

## How to configure VCA for PTZ thermal camera V5.5.2

### Preparation

1. Enter the IP, User and Password, click the button of Login via web page.
2. Before using the VCA rules of the camera, you should select the VCA resource type first.

#### STEP 1:

Enter configuration>local, confirm the Rule is enabled. Click Save so that the information of VCA rules and detected objects can be shown in the live view.

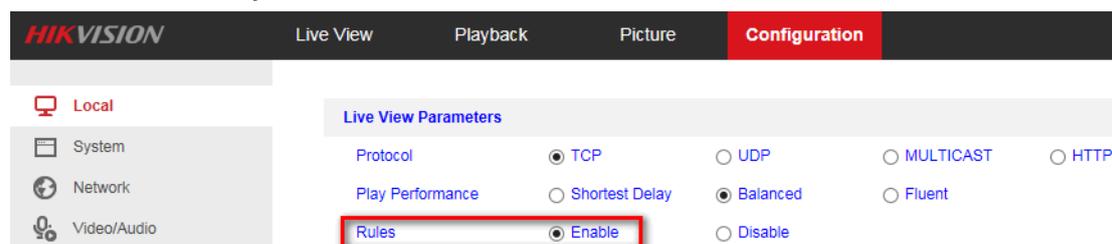


Figure 1

STEP 2: change the VCA resource type. As shown in the figure following. The corresponding interface can be shown after changing the VCA resource type and rebooting the device.

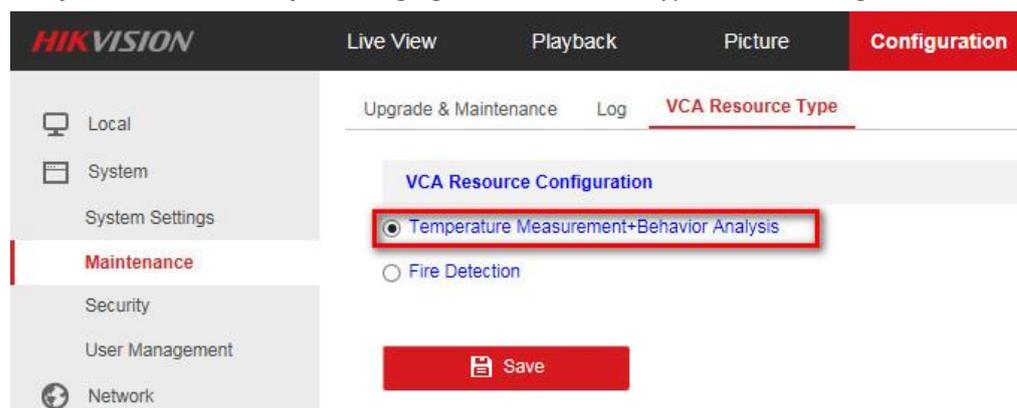


Figure 2

#### Step 3: Zoom Ratio Configuration

Set the appropriate tracking zooming ratio for each scene with the PTZ control panel. Click on the **Save Zooming Ratio** button to save the settings.

## Zooming Ratio

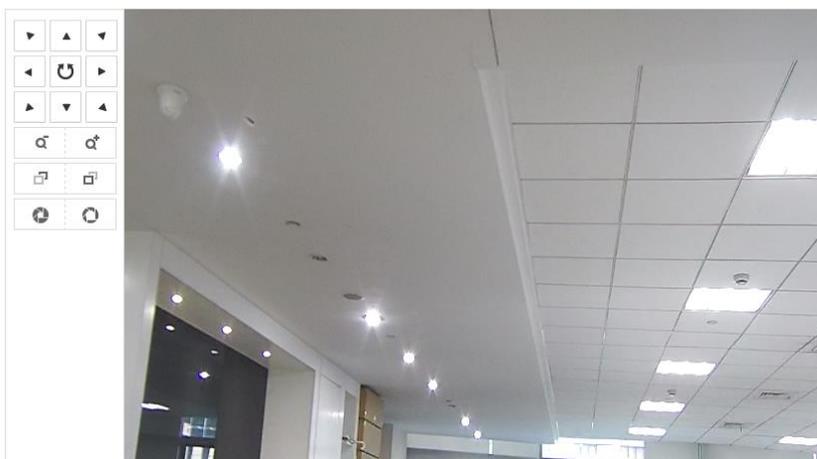


Figure 3

**Note:**

You can select each scene with different tracking ratio after creating these scenes.

## Zooming Ratio

Scene Name

Figure 4

### Step 4: Multi-VCA Scene Configuration

Enter Scene Configuration, click **New Scene** to create a new scene. Control the PTZ to get the required scene. Click the **save** button to save the position of the scene. At most 10 scenes can be configured.

Scene Parameters	Rule	Arming Schedule	Alarm Linkage
Scene Name	<input type="text" value="1"/>		
Scene Position	<input type="button" value="Save"/> <a href="#">Call</a>		
<input checked="" type="checkbox"/> Track			
Tracking Duration	<input type="text" value="45"/> s		
<input checked="" type="checkbox"/> Limited Tracking			
Auto-tracking Limits	<input type="button" value="Set Up Limit"/> <a href="#">Call</a>	<input type="button" value="Set Left Limit"/> <a href="#">Call</a>	
	<input type="button" value="Set Down Limit"/> <a href="#">Call</a>	<input type="button" value="Set Right Limit"/> <a href="#">Call</a>	

Figure 5

After saving the position of each scene, it needs to configure key parameters as below.

**Enable Track:** The device will auto track the target and the optical view will zoom in it when the thermal view detect the VCA alarm.

**Tracking Duration:** Set the duration of tracking. If the value is selected as 0, the tracking duration will not be limited

**Rules and alarm linkage configuration:**

Enter the Rule configuration interface, create a new rule, Rule Type can choose as Line Crossing,

Intrusion, Region Entrance, Region Exiting. 8 rules are supported for each scene at most.

Scene Parameters **Rule** Arming Schedule Alarm Linkage

Rule List					
Enable	No.	Rule Name	Rule Type		
<input checked="" type="checkbox"/>	1	Intrusion	Intrusion		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Filter by	Pixel	Duration	1	s <input checked="" type="checkbox"/>
	Max. Size	174 * 237 (W*H)	Sensitivity	50	<input checked="" type="checkbox"/>
	Min. Size	61 * 78 (W*H)			

Figure 6

**Note:**

When drawing rules, we should pay attention to leaving some space at the edge of the testing area so as to provide some time for detection of the device. Otherwise, it will cause the mobile object to cross the boundary suddenly, but the target frame has not been generated yet, and the alarm can't be detected. Here is the rule drawn normally as following:



Figure 7

Filtering: VCA will automatically filter out the alarm which the target frame is not satisfy the filter size.

Filter by pixel size

By manually drawing the maximum size and minimum size, the targets can be filtered if the pixel is not in the interval. Since the pixel of same object will be influenced in different locations, so it is better to draw more rules and set difference size pixel filter for each rule. As shown in the picture below.

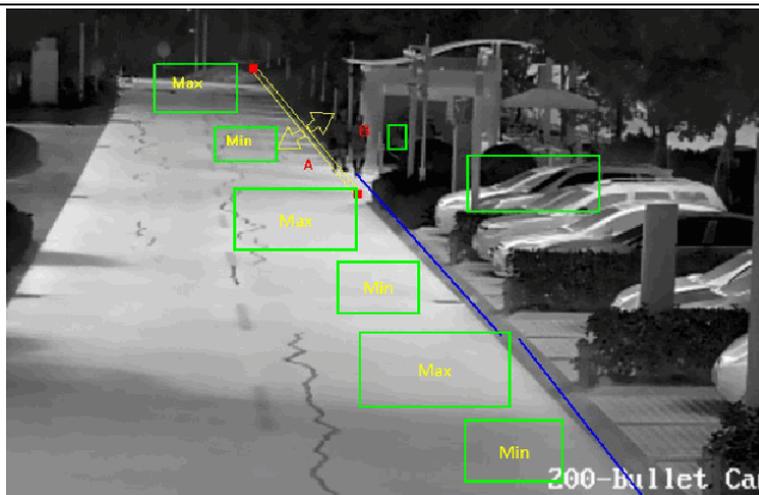


Figure 8

### Step 5: Scene Auto-switch

When multiple scenarios all need VCA detection, it should configure patrol sequence.

Dwell Time means the dwell time of the scene when doing patrol tracking. The intelligent analysis will be enabled during the period.

**Note:**

If the alarm is triggered, the PTZ camera will start to track automatically. The device will continue to track the target when the current scene still has alarm target even if the time has been exceeded to dwell time.

Scene Auto-switch

Patrol Sequence		
Patrol Sequence	Scene Name	Dwell Time (s)
1	1	30
2	2	30
3	Scene3	30

Figure 9

### Step 6: Enable Intelligent Analysis

Enable Intelligent Analysis, make sure check the checkbox of Display VCA Info.On Stream, then the user can see the target info and rule info in live view after it has enabled Rules settings of web.

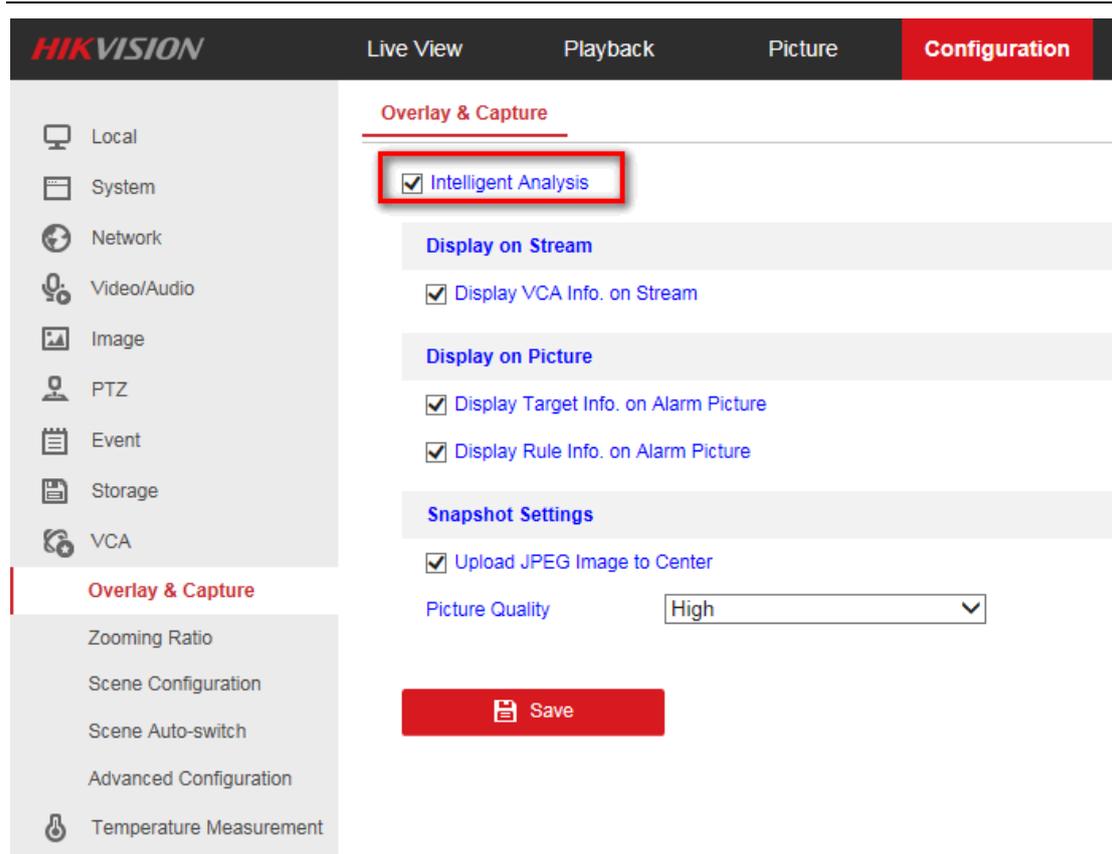


Figure 10

**Step 7: Advanced Configuration (optional)**

The parameters can be set to default in most cases. In some special scenes, the parameters can be adjusted especially, the concrete introduction is as follows:

**Detection Sensitivity:** target detection sensitivity control the difference between the background and objects. When the gray scale is very closed, it will make the object not so obvious, the parameter can be promoted to optimize the issue. And if there are many little frames in the picture, the sensitivity can be decreased to make the effect more stable.

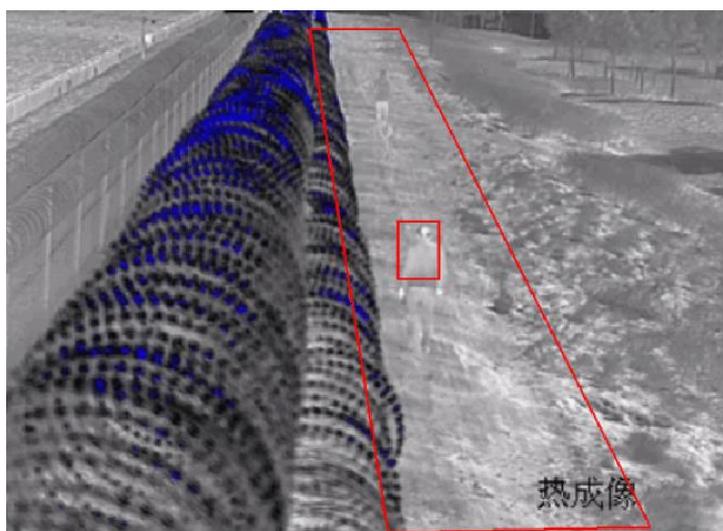


Figure 11

In low temperature difference scenes as the one above, the contract between object and

background is low, so it is better to raise the sensitivity.

Background Update Rate: This parameter can control the speed that object integrated into the background, the higher the rate is, the faster the integration of the objects. When the object move slowly or move near the scene, the Background Update Rate can be decreased to protect the detection frame from breaking. When the object moves fast, in a remote distance or in a simple scene, the Background Update Rate can be promoted to let the object integrated into the background quickly.

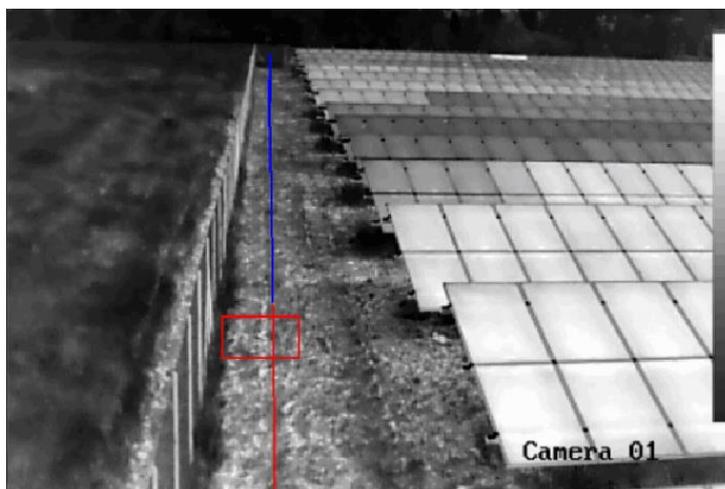


Figure 12

In scenes have a background of grass shaking as the one above, the background grayscale exists a local change. So it is better to raise the rate.

Minimum Target Size: This parameter decide whether the target box generate or not. The priority is higher than the min size of rule configuration. When the detected targets size smaller than this parameter, these targets will not displayed box in live view. The default value is usually setting.

Displacement Constraint for target generation: This parameter control the speed that target box displayed in live view. Set the value higher, and the target will be generated slow. Set the value lower, and the target will be generated fast.



Figure 13

As the scene shown above, the detection area is narrow and small. So it is better to set the value lower, make the target be generated fast and trigger the alarm in time.

Optical-Axis Movement: This parameter control the speed that optical-axis target box displayed in live view. Set the value higher, and the target will be generated slow. Set the value lower, and the

target will be generated fast.

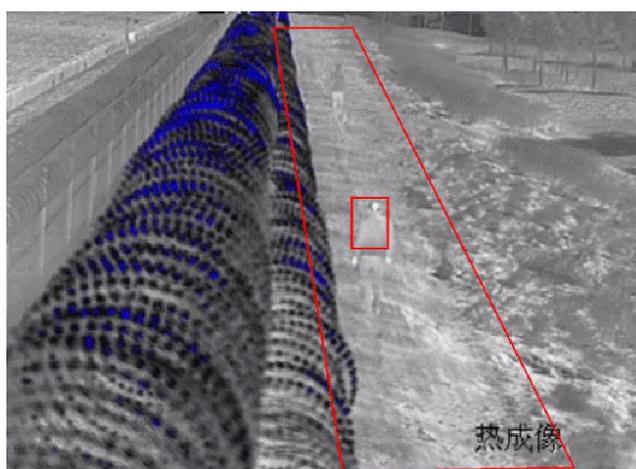


Figure 14

As the scene shown above. When the target moves in the direction of camera's optical-axis.

So it is better to set the value lower, make the target be generated fast and trigger the alarm in time.

**Single Alarm:** When the same target appears in the same detection area, checking the checkbox means it will only generate one alarm. If not, it will generate continuous alarm.

**Scene Mode:** The device according to the application of different scenarios, it provides three scene modes, which corresponding to different algorithm processing strategies.

**Post-Tracking:** The device will stop tracking until the target static time or the time of disappearing at the scene has reached the value, then return to original scene for waiting.

**Force Tracking:** When the target is shield and appears near the original position again, the device can find the target and continue tracking.

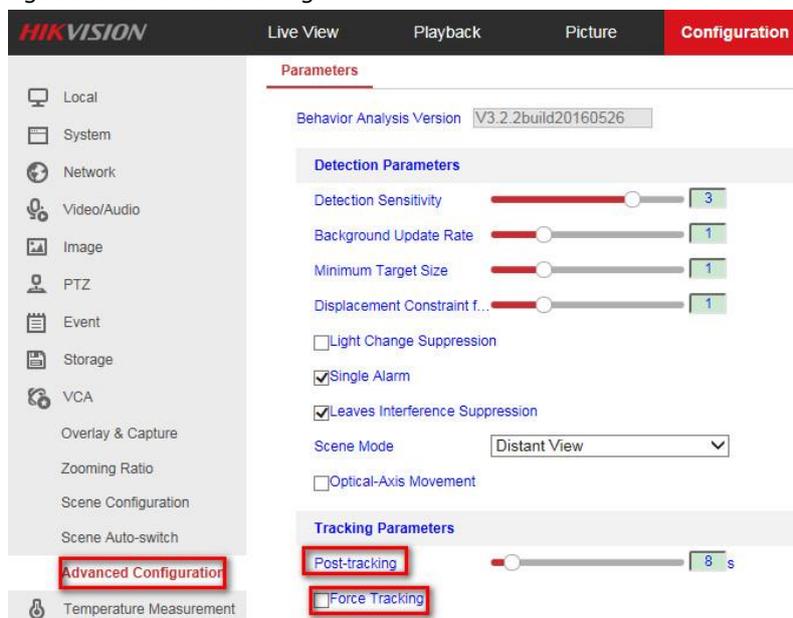


Figure 15

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