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Course Description

Simcenter Nastran 2019.2

Multi-Step Nonlinear with Solutions 401 and 402 with Simcenter 3D for pre/post

Course Code	NAS401-402
User Level	Advanced
Language	English
Price	$3,300.00 (USD) (Price may not include taxes applicable to your billing region)
Training Center Duration	3 Days
For More Information	Learning Services, USA (training.usa.plm@siemens.com)

The **Multi-Step Nonlinear with Solutions 401 and 402 with Simcenter 3D for pre/post** course covers the advanced nonlinear capabilities in Simcenter Nastran. It presents types of nonlinear effects in models including material, geometric, and contact as well as explaining the solver steps in the solution process. It identifies difficulties which nonlinear solutions can pose and offers best practices for debugging convergence problems with nonlinear solutions.

The course includes static, dynamic, and modal-type solutions. The solver capabilities for material nonlinearities including plasticity, hyperelasticity, and creep are discussed. Geometric nonlinearities and contact algorithms and parameters for these solvers are introduced. Hands-on workshop exercises supplement the lecture content, including exercises specifically designed to help the student understand convergence criteria and debug models.

WHO SHOULD ATTEND

This course is intended for engineers who are familiar with finite element analysis in Simcenter 3D who will be using Simcenter Nastran to perform nonlinear analysis.

PREREQUISITES

Required courses:
• NX Nastran Introduction to Finite Element Analysis with NX (G2H) (NXNAS111)

PROVIDED COURSE MATERIAL

• Student Guide

COURSE TOPICS

• Multi-step Solution Sequences
• Nonlinear Dynamics
• Contact
• Large Displacements
• Large Strains
• Plasticity / Hyperelasticity / Creep
• Nonlinear Boundary Conditions
• Debugging Nonlinear Solutions