



**WEB APPLICATION MANUAL**

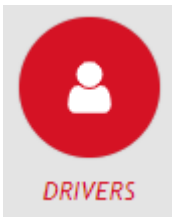
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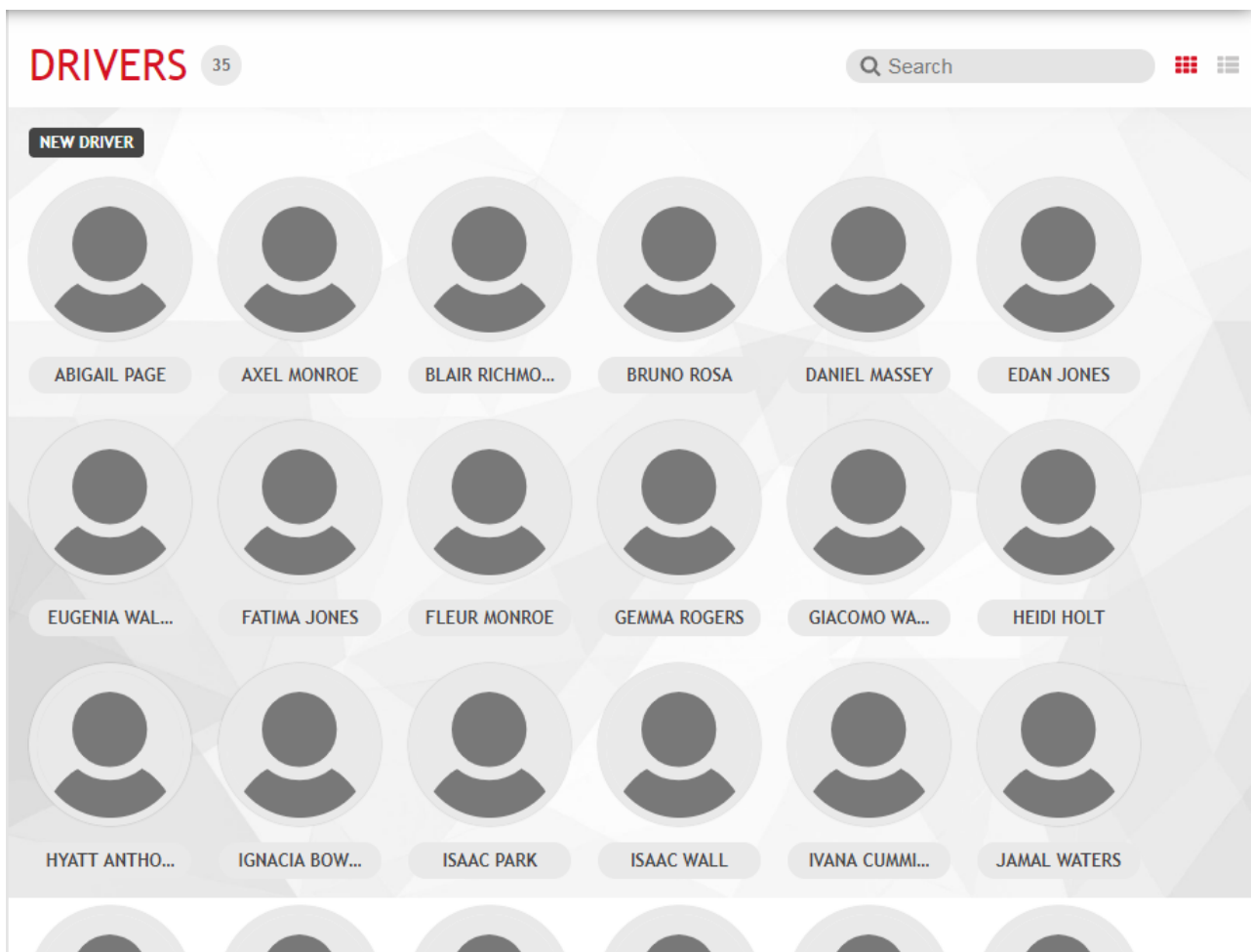
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## 1. DRIVERS



The DRIVERS section can be accessed by pressing the menu icon shown beside. This is the section where the site drivers can be managed. From here, you can add, modify and remove drivers from the site.




You can view the drivers in two different modes: as list or as overview. To switch between the display modes, press the button .

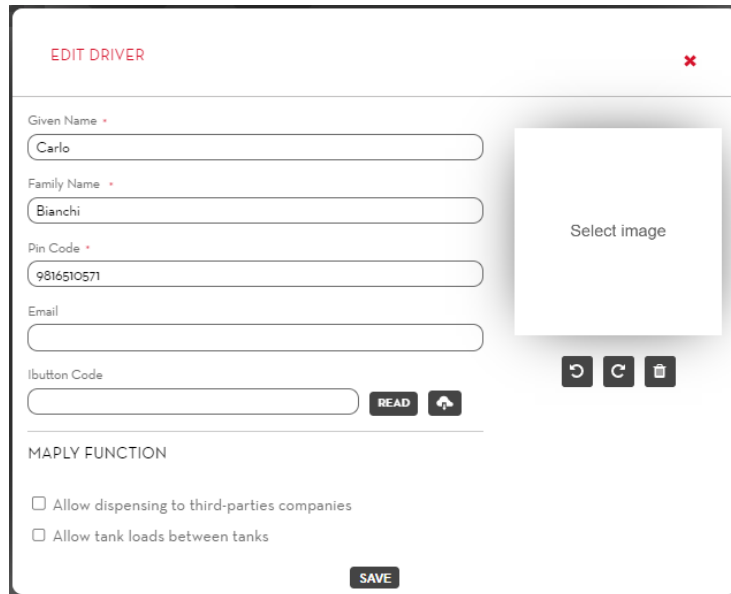
### **Important note**

- To increase the maximum number of drivers, you can purchase a new 'driver access add-on' and activate it in the 'Add-on' section (See Chapter 8.3).



## 1.1 ADDING A NEW DRIVER

To add a new driver, press the button .

- **'GENERAL' information section:**



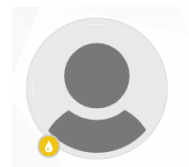
Fill in the driver's registry fields:

- **Name** (mandatory) – Driver's name
- **Surname** (mandatory) – Driver's surname
- **PIN code** (mandatory) – Personal code for every driver. It is requested by the mobile application to authenticate the driver in the site and enable him to dispense.
- **Email** – Driver's email.
- **Ibutton code** (optional) – Code shown on the ibutton key. It is used by the driver to authenticate on the fuel dispenser instead of using the phone.  
*The Ibutton code can be entered manually reading the code on the key or automatically using the appropriate reader to be connected to the PC; in this case you must install the tool **PIUSI IBUTTON READER** and then press the button .*  
*The tool **PIUSI IBUTTON READER** works exclusively on the Windows platform and can be downloaded from the following link: <https://wswebssm.piusi.com/ibuttonreaderpiusi/setup.exe> or by the button .*
  - **Maply function** (only with Maply add-on active):
    - **Allow dispensing to third-parties companies:** if this option is enabled, the driver can choose to dispense to vehicles registered to other third-party company during the dispensing operation (see Chapter 6)
    - **Tank loads between tanks** (Only with active Tank Watchdog add-on): if this option is enabled, the driver can choose a tank in the site to be loaded during the dispensing operation
- **Image** (optional) – Driver recognition photo. To upload an image, press the box SELECT IMAGE.

- **'Dispense bound'** section (function available only if the 'Fuel Economy' add-on is active):

You can configure a limit on the quantity that can be dispensed by the driver in a given time period in the section. Once the maximum quantity that can be dispensed within the period has been reached (i.e. the residual quantity is reset to zero), the driver is blocked (can no longer refuel at the site pumps). At the end of the time period, the driver's residual quantity is restored with the maximum quantity value that can be dispensed during the period.

- **Time type:**
  - **Daily** - Set the days ("Number of days") starting from a date of your choice ("Start date") after which the remaining quantity is restored.
  - **Weekly** - Set the day of the week after which the remaining quantity is reset.
  - **Monthly** - The remaining quantity is reset at the beginning of each month.
  - **None** - no max. temporal dispensing limit is set. There is no limit to the max. amount the driver can dispense.
- **Maximum quantity that can be dispensed:** This is the maximum quantity of litres/gallons that can be dispensed by the driver from all the site pumps in a given period of time.
- **Residual quantity:** This indicates how many litres/gallons the driver can still dispense from the site pumps. Once the remaining quantity has been used up, the driver can no longer refuel. This value cannot be changed and is updated every time the driver refuels from a fuel dispenser at the site.
- **Alarm (in percentage):** If the residual quantity percentage with respect to the maximum quantity that can be dispensed falls below the set alarm threshold, an alarm is triggered (see image) to notify that the driver the residual quantity is about to finish.



#### Caution

- The remaining quantity count will be reinstated if the manager decides to change the defined period or the maximum quantity that can be dispensed within the period. External dispensing operations are not included in the residual quantity count.
- The residual quantity can be reset manually. The procedure is explained in Chapter 1.2.

- **'Working time' section** (function available only if the 'Fuel Economy' add-on is active):

In this section you can set the drivers' working hours to prevent them from refuelling at the site pumps outside configured time limits.

Press the button to enter a new time limit. The working hours can be defined using two different types of limits:

- **Weekly** - Select the day of the week (by defining a working time slot within the day) on which the driver is allowed to refuel. Outside of the time set for the day indicated, the driver will not be allowed to refuel.
- **Closed period** - Select a time period in which the driver is not allowed to refuel. Outside the specified period, the driver is always allowed to refuel if there are no other limits set.

If no working time is defined, the driver is entitled to refuel at any time.

- **'Vehicles' section** (function available only if the add-on 'Fuel Economy' is active):

You can set the vehicles or vehicle categories for the driver is authorised to dispense in the section. Basically, every driver is authorised to refuel every vehicle on the site.

Press the button to choose which vehicle categories to assign to the driver.

Press the button to choose which vehicles to assign to the driver.

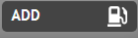


## 1.2 DRIVER DETAILS

To view a driver's personal details, press his/her profile photo.

Driver profile card for Axel Monroe. The card displays a circular profile photo of a smiling man. To the right of the photo, the driver's name 'Axel Monroe' is shown, followed by his ID number '3348479910', email 'axel.monroe@mail.com', and fuel status '100 / 100 L'. Below this, it states 'The quantity will be reassigned in 22 days' and 'Total amount dispensed: 0,00 L'. On the right side of the card, there are four action buttons: 'MODIFY' with a pencil icon, 'DELETE' with an 'X' icon, 'DISABLE' with a lock icon, and 'ADD' with a fuel pump icon. Below the card, the name 'AXEL MONROE' is displayed in a rounded rectangle.

In this video page you can:


- **Modify** the driver's data.
- **Remove** the driver from the site.
- **Disable** or **enable** the driver – a disabled driver will not be able to dispense from the site.
- **Add external dispensing (function available only if the add-on 'Fuel Economy' is active)** - Press the button  to open the form for inserting a new external dispensing (refuelling) operation:

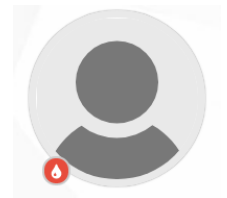
Form titled 'NEW EXTERNAL DISPENSING' with a close button (X) in the top right corner. The form contains the following fields and options:

- Driver:** A dropdown menu showing 'Axel Monroe'.
- Date:** A text input field showing '12/02/2020 02:14 PM'. Above the field, it says 'Date ((UTC+01:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna)'.
- Vehicle:** A dropdown menu.
- External station:** A dropdown menu with a '+' button to the right.
- Quantity L \*:** A text input field with '0'.
- Price € \*:** A text input field with '0'.
- Did you refill the vehicle with ADBLUE?:** Radio buttons for 'YES' and 'NO', with 'NO' selected.
- Notes:** A large text area for entering notes.

Below the form, there are two numbered boxes labeled '1' and '2', and a 'SAVE' button at the bottom center.

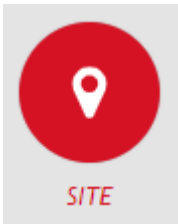
- **Date** - Date and time of the operation. Caution: it is not possible to enter a dispense indicating a future date.
- **Vehicle** - Indicate the vehicle on which the operation was performed.

- **External station (only if the 'External stations' option of the 'Fuel Economy' add-on is active)** - Select the service station where the operation was carried out (See Chapter 5.3 to enter a new external station).
- **Dispensed quantity**
- **Cost** - Indicate the total cost of the refuelling operation.
- **Product (field visible only if the 'tank watchdog' add-on is active)** - Indicate the product with which the vehicle was refuelled.
- **Did you refill the vehicle with ADBLUE?** Indicate whether an Adblue refill was completed.
- **Odometer** - Indicate the vehicle odometer at the date of the dispensing operation. Caution. For correctly calculating consumption, it is recommended not to enter an odometer reading lower than the last odometer reading entered for the selected vehicle (in this case, consumption is calculated at 0)
- **Notes** - Enter text notes to give more information on the off-site external dispensing operation.
- **Reset residual amount (this function is available only if the 'Fuel Economy' add-on is active and the driver has activated the limit on the quantity that can be dispensed)** - If the alarm icon appears on the driver's badge (see image to the side), this means that the driver has exhausted the maximum quantity that can be dispensed within the period. This quantity can be reassigned manually by pressing the button  before it is done automatically at the end of the set period.

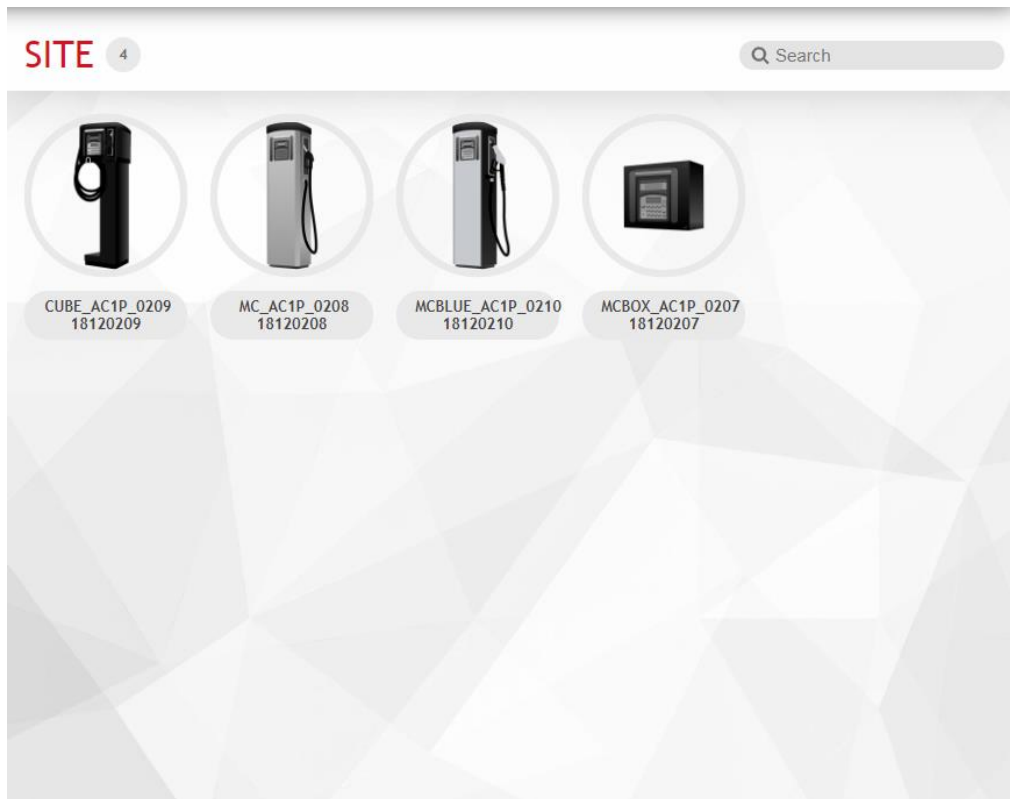


The number of days remaining before the quantity that can be supplied by the driver is reset automatically.

## 2. SITE



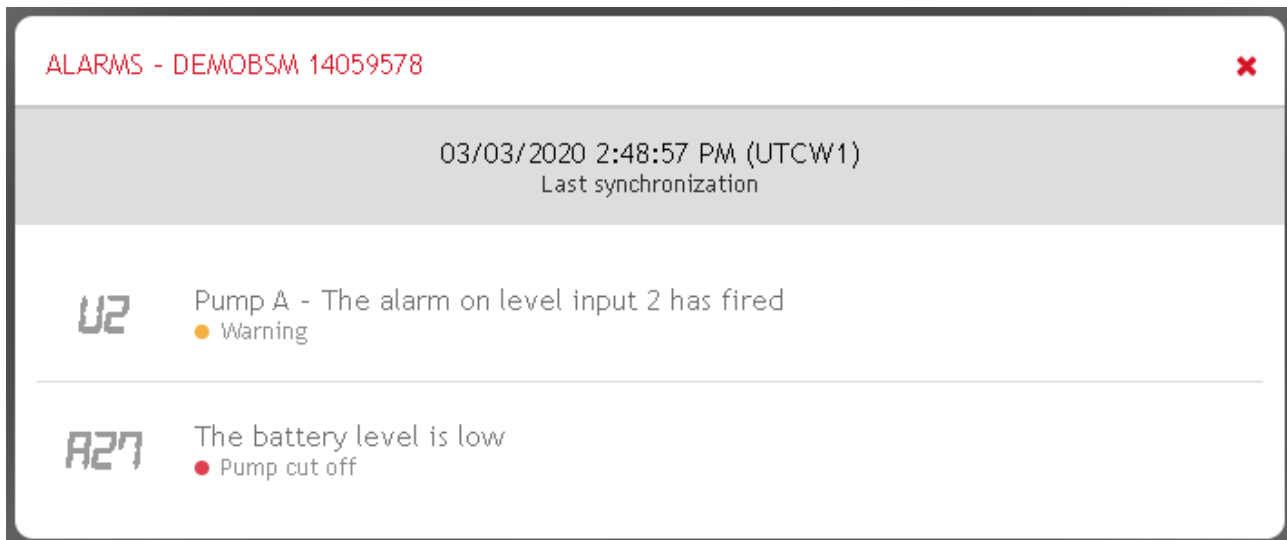
The SITE section, which can be reached by pressing the menu icon shown on the side, is the section where you can manage the devices in your site, configure the relevant pumps, and specify the drivers who are enabled to dispense.



Devices are detected by the smartphone application and cannot be added manually by the Web Application.

There is no limit to the number of devices that can be added to the site.

You can press the  button in order to visualize the list of the alarms that have triggered.




When a Tank Watchdog ADD-ON is present, alarms and sensors connected to the tank are shown.

When there is not a Tank Watchdog ADD-ON, only alarms related to ON-OFF sensors are shown.


In both cases, alarms related to malfunctioning or internal problems on the CUs are also shown.



The icon  represents the "restore in progress" condition.

In this case, no changes can be made to the device configuration. To use the device again, complete the restore procedure using the mobile application.




The icon  indicates that there is a reset request waiting to be approved.

By pressing on the device, you can confirm or reject the request following the dialogs where you can choose whether to perform a reset with or without loss of device configurations.

Consult the B.Smart app manual to request a device reset.



The icon  represents the "reset approved" condition.

In this case, no changes can be made to the device configuration. After completing the reset procedure using the mobile application, in the case of a reset with "loss of configuration", the device will be removed from the system.

## 2.1 DEVICE DETAILS

Pressing the desired device from the overview displaying opens the device modification tab, which is divided into 3 sections:

### 2.1.1 GENERAL DATA SECTION

The screenshot displays the 'General' configuration page for a device with ID 'CUBE\_ACIP\_0003'. The page is divided into several sections:

- General Information:** Fields for Device Name (CUBE\_ACIP\_0003), Location, Manager Pincode (123456), Date Format (DDMMYYYY), and Time Format (24 Hours).
- Technical Details:** S/N (1820002), Hardware version (1), and Firmware version (1.01.B).
- Operational Settings:** Checkboxes for 'Use registration numbers' and 'Use odometer'.
- Visualization Type:** A dropdown menu currently set to 'Only quantity'.
- MAPLY FUNCTION:** A checkbox for 'Enable tank/loads between tanks and dispensing to third-parties reg. numbers'.
- Geofencing options:** A dropdown menu set to 'Dispense everywhere'.

Buttons for 'DELETE DEVICE' and 'SAVE' are visible at the bottom of the form.

From this video page you can change the main configuration of the device, in particular:

- **Name** of the device – Unique device recognition identifier within the site.
- **Location** – Place where the fuel dispenser is located.
- **Pincode Manager** – Authentication code that will be used by the site manager for specific configurations from the mobile application (panel firmware update and calibration of the dispensers).
- **Date format** – Date format displayed on the device.
- **Time format** – Time format shown on the device display.
- **Use registration numbers** – Indication of whether the management of registration numbers is active. If it is active, the mobile application will ask you to enter a registration number before starting to dispense.
- **Use odometer** – Indication of whether odometer management is active. If the registration numbers represent vehicles to be refilled, you can specify the odometer of the vehicle before starting to dispense.  
*caution:* This option is only available if the *Use registration numbers* option his active.
- **Displaying type** – Indication of what information are to be shown on the device display when inactive. The available options are:
  - Date and time
  - Total quantity dispensed
  - Date and time alternated with the total quantity dispensed
- **Maply function (only with Maply add-on active)** - The following configurations are available after the preliminary configuration of the add-on in the appropriate section (see Chapter 6.1):
  - **Enable tank loads between tanks and dispensing to third-parties reg. numbers** - If the function is enabled, all drivers connected to this controller can dispense to vehicles registered to third-parties company and can also automatically manage product loads between tanks within the site (Tank Watchdog required).

- **Geofencing options** - This setting specifies how the dispensing is handled depending on the GPS position of the controller, the possible configurations are as follows:
  - Dispense anywhere - dispensing from the controller can be started at any geographical location, no restriction is applied.
  - Report dispensing outside the working areas - dispensing from the terminal can be started in any geographical location, but the driver will be informed if he is starting a dispensing outside the areas of operability. If the driver proceeds with the dispense ignoring the warning received, the dispense report will inform the dispenser that the dispense was made at a location where dispensing would not be permitted.
  - Don't allow transactions outside of working areas - If the function is enabled, drivers can only dispense from the device if it is within a working area. The limit makes it possible to operate in all working areas on the site.
- Procedure to be followed by the device when the internal dispensing storage space runs out (only for Piusi Supreme fuel dispensers)

Allow the overwriting of dispensing operations? BLOCK OVERWRITING ▼

- **Blocking** - Once the space for storing dispensing operations in the device is full, no new dispensing operations can be made until the information is synchronised in the cloud.
- **Allow overwriting** - Once the space for saving dispensing operations in the device is full, each new dispensing operation will overwrite the oldest dispensing operation in memory.

To remove a fuel dispenser from the site, press the button DELETE ✕.

Caution, all configuration data will be lost. The delete operation should only be used if you need to move the fuel dispenser to a different site (see your smartphone application manual for more details).

The following information is also provided in this section:

- **Serial number of the panel** – unique identifier of the panel.
- **Firmware version** – the panel firmware may be subject to changes and improvements over time; if a new firmware version is available the following notification will be shown in graphics:



To update the firmware of the fuel dispenser you need to use the smartphone application and authenticate yourself as a manager.

- **Hardware version.**

*Caution*

- If the 'Fuel Economy' add-on is active, the 'Use registration numbers' and 'Use odometer' options are automatically activated on all controllers of the site (it is not possible to deactivate them as long as the add-on remains active)

## 2.1.2 DISPENSERS

From this video page you can change the configuration of the pumps connected with the device, in particular:

- **Status** – Logical status of the pump. When the pump is disabled, it is not possible to refill.
- **ADBLUE (option available only with 'Fuel Economy' add-on active)** - Indicate whether Adblue is being dispensed from the selected pump.
- **Name** – Unique identifier of the pump.
- **Unit of measurement** – Unit of measurement with which the liquid is dispensed.
- **Number of decimals** – Number of digits to be displayed on the fuel dispenser display after the decimal separator.
- **Piusi Pulsar meter** – Type of meter with which the pump is equipped. It is possible to customize the value of the single pulse by setting the type of meter to *Customized*.
- **Nozzle contact** – Indication of the nozzle contact presence.
- **Nozzle contact type** – Indication of the management of the nozzle contact if normally open or closed.
- **Dispensing TimeOut start** – Seconds running from when the dispensing operation is started by physically moving the nozzle from its position to when the trigger is pressed, in order to dispense the fluid. If the nozzle trigger is not released within this time period, the dispensing operation is cancelled;
- **Dispensing TimeOut end** – Seconds running from when the nozzle trigger is closed, and therefore cannot dispense, to when the nozzle is placed in the rest position. If the gun trigger is not pressed within this time period, the dispense is automatically stopped.
- **Level 1 alarm input** – Enables/disables the alarm no. 1 input.
- **Alarm 1 contact type** – Indicates whether alarm no. 1 should be triggered when the contact is normally open or normally closed.
- **Level 1 alarm** – Indicates the device behaviour if the alarm no. 1 is activated:
  - Warning - the mobile application displays a warning message indicating that alarm no. 1 has been activated, in this mode the pump is not cut off and it is still possible to dispense.
  - Pump Cut-Off - the pump is cut off and it is no longer possible to dispense in any way until alarm no. 1 is cleared.



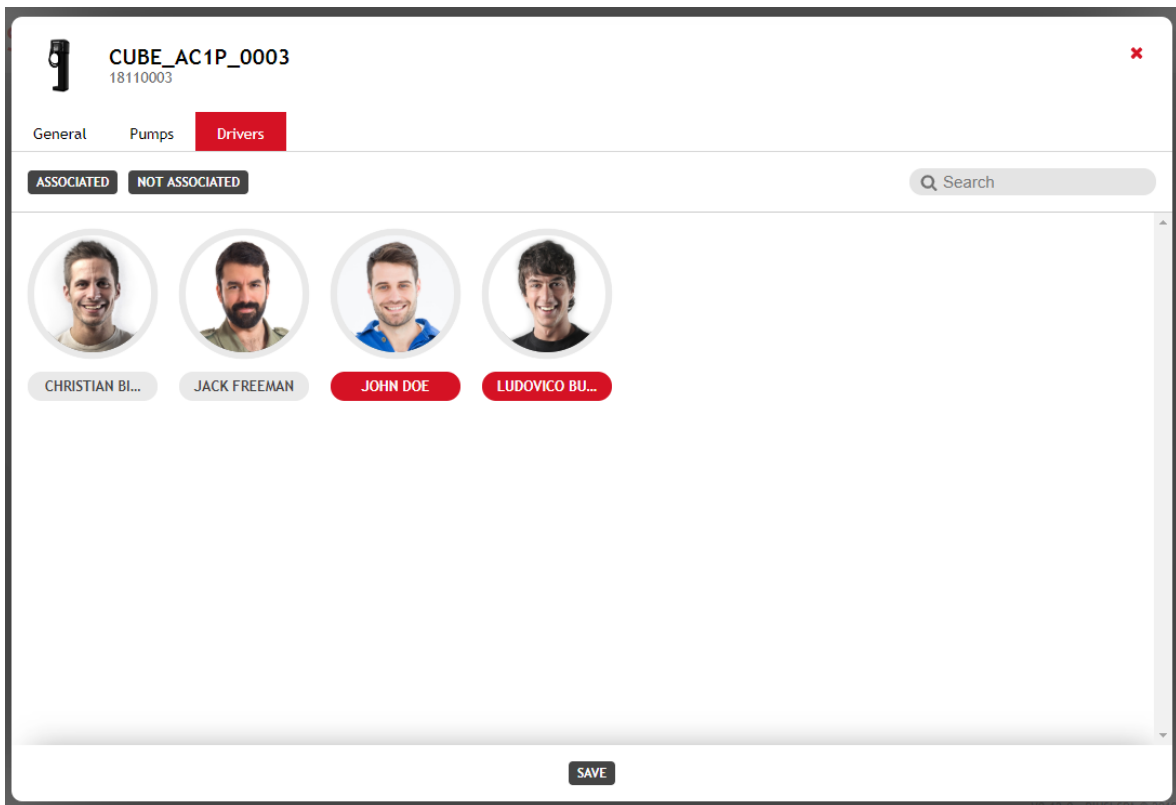
- **Level 2 alarm input** – Enables/disables the alarm no. 2 input.
- **Alarm 2 contact type** – Indicates whether alarm no. 2 should be triggered when the contact is normally open or normally closed.
- **Level 2 alarm** – Indicates the device behaviour if the alarm no. 2 is activated:
  - Warning
  - Pump cut-off
- **Connected Tank** – When The Tank Watchdog ADD-ON has been activated, it is possible to connect a tank to a pump.  
N.B.: In order to operate the tanks, the CUs' firmware must be equal or higher than 1.4.

**Tank Manager** – When a level sensor monitors the tank, it shows whether or not the sensor is physically connected to this pump. Instead, when the tank is virtual, it shows whether the tank memory resides inside this pump.

*Caution*

- If a device has been deleted, it is not possible: to add it to the site via discovery; to synchronize data from the cloud to the smartphone application. If it has been incorrectly deleted from the site, go to the section 'Configuration -> devices' to restore the device (see chapter 8.4).
- To become effective, changes made to dispensers must be synchronized using the smartphone application connected to the Internet.

### 2.1.3 DRIVERS



From this video page you can indicate which drivers are to be associated to the fuel dispenser. Only associated drivers can authenticate themselves on the fuel dispenser (via mobile application or Ibutton) to dispense. A single driver can be associated with multiple fuel dispensers of the site.

*Caution*

- A maximum number of 500 drivers can be associated with a single dispenser.

## 2.1.4 VEHICLES

The screenshot displays the 'VEHICLES' configuration page for the fuel dispenser pump 'MCBDUO 17020005'. The interface includes a top navigation bar with tabs for 'General', 'Pumps', 'Drivers', and 'Vehicles'. Below the navigation, there are filters for 'ALL' and 'NONE', and buttons for 'ASSOCIATED' and 'NOT ASSOCIATED'. A search bar is also present. The main area shows a grid of 15 vehicle icons, each with a unique ID. Red circles around the icons indicate they are associated with the pump, while grey circles indicate they are not. A 'SAVE' button is located at the bottom of the grid.

ID	Association Status
10045	Associated
10046	Associated
10047	Associated
10048	Associated
10051	Associated
10053	Associated
10054	Associated
10055	Not Associated
10056	Not Associated
10057	Associated
10058	Not Associated
10060	Not Associated
10061	Not Associated
10062	Associated
10063	Not Associated

On this screen (function only available if the “fuel economy” add-on is active) it is possible to indicate which vehicles to associate with the fuel dispenser pump. Only associated vehicles can refuel from this pump. A single vehicle can be associated with more than one fuel dispenser pump in the site. There is no limit to the number of vehicles that can be associated with a single pump.

The section is only visible if the “Enable the association of vehicles to the fuel dispenser pumps” option is enabled in the “fuel economy” preferences section (see Chapter 5.4).

### 3. TANK WATCHDOG

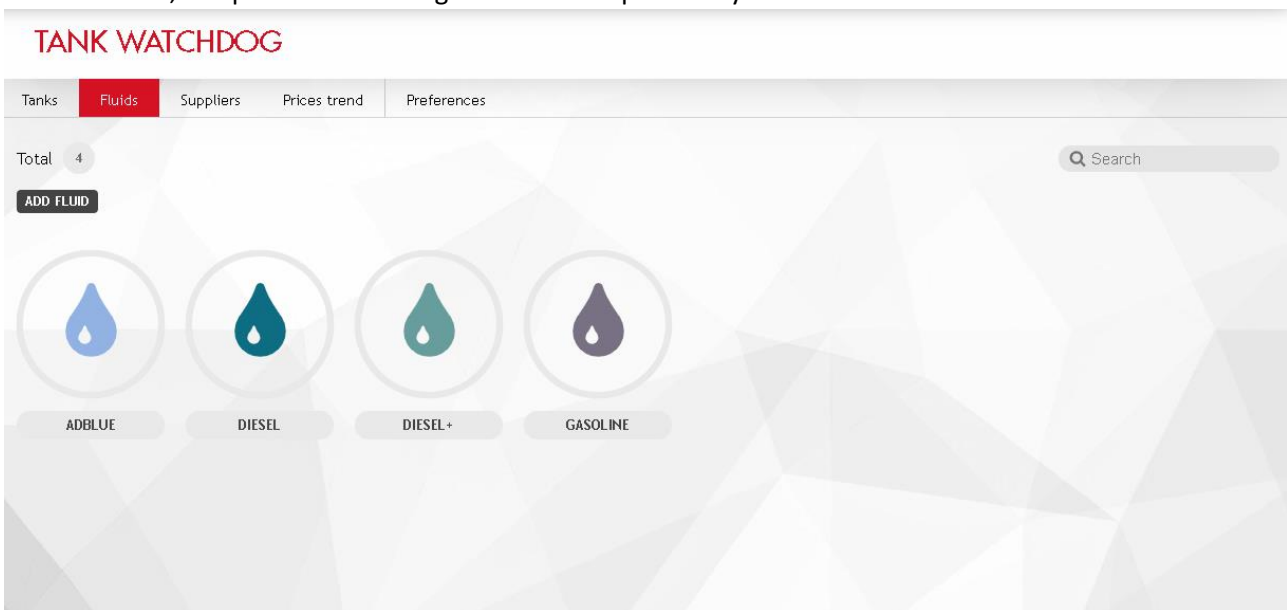


The TANK WATCHDOG section can be accessed by pressing the menu icon shown here. In this section, one can administrate and manage the tanks present on the plant, their movements, and the cost tendency graphs of the fluids.

The TANK WATCHDOG section is available only after the Tank Watchdog ADD-ON activation (Chapter 8.3)

#### 3.1 FLUIDS

In this section, it is possible to manage the fluids dispensed by the control units.



Each fluid is represented by:

- **Name:** (mandatory) Unique identification of every fluid (16 characters maximum)
- **Code:** Product identification code. The field is not mandatory and can be used and displayed in the export data paths.
- **Reclaimable:** This indicates whether the product is eligible for tax relief from the tax agency. The field is not mandatory, it can be used to generate export data paths for specific uses.
- **Color:** A color representation for the fluid

There are no limits on how many fluids a plant can have.

## 3.2 SUPPLIERS

In this section, it is possible to manage the configuration of the fluid suppliers for the plant. This section is optional and can be disabled from the Preference Settings of the Tank Watchdog Module (Chapter 3.6)

**TANK WATCHDOG**

Tanks   Fluids   **Suppliers**   Prices trend   Preferences

Total 3

**ADD SUPPLIER**

Business Name	Tax Code/SSN	Email	Phone number	VAT Number	Actions
Ellen Lawrence	LWRELL01287214762	ellen.lawrence@example.com	(992)-562-7218	ATU00000024	
Hailey Wallace	WLLHLY87RWE43	hailey.wallace@example.com	(995)-242-7759	BG831144533	
Rick Long	LNGRCK092U312	rick.long@example.com	(953)-152-7681	BE0438789495	

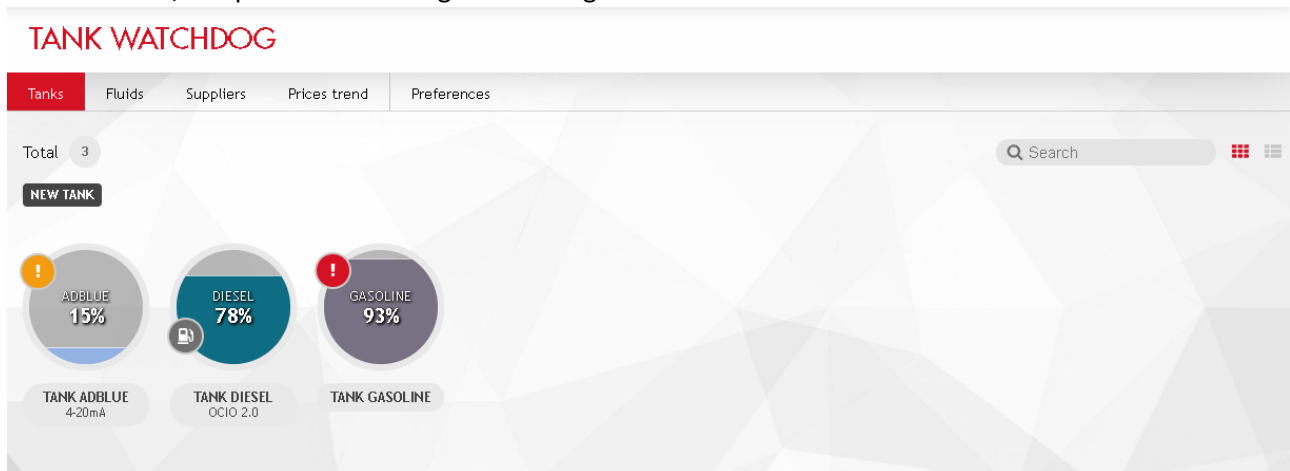
Each supplier is represented by:

- **Name:** (mandatory) Unique identification of every supplier
- **Address:** Physical address
- **Phone number, Email:** Supplier's information
- **Tax Code/SSN:** Supplier's information

There are no limits on the number of suppliers for a plant.

### 3.3 TANKS

In this section, it is possible to manage and configure the tanks.



#### 3.3.1 ADDING A NEW TANK

For adding a new tank, press over the button

##### A) GENERAL

In the subsection GENERAL, it is possible to configure the following information:

- **Name:** (Mandatory) Unique identification of every tank (16 characters maximum)
- **Fluid:** (Mandatory) Fluid inside the tank. It is possible to assign a previously created fluid or to create one by pressing over the button.
- **Measurement Unit:** The measurement unit for expressing the following tank characteristics: capacity, information table values.

The tank's measurement unit has to be coherent with that of the pumps connected to it. It is not possible to have two dispensers measuring on different units if they share the same tank.

N.B.: It is allowed to have different distributors sharing the same tank and measuring on the same unit system but different units (multiples or submultiples) such as on the following example:

Control Unit 1		Control Unit 2
Dispenser A	Dispenser B	Dispenser A
Gallons	Pints	Quarts

The dispensers can all share the same tank.

It is not possible to modify a tank's measurement unit, if this tank has already been connected to other dispensers.

## B) CONFIGURATION

In the CONFIGURATION subsection, it is possible to modify the following data:

- **Level Sensor:** The type of level sensor connected to the dispenser, the options are:
  - OCIO 2.0
  - 4-20 mA Analogic Sensor
  - 0-10 V Analogic Sensor
  - No Sensor (virtual tank)
- **Capacity:** (only when the tank is not virtual) It shows the tank's capacity expressed on the measurement unit chosen.
- **Shape:** (only when the tank is not virtual) It shows the tank's geometric shape. The options to choose from are the following:
  - Parallelepiped
  - Horizontal Cylinder
  - Vertical Cylinder
  - Custom

When the custom option is selected, it is possible to represent the geometric shape through an Information Table with different level values.

Press over the  button in order to input the table.



The information table is a series of measurement (100 measurements maximum) that relate volume to height.

It is possible to compile the information table manually, or by uploading an Excel file with the correct format.

The Excel file must contain two columns (height and volume). You should leave blank all other columns in this file.

The following is an example on a correct format for the Excel file.

0	0
10	140
20	200
...	...
70	3000

In both columns, the values always have to go from smaller to larger.

### C) ALARMS

**NEW TANK** ✕

General Configuration **Alarms**

1 2

Alarm 1

Warning when level is Lower than 42 %

Alarm 2

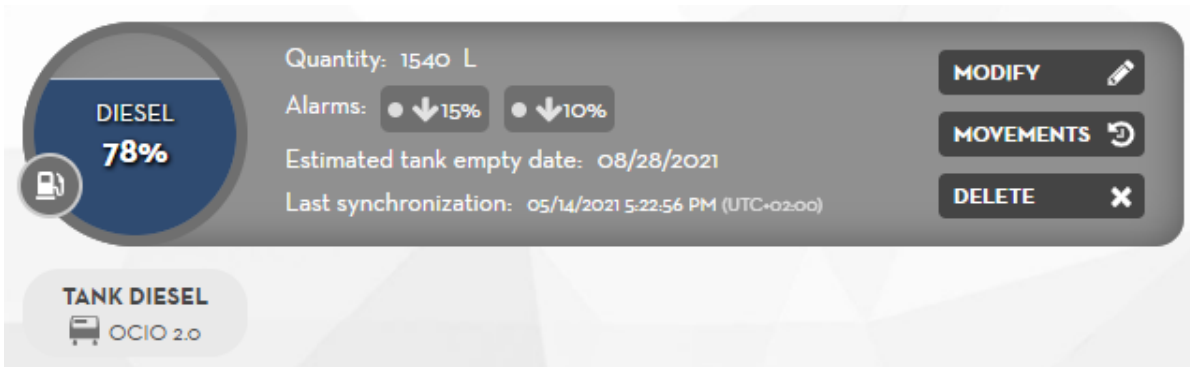
Pump cut off when level is Lower than 10 %

SAVE

In the subsection ALARMS, it is possible to configure two level alarms, with the following data for each one of them:

- **Status:** Whether the alarms is active or not
- **Behavior:** The immediate action after the alarm is triggered
  - Warning
  - Pump Cut off
- **Condition.** One can choose when to fire an alarm, based on a direction and percentage


### 3.3.2 TANK DETAILS




The following information can be visualize for every tank:

- Fluid quantity inside the tank
- The status and configuration of the alarm
- Estimated date until the tank becomes empty. This value is estimated based on the charges and discharges done on the tank.
- Last synchronization data. It represents the last date in which the APP was synchronized with the tank.

All the following information (quantity, status, movements) is based on this data


Pressing over the  button, is possible to visualize the list of dispensers connected to this tank.

Pressing over the  button (only seen when an alarm was triggered) is possible to visualize detailed information on the tank and alarm status.

Pressing over the buttons:

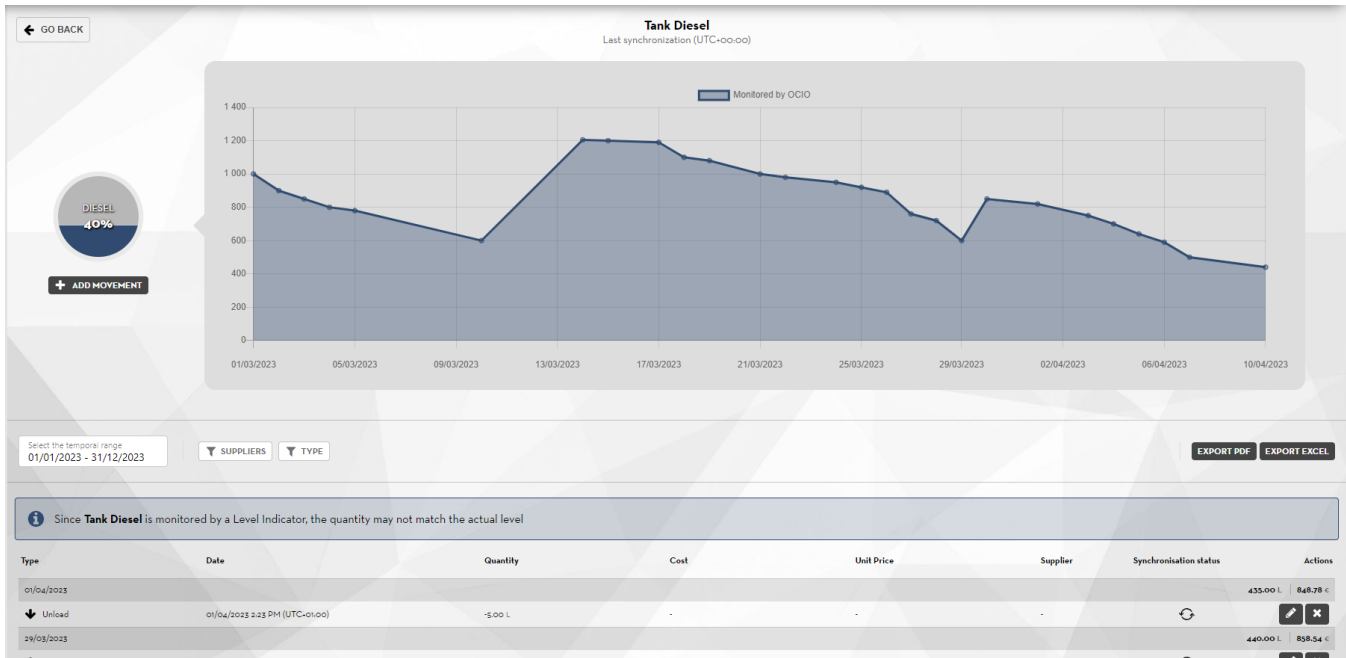
 to modify the tank properties

 to delete the tank

 to access the movements section for this tank

### 3.4 MOVEMENTS




In this section, is possible to visualize the tank’s movements, create new ones, and visualize the price tendency of the fluids.





There are different type of movements:

- Load:** Positive load on the tank.  
 When the tank is virtual, the loads must be carried out manually when adding liquid to the tank. When the tank is monitored by a level sensor, is not necessary to create loads, but it is advisable if one want to keep trace of the fluid prices (Chapter 3.5).
- Unload:** A fluid discharge from the tank.  
 Unloads are automatically created when a dispenser connected to this tank performs a refueling operation. Unloads can also be created manually.
- Correction:** A correction movement is used in order to update the fluid quantity inside a tank manually.
- Calibration:** Is a movement to calibrate a tank’s dispenser.  
 It is possible to ignore the calibration value (on the case that the fluid used on the calibration was reinserted into the tank after the calibration operation). Or one can also choose to rename a calibration as an unload (on the case in which the fluid used on the calibration was not reinserted into the tank).


- **Synchronisation status** of movements between cloud and device:

-  **Waiting** - The movement has not been applied and is waiting for someone to connect to the device to synchronise the data.
-  **Synchronised** - The movement has been applied to the tank and all data has been synchronised correctly.
-  **Synchronisation error** - The movement cannot be applied, quantity loaded exceeds maximum tank capacity. If a movement is in this state, all the following movements will not be synchronised. To solve the problem, it is necessary to connect to the device as a manager and perform a tank level calibration.


- **Actions:**

-  **Edit a movement**
-  **Delete a movement** - This can be used to delete a previously entered movement. A movement can only be eliminated if:
  - the level correction is at a date later than that of the movement to be deleted and the movement is entered by the user;
  - movement is entered by the user and the tank is monitored by a level sensor.

### 3.4.1 ADDING A NEW MOVEMENT

In order to add a new movement, press over the  button.

In this section, it is possible to configure the following properties:

- **Movement Type:** (Mandatory) Load or unload
- **Supplier:** (only for load movements) It is possible to select a previously created supplier or to add a new one by pressing over the  button. This field is only visible when “Suppliers Management” has been enabled on the preferences (Chapter 3.6)
- **Quantity:** (mandatory) Quantity loaded or unloaded. The amount can only be edited if:
  - the movement to be edited was entered into a virtual tank and preceded a correction movement;
  - the movement was placed in a tank monitored by a level sensor;
- **Price:** (only for load movements) The price at which the fluid was bought. This field is only visible when “Price Management” has been enabled on preferences (Chapter 3.6)
- **Invoice Code:** Invoice code for the load or a reference note.
- **Date and Time:** Date and time when the movement was registered. The following rules apply when editing the date of a movement made on a virtual tank:
  - If a movement is before a level adjustment movement, the date that can be entered must be before the adjustment;
  - If a movement is after a level adjustment movement, the date that can be entered must be after the adjustment;
  - If no level adjustment movement is present, a future date cannot be entered.

### 3.4.2 MOVEMENT DETAILS

It is possible to visualize the movements by using the following filters:



- **Temporal range**
- **Suppliers**
- **Type**

The cost shown for each temporal range is calculated as the product of the current fluid quantity inside the tank and the last price inserted, as shown in the following table:

Date	Quantity	Cost	Unitary Price	Tank Value
05/04/2020	+1000	1600	1.6€/L	4000€
04/04/2020	-300	-	-	2250€
03/04/2020	+1000	1500€	1.5€/L	2700€
02/04/2020	-200	-	-	1200€
01/04/2020	+1000L	1500€	1.5€/L	1500€

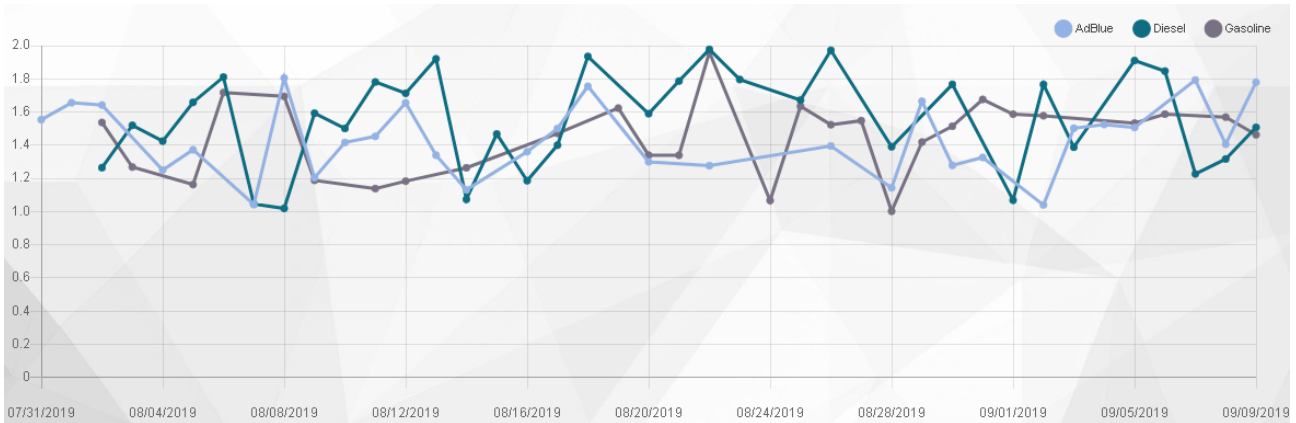
It is possible to export movements as a PDF or Excel file by pressing over one of the following buttons:



### 3.5 PRICE GRAPHS

In this section, it is possible to visualize price graphs based on the history of loads for every fluid.

The prices are calculated on the moment in which new load movements are created and a monetary value is assigned.



Ellen Lawrence			Unit Price 1.52 €/L
<input checked="" type="radio"/> AdBlue			
09/09/2019 9:31 AM (UTC+06:00)	1.78 €/L	Invoice #000776	
09/08/2019 5:10 PM (UTC+00:00)	1.32 €/L	Invoice #000779	

For modifying a value, one should go to the movements section and modify the individual values there.

It is possible to visualize the price graphs by using the following filters:

Select the temporal range  
**08/01/2019 - 09/09/2019**

- **Temporal Range**
- **Supplier**
- **Fluid**

To export the price graphs, you should press over one of the following buttons:

### 3.6 PREFERENCES

In this section, you can modify preference settings related to the Tank Watchdog.

- **Tank Measurement Unit:** The measurement unit for the geometric dimensions. The options are the following:
  - Millimeters
  - Inches
- **Enable suppliers:** Enable or disable the suppliers management section.
- **Enable E-mail:** Enable or disable emails sending notifying the tanks' status. When this option is enabled, every time a tank status goes from regular to alarm, an email is sent.

Press over the  button to configure the mail options



In this section, it is possible to specify the information that goes inside the emails.

- Email Subject
- Recipients
- Email body

In this field, it is possible to use diverse tags that come substituted by real values of the tanks.

### 3.7 SHARED TANK

It is possible to share the same tank between two or more pumps.

When the pumps sharing a tank belong to different dispensers, it is necessary to install a CANBUS network between the dispensers. Please review the Installation Manual for more information

When a tank is shared, it is mandatory to specify which pump is the “Tank Manager” (the option is mandatory for both, virtual and measured tanks).

N.B.: Whenever a tank configuration value is modified, it is necessary to synchronize it with the dispenser that holds the “Tank Manager” pump before being able to refuel with any of the others pumps.

To synchronize the configuration one must connect the APP to the dispenser while connected to internet.


## 4. REGISTRATION NUMBER



The REGISTRATION NUMBER section can be accessed by pressing the menu icon shown beside. This is the section where the site registration numbers can be managed.

The registration numbers can represent codes of work orders to be executed, or the license plate of a vehicle to be refilled. If you want to use the registration numbers as vehicle license plates, you can also keep track of the respective odometers.

There are no restrictions on the number of registration numbers that can be entered into the site.

To add a new element, press the button  .














### 4.1 ADDING A NEW REGISTRATION NUMBER

The fields of a Registration Number are:

- **Registration number** (mandatory) – Unique identification code of the element.
- **Odometer type** – If the registration number represents a vehicle, it is possible to define the unit of measurement of the odometer, choosing between
  - Kilometers
  - Miles
  - Hours
- **Odometer** – You can specify the vehicle odometer only if the type of odometer is different from "None".
- **Description** (optional) – Text field for saving additional information.

## 4.2 DETAILS OF A REGISTRATION NUMBER

The list of registration numbers contains the following information

185C1F3	149 871 Km	felis ullamcorper viverra. Maecenas iaculis	  
1B5FE3E	149 890 Km	metus urna convallis erat, eget	  
22F5FE2	149 895 Km	Nulla semper tellus id nunc interdum feugiat. Sed nec m...	  
 2A94D97	149 880 Km	velit. Cras lorem lorem, luctus ut, pellentesque eget, fd d...	  

In this video page you can:

- **Modify** the registration number
- **Delete** the registration number
- **Disable** the registration number

### Caution

- After the first dispensing operation with a specific Registration Number, it will no longer be possible:
  - To delete the Registration Number, in which case it is recommended to disable it if you no longer wish to use it.
  - To modify the odometer and set a value lower than the one previously saved.

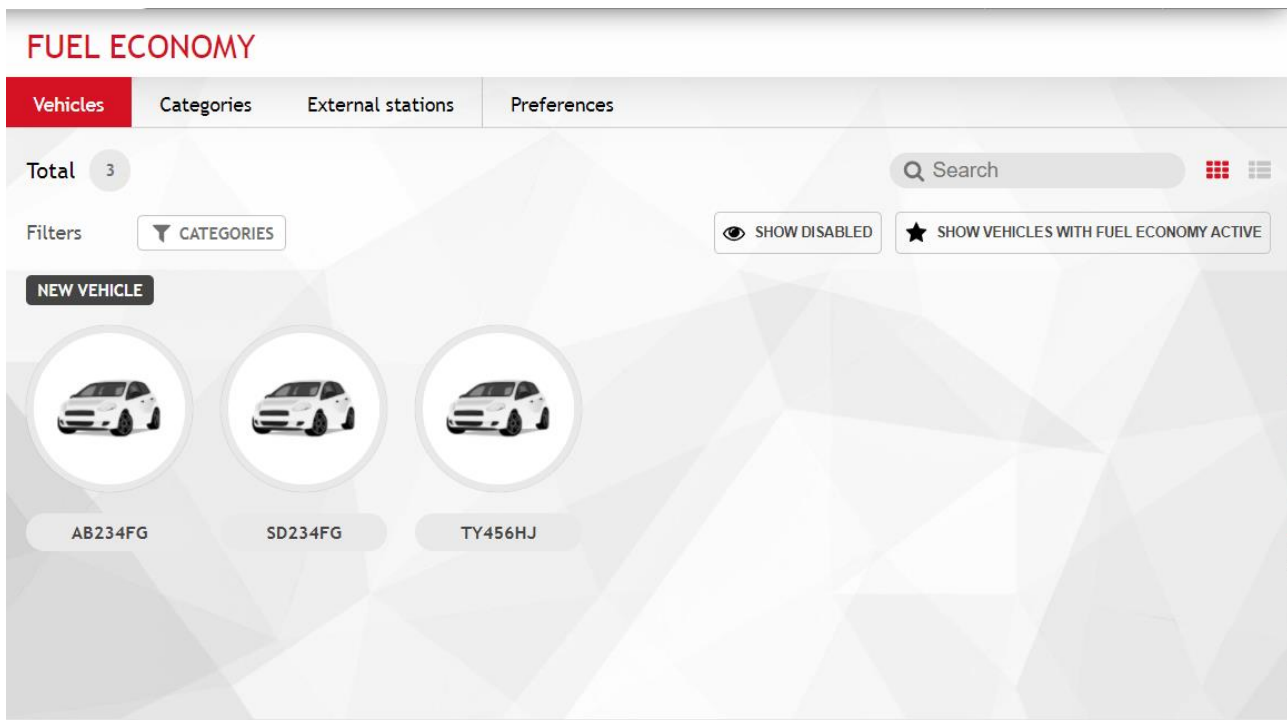
## 5. Fuel Economy



The Fuel Economy section, accessible by pressing the menu icon shown to the side, is available only when the Fuel Economy add-on is active and replaces the 'REGISTRATION NUMBER' section described in chapter 4. This section provides advantage vehicle fleet management functions, allowing you to divide them into categories and enable consumption management.

As soon as the 'Fuel Economy' add-on is activated all site registration numbers are converted to vehicles and assigned to a basic category called 'default'.

There are no restrictions on the number of vehicles that be entered into the site.




## 5.1 ADDING A NEW VEHICLE

To add a new vehicle, press the button

The vehicle fields are the following:

- **Category** - Each vehicle must be grouped under a category to be easily found within the fleet. See chapter to create a new category.
- **Vehicle photo** - You can assign a photo to your vehicle. By default, the photo associated with the selected category is used.
- **Enable FUEL ECONOMY** - Enables the fuel consumption calculator for the vehicle. In this case, the vehicle registry must be completed with the vehicle tank information.

- **Tank size** - Capacity of the main tank of the vehicle. This value limits the maximum amount of fuel that can be dispensed in a single operation from any one fuel dispenser at the site.
- **Standard consumption** - This is the theoretical average fuel consumption of the vehicle.
- **Tolerance** - This is a percentage around the consumption nominal value and within which the consumption is considered normal. The percentage tolerance on consumption is used to track the vehicles with unusual consumption.
- **ADBLUE** - This indicates whether the vehicle has an AdBlue tank and, if it does, it can be used to indicate its size and average consumption. It is also necessary to indicate a consumption tolerance - a percentage around the consumption nominal value and within which the consumption is considered normal. The calculation and the evaluation of the AdBlue consumption status is the same as the one applied for the consumption of the main tank.
- **Number plate**
- **Model**
- **Vehicle company name**
- **QR code** - Enter a unique alphanumeric string identifying the vehicle (by default the field is pre-filled with a string automatically generated by the system). Press the button  to generate a printable label with the entered string translated into a scannable QR code. The label can be scanned by a driver with the application from their phone to more quickly select the vehicle when creating a new refilling operation.
- **Odometer type** - Select which the unit of measure the vehicle odometer. Select 'None' to avoid tracking the vehicle odometer values over time.
- **Odometer** - The current odometer reading must be provided if you want to activate the advanced fuel economy management on the vehicle. In this way, the last vehicle odometer reading will be requested for each new refilling operation. The information will then be to calculate the fuel consumption of the vehicle.

*Caution*

- Changing the unit of measurement of a vehicle odometer will result in the loss of all fuel consumption reports calculated up to that point.
- **Description** (optional) - Free text field that can be used to store additional information about the vehicle.


**Caution**

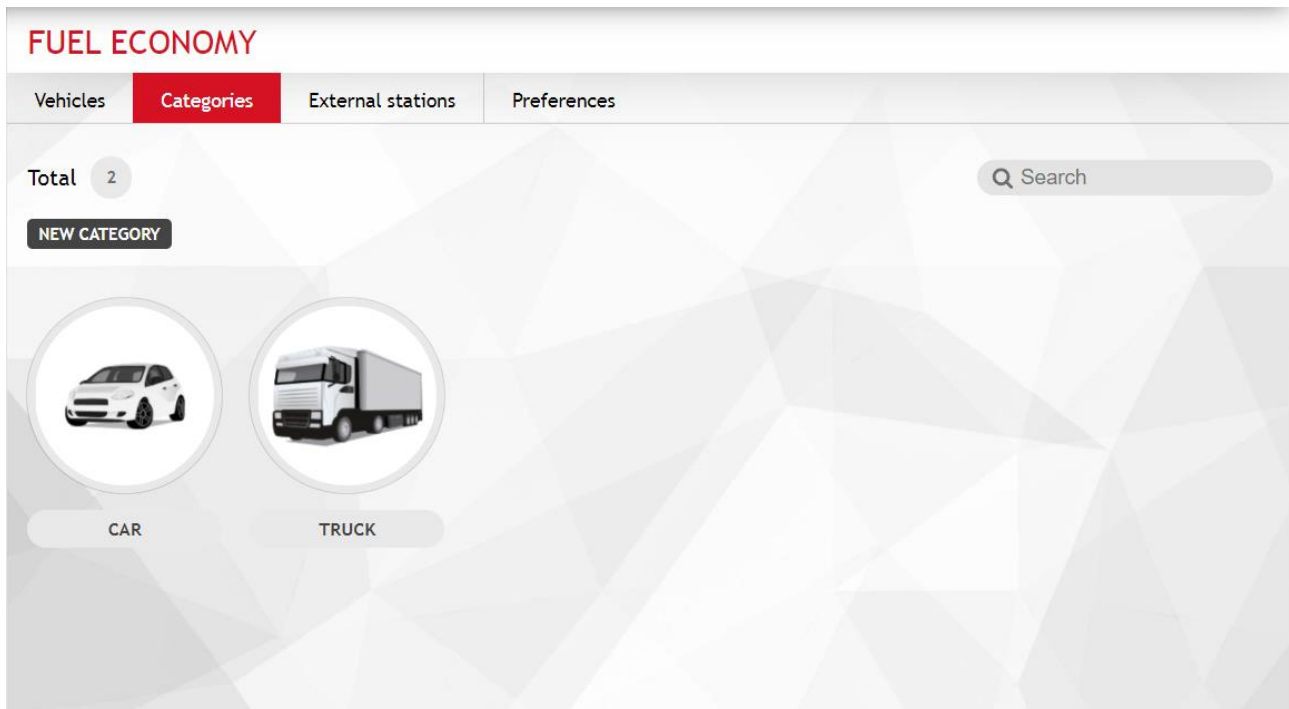
- Vehicles that have activated 'Fuel Economy' management and do not have a configured Adblue tank cannot dispense from Adblue pumps.
- It is not possible to delete a vehicle if it has been refuelled at least once at the site, in which case it is recommended to disable it if you no longer wish to use it.

## 5.2 VEHICLE CATEGORIES

Categories are used to organise vehicles into groups. It is possible to filter vehicles by category and enable drivers to dispense for specific categories (see Chapter 1.1).

There is no limit to the number of categories that can be entered.

Press the button  to add a new vehicle category.



Indicate:

- **Category name**
- **Tank capacity** - This value will be used as a suggestion for the main tank size of all new vehicles that are assigned to this category.
- **Image**

### Caution

- A category cannot be deleted if it is assigned to at least one vehicle at the site.

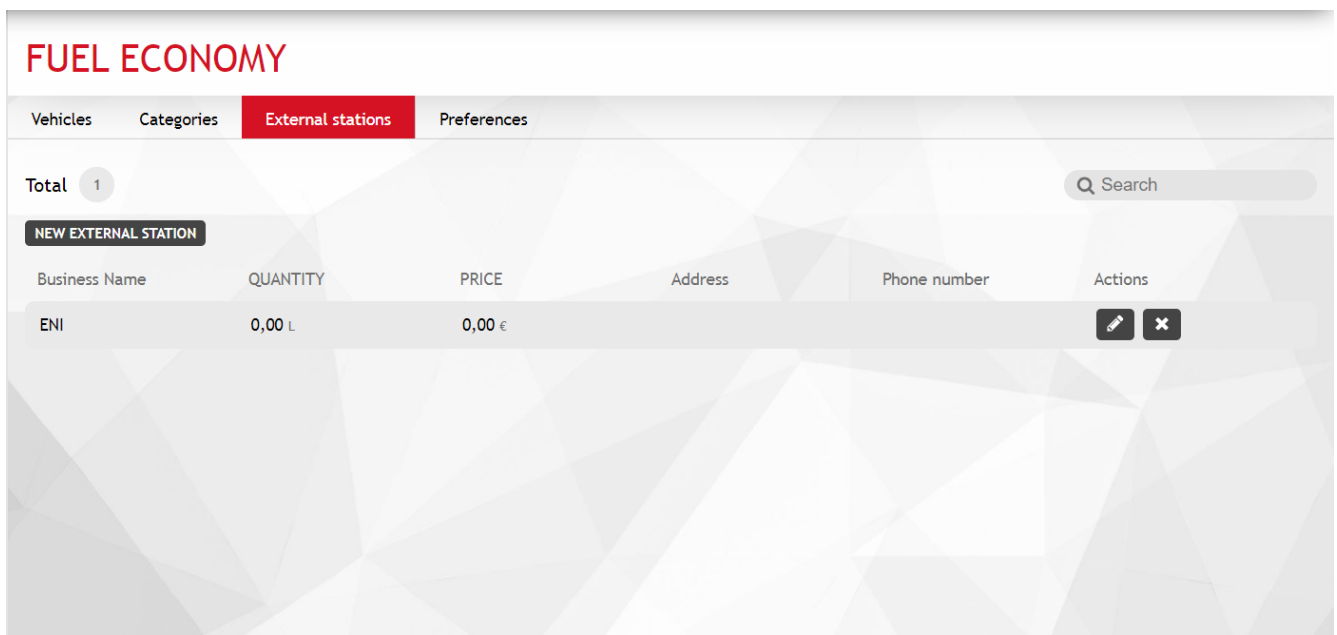
### 5.3 EXTERNAL STATIONS

This section can be used to enter and manage the registry of the service stations where the vehicles can refill outside the site.

This section is only visible if the 'External Stations' option is enabled in the fuel economy preferences section (see Chapter 5.4).

There is no limit to the number of external stations you can enter.

Press the button **NEW EXTERNAL STATION** to add a new external station.



Indicate:

- **Company name** - Unique identifier of the service station
- **Address**
- **Post code**
- **Telephone**
- **E-mail**
- **Tax code**
- **VAT number**

The following is calculated for each service station:

- the amount of fuel that site drivers have dispensed from the station;
- The total cost of all refilling operations carried out by the service station.



## 5.4 PREFERENCES

In this section, you can edit the system configurations that govern the 'Fuel Economy' add-on functions. The preferences you can work on are:

- **Mandatory odometer photo** - If the preference is activated, the mobile application will always ask you to attach a photo of the vehicle odometer to the dispensing operation.
- **External stations** - The service stations registry management, where the filling operations is carried out off-site, is enabled if the preference is activated.
- **Mandatory QR code** - If preference is activated, the driver is required to scan the QR CODE of the vehicle before starting the dispensing operation.
- **Enable consumption per individual driver** - If the preference is enabled, the fuel consumption for individual drivers in the site is tracked (see Chapter 7.3).
- **Enable the association of vehicles to the fuel dispenser pumps** - If the preference is activated then vehicles can be associated with the fuel dispenser.

### *Caution*

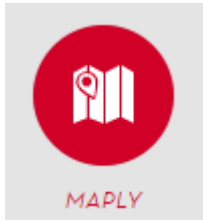
- By enabling this function, all vehicles are initially associated with all fuel dispensers.
- **Consumption** - This shows the unit of measurement used to display the data of the consumption reports.
- **Time consumption** - This shows the unit of measurement used to display the data of the consumption reports.

- **Enable odometer entry check** - if the preference is activated, the odometer reading entered by the driver is checked. The entered number must not exceed the maximum distance or time a vehicle can travel on a full tank.

Example: If a vehicle has a tank capacity of 50 L, and a standard consumption of 20 km/L with a tolerance of 5%, the odometer entered cannot be greater than “50 L x (20 km/L + 1 km/L) = 1050 km” than the previously entered one.

In this case, the driver who is dispensing is notified that an abnormal value is being entered. The driver can always override the value to be entered.

## 6. MAPLY



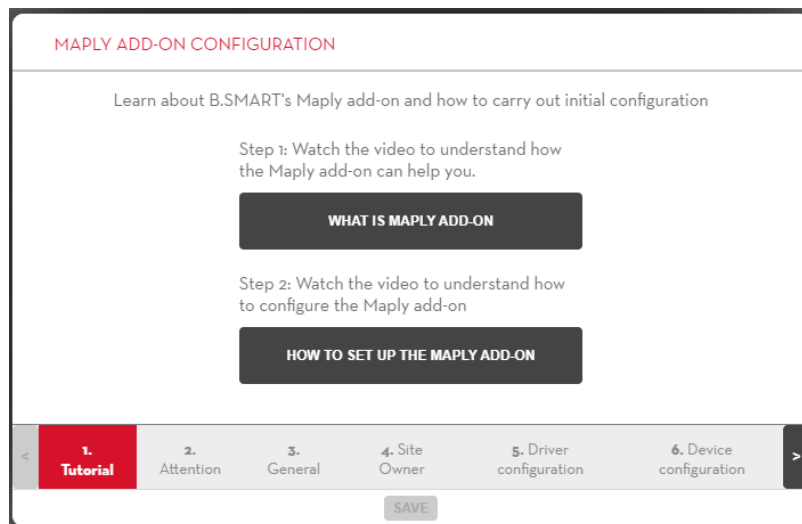
The Maply section can be reached by pressing the menu icon shown by the side and can be used to manage working areas, external companies and the registration numbers of vehicles of external companies.

The Maply section is only available if the dedicated add-on has been activated (see Chapter 8.3)

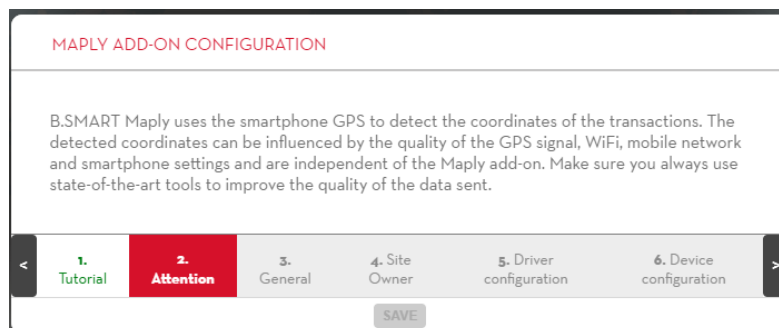
### 6.1 PRELIMINARY CONFIGURATION

After activating the Maply add-on, enter the section and follow the initial configuration wizard:

#### 1. Tutorial



- B.SMART Maply uses the smartphone GPS to detect the coordinates of the transactions. The detected coordinates can be influenced by the quality of the GPS signal, WiFi, mobile network and smartphone settings and are independent of the Maply add-on. Make sure you always use state-of-the-art tools to improve the quality of the data sent.**



- 3. General configuration:** You can decide whether to enable the third-parties company data to dispense to the vehicles with registration numbers not belonging to the current site.

MAPLY ADD-ON CONFIGURATION

Allow your drivers to refuel third-parties reg. numbers  YES  NO

1. Tutorial 2. Attention 3. General 4. Site Owner 5. Driver configuration 6. Device configuration

SAVE

**4. Configure the site master data:**

- **Company name** (mandatory) - This is the name used to recognise your company's registration numbers and tanks if dispensing to vehicles registered to third-parties companies is enabled.
- Address (optional)
- Tax code (optional)
- CEA (optional) - Spanish tax agency code

MAPLY ADD-ON CONFIGURATION

Business Name \*

My Company

Address

Tax Code/SSN

CAE

1. Tutorial 2. Attention 3. General 4. Site Owner 5. Driver configuration 6. Device configuration

SAVE

5. **Configure the Maply functions for the site drivers:** Indicate whether each driver is allowed to dispense to the third-parties registration numbers or load from one tank to another. These configurations can also be changed later (see Chapter 1.1).

Drivers	Allow dispensing to third-parties companies	Allow tank loads between tanks
Carlo Bianchi	<input type="checkbox"/>	<input type="checkbox"/>
Davide Mari	<input type="checkbox"/>	<input type="checkbox"/>
mario rossi	<input type="checkbox"/>	<input type="checkbox"/>

6. **Configure the Maply functions for the site devices:** For each device indicate whether:
- the device is enabled to dispense to registration third-parties numbers and load fuel to tanks of the site to which it belongs;
  - Geofencing options (see chapter 2.1.1)

DISPENSERS	Enable dispensing to third-parties reg. numbers	Geofencing options
MCBBox 18120000	<input type="checkbox"/>	Dispense everywhere
SelfSrv18120001	<input type="checkbox"/>	Dispense everywhere
CubeBSm 18120002	<input type="checkbox"/>	Dispense everywhere
SelfADB 18120003	<input type="checkbox"/>	Dispense everywhere
MCBBoxDC 18120004	<input type="checkbox"/>	Dispense everywhere

Press the **SAVE** button to save the settings and access the Maply section.

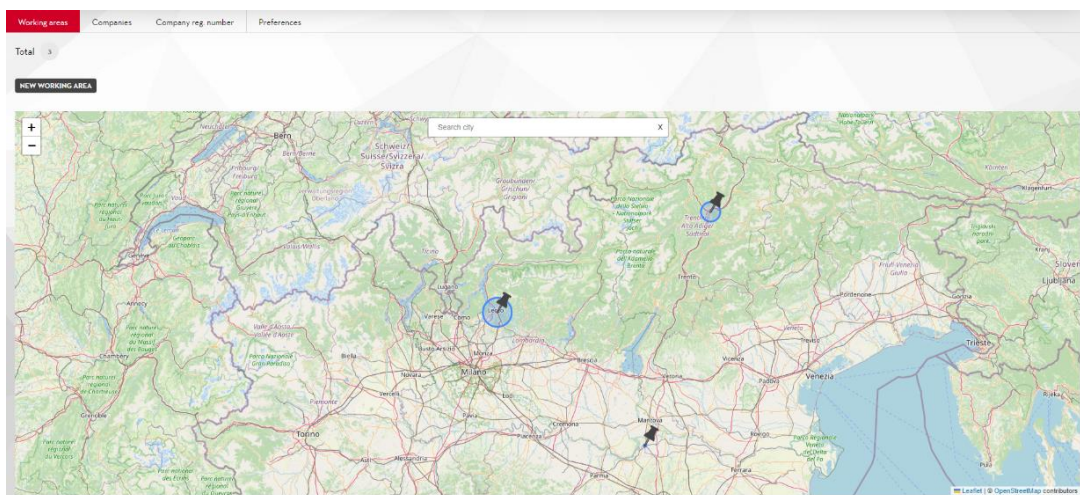
## 6.2 WORKING AREAS

The working areas are represented by a circle and are used for:

- Delimiting a zone within which dispensing is allowed;
- Grouping the dispensing operations made all in the same geographical area.

In detail:

### 1. Map



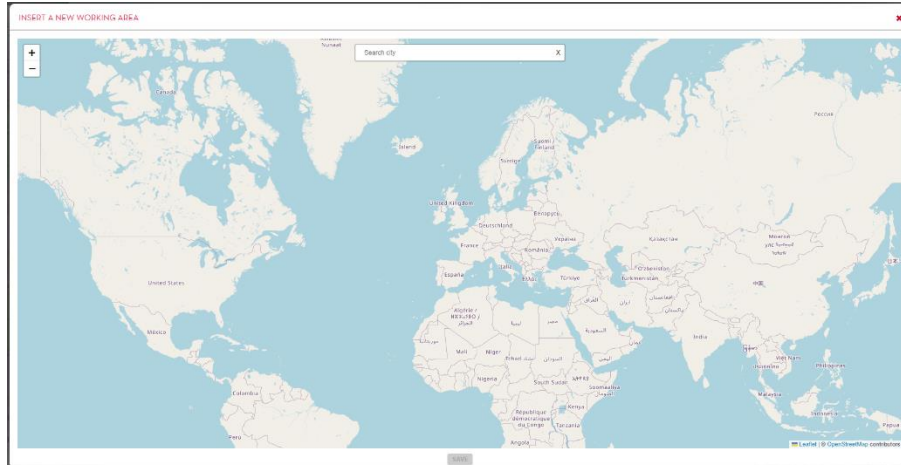
### 2. Working area list



## 6.3 ADDING A NEW WORKING AREA

Click on the **NEW WORKING AREA** button to open the window for creating a new area:

1. Press on the map to select the centre of the area (it can be changed later). You can use the search bar to search for a city to get closer to where you want to locate the area.




2. Once the centre of the area has been positioned, it is possible to fill in the master data:

The screenshot shows the same "INSERT A NEW WORKING AREA" window, but now with a data entry form on the left and a zoomed-in map on the right. The form includes the following fields:

- Name:** A text input field.
- Description:** A text area.
- Area radius (m):** A slider control with a value of 100.
- Latitude:** A text input field with the value 45.131962.
- Longitude:** A text input field with the value 10.804799.

The zoomed-in map on the right shows a city street grid with a green circle indicating the selected center of the working area. The map includes labels for streets and landmarks like "Municipio" and "Lago Vafraja".

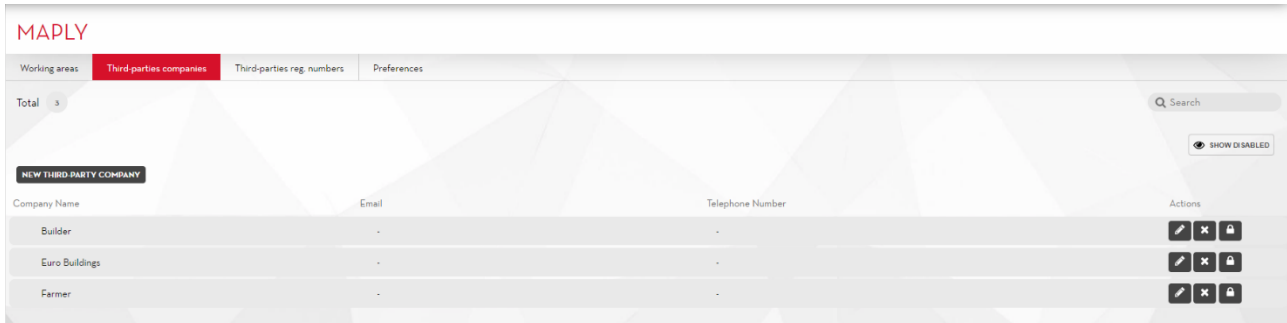
- **Name** (mandatory) - The name that uniquely identifies the working area.
- **Description** (optional)
- **Radius** (mandatory) - Radius of the circumference describing the area; the unit of measurement is expressed in metres and its value ranges from a minimum of 200 metres to a maximum of 500 km. **Caution:** Depending on your GPS readings, if you reduce the working area below 2000 m, some transactions may not be included in the drawn area.
- **Latitude** and **Longitude** (mandatory) - The coordinates of the centre of the area. If you press the  button, the view centres on the area being configured.

### Caution:

- It is not possible to overlap two or more areas of operability;

## 6.4 THIRD-PARTIES COMPANIES

This section can be used to manage the master data of third-party companies (the section is only visible if the corresponding configuration is enabled in the Preferences section, Chapter 6.6)



Click on the **NEW THIRD-PARTY COMPANY** button to add a new third-party company to the site.

The fields that make up the master data of a third-party company are:

- **Company name** (mandatory) - The name that uniquely identifies the company.
- **E-mail** (optional) - If the “Send an e-mail to third-parties companies when refuelling one of their reg.num.” option is activated (Chapter 6.6), the driver at the end of a dispensing operation carried out on a vehicle registered to a third-party company may decide to send an e-mail to the address indicated to notify that company of the details of the dispensing operation just performed.
- **Telephone number** (optional)



## 6.5 THIRD-PARTY REGISTRATION NUMBERS

This section can be used to manage the master data of third-party vehicle registration numbers (the section is only visible if the corresponding configuration is enabled in the Preferences section, Chapter 6.4)

Reg. Number	Description	Third-party company	Actions
AB12355	-	Euro Buildings	[Edit] [Delete] [Lock]
EXCAVATOR	Excavator CAT	Builder	[Edit] [Delete] [Lock]
HERVESTER	-	Farmer	[Edit] [Delete] [Lock]

Click on the **NEW REG. NUMBER** button, to enter a new third-party registration number in the site using the following window:

The fields of a registration number are:

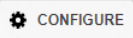
- **Registration number** (Mandatory) - Univocal name identifying the registration number.
- **Third-party Company** (Mandatory) – The third-party company to which the registration number belongs.
- **QR code** (Mandatory) - Enter a unique alphanumeric string identifying the vehicle registration number (by default the field is pre-filled with a string automatically generated by the system). Press the button to generate a printable label with the entered string translated into a scannable QR code. The label can be scanned by a driver with the application from their phone to more quickly select the by registration number when creating a new refilling operation.
- **Description** (optional) - Text field for saving additional

**CAUTION:** Third-party registration numbers are handled differently from the registration numbers described in Chapter 4. It is not possible to enter other parameters (e.g. odometer, usage time) besides the registration number.

## 6.6 MAPLY PREFERENCES

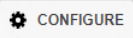
In detail:

- **Receive an email if your driver dispenses to third-parties reg. numbers:**

Click on the  button to set:

- The subject of the e-mail
- The recipients of the e-mail
- The body of the e-mail
- Date format
- Hour format
- Unit of measurement of quantities

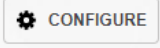
- **Receive an email in case your driver makes a tank-load:**

Click on the  button to set:

- The subject of the e-mail
- The recipients of the e-mail
- The body of the e-mail
- Date format
- Hour format
- Unit of measurement of quantities

- **Allow your drivers to refuel third-parties reg. numbers** - If enabled, this can be used to manage company master data and third-party registration numbers.

- **Send an email to third-parties companies when refuelling one of their reg.num.** - If enabled, at the end of a dispensing operation to a third-party registration number, the driver can choose to send an e-mail to notify the company that a dispensing operation has been made to a vehicle with registration number registered to them.

Click on the  button to set:

- The subject of the e-mail
- The body of the e-mail
- Date format
- Hour format
- Unit of measurement of quantities

The e-mail address of the recipient of these notifications can be set by the driver. The address entered in the company registry is suggested as the default address.

**CAUTION:** Receipt reception on the mobile app must be enabled to use this function.

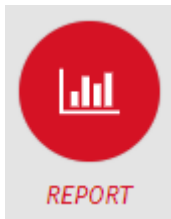
- **Receive an e-mail in case your driver makes a transaction outside of working areas:** If this option is enabled, an e-mail notification will be sent for dispenses made outside the working area by devices with the Geofencing options configured to 'Notify transaction outside of working areas' (see chapter 2.1.1).

The e-mail sent will contain information about the dispensing carried out and the distance to the nearest area.

Click on the , the following actions can be performed:

- Configure the recipients of the e-mail;
- Configure e-mail content language;
- Display a preview of the e-mail;
- Send a test e-mail to check that the recipients are correct;

## 7. REPORT



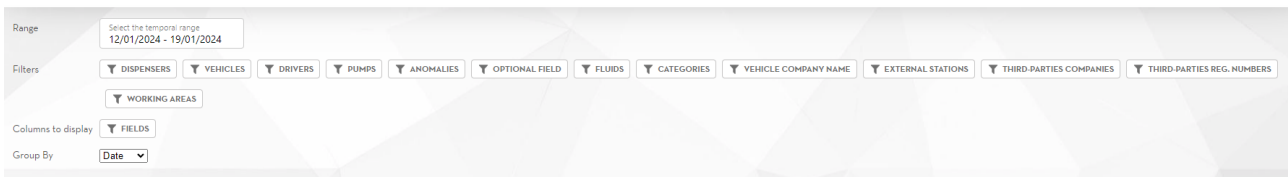
The REPORT section can be accessed by pressing the menu icon shown beside. This is the section where the log of the site dispensing operations can be viewed.



Select the type report you want to generate:


- Dispenses reports (Chapter 7.1)
- Consumptions report (Chapter 7.2) - *This function is available only if the Fuel Economy add-on is active.*
- Consumption report for each driver (Chapter 7.3) - *This function is available only if the add-on 'Fuel Economy' is active and the preference 'Enable consumption per individual driver' is enabled.*

## 7.1 DISPENSES REPORTS




The Web Application allows you to filter the dispensing operations by: Range of date, dispensers, registration numbers, drivers and dispensers. Furthermore, if the *'Fuel Economy'* add-on is active, you can also filter by vehicle categories, suppliers and external stations. And to group the dispensing operations by: registration number, date, driver and dispenser.


Filters can be combined with each other.

Click on the  button to choose which report columns to display.



Once the desired columns have been selected, click on the  button to save a new report display template (valid only for reports in web apps and exports to pdf files, excluding exports to Excel files, which will not be affected by this configuration).

Each site user can create a customised template, which will remain stored in their user base even if they log out of the web app.


After selecting the desired filtering and grouping, press the button  to generate a new report. A graph and a list of filtered and grouped dispensing operations is displayed.

## 7.1.1 DISPENSING OPERATION DETAILS

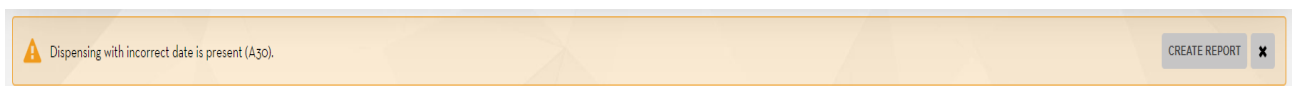
The following information is given in the individual dispensing operation:






- **Status icon** – Indicates whether the dispensing operation has been successfully completed or if there has been a problem while dispensing:



-  This indicates that an anomaly occurred during the dispensing operation. Possible anomalies are:
  - **Incorrect date** (Only for Piusi Supreme pumps): The date field will be empty for all dispensing operations made during this abnormal condition (the operations may not be visible if the time filters are applied by the report). To solve this problem, it is necessary to connect to the Piusi 3000 Supreme via a mobile app to update the date.






The presence of at least one dispensing operation without a date is indicated by the following message.



Click on the button  shows only the dispensing operations with this anomaly.

Press the  button to not display it (you can apply this filter manually by clicking on the button  in the filter section).

- **No power** - The dispensing operation was interrupted by the sudden switch-off of the device due to a power supply problem during the dispensing operations.
- **Communication error with the level sensor or Ocio 2.0** - The device cannot communicate with the level sensor. Check the connections and configuration of the device to solve the problem.
- **Type of authentication** – Indicates how the driver is authenticated on the fuel dispenser:
  -  Access was performed using an Ibutton key.
  -  Access was performed using the smartphone application.
- **Date and time** – Date and time (reported according to the time zone of the fuel dispenser) at which the dispensing operation was made.

- **Type of dispensing operation** – Indicates whether the dispensing operation is a calibration or a refilling:
  -  The dispensing operation is a refilling.
  -  The dispensing operation is to a third-party company.
  -  The dispensing operation consists of loading from one tank to another.
  -  The dispensing operation is a calibration.
  -  The dispensing operation was carried out at an external service station
- **Device** – Name of the fuel dispenser from which the dispensing operation was made.
- **Driver** – Name of the driver who performed the operation.
- **Optional field 1** - The value entered by the mobile application for the optional field 1 is shown (this is visible only if the system preference 'optional fields' is active).
- **Optional field 2** - The value entered by the mobile application for the optional field 2 is shown (this is visible only if the system preference 'optional fields' is active).
- **Calibration factor** – The calibration factor of the dispenser at the time of dispensing operation.
- **Odometer** – Value of the entered odometer, if the device is enabled to manage the odometer.
- **Pump** – Name of the pump used to dispense.
- **Quantity** – Quantity dispensed in the unit of measurement chosen in the configuration section (see chapter 8).
- **Tank filled** - (Only available with the Tank Watchdog add-on and the Maply add-on) - This indicates the tank into which the dispensed fluid has been loaded.
- **Coordinates** - (Only available with Maply add-on) - The GPS position of the phone at the time of dispensing operation.
- **Working area** - (Only available with Maply add-on) - Name of the area in which the telephone was located at the dispensing time.
- **Company** - (Only available with Maply add-on) - Third-party company for which the dispensing operation was made.
- **Number of registration** – Number of registration entered at the time of the dispensing operation.
- **Fluid** – (only available when the Tank Watchdog ADD-ON is activated). Fluid dispensed

- **Modify dispensing operation** – It is possible to modify the dispensing operation fields through the panel:

**EDIT DISPENSE** [X]

Reg. Number \*

FG789LM

Odometer \*

17821 Km

SAVE

The date and time of this dispensing operation can be set only for dispensing operations with Piusi Supreme controllers which do not have a date.

**EDIT DISPENSE** [X]

Date ( UTC)

01/01/2000 12:00 AM

Reg. Number \*

6D84948

Odometer \*

0

SAVE

- **Edit dispense**

**EDIT DISPENSE** [X]

Driver

Axel Monroe

Date (UTC+01:00)

12/02/2020 03:40 PM

Vehicle

DF234HG

Odometer (1800 Km) \*

1800 Km

External station

ENI +

Quantity L \*

50.00

Price € \*

65

Did you refill the vehicle with ADBLUE?

YES  NO

Notes

External dispensing photo

1 2

SAVE



- Editing a dispensing operation to a third-party company** - (Only available with Maply add-on) - The company to which the dispensing operation was made and the corresponding registration number can be modified.

EDIT DISPENSE
✕

---

Third-party company \*

Farmer

Reg. Number \*

EXCAVATOR

SAVE

- Editing of a load operation** - (Only available with Maply add-on) -The tank into which the fluid was loaded can be modified. This change automatically creates an unloading movement on the old tank and a loading movement on the new one.

EDIT DISPENSE
✕

---

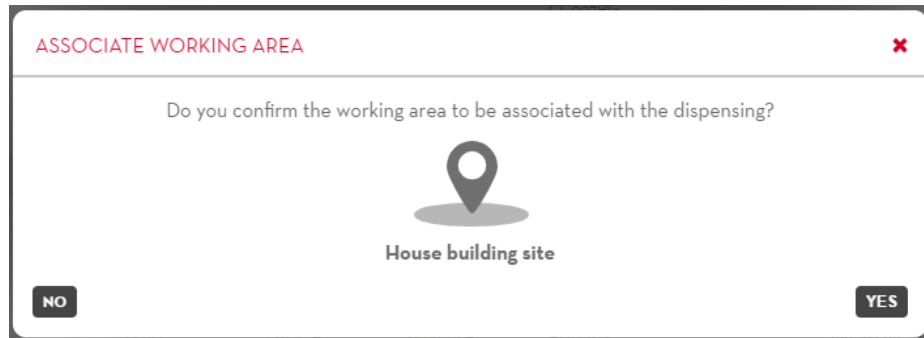
Tank

Tank Truck 2

SAVE

- **Associate a working area** - If a dispensing operation is lacking co-ordinates or the co-ordinates are present but the working area was not drawn during the dispensing operation, it will be possible to associate an area with the dispensing operation manually by clicking (+) the button
  - If the coordinates of the dispensing operation are contained in an area created after the dispensing operation was made, you will be asked whether you wish to proceed with the association.

**CAUTION:** This operation is not reversible.





- If the co-ordinates of the dispensing operation are not contained in any existing working area, it will be possible to create a new one with the co-ordinates of the dispensing operation as its centre (if an area is created using the co-ordinates of a dispensing operation, the position of the centre cannot be changed).

**CAUTION:** This operation is not reversible.

- If the dispensing operation has no coordinates, it is possible to associate any existing working area with it or create a new one.

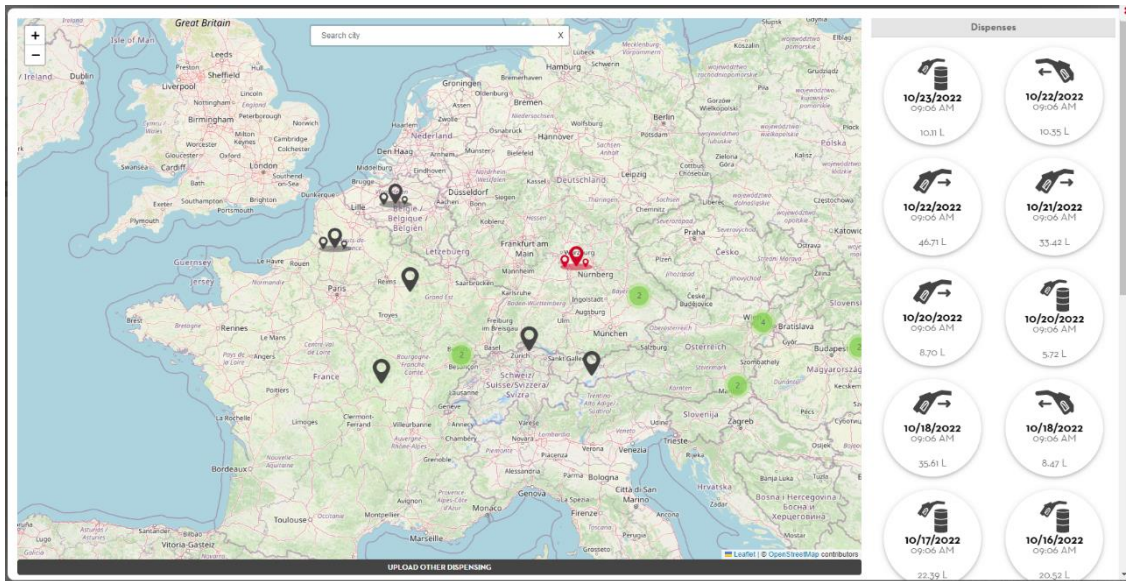


- **Print ticket** – Generates the PDF file of the ticket created by the mobile application at the end of the dispensing operation. **Caution:** the ticket is available for download only if the mobile application has correctly synchronized its data.
- **View odometer photo** - Press the button  to view the photo of the odometer associated with the dispensing operation (the odometer photo is uploaded by the driver using the mobile application when creating a new dispensing operation)
- **View photos attached to external dispensing operation** - Press the button  to view the receipt photos attached to the external dispensing operation.
- **Show dispensing location on map (if Maply add-on is active)** - Pressing the button opens a window that shows the dispensing location on a map. The button appears yellow if the 'dispensing management' option on the dispenser is set to 'Report dispensing outside areas of operability' (see chapter 2.1.1) and the dispenser was at a position during the dispensing where you should not dispense.

It is also possible to generate a report on a PDF file of the dispensing operations made by pressing the button  /  and then .



## 7.1.2 DISPENSING OPERATION REPORT ON MAP


Press the **REPORT ON MAP** button to display all the dispensing operations made on a map.



In detail:

A. Map - There are two different types of position identifiers in the map:

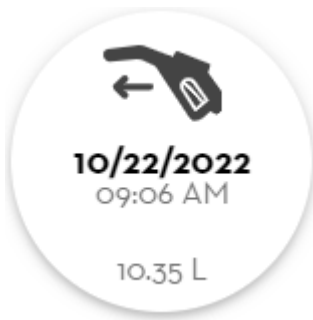
-  This identifies a working area, which groups all dispensing operations made in that area.
-  This identifies a single dispensing operation that is not within any area. This marker appears in yellow if the 'dispensing management' option on the dispenser is set to 'Report dispensing outside the areas of operability' (see chapter 2.1.1) and the dispenser during dispensing was in a position where it should not be dispensed.

**CAUTION:** Many markers in a small portion of the map will be automatically grouped  where the number inside identifies the number of positions in the area.

B. Location identifiers (20 per page) are loaded into the map to view more click on the

**UPLOAD OTHER DISPENSING** button.

C. **Dispensing operations** - This section shows a list of all dispensing operations made at the position indicated by the position indicator. Each dispensing operation is represented in this way:



- **Type of dispensing operation** - This is represented by the icon (for the meaning of the icon see Chapter 7.1.1)
- **Date**
- **Time**
- **Quantity**

Pressing an item in the list to display all information.

**10/22/2022 09:06 AM** ✕  
 10.35 L

---

Date	10/22/2022
Hour	09:06 AM (UTC+02:00)
Device	80050002
Pump	PUMP A
Vehicle	GB891BX
Odometer	1 667 Km
Dispensed quantity	10.35 L
Driver	Mario Rossi
Working area	Farm 1 - CornField

Click on the button ✕ to close the detail of a dispensing operation.

## 7.2 CONSUMPTIONS REPORT

You can filter consumption by vehicle, vehicle category and vehicle company. Filters can be combined with each other.

After selecting the desired filter, press the button **CREATE REPORT** to generate a new report. A list of dispensing operations grouped by vehicle and the routes travelled over time is displayed. The current consumption and the total kilometres/miles driven (or working hours) are shown for each vehicle.

You can export the displayed data to a PDF file by pressing the button **EXPORT PDF** and then **DOWNLOAD ✓**

### Important:

Consumption is calculated only for vehicles with the 'Fuel Economy' function active (see Chapter 5.1) and starting from the refuelling operations made after the function has been activated.

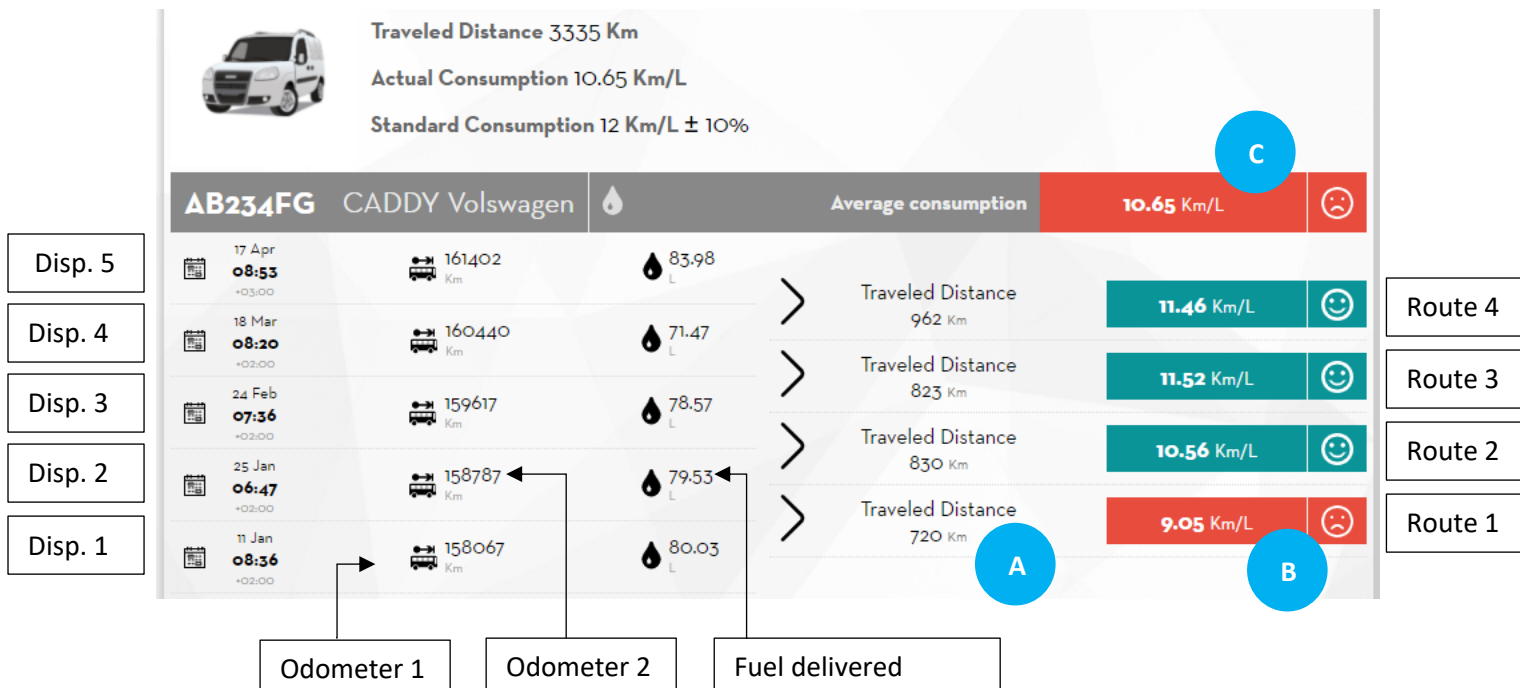
### 7.2.1 CONSUMPTION CALCULATION

If the odometer reading is expressed in kilometres or miles, the fuel consumption of each route is obtained by dividing the distance travelled since the last refuelling operation and the amount of dispensed fuel. Otherwise, if the odometer reading is expressed in hours, the consumption is obtained by dividing the amount of fuel dispensed and the time elapsed since the last refuelling operation. These calculations assume that the vehicle tank is always completely filled.

The average consumption of a vehicle is calculated as an average of the consumption of each individual route it has travelled.

#### EXAMPLE:

The fuel consumption report in the following image indicates that the vehicle was refuelled 5 times between January and April, and therefore covered 4 routes:



The consumption of the first route is calculated as follows:

- The **distance travelled (A)** is obtained from the difference in the odometers of the two dispensing operations.
  - $(\text{odometer } 2 - \text{odometer } 1) \text{ Km} = (15\ 8787 - 15\ 8067) \text{ Km} = 720 \text{ Km}$
- The **average consumption of the route (B)** is obtained from the ratio of the distance just calculated and the amount of fuel dispensed at the end of the route.

$$\text{○ } \frac{\text{Traveled Distance}}{\text{Amount of fuel dispensed}} = \frac{720 \text{ Km}}{79.53 \text{ L}} = 9.05 \text{ Km/L}$$

The **average consumption of a vehicle (C)** is therefore the average of the averages of the consumption of each route, in our case:

$$\begin{aligned} \circ \quad & \frac{(route\ consumption\ 1) + (route\ consumption\ 2) + \dots + (route\ consumption\ n)}{n} = \\ & = \frac{9.05 + 10.56 + 11.52 + 11.46}{4} = 10.65\ Km/L \end{aligned}$$

With  $n$  = number of routes travelled



## 7.2.2 VEHICLE CONSUMPTION EVALUATION

The system uses the graphic rules defined in the following table to evaluate the vehicle consumption trend:

Vehicle odometer measuring unit	Current consumption < LI	LI<= Current consumption <=LS	Current consumption > LS
Kilometres or Miles	☹️	😊	😊
Hours	😊	😊	☹️

Key:




Consumption too high

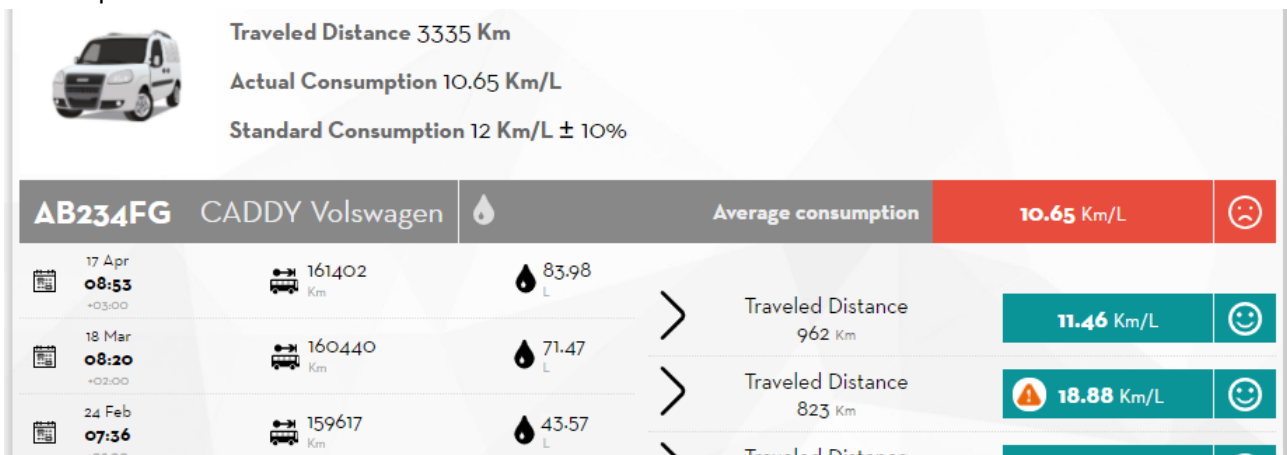


Consumption within limits

**LI** (lower consumption limit) = Nominal consumption – (Tolerance % applied to the nominal consumption).

**LS** (upper consumption limit) = Nominal consumption + (Tolerance % applied to the nominal consumption).

A warning icon  is shown next to the consumption if the current consumption is higher than the upper consumption limit (or lower for vehicles with units in hours). This warning instructs the site manager to check whether the data entered by the driver is correct. The warning also appears in the drivers' consumption section.



The evaluation is shown on the vehicle badge in the grid view.

If the vehicle has more than one tank, the evaluation shown is always the one with the worst consumption. On the other hand, the vehicle detail sheet always shows the consumption data relative to the products of all the tanks of the vehicle.

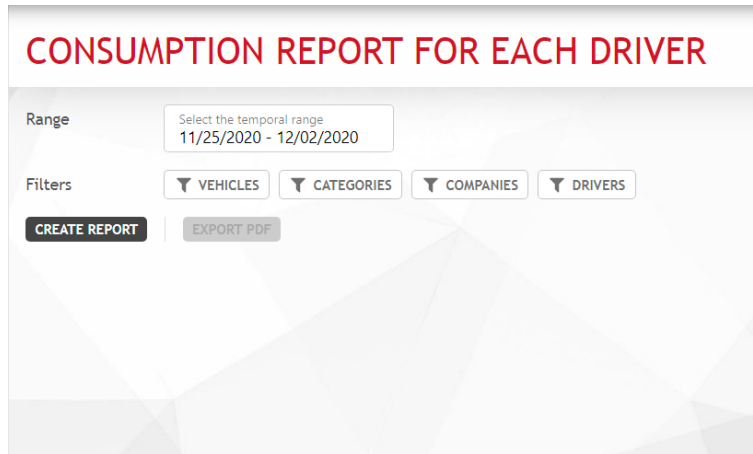


### 7.3 CONSUMPTION REPORT FOR EACH DRIVER

A report of the drivers' consumptions for each vehicle of the site can be generated if the 'Enable consumption per individual driver' function is activated in the FUEL ECONOMY > Preferences section (see Chapter 5.4).

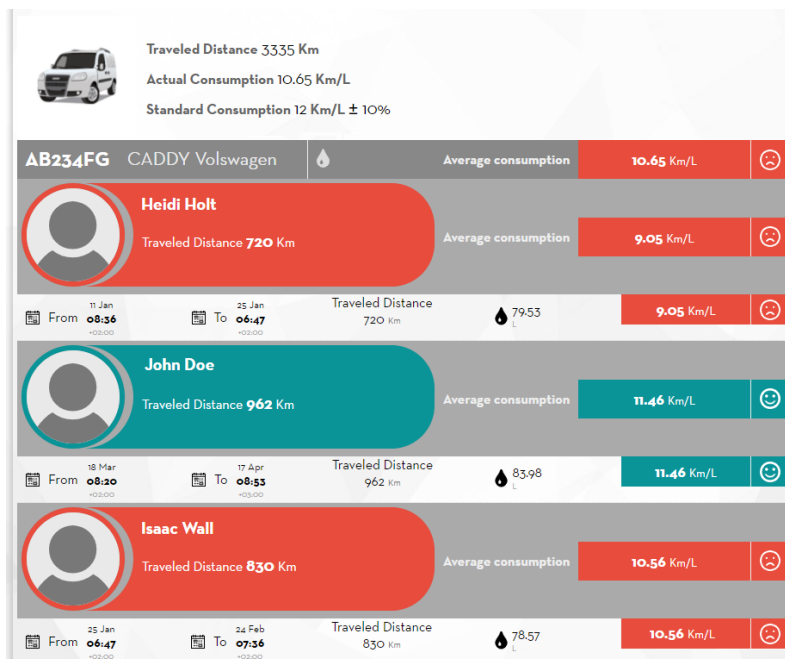
By activating this function, after entering the odometer, before dispensing, the mobile app will ask you whether you are user who drove the last route; if so, the calculated consumption will be attributed to you, otherwise it will be associated with the last driver to have dispensed for the vehicle.

The average consumption of drivers is calculated in a similar way to that of vehicles.



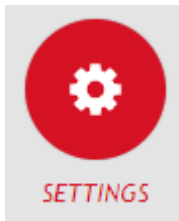
You can filter consumption by vehicle, vehicle category, vehicle company and by the driver. Filters can be combined with each other.

After selecting the desired filter, press the button **CREATE REPORT** to generate a new report. The routes covered by the drivers with the vehicles of the site and the respective fuel consumption are displayed.



You can export the displayed data to a PDF file by pressing the button **EXPORT PDF** and then **DOWNLOAD** ✓

## 8. CONFIGURATION



The CONFIGURATION section, which can be reached by pressing the menu icon shown on the side, is the section where you can configure system preferences, manage users to access the Web Application, and activate new extensions for your site.

### 8.1 GENERAL PREFERENCES

## SETTINGS

Preferences

Site Owner

Users

ADD-ON

Deleted devices

API

Export

Uploading data

### USER

Language English ▼

Measurement Unit Liters ▼

Date Format DD/MM/YYYY ▼

Time Zone (UTC+01:00) Amsterdam, Berlin, Bern, Rom ▼

Time Format 12 Hours ▼

### SITE

Allow entering of Reg. Num. manually from APP?  YES  NO

Optional fields  YES  NO

Optional field 1   
Number between 0 and 65535

Optional field 2   
Text with maximum length 16 characters

Enable receipt reception on mobile application?  YES  NO

Currency EUR - Euro ▼

Enable custom fields for the Export APIs  YES  NO

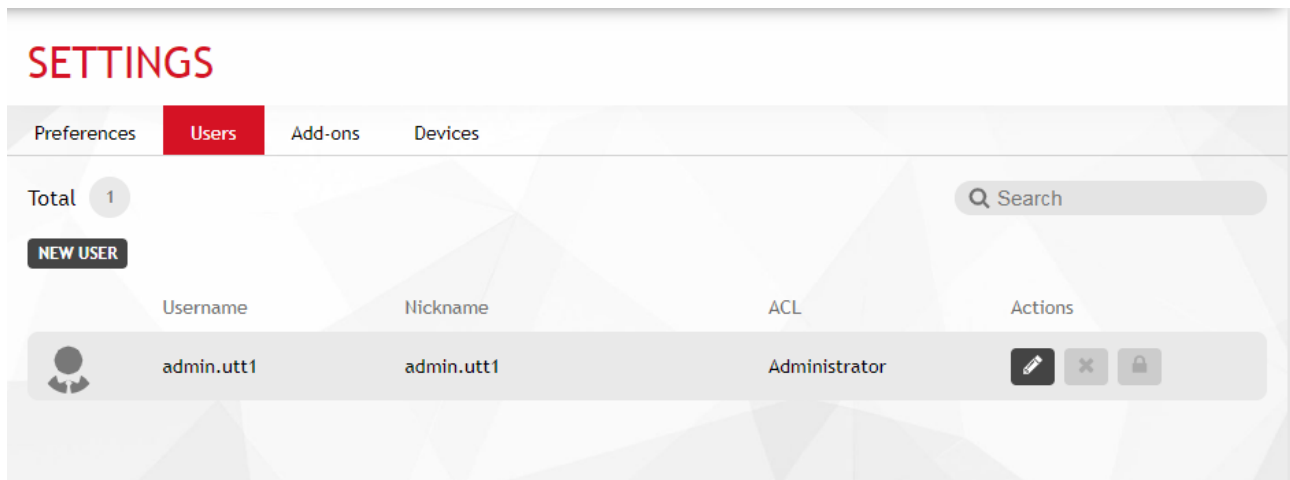
Ibutton reader
 Manual

SAVE

From this video page you can configure:

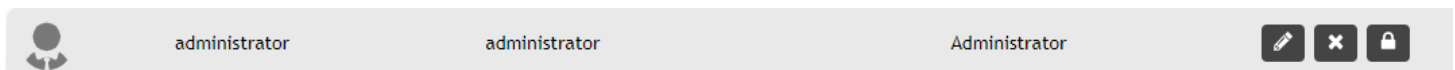
- **Language** – The language in which the Web Application is displayed.
- **Unit of measurement** – Unit of measurement with which the dispensed quantities are to be displayed.
- **Date format** – Date display format (DD/MM/YYYY, MM/DD/YYYY).
- **Time format** – Time format display (12 hours, 24 hours).
- **Time Zone** - Time Zone Setting. This preference is used to identify the geographical area from which the web app is used
- **Manual registration numbers** – You can choose whether you want to manually enter the registration numbers from the mobile application or let them be created only by the web application. If the Fuel Economy add-on is active, this preference is automatically set to 'NO' and you cannot change it as long as the add-on is active.
- **Optional Fields** - Enable the preference if you want to manage two additional registries for dispensing. You can assign any name you like to identify the new fields.  
The additional fields are of two different types. The optional field 1 accepts only positive integers (the maximum allowed value is 65535 ) and the optional field 2 is alphanumeric (maximum 16 characters).
- **Enable receipt reception on mobile application?** – If this function is disabled, tickets will no longer be generated on the mobile app following a payment.
- **Currency** - This is used to select the currency in force in the country where the b.smart site is installed. All prices/costs shown in the application will be displayed in the selected currency (no conversions are applied if the currency is changed).
- **Enable custom fields for Export APIs** - Enable this function to be able to assign custom fields for the main items using the web app. These values are added to the items in the read calls of the Export API (see Chapter 8.5.1) and the export paths (see Chapter 8.6). They do not appear in any reports. They are useful for mapping B.Smart items with ERP.
- The configuration form can be used to choose which items to enable this function and to customise the name of the custom fields for each one.

## 8.2 USERS





From this video page you can add, edit, disable and delete users who have access to the Web Application. A disabled or deleted user will no longer be able to access the site from the web application.

In particular, the following information is displayed:



- **User role** – User privilege level:

-  Administrator user. He/she has complete control over the system.
-  Viewer user. He/she can only view the data, but it cannot add, modify or delete elements of the site (drivers, registration numbers, devices).

- **Username** – Unique identifier of the user you use to access the Web Application.
- **Nickname** – Identifier to recognize the user.

The detail of the user privileges is described in the following table:

Section	Action	ADMINISTRATOR	VIEWER
Drivers	Viewing drivers	YES	YES
	Adding driver	YES	NO
	Modifying driver	YES	NO
	Deleting driver	YES	NO
	Disabling/enabling driver	YES	NO
Reg. Numb.	Viewing Reg. Numbers	YES	YES
	Adding Reg. Number	YES	NO
	Modifying Reg. Number	YES	NO
Dispensers	Viewing dispenser	YES	YES
	Viewing dispenser pumps	YES	YES
	Viewing drivers associated with a dispenser	YES	YES
	Modifying dispenser	YES	NO
	Modifying pump	YES	NO
	Modifying dispenser/drivers association	YES	NO
	Change dispenser/vehicle association	YES	NO
	Disabling/enabling pump	YES	NO
	Deleting dispenser	YES	NO
Users	Viewing users	YES	NO
	Adding user	YES	NO
	Modifying user	YES	NO
	Disabling/enabling user	YES	NO
	Deleting user	YES	NO
Settings	Viewing user's preferences	YES	YES
	Modifying user's preferences	YES	YES
	Viewing active AddOns	YES	YES
	Activating new AddOns	YES	NO
	Activating a deleted device	YES	NO
Report	Viewing dispensing operation list	YES	YES
	Viewing graph	YES	YES
	Modifying dispensing operation	YES	NO
Tank Watchdog	Tank Manager, movements, distributors, and costs	YES	NO
	Movement reports and Cost tendencies graphs	YES	YES
Fuel economy	Edit the vehicle, category and external station registries	YES	NO
	Add an external supply	YES	NO
	Reset the residual quantity	YES	NO
	Edit module preferences	YES	NO
	View vehicle and driver consumption reports	YES	YES
	Modify master data of working areas, third-parties companies and third-parties registration numbers.	YES	NO
Maply	View the report on a dispensing operation map.	YES	YES
	Edit Maply add-on preferences.	YES	NO

### 8.3 ADD-ON

Total 2

Insert new ADD-ON code  **ACTIVATE**

Type	Code	Purchased	Expiration	Status
Drivers (+10)	P10HDADAH5GDG			✔ Active
Level Indicator	LIERYE743554E545WE	03/03/2020	06/03/2020	✔ Active

On this video page, you can view the list of active add-ons active for your site and activate new ones. After purchasing a new add-on, you must enter its code and press the button **ACTIVATE** to activate it.

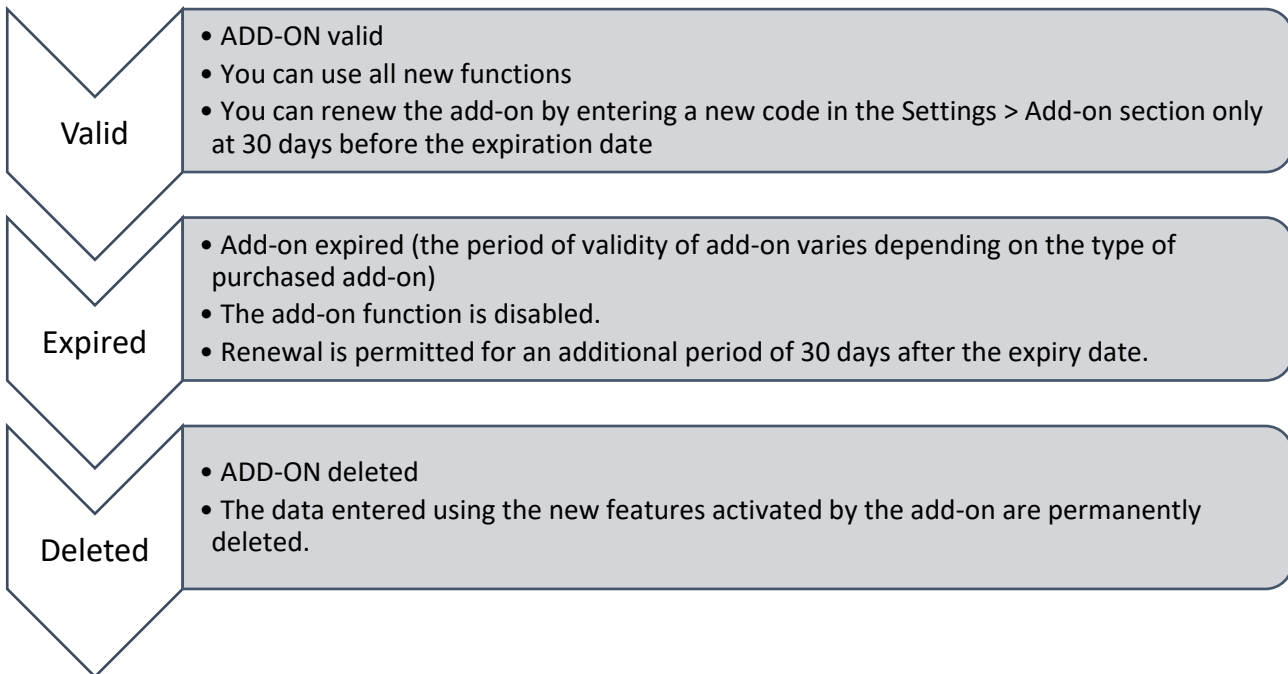
Perform the same procedure if you need to renew an expiring add-on code.

*Caution*

- It is not possible to activate the same add-on code on different sites.

### 8.3.1 ADD-ON EXPIRATION AND RENOVATION

The life flow of any add-on upon expiration is represented by the following diagram:



Important note:

- A reminder is sent to the portal user's e-mail when the add-on is nearing expiry date.
- One-time fee add-ons never expire.
- A message like the following one will appear when an add-on expires (but can still be renewed):

The **TANK WATCHDOG** ADD-ON is expired! To continue using this feature you need to purchase and activate another ADD-ON. The ADD-ON will be permanently deleted on **12/04/2020**

- When the 'Tank watchdog' add-on expires the tank levels are not synchronised. Therefore, if you decide to renew the add-on, you will need to adjust the correct quantity on all virtual tanks.



## 8.4 DEVICES

**SETTINGS**

Preferences Users Add-ons **Devices**

Total 1

S/N	Name	Model
18120206	MCBOX_AC1P	MC_BOX_SMART_AC1P

In this section (visible only to users with 'administrator' privilege level) you can see the list of devices deleted from the site. It is not possible to reactivate a deleted device, but, if it has been deleted by mistake, to bring it back into operation in the same site, you must:

1. Perform a hardware reset using the button on the controller panel (see the controller manual);
2. Connect to the controller by the phone application and repeat the discovery procedure indicating the credentials of the current site.
3. When discovery is complete, start the recovery procedure.
4. If the recovery procedure is successful, the fuel dispenser is restored to factory default data in the same site, and the panel must be reconfigured.

## 8.5 API

# SETTINGS

Preferences
Site Owner
Users
ADD-ON
Deleted devices
API
Export
Uploading data

Enable API for Export  YES  NO

---

Client ID PIUSI-o3o2-V5KJB

Client Secret EFA5AC11C16542F8oE7AA5CF84DAFA4B

Credentials GENERATE

---

Address <https://apibsmartexport-ita01.piusi.com>

Documentation <https://apibsmartexport-ita01.piusi.com/docs>

From this section you can enable interfacing with APIs. APIs are a service that allows you to obtain your site data. In order to make calls, you must use the credentials provided and generate a token.

The procedure is described in detail on the documentation page, together with the list of data structures that can be obtained.

### 8.5.1 Custom fields

When custom fields are enabled (see Chapter 7.1), **three attributes** of up to **40 alphanumerical characters** per item can be assigned. A new tab will appear after enabling each item.

The items subject to custom fields are:

- Drivers
- Equipment
- Registration Number
- Fluids (*with Tank Watchdog active*)
- Suppliers (*with Tank Watchdog active*)
- Tanks (*with Tank Watchdog active*)
- External Stations (*with active FEM*).

Custom fields can be assigned directly to new items (drivers and registration numbers) by importing from an Excel file (see chapter 8.7) or by importing from Export API.

These fields are added to the read model using the Export API:

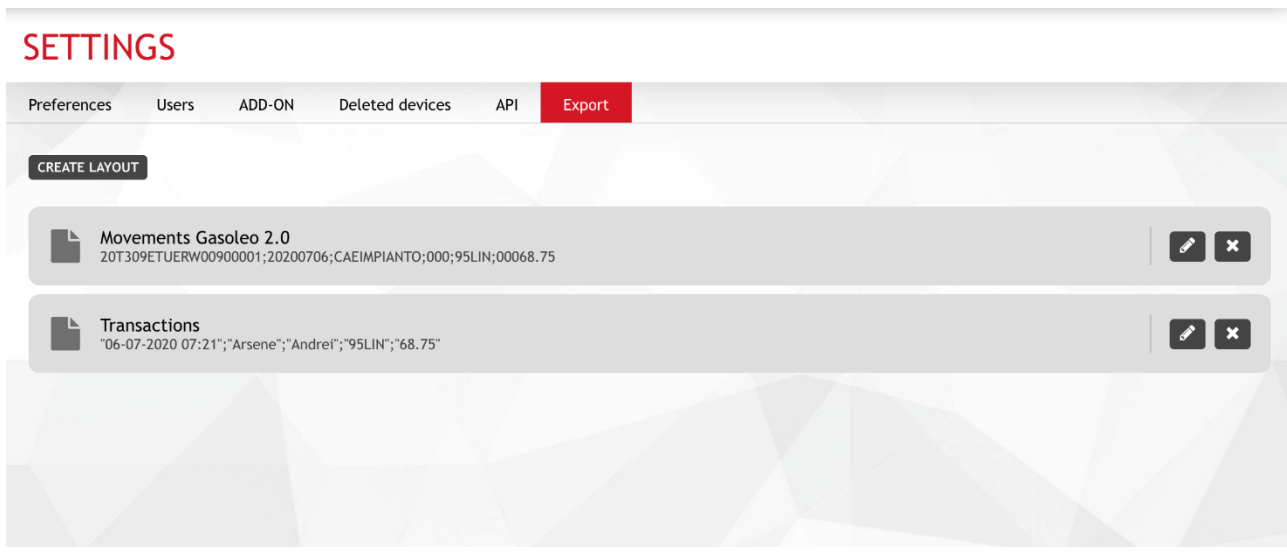
```
DRIVER
{
  "email": "string",
  "firstName": "string",
  "iButtonCode": "string",
  "id": 0,
  "idImage": 0,
  "image": "string",
  "lastName": "string",
  "pinCode": "string",
  "status": "O_ENABLED",
  "totQtDispensed": "string"
  "customFields":
  {
    "customField1": "string"
    "customField2": "string"
    "customField3": "string"
  }
}
```

Note: If all three custom fields are empty strings, the *customFields* field will be null.

```
"customFields": null
```

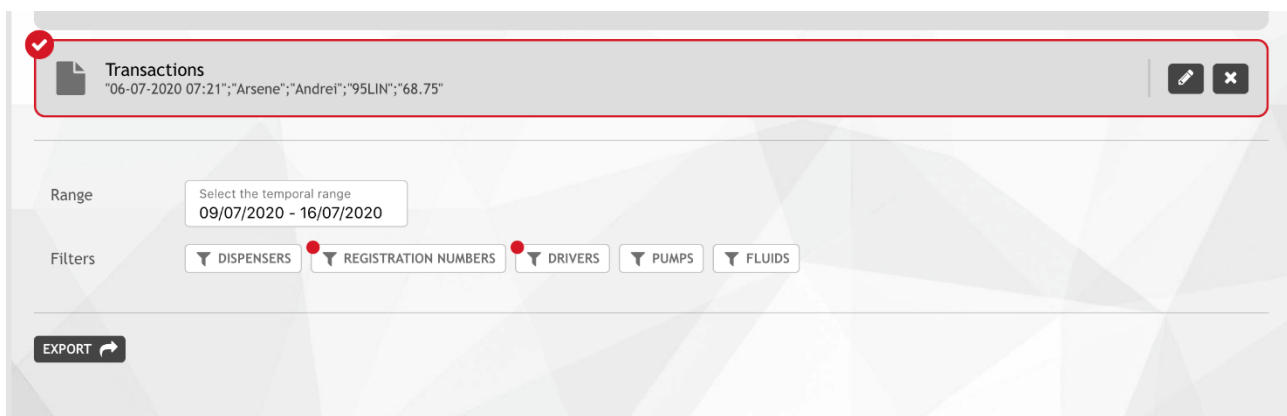
Custom attributes can be exported using the Export tool (see next chapter).

## 8.6 EXPORT



From this section you can export text files with a custom path.

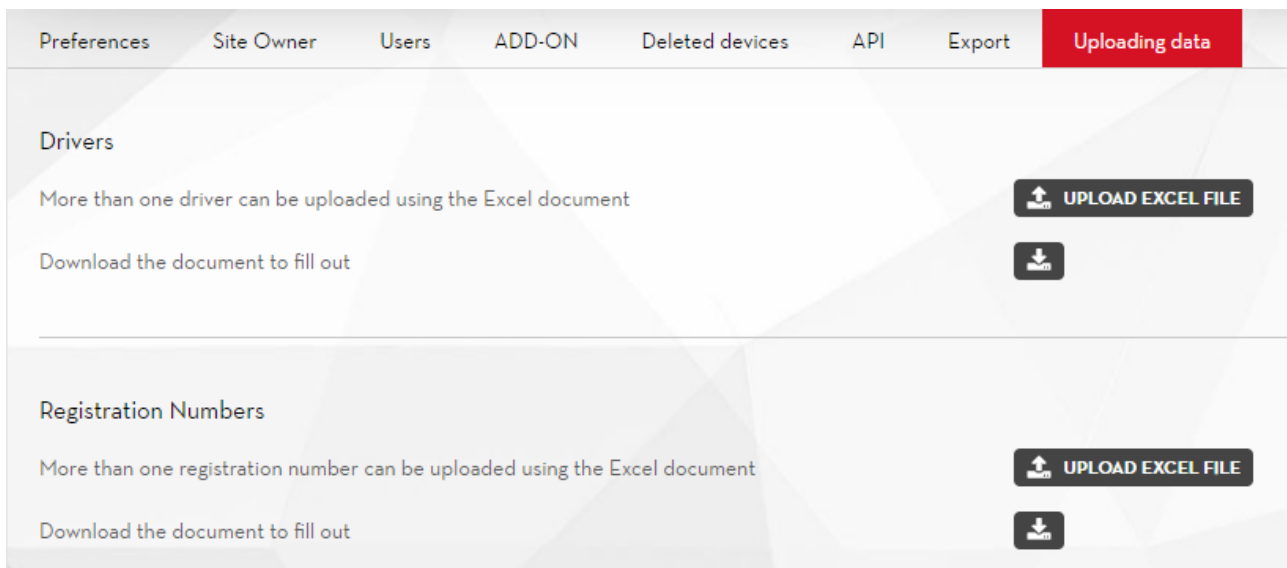
In each path you can define the required columns, along with a wide range of options to format the various fields.




To export a path, select it and press the button  after applying the appropriate filters


## 8.7 Uploading data

This section can be used to start an automatic procedure for importing drivers and registration numbers from an Excel file.



Press the button,  to download a file ready to be compiled.

The number and type of fields available within the file are dynamically generated according to active “Add-Ons” and user preferences.

Once the data have been entered in the file, press  **UPLOAD EXCEL FILE** to select the compiled file and finally press **CHECK DATA** to read, validate and enter the data into the management system.

## 9. FAQs

### 1) HOW DO I ACTIVATE THEMAPLY ADD-ON?

To activate theMAPLY ADD-ON you must have purchased an activation code for the MAPLY ADD-ON. The code must be entered in the Add-On section (see Chapter 8.3).

### 2) WHAT FEATURES HAVE BEEN INTRODUCED BY THEMAPLY ADD-ON?

With theMAPLY ADD-ON you can:

- Geo-localise dispensing operations and see them on a map.
- Track the dispensing operations of your vehicles and those of third parties.
- Group dispensing operations into defined areas by restricting their operability (Geo-Fencing).
- Manage the loading operation or load from one storage tank to another storage tank (only if TANK WATCHDOG ADD-ON is active).
- Filter the dispensing operations made in a specific working area or to a specific company in the reports.
- Export GPS coordinates and other dispensing operation data to third-party systems.

### 3) I CAN USE THE MAPLY ADD-ON WITHOUT THEFUEL ECONOMY ADD-ON?

Yes, you can use the features introduced by the Maply add-on without the Fuel Economy Add-On .

### 4) HOW IS A WORKING AREA CONFIGURED?

Working areas are configured from the “Working Areas” submenu in the Maply Add-On (for more information, see Chapter 6.3).

### 5) THEMAPLY ADD-ON CAN BE USED TO CREATE VEHICLE REGISTRATION NUMBERS FOR YOUR COMPANY AND THIRD-PARTIES. IS THERE A MAXIMUM NUMBER OF COMPANIES AND THIRD-PARTY VEHICLE REGISTRATION NUMBERS THAT CAN BE ENTERED?

No, there is no maximum number. You can enter as many companies and third-party vehicle registration numbers as you like.

### 6) DOES THE MAPLY ADD-ON ALLOW ME TO DISPLAY/TRACK THE COMPLETE ROUTE OF THE VEHICLES?

No, the Maply add-on can be used to see where individual dispensing operations were made but do not include any vehicle route tracking functions.

### 7) ARE THE MAPLY ADD-ON SETTINGS EDITABLE?

You can always change the settings of the Maply add-on using the configuration submenu (.

### 8) WHERE DO I FIND THE CODE FOR THE I-BUTTON?

The I-Button code is printed on the back of the key. The code consists of 7 alphanumeric digits highlighted in the image:

