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#### MARKET REVIEW

The current development of controlled vehicle dynamics systems, even for the high-end user, is to use different models, created in different programs, for each of the separate modelling tasks. Why is that? A suspension system incorporates a diverse band of relevant vibration effects, which cover a wide frequency range. Due to calculation performance and also the degree of specialisation of the engineers involved, it is not possible to use a single model for a NVH analysis, with a frequency content of 100 Hz or more, in a SIL project where (for instance in MATLAB Simulink) only handling dynamics are required. This model would also not be appropriate in a HIL

analysis that must run in real-time. However with SIMPACK, it is possible to create the models in the same program, whereby the HIL and SIL simulation models can be created as a simplified version of the complex multi-body models, and thereby meeting the specified demands of the respective simulation environments. With the new product SIMPACK Virtual Suspension, the user can create look-up table joints that enable a simplified and high performance representation of more complex models, which can then be exported to Simulink, via SIMPACK Code Export, and thereby reducing the overall licensing costs.

#### NEW UNIVERSITY AND RESEARCH LICENCES SINCE JANUARY 2004

FH Rosenheim, Germany  
 FH Heilbronn, Germany  
 Fraunhofer Gesellschaft, Institut für Techno- und Wirtschaftsmathematik, Kaiserslautern, Germany  
 Fraunhofer Institut für Betriebsfestigkeit, Darmstadt, Germany  
 Nanjing University of Aeronautics and Astronautics (NUAA), P.R. China  
 Neimenggu Technical University, Transportation Dept., China  
 PLA University, Transportation Dept., Tianjin P.R. China  
 TU Berlin, Institut für Land- und Seeverkehr, Germany  
 TU Berlin, Institut für Konstruktion, Mikro- und Medizintechnik, Germany  
 TU Graz, Austria  
 TU Hanoi, Vietnam  
 Universität Hohenheim, Institut für Agrartechnik, Hohenheim, Germany  
 Uni Siegen, Germany

#### NEW COMMERCIAL LICENCES SINCE JANUARY 2004

AEA Technology Rail BV, Utrecht, The Netherlands  
 AMST Systemtechnik Ges.m.b.H., Austria  
 Baotou First Mechanism Works, P.R. China  
 Das Kompetenzzentrum - Das Virtuelle Fahrzeug Forschungsges. mbH, Graz, Austria  
 DaimlerChrysler Research, Stuttgart, Germany  
 Mercedes Motorsport, Stuttgart, Germany  
 MeSH Engineering, Dettenhausen, Germany  
 R. Bosch GmbH, Stuttgart, Germany  
 Voith Turbo, Crailsheim, Germany