



Safe and Efficient Propulsion, Auxiliary and Onboard Systems through System Simulation

Performing torsional vibration analyses (TVA) on powertrains, evaluating the energy consumption of the auxiliary systems, designing fuel, water and HVAC systems or onboard equipment - SimulationX is the tool of choice for developing and testing safe, efficient and precise components and systems in the marine industry.

With transient simulation in the time domain and steady-state simulation in the frequency domain as well as convenient reporting features, you benefit from a comprehensive and powerful TVA package for efficient classification processes. The dedicated library "Ship Energy Systems" allows for ROI evaluations for instance.



The key to solid system design analyses and efficient component evaluations

Wherever your competence lies in the maritime industry: With SimulationX, you have a multitude of dedicated solutions to choose from – be it for modeling, simulating or analyzing different components or entire systems – and all that on a single platform.

Easy to learn and convenient to use: SimulationX is the platform for you when it comes to system simulation, also for occasional or entry-level use. Expert features enable specialists to easily create automated simulations, continuous toolchains and custom model libraries.

Powertrains | Perform transient simulations in the time domain and steady-state simulations in the frequency domain (also for non-linear behavior) and benefit from convenient reporting tools.

Electric and hybrid vessels | Evaluate interdependencies between electrical and mechanical assemblies. Manage energy distribution between sources, storages, transmissions and sinks cleverly.

Ship Energy Systems | Assess the energy flows of all systems on a ship, including propulsion, electric power, waste heat recovery etc. and compare alternative designs to estimate the return on investment (ROI).

Safety and reliability | Perform convenient dependability analyses based on the structure of the system model.

Onboard equipment | Design and test complex marine equipment, such as heave compensation or material-handling equipment (conveyors, cranes etc.).

Air, water and fuel systems | Design efficient fluid systems including.

“Increased requirements regarding the amount of load cases, new regulations for the classification of ships as well as the need for a multi-domain platform shaped our decision for SimulationX.”

**Matthias Taubert,
R&D ENGINEERING
4-STROKE**

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