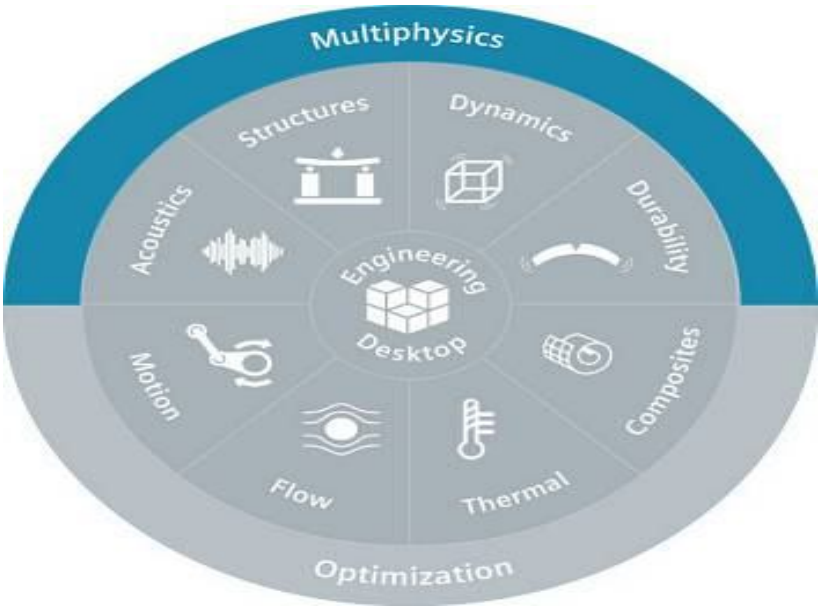
SIMCENTER AMESIM

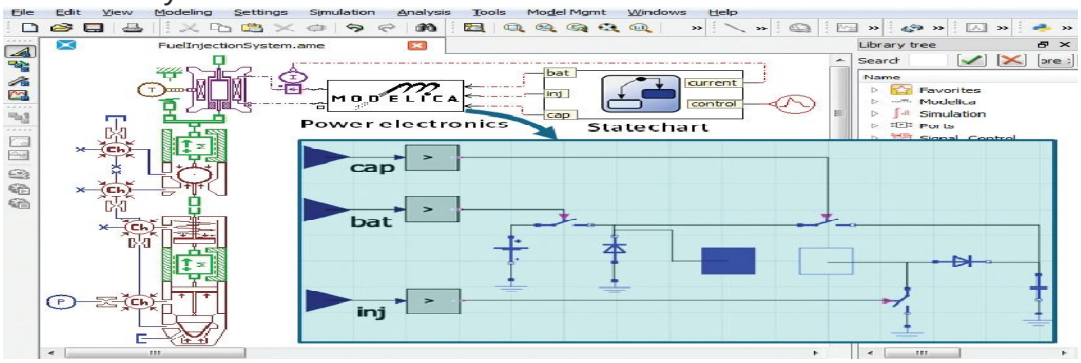
Integrated simulation platform for multi-domain mechatronic systems simulation

Simcenter Amesim offers engineers an integrated simulation platform to accurately predict the multidisciplinary performance of intelligent systems. SimcenterAmesim enables you to model, simulate and analyze multi-domaincontrolled systems and offers plant modeling capabilities to connect to controls design helping you assess and validate control strategies.



SimcenterAmesin Libraries

SimcenterAmesim provides physical domain libraries for fluids, thermodynamics, electrics, electromechanical, mechanics and signal processing as well as application libraries for cooling systems, air conditioning, internal combustion engines, aerospace and other systems.



Analysis Tools

SimcenterAmesim enables you to analyze your data and system results with advanced plotting facilities, dashboard, animation, table editor, linear analysis, activity index and replay.

1D/3D CAE

ConnectAmesim to specialized 1D CAE and 3D CAE platforms

Physical systems are often composed of different elements all working together such as pneumatics, mechanics, hydraulics, electrics and control systems. Interactions between multi-domain systems and complex 3D systems can be difficult to manage in a single modeling software package. With Amesim, you can connect to specialized 1D CAE and 3D CAE simulators.

For different purposes and applications, SimcenterAmesim can be coupled with external software such as CAE, CAD, CAM, FEA/FEM and computational fluid dynamics (CFD). Co-simulation provides a link between simcenterAmesim and CAE tools with predefined setups. This coupling ensures a good dialog between the tools and the simulation software.

Features

- Innovative and open platform for multi-domain system design and simulation
- Unique combination of all physical and application-oriented simcenterAmesim validated libraries
- Complete set of analysis tools: linear analysis, activity index, performance analyzer
- Interfaces with Simulink or LabVIEW, Python, Visual Basic Application and Scilab
- Advanced plotting and dashboard facilities
- Combination of native simcenterAmesim and Modelica capabilities in a unique platform