

HOW TO. ■

Configure Tailgating using AXIS People Counter in AXIS Camera Station Secure Entry.

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Introduction

This document explains how to integrate an Axis camera running the AXIS People Counting analytic into an access control system to assist with Tailgating. The purpose of the integration is to enforce badge in/out at an entrance/exit.

Normally AXIS People Counter (APC) will trigger only if two or more people cross the boundary within a set amount of time. With the access control integration, a valid credential read will allow one person to pass the boundary during a set amount of time, if another person badges in, the system will allow two people to pass, and so on.

The below sequence diagram shows how the shunting works

Second	Allowed counts	Counts	Person walking in	Alarm	Badge	Description	1st badge count down	2st badge count down	3st badge count down
1	0	0							
2	0	0							
3	1	0			1	1st badge, allowed count increases by one.	10		
4	1	0					9		
5	1	0					8		
6	0	1	passage			1st passage, allowed count used.	7		
7	0	1							
8	1	1			1	2nd badge, allowed count increases by one.		10	
9	1	1					9		
10	2	1			1	3rd badge, allowed count increases by one.	8		10
11	2	1					7		9
12	2	1					6		8
13	1	2	passage			2nd passage, one allowed count used.	5		7
14	1	2							6
15	1	2							5
16	1	2							4
17	1	2							3
18	1	2							2
19	1	2							1
20	0	2				Third badge timed out after 10 seconds.			0
21	0	2							
22	0	2							
23	0	2							
24	0	2							
25	0	3	passage	alarm		Passage when allowed counts = 0 (ALARM)			
26	0	3							
27	0	3							
28	0	3							
29	0	3							
30	0	3							

Prerequisites

AXIS A1610/A1210 Door Controller 11.8.75.6 or later

AXIS Camera Station Pro 6.2 or later

AXIS People Counter supported Camera

AXIS People Counter ACAP

AXIS People Counter License key

Please note that Axis doesn't take any responsibility for how this configuration may affect your system. If the modification fails or if you get other unexpected results, you may have to restore the settings to default.

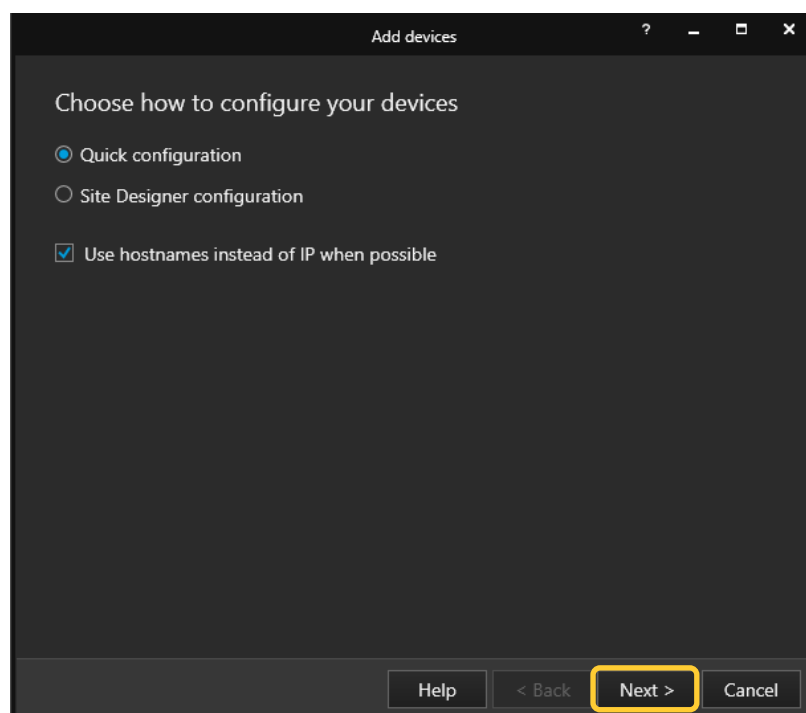
Step 1 – Adding/updating & setting up devices

Start by adding the unit(s) to Axis Camera Station and ensuring that they are running the latest firmware. For the devices used we require the use of HTTPS for end-to-end security, these devices should also use ACS as an NTP. Only the door controller is required to be added to Axis Camera Station, but the intercom or camera can be added. Ensure either way that all devices are on the latest firmware.

To add the devices

Follow these steps if you need to add the devices:

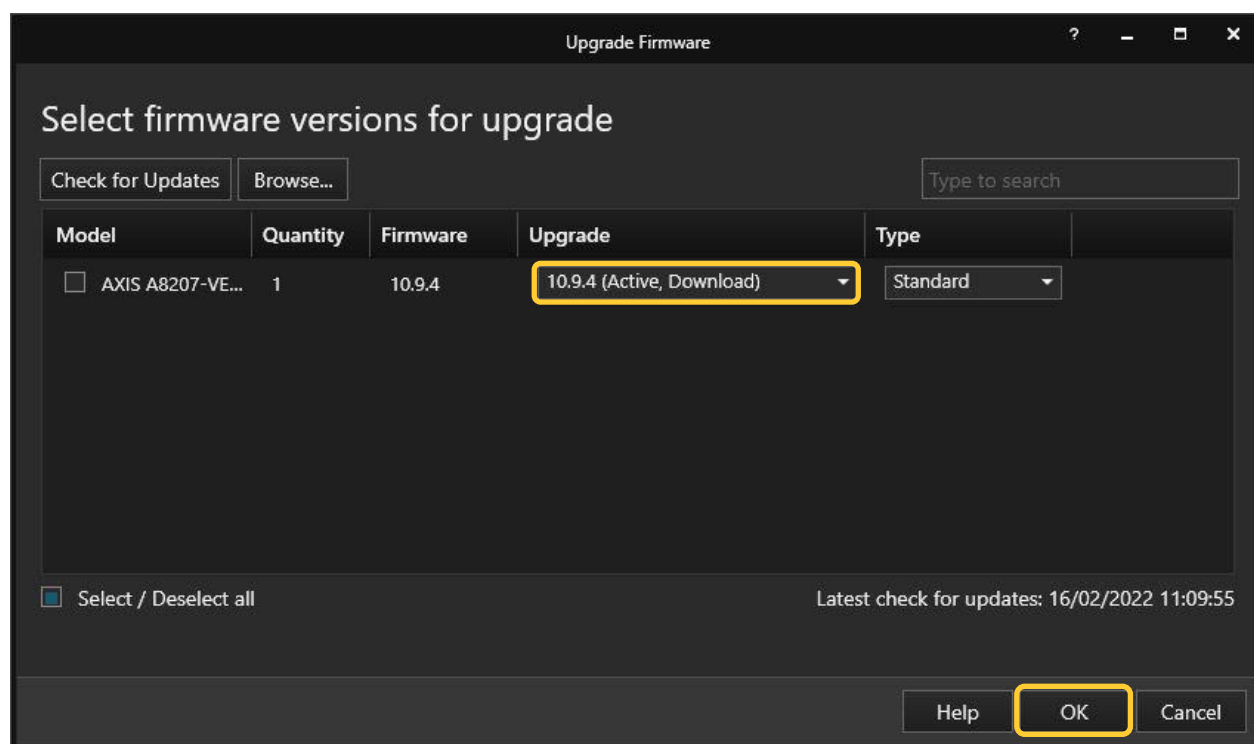
1. In Axis Camera Station open the configuration tab via the “+” symbol found at the top of the screen.
2. From the left menu select “Devices” and under this drop-down select “Add Devices”
3. On this page if the units are in your network, you should see them, if they are missing then you can try do a manual search via the button “Manual Search”. If they still cannot be found, please check the units are powered and are on the same network.
4. If the units are greyed out, this means they require the password for the unit, this is entered by clicking on the “Enter password” under status for the unit.
5. Once you see the units you wish to add, you can hold down the “ctrl” key and select the units, then click add found on the bottom left.
6. Follow the pop-up wizard to add these devices



To update the devices

Follow these steps to update your devices:

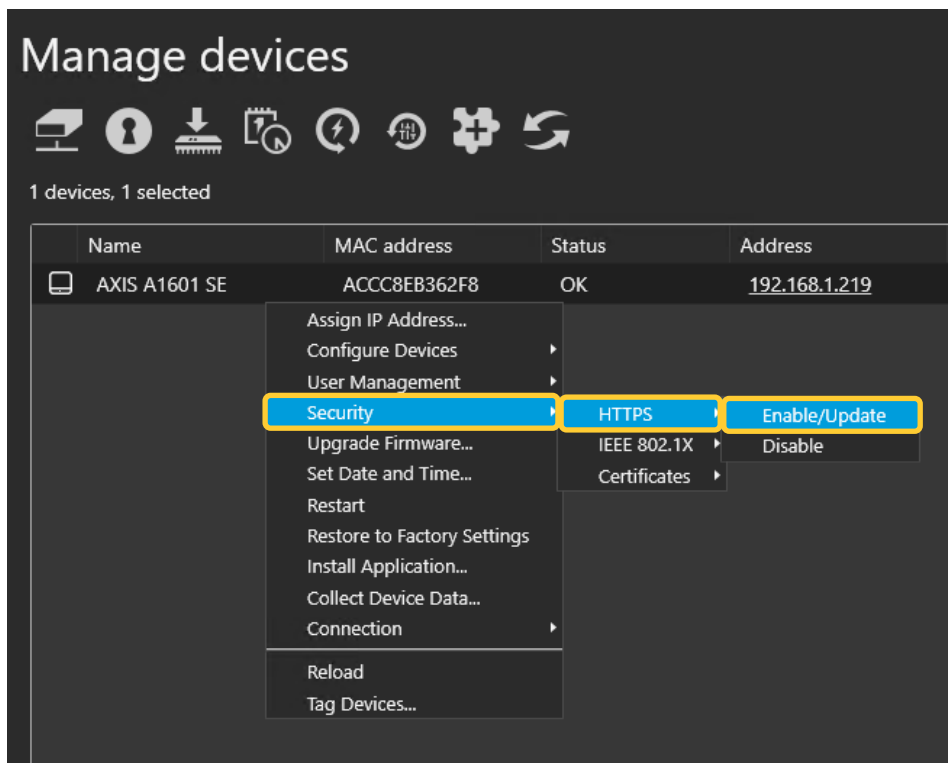
1. In Axis Camera Station open the configuration tab via the “+” symbol found at the top of the screen.
2. From the left menu select “Devices” and under this drop-down select “Management”
3. From this page hold “ctrl” and select the devices, once selected press the update firmware button.
4. In the popup select the latest firmware in the list for each device (for the A1601 ensure to select the latest Secure Entry track) and press “OK”
5. The update can be monitored via the “tasks”



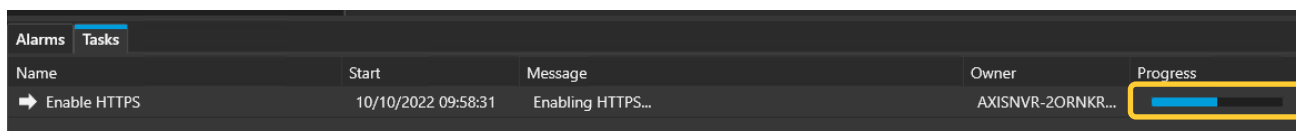
To setup the devices

Follow these steps to setup your devices:

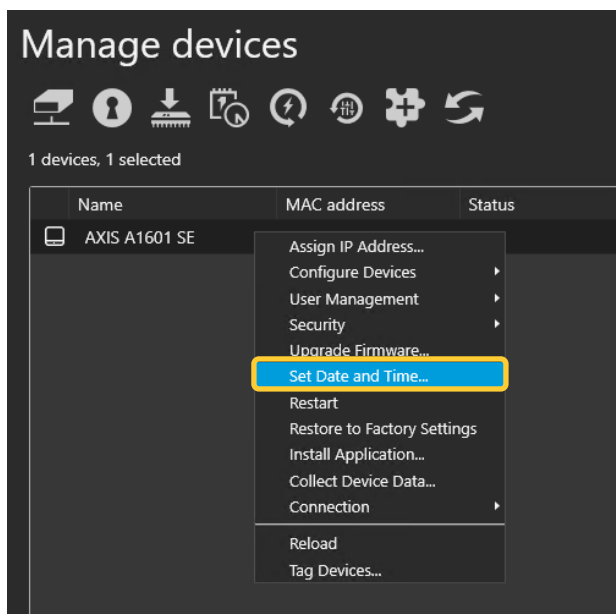
1. In Axis Camera Station open the configuration tab via the “+” symbol found at the top of the screen.
2. From the left menu select “Devices” and under this drop-down select “Management”
3. Right click on the device and select “Security – HTTPS – Enable/Update”



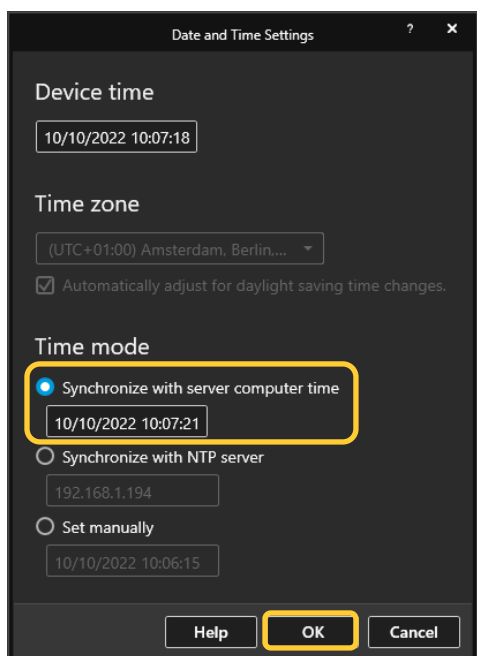
4. This will create a task in the task and alarms, once this has completed, HTTPS is enabled on this device.



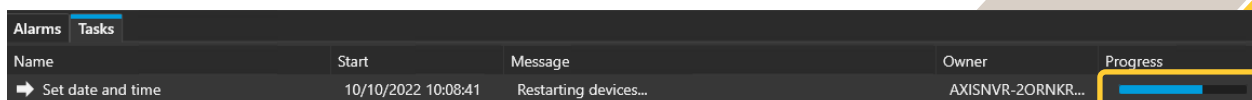
- Next to setup is the time & date on the device, we do this but right clicking on the device in Devices – Management and selecting “Set Date and Time...”



- In the pop-up select yes, In the next pop-up under “Time Mode” choose the first option, “Synchronize with server computer time”



- This will then add a task in the task and alarms, once completed the time will now be synched with the computer server time.



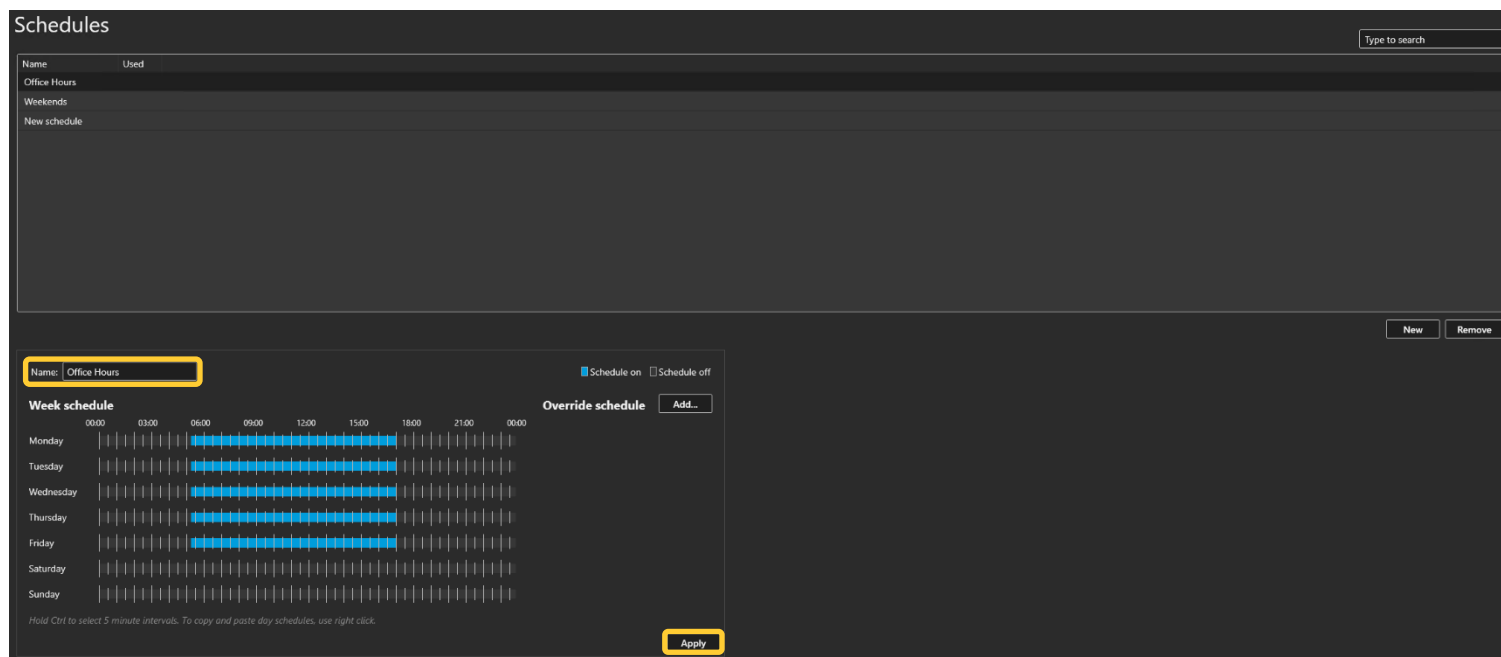
Step 2 - How to create/edit a schedule

Creating/editing a schedule to use in Secure Entry

These schedules would be used for setting specified time periods for identification profiles and access times for cardholders or door unlock schedules.

Follow these steps to create a schedule:

1. In Axis Camera Station open the configuration tab via the “+” symbol found at the top of the screen.
2. From the left menu select “Recording and events” and under this drop-down select “Schedules”
3. To edit a schedule, highlight the schedule you wish to edit, if you wish to create a new schedule, press new.
4. To edit this schedule hold and drag the cursor along the time for each day that you want the schedule to be running. Blue highlighted will be the active times on each day.
5. Once you are happy with your schedule you can provide it with a new name in the name field and click apply.



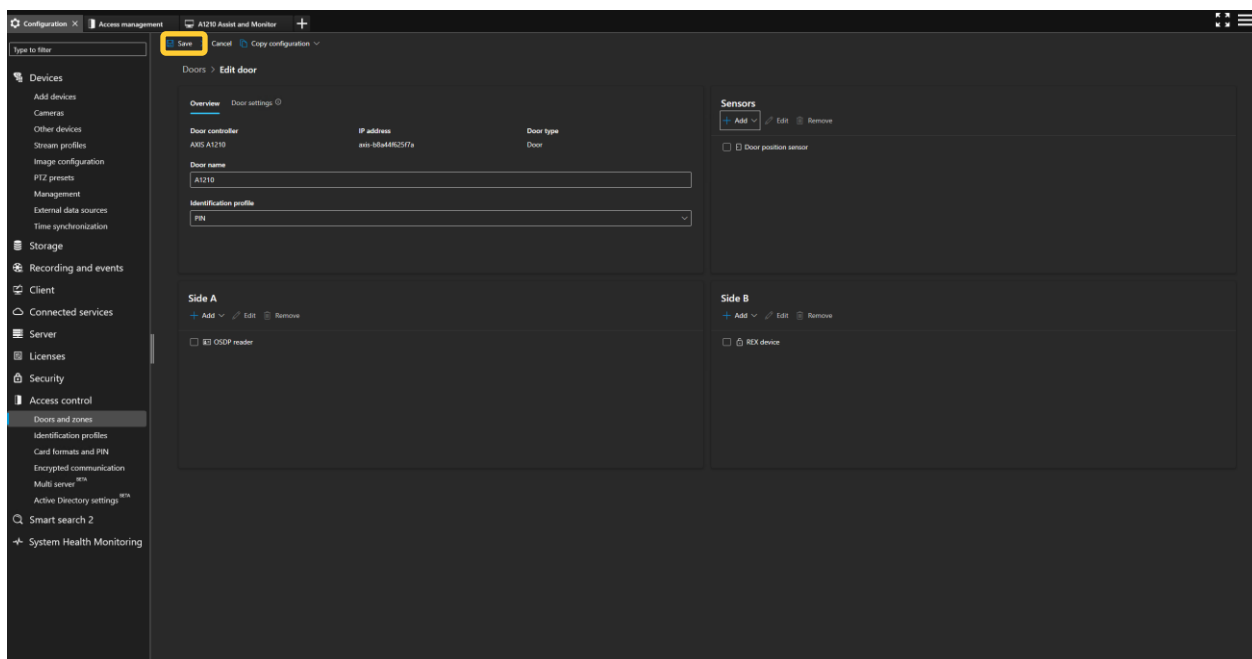
Step 3 – Creating a door

To create a door

If you already have a door in your system that you wish to apply Tailgating too, please move to the next step.

Follow these steps to create a door:

1. In Axis Camera Station open the configuration tab via the “+” symbol found at the top of the screen.
2. From the left menu select “Access control” and under this drop-down select “Doors and zones”
3. On this page press “+ Add door” and in the pop-up give the door a relative name and select the A1601 door controller in the second drop down, then press “Next”.
4. ” Proceed to configure the locks with the correct relay, door monitors and readers, then press “Save

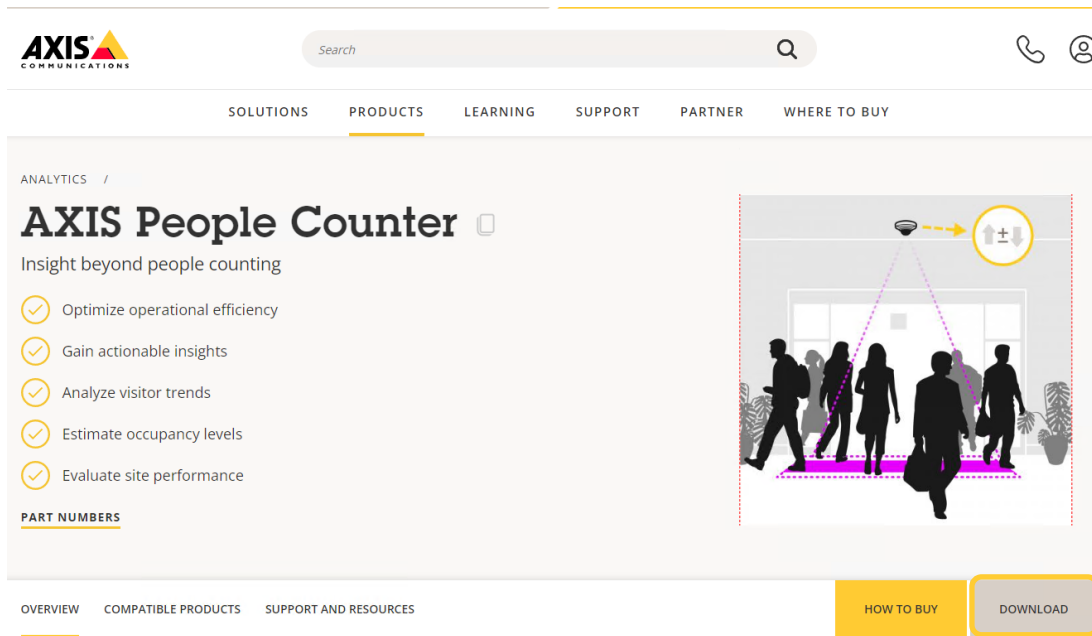


Step 4- Install AXIS People Counter

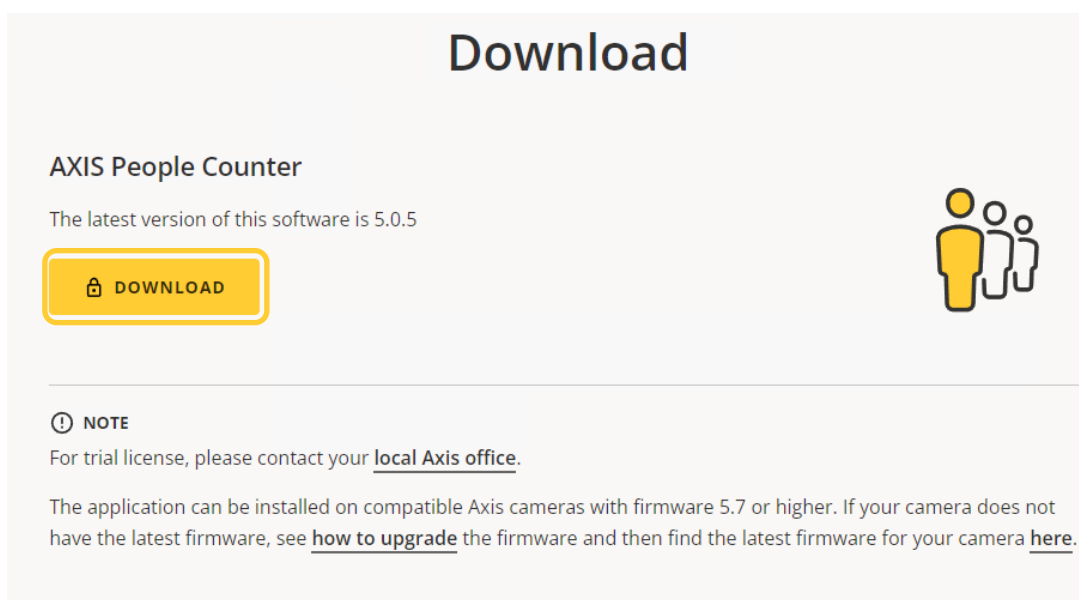
To install AXIS People Counter

Follow these steps to install AXIS People Counter ACAP

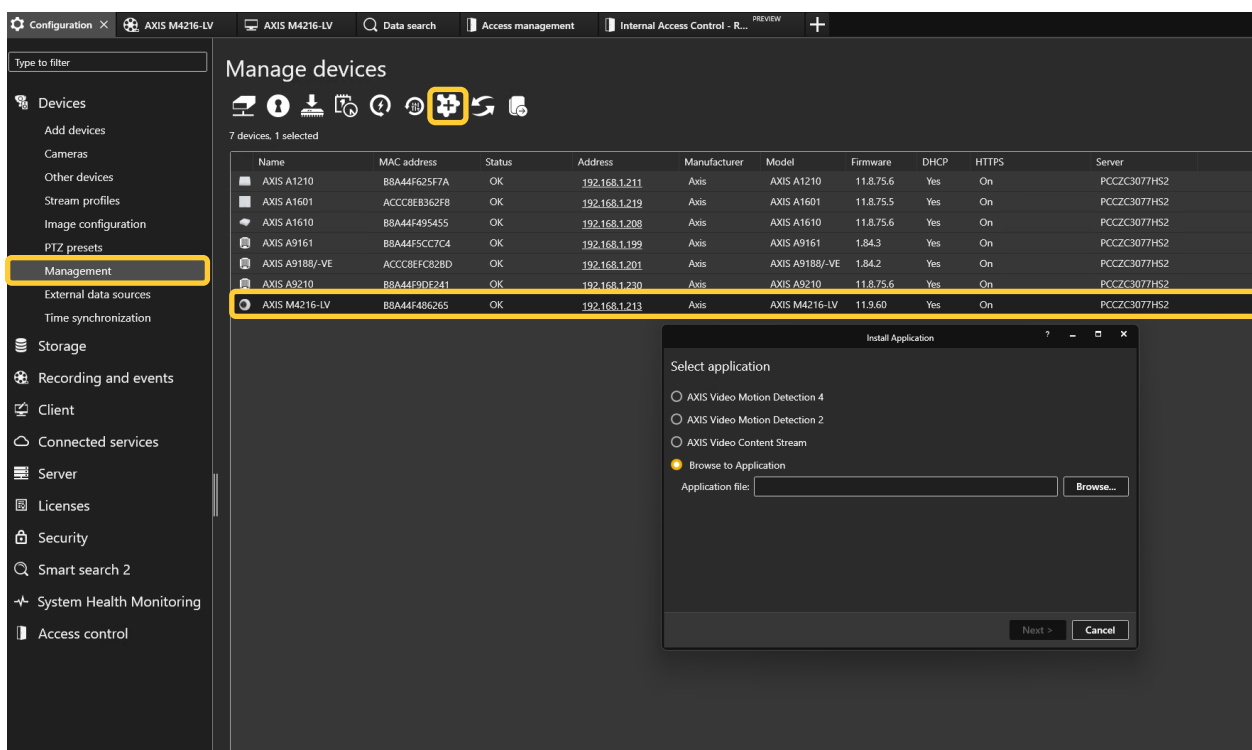
1. On AXIS.com search for AXIS People Counter and select the link
2. On the webpage select "Download"



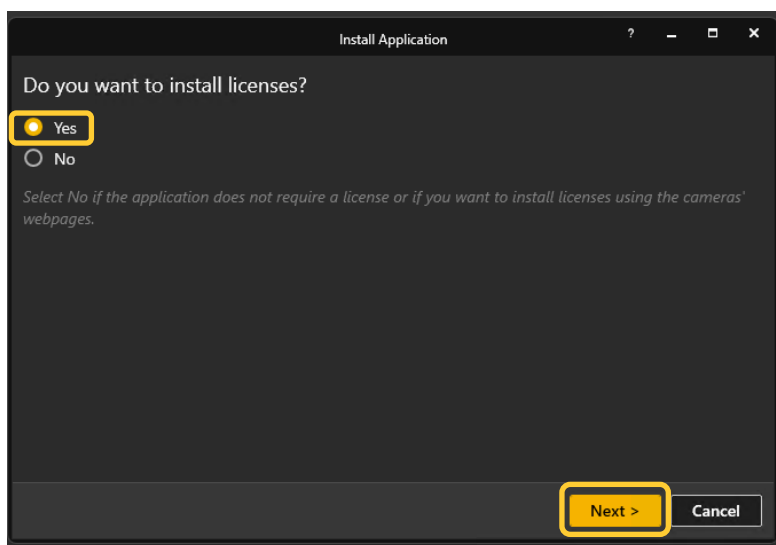
3. Then click the download link, (this requires an AXIS.com account) and select your camera model



- From AXIS Camera Station go to Configuration -> Devices -> Management, select the camera to be used and press the ACAP Puzzle button.



- In the popup, select "Browse to Application" and select the AXIS People Counter ACAP we downloaded in the previous step, then follow the installation wizard.
- During the installation you will be requested to provide your license for the ACAP. This can also be added directly on the web interface of the camera.



NOTE

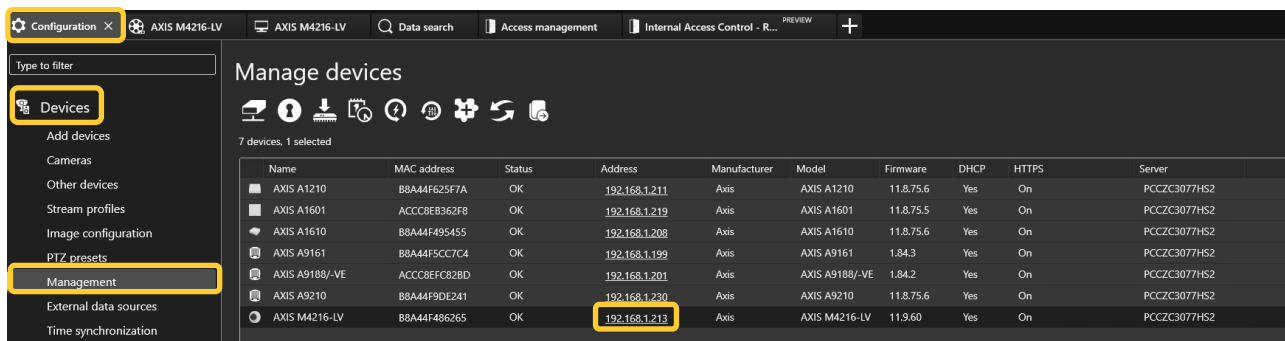
Other settings such as install height will need to be configured for more accurate detections, please see the People counter installation guide on [AXIS.com](https://axis.com)

Step 5 - Enabling Access Control integration in the camera

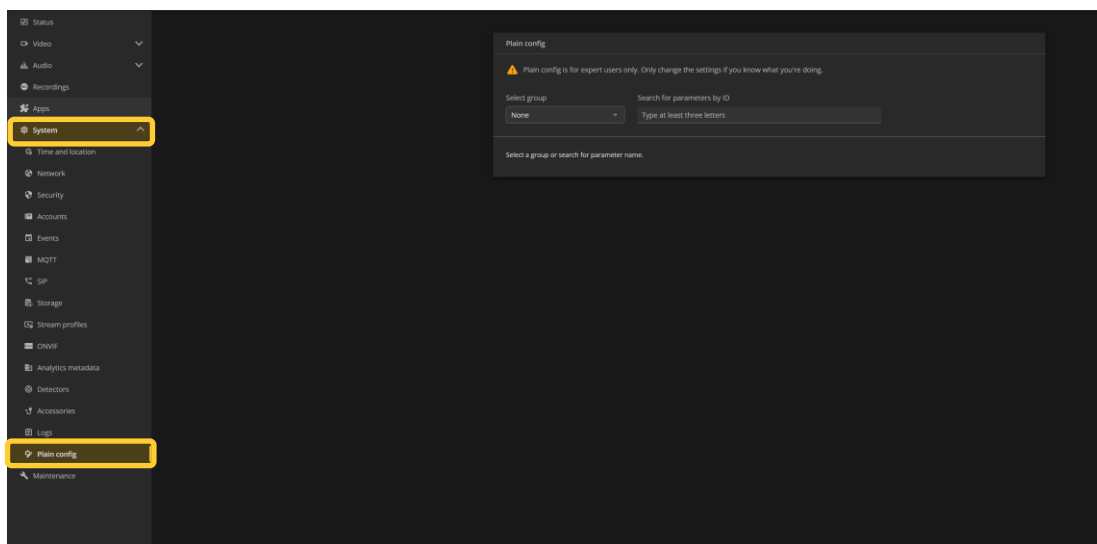
To Enable Access Control in the camera

Follow these steps to enable Access Control in the camera:

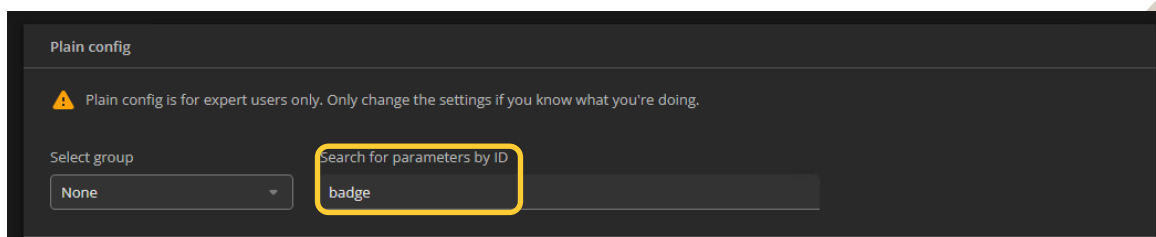
1. In AXIS Camera Station go to Configuration -> Devices -> Management and click on the address link to enter the webpage of the camera with AXIS People Counter ACAP installed.



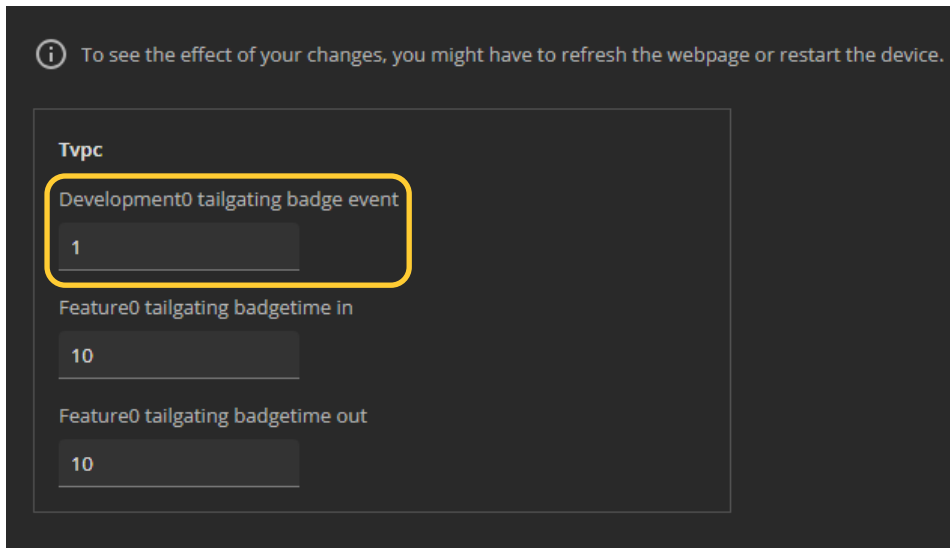
2. From the WebGUI go to System -> Plain Config



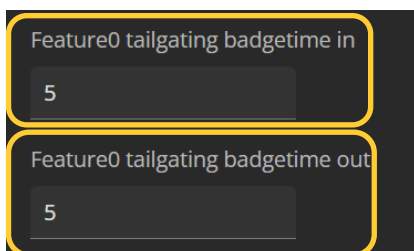
3. On this page, search for "badge" in the Search for parameters by ID field



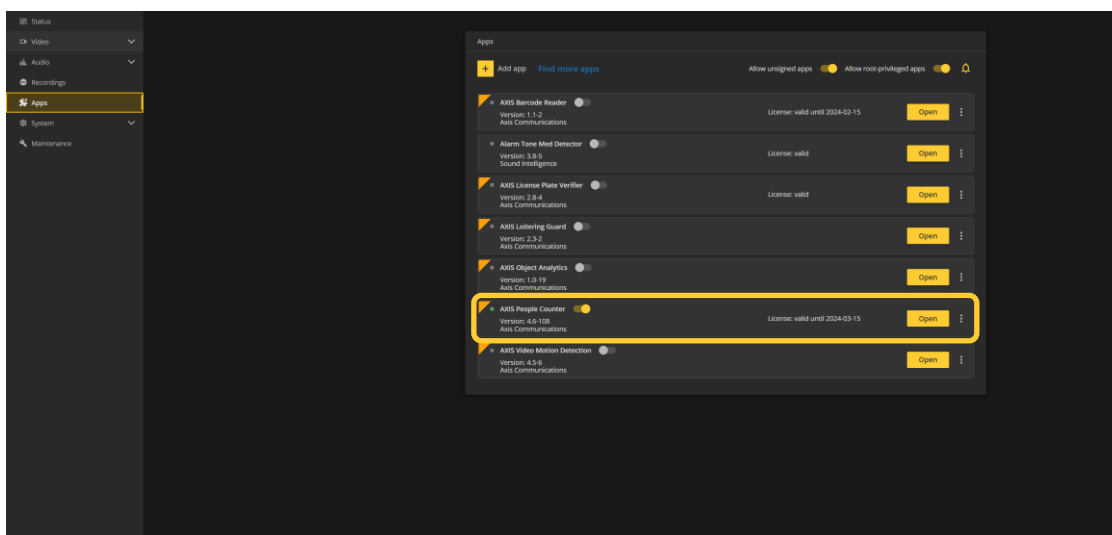
- Next in the next menu under Development0 tailgating badge event, change the current value from 0 to 1.



- In this same window we can set the Badge in and badge out times This is the time that each person that scans their badge will have to pass the boundary. If the time expires and the person passes the boundary, the alarm will trigger. After these settings have been changed, scroll down to the bottom of the page and hit "Save".



- Now, navigate back to the App page and restart the ACAP by toggling the Action Button.



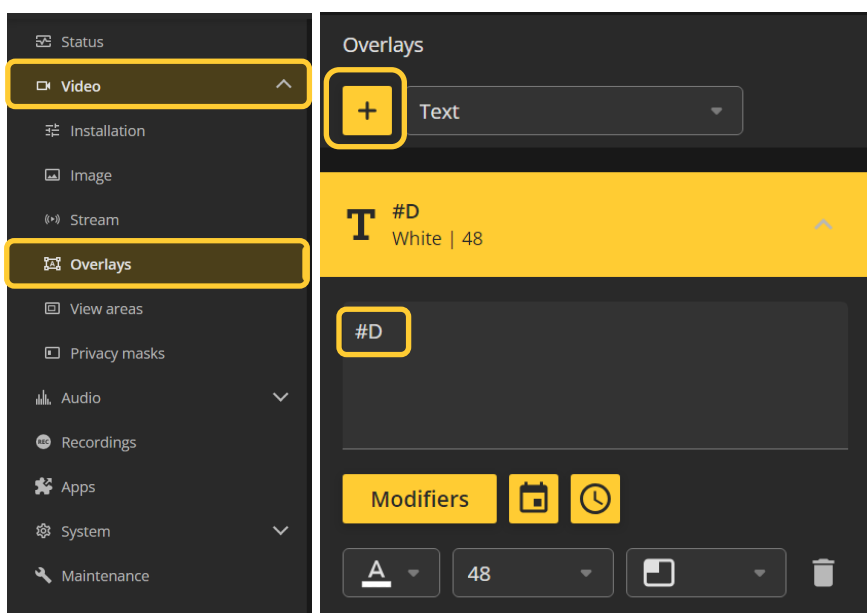
Step 6- Dynamic Overlay (Optional)

To enable dynamic overlay

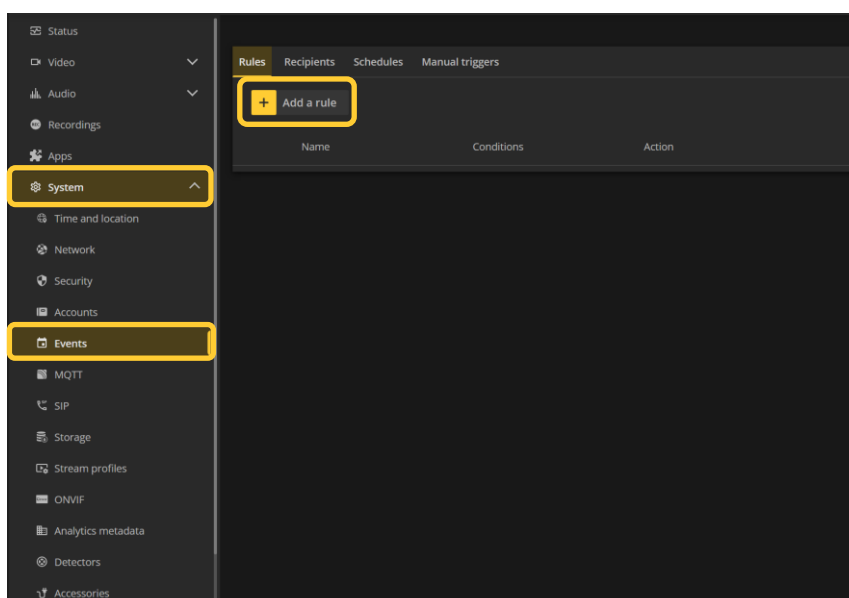
These steps are completed from the WebGUI of the camera.

Follow these steps to create a dynamic overlay:

1. For the overlay display, dynamic overlay text needs to be enabled. Go to Video -> Overlays Stream settings, enable the overlay and add the #D modifier.



2. Next go to System -> Events press Add Rule



3. In the popup, give this a recognizable name such as “Tailgating Overlay,” for the condition select “TailgatingDetector-NoBadgeln”, For the action choose “Use Overlay Text” and select the correct view area. Finally type the overlay text you wish to have and the duration it should be displayed when the event it triggered.

Edit rule

☒ Use this rule

Name

Tailgating Overlay

Wait between actions (hh:mm:ss)

00:00:00

Condition

☒ Use this condition as a trigger

TailgatingDetector-NoBadgeln

▼

+

 Add a condition

Action

Use overlay text

▼

Video channels

View Area 1

×

▼

Text

Tailgating

ⓘ

Duration

00:00:05

HH:MM:SS

Cancel

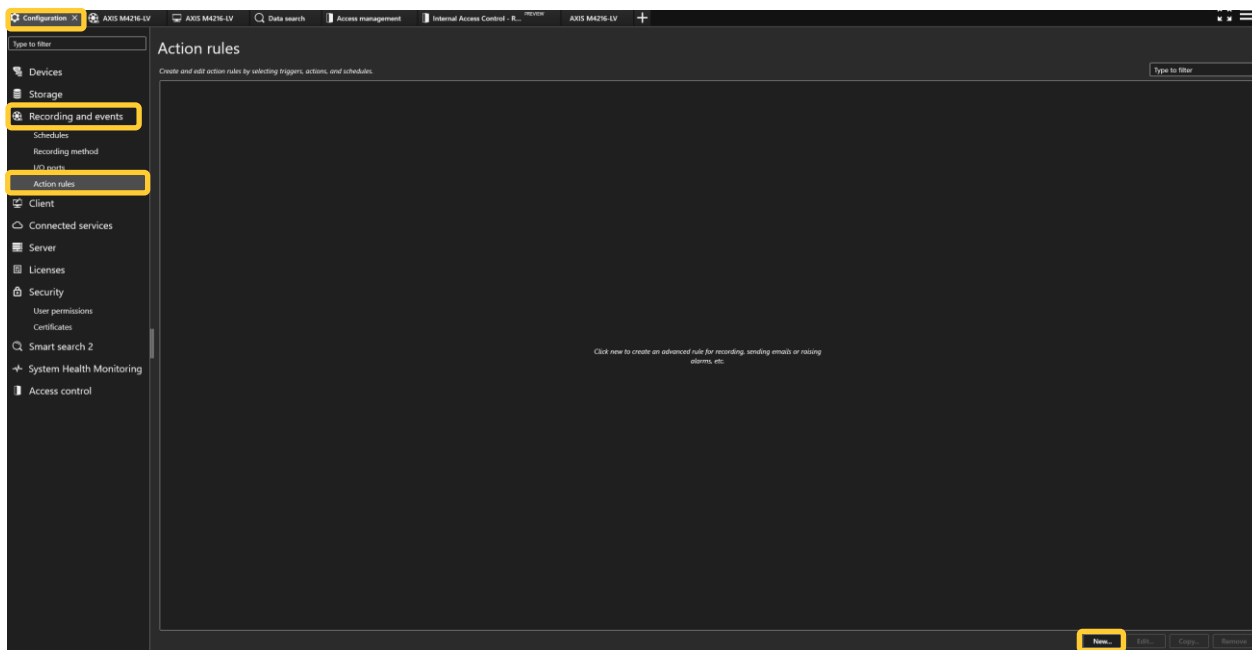
Save

Step 7 – Adding People Counter badgeIn event.

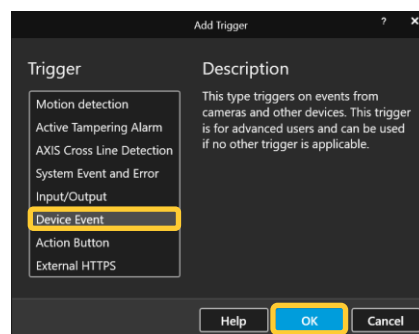
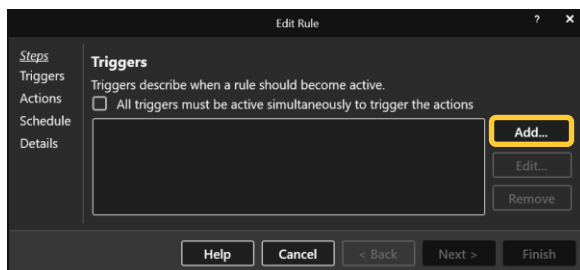
To Configure the People Counter badgeIn event.

Follow these steps to create a people counter event:

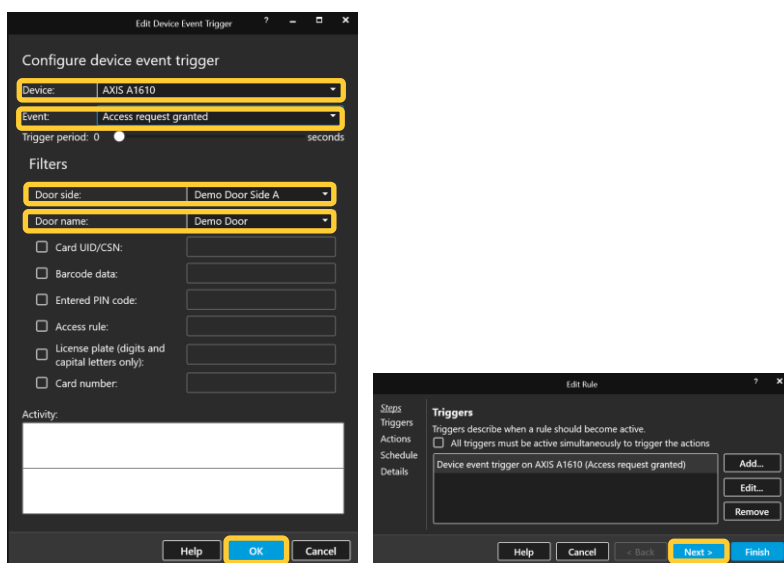
1. In AXIS Camera Station navigate to Configuration -> Recordings and events -> Action Rules, on this page press New bottom right.



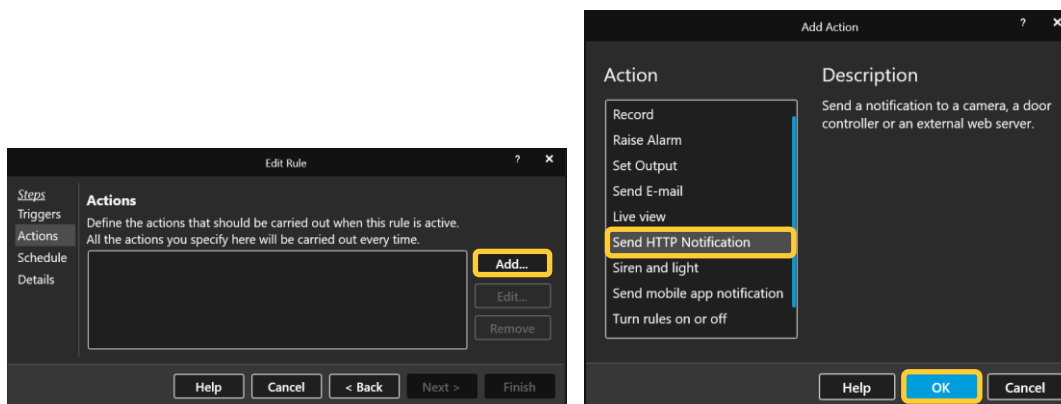
2. In the pop for the trigger select “Add” followed by Device Event



- Next in the pop-up configure the event trigger, selecting the correct controller, the event type as “Access request granted” then choosing the door side and door name. Then press OK. Then Next.

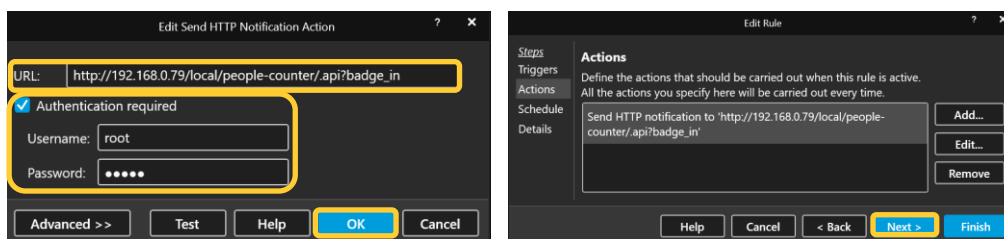


- Now we can create the action, select “add” and choose “Send HTTP Notification.”

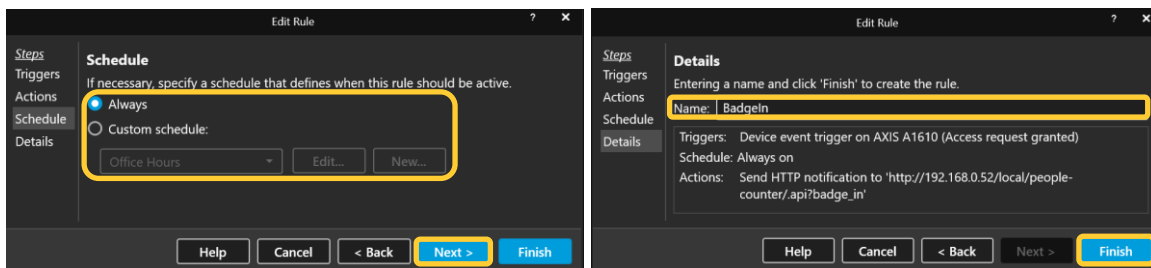


- In the new pop-up enter in the URL - http://>IP>/local/people-counter/.api?badge_in replacing the IP with the cameras IP, followed by ticking the “authentication required” and providing the credentials for the camera. Click Ok then Next.

Note. - http://>IP>/local/people-counter/.api?badge_out can also be used for the opposite direction



- Now you can choose the schedule you wish this to follow and the name of the rule we have created.

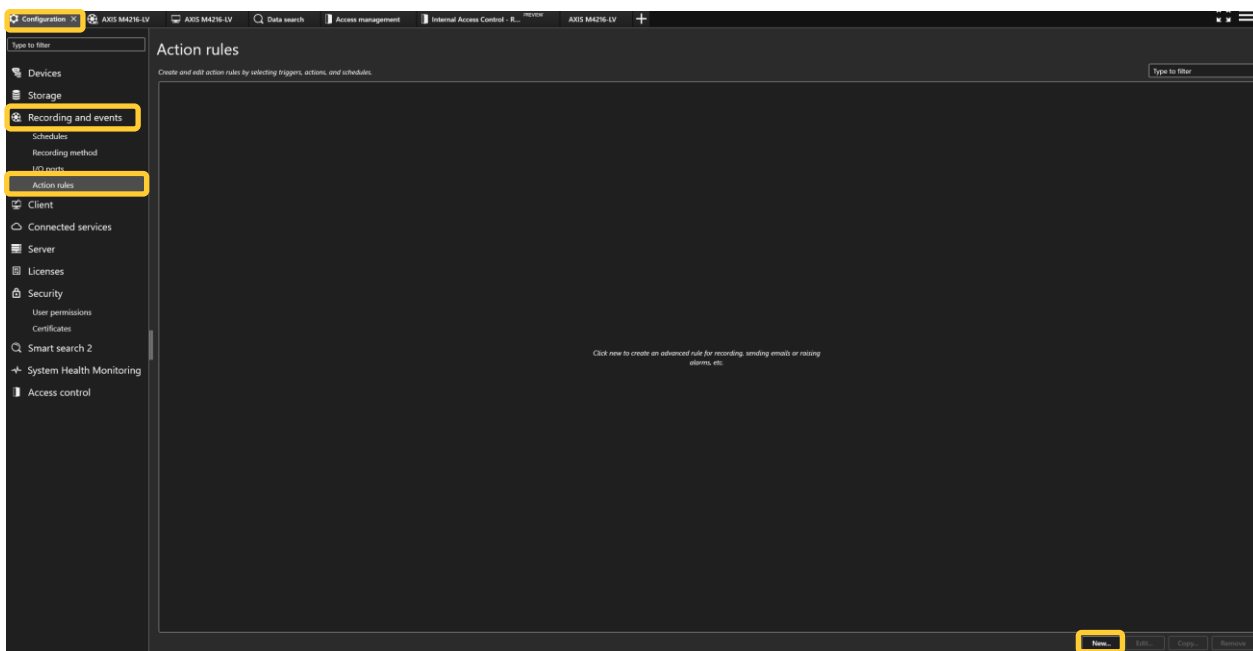


Step 8 – Tailgating Alarm in AXIS Camera Station Secure Entry

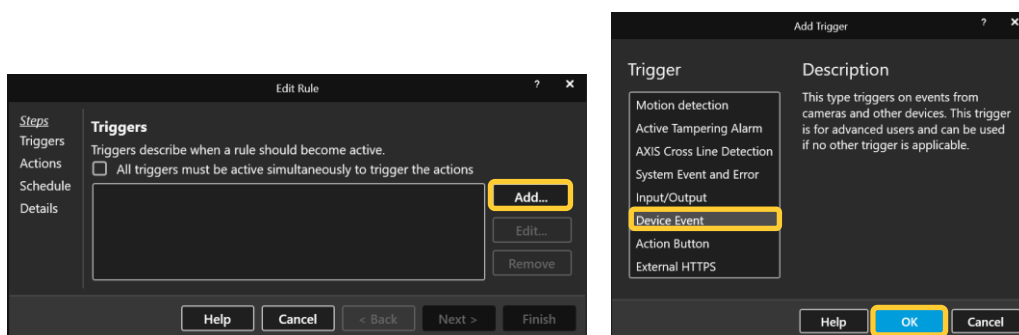
To configure the Tailgating Alarm

Follow these steps to make a cardholder exempt:

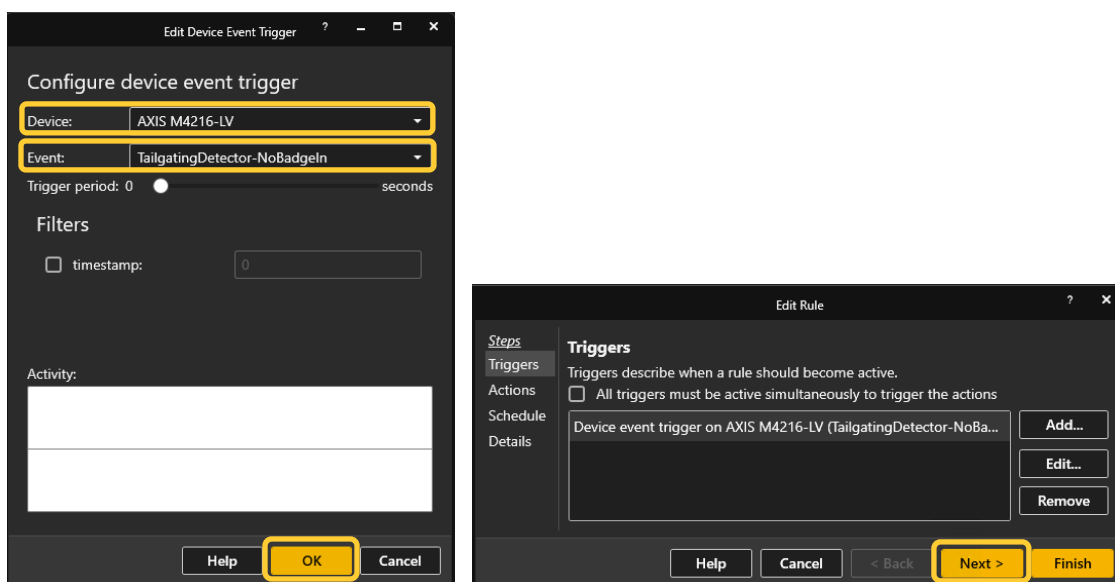
- In AXIS Camera Station navigate to Configuration -> Recordings and events -> Action Rules, on this page press New bottom right.



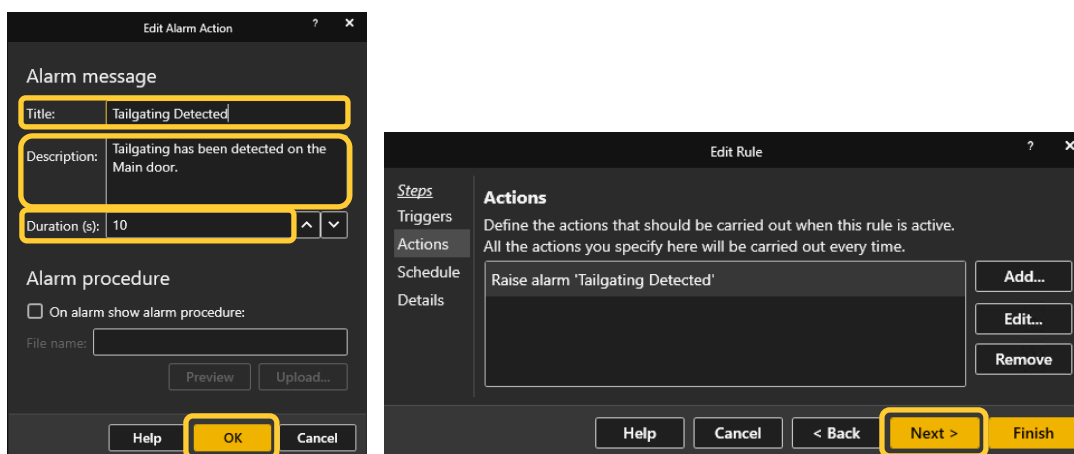
2. In the pop for the trigger select “Add” followed by Device Event



3. Next in the pop-up configure the event trigger, selecting the correct camera, the event type as “TailgatingDetector-NoBadgeln”. Then press OK. Then Next.



4. Now we can create the action, select “add” and choose the action you want, for this example I will be choosing “Raise Alarm” giving the alarm a title, description, and duration. Then pressing OK.



- Now you can choose the schedule you wish this to follow and the name of the rule we have created.

The image displays two sequential screenshots of the 'Edit Rule' configuration window in AXIS Camera Station.

Left Screenshot (Schedule Tab):

- Steps:** Triggers, Actions, **Schedule**, Details.
- Schedule:**
 - Instruction: "If necessary, specify a schedule that defines when this rule should be active."
 - Options: ☒ Always, ☐ Custom schedule:
 - Under 'Custom schedule': A dropdown menu showing 'Office Hours', and buttons for 'Edit...' and 'New...'.
- Buttons:** Help, Cancel, < Back, **Next >** (highlighted), Finish.

Right Screenshot (Details Tab):

- Steps:** Triggers, Actions, Schedule, **Details**.
- Details:**
 - Instruction: "Entering a name and click 'Finish' to create the rule."
 - Name:** Tailgating Detected (highlighted in a yellow box).
 - Triggers:** Device event trigger on AXIS M4216-LV (TailgatingDetector-NoBadgeIn)
 - Schedule:** Always on
 - Actions:** Raise alarm 'Tailgating Detected'
- Buttons:** Help, Cancel, < Back, Next >, **Finish** (highlighted in a yellow box).

Considerations and limitations

1. The use of the A1610/A1210 requires HTTPS to be enabled.
2. To ensure accurate detections from the People counter ACAP check the installation guide.
3. Disconnection between the devices and the server can lead to missed detections.