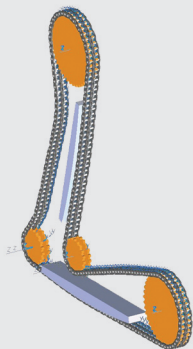


LATEST NEWS



SIMPACK Chain module



Gunter Schupp with Prof. Arnold in the background

NEW SIMPACK FEATURE MARKER RELATIVE TO MARKER

SIMPACK Version 8614 introduced the feature, which allowed the position and orientation of one marker to be defined relative to another marker. The relationship between the two markers can be defined by simply selecting, in the 'MBS Define Marker' window, one marker (B) as the reference marker for another marker (A). The final position of the marker A relative to its Body Fixed Reference Frame (BFRF) is calculated in a pre-processing step and does not change during the simulation. When the final position and orientation of marker A on a body is calculated, first the position and orientation of the reference marker B relative to its BFRF is calculated; this transformation is then applied to marker A in addition to the relative transformation of marker A that was entered by the user. The user entered relative transformation, i.e. Built-in Position and Orientation, is given in the co-ordinates of the reference marker B, whereby the two markers can belong to different bodies. The orientation and position of marker A can be fully parameterised. This feature is only available for Body Fixed Markers.

NEW SIMPACK FEATURE: CENTRE OF MASS RELATIVE TO MARKER

Since SIMPACK Version 8614 the centre of mass of a body can be defined at the position of, or relative to another marker. The marker that is referenced for the centre of mass must be a Body Fixed Marker and must be on the body to which the centre of mass is defined.

NEW HOW-TO-MODEL SIMPACK WHEEL/RAIL AT WWW.SIMPACK.COM

A new How-To-Model guide is available from the SIMPACK website. The guide describes how to model and simulate a quasi-static curving analysis in SIMPACK Wheel/Rail for both standard and Virtual Testing Lab analyses. In addition, a How-To-Model guide for the calculation of Nominal Forces for Wheel/Rail models is also in the pipeline; the guide explains the math-

ematical fundamentals and goes into detail about the modelling approaches and possible sources of error.

SIMPACK CHAIN MODULE

As a development within SIMPACK Engine, INTEC is currently implementing a new chain mechanism simulation module. The prototype of this software has demonstrated extraordinary calculation performance and stability, benefiting strongly from SIMPACK's relative co-ordinate recursive algorithm. An automatic chain model editor has been implemented to allow the efficient creation of chain models based on geometric inputs from the user. The release date for the chain module is late summer 04.

INTEC CONGRATULATES GUNTER SCHUPP ON COMPLETING HIS DOCTORAL EXAMINATION

On the 12th of March this year Gunter Schupp celebrated his doctoral ceremony at the institute B for Mechanics at the Technical University Stuttgart. A large contingent from his department at the DLR, as well as the MBS hardcore from INTEC travelled to Stuttgart for his doctoral presentation, to give Gunter their support. The topic was spot on for the limit cycle enthusiasts from the Wheel/Rail field:

"Numerical bifurcation analysis of non-linear mechanical systems for use with railway vehicles."

For the long standing SIMPACK developer Gunter Schupp, it goes without saying that the Hopf and saddle graphs presented were from calculations performed within SIMPACK, whereby, for the analyses, the software PATH was coupled with SIMPACK. The examiners Professor Eberhart, Arnold and Schiehlen, after a worrying wait for Gunter, announced that he had passed with flying colours. As you can imagine, not only Professor True was overjoyed....