MO4 PRO

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MO4 Pro: Vessel motion forecasting

Making the call to start or stop an offshore operation is extremely difficult. There is a lot at stake: safety of the people on board, an expensive vessel, project deadlines, equipment limits, consequential project costs, delays, and so on. On top of this, the risk caused by rapidly varying weather conditions need to be considered.

The result is that decisions are made largely based on experience or gut feeling, because of the large number of parameters, interests, and uncertainties. With many stakeholders typically involved in offshore operations, managing this task is never an easy one.

MO4 Pro takes a large chunk of this complexity away. Our technology accurately forecasts vessel operability. By doing so, we remove the guesswork involved when assessing wave height as limiting parameter for offshore operations. This results in a clearer decision-making process, higher workability, and increased safety on board.

MO4 Pro is an onboard decision support application that is used to plan offshore operations and manage weather risk for up to seven days in advance. Weather risk for a specific vessel, location and operation is visualized in a simple yet smart way. Smart decisions can finally be made once the risk is accurately known. Decisions that can save costs or even improve earnings. Choices such as changing heading, sailing out a few hours earlier or rather remaining in port are made based on clear reasons.

MO4 Pro makes planning of offshore operations smart.

Benefits

- ✓ Less delays in critical weather conditions
- ✓ Easy and user friendly system
- ✓ Increase safety of crew and equipment
- ✓ Reduce emissions and fuel consumption due to increased operational efficiency

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How does it work?

The MO4 computer is easily set-up on the vessel's bridge or office and connected via internet to retrieve the latest weather forecast data.

One defines the operational parameters, such as vessel loading condition, operational sequence and project specific motion limits. These parameters are highly dependent on the type of vessel and its intended operations, therefore different MO4 Pro modules are available for a variety of vessel types.

Based on the operational location of the vessel, the weather forecast data is retrieved. The weather forecast is provided in 2D wave spectrum format enabling the most accurate motion prediction based on both swell and wind seas.

The vessel motions are calculated for every vessel heading and visualized in an intuitive user interface. The MO4 Pro software checks whether these limits are exceeded and visualizes the result in a clear graph.

Features

✓ 6 hourly forecasts up to 7 days ahead

✓ Easy to use dashboard

✓ Intuitive user interface

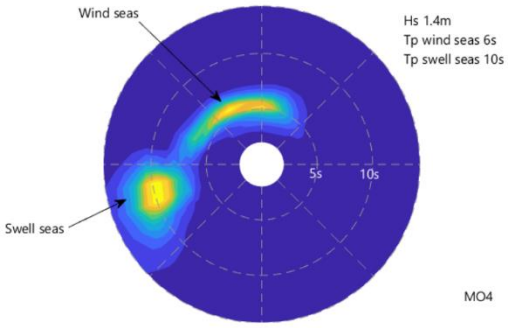
✓ Vessel heading optimization

✓ Transparent decision making

✓ Vessel motion monitoring (optional)

Hardware

The MO4 Pro software is capable to interface with motion sensors (MRU) in order to extend the functionality of the system to both motion forecasting and monitoring. The monitored data is also used to improve the vessel's hydrodynamic model.



2D wave spectrum used by MO4 Pro

MO4 Pro modules

✓ Basic (vessel motion)

✓ Cable lay

✓ Jack-up

✓ Heavy lift

✓ Personnel transfer (CTV & SOV)

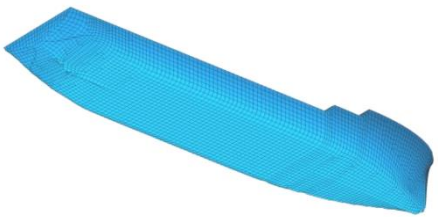
✓ Routing & Transit

✓ Dynamic Positioning

✓ Relative Motion

MO4 Classification

MO4 is verified and approved by DNVGL to be compliant with the DNVGL-ST-N001 code.



Digital vessel geometry

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