

# Introduction to the SIMULIA Execution Engine (SEE)



# About this Course

## Course objectives

Users will

- learn to extend the deployment of Isight models with the SIMULIA Execution Engine (SEE) environment
- gain familiarity with the Execution Engine Application Server, database, library, dashboard, and SEE Stations

## Targeted audience

The first day of this training class is geared toward the user and the user interface with practical problems, examples, and discussion. The second day of the class is presented for the advanced user and network administrator.

## Prerequisites

None



# Day 1

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- ▶ Lecture 1 Introduction
- ▶ Lecture 2 SEE System Overview
- ▶ Workshop 1 Running a Simple Model
  
- ▶ Lecture 3 Terminology and Management
- ▶ Workshop 2 Using SEE Station Affinities
- ▶ Workshop 3 Files and Running in Parallel
  
- ▶ Lecture 4 Library
- ▶ Workshop 4 Running an Optimization Task & Accessing Results
- ▶ Workshop 5 Publishing and Managing Models
  
- ▶ Lecture 5 WebTop
- ▶ Workshop 6 Running Models via the WebTop and Accessing the Results

## Day 2 (am)

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- ▶ Lecture 6            SEE for Power Users and Administrators
- ▶ Lecture 7            Federation

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# Revision Status

Lecture 1	8/12	Re-issued for SEE 5.0
Lecture 2	8/12	Re-issued for SEE 5.0
Lecture 3	8/12	Re-issued for SEE 5.0
Lecture 4	8/12	Re-issued for SEE 5.0
Lecture 5	8/12	Re-issued for SEE 5.0
Lecture 6	8/12	Re-issued for SEE 5.0
Lecture 7	8/12	Re-issued for SEE 5.0
Workshop 1	8/12	Re-issued for SEE 5.0
Workshop 2	8/12	Re-issued for SEE 5.0
Workshop 3	8/12	Re-issued for SEE 5.0
Workshop 4	8/12	Re-issued for SEE 5.0
Workshop 5	8/12	Re-issued for SEE 5.0
Workshop 6	8/12	Re-issued for SEE 5.0

# Lesson 1: Introduction

## *Lesson content:*

- ▶ Manual Design Evaluation Process
- ▶ Workflow Automation
- ▶ Component Level Simulation Challenge
- ▶ Typical Design Simulation Process
- ▶ Automated Simulation Template
- ▶ Isight Solution Components
- ▶ Formulating the Engineering Problem
- ▶ Performance and Quality Improvement
- ▶ Big Picture – Automated Design Strategies
- ▶ Results Interpretation
- ▶ Isight Enables Innovation
- ▶ Extending to the Enterprise
- ▶ System Simulation Challenges
- ▶ Simulation Collaboration Challenge
- ▶ SEE Distributed and Parallel Computing
- ▶ SEE - Collaborative Design
- ▶ SEE WEBTOP Client



**30 minutes**

# Lesson 2: SEE System Overview

## *Lesson content:*

- ▶ Challenges and Solutions
- ▶ Insight and SEE Technologies
- ▶ What is SEE About?
- ▶ SEE Architecture Goals
- ▶ SEE Infrastructure
- ▶ How it Works
- ▶ Connecting To SEE
- ▶ Workshop Preliminaries
- ▶ Workshop 1: Running a Simple Model



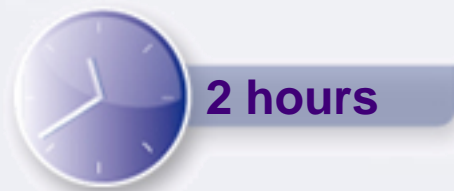
**1 hour**



# Lesson 3: Terminology and Management

## *Lesson content:*

- ▶ SEE Terms
- ▶ SEE Stations
- ▶ Building Models for SEE
- ▶ Job Management
- ▶ Workshop 2: Using SEE Station Affinities
- ▶ Workshop 3: Files and Running in Parallel

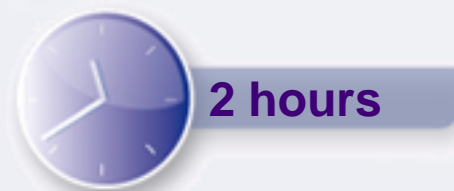
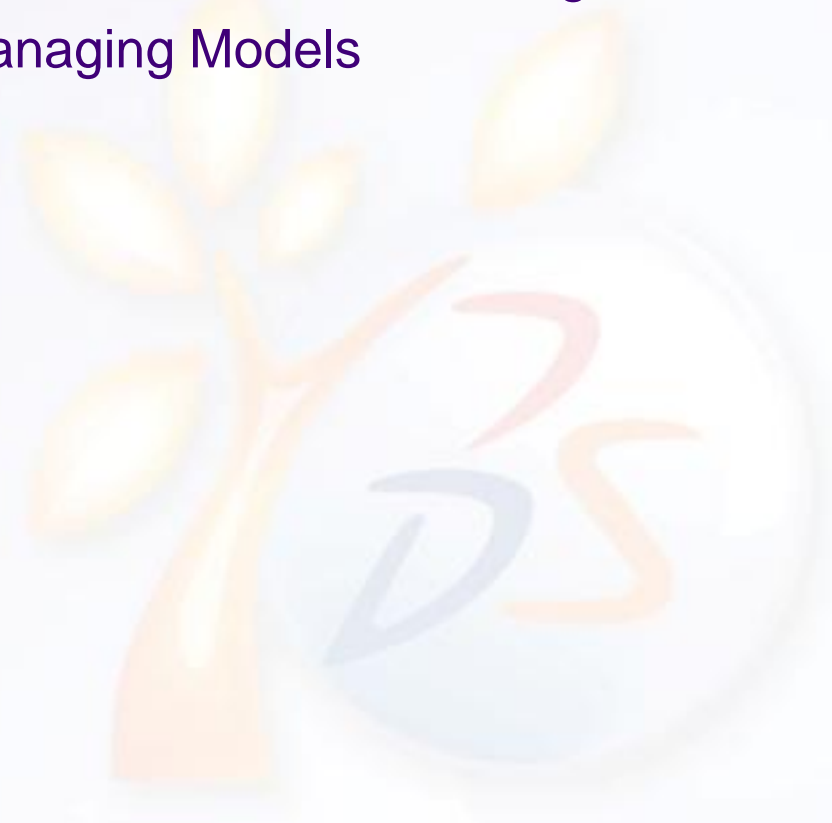


2 hours

# Lesson 4: Library

## *Lesson content:*

- ▶ Library
- ▶ Access Control
- ▶ Workshop 4: Running an Optimization Task & Accessing Results
- ▶ Workshop 5: Publishing and Managing Models



# Lesson 5: WebTop

## ***Lesson content:***

- ▶ What is the Webtop?
- ▶ Thin Client Access to Models
- ▶ WebTop Benefits
- ▶ WebTop Limitations
- ▶ Connecting to SEE via the WebTop
- ▶ Accessing Published Models
- ▶ Searching Library of Models
- ▶ Browsing the Library
- ▶ Viewing Model Details
- ▶ Adding Models to your WebTop
- ▶ Viewing Models Added to your WebTop
- ▶ Configuring Parameters
- ▶ Configuring Formulation
- ▶ Running the Job
- ▶ Job Execution
- ▶ Browsing Submitted Jobs
- ▶ Reviewing Results
- ▶ Downloading the Model
- ▶ Downloading/Viewing Associated Files
- ▶ Workshop 6: Running Models via the WebTop and Accessing the Results



**1 hour**

# Lesson 6: SEE for Power Users and Administrators

## *Lesson content:*

- ▶ Server Install and Requirements Overview
- ▶ Server Security Models
- ▶ Command Line Tools
- ▶ Databases
- ▶ Debugging the Server
- ▶ Debugging SEE Jobs
- ▶ ACS Properties File
- ▶ Station Management
- ▶ System Status Monitoring
- ▶ Running Stations as a Service
- ▶ System Backup Procedures



**3 hours**

# Lesson 7: Federation

## *Lesson content:*

- ▶ Federation
- ▶ SEE DRM



1 hour