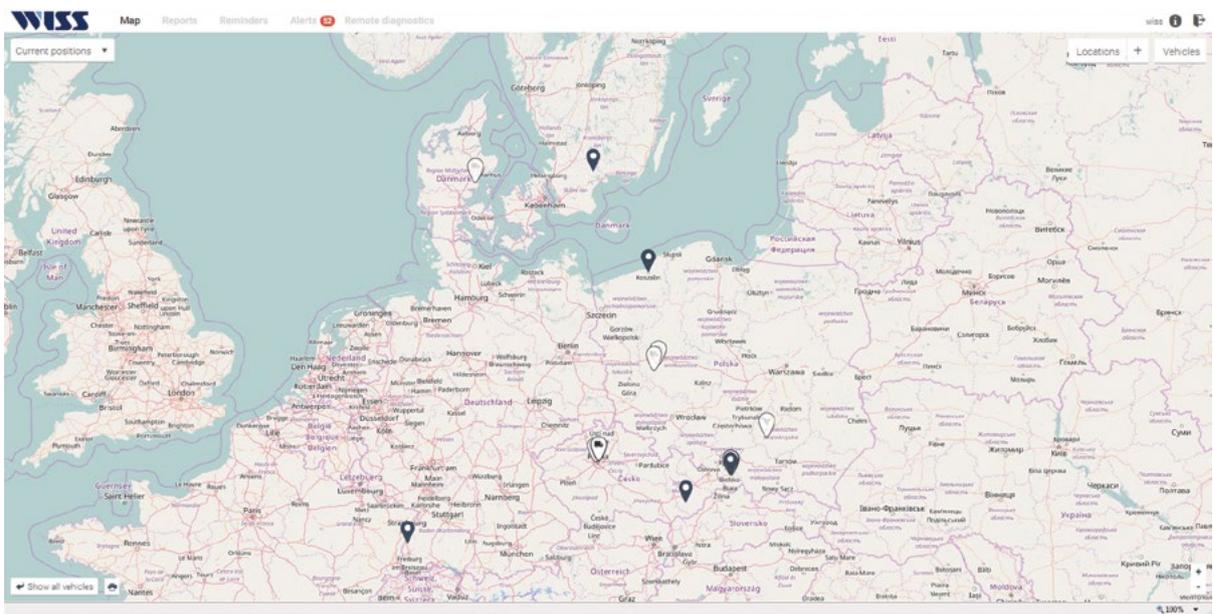


## VEHICLE PERFORMANCE MONITORING SYSTEM

The system was designed to meet constantly increasing technical and technological requirements relating to vehicles and rescue equipment. It integrates on-line communication with a vehicle and processing data in a way which is understandable for an end user. It provides effective collaboration of the user and equipment in an emergency situation. It is helpful in the routine activities of operation and maintenance, and it provides access to the statistics and archival data. The Wservice system is an innovative technology which allows to manage optimally the vehicle through use of the latest technologies.

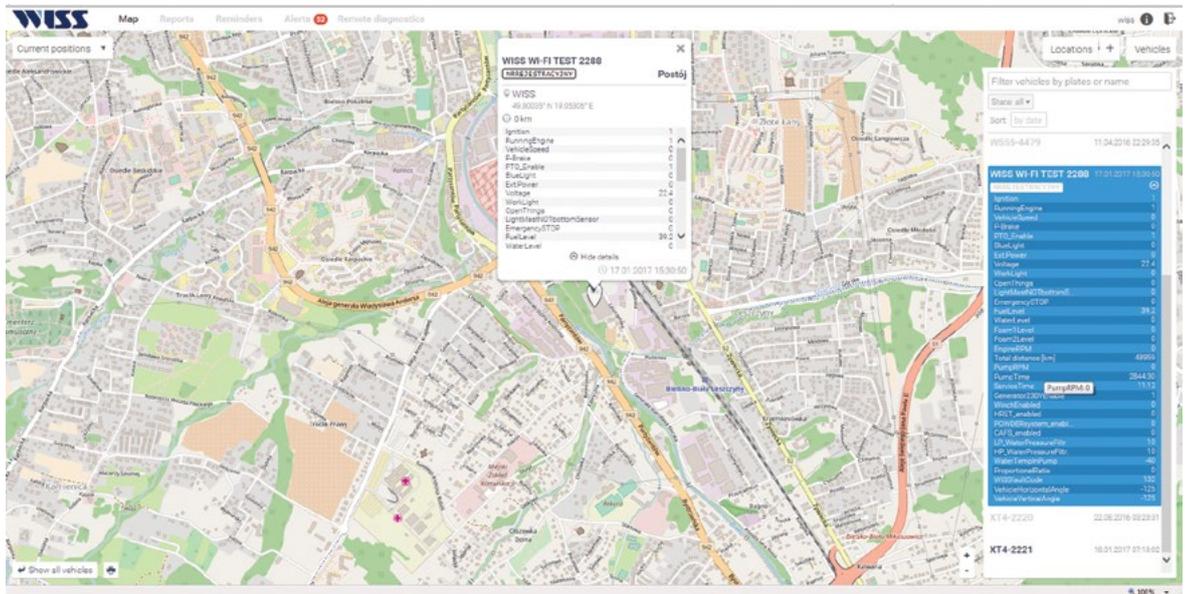


### SYSTEM FUNCTIONALITY:

- vehicle data registration, online viewing and analyzing through the Wservice web portal
- access to your personal login data, from any location through the Internet access
- access to information via a computer, a tablet, a smartphone, regardless of the operating system which has been installed
- obtaining current news on the condition/status of the vehicle: driving / alarm driving / operating / stop



- When the vehicle operates the Wservice system registers the work of the vehicle and installed components. The recorded data include the position and condition of the vehicle, they can be retrieved and analyzed online.
- The system supports the fleet management by creating and sending messages and reports so you can track the operational readiness of vehicles, from any place and at any time.
- Recorded data can be viewed and analyzed using the portal Wservice online from anywhere with the internet access. All Information is available on a computer, a tablet and a smartphone.



## Features & Benefits:

**MESSAGES** The system monitors the condition of the vehicle around the clock and immediately informs a user of any malfunctions through a built-in mechanism for sending e-mail or SMS to the user:



- it analyzes automatically the systems and the system of the vehicle around the clock

- it allows for early detection of abnormalities (e.g. the low voltage of batteries, no recharging of batteries, overheating in the hydraulic system)

- it sends automatically status messages to the customer and the vehicle manufacturer service (e-mail, sms)

- thanks to the automatically generated message the user is kept informed about the state of the vehicle

Messages also help maintain the current technical vehicle, inform about its technical condition.

Alert date: 2017-01-16 11:28:08.0000

Alert name: DangerousDriving

Vehicle name: W551-4482

Employee:

Fuel level:

Refuel:

<mailto:>

Tel:

**REMOTE DIAGNOSTICS** In order to ensure the availability of the vehicle, resulting errors must be identified as early as possible, the diagnostic function allows to do that:



- an ability to analyze the recorded data in order to detect potential failures, damage
- identification and an analysis of errors before the first visit of a service team
- an error diagnosis regardless of the vehicle location

Remote diagnostics allows identifying and removing the failures causes at an early stage.

The screenshot shows the 'Alerts' section of the WISS software. It features a table with columns: Name, Message, Vehicle, Occurrence date, and Actions. There are six rows of alerts, all labeled 'DangerousDriving' for vehicle 'W551-4482'. Each row includes a recorder number (2216), vehicle name, employee name, and litres count in refueling. The occurrence dates range from 23.12.2016 02:17 to 26.12.2016 12:28. Each alert has a 'mark as read' action button.

**SERVICE** The reminder function helps maintain operational readiness of the vehicle through automatic configurable maintenance check reminders.

Wservice automates the service planning :



- the reminder of the necessary service inspections based on work hours, mileage or time between maintenance
- automatic e-mail notifications about the upcoming technical inspection
- an ability to keep records of the service operation

The screenshot shows the 'Reminders' section of the WISS software. It features a table with columns: Status, Vehicle, Type, Mileage, Intervals (Months, M), Mileage, Progress, Date, M, and Actions. There are four rows of reminders. A 'Types configuration (max. 10)' dialog box is open, showing a table with columns: Name, Mileage, Months, M. The dialog box contains three rows of configuration for 'Przebieg okresowy pojazdu', 'Przebieg okresowy pompy', and 'Przypomnienie #3'.

**REPORTS** Program allows you to generate automatically reports on functionality of components and vehicles. Reports can be adjusted to the special customer needs, the specific projects, operating reports.



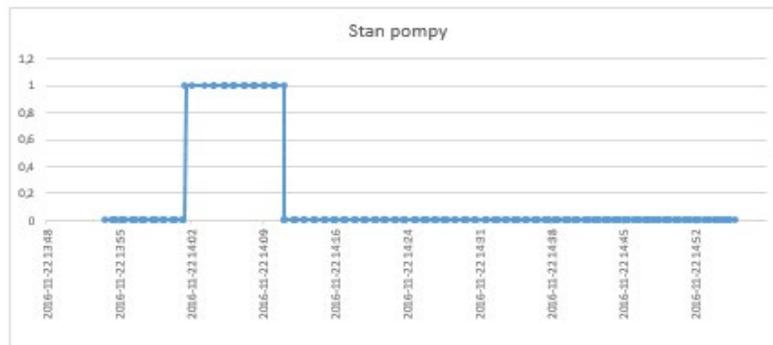
- the automatic generation of reports
- current information on the use of means and working hours, etc.
- providing additional information to the reports by the operator, comments, etc.
- reporting on operating of components and vehicle (time, parameters, errors)
- traceability of operating parameters such as engine speed, pressure, work equipment

Automatically generated reports support activities of administration and maintenance related to the ongoing supervision and maintenance of the equipment and the vehicle.



Dane dla pojazdu:  
KOREA 2395 [ID:2395]  
Dane za okres:  
2016-11-22 - 2016-11-22

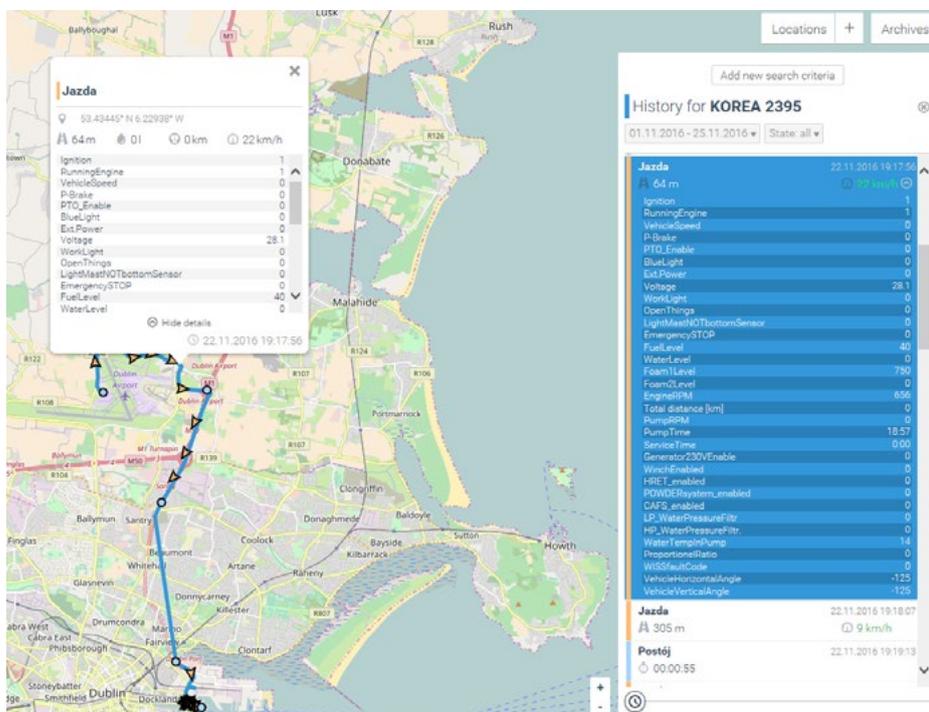
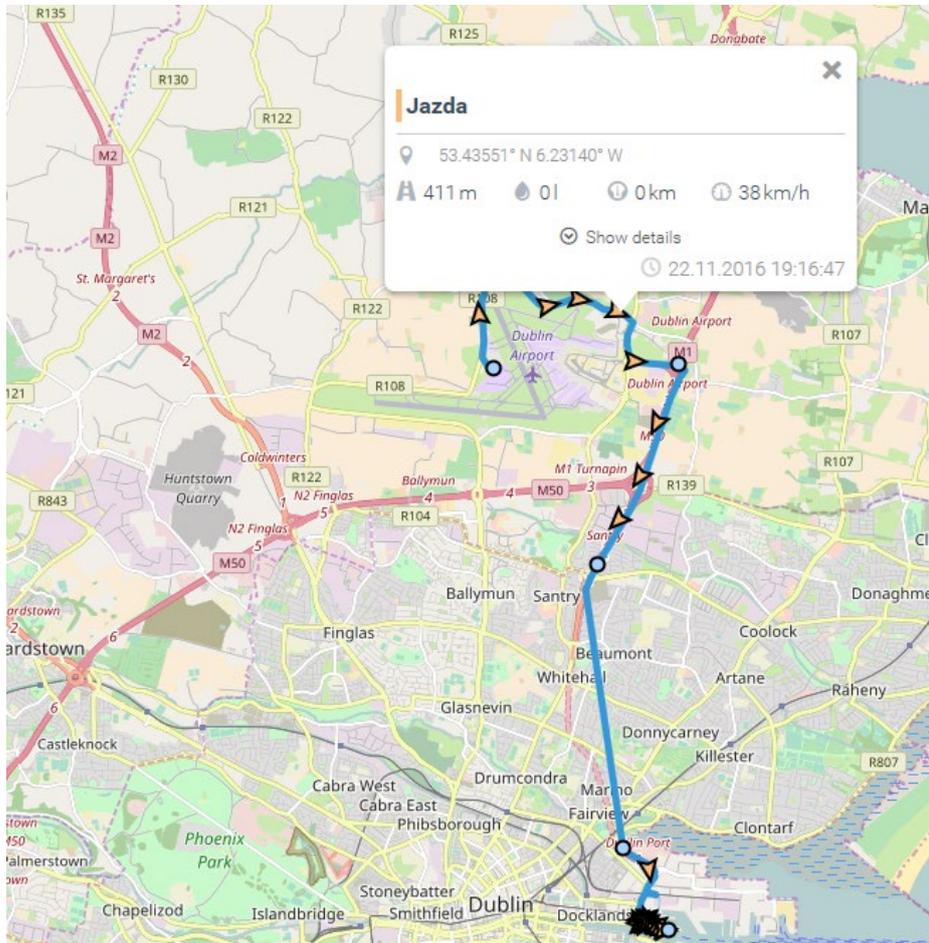
LP	Parametr	Wartość w okresie	Wartość ogółem
1	Vehicle ID	0	-
2	Przebyty dystans [km]	0	0
3	Czas pracy silnika [h:m]	2:57	2:57
4	Czas pracy pompy [h:m]	0:18	18:57
5	Czas pracy agregatu [h:m]	0:00	0:00
6	Poziom paliwa	40	-
7	Zużycie paliwa [l]	12,8	-
8	Czas pracy hydrauliki [h:m]	0:42	18:57
9	Czas do serwisu	0:00	-
10	Pompa start/stop	5	-
11	Awaria silnika	0	-
12	Generator 230V AC start/stop	0	-
13	Wyciągarka start/stop	0	-
14	Dozownik piany start/stop	4	-
15	Za niskie napięcie	0	-
16	Przegrzana pompa	0	-
17	Kawitacja	0	-



**MAPS** When the vehicle is turned on telematics system, provides the information about the current position of the vehicle to the data service center. This provides current information about location of the vehicle:



- displaying the current position of the vehicle
- recording the routes covered
- monitoring the vehicle in real time through the Wservice application
- displaying the vehicle route covered



**VEHICLE INFORMATION IN ONE PLACE AVAILABLE ONLINE FROM ANY LOCATION:**

In addition to portal online services the access to information is also available through the Internet access to vehicle information, such as: the vehicle state of operation, error messages, a position, etc., via mobile devices. This allows you to stay connected and supervise the fleet at any time.

- all vehicle information available from any location at any time
- information about the vehicle operation, routes covered and a current position
- displaying the current status of the vehicle
- information about a vehicle route on a map
- access to information system in an emergency vehicle at no extra cost

WISS vehicles which have CanBus can be equipped with the Wservice system. The recorded operating parameters of a vehicle vary depending on different types of vehicles. The system can be easily installed in existing vehicles with CanBus.

**ACCESS TO DEMO SITE FOR FREE:**

<http://wiss.xweb.xtrack.pl/#/login>

Username: guest

Login: guest

Password: guest

Wservice  
WAWRZASZEK Special Vehicle Engineering  
TELEMATIC SYSTEM

Login

Password

Customer  
01393.fdb

Language  
English

Log in

Powered by XTRACK



# Examples of information provided by the Wservice system from various types of vehicles:

## CLASS ARFF AIRPORT VEHICLES:

- faults and failures: on-board computer, a HRET extinguishing arm, a water foam monitor, pressure sensors of a water level and foaming agents, an engine, a traction system
- the status of a vehicle and installed devices
- too high oil temperature, oil pressure, dirty oil filter
- a low voltage of batteries
- a pump pressure, a temperature and cavitation



## FIREFIGHTING VEHICLES:

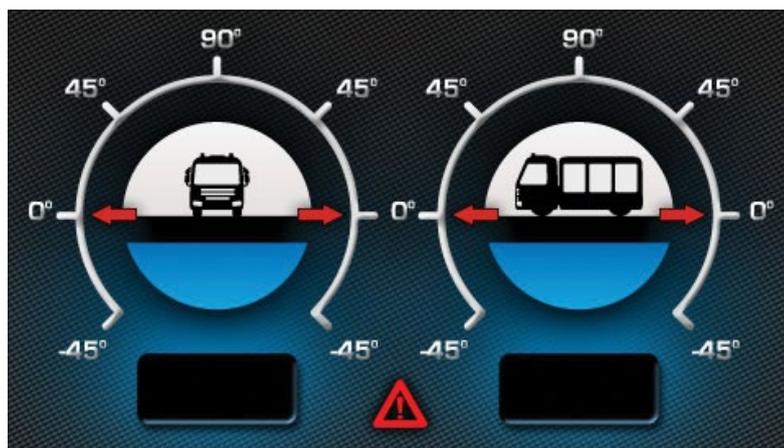
- damaged equipment on the vehicle, such as: an on-board computer, a power generator, a monitor, a lighting mast, a foam pump, etc.
- inadequate service resulting in, e.g. pump cavitation, a pump running dry
- too low voltage of batteries, a low level of a coolant liquid, too high oil pressure
- a level of water and foaming agents tanks





**Wservice system can be integrated with MSSVRA - Mobile Alarm System Angle Heel Vehicle (Mobile Signaling System Vehicle Roll Angle).**

MSSVRA is a system of warning a driver about dangerous side slope or overload in a vehicle such as emergency braking, too large gradeability angle (longitudinal and transverse) or dangerous driving. The system monitors vehicle's operation parameters, compares them with data from a chassis and provides a driver with critical values in the form of graphic visualization and acoustic warning signal. Boundary values are signalled by the acoustic warning signal in the cab.



[www.facebook.com/isswawrzaszek](http://www.facebook.com/isswawrzaszek)

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