

Digital Center of Integrated Operations

With OIS Upstream Field Activity Management – UFAM

For any upstream operation it is of vital importance to be able to run oil production at maximum safety while achieving the best financial and economic results possible. To attain this objective, it is critically important to be able to consolidate and optimize all field activities into one integrated plan. This will enable the minimization of both operational expenses and costly well shutdown time.

OIS UFAM is a digital upstream platform that helps to automate the consolidation of information relevant to all activities in oil and gas field operations. It enables comprehensive performance analysis, asset-integrated modelling, as well as planning and optimization based on multiple tightly integrated criteria: minimized production downtime, resource availability, balanced equipment and resource loading, minimized operating costs, and many others.

OIS UFAM DIGITAL PLATFORM COVERS THE FULL LIFECYCLE OF UPSTREAM OPERATIONS

ANALYSIS

performs quality checks on data received from different sources. Based on the analyzed data, the system provides a list of recommendations, including actions such as workovers, well interventions, artificial lift performance optimization, etc. Recommendations are produced courtesy of the built-in retrospective big data analysis, user defined rules and conditions and analytical algorithms, making up the core of OIS UFAM, which was developed by experts with over 20 years of oil field experience. All recommendations are in alignment with HSE standards and requirements and come with impact assessments related to both costs as well as production forecasts.

LEARNING

is built on some of the most advanced AI technologies available, empowering the system to be able to analyze the impact of realized interventions on production and economic parameters. The module then uses the new knowledge to propose adjustments to the rules that initiate activities or calculate metrics such as economic efficiency, cost, or duration.

COLLABORATION

One of the OIS UFAM key features is the ability to create a unique environment where subject matter experts and specialists can closely collaborate on multi-disciplinary tasks. Combining advanced integration capabilities, a single source of trusted data and comprehensive coverage of upstream business processes in one system enables UFAM to be used as an extremely powerful Collaborative Work Environment. This environment further enables the implementation of an efficient and highly effective Center of Integrated Operations.

PLANNING

automatically schedules operational activities on the relevant asset and updates the Integrated Plan on a daily basis. Optimization algorithms built within this module provide vital information that can be used to carefully take into account your strategic goals such as production targets, deferment optimization, budgets, etc. At the same time, the approach is aimed to reduce the risk of human error and free the time for value-adding activities.

MODELLING

provides vital functionality in calculating the feasibility of the execution and production profile forecasts based on the implementation of the Integrated Plan. It also enables building a production limit diagram (PLD) for the assessment of potential bottlenecks and performs analytical calculations using the Integrated Model of an asset. The asset's Integrated Model is updated automatically on a daily basis or by user's request.

MONITORING

is used to manage and control execution of the Integrated Plan. It provides enhanced visualization capabilities that allows for the monitoring of the asset's overall lifetime performance. Performance is based on data received from process control and telemetry systems.



OIS UFAM KEY BENEFITS:

4-5% OPEX reduction

8-10% Lowered deferment

3-4% Increased production

20-25% Enhanced team productivity

15-30% Maximized MTBF

15-20% Diminished human error

OIS UFAM DELIVERS VALUE BY:

- Providing a **single source of truth** regarding all assets: the platform will obtain and integrate data from up to 30 existing market or in-house solutions;
- Creating a **truly collaborative work environment** and providing transparency to specialists across different functional areas;
- Allowing to **act more quickly and confidently**, and be able to free valuable time to focus on higher level activities and problem-solving;
- Permitting to **continuously monitor key operational data** streams and surface/subsurface equipment performance and to receive alerts that enable proactive interventions;
- Doing, on an ongoing basis, the **well and reservoir performance analysis** with initiation of appropriate (from a production and economic point of view) workovers and well interventions;
- Enabling **better balance resource loads**;
- **Minimizing operational expenses** and well shutdown times with consolidated plans for field activities;
- **Simplifying decision-making** related to performing multiple activities in combination, independently, or sequentially;
- Providing the tools to develop **adjustable process workflows** leveraging industry standards and best practices.



OIS UFAM CUSTOMERS:

