Simpack offers a library of modelling elements for simulating magnetic levitated transportation systems. The software enables users to model and analyze the dynamic performance of a completely assembled maglev train including various subsystems for vehicle levitation, lateral guidance, drive control mechanisms, suspension components etc.
Our 3DEXPERIENCE® platform powers our brand applications, serving 11 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the 3DEXPERIENCE Company, is a catalyst for human progress. We provide business and people with collaborative virtual environments to imagine sustainable innovations. By creating "virtual experience twins" of the real world with our 3DEXPERIENCE platform and applications, our customers push the boundaries of innovation, learning and production.

Dassault Systèmes’ 20,000 employees are bringing value to more than 270,000 customers of all sizes, in all industries, in more than 140 countries. For more information, visit www.3ds.com

APPLICATIONS
- Magnetic levitation control
- Vertical vehicle dynamics
- Lateral guidance control
- Track irregularity influence
- Flexible track dynamics
- Operational safety
- Passenger comfort
- Stability analysis

HIGHLIGHTS
- Easy assembly of multi-car-trains from submodels
- Application of distributed magnetic forces on levitation surfaces
- Linear and non-linear flexible track modelling
- Realtime capable multibody system solver for Software-in-the-Loop (SIL) and Hardware-in-the-Loop (HIL)
- Library of vehicle suspension modelling elements

FEATURES
- Full 3D force distribution simulation
- Extensive library to define application specific force laws
- Element library for standard controllers
- Powerful post processing and visualization tools

INTERFACES TO
- Robust interface to 3rd party tools through functional mock-up interface (FMI)
- MATLAB® and Simulink® interface for model exchange, co-simulation and simulation results export
- CAD geometry import
- Interface to structural and fluid simulation softwares for co-simulation

OPERATING SYSTEMS
- Windows and Linux