



Mooring and Load Analysis Services & Software for Naval Architecture

Overview

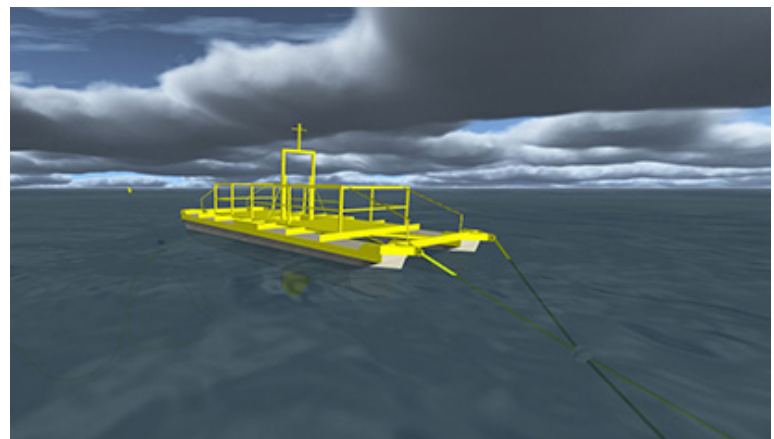
Dynamic Systems Analysis Ltd. works extensively with naval architecture firms to predict the motion of vessels and platforms. These seakeeping studies help to improve performance and validate design requirements.

DSA uses the validated panel method software, ShipMo3D, which is supported by DSA under license from Defence R&D Canada, an agency of the Canadian Department of National Defence to assess the effect of hull geometry, bilge keels, rudders, thrusters, and other appendages on ship motion.

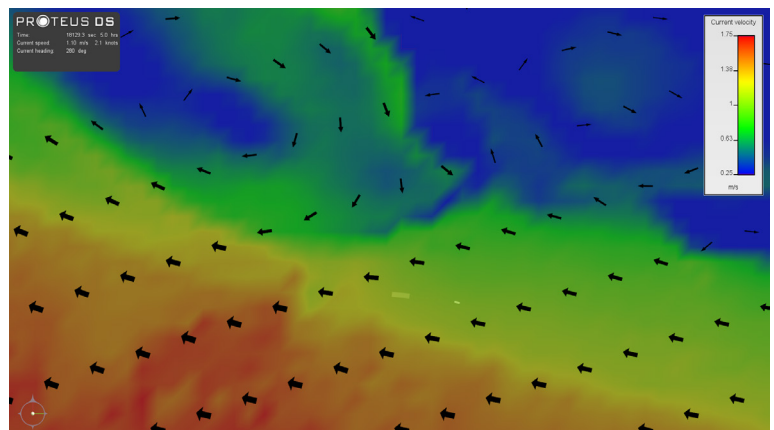
The use of ShipMo3D with our dynamic analysis software ProteusDS enables our team to complete mooring analyses for marine structures such as barges and offshore platforms. In addition to specifying line size and type in accordance with standards, our team can determine loads on fairleads to be used for winch selection and structural design.

ProteusDS Software

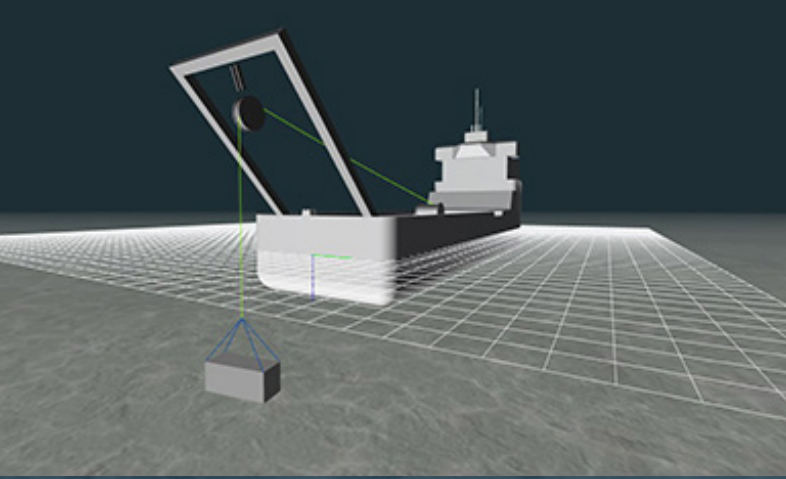
DSA has developed the finite-element based dynamic analysis software ProteusDS. The ProteusDS mooring line and net models have been validated under a wide range of scenarios using tank tests, software benchmarks, and full scale validation.



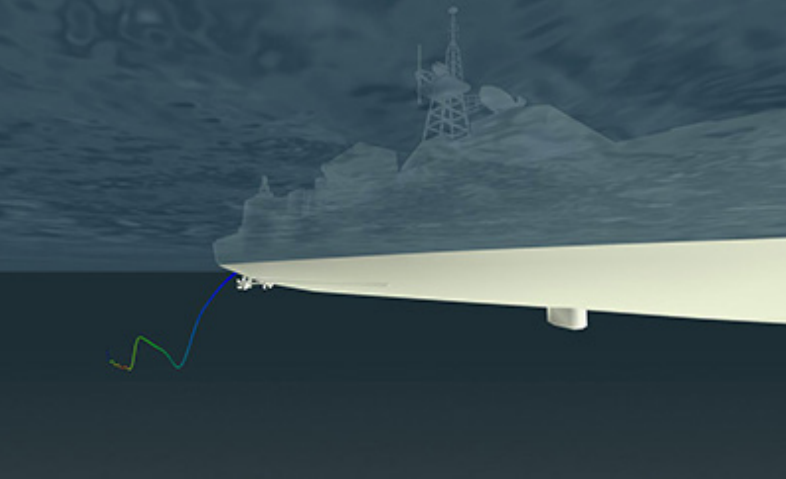
Examine the coupled motion and loads of moored floating and submerged tidal platforms.



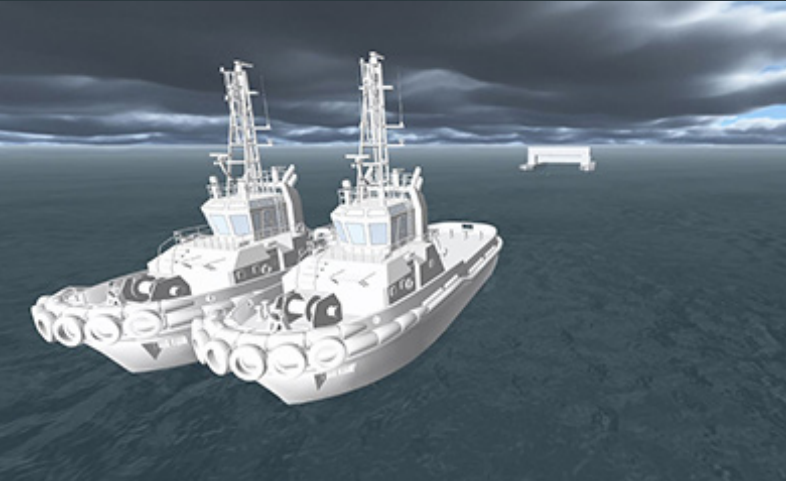
Determine the impact of large-scale eddies and turbulence on marine operations and mooring systems using time and spatially varying current data.



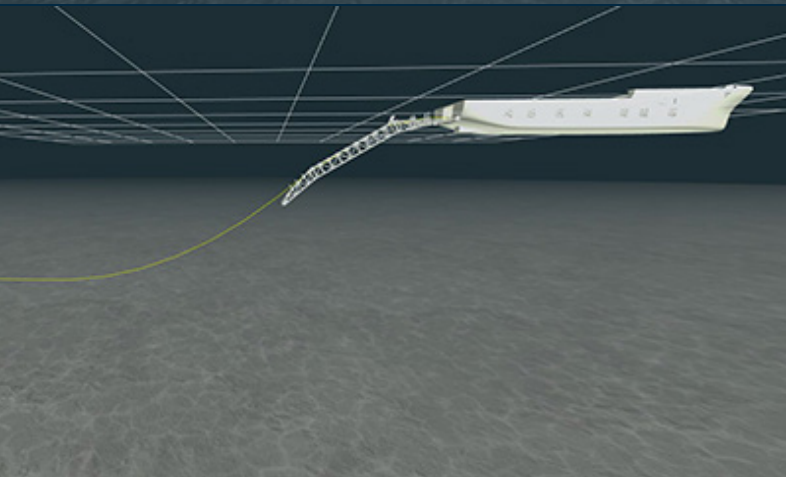
>> Verify performance of heave compensation winches that are commonly used on vessels.



>> Use RAOs to compute vessel motions and determine their effect on the tensions in towed arrays.



>> Develop RAOs and perform coupled mooring simulations using ProteusDS and ShipMo3D.



>> Assess marine operations such as launch and recovery and cable lay operations.