Training
SolidWorks Refresher

Description

SOLIDWORKS Refresher is intended to review functions of the SOLIDWORKS software, for users who may have been removed from regular use for an extended period of time. It includes selected lessons and exercises from: SOLIDWORKS Essentials, Advanced Part Modeling and Assembly Modeling.

Prerequisites

Mechanical design experience, experience in the Windows® operating system, some experience with SOLIDWORKS or other CAD software

Duration

4 Days

Course Outline

Introduction	**About This Course**
Lesson 1	**SOLIDWORKS Basics and the User Interface** • What is the SOLIDWORKS Software? • Design Intent • File References • Opening Files • The SOLIDWORKS User Interface • Using the Command Manager
Lesson 2	**Patterning** • Why Use Patterns? • Linear Pattern • Circular Patterns • Reference Geometry • Planes • Mirror Patterns • Using Pattern Seed Only • Up To Reference • Sketch Driven Patterns
Lesson 3	**Editing: Repairs** • Part Editing • Editing Topics • Sketch Issues

Lesson 4	**Editing: Design Changes** • Part Editing • Design Changes • Information From a Model • Rebuilding Tools • Sketch Contours
Lesson 5	**Configurations** • Configurations • Using Configurations • Other Methods to Create Configurations • Modeling Strategies for Configurations • Editing Parts that Have Configurations • Design Library In the Advanced Course
Lesson 6	**Bottom-Up Assembly Modeling** • Bottom-Up Assembly • Creating a New Assembly • Position of the First Component • FeatureManager Design Tree and Symbols • Adding Components • Mating Components • Using Part Configurations in Assemblies • Subassemblies • Smart Mates • Inserting Subassemblies • Pack and Go

Lesson 7	**Using Assemblies** • Using Assemblies • Analyzing the Assembly • Checking for Clearances • Changing the Values of Dimensions • Exploded Assemblies • Rollback and Reorder Explode Steps • Explode Line Sketch • Bill of Materials • Assembly Drawings • Collisions and Clearances
Lesson 8	**Multibody Design Techniques** • Multibody Parts • Hide/Show Tree Items • Multibody Design Techniques • Solid Bodies Folder • Local Operations • Feature Scope • Patterning Bodies • Tool Body Technique • Combining Bodies • Intersect with Solid Bodies • Indent Feature • Deleting Solid Bodies
Lesson 9	**Advanced Mate Techniques** • SOLIDWORKS Assemblies • Assembly File Structure • File References • File Reference Example • Solving Mates • Advanced Mate Techniques • Mate References • Design Library Parts • Capture Mate References • Multiple Selection Mate References • Multiple Mate Mode • Driven Mates • Using Misaligned Mates • Copying Multiple Components • Fixed Components • Advanced Mate Features • Profile Center Mate • Rack Pinion Mate

Lesson 10	**Assembly Editing** • Assembly Editing • Key Topics • Mate Errors • Replacing and Modifying Components • Converting Parts and Assemblies • Replacing Components Using Save As • Reloading Components • Component Patterns
Lesson 11	**Using Configurations with Assemblies** • Using Configurations with Assemblies • Creating Configurations Manually • Configuration Properties • Using the Modify Configurations Dialog • Changing Configurations using the Context Toolbar • Managing the Tree Display • Assembly Evaluation Tools • Controlling Dimensions in an Assembly • Creating an Equality • Equations With Functions • Comments • Sensors • Using the Mate Controller
Lesson 12	**Display States and Appearances** • Display States • Bulk Selection Tools • Advanced Select • Envelopes • Appearances, Materials and Scenes