GMoor 10





blue sea thinking

PROGRAM OVERVIEW

GMoor is a mooring analysis program, principally aimed at spread moored drilling vessels and other subsea support vessels, in open water. As GMoor is capable of solving in the frequency domain, results can be obtained very quickly, while it also has low frequency time domain modes of operation for investigation of transient offset after line failure and, optionally, calculation of damping where non-linear effects are important.

It can be used for engineering assessment, planning and approval work in advance of a mooring deployment and can also be used on board the vessel for prediction of vessel movement and tensions in advance of approaching weather or in preparation for a rig move.

GMoor is available for annual or monthly lease (minimum three months) and an evaluation version is available. The software is fully supported by a robust support team who are on hand to assist with any questions.



SPEED & FLEXIBILITY

Frequency domain analysis solves in seconds.

 Optional time domain evaluation of low-frequency motions allows for inclusion of characteristics not available in the frequency domain alone, such as swingback.

 Batch capability allows for unattended running of many analyses - different weather conditions, line, buoy or thruster failures, modifications to component properties, etc.

 Environmental inputs and settings for batch can be loaded from an Excel spreadsheet.

• Full scripting support for both batch and post-processing provides for almost unlimited flexibility: iteratively make changes to the spread or environment until a required condition is met; loop over many combinations of inputs without having to list them all out in Excel; generate PDF and Excel reports from any outputs within the results database.

EASE OF USE

Modern user interface with dockable tabs.

• Context-sensitive menus when interacting with the field view, just click a line to fail, restore, etc.

■ Line data (component & buoy properties, etc.) and anchor positions are quickly & interactively edited and the results recalculated automatically.

• A built-in database can suggest component properties based on material and diameter.

• Complete scripts can be automatically generated based on changes made through the interface leaving just the job of customising as needed.

Environmental tables allow you to do a one-time set up of wind, wave and current properties per heading for different return periods and then automatically apply these throughout an analysis.

■ Take any result from the database and make it interactive within the user interface for further investigation, even if it was originally a batch case.



Transient Time Domain



Low Frequency Time Domain & Batch Script Editor

OTHER TECHNICAL FEATURES

Multicomponent lines with buoys and/or clump weights.

■ Supports single & dual line failures (including transient time domain analysis), buoy failure, thruster failure and thruster blackout.

- Code checking to API, DNV POSMOOR, DNV-OS-E301 & ISO mooring codes.
- Manual and auto-balance thruster control.
- API, Harris, NPD and Ochi & Shin wind spectra.
- Jonswap, Pierson-Moskovitz, TMA, Torsethaugen & variable gamma wave spectra.
- Frequency domain line dynamics.
- Calculation of wave and low-frequency motions.