Design Tool for AXIS Perimeter Defender

User Manual

About this Document

This manual is intended for administrators and users of Design Tool for AXIS Perimeter Defender. It includes instructions for using and managing the product on your network. Previous experience of networking will be of use when using this product. Later versions of this document will be posted at *www.axis.com*. See also the product's online help, available through the web-based interface.

Legal considerations

Video and audio surveillance can be regulated by laws that vary from country to country. Check the laws in your local region before using this product for surveillance purposes.

This product is subject to export control regulations. You should always consult and comply with the regulations of the appropriate local export control authorities.

The product contains U.S.-origin controlled technology/component, the US Export Administration Regulations (EAR) are always applicable to the product. You should comply at all times with all applicable national and international (re-) export control regulations.

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- download user documentation and software updates
- find answers to resolved problems in the FAQ database. Search by product, category, or phrase
- report problems to Axis support staff by logging in to your private support area
- chat with Axis support staff
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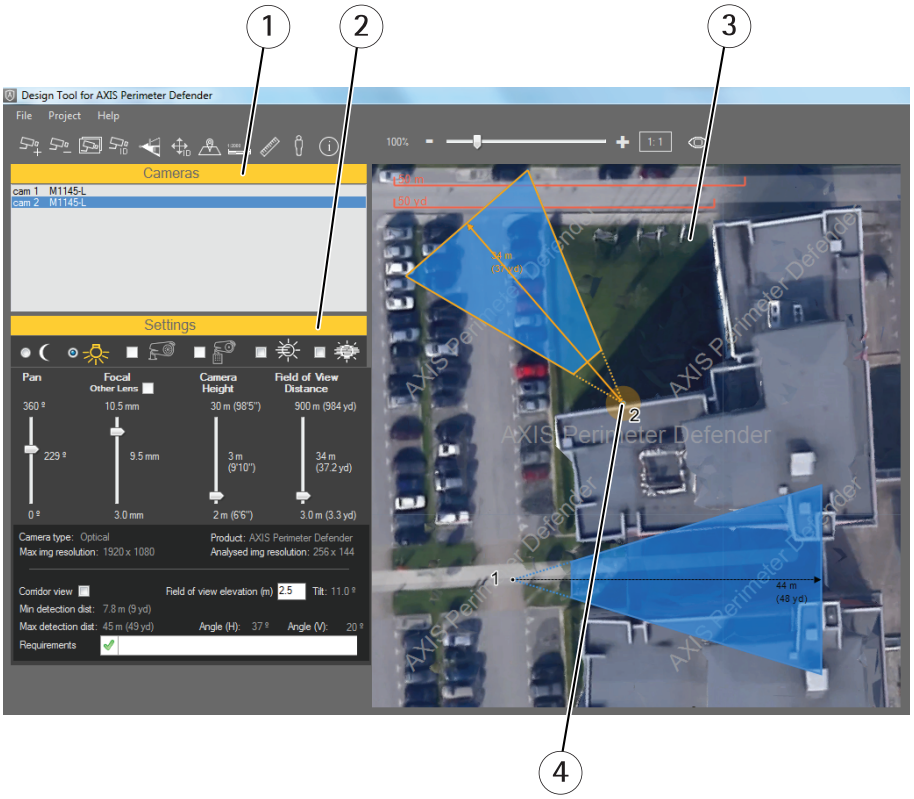
Design Tool for AXIS Perimeter Defender

Overview

Overview

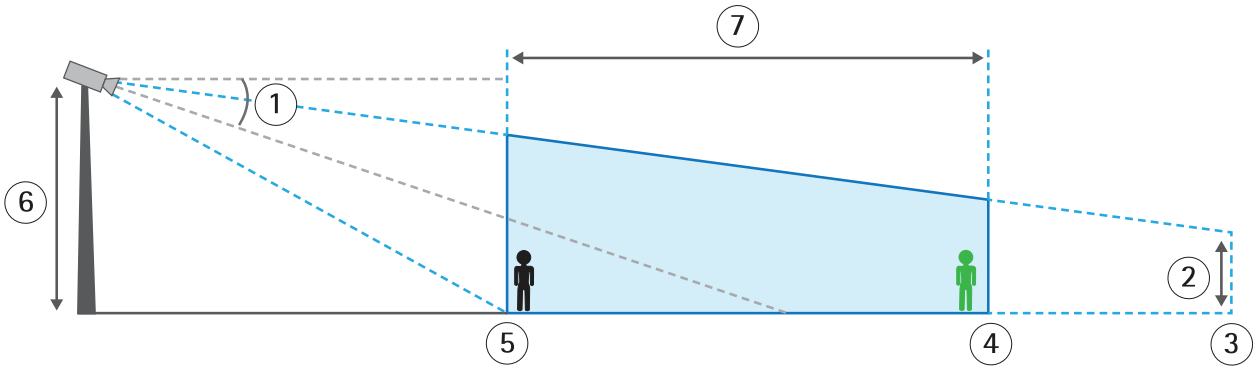
Perimeter Defender design tool is a self-contained application that can run on any Windows machine. The tool allows cameras that are compatible with Perimeter Defender to be placed on a map, this will provide information on detection ranges, blind spots and camera placement when designing a perimeter protection system. The tool take into account camera features like focal range as well as the Perimeter Defender requirements.



1 *Cameras menu*
2 *Settings menu*
3 *Map*
4 *Cameras on map*

Overview

Terminology



1 *Tilt*
2 *Field of view elevation*
3 *Distance*
4 *Maximum detection distance*
5 *Minimum detection distance*
6 *Camera height*
7 *Detection zone*

How to...

This chapter will explain how to use the Design Tool for AXIS Perimeter Defender.

Add Map

1. Press  .
2. Browse to find your map and click **Open**.
3. Set the scale of the map:
   - Press  .
   - Draw a line on the map and in the window scaling write how many meters that corresponds to.

Add Camera

Follow the instructions to add a camera:

1. Press  .
2. Choose a camera from the Add camera menu and press **Ok**.

If you have one camera and want an identical camera with the same setting click on  to duplicate the camera.

Set up the camera

Click on the map to move the camera.

Use the sliders in the settings menu to change the:

- Pan
- Focal
- Camera Height, see camera height in *Terminology on page 4*
- Field of View Distance, see *Terminology on page 4*

Note

If the camera height requirement not are fulfilled, a red tick will be shown under the settings menu and the camera height must be changed.

Maximum detection distance

The maximum detection distance that can be achieved by a camera depends on several factors such as the camera type, the maximum image resolution of the camera and the focal length. However, some environmental factors can degrade the detection performance and reduce the maximum detection distance such as the level of illumination in the scene, the use of infrared lighting or the presence of fog.

To see the maximum detection distance in different conditions, select one or more of the following:

-  For conditions with low illumination (i.e. lower than 50 lux).

How to...

-  For conditions with good illumination (i.e. lower than 50 lux).
-  For cameras using built-in infrared illuminator.
-  For cameras using external infrared spot illuminator.

  The selected infrared spot illuminator must achieve at least the double of the maximum detection distance and cover the angle of view of the camera.

  For example, if the expected maximum detection distance is 50m and the horizontal angle of view of the camera is 30 degrees, the infrared spot illuminator to be used must be able to achieve at least 100m and cover 30 degrees.
-  For conditions with medium-density fog (i.e. fog visibility-class I and II).
-  For conditions with high-density fog (i.e. fog visibility-class III.a and III.b).

The following table shows the maximum possible detection distance reached in different conditions:

	Thermal Camera	**Optical Camera** Good illumination at night (>50 lux), no IR used 	**Optical Camera** Low illumination at night (<50 lux), suitable external IR spot used 	**Optical Camera** Low illumination at night (<50 lux), Built-in IR used (only for –L cameras) 
No fog	600 m	300 m	80 m	20 m
Medium-density Fog (visibility-class I and II) 	400 m	100 m	50 m	0 m
High-density Fog (visibility-class III.a and III.b) 	200 m	50 m	0 m	0 m

Remove Camera

1. Choose a camera in the Cameras menu.
2. Click  to remove the camera.

Change ID

ID is the number standing next to the camera on the map.

To update the ID numbers:

1. Click  .
2. The Update Camera Id menu will open.
3. Enter the number for the sequence to start on.
4. Click the button **1,2,3....**

How to...

Sometimes when there are a lot of cameras on the map it can be hard to read the ID numbers.

To move the ID numbers:

1. Click  .
2. Choose a camera in the Cameras menu.
3. Click on the ID number and drag it.

Measure

To measure a distance between two points on the ground:

1. Click  .
2. Draw a line over the distance you want to measure.
3. The distance will appear in the Ruler Tool window.

Measure the size (in percentage of the image height) of a human in the field of view of the camera:

1. Click  .
2. Choose a camera in the Cameras menu.
3. Hover over the map to se the value in the Human Size Measure Tool menu.

Remove areas from the camera coverage

To enable the obstruction wall editor:

- Click  .

To select an area:

- Left-click to start a line and left-click again to end the line. Continue till the area is surrounded by lines.

To move a line:

- Hover the mouse cursor over an end of a line.
- When the end of the line is highlighted in yellow, left-click the end of the line and drag it to a new location.
- Left-click again to release the end of the line on its the new location.

To delete a line:

1. Hover the mouse cursor over the line.
2. When the line is highlighted in yellow, press DELETE.

To disable the obstruction wall editor:

- Click  .

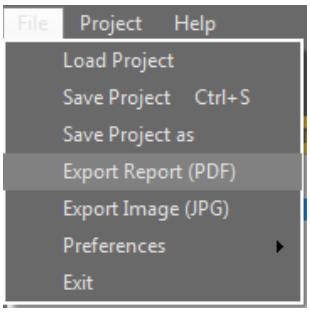
How to...

Help

For more help regarding how to place the cameras click 

Export Project

To export the project to a pdf report:



- Click File – Export Report (PDF)

This will generate a report containing two pages. One page with a picture containing the map and cameras and one page with a table containing the details.

To export an image with the map and cameras:

- Click File – Export Image (JPG)

Save Project

To save the project:

1. Click File – Save Project
2. Name the file and click **Save**.
3. The file is now saved and you can close the program.

If you want to open the file again:

1. Start Design Tool for AXIS Perimeter Defender.
2. Click File – Load Project

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