



Inventor 2012 Advanced Assembly Modeling Course Outline

Course Description: In this course you begin by learning the concept of Top-Down Design Assembly for assembly creation. 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 you will learn 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, Frame Generator, Design Accelerator, iLogic for assembly automation, and file management and duplication techniques that aim to help you become more efficient when working with assemblies.

This course is designed for an experienced Inventor user. It is recommended that you have working knowledge of Microsoft Windows 7. Drafting Design experience is a plus.

Topics

1. Working Effectively with Assemblies

General Assembly Tips
Constraint Tips
Motion Constraints
Transition Constraints

2. Introduction to Top-Down Design

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

3. Derived Components

Derived Components
Modify Derived Components

4. Multi-Body Part Modeling

Multi-Body Part Modeling

5. Layout Design

Layout Design

6. Associative Links and Adaptive Parts

Associative Links
Adaptive Assembly Parts

7. iMates

iMates

8. Positional Representatives

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

9. Level of Detail Representations & Shrinkwrap

Level of Detail Representation
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

10. Design Accelerator

Design Accelerator
Generators
Calculators
Engineer's Handbook

11. Advanced File Management

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

***12. Inventor Studio**

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

Autodraft, Inc. dba Adraft

email: info@adraft.com
www.adraft.com

ADRAFT, AN AUTODRAFT, INC. COMPANY

Rochester Office:

2815 Baird Road
Fairport, NY 14450-1244
Phone: (585) 389-1900
Fax: (585) 389-0953

Buffalo Office:

8201 Main Street, Suite 3
Williamsville, NY 14221
Phone: (866) 769-6163
Fax: (585) 389-0953

Syracuse Office:

126 Dwight Park Circle
Syracuse, NY 13209
Phone: (866) 769-6163
Fax: (585) 389-0953

Engineering Driven, Enterprise Focused



13. iAssemblies

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

14. Assembly Design using iLogic

Introduction to iLogic
iLogic Functions
Creating Logical Assemblies

15. Frame Generator

Frame Generator
Structural Shape Author

16. Assembly Duplication Options

Pattern Components
Mirror Components
Copy Components

17. Working with Weldments

Working with Weldments
Fillet Welds
Cosmetic Welds
Groove Welds

*If time permits

Duration: 3 days

Classroom Tuition:
\$825.00/student

Group rates are available

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