

The ocean is a harsh environment.

Take control of wind and waves with **dynamic analysis**.

Why dynamic analysis?

In ocean engineering, dynamic analysis consists of testing virtual prototypes of vessels and equipment operating in ocean conditions using simulation software. DSA provides dynamic analysis services and software tools for ocean engineering applications.

At any stage of the project, virtual prototypes are used to answer questions related to engineering design, planning, training, operations, and safety.

Risk and uncertainty in vessel motions and loads on equipment are reduced by considering dynamic effects of ocean currents, wind, and waves.

Predicting accurate motions and loads using dynamic analysis results in safer designs, which lowers risk and project costs.

Work with DSA at all project stages:

FEASIBILITY STUDIES

CONCEPT STUDIES

FEED

DETAILED DESIGN

INSTALLATION

OPERATIONS

MAINTENANCE

DECOMMISSIONING

SALVAGE

Solutions for ocean industries

INDUSTRIES:

- Civil and naval marine
- Marine renewables
- Oceanography
- Aquaculture
- Offshore oil and gas

APPLICATIONS:

- Moorings
- Tug and barge operations
- Offshore installation
- Flexibles, risers, and pipelines
- Pipe and cable lay
- Ship motion and seakeeping
- Launch and recovery
- Heave compensation and smart winches

Consult with powerful allies

DSA develops, uses, and licenses the time domain dynamic analysis tool ProteusDS and ShipMo3D. Advanced hydrodynamic, environmental, mechanism, and finite element models are used to solve complex problems.

With engineering and software development expertise, DSA develops custom software solutions for the most challenging dynamic analysis problems. In combination with computational server cluster resources to run thousands of simulations, DSA is a formidable consulting partner.



↗ Marine renewables

↘ Civil and naval marine



↘ Oil and gas

