

Introduction to Model Based Definition with Creo Parametric 4.0

Overview

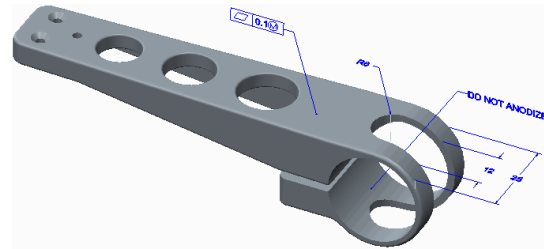
Course Code TRN-5109-T

Course Length 8 Hours

In this course, you will learn how to create an MBD model using a start part. You will discover how annotate mode provides the tools to create an MBD model using the MBD process within Creo Parametric 4.0. You will also learn about creating 3-D annotations and how to utilize them in combined states. You will manage the visibility of annotations within combination states. You will also create and modify various annotation elements, including dimensions, ordinate dimensions, datum reference features, geometric tolerances, surface finishes, symbols, notes, and datum targets.

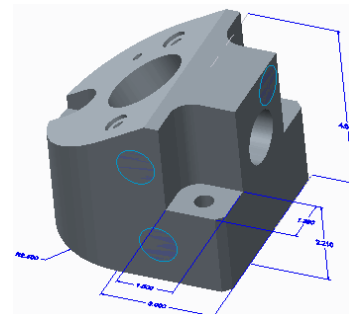
At the end of each module, you will complete a set of review questions to reinforce critical topics from that module. At the end of the course, you will complete a course assessment in PTC University Proficiency intended to evaluate your understanding of the course as a whole.

This course has been developed using Creo Parametric 4.0 F000.



Course Objectives

- Understand the introduction to Model Based Definition
- Prepare models for annotation
- Create annotation elements
- Modify annotation elements
- Complete combination states
- Publish for technical data packages



Prerequisites

- Core Creo knowledge in parts and drawings
- Experience in Creo modeling
- Experience in Creo drawing creation

Audience

- This course is intended for any CAD designer involved in creating Model Based Definition models at his or her company. People in related roles will also benefit from taking this course.
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Agenda

Day 1

Module	1	Introduction to Model Based Definition
Module	2	Preparing Models for Annotation
Module	3	Creating Annotation Elements
Module	4	Modifying Annotation Elements
Module	5	Completing Combination States
Module	6	Publishing for Technical Data Packages

Course Content

Module 1. Introduction to Model Based Definition

- i. Understanding Model Based Definition
- ii. Understanding MBD Model Types
- iii. Understanding Types of Drawing Information
- iv. Organizing Drawing Information
- v. Using Schema
- vi. Understanding 3-D Annotations
- vii. Reviewing Annotation Types
- viii. Avoiding a Mass of Unreadable Data
- ix. Understanding the MBD Process
- x. Creating a Technical Data Package

Module 2. Preparing Models for Annotation

- i. Understanding the Annotation Mode Interface
- ii. Understanding the Annotation Mode Tab
- iii. Accessing Combined States
- iv. Understanding Organizational Schema
- v. Reviewing Annotations and Combined States
- vi. Reviewing Minimally Dimensioned Parts
- vii. Utilizing Start Parts for MBD
- viii. Creating New Combined States for MBD
- ix. Managing Visibility of Annotations and Supplemental Geometry
- x. Defining View Orientations
- xi. Determining Features to Annotate
- xii. Understanding Site Maps
- xiii. Understanding Annotation Orientations
- xiv. Creating Annotation Orientations

Module 3. Creating Annotation Elements

- i. Organizing Annotations into Combined States
 - ii. Understanding Semantic References
 - iii. Understanding Dimension Annotation Elements
 - iv. Planning for Dimension Annotations
 - v. Creating Driving Dimension Annotations
 - vi. Creating Driven Dimension Annotations
 - vii. Creating Ordinate Driven Dimension Annotations
 - viii. Understanding Syntax Checking
 - ix. Understanding Datum Feature Symbol Annotation Elements
 - x. Creating Datum Feature Symbols on Geometry
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- xi. Creating Datum Feature Symbols in Dimensions and Gtols
- xii. Creating Geometric Tolerance Annotations
- xiii. Placing Gtol Datum Reference Frames
- xiv. Creating Surface Finish Annotations
- xv. Creating Symbol Annotations
- xvi. Creating Note Annotations
- xvii. Creating Hole Note Annotations from Driving Dimensions
- xviii. Creating Datum Target Annotations

Module 4. Modifying Annotation Elements

- i. Modifying Dimension Annotation Display
- ii. Manipulating Dimension Annotations
- iii. Setting Features with Asymmetric Tolerances to Mid-Spec
- iv. Modifying Dimension Annotation Extension Lines
- v. Modifying Note Annotations
- vi. Controlling Cross-Section Annotation Clipping
- vii. Using Security Markings
- viii. Modifying Dimension and Note Annotation Arrows
- ix. Creating Hyperlinks

Module 5. Completing Combination States

- i. Using Annotation Features with Annotation Elements
- ii. Creating Annotation Features
- iii. Adding Annotation Elements to Annotation Features
- iv. Adding Semantic References to Annotation Elements
- v. Creating and Associating Appearance States to Combined States
- vi. Adding Datum Geometry to Combined States
- vii. Associating Site Map Notes to Geometry
- viii. Reviewing Combination States

Module 6. Publishing for Technical Data Packages

- i. Understanding a Technical Data Package
 - ii. Printing Combination States
 - iii. Pre-Check List for Publishing
 - iv. Publishing to Creo View
 - v. Preparing Combination States for Publishing
 - vi. Analyzing the Publishing Process
 - vii. Understanding Creo View File Formats
 - viii. Understanding the Creo View User Interface
 - ix. Orienting the Model in Creo View
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- x. Viewing Annotations in Creo View
- xi. Filtering Entities in the Viewing Area
- xii. Creating a STEP AP203 File from Creo Parametric
- xiii. Adding Additional Files to a Creo View File