
# ANPR Quick Guide via NVR

# 1 Introduction

Vehicle Detection is available for the road traffic monitoring. The vehicle detection detects the passed vehicles and captures the license plates. The detection triggers a series of actions, including notify the surveillance center, upload the captured picture to FTP server, etc.

***Note:*** *Road traffic function varies according to different camera models. And, Mixed-traffic Detection (detecting pedestrian, non-motor vehicle and motor vehicle) is also available for some certain regions.*

## 1.1 Version Information

1. Camera versions that support ANPR
   V5.3.3 build 150610.
   V5.2.7 build 150409.
2. NVR versions that support ANPR
   V3.3.0 and above.

# 2 Vehicle Detection Configuration via NVR

## 2.1 Vehicle Configuration via web

### 2.1.1 Detection Configuration

1. Login IPC via web browser and make sure the firmware version supports ANPR.
2. VCA resource can be efficiently allocated to get a better performance. Two modes of VCA resource allocation are supported: Smart Event and Vehicle Detection.
   Go to ***Configuration-> Advanced Configuration-> System -> VCA Resource***
   Select ***Vehicle Detection*** for the VCA resource allocation. Reboot the device to activate the new settings.
   ***Note:*** *When Smart Event is enabled, the Vehicle Detection function is disabled; When the Vehicle Detection is enabled, high frame rate, recording on SD card or NAS/CIFS, some certain smart events and people counting are not supported (see the actual operation interface for details).*

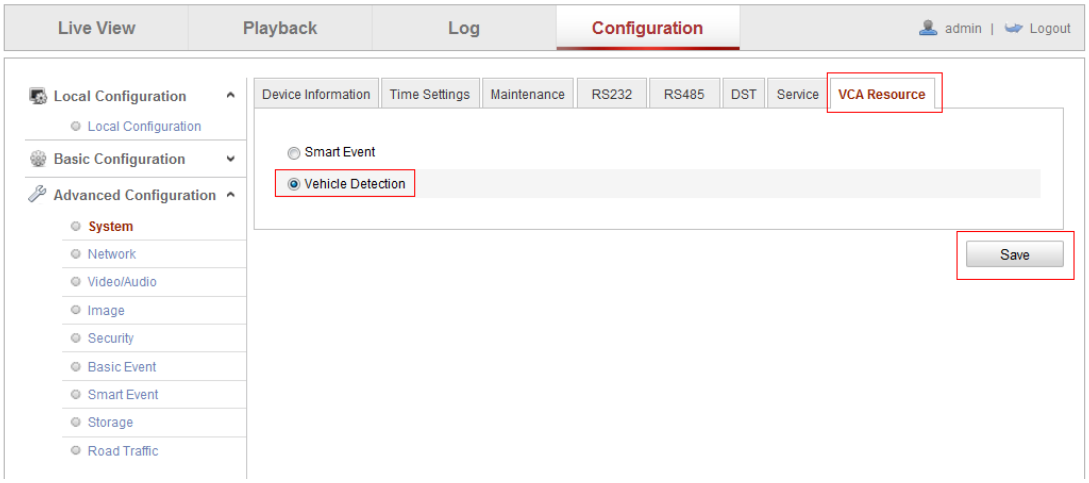


Fig.1 VCA Resource Allocation

3. Then login to NVR and go to ***Vehicle Detection*** option. Select the detection type from the list.

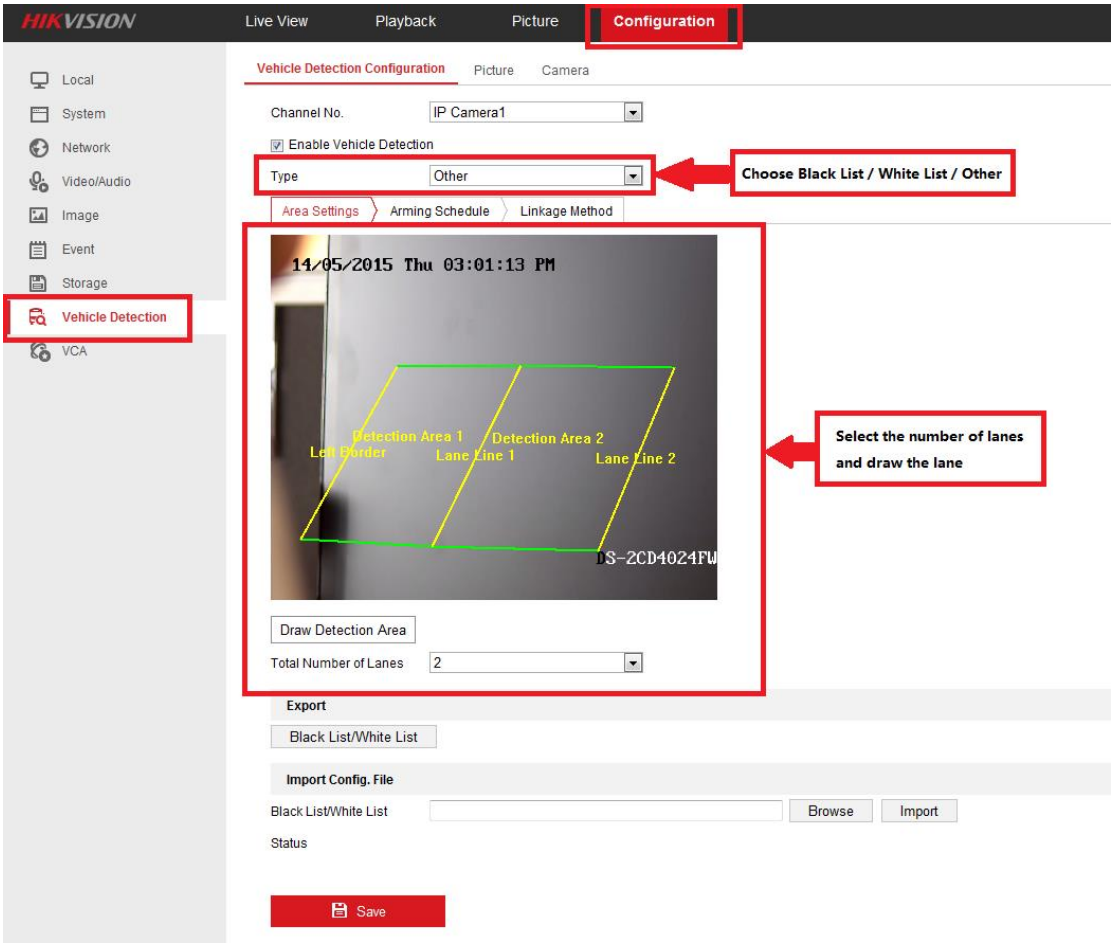


Fig.2 Vehicle Detection in NVR's Configuration Page

4. Enable the selected detection function. Then select the lane number in the corresponding dropdown list. Up to 4 lanes are selectable.
5. Click and drag the lane line to set the position, or click and drag the line end to

adjust the length and angle.

***Note:***

*Only 1 license plate can be captured at one time for each lane.*

6. Set the Arming Schedule for Vehicle Detection. To edit the arming schedule, click ***Arming Schedule*** button.

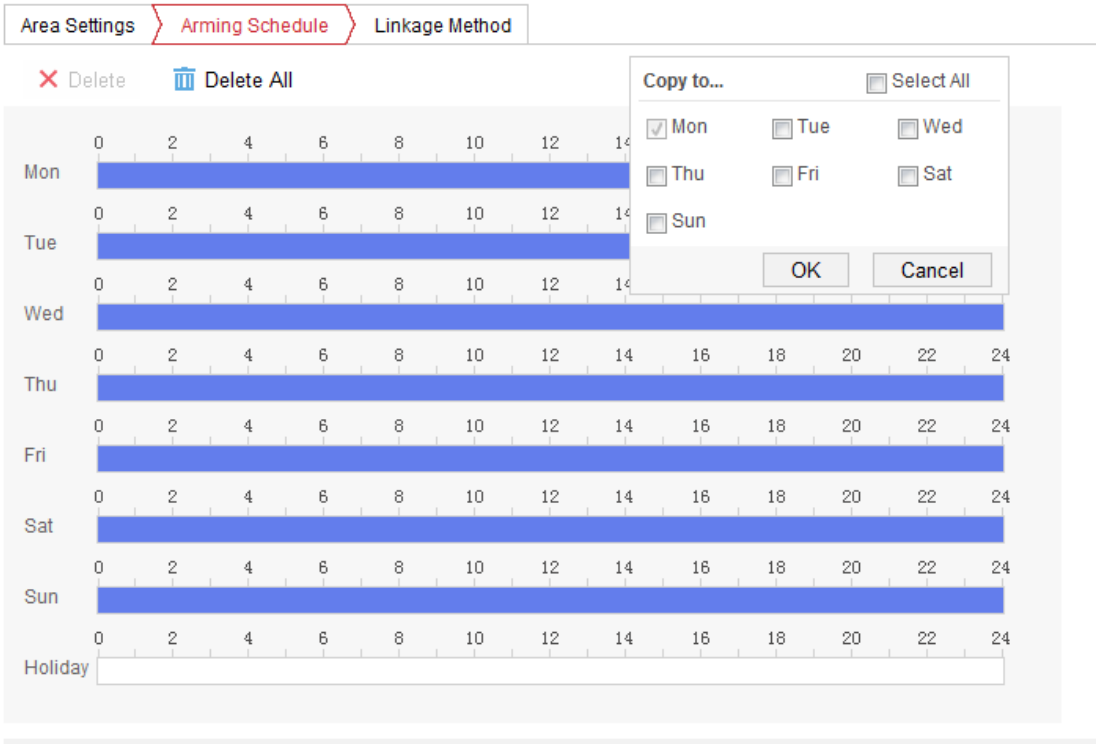


Fig.3 Configuration of Arming Schedule

***Note:***

*The time of each period cannot be overlapped.*

7. Check the checkbox to select the linkage method.

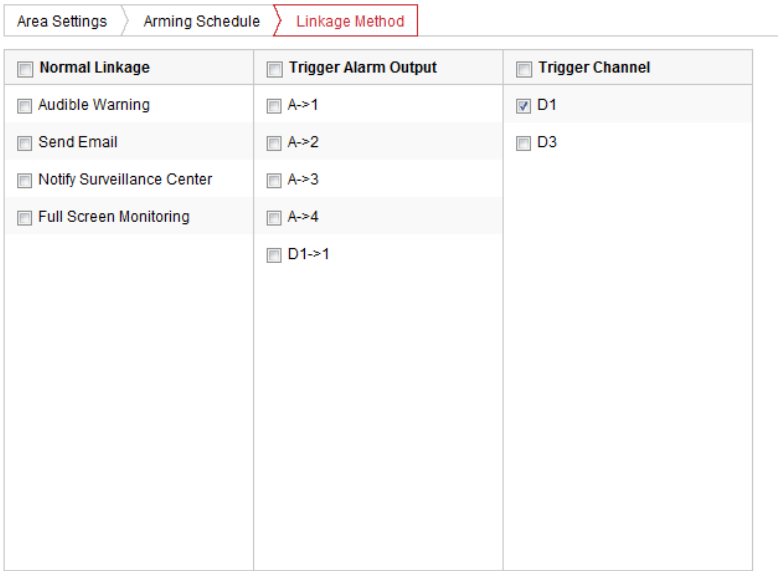


Fig4. Linkage Method Configuration

***Notify Surveillance Center***:
Send an exception or alarm signal to remote management software when an event occurs.

8. Click the ***Save*** button to activate the settings.

### 2.1.2 Uploaded Picture Configuration

1. Set the picture quality

Either Picture Quality or Picture Size can be set to specify the picture quality.

2. (***Optional***) Enable and edit the text overlay on the uploaded picture.

You can set the font color and background color by clicking the desired color in the popup palette.

3. Select the information for the text overlay, including ***camera No., camera info, device No., capture time, plate No.,*** etc. You can also click the up and down direction buttons to adjust the sequence of the text.
4. Click ***Save*** to save the settings.

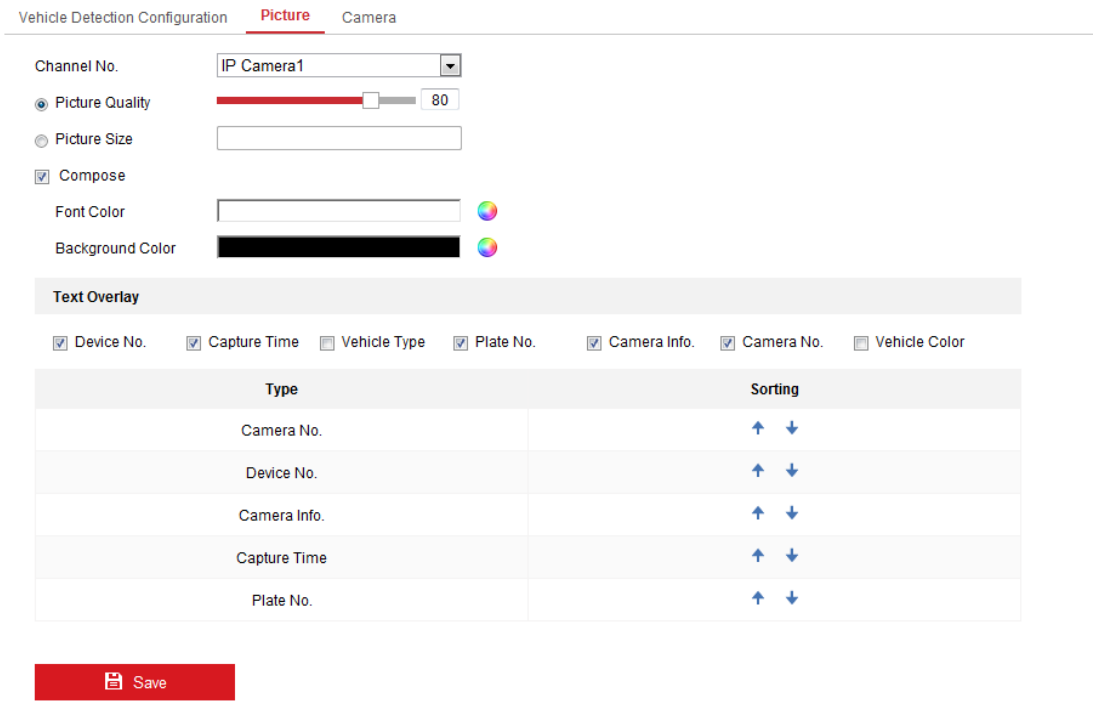


Fig5. Uploaded Picture Configuration

### 2.1.3 Overlay Content Configuration

1. Edit the content of the ***camera No.***, ***camera information*** and ***device information*** in the corresponding text filed.

(***Optional***) Enable and edit the text overlay on the picture to upload.

2. Click the ***Save*** button to activate the settings.


Fig6. Overlay Content Configuration

## 2.2 ANPR Configuration on Local NVR

### 2.2.1 Add device

Go to ***Menu->Camera***, and add the camera into the NVR.


Fig7. Add IPC to the NVR

### 2.2.2 ANPR Configuration on Local NVR

1. Go to ***Menu->Camera->VCA->Rule Settings***, choose the ***Lane number*** as you want.

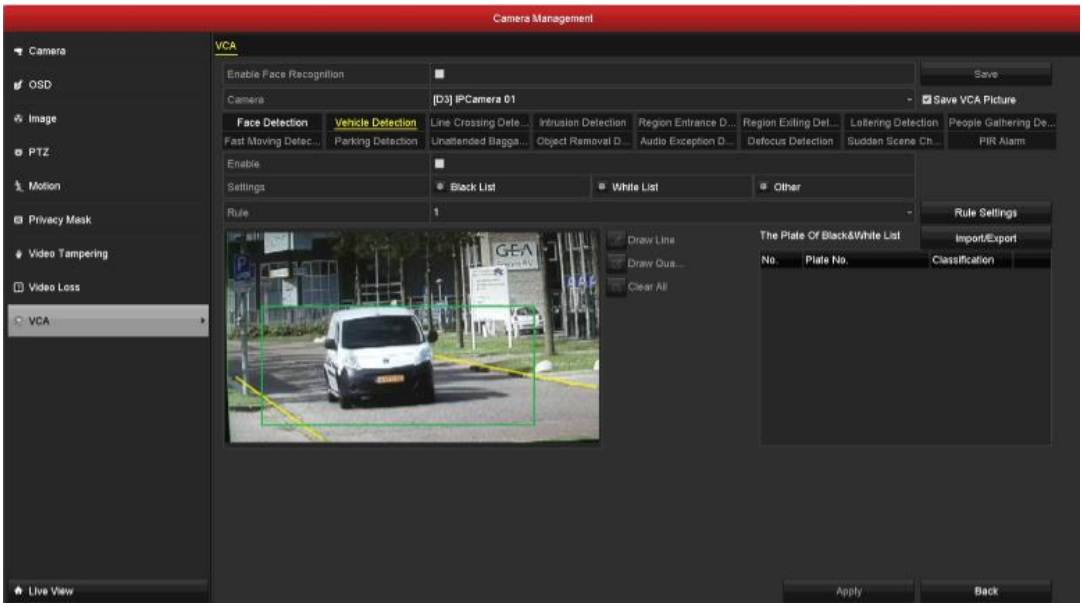


Fig8. NVR Menu - VCA

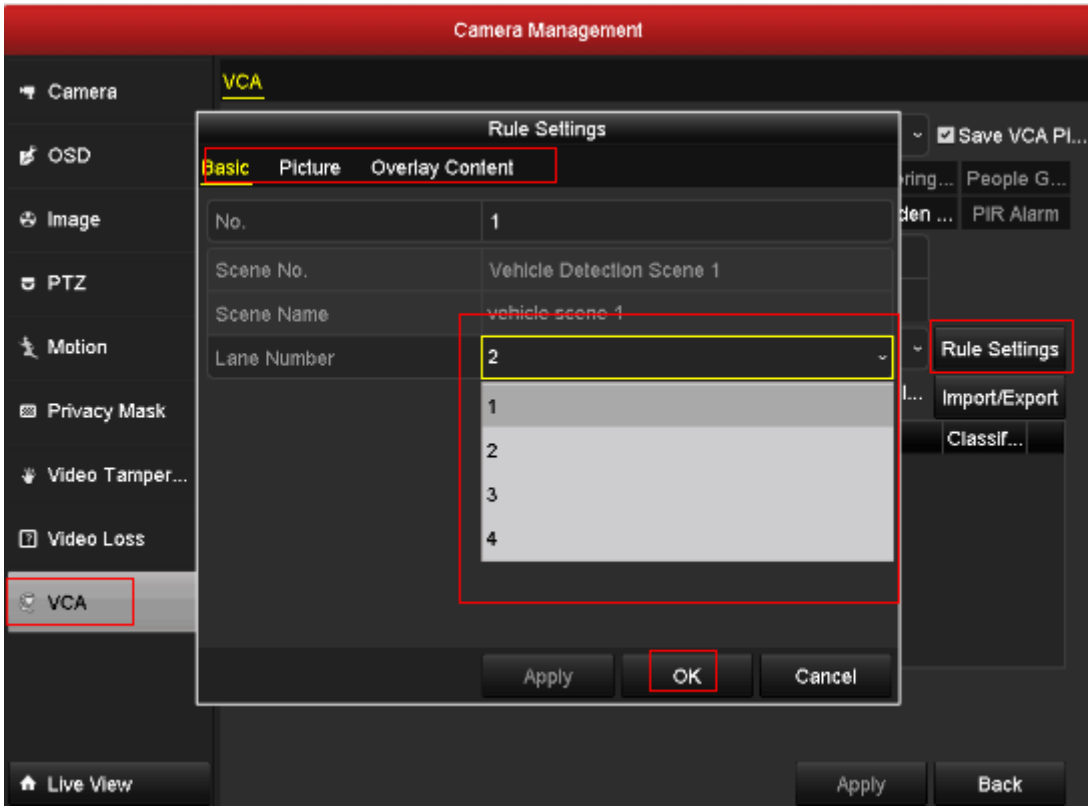


Fig9. NVR menu – Rule Settings

2. Go to ***VCA->Picture*** and ***VCA->Overlay Content***, configure the parameter as follows.


Fig10. Picture Configuration

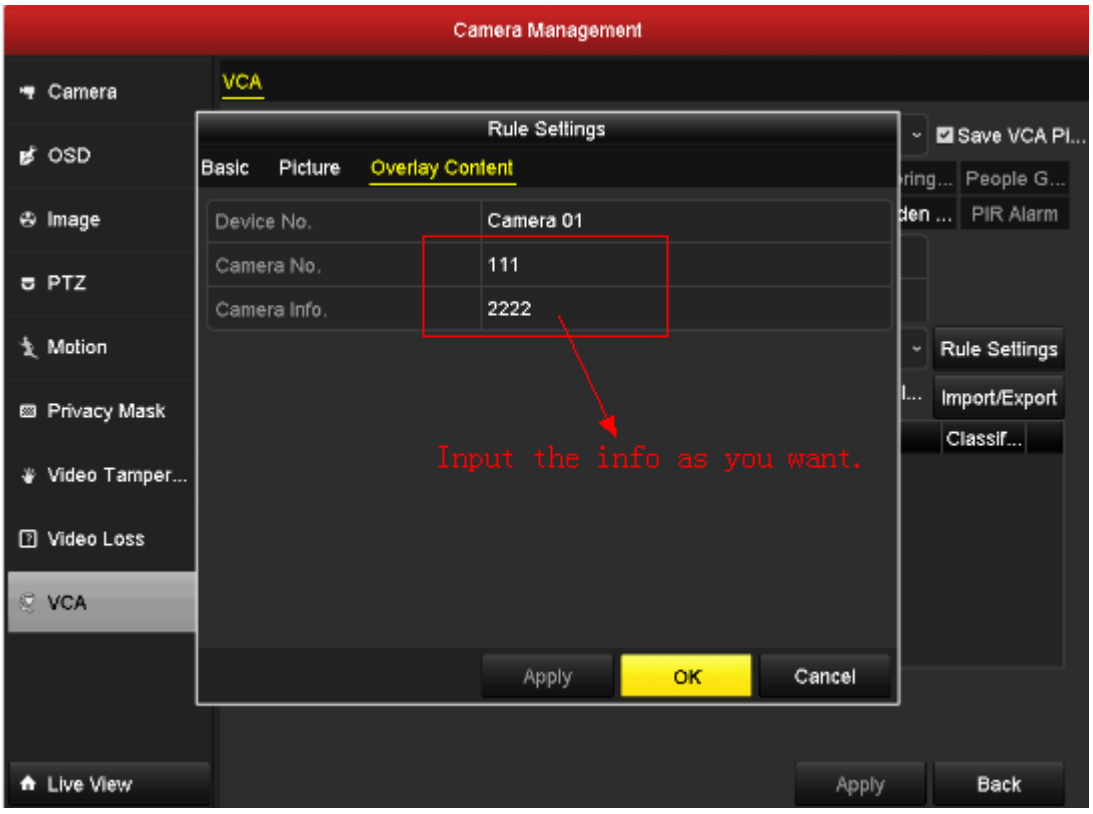


Fig11. Overlay Content Configuration

3. Go to ***VCA->Others***, configure the ***Trigger channel/Arming Schedule*** and set the ***Linkage Action***.

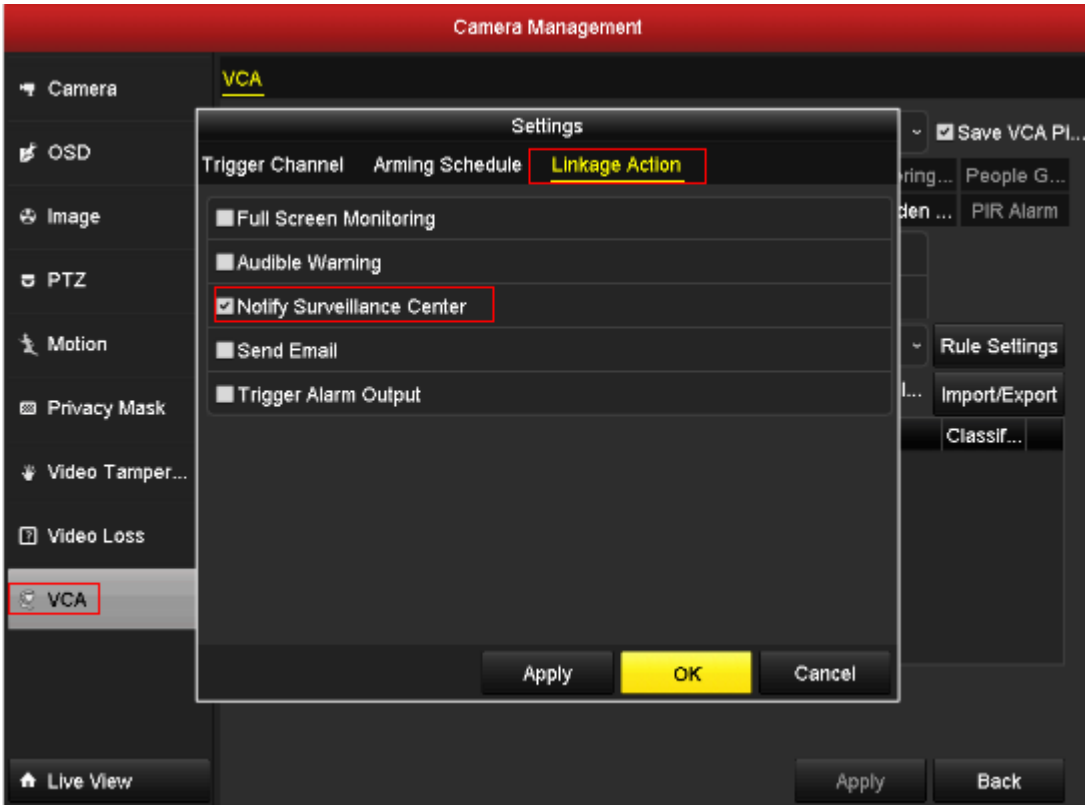


Fig12. Linkage Action Configuration

## 2.2.3 Blacklist and Whitelist Management

1. Edit the Blacklist and Whitelist file (e.g., black-white.xls) on computer as follows, and copy the file to a USB storage device.

| | A | B | C |
|---|---|---|---|
| 1 | No | Plate Num | Group(0 black list, 1 white list) |
| 2 | 1 | 02RTL3 | 0 |
| 3 | 2 | 32XBZZ | 1 |
| 4 | 3 | 38SB6 | 0 |
| 5 | 4 | 32XBZZ | 1 |
| 6 | 5 | 8STL42 | 0 |
| 7 | 6 | 5SFT88 | 1 |
| 8 | 7 | KLETP407 | 0 |
| 9 | 8 | 41SJT2 | 0 |
| 10 | 9 | 7VLP4F | 0 |
| 11 | 10 | 4VTG19 | 0 |
| 12 | 11 | 7558H | 0 |
| 13 | 12 | 8KNZ92 | 0 |
| 14 | 13 | 42NSNF | 0 |
| 15 | 14 | VF034P | 0 |
| 16 | 15 | 08BNBF | 0 |
| 17 | 16 | 5OPFT | 0 |

Fig13. Content of black-white.xls

2. Connect the USB storage device to the NVR. Go to ***VCA->Import/Export***, and import the Blacklist and Whitelist.

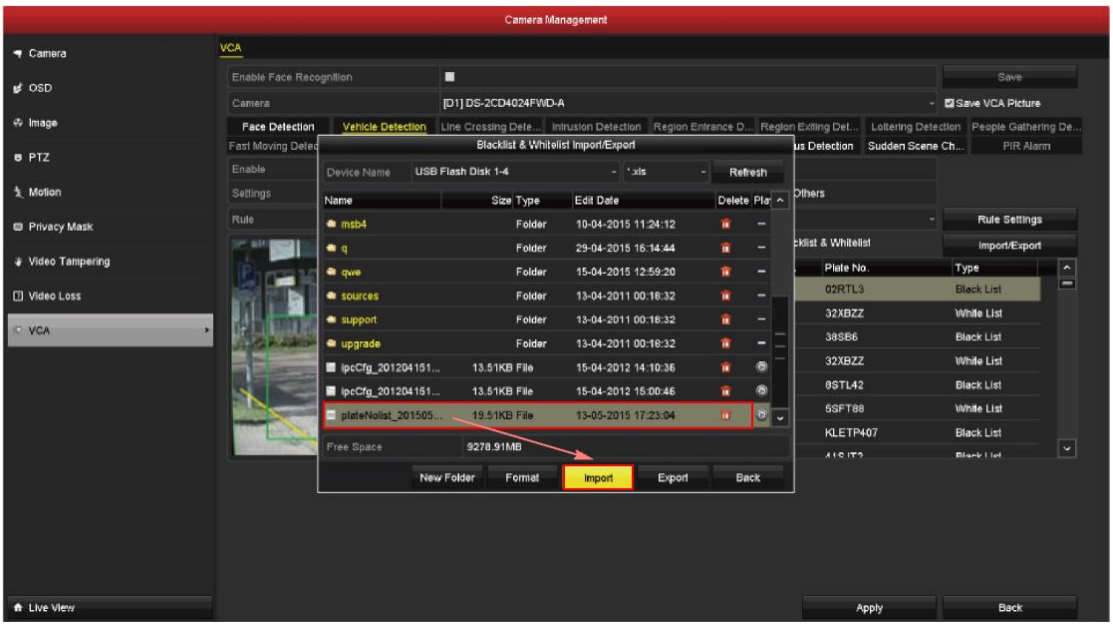


Fig14. Import Blacklist and Whitelist

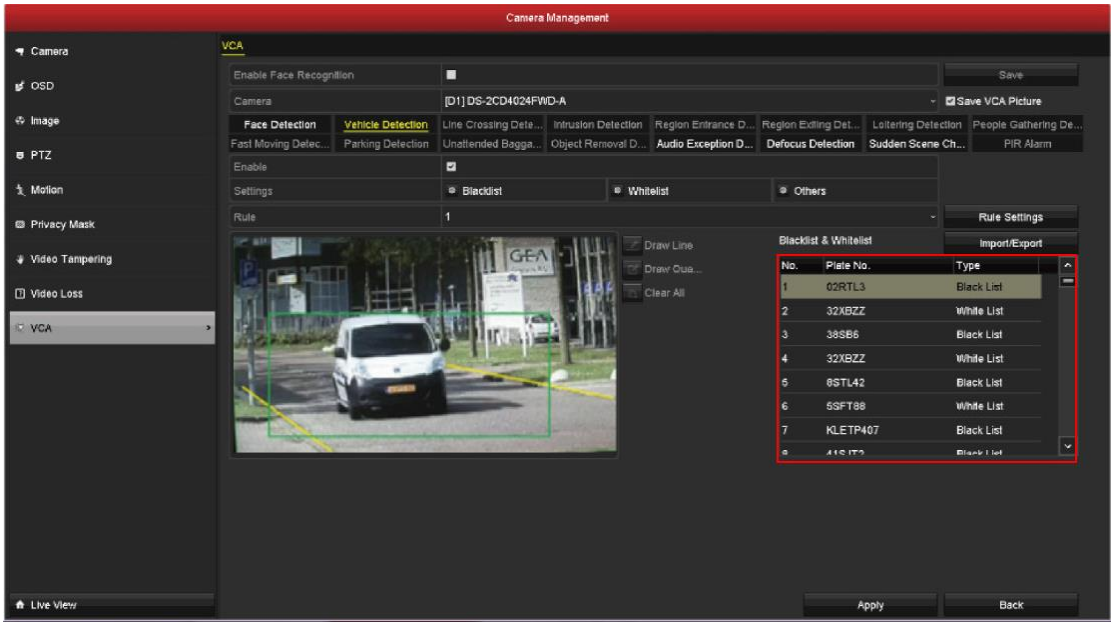


Fig15. Blacklist and Whitelist Imported

3. Connect the USB storage device to the NVR. Go to ***VCA->Import/Export***, and export the Blacklist and Whitelist. You can edit the file on computer.

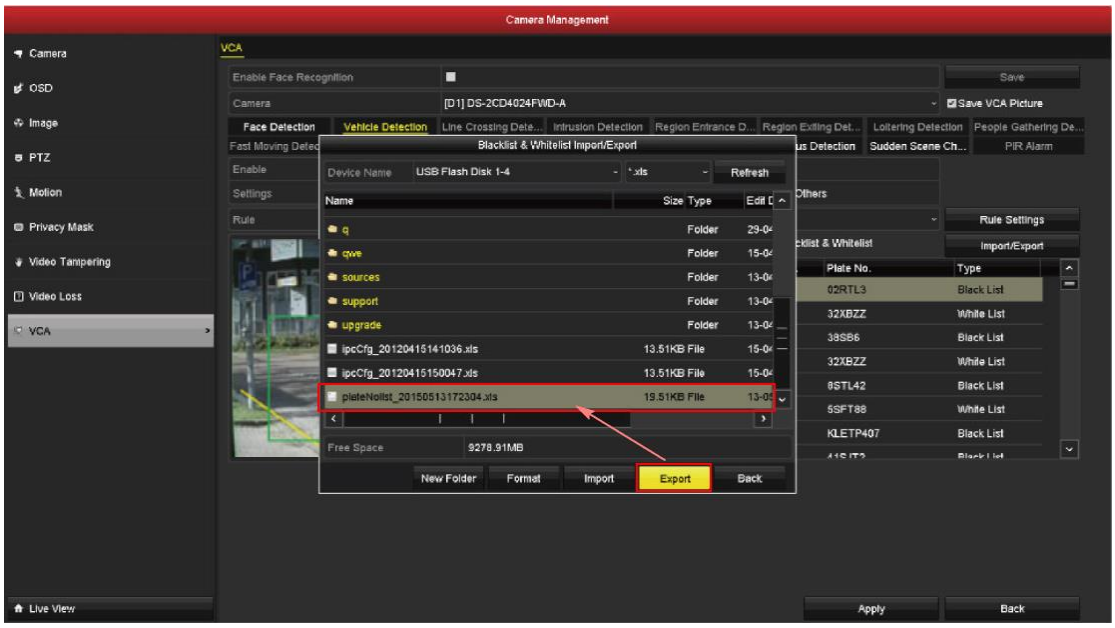


Fig16. Export the Blacklist and Whitelist

4. Go to ***VCA->Blacklist/ Whitelist/ Others***, and configure the Trigger Channel, Arming Schedule and Linkage Actions for the Blacklist, Whitelist and Others.

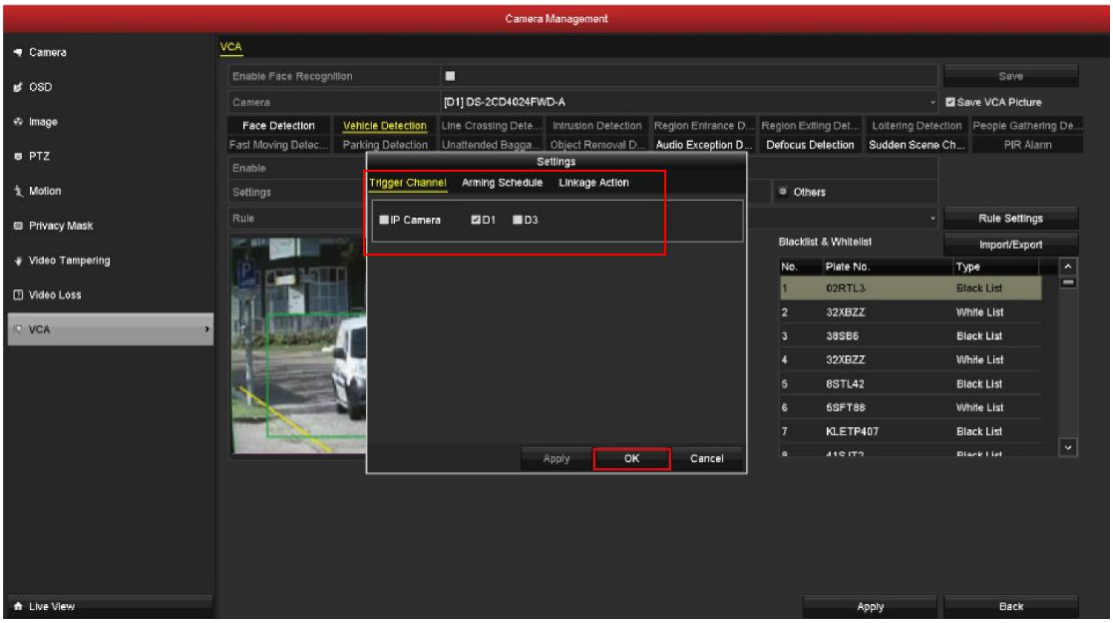


Fig17. Configuration of Trigger Channel

## 2.2.4 Record Schedule

To save the video clip more accurately, users need to configure the record schedule on local NVRs. Please see the detailed configuration below.

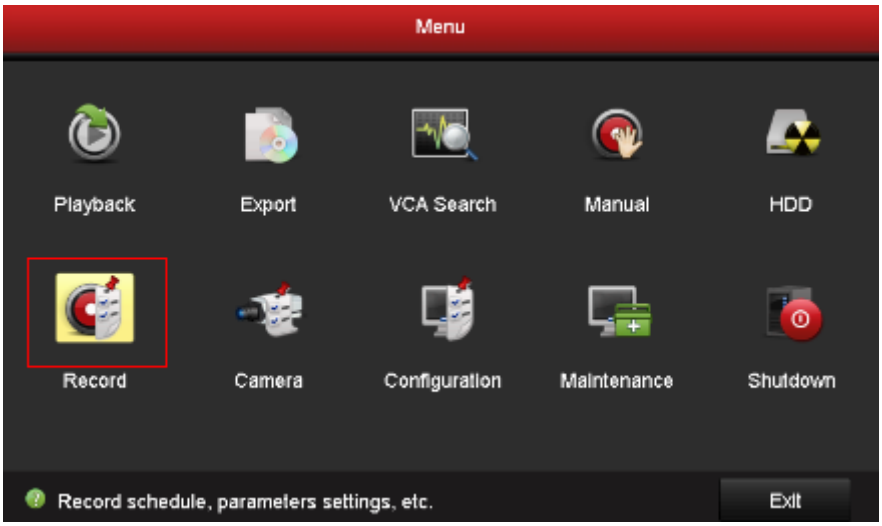


Fig18. Go to Record on NVR's Local Menu

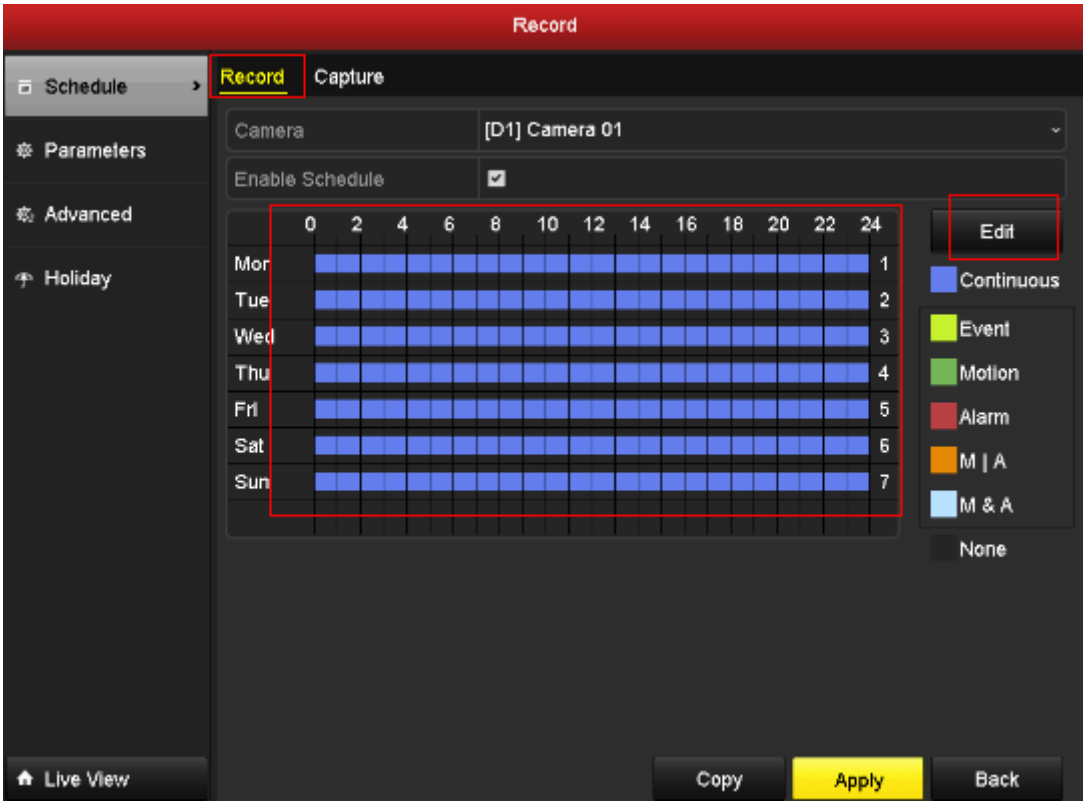


Fig19. Record Schedule Configuration

# 3 Result Query

Go to ***Menu->VCA Search->Plate Search***, select the channel and start/stop time. Users can search for the plate info on the local NVR. Please see the detailed steps below.

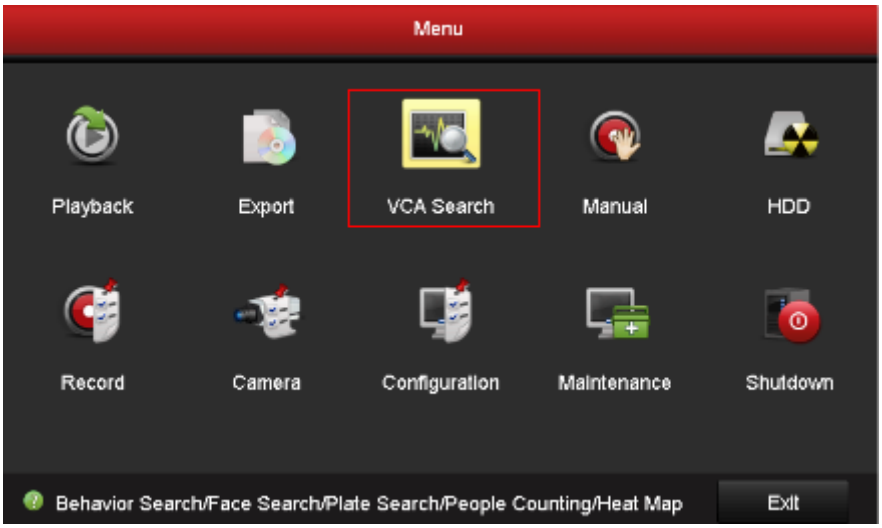


Fig20. Go to VCA Search

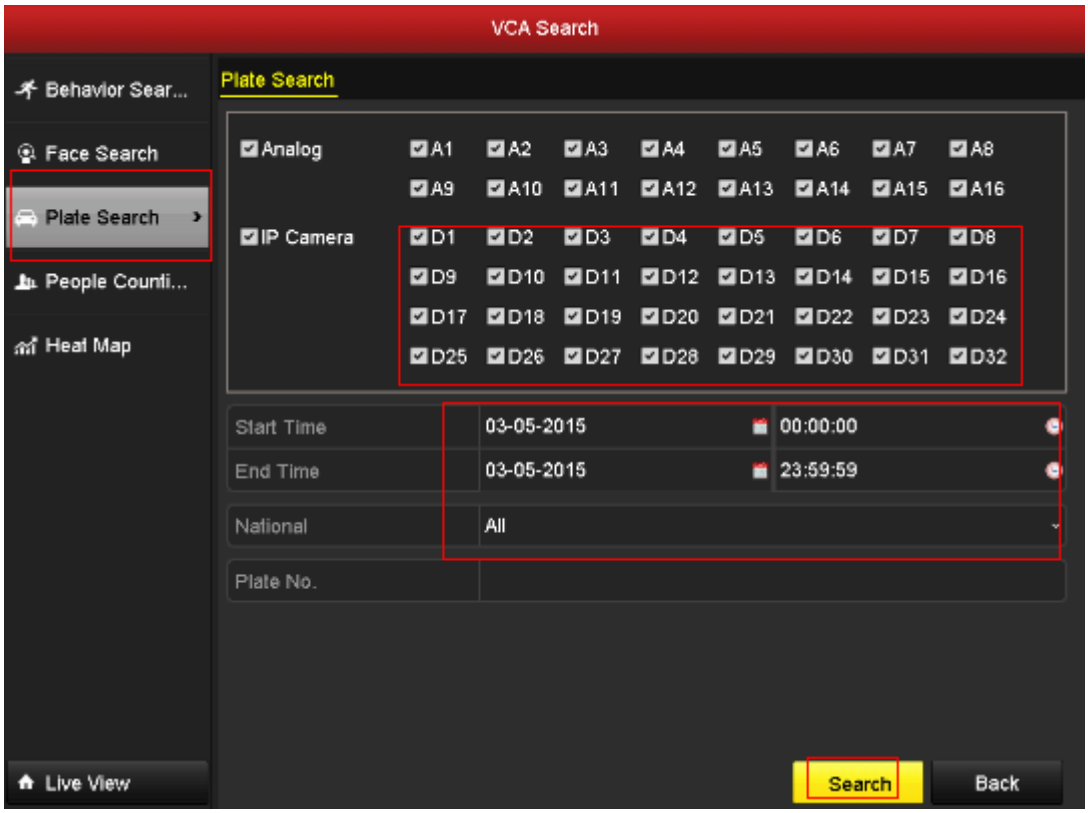


Fig21. Plate Search


Fig22. Plate Search Results