

Autodesk
Inventor
2010
Compatible

Autodesk

Autodesk® Inventor® 2010 Tutorial Series

242 Video Tutorials for the New, Upgrading or Advanced User

Your instructor, David Piggott, uses and develops training material for both AutoCAD® and Autodesk® Inventor® software. He has over 17 years of teaching experience in CAD, 3D solid modeling, and CNC programming. He is also a journeyman mold maker. Assisting David was Allen Gager, a Design Engineer and CAD Manager active in AUGI and user groups.

Topics covered: Getting started with Autodesk Inventor

Installation Highlights
Ribbon: Get Started Tab
Navigating the Autodesk Inventor Environment
Multiple Document Tools
Using Standard View Navigation Tools
Using ViewCube
Using the Navigation Bar
Using Steering Wheels
Using the View Appearance Modes
Using a 3D Mouse
Information Center and Help
Using the Quick Access Toolbar
Application Menu Input and Output Tools
Application menu Management Tools
Using the Inventor Ribbon Interface
Introduction to Project files
Creating New Inventor files
Opening Existing Inventor Files
Understanding Assembly Files
Identifying Assembly Components
Browser Folders
Introduction to Component Visibility
Introduction to Browser Filter and Find
Degrees of Freedom and Constrained Drag Concepts
Introducing Grounded Components
Identifying Existing Assembly Constraints
Editing Existing Assembly Constraints
Driving Assembly Constraints
Replace a Component in an Assembly
Editing an Assembly Component
Assembly Model Appearance Options
Measuring Assembly Components

Prerequisites:

None

Requirements:

Disk version requires
Windows XP or higher.
Internet Explorer 6.0+
Browser
Adobe Flash Player
DVD Drive
Pointing device
6 GB Drive Space

Online versions need
only a high speed
Internet connection, a
browser and Adobe®
Flash.

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Solutions, LLC
Bedford, NH USA
01-603-641-3900

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Working With Assemblies

Working With Assemblies	<ul style="list-style-type: none"> Center Of Gravity Creating a New Assembly Placing a Component in an Assembly In-Place Component Creation in an Existing Assembly Analyze Interference Introduction to the Bill of Materials Virtual Component in an Assembly Moving and Rotating an Assembly Component Creating 3D Constraints Motion Constraints Contact Solver Constraint Set
Assembly Management	<ul style="list-style-type: none"> Using Frame Generator View Representation Documenting View Representations Positional Representations Documenting a Positional Representation using Overlay Creating a Level of Detail Documenting a Level of Detail Shrink Wrap and Substitute Component
Documenting Assemblies	<ul style="list-style-type: none"> Presentation File Animating a Presentation File Creating Presentation and Assembly Drawings Manually Placing Balloons Automatically Placing Balloons Parts List Parts List Filter Revision Table and Tags
Create and Edits Parts	<ul style="list-style-type: none"> Introduction to Part Modeling Modifying a Sketched Feature Modifying a Placed Feature Modifying a Work Feature Introduction to Creating a New Part Part Sketch Environment and Creating a New Sketch Sketch Versus Draw Basic Sketch Tools Geometric Constraints Dimensional Constraints Design Intent and Model Parameters User Parameters Modify 2D Sketches Extruded Feature: Base, Cut, Join Extruded Feature: Intersect Extruded Feature: Extents Extruded Feature: Alternate Solution and Taper Revolved Feature: Base, Cut

Create and Edits Parts

- Bend Feature
- Work Feature: Work Axis
- Work Feature: Work Plane
- Work Feature: Work Point
- Hole and Thread Data
- Hole: Linear Placement
- Hole: Concentric Placement
- Hole: Point Placement
- Hole: Sketch Placement
- Hole: Operations and Options
- Hole: Terminations and Types
- Fillet Feature: Edge Mode
- Fillet Feature: Setback Options
- Fillet Feature: Loop Select and Feature Select
- Fillet Feature: Face Fillet and Full Round Fillet
- Fillet Feature: Variable Radius
- Chamfer
- Thread Feature
- Spilt Tool
- Draft Tool
- Shell Tool

Documenting Parts

- Parameters Linked to Models
- Creating a New Drawing
- Borders and Title Blocks
- Base and Projected Views
- Auxiliary View
- Section View
- Detail View
- Creating a Broken View
- Break Out View
- Crop View
- Slice View
- Draft View
- Editing Drawing Views
- Retrieving Model Dimensions and Auto Arrange
- Dimension Isometric View
- Baseline Dimensions and Baseline Dimension Set
- Ordinate Dimensions and Ordinate Dimension Set
- Moving Annotation Dimensions and Adjusting Properties
- Annotation Centerlines
- Annotation Centerlines in Multiple Drawing Views
- Create a Sketched Symbol
- Placing Annotation Text and Symbols
- Annotation Leader Text and Annotation Symbols
- Annotation Text Stacking with Superscript and Subscript
- Annotate the Center of Gravity

Documenting Parts	Hole and Chamfer Notes Hole Table Create a General Table Edit Dimension Annotations Dimension Annotation Styles Drawing Sketches: Projected Geometry Dimension to Intersection Dual Dimension or Alternate Unit Dimension Dimension Highlight Spline Dimensions
Multi Body Parts	Add a Tolerance to Dimensions Multi Body Parts Make Components Silhouette Curve
Weldment	Creating a New Weldment and the Weldment Environment Weldment: Preparations Welds: Fillet and Groove Weldment: Machining Weldment: Documentation
Advanced Sketching and Constraining Techniques	2D Spline Import Points Sketch Patterns Shared Sketches and Copied Sketches Mirror Sketch and Symmetric Constraint Slice Graphics in a Part File Linking Spreadsheet Parameters Edit Coordinate System
Advanced Part Modeling Techniques	Open Profiles Rib and Web Features Emboss Geometry Text Swept Features 3D Sketch: Included Geometry 3D Sketch: Projected Geometry 3D Sketch: Sketching Coil Feature and Helical Curve Loft: Sections Loft: Centerline and Twist Loft: Area and Face Copy Feature Mirror Feature Suppress and Reorder Features Derived Part Derived Assembly Derived Insert Decal

Advanced Part Modeling Techniques

Sheet Metal

Auto Limits

Sheet Metal: Defaults

Sheet Metal: Rules

Sheet Metal: Bend Tables

Sheet Metal: Style Library

Sheet Metal: Face

Sheet Metal: Flange

Sheet Metal: Contour Flange

Sheet Metal: Lofted Flange

Sheet Metal: Hems

Sheet Metal: Fold

Sheet Metal: Bend

Sheet Metal: Cut

Sheet Metal: Corner Seam

Sheet Metal: Corner Seam, Corner Rip

Sheet Metal: Corner Round and Corner Chamfer

Sheet Metal: Contour Roll

Sheet Metal: Punch

Sheet Metal: Rip

Sheet Metal: Flat Pattern

Sheet Metal: Common Tools between Part and Sheet Metal

Sheet Metal: Export Flat Pattern

Sheet Metal: Unfold and Refold

Sheet Metal: Cosmetic Bend Lines

Sheet Metal: Surface Using Thicken

Sheet Metal: PEM Fastener

Sheet Metal: Documentation

Sheet Metal: Bend Tables and Punch Tables

Sheet Metal: Bend Order

Documenting Sheet Metal

Plastic Part Design

Introduction to Plastic Part Design

Create a Grill Feature

Create a Snap Fit Feature

Create a Boss Feature - Thread Side

Create a Boss Feature - Head Side

Create a Rule Fillet

Create Lip and Groove Features

Create a Rest Feature

Sketch Blocks

Create a Sketch Block

Insert, Edit, and Constrain a Sketch Block

Make Components from a Sketch Block

Drawing File Creation and Settings

Images in Title Blocks

Templates

Drawing Resources

Create and Edit Sheets

Document Settings and Application Options

Document Settings

Application Options: Prompt Tab

Document Settings and Application Options	<ul style="list-style-type: none"> Application Options: Sketch Tab Application Options: Save Tab Application Options: General Tab Application Options: Colors Tab Application Options: Files Tab
Content Center	<ul style="list-style-type: none"> Introduction to the Style Editor Introduction to Content Center Inserting Content from Content Center Using the Autodrop Feature in Content Center Insert Content Center Content Using iMates Create Custom Content Center Libraries
iFeatures	<ul style="list-style-type: none"> Extract and Create an iFeature Place an iFeature Edit an iFeature
Import and Export	<ul style="list-style-type: none"> iParts iAssemblies Importing File Formats Exporting File Formats Pack and Go
Surfaces	<ul style="list-style-type: none"> Create and Edit a Surface Replace Face and Sculpt
Design Accelerators	<ul style="list-style-type: none"> Design Accelerator: Spur Gears Design Accelerator: Cylindrical Cam Design Accelerator: O-Ring Design Accelerator: Bolted Connection Design Accelerator: Shaft