

Smart Search

Purpose: Overview of the Smart Search feature in Axis Camera Station


Date	Revision
2/10/2017	Document Created

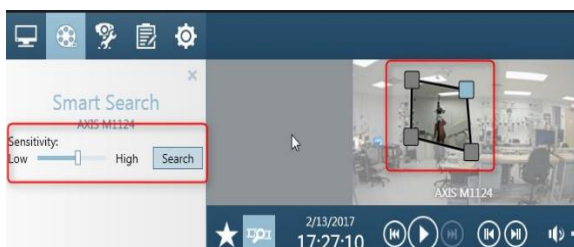
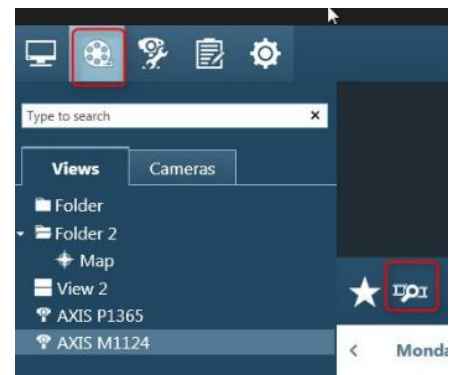
The purpose of this document is to describe how: Smart Search works in Axis Camera Station and show how to enable it. All menus are shown using Axis Camera Station version 5.08.004 and camera firmware 6.30.x

Smart Search allows you to quickly search a recording to locate movement made on a specific area of the image. This can allow you to find, for example, when someone went in front of a shelf and picked up an item. Currently Axis Camera Station has two different types of Smart Search that it can use, with one being basic requiring no configuration, and the other using an ACAP installed on the camera to gather metadata about the video.

The basic Smart Search

Requires no configuration to work. The software will read the video file and analyze the movement. This task can be resource intensive and appear to be slow.

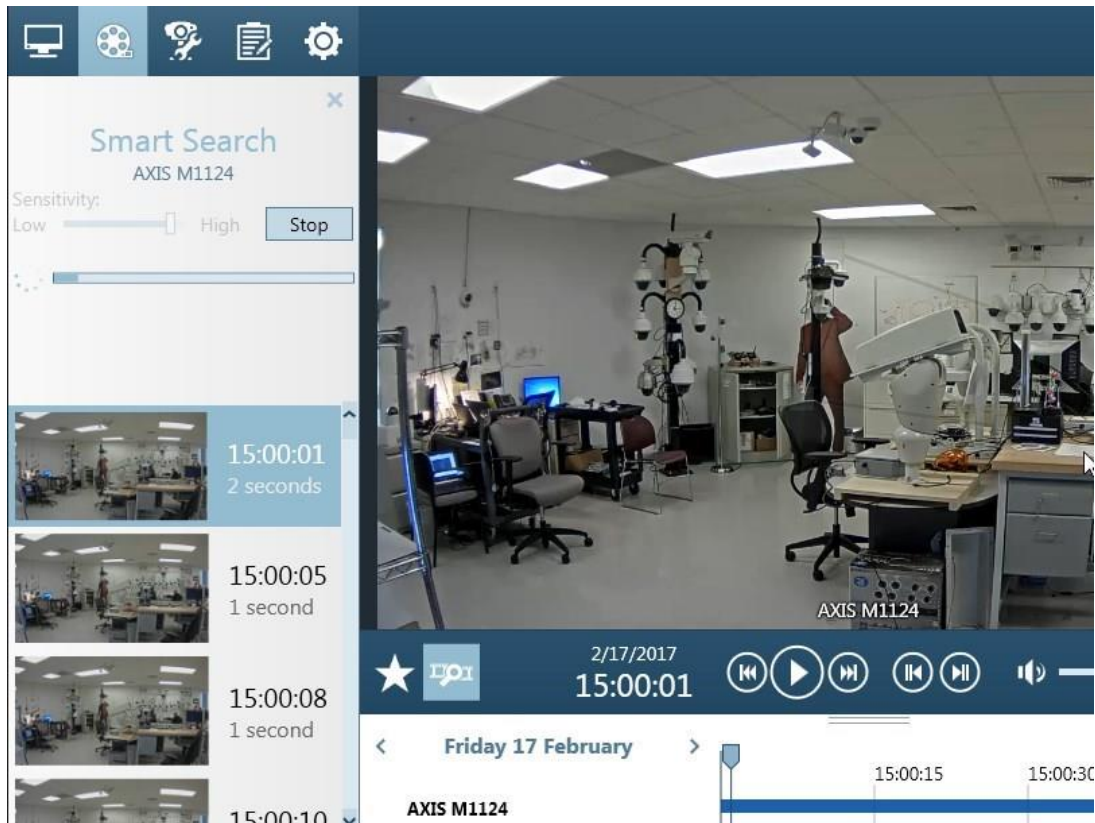
To use it simply go to the recording tab and select the camera or split view you wish to perform the search then click on this icon 



You will then see a still image of the recording with the option to resize a box very similar to how you would draw the motion detection box. This box dictates where in the image it will search for the motion. On the left you will also see a sensitivity slider which can be adjusted, results will increase or decrease based on it.

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The result will show on the left and clicking any of them will move the recording time to the location of the event to be played.



Advanced Smart Search

The true power of smart search comes in when used in combination with our AXIS Video Content Stream ACAP and the inclusion of metadata. This application is automatically pushed by Axis Camera Station when adding cameras with parameter `EmbeddedDevelopment.Version = 2.0` and above. This parameter version is usually available on cameras running firmware 5.60 or above.

For more details on the `EmbeddedDevelopment.Version` please look at [FAQ116288 on Axis.com](#)

Please keep in mind the following:

- Using the Metadata will increase the storage requirement for each camera. The amount varies based on scene, resolution, etc and can be anywhere from 2% to 20% in size increase.
- It will also increase the stream connection time (up to 8 seconds for high-resolution streams) in Live View in case the stream is not already available in the server (stream re-use).

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You can see if the ACAP is installed on a camera by looking at a camera's web interface > setup > application.



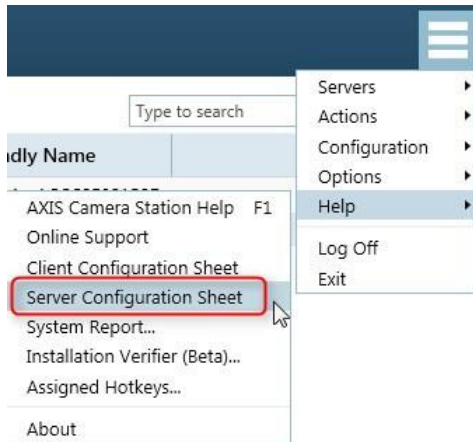
By doing this you can also see what the application does to the video. While in the application section simply click on the Video Content Stream on the left hand side. Then click on the Video Content Stream link on the right section of the page.

A new window will open and display the video. As movement happen in the image you will see yellow boxes all tracking the different motion location in the image. This is the Metadata that will be transmitted to Axis Camera Station to be saved with the recording.

Note: the yellow bounding boxes won't be shown in Axis Camera Station.



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You can see if the application is installed and the metadata is enabled by generating a server configuration sheet in Axis Camera Station by going to the triple bar menu > help > server configuration sheet.

With the configuration sheet open go to the camera tab and look at the “Camera Metadata Settings”. A camera will be able to add the metadata to the recording if the following are showing:

- A “Yes” under the support analytics data, this mean the Video Content Stream is installed on the camera
 - You should also see the “AXIS Video Content Stream” under the installed applications.
- A “Yes” under the “Includes Analytics Data”, which mean the option to include the metadata is enable

Server Configuration Sheet for AXIS Camera Station - US-LAPMORGAN

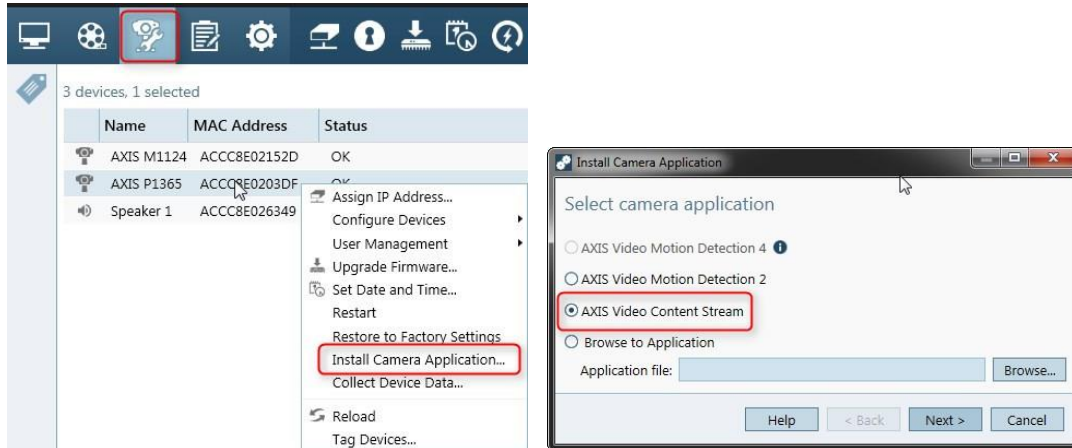
General **Cameras** Recording Storage Aux Devices Licenses

Camera Metadata Settings						
Camera Name	ID	Address	VMD Version Used	Supports Analytics Data	Includes Analytics Data	Installed Applications
AXIS P1365	255755	192.168.0.50	2	Yes	Yes	AXIS Video Content Stream 1.0-3: Running, AXIS Video Motion Detection 3.2-0: Stopped

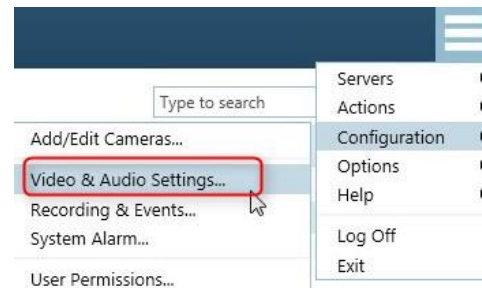
Should any of the above be missing or reporting a no you can perform the following steps to enable it.

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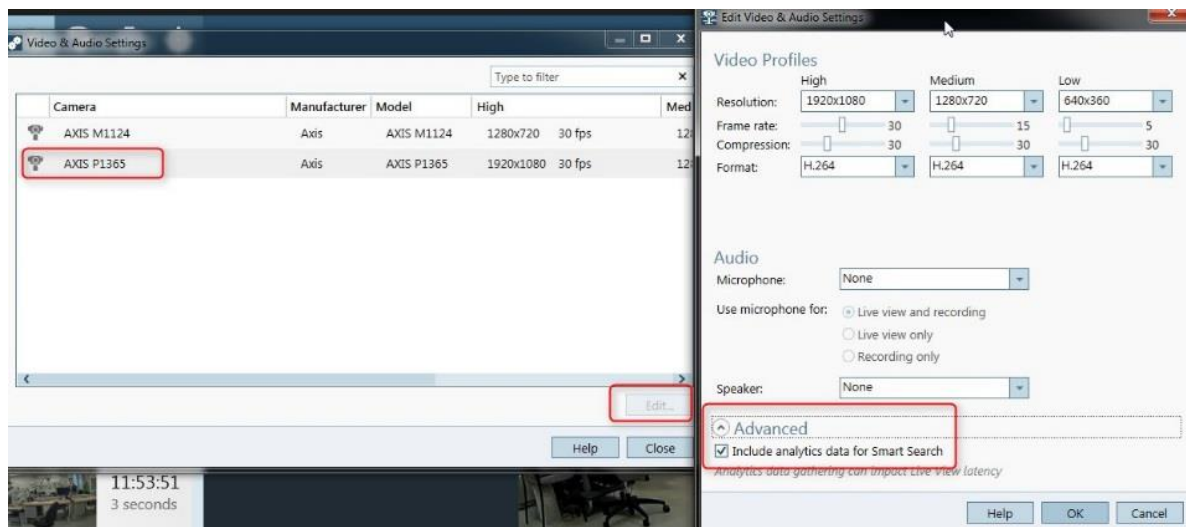
If the application is missing you will need to start by telling Axis Camera Station to install the AXIS Video Content Stream. Go to the Camera Management section, select the camera and right click. Then use the Install Camera Application option. Following the wizard that shows up select the “AXIS Video Content Stream”, hit next and finish.



Once you know that the application is installed and running on the camera you will need to tell Axis Camera Station to monitor the Metadata it produces. This is done by going to the triple bar menu > configuration > video and audio settings.





Select the camera you wish to enable Metadata for and hit edit. In the new windows click the advanced in the bottom and then check the box for include Metadata.



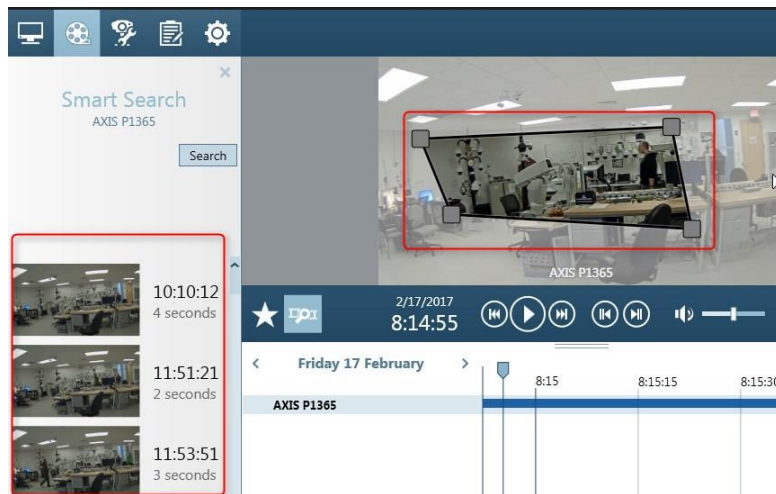
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As soon as you have applied the change Axis Camera Station will start saving the Metadata for each of the recording created for that camera. The file this data get written to can be found in the recording folder for the camera and will have an extension of “.ACSM”. A new file will be created for each recording split. You can actually open this file with a text editor to see what the content looks like.

 2017-02-14 16_23_23_886.acsi	2/14/2017 13:02	ACSI File	2,179 KB
 2017-02-14 16_23_23_886.acsm	2/14/2017 13:02	ACSM File	102,441 KB
 2017-02-14 16_23_23_886.acsmd	2/14/2017 13:02	ACSMD File	7,310 KB

Now that everything is configured you will be able to use the smart search function on any new recordings created by this camera. In the recording tab select the camera you need the recording from and click on the smart search icon  .

If you tried the smart search before enabling the Metadata you will notice that the slider for the sensitivity is now gone. Draw your smart search box over the area you wish to quickly search and hit search. You should be getting results quite quickly at that point and can click on any of them to jump to that section of the video.



Should you get too many results you might have to consider a smaller search timeframe, by clicking on the date and select a start and end time, for the search or reduce your smart search box coverage area.

