



Advanced Parts with Surfacing Details 1/2

1: Multibody Solids

- Multibody Solids
- Bridging
- Introducing: Solid Bodies Folder
- Extrude From
- Local Operations
- Combined Bodies
- Introducing: Combine
- Common Bodies
- Tool Body
- Introducing: Insert Part
- Introducing: Move/Copy Bodies
- Introducing: Mate Reference
- Patterning
- Indent Feature
- Using Cut to Create Multibodies
- Saving Solid Bodies as Parts and Assemblies
- Introducing: Insert into New Part
- Feature Scope
- Introducing: Save Bodies
- Splitting a Part into Multibodies
- Introducing: Split
- Creating an Assembly
- Introducing: Create Assembly
- Using Split Part with Legacy Data

2: Sweeps

- Introduction
- Sweeping
- Case Study: Modeling a Spring
- Sweeping Along a 3D Path
- 3D Sketching
- Introducing: Helix and Spiral
- Introducing: Projected Curve
- Introducing: Composite Curve
- Sweeping
- Introducing: Sweep
- Introducing: Fit Spline
- Case Study: Bottle

Sweeping and Lofting: What's the Difference?

- Creating a Curve Through a Set of Points
- Introducing: Insert Ellipse
- Sweep Options
- The Label Shape
- Working with a Non-planar Path
- Variable Radius Filletting
- Introducing: Split Lines
- Analyzing Geometry
- Introducing: Display Curvature
- Introducing: Show Curvature Combs
- Introducing: Intersection Curve
- Zebra Stripes
- Introducing: Zebra Stripes
- Filletting the Label Outline
- Selecting Edges
- Introducing: Select Loop
- Performance Considerations
- Modeling Threads
- Orientation and Twist Control
- Align with End Faces
- Sweeping Along Model Edges
- Introducing: SelectionManager
- Sweeping a Tool Body

3: Lofts and Splines

- Basic Lofting
- Introducing: Loft
- Using Derived and Copied Sketches
- Copying a Sketch
- Derived Sketches
- Introducing: Insert Derived Sketch
- Centerline Lofting
- Introducing: Split Entities
- Cleaning Up a Model
- Introducing: Delete Face
- Introducing: Deviation Analysis
- Spline Sketching

- Introducing: Spline
- Advanced Lofting
- Sketch Picture
- Introducing: Sketch Picture
- Layout Sketches

4: Other Advanced Tools

- Advanced Fillets
- Wrap Feature
- Introducing: Wrap
- Deform Feature
- Introducing: Deform
- Introducing: Knit Surface
- Move Face and Delete Face
- Introducing: Move Face
- Using 3D Sketch with the Hole Wizard

5: Understanding Surfaces

- Solids and Surfaces
- Working with Surface Bodies
- Why Use Surfaces?
- Continuity Explained
- Workflow with Surfaces

6: Introduction to Surfacing

- Similarities Between Solid and Surface Modeling
- Basic Surfacing

7: Solid-Surface Hybrid Modeling

- Hybrid Modeling
- Using Surfaces to Modify Solids
- Interchanging Between Solids and Surfaces
- Performance Implications
- Surfaces as Construction Geometry
- Making Copies of Faces

continued...



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8: Repairing and Editing Imported Geometry

Importing Data

Repairing and Editing Imported Geometry

9: Advanced Surface Modeling

Stages in the Process

Ruled Surfaces

Lofting Surfaces

Modeling the Lower Half

Conclusion

Design Changes

10: Blends and Patches

Complex Blends

Smoothing Patches

Freeform Feature

Corner Blends

11: Master Model Techniques

Introduction to Master Models

Surface Master Model Technique

Working with a Solid Master Model

SolidWorks Explorer