



GMOOR

Multi line catenary software for mooring analysis

Program Overview

GMOOR is a quasi-static frequency domain mooring analysis program, principally aimed at spread moored drilling vessels and other subsea support vessels, in open water. 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. It has also been used for analysis of turret moorings and quayside moorings.

With the use of a Custom Vessel File (CVF) containing rig specific environmental force and motion data, the user can simply enter weather and current conditions interactively and the program can calculate and display mean and low frequency line tensions and vessel motions.

Results are stored in a database and displayed on-screen. A 'Batch' case of multiple weather conditions can be created and the results post-processed directly from the database.

The program comes with a CVF preparation tool and a post-processing tool, which outputs directly to Excel.

Key Capabilities

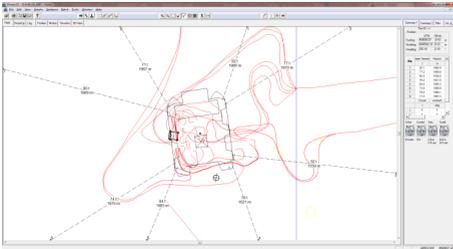
The key capability features of the program are:

- Multicomponent lines with buoys and/or clump weights
- Single/dual line break transient time domain
- Batch and consequence analyses
- Code checking to API, DNV POSMOOR, DNV OS-E301 and ISO mooring codes
- Reports directly to pdf files
- Includes post-processor to Excel format
- Option to display DXF or DWG files as a 'background' field display
- Graphs of catenary parameters
- Manual and auto-balance thruster control
- Wave frequency and low frequency motion calculation
- Mooring line and wave drift damping
- Wind spectrum
- PM, Jonswap or variable gamma wave spectrum
- Separate sea and swell wave components

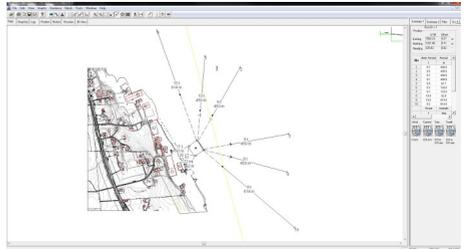
An optional module for dynamic analysis also allows:

- Frequency domain line dynamics and code checking
- Option to use time domain for calculation of non-linear damping

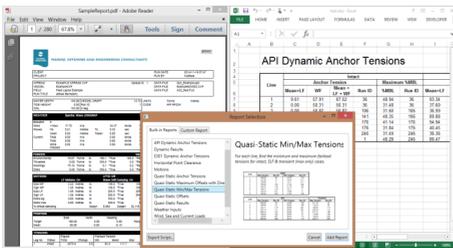
Example Screen Stills:



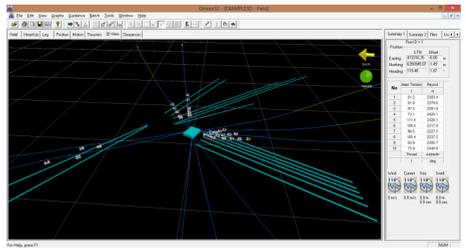
Example Spread



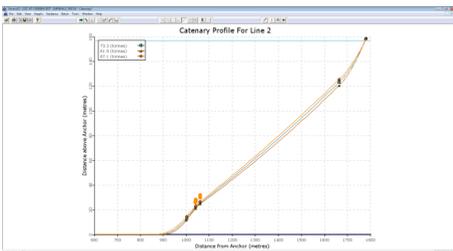
Alongside Mooring



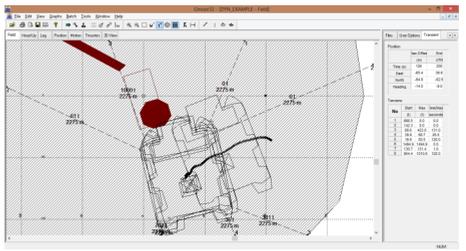
Multiple Reporting Options



3D View With Pipelines



Catenary View



Transient Analysis on Dual Line Failure

Leasing Options

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.

For further information on GMOOR, please contact support@globalmaritime.com.

Other Software from Global Maritime

In addition to GMOOR we also offer for purchase our single line catenary program, GM Catenary.

GM Catenary is a single line 2D catenary analysis program design for use in analysing moorings or towing lines. The software has been developed for the marine marketplace where mooring and towing operations are proposed. The program is a useful toolkit for surveyors and others responsible for anchor running and towing operations.

GM Catenary features include:

- Multi-component—There is no limit to the number of components.
- Buoys and/or clump weights. Inter-components can be buoys (surface or subsurface, with or without a pennant) or in-line clump weights (e.g. concrete blocks).
- Anchor end can be off seabed. The anchor can be off the seabed (e.g. to model on deck of tug, or modelling a tow).
- Intermediate grounding allowed. The line is allowed to ground between 2 buoys or between anchor and fairlead, if the anchor is off the seabed.
- Automatic Clearance Calculation. Clearance to specific objects (e.g. pipelines) as well as depth of line and height above seabed are calculated.
- Sloping seabed. The seabed is modelled as a straight line between the fairlead and anchor which can be level or sloping.
- Elastic lines. The line elasticity can be modelled by linear, quadratic and cubic elastic coefficients.

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