

Interface between SIMPACK and MotionView

ALTAIR and INTEC have presented a Beta-version of the interface between the pre- and post-processor MotionView and the SIMPACK solver. This project has had the support of Alfa Romeo, BMW, Ford, Porsche and Volkswagen. The current functionality of the interface allows a MotionView model to be calculated using the SIMPACK time domain solver, as well as allowing plots and animations of the SIMPACK produced results.

Project Partner

The development of the interface has been backed by the Automotive Industry, who have highlighted what they would like featured in the interface. Current MotionView users of the pre- and post-processor see the possibility for their current simulation capabilities to be extended with the addition of the fastest and most reliable MBS solver on the market.

The development of the interface has taken 3.5 man years. Funding has come from Alfa Romeo, BMW, Ford, Porsche and Volkswagen.

MotionView

MotionView is currently used almost exclusively for building up automotive models, whether it be single assemblies or complete vehicles. With the so-called Wizards, the models can be built up in the form of multilevel assemblies from ready made components such as suspensions, steering systems and power trains. To build up a completely new model however the model must be in ASCII format. Models prepared within MotionView by simulation engineers, can than be easily modified

by the relevant vehicle specialists, within the MotionView environment. The vehicle specialists do not need to have a complete understanding of the program, but only a general overview of how it operates.

You can use the model browser, alongside the 3D graphics, for the visualisation of the model structure, which is not too dissimilar to the file browser of an operating system. As in SIMPACK, it is possible within MotionView to display graphically the results of a simulation in the form of animations and plots. The animation is based upon the ALTAIR H3D file. This pure results file contains the time history of the simulation and the 3D description of the model. This allows the results files to be given to other users whilst keeping the exact details of the model set-up secret. This H3D file is a 3D animation file which is so compact - you can send it or publish it easily via internet.

Further details about the interface are going to be described in one of the following SimpackNews.

