



# **GPS TRACKING SYSTEM**

**USER MANUAL**

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# INTRODUCTION

## General Information about System

**GeoLoc GPS Tracking System** (hereinafter the System) is designed for monitoring mobile or stationary objects (vehicles, equipment, workers, competitors, children, pets, etc.).

Tracking of objects includes:

- watching the location of objects and their movements on the map;
- monitoring changes in certain object parameters, e.g. speed, fuel level, temperature, etc.;
- object management (command execution, automatic task execution) and drivers (texts, calls, appointments);
- receiving notifications about changes in the object status;
- monitoring object movement along a given route;
- interpretation of information retrieved from the object in various reports (tables, graphs);
- and much more.

Special devices are used for tracking, such as trackers or programs installed on smartphones of tracked objects. With a certain frequency, the devices receive their location and transmit information over the GSM network to the tracking server. It is possible to connect sensors and other equipment (temperature, pressure, equipment status, fuel level sensors; alarm, etc.) to trackers via analog and digital inputs.

## Basic Concepts of System

This section briefly describes the terms used below and provides a list of the main concepts of the system.

**Object (tracked object)** is a vehicle, person, animal, a piece of equipment or another moving or stationary object that is being tracked. In the GeoLoc system, an object is characterized by a unique object identification code in the system (ID, IMEI). Each object has its name, icon, description of the type of equipment used, connected sensors, etc.

**Trend** is a description of additional data retrieved from objects. It includes the data source (number and type of input), the minimum and maximum values received, the type of installed equipment (ignition indication device, alarm button, fuel level meter, etc.) Trends often describe sensors connected to devices.

**Geozones (geographical zones)** are certain areas on the map that the user is interested in and thus they require special attention. They help control the object movement within certain areas or beyond. Geozones have a wide set of styles for displaying on the map. They can limit the movement speed.

A geozone can look like a circle with a random radius, a polyline (e.g. a certain street, route) or a polygon (a city or enterprise premises).

In addition to visual enrichment of the map, geozones can be used in reports and notifications. They can also act as control points when creating routes.

**A group** is a number of objects, geozones, or drivers classified by some attribute. Groups help filter objects when searching and structuring system concepts.

**An event or alarm** is the information about a change in the object status. An event in the system is generated based on the data retrieved from an object (various sensors readings, location, speed, etc.). For example: speeding, fuel draining, pressing the alarm button, etc.

**Notifications.** The GeoLoc satellite monitoring system allows configuring receiving notifications about various alarms (for example, speeding, object location, sensor readings, etc.). Information about current and archived alarms is available in the system web interface and can be e-mailed or texted to the user additionally.

**A route** is a sequence of geozones (control points) that the tracked object has visited or is to visit. You can set certain time periods of movement between geozones. The route can be used to control the movement of public transport, delivery services, etc.

**Task** is the requirement of being in a certain place at a given time. A certain position (its coordinates), geozone or the starting point of the route can be the task performance location. An example of a task can be a requirement for a vehicle to be in a certain place at a certain time for loading, or taking the route for a bus.

**Keys and labels** are data storage media that uniquely identify their owner (driver) or vehicle. Identification takes place at the moment of their contact with the reader. This functionality will be useful for organizations where several drivers use the same vehicle, but will only be available for devices with an RFID reader or i-Button (or any other equipment for driver identification).

**Drivers.**GeoLoc allows creating a list of drivers allowed to drive the transport. If the object equipment supports the driver identification by keys and labels (for example, iButton, RFID label), the system in turn will allow linking the information about the object movements to drivers, identify their violations, score penalties.

**Shift** is a description of the working hours of the personnel including the start and end of work, working days. This information is used to track the use of equipment outside of working hours. You can set several shifts.

**Command** is a request sent to the object to perform an action, e.g. take a photo, change the device settings, block the engine and much more. The set of commands supported by the object depends on the hardware and its configuration.

Each **user** or **account** of the system has a unique name (login), email address and password. With this data, users can log in to the system, control their objects (end user) or manage the system itself (administrator, integrators).

**Access rights** are the ability to observe certain elements of the system and perform certain actions on them. First of all, access rights apply to such elements of the system as accounts (users), objects, geozones. Access rights are assigned individually to each user by the service administrator or by the system during the user registration. Access rights can be changed in the control panel interface on the Users tab. A related concept is the **user role**, that is a set of user access rights.

There are 5 main **user roles in the system**:

**Observer**; a user can only monitor the current status and location of objects.

**Demonstration**; a user can view all data from objects, but has no right to edit them.

**User** is a role with full rights to the elements belonging to him/her. The User can manage all the parameters of their objects, can set alerts, geozones, etc., but does not have access to other accounts.

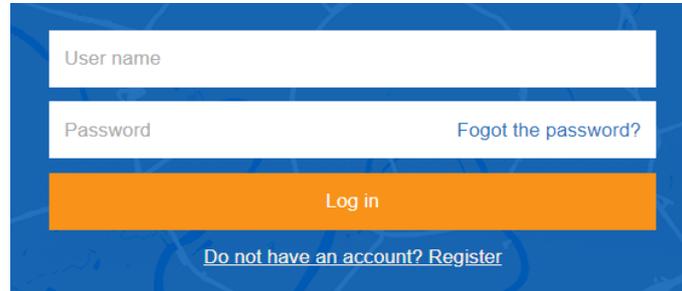
**Integrator** is a role that includes user functions and, additionally, allows creating other users and manage their parameters and objects.

**Administrator** is a role that has full access to system settings and all accounts.

# GETTING STARTED

## User Account

The user must enter a user name (or e-mail) and password to access the user account.



A login form with a blue background. It features a white input field for 'User name', a white input field for 'Password', and a blue link 'Fogot the password?'. Below these is an orange 'Log in' button and a blue link 'Do not have an account? Register'.

The user can create an account either independently or by contacting the system administrator for help.

## User Independent Registration

If the system administrator has allowed independent registration, the user can create an account by filling out the form on the web interface login page, entering all the necessary details, including a password and a valid e-mail address that can be used as a login to access the platform. After the user completes registration, they will be e-mailed with a link to confirm the e-mail address.

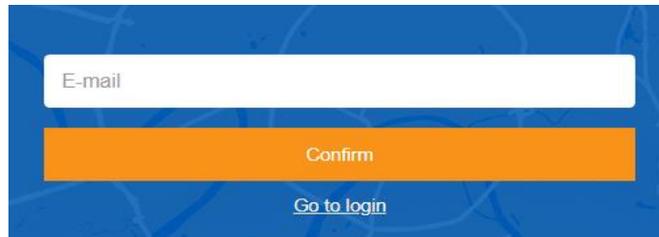
The user account will be blocked until the user confirms the e-mail by clicking on the link.



A registration form with a blue background. It features seven white input fields: 'User name', 'E-mail', 'Post address', 'Phone Ne', 'Organization name', 'Password', and 'Password confirmation'. Below these is an orange 'Register' button and a blue link 'Have an account? Log in'.

# Restoring Access to System

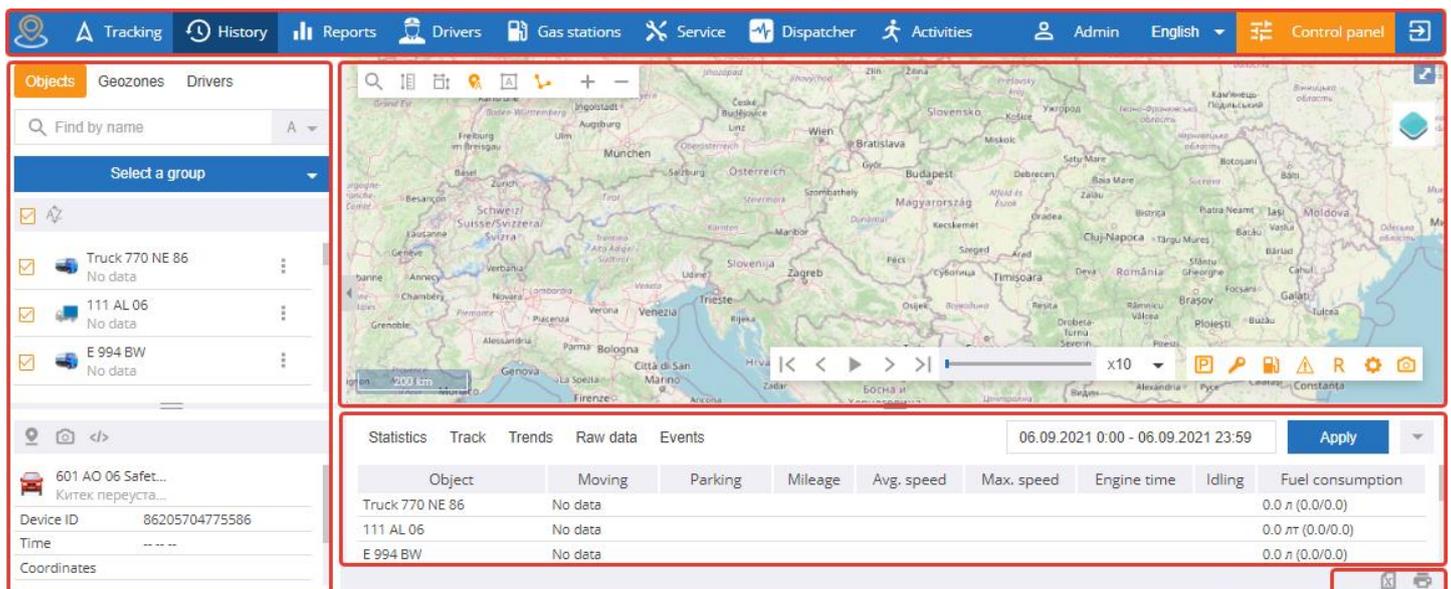
If the user forgets their password, they can restore it by "Forgot your password?" on the login page. In this case, the user will be required to enter the e-mail address stated during registration and follow the link e-mailed by the system.



A screenshot of a password recovery form. It features a white input field labeled "E-mail" on a blue background. Below the input field is an orange "Confirm" button and a blue "Go to login" link.

## USER INTERFACE

### Structure



A screenshot of the user interface showing a top navigation bar, a left sidebar, a main map area, and a bottom data table.

**Top Panel:** Tracking, History, Reports, Drivers, Gas stations, Service, Dispatcher, Activities, Admin, English, Control panel.

**Left Panel:** Objects, Geozones, Drivers. Search: Find by name. Select a group. List of objects: Truck 770 NE 86, 111 AL 06, E 994 BW.

**Main Panel:** Map showing Europe with various cities and regions.

**Bottom Panel:** Statistics, Track, Trends, Raw data, Events. Date range: 06.09.2021 0:00 - 06.09.2021 23:59. Apply button.

Object	Moving	Parking	Mileage	Avg. speed	Max. speed	Engine time	Idling	Fuel consumption
Truck 770 NE 86	No data							0.0 л (0.0/0.0)
111 AL 06	No data							0.0 лт (0.0/0.0)
E 994 BW	No data							0.0 л (0.0/0.0)

In summary, the following basic elements can be distinguished in the interface structure:

- Top panel.

The top panel shows the tracking service provider logo, the list of the main menu sections available to the current user, the authorized user name, and the current system language. Clicking on the language

allows changing the system language. The button which redirects to the system control panel and a log out button are also on the top panel.

- Map. The map is available when working in the Tracking, History, and other sections. As a rule, it takes up almost all the screen. It displays tracking objects, their movements, geozones, etc.
- Workspace. It is located on the left. It helps perform various actions with certain system elements and generates some queries.
- Bottom (information) panel. It contains various data on the operation of the object (time moving, mileage, fuel consumption, etc.) in different sections.
- Additional tools panel. Depending on the contents of the window, the panel contains varying tools; however, there are the universal ones:



demonstrates empty records. It can show or hide empty records in reports, ratings, etc.



exports data to an Excel spreadsheet.



prints data.

## Switching Users. Profile

Click on the name of the authorized user to open a window with two tabs, Users and My profile.

The Users tab contains a list of users specifying their role in the system and the number of objects and geozones they have created. Click on the user name to switch the user. The tab also allows adding new users to the list and edit existing ones. These functions are described in more detail in the control panel in the [Users](#) section.

Users ✕

Users My profile

+ Add user

Account	Role	Objects	Geozones	
	Demonstration	8	2	
	Demonstration	23	0	
	Administrator	21	9	
	Demonstration	41	23	
	Demonstration	19	28	
	Demonstration	14	0	
	Demonstration	2	14	
	Administrator	0	0	

Apply Cancel

The My Profile tab opens the authorized user profile setting window.

Users

**My profile**

Account	<input type="text" value="Admin"/>
Organization name:	<input type="text" value="Organization name"/>
Contact:	<input type="text" value="Contact"/>
Post address	<input type="text" value="Post address"/>
Phone Ne	<input type="text" value="Phone Ne"/>
Email	<input type="text" value=""/>

## Geolocation and language

Timezone	<input type="text" value="(UTC+05:00) Ekaterinburg Standard Time"/> ▾
Language	<input type="text" value="English"/> ▾
Geocoding service	<input type="text" value="GeoTek"/> ▾
System of units	<input type="text" value="Metric"/> ▾

## Change password

Password	<input type="text" value="Password"/>
New password	<input type="text" value="New password"/>
Password confirmation	<input type="text" value="Password confirmation"/>

**Change password****Apply**

Cancel

# SYSTEM SECTIONS

## Tracking

This section allows tracking the current real time status of the object. The user can see the current location of each object, its speed, the state of equipment installed, etc. The current alarms list is displayed in this section. The Figure below demonstrates the section.

The screenshot displays the Tracking system interface. The top navigation bar includes options like Tracking, History, Reports, Drivers, Gas stations, Service, Dispatcher, Activities, Admin, English, and Control panel. The left sidebar has tabs for Objects, Geozones, and Drivers, with a search bar and a list of objects including 'Truck 777 CE 66' and '101 QL 96'. The main area features a map of the Mediterranean region. Below the map is an 'Events' table with columns for Object, Fire time, Revoke time, and Message. An 'Acknowledge' button is visible in the top right of the events section.

Object	Fire time	Revoke time	Message
--------	-----------	-------------	---------

The working area contains the following elements:

- Objects;
- Geozones;
- Drivers;
- Map;
- Events (Alarms).

## Objects

This tab displays the system objects list. When working with objects, tools for searching, filtering, grouping objects and displaying the object status are available.

When selecting an object, detailed information about it is available.

The screenshot shows the 'Objects' tab interface. At the top, there are navigation tabs: 'Objects' (selected), 'Geozones', and 'Drivers'. Below the navigation is a search bar labeled 'Find by name' and a 'Select a group' dropdown. A list of objects is displayed, each with a checkbox and several status icons (Wi-Fi, alarm, parked, moving). A context menu is open for the selected object '333 AE 98 SC', showing options: 'Show on the map', 'Send command to device', 'Show photos from device', and 'Edit'. Below the list, there is an additional tools panel with icons for map, photos, and command. At the bottom, a detailed information panel is open for the selected object, showing fields like Device ID, Time, Address, Coordinates, Altitude, Satellites, and various sensor readings in Russian.

1. The Search Objects and Group Objects window.

2. The panel for filtering objects allows the following:

 – only show objects currently connected to the service;

 – only show objects having an alarm;

 – only show parked objects (vehicles);

 – only show moving objects.

3. Display of the object current status beside the object name:

 – connected to the server (online);

 – not connected to the server (offline);

 – the object is moving: the icon changes according to the speed of movement;

 – the object is idle with the engine started;

 – the object is parked/not moving;

 – the object location is recorded using a mobile network tower (LBS).

 – the current object location is not recorded.

The set of possible statuses depends on the equipment the object has.

4. Opens a context menu with additional functions (show the object on the map, send a command to the device, show photos from the device and edit object data).

5. Additional tools panel for interacting with the selected object:

 – show the object on the map;

 – show photos from the device;

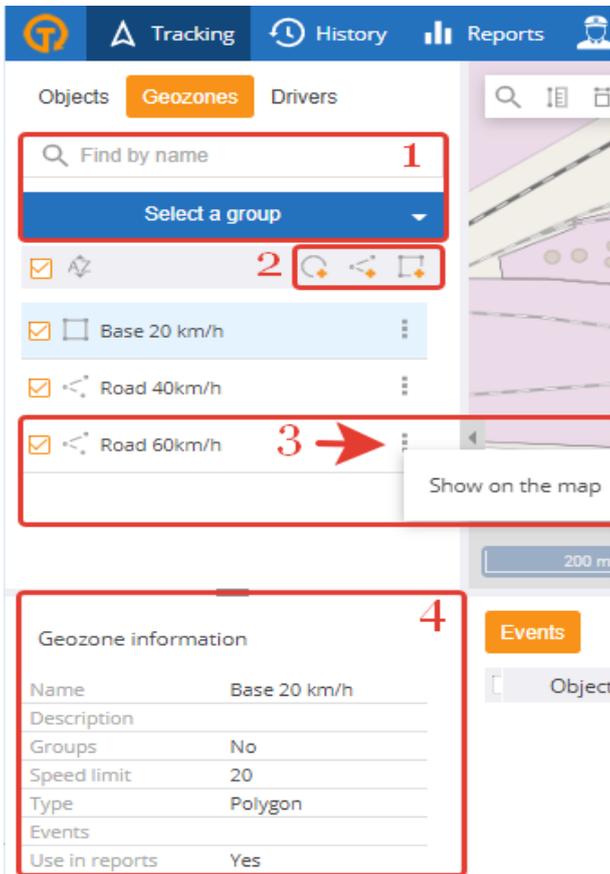
 – send a command to the device.

6. Detailed information.

This box shows detailed information about the object current status, including its location, the state of the inputs, etc.

## Geozones

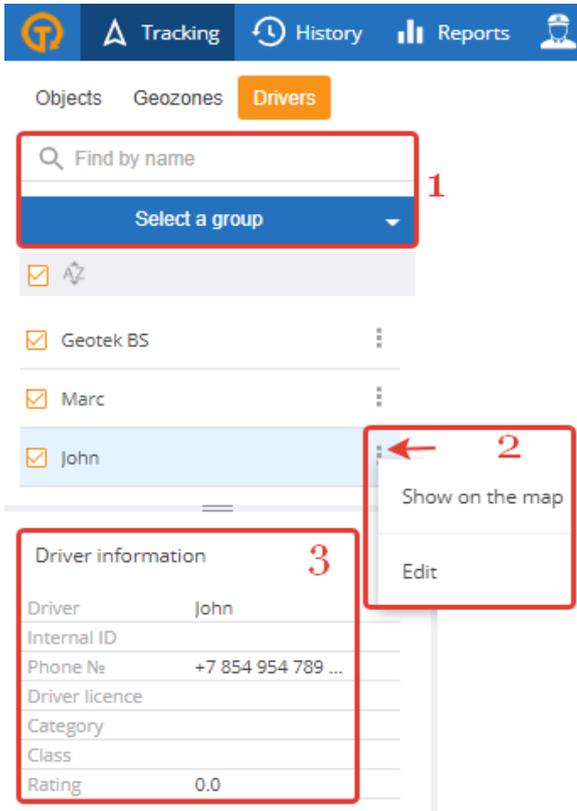
This tab allows working with geozones in the system. When working with geozones, tools for creating, searching, filtering and grouping geozones are available. When a geozone is selected, the map is centered on it and more detailed information about the selected geozone is displayed under the list of geozones. Use checkboxes to control the display of geozones on the map.



1. Field for searching and grouping geozones;
2. Quick creation of a new geozone. A fully-featured geozone editor is available in the control panel;
3. Menu of the geozone;
4. Panel for displaying detailed information about the selected geozone.

## Drivers

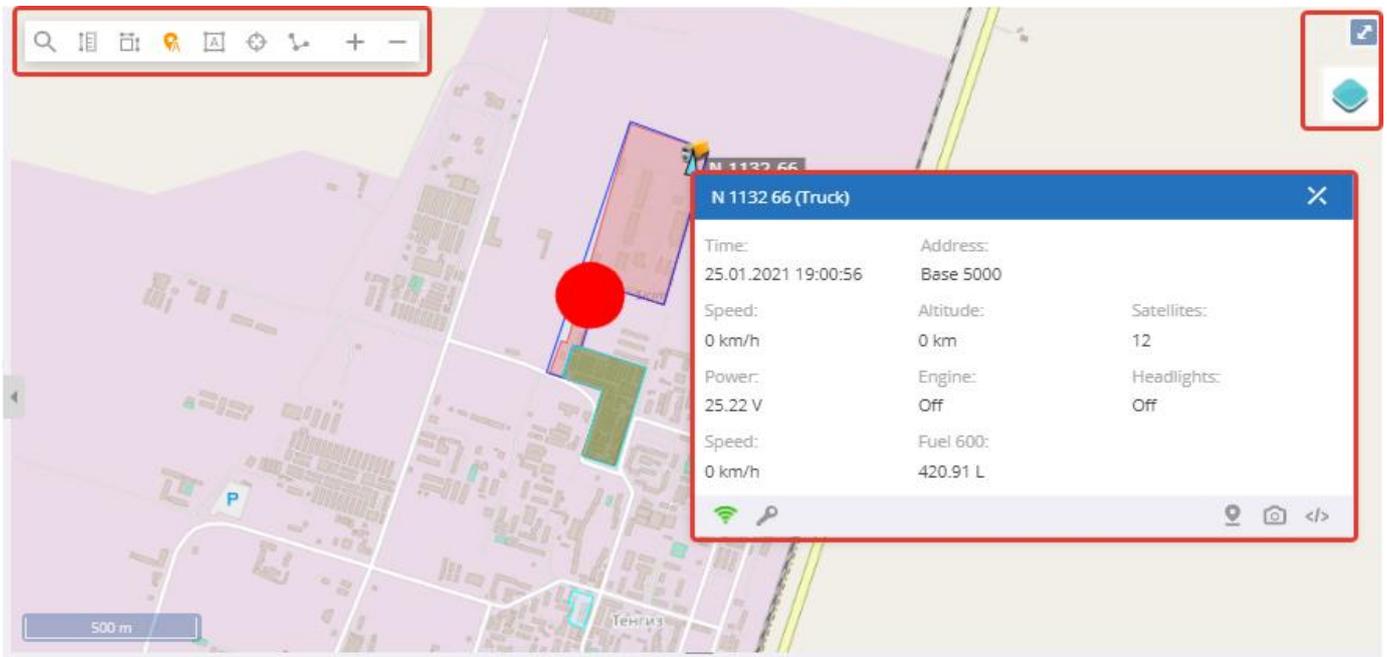
This tab has an interface which is almost identical to the Geozones tab and contains a list of drivers registered in the system.



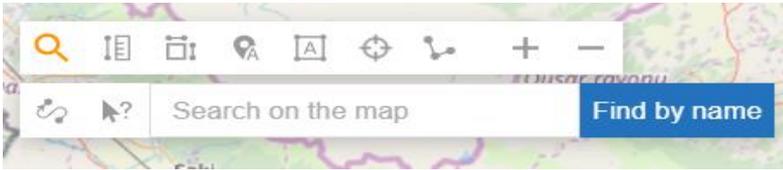
1. Search box by driver name and selection of a group for drivers;
2. The ability to show and edit driver information on the map;
3. Driver information panel.

## Map

The map shows the current position of the selected object. If the user hovers the mouse over an object, a context help window appears with the name of the selected object. Click the mouse on the object to open a pop-up window with detailed information about the object status.



For convenience, the map area contains a number of tools. The main toolbar of the map is located in the top left corner of the map.



-  – displays an additional field for **searching objects on the map** by address or POI names. Click on this icon to reveal additional tools:
-  – **Build a route**. The tool is used to build a route along the roads between two selected points and calculates the distance between them.
-  – **Information about the point**. Click first on the tool, then on an object on the map to learn its address.
-  – **Measurement of the distance between points on the map**.
-  – **Measurement of the area of a polygon**.
-  – **Object names are displayed on the map**.
-  – **Displays the geozone names on the map**.
-  – **Keeps the selected object within the map frame**.
-  – **Draws the object "trail"**. When this tool is activated, the selected moving object previous 2 minute track will be displayed on the map.
-  – **Map scale**. Zoom in/out of the map scrolling the mouse or using this tool.

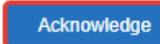
There are additional tools for working with it in the top right corner of the map.

-  – Selects the map background. The list of supported maps is determined by the administrator and may contain Google, Yandex, Bing, OSM, other maps.
-  – Makes the map full screen.

## Events (Alarms)

The panel below the map shows events and alarms related to tracked objects. Each entry is accompanied by the object name to which the event belongs, the time of event activation and deactivation.

Object	Fire time	Revoke time	Message
551 PP 06 CC	25.01.2021 12:56	25.01.2021 12:56	Over speed 70
444 AO 06 FF	25.01.2021 11:03	25.01.2021 11:04	Over speed 91
444 AO 06 FF	25.01.2021 08:11	25.01.2021 08:16	Over speed 92

Use icon 1  to only display events for active objects.

Use icon 2  to turn on or off the sound of notification about active events.

Acknowledge

Use button 3 to confirm that the user has received the selected notifications. After confirmation, the events disappear from the list but remain available when viewing the History and Reports sections.

Use icon 4  to expand/hide this panel or change its size by pulling its upper border 5 .

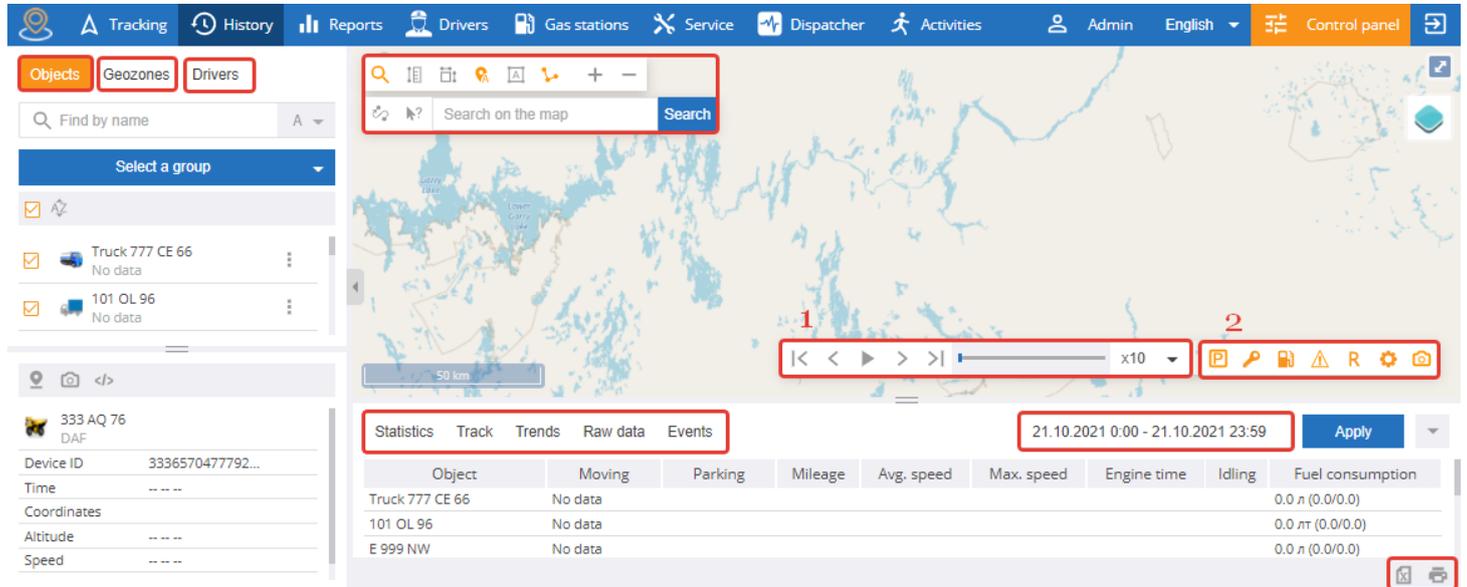
There are icons 6  in the bottom right corner. Click on them to export the data on events to an MS Excel file or to print.

# History

The interface of this menu section is identical to the interface of the Tracking section; the main difference is how the data is displayed on the map and in the lower panel.

The section allows viewing and analyzing the history of the selected object movement, statistics, events during the selected time period. Set the period within one month using the calendar.

The Figure below demonstrates the section.



It shows the map with the features described in the Tracking section above (see [Map](#)).

There are Objects, Geozones, Drivers tabs on the working panel to the left of the map with the same functions as in the previous section.

The functions on the panel in the bottom right corner of the map are specific for the History section:

1. Track playback. Use the buttons to go to the beginning/end of the track, to the previous/next point, to FF objects during a specified time period, to pause the track playback.

2. Enable/disable the display of the following information on selected objects on the map:

 – **parking** displays the object parkings on its route. This parameter is set by Min. Parking Time or by enabling the parameter Identify Parking by Ignition in the object properties.

 – **ignition events** displays the locations where the vehicle was started;

 – **fuel events** displays fuel filling and draining locations;

 – **alarms** displays alarms;

 – **compliance events** displays events when values exceed the permitted range;

 – **equipment operation events** displays sites where controlled equipment on the object was started;

 – **photos** displays photos from the object on the selected route.

When switching to the track history view, these event markers displayed on the map are enabled by default.

The panel below the map contains the following tabs that display information about the operation of objects and sensors installed on them:

- Statistics;
- Track;
- Trends;
- Data;
- Events.

Set the desired time period to display any information on objects.

Use the corresponding icons in the lower right corner to export to MS Excel or print information from these tabs (except for Trends).

Let's take a closer look at each of the tabs.

## Statistics

It shows statistics for each selected object, including its parking and movement time, average/maximum speed, mileage, fuel consumption, etc.

Object	Moving	Parking	Mileage	Avg. speed	Max. speed	Engine time	Idling	Fuel consumption
444 UU 06 TC	8 h 31 min	87 h 29 min	199.01 ...	23 km/h	69 km/h	24 h 5 min		63.3 л (31.8/0.0)
881 RR 00 MC	12 h 43 min	83 h 17 min	526.36 ...	41 km/h	98 km/h	28 h 6 min		133.4 л (25.3/0.0)
333 AE 98 SC	No data							0.0 л (0.0/0.0)
996 PO 66 SC	No data							0.0 л (0.0/0.0)

## Track

This tab allows viewing detailed tabulated information about the track which is only displayed for the selected object. The object status is shown: moving /parked, the initial/final time of the status, the duration of the status, the distance the object has traveled, its average / maximum speed during the specified time and state. Speed is not displayed for the parked status.

Type	Start	Finish	Duration	Mileage	Avg. speed	Max. speed
<input checked="" type="checkbox"/> Parking	13.07.2020 00:00	13.07.2020 11:11	11 h 12 min			
<input checked="" type="checkbox"/> Moving	13.07.2020 11:11	13.07.2020 11:15	3 min 50 sec	0.30 km	5 km/h	20 km/h
<input checked="" type="checkbox"/> Parking	13.07.2020 11:15	13.07.2020 11:54	38 min 57 sec			
<input checked="" type="checkbox"/> Moving	13.07.2020 11:54	13.07.2020 12:01	7 min 19 sec	0.90 km	7 km/h	25 km/h
<input checked="" type="checkbox"/> Parking	13.07.2020 12:01	13.07.2020 23:59	11 h 58 min			
<b>Total</b>				1.20 km	6 km/h	25 km/h

## Trends

The graph shows the values of various sensors installed on the selected object (engine temperature sensor, fuel level sensor, etc.) and data on speed, ignition, and other parameters.



Check the checkboxes in the panel on the left to enable/disable the display of the parameters (fuel data, ignition on/off, engine power, etc.) for a particular object. The colored box opposite a certain parameter corresponds to the color of the curve on the graph.

## Data

This tab displays tabulated information about the selected object at each point of the track. Each line contains the point time and coordinates, object speed, trend values. Click on a line to move the selected object on the map to the corresponding point.

Statistics Track Trends **Raw data** Events

09.12.2020 0:00 - 13.12.2020 23:59 **Apply**

Time	Speed	Coordinates	Power	Engine	Headlights	Speed	Fuel 600
09.12.2020 00:21	0 km/h	46.40186 53.48124	26.34 V	Off	Off	0 km/h	359.7 L
09.12.2020 06:15	0 km/h	46.40186 53.48124	27.98 V	On	On	4.29 km/h	358.45 L
09.12.2020 06:15	1 km/h	46.40186 53.48124	27.98 V	On	On	4.29 km/h	358.45 L
09.12.2020 06:15	3 km/h	46.40196 53.48013	28.06 V	On	On	4.45 km/h	358.45 L
09.12.2020 06:15	5 km/h	46.40199 53.48019	27.5 V	On	On	4.61 km/h	358.45 L

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## Events

A list of all events happening to the selected object during a specified period of time is shown here. Unlike this section, the Tracking section only shows the events about which the user has not yet been notified.

Statistics Track Trends Raw data **Events**

13.01.2021 0:00 - 22.01.2021 23:59 **Apply**

Object	Fire time	Revoke time	Message
444 AO 06 FF	22.01.2021...	22.01.2021...	Over speed 65
444 AO 06 FF	22.01.2021...	22.01.2021...	Over speed 71
444 AO 06 FF	22.01.2021...	22.01.2021...	Over speed 71
444 AO 06 FF	22.01.2021...	22.01.2021...	Over speed 71
444 AO 06 FF	22.01.2021...	22.01.2021...	Over speed 72
444 AO 06 FF	22.01.2021...	22.01.2021...	Over speed 66

## Reports

Use this menu section to generate reports on the operation of the system objects the user is interested in. Select the objects, the type of report and the time period for which the report will be generated. Some reports have additional options or filters that allow changing the returned data. Additionally, view trends in graphic presentation by clicking on the Trends tab.

Certain sensors are required to be installed on the object (fuel sensors, mileage/hours meters, flow meter, etc.) to generate a part of the report or to build a trend for certain parameters. For example, equipment status sensors (ignition) are required to generate a report on the equipment operation.

Click the corresponding icons in the lower right corner to export any report to MS Excel or print it.

Object	Mileage	Fuel consumption	100 km	1 h.	Engine time	Moving	Idling	Parking	Odometer	Total engine time
333 AQ 76 (DAF)	-	0.0 л	0.0 л	0.0 л	-	-	-	-	-	-
Truck E 451 CM (ERF)	-	0.0 л	0.0 л	0.0 л	-	-	-	-	-	-
E 994 BW (Howo)	-	0.0 л	0.0 л	0.0 л	-	-	-	-	-	-
111 AL 06 (ERF)	-	0.0 л	0.0 л	0.0 л	-	-	-	-	-	-
Truck 770 NE 86 (DAF)	-	0.0 л	0.0 л	0.0 л	-	-	-	-	-	-
<b>Total</b>	<b>0.00 km</b>	<b>0.0 л</b>								

Do the following to generate a report:

- Select the objects in the workspace which you want to be included in the report.
- In the top right corner of the screen, select the report period.
- Select the report type below.
- If necessary, change the settings and filters of the report and click **Apply**.

## Viewing data as a trend

Use the Trends tab to view and analyze trend values during a selected time period. At the same time, you can see the values of several trends from different objects. You will see the entire selected time period by default; click **+** in the top right corner of the Trends tab to shorten the period.

There is a list of trends with an indication of the object to which they belong, the trend scale and the values on the cut-off under the graphs. Checkboxes allow controlling the visibility of the trend.



## Types of reports

### 1. Common report

It shows the total readings for the main parameters of the objects in the system, namely: mileage, fuel consumption per 100 km/h, the location of the moving or idle object, parking time and odometer readings.

Reports Trends 05.10.2020 0:00 - 31.10.2020 23:59 Apply

Common report for period from 05.10.2020 00:00 till 31.10.2020 23:59

Object	Mileage	Fuel consumption	100 km	1 h.	Engine time	Moving	Idling	Parking	Odometer	Total engine time
M 13044 (MAZ)	27.10 km	106.2 L	173....	1....	43 h 45 min	4 h 52 min	35 h 32 min	451 h 34 min	2301122.18 km	-
M 115576 (MAZ)	-	0.0 L	0.0 L	0....	-	-	-	-	30315.49 km	-
HB 2473 00 (MAZ)	183.26 km	51.0 L	17.9 L	2....	14 h 24 min	7 h 21 min	6 h 17 min	629 h 1 min	356734.21 km	14536 h 38 min
C 450 RRY (Hyundai County)	2802.23 km	147.8 L	3.4 L	0....	132 h 41 min	63 h	65 h 43 min	578 h 43 min	61949.39 km	-
N 1132 66 (Truck)	902.71 km	218.3 L	16.0 L	1....	69 h 18 min	21 h 44 min	45 h 58 min	626 h 16 min	155316.17 km	-
M 2234 00 ALD (Fuel Tank)	-	0.0 L	0.0 L	0....	-	-	-	-	-	-
<b>Total</b>	<b>3915.30 km</b>	<b>523.3 L</b>			<b>260 h 8 min</b>	<b>97 h 57 min</b>	<b>153 h 30 min</b>	<b>2285 h 33 min</b>		

### 2. Daily report

It shows daily data during the selected period, including mileage, fuel consumption, odometer readings, etc. Filter the presentation by shifts in the report settings.

Objects Geozones Drivers

Find by name A

Select a group

M 2234 00 ALD (Fuel Tank)  
No data

N 1132 66

Daily report

Report settings

Shifts

- All
- Week 7 days
- Week 5 days

Apply

Reports Trends 05.10.2020 0:00 - 31.10.2020 23:59 Apply

Daily report for period from 05.10.2020 00:00 till 31.10.2020 23:59

M 2234 00 ALD (Fuel Tank)

No data

N 1132 66 (Truck)

Date	Mileage	Fuel consumption	Working mileage	Working consumption	Off-time mileage	Off-time consumption	Engine time	Idling	Odometer	Total engine time
05.10.20...	48.75 km	49.1 L	48.75 km	94.6 L	0 km	-	2 h 59 min	1 h 30 min	155316.17 k...	-
06.10.20...	1.24 km	5.8 L	1.24 km	10.3 L	0 km	-	1 h 35 min	1 h 17 min	155317.41 k...	-
07.10.20...	44.03 km	69.2 L	1.61 km	76.7 L	42.42 km	0.0 L	6 h 55 min	5 h 27 min	155361.44 k...	-
08.10.20...	0 km	0.6 L	0 km	0.0 L	0 km	-	-	-	155361.44 k...	-
09.10.20...	1.50 km	21.4 L	1.50 km	41.5 L	0 km	-	1 h 21 min	1 h 9 min	155362.94 k...	-
10.10.20...	0 km	0.0 L	0 km	0.0 L	0 km	-	-	-	155362.94 k...	-
11.10.20...	0 km	0.0 L	0 km	0.0 L	0 km	-	-	-	155362.94 k...	-
12.10.20...	1.52 km	12.6 L	1.52 km	22.7 L	0 km	-	42 min 17 sec	29 min 42 sec	155362.94 k...	-
13.10.20...	43.75 km	32.8 L	43.09 km	56.9 L	0.67 km	-	2 h 39 min	1 h 21 min	155406.69 k...	-
14.10.20...	0.70 km	1.8 L	0.70 km	1.2 L	0 km	-	30 min 23 sec	24 min 59 sec	155407.40 k...	-
15.10.20...	280.45 km	25.1 L	210.11 km	0.0 L	70.35 km	25.1 L	6 h 24 min	46 min 13 sec	155687.83 k...	-

### 3. Driving/Parking

It shows a list of periods of movement and parking of objects with summarized statistics. At the end of the report, totals are calculated for each object when it was moving and idle and other parameters (mileage, speed, fuel consumed).

State the minimum parking time and the minimum driving time for the objects to be displayed in the report settings.

Find by name A

Select a group

117 TT 66 FP  
Base 999

444 UU 06 TC  
Base 999

881 RR 00 MC  
Base 999

Driving/Parking

Report settings

Show

All

Min. parking  
0 min

Min. moving  
0 min

Apply

Driving/Parking for period from 02.01.2021 00:00 till 03.01.2021 23:59

117 TT 66 FP (ERF)

Stat...	Driver	Start	End	Duration	Mileage	Avg. speed	Max. speed	Fuel consumption
Parki...		02.01.2021 00:00	02.01.2021 15:35	15 h 35 min			Base 999	
Movi...		02.01.2021 15:35	02.01.2021 15:36	1 min 15 sec	0.31 km	15 km/h	20 km/h	-
Parki...		02.01.2021 15:36	02.01.2021 16:28	51 min 55 sec			Base 999	
Movi...		02.01.2021 16:28	02.01.2021 16:29	1 min 6 sec	0.19 km	10 km/h	12 km/h	-
Parki...		02.01.2021 16:29	02.01.2021 17:02	32 min 40 sec			Base 999	
Movi...		02.01.2021 17:02	02.01.2021 17:05	3 min 14 sec	0.35 km	7 km/h	16 km/h	-
Parki...		02.01.2021 17:05	02.01.2021 17:55	49 min 55 sec			Base 999	
Movi...		02.01.2021 17:55	02.01.2021 17:59	3 min 37 sec	0.30 km	5 km/h	20 km/h	-
Parki...		02.01.2021 17:59	03.01.2021 07:53	13 h 54 min			Base 999	
Movi...		03.01.2021 07:53	03.01.2021 07:53	51 sec	0.11 km	8 km/h	12 km/h	-
Parki...		03.01.2021 07:53	03.01.2021 08:22	28 min 21 sec			Base 999	
Movi...		03.01.2021 08:22	03.01.2021 08:25	3 min 24 sec	0.39 km	7 km/h	18 km/h	-
Parki...		03.01.2021 08:25	03.01.2021 09:37	1 h 12 min			Base 999	
Movi...		03.01.2021 09:37	03.01.2021 09:38	1 min 3 sec	0.16 km	9 km/h	14 km/h	-
Parki...		03.01.2021 09:38	03.01.2021 11:20	1 h 42 min			Base 999	
Movi...		03.01.2021 11:20	03.01.2021 11:23	3 min 6 sec	0.20 km	4 km/h	12 km/h	-
Parki...		03.01.2021 11:23	03.01.2021 14:37	3 h 13 min			Base 999	
Movi...		03.01.2021 14:37	03.01.2021 14:38	1 min 17 sec	0.25 km	12 km/h	16 km/h	-
Parki...		03.01.2021 14:38	03.01.2021 16:03	1 h 24 min			Base 999	
Movi...		03.01.2021 16:03	03.01.2021 16:17	14 min 15 sec	1.16 km	5 km/h	24 km/h	0.5 л
Parki...		03.01.2021 16:17	03.01.2021 16:44	26 min 45 sec			Base 999	
Movi...		03.01.2021 16:44	03.01.2021 16:46	1 min 58 sec	0.30 km	9 km/h	18 km/h	-
Parki...		03.01.2021 16:46	03.01.2021 17:16	30 min 38 sec			Base 999	
Movi...		03.01.2021 17:16	03.01.2021 17:18	1 min 51 sec	0.32 km	10 km/h	18 km/h	-
Parki...		03.01.2021 17:18	03.01.2021 23:59	6 h 42 min			Base 999	
<b>Total moving</b>			<b>12</b>	<b>36 min 57 sec</b>	<b>4.05 km</b>	<b>7 km/h</b>	<b>24 km/h</b>	<b>0.5 л</b>
<b>Total parking</b>			<b>13</b>	<b>47 h 23 min</b>				

All addresses / Show all on a map

### 4. Visits to Geozones

This report shows the geozones visited by the object. If the object has visited no geozones, the report will be empty. Filter the geozones to be displayed and set the minimum visit time in the report settings.

Find by name A

Select a group

- 117 TT 66 FP  
Base 999
- 444 UU 06 TC  
Base 999

Geozones visit

Report settings

Geozones

- All
- All points
- All polygons
- Selected

Min. duration

0 min

Apply

Geozones visit for period from 01.01.2021 00:00 till 05.01.2021 23:59

117 TT 66 FP (ERF)						
Geozone	Time in	Time out	Duration	Engine time	Mileage	Mileage between geozones
Base 999	01.01.2021 00:00	03.01.2021 16:05	64 h 6 min	3 h 35 min	2.61 km	0.00 km
Base 999	03.01.2021 16:16	04.01.2021 08:29	16 h 13 min	1 h 25 min	3.09 km	0.62 km
Base 800	04.01.2021 08:33	04.01.2021 08:53	19 min 24 sec	19 min 24 sec	22.44 km	2.37 km
Base 800	04.01.2021 12:10	04.01.2021 12:29	18 min 47 sec	18 min 47 sec	22.44 km	173.92 km
Base 999	04.01.2021 12:32	05.01.2021 23:59	35 h 27 min	6 h 17 min	9.56 km	2.34 km
<b>Totally in geozones</b>			116 h 24 min	11 h 55 min	60.15 km	
<b>Totally out of geozones</b>			3 h 36 min	3 h 36 min	179.25 km	179.25 km

444 UU 06 TC (Howo)						
Geozone	Time in	Time out	Duration	Engine time	Mileage	Mileage between geozones
Base 999	01.01.2021 00:00	04.01.2021 09:37	81 h 38 min	1 h 38 min	2.08 km	0.00 km
Base 800	04.01.2021 09:47	04.01.2021 09:47	25 sec	25 sec	0.22 km	2.36 km
Base 60	04.01.2021 09:47	04.01.2021 16:00	6 h 13 min	4 h 15 min	41.48 km	0.15 km
Base 800	04.01.2021 16:00	04.01.2021 16:01	18 sec	18 sec	0.21 km	0.16 km
Base 999	04.01.2021 16:10	05.01.2021 10:12	18 h 2 min	2 h 25 min	1.14 km	2.47 km
Base 999	05.01.2021 10:17	05.01.2021 10:17			0.00 km	0.18 km
Base 800	05.01.2021 10:20	05.01.2021 10:20	32 sec	32 sec	0.23 km	2.21 km
Base 60	05.01.2021 10:20	05.01.2021 15:29	5 h 9 min	3 h 41 min	56.00 km	0.16 km
киоск мойка Суло	05.01.2021 12:03	05.01.2021 12:09	5 min 41 sec	5 min 41 sec	0.02 km	0.00 km
Base 800	05.01.2021 15:29	05.01.2021 15:30	19 sec	19 sec	0.20 km	40.22 km

## 5. Fuel consumption

This report displays data on refueling/drainings, initial/final fuel level, mileage, engine hours (engine running time), the addresses of the location of the moving or idle object. The report is only displayed if there is a fuel/flow sensor installed on the object. Filter only refills or only drainings to be displayed in the settings, and also filter both definite and probable drainings to be displayed.

Objects Geozones Drivers

Find by name A

Select a group

- M 2234 00 ALD  
No data
- N 1132 66

Fuel consumption

Report settings

Show

- All

Detect drainings

- Exact

Apply

Reports Trends
05.10.2020 0:00 - 31.10.2020 23:59
Apply

Fuel consumption for period from 05.10.2020 00:00 till 31.10.2020 23:59

M 2234 00 ALD (Fuel Tank) Fuel 9900			
Action	Time	Volume, L	Address
<b>Total fuellings</b>		0.00 L	
<b>Total drainings</b>			0.00 L
<b>Fuel consumption</b>		0.00 L	Consumption with drainings 0.00 L
Engine time - Hourly fuel consumption/Normal 0.00 L/0 L			

N 1132 66 (Truck) Fuel 600			
Action	Time	Volume, L	Address
Fuelling	07.10.2020 10:15	235.76	Show address
Fuelling	14.10.2020 16:14	103.28	Base 100
<b>Start level</b>		409.21 L	<b>End level</b> 529.93 L
<b>Total fuellings</b>		339.04 L	<b>Total drainings</b> 0.00 L
<b>Fuel consumption</b>		218.32 L	Consumption with drainings 218.32 L
All addresses / Show all on a map			
<b>Mileage</b>		902.71 km	<b>Consumption per 100 km/Normal</b> 16.0 L/60.0 L
<b>Engine time</b>		69 h 18 min	<b>Hourly fuel consumption/Normal</b> 1.60 L/0 L
<b>Moving</b>		21 h 44 min	<b>Driving consumption</b> 144.82 L

## 6. Working time

This report shows the start/end of the working time of the equipment (engine, crane, drilling rig, etc.) and indicates the location of the object.

Objects Geozones Drivers

Find by name A

Select a group

HB 2473 00 Base 5000

M 115576 No data

Working time

Report settings

Show All

Show All

Min. duration 0 min

Min. interval between working 0 sec

Apply

Reports Trends 05.10.2020 0:00 - 06.10.2020 23:59 Apply

Working time for period from 05.10.2020 00:00 till 06.10.2020 23:59

**N 1132 66 (Truck) Engine**

Start	End	Duration	Fuel consumption	Driver	Address
05.10.2020 13:34	05.10.2020 16:33	2 h 59 min	47.30 L		Show address
05.10.2020 16:40	05.10.2020 16:41	5 sec	-		Base 1000
05.10.2020 16:41	05.10.2020 16:41	26 sec	-		Base 1000
05.10.2020 16:41	05.10.2020 16:41	7 sec	-		Base 1000
06.10.2020 14:57	06.10.2020 14:58	1 min 44 sec	-		Base 1000
06.10.2020 14:58	06.10.2020 14:59	24 sec	-		Base 1000
06.10.2020 14:59	06.10.2020 14:59	30 sec	-		Base 1000
06.10.2020 14:59	06.10.2020 14:59	7 sec	-		Base 1000
06.10.2020 14:59	06.10.2020 15:00	27 sec	-		Base 1000
06.10.2020 15:00	06.10.2020 15:00	22 sec	-		Base 1000
06.10.2020 15:00	06.10.2020 15:00	8 sec	-		Base 1000
06.10.2020 15:00	06.10.2020 16:31	1 h 31 min	5.76 L		Base 1000
<b>Total</b>	<b>12</b>	<b>4 h 34 min</b>	<b>53.06 L</b>		All addresses / Show all on a map

**HB 2473 00 (MAZ) Engine**

Start	End	Duration	Fuel consumption	Driver	Address
06.10.2020 07:29	06.10.2020 07:32	3 min 14 sec	-		Base 5000
<b>Total</b>	<b>1</b>	<b>3 min 14 sec</b>	<b>0.00 L</b>		Show all on a map

**M 115576 (MAZ) Engine**

Start	End	Duration	Fuel consumption	Driver	Address
<b>Total</b>	<b>0</b>		<b>0.00 L</b>		

## 7. Idle time

This report shows the start/end time of idle operation of the engine, and also indicates the address of the location of the object. Configure the equipment status trend to generate the report. The report can only display idle work in or outside geozones, or the minimum duration of work.

Objects Geozones Drivers

Find by name A

Select a group

HB 2473 00 Base 5000

Idle time

Report settings

Show All

Min. duration 0 min

Apply

Reports Trends 05.10.2020 0:00 - 05.10.2020 23:59 Apply

Idle time for period from 05.10.2020 00:00 till 05.10.2020 23:59

**M 2234 00 ALD (Fuel Tank)**

To create this report, you should configure an equipment status trend

**HB 2473 00 (MAZ)**

No data

**M 333 ERF (MAZ)**

Start	End	Duration	Fuel consumption	Driver	Address
05.10.2020 07:05	05.10.2020 07:35	29 min 25 sec	2.31 L		Base 400
05.10.2020 08:10	05.10.2020 08:38	28 min 7 sec	2.07 L		Base 400
05.10.2020 10:26	05.10.2020 10:58	32 min 29 sec	0.35 L		Base 400
05.10.2020 14:26	05.10.2020 14:38	11 min 51 sec	0.00 L		Base 5000
05.10.2020 14:43	05.10.2020 14:54	11 min 5 sec	0.36 L		Base 5000
05.10.2020 15:06	05.10.2020 15:40	34 min 12 sec	1.56 L		Base 5000
05.10.2020 15:45	05.10.2020 15:48	3 min 12 sec	-		Base 400
<b>Total</b>	<b>7</b>	<b>2 h 30 min</b>	<b>6.65 L</b>		Show all on a map

## 8. Effective work

This report shows effective work of vehicles. Set the equipment status trend and shifts to generate the report. Configure the settings so that the report only displays effective work in or outside geozones, or the minimum idle period. The settings also allow sorting the presentation by shifts.

Objects Geozones Drivers

Find by name A

Select a group

HB 2473 00 Base 5000

Effective work

Report settings

Show All

Shifts All Week 7 days Week 5 days

Min. duration 60 min

Apply

Reports Trends 05.10.2020 0:00 - 05.10.2020 23:59 Apply

Effective work for period from 05.10.2020 00:00 till 05.10.2020 23:59

M 2234 00 ALD (Fuel Tank)

To create this report, you should configure an equipment status trend

HB 2473 00 (MAZ)

Start	End	Duration	Shift	Address
05.10.2020 08:00	05.10.2020 17:00	9 h	Week 7 days	Base 5000
05.10.2020 08:00	05.10.2020 17:00	9 h	Week 5 days	Base 5000
<b>Total</b>	<b>2</b>	<b>18 h</b>		Show all on a map

M 333 ERF (MAZ)

Start	End	Duration	Shift	Address
05.10.2020 08:43	05.10.2020 10:22	1 h 38 min	Week 7 days	Base 400
05.10.2020 08:43	05.10.2020 10:22	1 h 38 min	Week 5 days	Base 400
05.10.2020 10:58	05.10.2020 13:31	2 h 33 min	Week 7 days	Base 400
05.10.2020 10:58	05.10.2020 13:31	2 h 33 min	Week 5 days	Base 400
<b>Total</b>	<b>4</b>	<b>8 h 22 min</b>		Show all on a map

## 9. Events

This report shows the time of activation and deactivation of events.

Objects Geozones Drivers

Find by name A

Select a group

966 AO 33 NC Base 999

977 OA 08 FC Base 999

Events

Reports Trends 09.12.2020 0:00 - 09.12.2020 23:59 Apply

Events for period from 09.12.2020 00:00 till 09.12.2020 23:59

966 AO 33 NC (DAF)

Time	Event	Reset time
09.12.2020 07:00	Over speed 66	09.12.2020 07:02
09.12.2020 07:03	Over speed 65	09.12.2020 07:05
09.12.2020 07:09	Over speed 65	09.12.2020 07:11
09.12.2020 07:29	Over speed 69	09.12.2020 07:30
09.12.2020 07:30	Drain 5.7 n	09.12.2020 07:30
09.12.2020 07:31	Over speed 75	09.12.2020 07:37

977 OA 08 FC (Isuzu)

Time	Event	Reset time
09.12.2020 07:13	Over speed 67	09.12.2020 07:13
09.12.2020 07:14	Over speed 67	09.12.2020 07:15

## 10. Green driving

This report demonstrates the moment and the address at which a driver has committed a violation, such as speeding, sudden acceleration/braking. The report also displays information about the location of the idle object. Filter presentation by type of violation, set the maximum permitted speed and display by objects or by drivers in the settings.

Find by name A ▾

Select a group ▾

000 AA 66 LC Base 999

117 TT 66 FP Base 999

Green driving ▾

Report settings

Violations

- All
- Over speed
- Harsh acceleration
- Safety equipment

Max. speed  km/h

Group by ▾

Objects

Apply

Green driving for period from 01.01.2021 00:00 till 03.01.2021 23:59

000 AA 66 LC (Daf)

Time	Duration	Event	Value	Penalty	Driver	Address
02.01.2021 13:57	1 sec	Harsh breaking	5.98 m/sec2	1.00	-	Base 999
02.01.2021 14:23	11 sec	Over speed 20 km/h	21 km/h	1.00	Michael	Base 999
<b>Total:</b>	<b>12 sec</b>	<b>2</b>		<b>Penalty: 2.00</b>		Show all on a map

117 TT 66 FP (ERF)

Time	Duration	Event	Value	Penalty	Driver	Address
02.01.2021 14:58	36 min 47 sec	Idling		0.10	-	Base 999
02.01.2021 17:59	16 min 19 sec	Idling		0.10	-	Base 999
03.01.2021 07:53	28 min 21 sec	Idling		0.10	-	Base 999
03.01.2021 11:23	10 min 56 sec	Idling		0.10	-	Base 999
03.01.2021 12:21	37 min 45 sec	Idling		0.10	-	Base 999
03.01.2021 17:18	20 min 13 sec	Idling		0.10	-	Base 999
<b>Total:</b>	<b>2 h 30 min</b>	<b>6</b>		<b>Penalty: 0.60</b>		Show all on a map

444 UU 06 TC (Howo)

No violations for selected interval

881 RR 00 MC (Truck Daf)

Time	Duration	Event	Value	Penalty	Driver	Address
01.01.2021 16:06	14 sec	Over speed 20 km/h	25 km/h	1.00	-	Base 999
01.01.2021 16:07	20 sec	Over speed 20 km/h	22 km/h	1.00	-	Base 999
01.01.2021 16:15	17 sec	Over speed 20 km/h	24 km/h	1.00	-	Base 999
02.01.2021 06:00	14 sec	Over speed 20 km/h	24 km/h	1.00	-	Base 999
02.01.2021 06:21	16 sec	Over speed 20 km/h	22 km/h	1.00	-	Base 999

## 11. Driver report

This report displays data on drivers, such as start/end driving time, mileage, driving hours, fuel consumption, and number of violations scoring a penalty. This report is generated only if the driver has a key. Set the minimum driving time and sort the presentation by objects and drivers in the settings.

Objects Geozones Drivers

Find by name A ▾

Select a group ▾

087 AP 06

556 PP 00 FC Base 15

Driver report ▾

Report settings

Min. duration  min

Group by ▾

Objects

Apply

Reports Trends 12.09.2020 0:00 - 12.09.2020 23:59 Apply

Driver report for period from 12.09.2020 00:00 till 12.09.2020 23:59

AMD 777 NC (Manitou MT-X4051B)

No information about drivers

556 PP 00 FC (Howo)

Driver	Start	End	Mileage	Engine time	Idling	Fuel consumption	Violations	Penalty
Harry	12.09.2020 08:35	12.09.2020 08:40	0.63 km	5 min 51 sec		0.0 l	2	1.10
Harry	12.09.2020 08:44	12.09.2020 08:51	0.15 km	7 min 29 sec		0.0 l	0	0.00
Harry	12.09.2020 10:08	12.09.2020 10:22	0 km	13 min 12 sec		2.4 l	0	0.00
Harry	12.09.2020 17:04	12.09.2020 17:10	0.29 km	6 min 10 sec		1.4 l	0	0.00
Harry	12.09.2020 17:47	12.09.2020 17:50	0.31 km	2 min 39 sec		-	0	0.00
<b>Total</b>		<b>36 min 16 sec</b>	<b>1.37 km</b>	<b>35 min 21 sec</b>		<b>3.7</b>	<b>2</b>	<b>1.10</b>

## 12. Permitted interval report

This report demonstrates when the object complies with or violates the maximum permitted ranges of parameters (temperature in the refrigerator, tire pressure, etc.). Set the permitted parameter ranges for the object in the trend settings to display the report.

Objects Geozones Drivers

Find by name A

Select a group

HB 2473 00 Base 5000

Permitted interval report

Report settings

Min. duration 0 min

Apply

Reports Trends 05.10.2020 0:00 - 31.10.2020 23:59 Apply

Permitted interval report for period from 05.10.2020 00:00 till 31.10.2020 23:59

C 450 RRY (Hyundai County)

Please set permitted interval for the object trends

HB 2473 00 (MAZ) Fuel 340

Violation	Value	Time	Duration	Address
Higher then permitted interval	192.9 L	05.10.2020 00:00	222 h 2 min	Base 5000
Higher then permitted interval	333.1 L	14.10.2020 10:18	193 h 37 min	Base 5000

Show all on a map

Avg. value	181.1 L
Minimum	149.3 L
Maximum	333.1 L
Permitted interval	from 50 L to 90 L
Violations duration	415 h 40 min

HB 2473 00 (MAZ) Speed

Violation	Value	Time	Duration	Address
Avg. value	15.0 km/h			
Minimum	0.0 km/h			
Maximum	59.0 km/h			
Permitted interval	from 0 km/h to 60 km/h			
Violations duration				

### 13. Counter report

This report displays the data from the devices installed on the object (mileage/hours meters, flow meter, etc.). Configure the meter/counter trend to generate this report.

Reports Trends 12.10.2021 0:00 - 12.10.2021 23:59 Apply

Counter report for period from 12.10.2021 00:00 till 12.10.2021 23:59

Truck 777 CE 66 (DAF)

To create this report, you should configure a counter/flow meter trend

101 OL 96 (ERF)

To create this report, you should configure a counter/flow meter trend

### 14. Task report

This report displays the tasks assigned, completion status or the state of the task to be completed as percent. Specify the time and filter by status in the settings.

Objects Geozones Drivers

Find by name A

Select a group

M 2234 00 ALD

N 1132 66 No data

Task report

Report settings

Early arrival  
120 min

Late arrival  
40 min

Status  
All  
Visited  
Late arrival  
Not visited

Apply

06.09.2021 0:00 - 08.09.2021 23:59 Apply

Task report for period from 06.09.2021 00:00 till 08.09.2021 23:59

N 1132 66 (Truck)

Task	Time	Arrival	Departure	Status
Zone 5000	07.09.2021 19:10	-	-	Not visited
Zone 5000	08.09.2021 19:10	-	-	Not visited
Zone 5000	08.09.2021 19:10	-	-	Not visited
Zone 8000	08.09.2021 19:12	-	-	Not visited
Total tasks				4
Visited				0 (0%)
Late arrival				0 (0%)
Not visited				4 (100%)

## 15. Data accessibility

This report is intended to analyze if the installation and configuration of equipment is proper and allows monitoring the equipment. The report shows the periods when the data from sensors, about location, etc. did not arrive.

Find by name A

Select a group

538 AK 06 FC

274 AO 06 FC Atyrau Base

Data accessibility

Report settings

Min. duration  
0 min

Show  
All

Apply

10.11.2020 00:00 - 11.11.2020 23:59

274 AO 06 FC (Isuzu)

Start	Address	Finish	Address	Duration	Description	Fuel consumption
10.11.2020 00:00	Atyrau Base	11.11.2020 23:59	Atyrau Base	48 h	No trend data Зажигание	20.94 л
Total				48 h	Show all o...	20.94 л

799 AL 06 FC (Isuzu)

Start	Address	Finish	Address	Duration	Description	Fuel consumption
10.11.2020 00:00	No data	11.11.2020 23:59	No data	48 h	No data	0.00 л
Total				48 h		0.00 л

491 AS 06 FC (Isuzu)

Start	Address	Finish	Address	Duration	Description	Fuel consumption
10.11.2020 00:00	Atyrau Base	11.11.2020 23:59	Atyrau Base	48 h	No trend data Топлива 100л	0.00 л
Total				48 h	Show all o...	0.00 л

453 AS 06 FC (Isuzu)

Start	Address	Finish	Address	Duration	Description	Fuel consumption	
Total							0.00 л

490 AS 06 FC (Isuzu)

Start	Address	Finish	Address	Duration	Description	Fuel consumption
10.11.2020 00:00	Atyrau Base	10.11.2020 04:15	Atyrau Base	4 h 15 min	No data	0.00 л
10.11.2020 04:16	Atyrau Base	10.11.2020 04:18	Atyrau Base	1 min 59 sec	No data	
10.11.2020 04:25	Atyrau Base	10.11.2020 04:51	Atyrau Base	26 min 12 sec	No data	0.12 л

# Drivers

This section contains information about the work of drivers. Mileage, driving hours and violations are recorded here for drivers rather than objects.

The section contains the following subsections:

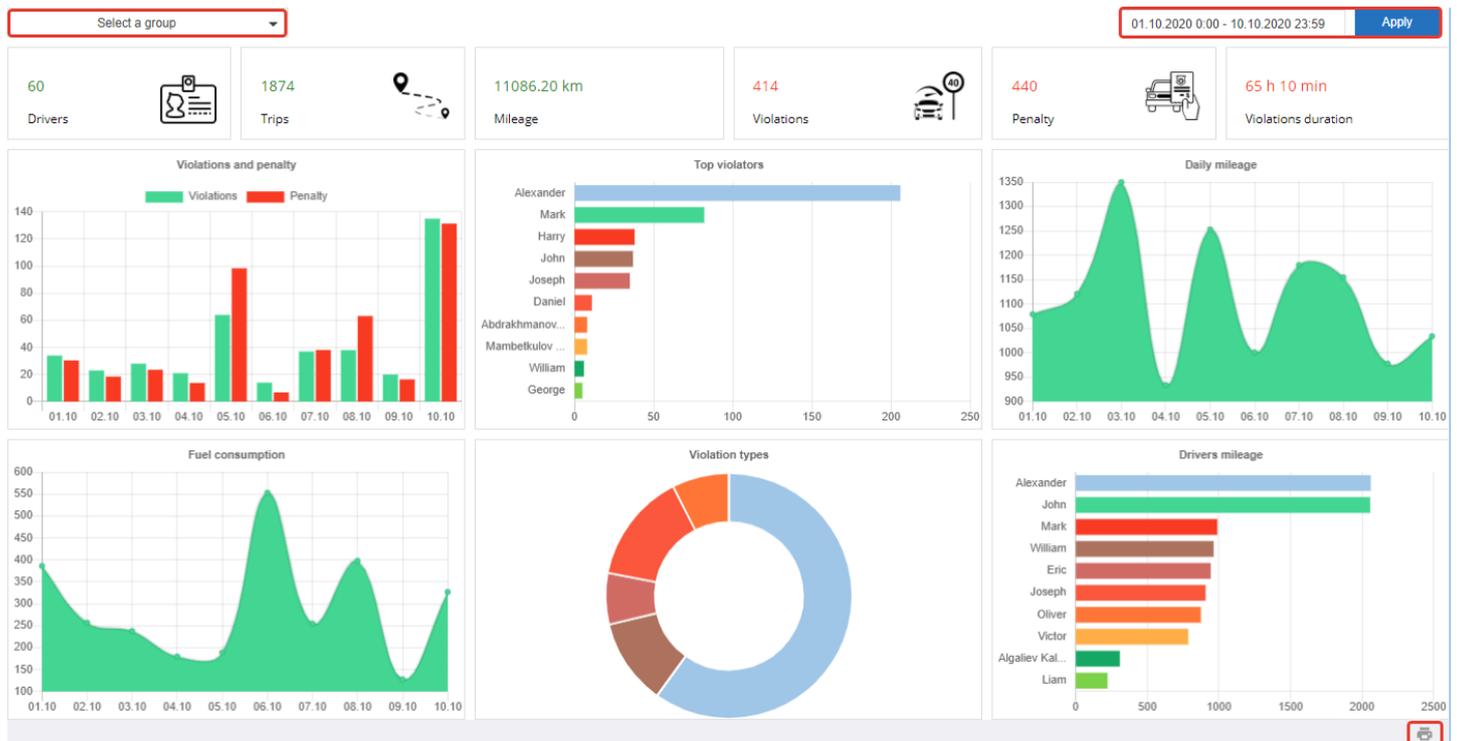
- Trends (graphs);
- Rating;
- Analytics;
- Reports.

## Trends

The Drivers section opens on the Trends subsection by default. Here the information on the user's drivers is summarized as graphs and diagrams, including the total number of drivers, their trips, violations (with their types and durations) and penalties. This subsection also presents the information on mileage and fuel consumption.

Sort the information by driver groups and select the time period at the top of the screen.

Print the information on the screen by clicking the corresponding icon at the bottom on the right.



## Rating

In the center of the screen there is a list of all the user's drivers with their basic statistics (rating, driving time, maximum speed, number and duration of violations, etc.).

The drivers on the list are sorted according to their rating (violations) in the system; first come the driver with the lowest rating.

Driver	Internal ID	Rating	Working time	Mileage	Max speed	Fuel consumption	Violations	Violations duration	Penalty	Penalty/100km	Penalty/1h	
Alexander		0.0	65 h 56 min	1859.53 km	97 km/h	183.2	167	53 min 42 sec	164.40	8.8	2.5	  
Ben		0.0	61 h 21 min	1700.95 km	47 km/h	169.1	2	4 sec	2.00	0.1	0.0	  
John		0.0	59 h 26 min	1674.93 km	100 km/h	166.6	31	47 min 52 sec	30.60	1.8	0.5	  
Michael		0.0	58 h 20 min	1658.39 km	85 km/h	0.0	3	5 sec	3.00	0.2	0.1	  
Victor		0.0	48 h 47 min	1502.50 km	85 km/h	299.7	0		0.00	0.0	0.0	  

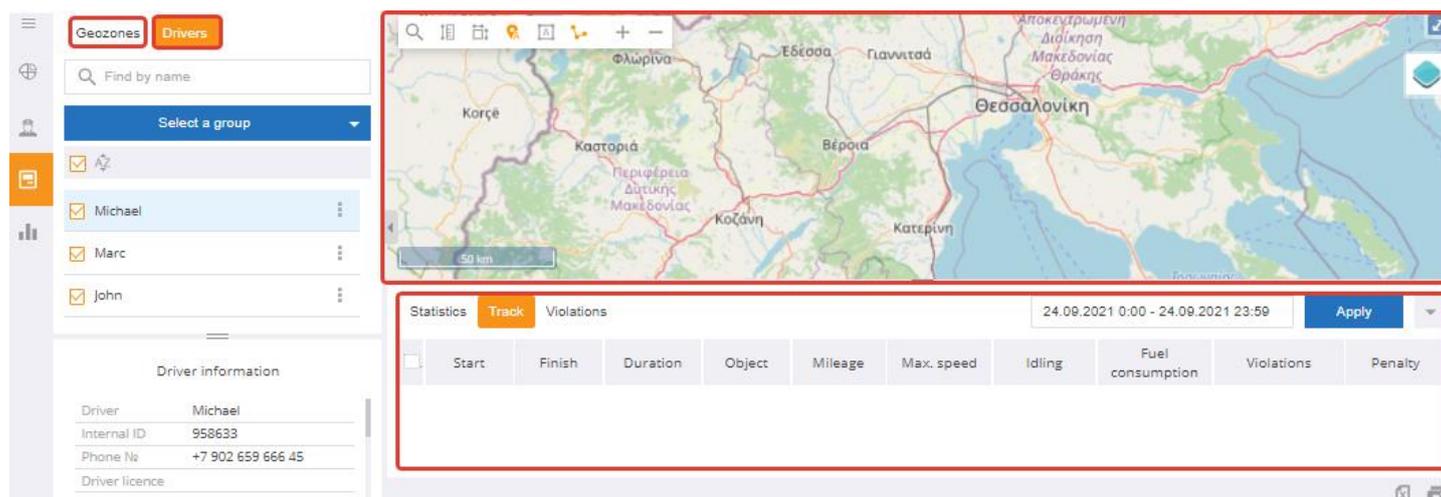
The driver rating is calculated on the basis of the driver penalty settings set in the control panel. See the Drivers ([Driver rating](#)) section in the control panel for more information about the rating and its calculation.

Click icons    opposite each driver to open the Reports or Analytics menu subsections related to the selected driver or to edit the information about them.

## Analytics

This subsection allows viewing the driver's movement on the map, the geozones visited, observe their track and view related statistics.

The Analytics subsection interface is similar to the same of the [History](#) section.



The screenshot shows the Analytics interface. On the left, there is a sidebar with 'Geozones' and 'Drivers' tabs. Below these are search and selection options. The main area features a map of Greece with various locations labeled. At the bottom, there is a panel with 'Statistics', 'Track', and 'Violations' tabs. The 'Track' tab is active, showing a table with columns for Start, Finish, Duration, Object, Mileage, Max. speed, Idling, Fuel consumption, Violations, and Penalty. A date range selector is also present in the bottom panel.

The working area contains the following elements:

- Geozones;
- Drivers;
- Map;
- Bottom panel.

**Geozones** and **Drivers** tabs contain a list of geozones and drivers added to the system by the user. These tabs have the interface and functionality similar to the corresponding tabs in the [Tracking](#) section.

The **map** area contains a number of tools described in detail in the Tracking and [History](#) sections.

The following tabs are displayed on the **bottom panel** (under the map), showing information about drivers and sensor readings:

### Statistics

The tab displays a report on each driver for the selected time period. The report includes data on their driving hours, mileage, fuel consumption, violations, etc.

Driver	Internal ID	Rating	Working time	Mileage	Max speed	Fuel consumption	Violations	Violations duration	Penalty
Harry		0.0	31 h 48 min	39.36 km	19 km/h	174.2	58	10 h 35 min	46.30
Daniel		0.0	27 h 41 min	110.05 km	17 km/h	0.0	2	12 sec	2.00
George		0.0	51 h 31 min	230.52 km	35 km/h	0.0	378	1 h 44 min	378.00
Liam		0.0	121 h 29 min	470.09 km	28 km/h	0.0	382	1 h 48 min	382.50

### Track

The tab displays data about the movements of the selected driver. Each driver's track is accompanied by data on the vehicle, mileage, fuel consumption, violations, etc.

Start	Finish	Duration	Object	Mileage	Max. speed	Idling	Fuel consumpti...	Violations	Penalty
02.11.2020 19:49	02.11.2020 19:50	1 min 44 sec	LD 555 D	0.42 km	20 km/h	-	-	1	1.00
02.11.2020 19:51	02.11.2020 19:51	20 sec	LD 555 D	0.08 km	16 km/h	-	-	0	0.00
02.11.2020 19:53	02.11.2020 19:53	34 sec	LD 555 D	0.12 km	13 km/h	-	-	0	0.00
02.11.2020 19:55	02.11.2020 19:59	3 min 26 sec	LD 555 D	0.58 km	17 km/h	-	-	4	4.00
02.11.2020 19:59	02.11.2020 20:05	6 min 4 sec	LD 555 D	0.89 km	17 km/h	-	0.0 lt	2	2.00

### Violations

The tab contains a list of violations of the selected driver. Each description of the violation is accompanied by its time, vehicle data, penalty score and address.

Time	Duration	Object	Event	Value	Penalty	Address
02.11.2020 19:50	33 sec	LD 555 D	Over speed 15 k...	20 km/h	1.00	Base 15
02.11.2020 19:58	10 sec	LD 555 D	Over speed 15 k...	17 km/h	1.00	Base 15
02.11.2020 19:58	5 sec	LD 555 D	Over speed 15 k...	17 km/h	1.00	Base 15
02.11.2020 19:58	6 sec	LD 555 D	Over speed 15 k...	16 km/h	1.00	Base 15
02.11.2020 19:58	12 sec	LD 555 D	Over speed 15 k...	16 km/h	1.00	Base 15
02.11.2020 20:03	4 sec	LD 555 D	Over speed 15 k...	16 km/h	1.00	Base 15

## Reports

This subsection allows generating various reports on drivers' work. The interface of the section is similar to that of the [Reports](#) section. Please read the description of the reports below.

**Daily report** is the most complete report for each day of the selected period, containing mileage, driving hours, the object idle operation period, driver's maximum speed, violations and penalties.

Click on the icon  opposite the driver to open the Analytics subsection on the Track tab where data for the selected period for this driver is shown.

08.11.2020 0:00 - 08.11.2020 23:59

Apply

Daily report for period from 08.11.2020 00:00 till 08.11.2020 23:59

Harry								
Date	Mileage	Working time	Max. speed	Idling	Fuel consumption	Violations	Penalty	
08.11.2020	2.48 km	2 h 36 min	15 km/h	41 min 44 sec	18.40	1	0.1	
<b>Total</b>	2.48 km	2 h 36 min	15 km/h	41 min 44 sec	18.40	1	0.1	

Daniel								
Date	Mileage	Working time	Max. speed	Idling	Fuel consumption	Violations	Penalty	
08.11.2020	4.98 km	55 min 26 sec	15 km/h		0.00	0	0.0	
<b>Total</b>	4.98 km	55 min 26 sec	15 km/h		0.00	0	0.0	

**Violations** is a report containing details about the driver's violations. Specific types of violations (hard driving, speeding, etc.), their total number, penalty score, driving hours and mileage are listed here. The information in this report is also presented for each day of the selected period.

08.11.2020 0:00 - 09.11.2020 23:59

Apply

Violations for period from 08.11.2020 00:00 till 09.11.2020 23:59

Harry										
Date	Mileage	Working time	Violations						Penalty	
			Total	Harsh driving	Safety belt	Lights	Idling	Overspeed		
08.11.2020	2.48 km	2 h 36 min	1	0	0	0	1	0	0.1	
09.11.2020	1.94 km	1 h 53 min	1	0	0	0	1	0	0.1	
<b>Total</b>	4.43 km	4 h 29 min	2	0	0	0	2	0	0.2	

Daniel										
Date	Mileage	Working time	Violations						Penalty	
			Total	Harsh driving	Safety belt	Lights	Idling	Overspeed		
08.11.2020	4.98 km	55 min 26 sec	0	0	0	0	0	0	0.0	
09.11.2020	7.35 km	1 h 51 min	1	0	0	0	0	1	1.0	
<b>Total</b>	12.34 km	2 h 47 min	1	0	0	0	0	1	1.0	

**Trips** is the report partially duplicating the above information. It shows however, among other things, the start and end time of the trip, the name of the object and fuel consumption per 100 km/h.

08.11.2020 0:00 - 09.11.2020 23:59

Apply

Trips for period from 08.11.2020 00:00 till 09.11.2020 23:59

Daniel										
Start	Finish	Duration	Object	Mileage	Max. speed	Idling	Fuel consumption	Consumption per 100 km/1h	Violations	Penalty
Rest						Base 15				
08.11.2020 20:32	08.11.2020 21:28	55 min 26 ...	LD 555 D	4.98 km	15 km/h		0.00	0.00/0.00	0	0
Rest	22 h 17 min					Base 15				
09.11.2020 19:45	09.11.2020 21:36	1 h 51 min	LD 555 D	7.35 km	17 km/h		0.00	0.00/0.00	1	1
Rest						Base 15				
<b>Total</b>		2 h 47 min		12.34 km	17 km/h		0.00	0.00/0.00	1	1.00

Show all on a map

**Fuel consumption** is a daily report about the mileage, operating time of the object, its name, idle operation period and fuel consumption (total and per 100 km/h).

Fuel consumption for period from 06.08.2020 00:00 till 07.08.2020 23:59

Mark						
Date	Mileage	Working time	Idling	Fuel consumption	Consumption per 100 km/1h	Objects
06.08.2020	118.75 km	4 h 20 min		15.44	13.00/0.00	096 YE 07
07.08.2020	47.96 km	2 h 1 min		6.03	12.57/0.00	096 YE 07
<b>Total</b>	<b>166.70 km</b>	<b>6 h 21 min</b>		<b>21.47</b>	<b>12.88/0.00</b>	

Michael						
Date	Mileage	Working time	Idling	Fuel consumption	Consumption per 100 km/1h	Objects
06.08.2020	111.29 km	4 h 10 min		0.00	0.00/0.00	631 AO 06
07.08.2020	107.34 km	4 h 11 min		0.00	0.00/0.00	631 AO 06

## Gas stations

This section is intended for companies that have their own stations for refueling vehicles. Both mobile and stationary gas stations with equipment compatible with the system are supported.

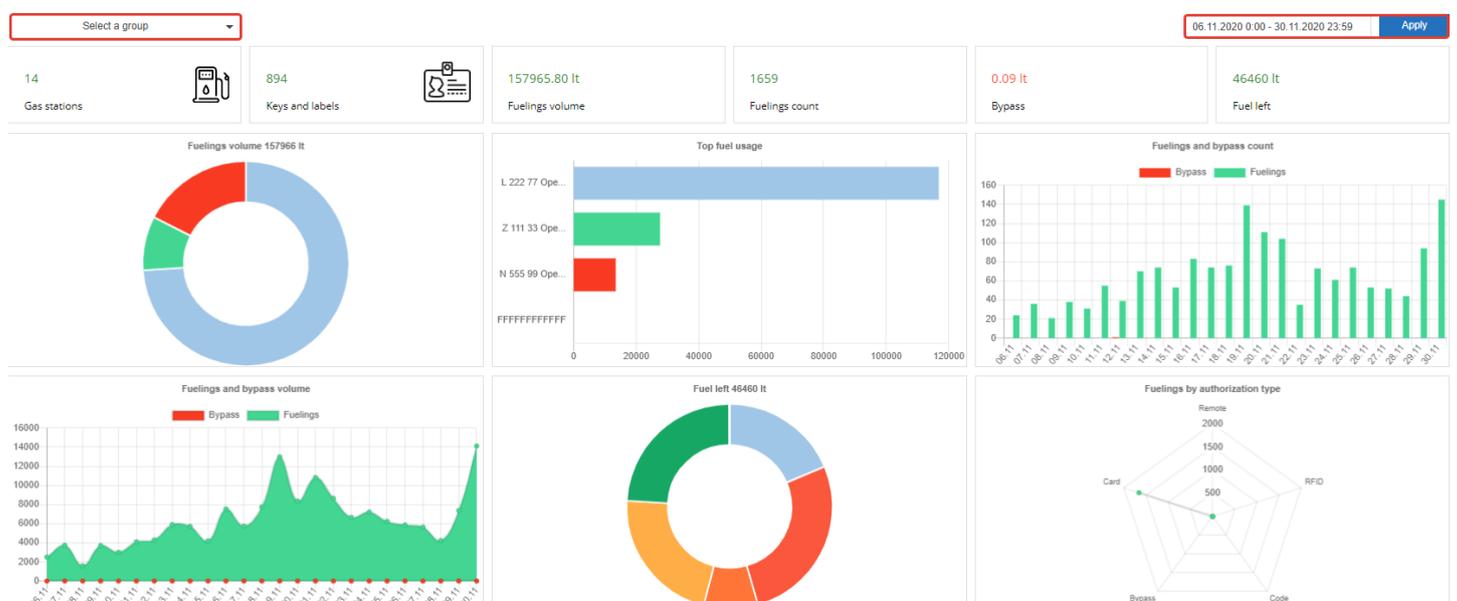
There is a menu on the left that contains three subsections:

- Gas stations;
- Reports;
- Fuel tanks.

## Gas stations

The information on the user's gas stations is summarized as a diagram here, i.e. the total number of gas stations, the number of keys and labels, the number and volume of refuelings, the remaining fuel and so on.

Filter information by object groups and select the time period at the top of the screen.



# Reports

This subsection shows data on refueling the objects as graphs (trends) and various reports. The interface of the section is similar to that of the [Reports](#) section. Please read the description of the reports below.

The screenshot shows the 'Reports' section of a software interface. On the left, there is a sidebar with a search bar and a dropdown menu. The dropdown menu is open, showing a list of report types: Common report (selected), Fuel tank report, Fuel tank common report, Transactions report, Transport report, Transport common report, Card usage common report, and Card usage report. The main area displays a table titled 'Common report for period from 01.01.2021 00:00 till 31.01.2021 23:59'. The table has columns for Gas station, Pump, Start counter, End counter, Total, Bypass, Count, and Duration. The data is as follows:

Gas station	Pump	Start counter	End counter	Total	Bypass	Count	Duration
M 881	1	198791.42	242246.85	43455.43	0.00	383	21 h 7 min
E 113 FS	1	2015309.79	2159686.00	144376.55	2026.24	1640	45 h 3 min
F 366 MS	1	2453680.55	2578519.25	124839.69	10.59	1742	50 h 32 min
<b>Total</b>				<b>312671.67</b>	<b>2036.83</b>	<b>3765</b>	<b>116 h 42 min</b>

## Common report

This report shows the total readings for the main gas station parameters in the system, such as the initial and final value of the fuel meter reading, total fuel consumption, bypass, duration of refueling.

The screenshot shows the 'Common report' table for the period from 01.01.2021 00:00 to 31.01.2021 23:59. The table has columns for Gas station, Pump, Start counter, End counter, Total, Bypass, Count, and Duration. The data is as follows:

Gas station	Pump	Start counter	End counter	Total	Bypass	Count	Duration
M 881	1	198791.42	242246.85	43455.43	0.00	383	21 h 7 min
E 113 FS	1	2015309.79	2159686.00	144376.55	2026.24	1640	45 h 3 min
F 366 MS	1	2453680.55	2578519.25	124839.69	10.59	1742	50 h 32 min
<b>Total</b>				<b>312671.67</b>	<b>2036.83</b>	<b>3765</b>	<b>116 h 42 min</b>

## Fuel tank report

This report demonstrates information about gas stations, such as their time, volume and address. It also shows the initial and final fuel levels in each tank of each gas station. The report is only displayed if there is a fuel/flow sensor installed at the gas station. If additional devices are available, they allow tracking the fuel temperature and density in the tanks.

Fuel tank report for period from 01.01.2021 00:00 till 10.01.2021 23:59

### F 366 MS (Fuel Tank 6) Storage tank

Action	Time	Volume	Temperature	Density	Address
Fueling	02.01.2021 17:49	9789.62 lt	-	-	Base 100
Fueling	03.01.2021 15:09	4008.61 lt	-	-	Show address
Fueling	04.01.2021 15:40	7442.28 lt	-	-	Base 100
Fueling	05.01.2021 15:02	6699.85 lt	-	-	Base 100
Fueling	06.01.2021 16:43	6539.10 lt	-	-	Base 100
Fueling	07.01.2021 15:30	7413.53 lt	-	-	Show address
Fueling	08.01.2021 16:26	598.22 lt	-	-	Base 100
Fueling	08.01.2021 16:33	6290.26 lt	-	-	Base 100
Fueling	10.01.2021 15:58	4349.95 lt	-	-	Base 100
<b>Start level</b>	<b>9927.63 lt</b>	<b>End level</b>	<b>10117.50 lt</b>		
<b>Total fuelings</b>	<b>53131.42 lt</b>	<b>Fuel consump...</b>	<b>52941.55 lt</b>		

### Fuel tank common report

This report shows the general gas station tank parameters, such as the initial and final fuel level, the volume of refueling and fuel consumption.

Fuel tank common report for period from 01.01.2021 00:00 till 10.01.2021 23:59

Tank	Start level	End level	Fuelings volume	Fuel consumption
E 113 FS/Storage tank	5598.51 lt	4522.22 lt	23791.05 lt	19644.60 lt
E 113 FS/Storage tank. 2	5154.55 lt	4119.67 lt	19730.56 lt	20650.09 lt
E 113 FS/Storage tank.3	4846.42 lt	3720.31 lt	19761.89 lt	11872.91 lt
F 366 MS/Storage tank	9927.63 lt	10117.50 lt	53131.42 lt	46347.00 lt
F 113 LS/Storage tank.1 4830n	-	-	0.00 it	0.00 it
F 113 LS/Storage tank.2 5290n	-	-	0.00 it	0.00 it
F 113 LS/Storage tank.3 5927n	-	-	0.00 it	0.00 it
<b>Total</b>	<b>25527.11 it</b>	<b>22479.70 it</b>	<b>116414.92 it</b>	<b>98514.60 it</b>

### Transactions report

This report shows all operations at each gas station with details about time, duration, volume and location.

Transactions report for period from 30.12.2020 00:00 till 31.12.2020 23:59

### F 366 MS (Fuel Tank 6)

Check	Operator	Object	Time	Duration	Pump	Requested	Volume	Limit	Counter	Fuel level	Inventory №	Odometer	Address
10955	H 2253 06		30.12.2020 00:13	2 min 36 sec	1	1.00	78.94	0	2439658.5	4095.00	0000	0	Show address
10956	H 2253 06		30.12.2020 00:15	1 min 35 sec	1	1.00	47.34	0	2439705.75	4095.00	0000	0	Show address
10957	H 2253 06		30.12.2020 00:20	2 min 16 sec	1	1.00	54.08	0	2439759.75	4095.00	0000	0	Show address
11037	H 2253 06		30.12.2020 18:59	1 min 28 sec	1	1.00	36.39	0	2446173.5	4095.00	0000	0	Show address
11038	H 2253 06		30.12.2020 19:02	2 min 38 sec	1	1.00	71.50	0	2446245	4095.00	0000	0	Show address
11039	H 2253 06		30.12.2020 19:35	2 min 19 sec	1	1.00	56.38	0	2446301.5	4095.00	0000	0	Base 300
11040	H 2253 06		30.12.2020 19:38	47 sec	1	1.00	6.49	0	2446308	4095.00	0000	0	Base 300
11041	H 2253 06		30.12.2020 19:39	1 min 19 sec	1	1.00	39.32	0	2446347.25	4095.00	0000	0	Base 300
11042	H 2253 06		30.12.2020 19:42	2 min 24 sec	1	1.00	59.17	0	2446406.5	4095.00	0000	0	Show address
11043	H 2253 06		30.12.2020 19:44	1 min 29 sec	1	1.00	49.56	0	2446456	4095.00	0000	0	Show address
11155	H 2253 06		31.12.2020 22:32	1 min 40 sec	1	1.00	103.78	0	2453680.5	4095.00	0000	0	Show address
<b>Total</b>			<b>201</b>	<b>6 h 17 min</b>			<b>14101.28</b>						All addresses / Show all on a map

### Transport report

This type of report gives information about refueling for each specific object: how many times, at what time, where and what volume was refueled. The report also shows data on the gas station where the object was refueled, the refueling limits set for the object, odometer readings (if the necessary sensors are installed), and so on.

Transport report for period from 01.01.2021 00:00 till 31.01.2021 23:59

#### E 111 SD (ERF)

Time	Gas station	Operator	Requested	Volume	Check	Limit	Odometer	Address
20.01.2021 15:24	AZS Post 77	Driver 12	1.00	55.93	12436	0	0	Base 990
23.01.2021 14:13	AZS Post 77	Driver 12	1.00	60.74	12586	0	0	Base 990
25.01.2021 16:30	AZS Post 77	Driver 12	1.00	37.01	12685	0	0	Base 990
<b>Total</b>			<b>3</b>	<b>153.68</b>				<b>Show all on a map</b>

### Transport common report

This report shows general information about each object (including gas stations) with their mileage, engine hours, idle operation period, driving time, fuel volumes.

Transport common report for period from 01.01.2021 00:00 till 31.01.2021 23:59

Object	Mileage	Engine time	Idling	Moving time	Fuel consumption	LLS volume	Station volume
AZS Post 77	0.00 km	-	-	-	0.00 lt	0.00 lt	102197.96
MFT 444 SS 08 LS (Mobile Fuel Tank 8)	2521.33 km	-	-	114 h 32 min	2832.32 lt	10708.46 lt	-
MFT 806 TT 56 LS (Fuel Tank 6)	3.45 km	-	-	18 min 7 sec	0.00 lt	0.00 lt	-
A 446 ACL ERF (ERF)	118.87 km	-	-	21 h 11 min	0.00 lt	0.00 lt	-
A 795 FC ERF (ERF)	2100.89 km	88 h 40 min	32 h 25 min	54 h 59 min	681.78 лт	692.17 лт	-
<b>Total</b>	<b>4744.55 km</b>	<b>88 h 40 min</b>	<b>32 h 25 min</b>	<b>191 h</b>	<b>3514.10 лт</b>	<b>11400.63 лт</b>	<b>102197.96 лт</b>



### Card usage common report

This report contains general information about the use of fuel cards, refueling, established limits.

Card usage common report for period from 24.01.2021 00:00 till 31.01.2021 23:59

Card	Volume	Count	Duration	Limit	Balance
K 444 PN ERF					50 lt
777 BS 77 ERF	33.00 lt	1	51 sec		33 lt
555 NS 88 ERF (Isuzu)	43.77 lt	1	3 min 34 sec		79 lt
000 CL 66 ERF (Toyota Hil...)	58.00 lt	1	1 min 25 sec		111 lt
110 MS 77 ERF (Isuzu)	51.28 lt	1	1 min 20 sec		105 lt
555 BK 08 ERF (Toyota Hil...)	55.00 lt	1	1 min 17 sec		83 lt
000 EL 55 ERF	46.95 lt	1	1 min 18 sec		105 lt
<b>Total</b>	<b>288.00 lt</b>	<b>6</b>	<b>9 min 45 sec</b>		

### Card usage report

This report shows details on gas stations for each card. It provides the information about the place, time and volume of refueling, the check number, the refueling limit set for the object, odometer readings.

Card usage report for period from 01.01.2021 00:00 till 31.01.2021 23:59

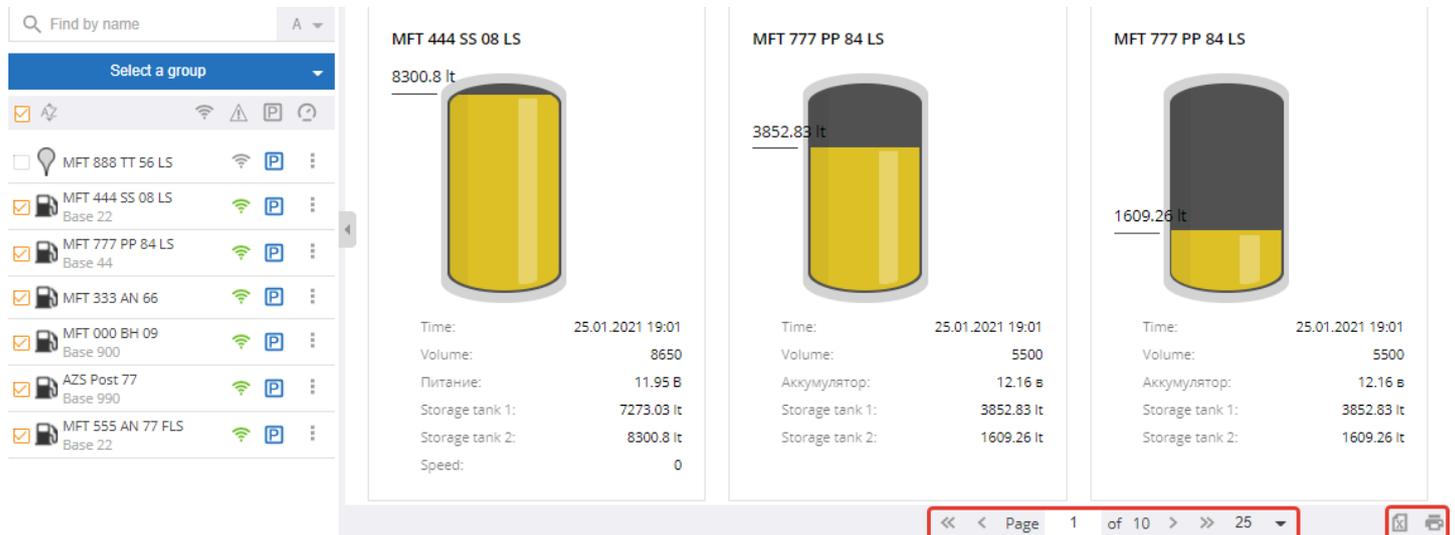
#### 000 EL 55 ERF

Time	Gas station	Requested	Volume	Check	Limit	Odometer	Address
21.01.2021 17:26	AZS Post 77	1 lt	58.45 lt	12496	0 lt	0	City
25.01.2021 16:38	AZS Post 77	1 lt	46.95 lt	12686	0 lt	0	City
<b>Total</b>	<b>2</b>		<b>105.40 lt</b>				<b>Show all on a map</b>

# Fuel tanks

This section displays data grouped by gas station fuel tanks. A graphic image of the fuel tank illustrates the fuel level in it. The time stamp and the values of all trends related to the fuel tank accompany each tank image.

Select gas stations whose information is to be displayed on the screen by checking the boxes. The information on the screen can be immediately exported to an MS Excel file or printed.



# Service

This section is intended for accounting and planning of maintenance work on user's objects. It allows adding scheduled tasks (insurance renewal, maintenance, wheel and oil replacement, etc.), setting their frequency and monitoring their implementation. This section also allows creating reports on the work completed and calculating the cost of maintenance of objects. The system allows creating reminders about scheduled work in the way similar to notifications about the object events. For more information, see the [Notifications](#) section in the control panel.

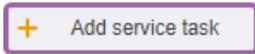
The Service section menu is on the left of the screen. The menu is collapsed by default, but it can be expanded.

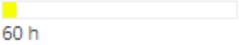
The menu contains the following subsections:

- Service tasks
- Completed work
- Reports

# Service tasks

This subsection displays information about scheduled maintenance activities (tasks). The name of the task, the object for which it is to be performed, implementation plan, previous implementation, set frequency of the task and its status are displayed here.

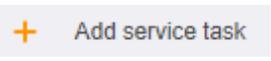
 + Add service task

Task	Object	Completion plan	Last works	Repeat	Status	
TO1	M 113088	30.09.2019 2300000.00 km	-	10000.00 km	Should be completed	
TO2	M 113088	30.09.2019 2300000.00 km	-	150000.00 km	Should be completed	
TO2	H 2252 06	96666.00 km	29.09.2019	10000.00 km	Should be completed	
	M 000 ERF	49287.00 km	03.08.2019	7000.00 km	Should be completed	
TO-1	M 113414	60 h	28.09.2019	-		
TO1	M 333 ERF	35002.00 km	29.09.2019	10000.00 km		
TO2	M 333 ERF	40002.00 km	29.09.2019	15000.00 km		

The field for searching, grouping and filtering objects is on the left.

There are three icons in the task list opposite each of them:

-  - mark the task completed. Specify the name of the work performed, its cost, duration and other information in the expanding window;
-  - edit task;
-  - delete task.

Select an object and click on the icon  + Add service task to add a new task.

Click on this button to open a window asking to specify the task essential features (name, description, deadlines, etc.).

Check the boxes to make the corresponding input fields active (date, odometer, driving hours). They help determine the moment of the initial completion of the task, and, if any, of its repetition. E.g. additionally to the direct indication of a certain date, specify that the first (and/or subsequent) task is to be performed when the odometer readings reach a given value or a given number of hours.

Service task
✕

Object

Name

Description

Date

Odometer

Engine time

First execution	Repeat
09.09.2021	180 days
0 km	0 km
0 h	0 h

Apply
Cancel

After adding, the task will be displayed on the screen in the general list.

## Completed work

Unlike the previous subsection, this one records information about the work already completed. The following information about the work completed is entered here, such as the type of work, the object in respect of which it has been performed, the date of the work, the service task, the cost of the work. Select the time range for which to display information about the work completed in the top right corner.

+ Add completed work

05.02.2021 0:00 - 07.03.2021 23:59

Apply

Completed work	Object	Date	Service task	Cost	
Oil change	222 LA 55 ERF	07.03.2021	Oil change	1000	✎ 🗑
TO	888 MB 99 ERF	07.03.2021	TO	5000	✎ 🗑

✎
🗑

There are icons on the right for editing information about completed works or deleting it. Also, like in the Service Tasks subsection, there is a search field and grouping of selected objects, a panel for displaying objects by the selected filter.

By clicking on the corresponding icons in the bottom right corner, you can hide empty graphs or export the information on the screen to an MS Excel file.

## Reports

This subsection reports information about the work completed. The interface of the section is similar to that of the [Reports](#) section. Please read the description of the reports below.

### Common report

This report contains the data of the object in respect to which there are completed service tasks, information about the date of completion of the work, its duration and cost.

Common report for period from 08.02.2021 00:00 till 10.03.2021 23:59				
Object	Date	Completed work	Duration	Cost
222 LA 55 ERF	07.03.2021 00:21	Oil change	1 h	1000
888 MB 99 E...	07.03.2021 00:22	TO	3 h	5000
<b>Total</b>			<b>4 h</b>	<b>6000</b>

### Completed work

This report shows the work performed separately for each object. Even if there is no information about the work performed in respect to an object, the object will be shown in this report regardless. You can hide empty lines using the icon  in the bottom right corner.

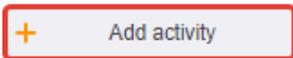
Completed works for period from 08.02.2021 00:00 till 10.03.2021 23:59				
<b>555 NO 88 ERF</b>				
Object	Date	Completed work	Duration	Cost
<b>Total</b>				<b>0</b>
<b>222 LA 55 ERF</b>				
Object	Date	Completed work	Duration	Cost
222 LA 55 ERF	07.03.2021 00:21	Oil change	1 h	1000
<b>Total</b>			<b>1 h</b>	<b>1000</b>
<b>888 MB 99 ERF</b>				
Object	Date	Completed work	Duration	Cost
888 MB 99 ERF	07.03.2021 00:22	TO	3 h	5000
<b>Total</b>			<b>3 h</b>	<b>5000</b>

## Activities

This menu item helps tracking the movement of objects within the framework of certain activities (races, trials, marathons, games, etc.).

This section assumes that activity organizers post announcements of upcoming races or games, and potential participants can add their devices to the list of tracked ones. During the time declared by the organizer as the time of the activity, the objects will be available for tracking by a short link. And the tracks of the participants will be available via the same link for analysis and summing up later.

The Figure below demonstrates the section.

 Add activity

 **Virtual Moscow Marathon**  

 Moscow Road Runners  
 25.09.2021 11:06 - 25.09.2021 17:06  
  
 <https://www.moscowroadrunners/events2021/virtual-moscow-marathon/>

  42 km 

 **October Cycling Climbing Challenge**  

 Elbrus Bike  
 07.10.2021 07:40 - 07.10.2021 19:40  
 Terskol  
 <https://www.elbrusbike.ru/events2021/octobercyclingclimbingchallenge/>

  100 km 

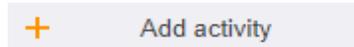
All upcoming and past activities added to the system are displayed here, including their essentials such as the name, organizer, dates and venue, link to the website, type (running, cycling, orienteering, etc.) and distance.

The icon  is a short link to the activity broadcast. Such broadcast is available both to users of the service in this section and to other persons if the activity organizers post it in their social networks, on event websites, etc.

Select the desired time range in the top right corner in the window . This, in particular, allows viewing information about activities that have already finished.

## Add activity

The relevant activity organizer can make it available for viewing and participation. To do this, click on the button and add it to the system.

 Add activity

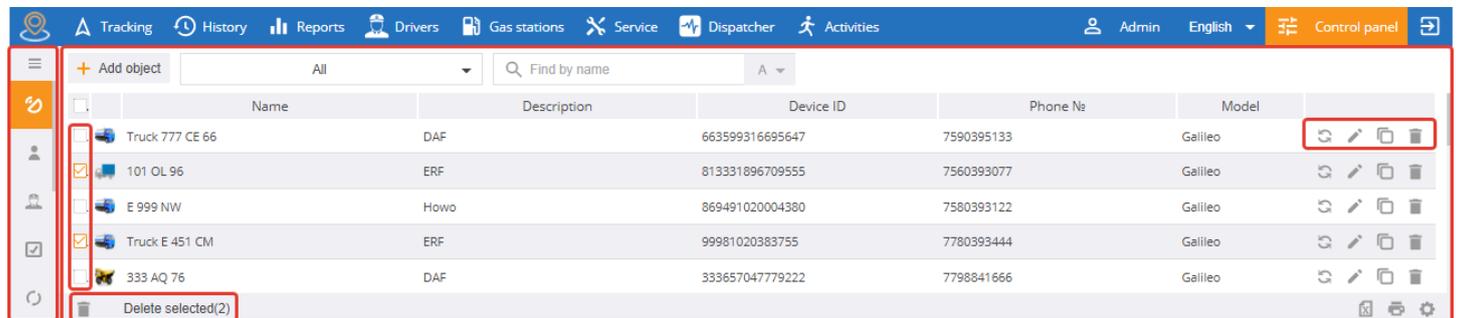
Enter the activity name, date, venue, distance and type (running, cycling, orienteering, etc.) in the window that opens. The information provided will announce the activity and allow potential participants to learn about upcoming activities and join them.

## Join

A participant who wants to join the activity and add their device to the broadcast can click  to add it to the list of tracked objects. Click on the icon to open the dialog for selecting objects to be added to tracking. In a similar way remove previously connected user objects from the list of tracked ones during the activity.

# CONTROL PANEL

The GeoLoc satellite tracking system is controlled via the control panel, which is accessed from the panel on the top. The control panel is available to users ranked not lower than User.



The control panel consists of two areas: the navigation menu on the left for switching between editors of different system elements (objects, users, notifications, etc.), and the workspace taking up the rest of the space. It displays a list of existing system elements and buttons for editing them and adding new ones. For all lists, editing and deleting elements is also available (both as a group and separately). To delete items as a group, tick them in the list (on the left in the element line), and then click at the very bottom of the list.

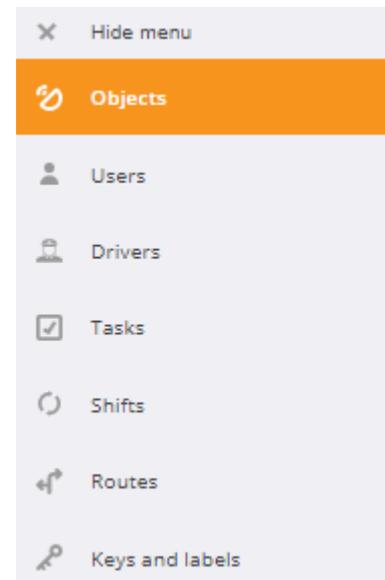
Delete selected(2)

There is also the  icon at the bottom on some tabs (Objects, Users and Geozones) which opens additional functions of the section, such as import, diagnostics, etc.

## Structure

By default, the control panel opens on the Objects section tab. Go to any of the following sections using the navigation menu:

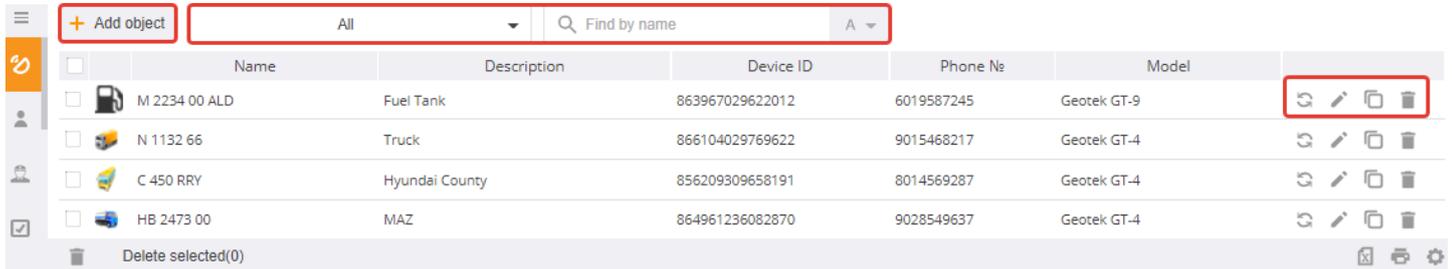
- Objects;
- Users;
- Drivers;
- Tasks;
- Shifts;
- Routes;
- Keys and labels;
- Commands;
- Geozones;
- Notifications;
- Server.



Let's take a closer look at each of them.

# Objects

To create, view and manage objects, go to the Objects section. This will display a list of objects available to a specific user. For the end user, the visible list of objects is limited, containing either the objects that the user themselves created (entered into the system) or that they have the right to observe.



## Adding new object

Click to add new objects

There is a search box allowing searching the object (by name, IMEI/ID, phone number, device type) in the list of the objects in the workspace, which makes the search simple.



Filter objects by groups here. The object group editor is available from the object group selection menu.



The following tools are available in the workspace next to each object in the list:

- Synchronize keys. Allows synchronizing keys with this object. This function is described in more detail in the Keys and Labels (Key Synchronization) section.
- Edit. The dialog for editing each object can also be summoned in other sections (Tracking, History, etc.) from the object context menu.
- Copy. Duplication is an alternative way to create new objects. This is helpful if you need to create an object with the same properties and settings. In the new object card, only two boxes are to be filled in, Name and ID.
- Remove. Remove each individual item from the objects list.

The object editing dialog contains a lot of settings that are grouped using tabs. The information about each tab and explanations about the purpose of the main parameters are below.

## Main

The tab contains general information about the object, such as the object ID, name, comment (description), the numbers of the SIM cards installed, the equipment model, the time zone configured in the device. It also shows the data for the object visualization, such as its icon, track color, group affiliation, etc.

Object edit ✕

Main Trends Settings Service Events Odometer Vehicle specs Zones

Object settings

Name	<input type="text"/>
Description	<input type="text"/>
Device ID <span style="font-size: small;">(?)</span>	<input type="text"/>
Inventory No	<input type="text"/>
Phone No	<input type="text"/>
Phone No	<input type="text"/>
Device model <span style="font-size: small;">(?)</span>	<input style="border-bottom: 1px solid #ccc; border-top: 1px solid #ccc; width: 100%;" type="text"/>
Type	<input style="border-bottom: 1px solid #ccc; border-top: 1px solid #ccc; width: 100%;" type="text" value="None"/>
Static	<input type="checkbox"/>
Timezone	Is the device using a non-standard time zone?

Personalization

Color	<input style="width: 40px; height: 20px; border: 1px solid #ccc;" type="text" value="Red"/>
Icon	<input style="width: 40px; height: 20px; border: 1px solid #ccc;" type="text" value="Location"/>

**Groups**

Name	+
------	---

**Keys and labels**

Name	+
------	---

Apply
Cancel

## Trends

This tab allows configuring the object trends and contains a list of all previously added trends with their name, connection type and other essential information. Trend configuration dialog allows retrieving full information about the trend and editing it. Configuring trends is described in detail in section [Working with objects](#).

Object edit ✕

Main Trends Settings Service Events Odometer Vehicle specs Zones

	Name	Input	Sensor type	Scale	Smoothing	Zone	+
<span style="color: green;">■</span>	AKU	Power	ALARM	0...100	0		✎ ✕
<span style="color: red;">■</span>	IGN	Discrete input 2		0...20	0		✎ ✕

## Parameters

This tab allows setting various object parameters, such as data storage time, maximum permitted speed, minimum parking time, etc. For some specific parameters, comments are immediately given about their purpose.

Object edit ✕

Main Trends **Settings** Service Events Odometer Vehicle specs Zones

---

Main

Keep history	<input type="text" value="90"/>	days
Max polling time	<input type="text" value="600"/>	sec
Max allowed speed	<input type="text" value="110"/>	km/h
Max allowed daily mileage	<input type="text" value="0"/>	km
Max allowed daily working time	<input type="text" value="0"/>	h

---

Parking settings

Parking radius	<input type="text" value="50"/>	m
Min parking time	<input type="text" value="300"/>	sec
Detect parking by ignition	<input type="checkbox"/>	

---

Fuel

Min idle time	<input type="text" value="180"/>	sec
Fuel consumption per 100 km	<input type="text" value="0"/>	
Hourly fuel consumption	<input type="text" value="0"/>	
Min fuel drain	<input type="text" value="0"/>	
Min fuel drain speed	<input type="text" value="1"/>	

## Service

It contains information for the maintenance of the facility's equipment, such as the installation date, service engineer's name, comments on the operation of the equipment. Additionally, the object status (active, under repair, locked, etc.) and parameters for sending data to third-party systems can be configured (see the GeoLocForwarder Manual). This tab is not available for users ranked lower than the Integrator.

Object edit ✕

---

Main
Trends
Settings
Service
Events
Odometer
Vehicle specs
Zones

---

Status	Active <span style="float: right;">▼</span>
Created at	27.11.2016
Payed till	27.11.2021 <span style="float: right;">X</span>
Installed at	26.11.2016 <span style="float: right;">X</span>
Installer fullname	Mark
Description	
Data forwarding	

Apply
Cancel

## Events

The tab allows managing user notification rules that apply to the object. Note that no events other than critical ones will be generated for the object until at least one notification rule is associated with it.

Object edit ✕

---

Main
Trends
Settings
Service
Events
Odometer
Vehicle specs
Zones

---

Name	+
Fuel draining	✎ ✕
No data	✎ ✕
Speed limit exceeding	✎ ✕

Apply
Cancel

## Odometer

This tab allows setting the current values of the odometer and the hour meter. The data is set as of the beginning of the current day and is used as initial values for further calculations. The data can be adjusted later by setting new values.

Odometer value	<input type="text" value="0.00"/>	km	<b>Sync</b>
Working time	<input type="text" value="0"/>	hours	<b>Sync</b>

\* For synchronization one must use morning data

## Vehicle Specs

This tab contains technical reference data about the user's vehicle, such as its make, model, fuel type, engine volume and power, etc.

Vehicle type	<input type="text" value="Truck"/>
License plate	<input type="text" value="E 994 BW"/>
VIN number	<input type="text"/>
Model	<input type="text"/>
Brand	<input type="text" value="Howo"/>
Vehicle year	<input type="text" value="2015"/>
Color	<input type="text" value="Green"/>
Vehicle fuel type	<input type="text"/>
Engine power	<input type="text" value="0"/> kW
Engine volume	<input type="text" value="0"/> cm3

**Apply** Cancel

## Zones

This tab allows setting the zones that the object consists of (if any). Rooms in the building, fuel tanks on the same object can be set as zones. Information about the object zones allows grouping trends displayed in the relevant sections and reports. Trends and zones can be associated in the trend editor.

ID	Name	+
----	------	---

# Working with objects

## Configuring trends

Summon the trend configuration dialog from the object trend settings dialog to add a new trend or edit an existing one.

The **Main** tab contains the main trend parameters including its name, color, units of measurement. Let's look at the other trend parameters below:

- The *Input* field is used to select the data source for the trend (digital input/analog input/power, etc.). Some of the inputs have numbers, for example, a discrete input. Use the hardware documentation to select the input.
- Trend measurement *scale* or minimum and maximum permitted trend values. Note that values outside the limits of the scale will be discarded.
- *Smoothing*. It allows setting the degree of averaging trend points.
- *Permitted interval alerts*. Set this parameter to enable notifications when the trend value exceeds the permitted limits.
- *Hidden*. Set this option to hide this data in the Tracking and History menus.

The screenshot shows a 'Trend settings' dialog box with a blue header and a close button. Below the header are two tabs: 'Main' (selected) and 'Calibration'. The 'Main' tab contains the following configuration options:

- Name:** Power
- Color:** Green (with a color selection dropdown)
- Input:** Power (PWR) (with a dropdown arrow)
- Type:** (with a dropdown arrow)
- Scale:** From 0 To 30
- Permitted interval:** From (empty) To (empty)
- Scale unit:** B
- Selected bits mask:** 0
- Smoothing:** A slider set to 0, with a range from 0 to 30.
- Permitted interval alerts:**
- Hidden:**

At the bottom of the dialog are two buttons: 'Apply' (blue) and 'Cancel' (grey).

The **Calibration** tab allows configuring the conversion of raw sensor data into user's values. This function is required to convert e.g. fuel level sensor data from voltage to liters or to convert units of measurement (e.g.

from degrees Celsius to degrees Fahrenheit). The completed calibration table can be immediately exported to or imported from an MS Excel file.

Trend settings
✕

Main Calibration

Sensor value	Trend value	+
0	0	✕
274	20	✕
503	40	✕
722	60	✕
2010	180	✕

Export
Import
Apply
Cancel

In order to understand how to work with the calibration table, let's have a look at some examples:

1. The power supply data of the equipment is retrieved in mV; the maximum permitted value is 20V. The calibration table translating the data into V will read the following:

Sensor value	Trend value	+
0	0	✕
20000	20	✕

2. The power supply data of the equipment is retrieved in mV, the maximum permitted value is 20,000 mV. When the ignition is started, the voltage rises above 14V. The calibration table allowing to retrieve information about the ignition status from the voltage, will read the following:

Sensor value	Trend value	+
14000	0	✕
14001	1	✕

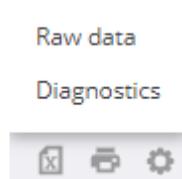
3. The fuel level unit sends data in the range from 0 (0L) to 3460 (150L). All other values are incorrect. The trend scale is set to be 0 ... 150 L. The calibration table, which will convert the fuel level unit data to L and discard incorrect values, may read the following:

Sensor value	Trend value	
0	0	×
1027	50	×
2067	100	×
3460	150	×
3461	-1	×

\* -1 is a number that is obviously outside the trend range.

## Data

This section allows analyzing the data coming from the object equipment and the basic data that the system builds on their basis. It provides both raw data retrieved from the devices, daily statistics and calculations of driving sessions. The section can be accessed from the object control panel by clicking on  in the bottom right corner.



A menu with two sections opens:

- data;
- diagnostics.

All data in the Data section is grouped into 4 tabs that display relevant information about the selected object for the selected time period.

The Data tab contains navigation data and sensor data retrieved from devices without filtering, smoothing, etc.

Raw data						Fuel transactions		Driver sessions		Daily statistics	
Time	Coordinates	Satellites	Speed	Altitude	Raw data						
10.08.2020 00:00:00	47.26231 52.35828	12	0	-23	HDOP=0.4 IN64=10752 PWR=24468 BATT=3757 DIN0=0 DIN1=0 DIN2=0 DIN3=0 DIN4=0 DIN5=0 ACCEL=0 BREAK_ACCEL=0 TURN_ACCEL=0 VACCEL=0 IN97=0 IN98=0						
10.08.2020 00:00:01	47.26231 52.35828	12	0	-23	HDOP=0.4 IN64=10752 PWR=24474 BATT=3761 DIN0=0 DIN1=0 DIN2=0 DIN3=0 DIN4=0 DIN5=0 ACCEL=0 BREAK_ACCEL=0 TURN_ACCEL=0 VACCEL=0 IN97=0 IN98=0						
10.08.2020 00:02:02	47.26231 52.35828	12	0	-23	HDOP=0.4 IN64=10752 PWR=24476 BATT=3759 DIN0=0 DIN1=0 DIN2=0 DIN3=0 DIN4=0 DIN5=0 ACCEL=0 BREAK_ACCEL=0 TURN_ACCEL=0 VACCEL=0 IN97=0 IN98=0						

10.08.2020 0:00 - 28.08.2020 23:59 Apply

Page 1 of 383 50

The Fuel Transactions tab shows information about the transactions of Gas stations equipped with the appropriate equipment.

Raw data	Fuel transactions	Driver sessions	Daily statistics	11.01.2021 0:00 - 29.01.2021 23:59		Apply
Start	Finish	Coordinates	Key/Label	Volume	Object	Other details
16.01.2021 02:35:54	16.01.2021 02:36:26	46.20005 53.37209	Bypass	1.22	0000	ODO=0 FuelVolume1=-1 FuelVolume2=-1 FuelHeight1=-1 FuelHeight2=-1 FuelTemp1=-128 FuelTemp2=-128 FuelDensity1=-100 FuelDensity2=-100 Requested=1 Pump=1 Total=8964004.21 InnerID=0 TagLimit=0 AuthType=3 NValue=null
16.01.2021 02:38:00	16.01.2021 02:38:22	46.20005 53.37209	Bypass	1.12	0000	ODO=0 FuelVolume1=-1 FuelVolume2=-1 FuelHeight1=-1 FuelHeight2=-1 FuelTemp1=-128 FuelTemp2=-128 FuelDensity1=-100 FuelDensity2=-100 Requested=1 Pump=1 Total=8964005.33 InnerID=1 TagLimit=0 AuthType=3 NValue=null

Page 1 of 1 >> 50

The **Driver Sessions** tab displays statistics calculated by the system about drivers' trips on the object.

Raw data	Fuel transactions	Driver sessions	Daily statistics	06.08.2019 0:00 - 30.08.2019 23:59		Apply		
Driver	Object	Start	Finish	Mileage	Engine time	Fuel consumption	Penalty	Violations
Harry	904 AT 05 CC	17.08.2019 06:17:25	17.08.2019 06:39:56	11.83 km	22 min 31 sec	1.16205	0	
Nick	134 AR 86 FD	06.08.2019 04:38:54	06.08.2019 05:31:20	6.88 km	52 min 26 sec	0	30	MOTOSTOP:1363:...
Nick	134 AR 86 FD	06.08.2019 06:10:37	06.08.2019 06:13:32	0.35 km	2 min 55 sec	0	0	
Nick	134 AR 86 FD	06.08.2019 06:22:54	06.08.2019 06:25:40	0.50 km	2 min 46 sec	0	0	
Nick	134 AR 86 FD	06.08.2019 06:33:53	06.08.2019 07:33:50	43.13 km	59 min 57 sec	0	0	
Nick	134 AR 86 FD	06.08.2019 07:54:39	06.08.2019 08:21:59	14.86 km	27 min 20 sec	0	5	SPEED:12:2 SPEED:...

Page 1 of 8 >> 50

The **Daily statistics** tab shows statistics on the selected object grouped by day: duration of movement and parking, duration of operation and idle state, fuel consumption, etc.

Raw data	Fuel transactions	Driver sessions	Daily statistics	17.11.2020 0:00 - 29.11.2020 23:59		Apply		
Date	Parking	Moving	Mileage	Engine time	Working time	Idling	Fuel consumption	Fueling
20201117	17 h 51 min	6 h 9 min	214.76 km	10 h 51 min		4 h 37 min	35.0234	34.1218
20201118	17 h 13 min	6 h 47 min	214.57 km	12 h 15 min		5 h 25 min	27.2803	36.2967
20201119	17 h 42 min	6 h 18 min	214.85 km	12 h 51 min		6 h 27 min	34.6136	27.4005
20201120	20 h 33 min	3 h 27 min	95.72 km	8 h 25 min		4 h 58 min	12.0072	34.8009
20201121	18 h 54 min	2 h	94.36 km	9 h 27 min		6 h 26 min	26.0321	0
20201122	6 h 37 min		0 km	2 h 9 min		1 h 35 min	1.15385	0
20201123	20 h 43 min	3 h 17 min	100.70 km	7 h 33 min		4 h 11 min	10.2381	37.3407
20201124	21 h 11 min	2 h 49 min	92.52 km	8 h 44 min		5 h 50 min	4.55128	10.5275

### **Diagnostics.**

This section contains information about the state of the equipment on user objects, their status, the time when the latest data was received, the state of the main sensors, etc. The section is to help the administrator and the object owner diagnose equipment and monitor equipment operability en masse. This section can be accessed from the object control panel or from the user control panel.

User	Object	IMEI	Phone №	Model	Status	Payed till	Time	Odome...	State	Address	
Admin	Truck 777 CE 66	663599316695647	7590395133	Galileo	Active		30.09.2019 20:27:...	0 km		47.13506 51.974674	
Admin	101 OL 96	813331896709555	7560393077	Galileo	Active		22.02.2020 16:21:...	0 km		47.074715 51.848...	
Admin	E 999 NW	869491020004380	7580393122	Galileo	Active		09.06.2020 15:52:...	0 km		47.114746 51.95857	

The window for filtering data by the object name and owner and additional tools that allow managing the visibility of objects is above the list of objects. Edit and delete objects if necessary directly from the general list using the corresponding icons .

## Users

The **Users** section manages users in the system. Integrators and administrators can view the available list of users here, change their parameters, passwords and status.

Name	Email	Role	Super user	State	Last login time	Objects	Geozones	
		Demonstration	Admin	Active		8	2	
		Demonstration	Admin	Active		23	0	
Admin		Administrator		Active	06.09.2021	21	9	

## Adding a new user to the system

Add a new user and edit existing ones via the user editing dialog. Click on the corresponding icon to open it.

The dialog contains tabs that allow changing settings, the system interface for this user, user rights, tabs which control the ownership and visibility of user's objects and geozones.

The **User** tab contains basic details about the user: account name, e-mail address, contact details, time zone, language, etc.

Users
✕

Account
Access rights and roles
Interface
Objects
Geozones

Account

Objects: 21      Geozones: 9

Organization name:

Contact:

Post address:

Phone №:

Email:

Geolocation and language

Timezone:

Language:

Geocoding service:

System of units:

Apply
Cancel

Use the **Rights and roles** tab to configure the user role, change the superuser, lock the account and change the password.

Users
✕

Account
Access rights and roles
Interface
Objects
Geozones

Super user:

Blocked:

Role:

Change password

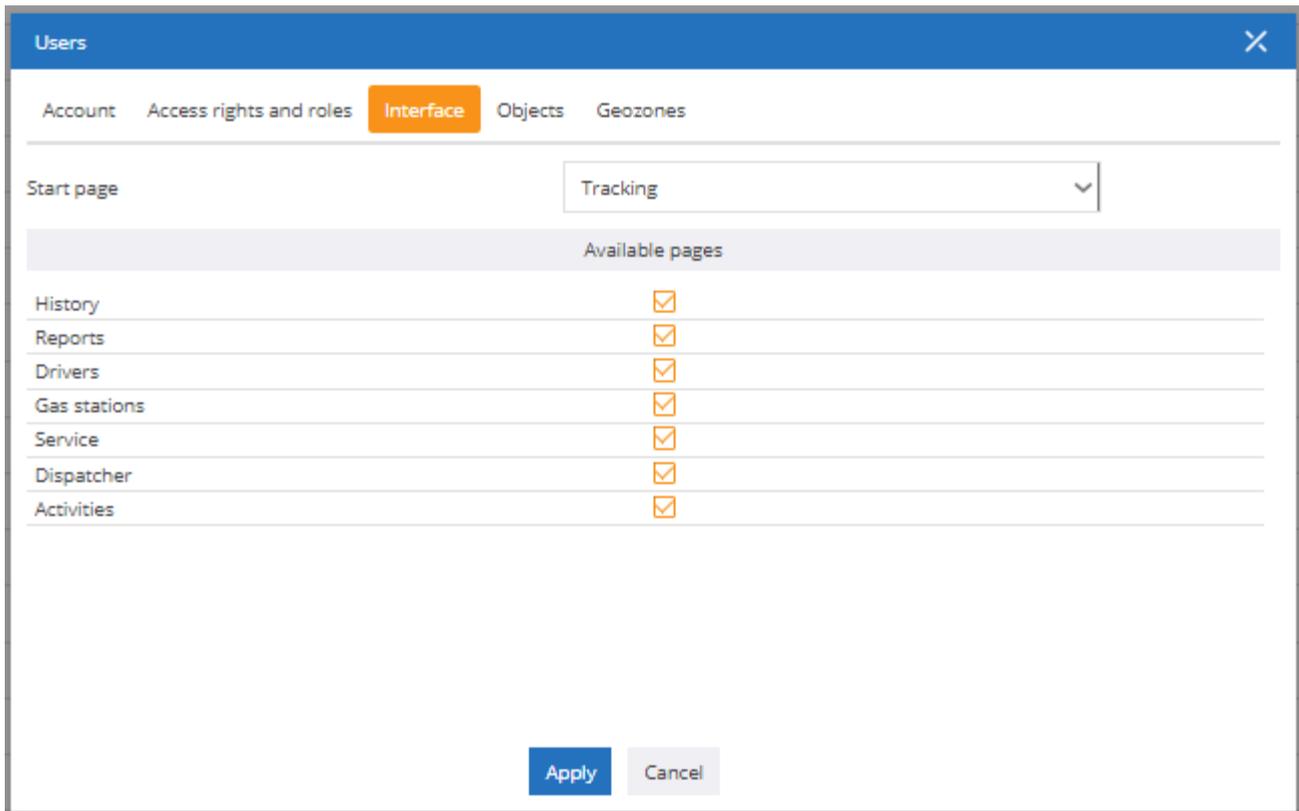
New password:

Password confirmation:

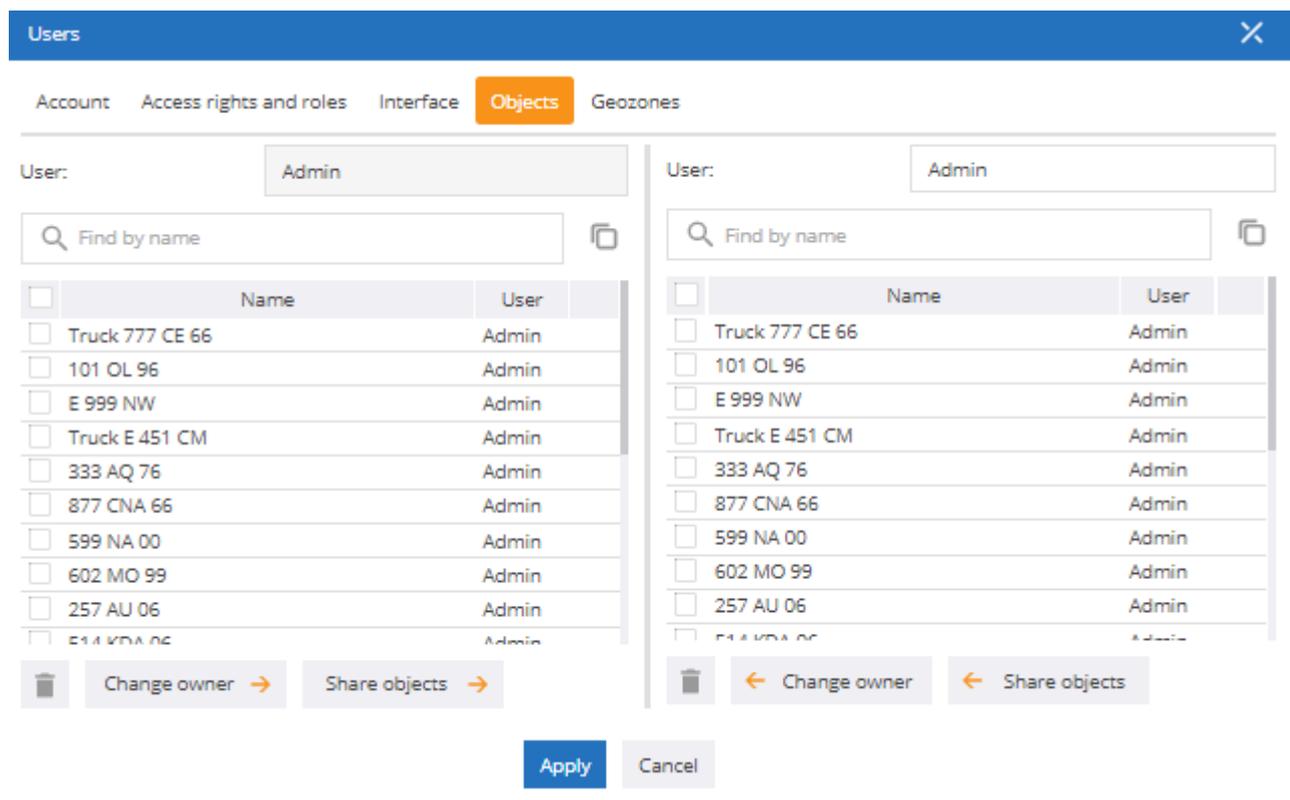
Change password

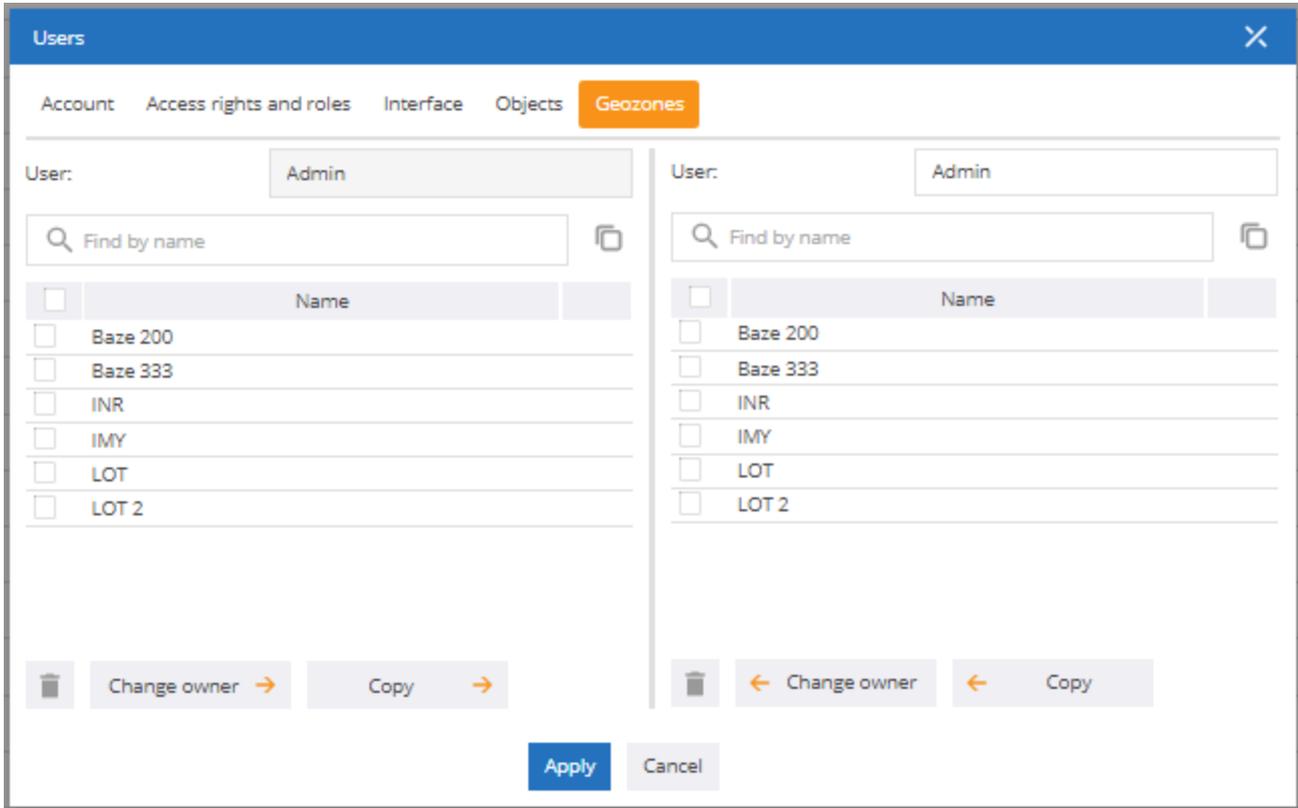
Apply
Cancel

Select the initial page on which the system will open for a specific user on the **Interface** tab. It also disables tabs that the user is not interested in (history, gas stations, service).



The **Objects** and **Geozones** tabs have a similar interface and are to transfer/display system elements (objects, geozones) between users. Visually, the tabs are separated into two halves; the left part of the dialog displays the objects available to the user being edited, and the right one allows selecting another user and see their objects. Having selected objects, the user can change their owner in both directions or create a copy of the object/geozone for another user.



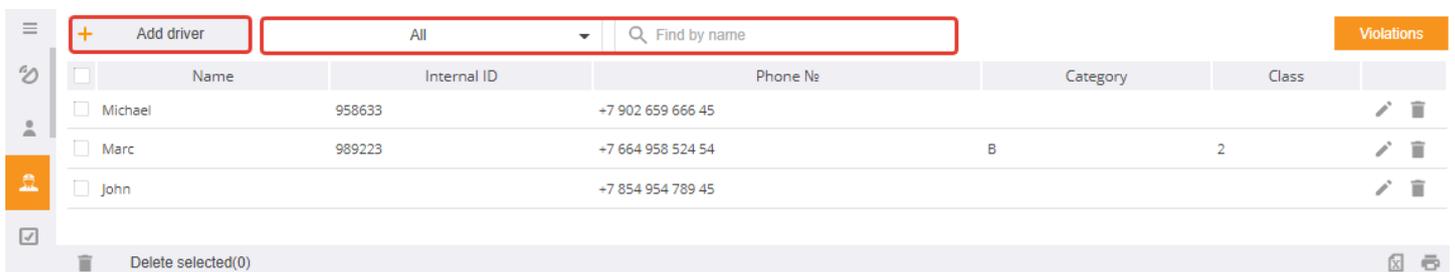


The system elements transferred to the user for viewing cannot be deleted or changed by them. Their name, comment and icon to display within this account can only be changed.

## Drivers

This section is for adding and editing user's drivers. Provided that this section is filled in, the system allows you to keep records of each driver's violations and statistics. If the equipment supports the use of keys, each driver can be associated with keys that identify them.

This section displays a list of drivers already logged into the system. To simplify the search for drivers, a filter by name or group can be applied to them.



## Adding a new driver to the system

Click on the icon  **Add driver** and enter all the necessary driver's data in the window that opens to add them to the system.

The screenshot shows a 'Driver' form with the following fields and values:

- Full name: Harry
- Internal ID: 956846
- Phone No: +7 902 559 849 25
- Driver licence: 77 01 659000
- Valid till: 26.03.2022
- Category: B C D
- Class: (empty)
- Insurance: (empty)
- Valid till: (empty)

The 'Groups' section contains one empty row with a '+' icon to add and an 'X' icon to delete.

The 'Keys and labels' section contains one row with the name 'p 626 33' and an 'X' icon to delete.

At the bottom of the form are 'Apply' and 'Cancel' buttons.

When drivers are added to the system or further edited, they are grouped and assigned specific keys and labels in their card. Every driver can have multiple keys pre-created in section

Keys and labels.

To finish, click the  button and the driver  will be displayed in the general list.

There are also the  icons to edit and delete the  selected driver to the right of them.

## Driver rating

There is a system of penalties for drivers in GeoLoc. It allows tracking various violations and add penalty points to the driver's score. The penalty points are the basis for the drivers' rating. The less points a driver has, the higher his rating is.

Click on the  button to open a window with the default penalty system.

The **Violations** tab configures penalties for all types of violations, as well as the minimum duration of the violations scored. It allows choosing whether to fine the driver per a violation or for its duration. The user can change the system of penalties at their discretion.

Violations ✕

Violations
Rating

Violation	Penalty	Type	Min. duration
Overspeed <input style="width: 40px;" type="text" value="1"/> km/h	<input style="width: 40px;" type="text" value="2"/> points	each time <input type="text" value="v"/>	<input style="width: 40px;" type="text" value="10"/> sec
Overspeed <input style="width: 40px;" type="text" value="11"/> km/h	<input style="width: 40px;" type="text" value="2.5"/> points	each time <input type="text" value="v"/>	<input style="width: 40px;" type="text" value="10"/> sec
Overspeed <input style="width: 40px;" type="text" value="21"/> km/h	<input style="width: 40px;" type="text" value="4"/> points	each time <input type="text" value="v"/>	<input style="width: 40px;" type="text" value="10"/> sec
Overspeed <input style="width: 40px;" type="text" value="31"/> km/h	<input style="width: 40px;" type="text" value="8"/> points	each time <input type="text" value="v"/>	<input style="width: 40px;" type="text" value="10"/> sec
Overspeed <input style="width: 40px;" type="text" value="41"/> km/h	<input style="width: 40px;" type="text" value="10"/> points	each time <input type="text" value="v"/>	<input style="width: 40px;" type="text" value="10"/> sec
Harsh acceleration	<input style="width: 40px;" type="text" value="0.1"/> points		
Harsh acceleration	<input style="width: 40px;" type="text" value="0.1"/> points		
Harsh breaking	<input style="width: 40px;" type="text" value="1"/> points		
Harsh turning	<input style="width: 40px;" type="text" value="1"/> points		
Idling	<input style="width: 40px;" type="text" value="0.1"/> points	each time <input type="text" value="v"/>	
Driving without rest	<input style="width: 40px;" type="text" value="1"/> points	each time <input type="text" value="v"/>	<input style="width: 40px;" type="text" value="10800"/> sec
Driving with lights off	<input style="width: 40px;" type="text" value="0.1"/> points	each time <input type="text" value="v"/>	<input style="width: 40px;" type="text" value="180"/> sec
Driving without seat belt	<input style="width: 40px;" type="text" value="1"/> points	each time <input type="text" value="v"/>	<input style="width: 40px;" type="text" value="10"/> sec

Apply
Cancel

There are several speeding graphs here. The penalty varies depending on how much the driver exceeded the speed limit. The speed limit is set for an object (a specific object cannot travel at a speed higher than the limit set by the user) and geozone (the speed exceeding the speed limit set in the selected geozone is not allowed) in the system.

There are also such violations as sudden acceleration, sudden braking, sudden turning. Setting the minimum duration is not possible for such violations as well as choosing whether the penalty is scored per violation or for the violation duration. Only the number of penalty points can be set.

Driving without rest means that the driver cannot drive non-stop for more than a set number of hours.

It also allows fining the driver for when the vehicle is standing with the engine started, for driving with the lights off and driving without a seat belt fastened.

Use the **Rating** tab to adjust the drivers' rating gradation. The rating calculation depth determines the time period for which the rating will be calculated. By default, it is 90 days.

**Violations** [Close]

Violations **Rating**

---

Rating calculation depth: 90 days

Green zone limit: 10 points

Yellow zone limit: 31 points

[Apply] [Cancel]

Green and yellow zones illustrate the driver's rank in the general list of user's drivers according to their rating. The zones boundaries are set by default as 10 and 31 penalty points, respectively, but the user can change these. The drivers with the highest rating are in the green zone. Drivers will be highlighted in the color of the zone they are in on the Drivers tab of the top panel of the GeoLoc system interface. Drivers whose penalty score exceeds the maximum permitted in the yellow zone are in the red zone with the lowest rating and will be highlighted in red.

## Tasks

Assign tasks to objects in this section, such as staying in or arriving at a certain place or taking a given route at a certain time. Tasks can be one-off or recurrent. Each task is configured in the task settings dialog.

**Task** [Close]

Object: E 999 NW [Select]

Name: Service station visit

Description: Description

Time: 18.11.2020 12:42

Repeat: Monthly [v]

Task: Point arrival [v]

Coordinates: 0.00000 0.00000

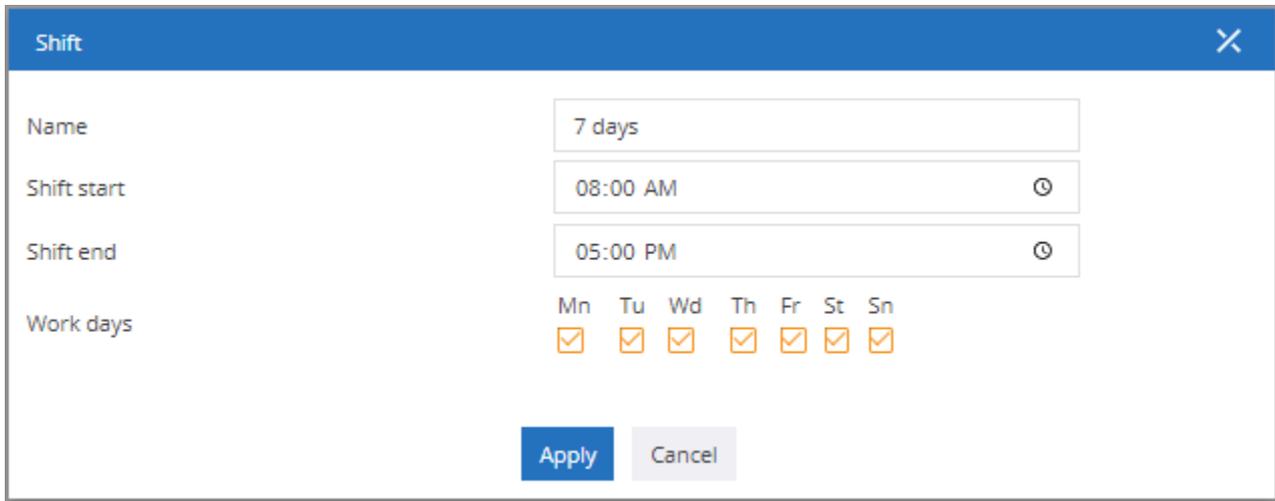
Radius: 100 m

[Apply] [Cancel]

Depending on the selected task type (arrival at a point, arrival at a geozone, taking a route), a choice of a point on the map or a choice from a list of geozones or a route will be offered. If the task is not completed, the user can receive a notification about it. The task completion report is available in the [Reports](#) section.

# Shifts

This section is for setting up the working hours of the user's personnel. Add one or more shifts with their names, start/end times and days of the week. This information is necessary so that the relevant reports display correct records about the object operation (transport working mileage or effective work).



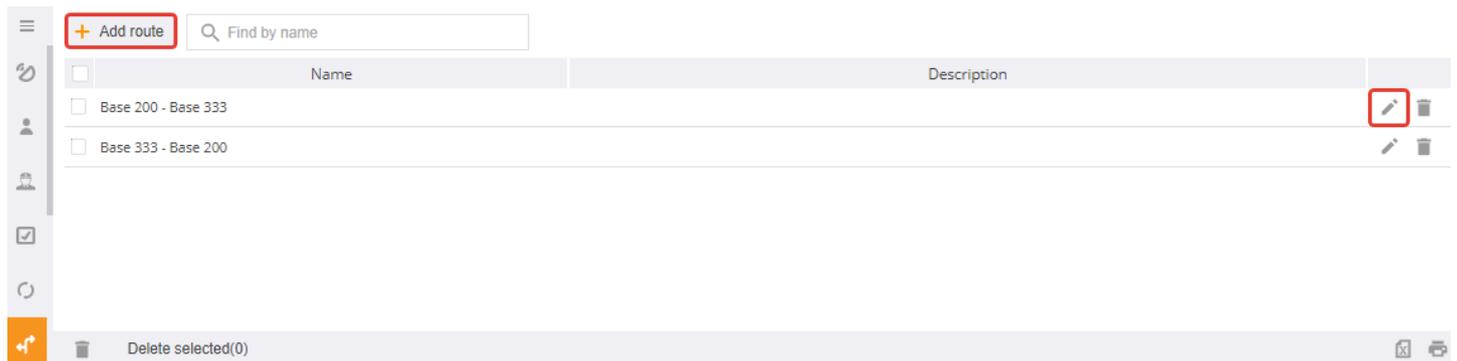
A dialog box titled "Shift" with a close button (X) in the top right corner. It contains the following fields:

- Name:** A text input field containing "7 days".
- Shift start:** A time selection field showing "08:00 AM" with a clock icon.
- Shift end:** A time selection field showing "05:00 PM" with a clock icon.
- Work days:** A row of seven checkboxes labeled "Mn", "Tu", "Wd", "Th", "Fr", "St", and "Sn", all of which are checked.

At the bottom of the dialog are two buttons: "Apply" (in blue) and "Cancel" (in grey).

# Routes

Set the object routes necessary for the user to perform certain tasks in this section. A route is a sequence of object stops/waypoints with an indication of the travel time between them. Only geozones created by the user can act as waypoints. An example of a route is the movement of regular transport between settlements or the delivery of goods from a store to customers.



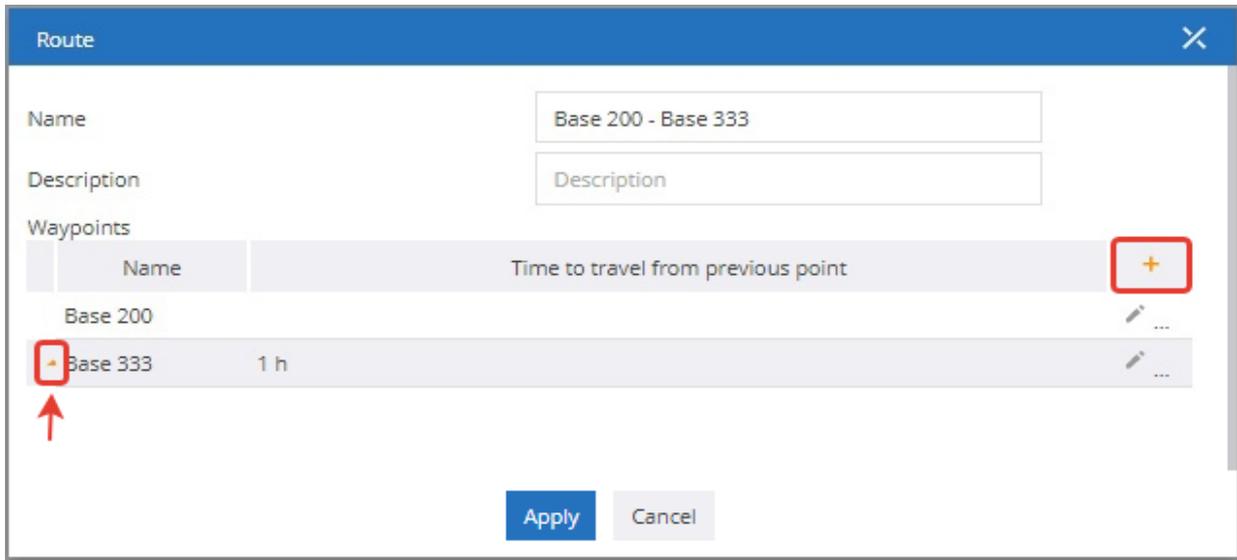
The interface shows a table for managing routes. At the top left, there is a menu icon, a red-bordered button with a plus sign and the text "Add route", and a search input field labeled "Find by name".

<input type="checkbox"/>	Name	Description	<input type="checkbox"/>
<input type="checkbox"/>	Base 200 - Base 333		<input type="checkbox"/>
<input type="checkbox"/>	Base 333 - Base 200		<input type="checkbox"/>

At the bottom of the interface, there is a status bar with a trash icon and the text "Delete selected(0)", and a right-side toolbar with a print icon and a refresh icon.

Adding a route is done by clicking on the **+ Add route** icon or using the route editing dialog containing the name and description of the route, as well as a sequence of waypoints indicating the travel time from the previous point.

Waypoints and movement durations are added in the window that opens when you click on the **+** icon. Change the sequence of points using the arrows in the first column of the table.



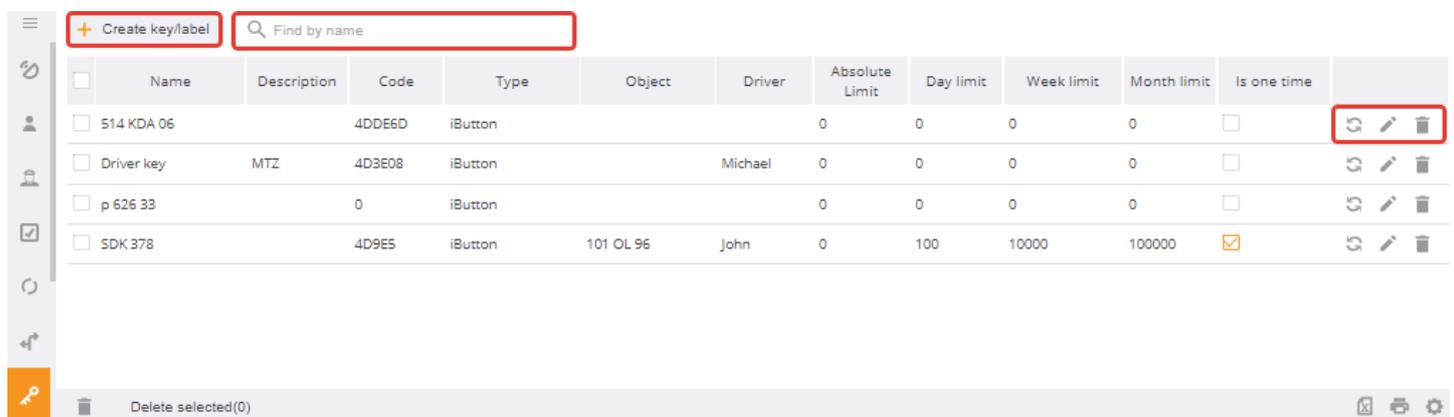
## Keys and labels

This section is about keys (labels) identifying drivers. Each key (label) has its own individual identifier, with which the object (equipment on vehicles, gas stations, etc.) identifies the driver. If the equipment supports such a function, the driver cannot start the vehicle without placing his key on the reader first. At a gas station, the driver will also not be able to fill up the vehicle without placing his key on the fuel controller.

The key can be associated with an object or driver. Identification of the driver by his key is necessary to collect statistics directly by drivers. For this purpose, the "driver's session" concept is used. It starts on the moment when the driver places his key card on the reader and finishes when the engine is turned off. This way, mileage, driving hours, fuel consumption, penalties are scored for a certain driver who was driving at a certain time.

For the object to work correctly, it must know which keys it should accept. To do this, register the keys in the device settings or send the keys using commands through the GeoLoc system.

For some of the equipment in the GeoLoc system, sending key data to the device via synchronization is implemented. Synchronization of gas stations and keys occurs constantly to account for the fuel a certain driver or object are already provided with.

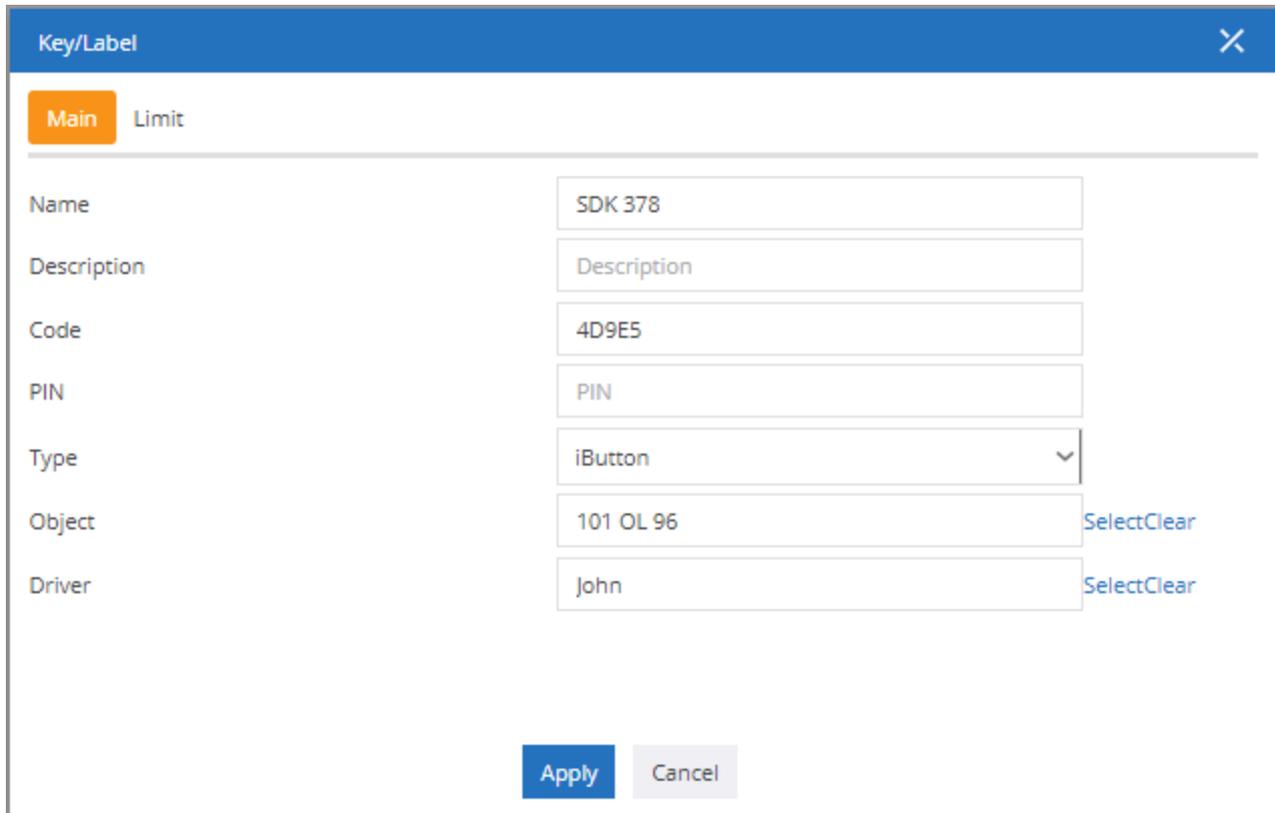


The list of available keys (labels) takes the main part of the screen. In it, you can search by name using the search box , as well as delete, edit and synchronize data. 

## Creating keys and labels

In order to add a new key (label) to the system, do the following:

- Click on the **+ Create key/label** icon .
- In the Basic window that opens, specify the necessary information (name, key/label description, PIN code, key type (iButton, RFID, code), and also select the objects and drivers available to the user to which this key will be assigned.



The screenshot shows a window titled "Key/Label" with a close button in the top right corner. Below the title bar are two tabs: "Main" (selected) and "Limit". The "Main" tab contains the following fields:

Name	SDK 378
Description	Description
Code	4D9E5
PIN	PIN
Type	iButton
Object	101 OL 96
Driver	John

Each of the Object and Driver fields has a "SelectClear" link to its right. At the bottom of the window are "Apply" and "Cancel" buttons.

- Next click on the Limit tab to set the required limit for the fuel. Select a general restriction, for a shift, day, week or month here. This function is only used at gas stations to control fuel provision.

Key/Label ✕

Main
Limit

	Limit	Balance	
Absolute	<input type="text" value="0"/>	<input type="text" value="0"/>	
Shift	<input type="text" value="0"/>	<input type="text" value="0"/>	
Day	<input type="text" value="100"/>	<input type="text" value="0"/>	
Week	<input type="text" value="10000"/>	<input type="text" value="0"/>	
Month	<input type="text" value="100000"/>	<input type="text" value="0"/>	

Is one time

Fuel types  1  2  3  4

Apply
Cancel

- Then click on the Apply button and the created key/label will appear in the list in the center of the screen.

## Key Synchronization

Synchronization is used to associate a key and a specific object and synchronize its parameters. Bind a key to an object or driver when adding a key to the system or use a synchronization tool by accessing it from a list of created keys.

Open the synchronization dialog by clicking on the icon in the keys list

The dialog that opens lists the objects with which the keys are synchronized. Objects can be added to and deleted from the list; however, keep in mind that these operations take time and the result of them will be available later. The current synchronization status is available in the status column.

Objects ✕

Resync

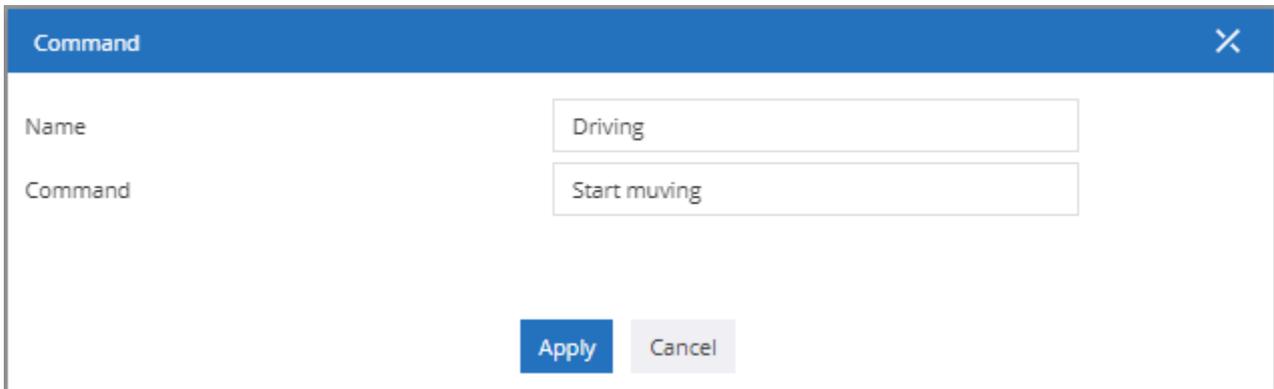
	Name	Status	
<input checked="" type="checkbox"/>	101 OL 96	Synchronization required	

Delete selected (1)

Apply
Cancel

# Commands

This section is to create command templates in order to send them to devices installed on user objects. The list and format of commands supported by the equipment is to be checked with the device manufacturer. The user ranked not lower than Integrator can create templates.



Command

Name: Driving

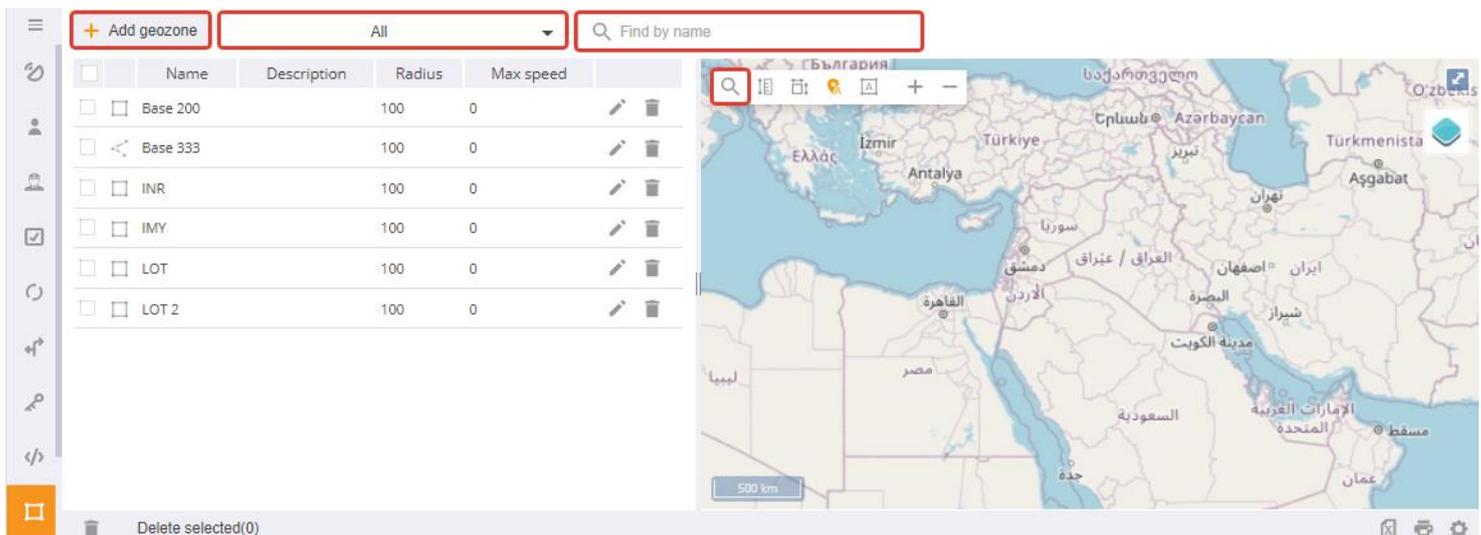
Command: Start moving

Apply Cancel

Send commands from the context menu in the Tracking, History, Reports sections when working with objects or when events occur (see the [Notifications](#) section in the control panel).

# Geozones

Go to the Geozones tab in the control panel menu to access the tools for creating and editing geozones. It opens a list of geozones available to the user and windows for searching and sorting geozones. When selecting a geozone, the map is centered on it.



Name	Description	Radius	Max speed
Base 200		100	0
Base 333		100	0
INR		100	0
IMY		100	0
LOT		100	0
LOT 2		100	0

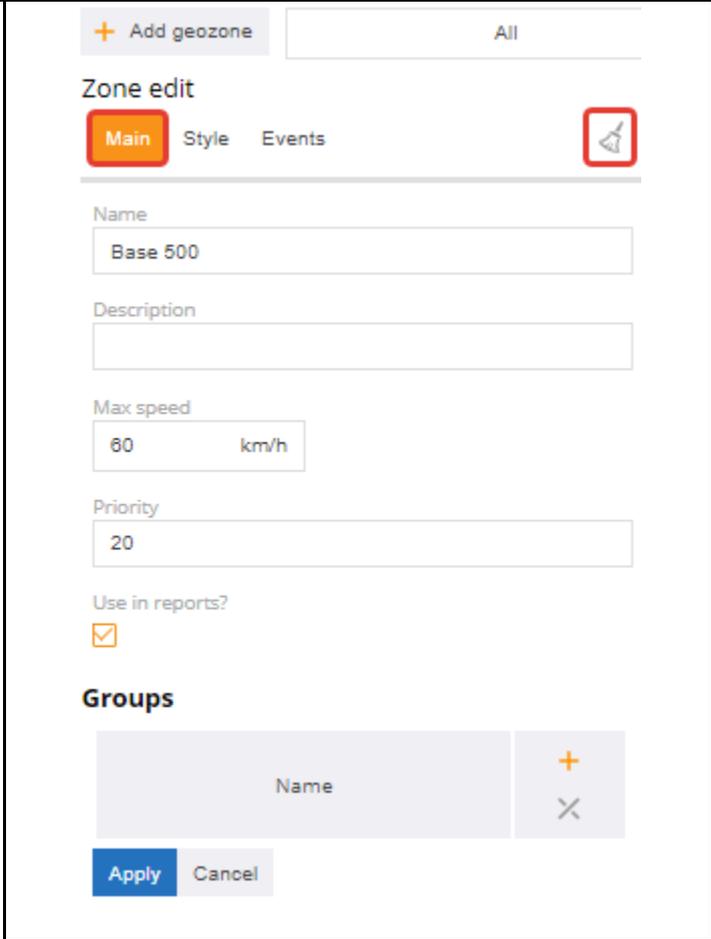
Map showing the Middle East region with a search bar and zoom controls.

## Creating geozones

Adding a new geozone to the system begins with searching for the desired area on the map. To do this, use the search tool . Then click on .

Enter the necessary information in the window on the Basic tab (geozone name and description, maximum speed of movement in it, geozone group, etc). To generate events when objects enter/exit the zone, specify this in the event parameters.

The  icon allows erasing the geozone from the map and start drawing it again.



**Zone edit**

**Main** Style Events

Name  
Base 500

Description

Max speed  
60 km/h

Priority  
20

Use in reports?

**Groups**

Name	
	<b>+</b>
	<b>×</b>

Apply Cancel

On the Style tab, select the type of geozone (e.g. point, polyline or polygon) and draw the geozone on the map:

- A **point** is a geographical area around a given point in the form of a circle with an arbitrary radius (the user sets the radius and center of the circle).
- A **polygon** is an area bounded by an arbitrary polygon with any number of vertices.
- A **polyline** is a sequence of points connected by segments into one continuous line. The polyline forms a corridor of a certain width set by the Radius parameter.

The same tab allows setting the style of drawing a geozone on the map: fill color and transparency, geozone framing line color, width and transparency, icon, etc.

Thus, it allows grouping geozones for easier visualization on the map. For example, offices can be painted red, warehouses can be blue and parking lots green.

+ Add geozone All

Zone edit

Main **Style** Events

Zone type  
Point

Radius  
100 m

Fill color  
Red

Fill transparency  
0 1

Border color  
Green

Border width  
3 px

Border transparency  
0 1

Border style  
Solid

Icon

Apply Cancel

The Events tab contains notification settings for entering/exiting the zone.

Notifications can be created for all objects or for selected ones only. Add the necessary objects to the list of objects on the tab.

+ Add geozone All

Zone edit

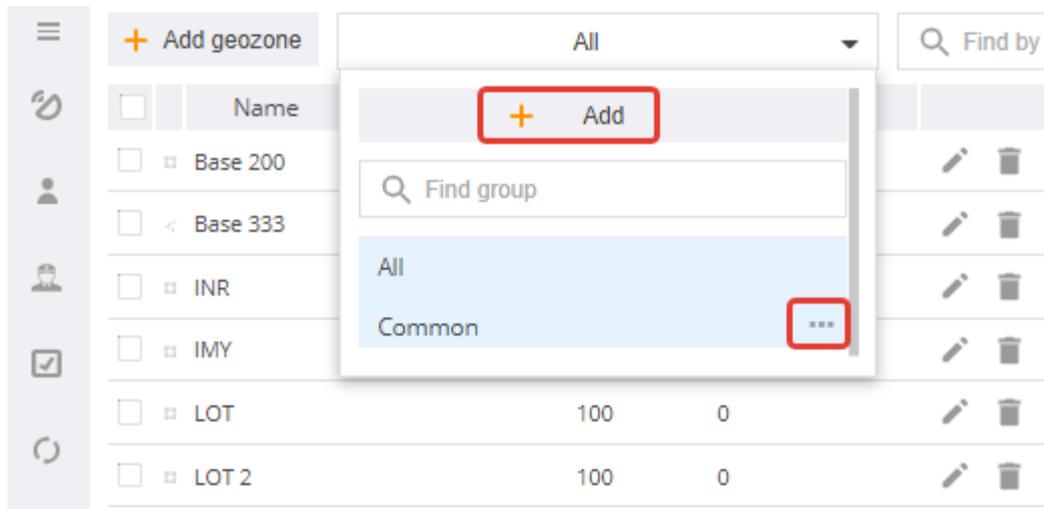
Main Style **Events**

Events  
None

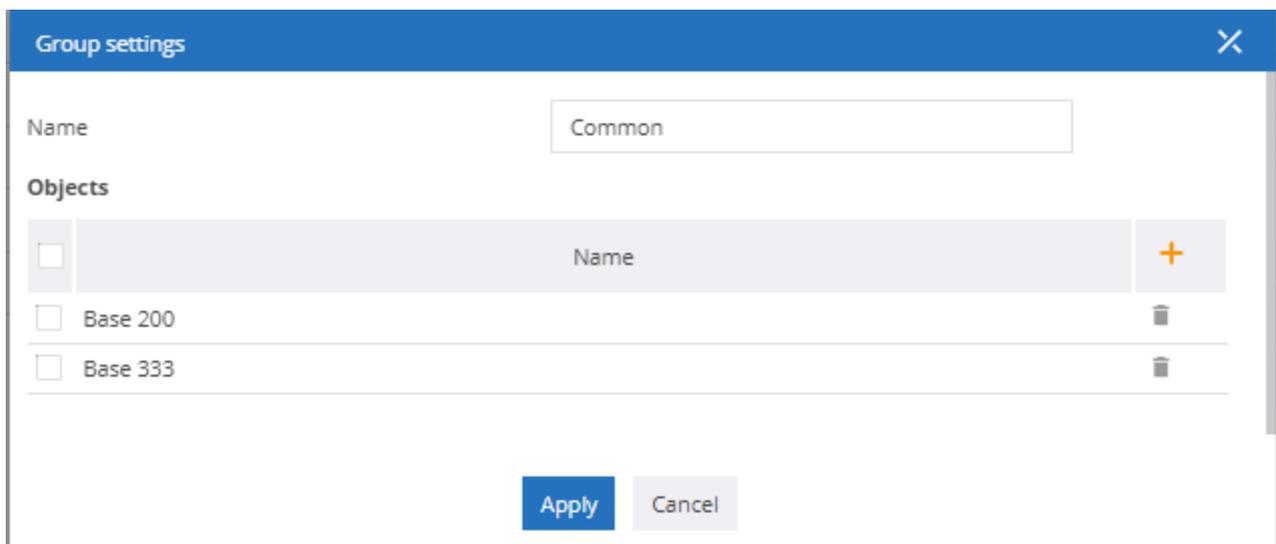
Apply Cancel

Click on  to complete the creation of the geozone.

## Editing and grouping geozones



Click on **+ Add** or enter the group menu in the group filter to create new geozone groups and edit them. Change the group name and the list of geozones included in it in the group settings dialog.



Click on  to open an additional menu where you can import or export geozones via a kml file.

## Notifications

Configure the conditions under which the system responds to events and sends notifications about them to the specified person in the Alerts tab in the Control Panel.

When the server receives data from the device, it checks whether the conditions set by the user are true or false for this data. If it is true, the server generates an event, registers it and immediately texts or e-mails the user.

The system can notify the user of any object states of interest (speeding, entering the geozone, draining fuel, task completion/failure to complete, etc.).

# Creating Notifications

See the description of the process of creating notifications below.

- Press the **+ Add notification** button.
- In the window that opens, on the Main tab, name the notification and specify all the necessary details, including the e-mail and phone number to which the alerts will be addressed, the days of the week and the time at which the alerts are to be sent, as well as the frequency of repetitions.
- Click on **+** to select the objects for which you want to set notifications.

The screenshot shows a 'Notification' dialog box with the following fields and options:

- Name:** Parking
- Email:** Email
- Phone No:** 89027596489
- Work days:** Mn, Tu, Wd, Th, Fr (checked); Sa, Sn (unchecked)
- Time:** from 06:00 AM, till 11:59 PM
- Repeat:** 0 hours
- On activating command:** None
- On deactivating command:** None
- Objects:**

Name	
Truck 777 CE 66	x
E 999 NW	x

At the bottom of the dialog are 'Apply' and 'Cancel' buttons.

• Then select the event types (e.g. pressing the alarm button, speed control, lack of communication with the satellite, etc.) on the Events tab and specify the minimum duration of the selected event.

The control parameters for the selected alert type, e.g. controlled geozone, speed limits, maximum permitted idle time, are set in the [Objects](#) section of the control panel.

Notification ✕

Main **Events**

<input type="checkbox"/>	Event	Minimum duration, sec
<input checked="" type="checkbox"/>	All notifications	<input type="text" value="0"/>
<input type="checkbox"/>	Alarm	
<input checked="" type="checkbox"/>	Speed	<input type="text" value="0"/>
<input type="checkbox"/>	The battery is low	<input type="text" value="0"/>
<input type="checkbox"/>	Power failure	<input type="text" value="0"/>
<input type="checkbox"/>	No data	
<input checked="" type="checkbox"/>	No connection to satellite	
<input type="checkbox"/>	No trend data	<input type="text" value="0"/>
<input type="checkbox"/>	Equipment work	<input type="text" value="0"/>
<input type="checkbox"/>	Enter in geozone	<input type="text" value="0"/>
<input type="checkbox"/>	Leave geozone	<input type="text" value="0"/>
<input type="checkbox"/>	Refueling	
<input type="checkbox"/>	Fuel drain	
<input type="checkbox"/>	Movement	<input type="text" value="0"/>
<input type="checkbox"/>	Parking	<input type="text" value="0"/>
<input type="checkbox"/>	Harsh driving	
<input type="checkbox"/>	Idling	<input type="text" value="0"/>
<input type="checkbox"/>	Trend is higher than normal	<input type="text" value="0"/>
<input type="checkbox"/>	Trend is lower than normal	<input type="text" value="0"/>
<input type="checkbox"/>	Daily mileage limit exceeded	
<input type="checkbox"/>	Daily working time limit exceeded	
<input type="checkbox"/>	Task failed	
<input type="checkbox"/>	Task completed	
<input type="checkbox"/>	OBD event	<input type="text" value="0"/>
<input type="checkbox"/>	Fuel transaction	
<input type="checkbox"/>	Service	
<input type="checkbox"/>	Receiving photos	
<input type="checkbox"/>	Notifications	

**Apply** Cancel

- Press the **Apply** button. The notification will appear in the list.

**+** Add notification

<input type="checkbox"/>	Name	Email	Schedule	Repeat	Activation command	Deactivation command	
<input type="checkbox"/>	Min level oil		Mn,Tu,Wd,Th,Fr 00:00:00 ...	5			 
<input checked="" type="checkbox"/>	Parking	jonson1972@gma...	Mn,Tu,Wd,Th,Fr,St,Sn 00:0...	0			 

 Delete selected(0)  

Click on  located to the right of the notification to edit already created alerts from the list of alerts.

Check the notification checkbox and click on the trash bin icon opposite the notification or at the bottom of the screen under the list to delete the notification.

## Server

The Server tab is available to users ranked Administrator and allows changing system settings.

The tab contains several sections:

- Domains
- Maps
- Geocoders

Let's take a closer look at each of them.

### Domains

This section allows configuring the domain name and related data, i.e. the title, logo, favicon, links to the iOS and Android mobile application and so on. Each domain record is duplicated with a license key, which is provided by technical support.

IP/Domain	panel.geoloc.online	Logo	https://geoloc.online			
Title	GeoLoc GPS tracking system	Apple Store	https://itunes.apple.com/ru/app/glocient/id1367429325			
Key		Play Market	https://play.google.com/store/apps/details?id=com.geoloc.client			

### Maps

This section generates a list of maps available for use in such sections of the system as Tracking and History. It is possible to use OSM, Google, Baidu, WMS, and other map formats. License keys that are used to authenticate requests can be specified.

Map layers						
	Name	Provider	Source	Key	Base layer	+
	OSM	OSM			<input checked="" type="checkbox"/>	
	Yandex map	Yandex	map		<input checked="" type="checkbox"/>	
	Yandex satellite	Yandex	sat		<input checked="" type="checkbox"/>	
	Google maps	Google	MAP		<input checked="" type="checkbox"/>	
	Google satellite	Google	HYBRID		<input checked="" type="checkbox"/>	
	Baidu	Baidu			<input checked="" type="checkbox"/>	

### Geocoders

It gives access to selection of a geocoding service which allows obtaining the geographical coordinates of an object for its address, calculate routes, convert GSM tower data into coordinates. Set a key to access the geocoder here.

Geocoders				
	Name	Provider	Key	+
	GeoTek	Geotek	google key	
	Google	Google		