

*Petroleum Products
Real Time Monitoring*

**ROAD FUEL
TANKERS
Real Time
Monitoring**





About Road Fuel Tanker Monitoring

About Road Fuel Tanker Monitoring

- All Time Has The Real Information About Fuel Level In Cargo Tanks;
- Monitor Fuel Loading and Fuel Unloading;
- Fix Time Of Fuel Loading and Fuel Unloading;
- Possibility Monitor Fuel Quality in Cargo Compartments;
- Monitor Tanker Trip and Parameters of Tanker Movement.

* – road fuel tanker monitoring system is based on satellite system of geographical coordinates definition (GPS System) and GSM/GPRS data communication.

All Types Of Road Fuel Tanker Monitoring



Mini Fuel Tank Truck



Tractor + Fuel Tank Semitrailer



Fuel Tank Truck



Fuel Tank Truck + Fuel Tank Semitrailer



Long Fuel Tank Truck



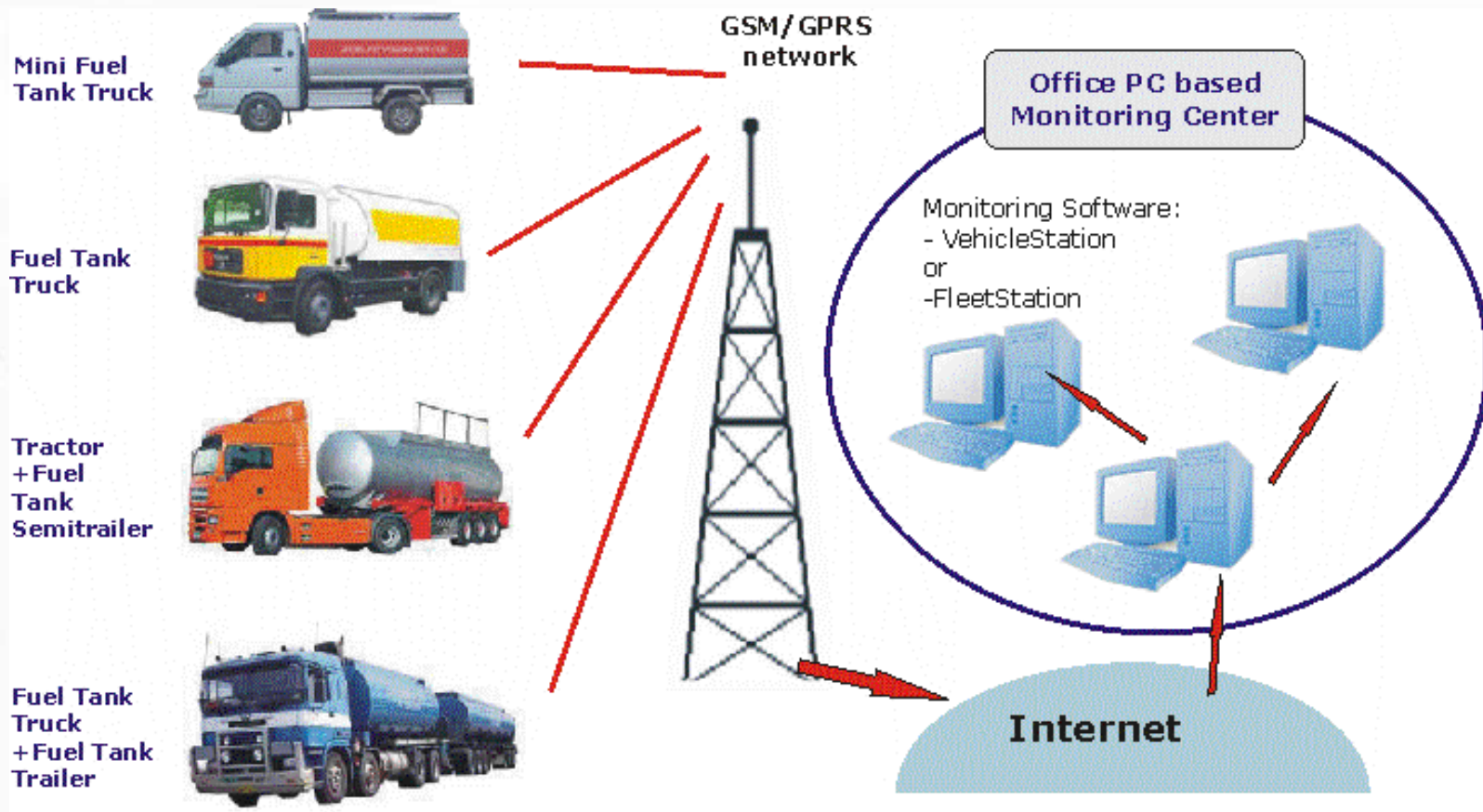
Special Diesel Fuel Tanker

Cargo Tanks and Cargo Compartments Monitoring

Road Fuel Tanker Monitoring Allows:

- All Time Has The Real Information About Fuel Level In Cargo Tanks;
- Multi Tanks Monitoring;
- Monitor Fuel Loading and Fuel Unloading;
- Localize Points Of Fuel Loading and Fuel Unloading;
- Fix Time Of Fuel Loading and Fuel Unloading;
- Has Fuel History For Each Fuel Compartment;
- Prevent Fuel Drain, Fuel Fraud And Fuel Manipulation;
- Detect Fuel Leaking;
- Monitor Fuel Quality (if density/viscosity sensor and/or water activity sensor connected);
- Monitor Tanker Trip and Parameters Of Tanker Movement.

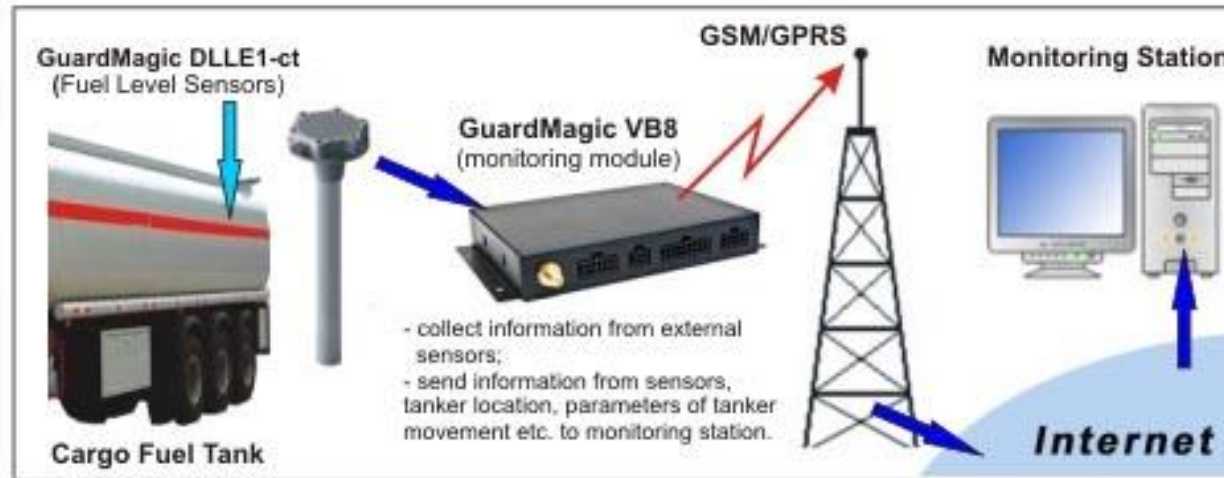
Tanker Monitoring Structure In General



Tanker monitoring can be done by:

- office PC by "VehicleStation" or "FleetStation" monitoring software;
- PowerTrace WEB based monitoring service.

About Cargo Compartments Monitoring



In general “Tanker Fuel Monitoring System” consist of next main components:

- Fuel level sensor GuardMagic DLLE1ct series: make measurement the fuel level and send this information to main module;
- Main module GuardMagic VB8: collect data from fuel level sensors and other sensors, information about tanker location and tanker movement and send this information by GSM/GPRS to monitoring station;
- Monitoring Station collect all information from fuel tankers, store received information in data base, analyzes information and generate reports and diagrams.

GuardMagic fuel monitoring and analyzing system in a full automatically mode, "day & night" collects and stores detailed information about fuel tank contents.

In additional in cargo fuel tanks can be installing fuel quality sensors (density/viscosity sensors etc.).

In Tanker Structure In General



In Tanker Main Components

GuardMagic VB8 (main module)

collect data from fuel level sensors, information about tanker movements, tanker location and send this information to monitoring station. Module support up to 11 fuel sensors in cargo compartments and up to 3 fuel sensors in truck regular fuel tanks.

GuardMagic DLLE1ct (fuel level sensors for explosive area)

for measurement fuel level in cargo fuel compartments GuardMagic DLLE1ct sensor can be starting of 1300mm length and up to 2500mm length.

GuardMagic JBB01 (Two channel "Safety Barrier")

Necessary to use. Barrier support up to TWO fuel level sensors GuardMagic DLLE1ct

GuardMagic DLLS1a (fuel level sensors)

Only if need to monitor tractor regular fuel tank. As usual sensor length is 500 ... 700mm.

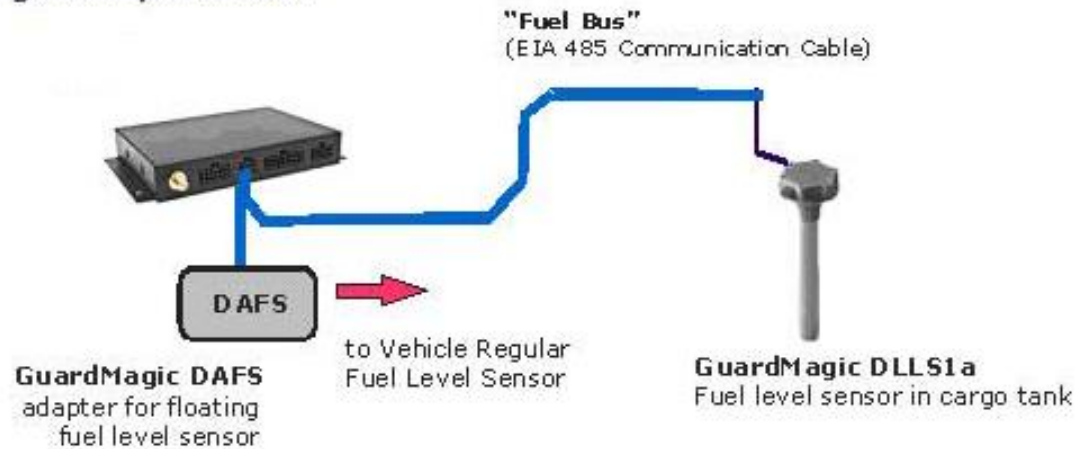


In Tankers (Popular Types) Structure, In General

Mini Fuel Tank Truck Structure



One Cargo Compartment:



Mini Fuel Tank Truck Main Components

GuardMagic VB7

(also available VB6 module)

collect data from fuel level sensors, information about tanker movements, tanker location and send this information to monitoring station

GuardMagic DLLS1a fuel level sensors

for measurement fuel level in cargo fuel compartments in cargo tank

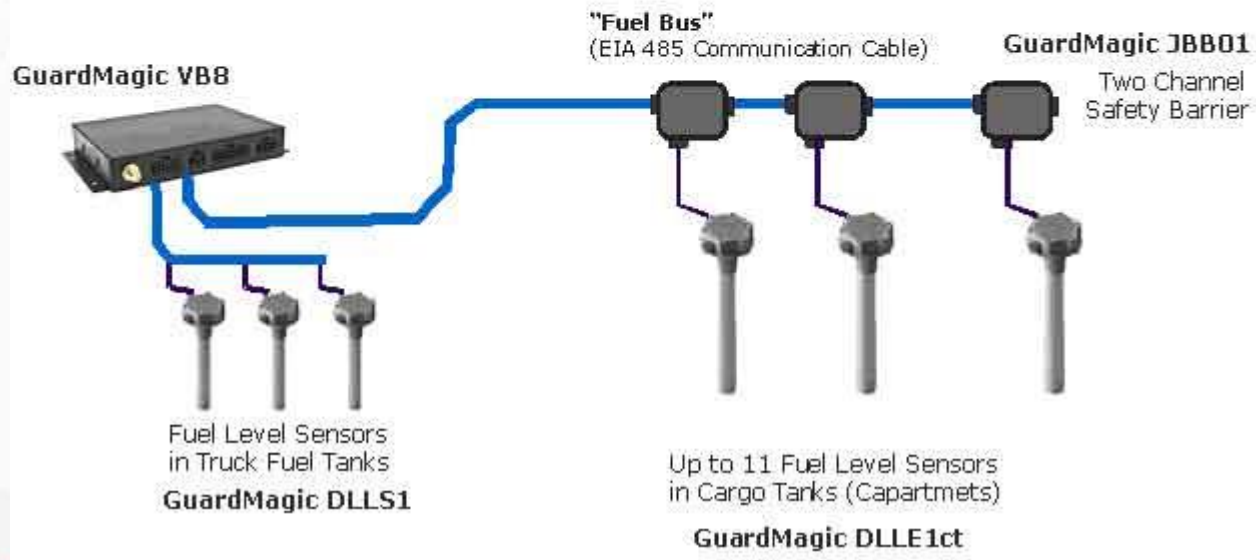
cable GM4.020 series

This cable is intended for easy connection fuel level sensor GuardMagic DLLS1 to main module.

GuardMagic DAFS

Only if will be need to monitor truck regular fuel tank. Adapter is intended for connection vehicle regular floating fuel level sensor to main module

Fuel Tank Truck



Fuel Tank Truck Main Components

GuardMagic VB8
(main module)

collect data from fuel level sensors, information about tanker movements, tanker location and send this information to monitoring station. Module support up to 11 fuel sensors in cargo compartments and up to 3 fuel sensors in truck regular fuel tanks.

GuardMagic DLLE1ct
(fuel level sensors for explosive area)

for measurement fuel level in cargo fuel compartments
GuardMagic DLLE1ct sensor can be starting of 1300mm length and up to 2500mm length.

GuardMagic JBB01
(Two channel "Safety Barrier")

Necessary to use. Barrier support up to TWO fuel level sensors
GuardMagic DLLE1ct

Communication cable

For electrical connection Main module with Safety Barrier
(Olflex Robust 210: water, oil, fuel, UF resistance cable)

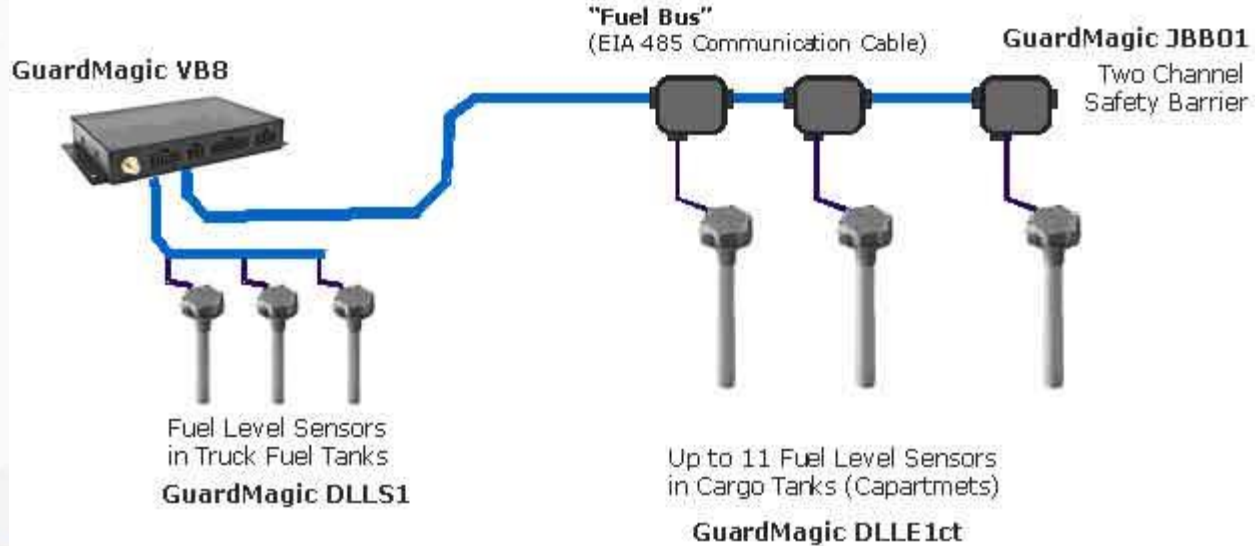
GuardMagic DLLS1a
(fuel level sensors)

Only if need to monitor tractor regular fuel tank.
As usual sensor length is 500 ... 700mm.

cable GM4.020 series

This cable is intended for easy connection fuel level sensor
GuardMagic DLLS1 located in regular fuel tanks to main module.

Long Fuel Tank Truck



Long Fuel Tank Truck Main Components

GuardMagic VB8
(main module)

collect data from fuel level sensors, information about tanker movements, tanker location and send this information to monitoring station. Module support up to 11 fuel sensors in cargo compartments and up to 3 fuel sensors in truck regular fuel tanks.

GuardMagic DLLE1ct
(fuel level sensors for explosive area)

for measurement fuel level in cargo fuel compartments
GuardMagic DLLE1ct sensor can be starting of 1300mm length and up to 2500mm length.

GuardMagic JBB01
(Two channel "Safety Barrier")

Necessary to use. Barrier support up to TWO fuel level sensors
GuardMagic DLLE1ct

Communication cable

For electrical connection Main module with Safety Barrier
(Olflex Robust 210: water, oil, fuel, UF resistance cable)

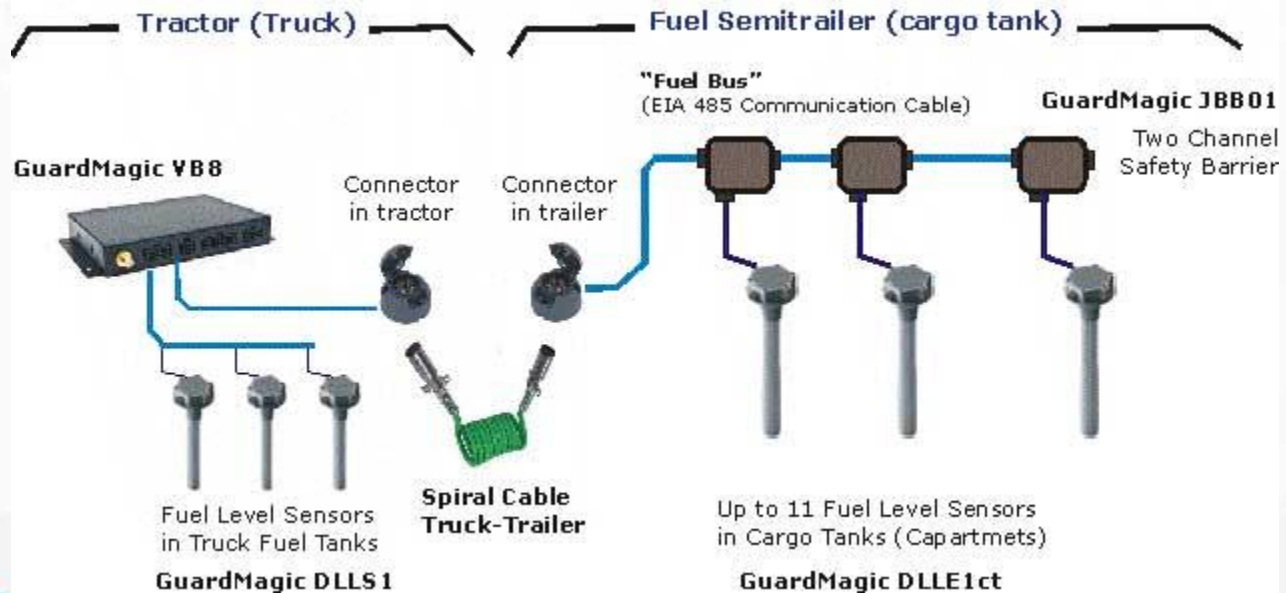
GuardMagic DLLS1a
(fuel level sensors)

Only if need to monitor tractor regular fuel tank.
As usual sensor length is 500 ... 700mm.

cable GM4.020 series

This cable is intended for easy connection fuel level sensor
GuardMagic DLLS1 located in regular fuel tanks to main module.

Tractor+Fuel Tank Semitrailer



Tractor+Fuel Tank Semitrailer Main Components

GuardMagic VB8
(main module)

collect data from fuel level sensors, information about tanker movements, tanker location and send this information to monitoring station. Module support up to 11 fuel sensors in cargo compartments and up to 3 fuel sensors in truck regular fuel tanks.

GuardMagic DLLE1ct
(fuel level sensors for explosive area)

for measurement fuel level in cargo fuel compartments
GuardMagic DLLE1ct sensor can be starting of 1300mm length and up to 2500mm length.

GuardMagic JBB01
(Two channel "Safety Barrier")

Necessary to use. Barrier support up to TWO fuel level sensors
GuardMagic DLLE1ct

Communication cable

For electrical connection "Safety Barrier" and trailer connector.
(Olflex Robust 210: water, oil, fuel, UF resistance cable)

Spiral cables, trailer connectors

For electrical connection fuel trailer ("fuel bus" in fuel trailer) to tractor.

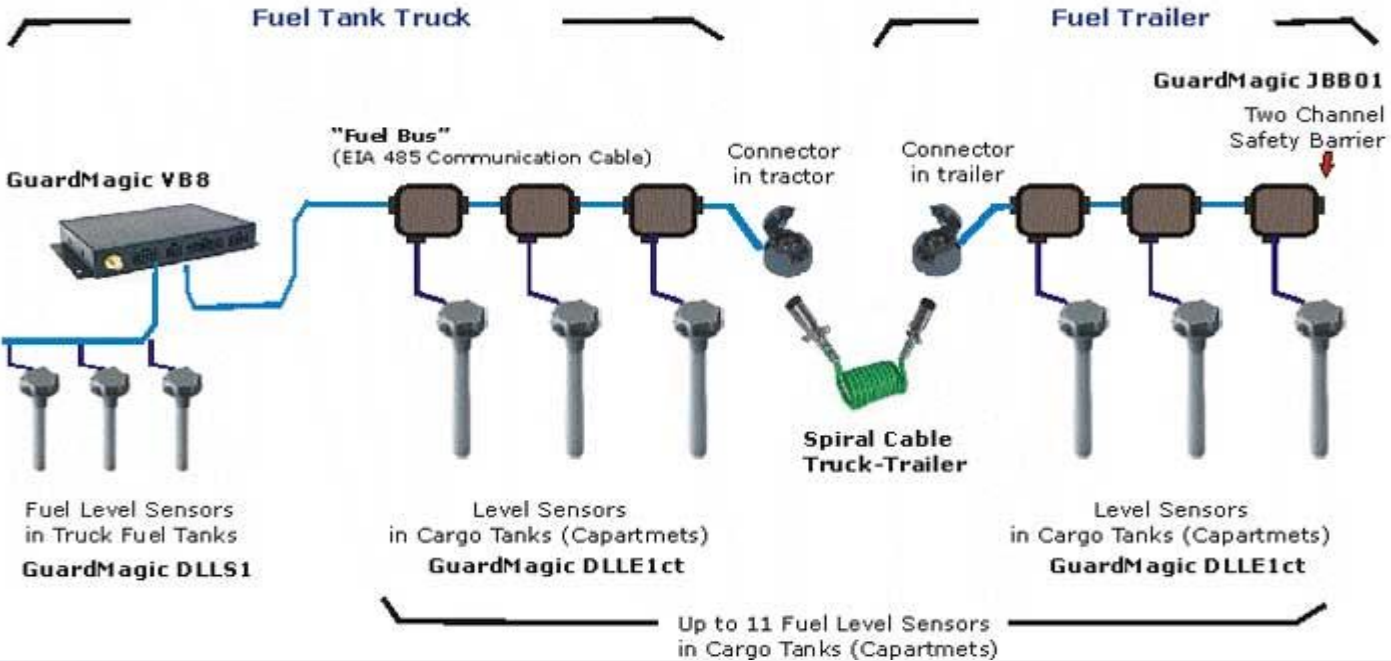
GuardMagic DLLS1a
(fuel level sensors)

Only if need to monitor tractor regular fuel tank.
As usual sensor length is 500 ... 700mm.

cable GM4.020 series

This cable is intended for easy connection fuel level sensor
GuardMagic DLLS1 located in regular fuel tanks to main module.

Fuel Tank Truck+Fuel Tank Semitrailer



Tractor+Fuel Tank Semitrailer Main Components

GuardMagic VB8
(main module)

collect data from fuel level sensors, information about tanker movements, tanker location and send this information to monitoring station. Module support up to 11 fuel sensors in cargo compartments and up to 3 fuel sensors in truck regular fuel tanks.

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Necessary to use. Barrier support up to TWO fuel level sensors
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GuardMagic DLLS1a
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Only if need to monitor tractor regular fuel tank.
As usual sensor length is 500 ... 700mm.

cable GM4.020 series

This cable is intended for easy connection fuel level sensor
GuardMagic DLLS1 located in regular fuel tanks to main module.



GuardMagic Road Fuel Tanker Monitoring Module

About GuardMagic VB8 Module



GuardMagic VB8: special compact tanker-truck GPS/ GSM-GPRS module dedicated to use on tanker-truck application.

GuardMagic VB8 module designed for remote supervision of road fuel tankers and its fuel compartments.

GuardMagic VB8 module monitor: tanker movement and tanker status, fuel in cargo tanks and regular truck tanks, fuel quality in cargo tanks, driving safety, active driver, active trailer.

Module supports up to THREE truck regular fuel tanks and up to ELEVEN cargo compartments ; Module has internal memory for 110Thousand records for storing data (if GSM signal is absent).

GuardMagic VB8 benefit:

- multi tanks support functionality;
- independently monitor fuel level up to 11 fuel cargo compartments and up to 3 truck fuel tanks;
- independently monitor fuel quality (density/ viscosity) in up to SIX fuel cargo compartments;
- two digital communication interface EIA-485 with fuel level sensors and fuel quality sensor;
- high resolution in fuel bus (1024 or 4096 levels);
- support up to SEVEN temperature sensors;
- driver identification;
- trailer identification;
- adaptive data fixing;
- transmit vehicle movement parameters: speed, acceleration, deceleration;
- safety and eco-driving support;
- synthetic ignition;
- fuel bus status diagnostic;
- internal non-volatile memory for the about 110 thousands of records;
- programmed active stand-by mode.

GuardMagic VB8 Main Functionality

Main:

- Coordinates definition (GPS position) and parameters of vehicle movement;
- Transmitting by GSM/GPRS network to the “Monitoring Station” coordinates of fuel tanker, parameters of movement, fuel level in cargo compartments and truck regular fuel tanks, fuel quality in cargo compartments, temperature information from temperature sensors, engine On-Off status, panic and event buttons pressing, engine RPM, engine overheat, status of alarm system;
- Storing the GPS data and data from external sensors and circuits in internal non-volatile memory than GPRS connection is absent and posterior transmitting this information to monitoring station;
- Automatic starting sending data from memory than GPRS connection appear;
- Driver identification and trailer identification;
- Guard function;
- Immobilization function (by driver ID);

-Two types of mode:

- operation mode, programming mode.
- Two types of working in operation mode;
- Three type of operation;
 - “operation”, “ active stand by”, “sleeping”;
- Programming the periodicity of data fixing;
- Programming the module configuration;
- Remote engine starting blocking;
- Remote On/Off customer relay;
- Remote module reprogramming.

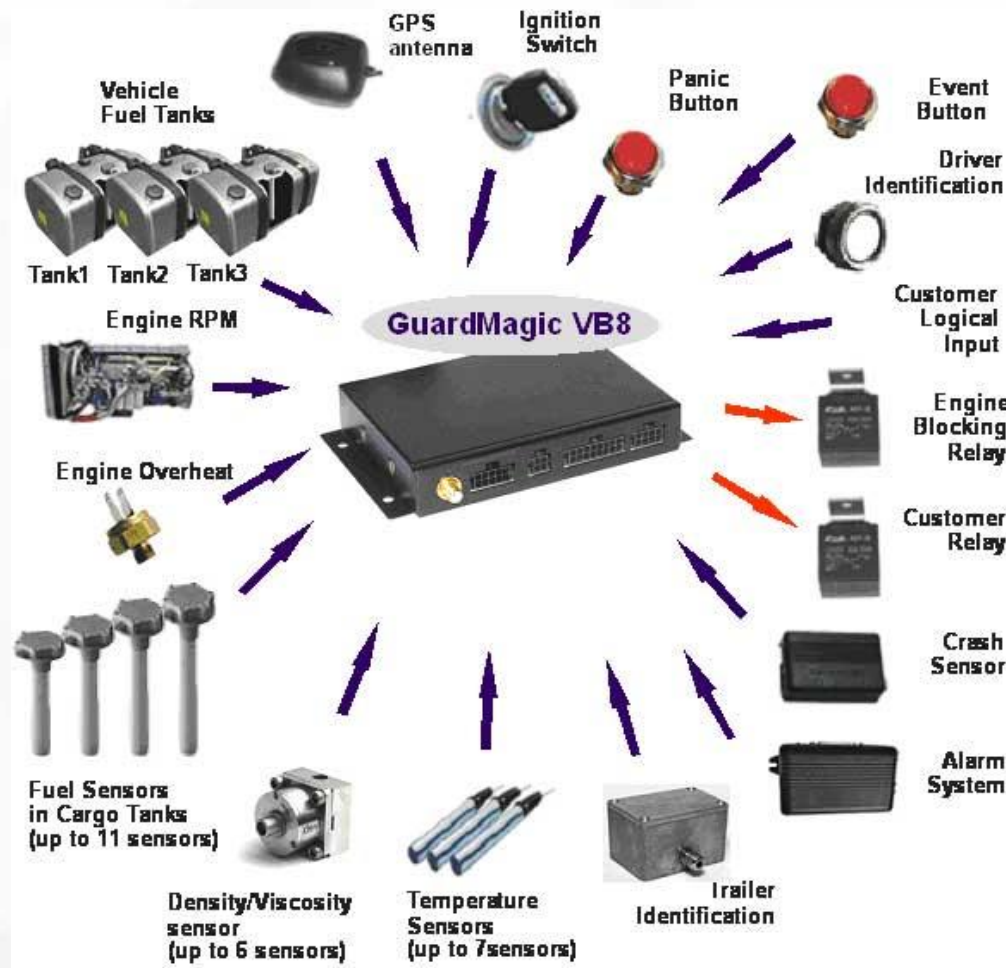
Others:

- two steps over speed sound notification;
- Transition in “active stand by” mode and “sleep mode” after deenergizing Ignition;
- Automatic activation from “active stand by” mode or "sleep mode" in case of at activation of any logical inputs;
- Protection of power circuit and signal against an over voltage;
- Satellite time synchronization;

GuardMagic VB8 Module Connection

Main circuits connection:

- Up to ELEVEN fuel level sensor in cargo fuel tank compartments (EIA-485);
- Up to THREE fuel level sensor in truck regular fuel tanks (EIA-485);
- Up to SIX fuel quality sensors (EIA-485);
- Up to SEVEN temperature sensors by 1-wire interface;
- Driver identification reader;
- Trailer identification module;
- Truck alarm system;
- Main power supply;
- External reserve battery;
- Ignition circuit;
- GPS antenna-receiver (from complete set);
- “PANIC” and “Event” buttons;
- Engine RPM sensor, crash sensor, fuel tank empty sensor, engine overheat sensor;
- External buzzer;
- Engine start blocking relay;
- Customer relay.



Driver Identification by i-Button

The iButton® (by Maxim/Dallas Semiconductor) device is a computer chip enclosed in a robust stainless steel can.

Each iButton® device has a unique and unalterable code laser etched onto its chip inside the can. This code used as a key or identifier for each iButton device.

The silicon chip within the iButton device is protected by the ultimate durable material: stainless steel. You can drop an iButton device, step on it, or scratch it.

The iButton device is wear-tested for 10-year durability.

Driver has its own iButton® and iButton code is the ID code of driver in monitoring system.

By simply touching iButton® device to iButton Reader (Touch Pad) GuardMagic VB module read this code (driver ID code) and send this code to monitoring station.

Using ID driver code allow to add additional immobilization function in the vehicle: only reading the correct ID code (authorized driver) allow to start the vehicle engine.



i-Button



**i-Button Reader
(Touch Pad)**



Fuel Level Sensors And “Fuel Quality” Sensors

GuardMagic Fuel Level Sensors

GuardMagic DLLE1ct series: robust digital fuel level sensor for operation in hazardous area (for road fuel tanker cargo tanks).

- available sensor length: from 1,3m and up to 2,5m;
- multi tanks support functionality;
- digital communication interface EIA-485;
- Internal data processing;
- robust construction.

GuardMagic JBB01: Two channel safety barrier for power and signal transmitting (EIA-485) to fuel level sensor GuardMagic DLLE series located in hazardous area (Zone 0). GuardMagic JBB01 can support up to two fuel level sensors GuardMagic DLLE series.

GuardMagic DLLS1 series: robust digital fuel level sensor (for operation in vehicle regular fuel tanks).

- available sensor length: from 0,3m and up to 2,5m;
- for regular fuel tanks as usual: 500mm or 700mm;
- multi tanks support functionality;
- digital communication interface EIA-485;
- Internal data processing;
- robust construction.



Third Party Fuel Quality Sensors

Water activity sensor:

- Preventing failures by detecting water saturation;
- Measuring water activity is the easiest way to prevent problems due to moisture;
- Convenient packaging for demanding applications.

Density and viscosity sensor:

- provides real-time continuous density, dynamic viscosity, kinematic viscosity & temperature measurements;
- It uniquely simplifies fuel monitoring and leads to more accurate custody transfer metering.

AVENISENSE (France) company adopted its “Water Activity” sensor and “Density/Viscosity” sensor in to **GuardMagic Road Fuel Tanker Monitoring System**.

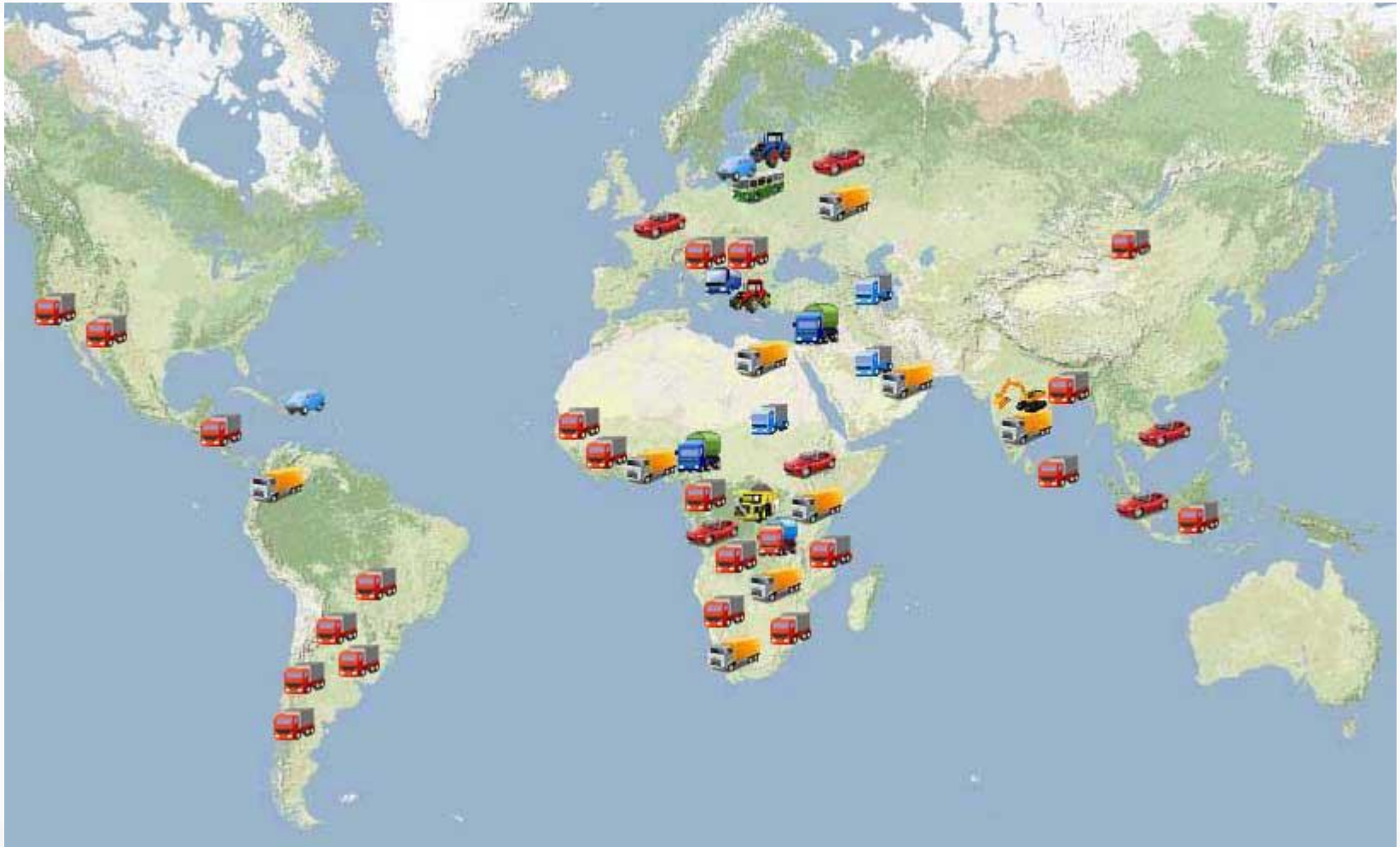
AVENISENSE sensor connected by GuardMagic JBB01 safety barrier to EIA-485 fuel bus.





In Brief About PC Monitoring Software and PowerTrace Monitoring Service

About Monitoring Software and Monitoring Service



All World Coverage and All World Operation

About Monitoring Software and Monitoring Service (VehicleStation, FleetStation: “Main Operation” Window)

The screenshot displays the 'VehicleStation/FleetStation - Viewer' application window. The interface includes a sidebar on the left with a tree view of vehicle groups and individual units, a central map showing an aerial view of an industrial site with two red location markers labeled 'Toyota Hilux' and 'Toyota Hilux 1', and a bottom panel with vehicle details and monitoring options.

Vehicle List (Left Sidebar):

- #40002
- Denis Demo
- FSM
 - Raitis Demo2
- GPRS Units
 - VB8 Demo
 - VF2 Demo
- Group2
 - Raitis Demo New
 - Raitis Demo 1
 - tst3
- PowerTrace Export
- Test11
- Toyota Hilux
- Toyota Hilux 1
- VB3 Demo
- Vladimir
- tst5

Map (Center): Shows an aerial view of an industrial area. Two red location markers are visible, labeled 'Toyota Hilux' and 'Toyota Hilux 1'. The map also shows buildings, roads, and greenery. Labels 'Simpang 57' are visible on the map.

Bottom Panel (Vehicle Details):

Live Status	Events/Alerts	Temperature
Vehicle Data	Driver Data	Fuel Tanks
Vehicle Name: Toyota Hilux 1		
Object Type: Car		
Plate Number: BAC4438		
Module Data: mTF4 (#0030074)		

Monitoring Options (Bottom Right):

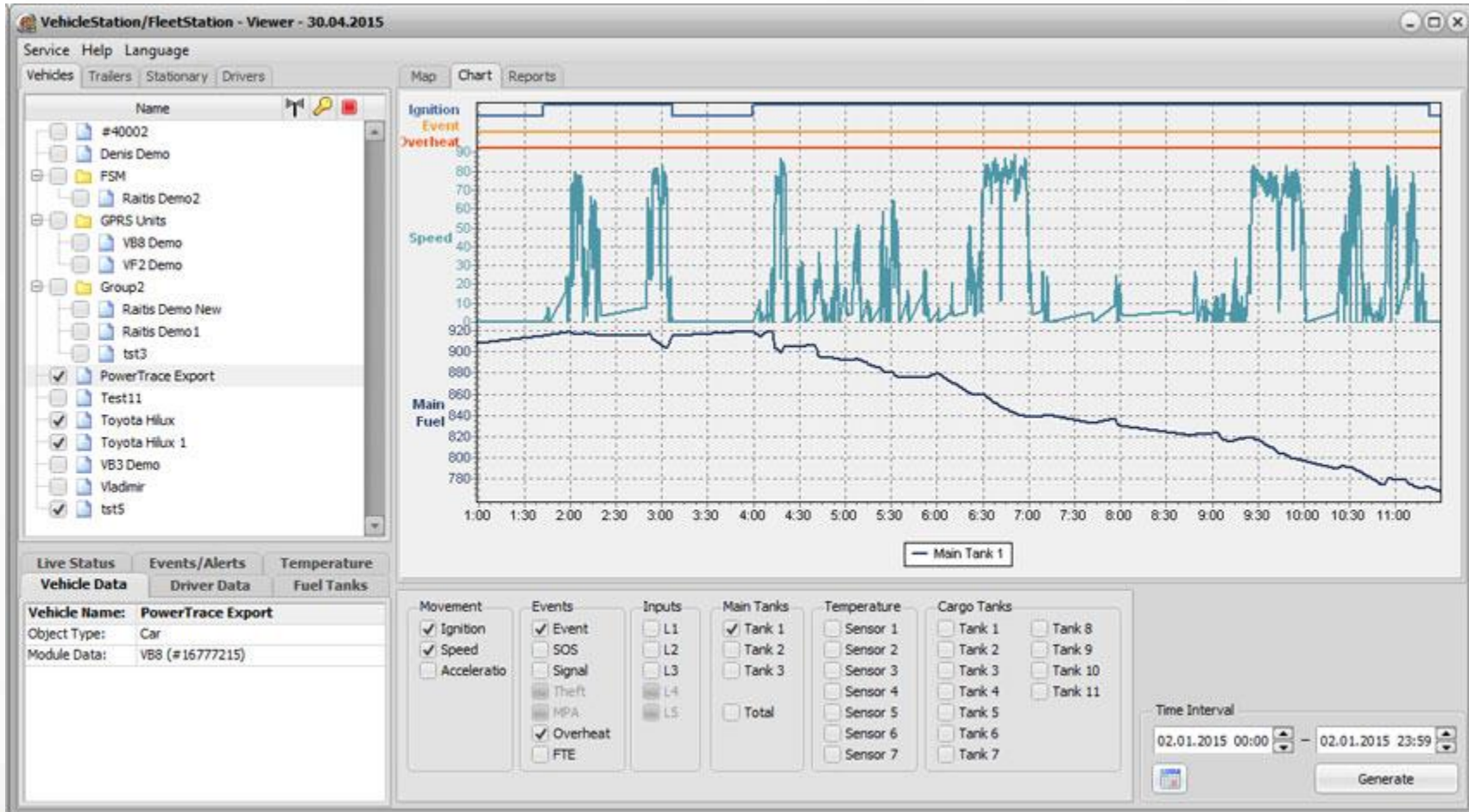
Real Time History

- Center
- Trace

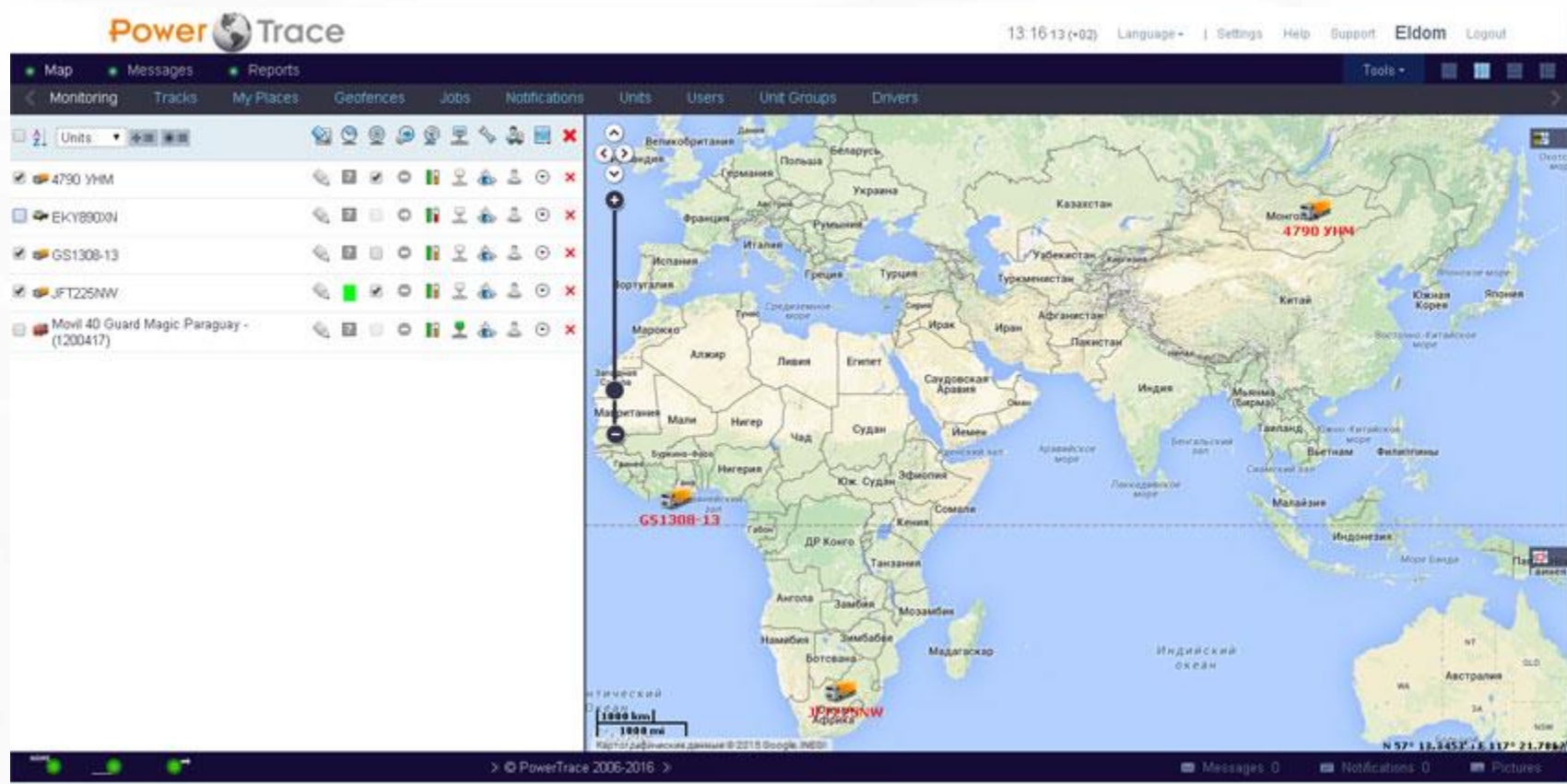
About Monitoring Software and Monitoring Service (VehicleStation, FleetStation: “Main Operation” Window)

The screenshot displays the 'VehicleStation/FleetStation - Viewer' application window, dated 30.04.2015. The interface includes a menu bar (Service, Help, Language), tabs for Vehicles, Trainers, Stationary, and Drivers, and sub-tabs for Map, Chart, and Reports. A left-hand sidebar lists various vehicle units and groups, with 'PowerTrace Export' selected. The main map area shows a satellite view of Windhoek, Namibia, with a blue track indicating a vehicle's path. A popup window over the track displays the date '01-01-2015' and the times '5:10:43 Start' and '9:44:44 Stop'. Below the map, there are sections for 'Live Status', 'Events/Alerts', and 'Temperature'. The 'Vehicle Data' section shows 'PowerTrace Export' as the vehicle name, 'Car' as the object type, and 'VB8 (#16777215)' as the module data. The 'History' section has tabs for 'Real Time' and 'History', with 'Sensors' selected. A grid of checkboxes lists various events: Ignition, Event, Overheat, GPS Failure (checked), Crash, Panic, Signal, Theft, Alarms, Events, FTE, Fuelling, Fuel Drain, and Overspeed. At the bottom right, a 'Time Interval' section shows a date range from '01.01.2015 00:00' to '01.01.2015 23:59' and a 'Generate' button.

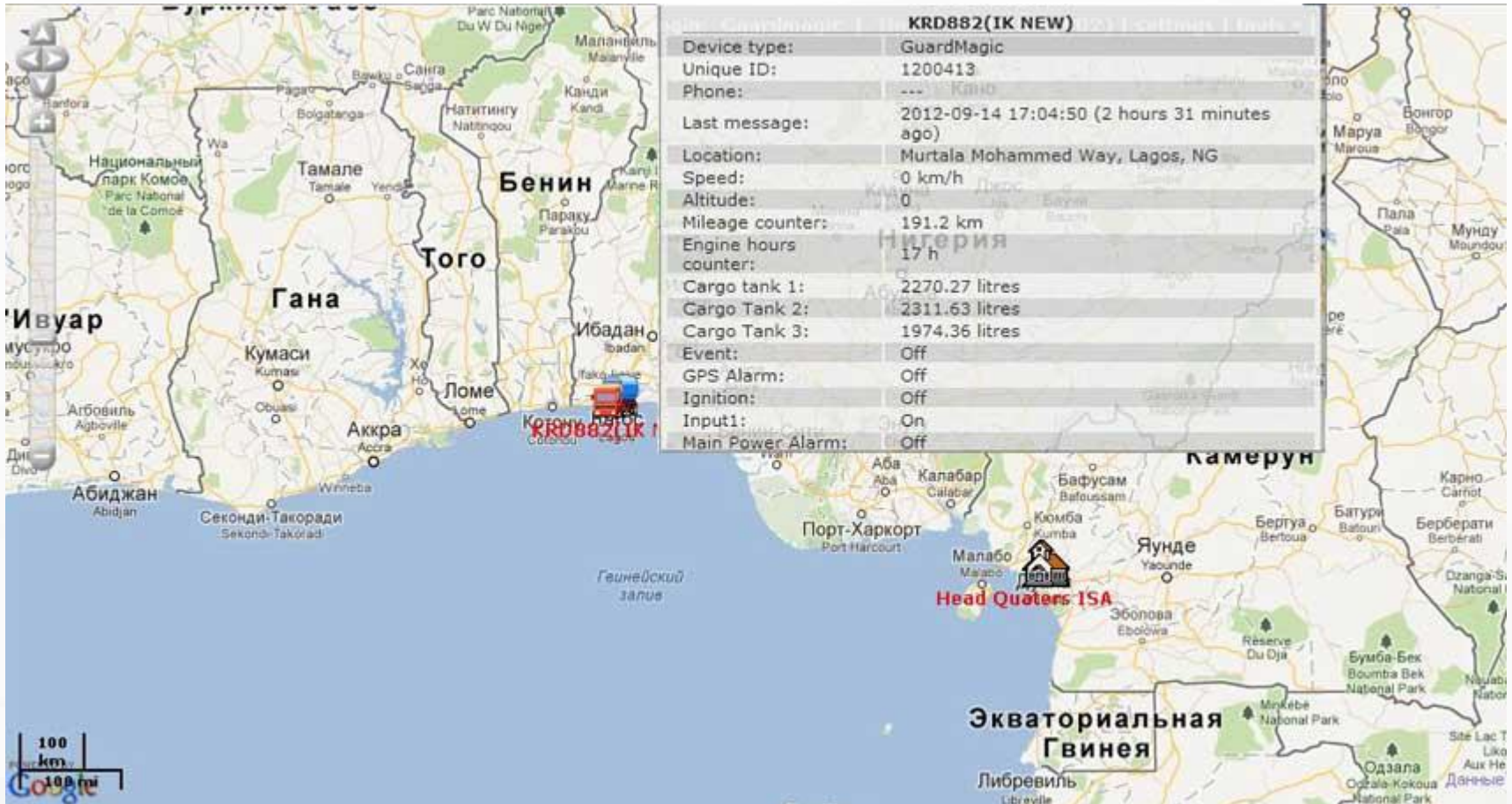
About Monitoring Software and Monitoring Service (VehicleStation, FleetStation: “Chart” Window)




About Monitoring Software and Monitoring Service (PowerTrace Service: “Main Operation” Window)



Fuel Tanker in Map and Fuel Volume in Compartments



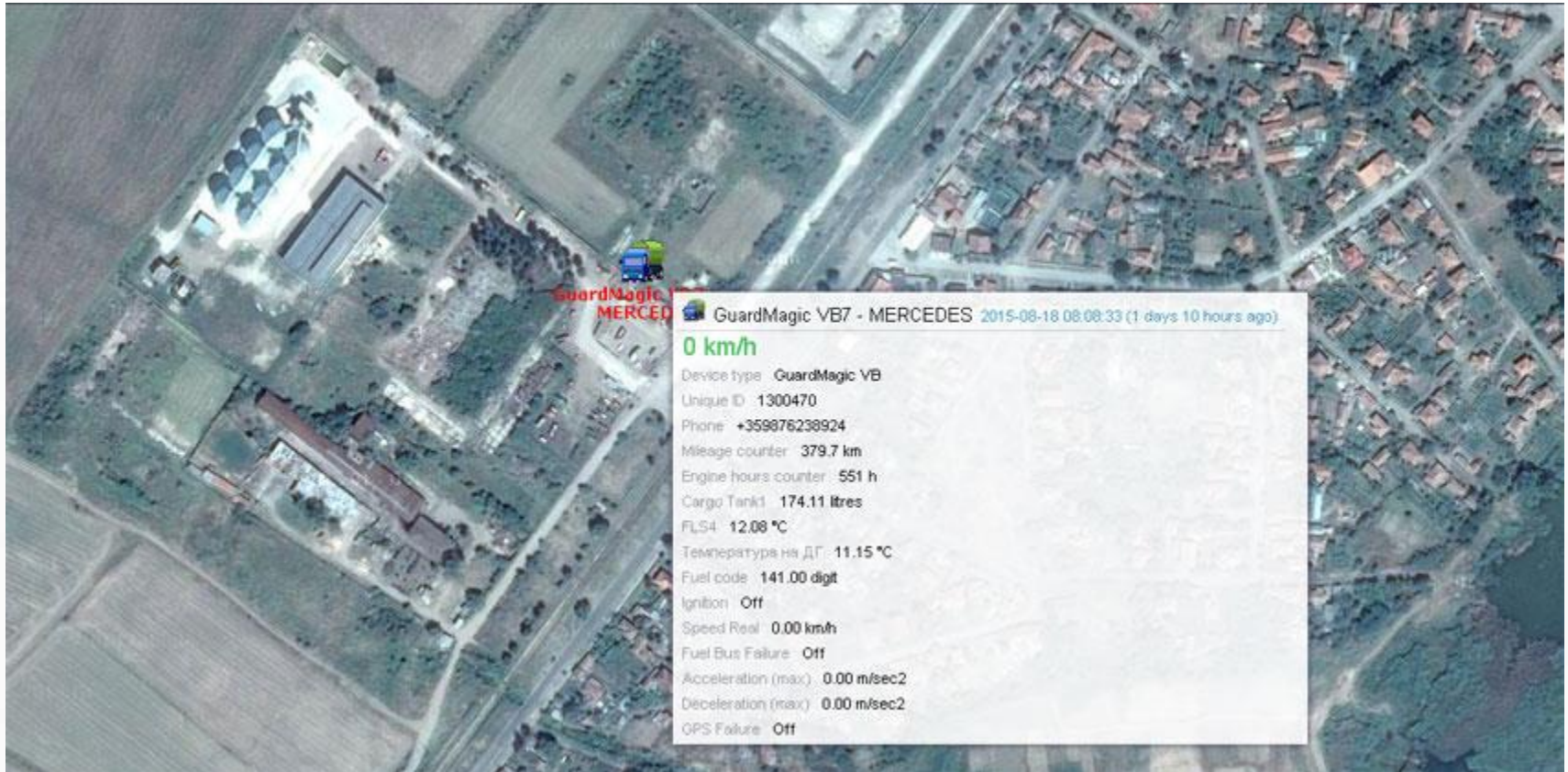
Fuel Tanker in Map and Fuel Volume in Compartments



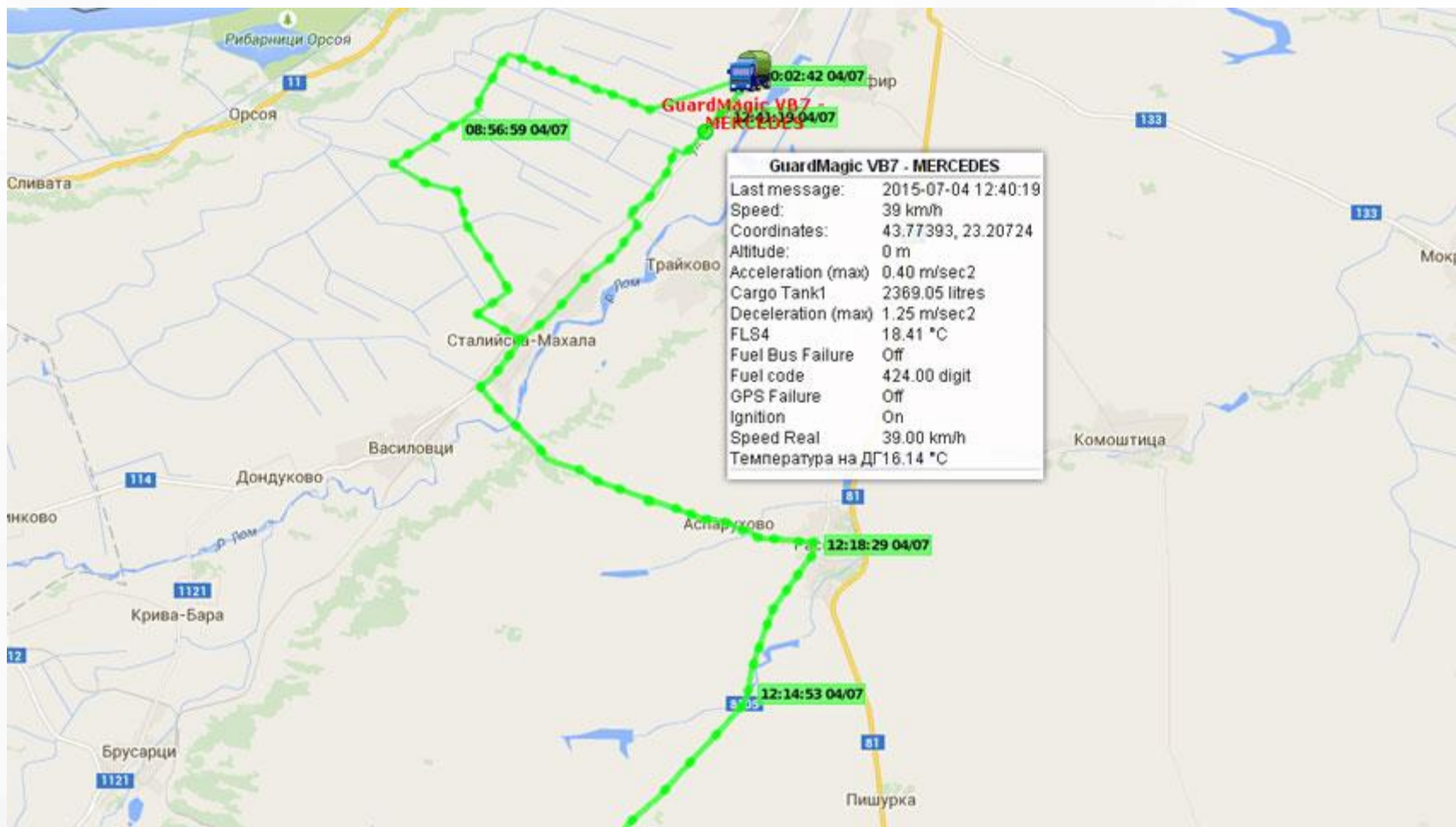
KRD882 (IK NEW)

Device type:	GuardMagic
Unique ID:	1200413
Phone:	---
Last message:	2012-09-14 17:04:50 (2 hours 35 minutes ago)
Location:	Murtala Mohammed Way, Lagos, NG
Speed:	0 km/h
Altitude:	0
Mileage counter:	191.2 km
Engine hours counter:	17 h
Cargo tank 1:	2270.27 litres
Cargo Tank 2:	2311.63 litres
Cargo Tank 3:	1974.36 litres
Event:	Off
GPS Alarm:	Off
Ignition:	Off
Input1:	On
Main Power Alarm:	Off
main Tank 1 (digital):	0.00 litres
Overheat:	Off
Tank Empty:	Off
Theft:	Off
Wrong authorisation:	Unknown

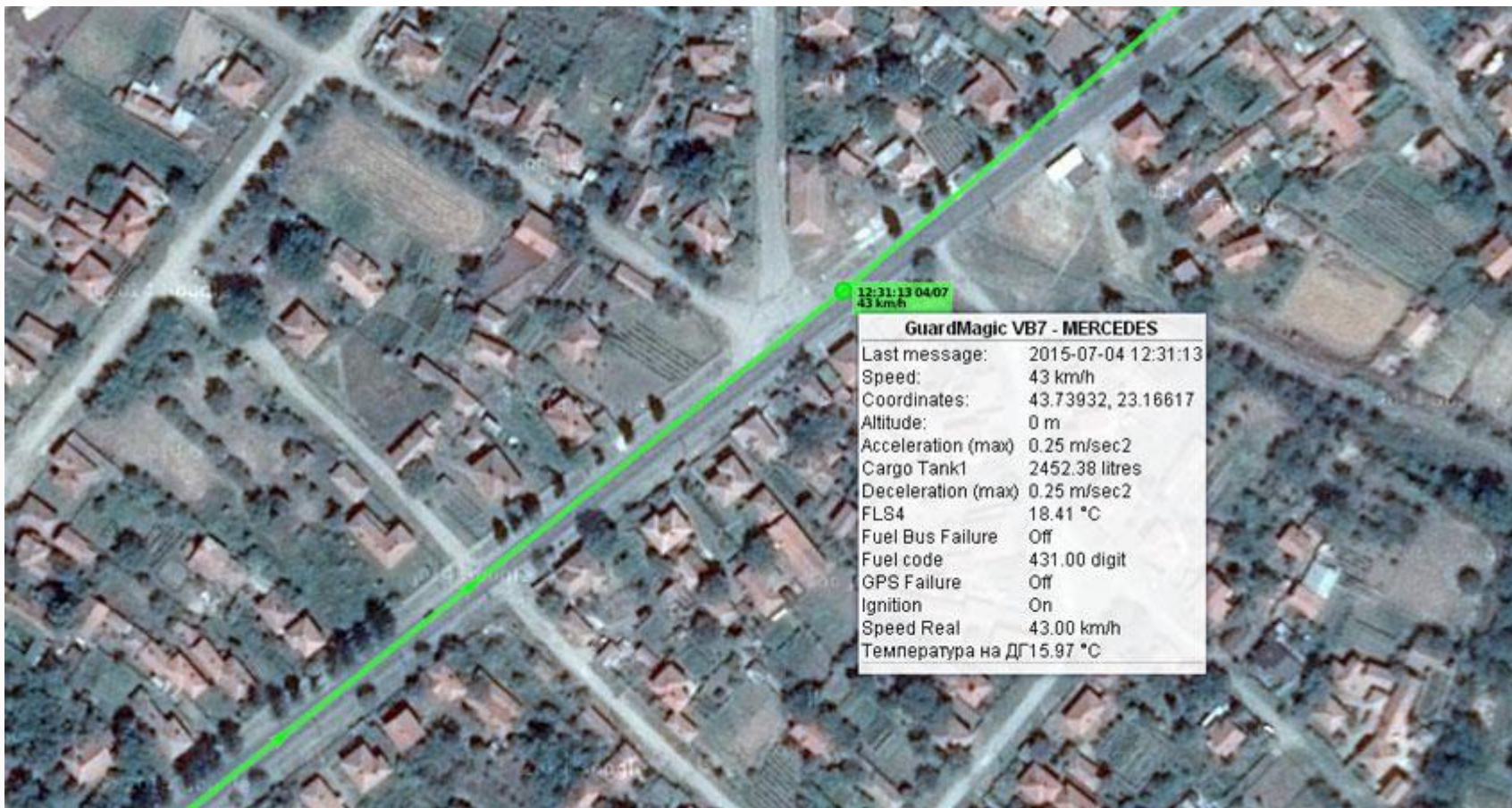
Tanker Status



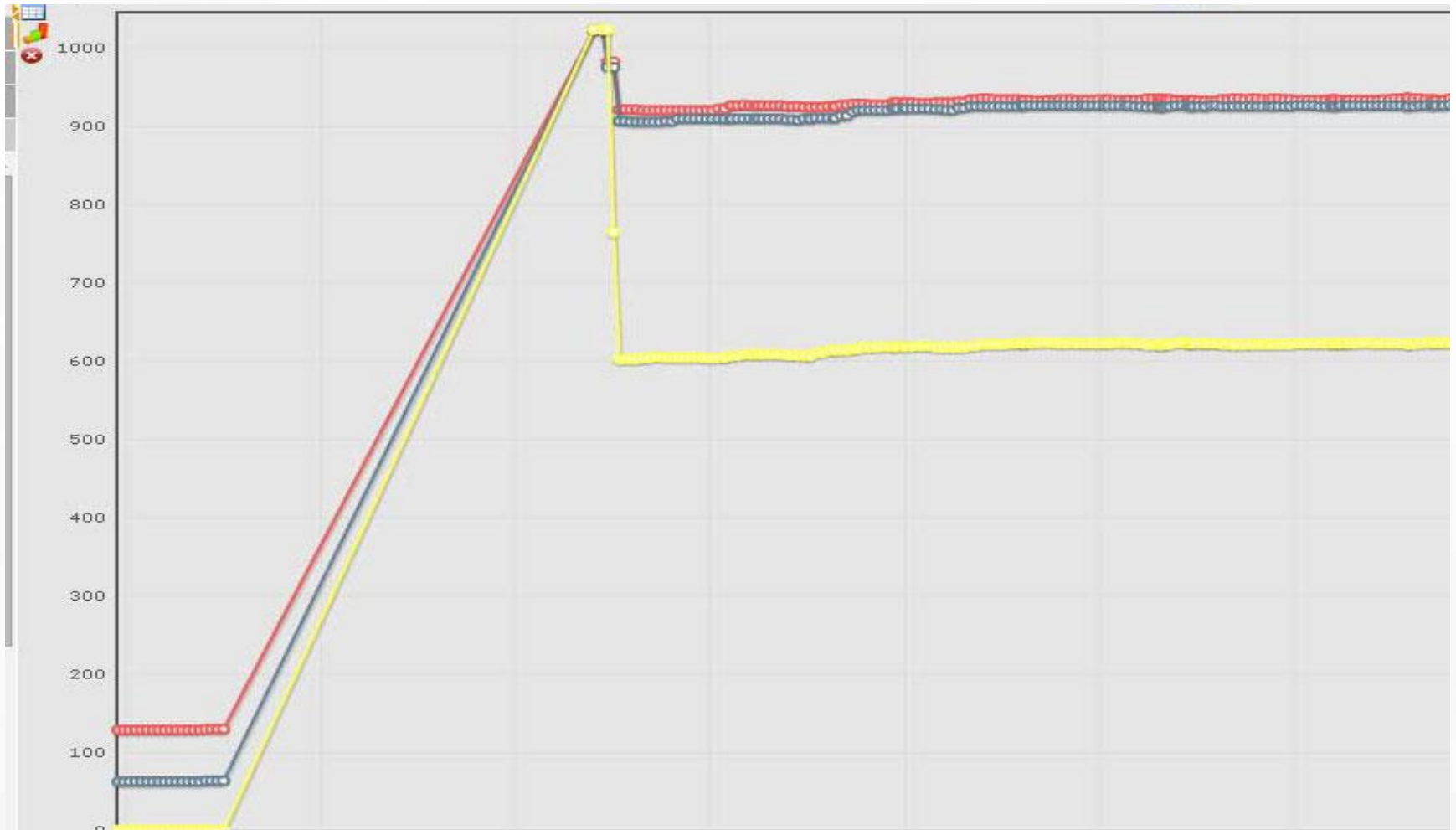
Tanker Trip, Parameters of Movement and Tank Status



Point of Trip Description



Fuel Compartments Loading Graph



Fuel Compartments Unloading Graph



Unloading Report

Unloading	Sensor name	Time	Location	Driver
535 lt	Cargo Tank 1	2015-08-04 07:47:33	N 43° 29.0124' : E 23° 28.7862'	----
534 lt	Cargo Tank 1	2015-08-05 08:06:47	0.43 km from 102, Montana, BG	----
281 lt	Cargo Tank 1	2015-08-05 21:49:44	0.52 km from 13,101, Krivodol, BG	0
641 lt	Cargo Tank 1	2015-08-06 07:52:45	N 43° 23.2314' : E 23° 33.6972'	0
289 lt	Cargo Tank 1	2015-08-06 08:10:39	N 43° 25.2408' : E 23° 40.3284'	0
517 lt	Cargo Tank 1	2015-08-06 19:30:42	N 43° 23.2380' : E 23° 33.7086'	0
498 lt	Cargo Tank 1	2015-08-06 21:16:55	N 43° 25.6554' : E 23° 39.8292'	0
167 lt	Cargo Tank 1	2015-08-07 08:12:19	0.59 km from ул. Дунав, Voroavan, BG	0
275 lt	Cargo Tank 1	2015-08-07 08:34:24	3.45 km from ул. Дунав, Voroavan, BG	0
123 lt	Cargo Tank 1	2015-08-07 14:01:16	0.52 km from 13,101, Krivodol, BG	0
521 lt	Cargo Tank 1	2015-08-10 07:44:34	N 43° 23.4138' : E 23° 23.3004'	0
424 lt	Cargo Tank 1	2015-08-10 08:06:55	0.44 km from 102, Montana, BG	0
207 lt	Cargo Tank 1	2015-08-10 19:08:04	102, Montana, BG	0
151 lt	Cargo Tank 1	2015-08-10 19:09:46	102, Montana, BG	0
1201 lt	Cargo Tank 1	2015-08-10 19:28:30	N 43° 23.3754' : E 23° 23.4678'	0

About Monitoring Software and Monitoring Service (Some Samples)

Vehicle on Electronic Map in Real Time



Vehicle on Satellite Image in Real Time



Vehicle Real Trip



Vehicle Real Trip

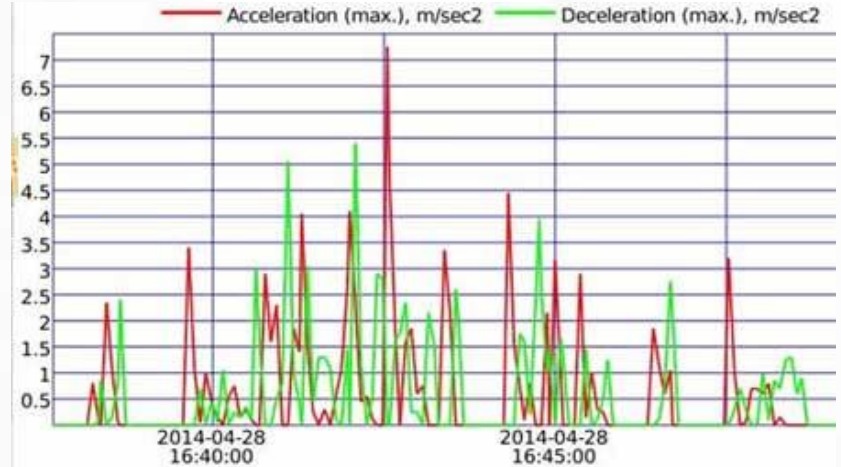


About Monitoring Software and Monitoring Service (Some Samples)

Tanker Speed Graph



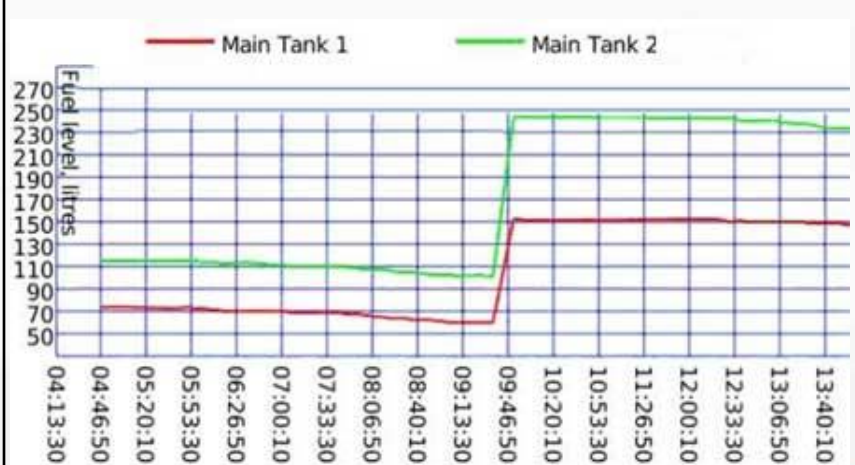
Tanker Acceleration/Deceleration Graph



Fuel Graphs in Truck Regular Fuel Tanks

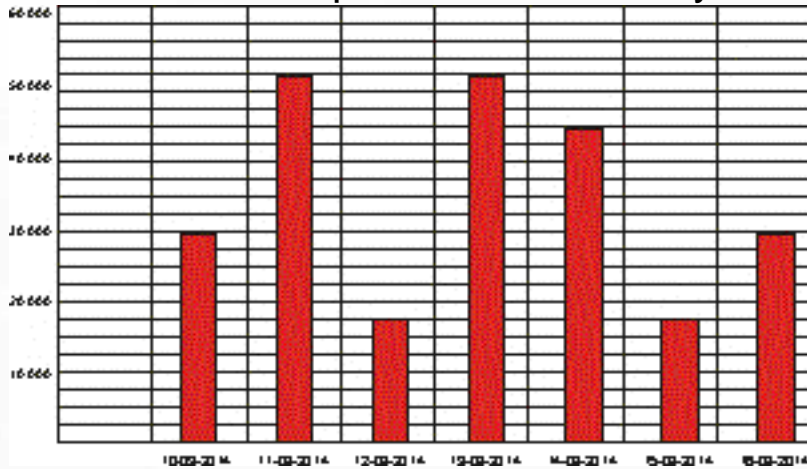


Regular Fuel Tanks Fueling Graph

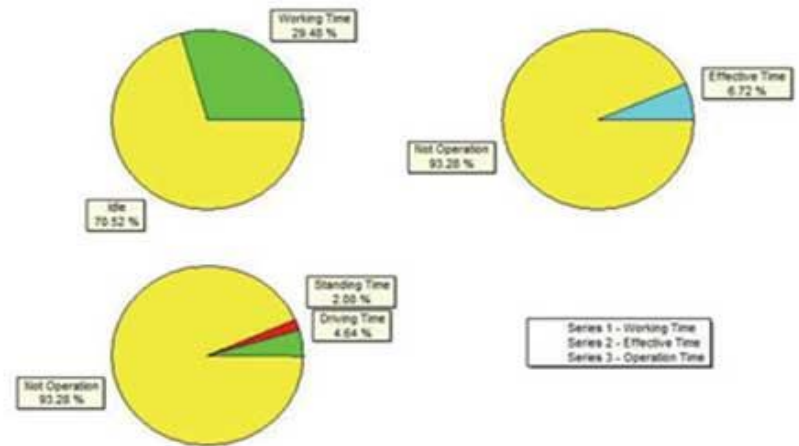


About Monitoring Software and Monitoring Service (Some Samples)

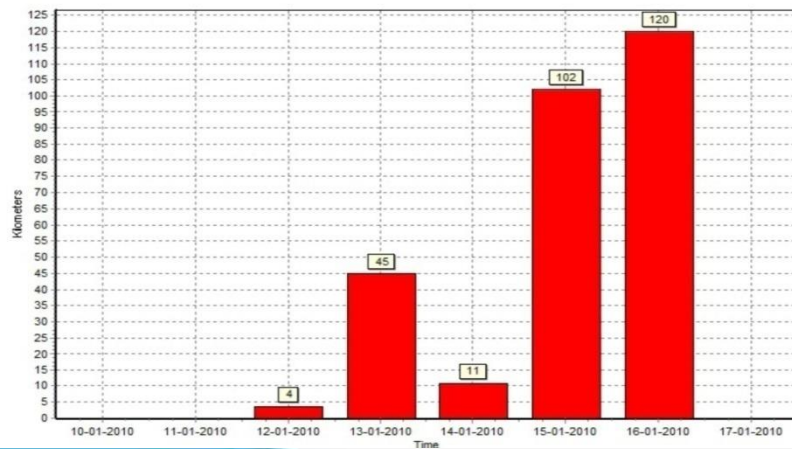
Tanker Transported Fuel Per Days



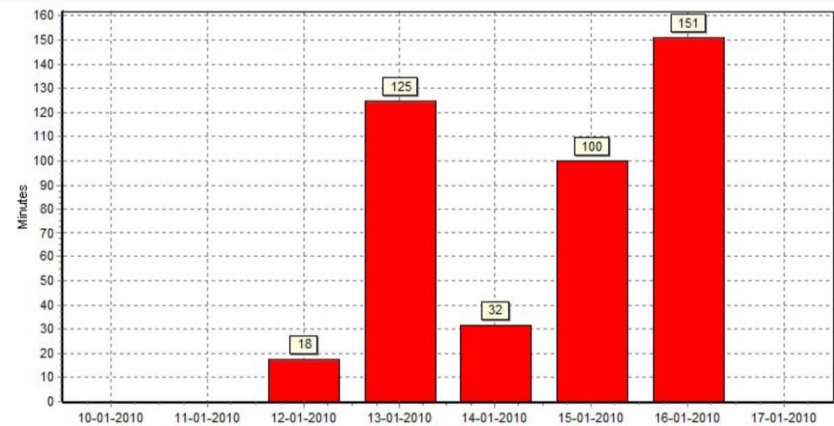
General Activity



Daily Driving Graph

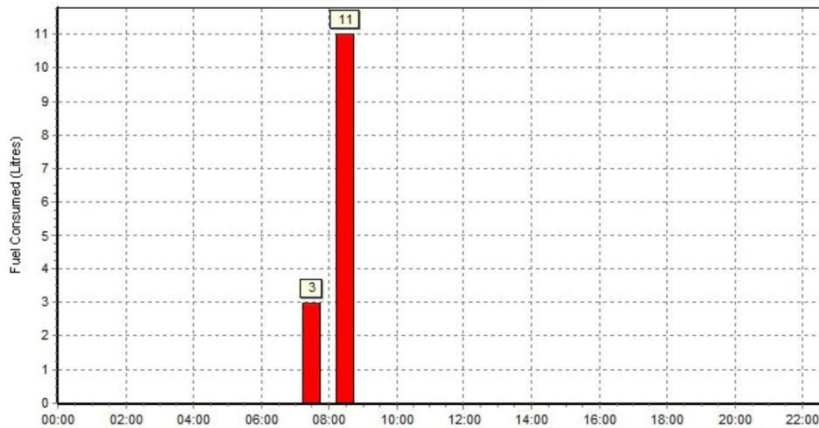


Daily Activity Graph



About Monitoring Software and Monitoring Service (Some Samples)

Fuel Daily Consumption Graph



Vehicle Active Driver Report

Plate Number:	BAM6076	Group:	
Time Period:	17 сен 2014 00:00 – 17 сен 2014 23:59		
Date Time	iButton code	Name	Pers ID
17-09-2014 0:09:26	000014FD1E81	Kenny Ken	
17-09-2014 1:33:18	n/a		
17-09-2014 3:38:48	000014FD1E81	Kenny Ken	
17-09-2014 4:33:19	000014FD1E81	Kenny Ken	
17-09-2014 5:23:25	n/a		
17-09-2014 5:54:06	000014FD1E81	Kenny Ken	
17-09-2014 6:03:50	n/a		
17-09-2014 6:11:53	000014FD1E81	Kenny Ken	

Detailed Starting Status Report

Plate Number:	BAM6076	Group:		
Time Period:	17 сен 2014 00:00 – 17 сен 2014 23:59			
Date Time	Start Type	First Name	Surname	Pers ID
17-09-2014 0:09:26	correct driver	Kenny	Ken	010256-11111
17-09-2014 1:33:18	without identification			
17-09-2014 3:38:48	correct driver	Kenny	Ken	010256-11111
17-09-2014 4:33:19	correct driver	Kenny	Ken	010256-11111
17-09-2014 5:23:25	without identification			
17-09-2014 5:54:06	correct driver	Kenny	Ken	010256-11111
17-09-2014 6:03:50	without identification			
17-09-2014 6:11:53	correct driver	Kenny	Ken	010256-11111
17-09-2014 6:39:03	without identification			

General Events Report

Plate Number:	BAM6076	Group:					
Time Period:	17 сен 2014 00:00 – 17 сен 2014 23:59						
Operating Period (Calendar Days): 0							
Operating Days per Period: 1							
Distance: 231 092 km							
Summary Working Time (hh:mm:ss): 23:59:54							
Summary Effective Time (hh:mm:ss): 4:13:03							
Date	Event Button	L1	L2	L3	Overheat	Wrong Start	No Authorization
17-09-2014	0	0	0	0	0	0	8

About Monitoring Software and Monitoring Service (Some Samples)

General

Plate Number:	KM1024	Group:	
Time Period:	2010-01-11 00:00:00 - 2010-01-18 00:00:00		

OPERATION

Operating Period (Calendar Days): 7
Operating Days (Working Days): 5

DISTANCE

Trip Distance: 348.939 km

TIME

Summary Working Time (hh:mm:ss): 128:31:36
Summary Effective Time (hh:mm:ss): 19:12:35
Summary Driving Time (hh:mm:ss): 9:19:54
Summary Idle Time (hh:mm:ss): 7:48:53
Summary Stand Time (hh:mm:ss): 9:52:41

PRODUCTIVITY

Using the Working Time: 77 percents
Effectiveness per period: 11 percents

EVENTS

Event Button Pressed (qty): 0
L1 activation (qty): 0
L2 activation (qty): 0
L3 activation (qty): 0

NOT REGULAR SITUATION

Engine Overheat (qty): 0
Attempt To Start With Wrong Authorization (qty): 88
Attempt To Start Without Authorization (qty): 0

Utilization

Operating Period (Calendar Days): 31
Operating Days per Period: 21
Distance: 599.308 km
Summary Working Time (hh:mm:ss): 80:00:57
Summary Effective Time (hh:mm:ss): 32:12:11

Date	Using of Working Time	Effectiveness	Operating Time	Effective Time	Driving Time	Idle Time	Parking Qty
12/01/2010	10.93%	2.17%	2:37:25	0:31:12	0:18:37	0:08:01	1
13/01/2010	49.83%	15.77%	11:57:34	3:47:03	2:04:33	2:38:07	9
14/01/2010	44.68%	19.73%	10:43:23	4:44:05	0:31:47	2:45:05	7
15/01/2010	15.55%	9.47%	3:43:52	2:16:25	1:39:46	0:40:07	1
16/01/2010	49.34%	16.64%	11:50:29	3:59:40	2:31:43	1:15:52	6
17/01/2010	54.23%	16.26%	13:0:54	3:54:10	2:13:28	0:21:41	3
18/01/2010	48.63%	25.13%	11:40:16	6:01:54	4:14:13	0:36:52	3
19/01/2010	48.78%	20.18%	11:42:24	4:50:38	3:24:59	13:52:13	5
20/01/2010	11.43%	8.82%	2:44:40	2:07:04	1:08:36	0:09:39	1

Consolidated

Operating Period (Calendar Days): 31
Operating Days per Period: 21
Distance: 599.308 km
Summary Working Time (hh:mm:ss): 80:00:57
Summary Effective Time (hh:mm:ss): 32:12:11

Date	Work Starting	Work Finishing	Work Time	Distance (km)	Effective Time	Driving Time	Stand Time
12/01/2010	12/01/2010 9:02:07	12/01/2010 11:39:32	2:37:25	4.067	0:31:12	0:18:37	0:12:35
13/01/2010	13/01/2010 5:37:56	13/01/2010 17:35:30	11:57:34	44.940	3:47:03	2:04:33	1:42:30
14/01/2010	14/01/2010 4:53:58	14/01/2010 15:37:21	10:43:23	10.530	4:44:05	0:31:47	4:12:18
15/01/2010	15/01/2010 5:47:30	15/01/2010 9:31:22	3:43:52	101.100	2:16:25	1:39:46	0:36:39
16/01/2010	16/01/2010 4:59:37	16/01/2010 16:50:06	11:50:29	120.000	3:59:40	2:31:43	1:27:57
17/01/2010	17/01/2010 4:32:50	17/01/2010 17:33:44	13:0:54	68.300	3:54:10	2:13:28	1:40:42
18/01/2010	18/01/2010 4:26:43	18/01/2010 16:06:59	11:40:16	92.710	6:01:54	4:14:13	1:47:41
19/01/2010	19/01/2010 4:50:45	19/01/2010 16:33:09	11:42:24	118.300	4:50:38	3:24:59	1:25:39
20/01/2010	20/01/2010 5:15:19	20/01/2010 7:59:59	2:44:40	39.370	2:07:04	1:08:36	0:58:28

Truck Fuel Usage

OPERATION

Operating Period (Calendar Days): 1
Operating Days (Working Days): 1

DISTANCE

Trip Distance: 0.447 km

FUEL TANK 1

Initial volume: 0.0 litres
Final volume: 0.0 litres
Minimal volume: 0.0 litres
Maximum volume: 0.0 litres
Fueling volume: 0.0 litres
Fuel drain: -25.0 litres

FUEL TANK 2

Initial volume: 0.0 litres
Final volume: 10.0 litres
Minimal volume: 0.0 litres
Maximum volume: 10.0 litres
Fueling volume: 20.0 litres
Fuel drain: 0.0 litres

FUEL TANK 3

Initial volume: 0.0 litres
Final volume: 0.0 litres
Minimal volume: 0.0 litres
Maximum volume: 0.0 litres
Fueling volume: 0.0 litres
Fuel drain: 0.0 litres

TOTAL FUEL

Initial volume: 0.0 litres
Final volume: 10.0 litres
Fueling volume: 20.0 litres
Summary fuel spent: -25.0 litres
Fuel drain: -25.0 litres
Fuel consumption: 0.0 litres;
Average consumption per 100 km: 0.0 litres;
Average consumption per 1 hour: 0.0 litres;

About Monitoring Software and Monitoring Service (Some Samples)

Tanker Daily Activity Per Month

Operating Period (Calendar Days): 31
 Operating Days per Period: 21
 Distance: 599.308 km
 Summary Working Time (hh:mm:ss): 80:00:57
 Summary Effective Time (hh:mm:ss): 32:12:11

Date	Work Starting	Work Finishing	Work Time	Distance (km)	Effective Time	Driving Time	Stand Time
12/01/2010	12/01/2010 9:02:07	12/01/2010 11:39:32	2:37:25	4.067	0:31:12	0:18:37	0:12:35
13/01/2010	13/01/2010 5:37:56	13/01/2010 17:35:30	11:57:34	44.940	3:47:03	2:04:33	1:42:30
14/01/2010	14/01/2010 4:53:58	14/01/2010 15:37:21	10:43:23	10.530	4:44:05	0:31:47	4:12:18
15/01/2010	15/01/2010 5:47:30	15/01/2010 9:31:22	3:43:52	101.100	2:16:25	1:39:46	0:36:39
16/01/2010	16/01/2010 4:59:37	16/01/2010 16:50:06	11:50:29	120.000	3:59:40	2:31:43	1:27:57
17/01/2010	17/01/2010 4:32:50	17/01/2010 17:33:44	13:0:54	68.300	3:54:10	2:13:28	1:40:42
18/01/2010	18/01/2010 4:26:43	18/01/2010 16:06:59	11:40:16	92.710	6:01:54	4:14:13	1:47:41
19/01/2010	19/01/2010 4:50:45	19/01/2010 16:33:09	11:42:24	118.300	4:50:38	3:24:59	1:25:39
20/01/2010	20/01/2010 5:15:19	20/01/2010 7:59:59	2:44:40	39.370	2:07:04	1:08:36	0:58:28

Detailed Idle Time (Parking)

Total Quantity of Parking : 8
 Total Idle time (Parking Time) : 02:35:59

Idle Time Beginning	Idle Time Ending	Idle Time Duration	Latitude	Longitude
05:07:00	05:16:34	00:09:34	25.245501	51.4683
05:17:02	05:50:41	00:33:39	25.245501	51.4683
08:53:58	09:08:28	00:14:30	25.245501	51.4683
09:11:37	09:47:10	00:35:33	25.242701	51.472801
09:52:55	10:08:23	00:15:28	25.242701	51.472801
10:10:44	10:19:30	00:08:46	25.245399	51.4683
10:41:58	11:12:46	00:30:48	25.2428	51.4729

About Monitoring Software and Monitoring Service (Some Samples)

Driver Safety Driving , Eco-Driving and Drivers Rating

TimePeriod: 01-09-2014 00:00 - 01-10-2014 00:00

Driver	Work Time hour:min	Overspeed Driving %	Milleage km	Speed		Acceleration			Deceleration			Total Points
				Max km/h	Avg km/h	Max m/s ²	Avg m/s ²	count per 100 km	Max m/s ²	Avg m/s ²	count per 100 km	
Ken Kenny	46:29	6	2880.2	116.0	71.3	2.15	0.25	0.69	2.90	0.25	6.46	30.1
Ron1 Ron1	23:53	0	967.5	104.5	52.9	1.85	0.30	2.07	2.85	0.35	13.02	24.5
Brunei 4 FES	2:33	0	93.3	95.5	40.5	1.65	0.20	1.07	2.50	0.25	7.50	17.4
RON 2 FES	0:00	0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Ivanov Alexey	0:00	0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0
RON RON	0:00	0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.0

Tanker Eco-Driving and Safety Driving

Report TimePeriod: 01 Sep 2014 00:00 – 30 Sep 2014 23:59

Report Created: 16 Oct 2014 15:51

Total Trips: 311

Mon, 01 Sep 2014

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Driver	Time	Durations	Distance	Speed km/h		Acceleration m/s ²		Deceleration m/s ²	
				Maximum	Average	Maximum	Average	Maximum	Average
Ron1 Ron1	08:09:49 - 08:19:17	00:09:28	3.51	62.00	0.51	1.15	0.27	1.55	0.35
	08:40:54 - 08:43:23	00:02:29	0.60	46.50	0.53	1.50	0.39	1.20	0.28
	10:11:37 - 10:13:11	00:01:34	0.10	24.00	0.64	0.40	0.38	0.45	0.33
	10:33:39 - 11:03:35	00:29:56	1.25	39.50	0.62	0.90	0.31	1.40	0.48
	14:10:33 - 15:10:45	01:00:12	31.97	99.50	0.57	1.55	0.31	1.90	0.27
Ron1 Ron1	17:14:10 - 17:32:36	00:18:26	2.83	58.50	1.67	1.30	0.43	2.10	0.56
Total Trips: 6		02:02:05	40.28	99.50	0.75	1.55	0.35	2.10	0.38

About Monitoring Software and Monitoring Service (Some Samples)

Fleet: Speed Violation Overview

Report TimePeriod: 01 сен 2014 00:00 – 30 сен 2014 23:59

Report Created: 22 ноя 2014 23:34

Total Violations: 93

Toyota Hilux

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Driver	Date	Durations	Speed km/h			Location
			Treshhold	Maximum	Average	
Kenny Ken	Вт, 16 сен 2014, 16:42:26	00:01:00	10	110	109	4.967330; 114.864708
Kenny Ken	Вт, 16 сен 2014, 16:45:11	00:00:40	10	110	110	4.983040; 114.902664
Kenny Ken	Вт, 16 сен 2014, 16:51:16	00:00:35	2	102	102	4.990260; 114.970078
Kenny Ken	Вт, 16 сен 2014, 16:53:41	00:00:40	2	102	102	5.008890; 114.999962
Kenny Ken	Вт, 16 сен 2014, 16:54:56	00:00:40	4	104	103	5.024330; 115.010925
Kenny Ken	Ср, 17 сен 2014, 00:58:34	00:00:40	14	114	114	4.988310; 114.920853
Kenny Ken	Ср, 17 сен 2014, 16:57:08	00:00:40	6	106	106	4.580330; 114.244324
Kenny Ken	Ср, 17 сен 2014, 17:52:48	00:00:45	7	107	107	4.832380; 114.751640
Kenny Ken	Ср, 17 сен 2014, 17:53:58	00:00:55	2	102	102	4.836200; 114.768616

Fleet: Acceleration/Deceleration Violation Overview

Total Violations: 465

Toyota Hilux

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Driver	Date	Acceleration m/s ²	Deceleration m/s ²	Location
Ron1 Ron1	Вт, 31 авг 2014, 16:16:39		1.55	4.577730; 114.204803
	Вт, 31 авг 2014, 22:12:08	1.55		4.571930; 114.202667
	Вт, 31 авг 2014, 22:36:03		1.70	4.597680; 114.276459
	Вт, 31 авг 2014, 22:43:13		1.65	4.617760; 114.324951
	Вт, 31 авг 2014, 23:02:13		1.65	4.591250; 114.257507
	Вт, 31 авг 2014, 23:03:08		1.90	4.588630; 114.249687

About Monitoring Software and Monitoring Service (Some Samples)

Trip Overview

Report TimePeriod: 01 Sep 2014 00:00 – 30 Sep 2014 23:59

Report Created: 16 Oct 2014 15:51

Total Trips: 311

Mon, 01 Sep 2014

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Driver	Time	Durations	Distance	Speed km/h		Acceleration m/s ²		Deceleration m/s ²	
				Maximum	Average	Maximum	Average	Maximum	Average
Ron1 Ron1	08:09:49 - 08:19:17	00:09:28	3.51	62.00	0.51	1.15	0.27	1.55	0.35
	08:40:54 - 08:43:23	00:02:29	0.60	46.50	0.53	1.50	0.39	1.20	0.28
	10:11:37 - 10:13:11	00:01:34	0.10	24.00	0.64	0.40	0.38	0.45	0.33
	10:33:39 - 11:03:35	00:29:56	1.25	39.50	0.62	0.90	0.31	1.40	0.48
Ron1 Ron1	14:10:33 - 15:10:45	01:00:12	31.97	99.50	0.57	1.55	0.31	1.90	0.27
	17:14:10 - 17:32:36	00:18:26	2.83	58.50	1.67	1.30	0.43	2.10	0.56
Total Trips: 6		02:02:05	40.28	99.50	0.75	1.55	0.35	2.10	0.38

Tanker Utilization Report

Plate Number:	BAM6076	Group:	
Time Period:	17 сен 2014 00:00 – 17 сен 2014 23:59		

Operating Period (Calendar Days): 0

Operating Days per Period: 1

Distance: 231.092 km

Summary Working Time (hh:mm:ss): 23:59:54

Summary Effective Time (hh:mm:ss): 4:13:03

Date	Work Start - Work Finish	Work Time	Work Time %	Distance (km)	Effective Time	Effectivity %	Driving Time	Stand Time	Parking (pcs)
17-09-2014	0:00:00 - 23:59:54	23:59:54	1E2	231.09	4:13:03	18	3:58:03	0:15:00	16



**GuardMagic
Office
PC Based
Monitoring
(Complete Solution)**

About VehicleStation, FleetStation Monitoring Software

Vehicle Station and FleetStation are the series of a special program intended for “Real Time” mobiles and stationary objects monitoring (All-In-One monitoring software).

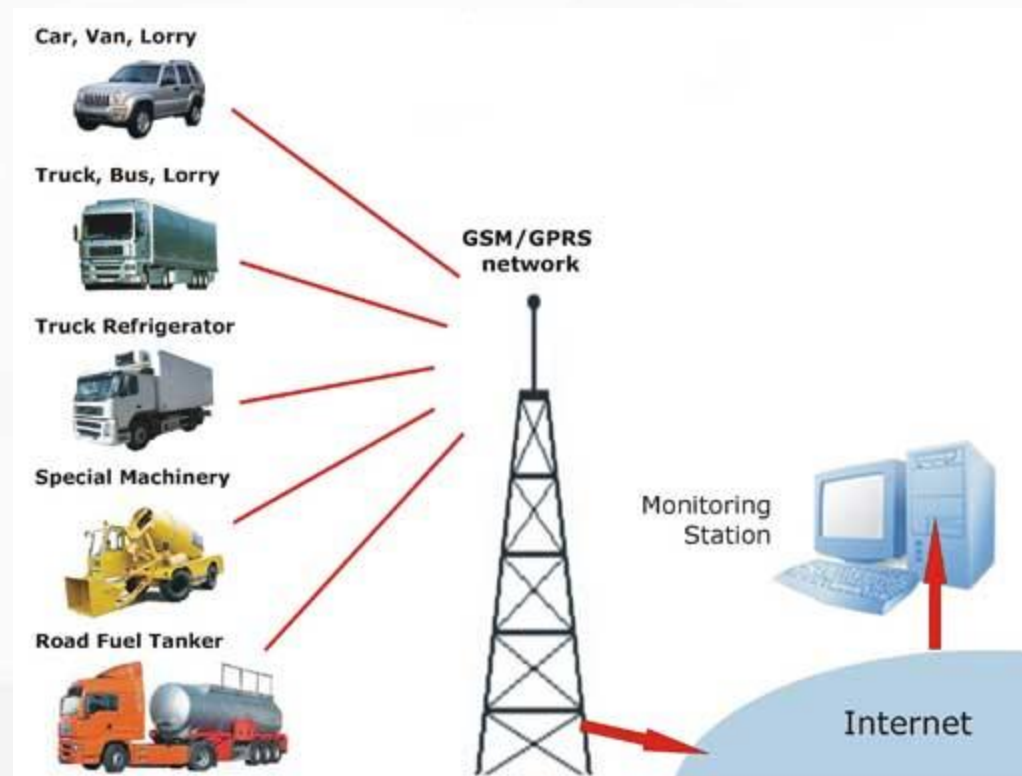
VehicleStation (FleetStation) give you secure access to all your vehicle in any part of the world.

VehicleStation (FleetStation) supports all type of road fuel tankers with up to 11 cargo fuel tanks (or tanks compartments).

Monitoring software located in your office server (office PC) and all information about your tankerd (and vehicle) located only in your office.

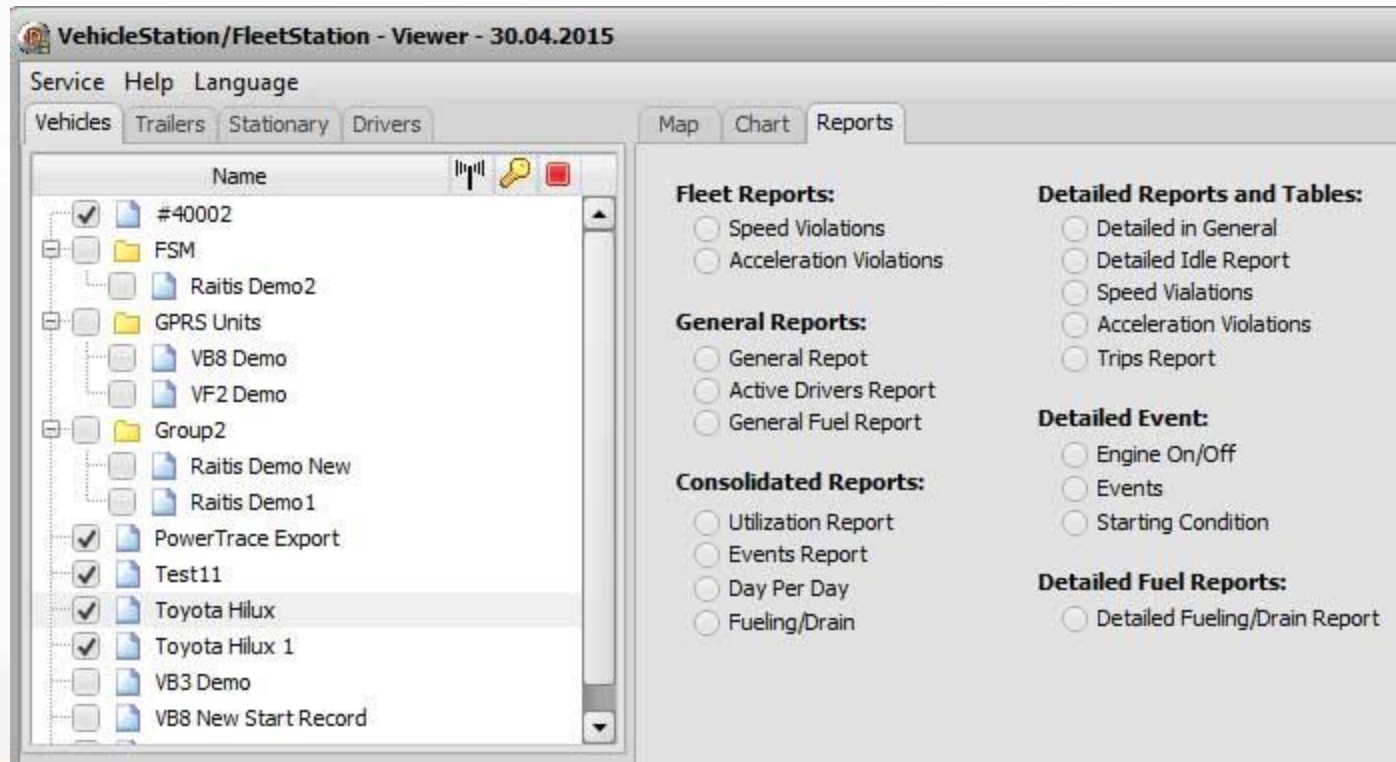
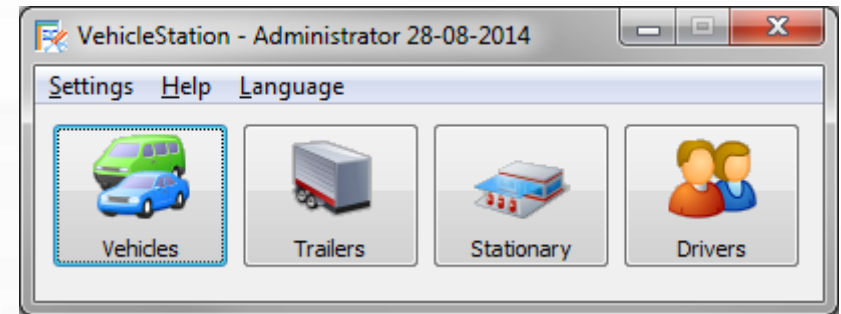
VehicleStation (FleetStation) monitoring software gives the following:

- Online tracking of your vehicles 24/7/365;
- Monitor trailers and your drivers;
- Overview of trips, parking and stop times;
- Online fuel monitoring;
- Online temperature monitoring;
- Generation different reports and graphs;
- Easy reporting;
- Comfortable monitoring center configuration;
- Data storage up to: depend only of your wishes (hard drive size).



About VehicleStation, FleetStation Monitoring Software

Monitor: Fuel Tanker, Driver, Fuel Trailer




About VehicleStation, FleetStation Monitoring Software

Main Operation Window

The screenshot displays the VehicleStation/FleetStation - Viewer software interface. The main window shows a map with a blue route and a pop-up window for the date 14-08-2014. The pop-up window lists the following events:

Time	Event
5:47:33	Ignition Off
12:00:01	Ignition On
12:00:34	Ignition Off
12:03:20	Ignition On
13:07:38	Ignition Off
13:07:38	Finish

The interface also includes a left sidebar with a tree view of vehicles and drivers, a bottom panel with vehicle data (Toyota Hilux, Plate Number: BAM6076, Fuel Type: petrol), and a bottom right panel with filters for Track, Sensors, Alarms, and Events, along with a Time Interval selector (14.08.2014 00:00 - 14.08.2014 23:59).



**WEB Based
Monitoring
(PowerTrace Monitoring
Service)**

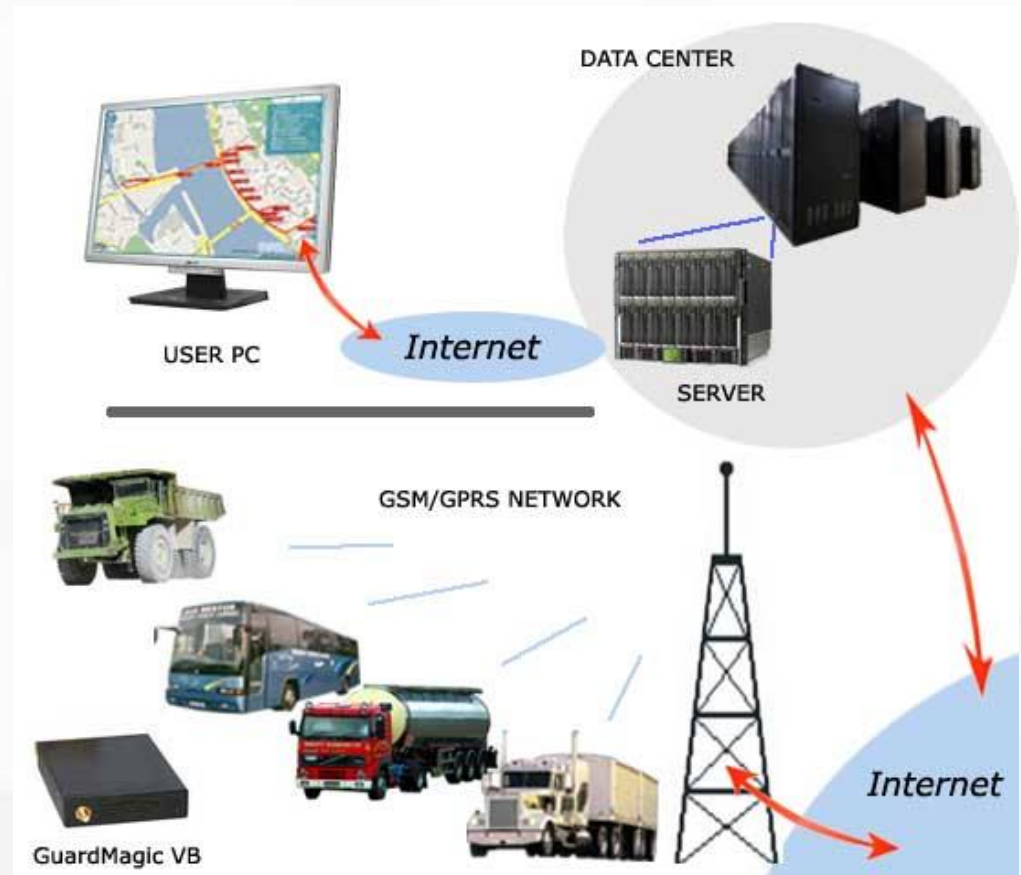
About PowerTrace Monitoring Service

WEB based PowerTrace monitoring service give you 24-hour secure access to all your vehicle from any PC in any part of the world.

WEB based system does NOT require any software installation or any your support of system operation. The only requisite is a computer with internet access.

Powerful PowerTrace web based vehicle monitoring service give the following:

- Online tracking of your vehicles 24/7/365;
- Overview of trips, parking and stop times;
- Geofencing institution;
- Online Fuel monitoring;
- Generation different reports and graphs;
- Automatic reporting;
- Alerts and warning sending;
- Data storage up to 15 months;
- Information downloaded in XML, CSV for management information;
- Online monitoring via Smartphone.





"GuardMagic" SIA
Kr.Barona 136e,
Riga, Latvia (EU)

www.guardmagic.com
www.tankercontrol.com

avl@guardmagic.lv ,
avl1@guardmagic.lv ,
info.1@guardmagic.com
support@guardmagic.com

phone: + 371 2914 2887
phone: + 371 2915 4768