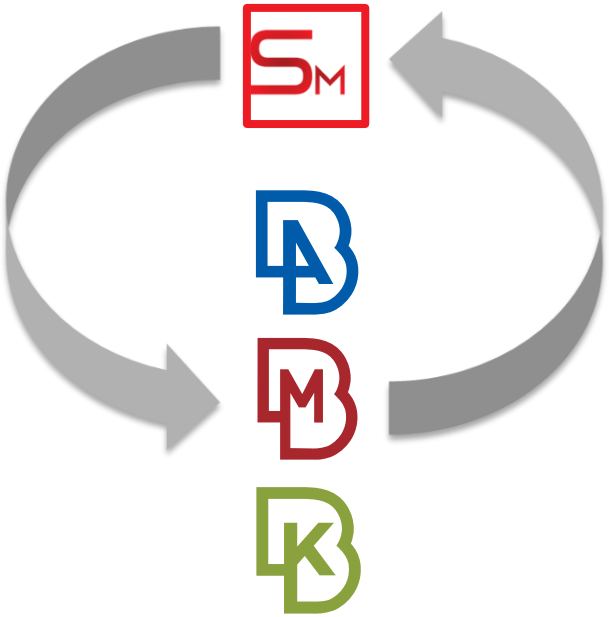
SimManager / BETA suite interaction

Enhancing product development processes



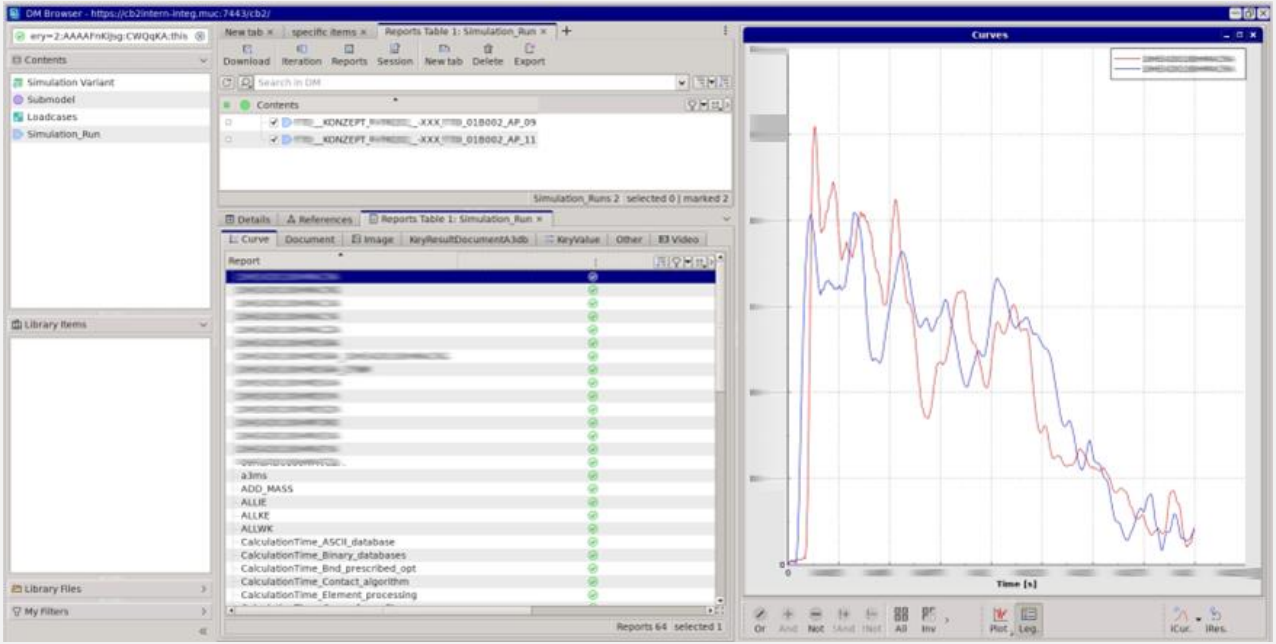
BETA SIMULATION SOLUTIONS

In cooperation with

HEXAGON
MSC Software is Hexagon

ANSA interaction

Establish connection & Browse for data	Build ANSA Models & send back to SimManager	Fire up multiple simulations through SimManager Simulation Generator	View Key Results



ANSA interaction

Establish connection & Browse for data

ANSA connects to SimManager through ANSA DM Browser as connection portal.

In ANSA DM Browser users can look for:

- Simulation Variants,
- Submodels,
- Loadcases, and
- Simulation Runs

Build ANSA Models & send back to SimManager

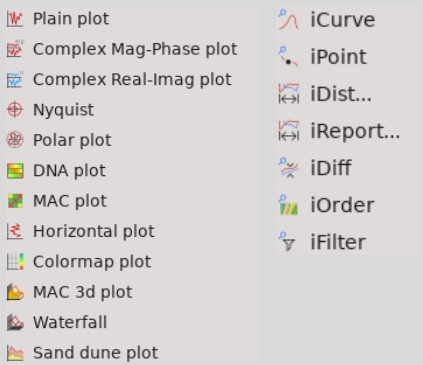
By matching SimManager-objects with ANSA-objects, users can work on models, using the advanced ANSA technologies for simulation modelling.
ANSA Simulation models are pushed back to SimManager.
Users can also work without being connected to SimManager, and push back data later.

Fire up multiple simulations through SimManager Simulation Generator

Employ the power of ANSA Modular Assembly & Run Manager to build multiple simulation variations and DOE, and feed them to SimManager Simulation Generator.

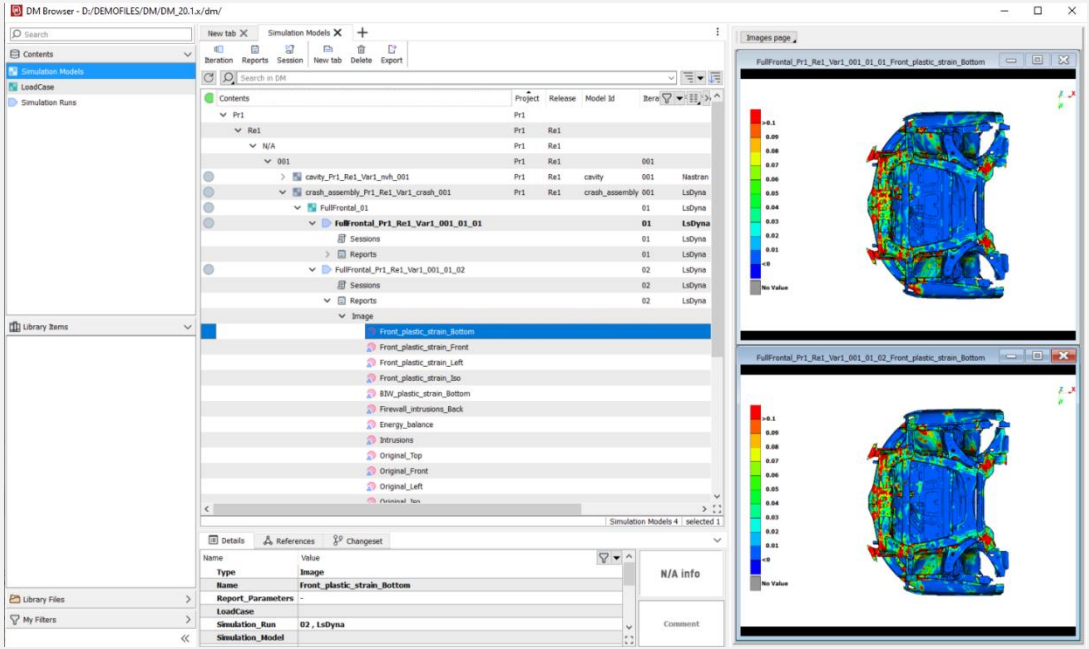
View Key Results

Bring associated results in ANSA DM and launch report tables, view curves, images, videos, and key values.



META interaction

Load data without directly from within META	Identify fast relating versions or variations	Eliminate data sharing “bureaucracy”	Enable automated post-processing



META interaction

Establish connection & Browse for data

Similarly in the way the ANSA DM browser connects to SimManager, META offers the equivalent, for post-processing, data finding and retrieving connection.

Load data directly from within META

User has the capability to load data in META without getting into the process of exchanging manual data with SimManager. META takes charge of this process eliminating data sharing “bureaucracy”.

Identify fast relating versions or variations

In META now the user can check fast whether there is any related variant that rests within SimManager, with which it would be beneficial to make comparison.

Enable automated post-processing

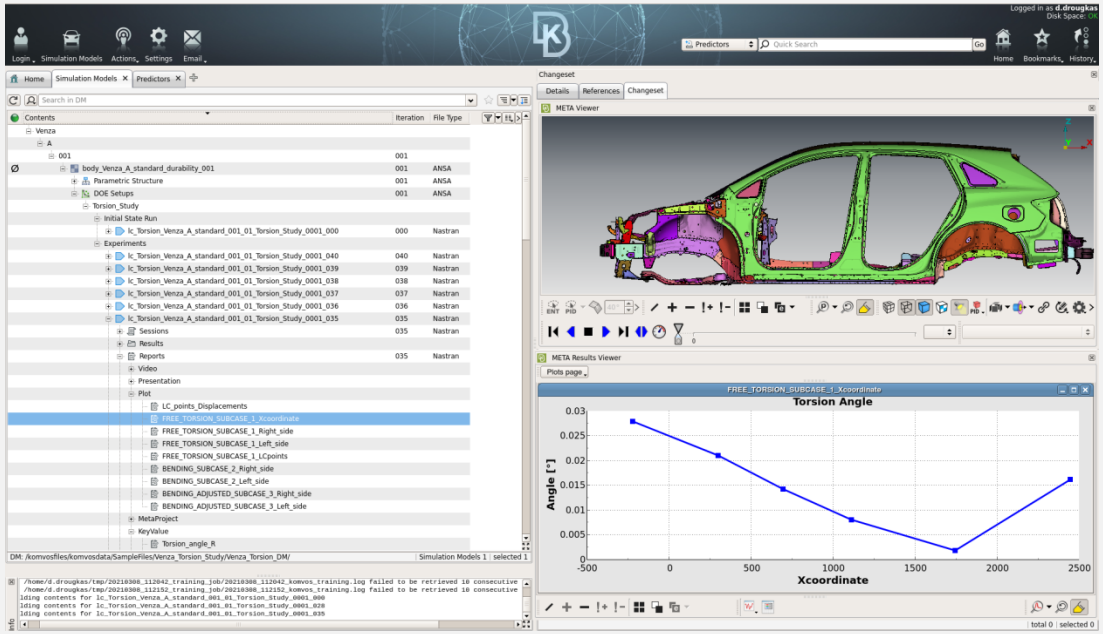
This direct connection and the data “bureaucracy” elimination allows the user to make use of the automation capabilities offered within META for post processing.

KOMVOS interaction

Optimization simulation scenarios preview

Optimization scenarios results review

Employ Machine learning capabilities



KOMVOS interaction

Optimization simulation scenarios preview	Optimization scenarios results review	Employ Machine learning capabilities
KOMVOS offers a clear and easily comprehensible structured preview of the optimization scenarios users run.	User can view the results of these optimization scenarios. In this way the users can preview both the pre-processing and the simulation results data.	Through KOMVOS, using the data of such simulation scenarios, users can create Predicting models that enable Machine learning capabilities.

Benefits

- Streamlined interface between ANSA and SimManager, eliminating the use of scripts.
- Configurable to be adapted to different SimManager implementations.
- Direct exploitation of the multivariant modeling capabilities of ANSA.
- Advanced automation by combining the SimManager Simulation Generator with the capabilities of the ANSA Modular Assembly and Run Manager.
- Work offline and push back simulation models to SimManager later.
- Feed multiple simulation variations and DOE to SimManager Simulation Generator, to run automatically, with a single mouse click.
- View simulation results within ANSA DM environment.

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contact us today: ansa@beta-cae.com

About SimManager and ANSA

SimManager™

SimManager is a Simulation Process and Data Management (SPDM) system that manages all aspects of CAE simulation with focus on meeting the sophisticated data management and processing needs specific to the simulation community.

ANSA
PRE PROCESSOR

ANSA is an advanced multidisciplinary engineering simulation pre- processing software that provides all the necessary functionality for full model build-up, from CAD data input to ready-to-run solver input files, in a single integrated environment.

About META and KOMVOS

META
POST PROCESSOR

META is a thriving multi-purpose post-processor meeting diverging needs from various CAE disciplines. It owes its success to its impressive performance, innovative features and capabilities of interaction between animations, plots, videos, reports and other objects.

KOMVOS
SDM CONSOLE

KOMVOS is a Simulation Data Management platform for the interactive browsing, visualization and handling of all data related to CAE analysis. With a user-friendly and intuitive interface that integrates a powerful 3D-viewer, SDM Console makes it possible to manipulate CAE models, get information on their meta-data, generate model reports and access model statistics with no need for prior knowledge of ANSA, META or any other SDM system.

About HEXAGON MSC Software and BETA CAE Systems

MSC Software develops simulation software technology that enables engineers to validate and optimize their designs using virtual prototypes. Customers in almost every part of manufacturing use our software to complement, and in some cases even replace the physical prototype “build and test” process that has traditionally been used in product design.

BETA is a simulation solutions provider, dedicated to the development of state-of-the-art software systems. For over than 30 years, we develop software and deliver services for the frontrunners of numerous sectors by listening to their needs and taking up even the most demanding challenges.