Description of New Features and Bug Fixes at Version 3.02a

Description

1	New	Undo	An 'edit Undo' type functionality has been added. Shortcut key combination Ctrl+Z also supported.
2	New	Redo	To compliment the undo function a 'redo' option has been included.
3	New	Zoom Slider	A scale slider has been added to the mechanism display to provide a convenient way of zooming in and out of the display.
4	Bug Fix	Help File	Some of the help file search function did not perform correctly due to missing :: characters. Resolved at this release.
5	Change	Menus	Some menus have been moved to alternative pull downs to improve layout. Some additional menus a have been added that previously were only accessible from the now separate engine simulation module.
6	Bug Fix	Retain cam lobe	The 'retain cam lobe on change' setting was lost from a saved file when loaded back in. This has now been resolved.
7	New	Angle Increment	The option of having a 1.5-degree increment has been included to suit a particular end user.
8	New	Cam Markers	The option of displaying cam marker 'lengths' has been included. This gives the user a useful graphical display of length to a contact point or marker centre.
9	Change	Data Points	The user can now control the visual appearance of the data point marker including colour, size and symbol type.
10	New	Cam Markers	New option to all the cam marker 'radius' to be a variable such that for markers of contact points the radius will change to be the radius to contact and thus the marker 'dot' will follow the contact point.
11	Bug Fix	Offset Tappet	The implementation of an offset tappet in the pushrod mechanism type was not properly conditioned. Several changes have been made to correctly accommodate this. The user can't have both an offset tappet and angled tappet, the later would be ignored.
12	Change	Standalone Product	Prior to this release this product was integrated within the same executable as another product Lotus Engine Simulation. At this release the two are now completely separate products and users should note that a new license file would be required to run this version.
13	Change	INI File	To support the above split the user INI file that contains their personal settings has been renamed as "lecvt.ini". This does mean that settings from the earlier version will be lost at this changeover.
14	Bug Fix	Clearance Data	Previously different clearance data was not allowed for slot '1' and slot '2'. This has been changed at this release.

15	Change	Overlap	CF based results have been removed from the overlap results due to the separation of the engine simulation code meaning that this data is no longer available.
16	Change	Valve Dynamics	The dynamics module has been expanded to be in line with the rest of the application in that you know have different data/model for slot '1' and for slot '2'. Previously they shared common dynamics data.
17	Change	3D View	The original 3D view was not particularly useful or complete. At this release a complete 3d wire frame viewer has been introduced that allows the user to look at the 3d surfaces involved and the contact lines points and ellipses.
18	New	Belt Layout tool	A new tool has been added that allows the user to layout and analyse a belt or chain drive. Multiple pulleys and belts can be included to look at run length, wrap angles. It is in a 3d viewer environment.
19	New	Belt Layout Data	The data from the belt layout tool can be optionally saved in the cvt model file.
20	New	Cam Belt Graphics	The cam belt graphics can be drawn on the main mechanism screen. It also supports animation.