

## How to set the thermal camera calibration and trigger the VCA by target's actual size

### Purpose

When enabling the camera calibration, the device can calculate the size of every target, so the VCA detection will be more accurate.

### Preparation

1. Make sure that we have known the real length of the objects in the scene.
2. Choose the thermal camera which does not support PTZ function (Calibration only for this type).
3. Before using the VCA rules of the camera, you should select the VCA resource type first.

### Steps:

1. Enter the IP, User and Password, click the button of Login via web page.
2. Enter the Camera Calibration setting interface:  
**Configuration > VCA Configuration > Camera Calibration**
3. Check the checkbox of **Camera Calibration** to enable this function.
4. Select the calibration mode as **Draw on Live View Video**.
5. Click Draw Verification Line (Vertical) to draw a vertical line in the live view, and input the actual length in Real length field. With the drawn reference lines and their real length, the camera can conclude other objects appear in the live view.

#### **Note:**

The camera needs to set 4 to 8 valid calibration lines. As the Figure 1 shown, we recommend to draw 4 vertical lines. It would be better to separate **vertical lines** at the left, middle and right of the image respectively. From the vertical, lines need to be separated from front to back evenly. For vertical line, you could calibrate it by refer to person's real height and do it for 4 person together or one person standing in a different position.



Figure 1

- (Optional) Click the **Enable Verification of Camera Calibration** button  to enter the verification interface. Click the **Vertical Verify** button  to draw a vertical line on the live video, and then click the **Calibration** button  to calculate the line length. Compare the calculated line length to the actual length to verify the calibration you set.



Figure 2

- If the verification results are similar, click **Save** to save the settings. If not, you can click delete  button to delete the drawn lines.
- Click **Rule** tab to enter the rule configuration interface and add a new rule. Check the

checkbox of the desired rule to enable the rule for behavior analysis. (Take Line Crossing for an example)

9. Select the rule type of **Line Crossing**, set the filter type to **Actual Size** when the camera calibration is configured. Then input the width and height of the Max. Size and Min. Size. Only the target whose size is between the Max. Size and Min. Size value will trigger the alarm.

**Rule**   Arming Schedule   Alarm Linkage

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**Rule List** +

| Enable                              | No.       | Rule Name  | Rule Type  |
|-------------------------------------|-----------|--|--|
| <input checked="" type="checkbox"/> | 1         | Line Crossing                                    | Line Crossing <span style="float: right;">✖</span> |
| <input checked="" type="checkbox"/> | Filter by | Actual Size <span style="float: right;">▼</span> | Line Crossing                                      |
|                                     | Max. Size | 0 * 0  | Bidirectional <span style="float: right;">▼</span> |
|                                     | Min. Size | 0 * 0  | All <span style="float: right;">▼</span>           |

Figure 3

**Note**

If you want to detect the target whose size is between 2 meters wide, 4.5 meters high and 0.4 meters wide, 0.5 meters high, you should input as shown.

Max. Size: 2\*4.5(m); Min. Size: 0.4\*0.5(m).

10. Draw the line on the live video and select the crossing direction, click **Save** to save the settings.
11. When the targets triggered the alarm, you can find that their size are all in this range.

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