Exacq

exacqVision Start User Manual

www.exacq.com

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Johnson Controls

Contents

New in version 24.12

This release includes the following updates for Exacq Start:

- General improvements and bug fixes.

System installation

Hardware and software requirements

The following table provides hardware and software requirements for installing an exacqVision system.

Table 1: Hardware and software requirements

Name	Requirements
Server	For information about the minimum server requirements, see https://www.exacq.com/products/vms_requirements.html.
	Install the server operating system and exacqVision software on a dedicated, mirrored operating system.
	The storage system can limit the performance of the server. The storage system can support twice the maximum read and write data from all cameras. To reduce the chances of catastrophic failure, use RAID 5 or RAID 6 for all video storage.
	To avoid data corruption during a power failure, use UPS-powered servers.
	CPU requirements increase when hosting multiple concurrent web clients.
	The exacqVision server application requires a maximum of 4GB. Operating systems, web hosting, or any other server application require additional memory.
	For constant video recording, use enterprise-grade hard drives.
Operating System	For information about the minimum operating system requirements, see https://www.exacq.com/products/vms_requirements.html.
	Do not port block because many edge devices use multiple or dynamic port assignments.
	Antivirus programs can only scan the operating system and exacqVision software drives. To avoid decreasing the drive performance, disable virus scanning on all video storage drives.
	If you enable automatic updates, the server stops recording when the operating system restarts.
MAC Address	The exacqVision license is based on the MAC address. Servers with NIC Teaming or other configurations that obscure the MAC address require an additional USB-based NIC to provide a licensing MAC address.

Table 1: Hardware and software requirements

Name	Requirements
Network	For the most reliable system and performance, the network administrator must observe the following best practices: • Use a dedicated VLAN and NIC port for all cameras. • Use a dedicated VLAN and NIC port for all storage networks. • Use fixed IP addresses for cameras and servers. ExacqVision clients can use DHCP. • Ensure that the camera-to-server network capacity is double the maximum video rate. • Ensure that the server-to-thick-client network is 1.5 times the maximum total data rate of all simultaneously viewed cameras.
Web service	The default web service for exacqVision is lighttpd. For systems where you expect more than ten connections, upgrade to Apache web services. For more information see, https://www.exacq.com/kb/?kbid=34927.
	Web services increase server hardware requirements and can require installation on a dedicated web server. For more information about how to configure a web service, see https://www.exacq.com/kb/.

Installing the server software

To install the server software, complete the following steps:

1. Download the latest server and web services installation software from https://www.exacq.com/support/downloads.php.
2. Run the executable file to start the installation wizard.

   ⓘ **Note:** You must use an administrator account to run the executable file.
3. Configure the IP address, username, and password for all cameras. For more information, refer to the exacqVision IP Camera Quick Start Guide at https://www.exacq.com/downloads/ev-ip-quickstart-0311.pdf, or the camera manufacturer's instruction guide.
4. Use the ping command to test camera connectivity.

Installing the client software

To install the exacqVision client software, complete the following steps:

1. Download the latest client software from https://www.exacq.com/support/downloads.php .
2. Run the executable file to start the installation wizard.

   ⓘ **Note:** You must use an administrator account to run the executable file.

   a. Click **Next** on the first wizard setup page.
   b. Select **I accept the terms of the License Agreement**.
   c. Select a destination folder and click **Next**.
   d. Select the components you want to install.

      ⓘ **Note:** If you want to install Tyco AI, ensure you select **Tyco DL**. **Tyco DL** is not selected by default.

   e. Click **Install**.
3. Use the ping command to test server connectivity.

ⓘ **Note:** If the exacqVision client does not connect to the server, contact the network administrator.

4. Start the exacqVision software.
5. In the **Configuration** window, select **Add Systems** from the navigation tree.
6. In the **Add Systems** window, click **New**.
7. In the **System Information** area, enter a username and password.
8. Click **Apply**.

   ⓘ **Note:** If the new server appears in the system list table with a **Connected** status, the initial server configuration is complete. If the server does not connect, but the server connectivity was confirmed in step 3, ensure that the computer's antivirus software is not blocking communication with the server's IP addresses and ports.

9. Start the exacqVision server configuration.

Client and server architecture

exacqVision software has a client and server architecture. You can configure every computer as a client, or as a server, or as both a client and a server. The following definitions define these configurations:

Client

A client computer can access 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.

Server

A server computer delivers services to client computers over the TCP/IP network. An exacqVision server receives and stores video from cameras; sends audio, video and data to thick clients if they request it; and can host a web server for thin clients. The exacqVision server software does not have a graphical user interface. A server can connect to multiple client computers simultaneously, within hardware limitations.

Client and server

A client and server configuration operates client and server software simultaneously. The client software can communicate with the server software on the same computer using the loopback TCP/IP address of localhost127.0.0. exacqVision servers are configured at the factory with a client and server configuration.

System installation checklist

To install a new exacqVision system, ensure you complete all steps in the following table.

Table 2: Mandatory installation steps for installing an exacqVision system

Step	Task
Install the hardware	See Table 1 and the hardware quick start guides.
Install the software	See Installing the server software, Installing the client software, and Table 1.
Establish initial communications	To establish initial communications between the client software and an exacqVision server, refer to the server's quick start guide.

Table 2: Mandatory installation steps for installing an exacqVision system

Step	Task
Configure IP cameras	To configure IP cameras, refer to the *IP Camera Setup Quick Start Guide*.
Configure usernames and passwords	To configure usernames and passwords, refer to the *IP Camera Setup Quick Start Guide*.

Getting started

exacqVision software overview

When you install an exacqVision server you are prompted in create a username and password.

You do not need to log on to the server to start video recording or to communicate with other client computers. You can access the exacqVision server from a multiple of exacqVision clients, which can run from the same computer as the exacqVision sever, or from a remote computer network.

For maximum reliability, the user account functionality is limited to using the exacqVision client software. All server maintenance tasks, such as the shutdown of the exacqVision service, require you to log on to the operating system's administration account. Each operating system user account has separate exacqVision client settings. These settings include usernames, passwords, and network addresses. By default, both the user and the administrator operating system accounts have settings that provide administrator access.

Logging on to a server

1. When you log on to a server, type your user name and the server password.
2. Configure a new user on the server.
3. Restrict user privileges and change the exacqVision client settings for the operating system user account. For more information on user configuration, see Users window.

Main windows

exacqVision systems have three main windows, the **Live** window, the **Search** window, and the **Config (Setup)** window.

Table 3: Main windows

Icon	Name	Function
	**Live** window	In the **Live** window, you can view live video. To open the **Live** window, click the **Live** icon.
	**Search** window	In the **Search** window, you can search recorded video. To open the **Search** window, click the **Search** icon.
	**Config (Setup)** window	In the **Config (Setup)** window, administrators and power users can configure servers. To open the **Config (Setup)** window, click the **Config (Setup**) icon.

About the exacqVision client window

In the **About exacqVision Client** window, you can update the exacqVision client software, search for new software versions, and send information to the manufacturer about how you use the system. For more information, see the following table.

Table 4: About exacqVision client window

Name	Description
Check for Updates button	Checks the exacqVision client and server for software updates.
	If the system is running the latest version of the exacqVision software, a message appears. Click **YES**.
	If a new version of the client software is available, the download process starts. To complete the update, after the download is complete, close all instances of the exacqVision client. Click **YES** and complete the setup wizard.
	To check if a server software update is available, in the toolbar click the indicator icon.
Automatically Check for Updates check box	Periodically searches for exacqVision client and server software updates and notifies the user when software updates are available. If a software update is available, it does not install automatically.
Send usage statistics check box	Sends anonymous and non-sensitive information to the manufacturer about how you use the cameras and exacqVision features.

exacqVision Help

In the **Help** menu, you can access online help, compile log files, and access internet links to new product information, subscription and registration information, and technical support and knowledge base resources. To access the **Help** menu, click the **Help** icon in the toolbar.

Compiling log files

To compile log files, complete the following steps:

1. In the toolbar, click the **Help** icon and then select **Support Diagnostics**.
2. In the **Support Diagnostics** window, from the **Server** menu select a server.
3. Select the **Show Advanced Options** check box.
4. In the **Included files** area, select the files that you want to send.
5. In the **Server Log Range** area, select a date and time range.
6. **Optional:** Select the **Send usage statistics** check box to send anonymous and non-sensitive information to the manufactures about how you use cameras and exacqVision features on the system.
7. Choose one the following options:
   - Click **Save** to compile the log files.
   - Click **Upload** to open a support request form with the log files as an attachment. Enter the appropriate information, and then click **Submit Email Form**.

System configuration

In the system configuration section, you can add servers to the system, configure cameras and other devices, and apply features.

ⓘ **Note:** For S-Series storage servers, only the storage features are available.

Add systems window

In the add systems window, you can add servers manually or add servers by searching. For more information, see the following table.

Table 5: Add Systems window features

Interface element	Description
Systems list	Displays a list of available servers.
	To temporarily disconnect or reconnect a server, select or clear the server's check box.
Import/Export tab	Shares pre-configured system lists with other exacqVision clients.
	To import a system list, enter a network location or a web site in the **Manual Import** area, and then click **Import**. This action does not delete any previously added systems.
	To export a system list that is currently on display click **Export**. You can then save the file to a location where another exacqVision client can access it.
Find Systems tab	Displays a list of available servers that you can search, and then add to the system.

Manually adding a system

To add a system manually, complete the following steps:

1. In the **Systems** list pane, click **New**.
2. In the **System Information** pane, enter the system's hostname or IP address in the **Hostname/IP Address** field.
3. Enter a port number in the **Port** field. The default port number is 22609. Change this port number only if it is necessary for your network configuration.
4. Select one of the following log on methods:
   - **Use Single Sign-On** This option is only available on exacqVision Enterprise. For more information, see *exacqVision User Manual*.
   - **Always prompt for credentials** This option requires you to enter a username and password every time you start the exacqVision client.
   - **Use credentials entered below** This option automatically logs on to the system when you start the exacqVision client.
5. Enter a username and password to connect to the exacqVision system.
6. Select a connection speed option. The option you select helps to determine how much audio to buffer and the default video multistreaming speed.
7. Click **Apply**.

Adding a discovered system

About this task:
For the exacqVision client to discover the recorders automatically, the recorders must reside on the same IP subnet as the exacqVision client that performs the search.

To add a system by searching, complete the following steps:

1. In the **Find Systems** tab, select the **IP address range** check box.
2. Enter an IP address range.

ⓘ **Note:** You can only enter the fourth digit of the IP address range.

3. Click **Find**.
4. In the **Find Systems** tab, select the systems you want to add.
5. Enter your credentials.

   ⓘ **Note:** In exacqVision Start, the client can connect to only one exacqVision server at a time.

Configuring an automatic search for a system list update

To configure the exacqVision client to automatically check for a **System** list update, complete the following steps:

1. In the **Import/Export** tab, select **Enable**.
2. Select one of the following options:
   - **File on startup** This option automatically loads the **System** list from a specified location when you start the exacqVision client.
   - **URL on startup** This option automatically loads the **System** list from a web location when you start the exacqVision client.
3. In the **URL** field, enter a URL.
4. Click **Apply**.

Configure system window

In the configure system window, you can set the basic system parameters for the client application.

The window has the following tabs:

- System tab: Use to create a name for the system, export and import settings from other systems, import and export graphics, configure timeout settings, and manage the license for the system
- Date/Time tab: Use to edit the date and time settings for a system's server.
- Network tab: Use to configure the networks settings, adjust bandwidth throttling, and set the IP reconnection time.
- Active Directory/Lightweight Directory Access Protocol (LDAP) tab: Use to modify the directory service settings.
- Update tab: Use to view the current software version that the exacqVision server is running, and remotely update the exacqVision server software.
- Outbound connections tab: Use to connect to services outside the system's network, such as exacqVision Enterprise Manager or exacqVision Integrator Services Portal.
- Security tab: Use to apply security settings to user accounts, create or modify an access schedule for a user, and configure the second reviewer feature.
- Bandwidth tab: Use to create the bandwidth throttling profile.

Working with the system tab

On the system tab, you can create a name for the system, export and import settings from other systems, import and export graphics, configure timeout settings, and manage the license for the system.

Choose the features that you want to apply.

1. In the **System Identification** area, use the pane to create and edit metadata fields that you can use to refine a server search.
   a. To add a metadata field, click the **Plus** icon and type the information in the corresponding field.
   b. Click **Apply**.
2. The **Settings** area provides the following options:
   - Click **Import** to restore settings or to import them from another system.
   - Click **Export** for disaster recovery or malfunction, to export settings to a USB or network drive.
3. In the **International characters** area, you can display international characters when you type camera and server information. Click **Enable**, read the information and then click **YES**.

   ⓘ **Note:** You cannot reverse this action on the server, and it can cause international characters to display incorrectly on older versions of the exacqVision client.
4. The **System Information** area displays information about the system hardware.
5. The **License** area displays the system's license information including subscription expiration and license usage.
   - To generate a license key, use the MAC address of the system's primary network adapter.
   - To obtain a license key online, contact your dealer and provide them with the system MAC address. You can then enter the license key in the **License** field. Unlicensed exacqVision servers can connect to only one IP device at a time.
6. The **Permanent License** area displays the system's permanent license information. You can view the **Permanent License** pane only if you apply a trial license over a permanent license. If the systems license expires, a permanent license is reapplied automatically.
7. In the **Global Settings** area, you can configure the **PTZ control timeout**, **2-way audio control timeout**, and **VideoPush control timeout** settings. Set the timeout settings to lock out multiple users for the selected number of seconds and prevent user access conflicts.
   a. Use the arrows to select the required value in seconds.
   b. Click **Apply**.

   For more information on control timeout for each for these camera see, PTZ cameras.

Importing a license

1. In the **License** area, click **Import**.
2. Select **From File** or **From exacq.com**.
3. Click **Apply**.

Configuring the second reviewer feature

ⓘ **Note:**
- The second reviewer feature does not support the exacqVision web service.
- When you configure the second reviewer feature, you disable the archiving, auto export jobs, and email notification attachment features.

1. On the **Systems** tab in the Settings pane, click **Import**.
2. On the **Security** tab, select the **Enable** check box.
3. In the **Require for** area, select the functions that require the feature.
4. In the **First Password** field, the first user must enter a password and then enter it again in the **Confirm** field.

5. In the **Second Password** field, the second user must enter a password and then enter it again in the **Confirm** field.
6. Click **Apply**. The exacqVision client prompts for both passwords when you perform tasks that require the second reviewer feature.

Changing the date and time of the server

The data and time tab displays the date and time of the server and the timezone. In the date and time tab, you can edit the date and time settings for a system's server.

1. In the **Configure System** window, click the **Date/Time** tab.
2. To change the date and time of the server,choose from the following options:
   - For systems with internet access, select **Enable Time Server** and enter a valid internet time server in the **Time Server** field.
   - For systems without internet access, select **Enable Time Server** and enter an internal time server in the **Time Server** field.
   - For more information on the systems time server, contact your network administrator.
3. To synchronize the IP cameras on the network with a time server other than an exacqVision server, In the **IP Camera Time Server** area, select **Enable Override**, and then enter the server address in the **IP Camera Time Server** area.

Configuring a network connection

On the network tab, you can configure the networks settings, adjust bandwidth throttling, and set the IP reconnection time.

About this task:

Note: On a Linux system with multiple Network Interface Cards (NIC), the Domain Name System (DNS) of the server is the same for all the NICs in the system. If you change the DNS on a single NIC, you change the DNS for all the NICs in the system.

In the network tab, the interface pane, displays a list of network interface connection options. Systems with multiple NICs have more than one interface entry in the list. Both network interfaces can detect cameras, and you can use either for camera connections. You can also use one interface for all network traffic and purposes

1. From the **Interfaces** list, select a network connection.
2. In the **Network Configuration** area, choose from the following options to select a network configuration type.
   - To configure an exacqVision system with a DHCP service that runs elsewhere on the network, in the **Network Configuration** area select **Dynamic**. If you select **Dynamic**, the **IP Address**, the **Netmask**, the **Gateway**, and the **Primary DNS** fields configure automatically.
   - To configure a secondary DNS address, see Adding an additional DNS address.
   - To configure an exacqVision system with a static IP, select **Static**.
   - To receive network time services, you must configure the gateway and the primary DNS. If more than one network interface is available, you can bond the interfaces together.
3. To start a DHCP service for the network interface you want, select the **Enable DHCP server** check box. Before you select this option, ensure that no other DHCP server resides on the network segment.
   After you select the **Enable DHCP server** check box, you can use the data network interface to configure the camera on this network.

4. Click **Apply**.

Adding an additional DNS address

To add an additional DNS address, complete the following steps:

1. In the **Network Configuration** area, click **Advanced DNS...**.
2. In the **Advanced DNS Settings** window, enter the DNS address.
3. Click **Add**.
4. **Optional:** Use the Arrow icons to prioritize the DNS addresses.
5. Click **OK**.

Una systems

On the **Network** tab in the **Configure System** window, there are additional options for Una Systems. For more information on these additional options, see the following table. For more information on Una Systems, see the *LC-Series Una Server Guide* and the *M-Series Una Server Guide*.

Table 6: Interfaces pane on the Network tab

Interface element	Description
Interfaces pane	Displays a list of IP addresses.
	Each PoE port in a Una System is a unique Ethernet interface and has its own IP address. To view the IP addresses for a Una System's PoE ports, select the **Show individual PoE adapters** check box.
	To change the IP range, from the **Interfaces** list select **All PoE Adapters**, then in the **Interface Configuration** area you can choose from three built-in ranges in the **Configure All** field. The exacqVision system does not display range values that can conflict with the Local Area Connection.

Watchdog timers tab

The watchdog times tab displays information about the systems factory-installed watchdog timers. The watchdog timers can restart systems or capture cards if the computer malfunctions.

Note: The information on the **Watchdog Timers** tab is not configurable.

Hardware monitoring tab

The hardware monitoring tab displays information about the system's voltage, temperature, and fan speed. If the system reaches a minimum or maximum value in a parameter that the system is monitoring, in the state area the message changes to alarm.

Update tab

On the **Update** tab, you can view the current software version that the exacqVision server is running, and remotely update the exacqVision server software. For more information on the functionality of the **Update** tab, see the following table.

Table 7: Update tab in the Configure System window

Interface element	Description
Software information pane	Displays information about the current software version that the exacqVision server is running.
	The **Update Status** area tracks the progress of the update and whether it is successful or unsuccessful.
	The **Last Status** area displays information about the last update.

Table 7: Update tab in the Configure System window

Interface element	Description
Show Advanced Options check box	Opens the **Show Advanced Options** window.
Location field	To locate an evFileInfo.txt file that the server can use to download excaqVision server software over the internet, click the **Browse...** button next to the **Location** field.
	An evFileInfo.txt files contains URL information that the exacqVision client communicates to the exacqVision server to connect and download exacqVision software over the internet. If you have an evFileInfo.txt file, ensure that both the exacqVision client and server connect to the internet, and then update the software. You can also download exacqVision installers on other computers, and manually copy the exacqVision systems.
Check for Updates button	Displays the latest software version available from the **Version** list.
Send usage statistics check box	Sends anonymous and non-sensitive information to the manufacturer about how you use cameras and exacqVision features.
Learn More hyperlink	Opens a Privacy Policy page in a web browser.

Updating the exacqVision server software remotely

About this task:
Available exacqVision server software releases vary, and depend on the system license and subscription status. For remote updates, both the exacqVision server and exacqVision client require an internet connection. If the server and client cannot connect to the internet, you can copy the license file to a portable media device, and update the license file by selecting Offline Software Update Packaging Utility on the Support and Downloads tab at www.exacq.com.

To update the server software remotely, complete the followings steps:

1. On the **Update** tab, select **Check for Updates**.
2. From the **Version** list, select a software version.
3. Click **Update**.

ⓘ **Note:** During an update, the exacqVision system stops recording for several minutes. The system automatically begins recording again when the update is complete.

Security tab

On the security tab, you can apply security settings to user accounts, create or modify an access schedule for a user, and configure the second reviewer feature. The security tab is available only when you log on to the server with full administrator permissions. You need the second reviewer feature to view some live video or search some recorded video.

ⓘ **Note:** The second reviewer feature is hidden by default and to use it requires a specific configuration file. To obtain this file, contact exacq support using the following link: https://exacq.com/support/form/.

Table 8: Security tab in the configure system window

Interface element	Description
Password Strengthening and Augmented Authentication pane	Password strengthening and augmented password authentication provides additional security. Click **Enable** to augment password protection. ⓘ **Note:** Once enabled, password strengthening and augmented authentication is not reversible.
User Security pane	To configure the settings, see the following tasks; Setting the user lockout attempts limit, Setting the user lockout reset time, Setting the inactivity lockout time, and Setting the password expiration time.
Scheduled Access pane	Displays the current users access schedule, you can configure dates and times that a user can access the system. To configure this setting, see Creating and editing access schedules .

Configuring user security settings

In the **User Security** pane, configure one or more the following security options:

1. Select the **Enable User Lockout**. In the **Attempts** field, enter the number of password entry attempts the user has before they are locked out of the system.
2. Select the **Enable Login Lockout Auto Reset** check box. In the **minutes** field, select the time period that the user is locked out of the system before the password resets.
3. Select the **Enable Inactivity Lockout** check box. In the **Days** field, enter the number days that a user must be inactive on the system before they are locked out of the system
4. Select the **Enable Password Expiration** check box. In the **Days** field, enter the number days that the password is valid, when the password expires the user must change their password.
5. Click **Apply**.

Releasing system management

You can remove one or more servers from enterprise system management on the security tab.

Before you begin:
Ensure you have admin rights on the system you want to remove from system management.

To remove servers from enterprise system management, complete the following steps.

1. From the navigation tree, select and expand the server.
2. In the **Configure System** window, click the **Security** tab.
3. Click **Unmanage System** to release the systems from enterprise management.

Creating and editing access schedules

Create or modify access schedules that you can apply to one or more users.

1. In the **Schedule Access** pane, click the **Plus** icon.
2. In the **Schedule Name** field, enter a name for the schedule. Or to edit an existing schedule, select the schedule you want to modify.
3. Select the days, and the start and end time for when you want to give access to the user.
4. Click **Apply**.

Adding IP cameras

You can use the add IP cameras window to add and delete IP cameras and devices from the system.

1. From the navigation tree, expand the server you want to add the camera to.
2. Expand the **Configure System** node, and then select **Add IP Cameras**.
3. In the **Add IP Cameras** window, click **New**.
4. In the **IP Camera Information** pane, select a device from the **Device Type** list.
   For the best performance, select the manufacturer specific driver. If the manufacturer's driver is not available and the device is ONIF compliant, select ONVIF. RTSP compliant cameras can stream only video. They cannot stream motion detection or camera configuration data.
5. In the **Hostname/IP Address** field, enter the IP address of the camera.
6. The **Protocol** list displays a list of camera connections. The default option is **HTTPS If Available**.
   The **Protocol** list is only available if you select a camera from the **Device Type** list that supports an https connection.
7. In the **Username** field, enter a user name.
8. In the **Password** field, enter a password. To confirm the password, enter it again in the **Password Confirm** field.
9. The **Status** area displays the time of the last received status connection. The **Show Details** check box displays a brief description of the status connection in the IP Camera information pane.
10. To connect to the cameras and to save the camera configuration, click **Apply**.

IP camera list pane

The following table, provides information on the functionality of the **IP Camera List** pane in the **Add IP Cameras** window.

Table 9: IP Camera list pane

Interface element	Description
Enabled column	Defines whether the camera is active. The number of cameras you can enable depends on your license limits.
Protocol column	Displays whether the camera can connect using an https connection. If a green lock displays, the camera can connect using https.
Address column	Displays the camera IP address.
Make column	Displays the camera brand.
Model column	Displays the model number of the camera.
MAC column	Displays the MAC address of the camera.
Firmware column	Displays the firmware version that the camera uses.
Status column	Displays the status of the camera connection.
	To view the number of connections and required connections, hover over the camera status.
View Log button	Displays the previous 10 minutes of the systems log messages. To display the log messages, select the cameras and then click **View Log**.
Delete button	To delete the cameras from the server, select the cameras and click **Delete**.

Find IP cameras tab

The **Find IP Cameras** tab scans for supported IP cameras on the exacqVision server network. To add new Illustra Flex Gen3, Flex Gen4, Pro Gen3, and Pro Gen4 cameras, you can use the quick add feature. For more information, see Adding a camera using quick add.

If the IP camera does not display on the **Find IP Cameras** tab, verify the configuration by connecting to the camera directly, or using the manufacturer's discovery tool. For more information on how to verify the configuration of a camera, refer to the *ExacqVision IP Camera Quick Start Guide*.

Adding a camera by searching

To add a camera to the **IP Camera List** list, complete the following steps:

1. On the **Find IP Cameras** tab, select the cameras you want to add.

   ⓘ **Note:** If you made changes to an IP camera and the camera does not appear in the **Find IP Cameras** tab, click **Rescan Network**.

2. Click **Add Selected**.
3. Enter a username and password.
4. Click **OK**.

Adding a camera using quick add

Before you begin:
You can use the quick add feature to add the following cameras only: Illustra Flex Gen3, Flex Gen4, Pro Gen3, and Pro Gen4.

1. On the lower-right of the **Find IP Cameras** tab, the system displays the number of cameras on the network that support quick add.
2. To search for a camera that does not appear in the **Find IP Cameras** tab, click **Rescan Network**.
3. Click **Quick Add**. All quick add cameras are automatically selected.
4. Clear the check boxes to select the appropriate number of cameras. The number of cameras that you can add must not exceed the number of licenses that you have.
5. On the **Quick Add** tab, in the **Credentials for New Cameras** pane, enter a user name and password.

   ⓘ **Note:** The first time you use the quick add feature, you must create a user name and password.

6. Click **Add Selected**.
7. To view your quick add password, in the **Credentials for New Cameras** pane, click **View**, enter your admin password, then click **OK**. The password displays for 20 seconds.
8. To copy the password to your clipboard, click the **Copy** icon. The password does not persist in the clipboard after 20 seconds.

Changing the IP address of a camera

1. From the **IP Camera List** list, select the cameras.
2. In the **Camera Configuration** area, select a configuration type. For more information on the IP configuration types, see Table 11.

   ⓘ **Note:** If you select **Static**, modify the **IP address range** field.

3. Click **Apply to Grid**.

4. Click **Apply**.

   ⓘ **Note:** If you change the IP address of one camera, you are prompted to add the new IP address to the **IP Camera List** list. If you change more than one IP address, you are prompted to open the **Schedule** window for recording video.

Address IP camera tab

On the **Address IP Cameras** tab, you can change the IP address of cameras. The **Address IP Cameras** tab is only available if you have camera plugins that support this feature or multiple cameras with the same IP address. On www.exacq.com , the camera plugins that support this feature display EasyConnect. For more information on the functionality of the **Address IP Cameras** tab, see the following tables.

Table 10: Network interface pane on the address IP camera tab

Interface element	Description
Network interface card list	To select an NIC, use the **Network interface card** list at the top of the **Network Interface** pane.
Configure link	To view or modify NIC configurations, click **Configure**.

Table 11: Camera configuration pane on the address IP cameras tab

Interface element	Description
IP Configuration area	To assign a device an IP address that does not change, select **Static**.
	To assign a device an IP address that can change, select **Dynamic**.
Addresses Used area	Displays the number of cameras that you select in the **IP Camera List** list, and the number of addresses available depending on the IP address and the Netmask. If any addresses are already in use by other devices, those addresses display as Skipped. The number of cameras cannot be greater than the number of addresses.
	To display the **Addresses Used** area, in the **IP Configuration** area select **Static**.
Apply to Grid button	Applies the settings in the IP Configuration and Addresses Used area to the cameras in the **Address IP Cameras** tab.

Table 12: Cameras area on the address IP cameras tab

Interface element	Description
Assigned Address column	Displays the new IP address after you select an IP configuration type in the **Camera Configuration** area.
Status column	Displays the progress of the IP address change.
Rescan in area	Displays the time at which the automatic rescan occurs.

Importing cameras to an exacqVision server

1. In the **Add IP Cameras** window, select the **Camera Import** tab.
2. **Optional:** If there is a header row for the data in the CSV file, select the **CSV includes header** check box.
3. **Optional:** Use the **Set Default Device Type** list to manually select the device type for each row of data in your file.
4. Click **Import**.
5. Select the data file that you want to import.

6. From the **Device Type** list, select a device.
7. Click **Add Selected**.

   ⓘ **Note:** If the columns in the **Camera Import** tab do not automatically populate, you can enter the column headers manually.

Camera recording window

In the **Camera Recording** window, you can configure IP cameras to record video, and configure a camera's recording settings.

The **Filters** pane in the **Camera Recording** window displays a categorized list of cameras in the server, and determines what cameras display in the Cameras pane. For more information on the functionality of the Cameras pane, see the following table.

Table 13: Cameras pane

Interface element	Description
Filter field	To search the **Camera** list, enter the relevant information in the **Filter** field. If any of the information matches information in the **Camera** list, the camera entries with the matching information display.
Camera list	Displays all the cameras that you select in the Filters pane.
	To hide or display a column, right-click the column and then select the columns name. You cannot hide the **Camera Name** and the Recording Settings columns.
	The **Enable** column determines whether the camera is set to record. By default, if the system detects a signal, the system sets the camera to record. To disable the camera for recording, clear the camera's check box.
	If the camera can connect to the system using a https connection, a green lock icon displays in the **Protocol** column.
Export button	Exports a csv file of the **Camera** list.

Applying configuration settings to a multiple of cameras

To apply configuration settings to a multiple of cameras, complete the following steps:

1. From the navigation tree, expand the relevant server node.
2. Click **Configure System** > **Add IP Cameras** > **Camera Recording**.
3. On the left side of the **Cameras** list, select the check boxes of the cameras you want.
4. In the **Configuration** pane, select the check box next to configuration setting that you want to apply to the cameras.

   ⓘ **Note:** If a setting list is grayed out, the setting is not available for all the cameras that you selected.

5. Select a parameter from the **Configuration Settings** list.

   ⓘ **Note:** The list options vary depending on the camera model and manufacturer. If a list does not display, one or more of the cameras do not support the setting.

6. Click **Apply to Cameras Grid**.

Analog camera recording

In the analog **Camera Recording** window you can configure recording settings, and configure analog cameras to record video.

Table 14: Cameras pane in the analog Camera Recording window

Interface element	Description
Filter field	To search the **Camera** list, enter the relevant information in the **Filter** field. If any of the information matches information in the **Camera** list, the camera entries with the matching information display.
Cameras list	Displays all the cameras that you select in the Filters pane.
	To hide or display a column, right-click the column and then select the columns name. You cannot hide the **Camera Name**, **Frame Rate**, **Resolution**, **Format**, and **Quality** columns.
	The **Enable** column determines whether the camera is set to record. By default, if a camera detects a signal recording for the camera activates. To disable the camera for recording, clear the camera's check box.
Export	Exports a csv file of the **Camera** list.

Applying recording settings to a multiple of cameras

To apply recording settings to a multiple of cameras, complete the following steps:

1. From the navigation tree, expand the relevant server node.
2. Click **Configure System** > **Add IP Cameras** > **Camera Recording**.
3. On the left-side of the **Cameras** list, select the check boxes of the cameras you want.
4. In the **Configuration** pane, select the check box next to recording setting that you want to apply to the cameras.

   ⓘ **Note:** If a setting list is grayed out, the setting is not available for all the cameras that you selected.

5. Select a parameter from the list.

   ⓘ **Note:** The list options vary depending on camera model and manufacturer. If a list does not display, one or more of the cameras do not support the setting.

6. Click **Apply to Cameras Grid**.

Camera settings window

In the camera settings window you can view information about a camera and configure camera settings, such as the cameras name, onscreen display, pan-tilt-zoom (PTZ) settings, the recording status, recording quality, motion and video masks.

The tabs available in the camera settings window, and the options available in each tab, vary depending on the model and manufacturer of the camera. They system does not display all of the IP camera settings. You can access some IP camera settings that are not available in the exacqVision software on the camera's web page by clicking the hyperlink in the IP address field.

Display tab

On the display tab, you can edit a camera's display settings. For more information on how to edit a camera's display settings, see the following table.

Figure 1: Display tab in the Camera Settings window

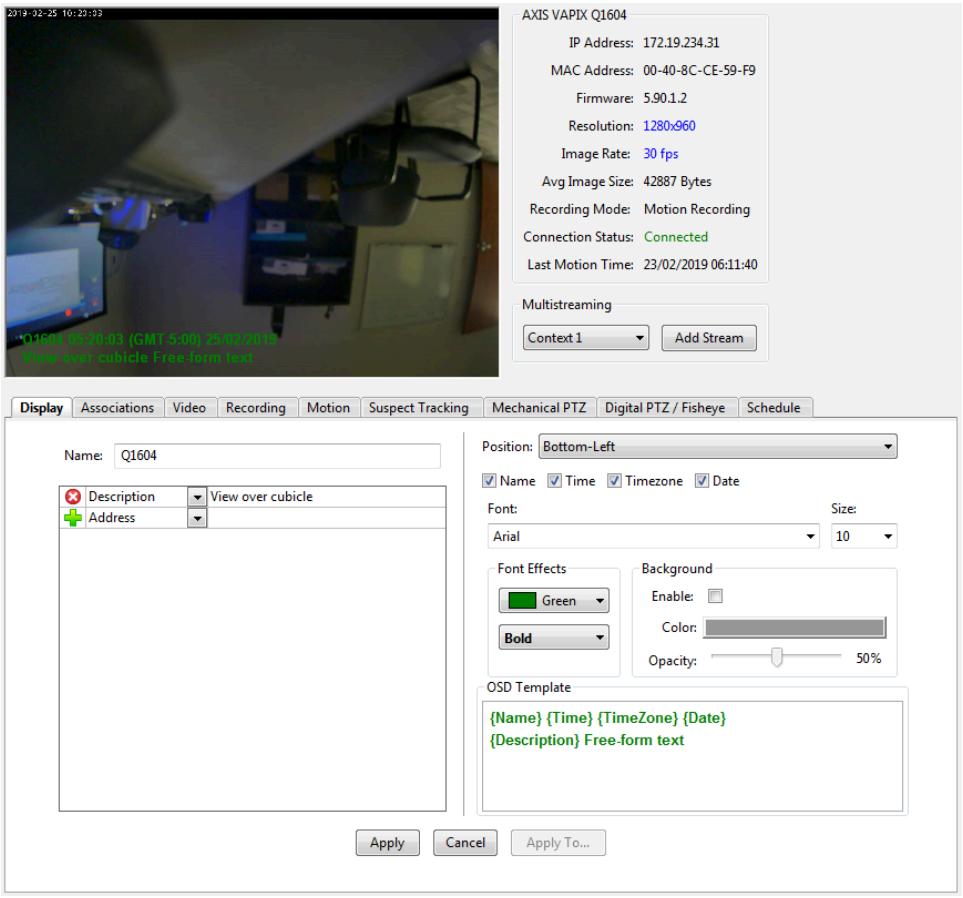


Table 15: Display tab in the camera setting window

Interface element	Description
Name field	Type name for the camera.
Metadata	You can also create and edit metadata fields to refine a camera search. To add a metadata field to refine a camera search, click the **Plus** icon and enter the information in the corresponding field. Choose from the following options: {Date} {Time} {Camera MAC} {Description} {Address} {City} {State} {Postal Code} {Country} {Location} {Department} {Phone Number} {Contact} {Email} {Asset Tag} {Additional Data} {Licensed MAC} {Serial Number} {System Name} {Camera MAC} {Camera IP} {Camera Model} {Camera Make} You can also enter custom non-variable text.
Position area	Determines the position of the onscreen display (OSD) and what information to include in the OSD.
Font area	To change to OSD font theme, select a style from the **Theme** list.
	To change the OSD font size, select a size from the **Size** list.
Font Effects area	To change the OSD, select a font color from the **Color** list.
	To change the OSD font style, select a style from the Style list.
Background area	Edits the background of the camera name that displays in the video panel.
	To adjust the color of a camera's background, select the **Enable** check box and then use the **Color** list and **Opacity** slider.

Table 15: Display tab in the camera setting window

Interface element	Description
OSD Template	To edit the information that displays in the OSD. Choose from the following list: {Date} {Time} {Camera MAC} {Description} {Address} {City} {State} {Postal Code} {Country} {Location} {Department} {Phone Number} {Contact} {Email} {Asset Tag} {Additional Data} {Licensed MAC} {Serial Number} {System Name} {Camera MAC} {Camera IP} {Camera Model} {Camera Make} You can also enter custom non-variable text.
Apply To... button	Applies the display settings on a multiple of cameras.

Editing information on the onscreen display

To edit information on the onscreen display (OSD), in the **Config Setup** window, complete the following steps:

1. From the navigation tree, expand the relevant server node.
2. Click **Configure System** > **Add IP Cameras** > **Camera Recording** , and then select the camera.
3. On the **Display** tab, select or clear the **Name**, **Time**, **Timezone**, or **Date** check box to select the fields that you want to display in the **OSD Template** pane.
4. Add any meta data or type any additional information that you want to display. You can re-order the fields if required.
5. **Optional:** Select the text you want to format and change the font type, font size, and font effects from the **Font**, **Size**, and **Font Effects** lists.
6. From the **Position** list, select the alignment and position of the template text.
7. Click **Apply**, to apply the template changes to the current camera.
8. **Optional:** Click **Apply To** and in the **Apply Display Settings to Cameras** window, select the **Select All** check box, or select the check box for each camera that you want to apply changes to.

Video tab

On the video tab, you can edit a camera's video settings. For more information, see the following table.

Note: The video tab is not available on Real Time Streaming Protocol (RTSP) interfaces, some Open Network Interface Forums (ONVIF), or proprietary interfaces.

Table 16: Video tab in the camera settings window

Interface element	Description
Brightness slider	Adjusts the brightness of the video's OSD.
Contrast slider	Adjusts the contrast of the video's OSD.
Saturation slider	Adjusts the amount of gray color in the video's OSD.
Hue slider	Adjusts the gradient of the colors in the video's OSD.
Sharpness slider	Adjusts the quality of the video's OSD.
Rotate and **Mirror** lists	Changes the orientation of the camera's video.
	To rotate the camera direction, select the number of degrees from the **Rotate** list.
	To position the camera's video horizontally or vertically, use the **Mirror** list.
Wide Dynamic Range area	Adjusts the brightness and dimness of the video that is caused by the camera's surroundings.
	To adjust the dynamic range, complete the step that is relevant to your camera: • Select **Level** and then move the **Wide Dynamic Range** slider. • From the **Wide Dynamic Range** list, select a level.
Frequency list	Reduces the flicker of the OSD by matching it to the frequency of lights and electronic screens that are in use near where the camera is situated.
Video Mask area	Blocks areas of the video display that you do not want to record. For more information, see Video masks.
Crop Window area	Crops portions of a camera image to save disk space. This feature is only available on some cameras.
Auto Focus button	Adjusts the clarity of the camera view.

Cropping a camera image

1. In the **Crop Window** area, click **Edit**.
2. Left-click the video panel and drag the cursor diagonally until you have drawn a box around the area where you want to crop.
3. Click **Apply**.

Creating a video mask

A video mask hides an area of a camera's field of view so that it cannot be seen or recorded. To hide sensitive areas that must remain private, use a video mask.

1. On the **Video** tab, click **Edit** in the **Video Mask** area. A yellow grid displays over the live video panel.
2. Left-click the video panel and drag the cursor diagonally until you have drawn a box around the area where you want to apply the mask.

3. Click **Apply**.

Editing the recording settings for a camera

Use the recording tab to edit a camera's recording settings.

Note: The recording tab is not available on RTSP interfaces, some ONVIFs, or proprietary interfaces.

1. In the **Camera Settings** window select the **Recording** tab.
2. Select the **Enable** check box to record video from a camera at the times you specify in the Schedule tab.
3. Use the **Quality** slider to modify the image quality in the video by increasing or decreasing the image size. Decreasing the image quality saves disk space by reducing the size of the video as it records.
4. From the **Format** list, select a different compression format to improve the compatibility with other systems.
5. From the **Resolution** list, select the resolution size for the video recording.
6. From the **Image Rate** , select how many images to record per second.
7. **Optional:** Click **Apply Defaults** to appy the factory default settings.

Motion tab

On the motion tab, you can edit a camera’s video motion settings to avoid false alerts.

Depending on the features supported by your camera, you can use one of following methods to configure motion settings:

- Motion masks, see Motion mask settings.
- Motion windows, see Motion window settings.

Note: The motion tab is not available on RTSP interfaces, and some ONVIF and proprietary interfaces.

Motion mask settings

A motion mask can reduce unwanted video recordings by ignoring motion events that occur in specified areas of a cameras view.

The following figure illustrates an example of the **Motion** tab when multiple masks are supported by the camera.

Figure 2: Motion tab in the Camera Settings window with masking

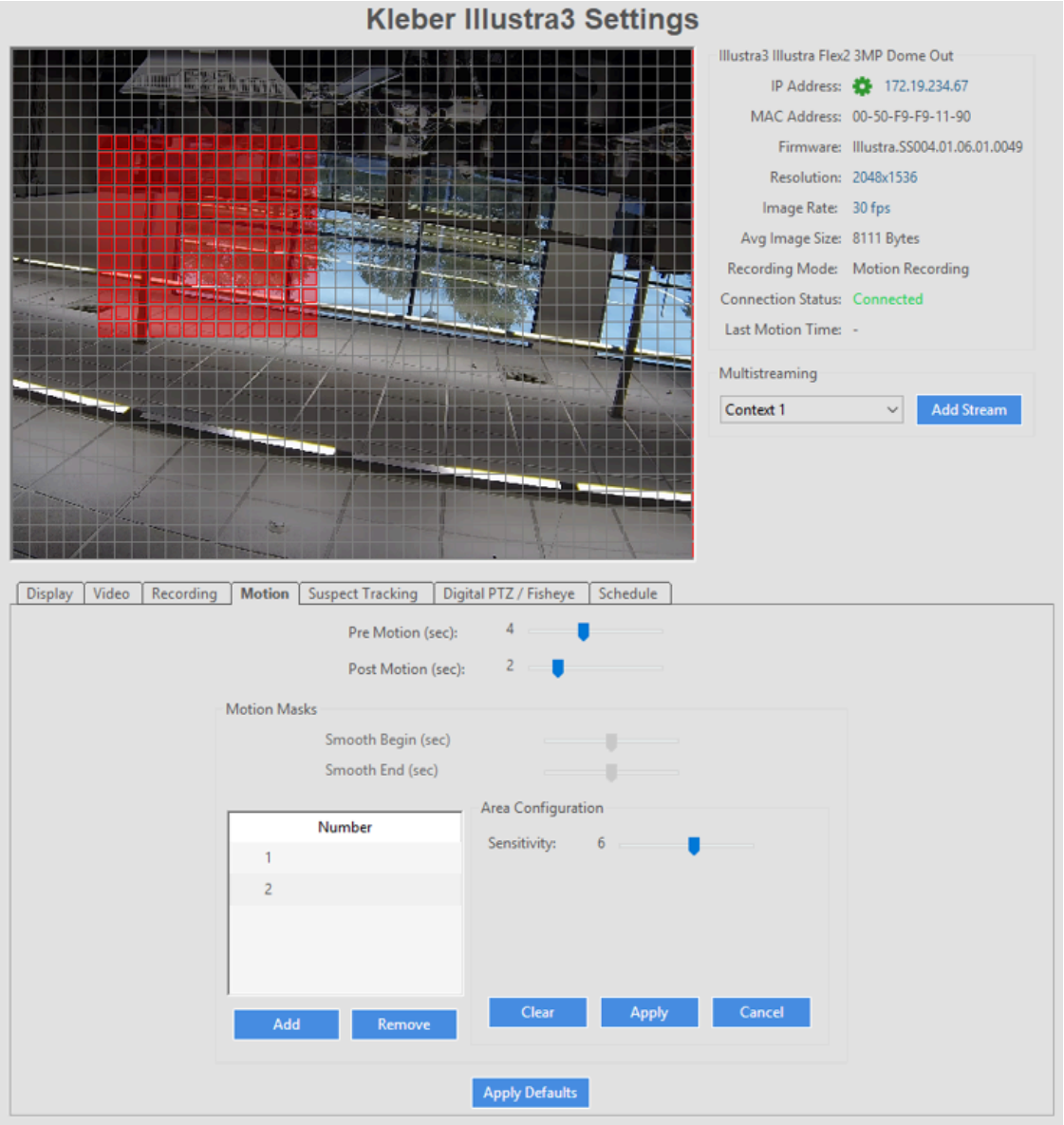


Table 17: Motion tab in the Camera Settings window with masking

Interface element	Description
Pre Motion (sec) slider	Adjust the number of seconds of video that you can save before an event occurs.
Post Motion (sec) slider	Adjust the number of seconds of video that you can save after an event occurs.

Table 17: Motion tab in the Camera Settings window with masking

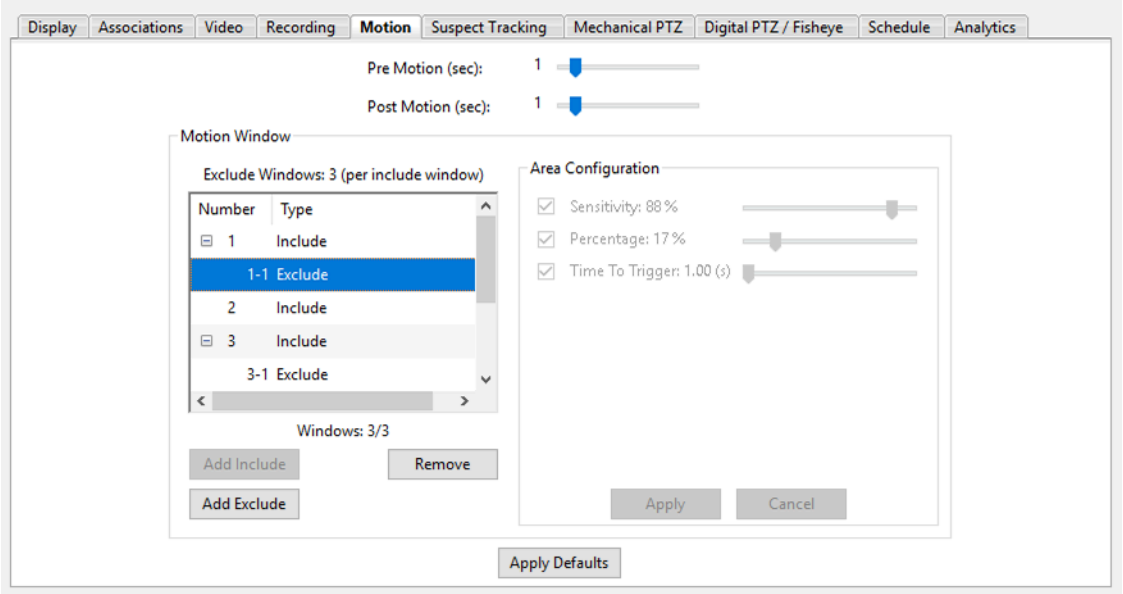
Interface element	Description
Motion Masks pane	Reduce the number of motion alarm events, by using the **Smooth Begin** and the **Smooth End** sliders. **Smooth Begin** is the minimum number of seconds for motion to occur before a motion alarm activates. This prevents very brief motion occurrences from triggering a motion event alarm. **Smooth End** is the minimum number of seconds without motion before a motion alarm event is complete. It combines a continuous series of short motion occurrences into a single motion alarm event.
	Create up to three motion masks to block out areas where you do not want to monitor motion. Each motion mask that you create is assigned a number in the **Mask Number** table. You can have a maximum of three motion masks, this feature must be supported by your camera.
	To create an additional mask, click **Add**.
	To erase a motion mask, select the mask number from the table, then click **Remove**.
Area Configuration pane	Adjust how much motion must occurs in the camera's view in order to trigger motion recording, by using the **Sensitivity** slider. A low sensitivity setting can reduce false motion, such as video noise or shadows.

Motion window settings

Use the motion window, to create windows of a cameras view where motion is detected, within that view, window you can exclude specific areas.

The following figure shows an example of the motion tab when motion windows are supported by the camera.

Figure 3: Motion tab in the Camera Settings window with nested windows



Pre Motion (sec) slider

Adjusts the number of seconds of video that you can save before an event occurs.

Post Motion (sec) slider

Adjusts the number of seconds of video that you can save after an event occurs.

Motion Window pane

Shows a table that contains the number and type of window. The type of window can be either an include or exclude window.

Depending on the supported cameras features, the windows can have one of the following formats:

- Nested list of include and exclude windows
- Non-nested list of include and exclude windows

For information on motion windows, see Motion masks and motion windows.

Motion window with nested list of include and exclude windows

- **Add Include:** Click **Add Include,** to add a window to detect or record motion within an area. The default include window is a rectangular blue window that covers the whole image.
- **Add Exclude:** Click **Add Exclude**, to add an exclude window to block an area so the camera cannot detect or record motion. The exclude window is contained with the include window and cannot move outside the bounds of the include window. For each include window, you can have a maximum of three exclude windows.
- **Windows:** The windows field shows two values separated by a forward slash. For example, `Windows: 2/3`. The first value represents the current number of windows that are configured, and the second value represents the total number of include windows that can be configured.

Motion window with non-nested list of include and exclude windows

- **Add Include:** Click **Add Include**, to add a window to detect or record motion within an area. The default include window is a rectangular that covers the whole image.
- **Add Exclude:** Click **Add Exclude**, to add a window to block an area so the camera cannot detect or record motion.
- **Windows:** The windows field shows two values separated by a forward slash. The first number represents the current number of windows that are configured, the second number represents the total number of include and exclude windows that can be configured.

Area Configuration pane

- **Sensitivity:** To adjust how much motion must occur in the cameras view to trigger motion recording, select the **Sensitivity** check box and move the slider. A low sensitivity setting can reduce false motion, such as video noise or shadows.
- **Percentage:** To adjust the size of an object to detect as a percentage of the total detection area, select the **Percentage** check box, and move the slider. A high percentage setting might not detect small objects.
- **Time to Trigger:** To adjust the number of seconds to trigger an event after motion is detected, select the **Time to Trigger** check box, and move the slider. **Note:** This option is only available for a nested list of include and exclude windows.

Apply Defaults button

Applies the factory default settings.

Motion masks and motion windows

Depending on the camera type, you can edit motion settings by using motion masks or motion windows. A motion mask, can reduce unwanted video recording by ignoring motion events that

occur in specified areas of a camera's view. A motion window, records when motion is detected within a specified area.

Motion masks can save storage space, extend recording time, and make it easier to recognize motion events on the video time line in the **Search** window. Similarly, motion windows allow you to create windows of a cameras view. In addition, within that view window you can add include and exclude areas.

For example, if a camera has a moving ceiling fan in its field of view, you can avoid recording the fan's motion by using a motion mask or exclude window. The option to use motion masks or exclude windows depends on the features that your camera supports. For more information, see Creating a motion mask and Creating include and exclude motion windows.

Creating a motion mask

1. On the **Motion** tab, left-click the video panel and drag the cursor diagonally until you have drawn a box around the area to mask out. A red grid displays over this area. Alternatively, click any square in the grid to select it. All motion events that occur within this area are not recorded.
2. **Optional:** Click **Add** to draw and mask out a second area. This feature must be supported by your camera. Repeat this step to create a third area. You can have a maximum of three such areas.
3. **Optional:** Move the **Sensitivity** slider to adjust how much motion must occurs in the camera's view, in order to trigger motion recording.
4. **Optional:** To create an event link to a specific mask area, from the navigation tree, select **Event Linking**. From the **Event Type** list, select **Analytics**, and then select the relevant motion zone. For more information, see Event linking window.
5. Click **Apply**.

Creating include and exclude motion windows

1. On the **Motion** tab, click **Add Include**. A blue rectangular area displays over the live video panel. This area is the default include window.

   ⓘ **Note:** In the **Windows** field, the second value shows the total number of windows that you can configure. In the case of nested windows, this value represents the total number of include windows only.

2. Select any of the boundary lines of the rectangle, click and drag to resize the window.

   ✓ **Tip:** Only nested lists display the description **Exclude Windows 3 (per include window)**.

3. **Optional:** In the **Motion Window** pane and depending on if the window is nested or not, complete one of the following actions:
   - For a non-nested list, click **Add Exclude**. A red rectangular area displays over the live video panel. This area is the default exclude window. Select any of the boundary lines of the rectangle, click and drag to resize the window, and place the window over the area to exclude.
   - For a nested list, select an include window, and click **Add Exclude**. A red rectangular window displays inside the include window, and cannot be moved outside this window. Select any of the boundary lines of the rectangle, click and drag to resize the window, and place the window over the area to exclude.

     ⓘ **Note:** You can have a maximum of three exclude windows per include window.

4. Repeat Steps 2 to 3 to create as many include and exclude windows as you require.
5. Click **Apply**.

Mechanical PTZ tab

A mechanical PTZ camera is a camera that you can physically adjust remotely. On the **Mechanical PTZ** tab, you can configure the COM port and address of a PTZ camera, configure PTZ presets on a camera, and send auxiliary commands to a camera.

On the **Mechanical PTZ** tab, on **Setting** tab, you can configure the COM port and address of a PTZ camera. For more information, see the following table.

Table 18: Settings tab on the Mechanical PTZ tab

Interface element	Description
Serial Port list	Displays a list of COM ports.
	To configure a COM port to a PTZ Camera, select a port from the **Serial Port** list.
Address list	Displays a list of camera IP addresses.
	To configure the IP address of a PTZ camera, select an IP address from the **Address** list.
Protocol list	Displays a list of PTZ camera protocols. When you select a COM port from the **Serial Port** list, the camera's protocol automatically displays.
Dome Pattern area	Creates a recording of the movement of the camera. This feature is only available on some cameras.
	To create a dome pattern, click **Record** and then use the arrows in the **Pan/Tilt** area to move the camera in the pattern you want, and then click **Stop**.
	To review the dome pattern, click **Run**.
	To create additional dome patterns, use the **Number** list in the **Dome Pattern** area.
Pan/Tilt area	Adjusts the direction and direction speed of the camera.
Zoom area	Adjusts the zoom and zoom speed of the camera.
Focus area	Adjusts the focus of the camera. This feature is not available for PTZ IP cameras.
Iris area	Adjusts the amount of light that enters through the lens of the camera. This feature is not available for PTZ IP cameras.
Menu area	Displays the camera's manufacturer's onscreen menu. Some camera manufacturers require you to accept onscreen agreements.

On the **Preset** tab on the **Mechanical PTZ** tab, you can configure PTZ presets on a camera. For more information, see the following table.

Table 19: Presets tab on the Mechanical PTZ tab

Interface element	Description
Presets pane	To configure a new preset, click **New** and enter a name for the preset in the **Name** field, then click **Apply**.
	The total number of presets displays under the **Preset** list.

Table 19: Presets tab on the Mechanical PTZ tab

Interface element	Description
Preset Tour pane	To create a preset tour, select a preset from the **Presets** list and then click **Add**.
	To active a preset tour, select the **Enable** check box.
	To delete a preset from a tour, select the preset from the **Preset Tour** list and then click **Remove**.
	To modify the order of the presets in the **Preset Tour** list, click and drag the presents into the order you want.
Resume Time list	The resume time is the number of seconds that it takes the preset or preset tours to resume after the user stops manually controlling the PTZ controls.
Dwell Time list	The number of seconds that the camera views each preset before moving to the next preset.
Pan/Tilt area	Adjusts the direction of the preset location, and the camera direction speed.
Zoom area	Adjusts the zoom and zoom speed of the camera.
Focus area	Adjusts the focus of the camera. This feature is not available for PTZ IP cameras.
Iris area	Adjusts the amount of light that enters through the lens of the camera. This feature is not available for PTZ IP cameras.
Menu area	Displays the camera's manufacturer's onscreen menu. Some camera manufacturers require you to accept onscreen agreements.

Sending an auxiliary command to a camera

About this task:
On the **Auxiliary Commands** tab, you can send auxiliary commands to a camera. To send an auxiliary command to a camera, complete the following steps:

ⓘ **Note:** The **Auxiliary Commands** tab is available only for cameras that support this feature.

1. On the **Mechanical PTZ** tab, click the **Auxiliary** tab.
2. From the **Option** column, select an option for the auxiliary command that you want to apply.

   ⓘ **Note:** The camera must support the command for it to be available.
3. Click **Send**.
   To send another auxiliary command to the camera, complete steps 2 and 3.

Digital PTZ/Fisheye tab

A digital PTZ camera does not physically move, but you can zoom and navigate the camera's video. On the **Digital PTZ / Fisheye** tab, you can configure presets for digital PTZ and fisheye cameras. For more information, see the following table.

Figure 4: Digital PTZ/Fisheye tab in the Camera Settings window

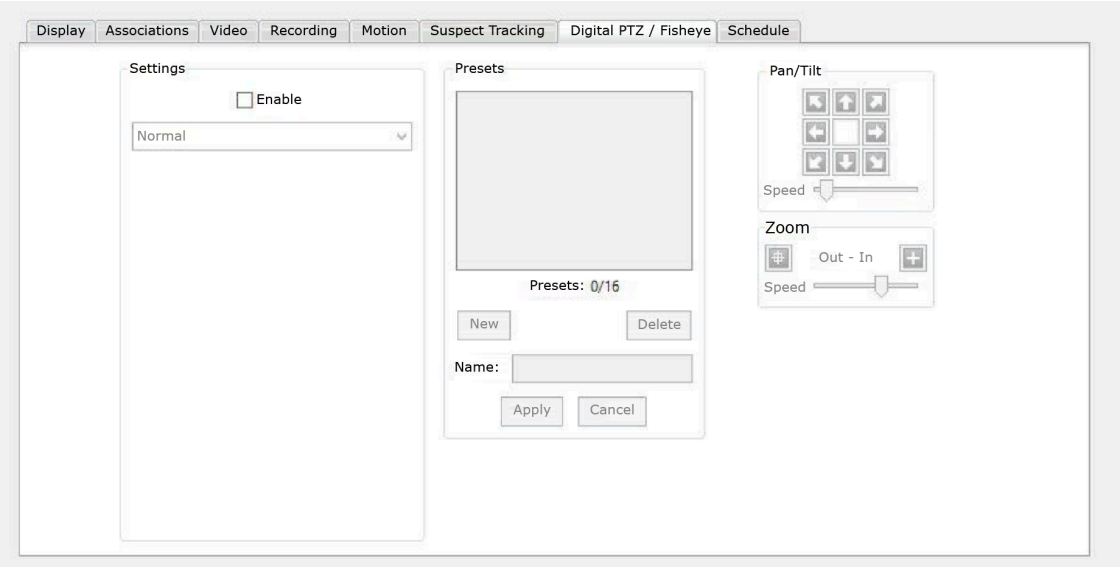


Table 20: Digital PTZ/Fisheye tab in the Camera Settings window

Interface element	Description
Settings pane	To activate the control functions for digital PTZ and fisheye cameras, select the **Enable** check box. This feature is available even if the camera has no mechanical PTZ functionality.
	For fisheye cameras, select a lens mode from the **Fisheye mode** list. If you select Immervision from the list, additional model and mounting options display.
Presets pane	Creates and modifies presets for digital PTZ and fisheye cameras.
	To create a preset, click **New** and enter a name in the **Name** field. Select **Dewarp**, **Panorama**, or **Dual View**. The Dewarp option can be used by any fisheye camera or lens. By default, the system assigns a name to a digital PTZ preset. The system can also assign the same name to a PTZ preset. To avoid having presets with the same name, ensure that you assign a unique name to all presets.
	The total number of presets displays under the **Preset** list.
Pan/Tilt area	Adjusts the direction of the preset location, and the camera direction speed.
Zoom area	Adjusts the zoom and zoom speed of the camera.

Creating a recording schedule

On the schedule tab, you can create a recording schedule for a camera or for a multiple of cameras on a server.

1. The **Legend** area displays how event recordings and camera time lapses display in the schedule grid.
2. On the **Schedule** tab, left-click the calendar grid and drag the cursor until you have drawn a box over the days and corresponding hours for when you want the camera to record.

3. In the **Setting** area, choose from the following recording options.
   - In the **Setting** area, select **Motion** to record any motion or alarms that occur.
   - To record continuously, select **Free Run**.
   - To record alarms that occur, select **Alarm**.
   - If you do not want to record anything, select **None**.
4. In the **Camera Time Lapse** area, set the number of images you want to record for every second or minute of the selected time.
5. The **Information** area, displays details of the recording schedule for a camera on a specified day and time. To display the recording schedule details of a camera, hover the cursor over the corresponding square in the calendar grid.
6. Click **Apply**.
7. **Optional:** Click **Apply To..** to applies the schedule to a multiple of cameras on the same server.

Analytics tab

The analytics tab is only visible for cameras that support analytics. On the analytics tab, you can set the system to store analytic metadata from a camera, and modify the appearance of an analytic overlay. For more information, see Analytic overlays, and Performing an analytic metadata search. In addition, you can configure the system to record video when an analytical event occurs.

Figure 5: Analytics tab in the Camera Settings window

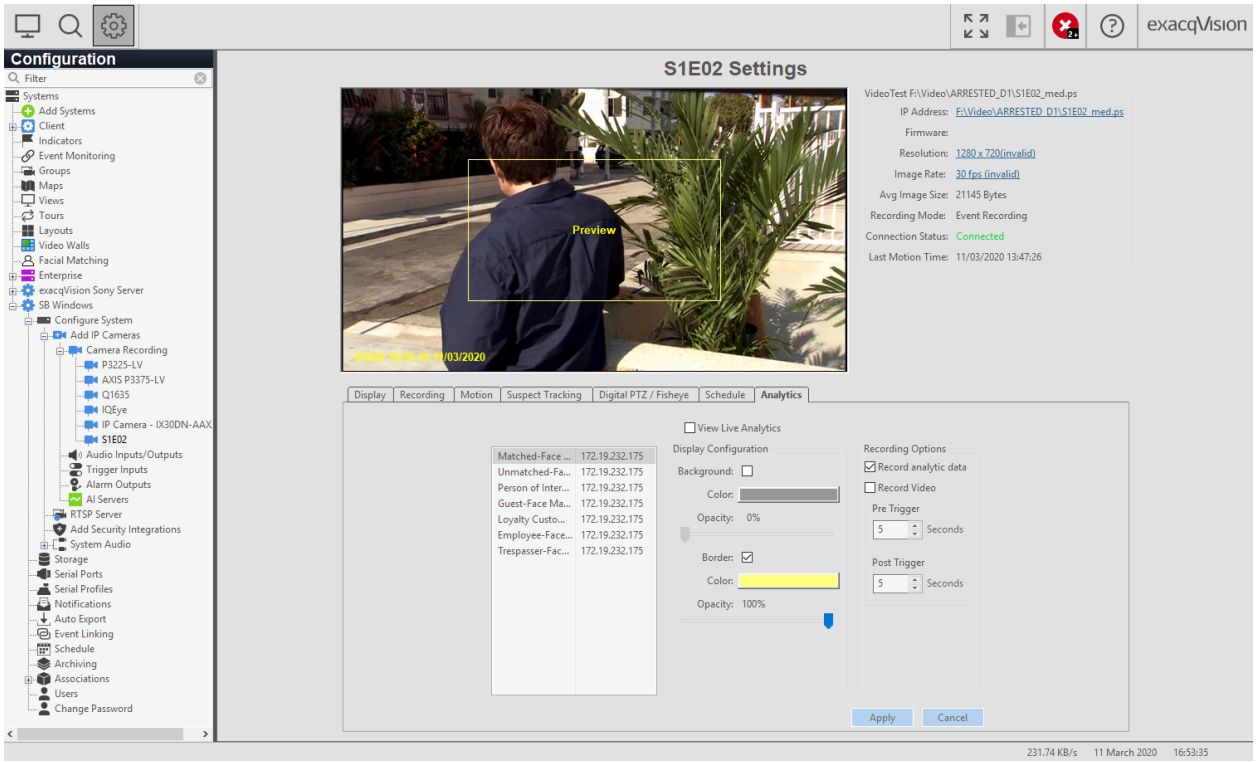


Table 21: Analytics tab in the Camera Settings window

Interface elements	Description
View Live Analytics check box	Select the **View Live Analytics** check box to view live analytics.
Analytics pane	The analytics pane lists the analytics collected. If you are using an analytic appliance, this pane displays the IP address of where the analytics originate from.
Display Configuration pane	Select the **Background** check box to change the background color and opacity of the analytic metadata overlays. Changing the background color and opacity does not affect how the camera captures data.
	Select the **Border** check box to change the border color and opacity of the analytic metadata overlays. Changing the border color and opacity does not affect how the camera captures data.
Recording Options pane	Select the **Record analytic data** check box to record the analytic metadata associated with the camera.
	Select the **Record Video** check box to record video when an analytic event occurs.
	In the **Pre Trigger** area, select the number of seconds that you want to record before an event occurs.
	In the **Post Trigger** area, select the number of seconds that you want to record after an event occurs.

Recording video for an analytic event

About this task:
You can record video when an analytic event occurs. Select the **Record Video** check box from the cameras **Analytics** tab and define the pre and post trigger times. An event link is automatically created from this tab to the **Event Linking** window.

To record video for an analytic event, complete the following steps:

1. On the **Analytics** tab, select the **Record Video** check box.
2. In the **Pre Trigger** area, enter the number of seconds that you want to record before the event occurs.
3. In the **Post Trigger** area, enter the number of seconds that you want to record after the event occurs.
4. Click **Apply**.

Configuring a camera profile

Depending on the camera type, in the camera's settings window, you can use the advanced tab to configure the camera's profile settings. You can adjust profiles such as retail, gaming, and outdoor scene for optimum performance.

1. In the **Navigation** pane, expand the server node.
2. Expand **Configure System** > **Add IP Cameras** > **Camera Recording**, and then select the camera.
3. In the **Settings** window, click the **Advanced** tab.
4. From the **Exposure Profiles** list, select the profile to apply. For information about the different profile types, refer to the documentation for your camera.

5. Click **Apply**.

Viewing the PoE ports window

The PoE ports window displays the port information for Una systems. The ports display in different colors and indicate the status of the camera.

1. Click the **Config (Setup) Page** icon on the toolbar.
2. From the navigation tree, expand **Configure System**.
3. Expand the **Add IP Cameras** node, and then select **PoE Ports**.

Table 22: PoE Ports window

Interface element	Description
Port column	Displays the number of each physical Ethernet port that can be found on the back panel of an exacqVision recorder.
Name column	Displays the camera name that the port detects.
Address column	Displays the camera's IP address.
Make column	Displays the camera's brand.
Model column	Displays the camera model.
MAC Address column	Displays the camera's MAC address.
Power column	Displays the camera's power output.
Budget column	Displays the maximum power that the camera can use.
Status column	Displays the status of the camera's connection. You can also determine the cameras status by the color of the port. • Gray indicates that the port is not connected. • Yellow indicates that the system is scanning for a port. • Green indicates that the camera is connected. • Red indicates that the camera is disconnected and is not responding.

Configuring the RTSP server

The Real Time Streaming Protocol (RTSP) is used for streaming real-time data such as audio or video. Configure the RTSP server to allow video or audio to stream from exacqVision Video Management System (VMS) to an integration or media player, for example, VLC.

1. In the navigation tree, expand the server node.
2. Expand the **Configure System** and then select the **RTSP Server**.
3. In the **Configuration** pane, select the **Enable** check box.
4. In the **Ports** field, click the arrows to configure the port number. The default port number value is 8554.
5. Enter a user name for the RTSP server.
6. Enter a password and confirm the password in the **Password** and **Password Confirm** fields.
7. Click **Apply**.
   The server connection status is **Disabled** or **Running**.
8. Use the **Filter** to search for a camera by name.
   The camera name and the RTSP address are displayed.

9. **Optional:** Click **Export** to export a `csv` file of the camera names and associated RTSP addresses.

   ⓘ **Note:** You may have to adjust the RTSP URL based on the address that is available on the client you attempt to connect with.

Adding security devices to a server

About this task:
In the **Add Security Integrations** window, you can add security devices to an exacqVision server, and view the status of the integration. For more information, see the *Integration's User Manual*. You can only add security devices that the exacqVision system supports. For more information, see www.exacq.com.

1. From the navigation tree, expand the relevant server node.
2. Expand the **Configure System** node, and then select **Add Security Integrations**.
3. In the **Add Security Integrations** window, click **New**.
4. In the **Add Security Integration Device** area, select a device brand from the **Type** list.
5. Enter the host name or IP address of the security device.
6. Enter a port number for the security device.
7. Enter a username and password for the security device.
8. Click **Apply**. The device displays under the **Add Security Integrations** node in the navigation tree. You can then click on the device in the navigation tree to access a list of controls for the device.
9. You can view the status of a security integration in the **Status** column. You can see if a security device is connected to the exacqVision client or not. Color coding is used to indicate the status. When the integration device connects, the text is green, and when not connected, it is red.

   ⓘ **Note:** You must configure the security device before you add it to a server. For information on how to configure the security device, see the manufacturer's user manual.

Security integration device window

Depending on the type of your security device integration, you can configure keywords and perform certain actions from the integration device window. Keywords are meta data terms that you use to gain more information about a device. For more information, see the *Integration's User Manual*.

For more information on the functionality of the integration device window, see the following table. However, depending on the type of integration, for example access control, analytic, and other integration devices, the description can vary.

Table 23: Integration window

Interface element	Description
Name column	Displays the name of the device, for example a zone, or partition name.
ID column	Displays the ID of the device.
Type column	Displays the type of the device, for example a door, or reader.
Enable Keywords column	Displays a check box. Clear the corresponding check box or check boxes to deactivate enable keywords. The **Enable Keywords** check box, displays only for relevant integration inputs.

Table 23: Integration window

Interface element	Description
Actions column	Displays a action or a list of actions that you can select depending on the device type.
Status column	Displays the status of the device, for example normal, or deactivated.

Deactivating keywords

Keywords are meta data terms that you can use to gain more information about a device. By default, the system records any keywords that you add. This can impact the performance of the system. You can deactivate keywords in the security integration device window.

To deactivate the system from recording a keyword, complete the following steps:

1. From the navigation tree, expand the **Security Integration** node and select the security integration.
2. In the **Enable Keywords** column, clear the corresponding check boxes of the keywords you want to deactivate.
3. Click **Apply**.

Serial profiles window

In the **Serial Profiles** window, you can create and configure serial profiles to integrate an exacqVision server with serial data devices, such as Point of Sale (POS) or bank machine systems. To create a serial profile, see Creating a serial profile. For more information on the functionality of the **Serial Profiles** window, see the following tables.

Figure 6: Serial Profiles window

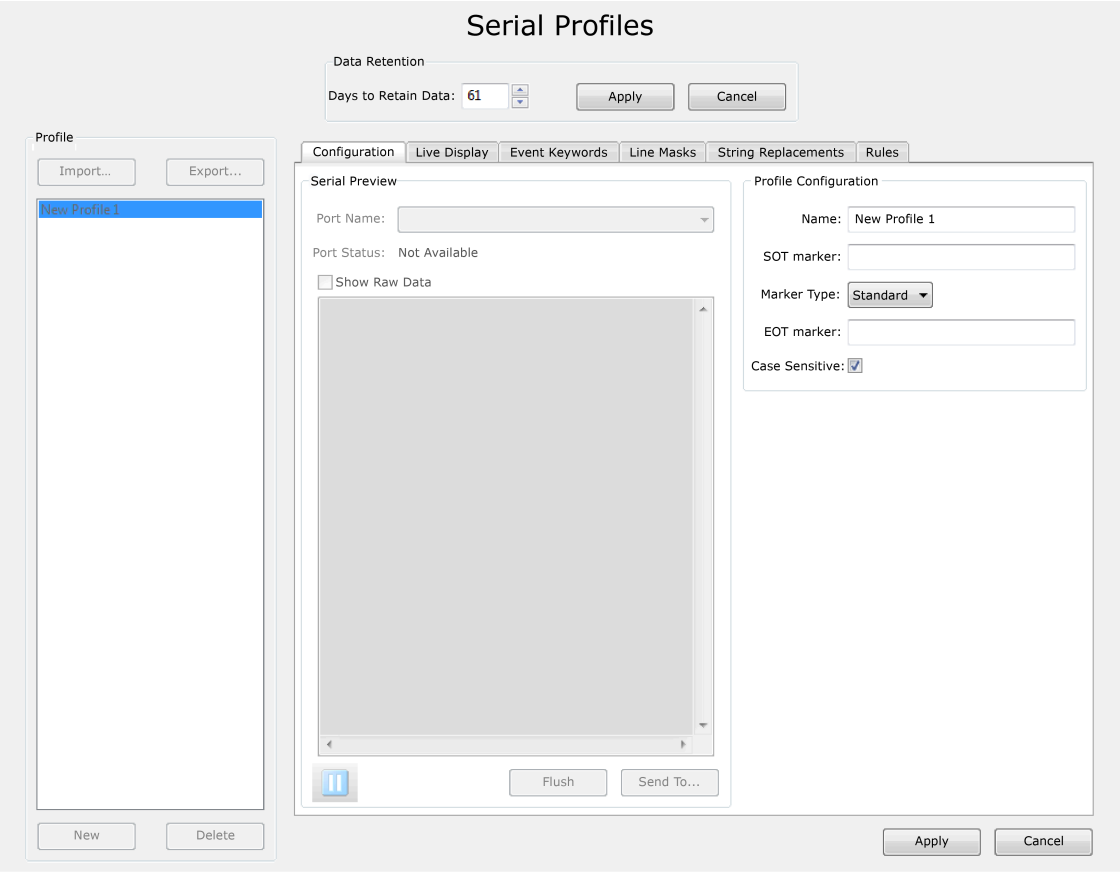


Table 24: Serial Profiles window

Interface element	Description
Profile pane	Displays a list of existing serial profiles.
	To import a serial profile, select **Import**.
	To export a serial profile, select **Export**.
	To delete a serial profile, select the profile from the **Profile** list and click **Delete**.
Data Retention pane	To select the number of days that serial data can be stored before it is automatically deleted, select the number of days from the **Days to Retain Data** list and then click **Apply**.
Configuration tab	On the **Configuration** tab, you can create or configure serial profiles. For more information, see Table 25.
Live Display tab	Displays a preview of the serial profile.
	To remove the lines, select **Enable** and then select the number of hours before the system removes the lines.
	To add more space between the data lines, select **Double Space Lines**.
	To change the font of the data, click **Font**.

Table 24: Serial Profiles window

Interface element	Description
Line Masks tab	Blacks out areas of the camera view so that they are not visible in live video panels or in recorded data. This feature is useful for hiding information such as credit card details.
	To black out an area of a camera's view, click **New** and then enter one or more words into the **String**field.
	To black out an area of a camera's view in live video panels, select **Live**.
	To black out an area of a camera's view for recorded data, select **Search**.
String Replacements tab	Modifies the serial data strings into a readable format.
	To modify the serial data, enter the information in the serial data format, and then enter the substitute information that is easier to read into the **Replace** field.
	To modify the data strings for viewing in the **Live** window, select **Live**.
	To modify the data strings for recorded data, select **Search**.
Rules tab	Creates conditions that you can use to perform a more detailed serial data string search.
	To create a rule, see Creating a rule for serial data string searches.
	To edit a rule, click **Edit** in the **Configure** field.

Table 25: Configuration tab in the Serial Profiles window

Interface element	Description
SOT marker field	The **SOT marker** field tells the exacqVision system when you start a transaction. This field is case-sensitive.
Marker Type list	Displays a list of marker types.
EOT marker field	The **EOT marker**field tells the exacqVision system when you end a transaction. This field is case-sensitive.
Case Sensitive	To apply case sensitivity, select the **Case Sensitive** check box.
Port Name list	Displays a list of existing serial profiles.
Port Status field	Displays the connection status of the serial port.
Show Raw Data check box	Displays all the characters between the lines of data.
Flush button	Displays the next line of data. If the serial port timeout is zero, the data does not reach the maximum line length, or if an EOT did not transmit.
Send To... button	Copies data string examples that you can then save as a SOT, EOT, keyword, line mask, or string replacement. You can also copy the data string example to a new rule or an existing rule.
	To save a data string example, click the **Pause** button, highlight the string, and then click **Send To...**.

Creating a serial profile

To create a serial profile, complete the following steps:

1. In the **Serial Profiles** window, click **New**.

2. On the **Configuration** tab, enter a name for the profile in the **Name** field.
3. In the **SOT marker** field, enter a command.
4. From the **Marker Type** list, select a marker type.
5. In the **EOT marker** field, enter a command.
6. Click **Apply**.

Creating a rule for serial data string searches

About this task:
To create a serial data string condition, complete the following steps:

1. On the **Rules** tab in the **Serial Profiles** window, select **New**.
2. From the **Field Position** list, select whether the condition information occurs before or after the value of interest.
3. Enter the condition text.
4. Select an option from the **Operator** list.
5. In the **Value** field, enter the value of interest.
6. Click **OK**.

Serial ports window

In the serial ports window, you can configure the serial ports on an exacqVision system to communicate with serial devices, such as POS terminals and PTZ cameras. There are two types of ports that you can configure; UART ports and IP ports.

UART pane

For UART serial ports, ensure that you connect the wires to the serial port and then configure the port. The system automatically detects and displays the ports. For more information on configuring UART serial ports, see the following table.

Table 26: UART pane in the Serial Ports window

Interface element	Description
Name field	Enter a unique name for the port.
Use list	From the **Use** list, select a purpose for the port.
Port list	The operating system automatically selects a port from the **Port** list.
Profile/Protocol list	Displays a list of configured serial profiles that you can select.
	To create a new serial profile for a port, from the list select **New**. The **Serial Profiles** window opens. For more information on how to create a serial profile, see Creating a serial profile.
Baud Rate list	The option you select from the **Baud Rate** list must match the connecting device. For more information, see the devices manufacturer's manual.
Data Bits list	The option you select from the **Data Bits** list must match the connecting device. For more information, see the devices manufacturer's manual.
Stop Bits list	The option you select from the **Stop Bits** list must match the connecting device. For more information, see the devices manufacturer User Manual.
Parity list	Displays a list of connection parameters for UART serial ports.
	The option you select from the **Parity** list must match the connecting device. For more information, see the devices manufacturer's manual.

Table 26: UART pane in the Serial Ports window

Interface element	Description
Flow Control list	The option you select from the **Flow Control** list must match the connecting device. For more information, see the devices manufacturer's manual.
Max Line Length field	Specifies the maximum number of characters that the port can receive before it assumes it is at the End of a Line (EOL). The default number of characters is 80.
Line Ending field	Specifies what characters or string of characters identifies the EOL.
	In exacqVision systems, the default line ending is Carriage Return Line Feed (CR LF) for Windows and LF for Linux. \x0D represents CR and \x0A represents LF. If this field is left blank, the system uses the OS default line ending.
Timeout field	Specifies the number of seconds the port waits after receiving data before sending the data to the serial profile for processes.
	The default value is zero. For troubleshooting, enter **1** in the **Timeout** field.
Status field	Displays the status of the port connection and troubleshooting information.

IP pane

For IP ports, you must add the port manually by clicking **New** in the IP pane. For more information on configuring IP ports, see the following table.

Table 27: IP pane in the Serial Ports window

Interface element	Description
Name field	Enter a unique name for the port. This name is visible in the **Live** window and by exacqVision client users.
Use list	From the **Use** list, select a purpose for the port.
Profile list	Select a profile from the **Profile** list.
	You can create profiles on the **Serial Profiles** window. For more information, see Creating a serial profile.
Type list	Select the transport connection type. The device's manufacturer defines the transport type.
Address field	Enter the IP address of the device.
Port field	Enter the Transmission Control Protocol (TCP) port of the device. The device's manufacturer defines the TCP port.
Max Line Length field	Specifies the maximum number of characters that the port can receive before it assumes it is at the End of a Line (EOL). The default number of characters is 80.
Line Ending field	Specifies what characters or string of characters identifies the EOL.
	In exacqVision systems, the default line ending is Carriage Return Line Feed (CR LF) for Windows and LF for Linux. \x0D represents CR and \x0A represents LF. If this field is left blank, the system uses the OS default line ending.

Table 27: IP pane in the Serial Ports window

Interface element	Description
Timeout field	Specifies the number of seconds the port waits after receiving data before sending the data to the serial profile for processes. The default value is zero.
	For troubleshooting, enter **1** in the **Timeout** field.
Status field	Displays the status of the port connection and troubleshooting information.

Audio inputs and outputs window

In the **Audio Inputs/Outputs** window, you can configure audio inputs and outputs for monitoring, recording, and 2-Way Audio. You can configure multiple audio inputs for recording, but you can only configure one audio input for export and live playback. For more information, see the following table.

ⓘ **Note:** All exacqVision systems ship with the audio inputs in a deactivated state. This is due to legal restrictions on audio recording in some countries.

Table 28: Audio Inputs/Outputs window

Column	Description
Device Name	Displays the make and model of the camera that is associated with the audio device.
Camera	Displays the name of the camera or cameras that are associated with the audio device.
Audio	Displays the name of the audio output or input. To edit the audio output or input name, click the Pencil icon.
Channel	Displays the camera's channel number.
Record Enable	Select the **Record Enable** check box to activate the audio input for recording.
Listen	To verify that the audio input connects to a channel, click **Listen**.
Talk	To verify that you can send audio on a 2-way system, click **Talk**.
Recording Mode	Displays the recording mode settings for the audio input. To change the recording mode, see Schedule window.
Connection Status	Displays the connection status of the camera.

Trigger inputs window

In the **Trigger Inputs** window, you can configure trigger inputs on hybrid systems and some IP cameras to trigger video recording. You can then activate the trigger inputs in the **Event Linking** window. For more information, see Event Linking window. For more information on the functionality of the **Trigger Inputs** window, see the following table.

Figure 7: Trigger Inputs window

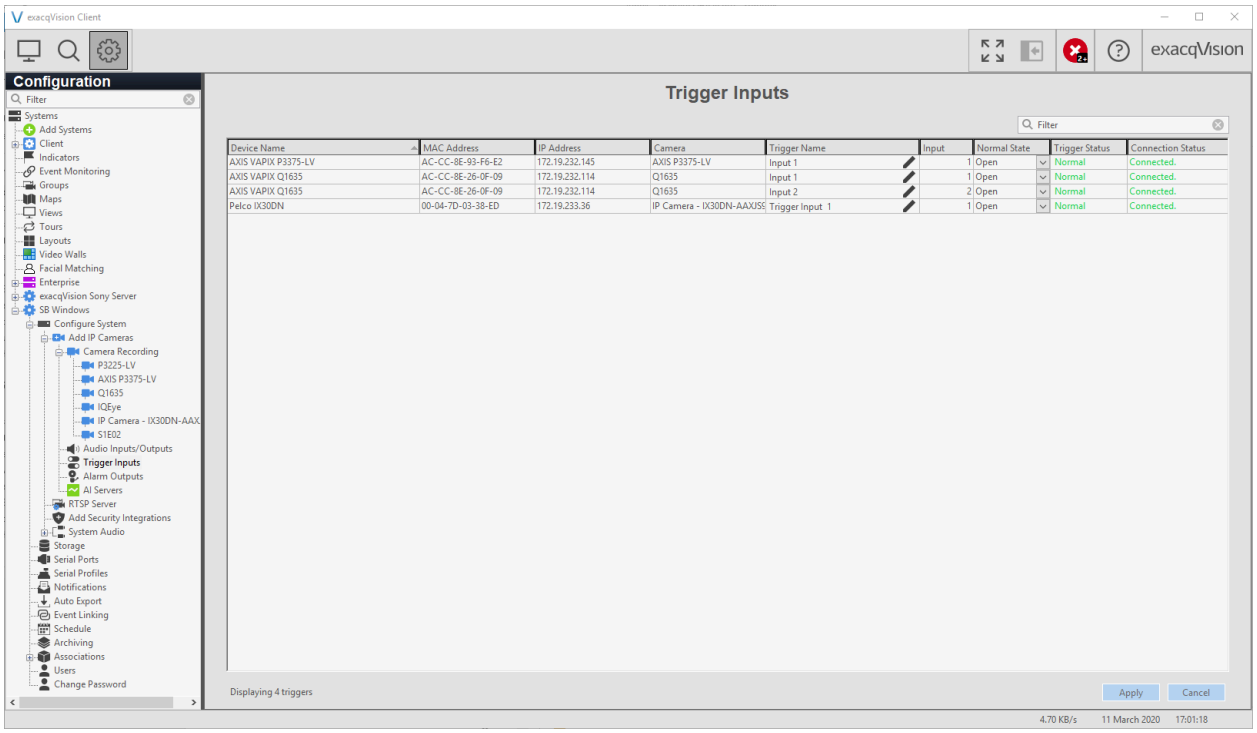


Table 29: Trigger Inputs window

Column	Description
Device Name	Displays the make and model of the camera that is associated with the trigger input.
Camera	Displays the name of the camera or cameras that are associated with the trigger input.
Trigger Name	Displays the name of the trigger input. To edit the trigger input name, click the **Pencil** icon.
Input	Displays the camera's input number.
Normal State	To set an alarm to not trigger when an action or an event associated with that trigger occurs, select **Open**.
	To set an alarm to trigger when an action or an event associated with that trigger occurs, select **Closed**.
Trigger Status	Displays the normal state status for the trigger input.
Connection Status	Displays the connection status of the camera.

Alarm outputs window

In the **Alarm Outputs** window, you can configure alarm outputs on hybrid systems and some IP cameras. You can then set an alarm to trigger in the Event Linking window. For more information on the functionality of the **Alarm Outputs** window, see the following table.

Figure 8: Alarm Outputs window

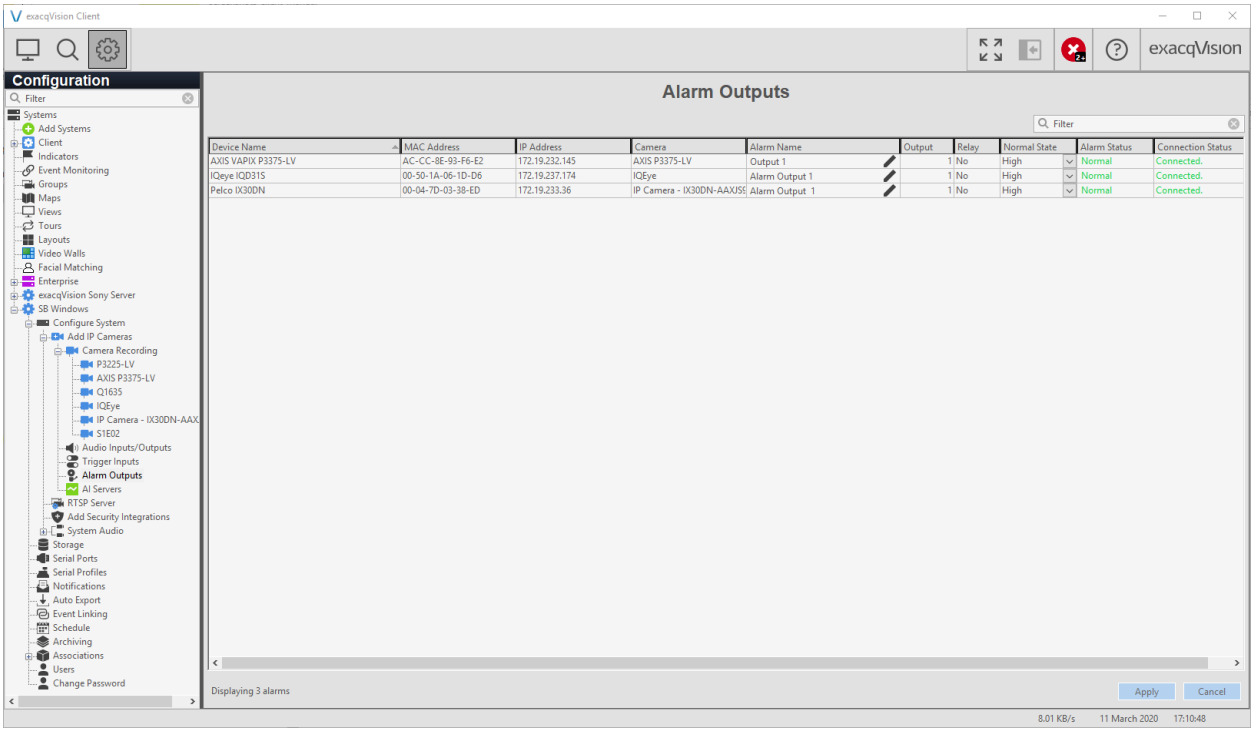


Table 30: Alarm Outputs window

Column	Description
Device Name	Displays the make and model of the camera that is associated with the alarm output.
Camera	Displays the name of the camera or cameras that are associated with the alarm output.
Alarm Name	Displays the name of the alarm output. To edit the alarm output name, click the Pencil icon.
Output	Displays the camera's output number.
Relay	Displays whether the alarm output is a relay.
Normal State	To set the alarm output to 5VDC, select **High**.
	To set the alarm output to 0VDC, select **Low**.
Alarm State	Displays the normal state status for the alarm output.
Connection Status	Displays the connection status of the camera.

AI servers window

Use the facial matching tab on the AI servers window to register faces on events and detect faces across multiple cameras after an event. Use the analytics tab to view and create analytic rules.

Table 31: Facial Matching tab

UI element	Description
Configure Classifications dialog box	Click **Configure Classifications** to configure AI server classifications. Set bookmarks and confidence levels on the AI server page. For more information, see Configuring classifications.
Facial Matching page	Click Facial Matching to navigate directly to the **Facial Matching** page.
Register Faces on Events pane	Register faces when specific events occur. For more information, see Registering faces on events
Camera Setup pane (Register Faces on Events)	Configure cameras to register faces on events. Click **Create Pedestal Profile (optional)** if required.
Look For Returning Faces pane	Configure systems to search for faces that are registered from previous events. Looking for returning faces
Camera Setup pane (Look For Returning Faces)	Configure cameras to register returning faces.

For information on creating analytic rules, see AI servers analytics tab.

Registering faces on events

Register faces when specific events occur and add faces to person configuration in the facial matching window.

1. In the **Facial Matching** window, in the **Register Faces on Events** pane, click **New**.
2. In the **Camera Setup** pane, in the **Select Event Type** window, select an event type and click the arrow to move to **Select Source For**.
3. Select the source, select **Lasts at Least**, and use the arrows to select a value.
4. In the **Select Camera** window, select a camera and click **Select**.
5. Click **Apply**.

Result
Cameras are configured to detect faces registered in the facial matching database.

Registering faces with or without face masks

Before you begin:
You must install Tyco AI to use this feature.

To register an event when a camera detects a face with or without a face mask, complete the following steps:

1. On the **Analytics** tab, click **New**.
2. In the **Camera Setup** pane, in the **Select Cameras** window, select a camera and click **Select**.
3. In the **Select Action Type** window, select an action type and click the arrow to move to the **Select Target For:Log Event** window.
4. Select the target and click **Select**.
5. Under **Generate events for these rules:**, select a rule and click **Select**.

6. Click **Apply**.

   An alert is created when a camera detects a face with or without a face mask.

Looking for returning faces

Configure systems to look for faces that are already registered. You can request that a specific action occurs when a person of interest is detected.

1. In the **Configuration** window, select a server and expand it.
2. Select **AI Servers** in the **Camera Recording** window.
3. In the **Look for Returning Faces** pane, click **New**.
4. Click **Select Cameras** in the **Camera Setup** window and select a camera.
5. In **Take this action when persons of interest are found**, click **Log Event**.
6. Select an action type.
7. Click the arrow to select a target for the action type.
8. Click **Apply**.

Result
Cameras are configured to search for registered faces and action types are specified.

Configuring classifications

To configure Tyco AI server classifications, set bookmarks and confidence levels on the AI server page.

1. Expand a system with the **Tyco AI** server installed.
2. Click **AI Servers**.
3. On the **AI Servers** page, click **Configure Classifications**.
4. Edit preset classification names if required.
5. Select the **Auto Bookmark** check box if you want to create a bookmark on the **Search Cameras** page for each classification. If you select **Auto Bookmark** for a classification, a bookmark is automatically generated every time a returning face is detected with that classification type.
6. Set confidence levels for each classification in the **Confidence Level** field. The **Confidence Level** is the minimum confidence level required for a returning face to be identified with that classification type.
7. Click **Apply**.

Result
When you register a face in recorded video, you can select the new or updated classification in the **Classifications** list.

AI servers analytics tab

The analytics tab shows the following analytic types in a hierarchical view. You can expand to view the individual rules that are assigned to each analytic type:

- Intelligent perimeter

  The Tyco AI user configures the protected area and the perimeter area on the camera. When Tyco AI detects an object in the perimeter area and then the object enters the boundary area, the exacqVision client receives and alarm event. To view the event, see Performing an analytic metadata search.
- Object classification

Object classification shows events categorized by object. For example, when you define an object category is vehicle the you can create object types such as car, truck, and motorbike. To configure an object, see the camera settings Analytics tab. You can view the objects in the analytic search window, see Performing an analytic metadata search.

- Social distancing

  Social distancing identifies two or more people walking close to each other. The Tyco AI user configures a region of interest on the camera. When configured this shows as a red alert in the events tab in exacqVision Client, see .

- Mask Detection

  Use the mask detection event rule to view registered faces for events where a face mask is either detected or not detected. Use the camera setup pane to configure registered faces with or without masks on events. For more information, see Registering faces on events and Registering faces with or without face masks .

Configuring analytic rules

Before you begin:
All rules except the object classification rule require additional configuration on Tyco AI.

1. In the **AI Server** window, click the **Analytics** tab.
2. In the **Camera Setup** area, in the list menu, select an available rule:
   - Intelligent perimeter
   - Object classification
   - Social distancing
   - Mask Detection

   ⓘ **Note:** The list menu only shows the options that you have available licenses for.
3. In the **Select Camera** list that displays, select the check boxes for the cameras you want to apply the rule to. The number of available licenses is displayed for each camera.
4. Click **Select**.
5. In the **Take this action**: area, click **Log Event** to open the **Select Action Type** list. Choose from the following options:
   - Log Event
   - Record Video
   - Record Audio
   - Output Trigger
   - Notify
   - Auto export
   - PTZ Preset
   - Security Trigger
   - Webhook
6. Click the arrow to move to the **Select Target For:Log Event** and choose an option.
7. Select the target and click **Select**.
8. Under **Generate events for these rules:**, select a rule and click **Select**.
9. Click **Apply**. A message is displays and notifies you that additional configuration is needed on Tyco AI to run the rule.
10. To connect to Tyco AI, navigate to the rule you created which is highlighted on the screen. Click the **Gear** icon to open the **Tyco AI Web configuration Camera** page to complete the configuration.

Analytic appliances window

In the **Analytic Appliances** window, you can see the status of all the analytic appliances that are associated with cameras and are configured on the system. Analytic appliances offset some of the processing on the NVR, which can increase its performance.

You must configure the analytic appliance from the analytic appliance interface. For more information on the functionality of the **Analytic Appliances** window, see the following table. To manually add an analytic appliance that provides analytics for an existing camera, see Adding IP cameras.

Table 32: Analytic Appliances properties

Interface element	Description
Appliance IP Address	The IP address of the analytic appliance.
Identifier	The input number of the analytic appliance.
Camera Name	The name of the camera associated with the analytic appliance.
Camera IP Address	The IP address of the camera associated with the analytic appliance.
Type	The analytic appliance brand type.
Model	The analytic appliance brand model number.

Video outputs window

In the **Video Output** window, you can create tours between analog video cameras in different display modes. For more information on how to create a tour, see Creating a tour in the Video Output window.

Creating a tour in the video output window

To create a tour in the **Video Output** window, complete the following steps:

1. From the **Cameras in Tour** list, select the cameras that you want to include in the tour.
2. From the **Layout** area, select a layout.
3. Move the **Dwell Time** slider to set the length of time before a monitor switches to the next camera. The dwell time range is between one and 60 seconds.
4. Click **Apply**.

Storage window

In the **Storage** window, you can access the **Drive**, **Extended**, **Hardware**, and **Network** tabs to configure the system's hard drives for video storage, and to monitor the health of the system's drives and RAID arrays.

Drive tab

The **Drive** tab displays information about the drives that you install on the system, including the capacity of the drive, the available storage space, and its health status. On the **Drive** tab, you can also set the minimum or maximum time period for storing video. For more information, see the following tables.

Figure 9: Drive tab in the Storage window

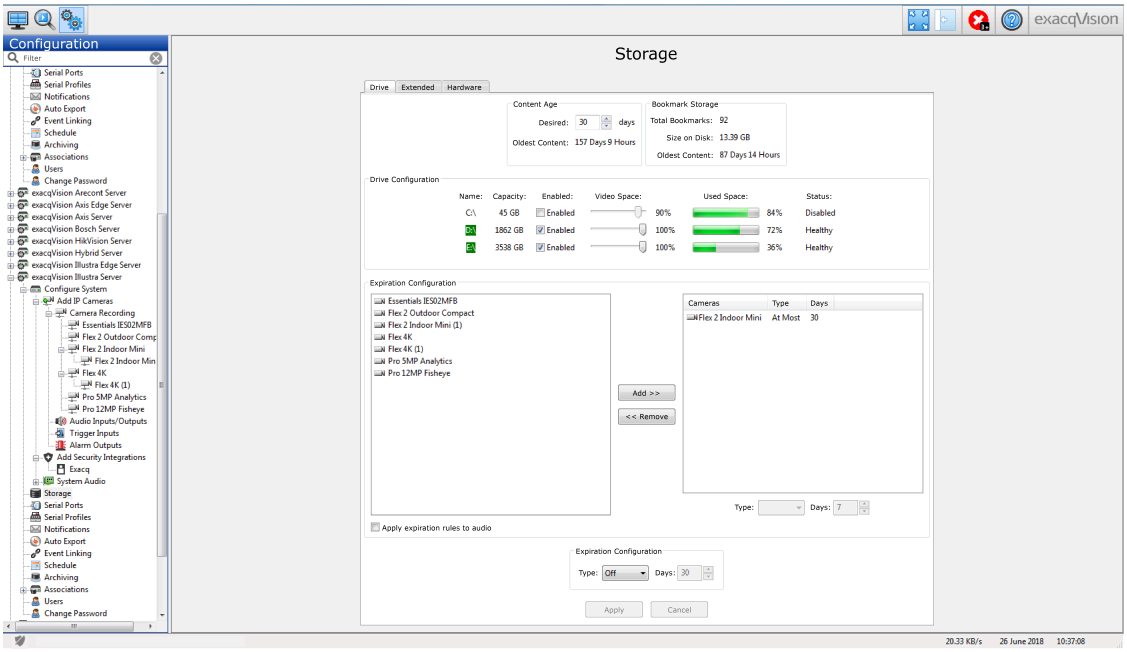


Table 33: Drive tab in the Storage window

Interface element	Description
Content Age pane	Displays the age of the oldest recorded video on the system, and sets how long the system retains video data before it deletes. If you delete the video data before the set date, a trigger action on the **Event Linking** window activates. For more information, see Event Linking window.
Drive Configuration pane	Displays information about the drives you install on the system. For more information, see Table 34.

Table 34: Drive Configuration pane in the Storage window

Interface element	Description
Name area	The system drive C;\ in Windows, or /mnt/edvr/0 in Linux, is for the exacqVision software and operating system. You cannot record video to this drive, or use it for video storage.
Capacity area	Displays the space capacity of the hard drive.
Enabled check box	To enable a drive for video storage, select the **Enabled** check box. You can locate the storage drives below the system drive.
Video Space slider	Adjusts the amount of drive space that you want to use for data storage.
Used Space area	Displays the current hard drive capacity.
Status	Displays the current health status of the hard drive.

Configuring a storage drive on an S-series system

On the extended tab, you can configure storage drives on an S-Series system.

1. In the **Portals** pane, click **Add**.
2. Enter the IP address of the S-series system in the **IP Address** field.

3. In the Targets pane, select the **Enabled** check box of the system.
4. Click **Apply**.

Network tab

On the **Network** tab, you can allocate drives in an S-Series system for archiving or for extended storage. For more information, see the following table.

Table 35: Network tab

Interface element	Description
Name field	Displays a list of the installed drives on an S-Series server.
Size field	Displays the size of the drive.
Type list	To allocate a drive for archiving or for extended storage, select an option from the **Type** list.
Server Address field	Displays the IP address of the server.
IQN/Address field	Displays the address for a iSCSI drive
Status field	Displays the status of the drive.

Event linking window

The event linking feature improves searches by including a linked action in the search options. In the **Event Linking** window, you can connect different events, such as the activation of an input trigger with actions such as recording video or triggering an alarm. For more information, see Creating an event link and the following table.

Figure 10: Event Linking window

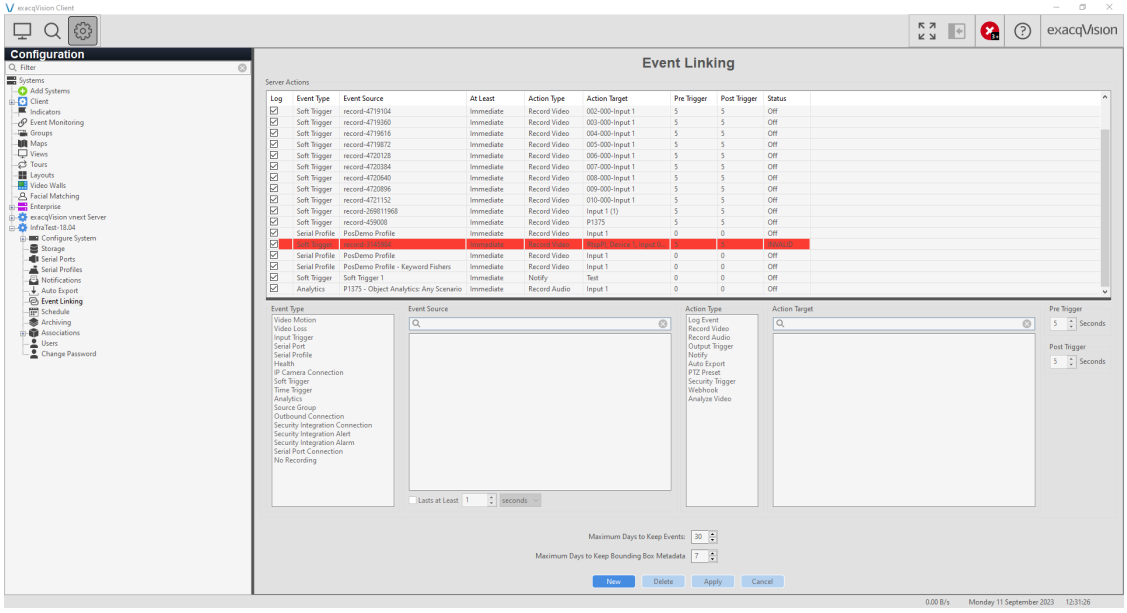


Table 36: Event Linking window

Interface element	Description
Server Actions list	Displays a list of events.
Event Type list	Displays a list of possible events. Input triggers and soft triggers are the only event types available in exacqVision Start.

Table 36: Event Linking window

Interface element	Description
Event Source list	Displays a list of event sources. For some options, you can create, edit or delete the event source using the **New**, **Edit**, and **Delete** buttons.
	The **Event Source** list sets how long an alarm must occur before an action takes place and the system logs the event. The default value is Immediately. To set the event source time, select the **Lasts at Least** check box, and then select the number of seconds, minutes, or hours.
Action Type list	Displays a list of possible actions.
Action Target list	Displays a list of possible targets.
Pre Trigger list	Determines how much buffered data to store before an event occurs.
Post Trigger list	Determines how long to continue to perform the action that you select from the **Action Type** list after an event occurs.
Maximum Days to Keep Events	Determines how long the system stores the event in the event database. The maximum time that the system can store an event is 365 days.
Maximum Days to Keep Bounding Box Metadata	Determines how long the system stores bounding box metadata. The maximum time that the system can store this metadata is 365 days.

Creating an event link

To create an event link, complete the following steps:

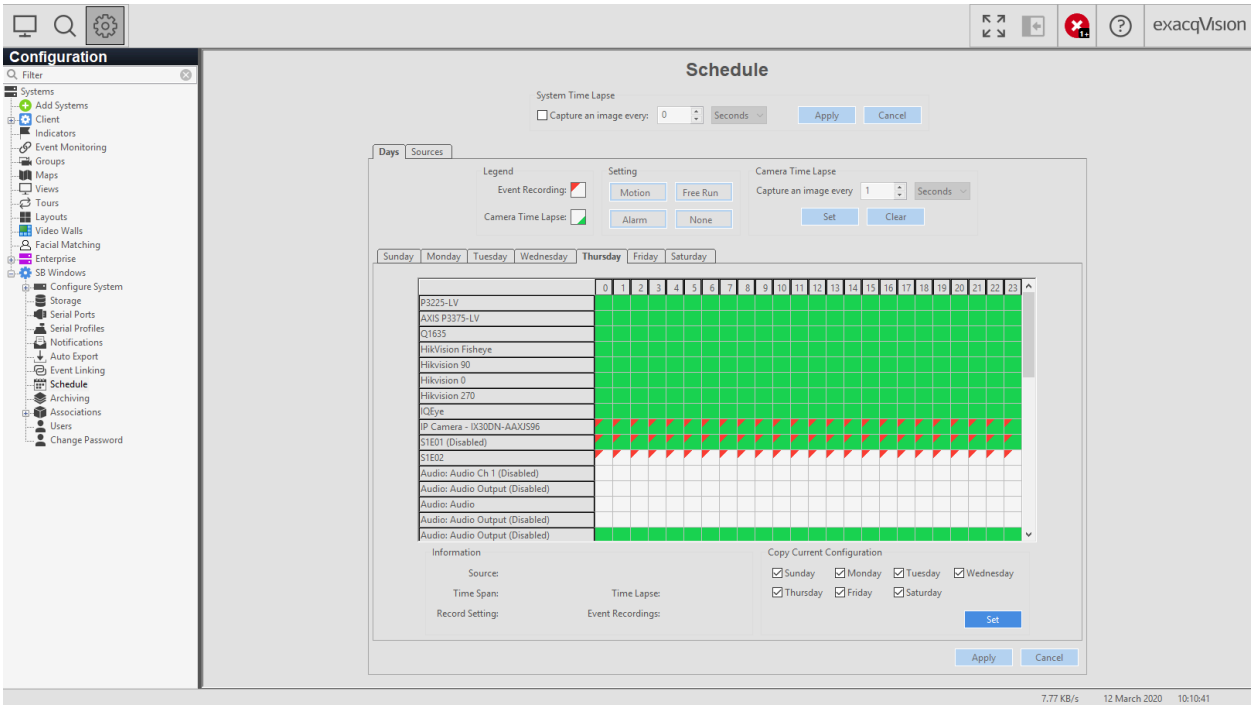
1. Click **New**.
2. From the **Event Type** list, select an event.
3. From the **Event Source** list, select an event source.

   ⓘ **Note:** If you select **Soft Trigger**, **Time Trigger**, or **Source Group** in the **Event Type** list, you can create or edit the **Event Source** list using the **New**, **Edit**, or **Delete** buttons.
4. From the **Action Type** list, select an action.
5. From the **Action Target** list, select a target.
6. Click **Apply**.

Schedule window

In the **Schedule** window, you can create a recording schedule. The **Schedule** window contains two tabs; the **Days** tab and the **Sources** tab. On the **Days** tab, you can create a schedule for all connected devices in the system. On the **Sources** tab, you can create a schedule for a single connected device. By default, an exacqVision system configures a schedule to record all motion and events.

Figure 11: Schedule window



Schedule modes

When creating a schedule, you can choose from four modes of recording settings. For more information, see the following table.

Table 38: Recording setting modes

Recording mode	Color	Description
MOTION	Blue	Records any motion or when alarms that occur.
Free Run	Green	Continuously records. Free Run recording uses a large amount of disk space.
ALARM	Red	Records when alarms that occur.
NONE	White	Does not record.

Days tab

On the **Days** tab, you can create a schedule for all connected devices in the system. To create a schedule, see Creating a schedule for all devices. For more information on the functionality of the **Days** tab, see the following table.

Table 39: Days tab in the Schedule window

Interface element	Description
Legend pane	Displays how Event Recordings and Camera Time Lapses display in the schedule grid.
Setting pane	Displays the different recording settings modes. For more information, see Table 38.
Camera Time Lapse pane	Sets a system wide time lapse for all the cameras.

Table 39: Days tab in the Schedule window

Interface element	Description
Information pane	Displays details of a camera's settings for the day and time you select. To display the details of the camera's settings, in the grid hover the cursor over a square that corresponds to the day and time you want.
Copy Current Configuration pane	Applies the recording schedule to other week days. To apply the schedule to another week day, select the day's check box and then click **Set**.

Creating a schedule for all devices

To create a schedule for all devices, complete the following steps:

1. In the **Days** tab, select the appropriate tab for the day of the week.
2. Left-click the grid and drag the cursor until you have drawn a box over the days and corresponding hours for when you want to schedule the recording.
3. In the **Setting** area, select a recording mode. For more information on the schedule modes, see Table 38 .
4. Click **Apply**.

Sources tab

On the **Sources** tab, you can create a schedule for a single connected device. To create a schedule for a single connected device, see Creating a schedule for a single device. For more information on the functionality of the **Sources** tab, see the following table.

Table 40: Sources tab in the Schedule window

Interface element	Description
Camera list	Displays a list of cameras that are available for scheduling.
Legend pane	Displays how Event Recordings and Camera Time Lapses display in the schedule grid.
Settings pane	Displays the different scheduling settings modes. For more information, see Table 38.
Apply To... button	Applies the camera's schedule to another device.

Creating a schedule for a single device

To create a schedule for a single device, complete the following steps:

1. In the **Sources** tab, from the Cameras list select a device.
2. Left-click the grid and drag the cursor until you have drawn a box over the days and corresponding hours for when you want to schedule the recording.
3. In the **Setting** area, select a schedule mode.
4. Click **Apply**.

Users window

In the **Users** window, you can add or delete users from the system, configure the access level of a user role, and assign permissions to view cameras. For information on the functionality of the **Users** window, see the following table.

Figure 12: Users window

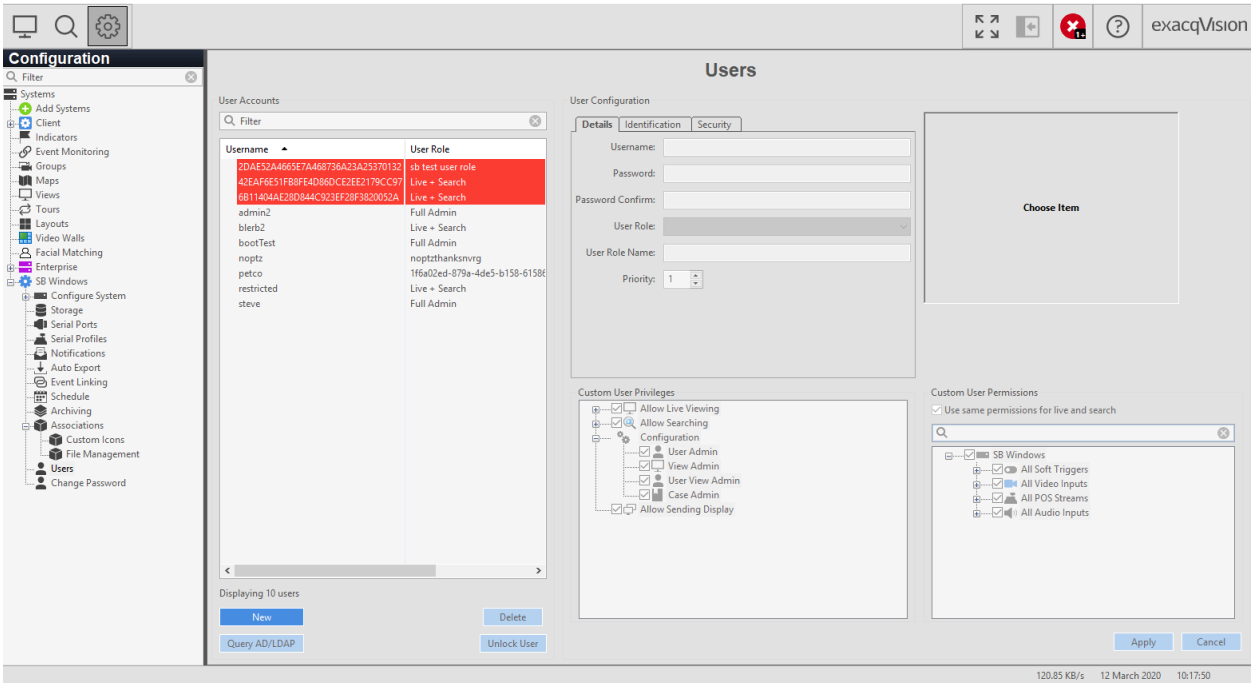


Table 41: Users window

Interface element	Description
User Accounts list	Displays a list of system users and user roles.
	To add a new user or user role, see Adding a user to the system and Adding a user role to the system.
	To delete a user or user role, select the user or user role from the **User Accounts** list, and then click . Deleting the last user from a role automatically deletes the role.
Query AD/LDAP button	Tests the connectivity and queries the LDAP server.
Unlock User button	To unlock a user that entered their password incorrectly, click **Unlock User**. To change the number of password entry attempts that a user can have before they are locked out of the system, see Setting the user lockout.
Details tab	For more information on the **Details** tab, see Table 42.
Identification tab	You can use the **Metadata** area to create data fields to refine a user search. To create a data field, click the **Plus** icon and then enter the information in the corresponding field.
Security tab	The **Security** tab is available only on systems that support its features. For more information, see the Security tab in the Users window.
To see the privileges that apply to a user, in the User Accounts pane, click the user.	

Table 41: Users window

Interface element	Description
Custom User Permissions pane	Displays a list of devices that you can select so that users or a user role can operate them in the exacqVision client.
	To edit the **Custom User Permissions** list, you must clear the **View Admin**, **User Admin**, and **Case Admin** check boxes in the **Custom User Privileges** > **Configuration** pane.
	To customize a user's permissions, see Customizing a user's permissions for the Live and Search windows.
	To apply the same permissions to a user for both the **Live** and **Search** windows, select the **Use same permissions for live and search** check box.

In the **User Configuration** pane, you can create a new user or user role and configure their access level, permission, and privileges. For more information, see Table 42, Table 45, Adding a user to the system and Adding a user role to the system.

Table 42: Details tab in the Users window

Interface element	Description
Username field	The username must contain at least 5 characters.
Password field	The default minimum password length is 8 characters. The password must include an uppercase character and a special character. Alternatively, you can enter a pass phrase with a minimum of 20 characters.
User Role list	The **User Role** list displays a list of permission levels for users. For more information, see Table 43.

In the following table, you can find descriptions for the available options in the **User Role** list in the **Users** window.

Table 43: User Role list in the Users window

Permission level	Description
Full Admin	The user can access all features in the system.
Power User	The user can access all features in the system, except for adding and deleting users.
Power User No Video	The user can access all features in the system, except for video features and adding and deleting users.
Restricted	Available for use with exacqVision Start systems only. Users with the restricted role can edit permissions for cameras, they cannot create custom roles.

Table 44: Custom User Privileges list in the Users window

User privilege	Description
User Admin	The user can create, edit, lock, and unlock system user accounts.
View Admin	The user can see, create, and configure system views, user role views, and user views in configuration mode, but not in live or search.

Table 44: Custom User Privileges list in the Users window

User privilege	Description
User View Admin	The user can see and configure other user's user views in configuration mode, but not in live or search.
Case Admin	The user can create, edit, and remove cases and bookmarks.
PTZ Preset Admin	The user can create and edit PTZ presets.
Restricted View Admin	The user can hide restricted view areas in live or search. Only Admin Users and Power Users can create restricted views.

Adding a user to the system

To add a user to the system, complete the following steps:

1. In the **Users** window, click **New**.
2. On the **Details** tab, enter a name for the user in the **Username** field.
3. Enter a password and confirm the password in the **Password** and **Password Confirm** fields.
4. Select a permission level from the **User Role** list. For information on the permission levels, see Table 43.
5. Select a PTZ priority level from the **Priority** list.
6. **Optional:** In the **Custom User Privileges** pane, select the privilege you want the user to access.
7. **Optional:** In the **Custom User Permissions** pane, customize the permissions for the role. For more information, see Customizing a user's permissions for the Live and Search windows.

   ⓘ **Note:** To edit the **Custom User Permissions** list, you must clear the **View Admin**, **User Admin**, and **Case Admin** check boxes in the **Custom User Privileges** > **Configuration** pane.

8. Click **Apply**.

Adding a user role to the system

To add a user role to the system, complete the following steps:

1. In the **Users** window, click **New**.
2. On the **Details** tab, from the **User Role** list, select **New User Role...**.
3. In the **User Role Name** field, enter a name for the user role.
4. From the **Priority** list, select a PTZ priority level.
5. **Optional:** In the **Custom User Privileges** pane, select the privileges that you want to assign to the user role. For more information on user privileges, see Table 44.
6. **Optional:** In the **Custom User Permissions** pane, customize the permissions for the role. For more information, see Customizing a user's permissions for the Live and Search windows.

   ⓘ **Note:** To edit the **Custom User Permissions** list, you must clear the **View Admin**, **User Admin**, and **Case Admin** check boxes in the **Custom User Privileges** > **Configuration** pane.

7. Click **Apply**.

Customizing a user's permissions for the live and search windows

Before you can edit the **Custom User Permissions** list, you must clear the **View Admin**, **User Admin**, and **Case Admin** check boxes in the **Custom User Privileges** > **Configuration** pane.

1. From the **User Accounts** list, select a user.
2. If the **Live** or **Search** tabs are not available in the **Custom User Permissions** pane, complete the following step:
   - In the **Custom User Permissions** pane, clear the **Use same permissions for live and search** check box.
3. In the **Custom User Permissions** pane, click the **Live** tab.
4. Select the devices that you want the user to be able to use in the **Live** window.
5. Click the **Search** tab.
6. Select the devices that you want the user to be able to use in the **Search** window.
7. Click **Apply**.

Changing the priority level of a user

1. In the **Users** window, select the user from the **User Accounts** list.
2. On the **Details** tab in the **Password** field, enter the user's password and confirm the password by entering it again in the **Password Confirm** field.
3. Select a new permission level from the **User Role** list. For information on the permission levels, see Table 43.
4. **Optional:** In the **Custom User Privileges** pane, select the privilege you want the user role to access.
5. **Optional:** In the **Custom User Privileges** pane, customize the permissions for the role. For more information, see Customizing a user's permissions for the Live and Search windows.

   ⓘ **Note:** To edit the **Custom User Permissions** list, you must clear the **View Admin**, **User Admin**, and **Case Admin** check boxes in the **Custom User Privileges** > **Configuration** pane.
6. Click **Apply**.

Security tab in the Users window

On the **Security** tab in the **Users** window, you can configure a user's password settings, create a temporary user, and assign an access schedule to a user. For more information on the functionality of the **Security** tab in the **Users** window, see the following table.

Table 45: Security tab in the Users window

Interface element	Description
Disable User check box	To disable a user, select a user from the **User Accounts** list, select the **Disable User** check box and click **Apply**.
User May Change Password check box	Gives a user the ability to change their password. Full Admin and Power Users always have permission to change their password. For more information, see Giving a user the ability to change their password.
User Must Change Password check box	Requires a user to change their password. A user with Full Admin privileges cannot select or clear this check box for their own account. For more information, see Enforcing a user to change their password.
Temporary User check box	To create a temporary user, see Creating a temporary user.

Table 45: Security tab in the Users window

Interface element	Description
Access Schedule list	To create an access schedule, see Creating and editing access schedules. To assign an access schedule to a user, see Assigning an access schedule to a user.
Lockout Status pane	The **Lockout Status** pane displays whether or not a user is locked out of the system. To change the number of password entry attempts that a user can have before they are locked out of the system, see Setting the user lockout.
Unlock User button	To unlock a user that entered their password incorrectly, select the user from the **User Accounts** list, and then click **Unlock User**.

Giving a user the ability to change their password

1. From the **User Accounts** list, select a user.
2. In the User Configuration panel, click the **Security** tab.
3. Select the **User May Change Password** check box.
4. Click **Apply**.

Enforcing a user to change their password

1. From the **User Accounts** list, select a user.
2. In the User Configuration panel, click the **Security** tab.
3. Select the **User Must Change Password** check box.
4. Click **Apply**.

Creating a temporary user

1. From the **User Accounts** list, select a user.
2. On the **Security** tab, select the **Temporary User** check box.
3. From the **Access Time Start** and **Access Time End** lists, select a start and end time for the schedule.
4. Click **Apply**.

Assigning an access schedule to a user

1. From the **User Accounts** list, select a user.
2. In the **User Configuration** pane, click the **Security** tab.
3. From the **Access Schedule** list, select a schedule. To create a schedule, see Creating and editing access schedules.
4. Click **Apply**.

Changing passwords

About this task:
A user can change their password in the change password window. The change password window is available only in the following conditions:

- For Full Admin and Power Users.
- If the user has permission to change their password.
- If the system enforces the user to change their password.

For more information, see Security tab in the Users window.

To change your password, complete the following steps:

1. In the **Configuration** pane, select **Change Password**.
2. In the **Current Password** field, enter you current password.
3. In the **New Password** field, enter the new password, and in the **Password Confirm** field, reenter the new password.
4. Click **Apply**.

Systems window

The **Systems** window lists all the servers that connect to the exacqVision system and displays information about each of the servers, as well as any metadata fields that you add to refine a search. For more information on how to add a metadata field, see Working with the system tab. For more information on the **Systems** window, see the following table.

Table 46: Systems window

Interface element	Description
System Name column	Displays the name of the server.
	To view the model number and serial number information of a server, right-click the **System Name** field.
Serial Number column	Displays the serial number of the server.
IP Address column	Displays the IP address and hostname of the server.
Connection Status column	To connect or disconnect a single server from the exacqVision system, right-click the connection status of the server, and then select **Connect** or **Disconnect**.
	If the physical connection between the client computer and the server is interrupted when the server is connected to the exacqVision client, the **Connection Status** field displays **Network Activity Timeout** and the **Status** field displays **Disconnected**.
License column	Displays whether the system has a Start, Enterprise or Professional license, and updates the system's license key. You can update the system's licence key from a file or from text.
	To update a license key, right-click the **License** field and select **Update**, then select **File** or **Update License from text...**. If you select **File**, you can browse to a .KEY file that contains the license information. If you select **Update License from text...**, you can type the license key manually.
MAC Address column	Displays the MAC address of the server.
Version column	Displays the software version that the server is currently using.
	To display additional information about the software version that the system is using, right-click the **Version** field.
Status column	Displays the recording status of the server.
Days column	Displays the number of days that the server stores recorded video.
Import Licenses button	To import a multiple of license numbers from a .CSV file, click **Import Licenses**.

Table 46: Systems window

Interface element	Description
Export Licenses button	To compile a list of the license numbers currently on display in the Systems window, click **Export Licenses**.
Connect All button	To connect multiple servers from the exacqVision system, left-click the connection status of the first server in the list, press Shift and then highlight the other servers. Right-click the highlighted list and then from the menu select **Connect All**.
Disconnect All button	To disconnect multiple servers from the exacqVision system, left-click the connection status of the first server in the list, press Shift and then highlight the other servers. Right-click the highlighted list and then from the menu select **Disconnect All**.
Product Registration button	Opens the exacqVision Product Registration page in a web browser.
Send usage statistics check box	Sends anonymous and non-sensitive information to the manufacturer about how you use exacqVision cameras and features.
Learn More link	Opens a Privacy Policy page in a web browser.

Device window

The **Device** window displays information about compression boards in exacqVision hybrid video servers. The compression board in an exacqVision hybrid video server manages the analogy cameras that connect to the systems. If you install a compression board in an exacqVision server, the **Device Information** pane displays the eDVR device type, and the serial number of the device. For information on the functionality of the **Device** window, see the following table.

Table 47: Device window

Interface element	Description
Device Information pane	Displays the eDVB device type and the serial number of the compression board in an exacqVision server.
Temperature Monitor pane	To set the temperature threshold of the e compression board and link it to an event, select a temperature from the **Threshold** list and then click **Apply**.

Client window

In the **Client** window, you can customize the exacqVision client's settings. For more information, see Table 48 , Table 49, and Table 50.

Settings tab in the Client window

On the settings tab, you can configure the live window settings.

Table 48: Settings tab in the client window

Interface element	Description
Video Panels pane	To modify the window display settings on the **Live** window, see Table 49.
Live pane	To use the on-screen display (OSD) for serial profiles, select the **Use OSD Color for Serial Profiles** check box.
	To display a minimized client when an event occurs that requires user action, select the **Restore Client on User Attention Request** check box.
	To mute all sound when you use the 2-Way Audio feature, select the **Mute during 2-way audio** check box.
	To ensure video panel layouts are not automatically populated when you change to a larger layout, clear the **Auto Fill Empty Video Panels** check box.
	To send audio from the client to the server, select a microphone from the **2-Way Audio** list.
	To ensure that audio, video, and analytics are synchronized, use the **Lip Sync/Video Smoothing** option. The buffering limit is 30 seconds for analytics sync and 5 seconds for audio sync. Select **Enable** from the **Lip Sync/Video Smoothing** list to enable lip sync and video smoothing. Select **Disable** from the **Lip Sync/Video Smoothing** list to disable lip sync and video smoothing. If you select Auto from the **Lip Sync/Video Smoothing** list, lip sync and video smoothing are disabled until you stream audio or display analytics. Buffering only occurs when audio plays or when analytics minimize video delay, if necessary. Buffering always occurs for intermittent video when you select **Enable**. ⓘ **Note:** Video smoothing is automatically enabled if B frames are detected. ⓘ **Note:** If you use PTZ, lip sync and video smoothing are disabled.
Launch New Instance	To launch a new instance of the client, click **Launch New Instance**. Use the arrows to increase or decrease the number of instances you want to open when the client starts.
VGA Acceleration Mode pane	Resolves display issues that the video card causes, by attempting to improve the video refresh rate and other display issues. The availability of the VGA acceleration options varies depending on the video card that you install. This pane shows the current version and type of VGA adapter installed.
Decoding pane	Improves the visual quality of video in the exacqVision client. For more information, see Table 50.
Inactivity Timeout pane	Automatically disconnects live video streams after a set time of inactivity. To set an inactivity time, select the **Enable** check box. In the **Disconnect Live Streams After** field, click the arrows to select the number of minutes and click **Apply**.
24-Hour Clock	This feature is only available on Mac computers.

Table 49: Video Panels pane on the Settings tab

Interface element	Description
Show Sunken Border check box	Decreases the space between video panels.
Show Record Status Border check box	Displays a border around the video panel as recording occurs. The border color indicates the reason for the recording.
Show PTZ Focus Border	Changes the border color of the video panels that are actively accepting keyboard and joystick PTZ commands.
Show On-Screen Display	Displays or removes the name, date, and time stamp of the video. This setting overrides a camera's built-in settings.
Enable All Analytics	Switches the default setting for any camera brought up in Live to come up with the analytics toggle switched on. This setting persists between sessions.
Keep Aspect Ratio During Resize	Maintains the video panel aspect ratio when you increase or decrease the size of the exacqVision client.
Panel Size list	Displays a list of video panel size options for live video.
	To display the video panels using the currently displayed video panel dimensions, select **Content**. If the majority of the video panels on display capture 16x9, all video panels display in 16x9.
	To display the video panels using the dimensions of the **Live** window, select **Window**.
	To display the video panels in 4x3, select **4x3**.
	To display the video panels in 16x9, select **16x9**. If the video panels display in 16x9, the wide screen layout icons are not available.

Table 50: Decoding pane on the Settings tab

Interface element	Description
H.264 Deblocking	To apply deblocking on all cameras that stream video, select **By Device**.
	To apply deblocking on cameras at all times, select **Enabled**. This option can reduce the maximum display frame rate.
	To disable deblocking, select **Disabled**.
GPU Decoding slider	Accelerates video stream decoding. To set the GPU decoding, move the **GPU Decoding** slider and then click **Calibrate**. If multiple instances of the client are open, the GPU is shared between the clients.
Current GPU	Shows the current Graphical Processing Unit (GPU) version installed.
AVCodec Version	Shows the current version of software used to decode video and audio data.

Indicators window

Indicators provide system configuration suggestions to the user when problems arise as they navigate through the system. In the **Indicators** window, you can view and edit indicators. For more information, see the following tables.

Informational notifications display in the upper-right corner of the exacqVision windows. The notifications remain for 5 seconds and are then added to the **Indicators** window. You can select the notification to take immediate action.

Table 51: Indicators window

Interface element	Description
Indicators list	Displays a list of connected exacqVision servers that support the indicators feature.
Indicator Configuration pane	Displays a list of system configuration suggestions. For more information, see Table 52.
Indicator icons list	Displays a list of the current error and warning messages for the server. The number in the lower-right corner of the icon indicates the number of errors and warnings that the system detects.
	To display the Indications icon list, click the Indicator icon in the upper-right corner of the toolbar.

Table 52: Indicator Configuration pane

Interface element	Description
Enabled check box	To activate an indicator message for a server, select the **Enabled** check box.
Image column	Displays an image depicting whether the indicator message is a warning or an error. The image changes automatically when you change the level type of the message in the **Level** column.
Level column	To set an indicator message to Warning or Error, select **Warning** or **Error** from the **Level** list.
	Error messages have a higher priority over warnings.
Dismiss column	Displays a list of options that you can use to edit the indicators settings.
	To remove the indicator for the remainder of the client session, select **Dismiss**. When the client restarts, the indicator displays again.
	To remove all indicators with the same level message, select **Dismiss all of this type**. When the client restarts, the indicator displays again.
	To permanently disable the indicator on the server, select **Disable for this system**.
	To permanently disable the indicator on all systems, select **Disable for connected systems**.

Views window

In the **Views** window, you can create custom views from a combination of cameras from the Cameras, Groups, and Maps lists, and assign views to other users or systems. There are three categories of views. To create a view, see Creating a view. For information on the view categories, see Table 53. For information on the functionality of the **Views** window, see Table 54.

Figure 13: Views window

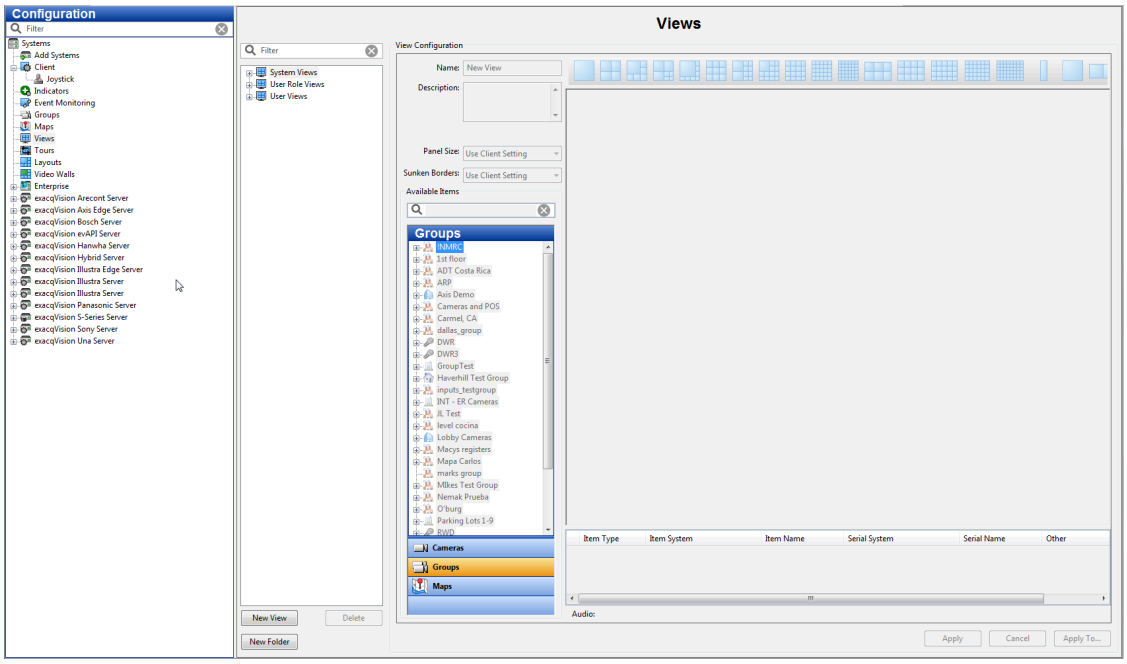


Table 53: View categories

Interface element	Description
System Views	Available to all users that connect to the server.

Table 54: Views window

Interface element	Description
View Category list	Displays the view categories and a list of the views and view folders that you create.
New Folder	Adds a new folder to the View Category list.
Available Items list	Displays a list of items from the Cameras, Groups, and Maps lists.
Item list	Displays a list of items and their servers that the view currently contains.

Creating a view

To create a view, complete the following steps:

1. Select a view category from the **View Category** list and then click **New View**.
2. Enter a name and description for the view in the **View Configuration** area.
3. In the upper part of the **View Configuration** pane, select a video panel layout.
4. To add a device, select it from the **Available Items** list and drag it onto a video panel.
5. Click **Apply**.

Tours window

In the **Tours** window, you can create tours and configure existing tours. To create a new tour, see Creating a new tour. For information on the functionality of the **Tours** window, see the following table.

Figure 14: Tours window

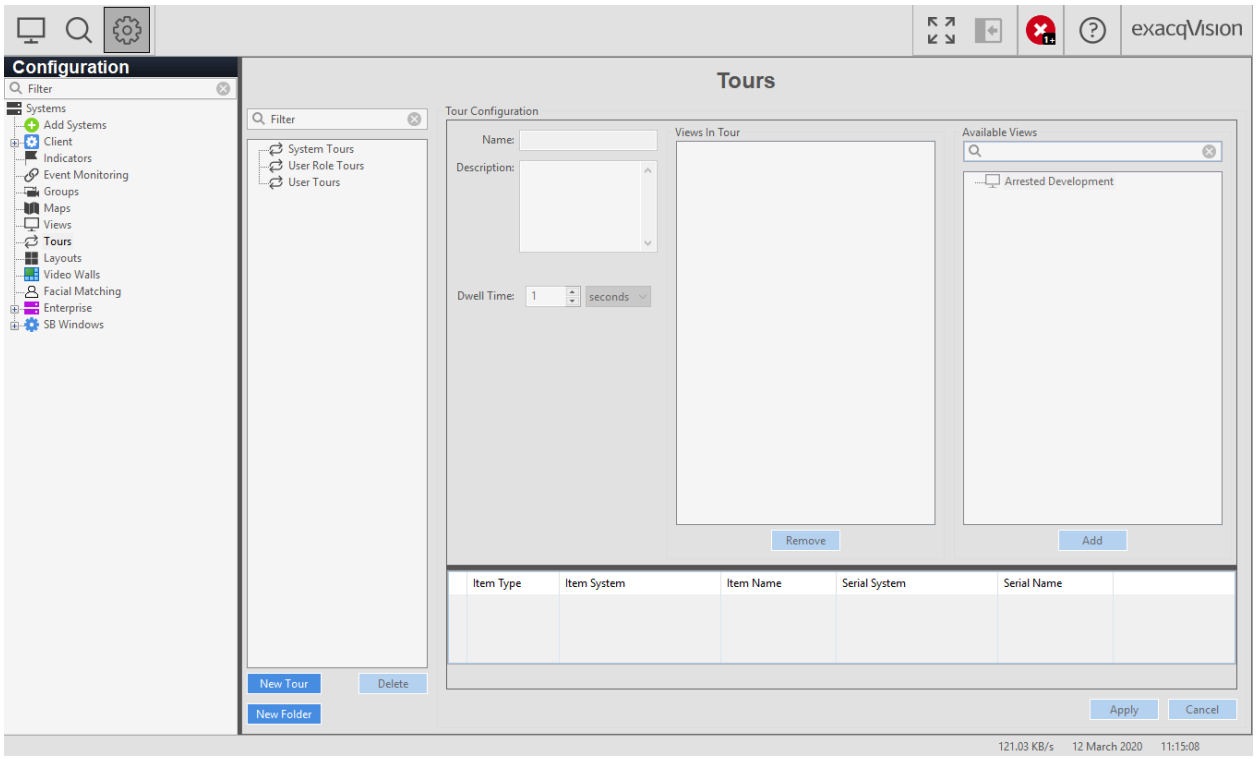


Table 55: Tours window

Interface element	Description
Tours list	Displays a list of existing tours and tour folders.
New Folder button	Adds a new folder to the **Tours** list.
Dwell Time list	The number of seconds that the system displays each view.
Views In Tour list	Displays a list of views in the new tour you are creating, or a list of views from an existing tour.
	To add a view to the **Views In Tour** list, select a view from the **Available Views** list and click **Add**.
	To delete a view from the **Views In Tour** list, select the view in the list and click **Remove**.
Available Views list	Displays a list of views and view folders that you can use to add to a tour.
Item list	Displays a list of items and their servers that the tour currently contains.

Creating a new tour

To create a new tour, complete the following steps:

1. In the **Tours** window, from the **Tours** list, select one of following tour types:
   - **System Tours**
   - **User Role Tours**
   - **User Tours**

   ⓘ **Note:** Depending on the tour type selected, the list of available views vary. For example, if you select **System Tours**, only system views are displayed in the list.

2. Click **New Tour**.
3. Enter a name and description for the tour in the **Tour Configuration** pane.
4. Select a view from the **Available Views** list, and click **Add**. Repeat this step to add more views to the tour.

   ⓘ **Note:** For all tours except system tours, when you drag the first view to the **Views in Tour** pane, the **User Name** field displays the owner of the view. The **Available Views** list contains views that are owned by this user or user role.

5. Select the view from the **Views In Tour** list, and then select a **Dwell Time**.
6. Click **Apply**.

Layouts window

In the **Layouts** window, you can create custom video panel layouts to add to the **Live** window. To create a custom video panel layout, see Creating a custom video panel layout. For information on the functionality of the layout window, see the following table.

Figure 15: Layout window

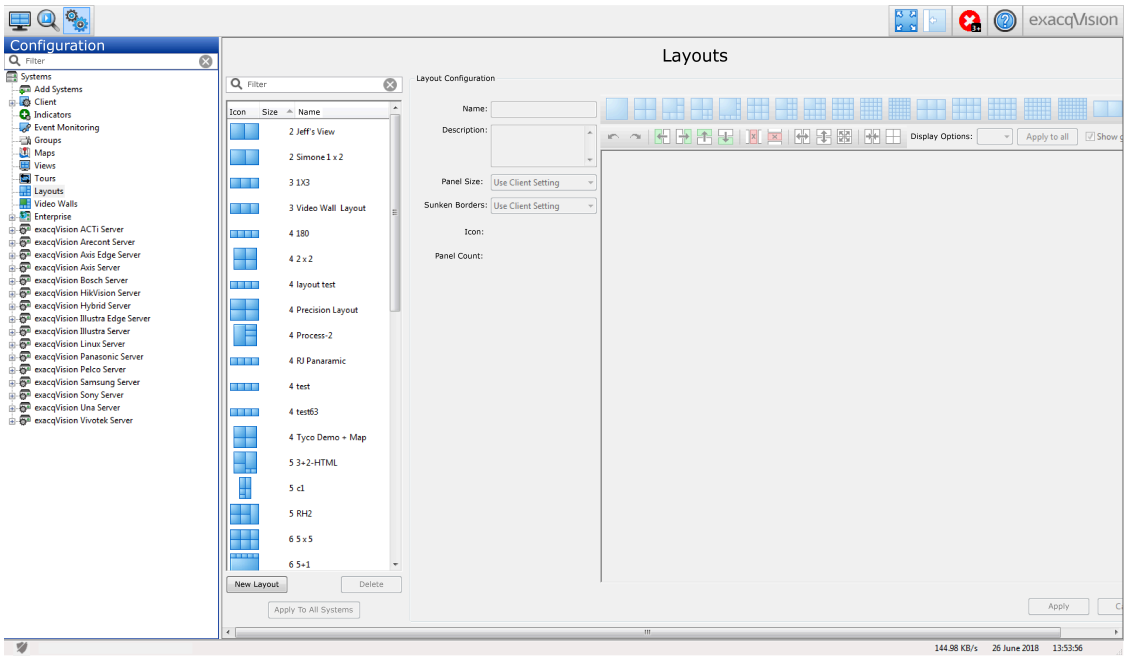


Table 56: Layout window

Interface element	Description
Layout list	Displays a list of custom video panel layouts.
Panel Size list	Displays a list of video panel sizes for the overall layout.
Sunken Borders list	Displays a list of sunken border settings.
	To use the default client settings, select **Use Client Setting** from the **Sunken Borders** list.
Icon area	Displays how the custom layout displays as an icon in the **Live** window.
Panel Count area	Displays the number of video panels that are in the layout. There is a limit of 48 panels in a layout.

Table 56: Layout window

Interface element	Description
Configuration icons	To obtain a description of the function of each **Configuration** icon, hover the cursor over the icon. The icons do not become active until you select one or more video panels.
Display Options list	To select a display option for a video panel, select the video panel and then select a display option from the **Display Options** list.
	To apply a display option to all video panels, select a display option from the **Display Options** list and then click **Apply to all**.
Show gridlines check box	Compares the video panel sizes.

Creating a custom video panel layout

To create a custom video panel layout, complete the following steps:

1. In the **Layouts** window, click **New Layout**.
2. In the **Layout Configuration** area, enter a name and description for the layout.
3. From the **Panel Size** list, select a size for the entire layout.
4. In the upper part of the **Layout Configuration** pane, select a layout option that closely resembles the custom layout you want to create.
5. Select one or more video panels.

   ⓘ **Note:** To select a multiple of video panels, press Ctrl and then select the video panels.
6. Using the **Configuration** Icons, complete one or more of the following actions:
   - To merge two panels, select the corner of a video panel and drag it into another video panel.
   - To delete a video panel, right-click the video panel and then click **Delete**.
   - To split a video panel, right click the video panel and then select Split.
7. Click **Apply**.

Facial matching window

Use facial matching to manually register faces on the facial matching database or register faces from events in the search window.

ⓘ **Note:** You must configure a Tyco AI server to use facial matching.

- To manually register faces on the facial matching database, see Registering faces on the facial matching database.
- To register faces from events in the search window, see Manually registering faces in the search window.

Table 57: Facial matching window

Interface element	Description
Person Configuration	Add or edit a person's name and description on the database. Select a Classification from the list.
Persons list	Displays a list of persons registered in the facial matching database.

Table 57: Facial matching window

Interface element	Description
Add Person	To add a person to the facial matching database, click **Add Person**.
Delete Person	To delete a person from the facial matching database, click **Delete Person**.
Merge	To merge entries in the facial matching database, select more than one entry and click **Merge**.
Unmerge	To separate a merged entry that represents one person, click **Unmerge**.
Case Search	To search recorded video and confirm a person's identity, select a person in the **Persons** list and click **Case Search**.
Bookmark Search	To view an event associated with a person, expand an entry in **Persons**, select a bookmark entry, and click **Bookmark Search**.
Apply	Click **Apply** to save all changes on the **Facial Matching** page.

Registering faces on the facial matching database

Use this feature to manually add one or more images of a person to the facial matching window.

Before you begin:
Save one or more images of the person on your local system.

1. In **Configuration**, click **Facial Matching**.
2. In the **Facial Matching** window, click **Add Person**.
3. Enter a name and a brief description.
4. From the **Classification** list, choose one of the following options:
   - **None**
   - **Person of Interest**
   - **Guest**
   - **Loyalty Customer**
   - **Employee**
   - **Trespasser**
5. Click **Add Image** and browse to the image that you want to register.
   You can add more than one image.
6. Click **Apply** to register the person in the **Persons** list.

Manually registering faces in the search window

Use the Tyco AI server to register faces in recorded video and record details in the facial matching page.

1. Click **Search Page**.
2. Click the **Tyco AI** server.
3. Select a camera and complete a timeline search.
4. Click **Pause** on the video when you want to register a face.
5. Select **Manual Registration** in the toolbar.
6. Click the **Person** icon.

Choose one of the following options:

a. Click the **Add a new Person** to open the **Register as** dialog box, to register a new person.
   i. In the **Register As** dialog box, select a **Classification** option.
   ii. If registration is successful, select **Navigate to Facial Matching page** to record further details. If registration is not successful, complete the search and identify the face again.
b. Click the **Add to Existing Person** button to update an image for an existing registered person.
   i. In the **Persons** list, select the user.
   ii. From your local system, select the image that you want to upload. Click **Select**.
   iii. Click **Apply**.

What to do next:
Record the name and description associated with the face in the **Facial Matching** page. See Facial matching window for more information.

Remote connections window

In the remote connections window, you can enable and disable remote connectivity, generate codes for mobile app users to connect to exacqVision servers, and generate optimized streams for mobile or remote devices.

Remote connectivity

On the remote connectivity tab, you can generate one-time security codes for remote user access authentication. You can also see which connected systems support remote connectivity, and enable or disable remote connectivity for connected systems.

Enabling remote connectivity

1. From the navigation tree, select **Remote Connections**.
2. On the **Remote Connectivity** tab, in the system window, select the systems that you want to enable connectivity for.
3. Click **Enable Remote Connectivity**.

   ⓘ **Note:** When you enable remote connectivity, the system creates mobile-optimized streams for supported cameras. For more information, see Mobile optimized streaming.
4. To disable remote connectivity, select a system, then click **Disable Remote Connectivity** > **Disable**.

   ⓘ **Note:** If you disable remote connectivity, connected remote users will not be connected to the system.

Generating codes

1. From the navigation tree, select **Remote Connections**.
2. On the **Remote Connectivity** tab, in the system window, select the systems that you want to generate codes for.
3. In **Generate codes for selected systems**, set the number of codes you want to generate, then click **Generate Codes**.

   ⓘ **Note:** If you generate a code for multiple systems, the user connects to all of those systems when they use the code. Each code is single use, and limited to one user.

What to do next:
To send a code to a user, use a method of your choice, such as email or text message.

Mobile optimized streaming

On the mobile optimized streaming tab, you can generate lower resolution streams for use in mobile devices. The **Video Stream Configuration** pane displays a detailed list of all cameras. To filter the list by server name, you can use the **Filters** tree on the left side of the tab.

Generating streams

1. From the navigation tree, select **Remote Connections**.
2. On the **Mobile Optimized Streaming** tab, in the system window, select the cameras that you want to generate streams for.

   ⓘ **Note:** You can create optimized streams for cameras listed as `Not Optimized` in the **Optimized Stream** column.
3. Click **Generate Streams**. A check mark in the **Optimized Stream** column denotes an optimized stream.

System Information window

In the system information window, you can view information about the current users that are logged on to the system, the plugin file version information, and the system log. For for more information, see the following table.

Table 58: System information window

Interface element	Description
System Usage pane	Displays the current users that are logged on to the system, the users' access level, IP address, and the number of streams they view.
Version Information pane	Displays the name, filename, software version, status, and log level for each system file. Right-click a system file to change the log level. To select multiple entries, press Ctrl and click multiple system file entries.
System Log tab	To search the system log, see Searching the system's log.
	To sort the **Displaying records** list click any of the column headings in the list.
	To open the system log with a text editor, click **Export**.
	To apply a time limit to the number of days you want the system to save an entry in the system log, select the number of days from the **Maximum Days Storage** list, and then click **Apply**.
Generate button	Click this button to generate a PDF report that contains information about the setup of the system's cameras and security integrations. You can select the file format and the information that you want to include in the report. For more information, see Generating a report.

Searching the system's log

1. On the **System Log** tab in the **Search** area, select a start date and time, and then select and end date and time.
2. From the **System Log Level** list, select the type of message that you want to search for in the system's log.
3. Click **Search**.

Searching the audit log

The audit log includes details about actions such as date and time, username, action type, for example fast forward, and camera source. In the **Details** field, you can see the duration of the action.

1. On the **Audit Trail** tab in the **Search** area, select a start date and time, and then select an end date and time.
2. Click **Search**.
3. **Optional:** To filter the records that display, enter the term to search and filter on.

Generating a report

To generate a report on the system's cameras, associations, and security integrations, complete the following steps:

1. In the **System Information** window, click **Generate Report**.
2. In the **Title** field, type name for the report.
3. From the **Items** and **Columns** lists, select the system features that you want to include in the report.
4. From the **Sort By** list, select how you want to sort the report.
5. From the **Sort** area, select one of the following options:
   - **Ascending**
   - **Descending**
6. Choose the type of report that you want to generate. Click **Generate PDF** or **Generate CSV**.

Configuring Axis body worn Cameras

About this task:
Exacq supports Axis Body Worn Cameras. Users registered in the Axis Body Worn Manager will appear under Name in the Body Worn Cameras window. As the camera sends information to Exacq, the Time and Status columns will be populated with relevant information. To configure body worn cameras on your system, complete the following steps:

1. From the **Configuration** page, under **Configure System**, click **Body Worn Camera**.
2. Select the **Enable** check box.
3. In the **Manager IP Address** box, enter the IP address of the body worn manager.
4. From the **Listening Address** list menu, select the IP address.
5. In the **Listening Port** box enter the port number.
6. In the **Username**, **Password** and **Password Confirm** fields, enter your credentials for the Body Manager.
7. Click **Apply**. Your details are sent to the server and a JSON configuration file is generated.
8. The **Save Config** window appears with the created configuration file visible within. Click **Save**.
9. The **Next Steps** dialog box appears. Open the generated configuration file and replace the placeholder `WSUserName` and `WSPassword` strings with the credentials set during configuration.
10. Upload the file to the Axis Body Worn Manager and delete the file from your machine.

User details in body worn cameras window

Body worn camera wearers registered in the a body worn camera software applications are displayed in the body worn cameras window. When the camera sends information to exacqVision, the time and status columns are populated.

You can search for the users in the search window. For more information, see Search window overview.

Live window

In the **Live** window, you can do the following:

- View and manage your cameras, groups, maps, and websites.
- Replay video using exacqReplay.

Opening the live window

1. Click the **Live** window icon in the toolbar. By default, the configured cameras display in the order that they were added to the server.
2. Click **Live Cameras** to alternate between ascending and descending order. Click again to return to the default sorting order.

Functions of the live window

The following table provides an overview of the functions of the icons in the **Live** window.

Table 59: Live window icons

Icon	Name	Description
	**Layout**	You can use the **Layout** icons to change the layout of the video panels. For more information, see Video panels.
	**PTZ Controls**	You can use the **PTZ Controls** icon to access the controls for PTZ cameras. For more information, see PTZ cameras.
	**Full screen mode**	You can use the **Full screen mode** icon to hide the Navigation tree and toolbar, and enlarge the video panels to fit the screen.
	**Navigation**	You can use the **Navigation** panel icon to hide or expand the Navigation tree.
	**Help**	You can use the **Help** icon to open the context sensitive help.

Video panels

A video panel displays live or recorded video, and captured images from a camera or other devices. In the **Live** window, you can use the **Layout** icons on the toolbar to change the layout of the video panels. When you select a layout from the toolbar, the system automatically populates the video panels with the cameras in the navigation tree. This layout also becomes the default layout for the video panels. The available **Layout** icons vary depending on the number of cameras you connect and the width of the exacqVision client window. To create a custom layout, see Creating a custom video panel layout. For information on the functions of video panels, see the following table.

Table 60: Video panel functions

Function	Description
Populating video panels	To populate a single video panel, drag and drop a camera from the navigation tree into a video panel. The panel can be empty or displaying video.
	To populate all the video panels with cameras, double-click a camera in the navigation tree. The camera appears in the upper-left panel, and the rest of the panels populate with the next cameras in the list. You can also drag and drop a server into a video panel to populate the video panels with the cameras in that server.
Opening a camera's settings	To access the camera's settings, right-click the video panel and select **Properties**.
Deleting a camera	To delete a camera from a video panel, right-click the panel and select **Disconnect Video**.
Saving an image	To save an image in a video panel, right-click the panel and select **Save Image As...** or **Save Image**.

Performing a quick search in the Live window

To perform a quick search in the **Live** window, complete the following steps:

1. From the navigation tree, drag the camera or cameras that you want to search into the video panels.
2. Right-click a video panel and select **Search**.
3. Choose one of the following options:
   - **Video** Searches the camera in the video panel you select.
   - **Layout** Searches all the cameras in the video panel layout.
4. The **Search** window opens and plays the last two hours of video from the camera or cameras you select. For more information on searching video, see Search window overview.

Accessing a View

About this task:
In the **Live** window, you can access existing views and tours that you create in the **Views** window, and create additional views. To create a view in the **Live** window, see Creating a view in the Live window. To create a view or tour in the **View** window, see Creating a view and Creating a new tour.

To access a view or tour, complete the following steps:

1. In the **Live** window, click **Views**.
2. From the navigation tree, double click the view or name of the tour.

   ⓘ **Note:** To display the names of the cameras and servers that are in the view or tour, place the cursor over the view's name in the navigation tree.

Creating a view in the Live window

To create a view in the **Live** window, complete the following steps:

1. In the **Live** window, select a camera layout from the toolbar.
2. From the navigation tree, drag the devices that you want into the video panels.
3. From the navigation tree, click **Save View**.

4. Enter a name and description of the view in the **Save View** window, and then click **Save**.

PTZ cameras

A Pan-tilt-zoom (PTZ) camera is a camera that you can physically adjust remotely. You can control a PTZ camera with joystick or by using a camera.

To control a PTZ camera, place the cursor over the camera's video panel to display the PTZ camera controls, or use the **PTZ Control panel** window by clicking on the **PTZ Control** icon from the toolbar. For information on the functionality of the **PTZ Control panel** window, see the following table.

ⓘ **Note:** The **PTZ Control** icon appears in the toolbar only when a PTZ camera displays in a video panel in the **Live** window.

User-initiated PTZ commands have priority over event linking PTZ commands, and both have priority over PTZ preset tours. If two or more PTZ commands occur simultaneously, the command with the highest priority occurs and the other commands are ignored for a set time. You can set the Resume Time on the **Mechanical PTZ** tab in the **Camera Settings** window. For more information, see the following table.

Table 61: PTZ Control panel window

Interface element	Description
Presets list	Displays a list of saved views for PTZ cameras.
	To apply a preset to the camera, select a preset from the **Presets** list.
Pan/Tilt area	Adjusts the direction and direction speed of the camera.
Zoom area	Adjusts the zoom and zoom speed of the camera.
Iris area	Adjusts the iris of the camera. The **Iris** area is only available on some cameras.
Enable Tour button	Activates PTZ preset tours. This button is available only for users with PTZ admin permissions.
Focus area	Adjust the focus of the camera. The **Focus** area is only available on some cameras.

Digital PTZ cameras in the Live window

A digital PTZ camera does not physically move, but can zoom and navigate the camera's view. To activate the controls for a digital PTZ camera, right-click the video panel and select **Digital PTZ**.

ⓘ **Note:** To adjust a digital PTZ camera, you must enable Digital PTZ when setting up the system. For fish-eye cameras, a **Fisheye** menu to de-warp video replaces the Digital PTZ option.

Zooming in on live video

About this task:
You can use the area zoom feature to zoom in on a specific area of live video. The area zoom feature is only available on some cameras.

To zoom in on live video, complete the following steps:

1. In the **Live** window double-click the video panel that you want to zoom.
2. Press and hold Ctrl.

   ⓘ **Note:** The cursor changes to a Magnifying glass icon.

3. Left-click the video panel and drag the magnifying glass diagonally until you have drawn a box around the area you want to enlarge. When you release the cursor, the camera zooms into the box.

Search window

In the **Search** window, you can search and playback recorded video, audio, and events from cameras, groups, and maps using the following search methods:

- Timeline search.
- Thumbnail search.
- List search.
- Smart search.
- Serial list search.

ⓘ **Note:** The smart search feature is not available in exacqVision Start.

In the **Search** window, you can also search bookmarks and export files. When you perform a search, the camera or device's names display in the timeline. The recording bars display in different colors to represent the different modes of recorded video. For details on what the colors indicate, select the **Show/Hide Legend** check box below the **Search Range** area.

Search window features

The following table provides an overview of the search window features and associated icons.

Table 62: Search window icons

Icon	Name	Description
	**Timeline Search Mode**	You can use the **Timeline Search Mode** icon to search cameras, groups, maps, views, audio, or events within a specified time range.
	**Thumbnail Search Mode**	You can use the **Thumbnail Search Mode** icon to scan video from a single camera and capture thumbnail images from a specified interval of time. For more information, see Performing a thumbnail search.
	**List Search Mode**	You can use the **List Search Mode** icon to create a list of cameras, devices, and events by using defined search criteria. For more information, see Performing a list search.
	**Save Picture**	You can use the **Save Picture** icon to save captured video images.
	**Export**	You can use the **Export** icon to export video, audio and serial data from the system. For more information, see Exporting video files.
	**Print**	You can use the **Print** icon to print saved video images.
	**Burn CD/DVD**	You can use the **Burn CD/DVD** icon to burn saved files to a CD or DVD. For more information, see Burn Disc window.

Table 62: Search window icons

Icon	Name	Description
	**Manage Files**	You can use the **Manage Files** icon to open the **Manage Files** window where you can open, save, and delete content that you export from a file directory. For more information, see File Manager window.
	**Show/Hide Legend**	Shows and hides the timeline legend.
	**Show/Hide Keywords and Serial Data**	Shows and hides the Keywords pane.

Performing a timeline search

A timeline search can search cameras, groups, maps, views, audio, or events within a specified time range.

1. In the **Search** window, click the **Timeline Search Mode** icon.
2. From the navigation tree, select the items you want to search.
3. In the **Search Range** area, select a date and time to start and end the search.

   ⓘ **Note:** The default time duration between the start and end time is two hours. If you change the start time, the end time adjusts to keep the set duration.
4. Click **Search**.

Performing a thumbnail search

A thumbnail search scans video from a single camera and captures thumbnail images from a specific interval of time. You can use a thumbnail search to search cameras, and cameras in groups and maps.

ⓘ **Note:** You can perform a thumbnail search only when you connect to exacqVision server that is using exacqVision software version 4.9 or higher.

1. In the **Search** window, click the **Thumbnail Search Mode** icon.
2. From the navigation tree, select a camera.
3. In the **Search Range** area, select a date and time to start and end the search.
4. Click **Search**. When you complete a thumbnail search, orange lines display in the timeline to indicate the capture time of each thumbnail.
5. Choose from the following search functions:
   - To play video starting from a thumbnail, double-click the thumbnail or click the thumbnail's **Play** icon.
   - To make a thumbnail the center point of a search, click the **Plus** or **Minus** icons.
   - To display more or less thumbnail images, select a **Layout** icon from the toolbar.

Performing a list search

In a list search, you define the search criteria, such as the time period or event type, to create a list of cameras, devices, and events.

Note: The list search option is only available in exacqVision software version 7.2 or higher.

1. In the **Search** window, from the toolbar, select the **List Search** icon.
2. From the navigation tree, select one or more cameras, devices, or events.
3. In the **Search Range** area, select a date and time to start and end the search.
4. Click **Search**.
   The **Source** list displays a list and images of all the events that took place within the search range.
   - To play an event, double-click the event in the timeline.
   - To open the **exacqReplay** window to replay the event, highlight an event and press **Enter**.
   - Use the **Image Size** pane to adjust the image size in the **Source** list. To adjust the image size, move the slider towards **Larger**.
5. In the **Result Filters** pane select one of the check boxes to filter the source information.
   - To display events that are not motion or alarm events, select the **Events** check box.
   - To display motion events, select the **MOTION** check box. Motion events display in the timeline in blue.
   - To display alarm events, select the **ALARM** check box. Alarm events display in the timeline in red.

Video playback

After you perform a search, you can playback video using the video playback control panel. By default, the system selects all the cameras that you search for video playback. For information on the functionality of the Video playback control panel, see the following table.

Table 63: Video playback control panel

Interface element	Description
Timeline	To disable or activate a camera for video playback, click the camera name.
	The video bars in the timeline change color to indicate how much video has downloaded. You can view information on the video download colors in the **Legend** area.
	To remove the downloaded video, right-click the timeline and select **Clear All Cache** or **Clear Selected Item(s) Cache**.
Video Panel	To display a single camera, double-click the video panel of the camera you want to display. To return to a multi-camera view, double click the video panel again.
Cursor line	After the video or videos download, you can quickly scan the video by moving the cursor left or right.
Play icon	To play video at a specific interval, in the timeline double-click the video bar at the time you want, and then click the **Play** icon.
Event Forward and **Event Back** icons	Click **Event Forward** to move to the end of an event. Click **Event Back** to move to the start of an event. **Note:** An event is any block of recording excluding continuous recording. If you complete a multiple camera search, playback starts at the next event for another camera.
Stop icon	Stops the video downloading. To stop video from downloading, click the **Stop** icon. You can still view all the video that downloads before you click the **Stop** icon.

Video playback and Point of Sale

When you play back video associated with Point of Sale (POS) data, the video synchronizes with the data when it plays. The POS data displays next to the video panel. If you search from more than one device, each device displays on a separate tab.

ⓘ **Note:** Unprintable characters automatically delete from the data display.

Identifying event motion in video playback

About this task:
On analog cameras, you can locate an area of a camera's viewpoint to identify the cause of an event trigger. This feature can be useful when it is difficult to determine the cause of the event, such as a branch of a tree blowing in the wind.

To identify the event, complete the following step:

1. Right-click the video panel and then select **View Motion**. A blue box marks the area where the motion is occurring. You can remove the blue box by right-clicking the video panel again and selecting **View Motion**.

   ⓘ **Note:** This feature is available only on some cameras.

Completing a view search

You can use a view search to search video from a custom view.

1. In the **Search** window, select **Views**.
2. From the navigation tree, select the views you want to search. To identify what cameras are in a view, hover the cursor over the view in the navigation tree.
3. In the **Search Range** area, select a date and time to start and end the search.
4. Click **Search**.

Performing a serial search

You can perform a serial search to search devices for events that are linked to keywords or rules. For information on how to create a keyword or rule, see Creating a rule for serial data string searches.

This feature is only available for servers that support serial devices.

1. Select the device from the navigation tree.
2. In the **Search Serial** field, enter a keyword.
3. **Optional:** To modify a rule or keyword, click the **Pencil** icon.
4. In the **Search Range** area, select a date and time to start and end the search.
5. Click **Search**. All occurrences of the key word or rule during the time range displays on the timeline in red. Associated video displays in blue.

Performing a keyword search

You can use a keyword search to search devices on a server for a keyword. This feature is only available for servers that support security integrations.

1. Select the device from the navigation tree.

2. In the **Search Keywords** field, enter a keyword.

   ⓘ **Note:** If you select both a serial and security integration device, the **Search Serial** field also displays. For more information, see Performing a serial search.

3. **Optional:** To modify the keyword conditions, click the **Pencil** icon.
4. In the **Search Range** area, select a date and time to start and end the search.
5. Click **Search**. The search results display on the right-side of the video panel. To deactivate the system from recording a keyword, see Deactivating keywords.

Analytic search

An analytic overlay represents an area where the camera identifies an analytic event, such as Object Entered, Object Exited, and Face Detection. You can use an analytic metadata search to search for events based on preconfigured analytics. To perform an analytic metadata search, see Performing an analytic metadata search.

ⓘ **Note:** To configure the analytics for a camera, go to the camera's analytic web page.

Performing an analytic metadata search

1. From the navigation tree, select the analytic overlays that you want to search.
2. In the **Search Range** area, select a date and time to start and end the search.
3. **Optional:** To refine the search, select the **Show Filters** check box.
4. Click **Search**. The search results display on the right-side of the video panel.

Table 64: Keyword/Analytic Conditions pane

Interface element	Description
Source list	Use the **Source** list to limit the search to one keyword.
Key list	You can use the **Key** list to refine the search by selecting an object ID, or drawing a bounding box around the area you want to search.
	To create a bounding box, from the **Key** list select **Bounding Box**, and then drag the cursor diagonally on the video panel until you have drawn a box around the area where you want to search. When you configure analytics that exist for colors of objects on the camera, the colors from the camera display in small circles above the bounding box in the live and search pages.
Value field	Searches by the value number.

Facial matching options in the search window menu

When you right-click, a search result generates a pop up menu with several options including properties, save image, and print image. Depending on the contents of the selected analytics, additional menu options may be available:

- **Configure Face:** This option is available if a face is matched with a high confidence to an existing person. Selecting the Configure Face option opens the Facial Match window with the matched person highlighted.
- **Confirm Face:** This option is available if a face is matched with low confidence. Selecting the Confirm Face option auto-merges the face with the best match person.

- **Register as New Face:** This option is available if a face is not matched to an existing person. Selecting the Register Face option allows the user to specify a name and classification and register the face as a new person.

Search using the keyword analytic filters

1. Select the search parameters that you want to run. Click the **Show/Hide keywords and serial data** icon.
2. Select the **Show filters** check box.
3. From the **Keyword/Analytic/Filters** list menu, select **New Filter**.
4. From the treeview select the check boxes for the search criteria that you want to use. The server pulls the keywords from the database to display them in the list menu.
5. **Optional:** To create a custom search, click the keyword label to open the **Keyword** dialog and create a custom search value that you can add to the search filter values.
6. Click **Search** to begin the search.
7. Choose from the following options:
   - Click **Save** to the search filter for future use.
   - Click **Save as** to save the search and rename it.
   - Click **Delete** to remove a saved filter.
   - Click **Revert** to revert the tree selections to the stored value for the current filter.

Exporting video files

You can export files from up to 16 cameras with a Professional or Enterprise license. With a Start license, you can export files from a single camera.

To export a video file, complete the following steps:

1. In the **Search** window, perform a search. For information on how to perform a video search, see Search window overview.
2. In the **Timeline** pane, locate the start of the video clip on the timeline, then right-click the timeline and select **Mark Start**.
3. Adjust the cursor lines to mark the start and end of the video clip.

   ⓘ **Note:** The green cursor marks the beginning of the video and the red cursor clip marks the end of the video.
4. **Optional:** To select a specific area of video to export, click the **Crop Export** icon, and then select an area of video to export.

   ⓘ **Note:** This option is only available if you select a single camera for video playback.
5. Click the **Export Video** icon from the toolbar.
6. In the **Export Video** window, enter a file name.
7. Select a file location and file type, and then click **Save**.

   ⓘ **Note:** The default file type is .exe (a standalone executable file). You can launch an .exe file in a player, which can be run by a user who does not have access to the exacqVision client. You can also select a .psx, a packaged .ps, a .avi, a .avi, a .mov, and a mp4 file format.

   If the system disconnects during an export process, the export process automatically resumes after the system reconnects.

8. **Optional:** When generating .exe and .psx files, you are prompted to select an encryption method. In the **Encryption** window, select one of three encryption methods:
   - **None:** The files will be saved without encryption and will be readable by current and legacy versions of ePlayer.
   - **Default:** Default encryption is not password protected. A hard-coded key is used to encrypt or decrypt the ps/psi data.
   - **AES256GCM:** AES256GCM encryption uses a user password to encrypt or decrypt the ps/psi data.
9. Enter and confirm your password.
10. Click **Select** to confirm, or **Cancel** to exit.

Export players

You can download players using the following links:

- 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

You can download codecs using the following links:

- 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 https://www.apple.com/hk/en/quicktime/resources/components.html
- Perian Codec for Quicktime http://www.perian.org

See the following table for information about various operating systems and compatible file formats.

Table 65: QuickTime and AVI file export players

Video File Format	Windows Players		Linux Players		Mac Players	
	WMP [1]	VLC	MPlayer	VLC	QuickTime Player [2]	VLC
AVI[3] MJPEG	Yes	Yes	Yes	Yes	Yes	Yes
AVI[3] MPEG4	Yes	Yes	Yes	Yes	Yes[4]	Yes
AVI[3] MPEG4 with ASP	Yes	Yes	Yes	Yes	Yes [4]	Yes
AVI[3] H.264	Yes	Yes	Yes	Yes	Yes [4]	Yes
AVI[3] H.265	H.265 is not supported by the AVI format.					
MOV MJPEG	Yes	Yes	Yes	Yes	Yes	Yes
MOV MPEG4	Yes	Yes	Yes	Yes	Yes	Yes

Table 65: QuickTime and AVI file export players

Video File Format	Windows Players		Linux Players		Mac Players	
	WMP [1]	VLC	MPlayer	VLC	QuickTime Player [2]	VLC
MOV MPEG4 with ASP	Yes	Yes	Yes	Yes	Yes [4]	Yes
MOV H.264	Yes	Yes	Yes	Yes	Yes	Yes
MOV H.265	Yes	Yes	Yes	Yes	No	Yes
MP4 MJPEG	No	Yes	Yes	Yes	No	Yes
MP4 MPEG4	Yes	Yes	Yes	Yes	Yes	Yes
MP4 MPEG4 with ASP	Yes	Yes	Yes	Yes	Yes [4]	Yes
MP4 H.264	Yes	Yes	Yes	Yes	Yes	Yes
MP4 H.265	Yes	Yes	Yes	Yes	No	Yes

1 Windows Media player does not support Exacq subtitles.
2 QuickTime only supports Exacq subtitles within a mp4 container.
3 Exacq does not support subtitles for the AVI container format. This is a limitation of the format.
4 Requires an additional decoder DivX or 3ivx.

Saving and burning files to a CD or DVD

You can use the **Burn Disc** window to burn files to a CD or DVD.

ⓘ **Note:** If you do not have a CD or DVD burner on your computer, the **Save to CD** or **DVD** icon is not available.

1. From the toolbar, click the **Save to a CD or DVD** icon from the toolbar to open the **Burn Disc** window.
2. To edit the discs name, click **Edit Disc Name**.
3. From the **Available Files** list, select a video clip and click **Add**.
4. To start the disc burning process, click **Burn Disc**, and then click **Burn**.

File manager window

In the **File Manager** window, you can view, open, save and delete content that you export from a file directory. This feature is useful for system users that have access restrictions, and for computers that do not have suitable media drives to burn discs.

1. In the toolbar, click the **Manage Files** icon to open the **File Manager** window.
2. To open a file from the directory, select the file from the Directory File list and then click **Open**.

3. To save a file from the directory, select the file from the Directory File list and then click **Save**.
   - To change the directory, click **Change Directory...**.
   - To delete a file from the directory, select the file from the Directory File list and then click **Delete**.

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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Web: www.exacq.com

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 CE 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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