MIFLEET ADVANCED USER'S GUIDE

Robert Richey
rrichey@dcsbusiness.com

Contents

General

Users

User is a system object defined by its specific name (login) and password. Users can login to MiFleet and control their units with the help of different tools and features. Different users can have different access to units and different set of allowed activities. They can create their own geofences, report templates, etc. non-visible to other users.

Working with Users

| Monitoring | Tracks | Messages | Reports | Geofences | Drivers | Jobs | Notifications | Users | Units |
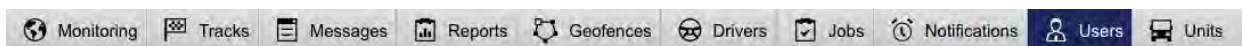
To work with users, open the Users panel, choosing a corresponding name in the top panel or clicking on the necessary item in the main menu customizer.
On the panel, there is a button to create new users, and a list of available users. For your convenience, the users are arranged by name. If there are many users, use the dynamic filter above the list to easily find them. Use buttons against each user to perform an action over a user:

⇄ — The button to login as this user. It is disabled if you do not have enough access privileges.

🔧 — Edit or view user's properties (depending on your access). User properties dialog can contain up to five tabs as shown below:

User Properties

| General | Access | Advanced | Logs | Custom Fields | Manage Applications |
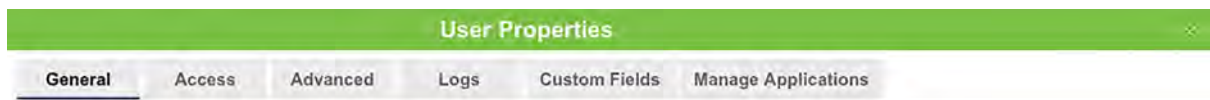
🗐 — Create a copy of this user.

✖ — Delete user from the system. If the button is dimmed, it means you have not enough rights to delete it.

Application of Users

If you have access to several users, it affects system in whole. You can create objects under a selected user or within their account. As a rule, the information that a certain object (driver, geofence, unit, etc.) belongs to a certain resource or account is displayed in object's tooltip or properties dialog. Besides, in all panels containing filters, there is an additional filter by user/account (in the form of a dropdown list).

Actions of users in the system are logged. For instance, you can view user's (operator's) chat with driver, learn which commands were sent to units by this user, what alterations this user made to some object properties, what objects created, etc. This functionality is available mainly through reports.

In advanced reports on users you can create the most detailed tables on users' logins and logouts as well as get charts of their activity by hours and days.

Users' access to units can be changed automatically:

- With the help of the appropriate job (for instance, you can allow access only during the working shift);

- With the help of the notification with the appropriate action (for instance, deny access when a route is complete).

Individual settings can be transferred from one user to others.

Units
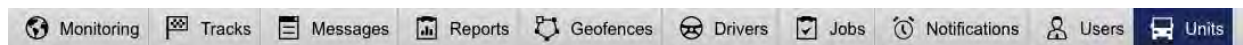
Unit is a vehicle, machine, person, pet or any other moving or stationary object that can be controlled with the help of a GPS tracking system.

To work with units, open the Units panel, choosing a corresponding name in the top panel or clicking on the necessary item in the main menu customizer. Here you can see the list of units available to the current user. Displayed are the units available for tracking on the Monitoring panel. On the 'Units' panel you can create (create from WLP), view, copy, edit, delete units, import/export their properties, and send SMS messages to them.

On the list, units are displayed in the alphabetical order. Besides, every unit has an icon. To quickly find a necessary unit, apply the dynamic filter. Place a mouse cursor over unit to display its details in a tooltip: type, ID(s), phone number(s). This information is given only to users who have the access right *Edit connectivity settings* to unit. Use the following buttons against each unit to perform standard actions over it:

- ✉ — Send SMS to unit's SIM card. It can be a command or other message. SMS buttons are not displayed if this feature is not activated for the current user. If the button is dimmed, it means there is no phone number in unit properties or the current user has not enough rights to the unit. If two phone numbers are given in unit properties, choose one of them when the dialog of SMS sending opens. More about sending SMS messages...

- 🔧 — View or edit unit properties. To get the most efficient results both in reports and in online monitoring, unit should be set up correctly, in accordance with device type used, available sensors, and tracking tasks. Unit is configured in unit properties dialog that was described above. Depending on your access level, the dialog can contain up to 12 tabs which detailed description can be found in the following topics:

- ❌ — Create a copy of this unit.
- 📑 — Delete a unit from the system completely. To do this, you need *manage* rights. If the button is dimmed, it means you do not have enough access (*manage* rights are required). Routes assigned to unit are deleted together with it.

Unit Groups

Unit group is a system macro object incorporating several units that have something in common. In many cases, it is convenient to operate a group of units instead of performing an action over each unit individually.

Working with Unit Groups

To open the Unit Groups panel, you must be in the Units tab. Then click on the Groups tab beneath the header panel, as shown below:

On the panel, there is a button to create new groups, a filter, and a list of unit groups available to the current user. On the list, there is an indication of the number of units in each group. If you hover the mouse cursor over a group, in a tooltip you can see which units there are and their current location. For your convenience, the groups are arranged by name. If there are many unit groups, use the dynamic filter above the list to easily find a necessary one. Use buttons against each unit group to perform a standard action over it:

🔧 — Edit or view unit group properties – depends on your access (change name, add more units, remove units, manage access, etc.). The dialog of unit group properties can contain up to 4 tabs, which are shown below:

📑 — Create a new group using this one as a basis (copy).

❌ — Delete the group from the system. Deleting a group does not mean deleting the units included. If the button is dimmed, it means you have not enough access.

When working with unit groups, consider some specific features relating to access rights:

- A group can be used to give a user access to several units at once.

- With groups, access to a unit can be widened but not narrowed.

- The creator of the group must have rights to units in this group. Otherwise, it would not be possible to transfer the rights properly.

- To add/remove unit to/from a group, you are required to have the rights *Edit ACL propagated items* on this group.

Application of Unit Groups

Unit groups are widely used in the user interface of MiFleet:

1. Online tracking of unit groups:

    - Display/remove from the map a group of units with one mouse click;

    - Send commands to a group of units at once;

    - Observe a certain parameter (sensor value, movement state, etc.) for a group of units in one window.

        More...

2. Advanced reports:

    - All tabular reports can be generated for a unit group;

    - Draw tacks of all grouped units on the map.

        More...

3. Configuring jobs, notifications, and routes:

    - When configuring jobs, notifications or routes, they can be applied to a group of units at once, which accelerates the process.
        More...

Unit groups also have some specific functions in the management systems, which are described above.

At that, unit groups are easy to handle. Deleting groups does not mean physical removal of units belonged to this group. That is why you can easily create, manipulate and delete groups. Besides, the dynamic formation of groups is supported – see Notification Action. It means, if some preset conditions are met, a unit can be added to a group automatically or removed from it.

User Settings
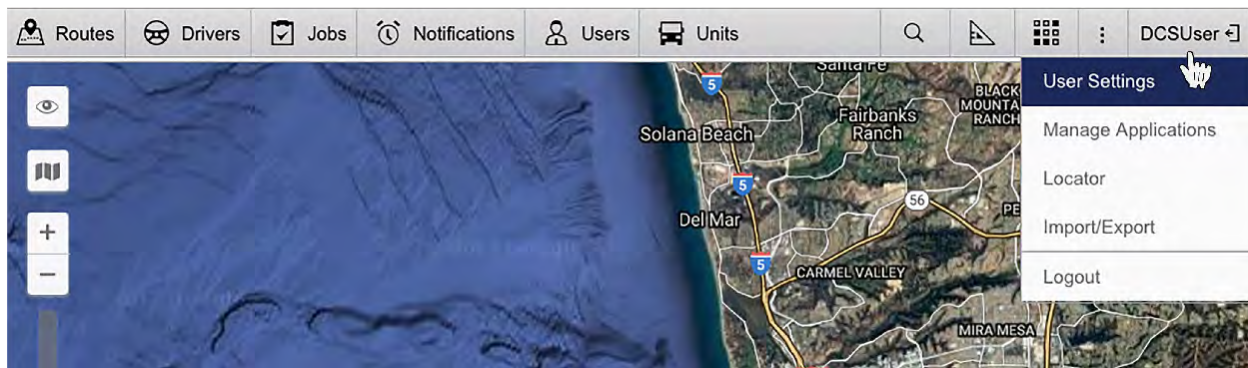
Users can configure some system operation parameters according to their needs and tasks.

To view user settings click on the username in the top panel and then choose *User Settings* in the menu. The User Settings dialog can contain up to three tabs that depend on system configuration:

- General Settings

- Maps

- Account

Hint.

Settings from one user can be imported to other users.

General Settings

The first tab of the User Settings dialog contains general settings. Here you indicate your time zone, input your e-mail address, change the password to enter the system, and set many other parameters.

Language

Contact your service administrator to enlarge the list of available languages.

Time zone

Indicate your time zone accurately because all time values in messages got from devices are displayed in accordance with time zone selected. Changing time zone requires reloading the page.

Daylight saving time

Specify DST options if you use summer and wintertime in your region — choose the most appropriate DST schedule on the dropdown list. *None* — summer time is not used.

Persian calendar

This option allows activating the Iranian calendar also known as Persian solar calendar. It is used in Iran and Afghanistan. If the option is chosen, the Persian calendar will replace usual (Gregorian) calendar in the places where a user should indicate some time interval (to build a track, to query messages or a report, to setup a job or assign a route, etc.) At that, if Arabic is selected as interface language, the calendar will be in Farsi (language spoken in Iran) and shown from right to left. Otherwise, it will be in English (in Latin characters and Arabic numbers) and shown from left to right (see details). Enabling/disabling the Persian calendar requires reloading the page.

Date and time format

These masks of date and time format define date and time presentation throughout the system. For example, months can be written in words or numbers, year can consist of two or four digits, day of week can be included or not.

Moreover, you can change the order in which those items appear in the date. An instruction upon the syntax of these fields is given in their tool tips. Besides, you can just choose one of predefined masks in the drop-down list.

Here are some examples of formats:

Date mask	Time mask	Result 1	Result 2
yyyy-MM-dd	HH:mm:ss	2014-01-25 09:45:33	1987-12-02 17:20:00
dd/MM/yy	HH:mm	25/01/14 09:45	2/12/87 17:20
MMMM yyyy dddd	hh:mm:ss tt	25 January 2014 Saturday 09:45:33am	December 1987 Wednesday 05:20:00 pm
dd MMM yyyy ddd	hh:mm tt	25 Jan 2014 Sat 09:45 am	02 Dec 1987 Wed 05:20 pm

First day of week

Choose Monday or Sunday as the first day of week. This will affect the appearance of the calendar and the manner of counting weeks in general.

Measurement system

Choose one of the measurement systems available. The corresponding units of measurement will be used in tools like Distance, Area, Routing, and Nearest Units. A

chosen measurement system also influences address processing in some way, as well as creation of routes. However, the earlier created units and resources (together with geofences, jobs, and notifications) possess the measurement system chosen upon their creation. Speaking about reports, their measurement system is set separately (refer to 'Advanced settings of a report template').

City

In this field you can indicate your city. It will be used in the Nearest Units and Address tools as the default city. Enter the name of the city. Upon entering of the first letters the dropdown menu with the names corresponding to the request will be automatically opened. You can either continue typing in the name or choose it from the dropdown menu (there can be several towns with the same names in different countries).

Position of the map upon entering the tracking system is stipulated by the city indicated in this setting (if the field is blank, then Minsk is considered to be a chosen city by default). However, if there are any units displayed on the map, then upon the entering the map will be scaled in such a way that all of them will be visible.

E-mail

This e-mail address will be used to send you a reset password link in case you forget your password.

Change password

If you push this button, some additional fields will appear. You will be asked to input your current password, and then your new password (two times). New password can be applied on the login page. *Note*: However, not all users are allowed to change their passwords.

Mobile access

If you are going to use mobile phone or PPC to manage the server, enter the access key. If you leave this field empty, the access will be denied.

Play sound for events

The sound can be played for online notifications and drivers' messages. When a notification or message from driver pops up, the browser will play sound. In Windows OS, QuickTime Alternative can be used as media player.

Automatically display popup events

In order online notifications and messages from drivers to be automatically shown on the display, it is necessary to indicate this flag. If you remove the flag, only a number on red background in the bottom panel indicates receiving of new events.

Note: Closing online notifications window or chat with driver window using the cross in the upper right corner leads to unchecking the 'Automatically display popup events' flag. The flag can be checked again either in the user settings window or by clicking on the 'Online notifications' or 'Chat with drivers' buttons in the bottom panel.

Use keyboard shortcuts

Check this box to activate Shortcuts.

Infinite map

Allows moving (dragging) the map infinitely right or left. This option is to be activated *only* in the case when tracking occurs in the region of 180th longitude (Fiji, Chukotka, etc.).

Driver's activity

Check this box in order for information on driver's activity to be shown in unit's and driver's tooltips, as well as in extended unit information.

Show Additional Information about the Unit

Here you choose additional information about the unit to be displayed in different places of the tracking system.

In the **left column**, check information to be shown in unit's tooltip (displayed as you hover mouse pointer over unit's icon). In the **right column**, check items to be shown in extended unit information in the work list.

To check all the items from any column, hold <ctrl> on the keyboard and check any box of the corresponding column.

Last message

Time when the last message was received and how long ago.

Location

The last detected address.

Presence in geofences

If unit is situated in a geofence, geofence's name will be displayed in unit's tooltip and in extended unit information with sorting by area (from small to large), and it will have the same color as assigned in geofence properties. This option also affects the count of units in the Geofences panel.

Speed

Speed in the latest message.

Altitude

Altitude in the latest message (if device is able to give such data).

Counters

Values of mileage counter and engine hours counter. See Counters.

Satellites

The number of satellites locked.

Connectivity settings

Device type, unique ID(s), and phone number(s) specified in unit properties. This information is available to users with 'Edit connectivity settings' access flag.

Sensors values

Sensors configured for the unit and their known values will be listed. Custom sensor name is displayed and the value processed according to calculation table of this sensor.

Parameters

Latest known parameters like CAN bus, power voltages, and many others. Their names (as they come in messages) and their raw values can be shown as additional information.

Drivers

Name, photo, and phone number of the driver(s) currently bound to the unit.

Trailers

Name and photo (if available) of the trailer(s) currently bound to the unit.

Custom fields

Custom fields from unit properties (general or/and admin fields depending on access).

Profile

Unit's profile information.

Maintenance state

Service intervals together with their states (days/engine hours/kilometers left or expired) are shown.

Note:

Counters are refreshed once a minute, as well as information about drivers and trailers. The check for presence in geofences is performed every two minutes. Other information is refreshed immediately.

Unit Visualization on Map

Replace unit icons with motion state signs

If marked, unit icons are hidden, and all units are displayed with motion direction arrows (if they are in motion) or with blue rhomb shaped marker (if they are stationary). See also Unit presentation on map.

Display overlapping units in one icon

 If one or more units overlay on the map, their icons can be grouped into one. It lightens visual reception of the map. The exception is in two biggest zooms where all icons are displayed regardless their overlapping.

Show unit icons at map borders

If a unit gets out of view, its icon will be displayed at map border in the direction where the unit is located. Click on this icon to move to this unit on the map.

Trace

It is possible to indicate the length of the trace, which is added to a moving unit on the map (the

'Points in traces' parameter), and choose the color and width for it.

Multicolor sensors in unit's tooltip

Sensors, if chosen to be displayed in unit's tooltip, can change their colors according to received values. Color scheme can be adjusted on the first tab of sensor's properties. In unit's tooltip, color can be applied either to the whole row with sensor (both its name and value) or only to its value — select desired option in the dropdown list. If the option "Multicolor sensors in unit's tooltip" is disabled, default color (black) will be employed.

Other Items on Map

Display names of routes' check points on map

Depending on the flag, routes' checkpoints can be displayed with or without their names on the map.

Display names of geofences on map

Depending on this flag, geofences can be displayed on the map with their names or without them. The color of the captions is adjusted in geofence properties.

**Display overlapping geofences in one icon**

If several icons of geofences overlap when displayed on the map, they can be grouped into one. Place the cursor over this icon to know which geofences are hidden behind it. Note that for reports this option is set independently — in advanced options of report template.

Render geofences on server

By default, all geofences are rendered in browser. This may slow down browser work if your computer is not very powerful. But if you have good Internet connection, it is possible to increase MiFleet system performance by enabling the option of rendering on server.

Maps

Maps settings are adjusted in User Settings dialog on the Maps tab.
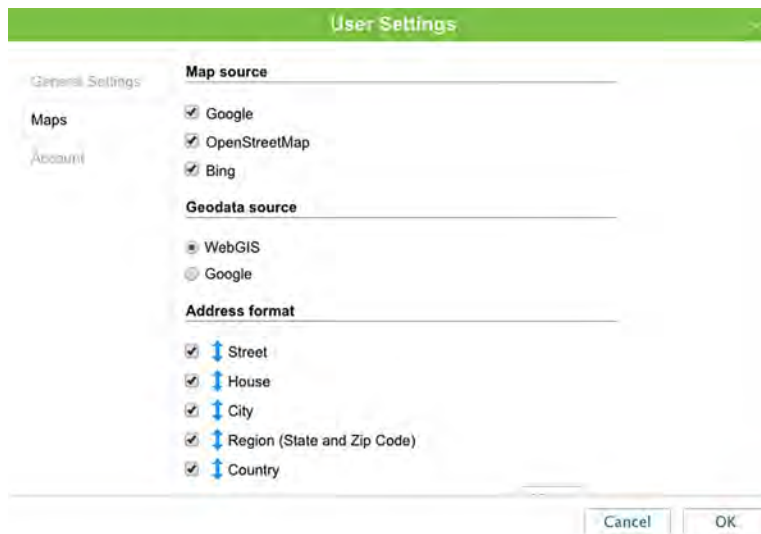
Format of coordinates

Format of coordinates can be either degrees or degrees and minutes. Selected format affects coordinates of cursor displayed in the lower right corner of the map. However, in messages and geofences coordinates can be displayed only in degrees; in reports and event registrar — only in degrees and minutes.

Enable…

Tick the appropriate check boxes to activate more map layers. The changes will take effect after clicking *OK* and refreshing the page. To choose a different map as a base layer, choose it in the maps menu at the bottom panel of the program.

The following maps can be used in MiFleet: Google Maps, Bing Maps, Kosmosnimki, 2GIS, WikiMapia, Visicom, Yandex, HERE, Regio, Luxena, MyIndia, ArcGIS, GoMap.az, Mapbox, OpenSeaMap (additional layers). Besides, Gurtam Maps and OpenStreetMap are available by default.

Some maps go in blocks. For example, when you enable Google Maps, several map layouts appear on the menu at once: Google Streets, Google Physical, Google Satellite, Google Hybrid, Google Map Maker, Google Map Maker Hybrid, and Google Street View for tracking on mini map. Moreover, if the additional layers are available (for example, traffic layer, maritime navigation), then they can be visually put over any chosen map.

If a map you need is not available, address your request to the MiFleet Support Desk.

Usage of cartographic services is stipulated by the procedures established by the author or by other right holder of such services. By choosing cartographic service you confirm that you acknowledge and accept the full responsibility for its possible misuse.

Address format

Here you can define how addresses will look in tooltips, tools, messages, and other places. Choose which of standard address components to be displayed: country, region, city, street, and house (at least one of these items should be selected). For example, if your units move mainly within the same city or town you can omit country, region, and city and leave only street name and house number in addresses. Address components can be put in any order. To change this order, drag components up and down sticking to arrow-shaped buttons. This format affects addresses mainly in cities/towns/villages.

When out of cities/towns/villages (on motorways between them), address information is given according to the following parameters:

- *Max distance from unit* defines that if unit is on a road or close to it and there is a city/town/village in the indicated distance then the address is displayed as name of the road and distance to that city (if several cities fit, we take the nearest).

- *Min city radius* defines that if no cities/towns/villages have been found in the distance indicated as 'Max distance from unit' then the address is bound to the nearest city which radius is equal or larger than 'Min city radius' values. This parameter can be used to eliminate small towns from address information and stick to large cities instead.

For every block (enabling maps, address format) there is a possibility to check all the boxes at once. To do so, hold

<ctrl> button on the keyboard and check any box of the corresponding block.

Account

Account settings can be viewed at anytime under Account tab. View general information of account activity as well as statistics for a period of time.

Notifications

Notification Type

Speed

Define the minimum and/or maximum speed values. If a unit goes out of this range, the notification will trigger. In addition, you can activate *sensor value control* — in this case, the notification will trigger only if both conditions are met.

Geofence

In case of this choice, in the following window you select **geofences** or **groups of geofences** to control and control type: control entries to or exits from geofences. Those geofences should be created in advance and belong to the same resource with the notification.

In addition, you can adjust speed limitations and/or sensor value range inside (outside) chosen geofences. Then the notification will trigger when all conditions are met.

Alarm (SOS)

For this type of notification, no specific settings are needed.

Digital input

Specify the number of digital input and select control type: trigger on input activation or deactivation.

Parameter in a message

Four control types are provided: value range, text mask, parameter availability, and parameter lack. Only real parameters, i.e., sent by device itself can be considered whereas virtual parameters such as speed, altitude, sats (satellites) etc. cannot be controlled by this type of notification.

To control *Value range*, specify parameter name, define minimum and maximum values for it, and select whether to trigger in the specified range or out of it. If you need to get notifications for all parameters except 0, set 0 as min and as max value and choose trigger type 'Out of specified range'. To control *text*, enter parameter name and *Text mask* using wildcard symbols (? and *).

For *Parameter availability* and *Parameter lack*, it is enough to indicate parameter name. These two last mentioned options can be interpreted as parameter appearance and disappearance if on the last page of the dialog you set the option 'Generate notification only when state changed'. For *in* and *out* parameters it is possible only to control parameter availability/lack.

Sensor value

With this notification type, you can control either sensor getting some undesirable value (*Value range*) or abrupt significant change in sensor value (*Value leap*). To specify sensors to be controlled by the notification, choose sensor type on the dropdown list or set the name mask using wildcard symbols (* and ?). You can as well do both. If there will be found two or more sensors meeting these conditions (same type or name mask or both), their values can be summed or regarded separately — select the corresponding option. Then enter minimum and maximum values and select control type: trigger in the specified range or out of it.

If you control value leap, then enter delta. Notification triggers when delta is exceeded. Note that an indicated delta is compared to the module of values' delta.

Connection loss

Choose control type:

1. No data. It can be a simple connection loss when no messages are received from the unit during a period of time.

2. No coordinates. There are also cases when all sensors are active and their values are known, but it is impossible to locate the unit. It is especially true if someone covered GPS receiver.

Indicate loss time: how long (in minutes) the connection/coordinates loss should continue before a notification triggers.

Connection loss

No data   No coordinates

Time interval: 60   *min*

☐ Also notify when connection restored

Idling

For this type of control, indicate speed and time. Speed should be more than 0 in order to exclude possible equipment errors. Indicate also time allowed for staying. If this time exceeded, this will be considered as an idle, and the notification will trigger. *Note:* Maximum allowed time of idling corresponds to 98 hours and 59 minutes.

In addition, you can activate *sensor value control* — in this case the notification will trigger only if both conditions are met. It is convenient to control idles with engine on, for example.

Idling

Max idle time allowed: 0 :   10 *hh:mm*
Speed, no more than: 0 *mph*
☐ Sensor value

SMS

You can receive a notification when a certain SMS message comes. To define, which SMS messages you are interested in, enter a mask for message text. This feature can be useful, for example, when a device sends SMS of certain content in case of malfunction.

SMS

SMS text: *

Interposition of units

This type of notification allows you to control approaching of units to each other and moving away from each other. Select control type (approaching or moving away) and specify radius in meters - if this distance between units is insufficient or exceeded, then the notification will trigger. Choose units which position will be estimated regarding the units that were chosen for the notification itself. In addition, you can narrow trigger case adjusting speed limitations or sensor value range (like in geofence control). *Note:* Units interposition is checked by the system using their latest messages only.

Address

This type of notification is similar to geofence control. You can control entrance/exit or being *in* or *out of* a particular place. Enter some address parameters (e.g., city, street, and house) and then select the most appropriate option from found addresses. Additionally, adjust the radius of controllable area.

Excess of messages

With this notification, you can be warned if a unit exceeds the limit of messages you have set. Either usual data messages or only SMS messages can be under control of this type of notification. Indicate the limit of messages and set the reset interval. The example below assumes that the notification will trigger if unit sends 3 or more SMS messages in an hour's time.

Fuel filling

This notification type allows you to control fuel fillings, and provides with information on the amount of fuel filled. Upon notification creating you can indicate sensor masks in order to use this particular sensors for fuel filling detection. Besides, checking the corresponding flag you can control location of filling in relation to the chosen geofences (inside/outside geofence). These geofences should be created in advance, and belong to the same resource as the notification itself. Moreover, there is an 'Ignore recalculated data' option. Enabling this option allows receiving notifications for a new (current) fillings. If the option is disabled, then upon receiving a historic message (from the black box, or after importing messages, etc.) the number of events will be recalculated, and you will receive messages on the old (not current) fillings.

 Note: Notification triggers for every fuel level sensor individually, therefore the 'Merge same name sensors (fuel level)' option is ignored in this case.

![MiFleet]

Fuel theft

This notification type allows you to control fuel thefts, and provides with information on the amount of fuel stolen. Upon notification creating you can indicate sensor masks in order to use this particular sensors for fuel theft detection. Besides, checking the corresponding flag you can control location of filling in relation to the chosen geofences (inside/outside geofence). These geofences should be created in advance, and belong to the same resource as the notification itself. Moreover, there is an 'Ignore recalculated data' option. Enabling this option allows receiving notifications for a new (current) thefts. If the option is disabled, then upon receiving a historic message (from the black box, or after importing messages, etc.) the number of events will be recalculated, and you will receive messages on the old (not current) thefts.

Route progress

For this type of notification, select statuses to control: round start, round finish, arrival to check point, checkpoint skip, departure from checkpoint, etc. Additionally, you can specify name masks for routes, schedule and/or round.

Driver

Choose control type: driver assignment or driver reset. To control both activities, two notifications of different types will be required. Using this notification you can control all drivers (*) or just some of them — input driver's name (or code) mask.

Trailer

Choose control type: trailer assignment or reset. Settings to adjust are the same as for previous type.

Maintenance

First, you choose trigger type: notify when service term approaches or notify when service term is expired. Then indicate the interval before or after the term for the notification to trigger. This interval can be in days, kilometers, engine hours, or together. You can control either all intervals existing in the Service Intervals tab in unit properties or just several intervals. To specify target intervals, enter a name mask using wildcard symbols like asterisk (*) and question sign (?). Then indicate how much mileage, or time, or how many engine hours should be left or expired to make the notification trigger.

 Note: Notification about maintenance triggers only once — when a critical point is met (mileage, engine hours or time) about any maintenance interval. Then information about service work done should be delivered through event registrar or through unit properties dialog. Only after that, the notification starts working again.

Notifications' triggering peculiarities:

- If upon creation of notification a unit with an already exceeded maintenance interval is chosen, then the notification for such a unit will not trigger.

- If no position messages have been sent to a unit, then the notification for such a unit will not trigger.

Note: As each notification belongs to some resource, it takes its measurement units from this resource. If the American or imperial measurement system is set for the resource, then speed is shown in miles per hour (mph), radius in feet (ft.), and mileage in miles (mi). Otherwise (in case of metric system), it will be kilometers per hour, meters and kilometers, correspondingly.

Notification Action

Notification action is the way system will react when a notification triggers.

Choose measures to be taken when notification triggers:

- ☐ Notify by e-mail
- ☐ Notify by SMS
- ☐ Display online notification in a popup window
- ☐ Send mobile notification
- ☐ Send a request
- ☐ Register event for unit
- ☐ Execute a command
- ☐ Change access to units
- ☐ Set counter value
- ☐ Store counter value as parameter
- ☐ Register unit status
- ☐ Modify unit groups
- ☐ Send a report by e-mail
- ☐ Create a round
- ☐ Reset driver

Notify by e-mail

You can indicate one or more e-mail addresses to send a notification to. When all slots to enter addresses are filled, additional slots appear automatically. Besides, you can check the option *Attach image from triggered message* if your device is used takes pictures.

- ☑ Notify by e-mail
  - ☑ Attach image from triggered message
  - ☑ user1@company.com
  - ☑ user2@company.com
  - ☐
- ☑ Notify by SMS
  - ☑ +852963741589
  - ☐

Notify by SMS

Key in one or more telephone numbers in the international format, for example, +375293293294. When all slots to enter phones are filled, additional slots appear automatically.

Note: If the flag 'Can send SMS' is not chosen in user properties, then the corresponding notification delivery method becomes unavailable.

Display online notification in a popup window

A notification can be displayed in a popup window. It can be silent or accompanied by a specific sound. If no URL is given for the sound, the standard tune will be used. Otherwise, enter sound URL to use a custom tune.

Recommended file size is up to 0.5 MB.

There is a possibility to inform on a notification triggering by blinking a minimap. To enable this option, indicate the 'Blink minimap' flag in this section.

Attention! Different browsers can have restrictions regarding formats of audio files:

	MP3	WAV	Ogg	AAC
Internet Explorer 9+				+
Google Chrome 11+		+	+	
Mozilla Firefox 12+		+	+	
Safari 5+	+	+		+
Opera 10+		+	+	

To highlight a notification, you can set an individual color to it. This color will be applied to the background of the triggered notification so that you could easily notice it.

Send mobile notification

In this case upon notification triggering mobile notification is sent to a user/users of an application. Choose the necessary application in the left field. Then the system checks the possession of the necessary rights towards users: 'View detailed item properties', 'Act as given user'. Current users as well as creator of a resource to which a notification belongs are checked for the possession of these rights. Afterwards on the basis of this check a list of users is formed in the right field. Here you can indicate a user/multiple users (choosing the corresponding flags) or all the users (holding <ctrl> and checking any user's flag) to whom a notification will be sent. Note that mobile notifications service availability depends on the chosen service package.
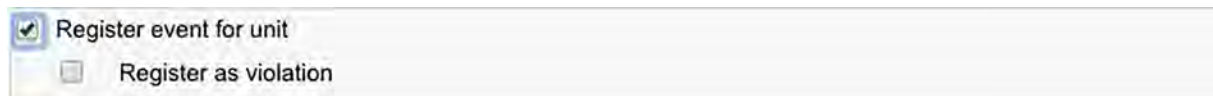
Send a request

You can transfer a notice on the triggered notification to external systems. Choosing this measure it is necessary to indicate server address as well as HTTP request method ('POST' or 'GET').

Register event for unit

In this case notification text is stored in unit history. Then a report on these events can be generated.

Register as violation

Upon checking this option the notification will be registered not only as event but also as violation, and one more report type will be available to you. For further information, see reports on Events and Violations.

Execute a command

For this action, choose a command to be executed over unit(s). The list consists of all commands configured in the properties of selected units. So, different units may support different commands on the list. Support status is seen with special indicators:

- ✔ command is supported by all selected units;
- ⚠ not all of selected units support given command (see details in the tooltip).

For some commands, you should set additional parameters like input/output number, online report interval, etc. More about executing commands...

Change access to units

Choose users whose access rights will be modified when trigger conditions occur. Specify access that will be applied to those users after the notification triggers. This feature can be used, for instance, in the following situation.

Set counter value

Counter values can be changed (or zeroed) when notification triggers. Select one or more counters (mileage counter, engine hours counter, traffic counter) and set new values for them.

Store counter value as parameter

Current values of mileage or engine hours counters can be stored as parameters in unit data messages (*odometer* or *engine hours* correspondingly). These parameters can be used to create sensors on their basis (for example, engine hours sensor) and to get initial/final mileage in reports. For more precise calculations, it is recommended to store counters while the unit is parked, for example, once a day at nighttime.

Register unit status

A new status can be set for unit when a notification triggers. For instance, when unit enters a geofence, *private* state can automatically switch to *business*.

Modify unit groups

You can change the contents of unit groups when a notification triggers — add triggered unit to a group or remove it from a group. On the left, there is a list of all available unit groups. Move necessary groups to the right to *Add to group* or *Remove from group* sections.

Send a report by e-mail

Enter e-mail address(es) to send a report to if the notification triggers. Select report template, object, file format(s), and other parameters to get a needed report. Sometimes it is convenient to choose *Triggered unit* option — then the report will be generated for the same unit that the notification has triggered for.

Create a round

Creating a new round for unit can be chosen as an action undertaken after the notification triggers. For example, when one round is finished, a new round can be assigned, or when unit leaves its garage (as a geofence), a round is automatically created for it.

Reset driver

This feature can be used, for example, to reset driver automatically when the unit returns to the depot. This action can be completed successfully only if you have enough rights for the resource where the driver under question belongs — 'Create, edit, delete drivers'. Note that driver resetting can take place only within the resource to which a notification belongs.

Reset trailer

Similar to the previous one but concerns trailers. This action can be completed successfully only if you have enough rights for the resource where the trailer under question belongs — 'Create, edit, delete trailers'. Moreover, the same as for driver resetting, trailers should belong to the same resource in order the action to be executed correctly.

Notification Text

Text can be set for such **actions** as notify by SMS or e-mail, register an event in unit history, or display popup window online.

The text of a notification can be written in any language, contain any characters, words and phrases, and be of any size. Large messages are acceptable for e-mail notifications. Of course, for SMS notifications it is better to form more compact messages.

To be more informative, a notification should contain special parameters (tags), which are substituted with real values in an incoming notification.

Example.

The text *«'%UNIT%' violated speed limitations. At '%POS_TIME%' it moved %SPEED% near '%LOCATION%'»* can be transformed to *«'Rover-119' violated speed limitations. At '2000-01-01 12:01:37' it moved 136 km/h near 'KU 8, Thurnau, DE'»*.

Measurement units (kilometers or miles) used to decipher parameters depend on resource settings where the notification belongs. Date and time format are taken from the creator of this resource.

New Notification

Enter notification text using special parameters listed below. They will be substituted with real values when notification triggers.

%UNIT%: %TIME_TO% fuel theft of %VOLUME% detected near '%LOCATION%'.

Parameter	Description
%VOLUME%	Volume of fuel filling/theft
%INITIAL_LEVEL%	Initial fuel level
%FINAL_LEVEL%	Final fuel level
%TIME_FROM%	Beginning of fuel filling/theft
%TIME_TO%	End of fuel filling/theft
%SENSOR_NAME%	Sensor name
%LOCATION%	Unit location at the moment of notification

Cancel   Back   Next

Below is the list of parameters applicable to most types of notifications:

%UNIT%	Unit name
%CURR_TIME%	Current date and time
%LOCATION%	Unit location at the moment when notification triggered
%LAST_LOCATION%	Last known location, may be useful if there is no location in the triggered message
%ZONE_MIN%	The smallest of geofences holding unit at the moment of notification
%ZONES_ALL%	All geofences holding unit at the moment of notification
%SPEED%	Speed registered at the moment when notification triggered (is not applicable to fuel fillings/thefts)
%POS_TIME%	Date and time of the latest message with position
%MSG_TIME%	Date and time of the message triggered
%DRIVER%	Driver's name (can be displayed only if the driver belongs to the same resource as notification)
%TRAILER%	Trailer's name (can be displayed only if the trailer belongs to the same resource as notification)
%ALL_SENSORS%	All sensors and their values (not applicable to fuel fillings/thefts; does not show sensors with textual parameters)
%ENGINE_HOURS%	Engine hours at the moment of notification
%MILEAGE%	Mileage at the moment of notification
%LAT%	Latitude at the moment of notification (e.g., N 55° 45.7530')
%LON%	Longitude at the moment of notification (e.g., E 37° 35.2068')
%LATD%	Latitude without formatting
%LOND%	Longitude without formatting
%GOOGLE_LINK%	Link to Google Maps with the position at the moment of notification (e.g., http://maps.google.com/?q=55.762550N,37.586780E)
%CUSTOM_FIELD(*)%	Unit custom fields. If you leave the asterisk sign in the brackets, all accessible custom fields (both regular and administrative) will be shown with their values (in the format "key: value"). However, the resulting notification text will contain the value of the specified field (only the value but not its name). There are also parameters, which make sense only with certain types of notifications: you can get the value of a certain field if you specify its complete name in the brackets.

%ZONE%	Triggered geofence name (used in notifications of geofence control)
%SENSOR_NAME%	Triggered sensor name (used in various notifications)
%SENSOR_VALUE%	Triggered sensor value
%SERVICE_NAME%	Service interval name (used in notifications about maintenance)
%SERVICE_TERM%	Service interval state — left/expired value (used in notifications about maintenance)
%TRIGGERED_SENSOR%	All triggered sensors and their values (used in notifications about maintenance)
%PARAM_NAME%	Parameter name (used in parameter control)
%PARAM_VALUE%	Parameter value (used in parameter control)
%SMS_TEXT%	Text from SMS message (used in SMS control)
%DRIVER_ID%	Driver's code (used in notifications about drivers)

%DRIVER_NAME%	Driver's name (used in notifications about drivers)
%TRAILER_ID%	Trailer's code (used in notifications about trailers)
%TRAILER_NAME%	Trailer's name (used in notifications about trailers)
%OTHER_UNIT%	Name of another unit (used in notifications about interposition of units)
%ROUTE_NAME%	Route name (used in notifications of route control)
%ROUTE_STATUS%	Round execution status (used in notifications of route control)
%ROUTE_POINT%	Check point name (used in notifications of route control)
%ROUTE_SCHEDULE%	Schedule name (used in notifications of route control)
%ROUND_NAME%	Round name (used in notifications of route control)
%COUNTRY%	Country
%REGION%	Region (state, etc.)
%CITY%	City (town, etc.)
%STREET%	Street
%HOUSE%	House

Note: A parameter must be marked by percent sigh from both sides. Otherwise, it will be considered as plain text and will not be converted to real values.

Notification Parameters

Here you set general parameters for a notification as well as define the specific character of its operation. The set of parameters can vary depending on notification type.

- **Name**

    Key in any name. It will be displayed on the list of notifications and in the notification itself.

- **Time interval (from – to)**

    Time interval is a notification validity period. It is unlimited by default (the Time interval box is not checked). Though, if it is necessary any notification validity period could be set accurate to the minutes (check the box and indicate an interval needed). Upon the expiration of the indicated time period, a notification will be automatically switched off (or permanently deleted if units mentioned in this notification do not exist anymore).

- **Control period from current time**

    This is a period of between the time when the notification triggered and the current server time. If this interval is exceeded, the message is not taken into account.

- **Min duration of alarm state**

    This parameter is aimed to exclude cases of accidental trigger that can be caused by equipment errors and inaccuracy. For example, a tracker can show that a unit left a geofence but returned 10 seconds later. In this field you can define how much time the alarm state have to continue in order to be registered. Choose an interval from 10 seconds up to 1 day. *Note:* Minimum duration value is applicable directly to the main triggering condition (notification type) and does not influence the additional ones (speed, sensor value, etc.).

- **Max triggers**

    Maximum number of notifications to be delivered. The notification is disabled automatically upon reaching this value.

- **Generate notification: (1) Only when state changed, (2) For all messages**

    In the first case, the notification will trigger when unit state changes, that is if at the moment when the notification was activated a unit is already in an alarm state, the notification will not trigger. In the second case, the notification will trigger as soon as an alarm state is detected. If the second option is selected, the following parameters are not needed.

- **Min duration of the previous state**

    This parameter is needed to exclude excessive triggers. For example, the unit can return to the normal state for a very short time and then returns back to the alarm state. In order that the notification in such a case would not trigger twice, this parameter is used. Choose an interval from 10 seconds up to 1 day.

- **Max time difference between messages**

  Maximum time between the latest message and the previous one to form a notification. If the interval between the current message and the previous one exceeds this value, the notification does not trigger.

- **Timeout**

  Delay from the moment when message was received and before it will be checked. This delay is especially recommended if a unit has a black box that usually requires time to unload all messages stored in the period of communication loss (for instance, while it was abroad).

- **Enabled**

  If activated, the notification after creation/editing will be active. If not, it will be disabled.

- **Time limitation**

  It is possible to set limitations depending on time, day or month. For example, the control can be performed only on weekdays and within working hours. Get more details…

Online Notification

Only users logged in to the system on the moment of notification triggering can receive online notifications. Moreover, received online notifications are not stored in the system after logging out.

Online notifications will popup in a separate window and can be accompanied by a special sound (see User Settings). If special parameters are not specified in notification properties, the standard audio signal is used. However, you can assign your own sounds, for each notification individually.
As more notifications come, they are stored in the same window.

Received notifications are displayed in the online notifications window. A button-indicator of the number of newly received (unread) notifications is situated in the right part of the bottom panel. You can hide/show online notifications clicking this button. Moreover, a number of unread online notifications are shown on the browser tab.

Newly received notifications are added to the list on the top. An online notification's caption is taken from notification's name provided during its creation and highlighted in blue. To expand or collapse a particular notification, use the switch button **+/–** or click on the header of the notification in a place with no text.

Records in this window can have different background (if this was set in **action parameters**). Colorful backgrounds can be applied to highlight most important messages or visually separate notifications of various types from each other. Background becomes lighter after the notification has been read.
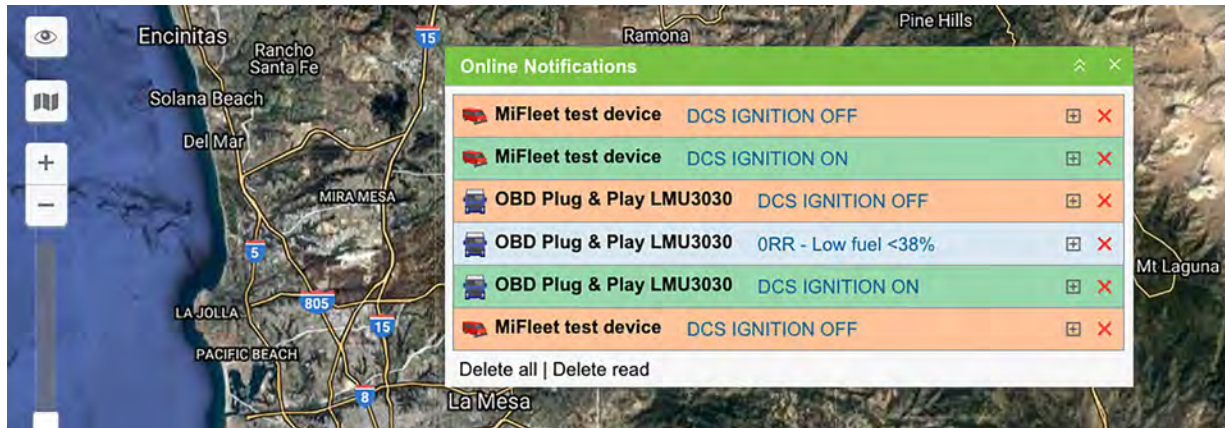
If clicking on a notification, the map is centered on the place where the event happened. If clicking on unit's name, the map is centered on the latest unit position. At that, the unit is added to the work list of the Monitoring panel with the flag 'Show on map'.

To delete a notification, click on a red cross against it. It is possible also to delete all notifications or delete all read notifications (*Delete all* or *Delete read*). The window is closed automatically when you delete all notifications. If clicking on the grey cross in the upper right corner closes the online notifications' window, then the window ceases to appear automatically upon receiving new notifications until the '**Automatically display popup events**' flag is activated. The notification window can be hidden or shown, resized or dragged over the screen. To resize the window, click on its right or bottom edge and drag in the necessary direction. To hide the window, click on the Online Notifications icon on the bottom of the screen (or use the standard little cross in the upper right-hand corner of the window).

Note.

Any user who has any access to a resource will get all online notifications created in this resource.

Note.

Online notifications can also be viewed in **minimaps**.

Geofences

Geofence, or geographical zone, is an area on the map that is important for user's tracking purposes and requires special attention. Geofences can be used to control units' activity in these areas or, on the contrary, outside them. You can attach to a geofence any image or photo or add a comment.

A geofence can have a shape of a line (for example, an avenue or any road), polygon (a city or park or plant), or circle with any radius.

Geofences are widely used in MiFleet. Besides the map's visual enrichment, they can be used in reports, notifications, and units' tooltips. Geofences can also be used as check points while configuring routes, and in their tooltips you can get dynamically updated images from external sources.

To open the Geofences panel, choose the corresponding name in the top panel or click on the necessary item in the main menu customizer. Afterwards, choose a mode, which allows you to work either with geofences or groups of geofences. Note that geofence creating is available in the 'Geofences' mode only, while the other options can be used in the 'Groups' mode as well.

Creating a Geofence

Here are three steps to create a geofence.

1. Map Geofence

Start working with geofences by choosing the corresponding mode.

Press the **New** button, and help window will provide you with the instructions on geofences' creation. Choose a geofence type on the left: *line*, *polygon* or *circle*.
Then map a geofence. Here are the basic rules for mapping a geofence:

- Double-click on any place of the map to put the first point. Then add more points using the same method. Put the points as close or as far from each other as you want.

- To insert a point between two other points, double-click on a segment between them.

- To move a point to another place, click on it and holding the left mouse button drag to another place on the map. Then release the mouse button.

- To delete a point, just double-click on it. Note that points cannot be deleted if there are only two points — for lines, or three — for polygons.
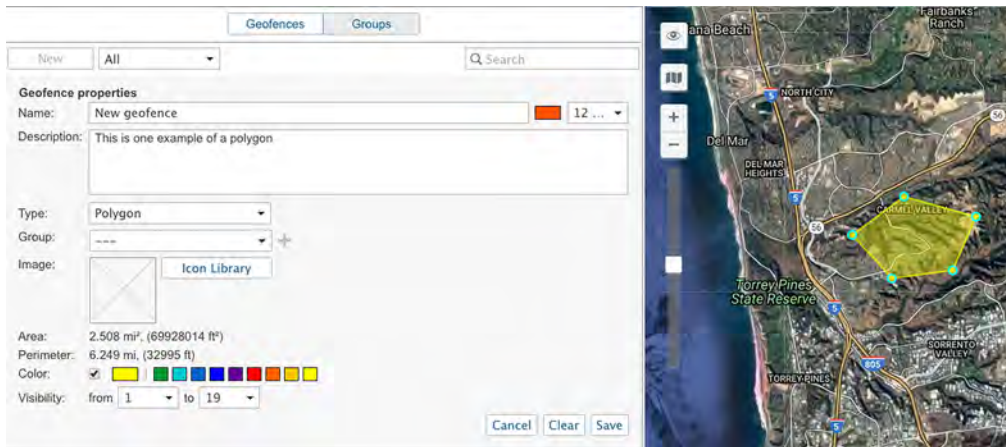
Hint: A quick way to map a geofence is by using the Routing tool (create lines) or the Address tool (create circles
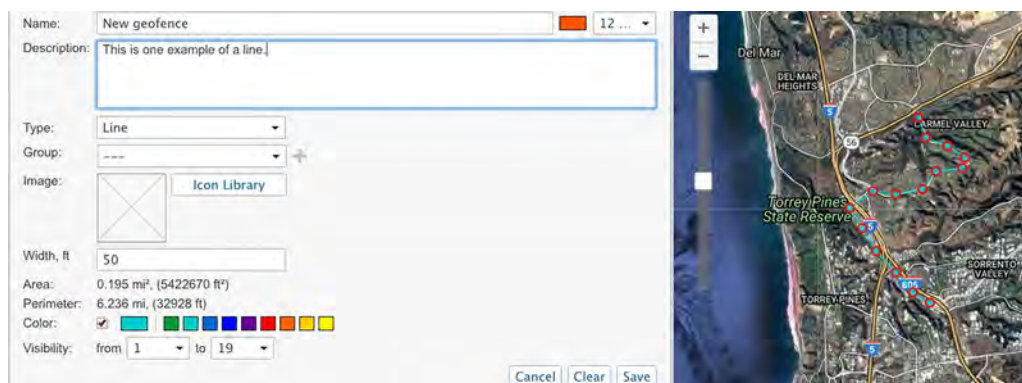
2. Set Geofence Properties

Name

Geofence's name is used while tracking units as well as in reports and notifications. It is a required parameter. It can consist of one or more symbols. Besides, you can specify caption color and size. It has sense if in User Settings the option 'Display names of geofences on map' is enabled.

Description

This field is optional. Description is displayed in geofence's tooltip. It can be also added to geofence's name if the geofence is used as address source in reports. When you create a geofence, the description is filled in automatically with the address information taken from the first point you map.

However, you can edit it or simply delete. Its length is not limited. You can use *html* (including *iframe*) tags in descriptions in order to format text or get images from other sites. For example, you can embed video from web cameras, get photos from crossroads, load weather or currency exchange, etc.

Type

Geofence can be of the shape of the line, polygon, or circle. For line, you also can indicate its thickness, for circle — radius (in meters or feet, depending on resource settings).

Resource

This option is shown if the current user has access to more than one resource. The resource chosen while creating a geofence defines the measurement system used to calculate its area, length, radius, thickness, etc. (metric, U.S. or imperial system).

Image

You can attach any image to a geofence. An image can be chosen from the standard icons (*Icon Library* button) or loaded from your computer by pressing the corresponding area and choosing the file you need. Supported formats are PNG, JPG, GIF, and SVG. Moreover, you can use the Icon Library application (for top accounts only), which enables uploading individual icons for geofences. The icons uploaded to the system using this application will be available for you in the standard *Icon Library*.

To facilitate the work with the library, the uploaded icons are placed in the same list, but separately from the standard ones (at the top). All loaded images are automatically resized by 64×64 pixels to display the geofences on the map and on the list. However, in the tooltip for a geofence you can see an enlarged image (up to 256x256 px). In the geofence's editing dialog you can delete the image used. To do so, point a cursor on it, and click the appeared delete button. Click *OK* to save changes, or *Cancel* to dismiss them.

Area & Perimeter

These fields are not editable, they are calculated automatically.

Note: Area and perimeter values also depend on resource settings, and can be given in hectares and kilometers or square miles, square feet and miles (feet), respectively.

Color

This color will be used to render a geofence on the map and to display it in a unit's tooltip and in extended unit information as well as some other places where next to the geofence's name where a unit is located, is shown a square of the same color. The color is chosen using the palette or manually (by entering its RGB code). You can also choose if geofence's shape should be shown on the map. For this purpose the corresponding flag to the left of the color palette is used.

Visibility

Here you specify map zooms at which geofences will be displayed or not. For example, if a geofence is a city, it has sense to see it on remote scales, whereas if it is a building it is more logical to see it on more detailed scales.

Different map types can have different graduation of map scales. However, all possible values fall into the range from 1 to 19, where 1 is the most detailed scale (small streets and houses are displayed) and 19 is an overview (the whole world).

3. Save Geofence

When finished, press *Save*. In case of a mistake, press *Clear* and try again. To close the create mode without saving results, press *Cancel*.

Note.

Geofences can be saved to a file and easily transferred from one resource to another.

Geofences Management

In the work area there is a list of all available geofences. To move to the necessary geofence on the map, click on its name in the list.

Put check marks in the left column of the table to choose the geofences you want to be displayed on the map. Deselect these boxes to remove geofences from the map. A check mark at the header of the list selects/deselects all the geofences if their visibility corresponds to the current map scale and the appropriate layer is enabled.

If you have ticked too many geofences or they are very big, it can slow down browser performance. In this case, the setting of rendering geofences on server may help.

A geofence can be presented on the map by its name (if the flag 'Display names of geofences on map' is enabled in User Settings), by the image or shape assigned (if that option is activated in geofence properties), as well as any combination of these three elements. The geofences that overlap each other can be replaced by one conditional item.

Placing a cursor over a geofence name (in the list or on the map), you will get the following information about it in the popup tooltip: name, type, description (if specified), enlarged image, the name of the resource (if you have access to several), as well as the list of units located inside the geofence at the moment. Depending on geofence type, there will be also area, perimeter, length, and/or radius. The measuring units for these parameters depend on the measurement system chosen for a resource to which the geofence belongs. If a description contains links to other images, they will be shown as well. For instance, a tooltip of a geofence can look like this:
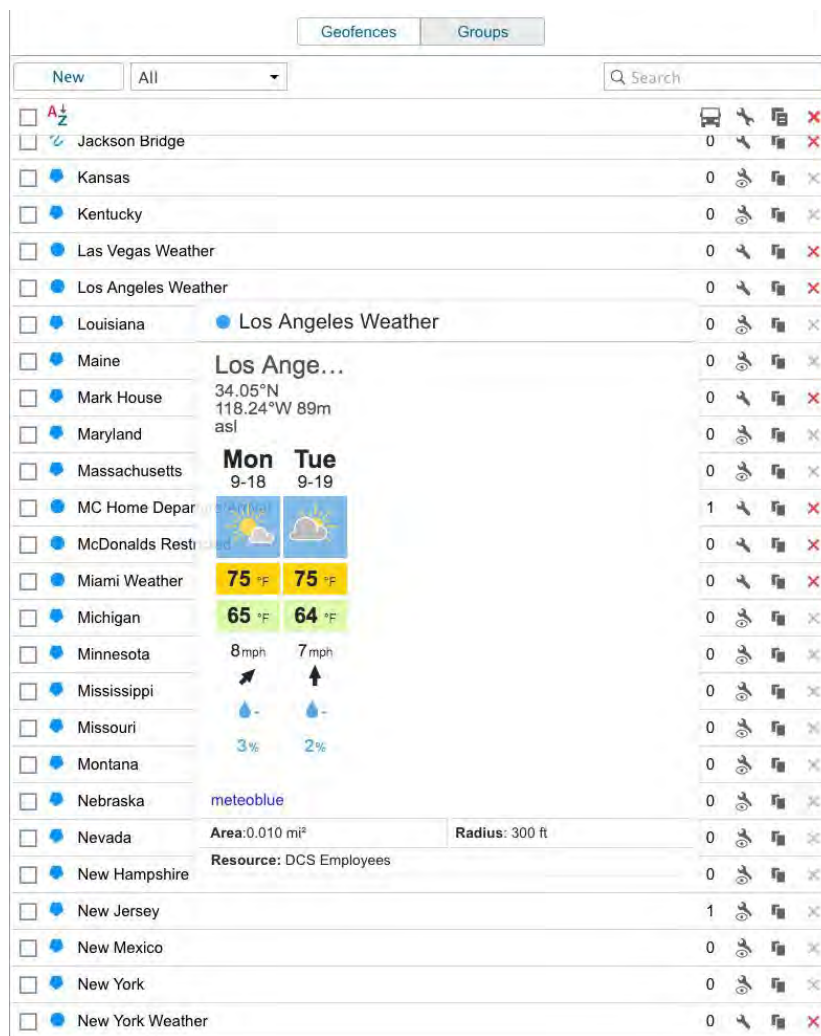
The following code has been used to add weather forecast to the tooltip:

```
<iframe src="https://www.meteoblue.com/en/weather/widget/daily/los-angeles_united-states-of-america_5368361?geoloc=fixed&days=2&tempunit=FAHRENHEIT&windunit=MILE_PER_HOUR&coloured=coloured&pictoicon=1&maxtemperature=1&mintemperature=1&windspeed=1&winddirection=1&precipitation=1&precipitationprobability=1&layout=light" frameborder="0" scrolling="NO" allowtransparency="true" sandbox="allow-same-origin allow-scripts allow-popups" style="width: 108px;height: 338px"></iframe><div><!-- DO NOT REMOVE THIS LINK --><a href="https://www.meteoblue.com/en/weather/forecast/week/los-angeles_united-states-of-america_5368361?utm_source=weather_widget&utm_medium=linkus&utm_content=daily&utm_campaign=Weather%2BWidget" target="_blank">meteoblue</a></div>
```

To find or to sort geofences there is a filter and a fast search provided. The filter is a dropdown list with several predefined criteria:

By property:

- Polygons;

- Lines;

- Circles.

By resource:

- Here you can find a list of the resources available for the current user (if they are more than one). Click on any of them to display geofences belonging only to this particular resource.

To find a needed geofence quickly, you can use the dynamic filter above the list. Type the name of the geofence or some part of the name and observe the search results.

The following icons and buttons are used in the panel 'Geofences':

🚌 10	Shows how many units are there inside the geofence at the moment. These units are listed in the tooltip (the data refreshes once in two minutes). If there are question signs (?) in this column, it means the option 'Presence in geofences' is disabled. If needed, activate it in User Settings.
🔧 👁	The button to view or edit (depends on the access rights) geofence properties: size, shape, name, color, position, etc.
📋	The button to copy a geofence. You can edit a geofence and save it under another name.
✖ ✖	The button to delete a geofence(s). To delete several geofences at once, check them in the first column of the table and press the delete button at the top of the list. If the button is dimmed, it means you don't have enough access rights to the resource, which the geofence belongs to.

Groups of Geofences

Created geofences can be formed into groups. Groups are used to unite geofences on the basis of any criteria, and serve as filtration parameters in several report templates. Moreover, groups of geofences are used in the notifications of the corresponding type. A group may contain only geofences belonging to the same resource as the group itself.

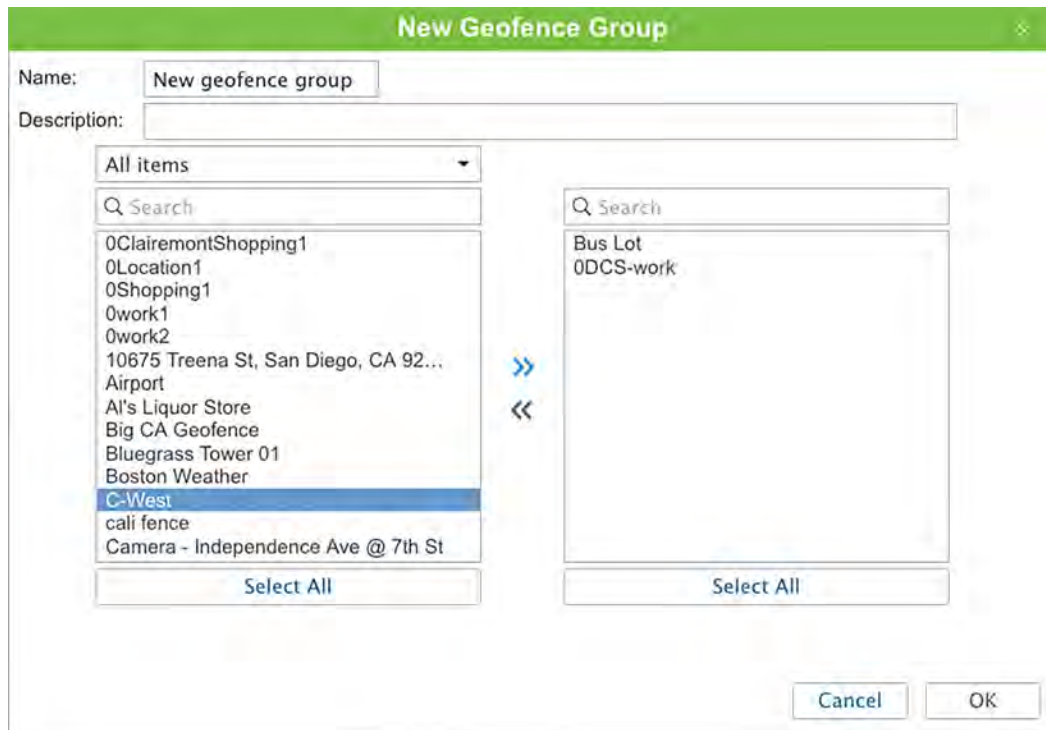To work with groups, choose the corresponding mode in the 'Geofences' panel.

To create a new group of geofences, click the 'New' button. Enter a name and description, and choose geofences to be included in a group. Click *OK*.

A list of created groups of geofences is displayed in the work area. Groups are arranged alphabetically. The same as for geofences, a filter or a dynamic search can be used for groups. Moreover, groups can be edited, copied, or deleted. Note that upon deleting a group you cannot delete its contents.

Geofences not included in any group can be found in the 'Geofences outside groups'.

Series of standard actions are available for geofences in a group (unfold a group in order the corresponding buttons to appear).
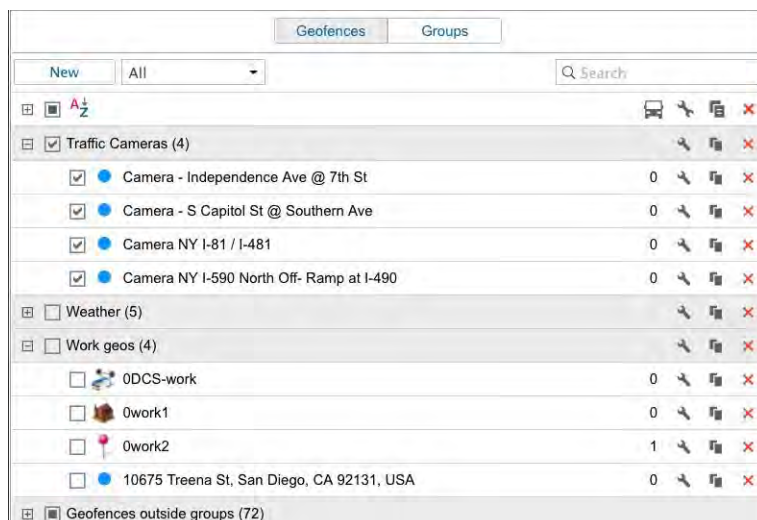
Usage

While Tracking Online

Geofences can be displayed on the map (the ones that have flags in the panel 'Geofences' are shown). That simplifies the visual perception of the map and enriches it. Different regions can be selected by different colors and you can estimate the units' presence in definite areas. If a geofence is displayed on the map, you can press <ctrl> and put the mouse cursor over it to see its tooltip (name, type, list of units inside, etc.). In case of the geofences that have images assigned, the tooltips appear as you just point them with the cursor.

In a unit's tooltip and in its additional information you can see its presence in geofences if the option 'Presence in geofences' is enabled in User Settings.

It's possible to get images from external sources in geofences' tooltips (webcam videos, photos, rates of exchange, etc.).

A column with geofences where units are located can be displayed in the Monitoring panel instead of ordinary addresses.

Note: In order *Geofences* to be displayed on the map you should check if the corresponding layer icon in the main menu is active.

In Notifications

You can be notified by e-mail, SMS, online or by other means when your unit leaves or enters a geofence. It is also possible to set speed limitations and sensor range for a unit during its presence in a geofence. Besides, entering a geofence or leaving it can be automatically accompanied by an action: send a message to the driver, block the engine, change users' access to this unit, and many others. See Notifications.

In Reports

Geofences can be used in reports as addresses (in the 'Location' column), if the 'Use geofences for addresses' flag is enabled in the 'Advanced settings' block of the reports' template.
Many tables are generated on the basis of geofences. Among them there are the following:

- Geofences: visits to geofences (all entries and exits to/from the selected geofence(s) are given together with visit duration, distance travelled within the geofence, average and maximum speed, etc.).
- Non-visited Geofences: geofences, which were ignored (non-visited) during a period of time or on certain days.
- Rides and Unfinished Rides: rides from one geofence to another (convenient to control how a cargo is transported in several trips).

Geofences can be also used to filter intervals in reports.

When a report is generated, geofences can be rendered on the map.

In Routes

Geofences can be used as check points while configuring routes.

Tracks

Track is a line drawn on the map to show how a unit moved during the indicated period. The points from where messages came map a track. Each point stores also date and time when the message was received and coordinates at the point as well as other parameters (speed, sensors etc.). Besides, markers indicating places of fuel fillings, parkings and other events can be drawn on the track.

Any number of tracks can be drawn on the map. They can represent different units and various time intervals. To prevent tracks from being confused with each other, you can set different colors for them. Besides, different segments of the track can be of different colors depending on speed or sensor values.

To open the Tracks panel, choose a corresponding name in the top panel or click on the necessary item in the main menu customizer.
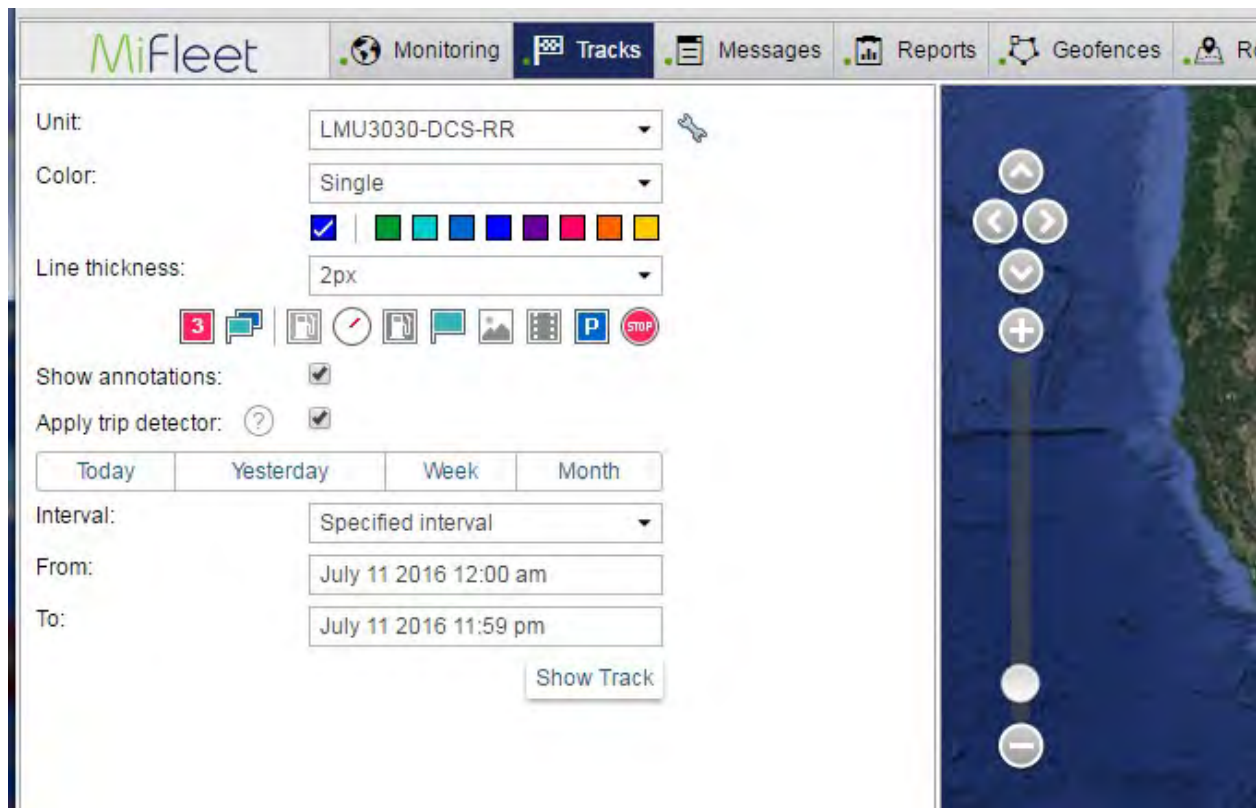
To build a track, it is necessary to possess the 'Query reports or messages' right towards a corresponding unit.

Mapping a Track

To build a track in the *Tracks* panel, do the following:

1. Select a **unit** in the dropdown list. Its contents depend on the work listing the Monitoring panel and access to those units. In case the work list is empty (when dynamic work list is used or when units have been deleted from the work list manually), the units to which you possess the corresponding rights will be displayed.

2. Adjust the desired **parameters** for the track (color, thickness, etc.).

3. Define a **time interval** within which you want to get the data.

4. After filling in all the fields, press **Show Track**.

Note that in order *tracks* to be displayed on the map you should check if the corresponding layer icon in the main menu is active.

The principle of interval adjustment is the same as in reports (see Query and View Reports). The third and fourth steps can be united into one if you choose one of the 'quick intervals' (the buttons *Today*, *Yesterday*, *Week*, and *Month*).

A point-to-point track built according to preset parameters will appear on the map (if unit has any messages with coordinates for the period). If it takes too long for the track to appear on the map, it may mean you have indicated an interval that is too long or your Internet speed is too low.

If within the indicated period the unit was not moving, there will be no track on the map, however, it will be in the list of tracks below, and the distance traveled will be 0 km.

Alternative methods to build a track on the map are:

- In the Monitoring panel with the help of quick track buttons.

- In the Messages panel, when viewing data messages.

- In the Reports panel, if the appropriate option is selected in report template.

When mapping a track you can get a dashed line that means that some track coordinates are doubtful. It may occur if there were no coordinates at all or they were invalid. This situation may be caused by connection loss or poor satellite visibility. Connection loss is detected according to the parameters set in unit properties on the Advanced tab (see the options 'Maximum interval between messages' and 'Minimum satellites').

A track or its part can be displayed on the map as a dashed line. Such situation indicates that this part of the track might be imprecise. The cause of this can be one of the following:

1. Maximum interval between messages is exceeded (see the Advanced tab);

2. Not enough satellites (less than 4, and only when the messages validity filtration is *disabled*).
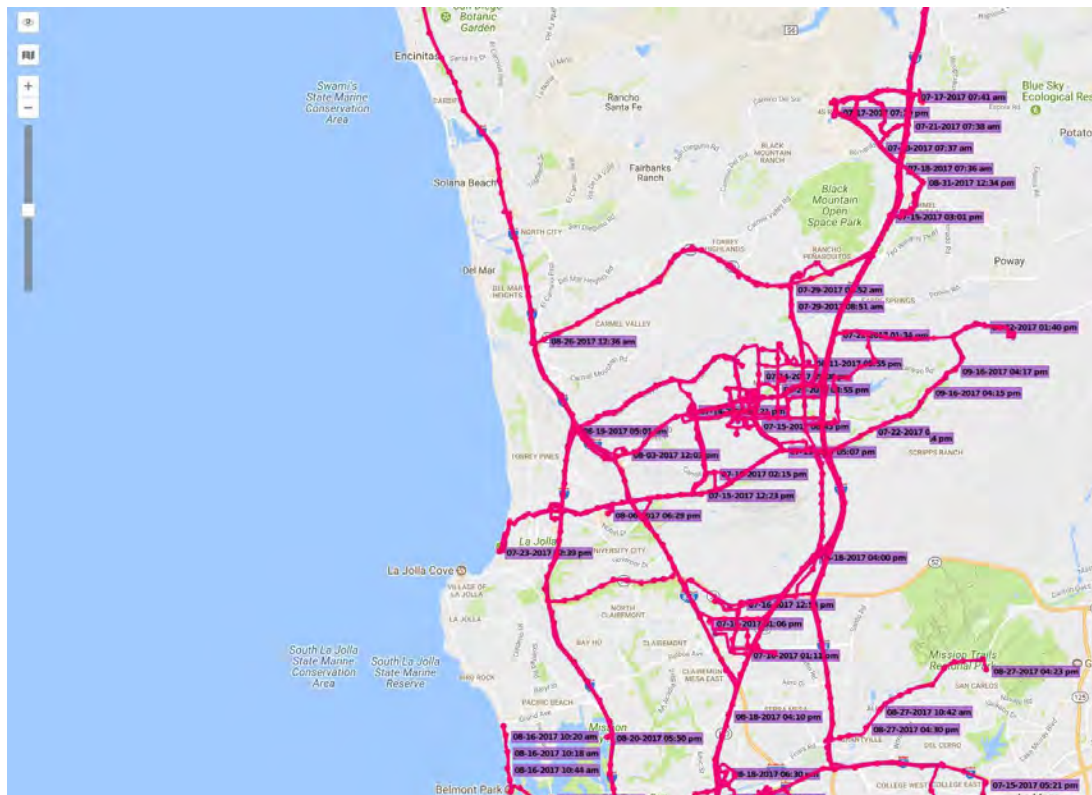
Track Parameters

After you have built a track, it is impossible to change its parameters (time, unit, color, annotations). In case of error, delete incorrect track and create a new one.

Track Color

A track color depends on unit settings (see Unit Properties => Advanced). There are three alternative color settings available: 'By Speed', 'By sensor' and 'Single'. Initially, one on these settings is chosen for a unit. If the setting is not specified, then track color is single. Track color for a single track is chosen before every track building. If a color is not specified in the color range, then a new color for every new track is chosen automatically from the color range going circle-wise. Also, if a unit has 'Single' color setting and you have chosen the other color from the color range manually, then a new color will be automatically chosen from the color range going circle-wise for every next track.

Track Line Thickness

Indicate **track width** in pixels (from 1 to 15). Track can be represented as a number of not connected points (from where messages were received) — for this choose the option *Points only*.
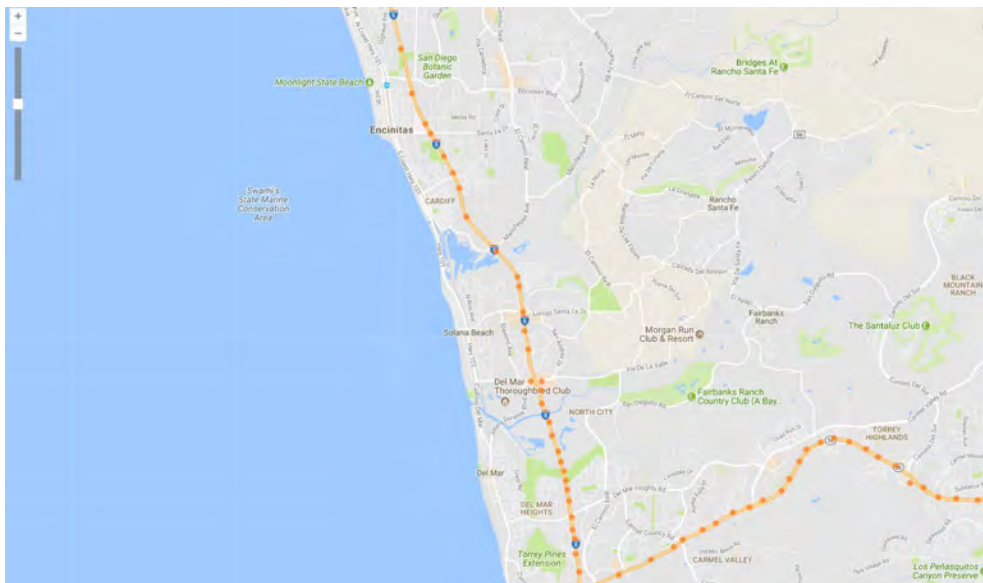
Markers

Markers in tracks are unavailable if a user has no access to reports.

You can enable markers to highlight places of significant happenings on the track. The choice of possible markers is the same as in reports:
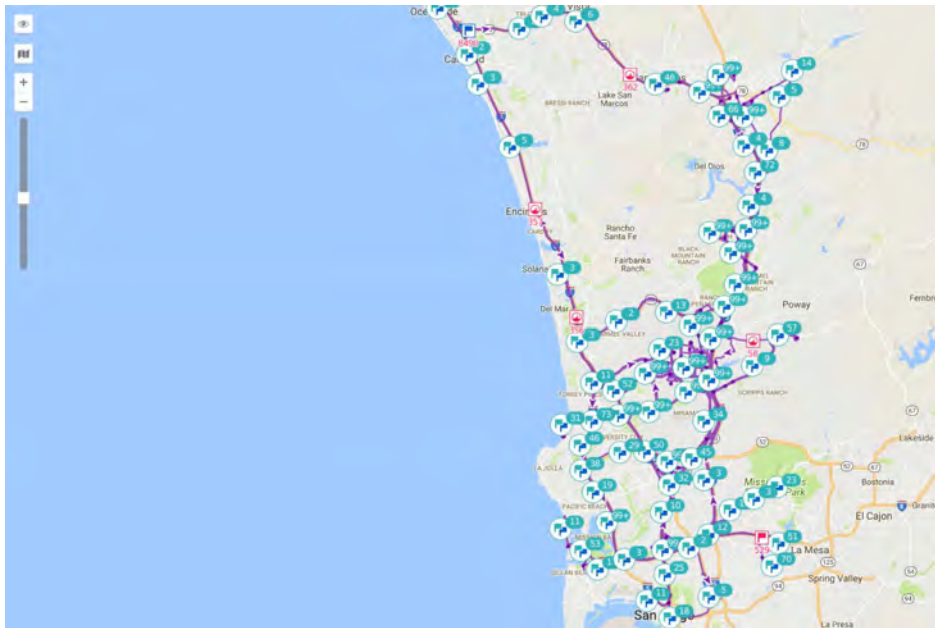
fuel thefts,

speedings,

fuel fillings,

events (if a violation took place, the marker would be red),

pictures,

video,

parkings,

stops,

Choose desired markers before building a track. To activate a marker, just click on its icon so that it became colorful. If at least one kind of marker is selected, additional marker options can be applied:

numbering,

grouping

Markers in tracks are drawn and used along the same principles as markers in reports.

Annotations

Indicate whether you want **annotations** to be displayed. Annotations are hints which are attached to each point of the track to show when (date and time) the message was received.

On big zooms, information about speed becomes also available. Annotations are rather informative but they make visual reception of track more complicated. That is why it is reasonable sometimes to switch them off. Full information about any point of the track can be obtained from the tooltip that appears when you hover the cursor over a point.
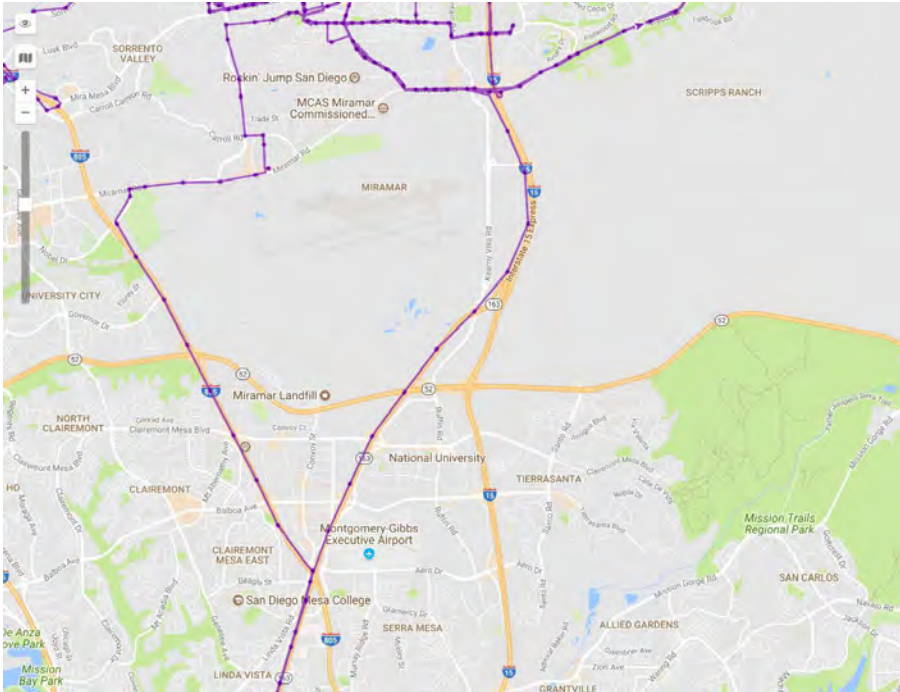
Note: Measurement system in annotations depends on current user's settings.

Trip Detector

Trip detector flag affects distance value and track visualization. For example, in places of stops and parkings there will be just one point instead of conglomeration of points, and the mileage will include just intervals detected as trips.

Trip detector is set up in Unit Properties => Trip Detector.
Mileage in tracks can sometimes differ from mileage in reports (if there are invalid messages within the interval). In such cases, more accurate mileage is provided in reports.

Tracks Management

You can add tracks on any unit for any time interval. The list of tracks created will be displayed in the work area at the left. To prevent tracks merging, select different colors for them. Hover the cursor over track to get accurate information about track point (points where messages were received). Messages are searched in the radius of 50 pixels to the cursor. A pulsating circle highlights points found, and a tooltip appears with the following information: time, address, speed, altitude, coordinates, satellites, and sensor values. Messages with zero speed are marked with bigger points. Measurements used in the tooltip are borrowed from unit's properties (speed in kilometers or miles per hour, altitude in meters or feet) as well as mileage in the list of tracks.
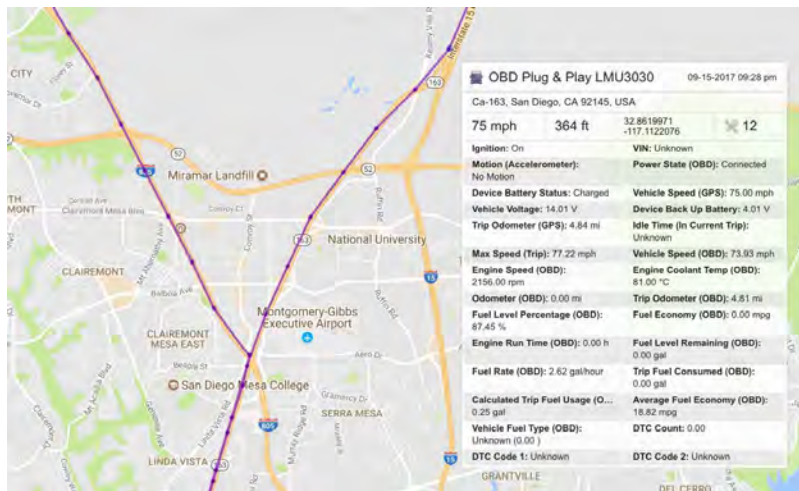
You can manage tracks in the left part of the window under the *Show Track* button. Unit name is displayed on the list as well as time interval and traveled mileage. Mileage in tracks can sometimes differ from mileage in reports (if there are invalid messages within the interval). In such cases, more accurate mileage is provided in reports.

It is possible to view all created tracks on the map simultaneously or select just some of them. The tracks marked with flags are displayed. Unmark a track to hide it. Using the checkbox in the header, you can select/unselect all tracks at once. You can temporarily hide all tracks by disabling the corresponding layer in the top panel.
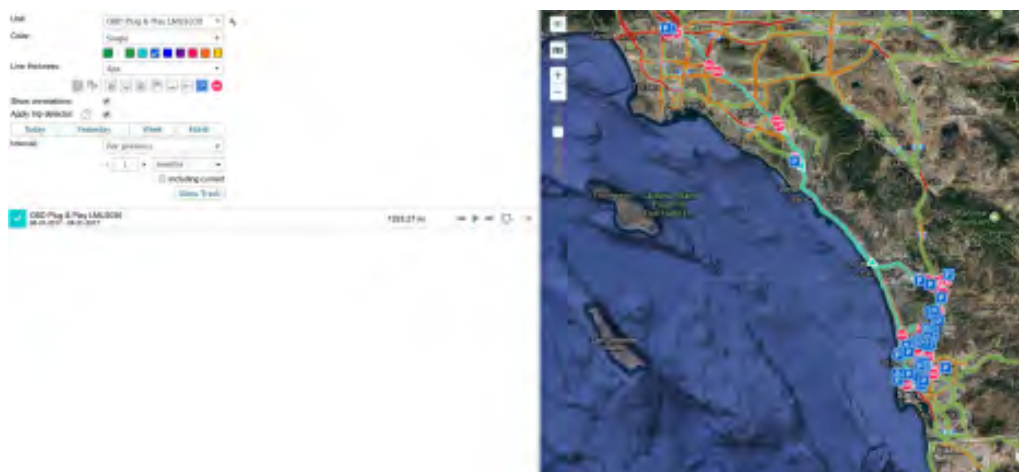
If there are several tracks available, you can sort them by length or name. To do so, click in the header of the list above mileage or name columns. Click again to reverse the sort order.

Use the arrows ⏮ ⏭ to quickly locate the initial/final point of the track. To see the whole track and focus the map on it, just click on its name in the list. A track can be played. That means unit's icon will move along the track line with selected speed. Pressing the *Play* button ▶ against a track will open a special tool — Track Player — and playback will launch.

Moreover, a built track can be saved as a line geofence. To do so, click the corresponding ⬠ Note that if the number of points of a track is more than 10000, it will be saved in several geofences with the same name and a digital index in parenthesis (for example, 'Geofence (1)', 'Geofence (2)', etc.).

To delete a track, click on an appropriate button against ✖. Using a similar button at the header of the list, you can delete all tracks at once.

Furthermore, another special tool can be applied to a track — Hittest. It allows you to get the exhaustive information for any point of the track.
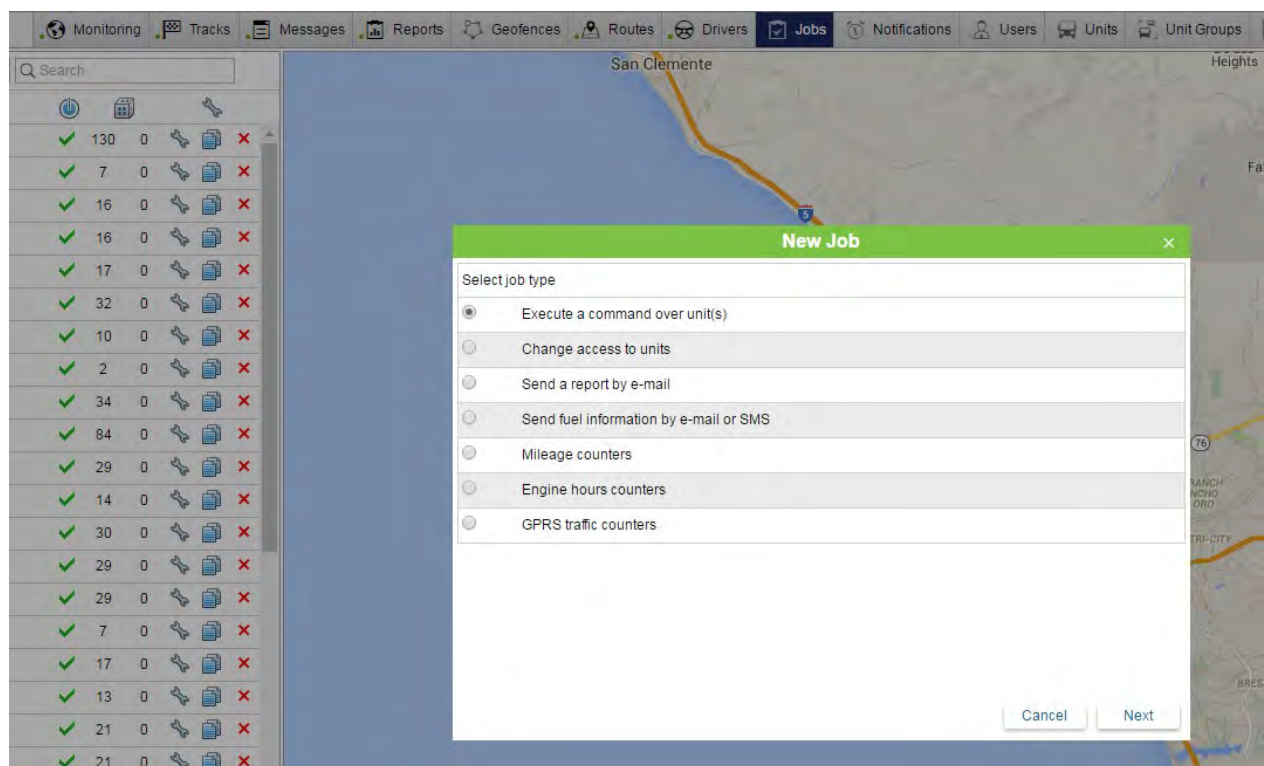
Jobs

Configuring Jobs

Note: To make manipulations with jobs, you should have at least one resource with the access right *Create, edit, and delete jobs*.

To create a new job, press the **New** button. In the dialog choose job type:

- Execute a command over unit(s),

- Change access to units,

- Send a report by e-mail,

- Send fuel information by e-mail or SMS,

- Mileage counters,

- Engine hours counters,

- GPRS traffic counters.

Then follow instructions in the dialog. For any type, you have to select units to apply this job to and set the basic parameters like activation time and schedule. For each type of job, adjust also individual parameters described below.

Selecting Units for Jobs and Notifications

Access required: *Use unit in jobs, notifications, routes, retranslators,* (resource's creator where the job belongs is supposed to have this access to units to assign then this job). Dialog of choosing units for a job or notification consists of the units currently displayed in the work list of the Monitoring panel.

If you see no units, press the 'Display all' button ⊞ . If it does not help, it means there is not enough access to any of the units.

You can switch between units and groups by clicking the switch-button ☰ ☰ . If a unit group have been selected, then the action is applied to all the units the group contains on the moment of action implementation. The list of current units you can find in a group's tooltip.

Mark units/groups to apply a job/notification to. Put the flag in the header of the table to select all items. Please note that if there are more than a hundred units on this page, their icons are not displayed.

While editing a job or notification, this page contains units selected for the job (they are checked) and units displayed on the work list at the moment. You can add more units for the action or remove some. However, only unit with *Use unit in jobs…* flag can be displayed here. If a job or notification that you are editing contains units to which you have not enough rights, you will be warned about it and in case you save the job/notification, those units will be lost.

Parameters for Jobs

 These parameters are adjusted in the last page of the dialog:

Name

It is used in the list of jobs or as mail topic if the job is to send some information by e-mail.

Description

Job description is optional. Is can appear in job's tooltip.

Execution schedule

Use one of two ways to set job's schedule:

(1) Periodic execution — each *N* hours and/or minutes.

(2) On schedule. Execution time is set in 24-hour format *hours: minutes* or just *hours*. If you need to indicate several points in time, separate them with spaces. Example:

```
8:00 22:00
```

In this case, the job will be executed at 8 AM and 10 PM daily (if other conditions concerning execution days are not set on the Time Limitation tab).

Activation time

Date and time when the job will be activated.

Maximum executions

Enter the number of job executions after which the job will be automatically disabled. If you leave this field empty, the job will be executed endlessly until you delete it or disable manually.

Enabled

This check box indicated whether the job is on or off. When creating a job, enable this check box to activate the job just after creation. If this check box is not marked, the job will appear on the list anyway, and you can activate it later.

Time limitation

In the right part of the dialog one can define time limitations by days, months, time, etc. For instance, the job can be assigned to a unit just on weekdays and within working hours from 9 AM to 6 PM. Or you may want to reset traffic counter once a month on the first day of the month. To do this, select the day *1*.

Job name and schedule are required fields, other parameters are optional.

Execute a Command over a Unit

While creating a job of this type, choose a command to be executed from the given list.
The list consists of all commands that are configured in selected units (if you have
Execute commands rights to these units).

Not all of selected units may be able to execute a chosen command, and it is seen from the indicator:

- ✔ a green sign means that all the selected units support this command;

- ⚠ a yellow triangle means that not all the selected units can perform it (see details in the tooltip).

Restrictions can be placed due to access rights or device type used.

For some commands, you should set additional parameters like input/output number, online report interval, etc. More about executing commands...

Attention! When the time comes to execute a command as a job, all kinds of rights are checked beforehand. The user who is a creator of a resource where the job belongs should have the following access flags to unit: 'Execute commands' and the set of flags specified in properties of this command.

Change Access to Units

This job is aimed to change users' access rights automatically, for example, if you want to give someone demo access for several days or restrict access to working hours.
To configure this job, select users and assign them new access. On the list, there are only users to which you have access *Manage user's access rights*.

Check necessary users on the left and indicate access flags on the right. You can set flags, remove flags, or leave them untouched.

Attention! This type of job can be performed successfully only if at the moment of its execution necessary rights are OK. The user who is a creator of the resource where the job belongs should have unit ACL flag 'Manage access to this item'.

Send a Report by E-mail

This job can be used to automatically generate and send reports about units' activity to your e-mail(s).

Choose report template, file format(s) and parameters. Specify time interval — for previous … minutes/days/weeks/months/years. In the Recipients section enter e-mail address(es) where to send reports. More about parameters of report export...

In the list of report templates, only those that belong to the same resource as the job are displayed. Depending on template type, you choose appropriate objects for report generation in the next page of the dialog — units, groups, users, drivers, routes, resources, or retranslators. To apply the job for those objects, you should have a special access to them — *Query messages or reports* (besides, units are taken here from the work list of the Monitoring panel).

Only compressed files of reports can be sent as a job. Subject for the e-mail is taken from the name of job, and the repository itself derives its name from the report template name plus data (yyyy-mm-dd). After you have received a letter with a report, extract files to some folder and open them with appropriate applications depending on file formats.

Note: If in your company the workday sometimes finished after midnight (because some vehicles may arrive late at night), then you can adjust the parameters for the daily report in the following way. Select report interval 'for previous 24 hours' and set job activation time at 4 AM. Then the report will be automatically generated every day at 4 AM. It will contain data for the last day, and the trips finished after midnight will not be divided into two parts.

Send Information about Fuel

You can get information about fuel (fillings, thefts, fuel level) by e-mail or SMS according to predefined schedule. This information is given in *liters* only.

To detect fuel fillings and thefts, the appropriate unit settings are used (see Unit Properties => Fuel Consumption).

Additional parameters to configure this report are:

Event type: filling, theft, fuel level (all three can be chosen). Fuel level means fuel level at the beginning and at the end of the interval (the interval is set later).

Method of delivery: by e-mail and/or SMS. On the right, enter your e-mail(s) and phone number(s) in the international format. When all slots to enter e-mails and phones are filled, additional slots appear automatically. Note that if the flag 'Can send SMS' is not chosen in

user properties, then the corresponding delivery method becomes unavailable.

Message form: one unit in one message or all units in one message.

Time offset (in minutes): a parameter, which allows you to analyze messages from the black box. In this case, time offset value is subtracted from interval beginning.

Note: Information about fuel filling and thefts is sent only in case if any has been detected. Information about fuel level is given in any case.

SMS Format

Unit Name

x a/b/c

- *Unit Name* is unit name as set in unit properties (to save traffic it is recommended to use no other letters but Latin);
- x — sensor number;
- a — fuel level;
- b — fuel filling;
- c — fuel theft.

For example, SMS message means that according to the first sensor the unit Iveco_1501 has 66L of fuel, and no fillings and thefts were detected; according to the second sensor (fuel in the second tank, for example) fuel level is 100L, no fillings were found, and 10L theft was detected.

Iveco_150

1 1 66/-/-

2 100/-/10

Dashes may mean one of the following:

1. The corresponding flag is not ticked in job parameters. For example, it is not chosen to send fuel level.
2. There are no valid data (it may happen with fuel level).
3. Required events were not detected (it may happen with fillings and thefts).

Note: Whether fuel volume will be sent in liters or gallons depends on resource settings (where the job belongs) and not on units' settings.

Jobs about Counters

Counters of three types are used in the MiFleet tracking system: counters of GPRS traffic, mileage, and engine hours. They can be set up in unit properties.
Jobs about counters allow you to automate accounting of mileage, engine hours, and GPRS traffic.

Mileage Counters

This kind of job can help you to fulfill control over mileage counter automatically, according to schedule. With this job you can store mileage counter value in unit history, reset mileage counter, set a new value for it, save its value as parameter in data message.

Set new value for mileage counter	☑
New value for mileage counter, mi	0
Store counter value as parameter of unit data message	☑
Parameter name	odometer
Store counter value in unit history	☑

To set a new value or to reset the counter, choose the option **Set new value for mileage counter** and input the desired value below. The counter will obtain this value each time when the job is executed. Depending on resource settings, different measurement systems can be used.

Set the flag **Store counter value as parameter of unit data message** to save the counter value as parameter in data message. Later on it can be used to get initial and final mileage for trips. It is recommended to store the counter while the unit is parked, for example, once a day at nighttime.

The option **Store counter value in unit event history** can be used to store current mileage counter value. It is especially recommended if according to the job properties, the counter has to be reset or altered.

Engine Hours Counters

This is analogue of the previous type of job but it is applied to engine hours sensors.

Set new value for engine hours counter	☑
New value for engine hours, h	0
Store counter value as parameter of unit data message	☑
Parameter name	engine_hours
Store counter value in unit history	☑

If you store engine hours sensor as parameter in data message, you can use this parameter to create engine hours sensor on its basis.

Attention! These types of job can be performed successfully only if at the moment of its execution all necessary rights are OK. The user who is a creator of the resource where the job belongs should have unit ACL flag 'Edit counters'. Counters' values (traffic, mileage, engine hours) are stored in unit history as registered events, which are needed for creating reports – Events or Chronology. When counter values are stored as parameters, it means new data messages are added to unit database. Those messages bear data message type, and mileage and engine hours are displayed there in meters or feet (depending on unit's properties) and seconds correspondingly

GPRS Traffic Counters

This job is aimed to:

1. Automate traffic counter reset;

2. Store GPRS traffic counter value in unit's history.

For example, you can assign to reset the traffic counter once a month and register each reset with the current value in unit history.

Indicate the status of the option **Store counter value in unit history**. If the option is activated, each reset is registered in the system, and then you can generate a report on events or report on traffic to see traffic consumption. If the option is not activated, resets are not registered anywhere.
The option **Reset GPRS traffic counter** is to set the counter to 0 each time when the job is performed.
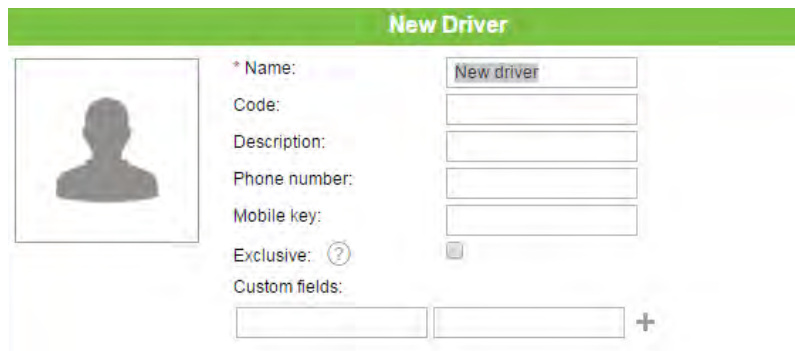
Drivers

MiFleet system provides a possibility to create and manage the list of drivers working for you. One click of a mouse can assign driver to a unit, i.e., attach to a vehicle. Then in the reports on this unit, a driver will be indicated. It is particularly useful when several drivers work with the same unit. There is also a possibility to detect drivers automatically with the help of iButton system. Moreover, created drivers can be formed into groups.

To start working with drivers, choose the 'Drivers' item in the top panel, or click the necessary item in the main menu customizer. Afterwards, choose the mode you would like to work with (drivers or groups).

Creating a Driver

In the corresponding monitoring panel choose the appropriate mode ('Drivers'), click the 'New' button, and indicate required parameters.

Name

Give driver a name that will be visible during the tracking process and in reports.

Code

Enter unique driver code needed to identify the driver if an automatic method of binding will be used. Codes of different drivers should be different.

Description

Type any comments (optional). It is shown in driver's tooltip.

Phone number

Enter driver's phone number. It will be shown in driver's tooltip and can be used to send SMS messages to the driver and make calls. Note that units or drivers with the same phone numbers cannot exist in the system. If you attempt to create a driver with a phone number that is already reserved to another driver or unit, a special alert will be displayed, and this phone number will not be saved.

Mobile key

Password for mobile authorization.

Exclusive

If this flag is enabled, this driver can be the only one assigned to a unit. In case you bind this driver to a unit (in real time), which already has one or more assigned drivers, those drivers are reset automatically. This flag works only for drivers within a common resource.

Photo

To quickly identify a driver, you can attach their photo or any other image. To do this, press the *Browse* button and find and load an image from the disk. Supported formats are PNG, JPG, GIF, and SVG. In the driver's editing dialog you can delete an image used. To do so, point a cursor on it, and click the appeared delete button. Click *OK* to save changes, or *Cancel* to dismiss them.

Custom fields

Create driver's card adding any information as custom fields (information may include external links). They are shown in driver's tooltip and can be summoned in reports. Note that custom fields with the same name cannot coexist within one particular driver.

At the end press *OK*. The new driver will appear on the list.

> *Hint.*
>
> Like any other resource contents, drivers can be imported and exported through files or directly from one resource to another. However, that is not true for driver groups.

Managing Driver List

Drivers are listed in the alphabetical order. To quickly find a certain driver, use the dynamic filter above the list. There are also filters to display drivers belonging to a certain resource or group or display drivers according to their status (loose/bound). Those filters are presented in the form of dropdown menus above the list.

To display a driver on the map, tick the checkbox on their left. As drivers do not have their own coordinates, they borrow their location from units to which they are assigned. Click on driver's name on the list to center the map on their position. A small icon at the bottom right corner of unit's icon represents an assigned driver. If a driver is not attached to any unit at the moment, their last known position is shown (with a bigger icon). If there is no data about driver's location (for example, if they have never been bound to any unit), such a driver is not shown on the map.

Note that in order drivers to be displayed on the map you should check if the corresponding layer icon in the main menu is active.
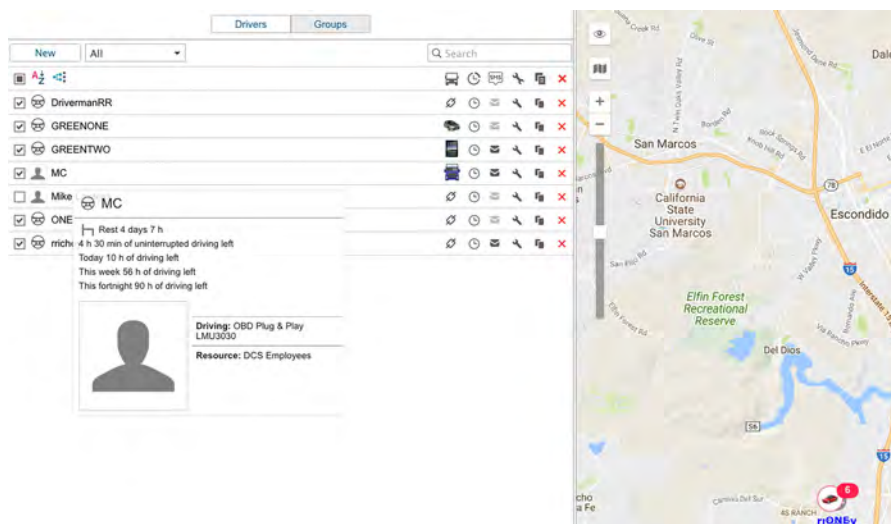
DDD files received from tachograph contain driver's activity information. Such files can be uploaded automatically (due to the corresponding settings of an equipment), or manually (using 'TachoManager' application). Received information on driver's activity helps to control whether a driver follows the AETR standards or not. Driver's activity is displayed in the tooltip of each driver, and contains the following data:

- current state (driving, work, availability, rest), and its duration;

- uninterrupted driving info (time left for driving/exceeded driving time, and also the necessary rest duration);

- driving info for the current shift (time left for driving/exceeded driving time, and also the necessary rest duration);

- week's driving info (time left for driving/exceeded driving time, and also the necessary rest duration);

- two-weeks driving info (time left for driving/exceeded driving time, and also the necessary rest duration).

Moreover, the tooltip shows driver's name, phone number, enlarged photo, resource (if there are several), description, and custom fields (if any were set). Unit that is driven by this driver is also indicated if the driver is bound to any. If you have Skype on your computer, the phone number is highlighted, and you can make a call if clicking on it.

If a driver is bound to a unit, unit icon is displayed on the right of trailer's name. If you place the cursor over this icon, the unit's tooltip is displayed (the same as in the Monitoring panel).

Several actions can be performed over drivers:

⌀ — bind/unbind driver to/from a unit as well as delete incorrect bindings (disabled access);

🕒 — register working shift or delete bindings;

✉ — send SMS to driver (the button is not displayed if the current user does not have enough rights; if the button is dimmed, it means there is no phone number in driver's properties);

🔧 — edit or view driver's properties;

🗐 — create a new driver using this one as a basis;

✖ — delete driver (the button is dimmed if you have not enough rights).

Driver's Assignment

Several drivers can be assigned to one unit. To assign drivers to units, you need to have access flag 'Create, edit, and delete drivers' on the resource where those drivers belong.

There are two ways to bind a driver to a unit: manual and automatic.

Manual Binding

The manual assignment can be performed in both modes ('Drivers', 'Groups') of the 'Drivers' panel. Use the corresponding switch button **Bind / Unbind** ⊘ ⟲ to attach or detach drivers to/from units. The button is disabled if your access is not sufficient. Click 'Bind to unit' button ⊘), choose a unit the driver to be bound to, and click 'OK'.

Availability of units in this list depends on the work list in the Monitoring panel.

If there are no units in the list, click 'Add all available' button ≣ . If the list is still empty, then you have no access rights to these units.

To unbind a driver from a unit, click an icon of a unit opposite to driver's name, and then use the corresponding button ( ). Besides, you can unbind a driver by registering a working shift, or deleting bindings from history.

Automatic Binding

To detect a driver automatically the corresponding equipment has to be installed. In authorized personnel control system iButtons with i-wire bus inside are widely used. When getting into the vehicle, the driver applies the electronic key to be identified by the system.

To use the automatic method of binding, some adjustments should be done in the system beforehand.

1.   A special sensor of *Driver binding* type should be created in the properties of each unit intended for auto-binding. A parameter for this sensor can be avl_driver or some other depending on your equipment and its configuration. One or more driver sensors can be created on the basis of different parameters. If more than one driver binding sensor exist within a unit, the option *Validate unbinding* can be useful. If the option is activated, a driver bound to a unit automatically can be unbound from this unit only if zero value comes from the same parameter that was used to bind the driver. Otherwise, driver reset coming from any parameter will lead to the reset of all drivers bound to this unit.

2.   Create a list of units for any resource the drivers of which are intended to be bound automatically. In order to do so, click 'Auto-binding' icon ( ), and follow the steps listed below.

Upon clicking the 'Automatic binding' icon a list of available resources is opened. Here you choose a resource the drivers of which will be used in automatic binding (with the units chosen in the next dialog). In order to understand

which drivers belong to a particular resource, go back to the 'Drivers' panel, and apply a filter by resource (dropdown menu to the right of 'Create' button).
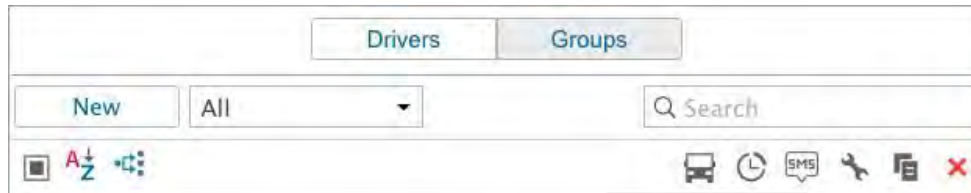
After choosing a resource, click *Next*. If only one resource is available, then it will be chosen automatically.

The next dialog contains a list of units to which the drivers from a chosen resource can be bound automatically. Depending on the access rights possessed, the list can be viewed or edited.

Thus, a driver will be automatically bound to a unit with the help of iButton in case that (1) this unit has a special sensor in its properties and (2) this unit is indicated in the list of auto-attachable units applied to the resource where the driver belongs.

Automatic binding of drivers is removed in the same way: summon 'Automatic binding' dialog, choose a resource, and uncheck flags of units for which the automatic binding will not be used.

Register Working Shift

This option can be used, for example, if you would like to register working shift post factum. Use the corresponding button ☉) opposite to a trailer's name, choose the 'Register working shift' option, and click 'Next'. In the appeared dialog window choose a unit to which the trailer will be assigned in the indicated shift, click 'Next'. Now indicate time of shift beginning and end. Moreover, you can indicate either only beginning or only end time. For example, you have indicated shift beginning, and you would like its end to be registered automatically when a unit arrives to garage (as a geofence). To do so, create a notification of 'Geofence' type with method of action 'Reset trailer'. Anyway, registering a working shift you can use only past dates or current time (no future allowed).

Delete Bindings

Incorrect registrations of drivers can affect reports and their informational efficiency. That is why sometimes you may need to delete such (un)bindings from the database. In the dialog, choose the last option — Delete bindings — and press Next. Specify time interval and press Show to display all bindings and unbindings of the driver on the interval. Check invalid messages and press 'OK' to delete them.

Note.

Like with units, the last message from the driver (whether assign or reset) cannot be deleted.

Simultaneous Bindings

A driver can be bound simultaneously only to one unit. If somehow (for example, through registration of shifts) you are trying to bind a driver to another unit, later assignment cuts off the previous one.

However, several drivers can be assigned to one unit at once. It is reasonable with long-distance truck drivers and truckers.

If you want to avoid situation when a unit may have several drivers assigned to it, use the flag *Exclusive* in drivers' properties. If a driver with such a flag is bound to a unit, other previously assigned drivers are reset automatically. Note the following restrictions:

- For correct operation, all drivers must belong to one resource.

- It works only in real time, i.e., there are no such rules when registering drivers' working shifts.

- It does not work in reverse way, i.e., if a driver with Exclusive flag is assigned to a unit at the moment and another driver without that flag is being assigned, both of those drivers will be bound.

Groups of Drivers

Created drivers can be formed into groups. Groups can unite drivers by any criteria. Driver groups are used in group reports. *Note:* Only drivers who belong to the same resource as the group itself can compose the group.


To start working with groups, choose the corresponding mode in the 'Drivers' panel.

To create a new group of drivers, press the 'New' button. Enter name and description, and choose drivers to fill the group. Press *OK*.
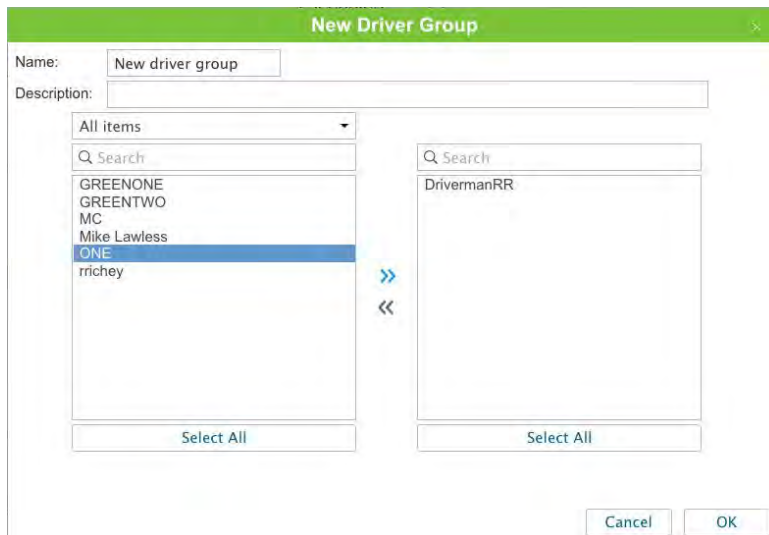
A list of created driver groups is displayed in the work area. Groups are arranged alphabetically. The same as for that upon deleting a group you cannot delete its contents. Drivers not included in any group can be found in the 'Drivers outside groups'. drivers, a filter or a dynamic search can be used for groups. Moreover, groups can be edited, copied, or deleted.
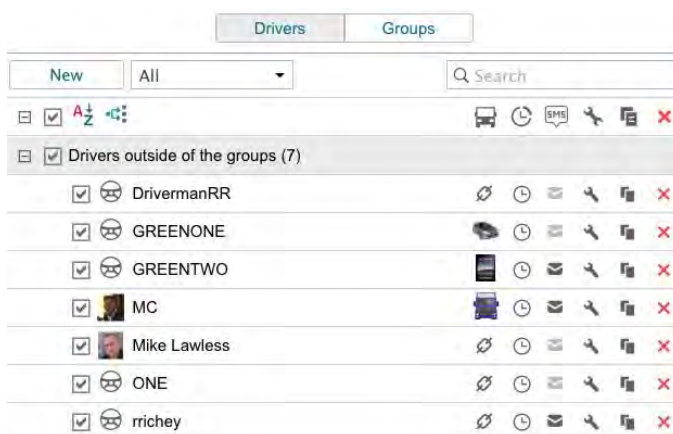
Note: Series of standard actions are available for drivers in a group (unfold a group in order the corresponding buttons to appear).

Usage of Drivers

While Tracking Online

The name of the driver is displayed (if available) in unit's tooltip and in extended unit information. To activate this option, check **Driver** in User Settings. The photo and phone number is also displayed if available.

Besides, it is possible to have a special column in the Monitoring panel to display drivers. For this, it is required to activate **Show drivers column** in the Monitoring panel customizer.

Attention!

When a new driver is assigned, information about it in tooltip is refreshed within a minute (not instantly). Drivers can be located **on the map**, which was described above.

In Notifications

Drivers appear in notifications. You can configure a notification to get informed when a driver is assigned to a unit or unbound from it. Using notifications, you can also unbind driver automatically, for example, when entering the depot.

In Reports

The drivers can be also mentioned in reports if the appropriate column is chosen in report template. This is available for the following tables: Trips, Engine hours, Rides, Unfinished rides, Fuel fillings, Fuel thefts, Speedings, and some others. To see drivers in a resulting report, choose the appropriate column in the report template.

Beginning	End	Duration	Mileage	Driver
2013-03-13 10:58:10	2013-09-04 06:41:21	174 days 19:43:11	0.00 km	John
2013-09-04 06:41:21	2013-09-04 08:17:38	1:36:17	14.38 km	John
2013-09-04 10:47:20	2013-09-04 11:11:54	0:24:34	0.54 km	John
2013-09-04 11:11:54	2013-09-04 11:29:27	0:17:33	0.47 km	John
2013-09-04 22:28:37	2013-09-04 22:37:00	0:08:23	0.45 km	John
2013-09-04 22:37:00	2013-09-04 22:56:05	0:19:05	7.39 km	John
2013-09-04 22:56:05	2013-09-04 23:20:30	0:24:25	27 km	John

In different kinds of reports, drivers can be used as a criteria of intervals filtration, meaning that you can get trips, parkings, etc. for certain driver (or without any) if you set his name mask in the report template.

Besides, if you have Advanced Reports module, you can generate a report totally dedicated to working shifts of a certain driver or even a group of drivers. More...

Support

We are always making changes and improving the MiFleet platform, as we make changes we will be updating this guide.

We greatly appreciate customer feedback. Please let us know if there is anything you would like to see added or changed to making your MiFleet experience better.

For questions, comments, feedback, and general support, please contact us as:
fleetsupport@mifleet.us

For sales support please contact:
1-866-MiFleet