Honeywell

MAXPRO® NVR 3.1

Commissioning and Installation Guide

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About This Guide

Overview

This guide describes the installation and commissioning guidelines for setting up the MAXPRO® NVR system.

Introducing MAXPRO NVR

Honeywell's MAXPRO NVR family includes turnkey solutions with NVR (XE,SE,PE) - 8 to 32 channels, NVR Hybrid (XE,SE,PE) - 16 to 32 channels and software NVR solutions that range from 4 to 32 channels. It supports ONVIF (including support for Profile-S devices) and PSIA interoperability standards, as well as RTSP, and features native integration to cameras and encoders from Honeywell, Axis, 360^0 (Immervision, Oncam Grandeye) and other manufacturers truly making it an open system. The advanced IP video capabilities make MAXPRO NVRs easy to install with 3-clicks to live video and easy to use with features like Video Surround, Calendar Search and Smart VMD for every day security users to advanced video surveillance users. MAXPRO NVR provides easy to use desktop clients, web client and mobile apps - MAXPRO® Mobile.

The following table lists the various **MAXPRO NVR** variants that are available.

	MAXPRO NVR XE (Xpress Edition)	MAXPRO NVR SE (Standard Edition)	MAXPRO NVR PE (Professional Edition)	MAXPRO NVR Software
Description	• Simple, affordable NVR	• Flexible, scalable NVR	• Enterprise class NVR	• Flexible, software only NVR
Channels	• 8 or 16	• up to 32	• up to 32	• 4,8,16 or 32

	MAXPRO NVR XE (Xpress Edition)	MAXPRO NVR SE (Standard Edition)	MAXPRO NVR PE (Professional Edition)	MAXPRO NVR Software
Maximum Frame Rate **at 4CIF/VGA IP** **at 720p IP** **at 1080p IP**	 • 480 fps • 480 fps • 400 fps	 • 960 fps • 960 fps • 640 fps	 • 960 fps • 960 fps • 640 fps	 • Server hardware dependent- Minimum hardware specs recommended for various fps
Storage	• 1 - 3TB internal fixed	• 1- 24 TB, removable bays	• up to 24 TB RAID 5/6, removable bays	• Server hardware dependent
Form Factor	• Desktop	• Workstation/Server	• Server	• Server hardware dependent

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

	MAXPRO NVR Hybrid XE (Xpress Edition)	MAXPRO NVR Hybrid SE (Standard Edition)	MAXPRO NVR Hybrid PE (Professional Edition)
Description	• Simple, Affordable NVR Hybrid	• Flexible, Scalable NVR Hybrid	• Enterprise Class NVR Hybrid
Channels	• 16 Analog or 16 IP	• 16 Analog and 16 or 32 IP	• 16 Analog and 16 IP or 32 IP
Maximum Frame Rate **at 4CIF/VGA IP** **at 720p IP** **at 1080p IP** **at CIF or 4CIF/D1Analog**	• 480 fps (16 ch IP) • 480 fps (16 ch IP) • 400 fps (16 ch IP) • 480 fps CIF or 120 fps 4CIF/D1 (16 ch Analog)	• 960 fps (32 ch IP) • 960 fps (32 ch IP) • 640 fps (32 ch IP) • 480 fps CIF or 120 fps 4CIF/D1 (16 ch Analog)	• 960 fps (32 ch IP) • 960 fps (32 ch IP) • 640 fps (32 ch IP) • 480 fps CIF or 120 fps 4CIF/D1 (16 ch Analog)
Storage	• 1 - 3 TB, internal fixed	• 1 - 12 TB removable bays	• up to 24 TB RAID 5/6, removable bays
Form Factor	• Desktop	• Workstation/Server	• Server

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

MAXPRO NVR Single-box Solution

MAXPRO NVR Single-box solution is available in the following three editions.

- MAXPRO NVR XE (Xpress Edition) supports up to 8 or 16 IP cameras.
- MAXPRO NVR SE (Standard Edition) supports up to 32 IP cameras.
- MAXPRO NVR PE (Professional Edition) supports up to 32 IP cameras.

MAXPRO NVR Hybrid Single-box solution is available in the following two editions.

- MAXPRO NVR Hybrid XE (Xpress Edition) supports 16 analog or 16 IP cameras.
- MAXPRO NVR Hybrid SE (Standard Edition) supports up to 16 Analog and 16 or 32 IP.
- MAXPRO NVR Hybrid PE (Professional Edition) supports up to 16 Analog and 16 or 32 IP.

Honeywell's MAXPRO NVR Single-boxed solution is an ideal solution for entry into IP video surveillance systems. MAXPRO NVR utilizes Honeywell's High-definition cameras to offer a powerful high definition IP recording and security monitoring system for different installations. MAXPRO NVR comes pre-installed with the required software and pre-licensed with the required channels depending on the MAXPRO NVR edition you purchase.

MAXPRO NVR Software Only Solution

Honeywell's MAXPRO NVR Software 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®Mobile. MAXPRO NVR Software comes with all required software applications and a license for 4, 8, 16 or 32 channels allowing for up to 32 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.

Intended Audience

This document is intended for field and commissioning engineers.

Scope

This guide describes the installation and commissioning procedures for both the MAXPRO NVR boxed solution and MAXPRO NVR software-only solution.

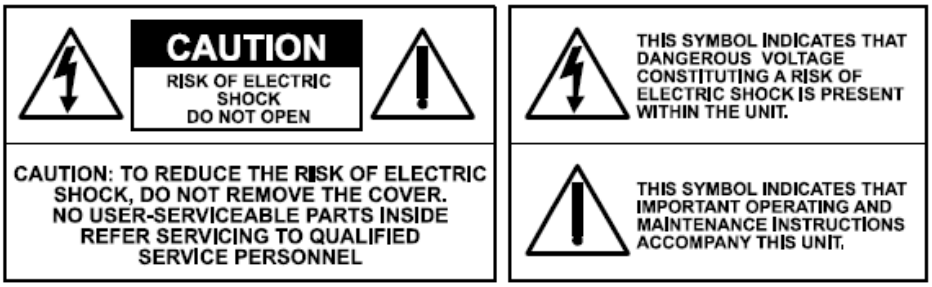
Overview Of Contents

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

No	Chapter	Description
1	Commissioning Plan	Describes the commissioning procedures for the MAXPRO NVR system.

No	Chapter	Description
2	Setting up the MAXPRO NVR	Describes the tasks to set up the: • MAXPRO NVR Single-box Turnkey solutions. • MAXPRO NVR Software-Only solution.
3	Installing MAXPRO NVR	Describes the procedures to install the MAXPRO NVR software.
4	Configuring MAXPRO NVR	Describes the tasks for configuring MAXPRO NVR.
5	Verifying the Configuration	Describes the tasks to verify the MAXPRO NVR configuration.
6	Appendix	Describes the procedures to customize MAXPRO NVR Single-box Turnkey solutions and setting up the Antivirus software on MAXPRO NVRs.

Cautions and Warnings



Installation and servicing should be performed only by qualified and experienced technicians to conform to all local codes and to maintain your warranty.

WEEE (Waste Electrical and Electronic Equipment). Correct disposal of this product (applicable in the European Union and other European countries with separate collection systems). This product should be disposed of, at the end of its useful life, as per applicable local laws, regulations, and procedures.

FCC Compliance Statement

Information to the User: This equipment has been tested and found to comply with the limits for a Class A digital device. Pursuant to Part 15 of the FCC Rules, these limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la Classe B est conforme à la norme NMB-003 du Canada.

Important Safeguards

1. Read Instructions

   All the safety and operating instructions should be read before the appliance is operated.

2. Retain Instructions

   The safety and operating instructions should be retained for future reference.

3. Cleaning

   Unplug this equipment from the wall outlet before cleaning it. Do not use liquid aerosol cleaners. Use a damp soft cloth for cleaning.

4. Attachments

   Never add any attachments and/or equipment without the approval of the manufacturer as such additions may result in the risk of fire, electric shock, or other personal injury.

5. Water and/or Moisture

   Do not use this equipment near water or in contact with water.

6. Ventilation

   Place this equipment only in an upright position. Ensure product ventilation openings are not obstructed.

7. Accessories

   Do not place this equipment on an unstable cart, stand, or table. The equipment may fall, causing serious injury to a child or adult, and serious damage to the equipment. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.

   This equipment and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the equipment and cart combination to overturn.

8. Power Sources

   This equipment should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power, please consult your equipment dealer or local power company.

9. Power Cords

   Operator or installer must remove power, BNC, alarm, and other connections before moving the equipment.

10. Lightning

    For added protection for this equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the equipment due to lightning and power-line surges.

11. Overloading

Do not overload wall outlets and extension cords to avoid the risk of fire or electric shock.

12. Objects and Liquids

    Never push objects of any kind through openings of this equipment as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the equipment.

13. Servicing

    Do not attempt to service this equipment yourself. Refer all servicing to qualified service personnel.

14. Damage Requiring Service

    Unplug this equipment from the wall outlet and refer servicing to qualified service personnel under the following conditions:

    - When the power-supply cord or the plug has been damaged
    - If liquid is spilled or objects have fallen into the equipment
    - If the equipment has been exposed to rain or water
    - If the equipment does not operate normally by following the operating instructions, adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the equipment to its normal operation.
    - If the equipment has been dropped or the cabinet damaged
    - When the equipment exhibits a distinct change in performance-this indicates a need for service.

15. Replacement Parts

    When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

16. Safety Check

    Upon completion of any service or repairs to this equipment, ask the service technician to perform safety checks to determine that the equipment is in proper operating condition.

17. Field Installation

    This installation should be made by a qualified service person and should conform to all local codes.

18. Correct Batteries

WARNING! **Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.**

19. Operating Temperature

    An operating temperature range is specified so that the customer and installer may determine a suitable operating environment for the equipment.

20. Elevated Operating Ambient Temperature

If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the specified operating temperature range.

21. Reduced Air Flow

    Installation of the equipment in the rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.

22. Mechanical Loading

    Mounting of the equipment in the rack should be such that a hazardous condition is not caused by uneven mechanical loading.

23. Circuit Overloading

    Consideration should be given to connection of the equipment to supply circuit and the effect that overloading of circuits might have on over-current protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

24. Reliable Earthing (Grounding)

    Reliable grounding of rack mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (for example, use of power strips).

Warranty and Service

Subject to the terms and conditions listed on the Product warranty, during the warranty period Honeywell will repair or replace, at its sole option, free of charge, any defective products returned prepaid.

In the event you have a problem with any Honeywell product, please call Technical Support at 1-800-323-4576 (North America only) for assistance or to request a **Return Merchandise Authorization (RMA)** number.

Be sure to have the model number, serial number, and the nature of the problem available for the technical service representative.

Prior authorization must be obtained for all returns, exchanges, or credits. **Items shipped to Honeywell without a clearly identified Return Merchandise Authorization (RMA) number may be refused.**

Related Documents

This document listed in the table serves as a necessary prerequisite for understanding MAXPRO NVR.

Document title	Part number	Description
MAXPRO NVR Operator's Guide	800-16422V1-Rev-A	This document is written for everyday MAXPRO NVR users who perform the basic video surveillance operations.

Typographical Conventions

This guide 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.
	Heading	**Installation**
	Cross-reference to external source	Refer to the ***System Administrator Guide*.**
	Cross-reference within document	See Installation.

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1 Commissioning Plan

Overview

Commissioning is the process of installing, configuring, and setting up the MAXPRO NVR system hardware and software. At the end of the commissioning process, the MAXPRO NVR system is equipped for use by operators to perform video surveillance operations.

Steps in the Commissioning Process

The process of commissioning involves the following phases.

Setting up the MAXPRO NVR

Setting up the MAXPRO NVR involves:

- Determining the number of MAXPRO NVR server and client computers at the location.
- Choosing the desired MAXPRO NVR system architecture.
- Connecting the monitors to the MAXPRO NVR. After connecting the monitors, configure the monitor display properties.
- Connecting the keyboards (for example, Ultrakey) to the MAXPRO NVR unit.

Note: See Setting up the MAXPRO NVR for information on how to setup the MAXPRO NVR system.

Installing the Software in the Server and Client Computers

Caution: For the Honeywell's boxed solutions: MAXPRO NVR XE,SE,PE and MAXPRO NVR Hybrid XE,SE,PE, the server and client software required is already installed on the box. Hence the instructions in this section for server software fresh installation are **NOT** applicable.

Installing the software involves the following steps:

- The server and client computers meet the minimum hardware and software requirements.
- Installing the MAXPRO NVR software.

Note: See Installing MAXPRO NVR for information on software requirements and installation instructions for the MAXPRO NVR software.

Configuring MAXPRO NVR

In this phase, you need to configure the MAXPRO NVR through the user interface. Configuring MAXPRO NVR includes the following:

- Configuring the Honeywell cameras with MAXPRO NVR Wizard
- Configuring the system level settings
- Configuring the disk management settings
- Configuring the schedule based recording for cameras
- Performing user administration

Note: See Configuring MAXPRO NVR for information on how to configure the MAXPRO NVR system.

Verifying the Configuration

- Verifying the configuration involves checking whether the surveillance operations can be performed using MAXPRO NVR. Surveillance operations include: viewing the live video, performing the pan, tilt, and zoom on the video, and starting the video recording.

Note: See Verifying the Configuration for information on how to perform the verification.

2

Setting up the MAXPRO NVR

Overview

This chapter describes the settings for setting up the MAXPRO NVR system.

- For setting up the MAXPRO NVR Single-box solution, see Settings for the MAXPRO NVR Single-box Turnkey Solution.
- For setting up the MAXPRO NVR Software-Only solution, see Settings for the MAXPRO NVR Software-Only Solution.

Settings for the MAXPRO NVR Single-box Turnkey Solution

Setting up the MAXPRO NVR unit and client computers is the first phase in the commissioning process.

Note: Refer to the specific ***MAXPRO NVR Data Sheet*** for information on hardware specifications for the MAXPRO NVR unit.

MAXPRO NVR SE System Diagram

The following figure illustrates the MAXPRO NVR SE system diagram.

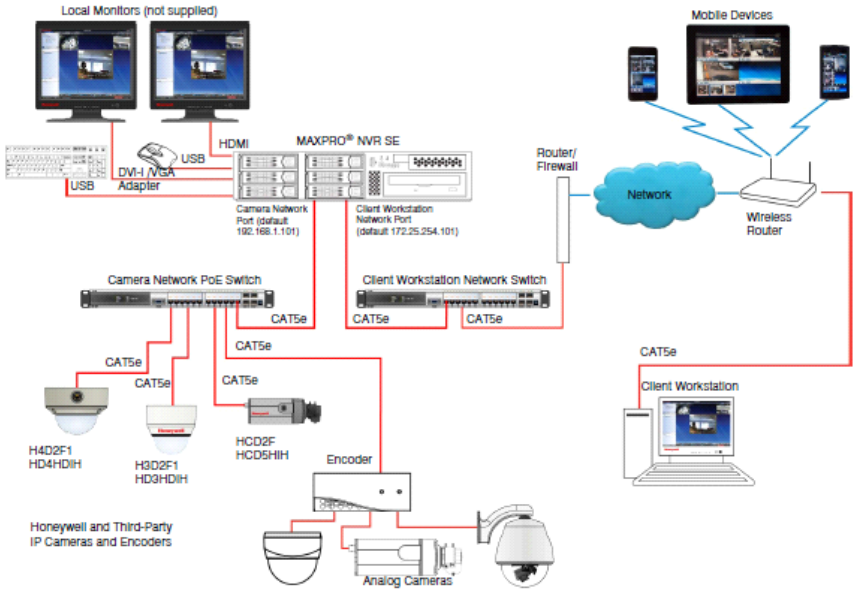

Figure 2-1 MAXPRO NVR SE System Diagram

Note: The diagrams for other NVRs ((XE, PE and Software only) look similar to the MAXPRO NVR SE, with the NVR box replaced by the respective NVR.

MAXPRO NVR Hybrid SE System Diagram

The following figure illustrates the MAXPRO Hybrid NVR SE system diagram.

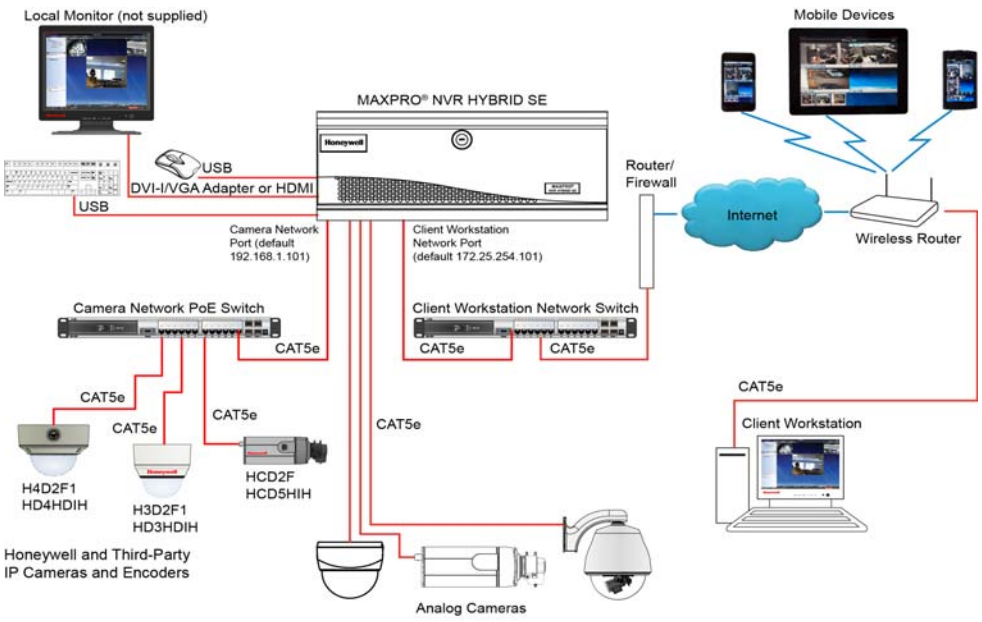

Figure 2-2 MAXPRO NVR Hybrid SE System Diagram

Note: The diagrams for other NVR Hybrid units (XE,PE) look similar to the MAXPRO NVR Hybrid SE, with the NVR Hybrid box replaced by the respective NVR Hybrid.

Connecting the Monitors

The number of monitors that you can connect to the MAXPRO NVR unit varies based on the NVR Edition you purchase. Refer to the specific ***MAXPRO NVR Data Sheet*** for more information.

Powering on the MAXPRO NVR Unit

This section describes the steps to power on the MAXPRO NVR unit.

Note: Honeywell recommends using an Uninterrupted Power Supply (UPS) for the MAXPRO NVR unit and the cameras. Powering the cameras and unit from a UPS ensures that the MAXPRO NVR unit can continue to record video during a power outage. If you need to monitor video during a power outage, consider a UPS for the client workstations as well.

To power on the MAXPRO NVR unit

1. Turn on camera(s) and other hardware connected to the MAXPRO NVR unit.
2. Press and hold the power button on front of the MAXPRO NVR unit. The power button turns “blue” after the MAXPRO NVR unit is turned on.
3. After powering on the unit, you are prompted to log on. The default user is user name: **Administrator**, password: **Password1**. The user name and password are case sensitive. After logging in, the MAXPRO NVR Wizard automatically starts up.

Note:

- You can change the default password, **Password1,** see the Changing the default Windows Password on MAXPRO NVR section for more information.
- Refer to the ***MAXPRO NVR Operator’s Guide*** for more information on the MAXPRO NVR Wizard.

To turn off the power for MAXPRO NVR

1. Close the MAXPRO NVR application.
2. Click **Start**>**Shut Down**. Wait for the MAXPRO NVR unit to shut down.

Changing the MAXPRO NVR IP Address and Machine Name

Your MAXPRO NVR unit has pre-configured network ports with the following default IP addresses.

- 192.168.1.101 for NIC1 (Camera Network)
- 172.25.254.101 for NIC2 (Client Workstation Network)

Note: NIC2 is not available on all NVR options, please refer to the data sheet for more information.

If more than one MAXPRO NVR unit is on the same network, it is recommended that you assign a unique IP address and computer name to each unit (the default name is MAXPRO-NVR).

To change the IP address

1. Click the network icon in the notification area, click **Open Network and Sharing Center**, and then click **Change adapter settings**.

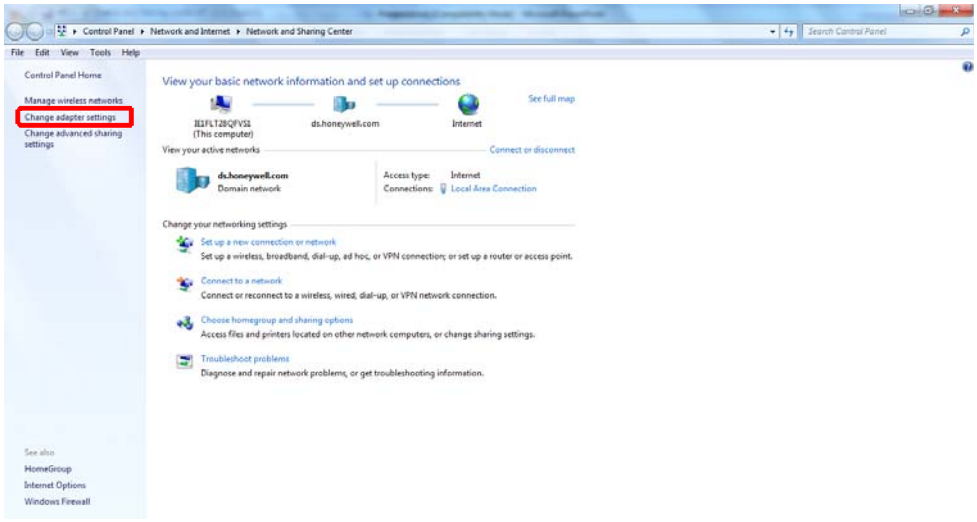

Figure 2-3 Network and Sharing Center

2. Right-click **Camera Network** or **Client Workstation Network**, and then click **Properties**. The **Local Area Connection Properties** dialog box similar to the following figure appears.

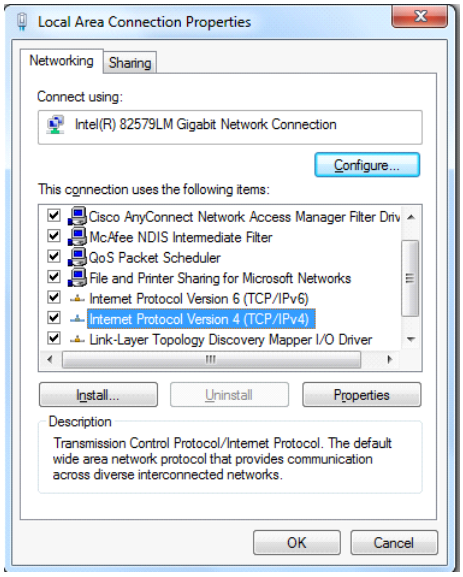

Figure 2-4 LAN Properties

3. Click **Internet Protocol Version 4 (TCP/IPv4),** and then click **Properties**.

4. Click **Use the following IP address**, and then, in the **IP address**, **Subnet mask**, and **Default gateway** boxes, type the IP address settings.

5. Click **Use the following DNS server addresses**, and then, in the **Preferred DNS server** and **Alternate DNS server** boxes, type the addresses of the primary and secondary DNS servers.

To change the computer name

1. Click **Start**, right-click **Computer**, and then click **Properties**, The **System** window appears.

2. Click **Advanced system settings**. The **System Properties** dialog box appears.

3. Click the **Computer Name** tab, and then click **Change...**

4. In **Computer name**, delete the old computer name, type a new computer name, and then click **OK**. The name cannot contain spaces or all numbers or any of the following characters: < >;: “ * + = \ | ?.

5. After changing the computer name, you are prompted to restart the computer.

6. Navigate to the **C:\Program Files\Honeywell\MaxproNVR\TrinityFramework\bin** folder, and then double-click **MaxProNVRMachineNameUtility.exe** to open the Maxpro NVR Utility.

7. The new computer name automatically appears in the **Machine Name** field. If it does not, enter the name manually and click **Update**. The message “Machine Name Updated Successfully” appears when the update is complete.

Settings for the MAXPRO NVR Software-Only Solution

Setting up the MAXPRO NVR server and client computers is the first phase in the commissioning process.

Before you Begin

Determine the following at the location.

- Number of server and client computers.
- Hardware configuration of the computers.
- Number of peripheral devices such as joystick controllers (Ultrakey keyboard), and other devices.

Hardware Specifications

The MAXPRO NVR server and client computers must meet the minimum hardware specifications, refer to the ***MAXPRO NVR Software Data Sheet*** for more information.

MAXPRO NVR Software System Architecture

MAXPRO NVR Standalone System

The following figure illustrates the MAXPRO NVR Standalone system.

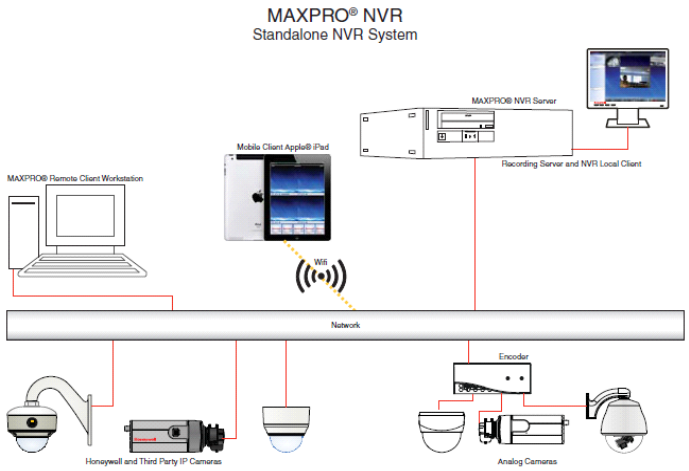

Figure 2-5 MAXPRO NVR Standalone System

MAXPRO NVR Distributed System

The following figure illustrates the MAXPRO NVR Distributed system.

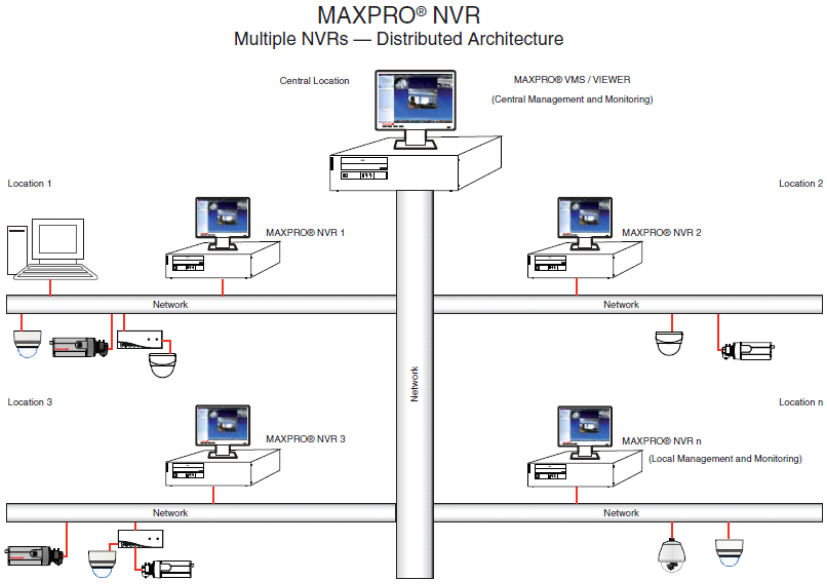

Figure 2-6 MAXPRO NVR Distributed System

Configuring the Monitor Display Properties

The recommended display settings for the monitor are dialog box resolution of 1280 x 1024 pixels and color quality of 65K colors non-interlaced. The display settings can be configured from the Windows control panel or from the Windows desktop through the context menu.

To configure the display settings from the context menu in the Windows desktop

1. Right-click the Windows desktop and select **Screen resolution**.
2. Select the appropriate **Resolution**.
3. Click **OK** to close the dialog box.

To configure the display settings from the Windows control panel

1. Go to Windows control panel.

Note: To open the control panel, click **Start** > **Control Panel**.

2. Under **Appearance and Personalization**, click **Adjust screen resolution**.
3. Select the appropriate **Resolution**.
4. Click **OK** to close the dialog box.

Connecting the Keyboard

Keyboards (all the supported models of MAXPRO NVR) can be connected to MAXPRO NVR without any configuration.

You can also connect Honeywell's UltraKey keyboard that represents an industry-leading approach to intelligent, user-friendly control of video management systems. Using the UltraKey keyboard, you can perform actions such as selecting a panel, PTZ operations, selecting a video source such as a camera, and others in the Viewer tab.

To connect a Keyboard to MAXPRO NVR

- The UltraKey can be connected through the Ethernet. Set the UltraKey IP Address and System Controller (IP Address of MAXPRO NVR) through the UltraKey configuration settings. Refer to the ***UltraKey manual*** for more information.

How to log on to the UltraKey Plus keyboard?

First time users of MAXPRO NVR must explicitly logon to UltraKey Plus keyboard in order to use MAXPRO NVR.

To logon to the UltraKey Plus keyboard

1. Power-on the UltraKey Plus keyboard.
2. Press the **Menu** key on the LCD.
3. Press the **MAX-1000 Setup** key on the LCD. The **Left**, **Up**, **Right**, and **Down** buttons appear on the LCD.
4. Press the **Ent** hard key located on the right side of the UltraKey Plus keyboard.
5. Enter the default PIN password 1234.
6. Press **Ent**. The UltraKey Plus keyboard is now ready for use for performing the video management functions.

How to log off from the UltraKey Plus keyboard?

To log off from an UltraKey Plus keyboard

1. Press the **Menu** key on the LCD.
2. Press the **MAX-1000 Setup** key on the LCD. The **Left**, **Up**, **Right**, and **Down** buttons appear on the LCD.
3. Press the **Down** key.
4. Press the **Ent** hard key twice located on the right side of the UltraKey Plus keyboard. The logoff confirmation message appears.
5. Press the **Ent** hard key.

MAXPRO NVR Hybrid Connections

This section describes various connections on Hybrid XE, SE and PE units.

Rear Panel Connectors

The rear panel of the NVR contains the connectors used for attaching cameras, sensors, and relays to the NVR. Below are the diagrams that outline the location and connections of Hybrid XE, SE and PE connector.

Hybrid XE Connections

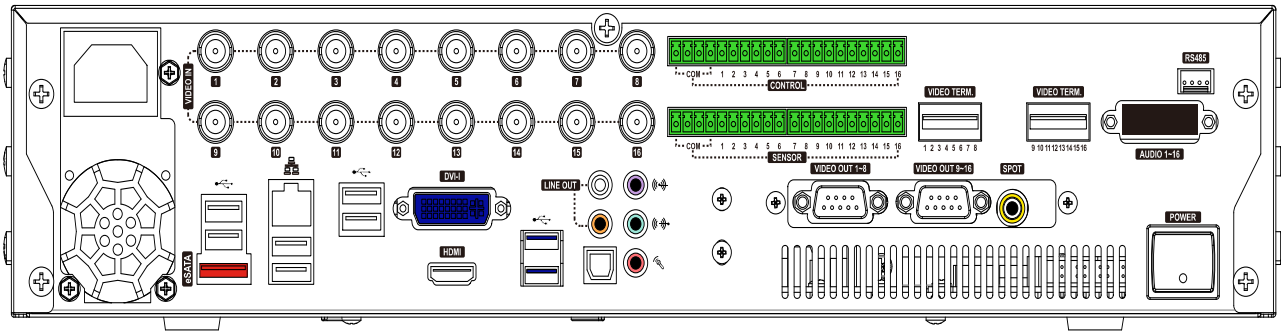

Figure 2-7 Hybrid XE Connections

Hybrid SE Connections

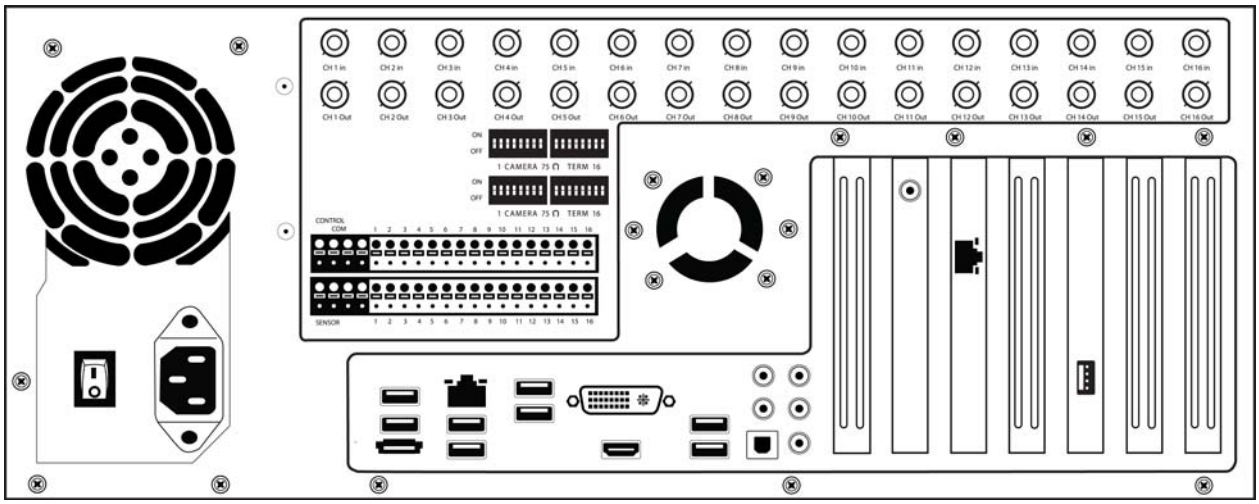

Figure 2-8 Hybrid SE Connections

Figure 2-9 Hybrid PE Connections

Connecting a Video Source

There are different types of Video Sources that can be plugged into the NVR including DVD players, VHS players, and CCTV Cameras. Hybrid XE,SE and PE support 16 channel analog video source. The connectors use the BNC standard.

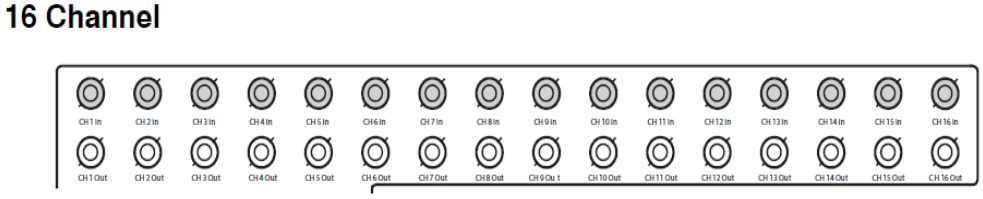

Figure 2-10 Connecting a Video Source

Note: The video inputs are 75 Ω BNC connectors. Plug one end into the video source (DVD, Camera, etc.) and plug the other end into the desired BNC input on the NVR.

Looping Output Termination

If the image appears distorted or virtually un viewable, turn the termination resister to ON position, it means terminated. When it is necessary to terminate a looping output, the NVR has built in termination that allows users to select individual outputs. It is not always necessary to terminate the output; it depends on the device to which you are connecting. As a rule, if the image appears distorted or virtually un viewable, it likely needs to be terminated.

Note: Please refer to the specific Hybrid unit data sheet for more information on number of looping outputs supported on a specific unit.

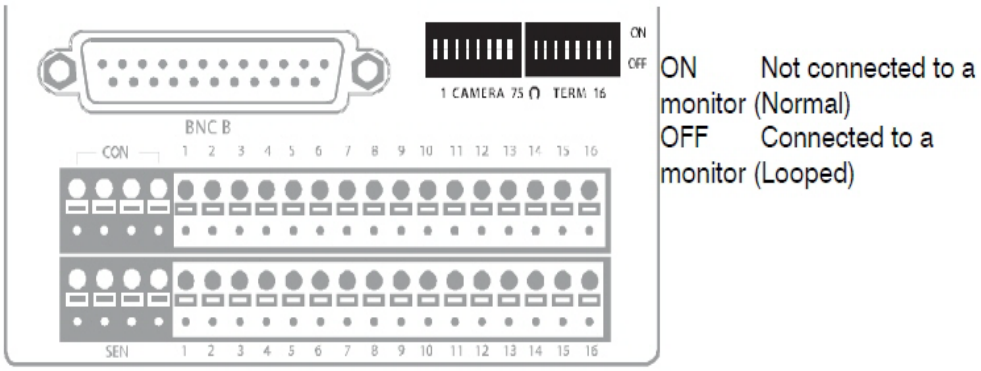

Figure 2-11 Looping Output Termination

Note: Always leave the dipswitch set to the ON position when the Looping Outputs are not used and only the installer should decide to turn it ON /OFF.

Connecting Control Outputs

Each NVR Hybrid has Control Outputs. These outputs can be used to trigger devices such as Sirens, Phone Dialers, Lights, and any other relay activated device. There is no power supplied to the ports. Use an external power supply if necessary.

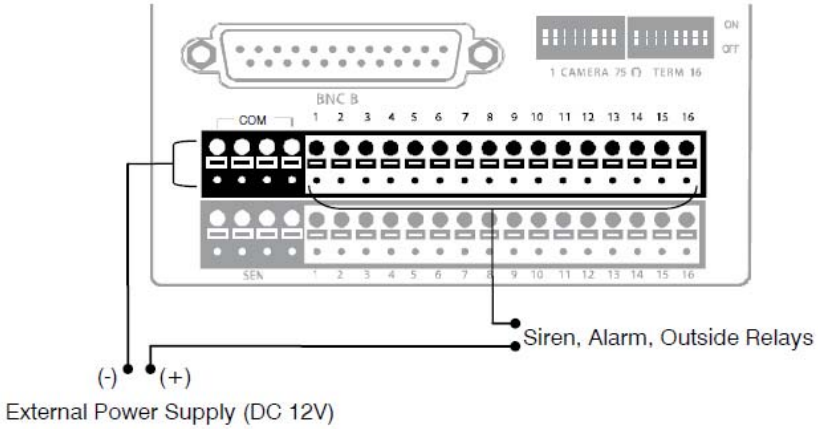

Figure 2-12 Control Outputs

Use 12V, below 300mA. For controlling lights or other devices, use another external relay.

- Maximum voltage is 24V AC @ 1 amp
- Output uses a Form C Relay

Note: Please refer to the specific Hybrid unit data sheet for more information on number of control outputs supported on a specific unit.

Connecting Sensors

Each NVR Hybrid has Sensor inputs. These inputs can be used with devices such as infrared devices, motion device, glass breakage alarms, door and window trips, and so on. The Sensors can be set to Normally Open or Normally Closed inside the software.

There are Common Grounds (-) and sensor inputs (+). There is no power supplied to the ports so an external power supply must be used if power is necessary.

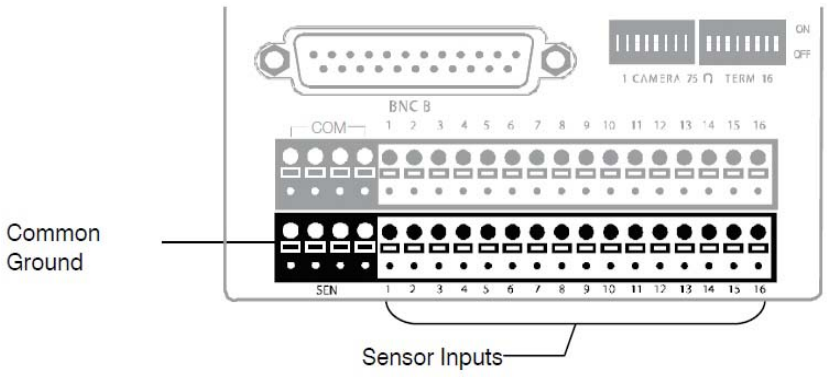

Figure 2-13 Connecting Sensors

Note: Please refer to the specific Hybrid unit data sheet for more information on number of sensor inputs supported on a specific unit.

Connecting an Analog PTZ Camera

Setting up a PTZ Camera is simple. The NVR Hybrid comes pre-assembled with an internal PTZ adapter. The cabling may be run up to 4,000 ft using 22 Gauge Twisted Pair. It is important to understand how the PTZ connects to the NVR. The NVR outputs an RS-232 signal and converts in to an RS-422/485 signal which is then sent to the PTZ camera.

Attaching the 4-Pin Adapter

To attach the 4-Pin Adapter

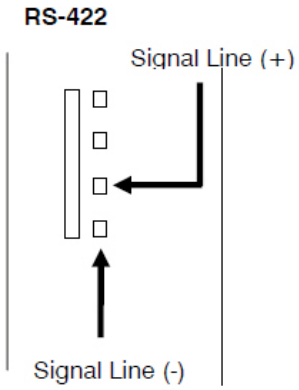

Figure 2-14 4-Pin Adapter

1. Locate the PTZ adapter cable

2. Connect the wires of the PTZ adapter to the PTZ camera. The yellow wire should connect to the RX+ on the camera and the orange wire should connect to the RX-.

3. Connect the other end of the adapter to the XVR unit as shown.

4. Assign the PTZ camera an ID number in PTZ Setup that coincides with the number assigned to the camera. This is normally done utilizing a dip-switch configuration method on the addressable dome. For Example: If the camera is plugged into input number 5, set the PTZ unit to ID number 5.

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3

Installing MAXPRO NVR

Overview

This chapter describes the procedures for installing the MAXPRO NVR software. Follow the appropriate section in this chapter to complete your MAXPRO NVR software installation.

Caution: For Honeywell's boxed solutions, MAXPRO NVR XE,SE,PE and MAXPRO NVR Hybrid XE,SE,PE, the server and client software required is pre-installed on the box. Hence the instructions in this chapter for Server software fresh installation are **NOT** applicable. On the boxes, only the installation upgrade process might apply depending on the existing software version on the box. For client workstations, the client installation procedure is applicable.

Before you Begin

- Ensure that the client and server computers meet the software and hardware requirements.
- Ensure that the requirements mentioned in the MAXPRO NVR Software Prerequisites section are fulfilled.

Before you Begin - Recommended Partition Arrangement for NVR Server

- It is recommended to create a seperate partition of 50GB or higher size for Metadata storage preferably on the non-OS hard drive in the NVR Server system. Metadata storage path can be selected during the install and changed from the default path on the OS partition.

Before you Begin - Windows Updates

- If Windows updates are enabled, the following warning message appears and the installation continues.

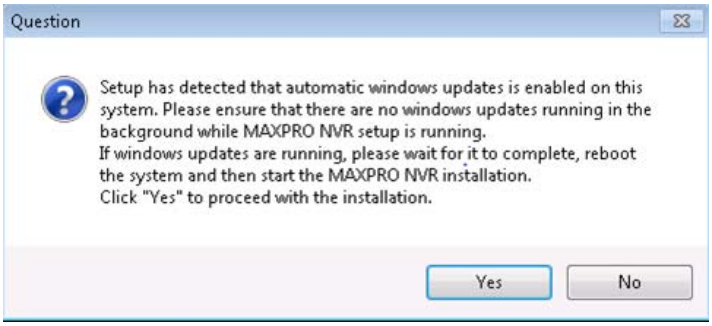


Figure 3-1 Automatic Windows Update Enabled Warning Message

- If any pending reboot is there due to windows updates, the following error message appears, and the installation stops. Please ensure that you reboot your computer after the Windows updates are finished.

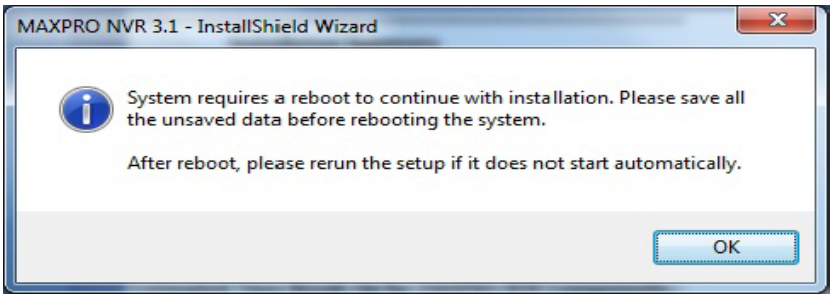


Figure 3-2 Pending Reboot Error Message

- -If "TrinityBackupScheduler" is created manually before the MAXPRO NVR installation or -If you have uninstalled MAXPRO NVR 2.5 (Build 22 or lesser version), then MAXPRO NVR Server installation fails to create "TrinityBackupScheduler" in case the scheduled task is already present in the machine. Hence it is recommended that you delete the Scheduled task before starting the installation.

  - **Manually** : **Control Panel**->**System and Security**->**Administrative Tools**->**Task Scheduler**->**Task Scheduler Library**->**Delete TrinityBackupScheduler** OR **Cmd Prompt** : **C:\windows\system32\"SchTasks.exe" /Delete /TN "TrinityBackupScheduler" /F**

- Ensure that **services.msc** console is closed before Installing or upgrading the MAXPRO NVR.

Before you Begin - Disable Defragmentation

Before starting the installation of MAXPRO NVR, it is recommended that you disable Defragmentation.

To disable Defragmentation

1. Click **Start** -> **Run** -> type “DFRGUI”.

2. In the **Disk Defragmenter** dialog click **Configure Schedule**

3. Click to clear the **Run on the schedule(recommended)** check box.

4. . Disable Defragmentation Task: Delete ScheduledDefrag Task

   - Click **Start, (Right click) Computer-> Manage, select Task scheduler ->Task scheduler library -> Microsoft -> Windows -> Defrag**. Right click on the **ScheduleDefrag** and then select **Disable.**

5. Changes in Registry Settings to disable defragmentation at boot time

   a. Open the **Registry Editor**. Navigate to **HKEY_LOCAL_MACHINE>SOFTWARE> Microsoft> Dfrg> BootOptimizeFunction**.

   b. Right-click on the keyword "**Enable**" and then click **Edit**..

   c. In the **Value Data** field type, **N** and then click **OK**..

   d. Right-click on the keyword "**Optimizecomplete**" and then click **Edit**.

   e. In the **Value Data** field, replace **Yes** with **No**. (case sensitive) Click **OK**..

   f. Close the Registry Editor. The changes are effective when Windows is restarted.

Before you Begin - Disable Volume Shadow Copy, Windows Backup Services

1. Turn off the Protection settings for all the drives including OS installed drive in **My Computer** -> **Properties** -> **Advanced System Settings** -> **System Protection** tab.

2. Select the drive under **Protection settings** and click **Configure**.

3. Under **Restore Settings** select **Turn off system protection** and click **OK**.

MAXPRO NVR Software Prerequisites

Before you install Honeywell MAXPRO NVR software, please note the MAXPRO NVR Server requirements listed in the following section.

MAXPRO NVR Server

The computer that is designated as the server must run on one of the following operating systems.

Microsoft® Windows® 7 Professional 32-bit, 64-bit

- Service pack 1 must be installed on the NVR before installing MAXPRO NVR software.

Microsoft® Windows® Server 2008 R2

- Service pack 1 must be installed on the NVR before installing MAXPRO NVR Software.

System Requirements

The client and server computers must meet the hardware and software specifications listed in the respective NVR Data Sheet.

MAXPRO NVR Software Installation

To complete the MAXPRO NVR software installation follow the procedures in these sections.

1. First, How to Install MAXPRO NVR
2. Choose the installation that best suits your requirements, and follow the appropriate steps.
   - Full Installation
   - Client Installation

How to Install MAXPRO NVR

To install MAXPRO NVR

1. Insert the MAXPRO NVR DVD in the DVD drive. The setup runs automatically. If the setup does not run automatically, browse the DVD drive, and double-click **setup.exe**. The installation wizard starts and Figure 3-3 appears.

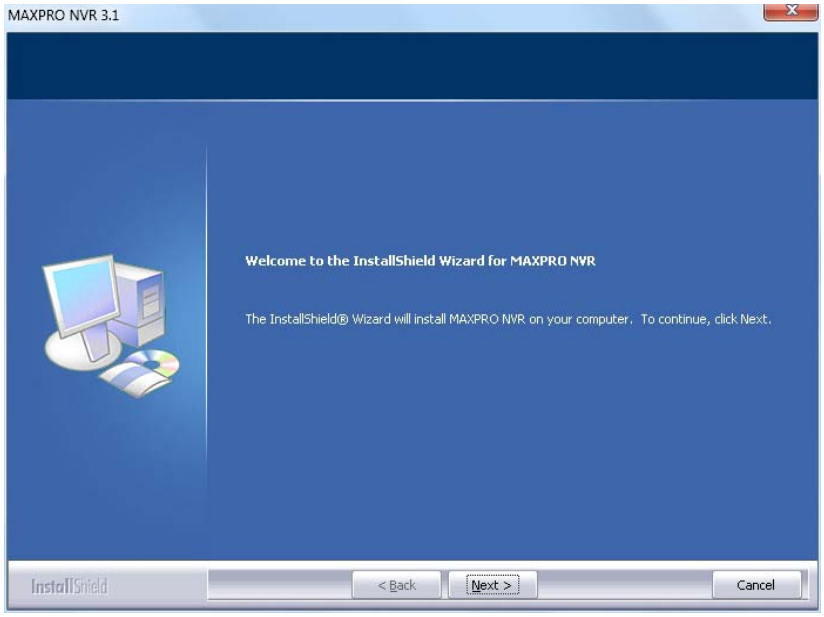
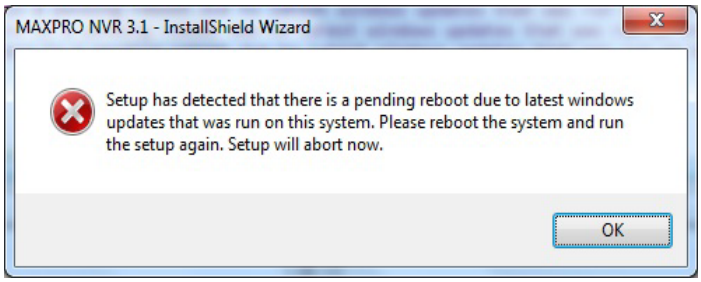


Figure 3-3 Welcome

Note If any pending reboot is there due to windows updates, the following error message appears, and the installation stops. Please ensure that you reboot your computer and run the setup again.



2. Click **Next**. Figure 3-4 appears displaying the license agreement for the MAXPRO NVR.

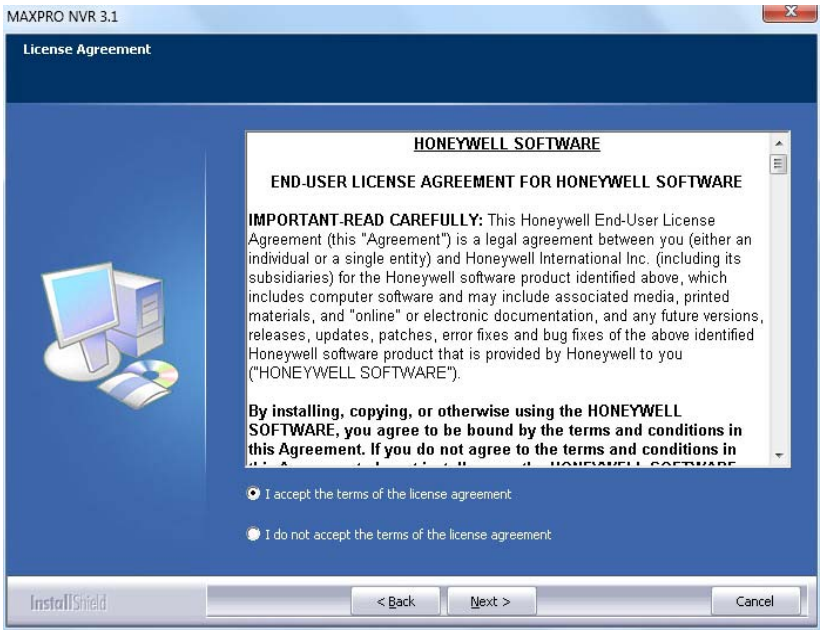


Figure 3-4 License Agreement

3. Read the license agreement, and then click **I accept the terms of the license agreement** to accept the license agreement.

4. Click **Next**. Figure 3-5 appears.

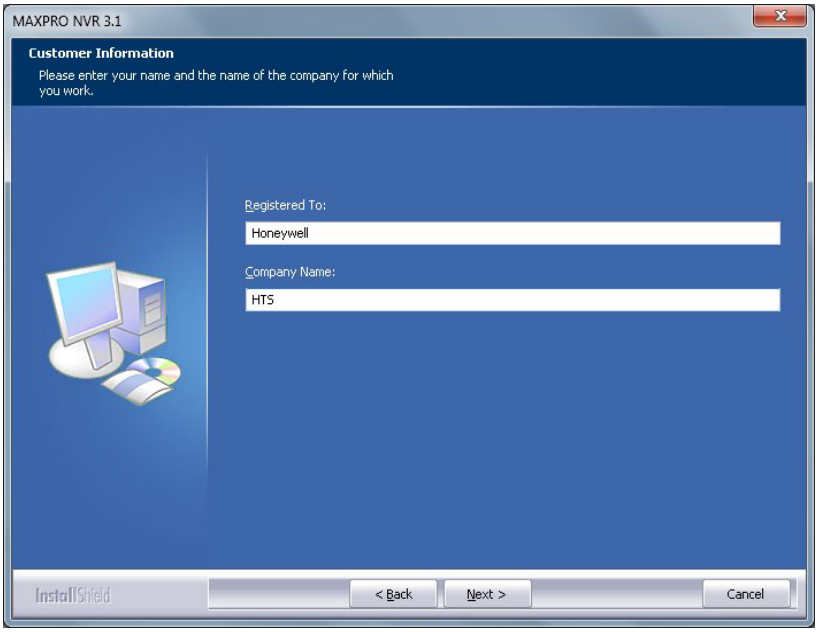


Figure 3-5 Customer Information

5. Type your **Registered To** name.

6. Type your **Company Name**.

7. Click **Next**. Figure 3-6 appears.

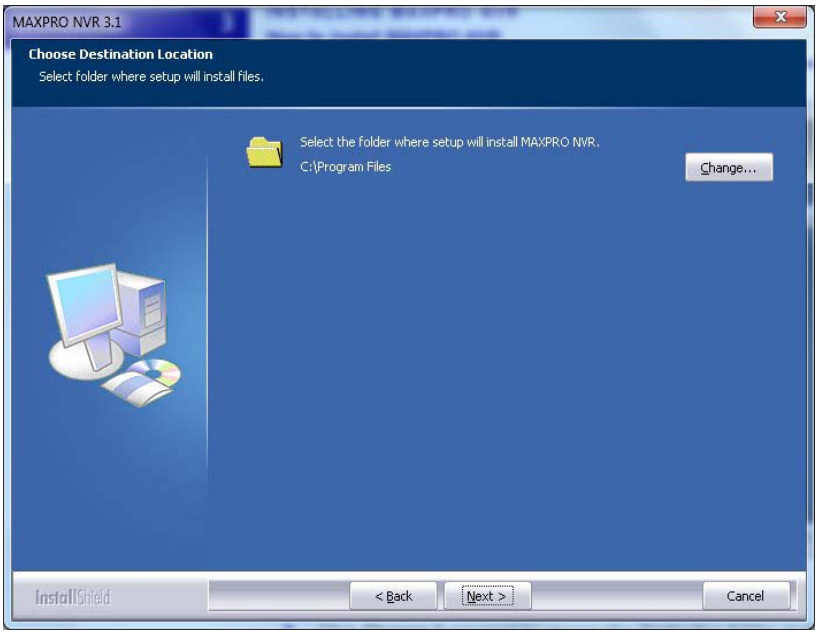


Figure 3-6 Choose Destination Folder

8. Click **Change** if you want to change the destination folder, and then select the folder where MAXPRO NVR must be installed.

9. Click **Next**. Figure 3-7 appears.

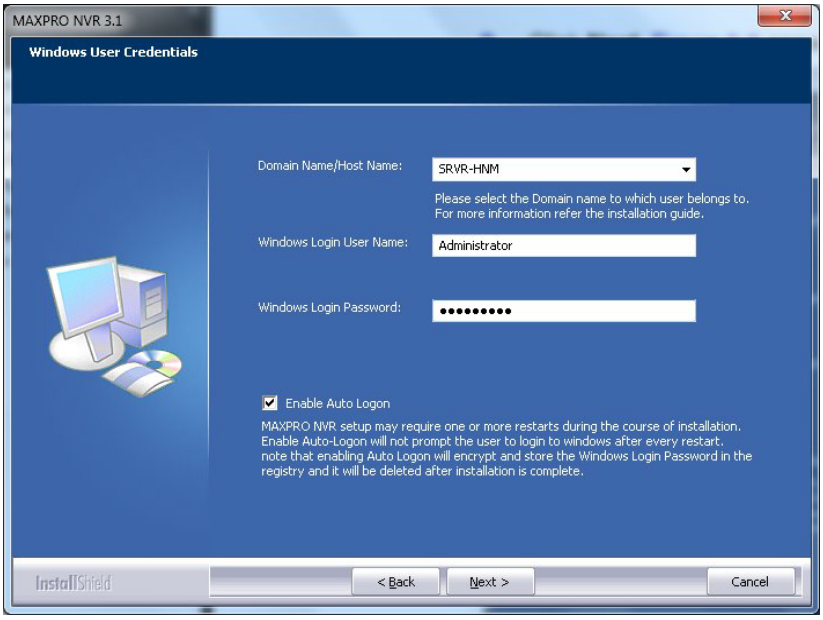


Figure 3-7 Validation of User Credentials

10. Select your **Domain Name**/**Host Name** from the domains listed.

11. Type your **Windows User Name**.

12. Type your **Windows Password**.

Note: For Honeywell boxed solutions (XE,SE,PE) the default Windows user name is **Administrator** and Windows password is **Password1**.

13. Click **Next**. A message “Enabling Auto Logon is not secure as the Password will be stored in the Registry. Do you want to continue” appears. Click **Yes**. Figure 3-8 appears.

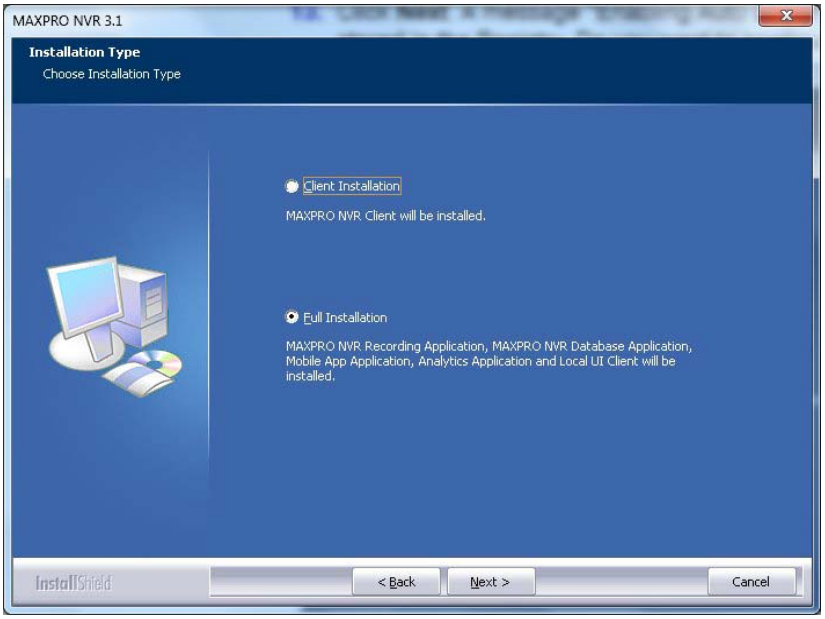


Figure 3-8 Choose Installation Type

14. Select **Client Installation** or **Full Installation** that applies to your installation.

Table 2-1 Select Features to Install

Full Installation	Installs Trinity Framework, MAXPRO NVR Recording Application, MAXPRO NVR Database Application, Mobile App Application, Analytics Application and MAXPRO NVR Client on the same computer. See Full Installation for more information.
Client Installation	Installs Client, Trinity Framework, and Adapters. See Client Installation for more information.

Full Installation

Full installation can be selected to install the Server and Client on the same system.

To perform full installation

1. Perform steps 1 through 14 of How to Install MAXPRO NVR, select **Full Installation** in Figure 3-8, and then click **Next**. Figure 3-9 appears.

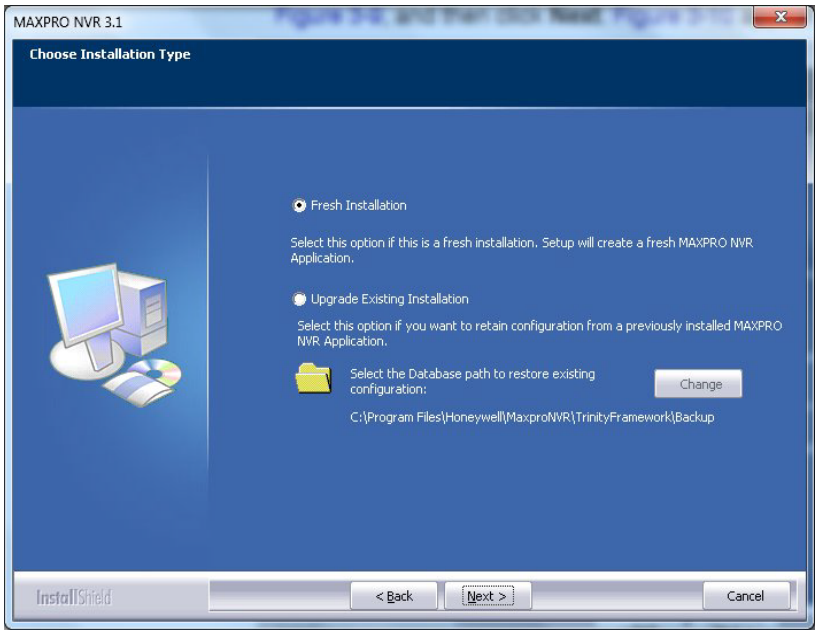


Figure 3-9 Database Installation Type

2. You have two options to choose.

   - Click **Fresh Installation,** if you installing MAXPRO NVR for the first time and click **Next**. Figure 3-10 appears.

   Or

3. Click **Upgrade\Retain**, if you want to retain/restore the configuration settings from a backup of the previously installed version of MAXPRO NVR and click **Next**. Figure 3-10 appears.

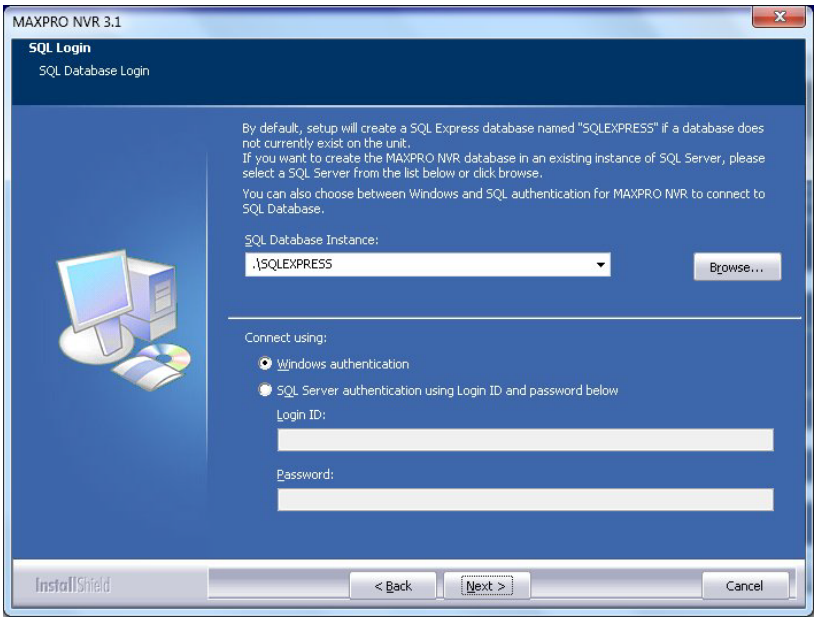


Figure 3-10 Database Server Login

4. Click **Browse**, and then select any existing SQL database server instance. You can select the existing SQL database server instance on the same network. If you do not want to select an existing database server instance, proceed to step **5**.

5. Select **Connect using** option as **Windows authentication** or **SQL Server authentication**.

   - If you select **SQL Sever authentication**, type the **Login ID** and **Password**.

Note: If you are installing MAXPRO NVR on a new computer that does not have SQL Server 2008 Express installed, you are prompted to install it. Follow the on-screen instructions to complete the installation.

6. Click **Next**. The SQL credentials validation status appears. After successful validation, Figure 3-11 appears..

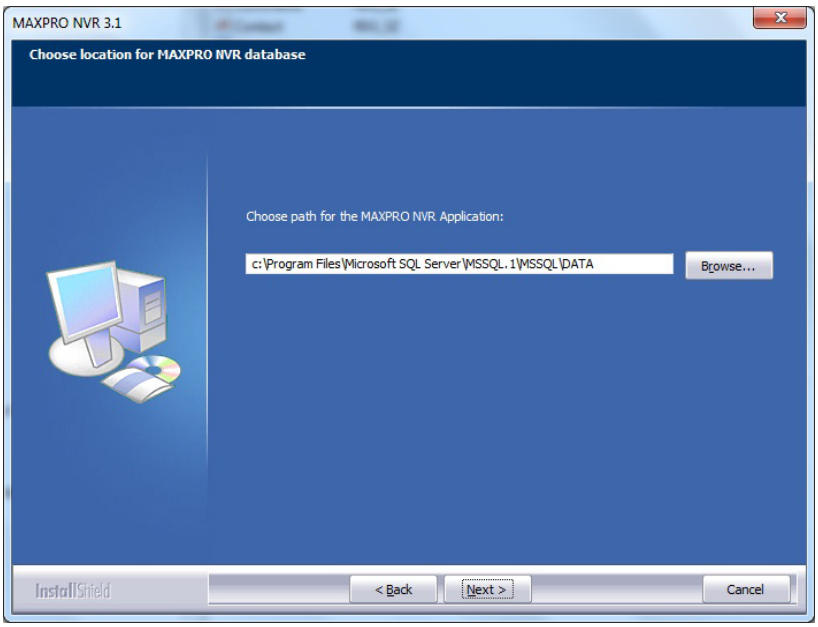


Figure 3-11 Choose location for MAXPRO NVR database

7. There are two scenarios that you must note here.

   - **For Fresh installation of MAXPRO NVR Database**: The default path where the MAXPRO NVR database is created automatically displays for a fresh installation for MAXPRO NVR database. Click **Browse** to select a new path, and click **Next**. Figure 3-13 appears.

   - **To retain the existing MAXPRO NVR Database**: The path where the MAXPRO NVR database is saved for a previously installed version of MAXPRO NVR software automatically displays. Click **Next**. A message “Trinity Database file already exists. Do you want to retain the database” appears. If you

     - click **Yes**. Figure 3-12 appears.
     - click **No**. Figure 3-13 appears.

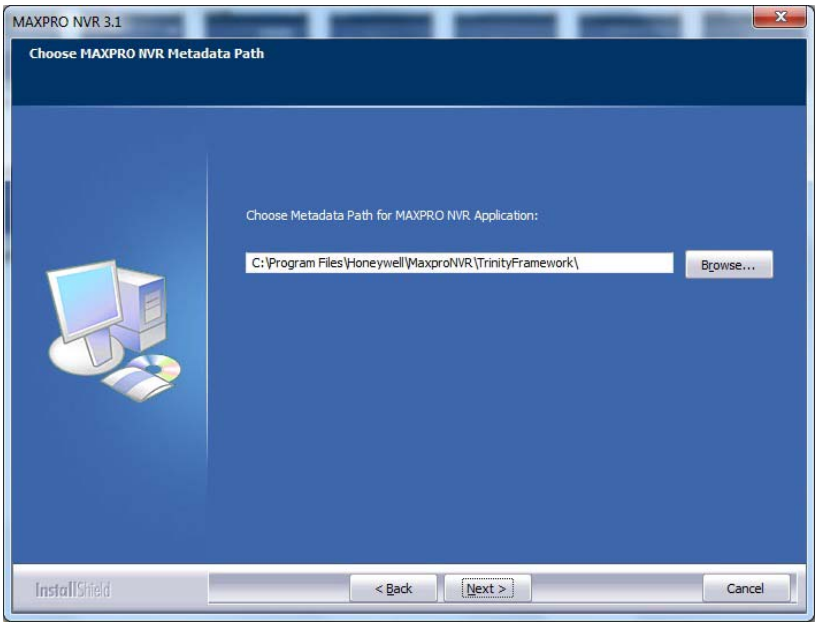


Figure 3-12 Choose Metadata Path

Note: Metadata path can be changed from the default to a seperate Metadata partition as recommended in the Before you Begin section.

8. Click **Browse** to select a new path, and click **Next**. Figure 3-13 appears.

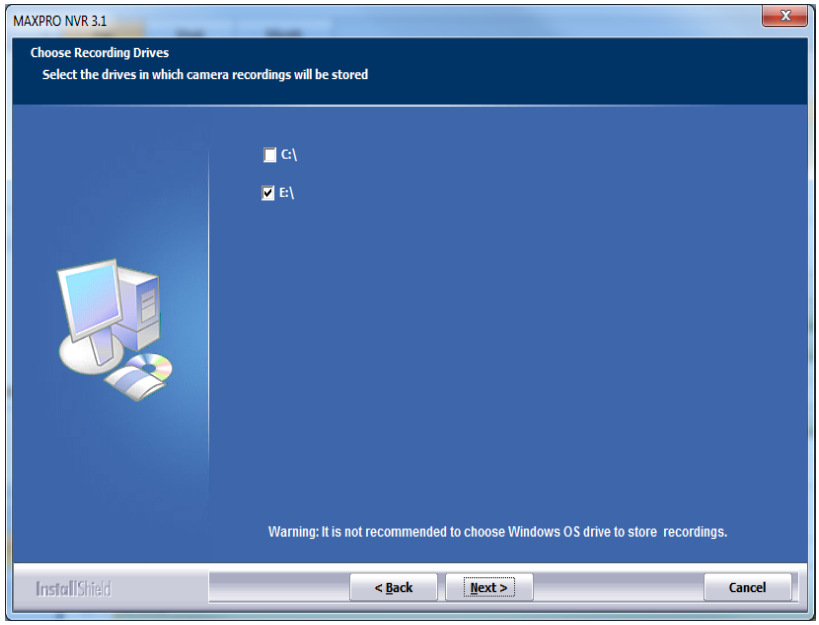


Figure 3-13 Choose Recording Drives

9. Select the required drive check box to save the camera recordings (to use as a video storage drive).

Caution: It is recommended that you do not choose the operating system drive for saving the camera recordings (as a video storage drive). Selecting an Operating System drive for video storage can lead to system instability and crash.

10. Click **Next**. Figure 3-14 appears.

.

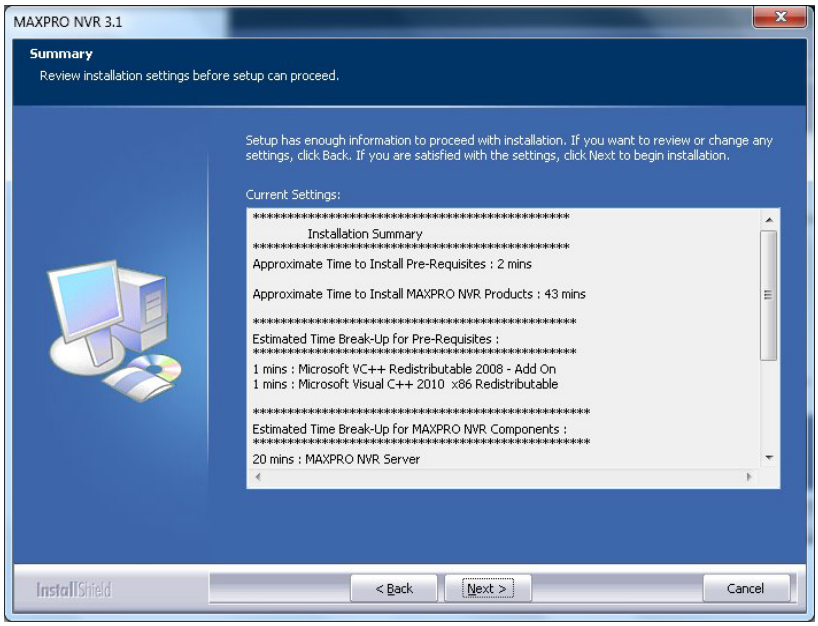


Figure 3-14 Summary

11. The approximate time for installing the prerequisites and MAXPRO NVR Products displays. If you want to change any settings, click **Back**, else click **Next**. Figure 3-15 appears after the installation is finished.

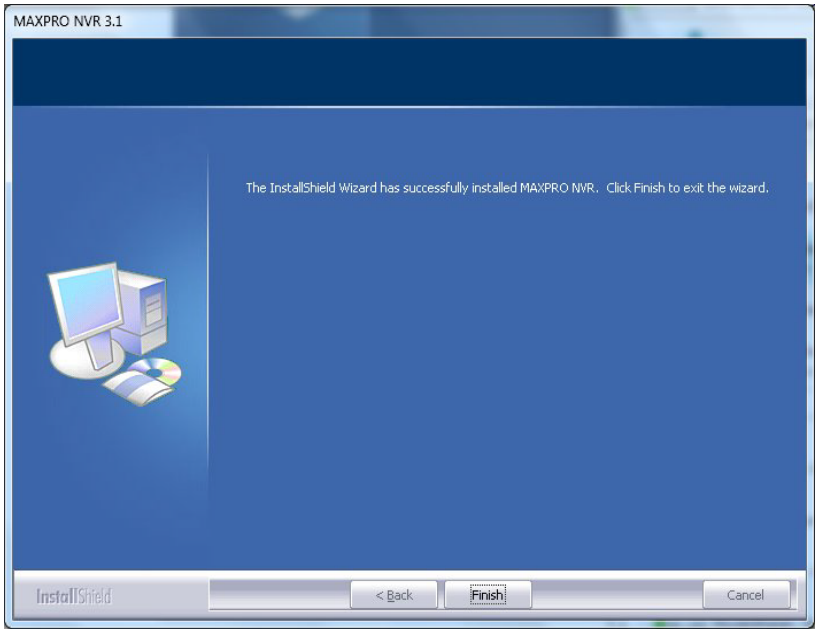


Figure 3-15 Installation Complete

12. Click **Finish**. The installation wizard closes and you are prompted to reboot the computer to complete the MAXPRO NVR installation.

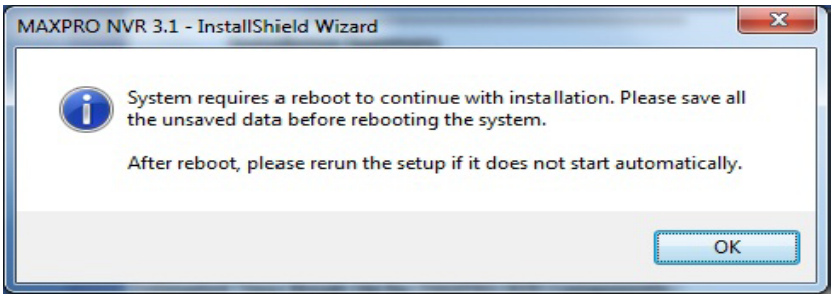


Figure 3-16 Reboot prompt

13. Click **OK**.

Client Installation

Client installation gives you an option to install MAXPRO NVR Client on the client workstations.

To perform client installation

1. Click **Client Installation** in Figure 3-8 and click **Next**. Figure 3-17 appears.

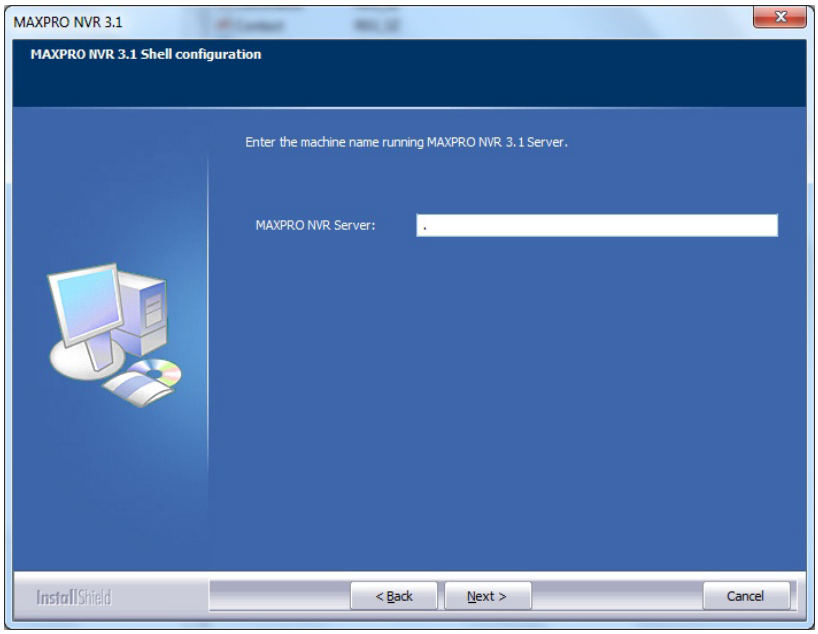


Figure 3-17 MAXPRO NVR 3.1 Client Configuration

2. Type the **MAXPRO NVR Server** name or IP address, and then click **Next**. Figure 3-18 appears.

Note: If you do not know the server name or if the server is not accessible, then type the local host/computer name. The server name can be changed after the installation in the Client.

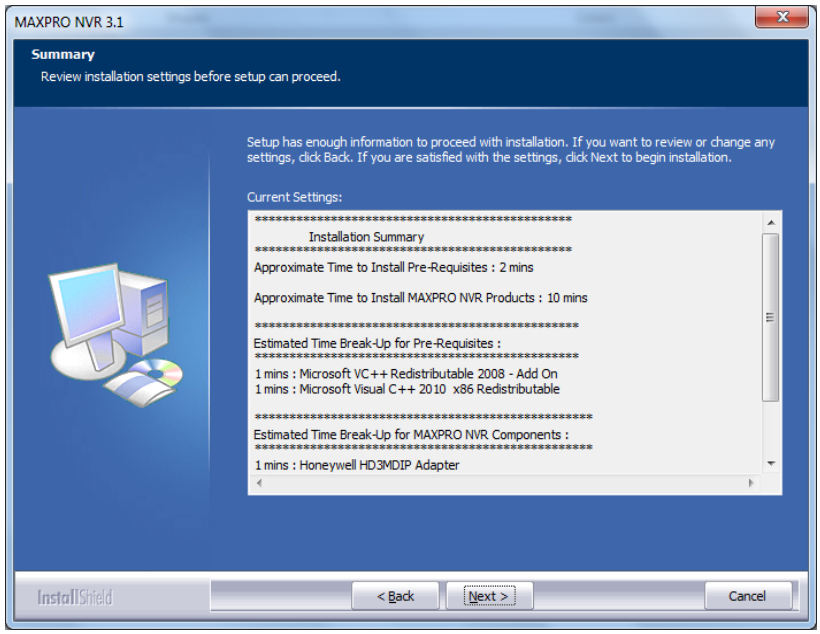


Figure 3-18 Summary

3. If you want to review or change any settings click **Back**, otherwise click **Next** The setup status of various components appears. Figure 3-19 appears after MAXPRO NVR is successfully installed.

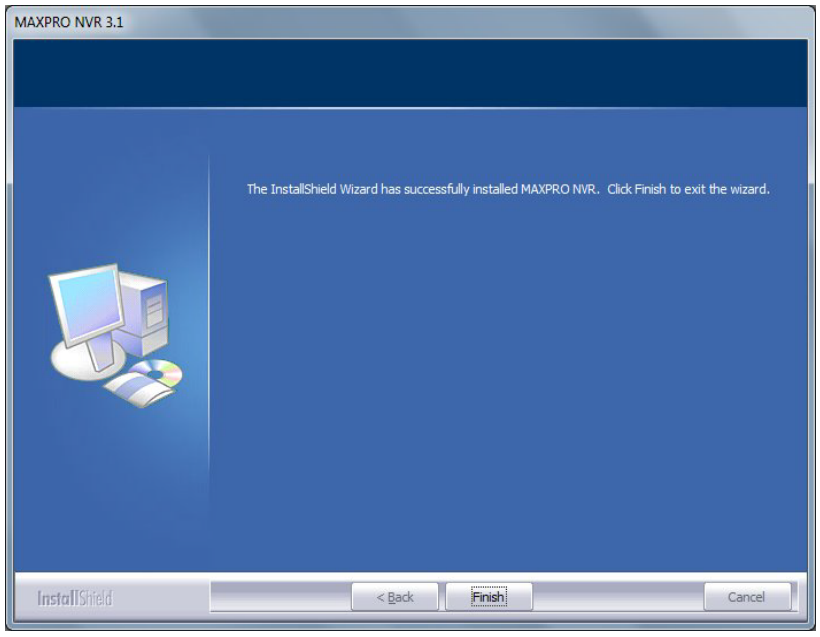
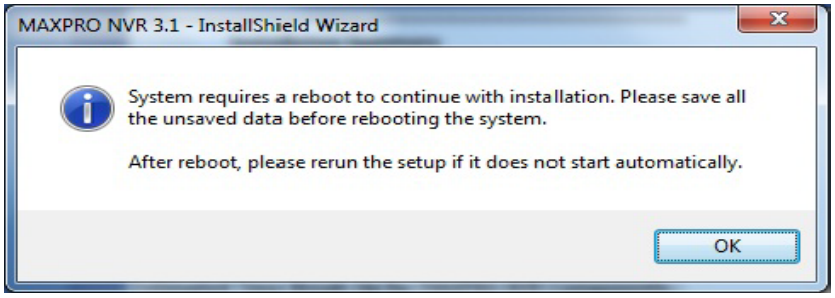


Figure 3-19 InstallShield Wizard Complete

4. Click **Finish.** The installation wizard closes and you are prompted to reboot the computer to complete the MAXPRO NVR installation.


MAXPRO NVR 3.1 - InstallShield Wizard
System requires a reboot to continue with installation. Please save all the unsaved data before rebooting the system.
After reboot, please rerun the setup if it does not start automatically.
OK

5. Click **OK**.

Upgrading MAXPRO NVR

This section describes the procedure for upgrading from MAXPRO NVR (v2.0 Build 22 or v2.1 Build 23 or v2.5 Build 29B or v2.5 SP1 Build 35B or Hybrid v3.0 Build 45 Rev B) to MAXPRO NVR v3.1 (Build 65).

Note: **1)** Ensure that **Services.msc** console is closed before Installing or upgrading the MAXPRO NVR. See Before you Begin - Disable Defragmentation.

2) If the Web Server port (used for MAXPRO Mobile apps) on NVR is configured as any other port other than default port 80, then you should **Set the port to default port 80** in IIS Web Server on NVR before upgrading. Refer to **Step 1 - Changing the Default Port 80 on the MAXPRO NVR in MAXPRO NVR Operators Guide - Appendix B**. The port can be changed from default 80 after the upgrade is complete.

Taking the Database Backup

Honeywell recommends database backup before running the upgrade. Database backup can be done from MAXPRO NVR Agent.

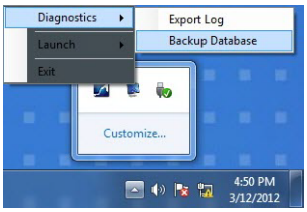


Figure 3-20 Taking Database backup using the MAXPRO NVR Agent

Note: You can also take the database backup in to the latest backup file **TakeNVRbackup-3.1-unconfigured.bat,** which is available in the NVR installation folder. If you want to use **TakeNVRbackup-3.1-unconfigured.bat** file then you need to copy this file to **C:\Install** and then rename it to **TakeNVRbackup-3.1.bat.**
If you are opting for fresh installation then you need to copy **TakeNVRbackup-3.1-unconfigured.bat** file to **C:\Install** and then rename the file to **TakeNVRbackup-3.1.bat.**

To upgrade to MAXPRO NVR 3.1

1. Insert the MAXPRO NVR setup DVD in the DVD drive, browse the DVD drive, and then double-click **setup.exe**

   Or
   Go to the MAXPRO NVR setup folder on your computer, and then double-click **setup.exe**. The installation wizard starts and Figure 3-21 appears.

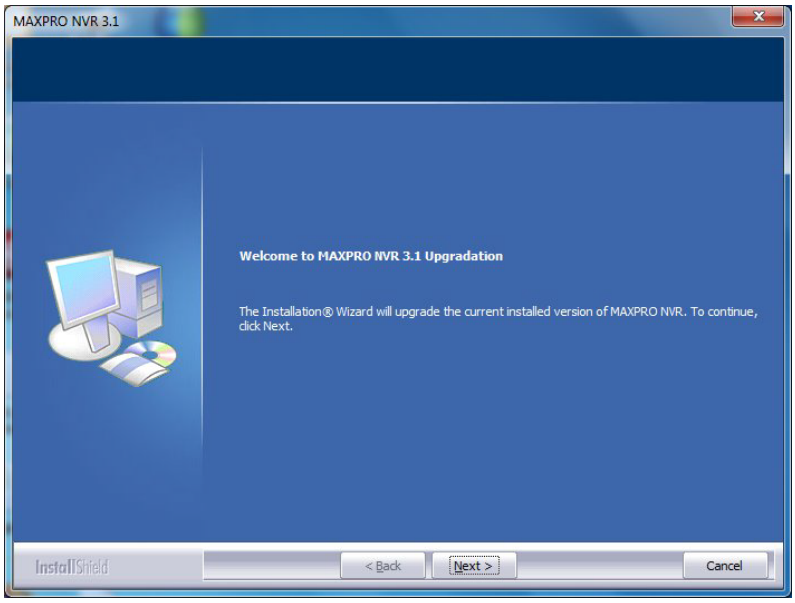
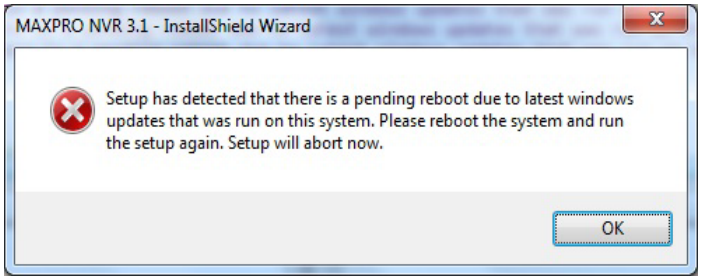


Figure 3-21 Welcome to MAXPRO NVR 3.1 Upgrade

Note If any pending reboot is there due to windows updates, the following error message appears, and the installation stops. Please ensure that you reboot your computer and run the setup again.



2. Click **Next**. Figure 3-22 appears.

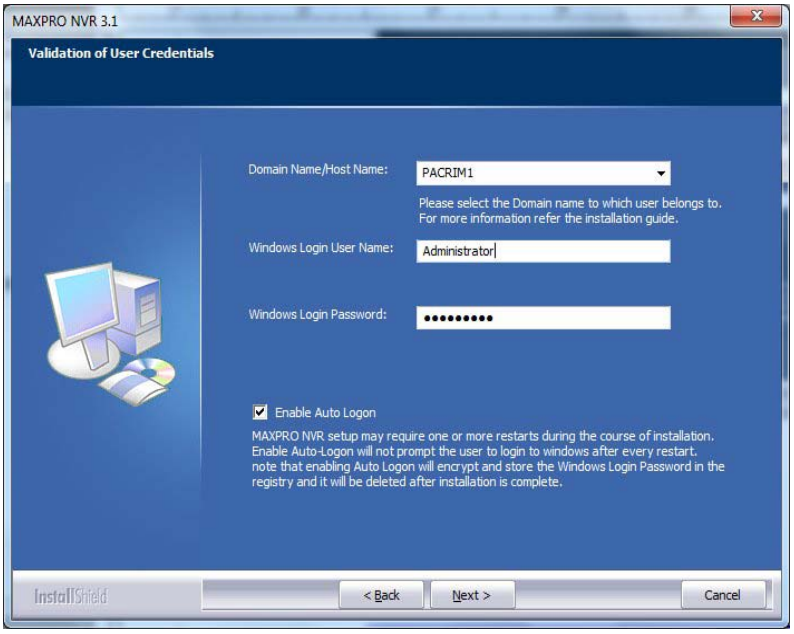


Figure 3-22 Validation of User Credentials

3. Select your **Domain Name**/**Host Name**.
4. Type your **Windows User Name**.
5. Type your **Windows Password**.

Note: For Honeywell boxed solutions (XE,SE,PE) the default Windows user name is **Administrator** and Windows password is **Password1**.

6. Click **Next**. Figure 3-23 appears.

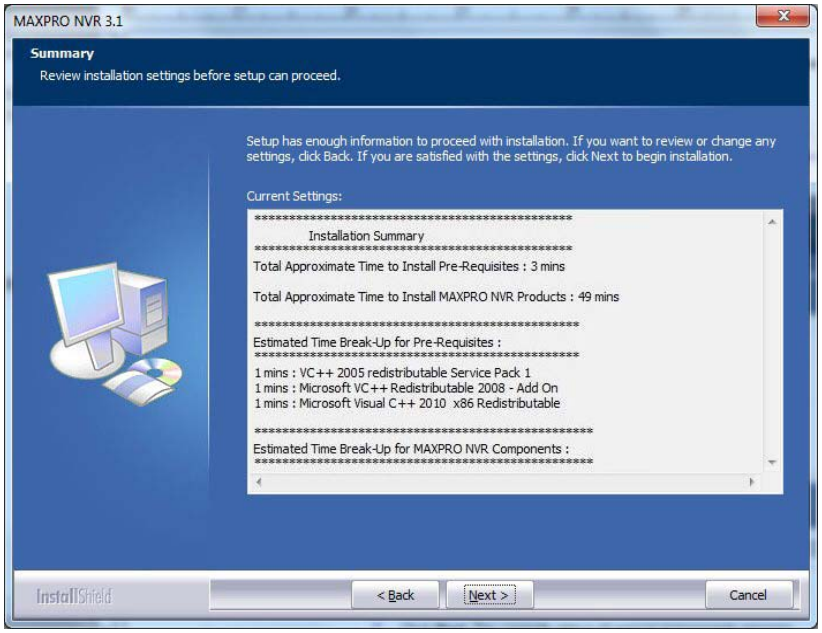


Figure 3-23 Summary

7. Click **Next**. The upgrade status of various components appears.

8. After the upgrade is finished, the installation wizard closes and you are prompted to reboot the computer.

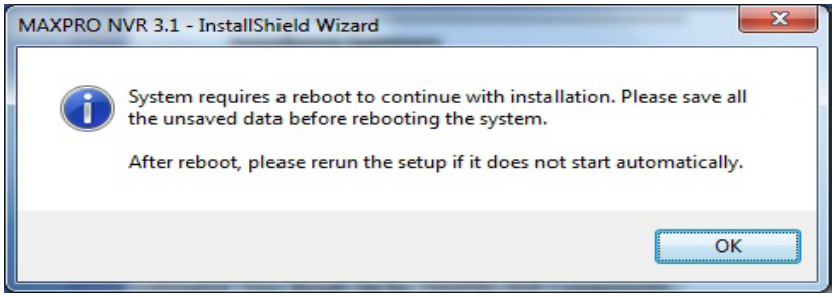


Figure 3-24 Reboot prompt

9. Click **OK**.

Taking Database backup using the New backup method

If you want to take backup using the new method, perform the following step:

- Copy the backup.file to one of the drive (D or E) and then rename the file.

Uninstalling MAXPRO NVR

To uninstall MAXPRO NVR, choose any of the following uninstall procedures that best suit your requirement.

- Client uninstall
- Full uninstall

Client Uninstall

Choose this option to uninstall MAXPRO NVR Client components.

To uninstall the client

1. Go to **Control Panel**->**Programs and Features**, select the **MAXPRO NVR Client** and click **uninstall**.

   Or

   Insert the MAXPRO NVR setup DVD in the DVD drive, browse the DVD drive, and then double-click **Setup.exe**.

   Or

   Go to the MAXPRO NVR setup folder on your computer, and then double-click **Setup.exe**. The uninstall wizard starts, and Figure 3-25 appears.

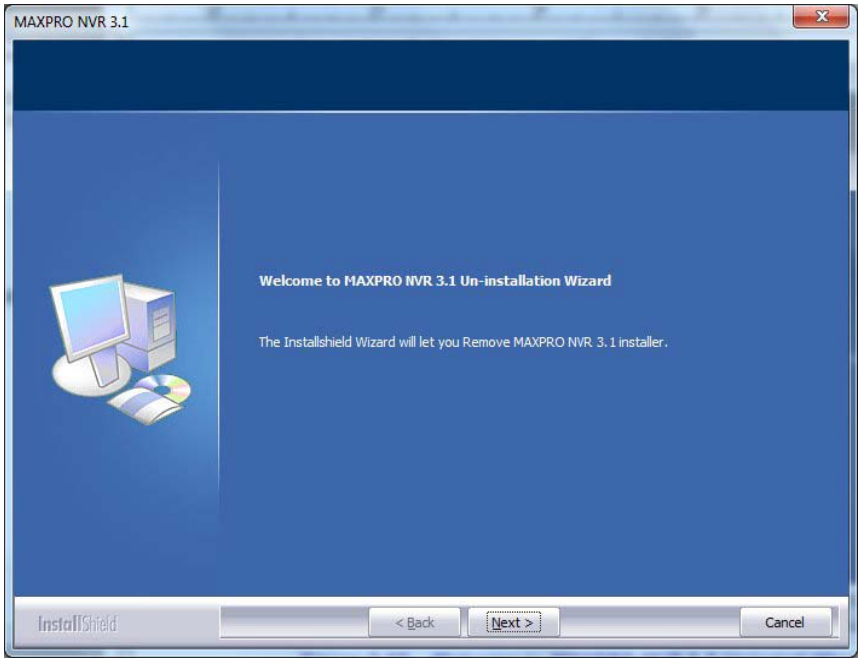


Figure 3-25 Welcome to MAXPRO NVR 3.1 Uninstall Wizard

2. Click **Next**. The message "**Do you want to completely remove the selected application and all of its features**" appears. The uninstall status of various components appears. Figure 3-26 appears after the uninstall is finished.

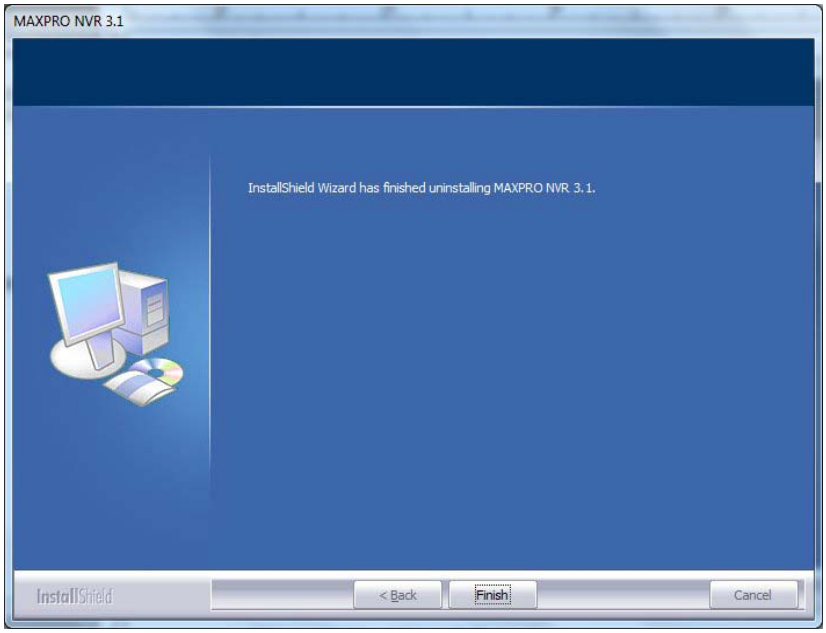


Figure 3-26 Uinstall Complete

3. Click **Finish**. You are prompted to reboot your computer to complete the uninstall procedure.

Full Uninstall

The following components are uninstalled: MAXPRO NVR Server and Client components. You can choose the option to retain a backup of database and clip metadata as per your input during the full uninstall process.

To perform full uninstall

1. Go to **Control Panel->Programs and Features**, select **MAXPRO NVR 3.1**and click **uninstall**.

   Or

   Insert the MAXPRO NVR setup DVD in the DVD drive, browse the DVD drive, and then double-click **Setup.exe**.

   Or

   Go to the MAXPRO NVR setup folder on your computer, and then double-click **Setup.exe**. The uninstall wizard starts, and Figure 3-27 appears.

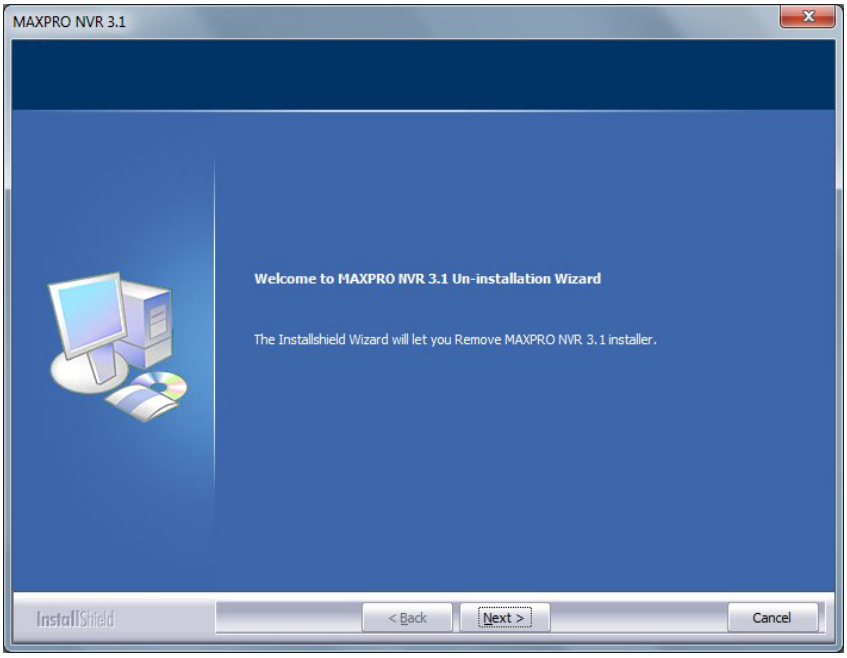


Figure 3-27 Welcome to MAXPRO NVR 3.1 Uninstall Wizard

2. Click **Next**. Figure 3-28 appears.

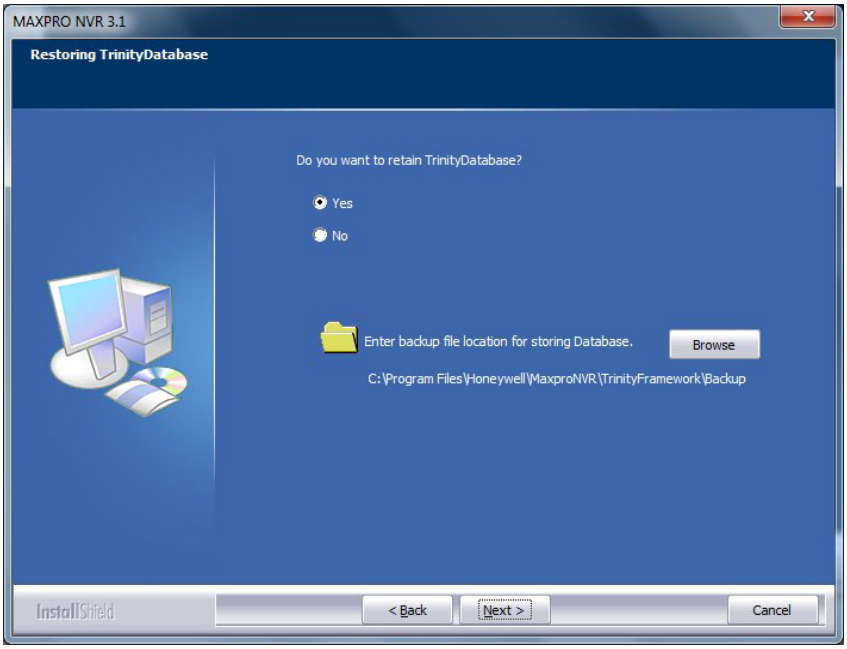


Figure 3-28 Retaining Trinity Database

3. Click **Yes** or **No** as applicable.

   - If you click "**Yes**" and then click **Browse** to specify a new path for backup location for storing the database and metadata. Click **Next,** the database is retained for future installations of MAXPRO NVR. Figure 3-29 appears. Go to step **4**.

   - If you click "**No**" and then click **Yes** to confirm deleting the Trinity database. The database is deleted. The uninstall status of various components appears. Figure 3-30 appears after the uinstall is finished. Go to step **6**.

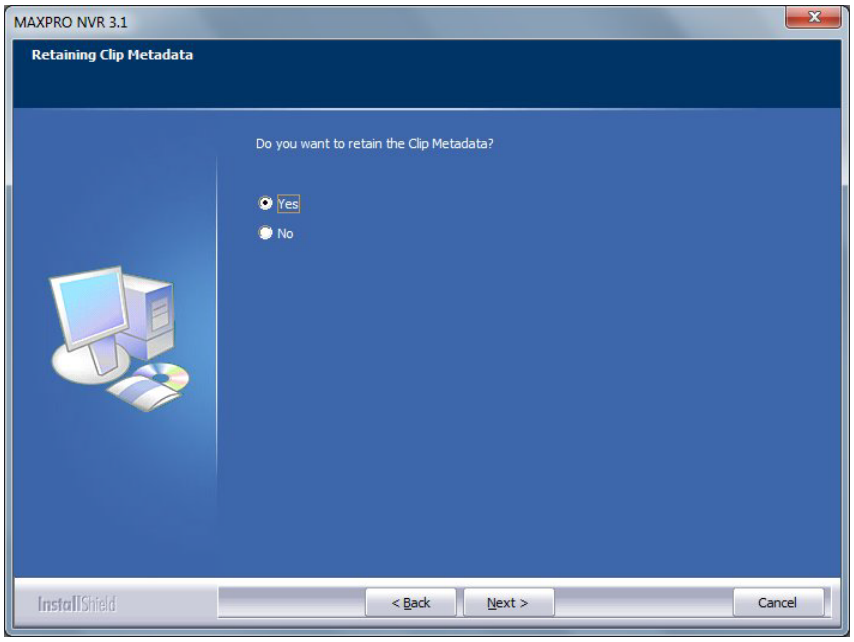


Figure 3-29 Retaining Clip Metadata

4. Click **Yes** or **No** as applicable.

   - If you click "**Yes**" and then click **Next,** the clip metadata path is retained for future installations of MAXPRO NVR.Figure 3-30 appears
   - If you click "**No**" and then click **Next**, the clip metadata path is deleted. The uninstall status of various components appears. Figure 3-30 appears. Go to step **6**.

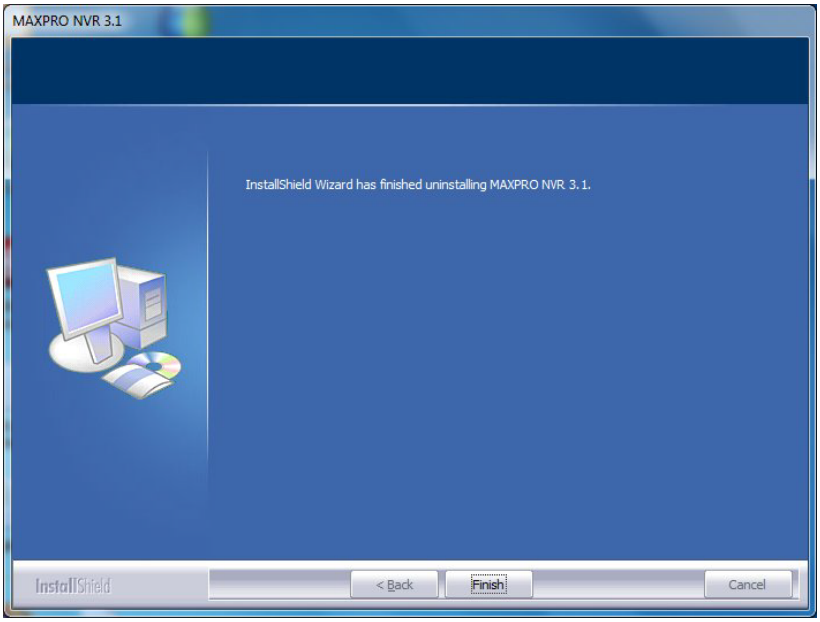


Figure 3-30 Uinstall Complete

5. Click **Finish**. The uninstall wizard closes and you are prompted to reboot your computer
6. Click **OK** to complete the uninstall procedure.

Note: The Database and Clip Metadata backup taken during the uninstall process can be used for future installations. This backup does not include Video storage drive's data.

4

Configuring MAXPRO NVR

Overview

Configuring MAXPRO NVR involves setting up the system to perform video surveillance and IP recording operations. This is the most important phase for commissioning MAXPRO NVR system as it involves setting up the MAXPRO NVR IP address, organizing devices, users, and roles.

Before you Begin

- Ensure that you have completed MAXPRO NVR server and client hardware setup and software installation.

Firewall Settings

Caution: The Firewall settings are pre-configured for boxed solutions – MAXPRO NVR XE,SE,PE and MAXPRO NVR Hybrid XE,SE,PE. For MAXPRO NVR Software-Only solution, the Firewall settings are automatically configured during the installation process.

Configuring MAXPRO NVR

The configuration process involves the following tasks.

- Configuring the web client settings.
- Configuring the Honeywell cameras with MAXPRO NVR Wizard.
- Configuring the system level settings.
- Configuring the disk management settings.
- Configuring the cameras.
- Configuring the schedule based recording for cameras.
- Performing user administration.

Note: An easy way to configure the MAXPRO NVR system is using the MAXPRO NVR Wizard, which is a 3-step procedure to live video. Refer to the ***MAXPRO NVR Operator's Guide*** for more information.

To go to the Configurator tab

1. Double-click the icon on your desktop. The **MAXPRO NVR Log On** dialog box appears.

Caution: Only on the Honeywell provided systems, a default Windows user, **Administrator** and password **Password1** is already configured and hence you are automatically logged in.

2. Type the **Username**. The default user name is "**admin**".
3. Type your **Password**. The default password is **"trinity**".

Note: Select the **Windows Logged-In User** check box for logging on using the Windows user name and password. If the **Windows Logged-In User** check box is cleared, the MAXPRO NVR user name and password is used for authentication. 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 NVR units and use the drop-down to choose which NVR unit you would like to connect to.

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

5. Press **Enter** or click the icon. The **Viewer** screen appears by default.

6. Click the **Configurator** tab to open the **Configurator** screen.The **System** page opens by default.

Configuring the Web Client Settings

Refer to the MAXPRO NVR Web Client - Setting the MAXPRO Web Configurator section in the MAXPRO NVR Operator's Guide for more information.

Configuring the Honeywell cameras with MAXPRO NVR Wizard

Using the MAXPRO NVR Wizard (3 Clicks to Live Video), you can configure Honeywell IP cameras. Refer to the ***MAXPRO NVR Operator's Guide*** for more information.

Configuring the System Settings for MAXPRO NVR

The **System** settings help in configuring the following:

- **General System Settings** - enable configuring the device name, device description, and device address for MAXPRO NVR.
- **Recording Settings** - enable configuring the times associated to event and user based recording.
- **Email Settings** - enable configuring the SMTP server settings for e-mail communication of events.
- **Holiday/Exception Settings for Schedules** - enable configuring the holidays and exceptions for schedule based recording.

To configure the system settings

- Click the **Configurator** tab. The **System** page appears by default.

Configuring Disk Management Settings

The Disk Management settings help you to configure the disk settings for saving the recorded video.

To configure the disk management settings

1. Click the **Configurator** tab. The **System** page appears by default.
2. Click the **Disk** tab to open the **Disk Management** page.

Configuring the Cameras

You can configure and add cameras using the **Camera** tab.

To configure the cameras

1. Click the **Configurator** tab. The **System** page appears by default.
2. Click the **Camera** tab to open the **Camera** page.

Configuring Schedule Based Recording for Cameras

You can create schedules for camera(s) to record video at recurring intervals for continuous recording or event based recording (for example, motion event). There are four default schedules: **24 x 7**, **Weekday**, **DayTime**, **NightTime**.

To configure schedules

1. Click the **Configurator** tab. The **System** page appears by default.
2. Click the **Schedule** tab to open the **Schedule** page.

Performing User Administration

A user in MAXPRO NVR is responsible for performing various operations like viewing video, reporting alarms, and other video surveillance tasks. You can create two types of users in MAXPRO NVR.

System Local User

A system local user can access only MAXPRO NVR. This user may not have access to a client workstation.

Windows User

A windows user can access client workstation and also MAXPRO NVR.

Users and Roles

Roles are provided to a user. These roles comprise in them a set of privileges. When a user is associated to a role, the privileges that are available for the role are also assigned to the user.

For MAXPRO NVR Software-Only Solution

The first time MAXPRO NVR is installed,two default users are created.

- **admin**/**trinity** - Non-Windows user.
- **Installed user** - Windows user. You enter the credentials for this user while installing the MAXPRO NVR software.

For MAXPRO NVR Single-box Solution

There are 2 default users created.

- **admin**/**trinity** - Non-Windows user
- **Administrator**/**Password1** - Windows user

Note: Refer to the ***MAXPRO NVR Operator's Guide*** for more information on the various roles available in MAXPRO NVR.

To perform user administration

1. Click the **Configurator** tab. The **System** page appears by default.
2. Click the **User** tab to open the **User** page.

5

Verifying the Configuration

Overview

Verifying the configuration of the MAXPRO NVR is the final phase in the commissioning process. In this phase, you need to verify the working of the MAXPRO NVR.

Before you Begin

Ensure that the configuration of MAXPRO NVR is complete.

Activities to Perform in this Phase

In this phase, using the MAXPRO NVR user interface, check for the following one after the other.

- Connection with the MAXPRO NVR sever (logging on)
- Camera listing in the devices window
- Live video display from cameras
- Playback of recorded video
- Inserting comments and marking the point of interest using the bookmark feature in Timeline window
- Playback of loop (mark in and mark out feature) in Timeline window
- Panning, tilting, and zooming functions
- Acknowledgement of alarms and clearing of alarms
- Image creation
- Clip creation
- Video from the surrounding cameras (video pursuit or surrounding cameras feature in MAXPRO NVR)
- Saving the salvo layout using the salvo view feature
- Searching recorded video MAXPRO NVR
- Generating and viewing the event and operator log report

Checking the Connection with the MAXPRO NVR Server

The MAXPRO NVR server addresses are stored in profiles. You can save the address of each server in profiles from the **Log On** dialog box that appears when you start MAXPRO NVR.

To connect to a MAXPRO NVR server from the client computer

1. In the **Username** box, type the user name. The default user name is “**admin**”.
2. In the **Password** box, type the password. The default password f is “**trinity**”.
3. In the **Profile** box, select the profile in which the server address is saved.
4. Press **Enter** or click the icon. The **Viewer** Screen appears.

You can set a profile as the default profile. When a profile is set as default, you need not select the profile each time you log on to MAXPRO NVR. You can also modify and delete profiles.

Note: Refer to the ***MAXPRO NVR Operator’s Guide*** for more information on how to save server addresses in profiles, how to set a profile as default profile, and how to modify and delete the profiles.

Checking the Device listing in the Devices Window

By default, the **Viewer** tab is selected when you log on to MAXPRO NVR. The **Devices** window in the **Viewer** tab lists the IP cameras connected to and discovered by MAXPRO NVR.

Note: Refer to the ***MAXPRO NVR Operator's Guide*** for more information on the **Device** window.

Checking the Acknowledgement and Clearing of Alarms

Clicking the **Alarms** tab next to the **Device** tab opens the **Alarms** window that lists all the alarms in a floating window. You can acknowledge and clear the alarms.

Alarms notify the occurrence of events to the operators. You can configure alarms to be triggered when events such as recorder disk space nearing full, motion detection, and others happen. The events that trigger an alarm can be selected while configuring the recorders, cameras, and switchers. The events can be associated to event groups.

Each alarm goes through the following states.

New or Unacknowledged

When an alarm is triggered it appears in the **Alarm** window. You can click the Alarm tab to view 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.

Note: Refer to the ***MAXPRO NVR Operator's Guide*** for more information on the Alarms.

Checking the Live Video from Cameras

To ensure that all the cameras are connected and functioning properly, you need to check for live video from them.

To select the cameras and view live video

- Double-click a camera in the **Devices** window. You can also drag a camera to a panel in the salvo layout. The panel starts displaying live video.

You can select multiple cameras and view live video in different panels of the salvo layout.

Note: Refer to the ***MAXPRO NVR Operator's Guide*** for more information on how to view live video from cameras.

Checking the Playback of Recorded Video

To playback video, the recording from the camera must be available and the recording settings for the camera must be configured. Recorded video can be played from the Timeline window.

The following operations can be performed on the recorded video.

- Playing recorded video using the timeline
- Playing recorded video using Mark In and Mark Out points in timeline
- Marking points of interest in the timeline using bookmarks

Note: Refer to the ***MAXPRO NVR Operator's Guide*** for more information on how to configure the recording settings for the cameras connected to MAXPRO NVR.

Checking the Panning, Tilting, and Zooming

Using the digital PTZ feature in MAXPRO NVR, you can perform panning and tilting on live and recorded video and clips. The digital PTZ feature when enabled allows you to perform panning and tilting on the video display that is zoomed or enlarged in a panel.

Note: Refer to the ***MAXPRO NVR Operator's Guide*** for more information on PTZ.

Checking the Creation of Images

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

Only the images saved in the **ImagesAndClips** folder at the location in the hard drive in which MAXPRO NVR files are installed can be viewed in the **Image**/ **Clip** window.

You can double-click the image view option in the site window to view images on the salvo layout. You can view the images in the form of thumbnails or filmstrip. You can also select the image size large, medium, and small as per the requirement.

For example, **X:\ProgramFiles\Honeywell\TrinityFramework\ImagesAndClips**. Here, **X:** is the hard drive.

Note: Refer to the ***MAXPRO NVR Operator's Guide*** for more information on creating the images.

Checking the Creation of Clips

You can create clips from recorded video. These clips can be saved with digital signatures. Digital signatures ensure 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 indicating 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: Refer to the ***MAXPRO NVR Operator's Guide*** for more information on creating clips.

Checking the Salvo View Feature

A salvo layout that is customized based on the preferences of the operators is referred to as a salvo view. Cameras and scan sequences that are selected frequently and the preferred salvo layout can be saved as a salvo view.

Note: Refer to the ***MAXPRO NVR Operator's Guide*** for more information on how to create, select, and manage salvo views.

Checking the Search for Recorded Video in MAXPRO NVR

Operators can search for recorded video from cameras connected to MAXPRO NVR. The search results can be filtered based on conditions like video recorded today, yesterday, and others.

You can search for recorded video from the **Search** tab.

Note: Refer to the ***MAXPRO NVR Operator's Guide*** for more information on how to search for recorded video, and how to play the search results.

Checking the Generation of Event History/ Operator Log Report

Two types of reports, namely event history report and operator log report, can be generated.

The event history report can be generated for cameras, monitors, 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 so on.

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.

You can generate reports from the **Report** tab.

Note: Refer to the ***MAXPRO NVR Operator's Guide*** for more information on how to generate and view the reports.

Appendix

A

Customizing MAXPRO NVR Single-box Turnkey Solutions (XE,SE,PE)

Changing the default Windows Password on MAXPRO NVR

MAXPRO NVR boxes shipped from Honeywell are preconfigured with default Windows user, **Administrator** and password, **Password1**. You can customize and change the default password.

To change the default password, you must change the:

- Windows password.

After changing the Windows password, change the password for the following services.

- NEOStorageServer
- TrinityServer
- TrinityController
- Trinity Smart VMD Service

Note: Please ensure that passwords for the NEOStorageServer, Trinity Smart VMD Service, TrinityServer, and TrinityController match the Windows password.

Changing the Windows password:

1. Press **Ctrl**+**Alt**+**Del** and click **Change a password**...
2. Click the **Administrator** user.
3. Type the **Old password**, **New password** and **Confirm password**.

Changing the NEOStorage Server, Trinity Smart VMD Service, TrinityServer and TrinityController passwords:

1. Click **Start**>**Control Panel**>**Administrative Tools**. A list of services appear.

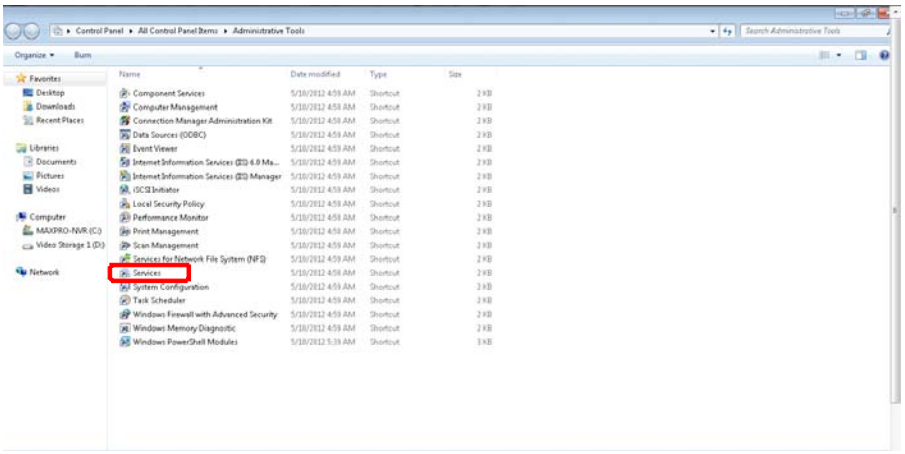


Figure A-1 Application Tools

2. Double-click **Services**. The **Services** window appears.

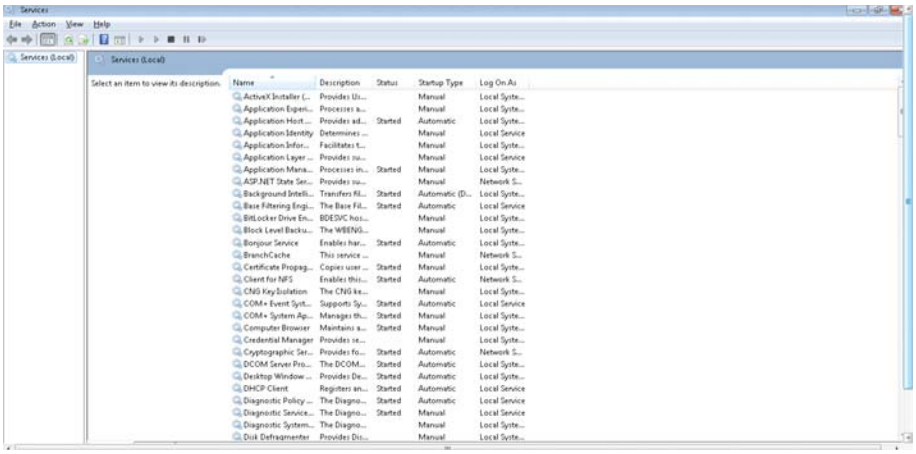


Figure A-2 Services

3. Right-click the **NEOStorageServer** service and click **Properties**. The **NEOStorage Server Properties** dialog box appears.

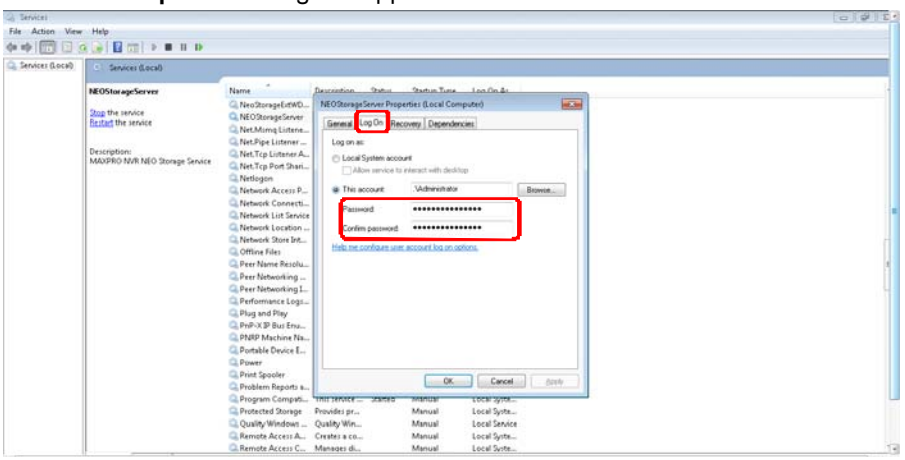


Figure A-3 NEOStorage Engine Properties

4. Click the **Log On** tab.
5. Type the new password in **Password**.
6. Type the new password again in **Confirm Password**.
7. Click **OK**.

Note: Follow the similar procedure to change the password for the Trinity Smart VMD Service, TrinityServer and TrinityController services.

8. Launch MAXPRO NVR, and verify if the system is running after changing the password.

Changing the Default IP address and Machine Name

Note: See Changing the MAXPRO NVR IP Address and Machine Name for more information.

Setting Up Antivirus Software for MAXPRO NVRs

Honeywell supports installing the following Antivirus software on MAXPRO NVRs.The following Antivirus applications have been tested, and function well with the MAXPRO NVR operational parameters.

- McAfee VirusScan Version 8.8, McAfee Antispyware
- Microsoft Security Essentials
- Symantec AntiVirus Edition 2008 (Norton), 2010, 2013
- Sophos v7.3.0
- AVG v8.5.409

Auto-protection and Auto-updates

Auto-protection (Live file-system protection) is recommended along with auto-updating through the Internet or a Network Virus Definition Server. When using auto-update, it may be necessary to reboot the NVR for some of the patches/updates to take effect. This is not normally needed during standard virus definition updates; however, occasionally Antivirus Software Engine updates trigger that require system reboots. In this scenario, it is suggested that, if the Antivirus software is installed and configured on an NVR system, auto-updates are disabled and updates need to be done manually by the operator to manage the reboots.

IMPORTANT! Do Not Schedule DATA Drive Scans

Do not set the Antivirus software to run any scheduled hard disk scans of DATA (Video Storage) drives. This can hinder the performance of the NVR unit and cause other potential problems. In particular:

- The NVR software is CPU and Memory dependant. Having antivirus software scan DATA (Video Storage) drives while recording video can cause degradation of recording performance.
- Scanning DATA (Video Storage) drives can also create a problem due to the DATA files constantly being updated and written to. The virus software will attempt to re-scan these files after each data change as video is being saved.

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Honeywell Security Products Americas (Head Office)
2700 Blankenbaker Pkwy, Suite 150
Louisville, KY 40299, USA
www.honeywell.com/security
☏ +1 800 323 4576

Honeywell Security Europe/South Africa
Aston Fields Road, Whitehouse Industrial Estate
Runcorn, WA7 3DL, United Kingdom
www.honeywell.com/security/uk
☏ +44 (0) 1928 754 028

Honeywell Security Products Americas Caribbean/Latin America
9315 NW 112th Ave.
Miami, FL 33178, USA
www.honeywell.com/security/clar
☏ +1 305 805 8188

Honeywell Security Pacific
Level 3, 2 Richardson Place
North Ryde, NSW 2113, Australia
www.asia.security.honeywell.com
☏ +61 2 9353 7000

Honeywell Security Asia
35F Tower A, City Center, 100 Zun Yi Road
Shanghai 200051, China
www.asia.security.honeywell.com
☏ +86 21 5257 4568

Honeywell Security Middle East/N. Africa
Emaar Business Park, Sheikh Zayed Road
Building No. 2, Office No. 30
Post Office Box 232362
Dubai, United Arab Emirates
www.honeywell.com/security/me
☏ +971 (0) 4 450 5800

Honeywell Security Northern Europe
Ampèrestraat 41
1446 TR Purmerend, The Netherlands
www.honeywell.com/security/nl
☏ +31 (0) 299 410 200

Honeywell Security Deutschland
Johannes-Mauthe-Straße 14
D-72458 Albstadt, Germany
www.honeywell.com/security/de
☏ +49 (0) 7431 801-0

Honeywell Security France
Immeuble Lavoisier
Parc de Haute Technologie
3-7 rue Georges Besse
92160 Antony, France
www.honeywell.com/security/fr
☏ +33 (0) 1 40 96 20 50

Honeywell Security Italia SpA
Via della Resistenza 53/59
20090 Buccinasco
Milan, Italy
www.honeywell.com/security/it
☏ +39 (0) 2 4888 051

Honeywell Security España
Avenida de Italia, n° 7, 2ª planta
C.T. Coslada
28821 Coslada, Madrid, Spain
www.honeywell.com/security/es
☏ +34 902 667 800

Honeywell

www.honeywell.com/security
+1 800 323 4576 (North America only)
https://www.honeywellsystems.com/ss/techsupp/index.html

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