Honeywell

MAXPRO® NVR 3.5

Operator's Guide

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Revisions

Issue	Date	Description
1.0 Rev C	Feb, 2014	Updated the document for 3.1 Build 65 B
1.0 Rev D	June, 2014	Updated the document for 3.1 Build 65 C
1.0 Rev E	Aug, 2014	Updated the document for 3.1 SP1, Build 70 C
2.0 Rev A	Aug, 2015	Updated the document for 3.5 Release

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About This Guide

Introduction

This guide introduces and describes how to use the Honeywell MAXPRO® NVR application.

The MAXPRO NVR family is an unmatched suite of open, easy to use and scalable IP recording solutions that satisfy almost any application. The family includes Software and Turnkey Box NVR Solutions.

Scope

This guide describes how to use MAXPRO NVR application and it also provides information on the features and functionalities common to all the variants of MAXPRO NVR. The technical aspects of MAXPRO NVR are beyond the scope of this guide.

Intended Audience

This document is intended for the operators of MAXPRO NVR.

Structure of this Guide

The following table describes the contents of each chapter in this guide.

#	Chapter	Description
1	Introducing MAXPRO NVR	Introduces the MAXPRO NVR system and types of surveillance solutions.
2	Logging On and Getting Started	Describes the procedure to log on and gives an overview of the MAXPRO NVR.
3	Monitoring a Site	Describes the procedures to view live and recorded video and the operations you can perform on them.
4	Searching Recorded Video in MAXPRO NVR	Describes the search options available in MAXPRO NVR.
5	Generating Reports	Describes the various reports that you can generate in MAXPRO NVR.
6	MAXPRO NVR Web Client	Describes the procedure to log on to MAXPRO NVR Web Client and how to use the web client to access the MAXPRO NVR.
7	Using the MAXPRO Mobile app	Describes the procedure to log on to MAXPRO Mobile App, and how to use the mobile app to access the MAXPRO NVR.

Related Documents

This document listed in the table serves as a necessary prerequisite for installing and configuring MAXPRO NVR.

Document title	Part number	Description
MAXPRO NVR Installation and Configuration Guide	800-16419V2-Rev-A	This document is intended for field and commissioning engineers and describes the procedures and guidelines for installing, configuring and using the MAXPRO® NVR system.

Typographical Conventions

This document uses the following typographical conventions:

Font	What it represents	Example
Swiss721 BT	Words or characters that you must type. The word "enter" is used if you must type text and then press the Enter or Return key.	Enter the **password**.
	Menu titles and other items you select	Double-click **Open** from the **File** menu.
	Buttons you click to perform actions	Click **Exit** to close the program.
Italic	Placeholders: words that vary depending on the situation	user name
	Cross-reference to external source	Refer to the *MAXPRO® NVR Installation and Configuration Guide.*
	Cross-reference within the document	See Installation.

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Introducing MAXPRO NVR

Honeywell's MAXPRO NVR line includes turnkey solutions—NVR (XE,SE,PE) with 8 to 64 channels and NVR Hybrid (XE,SE, PE) with 16 to 64 channels; and software solutions that range from 4 to 64 channels. It supports ONVIF (including Profile S devices) and PSIA interoperability standards, RTSP, native integration for third-party cameras—including 360° camera support—and encoders from Honeywell, Axis and other manufacturers, making it a truly open system.

MAXPRO NVR provides easy to use desktop clients, web clients and mobile apps. The advanced IP video capabilities make MAXPRO NVRs easy-to-install with 3-clicks to live video and easy-to-use with features such as Video Surround, Calendar Search and Smart VMD for every day security users and advanced video surveillance users.

MAXPRO NVR Turnkey Boxed Solutions

Honeywell's MAXPRO NVR solutions offer ideal solutions from entry to enterprise IP video surveillance systems. Supporting Honeywell's high definition (HD) cameras and broad integration with third party IP cameras and encoders. The MAXPRO NVR family is a powerful HD IP recording and security monitoring system for a variety of applications. MAXPRO NVR comes pre-installed with the required software and pre-licensed with the required channels depending on the MAXPRO NVR model you purchase.

MAXPRO NVR Software Only Solution

Honeywell's MAXPRO NVR Software solution is a flexible, scalable and open IP video surveillance system. Supporting Honeywell's high definition (HD) cameras and broad integration with third party IP cameras and encoders, the MAXPRO NVR family is a powerful HD IP recording and security monitoring system for a variety of applications. MAXPRO NVR Software ensures flexibility for end user IT departments when choosing NVR hardware in deploying a recording solution, but end users will find it as easy as a DVR to configure and operate.

MAXPRO NVR Software is an open platform and supports broad third party device integrations with support for PSIA and ONVIF (including support for Profile-S devices) standards, real time streaming protocol (RTSP) standard and native device integrations. MAXPRO NVR provides easy to use desktop clients, web client and mobile apps. MAXPRO NVR Software comes with all required software applications and a license for 4, 8, 16, 32 or 64 channels allowing for up to 64 cameras as your system grows. Minimum hardware specifications for different levels of recording and monitoring performance are provided for IT departments to choose the appropriate hardware platform. This, along with quick and easy commissioning wizards for discovery and system configuration, makes installing HD IP systems quick and efficient without requiring any IP expertise. Simple and logical configuration pages make setup a breeze even for the novice installer. The following table describes the software solution available.

MAXPRO NVR Variants

The following table describes the various **MAXPRO NVR Hybrid** and **MAXPRO NVR** variants that are available.

	MAXPRO NVR Hybrid XE (Xpress Edition)	MAXPRO NVR Hybrid SE (Standard Edition)	MAXPRO NVR Hybrid PE (Professional Edition)	MAXPRO NVR XE (Xpress Edition)	MAXPRO NVR SE (Standard Edition)	MAXPRO NVR PE (Professional Edition)	MAXPRO NVR Software
Description	Simple, affordable NVR Hybrid	Flexible, scalable NVR Hybrid	Enterprise class NVR Hybrid	Simple, affordable NVR	Flexible, scalable NVR	Enterprise class NVR	Flexible, software only NVR
Channels	16 Analog or 16 IP	16 Analog and 48 IP or only 64 IP	16 Analog and 48 IP or only 64 IP	8 or 16	Up to 64	Up to 64	4, 8, 16, 32 or 64
Maximum Frame Rate **at 4CIF/VGA IP** **at 720p IP** **at 1080p IP (4 Mbps bitrate)** **at CIF or 4CIF/D1 Analog**	 480 fps (16 ch IP) 480 fps (16 ch IP) 480 fps (16 ch IP) 480 fps CIF or 120 fps 4CIF/D1 (16 ch Analog)	 1920 fps (64 ch IP) 1920 fps (64 ch IP) 1280 fps (64 ch IP) 480 fps CIF or 120 fps 4CIF/D1 (16 ch Analog)	 1920 fps (64 ch IP) 1920 fps (64 ch IP) 1920 fps (64 ch IP) 480 fps CIF or 120 fps 4CIF/D1 (16 ch Analog)	 480 fps 480 fps 480 fps	 1920 fps 1920 fps 1280 fps	 1920 fps 1920 fps 1920 fps	Server hardware dependent-Minimum hardware specs recommended for various fps
Storage	1 - 8 TB, internal fixed	1 - 16 TB removable bays	Up to 32 TB RAID 5/6, removable bays	1 - 8 TB internal fixed	1 - 24 TB, removable bays	Up to 32 TB RAID 5/6, removable bays	Server hardware dependent
Form Factor	Desktop	Workstation/Server	Server	Desktop	Workstation/Server	Server	Server hardware dependent

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Note: The product options available in your region may vary, please contact your local Honeywell representative for more information.

MAXPRO NVR Features

MAXPRO NVR (Turnkey NVR/Hybrid boxes - XE, SE, PE and Software only solution) offers the following key features that differentiate it from other IP video surveillance systems.

Industry Standards

MAXPRO NVR is an open platform and supports broad third party device integrations with support for PSIA and ONVIF (including support for Profile S devices) standards, Real Time Streaming Protocol (RTSP) standard and native device integrations.

Flexible Licensing

MAXPRO NVR comes with all required software applications and licenses.

Role Based Operator Privileges

MAXPRO NVR offers role-based operator privileges supporting Windows and Local users. You can add up to 1024 users under the Users tab.

Easy Configuration

A quick and easy 3-click wizard to set up the system with auto-configuration and auto-discovery of IP cameras, recording and monitoring configuration, makes installing HD IP systems quick and efficient without requiring any IP expertise. Simple and logical configuration pages make setup a breeze, even for the novice installer.

64 channel Support

MAXPRO NVR (SE, PE), Hybrid NVR (SE, PE) and Sotware only solution now support 64 channels. You can connect up to 64 cameras based on your type of solution.

GPU Rendering Support

Cost-effective enhanced HD video rendering on remote desktop clients with support for monitoring of up to 14 1080p HD cameras in real time (30 fps) with no-time lapse using the GPU capabilities of in-built processor graphics with Intel® 4th generation processors. This feature enables a user to render high resolution cameras while optimizing the CPU consumption.

Analog Capture Card Support

MAXPRO NVR Hybrid supports Analog Capture card through which you can manually add 16 analog cameras. Each capture card comes with 16 channel support and allows you to manage the analog cameras.

User-Friendly and Feature-Rich User Interface

The MAXPRO NVR user interface is based on Honeywell's flagship MAXPRO® VMS user interface which offers a feature-rich user experience. Utilization of this familiar interface allows for the "Learn One, Know Them All" concept that ensures familiarity across a broad range of Honeywell products.

Recording and Playback Operations

MAXPRO NVR supports simultaneous recording, live and playback viewing, search and system management of all supported IP cameras including HD formats in a single server instance.

Enriched Video Viewing Experience

MAXPRO NVR offers enriched video viewing experience through the intuitive video rendering engine that optimizes CPU utilization by altering the video frame rate.

Efficient Event and Alarm Viewing Capability

MAXPRO NVR provides the ability to investigate events and alarms by simultaneously viewing alarm videos at various stages. For every alarm, users can view the video captured during pre-alarm, on-alarm, and post-alarm, and also view live video from the camera which triggered the alarm.

Simultaneous Video Recording and Video Viewing

MAXPRO NVR supports multiple simultaneous operations such as video recording and video viewing or alarm monitoring on the server unit without the need for an additional workstation. It also provides the option of remote monitoring clients. You can view live video while simultaneously performing searches.

Video Motion Detection (VMD) Support

MAXPRO NVR supports both Camera based and Server based VMD. Camera based VMD support is based on the integration method and the motion detection performance depends on camera analytics. Server based VMD (Smart VMD) is supported for all video devices supported by NVR, and is based on Honeywell full analytics package algorithms supporting object-based motion detection with reduced false alarms.

Search

MAXPRO NVR supports multiple search features - Timeline Search, Preview Search, Alarm/Events Search and Calendar Search.

360 Immersive Experience (Dewarping) Support

MAXPRO NVR supports client side dewarping integration with Oncam Grandeye and Immervision 360 applications.

Multi-language Support

MAXPRO NVR supports multiple languages such as English, French, Arabic, Russian, Spanish, Italian, Dutch, German, Czechoslovakian, Portuguese and Polish. English is the default language.

Keyboard Support

MAXPRO NVR supports industry standard Honeywell keyboards such as UltraKey Plus and UltraKey Lite over Ethernet.

Clip Export

MAXPRO NVR supports exporting clips with audio in .WMV and .ASF formats. It also supports exporting as still images/ snapshots with .bmp format. The clips can be signed with digital signatures to ensure authenticity.

Email Notification

MAXPRO NVR supports email notification on camera, system and operator events.

Video Surround Feature

MAXPRO NVR offers Video Surround, which provides the ability to track subjects of interest as they move between areas covered by adjacent cameras by simply double-clicking on the panel where the subject is currently visible.

Reports

Using the MAXPRO NVR, you can generate Event History and Operator Log reports, each of which has its own significance. These reports can be exported in .pdf, Crystal Reports, Excel and Word formats.

Integration Capability

Multiple MAXPRO NVRs can be deployed for system expansion using a distributed architecture and integrated with the MAXPRO Viewer multi-site software or MAXPRO VMS enterprise video management system. Integration with WIN-PAK® and Pro-Watch® Access Control Systems.

Audio

MAXPRO NVR supports 1-way audio (camera to NVR) for specific IP cameras. Please refer to the compatibility list on HOTA for the models supported.

Web Client

The MAXPRO NVR Web Client allows you to remotely access the MAXPRO NVR server using a web browser like Internet Explorer and perform video surveillance. It gives you the flexibility to view live video and perform the basic video surveillance functions remotely over the web. MAXPRO NVR Web Client supports viewing the live video, viewing Recorded Video (Playback), taking Snapshot and viewing Presets.

Mobile Apps

MAXPRO NVR supports mobile monitoring clients on iOS and Android with MAXPRO Mobile apps. The apps can be used to perform common daily tasks such as live video viewing, zooming in for full screen viewing, playback or searching for video by date and time and taking a snapshot of a video frame.

Advanced Security

MAXPRO NVR supports advanced security features with encryption support for communication between desktop client to NVR and secure https login for Web Client.

MAXPRO NVR System Architecture

MAXPRO NVR Standalone System Diagram

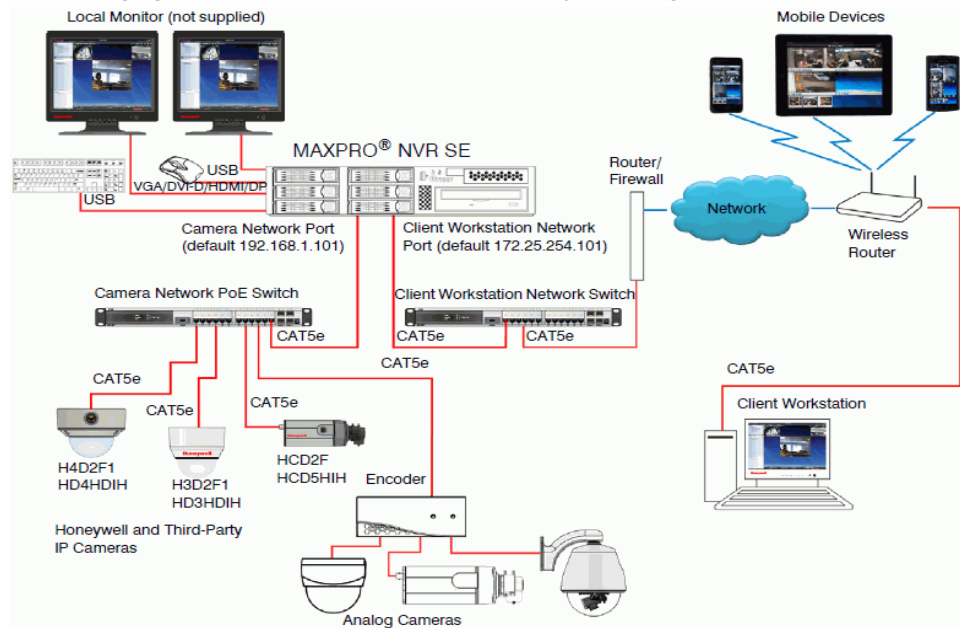The following figure illustrates the MAXPRO NVR SE system diagram.

Figure 1-1   MAXPRO NVR SE System Diagram

Note: In the above system diagram NVR SE box is used as an example of a typical system. Other System diagrams for NVRs (XE, PE and Software only) look similar to the NVR SE and will have minor differences.

MAXPRO NVR Hybrid Standalone System Diagram

The following figure illustrates the MAXPRO NVR HYBRID XE Standalone system architecture.
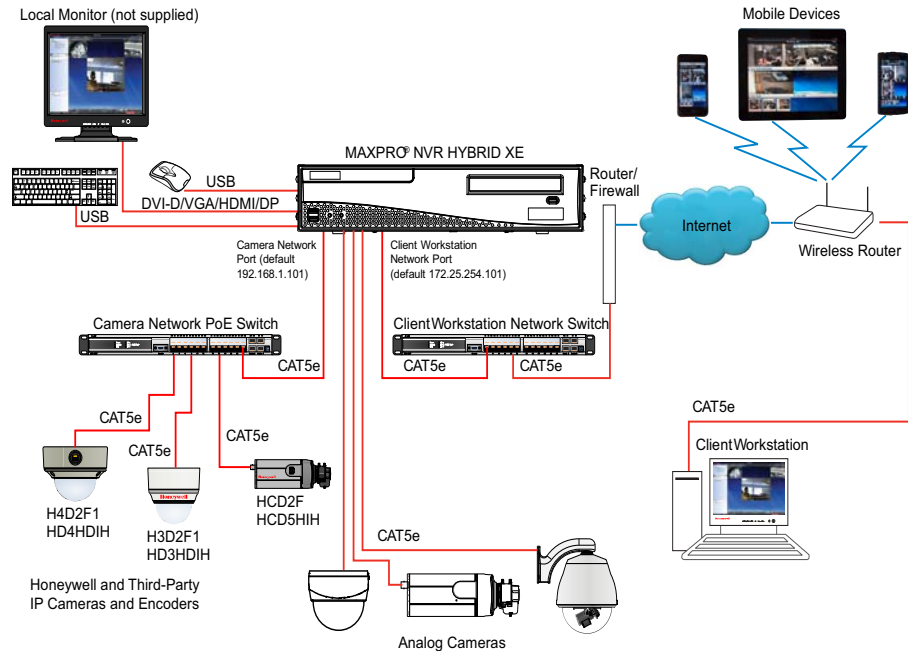

Figure 1-2   MAXPRO NVR HYBRID XE Standalone System Architecture

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Note: In the above system diagram Hybrid NVR XE box is used as an example of a typical system. Other system diagrams for Hybrid NVRs (SE, PE) look similar to the Hybrid NVR XE and will have minor differences.

MAXPRO NVR Distributed System Architecture

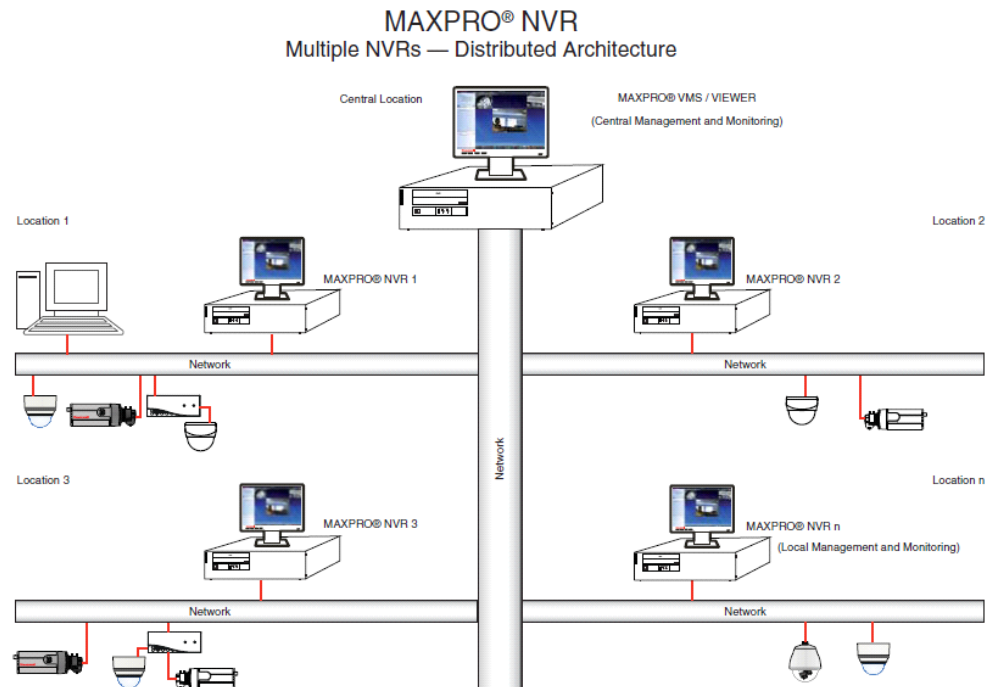The following figure illustrates the MAXPRO NVR distributed system architecture.

Figure 1-3   MAXPRO NVR Distributed System Architecture

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Logging On and Getting Started

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Logging On Using Profiles

The MAXPRO NVR server addresses are saved in profiles. You need to select the profile before logging on. You can set a profile as the default profile. When a profile is set as default, you do not need to select the profile each time you log on to MAXPRO NVR. You can also modify and delete profiles.

Logging On to MAXPRO NVR

Note: On Honeywell provided systems a default Windows user name: **Administrator** and Password: **Password1** is already configured and will automatically log you in.

1. Double-click   on the desktop. The **Log On** dialog box appears.

Or
Click **Start -> Programs -> Honeywell -> MAXPRO NVR**. The **Log On** dialog box (Figure 2-1) appears.
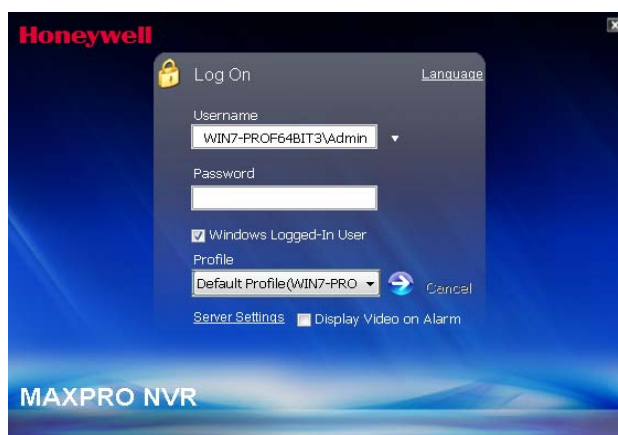

Figure 2-1   MAXPRO NVR Log on dialog box

2. Clear **Windows Logged-In User** check box and then type your **Username**. The default user name is **admin**.

3. Type your **Password**. The default password is **trinity**.

4. If there is no profile set as default, then select the **Profile** corresponding to the MAXPRO NVR server to which you want to connect.

> **Note:** Set profiles if you have multiple MAXPRO NVRs and use the drop-down to choose which NVR you would like to connect to.

5. Press **ENTER** or click   . The **Viewer** tab appears.

Tips for Logging On

1. Click the **Language** option, and then select the required language from the drop-down list. The supported languages are Arabic, Czechoslovakian, Dutch, Polish, Portuguese, French, German, Russian, Italian, Spanish, and English. The default language is **English (US English)**.

2. Select the **Windows Logged-In User** check box for logging on using the Windows authentication (uses current logged in Windows account credentials). If the Windows Logged-In User check box is cleared, the MAXPRO NVR user name and password is used for authentication.

3. Ensure that you avoid using the @ character in your password.

4. Set profiles if you have multiple MAXPRO NVRs and use the drop-down list to choose which NVR you would like to connect to.

5. Select the **Display Video on Alarm** check box to display the viewer as an alarm monitor.

> **Note:** Alarm monitor supports pop-up of camera associated to IO events only. Pop up on motion alarms is not currently supported.

Saving a Server Address in a Profile

1. In the client workstation, double-click the   icon on the desktop to display the **Log On** dialog box. (See Figure 2-1)

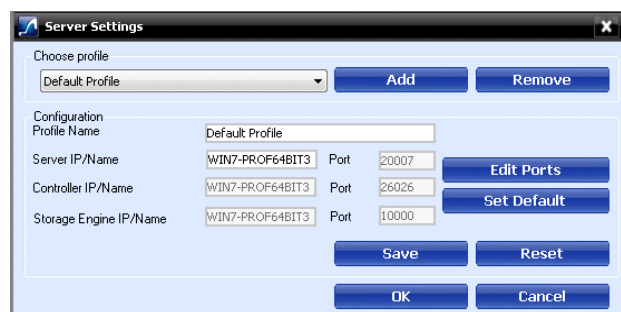2. Click **Server Settings**. The **Server Settings** dialog box appears (Figure 2-2).

Figure 2-2   Server Settings dialog box

3. Click **Add.**

4. Type the **Profile Name** to identify the profile.

5. Type the **Server IP**/**Name** (numerical IP address or the network name of the MAXPRO NVR server).

6. Click **Save**.

7. Click **OK**. The server address is saved in the profile.

Tip: You can click **Set Default** in the server settings dialog box to set the profile as the default profile.

Setting the Default Profile

1. Select the profile you want to set as default before logging on to MAXPRO NVR.

2. In the **User** menu,   , select **Profiles** ->**Set Default Profile**. The current profile is now set as the default profile. The default profile will be selected in the **Profile** box of the **Log On** dialog box the next time you logon.

Figure 2-3   Setting the Default Profile

Modifying a Profile

You can modify the profile name and the server address saved in the profile:

1. In the client workstation, double-click the   icon on the desktop to display the **Log On** dialog box.

2. Click **Server Settings**. The **Server Settings** dialog box appears (Figure 2-2).

3. In the **Choose Profile** box, select the profile you want to modify. The profile details appear under **Configuration** in the **Server Settings** dialog box.

4. Change the **Profile Name** as applicable.

5. Change the **Server IP**/**Name** as applicable.

6. Click **Save**.

7. Click **OK**. The profile is modified.

Deleting a Profile

1. In the client workstation, double-click the [icon] icon on the desktop to display the **Log On** dialog box.

2. Click **Server Settings**. The **Server Settings** dialog box appears (Figure 2-2).

3. In the **Choose Profile** box, select the profile you want to delete.

4. Click **Remove**.

5. Click **OK**. The profile is deleted.

Editing the Ports

The MAXPRO NVR user interface includes a provision to modify the port number associated to the following components:

- Trinity Server

- Trinity Controller

- NeoEngine Server

To edit the ports

1. In the Server Settings dialog box, click **Edit Ports**. The port numbers associated to **Server IP/Name, Controller IP/Name** and **Storage Engine IP/Name** are enabled for editing.
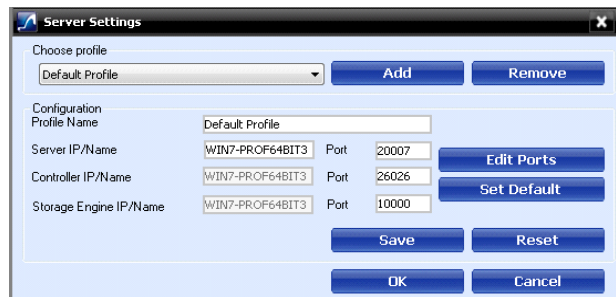

Figure 2-4   Editing the Ports

2. Change the port numbers as applicable.

3. Click **Save**.

Logging Off

You can log off from MAXPRO NVR from the **User** menu. The name of the currently logged in user is displayed as the **User** menu on the top right of each screen.

1. Click the **User** menu, [icon] . The user menu options appear.

2. Click **Log Off**. The **Logon** dialog box appears after logging off from MAXPRO NVR.

Closing the MAXPRO® NVR User Interface

You can close the MAXPRO NVR user interface from the **User** menu. The name of the currently logged in user is displayed as the **User** menu on the top right of each screen.

1. Click the **User** menu, [icon] . The user menu options appear.

2. Click **Exit**. A dialog box appears prompting you to confirm the action.

3. Click **Yes**.

Getting to Know the MAXPRO NVR User Interface

The user interface of MAXPRO NVR is easy-to-use because of its intuitive icons and user-friendly features. You can configure the devices in the video surveillance network through the MAXPRO NVR user interface. The user interface consists of tabs, tree-structures, status bar, floating windows, and icons. On opening the user interface, you see the following four tabs: **Viewer**, **Configurator**, **Search** and **Report**. Based on the tab you select, windows, tree structures, and other settings relevant to the tab appear on the screen.

A status bar is displayed at the bottom of the user interface. The status bar displays the following: the connection status with the MAXPRO NVR server and controller, the status of clip creation, the role of the user, the number of unacknowledged alarms, and the time.

Note: The tabs that are displayed in the MAXPRO NVR User Interface is dependent on the user's roles and privileges.

Viewer Tab

Figure 2-5 illustrates the **Viewer** tab. See the following table for descriptions of the Viewer tab components.
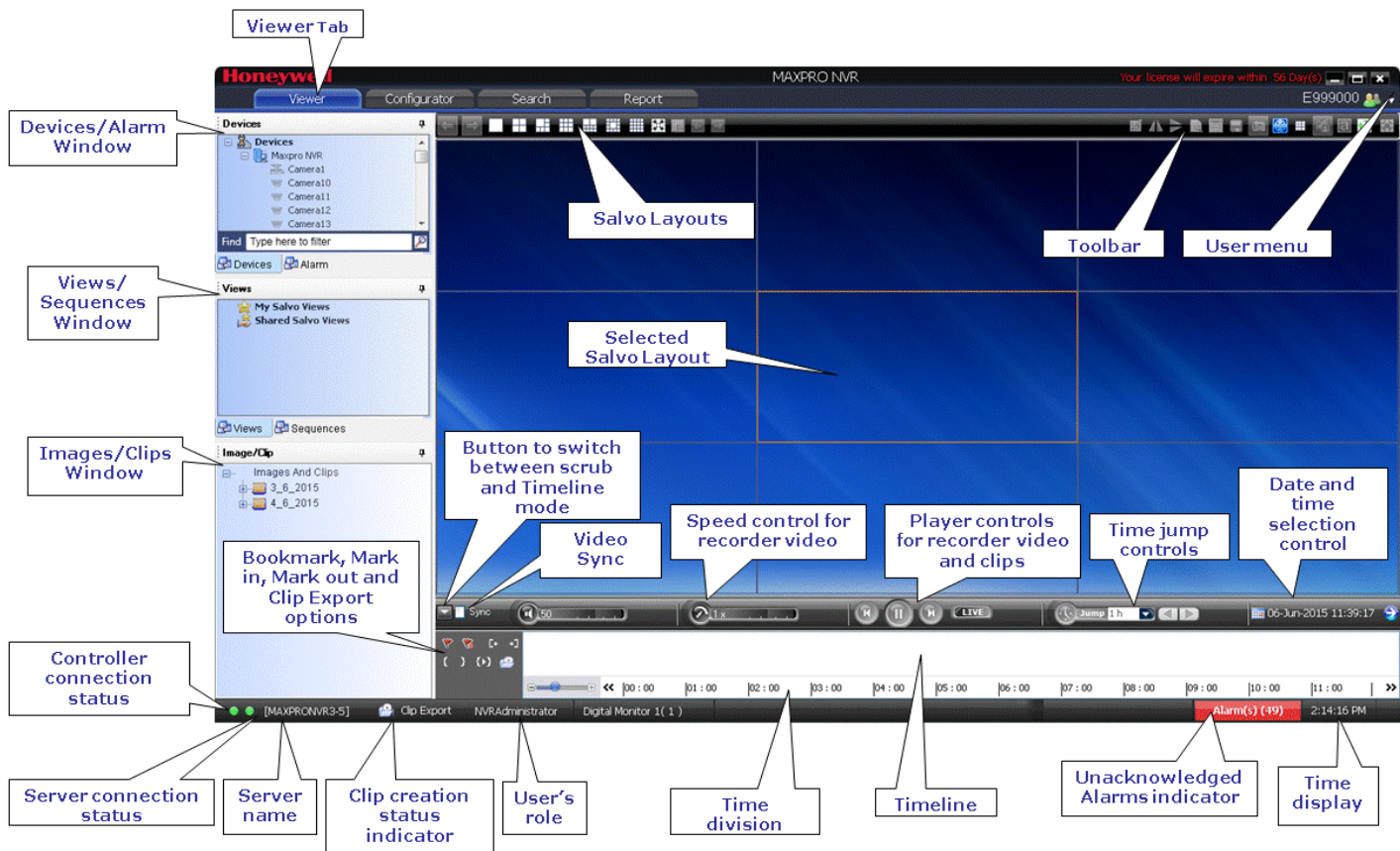

Figure 2-5   Viewer tab

The following components are displayed on the screen.

Component	Description
Devices/**Site** window	A floating window that displays the recorders and cameras in a tree structure. You can select one or more devices from the **Devices** window to view video in the Salvo Layout.
	The context menu options in the **Devices** window include:
	• **Show Live** - to view live video.
	• **Preview** - to preview the live video.
	• **Refresh** - to refresh the camera status.
	• **Refresh from Device** - to refresh the camera status from the device.
	• **Show**/**Hide Device ID** - to display or hide the device ID.
	• **Sort By Name** - to sort the list of devices by name. By default, names are sorted in ascending order.

Component	Description
Alarm window	Click to display a floating window that lists the alarms. You can acknowledge and clear the alarms from this window. See the Alarms section on page 51 for more information.
Image/**Clip** window	Click to display a floating window that lists the images and clips in a tree structure. You can select the images and clips to view. You can right-click on the images folder or the images to display a context menu. The context menu options include: • **Refresh** - to refresh the images/clips in the respective folder. • **Show Video** - to show the video. • **Delete** - to delete an image. • **Show In Folder** - to view the folder in which the images are stored. See the Images and Clips section on page 46 for more information.
Sequences window	Click to display a floating window that lists the sequences. You can play the sequence using the play sequence action. You can right-click on the devices to display a context menu. The context menu options include: • **Play Sequence** - to play any sequence. • **Show Device ID** - to display the device ID. • **Sort By Name** - to sort the list of sequences by name. By default, names are sorted in ascending order. Refer to the *MAXPRO® NVR Installation and Configuration Guide* for more information to configure the *Sequence.*

Component	Description
Views window	A floating window that lists the salvo views. The **View** window consists of **My Salvo Views** and **Shared Salvo views**. Salvo views corresponding to the logged on user are listed under **My Salvo Views** in the **Views** window. You can copy a salvo view from **My Salvo Views** to **Shared Salvo Views** using the drag and drop option or right-click and select **Add to Shared Salvo Views**. Similarly, you can copy a salvo view from **Shared Salvo Views** to **My Salvo Views** using the drag and drop option. Devices grouped under **Shared Salvo Views** are displayed on all client workstations irrespective of the logged in user.
	To add a salvo view to **Shared Salvo Views**, right-click on a salvo view, and then click **Add to Shared Salvo Views**. You can copy a salvo view from **Shared Salvo Views** to **My Salvo Views** by dragging and dropping a salvo view.
	You can right-click on the salvo view to display a context menu. The context menu options include:
	• **Show** - to view the salvo view.
	• **Rename** - to rename a salvo view.
	• **Remove** - to remove a salvo view.
	• **Save** - to save a salvo view.
	• **Add to Shared Salvo Views** - to add a salvo view to the Shared Salvo views.
	• **Show**/**Hide Device ID** - to display or hide the device ID.
	• **Refresh** - to refresh the salvo views in the list.
	• **Sort By Name** - to sort the list of salvo views by name. By default, names are sorted in ascending order.
	See the Salvo View section on page 35 for more information.
Salvo Layout	An arrangement of panels in which video is displayed. See the Salvo View section on page 35 for more information.
Timeline window	A window that enables you to view video from a specified date and time. It also consists of other features such as mark in and mark out and selective viewing using bookmarks. You can also create clips from video recordings. You can select between the scrub mode or full timeline mode using the button. See the Viewing Recorded Video section on page 37 for more information.

Configurator Tab

Figure 2-6 illustrates the **Configurator** tab.
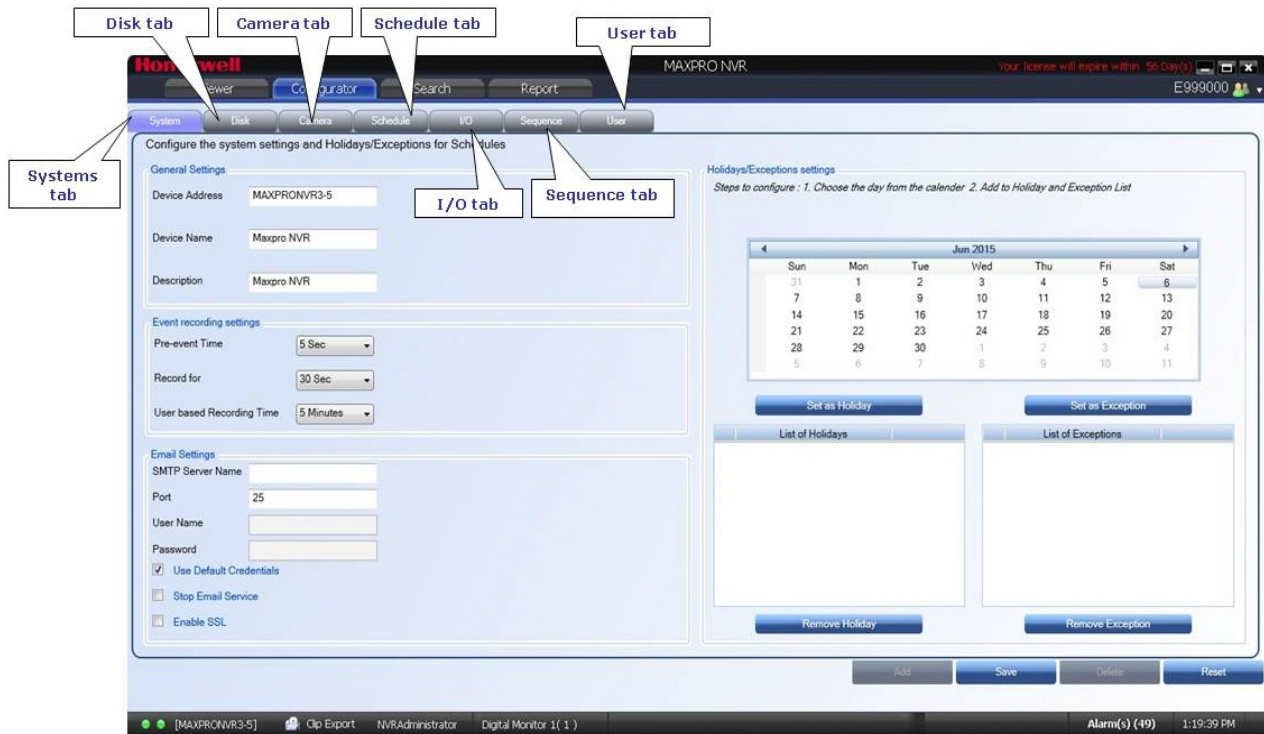

Figure 2-6   Configurator tab

From the **Configurator** tab you can add and configure video devices and set up the MAXPRO NVR system. Refer to the *MAXPRO® NVR Installation and Configuration Guide* to configure MAXPRO NVRs.

Components	Description
System tab	Helps you to configure the system level information for MAXPRO NVR.
Disk tab	Helps you to configure the disk settings for video storage.
Camera tab	Helps you to configure the camera settings.
Schedules tab	Helps you to configure the schedules for live video.
IO tab	Helps you to configure the input and output for a camera.
Sequence tab	Helps you to select a sequence of cameras for live video.
User tab	Helps in user administration.

Search Tab

Figure 2-7 illustrates the **Search** tab.
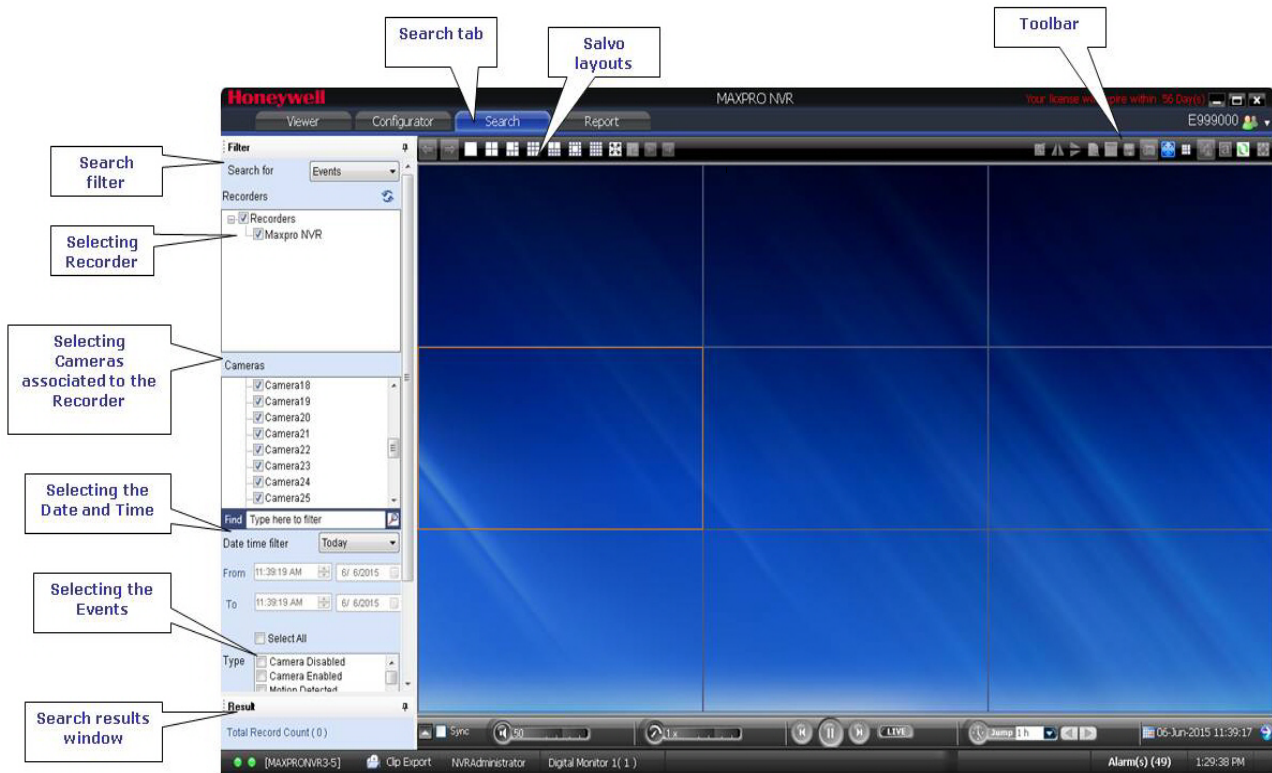
Figure 2-7   Search tab

You can search for recorded video and events from the **Search** tab. See Chapter 4 , Searching Recorded Video in MAXPRO NVR for more information.

Report Tab

Figure 2-8 illustrates the **Report** tab.
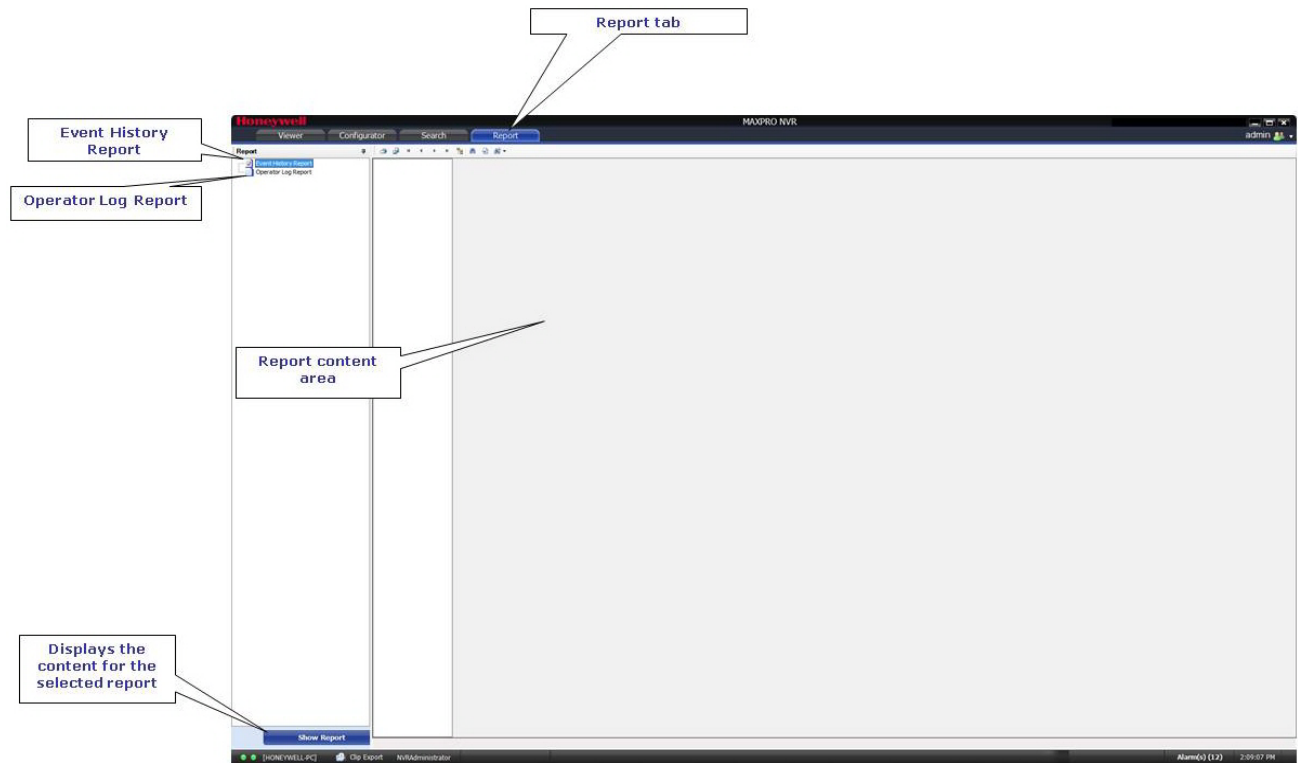
Figure 2-8   Report tab

See Chapter 4 , Generating Reports for more information.

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3

Monitoring a Site

In this chapter...

Live Video

You can view live video and play any selected sequence using the options available in the MAXPRO NVR Viewer tab.

Viewing Live Video

The panels in the salvo layout display video. You can select the video source to view, such as cameras or sequences, from the **Devices**/**Site** window.

1. Click the **Viewer** tab.
2. Double-click the video source in the **Devices**/**Site** window. You can also drag and drop the video source on a panel in the salvo layout. You can select multiple video sources and view live video in different panels of the salvo layout.

Figure 3-1   A panel displaying live video

When you hover the mouse over a video display, toolbars appear over the panel. The toolbars enable you to perform actions such as flipping the video display, applying color correction, and so on. See the Video Control Options in the Panel Toolbars section on page 44.

The following table depicts the various status of the camera in Viewer tab:

Icons	Status	Description
	Live	Camera is recording Live
	Continuous Recording	Camera continously recording.
	Disabled	Camera is not recording and not live

Salvo View

A salvo layout that is customized based on your preference is called a salvo view. You can select the cameras and scan sequences that you want to frequently view and save the layout as a salvo view. The salvo view is saved and appears as an option in the Views window. When you want to view the video from the preferred cameras and scan sequences, you can select the saved salvo view.

Creating a Salvo View

1. Click the **Viewer** tab.

> **Note:** Before you create a salvo view, select the salvo layout you want with your preferred cameras and scan sequences. Drag and drop cameras and sequences and adjust the salvo layout until it is ready to save as a Salvo View.

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
2. Right-click on the toolbar, and then click **Create Salvo view** or click ▦ on the toolbar on the top of the salvo layout. The **Enter salvo view name** text box appears.
3. Type the salvo view name and then click **OK**. The newly created salvo view is listed under **Views -> My Salvo Views**.

Salvo Bar

A salvo bar appears on top of a salvo view. The salvo bar indicates the name of the salvo view. You can save a salvo view after you realign the cameras using the **Save** option on the Salvo Bar. You can also use the **Save As** option to save an existing salvo view with a different name. The context menu options on the salvo bar include **Create Salvo View**, and **FullScreen**.

Context Menu Options

When you right-click on a panel that is displaying live video, a context menu appears. The following table lists the commands in the context menu.

Command	Click to...
Full Screen	Maximize the salvo layout to full screen. Alternatively, you can click ![icon] in the toolbar on the top of the salvo layout.
Remove Text Overlay	Remove text overlay displayed on the video. Alternatively, you can click ![a] in the toolbar on the top of the salvo layout.
Digital PTZ	Enable digital PTZ. See the Panning, Tilting, and Zooming section on page 45 for information on digital PTZ.
Add Bookmark	Add a bookmark in the timeline. You can also add a bookmark by pressing the **CTRL** + **B** keys. See the Calendar Search section on page 65.
Mark In	Add a mark in point in the timeline. You can also add a mark in point by pressing the **CTRL** + **I** keys. See the Calendar Search section on page 65.
Mark Out	Add a mark out point in the timeline. You can also add a mark out point by pressing the **CTRL** + **O** keys. See the Calendar Search section on page 65.
Save Image	Save the frame displayed in the panel as an image in BMP format. Alternatively, you can click ![icon] in the toolbar on the top of the salvo layout to save the image in BMP format.
Save Image As	Save the frame displayed in the panel in different image formats such as JPG, PNG, and GIF. See the Saving Images section on page 46 for more information.
Preview	View the preview of the video at any given time. You can view a list of previewed videos with the corresponding date and time stamp. Select a previewed video, and click ![icon] to export the previewed clip.
Show Surrounding Cameras	To view video from the associated cameras. See the Live Video section on page 34 for more information.
Calendar	To open the Calendar search view, which enables searching for the recorded video. See the Calendar Search section on page 65.

Playing a Sequence

A sequence is a set of live video streamed one after the other from cameras for a specified time interval.

1. Click the **Viewer** tab.

2. Click the **Sequences** window.

3. Double-click the sequence you want to play or select the sequence, and then click **Play Sequence**. You can also drag and drop the sequence on a panel in the salvo layout.

Viewing Recorded Video

You can use either the timeline or player controls to play recorded video.

Figure 3-2   Timiline Window

Timeline

Playing Recorded Video using the Timeline

Timeline enables you to play recorded video from a particular date and time. You can easily retrieve and view recorded video using the timeline and the date and time controls in the Timeline window. A timescale is displayed in the lower part of the Timeline window. You can refer to the divisions in the timescale to locate a video recording in the timeline. Using the date and time calendar box in the timeline window, you can select a date and time from which you want to play recorded video. When you select a camera from the Devices window to view video, a timeline appears in the Timeline window (See Figure 3-2). The name of the corresponding camera appears on the left of each timeline.

You can also add comments and mark points of interest in the timeline using the bookmark feature. The bookmarks are helpful for future review of recorded video. (See the Marking Points of Interest in the Timeline using Bookmarks section on page 43). This enables you to locate moments of interest when reviewing recorded video. You can also add mark in and mark out points in a timeline (See the Playing Recorded Video Using Mark In and Mark Out Points in the Timeline section on page 41) to play a selected part of video repeatedly. Clips of the video recorded in MAXPRO NVR can be created from marked points in the timeline. This feature is referred to as loop playback of video.

You can view the frames from the recorded video as thumbnails in the timeline. You can also create clips from recorded video.

To play recorded video using the timeline

1. Click the **Viewer** tab.

2. Select the camera. To select the camera, double-click the video source in the **Site** window. You can also drag and drop the camera on a panel in the salvo layout to display the video. Alternatively, you can select a panel displaying video to select that camera from which you want to view video. A timeline appears in the Timeline window with the name of the camera on the left in full timeline mode.

3. Play the recorded video from a date and time in one of the following ways:

   • Click on the timeline from where you want to view video. You can refer to the divisions on the timescale that is displayed in the lower part of the timeline window to locate the date and time.
   You can set any timescale between seconds and days using the slider. Move the slider left or right as required. This helps you to locate the video recording in the timeline. Click ◀◀ to view the divisions on the left of the timescale. Click ▶▶ to view the divisions on the right of the timescale.

   Or

   • Select the date and time in the date and time calendar box

   03-Feb-2009 02:28:37 and then click . The video recording is played from the selected date and time.

Timeline Color Indicators

In the timeline, the time duration for which recording is available is indicated in green color. The time duration for which recording is not available is indicated in white color. This helps you to locate the video recording in the timeline.

The timeline shows the green color and gray color only for the cameras connected to MAXPRO NVR. You can click the timeline to play the recorded video. The following table lists the colors that appear in the timeline.

Color	Indicates...
	Recording is available for the corresponding date and time.
	Recording is not available for the corresponding date and time.

Viewing Thumbnails

Expand the camera name to the left of the timeline and the thumbnail frames will appear.
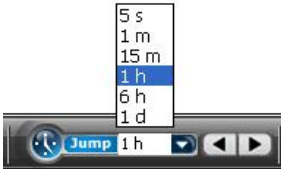
Player Controls

You can play recorded video at speeds ranging from 1/64X to 256X. You can also forward and reverse play the video. The frames from the recorded video can also be viewed one at a time in the panel.

Using the time jump feature, you can skip time intervals while viewing recorded video. This feature is helpful when viewing recorded video that spans across a long time interval.

See the Playing Recorded Video using the Timeline section for more information on timeline and player controls.

You can perform the following actions using the player controls:

Player Control Name	Buttons	Description
Play the video		Click to **Play** video. The Play button changes to the **Pause** button when video is playing. Click to forward play video.
Pause		Click to **Pause** the playing of video. The Pause button changes to the **Play** button when video is paused.
View frames in the recorded video	**FrameForward** **Frame Reverse**	Click **Frames Forward** to view the next set of frames. Click **Frames Reverse** to view the previous set of frames. **Note:** You can only view the frames when video is paused.
Live		Click to play the **Live** video anytime.
Adjust the volume for audio enabled cameras		Click to mute/unmute the audio. Hover the mouse over audio controls while video is playing and move the slider to adjust the volume.
Reverse Play		Click to reverse play the video.
Change the playing speed		Hover the mouse over the playing speed controls while video is playing and move the slider to change the playing speed. **Note:** The mouse scroll wheel can be used to move the slider. Scrolling up increases the speed and scrolling down decreases the speed. The speed appears in the icon when you move the slider. For example, 1x in the icon indicates the playing speed.
Skip time intervals using the time jump control		Skipping enables you to easily locate the portion of video you want to view in a recording. This is particularly useful when the video recording spans across a long time interval. Click the jump drop-down arrow while video is playing and select a time interval to skip. Click to jump the selected time interval backward or click to jump forward by that interval.

Player Control Name	Buttons	Description
Sync video		Sync video allows you to synchronize the display of video from multiple cameras. Select the cameras in the salvo layout and then select the **Sync** check box on the timeline window or click the Sync button on the tool bar above the salvo layout to enable sync playback mode. Any actions performed like jump and forward will now be synched in the entire salvo layout. When a new camera is dragged and dropped, the video from that camera will also be synched. **Note:** 1. The Sync video feature only consumes one playback session out of 32 playback sessions available in MAXPRO NVR. 2. Using this feature, you can playback the selected camera's sync time with a camera in playback mode using a single playback session. 3. Reverse playback mode is not supported. Use Jump to move in reverse. 4. The maximum number of playback streams supported in sync mode is 9.

Context Menu Options

A context menu appears when you right-click on a panel displaying recorded video. See the Context Menu Options section on page 36 for more information.

Surrounding Cameras

You can associate a camera to a group of cameras using the **Surrounding Cameras** feature. This feature enables you to view video from a group of related cameras at the same time (for example, when you want to view video from cameras located in the same area).

1. Click the **Viewer** tab.

2. Click ⊞ on the toolbar on the top of the salvo layout. The surrounding cameras salvo layout appears.

3. Select the camera for which you want to associate a group of cameras from the Devices window. You need to drag and drop the camera in the central panel of the salvo layout. The panel starts displaying video from the selected camera.

4. From the **Site** window, select the cameras you want to associate with the camera selected in step 3. The panel starts displaying video from the cameras.

5. Click ⊟ to save the surrounding cameras salvo layout after you have finished adjusting the salvo layout as required.

Switching to the Surrounding Camera View for a Camera

*   Click ⊞ on the toolbar. The surrounding cameras salvo layout appears. Select the camera from the **Site** window. The surrounding cameras salvo layout starts displaying video from the camera and the associated cameras.

    Or
*   Hover the mouse over the panel displaying video from the camera. A panel toolbar appears. Click ⊞ in the panel toolbar. The surrounding cameras salvo layout starts displaying video from the camera and the associated cameras.

Playing Recorded Video Using Mark In and Mark Out Points in the Timeline

The Mark in and Mark out feature is useful when you want to repeatedly play a portion of video. You can add a mark in point to mark the start date and time in the timeline and mark out point to mark the end date and time in the timeline. The portion of the timeline between a mark in and mark out point is referred to as a loop. User can also create a clip from this loop (see the Creating Clips section on page 47 for more information).

You can add bookmarks between a loop to identify moments of interest in the video. See the Marking Points of Interest in the Timeline using Bookmarks section on page 43 for more information.

Creating a Loop by Adding a Mark In and Mark Out Point in the Timeline

1. Click to select the timeline in the **Timeline** window in which you want to add mark in and mark out points.

    Or
    Click a panel displaying video to select the corresponding timeline.
2. To set the start date and time of the loop, add a mark in.

To add a mark in

- Click the point in the timeline where you want to add a mark in and click ⟦ .
  Or
  Right-click the point in the timeline where you want to add a mark in and click **Add Mark In** in the context menu.
  Or
  The mark in can also be added from a panel displaying video.
  Right-click the panel and click **Add Mark In** in the context menu. The mark in is added at the corresponding date and time in the timeline.

3. To set the end date and time of the loop, add a mark out.

   To add a mark out

   - Click the point in the timeline where you want to add a mark out and click ⟧ .
     Or
     Right-click the point in the timeline where you want to add a mark out and click **Add Mark Out** in the context menu.
     Or
     The mark out can also be added from a panel displaying video.
     Right-click the panel and click **Add Mark Out** in the context menu. The mark out is added at the corresponding date and time in the timeline.

Note: You can add multiple mark in and mark out points in the same timeline. However, you cannot add two mark in points in succession. A mark out point needs to be added after each mark in point.

Tip: You can now create a clip of this loop. See the Creating Clips section on page 47 for more information.

Playing Video from the Loop

1. To select the loop, click anywhere between the mark in and mark out points.

Note: A tool tip appears when you hover the mouse over a loop. The tool tip indicates the start time and end time of the loop.

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2. Click ⟦▶⟧ to play the loop. You can also right-click on a loop to display a context menu and click **Play Loop**.

Stopping a Video Loop

1. In the **Timeline** window, click to select the loop.

   Or
   Click the panel displaying video pertaining to the loop. The corresponding timeline is selected.

2. Click 🔄. Alternatively, you can right-click the loop to display a context menu and click **Stop Loop**.

Marking Points of Interest in the Timeline using Bookmarks

You can add bookmarks in a timeline to mark points of interest in a video recording. For example, if you notice an event in the video and you want to review the portion later, you can add a bookmark. You can also add comments to the bookmarks and browse from one bookmark to the other in the timeline. In addition, you can cut and copy a bookmark and paste it at a different point in the timeline. The bookmark comments appear as tool tips in the timeline at marked points and are helpful while reviewing recorded video.

Adding a Bookmark

You can add a bookmark in one of the following ways:

*   Click the point in the timeline where you want to add a bookmark and click ![icon].
*   Right-click the point in the timeline where you want to add a bookmark and select **Add Bookmark** in the context menu.
*   Right-click on the panel displaying video and select **Add Bookmark** in the context menu. You can also select a panel and press the **CTRL** + **B** keys to add a bookmark. The bookmark is added at the corresponding point in the timeline.

Adding Comments to a Bookmark

1. Right-click the bookmark in the timeline and select **Add Comments** in the context menu. A dialog box appears.
2. Type your comments in the dialog box and click **OK**. The comments are saved and appear as a ToolTip when you hover the mouse over the bookmark.

> **Note:** To edit the comments, right-click the bookmark and select **Edit Comments** in the context menu. Modify the comments in the dialog box and click **OK**.

Browsing from One Bookmark to the Other

Using this feature, you can skip the portions in the timeline that are not bookmarked. This enables you to selectively view video only from bookmarked portions in the timeline.

1. Select a timeline by clicking it in the **Timeline** window. You can also click on a panel displaying video to select the corresponding timeline.

2. Click ![icon] to view video from the next bookmarked point or click ![icon] to view video from the previous bookmarked point.
    Or
    Right-click a bookmark in the timeline to display a context menu. Click **Next Bookmark** to view video from the next bookmarked point or click **Previous Bookmark** to view video from the previous bookmarked point in the timeline.

Cut, Copy, and Paste Bookmarks

1. Right-click a bookmark in the timeline to display the context menu. Click the **Cut** or **Copy** command in the context menu, as needed.
2. Right-click the point in the timeline where you want to paste the bookmark and select **Paste** in the context menu.

Deleting a Bookmark

You can delete a bookmark in any of the following ways:

- Right-click the bookmark you want to delete and then select **Remove Bookmark** in the context menu that appears.

- Select the bookmark you want to delete in the timeline and then click the 🖼 button or press the **DELETE** key.

Video Controls

Video Control Options in the Panel Toolbars

The panel toolbars appear when you hover the mouse over the video displayed in a panel. The toolbar that appears on top of a panel enables you to view the name of the video source and to close the video display. The toolbar that appears on the bottom and on the right of a panel consists of icons that enable you to perform the following actions:

Icon	Click to...
🔍⊕	Zoom in to the video.
🔍⊖	Zoom out of the video.
▶	Flip the video display. Alternatively, you can click this button in the toolbar on the top of the salvo layout.
◭◮	View the mirror image of the video display. Alternatively, you can click this button in the toolbar on top of the salvo layout.
⬚	Reset the digital PTZ effects on the video display.
🎨	Display the color correction window. Move the sliders to adjust the brightness, contrast, hue, and saturation settings. You can select the Blur check box to blur the video display and the Sharpness check box to increase the image sharpness or clarity. Alternatively, you can click this button in the toolbar. **Note:** Select the **Apply color changes** check box to save the settings. Clicking the **Reset** button sets the color correction settings to the default values.
[Select] ▾	Displays a drop-down list of presets. You can select a preset for the camera. **Note:** The drop-down list is disabled when digital PTZ is enabled. You need to disable the digital PTZ feature to select a preset. See the Panning, Tilting, and Zooming section on page 45 for information on enabling and disabling the digital PTZ feature.

Icon	Click to...
	Move to a preset camera position. To move to a preset position, select a preset number from the drop-down list and then click the button. The camera position (pan, tilt, and zoom) is moved to the selected preset. **Note:** The preset button is disabled when digital PTZ is enabled. You need to disable the digital PTZ feature to move to a preset. See the Panning, Tilting, and Zooming section on page 45 for information on enabling and disabling the digital PTZ feature.
	Store a preset camera position. To store a preset position, select a preset number from the drop-down list and then click the button. The camera position (pan, tilt, and zoom) is saved to the selected preset. **Note:** The button is disabled when digital PTZ is enabled. You need to disable the digital PTZ feature to store a preset position. See the Panning, Tilting, and Zooming section on page 45 for information on enabling and disabling the digital PTZ feature.
	View video from associated (surrounding) cameras. See the Live Video section on page 34 section.
	Pan left
	Pan right
	Tilt up
	Tilt down
	Iris open
	Auto iris
	Iris close
	Focus near
	Auto focus
	Focus far

Panning, Tilting, and Zooming

You can pan, tilt, and zoom (PTZ) the video displayed in a panel. Using the digital PTZ feature in MAXPRO NVR, you can perform panning and tilting on live and recorded video and clips. When enabled, the digital PTZ feature allows you to perform panning and tilting on the video display that is zoomed or enlarged.

Zooming the Video Display

Use the mouse scroll wheel to enlarge (zoom in) or reduce (zoom out) the video displayed in the panel. Alternatively, hover the mouse over the video display. Click to zoom in or to zoom out the video display in the toolbar that appears.

Panning and Tilting

1. Right-click on the video displayed in a panel. A context menu appears.
2. Select **Digital PTZ**. The digital PTZ feature is enabled for that panel's video.
3. Zoom in on the video display.
4. Center-click anywhere on the video panel. A point along with left, right, up, and down arrows appear.
5. Move the mouse in the required direction to pan and tilt.
6. Center-click again to stop panning and tilting.

PTZ Panel Bar

The PTZ panel bar provides you with the additional options to view the live video. It can be accessible by hovering the mouse on live video as shown in Figure 3-3 below.
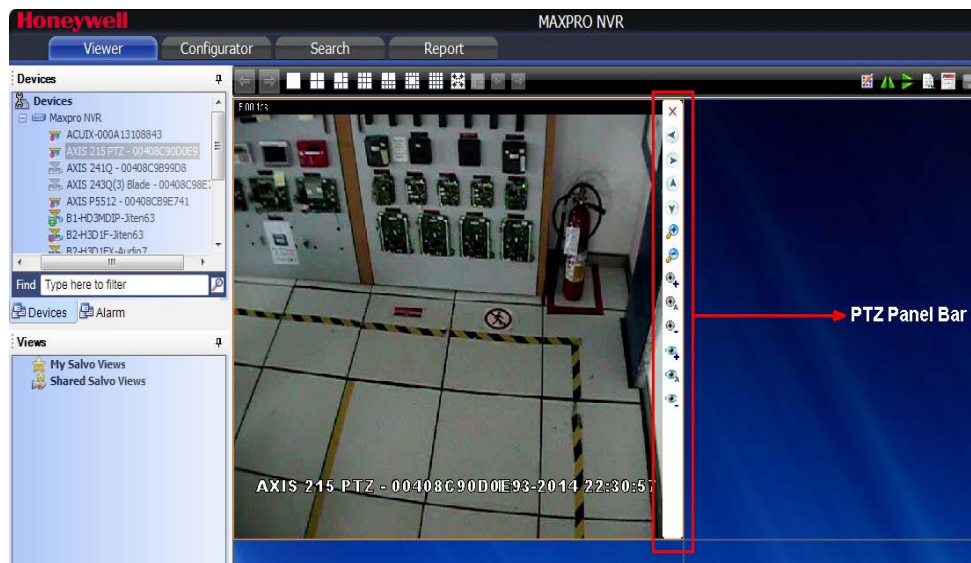

Figure 3-3   PTZ Panel Bar

Images and Clips

Saving Images

While viewing video in the panel, you can save a frame of the video as an image. The image can be saved in Bitmapped Graphics (BMP) format, Joint Photographic Experts Group format (JPG) , Portable Graphics format (PNG), and Graphics Interchange Format (GIF).

1. Click the **Viewer** tab.
2. Right-click the panel with the required image to display the context menu.

3. Select **Save Image** to save the image in BMP format. Alternatively, you can click ![camera icon] on the toolbar on top of the salvo layout. The images are saved in the **ImagesAndClips** folder at the location in the hard drive in which MAXPRO NVR files are installed. For example, **X:\Program Files\Honeywell\TrinityFramework\ImagesAndClips**.

Or

Select **Save Image As** to open the Save As dialog box and save the image in other formats. You can select the format in the **Save As Type** drop-down list and enter the image-**File Name**. You can also select a different folder for storing the image.

Saving the Salvo Layout as an Image

Click ![camera icon] on the toolbar on top of the salvo layout.

The salvo layout is saved as an image (BMP format) in the **ImagesAndClips** folder. The images saved in the **ImagesAndClips** folder appear in the **Image**/**Clip** window. See the Viewing Images and Clips section on page 50 for information on how to view saved images.

Creating Clips

You can create clips from recorded video. These clips can be saved with digital signatures. Digital signatures ensure the authenticity of clips. Digital signatures are primarily used to authenticate videos that are produced in courts as evidence. A digital signature generates a unique string for the clip using algorithms recommended by the W3C. The World Wide Web Consortium (W3C) is an international consortium where member organizations, a full-time staff, and the public work together to develop Web standards. If the video in the clip is modified, a verification check for the unique string fails and indicates that the content is tampered. When a clip is saved with the digital signature, a package file with the PKG extension is created to save the clip.

Note   1. MAXPRO NVR 3.1 SP1 or later version supports exporting video clips with audio on supported IP devices configured for audio recording along with video.

2. MAXPRO NVR 3.1 SP1 or later version exported clips (WMV/ASF), for Oncam Grandeye cameras supported by the NVR, can be dewarped using the Oncam Grandeye 360-degree Viewer application. For further details on Oncam Grandeye 360-degree Viewer, refer to the site: http://www.oncamgrandeye.com/63-oncam-grandeye-360-degree-viewer.html

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Creating a Clip

1. Click the **Viewer** tab.

2. Specify the loop for which you want to create a clip.

3. Click ![icon] in the **Timeline** window. A dialog box appears with the name of the cameras from which video is displayed in the salvo layout.

   Or

   Right-click a loop in the Timeline window and select **Export Clip** in the context menu. A dialog box appears.

4. Select one of the following options in the dialog box:

Option	Select to...
Include only marked area and Auto split on recording gap	Save one or more loops in the timelines as clips.
Create clip for entire duration	Specify the time duration of video that you want to save in the clip. After selecting this option, the date and time (start and end) can be specified in the **From** and **To** boxes.

5. Under **Streams**, select the cameras to save. The video and the audio from the selected cameras are saved as clips.

Note: Exported clips includes the video streams from the selected cameras and any recorded audio. Currently Clip export supports audio recordings.

6. Under **Stream**, select the required **Format**. You can export the clips in WMV or ASF formats. See the WMV Vs ASF Formats section on page 49 section for more information.

7. Enter a **Job Name** or retain the default name assigned by MAXPRO NVR.

8. Select the **Location** (folder in which you want to save the clip). You can click [...] to select a different folder location instead of the default location.

Note: Do not select the OS drive to save clips longer than 1 hour. If a OS drive is selected to save a clip the following message is displayed:
The Selected C : drive for clip export has less than 10 GB free space. Select an alternate drive with sufficient space. Insufficient space in Windows OS partition (Less than 10 GB) can cause system instability. Do not save clips longer than 1 hour duration on OS partition.

9. To archive the clip with the digital signature, select the **Archive and Digital Signature** check box. A package is created with all the exported clips and stored in the specified location.

10. Enter any **Comments** for the job to be created.

11. Click **OK** to create the clip. The clip creation status is indicated in the status bar. The clip is saved with an automatically generated name (unless a name was entered in step 7).

Note: The playback session is closed while creating a clip from the cameras connected to the recorder with playback limitation. You have to restore the playback session manually after the clip creation is complete.

Canceling Clip Creation
1. Click the clip creation status indicator in the status bar. The **Clip Export Status** dialog box appears.
2. Right-click the job name that you want to cancel, and then select **Cancel**. To cancel all the jobs, select **Cancel All**.

Naming Convention for Exported Clips

The following table explains the automatic naming convention for a clip using the example below:

- Example of a clip name with WMV format: **080109125809_CameraDoor_(1).WMV**.

- Example of a clip name with ASF format: **080109125809_CameraDoor_(1).ASF**.

Clip Name	Description
080109 (year, month, day)	The first two digits indicate the year, the next two digits indicate the month, and the last two digits indicate the day of clip creation.
125809 (hours, minutes, seconds)	The first two digits indicate the hour, the next two digit indicate the minutes, and the last two digits indicate the seconds.
CameraDoor	The name of the camera.
(1)	The file extension for the clip.
WMV	The file extension for the clip.
ASF	The file extension for the clip.

WMV Vs ASF Formats

Clips can be exported in either WMV or ASF formats. When compared to WMV format, the ASF format is much faster and more reliable. The following table describes the WMV and ASF formats.

Note	**1**. ASF format clips are supported as of NVR version 3.1 SP1. This format is recommended for clip durations longer than an hour for exporting as backup clips. **2**. WMV format clips are recommended for clip durations that are less than an hour for exporting as evidence clips.

WMV Format	ASF Format
WMV is traditional and slow.	ASF format is faster at exporting a clip. It takes 50 minutes to export a 24 hour clip without much difference in the size of the clip.
-	Text overlay is not supported in the NVR viewer with ASF formats.
WMV format converts the packets into MPEG formats and then displays the video.	ASF format takes the raw data from the packets and displays the video directly without conversion. This makes the ASF format faster in processing the video.

WMV Format	ASF Format
-	ASF format does not display the Time Stamp on the clip. To view the Time stamp it is recommended to play the clip with the VLC Player. (http://www.videolan.org/vlc/index.html)

Viewing Images and Clips

From the **Images**/**Clip** window, you can view the images and clips saved in the **ImagesAndClips** folder (at the location in the hard drive in which MAXPRO NVR files are installed).

1. Click the **Viewer** tab, and then click the **Images**/**Clip** tab.

2. In the **Images**/**Clip** window, expand the **Images and Clips** folder. Folders with names indicating the date in which the images and clips are created appears. The folder naming format is day/month/year.

3. Expand the folder with the date of the image or clip you are looking for. Inside the folder, the video clips are saved in the **Clips** sub-folder and images are saved in the **Images** sub-folder.

4. You can refresh the list of images and clips in the **Image**/**Clip** window. Refreshing the list displays the latest images and clip names (such as a recently saved clip). To refresh, right-click in the **Image**/**Clip** window to display a context menu and click **Refresh**.

Viewing Images

Use any of the following methods to view images:

*   In the **Images**/**Clip** window, right-click the image to display a context menu and select **Image View**. The salvo layout changes and the image is displayed on the screen.

*   Cick [icon] on the toolbar to view the salvo layout again. To view the image again from the salvo layout, click [icon] .

Viewing Options for Images

Option	Description
Image Size	On the toolbar, you can select the image size in the drop-down list. The image sizes available are Small, Medium, and Large.

Viewing Video Related to an Image

If a video recording is available, you can view video from the same date and time as the saved image.

In the **Image**/**Clip** window, right-click the image to display a context menu and select **Show Video**. The video is played from the starting date and time of the saved image.

Viewing Clips

Use any of the following methods to view a clip:

*   In the **Images**/**Clip** window, right-click the clip to display a context menu and select **Show Video**. The video is displayed in the salvo layout.

    Or

*   Double-click the clip.

    Or

*   Drag the clip onto a panel in the salvo layout.

Viewing the Clips Folder

*   In the **Images**/**Clip** window, right-click the **Clips** folder or any clip to display a context menu and select **Show In Folder** to view the folder in which the clips are saved.

Viewing the First Frame as an Image

*   In the **Images**/**Clip** window, right-click the clip to display a context menu and select **Image View**. The salvo layout changes and the first frame from the clip is displayed on the screen.

Deleting Images and Clips

In the **Image**/**Clip** window, you can delete the images and clips that you do not need:

1. Click the **Viewer** tab.

2. Expand the folder(s) to find the image/clip you want to delete.

3. Right-click the image or clip which you want to delete. A context menu appears.

4. Click **Delete**.

Alarms

Alarms notify operators of the occurrence of events. You can configure alarms to be triggered for the following types of events: adding a camera, recorder disk space nearing full, motion detection, and so on. The events that trigger an alarm can be selected while configuring MAXPRO NVR.

Each alarm goes through the following states.

*   New or Unacknowledged

*   Acknowledged

*   Cleared

*   Beep on alarm

New or Unacknowledged

When an alarm is triggered it appears in the **Alarm** window. The state of the alarm after it is triggered is referred to as **unacknowledged**. You can view the list of all the unacknowledged alarms in a table in the **Alarm** window (see Figure 3-4).

Figure 3-4   Alarms Window

For each unacknowledged alarm, the following details are listed:

Column	Indicates...
Description	Name of the event that triggered the alarm. For example: camera motion detected.
Event Details	Name of the event attribute. Only the key event attribute is displayed in this column.
Device	Name of the device such as a recorder or camera associated with the event. For example: the name of the camera that detected motion.
IO Status	Displays the input and output status.
Date:Time	Date and time when the alarm is triggered.
Master Device Name	the device responsible to generate the specific alarm.
Severity	Severity of the alarm. Refer to the *MAXPRO® NVR Installation and Configuration Guide* for more information on configuring default Event and Alarm types and their severity levels for Camera, Recorder and Smart VMD.
Site	Site name where the device is located.
Global ID	Global unique identification number of the event.

The number of unacknowledged alarms is displayed in a red blinking mode in the status bar (for example, **Alarms (10)** indicate that there are ten unacknowledged alarms).

Acknowledged

An acknowledged alarm indicates that the operator has taken the necessary action. After acknowledging the alarm, it is moved to the acknowledged alarms list in the **Alarm** window.

Cleared

After the response action is taken, you can remove or clear the alarms from the acknowledged list in the Alarm window.

Beep on alarm

The beep on alarm option can be selected if you want the beep sound to occur when there is an active alarm. The option is selected by default. To deselect the option, right-click the alarms indicator on the status bar, and then click to clear the **Beep on Alarm** check box.

Acknowledging Alarms

You can acknowledge an alarm to accept that the necessary response action is being taken.

1. Click the **Viewer** tab, and then click the **Alarm** tab.

2. Select the alarm you want to acknowledge in the **Alarm** window. The unacknowledged alarms are listed in the first table in the Alarm window.

Tip: To select more than one unacknowledged alarm, hold the **CTRL** key down while you select alarms.

3. Click **Acknowledge**. The acknowledged alarm appears in the second table in the Alarm window. If you have selected multiple alarms, all the alarms are acknowledged and appear in the second table in the **Alarm** window.

Unacknowledged Alarms Context Menu Options

When you right-click on the list of unacknowledged alarms in the first table, a context menu appears. The following table lists the commands in the context menu:

Command	Click to....
Ack	Acknowledge the selected alarm.
Clear on Ack	Automatically clear the alarms when they are acknowledged.
Ack All	Acknowledge all the alarms.
Show Video	View video from the time corresponding to the occurrence of the event that triggered the alarm. The video is played in the currently selected panel in the salvo layout. **Note:** The video is played only when the video recording is available.
Show Preview Pane	View video related to the alarm in a four panel salvo layout. Refer to the *MAXPRO® NVR Installation and Configuration Guide* for more information on Setting Preferences.
Show Details	View the details of the alarm. This feature lists the device from which the alarm was triggered, description, date time when the alarm was triggered, status of the alarm, global event ID, and the event attribute associated to the alarm. You can also use the previous and next buttons to view the details of the alarms listed in the alarms window.
Freeze	Stop receiving the new or unacknowledged alarms in the Alarm window. You can click this command again to start receiving the alarms. This feature is useful when the **Alarm** window contains many unacknowledged alarms and it becomes difficult to manage them. You can stop receiving the alarms momentarily and start receiving again when needed.
Receive Alarms Only	List only the alarms in the **Alarm** window. Alarms are listed only when the severity level of the corresponding event that triggered the alarm is greater than or equal to the alarm severity threshold value. Refer to the *MAXPRO® NVR Installation and Configuration Guide* for more information on Setting Preferences.
Receive Events Only	List only the events in the **Alarm** window. Events whose severity level is greater than or equal to the alarm severity threshold value are listed. Refer to the *MAXPRO® NVR Installation and Configuration Guide* for more information on Setting Preferences.

Command	Click to....
Receive Both Alarms and Events	List both alarms and events in the **Alarm** window.

Clearing Acknowledged Alarms

You can clear the acknowledged alarms after taking the necessary action.

1. Click the **Viewer** tab.

2. Select the alarm you want to clear in the **Alarm** window. The acknowledged alarms are listed in the second table in the **Alarm** window.

Tip: To select more than one unacknowledged alarm, hold the CTRL key down while you select alarms.

3. Click **Clear**. The alarm is removed from the list of acknowledged alarms. If you have selected multiple alarms, all of the selected alarms will be cleared..

Clearing All of the Acknowledged Alarms
Click **Clear All**. All of the acknowledged alarms are cleared and removed from the list of acknowledged alarms.

Acknowledged Alarms Context Menu Options

When you right-click on the list of acknowledged alarms in the second table, a context menu appears. The following table lists the commands in the context menu:

Command	Click to....
Clear	Clear the selected acknowledged alarm.
Clear All	Clear all of the acknowledged alarms.
Show Video	View video from the time corresponding to the occurrence of the event that triggered the alarm. The video is played in the currently selected panel in the salvo layout. **Note:** The video is played only when the video recording is available.
Show Preview Pane	View video related to the alarm in a four panel salvo layout. Refer to the *MAXPRO® NVR Installation and Configuration Guide* for more information on Setting Preferences.
Show Details	View the details of the alarm. This details lists the device from which the alarm was triggered, description, date/time when the alarm was triggered, status of the alarm, global event ID, and the event attribute associated to the alarm. You can also use the previous and next buttons to view the details of the alarms listed in the alarms window.

Command	Click to....
Freeze	Stop receiving the new or unacknowledged alarms in the **Alarm** window. You can click this command again to start receiving the alarms. This feature is useful when the Alarm window contains many unacknowledged alarms and it becomes difficult to manage them. You can stop receiving the alarms momentarily and start receiving them again, as required.
Clear on Ack	Automatically clear the alarms when they are acknowledged.
Receive Alarms Only	List only the alarms in the **Alarm** window. Alarms are listed only when the severity level of the corresponding event that triggered the alarm is greater than or equal to the alarm severity threshold value. Refer to the *MAXPRO® NVR Installation and Configuration Guide* for more information on Setting Preferences.
Receive Events Only	List only the events in the **Alarm** window. Events whose severity level is greater than or equal to the alarm severity threshold value are listed. Refer to the *MAXPRO® NVR Installation and Configuration Guide* for more information on Setting Preferences.
Receive Both Alarms and Events	List both alarms and events in the **Alarm** window.

Video Viewing Options from Immervision Enabled Cameras

You can drag and drop Immervision enabled cameras onto the viewer, and view live video from them. These cameras support several different modes for viewing live video (see the following sections for more information).

Perimeter Mode

Perimeter mode divides the video into two parts (see Figure 3-5 for an example).

Figure 3-5   Perimeter Mode

Quad Mode

In Quad mode, you can see four different fisheye views on a single salvo panel. In each of the views, you can Zoom in, Zoom out, Pan up, pan down, Tilt up, and Tilt down the video. See Figure 3-6 for an example of Quad mode.
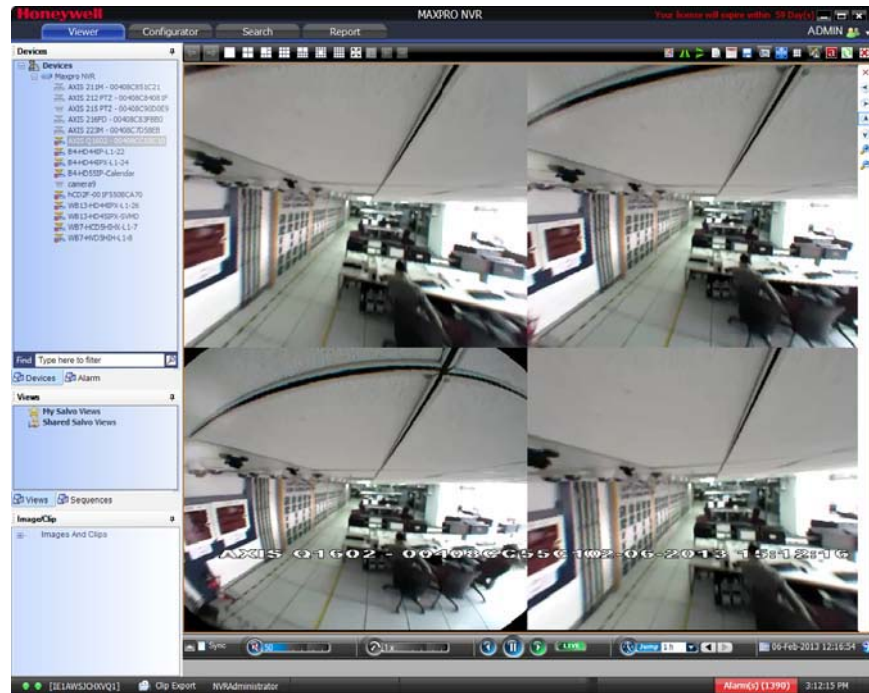
Figure 3-6   Quad Mode

PTZ Mode

In PTZ mode, you can see a single view, which enables you to use PTZ commands with the video (Zoom in/out, Pan up/down, Tilt left/right). See Figure 3-7 for an example of PTZ mode..
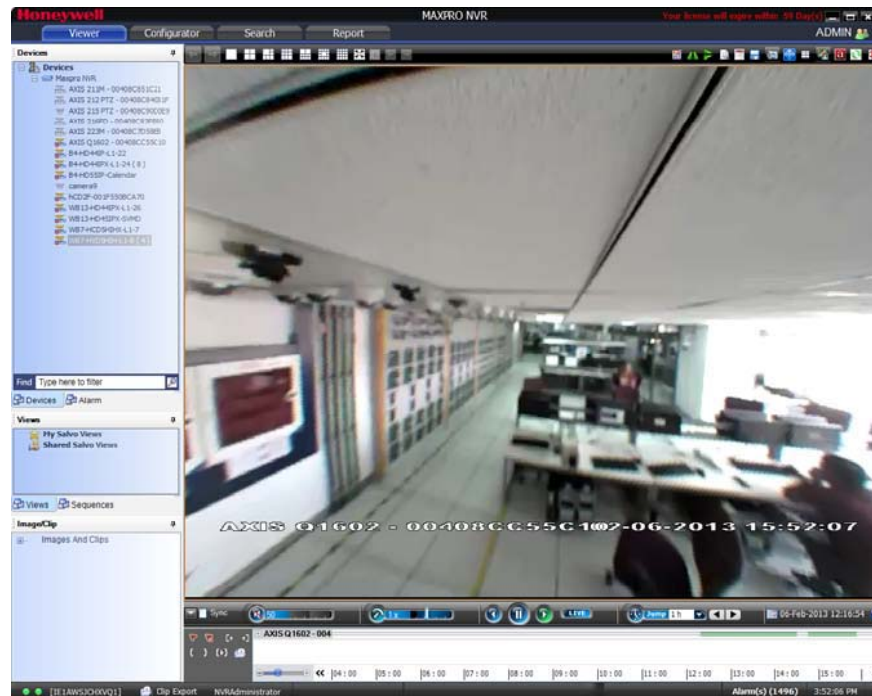
Figure 3-7   PTZ Mode

Panomorph Settings in the Viewer

At any point of time, while viewing video in a particular mode with an Immervision camera, you can switch to a different mode using the Panomorph settings available in the Viewer.

Viewing video in Different Modes

Right-click the panel displaying live video, select **Panomorph Settings** in the context menu, and then select one of the modes (**PTZ Mode**/**Quad Mode**/**Perimeter Mode**), as applicable (see Figure 3-8).
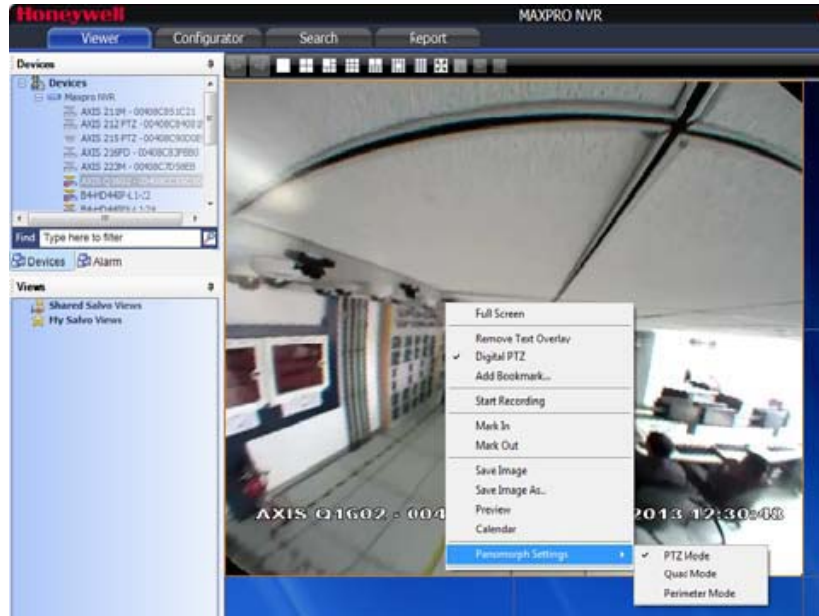
Figure 3-8   Panomorph Settings in the Viewer

Video Viewing Options from Oncam Grandeye Cameras

You can drag and drop Oncam Grandeye cameras onto the viewer, and view live video from them. Live video modes for some of the Halocam and Evolution cameras are shown in the following illustrations (Figure 3-9).

Figure 3-9   Halocam-VCam Mode

Right-click the panel displaying live video (for a Halocam or Evolution camera), select **Oncam GE-Dewarping settings,** and then select any mode to view live video in that mode.

The following figures display various modes:

- Halocam-Panorama Mode (Figure 3-10)

- Halocam-All Quad Positions Mode (Figure 3-11)

- Evolution-Panorama Mode (Figure 3-12)

Figure 3-10   Halocam-Panorama Mode

Figure 3-11   Halocam-All Quad Positions Mode
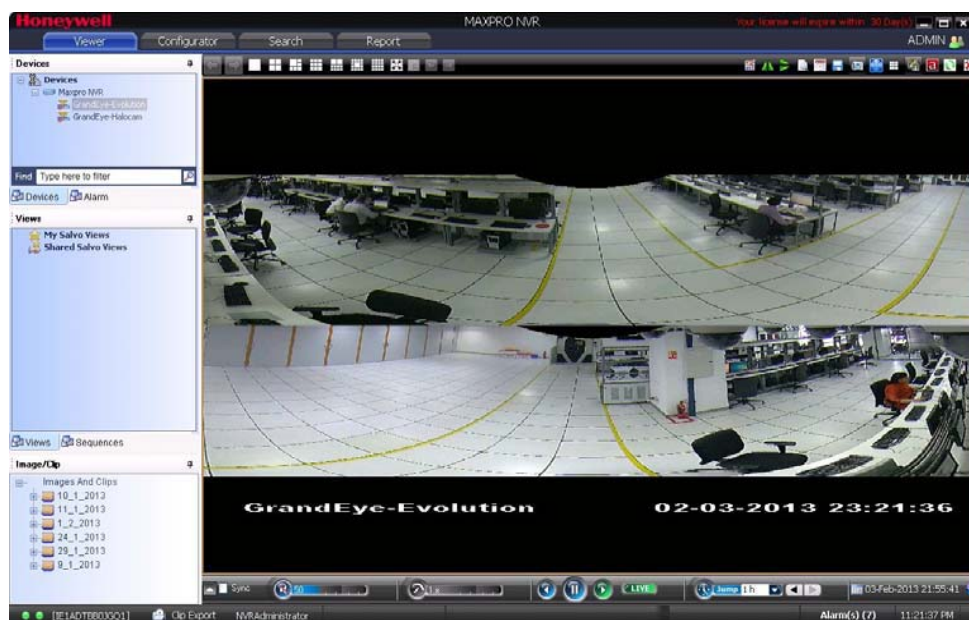
Figure 3-12   Evolution-Panorama Mode

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Searching Recorded Video in MAXPRO NVR

Overview

You can search for video recorded from cameras connected to MAXPRO NVR. You can filter the search for recorded video based on search conditions like video recorded today, yesterday, and others.

How to search for recorder video and events

1. Click the **Search** tab. By default MAXPRO NVR is displayed under **Recorders** in the **Filter** window as shown in Figure 4-1.
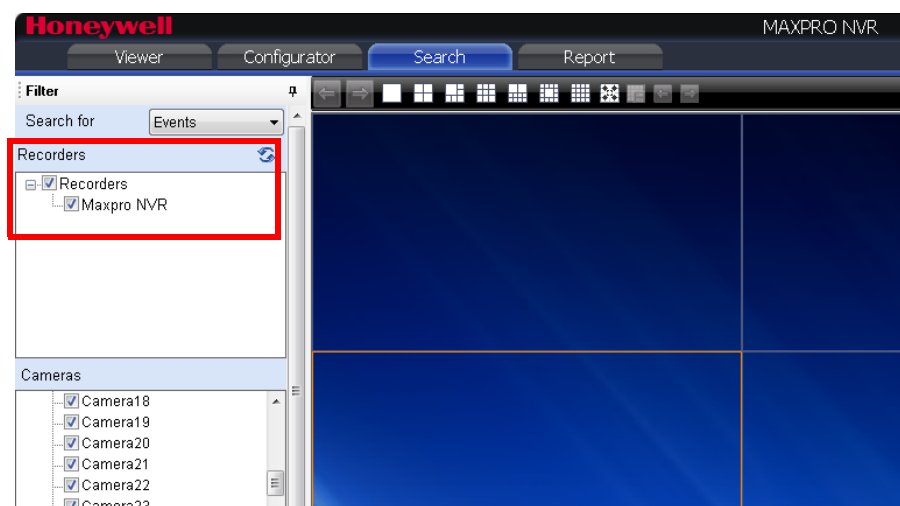
Figure 4-1   Search tab

2. Select "Events" or "Recordings" from the **Search for** list.

3. The list of cameras that are connected to MAXPRO NVR are displayed under the **Cameras** section (in the **Filter** window). Select the check box next to the cameras from which the video is recorded. Select the **Select all** check box to select all the cameras (See Figure 4-2).
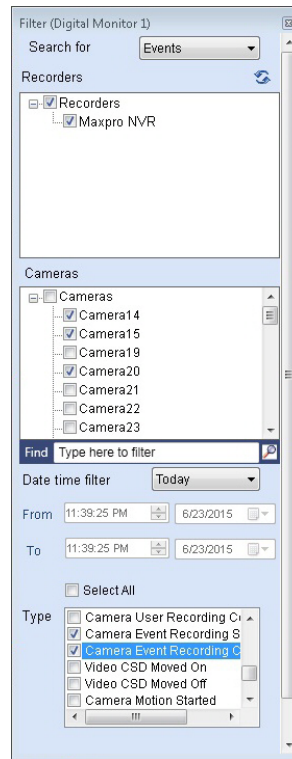
Figure 4-2   Search and Filter

4.   Select one of the following search conditions corresponding to **Date time** filter.

- **Today** - video recorded in MAXPRO NVR today.

- **Yesterday** - video recorded in MAXPRO NVR yesterday.

- **Last 7 Days** - video recorded in MAXPRO NVR in the last seven days.

- **Last 30 Days** - video recorded in MAXPRO NVR in the last 30 days.

- **On** - video recorded on a particular date in MAXPRO NVR. The **From** box to select the date is enabled when you select **On**.

- **On or Before** - video recorded in the MAXPRO NVR up to a particular date. The **From** box to select the date is enabled when you select **On or Before**.

- **Between** - video recorded in the MAXPRO NVR between a time duration. The **From** and **To** boxes are enabled when you select **Between**. You can select the start time and date in the **From** box. The end time and date can be selected in the **To** box.

5.   In the **Type** list, select the check boxes for the events you want to include in the search result. Select the **Select All** check box to include all the events.

6.   Click the [icon] icon. The recorded video is searched based on the search conditions. The search results are listed in the **Results** window.

Playing Video after Searching

Drag and drop the search result from the **Results** window on the salvo layout. The panel starts displaying the recorded video.

Tip: To select more than one search result, press the **CTRL** key.

Deleting the Recorded Video

Caution: Deleting the recorded video from the search result also deletes it from the MAXPRO NVR. The Search tab and the option to delete the recorded video is only accessible to NVR Administrator and Supervisor roles.

---

1. Select the recorded video from the list of search results.

Tip: To select more than one search result, press the **CTRL** key.

2. Click the 🗑 icon. The recorded video is deleted from MAXPRO NVR.

Calendar Search

The Calendar Search feature helps you to search for recorded video from a particular camera. You can filter the search based on the month, day, hour, and minute. By default when you first select this feature, the recorded videos for the current month appear.

To use the Calendar Search feature

1. Click the Calendar icon on the toolbar as shown in Figure 4-3 .

Figure 4-3   Clicking the Calendar icon

Or

Right-click the camera on the salvo panel and click **Calendar** as shown in Figure 4-4.
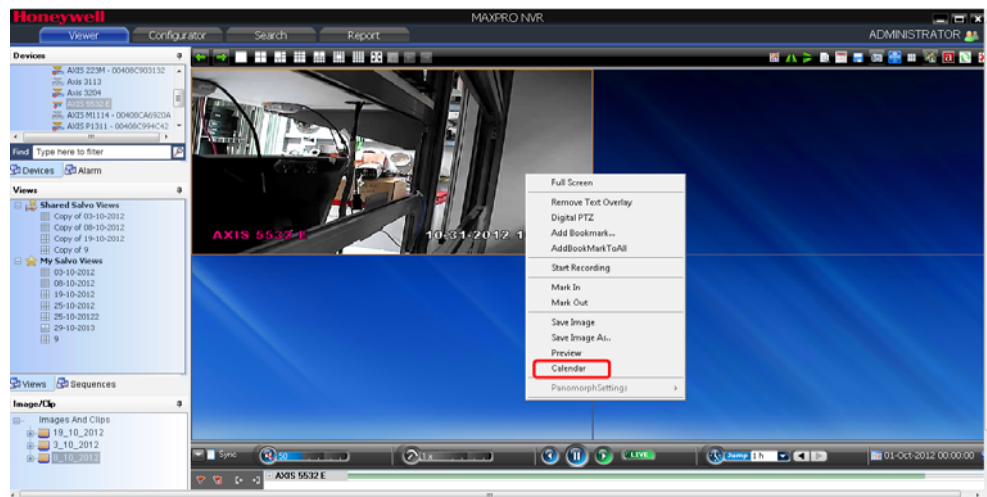
Figure 4-4   Right-clicking the camera in the salvo panel

Or

Right the camera in the device tree and click **Calendar** as shown in Figure 4-5.

Figure 4-5   Right-clicking the camera in the device tree

The **Calendar Search** view displays as shown in Figure 4-6.
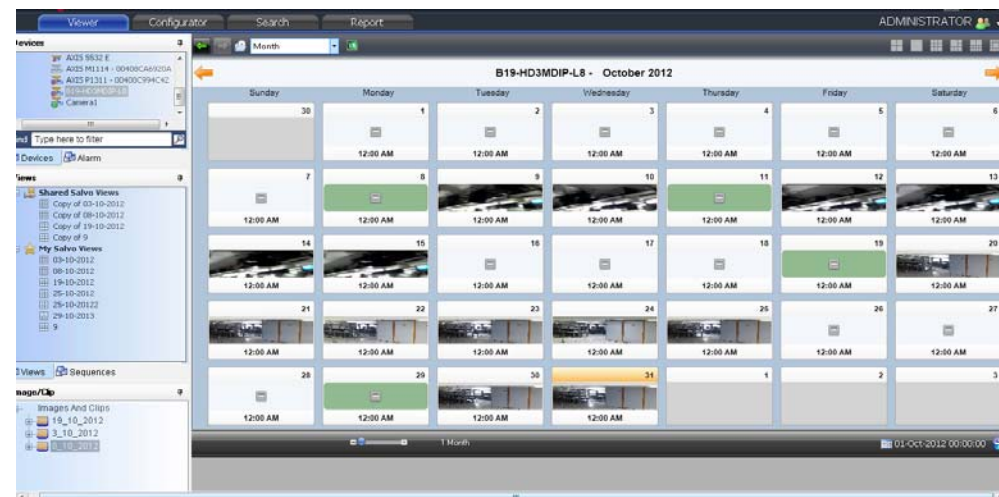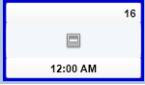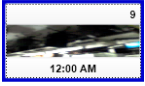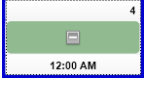
Figure 4-6   Calendar Search view

Legends

Legend	Description
	Indicates that there are no recordings available for the particular day/hour/minute.
	Indicates that the recordings are available for the particular day/hour/minute.
	indicates that there is recording for that particular time frame, and not exactly at that particular time stamp.

Note

- By default, the monthly view of all the recordings for the current month appear. You can see a maximum of 31 recordings, each representing a day of the month.

- You can also change the **Month** view recording time in the **Preferences** dialog box as shown in the following figure.
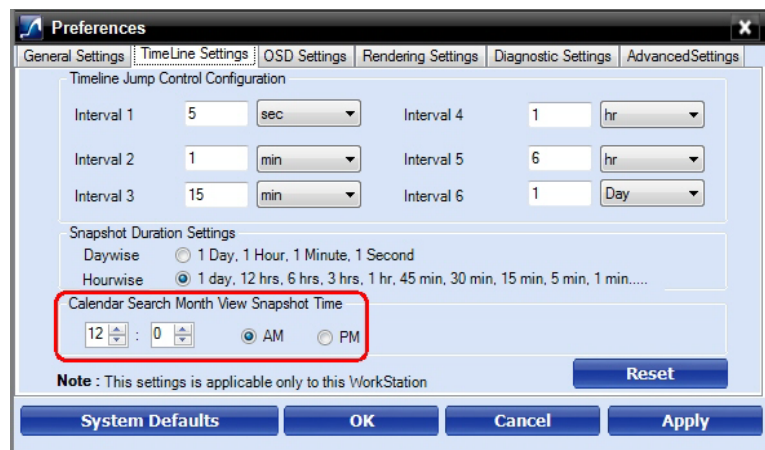
2. You can switch to the **Day**, **Hour** and **Minute** views by clicking the respective option in the drop-down list as shown in Figure 4-7.
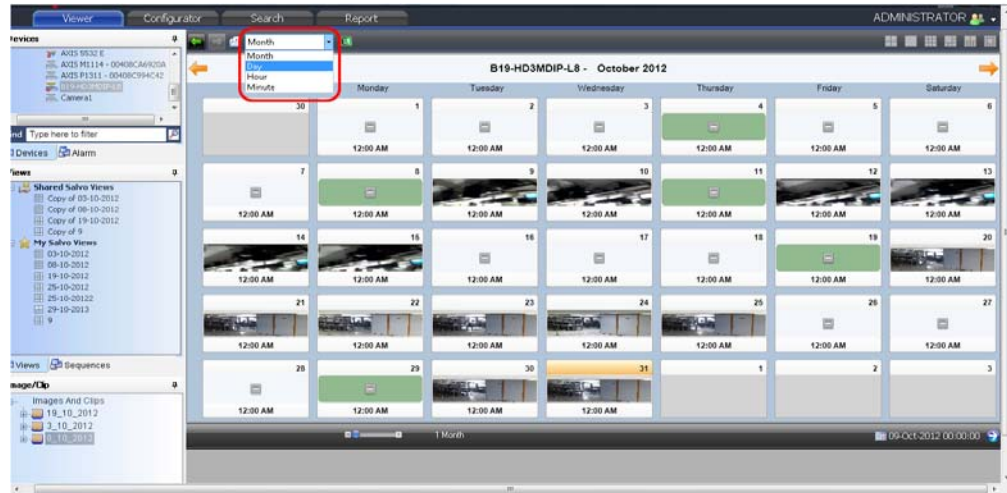
Figure 4-7   Switching to the day, hour, minute views by selecting from the drop-down list

Or

Move the slider to the right as shown in Figure 4-8 to switch to the **Day**, **Hour** and **Minute** views.
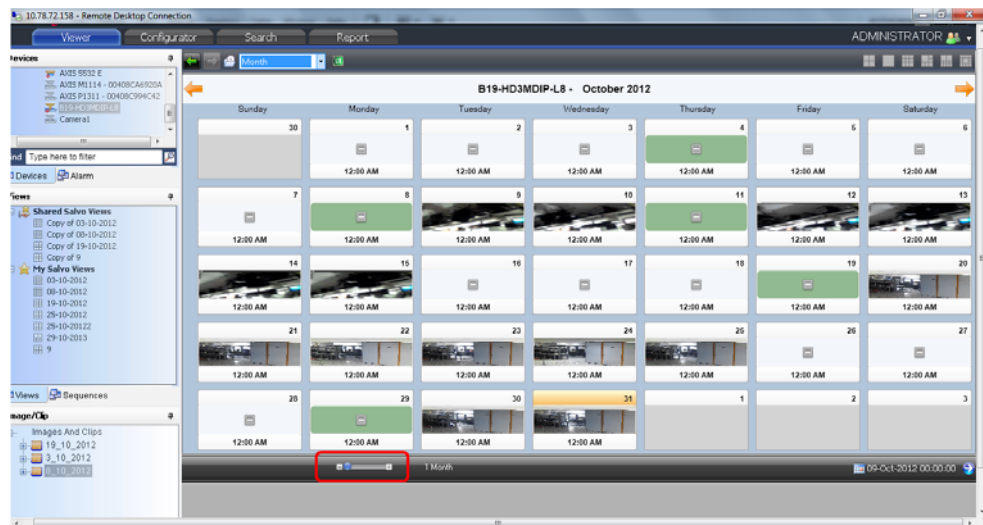
Figure 4-8   Switching to the day, hour, minute views by moving the slider

Note

- If you select **Day**, a maximum of 24 recordings appear, each representing an hour.
- If you select **Hour,** a maximum of six recordings appear, each representing a 10 minute recording of the selected hour.
- If you select **Minute**, a maximum of 10 recordings appear, each representing a minute.

Or

Alternatively, click [01-Jun-2015 00:00:00] bottom right calender to switch to the **Day**, **Hour** and **Minute** views (see Figure 4-9).
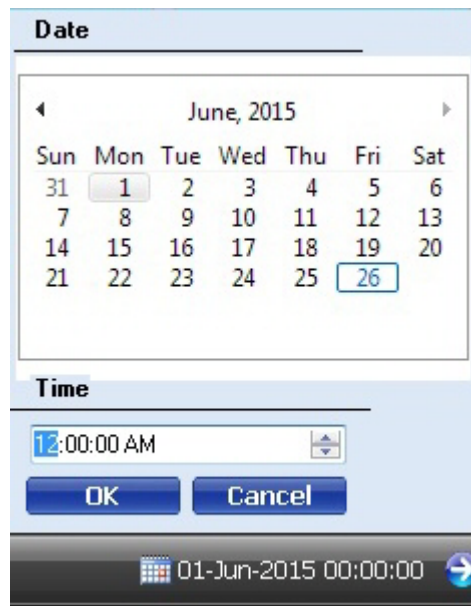
Figure 4-9   Calender

Navigation Tips

• While viewing the month wise recordings, use the ⬅ and ➡ buttons to navigate to the next or previous month in sequence that you are viewing.

Tip: Follow the similar procedure to view day/hour/minute wise recordings.

• At any point of time, click the **Live** view icon as shown in Figure 4-10 to go back to the Live video view.
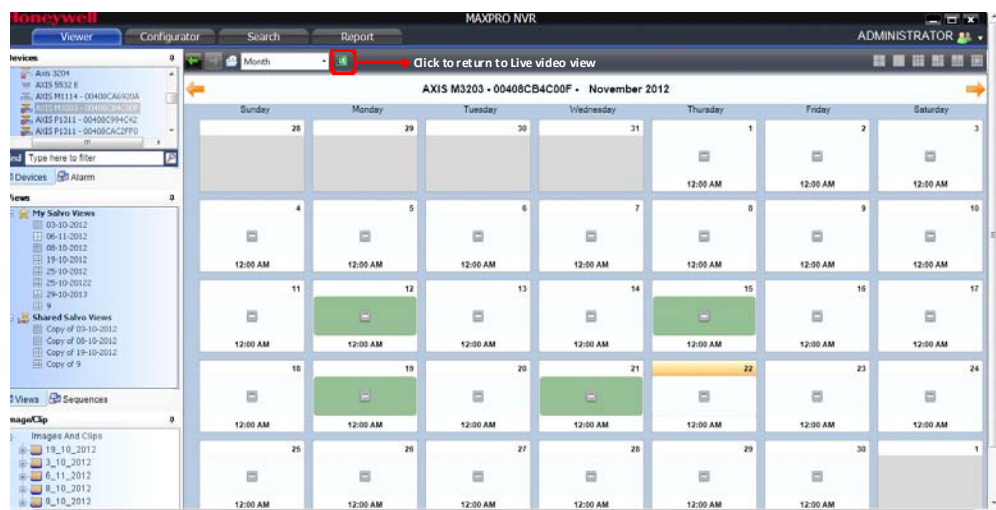
Figure 4-10   Returning to Live Video View

Options Available on the Panel

The following table lists the options available when you right click a panel in the Calendar Search view.

Option	Description
Save Image	Saves the frame displayed in the panel as an image in the BMP format.
Save Image As	Saves the frame displayed in the panel as an image in the other formats such as JPG, GIF, PNG and soon.
Show Video	Displays the video.

Creating Clips

You can create clips for the recorded video.

- Click the Clip Export icon on the toolbar as shown in Figure 4-11.

Figure 4-11   Creating Clips

Note: See the Creating Clips section on page 70 for more information on creating clips for recorded video. Only WMV format (evidence clips) clip export option is supported when you create clips from Calendar Search.

Preview Search

The Preview Search feature helps you to search for recorded video from a particular camera. Unlike Calendar search, you can only filter the search for a particular day. You also cannot drag and drop a camera on the preview pane.

To use the preview search

1. Right-click a camera in the device tree, and then click **Preview** Figure 4-12.

Figure 4-12   Preview Search - Right-clicking the camera from the Device tree

Or

Right-click the panel displaying live video and click **Preview** Figure 4-13.
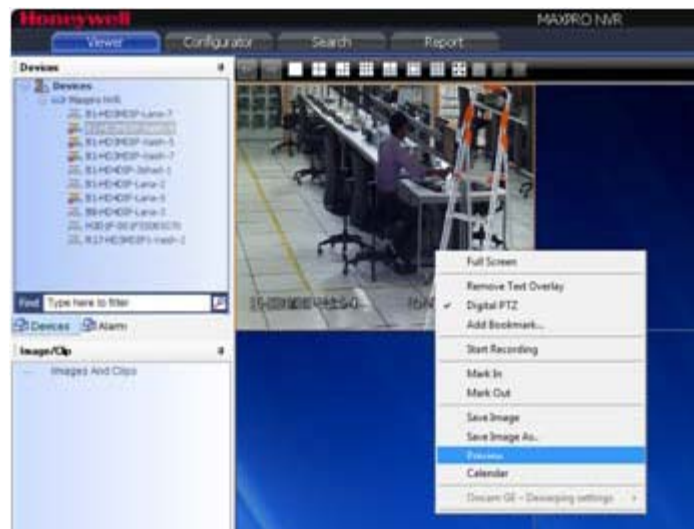
Figure 4-13   Preview Search- Right-clicking the Live Video pane

Or

Select the desired video panel and click the **Preview** icon on the toolbar as shown in Figure 4-14.

Figure 4-14   Preview Search - Clicking the Preview icon

A list of recordings for the particular day appear Figure 4-15.
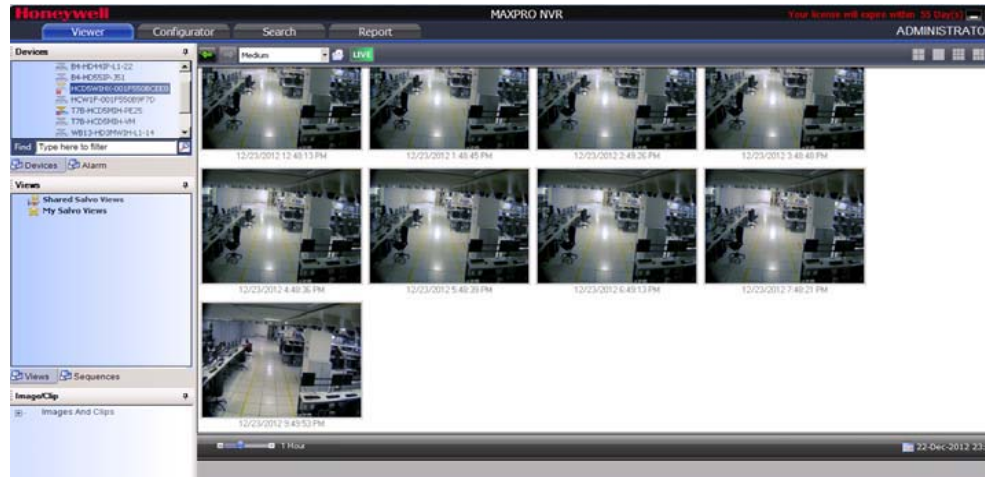
Figure 4-15   Preview Search - Results

Note: By default, medium sized snapshots (recordings) are displayed.

2.   To view small or large snapshots, select the appropriate option from the drop-down list as shown in Figure 4-16.
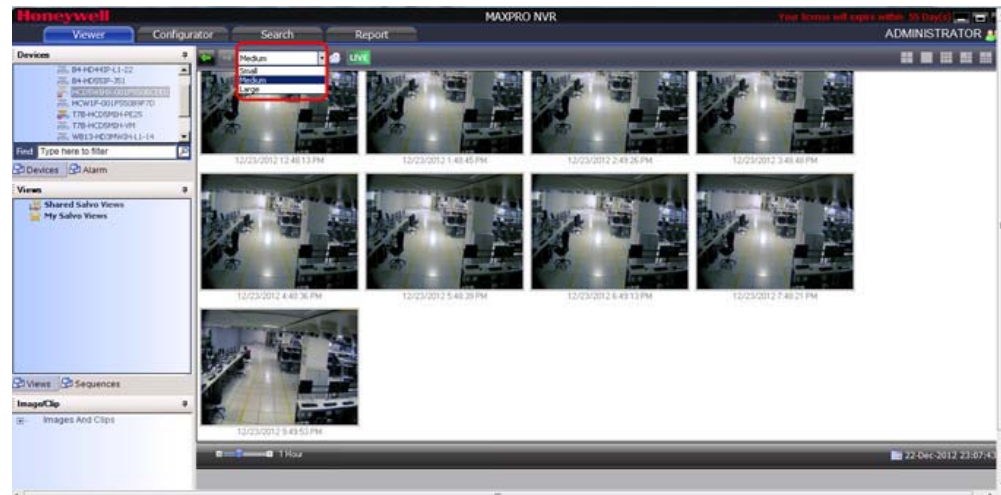
Figure 4-16   Selecting the Large/Small options for the Snapshots

3. To change the snapshot duration, double-click it or move the slider as shown in Figure 4-17.
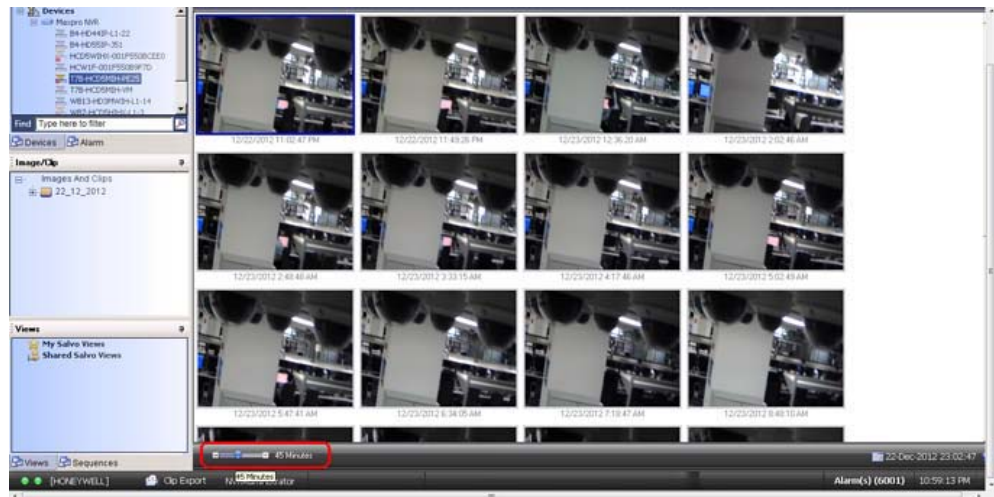
Figure 4-17   Changing the Snapshot duration

Navigation Tips

• At any point of time, click the Live view icon as shown in Figure 4-18 to go back to the Live video view.
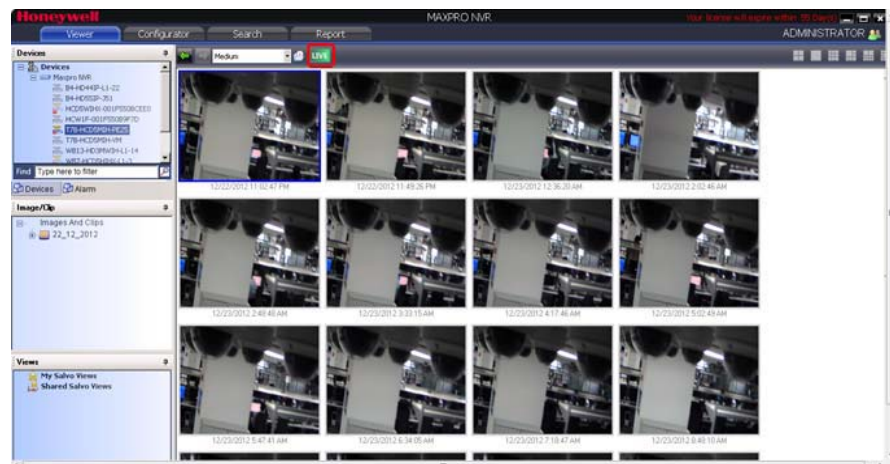
Figure 4-18   Returning to Live Video View

Options Available on the Panel

The following table lists the options available when you right click a panel in the Preview Search view.

Option	Description
Save Image	Saves the frame displayed in the panel as an image in the BMP format.
Save Image As	Saves the frame displayed in the panel as an image in the other formats such as JPG, GIF, PNG and soon.
Show Video	Displays the video.

Creating Clips

You can create clips for the recorded video.

- Click the **Clip Export** icon on the toolbar as shown in Figure 4-19.

Figure 4-19   Creating Clips

Note: See the Creating Clips section on page 70 section for more information on creating clips for recorded video. Only WMV format (evidence clips) clip export option is supported when you create clips from Preview Search.

Intellisense Search

The Intellisense search option makes the search of cameras simpler and easier. When a part of the camera name is typed in the text box, the Intellisense search displays the list of cameras that are connected to various recorders in the Devices window. For example, if you are searching for Camera 2 connected to particular recorder, then type **Ca** in the text box, the list of camera names that contain 'ca' appears.

Intellisense search also supports wild characters while searching. For example,

- ca* — camera names that begin with 'ca' are displayed.

- *ca — camera names that end with 'ca' are displayed.

- *ca* — camera names that contain 'ca' are displayed.

- ! ca — cameras that do not have 'ca' in their name are displayed.

Select the required filter string and click on the filter button. You can toggle between the Filter On and Off mode using the 🔍 option or right-click 🔍, and select between **Filter ON** and **Filter OFF**. The hot key to activate Intellisense search is **F4**.

5

Generating Reports

In this chapter...

Overview

You can generate two types of reports: Event History report and Operator Log report.

Event History Report

The event history report can be generated for cameras and recorders. The event history report lists the events related to a device during a time period. For example, for a camera, you can generate the event history report to know the occurrence of events like enabling of camera motion detection, starting of background recording, and others. You can select the device and list of events that you want to view while generating the report.

Operator Log Report

The operator log report can be generated to view the activities performed by users. The operator log report lists the activities performed by users during a time period. For example, creating clips, adding bookmarks, and other actions performed by a user. You can select the users and the list of activities you want to view while generating the report.

Generating the Event History Report

1. Click the **Report** tab.
2. In the **Reports** window, select the **Event History Report**.

3. Click **Show Report**. The **Event History Report** dialog box appears Figure 5-1.

Figure 5-1   Event History Report

4. In the **Date** box, select the date for which you want to view the list of events. The following table lists the options in the **Date** box:

Option	Description
Today	Event history report for today's events.
Yesterday	Event history report for yesterday's events.
Last 7 days	Event history report for the last seven day's events.
Custom Date Range	Event history report between a start date and end date. The **From** and **To** boxes under **Custom Date Range** are enabled when you select this option. You can select the start date in the **From** box and the end date in the **To** box.

5. Select the **Site**.

6. In the **Device Types** box, select the check box next to the type of device for which you want to generate the event history report. You can select more than one type of device. You can select the **Select all** check box to select all the device types. Based on the selection in the **Device** Type box, the list of devices appear in the **Devices** box. For example, if you have selected **Video Inputs** in the **Device Types** box, all the camera names appear in the **Devices** box.

7. Under **Custom Events**, select the **IO Alarms** check box to include the input and output alarms.

8. In the **Devices** box, select the device for which you want to generate the event history report. The selected devices appear in the **Selected Devices** box.

To select a device

Select the check box next to the device name and click [>]. You can select more than one device. To select all the devices in the **Devices** box, click [>>].

To remove a device

Select the check box next to the device name and click [<]. You can select more than one device. To remove all the devices in the **Selected Devices** box, click [<<].

9. In the **Events** box, select the events that you want to include in the event history report. The selected events appear in the **Selected Events** box.

To select a device

Select the check box next to the event name and click [>]. You can select more than one event. To select all the events in the **Events** box, click [>>].
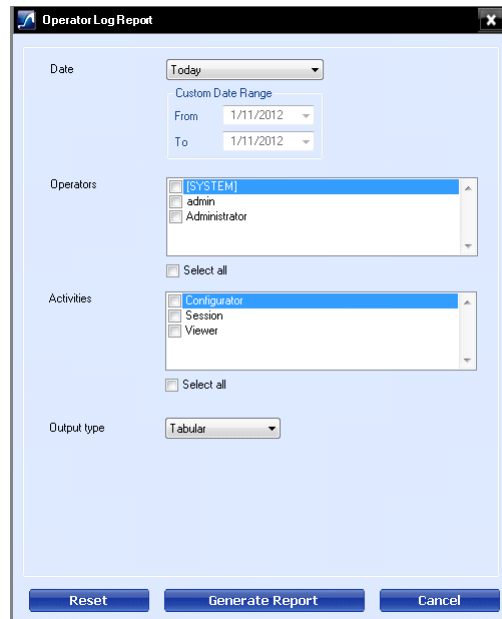
To select a device

Select the check box next to the event name and click [<]. You can select more than one event. To select all the events in the **Selected Events** box, click [<<].

10. In the **Event Severity** list, select the severity of the event.

11. Click **Generate Report**. The event history report is generated and appears in the display area.

Generating the Operator Log Report

1. Click the **Report** tab.

2. In the **Reports** window, select the **Operator Log Report**.

3. Click **Show Report.** The **Operator Log Report** dialog box appears Figure 5-2.

Figure 5-2   Operator Log Report

4. In the **Date** box, select the date for which you want to view the list of events. The following table lists the options in the **Date** box:

Option	Description
Today	Operator log report for today's events.

Option	Description
Yesterday	Operator log report for yesterday's events.
Last 7 days	Operator log report for the last seven day's events.
Custom Date Range	Operator log report between a start date and end date. The **From** and **To** boxes under **Custom Date Range** are enabled when you select this option. You can select the start date in the **From** box and the end date in the **To** box.

5. In the **Operators** box, select the check box next to the operators for which you want to generate the operator log report. You can select the **Select All** check box to select all the operators.

6. In the **Activities** box, select the check box next to the activities which you want to view in the operator log report. You can select the **Select all** check box to select all the activities.

7. In the **Output type** box, select the type of operator log report you want to generate. You can select Tabular to view the operator log report in a table or Graphical to view the operator log report in a graph.

8. Click **Generate Report**. The operator log report is generated and appears in the display area.

Viewing, Printing, and Saving the Report

You can use the following options in the toolbar on top of the report:

Icon	Click to...
	Save the report. By default, the report is saved in Crystal Reports (.rpt) format. You can also save the report in Adobe Acrobat PDF (.pdf), Microsoft Excel (.xls), Microsoft Excel Data Only (.xls), Microsoft Word (.doc), and Rich Text (.rtf) formats.
	Print the report.
	Toggle the display of report names on the left of the display area.
	View the first page.
	View the previous page.
	View the next page.
	View the last page.
	Go to a page number.

Icon	Click to...
	Search for text in the report.
	Enlarge (zoom in) and reduce (zoom out) the report view.
	Close the current view.

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6

MAXPRO NVR Web Client

In this chapter...

Introducing Web Client

The MAXPRO NVR Web Client allows you to remotely access the MAXPRO NVR server and perform video surveillance using a web browser such as Internet Explorer. It gives you the flexibility to view live video and perform the basic video surveillance functions remotely over the web.

MAXPRO NVR Web client is available with MAXPRO NVR 3.1 build 65 or later version. By default MAXPRO NVR installs the Web client and MAXPRO Web Configurator along with the NVR full installation. You can use the web client once you have the NVR 3.1 build 65 or later version.

MAXPRO NVR Web Client functions involve the following tasks:

- Viewing the live video

- Viewing Recorded Video (Playback)

- Taking Snapshot

- Viewing Presets

Prerequisites to access MAXPRO NVR Server through Web Client

The following are the prerequisites to access the MAXPRO NVR server through Web Client.

- **Silverlight** : Ensure that Silverlight version 5 and above is installed on your machine. If you don't have the Silverlight plug-in on your machine, you can download it from the following Microsoft link. **http://www.microsoft.com/getsilverlight/Get-Started/Install/Default.aspx**

Note: Silverlight plug-in is not supported by Chrome version 42.x or above and Microsoft Edge browser.

• **Web Browsers Supported on Windows Systems**: Ensure that at least one of the following supported web browsers are installed on your PC:

  • Internet Explorer version 8 or above

  • Firefox version 15.0.1 or above

  • Chrome version 32.x to 41.x only.

Note MAXPRO NVR Web Client is only supported by below Web Browsers on Windows 10 with Silverlight plug-in installed

  • Internet Explorer version 11 or above
  • Firefox version 40 or above

• **Web Browsers Supported on MAC systems**: Ensure that Safari version 7 or above is installed on your MAC machine.

Logging on to MAXPRO NVR Web Client

1. Type the URL **https://<MAXPRO NVR Server IP or Machine/Computer name>/MAXPROWEB/** in your web browser and then press **Enter**. The login page appears Figure 6-1.

Note: <MAXPRO NVR Server IP or Computer/Machine name> needs to be replaced by the IP address or computer/machine name (as applicable) of the MAXPRO NVR Server machine on which both the Web Server and NVR Server are installed by default.
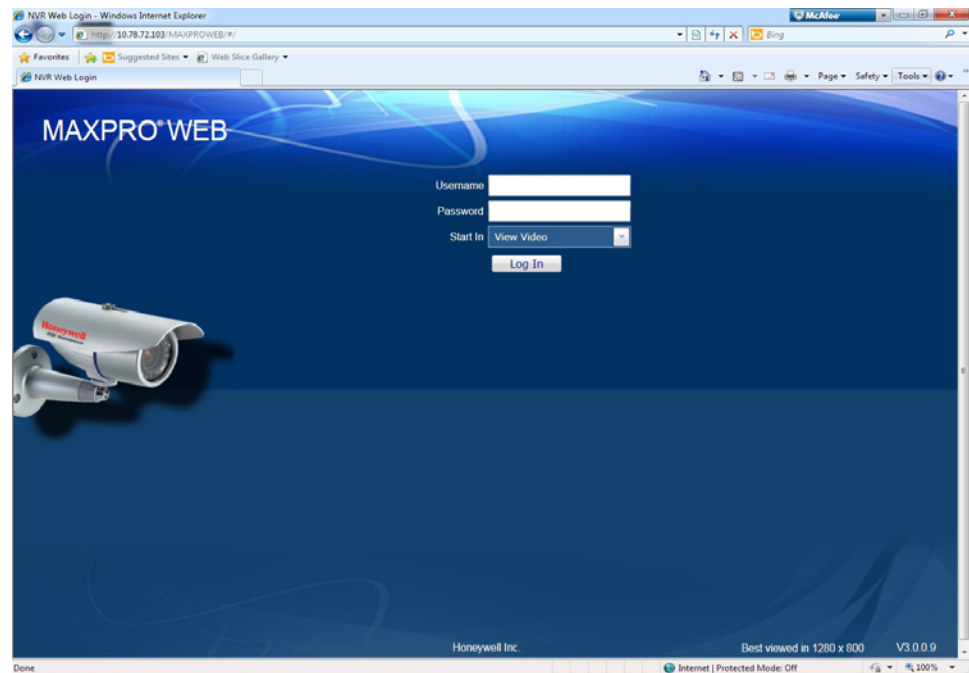
Figure 6-1   MAXPRO NVR Login page

Note: If Silverlight is not installed on your machine then a message

 is displayed. If you are using Internet connection then you can click the link **Get Microsoft Silverlight** to download the Silverlight.

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2. Type your **Username**. The default user name is **admin**.

3. Type your **Password**. The default password is **trinity**. User credentials are configured in NVR and the default administrator credentials (Username and Password) which are configured in MAXPRO NVR are, **admin** and **trinity**.
By default the **Start In** drop-down list is selected with **View Video** option.

4. Click **Login**. Figure 6-2 appears if your credentials are successfully validated. The name of the currently logged in user is displayed as **admin** on the top left of the page.
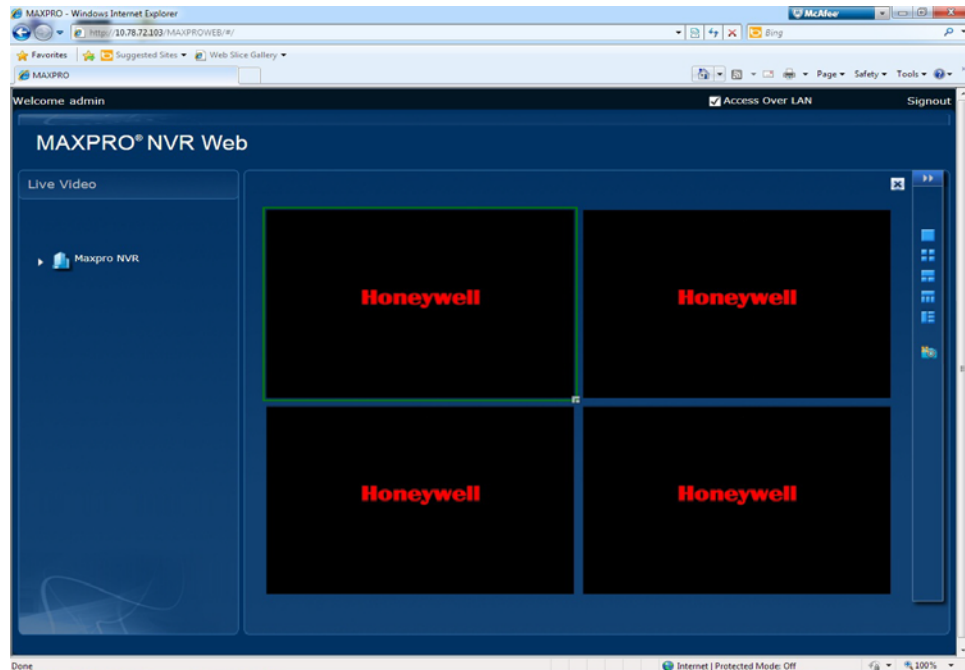
Figure 6-2   MAXPRO NVR Web Page -Initial View

5. Under **Live Video** pane, click the **MAXPRO NVR** node. The list of cameras configured in the MAXPRO NVR server is displayed.

Note: The list of cameras displayed is based on the user or operator permissions configured in the MAXPRO NVR Server.

Logging Off

- Click **Signout** on the top right corner of the page.

Getting to Know the Web Client Page

The web page of MAXPRO NVR Web client consists of tree-structure, floating window, and icons. On opening the page, you see the following: **Live Video Pane and** default **Salvo view**.

MAXPRO NVR Web Page

Figure 6-3 illustrates the MAXPRO NVR Web Page.
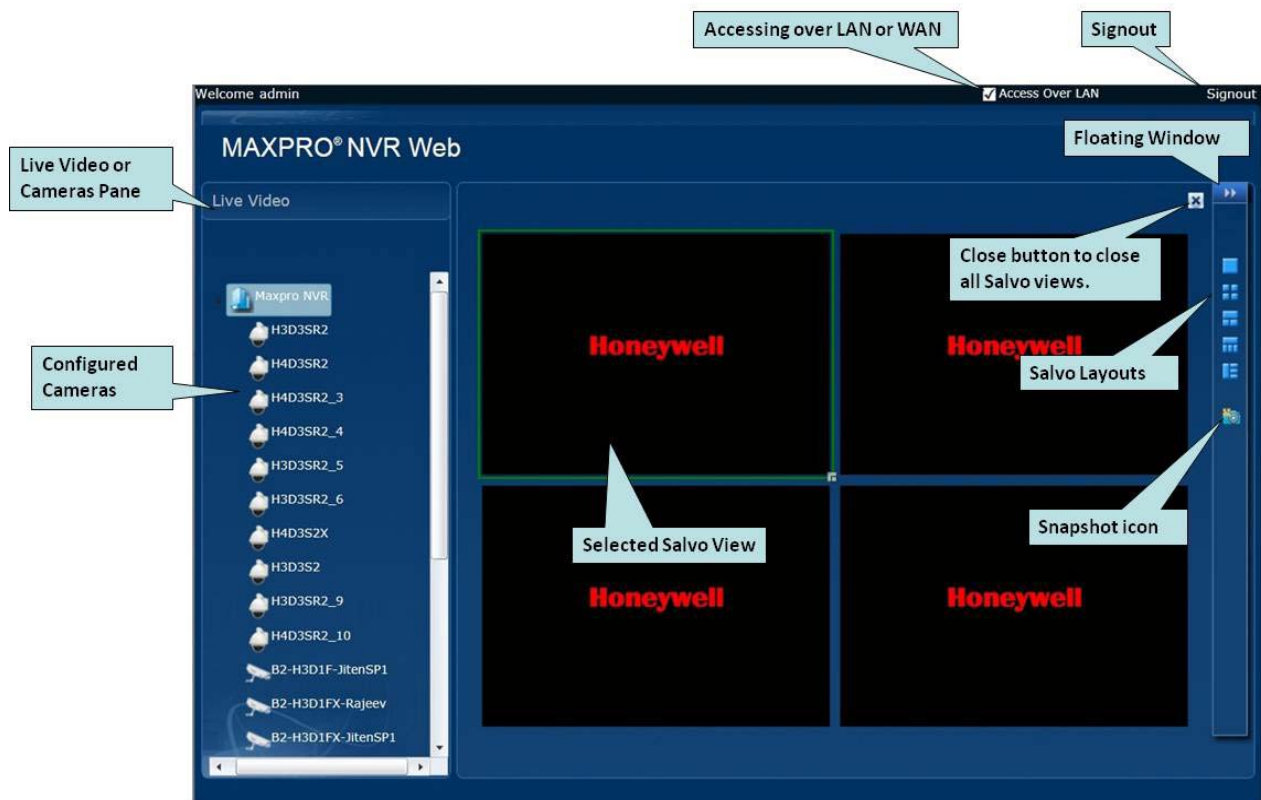
Figure 6-3   MAXPRO NVR Web Client Page-Familiarization
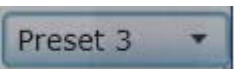
The following components are displayed on the screen.

Component	Description
Live Video or Camera Pane	Displays the list of cameras which are configured in MAXPRO NVR.
Configured Cameras	List of configured cameras which are available to render video. **Note** To view the list of cameras in Live video pane, you should configure the cameras in MAXPRO NVR. Refer to the *MAXPRO® NVR Installation and Configuration Guide for* Configuring the Cameras. The list of cameras listed is based on the user or operator permissions configured in the MAXPRO NVR.

Component	Description
Accessing over LAN or WAN	Select this check box if you want to access web client using LAN connection. Clear this check box if you want to access web client using WAN connection. **Note** By default this check box is selected when you login the web client page.
Salvo Layout	An arrangement of panels in which video is displayed. Select the required layouts to view the video. The Salvo views can be resized. See the Resizing the Salvo section on page 88.
Snapshot Icon	Click to take a snapshot of entire salvo layout.
Floating Window	Click to display different salvo layouts and snapshot icon. You can select the required salvo view to view the video in the panel.
Close Button	Click to close all the panel at once.

Video Control Options

The toolbar that appears on top of a panel enables you to view the name of the video source and take snapshot for a particular video panel. The toolbar that appears on the bottom and on the right of a panel consists of icons that enable you to perform the following actions:

Icon	Click to...
<M/d/yyyy> 15 1:08 AM	Set the date and time for playback. See the Viewing Recorded Video section on page 89.
Live	View the live video. See the Live Video section on page 87.
Preset 3	Displays a drop-down list of presets. You can select a preset for the camera. See the Viewing Presets section on page 90 and Refer to the *MAXPRO® NVR Installation and Configuration Guide.* sections for more information on Creating Self Signed Certificate.
⊚	Display the playback settings. See the Viewing Recorded Video section on page 89.
▶	View the live video while you are in playback. See the Viewing Recorded Video section on page 89.
⊚	Take a snapshot for the required panel. You can view this icon when you hover the mouse on the top of a panel. See the Taking a Snapshot section on page 90.
X	Close the required panel. You can view this icon when you hover the mouse on the top of a panel

Icon	Click to...
	Select the required salvo view to arrange the panels. See the Resizing the Salvo section on page 88.
	Close all the panels in a salvo layout.

Using MAXPRO NVR Web Client Features

MAXPRO NVR Web Client features includes viewing live video, playback, taking snapshots and viewing presets.

Live Video

You can view live video using the option available in MAXPRO NVR web client. The panels in the salvo layout display video. You can select the video source from cameras on the Live Video pane.

To view the list of cameras in Live video pane, you should configure the cameras in MAXPRO NVR. Refer to the *MAXPRO® NVR Installation and Configuration Guide for* Configuring the Cameras. The list of cameras listed is based on the user or operator permissions configured in the MAXPRO NVR.

To view live video

- Drag and drop the required video source from the **Live video** pane on a panel in the salvo layout Figure 6-4.
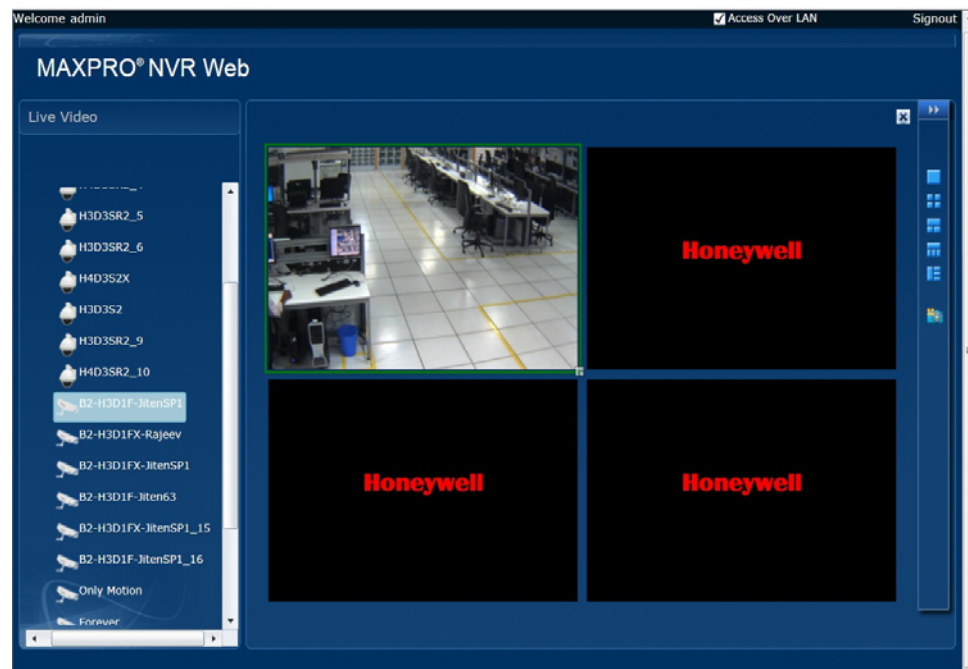
Figure 6-4   Web Client - Live Video

Troubleshooting Tip

If the video is not streaming through web client then perform the below steps to reset Internet Explorer (browser) to default settings except user specific settings like favorites, bookmarks etc:

1. In Internet Explorer navigate to **Tools -> Internet Options -> Advanced** tab and then click the **Reset** button. The **Reset Internet Explorer Settings** dialog box appears.

2. Select '**Delete personal settings**' check box and then click the **Reset** button.

3. Close and then open the Internet explorer.

Note   MAXPRO NVR Web Client supports streaming quality resolution up to 1080p. Cameras configured above 1080p resolution are not supported. If you drag and drop a camera configured with megapixel resolutions (above 1080p) then a message appears and video is not displayed as shown below.

You can view live video in different panels of the salvo layout. When you hover the mouse over a video display, a toolbar appear over the panel. The toolbar enables you to perform actions such as Playback, Live video, taking snapshots and viewing Presets.

Note: Each MAXPRO NVR 3.5 box has a limit of 64 streams for live and a limit of 32 streams for playback feature. Even if the same camera is opened for live in multiple web clients then it consumes only 1 stream. Each playback function consumes 1 additional stream always.

Resizing the Salvo

You can view the salvo layout when you select the available options on the floating window tab. At a time, you can select one of the salvo layout .For example: If you want to view video from two cameras, select a salvo layout with two or more panels.

- Click the required salvo layout options available on the floating window.

Viewing Recorded Video

You can easily retrieve and view recorded video using the date and time controls in the panel toolbar. When you select a camera from the live video pane to view video, a toolbar appears.

Note: Each MAXPRO NVR 3.5 box has a limit of 64 streams for live and a limit of 32 streams for playback feature. Even if the same camera is opened for live in multiple web clients then it consumes only 1 stream. Each playback function consumes 1 additional stream always.

To play recorded video

1.   Drag and drop a camera from the **Live video** pane into the panel.

2.   Hover the mouse at the bottom of a panel over live video. A tool bar appears Figure 6-5.
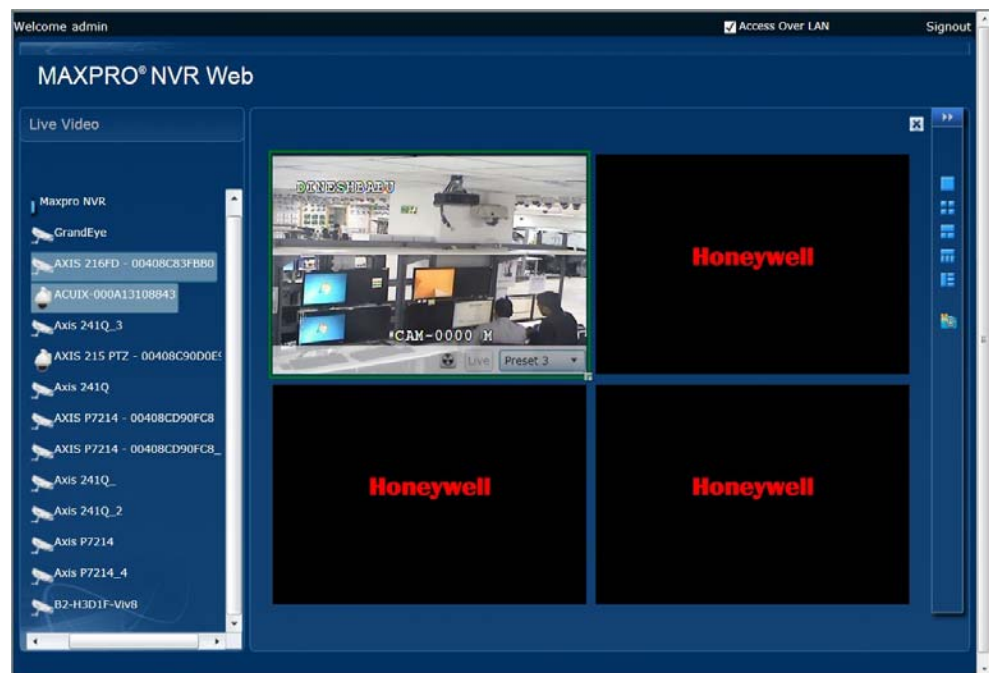
Figure 6-5   Web Client - Playback

3.   Click .

4.   Select the date and time in the date and time calendar box

and then click . The video recording is played from the selected date and time.

Navigation Tip

At any point of time, click to go back to the Live video view.

Viewing Presets

Preset can be viewed in web client if the camera is a PTZ camera. To view Presets in web client you need to define the presets in MAXPRO NVR. To configure presets in MAXPRO NVR, Refer to the *MAXPRO® NVR Installation and Configuration Guide* for more information to configure the presets.

1.   Hover the mouse at the bottom of a panel over live video. A tool bar appears Figure 6-6.
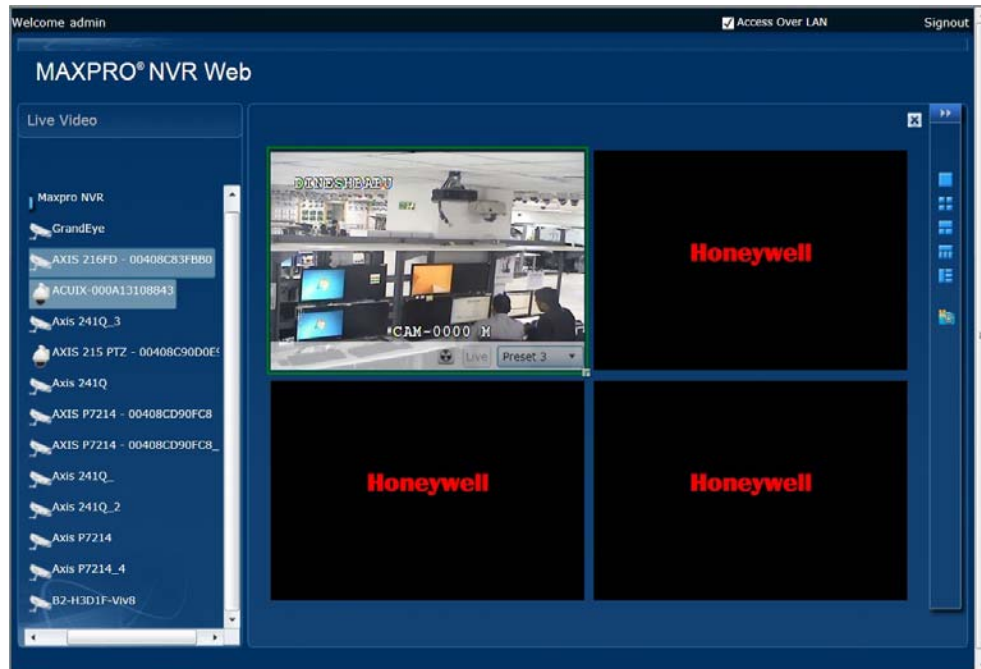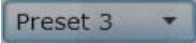
Figure 6-6   Web Client - Presets

2.   Click [Preset 3 ▾] and then select the required preset from the drop-down list to view the configured preset.

To view Presets in web client you need to define the presets in MAXPRO NVR. Refer to the *MAXPRO® NVR Installation and Configuration Guide* for more information to configure the Sequence.

Taking a Snapshot

You can take snapshot of the single video panel in a salvo and also all video panels in a salvo.

Note: Snapshot feature is not supported on Mac and print screen feature in Mac can be used alternatively.

1.   Click [icon] on the rightmost pane of the web page. A confirmation message appears.
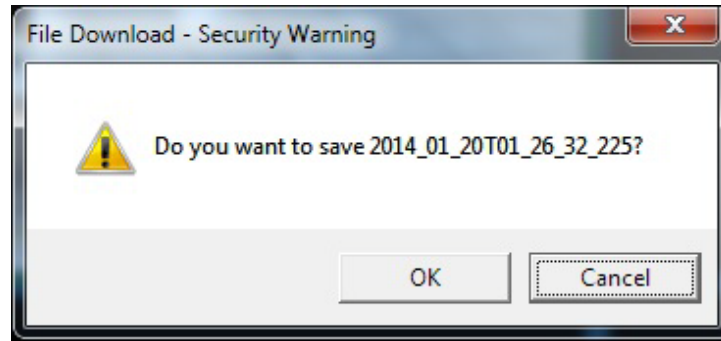
Figure 6-7   Confirmation dialog - All Salvo Views

2. Click **OK** to save the snapshot.

To take snapshot of the single video panel

1. Hover the mouse at the top of a panel over a live a video. A tool bar appears.

2. Click [icon] . A confirmation message appears
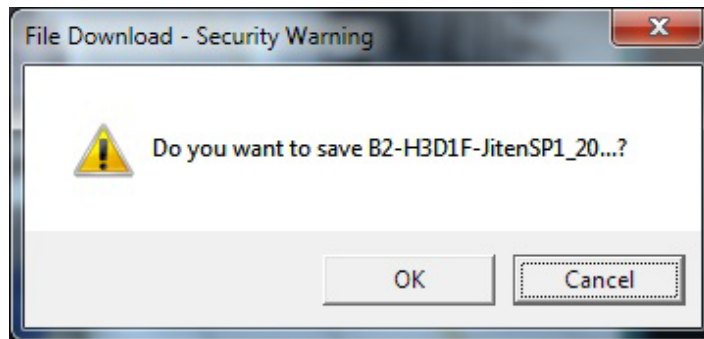
Figure 6-8   Confirmation dialog - Single Video Panel

3. Click **OK** to save the snapshot.

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Using the MAXPRO Mobile app

In this chapter...

Introduction

The MAXPRO® Mobile app allows you to connect to a MAXPRO NVR from a remote location. Use the app to perform common daily tasks such as:

• Live video viewing

• Zooming in for full screen viewing

• Playback or searching for video clips by date and time

• Taking a snapshot of a recorded frame

Live Video Viewing

The MAXPRO® Mobile app features a single camera or multiple camera view. When you **Connect**, the live view screen displays in the default quad view as shown below. It may take a few seconds for the cameras to be discovered. The cameras that were associated with the

mobile app user (Refer to the *MAXPRO® NVR Installation and Configuration Guide* for more information Selecting the Cameras to be Remotely Viewed.) are listed at the bottom in the Camera List panel.

Apple mobile device	**Android mobile device**
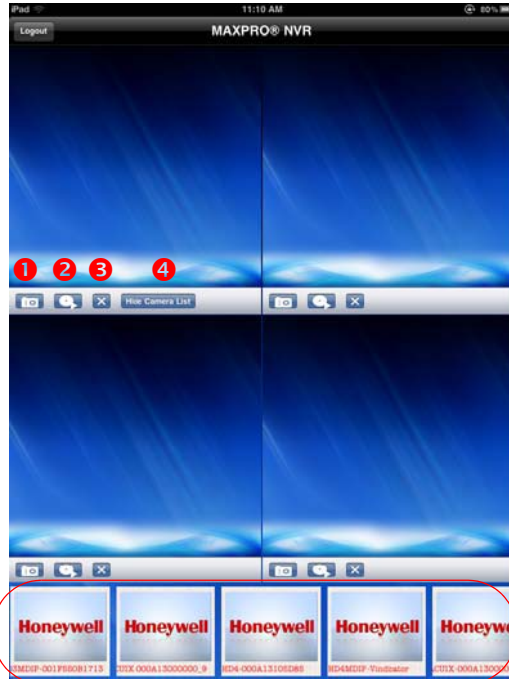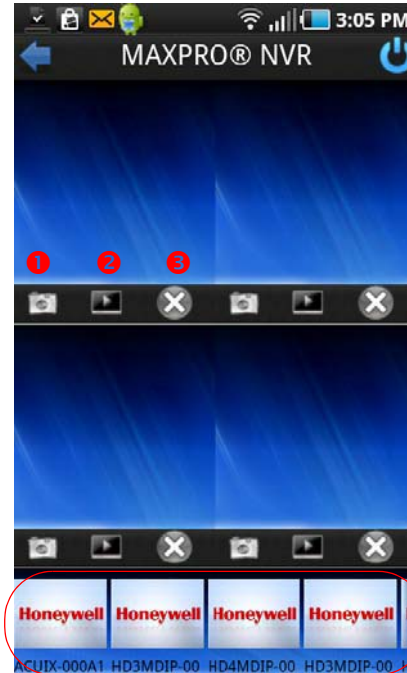
Legend	Legend
❶ SnapShot	❶ SnapShot
❷ Time search/Playback	❷ Time search/Playback
❸ Delete camera view	❸ Delete camera view
❹ Hide camera list	❹ Connected camera list
❺ Connected camera list	

To view live video, tap and drag a camera box in the Camera List to a viewing panel in the quad view, as shown below.
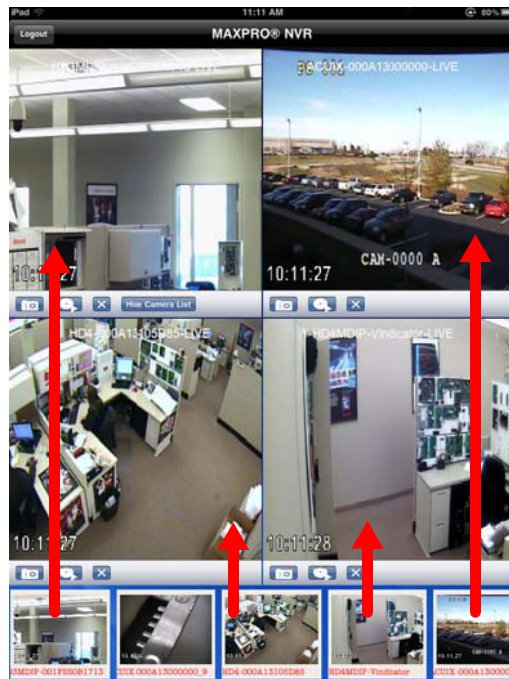
Apple mobile device	Android mobile device
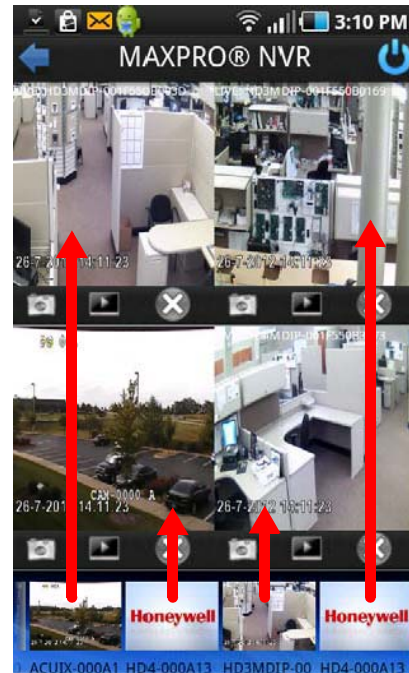
Viewing Live Video in Full Screen Mode

Double-tap on one panel in the quad view to view the video from that channel in full screen mode. To return to quad view, double-tap on the panel again.

Apple mobile device	Android mobile device

Hiding the Camera List

To hide the camera thumbnails in the Camera List at the bottom, tap Hide Camera List. The icon turns to **Show Camera List**. Tap it again to show the camera thumbnails.

Apple mobile device	Android mobile device
	Note This feature is not currently available on an Android mobile device.

Removing a Camera from Live View

To remove video from one channel on the viewing display, tap ✕ underneath that panel.

Searching for Recorded Video and Playback

To search for recorded video from one channel on the video display:

Task	Apple mobile device	Android mobile device
1. To set the search parameters:	Tap underneath that panel. The date/time wheel displays.	Tap underneath that panel. The date/time keypad displays.
2. To select a specific date:	Swipe the date wheel downwards	Tap the + or **-** under the date, OR Tap the number and enter the desired date.
3. To select a specific time:	Swipe the hour, minute, and AM/PM wheels downwards.	Tap the + or **-** under the time, OR Tap the number and enter the desired time.
4. To play back the video starting from the date and time selected:	a. Tap under the wheel. b. Tap to turn off the date/time wheel.	Tap **Search**.

Taking a SnapShot

Tap under that panel. This feature is available in both 2x2 mode and full screen mode.

Emailing a SnapShot

The snapshot image can be sent by email:

Apple mobile device	Android mobile device
1. Tap **Photos Album** to open the photo library**.**	Open file explorer and browse to the path /***mnt***/***sdcard*** where the snapshot images are stored.
2. Select the desired image.	Select the desired image.
3. a. Tap the **forward** icon. b. Tap **Email Photo**.	a. Tap the screen to open the **Menu**. b. Tap **Share** and then tap **Email**.

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https//honeywellsystems.com/ss/techsupp/index.html

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