AI People Flow Control Configuration Guide

1. Introduction

With the combination of DeepinMind NVR and people counting camera， it can realize people flow control. The DeepinMind NVR must be upgraded to the special version, and need to be restored after upgrading.

Product Showcase:

Product	Product Model	Note
People Counting camera	DS-2CD6825G0/C-I(S) DS-2CD6845G0/C-I(S)	Base line version
	iDS-2CD6810F/C	
	iDS 7series Face Counting Camera	
DeepinMind NVR	iDS-9616(/32/64)NXI-I8/X(B)(T)	Please upgraded to the special firmware version
	iDS-7716(/32)NXI-I4/X(B)(T)	
	iDS-6708-I/8F(B)(T)	

Firmware download:
For DeepinMind NVR:
ftp://hikftp.hikvision.com:400/01 All Materials of Temperature Screening Solution/02 DeepinMind NVR/05 Firmware/DeepinMind NVR/
For Thermal Camera:
ftp://hikftp.hikvision.com:400/01 All Materials of Temperature Screening Solution/02 DeepinMind NVR/05 Firmware/Thermal Camera/

© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.
No.555 Qianmo Road, Binjiang District, Hangzhou 310052, China • Tel: +86-571-8807-5998 • Fax: +1 909-595-0788
E-Mail: support@hikvision.com • www.hikvision.com

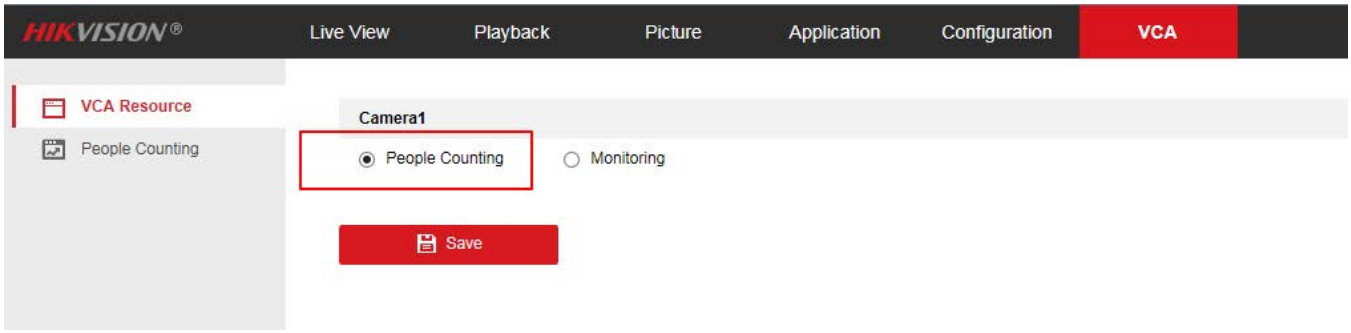
2. Solution

Configure people counting rule on people counting camera, add the camera to DeepinMind NVR and configure people control on NVR .

3. Configuration Steps

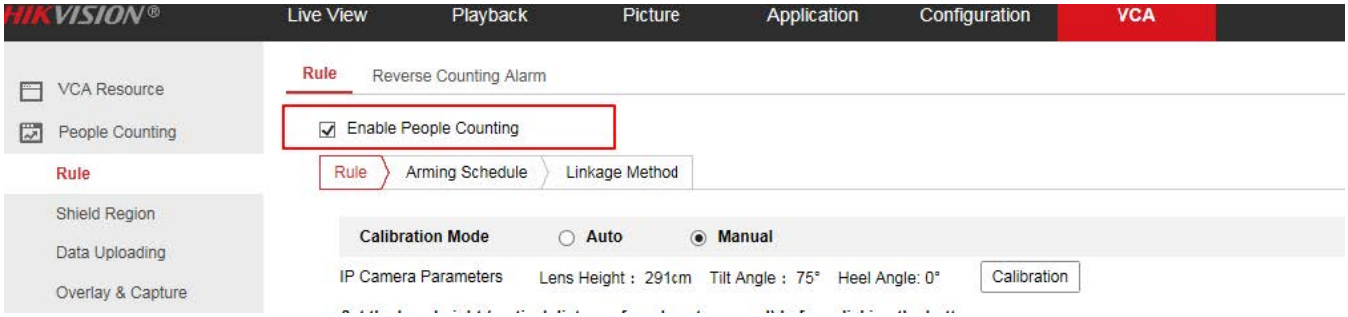
3.1. People counting rule configuration (Taking Dual-lens 6825 for example)

3.1.1 Select VCA Resource



3.1.2 Rule configuration

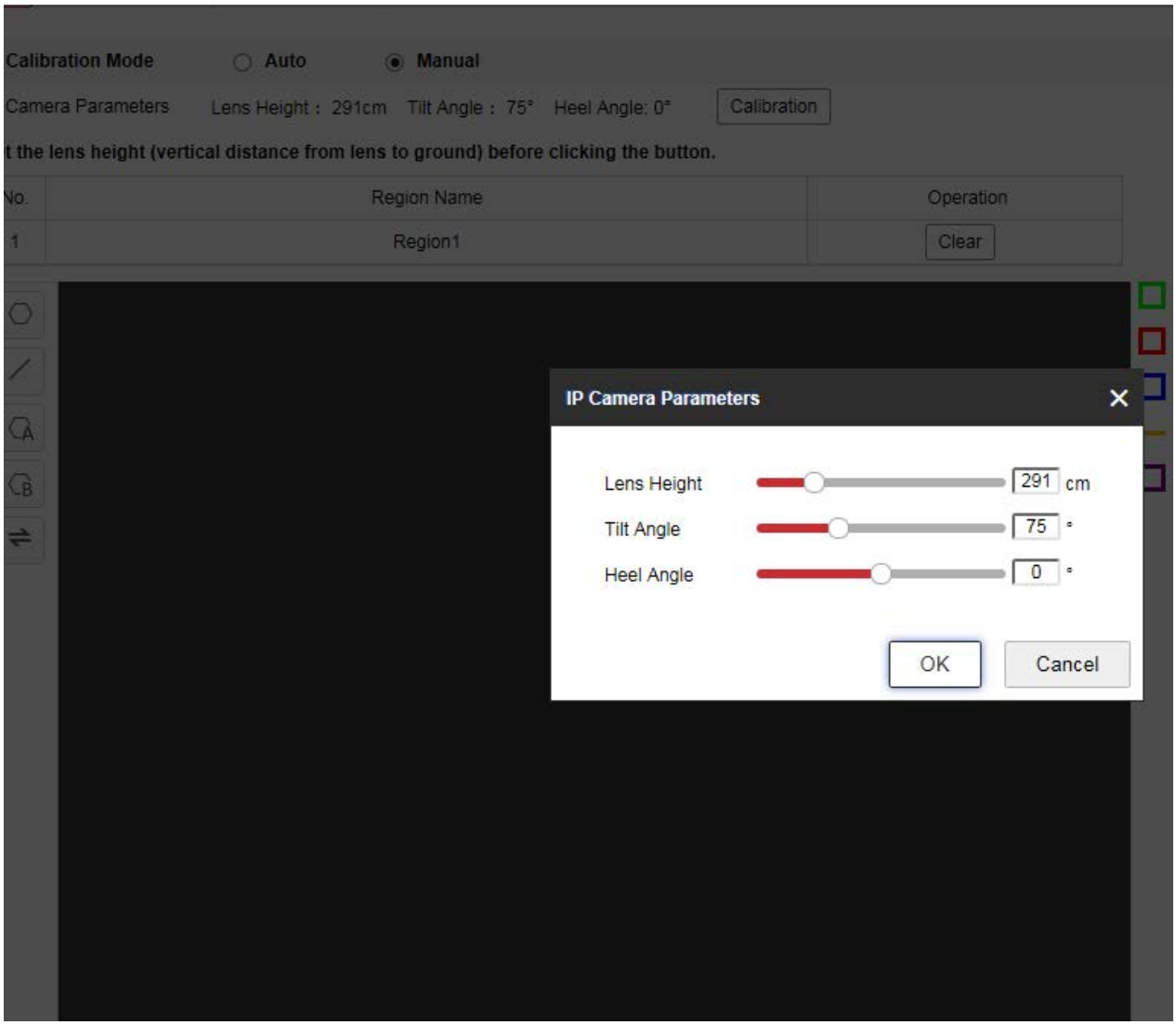
Step 1: Enter 【VCA】-【People Counting】, check “Enable People Counting”



© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.

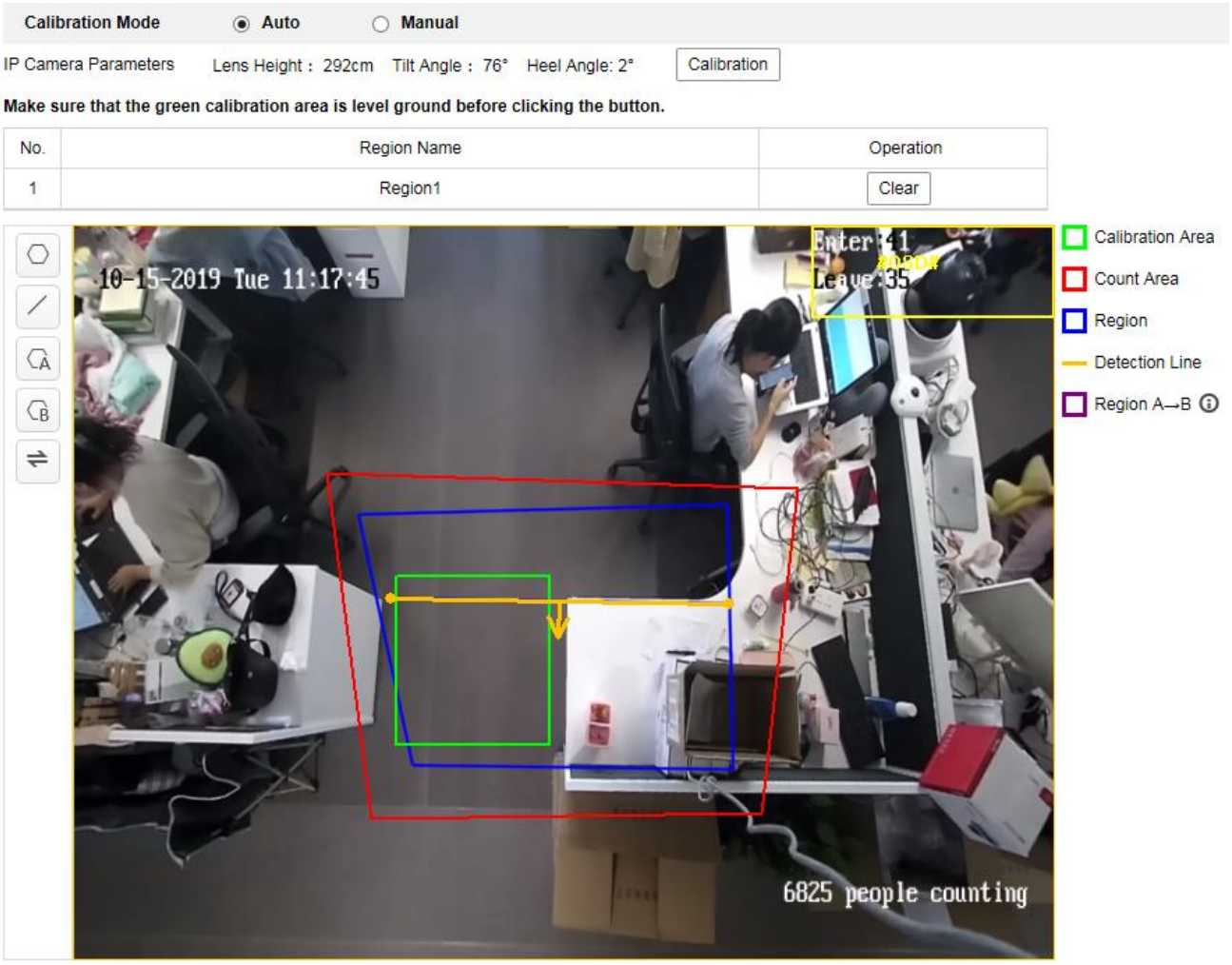
Step 2: Select the calibration mode: Manual and Auto are selectable.

Manual Calibration Mode: Input the Lens height (the height from Entry/Exit area to the camera), Tilt Angle and Heel Angle manually, then click "Calibrate", A red detection area will automatically appear in the image. The red area is for counting. To increase the success rate of the manual calibration, make sure the lens height is the true value in vertical direction between the lens and the ground.



Auto Calibration Mode: It will generate the lens height and a green calibration area automatically. The calibration area is used for calibrating the height from the ground to lens. So we strongly recommend to select the totally ground part as calibration area.

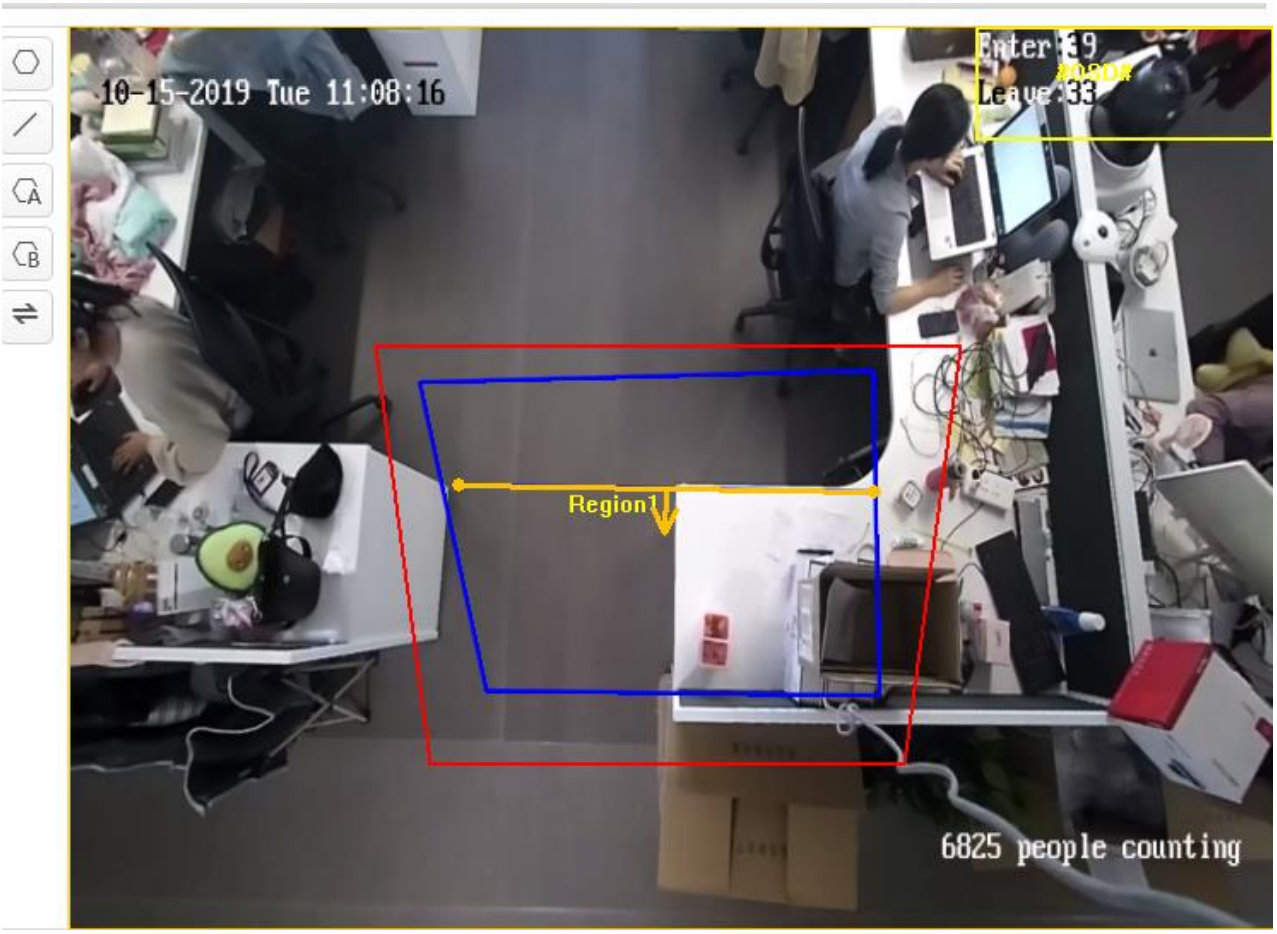
© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.



Step 3：Draw the region (shown as the blue frame in the below picture)

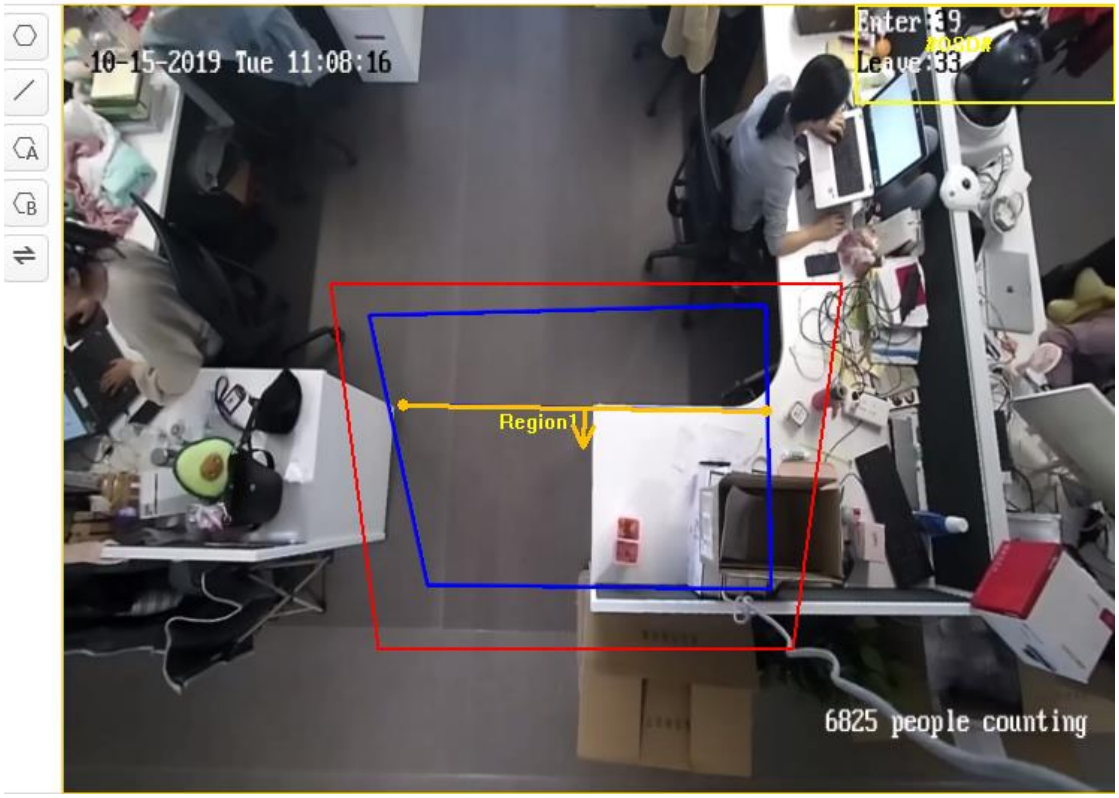
NOTE: The rule frame should be within red counting frame.

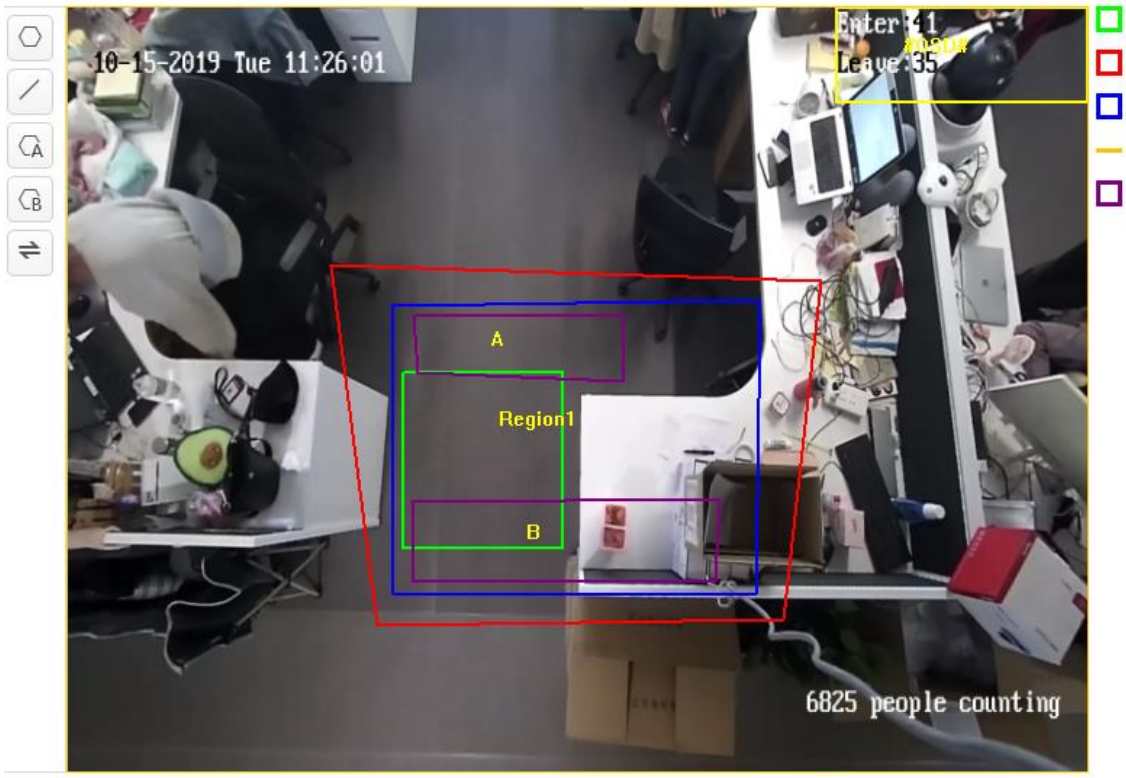
© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.



Step 4: Draw detection line (the yellow line as shown in the below picture) or detection region.
Detection Line: the yellow line should be within the blue detection region.
Detection Region: Draw A and B region. Make sure the two areas don't overlap. If the target enters from A region to B region, then it is counted as the entering number; If the target enters from B region to A region, then it is counted as the exiting number.

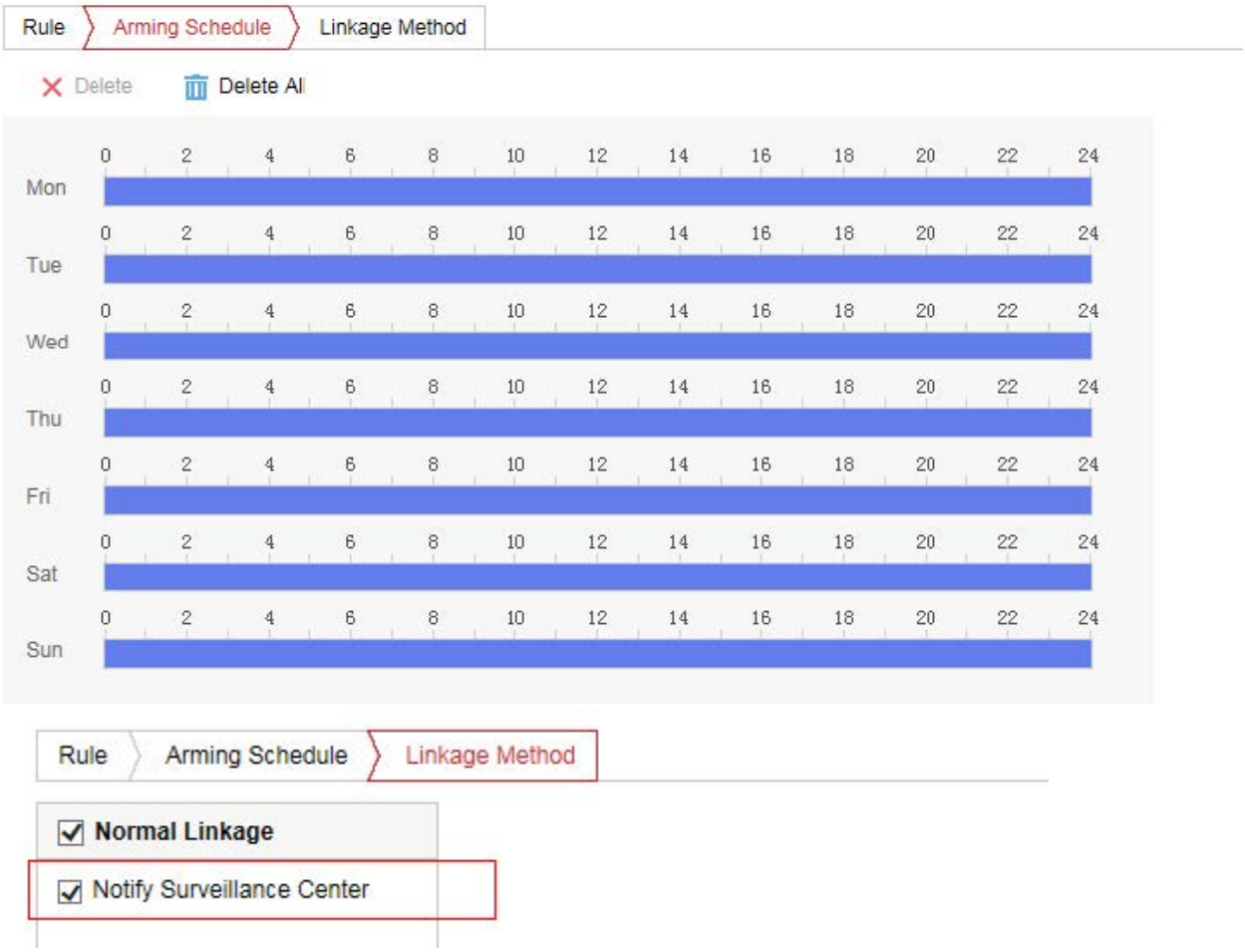
© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.





© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.
No.555 Qianmo Road, Binjiang District, Hangzhou 310052, China • Tel: +86-571-8807-5998 • Fax: +1 909-595-0788
E-Mail: support@hikvision.com • www.hikvision.com

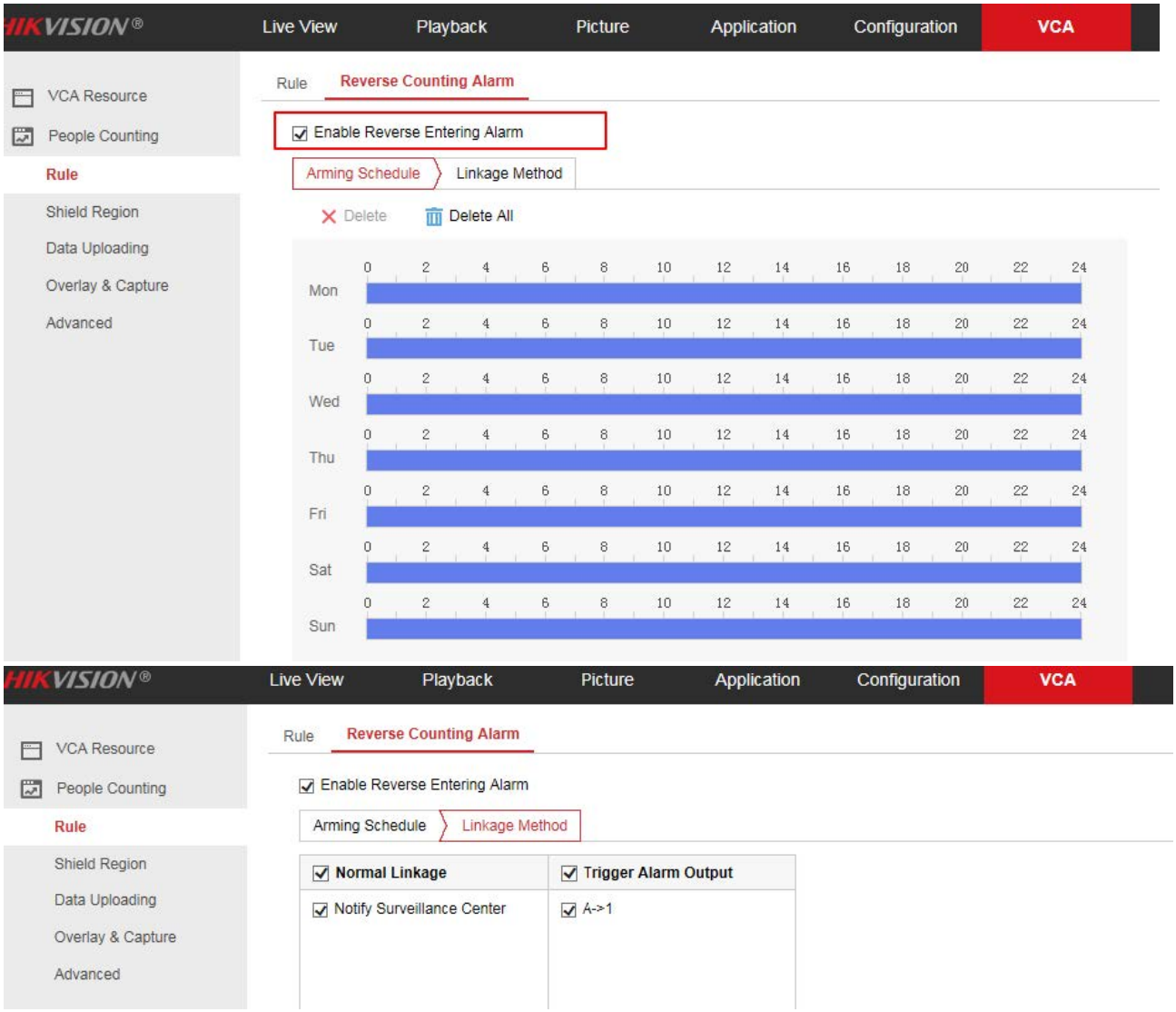
Step 5: Save it after finishing the configuration. Set the Arming schedule and linkage method.



3.1.3 Reverse Counting Alarm

Set reverse counting alarm (optional). Check Enable Reverse Entering Alarm to enable the function. An alarm is enabled when the target leaves the region. Set the arming schedule and linkage method.

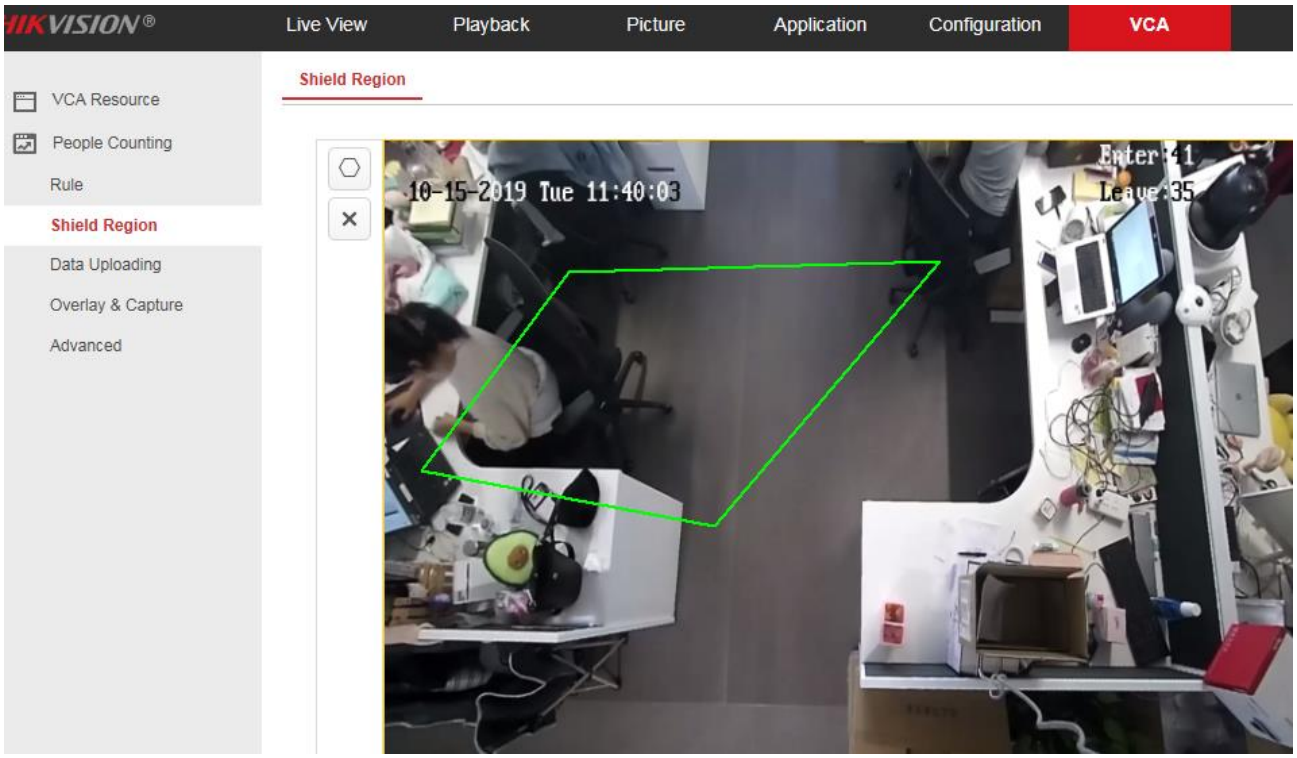
© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.



3.1.4 Shield Region

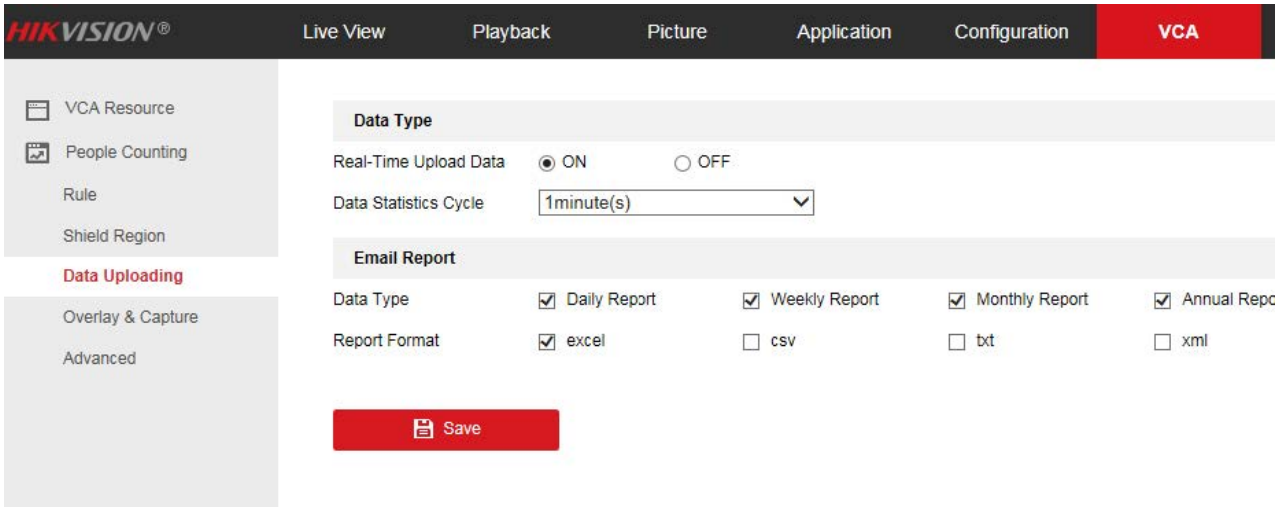
If you don't want to count people of the specific area, you can draw the area as shield region.

© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.



3.1.5 Data Uploading

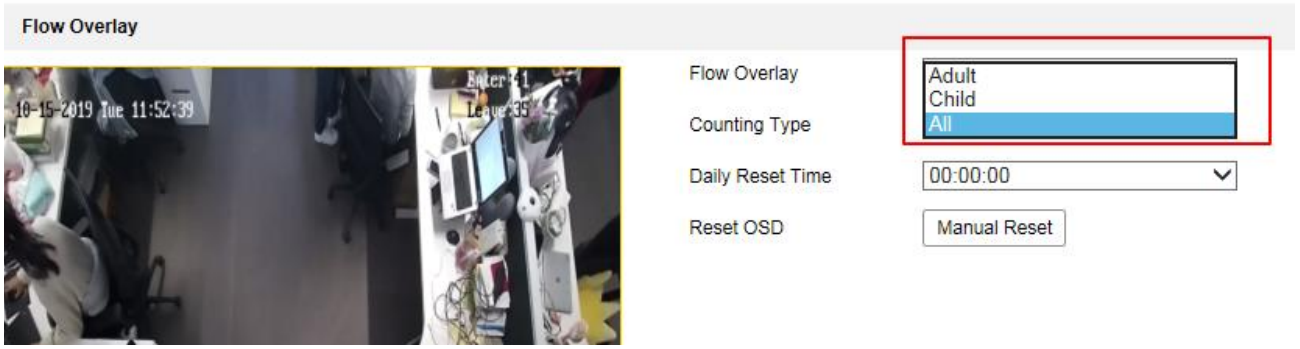
1) Enter 【VCA】-【People Counting】-【Data Uploading】
2) If you want to upload the real-time data to the platform, select real-time Upload Data as "ON''.
3) If you want to adjust the statistic cycle manually, set data statistics data as required. 1/5/10/15/20/30/60 minutes are optional.
4) We can send the report via email, the data type includes Daily/Weekly/Monthly/Annual report. The report format includes excel/csv/txt/xml.



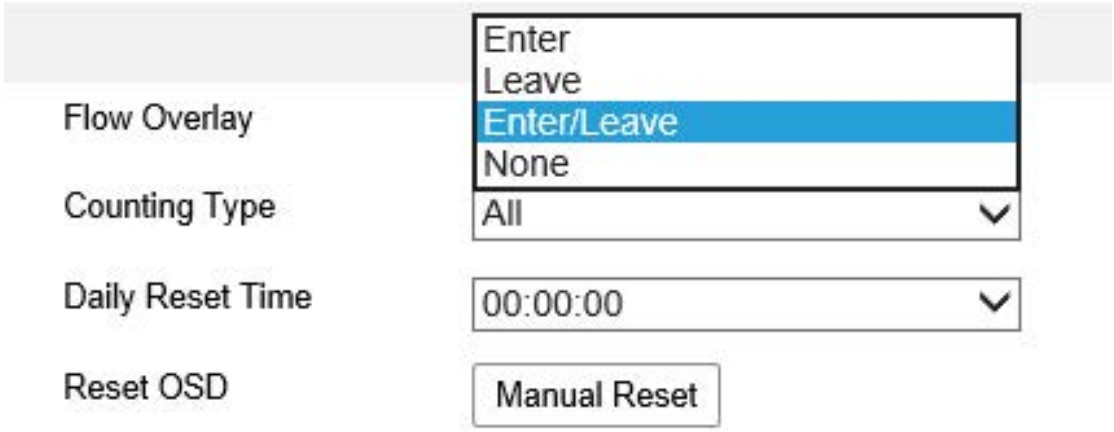
© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.

3.1.6 Overlay & Capture

1) **OSD Overlay:** It supports display the real-time counting information in the live view image. Enter, Leave, Enter/Leave and None are optional.
2) **Counting Type:** Adult, Child and All are optional.

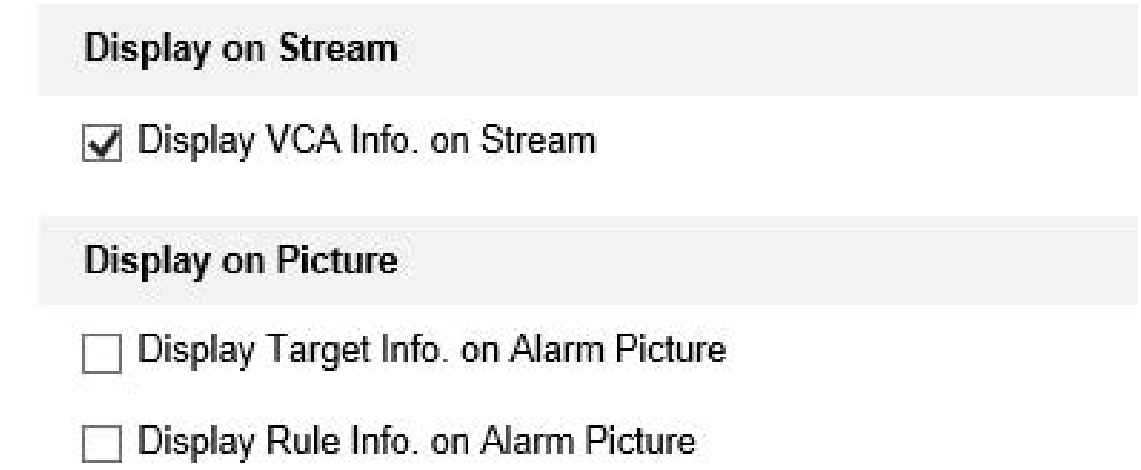


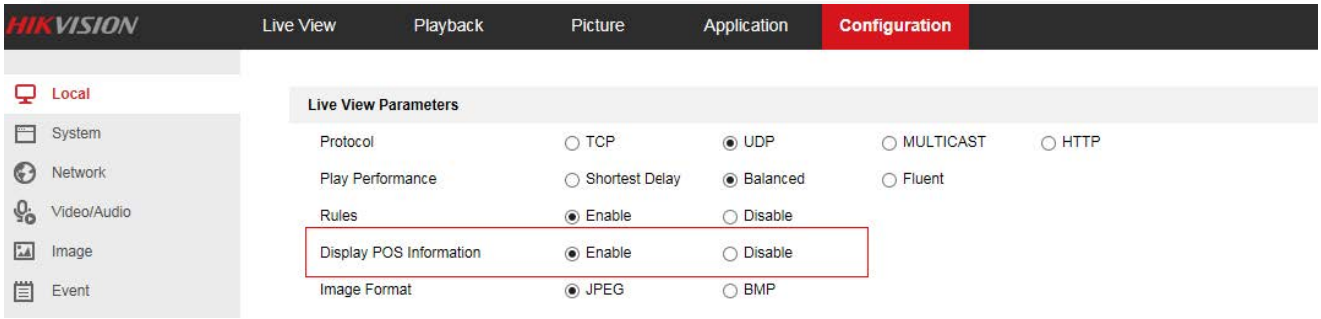
3) **Daily Reset Time/Rest OSD:** To reset the counter, you can set up a daily reset time. Or you can reset the OSD counter manually by click Manual Reset.



4) **Display VCA Info. on Stream:** It will display the ID number and height information of tracking people on stream after enabling it. The recording file will overlay these information and it can be checked via VS Player. It should enable the function of Display POS Information in the below path: 【configuration】-【Local】if we want to see these information in the live view image.

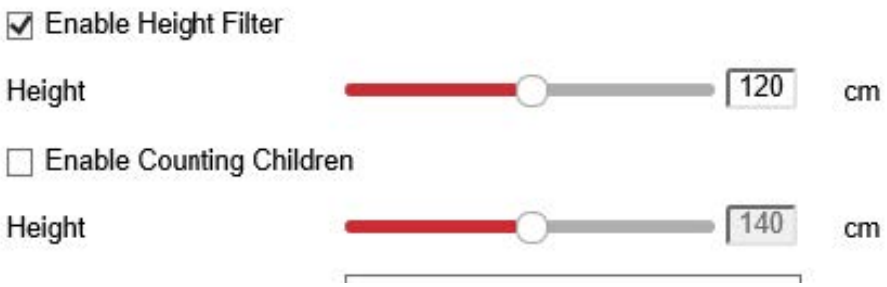
© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.





3.1.7 Advanced Parameter

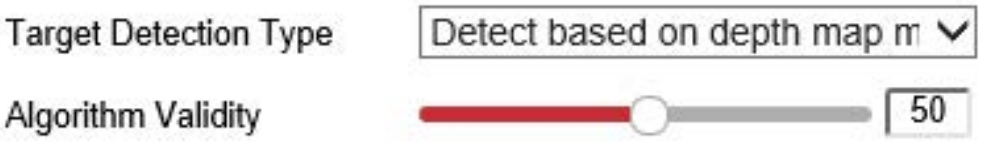
1) **Height Filter:** Enable the function and set a height value. Persons and objects shorter than the set value are not counted as a valid target. Also this camera support counting Children.



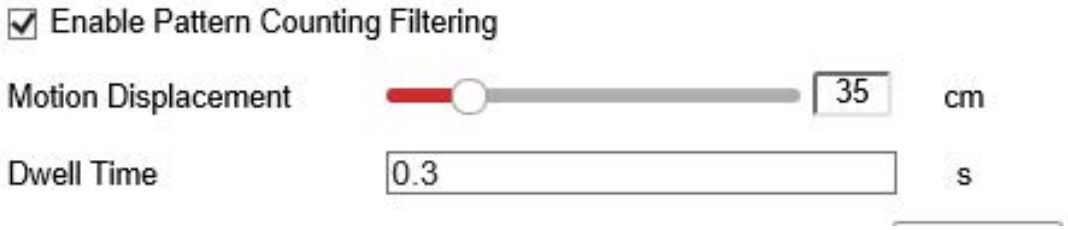
2) Target Detection Type/Algorithm Validity:

There are four type of target detection: Detect based on the tracking algorithm only; Depth map only; Tracking algorithm mainly and depth map secondarily; and depth map mainly and tracking algorithm secondarily. It is recommended to use default type.
Algorithm Validity: The bigger the numerical value, the stricter the object detection requirements are. It is recommended to use default values.

© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.



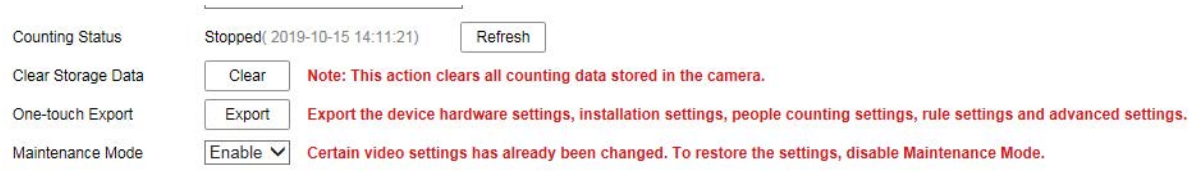
3) **Pattern Counting Filtering:** Targets less than the set value of motion displacement and residence time are not counted. It is recommended to use default values.



4) **Counting Status:** It displays the current status of the camera. There are three types optional: Counting, Stopped, Pause counting. You can click Refresh button to refresh the status.

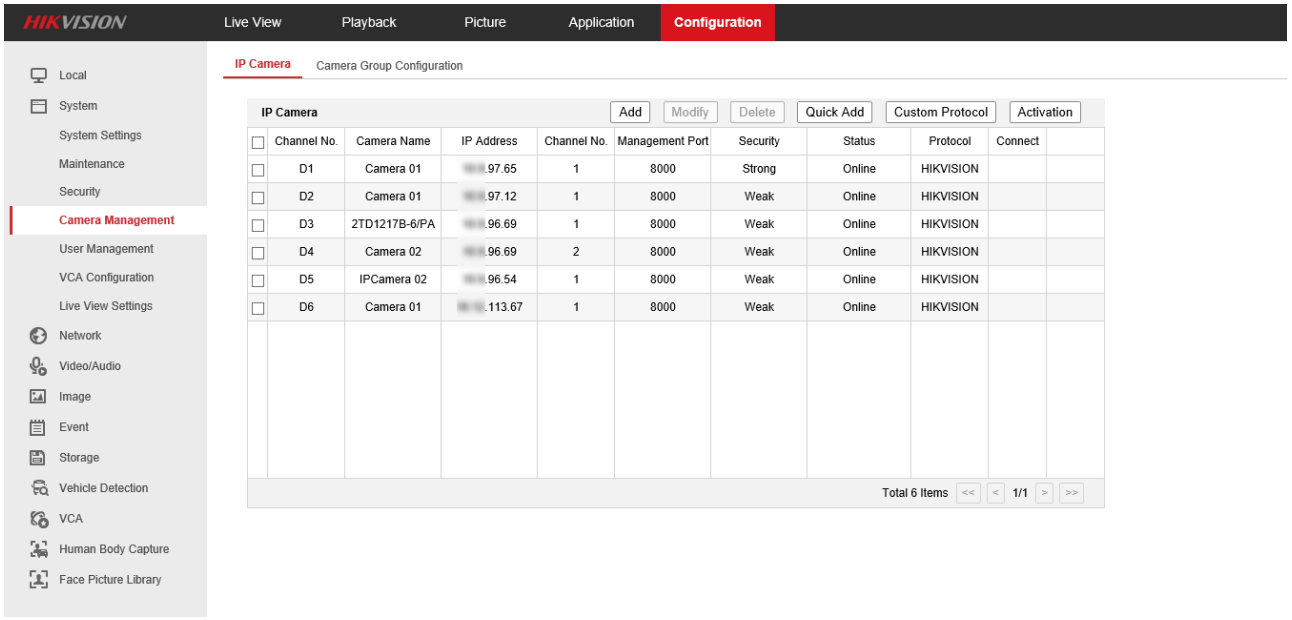
Counting: Count normally.
Stopped: Disable people counting function.
Pause counting: The scene is too dark.

5) **Clear Storage Data:** To clear stored data on camera, you can click the Clear button. Always do the operation with caution. Deleted data cannot be restored.
6) **One-touch Export:** Export the device hardware settings, installation settings, people counting settings, rule settings and advanced settings.
7) **Maintenance Mode:** If the function is enabled, certain camera settings will be changed, such as the resolution, frame rate and bit rate. When we need collect the video clip for the issue analyse, it is necessary to enable the maintenance mode.



3.1.8 Complete the camera configuration, add camera to NVR.

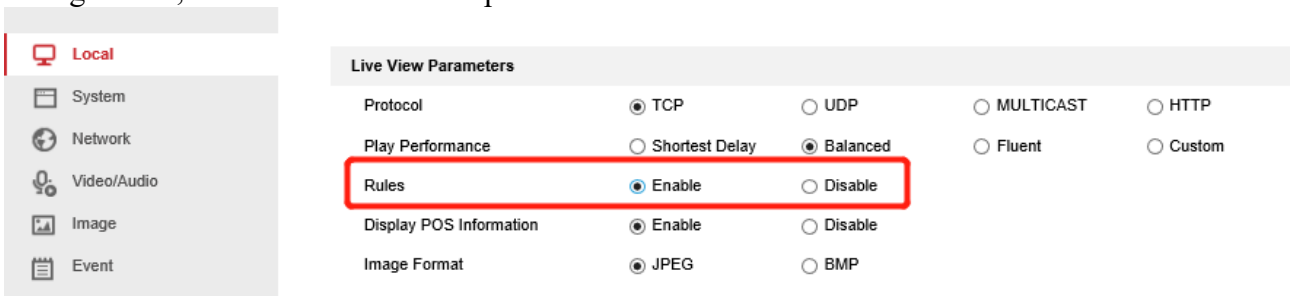
© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.



3.2. People counting rule configuration (iDS 7series Face Counting Camera)

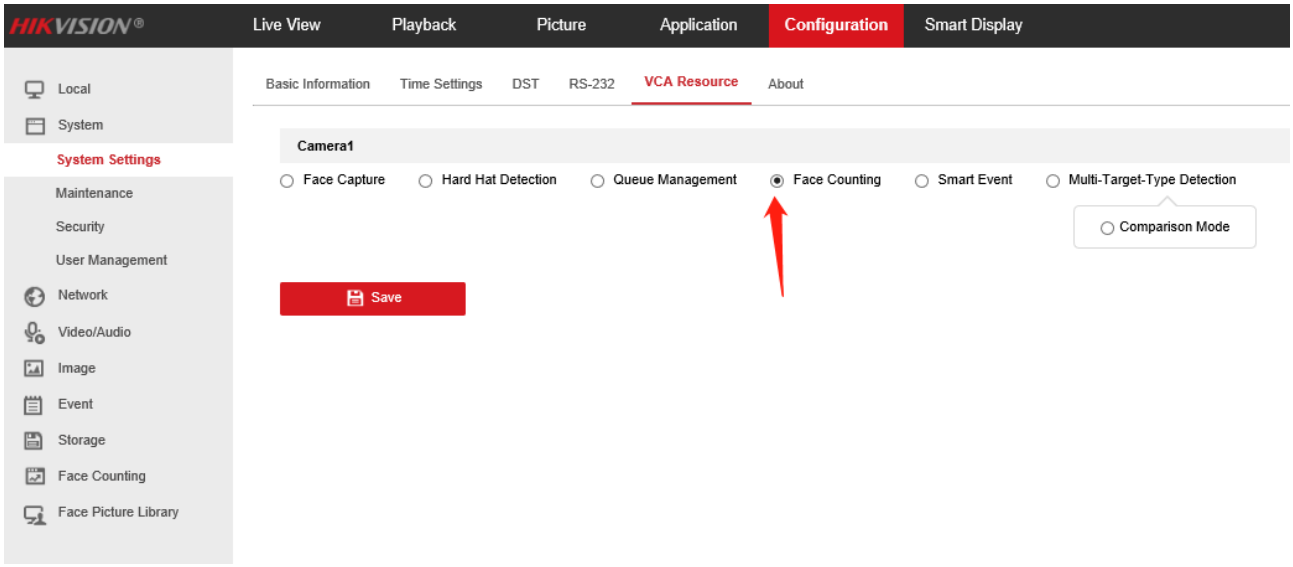
3.2.1 Configure the parameter via IE browser

Step 1: Enter [configuration]-[local], Enable [Rules]. Then Click “Save” when finishing the configuration, as shown in the below picture

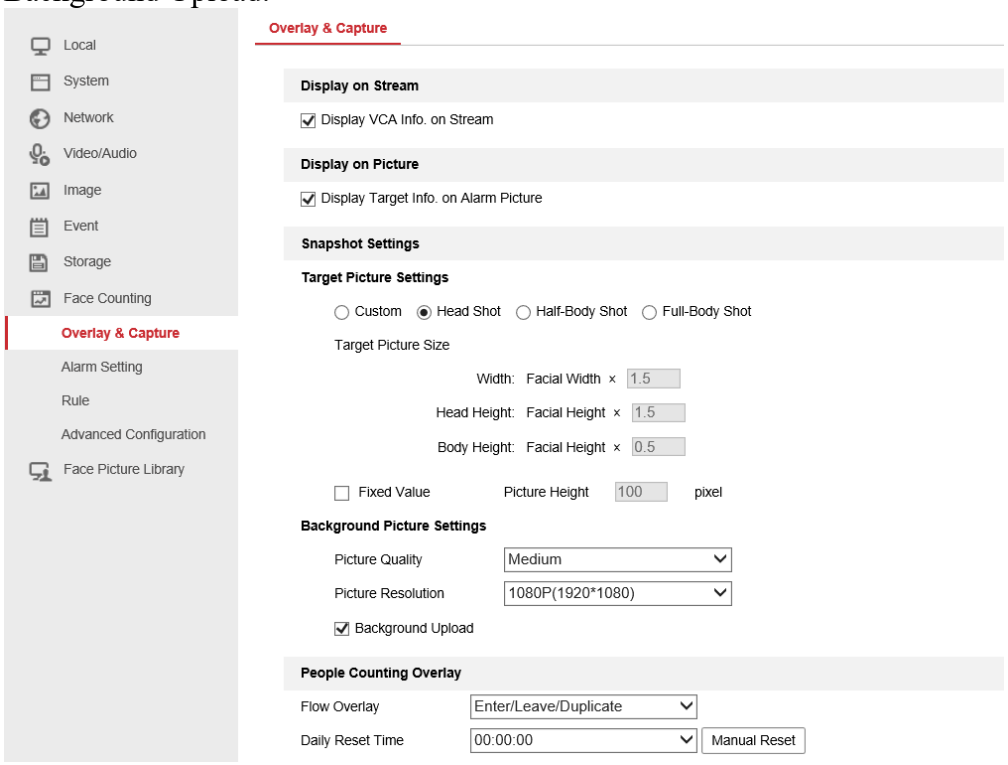


Step 2: Go to [System]-[System Settings]-[VCA Resource]. If the VCA resource is not Face Counting mode, switch to Face Counting mode. Switch VCA resource will take effect after reboot.

© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.



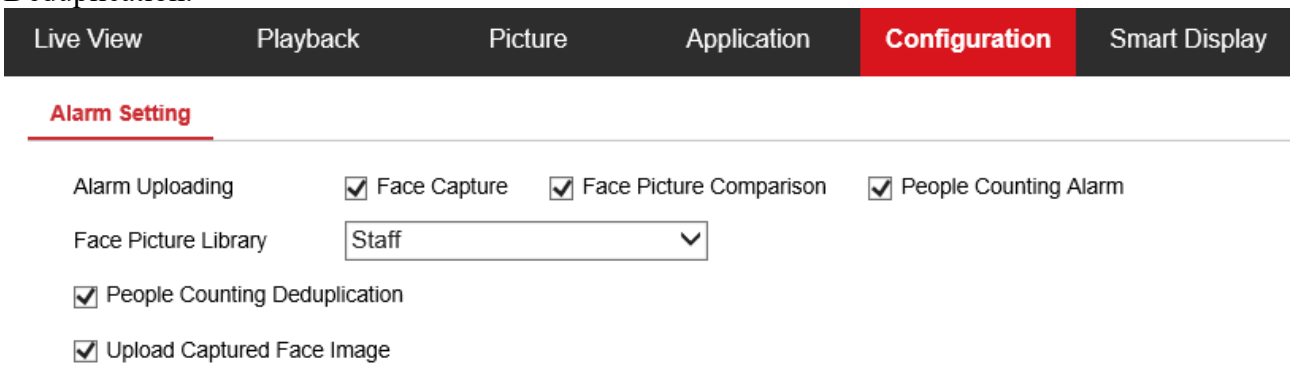
Step 3: Go to [Face Counting]-[Overlay & Capture] – [Background Picture Settings]. Enable Background Upload.



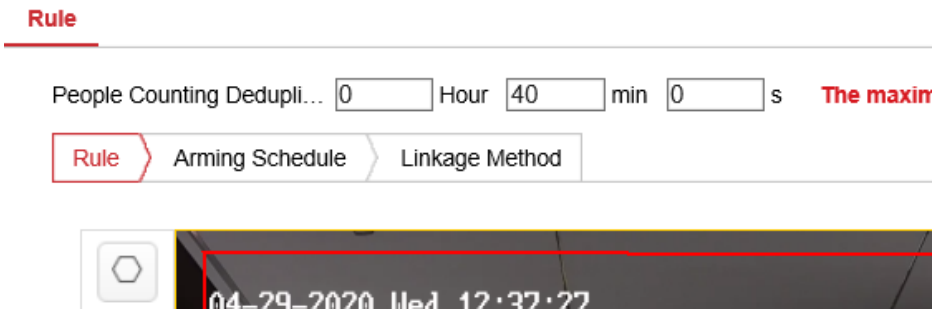
Step 4: Go to [Face Counting]-[Alarm Setting]-[Alarm Uploading]. Enable the People Counting Alarm. Enable the other alarms if you want.

© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.

Step 5: Go to [Face Counting]-[Alarm Setting]-[Face Picture Library]. Select the target face picture library that you want to remove directly from face counting. Then enable the People Counting Deduplication.

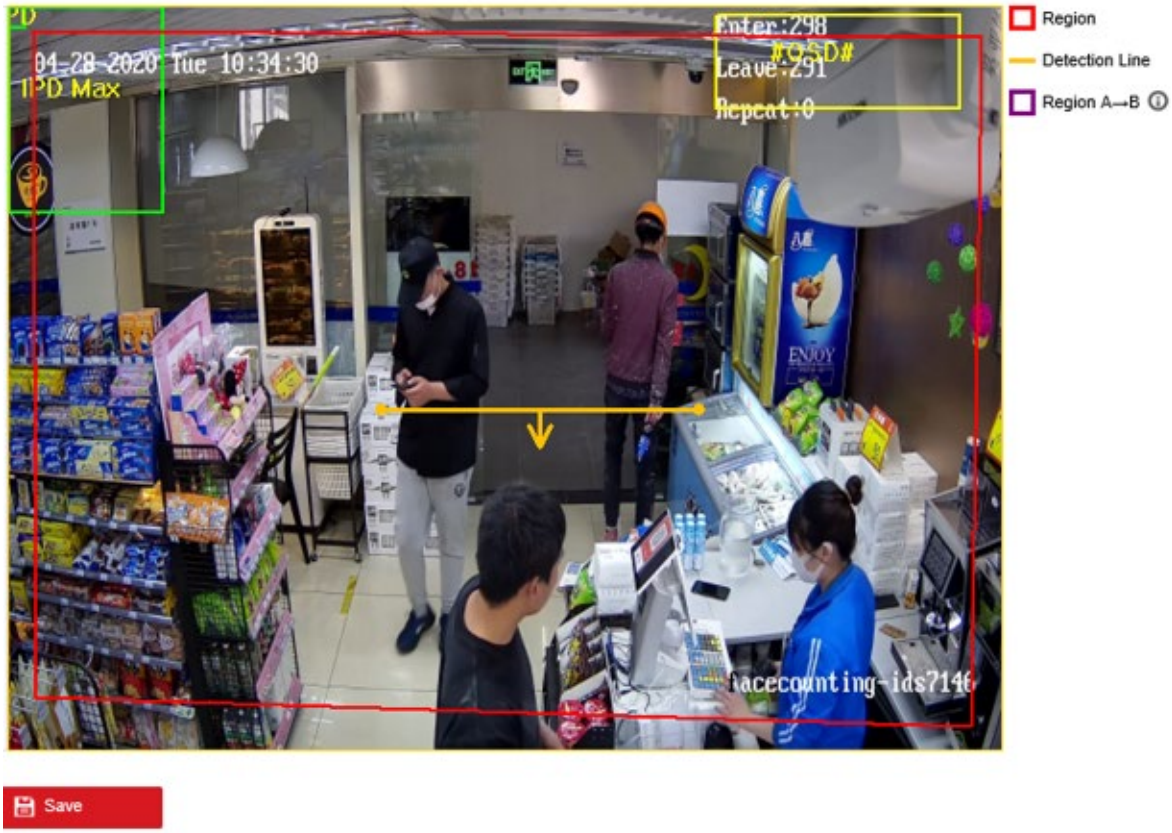


Step 6: Go to [Face Counting] – [Rule]. Adjust People Counting Deduplication time as the scenario needs.



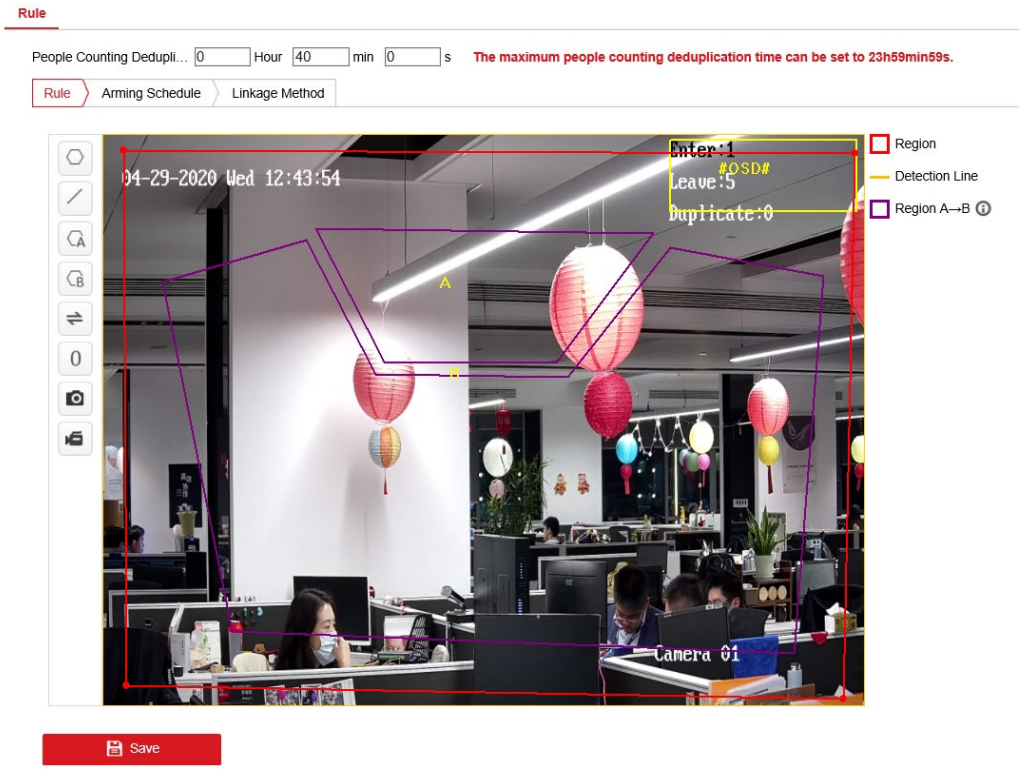
Step 7: Draw the rules and read the descriptions below.

© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.



In the detection scene, there may be situations where the target side enters the scene without passing through the trigger line. The detection method of area A and B can solve this problem.

© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.



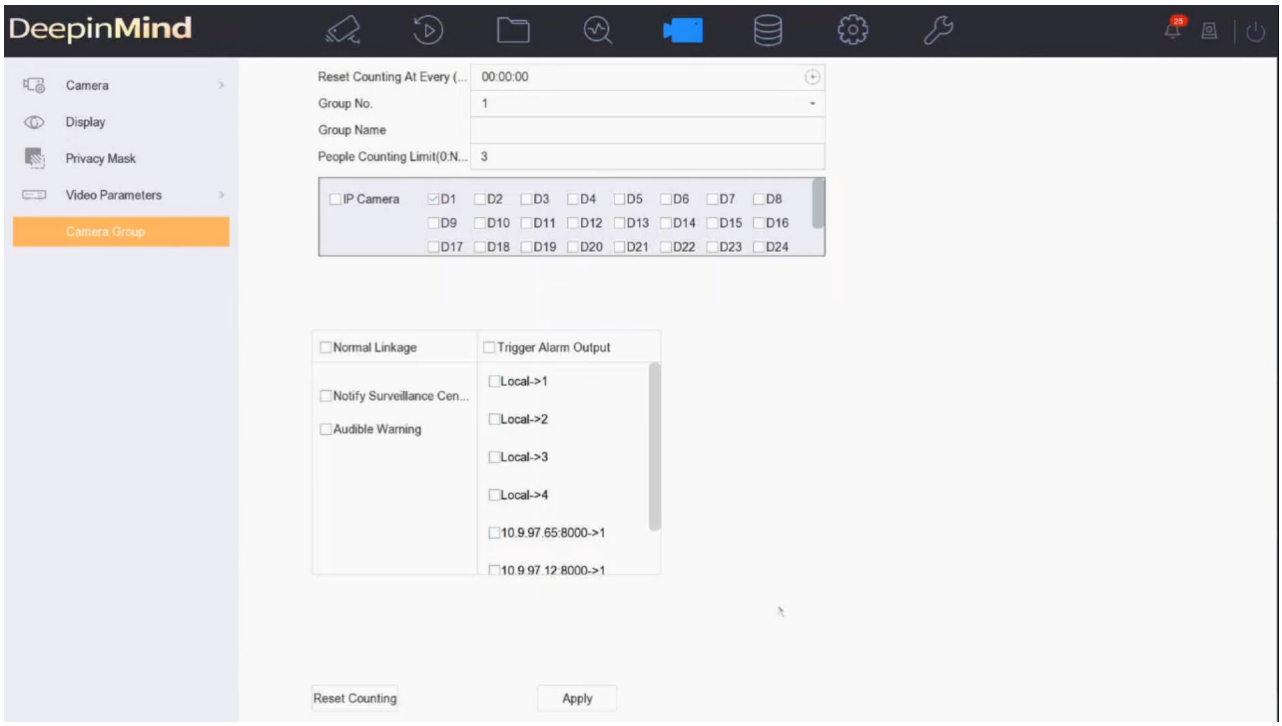
3.3. People Flow Control Configuration

Go to NVR's local GUI, Camera→Camera Group, select the people counting camera you want to control people flow.

People Counting Limit is set for maximum number of people entering the area.

If you select more than one camera in a camera group, the people counting limit will be the sum of all cameras you selected.

© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.



Click “Apply” to make the configuration effective.

4.1 GUI application

4.1.1 People flow control

Click button on left bottom of live view, go to “ATTENTION” interface. It shows how many people already inside and how many can still enter.

© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.

No.555 Qianmo Road, Binjiang District, Hangzhou 310052, China • Tel: +86-571-8807-5998 • Fax: +1 909-595-0788
E-Mail: support@hikvision.com • www.hikvision.com

If the number of people in the area exceeds the set "People Counting Limit", the interface will turn red and trigger an alarm.

© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.

See Far, Go Further

HIKVISION Technical Support

© Hangzhou Hikvision Digital Technology Co.,Ltd. All Rights Reserved.
No.555 Qianmo Road, Binjiang District, Hangzhou 310052, China • Tel: +86-571-8807-5998 • Fax: +1 909-595-0788
E-Mail: support@hikvision.com • www.hikvision.com