

iVSEC

INTELLIGENT VIDEO SECURITY

https://ivsecurity.com.au/support/analytics-ai-ivs/

CROSS COUNTING FEATURE

ABOUT THIS DOCUMENT

Some of the iVSEC camera range have the Cross Counting feature using AI and can log detection on the recorded timeline, send push notifications to a user, or email the results if required. The AI can also trigger a relay on cameras or NVRs that include alarm relay outputs if the devices that have these included and are setup to trigger when a person, vehicle, or motion is detected crossing a nominated area.
All instructions contained within this document are using the Web Interface, though similar steps are performed using the NVR Interface.

Cameras with this feature start at the following and include the later revisions :
NC323XD, NC323ADX, NC512ADX, NC512XD, NC528XD, NC531XD, NC531ADX, NC542ADX, NC543ADX, NC544ADX, NC691XB

GETTING STARTED

To adjust these settings, you will have the following:

- LCD monitor and USB mouse connected to iVSEC recorder.
- Laptop (if you are logging into recorder using a web browser).
- iVSEC X mobile app installed and your iVSEC recorder added to the app.

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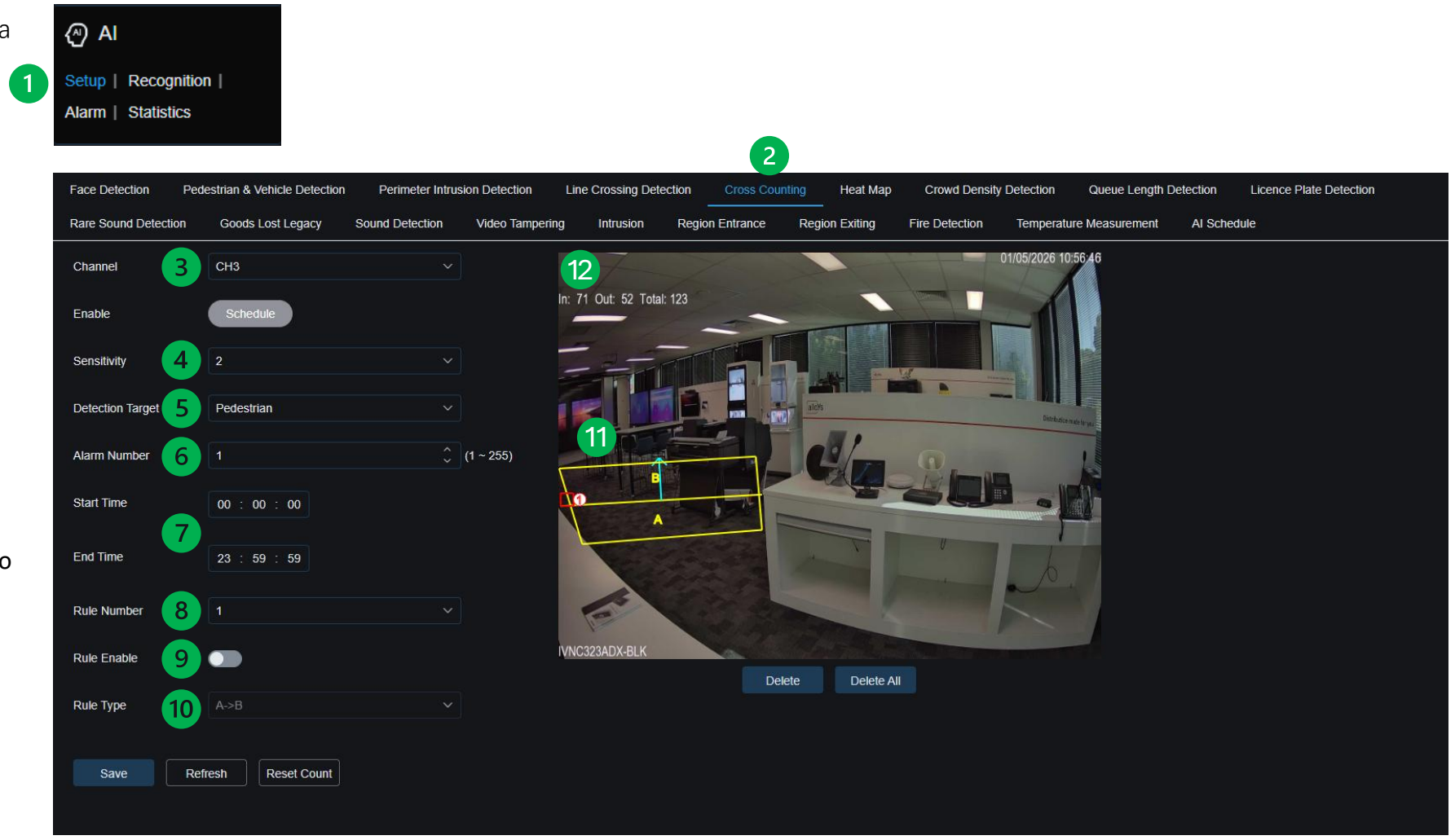
Cross Counting – SETUP

1. Open the **Remote Settings** of the Camera and navigate to the **AI** section. Select the **Setup** option.
2. Select the **Cross Counting** tab.
3. Select the camera **Channel** that you are wanting to use to Cross Counting on.
4. Adjust the **Sensitivity**, which will depend on the motion of the scene.
5. Select the **Detection Target** types that you are interested in. The options are : **Pedestrian, Motor Vehicle, Non-motorised vehicle**.
6. Select the **Alarm Number** you are wanting to use. This must be between 1-255.
7. Select the **Start Time** and **End Time**. Make sure this does not conflict with the **AI Schedule**.
8. Choose the **Rule Number**, if available.
9. Toggle the **Rule Enable** on or off.
10. Choose the **Rule Type** that you would like to use. A->B (inside to outside), B-A (outside to inside), or A<->B (either direction).



11. Draw the **box** in the direction you wish to be alerted when people travel. Resizing of the **box** to fix a specific choke point is also possible.
12. The **In**, **Out**, and **Total** number of detections that travel through the choke point will be shown here.

Cross Counting – SETUP

1 Navigate to the **AI** section.
Select the **Setup** option.

Clicking this will give you the option to select Schedule.

If the part of the schedule is greyed out, this means another AI is scheduled to run at that time. That AI will need to be selected, and the time cleared to use another AI during this period.

2 If a square is coloured in green, then it means that at that time of day a Pedestrian and/or Vehicle will cause the Alarm to trigger.

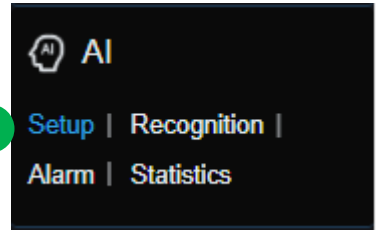
3 If a square is coloured in black, then it means that at that time of day nothing will cause the **Alarm** to trigger.

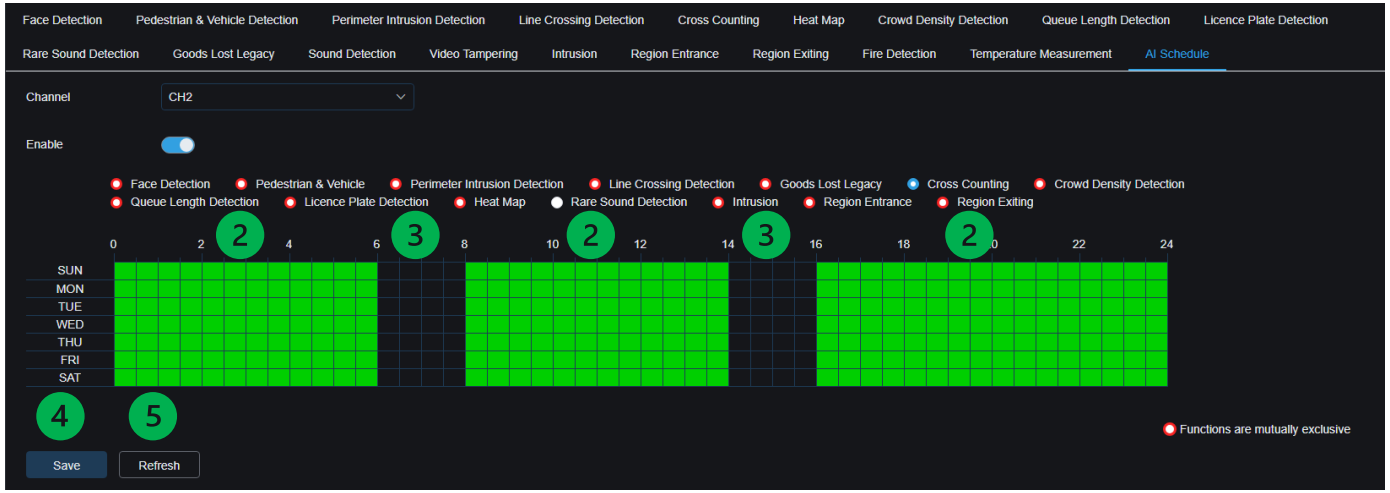
In the example an alarm will not trigger between 06:00-08:00 or 14:00-16:00, even if a Pedestrian and/or Vehicle is detected.

These times are individual for AI Function and are mutually exclusive.

4 The **Save** button will confirm the schedule that you have created.

5 The **Refresh** button will revise the current view to the previous saved state, in cases where the save button has not been pressed.





Cross Counting – AI - ALARM

1. Navigate to the **AI** section.
Select the **Alarm** option.

2. Select the **Cross Counting** tab.

3. The **Channel** refers to the camera channel you will be configuring for.

4. The **Buzzer** is the internal buzzer of the NVR.

5. The **Latch Time** relates to how long the alarm output for that camera will be latched. This can be used to trigger an audible security alarm, a visual alarm indicator, or trigger the release of a door's lock/unlock feature.

6. **Post Recording** is for how long the channels set in **Record Channel** will record for.

7. The **Send Email** option is so an email can be sent to a nominated email account. This is set up under **Network** >> **Email**.

8. **Show Message** will have a message pop up in the bottom right-hand corner of the NVR.

9. **Full Screen** will make the channel that has been triggered become full screen.

Event Push Platform will trigger the API HTTP call that you have set up. For how to do this, please check out our comprehensive guide.

11. The **FTP Picture Upload** option is similar to the email one above, but is configured under **Network** >> **FTP**.

12. The **Cloud Picture** option is to allow the face that is captured to be uploaded to the cloud.
This is configured under **Device** >> **Cloud**.

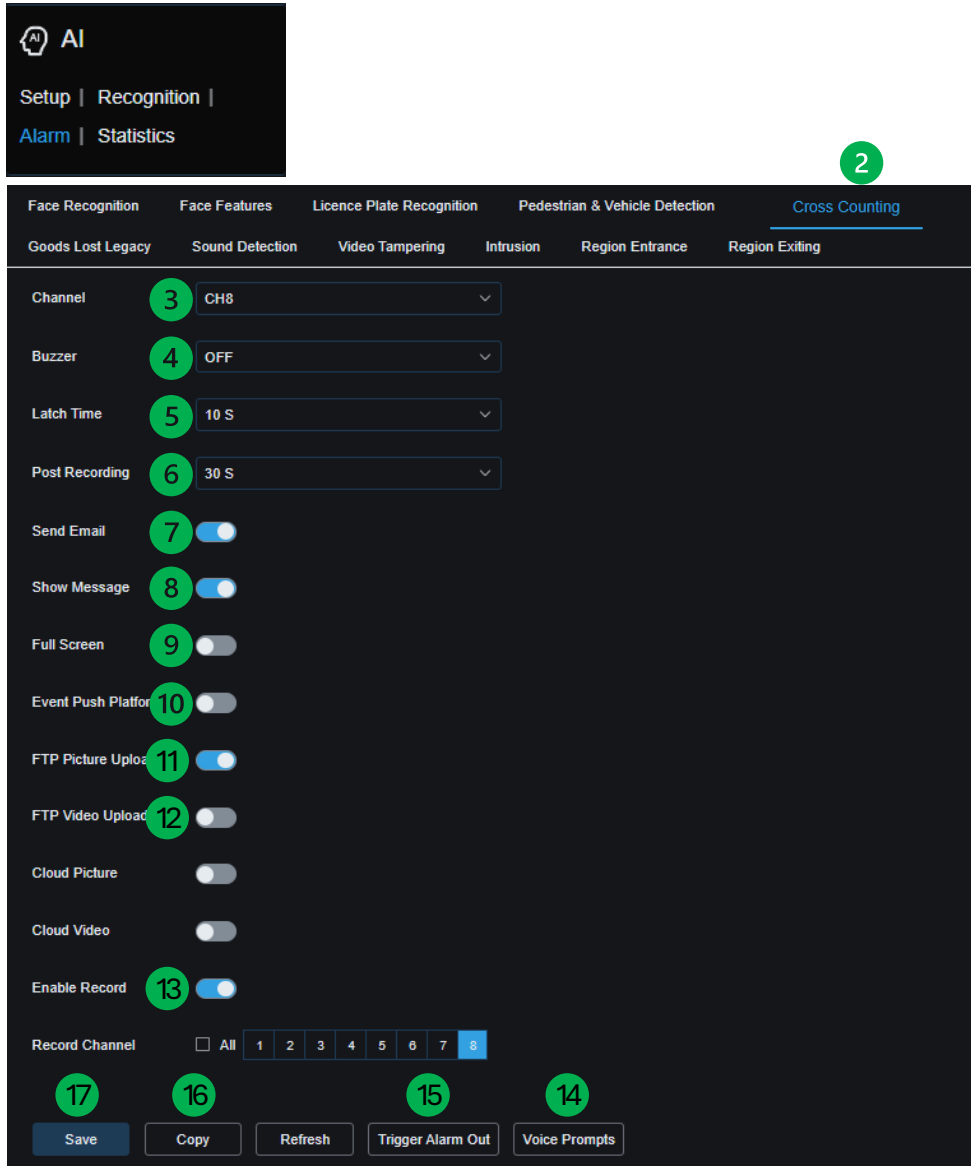
13. **Enable Record** will allow the nominated **Record Channels** to save footage.

14. **Voice Prompt** will play the previously uploaded MP3 during nominated periods.

15. The **Trigger Alarm Out** button opens the menu to select which physical outputs will be triggered when a face is detected.

16. The Copy button allows you to copy the settings you have to other channels (if the device has more than one channel).
NOTE: You must have saved the changes before copying to other channels or it will not work.

17. Finally, there is the **Save** or **Cancel** options, which do exactly what they say.



Cross Counting – ALARM – DETERRENCE

1. Navigate to the **Alarm** section. Select the **Deterrence** option.

2. The **Channel** refers to the camera channel you will be configuring for.

3. The **Warning Light** toggle will allow you to turn the feature on or off.

4. The **Warning Duration** is how many seconds the light will be on. This can be from 5 seconds to 180 seconds.

5. The **Warning Light Schedule** will open up the schedule by which the deterrence will operate.

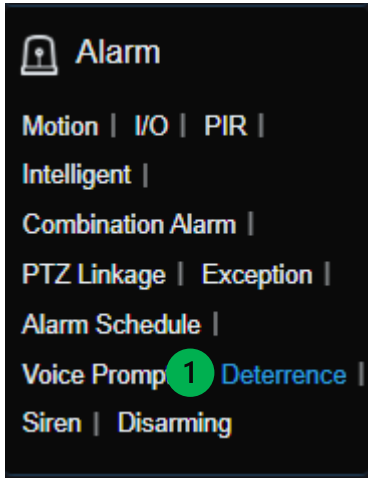
6. Select **Cross Counting**.

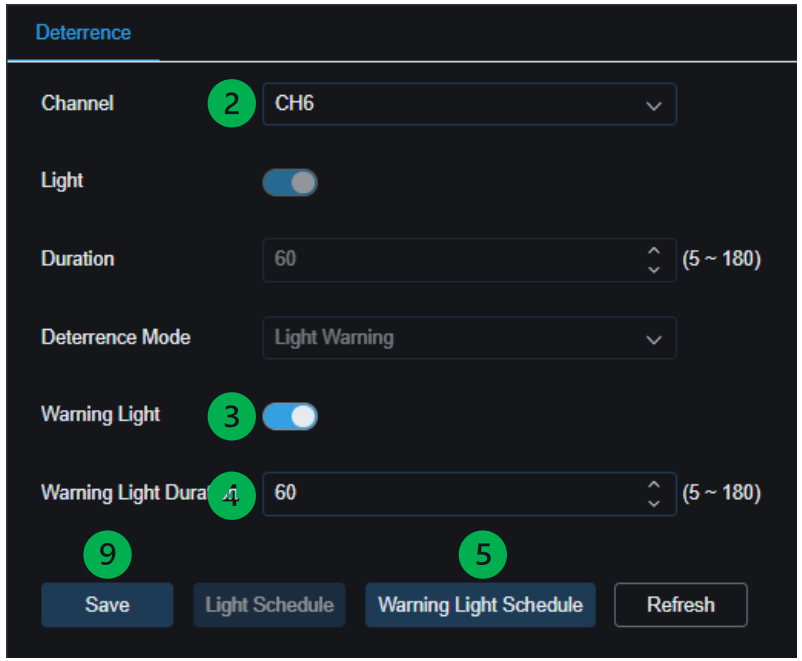
7. Select the time on the schedule that you want the deterrence to operate.

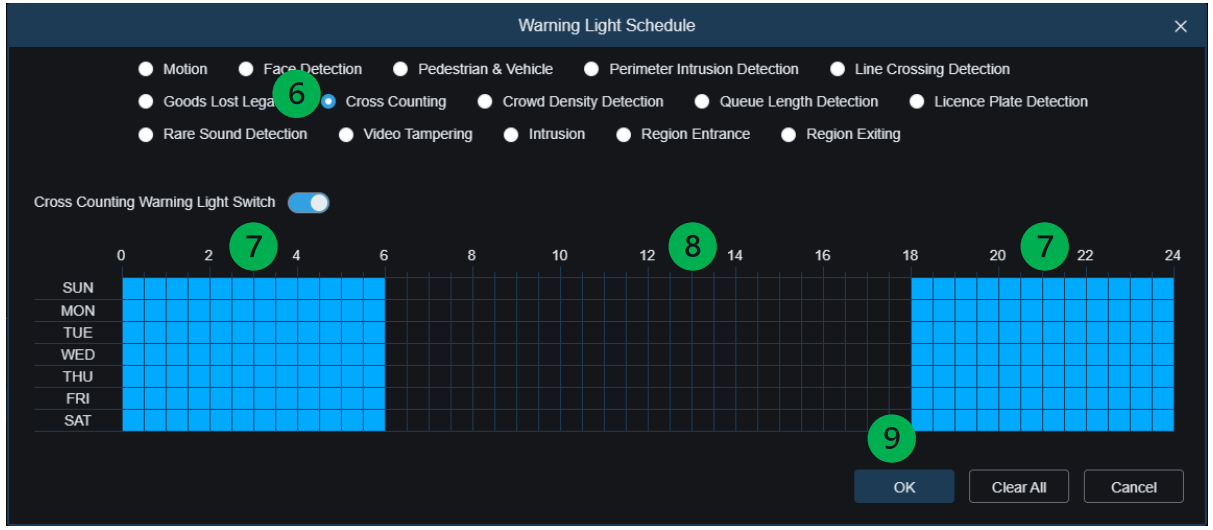
   If a square is coloured in blue, then it means that at that time of day a Pedestrian and/or Vehicle will cause the deterrence to trigger.

8. If a square is coloured in black, then it means that that at that time of day nothing will cause the deterrence to trigger.

9. Press **OK** and then **Save** to submit changes.

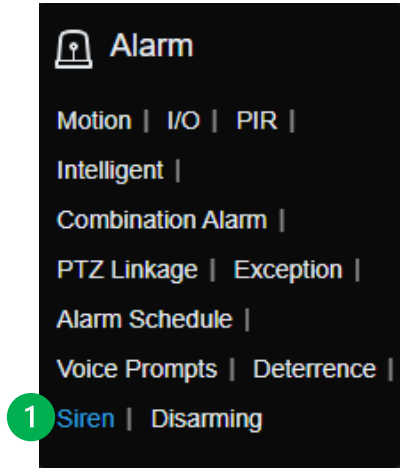






Cross Counting – ALARM – SIREN

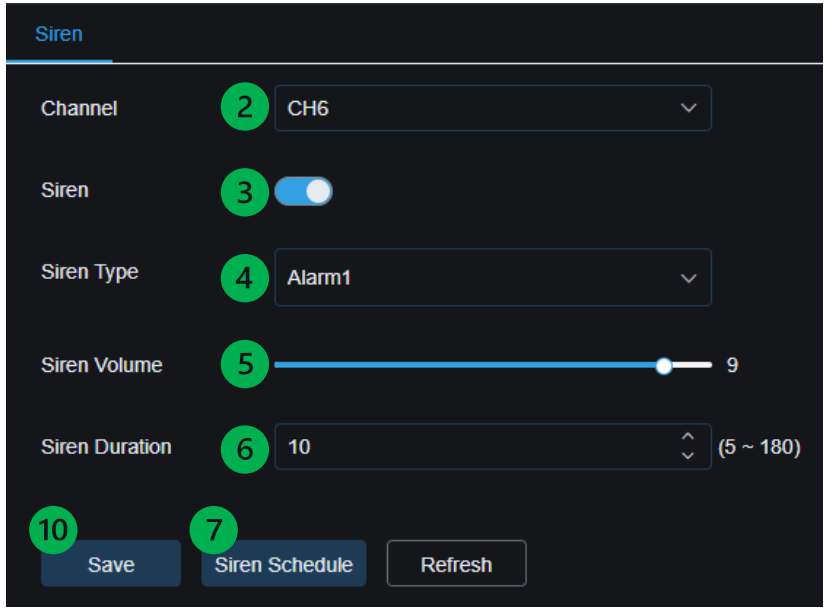
1. Navigate to the **Alarm** section. Select the **Siren** option.



2. The **Channel** refers to the camera channel you will be configuring for.

3. The **Siren** toggle will allow you to turn the feature on or off.

4. The **Siren Type** allows you to choose from several different sirens, including user defined ones.



5. The **Siren Volume** will change how loud the siren will be.

6. The **Siren Duration** is how many seconds the light will be on. This can be from 5 seconds to 180 seconds.

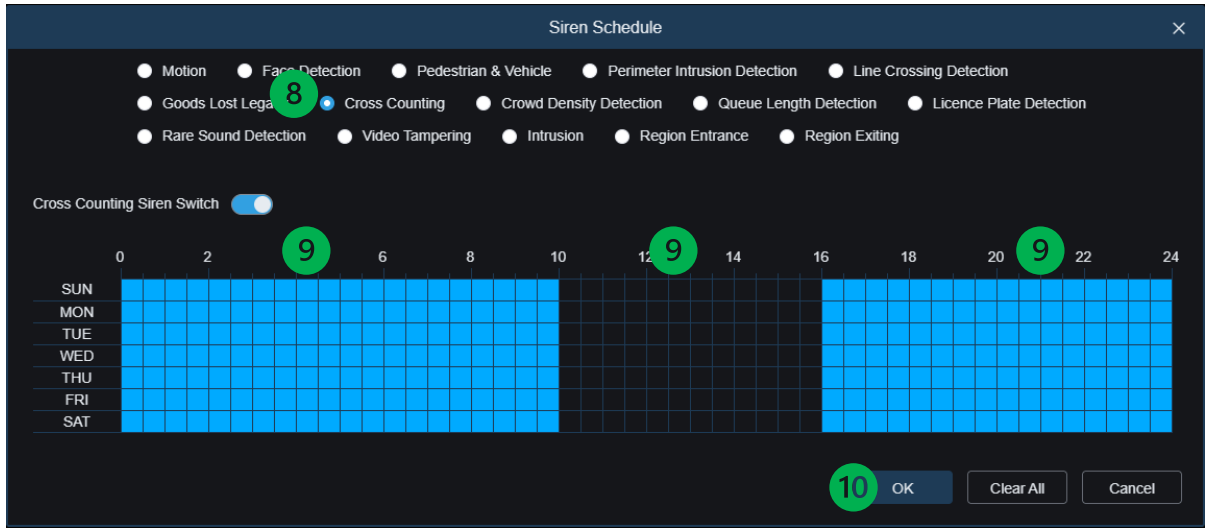
7. The **Siren Light Schedule** will open up the schedule by which the deterrence will operate.

8. Select **Cross Counting**.

9. Select the time on the schedule that you want the deterrence to operate.

   If a square is coloured in blue, then it means that that at that time of day a Pedestrian and/or Vehicle will cause the deterrence to trigger.

   If a square is coloured in black, then it means that that at that time of day nothing will cause the deterrence to trigger.

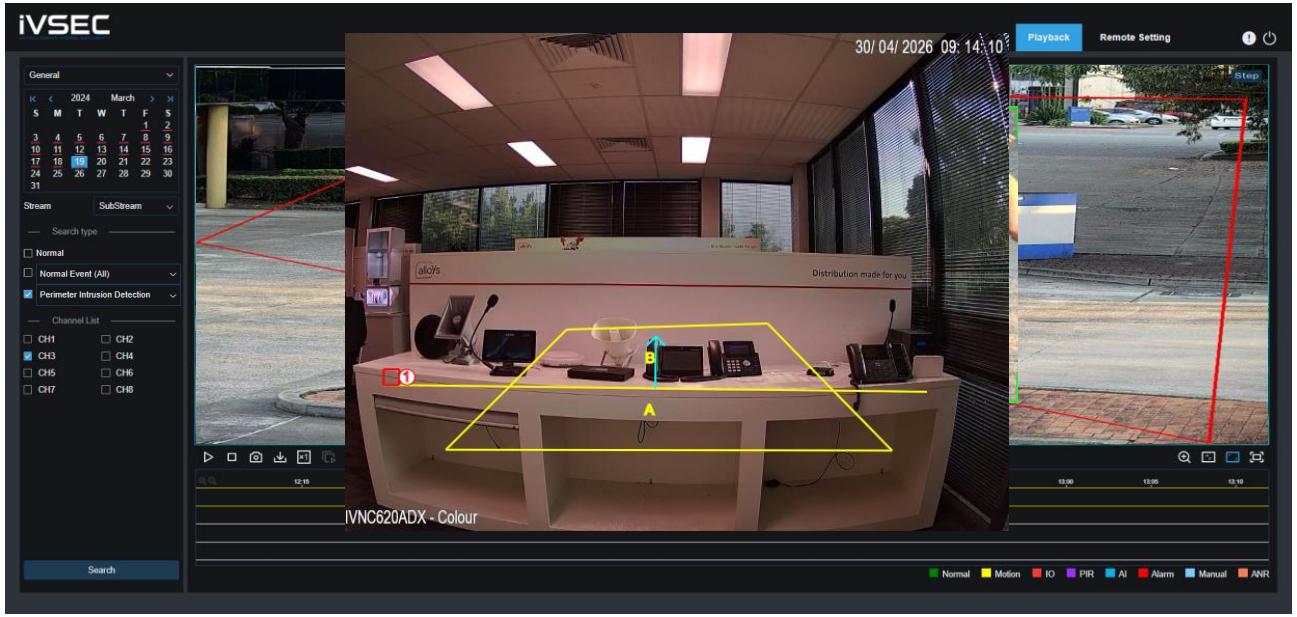


10. Press **OK** and then **Save** to submit changes.

Cross Counting – PLAYBACK

1. Click on the **Playback** tab.
2. Select the **Date** that you wish to review footage for
3. Unselect all **Search Types** except for **Cross Counting**. This will then only show when a Pedestrian and/or Vehicle Detection has been detected crossing the line.
4. Click the **Search** button
5. This will show only the times that the cameras that were set to detect for Cross Counting will show content.
6. When watching the playback, you will see a green rectangle drawn around the person detected.
   As you playback the footage, you will be able to see the recorded instances of Pedestrians and/or Vehicles that have been detected.



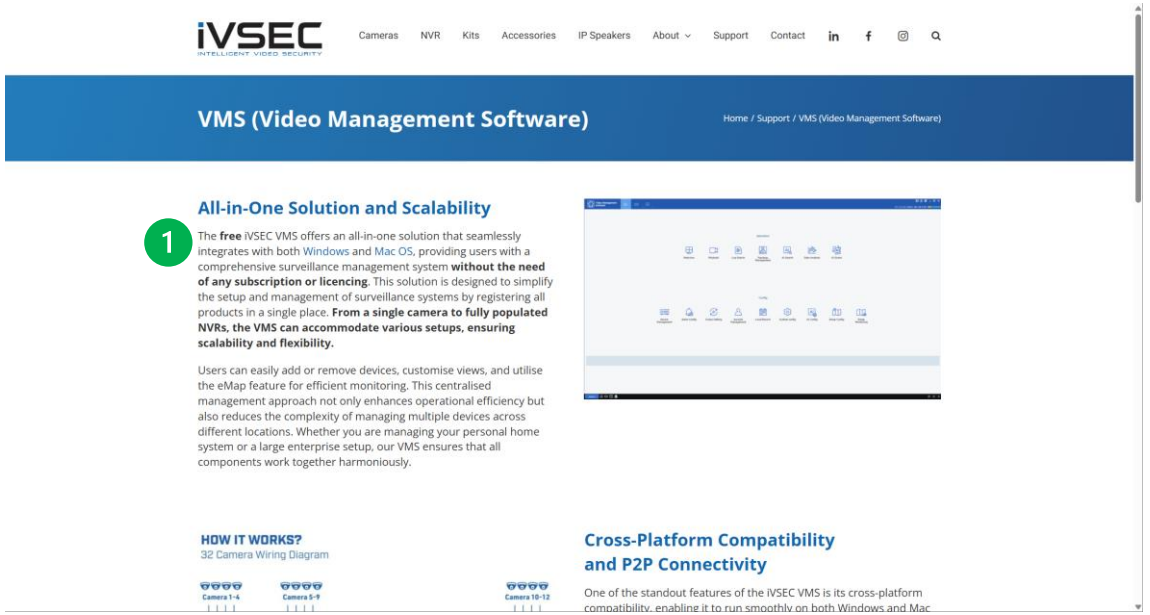


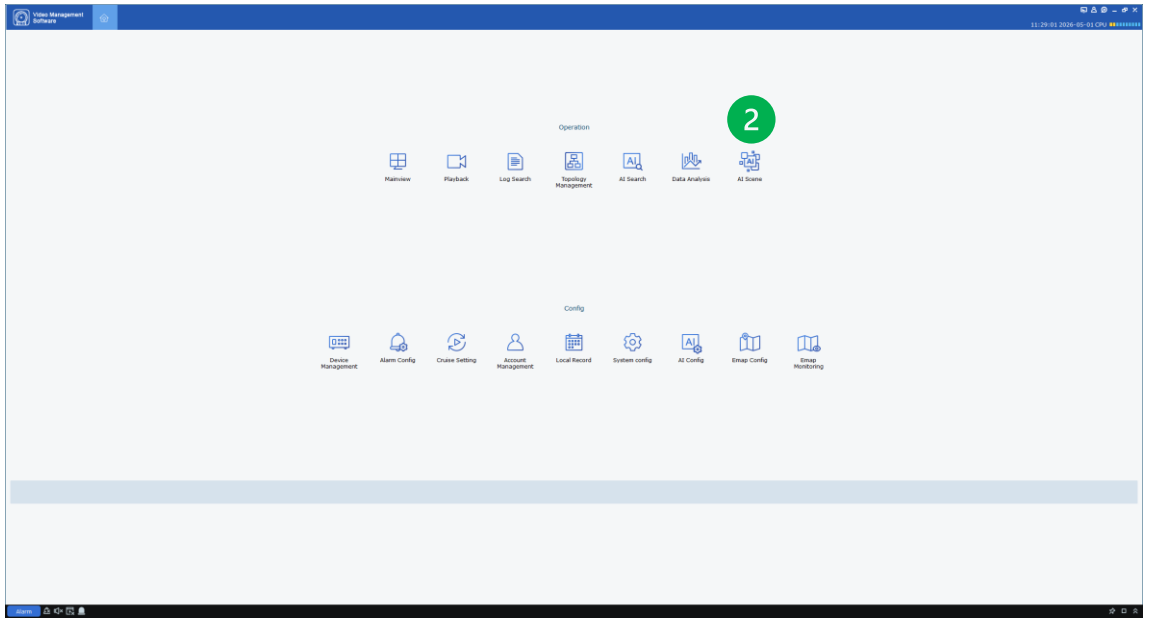
Cross Counting – AI Scene

To use the Cross Counting AI Scene, you will need to be running the latest version of the **iVSEC VMS**.

1. This can be downloaded for either Windows or Mac OS from the iVSEC website.

2. Once installed, open the iVSEC VMS and will be presented with the home screen menu. You will need to select the **AI Scene** option, in the top right of the Operation section.

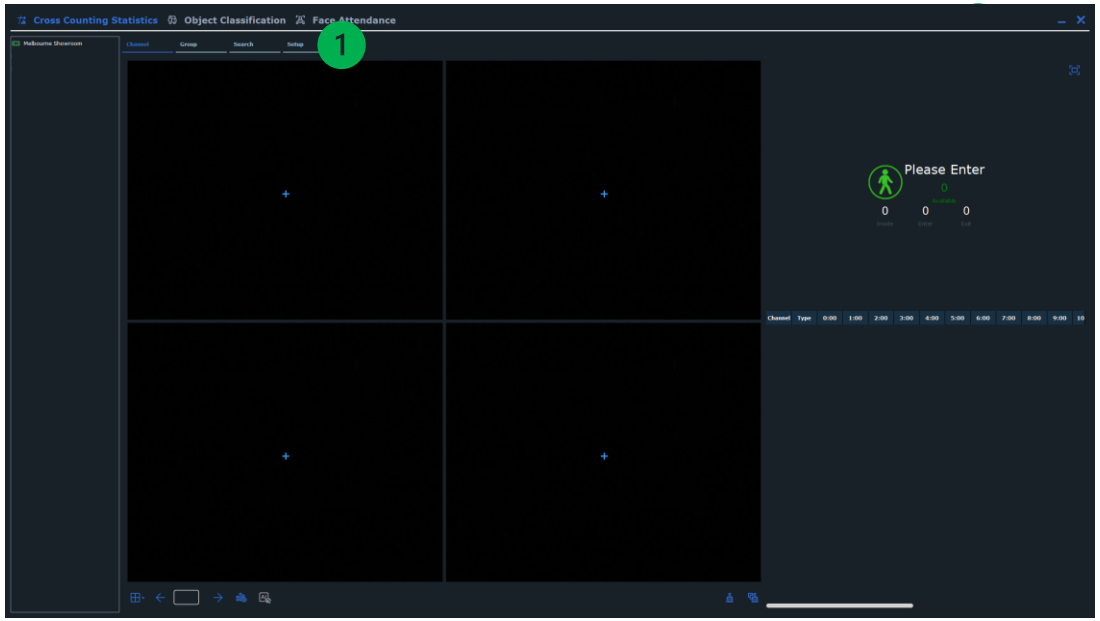


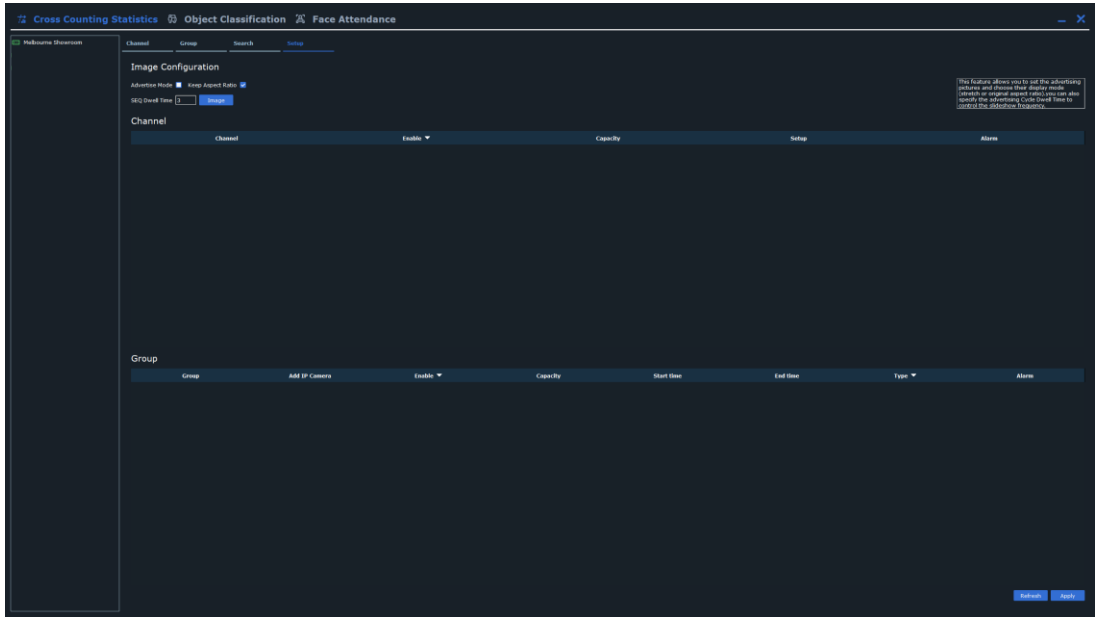


Cross Counting – AI Scene

The **Cross Counting Statistics** will be blank upon opening up this section.

1. Click on the **Setup** section.
2. You will then need to select the **NVR** you are wanting to get the statistics for.

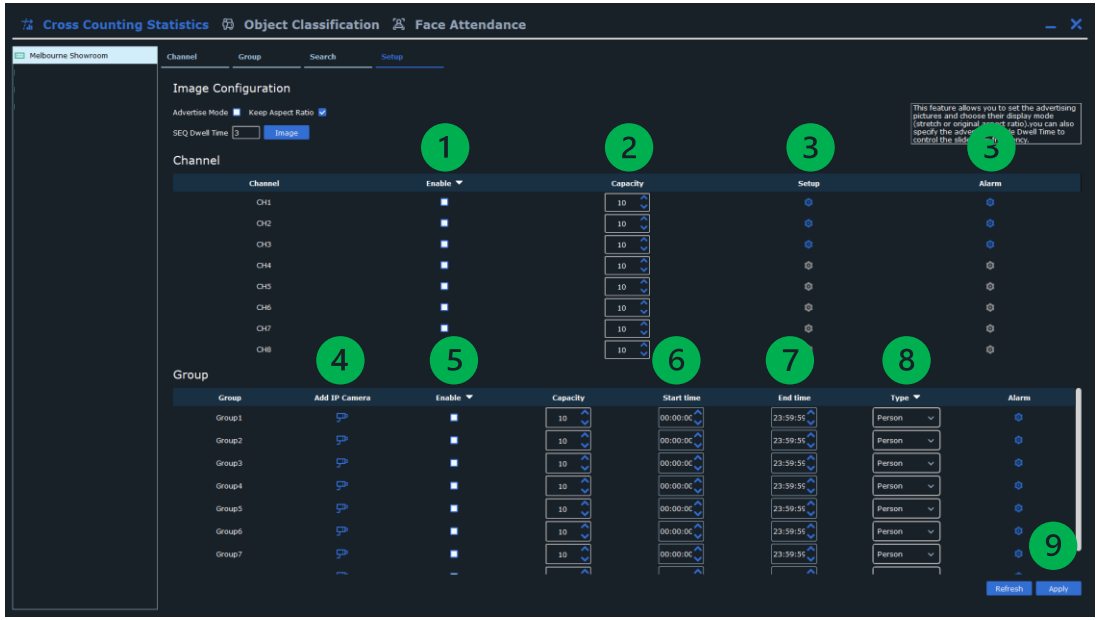


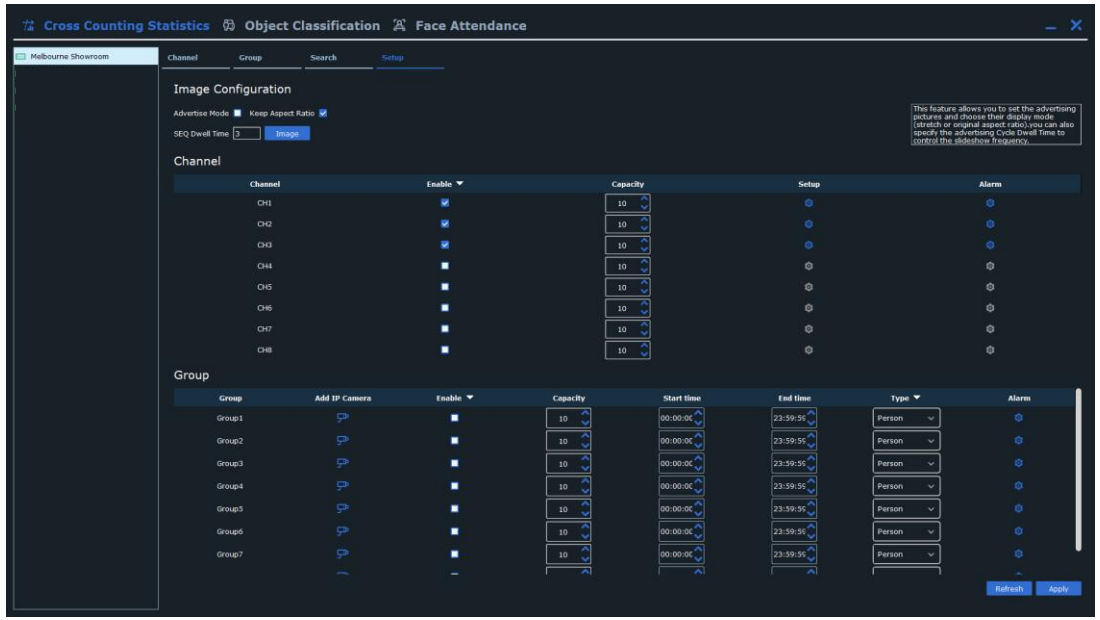


Cross Counting – AI Scene

A full view of the NVR and channels will be presented, none of the boxes are selected.

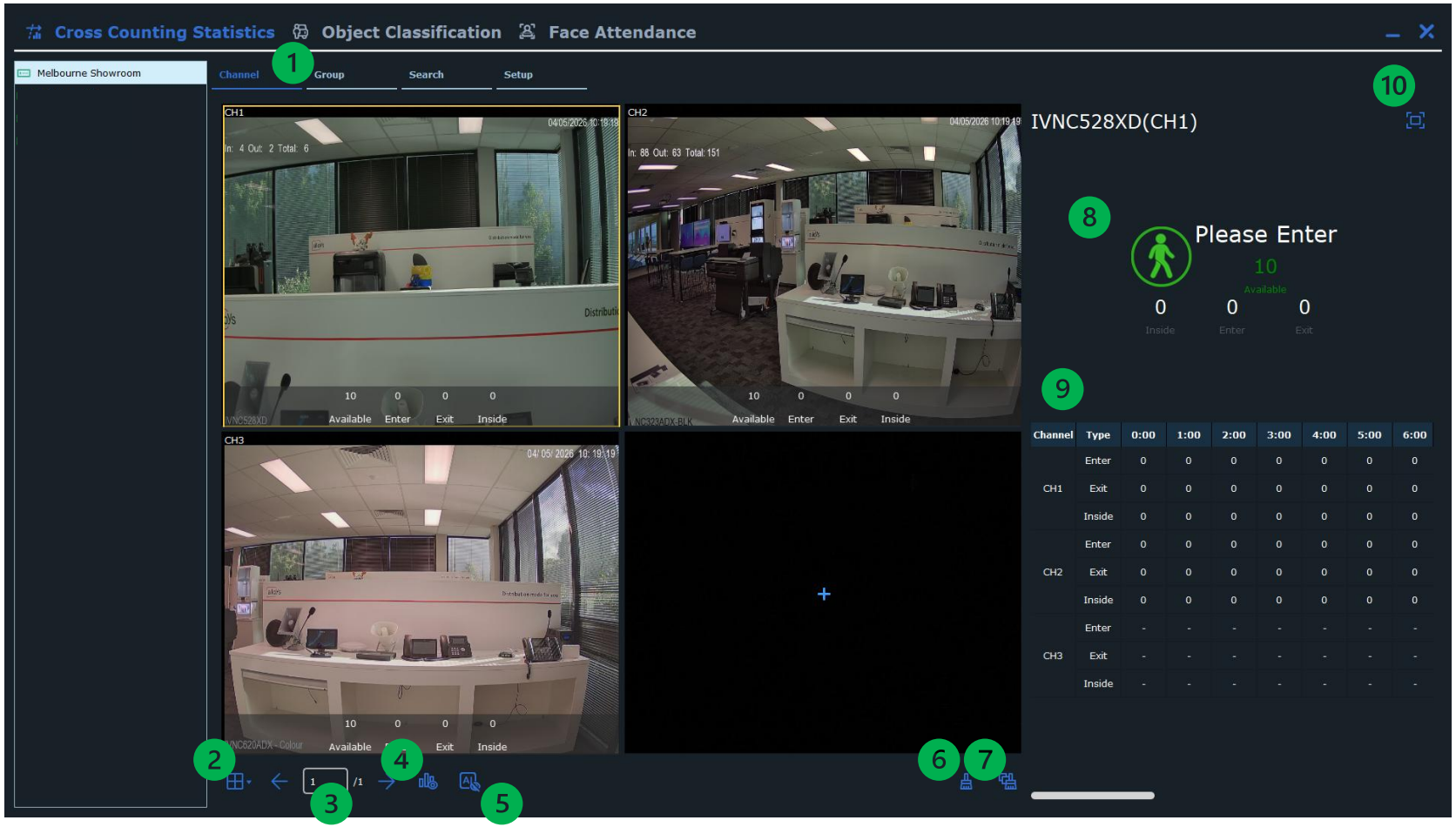
1. Check the **boxes** for the cameras you wish to get the Cross Counting Statistics for.
2. You can alter the **Capacity** value to any value you wish.
3. The **Setup** and **Alarm** are the same as on the NVR for the specific channels.
4. The **Groups** are so you can create a preset number of cameras. This is done by clicking on the **Add IP Cameras** and selecting the specific cameras you would like to view. **Cameras can not be in a Group and Channel simulations.**
5. If you want to enable this for the **Group** section, click the **Enable** checkbox.
6. You can configure the **Start Time** for the group.
7. You can configure the **End Time** for the group.
8. You can configure the type for the group for **Motion**, **Person**, or **Vehicle** Cross Counting.
9. When done, click the **Apply** button





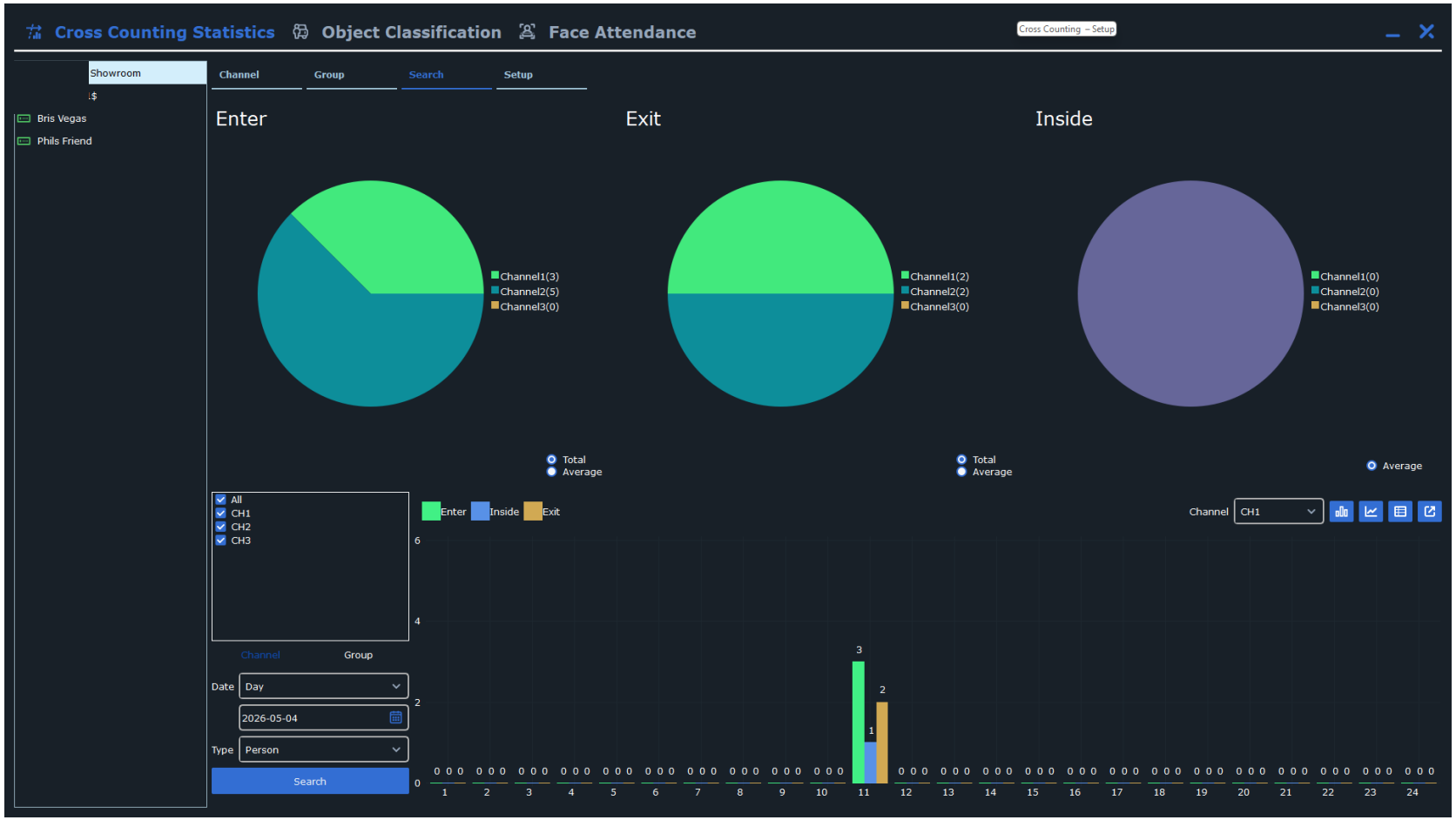
Cross Counting – AI Scene

1. Navigating to either Channel or Group, the nominated cameras will be viewable.
2. Select the camera layout that best suits the display needs.
3. The switching between layouts can be done by clicking this, if applicable.
4. Turn the Cross Counting data on or off for the camera view.
5. Turn the Cross Counting detection area view on or off for the camera view.
6. Resets the current data for the camera.
7. Resets the current data for all cameras.
8. The current data for the selected camera is shown here.
9. The breakdown of each camera is displayed here. There is a horizontal scroll for additional information.
10. This will put the display into Full Screen Mode.



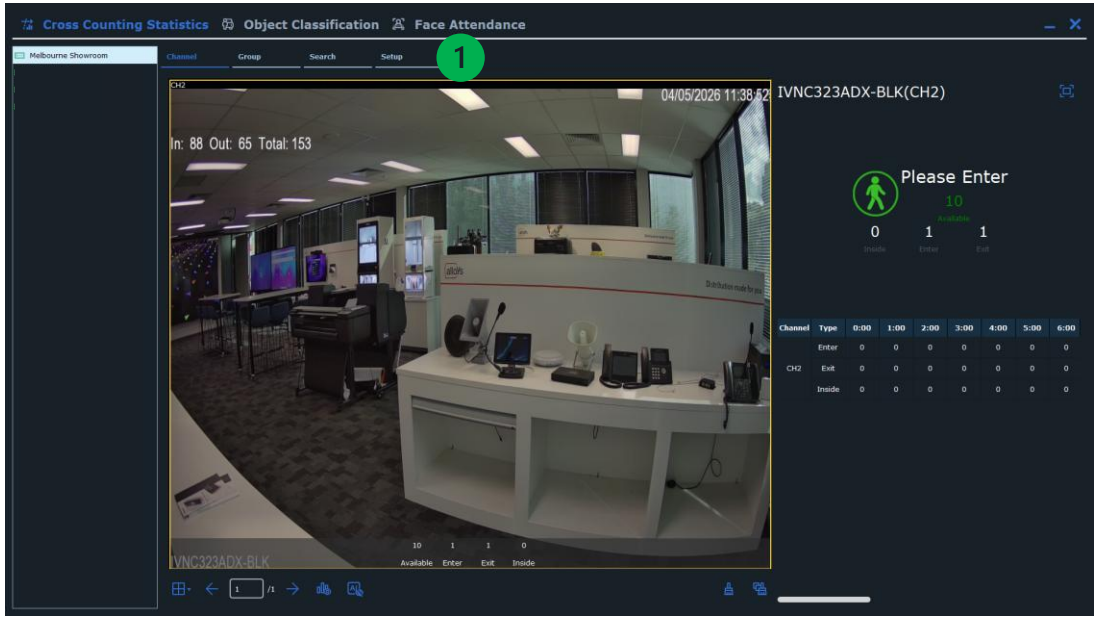
Cross Counting – AI Scene

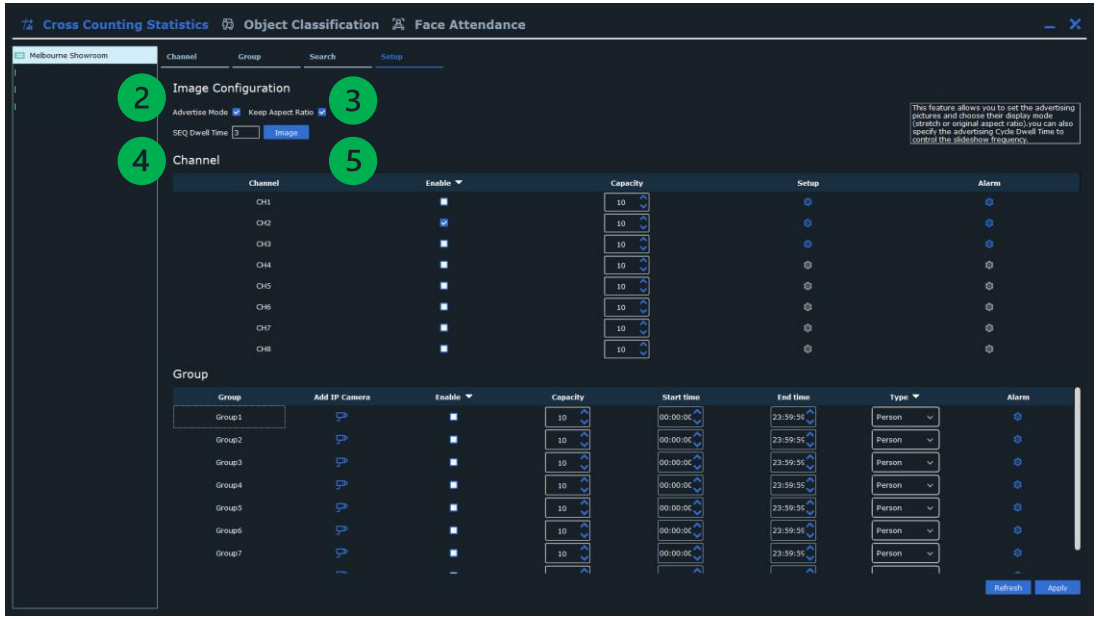
1. Selecting Search allows for the metrics of the **Entry/Inside/Exit** to be displayed per camera selected.
2. Select the Day/Week/Month/Year from the **Date** section with an end date specified.
3. Select the cameras to display the metrics for.
4. Select **Motion**, **Person**, or **Vehicle** from the metric type dropdown.
5. Click the **Search** button.
6. The information will be shown on the timeline. This will be shown either hourly (Day), daily (Week or Month), or monthly (Year).
7. This will show the data on the timeline as a bar graph.
8. This will show the data on the timeline as a line graph.
9. This will show the data on the timeline as a table.
10. This allows you to export the data as an .**xlsx** file



Cross Counting – Advertising Mode

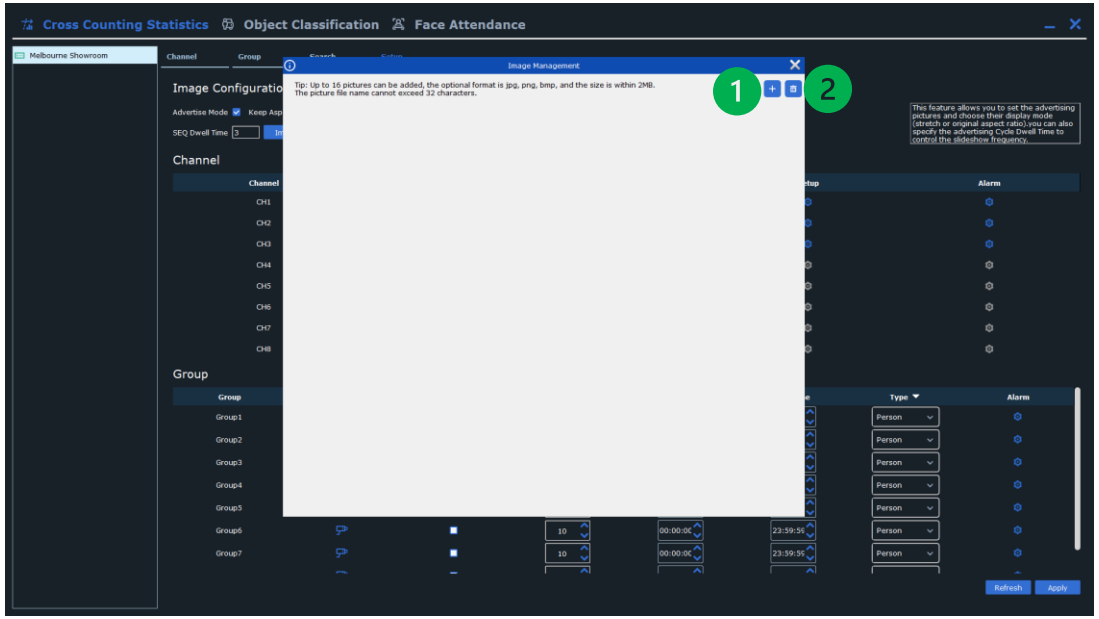
1. Select the **Setup** tab.
2. Enable the **Advertising Mode** by checking the box.
3. If maintaining the height and width for the images with a coloured background is needed, select **Keep Aspect Ratio**.
4. To choose how long the images will stay on the screen for, change the value of the **Sequence Dwell Time**.
5. To choose what images will be displayed, click the **Image** button.

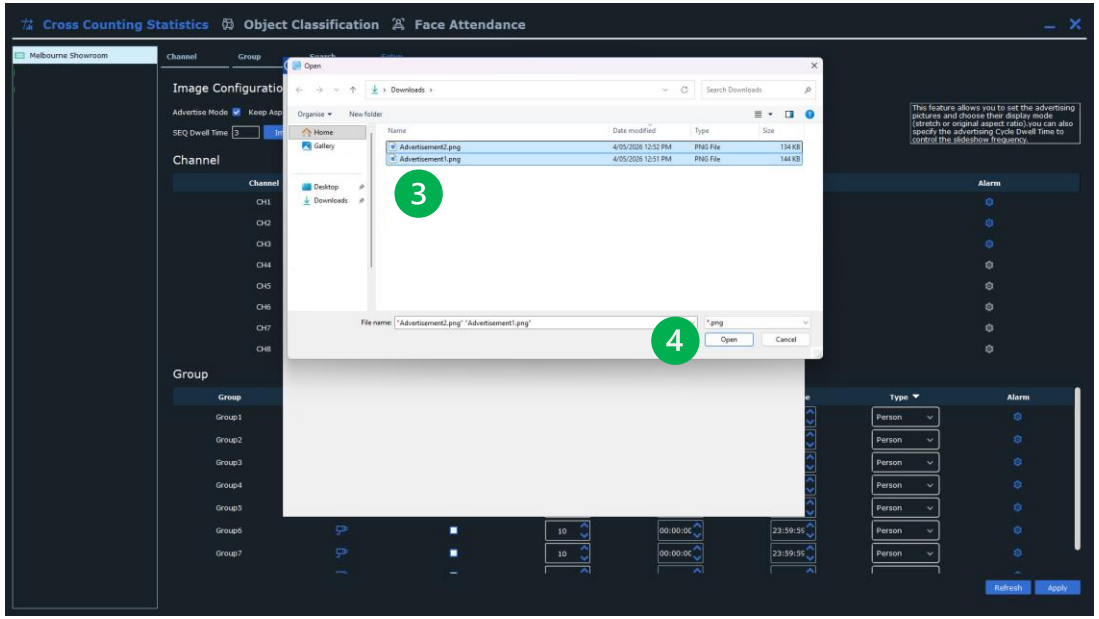




Cross Counting – AI Scene

1. Click the **+** icon to select the image you wish to add to the sequence.
2. Click the **Trash Bin** icon to delete a specific image from the sequence.
3. Navigate and add the specific files you wish to add to the sequence.
4. Click the Open button.



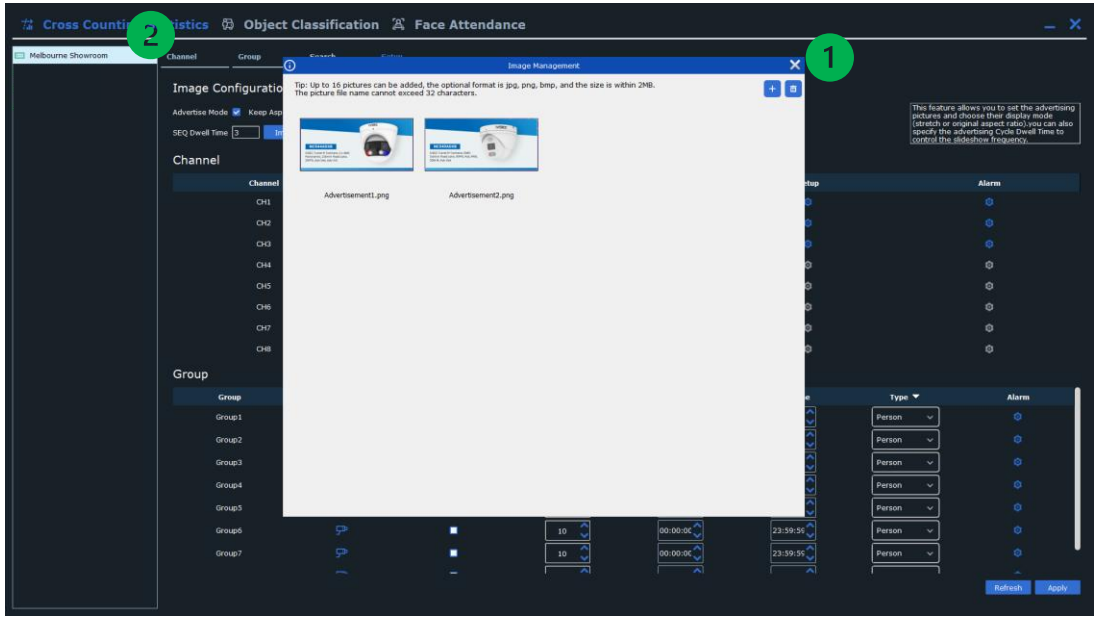


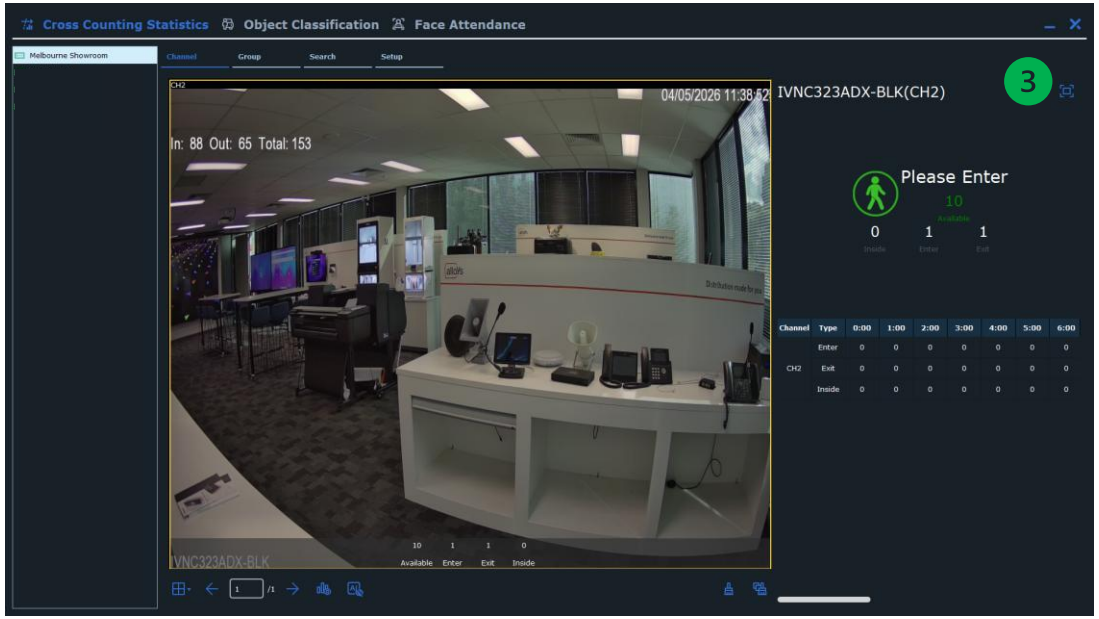
IMPORTANT

- File names must be 32 characters or less.
- Only **.jpg**, **.png**, **.bmp** file formats will be able to be uploaded.
- Files must not exceed 2MB in size.
- These files will be uploaded directly to the NVR.
- Only 16 files can be uploaded in total.

Cross Counting – AI Scene

1. Once the files have been uploaded, you can click the Close button.
2. Click on the Channel tab.
3. When the Channel page has loaded, click the Full Screen icon.





Cross Counting – AI Scene

1. The Advertising Mode Full Screen will take a moment to load.
2. The total number of Available slots for entry will be displayed on screen.
3. The current Inside count will be displayed on the screen.
4. The total number of Entered since last reset will be displayed on the screen.
5. The total number of Exited since last reset will be displayed on the screen.
6. After a moment, the images that were uploaded will start cycling through as per the programming that was set up.

   To navigate back to the previous screen at any point, right click the mouse button.







iVSEC

INTELLIGENT VIDEO SECURITY

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