

exacqVision®

Network Video Recorder

User Manual

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exacqVision®

TABLE OF CONTENTS

1 System Installation Checklist.....	5
2 Installing exacqVision Software on Third-Party Clients and Servers.....	8
Server Requirements.....	8
Networking.....	8
Web Server.....	9
Server Software Installation.....	9
Client Software Installation.....	9
3 exacqVision Software Overview.....	10
Client/Server Architecture.....	10
Logging In.....	11
Updating exacqVision Client Software.....	12
Operating Modes.....	13
Online Help System.....	13
4 Setup Mode Overview.....	14
Add System.....	15
System Setup.....	16
Add IP Cameras.....	19
IP Camera Recording Setup.....	20
Analog Camera Recording Setup.....	21
Camera Setup.....	22
Motion Masks and Video Masks.....	24
Serial Profile Setup.....	26
Serial Port Setup.....	27
PTZ Configuration.....	29
Audio Input Setup.....	31
Trigger Input Setup.....	32
Alarm Output Setup.....	33
Video Output Setup.....	34
Storage Setup.....	35
Notifications.....	37
exacqRecall Button Configuration.....	39
Event Linking.....	40
Event Monitoring.....	43
Schedule.....	44
Users Setup.....	46
My Systems.....	48
eDVR 4000 Device.....	49
Client Setup.....	50
Joystick Setup.....	51
Group Setup.....	53
Map Setup.....	54
System Information.....	55



5 Live Mode Overview.....	57
Layout Panel	58
PTZ Control	60
Event Buttons	62
exacqReplay.....	63
Live Event Monitoring	64
Camera Groups.....	65
Camera Views	66
Camera View Tours.....	68
Live Maps	69
6 Search Mode Overview	70
Searching for Video and Other Data.....	71
Video Playback	72
Smart Search	74
Searching Maps	75
Searching Views	76
Searching Events.....	77
Exporting Files.....	78
7 Enterprise Management.....	81
Enterprise Cameras	81
Enterprise Server Setup	82
Enterprise User Setup	83
A Technical Support	85
B Regulatory Notice.....	86
C Warranty.....	87
D Manual Updates.....	88
Release 4.0	88
Release 4.1	88
Release 4.2	88
Release 4.3	88
Release 4.4	88
Release 4.5	88
Release 4.6	88



1

System Installation Checklist

	Quick Start
	Installation <ul style="list-style-type: none"><input type="checkbox"/> See the server's Quick Start Guide for information on installing the hardware.
	Establishing Initial Communications <ul style="list-style-type: none"><input type="checkbox"/> See the server's Quick Start Guide for information on establishing initial communications from the client software to an exacqVision Server.
	Configure IP Cameras <ul style="list-style-type: none"><input type="checkbox"/> See the IP Camera Quick Start Guide for information on configuring the camera IP addresses, usernames, and passwords. This document can be found at http://www.exacq.com/support/specsheets.html.
	Setup Mode (see Chapter 4)
	System Setup* <ul style="list-style-type: none"><input type="checkbox"/> Set exacqVision server for static IP address.<input type="checkbox"/> Configure the system name, time, and time zone.
	Storage Setup <ul style="list-style-type: none"><input type="checkbox"/> Ensure all disks are selected for recording except the system drive ("C:\\" in Windows or "/mnt/edvr/0" in Linux)<input type="checkbox"/> Ensure total disk space matches the expected value.
	Add IP Cameras <ul style="list-style-type: none"><input type="checkbox"/> Add IP cameras to the exacqVision servers.
	Camera Recording Setup (IP cameras) <ul style="list-style-type: none"><input type="checkbox"/> Set resolutions¹.<input type="checkbox"/> Set frame rate¹.
	Camera Recording Setup (analog cameras) <ul style="list-style-type: none"><input type="checkbox"/> Set resolutions¹.<input type="checkbox"/> Set frame rates¹.<input type="checkbox"/> Disable cameras that are not connected.
	Serial Port Setup <ul style="list-style-type: none"><input type="checkbox"/> Set up serial port for RS-485 mechanical PTZ control.<input type="checkbox"/> Set up serial port for input from serial devices.

	<p>Camera Setup</p> <ul style="list-style-type: none"> <input type="checkbox"/> Name camera. <input type="checkbox"/> Enable on-screen display. <input type="checkbox"/> Set motion mask on IP cameras (there are generally no motion windows set on a new camera). The default motion recording schedule won't trigger recording. <input type="checkbox"/> Mask motion from irrelevant objects such as moving trees. <input type="checkbox"/> Create windows in relevant locations, such as doors and hallways. <input type="checkbox"/> Configure quality just high enough to see relevant details¹. <input type="checkbox"/> If supported by the cameras, set recording format to MPEG4 or H.264 instead of JPEG for better storage. <input type="checkbox"/> Watch for blue border around live video window on setup page when motion is occurring to ensure that motion sensitivity and masking are appropriately configured. <input type="checkbox"/> Configure mechanical PTZ presets.
	<p>Schedule</p> <ul style="list-style-type: none"> <input type="checkbox"/> Motion is recorded by default. Change any cameras to continuously record or stop recording as needed. <input type="checkbox"/> Audio is not recorded by default. Schedule audio recording if necessary. <input type="checkbox"/> Schedule events for notification only when they are unexpected. (Not available in exacqVision Start.)
	<p>Users</p> <ul style="list-style-type: none"> <input type="checkbox"/> Add user accounts for the people who will use the system.
	<p>Trigger Input Setup</p> <ul style="list-style-type: none"> <input type="checkbox"/> Name input triggers to be used. <input type="checkbox"/> Set radio button to normally open or closed to match physical switch.
	<p>Alarm Output Setup</p> <ul style="list-style-type: none"> <input type="checkbox"/> Name any alarm outputs to be used.
	<p>Notifications (Not available in exacqVision Start.)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Create email profile for system health administrator. <input type="checkbox"/> Create email profile for security events such as unexpected motion or input triggers. <input type="checkbox"/> Create email profile for the installer.
	<p>exacqRecall (Not available in exacqVision Start.)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Create profile for video sources and duration to store on high-priority event. <input type="checkbox"/> Insert blank CD or DVD in DVD drive.
	<p>Event Linking</p> <ul style="list-style-type: none"> <input type="checkbox"/> Create events to alert administrator via email of system health issues. <input type="checkbox"/> Create events to record video on input triggers. <input type="checkbox"/> Create events to email security administrator upon unexpected triggers or motion. <input type="checkbox"/> Create event to burn CD via exacqRecall profile upon button push or other event. (Not available in exacqVision Start.) <input type="checkbox"/> Create event to email installer when license subscription is near expiration.
	<p>Export Settings</p> <ul style="list-style-type: none"> <input type="checkbox"/> Save settings and license to a USB flash drive to aid the recovery process, if necessary.

	Live Mode (see Chapter 5)
	Live <ul style="list-style-type: none"> <input type="checkbox"/> Create views as required by users for live viewing or multi-camera search and playback.
	Install Client <ul style="list-style-type: none"> <input type="checkbox"/> Install the exacqVision Client on another computer and ensure that it can connect to the exacqVision Server using the static IP address and one of the configured user accounts.
	Search Mode (see Chapter 6)
	Search* <ul style="list-style-type: none"> <input type="checkbox"/> Connect after 24 hours. <input type="checkbox"/> Connect after 7 days. <p>*Search to ensure cameras are not recording excessive amounts of motion; if they are, adjust motion sensitivity or windows/masks, or possibly adjust camera for low-light noise. Look at Storage setup page and extrapolate the storage duration to ensure that it meets requirements; if it does not, decrease frame rate, quality, or resolution.</p>

2

Installing exacqVision Software on Third-Party Clients and Servers

Server Requirements

Hardware Requirements

See the Exacq website at https://www.exacq.com/products/vms_requirements.html for current minimum hardware requirements. Actual hardware requirements vary considerably based on each user's application:

- CPU requirements increase greatly when hosting multiple concurrent web clients.
- The exacqVision server application requires a maximum of 4GB, although additional memory is required for the operating system, web hosting, or any other server applications.
- The storage system is often the performance limitation because of the large amount of read and write processes. Your storage system should be capable of sustained reads/writes at least twice the maximum data rate from all cameras. Exacq highly recommends using RAID 5 or RAID 6 for all video storage to reduce the likelihood of catastrophic failure.
- Enterprise-grade hard drives are highly recommended to handle constant video recording.
- The server operating system and exacqVision software should be installed on a dedicated, mirrored operating system drive.
- Servers should always be UPS-powered to avoid data corruption during power failure.

Operating System Requirements

See the Exacq website for minimum operating system requirements. In addition:

- If automatic updating is enabled, your server might stop recording video when the operating-system restarts.
- Anti-virus programs should scan *only the operating system and exacqVision software drives*. Virus scanning should be disabled on all video storage drives to avoid large decreases in drive performance.
- Port blocking is not recommended because many edge devices use multiple or dynamic port assignment.

MAC addressing requirements

exacqVision software is licensed based on MAC addressing. Servers with teamed NICs or other arrangements that obscure the MAC require an additional USB-based NIC to provide a licensing MAC.

Networking

For the greatest system reliability and performance, the network administrator should observe the following best practices:

- A dedicated VLAN and NIC port for all cameras.
- A dedicated VLAN and NIC port for storage networks (if used).
- A separate VLAN and NIC for all client connections.
- Cameras and servers should use fixed IP addresses. Clients can use DHCP.
- Camera-to-server network capacity should be twice to maximum video data rate.
- Server-to-thick-client network capacity should be 1.5 times the maximum total data rate of all simultaneously viewed cameras.

Web Server

The exacqVision Web Services installer provides lighttpd as the default web service. For systems where more than five to ten concurrent client connections are expected, you should upgrade to Apache web services. For more information, see <https://www.exacq.com/kb/?kbid=34927>.

As noted previously, web services increase server hardware requirements and can require installation on a dedicated web server. For additional information on configuring web services, see the Exacq knowledge base at <https://www.exacq.com/kb/>.

Server Software Installation

1. For Windows servers, download the latest server and web services software installation from <http://downloads.exacq.com/reseller/exacqVision.exe>
2. For Linux servers, download the latest server and web services software installation from <http://downloads.exacq.com/reseller/Ubuntu/Dapper/exacqVisionServer.deb>.
3. Using an administrator account, run the executable to start the installation wizard.
4. Configure the IP address, username, and password on all cameras by following the manufacturer's instructions or the *exacqVision IP Camera Quickstart Guide* found at <https://www.exacq.com/downloads/ev-ip-quickstart-0311.pdf>.
5. Test connectivity to each camera with the ping command.

Client Software Installation

1. Download the latest client software from <https://downloads.exacq.com/downloads/exacqVisionClient.exe>.
2. Using an administrator account, run the executable to start the installation wizard.
3. Confirm connectivity with the server using the ping command and server IP address. If the client PC cannot communicate with the server, contact the network administrator.
4. Start the exacqVision Client software and enter the configuration page.
5. In the site tree, select Add System.
6. Click New and enter the username admin, password admin256, and IP address (static) or hostname (fixed) that was configured in previous steps. Click Apply. If the new server appears in the system list table with a status of Connected, the initial server configuration is complete. If the server does NOT connect, but server connectivity was confirmed in previous steps, ensure that the PC anti-virus software is not blocking communications with the server IP addresses and ports.
7. Proceed to Chapter 4 to start exacqVision server configuration.

3

exacqVision Software Overview

Client/Server Architecture

exacqVision software is based on a client/server architecture in which every computer is a client, server, or client/server combination. These configurations are defined as follows:

- A client computer provides access to a remote service on another computer over a TCP/IP network. The exacqVision Client software is a thick client, and the web browser is a thin client.
- A server computer provides services to client computers over the TCP/IP network. An exacqVision server receives and stores video from cameras; provides audio, video, and data as requested by thick clients; and hosts a web server (if enabled) for thin clients. The exacqVision Server software does not have a graphical user interface; only the client software allows interaction. A server can serve multiple simultaneous client connections, within hardware limitations.
- A client/server combination simultaneously operates client and server software. A loopback TCP/IP address of 127.0.0.1 allows the client software to communicate with the server software on the same computer. exacqVision servers are configured at the factory as a client/server combination to provide a convenient initial configuration experience.



Logging In

All exacqVision servers are shipped with two operating system accounts:

- 1) Username: **admin**
Password: admin256
Privileges: computer administrator

- 2) Username: **user**
Password: user5710
Privileges: restricted user

NOTE: Exacq recommends that the default passwords be changed by the operator and written and secured to prevent unauthorized access or modifications to the system. As part of the initial exacqVision System configuration, Exacq recommends that the operator configure a new user on the exacqVision Server with restricted privileges and change the exacqVision Client settings in the user operating system account to connect to the local exacqVision Server via this user. See the Users Setup section of this manual or the context-sensitive online help file for instructions on creating a new exacqVision user.

When exacqVision servers start, they immediately start the exacqVision service, boot into the user account, and start the exacqVision Client software. Server log-in is not required to start video recording or communication with client PCs. All third-party servers start the exacqVision service on startup, but user accounts and automatic login must be manually configured.

The user account functionality is limited to using the exacqVision client software for maximum reliability. All server maintenance tasks (such as shutting down the exacqVision service) that are not performed within the exacqVision Client require logging into the operating system's administrator account.

Each operating system user account maintains separate settings for its exacqVision Client. These settings include usernames, passwords, and network addresses required for exacqVision Clients to access exacqVision Servers. By default, both the **user** and **admin** operating system accounts have settings that provide administrator access to the instance of exacqVision Server running on the local computer, which is always via the 127.0.0.1 IP address.

Exacq recommends that all servers be configured with one system administrator account with Remote Desktop (Windows) or SSH (Linux) remote access for system support.

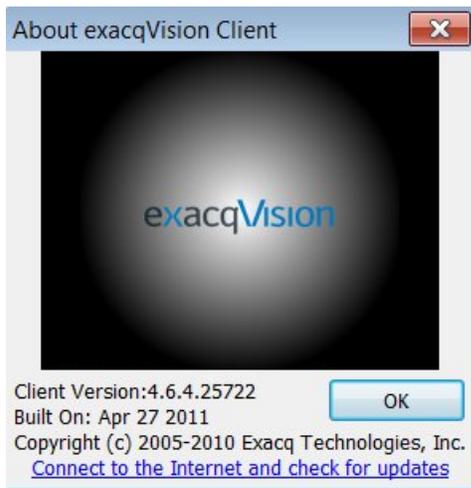
The exacqVision Server can be accessed from multiple exacqVision Clients, which can be running from the same computer as exacqVision Server or from remotely networked computers. The exacqVision Server has been preconfigured with one user.

Updating exacqVision Client Software

Click the exacqVision logo in the upper-right corner of the screen to open the About exacqVision Client window.

1. The window lists the current version and built date.
2. To check for software updates, click Connect to the Internet and Check for Updates. If you have already installed the most recent version of the software, a message is displayed; click OK to return to the About exacqVision Client window. If a more recent version of the exacqVision Client is available, the download process starts.

After the download is complete, close all instances of the exacqVision Client to complete the update. Click Yes to accept the download, and then follow the instructions in the Setup Wizard onscreen.



Operating Modes



exacqVision systems have three main modes of operation, as represented by the following three icons:



Live Mode allows users the ability to view live video.



Search Mode allows users the ability to search for recorded video.



Setup Mode allows Administrators and Power Users the ability to configure systems.

Clicking on any of these icons changes the mode of operation. Each mode is explained in the following chapters.

Online Help System

You can access online help for your exacqVision System by clicking the Help button or the F1 key. On some platforms, online help is context-sensitive. To view online help, click the question mark button:



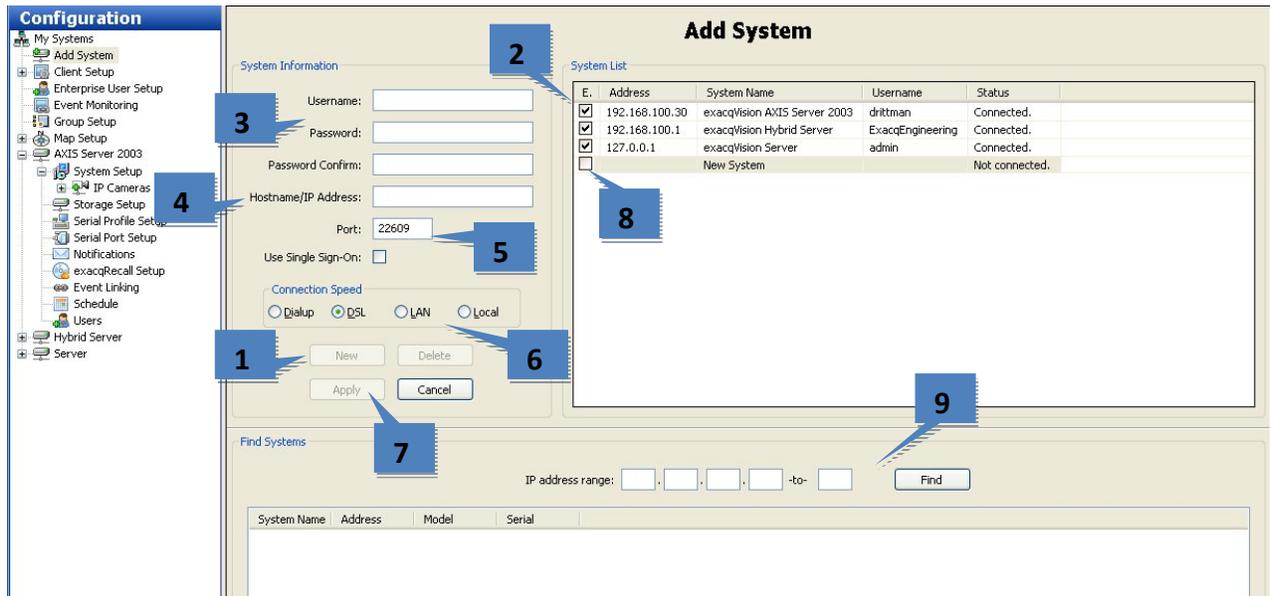
4 Setup Mode Overview

System Name	Serial Number	IP Address	Connection Status	License	MAC Address	Subscription	Version	Status	Days Rec Video
exacqVision AXIS Server 2003	00-16-76-A8-E1-66	192.168.100.30 (axis-2003.demo.test.exacq.com)	Connected.	Enterprise		Updates through 2016-02-22	4.5.16.25630	ALARM	20
exacqVision Hybrid Server	00-1C-C0-66-42-48	192.168.100.1 (er0936001231)	Connected.	Enterprise	00-1C-C0-66-42-48	Updates through 2011-12-27	4.5.16.25630	ALARM	1
exacqVision Hybrid Server	00-08-08-06-AC-A2	127.0.0.1	Connected.	Evaluation	00-08-08-06-AC-A2	None	3.7.7.19858	NOT ENTERPRISE	0

Setup Mode allows you to configure systems, cameras, and other devices.

1. **Config Mode Icon.** This button runs the Config (Setup) mode.
2. **Configuration Tree.** This tree allows you to open the various configuration pages.
3. **My Systems.** This default Setup mode page displays systems that have been added.
4. **Setup Page.** This area displays the configuration pages selected from the configuration tree.

Add System



The Add System page allows you to add systems so that you can connect to them with exacqVision Client.

1. To add system, click New. (Alternatively, you can “find” a system, as discussed below.)
2. The new system is added to the System List.
3. The System Information fields are enabled. Enter a valid Username, Password, and Password Confirm used to log in to the system.
4. Enter the system’s hostname or IP address. Contact the system administrator if you do not know this information.
5. By default, the port number is 22609; change this only if necessary for your network configuration.
6. Select the radio button that matches your Connection Speed. This tells the system how much audio to buffer in order to help maintain a smooth audio stream.
7. When finished, click Apply. If the entered information is valid, the system is automatically connected.
8. To disconnect or reconnect a system, select its box in the System List.
9. To find a system and its address on your network, enter the IP address range in the Find Systems area. The first three boxes must be the first three elements of the IP address; the fourth and fifth boxes are used to create a range of numbers for the final element of the IP address. Click Find to list all systems whose IP addresses are in the IP address range. When the search is complete (or when you click Stop, which replaces the Find button), you can select any of the systems to add the system to the System List and populate the Hostname/IP Address field. You must still enter a valid username or password to be able to connect to the system. Click Apply when finished.

Connected systems in the System List should now also appear in the Configuration, Live, and Search trees. Disconnected systems do not appear in the trees.

NOTE: You cannot connect to more than one system that is licensed as an exacqVision Start server at a time. If you attempt to connect to a second Start server simultaneously, the first connection to a Start server is terminated.

System Setup

The **System Setup** page allows you to set basic system parameters for the client application. The page is separated into the following four tabs:

- The **System** tab allows you to create a name for the system, export and import settings from other systems, import and export graphics, and manage the licensing of your system.

System Setup

System | Date/Time | Network | ActiveDirectory/LDAP

System Identification

System Name:

Export and Import Settings

License

MAC Address: 00-1C-C0-66-42-48

Status: Enterprise

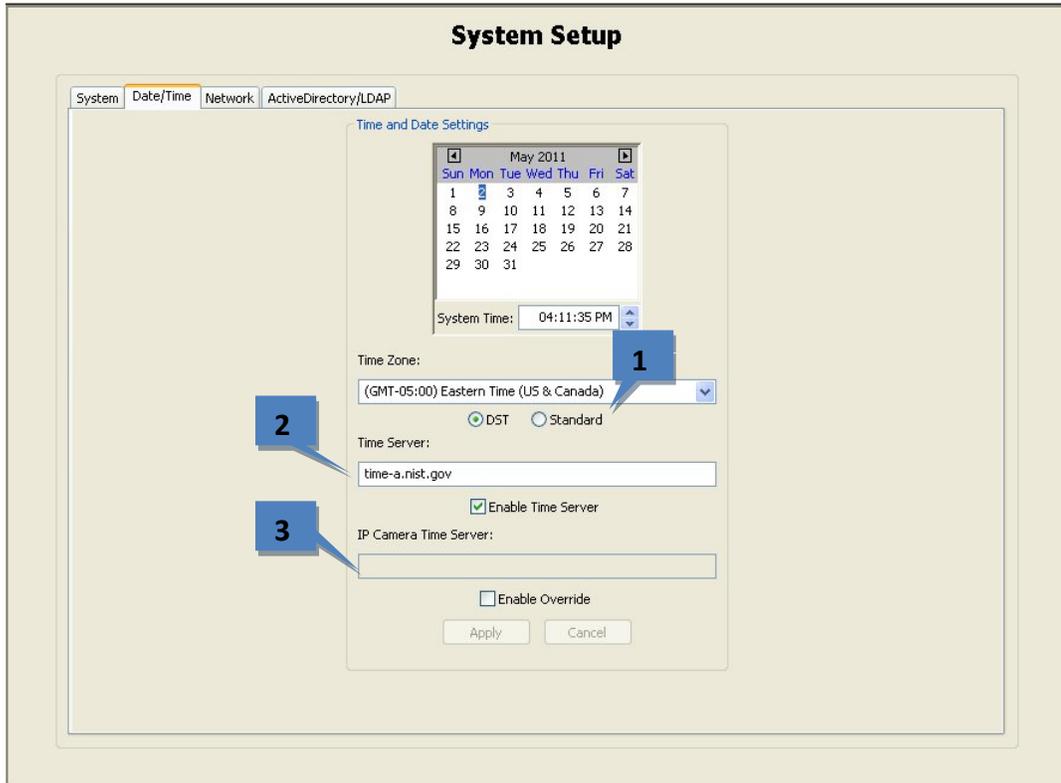
Subscription Expires: Updates through 12/27/2011

Licensed IP Cameras: 32 IP Cameras (14 used)

Licensed Boards: 1 eDVR Board

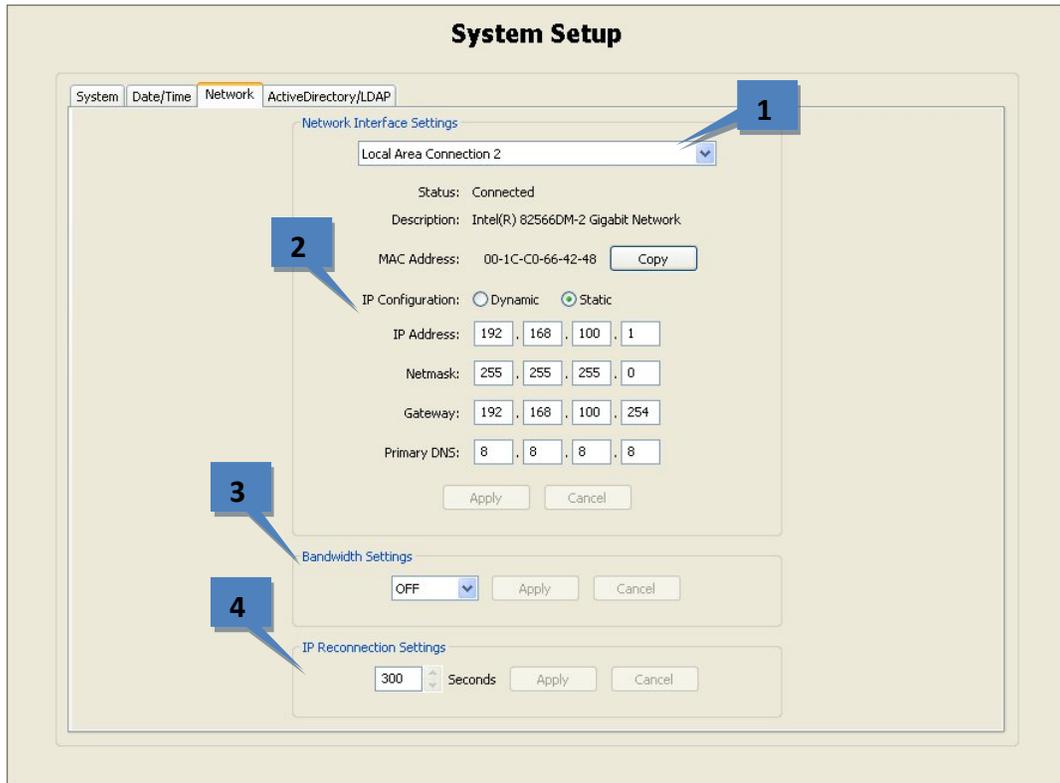
1. After configuring your system, it is recommended that you click Export Settings to export system settings to a USB or network drive and store it off-site for recovery from a disaster or malfunction.
2. If you ever need to restore the settings or simply import them from another system, click Import Settings and apply the saved settings.
3. Unlicensed exacqVision servers can connect to only one IP device at a time. To obtain your license key online, provide the system MAC address to your dealer.
4. The dealer will contact Exacq to obtain the license, which is entered on the System Setup page.

- The **Date/Time** tab displays the exacqVision server's time information.



1. Select the time zone and daylight saving time (DST) information for the server's location.
2. On systems with Internet access, select Enable Time Server and enter a valid Internet time server. On systems without Internet access, select Enable Time Server and enter an internal time server (see your network administrator for more information).
3. If a time server is not available, select Enable Override and enter the server's IP address. This is the least accurate of the time server options.

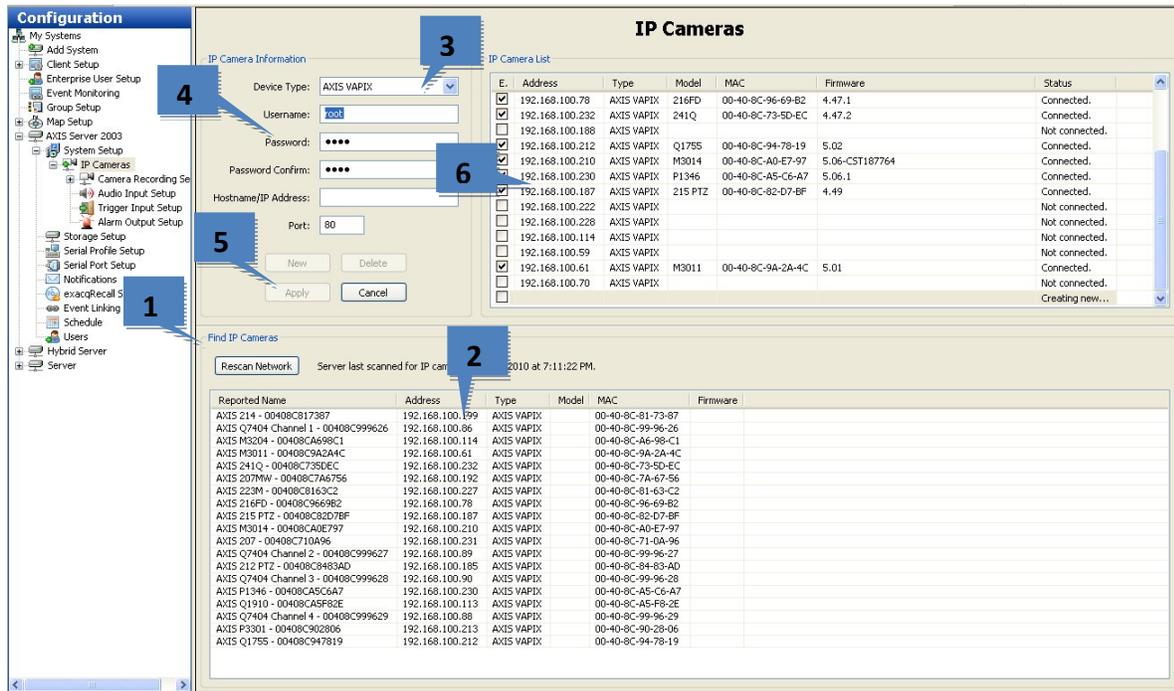
- The **Network** tab displays your system's IP Address, Netmask, Gateway, and Primary DNS server.



NOTE: On a Linux-based system with multiple network interface cards (NICs), the DNS server is the same for all the NICs in the system. Therefore, changing the DNS on a single NIC changes the DNS for all the NICs in the system.

1. Select a network connection from the Network Interface Settings drop-down list to display its information. Systems with multiple NICs have more than one entry in the list.
 2. Enter the IP Configuration information for the network connection. Gateway and Primary DNS information is required to connect with a network time server. Click Apply.
 3. Select the correct bandwidth setting to limit network traffic from the server to client computers. Click Apply.
 4. Select the IP Reconnection Settings value in seconds. Click Apply.
- The **Active Directory/LDAP** tab is used only with systems with an Enterprise license. For more information, see the LDAP integration document appropriate for your platform found at <https://www.exacq.com/downloads/LDAP/index.html>.

Add IP Cameras



The **IP Cameras** page allows you to add IP cameras and devices to the system and configure their settings. The following features are available on the IP Cameras page:

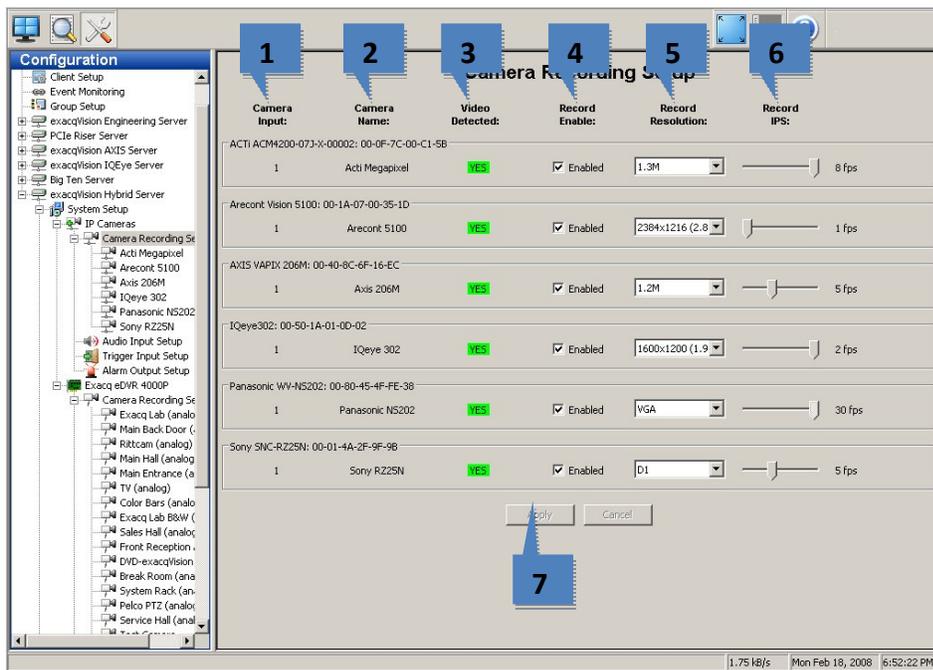
1. The Find IP Cameras section scans for supported IP cameras available on the same network that the system is connected to. If you don't see an IP camera that you expect to see on the network, verify that the camera has been configured as instructed in the *exacqVision IP Camera Quickstart Guide* and that the camera can be pinged from a command prompt. If you make any changes to an IP camera, click Rescan Network and check whether it is listed.

NOTE: If you need to confirm which camera you are installing, right-click the camera in the IP Camera List or Find IP Cameras list to access the camera's website and view a video image.

2. Select a camera in the Find IP Cameras list to add it to the IP Camera List.
3. Alternatively, you can manually add a camera by clicking New and selecting the device type as follows:
 - If the appropriate manufacturer-specific driver is shown in the list, select it.
 - If that is not available and the device is ONVIF-compliant, select the ONVIF driver. (The level of integration can vary by manufacturer or model.)
 - RTSP-compliant cameras can stream video but not motion detection or camera configuration data.
4. Enter a username, password, and IP address as configured on the camera.
5. Click Apply to save the camera configuration.
6. To enable a camera, select its checkbox in the IP Camera List. The number of cameras you can enable is subject to licensing limits.

The camera should now also be listed in the Configuration, Live, and Search trees.

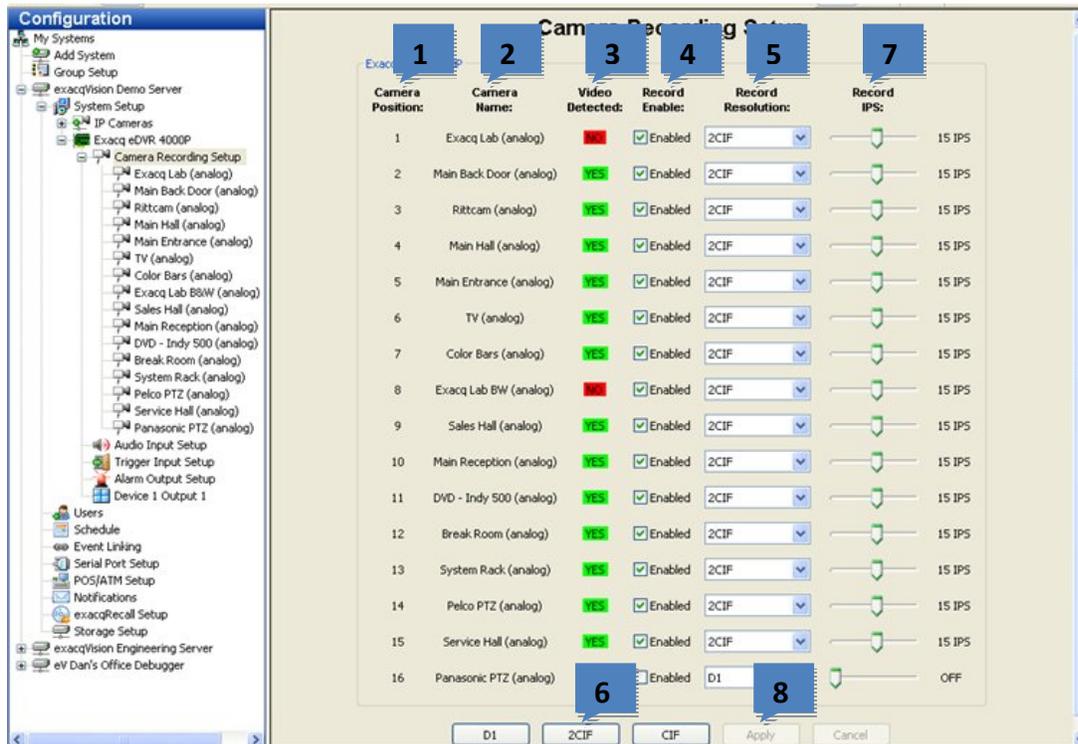
IP Camera Recording Setup



The IP **Camera Recording Setup** page allows you to enable IP cameras to record video, configure the recording resolution, and configure the images per second (IPS) recording rate. The following features are available on the IP Cameras page:

1. The Camera Input column is always 1 for IP cameras.
2. The Camera Name column shows the assigned name of the camera.
3. The Video Detected column indicates whether the camera is connected and sending a video signal to the system. If so, a green "YES" is shown.
4. The Record Enabled column contains check boxes that allow you to enable or disable recording from that camera. By default, the check box is selected if a signal is detected; however, you can manually disable recording on a camera that is connected and sending a signal to the system.
5. The Record Resolution column contains drop-down lists with resolutions supported on each camera.
6. The Record IPS column contains sliders allow you to change the number of images recorded from each camera every second. The available IPS settings can vary between cameras.
7. Click Apply to activate any changes.

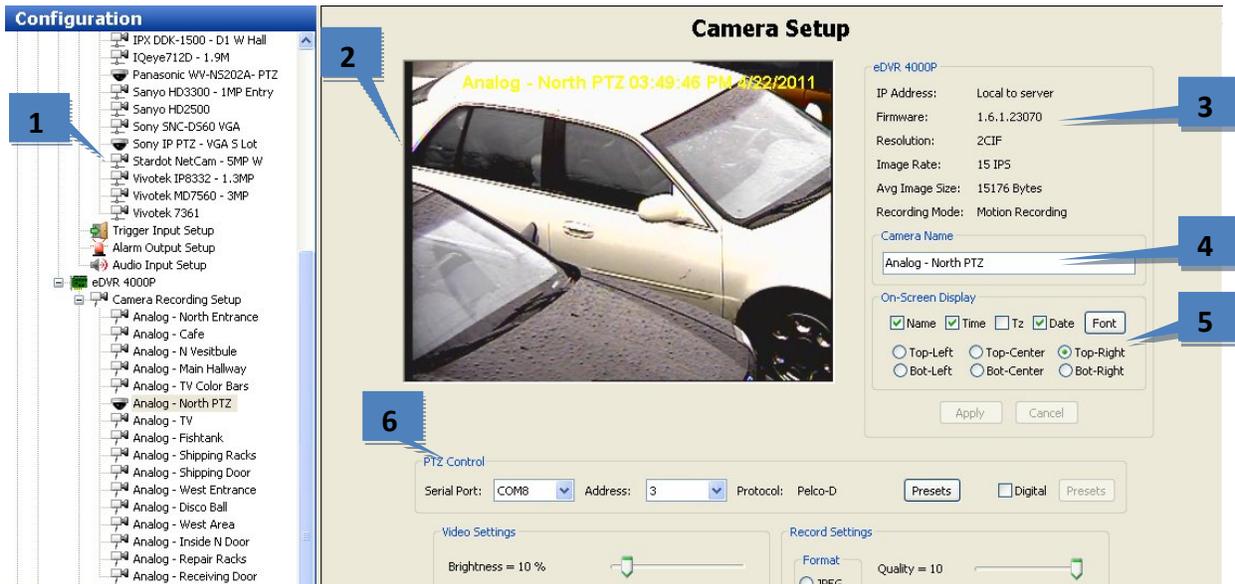
Analog Camera Recording Setup



The analog **Camera Recording Setup** page allows you to enable cameras to record video, and configure the cameras' recording resolution and recording rate. This page is similar to the IP Camera Recording Setup page, with a few minor differences. The following features are available on the analog Camera Recording Setup page:

1. The Camera Position column is the physical input connect that the camera is connected to on the back of the exacqVision system.
2. The Camera Name column shows the assigned name of the camera.
3. The Video Detected column indicates whether the camera is connected and sending a video signal to the system. If so, a green "YES" is shown.
4. The Record Enabled column contains check boxes that allow you to enable or disable recording from that camera. By default, the check box is selected if a signal is detected.
5. The Record Resolution column contains drop-down lists with resolutions supported on each camera.
6. To change the resolution for all detected cameras on the system, click on the D1, 2CIF or CIF button.
7. The Record IPS column contains sliders allow you to change the number of images recorded from each camera every second. The available IPS settings can vary between cameras.
8. Click Apply to activate any changes.

Camera Setup



The **Camera Setup** page is where you configure the individual IP camera settings such as camera name, on-screen display, PTZ settings, video settings, recording quality and motion and video masks. This page is identical whether you are configuring an IP or an analog camera, but certain features might be unavailable depending on the type of camera you are configuring. The following features are available on the Camera Setup page:

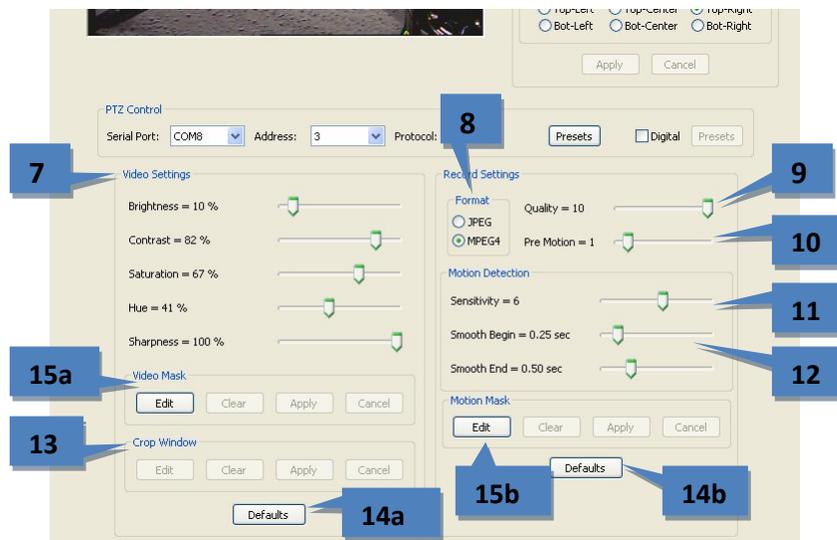
1. Use the Configuration tree to select the camera that you want to configure.
2. A live view of the selected camera is displayed.
3. Basic information about the camera is listed.
4. The Camera Name field allows you to change the name of the camera.
5. The On-Screen Display section allows you to select the information displayed in the camera's window on the live page, the location in the window where it is displayed, and the font of the displayed text.
6. See the "PTZ Configuration" section of this manual for information about the PTZ Control section of the Camera Setup page.

The rest of the Camera Setup page is discussed on the following page.

IMPORTANT NOTE

Many IP camera settings that are not available in the exacqVision software can be accessed through the camera's web page. To view an IP camera's web page, click the hyperlink in the IP Address field. If you don't see a hyperlink beside the IP Address field, it could be for one of two reasons:

- A. You are not logged in to the operating system with administrative privileges. You must log in to operating system account with administrative privileges to access the hyperlink.
- B. Your client computer is not located on the same IP subnet as the IP camera. This could occur if you are using the client from a home computer to access a server at your office, for example. This restriction should cause few issues because camera website settings are typically changed only during initial configuration.



NOTE: The following settings on the Camera Setup page are not available on RTSP interfaces, and they vary on ONVIF and certain proprietary interfaces.

7. The Video Settings slider allows you to adjust the image as it is displayed on your screen.
8. The Format section allows you to select the compression format.
9. The Quality slider allows you to modify the image quality by increasing or decreasing its size. Decreasing image quality saves disk space by reducing the size of the video that's being recorded.
10. The Pre Motion slider adjusts the number of seconds worth of video that are saved before the motion event occurs. For example, suppose Pre Motion is set to 5; when you play back motion video from that camera, you will see five seconds of video that was recorded before the motion event occurred, followed by the motion event itself.
11. The Motion Detection sensitivity slider allows you to configure how much motion must occur in the camera's view to trigger motion recording (if enabled on the Schedule page). A value of 1 is the least sensitive, and 10 is the most sensitive. A low sensitivity setting can reduce false motion created by video noise or shadows.
12. Smooth Begin and Smooth End prevent the undesired recording of certain motion events. Smooth Begin requires a minimum amount of time for motion to occur before motion recording begins; this prevents things such as a blinking light of a laser bar code scanner in a dark room, or cars passing on a road in the distance, from triggering motion recording. Smooth End determines how much video the system continues recording after the motion is no longer detected; this prevents the recording of choppy segments of frequent motion video.
13. Crop Window, available on certain IP cameras, allows you to crop unimportant portions of a camera image in order to save disk space. Click Edit and then use the mouse cursor to draw a box on the video window. This box will be the portion of the camera's view that will be recorded and displayed (the rest of the view will be ignored). Click Apply to activate the crop; click Edit, Clear, and Apply to deactivate the crop.
14. The Defaults buttons restore factory settings to their respective sections. One Defaults button restores the Video Settings, and the other Defaults button restores the Record Settings.
15. See the following section, "Motion Masks and Video Masks," for more information about those portions of the Camera Setup page.

Motion Masks and Video Masks

IMPORTANT NOTE

Some models of cameras allow you to create Motion Windows instead of Motion Masks. A Motion Mask is an area of a video window where motion is ignored, whereas a Motion Window is an area of a video window where motion is monitored. This section discusses how to create a Motion Mask. However, a Motion Window can be created using the same process.

A motion mask reduces unwanted recording by ignoring motion events that occur in certain areas of an image. For example, if a camera is pointed at a room that has a moving ceiling fan in the field of view, you can avoid continuous motion recording by masking out the fan while still recording motion that occurs in the rest of the camera's field of view. Motion masks save storage space, extend recording time, and make it easier to visually see motion events on the video timeline on the Search page.

To create a motion mask, complete the following steps:

1. On the Camera Setup page, click Edit in the Motion Mask section. This displays a blue motion grid over live video from the camera.
2. Draw the mask directly in the grid. You can either individually click each rectangle to create the mask, or you can left-click while dragging the cursor across multiple rectangles.



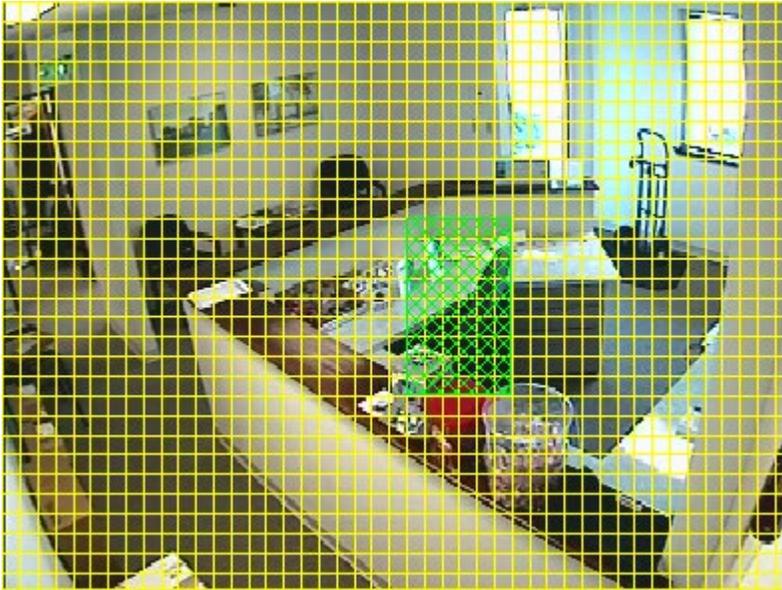
3. Click Apply to enable the motion mask.

To delete a motion mask, click Edit, click Clear, and click Apply.

A Video Mask is used to block an area of a camera's view so that it cannot be seen onscreen in live or recorded video. This can be useful if you don't want system users to see a combination safe or keypad that is in the camera's field of view, for example.

To create a video mask, complete the following steps:

1. On the Camera Setup page, click Edit in the Video Mask section. This displays a yellow grid over the live video from the camera.
2. Draw the mask directly in the grid by left-clicking while dragging the cursor over the area of the grid you want to mask. A green rectangle indicates the masked area.



3. Click Apply. The yellow grid disappears and green rectangle is replaced by a solid gray rectangle. This area is now masked from both live and recorded video. To clear the mask, click the Clear button.

Serial Profile Setup

The Serial Profile Setup page enables the exacqVision server to integrate with serial data devices such as point-of-sale (POS) and bank machine systems.

The screenshot shows the 'Serial Profile Setup' configuration page. On the left is a navigation tree with 'Serial Profile Setup' selected. The main area contains several sections:

- Current Profile Properties:** Includes fields for Profile Name (Keyword Test), SOT marker, and EOT marker. It also has a checked 'Case Sensitive' checkbox and a 'Select Display Font' button.
- Existing Profiles:** A list box containing 'IP Marsh Port' and 'Keyword Test', with 'New' and 'Delete' buttons below it.
- Live Display and Record Masks:** A table with columns for 'String', 'Mask Display', and 'Mask Record'. Below the table is a 'Case Sensitive' checkbox.
- Event Key Words:** A table with columns for 'Key Word' and 'Enable'. It lists 'disco', 'clock', 'side door', and 'front door', each with a checked 'Enable' checkbox. A 'Case Sensitive' checkbox is also present.
- Days for Data Retention:** A field set to '60' with up/down arrows.
- Buttons:** 'Apply' and 'Cancel' buttons at the bottom right.

Numbered callouts (1-10) point to: 1. Existing Profiles list; 2. New button; 3. Profile Name field; 4. SOT marker field; 5. EOT marker field; 6. Select Display Font button; 7. Live Display and Record Masks table; 8. Days for Data Retention field; 9. Event Key Words table; 10. Apply button.

1. To view an existing profile, click on it in the Existing Profiles field.
2. To add a new profile, click the New in the Existing Profiles box.
3. Enter a unique name in the Profile Name field in the Current Profile Properties box.
4. The SOT, or Start of Transaction, marker tells the exacqVision System when the transaction has started. For example, you could enter the first line shown on a receipt.
5. The EOT, or End of Transaction, marker tells the exacqVision System when the transaction has ended. For example, you could enter the last line shown on a receipt.
6. The Select Display Font button allows you to select the font you want to be displayed on the Live view.
7. Live Display and Record Masks allows you to black out lines so they are not visible on the live camera or through recorded data. (This can be used to hide credit card information.) Enter one or more signal words in the String field, and the system will black out the entire line on either the live display screen or recorded transaction or both. To mask the live video feed, select the Mask Display box; to mask the recorded transaction data, select the Mask Record box.
8. The Days For Data Retention field defaults to 60. To change this, use the arrows or type a new number.
9. Event Key Words allows you to set alarms that will be triggered through key words on a receipt after you link the profile through the Event Linking system.
10. When finished, click Apply.

NOTE: You can require case sensitivity for all strings or all key words by selecting the appropriate Case Sensitive option under each list.

You have now created the new serial profile. If you entered any data in the Event Key Words box, you must link the profile to the appropriate Action through the Event Linking page, selecting Serial Profile as the Event Type.

Serial Port Setup

The Serial Port Setup page allows you to configure serial ports on your exacqVision system so that they can be used to communicate with serial devices such as POS terminals or pan-tilt-zoom (PTZ) cameras. There are two Serial Port Setup sections — one for standard UART (Universal Asynchronous Receiver/Transmitter) and one for serial ports over IP.

The screenshot shows the 'Serial Port Setup' interface. It is divided into two main sections: 'UART' and 'IP'. The UART section contains a table with columns: Use, Name, Port, Profile / Protocol, Baud Rate, Data Bits, Stop Bits, Parity, Flow Control, and Max Line Length. The IP section contains a table with columns: Select, Use, Name, Status, Profile, Type, Address, Port, and Max Line Length. At the bottom, there are buttons for 'New', 'Delete', 'Apply', and 'Cancel'. Numbered callouts (1-7) point to specific elements: 1 points to the 'Use' column in the UART table; 2 points to the 'Name' column; 3 points to the 'Port' column; 4 points to the 'Profile / Protocol' column; 5 points to the 'Baud Rate' column; 6 points to the 'Max Line Length' column; and 7 points to the 'Apply' button.

Use	Name	Port	Profile / Protocol	Baud Rate	Data Bits	Stop Bits	Parity	Flow Control	Max Line Length
POS	MarshPort	COM1	Marsh	4800	8	1	None	None	80
Unused	Test	COM3	None	9600	8	1	None	None	80
PTZ	Pelco	COM6	Pelco-D	4800	8	1	None	None	80

Select	Use	Name	Status	Profile	Type	Address	Port	Max Line Length
<input type="checkbox"/>	ATM	MarshIpPort	Connected.	Marsh	TCP	192.168.100.2C	12345	80

Buttons: New, Delete, Apply, Cancel

For a UART serial port, connect the wires to the serial port and then configure the port. The system automatically detects and displays the serial ports. You can configure the following settings on each port:

1. Select the intended use of the serial port from the drop-down list in the Use column. The choices are unused, PTZ (pan/tilt/zoom), POS (point of sale), ATM (automatic teller machine), or Access Ctrl. Generally, the POS mode is used to record transactions at a cash register. By default, the last serial port listed is the built-in RS-485 port.
2. Enter a unique name in the Name field.
3. The Port is automatically selected by the Operating System.
4. The Profile/Protocol column allows you to select one of the profiles configured on the Serial Profile page.
5. The Baud Rate, Data Bits, Stop Bits, Parity, and Flow Control must match the device you are connecting to. See the device's documentation for more information.
6. The Max Line Length is 80 by default. Generally, you should not change this.
7. When you are finished, save the settings by clicking the Apply button at the bottom of the page.



For serial over IP, you must add the port by clicking New; the system does not automatically detect and list IP serial ports. You can configure the following settings on each port:

1. Select the intended use of the port (unused, POS, ATM, or Access Control).
2. Enter a unique and descriptive name for the port that will appear to client and Live view users.
3. The Status column displays whether the port is currently connected.
4. Select a profile from the drop-down list. Profiles, which are created on the Serial Profile Setup page, are used to filter an incoming serial string to isolate useful information.
5. Select the transport type as defined by the source device manufacturer's documentation.
6. Enter the IP address of the source device.
7. Enter the TCP port of the source device as defined by the device manufacturer's documentation.
8. Enter the maximum number of characters per line sent by the source device. If you are unsure of the correct value, use the default setting of 80. Setting this number too low could result in missing characters at the end of certain lines.
9. When you are finished, save the settings by clicking the Apply button at the bottom of the page.

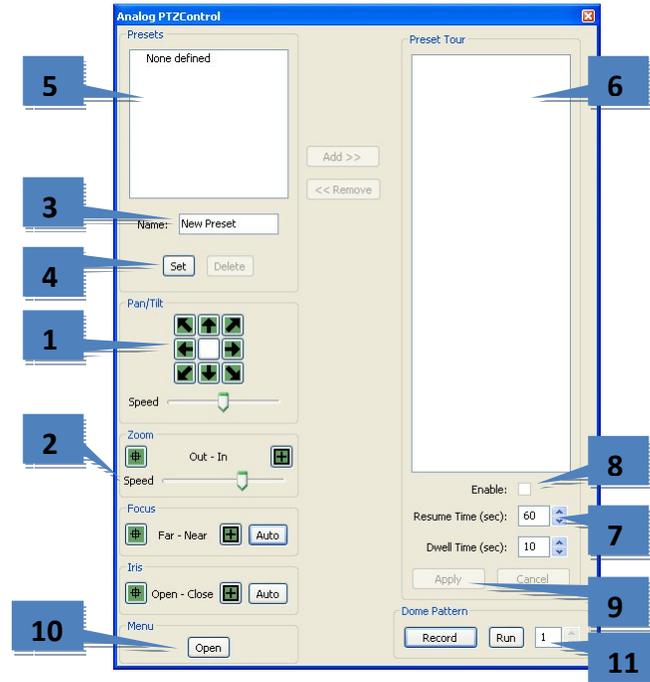
PTZ Configuration

This section discusses the PTZ Control section of the Camera Setup page, which allows you to identify a camera as a PTZ device and configure PTZ presets.

The screenshot shows the PTZ Control configuration interface. It includes a title 'PTZ Control' and several fields: 'Serial Port' with a dropdown menu showing 'COM8', 'Address' with a dropdown menu showing '3', and 'Protocol' with the text 'Pelco-D'. There are two 'Presets' buttons, one before and one after a 'Digital' checkbox. Five blue callout boxes with numbers 1 through 5 point to these elements: 1 points to the Serial Port dropdown, 2 points to the Address dropdown, 4 points to the first Presets button, 3 points to the Digital checkbox, and 5 points to the second Presets button.

1. Select the camera's COM port from the Serial Port drop-down list. This port is configured on the Serial Port Setup page.
2. Select the camera's Address as configured on the camera hardware. (The protocol is automatically displayed based on the Serial Port selected.)
3. To enable digital PTZ functions on the Live and Search pages, select the Digital checkbox. This is available even if the camera is not mechanically capable of PTZ functions.
4. The first Presets button opens the Analog PTZControl window, which is described on the following page.
5. The second Presets button opens the Digital PTZControl window, which is described on the following page.

PTZ presets can be configured by clicking Presets on the Camera Setup page.



1. Use the Pan/Tilt buttons to point the camera at the desired preset location. If the camera moves too quickly or too slowly, move the Speed slider left (slower) or right (faster).
2. Adjust the Zoom, Focus, and Iris settings as desired (Focus and Iris are not available when configuring IP cameras).
3. Enter a name or number for the preset in the Name field.
4. Click Set to enable the preset.
5. After you click Set, the preset is listed under Presets.
6. To create a Preset tour (not available with digital PTZ or IP cameras), select a preset from the Presets list and click Add>> to show it in the Preset Tour list. Repeat for each remaining preset that you want to include in the tour. You can re-order the presets in the Preset Tour list by clicking and dragging them to the desired place in the tour. To delete a preset from the tour, select it in the Preset Tour list and click <<Remove. A preset can be included multiple times in the tour.
7. Resume time is the number of seconds that a tour starts after a user manually controls PTZ functions while a tour is active. Dwell time is the amount of time that the camera stays on each preset.
8. Select Enable to activate the tour.
9. Select Apply to complete the process.
10. The Open button displays the camera manufacturer's onscreen menu. Actions required to accept on-screen information varies by manufacturer; clicking Iris Open and Focus Far are the most common.
11. To create a dome pattern (analog cameras only), click Record, move the camera in the pattern desired, and click Stop. Click Run to review the pattern.

Audio Input Setup

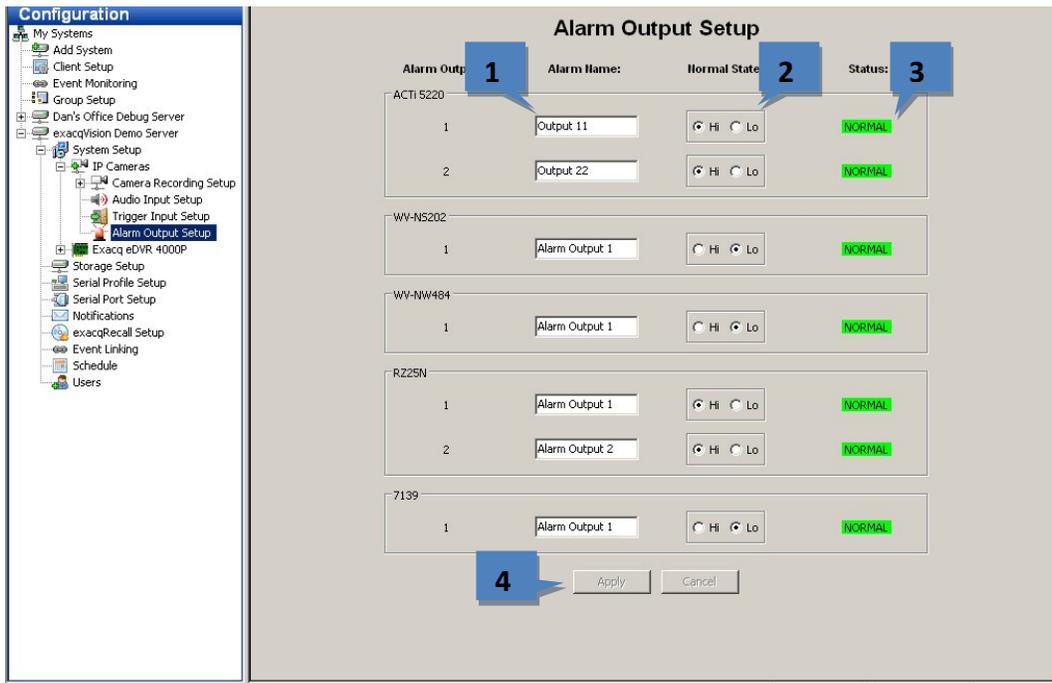
Audio Input:	Audio Input Channel Name:	Record Enable:	Listen:	Recording Mode:
1	TV	<input checked="" type="checkbox"/> Enabled	Listen	Continuous Recording
2	DVD	<input checked="" type="checkbox"/> Enabled	Listen	Continuous Recording
3	Audio Input 3	<input type="checkbox"/> Disabled	Listen	Recording Disabled
4	1K Test Tone	<input checked="" type="checkbox"/> Enabled	Listen	Continuous Recording

Apply

The Audio Input Setup page allows you to name and enable the audio inputs you want to record. The exacqVision System ships with the audio input positions disabled due to legal restraints on audio recording in some jurisdictions. You may want to seek legal guidance prior to recording any audio inputs.

1. Enter a name for the audio input channel.
2. Select Enabled to enable audio recording on the input.
3. Repeat this process until all audio inputs have been named, and then click the Apply button.
4. Click Listen to verify the audio input connected to a channel. This is sometimes helpful when assigning names to multiple audio inputs.
5. The Recording Mode column shows the recording mode selected for the audio input on the Schedule page.

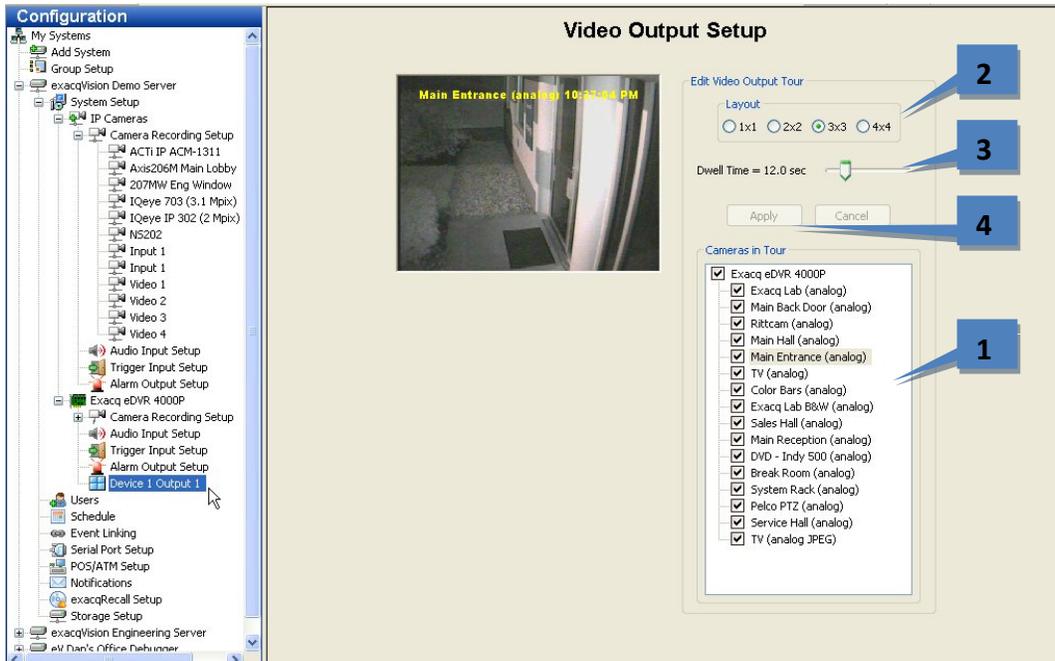
Alarm Output Setup



On hybrid systems with alarm outputs, you can verify the proper operation of the output state by observing the “Status” state, which toggles back and forth between “Normal” and “Alarm”. By default the “Normal State” is set to Hi (5 VDC).

1. Enter a name for each alarm output in the Alarm Name column.
2. Configure the alarm output’s Normal State as Hi (5VDC) or Lo (0VDC).
3. The Status column indicates whether the alarm output is in its normal (green) state or in its alarm (red) state. The output can be triggered to alarm state by an event configured on the Event Linking page.
4. When you are finished configuring alarm outputs, click Apply.

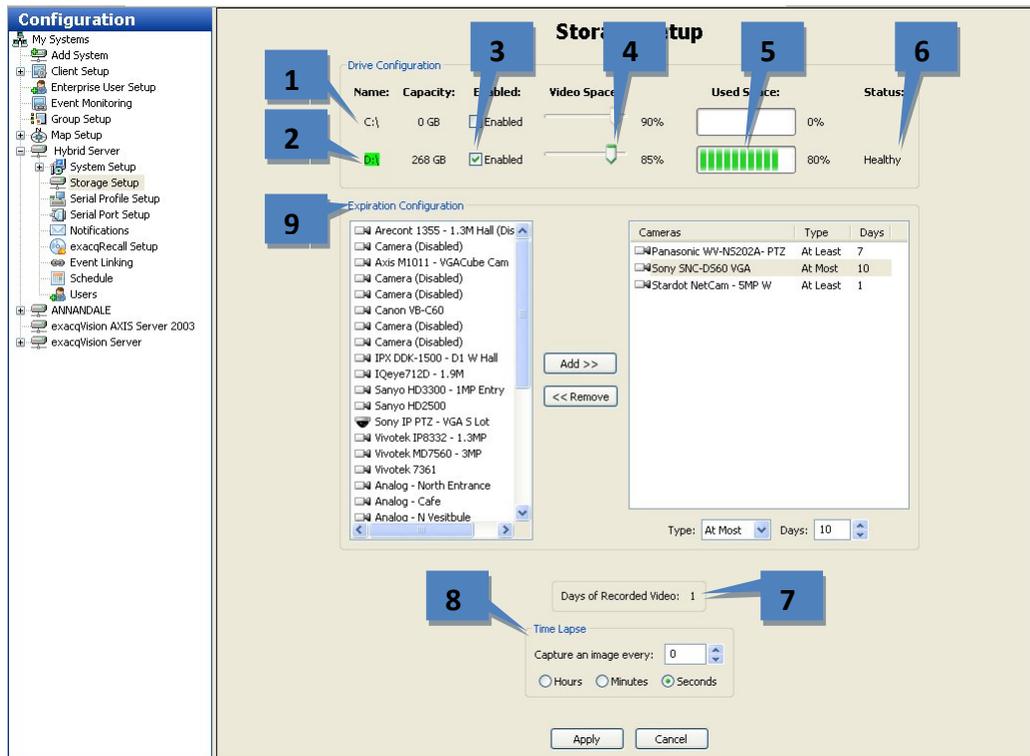
Video Output Setup



On hybrid systems, the Video Output Setup page allows you to configure your security spot monitor for touring (switching) between video cameras in various display modes.

1. Select the cameras that you want to include in the tour from the Camera in Tour check box. This displays video from the camera in the video window.
2. Select a Layout mode.
3. Move the Dwell Time slider to configure the length of time before the monitor switches to the next camera. The Dwell Time range is from 1 to 60 seconds.
4. When you are finished configuring the video output, click Apply to start the tour.

Storage Setup



The **Storage Setup** page allows you to configure the system’s hard drives for video storage.

1. The system drive (“C:\” in Windows, or “/mnt/edvr/0” in Linux) is reserved for the exacqVision software and operating system and is not enabled for video storage. Do not record video to this drive.
2. The storage drives are listed below the system drive.
3. To enable a drive for video storage, select its Enabled: box.
4. To adjust the maximum amount of drive space that can be used for data storage, adjust the Video Space slider for each storage drive. **NOTE:** Performance can decrease if you set the Video Space slider greater than 85%.
5. Used Space displays how much of the hard drive capacity is currently full.
6. Status displays the current state of the hard drive.
7. Days of Recorded Video indicates the age of the oldest video recorded on this system.

NOTE: The following features on the Storage Setup page are not available in exacqVision Start.

8. Time Lapse allows you to configure the system to capture images regularly even if the cameras are configured to record upon motion or alarm. This can show the system is operational even when motion is not occurring. Use the up and down arrows to the desired increment and then select either the Hours, Minutes, or Seconds radio button. Selecting zero to disable this feature.
9. Expiration Configuration allows you to set minimum or maximum time periods for video from each camera to be stored. For example, you could configure one camera’s video to be stored for at least 30 days before it is deleted, and another camera’s to be deleted after no more than 7 days. **See the following IMPORTANT NOTE before using this feature.**

IMPORTANT NOTE

The system normally retains recorded video from all cameras for as long as possible, deleting the oldest video only when required to create room for newly recorded video. Thus, **it is recommended that you use the Expiration Configuration feature only when necessary**, such as when video must be deleted after a specific maximum time period as required by law.

When using the feature, the Days of Recorded Video indicator should be higher than the greatest number of minimum days configured for a camera in the Expiration Configuration area. For example, if you configure a camera's video to be stored for at least 30 days, the Days of Recorded Video indicator should be at least 30 (assuming the system has been recording video for at least 30 days). If the Days of Recorded Video indicator were lower than 30, video recording would stop for that camera until the oldest video stored from that camera got deleted (after 30 days).

To resolve issues with video expiration, you can expand your storage capacity by adding hard drives, reduce the minimum time that video needs to be stored, or reduce frame rates or quality settings for the applicable cameras. The best way to determine your needs is by trial and error; allow the system to record at your desired settings and then monitor the Storage Setup page to ensure that the settings will meet the storage requirements.

To configure video expiration, select a camera name in the list on the left and click Add>>. (You can select multiple cameras by pressing the Ctrl or Shift buttons.) Then select the camera name in the list on the right. You can configure two types of expiration:

- To delete video after a certain amount of time, select At Most from the Type drop-down list and use the arrows to select the maximum number of days the video should be stored.
- To save video for a minimum amount of time, select At Least from the Type drop-down list and use the arrows to select the minimum number of days the video should be stored.

Repeat for each camera that requires expiration rules. To remove expiration rules, select one or more camera names in the list on the right and click <<Remove. Click Apply when finished.

Notifications

NOTE: The Notifications page is not available in exacqVision Start.

The Notifications page allows you to configure an e-mail server and message profile that will send an email message when an event occurs. To configure events that cause an email notification to be sent using these email settings, see the “Event Linking” section of this manual.

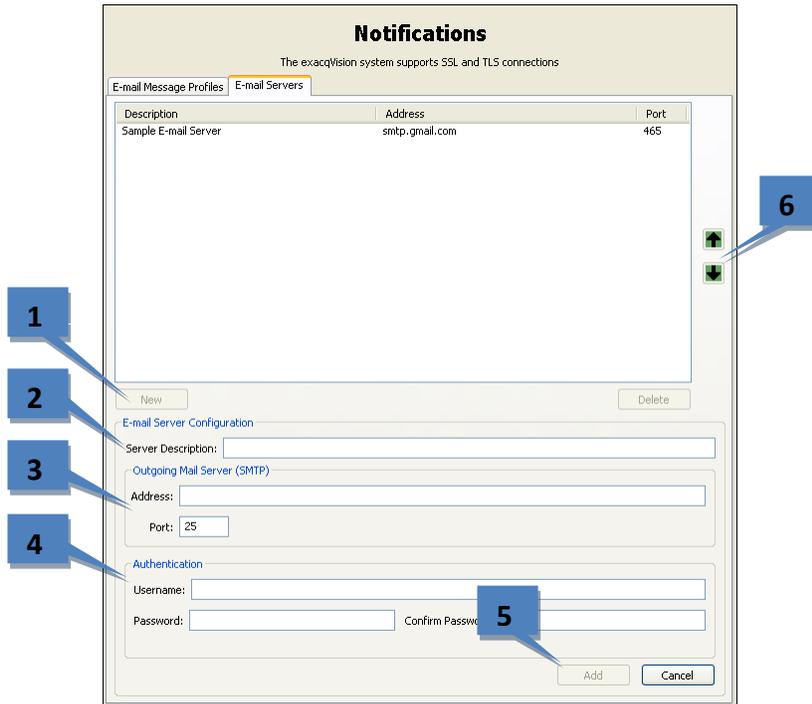
The Notifications page is separated into two tabs: E-mail Message Profiles and E-mail Servers.

The screenshot shows the 'Notifications' interface with two tabs: 'E-mail Message Profiles' and 'E-mail Servers'. The 'E-mail Message Profiles' tab is active, displaying a table with columns for 'Description' and 'Subject'. Below the table is a 'New' button and 'Delete' and 'Test Profile' buttons. The 'E-mail Message Profile Configuration' section contains the following fields: 'Profile Description' (text input), 'Send Rate Limit' (spin box set to 0 seconds), 'From' (text input), 'To' (text input with a dropdown arrow), and 'Subject' (text input). At the bottom right are 'Add' and 'Cancel' buttons. Eight blue callout boxes with numbers 1 through 8 point to: 1. 'New' button; 2. 'Profile Description' field; 3. 'Send Rate Limit' field; 4. 'From' field; 5. 'To' field; 6. 'Subject' field; 7. 'Add' button; 8. 'Test Profile' button.

The E-mail Message Profiles tab allows you to determine the email notification recipients and the content of the notification.

1. Click New.
2. Enter a brief description in the Profile Description field. This description will also appear in the Action Target field on the Event Linking page.
3. To reduce the number of email notifications sent, select the minimum number of seconds between notifications from the Send Rate Limit box. This can be useful if you receive a large number of repeated messages about certain events. For example, if you configure a notification every time a motion event occurs, a thunderstorm at night could trigger thousands of emails over a short period of time. Limiting notifications about the motion events to a maximum of one every 15 or 30 minutes (900 or 1800 seconds) could drastically reduce unnecessary emails.
4. Enter the e-mail address of the person the email is coming from.
5. Enter the e-mail addresses of the recipients.
6. Enter a Subject and Message information that should appear in the email notification.
7. Click Add under Message Profiles to add the message profile to the Message Profiles list.
8. You can test the profile by selecting it from the Message Profile list and clicking the Test Profile button.

The E-mail Servers Configuration tab allows you configure the outgoing SMTP mail server that sends email from the exacqVision system. This information can be provided by the network administrator.



1. Click New.
2. In the Server Description field, enter a unique, descriptive name of email server.
3. In the Outgoing Mail Server (SMTP) section, enter the address and port number (25 is the default) of the outgoing mail server.
4. If your email server requires authentication, enter a valid Username and Password in the Authentication section.
5. Click Add to add the email server to the list.
6. To change the order of the email servers, select a server from the list and then click the up or down button.

exacqRecall Button Configuration

NOTE: The exacqRecall Setup page is not available in exacqVision Start.

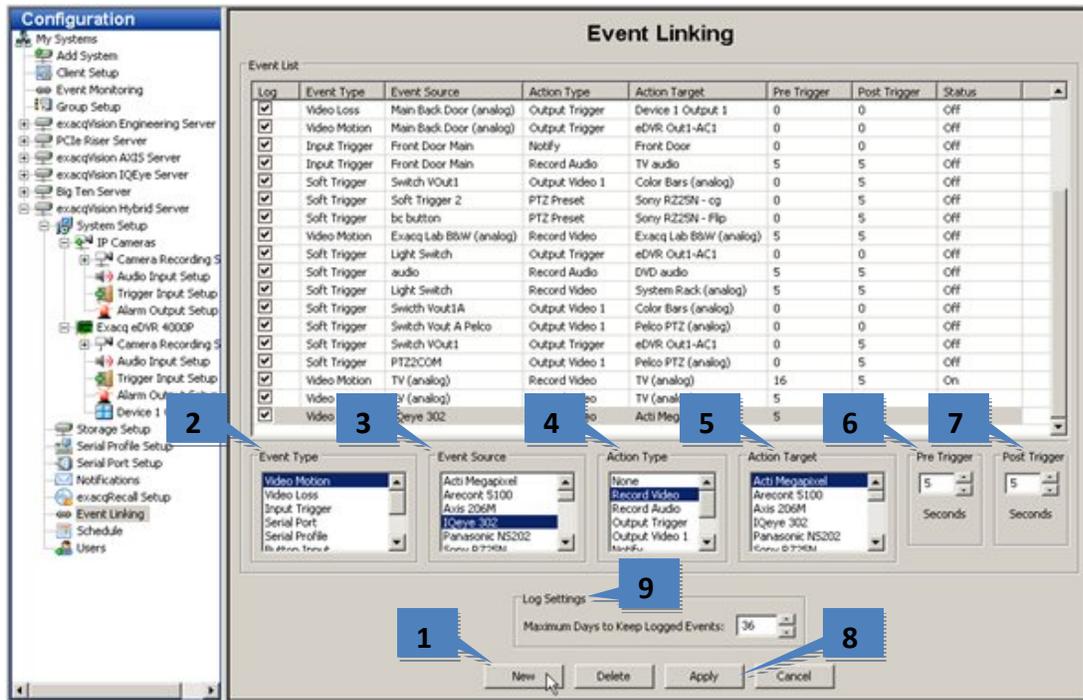
The exacqRecall Button quickly exports a video audio from specified inputs to a CD or DVD. It can also be programmed to send an email or text message with a notification that the button has been pushed.

The screenshot shows the 'exacqRecall Setup' web interface. It features several sections: 'Choose Item' (empty), 'Edit Profile' (with fields for Name, Minutes Before, and Minutes After), 'Sources' (a list of camera inputs), 'Profiles' (a table of existing profiles), and three 'Activity Status' boxes (Eject Media when Done, Profile/Status/Output, Drive Status, and Media Status). At the bottom are 'Refresh Status' and 'exacqRecall Now!' buttons. Numbered callouts (1-11) point to specific UI elements: 1 points to the 'Eject Media when Done' checkbox; 2 points to the 'Save' button; 3 points to the 'Drive Status' section; 4 points to the 'Media Status' section; 5 points to the 'Refresh Status' button; 6 points to the 'New Profile' button; 7 points to the 'Minutes Before' spinner; 8 points to the 'Minutes After' spinner; 9 points to the 'Sources' list; 10 points to the 'Apply' button; and 11 points to the 'exacqRecall Now!' button.

Name	Before	After
robo	60 min.	0 min.
RI	25 min.	0 min.
2 mindemo	2 min.	2 min.
Main Street Branch	15 min.	5 min.
BC	10 min.	0 min.
New Profile	30 min.	30 min.

1. The first Activity Status box allows you to select whether the CD/DVD drive should open automatically when the system finishes exporting the data to the disc. (If the front door on the system is latched, the drive cannot open.) Click Save if you change the setting.
2. The second Activity Status box indicates the status of exacqRecall. This can include Idle, Gathering Video, Creating ISO Image, In Use, and so on.
3. Drive Status indicates whether the system has a writable CD/DVD drive and compatible formats.
4. Media Status indicates whether a blank disc is loaded in the drive and its format and storage size.
5. If you insert a disk while the exacqRecall Setup page is open, click Refresh Status.
6. Click New Profile and enter a Name.
7. Minutes Before is the amount of video that occurred before the exacqRecall button was pushed that should be included in the export.
8. Minutes After is the amount of video that occurs after the exacqRecall button was pushed that should be included in the export. This can be useful when an event of interest is still occurring.
9. Select the cameras to be included in the export profile.
10. Click Apply to finish creating an exacqRecall profile and add it to the Profiles list.
NOTE: The system will NOT use the profile until you link it to an event on the Event Linking page using Button Input as the Event Type and exacqRecall as the Action Type.
11. Click exacqRecall Now! to export data based on the profile configured here and in Event Linking.

Event Linking



The Event Linking Setup page allows you to connect different types of events, such as the activation of an input trigger, to an action, such as recording video or triggering an alarm. Event linking provides quicker searches for specific event types. For example, you might normally search for motion video captured on a camera pointed toward a door; however, if the door has a sensor, you could improve your search by looking for video recorded whenever the door opened by linking that event with video recording.

You can see how it works by looking at the lists from left to right below the main Event List, as shown in the figure above. When the specified Event Type (2) occurs on an associated Event Source (3), Action Type (4) is triggered on an Action Target (5). These events are then stored in a database (if Log is selected in the Event List) to provide easy search capabilities. To create a new event, complete the following steps:

1. Click the New button to add the event to the Event List.
2. Select the Event Type.
3. Select the Event Source.
4. Select the Action Type.
5. Select the Action Target.

NOTE: See the charts on the following pages for information about available Event Types, Event Sources, Action Types, and Action Targets.

6. Pre Trigger allows you to store buffered data that was captured up to 100 seconds before the event occurred. This feature can be used only with certain Event Types.
7. Post Trigger continues the Action Type for up to 100 seconds of video after the event concludes.
8. Click Apply to save all changes to the selected event.
9. The Log Settings field determines how long the event will be stored in the Event database, from zero to 365 days.

The following Event Types are available:

NOTE: Input Trigger is the only Event Type available on exacqVision Start systems.

Event Type	Description
<i>Video Motion</i>	Camera detects motion.
<i>Video Loss</i>	Video signal is disconnected.
<i>Input Trigger</i>	Wire trigger installed in back of server is activated.
<i>Serial Port</i>	Key word entered on Serial Profile page is detected on a pre-selected port.
<i>Serial Profile</i>	Key word is detected on any Serial Port with that profile.
<i>Button Input</i>	Button of front of the system activated (typically used with exacqRecall).
<i>Health</i>	Detected problem involving the health of the exacqVision server hardware.
<i>IP Camera Connection</i>	Network can't connect to the IP Camera.
<i>Soft Trigger</i>	Signal sent from the client to the server.
<i>Analytics</i>	Video analytics event detected.

The Event Source list varies depending on the Event Type selected:

Event Type Selected	Event Source
<i>Video Motion</i>	Any of the cameras connected to the exacqVision server.
<i>Video Loss</i>	Any of the cameras connected to the exacqVision server.
<i>Input Trigger</i>	Any input trigger on the back of the server or IP camera connected to the server. The system defaults to a device and input number, but these can be customized on the Input Trigger screen. See the "Trigger Input Setup" section of this manual for details.
<i>Serial Port</i>	Any of the serial ports configured on the server. See the "Serial Port Setup" section of this manual for details.
<i>Serial Profile</i>	Any of the serial profiles you have configured. You can select all key words associated with a serial profile by selecting the profile name, or you can select an individual key word configured in the profile.
<i>Button Input</i>	Button 1 on the system.
<i>Health</i>	Temperature 1 (see the "eDVR 4000 Device" section of this manual for details) or storage.
<i>IP Camera Connection</i>	Any of the IP cameras connected to the exacqVision server.
<i>Soft Trigger</i>	Select New to create a new soft trigger with a default name. Double-click to name it, or click Delete to remove it. You can also select any of the pre-configured soft triggers that are listed.
<i>Analytics</i>	A list of video analytics events (configured through the analytics provider's interface).

The following Action Types are available:

Action Type	Description
<i>None</i>	No action will be performed. The event will be logged in the Event Database and searchable on the Search page.
<i>Record Video</i>	Video will be recorded.
<i>Record Audio</i>	Audio will be recorded.
<i>Output Trigger</i>	A wired output trigger on the back of the server or IP camera will be activated.
<i>Output Video 1</i>	The analog monitor will switch to a full-screen view of the selected camera.
<i>Notify</i>	An email notification will be sent according to profile created on the Notifications page.
<i>exacqRecall</i>	Data will be saved to a CD/DVR based on an exacqRecall profile. See the "exacqRecall Button Configuration" section of this manual for details.
<i>PTZ Preset</i>	The camera will be pointed in a specific direction. See the "Camera Setup" section of this manual for details.

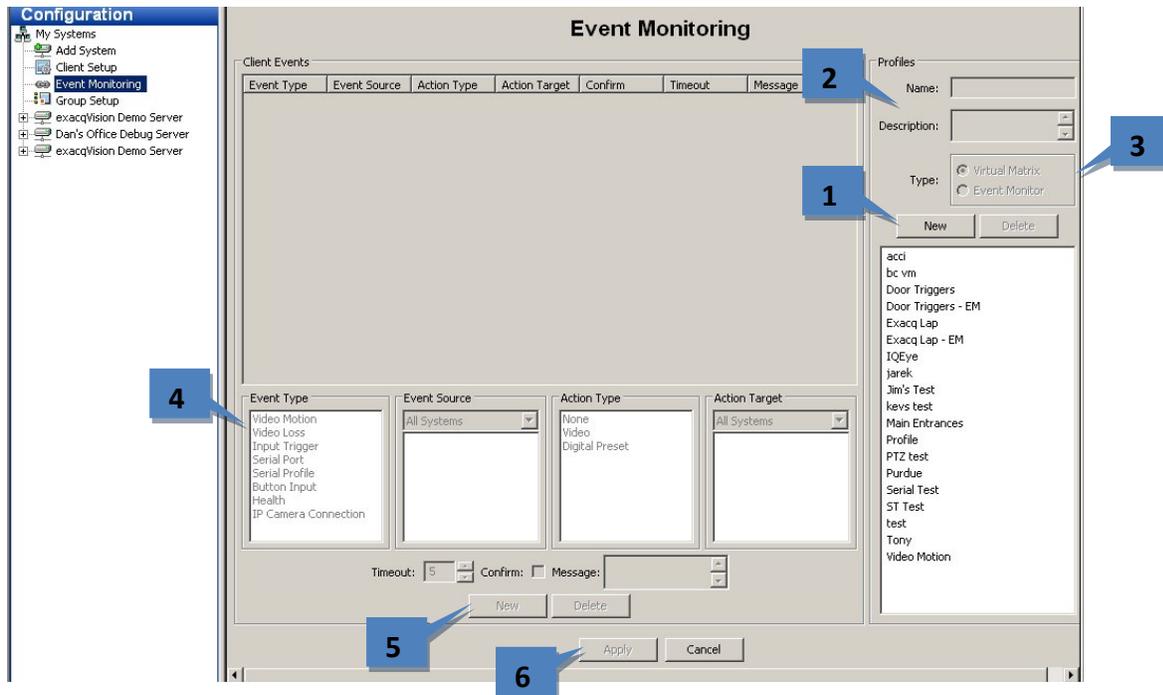
The Action Target list varies depending on the Action Type selected:

Action Type Selected	Action Target
<i>None</i>	No Action Target available.
<i>Recorded Video</i>	Any of the cameras connected to the exacqVision server.
<i>Recorded Audio</i>	Any of the audio inputs connected to the exacqVision server.
<i>Output Trigger</i>	Any output trigger on the back of the exacqVision server or IP cameras.
<i>Output Video 1</i>	Any of the analog cameras connected to the exacqVision server.
<i>Notify</i>	Any of the profiles that configured on the Notifications page.
<i>exacqRecall</i>	Any of the profiles that configured on the exacqRecall Setup page.
<i>Preset</i>	Any of the presets associated with the camera on the Camera Setup page.

NOTE: RAID-enabled systems can tolerate only one hard drive failure in RAID 5 or two failures in RAID 6 before catastrophic video loss occurs. It is highly recommended that all systems be configured to notify the system administrator when hard drive failures occur. Thus, you should make sure that an Event Type of Health and Event Source of Storage Alarm is configured.

Event Monitoring

The Event Monitoring page allows you to configure your exacqVision Client to react to events that take place on connected servers. First, you must create and define Event Monitoring Profiles, which are a set of actions (such as displaying live video or triggering a sound) that are triggered by events (such as motion or triggered inputs). Each profile can be activated and assigned to a specific video window on the Live page.



1. To create a new profile, click the New button in the Profiles section.
2. Enter a name and description for the profile.
3. Select the type of profile you would like to create.
 - A Virtual Matrix profile automatically displays video as it is triggered. For example, if you have a series of entrances in one profile, each time any of the entrances is triggered, the video panel will switch to the camera displaying the most recent door motion.
 - An Event Monitor profile displays an interactive list of events. Using the same example, the entrance event would be added to a list that you could click on to display the video. This can be useful if events are occurring on two cameras at the same time; instead of seeing each event for a split second, you can view each event for as long as necessary.
4. Add an event to monitor. This works in a similar way as the Event Linking discussed in the “Event Linking” section of this manual. Select an Event Type, and Event Source, an Action Type, and an Action Target. The options listed in Event Source vary depending on which Event Type (such as triggers, serial ports, and serial profiles) is selected and how it is configured. For more information, see the sections of Setup Mode Overview chapter that are related to the desired Event Type.
5. To add another event to this profile, click on the New button at the bottom of the page.
6. Click the “Apply” button when you have finished your profile.

You can now view your event profile in Live mode.

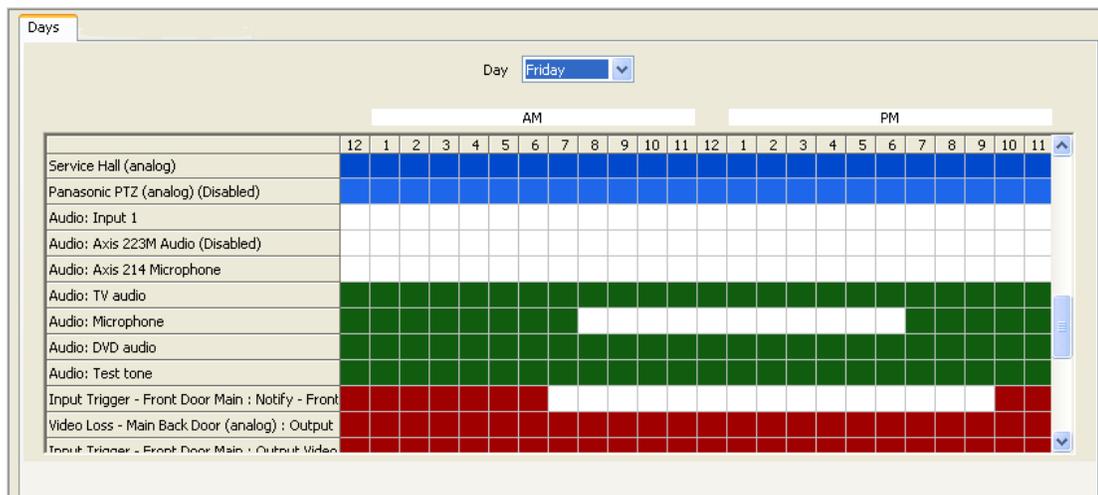
Schedule

The Schedule page allows you to configure your camera and event recording schedule. By default, an exacqVision system is scheduled to record motion and events. There are four modes of video recording, which are color-coded on the Schedule page: motion (blue), free run (green), alarm (red), and off (white).

NOTE: Free run is continual recording. This type of recording uses a large amount of disk space.

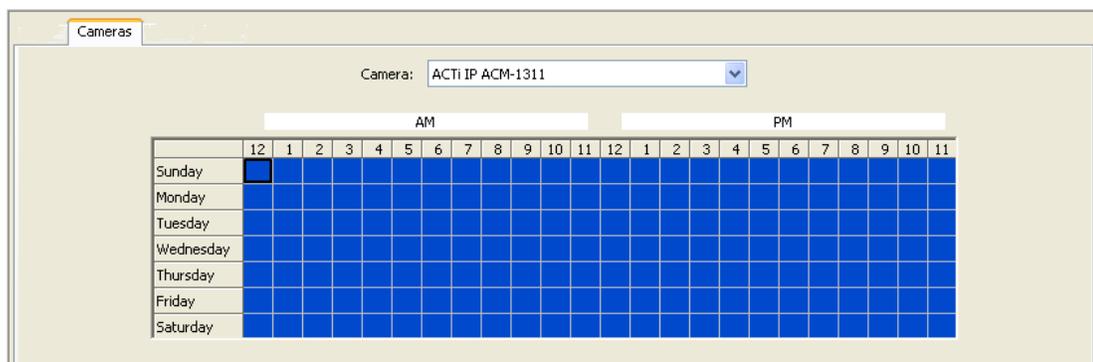
There are four scheduling tabs:

- The Days tab lists the cameras, audio inputs, and events on the left, and the hours of the day across the top. Select a day of the week from the Day drop-down list, select a recording mode, and then “draw” the schedule in the grid area. Click Apply to save the schedule, or click Apply to All Days to save the changes for every day of the week.



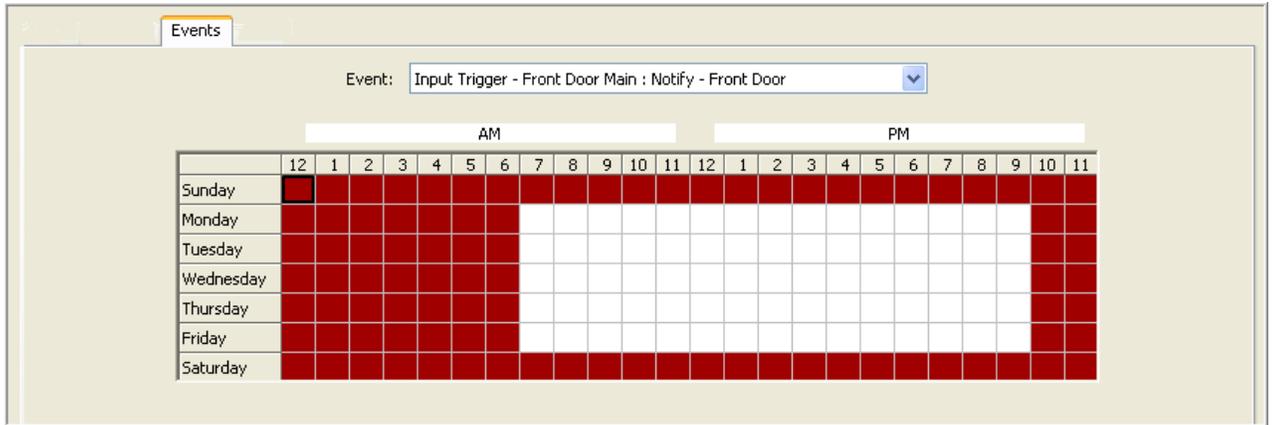
NOTE: Colors on the schedule for disabled camera and audio inputs are displayed in a lighter shade.

- The Cameras tab lists the days of the week in the left column and the hours of the day across the top. Select a camera from the Camera drop-down list, select a recording mode, and then “draw” the schedule in the grid area. Click Apply to save the schedule, or click Apply to All Cameras to save the changes for all cameras connected to the system.

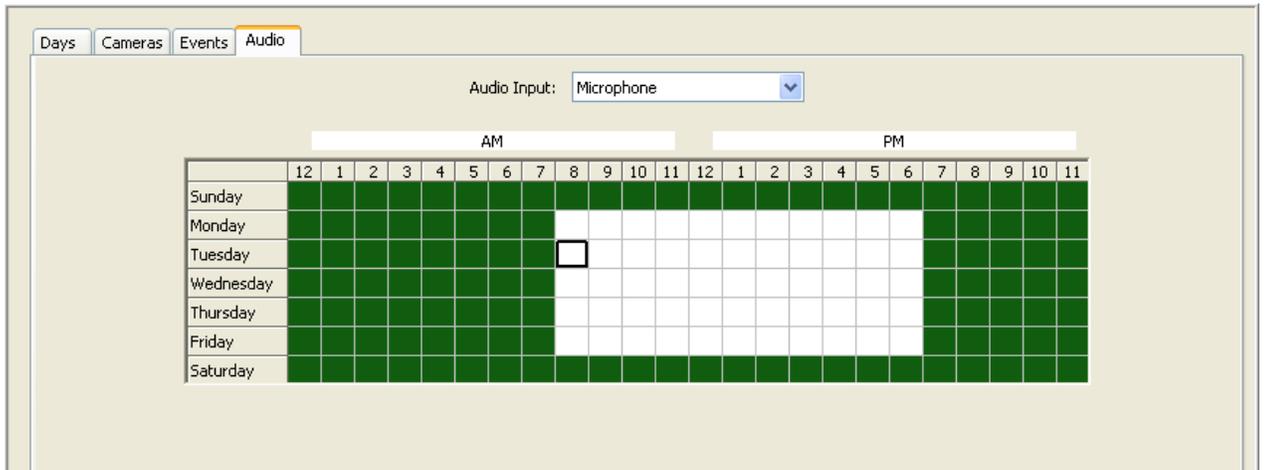


NOTE: You do not need to create a schedule in both views. Select the best tab for your situation.

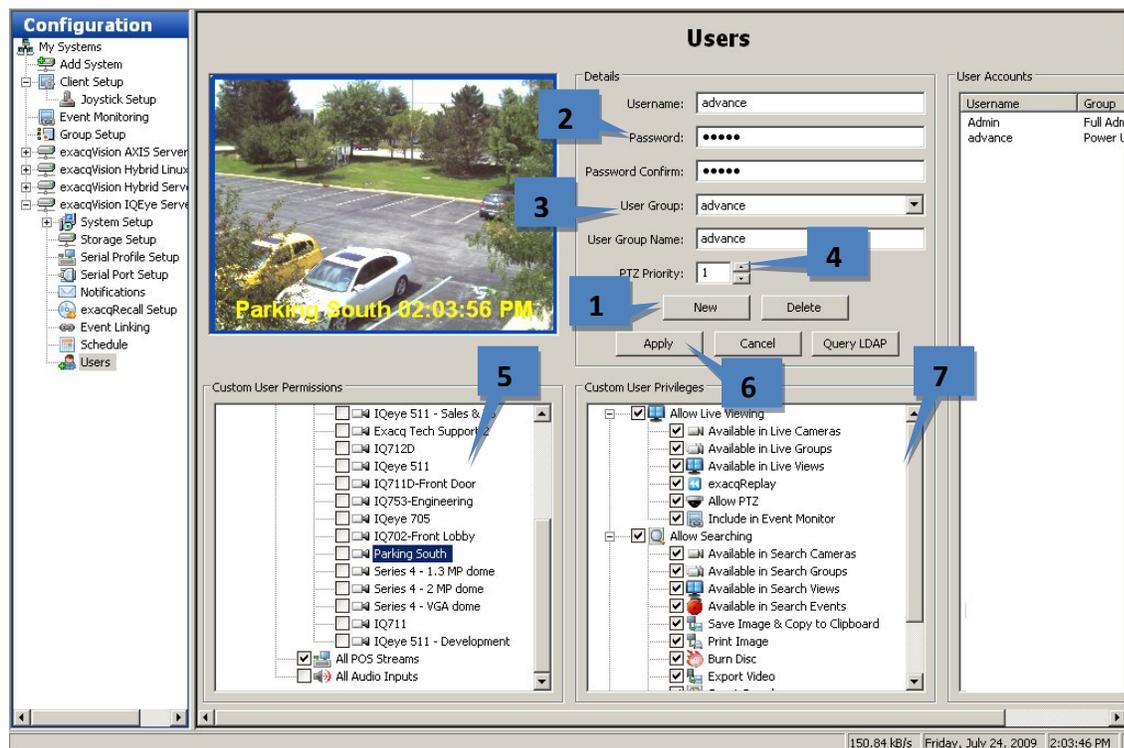
- The Events tab enables the recording of events configured on the Event Linking page. It lists the days of the week in the left column and the hours of the day across the top. Select an event from the Event drop-down list, select Alarm (red) or Off (white), and then “draw” the schedule in the grid area. Click Apply to save the schedule, or click Apply to All Events to save the changes for all events configured on the system.



- The Audio tab lists the days of the week in the left column and the hours of the day across the top. Select an enabled audio input from the Audio Inputs drop-down list, select Free Run (green) or Off (white), and then “draw” the schedule in the grid area. Click Apply to save the schedule, or click Apply to All Audio In to save the changes for all audio inputs on the system.



Users Setup



The Users page allows you to add and delete users, configure a user's group access level, and assign permissions for viewing cameras. After a user has been added to the system, the user can log in and view live and recorded video according to the permissions assigned to them.

1. To add a new user, click New.
2. Enter the name of the user in the Username field, and a login password Password and Confirm fields.
3. Select a permission level from the User Group drop-down list:
 - Full Admin has access all features of the system.
 - Power User has access all features except for adding or deleting users.
 - Live Only can view live video.
 - Search Only can search for recorded video.
 - Live + Search can view live video and search for recorded video.
 - The User Group drop-down list also contains all users and custom groups whose permissions and privileges have been modified from one of the standard groups listed above. **NOTE:** Custom groups are not available on exacqVision Start servers.
4. You can also assign a PTZ Priority level to the user. When multiple users attempt to control the PTZ functions of the same camera simultaneously, the user with the highest priority level (the lowest number) is granted PTZ control. If multiple users with the same priority level attempt to control PTZ functions on the same camera, control is granted to the first user who attempted to control the functions.
5. The Custom User Permissions section allows you to select which devices the user or group can see and operate in the exacqVision Client.
6. When finished, click Apply.

NOTE: The following feature on the Users page is not available in exacqVision Start.

7. The Custom User Privileges section contains the following list of privileges that can be assigned to a user:

- Allow Live Viewing
 - Available in Live Cameras
 - Available in Live Groups
 - Available in Live Views
 - exacqReplay
 - Allow PTZ
 - Include in Event Monitor
- Allow Searching
 - Available in Search Cameras
 - Available in Search Groups
 - Available in Search Views
 - Available in Search Events
 - Save Image & Copy to Clipboard
 - Print Image
 - Burn Disc
 - Export Video
 - Smart Search
- Configuration
 - User Admin
 - View Admin

NOTE: If you change the permissions or privileges for a user or group, enter a name for the new custom group and click Apply.

My Systems

My Systems						
System Name	IP Address	Connection Status	License	Subscription	Version	Status
AXIS Server 2003	192.168.100.30 (exacq-axis-2003.demo.test.exacq.com)	Connected.	Enterprise	Updates through 2012-03-01	4.2.3.22224	ALARM
Hybrid Server	192.168.100.1 (er0996001231)	Connected.	Enterprise	Updates through 2014-07-10	4.2.3.22224	ALARM
Vision Server	127.0.0.1	Connected.	Evaluation	None	3.7.7.19658	NOT ENTERPRISE

The My Systems page lists all added systems, along with their serial number, IP address/hostname, connection status, license type, MAC address, subscription information, version information, status (such as, Normal, Alarm, or Motion), and days of recorded video.

NOTE: To display or remove a column on the My Systems page, right-click any column header and select the column from the pop-up menu.

The following actions can be performed on the My Systems page:

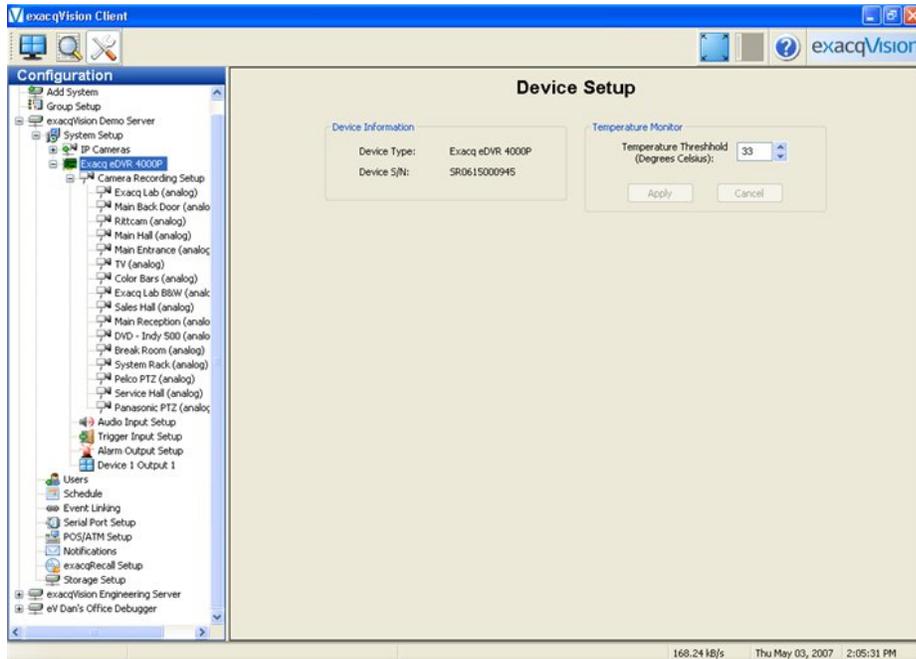
- To view the System Information page for a system, double-click the information listed in any column for that system.
- To view model number and serial number information for a system, right-click the system name.
- To view a MAC address and license key for a system and copy it to the clipboard, right-click its information in the License, MAC Address, or Subscription column for that system and select Copy to Clipboard (select the right arrow if necessary to see that option). You can then paste the information into an email or other applications.
- To update a license key for a system, right-click its information in the License column, select Update, and select one of the options. If you select Update the License from File, you can browse to a .KEY file that contains license information and click Open. If you select Update the License from Text, you can type the license key manually and click OK.

NOTE: Alternatively, you can click Import Licenses at the bottom of the screen to enter multiple licenses from a .CSV file, or click Export Licenses to compile all listed licenses into a .CSV file to import into another client.

- To view additional version information for a system, right-click the information in the Version column for that system.
- To view additional information about Alarm or Motion status, hover the mouse pointer over the word while it appears in the Status column.

NOTE: If the physical connection between the client computer and server is interrupted while you are connected to the server in exacqVision Client, the Connection Status will be displayed as Network Activity Timeout. The status will then be displayed as Disconnected after a specific amount of time that varies among operating systems.

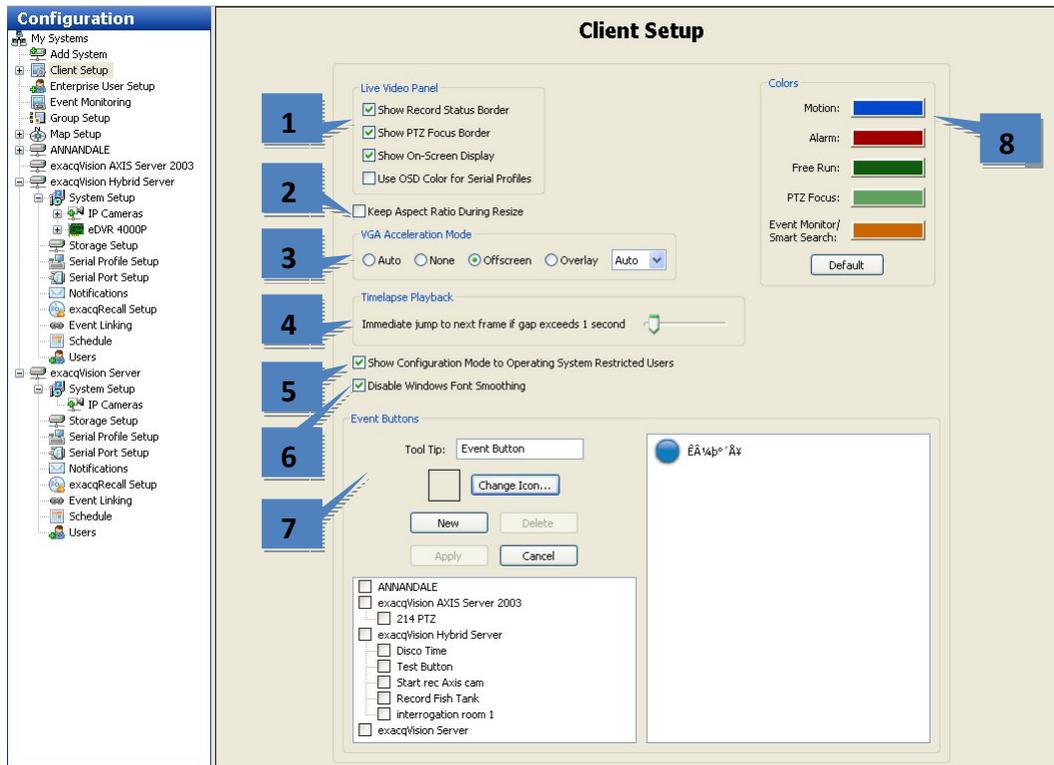
eDVR 4000 Device



The eDVR 4000 Device is the compression board installed in exacqVision hybrid video servers that manages the analog video cameras connected to the systems. If an eDVR 4000 board is installed in the system, the Device Information field displays the eDVR Device Type and Serial Number.

You can also set a temperature threshold that can be linked to an event action using the Event Linking page.

Client Setup



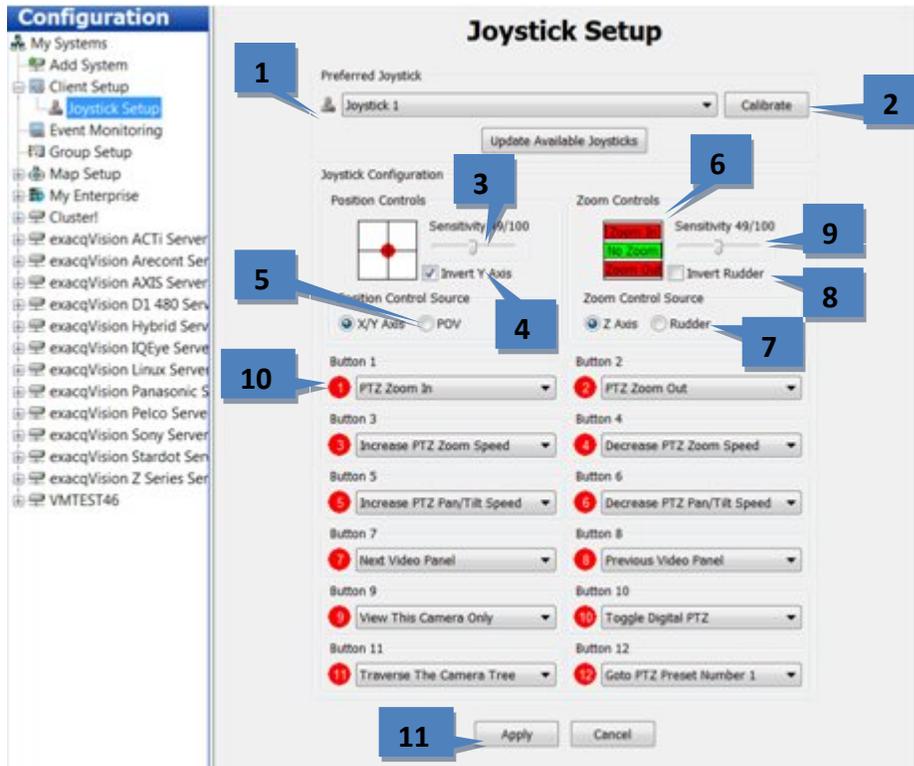
The Client Setup Screen allows you to customize your client based on your personal preferences.

1. The Live Video Panel section controls the colored borders that are displayed in Live mode to indicate motion or alarm recording or PTZ focus.
2. Keep Aspect Ratio During Resize.
3. The VGA Acceleration Mode (Video Graphics Adapter) section can resolve display issues caused by the video card.
4. The Timelapse Playback section (not available in exacqVision Start) controls the amount of display time between video gaps due to time-lapse recording or discontinuous motion. Normally, the system automatically jumps to the next video frame after a one-second gap. You can decrease the dwell time to zero by sliding the interval control to the left or increase the dwell time up to 15 seconds by sliding it to the right.
5. The Show Configuration Mode to Operating System Restricted Users checkbox allows you to hide the Setup button for a client who has a restricted Windows setting. Only the Live and Search icons are displayed to these restricted users if you select this option.
6. Disable Windows Font Smoothing.
7. Event Buttons (not available in exacqVision Start) allows you to create a shortcut to any Soft Triggers you have configured in Event Linking. To create an Event Button, click New. Enter a description in the Tool Tip field and click Change Icon... . Select a default or custom icon and click Open. Select the Soft Trigger from the list provided and then click Apply. The icons will be displayed next to the Soft Trigger icon on the Live mode toolbar. You must select a different icon for each Soft Trigger shortcut.
8. The Colors section controls the default border colors for Motion, Alarm, Free Run, PTZ Focus, and Event Monitor. To change a color, click on the colored bar of the border type, select a basic color or create a custom color, and then click OK.

Joystick Setup

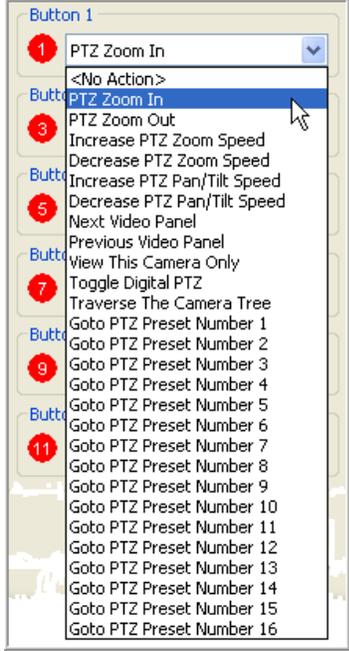
NOTE: The Joystick Setup page is not available in exacqVision Start.

The Joystick Setup page allows you to configure any standard USB joystick to work with your exacqVision system.



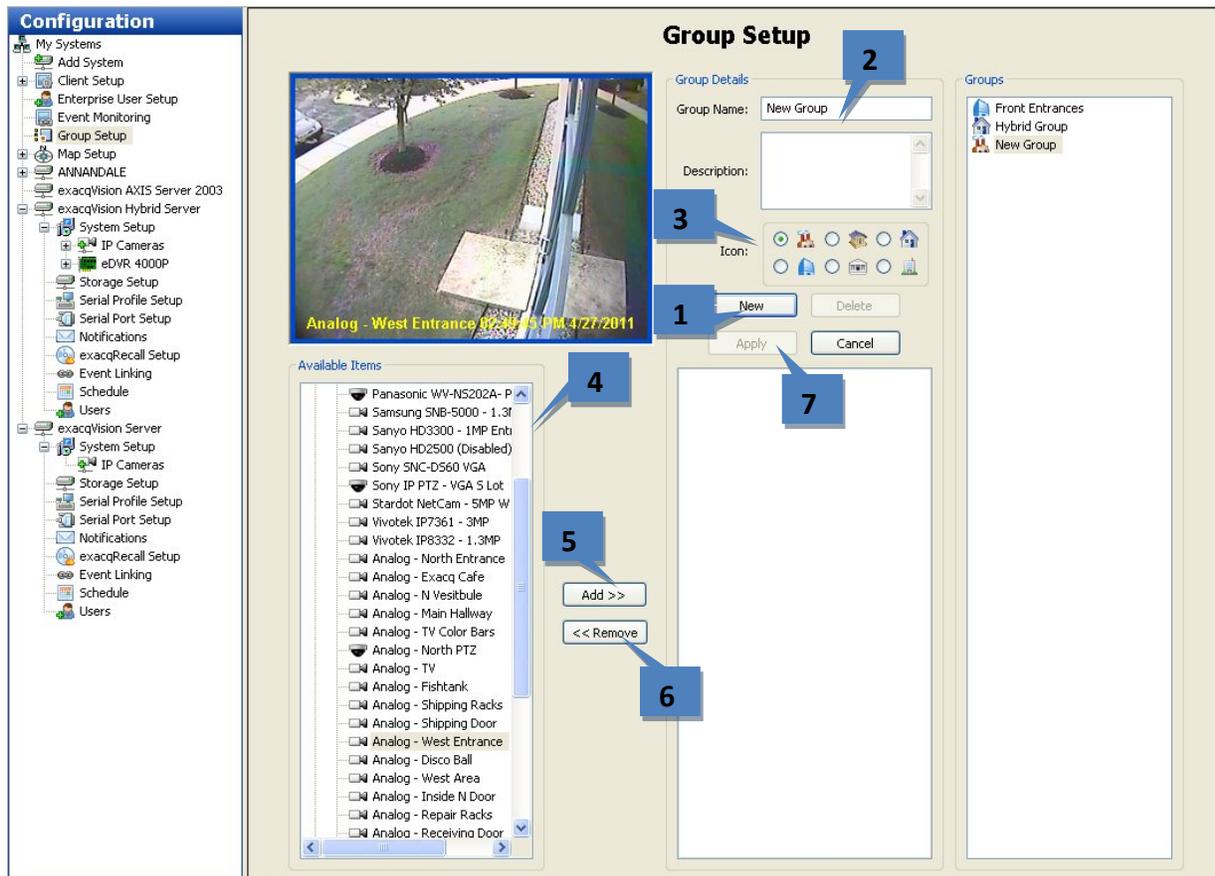
1. If you have more than one joystick connected to your USB ports, select the preferred joystick and click Apply.
2. If the position control is drifting while the joystick is in its resting position, click Calibrate.
3. Move the Position Controls Sensitivity slider left to decrease position control sensitivity, or right to increase position control sensitivity.
4. To invert the north and south movement of the camera or view, select Invert Y Axis.
5. If your joystick has a Point of View source, you can switch your joystick functionality from X/Y Axis to POV in the Position Control Source box.
6. The Zoom Controls section allows you to adjust the zoom features on your camera. Twist the joystick to zoom in or out. The zoom status is reflected by the green button.
7. If the green zoom box doesn't move when the joystick is twisted, change the Zoom Source Control setting.
8. If you want to zoom in by twisting left instead of twisting right, select Invert Rudder.
9. Move the Zoom Controls Sensitivity slider left to decrease zoom sensitivity, or right to increase joystick sensitivity.
10. Program the joystick buttons as described on the following page.
11. Click Apply to save the joystick settings.

You can also program one or more joystick buttons using the drop-down menus as follows:

	PTZ Zoom In/Out	Zooms the camera in and out. Click the buttons several times until the camera is in the desired position.
	Increase/Decrease PTZ Zoom Speed	Adjusts the zoom speed of the camera.
	Increase/Decrease PTZ Pan/Tilt Speed	Adjusts the pan and tilt speed of a mechanical PTZ camera.
	Next/Previous Video Panel	Changes the PTZ focus to the next/previous camera in the video panel.
	View This Camera Only	Switches a camera in a multi-camera layout panel to a 1x1 layout. Clicking the button again returns it to the original layout.
	Toggle Digital PTZ	Switches between digital and mechanical PTZ. NOTE: If the camera does not have mechanical PTZ, this setting toggles between digital PTZ and off.
	Traverse The Camera Tree	Moves to the next camera or set of cameras in the site tree, depending on the Layout button selected.
	Goto PTZ Preset Number 1-16	Moves the camera to the presets defined on the Camera Setup page.

Group Setup

NOTE: The Group Setup page is not available in exacqVision Start.



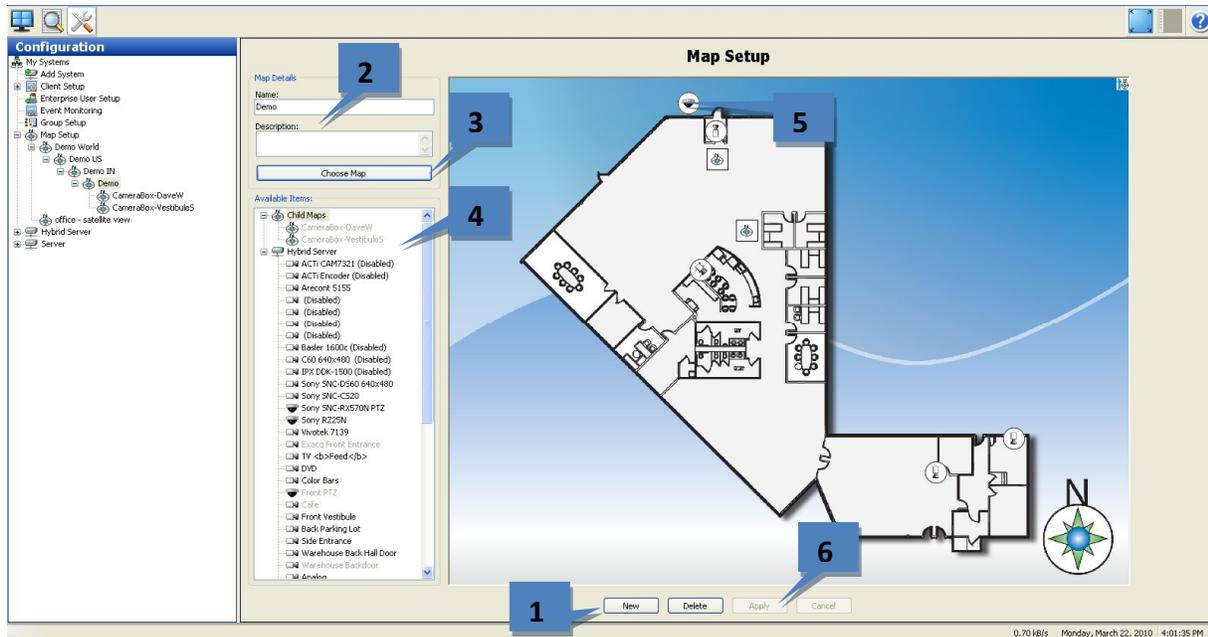
The Group Setup screen allows you to create logical groups of cameras connected to one or more systems. This is a useful when you have multiple systems with a large number of cameras spread across a large building or campus, and you would like to place cameras in logically named groups such as First Floor, Second Floor instead of viewing your cameras in default groups based on their connection to the systems. You can also search for video from entire camera groups instead of adding each camera individually during the search.

1. Create a new group by clicking on the New Group button.
2. In the Group Details section, enter a name and description for the group.
3. Select an icon to represent the group in the Live and Search site trees.
4. Select a camera from the Available Items list. Video from the camera is displayed in the video window.
5. Click Add>> to move the camera name to the empty field. Continue adding cameras until your group is complete.
6. To remove a camera from the group, select it in the group list and click <<Remove.
7. When finished, click Apply.

These groups can now be used to monitor live video or search recorded video.

Map Setup

NOTE: The Map Setup page is not available in exacqVision Start.



The Map Setup page allows you to organize your cameras and other devices visually using a graphics file.

1. Click New.
2. Enter a Name and Description for the map.
3. Click Choose Map to open the Map File window, which allows you to browse for the graphic file that you want to use for the map (it is recommended that you use a compressed graphic file, such as a PNG or JPEG, to improve responsiveness). Select the file and click Open to display the map.

NOTE: To create a child map for an existing map, select the existing map before you click New. This allows you to place an icon representing the child map on the existing (or parent) map. Notice that the child map is listed under the parent map when you click New.

4. The systems that you are currently connected to are listed in the Available Items section. Expand the systems to display the devices associated with it. Any child maps that you create for this map are also displayed in Available Items.
5. To add an icon representing a device or child map, drag the name of the device or map from the Available Items section into the part of the map where the icon should be located. (When you view this map in Live Maps, double-clicking this icon will display video or data from the device or display the child map.) To remove an icon from a map, right-click it and select Remove Selected Item. To flip the icon to point the other way, right-click it and select Mirror Icon. To rotate the icon, right-click it, select Icon Rotation, and select any of the available options. To change the appearance of the icon, right-click it, select Icon Balloon, and select any of the available options. Repeat this step until all icons are placed on the map.

NOTE: If the map has a parent map, a small map icon representing the parent map is displayed in the upper-right corner. You can drag this parent map icon anywhere on the map.

6. To complete a map, click Apply.

System Information

System Information

System Usage

Use...	Level	Address	Streams	Audit
webs...	Power User	192.168.100.26	0	NO
dritt...	Full Admin	192.168.100.20	0	NO
guest	Live + Search + exacqReplay	210.227.113.117	0	NO
cv1	Power User	173.160.139.50	0	NO
Admin	Full Admin	192.168.3.37	0	NO
tand...	Power User	77.40.152.42	0	NO
ewar...	Power User	213.136.58.194	0	NO
webs...	Power User	192.168.100.20	11	NO

Version Information

Name	Filename	Version	Status
Core	core.exe	4.5.16.25630	OK
XDPPI	xdpi.dll	4.5.16.25630	OK
PSPPI	psppi.dll	4.5.16.25630	OK
StreamPI	StreamPI.dll	4.5.16.25630	OK
AxisPI	axispi.dll	4.5.16.25630	OK
LogPI	logpi.dll	4.5.16.25630	OK
EventPI	EventPI.dll	4.5.16.25630	OK
GroupPI	groupspi.dll	4.5.16.25630	OK

System Log

Search: Start: 4/29/2011 10:08 AM End: 4/29/2011 11:08 AM System Log Level: Warning Search Export Maximum Days Storage: 90 Apply Cancel

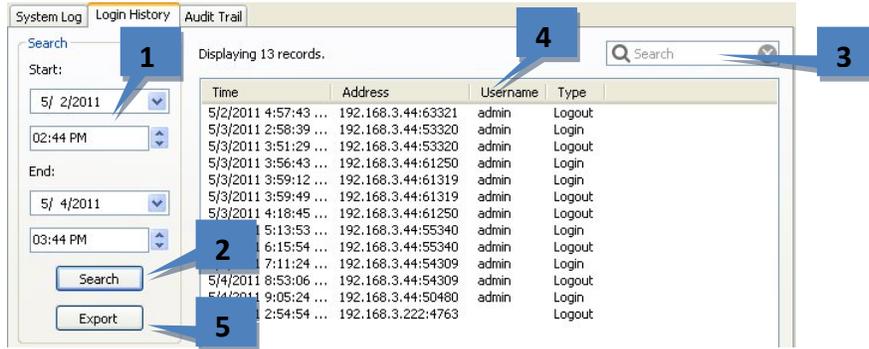
Time	Plugin	Severity	Message
4/29/2011 10:08:25 ...	StreamPI	Warning	Client 76.108.154.104 disconnected due to key exchange timeout.
4/29/2011 10:08:25 ...	StreamPI	Error	Login failure - unknown username (admin) or password.
4/29/2011 10:09:03 ...	StreamPI	Warning	Client 192.168.100.82 disconnected due to read failure - WSAECONNRESET.
4/29/2011 10:09:25 ...	StreamPI	Error	Login failure - unknown username (admin) or password.
4/29/2011 10:10:14 ...	StreamPI	Warning	Client 192.168.100.82 disconnected due to read failure - WSAECONNRESET.
4/29/2011 10:10:24 ...	StreamPI	Error	Login failure - unknown username (admin) or password.
4/29/2011 10:11:03 ...	StreamPI	Warning	Client 76.108.154.104 disconnected due to key exchange timeout.
4/29/2011 10:11:24 ...	StreamPI	Error	Login failure - unknown username (admin) or password.
4/29/2011 10:12:23 ...	StreamPI	Error	Login failure - unknown username (admin) or password.
4/29/2011 10:13:23 ...	StreamPI	Error	Login failure - unknown username (admin) or password.
4/29/2011 10:14:22 ...	StreamPI	Error	Login failure - unknown username (admin) or password.
4/29/2011 10:14:33 ...	NotifyPI	Warning	Apr 29 10:14:33 er0936001231 sendEmail.exe[1736]: ERROR => Received: 550 5.4.5 Daily sending quota exceeded. 19zm1154:
4/29/2011 10:15:17 ...	StreamPI	Warning	Client 192.168.100.82 disconnected due to read failure - WSAECONNRESET.
4/29/2011 10:15:22 ...	StreamPI	Error	Login failure - unknown username (admin) or password.
4/29/2011 10:16:21 ...	StreamPI	Error	Login failure - unknown username (admin) or password.
4/29/2011 10:17:20 ...	StreamPI	Error	Login failure - unknown username (admin) or password.
4/29/2011 10:17:29 ...	NotifyPI	Warning	Apr 29 10:17:29 er0936001231 sendEmail.exe[3640]: ERROR => Received: 550 5.4.5 Daily sending quota exceeded. hc41sm11:
4/29/2011 10:18:20 ...	StreamPI	Error	Login failure - unknown username (admin) or password.
4/29/2011 10:18:40 ...	StreamPI	Warning	Client 192.168.100.82 disconnected due to read failure - WSAECONNRESET.
4/29/2011 10:19:05 ...	StreamPI	Warning	Open("b5b780027e2-e297-47ee-bd08-c99e04f7ce", "r") Failed: No such file or directory
4/29/2011 10:19:19 ...	StreamPI	Error	Login failure - unknown username (admin) or password.
4/29/2011 10:20:03 ...	NotifyPI	Warning	Apr 29 10:20:03 er0936001231 sendEmail.exe[2588]: ERROR => Received: 550 5.4.5 Daily sending quota exceeded. e12sm653:
4/29/2011 10:20:19 ...	StreamPI	Error	Login failure - unknown username (admin) or password.
4/29/2011 10:21:18 ...	StreamPI	Error	Login failure - unknown username (admin) or password.
4/29/2011 10:22:17 ...	StreamPI	Error	Login failure - unknown username (admin) or password.
4/29/2011 10:23:16 ...	StreamPI	Warning	Client 76.108.154.104 disconnected due to read failure - WSAECONNRESET.
4/29/2011 10:23:17 ...	StreamPI	Error	Login failure - unknown username (admin) or password.
4/29/2011 10:24:16 ...	StreamPI	Error	Login failure - unknown username (admin) or password.
4/29/2011 10:25:16 ...	StreamPI	Error	Login failure - unknown username (admin) or password.
4/29/2011 10:26:15 ...	StreamPI	Error	Login failure - unknown username (admin) or password.

The System Information page displays information about users that are currently logged into the system, plugin file version information number and status, and the system log. This page is displayed when you click on the system name in the Configuration tree.

1. System Usage displays the users that are currently logged in, the user's access level and IP address, and the number of streams being viewed.
2. Version Information displays the version numbers for each exacqVision system file. This information can be useful when contacting technical support.
3. To view the system log, select the start and end date and, select the type of messages you want to see from the Level drop-down list, and click Search. All messages that meet the search criteria are listed.
4. To sort the list, any of the column titles.
5. To view the system log with a text editor, click Export and save the file. Then you can open the file from the location where you saved it.
6. Maximum Days Storage determines the maximum number of days that information is maintained in the system log.

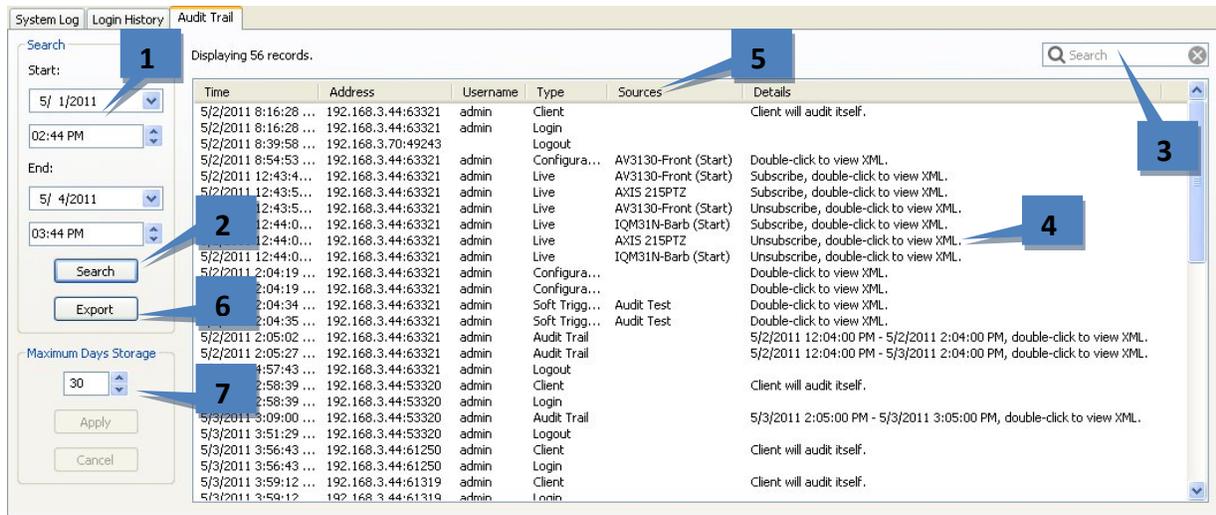
NOTE: If you cannot see all the fields and buttons on the System Log tab, drag the horizontal bar under the System Usage section up.

The System Information page also includes a Login History tab and an Audit Trail tab when you are connected to a compatible system (not available in exacqVision Start).



To view the login history for the system, complete the following steps:

1. Select a start date and time and end date and time.
2. Click Search to list all login and logout actions in that time range.
3. To filter the list, enter a word in the Search column. Only actions containing the word are then displayed.
4. To resort the list, click any column title.
5. Click Export to save the information as a separate log file.



To view an audit trail of various actions that have been performed on the system, complete the following steps:

1. Select a start date and time and end date and time.
2. Click Search to list all login and logout actions in that time range.
3. To filter the list, enter a word in the Search column. Only actions containing the word are then displayed.
4. To view an action in XML, double-click its entry.
5. To resort the list, click any column title.
6. Click Export to save the information as a separate log file.
7. Select the maximum number of days that the actions should be stored on the system and click Apply.

5

Live Mode Overview



Live Mode is the primary page for viewing live video.

1. **Live Mode Icon.** This button runs the Live Mode.
2. **Layout Panel.** Select a video window layout.
3. **Site Tree.** Browse exacqVision systems, cameras, PTZ cameras, alarms, audio inputs, and more.
4. **Navigation Pane.** Select a button to display cameras, views, and more on compatible systems.
5. **Messages.** Read system messages and information about operating the system. (Press F8 to hide.)
6. **Date and Time.** See the current date and time on the client computer.
7. **Video Windows.** View video in the selected layout.
8. **About Box.** View information about the client software.
9. **Help.** Open the user manual.
10. **Show/Hide Navigation.** Expand or hide the tree. (Or press the F4 key.)
11. **Full Screen Button.** Enlarge the display by hiding the title and task bars. (Or press the F11 key.)
12. **PTZ Control Button.** Open the PTZ Control window.
13. **Soft Trigger Icon.** Display the status of any soft triggers on connected exacqVision Pro/Enterprise servers.
14. **Event Button.** View additional soft triggers on Pro/Enterprise servers, as added on the Client Setup page.

Layout Panel



You change the layout of the video windows by clicking on one of the Layout buttons. When you select a layout, it becomes the new default. The system automatically fills the video windows with the cameras from your Live Site Tree in the order they are listed.

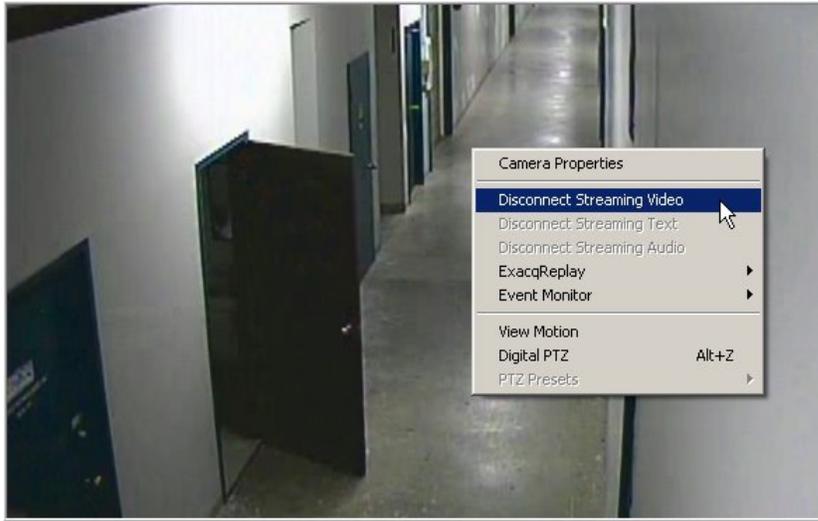
NOTE: Certain layouts are available only on widescreen monitors.

There are several methods for adding cameras to your Video View Panel.

- Select a Layout button on the Toolbar.
- Double-click a camera name listed in the site tree. The system displays that camera in the upper-left video and fills the rest of the windows in order below that camera in the list.
- Drag and drop a camera from the site tree into a video window. The window can be empty or full when you do this.
- Press F3 or the joystick button to display the Find Camera dialog, type the name of a connected camera, and then click Find. This method allows you to display a camera without using a mouse. When you type a sufficient number of characters to uniquely identify a camera name, the full name of the camera will automatically appear; for this reason, this feature works best when cameras are uniquely named. For example, if camera names start with numerical characters (such as 1-Front Entrance, 2-Back Entrance, and so on), you can quickly find a camera by simply entering one or two numbers in Find Camera.



You can delete a camera from the Video View Panel by right-clicking anywhere in the square and selecting Disconnect Streaming Video.



You can also access the Camera Setup screen directly from Live Mode by selecting Camera Properties, and then clicking the OK button.



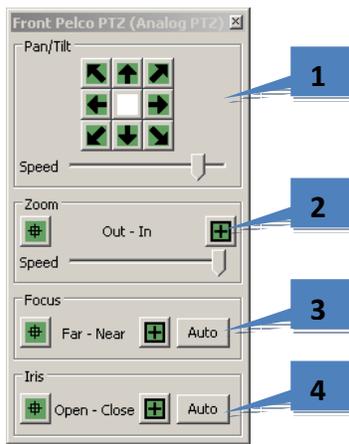
PTZ Control

To control the pan/tilt/zoom features of a PTZ camera without a joystick, move the mouse cursor over the camera's video window to display a green cross in the center of the window. When you move the cursor, arrows appear that show you which way you can pan and tilt. You can zoom in and out using your mouse wheel.



Alternatively, you can click the PTZ Control Button to display the PTZ Control panel:  Click the button to access the PTZ control and preset windows. These controls are available only when a PTZ enabled camera is displayed in the Video View Panel.

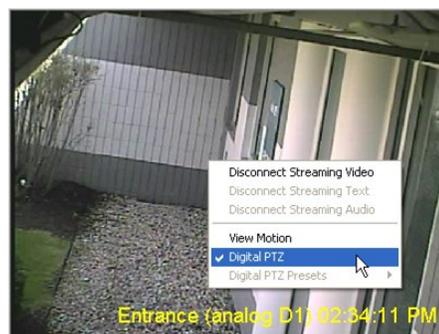
The PTZ panel and preset panel contain the name of the camera being controlled in the title bar. You can click and drag on the title bar of the PTZ Controls to move them anywhere on your screen.



1. To control pan and tilt, click the green arrow buttons. Adjust the pan/tilt Speed slider if necessary.
2. To control zoom, click the Out or In button. Adjust the zoom Speed slider if necessary.
3. To control focus on a compatible camera, click the Far or Near button. Click Auto for auto-focus.
4. To control the iris on a compatible camera, click the Open or Close button. Click Auto for auto-iris.

NOTE: You can also control PTZ using the arrows, Page Up key, and Page Down key on your keyboard. The arrow keys move your camera to the left, right, up, and down. Page Up zooms in, and Page Down zooms out. Pressing Alt+Z enables the zoom box; you can zoom in on a particular location by holding down the control key and dragging the zoom box over the desired portion of the image. Press Alt+Z again to zoom out. You can adjust the speed the Zoom feature by using the Speed slider control on the PTZ Control.

Even without a PTZ camera, digital PTZ allows you to zoom in and pan around an image (if digital PTZ has not been disallowed during setup). To enable digital PTZ, right-click the video window and select Digital PTZ.



To view PTZ presets, select a green number buttons in the presets window. (For directions on how to setup a Preset button, the “Camera Setup” section of this manual.) Hover the cursor over the Preset buttons to view the preset name you entered when configuring the PTZ camera. You can also use your mouse to access the PTZ presets by right-clicking anywhere in the PTZ Video Panel, selecting PTZ Presets, and then selecting the name of the preset.



Event Buttons

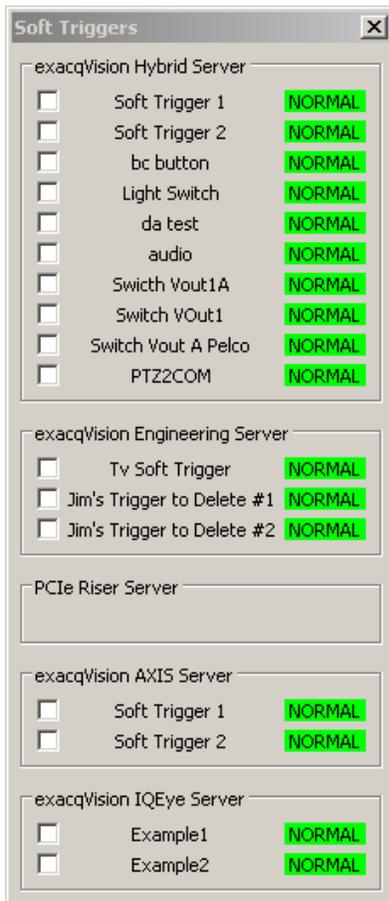
NOTE: Event Buttons are not available in exacqVision Start.

Your exacqVision system allows you to activate soft triggers from the client screen to trigger events defined in Event Linking. This can include activating outputs, activating exacqRecall, or recording video.

After you have set up a soft trigger, a Soft Trigger icon appears in the toolbar at the top of the Live Panel screen.



Click the icon to access the Soft Trigger window.



To activate any of the preset soft triggers, select the corresponding checkbox. Notice that status changes from Normal (green) to Alarm (red), indicating that the soft trigger has been activated. To deactivate the soft trigger and return to a normal status, deselect the checkbox.

Alternatively, you can also create one or more soft trigger shortcuts using the Event Button feature on the Client Setup screen in Setup Mode. See the Client Setup section of this manual for detailed instructions.

exacqReplay

exacqReplay allows you to quickly replay a limited amount of recorded video. You can review the most recently recorded video in increments of 5 or 30 seconds or 1, 5, or 15 minutes. To do this, right-click the camera's video window, select exacqReplay from the pop-up menu, and select the desired time increment.



If video was recorded in the selected time period, the exacqReplay window opens and the video is downloaded.



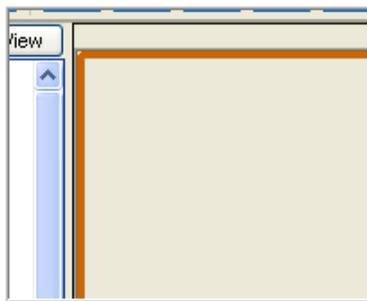
1. The number of downloaded frames and total frames in the video segment are displayed in the status bar.
2. The green bar tracks the download progress. You can play and scrub through video that has been downloaded.
3. This button allows you to play video in reverse fast (double) speed.
4. This button allows you to play video in reverse in normal speed.
5. This button allows you to pause video play.
6. This button allows you to play video forward in normal speed.
7. This button allows you to play video forward in fast (double) speed.
8. This button allows you to stop the video download in progress.
9. This button allows you to play video backward one frame at a time.
10. This button allows you to play video forward one frame at a time.

Live Event Monitoring

Event Monitoring allows you to view events that have been detected. To do this, right-click a video window, select Event Monitor, and then select the event profile you want to view.



This displays an orange border around the video window; video is not displayed in the window until an event triggers.



You can stop the Event Monitoring display by right-clicking in the active video panel and disabling the active event monitoring profile. If you configured your profile as an Event Monitoring mode, the Event Monitor box appears below this video window (you can move it and resize it as needed). When a video event takes place, it is automatically listed in the box. Click on an event line to display video from the associated camera.



1. Click the blue rewind button to replay the event as it was triggered.
2. Click the red X to acknowledge the event and remove it from the list.

If you configured your profile in Virtual Matrix Mode, you will not see an Event Monitor box as motion triggers recording. Instead, the video is automatically displayed as motion occurs.

Camera Groups

NOTE: Camera Groups are not available in exacqVision Start.

exacqVision allows you to organize your cameras into groups that allow you to efficiently view the cameras in the order you choose regardless of how they are listed in the site tree. (See the “Group Setup” section of this manual for details on creating camera groups.)



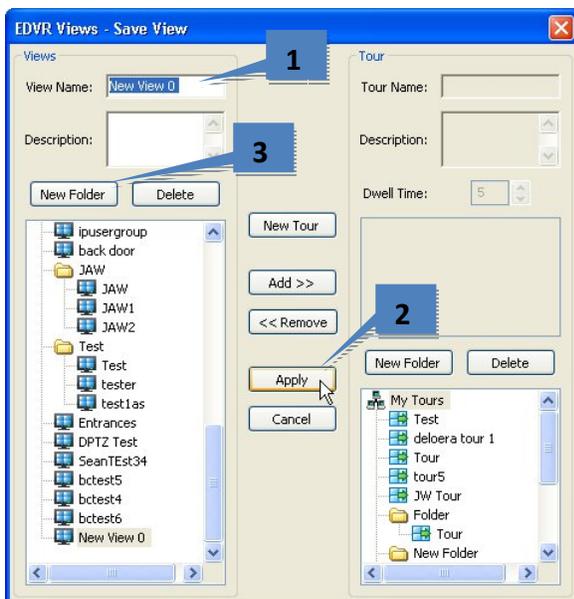
1. To view video from the cameras in the group, click the Groups button in the Navigation Pane.
2. Double-click the first camera in the group to quickly display cameras from the entire group.

Camera Views

You can organize your cameras into preset views that you can save and display from the site tree. There are several methods for creating a view. The simplest is to select a Layout button in the Live mode and drag the cameras, audio, and POS data into the video windows, then click the Save View button at the top of the site tree.

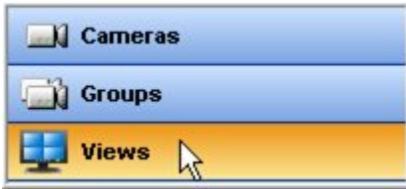


This opens the EDVR Views window.

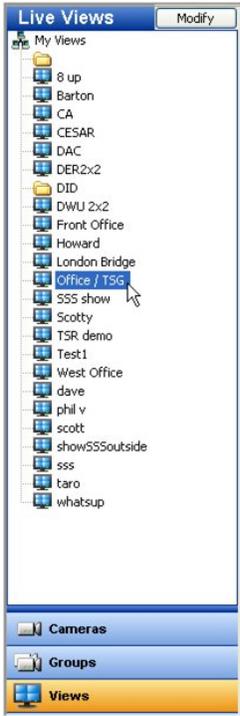


1. Enter a unique name and description for your view in the Views section. The system and camera names will be displayed when you hover over the view name in the site tree.
2. Click Apply to save the view to the list.
3. You can organize views into folders by clicking New Folder in the Views section. Enter a name and description for the folder. Drag and drop views into the folder as desired.

To display a view in the live video windows, click the View button in the Navigation Pane.

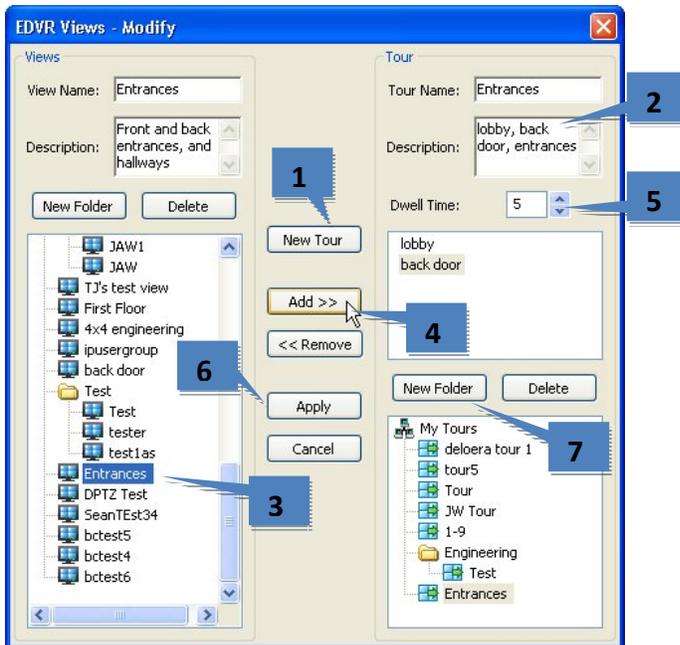


This displays all configured views in the site tree. Select the view to display video from the cameras saved in the view.

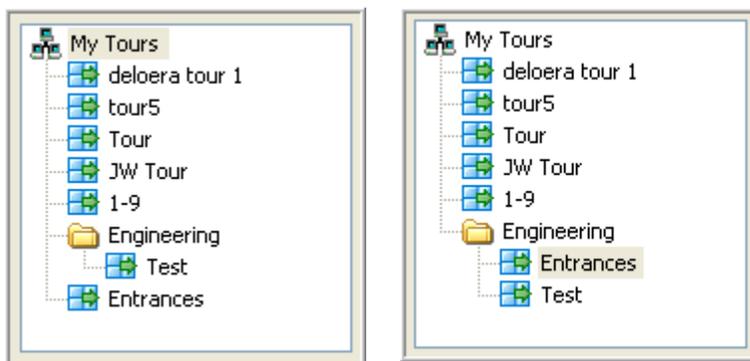


Camera View Tours

To automatically cycle through two or more views, create a camera view Tour. Click Save View or Modify at the top of the site tree to open the EDVR Views window.



1. Click New Tour.
2. Enter a unique name and description for the tour in Tour section.
3. Select a view from the view list in the left side of the window.
4. Click Add>> to add the view to the tour list. Repeat for additional views.
5. Select a Dwell Time. This is the amount of time, in seconds, that each view will be displayed.
6. Click Apply to save the camera view tour.
7. You can also organize your tours in folders by clicking New Folder in the Tour section and then dragging and dropping the appropriate tours in the folder.

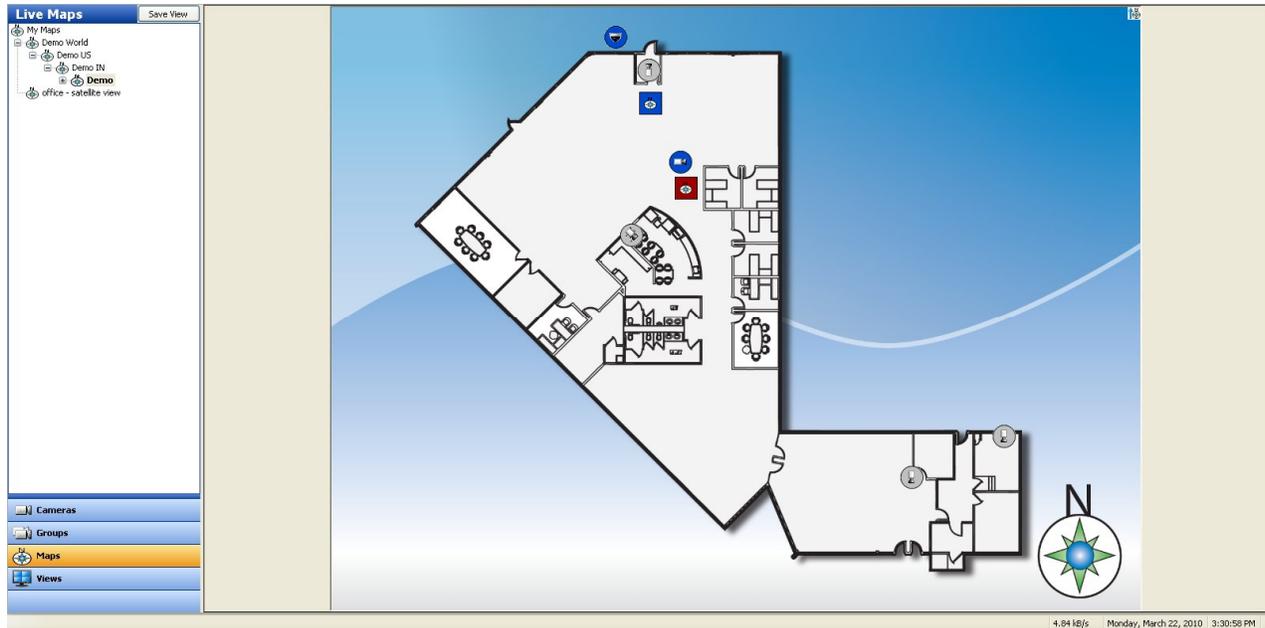


You can now activate the tour from the site tree.

Live Maps

NOTE: Live Maps are not available in exacqVision Start.

Live Maps allows you to manage your cameras and devices using a graphical representation of their physical location.



Live Maps allows you to select from a list of maps that you have imported into exacqVision. When you select Maps from the navigation pane, all the maps that you have entered are listed, organized based on parent and child maps.

To display a map in the video view panel, double-click its name in the list or drag it into a video window. The map can be displayed in 1x1 mode or with video from other cameras. A configuration with multiple windows displays video or data from as many devices associated with the map as possible in the available video windows. Multiple maps can be displayed in the same configuration.

Each map contains icons showing the location of devices. These icons change color to represent the current recording status (blue for motion, for example). You can display video or data from the device that it represents by double-clicking the icon or by dragging it to a video window.

Each map can contain icons representing parent or child maps (exacqVision Enterprise only). To view a child map, double-click the following button:



To view a parent map, double-click the small map button  in the upper-right corner of the map window.

For information on setting up maps, see Map Setup. For information on searching for video on devices in a map, see Searching Maps.

NOTE: Maps can be created on a client computer, but they are associated directly with all exacqVision servers that have cameras and devices associated with the map. Thus, any map that you create can be seen by other users when they are connected to any server that the map is associated with. To see which servers a map is associated with, right-click the map on the Live Maps page and select Properties. All associated servers are listed in the properties window, and you can view the setup page for the map by clicking the OK button that appears.

6

Search Mode Overview

The screenshot displays the exacqVision Search Mode interface. On the left, a 'Search Cameras' tree lists various camera models and locations, with 'Analog - North PTZ' selected. Below this is a 'Search Serial' section with a 'Cameras' button. A navigation pane on the far left contains icons for 'Groups', 'Maps', 'Views', and 'Events'. The main area features a video playback window showing a parking lot scene with a black car and a red truck. Below the video is a timeline with a scrub bar and playback controls. A calendar on the right shows the date 'April 2011' and a 'Start Time' field set to '12:30 PM'. A legend at the bottom right defines color-coded bars: blue for Motion, red for Alarm, green for Free Run, and white for None.

The Search page allows you to search for recorded video, events, and other data.

1. **Search Mode Icon.** This button runs the Search mode.
2. **Camera Selection Tree.** Select cameras, audio, or data sources to search.
3. **Navigation Pane.** Display individual cameras, camera groups, maps, views, or events.
4. **Search Start Time and Date.** Select the start of the search period by selecting a date and time.
5. **Search Button.** Click Search to find video based on the search settings.
6. **Video Playback Window.** Video is played back here.
7. **Video Timeline.** To expand or shrink the timeline, click the plus and minus buttons. To change the start or end time of the timeline, click the left or right arrow buttons.
8. **Recorded Video Bar.** These color-coded bars represent video that has been recorded.
9. **Video Cursor.** This shows where in the timeline the displayed video was captured.
10. **Video Playback Controls.** Standard playback controls (left from right): Reverse fast, reverse normal speed, stop, play normal, play fast, stop download, step forward, step backward.
11. **Scrub Bar.** Quickly scrub back and forth through video.
12. **Smart Search.** Search for video in specific portions of a video window. (Not available in exacqVision Start.)
13. **Export Buttons.** Save Picture, Save Video, Print Picture, and Burn Saved Files to CD or DVD.

Searching for Video and Other Data

To search for video and other data, complete the following steps using the figure on the previous page as a guide:

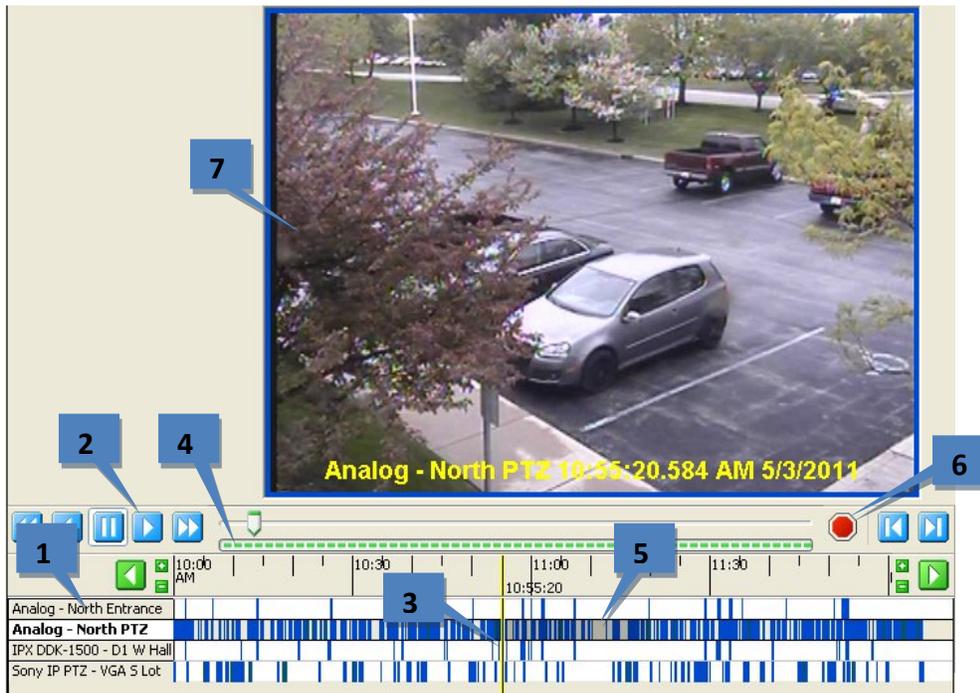
1. In the camera, group, map, or view tree, select one or more sources (cameras, audio inputs, POS, and so on). To search every source on an exacqVision server, check the box next to the server in the Camera Selection Tree (and then deselect any sources individually if desired). You can also select individual sources using the check boxes next to each camera.
2. Select the date and time you want to search. Click Search.

NOTE: If the client computer and the server are located in different time zones, you can select between Client Time or Server Time. Search result listings are applicable to the selected time zone, and the time offset between the time zones is shown in parentheses. The Client Time and Server Time options are visible if you are connected to a server in another time zone.

3. When your search is complete, the camera names selected appear under the timeline with color-coded recording bars representing recorded data. A color legend for the recorded video bars is displayed in the lower right corner of the Search window.



Video Playback

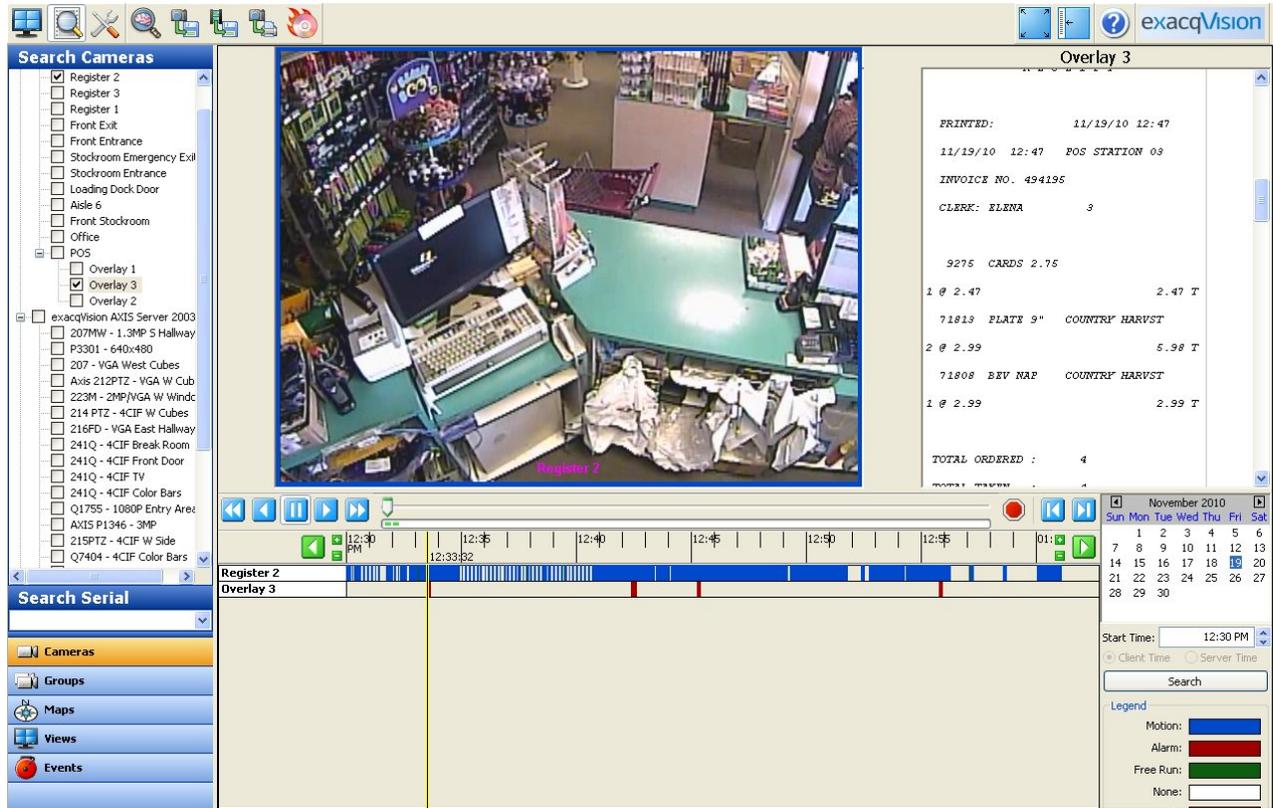


To play back video, complete a search as described in the previous section and complete the following steps:

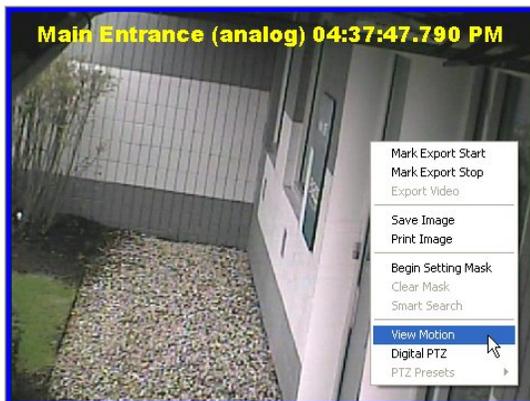
1. Select a camera for video playback by clicking on a camera name in the search results area. To select multiple cameras for playback, press and hold the Control key and then click each of the camera names. To select a range of consecutive cameras, press and hold the Shift key, click the first camera name in the range, and then click the final camera name in the range.
2. Click the play button to start displaying video at the beginning of the timeline.
3. To play video starting at another point on the timeline, double-click a recorded video bar in the appropriate location under the timeline. Or, you can click once on the recorded video bar and then click the Play button.
4. The green progress bar shows how much of the total video has been downloaded. The number of frames downloaded and the total number of frames are also displayed in the status bar.
5. The background behind the recorded video bars turn gray to show how much of each camera's video has been downloaded.
6. To stop video download, click the Stop button. All video downloaded before you pressed the Stop button can still be viewed.
7. To digitally zoom in on a single camera, double-click its video playback window. To return to the multi-camera view, double-click the remaining video playback window.

After the download has started, you can scrub back and forth through the video using the scrub bar and video playback controls. You can view only the portion of the video that has downloaded. You can quickly scan the video by dragging the slider to the left or right or by pressing Enter or Backspace on the keyboard. (Enter and Backspace play every frame of video as quickly as the system hardware allows, unlike the normal Play and Reverse buttons, which play video at actual speed even if frames must be skipped to do so.)

When you play back video associated with POS data, any associated video is displayed in sync with the POS overlay data, as shown in the following figure. Notice the data displayed on the right for the transaction that was just completed in the video window.



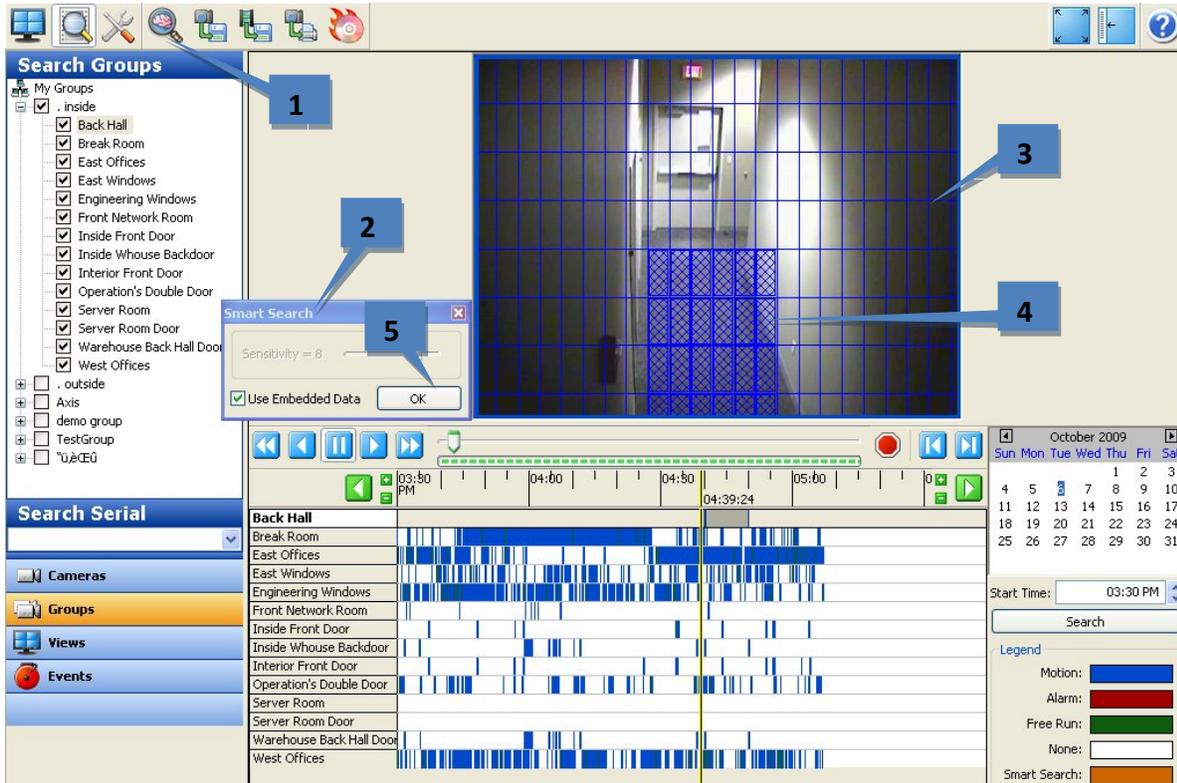
In some cases, wind or some other invisible motion sets off the camera. On an analog camera, you can highlight the motion that triggered the recording to identify the cause by right-clicking anywhere in the playback window and select View Motion. Blue motion boxes mark the area where the motion occurred. When you want to remove the motion boxes, right-click in the Video Playback window again and select View Motion to remove the checkmark. **NOTE:** This feature is not available on IP cameras.



Smart Search

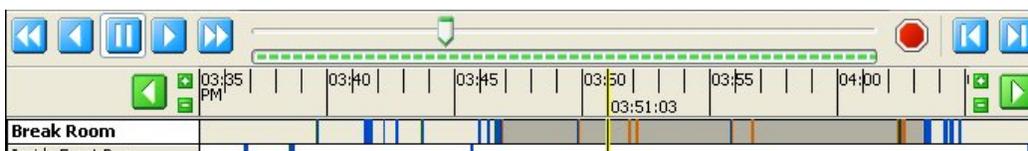
NOTE: Smart Search is not available in exacqVision Start.

Smart Search allows you to search for occurrences of motion in specific areas of a video window in 1x1 layout mode. To activate Smart Search, complete a search as described in the previous section and then complete the following steps:



1. Click the Smart Search button.
2. The Smart Search box opens.
3. A grid is displayed over the video window.
4. Use the mouse cursor to select grid boxes in the region of interest where you want to view all instances of motion. The selected boxes are filled in with blue; to deselect a box, click it again. To select multiple adjacent boxes, click and drag the cursor.
5. Click OK in the Smart Search box. The system searches for all video from the original search that contains motion in the region of interest.

When the Smart Search is complete, the number of frames containing motion in the region of interest is displayed. Click OK to view the frames. Smart Search frames appear in orange in the video results bar:



When orange bars appear in the video results bar, only the Smart Search frames that they represent are played back in the video playback window; any non-Smart Search frames in that time range are skipped.

Searching Maps

You can also search for video from cameras associated with a map. (See the “Map Setup” section of this manual for information about importing and configuring maps.)



Select Maps from the Navigation Pane, and then select the map you want to search by clicking the appropriate checkbox. This selects all cameras associated with the map or its child maps. You can deselect any of the cameras to eliminate them from the search. Alternatively, you can expand a map without selecting its checkbox, and then select individual cameras to include in the search. You can include cameras from multiple maps in a single search.

Select the date and time you would like to search by using the Calendar and Start Time fields, and then click the Search button. Video from all the selected cameras and maps will be displayed in the Video Playback window.

Searching Views

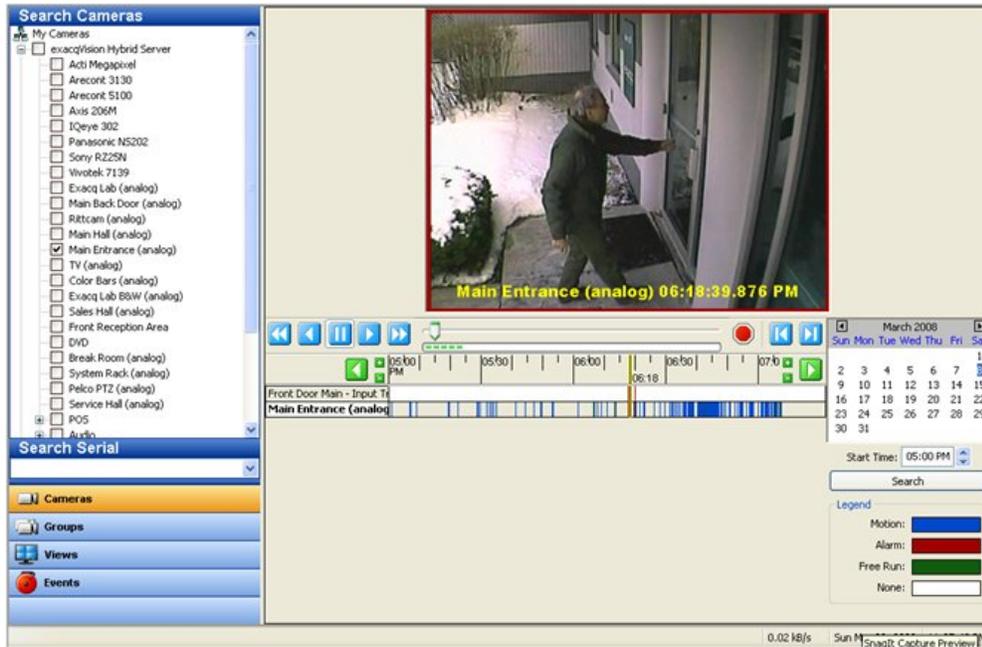
You can also search for video recorded on all cameras in a specific view.



Select Views from the Navigation Pane, and then select the View you want to search by clicking the appropriate checkbox. Select the date and time you would like to search by using the calendar and Start Time field, and then click the Search button. All of the cameras in the View are then displayed in the Video Playback window.

Searching Events

If you want to narrow your search to a specific event previously configured in Event Linking instead of all recorded video, select Events from the Navigation Pane. You can search for the event to locate associated video or audio. To do this, click the Events button on the Navigation pane and the Event you want to search. Then Select the desired date and time and click the Search button.



The red bars indicate instances when the event triggered video or audio recording. To search for the video associated with this particular event, click the Cameras button in the Navigation Pane, and then conduct a search on the camera associated with that event.

Exporting Files

After you have downloaded a video segment, you can use the Export buttons to save a picture or video, print a picture, or burn saved files to a CD or DVD (including DVD+R and DVD+RW).



Left to right, the icons are Save Picture, Save Video, Print Picture, and Burn Saved Files to CD or DVD.

NOTE: You can also copy a picture to a clip board and paste it into a document. When you find the image you need, right-click anywhere in the Video Playback window and select Copy Image to Clipboard. The image will be stored, and you can paste it into another document.

To save a video clip, you must first mark the starting point of your video clip by scrubbing to the location on the timeline where you want your video to clip to begin. Right-click anywhere in the Video Playback window and select Mark Export Start. To mark the ending point of your video clip, right-click anywhere in the Video Playback window and select Mark Export Stop.



Click the Save Video button to save the file. You can store multiple video clips in a directory and then email the files or burn them to a CD or DVD.

The system defaults to a standalone *.exe file, which plays on its own and can be run by a Windows user who does not have access to an exacqVision Client. Alternatively, you can save the clip as a *.ps, *.avi, or *.mov file if you are emailing it to another exacqVision Client user; this will reduce the size of the clip. If you are running the client on a Linux or Mac operating system, you should save the clip as a *.ps file unless you are emailing it to a Windows user.



NOTE: See the chart on the following page for information about file compatibility on each operating system. Also, an *.exe file can be created using any operating system even though it can be viewed using only Windows.

Quicktime and AVI File Export Players

Video format	Windows Players			Linux Players		Mac Players
	WMP*	Quicktime Player	VLC	MPlayer	VLC	Quicktime Player
AVI MJPEG	?	with DivX decoder	?	?	?	with DivX decoder
AVI MPEG4	with DivX	with DivX decoder	?	?	?	with DivX decoder
AVI MPEG4 with ASP	with DivX	with DivX decoder	?	?	?	with DivX decoder
AVI H.264	with DivX	with DivX decoder	?	?	?	with DivX decoder
Quicktime MJPEG		?	?	?	?	?
Quicktime MPEG4		?	?	?	?	?
Quicktime MPEG4 with ASP		with 3ivx MPEG4 decoder	?	?	?	with 3ivx MPEG4 decoder
Quicktime H.264		?	?	?	?	?

*WMP = Windows Media Player

Download players at the following URLs:

- **Windows Media Player**
<http://www.microsoft.com/windows/windowsmedia/default.mspx>
- **Quicktime Player**
<http://www.apple.com/quicktime/download/>
- **VLC Player**
<http://www.videolan.org/vlc>
- **MPlayer**
<http://www.mplayerhq.hu/design7/dload.html>

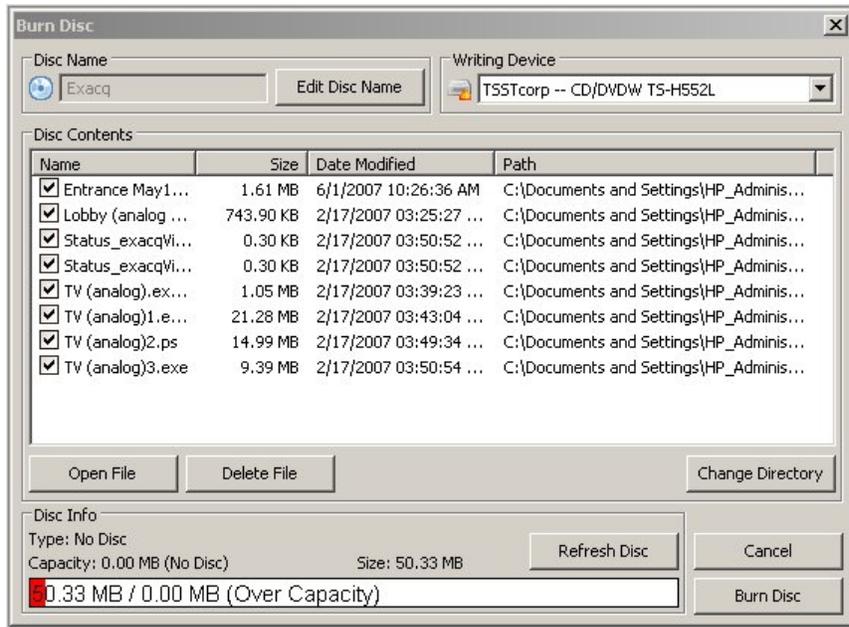
Download codecs at the following URLs:

- **3ivx MPEG4 decoder**
<http://store.3ivx.com/3ivxStore/?features=dec&platform=win&license=plus&Go=Go>
- **DivX decoder**
<http://www.divx.com/en/downloads>
- **Quicktime codec resources**
<http://www.apple.com/quicktime/resources/components.html?os=Windows&ctype=696d6463&csubtype=48323634>
- **Perian Codec for Quicktime**
<http://www.perian.org>

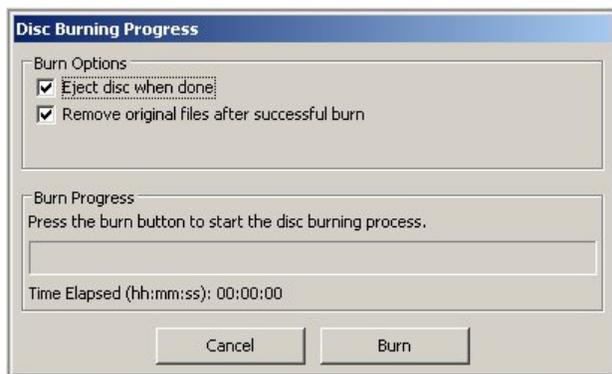
To save data to a CD or DVD, insert a writable CD or DVD and click the “Save to a CD or DVD” button at the top of the toolbar to display the Burn Disc window.



NOTE: If you do not have a CD burner, the Save to a CD or DVD button will not be enabled. If you are running the client on a Mac, you can drag and drop the files into your Burn Folder to create links to these files and click Burn.



1. You can change the name of the disc by clicking the Edit Disc Name button.
2. The Disc Contents list displays all of the video clips in your directory. Select the clips you want to burn.
3. To review a video clip, select the file and click Open File.
4. The Disc Info box displays important information about your disc capacity. The first number listed (MB) is the amount of space required to burn all of the video clips you have selected. The next number represents the capacity of the disc you have inserted; if you forget to insert a disc, this number is zero. If you insert or replace a disc, click Refresh Disc to update the numbers.
5. Click Burn Disc to open the Disc Burning Progress window. Review the Burn Options before proceeding.
6. Click the Burn button to start the writing process.



7

Enterprise Management

NOTE: Enterprise Management features are available only if you are connected to a system with a valid Enterprise license.

Enterprise Cameras

The Enterprise Cameras page under My Enterprise in the Configuration site tree allows you to see expanded information about all cameras connected to enterprise exacqVision systems listed under My Systems.

System Name	Camera Name	IP Address	Connection	Record Status	MAC Addr	Type	Model	Firmware	IPS	Resolution	Format
1	exacqVision Hybrid Server Arecont 1355 - 1.3M Hall	192.168.101.111	Connected	Continuous Recording	00-1A-07-04	Arecont Vision	1355	65129	7 fps	1280x1024 (1.3M)	H.264
2	exacqVision Hybrid Server Axis M1011 - VGA Cube C	192.168.101.24	Connected	Motion Recording	00-40-8C-A2	AXIS VAPIX	M1011	5.20.1	30 fps	640x480	H.264
3	exacqVision Hybrid Server Canon VB-C50	192.168.103.0	Connected	Scheduled Off	00-00-85-D4	Canon	VB-C50	1.1.0.3687	15 fps	640x480	MPEG4
4	exacqVision Hybrid Server IPX DDK-1500 - D1 W Ha	192.168.102.60	Connected	Continuous Recording	00-0C-0C-01	IPX	DDK-1500	1.43	15 fps	720x480	MPEG4
5	exacqVision Hybrid Server IQeye712D - 1.9M	192.168.101.196	Connected	Continuous Recording	00-50-1A-02	IQeye	IQeye712D	Version V3.0(9)(101130)	8 fps	1600x1200 (1.9M)	JPEG
6	exacqVision Hybrid Server Bosch D1non - D1 W Cub	192.168.102.65	Not connected	Scheduled Off	-	OWJF	-	-	-	-	-
7	exacqVision Hybrid Server Panasonic WV-N6202A	192.168.101.226	Connected	Motion Recording (in motion)	00-80-45-53	Panasonic	WV-N6202A	2.70P7	5 fps	640x480	JPEG
8	exacqVision Hybrid Server Samsung SNP-5000 - 1.3	192.168.102.66	Not connected	Continuous Recording	-	Samsung Techwin	-	-	-	-	-
9	exacqVision Hybrid Server Sanyo HD3300 - 1MP Enl	192.168.103.60	Connected	Motion Recording	09-00-7B-88	Sanyo	VDC-HD3300	CM 2.03-02 CS 1.01-00	30 fps	1280x960	H.264
10	exacqVision Hybrid Server Sanyo HD2500	192.168.103.61:8080	Not connected	Continuous Recording	-	Sanyo	-	-	-	-	-
11	exacqVision Hybrid Server Sony SNC-D560 VGA	192.168.102.165	Connected	Motion Recording	00-1D-8A-31	Sony	SNC-D560	1.10	10 fps	VGA	MPEG4
12	exacqVision Hybrid Server Sony IP PTZ - VGA S Lot	192.168.102.166	Connected	Motion Recording	00-1D-8A-0F	Sony	SNC-RX570N	3.14	30 fps	VGA	MPEG4
13	exacqVision Hybrid Server Stardot NetCam - SMP W	192.168.103.76	Connected	Motion Recording	00-30-F4-D0	StarDot	NetCamSC SMP	1.1.65	11 fps	UHR-3.9(2560x1600)	JPEG
14	exacqVision Hybrid Server Vivotek IP7361 - 3MP	192.168.102.222	Connected	Motion Recording	00-02-01-0E	Vivotek	IP7361	IP7361-WTK-0200b	30 fps	1600x1200	MPEG4
15	exacqVision Hybrid Server Vivotek IP6332 - 1.3MP	192.168.102.220	Connected	Motion Recording	00-02-01-0E	Vivotek	IP6332	IP6332-WTK-0101a	30 fps	1280x800	H.264
16	exacqVision Hybrid Server Analog - North Entrance	-	Connected	Motion Recording	-	Analog	eDVR 4000P	1.6.1.23070	15 IPS	2CIF	MPEG4
17	exacqVision Hybrid Server Analog - Exacq Cafe	-	Connected	Motion Recording	-	Analog	eDVR 4000P	1.6.1.23070	15 IPS	2CIF	MPEG4
18	exacqVision Hybrid Server Analog - N Vestibule	-	Connected	Motion Recording	-	Analog	eDVR 4000P	1.6.1.23070	15 IPS	2CIF	MPEG4
19	exacqVision Hybrid Server Analog - Main Hallway	-	Connected	Motion Recording	-	Analog	eDVR 4000P	1.6.1.23070	15 IPS	2CIF	MPEG4
20	exacqVision Hybrid Server Analog - TV Color Bars	-	Connected	Motion Recording	-	Analog	eDVR 4000P	1.6.1.23070	15 IPS	2CIF	MPEG4
21	exacqVision Hybrid Server Analog - North PTZ	-	Connected	Motion Recording (in motion)	-	Analog	eDVR 4000P	1.6.1.23070	15 IPS	2CIF	MPEG4
22	exacqVision Hybrid Server Analog - TV	-	Connected	Motion Recording (in motion)	-	Analog	eDVR 4000P	1.6.1.23070	15 IPS	2CIF	MPEG4
23	exacqVision Hybrid Server Analog - Fishbowl	-	Connected	Motion Recording (in motion)	-	Analog	eDVR 4000P	1.6.1.23070	15 IPS	2CIF	MPEG4
24	exacqVision Hybrid Server Analog - Shipping Racks	-	Connected	Motion Recording	-	Analog	eDVR 4000P	1.6.1.23070	15 IPS	2CIF	MPEG4
25	exacqVision Hybrid Server Analog - Shipping Door	-	Connected	Motion Recording	-	Analog	eDVR 4000P	1.6.1.23070	15 IPS	2CIF	MPEG4
26	exacqVision Hybrid Server Analog - West Entrance	-	Connected	Motion Recording (in motion)	-	Analog	eDVR 4000P	1.6.1.23070	15 IPS	2CIF	MPEG4
27	exacqVision Hybrid Server Analog - Disco Ball	-	Connected	Motion Recording	-	Analog	eDVR 4000P	1.6.1.23070	15 IPS	2CIF	MPEG4
28	exacqVision Hybrid Server Analog - West Area	-	Connected	Motion Recording (in motion)	-	Analog	eDVR 4000P	1.6.1.23070	15 IPS	2CIF	MPEG4
29	exacqVision Hybrid Server Analog - Inside N Door	-	Connected	Motion Recording	-	Analog	eDVR 4000P	1.6.1.23070	15 IPS	2CIF	MPEG4
30	exacqVision Hybrid Server Analog - Repair Racks	-	Connected	Motion Recording	-	Analog	eDVR 4000P	1.6.1.23070	15 IPS	2CIF	MPEG4
31	exacqVision Hybrid Server Analog - Receiving Door	-	Connected	Motion Recording	-	Analog	eDVR 4000P	1.6.1.23070	15 IPS	2CIF	MPEG4

In addition to viewing camera information, this page allows you to do the following:

- Double-click any column in a camera's listing to view its Camera Setup page.
- Right-click in the Record Status column to activate exacqReplay on the selected camera. See the "exacqReplay" section of this manual for more information.
- Sort any column by clicking on the column title.

Enterprise Server Setup

Enterprise servers can be integrated with network management systems (Active Directory, OpenLDAP, or Kerberos) to synchronize user accounts from your computer network and exacqVision servers. Before proceeding with this option, you must configure the integration as explained in the LDAP integration document appropriate for your platform found at <https://www.exacq.com/downloads/LDAP/index.html>.



Enterprise User Setup

The Enterprise User Setup page under My Enterprise allows you to create user accounts for multiple systems simultaneously.

Creating New Users Using LDAP Integration

To create a new user using LDAP integration, click Query LDAP on the Enterprise User Setup page to open the Select Users or Groups window.



1. If the enterprise servers span multiple domains, select the domain of the user or group that you want to add from the Select Base DN drop-down list.
2. If the status indicator does not show that the server is connected, contact the network administrator.
3. Enter the user's or group's network name. This is normally the username used to log in to network computers.
4. Click Search to display matching users or groups.
5. Click on the correct user or
6. Click Select. The main Enterprise User Page then lists servers with active LDAP integration.

Select	Delete	Server	Password	Confirm	User Group	Status
		Dans Trunk Server				DISCONNECTED
		exacqVision ACT1 Server				DISCONNECTED
		exacqVision Arecont Serv				DISCONNECTED
		exacqVision AXIS Server				DISCONNECTED
		exacqVision D1 480 Sams				LDAP DISCONNECTED
		exacqVision Hybrid Server				LDAP DISCONNECTED
<input checked="" type="checkbox"/>	<input type="checkbox"/>	exacqVision IQEye Server			Live + Search	PENDING ADD
		exacqVision Linux Server				DISCONNECTED
		exacqVision Panasonic Se				DISCONNECTED
		exacqVision Pelco Server				DISCONNECTED
		exacqVision Sony Server				DISCONNECTED
		exacqVision StarDot Serv				LDAP DISCONNECTED
		exacqVision Z Series Ser				LDAP DISCONNECTED

7. In the Select column, activate the checkboxes for servers that the user or group should have access to.

Click Apply to save changes. On the Add System page, select Use Single Sign-on so that the exacqVision Client will pass the client computer's login credentials to the server for validation when it starts. Failing to select Single Sign-on could cause failed login attempts because of mismatched passwords.

NOTE: Server entries with a red background have been configured for LDAP integration but are not currently connected. If a server is not licensed as an enterprise system, NOT ENTERPRISE appears in its Status column.

A Technical Support

Exacq Technologies is committed to providing exceptional technical and engineering support. When you need help with your exacqVision product, please be ready with a complete description of the problem, including any error messages or instructions on re-creating the error.

Technical support can be contacted as follows:

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Fishers, IN 46037 USA

Phone: +1-317-845-5710

Fax: +1-317-845-5720

e-mail: support@exacq.com

Web: <http://www.exacq.com>



B

Regulatory Notice

Federal Communications Commission (FCC) Radio Frequency Interference Statement

The Exacq Product contains incidental radio frequency-generating circuitry and, if not installed and used properly, may cause interference to radio and television reception. This equipment has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of the Federal Communications Commission (FCC) Rules. These limits are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area may cause interference to radio and television reception, in which case users will be required to correct the interference at their own expense. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, users are encouraged to try to correct the interference by one or more of the following measures: Reorient the television or radio receiving antenna, and/or relocate the Exacq product and the radio or TV with respect to each other. If necessary, users should consult the manufacturer or an experienced radio/television technician for additional suggestions. Users may find helpful the following booklet prepared by the Federal Communications Commission: "How to Identify and Resolve Radio-TV Interference Problems," which is available from the Government Printing Office, Washington DC, 20402 (stock #004-000-00345-4).

CE Notice

Marking by the  symbol indicates compliance of this device to the EMC directive of the European Community. Such marking is indicative that this device meets or exceeds the following technical standards:

- EN55022: Conducted Emissions
- EN55022: Radiated Emissions
- 61000-4-2 Electrostatic Discharge
- 61000-4-3 Radiated Immunity
- 61000-4-4 Electrical Fast Transients
- 61000-4-5 Surge Immunity
- 61000-4-6 Conducted Immunity

Electromagnetic compatibility (EMC) requires the use of shielded cable and ferrite cores for all wiring added by the user. Good shielding techniques should be applied in the user's system.



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D

Manual Updates

Following are manual updates since the most recent major revision of the exacqVision Client software:

Release 4.0

- Added Active Directory/OpenLDAP chapter.
- Added information about Query LDAP buttons in Users Setup and Enterprise User Setup sections.
- Added Live Maps, Searching Maps, and Map Setup sections.
- Updated System Setup section.

Release 4.1

- Added serial over IP information to Serial Port Setup section.
- Updated PTZ Control section.

Release 4.2

- Updated My Systems section with new columns.
- Updated Add IP Cameras page layout.
- Merged Import/Export Graphics into Import/Export Settings on System Setup page.

Release 4.3

- Added Send Rate Limit feature to Notifications section.
- Added Server Time and Client time options to Search Mode Overview section.
- Added note about Linux systems with multiple network interface cards to System Setup section.

Release 4.4

- Added search for POS to Video Playback section.
- Added Pre Motion to Camera Setup section.

Release 4.5

- Added license import and export information to My Systems section.
- Added information about selecting individual serial key words to Event Linking section.
- Added note about the Case Sensitive options to the Serial Profile Setup section.

Release 4.6

- Revised entire manual with new formatting, reorganization, and updated information.
- Added Enterprise Cameras and Enterprise Server Setup sections to new Enterprise Management chapter.
- Added Login History and Audit Trail tabs to System Information section.
- Added references to features available in exacqVision Start, exacqVision Professional, and exacqVision Enterprise.