Autodesk Inventor Introduction to Solid Modeling

Course Length: 5 days

The Autodesk Inventor Introduction to Solid Modeling training course provides you with an understanding of the parametric design philosophy through a hands-on, practice-intensive curriculum. You will learn the key skills and knowledge required to design models using Autodesk Inventor, starting with conceptual sketching, through to solid modeling, assembly design, and drawing production.

Topics Covered

- Understanding the Autodesk Inventor software interface
- Creating, constraining, and dimensioning 2D sketches
- Creating and editing the solid base 3D feature from a sketch
- Creating and editing secondary solid features that are sketched and placed
- Creating equations and working with parameters
- Manipulating the display of the model
- Resolving feature failures
- Duplicating geometry in the model
- Placing and constraining/connecting parts in assemblies
- Manipulating the display of components in an assembly
- Obtaining model measurements and property information
- Creating Presentation files (Exploded views)
- Modifying and analyzing the components in an assembly
- Simulating motion in an assembly
- Creating parts and features in assemblies
- Creating and editing an assembly Bill of Materials
- Working with projects
- Creating and annotating drawings and views
- Customizing the Autodesk Inventor environment

Prerequisites

As an introductory course, Autodesk Inventor Introduction to Solid Modeling does not assume prior knowledge of any 3D modeling or CAD software. You need to be experienced with the Windows operating system, and having a background in drafting of 3D parts is recommended.

Course description shown for Autodesk Inventor 2020. Topics, curriculum, and/or prerequisites may change depending on software version.
Training Guide Contents

Chapter 1: Introduction to Autodesk Inventor
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▪ 1.3 Getting Started
▪ 1.4 Autodesk Inventor Interface
▪ 1.5 Model Manipulation

Chapter 2: Creating the Base Feature
▪ 2.1 Creating a New Part File
▪ 2.2 Sketched Base Features
▪ 2.3 Editing Sketched Features

Chapter 3: Additional Sketching Tools
▪ 3.1 Additional Entity Types
▪ 3.2 Basic Editing Tools
▪ 3.3 Additional Constraint Tools
▪ 3.4 Additional Dimension Tools

Chapter 4: Advanced Sketch Editing Tools
▪ 4.1 Advanced Editing Tools
▪ 4.2 Rectangular Sketch Patterns
▪ 4.3 Circular Sketch Patterns
▪ 4.4 Sketch Preferences

Chapter 5: Sketched Secondary Features
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▪ 5.2 Using Existing Geometry

Chapter 6: Creating Pick and Place Features
▪ 6.1 Edge Chamfer
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▪ 6.4 Face Fillets
▪ 6.5 Full Round Fillets
▪ 6.6 Holes
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- 11.1 Sketch Failure
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Chapter 12: Sweep Features

- 12.1 Sweep Features

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- 13.2 Advanced Loft Options

Chapter 14: Duplication Tools

- 14.1 Rectangular Feature Patterns
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- 15.1 Establishing Relationships
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- 17.1 Assembling Components Using Joints

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- 20.1 Creating Presentations
- 20.2 Storyboards
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Chapter 23: Assembly Bill of Materials
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- A.1 Sketch Geometry Creation Options
- A.2 Sketch Editing Options
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Appendix C: Additional Practices I

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- D.2 Modeling Tips and Techniques
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Cancellation Policy

The following cancellation policy shall apply to all training engagements, Live Online, Consulting Services and Dedicated/Custom Training:

- Company reserves the right to reschedule or cancel the date, time and location of its class at any time. In the event that a Training Class is cancelled by Company, Customer is entitled to a full refund. Company shall not be responsible for any other loss incurred by Customer as a result of a cancellation or reschedule.
- For Customer cancellations when written notice is received (i) at least ten (10) business days in advance of the class, the Customer is entitled to a full refund of its payment or reschedule enrollment, (ii) less than ten (10) business days, Customer shall not be entitled to a refund, but shall receive a class credit to be used within three (3) months of the date of the original class.
- Student substitutions are acceptable with at least two (2) days prior notice to the class, provided substitution meets course prerequisites and is approved by Company’s Training Coordinator (trainingcoordinator@rand.com)
- For all Training orders, cancellation notices must be submitted to trainingcoordinator@rand.com. Company is not responsible for any error in the delivery of the email notice. In the event of any reschedule of Consulting Services and/or Dedicated/Custom Training by Customer, Company will invoice Customer for all non-cancellable travel expenses.

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