

LUSAS 19.1 Error Fix and Modification Release Notes

This document lists modifications, other than the New Features in 19.1, that have been made since LUSAS 19.0-3 and is correct as of 1st July 2021

Version 19.1-2 Built 22nd June 2021

This installation is built with all revisions to r37863 plus 37870, 37873, 37933, 37934, 37976, 37999, 38107 and is referred to as r38108

LUSAS Modeller 19.1-2 (37990)

Errors fixed

The following critical, major or minor issues are fixed in V19.1-2.

Results loaded under the wrong analysis when loading model or using "open available results" (28884)
Slice resultants contours not displayed when part of the model is invisible (28873)
Model Merge does not obey merge loadcases when results are loaded for the currently open model despite the loadcase names matching (28854)
Cannot mesh with a mix of 3- and 4-node space membrane elements (28840)
RC Frame Design loadset errors loading data (28839)
Discrete Load Assignment dialog should allow Compound Rotation-only transformations as Load Transformations (28828)
Deleting Compound loads as part of running a second VLO run crashes modeller (28827)
Load assignments not updated when transformation is edited (28824)
Tendon profile definition in 2D planes do not handle changes within X coordinates (tendon cannot pass the same X twice) (28802)
Steel composite bridge wizard - error generating bridge - unable to generate design member attributes (28786)
Grillage wizard does not work if Grillage startup template is chosen in new model (28507)
No model results available for contours / diagrams, after viewing beam shell slice results (28455)

A number of fixes for cosmetic issues, documentation issues, installation issues, and development requests are also provided in V19.1-2. Users with a reference number provided by LUSAS Customer Support may identify these from the following list:

28949, 28864, 28863, 28862, 28861, 28857, 28856, 28843, 28841, 28837, 28833, 28829, 28821, 28807, 28686, 28344

No changes to Solver (7205)

Version 19.1-1 Built 14th May 2021

LUSAS Modeller 19.1-1 (37707)

Errors fixed

The following critical, major or minor issues are fixed in V19.1-1.

When initial deformations are in use, data tip and labelled nodal positions will include those values incorrectly multiplied by the chosen scale factor (28804)
A model file that contains a compound load that contains a compound discrete load can be saved, but cannot be opened in V19.0 (28791)
"Cannot assign all the load from patch load to the search area" warning message shown erroneously (28789)
Analysis that was solved is marked as 'unsolved' in the 'Solve now' window (28758)
A valid face load assignment leads to an error at tabulation due to the presence of a combined line (28715)
IMDPlus analysis fails when the model name contains spaces or other punctuation characters (28694)
Selecting nodes with the values, geometry and mesh drawing layers visible can cause Modeller to close unexpectedly in certain models (28687)
When assigning an irregular mesh to a surface, the 'background grid' option is greyed out when it should be available (28668)
Deleting background grids can cause Modeller to crash (28667)
AASHTO creep and shrinkage material - incorrect value of hr (V/S ratio) in tabulation (28646)
Branched analysis - changing the loadcase order incorrectly changes the loadcase that is subsequently used as the base for branches, initial deformations, and restarts (28638)
Cannot define orthotropic elastic component using variations (28622)
Graph wizard, modal expansion loading option does not allow results from linear analyses to be selected (28596)
Mohr-Coulomb friction Interface cohesion curve data not stored on OK (28594)
Thermal analysis tabulation fails in a coupled analysis when profile set variations are used within the structural material definition (28588)
Target stress/strain loading intermittently fails to tabulate (28582)
Deleting an analysis in a specific model leads to a crash (28580)
After deleting a load case that is included within a range, loads are shown as assigned but are not tabulated (28568)
Composite deck design fatigue checks carried out at incorrect flange (28557)
RC Slab designer with Clark-Neilsen: Australian standard capacity reduction factor for tension is incorrectly used for cases with bending and axial compression (28545)
Modeller won't load results unless spaces in the filename are replaced with underscores (28543)
BS5400-3 Steel Designer: results not displayed for certain locations because the plastic neutral axis is incorrectly reported as outside the web (28538)
Envelopes and combinations do not give results when elements are deactivated in a deconstruction sequence (28528)
CSA-S6-14 steel design gives incorrect and unconservative results for cantilever members (28501)

Error writing support attributes when lift off supports in two different directions are assigned to two connected surfaces (28476)
Eigen buckling analysis branch will not run because no load is tabulated (28469)
RC frame design member report not displayed, with error 'populateSectionsList: Object reference not set to an instance of an object' (28459)
Flexural-torsional buckling checks not included for channel sections for CSA-S6-14 steel design (28376)
Solve now (multiple analyses) does not work for models containing the old (V14.1) manual influence (28337)
Meshing fails after assigning joints in a model half a million units for the origin (28322)
Modeller tabulates a profile variation as a profile variation for some elements where solver does not support profile variations (instead, Modeller should evaluate the variation, and tabulate numbers) (28321)
2D reciprocal influence analysis will not run, giving the message 'Non structural node - variable 1 has been defined as a spring support' (28319)
Linear with creep/shrinkage model 86: Cement type is not stored (28318)
Cannot access RC frame design after updating from v19.0-2 (28307)
Cross section beam plastic strains are incorrect and should not be available (28299)
A warning is needed when viewing stresses on beams with nonlinear materials (28284)
Temperature profile to EN1991-5 Approach 2 Type 2 Deck - error in cooling curve value dt2 (28262)
Mismatch of bridge longitudinal axis imported from LUSAS to steel/composite deck designer (28254)
Cannot use graph wizard for load cases inside a branch (28243)
Slicing for a basic combination fails in some models where design facilities are in use (28240)
Can't use steel composite bridge wizard without composite deck design licence in place (28215)
Modeller can fail to tabulate COUPLE commands in a hygro-thermal-structural analysis inherited from v18.0 (28174)
Vehicle Load Optimiser: launching the CS454 model 2 optional code settings dialog gives spurious error message (28122)
Modeller fails to launch after a Windows 10 Enterprise update (28107)
AASHTO tendon loss - shrinkage using commentary - V/S ratio should be capped at 6" (28084)
When the PRW extent is set to "group", the "total contributions" and "examine contributions" dialogs averaging calculation can include elements outside of that scope, leading to apparently erroneous values. (28027)
Loadcase created from a smart combination sometimes does not include gravity (28013)
InstallLicense.exe LUSAS network license Installer fails to run (27989)
Lift off spring supports fail at tabulation due to conflicting assignments on surfaces which share a line (27971)
Supports in a branched analysis not shown correctly (27902)
Saved view in report writer: Window summary can be incorrect (27888)
The graph through 2D facility generates multiple curves. For axisymmetric elements, some of those curves are not relevant and should be removed (27820)
Using DMI in conjunction with beam shell slicing can cause a crash (27789)
Design combinations for Can/CSA-S6-06 creates an SLS combination when an FLS combination was requested (27773)

Temperature profile loading to AS5100, invalid cooling profile for ballast $\geq 300\text{mm}$ (27751)
Graph through 2D - slice resultant for axisymmetric solid uses same approach as plane strain, which can lead to incorrect answers (27644)
Composite deck design to AASHTO should consider axial forces (27530)
Composite deck design to AASHTO should determine if the slab is cracked from the total loads rather than phase by phase (27529)
Crash creating / opening any model in 64bit Modeller on PCs where shaders are not available (27424)
A change in supports, from one loadcase to the next, can be overlooked when prescribed displacements are in use (27338)
Supports can sometimes be wrongly tabulated in models where the support is reassigned in a different analysis (26831)
Can't find library sections due to registry settings for decryption (26266)
Chinese characters incorrectly interpreted from VBScript files (23014)

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LUSAS Solver 19.1-1 (7205)

Errors fixed

The following critical, major or minor issues are fixed in V19.1-1.

Eigenvalue buckling analysis using '1-1/buckling load' shows wrong load factor in treeview (28312)
Thick cross section beam analysis fails with user section (28293)
System parameters are overwritten if more than one sequential restart analysis is performed (28258)
AASHTO creep and shrinkage material using commentary V/S ratio should be capped at 6" (28155)
Frictional joints in a thermal analysis fail with database errors (28150)
Frontal Solver fails with system errors in a linear analysis if it is not possible to solve all loadcases at the same time. (28040)
Linear thick beam elements (BMI21) require many divisions for displacement convergence with non-symmetric sections (28026)
Lift off supports with Frontal Solver fails with system error (27991)
Force interpolation is inaccurate in BMI31 elements compared to BMI21 (27854)
Activation and deactivation solution does not allow for step reduction unless automatic incrementation is in use (27483)