

Flexible Modeling using Creo Parametric 3.0

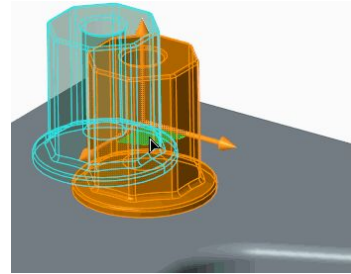
Overview

Course Code TRN-4511-T

Course Length 1 Day

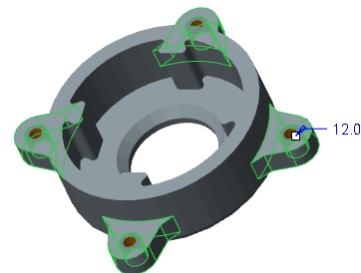
In this course, you will learn how to use Flexible Modeling tools to edit existing geometry on parametric models. The Flexible Modeling process typically involves initially selecting model surfaces, then refining the selected surface set using smart selection tools, and finally modifying the selected geometry by applying transformation tools, patterning tools, or symmetry tools.

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 Pro/FICIENCY intended to evaluate your understanding of the course as a whole.



Course Objectives

- Understand Flexible Modeling basics
- Apply shape surface selection
- Perform flexible move operations on geometry
- Perform flexible transform operations on geometry
- Use the various transform options
- Attach and remove geometry
- Understand and recognize how the system handles rounds and chamfers
- Create and recognize patterns and symmetry, and propagate changes



Prerequisites

- Introduction to Creo Parametric 3.0 or equivalent experience

Audience

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

Day 1

Module	1	Introduction to Flexible Modeling
Module	2	Shape Surface Selection
Module	3	Flexible Move
Module	4	Flexible Transforms
Module	5	Transform Options
Module	6	Attaching and Removing Geometry
Module	7	Rounds and Chamfers
Module	8	Patterns and Symmetry

Course Content

Module 1. Introduction to Flexible Modeling

- i. Understanding Flexible Modeling
- ii. Understanding the Flexible Modeling User Interface
- iii. The Flexible Modeling Process

Knowledge Check Questions

Module 2. Shape Surface Selection

- i. Using the Selection Filter
- ii. Using the Shape Selection Workflow
- iii. Applying Boss Selections
- iv. Applying Cut Selections
- v. Applying Round and Chamfer Selections
- vi. Leveraging Geometry Rules
- vii. Combining Selection References

Knowledge Check Questions

Module 3. Flexible Move

- i. Applying Flexible Move using the Dragger
- ii. Applying Flexible Move by Dimension
- iii. Moving Geometry with Multiple Steps
- iv. Applying Flexible Move using Constraints
- v. Moving Curves and Datums
- vi. Creating a Copy-Move
- vii. Attaching Moved Geometry

Knowledge Check Questions

Module 4. Flexible Transforms

- i. Applying Flexible Offset
- ii. Modifying Analytic Geometry
- iii. Using Flexible Mirror
- iv. Applying Flexible Substitute

Knowledge Check Questions

Module 5. Transform Options

- i. Managing Tangency
- ii. Recreating Round and Chamfer Geometry
- iii. Creating Side Surfaces
- iv. Extending and Intersecting Surfaces
- v. Specifying Bounding Edges
- vi. Maintaining Solution Topology
- vii. Splitting and Extending Surfaces

Knowledge Check Questions

Module 6. Attaching and Removing Geometry

- i. Detaching Transformed Geometry
- ii. Attaching Geometry
- iii. Removing Geometry

Knowledge Check Questions

Module 7. Rounds and Chamfers

- i. Recognizing Rounds and Chamfers
- ii. Editing Rounds
- iii. Editing Chamfers
- iv. Editing Non-Circular Rounds

Knowledge Check Questions

Module 8. Patterns and Symmetry

- i. Creating Flexible Patterns
- ii. Recognizing Patterns and Propagating Changes
- iii. Recognizing Symmetry and Propagating Changes
- iv. Restricting Pattern Recognition

Knowledge Check Questions
