

Audit Trail for full traceability from CAD to Simulation Reports

- All CAD & CAE objects with their history
- Different versions of CAE Simulations
- Trace line of all object changes
- Actual objects view

Workflow builder & workflow management

- Graphical workflow builder
- Logical decision points
- Automatic & stepwise execution
- Multi loop nesting
- Supports method standardization & best practices

Benefits

- Improve quality and transparency of analysis processes
- Make analysis results instantly transparent
- Perform more analyses while maintaining process compliance
- Meet procurement and pilot release milestones with engineering analysis
- Lower the cost of finding information, assembling models and preparing reports
- Evaluate and interpret simulation results efficiently
- Leverage synergies across analytical disciplines with a unified data repository
- Easily integrate third-party CAE service providers
- Enjoy painless deployment and rapid roll-out at your organization

SimData Manager

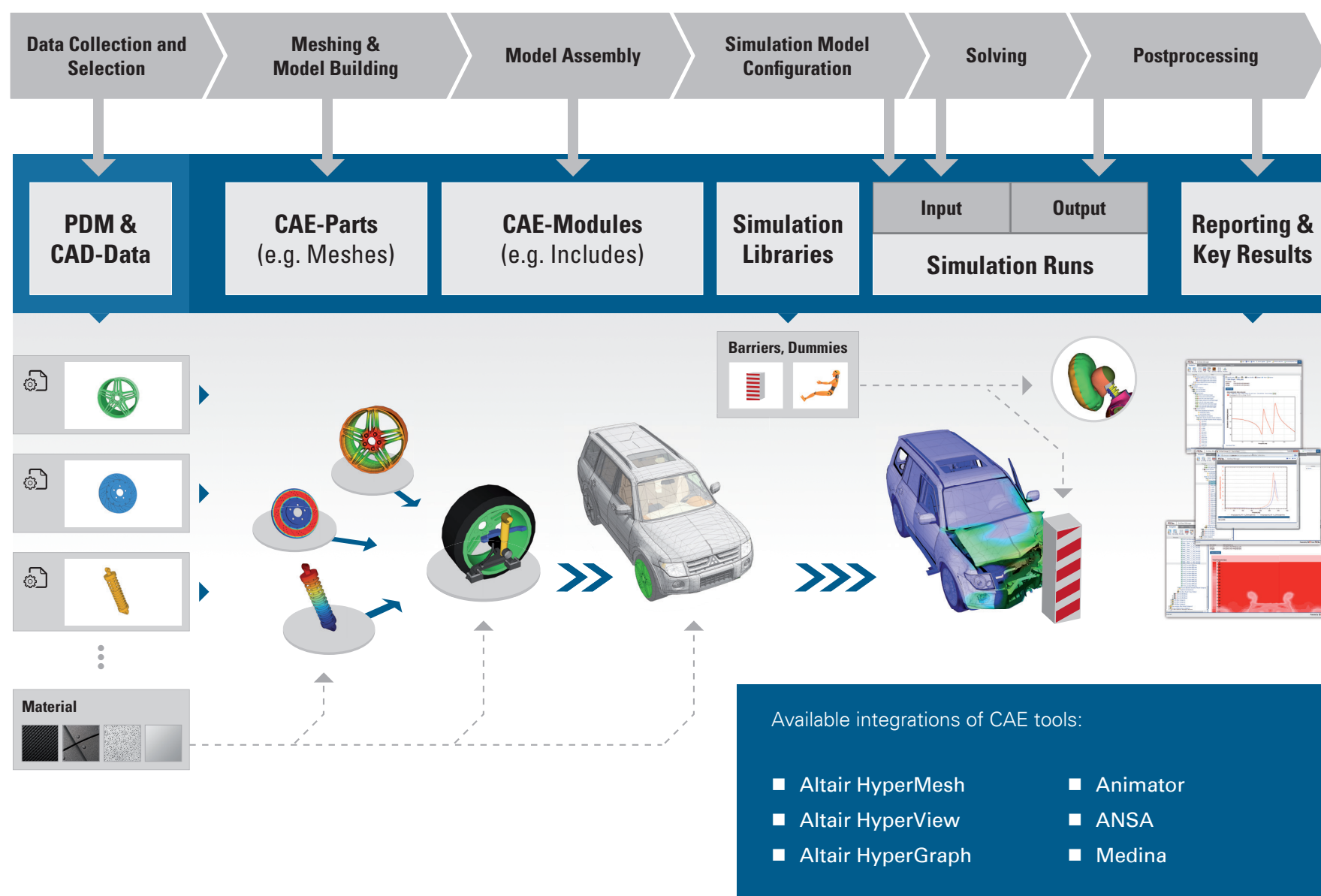
CAE Data and Process Management for Simulation and Virtual Engineering Analysis





Mastering the challenges of the CAE process chain

The engineering analysts today needs CAE data management solutions to provide consistent, direct and comprehensive access to the data for their simulations – from new or modified CAD models released in the design department to new or former versions of existing simulation models. SimData Manager will provide efficient and systematic access to all simulation-relevant data along the entire CAE process chain. This way, analysts can easily keep up with constantly increasing number of simulations runs across all disciplines and the global collaboration of simulation activities in multiple sites and along the supply chain. SimData Manager will trace CAD geometries all the way forward to the final analysis reports and the various simulation models (FE parts & assemblies, etc.) – and vice versa. Engineers will always know which CAD geometry was the base for their simulation models and can easily select the related analysis results from the SDM system. Analysts will be notified for any updates of the CAD models during the simultaneous engineering process and can decide if changes are relevant for simulation. SimData Manager is the right solution to integrate all CAE simulation in the PLM process. It is the “back bone” system for all simulation activities worldwide – saves money & time and increase engineering quality.



Application Highlights

- Traceability of CAD geometries to final simulation reports
- Linking of CAE and CAD structures
- CAD-CAE mapping & filter template
- Python scripting interface to automate processes
- Integration of CAE tools (Altair HyperWorks, Animator, ANSA, Medina, etc.)
- Customizable queries and reports with Excel export capability
- Version control and change history of data
- Notification of changes
- Workflow generation & management
- Task creation & management
- Batch interface for file check-in and check-out via command line
- Report engine for generating reports
- Visualization and comparison of analysis results
- Customizable export and import mechanism
- Seamless HPC integration (Altair PBS, LS, SGE, etc.)

Add-on modules

- CAE Offline-Client**
supports offline interaction and later import for supplier integration
- CAD Import-Client**
supports import of various CAD & PDM data formats
- CAD-CAE Mapping Manager**
maps CAD structures to CAE structure, includes powerful filter mechanism
- CryptoVault**
for highest security requirements - encryption of data in vault
- Python API**
user-defined scripts/functions can be added by the customer

Transparent CAE data management to maximize user acceptance

SimData Manager’s intuitive user interface makes it easy to access simulation data and -results. It helps to standardize objects for reuse across projects – e.g. barriers, load cases, dummies and material data – everything can be shared and maintained centrally in corporate libraries. The scripting interface based on Python makes SimData Manager open for the user and will support to easy manage, change, control and automate the simulation process and all tools along the individual CAE process chain. Workflows can be defined to guide the casual users and introduce standardized methods and best practices, e.g. automatic replacing “includes” in analysis. With powerful reporting features customers will be able to automate repeating Processes and take significant advantage of the central data base in the SDM system. Engineers will have more time for valuable simulation activities. SimData Manager’s powerful automation features will support the way engineers work – the system will follow the engineers process – not the other way around.

Simulation Engineers will enjoy all the benefits of integrated CAE data management. The flexibility of SimData Manager makes a deployment fast and effective. The web-based technology of SimData Manager supports the integration of your supply chain and service partners. For offline work, the highly customizable offline client enables a smooth and traceable information exchange. As a result, SimData Manager ensures process reliability, efficiency and transparency along the entire CAE process chain. SimData Manager supports very high IT standards for security and communication.

