ATA news

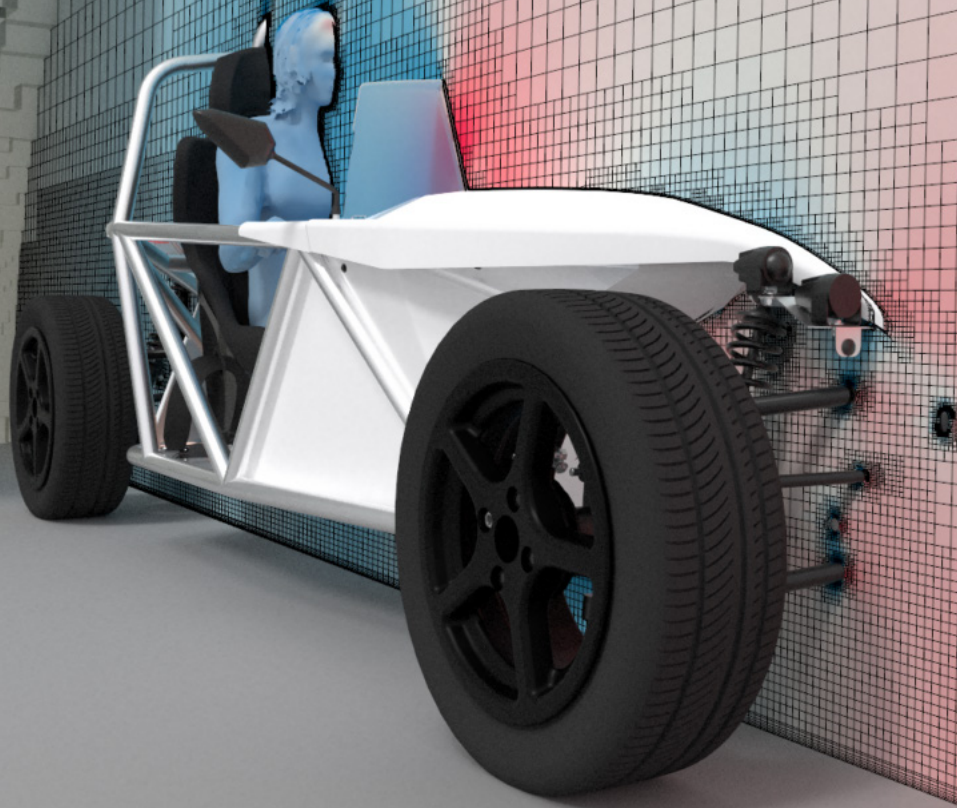**Click to Subscribe**

Siemens Releases STAR-CCM+ 2402

DETAILS INSIDE

Femap Symposia Are Coming to San Diego and Denver

Planning is currently underway for the ever-popular Femap Symposia later this summer. Siemens is coordinating a number of events across the country, and ATA is excited to once again host symposia in San Diego and Denver on June 18 and June 20, respectively. These events are a fantastic opportunity to connect with the Femap developers and other local users to learn about new features, best practices, and success stories and shape the future of Femap development. Reserve your seat today, and keep an eye out for agenda details in the coming weeks.

Don't want to wait? Learn more about the new features and enhancements in the latest release with our on-demand webinars:

What's New in Femap 2401

What's New in Femap 2306

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Siemens Releases STAR-CCM+ 2402

The newest version of Simcenter STAR-CCM+, version 2402, introduces a capability that can significantly enhance the computational efficiency of multi-species chemical simulations. Employing the Segregated Species solver alongside the Coupled Flow and Energy solvers offers an alternative to the more demanding fully coupled Flow-Energy-Species approach. This method reduces computational time by handling species transport in a segregated manner, potentially speeding up the process by up to ten times depending on the application and number of species involved.

Visit the Simcenter Blog for more information on this and other new features.
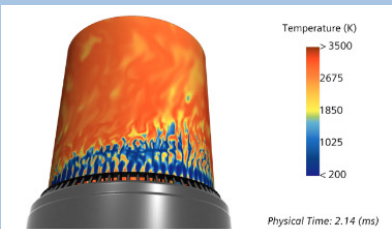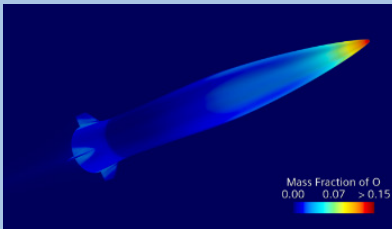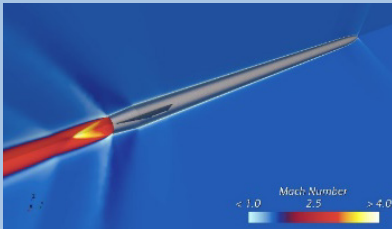
Calendar of Events

UPCOMING TRAINING CLASSES

ATA provides comprehensive training in the use of Femap, Simcenter 3D (formerly NX CAE), and Simcenter Nastran (formerly NX Nastran). Upcoming training classes are shown below. Please visit our website to sign up or request a custom class.

FEMAP

JUL 15 — **Introduction to Femap**

TBA — **Advanced Femap**

SIMCENTER NASTRAN WITH FEMAP

MAY 13 — **Introduction to Finite Element Analysis with Femap for Pre/Post**

JUN 10 — **Introduction to Dynamic Analysis with Femap for Pre/Post**

JUN 24 — **Advanced Dynamic Analysis with Femap for Pre/Post**

JUL 22 — **Introduction to Finite Element Analysis with Femap for Pre/Post**

SIMCENTER NASTRAN WITH SIMCENTER 3D

MAY 13 — **Introduction to Finite Element Analysis with Simcenter 3D for Pre/Post**

MAY 20 — **Response Dynamics**

JUN 10 — **Introduction to Dynamic Analysis with Simcenter 3D for Pre/Post**

JUN 24 — **Advanced Dynamic Analysis with Simcenter 3D for Pre/Post**

JUL 22 — **Introduction to Finite Element Analysis with Simcenter 3D for Pre/Post**

UPCOMING SEMINARS AND WEBINARS

JUN 11 — **Modal Analysis and Sound Quality Metrics – Fremont, California**

JUN 18 — **Femap Symposium – San Diego**

JUN 20 — **Femap Symposium – Denver**

TBA — **Free Webinars – NX Wiring and Cabling | Integrated Workflows: Simcenter 3D + Femap | Battery Modeling Using Star-CCM+**

ATA also provides a host of free training resources including tutorials, videos, and whitepapers.

Tips and Tricks

FEMAP: ALTERNATIVE SELECTION

It is often difficult to select the exact entity that you are looking for in Femap, especially if you are working with a large model with lots of overlapping entities. Femap has built-in functionality to allow the user to more accurately select entities in this scenario. The "Query" option is available in the entity selection dialog as a pick option that shows all entities behind the cursor if you were to drill through the model. Additionally, if the pick option is set to "Normal" or "Front," you can hold down the "Alt" key while clicking to temporarily use the "Query" selection method. This action will display a list of entity IDs from which you can easily select the desired entity. For more information about different selection techniques, check out the Femap User's Guide.

STAR-CCM+: MESHING CAPABILITY

The new Simcenter STAR-CCM+ 2402 has improved its turbomachinery structured mesh capability by adding automatic support for blade fillets at the shroud, hub, or both. This enhancement automatically detects the fillets with no extra user input, streamlining the process. It increases the accuracy of aerodynamics simulations and reduces simulation time by optimizing cell quality and lowering cell counts, all without additional user effort. More information can be found in this video.

NX/SIMCENTER: CHECKING LICENSE USAGE FROM COMMAND LINE

NX value-based tokens provide a flexible and cost-effective solution for running add-on modules without the need for individual purchases. Curious about how to monitor your current token usage directly from the command line? Check out this Siemens Knowledge blog.

New Resources

On-Demand Webinar: Creating Complete Digital Twins Using NX Model-Based Definition (MBD) with PMI

We're witnessing a remarkable transformation in mechanical design processes, where 2D drawings are evolving into 3D models to improve manufacturing processes, enhance downstream validation, and ensure seamless data integration with the design. To eliminate the need for 2D drawings, you need a complete digital representation of your product within a 3D model—often referred to as a digital twin. And the key to creating this digital twin efficiently lies in NX's model-based definition (MBD).

On-Demand Webinar: Discover the Future of e-Drive Development with Simcenter 3D

Physical testing, a time- and cost-intensive part of e-Drive development, poses a significant bottleneck. Enter Simcenter 3D—the cutting-edge simulation software revolutionizing the way automakers approach e-Drive development. By replacing numerous physical tests with accurate simulations and virtual verification, Simcenter 3D dramatically accelerates the development process, ensuring faster time to market and significant cost savings.

On-Demand Webinar: Introducing the SPH Multiphase Model in Simcenter STAR-CCM+

Siemens' existing SPH Flow software is being implemented as a new SPH multiphase model in Simcenter STAR-CCM+, introducing a rapid meshless CFD capability that allows sophisticated analysis to be completed earlier in the development cycle. The SPH method reduces setup and solve times, is capable of handling deformable and complex geometries with minimal effort, and can be automated to further improve simulation efficiency. The SPH method offers detailed insights into dynamic flows for multiple liquids for a variety of disciplines and applications ranging from electric motor cooling to automotive water management.

Recent News

Join Us at Realize Live

Realize LIVE is the premier industry event hosted by Siemens, designed to bring together innovators, technologists, and engineers from various sectors to share knowledge, explore new trends, and discover solutions within the digital industry. ATA will be participating in this event on May 13–16 in Las Vegas. Attendees can earn over $5000 in free Simcenter license capacity for your company!

ATA Engineering Releases Vibrata v5.1.1

Vibrata is a comprehensive toolkit to predict stress, deflection, and other responses to transient, harmonic, random, and response spectrum excitation. Click here to learn more about the features of the latest release.

ATA Engineering Releases IMAT v8.3.0

IMAT is a suite of utilities developed by ATA facilitate the sharing of data between MATLAB, analysis tools, and testing software. Click here to learn more about the features of the latest release.

Test Seminar Series Continues

This spring, Siemens and ATA began a series of free in-person seminars covering theory and best practices for physical testing. The first two events, held in Denver and Huntsville, focused on modal analysis and vibration control and covered complex topics such as resonance phenomena, damping effects, and sophisticated instrumentation like accelerometers and modal shakers. We invite you to join us next month in Fremont, California, where we will have an increased focus on acoustics and sound quality metrics. Register Now!

Why choose **ATA?**

ATA Engineering is a nationwide provider of innovative, high-value, test- and analysis-driven mechanical engineering design solutions.

With more than four decades of experience working with our customers to solve the most challenging design, test, and analysis problems, we have gained a reputation for excellence in the engineering community.

Our work on a wide range of products across a broad spread of industries has been recognized with numerous technical and service awards for excellence. This expertise and support is a key part of the added value we offer to all customers who purchase Siemens products from us, whether you are an independent contractor or a large engineering team. To provide best-in-class support to our VAR software customers, we have established a formal hotline system that provides on-demand support to resolve technical issues encountered by our customers in their implementation of the tools.

The hotline is staffed by experienced engineers, all of whom use these applications on a regular basis. ATA is also the Siemens primary training provider and official developer of courseware for all Simcenter Nastran training.

ATA Technical Support

Need technical assistance? Call our hotline staffed by engineers at **877-282-4223**, or visit us online. Even if you're not a current ATA customer, try us out for free.

Free Software Trials

Contact us for more information about free trials/demos of Femap and Simcenter Nastran, NX CAD and CAM, Simcenter 3D, Simcenter STAR-CCM+, Teamcenter, and Solid Edge.

Featured Instructor

Ben Mann

Mr. Mann is a project engineer, working out of a home office in Indiana, with expertise in structural dynamics, solid mechanics, and coupled loads analysis. In his 11 years with ATA, Mr. Mann has supported a diverse set of projects ranging from human-rated spacecraft to electronic parts packaging. He has been involved with various modal and random vibration tests by providing pretest analysis to predict optimal placements of sensors, real-time support during testing, and posttest model correlation. Mr. Mann is also involved in software development at ATA where he supports ATA's suite of software tools and serves on ATA's Siemens CAE Hotline team. Mr. Mann has leveraged his expertise in software development to support ATA's customers by creating custom software tools to enhance existing analysis programs like Femap and Simcenter 3D, as well as solving complex problems with stand-alone software solutions.

Mr. Mann received his bachelor of science degree in Aerospace Engineering from the Georgia Institute of Technology. While studying at Georgia Tech, Mr. Mann also participated in ATA's co-op program, working at various ATA offices for four semesters before graduating and joining the team full-time.

ATA Engineering, Inc., is recognized as a Smart Expert Partner with validated expertise in Femap, Simcenter 3D, and STAR-CCM+.

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