



Description of New Features and Bug Fixes at Version 6.02a

			Description
1	New	New Graphs	Introduced at this release is the ability for the user to set the size of graphs when first created. See menu option 'Graphs / Settings / General Defaults...'
2	New	Graph Axes Hold	A new option has been added to graph axes such that the user can individually 'hold' the axis settings for X and Y axes. This can be on a 'by Graph' basis or on all graphs.
3	New	Floating Graphs	An option has been added that enables the user to choose if a graph stays as a 'child' of the main display or is 'floating'. The new option to 'float' a graph means that users can chose to make better use of their available screens.
4	Bug Fix	Help File	Under Windows 10 the opening of the help file from within the application could be problematic. This has been resolved by opening the help file using an alternative method.
5	Bug Fix	Sign Convention	Some d/dz gradients for full axle models reported the wrong sign for the 'opposite' wheel. This inconsistency has been resolved.
6	New	d/dz Tyre Force	A new SDF has been added to the d/dz SDF's list, namely the d/dz of the vertical tyre force.
7	Change	Graph Plotting	Previously it was possible to plot zero's for certain SDF results with full axle models when plotting both sides. This was because of how things like dampers are assigned in full axle models. This inconsistency has now been resolved.
8	Change	Temp Location	In-line with current Windows10 policy the user's temporary folder location is now changed to C:\Users\Username\AppData\Roaming\Lesoft
9	Bug Fix	Graph List Fitting	Problems have been previously reported when using some of the function 'fit' routines in the SDF graph list tool. The issue has been identified and resolved at this release.
10	Change	Sub-Frame Add	This option is only relevant to full axle models and is now restricted as such. Attempting to add a sub-frame to a corner model will be ignored.
11	New	Add Calculated Point	From this release when a user adds a calculated point to a full axle model they are offered the option of also adding the same calculated point to the other side.
12	New	Add Subframe	A new option is now available for adding a subframe to the model. The option 'Subframe Part (Enter Points)' prompts the user to enter the x, y and z co-ordinates of the new connection to ground points, and then the user selects from a list the points that are required to be connected to the subframe.
13	Bug Fix	Add Roll Bar	Additional traps have been added to the 'add roll bar' options as users where trying to add to models that did not have a fully defined template with all symmetrical points being correctly labelled.



14	New	Graph Child Status	A new menu option has been added that will revert all graphs to be children of the main display. This can be useful as a means of recovering 'floating' graphs that have been inadvertently positioned outside of the displayable screen area, normally through screen resolution changes.
15	New	Menus and Toolbars	A number of changes have been made to the toolbar and menu displays. The menu tree settings dialogue box allows the user to set position, visibility and orientation of the various menu toolboxes and user property box.
16	New	User Property Box	The concept of a user configurable property box has been added where users can select individual properties that they wish to be added to the 'Property Table'. This property table provides a concise way of changing individual model properties without having to open the specific property box. To add individual properties to this display, look for the new icon on property edit displays and click it when the required value is selected.
17	Change	Steering Box	Some users have reported problems with specific co-ordinate settings when using the steering box modules. The calculation method has been revised to be more robust in these extreme geometry situations.
18	Bug Fix	Deleting Co-ordinate systems	Previously deleting the last user co-ordinate system did not close the required model flags. This has now been resolved.
19	Bug Fix	Remember Message Prompts	The implementation of remembering user choices on question prompts has been changed. This was to stop 'negative' type returns be saved and effectively stopping all access to that option. This remember choice option can be disable or re-set to none saved using the relevant 'setup' menu.
20	New	Structural stiffness	A switch for enabling/disabling structural stiffness has been added to the individual virtual SKCMS test settings.
21	New	Virtual SKCMS	A new test has been added to the virtual SKCMS module. Test 24 is for hub accel loads. It makes use of the default force set 7.
22	New	Shark SimStudy	A new utility has been added that generates a list of analysis results that characterize the suspension. Named as Shark SimStudy it runs a series of virtual SKCMS tests along with some conventional displacement tests to generate the list of characteristics.
23	Change	Model Weights	At this release the values displayed and edited by the user that relate to total vehicle weight, un-sprung weight and corner weight along with their % distributions have been revised to make for a more logical, consistent and practical approach. The sprung mass is no longer a user definable value nor is the sprung weight split, these are now both calculated from the total vehicle and un-sprung properties. Users will note changes to the 'Parameters' data entry and also the 'Body C of G properties' data entry.
24	New	Corner Weight	As part of the above changes, the compliant un-sprung corner weight calculation macro, users can directly copy the results



back to the relevant parameters.