

Stora Enso Rail Fleet Management System

CUSTOMER

Stora Enso is an integrated paper, packaging, and forest products company, producing publication and fine paper, packaging board, and wood products. The Group has over 46 000 employees in more than 40 countries on five continents. Stora Enso has an annual production capacity of 16.9 million tonnes of paper and board and 7.7 million cubic meters of sawn wood products, including 3.3 million cubic meters of value-added products. Stora Enso's shares are listed in Helsinki, Stockholm, and New York.

Stora Enso customers include publishers, printing houses, and merchants, as well as the packaging, joinery, and construction industries – and are mainly concentrated in Europe, North America, and Asia. As Stora Enso moves into the future, the Group is focusing on expanding its operations in new growth markets in China, South America, and Russia.

The competitive nature of our world today requires that the companies effectively manage all aspects of their business. For Stora Enso, this includes mobile resources, the fleet of rail vehicles that play an integral part in delivering raw materials to the company production plants and products to its customers.

Striving to gain a better visibility of its railroad car fleet, ensure timely shipments and reduce costs generated by delays and non-target usage of vehicles, Stora Enso approached a railroad informational agency to supply vehicle location data on a daily basis. Though satisfied with timeliness and correctness of the information, Stora Enso logistics specialists considered it time-consuming and inefficient to analyze the figures scattered across paper documents or .xls spreadsheets. The necessity of improved personnel productivity and speedy data analysis called for a new solution to store and manage the data effectively.

SOLUTION

Having committed to a new solution, Stora Enso chose Digital Design as a provider of a bespoke rail fleet management system, because of its extensive experience in the transportation field and successful deployment of a similar solution for Baltika Brewery, the largest beer producer in Russia.

Digital Designed developed a system that allows loading information on vehicle locations and their mechanic data provided by the railroad informational agency into a centralized storage. This eliminates the risk of data being lost and allows the company to maintain a consistent, reliable source of information for easy analysis and report building.

With the system, a logistics specialist can:

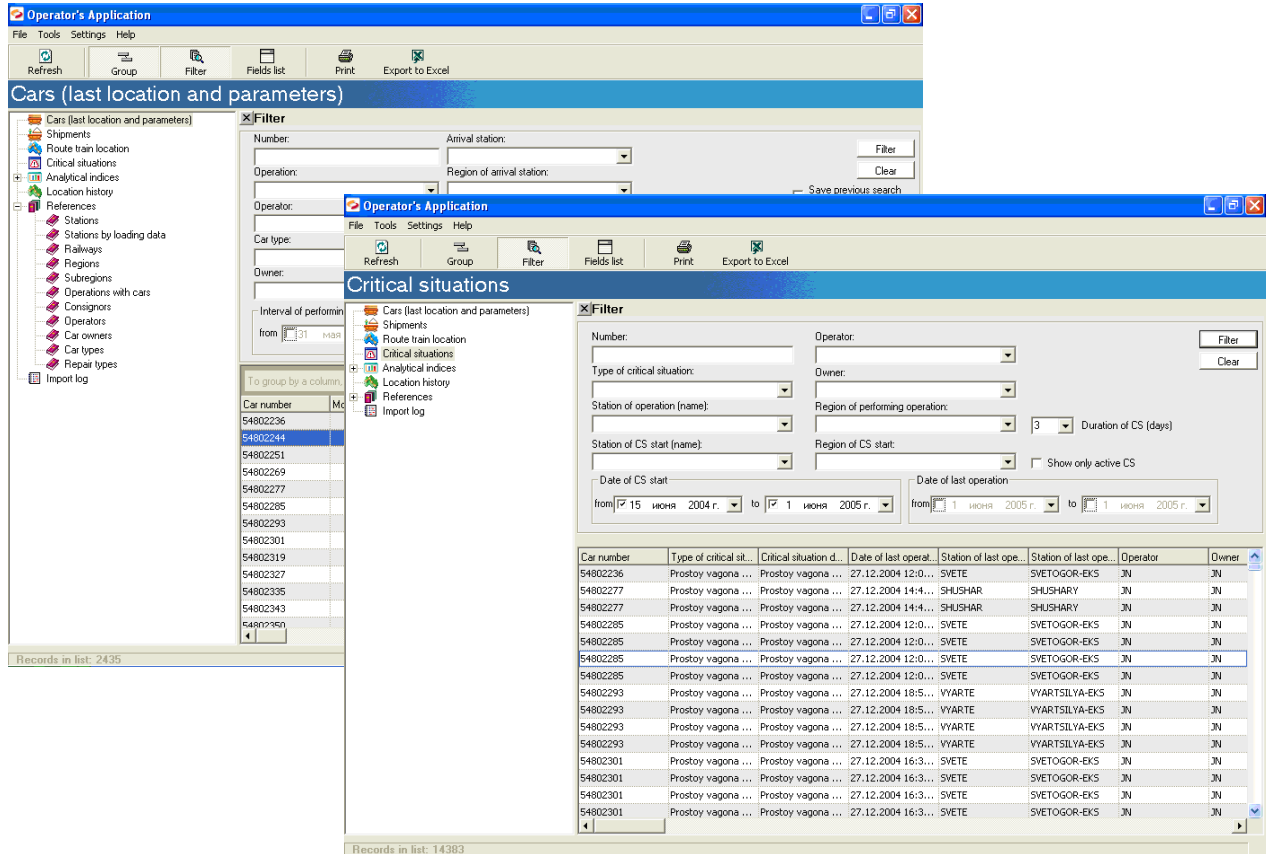
- Accurately pinpoint the current location of a railroad car, track its station-by-station movements (location history) and find out when the vehicle arrived on site.
- Quickly retrieve mechanic information for each vehicle and repairs performed up to date.
- Find out freight-related information — which goods are being carried by a vehicle, their weight, consignor etc.
- Work with sets of vehicles and separate cars. In the rail transportation world, it is often necessary to consider cars together as whole. The system provides the definition of a “Route train”, which is a combination of cars connected together to make up a train for particular service. The system allows retrieving information about all cars included in the train by entering the number of any of its cars.

The system also provides analysis capabilities — on a mouse click, the user can find out how many times the vehicle was loaded over a period of time, the number of days under repair, its turnover and average trip duration.

Besides allowing its users to locate easily a railroad car, the system offers preventive measures to proactively address potential delays, ensure route compliance, and assist in lost vehicle recovery. If any of the below situations occur, the system generates an alarm:

- Vehicle is idle for a period above a permitted. This enables the company specialists to reduce delays.
- Vehicle sent to a station outside the designated route. This helps to ensure route compliance and reduce out-of-route miles.
- Vehicle loaded with goods not related to the company business. This ensures that the company fleet is utilized properly and helps identify the situations when a Stora Enso’s car is used by a transportation service provider to serve another company, and efficiency is lost as a result.

The rail fleet management system not only tracks the company vehicles, but also provides Stora Enso with the means to take care of its fleet. The system allows keeping repair history, identify repair patterns and predict approaching repairs (Preventive Maintenance), thus eliminating the need for costly emergency repairs. It informs the user when vehicles need to be serviced — maintenance reminders are based on mileage and/or dates.



BUSINESS BENEFITS

Consistent and Accurate Data leads to Increased Traceability

Utilization of the centralized data storage and unified access to data has resulted in improved vehicle tracking and traceability, and increased productivity at Stora Enso. Total control of the company's fleet daily operations maximized the availability of vehicles and ensured their proper use. The system also helped manage performance level of transportation service providers.

Easy Retrieval of Needed Information makes Personnel More Productive

The system's user-friendly interface allows Stora Enso employees to save significant amounts of time while searching for, viewing and analyzing data. Emergency alerts help the company to reduce delays as well as ensure route compliance and preventive maintenance.

Cost Reduction allows of Greater Profits

Better information leads to higher profits through better fleet management. Keeping track of the fleet's movements helps keeping costs down and allows the company achieve higher level performance and productiveness.

Timely Deliveries improve Customer Service

Predictable, timely deliveries improve StoraEnso operations and customer service, thus making the company more competitive in today's operating environment.