

Get started with rules for events

User manual

Get started with rules for events

How do rules for events work?

How do rules for events work?

A device analyzes various types of data, such as a video stream or the operating temperature of the device. The purpose is to detect significant events that you want the system to react on automatically. Such events can be anything from motion detected in a video stream, the push of a button, or a lost network connection. You can configure your system to trigger actions when events are detected. For instance, the system can automatically play an audio clip when a camera detects motion, or send an email when vandalism is detected.

To make an event trigger an action automatically, you create a rule that consist of one or several **conditions** and an **action**. The action will be triggered when all the conditions are met.

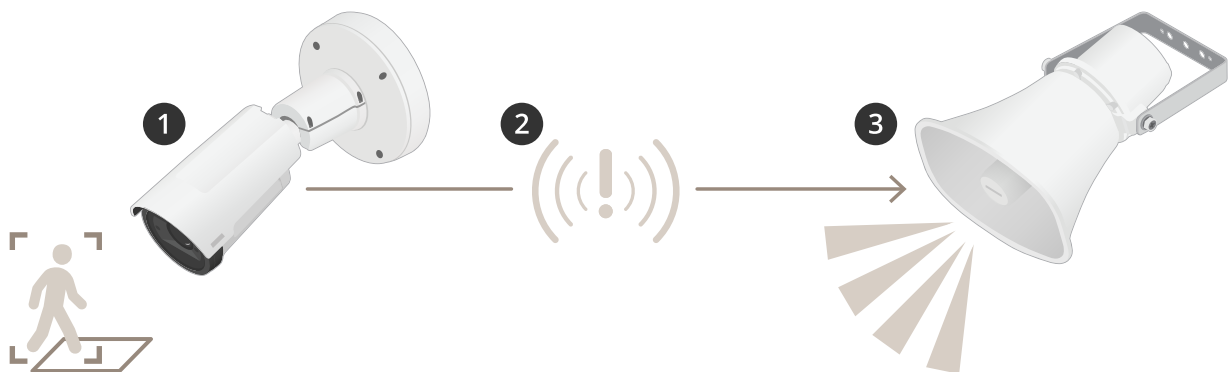
For more information about specific conditions and actions, see *Conditions and actions on page 11*.

Example:

You have installed a speaker and a camera to prevent trespassing. You have configured the motion detection application in the camera to only detect motion within a restricted area.

When there is movement in the restricted area, you want a speaker to automatically play a pre-recorded message that tells the intruder to leave the area. For this you need to set up a rule on your device:

- **Rule** – Play a message when motion is detected.
 - **Condition** – Motion is detected.
 - **Action** – Play message.



2. **Event** – The camera detects motion when someone walks in the restricted area.
3. **Condition** – The event is analyzed by the rule. Since the conditions are met, the action is triggered.
4. **Action** – The speaker plays the audio clip.


You have plenty of options for configuring the rules. For instance, you can add a schedule to the condition so that the rule only triggers the action during certain hours. If the rule is active only outside office hours, then your staff can walk in the area during office hours without triggering the audio message.

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Set up rules for events

Set up rules for events

To help you understand how to configure events, we have created a set of video tutorials for common use cases. The tutorials use the device webpage for configuration. You access the device webpage by entering the IP address of your device in a browser.

- For information about the configuration options of your device, go to the device webpage and click .
- For information about assigning an IP address, see *How to assign an IP address and access your device*.

Record video when the camera detects motion

This example explains how to set up the camera to start recording to the SD card five seconds before it detects motion and to stop one minute after.



Make sure that AXIS Video Motion Detection is running:

1. Go to **Settings > Apps > AXIS Video Motion Detection**.
2. Start the application if it is not already running.
3. Make sure you have set up the application according to your needs. If you need help, see the *user manual for AXIS Video Motion Detection 4*.

Create a rule:

1. Go to **Settings > System > Events** and add a rule.
2. Type a name for the rule.
3. In the list of conditions, under **Application**, select **AXIS Video Motion Detection (VMD)**.
4. In the list of actions, under **Recordings**, select **Record video while the rule is active**.
5. Select an existing stream profile or create a new one.
6. Set the prebuffer time to 5 seconds.
7. Set the postbuffer time to 60 seconds.
8. In the list of storage options, select **SD card**.
9. Click **Save**.

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Direct the camera to a preset position when the camera detects motion

This example explains how to set up the camera to go to a preset position when it detects motion in the image.



To watch this video, go to the web version of this document.

help.axis.com/?&tid=§ion=direct-the-camera-to-a-preset-position-when-the-camera-detects-motion

Make sure that AXIS Video Motion Detection is running:

1. Go to **Settings > Apps > AXIS Video Motion Detection**.
2. Start the application if it is not already running.
3. Make sure you have set up the application according to your needs. If you need help, see the *user manual for AXIS Video Motion Detection 4*.

Add a preset position:

Go to **Settings > PTZ** and set where you want the camera to be directed by creating a preset position.

Create a rule:

1. Go to **Settings > System > Events > Rules** and add a rule.
2. Type a name for the rule.
3. In the list of conditions, select a video motion detection condition under **Application**.
4. From the list of actions, select **Go to preset position**.
5. Select the preset position you want the camera to go to.
6. Click **Save**.

Use audio to deter intruders

This example explains how to connect a speaker to the camera and set it up to play a warning message when the camera detects motion in a restricted area.

Required hardware:

- Active speaker with built-in amplifier and connecting wires


NOTICE

Make sure the camera is disconnected from power before making the connections. Reconnect to power after connecting the wires.

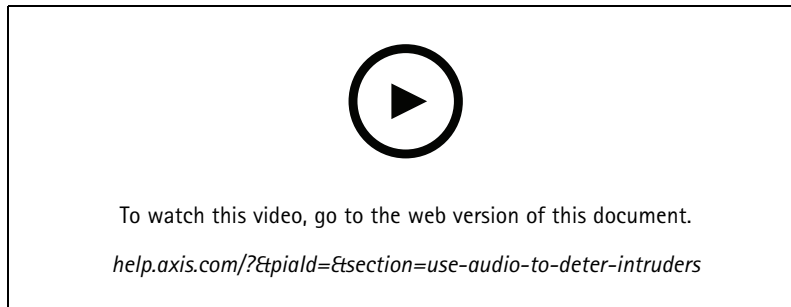
Add audio clip to the camera:

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1. Go to **Settings > Audio > Output** and click  .
2. Click **Upload new clip**.
3. Browse to locate your audio clip and click **Done**.

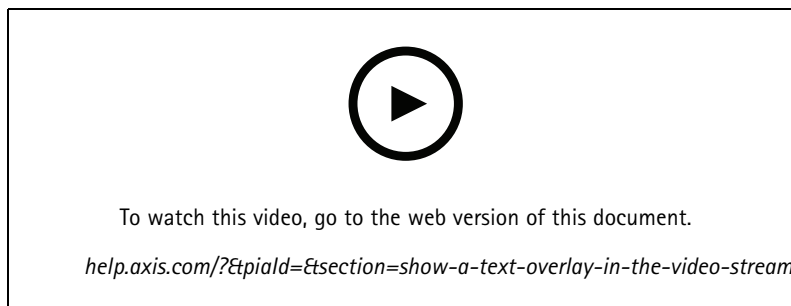
Create a rule:



1. Open the device webpage for the camera.
2. Go to **Settings > System > Events**.
3. Go to **Recipients** and add a recipient.
 - 3.1 Go to the device webpage of the speaker that has the audio clip stored on its SD card.
 - 3.2 Copy a link to the audio clip.
 - 3.3 Return to the device webpage of the camera.
4. Go to **Rules** and add a new rule:
 - 4.1 Under **Condition**, select **Video motion detection**.
 - 4.2 Under **Action**, select **Send notification through HTTP**.

Show a text overlay in the video stream when the device detects motion

This example explains how to display the text "Motion detected" when the device detects motion.



How to show text overlay when the camera detects motion

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Make sure that AXIS Video Motion Detection is running:

1. Go to **Settings > Apps > AXIS Video Motion Detection**.
2. Start the application if it is not already running.
3. Make sure you have set up the application according to your needs.

Add the overlay text:

4. Go to **Settings > Overlay**.
5. Enter #D in the text field.
6. Choose text size and appearance.

Create a rule:

7. Go to **System > Events > Rules** and add a rule.
8. Type a name for the rule.
9. In the list of conditions, select **AXIS Video Motion Detection**.
10. In the list of actions, select **Use overlay text**.
11. Select **Camera 1**.
12. Type "Motion detected".
13. Set the duration.
14. Click **Save**.

Send an email automatically if someone spray paints the lens



To watch this video, go to the web version of this document.

help.axis.com/?&pid=§ion=send-an-email-automatically-if-someone-spray-paints-the-lens

How to send an email notification if someone spray paint the lens

1. Go to **Settings > System > Detectors**.
2. Turn on **Trigger on dark images**. This will trigger an alarm if the lens is sprayed, covered, or rendered severely out of focus.
3. Set a duration for **Trigger after**. The value indicates the time that must pass before an email is sent.



Create a rule:

1. Go to **Settings > System > Events > Rules** and add a rule.
2. Type a name for the rule.

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3. In the list of conditions, select **Tampering**.
4. In the list of actions, select **Send notification to email**.
5. Select a recipient from the list or go to **Recipients** to create a new recipient.

To create a new recipient, click  . To copy an existing recipient, click  .

6. Type a subject and a message for the email.
7. Click **Save**.

Detect tampering with input signal

This example explains how to trigger an alarm when the input signal has been cut or short-circuited. For more information about the I/O connector, see .





To watch this video, go to the web version of this document.
help.axis.com/?&pid=&tsection=detect-tampering-with-input-signal

How to send an email notification when someone tampers with the input signal

Create a rule:

1. Go to **Settings > System > Events** and add a rule.
2. Type a name for the rule.
3. In the list of conditions, select **Digital input** and then select a port.
4. In the list of actions, select **Send notification to email** and then select a recipient from the list. Go to **Recipients** to create a new recipient.

To create a new recipient, click  . To copy an existing recipient, click  .

5. Type a subject and a message for the email.
6. Click **Save**.

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Set up rules with a VMS

Set up rules with a VMS

You can also set up rules in your video management system (VMS) software. The principle is the same, but each VMS has a different interface.

For information about how to set up rules in your VMS, see the user manual for the VMS.

- *Find your Axis VMS user manual here*

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Integrate third-party devices

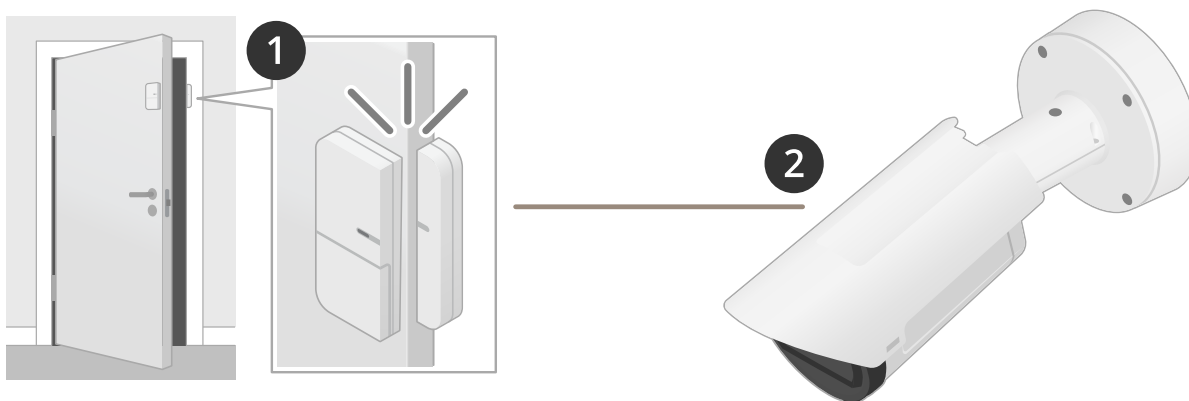
Integrate third-party devices

I/O connection

You can connect a third-party device to the I/O port of an Axis device.

Example:

Start recording when a door is opened.



In this case the camera is located near the door, and the door sensor is connected by cable to the I/O port on the camera.

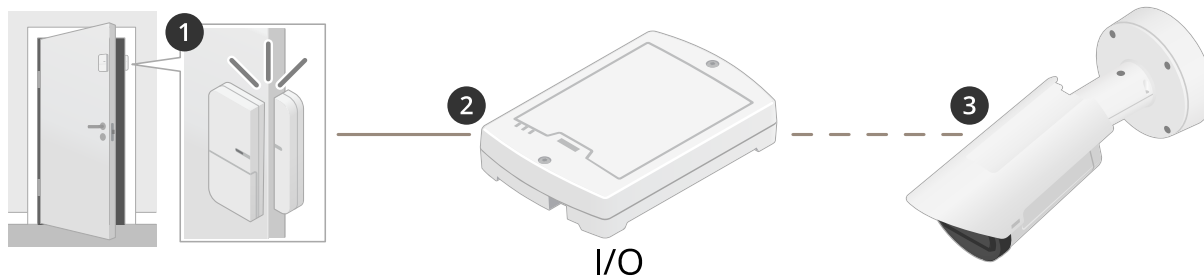
2. The door sensor sends a signal when the door is opened.
3. The I/O connection on the camera receives the signal and triggers an action in the camera to start recording.

Virtual input

You can use a virtual input for incoming HTTP requests.

Example:

Start recording when a door is opened.



In this case the camera is not located close to the door. The door sensor is connected by cable to an I/O relay, which is connected to the camera over the network.

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Integrate third-party devices

4. The door sensor sends a signal when the door is opened.
5. The I/O relay box receives the signal and triggers an HTTP request via the network to a virtual input on the camera.
6. The camera receives the virtual input and triggers an action in the camera to start recording.

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Conditions and actions

Conditions and actions

There are different conditions and actions available for different products. Here you find explanations for all of them.

Conditions

Use this condition as a trigger – Use this option as an activating condition to initiate an action. It can be used for rules with one or more conditions. However, only the first condition have this option and only some actions can be used with an activating condition. In order for the action to be triggered, all other conditions must be met before the activating condition. Whether the action keeps going or not depends on the type of action and if the rule consists of more than one condition. The action will continue as long as the conditions are met with disregard of the status of the activating condition. When one or more of the other conditions aren't met, the action stops. If you choose not to have an activating condition, the action is triggered when all the conditions are met.

- **Audio**
 - **Audio clip playing:** Select to trigger the action when the device starts to play an audio clip.
 - **Audio clip currently playing:** Select to trigger the action for as long as an audio clip is playing.
 - **Audio detection:** Select to trigger the action when the sound level rises above or falls below the alarm level. You can configure the alarm level in **System > Detectors**.
 - **Digital signal contains Axis metadata:** Select to trigger the action when the digital signal is ok and device information of the microphone is received through the Axis Audio Metadata Protocol (AAMP).
 - **Digital signal has invalid sample rate:** Select to trigger the action when the microphone's sample rate of the time source is not synced with the audio codec of the device. Usually there is a connection to the microphone but data can't be interpreted because of the invalid sample rate.
 - **Digital signal missing:** Select to trigger the action when no digital signal is received. This usually occurs when the microphone's power is lost or the cable is cut.
 - **Digital signal ok:** Select to trigger the action as long as there is a valid digital input that is time synced.
 - **Ring power over current protection:** Select to trigger the action when there is a short circuit in the ring power for the digital microphone.
 - **Speaker test result:** Select to trigger the action based on the result of the speaker functionality test. You can trigger it either when the test was successful or when it was unsuccessful.
- **Calls**
 - **DTMF:** Select to trigger the action when a configured DTMF sequence is activated. You can use this condition to, for example, open a door or turn on lights.
 - **State:** Select to trigger the action when a call service state changes to active, calling, idle, or ringing. You can use this condition to, for example, flash the light when the call is active or play a dial tone when a call is connecting.
 - **State change:** Select to trigger the action when a call state changes. You can use this condition to, for example, play a busy tone when a call is busy or call another specified SIP account if the call is busy.
 - Accepted by device:** An incoming call is accepted by the device.
 - Accepted by remote:** A outgoing call in is accepted by the remote destination.
 - Busy:** A call encounters a busy remote destination.
 - Deny:** An incoming call is denied.
 - Early media:** A call receives early media and will play it back locally
 - Failed:** A failure to initiate a call or a call fails for a reason other than Busy or No answer.
 - Ignored by device:** An incoming call is ignored by the device.
 - Initiated:** The call initiates.
 - No answer:** A call times out.
 - Terminated:** A call is terminated.
- **Device status**
 - **Above operating temperature:** Select to trigger the action when the device temperature is above the operating temperature range.
 - **Above or below operating temperature:** Select to trigger the action when the device temperature is outside the operating temperature range.
 - **Amplifier overload:** Select to trigger the action when the monitored audio output's overload protection is activated.
 - **Below operating temperature:** Select to trigger the action when the device temperature is below the operating temperature range.
 - **Casing open:** Select to trigger the action when the casing of a connected external device, for example a junction box, is removed or opened.

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Conditions and actions

- Example: Send a notification to an operator if the casing has been opened for maintenance reasons or if someone has tampered with the casing.
- **Fan failure:** Select to trigger the action when one or multiple built-in fans fail.
 - **IP address blocked:** Select to trigger the action when the device's current IP address has been blocked.
 - **IP address removed:** Select to trigger the action when the device's current IP address has been removed.
 - **Live stream active:** Select to trigger the action when the a live stream is active.
 - **Network lost:** Select to trigger the action when the device has lost the network link to the connected network switch or midspan.
 - **New IP address:** Select to trigger the action when the device has got a new static IP address or got one through DHCP lease.
 - **PIR sensor:** Select to trigger the action when the PIR sensor detects movement.
 - **PTZ power failure:** Select to trigger the action when the PTZ camera experience a sudden loss of power.
 - **Radar data failure:** Select to trigger the action when the device detects issues with the radar data received from the sensor, or if the device detects interference on the received signal.
 - **Ring power overcurrent protection:** Select to trigger the action when the device detects an electric current that exceeds the normal ring power value.
 - **Shock detected:** Select to trigger the action when the device detects that it has been tilted or hit. First you have to turn on shock detection under **System > Detectors**.
 - **Storage failure:** Select to trigger the action when the device detects issues with the SD card or network storage connection. When there is a storage failure, recordings are most likely interrupted and not saved.
 - **System ready:** Select to trigger the action when the system ready status is active, that is, when the device has successfully booted up.
 - **Within operating temperature:** Select to trigger the action when the device temperature is within the operating temperature range.
- **Edge storage**
 - **Recording ongoing:** Select to trigger the action when the device records to edge storage.
Example: You can notify the operator by flashing LED lights if the device starts or stops recording.
 - **Storage disruption:** Select to trigger the action when storage problems are detected. To find out what the issue is, you might need to check the logs.
Examples of problems: the storage device is unavailable, removed, full, locked, or has read or write issues.
 - **Storage health issues detected:** Select to trigger the action when the wear level of the SD card has reached a certain value. Go to **System > Storage > Onboard storage** to set the value.
 - **Entry list**
 - **Access denied:** Select to trigger the action when someone uses expired/suspended credentials or credentials that are not available in the entry list.
 - **Access granted:** Select to trigger the action when someone uses credentials that are available in the entry list and are associated with the access granted condition.
 - **Custom:** Select to trigger the action when someone uses credentials that are available in the entry list and are associated with the custom condition.
 - **I/O**
 - **Digital input is active:** Select to trigger the action when any of the selected digital input ports changes state. Select an input port to trigger the action when that specific port is active.
 - **Digital output is active:** Select to trigger the action when any of the selected digital output ports changes state. Select an output port to trigger the action when that specific port is active.
 - **Manual trigger:** Select to start and stop the action manually by clicking a button in the live view. The button is only visible when there is a rule that uses this condition.
 - **Supervised input tampering is active:** Select to trigger the action if someone tampers with the connection to digital I/O devices, such as PIRs and door/window contacts. You can detect both if an input is active/inactive (open/closed), and if it is tampered with (cut or shorted). This feature requires additional hardware (end-of-line resistors) in the external I/O loop.
Example: You connect a push button to an input port. The normal state for the button is circuit open. When someone pushes the button, the current state changes to circuit closed, which activates the input. The input then triggers the product to, for example, record video.
 - **Virtual input is active:** Select to trigger the action when any of the selected virtual inputs changes state. External clients, such as video management systems, can use this condition to initiate actions or to trigger one rule with another. Select a virtual port to trigger the action when that specific port is active.
 - **Light and siren**
 - **Health check is done:** A health check of the device's functions has been completed.
 - **Health is okay:** The functions passed the health check.
 - **Health isn't okay:** One or more functions didn't pass the health check.
 - **Light health isn't okay:** The light's functions didn't pass the health check.
 - **Siren health isn't okay:** The siren's functions didn't pass the health check.

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Conditions and actions

- **MQTT**
 - **Stateless and Stateful:** Select to trigger the action based on incoming MQTT messages. These messages are converted into events and categorized as either stateful (property) if the `isStateData` field is set to true, or stateless if the field is set to false. The topic of a stateful event is `tnsaxis:MQTT/Message/Stateful`, while the topic of a stateless event is `tnsaxis:MQTT/Message/Stateless`. The topic is embedded into the `mqtt-topic` field of the event. The first 1024 characters are copied, the remaining part is skipped. The payload of the message is embedded into the `mqtt-payload` field of the event. If the payload is UTF-8 encoded text, the first 1024 characters are copied, and the remaining part is skipped. You can configure MQTT subscriptions to receive MQTT messages in **Settings > MQTT > MQTT subscriptions**.
- **PTZ**
 - **PTZ control queue:** Select to trigger the action when a specific user group in the PTZ control queue is in control of the PTZ. You can use this condition to display an overlay text whenever the guard tour is in control of the PTZ.
 - **PTZ malfunctioning:** Select to trigger the action when the device has problems to pan, tilt, or zoom. You can use this condition to inform an operator that there is a problem with the PTZ functionality.
 - **PTZ movement:** Select to trigger the action when the device pans, tilts, or zooms. You can use this condition in combination with another one to stop actions such as motion detection during pan, tilt, and zoom.
 - **PTZ preset reached:** Select to trigger the action when the view reaches a preset position. You can use this condition to save images from the preset positions of a guard tour, or to upload an image at each preset position. In the secondary drop-down list, select **Any** to trigger the action when any preset position is reached. For the option **Preset reached**, **Yes** triggers the action when the preset position is reached, and **No** triggers the action when the device starts to move away from the preset position.
 - **PTZ ready:** Select to trigger the action when PTZ is in ready status. For example, the device can trigger the action when PTZ is ready to be used after a restart. You can use this condition to move the device to a specific preset position after restart.
- **Radar motion**
 - **License plate and radar:** Select to trigger the action based on what direction a vehicle is travelling, based on radar analytics.
 - **Direction:** Select the direction.
 - **Approaching:** Vehicles that are travelling towards the camera.
 - **Both:** Vehicles that are either approaching or departing.
 - **Departing:** Vehicles that are travelling away from the camera.
 - **RMD:** Select to trigger the action when the radar detects motion according to its scenario configuration.
- **Scheduled and recurring**
 - **Pulse:** Select to trigger the action based on a predefined recurrence in the list of pulses. You can use this condition to initiate recurring actions, for example upload the image every 30 minutes. You can create a new pulse in **System > Events > Schedules**.
 - **Schedule:** Select to trigger the action based on a predefined schedule in the list of schedules. You can use this condition to record video in specific time periods, for example office hours or weekends. You can create a new schedule in **System > Events > Schedules**.
- **Video**
 - **Average bitrate degradation:** Select to trigger the action when an unexpected degradation occurs. This can happen when the bitrate is higher than anticipated and the quality of the video stream is therefore lower.
 - **Day-night mode:** Select to trigger the action when the device switches between day and night mode, for example automatic IR-cut filter. You can use this condition to, for example, control an external IR light through the output port.
 - **Live stream open:** Select to trigger the action when a video client accesses the live stream in the web interface. The stream can be of any media type, for example video or audio.
 - **Tampering:** Select to trigger the action when someone tampers with the image, for example covers the view to prevent video from being recorded. You can configure the camera tampering detection in **System > Detectors**.
 - **Temperature detection:** Select to trigger the action when the temperature rises above or falls below a set level. To set the allowed temperature level, go to **Thermometry > Temperature detection**.
 - **Temperature detection in any area:** Select to trigger the action when the temperature rises above or falls below a set level in any area. To set a detection area with the allowed temperature levels, go to **Thermometry > Temperature detection**.
 - **Temperature detection in any area in the preset position:** Select to trigger the action when the temperature rises above or falls below a set level in any area in the preset position. To set a detection area with the allowed temperature levels and, to select the preset position, go to **Thermometry > Temperature detection**.
 - **Preset position:** Select the preset position.
- **Video encoder**
 - **Video connected:** Select to trigger the action when the video encoder receives a video signal from the analog camera. There is one event for each video channel.

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Conditions and actions

Actions

- **Audio**
 - **Run automatic speaker test:** Select to send a test signal.
- **Audio clips**
 - **Play audio clip:** Select to play a recorded audio clip. It can be used to automatically notify operator that Axis product has detected movement. From the **Clip** drop-down list, select an audio clip to play.
 - **Play audio clip while the rule is active:** Select to play a recorded audio clip until the conditions are no longer met.
 - **Stop playing audio clip:** Select to stop a currently playing audio clip.
- **Calls**
 - **Answer call:** Select to active the action to answer incoming calls.
 - **End calls:** Select to end calls to or from the device or video management system (VMS). You can use this action when a call is in a ringing, calling, or active state.
 - **Make calls:** Select to make calls to the specified SIP or VMS recipient. The VMS recipient use the call conditions to let the device mimic an outgoing call for VMS streaming access.
- **Day-night mode**

You can use an IR-cut filter that is suitable for the lighting conditions.

Note

Under **Video > Image > Day-night mode**, the IR-cut filter must not be set to **Auto**.

 - **Use day-night mode while the rule is active:**
 - **Video source:** Select the video source.
 - **Mode when active:** Select what mode to use when the conditions for the rule are met.
 - **Mode when inactive:** Select what mode to use when the conditions for the rule are not met.
 - **Day:** Select to turn on the IR-cut filter.
 - **Night:** Select to turn off the IR-cut filter.
 - **Auto:** Select to let the IR-cut filter be turned on or off depending on the lighting conditions.
- **Defog**
 - **Set defog mode:** Select to set defog mode to on or off. Use this action when it is necessary to automatically change between the modes. Select **Defog on** or **Defog off** for the product to be set to that specific mode.
 - **Set defog mode while the rule is active:** Select to set defog mode to on or off until the conditions are no longer met. Select **Defog on** or **Defog off** for the product to be set to that specific mode.
- **Guard tours**
 - **Run guard tour while the rule is active:** Select to run guard tour until the conditions are no longer met. Select a channel and tour ID. Select **Go to home** to go to the home position when finished.
 - **Start guard tour:** Select to start guard tour. Select a channel and tour ID. Select **Go to home** to go to the home position when finished.
- **Guard tours (recorded)**
 - **Run recorded guard tour while the rule is active:** Select to run recorded guard tour until the conditions are no longer met. Select a channel and tour ID. Select **Go to home** to go to the home position when finished.
- **HDMI**
 - **Use HDMI**
 - **Source:** Select a camera to preview.
 - **Duration:** Set the duration of the connection.
 - **Use HDMI while the rule is active:** Select to let the HDMI connection stay open until the conditions are no longer met.
 - **Source:** Select a camera to preview.
- **I/O**
 - **Toggle I/O once:** Select to toggle an I/O when the conditions for the rule are met.
Port: Select the output port to use.
State: Select if the I/O port should be active or inactive.
Duration: Select to set the duration of the output port state. The output port will then go into the opposite state.
 - **Toggle I/O while the rule is active:** Select to toggle an I/O for the duration of the rule.
- **Illumination**

The built-in Infrared (IR) light and white light illuminator allows the camera to perform video surveillance in low light areas without the need for external lighting.

 - **Use illumination for a duration:** Select to activate the built-in IR light illuminator for a set duration. You can choose the number of seconds, minutes and hours that the light will stay activated.

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Conditions and actions

- **Use illumination while the rule is active:** Select to make the built-in IR light illuminator active for the duration of the rule.
- **Images**
 - **Send images through HTTP(S):** Select to send images to a remote HTTP or HTTPS server. You need to create a corresponding HTTP(S) recipient before you create a rule that includes this action. Optionally, you can define a destination folder or a filename. You can select a stream profile if you don't want to use the default streaming settings. Prebuffer and postbuffer define the number of seconds to include before and after the actual event occurs. If you want to send a limited amount of images only, define the maximum number of images to send or select a custom image frequency.
 - **Send images through (S)FTP:** Select to send images through FTP or SFTP. You need to create a corresponding (S)FTP recipient before you create a rule that includes this action. Optionally, you can define a destination folder or a filename. You can select a stream profile if you don't want to use the default streaming settings. Prebuffer and postbuffer define the number of seconds to include before and after the actual event occurs. You can define the maximum number of images to send. If you want to send a limited amount of images only, define the maximum number of images to send or select a custom image frequency.
 - **Send images to email:** Select to send images by email. You need to create a corresponding email recipient before you create a rule that includes this action. Optionally, you can define a filename. You can select a stream profile if you don't want to use the default streaming settings. Prebuffer and postbuffer define the number of seconds to include before and after the actual event occurs. If you want to send a limited amount of images only, define the maximum number of images to send or select a custom image frequency.
 - **Send images to network share:** Select to send images to a network share on a remote NAS in the network. You need to create a corresponding network share recipient before you create a rule that includes this action. Optionally, you can define a destination folder or a filename. You can select a stream profile if you don't want to use the default streaming settings. Prebuffer and postbuffer define the number of seconds to include before and after the actual event occurs. If you want to send a limited amount of images only, define the maximum number of images to send or select a custom image frequency.
- **LEDs**
 - **Call button LED:** Select to change the color and pattern for the call button LED for a specific duration.
 - **Call button LED infinity:** Select to change the color and pattern for the call button LED for a specific device state. The change lasts indefinitely or until another rule changes it.
 - **States:**
 - **Standby:** When the device is idle.
 - **Presence:** For a set number of seconds after the device was active.
 - **Ringin**g: When a call is made to the device.
 - **Calling:** When a call is made from the device.
 - **Call active:** When there's an ongoing call.
 - **Phonebook match:** When the device has found a number in the phonebook that matches the user input.
 - **Pin input:** When the device is ready to accept a PIN after a card or tag has been used.
 - **Default:** Select if you want the rule to make the call button LED go back to its default configuration.
 - **Call button LED while rule is active:** Select to change the color and pattern for the call button LED for a specific device state until the conditions of the rule are no longer met.
For States and Default, see **Call button LED infinity**
 - **Flash LED:** Select to make the LED flash for a set duration. You can choose a color for the LED. The LED can be used during installation and configuration to visually validate if settings work correctly, for example to confirm that motion detection triggers an action.
 - **Flash LED while the rule is active:** Select to make the LED flash for the duration of the rule. You can choose a color for the LED.
- **Light and siren**
 - **Run health check:** Select to run a health check of the device's functions.
 - **Run light and siren profile:** Select to choose a profile to either start or stop the light, siren, or both.
 - **Run light and siren profile while the rule is active:** Select to activate the selected profile. The profile will run until the conditions are no longer met.
 - **Stop activities:** Select to stop all ongoing activities for the lights, sirens, or both depending on the selected functionality.
- **Mediaplayer**
 - **Pause view changes:** Doesn't change views when the action is active, for example a view that is set to change after 10 seconds stays the same. This is only active for a set time.
 - **Pause view changes while the rule is active:** Doesn't change views when the action is active, for example a view that is set to change after 10 seconds stays the same. The action is active while the rule condition is ongoing.
 - **Play a view in the current sequence:** Jump to a view number specified by the user
 - **Play next view:** Goes directly to the next view in the sequence.

Get started with rules for events

Conditions and actions

- Play previous view: Goes directly to the previous view in the sequence.
- Play sequence: Jump directly to a sequence number and view number specified by the user.
- Monitor
 - Turn on the monitor while the rule is active: Automatically turns on a screen while the rule condition is active, and sets the screen in standby mode if inactive. The screen must have HDMI CEC support.
- MQTT
 - Send MQTT publish message: Select to send an MQTT publish message.
Topic: Enter the topic of the MQTT publish message. The topic can be maximum 1024 characters long.
Use device topic prefix: Select to add a device topic prefix to the topic.
Payload: Enter the payload to publish. The payload can be a string or a text with maximum 8192 characters.
Retain: Select to set a retain flag for the message. The last message on the topic will be retained.
QoS: Select the quality of service level to use. 0 is default.
- Notifications
 - Send notification through HTTP(S): Select to send a notification through HTTP or HTTPS.
Message: The message is received in a CGE variable called Message on the target HTTP server. If the message contains more than 255 characters, this field excludes some or all of the content of the Custom parameter. Spaces are allowed. Click **Modifiers** for a list of all available modifiers. Click a modifier to add it to the text.
Query string suffix: Add any extra parameters, Name and Value, in a string here.
Method: Select what method to use. GET and POST are the most common ones.
HTTP(S) header: If desired, add HTTP(S) headers. You can find a list of HTTP(S) headers at en.wikipedia.org/wiki/List_of_HTTP_header_fields
Body: If desired, enter a body text. You can't use a body with the methods GET or DELETE.
 - Send notification through TCP: Select to send a notification through TCP.
Message: The message is received in a CGE variable called Message on the target HTTP server. If the message contains more than 255 characters, this field excludes some or all of the content of the Custom parameter. Spaces are allowed. Click **Modifiers** for a list of all available modifiers. Click a modifier to add it to the text.
 - Send notification to email: Select to send a notification by email.
Subject: Enter the email subject.
Message: Enter the email message.
- Overlay text
 - Note**
To display the overlay text, a text overlay with the modifier **#D** must be created.
 - Use overlay text: Select to display a text on top of a video stream image. The text can be used to provide information for forensic video analysis, notify operators or validate triggers and actions during product installation and configuration.
 - Use overlay text while the rule is active: Select to display a text on top of a video stream image.
- Power saving mode
 - Power saving mode
 - Power saving mode on: Select to turn on power saving mode.
 - Power saving mode off: Select to turn off power saving mode.
 - Duration: Set the duration of the power saving mode.
 - Power saving mode while the rule is active: Select to let the power saving mode remain on or off until the conditions are no longer met.
 - Power saving mode on: Select to turn on power saving mode.
 - Power saving mode off: Select to turn off power saving mode.
- Preset positions
 - Go to preset position: Select to move the device to a set position when the action is triggered.
 - Go to preset position while the rule is active: Select to move the device to a set position until the conditions are no longer met.
- Radar
 - Radar autotracking: Select to use radar autotracking, which makes a paired PTZ camera track objects detected by the radar. You can set radar autotracking to on or off and specify a duration for the action. You need to pair the radar with a PTZ camera and configure radar autotracking to use this action.
 - Radar detection: Select to detect moving objects with the radar. You can set radar detection to on or off and specify a duration for the action.
 - Use radar autotracking while the rule is active: Select to turn radar autotracking on or off for the duration of the rule. You need to pair the radar with a PTZ camera and configure radar autotracking to use this action.
 - Use radar detection while the rule is active: Select to turn radar detection on or off for the duration of the rule.
- Recordings

Get started with rules for events

Conditions and actions

- Records audio or video to a selected storage.
- **Record audio:** Select to start recording audio.
 - **Storage:** Select which storage to use for the recorded audio.
 - **Prebuffer:** Enter the number of seconds to include in the recording from the time immediately before the rule was triggered. This time will be shortened automatically if there is insufficient memory when the recording is started.
 - **Postbuffer:** Enter the number of seconds to include immediately after the rule is no longer active.
 - **Record video:** Select to start recording video.
 - **Storage:** Select which storage to use for the recorded video.
 - **Camera:** Select which source to record from (for example a specific view area).
 - **Stream profile:** Select the stream profile you want to use.
 - **Prebuffer:** Enter the number of seconds to include in the recording from the time immediately before the rule was triggered. This time will be shortened automatically if there is insufficient memory when the recording is started.
 - **Postbuffer:** Enter the number of seconds to include immediately after the rule is no longer active.
 - **Record video while the rule is active:** Select to record video for the duration of the rule.
- **Security**
 - **Erase configuration:** Select to reset a device and remove all its configured settings.
 - **SNMP trap messages**
 - **Send SNMP trap message:** Select to send an SNMP trap message when the conditions for the rule are met. Go to **System > Network > SNMP** to turn on and set up SNMP before you create a rule that includes this action.
Alarm name: Enter a name for the alarm.
Message: Enter the message.
 - **Send SNMP trap message while the rule is active:** Select to send an SNMP trap message for the duration of the rule. Go to **System > Network > SNMP** to turn on and set up SNMP before you create a rule that includes this action.
 - **Tracking**
 - **Start temporary detection:** Select to automatically track any moving objects in the camera's field of view for a limited duration. You can choose how many seconds you want this action to continue for.
 - **Toggle autotracking:** Toggles PTZ autotracking on or off. While enabled, the camera automatically tracks any moving objects in its field of view.
 - **Toggle autotracking profile:** Toggles PTZ autotracking on or off. While enabled, the camera automatically tracks any moving objects within the area defined in the selected autotracking profile.
 - **Toggle autotracking while the rule is active:** Select to enable PTZ autotracking for the duration of the rule.
 - **Toggle autotracking profile while the rule is active:** Select to enable PTZ autotracking within the area defined in the selected autotracking profile for the duration of the rule.
 - **Video clips**

When you send a video clip, it's generated in a non-searchable way. It means that you can't fast forward or rewind, or jump to a specific point on the timeline. To do these things, you can use Axis Matroska File Splitter or third-party software like MKVToolNix.

 - **Send video clip through HTTP(S):** Select to send a video clip to a remote HTTP or HTTPS server. You need to create a corresponding HTTP(S) recipient before you create a rule that includes this action. Optionally, you can define a destination folder or a filename. You can select a stream profile if you don't want to use the default streaming settings. Prebuffer and postbuffer define for how long the device shall record before and after the actual event occurs.
 - **Send video clip through (S)FTP:** Select to send a video clip to a remote FTP or SFTP server. You need to create a corresponding (S)FTP recipient before you create a rule that includes this action. Optionally, you can define a destination folder or a filename. You can select a stream profile if you don't want to use the default streaming settings. Prebuffer and postbuffer define for how long the device shall record before and after the actual event occurs.
 - **Send video clip to email:** Select to send a video clip by email. You need to create a corresponding email recipient before you create a rule that includes this action. Optionally, you can define a filename. You can select a stream profile if you don't want to use the default streaming settings. Prebuffer and postbuffer define for how long the device shall record before and after the actual event occurs.
 - **Send video clip to network share:** Select to send a video clip to a network share on a remote NAS in the network. You need to create a corresponding network share recipient before you create a rule that includes this action. Optionally, you can define a destination folder or a filename. You can select a stream profile if you don't want to use the default streaming settings. Prebuffer and postbuffer define for how long the device shall record before and after the actual event occurs.
 - **WDR mode**
 - **Set WDR mode:** Select to set WDR mode to on or off. This action may be used when needed to change between the modes automatically. Select **WDR on** or **WDR off** for the product to be set to that specific mode.

Get started with rules for events

Conditions and actions

- **Set WDR mode while the rule is active:** Select to set WDR mode to on or off. When the conditions are no longer met, the WDR mode will be set to the opposite state. Select **WDR on** or **WDR off** for the product to be set to that specific mode.
- **Wiper**
 - **Use wiper:** Select to start the built-in wiper. The wiper removes droplets from the front window. You can choose the number of seconds and minutes that the wiper stays activated.
- **Wireless**
 - **Broadcast signal:** Select to, for example, start a recording on nearby Axis body worn cameras configured to receive a broadcast signal.
 - **System ID:** Enter the system ID of the body worn system. You can find this in the **About** menu in AXIS Body Worn Manager.
 - **Message type:** Enter 1 to broadcast the message `lightbar active`, which starts a recording on nearby Axis body worn cameras configured to receive a broadcast signal.

