

AXIS Camera Station

User Manual

About This Document

This manual is intended for administrators and users of AXIS Camera Station, and is applicable for software release 5.0 and later. It covers configuration of AXIS Camera Station Server and AXIS Camera Station Client as well as instructions for using and managing AXIS Camera Station on your network. The latest version of this document will be available on www.axis.com. See also the product's help pages.

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Legal Considerations

Video and audio surveillance can be regulated by laws that vary from country to country. Check the laws in your local region before using this product for surveillance purposes.

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Support

Should you require any technical assistance, please contact your Axis reseller. If your questions cannot be answered immediately, your reseller will forward your queries through the appropriate channels to ensure a rapid response. If you are connected to the Internet, you can:

- download user documentation and software updates
- find answers to resolved problems in the FAQ database. Search by product, category, or phrase
- report problems to Axis support staff by logging in to your private support area
- chat with Axis support staff
- visit Axis Support at www.axis.com/techsup/

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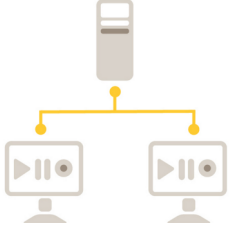
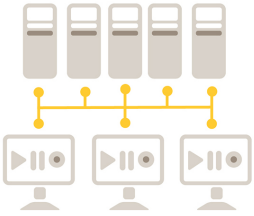
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System Recommendations

System Recommendations

System recommendations for AXIS Camera Station. Hardware requirements are strongly dependent on the number of cameras.

For the latest information, recommendations for different system sizes and supported operating systems, see the hardware guidelines and release notes available at <http://www.axis.com/products/axis-camera-station/hardware-guidelines>

<p>Small system</p> <p>System size: Up to 100 Mbit/s.</p> 	<p>AXIS Camera Station client & server</p> <p>OS: Windows® 8.1 Pro 64-bit, Windows® 10 Pro 64-bit</p> <p>CPU: Intel® Core™ i5 2.9 GHz or above, such as Intel Core i5-4590 Quad Core 3.3 Ghz</p> <p>RAM: 8 GB, DDR3-1600</p> <p>Graphics card: 1 GB dedicated video memory, such as NVIDIA GeForce GTX 750 1 GB</p> <p>Hard drive: SATA 6 Gb/s 7200 RPM Enterprise Class – Up to 48Mbps per drive for optimal performance</p>
<p>Large system</p> <p>System size: Up to 256 Mbit/s.</p> 	<p>AXIS Camera Station client</p> <p>OS: Windows 8.1 Pro 64-bit, Windows 10 Pro 64-bit</p> <p>CPU: Intel Core i7, such as Intel Core i7-4770 Quad Core 3.4 Ghz</p> <p>RAM: 8 GB, DDR3-1600</p> <p>Network: 1 Gbps</p> <p>Graphics card: 1 GB dedicated video memory, such as GeForce GTX 750 1 GB</p> <hr/> <p>AXIS Camera Station server</p> <p>OS: Windows 8.1 Pro 64-bit, Windows 10 Pro 64-bit</p> <p>CPU: Intel Core i7, such as Intel Core i7-4770 Quad Core 3.4 Ghz</p> <p>RAM: 8 GB, DDR3-1600</p> <p>Network: 1 Gbps</p> <p>Hard drives: SATA 6 Gb/s 7200 RPM Enterprise Class – Up to 48Mbps per drive for optimal performance</p>
<p>Multi-server system</p> <p>System size: Above 256 Mbit/s</p> 	<p>All systems with higher performance requirements should use multiple servers. Add more AXIS Camera Station servers and divide bandwidth load equally per server, each within the specifications for small and large systems.</p>

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System Recommendations

Note

- Use the latest graphics card drivers.
- Use latest service pack from Microsoft.
- Additional monitors may require extra processing power.
- For multi-screen support (up to 3 monitors per graphic card) or multi-4K stream support, it is recommended to use graphic cards with more dedicated video memory than 1 GB (HDMI 2.0 or Display Port 1.2 support required). For example, NVIDIA GeForce GTX 950 2 GB or NVIDIA Quadro K1200 (for 24x7 operation).
- Allowing Windows Updates to download and install automatically may downgrade network performance and cause the system to reboot, which can corrupt the AXIS Camera Station database. Make sure to disable automatic Windows Updates.

AXIS Camera Station

Overview

Overview

AXIS Camera Station is a monitoring and recording system for small and midsize installations, such as retail shops, hotels, manufacturing sites and schools. AXIS Camera Station is a video management software optimized to take full advantage of Axis network cameras and video encoders, and combines easy installation and intuitive operation with powerful features for effective video investigation.

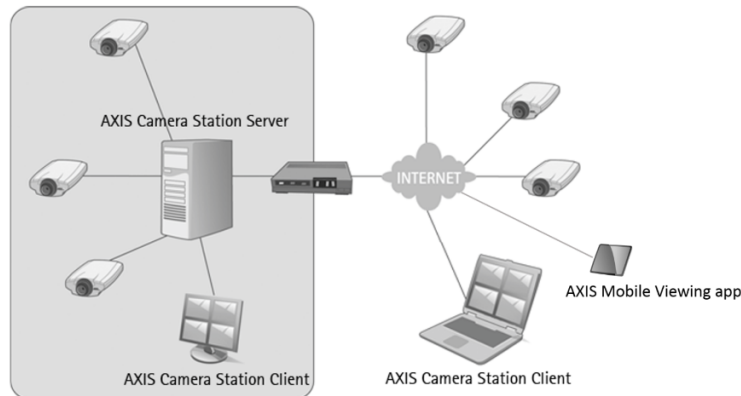
In addition to the computer client, you can monitor your surveillance site from other locations through Axis Mobile viewing app. Axis Mobile viewing app allows you to access multiple systems and use features such as live view with selectable streaming profiles, timeline visualization of recorded events as well as snapshots in live view and playback.

AXIS Camera Station is comprised of

- **AXIS Camera Station Server** – handles all communication with cameras, video encoders and auxiliary devices in the system. The number of cameras and encoders that each Server can communicate with is limited by the total bandwidth available.
- **AXIS Camera Station Client** – provides access to recordings, live video, logs and configuration. The Client can be installed on any computer enabling remote viewing and control from anywhere on the Internet or corporate network.
- **AXIS Mobile Viewing App** – provides access to recordings and live video on multiple systems. The app can be installed on Android and iOS devices, and enable remote viewing from other locations.

Several Clients can be connected to the same Server, and each Client can be connected to several Servers. See *Multiple Servers on page 10*.

AXIS Camera Station is available in multiple languages. The language is selected during installation but can also be changed later by selecting **Customize** from the **Options** menu.



Installation scenario. AXIS Camera Station Server, installed on a dedicated computer, handles the communication with cameras both inside and outside the local (corporate) network. The cameras are monitored and controlled from two AXIS Camera Station Clients – one on the local network and one connected via the Internet. The cameras can also be monitored from mobile devices using AXIS Mobile viewing app.




AXIS Camera Station Server

AXIS Camera Station Server handles all communication with cameras, video encoders and auxiliary devices in the system. The Server also handles recordings, event management and user management.

The Server should be installed on a dedicated computer. Once installed, the **Service Control** can be used to start and stop the Server and to modify settings if needed. See *AXIS Camera Station Service Control on page 68*.

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Overview

An icon in Windows notification area shows if the service is running , is starting  or has stopped . Double-click the icon to open the Service Control.

Note

If AXIS Camera Station Server and the devices are separated by a proxy server, the server proxy settings in the Service Control might need to be modified. See *Network and Security Configuration on page 64*.

AXIS Camera Station Client

AXIS Camera Station Client provides access to recordings and live video from the cameras in the system and is used to configure AXIS Camera Station, for example to manage cameras and auxiliary devices, enable recording, set up rules and to manage licenses and users. The Client can be installed on the same computer as the Server or on a different computer.

To start the Client:

- Windows 8.1, Windows Server 2012: Go to the Start screen and type "AXIS Camera Station".
- Windows 10, Windows 7, Windows Vista, Windows Server 2008: Go to Start > All Programs > AXIS Camera Station > AXIS Camera Station Client

Log on to AXIS Camera Station Server

When starting the Client for the first time, the Client automatically attempts to log on to the AXIS Camera Station Server installed on the same computer as the Client. If the Client and Server are installed on different computers, select **Remote server** and enter the host name or IP address of the server computer and a user name and password (see below). When starting the Client the next time, the previously selected Server will be remembered.

Note

If the Client and Server are installed on different computers, it might be necessary to configure proxy and/or firewall settings. For more information, see *Network and Security Configuration on page 64*.

Users

To log on to an AXIS Camera Station Server, a user name and password is required. By default (local security disabled), all administrators on the computer on which the Server is installed will be given administrator rights to AXIS Camera Station. The administrator can enable local security and restrict access to trusted users and groups. It is also possible to set different access levels. For more information, see *User Permissions on page 66*.

Users with viewer or operator rights do not have access to all functionality described in this manual.

AXIS Mobile Viewing App

AXIS Mobile viewing app for AXIS Camera Station provides access to recordings and live video on multiple systems and is used keep up with events from the surveillance sites from a remote location. Axis Mobile viewing app can be downloaded on www.axis.com/products/axis-camera-station

The viewing app for AXIS Camera Station uses HTTPS to communicate with the AXIS Camera Station server. The port number for the mobile app is calculated by adding 4 to the server port number. The port number for video streaming is calculated by adding 5 to the server port number.

Examples:

- If you use the default server HTTP port 55752, the mobile app defaults to HTTPS port 55756. And the video stream uses HTTP over RTSP port 55757.
- If the server HTTP port is modified to 55755, the mobile app uses HTTPS port 55759. And the video stream uses HTTP over RTSP port 55760.

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Overview

Workspaces

AXIS Camera Station has the following workspaces:



The **Live View** workspace shows live video from connected cameras. See *Live View Workspace on page 14*.



The **Recordings** workspace handles recording search, playback and export. See *Recordings Workspace on page 19*.



The **Camera Management** workspace provides tools for administration and maintenance of connected devices. See *Camera Management Workspace on page 23*.



The **Logs** workspace contains alarm, event and audit logs. See *Logs Workspace on page 26*.



The **Configuration** workspace is a collection the most important settings. See *Configuration Workspace on page 27*.



To go to a workspace, click on the button in the toolbar.

Note

The **Camera Management** workspace is hidden by default. See *Camera Management Workspace on page 23*.

Full Screen Mode

Full screen mode is optimized for monitoring activities and available in the Live View, Recordings and Logs workspaces. In this mode, some functionality is hidden and can only be accessed in normal mode.

To show a camera or view in full screen mode, either press **F11** on the keyboard or click . To return to normal mode, either press **ESC** or **F11** on the keyboard or click .

In full screen mode, the top and bottom navigation panels are hidden during inactivity. Move the cursor to the top or bottom of the screen to display the following:



Show the workspaces for Live View, Recordings and Logs.



Show the **View** navigation panel.

Devices and Cameras

In AXIS Camera Station, the terms "device" and "camera" are used as follows:

Device	A network product that has its own IP address. A device can be: <ul style="list-style-type: none">• a network camera• a video encoder (video server)• an auxiliary device, for example an I/O audio device, a network speaker or a door controller• a door station
Camera	A video source, that is: <ul style="list-style-type: none">• a network camera• a video port (with a connected analog camera) on a video encoder• a view area in a network camera or video encoder
Auxiliary device	A network device without video ports.

Example

AXIS Camera Station

Overview

A 4-port video encoder is one device with four cameras.


Note

Some video encoders have one IP address for each video port. In this case, each video port is treated as one device with one camera.

Multiple Servers

AXIS Camera Station Client can be connected to multiple AXIS Camera Station Servers. Servers can be organized in server lists, see *Server Lists*, below.

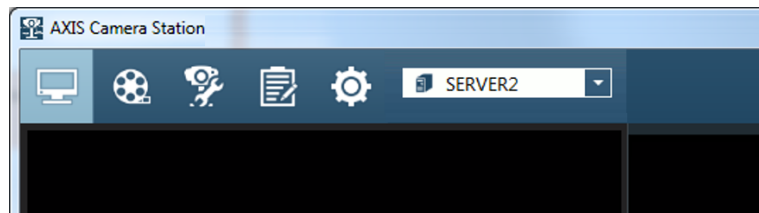
To connect to a new Server:

1. Go to  > Servers > New Connection.
2. Select **Remote server** and enter the IP address or DNS name of the computer on which the Server is installed.
3. Click **Log On**.

To display information about connected Servers, go to  > Servers > Connection Status.

When connected to more than one Server, the **Selected server** drop-down list is displayed in the toolbar in the Live View, Recordings and Logs workspaces and in several dialogs. When **Selected server** is shown, the Client displays devices, recordings, logs etc on the selected Server. Select another Server to access devices and recordings on that Server.

The Camera Management workspace and the Alarms and Tasks tabs display devices and alarms from all connected Servers.




Server Lists



Server lists are useful when working with a large number of Servers, and when using the same Servers for Clients on different computers.

To create and edit server lists, go to **File > Server Lists**. A Server can belong to more than one list.

To connect to all Servers in a server list:

1. Go to  > **Log Off** to log off from the current Servers or server list.
2. From the log-on screen, select **Server list** and select a list.
3. Click **Log On**.

Server lists can be exported and then imported to an AXIS Camera Station Client installed on another computer:

1. Go to  > Servers > Server Lists. Select the server list and click **Export Lists** to save the server list file to the local computer.
2. Copy the server list file to the other computer.
3. At the other computer, go to  > **Log Off** to log off from the current Servers or server list.

AXIS Camera Station

Overview

4. At the log on screen, click ***Import server list*** and browse to the server list file.

AXIS Camera Station

Get Started

Get Started

When using AXIS Camera Station for the first time, **Get Started with AXIS Camera Station** is started automatically. **Get Started with AXIS Camera Station** provides a quick way to add cameras and to configure and enable recording:

1. Select cameras and video encoders to add. See *Add Cameras*.
2. Select recording method and where to store recordings. See *Configure Recording*.
3. Review settings and click **Finish** to add cameras and start recording.

All settings can be changed later, see *Configure AXIS Camera Station on page 13*.

Add Cameras

AXIS Camera Station automatically searches the network for connected cameras and displays a list of cameras found. Use the **Type to search** field to find cameras in the list.

1. Select the cameras to add. A camera can be added if its Status field is empty. For information about different statuses and how to solve problems, see the built-in help.
2. To change the camera name, click on the name in the list and enter a new name.
3. Click **Next** to continue.
4. If some cameras do not have a password, **Enter camera password** is displayed. Enter a password and re-enter it to confirm the spelling. The password will be set on all cameras that do not have a password. The password is used by AXIS Camera Station to communicate with the cameras. Make sure to use a strong password.

If a camera cannot be found:

- Check that the camera is connected to the network and that power has been applied. Then click **Search Again** to repeat the search. It is also possible to add cameras manually. Click **Add Manually** and enter the camera's IP address or host name. If the camera does not use the default port 80, the port number must also be specified.
- If AXIS Camera Station Client, AXIS Camera Station Server and/or cameras are located on different networks, then proxy and firewall settings might need to be configured. See *Network and Security Configuration on page 64*.

Configure Recording

On the "Configure Recording" page, select recording method and where to store recordings. All recording settings can also be changed later.

The selected recording method and the other recording settings will be enabled on all selected cameras. Video will be recorded in video format H.264 if supported by the camera.

1. Select recording method:
 - **Motion recording** – Record video when motion is detected. When a camera detects a moving object, AXIS Camera Station will start record video from that camera. Recording continues until motion stops.
 - **Continuous recording** – Record video continuously. Continuous recording requires more disk space than motion recording.
 - **I want to configure this later** – Do not enable recording.
2. Select the number of days to keep recordings, or select **Unlimited** to keep recordings until the disk is full.
3. Under **Recording location**, select the disks to store recordings on:
 - **Drives on the local computer**. It is not recommended to use the disk on which the operating system is installed.

AXIS Camera Station

Get Started

- **Network shares.** To use a network share, click **Add Network Share** and enter the path to the share.
4. When satisfied, click **Next** to continue.

It is not recommended to use more than 10 cameras per disk or to use disks with less than 15 GB free space. Write-protected disks cannot be used. If using multiple disks, newly added cameras will be automatically distributed among the disks.

Configure AXIS Camera Station

After completing **Get Started with AXIS Camera Station**, cameras have been added and recording is enabled.

- To view live video from the added cameras, go to the **Live View** workspace. See *Live View Workspace on page 14*.
- To search for and play recordings, go to the **Recordings** workspace. See *Recordings Workspace on page 19*.

If required, settings can be modified. Some examples:

- To change recording method, to schedule recording or to disable recording on some cameras, go to **Configuration > Event Configuration**. See *Configure Recording on page 33*.
- To modify motion detection settings, go to **Configuration > Event Configuration**, select the camera, click **Motion Detection** and then **Motion Settings**. See *Motion Recording on page 33*.
- To change recording settings such as video format, resolution and frame rate, go to **Configuration > Event Configuration**, select the camera and recording method and then select the desired profile. See *Configure Video & Audio Settings on page 44*.
- To add more recording disks or to configure recording storage settings for individual cameras, go to **Configuration > Recording Storage**. See *Configure Recording Storage on page 37*.
- To add more cameras, go to **Configuration > Add/Edit Cameras**. See *Add Cameras and Video Encoders on page 38*.
- To add auxiliary devices such as AXIS P8221 and AXIS A1001, go to **Configuration > Add/Edit Aux Devices**. See *Add Auxiliary Devices on page 39*.

See also *How to...* on page 31 and the built-in help.

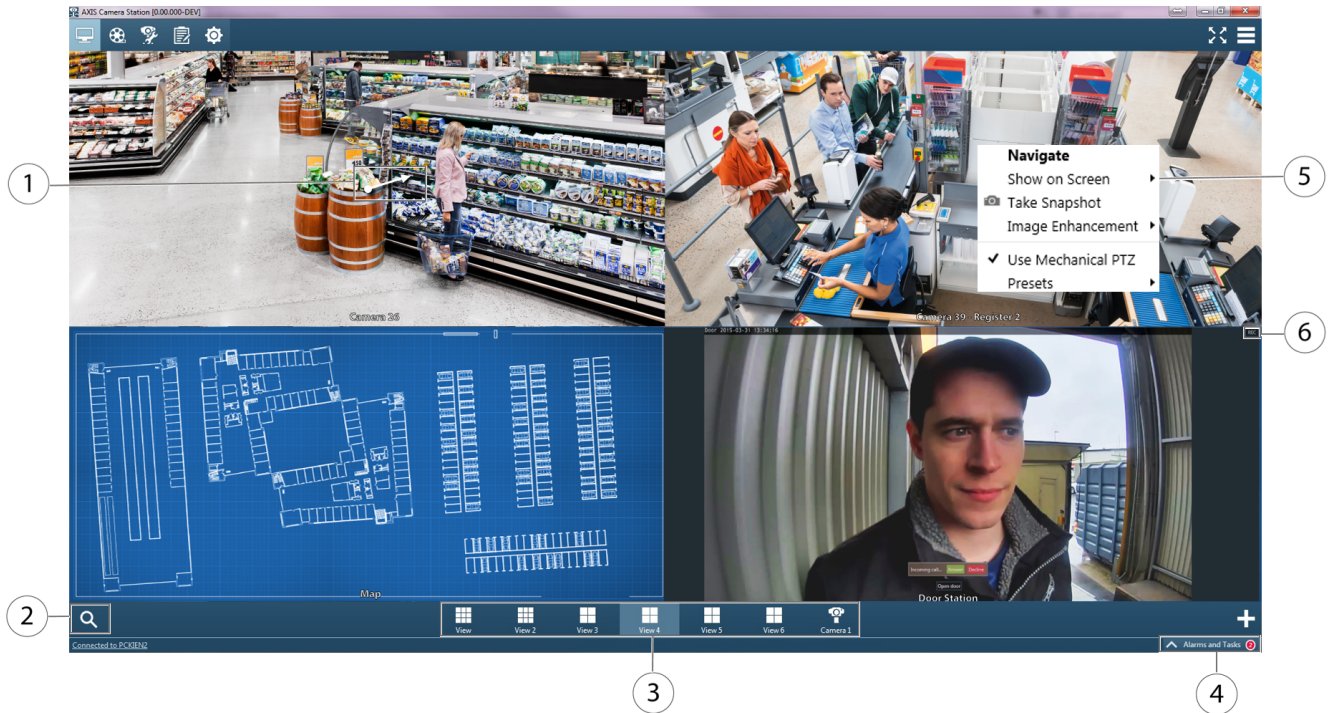
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Live View Workspace

Live View Workspace

The Live View workspace shows live video from connected cameras.

To configure video and audio settings such as video format, resolution, compression and frame rate, go to **Video & Audio** from the **Configuration** menu.




Live View workspace

- 1 PTZ control, see *Pan, Tilt and Zoom in Live View* on page 17.
- 2 Find Camera, see *Find Camera* on page 15.
- 3 Views, see page 15.
- 4 Alarms and Tasks tabs, see page 28.
- 5 Tools (right-click to display menu), see page 16.
- 6 REC button for starting a manual recording, see page 16.


Cameras and Views

To display live video, select a camera from **Find Camera** or select a **View**.

 **Find Camera** shows all the cameras added to AXIS Camera Station. See *Find Camera*.

 **Views** provide access to all the cameras and devices added to AXIS Camera Station. A view can consist of one or several cameras, a sequence of items, a map, a web page or a folder. See *Views*.


Tree view navigation for a large system shows all the cameras and devices in a folder structure that consists of two tabs, **Views** and **Cameras**. A search field is used to find specific views, sequences, maps, web pages, folders or cameras in the tabs. In the **Views** tab, you can create, edit and delete views, sequences, maps, web pages and folders.

Tree view navigation is not shown per default, and must be activated in  > **Options** > **Customize** > **General**.

AXIS Camera Station

Live View Workspace

Find Camera

Click  to show a list with all the cameras that have been added to AXIS Camera Station. The cameras are listed with their camera names. By default, the model names are used as camera names.

Use the **Search Cameras** field to find a specific camera in the list. Click the camera name to show the camera as a camera view in the workspace.

If you are connected to more than one server, the listed cameras are grouped per server.

Note


The shown camera view is not connected to any split views.

Keyboard shortcuts

- Press **CTRL + F** on the keyboard to show the list.
- Press **ESC** on the keyboard to close the list. If the list shows search results, pressing **ESC** clears the list of search results.

Views

Views are generated automatically when cameras and devices are added to Axis Camera Station, and the number of views are optimized for the number of installed devices.

To display a view, click one of the view icons, for example  in the view navigation panel or drag the view to the main window or to another monitor. It is also possible to drag a single camera view, sequence, map or web page to a frame in a split view.

When cameras and devices are added to AXIS Camera Station, new cameras and devices are added as new views.

When cameras and devices are removed from AXIS Camera Station, their split views and camera views display a message that the cameras and devices are removed from the server. No views are removed automatically.

To edit a view, right-click  and select **Edit View**.

To delete a view, right-click  and select **Delete View**.

The following view types are available:

Split View	Displays multiple views in one window. One frame can be set as a hotspot that automatically loads the view from another frame when clicking in that frame.
Sequence	Switches automatically between selected views, with variable dwell times.
Camera View	Live video from one camera or video encoder. Camera views can be added to split views, sequences and maps.
Map	Imported image, for example a floor plan, on which camera views, split views, sequences, web pages and other maps can be placed. Providing a visual overview, maps make it easy to quickly locate and access individual cameras in the network video installation.
Web Page	External web application integrated into AXIS Camera Station. Web pages can be shown in a split view or a sequence together with live video.
Folder	Folders are used to categorize items in a tree view navigation. Folders can contain split views, sequences, camera views, maps, web pages and other folders.

For information about how to create views, sequences, maps, web pages and folders, see *Create Views on page 40*.

Views can be accessed by all users. For information about user access rights, see *User Permissions on page 66*.

For *Tree view navigation for a large system*, see *Cameras and Views on page 14*.

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Live View Workspace

Note

My Views (private views) that were created in earlier versions of Axis Camera Station are still available after an upgrade of Axis Camera Station, but can only be edited and removed.

Tools in Live View

The Live View workspace provides a number of tools:

- *Full Screen Mode on page 9.*
- *Views on page 15.*
- *Recording and Instant Replay on page 16.*
- *Pan, Tilt and Zoom in Live View on page 17.*
- *Audio in Live View on page 17.*

Note

All tools are not supported by all camera models.

Right-click a live view area in the workspace to display the following tools:

Show on Screen - Available when using multiple monitors. Show the view on another screen. It is also possible to drag views to another screen.


 **Take snapshot.** Take a snapshot image from the selected camera. The snapshot is saved to the snapshot folder specified under **Options > Customize**.

Image Enhancement on page 18.

Use Mechanical PTZ, see *Pan, Tilt and Zoom in Live View on page 17.*


Presets, see *Pan, Tilt and Zoom in Live View on page 17.*

Set Focus, see *Focus Control on page 17.*

Recording and Instant Replay

In the Live View workspace, an ongoing recording is indicated by a recording indicator in the lower part of the image:

- **Red** – Motion detection or rule triggered recording
- **Yellow** – Manual recording
- **Blue** – Continuous recording
- **Green** – Failover recording

To play an ongoing recording, hover the mouse pointer over the image and click the  **Instant replay** button below the REC/STOP button. The Recordings workspace will open and the last 5 seconds of the recording will be played.

To record manually from the Live View workspace, hover the mouse pointer over the image and click the **REC** button. Click **STOP** to stop recording.

Note

Administrators can disable manual recording for selected users, see *User Permissions on page 66*.

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Live View Workspace

Audio in Live View

Audio is available if the camera has audio capabilities and if audio has been enabled in the profile used for live view. If audio is available, the audio control will be displayed when hovering the mouse pointer over the image. Use the slider to control audio volume. Click on the control to mute audio.

Note

Administrators can disable audio for selected users, see *User Permissions on page 66*.

See also *Use Audio from an Auxiliary Device on page 45*.

Pan, Tilt and Zoom in Live View

Pan, tilt, zoom (PTZ) is the ability to pan (move left and right), tilt (move up and down) and zoom in and out. PTZ can be used with all cameras. Mechanical PTZ can be used with PTZ cameras and cameras where digital PTZ has been enabled in the camera's Setup pages, see *Mechanical PTZ*.

Zoom – Use the mouse wheel to zoom in and out. Alternatively, press CTRL and (+) to zoom in and CTRL and (-) to zoom out.

Digital PTZ – Use the mouse wheel to zoom in, and then click to pan and tilt.

Mechanical PTZ – For mechanical PTZ, see *Mechanical PTZ*.

Note

Administrators can disable mechanical PTZ for selected users. See *User Permissions on page 66*.

Mechanical PTZ

Mechanical PTZ is available for:

- PTZ cameras, that is, cameras with built-in mechanical PTZ.
- Fixed cameras where digital PTZ has been enabled.

To enable digital PTZ in a fixed camera, open the camera's Setup pages in a web browser. To open the Setup pages, go the Camera Management workspace, select the camera and click on the link in the Address column. For information about how to enable digital PTZ, see the camera's User Manual.

Mechanical PTZ is enabled by default when available (**Use Mechanical PTZ** is checked in the right-click menu). Use the mouse to zoom, pan and tilt:

- **Area zoom** – To magnify a selected area in the image, click in the desired area and drag to draw a rectangle surrounding the area to be magnified. To zoom out gradually, use the mouse wheel. To zoom out fully, use CTRL + 0.
- **Pan and tilt** – Click a desired area in the image to pan or tilt to that area. To pan and tilt continuously in the live view image, move the cursor to the center of the image to show the navigation arrow. Then click and hold to pan in the direction of the navigation arrow. To pan and tilt the image at a higher pace, click and hold to make the navigation arrow longer.

To go to a preset position, right-click in the image, select **Presets** and then select the preset position. For information about how to set up preset positions, see *Add a PTZ Preset Position on page 43*.

Note

- **Area zoom**: To magnify an area near the center of the image, use the right mouse button and drag to draw a rectangle.
- For information on using a joystick, see *Input Devices on page 59*.
- Administrators can disable audio for selected users, see *User Permissions on page 66*.

Focus Control

To adjust camera focus:

1. In the Live View workspace, right-click in the image and select **Set Focus**.

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Live View Workspace

2. Click **AF** to focus the camera automatically.
3. If the result is not satisfactory, click the **Near** and **Far** buttons to adjust focus manually. Use **Near** to focus on objects close to the camera. Use **Far** to focus on objects far away.

Note

- Focus control is not available for all camera models.
- Some cameras also have focus and/or zoom pullers on the lens.

Image Enhancement

Image enhancement can make details in the image more visible, for example in challenging conditions such as fog, smoke, heavy rain or snow.

To enable image enhancement, right-click in the image and select **Image Enhancement**. Use the slider to adjust the amount of enhancement.

Note

When zooming in, image enhancement will be disabled temporarily, unless the mechanical PTZ tools are used. When zooming out, enhancement is re-applied automatically.

AXIS Camera Station

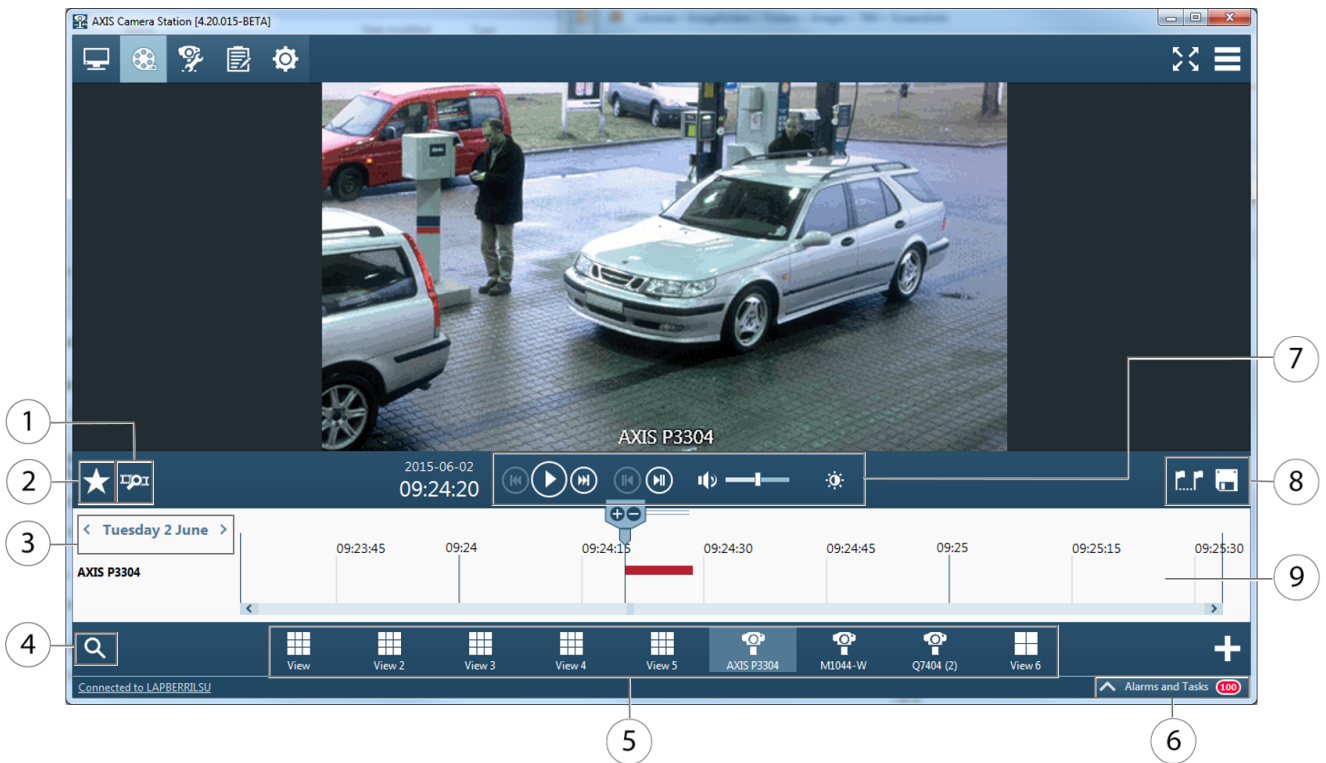
Recordings Workspace

Recordings Workspace

The Recordings workspace handles recording search, playback and export.

To enable or disable recording, to change recording method or to modify recording settings such as resolution, compression and frame rate, open **Recording Settings** from the **Configuration** menu.

To show the Recordings workspace in full screen mode, see *Full Screen Mode on page 9*.



Recordings workspace

- 1 Smart search, see page 21.
- 2 Bookmarks, see page 22.
- 3 Date selector, see *Search and Play Recordings*.
- 4 Find Camera, see *Search and Play Recordings and Find Camera on page 15*.
- 5 Views, see *Search and Play Recordings and Views on page 15*.
- 6 Alarms and Tasks tabs, see page 28.
- 7 Control panel, see page 21.
- 8 Playback tools, see page 20.
- 9 Timeline, see page 20.

See also *Export Recordings on page 48*.

For Tree view navigation for a large system, see *Cameras and Views on page 14*.

Search and Play Recordings

To search and play recordings:

AXIS Camera Station

Recordings Workspace

1. Select a view that contains the recordings that you want to search.
2. Click on the recording in the timeline below the playback window.
3. Use the slider and the playback control panel to play the recording. See *Playback Control Panel* on page 21.

To show recordings from a different day, click on the arrows next to the current date to move between days, or click on the date to show the calendar and select a new date.

To search for recordings from a specific time interval, for example a few hours or a range of days, see **Recording Search**.

Recording Search

1. Click the current date to show the calendar.
2. Select a date from the calendar. To select a range of dates, keep the SHIFT key pressed while selecting the dates.
3. Select the **Start time** and **End time** from the drop-down lists.
4. Click **Search**.
5. Found recordings are shown in the timeline.

Playback Tools

Recordings from multiple cameras can be played at the same time if the playback marker is positioned over several timeline recordings. To view recordings in cameras that are listed with timelines but not shown in the view, drag a camera from the timeline to a playback window in the view.

If using multiple monitors, live video can be displayed at the same time as recorded video. To display a view in another monitor, drag the desired view from the view navigation panel and drop it in another monitor.

The following tools are available in the toolbar:



Export

Export the recording. Recordings can be exported to a local disk or a network location, or be burned to a CD or DVD. To export a part of a recording, use the selection markers. For more information, see *Export Recordings* on page 48.



Selection markers

Insert or remove selection markers. Use the mouse to move the markers to the desired start and end time. Selection markers are used to select a time interval, for example to export a part of a recording.

Pan, tilt and zoom during playback by clicking in the image and scrolling in and out with the mouse wheel. To zoom in on an area, place the cursor in the desired area and use the mouse wheel to zoom. It is also possible to use CTRL and (+) to zoom in and CTRL and (-) to zoom out.

If **audio** was included in the recording, a volume control appears in the playback window.

For information about how to **prevent recording deletion**, see *Lock Recordings* on page 22.

Playback Timeline

The timeline below the playback window displays the search result. Recordings are color coded:

- **Red** – Motion detection or rule triggered recording
- **Yellow** – Manual recording
- **Blue** – Continuous recording
- **Green** – Failover recording

To start playback from a specific time, click in the timeline to move the playback marker to the desired time. Click the Play button to start playback.


AXIS Camera Station


Recordings Workspace

Use the mouse wheel to zoom in and out in the timeline. To move to a different day, use the arrows next to the date.

Playback Control Panel


The playback control panel is displayed below the timeline.


 **Play** – Start playback

 **Pause** – Pause playback


 **Speed control** – Hover the mouse pointer over the Play/Pause button to display the speed control. Use the needle or the mouse wheel to adjust playback speed.


 **Jump to previous** – Jump to the start of the ongoing or previous recording.


 **Jump to next** – Jump to the start of the next recording.


 **Jump backward** – (Displayed during playback) Jump 5 seconds back.

 **Jump forward** – (Displayed during playback) Jump 5 seconds forward.

 **Step to previous frame** – (Displayed when paused) Step to previous frame in the selected recording.

 **Step to next frame** – (Displayed when paused) Step to next frame in the selected recording.


 **Mute** – Mute audio. Use the slider to control audio volume.

 **Image enhancement** – Image enhancement can make details in the image more visible. Click the button to enable and use the slider to adjust the amount of enhancement. Applied enhancement will be included in snapshots but not in exported video. When zooming in, image enhancement will be disabled temporarily. When zooming out, enhancement is re-applied automatically.

Smart Search

Smart search is a motion search used to quickly locate important events in recorded video. Instead of going through hours of recorded video manually, smart search finds the points in time when there is movement in a selected area in the recorded video.

To use smart search:

1. In the **Recordings** workspace, select a view that contains the recordings that you want to search.
2. Click on the recording in the timeline or select the camera in its split view.
3. Click  to expand **Smart Search**.
4. If required, adjust the area of interest to reduce or increase the number of hits. See below.
5. Click on the current date shown in the timeline to specify a time interval for the search results.
6. Click **Search**.
7. When the search result is displayed, click on the thumbnail image to move the playback marker to the time when motion was detected.

The **area of interest** is the area in which moving objects will be detected. The area is a polygon displayed on top of the recorded video. The polygon can have 3 to 20 corners. Use the mouse to move and resize the area. To add a new corner, click on the line between two corners. To remove a corner, right-click on the corner.

AXIS Camera Station


Recordings Workspace

For cameras with firmware 5.50 and later, smart search can be optimized to deliver search results faster by installing the camera application AXIS Video Content Stream 1.0 on the camera.

The application is automatically installed on new cameras added to AXIS Camera Station but can also be installed from the **Camera Management** workspace, see *Camera Applications on page 47*. The application enables AXIS Video Content Stream in the camera. The use of AXIS Video Content Stream is only permitted through AXIS Camera Station.

For cameras that do not use AXIS Video Content Stream 1.0, the **Sensitivity** slider can be used to adjust smart search sensitivity.



Bookmarks


In the Recordings workspace, click  to expand **Bookmarks**.


Click **Date** to sort bookmarks by date. Click **Title** to sort bookmarks by title. Use the **Type** to search field to find a particular bookmark.

To play a recording from the bookmarked time, click on the bookmark. Use the **Type to search** field to find bookmarks.

To add a bookmark:

1. To search and play a recording, see *Search and Play Recordings on page 19*.
2. In the playback timeline, click on the time to bookmark.
3. Click  to expand **Bookmarks**.
4. Click  to add the bookmark.
5. Enter a **Name** and a **Description**.


To edit a bookmark, select the bookmark and click .

To remove a bookmark, select the bookmark and click . To select multiple bookmarks, press SHIFT or CTRL while selecting the bookmarks.

Lock Recordings

To prevent deletion, recordings can be locked.

To lock a recording, create a bookmark and select the **Prevent recording deletion** option. For information about how to create a bookmark, see *Bookmarks*.

To unlock a recording, remove the bookmark or click  to edit the bookmark and clear the **Prevent recording deletion** option.

If a recording has more than one bookmark with **Prevent recording deletion** enabled, the recording will not be unlocked until all bookmarks have been removed.

Note

- Locked recordings will be deleted if the camera is removed from AXIS Camera Station.
- To prevent the disk from becoming full, do not lock too many recordings and avoid locking continuous recordings. Locking a large amount of video may cause the disk to run out of space. If required, recordings can be exported and stored on another disk. It is also possible to export a part of a longer recording. See *Export Recordings on page 48*.

AXIS Camera Station

Camera Management Workspace


Camera Management Workspace

The Camera Management workspace provides tools for management, administration and maintenance of connected devices,

Note



A device is a network product with its own IP address, see *page 9*.

The Camera Management workspace is hidden by default. To show the workspace:

1. Go to  > Options > Customize.
2. Under **General**: Select **Show Camera Management workspace**
3. Click **OK** to save.

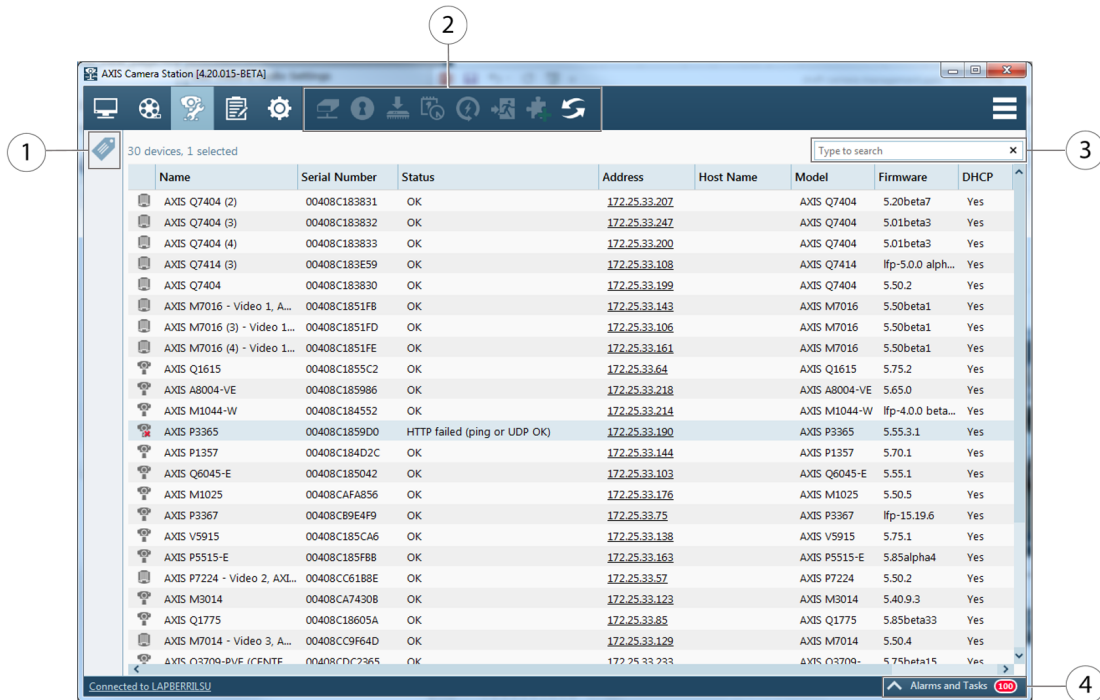
Camera Management displays information about connected devices. Use the search field to find devices in the list.

To hide or show columns, right-click in the header row and select which columns to show. Drag and drop the headers to display the columns in different order.

Name	Device name. If the device is a video encoder with multiple connected cameras, or a network camera with multiple view areas, Name displays a list of all associated camera names. <ul style="list-style-type: none">• To change a device name, go to  > Configuration > Add/Edit Cameras and click Edit.• To change an auxiliary device name, go to  > Configuration > Add/Edit Aux Devices and click Edit.
Serial Number	The device serial number. The serial number (S/N) is printed on the product label.
Status	Device status. See the built-in help for information about status codes.
Address	The device address. Click the link to open the device's configuration web page.
Host Name	The device host name, if available. Click the link to open the device's configuration web page. The host name displayed is the fully qualified domain name.
Model	Device model.
Firmware	The firmware version installed on the device.
DHCP	If the device is connected to the server using DHCP.
Server	The AXIS Camera Station Server the device is connected to.
Tags	(Hidden by default) The tags added to the device.
UPnP Friendly Name	(Hidden by default) The UPnP name. This is a descriptive name used to make it easier to identify the device.

AXIS Camera Station

Camera Management Workspace




Camera Management workspace

- 1 Tags, see page 24.
- 2 Tasks, see page 25.
- 3 Search field.
- 4 Alarms and Tasks tabs, see page 28.

Tags


Tags are used to organize devices in the Camera Management workspace. Devices can for example be tagged according to model or location. A device can have more than one tag.

Click  to expand Device Tags. Click a tag to display all devices associated with the tag.

To tag devices:

1. Select the devices to tag.
2. Right-click and select **Tag Devices**.
3. Select **Create a new tag** to create a new tag, or select **Use existing tag** and select a tag from the list.

To remove a tag from one or more devices:

1. Click  to expand Device Tags.
2. Select the tag. All devices associated with the tag are now displayed.
3. Select the devices.
4. Right-click and select **Untag devices**.

AXIS Camera Station

Camera Management Workspace

Tasks

Tasks can be performed on one or multiple devices.

To perform a task, select the devices and click the task icon in the toolbar, or right-click and select the task.



Assign IP address to selected devices, see *page 49*.



Set password for selected devices.



Upgrade firmware for selected devices, see *page 49*.



Set date and time on selected devices.



Restart selected devices.



Restore selected devices. This will reset most settings, including the password, to their factory default values. The following settings are not reset: uploaded camera applications, boot protocol (DHCP or static), static IP address, default router, subnet mask, product interface language, system time, IEEE 802.1x settings.



Install camera application. A camera application is software that can be uploaded to and installed on devices. For more information, see *Camera Applications on page 47*.



Reload selected devices. If settings have been changed from the device's Setup pages, click this button to update AXIS Camera Station.

Additional tasks (available when right-clicking):

- User Management. Add, remove and list users on selected devices.
- Parameter Management. See .

The status of finished and ongoing tasks is shown in the Tasks tab at the bottom of the workspace. See *Alarms and Tasks Tabs on page 28*.

When connected to multiple AXIS Camera Station Servers, devices on all servers are displayed in the Camera Management workspace. With the exception of assigning IP addresses, tasks can be performed on different servers at the same time.

AXIS Camera Station

Logs Workspace

Logs Workspace





The Logs workspace contains the following logs:

- Alarms** System alarms, alarms generated by event configuration rules and, if enabled, motion detection alarms. Listed are the date and time of the alarm, the alarm title and an alarm description. For information about how to set up rules, see *Event Configuration on page 53*.
- Events** Displays camera and server events, for example recordings, triggers, alarms, errors and system messages. Listed are the date and time of the event, the event category and an event message.
- Audit** Displays all user actions, for example manual recordings, video streaming started or stopped and event configuration.

Live logs is selected by default and shows live alarms, unacknowledged alarms, events and audit logs from the current session. To search for logs:

1. Select **Search** under **Log Search** to search for logs.
2. Select a date from the calendar. To select a range of dates, keep the SHIFT key pressed while selecting the dates.
3. Select the **Start time** and **End time** from the drop-down lists.
4. Click **Search**.

The tools are available in the toolbar and when right-clicking on an alarm:












-  **Go to recordings** (Alarms log only) Go to the Recordings workspace and play the recording.
-  **Show alarm procedure for selected alarm** (Alarms log only) Open the alarm procedure.
-  **Acknowledge selected alarms** (Alarms log only) Notify other clients that the alarms have been noticed.
-  **Export alarm log** Save the log as a text file.

AXIS Camera Station

Configuration Workspace

Configuration Workspace

The Configuration workspace is a collection of the most important settings.


	Add/Edit Cameras	Add, edit or remove cameras and video encoders.
	Video & Audio	Configure profile settings such as video format, resolution, frame rate and compression.
	Image Configuration	Configure image settings such as brightness, white balance, wide dynamic range and image rotation.
	PTZ	Configure pan, tilt and zoom (PTZ) settings.
	Event Configuration	Configure rules with triggers and actions. Also configure recording settings such as recording type, video format, resolution, frame rate and compression.
	Recording Storage	Configure where to store recordings and number of days to keep recordings.
	Schedules	Configure schedules to be used in event configuration and recording settings.
	Scheduled Export	Configure scheduled recording export.
	User Permissions	Manage user permissions.
	Licenses	Manage licenses.
	Customize	Customize AXIS Camera Station.

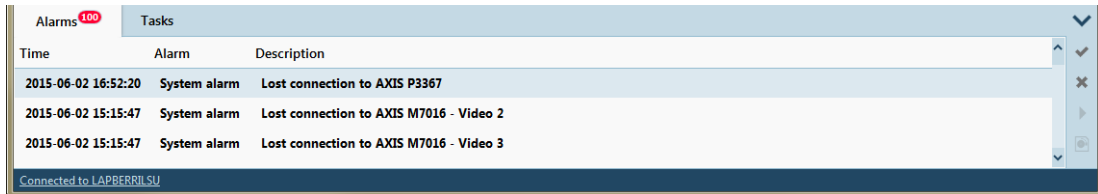
AXIS Camera Station

Alarms and Tasks Tabs

Alarms and Tasks Tabs

The Alarms and Tasks tabs at the bottom of the Live View, Recordings, Camera Management and Configuration workspaces display recent alarms and tasks.

Click  to show the tabs.







Alarms Tab

The Alarms tab lists the event and system alarms that have been triggered.

Time	The time the alarm was triggered or took place according to a schedule.
Alarm	What kind of alarm was triggered.
Description	A brief description of the alarm.
Server	(Displayed when connected to more than one AXIS Camera Station Server.) The AXIS Camera Station Server where the alarm occurred.
Alarm Procedure	Lists if there is a procedure configured to take place if an alarm is triggered.
Recording	Shows if the alarm contains a recording.

When an alarm occurs, right-click the alarm in the list and select:

-  **Go to Recordings** Open the Recordings workspace and play the recording generated by the alarm.
-  **Show Alarm Procedure** Display instructions for the AXIS Camera Station user.
-  **Acknowledge Alarms** Acknowledge the alarm to notify other clients that the alarm has been taken care of.
-  **Clear Alarm Entries** Remove the alarm from the list.

Task Tab




The Tasks tab lists tasks from the Camera Management workspace.

AXIS Camera Station

Alarms and Tasks Tabs

Task	The name of the task
Status	Shows if the task is: <ul style="list-style-type: none">• Cancel pending (Clean up after the task when the user pressed cancel)• Canceled (Cleaning is complete and the task is canceled)• Error (Task completed with errors, that is, the task failed on one or more of the selected cameras)• Finished (Task completed)• Finished during lost connection (Task completed. Displayed if the Client lost connection with the Server while the task was running.)• Lost connection (Displayed if the Client lost connection with the Server while the task was running. Task status could not be determined.)• Running (Performing the task)• Waiting (Waiting for another task to be completed on the server)
Start Time	When the task was started
Owner	Who initiated the task
Progress	Shows how much of the task is left to be completed.
Server	(Displayed when connected to more than one AXIS Camera Station Server.) The AXIS Camera Station Server performing the task

Right-click on one or more tasks and select:

-  **Show** Display additional information about the task.
-  **Cancel** Cancel selected tasks.
-  **Remove** Remove one or more tasks from the task list.

AXIS Camera Station

Licenses

Licenses

From AXIS Camera Station 5.0, there are two license types:

- **Core Device licenses:** Core Device licenses apply to Axis devices such as Axis network cameras. A maximum of 32 Core Device licenses may be used on a system *.
- **Universal Device licenses:** Universal Device licenses add scalability above 32 devices per system * and third party device support.

** A system may consist of one or more servers. When an AXIS Camera Station viewing client is connected to two or more AXIS Camera Station servers at the same time, these servers are considered as part of the same system and share a common pool of maximum 32 Core Device licenses in total.*

Before you purchase any licenses, you can evaluate AXIS Camera Station when adding new devices to the system. A 30-day trial period is offered for each added device. For detailed information about how to purchase licenses and how to upgrade existing AXIS Camera Station licenses to Core and Universal licenses, see www.axis.com/products/axis-camera-station/license.

AXIS Camera Station

How to...

How to...

When using AXIS Camera Station for the first time, **Get Started with AXIS Camera Station** is started automatically. After completing **Get Started with AXIS Camera Station**, cameras have been added and recording is enabled on all cameras.

This chapter describes how to configure recording settings for individual cameras, how to configure live view settings and how to add more cameras and auxiliary devices. In addition, the chapter gives examples of how to configure AXIS Camera Station to get the most out of the system.

Register an Axis account



Your Axis account is used to activate and manage AXIS Camera Station licenses on the AXIS Camera Station License Portal.

With an Axis account, you can also download firmware and free software applications, submit questions to customer support, subscribe to electronic newsletters and so on.

To register an account, go to www.axis.com/reg/register.php and enter the required information.

License a system that is connected to the Internet

Both the AXIS Camera Station client and the server must be connected to the Internet.

1. In the AXIS Camera Station client: Go to  > **Options** > **Licenses** > **License Status** tab.
2. In the AXIS Camera Station client: Click **Manage licenses online**.
3. On AXIS Camera Station License Portal: Log in with your Axis account.
4. On AXIS Camera Station License Portal: Enter your license key and click **Add licenses**.
5. In the AXIS Camera Station client: Check that your license keys are shown in  > **Options** > **Licenses** > **License Keys** tab.

License a system with no Internet connection

To license a system with no Internet connection, you need to visit two different platforms:



The AXIS Camera Station client installed on your offline system.



The online AXIS Camera Station License Portal.

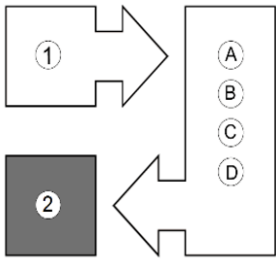

AXIS Camera Station

How to...

<p>Go to the two platforms in the following order:</p>	
	<ul style="list-style-type: none"> • Start the licensing process in the AXIS Camera Station client (step 1). • Continue by accessing the AXIS Camera Station License Portal online (steps A-D). • Complete the process by returning to the AXIS Camera Station client (step 2).
	<p>1</p> <p>Export system file</p> <ol style="list-style-type: none"> 1. Go to > Options > Licenses > License Status tab. 2. Click Export system file. 3. Save your system file on a USB flash drive.
	<p>A</p> <p>Log in to the AXIS Camera Station License Portal</p> <p>Log in to www.axis.com/licenses with your Axis account.</p>
	<p>B</p> <p>Upload system file</p> <ol style="list-style-type: none"> 1. Click Upload system file and select the system file on your USB flash drive. 2. Click Manage system.
	<p>C</p> <p>Add licenses</p> <p>In Enter license key: Enter your license key and click Add licenses.</p> <p>For AXIS S10 recorder systems:</p> <p>Your system is automatically registered when you upload the system file and you can find your license details under License keys. It is recommended that you write them down, or save them in a digital format on a USB memory stick for future reference.</p>

AXIS Camera Station

How to...

	D	Download license file In License keys : Click Download license file and save the file to a USB flash drive.
	2	Import license file <ol style="list-style-type: none">1. Go to  > Options > Licenses > License Status tab.2. Click Import license file and select the license file on your USB flash drive.3. Check that your license keys are shown in the License Keys tab.

Configure Recording

Motion recording or continuous recording is enabled automatically when cameras are added to AXIS Camera Station. To adjust recording settings, or to disable recording for some cameras, go to **Configuration > Event Configuration**.

AXIS Camera Station supports the following recording options:

- Motion recording, see *page 33*.
- Continuous and scheduled recording, see *page 36*.
- Manual recording, see *page 37*.
- Rule triggered recording. A rule triggered recording is started and stopped according to a rule set up in Event Configuration, see *page 53*.
- Failover recording, see *page 37*. A failover recording starts automatically if the connection between the camera and AXIS Camera Station is lost during an ongoing recording.

To configure profile settings such as video format, resolution and frame rate for recordings, see *Configure Video & Audio Settings*.

Motion Recording

Motion recording can be used with all Axis network cameras and video encoders. Recording only when motion is detected saves considerably on disk space compared to continuous recording.

To enable or disable motion recording, or to modify settings, follow these steps:

1. From the **Configuration** menu, select **Event Configuration**.
2. In **Basic settings**: Select one or more cameras and click **Motion Detection**. If selecting several cameras, motion recording can be enabled or disabled and schedule settings can be modified. Profile settings can be modified if selecting cameras of the same model. Motion detection settings can be modified if selecting a single camera.
3. To enable motion recording, select **Enabled**. To disable, clear the box.
4. To adjust motion detection settings such as the area in which moving objects are detected, click **Motion Settings**. For more information about motion settings, see *Motion Detection on page 34*.
5. To change settings such as video format, resolution, compression and frame rate, select a **profile**. See also *Configure Video & Audio Settings on page 44*.
6. To schedule motion recording, click **Custom schedule** and select a schedule or create a new schedule.

AXIS Camera Station

How to...

7. When satisfied, click **OK**.

If too many – or too few – moving objects are detected, use **Motion Settings** to modify the area in which moving objects are detected, or use **Trigger period** under **Configuration > Event Configuration > Motion Detection > Advanced** to set the minimum number of seconds between two successive triggers.

If the size of the recorded files is too large for the available disk space, try the following:

- Select a profile with lower resolution, lower frame rate or higher compression. Video format H.264 results in smaller files than the other formats.
- Use a schedule to only record during specific time periods.
- Modify the **Motion Settings** to reduce the number of detected objects.

Note

View areas do not support motion recording.

Motion Detection

Axis network cameras and video encoders can detect motion using

- AXIS Video Motion Detection 2.1
- Built-in motion detection

AXIS Video Motion Detection 2.1 is a camera application that can be installed on products with support for AXIS Camera Application Platform and that have firmware 5.60 or higher.

If motion recording is selected when cameras are added to AXIS Camera Station, AXIS Video Motion Detection 2.1 will only be installed on cameras with firmware 5.60 or higher. Other cameras will use the built-in motion detection.

Available motion detection settings depend on the used detection method, see

- *Configure AXIS Video Motion Detection 2.1*
- *Configure Built-In Motion Detection*

It is also possible to install AXIS Video Motion Detection 2.1 from the Camera Management workspace, see *Camera Applications on page 47*.

Configure AXIS Video Motion Detection 2.1

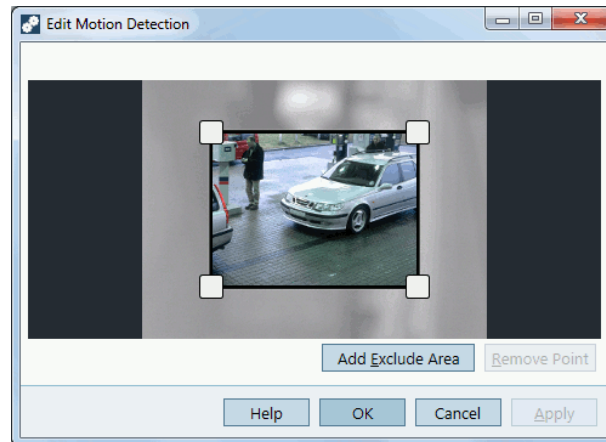
AXIS Video Motion Detection 2.1 detects moving object within an area of interest. The area of interest is a polygon defined by 3 to 20 points (corners). If required, an exclude area can be added. The exclude area is an area within the area of interest in which moving objects are ignored.

To configure AXIS Video Motion Detection 2.1, follow these steps:

1. In **Edit Motion Detection Recording Settings**, click **Motion Settings** to open **Edit Motion Detection**.
2. The area of interest is displayed on top of the video image. Use the mouse to move and resize the area.
 - To add a new point, click on the line between two points.
 - To remove a point, right-click on the point or select the point and click **Remove Point**.
3. Optionally, click **Add Exclude Area** to add an exclude area. The exclude area can be moved and resized in the same way as the area of interest.
4. When satisfied, click **Apply**.
5. To verify the settings, create motion in front of the camera. The line will turn red and flash when motion is detected.

AXIS Camera Station

How to...



Configure Built-In Motion Detection

The motion detection built into Axis network cameras and video encoders detects moving objects within configured motion detection windows:

- **Include windows** define areas where motion should be detected
- **Exclude windows** define areas within an include window that should be ignored (areas outside include windows are always ignored)

For each motion detection window you can configure:

Object size – Object size is relative to the region size. At a high level, only very large objects are detected. At a low level even very small objects trigger an event.

History – History defines how long an object needs to be in a region before it is considered to be non-moving. At a high level an object that appears in the region will trigger the motion detection for a long period before it is considered a non-moving part of the image. At a low level an object that appears in the region will trigger motion detection for only a very short period.

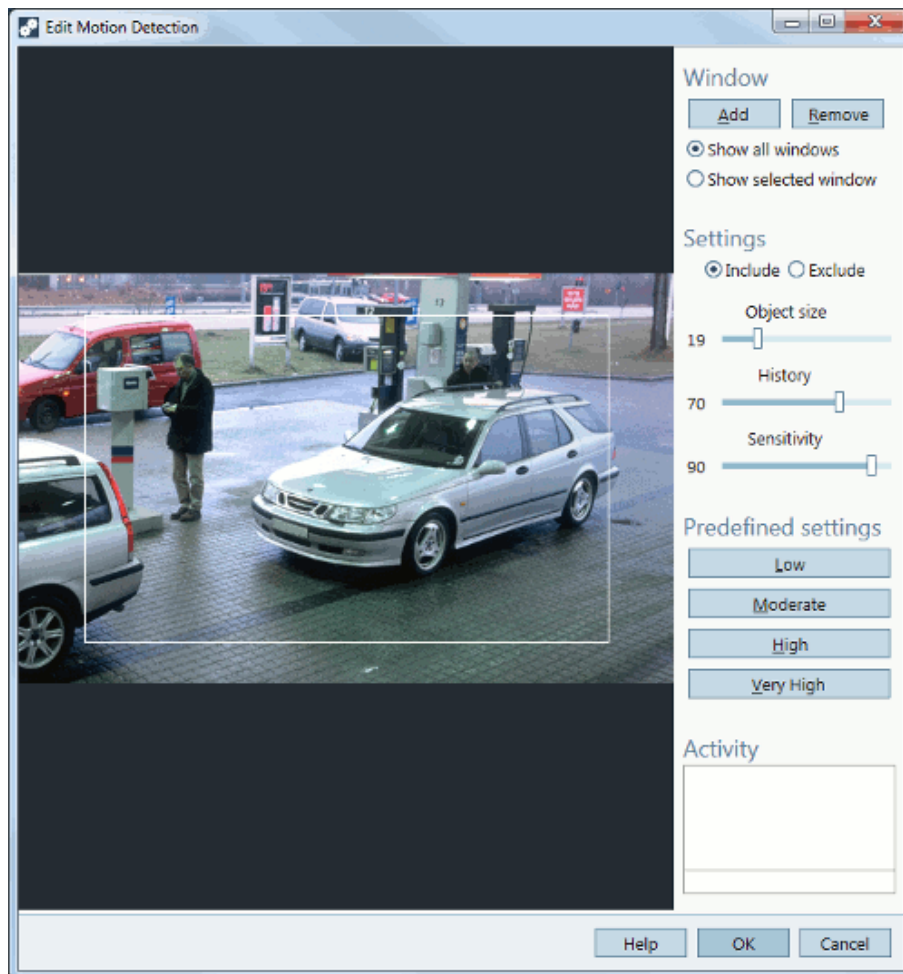
Sensitivity – Sensitivity defines the difference in luminance between the background and the object. At a high level, an ordinary colored object on ordinary backgrounds will trigger motion. At a low level, only very bright objects on a dark background or very dark objects on a light background will trigger an event.

To set up motion detection windows, follow these steps:

1. In **Edit Motion Detection Recording Settings**, click **Motion Settings** to open **Edit Motion Detection**.
2. Click **Add** to create a new motion detection window. Select **Include** to create an include window or select **Exclude** to create an exclude window, as required.
3. Use the mouse to drag the window to the desired area. To resize, drag the sides of the window.
4. Set the **Object size**, **History** and **Sensitivity**. Begin with a predefined setting and if needed fine adjust the settings using the sliders while looking in the Activity window while there is a desired amount of motion in the motion detection window.
5. Click **OK** to save settings.

AXIS Camera Station

How to...



Continuous and Scheduled Recordings

A continuous recording saves images continuously. This requires more disk space than the other recording options.

To enable or disable continuous recording, or to modify settings, follow these steps:

1. From the **Configuration** menu, select **Event Configuration**.
2. Select one or more cameras and click **Continuous**. If selecting several cameras, recording can be enabled or disabled and schedule settings can be modified. Profile settings can be modified if selecting cameras of the same model.
3. To enable continuous recording, select **Enabled**. To disable, clear the box.
4. To change settings such as video format, resolution, compression and frame rate, select a **profile**. To customize a profile, see *Configure Video & Audio Settings on page 44*.
5. To schedule the recording, click **Custom schedule** and select a schedule or create a new schedule.
6. When satisfied, click **OK**. If continuous recording was enabled, recording will now start. If continuous recording was disabled, recording will stop.

If the size of the recorded files is too large for the available disk space, try the following:

- Select a profile with lower resolution, lower frame rate or higher compression. Video format H.264 results in smaller files than the other formats.

AXIS Camera Station

How to...

- Use a schedule to only record during specific time periods.
- Consider using motion recording.

Manual Recording

To record manually:

1. Go to the Live View workspace.
2. Hover the mouse pointer over the camera's live view frame.
3. Click the **REC** button in the upper right hand corner.
4. A yellow indicator appears while the camera is recording.
5. Click **STOP** to stop the recording.

Manual recording can also be started and stopped from the **Actions** menu.

To configure manual recording settings, follow these steps:

1. From the **Configuration** menu, select **Event Configuration**.
2. Select one or more cameras and click **Manual**.
3. To change settings such as video format, resolution, compression and frame rate, select a **profile**. See also *Configure Video & Audio Settings on page 44*.
4. Use the sliders to set the **Prebuffer** and **Postbuffer**, that is, the number of seconds to include before starting (prebuffer) and after stopping (postbuffer) the manual recording.
5. When satisfied, click **OK**.

Failover Recordings

A failover recording starts automatically if the connection between the camera and AXIS Camera Station is lost during an ongoing recording. No new recordings can be started while the connection is lost.

Failover recordings will only affect H.264 recordings and can be enabled on cameras with support for storage (SD card) and firmware 5.20 or later.

To set up a failover recording, follow these steps:

1. From the **Configuration** menu, select **Recording Storage**.
2. Under **Cameras**, select the camera and click **Edit**.
3. Check **Enable failover recording**.
4. Click **OK** to save settings.

Configure Recording Storage

Recording storage is configured when cameras are added to AXIS Camera Station. If required, storage settings for individual cameras can be modified and additional disks can be added.

For more information, see

- *Configure Storage Settings for Individual Cameras*
- *Add and Configure a Recording Disk*

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Configure Storage Settings for Individual Cameras

When cameras are added to AXIS Camera Station, the cameras are distributed among the selected recording disks. To change the recording disk or the number of days to keep recordings for a camera, follow these steps:

1. From the **Configuration** menu, select **Recording Storage**.
2. Select a camera from **Cameras**.
3. Click **Edit** to open the **Edit Camera Recording Storage Settings** dialog.
4. Select the disk to save recordings to.
5. Set the maximum number of days to keep recordings. Alternatively, select **Unlimited** to keep recordings until the disk is full.
6. Optional: enable failover recordings, see *Failover Recordings on page 37*.
7. Click **OK**.

Note

Maximum disk space has precedence over the number of days to keep recordings. Recordings will be deleted if there is no room left in the allotted drive space.

Add and Configure a Recording Disk

Recordings can be stored on hard disk drives on the local computer or on a network share. To prevent the disk from becoming full, a maximum disk usage should be set.

To add and configure a recording disk, follow these steps:

1. From the **Configuration** menu, select **Recording Storage**.
2. Click **Add Disk**.

Note

- It is not recommended to use the disk on which the operating system is installed.
 - The recommended minimum disk space for hard disk drives and network shares added to AXIS Camera Station is 32 GB, with at least 15 GB of free disk space available.
 - If there is less than 15 GB of free disk space available, AXIS Camera Station will automatically start deleting old recordings to free up disk space.
3. Select a hard disk drive or enter the path to a network share (for example `\\ip_address\share`) and click **OK**.
 4. If authentication is required, enter the necessary username and password to access the disk.
 5. To set the maximum disk space allowed to be used by AXIS Camera Station, select the disk and use the **AXIS Camera Station Recordings Limit** slider.
 6. To change the folder where recordings are stored, select the disk and click **Edit** to specify a new folder.

Note

It is not possible to remove disks that contain recordings.

Add Cameras and Video Encoders

Cameras and video encoders are added the first time AXIS Camera Station is started, see *Get Started on page 12*. To add additional cameras and video encoders:

1. From the **Configuration** menu, select **Add/Edit Cameras**.
2. Click **Add**.

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3. Follow the on-screen instructions in the **Add New Cameras** dialog. The steps are the same as in **Get Started with AXIS Camera Station**. See *Get Started on page 12*.

Note

- To add door controllers (AXIS A1001 Network Door Controller) or I/O audio modules (AXIS P8221 Network I/O Audio Module), select **Configuration > Add/Edit Aux Devices**. See *Add Auxiliary Devices on page 39*.
- For information about how to add view areas, see *Using View Areas on page 39*.
- For information about third-party devices, see *Add third-party devices on page 40*.

Using View Areas

View areas are supported by selected camera models. To use view areas with AXIS Camera Station, view areas must first be enabled in the camera:

1. Go to the Camera Management workspace.
2. Select the camera and click on the link in the Address column.
3. The camera's Setup pages are opened in a web browser. Enter the user name and password to log in.
4. In the Setup pages, go to **Video & Audio > Camera Settings** and click **Enable View Areas**.
5. Go to **Video & Audio > View Areas** to add and configure view areas. For instructions, see the online help.

To add view areas to AXIS Camera Station:

1. From the **Configuration** menu, select **Add/Edit Cameras**.
2. Click **Add** to start searching for cameras.
3. View areas configured in the camera will be displayed in the search result. Select the view areas to add.

Note

View areas do not support motion recording.

Add Auxiliary Devices

Auxiliary devices are devices without video capabilities, for example door controllers and audio devices.

Auxiliary devices can be added to AXIS Camera Station in the following ways:

- By searching for devices on the network, see *Add Auxiliary Devices – Using Search*.
- By specifying the device IP address or host name manually, see *Add Auxiliary Devices – Manually*.

See also *Use Audio from an Auxiliary Device on page 45*.

Add Auxiliary Devices – Using Search

To add auxiliary devices using the search function follow these steps:

1. From the **Configuration** menu, select **Add/Edit Aux Devices**.
2. Click **Search**. The **Aux Device Search** window opens with a list of all auxiliary devices found on the network.
3. Select the desired devices and click **OK**.

Note

Select **Use host name when possible** to use host names instead of IP addresses when adding auxiliary devices. If an auxiliary device is added using its host name, the host name will be used for all further communication with the device. If a host name is not available, the IP address will be used.

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Add Auxiliary Devices – Manually

To add auxiliary devices manually follow these steps:

1. From the Configuration menu, select **Add/Edit Aux Devices**.
2. Click **Add** to open the Add Aux Device dialog.
3. Under **Settings**, enter the required information.
Address – Enter the device's IP address or host name.
Port – Enter the port number, if different than the default port 80.
4. Under **Credentials**, enter a user name and password for an administrator account on the device.
5. Click **OK** to add the device.

Add third-party devices

The following applies for third-party devices that are added to AXIS Camera Station:

- Third-party devices are added to AXIS Camera Station in the same way as Axis products. See *Add Cameras and Video Encoders on page 38* All third-party devices must pass the AXIS Camera Station Device Compatibility Test tool before they can be added.
- Only a number of functions are available for third-party devices. See *Support for third-party devices*.

Support for third-party devices

AXIS Camera Station 5 supports ONVIF Profile S conformant devices according to definitions in the IEC62676-2-3 standard. The following functionality is supported for third-party devices:

- Camera discovery
- Video encoding: MJPEG, H264
- Audio encodings: G.711 (one-way, from the device to AXIS Camera Station)
- One video profile per camera
- Live view
- Continuous and Manual recordings
- Recordings exports

For detailed information about support for third-party devices, see the latest technical paper about third-party device support in AXIS Camera Station: www.axis.com/products/axis-camera-station/support-and-documentation

AXIS Camera Station Device Compatibility Tool

Download and run the AXIS Camera Station Device Compatibility Tool to verify if your network video products are compatible with AXIS Camera Station 5 and above: www.axis.com/support/downloads/axis-camera-station-device-compatibility-tool

The tool checks if AXIS Camera Station can communicate and decode video streams from your network video products.

Create Views

AXIS Camera Station supports different view types: split view, sequence, camera view, map, web page and folder, see *Views on page 15*. The views can be organized into view groups, see *Cameras and Views on page 14*.


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Create a Split View

A split view displays multiple views in the same window. You can use camera views, sequences, web pages, maps and other split views in the split view. One frame can be set as a **hotspot** that automatically loads the view from another frame when clicking in that frame. Hotspots are particularly useful for asymmetric split views with one large and several small frames. The largest frame is typically defined as the hotspot.

To add a new split view:

1. In the Live View or Recordings workspace, click .
2. Select **New Split View**.
3. Enter a name for the split view
4. Select a layout from the drop-down list:
 - **Standard** – optimized for standard resolution cameras (4:3 format)
 - **Wide** – optimized for HDTV and megapixel cameras (16:9 format)
 - **Corridor** – optimized for cameras using Axis' Corridor Format (16:9 format, 90 degree rotation)
5. Double-click views in the tabs **Cameras** and **Views** to add them in the split view. It is also possible to drag views from the tabs **Cameras** and **Views** and drop them in the empty cells in the split view.
6. Optional: To set a hotspot, select a frame in the split view and click **Set Hotspot**.
7. When satisfied, click **OK** to create the split view.


Note

Split views and multiple servers: When connected to more than one AXIS Camera Station Server, cameras from other servers can be used in the split view. The split view is saved on the server selected in the main window. To add a camera from another server, select the server from the server drop-down list under **Camera**.

Create a Sequence

A sequence view automatically switches between included views. The dwell time, that is, the number of seconds to show a view, before switching to the next, can be set individually for each view. For cameras with PTZ capabilities, PTZ presets can be included in the sequence.

To create a sequence, follow these steps:

1. In the Live View or Recordings workspace, click .
2. Select **New Sequence**.
3. Enter a name for the sequence.
4. Double-click desired views in the tabs **Cameras** and **Views** to add them to **Sequence views**. It is also possible to drag views from the tabs **Cameras** and **Views** and drop them in **Sequence views**.
5. Optional: To set a dwell time, select a view in the sequence and click **Set Properties**. Enter the desired dwell time.
6. Optional: To include a PTZ preset, select a view in the sequence and click **Set Properties**. Select a PTZ preset from the drop-down list.
7. When satisfied, click **OK** to create the sequence.

Note

PTZ presets must first be added. See *Add a PTZ Preset Position on page 43*.

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Note

Sequence views and multiple servers: When connected to more than one AXIS Camera Station Server, cameras from other servers can be used in the sequence view. The sequence view is saved on the server selected in the main window. To add a camera from another server, select the server from the server drop-down list under **Camera**.

Create a Map

A map is an imported image on which camera views, split views, sequences, web pages and other maps can be placed. The map gives a visual overview and makes it easy to quickly locate and access individual cameras. To open a camera or view from a map, click on the corresponding icon. Action buttons from Event Configuration can also be used with maps.

To create a map, follow these steps:

1. In the Live View or Recordings workspace, click .
2. Select **New Map**.
3. Enter a name for the map.
4. Click **Import Map** and browse to locate the file.
5. Drag views from the tabs **Cameras** and **Views** and drop them on the map. It is also possible to double-click views in the **Cameras** and **Views** tabs to add them to the map.
6. When satisfied, click **OK** to create the map.


Note

Map views and multiple servers: When connected to more than one AXIS Camera Station Server, cameras from other servers can be used in the map view. The map view is saved on the server selected in the main window. To add a camera from another server, select the server from the server drop-down list under **Camera**.

Create a Web Page View

External web applications can be integrated into AXIS Camera Station by creating a web page view. Web pages can, for example, be shown in a split or a sequence together with live video.

To create a web page view, follow these steps:

1. In the Live View or Recordings workspace, click .
2. Select **New Web Page**.
3. Enter a name for the web page.
4. Enter the Internet address in the **Url** field.

Note


Web pages cannot contain other views.

Create a folder

Folders are used to categorize items in a tree view structure, see *Cameras and Views on page 14*.

You can drag and drop the following items to a folder: split views, sequences, camera views, maps, web pages and other folders.

To create a folder, follow these steps:

1. In the Live View or Recordings workspace, click .
2. Select **New Folder**.

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3. Enter a name for the folder.
4. Click OK.

Create Action Buttons

Action buttons are used to start and stop actions in Live View. Action buttons are displayed on top of the live view or in a map. When clicking the button, the action will be performed. The same button can be used with multiple cameras and maps.

There are two types of action buttons:

Command buttons – A command button is used to manually start an action. Use command buttons for actions that do not require a stop button. Examples: Activate an output for a predefined time (use output action with pulse set to the number of seconds the output should be active), raise an alarm, send e-mail.

Toggle buttons – A toggle button is used to manually start and stop an action. The button has two states: toggle and untoggle. Clicking the button switches between the two states. Examples: Open and Close Door (use output action with pulse set to "as long as any trigger is active").

To create an action button, follow these steps:

1. From the **Configuration** menu, select **Event Configuration**.
2. Click **New** to create a new rule and then click **Add** to add a trigger.
3. Select **Action Button**.
4. Select **Command button** or **Toggle button** and click **Next**.
5. For command buttons, enter a button label and a tooltip. For toggle buttons, enter a toggle label, an untoggle label and a tooltip. The tooltip will be displayed when hovering the mouse pointer over the button.
6. Select the **Camera** or **Map** to add the button to. Click the links to add the button to multiple cameras or maps.
7. When satisfied, click **Next** to return to the New Rule dialog.
8. Click **Next** to go to the Add Actions step. Click **Add** and select the action to use for the button.
9. Click **Next** to go to the Schedule step. Select a schedule and then click **Next** to go to the Details step. Click **Finish** to create the buttons and enable the rule.

If a camera has multiple buttons, the order of the buttons can be modified. Click **Arrange** when adding the button to the cameras. To arrange buttons on a map, go to the Live View workspace and edit the map.

Note

A rule can have multiple triggers but only one action button trigger.

Add a PTZ Preset Position

A PTZ preset is a saved pan, tilt and zoom position. Presets can be selected in Live View and can be used in sequences.

Presets can be created for cameras with PTZ cameras and cameras where digital PTZ has been enabled in the camera's Setup pages, see *Mechanical PTZ on page 17*.

To add a preset position, follow these steps:

1. From the **Configuration** menu, select **PTZ**.
2. Select a PTZ camera and click **Configure**.
3. Click in the preview window or use the PTZ controls to move the camera view to the desired position.

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4. Click **Add** and type a name for the preset.

Note

- Presets configured in AXIS Camera Station are stored in the camera together with presets configured in the camera's Setup pages.
- The **Presets** list includes preset positions configured both in AXIS Camera Station and in the camera. Click **Refresh** to update the list.

Configure Video & Audio Settings


To customize profile settings for resolution, frame rate, compression, video format and audio, go to **Configuration > Video & Audio Settings**, select the camera to configure and click **Edit**.

For cameras of the same model that have the same configuration capabilities, multiple cameras can be configured at the same time. To customize profile settings for recordings, see *Continuous and Scheduled Recordings on page 36* and *Motion Recording on page 33*.

Note

The resolution and frame rate used in Live View can be limited to reduce bandwidth consumption, for example if a slow connection is used between the AXIS Camera Station Client and AXIS Camera Station Server.

To optimize profile settings for low bandwidth:

1. Go to  > **Options > Customize**.
2. Click the **Live View** tab and check the **Low bandwidth mode** box.
3. Click **OK**.

When **Low bandwidth mode** is selected, the **Low** profile is used for all cameras in all views.

Video Profiles:

A maximum number of three default profiles are created for each camera. These profiles are used for recordings as well as live view. In live view, the profiles are used as follows:

High – Used to display single camera screens – optimized for the highest quality and resolution.

Medium – Used to display 2-4 camera split screens – optimized to balance high quality with performance.

Low – Used to display 5 or more camera split screens – optimized for performance.

Note

To enable profile settings in recordings, see *Continuous and Scheduled Recordings on page 36* and *Motion Recording on page 33*.

Resolution – Select resolution. Available options depend on camera model. A higher resolution gives an image with more details but requires more bandwidth and disk space.

Frame rate – Set the desired frame rate. The actual frame rate depends on camera model, network conditions and computer configuration.

Compression – Set compression level. Lower compression improves image quality, but requires more bandwidth and disk space.

Format – Select video format. Available options depend on camera model. H.264 is supported by most camera models and requires less bandwidth and disk space compared to, for example, M-JPEG.

Note

Cameras configured for MPEG-4 can only have one MPEG-4 profile at a time.

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Audio:

Microphone – Select a camera microphone to enable audio in the profile. Audio can be used with MPEG-4 and H.264 video, and is available for cameras with built-in audio and for cameras used together with an external audio device. See *Use Audio from an Auxiliary Device on page 45*.

Use microphone for – Enable microphone audio for one or two streams. Audio can be enabled for Live view and recording, Live view only or Recording only.

Speaker – Select a speaker to enable audio transmissions through camera speakers or auxiliary devices. Use a microphone connected to the computer to make spoken announcements. See *Use Audio from an Auxiliary Device on page 45*.

The microphone  indicates that the selected camera has an enabled microphone (built-in, line-in, auxiliary device). The microphone transmits audio from the camera to live view and recordings.

The speaker  indicates that the selected camera has an enabled speaker (built-in or external auxiliary device). In live view, use the Speak button to transmit spoken messages through the speaker.

Note

Any built-in microphones or speakers cannot be shared with other cameras.

Advanced:

Include analytics data for Smart Search – Check this option to allow data to be gathered for smart search during video streaming.

Note

Data gathering for Smart Search can add latency in live video streaming. For Smart Search, see *Smart Search on page 21*.

Use Audio from an Auxiliary Device


Audio from an auxiliary device can be used together with video from a network camera or video encoder for live viewing or recording:

Follow these steps:

1. Add the auxiliary device to AXIS Camera Station, see *Add Auxiliary Devices on page 39*.
2. Configure the camera to use audio from the auxiliary device.
3. Enable audio for Live View or Recording.

Enable audio:

To configure profiles for audio:

1. Go to  > Configuration > Video & Audio Settings.
2. Select the camera and click **Edit**.
3. Select MPEG-4 or H.264 under **Format** in the video profile settings.
4. Select a microphone under **Microphone** in the audio settings.
5. Select when to enable audio under **Use microphone for** in the audio settings. Audio can be applied for **Live view and recording**, **Live view only** or **Recording only**.
6. If applicable, select a speaker under **Speaker** in the audio settings.
7. Click **OK**.

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Add Inputs and Outputs

Many cameras and video encoders have I/O ports for connection of external devices. Auxiliary devices can also have I/O ports.

There are two types of I/O ports:

- **Input port** – connection of devices that can toggle between an open and closed circuit. Examples: door and window contacts, smoke detectors, glass break detectors and PIRs (Passive Infrared Detector).
- **Output port** – connection to devices such as relays, doors, locks and alarms. Devices connected to output ports can be controlled from AXIS Camera Station.

I/O ports are used in rules set up in Event Configuration, see *page 53*. Input ports are used as triggers, that is, when AXIS Camera Station receives a signal from a device connected to an input port, specified actions will be performed. Output ports are used as actions, that is, when a rule is activated, AXIS Camera Station can activate or deactivate a device connected to an output port.

It is also possible to control output ports manually from **Actions > I/O Monitoring**.

For information about how to connect devices and how to configure I/O ports, see the Axis product's User Manual or Installation Guide. Some products have ports that can be configured to act as input or output.

To add an input or output port, follow these steps:

1. From the **Configuration** menu, select **I/O Settings**.
2. To add ports, click **Add**.
3. A list showing available I/O ports in devices added to AXIS Camera Station is now displayed. Select the port to add and click **OK**.
4. Enter a name for the port and names for the active and inactive states. The names will appear under **Logs, I/O Monitoring** dialog and in **Event Configuration**.
5. Output ports: To set the initial state of the output port, select **On startup set to** and then select the state to use as initial state. The port will be set to the initial state each time AXIS Camera Station establishes contact with the device.
6. Click **OK** to add the port.

Note

Multiple ports can be added at the same time. If selecting multiple ports, the port names and names of the active and inactive states will be set to default values.

Set Up Schedules

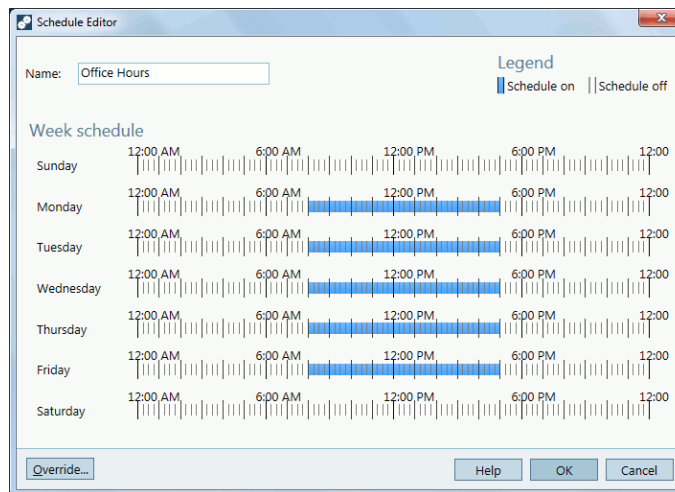
Schedules can be used in **Recording Settings** and **Event Configuration**. Once a schedule has been entered, it can be used as many times as needed. Schedules can also be overridden on special dates, for example public holidays.

To set up a schedule, follow these steps:

1. From the **Configuration** menu, select **Schedules**.
2. Click **Add** to open the **Schedule Editor**.
3. Enter a name for the schedule.
4. Click in the timeline and drag to define when the schedule should be on and off. Colored areas indicate that the schedule is on.
5. To use a different schedule for special dates, click **Override**. Use the arrows to select the month, then select the special dates and click **Edit**. To select several dates, keep the **SHIFT** or **CTRL** key pressed while selecting the dates.
6. Click **OK**.

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Send E-Mail Notification on System Alarm

A system alarm occurs when connection to a device is lost, when access to a recording disk is denied, when a recording disk is full, on recording errors, etc. An e-mail notification can be sent when a system alarm occurs.

To set up e-mail notification, follow these steps:

1. From the **Configuration** menu, open **System Alarm**
2. Check **Send e-mail on system alarm** to the following recipients.
3. Enter the e-mail addresses alarm messages should be sent to.
4. Under **New recipient**, choose if the address should be in the **To**, **Cc** or **Bcc** field of the e-mail and enter the e-mail address.
5. Click **Add** to enter the e-mail address into the **Recipients** box.
6. Click **OK** to save.

Note

To send emails, an SMTP server must first be added. To add an SMTP server, select **SMTP Servers** from the **Options** menu.

Camera Applications

A camera application is software that can be uploaded to and installed on Axis network video products. Applications add functionality to the device, for example detection, recognition, tracking or counting capabilities.

The following applications are installed automatically when cameras (that support these applications) are added to AXIS Camera Station:

- **AXIS Video Motion Detection 2.1** is an application that detects moving objects within an area of interest. The application does not require any license and can be installed on cameras with firmware 5.60 and later.
- **AXIS Video Content Stream 1.0** is an application that improves smart search. The application enables **AXIS Video Content Stream** in the camera and can be installed on cameras with firmware 5.50 and later. The use of **AXIS Video Content Stream** is only permitted through **AXIS Camera Station**.

Other applications must first be downloaded from www.axis.com/applications or from the application vendor's web site.

Applications can be installed on devices with support for **AXIS Camera Application Platform**. Some applications also require a specific firmware version or camera model. If the application requires a license, the license key file can be installed at the same time as the application or it can be installed later using the devices' **Setup** pages.

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To obtain the license key file, the license code included with the application must be registered at www.axis.com/techsup/compatible_applications

To install an application, follow these steps:

1. Go to the **Camera Management** workspace.
2. Select the devices to install the application on. Multiple devices can be selected.
3. Right-click and select **Install Camera Application**.
4. Select the application to install and click **Next**.
5. The **Install licenses** page is displayed when installing an application other than AXIS Video Motion Detection 2.1 or AXIS Video Content Stream 1.0.
 - To install licenses, select **Yes** and click **Next**. Click **Browse** and browse to the license file.
 - If the application does not require any license, or if licenses should be installed later, select **No**.
6. Click **Next**.
7. Check that all settings are correct and click **Finish** to install the application.

Important

If the application is already installed, the existing application will be overwritten. Overwriting removes all application settings.



If an application cannot be installed, go to www.axis.com and check if the device model and firmware version support AXIS Camera Application Platform.

Export Recordings

Recordings can be exported to a local disk, a network location or burned to a CD or DVD. Multiple recordings can be exported at the same time.

Recordings are exported in ASF format and can be played by Windows Media Player or AXIS File Player. AXIS File Player is free software for video and audio playback. AXIS File Player is automatically included with the exported recordings. No installation is required. To play recordings, open AXIS File Player and select the recordings to play.

To export a recording:

1. To search and play a recording, see *Search and Play Recordings on page 19*.
2. Go to the **Recordings** workspace.
3. Select the recording in the timeline:
 - To select a single recording, click on the recording in the timeline.
 - To select all recordings in a time interval, or to select a part of a longer recording, click  to display the selection markers. Move the selection markers to the desired time.
 - To select recordings from multiple cameras, keep the SHIFT or CTRL key pressed while selecting cameras in the timeline. Then click on the recording or use the selection markers.
4. Click  to open the Export dialog.
5. Select the location to export the recordings to.
6. Optionally, select **Create playlist** to create a playlist for Windows Media Player.
7. Optionally, add a digital signature. A digital signature is used to ensure image authenticity and integrity.

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8. Click **Export**.

Note

Recording export can also be scheduled. Go to **Configuration > Scheduled Recording Export**.

Upgrade Firmware

Firmware is software that determines the functionality of the Axis product. Using the latest firmware ensures that the device will have the latest functionality and improvements.

New firmware can be:

- downloaded from Axis via AXIS Camera Station. Requires Internet connection.
- imported from a file (for example on the hard drive or on a memory stick).


Devices will be offline during firmware upgrade. When upgrading multiple devices, the upgrade can be run in

- **Sequence** – one device at a time
- **Parallel** – upgrade all devices. This option is faster but all selected devices will be offline at the same time

To upgrade one or more devices, follow these steps:

1. Go to the **Camera Management** workspace, see *Camera Management Workspace on page 23*.
2. Select the devices. Multiple devices can be selected.
3. Right-click and select **Upgrade Firmware**.
4. To check if new firmware versions are available for download, click **Check for Updates**. Enter the user name and password for your **MyAxis** account. If you do not yet have an account, you can create one from this dialog.
6. For each device model, click the arrow under **Upgrade To** and select the firmware versions the devices should be upgraded to. The following options can be available in the drop-down list:
 - Firmware that has already been downloaded or imported is shown with its version number.
 - Firmware that is available for download is shown with the text **(Download)** after its version number. The firmware will be downloaded automatically when you click **OK** to start the upgrade operation.
 - **Browse** – Select this option to browse to a firmware file.
7. Click **OK** to start upgrading the devices.

Note

To select upgrade order for firmware, go to  > **Options > Upgrade Firmware Settings** and select **Parallel** or **Sequence**.

Assign IP Addresses

AXIS Camera Station can assign IP addresses to multiple devices. New IP addresses can be:

- obtained automatically from a DHCP server
- assigned from an IP address range.

To assign IP addresses to multiple devices, follow these steps:

1. Go to the **Camera Management** workspace.
2. Select the devices to configure. Multiple devices can be selected.

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3. Right-click and select **Assign IP Address**.
4. Select one of the following options:
 - **Obtain IP addresses automatically (DHCP)**
 - **Assign the following IP address range:**
Specify the IP address range, the subnet mask and the default router. Wildcards can be used, for example 10.93.*
5. Click **Next**.
6. The current IP address and the new IP address are displayed under **New IP addresses**. To modify the IP address for a device, select the device and click **Edit IP**.
7. Click **Finish** when satisfied with the new IP addresses.

Configure Devices

Multiple devices can be configured at the same time by copying device settings from one device, or by applying a configuration file.

- For information about how to configure devices, see *Choose Configuration Method on page 50*.
- For information about which settings can be copied, see *Configuration Settings on page 51*.
- For information about how to create a configuration file, see *Create Configuration File on page 52*.

Choose Configuration Method

There are different methods to configure selected devices. AXIS Camera Station will attempt to configure all devices according to the selected settings in the method.

For more information about settings, see *Configuration Settings on page 51*.

Use Configuration of Selected Device

Note

This method is only available for configuration of a single device by reusing some or all existing settings.

To use configuration of a selected device:

1. Open the **Camera Management** workspace.
2. Select one device to configure with existing settings.
3. Right-click and select **Configure Devices > Configure**.
4. Select the settings to be applied.
5. Click **Next** to verify the settings to be applied.
6. Click **Finish** to apply the selected settings to the selected device.

Copy Configuration From Another Device

To copy a configuration from another device:

1. Open the **Camera Management** workspace.
2. Select the devices to configure with copied settings from another device. Devices of different models and firmware can be selected.
3. Right-click and select **Configure Devices > Configure**.

AXIS Camera Station

How to...

4. Click **Device** to show devices with reusable configurations.
5. Select a device to copy settings from and click **OK**.

Note

The details for the selected device are shown in a the **Configure Devices** dialogue.

6. Select the settings to be applied.
7. Click **Next** to verify the settings to be applied.
8. Click **Finish** to apply the selected settings to the selected devices.

Use Configuration File

A configuration file contains selected settings from one device. To create a configuration file, see *Create Configuration File on page 52*.

Configuration files can be used to:

- configure multiple devices at the same time,
- reconfigure a device, for example if the device is reset to its factory default settings.

To apply a configuration file to devices:

1. Open the **Camera Management** workspace.
2. Select the devices to configure with the configuration file. Devices of different models and firmware can be selected.
3. Right-click and select **Configure Devices > Configure**.
4. Click **Configuration File** to go to the configuration file.
5. Browse to the .cfg file and click **Open**.
6. Click **Next** to verify the settings to be applied.
7. Click **Finish** to apply the selected settings to the selected devices.

Note

A configuration file created from a device can be applied to devices with different model or firmware even if some settings do not exist on all selected devices. This option should only be used by experienced users. If some settings do not exist or cannot be applied, the task status will show as **Error** in the **Tasks** tab at the bottom of the **Camera Management** workspace. Right-click the task and select **Show** to display information about the settings that could not be applied.

Configuration Settings

Parameters	Parameters are internal device parameters that are used to control device behavior. Parameters should only be modified by experienced users. <p>Note</p> All device parameters are not accessible from AXIS Camera Station.For general information about parameters, see the product's User Manual available at www.axis.com
Variables	It is possible to insert variables in some text fields. To insert a variable, right-click in the text field and select a variable. The variables will be replaced by text before they are applied to a device.

AXIS Camera Station

How to...

	<p>There are three variables available:</p> <ul style="list-style-type: none">• \$(Properties.System.SerialNumber) - This variable will be replaced with the serial number of the device that the configuration file is applied to.• \$(mgr.ServerName) - This variable will be replaced with the name of the server used when applying the configuration file. The server name can be found in the Server column in the Camera Management workspace. To rename a server, use AXIS Camera Station Service Control.• \$(mgr.POSIXTimeZone) - This variable will be replaced with the POSIX time zone of the server used when applying the configuration file. This can be used with the POSIX time zone parameter to set the correct time zone of all devices in a network with servers in different time zones.
Action Rules	<p>Action rules can be copied between devices. Action rules should only be modified by experienced users.</p> <p>For general information about action rules, see the product's User Manual available at www.axis.com</p>
Additional Settings	<p>Stream Profiles - A stream profile is a pre-programmed live view configuration profile for video encoding, image and audio settings. Stream profiles can be copied between devices.</p> <p>Motion Detection Windows - Motion detection windows are used to define specific areas in the camera's field of view. Typically, alarms are generated whenever movement occurs (or stops) within the specified areas. Motion detection windows can be copied between devices.</p>

Create Configuration File

A configuration file contains selected settings from one device. These settings can then be applied to other devices. For information on how to use the configuration file, see *Choose Configuration Method on page 50*.

The displayed settings are the device settings that can be accessed using AXIS Camera Station. To find a particular setting, use the **Type to search** field.

To create a configuration file:

1. Open the **Camera Management** workspace.
2. Select the device to create the configuration file from.
3. Right-click and select **Configure Devices > Create Configuration File**.
4. Select the settings to include and modify their values as required. For more information, see *Configuration Settings on page 51*.
5. Click **Next** to verify the settings to be saved.
6. Click **Finish** to create the configuration file.
7. Click **Save** to save the selected settings to a .cfg file.

AXIS Camera Station

Event Configuration

Event Configuration

Event configuration is a powerful tool to reduce the number of recordings, to interact with devices connected to I/O ports and to alert operators about important events.

To configure events, AXIS Camera Station uses rules. A rule is a set of conditions that define how and when actions should be performed. A rule consists of **triggers** and **actions**. Triggers define when the rule should be activated. A rule can have multiple triggers and will be active as long as any of the triggers is active. If the rule has multiple actions, all actions will be performed when the rule is activated.

Triggers

The following triggers are available:

Motion Detection	<p>The motion detection trigger is activated when the selected camera detects motion within a defined area. Detection is performed by the camera which means that no processing load to AXIS Camera Station Server.</p> <p>Avoid using the motion detection trigger to start recordings if motion recording is enabled in the camera. To find out if motion recording is enabled, go to Configuration > Recording Settings.</p>
Active Tampering Alarm	<p>The tampering trigger is activated when the selected camera is repositioned or when the lens is covered, sprayed or severely defocused. Tampering detection is performed by the camera which means that no processing load is added to AXIS Camera Station Server.</p> <p>Active Tampering Alarm is available for cameras with support for Camera Tampering and with firmware 5.11 or later.</p>
AXIS Cross Line Detection	<p>AXIS Cross Line Detection is an application that can be installed on cameras and video encoders. The application detects moving objects that cross a virtual line and can, for example, be used to monitor entrance and exit points.</p> <p>Before using AXIS Cross Line Detection as a trigger, the application must be installed on the camera. Download the application from www.axis.com. Then go to the Camera Management workspace, select the camera, right-click and select Install camera application. See <i>Camera Applications on page 47</i>.</p> <p>The trigger is activated when an application detects a moving object. Since detection is performed by the application on the camera, no processing load is added to AXIS Camera Station Server.</p> <p>AXIS Cross Line Detection can be installed on products with support for AXIS Camera Application Platform.</p>
System Event and Error	<p>A system event or error trigger is activated when recording errors occur, when a disk becomes full, when a network share cannot be contacted or when connection to one or more devices is lost.</p>
Input/Output	<p>The Input/Output (I/O) trigger is activated when a device's I/O port receives a signal from, for example, a connected door, smoke detector or switch.</p> <p>Before using an I/O trigger, the I/O port must be added to AXIS Camera Station. Go to Configuration > I/O Settings. See <i>Add Inputs and Outputs on page 46</i>.</p>
Device Event	<p>The device event trigger is intended for advanced users. The trigger uses events from the camera or auxiliary device and can be used if no other trigger is applicable. Supported by products with firmware 5.40 and later.</p>
Action Button	<p>Action buttons are used to start and stop actions in Live View. Action buttons are displayed on top of the live view or in a map. When clicking the button, the action will be performed. For more information, see <i>Create Action Buttons on page 43</i>.</p>

AXIS Camera Station

Event Configuration

Actions

The following actions are available:

Record	<p>The record action starts a recording from the selected camera. The recording can be accessed and played from the Recordings workspace.</p> <p>The recording is saved to the disk specified under Configuration > Recording Storage.</p>
Raise alarm	<p>The raise alarm action sends an alarm to all connected AXIS Camera Station Clients. The alarm will be displayed in the Alarms tab (see <i>Alarms and Tasks Tabs on page 28</i>) and as a taskbar notification. Instructions in form of a file with alarm procedures can be included with the alarm.</p>
Send e-mail	<p>The e-mail action sends an e-mail to one or multiple recipients. Snapshots from selected cameras can be sent as e-mail attachments. To be able to send e-mails, an SMTP server must first be configured,</p>
Live View	<p>The live view action opens the Live View workspace with a specified camera, view or preset position. The Live View workspace will open in all connected AXIS Camera Station Clients.</p> <p>If the Live View workspace shows a split view with a hotspot, the camera selected in the live view action will be loaded in the hotspot.</p> <p>The live view action can also be used to restore open AXIS Camera Station Clients from the taskbar or bring the clients to the front of other applications.</p>
Set Output	<p>The output action sets the state of an output port. This is used to control the device connected to the output port, for example to switch on a light or lock a door.</p> <p>Before using the output action, an output port must be added to AXIS Camera Station. Go to Configuration > I/O Settings. See <i>Add Inputs and Outputs on page 46</i>.</p>
Send HTTP Notification	<p>The HTTP notification action sends an HTTP request to a camera, a door controller or an external web server. HTTP notifications can for example be used to enable or disable a feature in the camera, or to open, close, lock or unlock a door connected to a door controller.</p>

Create a Rule

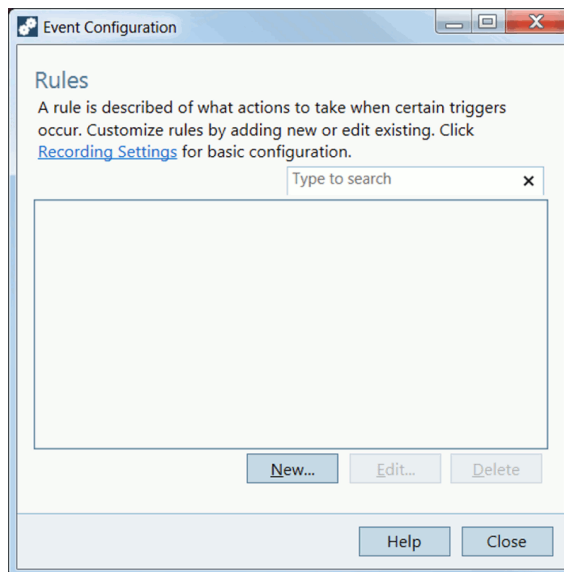
The example described in this chapter demonstrates how to use Event Configuration to create a rule that starts a recording, raises an alarm and sends an e-mail each time a door is opened. The door switch is connected to an input port of the camera monitoring the door.

Start by creating a new rule:

1. Open the **Configuration** menu and select **Event Configuration**.
2. Click **New** to open the New Rule dialog.

AXIS Camera Station

Event Configuration



The rule is configured in four steps, described in the following sections:

- **Triggers** – add one or more triggers
- **Actions** – add one or more actions
- **Schedule** – select a schedule for the rule
- **Details** – check settings and enable the rule

Add Triggers

A rule can have one or more triggers. When using several triggers, only one of the triggers needs to become active to activate the rule.

In this example, an I/O trigger will be created.

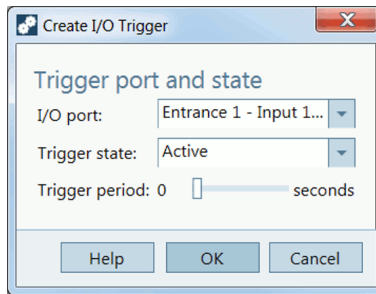
Add an I/O Trigger

To create an I/O trigger, follow these steps:

1. In the New Rule dialog, click **Add** to open the Add Trigger dialog.
2. Click **Advanced** and select **Input/Output**. The Create I/O Trigger dialog opens.
3. Select the input port on the camera monitoring the door and select the trigger state that will activate the rule when the door is open (the state Active in this example). Available values depend on how the I/O port was defined under **Configuration > I/O Settings**. See *Add Inputs and Outputs on page 46* for more information.
4. Since the trigger can go off many times and create unwanted events, an option is to set the **Trigger period** slider so that any triggers that come in under this period will be treated as one trigger.
5. Click **OK** to save the trigger settings.
6. When all triggers have been added, click **Next** to move to the Actions step.

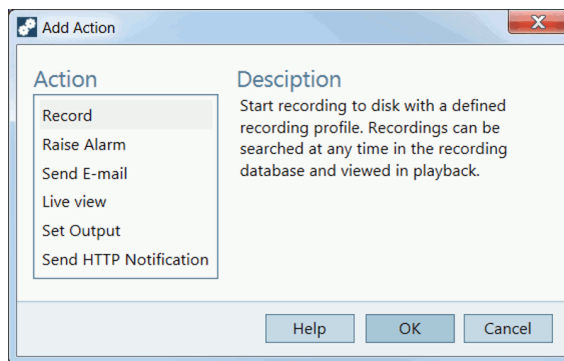
AXIS Camera Station

Event Configuration



Add Actions

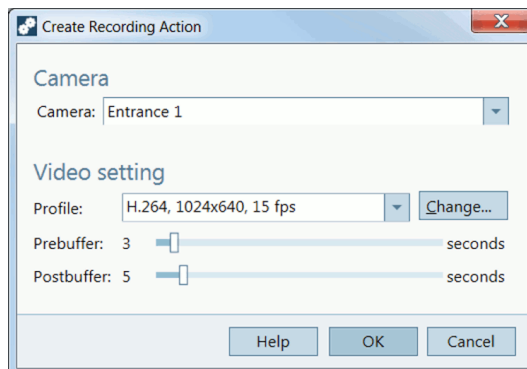
The rule can have one or more actions. In this example, three actions will be created: record, raise alarm and send e-mail.



Add a Recording Action

To create a recording action, follow these steps:

1. In the New Rule dialog, Actions step, click **Add** and select **Record**.
2. In Create Recording Action select the camera that should start recording. In this example, Entrance.
3. Select the **Video setting profile** from the drop-down list or click **Change** to enter a new profile. See for more information.
4. With the sliders select the number of seconds to include before the trigger (Prebuffer) and after the trigger stops (Postbuffer).
5. Click **OK**.



AXIS Camera Station

Event Configuration

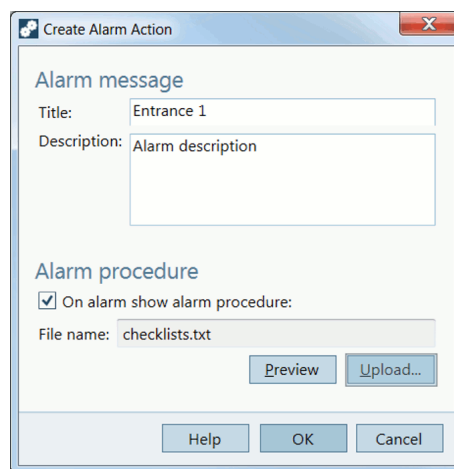
Add a Raise Alarm Action

To create a raise alarm action, follow these steps:

1. In the New Rule dialog, Actions step, click **Add** and select **Raise alarm**.
2. Type a title for the alarm message and a description.
3. To include an alarm procedure, select **Alarm procedure**, click **Upload** and browse to locate the file.
4. Click **OK** to save.

Note

An alarm procedure is an uploaded file, for example a text or image file.



Add a Send E-Mail Action

Note

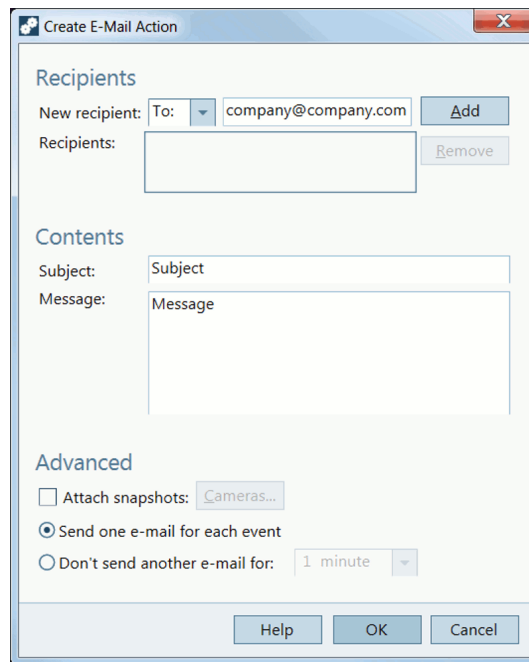
To send e-mails from AXIS Camera Station an SMTP server must first be added. Open the **Options** menu and select **SMTP servers**.

To create a send e-mail action, follow these steps:

1. In the New Rule dialog, Actions step, click **Add** and select **Send e-mail**.
2. Enter the e-mail addresses that alarm messages should be sent to. Under **New Recipient**, choose if the address should be in the **To**, **Cc** or **Bcc** field of the e-mail and enter the e-mail address.
3. Click **Add** to enter the e-mail address into the **Recipients** box.
4. Enter a subject for the e-mail in the **Subject** field.
5. Enter a message to the recipient.
6. To attach camera snapshots, select **Attach snapshots** and click **Cameras** to select the cameras to include snapshots from.
7. To reduce the number of e-mails, select **Send one e-mail for each event** or **Don't send another e-mail for**.
8. Click **OK** to save.

AXIS Camera Station

Event Configuration



Set a Schedule

The rule can be configured to be active at all times or according to a schedule. For more information about schedules, see *Set Up Schedules* on page 46.

To set a schedule, follow these steps:

1. When all actions have been added, click **Next** to move to the Schedule step.
2. Select **Always** to let the rule be active at all times or select a **Custom Schedule**
3. Click **Next** to go to the **Details** step.

Rule Details

The final Details step shows the rule settings.

1. Enter a **Name** for the rule.
2. Check that all settings are correct.
3. Make sure that **Enable this rule** is selected and click **Finish** to save the rule.

AXIS Camera Station

Input Devices

Input Devices

The following input devices can be used with AXIS Camera Station:

- AXIS T8311 Video Surveillance Joystick
- AXIS T8312 Video Surveillance Keypad
- AXIS T8313 Video Surveillance Jog Dial
- AXIS 295 Video Surveillance Joystick

Hotkeys

Hotkeys give quick access to commonly used actions. A hotkey can be

- a keyboard combination
- a keypad combination
- a joystick button
- a jog dial button

To display a list of all currently assigned hotkeys for all input devices, open **Assigned hotkeys** from the **Help** menu.

Hotkeys defined as Global are available in all workspaces; other hotkeys are available in only one workspace.


To add, edit and remove hotkeys, open **Hotkeys** from the **Options** menu. Click **Restore defaults** to reset the hotkey configuration to default.

AXIS T8311 Video Surveillance Joystick

AXIS T8311 Video Surveillance Joystick is a USB device that can be used

- to pan, tilt and zoom in the camera view (cameras with mechanical PTZ only)
- as a computer mouse

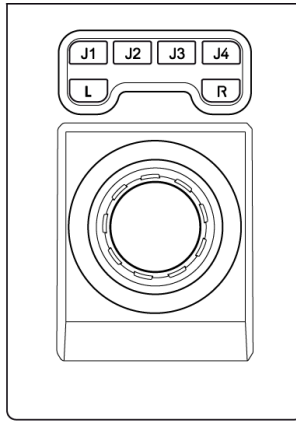
Connect the joystick before starting AXIS Camera Station. The joystick is detected and installed automatically.

The joystick can be configured to toggle between the PTZ and mouse modes. Go to  > **Options** > **Hotkeys**, select **Joystick** and then **Add**. Select **Global**, **Turn on/off joystick PTZ controlling** and assign an unused joystick button.

The table below lists the default configuration for joystick hotkeys.

AXIS Camera Station

Input Devices



AXIS T8311

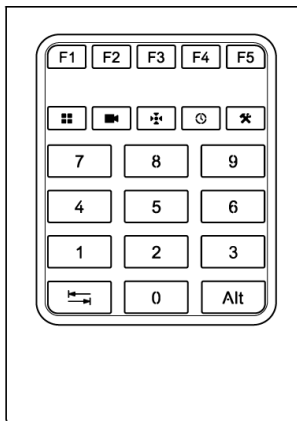
Button	Function (Global)	Function (Live View)	Function (Recordings)
J1		Go to preset 1	Play/Pause
J2		Go to preset 2	Stop
J3		Go to preset 3	Jump to previous recording start
J4		Go to preset 4	Jump to next recording start
L	Left mouse button		
R	Right mouse button		

AXIS T8312 Video Surveillance Keypad

AXIS T8312 Video Surveillance Keypad is a USB device used to quickly navigate between workspaces, cameras, views and PTZ presets.

Connect the keypad before starting AXIS Camera Station. The keypad is detected and installed automatically.















The table below lists the default configuration for keypad hotkeys.



AXIS T8312

AXIS Camera Station

Input Devices

Key	Function (Global)	Function (Live View)	Function (Recordings)
F1	Navigate to Live View		
F2	Navigate to Recordings		
F3	Navigate to Logs		
F4	Navigate to Configuration		
 View	Go to the next user-created view. Press 3+  to go to view number 3. Press ALT+  to go to the previous view.		
 Camera	Go to next camera view. Press 3+  to go to camera number 3. Press ALT+  to go to the previous camera view.		
 Preset		Go to the next PTZ preset of the currently selected camera. Press 3+  to go to PTZ preset 3.	
 Time			Enter a time (format hhmm) and press this key to start playback from the corresponding time. Example: 2000+  starts playback from 20:00 (8 pm).
 Tool	Select the next alarm in the alarm list. Press ALT+  to select the previous alarm in the list.		
 Tab		Navigate forward in a split view. Press ALT+  to navigate backward.	

The View, Camera, Preset, Time and Tool keys are backlit when the keys can be used. For example, the Time key is backlit when you are in the Recordings workspace.

AXIS T8313 Video Surveillance Jog Dial

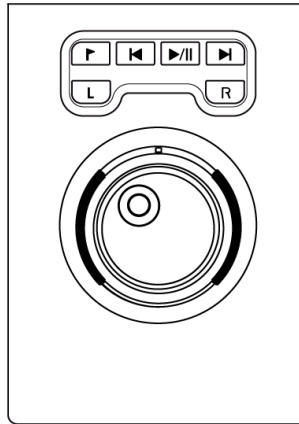
AXIS T8313 Video Surveillance Jog Dial is a USB device used to jog and shuttle through recorded video.

Connect the jog dial before starting AXIS Camera Station. The jog dial is detected and installed automatically.





The table below lists the default configuration for jog dial hotkeys.

AXIS Camera Station

Input Devices



AXIS T8313


Button	Function (Global)	Function (Live View)	Function (Recordings)
 Bookmark			Add a bookmark
 Go to previous			Go to the previous recording.
 Play/Pause			Play/pause the recording.
 Go to next			Go to the next recording.
L			Take a snapshot
R			Toggle search

AXIS 295 Video Surveillance Joystick

AXIS 295 Video Surveillance Joystick is a USB device that can be used

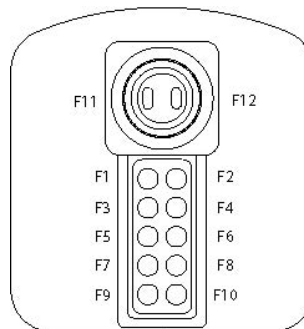
- to pan, tilt and zoom in the camera view (cameras with mechanical PTZ only)
- as a computer mouse

Connect the joystick before starting AXIS Camera Station. The joystick is detected and installed automatically.

The joystick can be configured to toggle between the PTZ and mouse modes. Go to  > **Options** > **Hotkeys**, select **Joystick** and then **Add**. Select **Global**, **Turn on/off joystick PTZ controlling** and assign an unused joystick button.

AXIS Camera Station

Input Devices



AXIS 295

Button	Function (Global)	Function (Live View)	Function (Recordings)
F1		Go to preset 1	Play/Pause
F2		Go to preset 2	Stop
F3		Go to preset 3	Jump to previous recording start
F4		Go to preset 4	Jump to next recording start
F5	Left mouse button		
F6	Right mouse button		
F7		Show split/single view	Show split/single view
F8		Toggle full screen	Take a snapshot
F9	Navigate back		
F10		Start/Stop manual recording	
F11	Increase joystick speed. Keep the button pressed while moving the joystick.		
F12	Reduce joystick speed. Keep the button pressed while moving the joystick.		

AXIS Camera Station

Network and Security Configuration

Network and Security Configuration

If AXIS Camera Station Client, AXIS Camera Station Server and the connected network devices are installed on different networks, it might be necessary to configure proxy and/or firewall settings.

- If the Client and the Server are separated by a proxy server, the client proxy settings should be modified, see *Client Proxy Settings* on page 65.
- If the Client and the Server are separated by a NAT, firewall or similar, the NAT or firewall should be modified, see *NAT and Firewall*, below.
- If network devices and the Server are separated by a proxy server, the server proxy settings should be modified, see *Server Proxy Settings*, below.

If the local network uses a proxy for Internet connection, it might be necessary to configure the proxy settings to:

- register licenses using the automatic registration option (server proxy settings)
- check for and download firmware updates (client proxy settings).

Security Considerations

To prevent unauthorized access to cameras and recordings, keep the following in mind:

- Use strong passwords for all network devices (cameras, video encoders and auxiliary devices).
- Install AXIS Camera Station Server, cameras, video encoders and auxiliary devices on a secure network separated from the office network. AXIS Camera Station Client can be installed on a computer on another network, for example a network with Internet access.
- Make sure all users have strong passwords. Using Windows Active Directory a high level of security can be implemented, see *User Permissions* on page 66.

NAT and Firewall

If there is a NAT, firewall or similar that separates AXIS Camera Station Server from AXIS Camera Station Client, it might be necessary to configure the NAT and/or firewall to allow access to the network. Make sure that the HTTP port, TCP port and streaming port specified in AXIS Camera Station Service Control are allowed to pass through the firewall and/or NAT.

For information about the Service Control, see *AXIS Camera Station Service Control* on page 68. For instructions how to configure the NAT or firewall, contact the network administrator.

Note

Some antivirus programs also block applications from accessing the network, similar to a firewall. To configure the antivirus program to allow the Client and/or Server to access the network, refer to the documentation provided with the program.

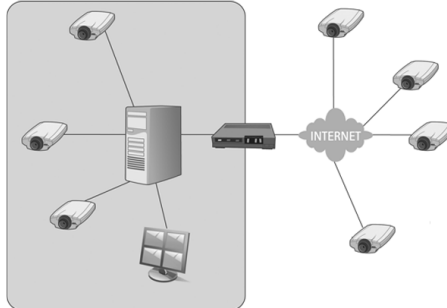
Server Proxy Settings

The server proxy settings need to be configured if:

- AXIS Camera Station Server and the network devices are separated by a proxy server
- the network uses a proxy for Internet connection and you want to register licenses.


AXIS Camera Station

Network and Security Configuration



Devices outside of the local network. To access the devices on the other side of the proxy server from AXIS Camera Station, the server proxy settings must be configured.

To configure the server proxy settings, follow these steps:

1. Open the AXIS Camera Station Service Control by double-clicking the icon  in Windows notification area. See *AXIS Camera Station Service Control* on page 68.
2. Select **Modify settings**.
3. Under **Proxy settings**, select **Use manual proxy settings**.
4. Enter the address and port number of the proxy server. This is usually the same address and port number as in **Internet Options** in Windows Control Panel.
5. If there are local devices that do not go through the proxy server, select **Bypass proxy for local addresses** and enter the devices' addresses in the box separated by semicolons.

Note

If you don't know the proxy server settings contact the network administrator.

For more information on AXIS Camera Station Service Control, see *page 68*.

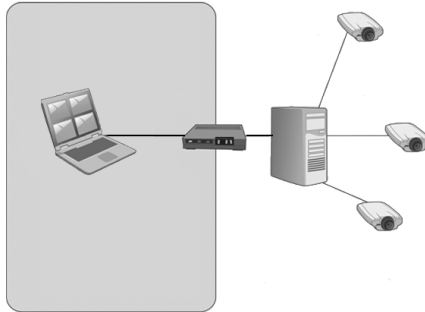
Client Proxy Settings

The client proxy settings need to be configured if:

- AXIS Camera Station Client and AXIS Camera Station Server are separated by a proxy server
- the network uses a proxy for Internet connection and you want to check for and download firmware updates.

AXIS Camera Station

Network and Security Configuration



AXIS Camera Station Client behind a proxy. To connect to an AXIS Camera Station Server on the other side of the proxy, the client proxy settings must be configured.

To configure the client proxy settings, follow these steps:

1. From the File menu, select **Log Off** to open the Log on screen.
2. Click **Change client proxy settings**.
3. Select the appropriate option:
 - **Direct connection** – Select this option if there is no proxy server between AXIS Camera Station Client and AXIS Camera Station Server.
 - **Use Internet Explorer settings** – AXIS Camera Station will use the same proxy settings as Internet Explorer.
 - **Use manual proxy settings** – Select this option to specify proxy settings manually.
4. If using manual proxy settings, enter the proxy server's IP address or host name and port number under **Manual settings**. It is also possible to bypass the proxy server for devices on the local network:
 - Select **Do not use proxy server for addresses beginning with** to exclude certain servers from access by the proxy. Use semicolons to separate entries.
 - Select **Always bypass proxy server for local addresses** to bypass the proxy server when connecting to the AXIS Camera Station Server installed on same computer as the Client.

Server Port Configuration

The ports 55752 (HTTP), 55754 (TCP) and 55753 (streaming) are used on the AXIS Camera Station Server computer for communication between the Server and the AXIS Camera Station Client. If required, the ports can be changed from *AXIS Camera Station Service Control*, see *AXIS Camera Station Service Control* on page 68.

User Permissions

Using Windows Active Directory, a high level of security can be implemented in AXIS Camera Station when granting user permissions. Before users can be granted access to AXIS Camera Station, they must be added to the local computer or have an Active Directory user account.

A user can be granted access as an individual or as part of a group. In cases where a user is granted access as an individual he will retain this right plus receive the rights he receives as part of a group. For example, a user is given access to camera X as an individual. The user is also a member of a group. The group is given access to cameras Y and Z. The user then has access to cameras X, Y and Z.

Administrators of the computer on which the AXIS Camera Station Server is installed are automatically given administrator privileges to AXIS Camera Station. It is not possible to change or remove the administrators group's privileges.

AXIS Camera Station

Network and Security Configuration

To configure user access rights, open the **Configuration** menu and select **User Permissions**.

Local Security

By default, local security is Disabled which means all users, who log onto AXIS Camera Station Server installed on the same computer as the AXIS Camera Station Client, will be given Administrator access. When local security is Enabled, access to AXIS Camera Station is restricted to trusted users and groups for both remote and local clients. For remote clients, local security is always enabled.

To change the local security settings, open the **Configuration** menu, select **User Permissions** and click **Security Settings**.

Add a User or a Group

To add a user or a group, follow these steps:

1. Open the **Configuration** menu and select **User Permissions**.
2. Click **Add** to open the **Add User/Group** dialog.
3. Select the AXIS Camera Station Server or **Domain**. The available users and groups are listed under **Available domain users/groups**. To narrow the list, select **Users** or **Groups**.
4. Select a user or group from the list and click **Add** to open the **User/Group Privileges** dialog.
5. Select a role for the user or group:
 - **Administrator** - Full access to all functionality and all added devices.
 - **Operator** - Full access to all functionality except Configuration menu, Configuration workspace, Camera Management workspace and Audit logs. Full access to selected cameras and I/O ports. Access to playback and recording export can be restricted.
 - **Viewer** - Access to live video from selected cameras and access to selected I/O ports.
6. For users with viewer or operator rights, click **Cameras** and select the cameras and camera features to give access to. Click **Advanced** to view all options
7. For users with viewer or operator rights, click **I/O** and select the I/O ports to give access to. Click **Advanced** to view all options.
8. For users with operator rights, click **Playback** to restrict playback access.
9. When satisfied, click **OK**.

Note

- If the domain user search fails, make sure that AXIS Camera Station Service is logged on as a Windows user with access to the Active Directory. To change the user account for AXIS Camera Station Service, open **Windows Control Panel**, select **Administrative Tools** and then **Services**.
- For Input/Output ports to be visible here, they must first be added to AXIS Camera Station. See *Add Inputs and Outputs* on page 46.

AXIS Camera Station

AXIS Camera Station Service Control

AXIS Camera Station Service Control

AXIS Camera Station Service Control is the application that controls the AXIS Camera Station Service. The Service Control is started when the user logs on to Windows.

An icon in Windows notification area shows if the service is running 🟢, is starting 🟡 or has stopped 🔴.

To open the Service Control, double-click the icon.

Note

The Service Control can also be opened from:

Windows 8.1, Windows Server 2012: Go to the Start screen and type "Service Control".

Windows 7, Windows Vista, Windows Server 2008: Open the Start menu and select **All Programs > AXIS Camera Station > AXIS Camera Station Tools > Service Control**.

The Server Control settings are divided on tabs:

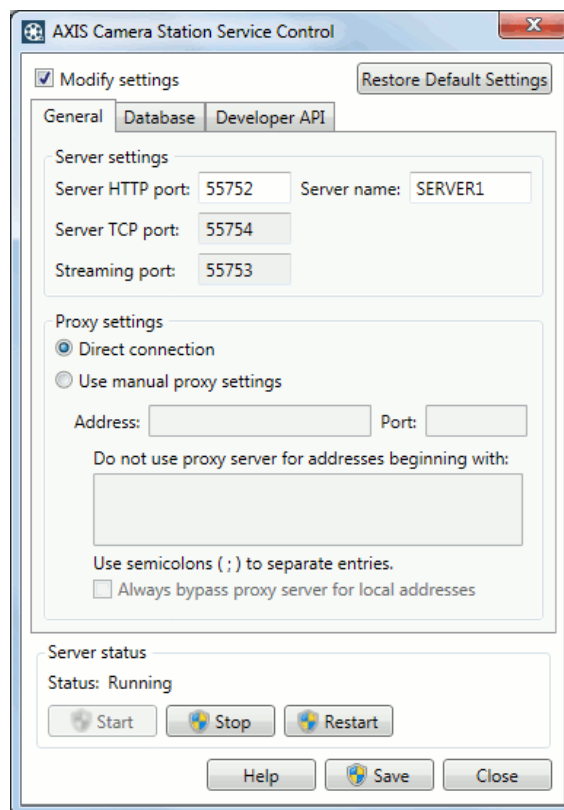
- **General** – Start and stop the server, see *page 69*. Modify server settings, see *page 69*. Modify server proxy settings, see *page 69*.
- **Database** – Start database maintenance and modify backup settings. See *page 70*.
- **Developer API** – Settings for AXIS Camera Station SDK users.

To change service settings, first select the **Modify settings** option. Click **Restore Default Settings** to restore the default values for the server, streaming ports and proxy settings.

When satisfied, click **Save** to save the settings. The service will be restarted for the changes to take effect.

AXIS Camera Station

AXIS Camera Station Service Control



General

Start and Stop the Server

To start, stop or restart AXIS Camera Station Server, open the Service Control and click **Start**, **Stop** or **Restart**.

Server Settings

The server name and server ports can be changed from the General tab in the Service Control.

Server name is the name of the Server. The name is displayed in AXIS Camera Station Client.

Server HTTP port, **Server TCP port** and **Streaming port** are the ports that the Server uses to communicate with the Client. If there is a NAT, firewall or similar between the Server and the Client, the NAT and/or firewall must be configured to allow these ports to pass through.

Note

The server port number must lie in the range 1024–65534.

Proxy Settings

Proxy settings in the Service Control are the proxy settings for AXIS Camera Station Server.

Select **Direct connection** if the Server is in direct connection with the network devices in the system.

Select **Use manual proxy settings** if the Server and devices are separated by a proxy server. Enter the proxy server's address and port number. These settings are usually the same as those under Internet Options in Windows Control Panel.

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If there are local devices that do not go through the proxy server, select **Bypass proxy for local addresses** and enter the device's addresses or host names.

For more information about proxy settings, see *Network and Security Configuration on page 64*.

Database

The AXIS Camera Station database stores recording and configuration information that is needed for the system to work properly.

The database is backed up every night. See *Database Backup on page 70*.

Database maintenance should be performed if the alarm "Database maintenance is required" is displayed or if the system was shut down unexpectedly, for example after a power outage. See *Database Maintenance on page 70*.

For information about database best practice, see *page 77*.

For information about how to recover the database, see *Recover Lost Data on page 76*.

Database Backup

The AXIS Camera Station database is backed up every night. The backups can be stored on the local computer or the network. To change the **Backup folder**, open the **Service Control** and select the **Database** tab. The oldest backups will be deleted after the number of days specified in **Days to keep backups**.

Important

Recordings are stored in the location specified in **Configuration > Recording storage** and not in the database. Recordings should be backed up separately.

Note

- The backup will be saved to the default location if it cannot be written to the folder specified, for example if the Server cannot access the folder. The default location is:
C:\ProgramData\Axis Communications\AXIS Camera Station Server\backup
- The backup files are named `acs_system_<date_time>.fdb` and `license_system_<date_time>.fdb`

For information on how to restore the database, see *Recover Lost Data on page 76*.

Database Maintenance

Database maintenance should be performed if the alarm "Database maintenance is required" is displayed or if the system was shut down unexpectedly, for example after a power outage.

During maintenance, AXIS Camera Station Server and all ongoing recordings will be stopped. The Server is started automatically after maintenance.

To start database maintenance:

1. Open the Service Control, see *page 68*.
2. Go to **Tools > Database maintainer**.
3. Click **Run**.
4. The estimated downtime will be displayed. Click **Yes** to continue or click **No** to cancel. Note: Once started, the process cannot be canceled.

Important

Do not turn off the computer during maintenance.

AXIS Camera Station

Troubleshooting

Troubleshooting

Audio Problems

Problem	Solution
No audio in Live View	<p>If there is no audio in Live View, check the following:</p> <ul style="list-style-type: none">• Check that the camera has audio capabilities.• Check that the computer has an audio card and that the card is enabled.• Check that audio is enabled in Live View, see <i>Audio in Live View on page 17</i>.• Make sure the user has access rights to audio. <p>To check and modify user access rights:</p> <p>Note: To follow these steps you must have administrator rights to AXIS Camera Station</p> <ol style="list-style-type: none">1. Go to Configuration > User Permissions.2. Select the user or group and click Edit3. Click Advanced. Make sure that Audio is selected
No audio in sequence views	<p>Make sure that audio is enabled in the profile used by the first view in the sequence. This profile is used for all views in the sequence.</p>
No audio in playback	<p>Audio is available in playback if audio was enabled in the profile used for the recording.</p> <p>Note: Audio cannot be used with M-JPEG video. Select another video format.</p> <p>Continuous, motion detection and manual recordings</p> <p>To enable audio:</p> <ol style="list-style-type: none">1. Go to Configuration > Recording Settings.2. Select the camera and click Continuous, Motion Detection or Manual.3. Select a profile where audio is enabled. <p>Rule-triggered recordings</p> <p>To enable audio in an existing rule:</p> <ol style="list-style-type: none">1. Go to Configuration > Event Configuration.2. Select the rule and click Edit3. In step Actions, select the Record action and click Edit.4. Select a profile where audio is enabled.5. Click Finish to save.

AXIS Cross Line Detection

Problem	Solution
AXIS Cross Line Detection does not work	<p>AXIS Cross Line Detection is an application that can be used with network cameras and video encoders that support AXIS Camera Application Platform.</p> <p>To use AXIS Cross Line Detection as a trigger, the application must first be installed as described in <i>Camera Applications on page 47</i>.</p> <p>For instructions how to configure and use the application, see AXIS Cross Line Detection User Guide.</p>

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Domain User Search Fails

Problem	Solution
Cannot find domain users	If the domain user search fails, change the Service logon account: <ol style="list-style-type: none">1. Open Windows Control Panel.2. From the System & Security category, select Administrative Tools and then Services.3. Right-click AXIS Camera Station and select Properties.4. Select the Log On tab.5. Change from Local System account to This account.6. Select a user with access to Windows Active Directory.

Graphics Card Problems

Problem	Solution
The graphics card driver is more than 6 months old	See <i>Update Graphics Card Driver on page 75</i> .
Graphics card error	See <i>Update Graphics Card Driver on page 75</i> .
Graphics card warning	<p>The graphics card does not meet the minimum system requirements, see <i>System Recommendations on page 5</i>.</p> <p>The graphics card must support DirectX 9.0c and support Windows Presentation Foundation tier 2.</p> <p>To check the graphics card's tier level, open the Help menu and select Client Configuration Sheet. Render Capability Tier is listed in the General Configuration Information section.</p> <p>It is also possible to use the CPU for video rendering, instead of using the graphics card, see <i>Hardware decoding on page 76</i>.</p>

Live View Problems


Problem	Solution
Repeated error message "Media Failed"	<p>Try the following:</p> <p>Reduce the CPU load. Go to Configuration > Video & Audio Settings. Reduce the resolution, increase compression and lower the frame rate.</p> <p>Check that the computer is not running low on memory.</p> <p>Check that the graphics card has been updated with the latest driver, see <i>Update Graphics Card Driver on page 75</i>.</p> <p>Firewall and antivirus software sometimes block video signals. Check that your firewall and antivirus program do not block the following files:</p> <ul style="list-style-type: none">• AcsAdmin.exe• AcsAdminConsole.exe• ACSService.exe• Server.exe• AcsClient.exe• All content of C:\Program Files\Axis Communications\Components

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Empty "ActiveMovie Window" popup	<p>An empty "ActiveMovie Window" popup indicates problems with the graphics card's video memory and hardware acceleration.</p> <p>Possible solutions:</p> <p>Install the latest graphics card driver, see <i>Update Graphics Card Driver on page 75</i>.</p> <p>Upgrade to a graphics card with more video memory and higher performance.</p> <p>Use the CPU for video rendering, see .</p>
Repeated message "Reconnecting to camera in 15 seconds"	<p>A repeated message "Reconnecting to camera in 15 seconds" might indicate that:</p> <ul style="list-style-type: none"> • The network is overloaded. • The camera is not accessible. Check that the camera is still connected to the network and that power is applied. • Problems with the graphics card. <p>Possible solutions for graphics card problems:</p> <ul style="list-style-type: none"> • Install the latest graphics card driver, see <i>Update Graphics Card Driver on page 75</i>. • Upgrade to a graphics card with more video memory and higher performance. • Use the CPU for video rendering, see . • Modify the live view settings, for example, resolution or frame rate.

Log On and Connection Problems

Problem	Solution
User name or password is incorrect	<p>If the user name or password is reported as "incorrect":</p> <ul style="list-style-type: none"> • Check that the user name and password are valid. • Check that the user has access rights to AXIS Camera Station Server. • Check that the clocks in AXIS Camera Station Server and Client are synchronized. For domain users, also check that the domain server clock is synchronized with the Server and Client. • A user who has not been added to the Server, but is a member of the local administrators group on the Server, must run the Client as administrator on Windows 8.1, Windows 7 and Windows Vista. <p>For information about user access rights, see <i>User Permissions on page 66</i>.</p>
AXIS Camera Station Server was unable to verify message security. Please make sure server and client UTC times are reasonably synchronized	<p>The clocks in AXIS Camera Station Server and Client are not synchronized. When the Server and Client are installed on different computers, the computer clocks should be synchronized to use the same UTC time. Adjust the clock in either the Server or Client so that they have the same date and time properties.</p>
Unable to connect to server.	<p>If the message "Unable to connect to server" is displayed:</p> <ul style="list-style-type: none"> • Check that the address and port of the AXIS Camera Station Server are correct. • Check that there is no NAT, firewall or antivirus software blocking the connection to the Server. • Use AXIS Camera Station Service Control to check that the Server is running. Open the Service Control by double-clicking the icon  in Windows notification area. See <i>AXIS Camera Station Service Control on page 68</i>. The server status is displayed on the General tab. If status is "Stopped", click Start to start the Server. • Verify that the computers the Server and Client are installed on are up to date and have the latest service packs/patches. • Verify that the network is correctly installed and configured on the Server and Client computers.
Unable to locate the server computer. Please make sure that	<p>If the message "Unable to locate the server computer. Please make sure that the server computer is connected to the network." is displayed:</p> <ul style="list-style-type: none"> • Check that the server computer is connected to the network.

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the server computer is connected to the network.	<ul style="list-style-type: none">• Check that the address and port of the AXIS Camera Station Server are correct.• Check that there is no NAT, firewall or antivirus software blocking the connection to the Server.
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License Problems

Problem	Solution
License registration problems	If automatic registration fails, try the following: <ul style="list-style-type: none">• Check that the license key has been entered correctly.• Modify the client proxy settings to allow AXIS Camera Station to access the Internet.• Select the option The server is not connected to the Internet. Make a note of the Server ID and activate AXIS Camera Station from www.axis.com/techsup/acs.
License registered too many times	If the initial installation and license registration was successful, but the computer or software needs to be reinstalled, ask Axis Customer Support to deactivate the license. Include the original license key and the name of the company and person the license is registered to. Use AXIS Camera Station in grace mode until the request has been processed. For information about how to register licenses, see AXIS Camera Station Installation Guide.

Menu Item

Problem	Solution
I can't see the Configuration menu	You do not have administrator privileges. Menu items are hidden from users that are not granted access under User Permissions.

Playback Problems

Problem	Solution
Not enough disk space to buffer	Increase the buffer size: <ol style="list-style-type: none">1. From the Options menu, open Customize and select the Recordings tab2. Under Playback buffering select Use at most and use the slider to increase the buffer size
How do I play exported recordings?	Exported recordings can be played using: <ul style="list-style-type: none">• Windows Media Player• AXIS File Player AXIS File Player is free software for video and audio playback, and is automatically included with the exported recordings. No installation is required. To play recordings, open AXIS File Player and select the recordings to play.



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PTZ Problems

Problem	Solution
Mechanical PTZ and presets are not available	<p>Mechanical PTZ and PTZ presets are available for PTZ cameras and for cameras where digital PTZ has been enabled in the camera's web pages. For information about how to enable digital PTZ, see the camera's User Manual.</p> <p>Mechanical PTZ and PTZ presets are not available if the camera's control queue is enabled. The control queue can be disabled from the camera's web pages. For more information about the control queue, see the camera's User Manual.</p>
Area zoom does not work	Area zoom is not supported by AXIS 209MFD and AXIS 212 PTZ.

Recording Storage Problems

Problem	Solution
Network share is not accessible	<p>To use network shares on other computers, the Local System account cannot be used to log on to AXIS Camera Station Service. To change the service login account, follow these instructions:</p> <ol style="list-style-type: none">1. Open Windows Control Panel.2. From the System & Security category, select Administrative Tools and then Services.3. Right-click AXIS Camera Station and select Properties.4. Select the Log On tab.5. Change from Local System account to This account.6. Select a user with access to Windows Active Directory.
Network share is listed as "Unavailable"	The computer that AXIS Camera Station Server is installed on should be part of the same domain as the shared folder that is entered as a network share.
Can't reconnect to a network share with new username and password	<p>If your network share requires authentication, it is important to disconnect the network share from all ongoing connections before you change your username and password. To change the username and password for a network share and reconnect:</p> <ol style="list-style-type: none">1. Disconnect your network share from all ongoing connections.2. When your network share is disconnected: Change the username and password.3. Go to  > Configuration > Recording Storage and reconnect your network share using your new username and password.
Recordings are deleted	<p>Recordings will be deleted after the number of days set as "days to keep". To change the number of days, go to  Configuration > Recording Storage.</p> <p>If the disk becomes full, recordings will be deleted before designated the number of days. If so, try the following:</p> <ul style="list-style-type: none">• Add more disks. See <i>Configure Recording Storage on page 37</i>.• Change the amount of disk space reserved for AXIS Camera Station. See <i>Configure Recording Storage on page 37</i>.• Reduce the size of recorded files by modifying for example resolution or frame rate. Video format H.264 results in smaller files than MJPEG. See <i>Configure Recording on page 33</i>.

Update Graphics Card Driver

For AXIS Camera Station to run properly, the graphics card in the computer must use the latest driver.

Update the graphics card driver if "The graphics card is more than 12 months old" or "Graphics card error" is displayed.

To find out what graphics card is installed in the computer, the diagnostic program dxdiag can be used.

1. Open dxdiag.exe

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- Windows 8.1, Windows Server 2012: Go to the Start screen and type `dxdiag`.
 - Windows 7, Windows Vista, Windows Server 2008: Open the Start menu and type `dxdiag` in the search field.
2. If a prompt appears for the Diagnostic Tool, click Yes.
 3. Select the Display tab. The name of the graphics card appears under Device.

To download the latest driver go to the graphics card manufacturer's web site. Some of the more common ones are

- nVidia - www.nvidia.com
- ATI - www.ati.com
- S3 - www.s3graphics.com


To upgrade the graphics card driver:

1. Download the driver from the manufacturer's web site.
2. Make sure that there are no other programs running on the computer.
3. Run the installer and follow the wizard to install necessary files.
4. Restart the computer.

Hardware decoding

Hardware decoding makes use of your graphics card to decode video. If you have a high performance graphics card, hardware decoding is a good way to improve performance and reduce CPU usage, especially when streaming high-resolution video.

To use hardware decoding, follow these steps:

1. Go to  > Options > Customize > General.
2. Under Hardware Decoding: Select a Mode.
 - Automatic - Streams with a resolution above 3840x2160p@25fps (also known as 4K or UHD) are decoded with hardware if the graphics card supports it.
 - On - Streams with a resolution above 1920x1080p@25fps (also known as 1080p or HD) are decoded with hardware if the graphics card supports it.
 - Off - Hardware decoding is turned off and AXIS Camera Station uses the CPU to decode video.
3. Under Hardware Decoding: Select a Graphics card.
4. Click OK.

Note

- For cameras with a resolution below 1080p: Hardware decoding is not used for these cameras, even if hardware decoding is turned On.
- For cameras with 4K streaming: If your graphics card does not support 4K decoding, hardware decoding is only used on 1080p streams and not for 4K streams, even if hardware decoding is turned On.

Recover Lost Data

If AXIS Camera Station database is lost due to hardware failure or other problems, the database can be restored from a saved backup. By default, backup files are kept for 14 days.


Important

Recordings are stored in the location specified in Configuration > Recording storage and not in the database. Recordings should be backed up separately.

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To restore the database, follow these steps:

1. Open AXIS Camera Station Service Control by double-clicking the icon  in Windows notification area. See *AXIS Camera Station Service Control on page 68*.
2. Click **Stop** to stop the service.
3. Go to the folder where the backup files are stored. The backup folder is specified on the **Database** tab in the Service Control.

The backup folder contains timestamped backup files named `acs_system_<date_time>.fdb` and `license_system_<date_time>.fdb`
4. Copy `acs_system_<date_time>.fdb` and `license_system_<date_time>.fdb` to `C:\ProgramData\AXIS Communication\AXIS Camera Station Server\`
5. Delete the files `ACS.FDB` and `LICENSE.FDB`.
6. Rename `acs_system_<date_time>.fdb` to `ACS.FDB`.
7. Rename `license_system_<date_time>.fdb` to `LICENSE.FDB`.
8. Go back to the Service Control and click **Start** to start the service.

For information about the database and database backups, see *page 70*.

Database Best Practice

To avoid problems with the database, keep the following in mind:

Database maintenance: Run database maintenance a regularly, for example a few times per year. For instructions, see *Database Maintenance on page 70*.

Check for disk errors: Disk errors can cause database corruption. Use a tool such as `chkdsk` (Check disk, also known as Error checking) to check for damaged sectors on the hard drive where the database is located. To start `chkdsk`, go to Windows Start screen (Windows 8.1, Windows Server 2012) or Start menu and type "chkdsk" in the search field. Run `chkdsk` regularly.

Antivirus software and external backups: Some antivirus software can corrupt the database. Exclude the database from virus scans and external backups. Instead, external backups can be run from the AXIS Camera Station backup folder.


Power failure: An unexpected shutdown, for example due to power failure, can corrupt the database. Use a UPS (uninterruptible power supply) for critical installations.

Out of space: The database can become corrupted if the hard drive runs out of space. To avoid this, install AXIS Camera Station Server on a dedicated computer with sufficient memory. For hardware recommendations, see *System Recommendations on page 5*.

Corrupted RAM memory: Run Windows Memory Diagnostic regularly to check for errors in the RAM memory.

Move AXIS Camera Station Installation

To move the current installation to another computer, follow these steps:

1. Install AXIS Camera Station (same version) on the new computer.
2. Open AXIS Camera Station at the new location. If license registration fails, ask Axis Customer Support to deactivate the license. Use AXIS Camera Station in grace mode until the request has been processed.
3. At the old location, open the Service Control by double-clicking the icon  in Windows notification area. See *AXIS Camera Station Service Control on page 68*.
4. Click **Stop** to stop the service.
5. Move the file `ACS.FDB` to the new location. The file is located at:
`C:\ProgramData\AXIS Communication\AXIS Camera Station Server`

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6. Move the recordings from the old location to the new location. The recording paths must be exactly the same on the new computer.

Contact Customer Support

Technical support is available for licensed versions of AXIS Camera Station.

If you contact Axis Customer Support, please help us resolve your problem expediently by attaching the following files to your online support case.

System Report	The system report is a .zip file containing parameters and log files that helps Axis Customer Support to analyze your system. Always include a system report when contacting Customer Support. To generate a system report, follow these steps: <ol style="list-style-type: none">1. Open AXIS Camera Station Client.2. From the Help menu, select System Report.3. Click OK to save the system report as a zip file.
Screenshots	To copy what is currently displayed on the screen to a file, follow these steps: <ol style="list-style-type: none">1. Press ALT - PRT SCR.2. Open the Paint program included with Microsoft Windows.3. In Paint, open the Edit menu and select Paste.4. Save the file.5. Attach the screenshot to your support case.

System Report Cannot Be Generated

If a system report cannot be generated, for example if AXIS Camera Station Server does not start, follow the steps below based on your version of AXIS Camera Station, and attach the files to your support case:

For AXIS Camera Station 4.30 or later: If the server cannot be accessed for unexpected reasons, generate a partial system report as described below.

Partial System Report	<ol style="list-style-type: none">1. Right-click AXIS Camera Station Service Control in the Windows taskbar.2. Select Open AXIS Camera Station Service Control.3. Go to Tools > System Report.4. Click Run to generate a partial system report with the System Report Tool.
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For AXIS Camera Station 4.20 or earlier: Run DirectX Diagnostic Tool as described below and provide debug logs and Windows Event Logs with your support case.

DirectX Diagnostic Tool	To generate information about DirectX components and drivers, follow these steps: <ol style="list-style-type: none">1. Open dxdiag.exe<ul style="list-style-type: none">- Windows 8.1, Windows Server 2012: Go to the Start screen and type dxdiag.- Windows 10, Windows 7, Windows Vista, Windows Server 2008: Open the Start menu and type dxdiag in the search field.2. If a prompt appears for the Diagnostic Tool, click Yes.3. Click Save All Information and save as a text (txt) file.4. Attach the text file to the support case.
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Debug logs	To create debug logs, zip the following folder: C:\ProgramData\Axis Communications\AXIS Camera Station\4.xx
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Note: ProgramData is a hidden folder. Activate "Show hidden files and folders" to display it.

Windows Event Logs: Application and System	To generate event logs, follow these steps: <ol style="list-style-type: none">1. Open Windows Control Panel.2. From the System & Security category, select Administrative Tools and then Event Viewer.3. Select Windows Logs and then Application.4. From the Action menu, select Save All Events As and save as an event log (evt) file.5. Repeat steps 3 and 4 but select System instead of Application.6. Zip both files and attach them to the support case.
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