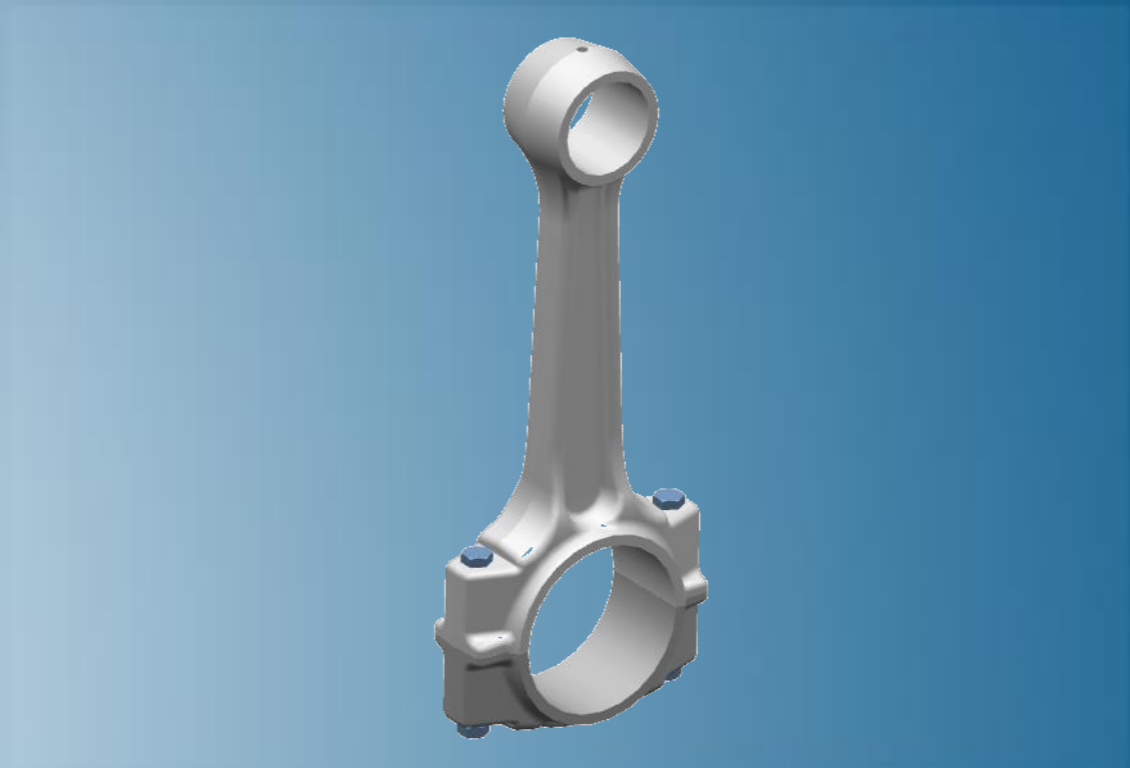


Simulation Model Design Essentials

R2017x



3DEXPERIENCE[®]



About this Course

Course objectives

Upon completion of this course you will be able to:

- ▶ Create basic native solid geometry.
- ▶ Create basic native shell geometry.
- ▶ Create assemblies of parts.

Targeted audience

This course is intended for the following roles:

- ▶ Mechanical Analyst
- ▶ Structural Vibration Analyst
- ▶ Noise & Vibration Analyst
- ▶ Fluid Mechanics Analyst
- ▶ Multiphysics Simulation Researcher
- ▶ Finite Element Modeling & Assembly Specialist

Prerequisites

- ▶ None



1 day

Day 1

- ▶ Lesson 1 **3DEXPERIENCE** Platform Overview

- ▶ Workshop 1 Getting Started with the **3DEXPERIENCE** Platform

- ▶ Lesson 2 Working with Geometry

- ▶ Workshop 2a Intersecting Pipes Geometry
- ▶ Workshop 2b Screwdriver Geometry
- ▶ Workshop 2c Reinforced Panel Geometry
- ▶ Workshop 2d Connecting Rod and Piston Geometry (optional)

- ▶ Lesson 3 Creating Assemblies

- ▶ Workshop 3a Screwdriver Assembly
- ▶ Workshop 3b Reinforced Panel Assembly
- ▶ Workshop 3c Cargo Crane Assembly
- ▶ Workshop 3d Crimp Forming Assembly (optional)
- ▶ Workshop 3e Connecting Rod and Piston Assembly (optional)

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- > By Location
- > By Course

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- > By Location
- > By Course

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- > Full Schedule

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Revision Status

Lesson 1	12/16	Updated for R2017x
Lesson 2	12/16	Updated for R2017x
Lesson 3	12/16	Updated for R2017x
Workshop 1	12/16	Updated for R2017x
Workshop 2a	12/16	Updated for R2017x
Workshop 2b	12/16	Updated for R2017x
Workshop 2c	12/16	Updated for R2017x
Workshop 2d	12/16	Updated for R2017x
Workshop 3a	12/16	Updated for R2017x
Workshop 3b	12/16	Updated for R2017x
Workshop 3c	12/16	Updated for R2017x
Workshop 3d	12/16	Updated for R2017x
Workshop 3e	12/16	Updated for R2017x

Lesson 1: Introduction to the 3DEXPERIENCE Platform

Lesson content:

- ▶ What is the **3DEXPERIENCE** Platform?
- ▶ Architecture
- ▶ Packaging
- ▶ **3DEXPERIENCE** Platform Services
- ▶ Connecting to the Platform
- ▶ Platform Interface
- ▶ Importing and Exporting Data
- ▶ Searching Data
- ▶ Exploring Data
- ▶ Managing Data
- ▶ Compute Orchestration Services
- ▶ Workshop Preliminaries



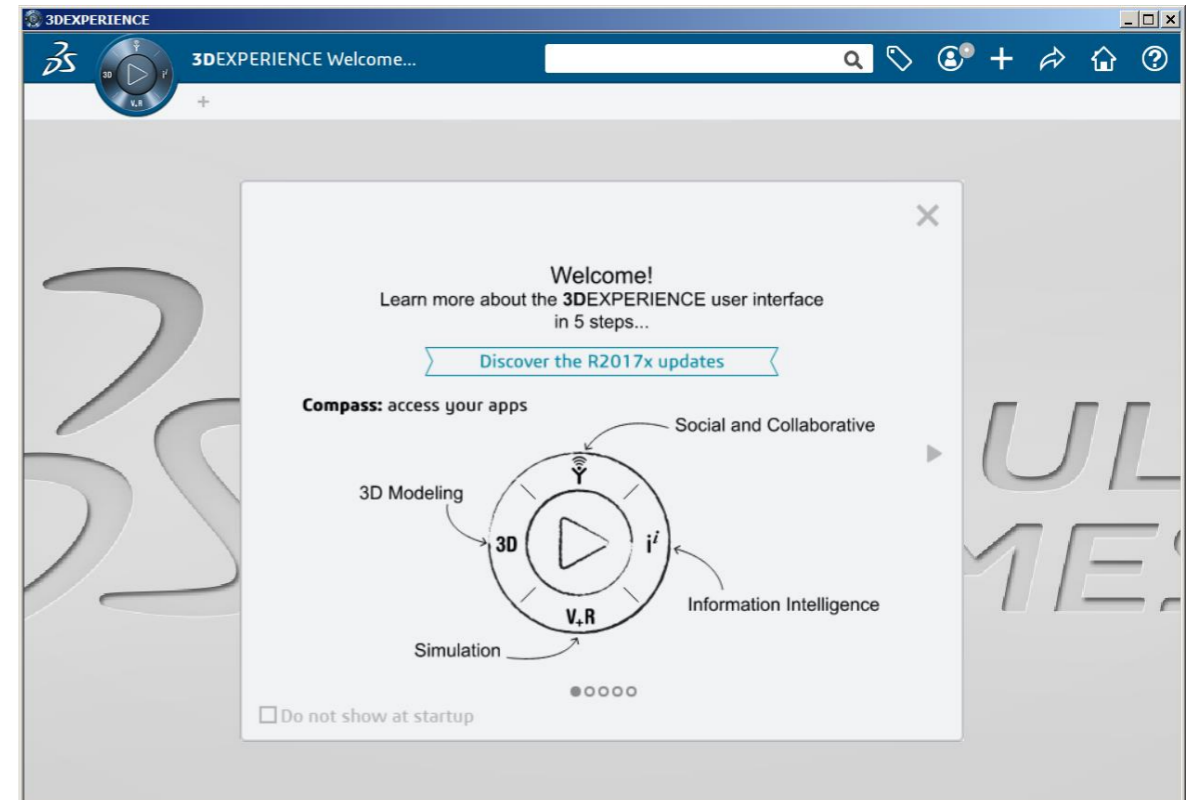
1 hour

Workshop: Getting Started with the 3DEXPERIENCE Platform

In this workshop, you will get familiar with **3DEXPERIENCE** platform and learn basic operations.

After completion of this exercise, you will be able to:

- a. Connect to a database
- b. Navigate through the **3DEXPERIENCE** Platform interface
- c. Import an assembly of parts
- d. Explore an assembly of parts
- e. Rename objects
- f. Change the look of the authoring window
- g. Search an assembly of parts in the database
- h. Duplicate, delete and save entities



30 minutes

Lesson 2: Working with Geometry

Lesson content:

- ▶ Working in the **3DEXPERIENCE** Platform
- ▶ Importing vs. Building CAD Models
- ▶ Importing CAD Models
- ▶ Building CAD Models
- ▶ Layout
- ▶ Specification Tree
- ▶ Data Structure of 3D Parts
- ▶ Hybrid Design
- ▶ Part Design Essentials
- ▶ Generative Wireframe & Surface
- ▶ Patterning
- ▶ Stacked Commands



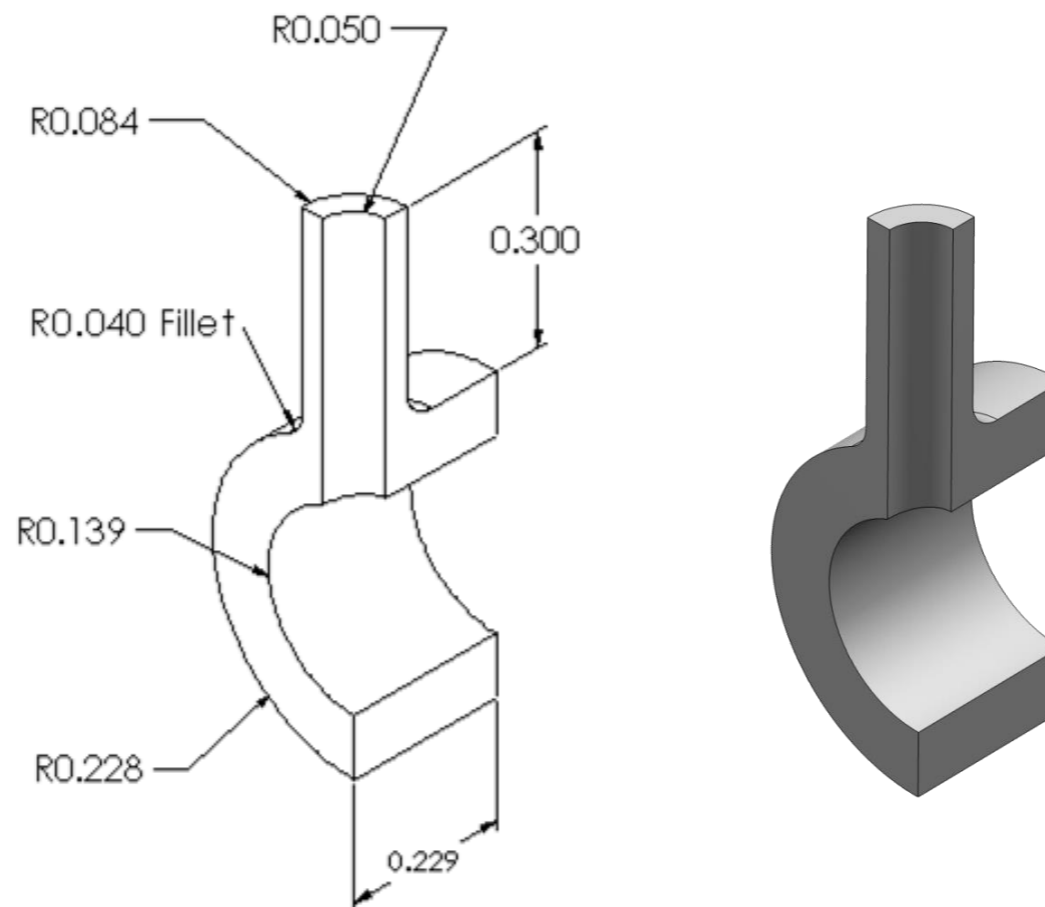
45 minutes

Workshop 2a: Intersecting Pipes Geometry

In this workshop, you will create a three-dimensional model of two pipes intersecting each other. A one-quarter symmetry model will be used.

After completion of this exercise, you will be able to:

- Create three dimensional solid geometries.
- Use sketch-based features to refine the geometry.



30 minutes

