

SIMPACK Viewer

With the **SIMPACK Viewer**, INTEC launches a no cost product for viewing SIMPACK results as plots and animations, without a SIMPACK installation. SIMPACK Viewer operates both as a standalone tool as well as a plugin in for office applications such as PowerPoint, Internet Explorer and Excel.

SIMPACK Users can now share their results with peers, customers or managers who do not have a SIMPACK installation.

SIMPACK Viewer can visualize SIMPACK results based on SIMPACK binary result files (.sbr) or SIMPACK project files (.spf). From existing .sbr files, 3D animations can be viewed.

Even complete pages of a SIMPACK project file can be viewed. This enables the User to share pages that contains

both animations and plots, e.g. an animation of a car with the tyre forces plotted along with it.

Since the User views a real 3D animation and no pre-recorded movie, view operations like zoom, pan, rotate and making objects transparent can be performed while viewing the results.

In addition to using SIMPACK Viewer as a standalone tool, Users can also embed it into standard office applications.

THREE-PHASE RELEASE OF VIEWER:

1. Viewing animations from .sbr files
2. Viewing single pages of projects
3. As a plugin for office tools

SIMPACK Viewer, phase 1, will soon be ready for download at www.simpack.com.

Tips and Tricks - Deformation Contouring

Contour plots of flexible body deformation have been available in SIMPACK's PostProcessor since the release of version 8900. The plots help the user to better understand the simulation results, see Fig. 1.

An additional input to the PostProcessor is the mbf file that is created in the last step of FEMBS by clicking on "Write SID and mbf file". This mbf file is stored together with the SID file either in the local working directory or in the flexible body database. To enable the contour plots edit the properties of the animation view in the tab "flexible bodies" and check "enable contouring". First, the deformation to be displayed is selected.

Available options are the x, y and z direction as well as the absolute deformation. Then, the "deformation/stress probe" may be activated, which ena-

bles the user to move with the cursor over the structure and to obtain the node number and the value for the selected deformation component at the current time step. Finally, the user either selects the range that is to be contoured or the user can accept the default "auto bounds", see Fig. 2. The deformation in between the master nodes is determined by interpolation. When looking at the results, keep in mind that the deformation is always with respect to the body fixed reference frame.

To obtain the mbf file an FE input deck is considered when generating the fbi file. The mesh data is then stored in the fbi file and automatically transferred to the mbf file. For huge FE-models it is useful to reduce the amount of data. This can be done by generating an FE model file that only contains the interesting parts of the mesh.

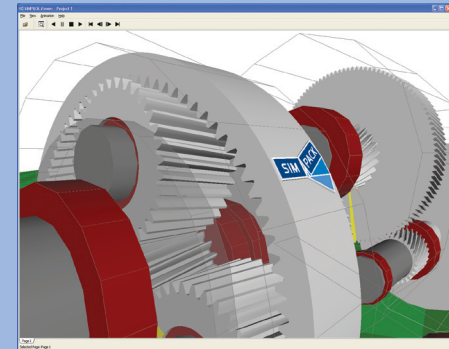


Fig. 1: SIMPACK Viewer

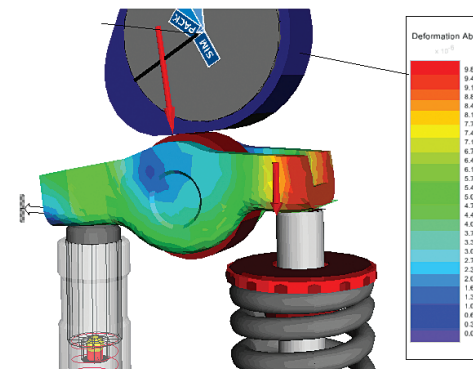


Fig. 1: Absolute deformation of a rocker arm

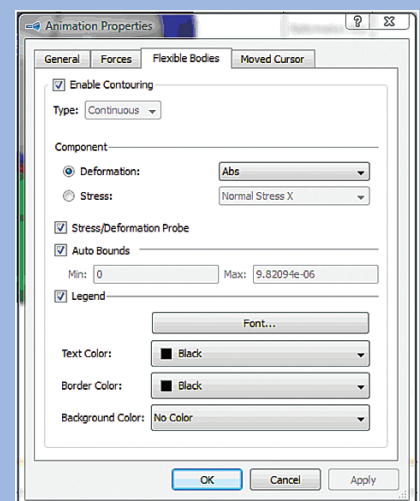


Fig. 2: Settings in the properties dialogue of the animation view