



Description of New Features and Bug Fixes at Version 4.03h

Description			
1	New	Point Labels	Point number labels can now be character strings. Thus points can be considered as having a short and long string label.
2	Bug Fix	Twist Beams	A number of changes have been implemented to provide full analytical support for twist beam templates.
3	New	Solver Bump	The option has been added to allow wheel travel in moving ground mode to be optionally defined by a change in ground plane, wheel centre, lower ball joint, upper ball joint.
4	New	Solver Bump	Option added to solver in bump mode such that opposite bump displacement of the wheel can be applied.
5	New	Bush Properties	A new bush property has been added that allows individual bushes to be switched on/off by individual load case. This provides a mechanism by which individual bushes can be used to 'lock' a spring or damper for a specific required load case condition.
6	Change	Point Edit	Modified point edit display such that both part 1 and part 2 can be edited.
7	New	Point Edit	Option added to the point edit display such that an un-bushed point can be converted to bushed without recourse to the template editor.
8	Bug Fix	Excel Export	The point tolerance analysis 'open in excel' graph option has been modified to ensure all plotted lines appear in the created excel spread sheet.
9	New	Excel Export	New Excel export options added that provide greater scope for exporting graphs into Excel. These include open the data into a existing file and the current open session.
10	New	Force sizes	User edit for force arrow sizes is now available.
11	New	Colours	Users can plot graphs with different colours for left and right hand results.
12	Bug Fix	Steering Box	Changes to the steering box routines were required to improve the default visual graphics and to provide more robust calculation for extreme geometry conditions.
13	New	Steering Rack	The steering rack model has been enhanced to allow the rack to function in a non pure 'y' axis.
14	New	Auto-load	The 'auto-load' functionality has been enhanced to provide greater control over the labels used to identify variables, and to be able to both write and read through this option.
15	New	Cylinder Graphic	New cylinder graphic primitive added for a cylinder that is defined by a unit vector from a point.
16	Change	Bump Stops	The bump stop definition points have been separated from the spring definition points since it is sometimes required to have the



			bump stop uniquely defined.
17	New	Bump Stops	New menus added for the addition, deletion and modification of bump stop elements. Bump stops gain own colour properties and can have both tensile and compressive properties.
18	New	Steering Box	An alternative steering box type has been added. Alternative connection of the track rods gives support for this alternative type.
19	Bug Fix	Menu Items	Previously some issues on menu items being un-selectable have been traced to memory issues. These are resolved at this release.
20	Enhancement	Ball Joint Display	The ball joint display routine has been enhanced such that refresh rates are now significantly faster than previously.
21	New	SDF plotting	New SDF plotting option allows for 'X' to be any variable.
22	New	User SDF	User defined SDF's can now use the '0' on the end of the variable to imply 'static' position.
23	New	Virtual Steer	Virtual steer points can be added to the template allow graphics to be added that include these points.