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# SIMPACK

## Multi-Body Dynamics Simulation Software



[www.SIMPACK.com](http://www.SIMPACK.com)

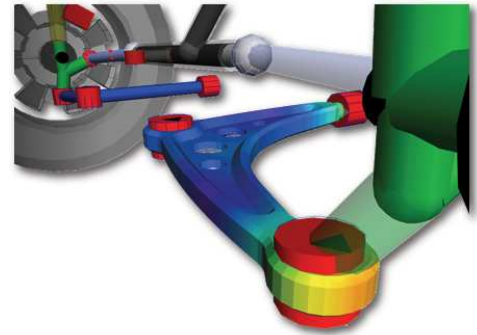
## Software Update

### SIMPACK 9.2

We are pleased to inform you that SIMPACK Version 9.2 has been officially released. SIMPACK 9.2 provides significant updates compared to SIMPACK 9.1. Detailed information about updates and new features can be found in the release notes section of the SIMPACK documentation.

### SIMPACK Loads

SIMPACK Loads module, already available in SIMPACK 8.9, has been newly designed for SIMPACK 9.2. SIMPACK Loads adds the possibility to perform stress recovery with flexible bodies. Users can now define specific regions (predefined node sets) for the stress recovery. Time series can be exported to fatigue software, such as FEMFAT, for further processing.

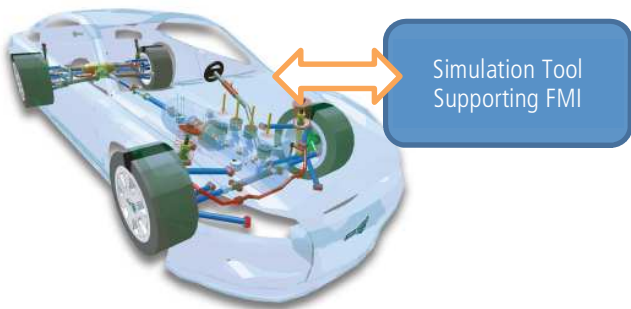
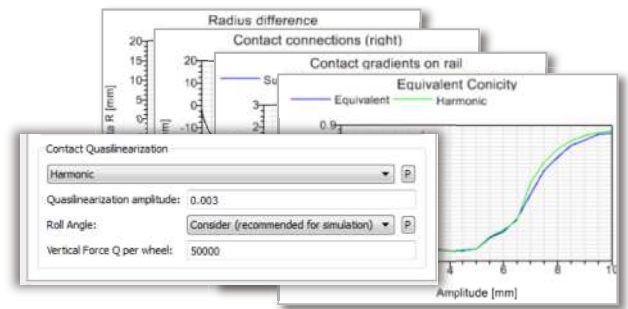


### SIMPACK Gear

Profile modification, already available for spur and helical gears, is now available for rack and pinion gears.

### SIMPACK Rail

SIMPACK Rail now includes automatic profiles quasi-linearization with "New SIMPACK Rail" contact. Enhanced Rail check plots and a new interface to Kalker's CONTACT software are also available.



### Co-simulation using FMI standard

Co-simulation has now been added to the Model Import functionality of SIMPACK's FMI (Functional Mock-up Interface).



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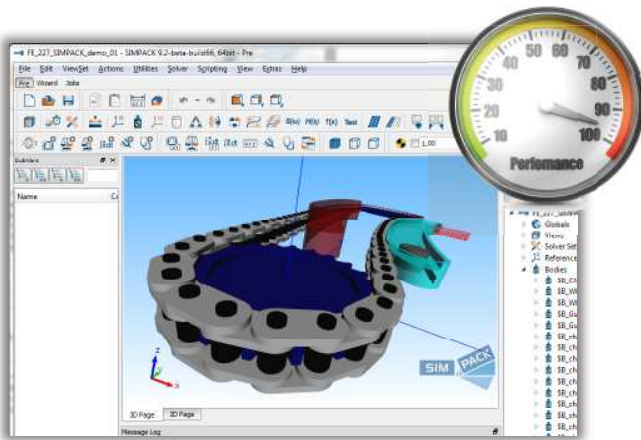
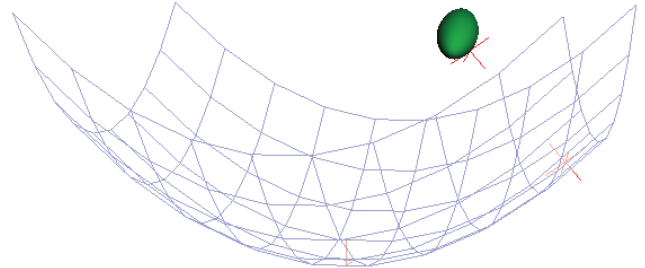
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### SIMPACK Contact

The 3D surfaces contact functionality, already available in SIMPACK 8.9, is now included in SIMPACK 9.2. With this functionality, 3D contact between complex shapes can be modeled. The handling has been significantly improved.



### SIMPACK Solver speed up

Significant enhancements of the SIMPACK solver have been implemented, resulting in a speedup and robustness. The parallel solver performance has also been significantly increased by the consideration of bodies and joints.

A SIMPACK chain model shows an increased solver speed of 50% from version 9.1 to 9.2.

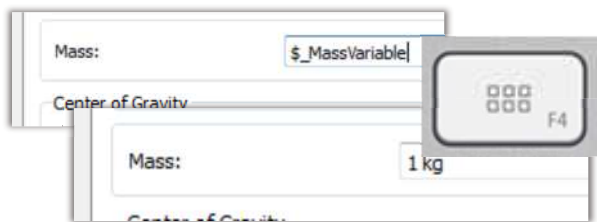
### SIMPACK Pre

New preprocessor functionality has been added to SIMPACK 9.2 for increasing user productivity when working with complex models.

### Improved subvar tree view

Values and attributes have been added to the subvar view panel in order to give a better model overview and simplify model navigation.

Name	Comment	Definition	Def Va
SubVars			
\$ _Mass	Vehicle Mass	900 kg	
\$ _WheelBase	Wheel Base	2575 mm	
\$ _FrontTrack	Front Track	1472 mm	
\$ _RearTrack	Rear Track	1470 mm	



### "Parameter/Formula" and "Value" view modes

Users can now easily switch between parameter/formula mode and value mode using the F4 key.



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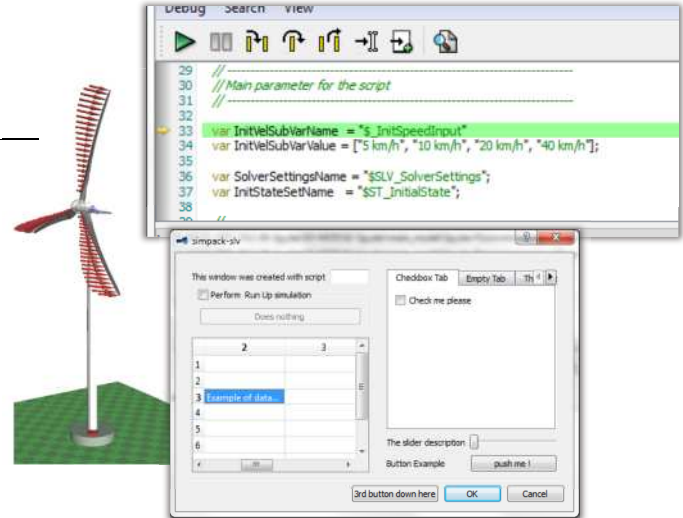


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### Scripting – Debugger Graphical widgets and advanced Graphical Widgets

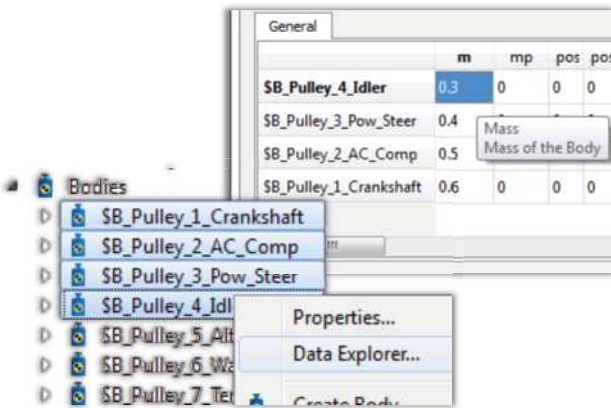
Widgets functionality for generating buttons, sliders, tables, checkboxes and tabs has also been added. Complex functionality, such as the new user interface for defining and performing wind turbine Design Load Case (DLC) calculations, has now been easily achieved.

A script debugger has been added to the SIMPACK Preprocessor.



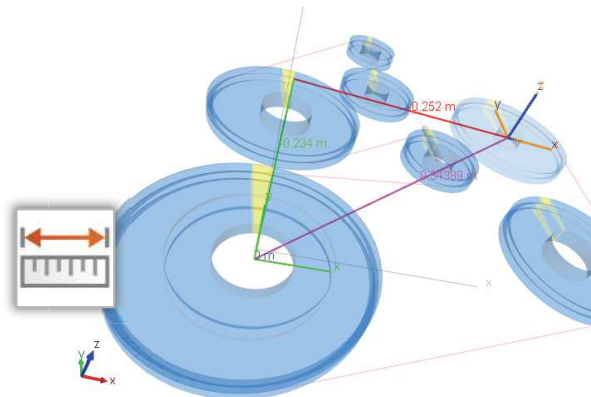
### New "Data Explorer" Tool

SIMPACK 9.2 now includes a "Data Explorer" tool, which lists all of the properties of a selected set of elements. All properties can be edited directly from the table.



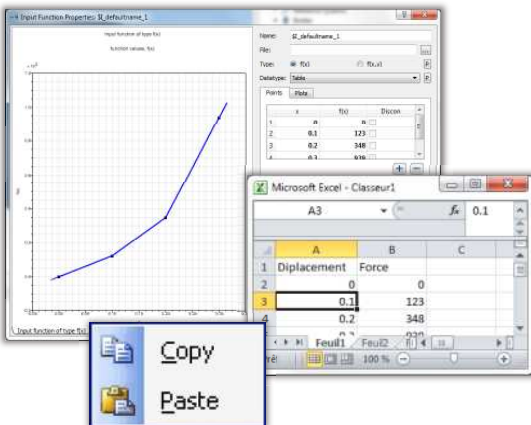
### New "Measure" Tool

Users can now easily measure between any two markers within a selected marker reference frame. Users can also choose the angle type for the measurement.



### Copy and Paste with Microsoft Office Application

For increased productivity, all data in SIMPACK Preprocessor can be copied to and from Microsoft Office. This feature is particularly useful when importing/exporting value arrays, e.g. for non-linear spring-dampers.



This document is an overview of the new features of SIMPACK 9.2. Please contact your local distributor for more detailed information.