

SolidWorks Simulation Premium Nonlinear Course Information

This course is a hands-on experience on the use of SolidWorks Simulation Premium nonlinear module. The 2 day course will provide an overview on a wide range of nonlinear structural/mechanical analysis topics. You will learn how to deal with models that exhibit large displacements and/or yielding, discuss and practice the use of many material models available in SolidWorks Simulation and, most importantly, how to drive a non-linear analysis to successful completion.

Course Length: 2 days
Hours: 8:30am – 4:30pm

Prerequisite:

- SolidWorks Simulation 3 day course
- Knowledge of SolidWorks + working basic knowledge of finite elements
- Basis mechanical principles

Includes:

- Color Training Manual
- Completion Certificate

Course Contents:

- Geometric Nonlinearities**
 - Large displacements problems
 - Large strain formulation
- Material Nonlinearities**
 - Nonlinear elasticity
 - Hyper elasticity
 - Plasticity
 - Temperature dependent material properties
 - Visco-elasticity and creep
- Contact (Boundary) Nonlinearities**
 - 3D nonlinear gap/contact analysis
- Numerical Procedures**
 - Solution control techniques
 - Equilibrium Iterations schemes
 - Termination schemes
- Special Topics**
 - Adaptive automatic stepping algorithm
 - Prescribed non-zero displacements associated with time curves
 - Deformation dependent loading
 - Analysis stabilization techniques
- Viewing the Results**
 - Deflected shape plots
 - Displacement and stress color filled contour plots
 - Animation of deflected shape, displacement, and stress contour plots
 - X-Y plots for response quantities Isoplanes and sectioning



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Reducing Time to Market

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- Certified Instructors leading training at our state-of-the art facilities

- Classes offered in several locations in MS, AL, and TN

- CIP is an Authorized SolidWorks and Simulation Training Center

- CIP offers classes on customer site
Contact the Sales Dept
662-256-8333

- Schedule:
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- Contact:
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