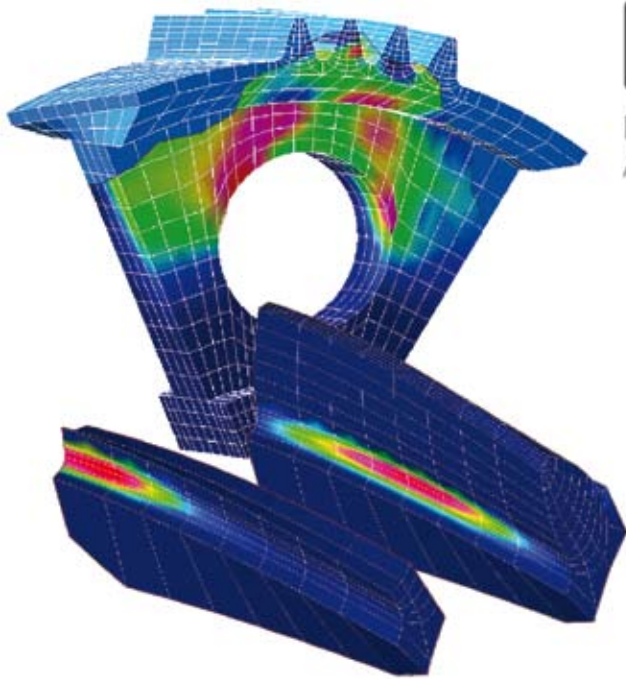


# SIMPACKNews

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## The FVA Chooses SIMPACK as Common Multi-Body Solution

The FVA, Forschungsvereinigung Antriebstechnik (Research Association for Drive Technology), under whose direction such programs as RIKOR, STplus and DRESP have been created, has now chosen SIMPACK as the common platform for their multi-body related activities in research and software development.

### THE FVA

The FVA, originally founded by eight German industrial companies over 40 years ago, today brings together the knowledge and expertise of more than 180 commercial companies and 40 research institutes throughout Germany. All corporate members are involved in the production of drivetrain components, systems and accessories.

Through collaborative research in drive technology the FVA enables participants to improve their technical know-how and product quality on the international market. Research activities are coordinated by the scientific advisory council of the FVA which consists of industrial representatives. Currently around 90 research projects are in progress. All members have access to the results and findings of the collective research.

The FVA's activities are not limited to the generation of research reports but also include the development of technical software which is used by the members for research and design.

Some of the most well known software tools are, for example, the tor-

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sional vibration software DRESP and the gearwheel calculation programs RIKOR, STplus and BECAL.

Lutz Mauer, INTEC GmbH  
Steven Mulski, INTEC GmbH



Fig. 2: The Contractors Norbert Haefke and Lutz Mauer



Fig. 3: FVA SIMPACK Training

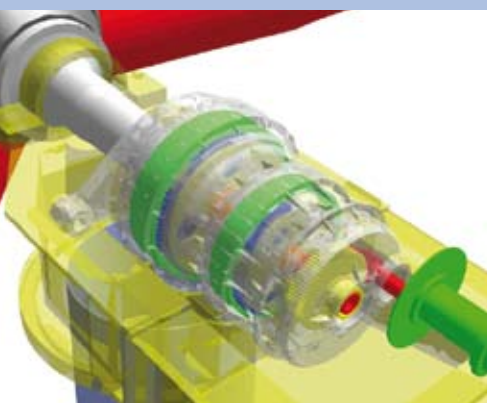


Fig. 4: SIMPACK Driveline Model  
(Courtesy of TU-Dresden, IMM)

## NEW REQUIREMENTS

Due to the continually increasing complexity of drive systems which has also resulted in higher requirements for analysis and optimisation, the need for multi-body system (MBS) simulation has arisen. Particularly when the analysis of the complete system is to include three dimensional effects, the use of MBS simulation becomes essential.

An MBS simulation program has the added benefit of being a good platform for integrating specialised drivetrain software. This enables software development from different research locations to be easily implemented into one common tool.

In 2006 the FVA started the project MBS-Study. Using four academic institutes and member surveys, future MBS solutions were investigated.

## THE DECISION

After careful consideration, and a market analysis of commercially available tools, the FVA task group came to the decision not to develop an FVA specific MBS tool due to large time and cost requirements.

After a detailed evaluation of seven commercially available software tools, the decision was taken to use SIMPACK as the MBS platform for all new relevant MBS software development. All regular FVA members and research bodies will now have access to SIMPACK's Pre- and PostProcessor as well as SIMPACK's powerful solver for future research and analysis.

## SIMPACK

SIMPACK software is built upon the state-of-the-art methods and software technology. The equations of motions are generated using minimal coordinates which enables the solver to be accurate, fast and robust.

SIMPACK's solver is therefore particularly ideal for the analysis of complex models which contains rotating components and high frequency contents, as is the case with drive systems.

## THE FUTURE

With the successful conclusion of the cooperation negotiations, of SIMPACK within the FVA is wide open. The new FVA logo indicates the dynamic and goal orientated steps now taken by the FVA.

SIMPACK's already leading position in the three dimensional simulation of drivetrains in the commercial sector is now further fortified by the decision of the FVA. Some future developments of the FVA are expected to be integrated into SIMPACK as standard elements, enabling access to non FVA members and therefore further increasing SIMPACK's position on the worldwide market.

## ON THE WEB

Info about FVA and FVA Members:  
<http://www.fva-net.de/>  
(Mitgliedsfirmen=Members)