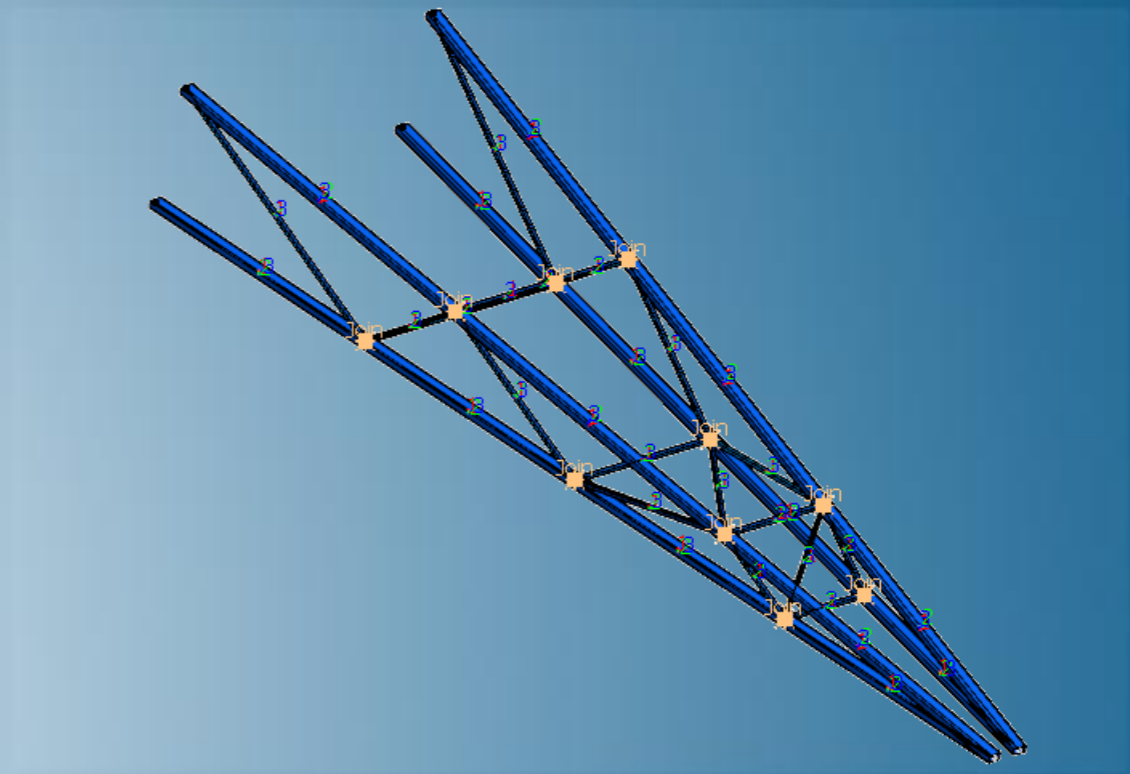


Structural Model Creation Essentials

R2017x



3DEXPERIENCE[®]



About this Course

Course objectives

Upon completion of this course you will be able to:

- ▶ Create complete Finite Element models for structural and thermal simulations

Targeted audience

This course is intended for the following roles:

- ▶ Mechanical Analyst
- ▶ Structural Vibration Analyst
- ▶ Noise & Vibration Analyst
- ▶ Multiphysics Simulation Researcher
- ▶ Structural Analysis Engineer
- ▶ Steel Ship Structural Analysis Engineer
- ▶ Finite Element Modeling & Assembly Specialist

Prerequisites

The following course is required prior to taking this one:

- ▶ None



1 day

Day 1

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

- ▶ Lesson 2 Getting Started with Simulation Modeling
- ▶ Workshop 2 Rubber Mount

- ▶ Lesson 3 Meshing
- ▶ Workshop 3a Intersecting Pipes – Mesh
- ▶ Workshop 3b Pump – Mesh
- ▶ Workshop 3c Reinforced Panel – Mesh
- ▶ Workshop 3d Cargo Crane – Mesh

- ▶ Lesson 4 Material and Section Properties
- ▶ Workshop 4a Intersecting Pipes – Material and Section Properties
- ▶ Workshop 4b Pump – Material and Section Properties
- ▶ Workshop 4c Reinforced Panel – Material and Section Properties
- ▶ Workshop 4d Cargo Crane – Material and Section Properties

- ▶ Lesson 5 Connections and Rigid Bodies
- ▶ Workshop 5a Pump – Connections
- ▶ Workshop 5b Reinforced Panel – Connections
- ▶ Workshop 5c Cargo Crane – Connections

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 | The 3DEXPERIENCE Company

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- > By Course

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- > By Location
- > By Course

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- > Full Schedule

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Revision Status

Lesson 1	1/17	Updated for R2017x
Lesson 2	1/17	Updated for R2017x
Lesson 3	1/17	Updated for R2017x
Lesson 4	1/17	Updated for R2017x
Lesson 5	1/17	Updated for R2017x
Workshop 1	1/17	Updated for R2017x
Workshop 2	1/17	Updated for R2017x
Workshop 3a	1/17	Updated for R2017x
Workshop 3b	1/17	Updated for R2017x
Workshop 3c	1/17	Updated for R2017x
Workshop 3d	1/17	Updated for R2017x
Workshop 4a	1/17	Updated for R2017x
Workshop 4b	1/17	Updated for R2017x
Workshop 4c	1/17	Updated for R2017x
Workshop 4d	1/17	Updated for R2017x
Workshop 5a	1/17	Updated for R2017x
Workshop 5b	1/17	Updated for R2017x
Workshop 5c	1/17	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



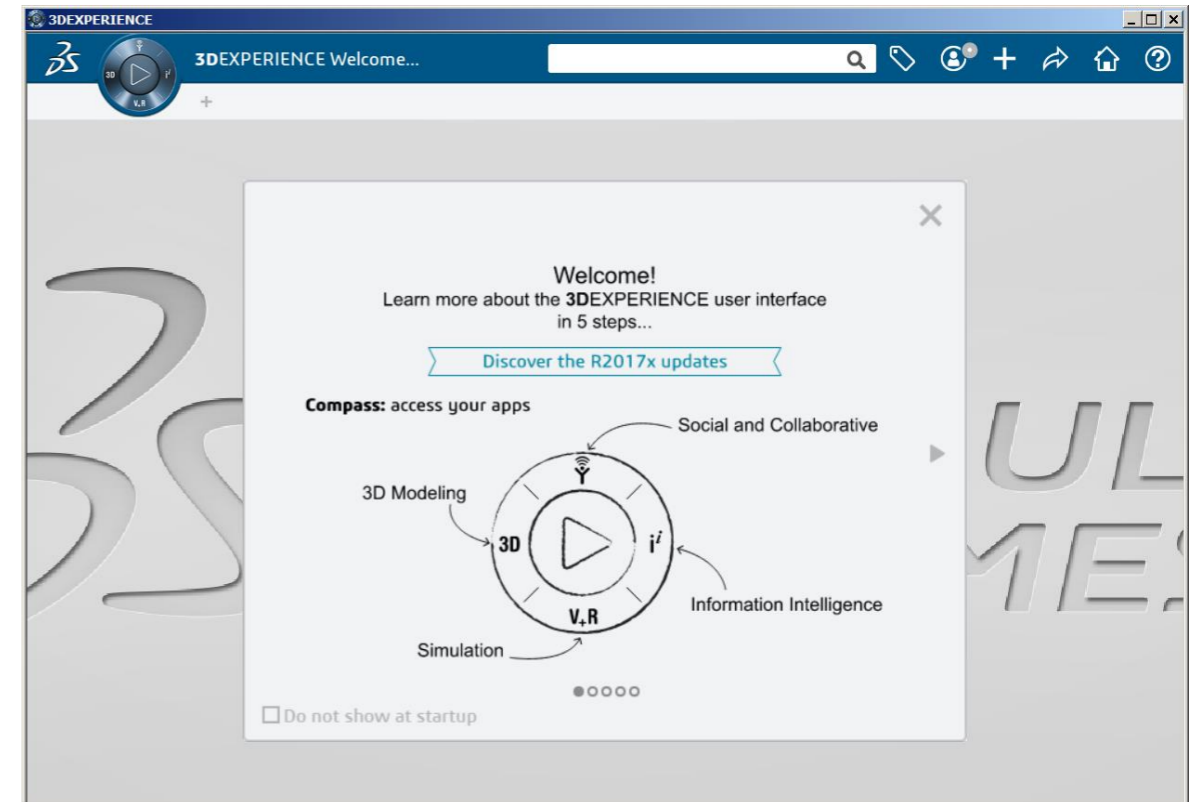
1 hour

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: Getting Started with Simulation Modeling

Lesson content:

- ▶ Simulation Apps in the **3DEXPERIENCE** Platform
- ▶ Physics Modeling Apps
- ▶ Workflow to create, execute and review a simulation
- ▶ Modeling
- ▶ The Modeling Interface
- ▶ Units in the **3DEXPERIENCE** Platform



30 minutes

