

NEURAL EDGE

User Manual
V1.7



Index

History:.....	3
1. Overview	4
2. Installation Requirements.....	5
2.1. Camera requirements	5
2.2. Storage requirement	6
2.3. License Plate Character size	7
2.4. Camera Positioning	8
3. Installation Process	9
3.1. Package upload.....	9
3.2. Starting Service ANPR.....	11
3.3. Neural Edge Management Browser	12
3.4. First access (selection country)	13
4. Web View	14
4.1. Tab	14
4.2. Live Tab.....	15
4.3. Review Tab	18
4.4. List Tab.....	21
4.4.1 Configure Milestone	41
4.4.2 Configure VAST2.....	42
4.5. LPR Configuration Tab	45
4.6. General Configuration Tab	52
4.7. Audit Tab	55
4.8. Logs Tab.....	57
5. Camera list synchronization.....	58
5.1. Architecture 1.....	58
5.1.1. Master configuration	58
5.1.2. Slave configuration	59
5.2. Architecture 2.....	61
5.2.1. Master configuration	61
5.2.2. Slave configuration	63
6 Troubleshooting	65
6.1 Mode: NO LICENSE	65
6.2 Mode: STOPPED.....	65
6.3 No enough space at Camera or SD	66
6.4 The system does not recognize license plates	66
6.5 Problem with ACTIONS	67
6.5.1 Socket client	69
6.5.2 Socket server or VAST2	70
6.5.3 IO	71
6.5.4 FTP	72
6.5.5 HTTP/MILESTONE/WIEGAND	73
6.5.5 MILESTONE.....	74

History:

Date	Creator	Details
13.02.2019	Rodrigo Espinoza	Initial Document
15.02.2019	Rodrigo Espinoza	Draft Document
21.02.2019	Rodrigo Espinoza	Draft 5 Document
22.02.2019	Elias Valcarcel	Finish doc and review
23.02.2019	Miguel Angel Rubia	New elements and adjustment
28.02.2019	David Del Olmo	Last corrections. Version 1.3
04.03.2019	Elias Valcarcel	Check
04.03.2019	David Del Olmo	Checks in live screen
26.03.2019	Miguel Angel Rubia	Trouble shooting. Version 1.4
29.03.2019	David Del Olmo	Check. Version 1.5
08.04.2019	David Del Olmo	Synchronization chapter
16.04.2019	Miguel Angel Rubia	Milestone configuration chap.
25.04.2019	David Del Olmo	New sincro method. Version 1.15

1. Overview

Neural Edge is a powerful LPR application developed by Neural Labs embedded in Vivotek cameras.

Neural Edge is the all in one product to plug and play, ready to read plates just out of the box.

It Includes an interface web application that allows you to manage different scenarios, avoiding extra hardware and software installations.

2. Installation Requirements

2.1. Camera requirements

It is recommended a minimum size of 2GB of free space in the camera.
If this space is not available, it must be completed with a Micro SD.
The micro SD should be formatted in **EXT4 format**.

List of compatible cameras:

IB9387

IB9365

IB9165

Minimum firmware 0106b

General compatibility: Cameras with processor Hisilicon Hi3519 and Linux System

2.2. Storage requirement

The preset values suppose a **40% of JPEG compression** (default system value)

In the following table we can find *estimation of size* requirements:

Size/Registers	1	1000	5000	10000	100000
640x480	13KB	12.7 MB	63.5 MB	127 MB	1.24 GB
800x600	20KB	19.5 MB	97.7 MB	195.3 MB	1.9 GB
1280x720	25KB	24.4 MB	122 MB	244.14 MB	2.38 GB
1600x904	70KB	68.35 MB	341.8 MB	683.6 MB	6.68 GB
1920x1080	110KB	107.4 MB	537,1 MB	1.05 GB	10.5 GB

Estimation with an affluence of 100 cars per day.

Size/GB	2	8	16	32	64
640x480	4.4 years	17.6 years	30.53 years	70 years	140 years
800x600	2.8 years	11.5 years	20.3 years	40.5 years	90 years
1280x720	2.27 years	9.1 years	10.8 years	30.7 years	70.3 years
1600x904	290 days	3.2 years	6.5 years	10.3 years	20.6 years
1920x1080	190 days	2 years	4.16 years	8.3 years	10.6 years

Estimation with an affluence of 1000 cars per day.

Size/GB	2	8	16	32	64
640x480	161 days	645 days	3.53 years	7 years	14 years
800x600	105 days	420 days	2.3 years	4.5 years	9 years
1280x720	83 days	335 days	1.8 years	3.7 years	7.3 years
1600x904	29 days	119 days	239 days	1.3 years	2.6 years
1920x1080	19 days	76 days	152 days	305 days	1.6 years

Estimation with an affluence of 10000 cars per day.

Size/GB	2	8	16	32	64
640x480	16 days	64 days	128 days	256 days	512 days
800x600	10 days	42 days	84 days	168 days	336 days
1280x720	8 days	33 days	66 days	132 days	264 days
1600x904	2 days	11 days	23 days	46 days	92 days
1920x1080	1 days	7 days	15 days	30 days	60 days

2.3. License Plate Character size

Characters in license plates must have an average height between 20 to 80 pixels, being 25 pixels a good reference value. Less resolution may lead character confusion in some countries. In addition, camera sensitivity affects too. For countries in which there are different character sizes on their license plates, this fact must be kept in mind, so the small characters are included in the detection range.

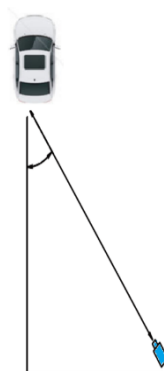


2.4. Camera Positioning

Recommended vertical angles are approximately 20° . The maximum recommended value is 35° .



Recommended horizontal angles are approximately 20° . The maximum recommended value is 35° .



The angle between the plates and the X axis of the scene must be inferior to 25° .



Recommended Parametrization

It should be mentioned that the following recommendations and specifications, are general and may vary depending on the brand and model of the selected camera and the country they are to be installed.

Common Scenario

Common scenario: 1 lane

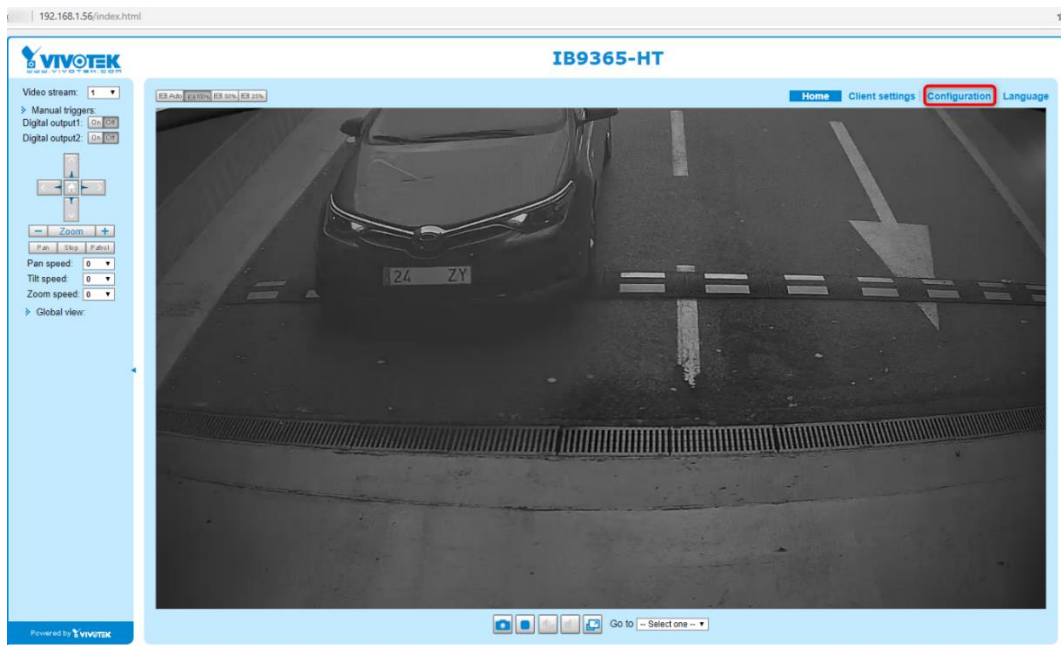
Sensor size: VGA o 1 MP

Height of camera on pole: 1 - 1.5 metros

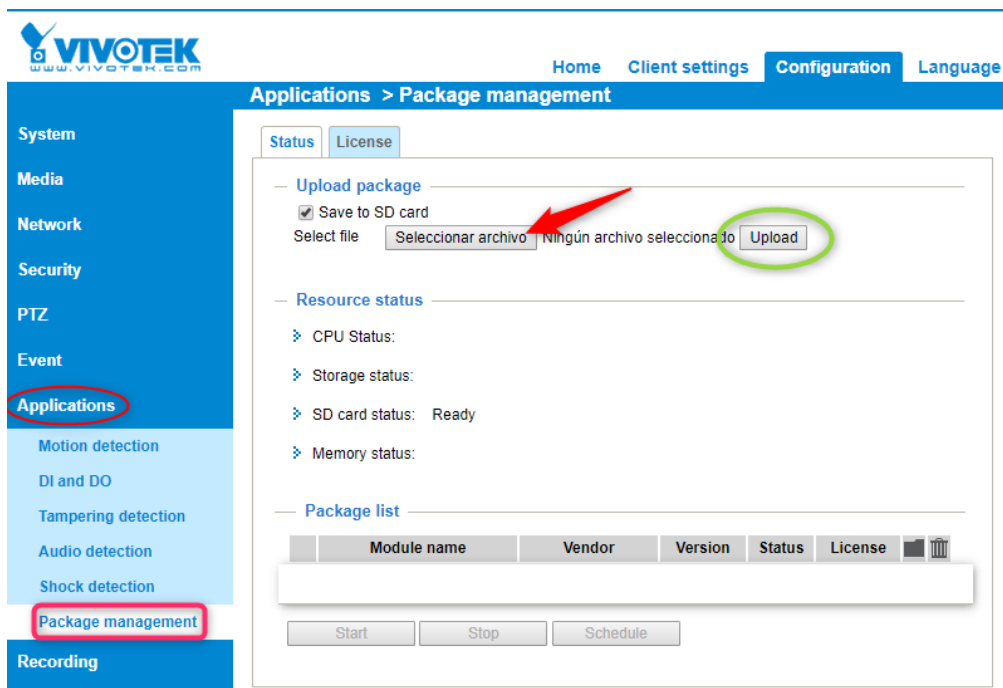
3. Installation Process

3.1. Package upload

Open a web browser and enter the camera IP you want to install Neural Edge. In this example, we will access to 192.168.1.56 camera model IB9365-HT.

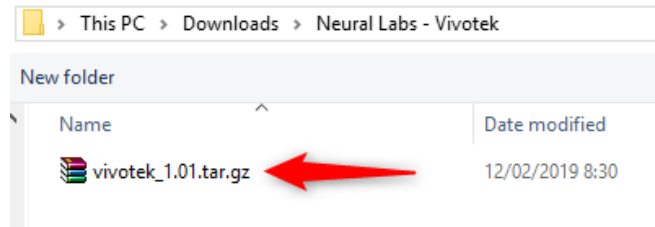


Click on “Configuration” to access to camera settings.

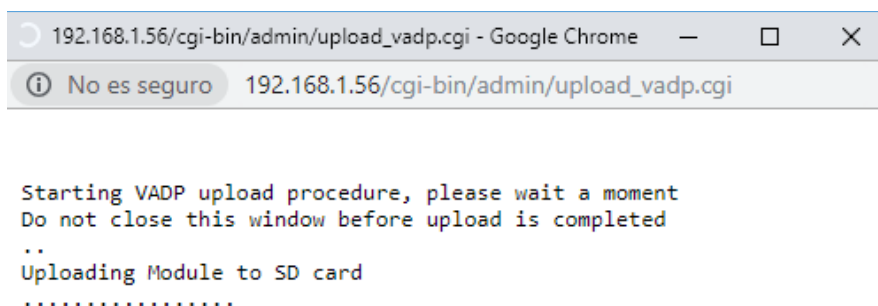


Go to “Applications” tab, click on “Package Management”.

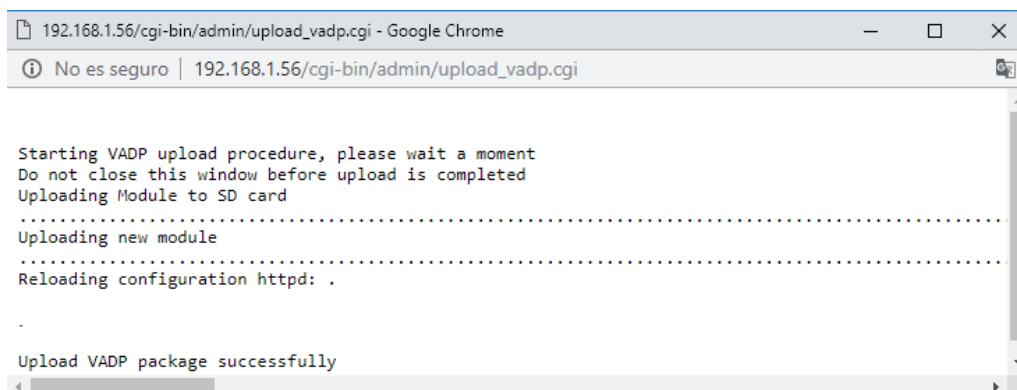
Go to “Upload package” select “Save to SD card” if a card is plugged and then click on “Select File”. A new window will open; please select the file `vivotek_1.01.tar.gz`



Then click on **UPLOAD** button marked in green to start the installation.



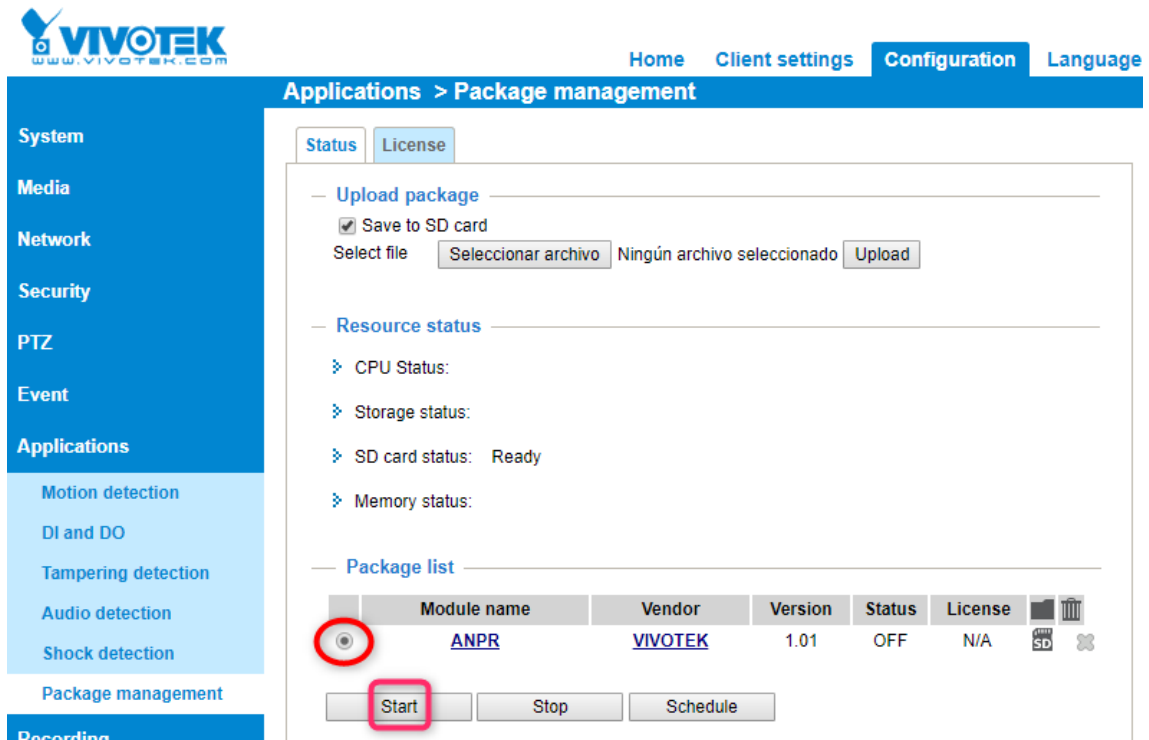
The upload process should finish within a few minutes and the installation will be done.



At this point the Neural Edge is installed.

3.2. Starting Service ANPR

To start service, click on Package Management, select the ANPR and click on “START”.

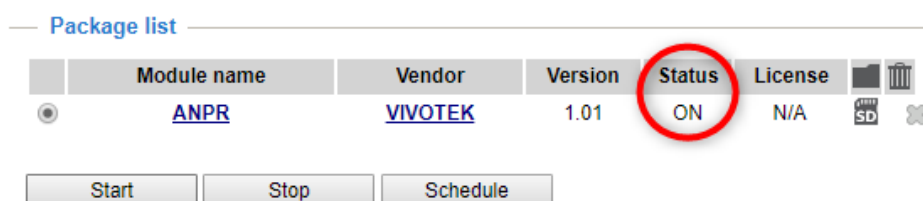


The screenshot shows the VIVOTEK web interface. The left sidebar contains a menu with categories: System, Media, Network, Security, PTZ, Event, Applications, and Recording. Under 'Applications', 'Package management' is selected. The main content area is titled 'Applications > Package management' and has tabs for 'Status' and 'License'. The 'Status' tab is active, showing sections for 'Upload package', 'Resource status', and 'Package list'. The 'Resource status' section shows CPU, Storage, SD card (Ready), and Memory status. The 'Package list' section contains a table with the following data:

	Module name	Vendor	Version	Status	License		
<input checked="" type="radio"/>	ANPR	VIVOTEK	1.01	OFF	N/A		

Below the table are buttons for 'Start', 'Stop', and 'Schedule'. The 'Start' button is highlighted with a red box. The 'Status' column in the table is also highlighted with a red circle.

The service status should change as shown in the picture.

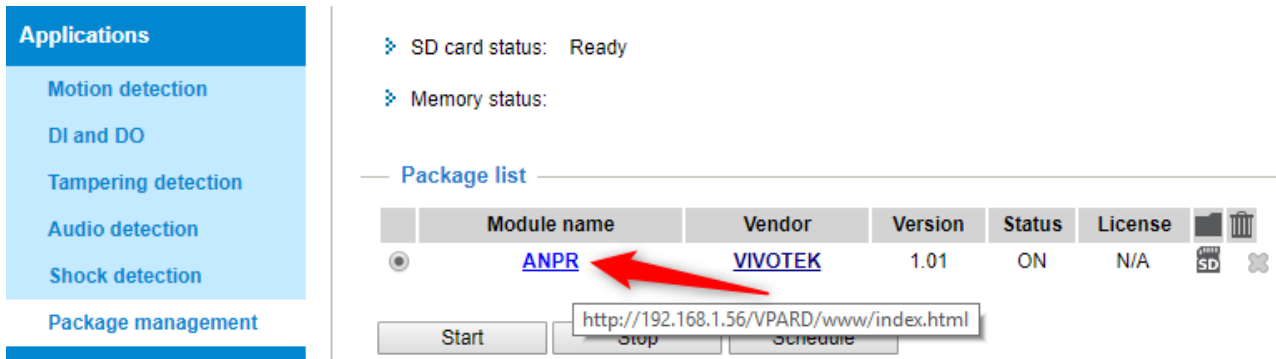


This is a close-up of the 'Package list' table from the previous screenshot. The 'Status' column for the ANPR service is now 'ON', which is circled in red. The other columns remain the same: Module name: ANPR, Vendor: VIVOTEK, Version: 1.01, License: N/A. Below the table are the 'Start', 'Stop', and 'Schedule' buttons.

	Module name	Vendor	Version	Status	License		
<input checked="" type="radio"/>	ANPR	VIVOTEK	1.01	ON	N/A		

3.3. Neural Edge Management Browser

Open a web browser and enter the camera IP. Go to “Applications”, click on “Package management” and double click on ANPR service.

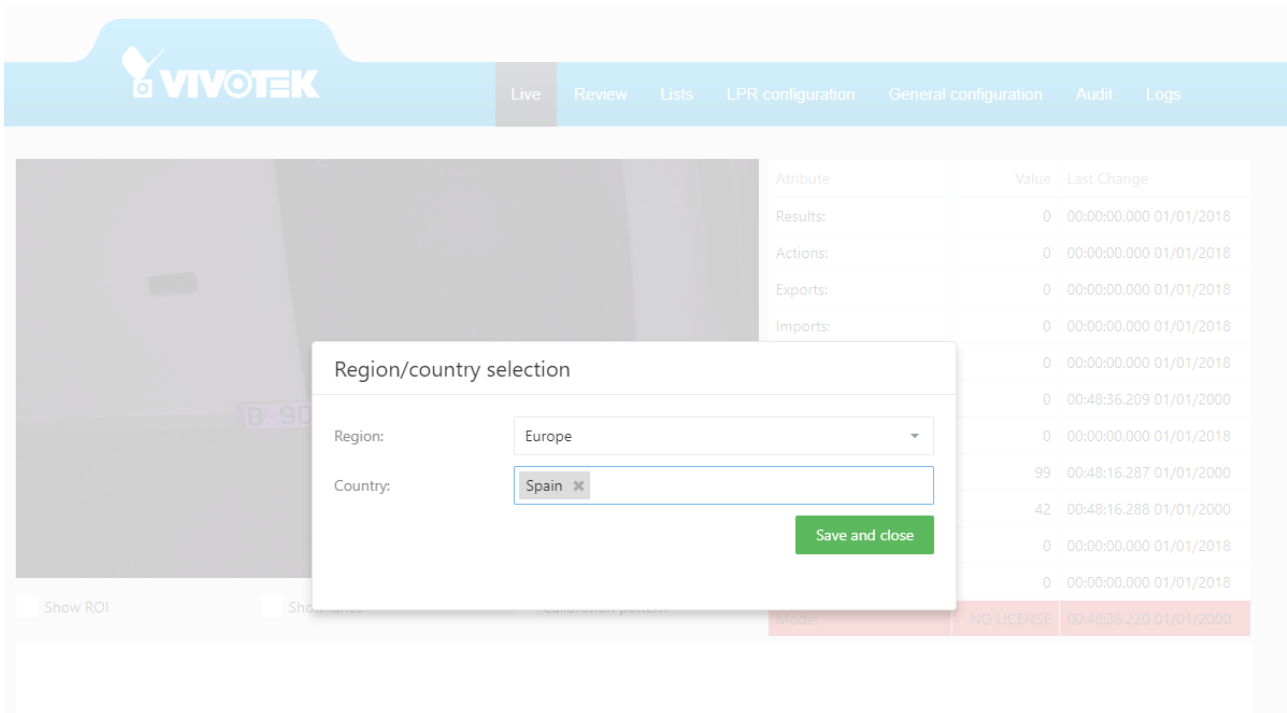


Module name	Vendor	Version	Status	License
ANPR	VIVOTEK	1.01	ON	N/A

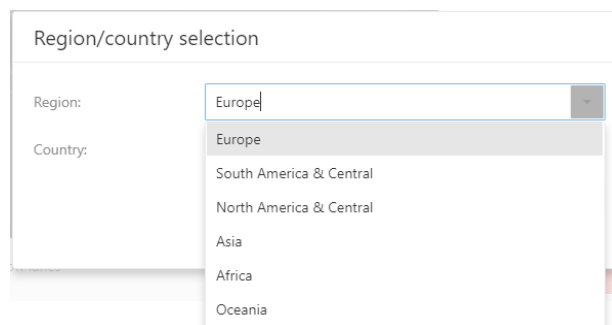
After this, you will access to Neural Edge Management Browser

3.4. First access (selection country)

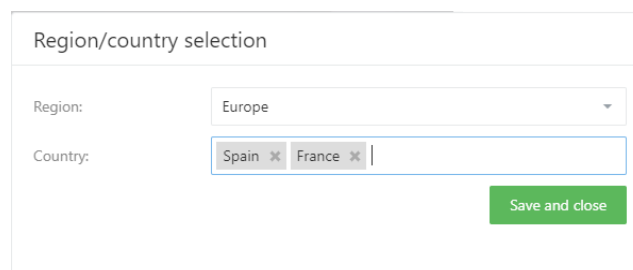
Upon the first access to the web Edge the system will ask us for the region and country. The country selection is mandatory to define the country(s) of license plate to read.



First select the Region:



Now select the countries in the region. Multiple selection is available.



4. Web View

4.1. Tab

The top of the screen has a tab menu, it is marked with a red rectangle is the MENU toolbar with all the available options.

The screenshot displays the VIVOTEK web interface. At the top left is the VIVOTEK logo. A red rectangle highlights the menu toolbar with the following options: Live, Review, Lists, LPR configuration, General configuration, Audit, and Logs. The main area shows a live camera feed of a car's rear license plate, which reads 'GYC'. Below the feed are three checkboxes: 'Show ROI', 'Show lanes', and 'Calibration pattern'. At the bottom, there are two small thumbnail images of the license plate with overlaid text: 'HBF (Spain)', '92.94% 32.43px', and a timestamp. To the right of the feed is a system status table.

Attribute	Value	Last Change
Results:	2	10:34:05.122 05/03/2019
Actions:	0	00:00:00.000 01/01/2018
Exports:	0	00:00:00.000 01/01/2018
Imports:	0	00:00:00.000 01/01/2018
Triggers received:	0	00:00:00.000 01/01/2018
Frames processed:	46158	13:14:11.255 05/03/2019
FPS:	5	10:34:09.144 05/03/2019
SD space free (%):	3	13:11:36.051 05/03/2019
Camera space free (%):	99	13:13:36.052 05/03/2019
Last Size (pixels):	32	10:34:09.149 05/03/2019
Last OCR time(millis):	28	10:34:09.146 05/03/2019
Mode:	STOPPED	13:14:11.258 05/03/2019

4.2. Live Tab

The live tab shows the cameras live view. (this tab is divided into 3 different areas) We have divided it into 3 parts: The Monitor Panel (labeled A), The Results Panel (labeled B) and the Info Panel (labeled C).

The screenshot displays the Live Tab interface, divided into three main sections: A, B, and C.

Section A (Monitor Panel): Shows a live camera view of a car's rear license plate with the text "GYC". Below the image are three checkboxes: "Show ROI" (unchecked), "Show lanes" (unchecked), and "Calibration pattern" (unchecked).

Section B (Results Panel): A table with columns "Attribute", "Value", and "Last Change".

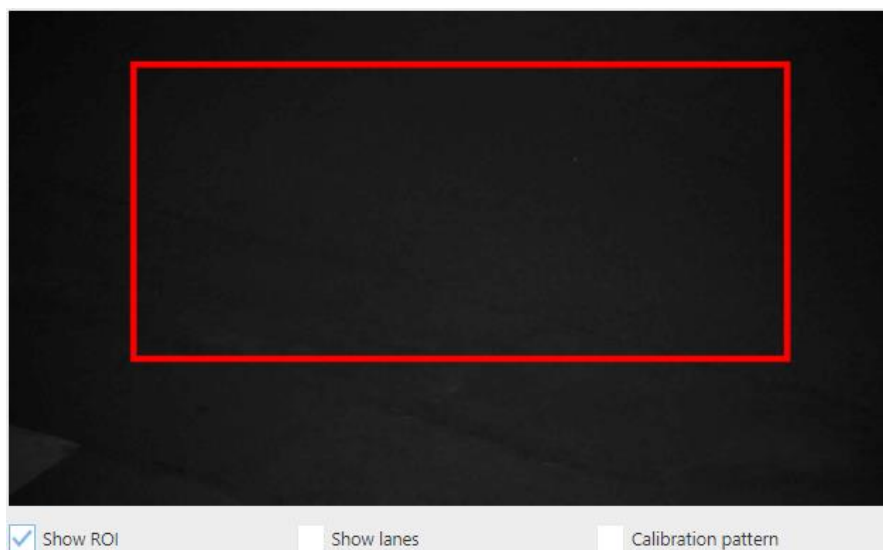
Attribute	Value	Last Change
Results:	2	10:34:05.122 05/03/2019
Actions:	0	00:00:00.000 01/01/2018
Exports:	0	00:00:00.000 01/01/2018
Imports:	0	00:00:00.000 01/01/2018
Triggers received:	0	00:00:00.000 01/01/2018
Frames processed:	46158	13:14:11.255 05/03/2019
FPS:	5	10:34:09.144 05/03/2019
SD space free (%):	3	13:13:36.051 05/03/2019
Camera space free (%):	99	13:13:36.052 05/03/2019
Last Size (pixels):	32	10:34:09.149 05/03/2019
Last OCR time(millis):	28	10:34:09.146 05/03/2019
Mode:	STOPPED	13:14:11.258 05/03/2019

Section C (Info Panel): Shows two side-by-side frames of the license plate. The left frame is labeled "HBF (Spain) 92.94% 32.43px 2019-03-05 10:31:44.879". The right frame is labeled "HBF (Spain) 92.94% 32.43px 2019-03-05 10:34:04.980".

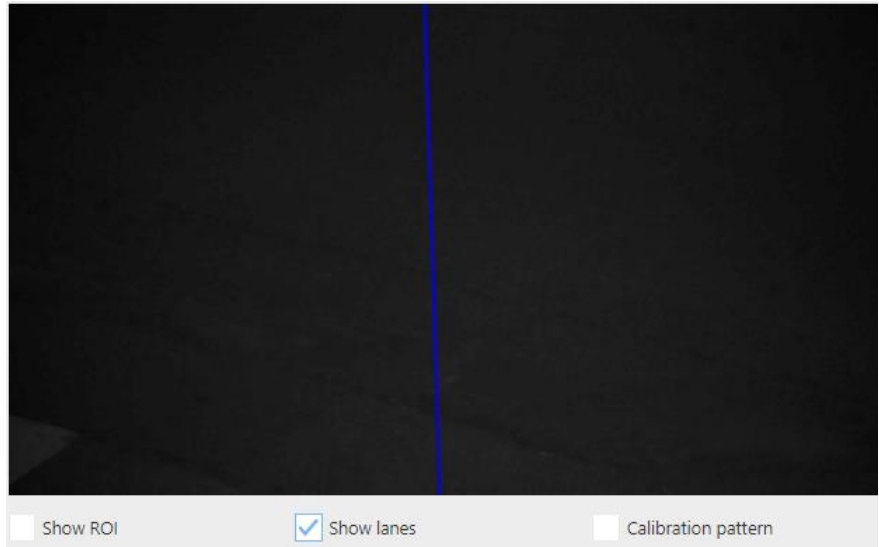
Monitor Panel: Live image what the camera is streaming.

Under the live there is three checks:

Show ROI: Checking you can see a red square indicating the ROI (Region of interest) defined in the parameters, this area is the only section of the image where engine will try to find plates.



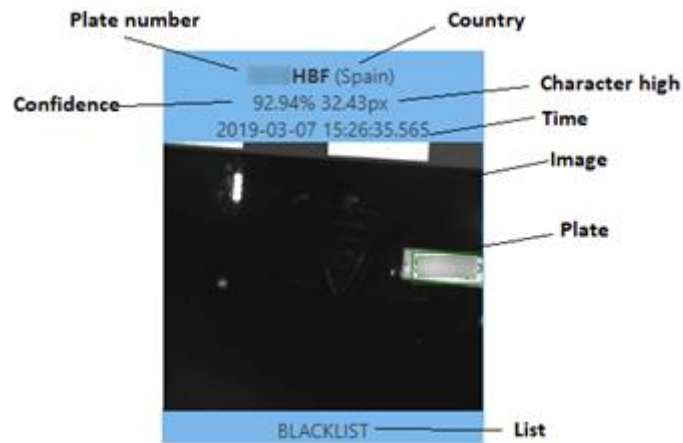
Show lanes: Checking you can see a blue line defining the lanes we have configured in the parameters, the plates in the left side of the screen are plates captured in lane 1, the plates in the right side of the screen in lane 2.



Calibration pattern: Checking you can see white lines indicating the minimum character size. The vertical space between lines is 25 pixels, the plate number must be higher this space.



Results Panel: Shows the latest results, we highlight the last result with a Blue outline. The results will provide:



Info Panel: Information on the system status. The columns with the last change are with the last updated value.

Results: Number of license plates registered.

Actions: Number of actions executed.

Exports: Number of automatic exports executed.

Imports: Number of automatic imports executed.

Trigger received: Number of triggers received.

Frames processed: Number of total frames processed.

FPS: Frames per second processed in the register.

SD space free (%): Percent of space free in the SD card.

Camera free space (%): Percentage of free space in the camera.

Last Size (pixels): Pixel size in the last result license plate captured.

Last OCR time (milliseconds): Engine time spent on the last result plate processed.

Mode: Mode of functionality. Values:

NO LICENSE: There is no license plate in the system.

STOPPED: The service is stopped.

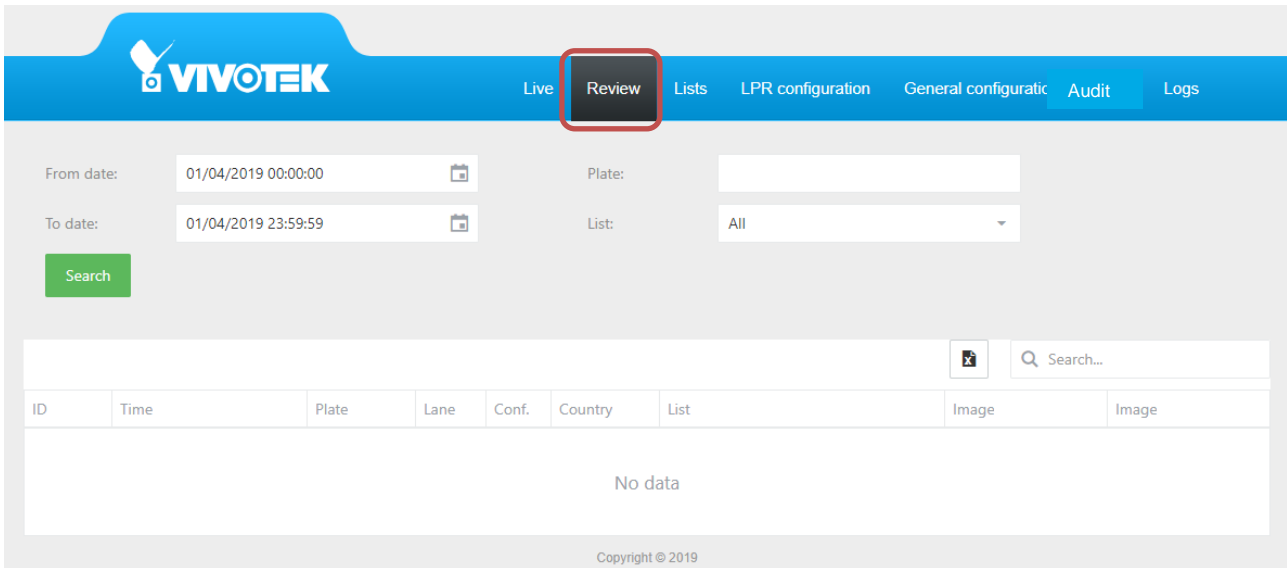
MOTION: The service is working in Motion Detection mode.

FREEFLOW: The service is working in Free flow mode.

TRIGGER: The service is working in Trigger mode.

4.3. Review Tab

The review tab allows us to search, filter and consult the results.



From Date: Select the date when do you want to initiate the search

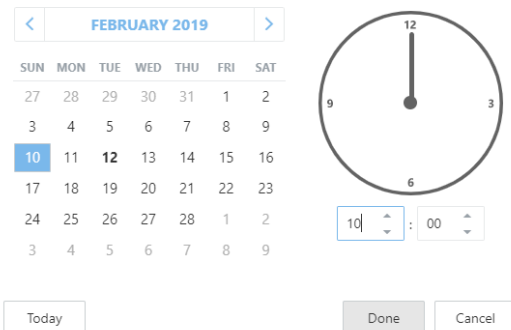
To Date: Select the date until you wish to search.

Plate: Allows you to search partially, entering a few numbers or letters of the license plate. This option will search all plates that coincide will the desired query.

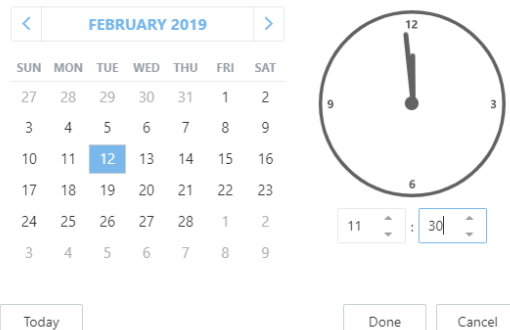
List: Allows you to filter by lists, meaning it will show you all plates that belong to a list.

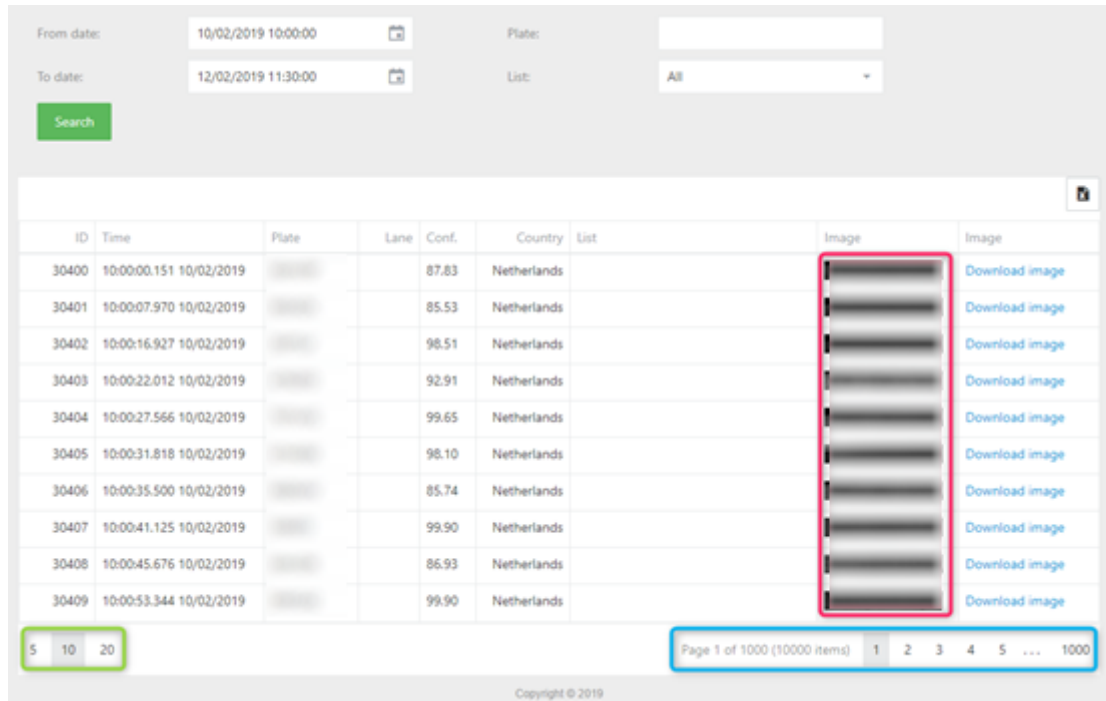
For example, if you wish to search for a specific plate by date, from 02/10 to 02/12.

From Date:



To Date:





The green box corresponds to the amount of results do you want to view per page.


The Blue Box indicates the numbers of pages you must check the results.


The Red Box shows the license plate number images. If you move the mouse cursor over any image you will obtain a larger image.






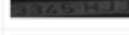
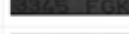

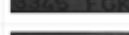



There is a download image option.

Searching for a license plate which we only remember a few letters or numbers. In this case, all you need to do is enter a part of the plate in the PLATE filter and search.

From date: 10/02/2019 00:00:00  Plate: 345

To date: 12/02/2019 23:59:59  List: All

ID	Time	Plate	Lane	Conf.	Country	List	Image	Image
36400	21:14:33.482	10/02/2019 3345		99.90	Spain			Download image
37066	22:19:24.512	10/02/2019 3345		99.90	Spain			Download image
37346	23:00:55.241	10/02/2019 3345		99.49	Spain			Download image
38024	00:05:47.595	11/02/2019 3345		99.90	Spain			Download image
38293	00:47:23.395	11/02/2019 3345		99.90	Spain			Download image
38947	01:52:12.396	11/02/2019 3345		99.90	Spain			Download image
39225	02:33:46.489	11/02/2019 3345		99.90	Spain			Download image
39861	03:38:34.765	11/02/2019 3345		99.90	Spain			Download image
40133	04:20:10.917	11/02/2019 3345		93.12	Spain			Download image
40801	05:24:58.533	11/02/2019 3345		99.90	Spain			Download image


5 10 20 Page 3 of 6 (55 items) 1 2 3 4 5 6


Copyright © 2019


You also can search for license plates that are in a list.





1503	11:21:43.254	28/02/2019		99.10	Spain	BLACKLIST
1504	11:22:20.612	28/02/2019		93.55	Spain	
1505	11:22:34.864	28/02/2019		99.90	Spain	
1506	11:23:27.830	28/02/2019		95.53	Spain	
1507	11:24:47.292	28/02/2019		86.34	Spain	BLACKLIST

You can use the Search filter to find a value inside the table:

 Live Review Lists LPR configuration General configuration Audit Logs

From date: 01/04/2019 00:00:00  Plate:

To date: 01/04/2019 23:59:59  List: All

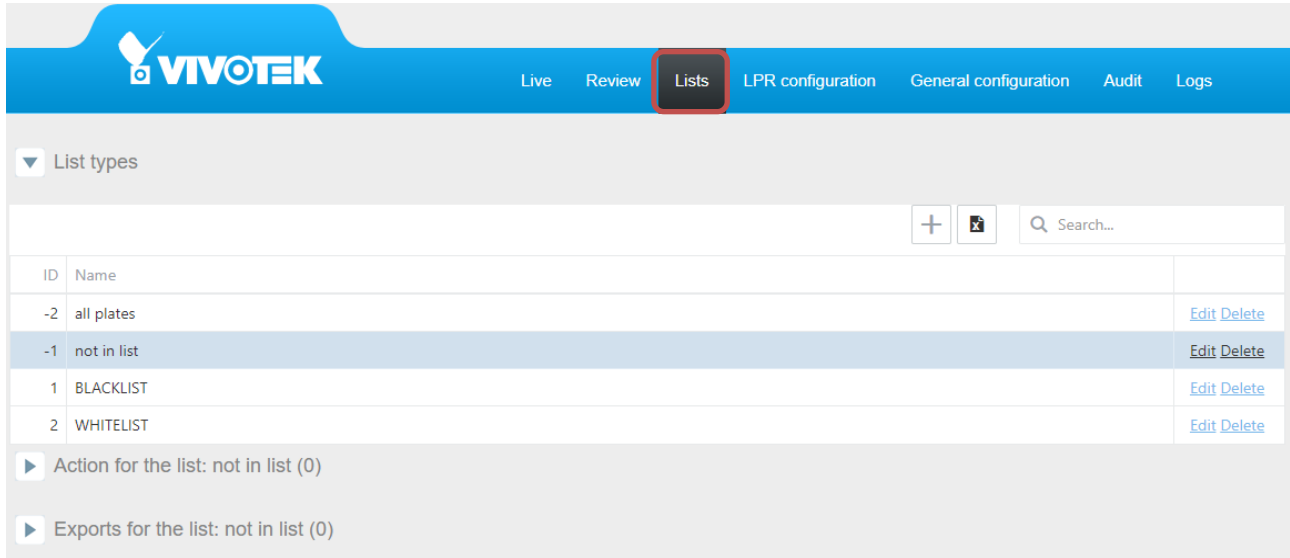
ID	Time	Plate	Lane	Conf.	Country	List	Image	Image
1	12:21:39.572	01/04/2019 B9059NW		91.34	Spain			Download image
8	12:27:19.391	01/04/2019 B9059NW		90.64	Spain			Download image
11	12:27:22.412	01/04/2019 B9059NW		91.15	Spain			Download image
20	12:27:31.491	01/04/2019 B9059NW		90.88	Spain			Download image

5 10 20 50 100

4.4. List Tab

In this tab you can create lists, a list is a group of license plates that will trigger an action, Neural Edge allows you perform different actions to any list.

By default, there are 4 lists created, ALL PLATES, NOT IN LIST, BLACKLIST, and WHITELIST. You can edit, delete or add more lists.



The screenshot shows the VIVOTEK interface with the 'Lists' tab selected. The navigation bar includes 'Live', 'Review', 'Lists', 'LPR configuration', 'General configuration', 'Audit', and 'Logs'. Below the navigation bar, there is a 'List types' section with a table of existing lists and options to add, edit, or delete them.

ID	Name	
-2	all plates	Edit Delete
-1	not in list	Edit Delete
1	BLACKLIST	Edit Delete
2	WHITELIST	Edit Delete

Below the table, there are two expandable sections:

- ▶ Action for the list: not in list (0)
- ▶ Exports for the list: not in list (0)

In the lists tab we have the following options:

List: Will show all the lists created

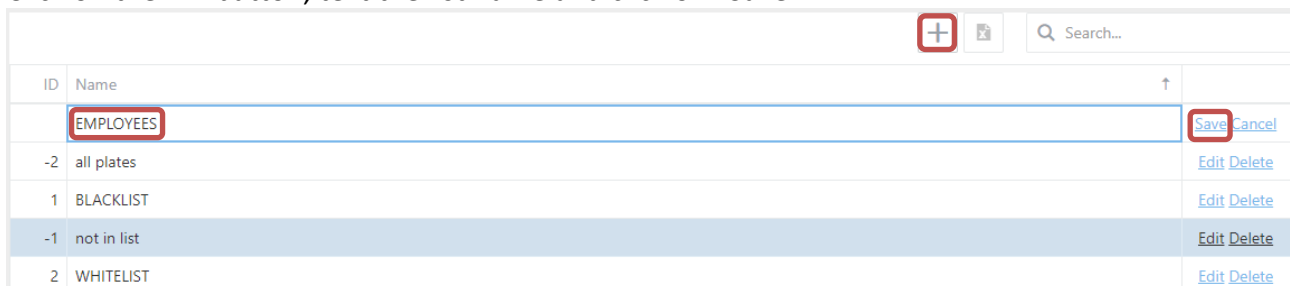
Action: Will show all the actions created by list.

Export: Allows you export a single list or if all plates are selected it will create a unique file with all the licenses plates that belong to that list.

Import: Allows you import a single list or if all plates are selected it will create a unique file with all the licenses plates that belong to that list.

Let's create a new list and call it "EMPLOYEES"

Click on the "+" button, text the list name and click on "Save".

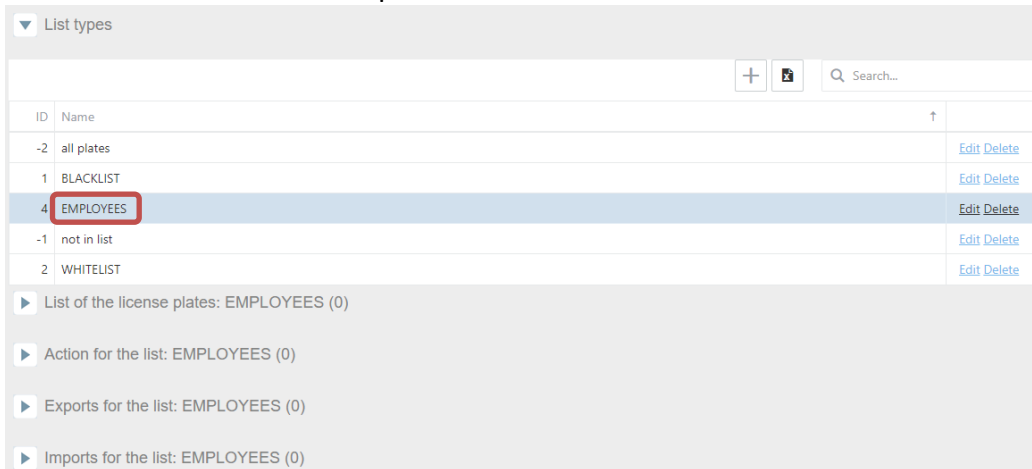


The screenshot shows the VIVOTEK interface with the 'Lists' tab selected. The '+' button is highlighted with a red box. Below the navigation bar, there is a 'List types' section with a table of existing lists and options to add, edit, or delete them.

ID	Name	
	EMPLOYEES	Save Cancel
-2	all plates	Edit Delete
1	BLACKLIST	Edit Delete
-1	not in list	Edit Delete
2	WHITELIST	Edit Delete

Now we are going to configure an action for this list, in other words, what we expect to happen if we read a license plate.

Click on “EMPLOYEES” list to see the options.



List of the license plates: EMPLOYEES

Add a new license plate, click on the “+” button and fill in the grid.

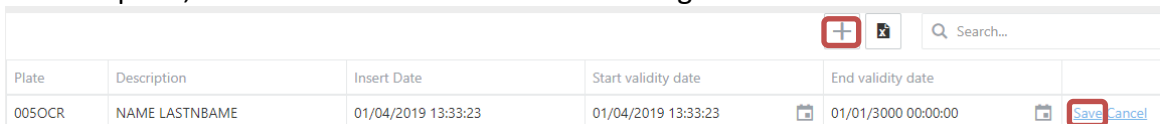


Plate	Description	Insert Date	Start validity date	End validity date
005OCR	NAME LASTNBAME	01/04/2019 13:33:23	01/04/2019 13:33:23	01/01/3000 00:00:00

To edit or delete a license plate in that list, just click on the plate and then:

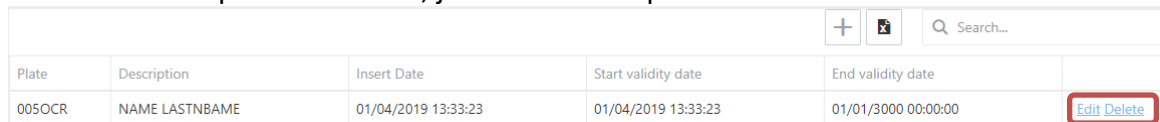


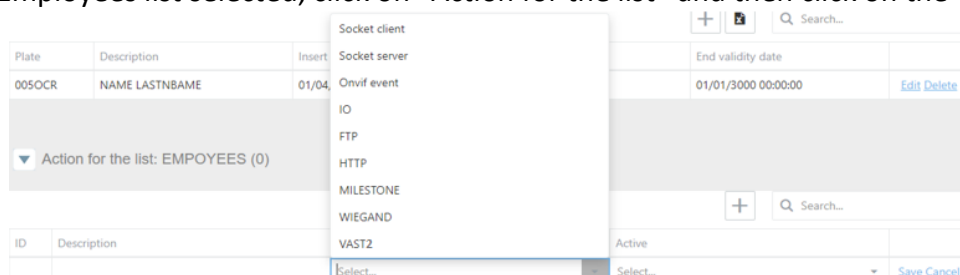
Plate	Description	Insert Date	Start validity date	End validity date
005OCR	NAME LASTNBAME	01/04/2019 13:33:23	01/04/2019 13:33:23	01/01/3000 00:00:00

Action for the list: Here are all the actions we can configure for each list.

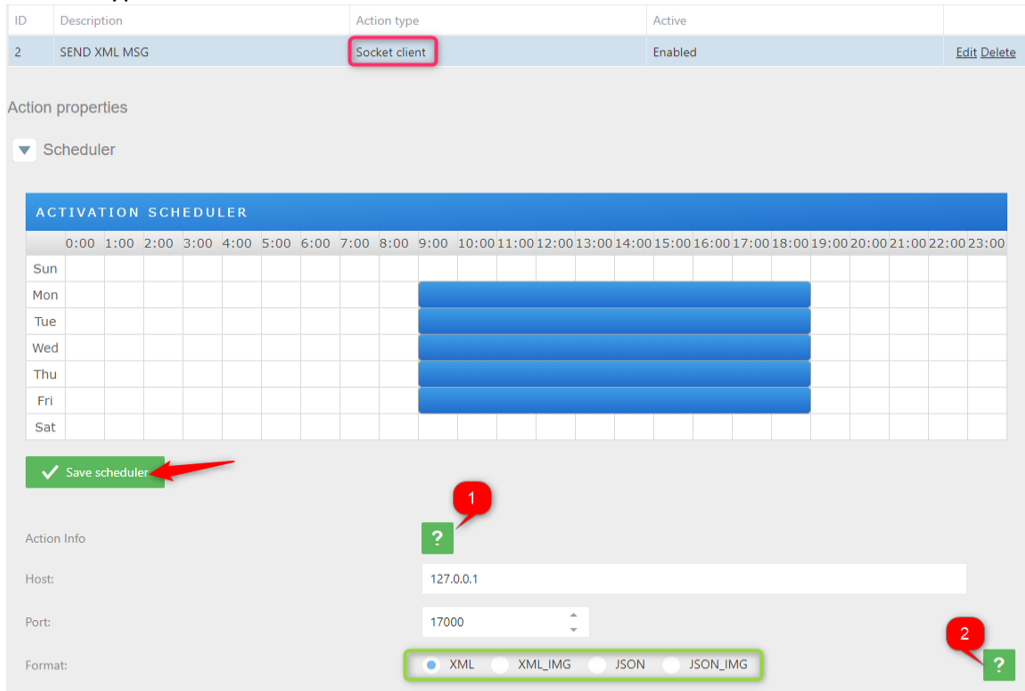
- Socket Client: Enable a socket connection to send messages as XML or JSON
- Socket Server: Open a port in the camera to listen to hosts to send messages as XML or JSON.
- Onvif Event: Enable the Onvif event to send the license plate information using this protocol.
- IO: Enable inbound and outbound digital signals in the camera.
- FTP: store the results in an FTP server.
- HTTP: send a request using this protocol to a server.
- MILESTONE: send an analytic event to Milestone VMS.
- WIEGAND: send a signal to Wiegand middleware board.
- VAST2: send the plate to the VAST2 video server.

A list can perform several actions, depending on the scenario and needs.

Having the Employees list selected, click on “Action for the list” and then click on the + button.

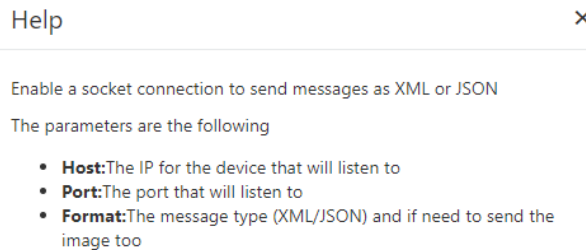


1. Configuring the action **Socket Client** because you want to send the results to another device, using the EMPLOYEES list, click on “Action for the list” and add a new action pressing “+” and then select in “Action type = Socket Client”



Set the scheduler as needed and click on “SAVE SCHEDULER”.

Action Info: Click on  for more information.




Help

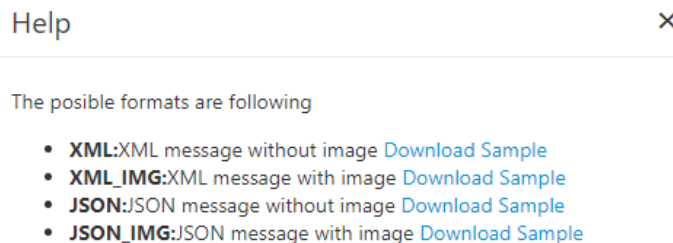
Enable a socket connection to send messages as XML or JSON

The parameters are the following

- **Host:**The IP for the device that will listen to
- **Port:**The port that will listen to
- **Format:**The message type (XML/JSON) and if need to send the image too

Select which message format you will use to send the information.

Click on  for more information.

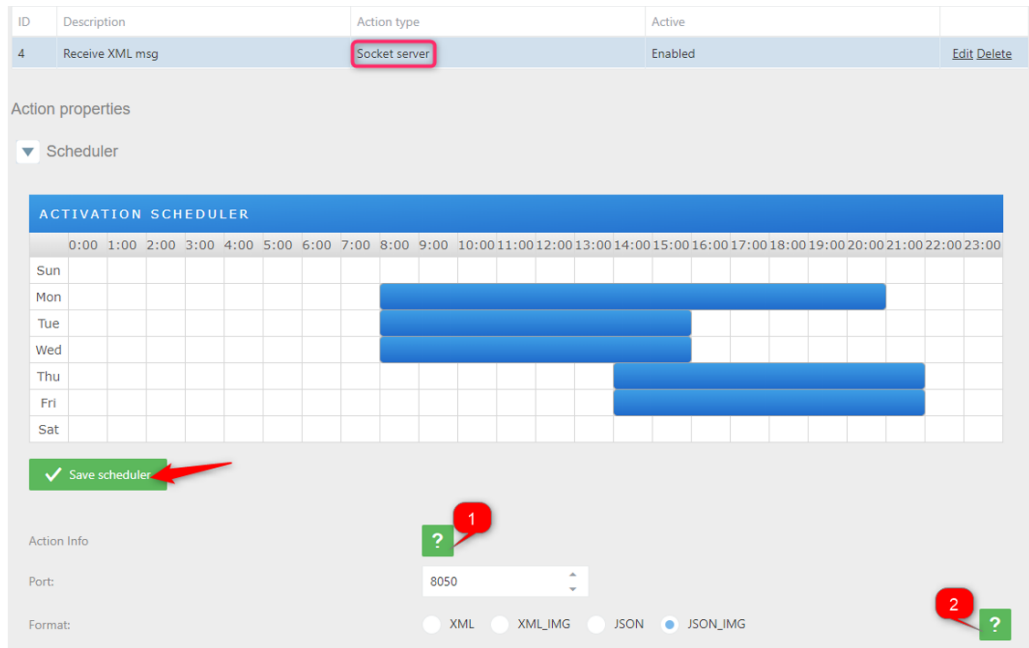


Help

The possible formats are following

- **XML:**XML message without image [Download Sample](#)
- **XML_IMG:**XML message with image [Download Sample](#)
- **JSON:**JSON message without image [Download Sample](#)
- **JSON_IMG:**JSON message with image [Download Sample](#)

2. Configuring the action **Socket Server** will use the camera to receive messages from other devices.



ID	Description	Action type	Active
4	Receive XML msg	Socket server	Enabled

Action properties

Scheduler

ACTIVATION SCHEDULER

0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00

Sun
Mon
Tue
Wed
Thu
Fri
Sat


Save scheduler

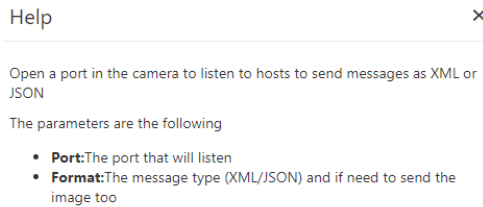
Action Info

Port: 8050

Format: XML XML_IMG JSON JSON_IMG

Set the scheduler as needed and click on “SAVE SCHEDULER”.

Action Info: Click on  for more information.




Help

Open a port in the camera to listen to hosts to send messages as XML or JSON

The parameters are the following

- **Port:**The port that will listen
- **Format:**The message type (XML/JSON) and if need to send the image too

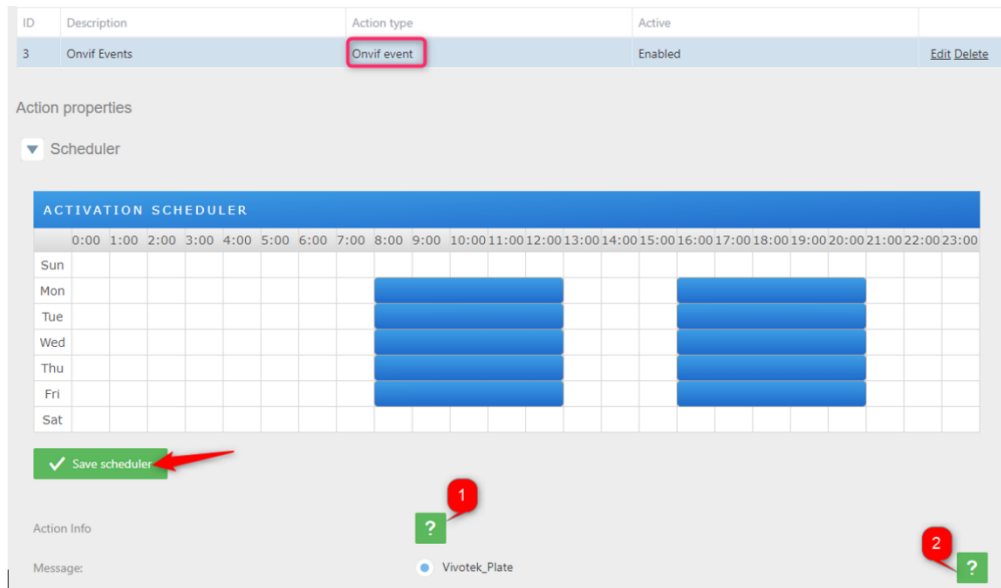
Click on  for more information.

Help


The possible formats are following

- **XML:**XML message without image [Download Sample](#)
- **XML_IMG:**XML message with image [Download Sample](#)
- **JSON:**JSON message without image [Download Sample](#)
- **JSON_IMG:**JSON message with image [Download Sample](#)

3. Configuring the action **Onvif Event** to send the license plate using this protocol.



Set the scheduler as needed and click on “SAVE SCHEDULER”.


Click on  for more information.

Help

Enable the onvif event to send the license plate information using this protocol

The parameters are the following

- **Format:**The message type

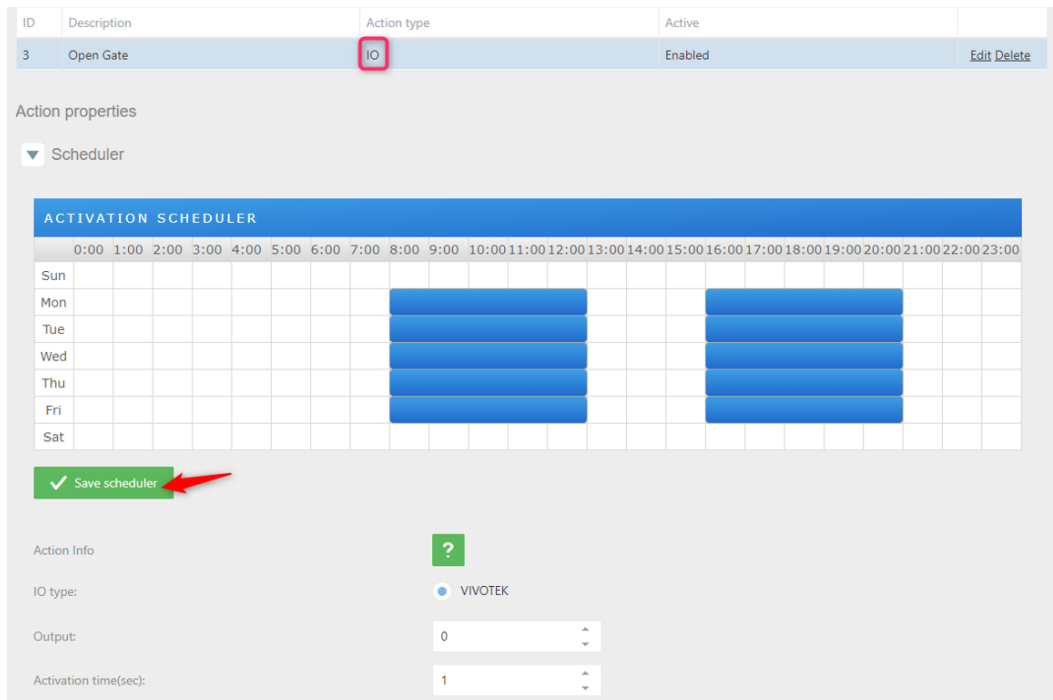
Click on  for more information.

Help

The possible formats are following

- **Vivotek_plate:**Onvif vivotek message [Download Sample](#)

4. Configuring the action **IO** to open a gate for those plates that belong to the list EMPLOYEES. Click on “Action for the list” and add a new action pressing “+” and then select in “Action type = IO”



ID	Description	Action type	Active	
3	Open Gate	IO	Enabled	Edit Delete

Action properties

▼ Scheduler

ACTIVATION SCHEDULER

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	
Sun																									
Mon									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Tue									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Wed									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Thu									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Fri									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Sat																									

✓ Save scheduler


Action Info

IO type: VIVOTEK

Output: 0

Activation time(sec): 1

Set the scheduler as needed and click on “SAVE SCHEDULER”.

Click on  for more information.

Help ×

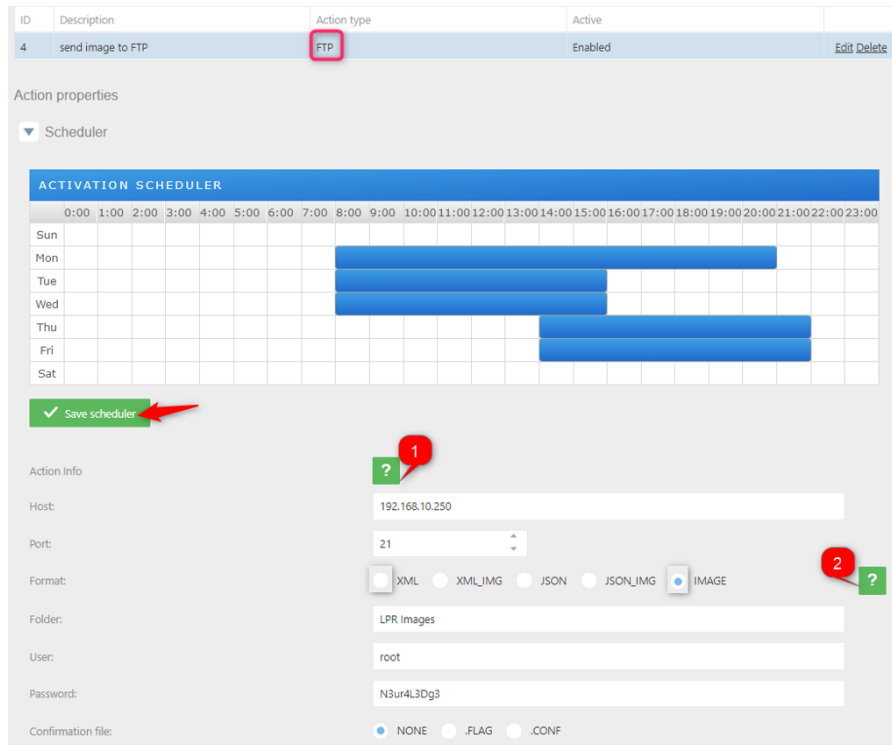
Enable output digital signals in the camera

The parameters are the following


- **IO type:**The type of output
- **Output:**The port that will be activated
- **Activation time(sec):**Time to keep the signal

In this case, every time we read a license plate that is in the EMPLOYEES list, we send a signal to the camera I/O to open the gate.

5. Configuring the action **FTP** to send an XML, JSON or image to an FTP server. Using the EMPLOYEES list, click on “Action for the list” and add a new action pressing “+” and then select in “Action type = FTP”



Set the scheduler as needed and click on “SAVE SCHEDULER”.


Click on  for more information about how to configure.

Help ×

Store the results in an FTP server

The parameters are the following

- **Host:**Ftp server IP
- **Port:**Ftp server port
- **Format:**The message type (XML/JSON/CSV) and if need to send the image too
- **Folder:**Ftp folder to save the messages
- **User:**Ftp user
- **Password:**Ftp password
- **Confirmation file:**In order to track if all images have been sent to the FTP server you can select .flag or .conf that will generate a single file per each correct action to FTP.

Click on  for more information about format type.

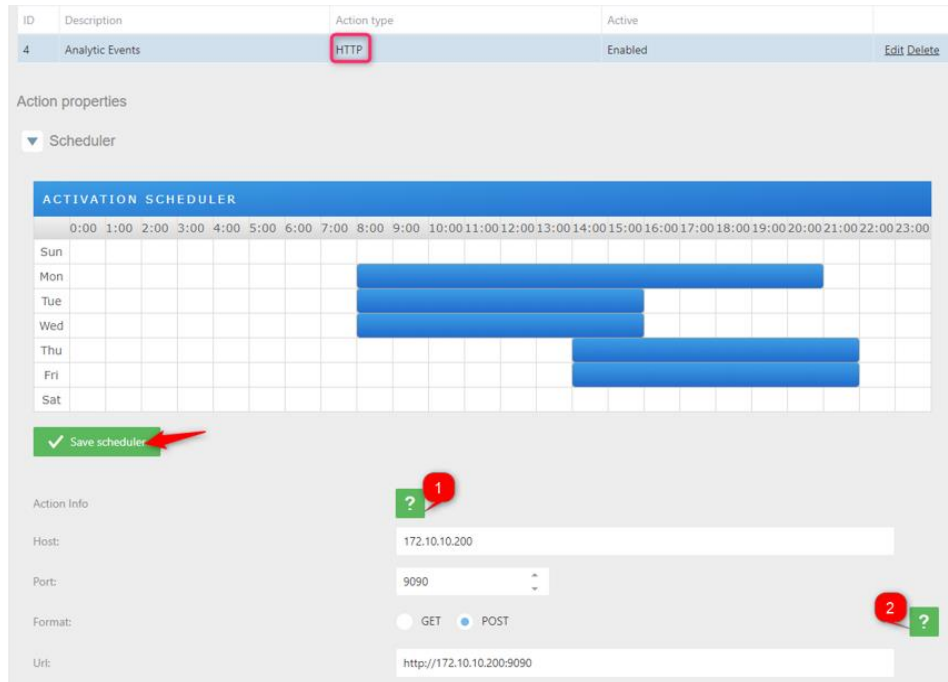
Help ×

The possible formats are following


- **XML:**XML message without image [Download Sample](#)
- **XML_IMG:**XML message with image [Download Sample](#)
- **JSON:**JSON message without image [Download Sample](#)
- **JSON_IMG:**JSON message with image [Download Sample](#)

*The name of the file is
DATETIME(YYYYMMDDHHmmSS)_ID_TYPE_LIST_PLATE

6. Configuring the action **HTTP** to send analytic events to a VMS. Using the EMPLOYEES list, click on “Action for the list” and add a new action pressing “+” and then select in “Action type = HTTP”



Set the scheduler as needed and click on “SAVE SCHEDULER”.


Click on  for more information about how to configure.

Help

Send a request using this protocol to a server

The parameters are the following

- **Host:**Http server IP
- **Port:**Http server port
- **Format:**Petition format to send
- **URL:**URL to send the petition

Click on  for more information about format type.

Help ×

The possible formats are following

- **GET:**Send a get petition
- **POST:**Send a post petition

- Configuring the action **MILESTONE** to send analytic events to a Milestone VMS. Using the EMPLOYEES list, click on “Action for the list” and add a new action pressing “+” and then select in “Action type = MILESTONE”

ID	Description	Action type	Active	
1	action	MILESTONE	Enabled	Edit Delete

Action properties

Scheduler

ACTIVATION SCHEDULER

0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00

Sun
Mon
Tue
Wed
Thu
Fri
Sat

Save scheduler

Action Info

Host: 127.0.0.1

Port: 9090

Format: ANALYTIC_EVENT

Url: http://127.0.0.1:9090

Set the scheduler as needed and click on “SAVE SCHEDULER”.


Click on  for more information about how to configure.

Help

Send a request using this protocol to a server

The parameters are the following

- **Host:**Milestone server IP
- **Port:**Milestone server port
- **Format:**Petition format to send
- **URL:**URL to send the petition
- **Event Type:**Analytic event type

Click on  for more information about format type.

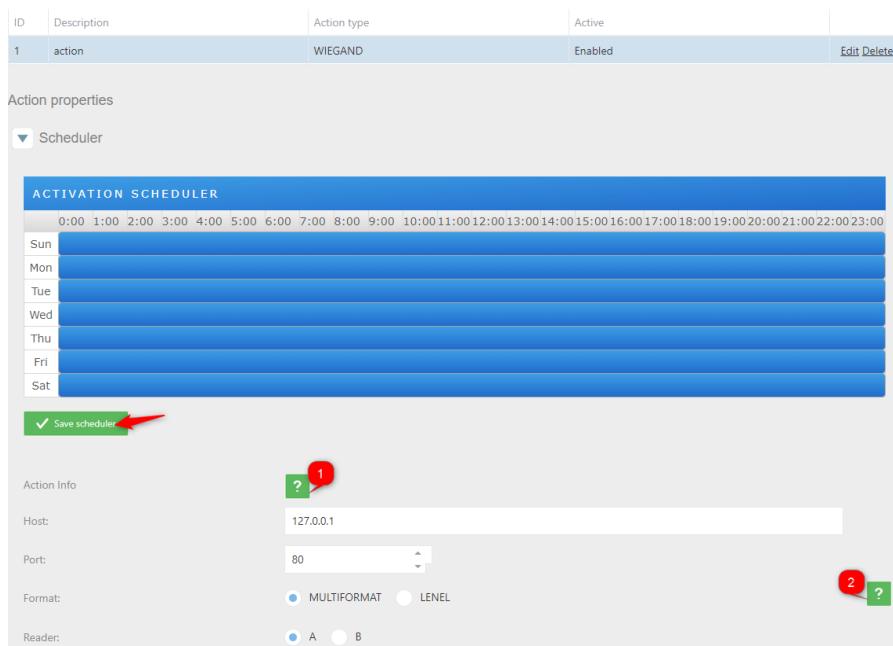
Help

The possible formats are following

- **ANALYTIC_EVENT:**Send a Milestone analytic event message
[Download Sample](#)

See chapter 4.4.1 to know more information to how configure Milestone.

- Configuring the action WIEGAND to send analytic events to a Wiegand middleware board. Using the EMPLOYEES list, click on “Action for the list” and add a new action pressing “+” and then select in “Action type = WIEGAND”



ID	Description	Action type	Active	
1	action	WIEGAND	Enabled	Edit Delete

Action properties

Scheduler

ACTIVATION SCHEDULER

0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00

Sun
Mon
Tue
Wed
Thu
Fri
Sat

Save scheduler

Action Info


Host: 127.0.0.1

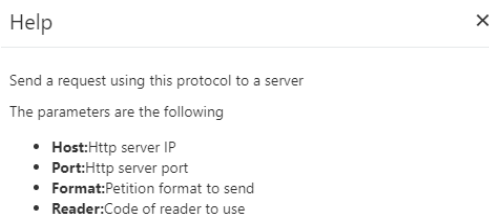
Port: 80

Format: MULTIFORMAT LENEL

Reader: A B

Set the scheduler as needed and click on “SAVE SCHEDULER”.

Click on  for more information about how to configure.



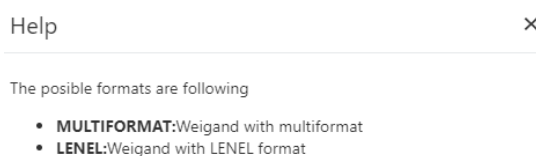
Help

Send a request using this protocol to a server

The parameters are the following

- **Host:**Http server IP
- **Port:**Http server port
- **Format:**Petition format to send
- **Reader:**Code of reader to use

Click on  for more information about format type.

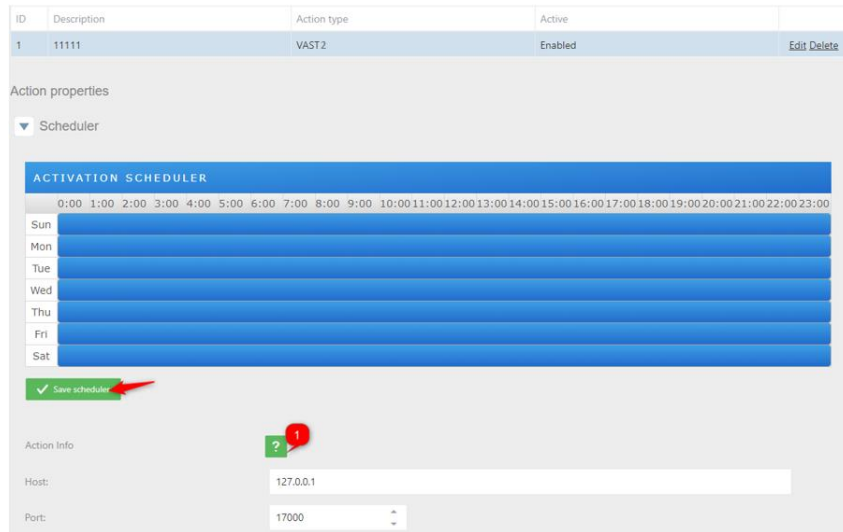


Help


The possible formats are following

- **MULTIFORMAT:**Weigand with multiformat
- **LENEL:**Weigand with LENEL format

- Configuring the action VAST2 to send analytic events to a VAST2 video server. Using the EMPLOYEES list, click on “Action for the list” and add a new action pressing “+” and then select in “Action type = VAST2”



Set the scheduler as needed and click on “SAVE SCHEDULER”.

Click on  for more information about how to configure.



See chapter 4.4.2 to know more information to how configure Milestone.

In case, you don't want to continue using an action in a list you are able to disable or delete the action.

To delete click on the list, select the action and then click on delete option.

▼ Action for the list: EMPLOYEES (1)

+ Search...

ID	Description	Action type	Active	
2	action	VAST2	Enabled	Edit Delete

To disable click on the list, select the action and then click on edit option.
In Active change to Disabled and then click on Save.

▼ Action for the list: EMPLOYEES (0)

+ Search...

ID	Description	Action type	Active	
	open gate	IO	<div style="border: 1px solid #ccc; padding: 2px;"> Select... <ul style="list-style-type: none"> Disabled Enabled </div>	Save Cancel

▶ Exports for the list: EMPLOYEES (0)

After this change, you will have the action disabled in case you need to use it later.

+ Search...

ID	Description	Action type	Active	
3	open gate	IO	Disabled	Edit Delete

To delete an action, click on the action and click on the DELETE button and then YES.

+ Search...

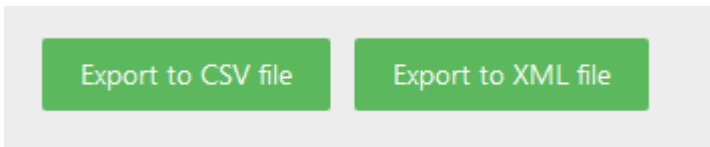
ID	Description	Action type	Active	
3	open gate	IO	Disabled	Edit Delete

Are you sure to delete the action from list?

Exports for the list: Here are all the automatic exports we can configure for each list.

- Local matches: Exports the matches of the list locally
- FTP matches: Exports the matches of the to an FTP server
- Local list: Exports the list locally
- FTP list: Export the list to an FTP server

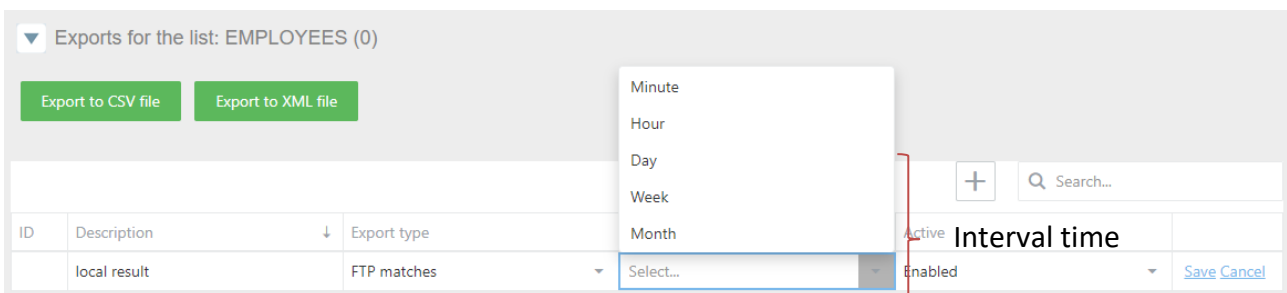
You can also download the selected list pressing the button “Export to XML file” or “Export to CSV file”



A list can perform several exports, depending on the scenario and needs.

Having the Employees list selected, click on “Exports for the list” and then click on the + button and define the type and interval. The interval can be set as:


- *Minute:* Will execute the task every minute.
- *Hour:* Will execute the task every hour.
- *Day:* Will execute the task once a day at 23:59:59.
- *Week:* Will execute the task once a week, every Monday at 00:00:00.
- *Month:* Will execute the task once a month, the first day of the month at 23:59:59.



1. Configuring the export **FTP matches** to export the results to an ftp result, using the EMPLOYEES list, click on “Export for the list” and add a new export pressing “+” and then select in “Export type = FTP matches”.


ID	Description	Export type	Interval	Active	
1	local result	FTP matches	Hour	Enabled	Edit Delete

Export properties

Export Info 

Host:

Port:

Format: XML XML_IMG JSON JSON_IMG CSV 

Folder name:

User:

Password:

Confirmation file: NONE .FLAG .CONF

Click on  for more information about how to configure.

Help ×

Export the results in an FTP server

The parameters are the following

- **Host:**Ftp server IP
- **Port:**Ftp server port
- **Format:**The message type (XML/JSON)
- **Folder:**Ftp folder to save the messages
- **User:**Ftp user
- **Password:**Ftp password
- **Confirmation file:**In order to track if all images have been sent to the FTP server you can select .flag or .conf that will generate a single file per each correct action to FTP.

Click on  for more information about format type.

Help ×

The posible formats are following

- **XML:**XML results without image [Download Sample](#)
- **XML_IMG:**XML results with image [Download Sample](#)
- **JSON:**JSON results without image [Download Sample](#)
- **JSON_IMG:**JSON results with image [Download Sample](#)
- **CSV:**CSV results [Download Sample](#)

- Configuring the export **FTP lists** to export the list locally, using the EMPLOYEES list, click on “Export for the list” and add a new export pressing “+” and then select in “Export type = FTP list”.

ID	Description	Export type	Interval	Active	
1	local result	FTP list	Hour	Enabled	Edit Delete

Export properties

Export Info

Host:

Port:


Format: XML CSV

Folder name:

User:

Password:

Confirmation file: .FLAG

Click on  for more information about how to configure.

Help ×

Export the lists in an FTP server

The parameters are the following

- **Host:**Ftp server IP
- **Port:**Ftp server port
- **Format:**The message type (XML)
- **Folder:**Ftp folder to save the lists
- **User:**Ftp user
- **Password:**Ftp password
- **Confirmation file:**In order to track if all files have been sent to the FTP server, it will generate a single file per each correct action to FTP.

Click on  for more information about format type.

Help ×

The possible formats are following

- **XML:**XML list [Download Sample](#)
- **CSV:**CSV list [Download Sample](#)

In case, you don't want to continue to use export in a list you are able to disable or delete the action.

To delete click on the list, select the export and then click on delete option.

ID	Description	Export type	Interval	Active	
2	11111	FTP list	Minute	Enabled	Edit Delete

To disable click on the list, select the action and then click on edit option.

In *Active* change to *Disabled* and then click on Save.

ID	Description	Export type	Interval	Active	
2	11111	FTP list	Minute	Disabled	Save Cancel

After this change, the action disabled in case you need to use it later.

The "Enable if change" state, only do the export if the export type is "Local list" or "FTP list" and export the list only if exits any change.

ID	Description	Export type	Interval	Active	
2	11111	FTP list	Minute	Enabled if change	Save Cancel

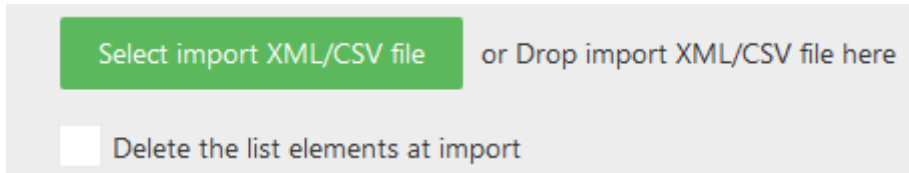
To delete an action, click on the action and click on the DELETE button and then YES.

ID	Description	Export type	Interval	Active	
2	11111	FTP list	Minute	Enabled	Edit Delete

Import for the list: Here are all the automatic imports we can configure for each list.

- FTP list: Import the list to an FTP server
- SINCRO camera: Import the list from another camera

You can also import the list manually uploading an xml list file.



The format of the XML is the following:

```
<?xml version = "1.0" encoding = "utf-8" ?>
<grouplist>
<nllists>
    <nllist id="3" sendserver="0" dateserver="" reserve="" description="EMPLOYEES" color=""/>
</nllists>
<nlelemlists>
<nlelemlist id="1" sendserver="0" dateserver="" reserve="" numberplate="AAA123" listid="3" timestamp=""
description="EMP 1" startvaliditydate="2000-01-01T00:00:00.000" endvaliditydate="3000-01-01T00:00:00.000"/>

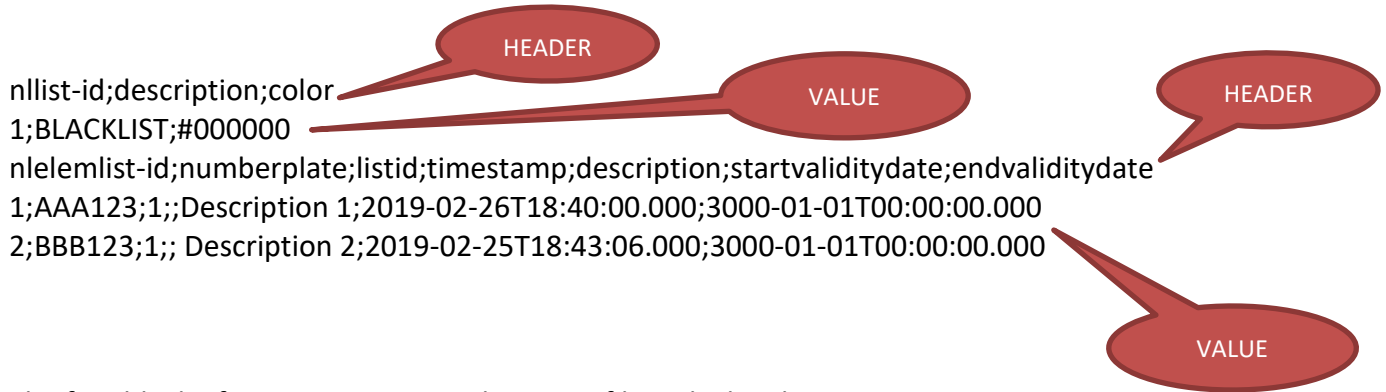
<nlelemlist id="2" sendserver="0" dateserver="" reserve="" numberplate="BBB321" listid="3" timestamp=""
description="EMP 2" startvaliditydate="2000-01-01T00:00:00.000" endvaliditydate="3000-01-01T00:00:00.000"/>

</nlelemlists>
</grouplist>
```

- Grouplist: the main element of the xml
- Nllists: The group of type of lists
- Nllist: The list type element, on:
 - Id= Id of the list
 - Sendserver = Always 0
 - Dateserver= Always ""
 - Reserve = Always ""
 - Description= The name of the list
 - Color = Always ""
- Nlelemlists: the group of the elements of the list
- Nlelemlist: the element in list, on:
 - Id= Id of the element
 - Sendserver = Always 0
 - Dateserver= Always ""
 - Reserve = Always ""
 - Numberplate= Plate number of the element
 - Listid= Id of the list
 - Timestamp= Always ""
 - Description= Description of the plate number
 - Startvaliditydate= Start date of validity period

- Endvaliditydate= End date of validity period

The format of CSV is the following:



The first block of HEADER-VALUE is the type of list which values are:

- nlist-id: Id of the list
- description: Description of the list
- color: Color of the list (NOT IN USE)

The second block of HEADER-VALUE are the elements of list which values are:

- nlemlist-id: Id of the list element
- numberplate: Plate number
- listid: Id of list type
- timestamp: Always ""
- description: Description of the number plate.
- Startvaliditydate: Start validity date of the number plate.
- Endvaliditydate End validity date of the number plate.

A list can perform several imports, depending on the scenario and needs.

Having the Employees list selected, click on “Imports for the list” and then click on the + button and define the type and interval. The interval can be set as:

- *Minute*: Will execute the task every minute.
- *Hour*: Will execute the task every hour.
- *Day*: Will execute the task once a day at 23:59:59.
- *Week*: Will execute the task once a week, every Monday at 00:00:00.
- *Month*: Will execute the task once a month, the first day of the month at 23:59:59.

1. Configuring the import **FTP list** to import the list from an ftp result, using the EMPLOYEES list, click on “Import for the list” and add a new import pressing “+” and then select in “Import type = FTP list”.

ID	Description	Import type	Interval	Active	
1	import	FTP list	Day	Enabled	Edit Delete

Import properties

Import Info

Host:

Port:

Format: XML XML_NOTDELETE CSV CSV_NOTDELETE

Folder name:

User:

Password:

Confirmation file: .FLAG

Click on  for more information about how to configure.

Help ×

Import the lists from an FTP server

The parameters are the following

- **Host**:Ftp server IP
- **Port**:Ftp server port
- **Format**:The message type (XML)
- **Folder**:Ftp folder to save the lists
- **User**:Ftp user
- **Password**:Ftp password
- **Confirmation file**:In order to track if list have been recieve from the FTP server.

Click on  for more information about format type.

Help ×


The possible formats are following

- **XML**:XML list [Download Sample](#)
- **XML_NOTDELETE**:XML list (Not delete the old elements)[Download Sample](#)
- **CSV**:XML list [Download Sample](#)
- **CSV_NOTDELETE**:XML list (Not delete the old elements)[Download Sample](#)

- Configuring the import **SINCRO camera** to import the list from another camera, using the EMPLOYEES list, click on “Import for the list” and add a new import pressing “+” and then select in “Import type = SINCRO Camera”.

ID	Description	Import type	Interval	Active	
5	23232	SINCRO camera	Minute	Enabled	Edit Delete

Import properties

Import Info 

Host:

User:

Password:

Click on  for more information about how to configure.

Help ×

Import the lists from a Camera

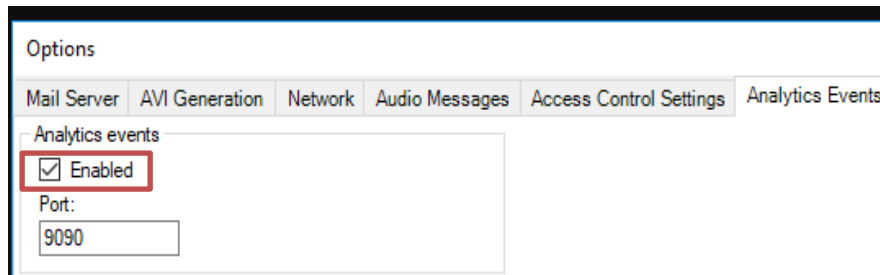
The parameters are the following

- **Host:**Camera master IP
- **User:**Camera master user
- **Password:**Camera master password

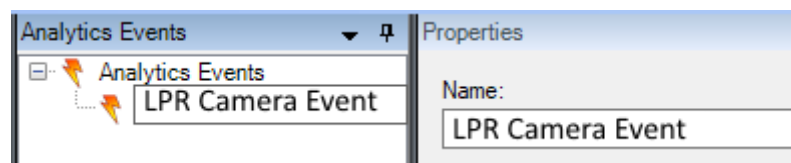
4.4.1 Configure Milestone

Once the Milestone action is configured, we need set up Milestone server to process our action. To do this, we follow the next steps:

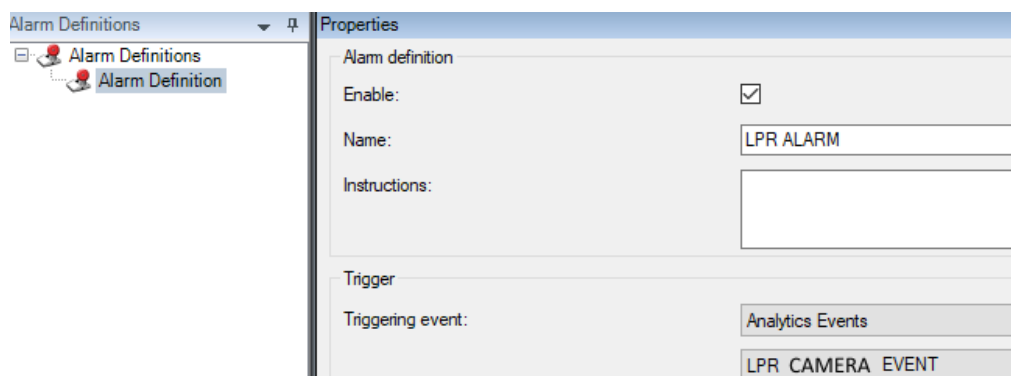
- 1- Enable analytic events.
 - a. We click to Tool -> Options and select the “Analytics Event” tab. At this tab we will active the Analytics events.



- 2- Create the analytic event.
 - a. We do a click at Rules and Events -> Analytics Events. And then right button to create a new analytic event. The name must be the same that defined at Event type of action.



- 3- Create an alarm definition.
 - a. We do a right click at Alarm definition and we create a new alarm definition on:
 - i. Enable: This alarm is enabled at system
 - ii. Name: The alarm name
 - iii. Triggering event: We must select Analytic Events
 - iv. Triggering event source: We must select the before created analytic event
 - v. Source: We must select the camera at milestone system



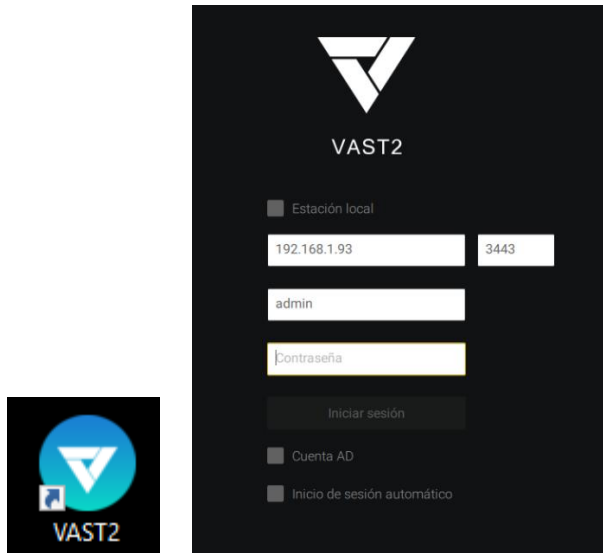
4.4.2 Configure VAST2

Once the VAST2 action is configured, we need set up VAST2 server to process our action.

Minimum VAST2 version 2_5_0_3000

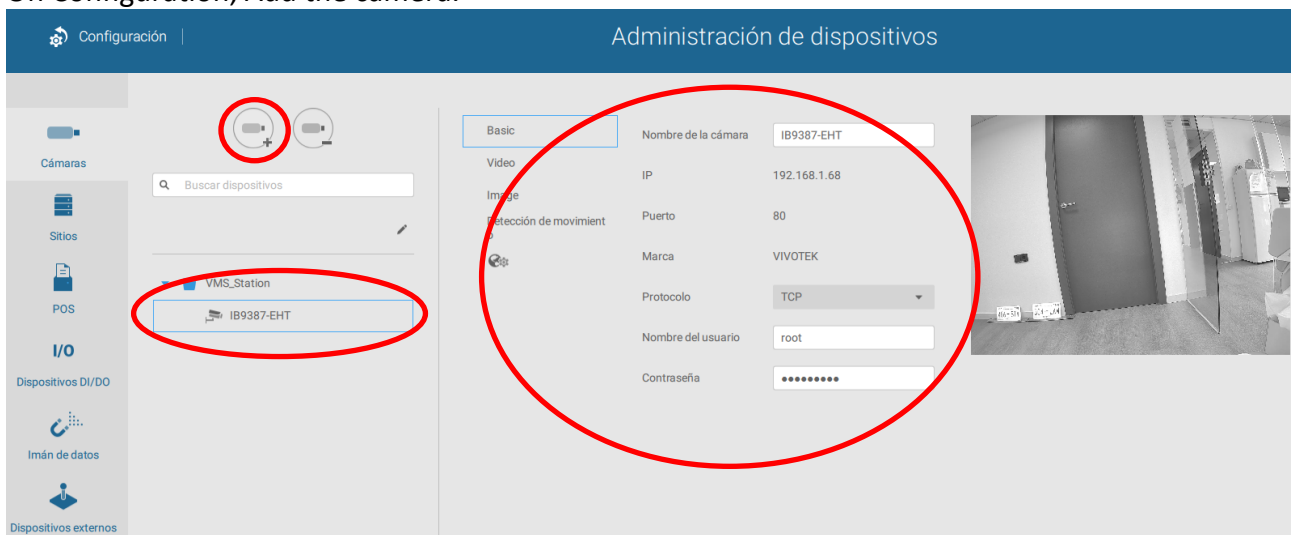
To do this, we follow the next steps:

- 1- Access to the client tool



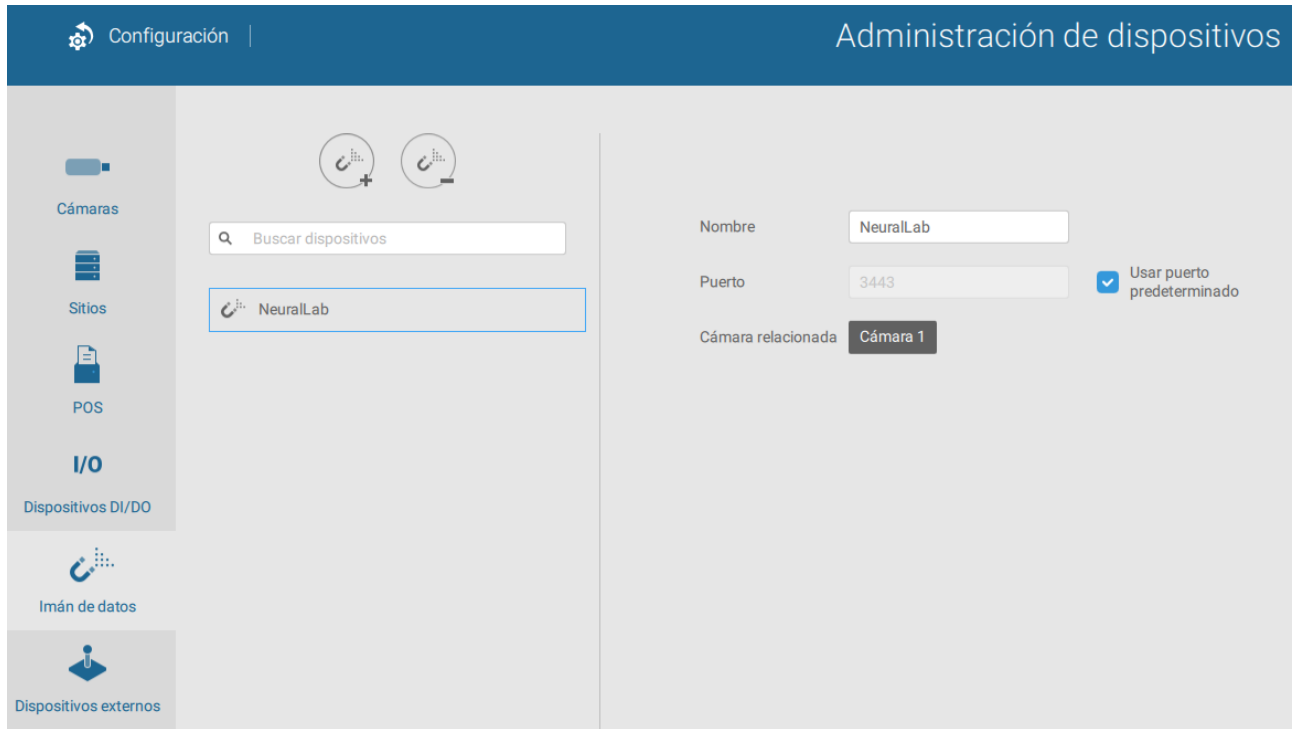
- 2- Include the camera

On Configuration, Add the camera.



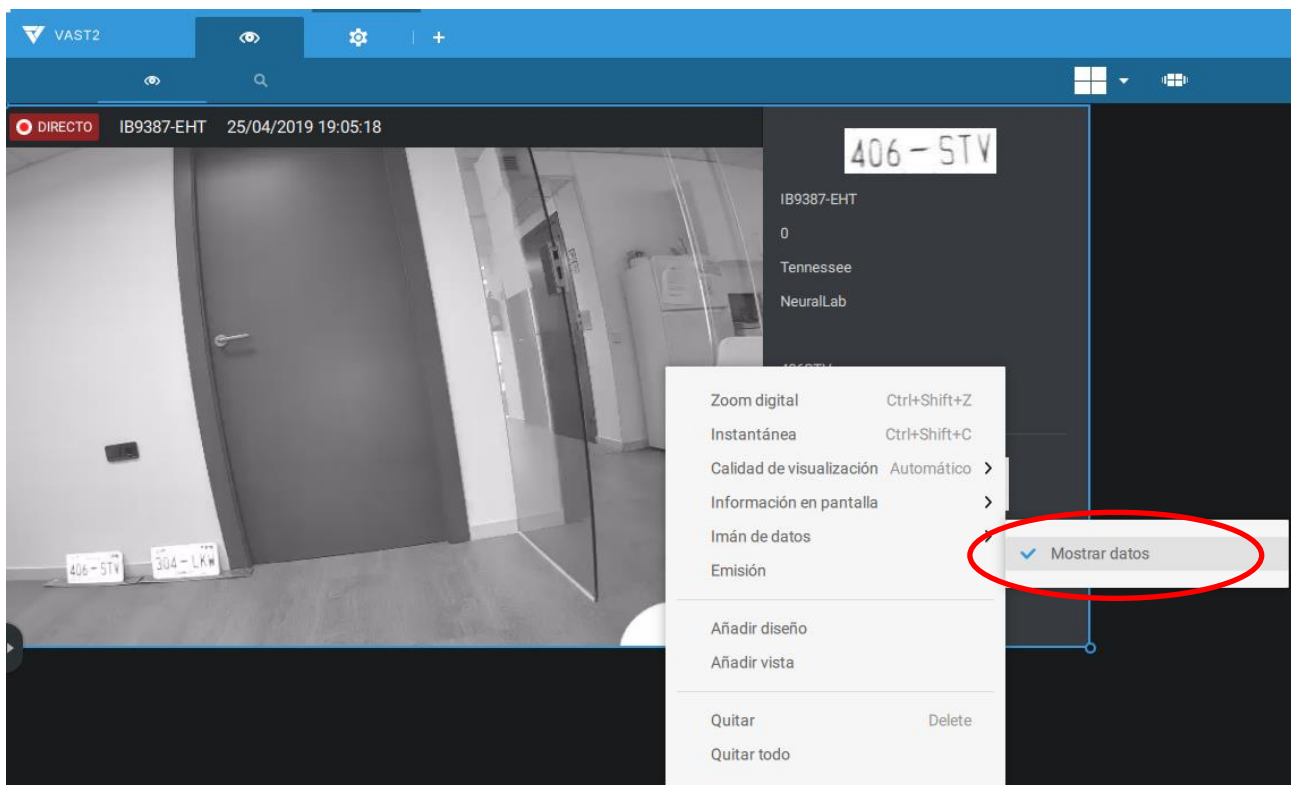
3- Create a Magnet Data

On Configuration Magnet Data create a magnet data labeled **NeuralLab**



4- Check if arrive information

On View image right click Data Magnet / Show data



Each plate received will appear on the right:

DIRECTO IB9387-EHT 25/04/2019 17:31:30

406 - STV

304 - LKW

406 - STV

IB9387-EHT
0
Tennessee
NeuralLab
406STV
2019/04/25 23:31:27

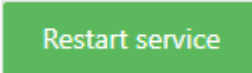
304 - LKW

IB9387-EHT
0
Tennessee
NeuralLab

4.5. LPR Configuration Tab

In this tab, we will set the proper configuration for the camera depending on the scenario where will be located (indoor, outdoor) and the necessity (parking, control of access points, security, tolls, road offenses, etc.).

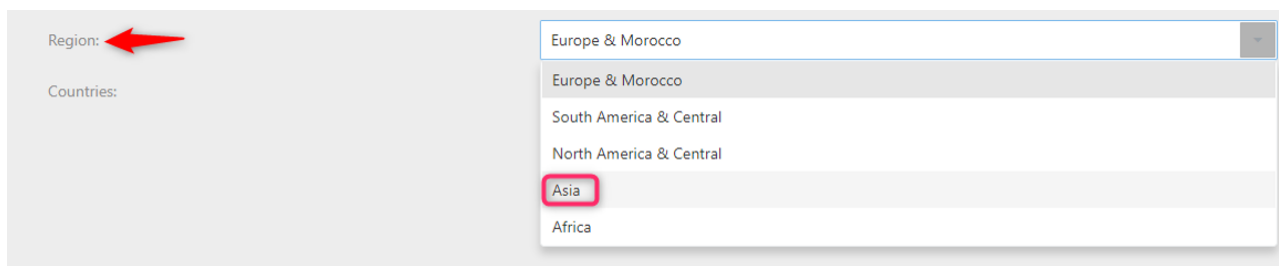
All the options after modified requires a service reset.



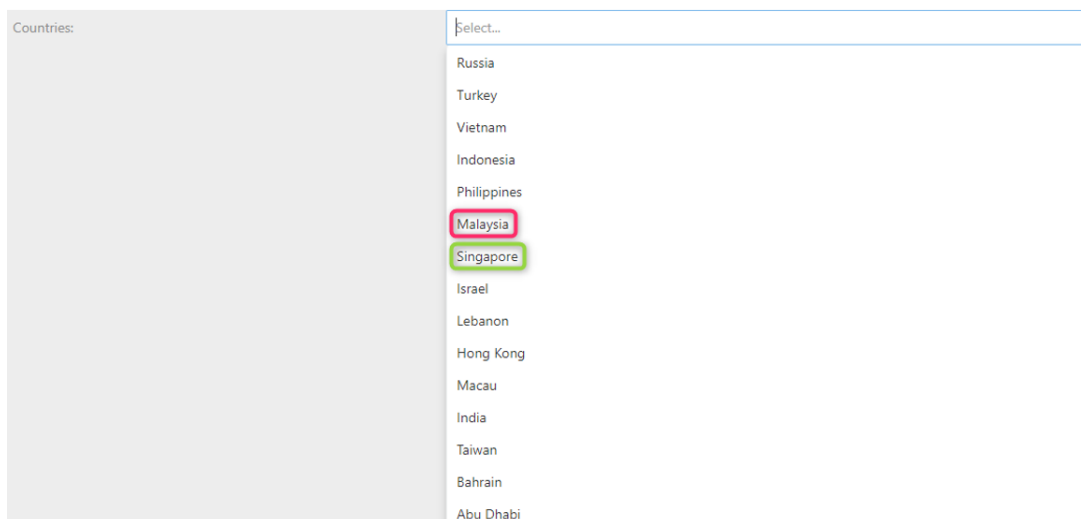
Depending on which region you select it will list the countries in that region. In case the country you are searching for isn't listed please contact Neural Labs.

Let's configure Neural Edge to read plates from Malaysia and Singapore.

In Region, list and select ASIA

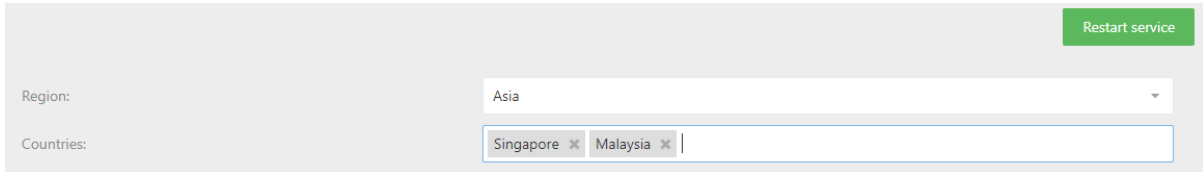


In countries, search and select one by one the countries.



After selecting the countries, restart service clicking on  button.

Now you are ready to read license plates for these two countries.



Next you need to select the camera function mode:

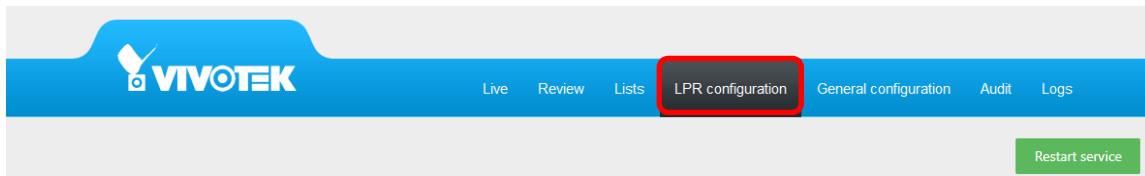
Trigger: The camera will read if a trigger is active such as induction loop, laser, etc.

Free Flow: The camera is continuously processing all the images, is not recommended unless there is a constant flow of vehicles.

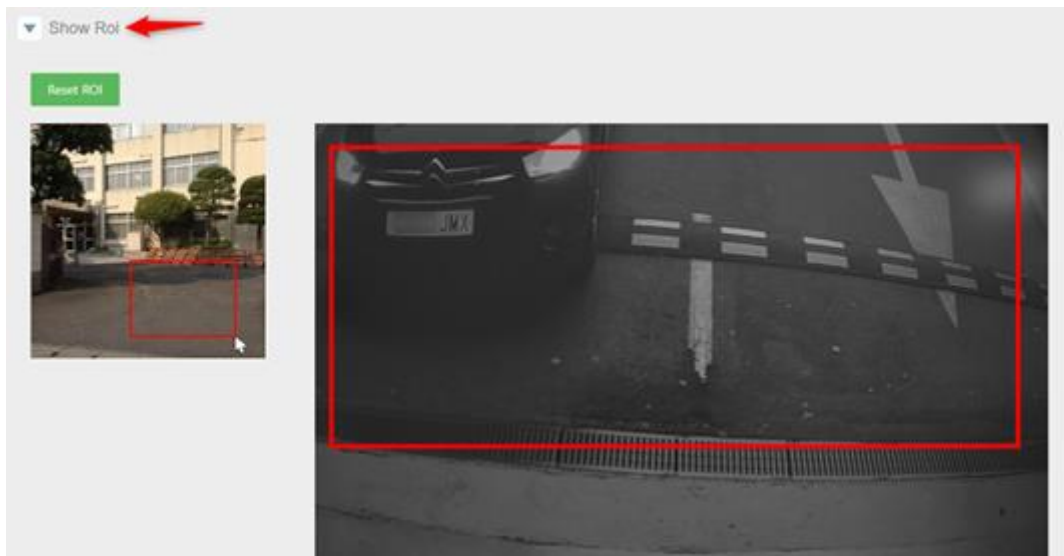
Motion Detection (Set by default): The camera will read if detect any change in the image.

You also need to configure the camera resolution, which image size do you need to process, this will depend on the distance where you will read the license plate. This set up doesn't affect the camera resolution configuration because are independent one from each other.

Camera resolution set by default is: 1280*720



Show ROI: Let you draw a *region of interest* in the image, which part of the image do you want to process and read.



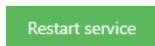
Click on "Show ROI", the wizard will guide you on how to draw it.

Draw 2 points into the road following the steps:

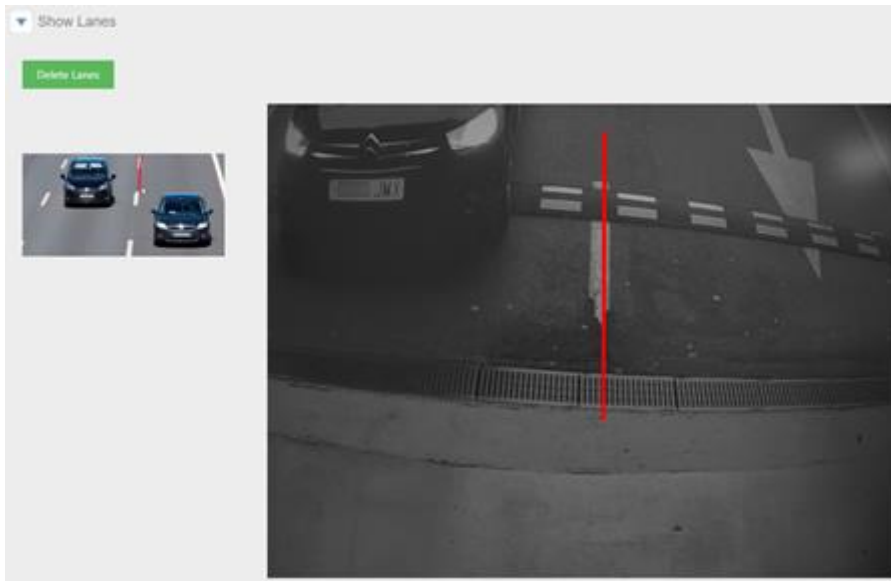
- 1.- Draw top left point.
- 2.- Draw bottom right point.

To reset ROI, click on "RESET ROI" button.

Click on the "RESTART SERVICE" button to take effect.



Show Lanes: Let you draw a line to configure 2 lanes, depending on how you draw the line Neural Edge will consider which lanes are going to be.



Click on “Show Lanes”, the wizard will guide you on how to draw it.

Draw 2 points into the road following the steps:

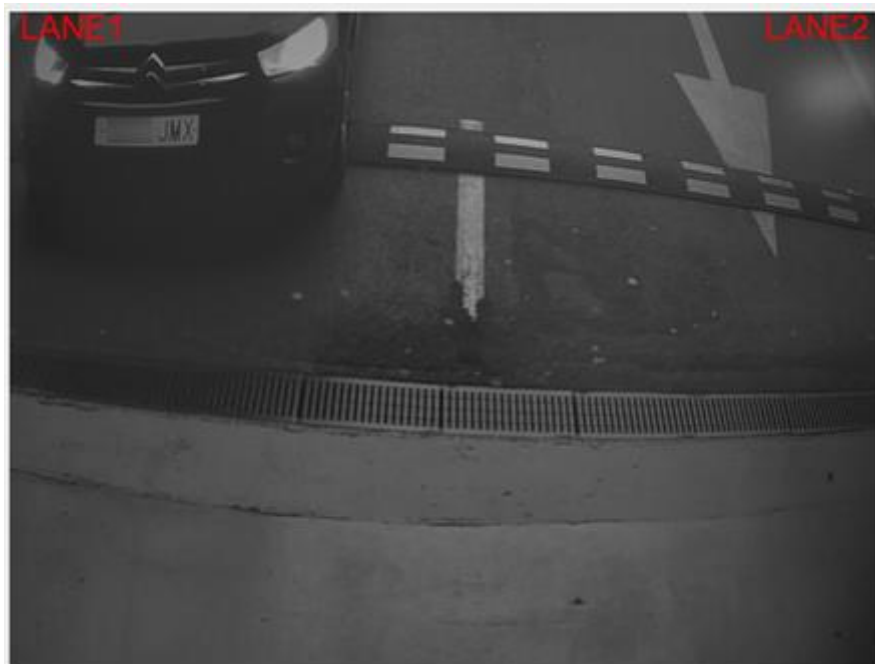
1.- Draw top point.

2.- Draw bottom point.

To reset ROI, click on “Delete Lanes” button.

Click on the “RESTART SERVICE” button to take effect.

Restart service



Neural Edge will read the license plate and indicate on which lane they were detected.

Expert Options: Here is the recommended configuration for best performance if Motion Detection (default configuration) is selected.

Minimum character height: Minimum character size. Very useful for cases where you want to ensure a minimum character size. 25 being the recommendation

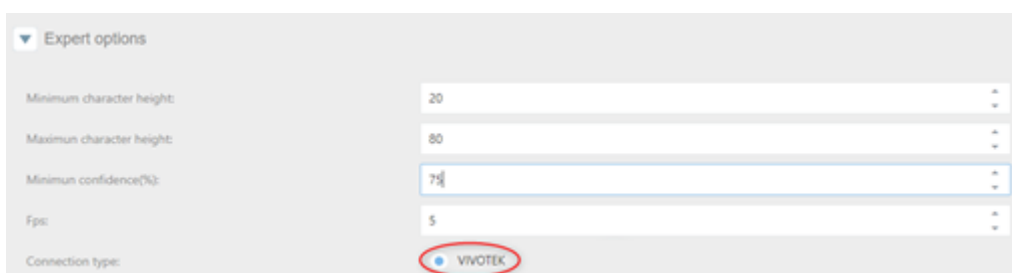
Maximum character height: Maximum character size. Very useful for cases where you want to ensure a maximum character size.

Minimum Confidence (%): Minimum reliability in the reading of a license plate to consider it valid. Reliability is a parameter returned by the engine for recognizing license plates (value of 1-100, where 100 is the most reliable). 80 being the recommendation

FPS: Maximum frames per second to process. 5 being the recommendation

Connection Type: You need to select the option, how you will get the image to process

Vivotek: Camera streaming.



Expert options

Minimum character height: 20

Maximum character height: 80

Minimum confidence(%): 75

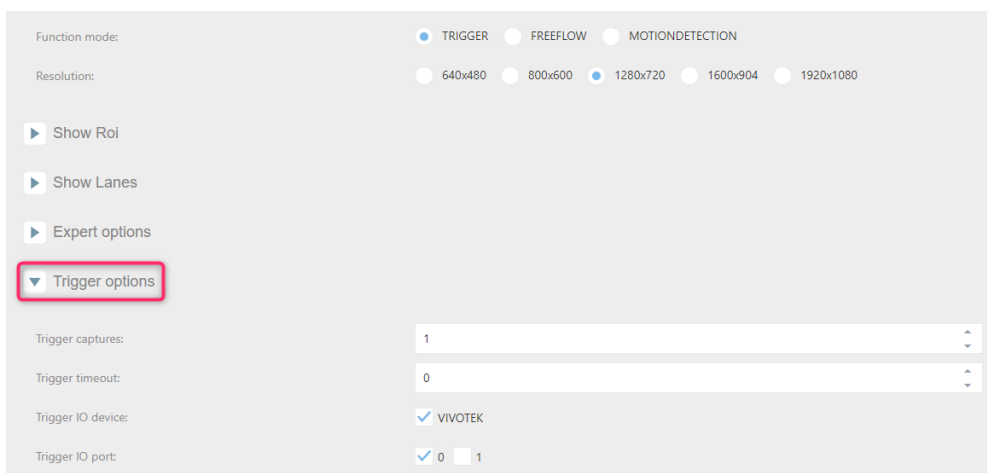
Fps: 5

Connection type: VIVOTEK

Click on the “RESTART SERVICE” button to take effect.

Restart service

Trigger Mode: Neural Edge is normally in an idle state. When a trigger command is received, it performs a variable number of captures, depending on configuration, and returns a result. Results from different triggering events are independent of one another, that is, if the same vehicle, is still present on a second trigger command, the same license plate will be returned a second time. On every trigger, it performs captures until the number exceeds NCaptures, or the time exceeds Timeout.



Function mode: TRIGGER FREEFLOW MOTIONDETECTION

Resolution: 640x480 800x600 1280x720 1600x904 1920x1080

Show Roi

Show Lanes

Expert options

Trigger options

Trigger captures: 1

Trigger timeout: 0

Trigger IO device: VIVOTEK

Trigger IO port: 0 1

Trigger Captures: How many images do you want to process and read license plates to stop.

Trigger Timeout: How many seconds do you want to process and read license plates to stop.

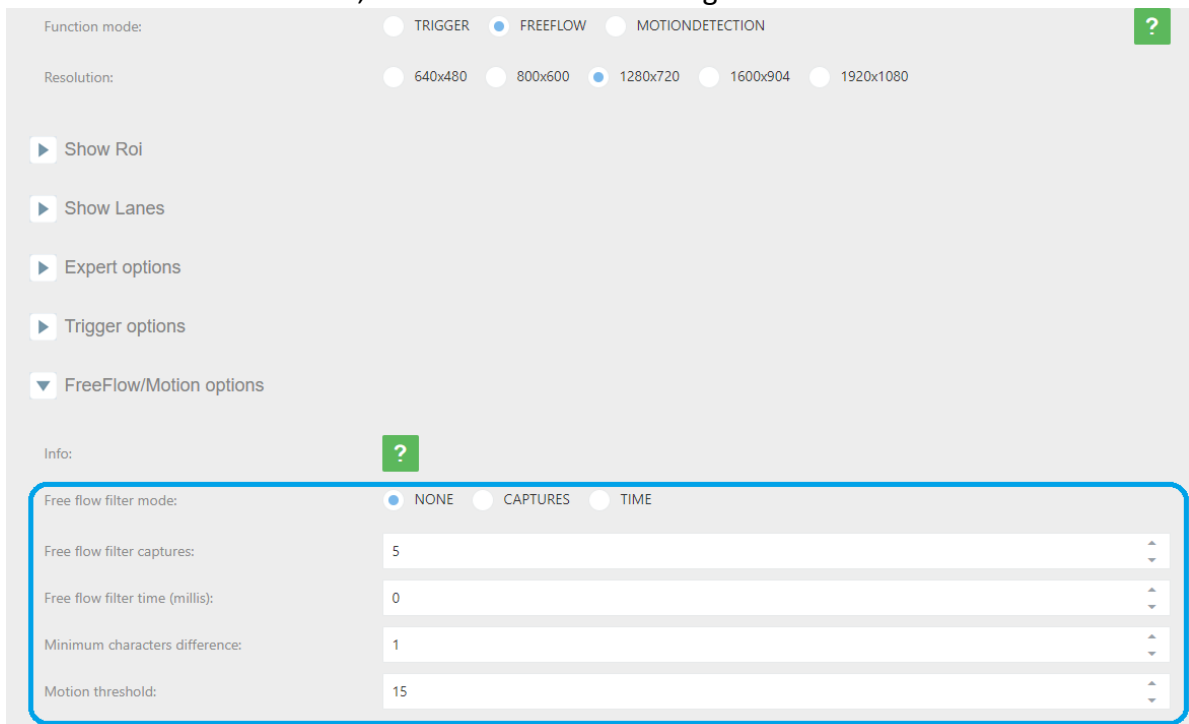
Trigger IO Device: If selected, the Digital Input ports will activate.

Trigger IO Port: Choose which digital input port you will use.

Click on the “RESTART SERVICE” button to take effect.

Restart service

FreeFlow/Motion options: Neural Edge continuously runs OCR on the receiving frames. Whenever a new vehicle enters the scene, a new result is sent through the notification socket.



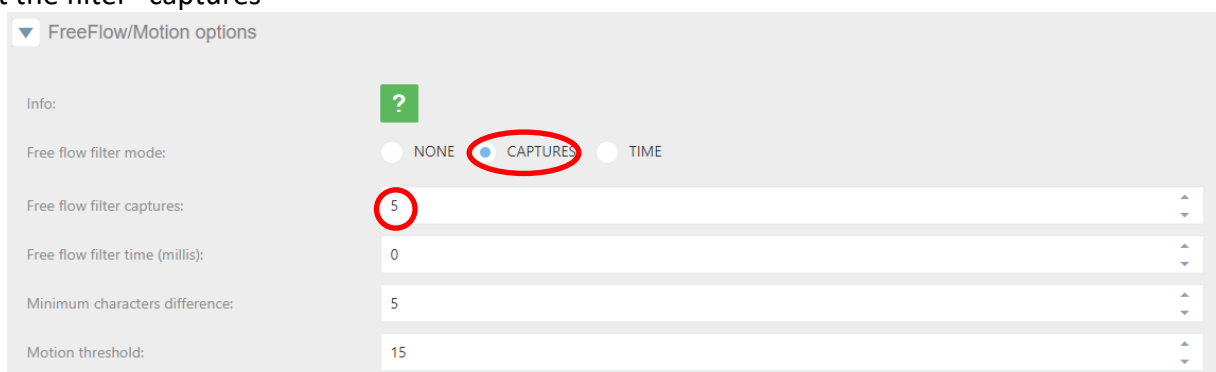
In the blue square, you can define repetition filters.

Free Flow filter captures: For a result to be considered valid, the last license plate read must not be among the last N recognized as valid. This filter is useful for traffic jams, where the cameras may be reading N license plates continually in a closed cycle.

Free Flow filter time (millis): Minimum time elapsed from the detection of the same license plate to it being accepted again in the system.

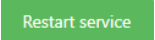
For example, you have the camera in a Parking and there is a traffic jam, you don't want to read the same license plate over and over, in that case, the best filter is for captures, please do the following.

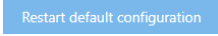
Having selected, Free Flow mode, click on "Free Flow options", click on "Free Flow filter mode" and select the filter "captures"



With this configuration, once a license plate is read, won't be read again until another 5 different license plates have been read.

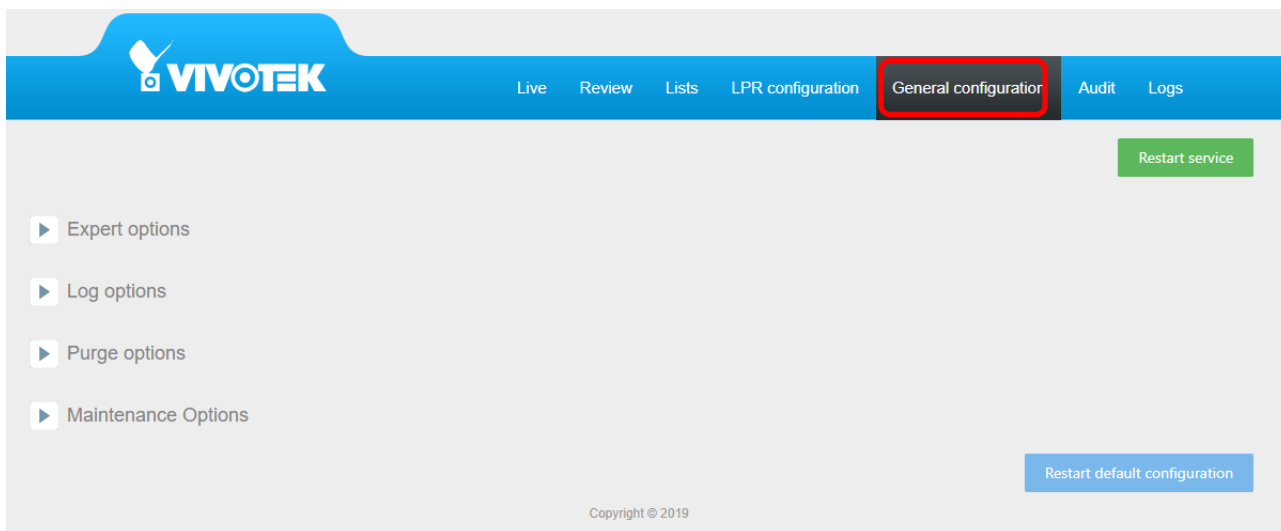
The motion threshold is the threshold to consider an image different from other image, for the motion mode. Value from 0 to 100.

After all, changes are done, remember always to restart service, clicking on  button.

If you need to restart all configuration for this section, click on  button.

4.6. General Configuration Tab

In this tab, configure general parameters:



Expert Options:

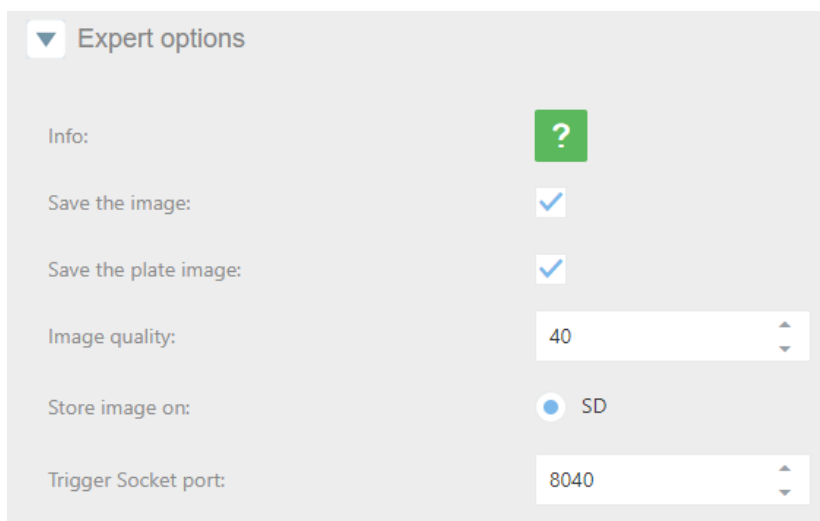
Save the image: If selected, will store in a folder the complete image.

Save the plate image: If selected, will store in a folder only the license plate image.

Image quality: will store the image with the compression configured here.

Store image on: will store data on an SD or in the camera. We strongly recommend adding an SD card in the camera.

Trigger Socket Port: Will enter the port we want to use for sending XML/JSON messages.



The screenshot shows the 'Expert options' configuration panel. It contains the following settings:

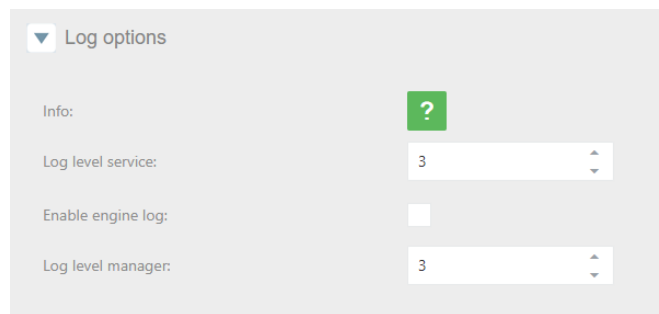
- Info:** A green button with a white question mark.
- Save the image:** A checked checkbox.
- Save the plate image:** A checked checkbox.
- Image quality:** A dropdown menu set to '40'.
- Store image on:** A radio button selected for 'SD'.
- Trigger Socket port:** A dropdown menu set to '8040'.

Log Options:

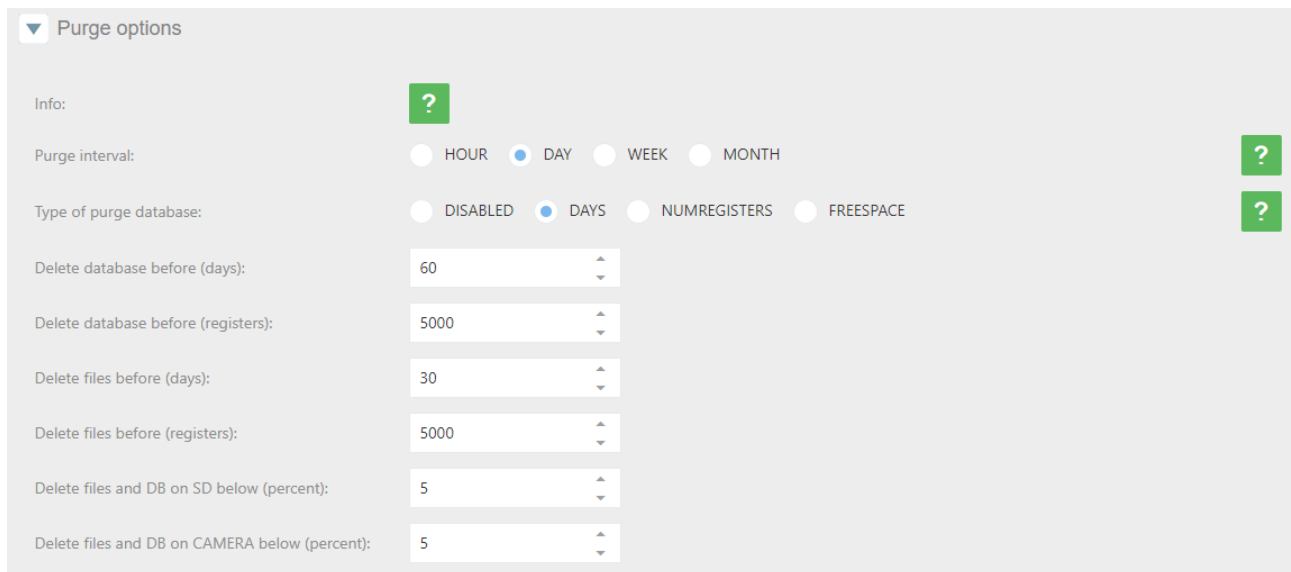
Log Level: Let you determine the log level to register what is going on with Neural Edge. By default, is set to 3. Level 4 and 5 are for experts and debugging team.

Activate log engine: Select only if debugging mode is necessary, only for expert technicians.

Log Level CGI (manager): Let you determine the log level to register what is going on with the CGI. By default, is set to 3. Level 4 and 5 are for experts and debugging team.



Purge Options: Here we will determine how many days or register of data we need to keep.



Purge Interval: Schedule when do you want to execute the purge.

Hour: Will execute the task every hour.

Day: Will execute the task once a day at 23:59:59.

Week: Will execute the task once a week, every Monday at 00:00:00.

Month: Will execute the task once a month, the first day of the month at 23:59:59.

Type of purge in database: Set how and what do you want to purge.

Disabled: Won't execute any purge.

Days: Will purge by days, keeping data for the last days.

NumRegisters: Will purge by several registers in the database.

Freespace: Will purge depending on the free space in the SD or in the camera.

Once you have defined when and what do you want to purge, you need to set the variables to execute the task.

Purge by days:

- Delete database before (days): Will keep data of the last (XX) days and purge the rest.
- Delete files before (days): Will keep files of the last (XX) days and purge the rest.

Purge by NumRegisters:

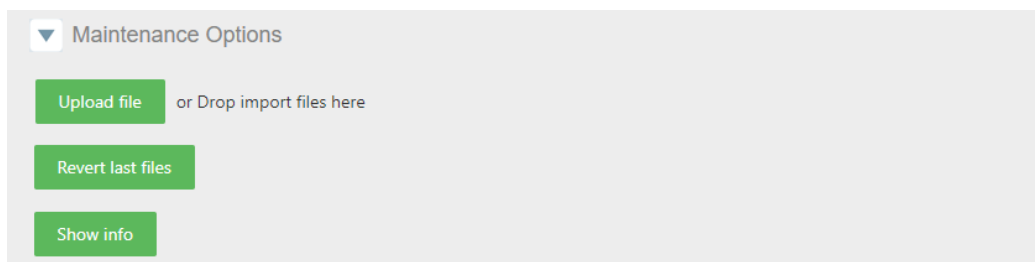
- Delete database before (registers): Will delete the first (XX) registers in the database.
- Delete files before (registers): Will delete the oldest (XX) files stored in the SD or camera.

Purge by Free Space:

- Delete files and database on SD below (percent): Will delete data in database and files stored until free space on the SD is lower than configured.
- Delete files and database on CAMERA below (percent): Will delete data in database and files stored until free space in the camera is lower than configured.

Maintenance Options:

In this section you can upload files for camera configuration, licensing, update Neural Edge version, change the logo and upload images for the path option showed in the Camera Configuration tab.



Upload File: Let you upload a file.

Revert last files: If after applying changes with the uploaded files, it doesn't work correctly you can revert changes.

Show Info: Show you information about the version and camera MAC ADDRESS.

Information

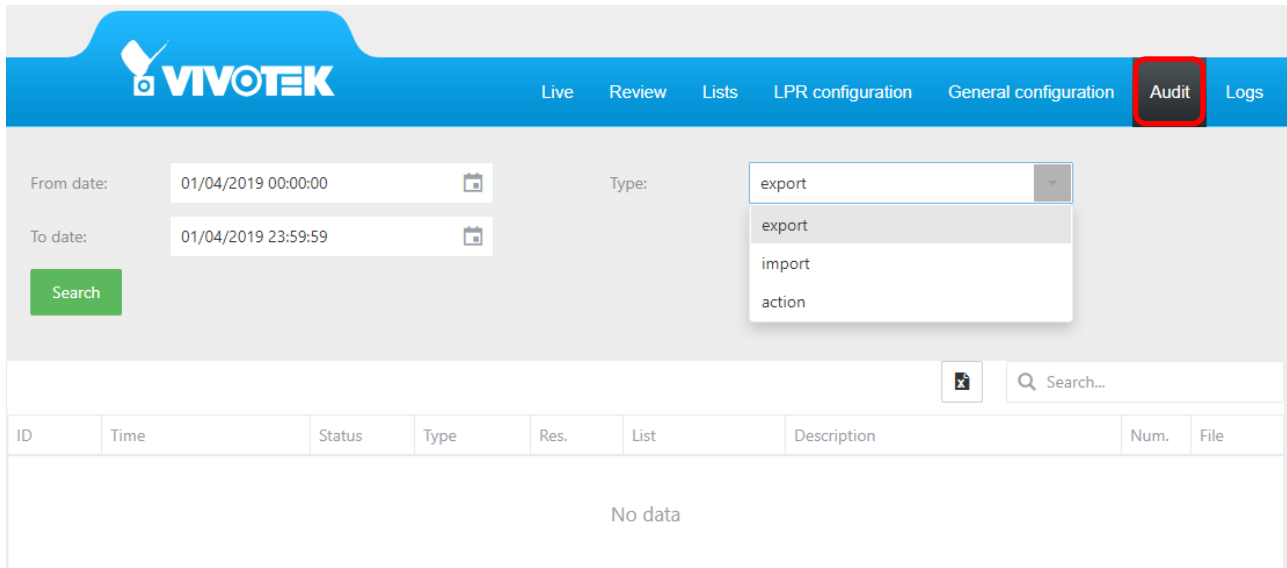
Version 1.02
Mac address 00:02:D1:6A:58:22

In case you want to revert, all changes done and want to get back to the default configuration, click on [Restart default configuration](#) button.

4.7. Audit Tab

The camera registers actions like export and import lists and actions executed depending on the list configurations.

In the Audit tab, you can search by dates information related to these actions.



From date: 01/04/2019 00:00:00

To date: 01/04/2019 23:59:59

Type: export

Search

ID	Time	Status	Type	Res.	List	Description	Num.	File
No data								

You can search in the stored actions by dates and by type of action.

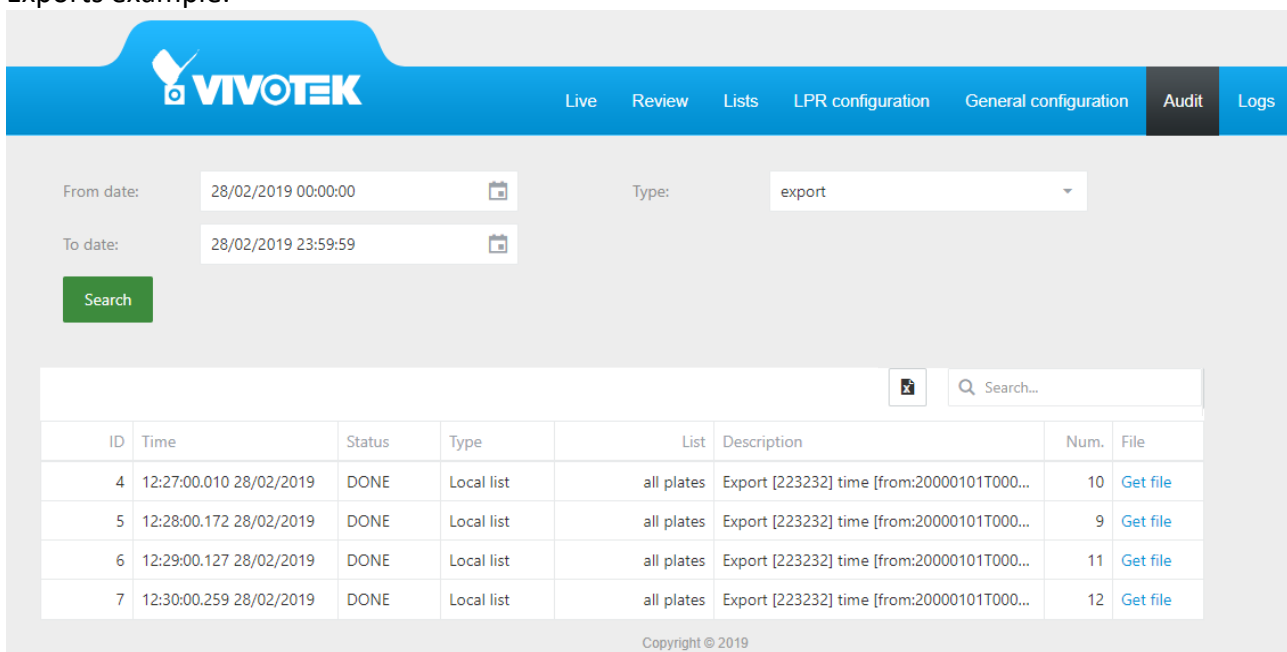
Export: Will show you automatic exports done

Import: Will show you automatic imports done.

Action: Will show you automatic actions triggered on the lists.

The result of the search can be exported and downloaded.

Exports example:



From date: 28/02/2019 00:00:00

To date: 28/02/2019 23:59:59

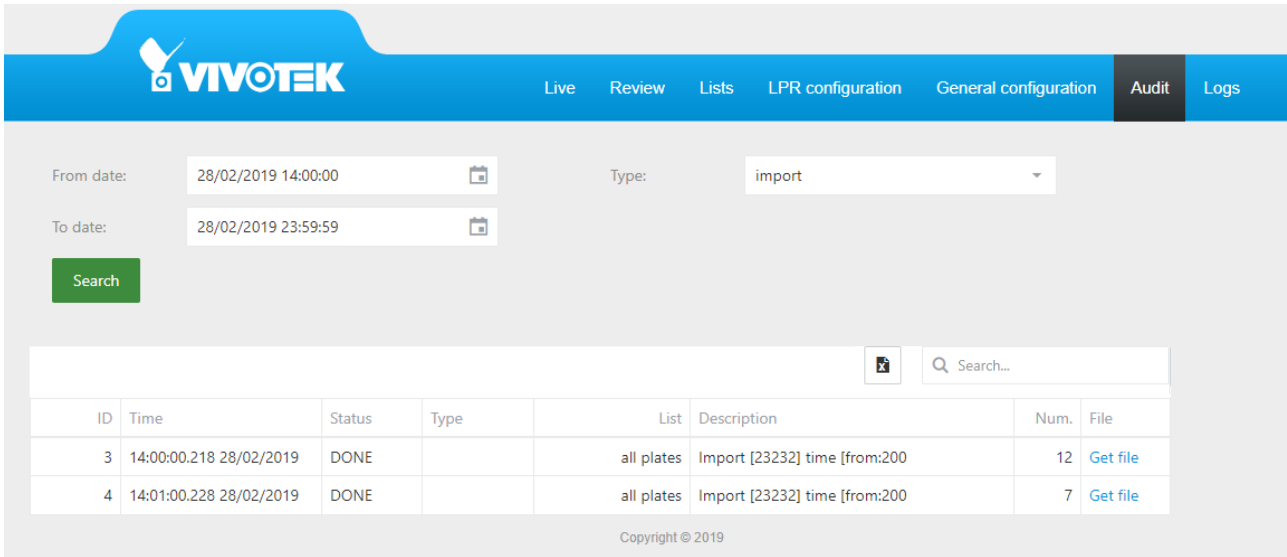
Type: export

Search

ID	Time	Status	Type	List	Description	Num.	File
4	12:27:00.010 28/02/2019	DONE	Local list	all plates	Export [223232] time [from:20000101T000...	10	Get file
5	12:28:00.172 28/02/2019	DONE	Local list	all plates	Export [223232] time [from:20000101T000...	9	Get file
6	12:29:00.127 28/02/2019	DONE	Local list	all plates	Export [223232] time [from:20000101T000...	11	Get file
7	12:30:00.259 28/02/2019	DONE	Local list	all plates	Export [223232] time [from:20000101T000...	12	Get file

Copyright © 2019

Imports example:

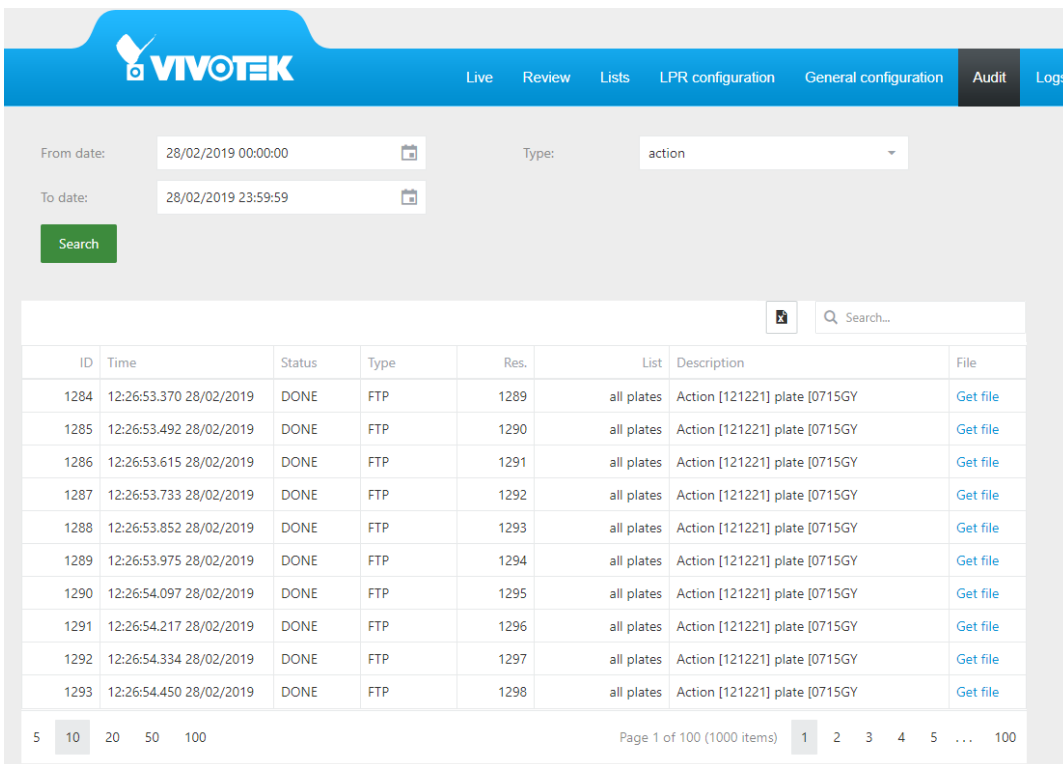


The screenshot shows the VIVOTEK interface with the 'Audit' tab selected. The search filters are set to 'From date: 28/02/2019 14:00:00' and 'To date: 28/02/2019 23:59:59', with 'Type' set to 'import'. A search button is visible. Below the filters is a table with the following data:

ID	Time	Status	Type	List	Description	Num.	File
3	14:00:00.218 28/02/2019	DONE		all plates	Import [23232] time [from:200	12	Get file
4	14:01:00.228 28/02/2019	DONE		all plates	Import [23232] time [from:200	7	Get file

Copyright © 2019

Actions example:



The screenshot shows the VIVOTEK interface with the 'Audit' tab selected. The search filters are set to 'From date: 28/02/2019 00:00:00' and 'To date: 28/02/2019 23:59:59', with 'Type' set to 'action'. A search button is visible. Below the filters is a table with the following data:

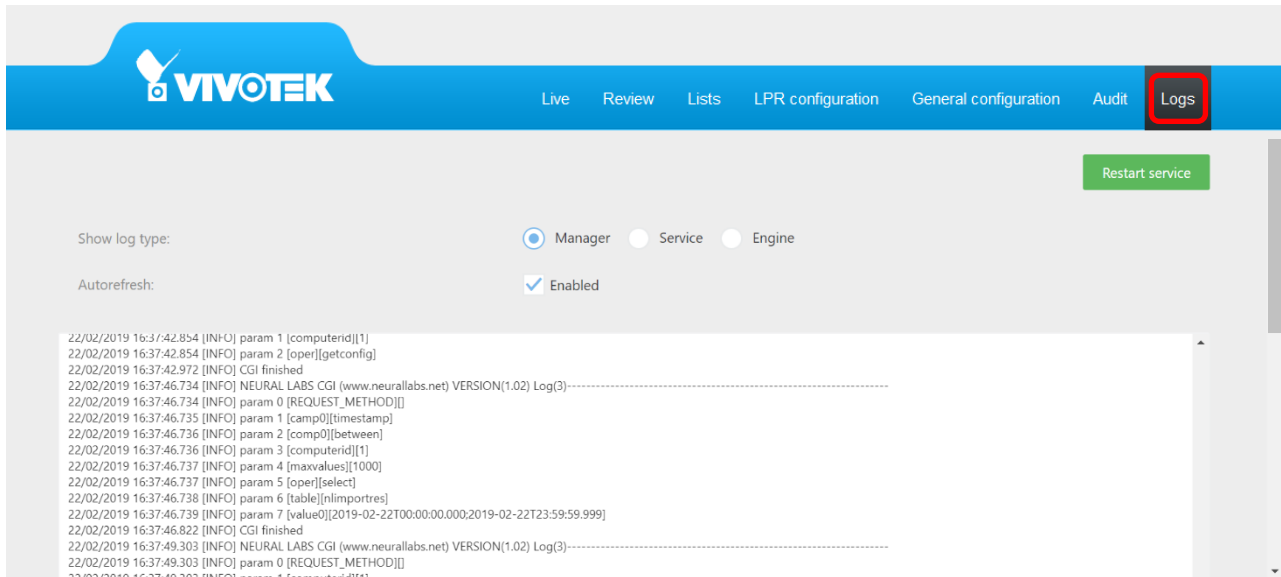
ID	Time	Status	Type	Res.	List	Description	File
1284	12:26:53.370 28/02/2019	DONE	FTP	1289	all plates	Action [121221] plate [0715GY	Get file
1285	12:26:53.492 28/02/2019	DONE	FTP	1290	all plates	Action [121221] plate [0715GY	Get file
1286	12:26:53.615 28/02/2019	DONE	FTP	1291	all plates	Action [121221] plate [0715GY	Get file
1287	12:26:53.733 28/02/2019	DONE	FTP	1292	all plates	Action [121221] plate [0715GY	Get file
1288	12:26:53.852 28/02/2019	DONE	FTP	1293	all plates	Action [121221] plate [0715GY	Get file
1289	12:26:53.975 28/02/2019	DONE	FTP	1294	all plates	Action [121221] plate [0715GY	Get file
1290	12:26:54.097 28/02/2019	DONE	FTP	1295	all plates	Action [121221] plate [0715GY	Get file
1291	12:26:54.217 28/02/2019	DONE	FTP	1296	all plates	Action [121221] plate [0715GY	Get file
1292	12:26:54.334 28/02/2019	DONE	FTP	1297	all plates	Action [121221] plate [0715GY	Get file
1293	12:26:54.450 28/02/2019	DONE	FTP	1298	all plates	Action [121221] plate [0715GY	Get file

Page 1 of 100 (1000 items) 1 2 3 4 5 ... 100

4.8. Logs Tab

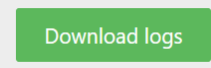
In this TAB the user can see /download different logs. Logs are activated and setup in General Configuration TAB.

These logs can be useful to help our technical team to diagnose and solve application problems.



22/02/2019 16:37:42.854 [INFO] param 1 [computerid][1]
 22/02/2019 16:37:42.854 [INFO] param 2 [oper][getconfig]
 22/02/2019 16:37:42.972 [INFO] CGI finished
 22/02/2019 16:37:46.734 [INFO] NEURAL LABS CGI (www.neurallabs.net) VERSION(1.02) Log(3)-----
 22/02/2019 16:37:46.734 [INFO] param 0 [REQUEST_METHOD][]
 22/02/2019 16:37:46.735 [INFO] param 1 [camp0][timestamp]
 22/02/2019 16:37:46.736 [INFO] param 2 [comp0][between]
 22/02/2019 16:37:46.736 [INFO] param 3 [computerid][1]
 22/02/2019 16:37:46.737 [INFO] param 4 [maxvalues][1000]
 22/02/2019 16:37:46.737 [INFO] param 5 [oper][select]
 22/02/2019 16:37:46.738 [INFO] param 6 [table][nimportres]
 22/02/2019 16:37:46.739 [INFO] param 7 [value0][2019-02-22T00:00:00.000:2019-02-22T23:59:59.999]
 22/02/2019 16:37:46.822 [INFO] CGI finished
 22/02/2019 16:37:49.303 [INFO] NEURAL LABS CGI (www.neurallabs.net) VERSION(1.02) Log(3)-----
 22/02/2019 16:37:49.303 [INFO] param 0 [REQUEST_METHOD][]
 22/02/2019 16:37:49.303 [INFO] param 1 [computerid][1]

The type of the log that the user wants to see must be selected by either manager, Service or Engine. Checking auto update the application will refresh the selected log type.

Sending logs to technical support may be needed. To do that click  in the bottom of the page.

Selected logs will be downloaded in compressed txt format.



22/02/2019 16:37:49.304 [INFO] CGI finished
 22/02/2019 16:37:49.357 [INFO] NEURAL LABS CGI (www.neurallabs.net) VERSION(1.02) Log(3)-----
 22/02/2019 16:37:49.357 [INFO] param 0 [REQUEST_METHOD][]
 22/02/2019 16:37:49.357 [INFO] param 1 [computerid][1]
 22/02/2019 16:37:49.357 [INFO] param 2 [oper][gettidnt]
 22/02/2019 16:37:49.358 [INFO] CGI finished
 22/02/2019 16:39:05.476 [INFO] NEURAL LABS CGI (www.neurallabs.net) VERSION(1.02) Log(3)-----
 22/02/2019 16:39:05.476 [INFO] param 0 [REQUEST_METHOD][]
 22/02/2019 16:39:05.476 [INFO] param 1 [computerid][1]
 22/02/2019 16:39:05.476 [INFO] param 2 [oper][gettidnt]
 22/02/2019 16:39:05.477 [INFO] CGI finished
 22/02/2019 16:39:05.540 [INFO] NEURAL LABS CGI (www.neurallabs.net) VERSION(1.02) Log(3)-----
 22/02/2019 16:39:05.540 [INFO] param 0 [REQUEST_METHOD][]
 22/02/2019 16:39:05.541 [INFO] param 1 [computerid][1]
 22/02/2019 16:39:05.541 [INFO] param 2 [oper][gettidnt]
 22/02/2019 16:39:05.541 [INFO] CGI finished

5. Camera list synchronization

The Neural Edge system allows a list system synchronized.

One of the cameras works like a master and the other cameras works like a slave.

The master camera uploads the file with the list content and the slave cameras download the file.

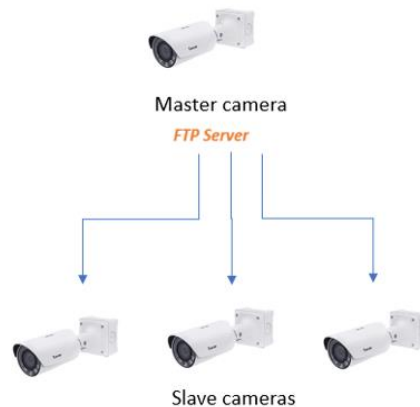
All the list and elements must be modified in the master camera, the changes will be updated automatically in the slave following the next instructions to configure the master and the slaves.

There is no limit for the number of the cameras slave, the limit is on the FTP server, depends of the number of connections.

Can be synchronized all the lists or only one list.

5.1. Architecture 1

The camera is the FTP server. Must be activated (by default is disable the FTP server)



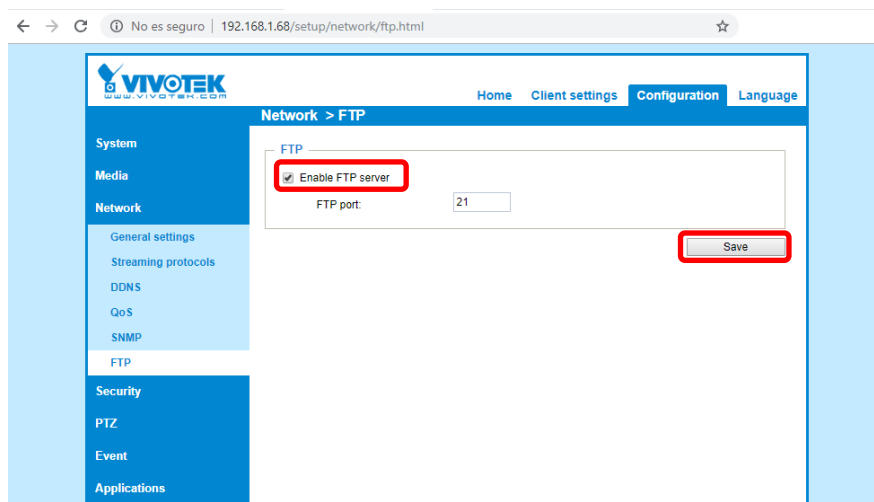
5.1.1. Master configuration

Activate the FTP server.

Access to the camera web interface:

Configuration/Network/FTP

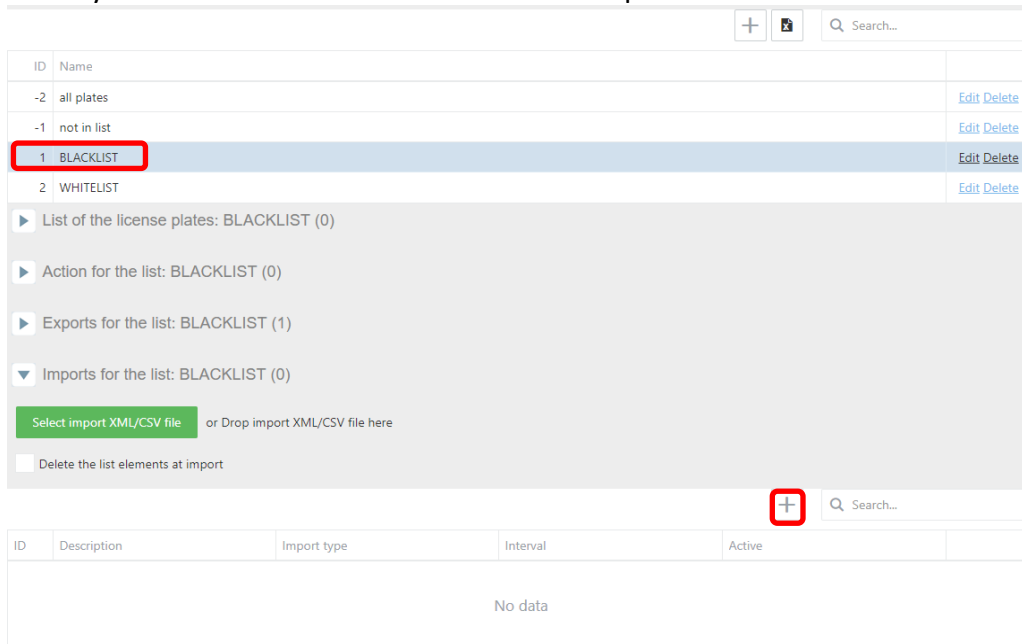
Check "Enable FTP server" and click Save.



5.1.2. Slave configuration

Access to the List Tab.

To configure only one list selects the list and make the import in the list.



ID	Name	
-2	all plates	Edit Delete
-1	not in list	Edit Delete
1	BLACKLIST	Edit Delete
2	WHITELIST	Edit Delete

List of the license plates: BLACKLIST (0)

Action for the list: BLACKLIST (0)

Exports for the list: BLACKLIST (1)

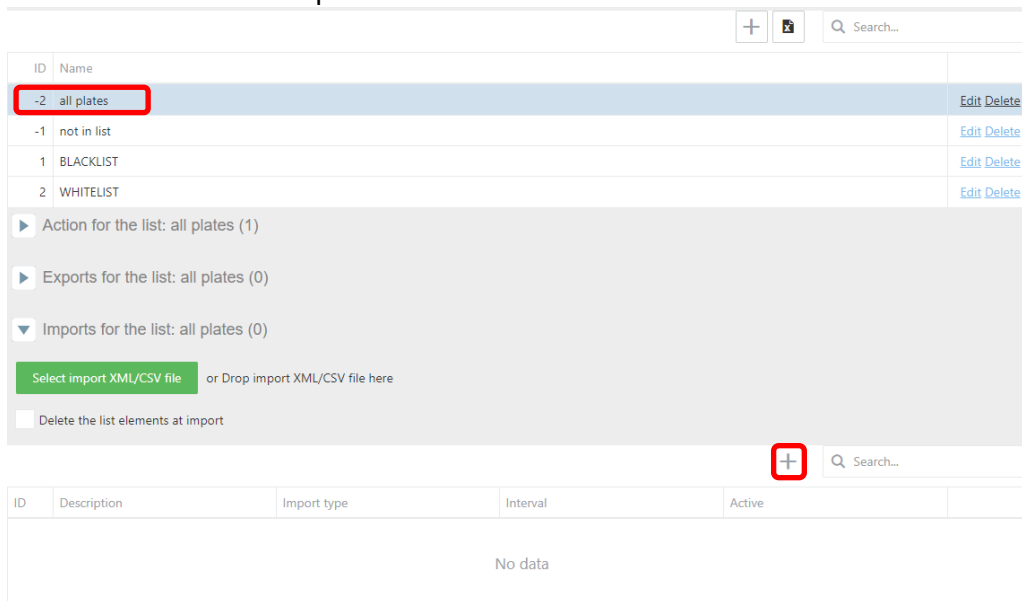
Imports for the list: BLACKLIST (0)

Select import XML/CSV file or Drop import XML/CSV file here

Delete the list elements at import

ID	Description	Import type	Interval	Active
No data				

To configure all the list selects all plates.



ID	Name	
-2	all plates	Edit Delete
-1	not in list	Edit Delete
1	BLACKLIST	Edit Delete
2	WHITELIST	Edit Delete

Action for the list: all plates (1)

Exports for the list: all plates (0)

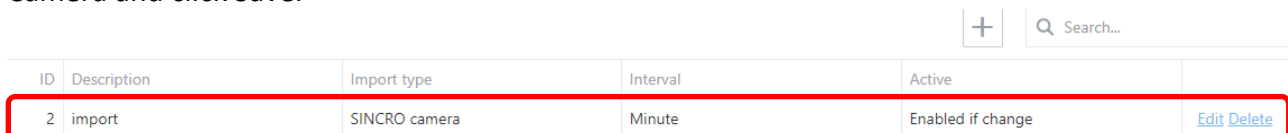
Imports for the list: all plates (0)

Select import XML/CSV file or Drop import XML/CSV file here

Delete the list elements at import

ID	Description	Import type	Interval	Active
No data				

Create an import each minute (or desirable time) the time enabled if change with the type SINCRO Camera and click Save.



ID	Description	Import type	Interval	Active
2	import	SINCRO camera	Minute	Enabled if change

Configure the master camera credentials.

ID	Description	Import type	Interval	Active	
2	import	SINCRO camera	Minute	Enabled if change	Edit Delete

Import properties

Import Info ?


Host:

User:

Password:

Host: Camera master IP
 User: Camera master user
 Password: Camera master password

Can be checked in the Audit Tab.



[Live](#) [Review](#) [Lists](#) [LPR configuration](#) [General configuration](#) [Audit](#) [Logs](#)

From date:

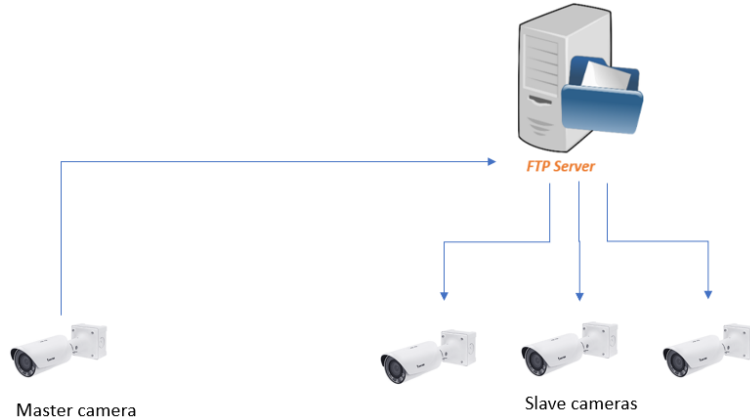
To date:

Type:

ID	Time	Status	Type	List	Description	Num.	File
21	13:25:00.136 08/04/2019	DONE			Import [import slave] time [f	1	Get file

5.2. Architecture 2

Using FTP server where store the list.



5.2.1. Master configuration

Access to the List Tab.

To configure only one list selects the list and make the export in the list.

+ 🔒

ID	Name	
-2	all plates	Edit Delete
-1	not in list	Edit Delete
1	BLACKLIST	Edit Delete
2	WHITELIST	Edit Delete

▶ List of the license plates: BLACKLIST (0)

▶ Action for the list: BLACKLIST (0)

▼ Exports for the list: BLACKLIST (0)

Export to CSV file
Export to XML file

+

ID	Description	Export type	Interval	Active
No data				

To configure all the list selects all plates.

+ 🔒

ID	Name	
-2	all plates	Edit Delete
-1	not in list	Edit Delete
1	BLACKLIST	Edit Delete
2	WHITELIST	Edit Delete

▶ Action for the list: all plates (1)

▼ Exports for the list: all plates (0)

Export to CSV file
Export to XML file

+

ID	Description	Export type	Interval	Active
No data				

Create an export each minute enabled if change with the type FTP list and click Save.

ID	Description	Export type	Interval	Active	
1	export master	FTP list	Minute	Enabled if change	Save Cancel

Configure the credentials of the FTP server and the format CSV or XML, can be the booth but must be the same in the slaves.

Just configured the camera master is sending the file to the FTP server.

ID	Description	Export type	Interval	Active	
1	export master	FTP list	Minute	Enabled if change	Edit Delete

Export properties

Export Info

Host: 192.168.1.21

Port: 21

Format: XML CSV

Folder name: EXPORT

User: user

Password: password

Confirmation file: .FLAG

Can be checked in the Audit Tab.

VIVOTEK

Live Review Lists LPR configuration General configuration **Audit** Logs

From date: 08/04/2019 00:00:00

To date: 08/04/2019 23:59:59

Type: export

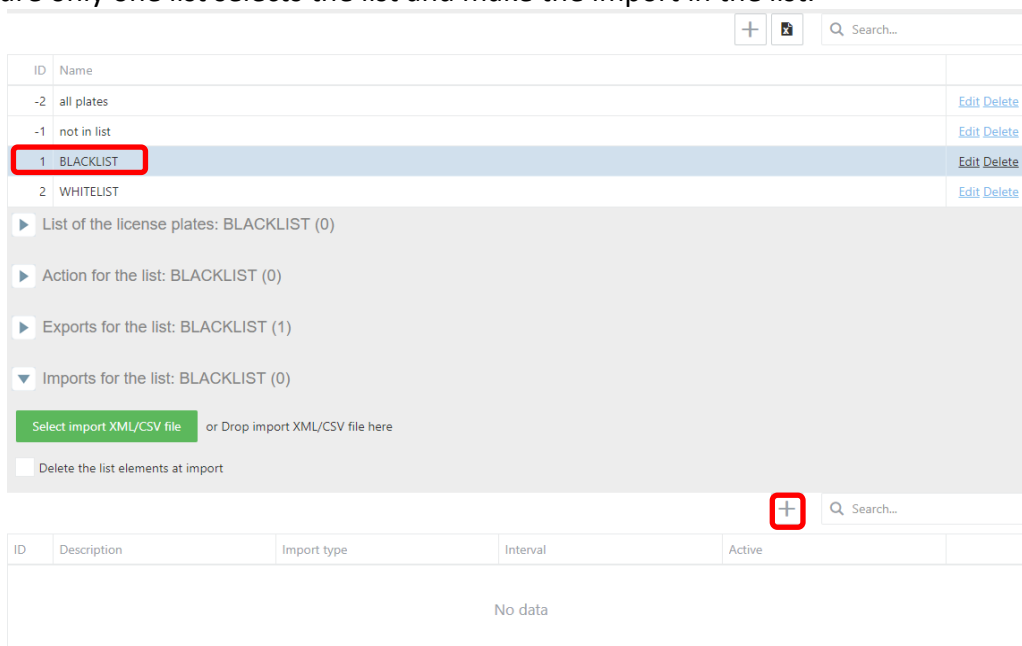
Search

ID	Time	Status	Type	List	Description	Num.	File
1	12:55:00.010 08/04/2019	DONE	FTP list	BLACKLIST	Export [export master] time [from:2000010...	1	Get file

5.2.2. Slave configuration

Access to the List Tab.

To configure only one list selects the list and make the import in the list.



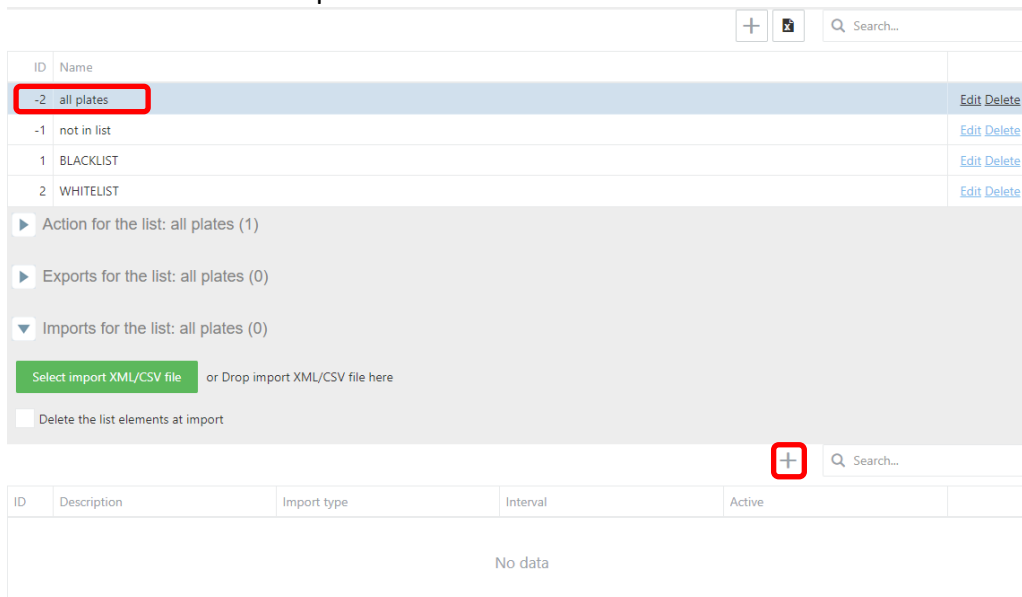
ID	Name	
-2	all plates	Edit Delete
-1	not in list	Edit Delete
1	BLACKLIST	Edit Delete
2	WHITELIST	Edit Delete

▶ List of the license plates: BLACKLIST (0)
 ▶ Action for the list: BLACKLIST (0)
 ▶ Exports for the list: BLACKLIST (1)
 ▼ Imports for the list: BLACKLIST (0)

or Drop import XML/CSV file here
 Delete the list elements at import

ID	Description	Import type	Interval	Active
No data				

To configure all the list selects all plates.



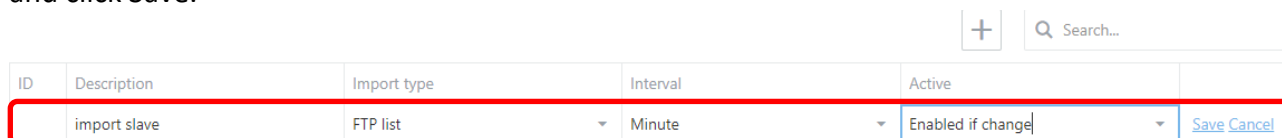
ID	Name	
-2	all plates	Edit Delete
-1	not in list	Edit Delete
1	BLACKLIST	Edit Delete
2	WHITELIST	Edit Delete

▶ Action for the list: all plates (1)
 ▶ Exports for the list: all plates (0)
 ▼ Imports for the list: all plates (0)

or Drop import XML/CSV file here
 Delete the list elements at import

ID	Description	Import type	Interval	Active
No data				

Create an import each minute (or desirable time) the time enabled if change with the type FTP list and click Save.



ID	Description	Import type	Interval	Active
	import slave	FTP list	Minute	Enabled if change

[Save](#) [Cancel](#)

Configure the same credentials of the FTP server and the same format CSV or XML than the master configuration.

ID	Description	Import type	Interval	Active	
1	import slave	FTP list	Minute	Enabled if change	Edit Delete

Import properties

Import Info ?

Host:

Port:

Format: XML XML_NOTDELETE CSV CSV_NOTDELETE ?

Folder name:

User:

Password:

Confirmation file: .FLAG

If the master selection type format is XML can be selected XML or XML_NOTDELETE, if your selection is XML all the elements not included in each file downloaded will be deleted. Just configured the camera master is downloading the file from the FTP server.

Can be checked in the Audit Tab.

VIVOTEK

[Live](#) [Review](#) [Lists](#) [LPR configuration](#) [General configuration](#) [Audit](#) [Logs](#)

From date:

To date:

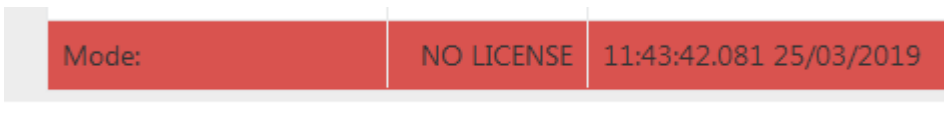
Type:

ID	Time	Status	Type	List	Description	Num.	File
21	13:25:00.136 08/04/2019	DONE			Import [import slave] time [f	1	Get file

6 Troubleshooting

6.1 Mode: NO LICENSE

If the camera is not licensed, we find that the mode will be “NO LICENSE” in live page.



To solve this problem, please get in touch with support.

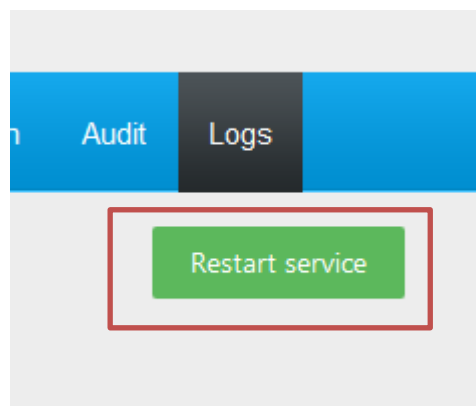
6.2 Mode: STOPPED

If the LPR service is stopped, we find that the mode will be “STOPPED” in live page.

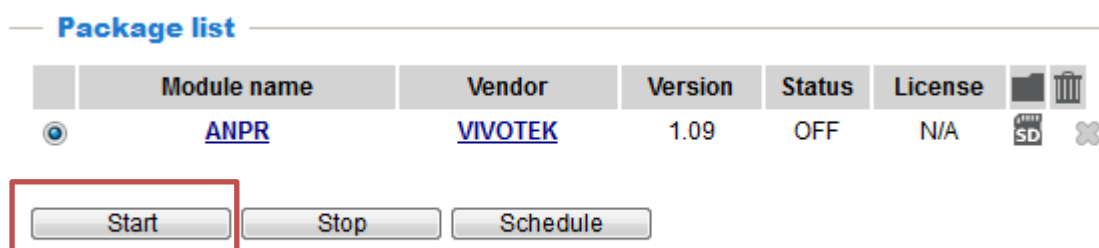


To solve this problem, we will have to reboot the service. You can reboot the service at:

- Logs page:



- Package management (http://CAMERA_IP/setup/application/vadp.html):



6.3 No enough space at Camera or SD

If the camera or SD card has not enough space, the system could fail.

SD space free (%):	0	00:00:00.000	01/01/2018
Camera space free (%):	0	00:00:00.000	01/01/2018

If the space is below 20%, please review the [purge option section](#)

6.4 The system does not recognize license plates

If the system does not recognize license plate, please verify the following steps:

1. The region and country are the right ones. You can check this configuration at [LPR configuration](#).
2. The license plate has a minimum size of 25 pixels. The user can use the [calibration pattern](#) at live page to adjust the size of the license plate. The license plate must be between 2 lines.
3. If you the system has a defined ROI, verify that license plate is inside [ROI area](#).
4. If the system is configured at motion detection mode, please be sure have a movement inside the image.
5. If the system has read a license plate and it do not read anymore, check [the filters](#).
6. If the system is configured at trigger mode, please check the following points:
 - a. Check the mode of in camera ([LPR CONFIGURATION](#)):

Function mode: TRIGGER

- a. Check the trigger socket port ([GENERAL CONFIGURATION](#)):

Trigger Socket port:

- c. Check that the sender device has connection TCP/IP to the camera at defined port. It can be checked via telnet.
- d. If the message is received correctly, the system log must show the line:

Show log type: Manager Service Engine

6.5 Problem with ACTIONS

If the action does not execute, verify the following points:

- 1) The action is enabled.

ID	Description	Action type	Active
1	Action 1	Socket client	Enabled

- 2) The detected plate is in the list that is defined the action.
- 3) There is a defined action to "all plate" list.
- 4) The detected plate is not in any list, there is an action defined in "not in list" list.
- 5) The date of the detection corresponds on a valid time defined in the scheduler.

▼ Scheduler

ACTIVATION SCHEDULER

0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00

Sun	
Mon	
Tue	
Wed	
Thu	
Fri	
Sat	

✓ Save scheduler

- 6) Check in Tab Audit if the action has been executed. In red error sent.

VIVOTEK

[Live](#)
[Review](#)
[Lists](#)
[LPR configuration](#)
[General configuration](#)
[Audit](#)
[Logs](#)

From date:

To date:

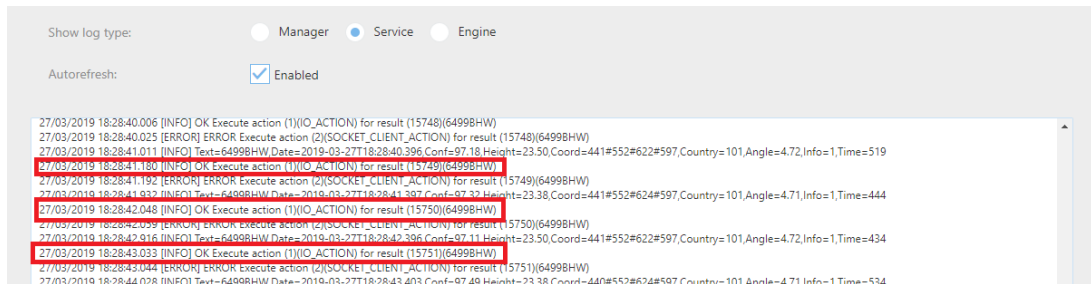
Type:

Search

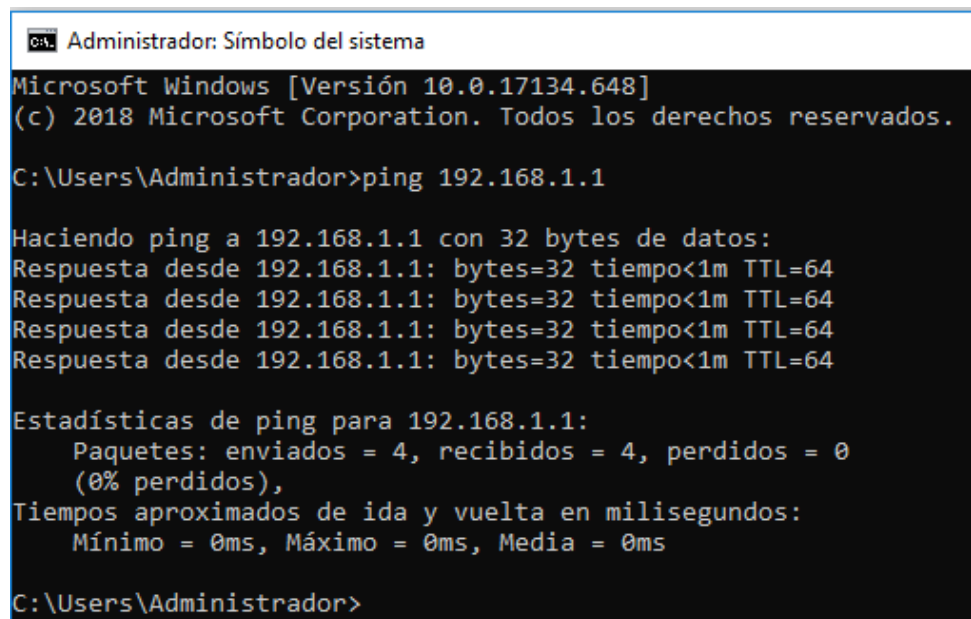
↓	ID	Time	Status	Type	Res.	List	Description	File
	264	18:26:25.257 27/03/2019	FAILED	Socket client	15614	all plates	Action [1] plate [64998HW]	Get file
	263	18:26:25.217 27/03/2019	DONE	IO	15614	all plates	Action [1231231] plate [64998]	
	262	18:26:24.260 27/03/2019	FAILED	Socket client	15613	all plates	Action [1] plate [64998HW]	Get file
	261	18:26:24.235 27/03/2019	DONE	IO	15613	all plates	Action [1231231] plate [64998]	
	260	18:26:23.247 27/03/2019	FAILED	Socket client	15612	all plates	Action [1] plate [64998HW]	Get file
	259	18:26:23.222 27/03/2019	DONE	IO	15612	all plates	Action [1231231] plate [64998]	
	258	18:26:22.311 27/03/2019	FAILED	Socket client	15611	all plates	Action [1] plate [64998HW]	Get file
	257	18:26:22.281 27/03/2019	DONE	IO	15611	all plates	Action [1231231] plate [64998]	
	256	18:26:21.253 27/03/2019	FAILED	Socket client	15610	all plates	Action [1] plate [64998HW]	Get file
	255	18:26:21.228 27/03/2019	DONE	IO	15610	all plates	Action [1231231] plate [64998]	

5 10 20 50 100
Page 1 of 27 (264 items) 1 2 3 4 5 ... 27

7) Check in the logs if the action has been executed. Active Service and Enabled.



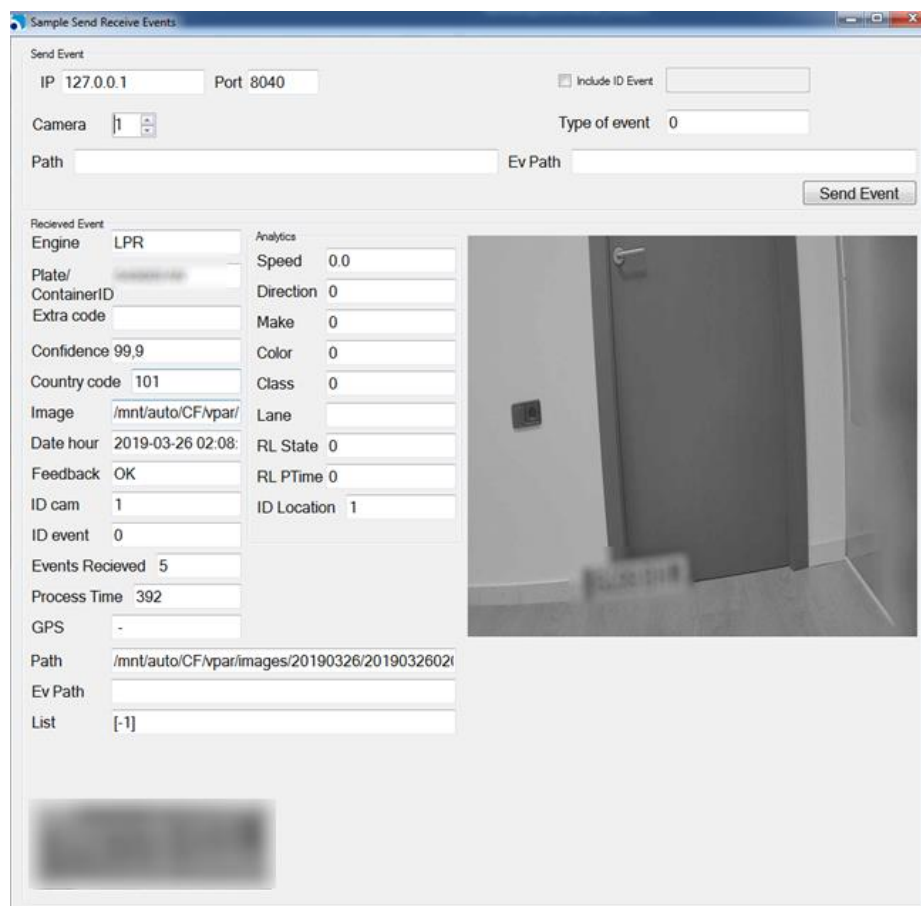
8) Check the connection with the host with a ping command.



6.5.1 Socket client

If the socket client action does not send the message, please check the following points:

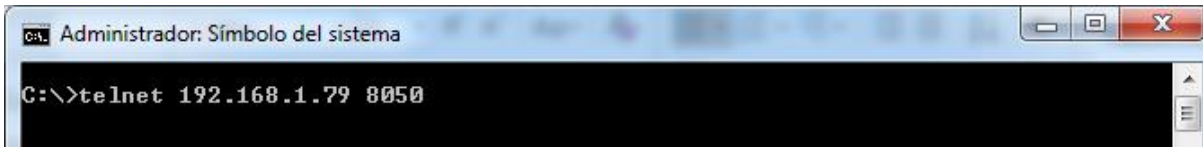
- 1) Check HOST and Port of defined action.
- 2) Check the connection that the camera has connection to the HOST/PORT.
- 3) Download, install and open the sample test program on client computer.
 - www.neurallabs.net/SendReceiveEvents/SendReceiveEvents_x64.zip
 - www.neurallabs.net/SendReceiveEvents/SendReceiveEvents_x86.zip
- 4) Check the IP from client computer, set port 17000 and read a plate.



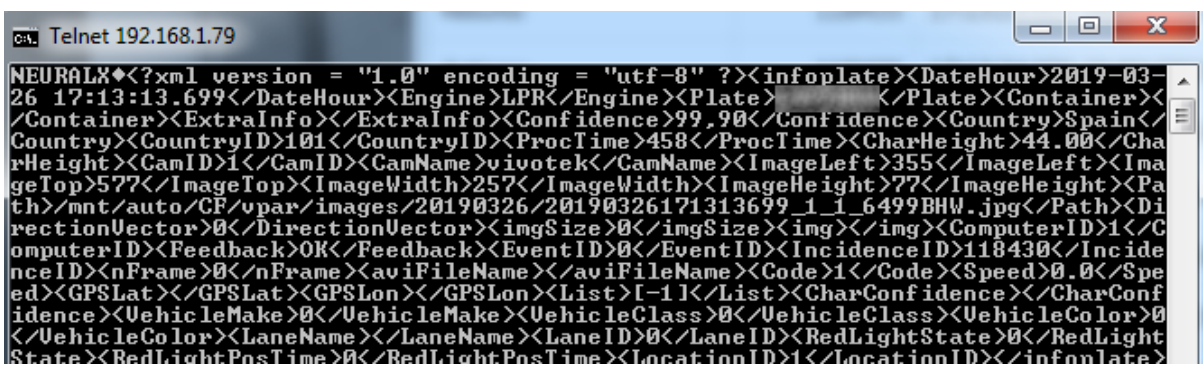
6.5.2 Socket server or VAST2

If the socket server action does not send the message, please check the following points:

- 1) Check the defined port
- 2) Reboot the service if you have defined a new socket server action
- 3) Open a telnet client to Camera IP and defined port and check that the message is received.



```
C:\>telnet 192.168.1.79 8050
```

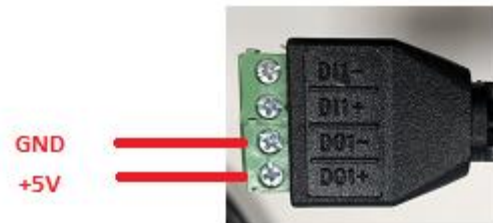


```
NEURALX<?xml version = "1.0" encoding = "utf-8" ?><infoplate><DateHour>2019-03-26 17:13:13.699</DateHour><Engine>LPR</Engine><Plate> </Plate><Container></Container><ExtraInfo></ExtraInfo><Confidence>99,90</Confidence><Country>Spain</Country><CountryID>101</CountryID><ProcTime>458</ProcTime><CharHeight>44.00</CharHeight><CamID>1</CamID><CamName>vivotek</CamName><ImageLeft>355</ImageLeft><ImageTop>577</ImageTop><ImageWidth>257</ImageWidth><ImageHeight>77</ImageHeight><Path>/mnt/auto/CF/upar/images/20190326/20190326171313699_1_1_6499BHW.jpg</Path><DirectionVector>0</DirectionVector><imgSize>0</imgSize><img></img><ComputerID>1</ComputerID><Feedback>OK</Feedback><EventID>0</EventID><IncidenceID>118430</IncidenceID><nFrame>0</nFrame><aviFileName></aviFileName><Code>1</Code><Speed>0.0</Speed><GPSLat></GPSLat><GPSLon></GPSLon><List>[-1]</List><CharConfidence></CharConfidence><VehicleMake>0</VehicleMake><VehicleClass>0</VehicleClass><VehicleColor>0</VehicleColor><LaneName></LaneName><LaneID>0</LaneID><RedLightState>0</RedLightState><RedLightPosTime>0</RedLightPosTime><LocationID>1</LocationID></infoplate>
```

6.5.3 IO

If the IO action does not send the message, please check the following points:

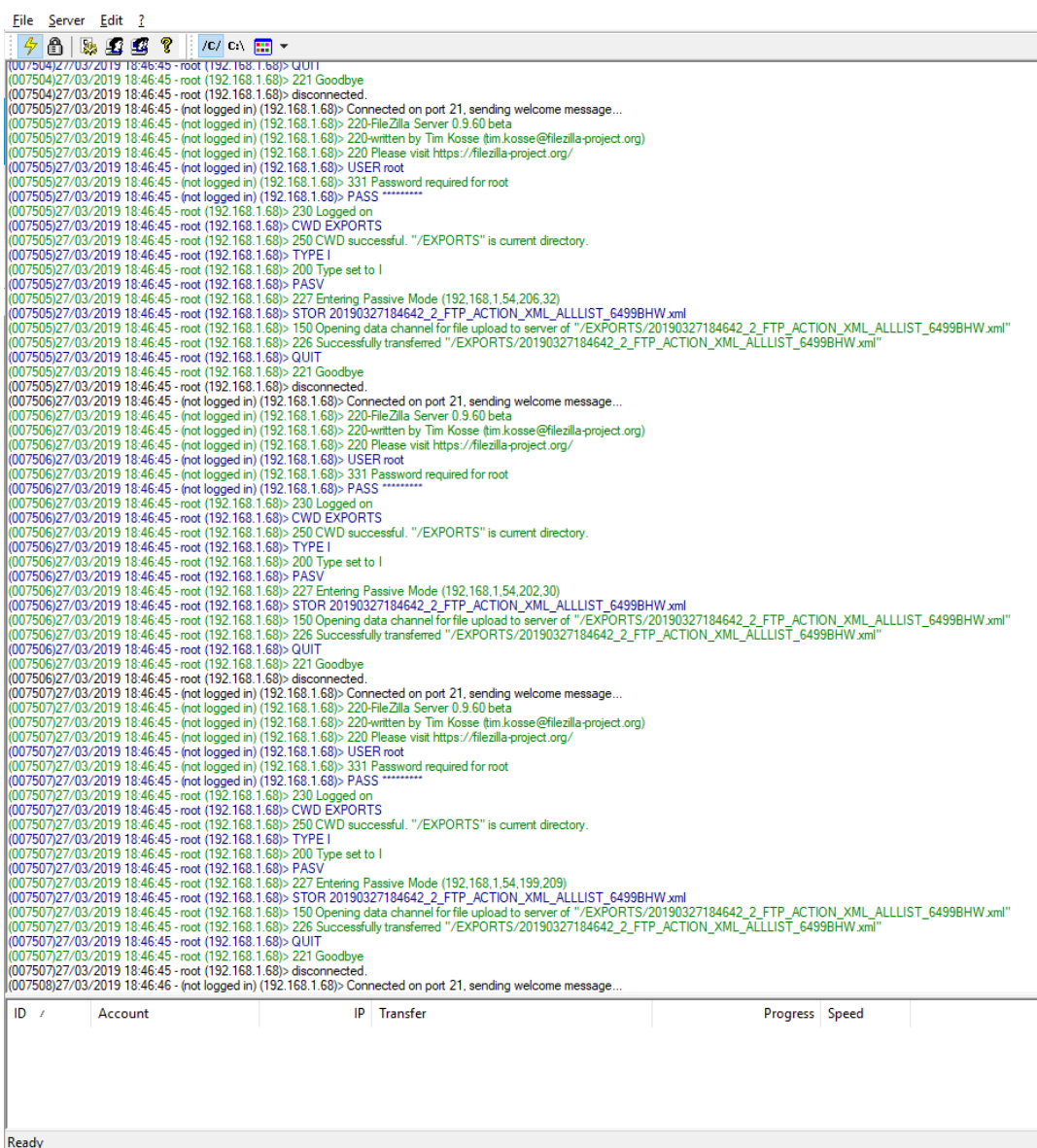
- 1) Check the defined port
- 2) Check the defined time
- 3) With a multimeter, connect to selected port and check that the voltage changes from 0 to 5 V.



6.5.4 FTP

If the FTP action does not send the message, please check the following points:

- 1) Check the defined parameter
- 2) Check the credentials and access with FTP client
 - o <https://filezilla-project.org/download.php?type=client>
- 3) Install FTP server like the FileZilla server and check the logs
 - o https://dl2.cdn.filezilla-project.org/server/FileZilla_Server-0_9_60_2.exe?h=Fjvi4wvZmA-MDcp3K9v0Q&x=1553712290



```

File Server Edit ?
C:\
(007504)27/03/2019 18:46:45 - root (192.168.1.68)> QUIT
(007504)27/03/2019 18:46:45 - root (192.168.1.68)> 221 Goodbye.
(007505)27/03/2019 18:46:45 - root (192.168.1.68)> disconnected.
(007505)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> Connected on port 21, sending welcome message...
(007505)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> 220-FileZilla Server 0.9.60 beta
(007505)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> 220-written by Tim Kosse (tim.kosse@filezilla-project.org)
(007505)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> 220 Please visit https://filezilla-project.org/
(007505)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> USER root
(007505)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> 331 Password required for root
(007505)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> PASS *****
(007505)27/03/2019 18:46:45 - root (192.168.1.68)> 230 Logged on
(007505)27/03/2019 18:46:45 - root (192.168.1.68)> CWD EXPORTS
(007505)27/03/2019 18:46:45 - root (192.168.1.68)> 250 CWD successful. "/EXPORTS" is current directory.
(007505)27/03/2019 18:46:45 - root (192.168.1.68)> TYPE I
(007505)27/03/2019 18:46:45 - root (192.168.1.68)> 200 Type set to I
(007505)27/03/2019 18:46:45 - root (192.168.1.68)> PASV
(007505)27/03/2019 18:46:45 - root (192.168.1.68)> 227 Entering Passive Mode (192.168.1.54,206,32)
(007505)27/03/2019 18:46:45 - root (192.168.1.68)> STOR 20190327184642_2_FTP_ACTION_XML_ALLLIST_6499BHW.xml
(007505)27/03/2019 18:46:45 - root (192.168.1.68)> 150 Opening data channel for file upload to server of "/EXPORTS/20190327184642_2_FTP_ACTION_XML_ALLLIST_6499BHW.xml"
(007505)27/03/2019 18:46:45 - root (192.168.1.68)> 226 Successfully transferred "/EXPORTS/20190327184642_2_FTP_ACTION_XML_ALLLIST_6499BHW.xml"
(007505)27/03/2019 18:46:45 - root (192.168.1.68)> QUIT
(007505)27/03/2019 18:46:45 - root (192.168.1.68)> 221 Goodbye
(007505)27/03/2019 18:46:45 - root (192.168.1.68)> disconnected.
(007506)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> Connected on port 21, sending welcome message...
(007506)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> 220-FileZilla Server 0.9.60 beta
(007506)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> 220-written by Tim Kosse (tim.kosse@filezilla-project.org)
(007506)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> 220 Please visit https://filezilla-project.org/
(007506)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> USER root
(007506)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> 331 Password required for root
(007506)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> PASS *****
(007506)27/03/2019 18:46:45 - root (192.168.1.68)> 230 Logged on
(007506)27/03/2019 18:46:45 - root (192.168.1.68)> CWD EXPORTS
(007506)27/03/2019 18:46:45 - root (192.168.1.68)> 250 CWD successful. "/EXPORTS" is current directory.
(007506)27/03/2019 18:46:45 - root (192.168.1.68)> TYPE I
(007506)27/03/2019 18:46:45 - root (192.168.1.68)> 200 Type set to I
(007506)27/03/2019 18:46:45 - root (192.168.1.68)> PASV
(007506)27/03/2019 18:46:45 - root (192.168.1.68)> 227 Entering Passive Mode (192.168.1.54,202,30)
(007506)27/03/2019 18:46:45 - root (192.168.1.68)> STOR 20190327184642_2_FTP_ACTION_XML_ALLLIST_6499BHW.xml
(007506)27/03/2019 18:46:45 - root (192.168.1.68)> 150 Opening data channel for file upload to server of "/EXPORTS/20190327184642_2_FTP_ACTION_XML_ALLLIST_6499BHW.xml"
(007506)27/03/2019 18:46:45 - root (192.168.1.68)> 226 Successfully transferred "/EXPORTS/20190327184642_2_FTP_ACTION_XML_ALLLIST_6499BHW.xml"
(007506)27/03/2019 18:46:45 - root (192.168.1.68)> QUIT
(007506)27/03/2019 18:46:45 - root (192.168.1.68)> 221 Goodbye
(007506)27/03/2019 18:46:45 - root (192.168.1.68)> disconnected.
(007507)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> Connected on port 21, sending welcome message...
(007507)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> 220-FileZilla Server 0.9.60 beta
(007507)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> 220-written by Tim Kosse (tim.kosse@filezilla-project.org)
(007507)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> 220 Please visit https://filezilla-project.org/
(007507)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> USER root
(007507)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> 331 Password required for root
(007507)27/03/2019 18:46:45 - (not logged in) (192.168.1.68)> PASS *****
(007507)27/03/2019 18:46:45 - root (192.168.1.68)> 230 Logged on
(007507)27/03/2019 18:46:45 - root (192.168.1.68)> CWD EXPORTS
(007507)27/03/2019 18:46:45 - root (192.168.1.68)> 250 CWD successful. "/EXPORTS" is current directory.
(007507)27/03/2019 18:46:45 - root (192.168.1.68)> TYPE I
(007507)27/03/2019 18:46:45 - root (192.168.1.68)> 200 Type set to I
(007507)27/03/2019 18:46:45 - root (192.168.1.68)> PASV
(007507)27/03/2019 18:46:45 - root (192.168.1.68)> 227 Entering Passive Mode (192.168.1.54,199,209)
(007507)27/03/2019 18:46:45 - root (192.168.1.68)> STOR 20190327184642_2_FTP_ACTION_XML_ALLLIST_6499BHW.xml
(007507)27/03/2019 18:46:45 - root (192.168.1.68)> 150 Opening data channel for file upload to server of "/EXPORTS/20190327184642_2_FTP_ACTION_XML_ALLLIST_6499BHW.xml"
(007507)27/03/2019 18:46:45 - root (192.168.1.68)> 226 Successfully transferred "/EXPORTS/20190327184642_2_FTP_ACTION_XML_ALLLIST_6499BHW.xml"
(007507)27/03/2019 18:46:45 - root (192.168.1.68)> QUIT
(007507)27/03/2019 18:46:45 - root (192.168.1.68)> 221 Goodbye
(007507)27/03/2019 18:46:45 - root (192.168.1.68)> disconnected.
(007508)27/03/2019 18:46:46 - (not logged in) (192.168.1.68)> Connected on port 21, sending welcome message...

```

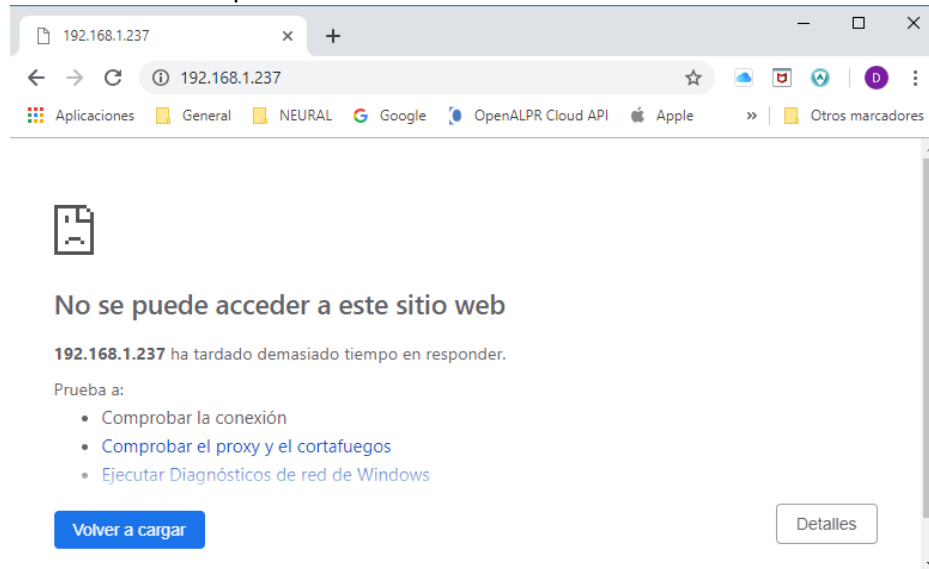
ID	Account	IP	Transfer	Progress	Speed
Ready					

6.5.5 HTTP/MILESTONE/WIEGAND

If the HTTP action does not send the message, please check the following points:

- 1) Check the defined parameter
- 2) With an explorer (Internet explorer, Firefox, Chrome) do a request to defined URL and check that the URL respond.

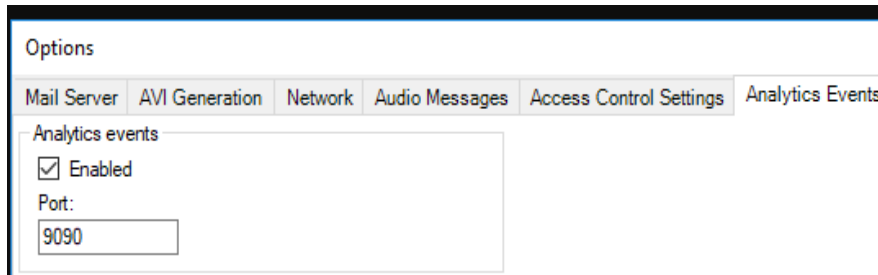
In this case not responds



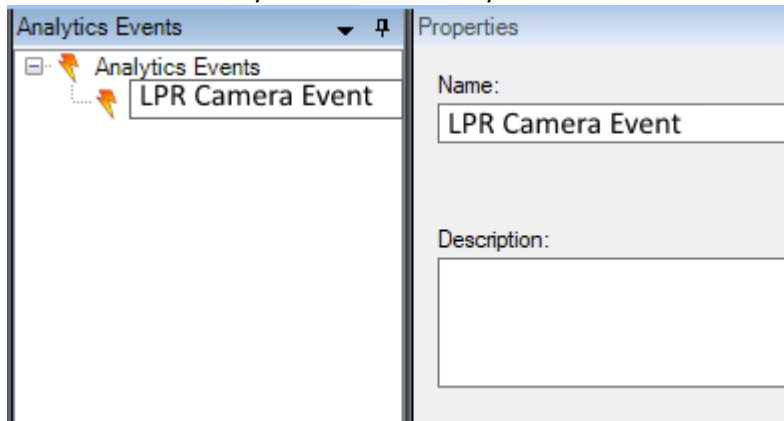
6.5.5 MILESTONE

If the MILESTONE action does not send the message, please check the following points:

- 3) Check the defined parameter
- 4) Check in Milestone system that the analytics events are enabled.



- 5) Check in Milestone system that the analytic event name is "LPR Camera Event"



- 6) Check in Milestone system that the created alarm uses the before analytic event and related camera.