Petroleum Products
Real Time Monitoring

ROAD FUEL TANKERS
Real Time Monitoring

GuardMagic
vehicle and fuel 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 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

GuardMagic VB8

Fuel Bus 1 (EIA-485)

Fuel Bus 2 (EIA-485)

Intrinsically Safe Barrier:
- GuardMagic JBB01

System Extension:
- Trailer Identification
- Lid Controller
- etc.

Cargo Tanks or Compartments:
(up to ELEVEN tanks)
Fuel level sensors:
- GuardMagic DLL11et

Vehicle Regular Fuel Tanks:
(up to THREE tanks)
Fuel level sensors:
- GuardMagic DLLS1a

Engine Blocking Relay

Driver Identification (not limited drivers)

Five Authorized Drivers

Panic Button
Event Button
Truck Alarm System
Crash Sensor
Reserve Battery
Customer Executing Relay

www.guardmagic.com
www.tankercontrol.com
avl@guardmagic.lv
# In Tanker Main Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
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<td>(fuel level sensors for explosive area) GuardMagic DLLE1ct sensor can be starting of 1300mm length and up to 2500mm length.</td>
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<td><strong>GuardMagic JBB01</strong></td>
<td>(Two channel &quot;Safety Barrier&quot;) Necessary to use. Barrier support up to TWO fuel level sensors GuardMagic DLLE1ct</td>
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<tr>
<td><strong>GuardMagic DLLS1a</strong></td>
<td>(fuel level sensors) Only if need to monitor tractor regular fuel tank. As usual sensor length is 500 ... 700mm.</td>
</tr>
</tbody>
</table>
In Tankers
(Popular Types)
Structure,
In General
Mini Fuel Tank Truck Structure

One Cargo Compartment:

GuardMagic DAFS
adapter for floating fuel level sensor

d to Vehicle Regular Fuel Level Sensor

"Fuel Bus"
(EIA 485 Communication Cable)

GuardMagic DLLS1a
Fuel level sensor in cargo tank

GuardMagic
vehicle and fuel monitoring

www.guardmagic.com
www.tankercontrol.com
avl@guardmagic.lv
# Mini Fuel Tank Truck Main Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GuardMagic VB7</strong></td>
<td>collect data from fuel level sensors, information about tanker movements, tanker location and send this information to monitoring station</td>
</tr>
<tr>
<td>(also available VB6 module)</td>
<td></td>
</tr>
<tr>
<td><strong>GuardMagic DLLS1a fuel level sensors</strong></td>
<td>for measurement fuel level in cargo fuel compartments in cargo tank</td>
</tr>
<tr>
<td><strong>cable GM4.020 series</strong></td>
<td>This cable is intended for easy connection fuel level sensor GuardMagic DLLS1 to main module.</td>
</tr>
<tr>
<td><strong>GuardMagic DAFS</strong></td>
<td>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</td>
</tr>
</tbody>
</table>
Fuel Tank Truck

GuardMagic VB8

Fuel Level Sensors in Truck Fuel Tanks
GuardMagic DLLS1

“Fuel Bus” (EIA 485 Communication Cable)

GuardMagic JBB01
Two Channel Safety Barrier

GuardMagic DLLE1ct
Up to 11 Fuel Level Sensors in Cargo Tanks (Cargotanks)
## Fuel Tank Truck Main Components

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</tr>
<tr>
<td><strong>Communication cable</strong></td>
<td>For electrical connection Main module with Safety Barrier (Olflex Robust 210: water, oil, fuel, UF resistance cable)</td>
</tr>
<tr>
<td><strong>GuardMagic DLLS1a</strong></td>
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<td>This cable is intended for easy connection fuel level sensor GuardMagic DLLS1 located in regular fuel tanks to main module.</td>
</tr>
</tbody>
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Long Fuel Tank Truck

GuardMagic VB8
Fuel Level Sensors in Truck Fuel Tanks
GuardMagic DLLS1

"Fuel Bus"
(EIA 485 Communication Cable)

GuardMagic JBB01
Two Channel Safety Barrier

Up to 11 Fuel Level Sensors in Cargo Tanks (Capartmets)
GuardMagic DLLE1ct
# Long Fuel Tank Truck Main Components

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Tractor+Fuel Tank Semitrailer

GuardMagic Y88
Connector in tractor
Fuel Level Sensors in Truck Fuel Tanks
GuardMagic DLLS1
Spiral Cable Truck-Trailer

"Fuel Bus"
(EIA 485 Communication Cable)

GuardMagic JBB01
Two Channel Safety Barrier

Up to 11 Fuel Level Sensors in Cargo Tanks (Capartmets)
GuardMagic DLLLE1ct

GuardMagic
vehicle and fuel monitoring

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avi@guardmagic.lv
## Tractor+Fuel Tank Semitrailer Main Components

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<tr>
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<td>For electrical connection &quot;Safety Barrier&quot; and trailer connector. (Olflex Robust 210: water, oil, fuel, UF resistance cable)</td>
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Fuel Tank Truck + Fuel Tank Semitrailer

GuardMagic VB8

Fuel Level Sensors in Truck Fuel Tanks
GuardMagic DLLS1

"Fuel Bus" (EIA 485 Communication Cable)

Connector in tractor

Connector in trailer

GuardMagic JB801
Two Channel Safety Barrier

Level Sensors in Cargo Tanks (Capartmets)
GuardMagic DLLE 1ct

Spiral Cable Truck-Trailer

Up to 11 Fuel Level Sensors in Cargo Tanks (Capartmets)
## Tractor+Fuel Tank Semitrailer Main Components

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

 device type: GuardMagic
 Unique ID: 1200413
 Phone: 
 Last message: 2012-09-14 17:04:50 (2 hours 31 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

---

GuardMagic vehicle and fuel monitoring

www.guardmagic.com
www.tankercontrol.com
avl@guardmagic.tv

35
Fuel Tanker in Map and Fuel Volume in Compartments

Device type: GuardMagic
Unique ID: 1200413
Phone: ---
Last message: 2012-09-14 17:04:50 (2 hours 35 minutes ago)
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Cargo Tank 2: 2311.63 litres
Cargo Tank 3: 1974.36 litres
Event: Off
GPS Alarm: Off
Ignition: Off
Input: On
Main Power Alarm: Off
main Tank 1 (digital): 0.00 litres
Overheat: Off
Tank Empty: Off
Theft: Off
Wrong authorisation: Unknown
Tanker Status

Device type: GuardMagic VB
Unique ID: 1300470
Phone: +359876238924
Mileage counter: 379.7 km
Engine hours counter: 551 h
Cargo Tank 1: 174.11 litres
FLS: 12.08 °C

Temperature: 11.15 °C
Fuel code: 141.00 digit
Ignition: Off
Speed Real: 0.00 km/h
Fuel Bus Failure: Off
Acceleration (max): 0.00 m/sec²
Deceleration (max): 0.00 m/sec²
GPS Failure: Off
Tanker Trip, Parameters of Movement and Tank Status
Point of Trip Description
Fuel Compartments Loading Graph
Fuel Compartments Unloading Graph
## Unloading Report

<table>
<thead>
<tr>
<th>Unloading</th>
<th>Sensor name</th>
<th>Time</th>
<th>Location</th>
<th>Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>535 lt</td>
<td>Cargo Tank1</td>
<td>2015-08-04 07:47:33</td>
<td>N 43° 29.0124′ : E 23° 28.7862′</td>
<td>------</td>
</tr>
<tr>
<td>534 lt</td>
<td>Cargo Tank1</td>
<td>2015-08-05 08:06:47</td>
<td>0.43 km from 102, Montana, BG</td>
<td>------</td>
</tr>
<tr>
<td>281 lt</td>
<td>Cargo Tank1</td>
<td>2015-08-05 21:49:44</td>
<td>0.52 km from 13,101, Krivodol, BG</td>
<td>0</td>
</tr>
<tr>
<td>641 lt</td>
<td>Cargo Tank1</td>
<td>2015-08-06 07:52:45</td>
<td>N 43° 23.2314′ : E 23° 33.6972′</td>
<td>0</td>
</tr>
<tr>
<td>289 lt</td>
<td>Cargo Tank1</td>
<td>2015-08-06 08:10:39</td>
<td>N 43° 25.2408′ : E 23° 40.3284′</td>
<td>0</td>
</tr>
<tr>
<td>517 lt</td>
<td>Cargo Tank1</td>
<td>2015-08-06 19:30:42</td>
<td>N 43° 23.2380′ : E 23° 33.7086′</td>
<td>0</td>
</tr>
<tr>
<td>498 lt</td>
<td>Cargo Tank1</td>
<td>2015-08-06 21:16:55</td>
<td>N 43° 25.6554′ : E 23° 39.8292′</td>
<td>0</td>
</tr>
<tr>
<td>167 lt</td>
<td>Cargo Tank1</td>
<td>2015-08-07 08:12:19</td>
<td>0.59 km from ул. Дунав, Borovan, BG</td>
<td>0</td>
</tr>
<tr>
<td>275 lt</td>
<td>Cargo Tank1</td>
<td>2015-08-07 08:34:24</td>
<td>3.45 km from ул. Дунав, Borovan, BG</td>
<td>0</td>
</tr>
<tr>
<td>123 lt</td>
<td>Cargo Tank1</td>
<td>2015-08-07 14:01:16</td>
<td>0.52 km from 13,101, Krivodol, BG</td>
<td>0</td>
</tr>
<tr>
<td>521 lt</td>
<td>Cargo Tank1</td>
<td>2015-08-10 07:44:34</td>
<td>N 43° 23.4138′ : E 23° 23.3004′</td>
<td>0</td>
</tr>
<tr>
<td>424 lt</td>
<td>Cargo Tank1</td>
<td>2015-08-10 08:06:55</td>
<td>0.44 km from 102, Montana, BG</td>
<td>0</td>
</tr>
<tr>
<td>207 lt</td>
<td>Cargo Tank1</td>
<td>2015-08-10 19:08:04</td>
<td>102, Montana, BG</td>
<td>0</td>
</tr>
<tr>
<td>151 lt</td>
<td>Cargo Tank1</td>
<td>2015-08-10 19:09:46</td>
<td>102, Montana, BG</td>
<td>0</td>
</tr>
<tr>
<td>1201 lt</td>
<td>Cargo Tank1</td>
<td>2015-08-10 19:28:30</td>
<td>N 43° 23.3754′ : E 23° 23.4678′</td>
<td>0</td>
</tr>
</tbody>
</table>
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)
About Monitoring Software and Monitoring Service (Some Samples)
About Monitoring Software and Monitoring Service
(Some Samples)

Fuel Daily Consumption Graph

Vehicle Active Driver Report

Detailed Starting Status Report

General Events Report
About Monitoring Software and Monitoring Service (Some Samples)

**General**

- **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

**Utilization**

<table>
<thead>
<tr>
<th>Date</th>
<th>Using of Working Time</th>
<th>Effectiveness</th>
<th>Operating Time</th>
<th>Effective Time</th>
<th>Driving Time</th>
<th>Idle Time</th>
<th>Parking Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/01/2010</td>
<td>10.93%</td>
<td>2.17%</td>
<td>2.37:25</td>
<td>0.31:12</td>
<td>0.18:37</td>
<td>0.08:01</td>
<td>1</td>
</tr>
<tr>
<td>13/01/2010</td>
<td>49.83%</td>
<td>15.77%</td>
<td>11.57:34</td>
<td>3.47:03</td>
<td>2.04:33</td>
<td>2.38:07</td>
<td>9</td>
</tr>
<tr>
<td>14/01/2010</td>
<td>44.88%</td>
<td>19.73%</td>
<td>10.43:23</td>
<td>4.44:05</td>
<td>0.31:47</td>
<td>2.45:05</td>
<td>7</td>
</tr>
<tr>
<td>15/01/2010</td>
<td>15.55%</td>
<td>9.47%</td>
<td>3.43:52</td>
<td>2.16:25</td>
<td>1.39:46</td>
<td>0.40:07</td>
<td>1</td>
</tr>
<tr>
<td>16/01/2010</td>
<td>49.34%</td>
<td>16.64%</td>
<td>11.50:29</td>
<td>3.59:40</td>
<td>2.31:43</td>
<td>1.15:52</td>
<td>6</td>
</tr>
<tr>
<td>17/01/2010</td>
<td>54.23%</td>
<td>16.26%</td>
<td>13.05:42</td>
<td>3.54:10</td>
<td>2.13:28</td>
<td>0.21:41</td>
<td>3</td>
</tr>
<tr>
<td>18/01/2010</td>
<td>48.63%</td>
<td>25.13%</td>
<td>11.40:16</td>
<td>6.01:54</td>
<td>4.14:13</td>
<td>0.36:52</td>
<td>3</td>
</tr>
<tr>
<td>20/01/2010</td>
<td>11.43%</td>
<td>8.82%</td>
<td>2.44:40</td>
<td>2.07:04</td>
<td>1.08:36</td>
<td>0.09:39</td>
<td>1</td>
</tr>
</tbody>
</table>

**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

**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:** <0.0 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

**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

<table>
<thead>
<tr>
<th>Date</th>
<th>Work Starting</th>
<th>Work Finishing</th>
<th>Work Time</th>
<th>Distance (km)</th>
<th>Effective Time</th>
<th>Driving Time</th>
<th>Stand Time</th>
</tr>
</thead>
</table>

Detailed Idle Time (Parking)

<table>
<thead>
<tr>
<th>Idle Time Beginning</th>
<th>Idle Time Ending</th>
<th>Idle Time Duration</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>05:07:00</td>
<td>05:16:34</td>
<td>00:09:34</td>
<td>25.245501</td>
<td>51.4683</td>
</tr>
<tr>
<td>05:17:02</td>
<td>05:33:39</td>
<td>00:16:07</td>
<td>25.245501</td>
<td>51.4683</td>
</tr>
<tr>
<td>08:53:58</td>
<td>09:08:28</td>
<td>00:14:30</td>
<td>25.245501</td>
<td>51.4683</td>
</tr>
<tr>
<td>09:11:37</td>
<td>09:47:10</td>
<td>00:35:33</td>
<td>25.242701</td>
<td>51.472801</td>
</tr>
<tr>
<td>09:52:55</td>
<td>10:08:23</td>
<td>00:15:28</td>
<td>25.242701</td>
<td>51.472801</td>
</tr>
<tr>
<td>10:10:44</td>
<td>10:19:30</td>
<td>00:08:46</td>
<td>25.245399</td>
<td>51.4683</td>
</tr>
<tr>
<td>10:41:58</td>
<td>11:12:46</td>
<td>00:30:48</td>
<td>25.2428</td>
<td>51.4729</td>
</tr>
</tbody>
</table>
### About Monitoring Software and Monitoring Service (Some Samples)

**Driver Safety Driving, Eco-Driving and Drivers Rating**

<table>
<thead>
<tr>
<th>Time Period: 01-09-2014 00:00 - 01-10-2014 00:00</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Driver</th>
<th>Work Time (h:mm)</th>
<th>Overspeed Driving (%)</th>
<th>Mileage (km)</th>
<th>Speed</th>
<th>Acceleration</th>
<th>Deceleration</th>
<th>Total Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ken Kenny</td>
<td>46:29</td>
<td>6</td>
<td>2880.2</td>
<td>Max</td>
<td>116.0</td>
<td>0.25</td>
<td>6.90</td>
</tr>
<tr>
<td>Ron1</td>
<td>23:53</td>
<td>0</td>
<td>967.5</td>
<td>Avg</td>
<td>71.3</td>
<td>0.25</td>
<td>6.90</td>
</tr>
<tr>
<td>Brunel 4 FES</td>
<td>2:33</td>
<td>0</td>
<td>93.3</td>
<td>Max</td>
<td>104.5</td>
<td>0.30</td>
<td>2.07</td>
</tr>
<tr>
<td>RON 2 FES</td>
<td>0:00</td>
<td>0</td>
<td>0</td>
<td>Avg</td>
<td>52.9</td>
<td>0.30</td>
<td>2.07</td>
</tr>
<tr>
<td>Ivanov Alexey</td>
<td>0:00</td>
<td>0</td>
<td>0</td>
<td>Max</td>
<td>1.85</td>
<td>2.07</td>
<td>13.02</td>
</tr>
<tr>
<td>RON RON</td>
<td>0:00</td>
<td>0</td>
<td>0</td>
<td>Avg</td>
<td>1.85</td>
<td>2.07</td>
<td>13.02</td>
</tr>
</tbody>
</table>

---

**Tanker Eco-Driving and Safety Driving**

**Report Time Period:** 01 Sep 2014 00:00 - 30 Sep 2014 23:59

**Report Created:** 16 Oct 2014 15:51

**Total Trips:** 311

**Mon, 01 Sep 2014**

<table>
<thead>
<tr>
<th>Driver</th>
<th>Time</th>
<th>Durations</th>
<th>Distance</th>
<th>Speed km/h</th>
<th>Acceleration m/s²</th>
<th>Deceleration m/s²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Maximum</td>
<td>Average</td>
<td>Maximum</td>
</tr>
<tr>
<td>Ron1 Ron1</td>
<td>08:09:49 - 08:19:17</td>
<td>00:09:28</td>
<td>3.51</td>
<td>62.00</td>
<td>0.51</td>
<td>1.15</td>
</tr>
<tr>
<td></td>
<td>08:40:54 - 08:43:23</td>
<td>00:02:29</td>
<td>0.60</td>
<td>46.50</td>
<td>0.53</td>
<td>1.50</td>
</tr>
<tr>
<td></td>
<td>10:11:37 - 10:13:11</td>
<td>00:01:34</td>
<td>0.10</td>
<td>24.00</td>
<td>0.64</td>
<td>0.40</td>
</tr>
<tr>
<td></td>
<td>10:33:39 - 11:03:35</td>
<td>00:29:56</td>
<td>1.25</td>
<td>39.50</td>
<td>0.62</td>
<td>0.90</td>
</tr>
<tr>
<td></td>
<td>14:10:33 - 15:10:45</td>
<td>00:00:12</td>
<td>31.97</td>
<td>99.50</td>
<td>0.57</td>
<td>1.55</td>
</tr>
<tr>
<td>Ron1 Ron1</td>
<td>17:14:10 - 17:32:36</td>
<td>00:18:26</td>
<td>2.83</td>
<td>58.50</td>
<td>1.67</td>
<td>1.30</td>
</tr>
</tbody>
</table>

**Total Trips:** 6
**About Monitoring Software and Monitoring Service (Some Samples)**

### Fleet: Speed Violation Overview

<table>
<thead>
<tr>
<th>Driver</th>
<th>Date</th>
<th>Durations</th>
<th>Speed km/h</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenny Ken</td>
<td>16 сен 2014, 16:42:26</td>
<td>00:01:00</td>
<td>10 110 109</td>
<td>4.967330; 114.864708</td>
</tr>
<tr>
<td>Kenny Ken</td>
<td>16 сен 2014, 16:45:11</td>
<td>00:04:00</td>
<td>10 110 110</td>
<td>4.983040; 114.902664</td>
</tr>
<tr>
<td>Kenny Ken</td>
<td>16 сен 2014, 16:51:16</td>
<td>00:03:35</td>
<td>2 102 102</td>
<td>4.990260; 114.970078</td>
</tr>
<tr>
<td>Kenny Ken</td>
<td>16 сен 2014, 16:53:41</td>
<td>00:04:00</td>
<td>2 102 102</td>
<td>5.008990; 114.999962</td>
</tr>
<tr>
<td>Kenny Ken</td>
<td>16 сен 2014, 16:54:56</td>
<td>00:04:00</td>
<td>4 104 103</td>
<td>5.024330; 115.010925</td>
</tr>
<tr>
<td>Kenny Ken</td>
<td>17 сен 2014, 00:58:34</td>
<td>00:04:00</td>
<td>14 114 114</td>
<td>4.988310; 114.920853</td>
</tr>
<tr>
<td>Kenny Ken</td>
<td>17 сен 2014, 01:57:08</td>
<td>00:04:00</td>
<td>6 106 106</td>
<td>4.680320; 114.244324</td>
</tr>
<tr>
<td>Kenny Ken</td>
<td>17 сен 2014, 17:52:48</td>
<td>00:04:45</td>
<td>7 107 107</td>
<td>4.832380; 114.751649</td>
</tr>
<tr>
<td>Kenny Ken</td>
<td>17 сен 2014, 17:53:58</td>
<td>00:05:55</td>
<td>2 102 102</td>
<td>4.836200; 114.768616</td>
</tr>
</tbody>
</table>

### Fleet: Acceleration/Deceleration Violation Overview

<table>
<thead>
<tr>
<th>Driver</th>
<th>Date</th>
<th>Acceleration m/s²</th>
<th>Deceleration m/s²</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ron1 Ron1</td>
<td>31 авг 2014, 16:16:39</td>
<td>1.55</td>
<td></td>
<td>4.577730; 114.204803</td>
</tr>
<tr>
<td></td>
<td>31 авг 2014, 22:12:08</td>
<td>1.55</td>
<td></td>
<td>4.571930; 114.202667</td>
</tr>
<tr>
<td></td>
<td>31 авг 2014, 22:36:03</td>
<td>1.70</td>
<td></td>
<td>4.597680; 114.276459</td>
</tr>
<tr>
<td></td>
<td>31 авг 2014, 22:43:13</td>
<td>1.65</td>
<td></td>
<td>4.617760; 114.324951</td>
</tr>
<tr>
<td></td>
<td>31 авг 2014, 23:02:13</td>
<td>1.65</td>
<td></td>
<td>4.591250; 114.257507</td>
</tr>
<tr>
<td></td>
<td>31 авг 2014, 23:03:08</td>
<td>1.90</td>
<td></td>
<td>4.588630; 114.249867</td>
</tr>
</tbody>
</table>
About Monitoring Software and Monitoring Service (Some Samples)

Trip Overview

Tanker Utilization Report
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 vehicles 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
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

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support@guardmagic.com

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