4subsea

4insight®

DynOps

Optimise rig operability and accelerate situational awareness

DynOps is a digital service that enables operators and rig contractors to increase insight and predictability in planning and execution of operations, resulting in enhanced operability on any weather-dependent operation.

DynOps offers multiple benefits that enhance operational efficiency and performance. By optimising fuel consumption through real-time adjustments to operational limits based on prevailing weather and rig conditions, DynOps helps operators reduce unnecessary fuel usage and minimise idle times. This proactive approach maximises operational windows and reduces downtime, leading to shorter, more efficient operations. With precise, data-driven insights, DynOps supports informed decision-making that boosts uptime, reduces operational risks, and streamlines execution across all weather-dependent activities.

KEY BENEFITS

- Uses prevailing weather and machine learning to increase the size of operational envelopes.
- Reduces waiting on weather resulting in shorter operations.
- Facilitates consistent datadriven decisions.
- Creates awareness of potential problems before they happen
- Integrates measurements to increase the accuracy of prediction.
- Increased operability.
- All data available through REST API for easy access and integration.
- Agnostic solution where operators can choose methodology.
- Provides better operational limits, allowing operators to use fewer thrusters and reduce fuel consumption and emissions.
- Empowers decision-makers to understand analyses easily.

DIGITAL OPERABILITY PREDICTION

DynOps provides operators with critical decision support delivered simultaneously to onshore and offshore personnel. Traditionally, each drilling operation relies on well-specific operation guidelines (WSOG) that define maximum limits for safe operations, typically based on riser and mooring analyses. Due to its static nature, WSOG often includes a level of conservatism to cover all conditions, which can lead to excessive thruster use and higher fuel consumption.

The DynOps solution uses optimised predictors, combining analysis data, real-time measurements, and weather forecasts to provide dynamic guidance that reflects actual conditions and the current mode of operation. By removing unintentional conservatism from WSOG, DynOps increases operability, reduces waiting on weather (WoW), and allows operators to reduce fuel usage by minimizing thruster demand when conditions permit. Data from measurements and analyses are integrated to build situational awareness and reduce the risk of misinterpretation, supporting safer and more efficient operations.

More product information →

FEATURES

- See how weather forecasts will affect future rig operability.
- Be informed about possible present and future hazards.
- Visualise the state of limiting parameters in one easy-to-understand view.
- Predict the effect of changes in rig configuration on operability.
- See predicted vessel motions many days in advance.
- Reduce fuel consumption by optimizing thruster use based on real-time weather and operational limits.
- Use measurement data to increase the accuracy of prediction.

SYSTEM ARCHITECTURE

DynOps is hosted on our platform, 4insight®, which is designed to receive and compute large amounts of data, unlocking the full potential of data to ensure optimal decision support for operators. The 4insight® platform hosts Digital Twins of assets, helping operators enhance data quality and manage data ownership, security, sharing, and usage. This powerful multi-tenant solution, residing on Microsoft Azure, supports operators in reducing operational costs and risk while providing a robust foundation for advanced digital services like DynOps.

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