LUSAS 15.1 Error Fix and Modification Release Note

This document details changes that have been made since the release of LUSAS 15.1-0 (1605)

Further details of errors that have been fixed can be found in the Knowledge Base on the LUSAS Web site www.lusas.com where the number given in brackets is the reference number in the Knowledge Base. The changes apply to all LUSAS application products unless otherwise stated.

For new features see New_Features_in_15.1
For details of errors fixed in Modeller 15.1-0 see modeller_fixed_15.1
For details of errors fixed in Solver 15.1-0 see solver_fixed_15.1

Version 15.1-1 Built 7th December 2015

Change Requests

LUSAS Solver 15.1-2(5715)

Influence analysis does not run with fast parallel solver (19391)
Lift off support convergence difficulties (19452)
Influence analysis fails when using fast solvers (19493)
Incorrect results are obtained if initial stresses and nonlinear materials are assigned to bar elements. (19595)

Version 15.1-1 Built 2nd November 2015

Change Requests

LUSAS Modeller 15.1-1(22319)

When only a single colour is shown, the contour plot uses a colour that is not listed in the annotation (17120)
Box section property error "interior angles > 180" (18545)
Transformation of shell element lamina results to Material directions appears incorrect (18831)
Saved View scaling incorrect when used in report writer (18929)
Section Library - Arbitrary Section properties updated in Modeller, but not shape for fleshing (18992)
On opening a particular model - The given file has an invalid format, and cannot be read (18995)
Small QSL8 elements created next to Bspline line. They should not be created. (19012)
Drag and drop assigns in the "front" window, ignoring the window that was actually the target (19022)
Error message "no geometric properties assigned" on tabulating does not occur for a model with multiple analyses. Instead a less helpful message is seen. (19031)
Crashes from any action in the graph window after the model has been closed (19033)
Viewing a report that contains saved views can leave stray views behind (19053)
Multi-node patch load fails with error points repeated (19078)
The "Ignore projection direction moments" option cannot be ticked on dialog resulting from the "details" button of the "loading" tab of the propertes of a point. (19080)
"Distributed to perimeter" loading model slow to redraw (19089)

Slice resultant beams and shells fails with "unhanded exceptions". (19097)
One click report error (19104)
Graph Wizard - Adding previous graphs to a new graph results in lots of repetition of the same graphs (19112)
Single tendon wizard does nothing if model has been solved (19117)
Graph Wizard - drop down list for "Named" components to plot is based on active loadcase and analysis rather than the analysis and loadcase chosen for the plot (19119)
Elastic loss in multi-tendon prestress incorrect (19125)
Spring Supports - Stiffness per unit area tabulated incorrectly - the stiffness at a node is not calculated as the sum of the contributions from each element at that node (19126)
Support Attribute - Stiffness units are incorrect where a stiffness per unit area is specified (19127)
Crash pressing apply on ASPC with results loaded (19132)
Crash when clicking "Details" button for a discrete load assignment on the "loading" tab of the properties dialog for a selected point (19140)
Cross section beams quadrilateral coordinates are not correctly tabulated in Modeller when eccentricity is input (19161)
Crash when 'colour by' key contains 18 or more items, and there is a 'multiple assignments' option (19166)
Moving Load Generator - unhandled exception and no loadcases created (19174)
Just viewing attributes via dialog spinner detects an attribute change (19180)
TLO - Invalid name error - On clicking "Create Loading" in the TLO Results dialog, or after TLO run when "Create Loading Patterns" has been ticked. (19192)
Coupled Analysis - Results files for structural and thermal analyses are not opened in the right order (19196)
Error writing loading (stops solution process) caused by presence of User Defined Results (19199)
Computation of Sx(My) and Sx(Mz) incorrect for non-symmetric beams (19202)
Saved Views in reports ignore cover setting in Wood Armer options for Clark-Nielsen components (19212)
Unexpected results with patch load and beams (19214)
Graph though 2D uses the transformation from the most recently modified results drawing layer, not the one specified in the dialog. (19220)
Rigid Link constraints - warnings that some constraint have not been tabulated due to restrained nodes (19234)
SOV-250 vehicle is incorrect (19237)
Context menu for a loadcase should have the "Gravity" option greyed out when there are loadcurves in the model (19239)
The chosen loadcase is ignored for slab design results in print results wizard. The given results are always for the active loadcase (19254)
If supports are re-assigned, if either new or old supports have lift-off the new assignment is not tabulated. The old assignment is re-tabulated. (19280)
Peculiar behaviour when graphing resultants for axi symmetric model (19281)

Element ages tabulated in seconds rather than days (19283)
Need warning if using primary component of any derived component (including "all") when setting smart combination active (19290)
Crash using filter control on group propertes (19293)
Discrete point load - load projected onto arc lines incorrectly (19305)
Cylindrical local coordinate definition graphic (visualisation) incorrect (19308)
A loading does not get applied if a load of a patch laod coincides with a point with end releases (19324)
Graphs restricted to 2000 data points (19329)
Graph wizard: "Acceleration is not valid in this context" error occurs wrongly, owing to what loadcase is active, rather than what loadcases are selected in the graph wizard (19330)
Right-click-type gravity does not work in transient analysis (load curve) (19336)
Composite material directions incorrectly orientated to a cylindrical local coordinate system for shell elements (19344)
Print Results Wizard - Principal stresses for a smart combination with primary component SE - SE column is all zero (19349)
Unreasonable reaction stress in a shell model (19350)
ERROR ELEMENT NUMBER xxxxx LOAD TYPE TEMP NOT AVAILABLE FOR THIS ELEMENT (XTLOAD PROCESSOR)when a nodal temperature is assigned. (19375)
Isotropic dialog Plastic tab - spurious error that "Tensile/compressive yield stress cannot be zero" when entering "Total strain" or "Plastic stain" data for a Hardening curve for Modified Von Mises Stress Potential material (19393)
Model fails to tabulate "Tangent" constraint (19395)
Crash with ASPC for compound sections (19416)
Special Order Vehicles - error in definition (19419)
'Thermal Patch Load on a Line' cause write error in Modeller (19431)
User Defined Results (UDR) give results for some combinations / envelopes, but an error message (e.g. unrecognised variable "A") for others (19436)
Saved view in report "all loadcases" with influence analysis gives hundreds of pages (19450)
Wrong units for Blaine Value in Heat of Hydration material (19468)
"Unterminated string constant" error on saving a view via Window menu>Save View (19481)

LUSAS Solver 15.1-1(5678)

Initial stress in bar elements assigned with plastic materials is ignored. (12248)
On some computers, Solver is sometimes unable to grab the default minimum amount of memory (800MB). (18256)
An error check for invalid elements connected to surfaces defined as slidelines will cause the analysis to terminate. (18487)
When slideline surfaces and slidelines are not numbered consecutively an analysis may converge differently when run on different PCs. (18879)
BMI31 with end releases causes creep analysis to fail to converge. (19040)

Nonlinear analysis does not terminate if no load has been defined in a load case and automatic load incrementation is in use and the stiffness ratio to switch to arc length is non-zero. (19085)
In a specified analysis when transformed freedoms are used incorrect displacements can be displayed in Modeller if more than one load case is solved for. (19092)
A Solver system error can occur if a range of eigenvalues is requested in an eigenvalue frequency analysis and BMI* beam elements are used in the model. (19108)
An error trap should exist to prevent beam end releases for BMI* and BTS3 elements being used in a dynamic analysis as they are not valid for such use. See Theory Manual vol 2, page 46 section 1.2.7.4. (19152)
An analysis will fail to converge when the RBF correction factor is specified (OPTION 414) in conjunction with assigning nonlinear material model 29 to a BTS3 element. (19186)
Incorrect reactions at spring supports are reported in a nonlinear dynamics analysis. (19224)
An error leading to invalid numbers can occur when using the lead rubber bearing joint model and velocities become very small. (19225)
Additional coincident points are sometimes tabulated for the multi-linear joint model and this envokes an erroneous error trap in Solver. (19266)
An unintentional system error can sometimes occur in Solver when using the Modified Mohr Coulomb material model. (19272)
In a specific case eigenvalue frequency analysis runs in 14.7 and in 15.0 but fails in 15.1. (19323)
Solver terminates when writing to the plot file if a very large number of results dumps are written and the default value of NIDX (50000) is not increased. (19338)
A tolerance checking issue can sometimes cause an error when ELDS loading is applied to BMI* beam elements. (19359)