



Germanischer Lloyd improves ship energy efficiency by evaluating fuel saving potentials with SimulationX

Germanischer Lloyd belongs to the top five classification societies. GL is dedicated to ensuring the safety of life and property at sea, and the prevention of pollution of the marine environment. As an independent third party, Germanischer Lloyd develops state-of-the-art rules, procedures and guidance for shipowners, shipyards and the maritime supply industry in order to offer commercially sound answers in times of economic challenges and tight regulatory regimes.

Besides traditional classification services GL puts particular emphasis on ship energy efficiency and environmental issues.

Challenge

Energy Efficiency Monitoring

Environmental concerns and new regulations increase the need for evaluating fuel saving potential. Fuel and energy consumption are mainly analyzed over long time periods, with current consumption measurements being either not reliable or requiring large efforts. GL looked for an intelligent tool to monitor consumption and to optimize energy efficiency.

Solution

SimulationX Professional Edition

The SimulationX software platform, Modelica support and intuitive user interface are the ideal prerequisites to solve quasistatic simulation tasks. Individual component models are designed and stored in the system and can be quickly exchanged for adaptation to different configurations and vessels. An online monitor system is developed using the ITI Code Export.

Benefits

Making ships more fuel-efficient

By combining onboard measurements with SimulationX modeling capabilities, GL designed a unique tool for the reliable analysis and optimization of the energy consumption of ships. Onboard validation tests and pilot installations proved the high quality of the virtual simulation results.



»We are very enthusiastic about the course of the project. Results are really promising and the tool is already applied in GL's engineering services.«

Malte Freund, Project Engineer,
FutureShip GmbH - A GL Company



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SimulationX

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