

## **LUSAS 17.0 Error Fix and Modification Release Notes**

This document lists modifications, other than the [New Features in 17.0](#), that have been made since LUSAS 16.0-2 and is correct as of 13<sup>th</sup> July 2018.

### **Version 17.0-0 Built 21<sup>st</sup> May 2018**

#### **LUSAS Modeller 17.0-0 (28651)**

##### **Known new issues**

These issues are known to be present in V17.0-0 and known not to be present in V16.0-2. For a full list of known issues, please visit the Knowledge Base at [www.lusas.com](http://www.lusas.com)

Dynamic rotation of a model with many tendons is slower than in v16 (24123) Workaround: Switch off the loading visualisation while rotating the model
Properties box - issues with coordinates when using comma decimal (24064) Workaround: Locate points correctly by way of the geometry creation tools rather than by entering coordinates directly (or use the British / American decimal separator)
Analysis with Slideline change fails because non-symmetric solver is required (It should be activated by default) (24034) Workaround: Switch on option 64 manually (tick "Nonsymmetric solution" within Nonlinear Analysis Options)
Standard section library for beams gives zero for plastic torsional constant (24019) Workaround: When using nonlinear material for beams with Model 29, manually enter the plastic torsional constant
Line properties does not show the length of the line (24015) Workaround: Use the menu item "Geometry > Line > Length of Line"
When different types of feature are in selection at the same time, the drop down list in the new properties panel may be blank (23988) Workaround: Select one type of feature at a time
Cannot load Double L section back into section property calculator (23955) Workaround: Create a new Double L section, entering the necessary dimensions manually.
Tendon loading still appears in the datafile in the instance that all Tendon loading has been deassigned and / or deleted from model (23831) Workaround: None known

##### **Errors fixed**

The following critical, major or minor issues are fixed in V17.0-0. Further details are given at [Modeller fixed 17.0](#)

Reactions not reported by the Print Results Wizard when the node of interest is connected to a BMI21 element. (23956)
Joint elements created by line do not support element loads (ELDS in Solver Reference manual) with variations. (23882)
VLO Multiple Presence Factor are incorrect when multiple lane arrangements are tried (23748)
Invalid general field variation function causes Modeller to crash - should just be a warning message

(23712)
In the 'Solve Now' dialog, analyses with prestress should be ticked by default if "Update Prestress Loading" is ticked. (23695)
Global distributed loading tabulates loading type CL (See Solver Reference Manual) which is transformed when transformed freedoms are in use (which may be desirable). A new boolean option "showGldKeepGlobal" allows the user access to an load-specific option to ignore transformed freedoms. (23682)
Some or all results are unavailable when editing a graph of nodal values (23668)
Export to Composite Deck Designer - Component to maximise / minimise ignored (23661)
Crash on deleting analysis where a loadcase therein defines a slideline (23643)
Modeller should give a warning or error when multiple temperature loads are assigned to the same feature - since only one can be used (23628)
Target values - selected factor type is not retained, and combination created is empty (23583)
If "Make new geometry unmergable" is deselected, state change is not followed by Modeller (23580)
Create shortcut for Solver from Configuration Utility fails (23527)
No results displayed for Inspection Locations with Basic Combination (23471)
Cannot display stresses/strains at inspection locations for 3D Solids (23445)
Joint element geometric attribute "local shear parametric distance" can lead to unexpected results for users more familiar with zero-length-only joints (23440)
Occasionally the beta angle does not change the orientation of line elements assigned to a line (23295)
Changing the "orient beams and columns using vertical axis" option can result in element axes not following the axes of the line to which they are assigned (23284)
In a multi-analysis model, a combination of new supports and those inherited from the base analysis are visualised correctly but not tabulated correctly (23228)
Improvement to averaging rules / logic. Rule 5 (as per the Help Topic) amended to exclude the following attribute assignments: Loading, mesh, damping, influences, inspection locations, equivalence, local coordinates and search areas. (23210)
LPI node.getResults() does not work for derived components like S1, SE, Sabs (23191)
Error "The results requested are not compatible with the set of objects chosen" when using Print Results Wizard for a specified group of elements (23176)
Cannot create 3D slice 'By cursor' without 'Snap to grid' option (23160)
Direct Method Influence (DMI) for joints cannot be assigned (23130)
Arbitrary Section Property Calculator - unchecking automatic meshing does not work in thin walled sections (23094)
Steel design - inappropriate "non-uniform members" error for models in mm with sections from library (23092)
Beam/Shell Slice Resultants entity and components are available for use when a Smart Combination is active but no results are seen (23083)
Cable tuning - changing the name of the line representing the cable produces an error (23075)
Direct Method Influence (DMI) with 2D model fails to solve (23074)
Rigid zones for beam elements are rigid for bending and shear but not axial deformations. (23060)
Search Area fails with line end joints (joint in beam mesh attribute) (23003)
Global Distributed Load on face of a 3D solid with quadratic order volume elements can be incorrectly

applied (23001)
When setting an envelope active, the option to "change existing drawing layers" does nothing when looking at slab design results (23000)
Merge option "exact" considers only the attribute - it does not consider loadcase, load factor or other assignment data (22686)
Vehicle load optimisation BD86/11 transverse placement is based on spacing in the carriageway rather than adjacent loads and so may be sub-optimal in certain instances (22588)
VLO should not permit use of influences based on derived components, such as RSLT, Wood Armer or User Defined Results. Such usage is likely to be erroneous, since superposition does not apply. (22556)
Cannot obtain "Loading" in Print Results Wizard for thermal jobs (19082)
Smart Combination does not allow same loadcase twice (18999)
Needless restriction of piecewise linear bar material to lines meshed with a single bar element (18158)
Arbitrary Section Property Calculator fails due to meshing problems on thin CHS (17645)
If a model has both BMS3 and BS4 elements and UDL & ELDS loading is defined. A tabulation error occurs. (2412)

A large number of fixes for cosmetic issues, documentation issues, installation issues, and development requests are also provided in V17.0-0. Users with a reference number provided by LUSAS Customer Support may identify these from the following list:

23950, 23921, 23883, 23851, 23830, 23697, 23672, 23671, 23670, 23644, 23633, 23613, 23606, 23595, 23568, 23565, 23563, 23532, 23513, 23501, 23500, 23494, 23491, 23487, 23483, 23480, 23439, 23430, 23429, 23418, 23409, 23405, 23404, 23401, 23386, 23381, 23338, 23325, 23290, 23288, 23272, 23263, 23254, 23241, 23231, 23229, 23214, 23197, 23151, 23150, 23149, 23139, 23136, 23089, 23067, 22994, 22988, 22985, 22983, 22937, 22936, 22889, 22836, 22787, 22784, 22711, 22685, 22635, 22625, 22584, 22554, 22483, 22482, 22378, 22353, 22321, 22273, 22199, 22111, 22110, 22109, 22006, 21997, 21986, 21939, 21886, 21825, 21549, 21445, 21234, 21226, 21211, 21168, 21115, 21089, 20790, 20567, 19465, 19339, 18975, 18957, 18912, 18698, 18672, 18478, 18468, 18160, 17905, 17791, 17503, 17408, 17095, 17074, 17047, 16843, 16690, 16674, 16629, 15600, 15420, 15366, 15003, 14991, 14766, 14734, 14451, 14176, 14160, 13081, 12367, 12238, 12221, 10372, 10330, 10124, 9574, 9508, 9077, 9018, 8856, 1356, 917

## LUSAS Solver 17.0-0 (6331)

### Known new issues

There are no new issues known to be present in V17.0-0 that were not also present in V16.0-2. For a current list of known issues, please visit the Knowledge Base at [www.lusas.com](http://www.lusas.com)

### Errors fixed

The following critical, major or minor issues are fixed in V17.0-0. Further details are given at [Solver fixed 17.0](#)

When a joint moves, the orientation node stays in its original location resulting in a rotation of the joint
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axes (23702)
At deactivation nodal results are zero but results at beam internal points are non-zero (23658)
Cable Tuning apparently runs successfully but no forces are given in certain instances (23438)
Some results not available when constraint equations are modified from loadcase to loadcase in a staged construction analysis (23410)
In a specific model no diagram is shown for analyses 2 onward (23372)
An eigenvalue buckling analysis of a model with tied meshes generates database errors (23248)
Restart file names cannot contain spaces (23237)
The strain energy continues to increase in a dynamic analysis with thick shells even when a reduction is expected (22924)
Restart file with time in days requires resetting the datafile parameters (22049)

A number of fixes for licence issues, or development requests are also provided in V17.0-0. Users with a reference number provided by LUSAS Customer Support may identify these from the following list:

23841, 23662, 23557, 23252, 22900, 22857, 22700, 17925, 16814, 14886, 14305, 8952, 7369