Introduction to Model Based Definition with Creo Parametric 5.0

Overview

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<tr>
<th>Course Code</th>
<th>TRN-5309-T</th>
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<tr>
<td>Course Length</td>
<td>8 Hours</td>
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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. 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. After completing this course, you will have a better understanding of the MBD process and how to create MBD models using the MBD process.

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 5.0 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.
# Agenda

## Day 1

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<th>Module</th>
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<td>Creating Annotation Elements</td>
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<td>Publishing for Technical Data Packages</td>
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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

Knowledge Check Questions

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

Knowledge Check Questions

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
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
xix. Using Semantic Query Mode

Knowledge Check Questions

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
   x. Identifying and Diagnosing Failing Semantic 3-D Annotations

Knowledge Check Questions

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

Knowledge Check Questions

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
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

Knowledge Check Questions