# **USER'S GUIDE**

**AXIS Cross Line Detection** 



AXIS Cross Line Detection User's Guide Rev. 1.00 Copyright<sup>©</sup> Axis Communications AB, 2009 November 2009 Part no. 36687

# **AXIS Cross Line Detection**



AXIS Cross Line Detection is a trip-wire application installable on Axis network cameras and encoders. The application detects moving objects that cross a virtual line making it possible to automatically trigger an event. AXIS Cross Line Detection will increase system efficiency by reducing bandwidth and storage needs and facilitate search of recorded events.

The Cross Line Detection can be uploaded and used in Axis products that support AXIS Application Platform. The Applications feature allows you to upload third party applications. For a complete list of products that support Axis Application Platform got to www.axis.com

#### **Recommendations and limitations**

Cross Line Detection should not be used in critical scenarios that may have life or death situations, nor should it be used to alert law enforcement. Cross Line Detection should not be used to monitor an entire restricted area, however it can be used to monitor an entry to a restricted area.

Cross Line Detection should only be installed in cameras that are not subject to excessive vibrations. Some conditions might affect the reliability of detection such as weather conditions (snow or rain), excessive lighting conditions and if object movement is too slow or fast.

It is not recommended to run Cross Line Detection at the same time as the camera's included application Motion Detection or another Application Package installed in the camera.

#### Installation

Follow these instructions to install:

- 1. Download AXIS Cross Line Detection application from www.axis.com/applications
- 2. Go to Setup > Applications
- 3. Under **Upload Application**, click the **Browse** button, locate the package file and then click the **Upload** button. Cross Line will show under Installed Applications and in the menu under Packages. Cross Line Detection will show a status of **Idle** until an event has bee configured, see *Set up Event Configuration*, on page 5, the status will then show as **Running**.

#### Note:

Only product administrators can upload new applications.

AXISA	AXIS P3301 Network Camera				Live View   S	etup   Help	
▶ Basic Setup ▶ Video & Audio	Application		0				
	Upload Application						
	Select package file t	o upload:	Browse	and click Upload P	ackage		
Live View Config	Installed Applicat	tions					
<ul> <li>Applications</li> <li>Packages</li> </ul>	Application	Version	Vendor	Status	License installed		
• Events							
System Options							
About							
	Start St	op Remove	Log				

- 4. Once uploaded a license is needed to run the application. If there is an Internet connection Automatic Installation will appear in the web page. If the camera does not have access to the Internet, you can acquire the license key file at www.axis.com/applications from any computer with Internet access. You will need a license code and the device's serial number to receive a license key.
- 5. . Enter the License Code and customer information and click Install

AXIS AXIS	P3301 Net	twork Camera	а с	ive View   Setup   Help	
Basic Setup	License: C	Cross Line Det	tection	0	
Video & Audio	Installed licens	se key			
Live view Coning	Remove				
<ul> <li>Applications</li> </ul>	M	<b>h</b> !			
Packages - Cross Lipp	Manual installation				
Settings License	Io retrieve a license key for this application, go to <u>www.axis.com</u> and enter your license code to aether with the serial number of this device. This device's serial number is: 000000000000.				
About	License key file to	o upload:	Bläddra	]	
Events	Install				
System Options	Automatic insta	allation			
About	License code: :XX				
	Customer information:				
	Company:	My Business		]	
	First name:	Joe	Surname: *	Joeson	
	Street address:	My street 55	Zip:	55555	
	City:	Mytown	Country:*	United States	
	Phone:		Fax:		
	Email:	inall: joe.joeson@mybusiness.com			
(	Install				

#### Set up AXIS Cross Line Detection

The AXIS Cross Line Detection application must be started and setup before use. To start AXIS Cross Line Detection, select it in the list and click the **Start** button.

To set up AXIS Cross Line Detection navigate to the Settings page by clicking Cross Line > Settings and the link Cross Line Detection Settings under Application Settings.

Cross Line Detection	0
Edit Cross Line Settings	
Segments: 1	
Monitor line crossing	
monitoring direction	
Save Close	

#### Settings

The steps required to set up the AXIS Cross Line Detection are as follows:

- 1. Click Add
- 2. Select the number of segments from Segments drop-down list.
- 3. To position the line, click and drag it to the desired location in the image.
- 4. Click Toggle to change the direction the cross line will monitor.

The direction is represented by a blue arrow. Objects crossing the line, in the direction of the arrow, will trigger the alarm or event. If both arrows are present, both directions are monitored.

Note: The line will not trigger properly if positioned too close to the edge of the image.

Check the Visual Confirmation box to verify the line was setup correctly. The line will flash red when touched. To remove a line, click the Remove button.

## Set up Event Configuration

To configure an alarm or event if the line has been touched, go to Setup > Events > Event Types. Click the Add triggered... button to open the Triggered Event Type Setup dialog.

- 1. Under General give the event a descriptive name and a priority of Low, Normal or High (see online help files).
- 2. Set the **Respond to Trigger...** parameters when the event is to be active, e.g. only after office hours.
- 3. From the Triggered by drop-down list select Application trigger from the Triggered by drop-down list and then CrossLineDetection from the drop-down list that appears.

**Note:** Cross Line Detection must either have a status of Idle or Running for the CrossLineDetection option to appear in the drop-down list.

Triggered Event Type	Setup 🕜
General	
Name:	Loading Dock
Priority:	Normal 💌
Set min time interval between triggers:	00:00:00 (max 23:59:59)
Respond to Trigger	
Always	
Only during time frame	Sun Mon Tue Wed Thu Fri Sat
	Start time: 00:00 Duration: 24:00 (max 168:00 hours)
Never (event type disabled)	
Triggered by	
Application trigger 💙	
CrossLineDetection	
When Triggered	
Save stream	
Activate output port	
Send email notification	
Send HTTP notification to	💌
Send TCP notification	
l I	OK Cancel

- 4. Set the When Triggered... parameters, i.e. set what the event should trigger when the line is touched, e.g. upload images to an FTP server.
- 5. Click **OK** to save the event in the Event Types list.

For more information about configuring events, refer to the camera's User's Manual or the online help 🕜 for descriptions of each available option.

### System Integration

AXIS Cross Line Detection is conformant with Open API for software integration, including the ONVIF specification available at www.onvif.org, as well as VAPIX<sup>®</sup> and AXIS Camera Application Platform from Axis Communications, specifications available at www.axis.com

# **AXIS Cross Line Detection**

# **Technical Specifications**

Function/group	ltem	Specification
Compatible products	Models	Axis fixed network cameras and video encoders that support AXIS Camera Application Platform. Complete list at www.axis.com
Setup & configuration		Product Web interface
Application settings	Line setup	Virtual line setup with one or two segments
	Object direction	Configurable
	Verification of setup	Visual confirmation
Scenarios	Typical applications	General low-traffic areas such as building entrances, loading docks, parking lots
	Limitations	Weather conditions such as heavy rain or snow may affect detection accuracy
Camera considerations	Lighting conditions	Dependent on camera light sensitivity
	Camera placement	45 - 90° angle to object direction
Integration	Camera	Integrates with camera even management system. image upload, notification, I/O control
	Software	Open API for software integration, including the ONVIF specification available at www.onvif.org, as well as VAPIX <sup>®</sup> and AXIS Camera Application Platform from Axis Communications, specifications available at www.axis.com
General	Language	English
	Licenses	Cross line detection licenses for 1, 10 or 50 cameras.