

## **Autodesk Inventor Working with 3D Annotations & Model-Based Definition**

**Course Length: 1 day**

Autodesk Inventor Working with 3D Annotations & Model-Based Definition teaches experienced Autodesk Inventor users how to create 3D annotations to support the visual presentation of annotations in 3D PDF format and a Model-based Definition (MBD) workflow.

The geometry designed in a 3D CAD modelling environment is created perfectly. During the manufacturing stage, it is not possible to achieve the same perfection. Variations in size, feature location, and orientation are unavoidable. This training course instructs how to use the tools in Autodesk Inventor 2018 to create 3D annotations that communicate dimensional and GD&T data, hold/thread notes, surface texture requirements, and informational text-based annotations; all of which aim to improve manufacturing accuracy. Additionally, this training course explains how you can share your 3D annotated models as 3D PDFs, as STEP files for use by other software applications, or in 2D drawing views.

### **Topics Covered**

- Creating dimensional annotations.
- Creating hole/thread note annotations.
- Creating surface texture annotations.
- Creating text-based annotations to a model to communicate additional modelling information.
- Creating tolerance features to a model.
- Using the Tolerance Advisor to review informational messages and warnings on the tolerance features in a model.
- Creating a general profile note annotation.

### **Prerequisites**

Knowledge of GD&T required. The international GD&T standard, ASME Y14.5M-2009, governs how annotations should be added to clearly describe the model's intent. This training course assumes that you know how the model is to be annotated and aims to only explain how they are added using the Autodesk Inventor software.

Students should have completed the Autodesk Inventor Introduction to Solid Modelling training course or have an equivalent understanding of the Autodesk Inventor user interface and working environments.

## **Training Guide Contents**

### **Chapter 1: 3D Annotations in Autodesk Inventor**

- 1.1 Introduction to Annotations
- 1.2 General MBD Overview
- 1.3 The Annotate Interface
- 1.4 Active Standard

### **Chapter 2: 3D Annotations**

- 2.1 Introduction
- 2.2 Dimensional Annotations
- 2.3 Hole/Thread Note Annotations
- 2.4 Surface Texture Annotations
- 2.5 Text-Based Annotations

### **Chapter 3: Geometric Annotations**

- 3.1 Introduction
- 3.2 Tolerance Features
- 3.3 Datum Reference Frames
- 3.4 Tolerance Advisor
- 3.5 General Profile Note

### **Chapter 4: Sharing 3D Annotations**

- 4.1 Displaying 3D Annotations
- 4.2 Exporting 3D Annotations
- 4.3 3D Annotations in Drawings

### **Appendix A: Additional Practices**