Description of New Features and Bug Fixes at Version 5.01c

			Description
1	Bug Fix	Solver	The solver was modified to exclude an extra equation being added for solver type 4 when a point is defined for part 2 entry 3. This is to ensure backward compatibility with older models.
2	Bug Fix	Point Forces	The display of formatted point forces was missing the user entered 'comment'. This was due to an error in the data extraction from the spread-sheet. This has now been fixed.
3	Change	Large Icons	The implementation of small icons at version 5.01a has been supplemented by the original large icons as a user selected option. See menu entry Setup / ToolBar Icons / Large Icons.
4	Change	Error Reports	The solver error reports have been changed such that when in batch mode rather than the pop-up message being displayed, and thus require user input to continue, a simple message is written to the command window and the batch run continues unheeded.
5	Bug Fix	Batch Command Visibility	The '&' character added at the end of a command line was previously introduced to provide a visibility switch of that line, when the command batch file is replayed. In some instances this was found to not suppress the display. This has now been tightened up to ensure in all instances the '&' character will stop the line be echoed to the display.
6	New	Formatted Point Forces	Point forces in the formatted display can now be listed in a defined local co-ordinate system. This is in addition to the previous 'Global' and 'Local Bush' co-ordinate systems. Note that previously the 'Local Bush' system was given the abbreviated label 'local'. To avoid confusion with the new 'local' option, the 'Local-Bush' option is labelled as 'Bush'.
7	New	Formatted Point Forces	The formatted point forces display has been modified to allow a column by column override of the individual line settings for the articulation and position values.
8	Bug Fix	Templates 34 and 35	A number of changes were made to the two new templates to version 5.01b. These included correction on bush numbers, point symmetry and default point positions.
9	Bug Fix	Delete Point	The point deletion routine and associated calls have been modified to trap for control elements that reference a point that gets renumbered due to the point deletion.
10	Change	Rebound Travel	The default value for the rebound travel value is now –60.0 (inclusion of –ve sign). This is to fully support the revised definition of Z as an absolute value.
11	Change	Z as Absolute Value	The use of the Ground plane as absolute Z value previously caused problems when switching from bump mode into other motion types such as steer and roll. This previously required the 'absolute z' option to be turned off in these extra modes to get back to roll or steer about the 'static' position. This has now been resolved by the use of the static Z value to prime the other

motions.

12	Bug Fix	Extended point editing	Previously editing the extended travel points through the batch commands failed in some instances when using the point label to identify which point to edit. This could occur when a points label was a subset of another points label. It was not consistent as to which point would be edited. This has now been resolved by requiring a full and complete match on the point label rather than just a sub-set match.
13	Change	User Tracking	The picking of a user tracking vector has been modified to allow for graphic types other than lines to be 'picked' to set the vector. This includes pivots and tubes, (assuming their individual pick visibility is turned on). Note that you will not be able to pick the 'wheel pivot axis' as this is not an added graphical element but part of the default wheel graphic.
14	Change	User Functions	Previously if your user function involved vector maths you could not mix Fortran functions in these equations. You would need to resolve them in steps. It is now possible to mix Fortran functions within a Vector user function.
15	New	Roll Bars	Introduced a new roll bar type. The 'T' roll bar can be added in a similar manner to the original horizontal 'U' roll bar.
16	New	'T' bar monoshock	A new template (type 36) has been added as an example of the 'T' roll bar used on a mono-shock double wishbone suspension.
17	Bug Fix	Set Ride height Pitch	Previously using this option on a single axle (rather than a full vehicle) caused a crash. This has now been resolved.
18	Bug Fix	<database>	The use of the <database> environment variable was incorrectly applied, this has now been resolved.
19	Bug Fix	Batch Run	Previously when running a report file from a batch file run, the run would stop at the end of the report file if the report file itself used batch commands or a batch file. This has now been resolved.