

Advanced Assembly Modeling

Length: 2 days

Prerequisites: SolidWorks Essentials

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



Lesson 1: Top-Down Assembly Modeling

- ❖ Top-Down Assembly Modeling
- ❖ Building Virtual Parts
- ❖ Building Parts in an Assembly
- ❖ Assembly Features
- ❖ Propagating Changes
- ❖ Saving Internal Parts as External
- ❖ External References
- ❖ Breaking External References
- ❖ Removing External References

Lesson 2: Advanced Mate Techniques

- ❖ Advanced Mates
- ❖ Adding Mate References
- ❖ Design Library Parts
- ❖ Capture Mate References
- ❖ Configuration Publisher
- ❖ Smart Components
- ❖ Advanced and Mechanical Mate Types
- ❖ Summary: Inserting and Mating Components
- ❖ Multiple Mate Mode
- ❖ Using Copy with Mates
- ❖ Mate Options

Lesson 3: Using Configurations with Assemblies

- ❖ Using Configurations with Assemblies
- ❖ Component Patterns
- ❖ Using Configure Component
- ❖ Creating Configurations Manually
- ❖ Using Design Tables with Assemblies
- ❖ Understanding Design Tables
- ❖ Manipulating the Design Table

Lesson 4: Display States and Appearances

- ❖ Display States
- ❖ Bulk Selection Tools
- ❖ Advanced Select
- ❖ Envelopes
- ❖ Appearances, Materials and Scenes

Lesson 5: Assembly Editing

- ❖ Assembly Editing
- ❖ Editing Activities
- ❖ Replacing and Modifying Components
- ❖ Troubleshooting an Assembly
- ❖ Replacing Components Using Save As
- ❖ Mirroring Components
- ❖ Hole Alignment
- ❖ Controlling Dimensions in an Assembly
- ❖ Sensors

Lesson 6: Layout-based Assembly Design

- ❖ Layout-based Assembly Design
- ❖ Blocks
- ❖ Inserting Blocks
- ❖ Testing with the MotionManager
- ❖ Creating a Part from a Block

Lesson 7: Large Assemblies

- ❖ Large Assemblies
- ❖ Lightweight Components
- ❖ Large Assembly Mode
- ❖ Selective Open with Hide
- ❖ Using Quick View / Selective Open
- ❖ Using SpeedPak
- ❖ Using Configurations with Large Assemblies
- ❖ Modifying the Structure of an Assembly
- ❖ Assembly Visualization
- ❖ Tips for Faster Assemblies
- ❖ Drawing Considerations
- ❖ SolidWorks Explorer
- ❖ Renaming Components

Lesson 8: The MotionManager

- ❖ MotionManager
- ❖ Using the Animation Wizard
- ❖ Motors and Motion
- ❖ Visual Properties
- ❖ View Orientation States
- ❖ Using Physical Dynamics