



Autodesk® Inventor® – Advanced Assembly Modeling

Brief Synopsis of Class Contents:

Autodesk® Inventor® 3D CAD software offers an easy-to-use set of tools for 3D mechanical design, documentation, and product simulation. In this course, we continue building on the skills acquired in the Autodesk Inventor Fundamentals and Autodesk Inventor Advanced Part Modeling training courses to take students to a higher level of productivity when creating and working with assemblies in the Autodesk® Inventor® software.

Learning Objectives:

- Top-Down Design
- Layout Design
- Positional Representations
- Level of Detail Representations
- Design Accelerators
- iAssemblies
- Frame Generator
- Weldments

Courseware:

Ascent Autodesk Inventor Advanced Assembly Modeling

Number of Days:

4 Half Day Sessions

Continuing Education Hours:

16 hours

Who Should Attend:

This courseware is designed to teach users the advanced elements of Assembly Modeling using Autodesk® Inventor®.

Prerequisites:

The class assumes a mastery of Autodesk Inventor basics as taught in Autodesk Inventor Fundamentals. Autodesk Inventor Advanced Part Modeling is recommended

System and Software Requirements:

<http://www.asti.com/LiveLab-Learning-amp-Training/LiveLab-System-Requirements>

FAQs and Cancellation Policy:

<http://www.asti.com/LiveLab-Learning-amp-Training/LiveLab-FAQS>

Class Outline and Topics:

Chapter 1: Working Effectively with Assemblies

- General Assembly Tips
- Relationship Tips
- Motion Constraints
- Transitional Constraints

Chapter 2: Introduction to Top-Down Design

- Top-Down Design Process
- Top-Down Design Tools

Chapter 3: Derived Components

- Derived Components
- Modify Derived Components

Chapter 4: Multi-Body Part Modeling

- Multi-Body Part Modeling

Chapter 5: Layout Design

- Layout Design

Chapter 6: Associative Links and Adaptive Parts

- Associative Links
- Adaptive Assembly Parts

Chapter 7: iMates

- iMates

Chapter 8: Positional Representations

- Introduction to Positional Representations
- Create and Edit Positional Representations
- Use Positional Representations

Chapter 9: Model Simplification

- Shrinkwrap
- Assembly Simplification

Chapter 10: Level of Detail Representations

- Level of Detail Representations
- System-Defined dLevel of Detail Representations
- User-Defined Level of Detail Representations
- Using Level of Detail Representations
- Substitute Level of Detail Representations
- LOD Productivity

Chapter 11: Design Accelerator

- Design Accelerator
- Generators
- Calculators
- Engineer's Handbook

Chapter 12: Advanced File Management

- Design Assistant
- Pack and Go
- Purging Old Files

Chapter 13: Inventor Studio

- Rendering
- Animation
- Video Producer
- Creating a Standard Room

Chapter 14: iAssemblies

- Introduction
- Create Basic iAssemblies
- Create Multi-Level iAssemblies
- Create iAssemblies Using Existing Assemblies

- Place iAssemblies
- Edit iAssemblies

Chapter 15: Frame Generator

- Frame Generator
- Structural Shape Author

Chapter 16: Assembly Duplication Options

- Pattern Components
- Mirror Components
- Copy Components

Chapter 17: Working with Weldments

- Working with Weldments
- Fillet Welds
- Cosmetic Welds
- Groove Welds

