AXIS Live Privacy Shield

User Manual

AXIS Live Privacy Shield

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About the application

AXIS Live Privacy Shield is an AXIS Camera Application Platform software that can be used in selected Axis fixed cameras. The application enables privacy masking of moving objects (for example people) in live and recorded video streams from controlled indoor environments with sufficient and stable lighting. The application analyzes pixel changes and applies masking to areas where pixels change. The background image is updated based on a period that can be set by the user. The analytics allows users to receive video streams from the camera with or without masking.

Requirements

The application can be installed on Axis network video devices that support AXIS Camera Application Platform. A complete list of compatible devices and firmware versions is available at *axis.com/applications*

We recommend the following browsers:

- Chrome™

- Firefox®

Install the application

> **Note**
>
> To install applications on the product you need administrator rights.

1. To download the application, go to *axis.com/applications*.
2. Log in to the camera's webpage.
3. Go to **Settings > Apps** and click **Add**.
4. Upload the application file to the camera.
5. Activate the license. If you're online, enter the license code. The application automatically activates the license.

How to activate the license when you're offline

To activate the license when you're offline, you need a license key. If you don't have a license key on the computer, do the following:

1. Go to *axis.com/applications*
2. Go to **License key registration**. You need the license code and the Axis product serial number.
3. Save the license key file on the computer and select the file when the application asks for it.

Start the application

1. Log in to the product's webpage and go to **Settings > Apps**.
2. Select the application.
3. Turn on the app with the toggle button.

> **Note**
>
> To protect privacy, make sure no one is in the scene.

Stop the application

1. Log in to the product's webpage and go to **Settings > Apps**.
2. Select the application.
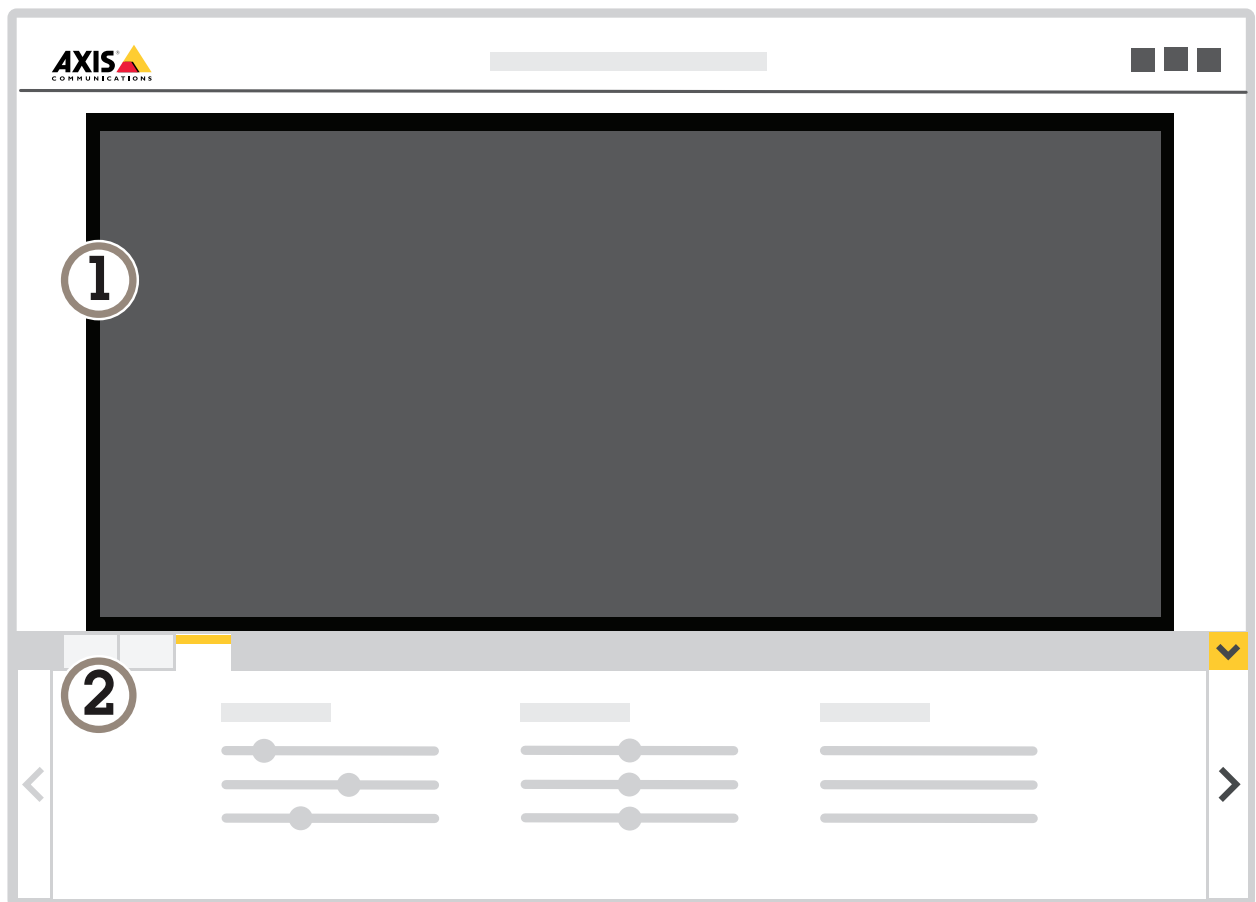3. Turn off the application with the toggle button.

Set up the application

This is an overview of how to set up the application.

1. Log in to the product's webpage as an administrator and go to **Settings > Apps > AXIS Live Privacy Shield**.

2. Select the application and click **Open**.

3. To define the parts of the scene in which moving objects should be masked, use *Include area on page 8* and *Exclude areas on page 8* .

4. Configure the masks by setting *Sensitivity on page 10* and *Background merge time on page 8* .

Note

Do not configure the application while there are moving objects, that require continuous privacy, in the scene. While changing between settings there is a risk that these objects become visible for a short period of time.

    1   Live view
    2   Profile settings

Scene recommendations

In this section there are two scenes which exemplify ideal and tough conditions. AXIS Live Privacy Shield should preferably be used in scenes similar to the example with ideal conditions.

This is an ideal scene, because:

- It has a constant light source.

- It is indoors with no windows which avoids daylight and night interference.

Example of a scene with ideal conditions.

This scene is not ideal for AXIS Live Privacy Shield because:

- It is outdoors

- It has a lot of reflective surfaces

- There are a lot of daylight shadows

- It has several swaying objects (flags)

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Set up the application

Example of a scene with conditions that are not supported by AXIS Live Privacy Shield.

Settings

Include area

The application masks all moving objects in in the include area.

The default include area is a rectangle that covers the whole image.

Use the mouse to reshape and resize the area so that it only covers the part of the image in which moving objects should be detected. The default rectangle can be changed to a polygon with up to 20 corners.

- To add a new corner, click the border of the include area. Drag the corner to the desired position.

- To move a corner, click and drag the corner to the new position.

- To remove a corner, right-click the corner.

- To move the entire include area, place the mouse pointer inside the area. Click and drag the area to the new position.

Exclude areas

The application does not mask any objects in an exclude area. Place the exclude area inside an include area. Use exclude areas where you do not want to mask moving objects.

Use the mouse to move, reshape, and resize the area so that it covers the desired part of the image. The default rectangle can be changed to a polygon with up to 20 corners.

- To add a new corner, click the exclude area border. Drag the corner to the desired position.

- To move a corner, click and drag the corner to the new position.

- To remove a corner, right-click the corner.

- To move the exclude area, place the pointer inside the area. Click and drag the area to the new position.

- To add an exclude area, click

- To select an exclude area, click in the exclude area, or click

- To remove an exclude area, click

Background merge time

The background merge time is the time an object needs to be still until it is considered a part of the background image. Once considered part of the background image, the object becomes unmasked even if it is within an include area.

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Settings

To watch this video, go to the web version of this document.

www.axis.com/products/online-manual/56119

Example of how background merge time works.

Long background merge time:

This is a meeting room, where people often sit still for a longer period of time and where there generally is little movement. To avoid people being considered a part of the background image (and being unmasked) we recommend to add a longer background merge time.

Example of scene where to use a longer background merge time.

Short background merge time:

If an object (that originally is a part of the background image) is moved from one position to another the application will mask both changes. The two changes from the original background image are:

- the object is moved from its original position
- the object's new position

Settings

This is a factory where people and things are in moving constantly. An object that first was considered a part of the background image is moved to another part of the scene. If this happens to several objects in the scene and there is a long background merge time the scene will soon contain a lot of unwanted masks (artifacts). The masks will not disappear until the background merge time has ended.

To watch this video, go to the web version of this document.

www.axis.com/products/online-manual/56119

A scene where a short background merge time is advisable to avoid artifacts.

Sensitivity

Setting sensitivity too high will introduce more artifacts in the scene. Even small vibrations can cause objects to be included in the mask if sensitivity is too high. Setting it too low could mean that some pixels that should be covered are displayed as normal. The differentiation between background and privacy shielded pixels is based on movement and color variation.

Low sensitivity

Medium sensitivity

High sensitivity

Reset background

Clean up artifacts or unwanted masked objects. Click **Reset background** to force a reset of the background scene.

Priority

Choose whether to prioritize mask detail or frame rate in a stream. The default priority is frame rate.

- Frame rate: Prioritizes frame rate for a smoother stream. The mask detail will decrease.

- Mask detail: Prioritizes mask detail for a higher pixel density of the mask outline. The frame rate will be lower.