



Simulation Run Management

Training	Simulation Run Management with ANSA and META
Duration	2 days (16 hours)
Level	Advanced
Who should attend	CAE analysts who set-up simulations and assess simulation results
Training description and objectives	<p>This course provides an insight to Data Management functionality in ANSA and META related to the modular management of Simulation Runs.</p> <p>The aim of this training is to highlight the benefits of using ANSA DM during the Simulation Run creation, the results assessment and the creation of Simulation Iterations.</p> <p>Upon course completion, participants should be able to :</p> <ul style="list-style-type: none">- Work in a data management environment- Set-up and configure a DM repository for personal use or to be shared among team members- Create and manage a Simulation Configurations Table- Assemble a complete Simulation Model consisting of several subsystems- Update a simulation model after a CAD update or after an analyst study version- Build Simulation Runs and create simulation iterations- Create, store, view and compare key results
Prerequisites	Participants should have a basic knowledge of the software.
Language	English <i>*ask for more languages</i>

Course content is subject to change without notice.

Course content and duration may be adjusted to audience requirements or background.



Suggested topics

Day 1

- Introduction to Data Management
 - What is a Data Management system
 - Types of data handled in ANSA DM
 - Metadata (Primary/Secondary attributes)
- Data management using the Model Browser:
 - ANSA Subsystems and their types
 - Subsystem contents
 - Saving Subsystems in DM
 - Creation of Subsystem Iterations
 - DM Update Status
- Overview of the DM Browser
 - Navigating through the DM contents
 - Performing queries
 - Downloading entities from the DM in the ANSA session
- Simulation Model creation
 - From scratch
 - Using a simulation configuration table
 - Handling of Simulation Model and Subsystem variants
 - Adapting attributes
 - Management of Ids on Simulation Model level
- Save Simulation Model in DM
 - Saving options
 - Simulation Models in the DM Browser
 - ANSA definition file
 - Simulation Model output
- Assembly of Subsystems
 - “Smart Assembly” concept
 - Marking of interfaces (interface points and interface sets)
 - Interface representation file in DM
 - Characteristic cases of Subsystem assembly
- Updating existing Simulation Models
 - Handling new Subsystem versions
- Exercise: Assemble a Simulation Model using Smart Assembly



Day 2

- ANSA plugin: “From Includes to Model Browser Containers”
 - Structure of a model organized with Model Browser Containers (Subsystems, Simulation Model, Library Items, Loadcase, Simulation Run)
- Save Simulation Run in DM
 - Saving options
 - Simulation Runs in the DM Browser
 - ANSA definition file
 - Simulation Run output
- Library Items
 - Definition of Rich Library Items (RLIs)
 - Creating RLIs
 - Saving RLIs in DM
 - Adding RLIs in DM
 - RLIs in the DM Browser
 - Indexing in DM
- Loadcase set-up
 - Build Loadcase using RLIs
 - Characteristic cases of Loadcase adaptation (i.e. positioning of dummies and barriers)
- Create Simulation Run Iterations
- Simulation Configuration Table
 - Creation and use
- Handling of simulation results in DM
 - Results in the DM Browser
 - Comparison of results between different Simulation Run Iterations
 - Save results using a META session
 - Save results using python scripting
- Exercise: Save results in DM using META and python scripting