

LUSAS V24.0 Error Fix and Modification Release Notes

This document lists modifications, other than the New Features in V24.0, that have been made since LUSAS 23.0-2c4 and is correct as of **12 June 2026**

Kit Version 24.0-0c9

LUSAS Modeller 24.0.1609.57830

LUSAS Solver 24.0.1607.8558

LUSAS Tank r6190

MBW r707

Issues fixed in all products

The following critical, major, minor or speed issues are fixed:

3375	Dataset summation over selected nodes is unacceptably slow	Modeller
8875	Change the default values for tied-slideline master/slave stiffness scales	Modeller
13027	"Each carriageway must be defined by two lines" error occurs when using TLO with 8 lines defining two carriageways	Modeller
18258	Results in a time history graph can be incorrect if the node becomes active or inactive (birth and death) during the time plotted	Modeller
20705	Linear cable tuning, beam/shell slicing - inputs are not automatically updated when using renumbering	Modeller
24789	Graphs should not show results when element / node have been deactivated	Modeller
25628	Graph wizard named options incorrectly populated	Modeller
26820	Graph wizard giving zero results in birth and death analysis	Modeller
27994	Unable to mesh a bar that has been connected to a surface that has been split by single feature meshing	Modeller
28994	Elastic shortening losses should be optional	Modeller
30120	Single feature meshing: Ability to deactivate beam leaving interface elements	Modeller
30537	Beam force and moment sign convention not consistent in solver output file	Solver
30593	Time history graph wizard complains: "No loads found. Respecify selected history"	Modeller
30838	Deformed shape of structure not as expected in beam element model with joints	Modeller
30962	Rigid link does not work when fast solver is used	Solver
32238	Parasitic bars cannot be deactivated	Solver

32804	Undo option not available after creating steel design attribute for GB	Design
32902	RC Frame design attribute for IRC:112 parameter k4 position to be adjusted on dialog	Design
33511	"Stiffness ratio to switch to arc-length" is ignored	Modeller
33518	Error when solving influence assignment for TLO	Modeller
34344	Temperature loading - different behaviour for bars	Solver
34583	Warping stresses results in Modeller does not correspond with Solver output	Modeller
35206	RC Slab Wall Design facility is calculating concrete strain at ULS using short term modulus of elasticity	Design
35285	Selection, zoom, pan, rotate etc noticeably slower when any "draw only selected items" facility is used	Modeller
35791	Right click on an attribute takes several seconds for context to appear	Modeller
35882	Plastic hinge artificial unloading	Solver
35927	Modeller unable to recognise engineering numbers in inches, such as 7'4E-3"	Modeller
36021	Flat thin shell (TSR6) - wrong averaged stress in the OUT file	Solver
36026	Thermal analysis - confusing and incorrect names of output given in the OUT file	Solver
36130	Prestress inputs are codified, and should not be converted (e.g. in report with different units)	Modeller
36135	Changing units (e.g. in report) - field variation function limits coordinates are not updated	Modeller
36137	Changing units (e.g. in report) - any material defined by stress potential not updated	Modeller
36138	Wrong units conversion (e.g. in a report) in globally distributed loading for 2D and axisymmetric	Modeller
36312	The entity dropdown box gives "None" as the only option for frequency domain data when plotting modal expansion data using the graph wizard	Modeller
36322	Problem with the initialisation of two-phase elements using K0	Solver
36355	In a semi-coupled analysis, choosing structural first gives system error	Solver
36375	LVB script created from a pushover example will not playback successfully	Modeller
36407	The model units are changed in the arbitrary section property calculator when "Use dimensions from file" is ticked in the advanced import parameters dialog, but the model units in Modeller remain unchanged	Modeller
36458	Influence can't be assigned to inspection locations	Modeller
36464	Changes to "Hollow volume tolerance" are ignored	Modeller
36467	Speed of opening existing PRW utility	Modeller
36476	Calculation of section properties for cross-section beam occasionally fails	Modeller
36511	Bridge > Shrinkage Strains > Canada S6-14: impossible validity check if the creep reduction	Design

	checkbox is ticked	
36516	Bridge > Shrinkage Strains > Canada S6-14: Unable to modify an attribute after creating it	Design
36572	Assigning loading to large number of loadcases (range or all loadcases) takes significant amount of time	Modeller
36615	Tank - Solid Force Extract not working when multiple result files are loaded	Design
36644	Tank roof option - Chinese version - Error when creating properties GB50017-2017	Design
36645	Steel Frame Design - Scope name already defined for GB 50017-2017 sub type	Design
36647	Report error when a "move" cannot be performed (e.g.tolerance problem)	Modeller
36666	Tank Steel Roof Only Wizard - The input value for dome height is inconsistent with the provided reference value	Design
36689	Crash on deleting IMD loadcase	Modeller
36710	Incorrect setting for creep on the RC Frame design attribute dialog to Eurocode 2	Design
36711	Tank module design checks enable error - Tank group "RoofLowerPart" not mapped to model groups	Design
36715	Wrong autogenous shrinkage calculation	Modeller
36718	Trilinear earth joint: Error message about ascending order	Modeller
36737	No plastic hinge results are available, despite plastic hinge attributes being assigned to the model	Modeller
36749	Bar axial force diagrams in a 2D truss for envelopes containing moving load loadcases are triangular instead of rectangular	Modeller
36751	Error suggesting that "activate" and "deactivate" attributes are used in a model	Solver
36756	Primary effects for "approximate losses" reads out of bounds data, may crash, may give wrong answer	Modeller
36764	Although primary effects are requested for all losses, only secondary effects are reported	Modeller
36770	Tank - "Exclude base slab results at pile heads and walls " option is not working for "circumferential piles" at the quarter on negative x	Design
36784	Tank- Slope height value ignored when creating a 3D solid model from the LNG Tank System	Design
36787	Unwanted constraints are tabulated with deactivation	Modeller
36788	Option 64 is not tabulated when 'Non symmetric solution' has been selected	Modeller
36825	Microsoft excel cannot open PRW output due to illegal characters for xml	Modeller
36832	Section Reinforcement wrong bars' coordinates calculated when start/end distance is set	Modeller

36833	Variation based on prior results cannot use step for branched analysis	Modeller
36846	Tank - Wall stage ID 3 is ignored in the staged construction analysis	Design
36860	Tabulation of supports incorrect when PDSP and supports assigned to same node	Modeller
36871	The colour by geometric assignment legend does not update correctly when geometric surface assignments are changed	Modeller
36877	Constraint equation deletion being tabulated in linear analysis	Modeller
36880	A DMI for one solid model with a global SX attribute assigned within the search area runs, but another does not run with the message "Right hand side was zero", suggesting no loads were applied	Modeller
36885	Primary elastic shortening is always reported as zero for analyses based on approximate losses	Modeller
36906	Error - Trying to use undefined material number xxx in datafile assignments when temperature dependent nonlinear material is used	Modeller
36913	Crash closing model (or results) when primary or secondary prestress effects are active	Modeller
36915	Thermal link + Non-Symmetric solver - errors	Solver
36929	Exporting a prestress model file as an lvb file can confuse combination and envelope definitions	Modeller
36937	Remove shell's drilling DoFs (Local DoF 6) from any constraint equations	Modeller
36949	VLO results not available for members to which an influence attribute was assigned after the first VLO run despite resolving VLO run	Modeller
36985	Internal error: can't save file after solving a prestress analysis	Modeller
36986	RC Design does not respect deactivated elements	Modeller
37004	BS5400 Elastic shortening is incorrectly applied to all tendons, even the first loadcase	Modeller
37009	Stress - solids DMI Envelope attributes are not assigned to volumes.	Modeller
37021	Beam stresses not available when a VLO load case is included in a combination	Modeller
37031	Running VLO again can cause existing envelopes to be renumbered	Modeller
37037	No influence assignments found after changing model mesh	Modeller
37038	VLO Envelope results not shown on some elements after changing mesh	Modeller
37052	DMI analysis not solving properly for models with solids	Modeller
37057	Warning when "primary and secondary" effects is not checked	Design
37073	Convergence of reinforced concrete problems is difficult to achieve with embedded interfaces	Solver

37099	Lines getting corrupted when moving geometry	Modeller
37102	Composite bridge deck design: AASHTO fatigue detail constant values are incorrect	Design
37110	Discrete patch load fails to tabulate due to multiple intersections, but not when a search area is used	Modeller
37112	Issue with BMX31W stress contours at fibres - results changing	Modeller
37113	Issue with BMX31W stress contours at fibres - incorrect in values drawing layer	Modeller
37114	Issue with BMX31W stress contours for the full cross section - contour range doesn't match the stresses at fibres	Modeller
37141	When a restart analysis is following an analysis with initial deformations with a scale factor other than 1, the original undeformed position in the restart analysis ignores the scale factor	Modeller
37142	Crash on moving geometry	Modeller
37203	Errors in fatigue loadset	Modeller
37223	Cannot create load attribute for traffic load . Reason: Error HRESULT E_FAIL has been returned from a call to a COM component	Modeller
37229	Definition of bridge loading for Denmark - Danish Vehicle 1 - Interpretation of track width	Modeller
37234	Elasto-plastic material for 3D thick beam elements with torsional warping	Documentation
37241	Delete DMI corrupts model	Modeller
37246	Export model as script saves user data before creating model, which is invalid when that data contains loadsets	Modeller
37248	Do not export influences when exporting model as script	Modeller
37250	UDR - Top / middle / bottom strains in composite shells (Ex, etc) require scope to avoid ambiguity	Modeller
37255	Variation based on prior results cannot be on eigenmodes, where the eigenvalue analysis includes nonlinearities.	Modeller
37257	The geometric facility "Allow extended lines" in the "Points by intersecting lines" dialog is not available in 64-bit Modeller	Modeller
37279	Error: Invalid Transformation Type:0 when plotting results	Modeller
37303	Missing results at midside nodes in BMI31	Modeller
37314	Deleting a single line feature is instant in v22 but takes over 10 minutes in a very similar model in v23	Modeller
37326	In a model with multiple VLO runs in a single VLO Analysis, when solving one VLO run invalidates the results from others and Results Tables are becoming unavailable	Modeller
37343	All graph through 2D results show N/A for a thin shell when a slice annotation line is projected	Modeller
37344	Influence assignments to joint nodes become invalid	Modeller

37354	Slices (as displayed) are not picking up all relevant elements	Modeller
37355	Tabulation of supports with Profile Variation crashes Modeller	Modeller
37358	Composit bridge wizard: regeneration of girder can give error due to line ID changes	Design
37366	Design combination wizard - loadgroups need to be optionally assigned to specific combinations	
37382	Beam shell slice resultants using a slice width of 14.4m are two orders of magnitude higher than using a slice width of 14.39m	Modeller
37385	Temperature history graph shows incorrect results when using a cylindrical coordinate system transformation	Modeller
37397	Copying material assignments from one analysis to another takes a long time	Modeller
37399	Correct the India RC frame attribute dialog.	Design
37451	RC Frame Design for Eurocode: The value for 'Tensile stress limit parameters (k3)' is incorrect. It must be ≥ 0 and ≤ 1 , when k is set to 1	Design
37483	Option 272 included in data file despite no Activate/Deactivate assignments	Modeller
37514	Script which runs in V22 won't run in V23	Modeller
37596	Meshing error when copying meshed volumes	Modeller
37607	Embedded beam - natural coordinates failed to be computed for TH10	Solver
37624	Strange deformed shapes when option "Internal displacements and deformations for beams" is on, with BMI31 elements	Solver
37636	Tapered arbitrary sections with mixed materials	Modeller
37671	Crashes from web evaluation licences on initial setup	Modeller
37708	Visiting "examine calculations" when averaging set to "average what's visible" changes the results	Modeller
37755	Model crashes when solving an analysis (by right click) that contains the active loadcase	Modeller
37795	Modeller hangs when trying to display the averaged nodal $S_x(F_x, M_y, M_z)$ values, with diagrams	Modeller

The List of fixes for cosmetic issues, documentation issues, installation issues, and development requests is also provided. Users with a reference number provided by LUSAS Customer Support may identify these from the following list:

203, 3524, 11815, 16099, 16680, 17149, 17254, 18029, 19318, 19371, 20853, 21064, 21501, 21662, 22518, 24035, 25599, 25877, 26070, 26408, 26816, 27195, 28199, 28605, 29261, 29351, 29990, 30306, 30595, 30693, 30935, 30994, 31192, 31463, 31723, 32339, 32448, 32732, 32817, 32903, 32906, 33894, 34001, 34018, 34203, 34239, 34267, 34479, 34882, 35111, 35320, 35459, 35555, 35594, 35609, 35737, 35765, 35781, 35810, 35898, 35905, 35959, 35991, 36006, 36051, 36169, 36176, 36181, 36223, 36225, 36226, 36239,

36274, 36280, 36286, 36314, 36315, 36316, 36319, 36327, 36337, 36341, 36344, 36393,
36409, 36430, 36453, 36465, 36479, 36495, 36504, 36510, 36512, 36513, 36532, 36566,
36588, 36634, 36635, 36636, 36638, 36643, 36664, 36665, 36671, 36680, 36706, 36709,
36713, 36759, 36771, 36777, 36813, 36814, 36820, 36821, 36868, 36878, 36882, 36900,
36911, 36914, 36926, 36927, 36928, 36930, 36934, 36944, 36947, 36953, 36971, 36977,
37005, 37023, 37024, 37030, 37033, 37056, 37064, 37067, 37070, 37072, 37097, 37098,
37103, 37117, 37119, 37122, 37129, 37130, 37134, 37135, 37162, 37167, 37171, 37178,
37187, 37198, 37199, 37204, 37218, 37219, 37225, 37240, 37243, 37247, 37256, 37275,
37281, 37283, 37290, 37295, 37299, 37310, 37311, 37315, 37332, 37336, 37340, 37345,
37361, 37368, 37392, 37395, 37398, 37404, 37408, 37434, 37436, 37438, 37446, 37452,
37454, 37464, 37513, 37518, 37519, 37520, 37531, 37538, 37559, 37572, 37601, 37622,
37643, 37685, 37714