

INVENTOR

ADVANCED: ASSEMBLY MODELING

OVERVIEW

Inventor 2011 Advanced Assembly Modeling builds on the skills acquired in the Inventor Introduction to Solid Modeling and Advanced Part Modeling courses to take students to a higher level of productivity creating and working with assemblies in Inventor.

Planning the assembly using the top-down design approach helps create clean, reusable geometry that interacts as expected with the rest of the assembly. Throughout the course you will be taught how various Inventor tools can be used to achieve Top-Down Design practices in your assemblies using Derive, Multi-Body Design, and Layouts. Other advanced assembly topics include Positional and Level of Detail Representations (including substitute), iMates and iAssemblies, iLogic, Frame Generator, Design Accelerator, and file management and duplication techniques that aim to help you become more efficient when working with assemblies.

SPECIFICS

Duration: 3 Days

Hours: 9 am - 4 pm (including lunch hour)

Cost: \$1195/person (includes training materials)

Prerequisites: The class assumes a mastery of Inventor basics as taught in *Inventor Introduction to Solid Modeling*. *Inventor Advanced Part Modeling* or equivalent experience is recommended.

This is not a fundamentals or basics class. Students do need to be experienced with the Windows operating system and a background in drafting of 3D parts is recommended.

* This course is based on Autodesk® Official Training Guide (AOTG).

TOPICS COVERED

Working Effectively with Assemblies

- General Assembly Tips
- Constraint Tips
- Motion Constraints
- Transitional Constraints

Introduction to Top-Down Design

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

Derived Components

- Derived Components
- Modify Derived Components

Multi-Body Part Modeling

- Multi-Body Part Modeling

Layout Design

- Layout Design

Associative Links and Adaptive Parts

- Associative Links
- Adaptive Assembly Parts

iMates

- iMates

Positional Representations

- Introduction to Positional Representations
- Create and Edit Positional Representations
- Using a Positional Representation

Frame Generator

- Frame Generator
- Structural Shape Author

Level of Detail Representations & Shrinkwrap

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

Design Accelerator

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

Advanced File Management

- Design Assistant
- Design Assistant Options
- Pack and Go
- Purging Old Files
- Copy Design using Autodesk Vault

Inventor Studio

- Introduction to Inventor Studio
- Rendering
- Animation
- Video Producer
- Creating a Standard Room

iAssemblies

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

iLogic

- Introduction to iLogic
- iLogic Functions
- Creating Logical Assemblies

Assembly Duplication Options

- Pattern Components
- Mirror Components
- Copy Components

Working with Weldments

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

Working with Spreadsheets and Parameters

- Spreadsheet-Driven Parameters
- Custom Parameters
- Custom Parameter Formatting & Expressions

Skeleton Modeling

- Skeleton Models
- Working with Skeletons