



MOSES 10.01.00 CONNECT Edition

ReadMe 09 December 2016

Release Note

This ReadMe file describes the changes to the applications in MOSES Connect Edition 10.01.00.

Bentley versions numbers are MM.mm.rr.bb where MM is the major version number; mm the minor version number and rr the revision version number (and bb is the build number). Side-by-side installations of the same product with different *major* or *minor* version number are possible (i.e. previous version are not removed or overwritten). However, *revision* releases *will overwrite* the previous installation with the same major and minor version number; thus 7.10.02 will overwrite 7.10.00, for instance. A more detailed explanation is given below.

System Requirements:

- **32 or 64 bit version of Windows 7, 8, 8.1 or 10.**
- **NOTE: It is anticipated that this is the last 32-bit release of MOSES, all future releases will be available in 64-bit only.**

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Software updates

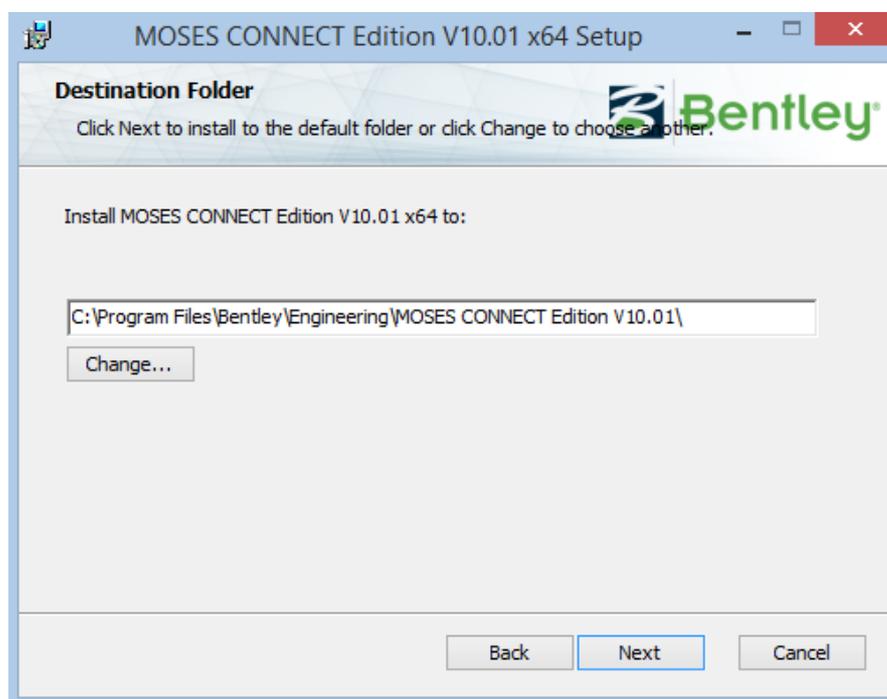
The following section describes the changes that have been made to the various programs.

Installer changes

Side-by-side installation

If the major *or* minor versions of the software are different, then a side-by-side installation may be performed; this means that both versions of the software will be available on that machine.

During installation you will be prompted for the installation folder, by default this will reflect the major *and* minor version numbers of the software:



Default installation folder indicates major and minor version numbers

The Start menu shortcuts will automatically be placed in a new folder reflecting the major *and* minor version numbers of the software.

A public documents folder will also be created reflect the major *and* minor version numbers of the software. This folder contains the library files as well as a shortcut to the samples.

A new set of registry settings will be created (copying the default values from the previously installed version, if available).

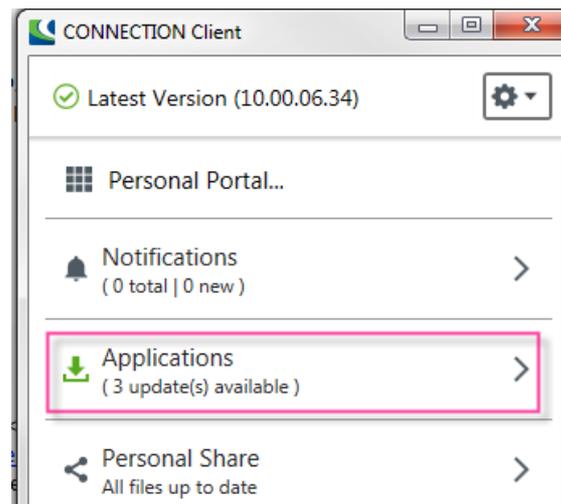
The older version may be uninstalled without affecting the more recent version of the software.

Revision installation

When installing a new version which only has a different revision number, the previous version will be automatically updated. In this situation, it is not possible to do a side-by-side installation.

Automatic Updates

If you have the Connection Client running and are logged in you can see if updates are available for your software. You will only be notified of revision updates by this method. In all cases update notifications will be posted via the RSS News updates, in the Help | News dialog.



Available updates shown in the Connection Client

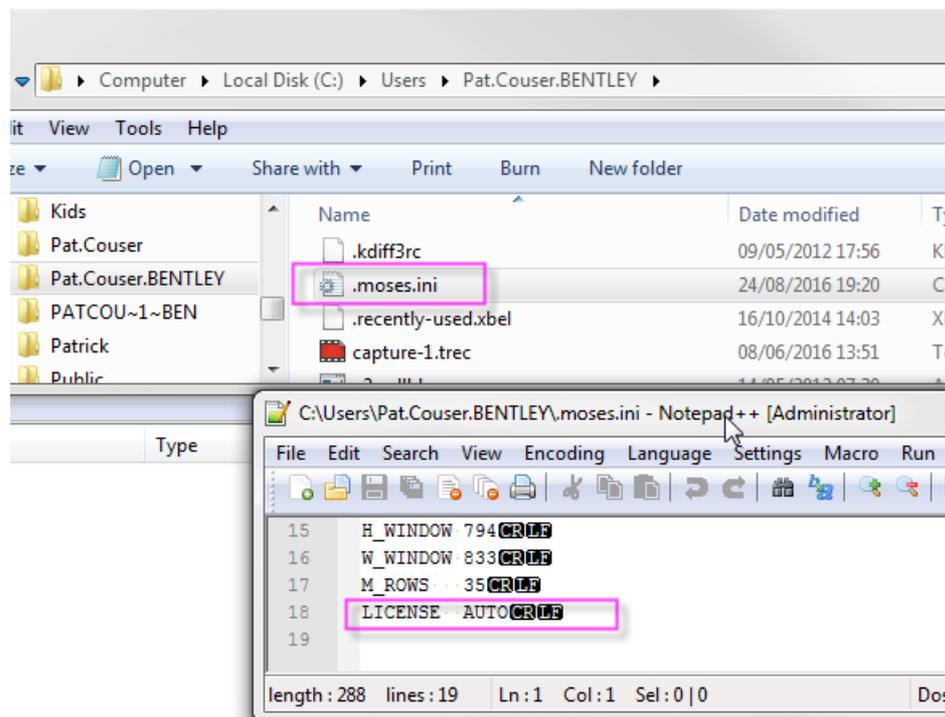
Licensing

MOSES Solver

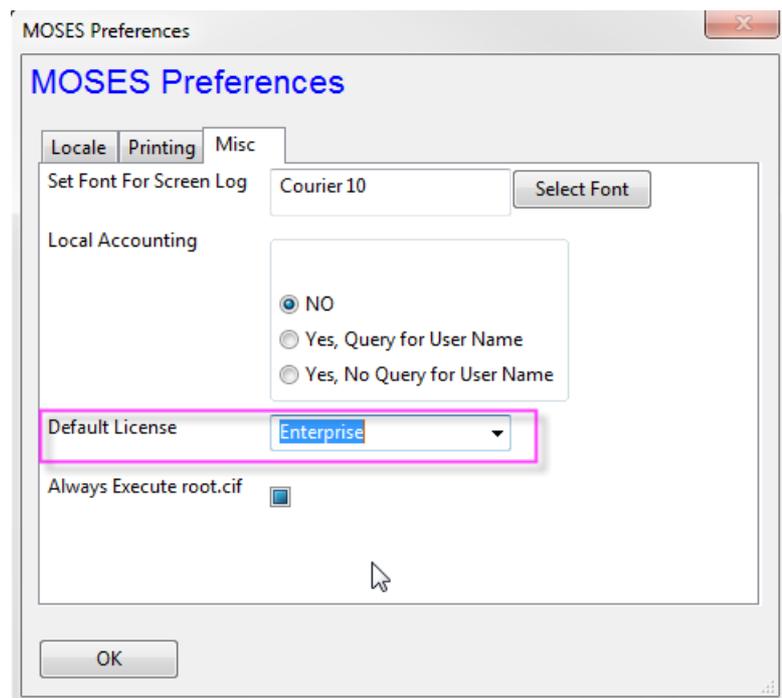
The default SELECT license suite used by the solver can be specified in the .moses.ini file in the user's home directory using the variable LICENSE and the values AUTOMATIC, STANDARD, ADVANCED or ENTERPRISE. The license suite used for a particular analysis can also be specified in the corresponding *.cif file using the &DEVICE option -LICENSE command.

The default setting is read from the .moses.ini file at startup, but this can be specified as AUTOMATIC, STANDARD, ADVANCED or ENTERPRISE at any point in an analysis. Note that if STANDARD is specified then MOSES Advanced features (time domain, pipe & rod, structural) will not be available. If STANDARD or ADVANCED are specified, then MOSES Enterprise features will not be available (Jacket Launch, Generalized Degrees of Freedom).

If AUTOMATIC is specified then MOSES will attempt to switch licenses as required in order to run the commands found in the .cif file. MOSES will boot using the lowest available license and then elevate to advanced or enterprise as required. Upon elevation a notification of the new license level will be printed to the log window followed by a warning that using the elevated license will log usage against the higher license level. If at any stage the required license is not available, then MOSES may terminate.



Preferences are stored in the .moses.ini file in the user's home directory



Setting the default license for the MOSES Solver (restart required for this to be effected)
Customise | Edit Preference (Misc) dialog

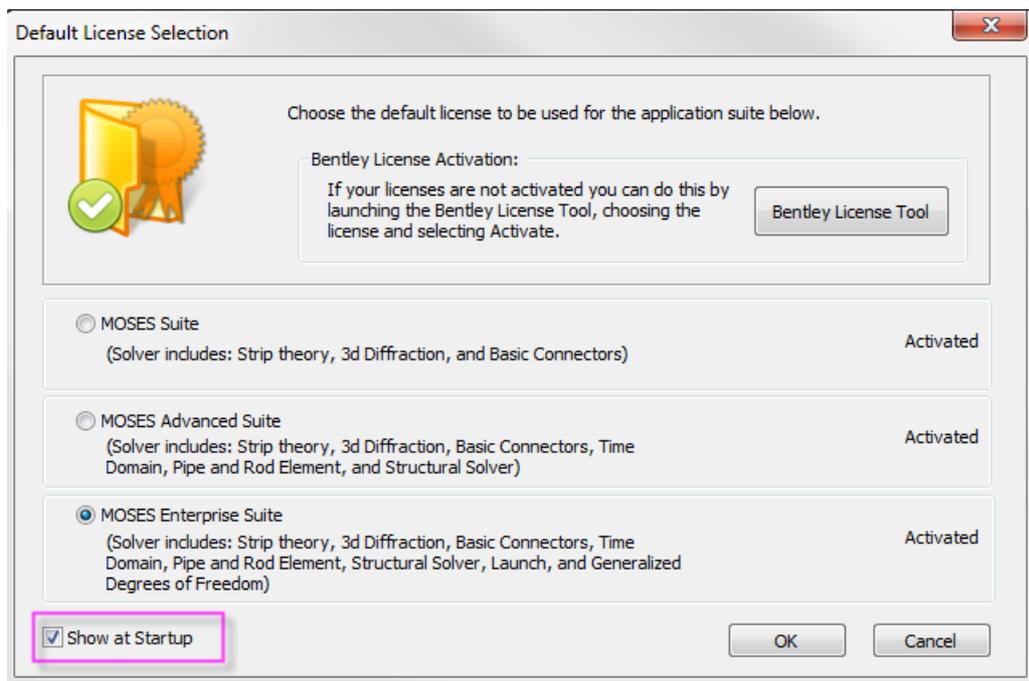
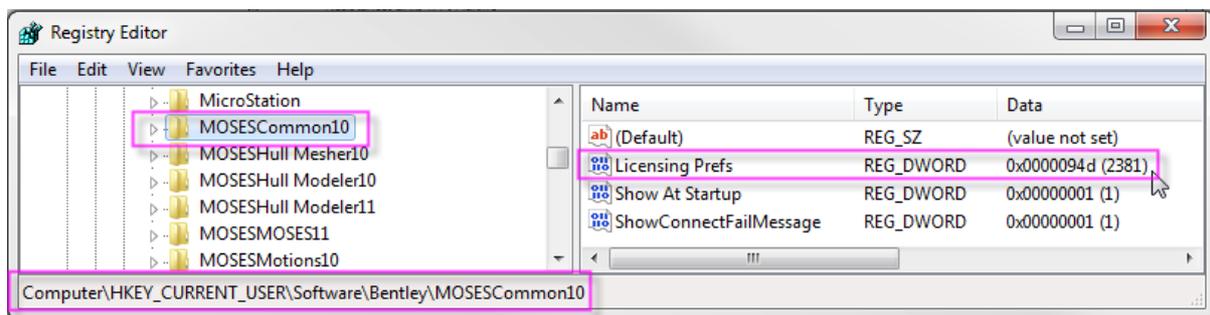
If you own a single level license of MOSES (for example just MOSES Advanced), then you will need to set the .moses.ini file value to that level. If you own multiple levels, for example if you have an ELS (Enterprise License Subscription), then you may wish to set the license level to the one you most commonly use so that other users in your company can use the other licenses.

Note that the license setting for the solver in the .moses.ini file is independent of all other MOSES applications. So if the default license is changed in the MOSES Hull Modeler license dialog then the .moses.ini file will not change.

MOSES Hull Modeler, Stability, Motions, Hull Mesher and Editor

The license selection for Hull Modeler, Stability, Motions, Hull Mesher and Editor is independent of the license selected for the MOSES Solver but is common for all these applications. The default license to be used is stored in the Windows Registry but can also be selected when starting any of these modules or in the Settings tab under Preferences | Licensing. The value 2379, 2380, 2381 correspond to MOSES, MOSES Advanced and MOSES Enterprise licenses respectively.

MOSES gui modules: Hull Modeler, Stability, Motions, Hull Mesher and Editor will run under any license level.



License selection for MOSES gui modules

MOSES Solver

216226: Mean Wave Drift Updates – Technology Preview

The calculation of mean wave drift forces using the far field method described by Newman (1967) has been added as a Technology Preview in this release. This method uses momentum conservation to evaluate the horizontal forces and vertical moment on a floating body. To use the far field method enter the HYDRODYNAMICS menu and issue the command G_PRESSURE with the option –MD_TYPE and the variable FARFIELD. Alternatively, the existing pressure integration method can be used to evaluate the mean wave drift forces with –MD_TYPE NEARFIELD.

As part of the addition of the far field method, the wave drift estimate calculation G_MDRIFT has now been deprecated. Any calls to G_MDRIFT will reset mean wave drift parameters from prior G_PRESSURE calls. It is therefore highly recommended that all options and parameters for G_PRESSURE are always explicitly specified.

The far field (momentum conservation) method for evaluating mean wave drift forces is a Technology Preview in this release. The MOSES development team would welcome your feedback regarding the performance of this new feature. Please note that the far field method is provided to you “as-is” without the benefit of any Bentley warranty, indemnity or support obligation.

389721: Frequency Dependent Damping

An enhancement to the GSPR flexible connector type allows users to add frequency dependent damping attributes in the time or frequency domain. This could be used to model anti-roll tanks, for example. To use the new feature, first define a convolution curve using the &DATA -CONVOLUTION command. For example, the convolution curve named “f_1” is defined below (in frequency form):

```

---
155  &set c = &number(real 1.1)
156  &data convolution frequency f_1 \
157      0.0                %c*12.0 \
158      0.0289240151408    %c*11.5249764393 \
159      0.0570139350254    %c*11.0598223733 \
160      0.0842832773188    %c*10.6044386609 \
161      0.110745559686     %c*10.1587261605 \
162      0.136414299793     %c*9.72258573081 \
163      0.161303015304     %c*9.29591823058 \
164      0.185425223884     %c*8.87862451843 \

```

Frequencies are in the left hand column, extending below the image, and frequency dependent values for response are in the right hand side (see the reference manual documentation of &DATA -CONVOLUTION for details). Please note that the &DATA -CONVOLUTION option is used here without specifying the degree of freedom. That is done when defining the GSPR specifically, as will be shown next.

With the frequency response defined as above, we are ready to use it on a GSPR in the example code below:

```

105  *cg 90. 0. 4.
106  ~bottom gspr  x 0 0 y 0 0 z 0 0 Rx 0 0 Ry 0 0 Rz 0 0 -len 0 -convolution ry f_1
107  connector bottom ~bottom -euler x *cg

```

This code defines a GSPR class “~bottom” and then a GSPR connector named “bottom” at point *cg. The class includes a convolution function “f_1” which was defined earlier, and which acts on the RY degree of freedom. More details can be found in the flexible connector GSPR documentation. In the example code here the traditional spring constants are set to zero.

326633: SACS Load Cases from MOSES

During a MOSES analysis with a converted SACS structure, MOSES now has the option to emit load cases in SACS load card format. This is accomplished via a three part procedure as follows:

- 1.) The &EMIT -SACS command must be issued in the cif file which converts the SACS model, before the INMODEL command.
- 2.) The &EMIT -SACS command must also be issued in the cif file to do an analysis from which load cases are desired.
- 3.) Assuming steps one and two have been completed above, MOSES load cases are generated as usual using the LCASE command in the STRUCTURAL menu. See the MOSES reference manual for specifics. Once load cases are generated internally, the standard EXP_ALOAD command will now write the load cases to the ppo file in SACS load card format.

The code snippets below summarize the procedures:

```

2 | $*****                                     Prepare to emit sacs format
3 | $
4 | &emit -sacs
5 | $

```

Example code step 1: &EMIT -SACS must be issued when the SACS model is converted to MOSES format. Critically, this must be issued before the INMODEL command.

So the first use of &EMIT -SACS is during the jacket conversion. This command may be issued anywhere the &EMIT command is valid, and should be done before the conversion is actually computed so that MOSES can remember SACS model data names. Next, &EMIT -SACS command must be issued during the MOSES analysis itself. Obviously this analysis must use the converted model from step 1 above. As shown in the code snippet below, the command is the same.

```

32 | $*****                                     sacs setup
33 | $
34 | &emit -sacs
35 | $

```

Example Code Step 2: &EMIT -SACS is used again to prepare MOSES to emit SACS load cases.

The code snippet above emphasizes the fact that the command must be issued separate from the conversion file. It is issued near the start of the analysis .cif file, before entering the STRUCTURAL menu.

Finally, the load cases are created with standard commands and emitted to the .ppo file in the .ans directory.

```

85 | $*****                                     struct
86 | $
87 | struct
88 |     lc case -rao
89 |     exp_aload
90 | end

```

Example Code Step 3: Exporting load cases to SACS format

As standard, the EXP_ALOAD command emits load cases. With the above procedures, the load cases will now be composed of SACS load cards.

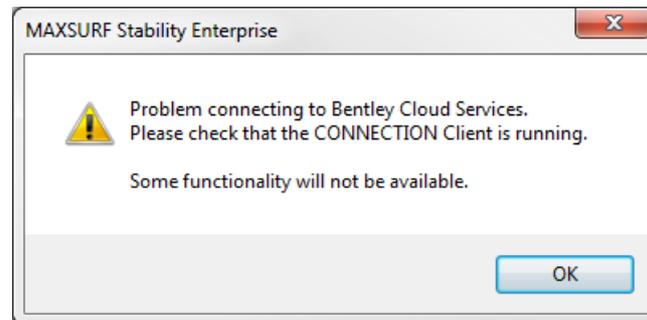
Bug Fixes and Minor Changes

- **339774:** The macro I_TANK was defined in multiple stability and installation macros. This issue was fixed by renaming the incline macro to IN_TANK.
- **370335:** &DESCRIBE SENSOR -ACTION STOP_WINCH was not finding the velocity curve. This issue has now been fixed.
- **378132:** Trajectory reports now show that the data is in the global coordinate system.
- **383965:** Added a warning message for the use of VESSEL on the &PICTURE -TYPE command.
- **387622:** Documentation for &PICTURE -SAVE_PIC was incorrect. Updated to include -G_DEFAULT.
- **380622:** MOSES TOW macro was reporting RAOs as G Forces, the RAOs are now correctly shown as displacements.
- **422800:** &DESCRIBE SENSOR -STOP_SIMULATION was reporting outside of the time domain menu. It now reports inside TDOM only.
- **445376:** Macro declaration order could cause conflicts when using install and stability macros in the same run file.
- **469523:** Reporting of a piece being closed was inconsistent between analyses. This issue has been fixed.
- **468453:** Sample file 3ddif.cif has been updated to remove the deprecated options -MD_PHASE and -MD_FORCE on the command I_MDRIFT.
- **485014:** Equation removed from TANKER -LOCATE in calm.cif test so that it may be easier to understand when using this test for training purposes.
- **488251:** Changes made to avoid numerical instability in GM calculations.
- **590953:** Warning added to MOSES log file to notify users when the license is elevated automatically. This only applies where the user has set LICENSE AUTOMATIC in the .moses.ini file, using &DEVICE -LICENSE or in the preferences dialog.
- **626202:** Flooding inside the static process menu changed the results of the command to compute curves of form (CFORM). The issue has been fixed.

All MOSES Modules

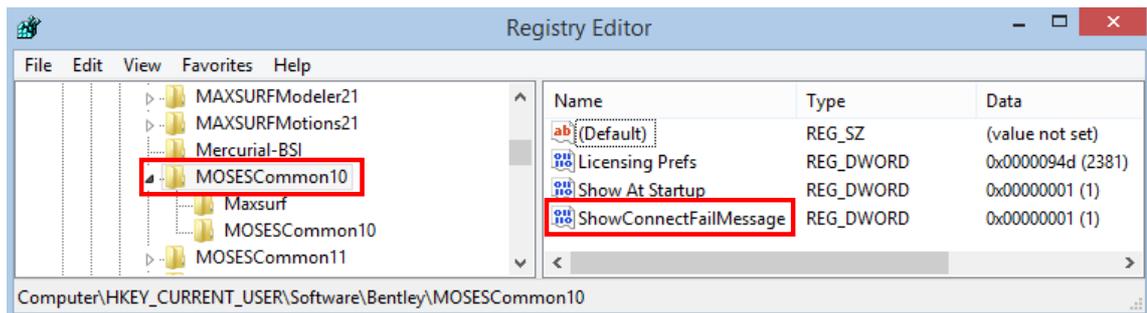
480966: Disable CONNECTION Client warning dialog

When running an application through the COM automation interface, it is desirable to suppress dialogs which require user intervention. When the CONNECTION Client is not running the application will normally show you a warning dialog on startup:



CONNECTION Client warning dialog

To turn off this dialog change the “ShowConnectFailMessage” registry entry to 0.
Warning: do not edit the Registry unless you are confident about doing so.

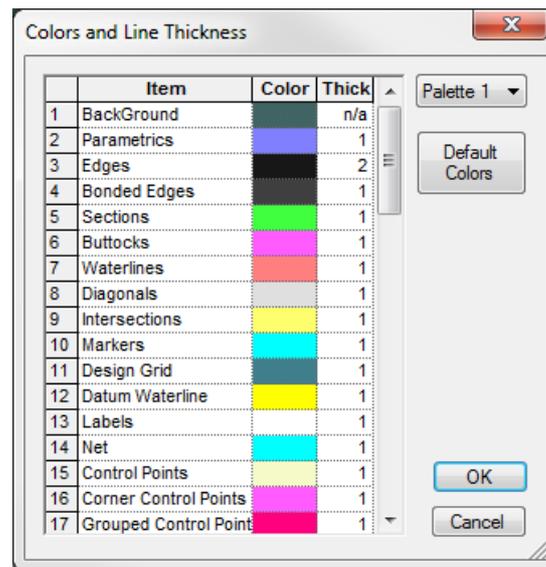


Turn off CONNECTION Client warning dialog using the Registry Editor

389928: Color Picker changes

The Color picker has been modified to use a grid. This means that you can now view the colors and line thicknesses for all items at a glance. Also copy, paste and fill down can be used in the grid. Furthermore you can now sort by double-clicking in any of the column headings to sort the items by that columns; each double click steps through the cycle of three sort options: ascending, descending, unsorted.

The color of an item is modified by *double-clicking* in the colored cell.



New Color picker dialog

- **421638:** Note that in the Stability Color Picker the items "Sheer Line" and "Downflooding Point" have been renamed "Deck Edge" and "Key Points" respectively

Bug fixes and minor changes

- **590953:** OS version, bitness and MS Office version information have been added to Sysinfo dialog.
- **556716:** The following file formats: SLT, PLY, NuShallo, GHS, WAMIT and MOSES; are now always saved using "." as the decimal character (even on European systems where the decimal character has been set to ","). Equally when importing these file formats MAXSURF expects the decimal character to always be ".".

MOSES Hull Modeler

MOSES DGN export/import enhancement

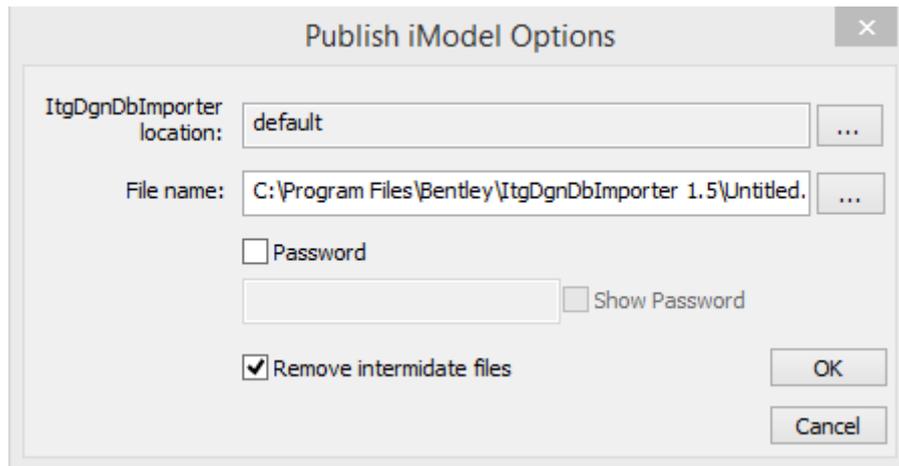
MOSES Hull Modeler is now able to import/export via DGN file format (Microstation native file format). Not only geometric data of surfaces & curves is transferred but also additional attributes such as labels, colours, types, transparencies and materials.

422066: Publish i-model

i-models can be used to exchange information for projects associated with the lifecycle of infrastructure assets. You can ensure that information flows easily, completely, and accurately between, and within design, construction, and operations environments. The .imodel is compact and optimized for mobile apps. You can review .imodel files with Navigator Mobile or Bentley Navigator Desktop on the Windows platform that contain business data and embedded documents.

To publish an i-model from MOSES Hull Modeler:

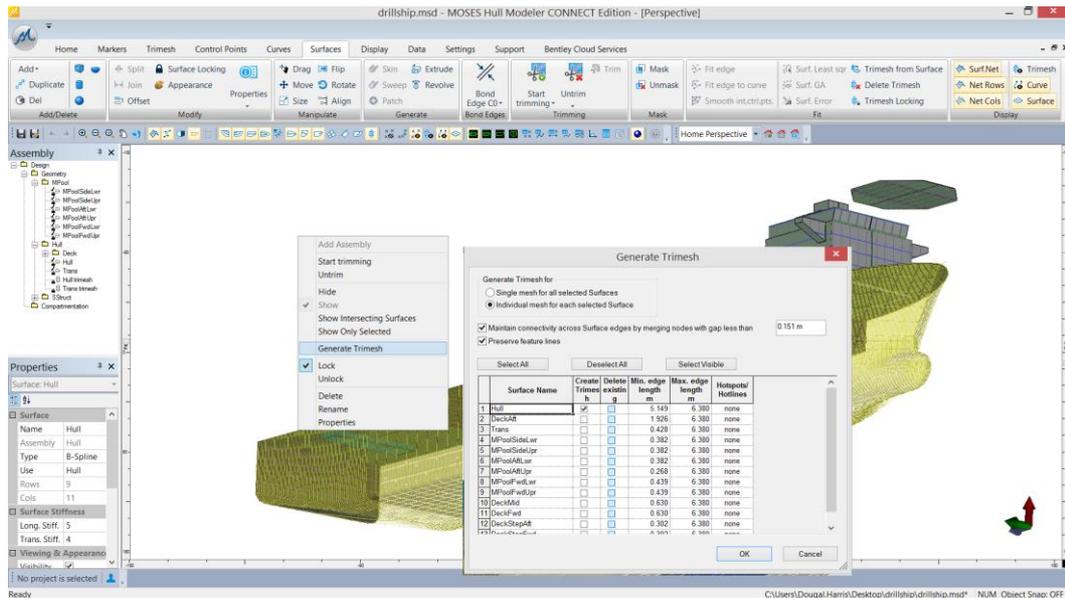
- **Choose Publish i-model from the File menu. The following dialog will appear, which allows you to set up i-model options:**



Click OK button and an i-model with an .imodel extension is created in the specified location.

385794: Right click generate trimesh

A single or multiple trimeshes can now be selected in the graphical views or via the assembly tree, the right click menu then enables the user to go directly to the generate trimeshes dialog. The dialog will have the currently selected surfaces as default input:



Bug fixes and minor changes

- 625139: Material group & index selection crash was fixed.
- 615393: Rare crash on move surface in assembly view.
- 586540: Curve projection direction for cutting surfaces not working for longitudinal and vertical directions.
- 217047: Provide more feedback to user during a GA fitting procedure (progress/error dialogs etc).
- 5666787: Zero point shifting on export to dgn. If user alters zero point in design this is not reflected in export .dgn file.
- 571991: Edit|Preferences dialog resets units to m.
- 467867: MOSES Hull Modeler now checks that a non-negative water density has been read from the preferences.
- 387608: Always have the option to go to the Untrim surfaces dialog from the Surfaces | Untrim menu.
- 377902: Outside arrows sometimes incorrect on generated trimeshes.
- 377906: Moving trimesh node after zooming occasionally not working.
- 387068: Remove "Move associated curves" from Move surfaces dialog.
- 423563: Incorrect export of trimmed iges surface, model specific.
- 409439: Trimming not working on round trip to .dgn file format.
- 388689: Improvements to mesh connectivity across multiple meshes during automated meshing.
- 456074: Crash on open dgn file created in Microstation. Model specific.
- 474161: Skin Curves function not working, model specific.
- 380837: Export invisible surfaces to rhino. All surfaces will now be exported to a Rhino file regardless of visibility status. Both visibility and locking flags for each nurbs surface will now be translated to the .3dm file.
- 403614: MOSES dat files can be comma delimited as well as space delimited.
- 537233: Incorrect calculation of waterline length, model specific
- 535899: Add COM function for exporting of dxf from one of the orthogonal views (body plan, plan or profile).
- 217003: Trimeshes can now be selected in rendered mode in the perspective view.
- 522207: Automatically zoom model extents after importing.
- 217047: Provide more feedback to user during a GA fitting procedure (progress/error dialogs etc).
- 5666787: Zero point shifting on export to dgn. If user alters zero point in design this is not reflected in export .dgn file.
- 571991: Edit|Preferences dialog resets units to m.
- 586540: Curve projection direction for cutting surfaces not working for longitudinal and vertical directions.
- 615393: Rare crash on move surface in assembly view.
- 625139: Material group & index selection crash was fixed.

MOSES Stability

527889: Various issue importing GHS files into Stability

A crash which occurred when importing GHS files on systems with decimal character set other than “.” (EG European systems) has been fixed. It is now assumed that GHS files always have “.” as the decimal character (even on European systems).

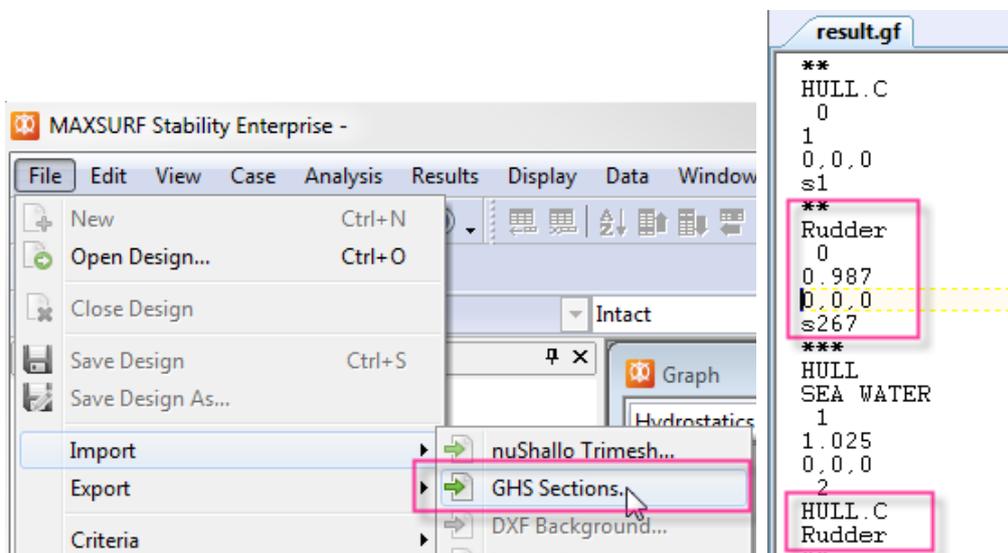
Cubic splines are no longer fitted to the GHS sections.

If saving the resulting model as a .hmd file after importing from a GHS file, then store (and then retrieve) a flag to indicate that the original data came from GHS.

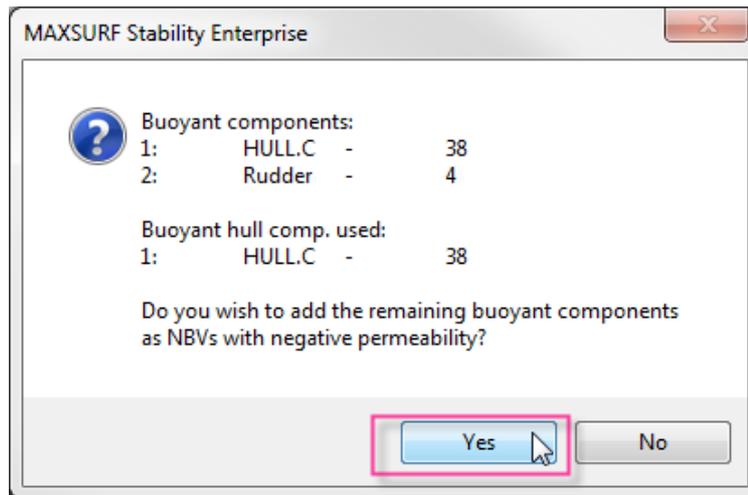
Blank lines in the GHS file are no longer causing the import to exit at that point in the file (previously a Blank line was being interpreted as the end of the file).

It is not possible to have the first component of a part with negative permeability/effectiveness. Previously Stability would sometimes incorrectly make the first component of a tank or compartment positive; this is now fixed by re-sorting the components to ensure that the first component has positive permeability/effectiveness. It is assumed that each part will have *at least* one positive component.

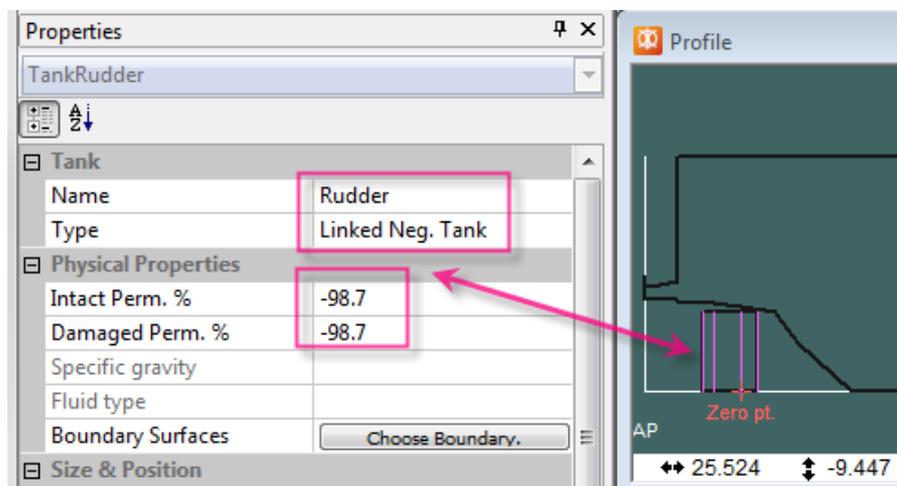
Stability only has one main buoyant component (the main hull), however it is possible to add other buoyant components as Non-Buoyant Volumes (NBVs) with negative permeability. The option to do this automatically is now provided when importing in Stability from the File | Import GHS sections option:



Importing a GHS file with multiple buoyant components defining the main hull



These can now be automatically added as NBVs with negative permeability

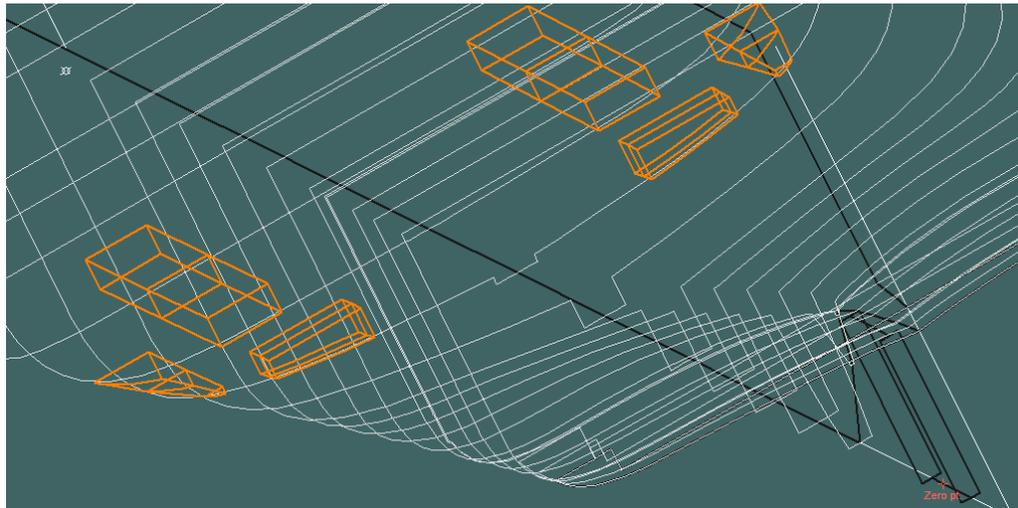


Secondary buoyant component (Rudder) successfully included in the Stability model as a NBV with negative permeability.

For compartmentation imported from GHS, the properties of NegLinkedTanks and NegLinkedComps are now fully editable

B07C	Tank	98	98	1
B07C	Linked Neg. Tank	98	98	1
B08C	Tank	98	98	1
B08C	Linked Neg. Tank	98	98	1
B41C	Tank	98	98	1
B41C	Linked Tank	98	98	1
F09E	Tank	98.5	98.5	1

Previously components with symmetrical sections which did not join at the centerline were incorrectly mirrored across the centerline; this has been fixed so that the sections are recreated correctly.



Mirroring of symmetrical sections which do not connect at the centerline has been fixed

The GHS component and (shape) that generated the Room entry are listed in the Formed column of the Room definition table:

Input														Formed			
Name	Type	In	Da	S	Fl	B	Af	Fo	F.	F.	F.	A.	A.	A.	A.	Formed	
		ta	m	p	ui	o	t	re	P	St	T	B	P	St	T	B	
37	F10B	Linked Neg. Tank	9	9	0	Di	no	8	9	-6	-5	2	1	Pr	Pr	Pr	-26.2(s60); Yes (Geometry locked)
38	F11E	Tank	9	9	0	Di	no	7	7	0	6	2	0	Pr	Pr	Pr	15.1(s61); Yes (Geometry locked)
39	F11B	Tank	9	9	0	Di	no	7	7	-6	-0	2	0	Pr	Pr	Pr	15.2(s62); Yes (Geometry locked)
40	F12E	Tank	9	9	0	Di	no	7	7	0	6	2	0	Pr	Pr	Pr	16.1(s63); Yes (Geometry locked)
41	F12E	Linked Tank	9	9	0	Di	no	6	7	0	6	2	0	Pr	Pr	Pr	17.1(s64); Yes (Geometry locked)
42	F12B	Tank	9	9	0	Di	no	7	7	-6	-0	2	0	Pr	Pr	Pr	16.2(s65); Yes (Geometry locked)
43	F12B	Linked Tank	9	9	0	Di	no	6	7	-6	0	2	0	Pr	Pr	Pr	17.2(s66); Yes (Geometry locked)
44	F13C	Tank	9	9	0	Di	no	1	2	0	5	7	4	Pr	Pr	Pr	18.1(s67); Yes (Geometry locked)
45	F13C	Linked Tank	9	9	0	Di	no	1	2	-3	0	7	4	Pr	Pr	Pr	19.2(s68); Yes (Geometry locked)
46	F13C	Linked Neg. Tank	9	9	0	Di	no	2	2	0	1	7	4	Pr	Pr	Pr	-20.1(s69); Yes (Geometry locked)
47	F13C	Linked Neg. Tank	9	9	0	Di	no	2	2	-3	0	7	4	Pr	Pr	Pr	-21.2(s70); Yes (Geometry locked)
48	F13C	Linked Neg. Tank	9	9	0	Di	no	1	2	0	1	7	4	Pr	Pr	Pr	-22.1(s71); Yes (Geometry locked)
49	F13C	Linked Neg. Tank	9	9	0	Di	no	1	2	-3	0	7	4	Pr	Pr	Pr	-23.2(s72); Yes (Geometry locked)
50	F14C	Tank	9	9	0	Di	no	2	2	0	1	7	4	Pr	Pr	Pr	20.1(s73); Yes (Geometry locked)
51	F14C	Linked Tank	9	9	0	Di	no	2	2	-3	0	7	4	Pr	Pr	Pr	21.2(s74); Yes (Geometry locked)

GHS Component and (Shape) names are listed in the Formed column

Because after a GHS import the negative-linked components and tanks and compartments are essentially edited and modified independently from the positive components, their damage status and permeability is also reported in the log files that are generated.

216570: Windage area calculation

A number of performance enhancements have been made to the windage profile calculation. In version 21.01, the density of the surface mesh used to compute the projected windage profile was greatly increased, resulting in very slow performance for some models. This issue has been addressed in version 21.02 particularly in Stability Enterprise where advantage can be made of multi-core processors.

Bug fixes and minor changes

- 563779: A problem with GHS Import which cut off Key Point (Critical Point) names at the first white space and also failing to link the Key Point to the specified tank (if any) has been fixed.
- 562449: A problem reading in the Shear and Bending moment limits from the design file has been corrected. The problem was that the maximum values of the limits were always forced positive even if they had been set negative in the table.
- 527889: A problem with the Room-type dropdown menu in the Properties sheet has been fixed.
- 527657: When opening .msd design files containing Trimeshes, the correct names are now shown in the Stability Assembly window.
- 506610, 216506: It is not possible to delete Compartments from the Assembly tree; only empty folders can be deleted. Please delete Compartments from the Compartment definition window.
- 471212: When setting a Load case tank filling by Volume, the filling level is not saved in the file. This has been fixed (But it is an error in the file saved by previous versions of Stability. The work around is to first set the data by volume, then copy the Quantity column data and paste over itself so that the data is now set by Quantity but using the filling levels set by Volume.)
- 439113: When identifying the section with maximum cross-sectional area for prismatic shapes of vessels with parallel mid-body, Stability now looks for the biggest number of contiguous sections with the same area and picks the middle section of this group. Previously it was fairly arbitrary which section would get selected if there were more than one with the same cross-sectional area.
- 421638: The colour picker item "Sheer Line" has been renamed "Deck Edge"; and the colour picker item "Downflooding Point" has been renamed "Key Points".
- 481217: Export of windage from Stability to MOSES missing Model Edit menu.
- 563779: A problem with GHS Import which cut off Key Point (Critical Point) names at the first white space and also failing to link the Key Point to the specified tank (if any) has been fixed.

MOSES Motions

Bug fixes and minor changes

- 590948: A problem which could sometimes cause Motions to crash when measuring sections for strip theory analysis has been fixed. This could occur for models where the fwd section had no data points on it.
- 541778: Motions not animating trimesh surfaces when running strip theory animation has been fixed.
- 488681: The pressure legend displayed during animation of the pressure distribution over the hull in waves has been improved to prevent flickering.
- 366564: Drift force calculations were being exported to Orcaflex in N but the conventions stated kN this has been fixed. MOSES Motions now calculates drift force with md_force parameters set to 1 1 0, see manual for more information. X-axis was in wrong direction in conventions section when exporting from MOSES Motions to Orcaflex. This has been fixed.
- 378609: Error message displayed twice if no panels are created after generate panels command.
- 366564: Exporting to Orcaflex RAO, conventions section changed from SwayPositive = port to SwayPositive = starboard.
- 448321: Slightly different results depending on whether a .skd file is opened and closed before opening a new design and running analysis.
- 481191 Don't reset vessel vcg after loading cargo (MOSES Motions only).
- 538063: User defined RAOs removed from Analysis Type drop down options as not available for this version (MOSES).
- 590948: A problem which could sometimes cause Motions to crash when measuring sections for strip theory analysis has been fixed. This could occur for models where the fwd section had no data points on it.

MOSES Hull Mesher

Bug fixes and minor changes

- 351125: Converting members to openings works only for the first loop, but not working for subsequent loops.
- 322829: ISM export hanging issue when run 32 bit application on 64 bit machine.
- 323431: Rendering progress bar conflicts with animation progress bar.
- 343436: Causing slow rendering at the first time of displaying a model by cursor creation/position..

Known Issue

The 32-bit version of MOSES Hull Mesher can work on any Windows 64-bit machines. However, some users have also reported issues in ISM export, which cause the program to hang or crash. This issue is under investigation, in the meantime there are two methods to work around it:

- install and run 64 bit Hull Mesher Modules on a 64 bit machine, or
- install an old version of Structural Synchronizer (ssync081109130en.exe), which can be downloaded from <http://www.bentley.com/en-AU/Free+Software/structural+synchronizer.htm>

MOSES Editor

Bug fixes and minor changes

- **327148: MOSES Editor files were not flagged as changed if the CONNECT Project ID was modified, so a 'save changes' dialog was not being shown on close.**

Problem Reports

We greatly appreciate any bug reports or suggestions you may have. Please report any bugs or anomalies you find through www.bentley.com/serviceticketmanager .