



## SOLIDWORKS 2007: ADVANCED ASSEMBLY MODELING

**Objective:** Advanced Assembly Modeling teaches you how to maximize your use of the assembly modeling capabilities of SolidWorks mechanical design automation software.

**Prerequisites:** Mechanical design experience; experience with the Windows™ operating system.

**Duration:** 2-Day (16 hours)

### COURSE OUTLINE

The topics covered in this course are:

#### Lesson 1: Top-Down Assembly Modeling

- Top-Down Assembly Modeling
- Stages in the Process
- In-Context Features
- Propagating Changes
- Building In-context Parts
- Building Parts in an Assembly
- Assembly Features
- Smart Fasteners
- Out of Context
- Breaking External References
- Fastening Features
- Part Fastening Features
- In-Context Fastening Features

#### Lesson 2: Advanced Mate Techniques

- Advanced Mates
- Adding Mate References
- Design Library Parts
- Capture Mate References
- Smart Components
- Advanced Mate Types
- Summary: Inserting and Mating Components

#### Lesson 3: Manual Assembly Configurations

- Manual Assembly Configurations
- Configurations of Assemblies
- Component Patterns

#### Lesson 4: Assembly Design Tables and Display States

- Assembly Design Tables and Display States
- Assembly Design Tables
- Display States

#### Lesson 5: Assembly Editing

- Assembly Editing
- Editing Activities
- Replacing and Modifying Components
- Troubleshooting an Assembly
- MateXpert
- Replacing Components Using Save As
- Controlling Dimensions in an Assembly
- Mirroring Components
- Blocks
- Inserting Blocks
- Inserting Saved Blocks

#### Lesson 6: Large Assemblies

- Large Assemblies
- Efficient Assemblies
- Errors When Opening an Assembly
- Designing with Sub-assemblies
- Modifying the Structure of an Assembly
- Large Assembly Mode
- SolidWorks Explorer
- Renaming Components
- Lightweight Components
- Taking Advantage of Configurations
- Drawing Considerations
- Using Component Patterns
- Advanced Selection Techniques
- Envelopes

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