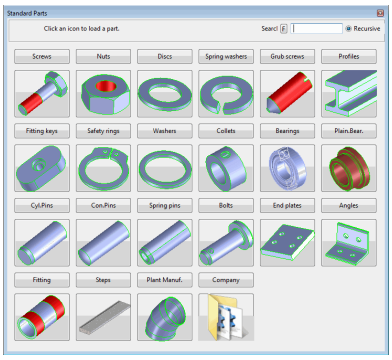
PTC® University

Introduction to Creo Elements/Direct 19.0 Parts Library

Overview

Course Code	TRN-4536-T
Course Length	1 Day

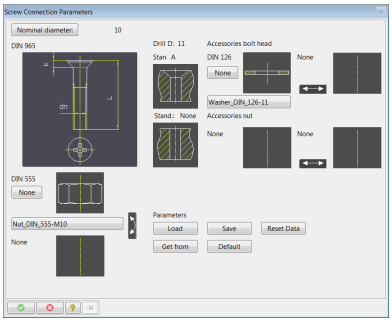


In this course, you will learn about the Part Library module for Creo Elements/Direct 19.0 Modeling. You will be introduced to standard part libraries and screw connections. You will also learn how to assign material properties to parts and assemblies. Finally, you will gain knowledge of drill holes, shaft related operations, and Annotation 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

- Use the standard part library
- Modify screw connections
- Create parameterized drilled and center holes
- Assign material properties to parts and assemblies
- Attach thread attributes to shafts and hubs
- Create tooth shafts and hubs
- Add feather keys to design
- Utilize the Part Library functions in Annotation



Prerequisites

- Must be able to interpret engineering drawings and have an understanding of drafting concepts
- Must have at least two months of current experience with Creo Elements/Direct Modeling
- Prior use of another 3-D CAD system is helpful, but not required

Audience

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

Agenda

Day 1

Module	1	Introduction to Part Library
Module	2	Standard Parts in Part Library
Module	3	Screw Connections with Part Library
Module	4	Materials in Part Library
Module	5	Threads, Holes, Feather Keys, Tooth Shafts, Retaining Rings
Module	6	Part Library with Annotation

Course Content

Module 1. Introduction to Part Library

i. Introducing Part Library
ii. Starting Part Library
iii. Using Standard Parts
iv. Using Materials
v. Using Screw Connections
vi. Using Holes
vii. Using Threads
viii. Working With Annotation

Knowledge Check Questions

Module 2. Standard Parts in Part Library

i. Searching Standard Parts
ii. Loading Single Standard Parts
iii. Modifying Standard Part Defaults
iv. Filtering the Parameter Table
v. Positioning Standard Parts
vi. Adding Favorite Parts
vii. Loading a Linear Pattern
viii. Loading a Radial Pattern
ix. Repositioning Standard Parts
x. Replacing Standard Parts

Knowledge Check Questions

Module 3. Screw Connections with Part Library

i. Introducing Screw Connections
ii. Introducing Screw Connection Parameters
iii. Creating Screw Connections
iv. Creating Screw Connection Patterns
v. Creating Screw Connections With No Holes
vi. Modifying Screw Connections

Knowledge Check Questions

Module 4. Materials in Part Library

i. Assigning Material Property
ii. Copying Material Property
iii. Inquiring Material Property
iv. Deleting Material Property

Knowledge Check Questions

Module 5. Threads, Holes, Feather Keys, Tooth Shafts, Retaining Rings

i. Introducing Holes

ii. Creating Drilled Holes
iii. Creating Drilled Hole Patterns
iv. Modifying Drilled Holes
v. Transferring Drilled Holes
vi. Creating Center Holes
vii. Modifying Center Holes
viii. Introducing Threads
ix. Creating Threads
x. Modifying Threads
xi. Inquiring Threads
xii. Removing Threads
xiii. Introducing Feather Keys
xiv. Creating Feather Keys
xv. Introducing Tooth Shafts and Hubs
xvi. Creating Tooth Shafts
xvii. Creating Tooth Hubs
xviii. Adding Grooves For Retaining Rings

Knowledge Check Questions

Module 6. Part Library with Annotation

i. Dimensioning Drilled Holes
ii. Introducing Fit Tables
iii. Creating Fit Tables
iv. Creating BOM Flags

Knowledge Check Questions