



INDUSTRY

FPSO

Floating, Production, Storage and Offloading

Maros - Providing advanced RAM analysis for the FPSO industry

A complete Reliability, Availability and Maintainability (RAM) software solution to optimize the performance of your FPSO in all stages of the asset's lifecycle.

Performance of FPSOs

Understanding the performance of FPSOs go beyond traditional availability studies. In order to get a complete picture of performance, analysts need to take into account the operational strategy. The operational procedures impact directly of the performance of the platform and parameters such as shipping and storage constraints are of fundamental importance.

Maros, DNV GL - Software's advanced RAM product for the upstream and downstream industry, gives you the ability to cover all the key aspects for calculating the performance of FPSOs.

How do you benefit from Maros advanced RAM analysis?

- Develop a better understanding of your asset's performance profile and its bottlenecks

- Evolve your model throughout all stages of the project lifecycle to support your decision-making process

Some of the questions Maros can help you answer

- What is the production efficiency for the designated base case?
- How does production efficiency vary for sensitivity cases?
- What are the critical systems?
- What is the optimum redundancy for critical systems?
- What is the impact of maintenance and logistics issues?
- What is the impact of operational flexibility (e.g. **storage capacity**)?
- What is the incremental NPV for the sensitivity cases against the base case?



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Maros allows a detailed simulation for FPSO facilities and incorporates key system parameters, such as:

- Failure and repair distributions for multiple failure modes defined per equipment item
- Ability to model logical events to represent operational strategies or constraints
- Various planned intervention strategies
- Impact of weather on intervention strategies
- Vessel availability constraints (seasonal issues, number of vessels)
- Individual well production profiles, including a demand profile
- Wells phasing in and out over the duration of life
- Varying spare subsea well capabilities
- Economic parameters (mobilization costs, day rates, oil price, etc. economic cut-off dates for interventions)

Combining your experience and knowledge of the operational procedure of the asset with the most powerful RAM software tool for the upstream industry, you will be able to:

- Evaluate the **achieved** production efficiency and production losses
- Rank critical systems, equipment and modes of failure
- Assess detailed results for the number of vessel interventions, taking into **account** mobilization time and hours of usage broken down by activity
- Assess operational costs, revenue losses and through-life NPV reduction due to subsea failures/activities.