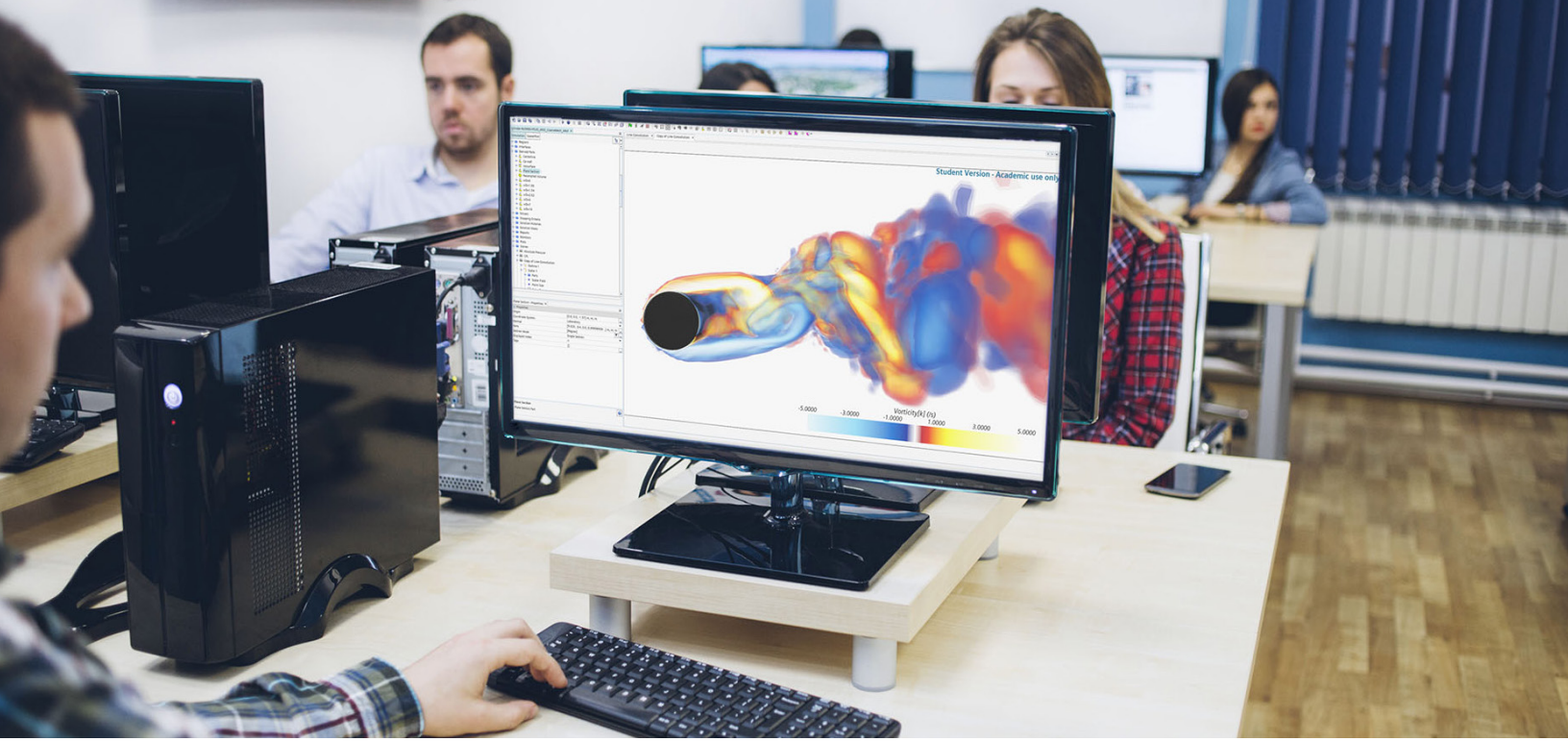


SIEMENS DIGITAL INDUSTRIES SOFTWARE

Simcenter STAR-CCM+
free student version

Increasing students' understanding of fluid dynamics and proficiency with industry tools

Benefits

- Increase fluid dynamics understanding
- Become proficient with industry tools
- Be prepared for the job market
- Learn how to solve real engineering problems
- Combine theory with virtual experimentation

Summary

Simcenter™ STAR-CCM+™ software, which is a part of the Xcelerator™ portfolio, the comprehensive and integrated portfolio of software and services from Siemens Digital Industries Software, offers a free student version to prepare students for today's complex engineering landscape. This version will help students take the educational steps toward a successful digital engineering career. Simcenter STAR-CCM+ offers a window into most engineering disciplines that are applied to relevant industrial problems. Now students can study applied sciences using software dedicated to solving applied real-life problems.

Simcenter STAR-CCM+ offers a free student version

This version aims to elevate students' understanding of fluid dynamics as a part of individual study, course work and virtual experimentation. It is tailored to students starting their digital engineering educational journey. This is the first step for

SIEMENS

siemens.com/simcenter

Features

- Every aspect of CFD in one integrated software
- All physics models from the commercial version
- Highly flexible, free license solution
- Advanced meshing and post-processing capabilities
- Complementary online training

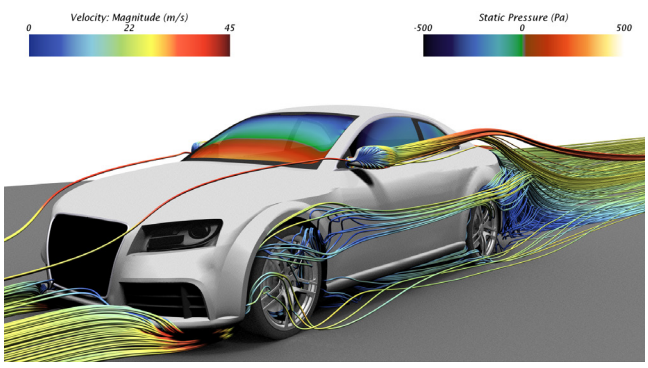
students to understand the challenges and benefits of computational fluid dynamics (CFD) and it includes the following capabilities and resources:

- Access to all meshing capabilities, physical models and post-processing tools from the commercial and academic versions while limits exist on model size and data export, etc.
- Learning resources and community support with online training for self-learning or for educators when assigning exercises or virtual labs
- Simcenter STAR-CCM+ academic program, which offers a complete and flexible package for the engineering educational journey

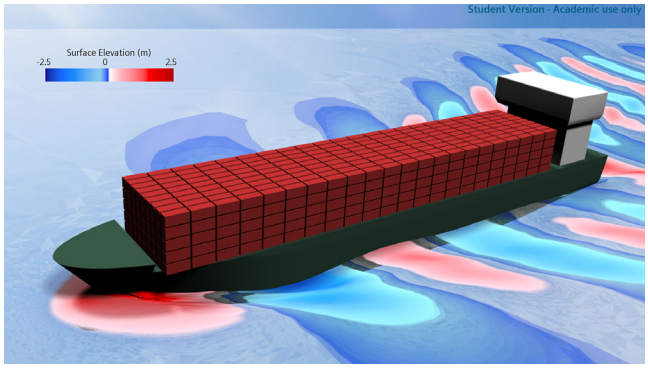
Student version software capabilities

Simcenter STAR-CCM+ is the industry leading CFD software, which incorporates multidisciplinary simulation in a single integrated user interface (UI). This enables a fully coupled analysis of sophisticated industrial problems with complex physical phenomena. Comprehensive multiphysics include fluid dynamics, solid mechanics, multiphase and particle flow, acoustics, heat transfer, reacting flow, electromagnetics, electrochemistry and rheology.

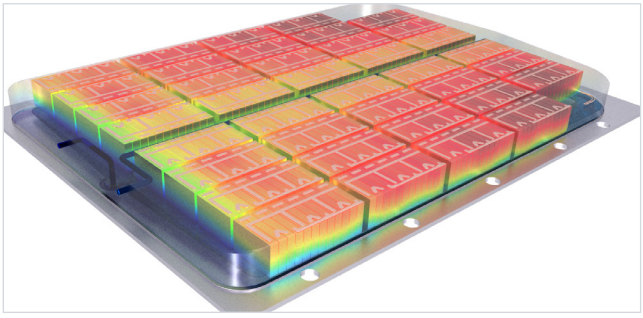
With the simple, flexible and practical power-on-demand (POD) license, students can run the software anywhere with internet access using a personal POD key.



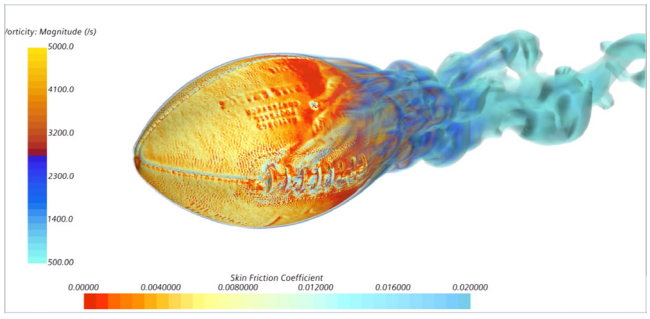
External aerodynamics of a car.



Volume of fluid (VOF) simulation of the waves around a cargo vessel.



Temperature distribution of a battery pack. Credit: InDesA GmbH.



Aerodynamics around a spinning football.

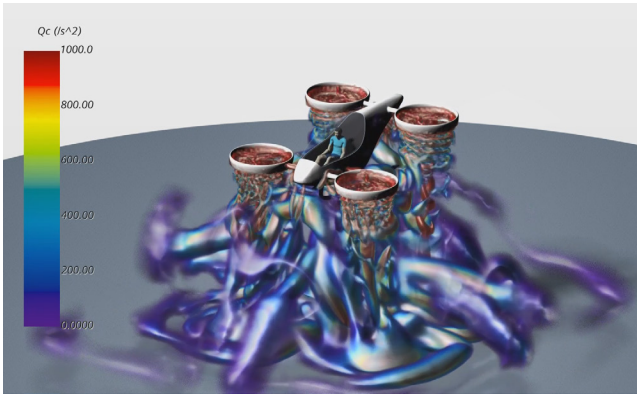
Learning resources and community support

Simcenter STAR-CCM+ enhances the educational experience using a modern simulation tool, which is designed for solving real-life problems. Students gain a sense of control over their educational path and are empowered to solve problems with the right tools. This increases self-motivation and ownership over their future.

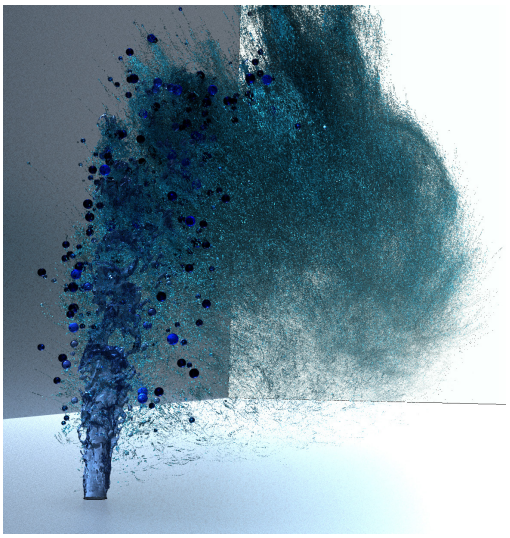
To help students learn Siemens' tools, we offer self-paced online learning using several different resources. The most important resource is Xcelerator Academy, which offers learning paths with step-by-step instructions and simulation files to train students on a variety of disciplines. Educators can use this offering to direct students to the learning material while they are preparing for a class or a lab.

Siemens community is another resource that offers a place to interact with other Simcenter STAR-CCM+ users and share knowledge and inspiration. The community contains several resources including knowledge articles, discussion forums and a blog section. The knowledge articles contain tips, tricks and full courses. The discussion forum enables students to interact with each other, crowdsource and share ideas. It is monitored by Siemens engineers who can help direct users to the right information. The blogs keep students up to date with product and industry news and technical articles, which gives readers an understanding of the scope of industrial CFD.

Students will be shown the community page after downloading the software to start their journey into the world of simulation.



Urban air mobility concept assessment.

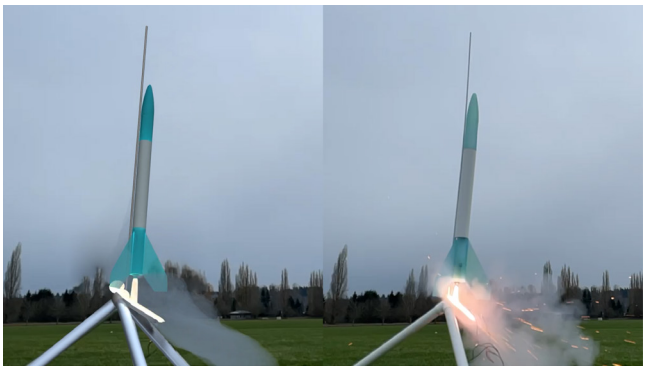


Jet break-up in crossflow.

Simcenter STAR-CCM+ academic program

The student version is complementary to the standard academic version in the Simcenter STAR-CCM+ academic program. After students learn to master the software using tutorials and learning exercises with the student version, they have the option of switching to the academic version for running more demanding simulations for research or other projects.

Universities typically gain access to our academic license through direct sales or by applying for a grant in the Global Academic Partner Program. The academic license enables educators to gain an administrative membership to Xcelerator Academy, which offers greater teaching opportunities.



Launch of a 3D printed DIY rocket. CFD simulation (left), real rocket (right), Credit: Joel Telling, 3D Printing Nerd.

Siemens Digital Industries Software

siemens.com/software

Americas
1 800 498 5351

Europe
00 800 70002222

Asia-Pacific
001 800 03061910

For additional numbers, click here.

83753-D5 7/21 A