



### CONNECT Edition Releases

The CONNECT Edition integrates with a range of Bentley Cloud Services to give you a personal portal to access learning, communities and project information. You can share personal files including i-models and PDFs directly from a desktop with other users, or share them with your mobile devices to open them through your Bentley mobile apps. With the new project portal, project teams can review project details and status, and gain visibility into project performance.

Learn more about [CONNECT Edition](#)

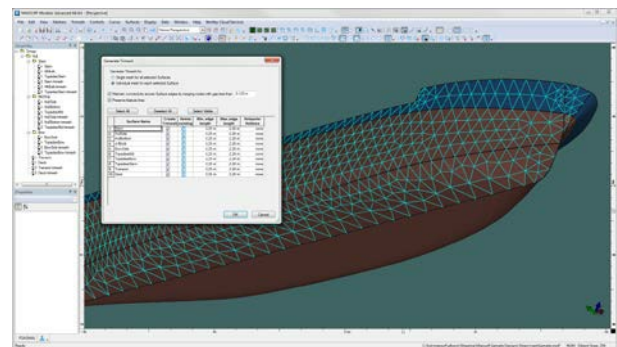
### What's New in MAXSURF CONNECT Edition v21

#### MAXSURF Modeler - enhanced trimesh support and surface meshing

Increase productivity with improved trimesh creation for hydrodynamic and hydrostatic analyses

Support for trimesh models (models containing surfaces defined by a structured, triangular mesh) has been greatly enhanced in this version of MAXSURF. Quickly generate MAXSURF models with trimesh surfaces created from existing NURBS surfaces or point data. Use these models for hydrostatic and hydrodynamic analysis in MAXSURF Stability, Resistance and Motions. Trimeshes can be easily regenerated if the basis

NURBS surfaces are modified; furthermore manual refinement of the trimesh always ensures that the nodes remain on the basis NURBS surface.

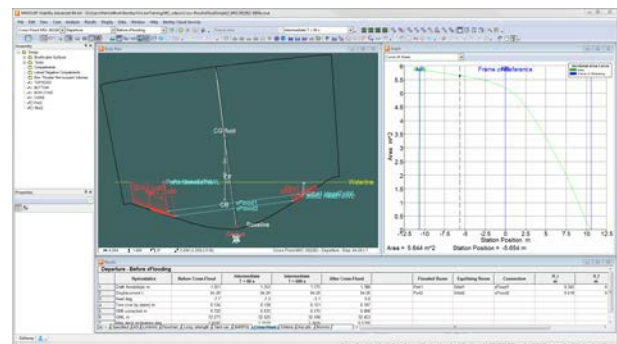


#### MAXSURF Stability – time for cross-flooding analysis

Verify compliance with IMO Resolution MSC.362(92) by calculating time to cross-flood

A new analysis, following the procedure outlines in IMO Resolution MSC.362(92) *Revised Recommendation on a Standard Method for Evaluating Cross-Flooding Arrangements*, has been added to this version of MAXSURF Stability. Cross-flooding devices connecting pairs of rooms are defined for the model. The analysis takes an initial damage condition and evaluates the final cross-flooded condition, as well as the time to achieve full cross flooding using the procedure in MSC.362(92). Specify any number of intermediate times, e.g. 60s and 600s, and the vessel condition, including room flooding level, will be computed at these time-steps. The analysis takes into account multiple pairs of cross-flooding rooms, and

automatically finds the volume of cross-flooded fluid for each pair of rooms at each time step. View the vessel condition graphically at each immediate time step, as well as pre and post complete cross-flooding. Full vessel properties including flooding volumes and centers are tabulated for all the conditions.



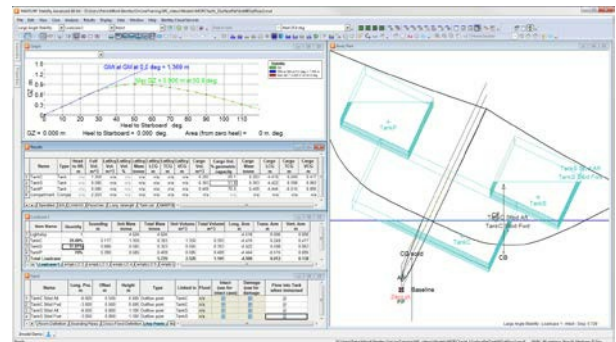


### MAXSURF Stability – spilling tanks

Include the effect of spilling liquid cargo or ballast from tanks during stability analyses

Spilling of liquid cargo from tanks has been added to this version of MAXSURF Stability. Select outflow points to be connected to spilling tanks to determine the maximum height of the fluid in each of these tanks based the lowest outflow point. Each stage of the analysis is considered independently with the tank spilling from its originally filled level as specified in the Loadcase. You can select an option to allow the tank to refill should the lowest outflow point be immersed below the external seawater level. View a complete set of results for each room for Equilibrium analysis, and for each room for all

heel angles in the case of a Large Angle Stability analysis. Results include the centroid and mass of cargo (in the case of a filled tank), buoyancy (in the case of damaged rooms or permanently flooded spaces) and water on deck (in the case of spaces defined as having water on deck applied).



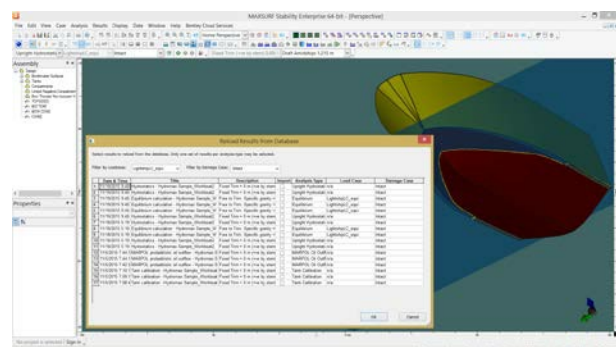
### MAXSURF Stability – storing and restoring results

Reduce analysis time by restoring previously calculated results for review and report generation

Results from all MAXSURF Stability analyses can now be automatically stored in a SQL database. At the click of a button you can restore the results, saving time previously spent re-analysing. All settings related to the analysis run are also stored and reloaded, making it easy to review parameter settings and either reproduce results or recalculate them for slightly varied parameters. This greatly facilitates report generation by allowing you to select which analyses should be included in the report and in what order. Modify the report settings (table format, report templates) and regenerate the report in seconds using the results stored in the SQL database. Turn on options to auto-load the most recent results

when you open a model to continue where you left off the last time you edited the model, or to reload results as you toggle between current Loadcases and Damage Cases.

Use these powerful functions to quickly and easily access any set of results and analysis settings from the design process without having to perform time consuming reanalyses, or re-enter analysis settings. A simple SQL database is used enabling expert users to interact with the results directly.

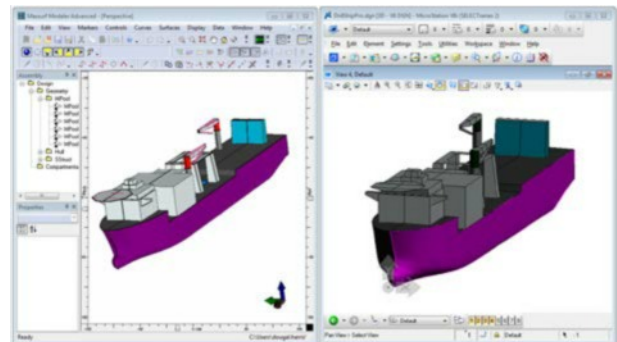




### MAXSURF and MicroStation - DGN Import/Export

Support for MicroStation DGN format results in increased compatibility with other Bentley software

Directly export MAXSURF designs to MicroStation native file format for downstream detailed engineering design. MicroStation users can import existing MAXSURF entities including NURBS curves and surfaces, as well as Trimesh surfaces.



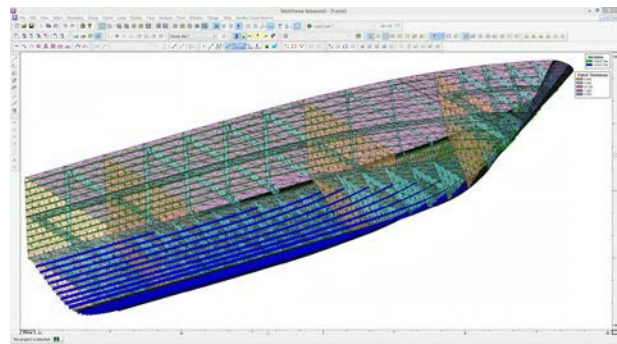
### MAXSURF Multiframe – performance improvements

Save time with improved drawing and re-meshing performance

The drawing speed of complex models has been improved with a number of enhancements, along with additional improvements to the re-meshing algorithm for plates. New tools allow greater control of the mesh density by defining "hotspots". These can be concentrated around nodes, members attached to the plate, plate corners, openings, other constraints, point loads or restraints. Including extruding rider bars from openings and automatic generation of stiffeners are enabled with the new tools. Plates support orthotropic materials for the modeling of materials with different properties along each axis such as GRP, corrugated bulkheads and stiffened plates. 2D and 3D DXF or DWG files can be

imported as model members or as construction lines. Construction lines are a new addition to MAXSURF Multiframe, and whilst they do not have any structural properties, they can be used to generate plates and members.

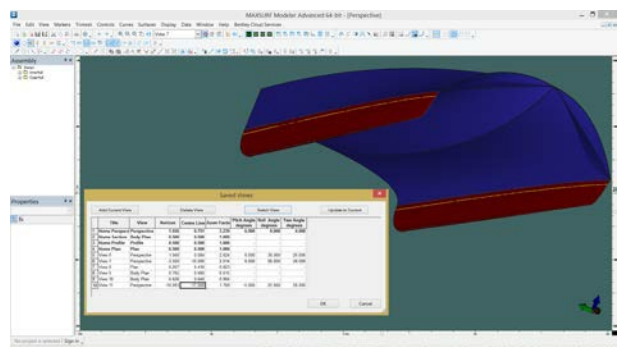
MAXSURF Multiframe's integration with other Bentley products has been enhanced with the addition of export to ISM (Integrated Structural Modeler) which enables the creation of i-models.



### MAXSURF – saved views

Improve design productivity by defining multiple, customized views of your model

The Home View functionality in all MAXSURF applications has been extended to allow creation of personal settings for Perspective, Body Plan, Profile, and Plan view windows. Any number of user defined views can be saved to a model file. Easily switch to any Saved View with the new dialog, or simply through the toolbar drop down.



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