

FLEET MANAGEMENT SYSTEM “INSPECTOR”

Project Manager. Andrii Biloshchytskyi, Doctor of Engineering Science, Full Professor

Hardware-software complex INSPECTOR is a system of satellite (GPS) monitoring, dispatching and fuel flow control, aimed at monitoring, control and administration of the vehicle fleet. The hardware component has been developed and is manufactured by our company based on the most up-to-date and top quality elements. The software component was patented by our company and has been built on a new platform with application of advanced cloud technologies.

Basic functional capabilities of INSPECTOR system:

Web – interface (Access to the system from any Internet-connected PC)

On-line monitoring

Dealing with cartography (Geo Zones mapping, reporting).

Current tasks of INSPECTOR system:

possibility to connect supplementary equipment to the system

speed, mileage and engine rotation checking,

control over fuelling, fuel consumption per 100km, moto-hour, ha.

data comparison (plan/fact).

control over drivers' hours and working time.

collection of diverse reports. PC-based itinerary sheet, 1C integration.

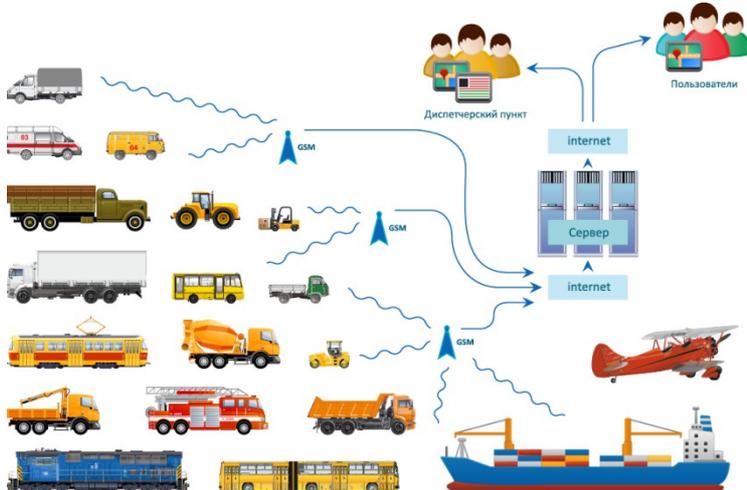
The chief object of the system implementation is to optimize the processes of administration and monitoring and to use the vehicle fleet more efficiently, as well as to provide passenger transportation security and to keep to the schedule of movement and driving regulations.

Creation of automated monitoring and control system of passenger traffic flow and municipal vehicle fleet based on municipal dispatching department.

This transport monitoring and dispatching system is intended to solve the problems of city vehicle operation, administration and control.

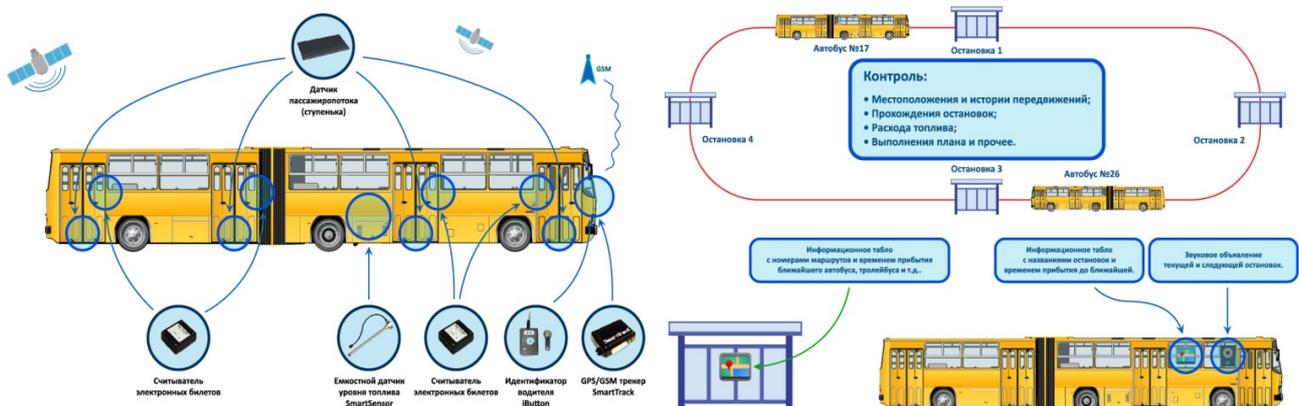
Additionally completed tasks for this particular area:

1. Municipal transport movement on-line control.
2. Tracking the time of fixed route vehicle arrival to the bus stops and inside the vehicle by means of



display board.

3. En route control of the vehicle, adherence to the route.
4. Time control of the vehicle arrival at the bus stops, fixation of deviations from the assigned parameters and en-route traffic redistribution.
5. Voice announcement of the current bus stop when approaching and announcement of the next stop with GPS connection. Reflection of bus stops on the display board inside the vehicle.
6. Speed control to avoid emergency situations on the city roads.



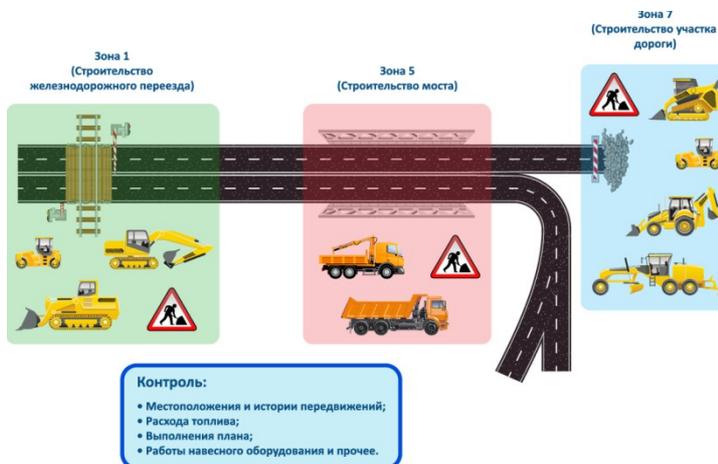
Control over municipal solid waste (MSW) transportation vehicles



Collection, removal and utilization of municipal waste is one of the main goals of public utility companies, within the framework of which there are actively used transport vehicles, where fuel and lubrication materials take the lion share of expenditure.

Implementation of the transport monitoring system will allow reducing the delivery time to waste utilization sites, carrying out control over the waste removal schedule as well as effectively counteracting against stealing of fuel assigned by enterprises. The chief object of the system implementation is the control over the efficiency and quality of the waste removal from a city.

Control of technical equipment, which serves city, region and district roadways



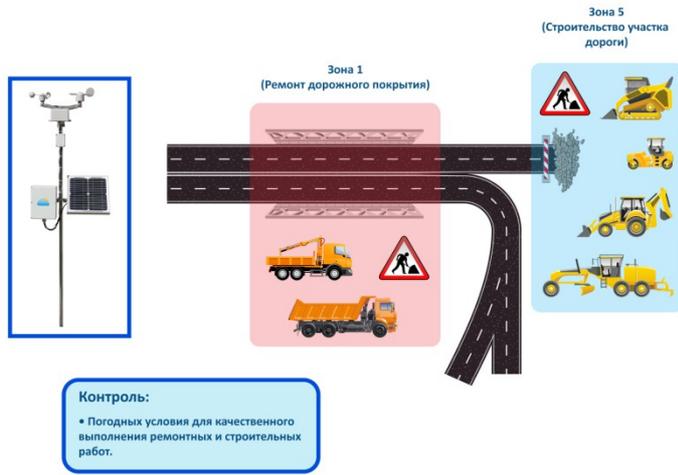
Control over quality and timeliness of roadways service is an important task for the administration of road and operation divisions (ROD). The chief object of the system implementation is the increase in overall performance of equipment, quality control of the performed repair work and fuel consumption control. The system will allow reducing the possibility of idle time and use of municipal vehicle for personal purposes and establishing discipline among drivers as well as improving the dispatching service performance quality.

Control of quality and timeliness of road sites construction is an important task. The chief object of the system implementation is the increase of technical equipment operation efficiency, control of quality of construction. The system will allow reducing the possibility of idle time and use of municipal transport for personal purposes. It will increase discipline of drivers and improve service performance quality. The system will reduce fuel expenditure, controlling tank fuelling as well as fuel consumption.

Online meteorological service

The weather station, is meant for continuous meteorological data collection and their transmission to the central server where all the data are processed and become available for the user in software component. The weather station consists of basic controller, which collects information from all the pickers and is communicating it to the server for processing and visualization as well as of different types of various meteo devices.

Weather station may be equipped with the following sensing elements:



- atmospheric temperature
- amount of precipitation
- wind direction and speed
- atmosphere relative humidity
- atmospheric tension

Possibilities of METEO INSPECTOR online meteorological station

Nonstop collection of meteorological data and access to them 24 hours a day in the online mode.

Possibility of data viewing both in the online mode and in the form of reports by hour, by day, month, year or any other selected period;

The system is able to store all the data collected every day within 5 years.

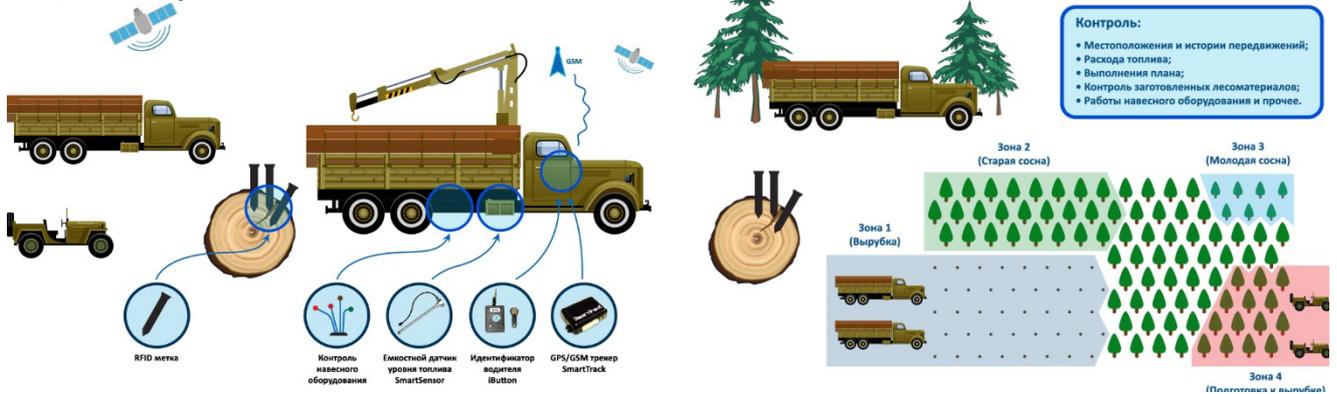
The system is able to carry out control over external executive units (for example over the sprinkling system)

In the system there is foreseen a possibility of notification of the user via SMS or e-mail in case of the established parameters overrange (in case of frost etc).

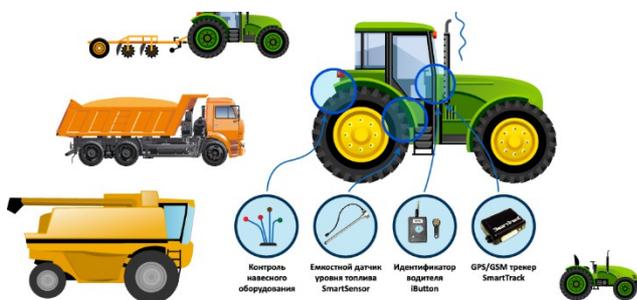
Appliance:

Meteoservisnon-linemodecanbeusedforroadsafetyincriticalweatherconditions, planningforsnowplows, planningforroadrepairs, etc.

Also, The "Inspector" can be used in other industries:



Control of technical equipment and forest clearance/transportation of wood products for forest divisions.



Control over technical equipment of agribusiness industry. Hardware component.



Control over technical equipment of agribusiness industry. Software component.