

Assembly Modeling

Length: 2 days

Prerequisite: SOLIDWORKS Essentials

Description: Assembly Modeling teaches you how to maximize your use of the assembly modeling capabilities of SOLIDWORKS mechanical design automation software.

Course Syllabus

Introduction

- About This Course
- Windows
- Use of Color
- More SOLIDWORKS Training Resources

Lesson 1: Advanced Mate Techniques

- SOLIDWORKS Assemblies
- Assembly File Structure
- File References
- Files References Example
- Solving Mates
- Advanced Mate Techniques
- Case Study: Mate Shortcuts
- Mate References
- Design Library Parts
- Capture Mate References
- Multiple Selection Mate References
- Multiple Mate Mode
- Driven Mates
- Using Misaligned Mates
- Copying Multiple Components
- Case Study: Copy with Mates
- Using Copy with Mates
- Copy with Mate Options
- Fixed Components
- Summary: Inserting and Mating Components
- Advanced Mate Features
- Case Study: Advanced Mate Features
- Profile Center Mate
- Rack and Pinion Mate

Lesson 2: Top-Down Assembly Modeling

- Top-Down Assembly Modeling
- Stages in the Process
- Making Changes to Dimensions
- Case Study: Editing and Building In-context
- Adding Features In-context
- Inserting a New Part into an Assembly
- Building In-context Features
- Propagating Changes
- Saving Virtual Parts as External
- External References
- Breaking and Locking External References
- Machine_Vise Design Intent
- Removing External References

Lesson 3: Assembly Features, Smart Fasteners, and Smart Components

- Assembly Features and Smart Fasteners
- Assembly Features
- Case Study: Assembly Features
- Smart Fasteners
- Smart Components
- Case Study: Smart Component

Lesson 4: Assembly Editing

- Assembly Editing
- Key Topics
- Editing Activities
- Case Study: Assembly Editing
- Replacing and Modifying Components
- Troubleshooting an Assembly
- Replacing Components Using Save As
- Reloading Components
- Component Patterns





Lesson 5: Using Configurations with Assemblies

- Using Configurations with Assemblies
- Case Study: Assembly Configurations
- Creating Configurations Manually
- Configuration Properties
- Using the Modify Configurations Dialog
- Changing Configurations using the Context Toolbar
- Managing the Tree Display
- Assembly Evaluation Tools
- Case Study: Hole Alignment
- Controlling Dimensions in an Assembly
- Creating an Equality
- Equations With Functions
- Comments
- Sensors
- Using the Mate Controller

Lesson 6: Display States and Appearances

- Display States
- Bulk Selection Tools
- Case Study: Display States
- Advanced Select
- Envelopes
- Appearances, Materials and Scenes
- Case Study: Appearances and Materials

Lesson 7: Large Assemblies

- Large Assemblies
- Key Topics
- Lightweight Components
- Large Assembly Mode
- Case Study: Large Assembly Options
- Using SpeedPak
- Using Configurations with Large Assemblies
- Defeature
- Modifying the Structure of an Assembly
- Assembly Visualization
- Large Design Review
- Tips for Faster Assemblies
- Drawing Considerations

Lesson 8: Facility Layout

- Facility Layout
- Publishing an Asset
- Using Magnetic Mates
- Modeling Connection Point Geometry

Lesson 9: Using SOLIDWORKS Treehouse

- SOLIDWORKS Treehouse
- Setting Treehouse Instances
- Exporting Treehouse Data





**CADIMENSIONS IS A SOLIDWORKS
CERTIFIED TRAINING CENTER**

CADIMENSIONS TRAINING CATALOG



