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 15th Nov 2018. For a list of any known issues, please visit the Knowledge Base at www.lusas.com

Version 17.0-2 Built 22nd Oct 2018

LUSAS Modeller 17.0-2 (29698)

Errors fixed

The following critical, major or minor issues are fixed in V17.0-2. Further details are given at Modeller fixed 17.0

Inconsistency between slice resultants from v15.2 and v17 (24851)
Eccentricity of section 2 is zero when a tapering section aligned to section 1 is defined using Scripting (24684)
Applied loads are not utilised when the search area is discontinuous (24589)

Fixes for cosmetic issues, documentation issues, installation issues, and development requests are provided in V17.0-2 as follows: 24898, 24757

No changes to Solver (6420)

Version 17.0-1 Built 17th Sept 2018

LUSAS Modeller 17.0-1 (29476)

Errors fixed

The following critical, major or minor issues are fixed in V17.0-1. Further details are given at [Modeller fixed 17.0](#)

Discrete loads - assigned transformations lost when the model is saved and re-opened. (24575)
Edit Assignments for Patch load missing 'options for loads outside search area' (24404)
Supports being assigned in the analysis containing the currently active loadcase instead of the analysis selected in the assignment dialog droplist (24380)
Support assignment dialog incorrectly offers range of loadcases (24379)
Swedish military double convoy in VLO gives error and does not create optimised loadcases (24362)
Extracting PRW results of a smart combination of slice results with chosen extent can cause a crash (24360)
Wrong unit shown for Moment component of Reaction result entity in PRW (24354)
Assigning DMI reaction influence to a point results in a model corruption (24332)
Hierachy panel left open when Modeller closes caused Modeller to crash on opening (24326)
Modeller does not issue a warning when an envelope is drawn when all loadcases have no results (24169)
'Print properties' and 'print local forces' commands on a 3D slice (and graph through 2D forces) are incorrectly affected by results transformation requested for contours or values (24125)
Combination of reaction stress appears incorrect (24086)
Unable to plot results of User Defined Results based on derived components such as SE or Wood Armer (24075)
Properties box - issues with coordinates when using comma decimal (24064)
Fatigue Analysis: changing the loadcase factor also changes the number of cycles to the same value (24029)
Double clicking on message in text output window will crash if the message ends with a type name followed by a quote character (e.g. Surface'') (24013)
Slice Resultant with PRW for envelope gives N/A if DMI analysis present (23999)
Modeller crashes when changing from linear order to quadratic order elements for models with Graph Through 2D utilites in use (23971)
Inconsistent support reactions and load vectors when print results wizard is used for Loadcase/Feature (23951)
Modeller still evaluates all loadcases within an analysis even if only one loadcase is selected using 'Loadcases to solve' option (23914)
Intermittent crash when enveloping principals (23849)
TLO Loading pattern not matching influence shape in a specific mdoel. (23840)
Tendon loading still appears in the datafile in the instance that all Tendon loading has been deassigned and / or deleted from model (23831)
***Fatal Database Error *** detected in routing mdlred in a transient dynamic analysis (23646)
Yield flags are displayed at an offset to the deformed mesh when an initial imperfection has been specified for an analysis (21444)

> Rename a tendon profile on the multiple tendon wizard, and the new profile is not available on the tendon assignment dialog. (18975)

A number of fixes for cosmetic issues, documentation issues, installation issues, and development requests are also provided in V17.0-1. Users with a reference number provided by LUSAS Customer Support may identify these from the following list:

24333, 24306, 24164, 24131, 24015, 23992, 23955, 23896, 22037, 20395, 18698

LUSAS Solver 17.0-1 (6420)

Errors fixed

The following critical, major or minor issues are fixed in V17.0-1. Further details are given at [Solver fixed 17.0](#)

Modified Mohr Coulomb errors ***DATABASE ERROR*** Attempt to locate Variable/Array ELPRT when no Record is Currently Default Detected by Routine ARADJ (24399)
K0 initialisation makes load curve analysis stop after 1 step (24297)
Eigenvalue buckling fails with cross thick beams and thick cross section beams with torsional warping (23362)
Results not loading on top of the loadcases when loadcase names are more than 120 characters long (21803)

Version 17.0-0 Built 21st May 2018

LUSAS Modeller 17.0-0 (28651)

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 Prestess 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 'orientate 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 - unticking 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, 23084, 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, 20971, 20790, 20567, 19465, 19339, 18957, 18912, 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)

Errors fixed

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

Pin-ended 2D linear order (BMI2) beams with eccentricity icorrectly reports end moments as zero. (23962)
When a joint moves, the orientation node stays in its original location resulting in a rotation of the joint 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 fictitious residual force of 1.0 is introduced at any joint element assigned with JOINT PROPERTIES GENERAL in a nonlinear analysis. (19810)

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23841, 23662, 23557, 23252, 22900, 22857, 22700, 17925, 16921, 16814, 16417, 14886, 14305, 14276, 13328, 8952, 8344, 7777, 7369