



Perform
forensic search

How to guide

6.1

Forensic search of people, objects, and incidents

AXIS Optimizer for Milestone XProtect®

AXIS[®]
COMMUNICATIONS

Step-by-step:

Forensic search for objects, people, and incidents

AXIS Optimizer object search function provides an efficient way to search for, recover, and share video evidence about objects, people, and incidents — without the need for or cost of analytics servers.

Requirements

- Install your choice of Milestone XProtect:
 - Corporate 2019 R3 or later
 - Expert 2019 R3 or later
 - Professional+ 2022 R3 or later
- Install the latest version of AXIS Optimizer on the Management Client
- Axis cameras with firmware 9.50 or later
- Axis device with support for AXIS Object Analytics (to filter on object classes)
- Axis device with ARTPEC-8 or CV25 (to filter on attributes)
- Camera time must be synchronized with NTP

Configure forensic search

1. In Management Client, ensure metadata device is enabled for all desired cameras
 - a. Go to **Site Navigation → Devices → Metadata**
 - b. Select your device and click Record.
Make sure Recording is enabled. By default, metadata is only recorded when Milestone XProtect detects motion in a scene. Therefore, we recommend adjusting the motion threshold to your environment so you don't miss any object movements
 - c. Click **Settings** and make sure **Analytics data** is enabled
2. Open Smart Client's live view and make sure that you see bounding boxes over objects and that the boxes display correctly

Note: It can take a while for the clock to adapt to NTP time. Wait at least 15 minutes before you start search filtering to enable the system to record video and metadata.

Perform forensic search

1. In Smart Client, go to **Search**
2. Select a time interval and one or several cameras
3. Click **Search for → Forensic search → New search**
4. Select search filters to fine-tune and narrow down the number of search results (see below)
5. Select the search results you want to examine closer.

Fine-tune a search

Decrease the number of possible search results by using any of these built-in filters:

- **Cameras**- filters by specific cameras, e.g. which enables location filtering
- **Region of interest**- filters by objects that moved in a specific area
- **Object direction**- filters how objects move in a scene, i.e. left, right, up, or down
- **Object type**- filters by certain types of objects: i.e. human, vehicle, bike, bus, car, or truck
- **Vehicle color**- filters by color attributes
- **Upper body clothing**- filters by color attributes of clothing
- **Lower body clothing**- filters by color attributes of clothing
- **Time interval**- filters by searching specific periods of time intervals
- **License plate**- filter by partial or complete license plate characters
- **Minimum time in scene**- filters objects that were detected and tracked for a minimum number of seconds.
- **Swaying objects**- excludes objects that only moved in a constraint area, for example, a flag or a tree moving in the wind



About search results

1. For each search result, you'll see the object and the object's travel path in the thumbnail.
 - a. The thumbnail shows the video frame when the object was the most visible
 - b. The green point shows where the camera first detected the object
 - c. The red point shows where the camera last detected the object
 - d. To see the complete video sequence for a search result, select it and click **Play forward** in the preview panel

Notes

- To hide the graphical overlays, go to **Bounding boxes** and select **Hide**
- A camera's embedded analytics applications might also burn in overlays in the video. To remove these overlays, go to the application's web configuration page

Export high-quality PDF search results

To save a PDF report with high-quality images

1. Click **Export...**
2. Select **PDF...**
3. (Optional) Enter Report name, Report destination, and Notes
4. For each search result, select which frame you want to include in the report. To enlarge an image, double-click it
5. Click **Create**. When the report is ready, you'll get a notification



Support to get you started

Watch AXIS Optimizer how-to videos

See online user manual

Download more how-to guides

Read AXIS Optimizer getting started guide

Step-by-step workflows for specific jobs-to-be-done may change over time. Please refer to the [online user manual](#) for the latest descriptions

Accelerate forensic investigations

The vast majority of forensic investigations involve video evidence. Not only can video come from various sources, but often investigators aren't sure what or whom they are looking for or exactly when an incident took place. On top of this, the sheer amount of video sent from just one camera mounted at one location over a day, week, or even longer is extensive. So investigators must spend hours reviewing video clips in search of a single incident or activity, which is inefficient. Additionally, metadata is traditionally sent for full analysis on servers, which increases costs.

How AXIS Optimizer solves this problem

AXIS Optimizer forensic search accelerates post-event forensic investigations by streamlining the search for objects, people, or incidents in a scene – without the need or cost of analytic servers. Investigators can efficiently pinpoint video evidence from archives of footage taken from one or multiple Axis cameras, reducing analysis time from hours to minutes or seconds. Delivering an efficient way to search for, recover, and share video evidence, it accelerates forensic investigations by optimizing the integration of video and metadata streams from Axis deep learning cameras into Milestone XProtect Centralized Search framework. Axis deep learning cameras send searchable, detail-rich metadata streams into Milestone XProtect Centralized Search. More metadata details are constantly added and implemented into AXIS Optimizer. In addition to searching for objects, people, and incidents, AXIS Optimizer forensic search options are available in Centralized search for vehicle search, container search, and zone speed infractions.

About AXIS Optimizer for Milestone XProtect

AXIS Optimizer is a suite of integrations that optimizes the performance of Axis devices in Milestone XProtect. It ensures all users save considerable time and effort while getting the most out of their Axis and Milestone system. Continuously updated to cover new Axis offerings, it's available for free as a one-time installer on axis.com.

About Axis Communications

Axis enables a smarter and safer world by creating solutions for improving security and business performance. As a network technology company and industry leader, Axis offers solutions in video surveillance, access control, intercom, and audio systems. They are enhanced by intelligent analytics applications and supported by high-quality training.

Axis has around 4,000 dedicated employees in over 50 countries and collaborates with technology and system integration partners worldwide to deliver customer solutions. Axis was founded in 1984, and the headquarters are in Lund, Sweden.