

## Safer Ship Manoeuvring Guidance



The technology group Wärtsilä is launching SmartPredict at this year's Seatrade Cruise Global exhibition in Fort Lauderdale, Florida, USA, from 13 to 16 March 2017. Developed by the company's Dynamic Positioning unit, SmartPredict is designed to provide safer and more efficient vessel operations by reducing the risks associated with manoeuvring. The system displays the vessel's predicted future position and heading, and uses proven dynamic positioning (DP) analysis algorithms to evaluate forces affecting the vessel, thereby providing advanced motion prediction. SmartPredict also features a configurable prediction time display.

Most conventional prediction systems are able to utilise only basic input parameters, and thus offer limited usability. Wärtsilä's SmartPredict software module, however, utilises all

parameters used for automated control by the DP and adjusts them for the motion characteristics of the specific vessel. Such inputs include the vessel's current position and heading, as well as its velocity and rate of turn and all associated accelerations. Also taken into consideration are the manual commands from the coordinated control joystick, and environmental input from the onboard wind sensor(s). These factors are all continuously evaluated to provide a constant updating of the vessel's path.

The Wärtsilä user interfaces provide a simple, intuitive display, allowing the operator to toggle on or off the 'ghost ship' indicators for the predicted positions. This display also allows the user to configure the time steps for the predictions. Fully compatible with the Electronic Chart Display & Information System (ECDIS) overlay function, SmartPredict provides clear indications of potential dangers during ship manoeuvring, thus immediately increasing the safety and efficiency of operations.

SmartPredict has been characterised as a step towards more automated procedures, such as docking, and eventually fully autonomous vessel manoeuvring, according to Maik Stoevhase, director, ANC & Integrated Systems, Electrical & Automation, Wärtsilä Marine Solutions.

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