

ATA ENGINEERING

SOFTWARE

newsletter

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2025 Femap Symposia at ATA – Register Now!

DETAILS INSIDE

Siemens Released New Versions of NX, STAR-CCM+, and Femap

The Siemens 2506 releases of NX, STAR-CCM+, and Femap deliver meaningful enhancements for engineering teams focused on speed, accuracy, and collaboration. NX for Manufacturing introduces cloud-based access with NX X and a new in-app App Hub for machining tools, alongside updates to additive manufacturing, inspection automation, and on-machine probing. These additions help streamline workflows from design through production.

STAR-CCM+ 2506 offers significant performance improvements, including GPU-accelerated particle simulations and real-time ray-traced visualization. New capabilities for multiphase and structural modeling—like a capillary pressure model and improved hex meshing—expand its utility for complex simulations, while added support for solid coils and gear systems improves electromechanical fidelity.

Femap 2506 focuses on better usability and simulation insight, with full integration of ZONA ZAERO aeroelastic entities, improved postprocessing through functional output tables, and enhanced mesh projection tools. Integration with Teamcenter is also deeper, supporting better data management in CAE workflows. Together, these updates help teams deliver high-quality results faster and with greater confidence.

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Advancing Simulation: 2025 Femap Symposia at ATA

This month, ATA Engineering will host its annual Femap Symposia at its San Diego and Denver offices, bringing together Simcenter Femap users, industry experts, and the Femap development team. These exclusive, in-person events are designed for simulation analysts, engineers, managers, and executives looking to explore the latest software updates, gain practical skills, and network with peers.

Attendees will participate in technical sessions led by ATA and Siemens experts, developer roundtables, and presentations highlighting real-world simulation success stories. The agenda also includes opportunities to learn best practices, discover new features in Simcenter Femap, and engage directly with the engineers shaping the software.

These symposia are a unique chance to connect with the simulation community, sharpen your Femap skills, and stay ahead of the latest trends in CAE technology.

Registration is now open:

September 16 | San Diego, CA

[Click here to register.](#)

September 18 | Denver, CO

[Click here to register.](#)

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 for these classes or request a custom class.

FEMAP

OCT 13 [Introduction to Femap](#)

TBA [Advanced Femap](#)

SIMCENTER NASTRAN WITH FEMAP

OCT 20 [Introduction to Finite Element Analysis with Femap for Pre/Post](#)

OCT 27 [Multi-Step Nonlinear with Solutions 401 and 402 with Femap for Pre/Post](#)

SIMCENTER NASTRAN WITH SIMCENTER 3D

OCT 20 [Introduction to Finite Element Analysis with Simcenter 3D for Pre/Post](#)

OCT 27 [Multi-Step Nonlinear with Solutions 401 and 402 with Simcenter 3D for Pre/Post](#)

NOV 03 [Response Dynamics](#)

UPCOMING SEMINARS AND WEBINARS

Connect with ATA Engineering at these upcoming industry events.

SEP 16 [Femap Symposium](#) San Diego, CA

SEP 18 [Femap Symposium](#) Denver, CO

OCT 01 [Durability and Vibration Control Seminars](#) Costa Mesa, CA

ATA also provides a host of [free training resources](#) including tutorials, videos, and whitepapers.

Tips and Tricks

NX: SPEED UP SHELL MESH CREATION WITH AUTOMATIC MIDSURFACING

Creating shell meshes from complex 3D CAD can be tedious, especially for structures with repeating features like lightweight panels or ribbed mirrors. NX's Automatic Midsurface tool (Geometry → Midsurface → Automatic) streamlines this process by generating midsurfaces in batch, eliminating the need to select face pairs manually.

Once the midsurfaces are created and stitched, you can quickly apply a shell mesh across the model. For repeating structures, consider meshing a single unit and copying it into position using coordinate systems, then merging nodes. This approach, combined with midsurface automation, can save significant time while maintaining mesh quality.

FEMAP: AUTO-ENVELOPE STRESSES ACROSS PLY LAYERS VIA THE API

When working with composite layups in Femap, enveloping stresses across multiple plies manually can be time-consuming. Instead of using Model → Output → Process → Envelope for each layer and component, try Model → Output → Computed Vectors → User Defined → Envelope, which allows you to select all ply layers at once—making it much easier to spot stress hotspots.

For more advanced needs, the Femap API can automate this process by looping through layers and stress components to create envelope results. This approach saves time, reduces manual effort, and ensures consistency when you are postprocessing large or complex composite models.

New Resources

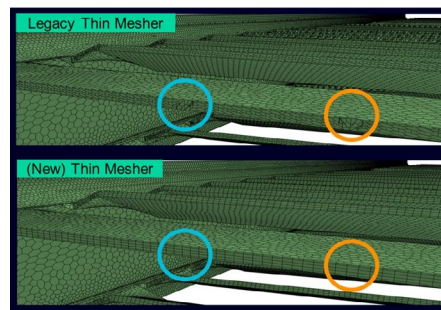
On-Demand Webinar: NX Immersive Designer with Sony Virtual Reality Headset

ATA Engineering teamed up with Siemens to explore NX Immersive Designer, a VR/AR tool that enables users to design and collaborate in real time using Sony's XR headset. The webinar covers licensing, key features, and real-world applications, with a prerecorded demo and live Q&A led by Siemens experts Matt Cecil and Daren Beeson.

Video: Empowering Startups: ATA Engineering's Role in Rapid Innovation with Siemens

In this video, the ATA team highlights how our collaboration with Siemens accelerates startup innovation. Drawing on their technical expertise and real-world startup experience, ATA demonstrates how tailored engineering solutions and strategic software tools help fledgling companies scale rapidly and efficiently.

Article: What's New in Simcenter STAR-CCM+ 2506?



The latest release of Simcenter STAR-CCM+, version 2506, delivers major advancements in simulation performance, visualization, and usability. Key highlights include GPU-accelerated ray tracing for high-fidelity, photorealistic visualization of CFD results and a new thin-region mesher that improves accuracy in complex geometries without compromising efficiency. Additional updates enhance particle simulation capabilities and streamline meshing workflows. These improvements help engineers gain deeper insights, accelerate iteration cycles, and deliver better-performing designs with greater confidence.

Download version 2506 [here](#).

Recent News

Perlan II Glider to Make New Altitude Attempt

ATA Engineering is proud to support the Perlan II Team in its ambitious attempt to soar to 90,000 feet during the southern hemisphere winter of 2026. Having performed critical ground vibration testing on the experimental sailplane that is designed to surf stratospheric mountain waves without propulsion, ATA's work ensures the structural integrity needed for safe high-altitude flight.

Read more about the upcoming attempt here: [Perlan II](#).

Modal Analysis and Vibration Control Seminars

In early August, ATA Engineering partnered with Siemens to host a hands-on seminar in Plano, Texas, focused on modal analysis and vibration control. Attendees joined for two days of technical presentations, live demonstrations, and discussions on topics such as sine/random/shock control, modal correlation, and fatigue measurement techniques.

SmallSat Attendance

Also in August, ATA Engineering participated in the 39th Annual Small Satellite Conference (SmallSat) in Salt Lake City, joining industry leaders to explore innovations shaping the future of small satellite capabilities. Centered on the theme "Reaching New Horizons," the conference keynote speakers, technical presentations, and panel discussions promoted knowledge sharing and collaboration across the small-satellite community.

ATA team members connected with attendees to discuss how ATA's engineering expertise supports projects in the design, development, and launch of small satellites.





Why choose ATA?

ATA Engineering is a nationwide provider of innovative, high-value, analysis- and test-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 are 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 preferred 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.



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Featured Instructor

Rachel Backes



Rachel Backes is a Senior Project Engineer for ATA Engineering, where she contributes to a wide range of analysis projects and provides software training and support.

She brings expertise in finite element modeling and in conducting static, dynamic, and thermal analyses, with a strong background in renewable energy technologies. Rachel also develops software tools to support specialized analyses and engineering automation, helping streamline workflows for both internal and client use.

Her primary toolset includes Femap, NX Nastran, MATLAB, and Visual Basic. She holds both a B.S. and M.S. in Mechanical Engineering from the Colorado School of Mines.



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