Mechanism Simulation using Pro/ENGINEER Wildfire 3.0

Course Code	TRN-1855-T
Course Length	1 Day

Overview

This course is designed for experienced users who want to add motion to their products and analyze dynamic reactions of moving components. You will focus on learning advanced modeling and analysis skills in this comprehensive, hands-on course. Topics include developing the 3-D model, analyzing the mechanism model, and evaluating results. These topics will enable you to measure dynamic reactions of components, measure the force required to keep a mechanism balanced, and determine the resting state of a mechanism.

After completing this course, you will be prepared to work on mechanism designs using Pro/ENGINEER Wildfire Mechanism Dynamics Option.

Prerequisites

- Introduction to Pro/ENGINEER Wildfire 3.0 or equivalent experience.
- Mechanism Design using Pro/ENGINEER Wildfire 3.0 or equivalent experience with creating mechanism joint and cam connections.

Audience

This course is intended for product designers. People in related roles will also benefit from taking this course.

Topics

- Identifying Differences between Mechanism Design Extension and Mechanism Dynamics Option
- Applying Motors, Springs, and Dampers to Assemblies
- Applying Forces, Torques, and Gravity to Assemblies
- Creating Dynamic Analyses
- Creating Force Balance Analyses
- Creating Static Analyses
- Measuring Forces, Velocities, Accelerations, and Other Reactions on Assemblies
- Evaluating Results

Agenda

Day 1

Module 1	Introduction to Mechanism Dynamics
Module 2	Developing the 3-D Model
Module 3	Analyzing the Mechanism Model
Module 4	Evaluating Results
Module 5	Project