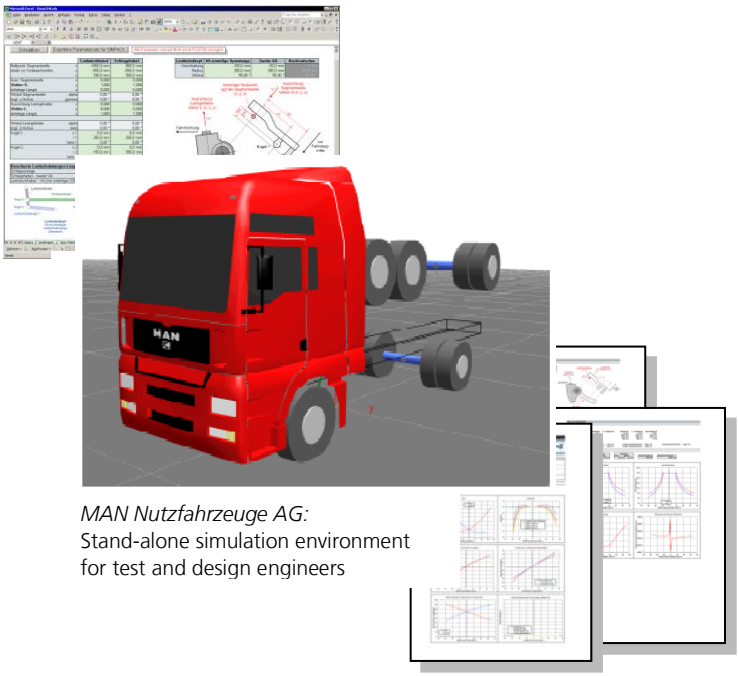
Accurate · Fast · Robust · Versatile

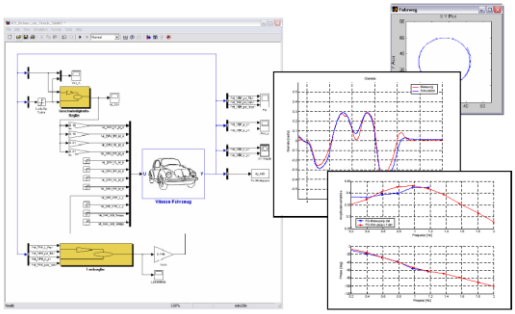
SIMPACK CODE EXPORT

Add-On Module



MAN Nutzfahrzeuge AG:
Stand-alone simulation environment
for test and design engineers

Daimler Chrysler AG:
Analysis of handling and steering performance at the driving simulator in Berlin



ZF Friedrichshafen AG:
In-house simulation environment Vitesse for vehicles with active components and powertrain using detailed SIMPACK DAE-models

What is SIMPACK?

SIMPACK is a general purpose multi-body simulation (MBS) software tool which is used to aid the development of any mechanical or mechatronic device, ranging from single components through to complete systems (e.g. wind turbines, vehicles, and high performance Formula 1 engines). All SIMPACK products are 100% compatible.

What is SIMPACK Code Export?

SIMPACK Code Export is an add-on module used to create Fortran- or C-code from any SIMPACK model. SIMPACK Code Export brings the flexibility and functionality of a general purpose MBS tool to the real-time world.
The same SIMPACK models used for motion and vibration analysis can now be used in a countless number of other applications areas independent of SIMPACK.

Applications:

- Real-time applications, e.g. Hardware-in-the-Loop (HiL).
- Software-in-the-Loop (SiL), e.g. SIMPACK models in MATLAB® and Simulink®
- Parameterized stand-alone models in external environments
- SIMPACK models in non-MBS simulation environments, e.g. model specific pre- and postprocessor in Excel

Highlights:

- Unmatched model detail for real-time applications (current models 140 degrees-of-freedom, up to 20 Hz)
- Seamless process; from complex MBS offline analysis to real-time applications
- Common databases and models for detailed MBS analyses and HiL /SiL applications
- Flexible bodies from FEM codes or SIMPACK
- Considerable acceleration of simulation time
- Easy model modification with the SIMPACK model editor

Features:

- Full model parameterization
- Model confidentiality
- Usage of tire models: MF-Swift, MF-Tyre, TM-Easy, etc.
- Easy implementation of user specific code
- Direct Simulink plug-in
- Usage of advanced SIMPACK integrators including the SIMPACK real-time solver

Supported HIL Targets:

- ETAS Real-Time-PC
- The MathWorks xPC Target
- dSPACE DS1005
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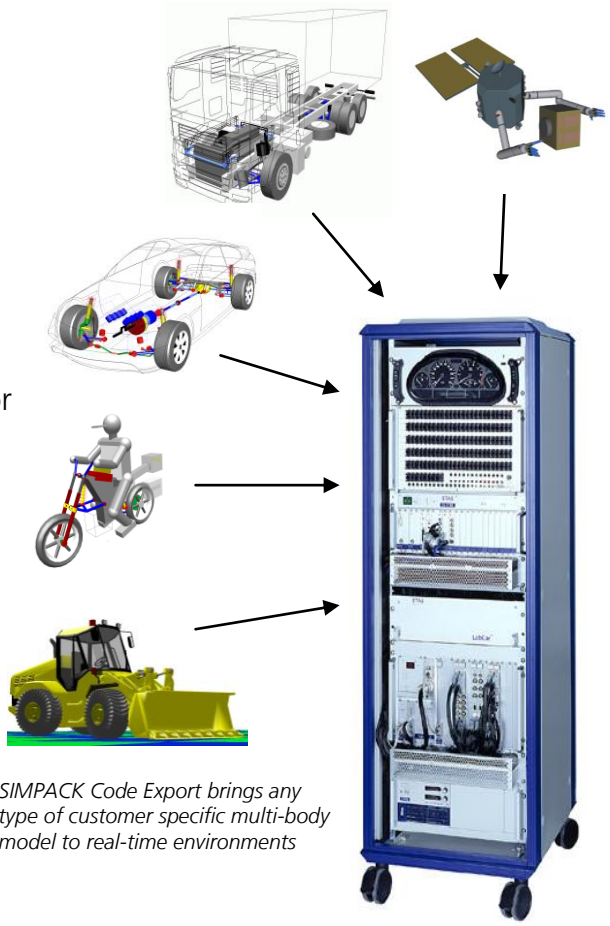
- Wind River VxWorks
- …and others on demand



SIMPACK Code Export brings any type of customer specific multi-body model to real-time environments

Operating systems:

- Windows and Linux.
  See: www.SIMPACK.com/platforms.html

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2011-02-24