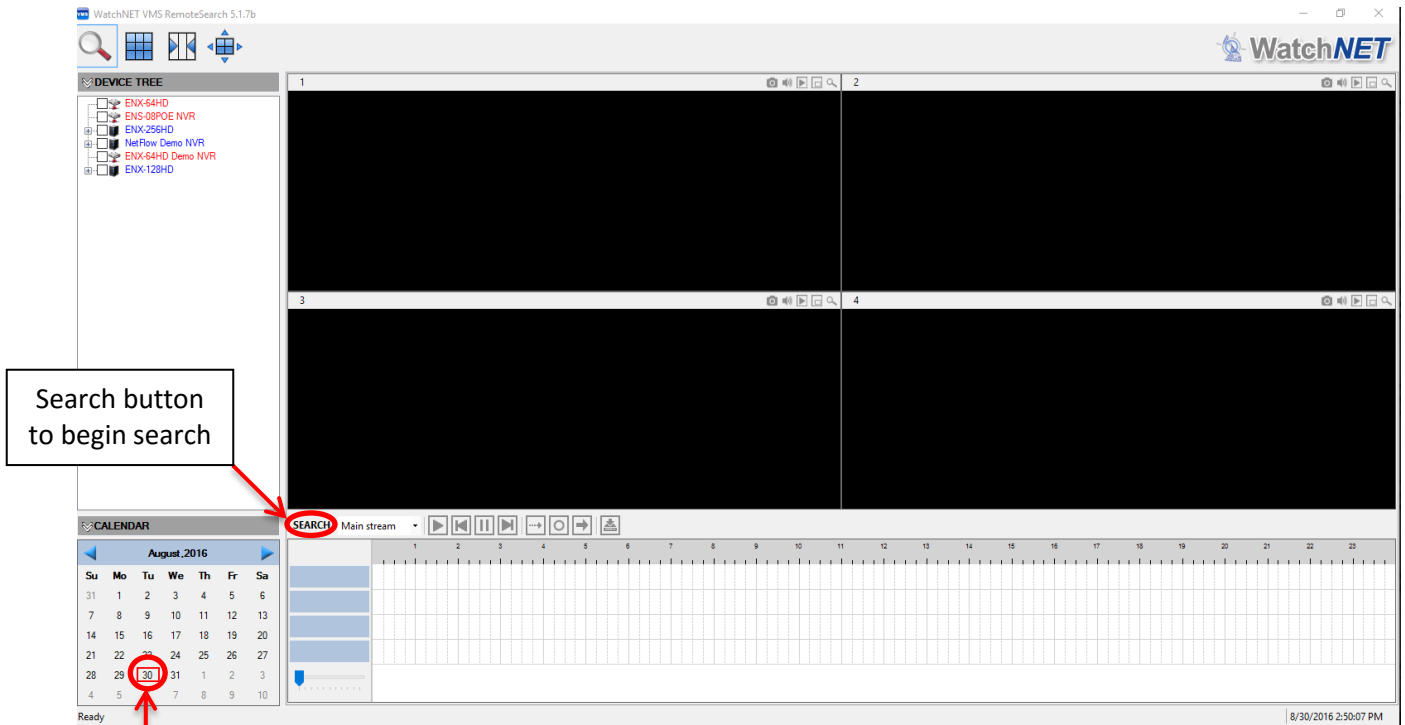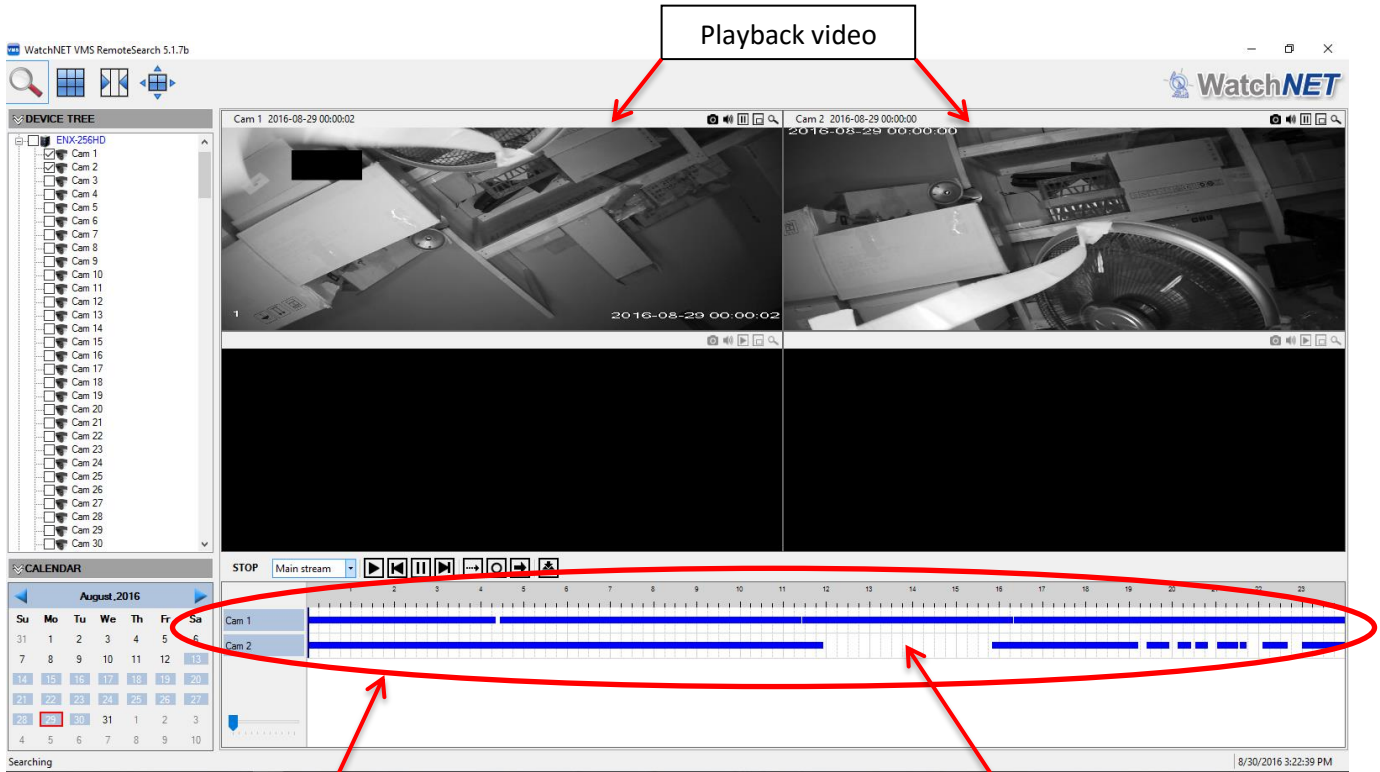

Figure 2.4a

Search button
to begin search

Date selection for
archive search

Figure 2.4b

Playback video

Figure 2.4c

Recorded video for each camera is shown
in a color coded bar in the timeline

Gaps in the timeline bar indicate
no activity recorded for that period

Downloading Video

1. Select or Main stream or Sub-stream video (figure 2.5)
2. Select **Download** button (figure 2.5)
3. A pop-up balloon tip indicating to select the download time will be prompted (figure 2.5a)
4. Drag the **+** sign over the colored timeline bar to select the video times to download (figure 2.5b)
5. The *Download* menu will pop-up, then enter a title for the download clip, choose your file destination path/folder to save it to, select original (DAV) or AVI format, then click *Start* (figure 2.5c)
6. The download progress status will be displayed with a bar graph (figure 2.5d)
7. It will prompt *Download success!!* when completed. Then click *OK* (figure 2.5e)

Figure 2.5

Figure 2.5a

Drag the **+** over the colored timeline bar to select the video times to download

Figure 2.5b

Enter a title for the download clip

Enter destination path to download

Select original (DAV) or AVI format

DAV format is encrypted and requires Watch*NET* Quick Player

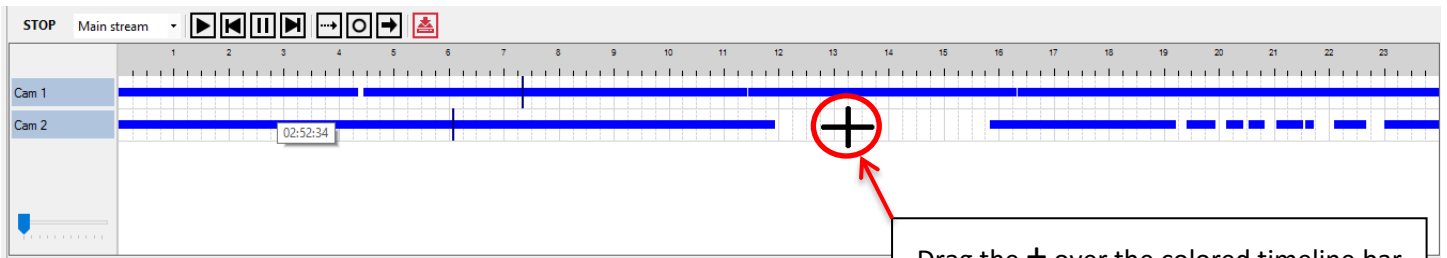Click *Start* to begin the download process

Highlighted video clip to download with clip length shown in *hr:min:sec*

Figure 2.5c

Figure 2.5d

Figure 2.5e

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Playback Video

1. Follow steps 1 to 4 in the **Archived Search** section of this manual (on page 27)
2. Then click on the ▶ **Playback** button displayed right over the video display window to start playback of video selected (figure 2.6)
3. To control the video play direction (rewind, forward, pause), use the recorder transport control panel (figure 2.6a)
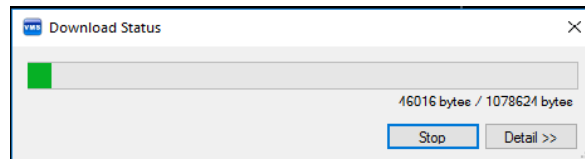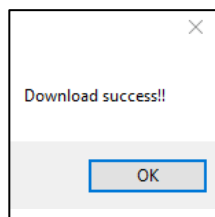4. To switch between playback view to live camera view, select the ⊞ button located in the *Remote Search* toolbar (figure 2.6b)

Figure 2.6

▶ Play   ◄ Rewind 1 minute   ⏸ Pause   ▶| Next Frame

⇢ Slow Play   ○ Normal Play   → Fast Play   ⬇ Download

Figure 2.6a

Remote Search Toolbar

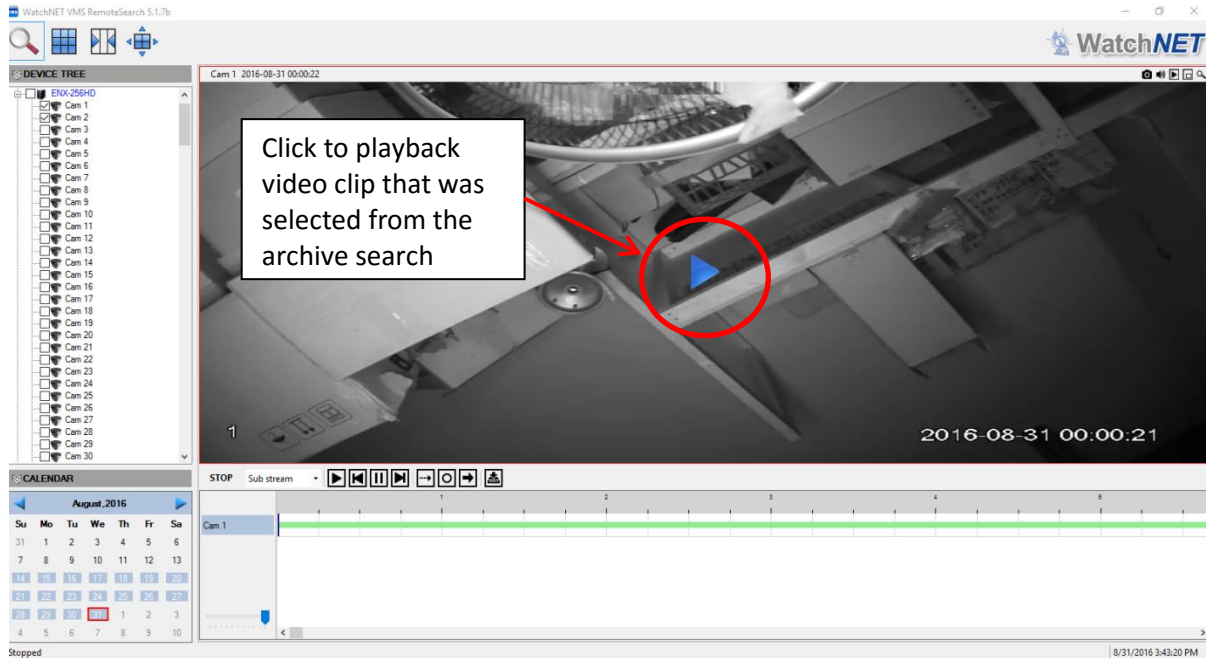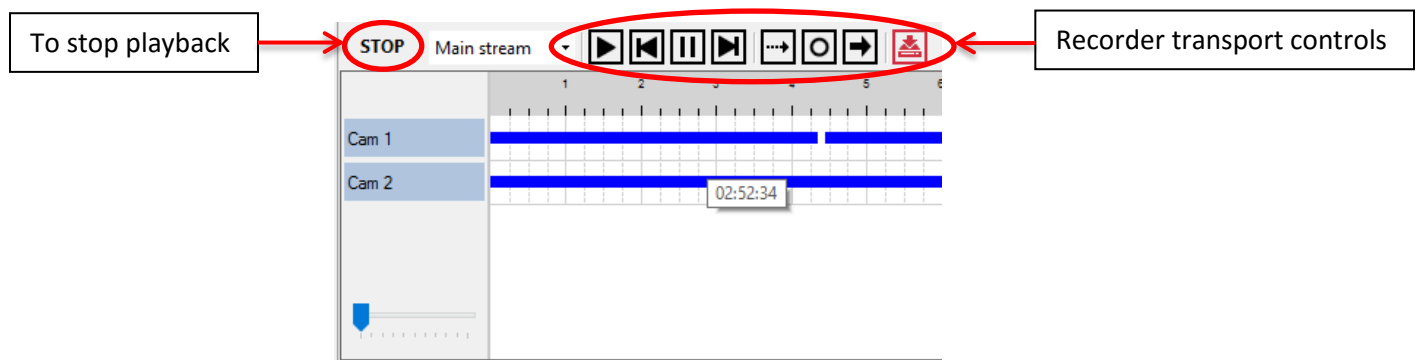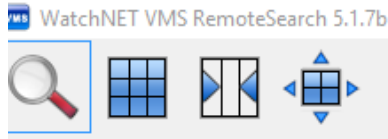| Remote Search Toolbar	Function
Remote Search	Searches for archived video in recorder devices
Live View	Switches from playback view to live camera view
Change Ratio	Selects between original and stretch ratio for channel display windows
Full screen	Hides all panes, but the remote search toolbar
Reverse full screen	Reverses full screen view back to multi-pane view

Figure 2.6b

View Log

1. Select 📁 **View Log** button from the VMS main toolbar (figure 2.7) to open the *Log Viewer* pop-up window (figure 2.7a)
2. Select a *category* to query from the dropdown box, then select a date and time range up tor 24 hours (figure 2.7b)
3. Select *Search* button to query.

Select *View Log*

Select a *date* and *time* range

Click *Search* to query a list

Log will appear here

Figure 2.7a

Select a category

Click *to Export* the log
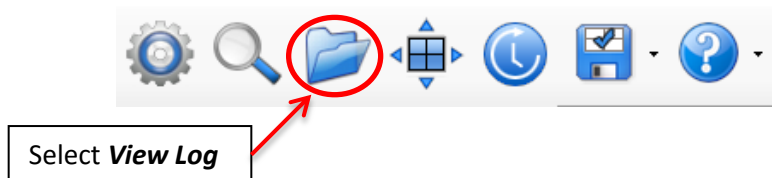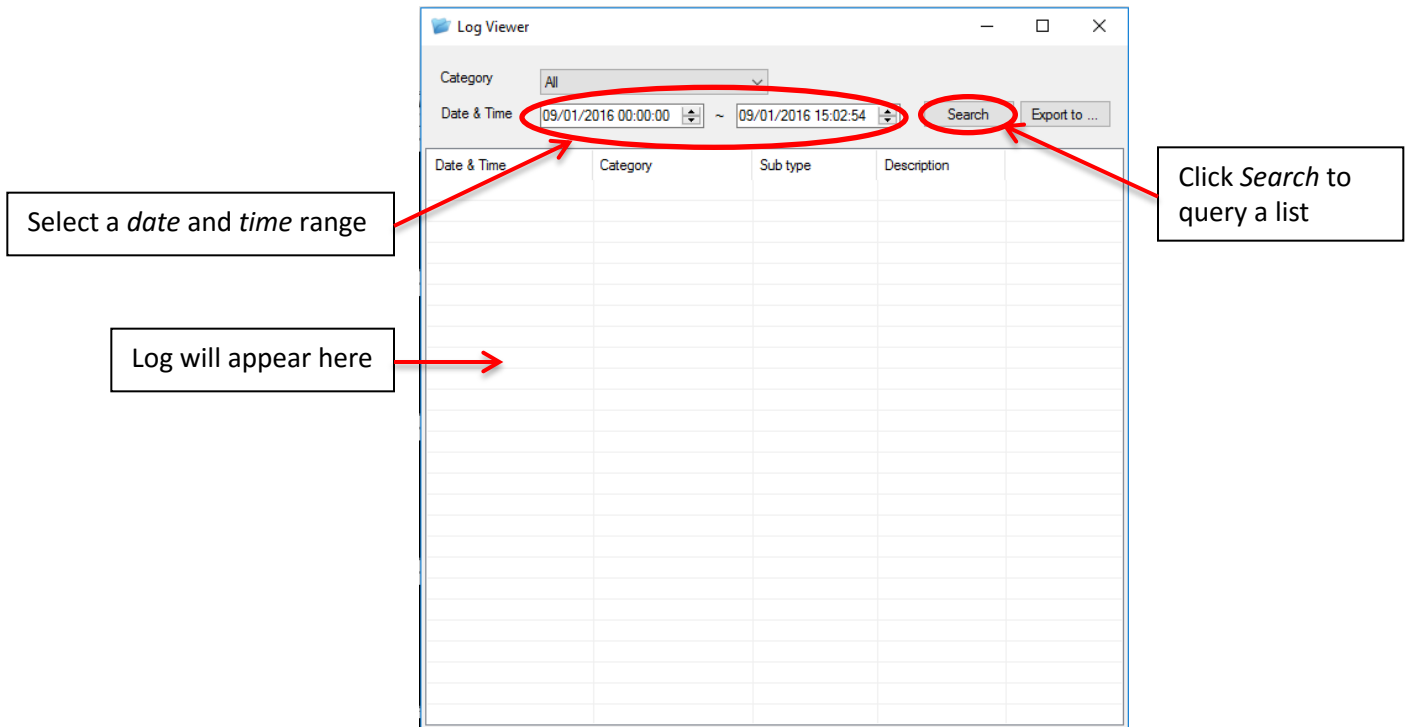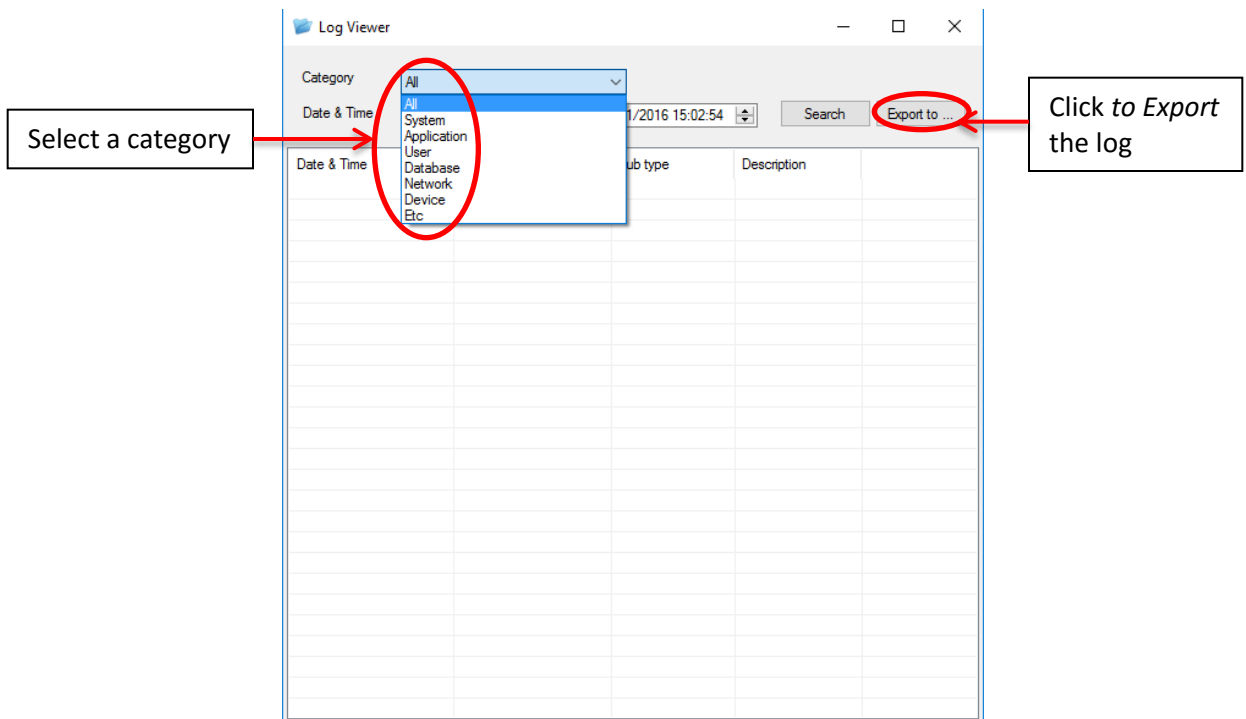
Figure 2.7b

User Profile

1. Select [icon] **Profile** button from the VMS main toolbar to **Save**, **Load** or **Edit** a profile. If you are only viewing certain cameras or have different layouts, you can save the profile so that you do not have to reset your preferred layouts each time you login (figure 2.8)

Select **Profile**

Profile options
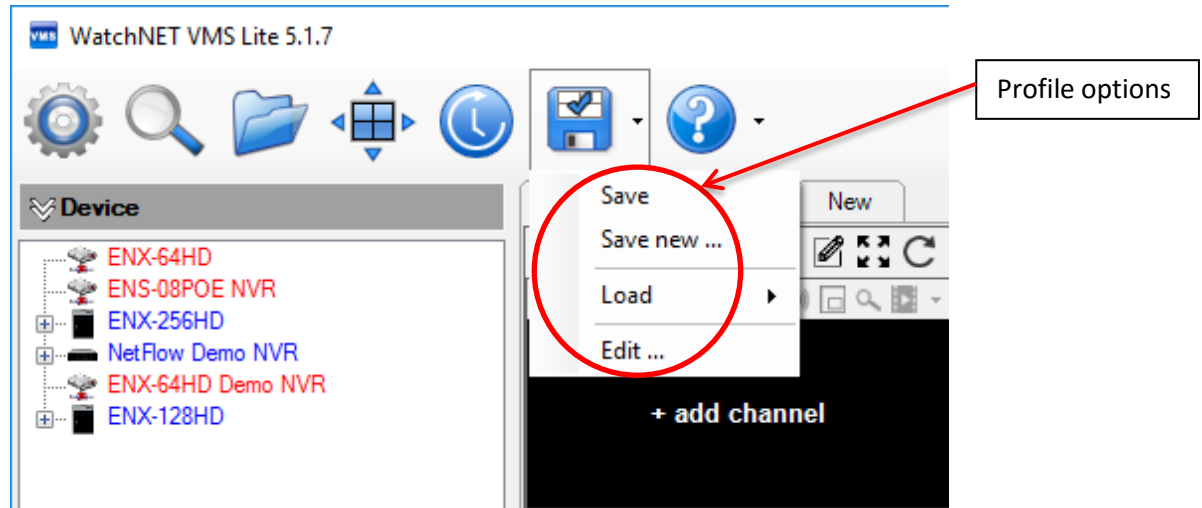
Figure 2.8

Help

1. Select ❓ **Help** for general settings, event settings and about the VMS software version installed (figure 2.9)
2. *General* tab sets auto login, auto switching intervals (figure 2.9a)
3. *Event* tab is for alert settings (figure 2.9b)
4. *About* shows the VMS Lite software version (figure 2.9c)
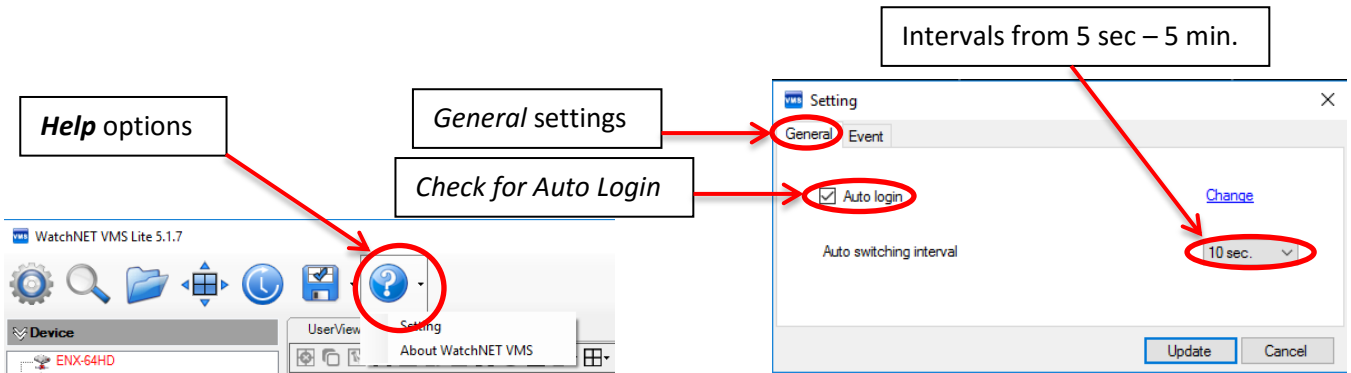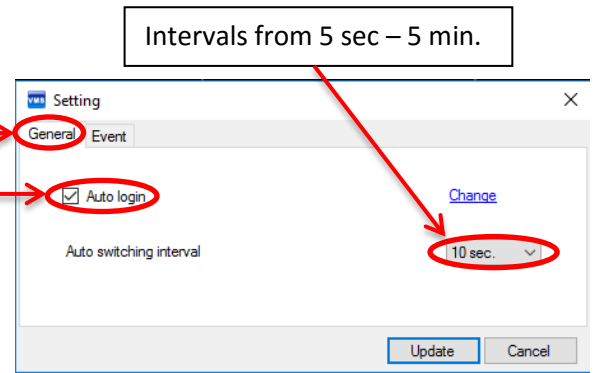
Figure 2.9   Figure 2.9a
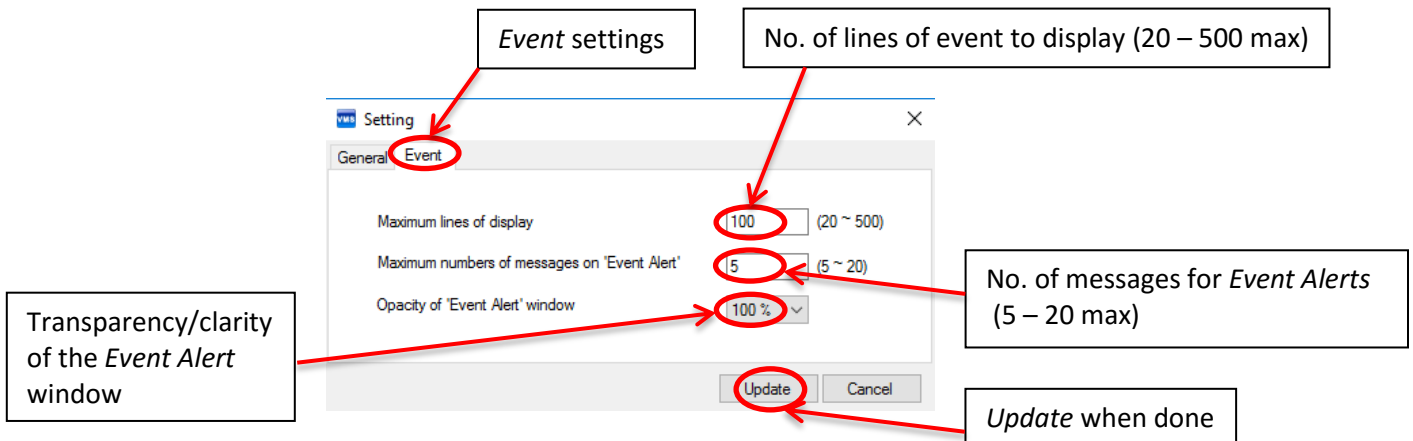
Figure 2.9b

Figure 2.9c

Note: Software versions shown in this manual are for illustration purposes and applies to all releases

PC Hardware Requirements

WatchNET VMS Pro Server PC Hardware Requirements

QTY	Type	Component	Component Description
1	Chassis	WatchNET Server	Aluminum Rackmount Chassis
1	Mouse		USB Mouse
1	Keyboard		USB Keyboard
1	Motherboard	BLKDQ77MK	Intel Server M-Board
1	CPU	i7-2600	Intel i7 CPU, 8M Cache, 3.8Ghz, 4 cores, 8 threads
2	RAM		Kingston 8GB Memory
1	Video Card	On-board	HDMI/VGA
1	Optical Drive		DVD-RW SATA 24x Black
1	OS	Microsoft	Software License: Win7, 64-bit
1	Power Cord		Power Supply Cord
1	Power Supply		600W Power Supply
1	HDD	Western Digital SATA Drive	WD 1TB HD
1	SSD		120GB (for Windows OS)

WatchNET VMS Pro Client PC Hardware Requirements for 4 Monitor Support

QTY	Type	Component	Component Description
1	Chassis	WatchNET Server	Aluminum Rackmount Chassis
1	Mouse		USB Mouse
1	Keyboard		USB Keyboard
1	Motherboard	BLKDQ77MK	Intel Server M-Board
1	CPU	i7-2600	Intel i7 CPU, 8M Cache, 3.8Ghz, 4 cores, 8 threads
1	RAM	KVR1333D3E9S/4G	Kingston 4GB Memory
1	Video Card Options	ATI (AMD) FirePro W4100 Professional Graphics	2GB GDDR5, 4x mini DP, 4096x2160 (8.9MP, 4K ready)
1	Optical Drive		DVD-RW SATA 24x Black
1	OS	Microsoft	Software License: Win7, 64-bit
1	Power Cord		Power Supply Cord
1	Power Supply		600W Power Supply
1	HDD	Western Digital SATA Drive	WD 1TB HD
1	SSD		120GB (for Windows OS)
4	Output Cables	Video output conversion adapters	Mini DP to HDMI

WatchNET VMS Pro Client PC Hardware Requirements for 6 Monitor Support

QTY	Type	Component	Component Description
1	Chassis	WatchNET Server	Aluminum Rackmount Chassis
1	Mouse		USB Mouse
1	Keyboard		USB Keyboard
1	Motherboard	BOXS1200BTLR	Intel Server M-Board
1	CPU	Intel ES-2620	Intel Dual Xeon CPU
2	RAM		Kingston 8GB Memory
1	Video Card	ATI (AMD) W600 Professional Graphics	2GB GDDR5, 6x mini DP, 4096x2160 (8.9MP, 4K ready)
1	Optical Drive		DVD-RW SATA 24x Black
1	OS	Microsoft	Software License: Win7, 64-bit
1	Power Cord		Power Supply Cord
1	Power Supply		750W Power Supply
1	HDD	Western Digital SATA Drive	WD 1TB HD
1	SSD		120GB (for Windows OS)
6	Output Cables	Video output conversion adapters	Mini DP to HDMI

WatchNET VMS LITE PC Hardware Requirements
(for 1 monitor with 16 channel display in sub-stream)

QTY	Type	Component	Component Description
1	Chassis	Desktop type	Mini tower or full tower
1	CPU	Intel i3	Intel i3 CPU (minimum)
1	RAM		2GB Memory (minimum)
1	Video Card	On-board video card	On-board video card
1	Optical Drive		DVD-RW SATA 24x Black
1	OS	Microsoft	Software License: Win7, 64-bit
1	Power Supply		450W Power Supply
1	HDD	Western Digital SATA Drive	WD 1TB HD
1	SSD		120GB (for Windows OS)

WatchNET VMS LITE PC Hardware Requirements
(for 2 monitors with 64 channel per monitor display in sub-stream)

QTY	Type	Component	Component Description
1	Chassis	Desktop type	Mini tower or full tower
1	CPU	Intel i7	Intel i7 CPU
1	RAM		4GB Memory (minimum)
1	Video Card	On-board video card	On-board video card
1	Optical Drive		DVD-RW SATA 24x Black
1	OS	Microsoft	Software License: Win7, 64-bit
1	Power Supply		600W Power Supply
1	HDD	Western Digital SATA Drive	WD 1TB HD
1	SSD		120GB (for Windows OS)

WatchNET VMS Virtual Matrix PC Hardware Requirements
(for 1 monitor with 64 channel display in sub-stream)

QTY	Type	Component	Component Description
1	Chassis	Desktop type	Mini tower or full tower
1	CPU	Intel i7	Intel i7 CPU (minimum)
1	RAM		4GB Memory (minimum)
1	Video Card	On-board video card	On-board video card
1	Optical Drive		DVD-RW SATA 24x Black
1	OS	Microsoft	Software License: Win7, 64-bit
1	Power Supply		600W Power Supply
1	HDD	Western Digital SATA Drive	WD 1TB HD
1	SSD		120GB (for Windows OS)