PORTAL BASIC USER GUIDE

Login

Laxpro Pro Hosting

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To log in to the monitoring system, specify the username and password on the authorization page. The characters used in these fields are case-sensitive. Next, select the interface language. If necessary, you can change the language later in the user settings.

After indicating the required data, click Log in.



To sign in with Google, click on the **Log in with Google** link and in the window that opens, select the Google account that is connected with your Laxpro account. If your Laxpro account has not been connected yet, then after signing in to Laxpro, you can see a popup window which allows you to connect it with the selected Google account automatically (the **Connect** button).

When using a personal computer, you can enable the **Remember** option to save the indicated data. In this case, the next time you enter the system you will not be asked to input your login and password again. Moreover, this option is necessary to automatically enter the system in case of losing the session. The option is limited to 30 days. It is disabled when you sign out.

For an account with two-factor authentication enabled, in addition to the password, you should enter a verification code which is sent via email or SMS (the code is valid for 5 minutes).

A message with a verific Enter the code to contin	cation code has been sent to your email. lue.
Verification code:	Verification code
Resend the code	
	Log in
E	Back to the login page

If the login did not occur and the entered code became red, then it was entered incorrectly. If you enter the wrong code repeatedly, the login is temporarily blocked.

If you have not received the verification code, click on the **Resend the code** button (it becomes active within 30 seconds after the first request). When using two-factor authentication via SMS, you can select how to resend the code: send SMS or email.

If the current time is displayed in red and in the middle of the screen, you can see a warning message (Unable to connect to the server. The page will be reloaded automatically when the connection is restored), then there is no connection to the server for more than two minutes. This can be caused by Internet connection failure or some internal system problems. After the connection is restored, the message disappears automatically, and the system continues its work. If the connection to the server is lost for 5 minutes and more, the session is terminated. After the connection is restored, the authorization page opens. If the **Remember** option has been enabled, you are signed in automatically.

Getting a new password

If you have already registered in the system but forgot the password, click on the **Forgot** your password? link. Enter your username, indicate the email address and click on the **Reset password** button. If the entered data matches the existing data in the database, a link to the page with a new login password is sent to the indicated address. The link is valid for two hours after the message was sent. You can use this link only once.

Please, enter your login name be sent to you.	and email. A password reset link will
User:	User
Email:	user@domain.com
	et Password the login page

If you have pressed **Forgot your password?** by accident, delete the received email with a password reset link and use your previous login and password. If you follow the link, you must use a new password.

You can reset the password no more than once a minute.

Password change

If the **Can change password** option is activated on the **General** tab of the user properties, then, according to the security rules, the password change is required at first login. In the window that opens, type in the current password, and then enter the new password twice (the second time in the **Confirm password** field).

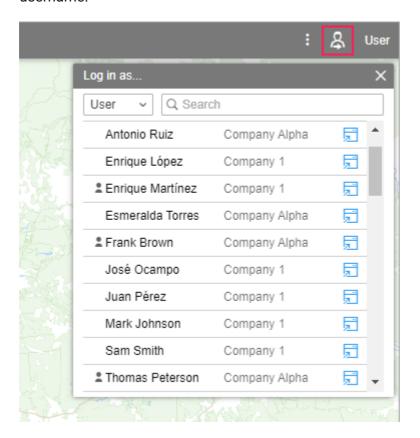
The current password for the user you logged in as can be changed on the **Security** tab in the user settings. However, not all users are allowed to do this. Contact your service administrator for more information.

Log in as another user (if admin rights)

You can log in to the system as another user if you are the admin and the creator of the users.

If you want to log in as another user from the authorization page, you should enter your user name and password, click on the **Log in as** link and select the required user in the window that opens. After logging in, you have access only to those elements and actions with them that are available to this user. The login history is stored in the account with which you have entered the system.

To switch to another user after logging in, click on the icon $\frac{1}{4}$ located to the left of the username.



It opens a dialog box with two columns: a list of available users and their accounts. Users-creators of accounts are marked with the icon to the left of their names. Click on the name of the required user to authorize in the current tab, or click on the conto open the page in a new tab. To search for users or accounts, you can use the dynamic search (it is regulated by the filter to the left of the search). In this case, the login is not saved in the user's history.

There is an alternative way to log in as another user. To do this, open the **Users** tab and click on the icon in ext to the name of the required user. If you do not have enough access rights, the icon is disabled.

After logging in as another user, the username is indicated in brackets to the right of the main user (in the right corner of the top panel).

To switch back to the main user, click on the icon to the right of the name and confirm your action in the window that opens.

Top Panel

Laxpro Hosting

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User menu	(
Notices and attention messages	

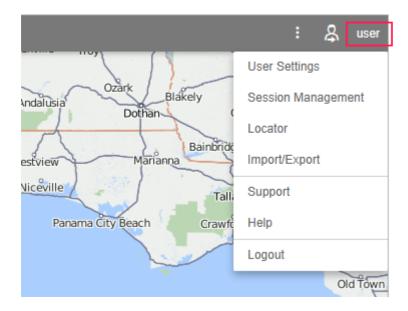
In the upper panel on the left, there is the logo of the tracking services provider, and on the right, there is the menu setting button and the username with which the user has logged in.

The main menu of the program occupies the central part of the top panel. It contains different elements depending on the settings applied and also on the modules provided.



User menu

In the right corner of the top panel, the username used to log in is displayed. If you log in as another user, his or her username is indicated in brackets next to yours.

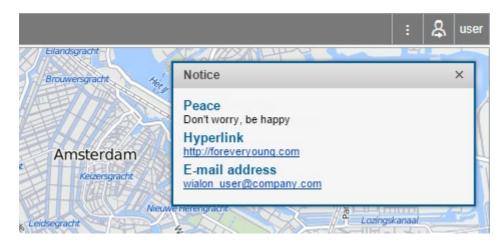


Clicking on the username opens the user menu with the items listed below.

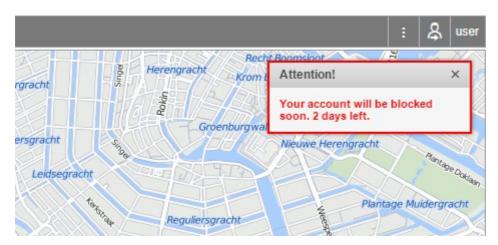
Menu item	Description
User settings	Opens user settings for viewing and/or editing.
Session management	Opens the Session management window.
Locator	Opens the Locator dialogue box.
Import/Export	Enables to transfer the settings of units, users, resources' contents (refer to Import and export).
Logout	Click here to log out of the system (session termination).

Notices and attention messages

Notices from the service manager can appear in the top panel under the username.



Here you can also see attention messages about blocking your account.



Bottom Panel

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The following buttons are located in the bottom panel:

: hide/show the work area;

: hide/show minimaps;

: hide/show the online notifications window;

: hide/show the window with the messages from drivers or SMS;

: hide/show the window with the pictures from units;

: hide/show log;

: hide/show information on the latest system updates.



The lower right corner shows the current time and, in parentheses, a time zone (you can change it in the user settings).

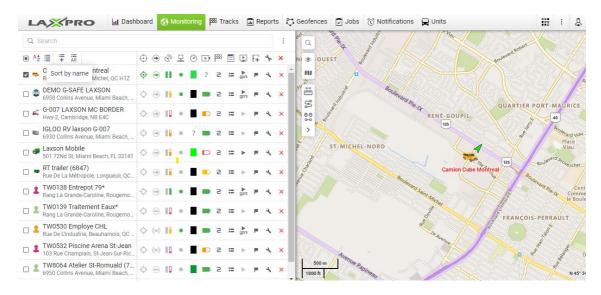
Monitoring Section OVERVIEW

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The **Monitoring** tab gives access to the main tracking features. Here you can watch the movement of units on the map, send commands and messages to them, request photos and videos, monitor parameter changes online, etc.

To open the **Monitoring** tab, click on its heading in the top panel. The heading is displayed if the **Monitoring** item is selected in the main menu customizer.

The tab has the work list of units in which you can monitor their movement on the map. The work list can contain either all units available to the user or just some of them. You can easily add and remove units from the work list, which does not lead to their removal from the system. To quickly find the required unit in the list, use the dynamic search above it. Next to the name of each unit, there can be icons that allow you to assess the state of the unit or perform certain actions. Above them, in the header of the table, there are icons which allow you to order units according to various parameters. To display the icons in the work list, configure the monitoring options.



To locate a unit on the map, click on its name in the work list. As a result, the map centers and zooms in on the selected unit.

The units are shown on the map if the **Monitoring** layer is activated in the visible layer's menu. The map displays only those units that are selected in the work list. You can select all units at once by selecting the checkbox in the top left corner of the list. To cancel the selection of all units, clear the checkbox.

You can see the selected units on the map when they are in the visible area. You can move and zoom the map if needed. If the **Show unit icons at map borders** option is activated in the user settings and the unit leaves the visible area of the map, its icon is displayed on the edge of the map. Click on the icon to move to the unit on the map.

In order not to lose the location of the unit on the map, click on the **Track unit on map** icon $(^{\bigcirc})$. When a new message is received from such units, the map is automatically scaled so that you can see them.

Work Area

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In the left part of the screen, there is a work area in which various actions with different elements of the system are performed, as well as various requests, are formed.

Depending on the item selected in the top menu, in the work area, you can open one of the tabs described below.



- Monitoring: tracking units position, state and movements.
- Tracks: viewing movement history.
- Messages: viewing the messages that come from the units.
- Reports: a wide range of tools for analyzing and sorting the data received from a unit.
- Geofences: creating, editing, removing geographical areas.
- Jobs: creating, editing, removing jobs performed on schedule.
- Notifications: creating, editing and removing notifications of events.
- Users: managing other users.
- Units: managing available units.

The main menu can also include two items which are not displayed in the work area. They are:

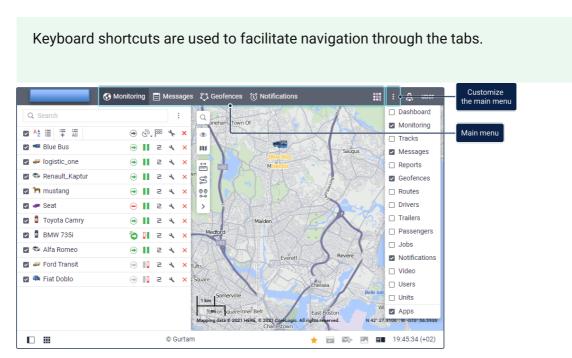
- Tools: tools for calculation distance and area, laying the best routes, searching for the nearest units, etc.
- Apps: applications that solve various user's tasks.

The width of the work area can be changed. To do this, click on its right border and drag it to the required direction, holding the mouse button. Moreover, you can hide the work area by pressing the button located in the lower left corner.

Main menu adjustment and navigation

To adjust the main menu, click on the customizer icon and select the menu items you want to work with. The selected items immediately appear in the top menu.

The open tab is highlighted with a darker background. To navigate through the menu, click on the required name. The contents of the left panel (the work area) change automatically.



All the range of items selected for the main menu is displayed at the top. The names of the tabs are shortened if there is a lack of space. That is why you should select only those items that you use.

Alternative means of navigation

If the browser window is small, but there are a lot of panels selected, inscriptions generally become not visible, and menu panels are presented just with icons. In such cases clicking on the icon mostly leads to switching on/off the layer on the map. Therefore, in such cases to switch the panels you should additionally hold the **Ctrl** key.

Another means of navigation is through the menu settings window. If you click on the name of any item in the settings window, you will be taken to the corresponding tab. In this case, if before it was not displayed in the menu, it appears. Also, do not forget that when you open the tab from the menu settings window, the tab layer is activated automatically.

The same occurs in case of forced transitions between tabs, for example, when requesting a report from the **Monitoring** tab or during the transition from reports to messages. Even if the requested tab is not displayed in the main menu, the transition is successful. In this case, the corresponding item is added to the menu and the layer becomes active.

Monitoring Options

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All the options that can be found on the **Monitoring** tab are described below. Depending on the tasks assigned, you can choose to display some columns and hide the others. To do this, the **Can change settings** option must be activated in the user properties.

By default, the **Monitoring** tab includes the following options:

- address (in secondary information);
- · tracking units on map;
- motion state;
- data recency;
- connection state:
- quick track;
- · properties;
- clear list.

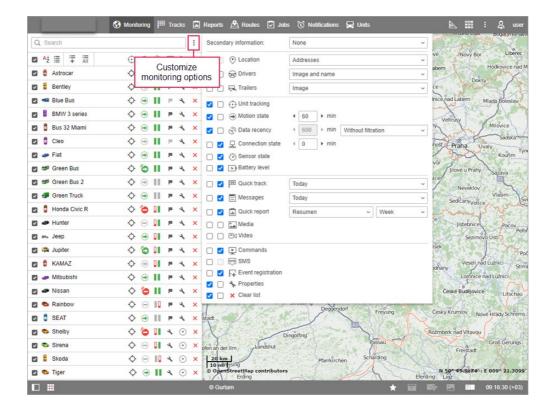
To customize the list, press the icon in the upper right corner of the **Monitoring** tab. In the left column, select the options that should be displayed in the work list and in the monitoring options menu. In the right column, you can select the options that are used more rarely — they will be shown in the additional menu and will be available there.

All the options on the **Monitoring** tab can nominally be divided into two types described below.

Of information. These icons contain some information about the current state of the unit (movement/stop, sensor value, connection state, data recency). For additional information, see the tooltip which appears when you hover the mouse cursor over the icon.

Of action. A click on these options allows performing an action on the unit (event registration, command or report execution, message request, track building, properties editing, removal from the work list, etc.). As a rule, all further instructions can be found in the corresponding dialog boxes. Active action buttons turn blue when you mouse over them.

The icons in the upper part of the work list can also be used. In some cases, it allows you to sort the units according to some properties (e.g. at the top are the moving units, at the bottom — the stationary ones, and vice versa).



Secondary information

All the options on the **Monitoring** tab are divided into 5 sections. The first one contains the **Secondary information** option, which allows displaying the contents of the text columns under the unit names. The following alternatives are possible:

- None;
- Address;
- · Geofence;

Options of information

The next two sections include the options connected with the display of the information about the units. If one or several parameters in the first section (text parameters) are turned on, you can adjust the width of the corresponding columns on the **Monitoring** tab. To do it, hover the mouse cursor over the space between the columns whose width you want to change. When the dotted line appears, drag it to the desired side.

Location

This column displays the location of the units either in the form of addresses or in the form of geofences. **Resolving** means the address is being searched. **N/A** appears for units whose location is not available, for example, in case a unit has never sent any messages.

Option	Description
Addresses	Depending on the selected format, addresses can be longer (if they include state, region, and other elements) or shorter (e.g., street and building number only).
Geofences	If geofences are chosen to determine the location, once a unit gets into several of them, all the geofences are displayed and separated by commas. They are also sorted by area (from smaller to a larger one) and highlighted in the colour selected in the geofence properties. If a unit is outside of all available geofences, the address is displayed as its location. In any case, this column is the widest on the Monitoring tab which is why it is not recommended to turn it on if there is not enough space on the screen.

To determine whether a unit is inside a geofence, the **Presence in geofences** option should be activated on the **General settings** tab. This option is enabled automatically if you select geofences for the location column.

Tracking units on map

In order to monitor the unit and always see it upon receiving the message, press the tracking icon next to its name. The icon will turn green, and a dot will appear inside of it. The unit should be already checked in the first (**Show on map**) column. If you click the icon in the header, the option will be applied to all the units marked in the first column.

If you activate tracking for multiple units, the map is centered and scaled in such a way that all of them are constantly in sight.

Motion state

This column shows if a unit is moving or if it is stationary, as well as whether the ignition is on or off (in case there is an ignition sensor). The motion state of the unit can be determined on the basis of the speed value in the latest message, by a real-time motion sensor (if configured), by Wi-Fi or LBS.

To monitor the unit motion state, it is necessary to indicate the validity period of motion state icons (the corresponding line in the customizer of monitoring options). The validity period is the time interval (in minutes), after which the traffic state signs become inactive. Moreover, when the validity period expires, unit movement directions become hidden. The validity period can take a value from 1 to 999 minutes.

- the unit is moving (if there is an ignition sensor, this icon also shows that the unit is moving with the engine off, that is, it is being towed or transported);
- the unit is moving, the ignition is on;
- =: the unit is stationary;
- the unit is stationary, the ignition is on;
- : the last message was received from the unit during the validity period: the unit was moving;
- (**): the unit data is obtained with the help of LBS detection;
- (a): the data obtained with the help of LBS detection is outdated;
- : there are no messages from the unit.

In case the unit is stationary, the tooltip displays the duration of this state. If the unit has a real-time motion sensor, the information about the duration is absent.

Data recency

This column indicates the data recency: how many satellites locked the unit and when the latest message was received. To find out the exact time of the latest information update, hover the mouse cursor over the icon and study the tooltip.

The first bar indicates the availability of the satellites:

- green: more than three satellites are available (see the exact number of the locked satellites in given the tooltip), or there is no information about the number of satellites, but the message from the unit contains correct coordinates;
- yellow: from one to three satellites are available;
- red: the satellites are not available;
- grey: the satellites are not available for the period greater than the one indicated in the **Options customizer** menu for the **Motion state** option.

The second bar shows the latest data received from the unit:

- green: the unit sent the data less than 5 minutes ago;
- yellow: the unit sent the data within the last hour;
- orange: the unit sent the data in the last 24 hours;
- red: no messages for a long period of time;
- grey: the object never sent the data.

You can customize the unit filtering on the **Monitoring** tab and/or on the map by the relevance of the latest message. To do this, change **Without filtration** to **Work list** or **Work list and map** and specify the filtration interval in minutes. The filtration can affect only the work list on the **Monitoring** tab or both the work list and the map.

Filtering is applied to all the units available to the user. Therefore, the units with recent data are shown in the work list and/or on the map, even if they were not added to the **Monitoring** tab previously. Read more about how data recency filtering affects the work list here.

The Actualizer application can help reveal inactive units. This application allows setting any period of inactivity.

Connection state

- Shows whether there is a connection with the unit at the moment.
 - the unit is connected.
 - ": the unit is not connected.

The connection with a unit is determined by one of the two methods depending on the number of minutes indicated in the **Connection state** field:

- 0 minutes: the connection state is determined only by the presence or absence of the TCP or UDP connection between the tracker and the server.
- from 1 to 999 minutes: the connection state is determined by the presence or absence of messages with data from the unit for the previous X indicated minutes (the TCP or UDP connection is not considered).

Sensor state

- This column displays the state of the sensor:
 - (or any other color): visualizes the sensor value (the color is set in the sensor properties, and the sensor is selected on the **Advanced** tab) or preset by the Laxson technical team;
 - T: text parameters (can be properly adjusted through a custom sensor);
 - ? : the option is not activated for this unit;
 - ¹: the value is unknown.

When placing the mouse cursor over the square, you can see the name of the sensor and its value (or description) in the tooltip.

Battery level

- In this column, the battery level of the device is displayed. There are 4 available states or based on preset configuration by the Laxson Technical team. Example below
 - D: battery level from 0 to 25%;
 - D: battery level from 26 to 50%;
 - Dattery level from 51 to 75%;
 - = : battery level from 76 to 100%.

The exact value of the charge is shown in the icon's tooltip. If there is no proper sensor configured for the unit, then next to its name in this column the icon ? is displayed, the tooltip of which says: **State is unknown**. If the sensor sends invalid values that cannot be converted into per cent using the calculation table, then in the column the icon \triangle is displayed. In its tooltip, it is written **Error**.

Options of action

The parameters of the last two sections are designed for the execution of some action on the unit.

Quick track

The buttons allow you to build a track of unit movements.

- show a track on the map;
- i remove a track from the map;
- : not enough rights to guery tracks for this unit.

When pressing the **Show track** button next to a unit, the track of this unit appears on the map. In the panel settings, you should also specify the interval for track building: **Yesterday, Week, Month** or **Custom interval** (manual mode). Other parameters (such as line width, annotations, markers, trip detector, etc.) are taken from the **Tracks** tab. If you select the **Custom interval** option, the time interval is also taken from this tab. All 'quick' tracks are displayed on the **Tracks** tab where you can manipulate them in the same way as the usual ones: show/hide, remove from the map, etc. Track colors can be set in the unit properties on the **Advanced** tab.

Messages

- Request messages from a unit.
 - idisplay messages.
 - inot enough rights to query messages from this unit.

The requested data is displayed on the **Messages** tab. The standard time interval (**Today**, **Yesterday**, **Week** or **Month**) for the query is set in the customizer of monitoring options. If **Custom interval** is selected, the interval is taken from the **Messages** tab. In this case, only messages with data are loaded, and the style of display is taken from the panel itself.

Quick report

- Execute a quick report on a unit.
 - : execute a report.
 - Inot enough rights to execute reports for this unit or there are no unavailable report templates of the **Unit** type.

In the drop-down list, select one of the available templates of the **Unit** type based on which the report should be executed. Then select one of the standard time intervals (Today, Yesterday, Week, Month, Other). The **Custom interval** option allows you to execute reports for the interval specified on the **Reports** tab.

Media

- View the latest media files (images or videos) received from the unit (works for the devices that have such functionality).
 - : the button to view media files.
 - ino pictures (video) available.

Commands

- Buttons to send commands to units:
 - there are available commands.
 - In there are available commands, including GPRS commands (using TCP or UDP channel);
 - In there are available commands, including GPRS commands, however, the current user does not have enough access rights to send them.
 - there are no commands available or no rights to send them.

Event registration

- Manual registration for such events as fuel fillings, maintenance service and other events in the unit history.

 - : not enough rights to register events for this unit.

Properties

View unit or unit group properties (depending on the mode of work list display). To open the properties, press the icon next to a unit or a unit group.

Clear list

The buttons used to clear the list. To remove all the units or groups from the list, press the button in the header of the table. The same button is located in front of each unit or group and allows to remove the items individually.

If the options are selected for the additional menu (i.e. checked in the second column of the customizer of monitoring options), you can find them in the column with the icon $\stackrel{\textstyle \frown}{}$ under the button $\stackrel{\textstyle \frown}{}$.

Other

Other buttons and signs can be found on the **Monitoring** tab.

P	The units that are selected for display on the map are checked in the first column
	of the table. To select all the units, check the icon at the top of the table.
A2	A switch-button which shows that the items of the work list are sorted by name in
	direct order.
Ąģ	A switch-button which shows that the items of the work list are sorted by name in
	reverse order.
=	A switch-button which shows that the work list displays singular units.
æ	A switch-button which shows that the work list displays the unit groups. Read
	more about the work list settings.
Ŧ	The button to find and add the units or groups to the list.
22	The button to add all available units or groups to the work list.
1	The customizer of monitoring options (column selection).

Additional Unit Information

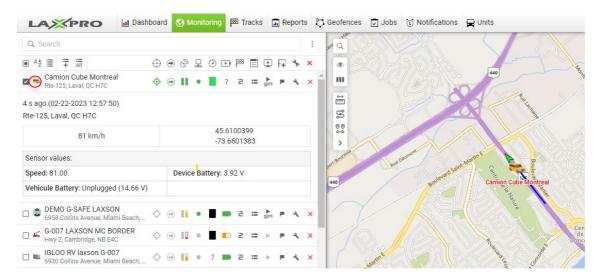
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Additional information includes the following: last message, location, presence in geofences, distance to the geofence (if the **Distance from unit to geofence** option is activated), speed, altitude, coordinates, counters, satellites, connectivity settings, icon, sensor values, parameters, drivers, trailers, custom fields, and maintenance intervals.

You can find additional information in the tooltip of a unit and in the extended unit information in the work list on the **Monitoring** tab.



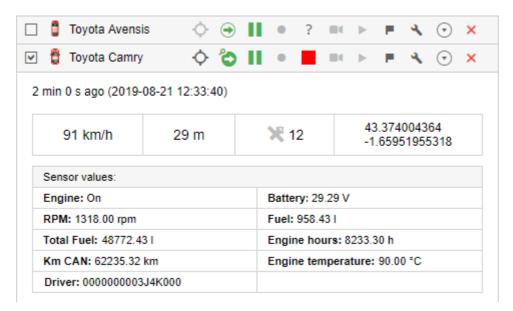
Unit tooltip

A tooltip to a unit is displayed when you pause your mouse on a unit on the map or from the worklist, or if you click on the icon in the work list, in some dialog boxes, and so on.

The characteristics are displayed in the tooltip in the same order as they appear on the **Profile** tab of the unit properties.

Extended unit information

Apart from the tooltip, you can obtain additional information about the unit by clicking on the unit icon in the work list on the **Monitoring** tab (both in the unit and unit group views). The content of the extended unit information is also adjusted in the user settings.



You can apply the extended view to any number of units in the work list. To hide the extended information, click on the unit icon again.

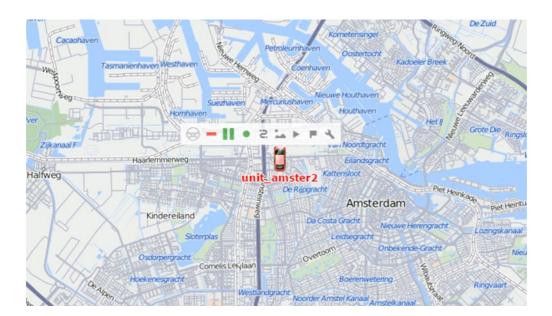
Depending on the unit settings, the values indicated in the pop-up window as well as in the expanded display can be presented in the metric (kilometers, meters, kilometers per hour, liters), American (miles, feet, miles per hour, gallons), or imperial (miles, feet, miles per hour, gallons) systems of measures.

Monitoring options menu

To open the monitoring options menu, click on the required unit on the map. This menu contains the same functionality that is selected in the monitoring options. In addition, regardless of the options selected, the menu always contains the buttons for generating a quick report and building a quick track.

The monitoring menu does not contain the unit location icon, tracking option, and clear list button even if they are chosen as the monitoring options.

When a unit moves, the menu moves with it. It always displays updated information about the unit. To close it, click anywhere outside the menu.



Filters and Masks

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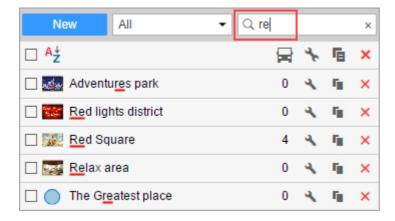
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When creating various objects in the monitoring system (geofences, drivers, custom fields, sensors, etc.), lists are generated from them. Objects from the lists are displayed in alphabetical order, with numbers first, then letters of the Latin alphabet, and then Cyrillic. Uppercase and lowercase letters are not taken into account. When you create a new object (for example, a new job or custom field), it is originally added to the end of the list. When you later open this list, the objects will be arranged in alphabetical order. After renaming, the object remains at its former place until you reopen the list.

Filters and masks are used for convenience. They allow you to narrow the list of items in such a way that only the objects necessary for users are shown. Also, they allow you to find the objects with particular characteristics or name in the list and specify the objects of the tracking system towards which a report, notification, etc. will be applied.

Dynamic search

If the list contains many items, it may be difficult to quickly find the required one. For convenience, you can use the dynamic search available on most tabs. Start entering the name of the object (geofence, unit, route, and so on, depending on the active tab). You can type just a part of the name. As you enter the text, the list shows the items that match your query. The search is not case-sensitive.



If you leave the filter field empty, all the available items will be displayed in the list.

You can also use the dynamic filter when adjusting the access rights on the **Access** tab of the user, unit, and unit group properties. Moreover, you can use the dynamic filter to select a resource when creating notifications, jobs, report templates, geofences, drivers, or trailers (as well as their groups and automatic assignment lists).

The usage of the dynamic filter on the **Monitoring** tab is described in the **Unit list** management section.

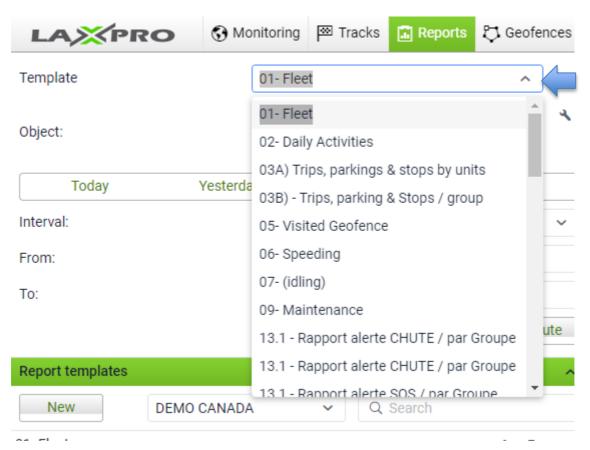
When searching, you can also enter special characters such as * and ? the usage of which is described below.

Manipulations with lists

When working with lists, keys and keyboard shortcuts can be used. Using the keys facilitates a lot of operations, such as list navigation, search for necessary items and their selection.

Dropdown lists

Dropdown lists are widely used in the monitoring system. They provide a possibility to work with a large number of items. For example, this can be a list of units available when generating a report, requesting messages, etc., a list of tables when editing report templates, etc.



To work with the dropdown list, you can use a keyboard. Use arrows (up/down) for navigation through the list and the **Enter** key for choosing a necessary item.