LUSAS 16.0 Error Fix and Modification Release Note

This document lists modifications, other than the New Features in 16.0, that have been made since LUSAS 15.2-4 and is correct as of 12th Jan 2021.

Version 16.0-3 Built 8th January 2021

LUSAS Modeller 16.0-3 (29004)

Errors fixed
The following critical, major or minor issues are fixed in V16.0-3.

Modeller 'unable to determine architecture' of results files created after 31/12/2020 (28288)

No changes to Solver (6287)

Version 16.0-2 Built 9th March 2018

LUSAS Modeller 16.0-2 (28339)

Errors fixed
The following critical, major or minor issues are fixed in V16.0-2

Prestress: Some attribute data (e.g. Age) may be incorrectly identified as missing, or incorrectly retrieved from wrong loadcase (23488)
Mixing influence with inspection locations or Graph through 2d or Beam/shell slicing can lead to a model file being saved with invalid format (23456)
Envelope of Wood-Armer is disproportionately slow (23400)
Beam orientation method incorrectly set to "using vertical axis" when pre-V16 model is opened and subsequently saved with V16 (23345)
Changing the factor in a basic combination is sometimes ignored (23342)
Modeller hangs while modifying compound discrete load (23299)
Beam/shell slicing max/min location in contour summary incorrect (23178)
"No such results files" error when solving model with prestress analysis (23159)
Crash when merging two specific models (23127)
When using BD86/11 in VLO, if the if the "From Table 5.1" option is being used and the carriageway width is over 22m, no error message is displayed and the dialog cannot be closed (23086)
Prestress loading incorrect for tapered sections (23054)
Results cache does not work for beam/shell slicing results (23047)
Prestress wizard using unreasonable amount of memory (23029)

After the "internal displacements" option has been chosen, displacements in the middle of a beam should be available in PRW and values drawing layer, (23019)
The slice resultants beams/shells facility complains about nonlinear materials when none exist in the model (23016)
Modeller tabulates origin centred hysteresis incorrectly, which may result in wrong solutions if the mass distribution is important. (22991)
Vectors of reactions are missing at some supported nodes (22986)
VLO error: The influence could not be solved. The influence file cannot be created because the topology of the search area cannot be determined. (22976)
Feature max (or min) of a nodal result (e.g. Displacement) can miss the maxima (or minima) in a surface model (22962)
Crash after undo of modification of compound vehicle load (22941)
Cannot export volume mesh to dxf (22930)
When a local coordinate system is applied to a surface, the visualisation of discrete patch load that acts on the surface does not correspond to the direction in which the load is actually applied (22912)
Entering section coordinates for cross-section beams yields error about centre of mass not being at centroid (22911)
Mesh pattern changes when joints are assigned (cannot assign joints between surfaces) (22905)
The Mass item on the Rigidities material attribute should actually be labelled as density (22896)
Cannot set loadcase to change the slideline type (22884)
Lift-off support stiffness wrong when using release all restraints option (22846)
Fibre locations added to a multiple varying cross section are discarded (22775)

A number of fixes for cosmetic issues, documentation issues, installation issues, and development requests are also provided in V16.0-2. Users with a reference number provided by LUSAS Customer Support may identify these from the following list:

23584, 23233, 23201, 23185, 23183, 23168, 23167, 23125, 23122, 23085, 23064, 23021, 22978, 22968, 22938, 22916, 22790, 22786, 22748, 22668, 22658, 21408, 20935

LUSAS Solver 16.0-2 (6287)

Errors fixed

The following critical, major or minor issues are fixed in 16.0-2.

If a linear buckling analysis is to be carried out at the end of a step by step nonlinear analysis, and 2D or 3D thick beam elements exist in the model, and co-rotational GNL has not been specified, the analysis will fail to converge on the first increment. (23222)
For joint material models with hysteresis and reduced stiffness, primary unloading from the backbone can erroneously return to a position on the wrong side of the origin. (23028)
If all eigenvalues within a frequency range are requested for a model that has BTS3

elements, the analysis fails with system errors (22957)

Version 16.0-1 Built 24th October 2017

LUSAS Modeller 16.0-1 (27602)

Errors fixed
The following critical, major or minor issues are fixed in 16.0-1.

IMDPlus fails to find USB license (22879)
TLO BD86/11: SV vehicles may incorrectly include HA loading (22872)
SAP2000 file (s2k) import doesn't work for a particular file (22863)
When changing vehicle class, the India Vehicle Load wheel configuration picture remains as previously selected and does not match generated load (22860)
Crash when running TLO for design code AS5100-7:2004 (Austroads) when specifying the number of lanes (22841)
Autoloader unable to find license key (22839)
Unable to plot graph through 2d of any principal stress component (Smax, Smin, S1, etc) (22816)
Amplification factor (in window summary annotation) should be based on absolute value of eigenvalue load factor (22802)
Arbitrary Section Property Calculator hangs for a particular model (22797)
It should not be possible to delete a reference path that is used in a DMI analysis (22768)
Wrong transformation used when creating DMI attribute - "local" is used, whatever is chosen on dialog (22758)
Incorrect display of deformed mesh when translational end release is defined (18747)

A number of fixes for cosmetic issues, documentation issues, installation issues, and development requests are also provided in V16.0-1. Users with a reference number provided by LUSAS Customer Support may identify these from the following list:

22931, 22920, 22892, 22876, 22867, 22813, 22782, 22781, 22770, 22760, 22739, 3665

LUSAS Solver 16.0-1 (6207)

Errors fixed
The following critical, major or minor issues are fixed in 16.0-1.

The stress resultants for x-section warping beams (BMX21W) are being displayed as zero when diagrams/values are displayed. The resultant warping beams (BMI21W) work correctly. (22807)

Version 16.0-0 Built 20th September 2017

LUSAS Modeller 16.0-0 (27453)

Errors fixed
A number of fixes for critical, major or minor issues are provided in V16.0-0. Users with a reference number provided by LUSAS Customer Support may identify these from the following list:

22882, 22751, 22732, 22726, 22723, 22716, 22690, 22664, 22607, 22592, 22568, 22562, 22557, 22551, 22546, 22520, 22416, 22399, 22352, 22151, 22108, 22001, 21900, 21891, 21873, 21848, 21840, 21839, 21830, 21811, 21799, 21782, 21744, 21729, 21664, 21640, 21613, 21565, 21537, 21528, 21520, 21461, 21443, 21439, 21431, 21397, 21394, 21392, 21391, 21390, 21370, 21366, 21338, 21331, 21317, 21260, 21249, 21246, 21228, 21218, 21187, 21173, 21133, 21129, 21120, 21116, 21113, 21061, 21060, 21059, 21029, 21020, 21014, 21004, 20994, 20992, 20975, 20974, 20973, 20967, 20943, 20913, 20861, 20803, 20791, 20724, 20712, 20689, 20686, 20672, 20666, 20655, 20648, 20590, 20588, 20571, 20561, 20557, 20548, 20546, 20527, 20517, 20508, 20505, 20494, 20475, 20474, 20461, 20445, 20436, 20431, 20428, 20396, 20386, 20382, 20381, 20367, 20360, 20339, 20310, 20301, 20283, 20280, 20251, 20225, 20205, 20190, 20186, 20184, 20175, 20159, 20146, 20143, 20121, 20109, 20107, 20106, 20104, 20049, 20031, 20028, 20025, 20000, 19999, 19997, 19955, 19953, 19947, 19943, 19940, 19913, 19897, 19893, 19880, 19879, 19873, 19870, 19832, 19823, 19818, 19813, 19793, 19785, 19703, 19702, 19699, 19690, 19687, 19684, 19679, 19645, 19637, 19631, 19585, 19578, 19572, 19568, 19557, 19541, 19534, 19484, 19460, 19457, 19451, 19413, 19412, 19399, 19379, 19358, 19327, 19325, 19320, 19314, 19307, 19288, 19275, 19242, 19200, 19160, 19074, 19057, 19038, 19032, 19028, 19020, 19019, 19013, 19001, 19000, 18994, 18966, 18932, 18893, 18863, 18860, 18855, 18836, 18832, 18794, 18666, 18526, 18505, 18501, 18441, 18383, 18363, 18306, 18303, 18233, 18125, 18024, 17988, 17825, 17582, 17472, 17469, 17379, 17327, 17126, 17071, 16946, 16655, 16314, 15252, 15109, 14860, 13535, 13194, 13043, 12972, 12891, 12587, 12304, 11794, 11672, 11607, 11482, 11428, 11117, 10794, 10552, 10546, 9612, 9597, 9309, 9304, 9269, 7487, 4397.

In excess of 2000 further fixes for cosmetic issues, documentation issues, installation issues, and development requests are also provided in V16.0-0.

LUSAS Solver 16.0-0 (6187)

Errors fixed
A number of fixes for critical, major or minor issues are provided in V16.0-0. Users with a reference number provided by LUSAS Customer Support may identify these from the following list:

22648, 22632, 22430, 22059, 21980, 21733, 21621, 21602, 21601, 21600, 21598, 21563, 21399, 21363, 21312, 21123, 21111, 21075, 21042, 21032, 21011, 20938, 20902, 20587, 20236, 20210, 20087, 20005, 19960, 19737, 19558, 19531, 19437, 19118, 18345, 17365, 15602, 15394, 15132, 13249, 12849.