

## MAXSURF CONNECT Edition V21.11.00 ReadMe 15 November 2017



This ReadMe file describes the changes to the Modules in MAXSURF CONNECT Edition V21.11.00

### Side-by-side installation – important changes:

**Note that this version 21.11 will replace versions 21.10 and 21.02 if already installed on your computer. Side-by-side installation of versions 21.11 and 21.10 or 21.02 is not possible.**

Bentley version numbers are MM.mm.sv.bb where MM is the Major version number; mm the minor version number and sv is reserved for special versions (and bb is the build number). From version 21.10 onwards, side-by-side installations of MAXSURF are only possible for different *major* versions. When you are signed in to the CONNECTION client, you will be notified when *minor* updates are available (these are updates with different *minor* version numbers. If you install a *minor* update, the previous version with the *same major* version number will be replaced with the updated version. Thus, installation of version 21.11 will replace 21.10 or 21.02 but would be installed side-by-side with 19.

### System Requirements – 64-bit only:

**Henceforth MAXSURF and Multiframe will be available in 64bit versions only and will only work with 64bit operating systems.**

64-bit versions of MAXSURF will run on Windows 7, 8, 8.1 and 10 64-bit operating systems only.

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## Contents

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Introduction .....	3
Product Description / Key capabilities .....	3
Superseded and Removed Features .....	4
Known Issues .....	5
Before You Begin.....	6
Installation .....	7
Installation Requirements.....	7
Supported Operating Systems .....	7
Software Prerequisites .....	7
Supported i-model publishing engines.....	7
Microsoft Office .....	7
Minimum Profile.....	7
No Longer Supported or Delivered.....	8
Quick Install Guide .....	9
Activating Your Product .....	9
Using the Product Activation Wizard .....	9
SELECT Subscriber: Hosted (Bentley) SELECTserver .....	9
SELECT Subscriber: Deployed (local) SELECTserver .....	10
NON-SELECT or Node Locked User .....	10
Evaluation Only - No License Information.....	10
License Management Tool.....	11
Legal.....	12
Trademark Notice.....	12
Copyright Notice.....	12
Restricted Rights Legend .....	12
Bentley Information .....	14
Services and Support Information.....	14
Support Path.....	14
Bentley Headquarters.....	14
Corporate Headquarters .....	14
International Headquarters.....	14
Asia Headquarters.....	14
Links.....	15
Release Notes .....	16
Compatibility with Previous Versions .....	16
Directory Structure.....	16
Changes: All Modules.....	17
Bug fixes and minor changes .....	17
Changes: MAXSURF Modeler .....	18
Bug fixes and minor changes .....	18
Changes: MAXSURF Stability .....	19
Bug fixes and minor changes .....	19
Changes: MAXSURF Motions .....	20
Bug fixes and minor changes .....	20
Changes: MAXSURF Multiframe .....	21
Bug fixes and minor changes from 21.10.00 to 21.11.00 .....	21
Security Release Notes .....	22
Problem Reports .....	23

## Introduction

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### Product Description / Key capabilities

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Visualize and optimize vessel designs with the complete set of integrated naval architecture tools in MAXSURF. Create fair hull shapes, comply with stability requirements, minimize power requirements, and ensure crew and passenger comfort in varying sea states. Minimize structural weight while ensuring scantling compliance through initial modeling and stress analysis of beam and plate structures.

MAXSURF helps you redefine design excellence for any size vessel. Choose the version that fits your project needs:

- MAXSURF:** Develop optimal designs for smaller craft using up to 20 NURBS (non-uniform rational basis spline) surfaces.
- MAXSURF Advanced:** Optimize the design of larger and more complex vessels using an unlimited number of dynamically trimmed 3D NURBS surfaces for modeling the hull, appendages, and superstructure. Enable your naval architecture team with a full range of functions for designing power, sail, commercial, or naval vessels made from steel, aluminum, or composite materials.
- MAXSURF Enterprise:** Comply with the most demanding requirements by extending MAXSURF Advanced with probabilistic damage stability, advanced motions prediction, and dynamic structural analysis.

## **Superseded and Removed Features**

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No features have been removed from this release.

## Known Issues

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There are no known issues with this release.

## **Before You Begin**

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Before you begin, please note the following:

Review the End User License Agreement (or EULA) carefully during the installation of MAXSURF. By installing this release, you agree to the terms and conditions of the agreement. A copy of the End User License Agreement named "Eula.pdf" can be found in the location after MAXSURF has been installed.

## Installation

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### Installation Requirements

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#### Supported Operating Systems

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<b>Windows 10 (64-bit):</b>	Home, Pro, Enterprise, and Education
<b>Windows 8.1 (64-bit):</b>	Standard, Pro, and Enterprise
<b>Windows 8 (64-bit):</b>	Standard, Pro, and Enterprise
<b>Windows 7 SP1 (64-bit):</b>	Home Basic, Home Premium, Professional, Enterprise, and Ultimate
<b>Windows Server 2012 (64 bit):</b>	
<b>Windows Server 2008 R2 SP1(64 bit):</b>	Standard and Enterprise

Note: Windows 7 operating system is supported only if you have its service pack (SP1) installed.

Note: For Window 8 and 8.1, you must have the Microsoft KB2919355 installed on your machine.

Bentley does not support its software running on Microsoft operating systems versions that Microsoft has "retired". For more information on Microsoft's application retirement policy, click [here](#). For similar information on Bentley products, refer to the Bentley Product Support article.

#### Software Prerequisites

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The software prerequisites are included in the MAXSURF installer.

#### Supported i-model publishing engines

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Publishing i-models from MAXSURF Modeler requires Bentley ItgDgnDbImporter 1.5.

Publishing i-models from MAXSURF Multiframe requires Bentley ISM

#### Microsoft Office

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For reporting using Microsoft Word, this must be installed on the system.

#### Minimum Profile

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The minimum recommended workstation profile for running MAXSURF CONNECT Edition is:

<b>Processor:</b>	Intel® or AMD® processor 1.0 GHz or greater. MicroStation is not supported on a CPU that does not support SSE2.
<b>Memory:</b>	4 GB minimum, 16 GB recommended. More memory almost always improves performance, particularly when working with larger models.
<b>Hard Disk:</b>	4 GB free disk space (which includes the 2 GB install footprint for a complete installation)

**Video:** Graphics card which fully supports DirectX 11 and OpenGL with up to date drivers. A stand-alone graphics card with 512 MB of video RAM or higher is recommended.

**Screen:** A resolution of at least 1024 x 768 or higher.

**No Longer Supported or Delivered**

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32-bit operating systems are no longer supported.



## Quick Install Guide

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Please refer to the separate installation guide document for information relating to downloading and installing MAXSURF.

## Activating Your Product

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### Using the Product Activation Wizard

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The Product Activation Wizard is designed to step users through the product activation process. After a product is installed, you must obtain a license and then activate that license. Obtaining the license alone is not enough to complete the process. This wizard eliminates the confusion and makes it clear that obtaining a license and activating a product are two essential steps.

The Product Activation Wizard may be launched automatically at the end of the product installation process, assuming you turned on the Launch activation wizard option on the final page of the installation wizard.

You can also access the Product **Activation Wizard** from the Start Menu.

The first screen of the Product Activation Wizard offers these product activation options:

- **SELECT subscriber activating against a hosted (Bentley) SELECTserver**
- **SELECT subscriber with a deployed (local) SELECTserver**
- **NON-SELECT or Node Locked user**
- **Evaluation Only - No license information**

The wizard steps you through the activation process based on the options selected.

### **SELECT Subscriber: Hosted (Bentley) SELECTserver**

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If you are activating against a hosted (Bentley) SELECTserver, the Server Name is pre-populated but you must provide the proper Activation Key - see <http://www.bentley.com/activate> for more information regarding this.

1. Select **SELECT subscriber activating against a hosted (Bentley) SELECTserver** and click Next.

The **Activating against a SELECTserver** page opens.

2. Enter the site activation key in the Site Activation Key field.
3. If you are using HTTPS, turn on HTTPS (SSL).
4. If you are using a proxy server to connect to the SELECTserver, click the Proxy button and fill in the Proxy Server information, then click OK.
5. Click Test Connection to verify the connection to the SELECTserver.
6. Click Next.
7. On the Single Sign-In page, do one of the following:
  - **Sign in now:** If you already have an account, select Sign-in now and click Next. When the CONNECTION Client opens, enter your Bentley Cloud Services credentials and click Sign In. You can then return to the Product Activation Wizard.
  - **Sign in later:** If you are not ready to sign in yet, select Sign-in later and click Next.

- Sign up: If you need to register (create) an account, click the Sign-up link. After creating your account, return to the Product Activation Wizard, select Sign-in now and click Next. When the CONNECTION Client opens, enter your single sign-in credentials and click Sign In. You can then return to the Product Activation Wizard.
8. On the Country of Use page, select the country where you will be using this product and click Next.

The Wizard Selections page displays the information provided on the previous pages.

9. Review the information and click Finish to activate the product.

### **SELECT Subscriber: Deployed (local) SELECTserver**

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If you are activating against a local SELECTserver, you must provide the proper Server Name and Activation Key. The Server Name and Activation Key, along with any proxy configuration information, can be obtained from your Site Administrator.

Use the same procedure as described above for the Hosted SELECTserver except that you must enter the name of the server in the Server Name field.

### **NON-SELECT or Node Locked User**

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If you are not a Bentley SELECT subscriber and you are activating your product, you have two options:

#### **I have a license file ready to import**

1. Enter the path to your license file (or Browse to the location of your license file) in the License File field.
  2. Click Next.
- The Wizard Selections page displays the information provided on the previous pages.
3. Review the information and click Finish to activate the product.

#### **I have an activation key**

1. Enter the site activation key in the Site Activation Key field.
  2. If you are using HTTPS, turn on HTTPS (SSL).
  3. If you are using a proxy server to connect to the SELECTserver, click the Proxy button and fill in the Proxy Server information, then click OK.
  4. Click Test Connection to verify the connection to the SELECTserver.
  5. Click Next.
- The Check out license now? page displays.
6. Enter your email address in the Email Address field.
  7. Select the product to be activated (if not pre-populated) in the Product Name field.
  8. Enter the product version number (XXX.XXX.XXX.XXX, if not pre-populated) in the Product Version field.
  9. Click Next.
  10. On the Country of Use page, select the country where you will be using this product and click Next.
- The Wizard Selections page displays the information provided on the previous pages.
11. Review the information and click Finish to activate the product.

### **Evaluation Only - No License Information**

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1. The product will run in pre-activation mode for 7 days.
2. Click Go To Bentley.com to request activation information.

### **License Management Tool**

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The Licence Management Tool (available from the Start menu after installation) will enable you to see the activation status of the Bentley Software installed on your system.

## Legal

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### Trademark Notice

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Rhino5SDK; Copyright © Robert McNeel & Associates: [www.rhino3d.com](http://www.rhino3d.com)

Complete copyright information can be found in the product Help | Copyright dialog

For reference, a copy of the End User License Agreement named EULA.pdf is installed in the same folder as the product.

### Restricted Rights Legend

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## Bentley Information

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### Services and Support Information

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TechNotes, FAQs, and additional Bentley product information, can be found on the Bentley Communities Product Technotes and FAQs Wiki page.  
<http://www.bentley.com/ProductTechnotesAndFAQs>

Log issues that you encounter with Bentley products using the Service Request Manager. This can be done from the application with the Help | Service Request Manager menu.  
<http://www.bentley.com/CreateNewServiceRequest>

### Support Path

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Please go to the CONNECTION Center, and create an account if you do not already have one, this will enable you to take advantage of all the Bentley CONNECT features:  
<https://connect.bentley.com/>

Full details of the features provided by Bentley CONNECT are described in the document BentleyCONNECTEditionOverview.pdf which is installed with MAXSURF.

## Bentley Headquarters

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### Corporate Headquarters

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Bentley Systems, Incorporated 685 Stockton Drive, Exton, PA 19341, United States  
Phone: 1-800-BENTLEY (1-800-236-8539)  
Outside the United States: (+1) 610 458-5000  
www: <http://www.bentley.com>

### International Headquarters

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Bentley Systems International Limited 2, Park Place, Upper Hatch Street, Dublin 2, Ireland  
Phone: (+353) 1 436 4600  
www: <http://www.bentley.com>

### Asia Headquarters

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Bentley Systems (Beijing) Co., Ltd. Unit 1402-06, Tower 1 China Central Place, Beijing 100025, China  
Phone: (+86) 10 5929 7000  
www: <http://www.bentley.com>

## Links

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<a href="http://www.bentley.com/MAXSURF">MAXSURF Information:</a>	<a href="http://www.bentley.com/MAXSURF">http://www.bentley.com/MAXSURF</a>
<a href="https://docs.bentley.com/LiveContent/">Bentley Online Documentation:</a>	<a href="https://docs.bentley.com/LiveContent/">https://docs.bentley.com/LiveContent/</a>
<a href="http://www.bentley.com/ProductTechnotesAndFAQs">TechNotes and FAQs:</a>	<a href="http://www.bentley.com/ProductTechnotesAndFAQs">http://www.bentley.com/ProductTechnotesAndFAQs</a>
<a href="http://communities.bentley.com/">Bentley Communities:</a>	<a href="http://communities.bentley.com/">http://communities.bentley.com/</a>
<a href="http://selectservices.bentley.com/">Bentley SELECT:</a>	<a href="http://selectservices.bentley.com/">http://selectservices.bentley.com/</a>
<a href="http://www.bentley.com/products/">Bentley Products:</a>	<a href="http://www.bentley.com/products/">http://www.bentley.com/products/</a>
<a href="http://connect.bentley.com/">Bentley CONNECT:</a>	<a href="http://connect.bentley.com/">http://connect.bentley.com/</a>

## Release Notes

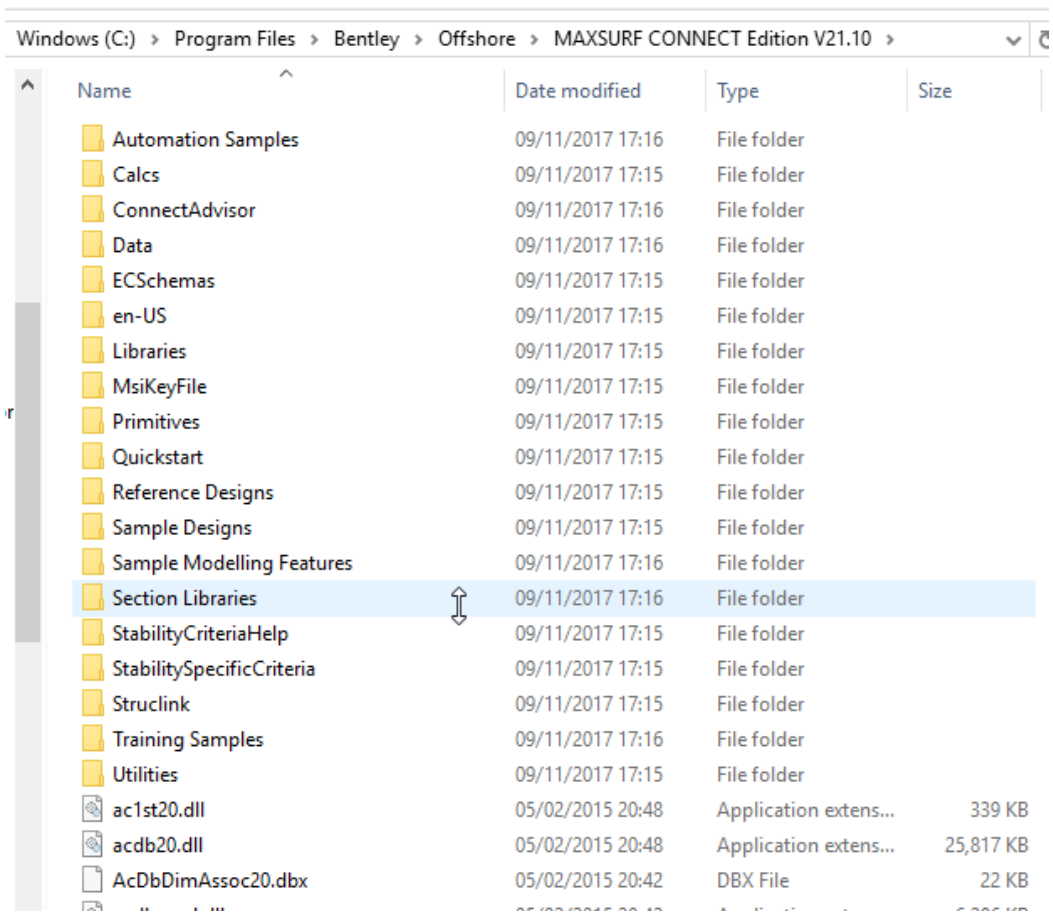
The following sections describe the changes which have been made to the MAXSURF modules.

### Compatibility with Previous Versions

MAXSURF data files are forward and backward compatible between most versions of MAXSURF. Where backward compatibility has been broken, the option to export to earlier file formats is provided in the new version.

### Directory Structure

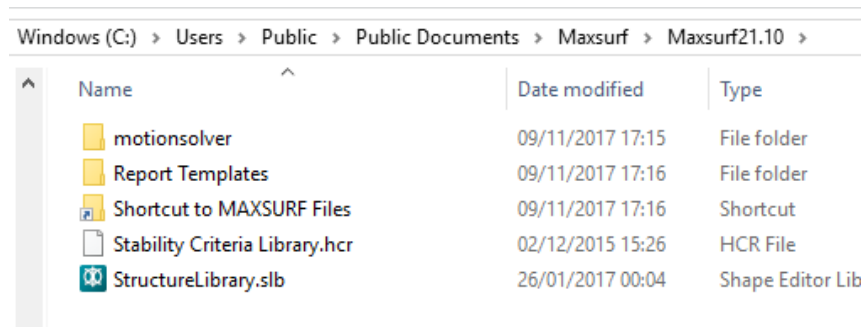
The main application executable files, manuals etc are installed in the root level of the folder selected for the installation. Folders containing sample models are also included.



MAXSURF installation folder

Some additional files are installed under the “Public Documents” folder. These include the reporting templates and libraries used by MAXSURF.





Name	Date modified	Type
motionsolver	09/11/2017 17:15	File folder
Report Templates	09/11/2017 17:16	File folder
Shortcut to MAXSURF Files	09/11/2017 17:16	Shortcut
Stability Criteria Library.hcr	02/12/2015 15:26	HCR File
StructureLibrary.slb	26/01/2017 00:04	Shape Editor Lib

Additional files under the "Public Documents" folder

## **Changes: All Modules**

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### **Bug fixes and minor changes**

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- **759349: A function LicenseLevel has been added to all the application COM automation interfaces. This function returns a string corresponding to the license which is in use.**

## Changes: MAXSURF Modeler

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### Bug fixes and minor changes

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- **779044:** The display of the Marker index in if it is used to define a Curve has been fixed.
- **778225:** Crash on untrim surface in rendered mode, model specific. Fixed.
- **777607:** On export of structure model to MF text file format, stringer end points are now added to model.
- **774960:** Frame with opening not rendering. Model specific. Fixed.
- **774949:** Crash on open file with structure when upgrading from older version. Model specific. Fixed.
- **768274:** Change to the trim engine behavior to ensure surface doesn't get unintentionally completely trimmed away when deleting a trim surface or curve.
- **767068:** Frame not rendering, model specific. Fixed.
- **766404:** Some improvements have been made to the time required to open models with many structural parts.
- **764861:** Structure parts can be removed from the data sheets by highlighting the row of the parts you wish to delete and hitting the delete key.
- **762994:** Standardize behavior on deletion of Structure parts. A warning dialog will now appear regardless of whether the deletion is undoable or not (deleting a plate is not undoable).
- **759479:** If a Deck with an opening is saved in MAXSURF Modeler then opened in MOSES Modeler and recalculated, the opening moves relative to the deck.
- **758230:** All structural data sheets can now be saved directly from the table to text file. When a structural data sheet is the currently active view, choose save from the file menu. When the part window is active save will automatically save the .msd file.
- **757443:** Standardize structure datasheet column headings to be same for all structural parts.
- **755722:** A problem which sometimes occurred when reading a .wsd file with corrupted plate expansions has been resolved. This problem would cause the loss of some model structure data including deck definitions.
- **755255:** A problem which could occur when reading an incomplete or corrupted IGES file which caused the graphics drawing to freezes has been fixed.
- **755015:** A problem when moving structure parts to different folders in the Assembly tree has been fixed.
- **754451:** SACS and MOSES versions only: "Multiframe text file..." has been renamed "Hull Mesher text..."
- **754450:** When adding a stringer on a contour in the perspective view, the default projection direction is now into the most orthogonal plane.
- **754458:** A problem with the stringer section pull down not getting populated correctly has been fixed.
- **754366:** If a stringer was added on a surface and then the user clicked in the datasheet and without clicking on the group column tried to alter the stringer shape, the drop down list was not getting populated.
- **749516:** A problem exporting mirrored plates to Multiframe has been fixed.
- **748237:** Transparency of structure parts has been improved in rendered mode.
- **745933:** The color and transparency Trimesh surfaces are now stored in the design file.

## Changes: MAXSURF Stability

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### Bug fixes and minor changes

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- **777606:** A crash which occurred if the results database was locked by another application has been fixed.
- **776598:** A minor change to the behavior of the MARPOL analysis has been made. If the “Update all tank measurements” option is selected in the MARPOL analysis options dialog, then if the Tank definition is modified, the changes to the tank geometry will automatically be included in the MARPOL analysis when it is run. (Previously you would have needed to explicitly update the data from the MARPOL analysis options dialog.
- **776463:** Valid range checking of the convergence tolerances when reading data from preferences or database has been added.
- **773475:** A problem which could result in “Read-only” damage cases when using the Copy Prob.dam Cases command has been fixed.
- **772718:** An error in the grounding reaction forces has been fixed. This error only occurred if the vessel was resting on two grounding points and the error was in the repartition of the grounding reaction at the two points.
- **757420:** Stability results database: The problem with some data including Windage area definition being lost or not correctly updated when restoring results from the database has been fixed.
- **753170:** Stability results database: A problem with the Probabilistic Damage column headings being recreated each time results were reloaded from the database has been fixed.
- **750942:** Stability results database: The Trim type/units are now correctly stored and restored.
- **750920:** Stability results database: Floodable Length Criteria are now correctly stored and restored.
- **747155:** It is now possible to save MARPOL results table as a text file.
- **746886:** A crash which occurred when reordering the Rooms in the Room definition table whilst the model was rendered has been fixed.
- **746865:** A problem which prevented the rendering of the port-side of trimmed symmetrical surfaces has been fixed.

## **Changes: MAXSURF Motions**

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### **Bug fixes and minor changes**

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- **762993:** Drop down combo boxes for Speed, Spectrum and Heading are not getting cleared when the .skd file is closed. This is now fixed.
- **761294:** A crash which occurred when saving the Strip theory “Section hydrodynamic coeffs” table without completing an analysis has been fixed.
- **749662:** Hide (not grey) unavailable options in MOSES Motions in wave surface dialog.

## **Changes: MAXSURF Multiframe**

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### **Bug fixes and minor changes from 21.10.00 to 21.11.00**

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- **775679:** Offset at node 2 of a member not displayed correctly in Data Window if no offset at node 1; this is now fixed.
- **755031:** Rendered view only changes rendering in current active window (Frame or Load) but not both; this is now fixed.
- **745841:** Multiframe Advanced: All Design Codes are now available again.
- **745362:** AISC2005/2010 Flat bars not supported for torsion check has been fixed.
- **743590:** Multiframe Japanese now defaults to SI units.
- **741703:** Unable to create design members due to the error message – “Design Members must be made up of a single line of connected elements”.
- **741696:** Some members were omitted when creating a design member from a list of selected members; this is now fixed.

## **Security Release Notes**

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Not applicable to this release.

## Problem Reports

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We greatly appreciate any bug reports or suggestions you may have. Please report any bugs or anomalies you find through <http://apps.bentley.com/srmanager/ProductSupport>.