



Dear Participant,

Thank you for joining the AVEVA Academic Competition 2022. Please follow the **Getting Started Guide** below to access the license, the software and the training materials provided.

License and Acquiring Product

***You will receive an email from simsci.productrequest@aveva.com with your license and the Administrator Guide including instructions for installing your license.**

- a. SimCentral product and Flexera server media downloads are available from Aveva's Global Customer Support Website's Product Hub. We recommend **AVEVA Process Simulation 2022** and **FlexNET Publisher 11.16** versions to be downloaded. Acquiring product in this manner is a two-step process; involving both registering an account and requesting the download.

Registering for your account:

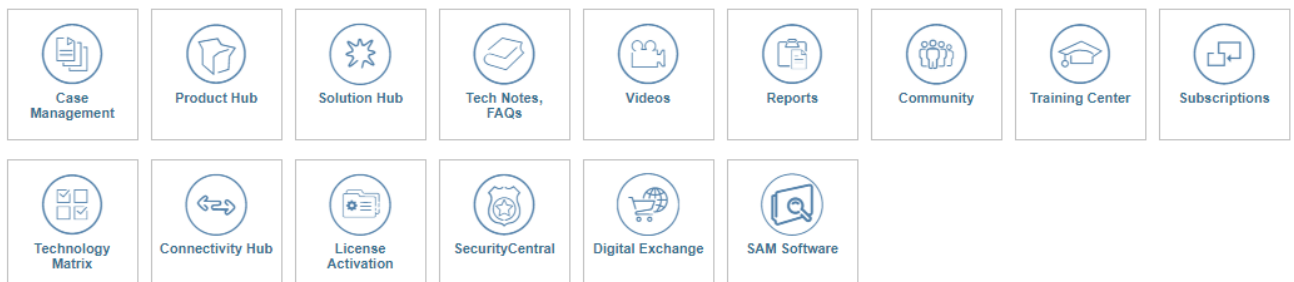
- b. First access the support site: <https://softwaresupport.aveva.com/>
- c. **Register** for an account

Requesting the download: - once the account has been established please proceed with the product download

- d. Click on the **Product Hub** tab
- e. Search for **SimSci Licensing Update** and **AVEVA Process Simulation 2022**
- f. Select **FLEXNET Publisher** server media and download
- g. Select **AVEVA Process Simulation 2022** and download
1. Note* **Read me file** must be opened prior to downloading the product
2. If you experience problems with the installation of your new license, or require further assistance, please contact our local technical support office at support.simsci@aveva.com.

Knowledge & Support Center

Customize





Training Workshops

Please visit the link below using the Password: **SimSci2019**

<https://vimeopro.com/avevagroup/simsci-academic-program>

Release Project Statement and SimCentral Introduction

Introduction to SimCentral. Description: Learn the basics of how to use SimCentral, including navigating SimCentral, building a simulation, understanding the SimCentral workflow, getting output, using snapshots, working in the different modes of operation, creating flowsheet equations for custom calculations, and optimizing your simulation.

Video 'bookmarks':

- 0:00 – Introductions
- 3:50 – 2019 SimCentral Student Competition Problem Statement
- 16:57 – Judging Criteria
- 24:16 – Introduction to AVEVA Process Simulation
- 26:13 – User Interface
- 35:06 – Simulation Repository
- 35:37 – Creating, Exporting, and Saving a Simulation
- 42:55 – AVEVA Process Simulation Libraries
- 47:07 – Searching in a Simulation
- 51:30 – Creating your first Simulation
- 51:59 – Solution Status (Input, Spec, Solved)
- 1:04:50 – Swapping Specifications
- 1:12:55 – Model Warnings and Messages
- 1:16:02 – Saving Snapshots
- 1:25:15 – Debugging a Simulation that doesn't Solve
- 1:30:05 – Discarding Changes
- 1:32:29 – Adding Variable References
- 1:35:42 – Creating a Fluid
- 1:47:53 – Switching Modes (Process, Fluid Flow, and Dynamics)
- 1:57:38 – Dynamics
- 2:07:20 – Adding a Controller
- 2:09:37 – Adding a Trend
- 2:13:12 – Q&A

AVEVA Process Simulation (SimCentral) Training - – Columns and Excel Reporting

Columns and Excel Reporting. Description: Learn how to build a column from scratch and take it through each step of the design phase (conceptual design in steady state mode, rating in hydraulics mode, and dynamics), as well as how to create a custom Excel output report.

- 0:00 – Introductions
- 1:01 – Software Training Website
- 4:02 – Mini Property Inspector (Mini PI)
- 5:44 – Full Property Inspector (Full PI)
- 12:29 – Filtering Properties



- 18:34 – Variable Favorites
- 21:42 – Full Simulation Properties
- 23:56 – Changed Specifications
- 26:49 – Tables
- 28:02 – Creating a new Table
- 31:18 – Profiles
- 32:10 – Creating a new Profile
- 36:10 – Distillation Columns
- 37:11 – Designing a new Column
- 50:46 – Setting Product Purity Specifications
- 57:07 – Externalizing a Column’s Condenser and Reboiler
- 57:48 – Building a Condenser Loop
- 1:10:55 – Building a Reboiler Loop
- 1:18:47 – Additional Column Considerations (Balanced Pressures, Internals, Column Help)
- 1:25:00 – Column Tips & Tricks
- 1:27:57 – Excel Reporting
- 1:32:54 – The AVEVA Process Simulation Excel Ribbon
- 1:36:01 – Excel Functions
- 1:38:27 – Getting AVEVA Process Simulation Values in Excel (SCValue function)
- 1:46:02 – Optimization
- 1:49:09 – Running an Optimization Set
- 1:49:36 – Defining an Optimization Set
- 1:55:35 – Q&A

AVEVA Process Simulation (SimCentral) Training - Reactors and Model Writing

Reactors and Model Writing. Description: Learn how to use the reactor models in SimCentral and create your own reaction submodels.

- 0:00 – Introduction
- 0:23 – 2019 SimCentral YouTube Video Competition
- 3:25 – Reactor Model Types
- 7:50 – PFR Mini Inspector Layout
- 14:53 – Using Reactions in Dynamics Mode
- 18:58 – DefKinetics Submodel
- 21:42 – Writing a Reaction Submodel
- 26:02 – Model Editor Groups
- 38:54 – Model Name and Description
- 40:02 – Adding Model Parameters
- 47:55 – Adding Variables
- 55:54 – Writing Equations
- 1:07:10 – Using Flowsheet Equations
- 1:13:45 – Adding a new Flowsheet Equation
- 1:15:03 – Flowsheet Variables
- 1:17:27 – Finding Help
- 1:24:21 – Q&A

17 Training Videos – Job Aid on YouTube

https://www.youtube.com/watch?v=fFu1zjEh-pl&list=PLMNq4CGnXT37Me_Lb_6lQDbLuSx8c-Do_

- 1: Introduction - SimCentral Simulation Platform: User Interface Overview
- 2: Introduction - Fundamentals of Building a Simple Simulation
- 3: Basics - Creating a Custom Fluid and Selecting the Thermodynamic Method
- 4: Basics - Saving and Using Solutions in the Snapshot Manager
- 5: Basics - Changing Modes: Purpose, Implications, and Best Practice
- 6: Models - Simulating Columns with Internal Condensers and Reboilers
- 7: Models - Simulating Columns with External Condensers and Reboilers
- 8: Models - Simulating a Plug Flow Reactor using an existing Reaction Submodel
- 9: Models - Writing a Reaction Submodel
- 10: Reports - Using Excel Reports
- 11: Advanced - Adding Flowsheet Equations
- 12: Advanced - Using Optimization
- 13: Basics - Additional Input and Output Capabilities
- 14: Advanced - Solving and Convergence Tips
- 15: Dynamics - Introduction to Dynamics Mode
- 16: Introduction to AVEVA™ Process Simulation – Economics Library
- 17: Introduction to AVEVA™ Process Simulation – Operating Cost Minimization



Introduction to SimCentral

Instructor-Led Training

Introduction to SimCentral is a 2-day, instructor-led class designed to provide a fundamental understanding of the features and functionality of the SimCentral software.

2 Days Simulation Platform