Update to Creo Parametric 4.0 from Creo Parametric 3.0

Overview

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Course Code	TRN-5100-T
Course Length	8 Hours

In this course, you will learn how to utilize the variety of functionality enhancements in Creo Parametric 4.0. You will be introduced to user interface enhancements such as the mini toolbar and the new geometry selection filter. You will examine the Part Modeling enhancements to features such as negative depth, extrude features with offset depth, and new midplane datum plane type. You will learn about the new Sketcher enhancements, including the clipping the model, customizing line thickness, the new constraint appearance, and using sketch references. You will investigate the new Assembly capabilities such as automatic representations, mirror symmetry, and assigning materials. You will examine the new Datum Feature Symbol, Datum Target, Geometric Tolerance, and Driven Dimension functionality and workflows for 2-D drawings and review various detailing enhancements. You will learn the new Freestyle surfacing enhancements including using multiple objects, importing OBJ files, and using N-Gon faces, as well as new Style enhancements such as G3 connections, creating periodic and nonperiodic closed curves, and drop curves. Finally, you will learn to use the updated tools in Sheetmetal mode such as Twist Walls, Edge Bend Relief, and Close Corner edge treatment, as well as the enhancement for utilizing dependency control with punch and die forms.

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
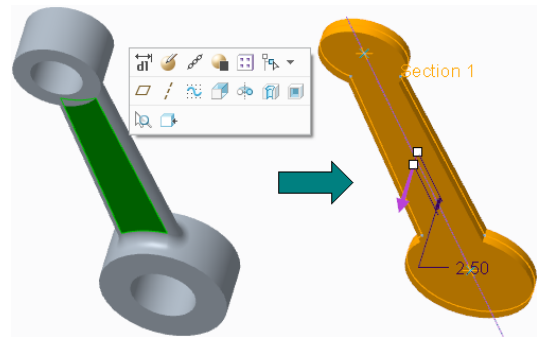
Course Objectives

- Use the Interface enhancements in Creo Parametric 4.0
- Use the Part Modeling enhancements in Creo Parametric 4.0
- Use the Sketcher enhancements in Creo Parametric 4.0
- Use the Assembly Modeling enhancements in Creo Parametric 4.0
- Use the Drawing enhancements in Creo Parametric 4.0
- Use the Surfacing enhancements in Creo Parametric 4.0
- Use the Sheetmetal enhancements in Creo Parametric 4.0
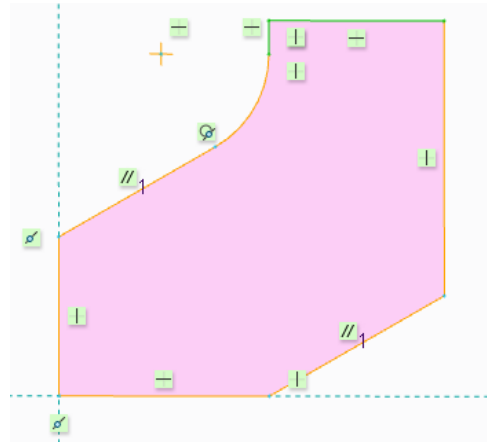
Prerequisites

- Introduction to Creo Parametric 3.0, or equivalent experience with Creo Parametric 3.0

Audience

- This course is intended for design engineers, mechanical designers, and industrial designers. People in related roles will also benefit from taking this course.

Agenda

Day 1

Module	1	Interface Enhancements
Module	2	Part Modeling Enhancements
Module	3	Sketcher Enhancements
Module	4	Assembly Enhancements
Module	5	Drawing Enhancements
Module	6	Surfacing Enhancements
Module	7	Sheetmetal Enhancements

Course Content

Module 1. Interface Enhancements
    i.   Interface Appearance Enhancements
    ii.   Understanding Creo Parametric Basic Controls
    iii.   Mini Toolbar Enhancement
    iv.   Using the Geometry Selection Filter
    v.   Customizing the User Interface
    vi.   Toggle Full Screen Enhancement
    vii.   Column Visibility Toggle Enhancement
    viii.   Hidden Items Display Enhancement
    ix.   Double-byte Characters Enhancement
    x.   Locked Config.sup Options Enhancement
    xi.   General Feature Location Enhancements
    xii.   Using Real-Time Rendering
    xiii.   Model View Dialog Box Enhancement
    xiv.   Line Style Display Enhancement
    xv.   Creating Appearance States
    xvi.   Understanding and Identifying Failures
    xvii.   Understanding the Notification Center
    xviii.   Analyzing Geometry Failures
Knowledge Check Questions

Module 2. Part Modeling Enhancements
    i.   Negative Depth Direction Enhancement
    ii.   Creating Extrude Features with Offset Depth
    iii.   Creating On Point Holes
    iv.   Using the Top Clearance Option
    v.   Datum Midplane Enhancement
    vi.   Using the Exclude Areas with Draft Option
    vii.   Group Enhancements
    viii.   Accuracy Handling when Scaling or Changing Units
Knowledge Check Questions

Module 3. Sketcher Enhancements
    i.   Clip Model Enhancement
    ii.   Customizable Line Thickness Enhancement
    iii.   Box Selection Enhancement
    iv.   Sketching with On-the-Fly Constraints
    v.   Sketching Lines
    vi.   Sketching Text
    vii.   Utilizing Sketch References
Knowledge Check Questions

    ii.   Utilizing Dependency Control with Punch and Die Forms

   iii.   Creating Edge Bends

   iv.   Flange Feature Close Corner Edge Treatment Enhancement

    v.   Using Flexible Modeling in Sheetmetal Mode

Knowledge Check Questions