

USER MANUAL

AXIS Camera Companion

About this Document

This document is intended for users of AXIS Camera Companion. It contains a compilation of the program's help pages.

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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 (selected countries only)
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AXIS Camera Companion

AXIS Camera Companion is an easy-to-use network video surveillance solution for systems with up to 16 cameras.

To use AXIS Camera Companion you need:

- AXIS Camera Companion software (this program)
- Axis network cameras or video encoders with connected analog cameras
- SD cards or Network Attached Storage (NAS) to store recordings
- A network router and/or network switch and network cables.

Video is recorded to SD cards in each camera, alternatively to a Network Attached Storage (NAS). No central computer or server is necessary. In case of an incident, open the AXIS Camera Companion software to playback and export video.


Getting Started

Click the **Get Started** button to start the AXIS Camera Companion wizard, which will help you set up and configure your system.

Import site

To import a site created at another computer, click **Import site**. Browse to the site (an .accs file) and click **Open**.

Log On

To log on to a site, select the site, enter the password and click  **Log On**.

Note: Depending on the entered password you are logged on as either **Administrator, Operator or Viewer**. For more information, see **Access Accounts**, on page 22.

Select **Remember password** to remember the password next time you log on.

To create a new site, click **Create new site**.

To import a site, click **Import site**. Browse to the site (an .accs file) and click **Open**.

A site can be deleted if at least one other site exists. To delete the site, expand the site list and click the **X** next to the site's name.

Log on problems

Incorrect password – The password was not accepted. Check that Caps Lock is off and try again.

Could not connect to cameras – AXIS Camera Companion cannot contact any of the connected cameras. Check that all cables are connected and that all network routers and switches are working correctly.

My Axis Account

A MyAxis account is required to start using AXIS Camera Companion.

Sign in

Enter your e-mail address or username. Enter the password and click **Sign in**.

Forgot password?

Click **Forgot password?** to open a webpage where you can enter the email address associated with your MyAxis account.

If the email address is valid you will receive an email with further instructions on how to reset your password.

Register New User

Click **Register new user** to open a webpage where you can create a MyAxis account. Fill out the form on the webpage and click **Register new account**.

When the registration is complete you will receive an email with further instructions.

Create Site

A site consists of up to 16 cameras. The site is used to access live and recorded video, export video clips and configure different settings.

Create a new site

To create a new site:

1. Enter a **Site name**.
2. Enter a **Site password** and re-enter it to confirm the spelling. Use a strong password to keep the site safe from unauthorized access.
3. Click **Next** to continue.

Using a site password can prevent unauthorized access to the site. The password is also used to access the cameras connected to the site. If you do not want to use a password, clear the **Use site password** box.

The site password is applied to all cameras on the site. If you have a camera on a site and add that camera to a new site, with a different password, the camera will no longer be available in the old site.

Important! Make a note of the password and store it in a safe place. If the password is lost, cameras must be reset to factory default and a new site must be created.

Connect Cameras

Before proceeding to the next step, make sure that:

- SD cards have been inserted (not necessary if using a NAS (Network Attached Storage) for recording)
- Cameras are connected to the network
- Power has been applied
- Cameras' LED indicators indicate the correct conditions (product-dependent, refer to the camera's Installation Guide).

Important! Use empty SD cards. If the SD card has a file system other than ext4, the card will be formatted when the camera is added to AXIS Camera Companion (last step in this wizard). Any material present on the SD card will be deleted when the card is formatted.

When all cameras are up and running, click **Next** to continue.

Wired Cameras

The instructions on the **Wired Cameras** tab show how to connect AXIS M1013 and AXIS M1014 to a wired network.

1. Insert the SD card (not necessary if using a NAS (Network Attached Storage) for recording).
2. Connect the network cable.
3. Connect power.
4. Wait until the Status LED indicator (on the front side) turns green.

Power over Ethernet

The instructions on the **Power over Ethernet** tab show how to connect AXIS M3004-V and AXIS M3005-V to a PoE-enabled network.

Note: Power over Ethernet (PoE) is a technology that enables a network device to be powered by the network cable.

1. Insert the SD card (not necessary if using a NAS (Network Attached Storage) for recording).
2. Connect the network cable.
3. Wait until the Status LED indicator (on the front side) turns green. For this camera model, the LED will display green for about 10 seconds before becoming unlit.

Other camera models

For other camera models, refer to the camera's Installation Guide.

Select Cameras

AXIS Camera Companion automatically searches the network for connected cameras and displays a thumbnail from each camera that has been found. If no cameras are found, see **Camera Discovery Problems**, on page 29.

Place the mouse pointer over the thumbnail to display the camera's address, serial number (S/N), model and, if applicable, video port. The serial number is printed on the product label.

Click **Refresh** to repeat the search, for example if new cameras have been connected.

Refreshing the page also checks the status of the cameras. After a camera's firmware has been upgraded, it will show the status code "Upgrade camera at [network address]" until the page has been refreshed.

Add cameras

To add cameras, follow these steps:

1. Select the cameras to be added to the site. To select a camera, click on the thumbnail or the checkbox.
2. Give the cameras descriptive names. Click on the default name displayed below the thumbnail and type a new name.
3. When all cameras have been given descriptive names, click **Next** to continue.

Notes:

- Up to 16 cameras can be added to the site.
- Camera names can also be changed later from the **Configuration > Cameras** page.

Add camera manually

Cameras can also be added by specifying the IP addresses or host names. Click **Add Camera Manually**, enter the address or host name in the field and click **Add**.

Set Up a Network Share

Cameras without an SD card can be configured to record to a network share. A network share can be a share on a NAS (Network Attached Storage) or any server that uses CIFS (Common Internet File System).

Note: CIFS is used by Windows operating systems.

Several network shares can be used. AXIS Camera Companion automatically distributes the cameras among the network shares. If using a video encoder with multiple video channels, all video channels will be connected to the same share.

Configure the NAS to use a fixed IP address. Using a dynamic (DHCP) address might cause recording problems if the NAS is restarted.

Click **Connect Network Share** to search for available network shares.

For more information about storage requirements, see **Storage Estimate**, on page 7.

Network Share Search

AXIS Camera Companion automatically searches the network for available network shares. When the search is finished, a list of found shares is displayed. Select the share to connect and click **Select**.

If no network shares are found, see **Network Share Discovery Problems**, on page 31.

To repeat the search, click **Search Again**.

To specify the share address manually, click **Enter Manually**.

Connect a Network Share

To connect a network share:

1. Enter the **Network share path** in the form `\\ip_address\share` where *ip_address* is the IP address or host name of the NAS or computer and *share* is the name of the share.
2. Enter the **User name** for the network share (if required by the network share).
3. Enter the **Password** for the network share (if required by the network share).
4. Click **OK**.

Ready to Install

Check that all settings are correct. To change the settings, click **Back** to return to the previous pages. All settings can also be changed later.

Click **Finish** to install cameras. After installation, motion detection recording will start automatically on cameras with an SD card and on cameras using a network share.

Note: The oldest recordings will be removed to make space for new recordings when the SD card or network share is full.

Storage Estimate

The storage estimate on the Ready to Install page is calculated using AXIS Camera Companion default settings. With these settings, a camera using 720p HD recording and a 32 GB SD card can store 2–4 weeks of recording.

The exact number of days recordings can be stored depends on several factors of which the amount of motion in the scene is the most important. A scene with a lot of motion, or a lot of detail, requires more disk space compared to a scene with little movement.

Other important factors are the resolution and frame rate used for recording. These settings can be modified from the **Configuration > Cameras** page in AXIS Camera Companion.

Continuous recordings require more disk space than motion-triggered recordings.

AXIS Design Tool can be used to calculate storage requirements. Go to www.axis.com/tools

Finish

The selected cameras have now been installed. If any error occurred during installation, error messages will be listed here. If there are no errors, the wizard closes automatically.

Note: During installation, SD cards are formatted. Depending on the size of the SD card, this might take several minutes.

If a camera could not be installed, check that the camera is connected to the network, that power has been applied and that the SD card is inserted correctly.

Click **Close** to close the wizard. Cameras that were not installed can be added from the **Configuration > Cameras** page.

Overview

AXIS Camera Companion has three pages:



Live View - display live video from connected cameras.




Recordings - play and export recordings.




Configuration - configure recording and storage settings, set up Internet Access and customize AXIS Camera Companion.

To navigate between the pages, click one of the icons in the upper left corner.

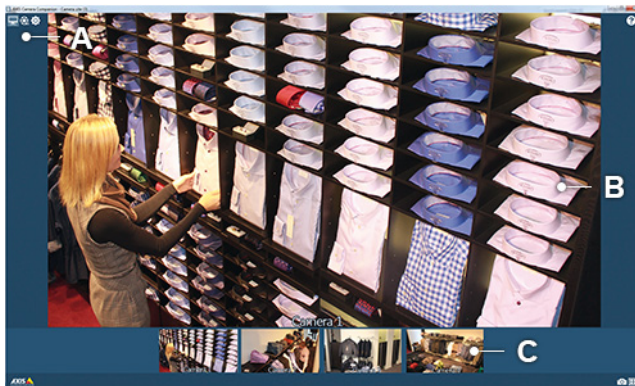
To display this help, click  and select **Help**.

To switch to another site, click , select **Switch to Site** and select a site from the list.

To log off from the current site, click  and select **Log Off**.

Live View



The Live View page displays live video from the connected cameras.





A = Menu. Click here to go to Recordings or Configuration.

B = Selected Camera

C = Camera Selector with video thumbnails


To change the Selected Camera (B), click on the desired video thumbnail in the Camera Selector (C), or use the forward  and backward  arrows to select the next or the previous camera.

Click  **Mute** to mute or unmute audio, or use the  **Audio volume** slider to change audio volume.

If the image is upside down, go to **Configuration > Cameras** to rotate it.


To disable video thumbnails, right-click in the camera selector and clear the **Show Video in Thumbnails** box.

Take Snapshot

Click  to take a snapshot of the video image. The snapshot is saved in the folder specified under **Configuration > Customize**.

Show Split View

A split view displays video from multiple cameras.

Click  to create a split view. The split view will open in full-screen mode.

To change the type of split view, right-click in the split view and select the desired type (1x1 split, 2x2 split, 3x3 split, 4x4 split or Sequence). Sequence will cycle through all connected cameras, showing each camera in full screen for a defined interval. The interval can be set under **Configuration > Customize**.

Note: The sequence will only display on the monitor and does not affect how each camera

records events.

To change the cameras displayed in the split view, right-click in one of the camera views and select the desired camera.

Press Esc to exit the split view.

Turn Light On/Off

Note: Light is supported by selected camera models.

The light on the camera can be turned on and off. To switch between the two options, right-click in the Selected Camera area (B) and select **Turn Light On/Off**.

Original Video Size

Video can be shown in original size or be stretched to fit the size of the Selected Camera area (B).

To switch between the two options, right-click in the Selected Camera area (B) and select or clear **Original Video Size**.

If the original size is larger than the Selected Camera area, the video will be shrunk even if **Original Video Size** is selected.

Pan, tilt and zoom

Note: Pan, tilt and zoom (PTZ) is supported by selected camera models.

To pan and tilt, click in the video image to steer the camera view to the new position. To zoom in and out, use the scroll wheel.

To enable digital PTZ for cameras that support mechanical PTZ, right-click in the video image and clear the **Use Mechanical PTZ** box.

When using a camera with PTZ functionality, **preset positions** can be set up from the camera's built-in webpages. A preset position is a predefined camera view which is used to steer the camera directly to a specific location. To go to a preset, right-click in the Selected Camera area (B), select **PTZ Presets** and select the preset.

To set up preset positions, the camera's built-in webpages must be used. For instructions, refer to the camera's User Manual.

Using a joystick

It is possible to control the pan, tilt and zoom (PTZ) of the selected camera using a joystick.

Buttons 1-4 go directly to preset positions 1-4, if they are defined.

Buttons L (5) and R (6) are used to select the previous or next camera (this works even if the camera does not support PTZ).

Media Components Missing

The error message **Media Components Missing** may appear if AXIS Camera Companion is installed on a server. To solve this, install Desktop Experience:

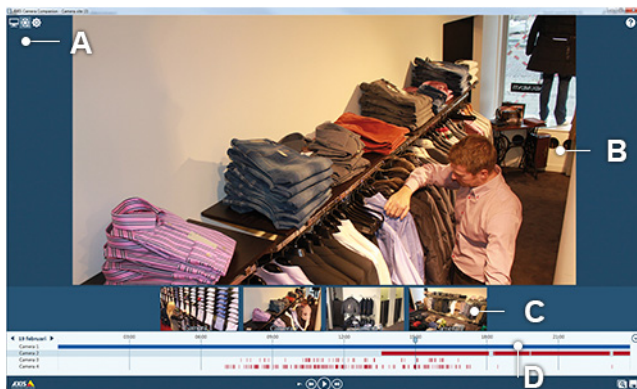
1. In Windows, click the Start button and select **Administrative Tools > Server Manager**
2. Select **Features > Add features**
3. Follow the instructions to install Desktop Experience.



Recordings

On the Recordings page you can:

- Play recordings
- Export video clips
- Step through recorded video frame by frame to investigate incidents and take snapshots



A = Menu. Click here to go to Live View or Configuration.

B = Selected Recording

C = Camera Selector with video thumbnails

D = Timeline

To zoom in and out in the video, place the mouse pointer over the point of interest in the Selected Recording and scroll the mouse wheel.



To play another recording as Selected Recording (B), click on the desired video thumbnail in the Camera Selector (C).



To enable and disable recordings and to configure recording and storage settings, go to **Configuration > Cameras**.

To disable video thumbnails, right-click in the camera selector and clear the **Show Video in Thumbnails** box.

The oldest recordings will be removed to make space for new recordings when the SD card or network share is full, or after the number of days specified in **Configuration > Cameras > Storage**.

Searching for recordings – Timeline

The **timeline (D)** shows recordings from the selected day. To select a different day, click on the date displayed to open the **calendar**, or use the forward  and backward  arrows to move to the next or the previous day.

To zoom in and out in the timeline, place the mouse pointer over the playback marker  and click + or -, or place the mouse pointer over the time line and scroll the mouse wheel. Click  to collapse the timeline.

To go to a specific time, right-click and select **Go to Time**. Enter the time to go to and click **OK**.



The timeline is not updated automatically. To repeat the search, right-click in the timeline and select **Refresh**.

Recordings are color-coded:

- Blue - Continuous recording
- Red - Motion-triggered recording
- Purple - Recording not created with AXIS Camera Companion profile


Playback


To play a recording, follow these steps:



1. Use the timeline and calendar to find the recording.
2. Select the camera in the timeline and move the playback marker  to the desired time.
3. Click the **Play** button .


The recording is played as Selected Recording (B). Recordings from all cameras are played in the Camera Selector (C). Click on another video thumbnail in the Camera Selector (C) to play that as Selected Recording (B).

The **playback control panel** includes the following buttons from left to right:

 **Jump backward** - The number of seconds to jump backward is specified under **Configuration > Customize > Jump back button**


 **Jump to previous recording start** - Jump to the previous recording. If in the middle of a recording it will jump to the start of that recording.


  **Play/Pause** - Start, pause and resume playback

 **Jump to next recording start**





Playback speed – Place the mouse pointer over any of the playback control buttons to display the Playback speed control. Drag the needle forward or backward, or place the mouse pointer over the control and scroll the mouse wheel, to change playback speed.

 **Mute** – Click to mute or unmute audio

 **Audio volume** – Use the slider, or place the mouse pointer over the slider and scroll the mouse wheel, to change audio volume

Export video clips

To export a recording, follow these steps:



1. Use the timeline and calendar to find the recording to be exported.
2. Move the playback marker  to the desired time.
3. Click  (Save Recordings).
4. Drag the yellow markers to select the part of the recording to be exported.
5. Use the checkboxes to select which cameras to export recordings from.
6. Click **Save** to start exporting, or **Cancel** to exit without saving.

The exported video clips are ASF files which can be played by, for example, AXIS File Player and Windows Media Player. AXIS File Player is a free software included with the video clip. The video clip is saved in the folder specified under **Configuration > Customize**.

Investigation Mode

Investigation Mode allows you to step through the recorded video frame by frame to find the exact moment when an incident happened and take a snapshot from that moment.

To open Investigation Mode, follow these steps:

1. Use the timeline and calendar to find the recording.
2. Select the camera in the timeline and move the playback marker  to the desired time.
3. Click .

Original video size

Video can be shown in original size or be stretched to fit the size of the Selected Camera area (B).

To switch between the two options, right-click in the Selected Camera area (B) and select or clear **Original Video Size**.

If the original size is larger than the Selected Camera area, the video will be shrunk even if **Original Video Size** is selected.

Troubleshooting

For solutions to common problems, see **Recording and Playback Problems**, on page 32.

Go to Time

Enter the time (hours, minutes and seconds) to go to and click **OK**.

Investigation Mode

Investigation Mode allows you to step through the recorded video frame by frame to find the exact moment when an incident happened and take a snapshot from that moment.



The time (hour, minute, second and fractions of a second) displayed is not shown in the snapshot. To include time, configure the overlay settings from **Configuration > Cameras > Overlay Settings**.

Close the Investigation Mode window to return to the main window of AXIS Camera Companion.

Find the incident

Click on the thumbnails to step 30, 15, 5 or 1 frames backward (top panel) or forward (bottom panel), or move the slider.

Note: If the framerate is set to less than 12 fps the thumbnails step 5, 3, 2 or 1 frames backward and forward.

It is also possible to step to the next or the previous frame using the forward  and backward  arrows, or placing the mouse pointer over the slider and scrolling the mouse wheel.

To zoom in and out of the video place the mouse pointer over a point of interest and scroll the mouse wheel. Click in the zoomed in image to recenter it.

When satisfied, click  to take a snapshot.

Note: The snapshot will contain the entire camera image, regardless of the zoom level.

Snapshot folder

The snapshot is saved in the folder specified under **Configuration > Customize**.

Original Video Size

Video can be shown in original size or be stretched to fit the size of the image window.

To switch between the two options, right-click in the image window and select or clear **Original Video Size**.

If the original size is larger than the Selected Camera area, the video will be shrunk even if **Original Video Size** is selected.

Digital Signature

Adding a digital signature to the exported video clip is a way to verify the authenticity of the file and make tampering more difficult.

Create Signature

Select **Sign with password** to add a password to the digital signature. This creates a stronger authentication for the file. The password is not needed to play the video clip, it is only used to verify its authenticity.





Note: Make sure to keep the password since the signature is not valid without it.

Select **Sign without password** to create a normal digital signature.

Click **OK** to save the video clip with its signature, or click **Cancel** to close the dialog without saving.








Configuration

The Configuration page is divided into these four tabs:

-  **Cameras** - Add and remove cameras, change storage and recording settings
-  **Site** - Change site name and site password, export the site
-  **Internet Access** - Configure Internet Access
-  **Customize** - Customize AXIS Camera Companion

Cameras

Add and remove cameras and edit camera settings.

-  **Add** a new camera to the site.
-  **Remove** the selected camera.
-  **Time settings** - Configure the date and time settings for all connected cameras.
-  **Rotate counterclockwise.** Depending on camera model, the image can be rotated in steps of 90 or 180 degrees.
-  **Rotate clockwise.** Depending on camera model, the image can be rotated in steps of 90 or 180 degrees.
-  **Overlay settings** - Configure overlay text, date and time.
-  **Edit settings** - Configure camera, storage and recording settings.

Camera List

All the cameras connected to the site are shown in a list.

Change the order of the cameras by dragging and dropping. Changing the order in this list will also change the order in live view and recordings. If internet access is enabled for the site the order will be updated in MyAxis.

If settings have been changed from a camera's Setup pages, right-click any camera and select **Refresh** to update all cameras in the list.

Camera – Thumbnail

Name – The name of the camera. To change the **Name**, click on the camera's name and enter a new name.

Status – Camera status code:

- **OK** – normal operation
- Other status codes, see **Troubleshooting**, on page 26

Motion Detection – Check the box to enable motion recording.


Continuous – Check the box to enable continuous recording.

Storage – Storage information:

- SD card
- Network share
- No storage – no SD card or network share is used with the camera

Audio – Check the box to enable audio. The checkbox is only visible if the camera supports audio. If the checkbox is visible but disabled, the camera firmware needs to be updated to enable audio.

Edit camera settings

Current settings for the selected camera are displayed in the bottom pane. Click  to edit settings.

Camera:

- **Camera name** – The name of the camera
- **Address** – Click on the link to open the camera's built-in webpages. Log in with user name "ACCAdmin" and the site password. If no site password has been set, use "pass". For information on how to use the webpages, refer to the camera's User Manual available on www.axis.com
- **Model**
- **Video port** – The video port (shown when applicable)

Storage:

- **Storage type** – SD card or network share
- **Keep for** – Number of days to keep recordings
- **Oldest recording** – Oldest recording on the SD card or network share

Motion recording:

- **Resolution** - Resolution used for recording.
- **Frame rate** - Frame rate used for recording.
- **Schedules** - Schedules used for recording.

Continuous recording:

- **Resolution** - Resolution used for recording.
- **Frame rate** - Frame rate used for recording.
- **Schedules** - Schedules used for recording.

Overlay Settings

Overlays are displayed superimposed on the video image and are used to provide additional information, for example date and time or the name of the camera.

Show text - Select this option to display an overlay text.

Show date and time - Select this option to display date and time as overlay. Select the date and time formats from the drop-down lists.

Time Settings

It is important that all cameras in the system are synchronized to the same time.

Notes: Changing the time on the cameras could cause problems with the recordings.

- It can become difficult to find earlier recordings in the time line.
- It can trigger an automatic removal of old recordings.
- It can become impossible to play back old recordings.

Set time

1. Back up your recordings before setting the time. For information about how to export recordings, see **Export video clips**, on page 13.
2. There are three options to set the time on all cameras:
 - Select **Axis Internet time server** and click **OK** to synchronize the cameras with Axis internet time server. This requires the cameras to be connected to the internet.
 - Select **Other NTP server**, type in the address to the NTP server and click **OK**.
 - **Set time manually** - Click **Set Time** to synchronize the time of the cameras with the computer time and time zone.
3. Click **Yes** in the dialog that appears.

Camera Properties

Camera name - The name of the camera. To change the name, click in the field and enter a new name.

Address - The camera's IP address. Click on the link to open the camera's built-in webpages. Log in with user name "ACCAdmin" and the site password. If no site password has been set, use "pass". For information on how to use the webpages, refer to the camera's User Manual available on www.axis.com

Model - Camera model.

S/N - The camera's serial number (printed on the camera label).

Firmware - The camera's firmware version.

Video port - The video port. Applicable when using a video encoder with multiple video ports or a camera with multiple view areas.

Storage

Select storage - Select the storage device (SD card or network share) to use with the selected camera. To connect a new network share, click **Connect Network Share**.

Warning! Recordings made to the network share can no longer be accessed if the share is replaced.

Days to keep recordings - Enter the number of days to keep recordings, or select **Max** to keep recordings until the storage device is full. Recordings older than the specified number of days will be removed.

Motion Recording

Configure the motion recording settings to suit image quality requirements and available disk space.

Detector

Detector selection is available for selected camera models.

Passive infrared sensor (PIR sensor) - Select the PIR sensor to detect motion in dark environments as well as in normal daylight. The PIR sensor detects motion by measuring changes in infrared light.

Video motion detection - Select video motion detection to detect motion within the camera's field of view. Video motion detection detects motion by measuring changes in visible light and could be unreliable in low-light environments.

Click **Settings** to configure video motion detection.

Recording profile

Resolution – A high resolution makes details in the image clearer and sharper. Depending on camera model, the aspect ratio is given in parentheses after the resolution, see below. When using a camera connected to a video encoder, see below.

Frame rate – Number of frames per second. A small value could cause the video to appear uneven or "jumpy".

What resolution and frame rate to select depend on image quality requirements and on the available space on the SD card or network share. Using high resolution and high frame rate normally improves image quality but requires more disk space.

When recording to an SD card, disk space is limited. To be able to save recordings for several days, resolution and frame rate may need to be reduced at the expense of image quality. The values required for acceptable image quality depend on factors such as lighting conditions and the amount of motion in the area under surveillance.

Aspect ratio

Aspect ratio is the ratio of the image width to the image height. Most cameras support 4:3, 16:9 and 16:10 aspect ratios.

The 16:9 and 16:10 aspect ratios are widescreen formats. The 4:3 aspect ratio is used in conventional TV monitors. For Axis' Corridor Format, select a 16:9 aspect ratio resolution and rotate the image on the **Configuration > Cameras** page. Read more about Axis' Corridor Format on www.axis.com

Video encoder resolutions

When using a camera connected to a video encoder, some of the following resolutions could be available:

- D1 – highest resolution
- 4CIF
- 2CIF
- CIF
- QCIF – lowest resolution

Schedules

The camera can be configured to record all the time, or to record according to one or several schedules.

To record all the time, select **Always on**.

To enable a schedule, select **Schedules** and then select a schedule from the list.

To create a new schedule, click **New**.

To modify a schedule, highlight the schedule and click **Edit**.

To delete a schedule, highlight the schedule and click **Delete**.

Motion Detection Settings

Motion Detection is used to detect moving objects within an area of interest. When objects are detected, the camera will start recording.

Area of Interest

The Area of Interest is a virtual area that is defined in the product to detect moving objects. When an object enters that area the camera starts recording. The default area of interest is a rectangle placed in the center of the image.

The area of interest can be moved by clicking inside the area and dragging to desired position. To resize the area, click on one of the corners and drag to a new position.

Sensitivity

A high sensitivity triggers on ordinary colored objects on ordinary backgrounds. A low sensitivity triggers on very bright objects on a dark background, for example a flashing light. Normally, a high sensitivity level is recommended.

Select the desired Sensitivity. If the sensitivity already has been set from the camera's built-in webpages there is a **Custom** option in the list.

Exclude Area

The Exclude Area is a virtual area that is defined in the product whenever it is required to mask a part of an area of interest to avoid unwanted triggering of recordings. It can be defined when swaying objects such trees or flags are inside the area of interest.

Check the **Enable exclude area** box to add an exclude area. The exclude area is defined by a rectangle and can be modified in the same way as Area of Interest.

Motion Detection Settings

AXIS Video Motion Detection is an application that detects moving objects within an area of interest. When objects are detected, the camera will start recording.

Area of Interest

The Area of Interest is a virtual area that is defined in AXIS Video Motion Detection to detect moving objects. When an object enters that area the camera starts recording. The area is defined by a polygon of 3-20 points. The default area of interest is a square placed in the center of the image. The area of interest can be moved by placing the pointer over the area. When the pointer becomes a cross, click and drag to desired area.

To move a point, left-click on it and drag to a new position. To add points, click on a line. To remove a point, right-click on the point you want to remove.

Exclude Area

The Exclude Area is a virtual area that is defined in AXIS Video Motion Detection whenever it is required to mask a part of an area of interest to avoid unwanted triggering of camera action. It can be defined when swaying objects such as trees or flags are inside the area of interest.

Check the **Enable exclude area** box to add an exclude area. The exclude area is defined by a polygon of 3-20 points. The exclude area can be modified in the same way as Area of Interest.

New/Edit Schedule

To create or edit a schedule, follow these steps:

1. Enter a descriptive **Name** for the schedule.
2. Select **Entire day** to record the entire day, or select **Specify start and end time** and enter the **Start time** and **End time** or use the sliders to set the times.
3. Select the **Days** on which the schedule should be active.
4. Click **OK** to save the schedule.

Continuous Recording

Configure the continuous recording settings to suit image quality requirements and available disk space.

Recording profile

Resolution – A high resolution makes details in the image clearer and sharper. Depending on camera model, the aspect ratio is given in parentheses after the resolution, see below.

Frame rate – Number of frames per second. A small value may cause the video to appear uneven or "jumpy".

What resolution and frame rate to select depend on image quality requirements and on the available space on the SD card or network share. Using high resolution and high frame rate normally improves image quality but requires more disk space.

When recording to an SD card, disk space is limited. To be able to save recordings for several days, resolution and frame rate may need to be reduced at the expense of image quality. The values required for acceptable image quality depend on factors such as lighting conditions and the amount of motion in the area under surveillance.

Aspect ratio

Aspect ratio is the ratio of the image width to the image height. Most cameras support 4:3, 16:9 and 16:10 aspect ratios.

The 16:9 and 16:10 aspect ratios are widescreen formats. The 4:3 aspect ratio is used in conventional TV monitors. For Axis' Corridor Format, select a 16:9 aspect ratio resolution and rotate the image on the **Configuration > Cameras** page. Read more about Axis' Corridor Format on www.axis.com

Video encoder resolutions

When using a camera connected to a video encoder, some of the following resolutions may be available:

- D1 - highest resolution
- 4CIF
- 2CIF
- CIF
- QCIF - lowest resolution

Schedules

The camera can be configured to record all the time, or to record according to one or several schedules.

To record all the time, select **Always on**.

To enable a schedule, select **Schedules** and then select a schedule from the list.

To create a new schedule, click **New**.

To modify a schedule, highlight the schedule and click **Edit**.

To delete a schedule, highlight the schedule and click **Delete**.

Site

The site name and access accounts can be changed on the Site tab.

A configuration sheet, showing an overview of the site configuration, can be saved to a pdf-file.

The site can be exported to a file which can be imported when creating an AXIS Camera Companion site on another computer or smartphone. The exported site is an .accs file.

Name

To change the site name, click on the name. Enter a new name and click **OK**.

Access Accounts

It is possible to have up to three accounts for AXIS Camera Companion. The accounts have different passwords and give different access levels:



Administrator - Can change settings, access recordings and live view.



Operator - Can access recordings and live view.



Viewer - Can access live view.

The passwords are used to log on to the site and to access the cameras connected to the site. If a password is changed, the password will be changed on all cameras connected to the site.

To change the administrator password, click **Edit Administrator Access**.

To enable operator access, click **Enable Operator Access**. To change the operator password, click **Edit Operator Access**. To disable operator access, click **Disable**.

To enable viewer access, click **Enable Viewer Access**. To change the viewer password, click **Edit Viewer Access**. To disable viewer access, click **Disable**.

It is recommended to use password to protect the site.

Site Configuration Sheet

Click **Save** to save a document describing the current configuration of the system. This document provides an overview of the settings for each camera, and can for example be used as part of an installation sign-off.

Export

Click **Save** to save an .accs file with the cameras connected to the site. The file can be imported when creating an AXIS Camera Companion site on another computer or smartphone.

Note: To access cameras from the Internet, Internet Access must be enabled on Configuration > Internet Access.

Edit Administrator

The password is used to log on to the site and to access the cameras connected to the site. If password is changed, the password will be changed on all cameras connected to the site.

Current password - Enter the current password.

It is recommended to use password to protect the site.

New password - Enter the new password.

Confirm password - Re-enter the new password to confirm the spelling.

Click **OK** to save the changes.

Enable/Edit Operator or Viewer

The operator and viewer accounts have different passwords and different access levels.

- The operator can access recordings and live view but cannot make any changes to the site.
- The viewer can only access live view.

The password is used to log on to the site and to access the cameras connected to the site. If a password is changed, the password will be changed on all cameras connected to the site.

It is recommended to use passwords to protect the site.

Password - Enter the password.

Confirm password – Re-enter the new password to confirm the spelling.

Select **Can use PTZ** to enable the PTZ controls for the operator or viewer.

Click **OK** to save the changes.

Internet Access

To access cameras connected to the site from the Internet, Internet Access must be enabled.

Internet Access can only be enabled if the site is protected by a password and if you are signed in to your MyAxis account.

Sign In to your MyAxis account

The Internet Access options are only available if you are signed in to your MyAxis account.

Click **Sign In** to open the sign in dialog, see **My Axis Account**, on page 4 for more information.

Enable Internet Access

Select the cameras for which Internet Access should be enabled.

Click **Enable All** to enable Internet Access for all cameras.

Click **Disable All** to disable Internet Access for all cameras.

AXIS Camera Companion will try to enable Internet Access by configuring port forwarding in the router. If port forwarding cannot be configured automatically, see **Internet Access Problems**, on page 34.

Customize

Live view streaming

If the available bandwidth is limited, performance problems may arise when watching live video.

To limit bandwidth usage, select a lower **maximum resolution** and/or a lower **maximum frame rate**. The values selected here affect live view only.

What values to select depend on image quality requirements and on the available bandwidth. Using high values normally improves image quality but increases bandwidth usage. The values required for acceptable image quality depend on factors such as lighting conditions and the amount of motion in the area under surveillance.

If **Autostart in split view** is selected, the application will remember the current site password and run automatically when Windows starts. It will log on and go directly to split view. This option can be used in a public view monitor.

Select **Use native aspect ratio in fullscreen** to show the video in original aspect ratio on the monitor, adding black borders if required. If the option is cleared the video will be stretched to fill the monitor. The recordings are not affected by this option.

Specify the **Sequence speed** to set the number of seconds to display each camera when **Show as sequence** is selected in split view.

Video rendering

Video rendering is the process of finalizing video for display on, for example, a computer screen. Rendering can be performed by computer hardware or software.

Hardware rendering makes use of the computer's graphics card and is recommended for best performance. If the graphics card does not meet AXIS Camera Companion system requirements, hardware rendering might cause video display problems. In this case, deselect **Enable hardware rendering** to render video using the computer processor (CPU) instead.

If the **Enable hardware rendering** option is unavailable, check if the graphics card driver needs to be updated. Hardware rendering is always unavailable when using Remote Desktop.

Folders

To change the default **Snapshots folder**, click **Browse** and navigate to the desired location.

To change the default **Recordings folder**, click **Browse** and navigate to the desired location.

Jump back button

Specify the number of seconds to jump back when using **Jump backward** button during playback.

Digital signature

Select **Show digital signature options when saving recordings** to be able to add digital signatures when exporting a video clip. For more information, see **Digital Signature**, on page 15.

Contact information

Click **Add** to add support contact information.

Once the contact information has been added, click **Edit** to edit the information, or click **View** to view it.

Contact Information

The contact information dialog is used to provide support information to the user.

Enter company name in the top field and contact information in the bottom field. Web and email addresses will automatically be converted into links (limited to one address per line). To add a company logo, click **Add Picture**.

Click **Clear** to delete all information from the dialog.


Click **Preview** to see a preview. This is what the user will see when selecting **Contact information** from the help menu.

Click **OK** to save or **Cancel** to close the dialog without saving.

Save System Report


The System Report is a zip file containing logs and reports for system analysis and troubleshooting. If contacting Axis Technical Support, please provide a System Report with your query.

To generate a system report:

1. If possible, log on to the site before generating the system report.
2. Click  to open the Help menu.
3. Select **Save System Report**.
4. Select a folder to save the system report in and click **Save**.

Update AXIS Camera Companion

To check if a software update is available:

1. Click  to open the Help menu.
2. Select **Check for Updates**.
3. Follow the on-screen instructions.

Troubleshooting

For solutions to common problems, refer to the following topics:

- **Camera Discovery Problems**, on page 29
- **Network Share Discovery Problems**, on page 31
- **Recording and Playback Problems**, on page 32
- **Internet Access Problems**, on page 34

Camera LED indicator

LED indicator flashes
amber

Video cannot be recorded because the SD card or network share is not available. The disk might be missing or corrupted.

LED indicator is unlit

Refer to the camera's Installation Guide for description of LED indicator behavior. For some camera models, some LEDs are unlit under normal operation.

Camera status codes



Camera error	<p>Unknown camera error.</p> <p>Possible solutions:</p> <ul style="list-style-type: none"> Restart the camera by disconnecting and reconnecting power. Check that the camera is upgraded to the latest firmware (see Upgrade camera, on page 31). Check that the network is working properly. Disable firewalls and anti-virus software that could block the video stream. Go to Configuration > Customize and disable hardware rendering, see Video rendering, on page 25. Reset the camera to factory default, see Resetting a camera to factory default, on page 28.
Connecting	AXIS Camera Companion is trying to contact the camera.
Incorrect password	The camera's password has been changed. This will happen if the camera is added to a site with a different site password. Go to Configuration > Site and change the site password so that all sites using the same cameras have the same password.
Missing decoders	Video cannot be displayed because necessary decoders are not installed. To install decoders, open the camera's built-in webpages in Internet Explorer. When prompted, install AXIS Media Control (AMC) which includes the necessary decoders. For instructions, see Accessing a camera's built-in webpages , on page 28.
No contact	AXIS Camera Companion cannot contact the camera. Check that all cables are connected and that the LED indicators indicate the correct conditions (refer to the camera's Installation Guide for details).
No storage	An SD card or network share is not available.
OK	Normal operation.
Storage error	The network share is disconnected or the SD card is unmounted.

Video display problems

Display problems in live view and playback	<p>Possible solutions:</p> <ul style="list-style-type: none"> Update the graphics card driver. Go to Configuration > Customize and disable hardware rendering, see Video rendering, on page 25.
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Replacing an SD card

If the SD card must be replaced, follow these steps:

1. Go to **Recordings** and export all recordings that should be saved, see **Export video clips**, on page 13.
2. Go to **Configuration > Cameras** and click  to remove the camera from the site.
3. Reset the camera to factory default, see **Resetting a camera to factory default**, on page 28.
4. Disconnect power from the camera.
5. Replace the SD card.
6. Reconnect power and wait until the camera's status LED indicator turns green.
7. Go to **Configuration > Cameras** and click  to add the camera to the site.

Accessing a camera's built-in webpages

To access a camera's built-in webpages:

1. Go to **Configuration > Cameras**.
2. Select the camera and click on the **Address** link under Camera Properties.
3. The camera's webpages will open in a web browser. Log in with user name "ACCAdmin" and the site password. If no site password has been set, use "pass".

The webpages can also be opened from a web browser. Enter the camera's IP address in the browser's address field, for example <http://10.96.127.85>


If using Internet Explorer, install AXIS Media Control (AMC) when prompted. This requires administrator rights on the computer. If using Windows 7 or Windows Vista, you must also run Internet Explorer as administrator.

For information on how to use the built-in webpages, refer to the camera's User Manual which is available on www.axis.com

Resetting a camera to factory default

Problems such as an inaccessible camera (status No contact or Camera error), storage problems and lost passwords can be solved by resetting the camera to factory default.

Cameras can be reset from the built-in webpages or by using the control button. For instructions, refer to the camera's Installation Guide or User Manual.

After the camera has been reset, it must be re-added to the site. Go to **Configuration > Cameras** and click .

Contact Technical Support

If contacting Axis Technical Support, please help us solve your problem expediently by providing a System Report and a detailed description of the problem.

The **System Report** contains logs and reports for system analysis and troubleshooting. For instructions how to generate a System Report, see **Save System Report**, on page 26.

Screenshots (copying what is currently displayed on the screen to a file) will assist Technical Support in assessing your problem.

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.

Attach the System Report and the screenshots to your support case.

Camera Discovery Problems

If cameras cannot be found, check:

- Are all cables connected? Check that the cameras' LED indicators indicate the correct conditions. See **LED indicators**, on page 30.
- Are the cameras connected to the same network (subnet) as the computer? If not, cameras must be added manually or imported using an .accs file.
- Are cameras blocked by a firewall? See **Firewall**, on page 30.
- If error message "The computer has a static IP address and might be unable to find cameras" is displayed, check if DHCP is enabled. See **IP address problems**, on page 30.
- If status code "Upgrade camera" is displayed, the camera's firmware must be upgraded. See **Upgrade camera**, on page 31.

Camera discovery status codes

Connecting	AXIS Camera Companion is trying to contact the camera.
Enter password for camera	This status code is displayed if the camera has been added to an AXIS Camera Companion site with a different password or if a password has been set from the camera's built-in webpages. Click on the text and enter the password for the other site or for the camera's root user.
Upgrade camera	See Upgrade camera , on page 31.
Device not supported	Some camera models cannot be used with AXIS Camera Companion. Go to www.axis.com for a full list of compatible products.

LED indicators

Depending on model, cameras have one, three or four LED indicators. The indicators show, for example, that the camera is connected to the network, that power has been applied and that the camera is working normally.

Under normal operation, the LEDs are either green or unlit. A red or amber indicator usually indicates a network or camera problem.

Refer to the camera's Installation Guide or User Manual for a detailed description of the LED indicator behavior.

Firewall

Firewalls and antivirus software can sometimes block camera discovery.

If required, configure the firewall to allow network traffic to and from AXIS Camera Companion.

If this does not solve the problem, configure the firewall to allow the following ports: UDP port 5353 and TCP port 80.

IP address problems

Any device in a network must have a unique IP address to be able to communicate with other devices. When using AXIS Camera Companion, it is recommended to use DHCP (Dynamic Host Configuration Protocol) to assign IP addresses automatically.

A DHCP server is usually built into the router. If cameras cannot be accessed, open the router's configuration pages and check if DHCP has been enabled. Refer to the documentation provided with the router for instructions.

Upgrade camera


The status code "Upgrade camera at [network address]" indicates that the camera's firmware must be upgraded before the camera can be added to AXIS Camera Companion.

Note: Some camera models cannot be used with AXIS Camera Companion. Go to www.axis.com for a full list of compatible products.

To check the current firmware version, open the camera's Setup pages in a web browser. The firmware version is displayed in the Basic Setup and About pages.

To upgrade the camera's firmware, follow these steps:

1. Go to www.axis.com/techsup and download the latest firmware.
2. Open the camera's Setup pages in a web browser.
3. Go to **Setup > System Options > Maintenance**.
4. Specify the path to the firmware file and click **Upgrade**.
5. The upgrade process can take up to 10 minutes. Do not disconnect power during this time. After upgrading, the camera will restart automatically.

When the firmware has been upgraded, open AXIS Camera Companion, go to **Configuration > Cameras** and click  to add the upgraded camera to the site.

Network Share Discovery Problems

If a network share cannot be found, check:

- Is the NAS (Network Attached Storage) device installed and connected to the network? For installation instructions, refer to the documentation provided with the NAS.
- Is the NAS connected to the same network (subnet) as the computer? If not, the NAS must be added manually.
- Is the NAS blocked by a firewall or antivirus software?

Recording and Playback Problems

Storage problems

Cameras stopped recording to the network share.

Has the NAS (Network Attached Storage) been restarted? If the NAS uses a dynamic (DHCP) IP address, the IP address might have changed. In this case, cameras will not be able to record to shares on the NAS.

1. Configure the NAS to use a fixed IP address.
2. Open **AXIS Camera Companion** and go to **Configuration > Cameras**.
3. For each camera that should record to shares on the NAS, click **Storage** and add the share to record to.

Too few recordings from one of the cameras.

If several cameras record to the same network share, it might happen that some cameras use lots of storage while there are very few recordings from one of the other cameras.

Possible solutions:

- Add more network shares, for example by creating additional shares on the NAS (Network Attached Storage).
- Go to **Configuration > Cameras > Storage** and reduce the number of days to store recordings.

There are gaps in the recordings.

If too many cameras record to the same NAS (Network Attached Storage), gaps may appear in some recordings.

Reduce the number of cameras recording to the same NAS, for example by using several NAS devices or by configuring some cameras to record to SD cards instead.

Recordings are removed after just a couple of days.

The oldest recordings will be removed to make space for new recordings when the SD card or network share is full, or after the number of days specified in **Configuration > Cameras > Storage**.

To keep recordings for more than a few days, the size of the recording files must be reduced. Go to **Configuration > Cameras** and edit the Motion Recording or Continuous Recording settings. Try one or more of the following:

- Reduce the frame rate.
- Reduce the resolution.
- Use motion recording instead of continuous recording.
- Set a schedule to record only during specific time periods.
- Reduce the motion detection sensitivity.

Can I use the SD card reader on my Windows computer to access recordings on the SD card?

No. The SD card is formatted to use an ext4 file system when the camera is added to AXIS Camera Companion. Windows cannot read this file system without additional software. Use AXIS Camera Companion to access recordings.

Playback problems

Recordings are not synchronized.

This can happen if the cameras' clocks are not synchronized. To synchronize the clocks, the cameras' built-in webpages must be used. See below for information on how to access the built-in webpages. It is recommended that all camera clocks and the computer clock are synchronized with the same NTP server.

Note: For cameras with Internet Access enabled, the clocks are synchronized automatically.

Video freezes in playback.

If too many cameras record to the same NAS (Network Attached Storage), it might happen that video freezes during playback.

Reduce the number of cameras recording to the same NAS, for example by using several NAS devices or by configuring some cameras to record to SD cards instead.

Exported recordings cannot be played.

Use AXIS File Player to play recordings exported from AXIS Camera Companion. AXIS File Player is free software included with the exported recording and does not require installation or administrator rights.

Media Components Missing.

The error message **Media Components Missing** may appear if AXIS Camera Companion is installed on a server. To solve this, install Desktop Experience:

1. In Windows, click the **Start** button and select **Administrative Tools > Server Manager**
2. Select **Features > Add features**
3. Follow the instructions to install Desktop Experience.

Internet Access Problems

If Internet Access cannot be enabled, check:

- Is the router connected to the Internet? Can you access Internet from the computer?
- Is there a firewall that prevents access?
- Does the router support UPnP? Is UPnP enabled?

If the router does not support UPnP, or if Internet Access cannot be enabled even though UPnP is enabled, port forwarding must be configured manually in the router.

Port forwarding – also known as port mapping – is a technique used to make devices on a private network (LAN) accessible from the Internet. For instructions on how to configure port forwarding, refer to the documentation provided with the router. To get general information about port forwarding and communicating over the Internet, see **Troubleshooting**, on page 26.

Camera status

<p>Could not configure router. Retrying...</p>	<p>The camera has been set up and the information from MyAxis has been received, but the connection cannot be confirmed.</p> <p>Possible causes:</p> <ul style="list-style-type: none"> • The internet connection is slow and the communication takes more time than expected. • The router does not support UPnP. • UPnP is not enabled on the router.
<p>Unable to contact MyAxis</p>	<p>The camera is configured, but AXIS Camera Companion can not contact MyAxis.</p> <p>Check your Internet connection.</p>
<p>OK (Limited)</p>	<p>The site was created in an earlier version of AXIS Camera Companion. The camera is still available from the Internet, but it is not connected to MyAxis.</p> <p>Select the checkbox to enable access to MyAxis.</p>
<p>OK (Unresolved)</p>	<p>Is the camera registered to another MyAxis account?</p> <p>If the camera is available on the network, de-select the checkbox and select it again to transfer the camera to the current site.</p> <p>If the camera is not available on the network, de-selecting the checkbox will make the camera unavailable for the site.</p>
<p>Incompatible network (Multiple routers)</p>	<p>The camera has been able to set up port mapping in the router but cannot confirm an external IP address. Is there another router in the system?</p> <p>Check the configuration of the network.</p>

User Manual

AXIS Camera Companion

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