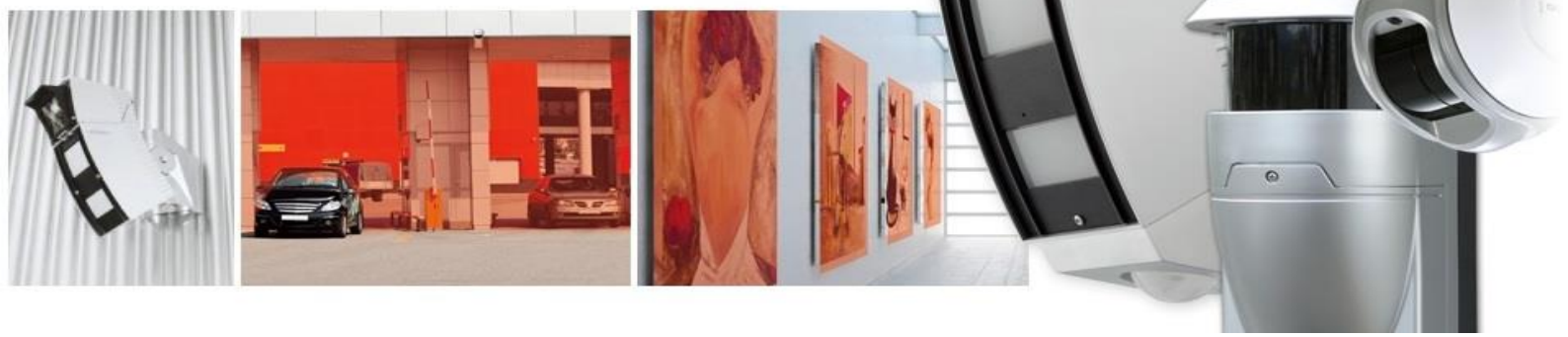
Setup Guide

Wavestore Integrates…

Optex Redscan



Email: info@wavestore.com
Visit: wavestore.com

GLOBAL HQ (EMEA)
Wavestore Global Ltd.
Tel: +44 (0) 1895 527 127

USA/CANADA
Wavestore Americas Inc.
Toll-free: 855-526-8887

For Technical Support
P: +44 (0) 1895 527 127
E: support@wavestore.com

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Introduction

The integration between Wavestore and Redscan simplifies the installation:

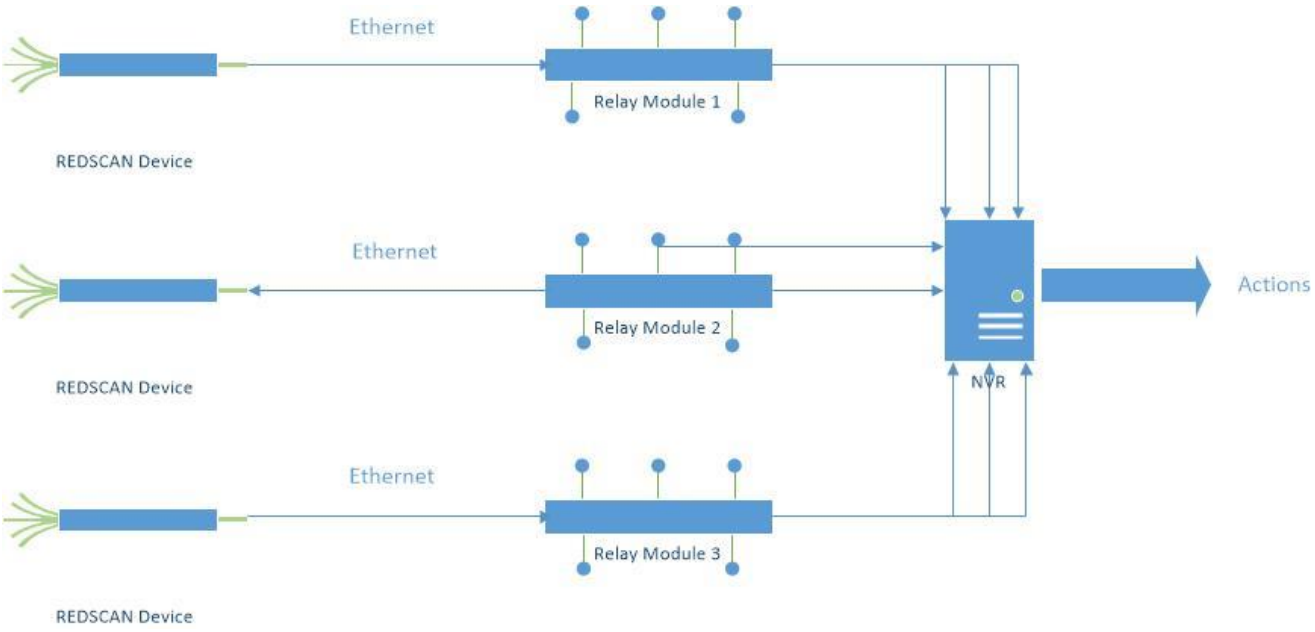


Figure 1 : Traditional communication layout

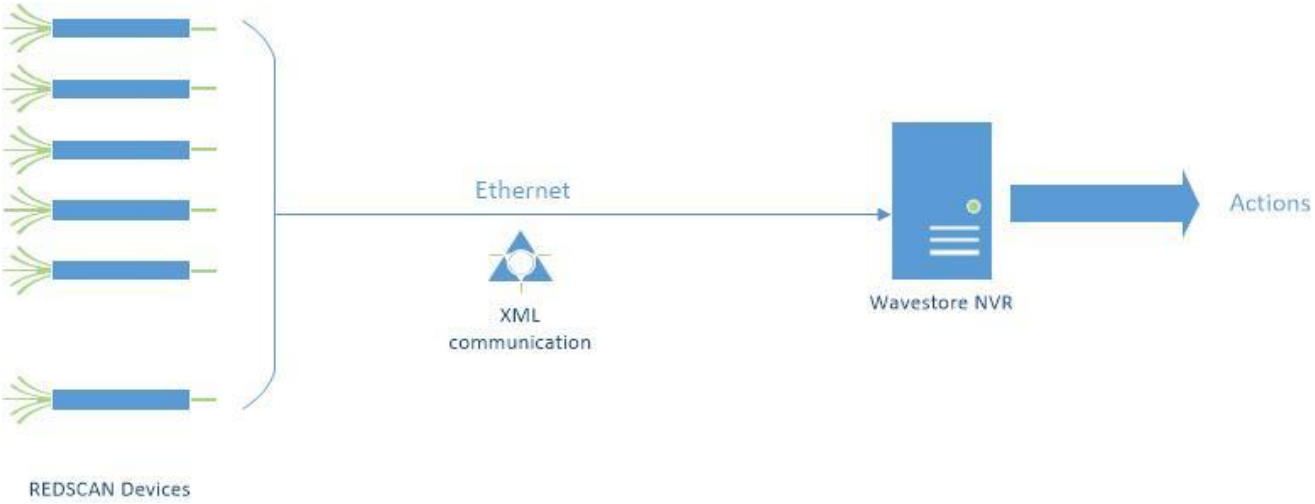
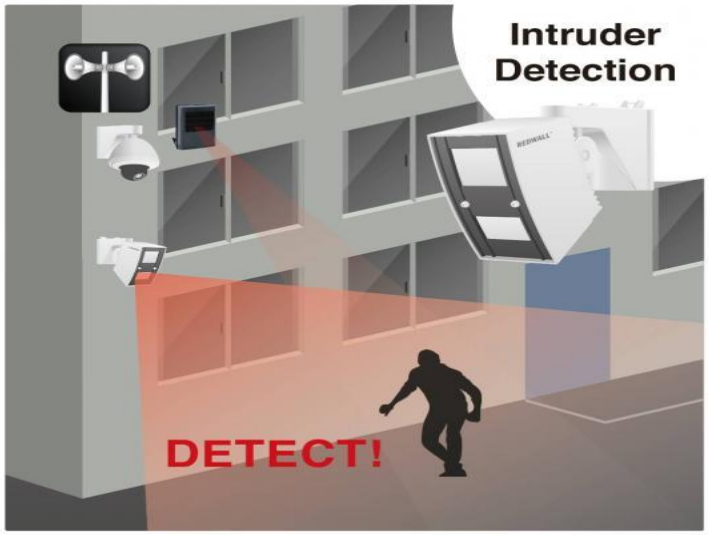


Figure 2 : Wavestore communication layout

Wavestore is capable of receiving and parsing all the information coming from all the Redscan devices and generate different kinds of events.

It is also able to call defined PTZ presets based on the intrusion messages that are coming from the Redwall system and review the related recorded footage

Event detected triggers immediate actions:



- Alarm sent to VMS, PSIM or NVR
- Full power, zoned lighting
- High resolution recording for network cameras
- Camera going in pre-set position
- Event/Alarm management

Integration Description

The integration recognises the area that is causing the alarm and can react triggering various actions based upon the specific requirements.

The integration allows to add multiple Redscan devices and it automatically maps them into the system by combining its Scanner number with its ZONE number. The Scanner number is defined by the RLSs detector ID. The ZONE number is the individual ZONE on that Scanner.

There are also 6 additional input types available which are device related (e.g. tampering), please refer to the table below for the specific input numbers that are referring to a single or combined zone.

In the REDSCAN Manager you need to use an arbitrary number for the detector ID, starting from one.

The input number in Wavestore (assuming 25 inputs) will be the number of the zone (plus additional events) in its scanner, plus 25 for each zone in the preceding scanner(s). So, in the example above for Scanner N.2 and alarm A12 it will be input number 27, as the first 25 inputs would be occupied by Scanner N.1.

It is also possible to define an *input offset* to avoid any overlapping with other inputs already define in existing cameras for example.

In this case the formula to find your input number in Wavestore is:

Input n. = (scanner n. * 25) + offset + alarm n.

REC	Meaning	Cause
A11	A11 Zone Alarm	Object detected in Zone A11
A12	A12 Zone Alarm	Object detected in Zone A12
A21	A21 Zone Alarm	Object detected in Zone A21
A22	A22 Zone Alarm	Object detected in Zone A22
B11	B11 Zone Alarm	Object detected in Zone B11
B12	B12 Zone Alarm	Object detected in Zone B12
B21	B21 Zone Alarm	Object detected in Zone B21
B22	B22 Zone Alarm	Object detected in Zone B22
BA	A2x and B2x Zone Alarm	both A2x and B2x zone in alarm
Ba	A1x and B2x Zone Alarm	Both A1x and B2x zone in alarm
BB	B1x and B2x Zone Alarm	Both B1x and B2x zone in alarm
ba	A1x and B1x Zone Alarm	Both A1x and B1x zone in alarm
bA	A2x and B1x Zone Alarm	Both A2x and B1x zone in alarm

AA	A1x and A2x Zone Alarm	Both A1x and A2x zone in alarm
EA	B2 + B1 + A1 Zones in Alarm	All zones in alarm
Ea	B2 + B1 + A2 Zones in Alarm	All zones in alarm
Eb	B2 + A1 + A2 Zones in Alarm	All zones in alarm
EB	B1 + A1 + A2 Zone in Alarm	All zones in alarm
AL	B2 + B1 + A1 + A2 Zone in Alarm	All zones in alarm
DQ	Distinguish Environment Output	heavy fog or rain Laser struggling to see
AR	Anti Rotation Output	Sensor has been rotated
AM	Anti Mask Output	Sensor in mask condition
TR	Trouble Output	Trouble output active - multiple causes e.g sensor fault
SO	Soiling of Window	Dirty on laser window
TA	Tamper Output	Tamper switch open
DM	Device monitoring "heartbeat"	When received Device is online

	4 ZONES	**8 ZONES**	**Combi Codes**
Input n 1	A1	A11	
Input n 2	-	A12	
Input n 3	A2	A21	
Input n 4	-	A22	
Input n 5	B1	B11	
Input n 6	-	B12	
Input n 7	B2	B21	
Input n 8	-	B22	
Input n 9			B1x and B2x
Input n 10			A1x and B2x
Input n 11			A1x and A2x
Input n 12			A1x and B2x
Input n 13			A2x and B1x
Input n 14			A2x and B2x
Input n 15			B2 + B1 + A1
Input n 16			B2 + B1 + A2
Input n 17			B2 + A1 + A2

Input n 18			B1 + A1 + A2
Input n 19			B2 + B1 + A1 + A2
Input n 20	DQ	DQ	
Input n 21	AR	AR	
Input n 22	AM	AM	
Input n 23	TR	TR	
Input n 24	SO	SO	
Input n 25	TA	TA	

System Requirements

Wavestore Version 6.14 and above.

An Optex Redscan Device

The REDSCAN Integration Module (**TCP_Redscan.lua**)

The Wavestore server must be licensed for Redscan integration

(Wavestore part number **INT-WS-REDSCAN-01**)

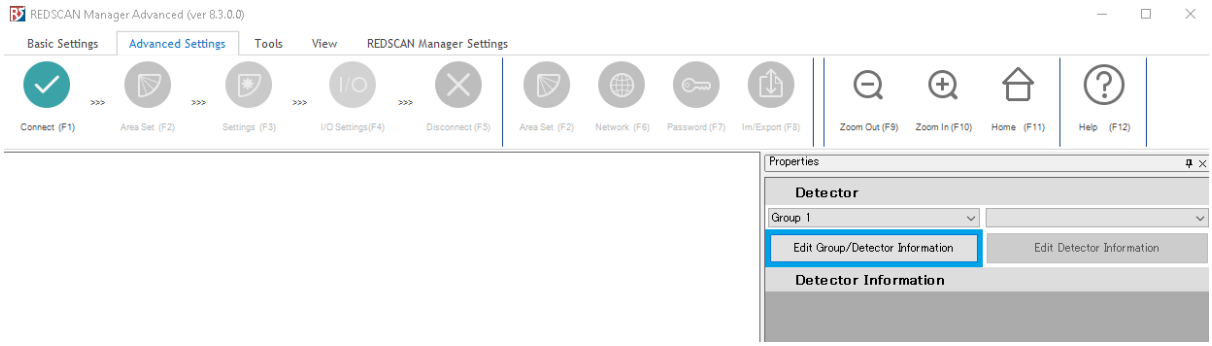
Setting up the Redscan Device

The Redscan device needs to be configured first to confirm that the device is ready to send an event to the server. To do this you will need to:

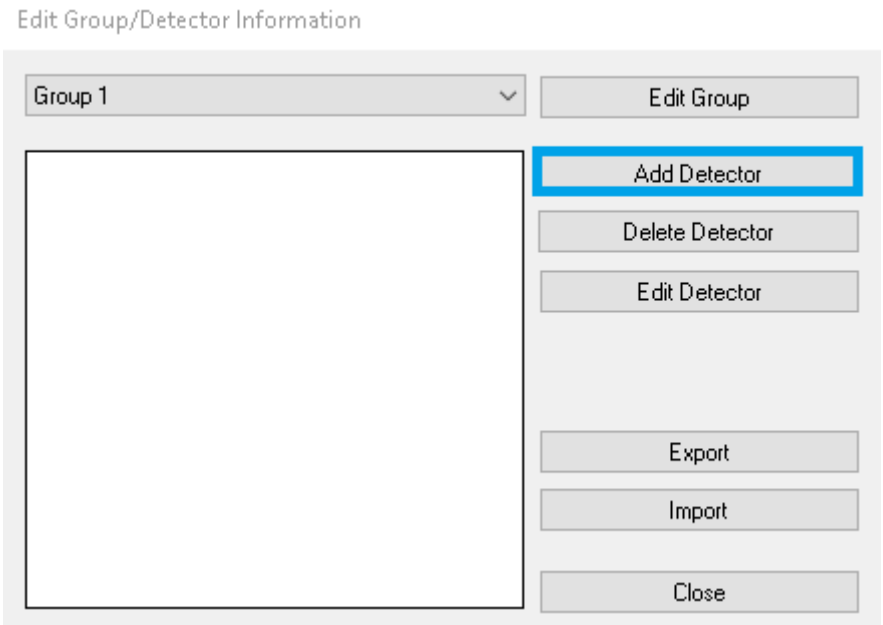
1. Download the Redscan Manager Advanced from Optex or contact an Optex representative to obtain a copy
2. Once the application is installed, open it and log in with the default details below:

Username: REDSCAN
Password: OPTEX

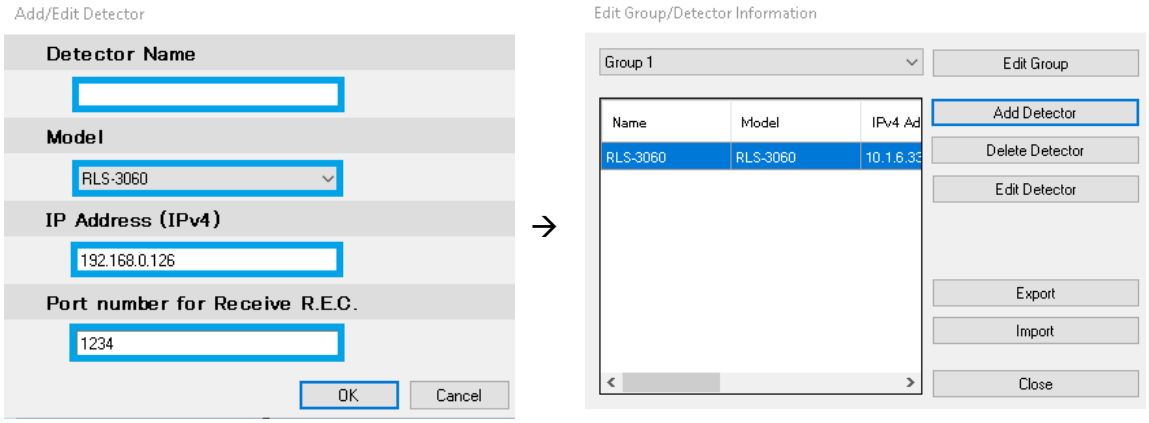
3. Click on **Edit Group/Detector Information**



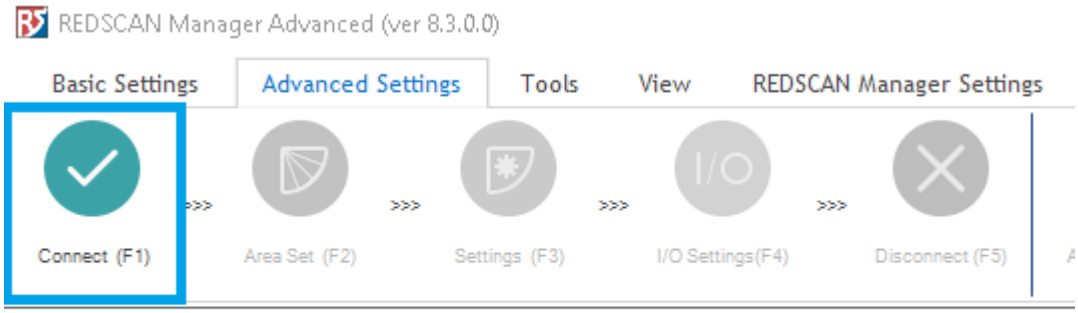
4. Click **Add Detector**



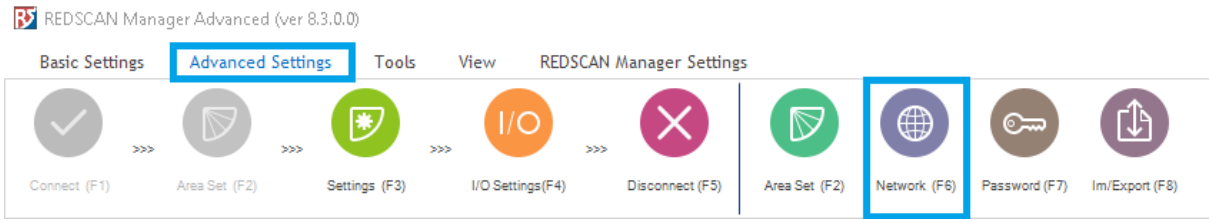
5. Type in a suitable name, select the model from the dropdown list, assign it an IP address and a suitable port number, then press OK

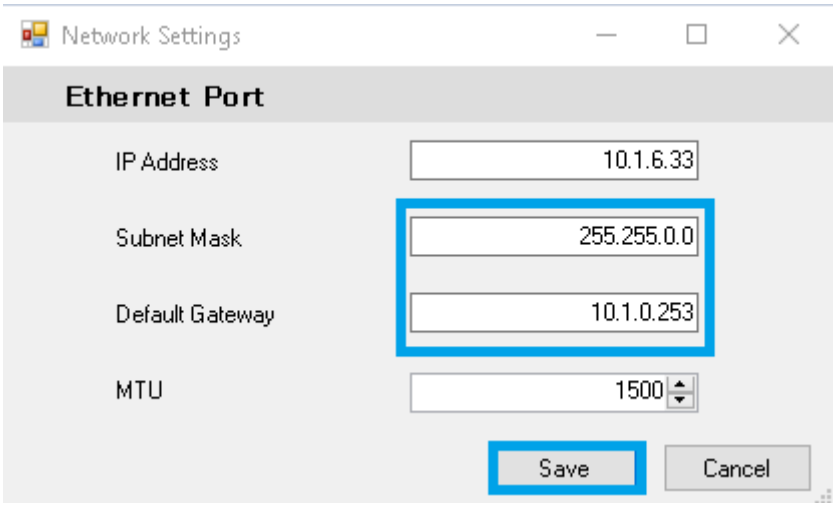


6. You can always come back to **Edit Group/Detector Information** to reconfigure the IP address, group name or delete device
7. Click **Connect (F1)**

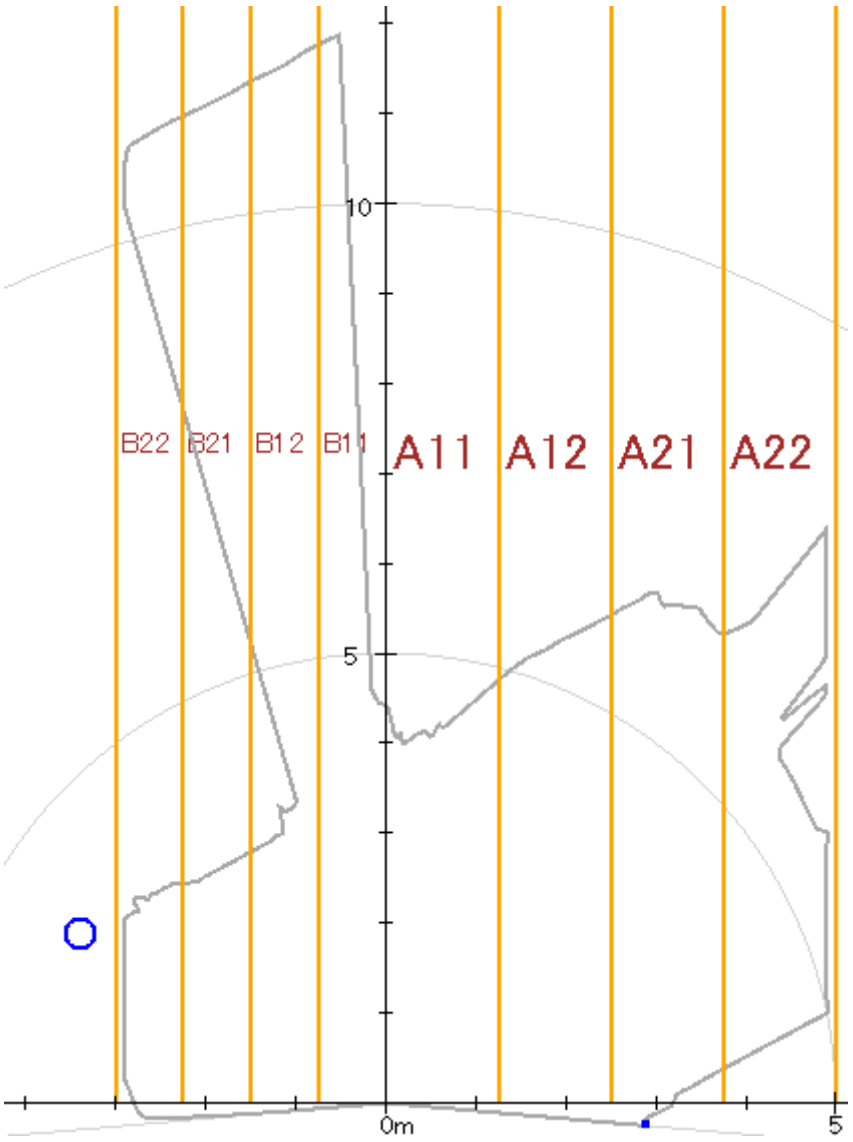


8. Go to **Advanced Settings** → **Network** (**F6**) to set up the **Subnet Mask** and **Gateway**. Once configured, click **Save**

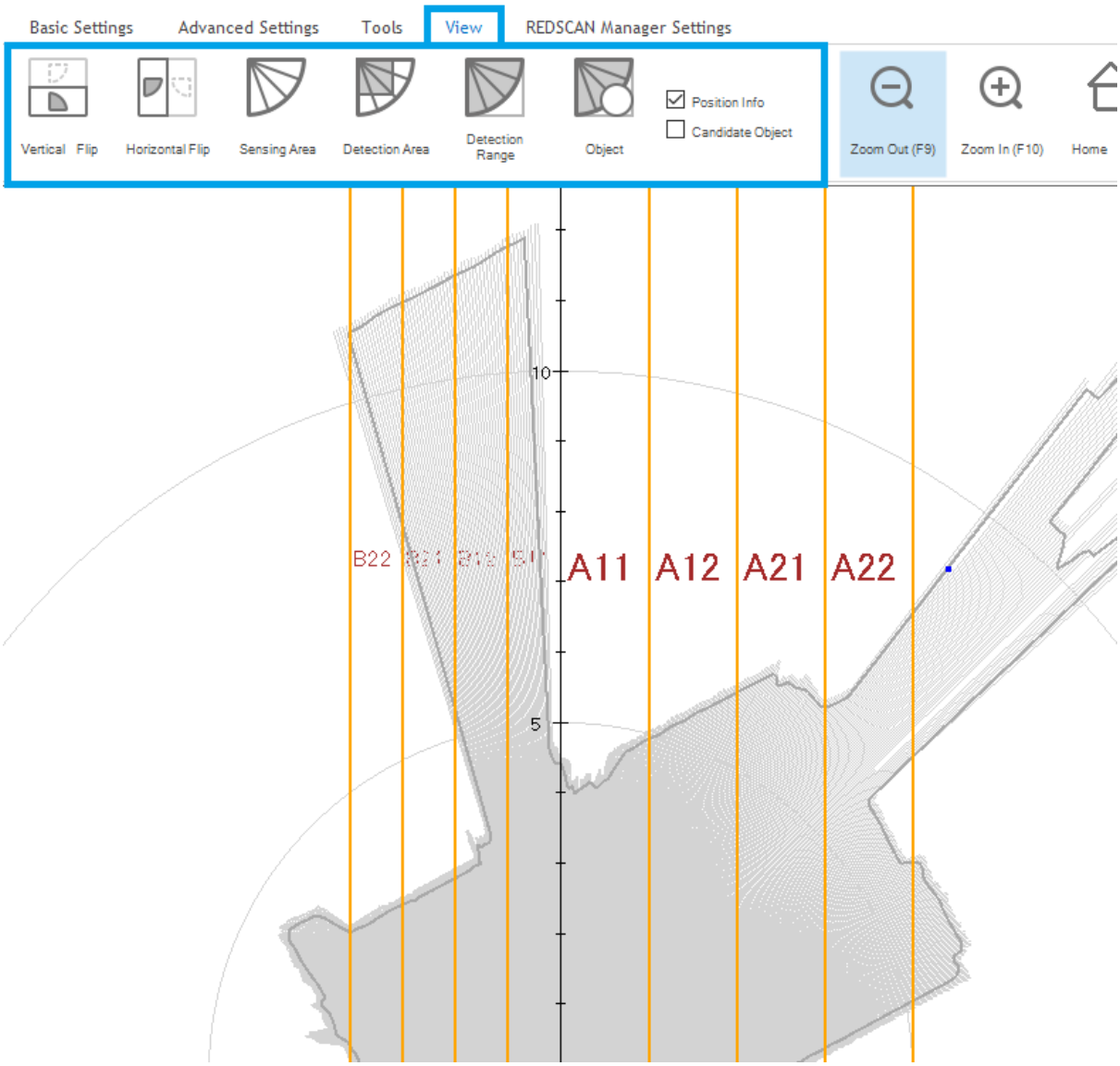




9. You should see an area/perimeter that the Redscan device detects (as per example below):

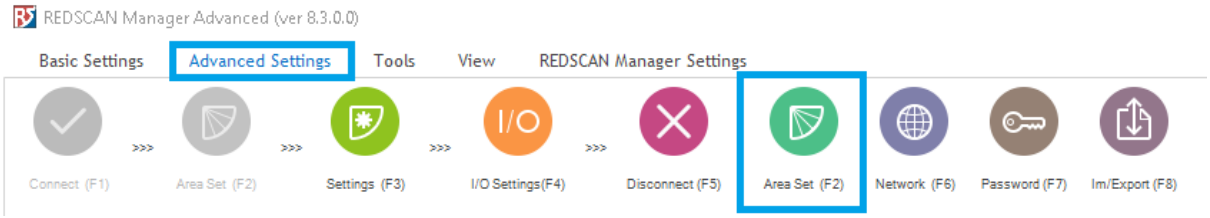


10. Note that your detected area will look quite different
11. You can adjust your map to an orientation or highlight of your liking in the **View** menu



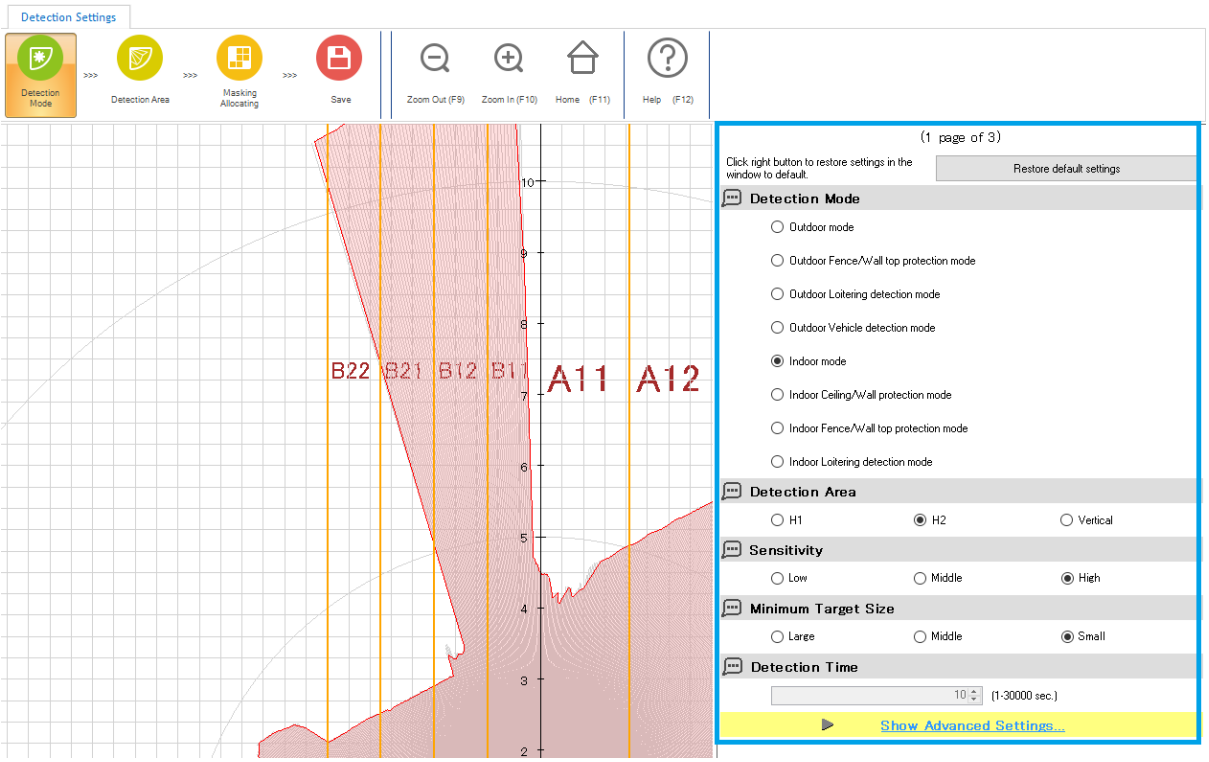
12. If you do not see a detected area or you have moved your Redscan device to a different angle/location, you will need to reset the area

13. Go to **Advanced Settings** → **Area Set** (**F2**)

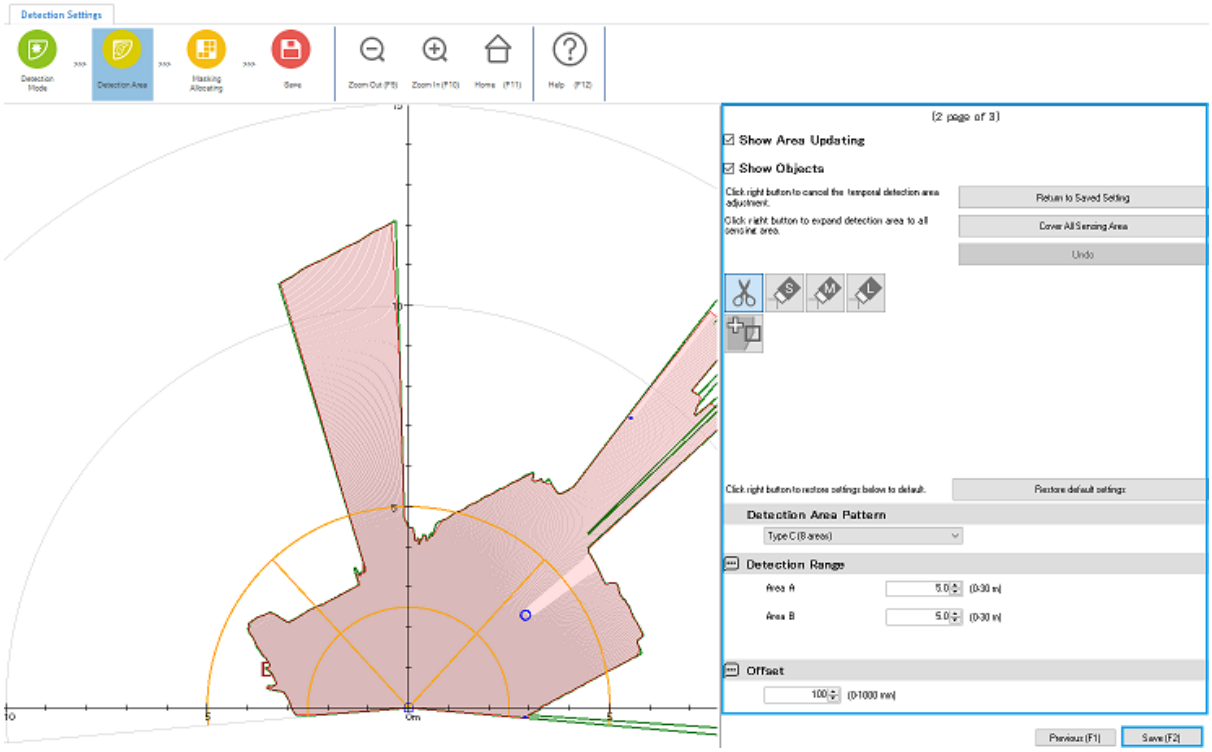


14. Click OK. The device will begin to rescan the new area.

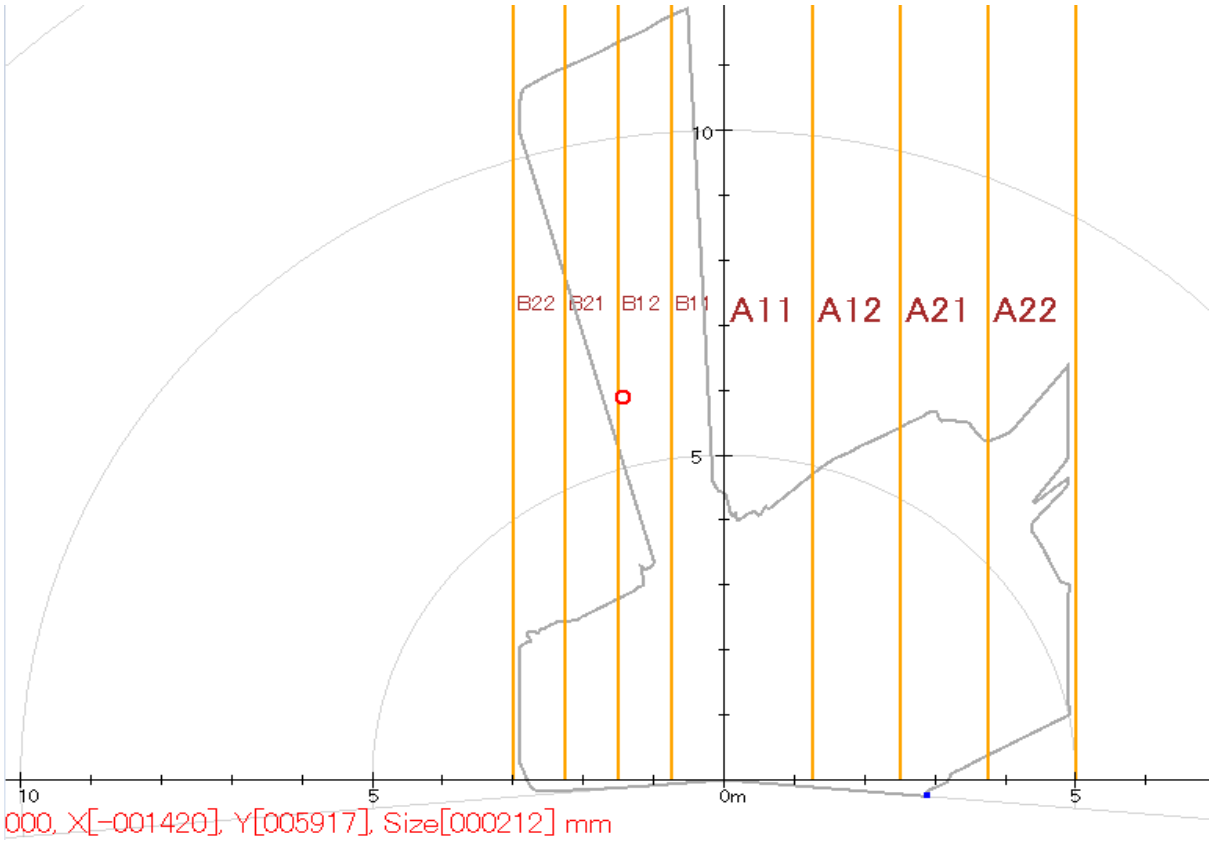
15. Go to **Advanced Settings** → **Settings** (**F3**)
16. Adjust to your preferred **Detection Mode**, **Sensitivity**, **Object Size** and **Detection Area**



17. Click **Next (F2)**
18. Adjust to your preferred **Detection Area**, **Pattern (4 or 8 Areas)** and **Range**



19. Click **Save (F2)**
20. You will see a red dot when a person/item/movement is detected within the set range



For any further configurations, please refer to the Redscan Manager Advanced Manual.

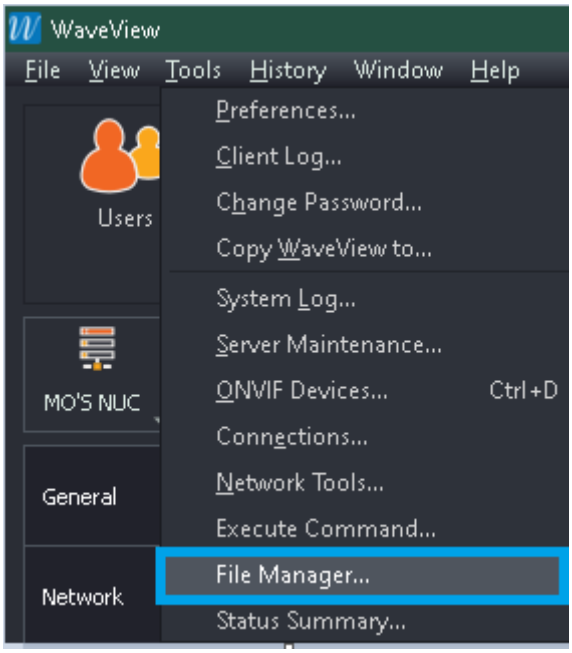
Uploading the REDSCAN Integration Module

A Wavestore REDSCAN Integration Module must be uploaded to the Wavestore server to receive events. The module itself is available as a zip file and can be obtained by contacting Wavestore Customer Services by emailing support@wavestore.com. It is a file called **TCP_Redscan.lua.zip**

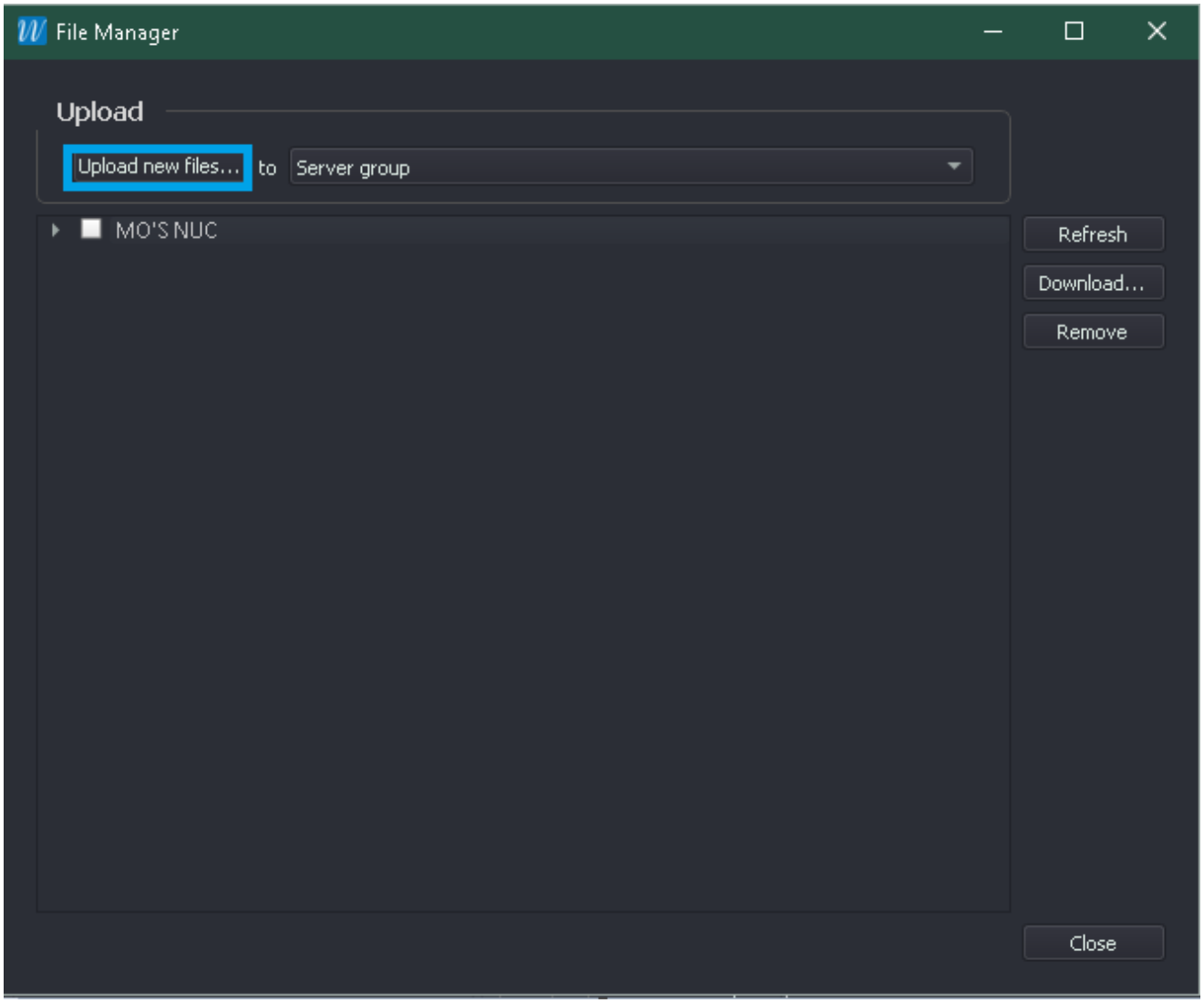
Put this file in an easy-to-find folder on the Workstation that has the WaveView client software installed and is being used to connect to the Wavestore servers.

It is uploaded to a Wavestore server as follows:

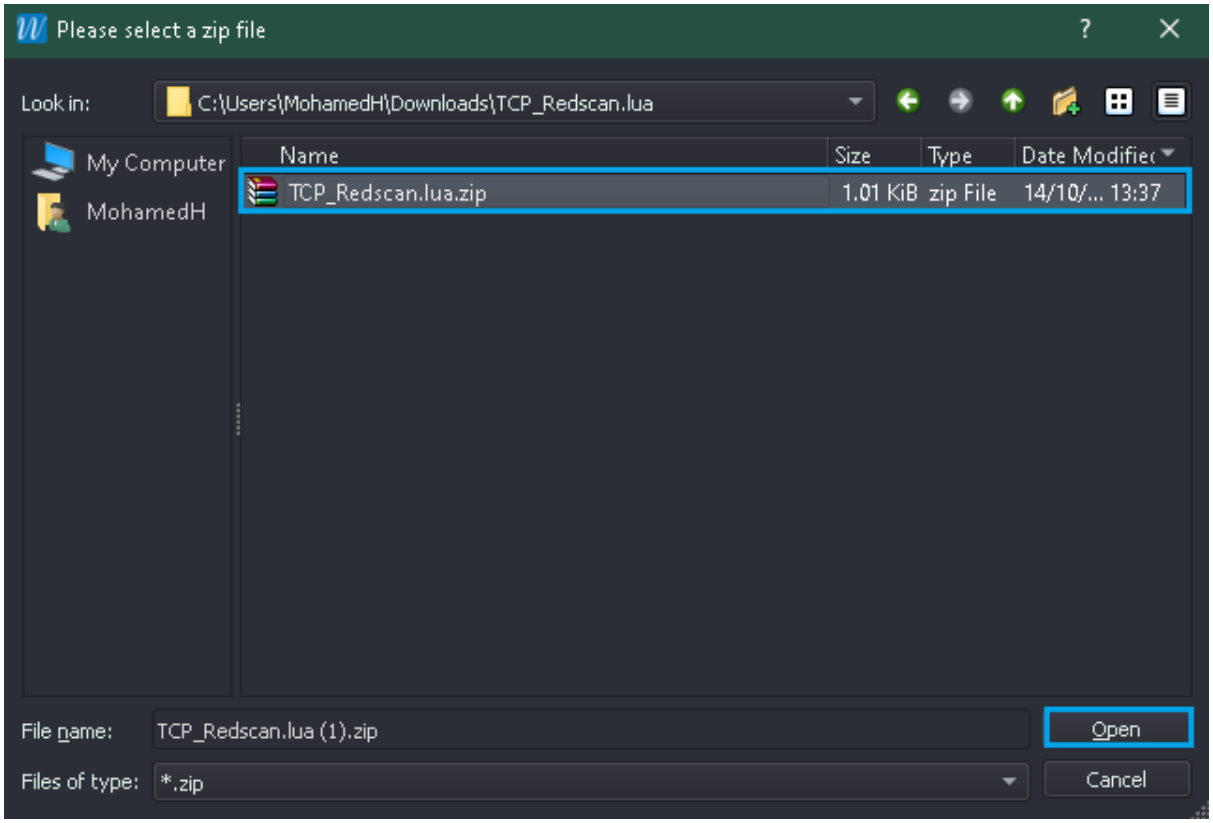
1. On the WaveView client, connect to the Wavestore server
2. Go to **Tools**→ **File Manager**



3. Click the "**Upload new files…**" file button

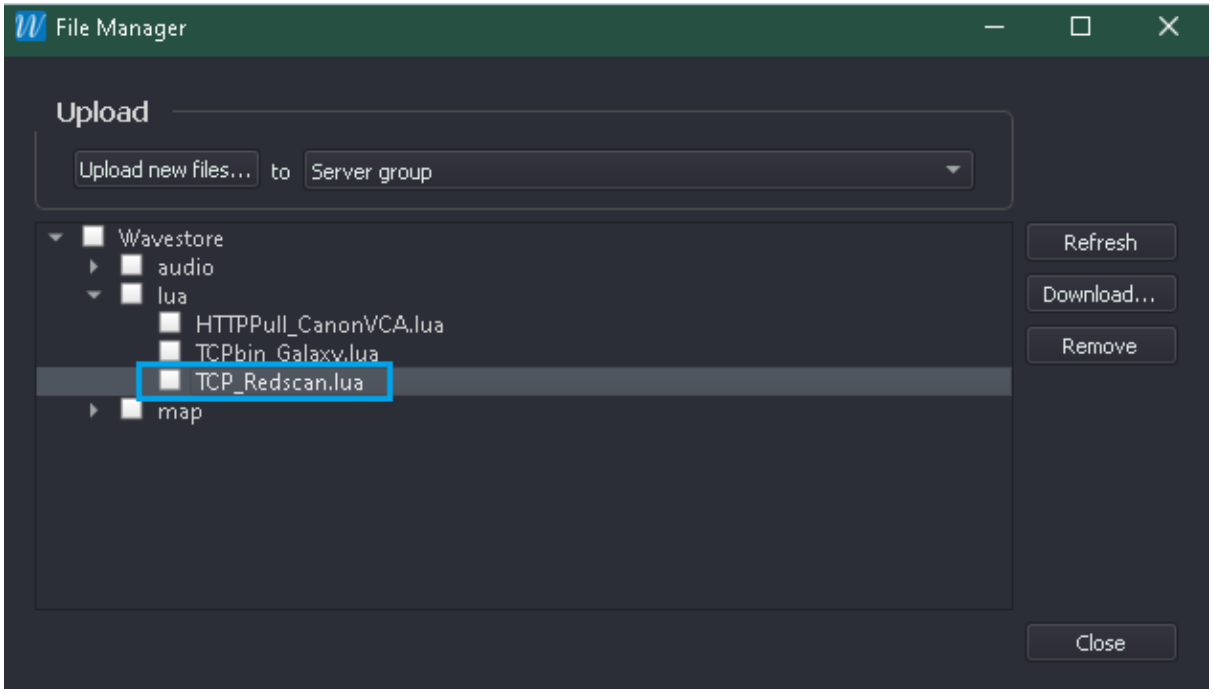


4. Navigate to REDSCAN Integration Module Zip file (**TCP_Redscan.lua.zip)**



5. Click Open. The file will then be uploaded to the Wavestore server and installed

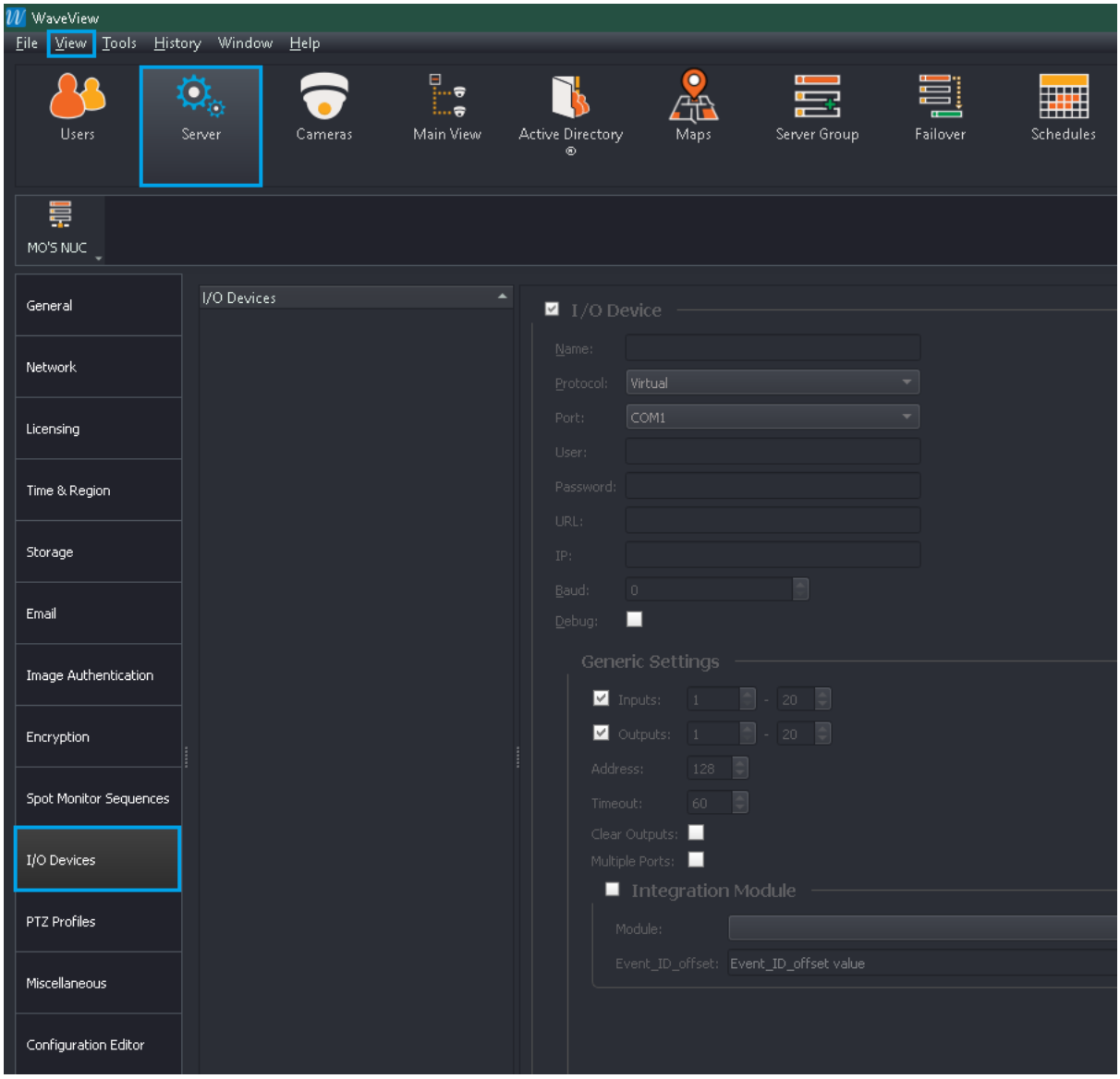
6. Please check that the **TCP_Redscan.lua** Integration script is shown in the below list, then close the window



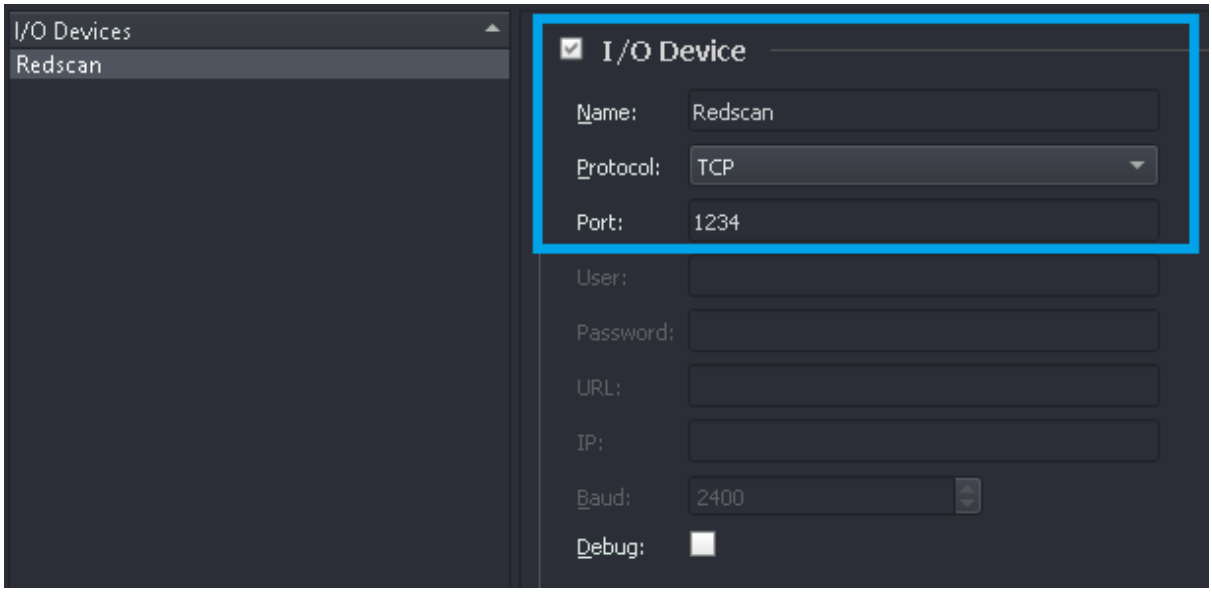
Note that not all the other files shown here will necessarily be on your system.

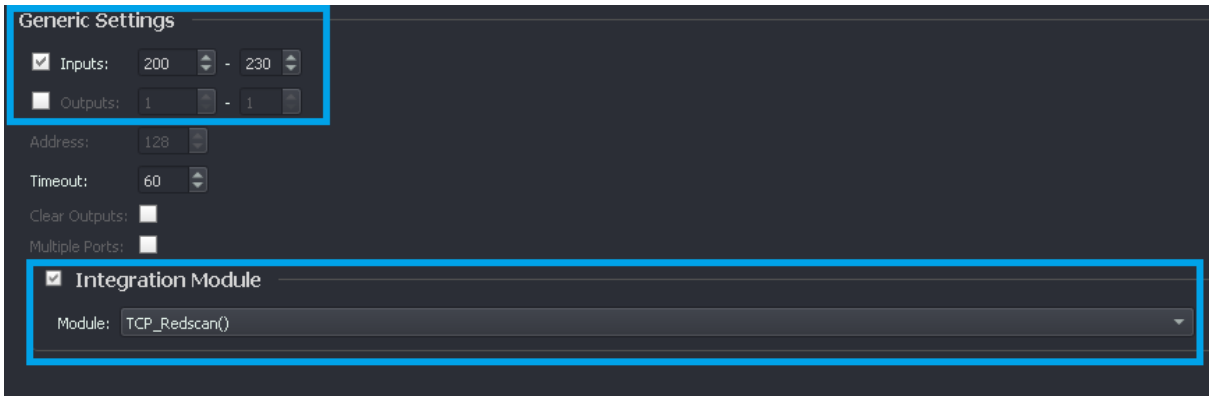
Setting up Input Devices on the Wavestore Servers

1. Connect to the Wavestore server with WaveView using an install level user account
2. Go to **View** → **Setup** → **Server** → **I/O Devices**
3. Add a new I/O Device



4. Type a custom Name
5. Select TCP Protocol
6. Type the port you've set in the Redscan Manager (multiple system can be directed to multiple ports of one Wavestore server)



7. Set your inputs (please see **Integration Description**)
8. Under General Settings:
9. Enable the Integration Module by checking the related checkbox
10. Select from the dropdown menu TCP_Redscan
11. 

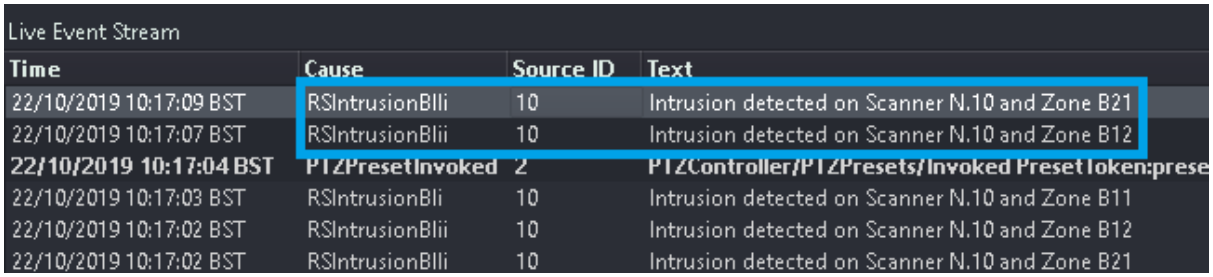
12. Click Save

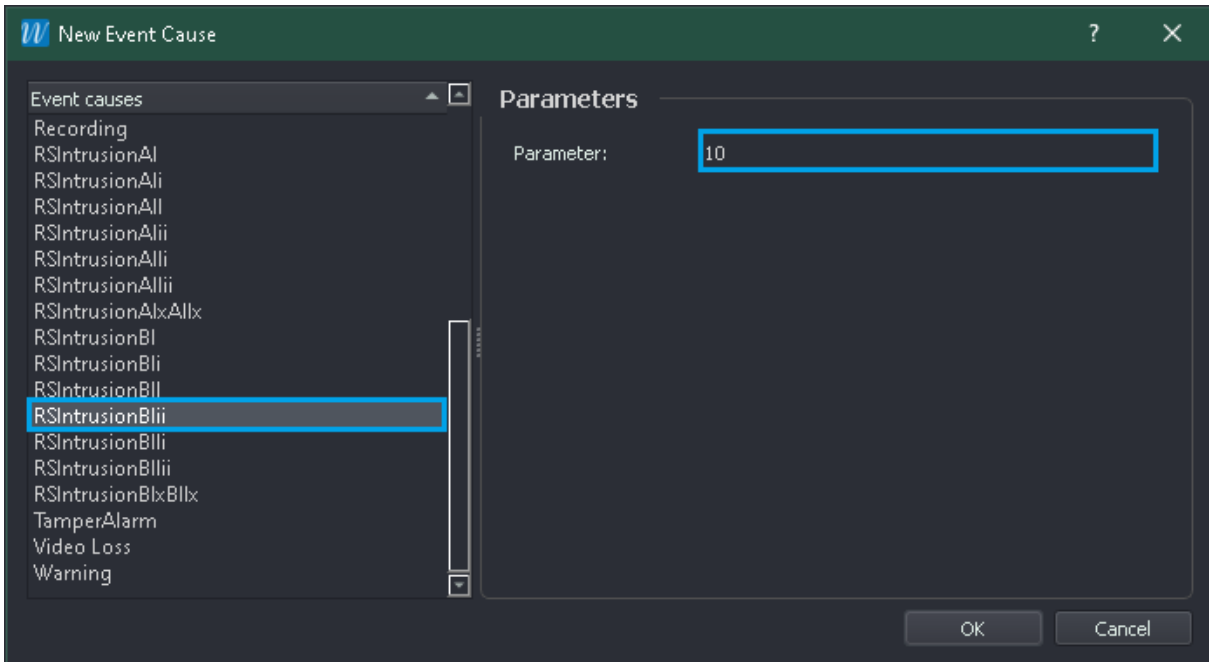
Setting up Event Rules

Important: Events raised by the Redscan device will only be visible in the Wavestore server **AFTER** at least one event per type (e.g. **Zone A11**) is received into the Wavestore server.

When setting up the system, ensure to send each type of zone events from the Redscan device so that Wavestore can detect it and make it available for further configuration.

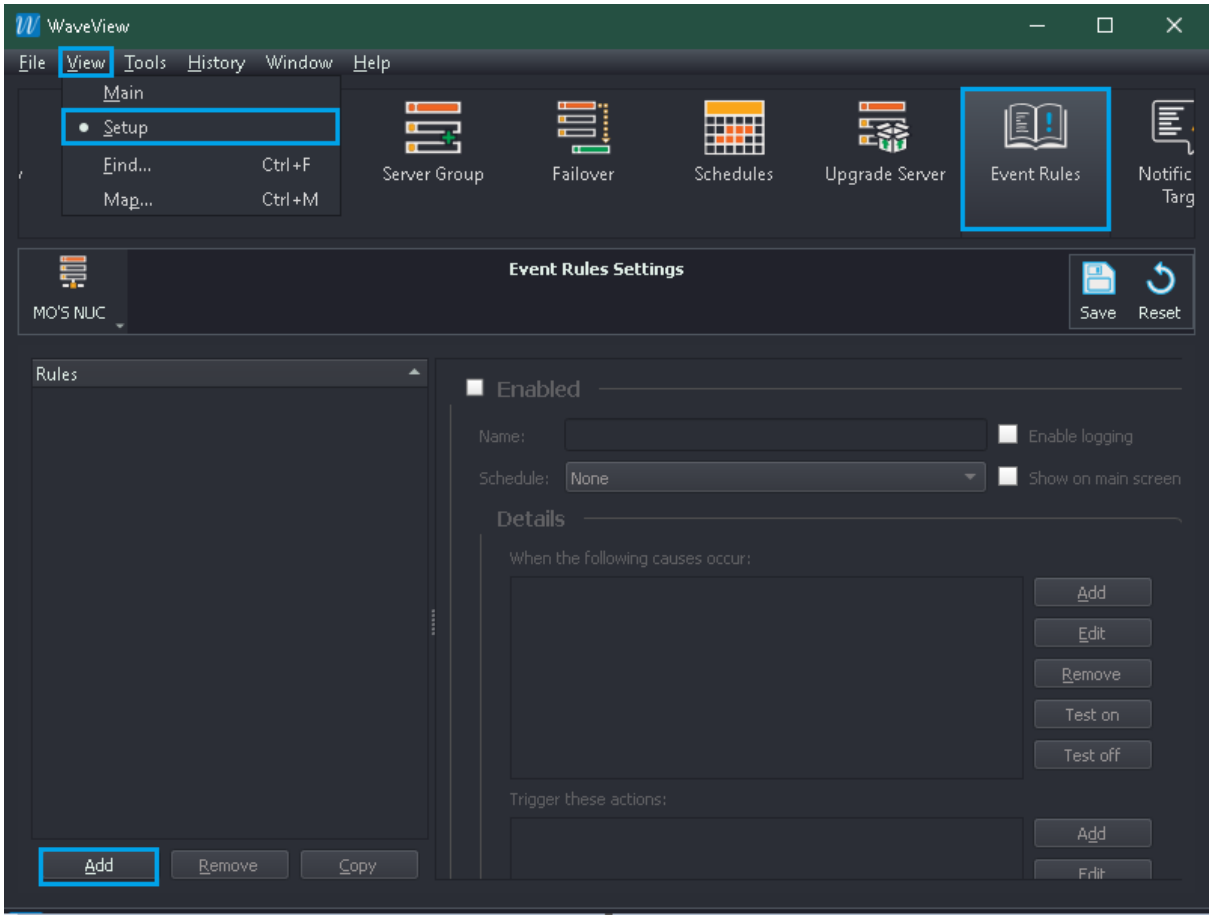
Once an event is received (e.g **Zone B12** is triggered), a RSIntrusion input message will appear on the Live Event Stream, displaying the zone (e.g **Zone B12** in Roman Numerals - **RSIntrusionBIii**) and a Source ID number which will be needed for event rules.



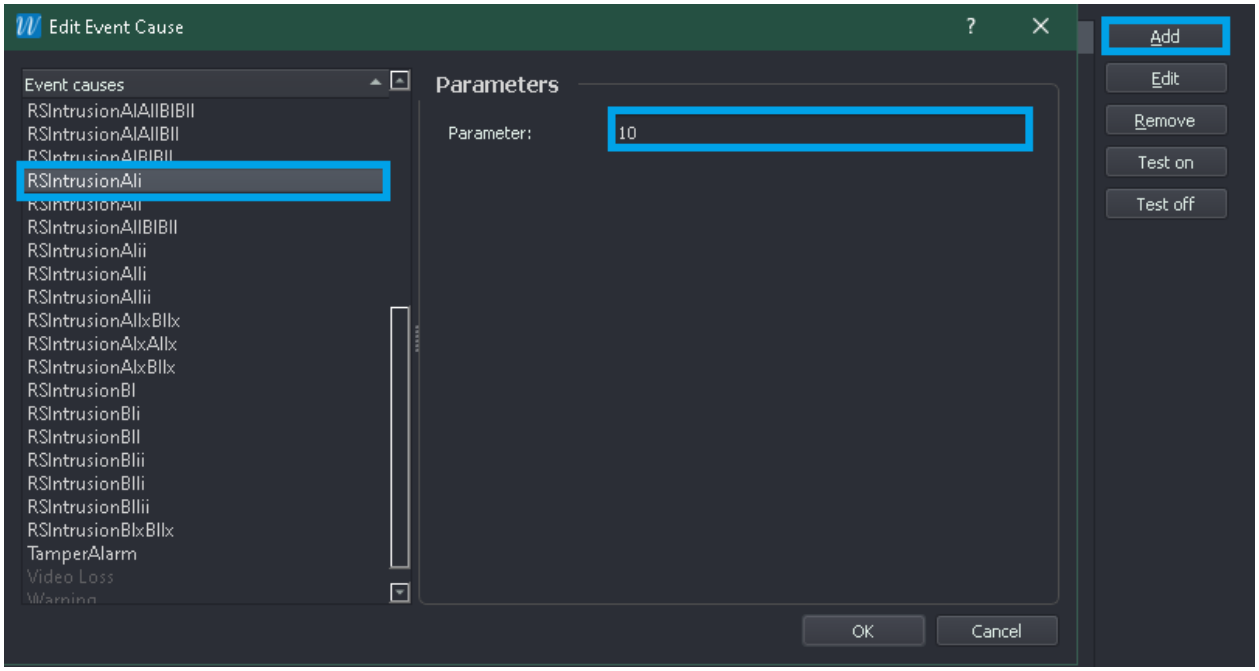


1. Go to **View** → **Setup** → **Event Rules**

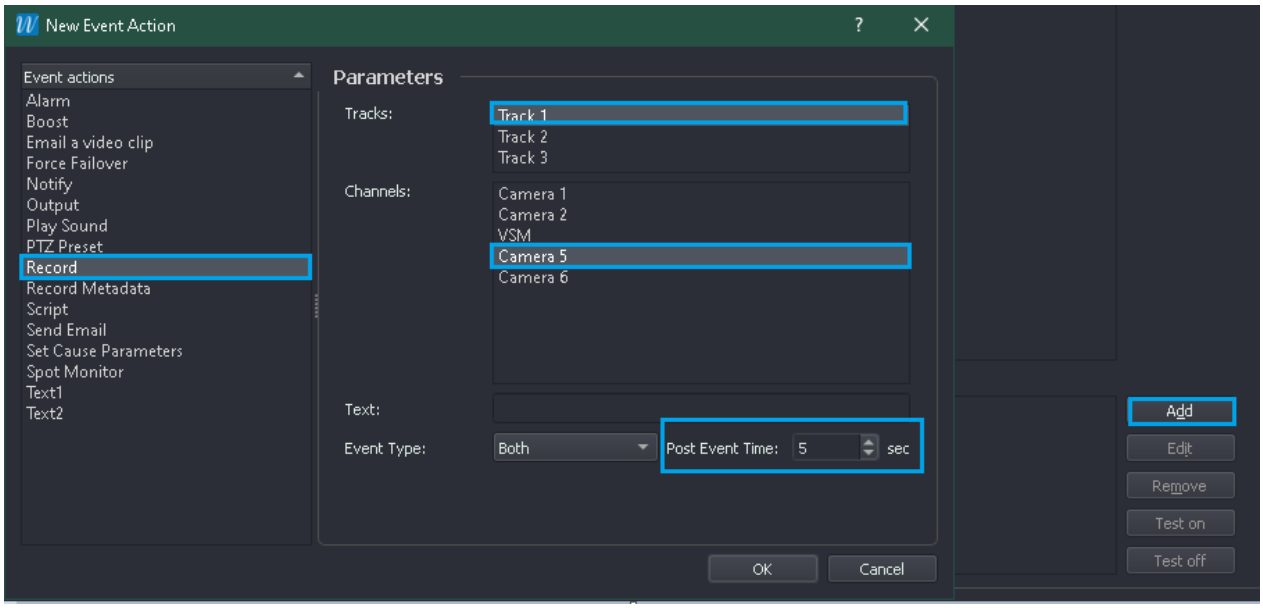
2. Add a new Event Rule and give it a suitable name



3. Select the cause as RSIntrusion, select the same input as the zone you are setting (e.g ZoneA11 - RSIntrusionIi), and enter the Source ID give in the Live Event Stream in the Parameter



4. Click OK, then add a new Event Action and set it to record on a camera



5. You can determine how long you want to record after the event by configuring the Post Event Time
6. Save the configuration and Restart Process. (**View** → **Setup** → **Server** → **General** → **Restart Process**)

Important: The event cause/trigger is not limited to just only record. The events received from the Canon camera can be used to provide much more, such as sending an email alert out to staff, sending a short video clip out to a recipient of your choosing, commanding a PTZ camera to a specific preset etc(see Event Actions in **Step 4**)

Viewing Redscan Events in Waveview

The system configuration is now complete and should be tested to make sure it responds as expected.

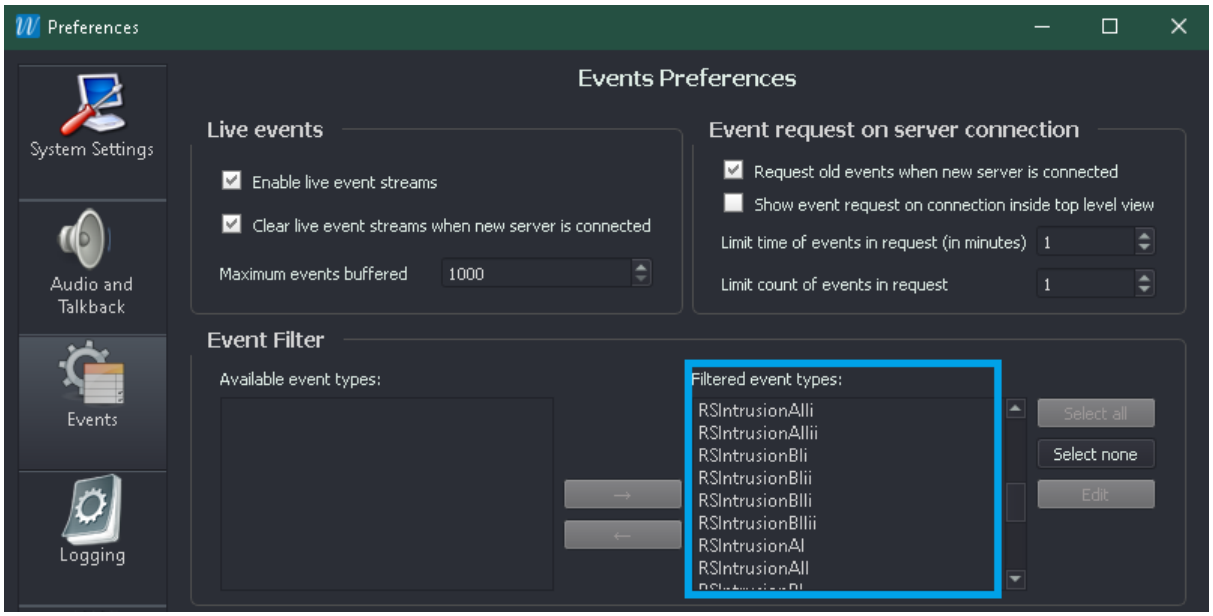
Events should be sent from the Redscan device to the Wavestore servers and then they should appear in the Live Event stream at the bottom of the WaveView client screen.

Live Event Stream

Time	Cause	Source ID	Text
22/10/2019 11:49:50 BST	RSIntrusionAIii	10	Intrusion detected on Scanner N.10 and Zone A12
22/10/2019 11:50:01 BST	RSIntrusionAIii	10	Intrusion detected on Scanner N.10 and Zone A12
22/10/2019 11:51:44 BST	RSIntrusionAIii	10	Intrusion detected on Scanner N.10 and Zone A12
22/10/2019 11:51:56 BST	RSIntrusionAIii	10	Intrusion detected on Scanner N.10 and Zone A12
22/10/2019 11:52:10 BST	RSIntrusionAIii	10	Intrusion detected on Scanner N.10 and Zone A12
22/10/2019 11:52:23 BST	RSIntrusionAIii	10	Intrusion detected on Scanner N.10 and Zone A12
22/10/2019 11:52:49 BST	RSIntrusionAIii	10	Intrusion detected on Scanner N.10 and Zone A12
22/10/2019 12:02:07 BST	RSIntrusionAIii	10	Intrusion detected on Scanner N.10 and Zone A12
22/10/2019 10:17:09 BST	RSIntrusionBIIi	10	Intrusion detected on Scanner N.10 and Zone B21
22/10/2019 10:21:49 BST	RSIntrusionBIIi	10	Intrusion detected on Scanner N.10 and Zone B21
22/10/2019 10:21:52 BST	RSIntrusionBIIi	10	Intrusion detected on Scanner N.10 and Zone B21
22/10/2019 10:21:59 BST	RSIntrusionBIIi	10	Intrusion detected on Scanner N.10 and Zone B21
22/10/2019 10:22:04 BST	RSIntrusionBIIi	10	Intrusion detected on Scanner N.10 and Zone B21
22/10/2019 10:26:05 BST	RSIntrusionBIIi	10	Intrusion detected on Scanner N.10 and Zone B21

What to do if they do not appear:

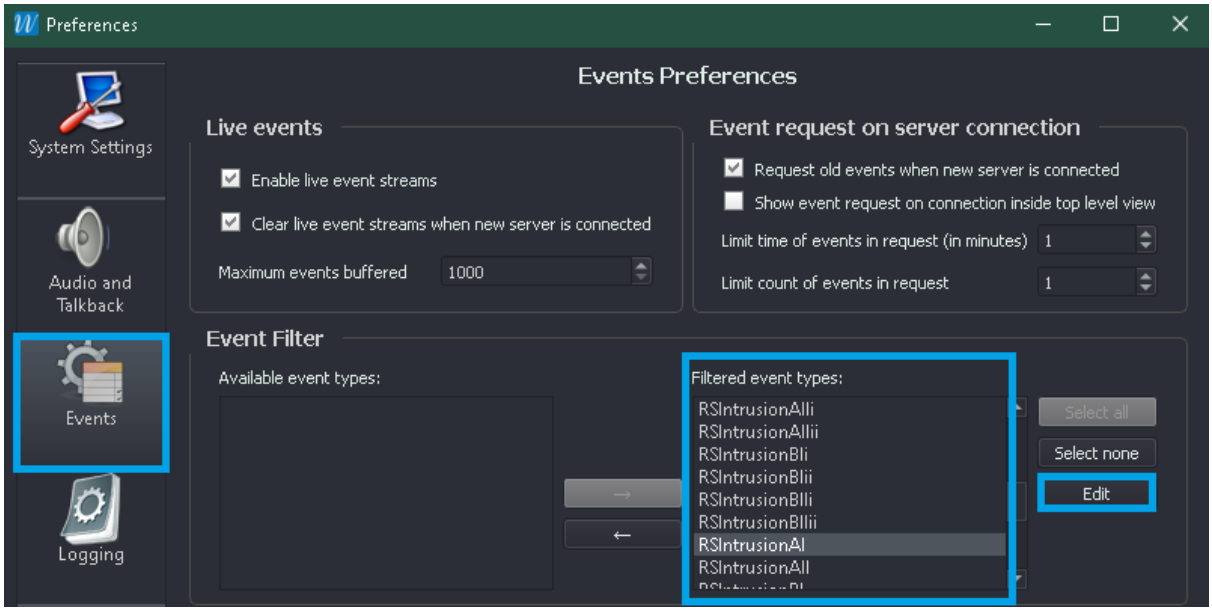
1. Check the communication between the Redscan device and the server (i.e. firewall, etc.)
2. Check your Wavestore server licence
3. Check if any error is shown in the Wavestore system log
4. Check if the events are in the filtered event types column in the Event Preferences (Tools>Preferences>Events), if they aren't please move them.



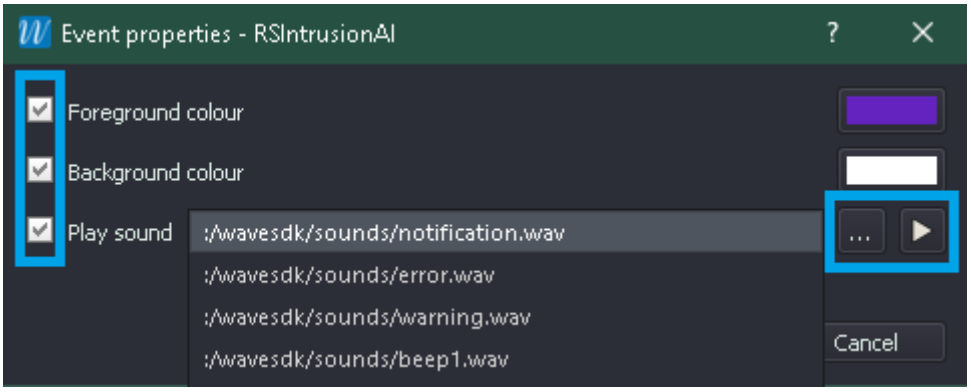
You can also (if preferred) set a specific colour for an event or configure it to play a certain sound when an event is triggered.

To do this you will need to:

1. Go to **Tools** → **Preferences** → **Events** → **Filtered Event Types** → **(Select the event you wish to edit)** → **Edit**



2. Enable the Foreground and background colouring option to select your colour and Enable Play Sound.
3. You can select from the list of default sounds or browse your PC for a saved file.



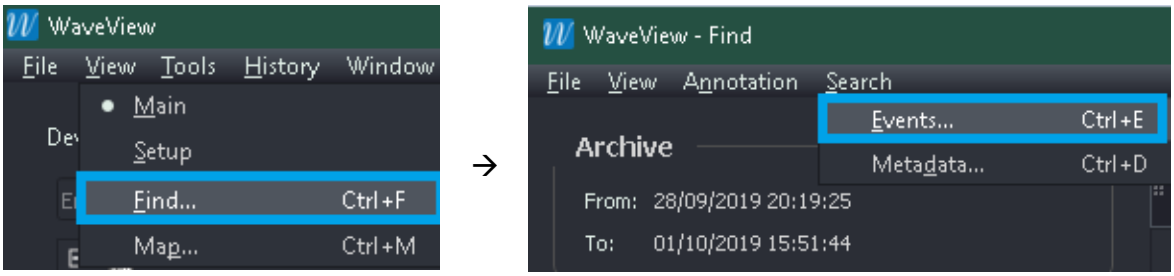
4. The audio file must be in a .WAV format.
5. Click **OK** then **Apply**

Finding Canon VCA Events in Waveview

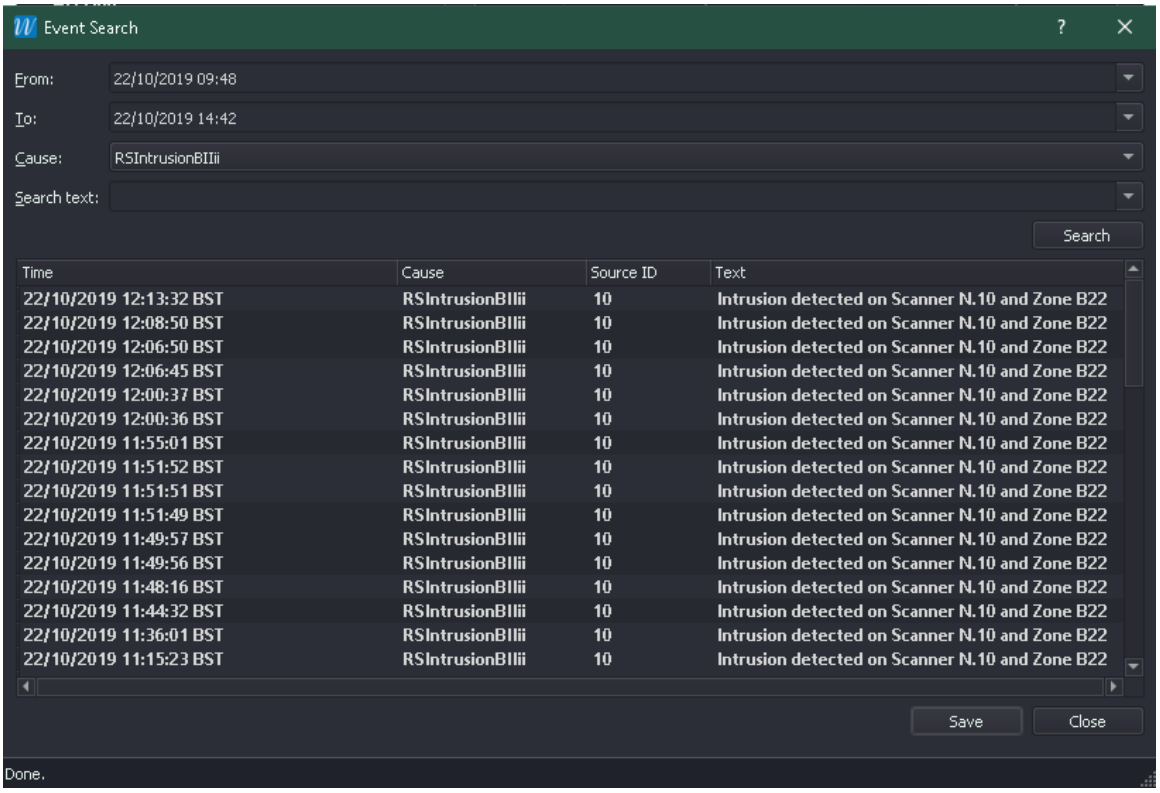
Events that have occurred on the Canon camera can be searched for using the Find Screen of the WaveView client.

This is done using the Find Events feature in the WaveView client and this allows users to search for a specific event and retrieve the associated video footage from the camera monitoring the device, e.g. **RSIntrusionBIIii (Zone B22)**, in question to exactly what happened. The video and associated data can then be easily exported for use as evidence etc.

To do this, go to **View** → **Find** → **Search** → **Events**



Here we have searched for events associated with **RSIntrusionBIIii (Zone B22)**. There have been multiple events: -

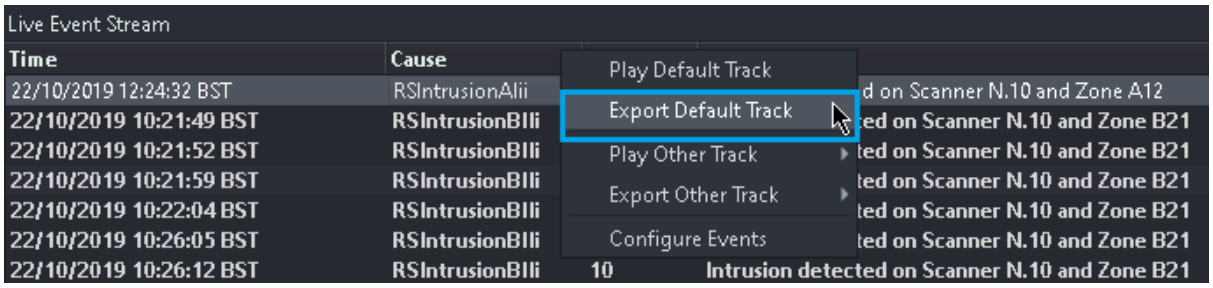


The export facility of the Find screen can then be used to take evidential copies of this event, or alternatively, clicking save in the Events Search screen will create a spreadsheet copy of the events required.

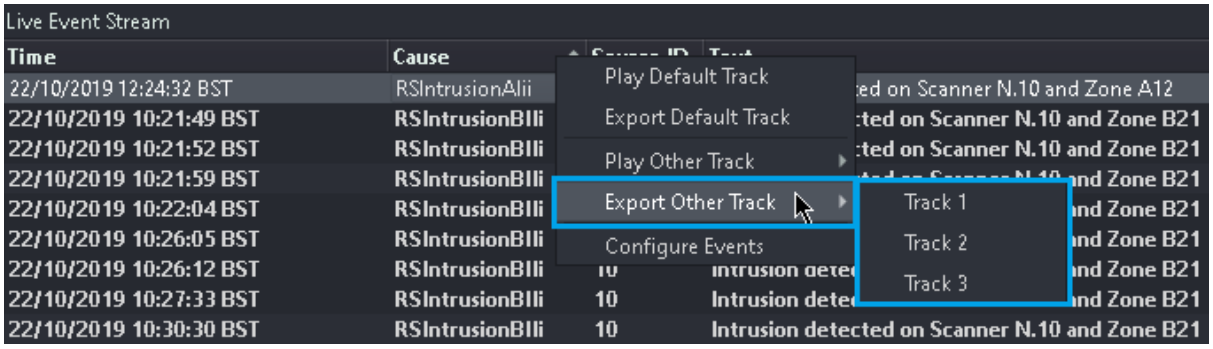
Quick Event Export

A user can manually export footage for an event (e.g. Zone A12) by right clicking on that event in the Live Event Stream window and clicking Export.

You can either export the event from its default track:



Or select another recording track:



More information can be found in section (3.18.3 Events) of the Wavestore manual.