

UNUM Genset Telematics service. “Fleet Operator” User manual. Version 1.0

Revision history

Version	Date	Editor	Description of changes
1.0	06.2025	OD	Basic version

Terms and Definitions

Asset — a unit monitored by UNUM Genset. Depending on the [Solution](#), Assets can be vehicles (land, water, or rail transport), special machinery, [Diesel generators](#), and other equipment equipped with a [Telematics terminal](#) and [Onboard equipment](#). Several Assets (up to four) connected to a single Terminal form a pool.

Any [Fleet](#) user, including [Operators](#) and [Viewers](#), can subscribe an Asset to [Tasks](#), while only a [Fleet superadministrator](#) or [Administrator](#) can unsubscribe an Asset.

Asset SPN — a special SPN whose value is the result of automatically performed computational operations using a standard [SPN](#) from the [S6 Database](#). Asset SPNs are used in [Dashboard templates](#) or [Report templates](#) only for Asset Groups and always have a network address (SA) value of 1000.

Counter — cumulative numerical characteristic of [Parameter](#). Counter is displayed by a single number and over time its value may only increase. Examples of counters: fuel consumption for a certain period, trip, engine hours counter etc.

Classes — are categories of Tasks based on the volume of data included for processing. Each Class is defined by the total number of preset [Keys](#) it includes, which corresponds to the Class name (25, 50, 100).

Dashboards — are UNUM Genset software tools, designed for [Operational monitoring](#) of Parameters, [Counters](#), [Events](#) and malfunctions of the [Asset/Group](#). Data on the Dashboards are visualized with the help of various widgets — scales, graphs, Mnemonic, numerical indicators, lists, tables, the [Map](#). The data composition and set of widgets on the Dashboard are

determined by the appropriate Dashboard template selected from the list of [Tasks](#) for the Asset/Group.

Dashboard template — a set of widgets selected for Operational Monitoring of an Asset's or Group's performance. It is linked to a specific Task and configured for the corresponding [Keys](#). Dashboard templates can be exported or imported as a *.tunum file. Only those Dashboard templates which were created or imported by this particular user are displayed in the account of each user.

Diesel generator (DG, Generator) — independent electric power source. It can be fixed or mobile. It consists of one or several internal combustion engines to produce mechanical power and one or several electric generators (alternators) for converting mechanical power into electric power.

Event — relatively rare and sudden change of [Parameters](#). For example, sharp increase of fuel volume in the tank is a "Fuelling" Event. An Event may have one or several attributes. E.g. "Fuelling" Event has the following attributes: "fuel volume at the beginning of fuelling", "fuel volume at the end of fuelling" and so on. When recording the Event, the [Terminal](#) records the time of its occurrence which is later indicated in the Event report. The Event is always linked to the time and location of its detection.

Fleet — initial organizational unit in UNUM Genset hierarchy which is the assembly of Assets — [Diesel generators](#). Each Fleet has a unique name, one [Superadministrator](#) and several Administrators, Operators, [Viewers](#).

Fleet administrator (Administrator) — one or several UNUM Genset users from among the Fleet personnel to whom the Fleet superadministrator has granted the rights of [Management of Operators](#), Viewers, Assets, Groups, Virtual SPN.

The Administrator can also exercise Management of Dashboard templates and Report templates including Management using Operators' accounts (when using their access rights).

The Administrator has access to creation of billing reports, checking the Fleet balance, activation/deactivation of Assets, subscription/cancelling subscription of Assets to Tasks.

Fleet operator (Operator) — one or several UNUM Genset users from among the Fleet personnel for whom rights of management of Dashboard templates and Report templates are granted by the [Fleet administrators](#). An Operator also has access to subscription/cancellation of Assets to [Tasks](#).

Any members of the Fleet personnel can be Operators (e.g. — Director, Chief engineer, Accountant and others).

Fleet superadministrator (Superadministrator) — one of the [Fleet administrators](#) whose standard access rights are extended to include the ability to manage the accounts of all other Fleet administrators.

Function module (FM) — [Unit](#)-embedded component of hardware and software combination, executing a group of special functions. Uses input/output [PGNs](#) and settings PGNs.

GNSS (Global Navigation Satellite System) — system for area positioning of Assets through satellite signal processing. GNSS is composed of space, ground and user segments. Currently, there are the following GNSSs: GPS, GLONASS, Galileo, BeiDou.

Group (Group of assets) — two or more Fleet [Assets](#) grouped by the user according to some distinctive feature (e.g. brand, model, location etc.).

Industry solution (Solution) — a part of the cloud software of the UNUM IIoT Platform designed for the telematics service ([Operational monitoring](#) and [Post-analysis](#)) of complex machinery in a specific industry, taking into account its unique requirements (for example, power generation, land, water, and rail transport, agriculture, mining, etc.).

IoT Burger — is the Technology of creating smart sensors and complex telematics IIoT devices operating in real time with built-in analytic features (further on – IoT Burger). The basis of IoT Burger is the software/hardware core, a set of ready-to-use universal [Function modules](#), the database of standartized IoT parameters. The Technology provides for the availability of several measurement channels in any device including pre-set analytical treatment (filtration, linearization, thermal compensation) and the controlled error of measurement. At present, 2G/3G/LTE/NB-IoT/Wi-Fi/BLE data transmission standards are used in devices with IoT Burger.

Keys — are data units included in a [Task](#). Each Key has specific attributes: SA (Source Address) — the network address of the data source; [SPN](#)/VSPN — the monitored performance indicator of the [Asset](#) or [Group](#) (such as a [Parameter](#) or [Counter](#)); SPEC — a specifier for further detailing the indicator, if necessary.

Each Key corresponds to a single monitored indicator received from a specific source (sensor, ECU, etc.) and processed within the Task. By default, preset Tasks are filled with Keys by no more than 90%. At the [Fleet](#) level, additional SPN/[VSPN](#) Keys can be added to available free Keys within a Task.

Management — means performing operations of creating, viewing, editing, deleting (CRUD — Create, Read, Update, Delete) the appropriate elements of UNUM Genset.

Map — cartographic picture of terrain in UNUM Genset which serves to display Assets location.

Multiple charts (Analytics) — a software tool of UNUM Genset, designed for [Post-analysis](#) of the Asset / Group operation for the period of time indicated by the user. A Multiple chart is a simultaneous overlay of trend charts for up to three selected [SPNs](#), displaying the changes in raw (RAW) data.

Multiple charts can be generated from data stored at the [Server](#) for the period: 1 day / 1 week / 1 month / 3 recent months / user-specified period (within 3 recent months). Multiple charts allow to study in detail any time interval within the framework of the selected period.

Node — functional components of a [Diesel generator](#) set (such as the diesel engine, alternator, cooling/lubrication/fuel supply/power systems, etc.), as well as elements of the installed Onboard equipment (such as the telematics gateway, fuel flow meters, etc.).

Onboard equipment — elements of the Telematics system located right onboard the Asset. The onboard equipment can be standard (i.e. included into the Asset factory-manufactured delivery set) and additional (i.e. mounted in the process of the Telematics system installation).

Operational data — real-time information from the [Asset](#), including its location coordinates and basic performance Parameters. Operational data are updated on the Server, as soon as new data updates are received.

Operational monitoring (Monitoring) — remote real-time control on the PC or mobile device display of location, Parameters, Counters, Events and malfunctions of the Asset / Group of assets.

Parameter — Asset characteristic changing with time. E.g. — frequency, current, voltage, generator power, fuel volume in the tank, hourly fuel consumption, coordinates etc. The Parameter value is transferred to the Server in real time and may be displayed in the form of a graph, average or instant value.

PGN (Parameter Group Number) — is a combined group of S6 parameters, which has common name and number. [Function modules](#) (FM) of the [Unit](#) can have input/output PGNs and setup PGNs.

Post-analysis — the analysis of an Asset's or Group's performance carried out by the user based on Reports or [Multiple charts](#) for a selected time period. The resulting data can be used by the Asset owner's organization for accounting, management reporting, maintenance, and other business activities.

Reports (Analytical reports) — a software tool of UNUM Genset, designed for [Post-analysis](#) of the [Asset](#) / [Group](#) performance based on [Parameters](#), Counters, [Events](#) and malfunctions for the user-selected period of time.

Data in reports may be presented in the form of widgets — lists/tables/charts. Data composition and a set of widgets are determined by the appropriate [Report template](#) selected from the list of [Tasks](#) for the Asset/Group.

Reports can be generated from data stored at the [Server](#) for the period 1 day / 1 week / 1 month / 3 recent months / user report for the 3 recent months).

Report template — a set of widgets used for Post-analysis of an Asset's or Group's performance. It is linked to a specific Task and configured for the corresponding [Keys](#). Report templates can be exported or imported as a *.runum file. Only those Report templates which were created or imported by this particular user are displayed in the account of each user.

S6 — is the Technology of uniting smart sensors and other IoT devices into the cable network for monitoring complex stationary and mobile Assets. S6 Technology is based on SAE j1939 group of international standards. Detailed information on S6 Technology is provided in CAN j1939/S6 Telematics service operation manual.

S7 — is the Technology designed for wireless collection of data from unattended sensors in systems of industrial and automobile Telematics. S7 Technology is recommended for use in facilities where wiring is impossible or hard to install.

S7 Technology implements Bluetooth 4.X or 5.X Low Energy (BLE) as a communication channel. S7 Technology provides ultra-low power consumption and a long period of independent operation for smart sensors and other IoT devices.

On the application level, S7 Technology is fully compatible with S6 Technology which uses cabling.

SPN (Suspect Parameter Number) — informational unit of S6. Each SPN has a name, number, data type and numerical value. The following types of SPN exist: [Parameters](#), [Counters](#), Events. SPN can have a qualifier, i.e. additional field which allows qualification of parameter's value (e.g. Total fuel consumption/Idle, Sending Report/Roaming, Onboard power supply limit/Minimum).

Special counters — UNUM Genset features two Special counters ("Tampering" and "Interference") that register any attempts at unauthorized interference with the operation of flow meters, in accordance with the respective protection modes against malicious third-party actions. "Interference" Counter protects flow meter from magnetic field impact aimed on stopping fuel consumption measurement. "Tampering" Counter registers attempts of third party to tamper flow meter data by generating artificial fuel consumption (e.g. by blowing the air through measuring chamber). In both situations flow meter will start recording duration of influence and will send alarm to a telematics gateway.

Tasks — are billable services of the UNUM Genset telematics platform for [Operational monitoring](#) and [Post-analysis](#) of [Diesel generator](#) performance. These services are provided by subscription to a specific [Asset](#) or Group and include access to [Dashboard templates](#) and [Report templates](#) with preset Key sets according to the Task Class. The minimum subscription period is one month, with daily billing.

Tasks can be created and edited exclusively by the [Solution](#) owner — Technoton company. If necessary, any number of custom Tasks can be created in addition to the preset ones.

Detailed information about preset Tasks is available in the document [UNUM Genset Telematics Service. Task Catalog](#).

Telematics system — comprehensive hardware/software solution for Operational monitoring and Post-analysis of Assets operation. The Telematics system includes [Onboard equipment](#), communication channels, office equipment, [Server](#), software.

Telematics server (Server) — hardware /software set of computing equipment and software aimed at [Operational data](#) processing and storage, generating [Analytical reports](#) and their transfer via Internet upon users' requests.

Telematics terminal (Terminal) — obligatory component of the Telematics system performing the following functions: reading and processing signals from standard and additional equipment mounted on the Monitored asset, determining its location by means of [GNSS](#) satellites and data transfer to the Server.

Terminal profile — set of Terminal settings presented in the form of a file (e.g. for CANUp 27 Genset Telematics gateway — *.prf). The Profile file is recorded into the [Terminal](#) using the appropriate software.

Unit — element of additional [Asset Onboard equipment](#) which operates using [S6 Technology](#) or [S7 Technology](#).

Viewer — is an [Operator](#) whose standard access rights are limited to subscribing Assets/Groups to [Tasks](#), as well as performing [Operational monitoring](#) and [Post-analysis](#) of [Asset/Group](#) performance.

Virtual SPN (VSPN) — special Asset [Parameter](#) whose value results from automatic computing operations using specified [SPN](#) (up to 3 pcs.), calibration tables (up to 3 pcs.), functions and operators (mathematical/logical/comparative/conditional).

VSPN can be selected alongside with standard SPN of [S6 Database](#), to include them into Dashboard templates or Report templates.

Introduction

Recommendations and rules set out in this User Manual are related to **UNUM Genset Telematics service** (hereinafter — UNUM Genset) developed by [Technoton](#) company.

This document is intended for [Operators](#) and [Viewers](#) of Diesel generator [Fleets](#) and contains information about the purpose, benefits, user interface, and practical use of UNUM Genset.



This is a hardware-software [Solution](#) for [Operational monitoring](#) and [Post-analysis](#) of [Diesel generator](#) (genset) performance.

It includes cloud-based software, a mobile application, IIoT [Onboard equipment](#), and a database of standardized [Parameters](#).

Particularities of UNUM Genset:

1) Saving fuel costs due to high-efficiency instrumental monitoring methods

- accurate monitoring of fuel consumption and engine running time (both total and by different operating modes);
- prevention of fuel theft from lines and tanks, with automatic detection of refueling and draining [Events](#);
- obtaining objective fuel consumption data for management accounting.

2) Operation in mixed equipment fleets

- common platform for [DGs](#) of different brands with any engine types;
- compatibility with DG controllers of the majority of world leading brands.

3) 100 % compatibility and simplicity of equipment mounting

- all mounted Onboard equipment is provided by one manufacturer — Technoton company;
- common data transfer protocol ([CAN_j1939/S6](#)) for cable-connected and wireless [Units](#), unified cable system for connection;
- simple equipment configuration using [Terminal profiles](#) for standard configuration of inputs.

4) Processing of vast data arrays in real time

- simultaneous processing of up to 300 [Parameters](#) from each [Diesel generator](#), with an option to select any Parameter for analysis from 10,000+ [S6 Database](#);

- sending data with 10 seconds' interval or when a specified [Event](#) takes place, high discreteness of Parameters recording (from 0.1 s);
- event-based model of relevant data transfer by the [Telematics terminal](#) prevents their loss during data transfer to the [Server](#);
- standardized format of data presentation facilitates their processing, including data processing by AI.

5) Data analysis and detailed Reports

- flexible, individualized configuration of [Dashboard templates](#) for real-time visualization of Parameters, Events, malfunctions, movement data, and maintenance information;
- simple and fast generation of detailed [Asset](#) performance reports for a selected period (up to 3 months) using [Report templates](#);
- [Multiple charts](#) with simultaneous overlay of up to three trend lines for selected [SPNs](#) from the accumulated RAW data on the Server.

6) Extended equipment service life

- ensuring uninterrupted and reliable service;
- evaluation of genset operation efficiency, including calculation of fuel consumption per unit of generated energy;
- remote diagnostics of the quality of service;
- function for scheduling maintenance of Asset [Nodes](#);
- preventive maintenance, optimization of operating costs.

Using UNUM Genset, DG are monitored in the **Internet browser** of the personal computer (PC), without using any customized software.



ATTENTION: While using UNUM Genset, you must strictly follow the recommendations provided in this User manual.

To ensure the correct use of UNUM Genset, we recommend to grant user access rights to operate UNUM Genset to certified personnel who have undergone [training in the company](#).



ATTENTION: Technoton company reserves the right to modify the interface appearance of UNUM Genset and functionality which does not lead to deterioration of its consumer qualities, without the customer agreement.

1 General provisions

1.1 Functionality, application areas, purpose of use

UNUM Genset functionality

Brief overview of DG operation



In real time: Brief information on UNUM Genset operation, with quick displaying [Parameters](#) of the electric generator, engine, fuel and [DG](#) location.

Analytical reports: Brief [Report](#) reflecting basic DG Parameters.



Detailed fuel monitoring



In real time: Hourly (instant) fuel consumption and fuel left in the tank, [Counters](#) of fuel consumption and engine operation time (total and for "Idle", "Optimal", "Overload", "[Tampering](#)", "[Interference](#)" modes).

Analytical reports: Detailed data on fuel consumption, [Events](#) log, fuel consumption graphs for load modes.



Data collection for electric generator



In real time: Generated power, current amperage, active and reacting power, phase voltage, power factor (Cos φ), Counter of generated power.

Analytical reports: Reports on the electric generator performance, visualization of Parameters' changes, simultaneous display of up to three specified Parameters or Counters in RAW format on a Multiple chart.



Monitoring engine condition



In real time: [DG](#) engine rpm, oil temperature/pressure, cooling agent temperature, Counter of the number of starts, operation time, onboard circuit voltage.

Analytical reports: [Reports](#) on engine performance, visualization of [Parameters'](#) changes, engine malfunction codes.

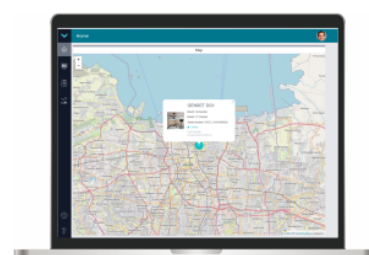


Geolocation



In real time: Location tracking and movement monitoring, including brief tracks.

Analytical reports: Detailed trip data, tracks and "heatmap" views of trip areas, start/end points, and intermediate stops.

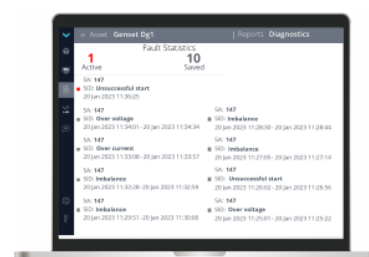


Malfunction diagnostics and maintenance



In real time: Monitoring of Events, active malfunctions, and maintenance requirements for [Onboard equipment](#) and gensets.

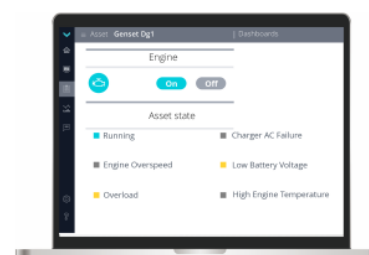
Analytical reports: Logging of [Events](#) and malfunctions (including occurrence time, source, and description).



Remote control commands



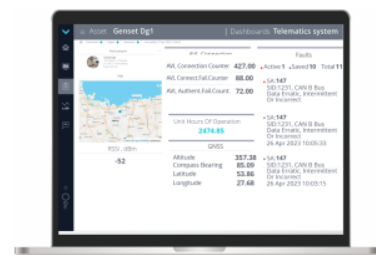
In real time: Genset engine stop command, Modbus RTU controller register recording, flow meter [Counter](#) reset, telematics gateway configuration and firmware update, and fuel pump control (transferring fuel from the storage tank to the day tank).



Monitoring Telematics system



In real time: [DG](#) location, number of satellites and [GNSS](#) status, serviceability of Telematics sensors, onboard circuit voltage, list of Events.



UNUM Genset areas of application

[Telematics systems](#) for monitoring (see figure 1):

- Fixed [Diesel generators](#) designed for permanent or temporary power supply of facilities (industrial buildings, housing, transport, medical facilities, communication equipment, assets of infrastructure etc.).
- Mobile Diesel generators (construction, repair activities, save and rescue operations, geological exploration activities, events and etc.).

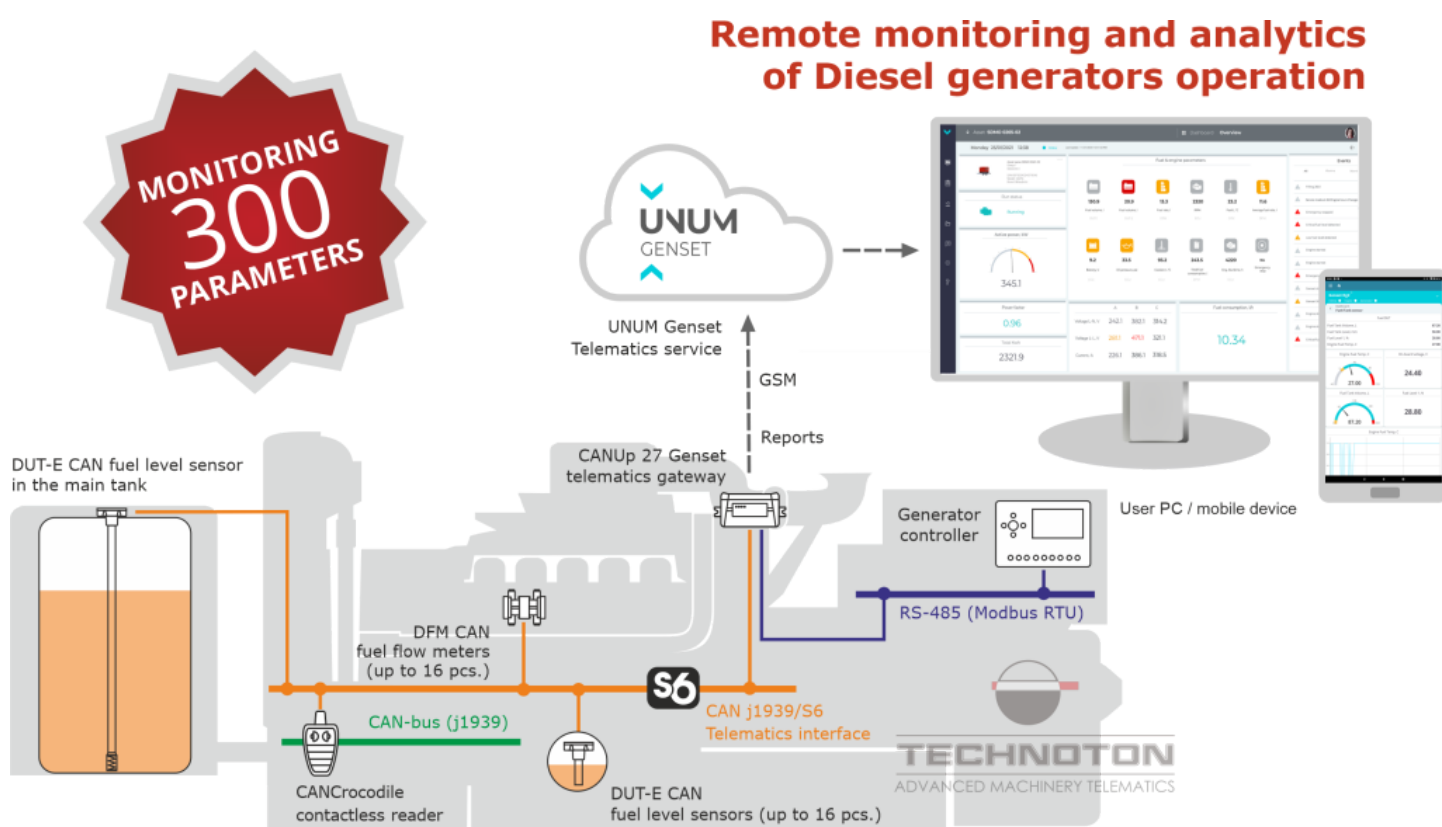


Figure 1 — Example of using UNUM Genset service for monitoring DG operation

Objectives for UNUM Genset use

- raising efficiency of everyday activities of managers, service engineers, dispatch operators monitoring DG [Fleet](#);
- optimization of operating costs for DG operation and maintenance;
- predictive diagnostics and service cost reduction of the [Diesel generator](#);
- accumulation of information about the operation of the Diesel generator Park for analysis and comparison of the data obtained.



1.2 User access rights #

Each UNUM Genset user has a unique **login** and **password** to access their account. The user’s account defines specific **access rights**, which determine the interface elements and UNUM Genset resources they can view and the actions they are permitted to perform (see table 1).

Table 1 — User access rights to UNUM Genset

User	Access rights
Operator	• Managing: – Dashboard templates – Report templates • Operational monitoring of Assets / Groups performance. • Post-analysis of Assets / Groups performance. • Subscribing Assets / Groups to Tasks. • Linking Assets / Groups to Dashboard templates and Report templates from their subscribed Tasks.
Viewer	• Operational monitoring of Assets / Groups performance. • Post-analysis of Assets / Groups performance. • Subscribing Assets / Groups to Tasks.



IMPORTANT:

- 1) The account of a specific user contains all UNUM Genset components created by him.

Whenever an account is deleted, all UNUM Genset components created by the respective user are also deleted.

2) When you use UNUM Genset App mobile application, you should take note that management users' accounts and assignment of access rights are not foreseen in the application.

3) UNUM Genset App application operates on the platform of UNUM Genset [Server](#); while working with the application, a user has the same account data (login and password) and access rights, as for the web-version of UNUM Genset.

1.3 Requirements to user workspace

For correct work with UNUM Genset website, you need a specially dedicated PC (desktop or laptop) with an Internet access, to meet the following system requirements:

- operating system Win 10 (X32/X64)/Win 11 (X32/X64)/OS X/Linux;
- processor — 2 core, 2.0 GHz;
- RAM — 4 Gb;
- HDD — 128 Gb;
- display resolution — 1920×1080.

Recommended system requirements to the PC:

- operating system Win — 10 (X32/X64)/Win 11 (X32/X64)/OS X/Linux;
- processor — 4 core, above 5 GHz;
- RAM — from 8 Gb and higher;
- HDD — from 128 Gb and higher;
- display resolution — 1920×1080 (1920×1200).

The current version of one of the following Internet browsers must be installed on the PC:

- Google Chrome;
- Mozilla Firefox;
- Opera;
- Safari.



RECOMMENDATION: Antivirus software installed on the PC may slow down the browser operation and reception of data from the [Server](#). In case the PC gets slower during work with UNUM Genset, add <https://server1.unum-genset.com/> website into the exceptions in the settings of the antivirus software or disable the network monitoring of the antivirus application for the period you are using UNUM Genset.

2 Procedures for UNUM Genset configuration for Fleet monitoring

UNUM Genset telematics service setup procedure:

- 1) Fleet operators / [Viewers](#) subscribe [Assets](#) / [Groups](#) to the required [Tasks](#) (see [3.3](#)).
- 2) If necessary, [Fleet operators](#) create [Dashboard templates](#) (see [3.5](#)) and [Report templates](#) (see [3.6](#)) and link them to Assets / Groups (see [3.4](#)).

3 Work with UNUM Genset

3.1 User authorization

Enter UNUM Genset website URL into the browser address bar: <https://server1.unum-genset.com/>.

For authorization, enter the user login (**Login** field) and password (**Password** field) received at the time your account was created and press  button (see figure 2).



IMPORTANT: User login must be unique. The user login and password chosen may contain: capital and lower-case Latin letters from **A** to **Z** and from **a** to **z**, digits from **0** to **9**, **_** underscore character.

Upon first login, the user must review the **Terms of Use** and **Privacy Policy** for the UNUM Genset telematics service, which are provided in the corresponding tabs, and confirm acceptance by checking the appropriate boxes and clicking the  button.

Users also receive important notifications from the UNUM IIoT Platform administration on the login page (for example, information about the date and time of scheduled maintenance and possible [Server](#) downtime).

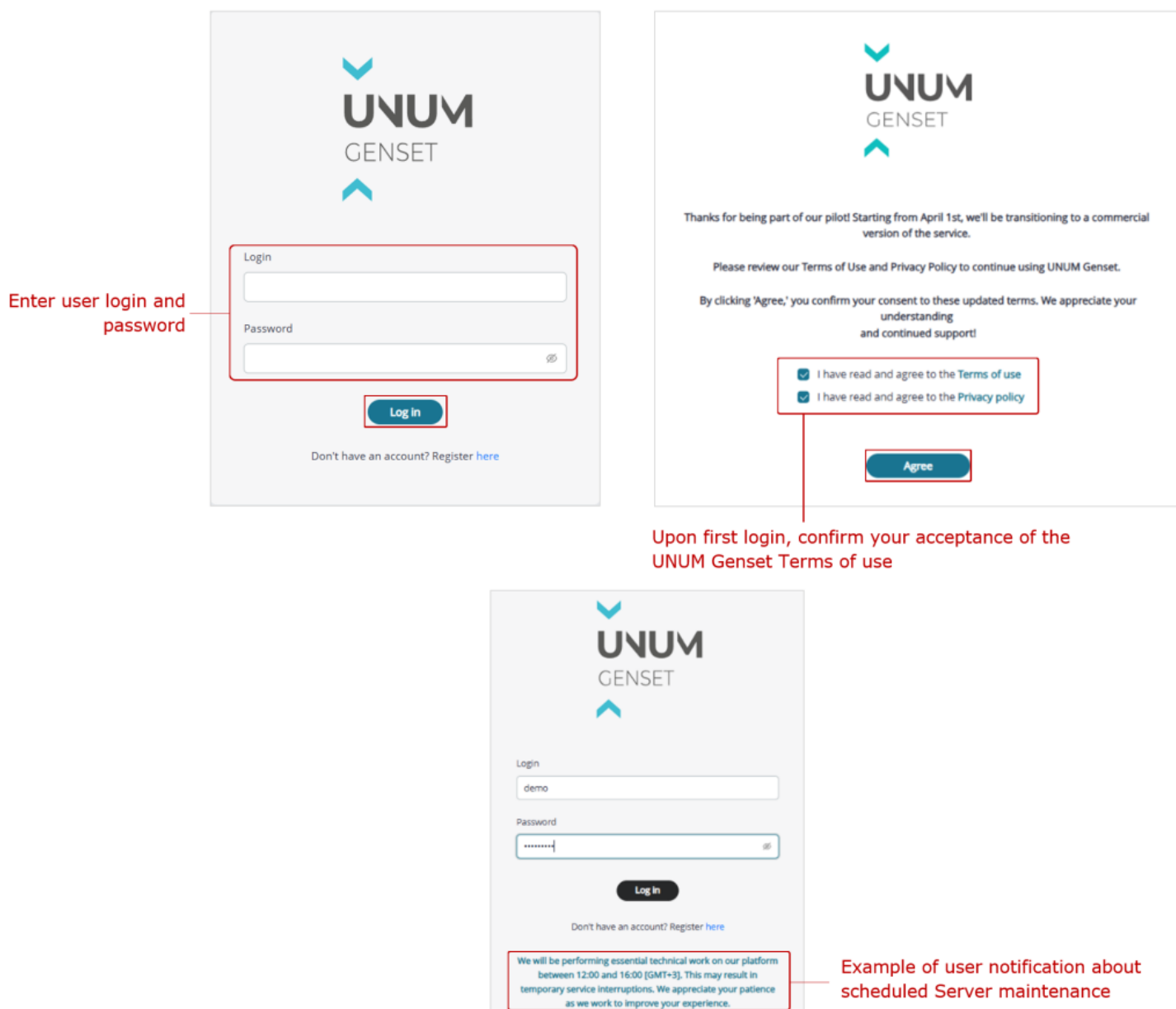


Figure 2 — Example of the user login window when accessing UNUM Genset

3.2 Interface of Main monitoring window

After user authorization the **Main monitoring window** (see figure 3) is opened in which you can configure UNUM Genset for monitoring the [Fleet](#) and subsequently perform [Operational monitoring](#) and/or [Post-analysis](#) of [Asset](#) or [Group](#) performance.

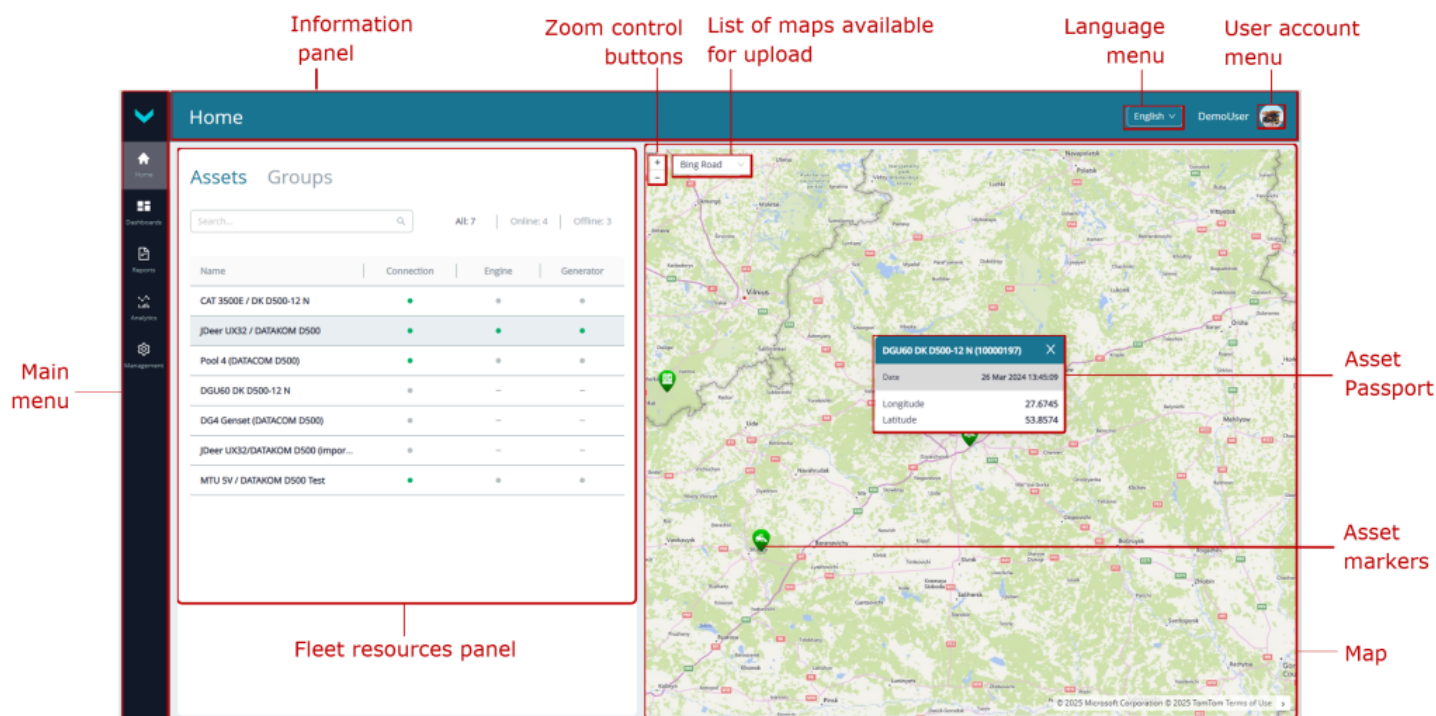


Figure 3 — UNUM Genset Main monitoring window interface

The following work areas are displayed in the **Main monitoring window**:

1) **Main menu** which contains the following tabs:



Home is the landing page that opens immediately after the user logs in to UNUM Genset and contains **Fleet resources selection Panel** with particular tabs for displaying single Assets (**Assets** list) and assets Groups (**Groups** list).

- field is used to search for an Asset or Group by name.
- buttons serve respectively to display the full Assets list and for filtration online and offline Assets lists. The number of Assets in the corresponding list is indicated on each button (see figure 4 a).
- The list of [Assets](#) is presented in the form of a table. The line of each Asset contains its order number and name (**Name** column), connection status indicator of the [Telematics terminal](#) (**Connection** column), engine performance data indicator (**Engine** column) and generator performance data indicator (**Generator** column).

● indicator in the respective column indicates the Asset online status and the availability of data from it on the engine/electric generator operation on the [Server](#).

● indicator is respectively a sign of the Asset offline status and absence of any data from it on the Server on the engine/DG electric generator operation.

● indicator indicates an undefined status of the Asset. In this case, dashes are shown in the relevant columns for engine/generator operation data.

- In the **Groups** list, the number of Assets included in each [Group](#) is indicated. If needed, you can expand the drop-down list of included Assets by clicking  icon in the line of the relevant Group. Clicking the line of the required Asset will display its location on the [Map](#) (see figure 4 b).

For Asset selection, click its line

Assets Groups

Search...

Q

All: 7 | Online: 4 | Offline: 3

Name	Connection	Engine	Generator
CAT 3500E / DK D500-12 N	●	-	-
JDeer UX32 / DATAKOM D500	●	-	-
Pool 4 (DATAKOM D500)	●	●	●
MTU 5V / DATAKOM D500 Test	●	-	-

a) **Assets** list

For Group selection, click its line

Assets Groups

Search...

Q

All: 2

Group name	# Assets	
Reserve	2	▼
Test Group	4	▼

Number of Assets in Group

Icon to roll down/expand list of Assets in Group

b) **Groups** list (rolled down)

Click the line of the required Asset to view its location on the Map

Assets Groups

Search...

Q

All: 2

Group name	# Assets	
Reserve	2	▼
Test Group	4	▲

● CAT 3500E / DK D500-12 N

● JDeer UX32 / DATAKOM D500

● Pool 4 (DATAKOM D500)

● MTU 5V / DATAKOM D500 Test

Expanded list of the Group Assets

c) **Groups** list (expanded)

Figure 4 — Examples of displaying the Fleet resources



Dashboards — this tab is designed for [Operational monitoring](#) of the selected Asset/Group of assets operation with the help of [Dashboards](#) (see figure 5).

The tab contains a set of default preset Task tabs. From these, you can select the required [Dashboard templates](#) configured for specific sets of [Keys](#).

If necessary, you can subscribe the selected [Asset](#) or [Group](#) to inactive [Tasks](#) by activating them with  button .

By clicking  icon in the tab of the corresponding Task, you can open its description window. The window contains information about the Task Class and purpose, the number of Keys (total, preset, available), as well as a list of default preset Keys. For convenience, there is a Key search line by their attributes (SA or [SPN](#)).

Name	MTU SV / DATAKOM D500 01 Mitsubishi S4L2-SDH Night mode Pool 4 (DATAKOM D500)_1 PRK 1103A / DATAKOM D500 Reserve block Pool 2 (DATAKOM D500) GROIX FD24 / D500-20 Pool 4 (DATAKOM D500)_2 JDeer UK32 / DATAKOM D500-11 N CAT 3500E / DK D500-12 N MTU 24T / DATAKOM D500-21
Asset	
Groups	

Menu to choose Fleet resources (Asset/Group)

Asset: Mitsubishi S4L2-SDH/DATAKOM D500 — Name of selected Asset / Group

English DemoUser

Dashboards

Select the required Dashboard template

Preset Task tabs

Alternator Monitoring 35 / 50	Engine Monitoring 22 / 25	Fuel Monitoring Basic 22 / 25	Fuel Monitoring Genset Pool 95 / 100
*Load Management	*Main Engine Indicators	*Fuel tank	*Fuel Tanks
*Current / Frequency	*Engine Alarms	*Flow Meter Operation	*Fuel Consumption
*Phase monitoring	*RPM / Coolant / Oil	*Fuel tank (duplicate)	
*Power	*RPM / Coolant / Oil (duplicate)		
	*Main Engine Indicators (duplicate)		

Dashboard templates

Fuel Monitoring High-Power DG 32 / 50	Fuel Monitoring Standard 40 / 50	Genset Maintenance 21 / 25	Location Tracking 18 / 25
*Fuel level	*Fuel consumption (50)	*Overall Maintenance	*GPS Tracking
*Fuel Consumption	*Fuel level (50)	*Engine Maintenance	

Dashboard templates

Remote Genset Control 13 / 25	System Self-Diagnostics 50 / 50	Fuel Consumption High Power Pool 80 / 100
*Remote control DATAKOM	*Communication channels	
*Remote control DeepSea	*Telematics equipment state	
	*GSM signal quality	
	*DTC Masks	

Dashboard templates

Icons to open Task description windows

Number of Keys

Task name

Buttons to subscribe to a Task

Activate

a) default preset Tasks with Dashboard templates

Task description

Task: Fuel Consumption High-Power Pool / Class: 100

Tracking and analyzing fuel consumption data for high-powered gensets (>600 kW) in real-time. This task includes monitoring fuel usage trends. (8*DFM Marine working in differential mode)

Total keys: 100

Occupied keys: 80

Available keys: 20

Search by SA, SPN...

SA	SPN	Specifier
116	521171 Flowmet.Hours Of Operat.	9. Movement mode based on fuel rate : 5. Interference
113	521171 Flowmet.Hours Of Operat.	-
114	521171 Flowmet.Hours Of Operat.	-
113	521171 Flowmet.Hours Of Operat.	9. Movement mode based on fuel rate : 5. Interference
114	521171 Flowmet.Hours Of Operat.	9. Movement mode based on fuel rate : 5. Interference
		2. Mathematical processing : 15.

Task name and Class

Task purpose

Number of Keys

Key search line

List of preset Keys

b) Task description window

Figure 5 — Example of the **Dashboards** tab



Reports — this tab is designed for [Post-analysis](#) of the selected [Asset](#)/Group of assets operation based on [Analytical reports](#) for the period indicated (see figure 6).

The tab contains a set of default preset Task tabs. From these, you can select the required [Report templates](#) configured for specific sets of [Keys](#). Then, specify the time period for which the Report should be generated.

If necessary, you can subscribe the selected Asset or [Group](#) to inactive [Tasks](#) by activating them with [Activate](#) button .

By clicking  icon in the tab of the corresponding Task, you can open its description window. The window contains information about the Task Class and purpose, the number of Keys (total, preset, available), as well as a list of default preset Keys. For convenience, there is a Key search line by their attributes (SA or [SPN](#)).



Menu to choose Fleet resources (Asset/Group)

The screenshot shows the 'Reports' page of a software interface. At the top, there is a header bar with a dropdown menu showing 'Asset: Mitsubishi S4L2-SDH/DATAKOM D500' and a label 'Name of selected Asset / Group'. To the right of the header are buttons for 'English' and 'DemoUser'. Below the header, the page is titled 'Reports' with a subtitle 'Select the required Report template'. On the right side, there are 'Preset Task tabs'. The main content area displays a grid of report templates, each with a title, a progress indicator (e.g., '35 / 50'), and a list of report items. The templates include: Alternator Monitoring, Engine Monitoring, Fuel Monitoring Basic, Fuel Monitoring Genset Pool, Fuel Monitoring High-Power DG, Fuel Monitoring Standard, Genset Maintenance, Location Tracking, Remote Genset Control, System Self-Diagnostics, and Fuel Consumption High Power Pool. Each template has a list of report items, some of which are marked with an asterisk (*). The 'Fuel Consumption High Power Pool' template is highlighted with a red box, and its 'Activate' button is also highlighted. Red annotations with arrows point to various elements: 'Menu to choose Fleet resources (Asset/Group)' points to the dropdown menu; 'Name of selected Asset / Group' points to the header text; 'Preset Task tabs' points to the tabs on the right; 'Report templates' points to the grid of templates; 'Icons to open Task description windows' points to the information icons (i) next to the template titles; 'Number of Keys' points to the progress indicators; 'Task name' points to the template titles; and 'Buttons to subscribe to a Task' points to the 'Activate' button.

a) default preset Tasks with Report templates

Task description

Task: Fuel Consumption High-Power Pool / Class: 100

Task name and Class

Tracking and analyzing fuel consumption data for high-powered gensets (>600 kW) in real-time. This task includes monitoring fuel usage trends. (8*DFM Marine working in differential mode)

Task purpose

Total keys: 100 Occupied keys: 80 Available keys: 20

Number of Keys

Search by SA, SPN...

Key search line

SA	SPN	Specifier
116	521171 Flowmet.Hours Of Operat.	9. Movement mode based on fuel rate : 5. Interference
113	521171 Flowmet.Hours Of Operat.	-
114	521171 Flowmet.Hours Of Operat.	-
113	521171 Flowmet.Hours Of Operat.	9. Movement mode based on fuel rate : 5. Interference
114	521171 Flowmet.Hours Of Operat.	9. Movement mode based on fuel rate : 5. Interference
		2. Mathematical processing : 15.

List of preset Keys

b) Task description window

Icon of return to selection of Reports templates

Set period of time for which Report must be generated

Press button to generate Report

Asset: Mitsubishi S4L2-SDH/DATAKOM D500

English Oleg

Day Week Month Last 3 months Custom Detailing 1h

Create report Save report

Report Fuel Monitoring 4-Genset Pool / *Fuel Tanks

Period 23 Apr 2025 00:00 - 23 Apr 2025 14:27

Asset Mitsubishi S4L2-SDH/DATAKOM D500

Report was created N/A

Created by Oleg

Fuel Tank 1			
101 Engine Fuel Temp, DUT C	N/A AVG	101 Filled Fuel Volume, L	N/A SUM
101 Discharged Fuel Volume, L	N/A SUM	101 Fuel Tank Volume, L (2.10. - Filtering)	N/A AVG

Set of Parameters for selected Report template

Click menu

Day

Select date

October 2024

Select month

Click menu

Week

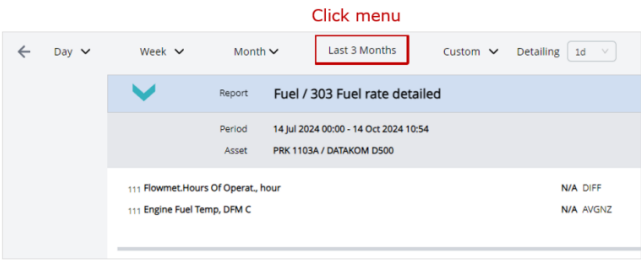
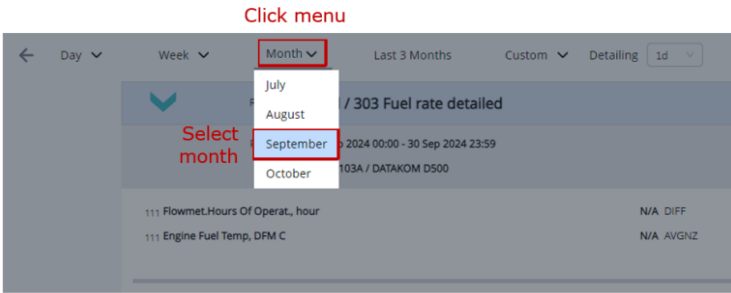
Select week

October 2024

Select month

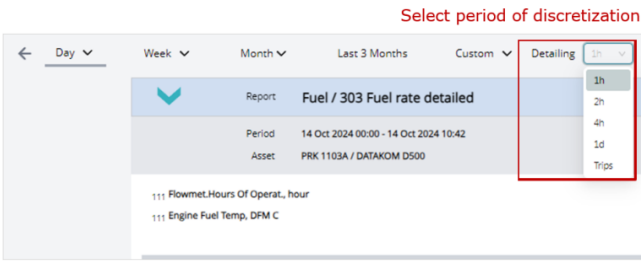
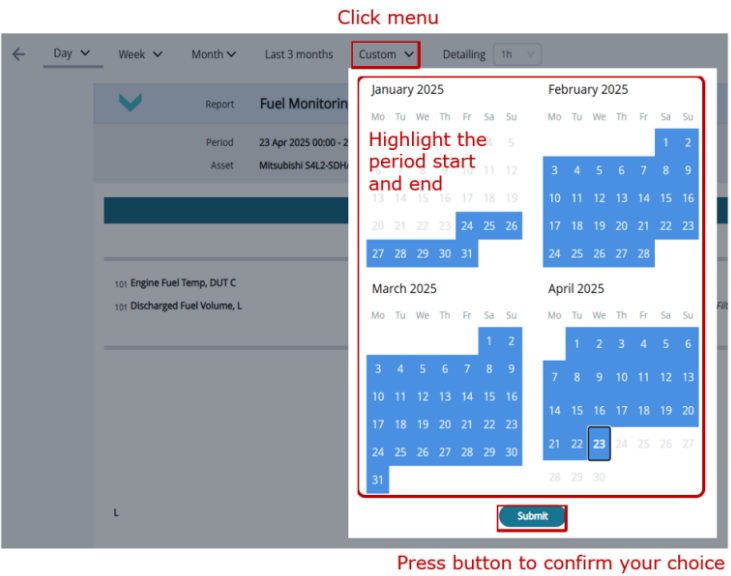
selection of "one day" period

selection of "one week" period



selection of "one month" period

selection of "3 recent months" period



selection of a custom period from the last three months

selection of the data sampling interval for Keys in tabular Reports

c) options for setting the time period

Figure 6 — Example of the **Reports** tab



Analytics — this tab is designed for [Post-analysis](#) of the selected [Asset](#)/Group using [Multiple charts](#) (overlying up to three graphs) showing changes of specified [SPNs](#) from the raw (RAW) data set accumulated on the [Server](#) over the selected time period.

The tab contains a drop-down list from which you can select up to three required SPNs. Then, specify the time period for which the Multiple chart should be generated (see figure 7).

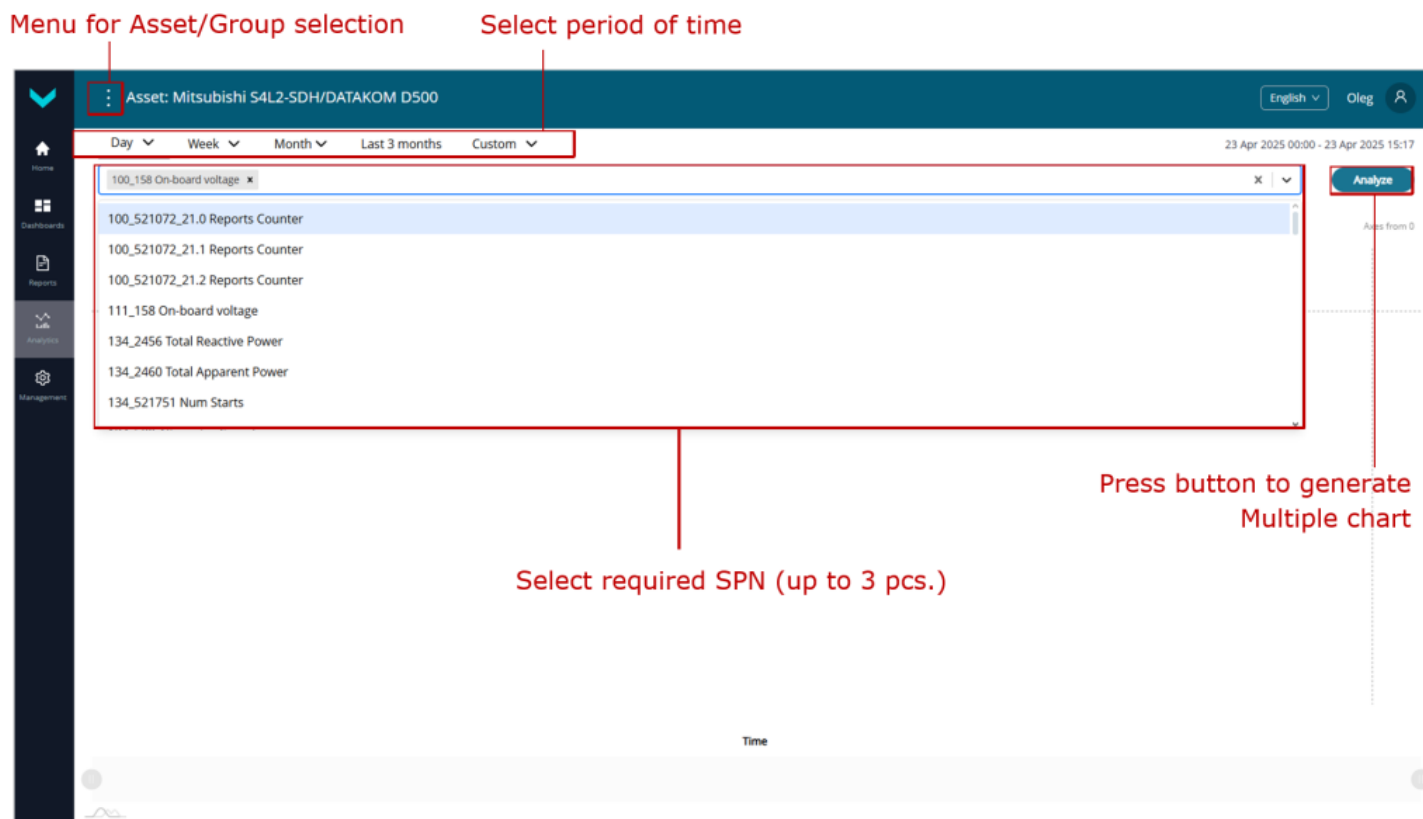


Figure 7 — Example of data selection for generating a Multiple chart for a specified time period in the **Analytics** tab



Management — this tab* designed for opening management windows for UNUM Genset elements (see figure 8).

* The tab is available only to [Operators](#) with standard default access rights. [Viewers](#) have restricted access rights, so the tab is not available to them.

Windows of management enable to:

- [Manage](#):
 - [Dashboard templates](#) for [Asset](#) (**Dashboards** tile → **Asset** tab);
 - Dashboard templates for [Group](#) (**Dashboards** tile → **Group** tab);
 - [Report templates](#) for Asset (**Reports** tile → **Asset** tab);
 - Report templates for Group (**Reports** tile → **Group** tab).
- Link Assets to Dashboard templates and Report templates from their subscribed [Tasks](#) (**Assets** tile → **Dashboards / Reports** tab).
- Link Groups to Dashboard templates and Report templates from their subscribed Tasks (**Groups** tile → **Dashboards / Reports** tab).

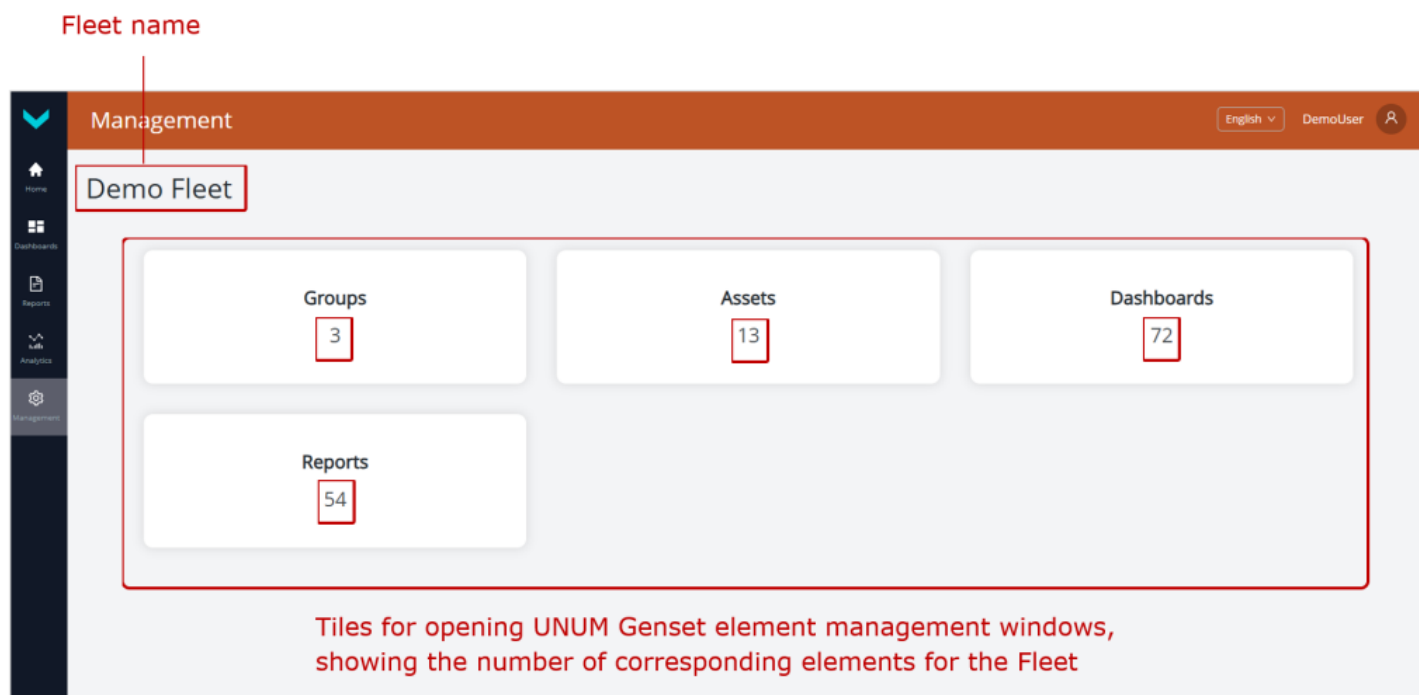


Figure 8 — Example of **Management** tab which is accessible for the Fleet operator in his work

2) Information panel is used to display: the name of the selected [Fleet](#) resource, the name of the open **Main menu** tab, and the **Language menu** (for selecting Russian, English, Spanish, or French as the interface language) and the **Account menu** in the form of user avatar under whose name user authorization was conducted in UNUM Genset (see figure 5).

When you choose the tabs **Dashboards**, **Reports**, **Analytics**,  menu appears on the information panel in which you can select the required Fleet resource — [Asset](#) (from **Asset** list) or [Group](#) (from **Groups** list).

3) The Map serves to display Assets location.

Asset markers on the [Map](#) are visualized as icons according to their specified type (stationary or mobile). Icons for online Assets are shown in green, while offline status is indicated by gray. If an Asset has an undefined status, its icon appears in red.

For a moving online Asset, the Map displays the last 10 points of its track.

If needed, you can select and load a different Map type from the drop-down list in the upper left corner of the screen, instead of the default Map.

The Map can be zoomed by scrolling the mouse wheel or using  and  buttons in the upper left corner of the screen.

4) Asset Passport — this window appears when clicking the Asset marker on the Map and is used to display brief information about the selected Asset: its name, the date and time of the

last data received by the [Server](#), and its current location coordinates (see figure 3).



RECOMMENDATION: For full-screen display of any opened tab in the browser of the **Main monitoring window**, press **F11** key on the PC keyboard.

3.3 Subscribing Assets/Groups to Tasks

IMPORTANT:



- 1) Detailed information about the preset [Tasks](#) in UNUM Genset is provided in the document [UNUM Genset Telematics Service. Task Catalog](#).
- 2) The UNUM Genset billing system for the Fleet operates with **daily billing**, according to the subscription of Assets to specific Tasks.
- 3) The minimum subscription period for an [Asset](#) to Tasks is **one month**.
- 4) Unsubscribing an Asset from Tasks is available only to the [Fleet superadministrator](#) or [Administrators](#).

1) In the **Main menu**, open the  **Home** tab and select the required single Asset (from the **Assets** list) or [Group](#) (from the **Groups** list) in the Fleet (see figure 9).

2) Open the  **Dashboards** or  **Reports** tab. The **Information panel** will display the name of the selected Asset or Group.

3) From the list of default preset Task tabs, select the required inactive Task tab and activate it by clicking the corresponding  button. In the **Subscribing to a task** window that appears, confirm your acceptance of the proposed subscription terms by checking the field **I confirm the subscription and agree to its terms** and clicking the  button. Once confirmed, the Task becomes active, indicating successful subscription for the selected Asset or Group.

The screenshot shows a software interface with a dark blue header bar labeled 'Home'. On the left is a sidebar with icons for Home, Dashboards, Reports, Analytics, and Management. The main area is divided into two sections. The top section has tabs for 'Assets' and 'Groups', with 'Assets' selected. Below the tabs is a search bar and status indicators: 'All: 13', 'Online: 10', and 'Offline: 3'. The bottom section is a table with the following columns: Name, Connection, Engine, and Generator. The table lists several assets, with 'Mitsubishi S4L2-SDH/DATAKOM D500' highlighted by a red box. To the right of the table is a map showing a geographical area with roads and green spaces. A red box highlights a specific location on the map, marked with a green pin. The map is labeled 'OSM standard'.

Name	Connection	Engine	Generator
MTU SV / DATAKOM D500 01	●	●	●
PRK 1103A / DATAKOM D500	●	—	—
GBOX FD24 / D500-20	●	●	●
CAT 3500E / DK D500-12 N	●	●	●
Mitsubishi S4L2-SDH/DATAKOM D500	●	●	●
JDeer UX32/DATAKOM D500	●	●	●
Reno Engine parameters MAX	●	—	—
VW Caravelle	●	●	●
Renault MAGNUM	●	—	—
DeepSea Std	●	●	●

a) selecting an Asset or Group in the **Home** tab

Selected Asset name

Asset: Mitsubishi S4L2-SDH/DATAKOM D500

English DemoUser

Dashboards

Active Task tabs for the selected Asset

Alternator Monitoring35 / 50

*Load Management

*Current / Frequency

*Phase monitoring

*Power

Engine Monitoring22 / 25

*Main Engine Indicators

*Engine Alarms

*RPM / Coolant / Oil

*RPM / Coolant / Oil (duplicate)

*Main Engine Indicators (duplicate)

Fuel Monitoring Basic22 / 25

*Fuel tank

*Flow Meter Operation

*Fuel tank (duplicate)

Fuel Monitoring Genset Pool95 / 100

*Fuel Tanks

*Fuel Consumption

Fuel Monitoring High-Power DG32 / 50

*Fuel level

*Fuel Consumption

Fuel Monitoring Standard40 / 50

*Fuel consumption (50)

*Fuel level (50)

Genset Maintenance21 / 25

*Overall Maintenance

*Engine Maintenance

Location Tracking18 / 25

*GPS Tracking

Remote Genset Control13 / 25

*Remote control DATACOM

*Remote control DeepSea

System Self-Diagnostics50 / 50

*Communication channels

*Telematics equipment state

*GSM signal quality

*DTC Masks

Fuel Consumption High-Power Pool80 / 100

Click the button to activate the required Task

Activate4

Appearance of an inactive Task tab

Confirm your acceptance of the proposed subscription terms

Subscribing to a task

You can activate a subscription for this task.

The cost for Asset is 10 UC/month

To deactivate a subscription, please contact the Park Administrator.

☒ I confirm the subscription and agree to its terms.

CancelSubscribe

5

Fuel Consumption High-Power Pool80 / 100

*DG4 Fuel Consumption

*DG1 Fuel Consumption

*DG3 Fuel Consumption

*DG2 Fuel Consumption

about:blank

28/110

b) Activating a Task in the **Dashboards** tab

Figure 9 — Example of subscribing an Asset to a Task

3.4 Linking Assets and Groups to Dashboard templates/Report templates

1) To link Assets and Groups to [Dashboard templates](#) or [Report templates](#) from their respective subscribed [Tasks](#), open the  **Management** tab in the Main menu (see figure 10).

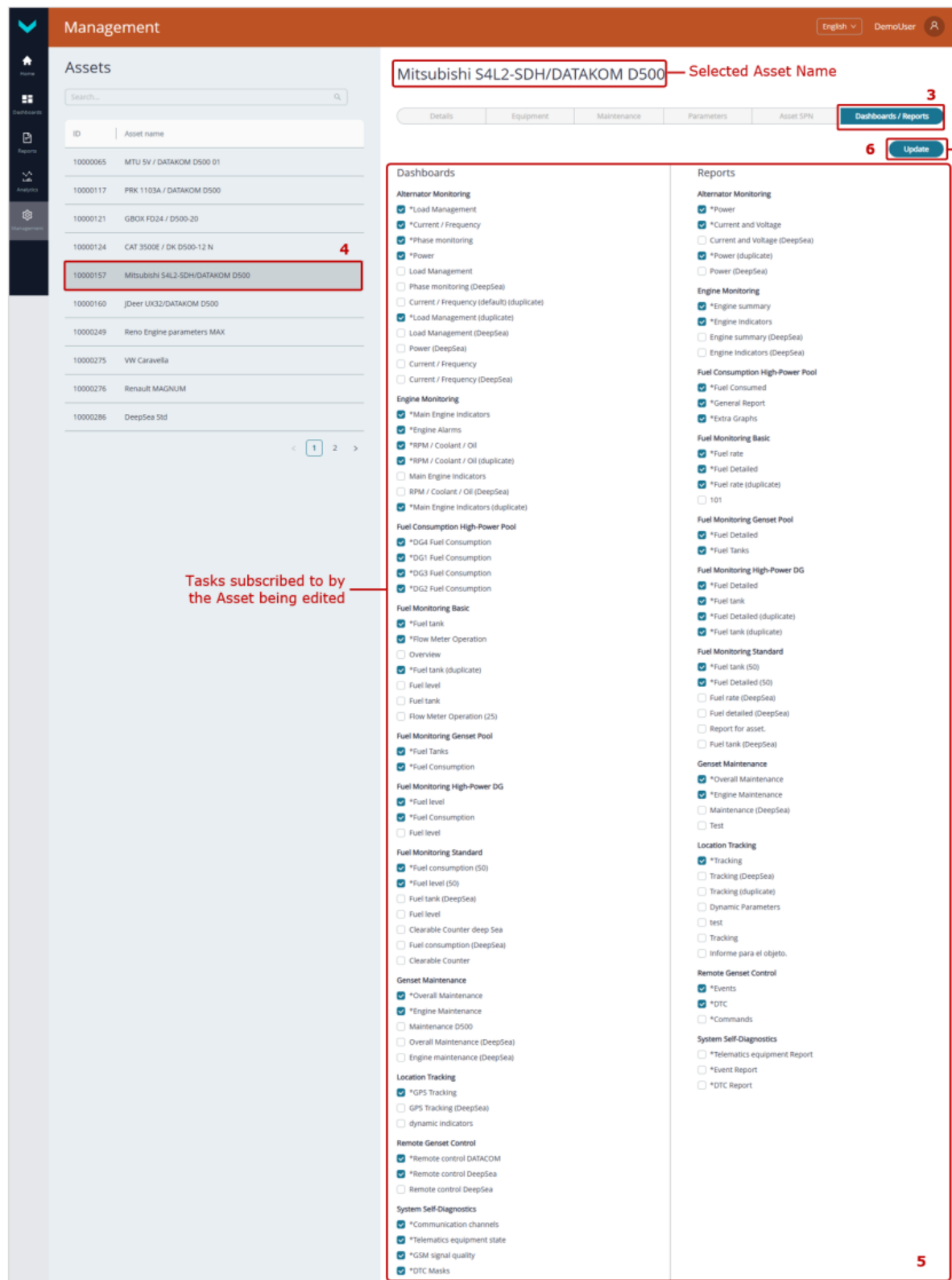


ATTENTION: The **Management** tab is available only to [Fleet operators](#) with standard default access rights. [Viewers](#) have restricted access, so the **Management** tab is not available to them.

2) Click **Assets** tile to open the Asset management window (for linking a single [Asset](#)) or **Groups** tile (for linking a [Group](#)), then select the appropriate single Asset (from the **Assets** list) or Group (from the **Groups** list).

3) In the settings panel that appears, open **Dashboards / Reports** tab. Use the checkboxes to link or unlink the selected Asset or Group to the relevant Dashboard templates (Dashboards column) or Report templates (**Reports** column) from the Tasks to which the Asset or Group is subscribed.

4) After editing the fields in **Dashboards / Reports** tab, click **Update** button to save the changes made.



Use checkboxes to link or unlink the Asset to the relevant Dashboard Template or Report Template

Figure 10 — Example of linking/unlinking an Asset to Dashboard templates / Report templates

3.5 Management of Dashboards templates

3.5.1 Creation of a Dashboard template

1) Open  **Management** tab in the **Main menu** and press **Dashboards** tile, to enter Dashboard templates management window (see figure 11).



ATTENTION: The **Management** tab is available only to [Fleet operators](#) with standard default access rights. [Viewers](#) have restricted access, so the **Management** tab is not available to them.

2) In the opening **Dashboards for** window, open the tab of [Fleet](#) resource for which you need to create the Template — **Assets** (for a single [Asset](#)) or **Groups** (for a [Group](#)). After that, the Task tabs for the selected resource will be displayed, showing how [Dashboard templates](#) with the corresponding sets of [Keys](#) are distributed.

3) To create a new Dashboard template, click  icon at the bottom of the required [Task](#) tab. In the management window that opens, enter the name of the new Template in the required **Name*** field. Then, in the appropriate drop-down lists — **For assets** (for Asset) or **For groups** (for Group) — specify the names of the target Fleet resources (Assets or Groups, respectively) for which this Template can be used for monitoring after creation.



IMPORTANT: A Dashboard template may contain: capital letters and lower-case Latin letters from **A** to **Z** and from **a** to **z**, digits from **0** to **9**, the underscore character **_** and round brackets **()**.

4) To add a new widget into the Template, press **Add widget** button.

For a single Asset, you can select the following widgets from the **Add/Edit widget** sets window:

- **Single parameter** — widgets for adding a single Key:
 - **Gauge** — displaying a scale with an arrow pointer of the current indicator value;
 - **Linear** — display of a trend chart showing changes in the corresponding indicator values over time;
 - **Simple** — display of the corresponding indicator value as a decimal number, including

both integer and fractional parts (if applicable);

- **State** — display of text messages, depending on the specified threshold values (up to three) of the corresponding indicator.
- **Multiple parameters** — widgets for adding two or more [Keys](#) (optimal — up to 10):
 - **Horizontal Bars** — display of changes in the values of the corresponding indicators as progress bars;
 - **Table** — display of the corresponding indicator values in a table format;
 - **Icon Grid** — display of the corresponding indicators as icons selected from the **Icon** drop-down list.
- **Special** — widgets for standard preset Keys of any Asset:
 - **Event List** — displaying the number of all recorded Events (total, important, information, urgent);
 - **Map** — displaying the [Map](#);
 - **Asset Passport** — displaying the Asset electronic passport;
 - **Event Statistics** — displaying the list of [Events](#), recorded during the recent 24 hours;
 - **Fault Statistics** — displaying the list of all active and saved malfunctions;
 - **Faults List** — display of the number of malfunctions (total, active, and stored) over the past 24 hours;
 - **Maintenance** — display of Asset [Nodes](#) scheduled for maintenance;
 - **Zone** — highlighting the title area (e.g. for DG pool) with a particular color and text;
 - **Commands** — loading and display of the list of preset remote control commands for the Asset;
 - **Command** — display of buttons assigned to remote control commands for the Asset (for example, engine stop, telematics gateway configuration and firmware update, Modbus RTU register recording, etc.).

For an Asset Group, you can select the following widgets from the **Add/Edit widget** sets window:

- **Group parameters** — contains a single **Table** widget for adding up to 8 [Keys](#), allowing the display of progress bars, indicators, and the values of corresponding indicators for each Asset in the [Group](#) in a table format.
- **Special** — widgets for standard preset Keys of any Asset in the Group:
 - **Event List** — displays the total number of all registered Events (including critical, informational, and emergency Events);
 - **Event Statistics** — displays a list of Events registered over the past 24 hours;
 - **Zone** — highlights the header area (for example, for a genset pool) with a special color and label.

When creating widgets from the **Single parameter**, **Multiple parameters**, and **Group parameters** sets in the **Add/Edit widget** settings window, there are two options for adding Keys that contain either a [Parameter](#) or a [Counter](#):

- In **Existing** tab — Keys are added from the list of default preset Keys for the relevant [Task](#).
- In **Custom New** tab — custom Keys can be created and added within the available number of free Keys for the relevant Task.

Note: The number of Keys (available/total) for the relevant Task is always displayed on the right side of the **Add/Edit widget** window header.

When adding custom Keys to widgets, all required fields marked with (*) character must be completed:

– **SA*** — enter the network address of the source [Unit](#) for the Key being added (see [annex A](#)). If you need to receive the relevant data from all Units, set the network address to **255**.

The network address of any Key source for Group Dashboard templates is always **1000**, regardless of the source network addresses of similar [Keys](#) for individual Assets within the Group.



RECOMMENDATION: Specific data on all Units the [Asset](#) is equipped with and their network addresses may be obtained in [Technoton technical support](#) by e-mail support@jv-technoton.com.

– **SPN*** — select the required standard [SPN](#) from the [S6 Database](#) or [VSPN](#) from the drop-down list of [Parameters](#)/Counters provided according to the Task.

If you need to further specify the selected SPN value, choose the appropriate specifier from the **Specifiers** drop-down list.

– **Title*** — this field is accessible only for widgets from **Multiple parameters** set and serves to enter the title name.

In widgets with two or more Parameters, press **Add SPN** button, to add each new SPN into the table. After you fill in obligatory fields (marked with (*) character) and other fields, press **Add** button in the appearing **Add SPN** window, to save the data.

– **Variant*** — this drop-down list is available only in the **Table** widget for [Groups](#) and is used to select the display option for the Key: **Value** (as a decimal number with integer and fractional parts, if any) or **Percentage** (as a progress bar).

– **Select command*** — this drop-down list is available only in the **Command** widget and is used to select the required remote control command for the Asset. Depending on the selected

command, you must then fill in the relevant required attribute fields marked with (*) character in the **Enter the necessary data** section.

– **Command name*** — this field is available only in the **Command** widget and is used to enter the name of the button for executing the remote control command for the Asset.

From the dropdown list **Link to zone**, in some widgets you may choose linking to some specific title which was set in advance with the help of **Zone** widget. This option is convenient for grouping widgets in the [Dashboard template](#) of a DG pool.

5) After entering all the settings for the new widget in the **Add Widget** window, click the  button to save the data and the widget will be added to the created Template window.

If you do not want to save the entered data, click  icon in the upper right corner.

If you need to move the widget, you may draw it, by pressing and holding it with the left mouse button, to any needed location in the window. To change the widget size, you may pull  icon in its right bottom corner.

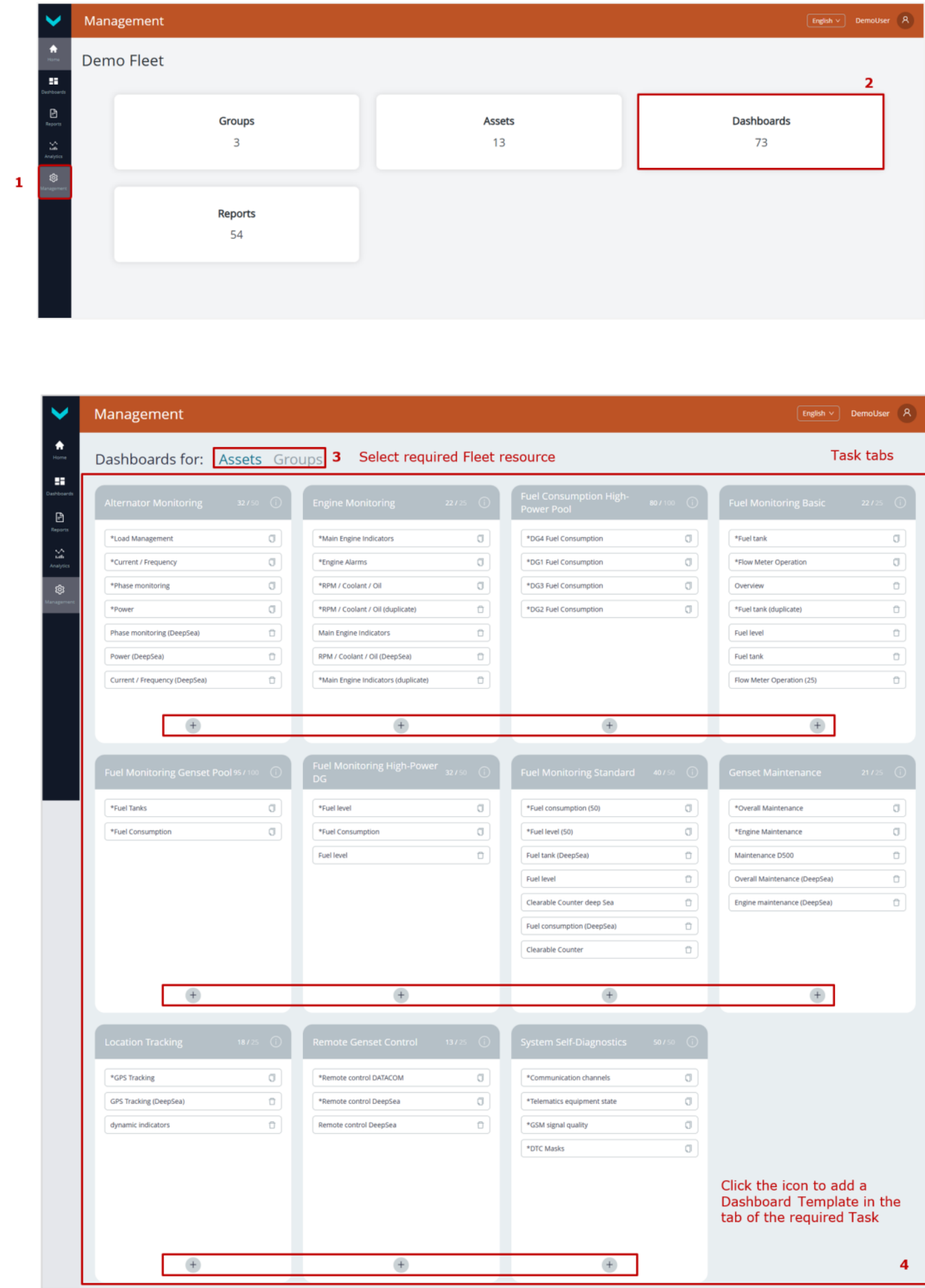
6) After you add all widgets into the new [Dashboard template](#), (maximally 50 pcs.), press  button, to save the data entered. If you don't need saving the data, press  icon.

ATTENTION:



1) By clicking  button in the field of any default [Dashboard template](#) in the tab of any [Task](#), you can create a full copy (duplicate) for further editing and for creating new Templates based on it. The copied Template is automatically added to the list of Templates for the relevant Task under the original name with the prefix **(duplicate)**.

2) The created Dashboard template can be exported as a file **(* .tunum)** by clicking  icon; the file will be saved on your computer. Later, this file can be imported by other users or used as a basis for creating other Dashboard templates by clicking  icon.



Management

English DemoUser

Home Dashboards Reports Tools Analytics Management

Name: Dashboard for asset_1

For assets: 3

5

Enter name of Dashboard template created

6

Specify Fleet target resources

7

to add a new widget

Add widget

Create

Mitsubishi S4L2-SDH/DATAKOM D500 x 2

MTU 5V / DATAKOM D500 01

PRK 1103A / DATAKOM D500

GBQX FD24 / D500-20

CAT 3500E / DK D500-12 N

Mitsubishi S4L2-SDH/DATAKOM D500

JDeer UX32/DATAKOM D500

Reno Engine parameters MAX

VW Caravella

preliminary operations

Number of Keys In the Task
(available/total)

Add / Edit widget

32 / 50

X

Add widget

Choose required widgets

Single parameter:

Engine fuel rate, L/h

Gauge

Engine fuel rate, L/h

Linear

Engine fuel rate, L/h

153

Simple

Engine fuel rate, L/h

Loaded

State

Multiple parameters:

Preview

Horizontal Bars

Preview

Engine fuel rate, L/h	153.00
Engine fuel rate, L/h	153.00

Table

Preview

Icon Grid

Special:

Map

Map

Asset passport

Your asset

Brand/ Model

sn 10001000

Power 1000

Asset passport

Event List

0

0

2

Total: 2

Power On

29 May 2025 09:59

Power On

29 May 2025 09:59

Event List

Event Statistics

Power On

2

Event Statistics

Fault Statistics

1

Active

1

Saved

Fault Statistics

Zone

Preview

Zone

Faults List

Active 1

Saved 1

Total 2

Assets

SA: 100 - Preview SA

SID: 100 - Preview SID FMI: 100 - Preview FMI

29 May 2025 10:01:35

Assets

SA: 100 - Preview SA

SID: 100 - Preview SID FMI: 100 - Preview FMI

29 May 2025 10:01:25 - 29 May 2025 10:01:35

Maintenance

Node name

SPN

53.00

SPN

53.00

Maintenance

Commands

New command

202. Read PGN

202. Read PGN

202. Read PGN

Commands

Command

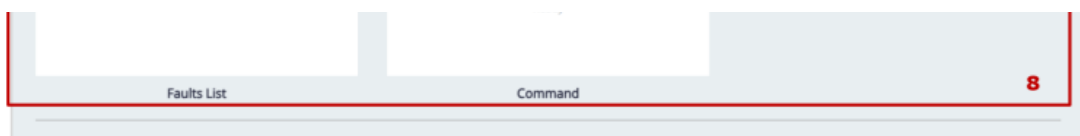
Command name

Ready

Widget set for a single Key

Widget set for multiple Keys

Widget set for standard
preset Keys



widget sets selected for monitoring a single Asset

Number of Keys in the Task (available/total)

32 / 50

Create

Click the button to save the data

Existing

Custom New

Link to zone:

Search by SA, SPN...

SA	SPN	Spec
134	167. Battery voltage. V	-
100	167. Battery voltage. V	-
134	589. Alternator Speed. rpm	-
134	2436. Average AC Frequency. Hz	-
134	2441. Phase AB AC RMS Voltage. V	-
134	2442. Phase BC AC RMS Voltage. V	-
134	2443. Phase CA AC RMS Voltage. V	-
134	2445. A-N AC RMS Voltage. V	-

Select the required Key

Battery voltage, V

153

example of adding a Key from the default preset Key list to a gauge widget

Click the button to save the data

Create

Existing

Custom New

SA:*

SPN:*

Specifiers:

Link to zone:

111

Enter the network address of the data source

183: Engine fuel rate, L/h

177: Transm. Oil Tmp 1, °C

180: Trailer Weight, kg

181: Cargo Weight, kg

182: Engine Trip Fuel, L

183: Engine fuel rate, L/h

184: Engrn Instant. Fuel Econ., km/L

185: Engrn Average Fuel Econ., km/L

186: Power Takeoff Speed, rpm

Select needed SPN/VSPN

Engine fuel rate, L/h

153

example of adding a custom Key to a gauge widget

Click the button to save the data

33 / 50 X

Add / Edit widget

Widget List / State

Engine fuel rate, L/h

Loaded

Existing | Custom New

SA: 111 Enter the network address of the data source

SPN: 183: Engine fuel rate, L/h Select needed SPN/VSPN

Specifiers: Enter SPEC value

Link to zone:

Value | Text | Color | Size

0	No Fuel Rate		
30	Optimal		30

Specify threshold value, text of message, font color and size

Press icon to add new message

Create

example of adding a custom Key to a text message widget

Add / Edit widget

Widget List / Horizontal Bars

Voltage

153

Enter widget title name

Title: voltage

Link to zone:

SA Task spn

No data

Add SPN

Click the button to add a Key

Add / Edit widget

Widget List / Horizontal Bars / Add SPN

Existing | Custom New

2445 Key search line

SA SPN Spec

134 2445 A-N AC RMS Voltage, V

Select a Key

Add

Click the button to add a Key

Choose linking to title (if needed)

Click the button to save the data

Add / Edit widget

Widget List / Horizontal Bars

Voltage

153 A-N AC RMS Voltage, V

153 Phase BC AC RMS Voltage, V

153 C-N AC RMS Voltage, V

Title: voltage

Link to zone:

SA Task spn

134 2445 A-N AC RMS Voltage

134 2442 Phase BC AC RMS Voltage

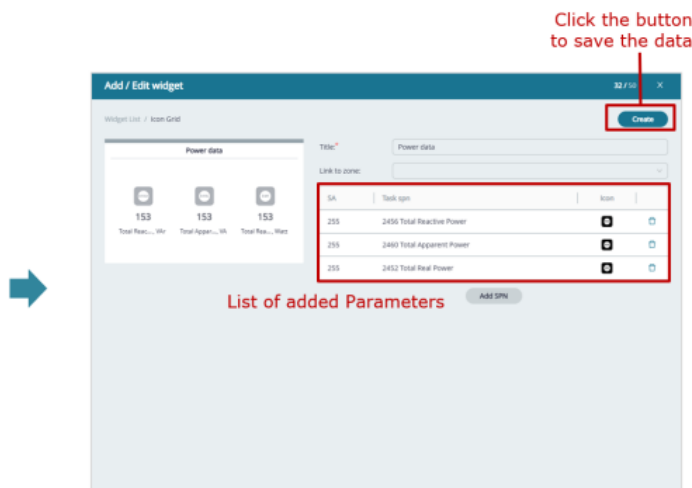
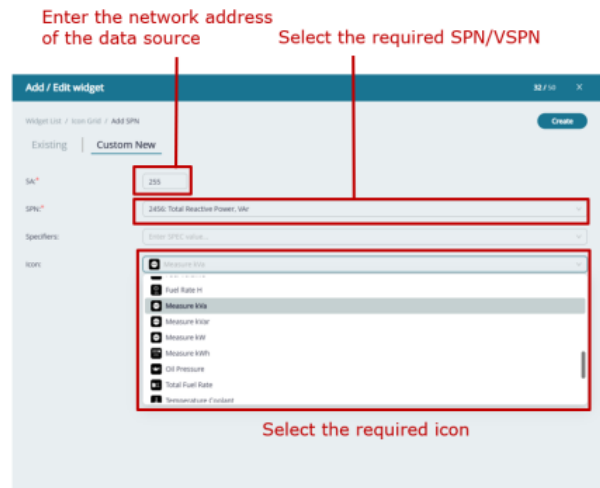
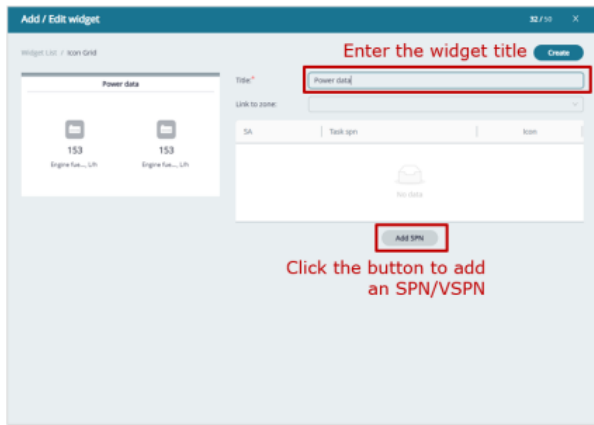
134 2447 C-N AC RMS Voltage

List of added Keys

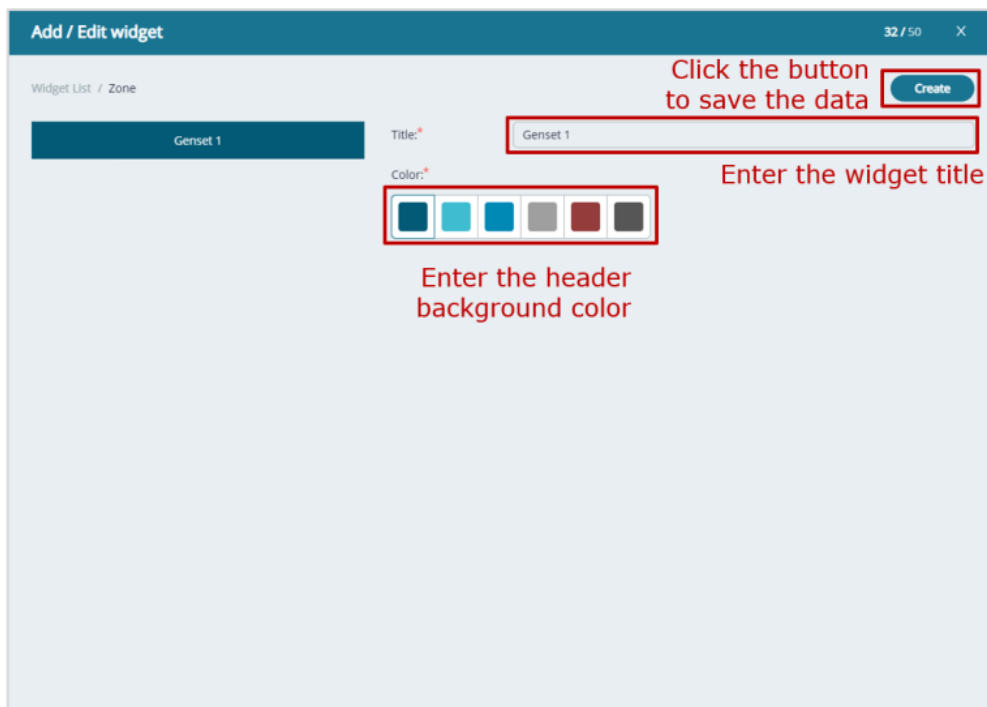
Add SPN

Create

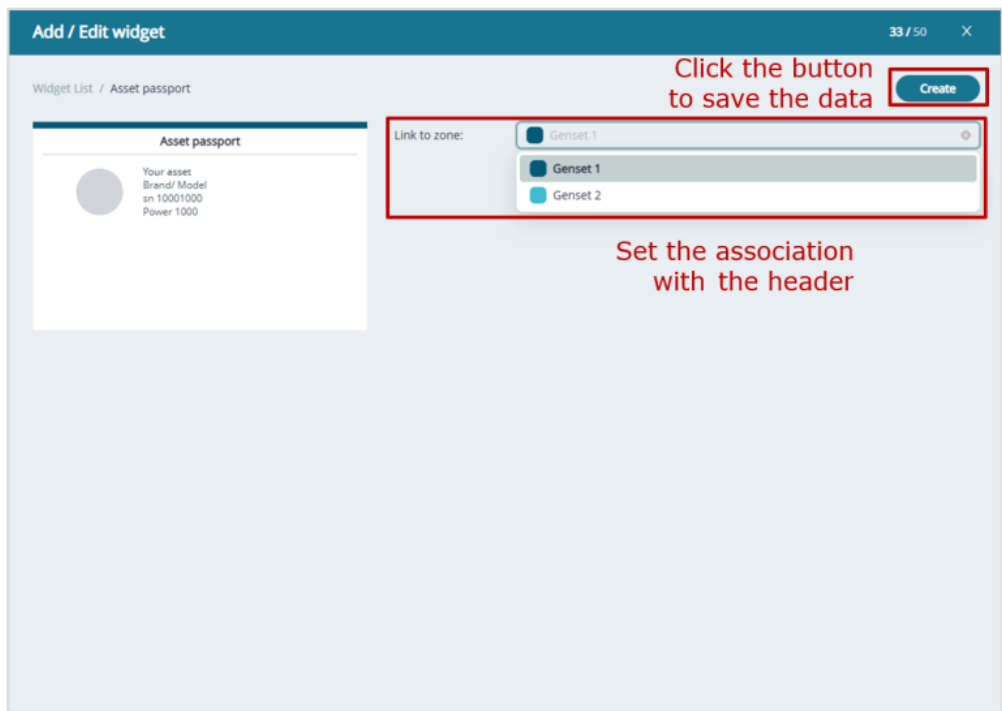
example of adding multiple Keys from the default preset Key list to a progress bar widget



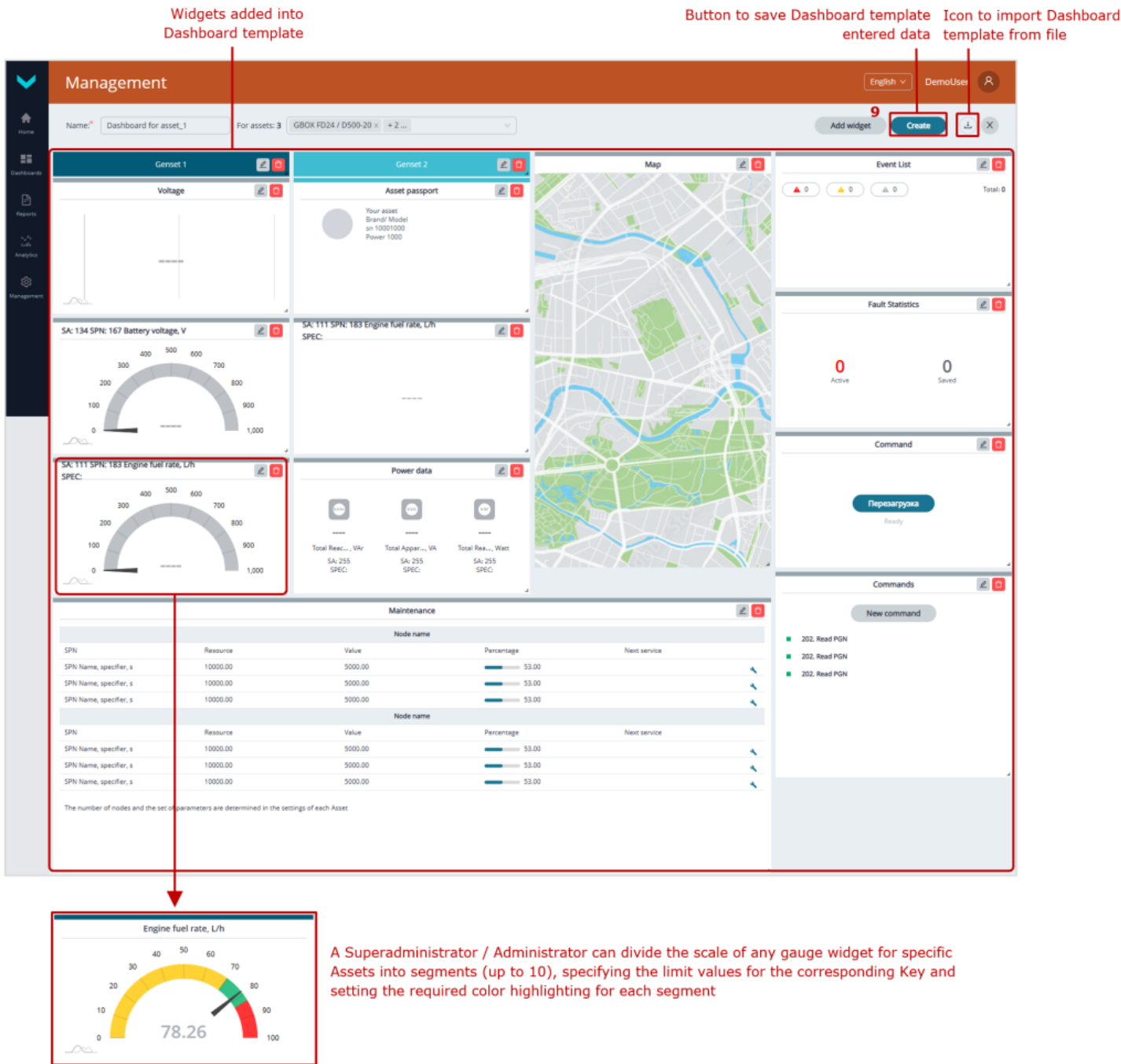
example of adding multiple custom Keys to an icon widget



example of header zone highlighting widget settings



example of Asset electronic passport widget settings



saving a Dashboard template created for a single Asset

b) creating a Dashboard template for a single Asset

Number of Keys in the Task
(available/total)

17 / 25

Add / Edit widget

Add widget

Select the required widgets

Group parameters:

Preview

ID	Zone	Key	Power	Level	Feed
100000	Zone 1	Key 1	1000	100%	100%
100001	Zone 2	Key 2	1000	100%	100%
100002	Zone 3	Key 3	1000	100%	100%
100003	Zone 4	Key 4	1000	100%	100%
100004	Zone 5	Key 5	1000	100%	100%
100005	Zone 6	Key 6	1000	100%	100%
100006	Zone 7	Key 7	1000	100%	100%
100007	Zone 8	Key 8	1000	100%	100%

Table

8

Special:

Event List

0

0

2

Total: 2

Power On

30 May 2025 09:14

Power On

30 May 2025 09:13

Event List

Event Statistics

Power On

2

Event Statistics

Preview

Zone

Widget for multiple Keys
(up to 8)

Widget set for standard
preset Keys

widget sets selected for monitoring a Group

Number of Keys (available/total)

Enter widget title name

Click the button to add a Key

Click the button to save the data

Non-editable network address of the Key source for the Group

Select needed SPN/VSPN

Select the display option for the Key (decimal value/progress bar)

List of added Keys

example of adding custom Keys to a table widget for Group monitoring

Button to save Dashboard template entered data

Icon to import Dashboard template from file

Widgets added to the Dashboard template

saving a Dashboard template created for a Group

c) creating a Dashboard template for a Group

Figure 11 — Examples of creating [Dashboard templates](#)

3.5.2 Editing a Dashboard template



WARNING: Default [Dashboard templates](#) from preset [Tasks](#) **cannot be edited** by [Fleet](#) users. Only the following Dashboard templates can be edited:

- those created directly by the user;
- those imported from a file (***.tunum**);
- those created from a duplicate using  button.

1) Open  **Management** tab in the **Main menu** and press [Dashboards](#) tile, to enter Dashboard templates [Management](#) window (see figure 12).



ATTENTION: The **Management** tab is available only to [Fleet operators](#) with standard default access rights. [Viewers](#) have restricted access, so the **Management** tab is not available to them.

2) In the opening **Dashboards for** window, open the tab of Fleet resource for which you need to edit the Template — [Assets](#) (for a single [Asset](#)) or [Groups](#) (for a [Group](#)). After that, the Task tabs for the selected resource will be displayed, showing how Dashboard templates with the corresponding sets of [Keys](#) are distributed.

3) Click the required Dashboard template for editing. If necessary, you may change: the name (**Name*** field), target [Fleet](#) resources (in the dropdown list **For Assets** (for an Asset) or **For groups** (for a Group)), add new widgets, change or delete earlier created widgets.

To open the **Add / Edit widget** widget settings window, use  icon in the upper right corner of the widget. To delete a widget, use  icon.

When editing **Multiple parameters** widgets with two or more Keys, click  icon in the corresponding line to delete a Key.

To edit Key settings in a **Table** widget for a Group, click  button in the relevant line, after which it will change to  button. Once editing is complete, confirm the changes by clicking  button, or click  button to the right to cancel the changes.

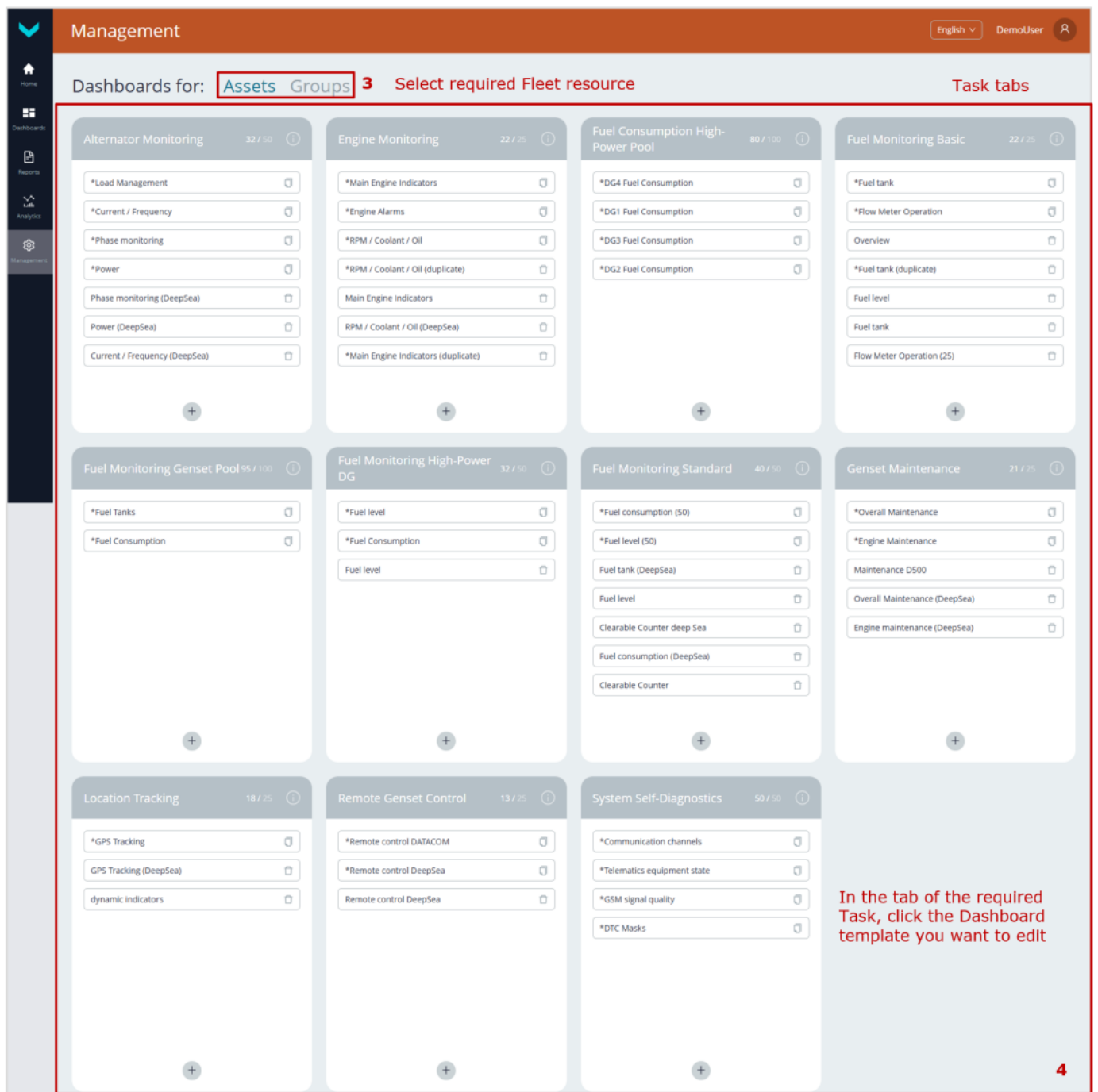
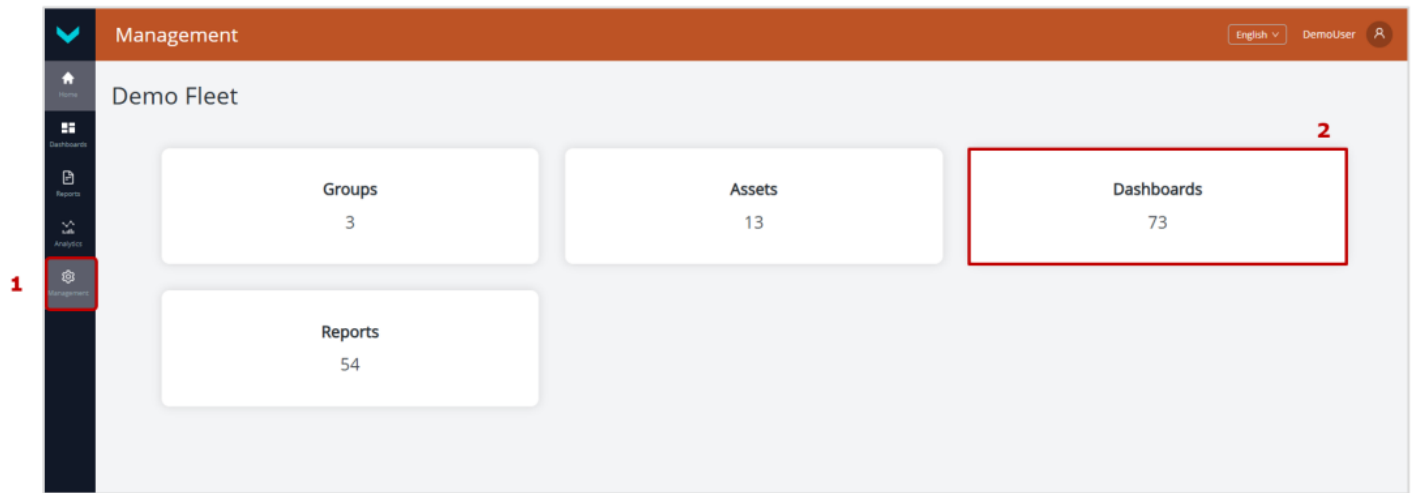
When editing **State** widget for displaying text messages, you may change the [SPN](#) threshold value, font color and size. To enable/disable displaying a message, press the respective   icon in its line.

After making changes to the widget, click  button to confirm them.

If necessary, you may change the widget location by dragging it to another place of the window. To change the widget size, you may pull  sign in the lower right corner.

4) As soon as you finish editing the [Dashboard template](#), press  button in its upper right corner, to save the changes made.

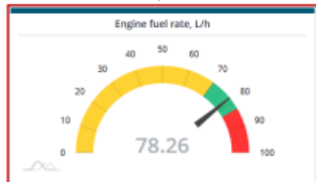
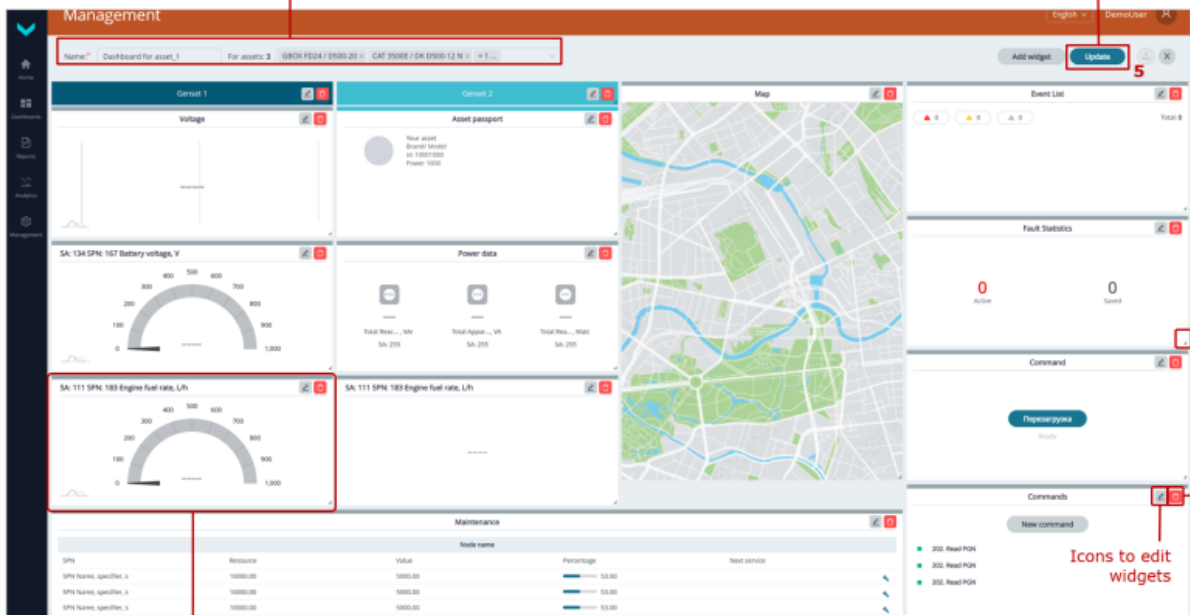
If you don't need to save the data, press  icon. In the dialog box **Close without saving?**, click  button to confirm cancellation of the changes. If you do not want to cancel, click  button .



a) preliminary operations

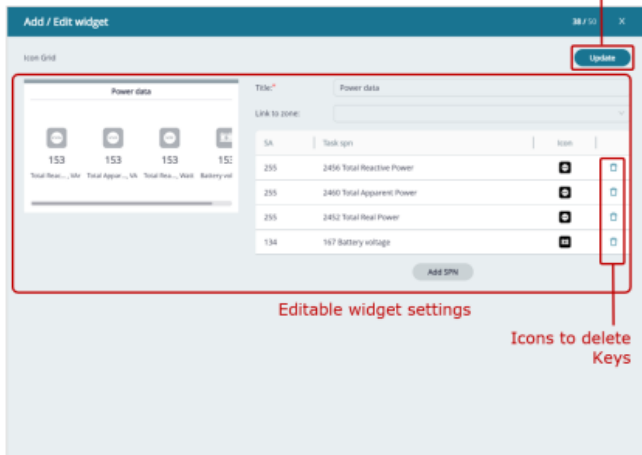
Fields for editing the Dashboard template name and the target Fleet Assets

Click the button to save Dashboard template changes



A Superadministrator / Administrator can divide the scale of any gauge widget for specific Assets into segments (up to 10), specifying the limit values for the corresponding Key and setting the required color highlighting for each segment

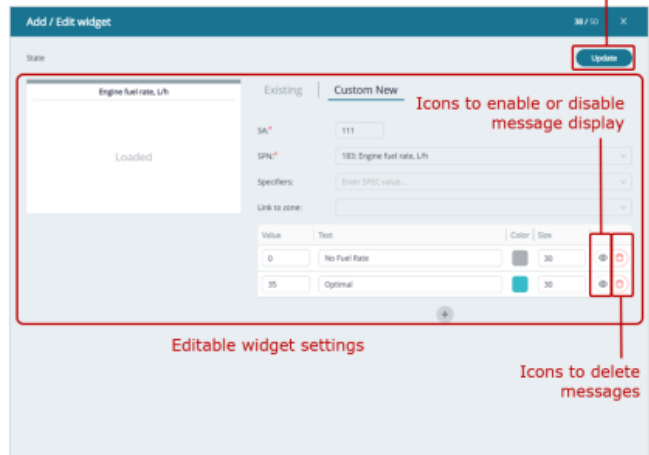
Click the button to save widget settings changes



Editable widget settings

Icons to delete Keys

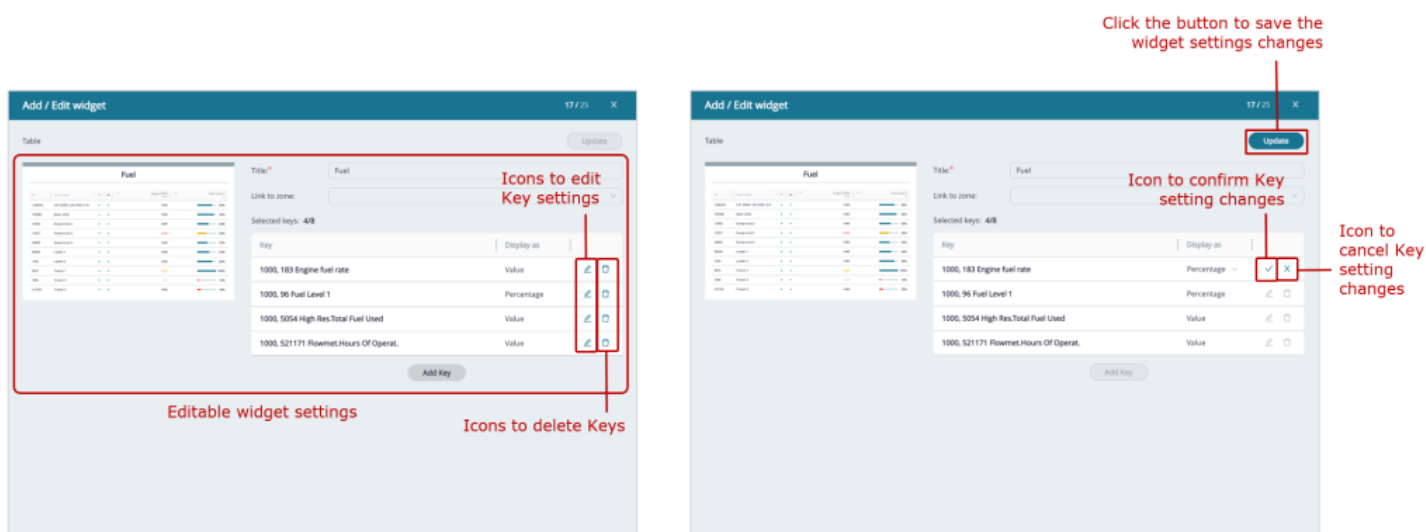
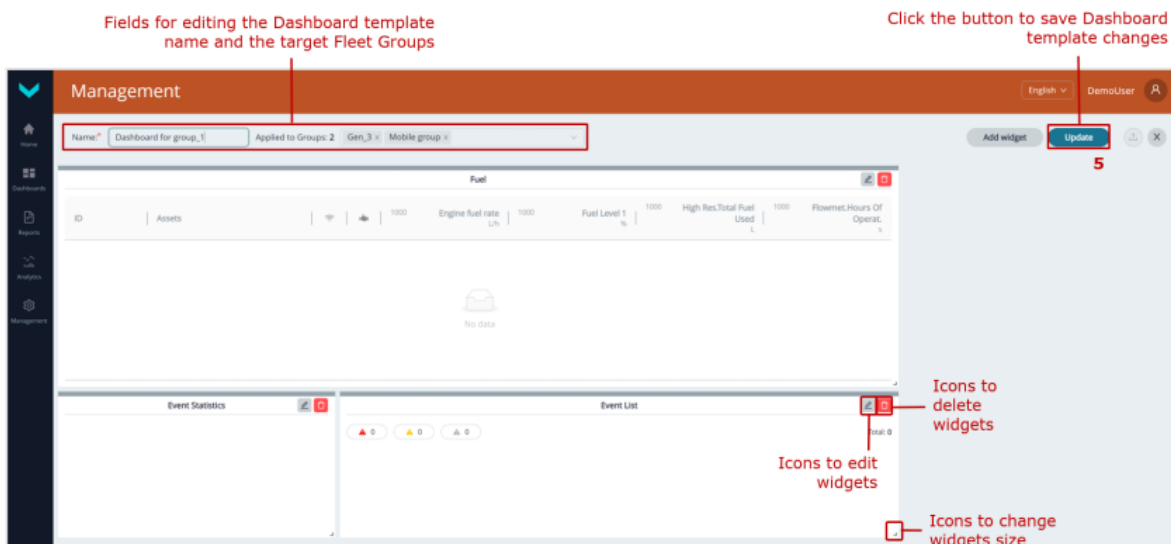
Click the button to save the widget settings changes



Editable widget settings

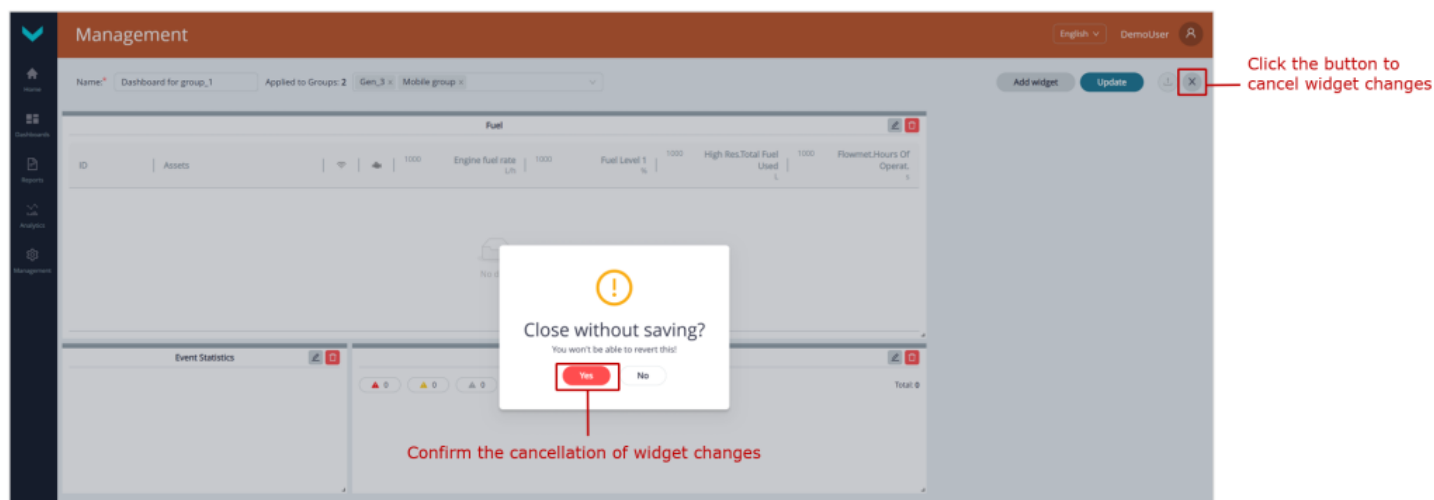
Icons to delete messages

for a single Asset



for a Group

b) widgets settings that can be edited



c) widget changes cancellation

Figure 12 — Examples of editing Dashboard templates

3.5.3 Deleting a Dashboard template



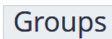
WARNING: Default [Dashboard templates](#) from preset [Tasks](#) **cannot be deleted** by [Fleet](#) users. Only the following Dashboard templates can be deleted:

- those created directly by the user;
- those imported from a file (***.tunum**);
- those created from a duplicate using  button.

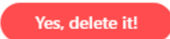
1) Open  **Management** tab in the **Main menu** and press  tile, to enter Dashboard templates [Management](#) window (see figure 13).



ATTENTION: The **Management** tab is available only to [Fleet operators](#) with standard default access rights. [Viewers](#) have restricted access, so the **Management** tab is not available to them.

2) In the opening **Dashboards for** window, open the tab of Fleet resource for which you need to delete the Template —  (for a single [Asset](#)) or  (for a [Group](#)). After that, the Task tabs for the selected resource will be displayed, showing how Dashboard templates with the corresponding sets of [Keys](#) are distributed.

3) To delete the required Dashboard template, click  icon in the corresponding field.

4) In the opening dialog window, press  button, to confirm the Template deletion. If you don't need to delete it, press  button.

The screenshot shows the 'Management' interface with a sidebar on the left. A red box labeled '1' highlights the 'Management' icon in the sidebar. The main area displays 'Demo Fleet' with four cards: 'Groups' (3), 'Assets' (13), 'Dashboards' (73), and 'Reports' (54). A red box labeled '2' highlights the 'Dashboards' card. Below this, the 'Dashboards for: Assets Groups' screen is shown. A red box labeled '3' highlights the 'Assets' and 'Groups' tabs. The screen displays a grid of dashboard templates. A red box labeled '4' highlights a trash icon in the top right corner of the 'Fuel Monitoring Basic' template. A red arrow points to this icon with the text 'Icons to delete Dashboard templates'. Another red box labeled '5' highlights a trash icon in the top right corner of the 'Fuel Monitoring Genset Pool' template. A red arrow points to this icon with the text 'To delete the required Dashboard template, click the corresponding icon'.

a) preliminary operations

The screenshot shows the 'Management' interface with the 'Dashboards for: Assets Groups' screen. A red box labeled '5' highlights a confirmation dialog box that appears over the dashboard templates. The dialog box contains the text 'Are you sure? You won't be able to revert this' and two buttons: 'Yes, delete it' (highlighted with a red box) and 'No'. A red arrow points to the 'Yes, delete it' button with the text 'Confirm the deletion of the Dashboard template'.

b) deletion confirmation

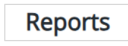
Figure 13 — Example of deleting a Dashboard template



WARNING: You should take note that a deleted [Dashboard template](#) cannot be restored. To prevent its loss, we recommend, using  icon, export the created Template into the file (*.tunum) which is saved in the PC memory.

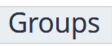
3.6 Management of Report templates

3.6.1 Creation of a Report template

1) Open  **Management** tab in the **Main menu** and press  tile, to enter the Report templates [Management](#) window (see figure 14).



ATTENTION: The **Management** tab is available only to [Fleet operators](#) with standard default access rights. [Viewers](#) have restricted access, so the **Management** tab is not available to them.

2) In the opening **Reports for** window, open the tab of [Fleet](#) resource for which you need to edit the Template —  (for a single [Asset](#)) or  (for a [Group](#)). After that, the Task tabs for the selected resource will be displayed, showing how [Report templates](#) with the corresponding sets of [Keys](#) are distributed.

3) To create a new Report template, click  icon at the bottom of the relevant [Task](#) tab and, in the panel that appears, select the icon for the required dataset:

-  — a set of Keys selected from the default preset Key list for the relevant Task and Asset/Group. It is also possible to select custom Keys from the standard [SPNs](#) in the [S6 Database](#) or from [VSPNs](#) (within the available number of free Keys).
-  — preset set of [Events](#) received from Asset in a standard way.
-  — preset set of [Onboard equipment](#) malfunctions normally received from Asset.
-  — loading a previously created [Report template](#) file (*.runum) for an Asset or [Group](#) from your computer to create a new Template based on it.

4) In the opening Reports templates [Management](#) window, enter the name of the Template you are creating into **Name*** obligatory field. Then, in the appropriate drop-down lists — **For assets**

(for Asset) or **For groups** (for Group) — specify the names of the target [Fleet](#) resources (Assets or Groups, respectively) for which this Template can be used for [Post-analysis](#) after creation.

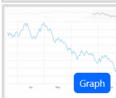
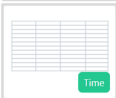
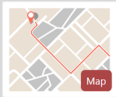
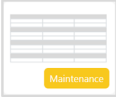


IMPORTANT: A Report template may contain: capital letters and lower-case Latin letters from **A** to **Z** and from **a** to **z**, digits from **0** to **9**, the underscore character **_** and round brackets **()**.

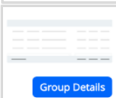
5) To populate the widgets of the Report template with [Keys](#), click  tile and then click  icon at the top of the window that appears to add an appropriate widget to the Template.

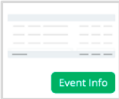
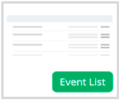
 icon appears below each newly added widget in the Template and can be used to add additional widgets.

Widgets for a single Asset:

-  — list of [Asset](#) performance indicators.
-  — Asset performance indicator charts (up to 3).
-  — Asset performance indicator table.
-  — header zone highlighting with a special color and label.
-  — trip [Map](#) of the mobile Asset.
-  — maintenance information for Asset [Nodes](#).
-  — remote control commands for the Asset.

Widgets for a Group:

-  — list of main performance indicators for each Asset in the Group, including summary data for the entire Group.
-  — list of registered Events for each Asset in the Group.
-  — detailed Group performance information, with comprehensive indicator display for each Asset and summary data for the Group as a whole.

-  – information on a registered [Event](#), showing its attributes for each Asset in the [Group](#).
-  – list of registered Events for each Asset in the Group without data aggregation.
-  – header zone highlighting with a special color and label.

6) To add a Key to a widget, click the  **Add parameter** icon in the area of the relevant widget.

For [Keys](#) containing a [Parameter](#) or a [Counter](#), there are two options available in the **Add parameter** settings window:

- In **Existing** tab — Keys are added from the list of default preset Keys for the relevant [Task](#).
- In **Custom New** tab — custom Keys can be created and added within the available number of free Keys for the relevant Task.

If you need to add a title, choose the widget **Title** and click the appropriate  **Edit title** icon on the right.

While adding data into the widget, you are to fill in all obligatory fields marked with (*) character:

- **SA*** — enter the network address of the source [Unit](#) for the Key being added (see [annex A](#)). If you need to receive the relevant data from all Units, set the network address to **255**. The network address of any Key source for Group Report templates is always **1000**, regardless of the source network addresses of similar [Keys](#) for individual [Assets](#) within the Group.



RECOMMENDATION: Specific data on all Units the [Asset](#) is equipped with and their network addresses may be obtained in [Technoton technical support](#) by e-mail support@jv-technoton.com.

- **SPN*** — select the required standard [SPN](#) from the [S6 Database](#) or [VSPN](#) from the drop-down list of [Parameters](#)/Counters provided according to the Task. If you need to further specify the selected SPN value, choose the appropriate specifier from the **Spec** drop-down list.

- **SPN Event*** — select the required Event SPN from the drop-down list of [Events](#) provided according to the Task.

When adding an Event SPN to the **Event Statistics** and **Event Info** widgets in [Group](#) Report templates, you must also specify the relevant Event attributes in the **SPN*** field.

– **Asset*** — a drop-down list that allows you to set the data aggregation method for the Asset when adding a Key to the created Report template (i.e., automatic calculation of last, average, total/differential, maximum/minimum values, count, etc.).

It is allowed to add Keys to an Asset Report template without data aggregation.

– **Group*** — a drop-down list that allows you to set the data aggregation method for the Group when adding a Key to the created Report template (i.e., automatic calculation of last, average, total/differential, maximum/minimum values, count, etc.).

For Keys added to a Group [Report template](#), data aggregation is mandatory.

– **Title*** — this field is available only for **Title** widget and is used to enter the header title.

– **Color*** — this field is available only for **Title** widget and is used to set the header background color.

7) After filling in the required widget fields in the **Add parameter** window, click **Add** button to save the data. The Key will then be added to the Report template.

In the widget **Title**, after you create the title, press **Update** button in **Edit title** window; after that, the title will be added into the Report template.

If you need to remove a widget added to the Report template, click  icon in the relevant area.

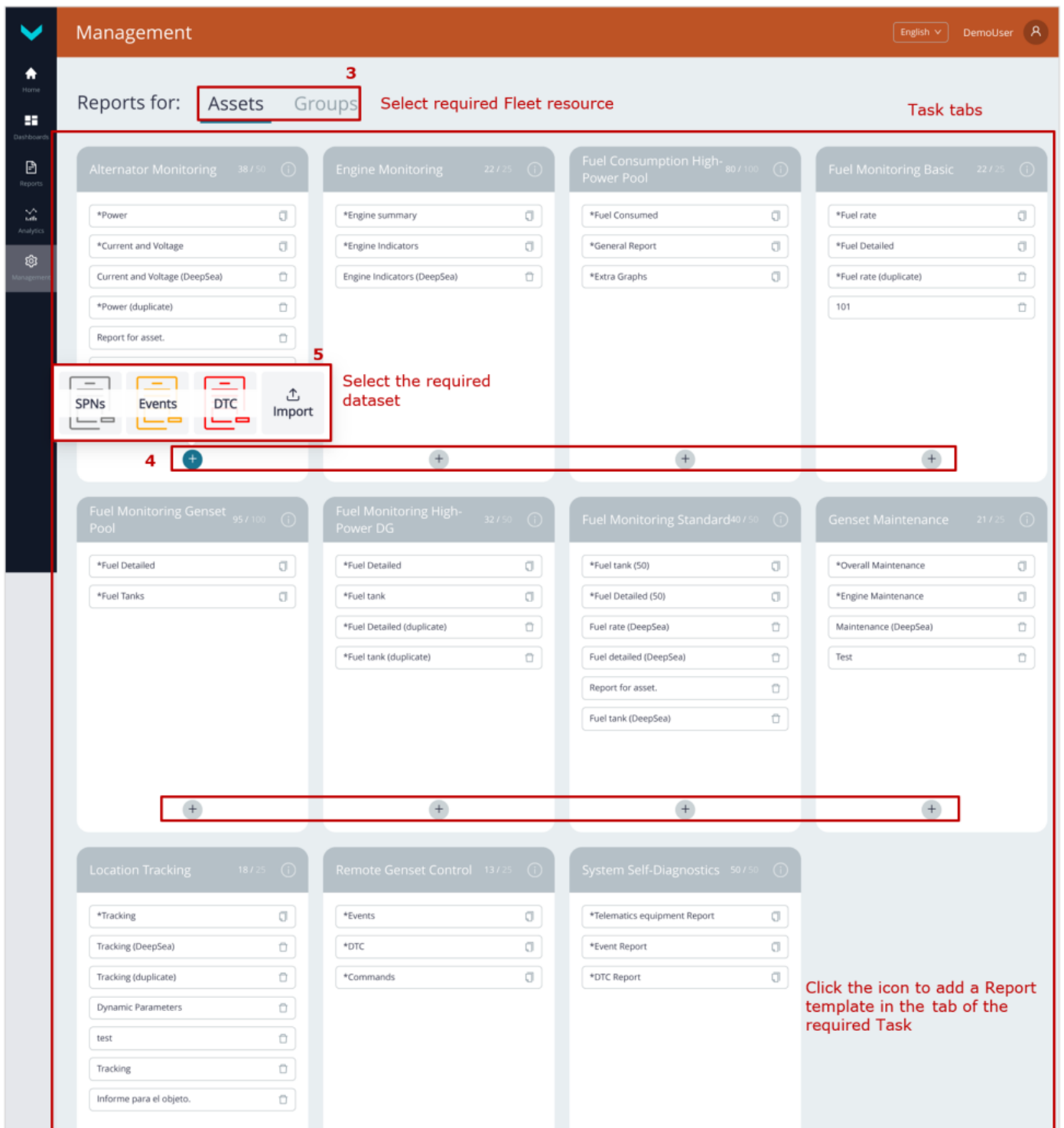
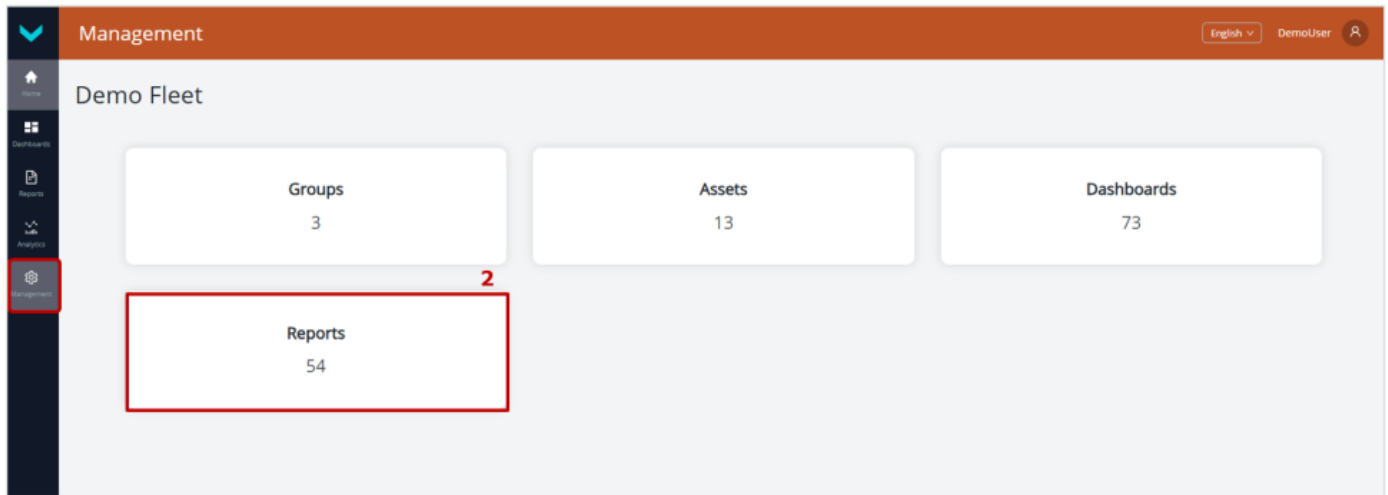
8) After you add all widgets and titles into the new Report template, press **Create** button, to save the data entered. If you don't need saving the data, press  icon.

ATTENTION:



1) By clicking  button in the field of any default [Report template](#) in the tab of any [Task](#), you can create a full copy (duplicate) for further editing and for creating new Templates based on it. The copied Template is automatically added to the list of Templates for the relevant Task under the original name with the prefix **(duplicate)**.

2) The created Report template can be exported as a file **(* .runum)** by clicking  icon; the file will be saved on your computer. Later, this file can be imported by other users or used as a basis for creating other Report templates by clicking  icon.





a) preliminary operations

Management

English DemoUser

Number of target Assets

Specify the target Assets

Name: Report for asset_1 5 For assets: MTU SV / DATAKOM D500 01 % + 2 ... 6

Enter the name of the Report template to be created 7

Press icon to add widget 8

Statistic Graph Time Title Title Map Maintenance Commands

Select the required widget type

Create X Button to cancel entered widget data

Add parameter

Click the line to enter data

SPN:*

Select SPN...

Asset:*

Last Value



Add parameter

Click the button to save the data

SPN:*

183: Engine fuel rate, L/h

Existing Custom New

Key search line

Search by SA, SPN...

SA	SPN	Spec
101	96. Fuel Level 1, %	-
101	174. Engine Fuel Temp, °C	-
111	174. Engine Fuel Temp, °C	-
111	183. Engine fuel rate, L/h	-
101	250. Total fuel used, L	-
111	1834. Engrn Tot.Aver. Fuel Rate, L/h	-

Select the required Key

Asset:*

Last Value

Selecting the data aggregation method for the Asset

example of adding a Key from the default preset Key list to a widget

Add parameter ×

Click the line to enter data

SPN:*
Select SPN...

Asset:*
Last Value

Add



Add parameter ×

Click the button to save the data

SPN:*
1834: Engn Tot.Aver. Fuel Rate, L/h

Existing | Custom New

SA:*
111 Enter the network address of the data source

SPN:*
1834: Engn Tot.Aver. Fuel Rate, L/h Select needed SPN/VSPN

Spec:
Enter SPEC value...

Asset:*
Last Value Selecting the data aggregation method for the Asset

Add

example of adding a custom Key to a widget

Click the button to save the data

Edit title ×

Update

Enter the widget title

Title*
Fuel

Color* Enter the header background color

example of widget settings for header formatting

Management

English DemoUser

Name: Report for asset_1 For assets: 3 MTU 5V / DATAKOM D500 01 + 2 ... 9 Create

Save Report template data entered

Fuel

Statistic Add parameter to Statistic

SA: 111 SPN: 183 Engine fuel rate [Last] SA: 111 SPN: 1834 Engh Tot.Aver. Fuel ... [Last]

Graph Add parameter to Graph (maximum 3 parameters are available)

SA: 111 SPN: 1834 Engh Tot.Aver. Fuel ... [Last] SA: 111 SPN: 183 Engine fuel rate [Last]

Time Add parameter to Time

SA: 111 SPN: 183 Engine fuel rate [Last] SA: 111 SPN: 5054 High Res.Total Fuel ... [Sum]

Map Add parameter to Map

Maintenance Add parameter to Maintenance

Commands Add parameter to Commands

Widgets added into Report template

Title widget

Indicator list widget

Indicator trend chart widget

Indicator table widget

Trip map widget

Maintenance information widget

Remote control commands widget

saving the created Report template

b) creating a Report template for a single Asset

Management

English DemoUser

Name: Report for group_1 5 Applied to Groups: 2 Gen_3 x Mobile group x 6

Number of target Groups

Specify the target Groups

Enter the name of the Report template to be created

7 + Click the icon to add a widget

8

Group Statistics Event Statistics Group Details Event Info Event List Title

Select the required widget type

Create X Button to cancel entered widget data

Add parameter ×

Click the line to enter data

SPN:*
Select SPN...

Asset:*
Last Value

Group:*
Last Value

Add



Add parameter ×

Click the button to save the data

SPN:*
5054: High Res.Total Fuel Used, L

Existing | Custom New

Key search line
Search by SA, SPN...

SA	SPN	Spec
1000	96. Fuel Level 1, %	-
1000	158. On-board voltage, V	-
1000	174. Engine Fuel Temp, °C	-
1000	183. Engine fuel rate, L/h	-
1000	1834. Engrn Tot.Aver. Fuel Rate, L/h	-
1000	5054. High Res.Total Fuel Used, L	-

Select the required Key

Asset:*
Last Value

Group:*
Last Value

Add

Selecting the data
aggregation method for
each Asset

Selecting the data
aggregation method for
the Group

example of adding a Key from the default preset list to a widget

Add parameter ×

Click the line to enter data

SPN:*
Select SPN...

Asset:*
Last Value

Group:*
Last Value

Add



Add parameter ×

Click the button to save the data Add

SPN:*
183: Engine fuel rate, L/h

Existing | Custom New

SA:*
1000 Enter the network address of the data source

SPN:*
183: Engine fuel rate, L/h Select needed SPN/VSPN

Spec:
Enter SPEC value...

Asset:*
Last Value

Group:*
Last Value

Selecting the data aggregation method for each Asset

Selecting the data aggregation method for the Group

example of adding a custom Key to a widget

Add parameter

SA*
1000

SPN Event*
Select Event...

SPN*
Select SPN...

Group*
Last Value

Add

Click the line to enter data



Add parameter

SA*
1000

SPN Event*
521200 Fueling

SPN*
521301: Filled Fuel Volume, L

Group*
Last Value

Click the button to save the data

Add

Enter the network address of the data source

Select the Event SPN

Number	Event
521185	S6 Unit Lost
521186	S6 Unit Add
521200	Fueling
521201	Fuel Discharge
521202	Power On
521203	Power Off
521204	Ignition On

Select the Event attribute SPN

SPN	Specifire
521300 Event Date/Time	-
584 Latitude	-
585 Longitude	-
521301 Filled Fuel Volume	-
521024 Fuel Tank Volume	17. At event moment : 0. At the event start
521024 Fuel Tank Volume	17. At event moment : 1. At the event end

Selecting the data aggregation method for the Group

example of adding data to a registered Events list widget

Add parameter

Click the line to enter data

SPN Event:
Select Event...

Add



Add parameter

Click the button to save the data

Add

SPN Event:
521201 Fuel Discharge
Select the Event SPN

Search by Number, Event...

Number	Event
521185	S6 Unit Lost
521186	S6 Unit Add
521200	Fueling
521201	Fuel Discharge
521202	Power On
521203	Power Off
521204	Ignition On



Add parameter

Click the button to save the data

Add

SA:
1000
SPN:
521300: Event Date/Time, s
Select up to 3 Event Attribute SPNs and enter their data

Search by SPN...

SPN	Specifire
521300 Event Date/Time	-
28 Acceltr Pedal 3 Postn	1. Data Valid : 2. Error condition
28 Acceltr Pedal 3 Postn	1. Data Valid : 3. Not supported / Not...
584 Latitude	-
585 Longitude	-
521302 Discharged Fuel Volume	-
521024 Fuel Tank Volume	17. At event moment : 0. At the event start

Group:
Last Value

example of adding data to a registered Event widget

Management

English DemoUser

Name: Report for group_1 Applied to Groups: 2 Gen_3 x Mobile group x

9 Create X

Title widget

Main indicator list widget

Registered Events list widget

Detailed performance indicator information widget

Registered Event information widget

Registered Events list widget

Widgets added into Report template

saving the created Report template

c) creating a Report template for a Group

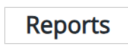
Figure 14 — Example of creating a [Report template](#)

3.6.2 Editing a Report template



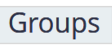
WARNING: Default Report templates from preset [Tasks](#) **cannot be edited** by [Fleet](#) users. Only the following Report templates can be edited:

- those created directly by the user;
- those imported from a file (***.runum**);
- those created from a duplicate using  button.

1) Open  **Management** tab in the **Main menu** and press  tile, to enter the Report templates [Management](#) window (see figure 15).



ATTENTION: The **Management** tab is available only to [Fleet operators](#) with standard default access rights. [Viewers](#) have restricted access, so the **Management** tab is not available to them.

2) In the opening **Reports for** window, open the tab of [Fleet](#) resource for which you need to edit the Template —  (for a single [Asset](#)) or  (for a [Group](#)). After that, the Task tabs for the selected resource will be displayed, showing how [Report templates](#) with the corresponding sets of [Keys](#) are distributed.

3) Click the required Report template for editing. If necessary, you may change the name (**Name*** field), Fleet target resources (in the dropdown list **For assets** (for an Asset) or **For groups** (for a Group)), add new widgets, change or delete earlier created widgets.

To add new widgets, use  icons in the middle of the Template window.

To add new [Keys](#) to a widget, click the  **Add parameter** icon in the area of the relevant widget (the options and procedure for adding Keys are similar to section [3.6.1](#)).

To edit Keys, use the corresponding  icons in the widgets. After making changes to the Key data in the **Update parameter** window, click  button to confirm them.

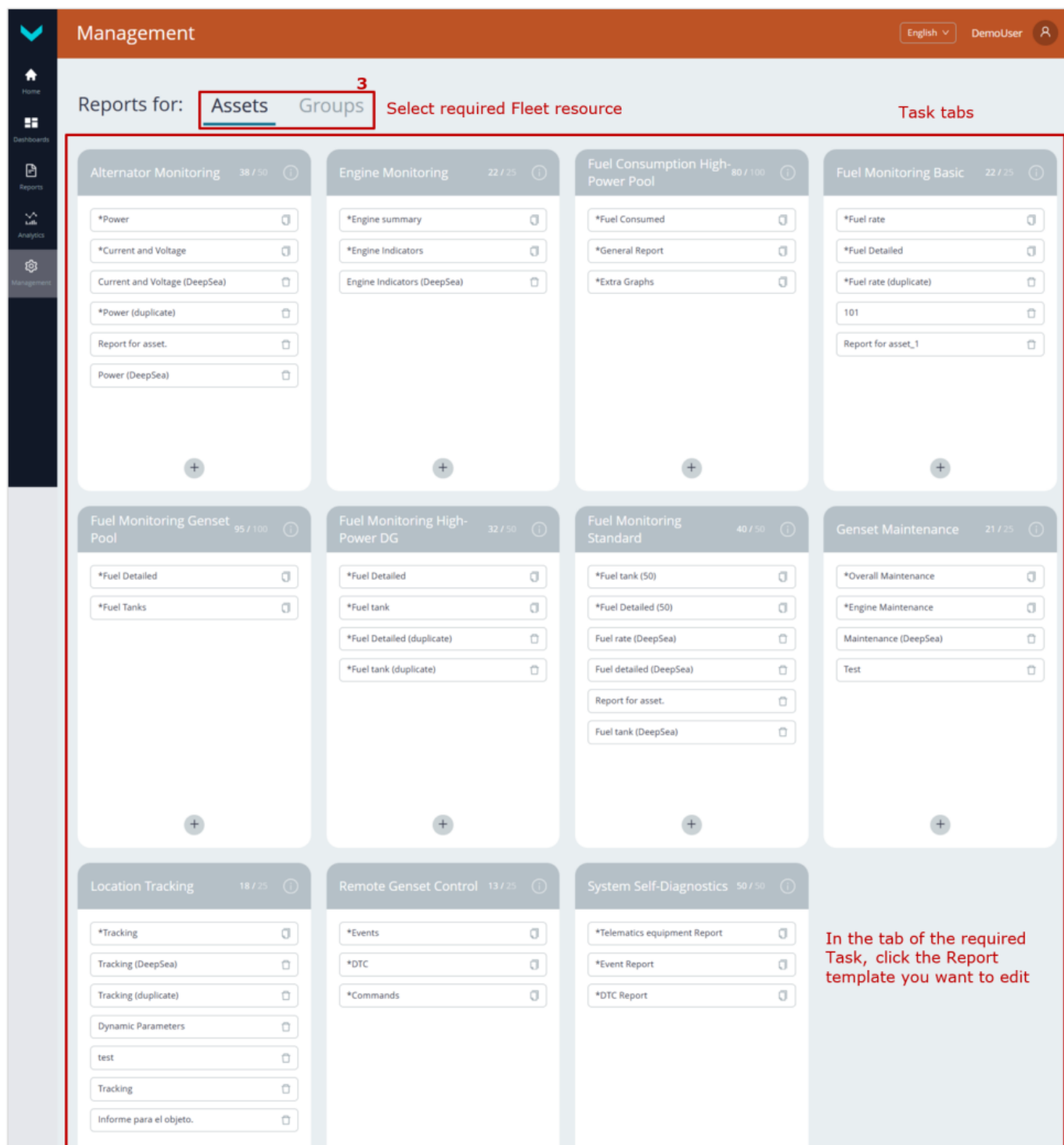
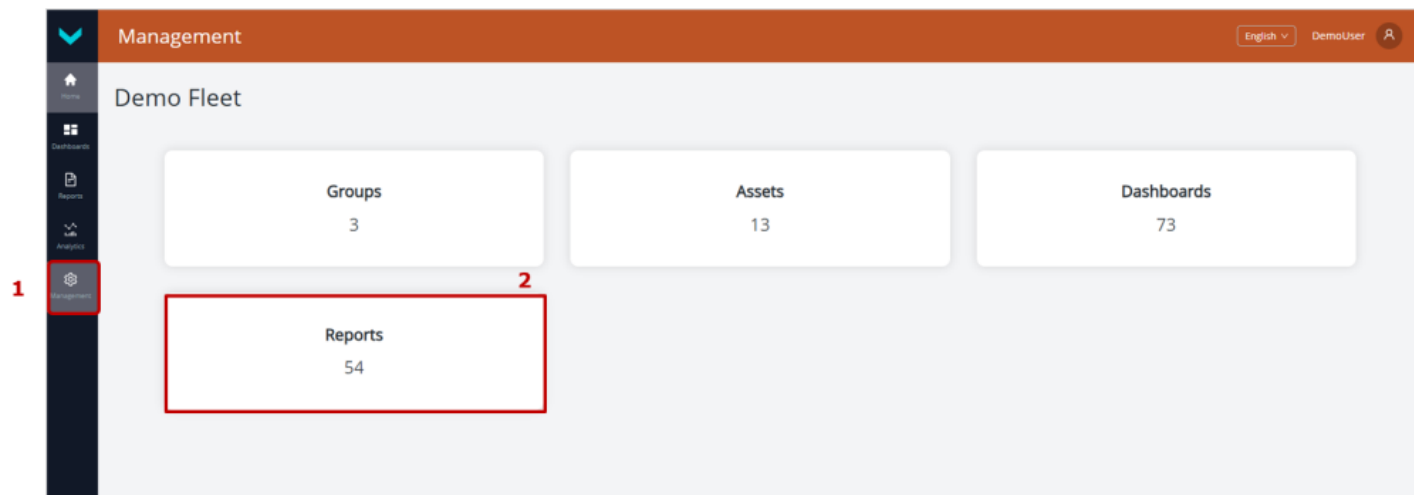
To edit the titles widgets , click the appropriate  **Edit title** icons on the right. After making changes, click  button to confirm them.

To delete a widget, click  icon in the relevant area.

To delete Keys, use the corresponding  icons in the widgets.

4) As soon as you complete editing the [Report](#) template, press  button in the upper right corner, to save the changes made.

If you don't need to save the data, press  icon. In the dialog box **Close without saving?**, click  button to confirm cancellation of the changes. If cancellation is not required, click  button .



a) preliminary operations

Update parameter ×

Click the line to enter data Update

SPN:*
183: Engine fuel rate, L/h ▼

Asset:*
Last Value ▼



Update parameter ×

Update

SPN:*
183: Engine fuel rate, L/h ^

Existing | Custom New

Search by SA, SPN... 🔍

SA	SPN	Spec
101	96. Fuel Level 1, %	-
101	174. Engine Fuel Temp, °C	-
111	174. Engine Fuel Temp, °C	-
111	183. Engine fuel rate, L/h	-
101	250. Total fuel used, L	-
111	1834. Engn Tot.Aver. Fuel Rate, L/h	-

Asset:*
Last Value ▼

Editable Key data

example of editing Key data in a widget for a Key added from the default preset Key list

Update parameter

×

Click the line to enter data

Update

SPN:*

183: Engine fuel rate, L/h

Asset:*

Last Value

Update parameter

×

Click the button to save the data

Update

SPN:*

183: Engine fuel rate, L/h

Existing | Custom New

SA:*

111

SPN:*

183: Engine fuel rate, L/h

Spec:

Enter SPEC value...

Asset:*

Last Value

Editable Key data

example of editing custom Key data in a widget

Fields for editing the Report template name and the target Fleet resource

Button to save changes to the Report template

Icon to export the Report template from a file

The screenshot shows the 'Management' interface with a sidebar on the left containing icons for Home, Dashboards, Reports, Maps, Analytics, and Management. The main area displays a list of report templates under the 'Fuel' category. At the top, there are input fields for 'Name' (containing 'Report for asset_1') and 'For assets' (containing '3 MTU 5V / DATAKOM D500 01 x +2 ...'). To the right of these fields are an 'Update' button and a download icon. Below the templates, each has a header bar with a pencil icon (edit) and a close icon (X). The templates include 'Statistic', 'Graph', 'Time', 'Map', 'Maintenance', and 'Commands'. Each template has a table of parameters with columns for asset ID, SPN, and fuel rate. Annotations with red boxes and lines point to various UI elements: the top input fields, the 'Update' button, the download icon, the edit icon in the 'Fuel' header, the edit icon in the 'Graph' table, the add and delete icons in the 'Time' table, the delete icon in the 'Map' table, the delete icon in the 'Maintenance' table, the delete icon in the 'Commands' table, and a plus icon at the bottom for adding new widgets.

b) saving data entered

This screenshot shows the same 'Management' interface as the previous one, but with a confirmation dialog box in the center. The dialog box has a yellow warning icon and the text 'Close without saving? You won't be able to revert this!'. It has two buttons: 'Yes' (highlighted with a red box) and 'No'. The background interface is slightly dimmed. Annotations include a red box around the 'Yes' button with the text 'Confirm the cancellation of widget changes'.

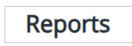
*c) widget changes cancellation**Figure 15— Example of editing a Report template*

3.6.3 Deleting a Report template



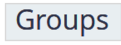
WARNING: Default Report templates from preset [Tasks](#) **cannot be deleted** by [Fleet](#) users. Only the following Report templates can be deleted:

- those created directly by the user;
- those imported from a file (***.runum**);
- those created from a duplicate using  button.

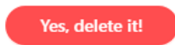
1) Open  **Management** tab in the **Main menu** and press  tile, to enter the [Report templates](#) management window (see figure 16).



ATTENTION: The **Management** tab is available only to [Fleet operators](#) with standard default access rights. [Viewers](#) have restricted access, so the **Management** tab is not available to them.

2) In the opening **Reports for** window, open the tab of [Fleet](#) resource for which you need to delete the Template —  (for a single [Asset](#)) or  (for a [Group](#)). After that, the Task tabs for the selected resource will be displayed, showing how Report templates with the corresponding sets of [Keys](#) are distributed.

3) To delete the required Report template, click  icon in the corresponding field.

4) In the opening dialog window, press  button, to confirm the Template deletion. If you don't need to delete it, press  button.

The screenshot shows the 'Management' interface. The top bar includes 'English' and 'DemoUser'. The main header is 'Demo Fleet'. Below it, there are four cards: 'Groups' (3), 'Assets' (13), 'Dashboards' (73), and 'Reports' (54). A red box labeled '1' highlights the 'Management' icon in the left sidebar. Another red box labeled '2' highlights the 'Dashboards' card. Below this, the 'Dashboards for: Assets Groups' section is shown, with a red box labeled '3' highlighting the 'Assets' tab. The 'Task tabs' section displays various dashboard templates, each with a list of components and a delete icon (a square with an 'X'). A red box labeled '4' highlights one of these delete icons. A red arrow points to the delete icons with the text 'Icons to delete Dashboard templates'. A red box labeled '5' highlights a red button in the bottom left corner of the dashboard templates section, with the text 'To delete the required Dashboard template, click the corresponding icon'.

a) preliminary operations

The screenshot shows the 'Management' interface. The top bar includes 'English' and 'DemoUser'. The main header is 'Reports for: Assets Groups'. Below it, there are four cards: 'Alternator Monitoring', 'Engine Monitoring', 'Fuel Consumption High-Power Pool', and 'Fuel Monitoring Basic'. Each card contains a list of report templates. A red box labeled '5' highlights a confirmation dialog box that appears over the reports. The dialog box has a yellow warning icon and the text 'Are you sure? You won't be able to revert this!'. It has two buttons: 'Yes, delete it!' (highlighted with a red box) and 'No'. To the right of the dialog box, the text 'Confirm the deletion of the Report template' is displayed in red.

b) confirmation of deletion

Figure 16— Example of deleting a Report template



WARNING: You should take note that a deleted [Report template](#) cannot be restored. To prevent its loss, we recommend, using  icon, to export the created Template into (*.runum) file which is saved in the PC memory.

3.7 Operational monitoring of Asset performance

[Operational monitoring](#) of [Asset](#) or [Group](#) performance is carried out using [Dashboards](#), where widgets (such as gauge and digital indicators, progress bars, charts, tables, and [Maps](#)) display [Parameters](#), [Counters](#), [Events](#), malfunctions, movement, and maintenance information in real time.

Dashboards in UNUM Genset are organized by [Tasks](#):

Tasks for Assets

- **Fuel Monitoring Basic** — real-time monitoring of key information on fuel level in the tank, fuel consumption in the fuel line, and genset engine running time.
- **Fuel Monitoring Standard** — real-time monitoring of detailed information on fuel level and volume in the tank, fuel temperature, as well as fuel consumption and genset engine running time (total and by operating modes, including “supply” and “return” lines for differential measurement).
- **Fuel Monitoring Genset Pool** — real-time monitoring or historical analysis of key information on fuel level and volume in the tanks, fuel consumption in the lines, and engine running time for a genset pool (up to 4 units).
- **Fuel Consumption High-Power DG** — real-time monitoring of detailed information on fuel level, fuel volume in the tank, fuel temperature, as well as fuel consumption and engine running time (total and by operating modes, including “supply” and “return” lines for differential measurement) for high-power gensets (>600 kW).
- **Engine Monitoring** — real-time monitoring of key genset engine performance information based on data received from the standard CAN bus (SAE j1939) of the electronic control unit (ECU).
- **Alternator Monitoring** — real-time or historical analysis of detailed electrical [Parameters](#) of the genset alternator based on data from the genset control panel (controller).
- **Remote Genset Control** — remote control of gensets (for configuration, start/stop, malfunction reset, etc.) via Modbus RTU register write commands to the DeepSea/DATACOM controller.

- **System Self-Diagnostics** — real-time monitoring of the [Onboard equipment](#) status and performance for the genset.
- **Genset Maintenance** — reminders for scheduled maintenance of genset [Nodes](#), based on specified resource usage criteria.
- **Location Tracking** — real-time map-based tracking of the genset's exact location and movement route.

Tasks for Groups

- **Group. Alternator Monitoring** — real-time monitoring of detailed electrical Parameters of alternators in a genset Group, based on data from the relevant genset control panels (controllers).
- **Group. Engine Monitoring** — real-time monitoring of key engine performance information for a Group of [Diesel generators](#), based on data from the corresponding standard CAN buses (SAE j1939) of the ECUs.
- **Group. Fuel Monitoring** — real-time monitoring of key information on fuel level in tanks, fuel consumption in lines, and engine running time for a Group of gensets.
- **Group. Location Tracking** — real-time map-based tracking of the exact location and movement routes for a Group of mobile gensets.
- **Group. System Self-Diagnostics** — real-time monitoring of the Onboard equipment status and performance for a Group of gensets.



IMPORTANT: Detailed information about the preset [Tasks](#) in UNUM Genset is provided in the document [UNUM Genset Telematics Service. Task Catalog](#).

To work with [Dashboards](#), perform the following steps in the UNUM Genset **Main monitoring window** (see section [3.2](#)):

1) In the **Main menu**, open the  **Home** tab or  **Dashboards** tab ( menu) and select the required single [Asset](#) (from the **Assets** list) or [Group](#) (from the **Groups** list) from the [Fleet](#) resources list. The name of selected Asset/Group will be displayed on the **Information panel** (see figure 17).

Open the Asset list

1

2

Assets Groups

Search...

All: 13 | Online: 11 | Offline: 2

Name	Connection	Engine	Generator
MTU 5V / DATAKOM D500 01	●	●	●
PRK 1103A / DATAKOM D500	●	●	●
GBOX FD24 / D500-20	●	●	●
CAT 3500E / DK D500-12 N	●	●	●
Mitsubishi S4L2-SDH/DATAKOM D5...	●	●	●
JDeer UX32/DATAKOM D500	●	●	●
Reno Engine parameters MAX	●	●	●
VW Caravella Imitator	●	●	●
Renault MAGNUM	●	●	●
DeepSea Std	●	●	●

3

Select the required Asset

OSM standard

a) selection in **Home** tab

Click the Fleet resource selection menu

1

2

Asset: Mitsubishi S4L2-SDH/DATAKOM D500

English DemoUser

Dashboards

Selected Asset name

Preset Task tabs

Alternator Monitoring38 / 50

Engine Monitoring22 / 25

Fuel Consumption High-Power Pool80 / 100

Fuel Monitoring Basic22 / 25

*Current / Frequency

*Phase monitoring

*Power

Dashboard for asset_1

*Main Engine Indicators

*Engine Alarms

*RPM / Coolant / Oil

*RPM / Coolant / Oil (duplicate)

*Main Engine Indicators (duplicate)

*DG4 Fuel Consumption

*DG1 Fuel Consumption

*DG3 Fuel Consumption

*DG2 Fuel Consumption

*Fuel tank

*Flow Meter Operation

*Fuel tank (duplicate)

Fuel Monitoring Genset Pool95 / 100

Fuel Monitoring High-Power DG32 / 50

Fuel Monitoring Standard40 / 50

Genset Maintenance21 / 25

*Fuel Tanks

*Fuel Consumption

*Fuel level

*Fuel Consumption

*Fuel consumption (50)

*Fuel level (50)

*Overall Maintenance

*Engine Maintenance

Location Tracking18 / 25

Remote Genset Control13 / 25

System Self-Diagnostics50 / 50

*GPS Tracking

*Remote control DATAKOM

*Remote control DeepSea

*Remote control DATAKOM (duplicate)

*Communication channels

*Telematics equipment state

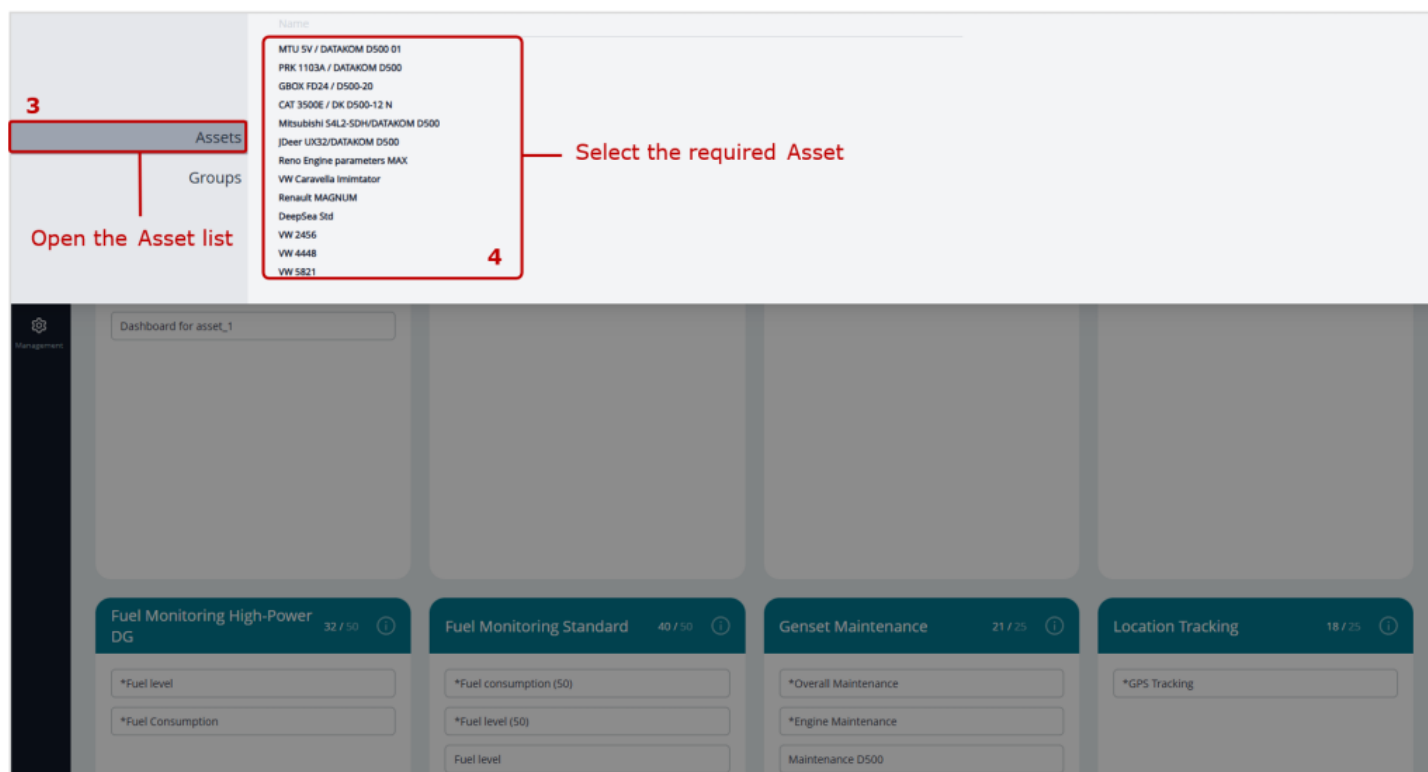
*GSM signal quality

*DTC Masks

Select the required Dashboard template

about:blank

75/110



*b) selection in **Dashboards** tab*

Figure 17 — Examples of selecting an Asset for real-time performance monitoring using Dashboards

2) In the **Dashboards** tab, the required [Dashboard templates](#) are selected from the corresponding Task tabs (see figure 18).

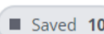
- In the [Dashboards](#) title, the standard data set is displayed: the [Task](#), the Dashboard name, ● / ● indicators of the [Asset](#) online/offline status, of availability/absence of data on the engine/electric generator operation, of the date and time of the latest data update (see figure 18 a).

Note — In Dashboards tables for Groups, the Assets online/offline status indicators, indicators of availability/absence of data on the engine/electric generator operation are displayed in the respective lines of 📶 | 🔌 | ⚡ columns .

- In the Dashboard data display area, when you hover the cursor over any [Parameters](#) or [Counters](#), the following are displayed for the relevant [Keys](#): [SPN](#) / [VSPN](#) number, name, specifier (if available), and the unique network address of the source [Unit](#).
- In graphical widgets, when you hover the cursor over the chart, the value of the corresponding Parameter, along with the date and time, is displayed for the selected point. If necessary, you can zoom in on a specific section of the chart along the time axis by selecting it while holding down the left mouse button. To reset the zoom, click ⊖ icon on the right side of the chart.

- In widgets of [Events](#), by pressing    buttons, you may filter lists of urgent, important and information Events accordingly. The number of Events in the corresponding list is indicated on each of these buttons. The total number of all recorded Events is listed in **Total** field.

By clicking  icon in the line of the relevant Event, you can view its attributes: the value of the Parameter for which the Event was recorded (for example, fuel volume for "Refueling"/"Draining"), and the date and time of occurrence.

- In widgets of [Onboard equipment](#) malfunctions you may view attributes for each malfunction: date and time of occurrence, SID+FMI codes, network addresses of source Units. In  field you may search for the required malfunction by its code. By pressing   buttons, you may filter lists of active and saved malfunctions accordingly. The number of malfunctions in the corresponding list is indicated on each of these buttons. The total number of all recorded malfunctions is listed in **Total** field.

- In the maintenance widgets for Asset [Nodes](#), each criterion displays: the maximum and current values of the corresponding resource Counter, its progress bar and current utilization percentage, and the estimated date of the Node's scheduled maintenance.

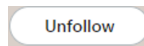
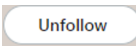
Depending on resource utilization, the progress bar may be displayed in blue, yellow, or red, indicating normal, borderline, or maintenance-required status of the Node, respectively.

When you hover the cursor over any criterion, the following are shown: the network address of the relevant source Unit, SPN number and Counter name, unit of measurement, and the date and time of the last data update.

When any resource Counter reaches 100% utilization, its progress bar turns red, indicating that maintenance is required for the corresponding Node.

After servicing an Asset Node, click  icon in the line of the relevant criterion. In the **Make service** window that appears, click  button to reset the resource Counter. The progress bar will then change to blue, and the resource utilization percentage will be set to 0%.

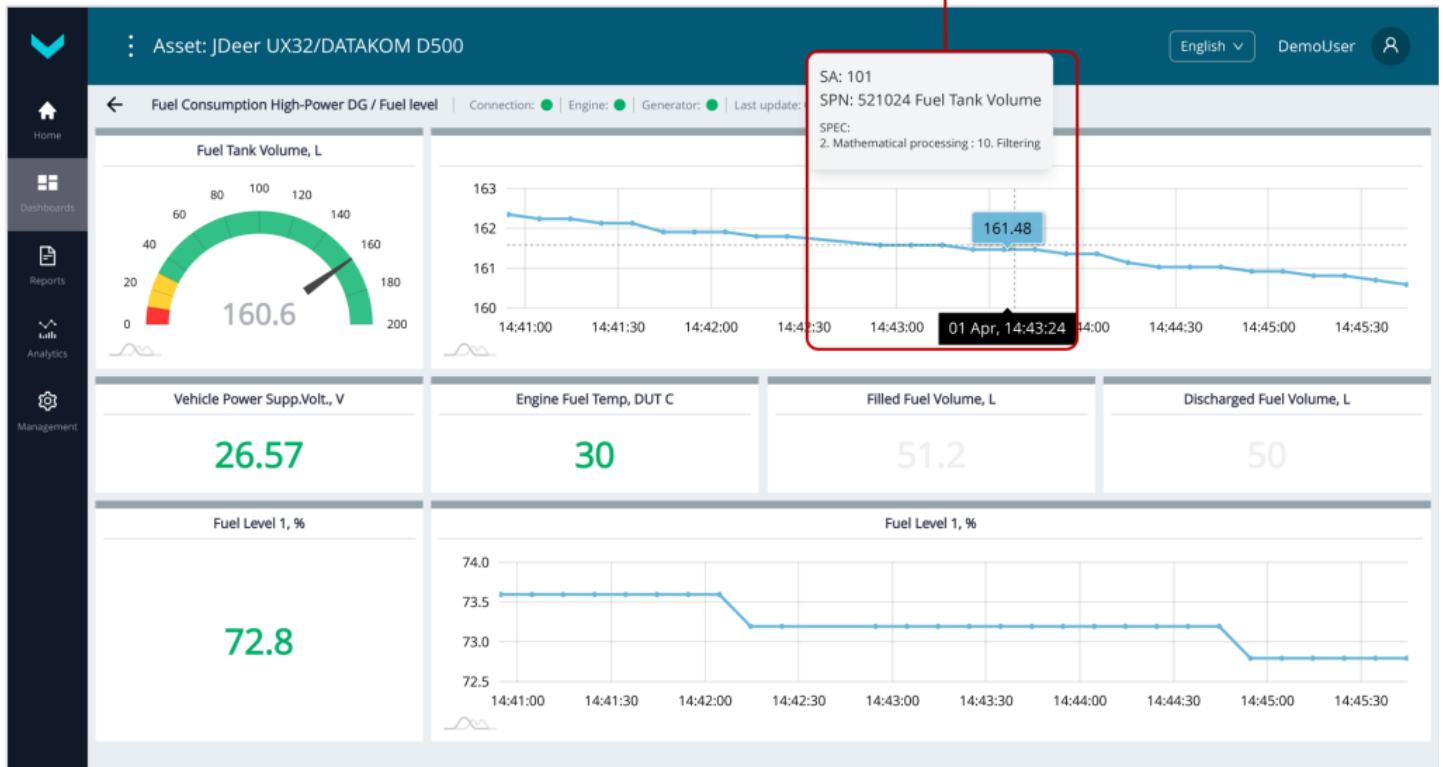
Note: The resource [Counter](#) reset operation is not available for users with [Viewer](#) access level.

- To track the movement of a selected mobile Asset on the [Map](#) widget, click  button in the upper left corner of the Map. After clicking, the button will change to  button, and the moving Asset, along with the last 10 points of its track, will always remain in the center of the Map. To stop tracking the Asset's movement, click  button.
- A particular feature of [Dashboards](#) for monitoring Groups is data presentation only in the form of tables.

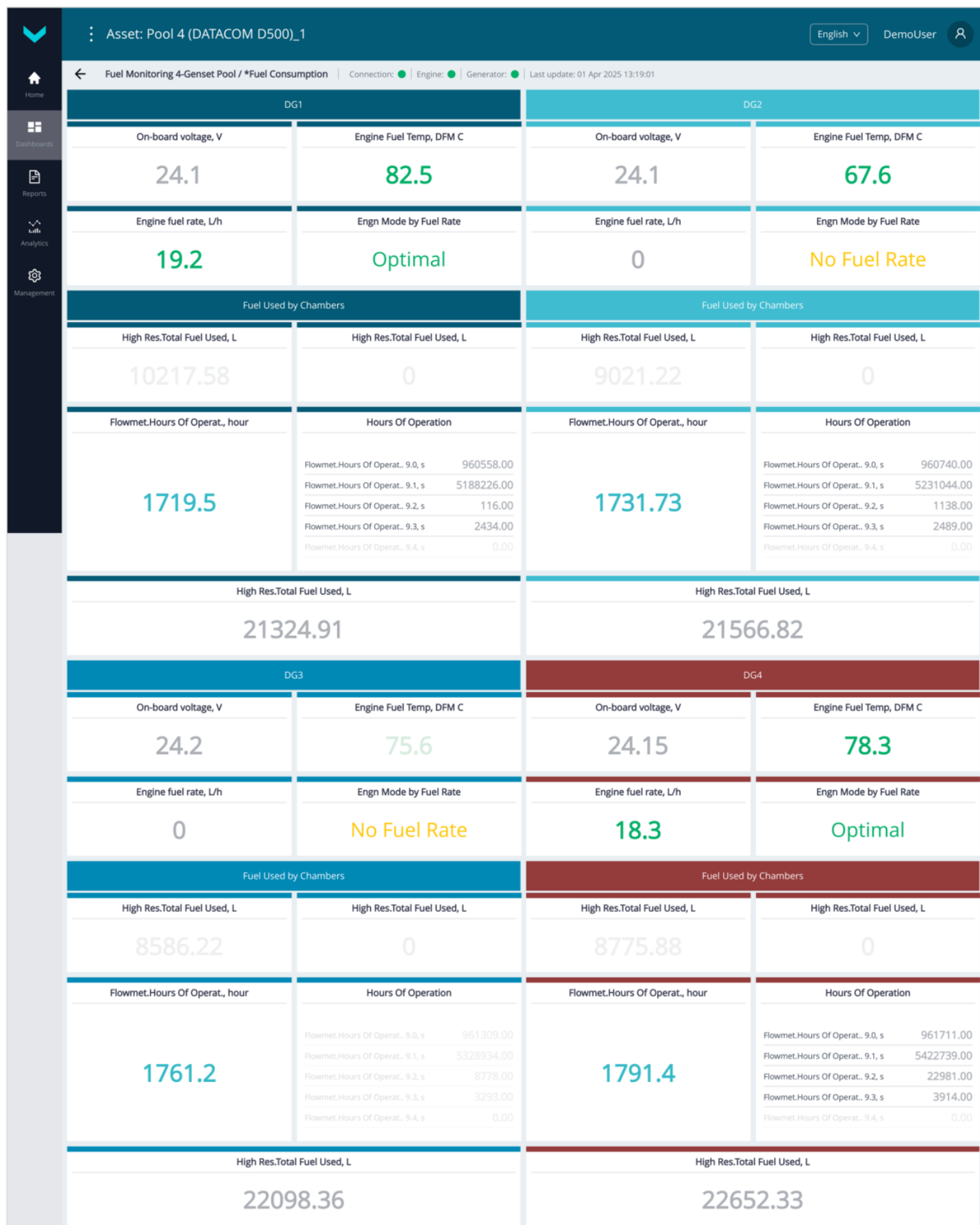


a) real-time display of fuel information on the ***Flow Meter Operation (Fuel Monitoring Basic Task)**

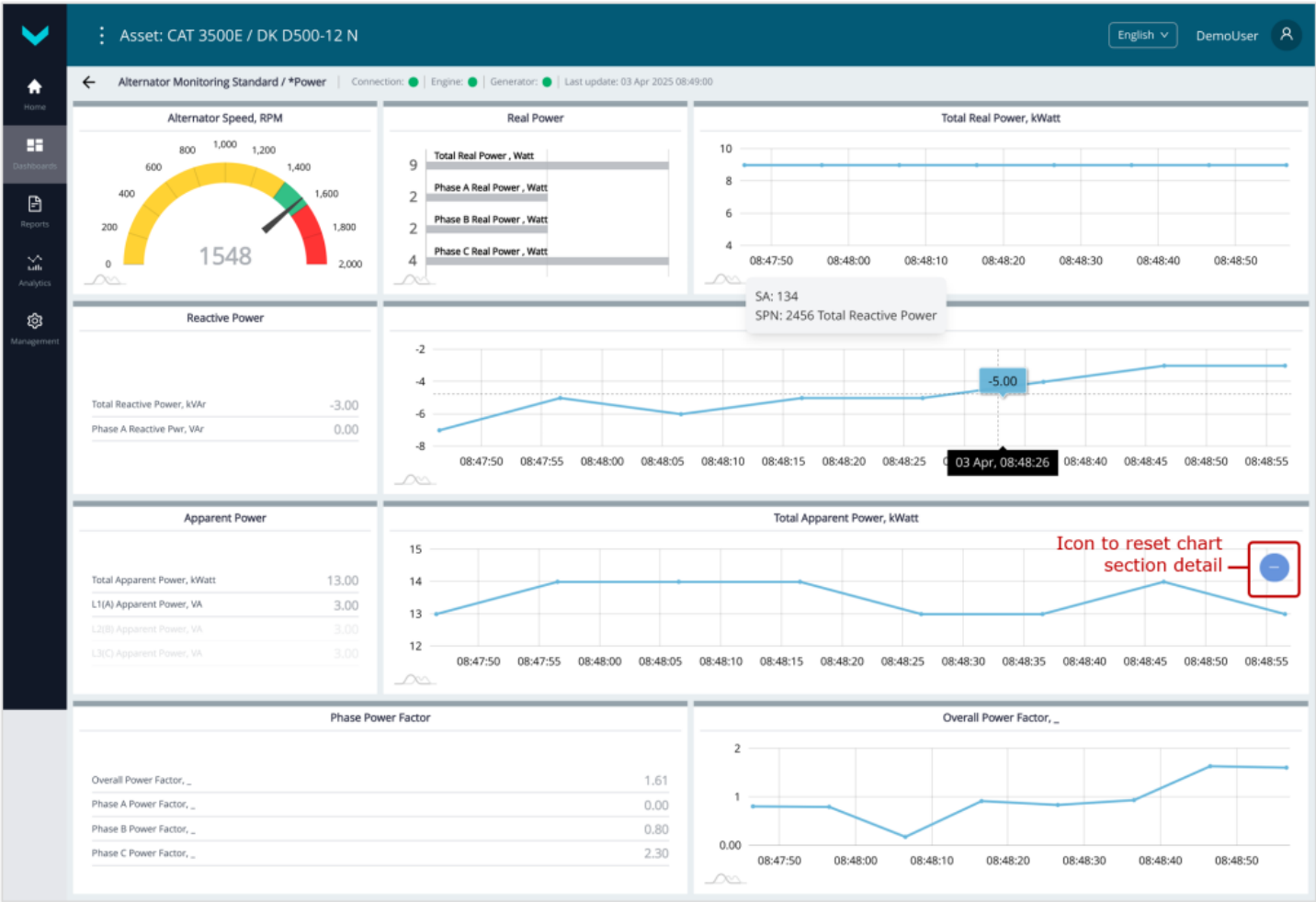
Display of Parameter value, date, and time at the selected point on the chart



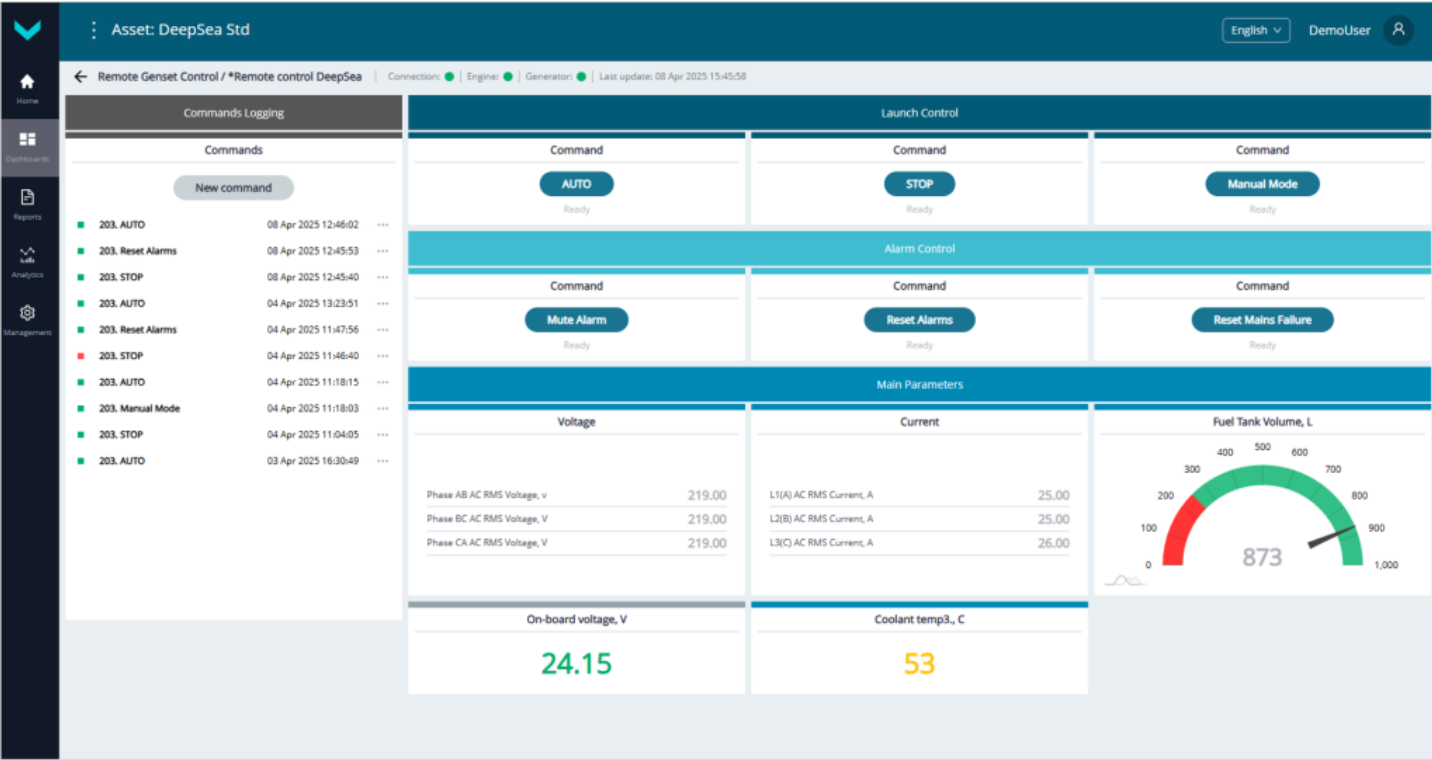
b) real-time display of information on the ***Fuel level** Dashboard (**Fuel Consumption High-Power DG Task**)



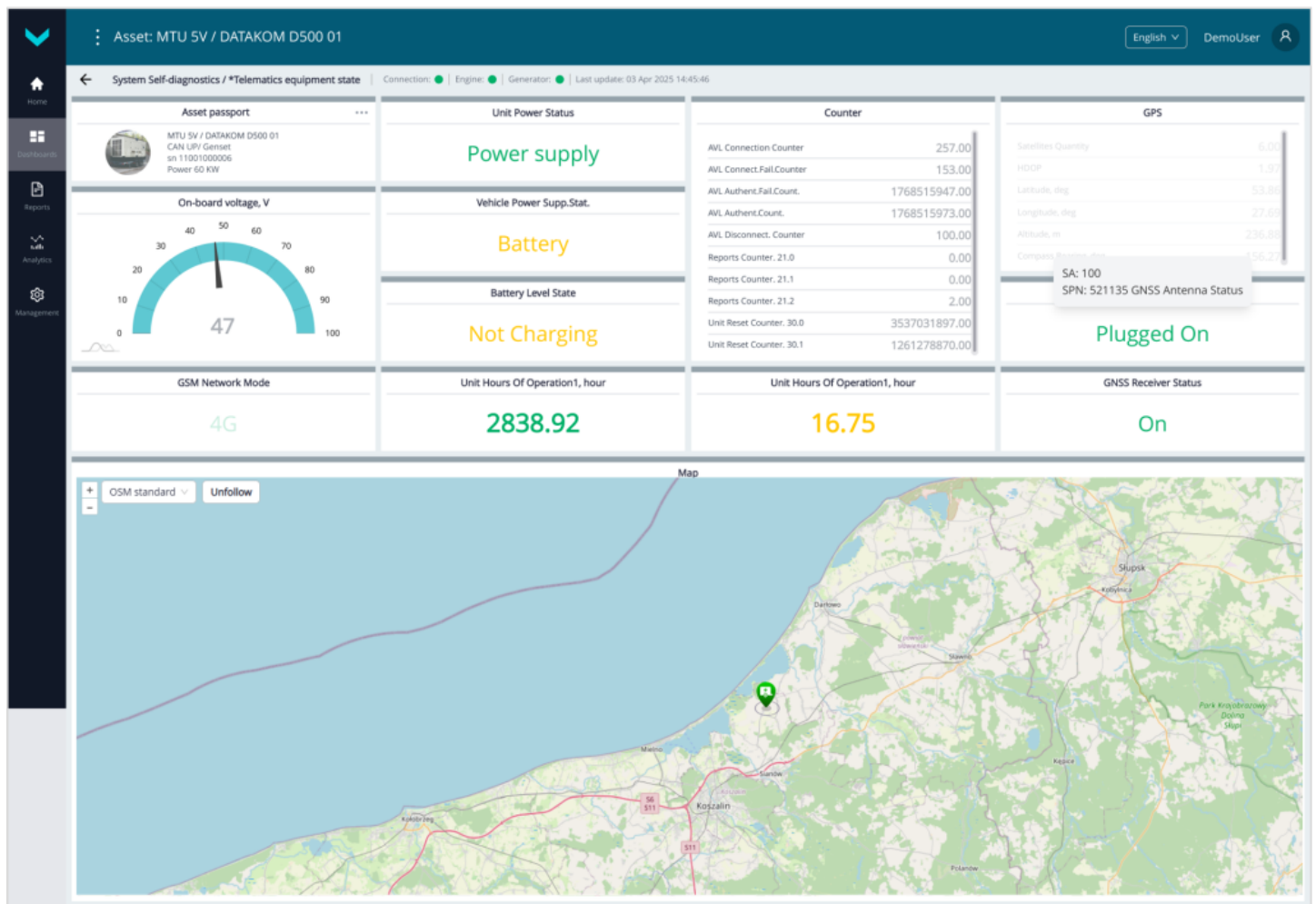
c) real-time display of information on the ***Fuel consumption** Dashboard (**Fuel Monitoring Genset Pool Task**)



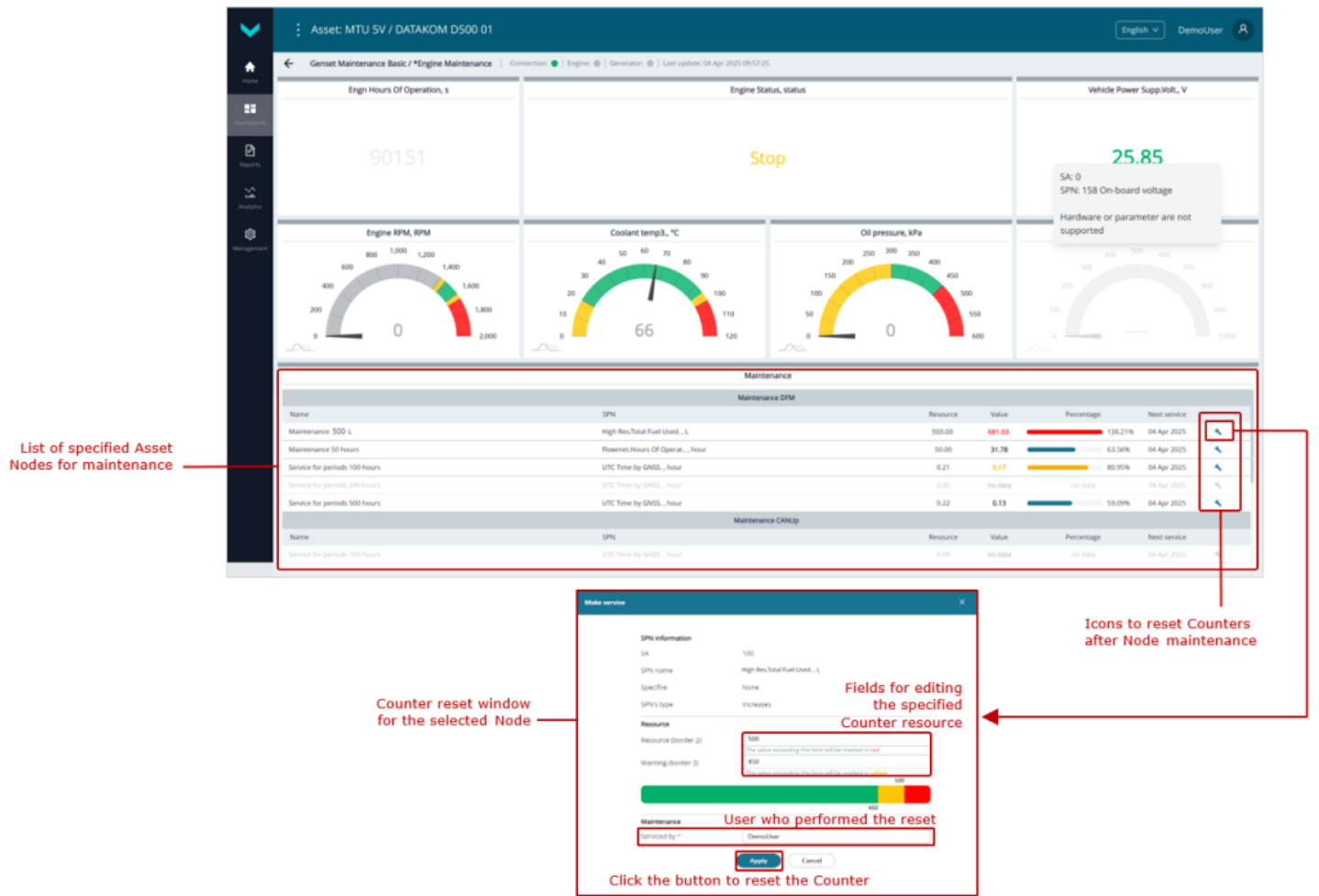
d) real-time display of information on the ***Power Dashboard (Alternator Monitoring Task)**



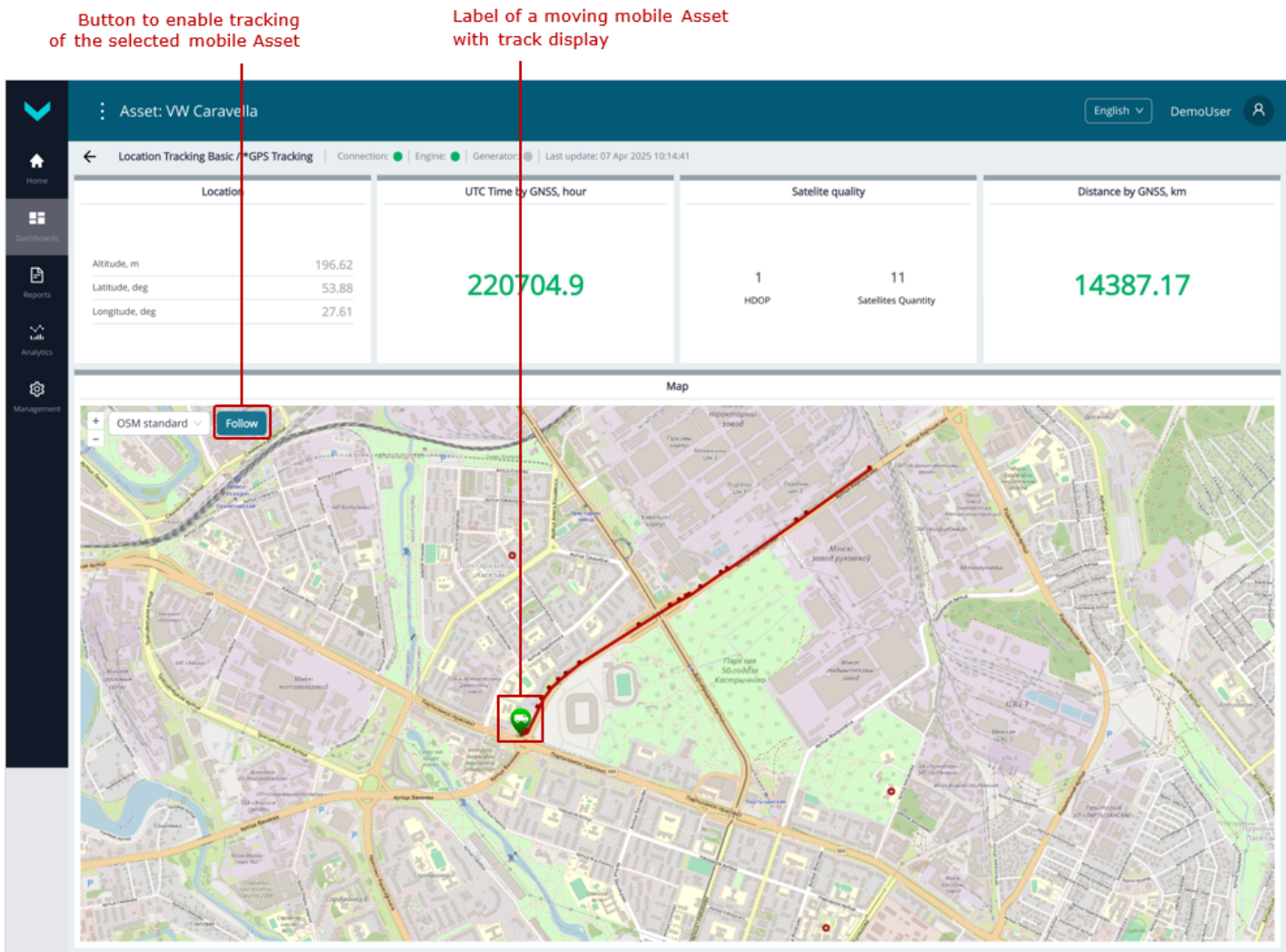
e) real-time display of information on the ***Remote control DeepSea Dashboard (Remote Genset Control Task)**



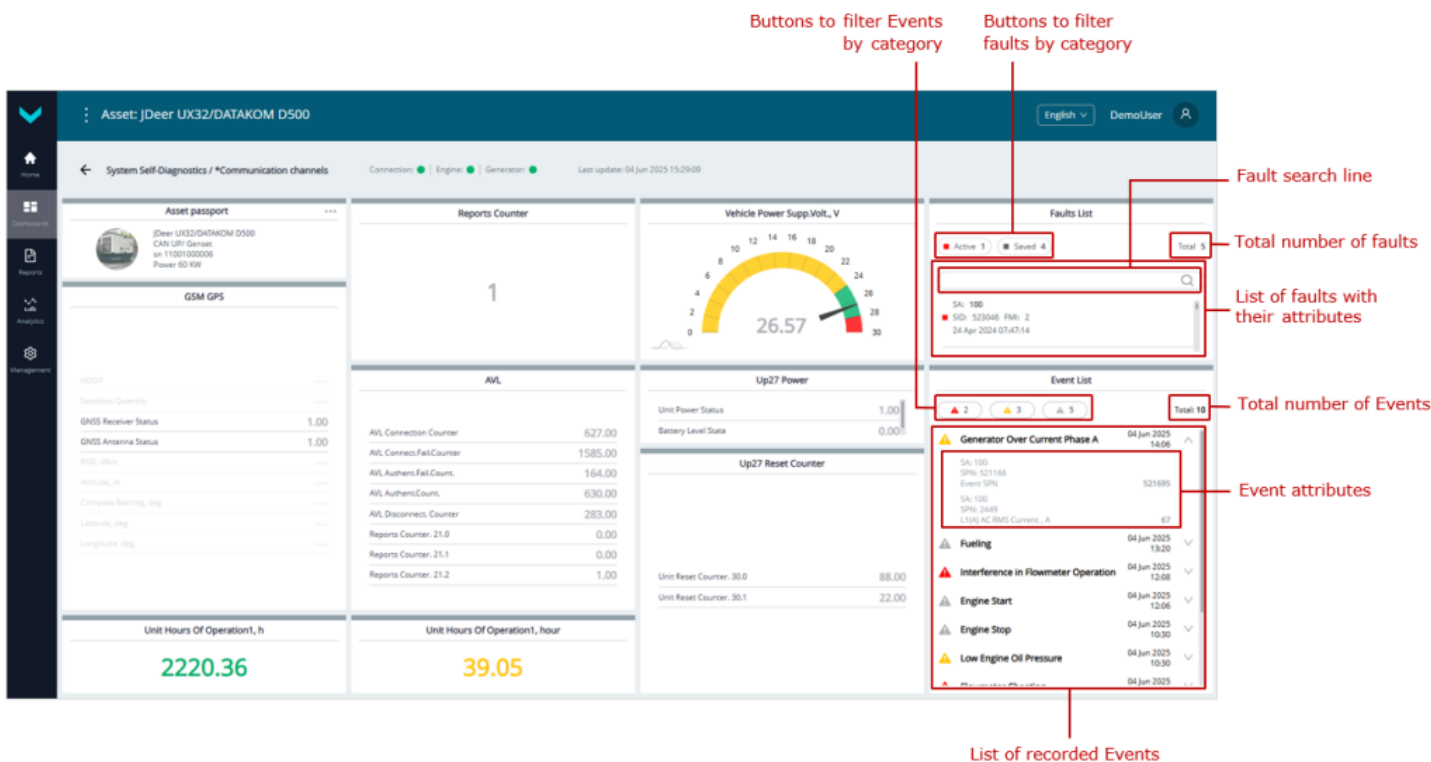
f) real-time display of information on the ***Telematics equipment state** Dashboard (**System Self-diagnostics Task**)



g) real-time display of information on the ***Engine Maintenance Dashboard (Genset Maintenance Task)**



h) real-time display of information on the ***GPS Tracking Dashboard (Location TrackingTask)**



i) real-time display of information on the ***Communication channels Dashboard (System Self-Diagnostics Task)**

Home

Dashboard

Reports

Analytics

Management

Group: Gen_3

English

DemoUser

Group: Alternator Monitoring / *Voltage / Current

Assets: 3

Online: 3

Offline: 0

Last update: 21 May 2025 10:01:40

Voltage Ph-Ph, V

ID	Assets			1000 Phase AB AC RMS Voltage V	1000 Phase BC AC RMS Voltage V	1000 Phase CA AC RMS Voltage V
10000065	MTU 5V / DATAKOM D500 01			382.4	377.6	377.6
10000121	GBOX FD24 / D500-20			243	235	240
10000160	JDeer UX32/DATAKOM D500			382.4	377.6	380.8

Voltage Ph-Ph, V

ID	Assets			1000 Phase AB AC RMS Voltage V	1000 Phase BC AC RMS Voltage V	1000 Phase CA AC RMS Voltage V
10000065	MTU 5V / DATAKOM D500 01			382.4	377.6	377.6
10000121	GBOX FD24 / D500-20			243	235	240
10000160	JDeer UX32/DATAKOM D500			382.4	377.6	380.8

Current, A

ID	Assets			1000 L1(A) AC RMS Current A	1000 L2(B) AC RMS Current A	1000 L3(C) AC RMS Current A
10000065	MTU 5V / DATAKOM D500 01			30	26	29
10000121	GBOX FD24 / D500-20			29	26	29
10000160	JDeer UX32/DATAKOM D500			27	28	30

Revs & Frequency

ID	Assets			1000 Alternator Speed rpm	1000 Average AC Frequency Hz
10000065	MTU 5V / DATAKOM D500 01			1542	50.34
10000121	GBOX FD24 / D500-20			1588	50.19
10000160	JDeer UX32/DATAKOM D500			1580	50.8

j) real-time display of information on the ***Voltage / Current Dashboard (Group. Alternator Monitoring Task)**

Group: Gen_3									
English DemoUser									
Group: Fuel Monitoring / *Fuel Level Assets: 3 Online: 3 Offline: 0 Last update: 21 May 2025 09:36:28									
Fuel Level for Unit									
ID	Assets			1000 On-board voltage V	1000 Engine Fuel Temp °C	1000 Fuel Tank Volume L	1000 Fuel Tank Level mm	1000 Fuel Level %	
10000065	MTU 5V / DATAKOM D500 01			24.05	27	87.7	65.4	44.47	
10000121	GBOX FD24 / D500-20			24	28	122.32	115.7	56.71	
10000160	JDeer UX32/DATAKOM D500			24.1	28	83.27	61.5	37.6	

k) real-time display of information on the ***Fuel Level Dashboard (Group. Fuel Monitoring Task)**

Group: Gen_3									
English DemoUser									
Group: Fuel Monitoring / *Fuel Group Consumption Assets: 3 Online: 3 Offline: 0 Last update: 21 May 2025 09:33:37									
Fuel Consumption of Unit									
ID	Assets			1000 On-board voltage V	1000 Engine Fuel Temp °C	1000 Engine fuel rate L/h	1000 High Res.Total Fuel Used L	1000 Flowmet.Hours Of Operat. s	
10000065	MTU 5V / DATAKOM D500 01			23.95	26	13.15	32804.29	0.71	
10000121	GBOX FD24 / D500-20			24.05	28	18.85	21615.38	0.48	
10000160	JDeer UX32/DATAKOM D500			24.15	27	17.5	21874.01	0.49	

l) real-time display of information on the ***Fuel Group Consumption Dashboard (Group. Fuel Monitoring Task)**

Figure 18 — Examples of [Operational monitoring](#) of genset performance using [Dashboards](#)

3.8 Post-analysis of Asset Performance

[Post-analysis](#) of [Asset](#) or [Group](#) performance for a specified period is carried out using:

- [Analytical reports](#) that display [Parameters](#), [Counters](#), [Events](#), malfunctions, maintenance, and trip information.
- [Multiple charts](#) (overlying up to three charts), displaying changes in selected [SPNs](#) from the raw (RAW) data accumulated on the [Server](#).

3.8.1 Generation of Analytical reports

[Analytical reports](#) in UNUM Genset are organized by [Tasks](#):

Tasks for Assets

- **Fuel Monitoring Basic** — analysis for a selected period of key information on fuel level in the tank, fuel consumption in the fuel line, and genset engine running time.
- **Fuel Monitoring Standard** — analysis for a selected period of detailed information on fuel level and volume in the tank, fuel temperature, as well as fuel consumption and genset engine running time (total and by operating modes, including “supply” and “return” lines for differential measurement).
- **Fuel Monitoring Genset Pool** — analysis for a selected period of key information on fuel level and volume in tanks, fuel consumption in lines, and engine running time for a genset pool (up to 4 units).
- **Fuel Consumption High-Power DG** — analysis for a selected period of detailed information on fuel level, fuel volume in the tank, fuel temperature, as well as fuel consumption and engine running time (total and by operating modes, including “supply” and “return” lines for differential measurement) for high-power gensets (>600 kW).
- **Engine Monitoring** — analysis for a selected period of key genset engine performance data based on information from the standard CAN bus (SAE j1939) of the electronic control unit (ECU).
- **Alternator Monitoring** — analysis for a selected period of detailed electrical Parameters of the genset alternator, based on data from the genset control panel (controller).
- **Remote Genset Control** — remote control of gensets (for configuration, start/stop, malfunction reset, etc.) via Modbus RTU register write commands to the DeepSea/DATACOM

controller.

- **System Self-Diagnostics** — analysis for a selected period of the performance and status of the genset [Onboard equipment](#).
- **Genset Maintenance** — reminders for scheduled maintenance of genset [Nodes](#), based on specified resource usage criteria.
- **Location Tracking** — detailed analysis of genset movements over a selected period.

Tasks for Groups

- **Group. Alternator Monitoring** — analysis for a selected period of detailed electrical [Parameters](#) of alternators in the genset Group, based on data from the relevant genset control panels (controllers).
- **Group. Engine Monitoring** — analysis for a selected period of key engine performance data for the Group of [Diesel generators](#), based on data from the corresponding standard CAN buses (SAE j1939) of the ECUs.
- **Group. Fuel Monitoring** — analysis for a selected period of key information on fuel levels in tanks, fuel consumption in lines, and engine running time for the Group of Diesel generators.
- **Group. Location Tracking** — detailed analysis of movements for the Group of mobile Diesel generators (Assets) over the selected period.
- **Group. System Self-Diagnostics** — analysis for a selected period of the Onboard equipment performance for the Group of Diesel generators.



IMPORTANT: Detailed information about the preset [Tasks](#) in UNUM Genset is provided in the document [UNUM Genset Telematics Service. Task Catalog](#).

To work with [Analytical reports](#), perform the following steps in the UNUM Genset **Main monitoring window** (see section [3.2](#)):

1) In the **Main menu**, open the  **Home** tab or  **Reports** tab ( menu) and select the required single Asset (from the **Assets** list) or [Group](#) (from the **Groups** list) from the [Fleet](#) resources list. The name of selected Asset/Group will be displayed on the **Information panel** (see figure 19).

Open the Asset list

[illegible]

a) selection in **Home** tab

Click the Fleet resource selection menu

1

2

Asset: CAT 3500E / DK D500-12 N

English DemoUser

Reports

Selected Asset name

Preset Task tabs

Alternator Monitoring38 / 50

Engine Monitoring22 / 25

Fuel Monitoring Basic22 / 25

Fuel Monitoring Genset Pool95 / 100

*Power

*Current and Voltage

*Power (duplicate)

*Engine summary

*Engine Indicators

*Engine summary (duplicate)

*Fuel rate

*Fuel Detailed

*Fuel rate (duplicate)

*Fuel Detailed

*Fuel Tanks

Fuel Monitoring High-Power DG32 / 50

Fuel Monitoring Standard40 / 50

Genset Maintenance21 / 25

Location Tracking18 / 25

*Fuel Detailed

*Fuel tank

*Fuel Detailed (duplicate)

*Fuel tank (duplicate)

*Fuel tank (50)

*Fuel Detailed (50)

*Tracking

Remote Genset Control13 / 25

System Self-Diagnostics50 / 50

Fuel Consumption High-Power Pool80 / 100

*Events

*DTC

*Telematics equipment Report

*Event Report

*DTC Report

Report templates

Report templates

Report templates

Select the required Report template

Activate

3

4

Assets

Groups

Open the Asset list

Select the required Asset

MTU SV / DATAKOM D500 01

PRK 1103A / DATAKOM D500

GBOX FD24 / D500-20

CAT 3500E / DK D500-12 N

Mitsubishi S4L2-SDH/DATAKOM D500

JDeer UX32/DATAKOM D500

Reno Engine parameters MAX

VW Caravella Immitator

Renault MAGNUM

DeepSea Std

VW 2456

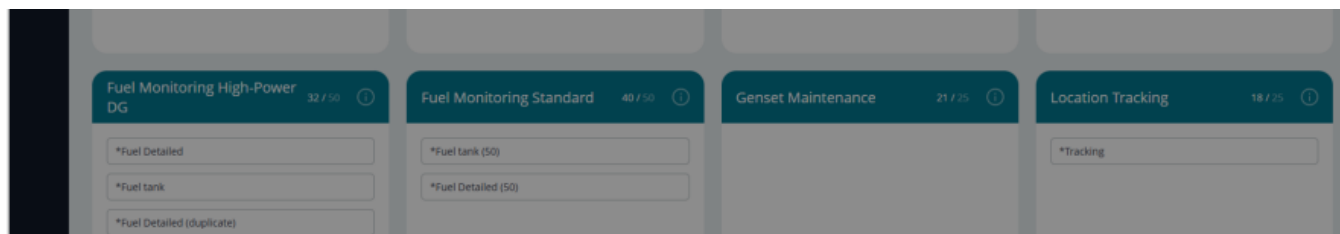
VW 4468

VW 5821

*Power (duplicate)

*Engine summary (duplicate)

*Fuel rate (duplicate)



b) selection in **Reports** tab

Figure 19 — Examples of selecting an Asset for performance analysis using Analytical reports

2) In **Reports** tab, [Report templates](#) are selected from required [Tasks](#). To generate an [Analytic report](#) based on a selected Template, specify the period of time for which the Report must be created (see section 3.2) and press **Create report** button (see figure 20).

If you need to save the generated Report in pdf file, press **Save report** button.

- In the title of each created [Analytical report](#), a standard data set is presented: Task, Report name, [Fleet](#) resource for which it was created and the specified reporting period, date and time of its generation and user name.
- In the data display area of created Analytical reports, whenever you place the cursor on any [Parameters](#) and [Counters](#) of the relevant [Keys](#), the following are displayed: the number, name, specifier (if available) for the respective [SPN](#) / [VSPN](#), and the unique source [Unit](#) network address.
- For Parameters/Counters presented as charts, when you hover the cursor over any chart, the corresponding values of all indicators, as well as the date and time for the selected point, are displayed.

Legends are shown above all charts, indicating the color of the lines for the respective indicators. By clicking the name of any indicator in the legend, you can enable or disable the display of the corresponding chart.

Below each chart, there is a time axis scaling/navigation bar, where you can conveniently highlight and zoom in on the required section of the chart and move along the selected section using two handles . You can also zoom in on the desired section of the chart by selecting it while holding down the left mouse button. To reset the applied scaling/zoom, click  icon on the right side of the chart.

If you need, you may enable axes count from zero for the ordinate axis of the chart in **Axes from 0** field.

Time intervals during which data on a specific Parameter/Counter were missing on the [Server](#) are marked in color on charts of [Analytical reports](#), while the charts themselves in those

intervals are drawn with a dashed line.

- In Analytical reports of [Events](#), by using field, you may search for the needed Event; by pressing    buttons, you may filter lists of urgent, important and information Events. The number of Events in the corresponding list is indicated on each of these buttons. The total number of all recorded Events is listed in **Total** field.

By clicking  icon in the line of the respective Event, you may open and view its attributes: Event SPN, source [Unit](#) network address, [SPN](#) of the [Parameter](#) for which the Event is recorded.

- In Analytical reports of [Onboard equipment](#) malfunctions you may view attributes for each malfunction: date and time of its occurrence, SID+FMI codes, network addresses of source Units.

Using field, you may search for the required malfunction by its code. By pressing   buttons, you may filter lists of active and saved malfunctions accordingly. The number of malfunctions in the corresponding list is indicated on each of these buttons. The total number of all recorded malfunctions is indicated in **Total** field.

- In the [Analytical reports](#) for Asset Node maintenance, each criterion displays: the date of the last (shown in black) or overdue (shown in red) [Node](#) maintenance, the maximum and current values of the relevant resource Counter, the current percentage of resource utilization, and the username of the person who last reset the resource [Counter](#).

Depending on resource utilization, the data may be displayed in black or red, indicating a normal status or one requiring immediate maintenance, respectively.

When you hover the cursor over any criterion, the following are shown: the network address of the relevant source Unit, the SPN number and Counter name, and the unit of measurement.

- In Analytical reports for trips of a mobile [Asset](#), a list of trips for the selected period is provided. For each trip, the following are indicated: date and time, distance traveled, number of stops, and track color. Summary information for all Asset trips during the reporting period is shown at the bottom of the list.

To view the track and analyze details for a specific trip, click its line in the list. The selected trip's track is highlighted in red on the [Map](#), showing the start point (green marker **Start**) and end point (red marker **Finish**). When you click these points, pop-up windows appear, showing the start/end date and time, distance traveled, and number of stops. If the trip was not completed

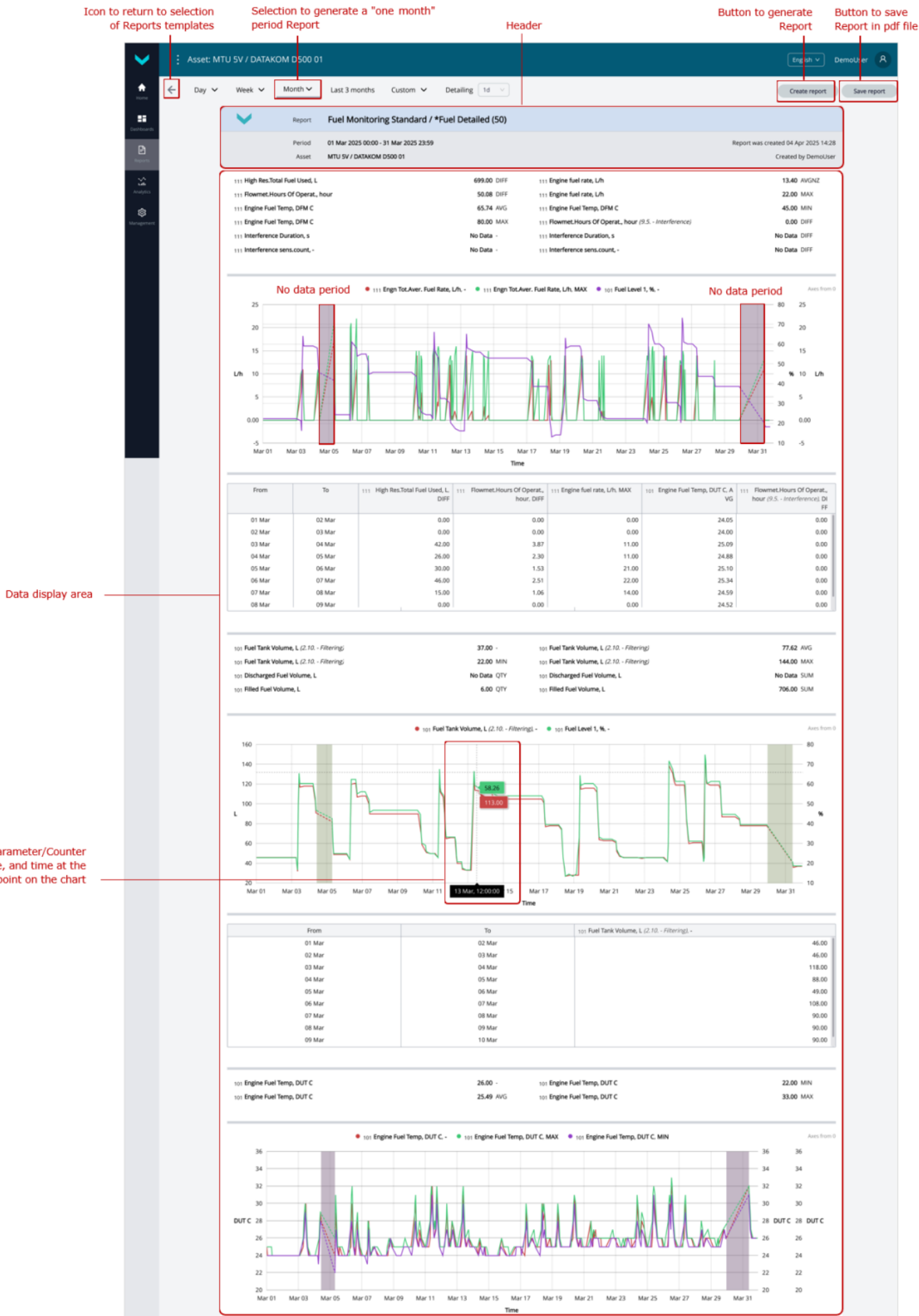
at the time the report was generated, the end point window will display the notification **Trip isn't completed**.

If necessary, you can click any point on the track to view brief information about the Asset's performance indicators at that specific point.

To display Asset stop markers on the track, check the **Show stops** box located above the Map. For accurate stop detection, it is recommended to enter a value of 30 seconds or more for the minimal stop duration in the **Minimal stop duration, sec** field.

If needed, clicking an Asset stop marker will open a pop-up window with brief information: duration of the stop, date and time, and location coordinates.

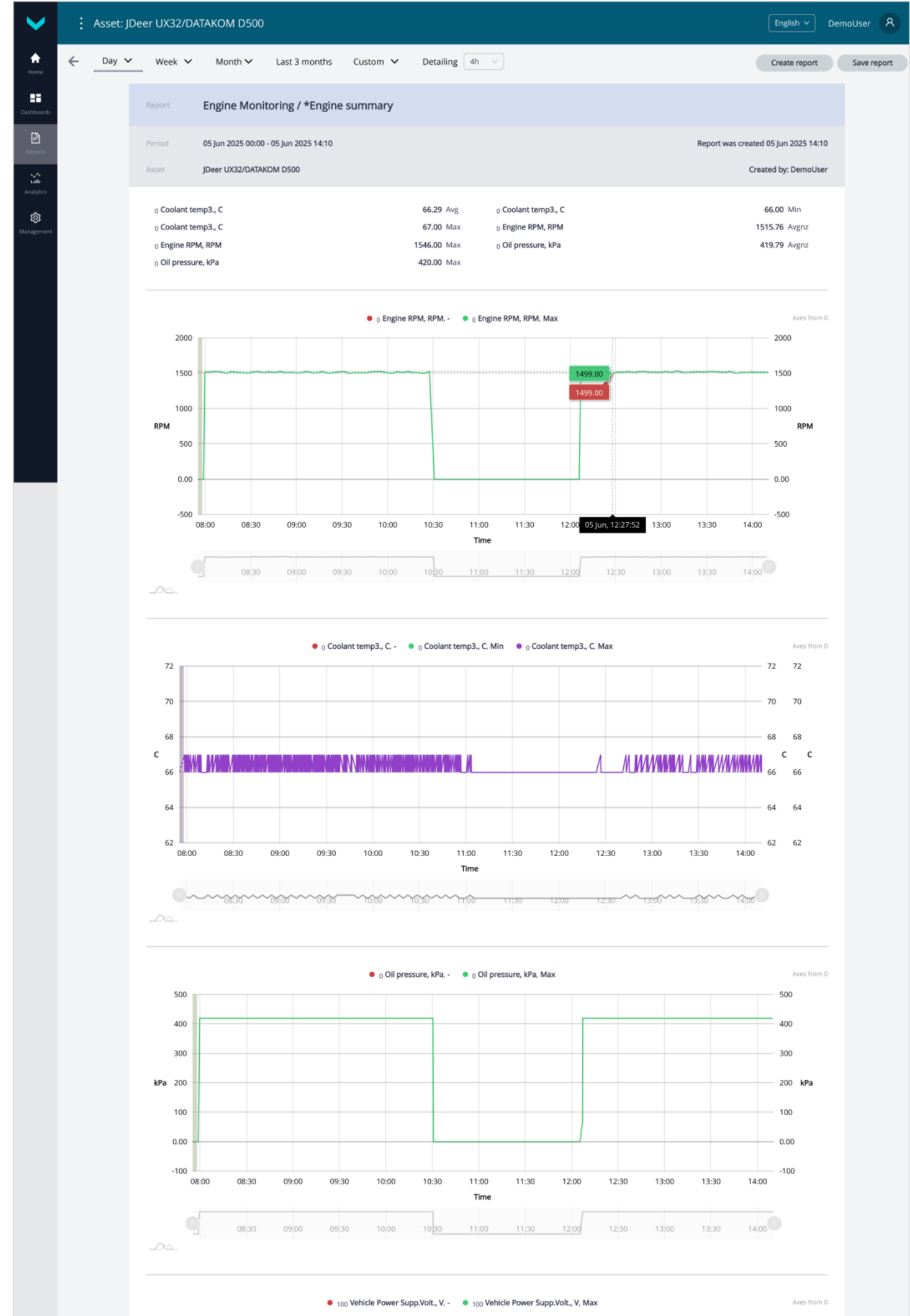
- In [Analytical reports](#) on the movement of a mobile Asset over a period longer than one week, the area of all trips is highlighted in blue on the Map, with red markers indicating stops ("heatmap" views of trip areas). The size of the markers is directly proportional to the number of stops the Asset made at each location. By clicking the desired marker, you can view a pop-up window listing the stop dates for the Asset at that location.



a) Analytical report ***Fuel Detailed (50)** (**Fuel Monitoring Basic Task**) for the "one month" period

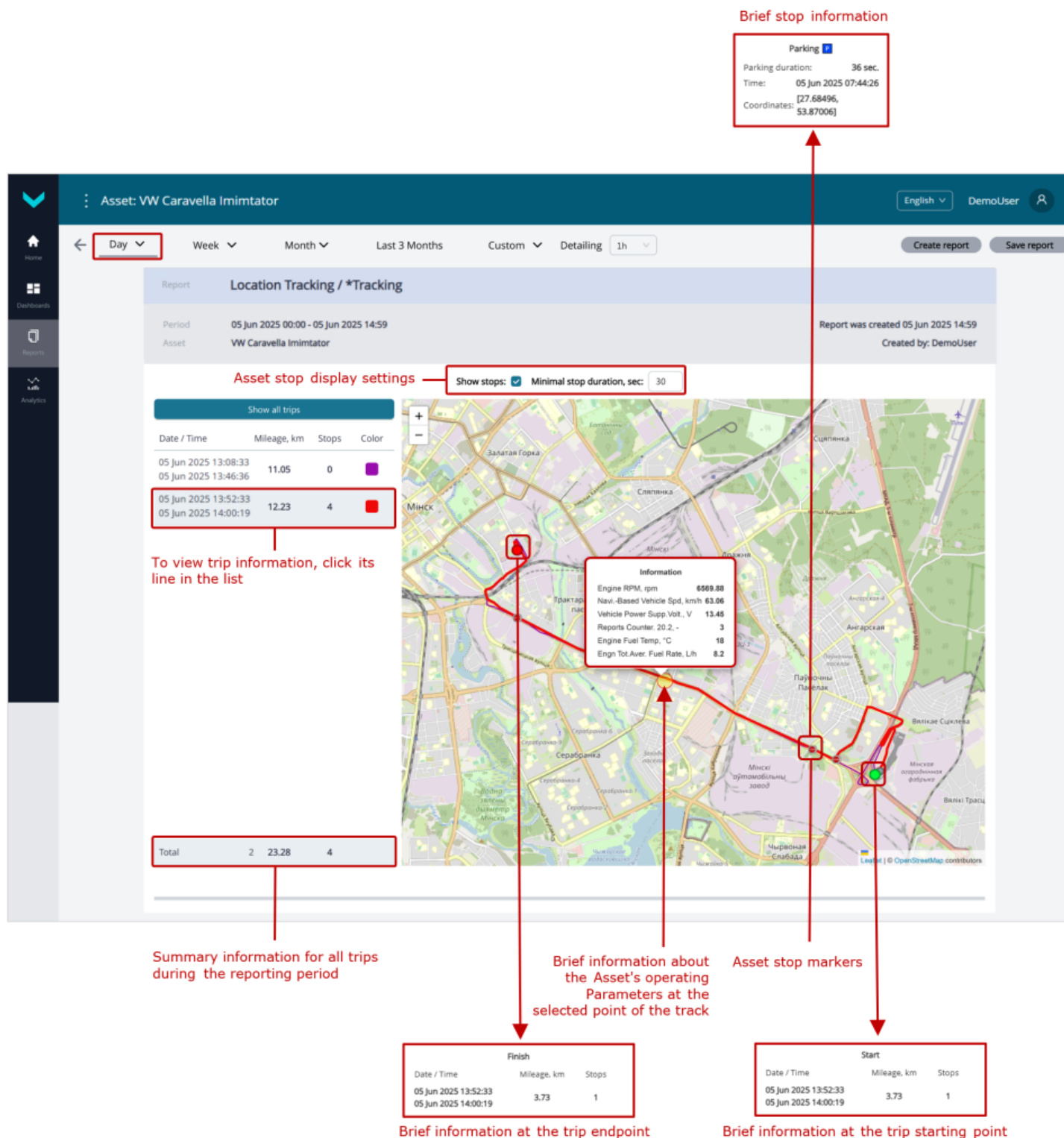


*b) Analytical report ***Current and Voltage (Alternator Monitoring Task)** for the “one day” period*

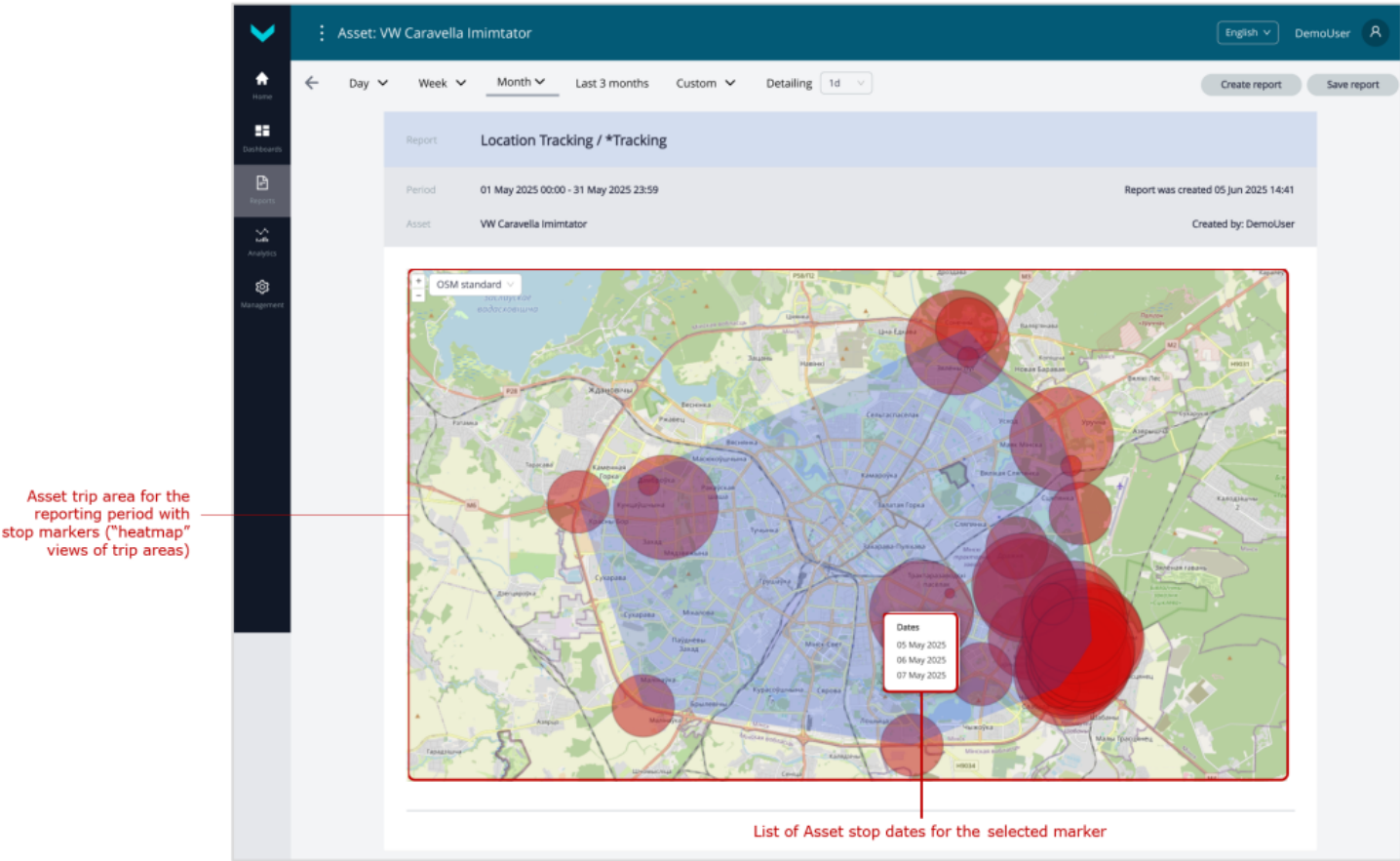




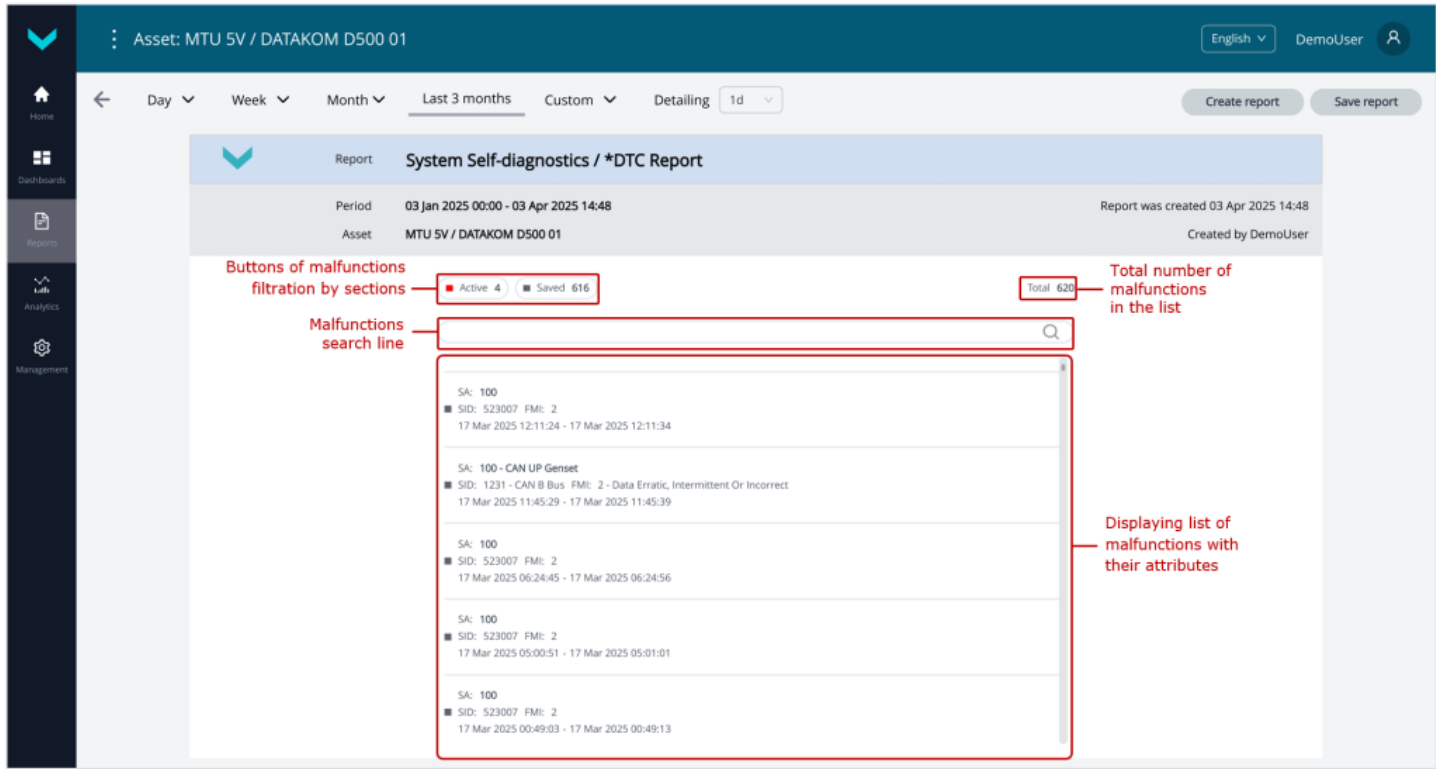
c) Analytical report ***Engine summary (Engine Monitoring Task)** for the “one day” period



d) Analytical report ***Tracking (Location Tracking Task)** for the "one day" period



e) Analytical report ***Tracking (Location Tracking Task)** for the "one month" period



f) Analytical report ***DTC Report (System Self-diagnostics Task)** for the "three months" period

Asset: CAT 3500E / DK D500-12 N

English DemoUser

Day Week Month Last 3 months Custom Detailing 1h

Create report Save report

Report Remote Genset Control / *Events

Period 03 Apr 2025 00:00 - 03 Apr 2025 11:23 Report was created 03 Apr 2025 11:23

Asset CAT 3500E / DK D500-12 N Created by DemoUser

Button of Events filtration by sections

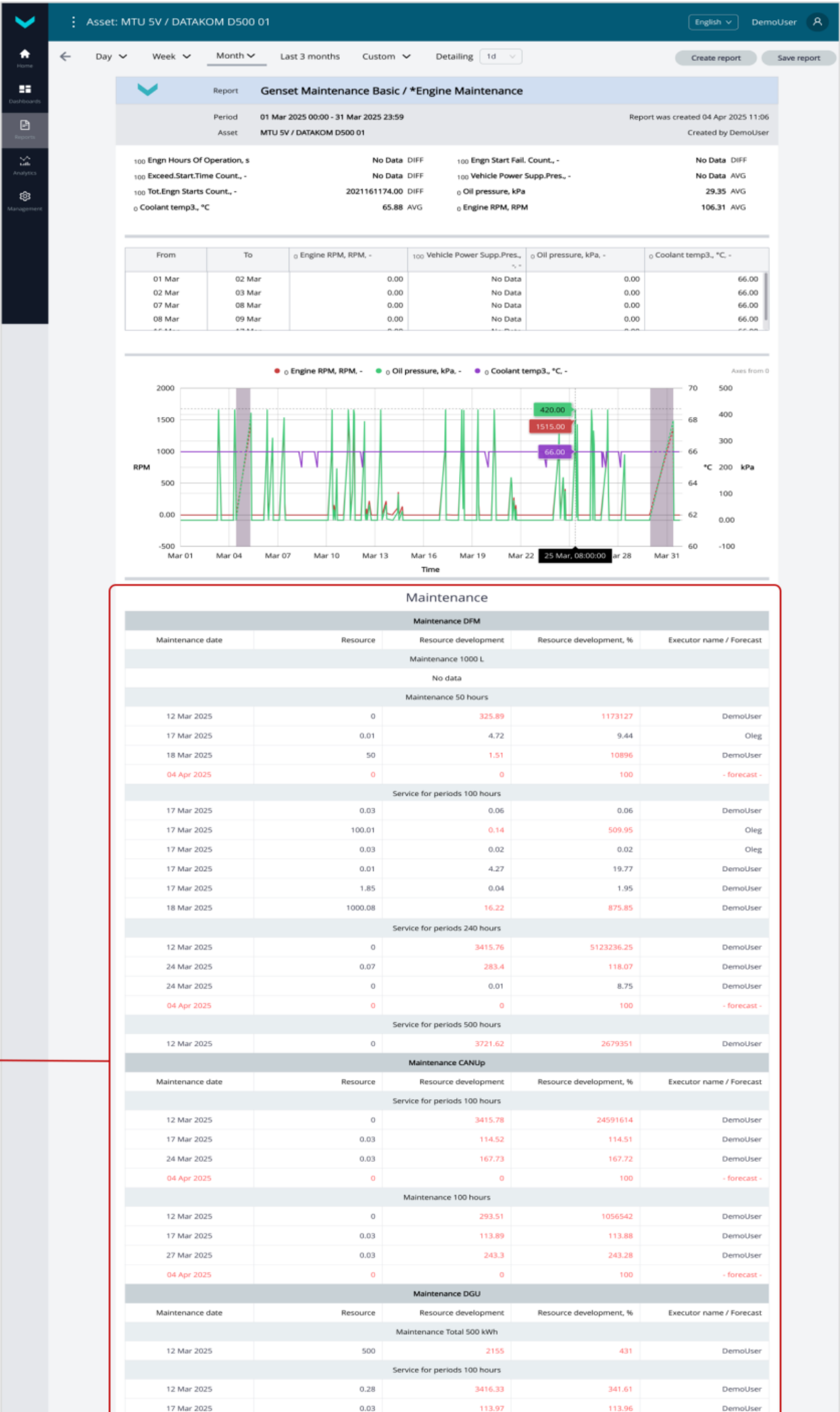
Events search line

List of recorded Events

Total 9 Total number of recorded Events

Event	Event attributes
Engine Start	03 Apr 2025 03:23
Parameters	
SA: 100	
SPN: 521749	
Engine Status	0
SA: 0	
SPN: 100	
Oil pressure, kPa	55
SA: 0	
SPN: 190	
Engine RPM, rpm	12216
SA: 100	
SPN: 521056	
Vehicle Power Supp. Stat.	4
SA: 0	
SPN: 110	
Coolant temp3, °C	106
SA: 100	
SPN: 521166	
Event SPN	521234
Engine Stop	03 Apr 2025 03:01
Low Engine Oil Pressure	03 Apr 2025 02:58
Engine Start	03 Apr 2025 02:58
Engine Stop	03 Apr 2025 02:53
Low Engine Oil Pressure	03 Apr 2025 02:53
Engine Start	03 Apr 2025 02:52
Engine Stop	03 Apr 2025 02:52
Fueling	03 Apr 2025 00:32

g) Analytical report ***Events (Remote Genset Control Task)** for the "one day" period



04 Apr 2025	0.28	0.28	100	- forecast -
Service for periods 1000 hours				
12 Mar 2025	0.28	3416.46	341.62	DemoUser
12 Mar 2025	0.28	3416.55	341.63	DemoUser
12 Mar 2025	1000.08	0.01	4	DemoUser
04 Apr 2025	0.28	0.28	100	- forecast -

h) Analytical report ***Engine Maintenance (Genset Maintenance Task)** for the “one month” period

Group: Gen_3

English DemoUser

Day Week Month Last 3 months Custom Detailing 1h

Create report Save report

Report Group. Alternator Monitoring / *Alternator Report

Period 21 May 2025 00:00 - 21 May 2025 10:10 Report was created 21 May 2025 10:10

Group Gen_3 Assets to Group: 3 Created by: DemoUser

Group Statistics

Average AC Frequency, Hz Last 50.41 0

Average AC RMS Current, A Last 0 0

Total Real Power, Watt Last 14.4 Sum

Total Reactive Power, VAR Last -12 Sum

Total Apparent Power, VA Last 13 Last

Overall Power Factor, - Last 0.3 Avg

Group Details

Asset Name	Average AC Frequency Hz, Last	Average AC RMS Current A, Last	Total Real Power Watt, Last	Total Reactive Power VAR, Last	Total Apparent Power VA, Last	Overall Power Factor -, Last
MTU 5V / DATAKOM D500 01	50.38	0	4.8	-4	12	0.1
GBOX FD24 / D500-20	50.91	0	4.8	-4	13	0.65
JDeer UX32/DATAKOM D500	50.41	0	4.8	-4	13	0.16
- Last	50.41 50.41	0 Last	4.8 Last	-4 Last	13 Last	0.16

i) Analytical report ***Alternator Report (Group. Alternator Monitoring Task)** for the “one day” period

Group: Gen_3

English DemoUser

Day Week Month Last 3 months Custom Detailing 1h

Create report Save report

Report Group. Engine Monitoring / *Engine Parameters

Period 21 May 2025 00:00 - 21 May 2025 12:48 Report was created 21 May 2025 12:48

Group Gen_3 Assets to Group: 3 Created by: DemoUser

Group Statistics

Engine RPM, rpm Last 1514 Last

Engine hours, hr 0 6148 Last

Engine Operating State, - Last 0 Last

Coolant temp3, °C 0 66 Last

Engn Oil Tmp, °C Last 104 Last

Engine Oil Level, % Last 96 Last

Event Statistics

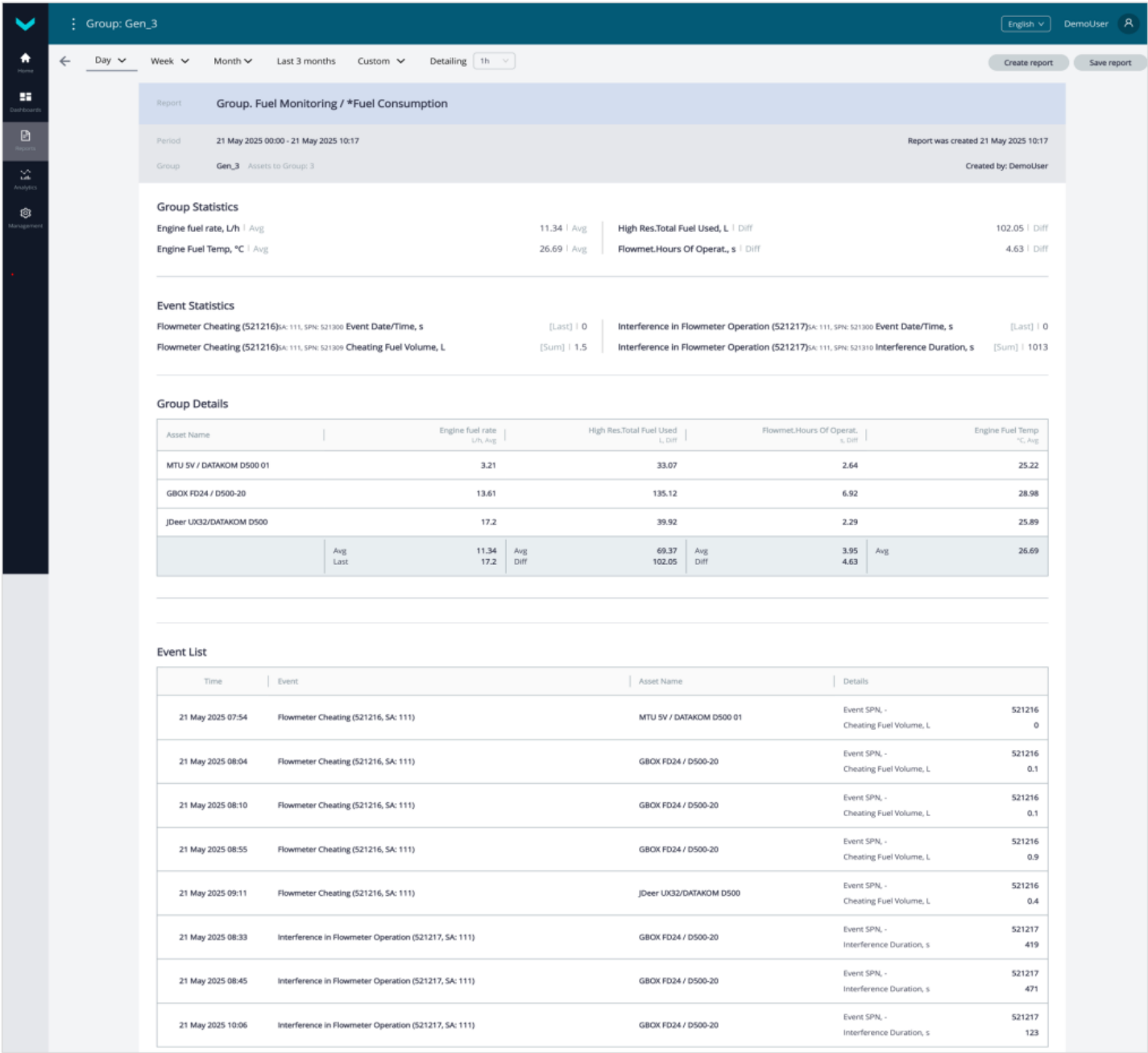
Engine Overspeed (521213)JA: 1000, SPM: 521300 Event Date/Time, s [Last] 0

All Emergency Events (521788)JA: 1000, SPM: 521300 Event Date/Time, s [Last] 0

Group Details

Asset Name	Engine RPM rpm, Last	Engine hours hr, Last	Coolant temp3, °C, Last	Engine Coolant Lvl %, Last	Engine Oil Level %, Last	Engn Oil Tmp °C, Last
MTU 5V / DATAKOM D500 01	1510	1482	64	59	84	92
GBOX FD24 / D500-20	1500	972	60	71	90	101
JDeer UX32/DATAKOM D500	1514	6148	66	80	96	104
Last	1514 Last	6148 Last	66 Last	80 Last	96 Last	104

j) Analytical report ***Engine Parameters (Group. Engine Monitoring Task)** for the “one day” period



k) Analytical report ***Fuel Consumption (Group. Fuel Monitoring Task)** for the “one day” period

Figure 20 — Examples of generated [Analytical reports](#) for [Post-analysis](#) of genset performance

3.8.2 Generation of Multiple charts #

To work with [Multiple charts](#), perform the following steps in the UNUM Genset **Main monitoring window** (see section [3.2](#)):

- 1) In the **Main menu**, open the **Home** tab or **Analytics** tab (menu) and select the required single [Asset](#) (from the **Assets** list) or [Group](#) (from the **Groups** list) from the [Fleet](#)

resources list. The name of selected Asset/Group will be displayed on the **Information panel** (see figure 21).

Open the Asset list

1

2

Assets Groups

Search...

All: 13 | Online: 11 | Offline: 2

Name	Connection	Engine	Generator
MTU 5V / DATAKOM D500 01	●	●	●
PRK 1103A / DATAKOM D500	●	●	●
GBOX FD24 / D500-20	●	●	●
CAT 3500E / DK D500-12 N	●	●	●
Mitsubishi S4L2-SDH/DATAKOM D5...	●	●	●
JDeer UX32/DATAKOM D500	●	●	●
Reno Engine parameters MAX	●	●	●
VW Caravella Immitator	●	●	●
Renault MAGNUM	●	●	●
DeepSea Std	●	●	●

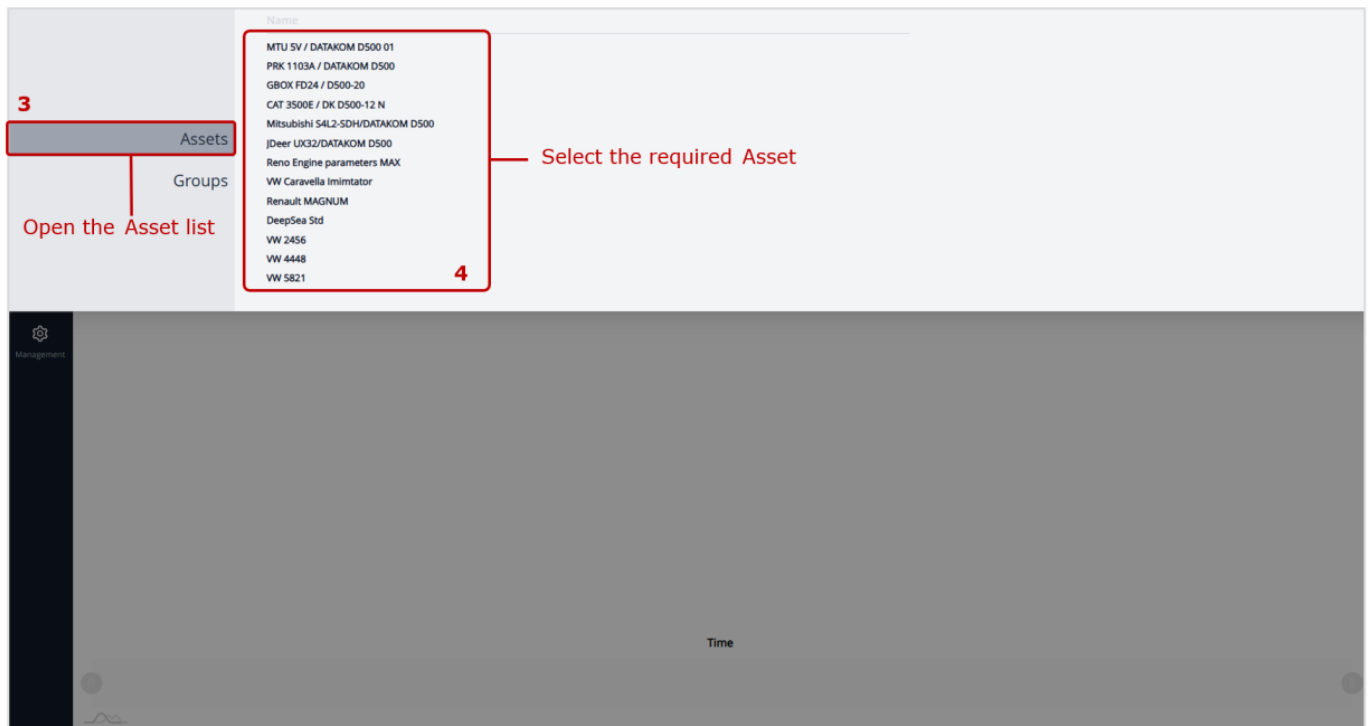
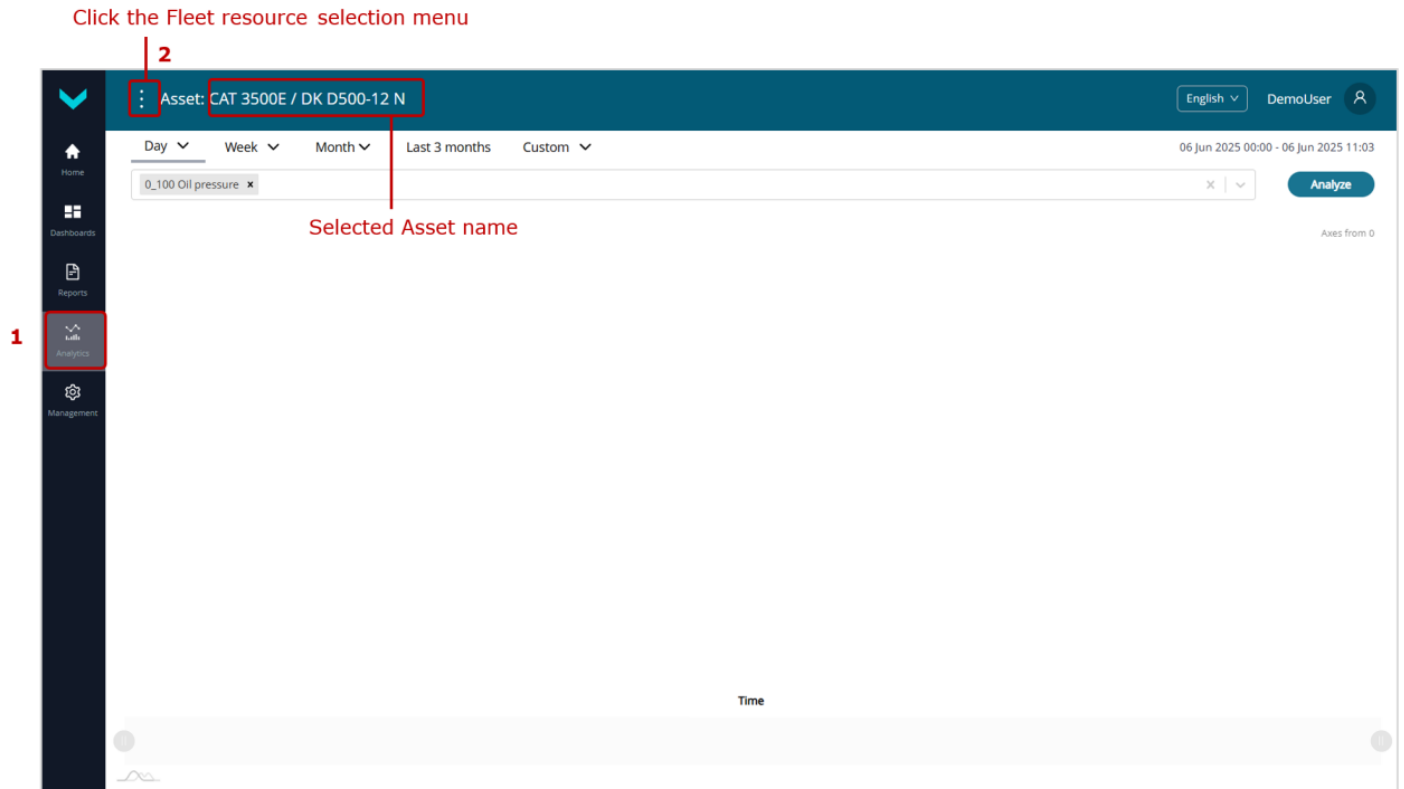
3

Select the required Asset

OSM standard

The screenshot shows the 'Home' tab of a software interface. The sidebar on the left has a 'Home' icon highlighted with a red box and the number '1'. The main panel has two tabs: 'Assets' (highlighted with a red box and the number '2') and 'Groups'. Below the 'Assets' tab is a search bar and a table of assets. The table has columns for 'Name', 'Connection', 'Engine', and 'Generator'. The 'DeepSea Std' asset is highlighted with a red box and the number '3'. A red arrow points from the text 'Select the required Asset' to the 'DeepSea Std' asset. On the right side of the main panel is a map showing a geographical area with various locations and roads.

a) selection in **Home** tab



b) selection in **Analytics** tab

Figure 21 — Examples of selecting an Asset for generating Multiple charts

2) In the  **Analytics** tab, select the required [SPN](#) (up to 3) from the drop-down list of data accumulated on the [Server](#) from the relevant [Asset](#) or [Group](#).

For convenience, you can search for [Parameters](#) in the drop-down list by their name, SPN number from the [S6 Database](#), or the unique network address of the source [Unit](#).

Specify the time period (see section [3.2](#)) for which you want to analyze the changes in the selected data, and click  button to generate the Multiple chart (see figure 22).

- The header of the generated Multiple chart always displays the selected time period and a legend indicating the color of each line, units of measurement, and network addresses of the source Units for the respective SPNs.
- When you hover the cursor over any chart in the Multiple chart, the corresponding values of all SPNs, along with the date and time for the selected point, are displayed.
- Legends are shown above the [Multiple charts](#), indicating the color of the lines for the respective indicators. By clicking the name of any indicator in the legend, you can enable or disable the display of the corresponding chart.
- Below the Multiple chart, there is a time axis scaling/navigation bar, where you can conveniently highlight and zoom in on the desired section of the Multiple chart and move along the selected segment using two handles . You can also zoom in on the desired section of the Multiple chart by selecting it while holding down the left mouse button. To reset the applied scaling/zoom, click  icon on the right side of the Multiple chart.
- If necessary, you can toggle the Y-axis starting from zero for the Multiple chart by clicking the **Axes from 0** label.
- Time intervals during which there were no data on the selected Parameters/[Counters](#) for the Multiple chart on the Server are highlighted, and the chart is displayed with dashed lines for these intervals.

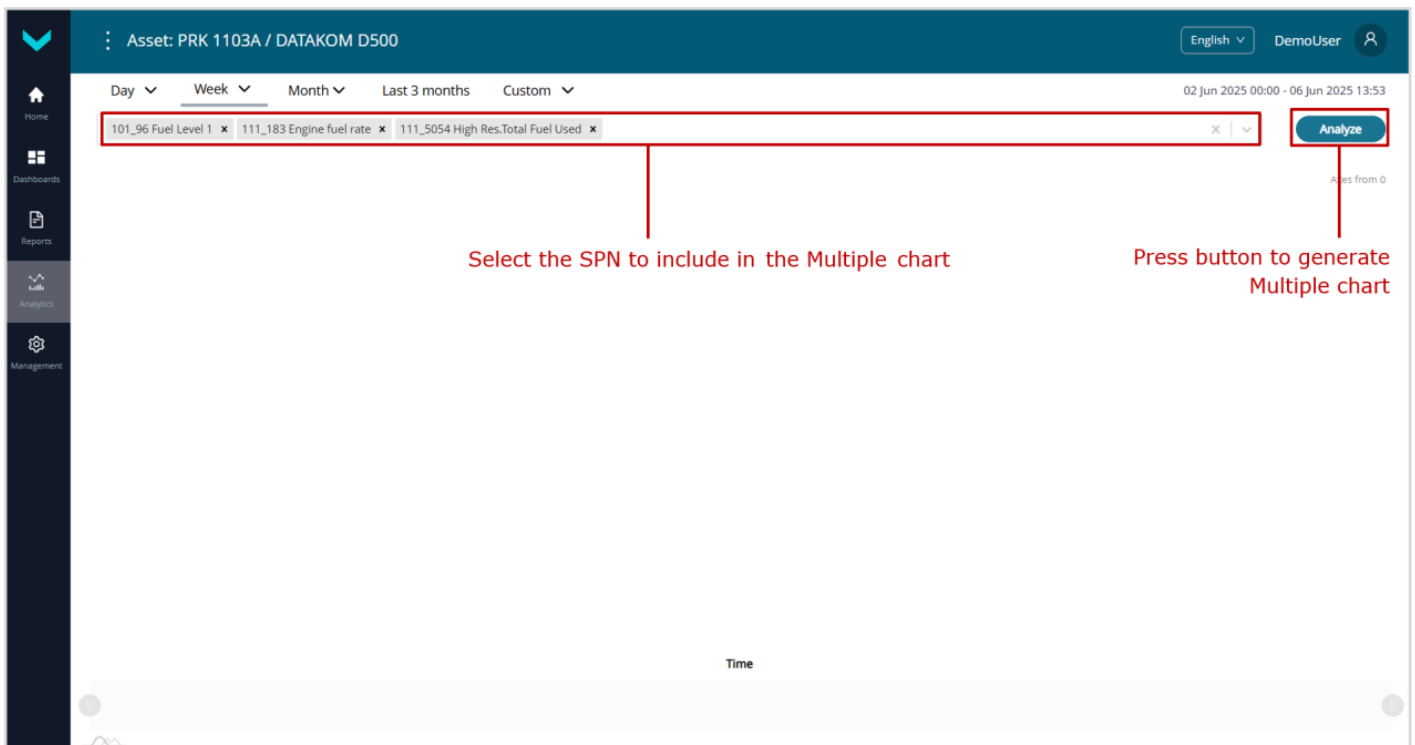
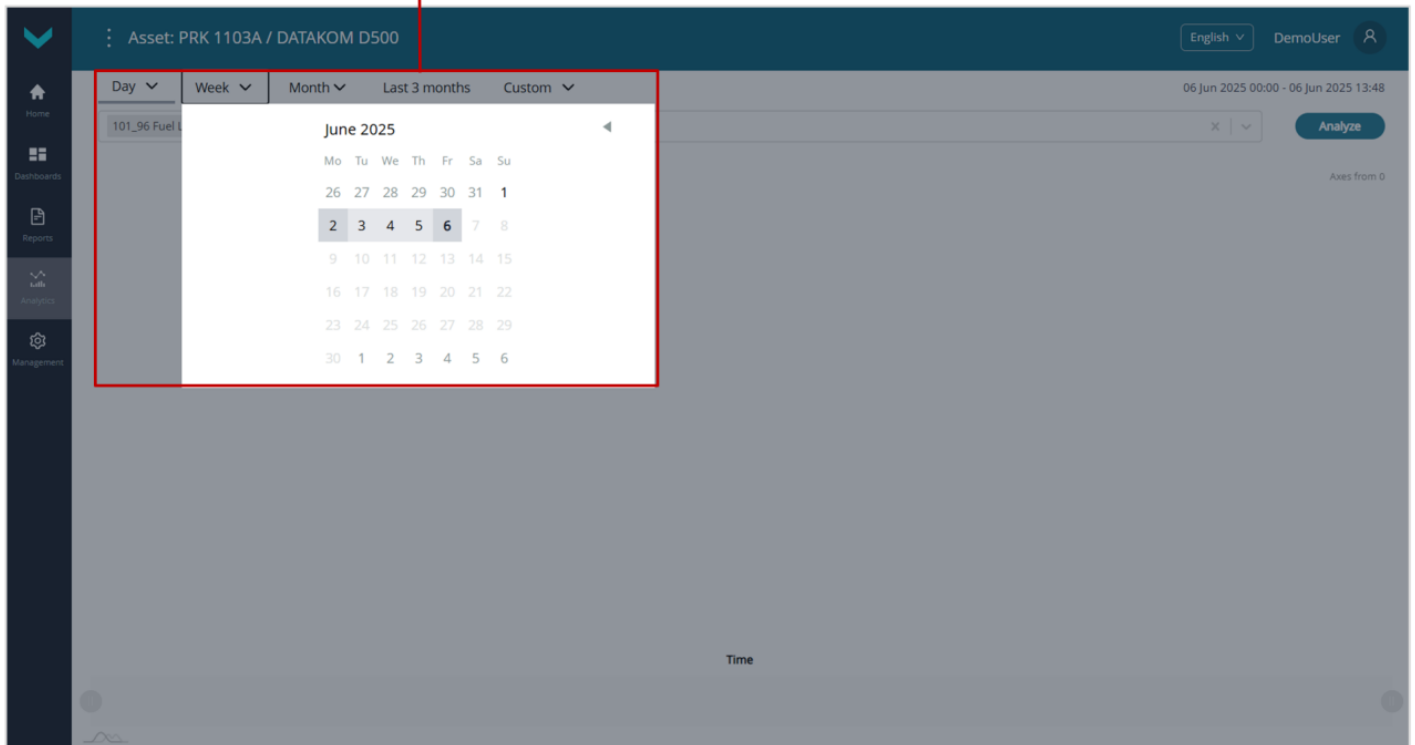
Search line for the required SPN by name, number, or source Unit network address

The screenshot shows a web-based interface for vehicle diagnostics. At the top, a dark blue header bar contains the text "Asset: PRK 1103A / DATAKOM D500" on the left, a language dropdown set to "English" and a user profile labeled "DemoUser" on the right. Below the header, a navigation sidebar on the left lists "Home", "Dashboards", "Reports", "Analysis", and "Management". The main content area features a time range selector at the top with options: "Day", "Week", "Month", "Last 3 months", and "Custom". To the right of this is a date range "06 Jun 2025 00:00 - 06 Jun 2025 13:48". A search bar is highlighted with a red box, containing three selected SPNs: "101_96 Fuel Level 1", "111_183 Engine fuel rate", and "111_5054 High Res.Total Fuel Used". Below the search bar, a dropdown list is also highlighted with a red box, showing a list of SPNs: "100_521749 Engine Status", "101_158 On-board voltage", "111_158 On-board voltage", "134_190 Engine RPM", "134_521752 Num Estops", "0_100 Oil pressure", and "0_110 Coolant temp3.". A red arrow points from the search bar to the dropdown list. To the right of the dropdown list is a blue "Analyze" button and the text "Axes from 0". At the bottom of the main area, the word "Time" is centered above a light gray bar.

Select the required SPNs (up to 3) from the drop-down list

a) choosing SPN

Select requested period
of time for Multiple chart generation



b) selection of time period and starting the Multiple chart generation



c) generated Multiple chart



d) applying time axis scaling

Figure 22 — Examples of generating Multiple charts for analyzing changes in three Parameters over the periods "one week" and "one month"

Annex A Recommended Unit network addresses

Table A.1 — Permitted network addresses for [Units](#) operating as part of a unified network when installed on a genset

Units S6		Maximum quantity per single Asset	Permitted network addresses (SA)
Type	Model		
Telematics gateway	CANUp 27	1	100
CAN j1939/S6 Display	MasterCAN Display 35	2	109, 110
Fuel flow meters	DFM CAN /DFM D CAN	16	0...240 (recommended ranges 111...118, 151...158)
	DFM Marine CAN		
Flow meters	DFM Industrial CAN	8	111...118
Fuel level sensors	DUT-E CAN	16	91...98, 101...108
	DUT-E GSM		
	DUT-E 2Bio CAN		
Data converters	MasterCAN CC	2	122, 142
	MasterCAN C232/485	2	124, 144
	MasterCAN V-Gate	2	125, 145
	MasterCAN CAN2RS	1	135
	MasterCAN RS2CAN	1	134
	MasterCAN P2CAN	1	140
Contactless reader- converter	FMSCrocodile CCAN	1	122
j1939 i/o modules	MasterCAN DAC15	2	126, 146
	MasterCAN DAC2113		127, 147
Position sensor	GNOM DP CAN	1	218, 82...85
Wireless interface	Marker S7 Radiobox CAN	1	131

Signal converter	GNOM S7 Radiobox CAN	1	148
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