

ANSYS Rigid and Flexible Dynamic Analysis

Length: 1 Day

The ANSYS Rigid and Flexible Dynamic Analysis training course covers rigid and flexible body kinematic analysis using the Workbench-Simulation interface.

Students attending this 1-day training course will learn how to perform a Rigid body analysis that assumes rigid links between joints of a multi-bodied structure and calculates motion only at those joints. In addition, students will learn how to perform a Flexible body analysis that is similar to a Rigid body analysis except that it includes not just the joint motion but also considers the stiffness, mass, and damping effects of the flexible links.

The advantages of a Rigid body analysis include:

- Very fast solutions
- Rigid bodies are connected with joints resulting in a minimum number of dof
- Very robust, no convergence issues
- Graphics provide complete visualization of the part motion
- Can be used interactively to test kinematics
- Can include springs and dampers

The advantages of a Flexible body analysis include:

- Bodies can be flexible
- All nonlinearities are supported
- All boundary conditions are supported
- Surface to surface contact between bodies can be included
- Rigid or flexible can be used on a part by part basis

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