

AiDANT Markers User Guide



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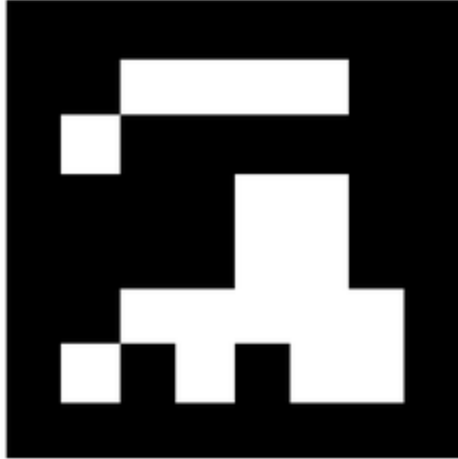
1. Overview

The AiDANT Markers application developed by [AiDANT.ai](#) is an AXIS ACAP application that can be used to monitor an area and notify the user if a marker is present-in or missing-from an area of interest for too long.

2. Glossary

Markers	A special image that depicts a unique patten which can be detected by computer vision. You can get the marker file using this link.
Area	A polygon with four controls points that can contain the marker.

A marker looks like this:



3. Requirements

In order to run the AiDANT Spark application, you will need:

1. An AXIS camera with an ARTPEC-6, ARTPEC-7 or ARTPEC-8 chip and a non-fisheye lens.
2. Update the AXIS camera firmware to the latest version.
3. Purchase a license from AiDANT.
4. Download and extract (unzip) the eap application file through the link <https://downloads.aidant.online/>.

4. Installation

Once all the requirements are satisfied, please do the following:

1. Access the camera through any web browser.
2. Go to *Settings->Apps* .
3. Click on *Add* and install the .eap application file.
4. Click on *AiDANT Markers* and install the license key file provided to you.

5. Main Controls

AiDANT Markers 1.0

The screenshot displays the AiDANT Markers 1.0 interface. At the top, a video stream shows a door with a green square marker and a white polygonal area around it. Labels 'MARKER' and 'AREA' point to these elements. Below the video, the text 'Analysis at : 345 ms.' is visible. The control panel includes a 'RESET AREA' button (cross icon), a 'HELP' button (question mark icon), and a 'SAVE' button (checkmark icon). Below these are tabs for 'Markers' and 'Overlays'. The 'Markers' tab is active, showing a 'LOGIC' section with radio buttons for 'present' and 'missing from area'. Below this is an 'Alert after [m:s]' field with two input boxes set to '0'. A 'GET FILE' button is also present. Labels 'LOGIC' and 'TIMES' point to the logic and alert time fields respectively.

- Press the 'Reset Area' button to restore area to the default position.
- Press the 'Help' button to open the user guide.
- Press the 'Save' button to save your configuration changes.

6. Usage

- Select an area to monitor by dragging the control points until the polygon shape covers the area of interest.
- Select "Present" or "Missing" according to the use case. eg: For door ajar, select "missing" after defining the area.
- Remember to save your changes by pressing the 'Save' button (the green checkmark).

When a target is detected, a bounding box will be shown on the stream in the application. The default color for the markers is green. If a target enters the area of interest, then the marker color changes from green to yellow and a timer displays. If the timer surpasses the time set in the *Alert Time* field, then the marker changes to red.

When the breach has lasted more than then the set time, a notification will be sent.

7. Overlays

- You can choose to display the bounding boxes as an overlay in a camera video stream by clicking "*Include detection overlays in this video stream*" and selecting the desired stream.

9. Event Triggering

To setup event triggering:

1. Go to *System->Events*.
2. Click on + under *Rules* and select *AiDANT Markers* under the *Condition* field.
3. Fill in the *Name* field and select an *Action*.

If you wish to set up email notification, click on the *Recipients* tab. Press the + button and fill in the fields.

Once done, you can go back to *Actions* under the *Rules* tab and select the appropriate action you want that requires a recipient.

10. Axis Camera Station Integration

1. Make sure this application is started inside the camera.
2. Launch Axis Camera Station.
3. Open "Recording and Events", then "Action Rules".
4. Press "New" to create a new action rule.
5. In "Triggers" dialog, press "Add" for a new trigger.
6. Select "Device Event", and press "OK".
7. Select camera and choose the desired trigger event.
8. In the "Actions" dialog, select your desired action.

11. Tailgating

By combining AiDANT 'Aware' occupancy module with marker detection, we can create a simple yet effective tailgating solution, all inside one AXIS camera. "Markers" detects the position of the door/gate, while "Aware" counts the persons/vehicles. This makes it possible to detect tailgating without interfacing with the gate/door controller via software.

Instructions for configuring Tailgating

(we will use the word 'gate' but this can be applied to doors, lids, etc.)

Physical:

1. Close the gate.
2. Place a sticker marker on the gate.

Required software:

1. Install and run "AiDANT Markers" application.
2. Install and run "AiDANT Aware" application.

Configuration:

In "**Markers**" application.

1. Set: Notify when marker is present in area, 0 minutes, 0 second.
2. Place detection area around marker (gate closed).
3. Press "Save".

In "**Aware**" application:

1. In "Occupancy" tab, set: Notify when total occupancy count is 2.
2. Select "Entrance 1" and draw the entrance on the "inside" of the gate. Set "Appearing in entrance increases count" to false.
3. In "Objects" tab; choose objects to count (persons or vehicles, etc).

If required, we can draw the "Entrance 1" on the "outside" of the gate, then set "Appearing in entrance increases count" to true. For more details about drawing the entrances please refer to the AiDANT Aware user guide or contact AiDANT support.

In **camera system/events** (both apps need to be running by now):

We need a rule that instructs "Markers" to send a "Reset Occupancy" command to "Aware" every time the gate is opened.

Create a "Recipient" called "AwareOccupancyReset".

Type: HTTP

URL: [http://\[camera IP\]/local/aidant_aware/cgi/work.cgi?action=reset_total_occupancy](http://[camera IP]/local/aidant_aware/cgi/work.cgi?action=reset_total_occupancy)

Username: [Camera username]

Password: [Camera password]

Save

Create a "Rule" called "Markers to Aware Reset".

Condition: Marker Alert

Action: Send notification through HTTP

Recipient: AwareOccupancyReset

Save

Create a "Rule" called "Tailgating" for the Tailgating event.

Condition: AiDANT Aware Occupancy Alert

Action: Choose whichever action, for example, "Use Overlay while rule is active".

Save

If using a text overlay please remember to set a value for the text eg: VEHICLE TAILGATING DETECTED and also in the "Overlay" tab of the camera UI, create a text overlay with the placeholder #D to actually display the text.

12. Appendix

Troubleshooting

- The application log can be accessed through the Apps/AiDANT Markers page.
- Please contact [AiDANT Technical Support](#) if you have any questions or comments.

Recommended Marker Distances From Camera

You can [download the marker file from here](#) and print it, or order stickers from your local print shop.

For non-zoomed cameras, the minimum size of the marker should be calculated according to the formula

$$\text{Marker side size} = \text{Marker distance from camera} / 50$$

Some examples:

Marker distance from camera	Marker side size
1 meter (~ 3 feet)	2 cm (~1 inch)
2 meters (~6 feet)	4 cm (~2 inch)
5 meters (~16 feet)	10 cm (~4 inch)
10 meters (~32 feet)	20 cm (~8 inch)
20 meters (~65 feet)	40 cm (~16 inch)

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