ANSA for NVH analyses pre-processing

Training	ANSA for NVH analyses pre-processing
Duration	2 days (16 hours)
Level	Advanced
Who should attend	CAE analysts who study vibration and noise effects of mechanical structures.
Training description and objectives	This course presents the principles of pre-processing with ANSA for NVH analyses so that users can prepare a NVH ready-to-run file for NASTRAN, ABAQUS or PERMAS. Attendants are also introduced to the NVH console which is used for streamlining the NVH analysis of multi component assemblies. Upon course completion participants will be able to : − Manage and assemble a model using entities oriented to NVH, − deal with masses, − generate and modify entities for noise reduction (damping patches) on FE and geometry, − generate volume mesh for acoustic analysis, − apply techniques for model reduction, − set up a design optimization case, − set up load case for interior or exterior acoustics, − obtain model information and generate reports, − check the integrity of a model, − output ready-to-run files for NVH.
Prerequisites	Basic knowledge of the NVH principles and ANSA is required.

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Suggestion	This course can be combined with any of the META for NVH trainings:
	
	   − META basics for NVH analyses post-processing
	   − Advanced post-processing with META for NVH analyses
	
	Participants are also recommended to have followed the "Introduction to pre-processing with ANSA" training.

Language	English, German *ask for more languages*

Suggested topics
Day 1

− Introduction
− Model assembly
  a) Part manager
  b) Includes manager
  c) Assembly connections
  d) Assembly connectors
− Mass trimming
− Damping patches creation and handling
− Cavity meshing and coupling

Day 2

− Model reduction techniques
  a) Display model
  b) Modal model (dynamic model reduction using META and NASTRAN)
− Supported NASTRAN-based key features and load cases set up for SOL103 and SOL111
− Design optimization case. NASTRAN SOL200 for thickness optimization
− Model checks
− Model output
− Exterior acoustics for ACTRAN and NASTRAN
− Introduction to NVH Console

Course content is subject to change without notice.
Course content may be adjusted to audience requirements or background.