AiDANT Care User Guide

Warning 🔗

- Define floor, exclude sitting areas.
- To be used as an aid only and not to replace human supervision.

1. Overview 🔗

The AiDANT Care application developed by AiDANT.ai is an AXIS ACAP application that can be used to monitor a room and notify the user if a patient has left their bed or fallen. This application can be installed into any AXIS camera with a DLPU processor.

2. Glossary 🔗

AI Threshold	A value which controls how selective we want to be in identifying a person.
Floor	A user defined area where people are analyzed for falling. The **Locator** of the person must be in the floor area to be included.
Exclusion Area	A user defined area where people are not analyzed for falling. The **Locator** of the person must be in the exclusion area to be excluded.
Locator (white cross)	The ***Locator*** is the point that determines the location of the person/object. It is represented by a white cross in the user interface. If the locator is inside an area, the person/object is considered inside the area.

3. Requirements 🔗

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

1. An AXIS camera with a DLPU 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/.
5. **Important!** Camera positioning: The camera needs to be positioned in such a way that it can see as much of the human body as possible.

4. Effective Ranges 🔗

Artificial intelligence applications demand a lot of hardware processing power. This application analyses an optimized internal video stream which is separate from the stream selected by the user for viewing or recording. As a result, selecting a higher resolution viewing stream (more megapixels) will not affect the detection results nor range. This means that using the PPF (pixel per foot) unit of measure can be misleading.

The effective detection range for **moving or stationary persons** will be, accordingly: 8 meters* (~24 feet) for no optical zoom, and a multiple of the optical zoom factor for zoomed streams. eg: 16 meters (~48 feet) for zoom x2.

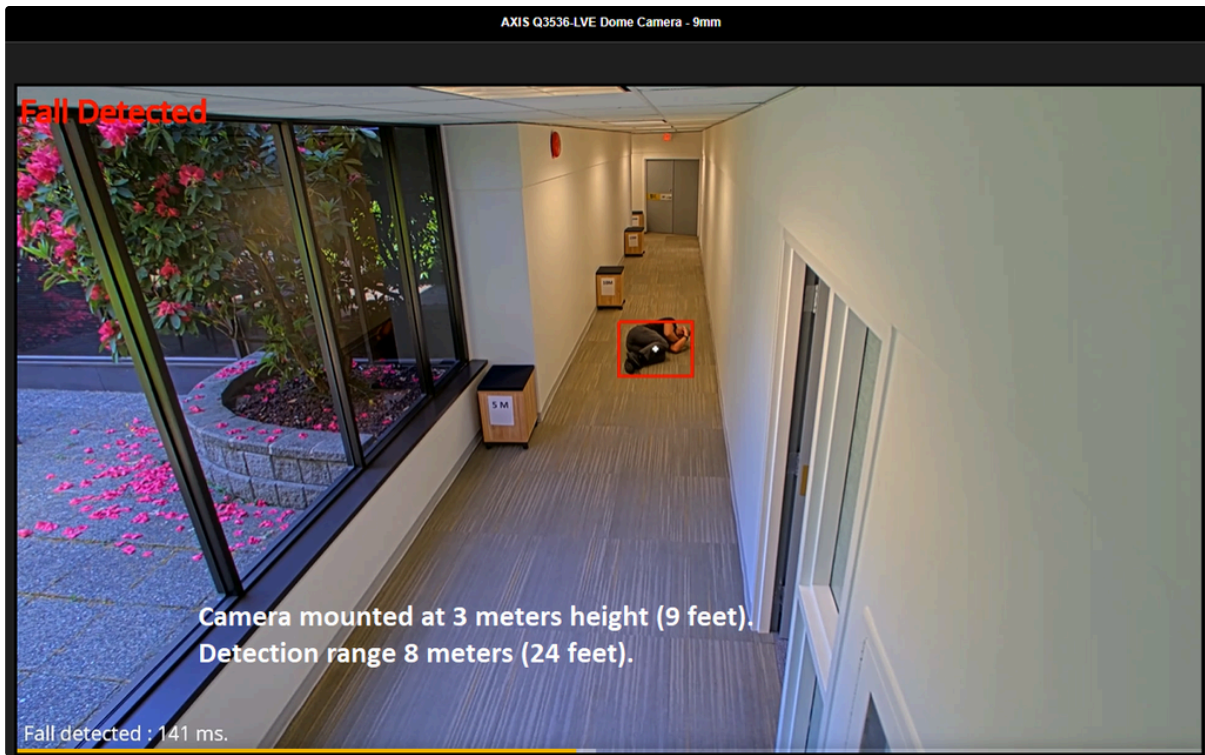*Assuming camera mounted at 3 meters (9 feet) height.

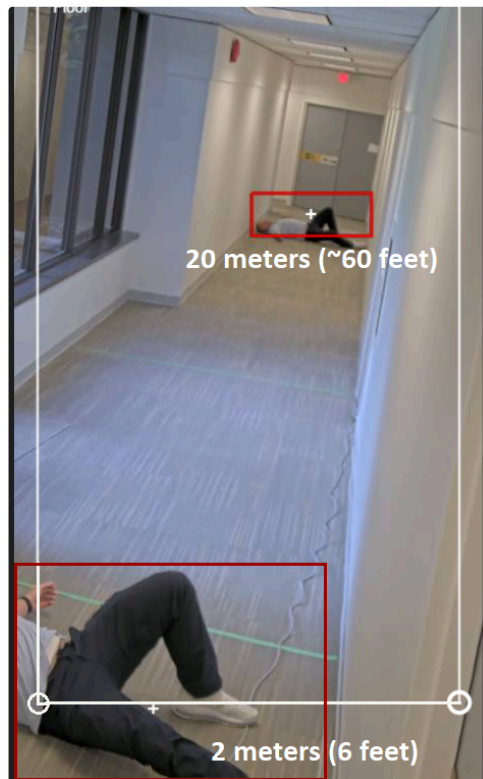*Image 1: Non Zoomed detection at 8 meters (24 feet)*

Image 2: Zoom x2.5, detections at 2 meters (~6 feet) and 20 meters (~60 feet) , portrait mode (aka corridor).

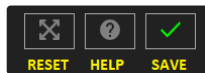*Notice the area under the camera is still visible and monitored despite the zoom.*

5. 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 Care* and install the license key file provided to you.

6. Main Controls 🔗

- The '*AI Threshold*' field can be modified to indicate how selective we want to be in identifying a person (i.e. the higher the number, the more discriminate it becomes to determine if an object on the screen is a person and the less positives that we will have). A value of 0.30 is the default as it minimizes false positives and increases true positives for detection.
- Press the '*Reset*' button tpo reset the areas of interest.
- Press the '*Help*' button to open the user guide.
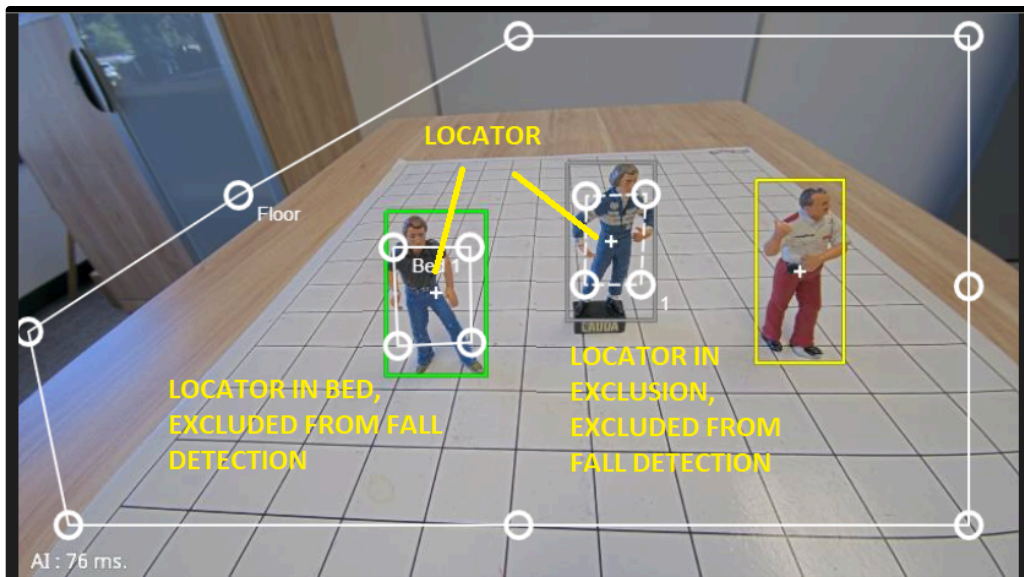- Press the '*Save'* button to save your configuration changes.

Beds Module 🔗

- Select 'Detect patient out of bed' to enable module.
- Select "Out of Bed" or "About to Leave Bed". The second option will send the notification as soon as the patient gets close to the edge of the bed. If using the "About to Leave Bed" option please make sure that the overlaid word "*Bed X*" is the the header of the bed.
- The '*Beds*' controls enable or disable beds, for a maximum of three.
- Press the '*Reset Area*' button when in 'Beds' module to restore all beds to their default positions.
- If a patient leaves the bed a notification will be sent. Use the 'Alert After' controls to set the time before an alert is sent.
- In case that more than one bed is monitored, any patient out of bed will generate the event notification.
- Select 'Block out of bed notifications when visited' to prevent out-of-bed notification when a visitor is in the room. A visitor can be a nurse, a relative, etc. **Limitation**: If there are empty monitored beds in the room, the 'Block out of bed notifications when visited' functionality might **not** block the notification of patient out of bed.

Fall Module 🔗

- Select 'Detect fallen persons' to enable module.
- Press the '*Reset Area*' button when in 'Falls' module to restore floor and all exclusion areas to their default positions.
- Use the control points radio buttons to add or remove control points to floor area.

Overlays Module 🔗

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

- You can chose to anonymize the detections as an overlay in a camera video stream by clicking "*Include anonymization overlays in this video stream*" and selecting the desired stream.

- "*Include beds overlays in outgoing streams*" will include the beds overlays in the outgoing streams that you have chosen, either for the detections overlays or the anonymization overlays.

- "*Include floor overlays in outgoing streams*" will include the floor overlays in the outgoing streams that you have chosen, either for the detections overlays or the anonymization overlays.

- "*Include diagnostic text in outgoing streams*" will include the diagnostic text overlays (the white text on the left bottom corner of the viewport which includes AI speed and status) in the outgoing streams that you have chosen, either for the detections overlays or the anonymization overlays.

Please remember to save your changes by pressing the '*Update*' button (the green checkmark).

Advanced 🔗

- Press "View Log" to see the application log.

- Press "Get Log" to download the application log.

- Add a manual log entry by entering an entry and pressing '*Submit*'.

- Manual trigger alert tests can be invoked as well to test the notifications. The alerts are '*Stateful*' meaning they have ON and OFF states.

Colors 🔗

The bounding boxes will appear in different colors in the viewport.

- **Gray** means ignored, not analyzed, not in floor area.

- **Yellow** means person standing.

- **Green** means person in bed.

- **Orange** means person on floor momentarily.

- **Red** means person has fallen.

7. Event Triggering 🔗

To setup event triggering:

1. Go to *System→Events.*
2. Click on + under *Rules* and select *'Fall Detected'* or *'Patient Out of Bed'* under the *Condition* field.
3. Fill in the *Name* field and select an *Action.*

IMPORTANT: The condition "Video Stream Inaccessible" should be configured to receive a notification in case that the camera video stream is not available anymore, eg: If the camera orientation changed.

Always **restart the application when modifying image parameters such as orientation or resolution!**

8. Connecting the events to VMS 🔗

Milestone 🔗

To receive events from AiDANT applications in Milestone XProtect:

1. In Milestone XProtect Management Client 'Site Navigation' panel, expand 'Servers/Recording Servers'.
2. In the 'Recording Server' panel select the desired camera and channel to open the 'Properties' dialog.
3. In the 'Properties' dialog', press the button 'Events' (at the bottom).
4. Press the button 'Add' for events to open the 'Select Driver Event' dialog.
5. In the dialog 'Select Driver Event', select the required events associated with your AiDANT product.
6. Create Alarms by selecting 'Alarms/Alarm Definitions', and configuring the definitions accordingly. Remember to save!

As events are 'Stateful', an 'on' event sent by the AiDANT application will appear in Milestone as 'Rising', while an 'off' event sent by the AiDANT application will appear in Milestone as 'Falling'.

Tip: If you cannot see the events associated to the camera, you might need to update the remote site hardware.

1. On the central site, expand Servers and select Recording Servers.
2. In the Overview panel, expand the required recording server, select the relevant remote system.
3. Right-click it.
4. Select Update Hardware. This opens the Update hardware dialog box.
5. The dialog box lists all changes (devices removed, updated and added) in the remote system since your Milestone Interconnect setup was established or refreshed last.
6. Click Confirm to update your central site with these changes.

Genetec 🔗

1. In 'Security Center' open the configuration tool and select the desired unit to configure.
2. In the properties tab, enable the desired AiDANT events by selecting the AiDANT application from the applications list, and choosing the events from the 'Application Events' list.
3. Configure your alarms or bookmarks using 'Genetec Actions': In 'General Settings', select 'Actions'. Configure your event-to-action accordingly.

Tip: If you cannot see the events associated to the camera, refresh the camera connection.

AXIS Camera Station 🔗

1. Select 'Recording and events/Action Rules'.
2. Click 'New'.
3. Click 'Trigger/Device Event/OK'.

4. Select Device and Event.

5. Filter Active Yes for the ON state and vice versa.

6. Press 'Next' and select your desired action. Finish.

9. VAPIX 🔗

Use the following commands to change settings remotely.

(Note: If the web UI does not reflect VAPIX command, please refresh (F5) browser)

Enable or disable patient out of bed: 🔗

[IP]/local/aidant_care/webservices.cgi?action=enable_patient_out_of_bed
[IP]/local/aidant_care/webservices?action=disable_patient_out_of_bed

Enable or disable specific beds: 🔗

[IP]/local/aidant_care/webservices.cgi?action=enable_bed_1
[IP]/local/aidant_care/webservices.cgi?action=disable_bed_1

[IP]/local/aidant_care/webservices.cgi?action=enable_bed_2
[IP]/local/aidant_care/webservices.cgi?action=disable_bed_2

[IP]/local/aidant_care/webservices.cgi?action=enable_bed_3
[IP]/local/aidant_care/webservices.cgi?action=disable_bed_3

Enable or disable fall detection: 🔗

[IP]/local/aidant_care/webservices.cgi?action=enable_fall_detection
[IP]/local/aidant_care/webservices.cgi?action=disable_fall_detection

Enable or disable anonymization block: 🔗

[IP]/local/aidant_care/webservices.cgi?action=enable_anonymization
[IP]/local/aidant_care/webservices.cgi?action=disable_anonymization

10. Troubleshooting 🔗

Question: How can I see the application log?
Answer: The application log can be accessed from the 'Advanced' Tab in the user interface.

Question: Why doesn't my application show the correct User Interface after I upgraded the application?

Answer: When upgrading from a previous version without uninstalling please press CTRL+F5 in your computer to refresh the browser contents. (in laptop: Function + Ctrl + F5)

Question: The application is not starting as expected, what can I do?
Answer: If the the installation completed successfully, please make sure that you have the latest AXIS OS firmware in your camera (in the camera user interface, select Maintenance from the lefthand menu panel, then choose AXIS OS Upgrade). Then restart the application and press Ctrl+F5 (in laptop: Fcn+Ctrl+F5) in your browser to clear the cache.
If the problem is not resolved:

1. Delete the application and install it again, apply license.

2. Start the application. Wait one minute before opening application page.

If the problem is still not resolved:

3. Restart the camera (in the camera user interface, select Maintenance from the lefthand menu panel, then choose Safe Restart). Then repeat steps 1 and 2.

If those steps do not resolve the issue, please contact us for a support meeting.

- The application log can be accessed through the AiDANT Care "Advanced" page.
- Please contact [AiDANT Technical Support](#) if you have any questions or comments.
- If you see an error saying "AI Error", please check your Camera Web Interface/Image/Orientation, and confirm you are not in "Auto" mode. Select correct orientation and restart AiDANT Care.
- AXIS Camera Text Overlays: If using the Axis Camera Text Overlays, please be aware that only one event will be shown as an overlay. If using "*Patient Out of Bed*" and also "*Fall Detection*", only one message will be displayed at any given time.
- Bed count out of sync: The numbers on the bottom left of the viewport represent the bed occupancy. For example, "Beds at 1, 1, 0" means that there is one patient in bed 1 and one patient in bed 2. If these number get out of sync, please unchech "Detect Patient Out of Bed" and check again, to reset the occupancy count.