

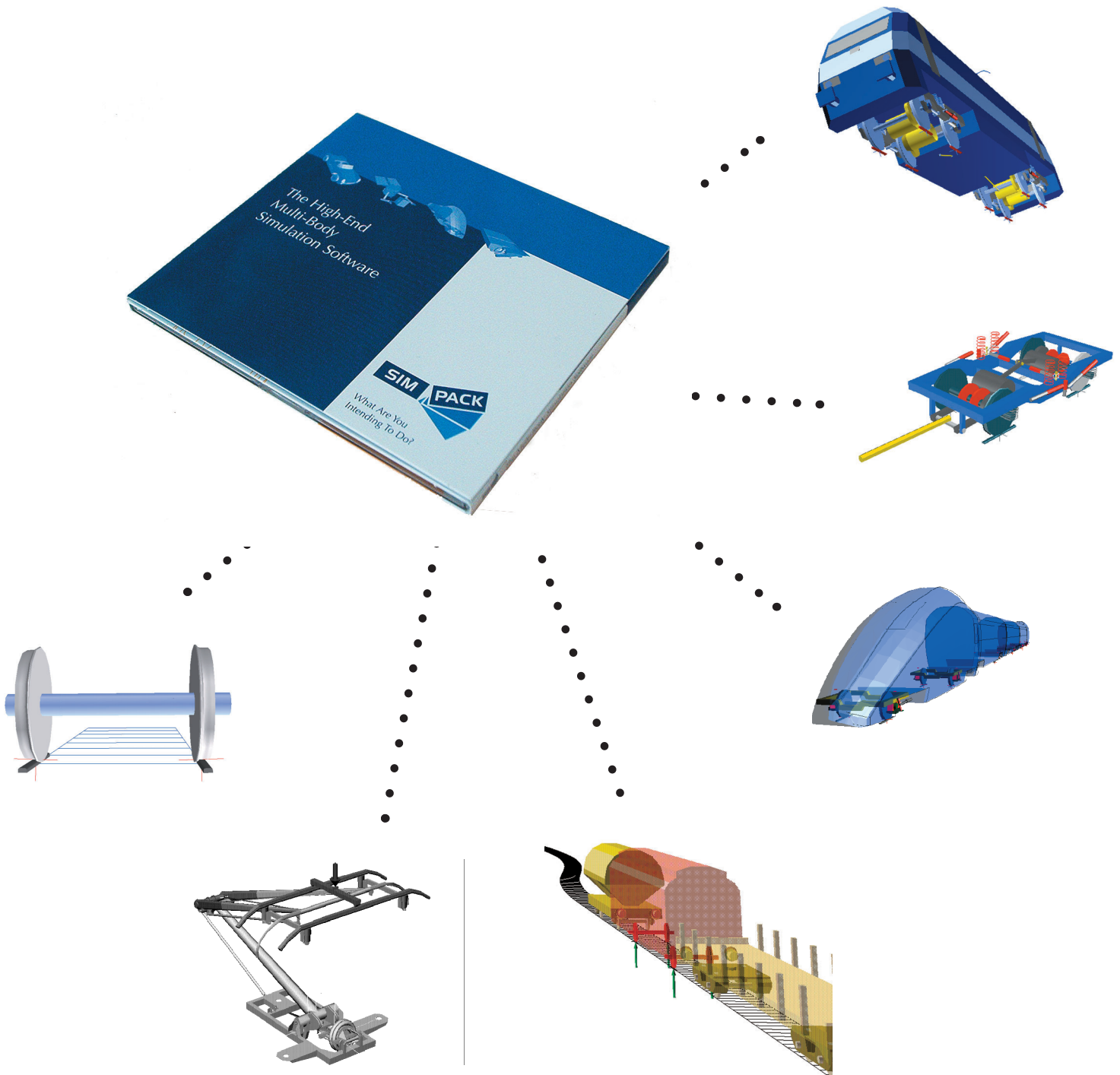
SIMPACK Rail

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SIMPACK Rail is an 'add-on' module for use with SIMPACK introducing a unique state-of-the-art CAE environment to the field of simulation technology for railway system dynamics. Verified through nine years of industrial use and by several benchmark and roller rig tests SIMPACK is the standard in railway simulation.





SIMPACK Rail

Model Set-up

- Easy and fast creation of vehicle models
- Large element library, substructures, databases, parameterisation

Wheel/Rail contact

- Contact modelling methods for any application case
- Powerful smoothing of contact functions
- Standard and measured wheel and rail profiles
- Up to three independent contact points per wheel
- Full single/independent wheel support

Calculation task

- Wheel and track forces
Complete set of wheel and track data output
Predefined, self-assembled and measured track profiles
- Ride comfort analyses
Track irregularities: analytical, freely defined, by PSD or measured
Elastic bodies from car body to wheelsets possible
Numerous filtering options for output
- Derailment analyses
- Traction control and tilting technology with SIMPACK Control and/or MATLAB online interface SIMAT/MATSIM
- Linear System Analysis
Easy and fast, fully automatic linearisation of the wheel/rail profiles with different methods Eigenmodes, Root Loci, Linear System Response, Covariance and Spectral Analysis
- Rail profiles varying along the track, switch crossing simulations
- SIMPACK Virtual Testing Lab for automated variation of parameters, substructures, tracks etc.
- User modules for any modelling element, wheel/rail contact, output filters etc.

SIMPACK products

- Basic Module
Kinematics & Dynamics
- Add-on Modules
Automotive, Rail, CONTROL, USER,
Code Export, SIMBEAM, Flexbody
- Add-on Interfaces to CAD: CATIA V4 and V5, Pro/ENGINEER, I-DEAS
- Add-on Interfaces to FEM: ABAQUS, ANSYS, I-DEAS,
MSC.NASTRAN, PERMAS, NX-Nastran
- Add-on Interfaces CONTROL: MATLAB Simulink, AMESim

SIMPACK available operating systems

- Silicon Graphics Workstation with IRIX
- Personal Computer with Windows 2000 or Windows XP
- Hewlett Packard Workstations with HP-UX
- IBM workstations with AIX
- Linux (Red Hat)

For further information or
an in-house demonstration
please contact

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