

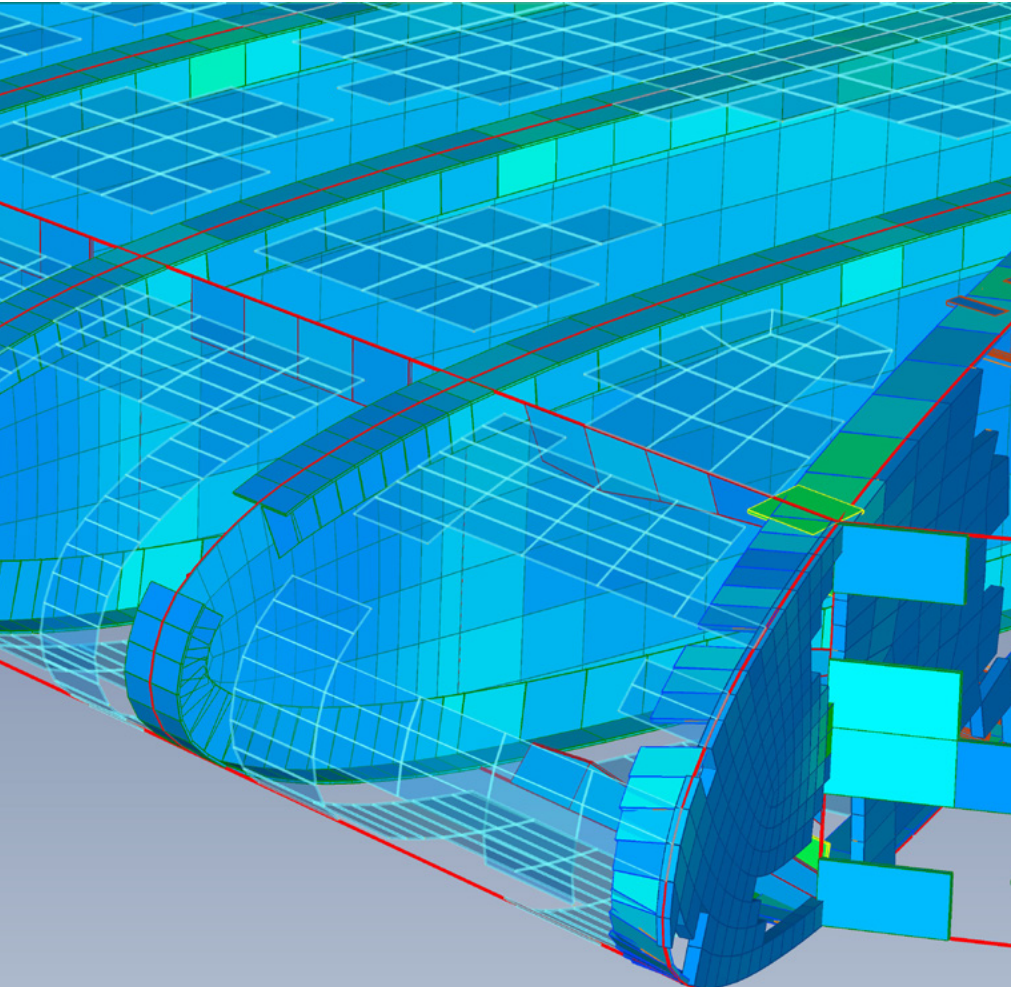
ATA news

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ISSUE THIRTEEN



FALL 2018



Siemens Releases Femap I2

DETAILS INSIDE

ATA Adds HEEDS to Software Offerings; HEEDS 2018.04 is Released

ATA Engineering is excited to have recently been selected by Siemens as a value-added reseller authorized to offer HEEDS to software customers. Similar to the addition of STAR-CCM+ last year, this builds upon ATA's history of using what we sell and selling what we use.

HEEDS is a powerful software package that enables design exploration through process automation, scalable computation, efficient searching, and performance assessment. It can automate your design workflow by sharing data between multiple software tools, leveraging all available computing resources, and quickly identifying feasible design families, with insight into how design variables impact performance.

HEEDS 2018.04, released in May, delivers improved results processing, simplified environment customization, and automation of analysis tool capture. Learn more about HEEDS [here](#), and contact us to [request a quote!](#)

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Siemens Releases Femap I2

Femap I2 has just been released, bringing an exciting collection of updates and improvements to the already robust CAD-independent pre- and post-processor.

Right away you'll notice the refreshed appearance of the user interface; also, screen entities like titles, axes, and the contour legend are now interactive. New feature and silhouette lines are available to aid model viewing.

Geometry enhancements include improvements to the stitching algorithm and feature removal tool, along with a new surface alignment command for periodic surfaces. Inside the Meshing Toolbox, pads and washers can be created through solid parts, and washers can be created around non-circular holes. Updated commands allow associated geometry, elements, and mesh entities to be moved and copied simultaneously, the beam centerline finder is fully integrated, and a new mesh point editor is available.

Support has been extended for NX Nastran's multistep nonlinear analyses SOL 401 and SOL 402, as well as design and topology optimization with SOL 200. A new improved ANSYS translator supports modern ANSYS element types and organized input file creation.

[Click here](#) for a brochure with further information on these improvements and more. Femap I2 is available for download through [GTAC](#) today!

Calendar of Events

UPCOMING TRAINING CLASSES

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

NX NASTRAN WITH FEMAP

OCT 30 [Introduction to Finite Element Analysis](#)

NOV 28 [Introduction to Dynamic Analysis](#)

DEC 03 [Advanced Dynamic Analysis](#)

DEC 05 [Coupled Structure/Acoustic Analysis](#)

NX NASTRAN WITH SIMCENTER

OCT 30 [Introduction to Finite Element Analysis](#)

NOV 13 [Response Dynamics](#)

NOV 28 [Introduction to Dynamic Analysis](#)

DEC 03 [Advanced Dynamic Analysis](#)

DEC 05 [Coupled Structure/Acoustic Analysis](#)

NEW ON-DEMAND WEBINARS

[Practical Applications of STAR-CCM+ on Mars](#)

This on-demand webinar features a brief overview of STAR-CCM+ capabilities, followed by a case study presented by ATA's Dr. Parthiv Shah about how STAR-CCM+ was used to support NASA's Jet Propulsion Laboratory on a project related to the Fluid Mechanical Particle Barrier (FMPB) for prevention of sample contamination on the Mars 2020 mission. Learn how your team can leverage the most advanced CFD simulation tool available today to meet your design and analysis requirements!

[Introduction to the Femap Meshing Toolbox](#)

The focus of this on-demand webinar is a live demonstration that showcases the power of the Meshing Toolbox. We begin by importing a solid model of a thin panel with various stiffeners and pockets, and we work through repairing the geometry, creating a midsurface and preparing it for meshing, and interactively controlling mesh sizing to achieve a high-quality mesh. Although this workflow could be executed using traditional menu-based commands, this webinar focuses on how the Meshing Toolbox can make the process easier than ever before!

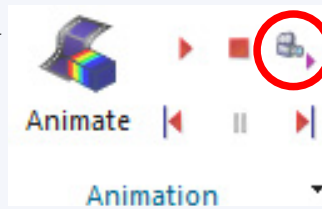
ATA also provides a host of [free training resources](#) including tutorials, videos, and whitepapers.

Tips and Tricks

NX: EXPORT ANIMATED GIF

Animations can be a useful tool to convey model behavior, such as when examining mode shapes or working with a contact model. The Export Animated GIF button, circled below, allows the user to save the current animation as a .gif file that can be pasted into a presentation. The saved animation will capture the settings of the Animation dialog box, including style (linear vs. modal), number of frames, and full-cycle or not. The Animation dialog box also has a button to capture the current animation as a GIF.

Note that in PowerPoint, the GIF will only animate in slideshow mode.



FEMAP: COPY & PASTE ENTITY IDS

After selecting entities in Femap, you can click anywhere in the selection list and press Ctrl+C to copy the list of selected entities to the clipboard. This will evaluate the add/remove/exclude designations and simply copy the resulting list; this list can easily be pasted into Excel with Ctrl+V for further manipulation.

The reverse is also true. If you have a list of entity IDs in Excel, simply highlight the list, press Ctrl+C, click in the selection list area of Femap, and press Ctrl+V to paste the values in.



STAR-CCM+: LICENSE OPTIONS

STAR-CCM+ offers a range of affordable and customizable license options to meet each user's simulation needs and throughput requirements:

- Power sessions: A fixed price for unlimited cores; provides scalability
- Power on demand: Metered usage for unlimited cores; provides agility for changing demands and cloud computing
- Power tokens: Concurrent simulations with as many cores as needed; provides flexibility for design exploration

New Resources

[NX and Simcenter 3D Whitepaper: Recommended Learning Advantage Lessons](#)

Learning Advantage is an easy-to-use online portal that provides cost-effective and time-efficient training in Siemens PLM Software solutions. This whitepaper offers a list of recommended lessons to introduce CAD and CAE using NX and Simcenter 3D.

[Femap Presentation: Leveraging the User Interface](#)

Although this presentation was created to accompany a live demonstration at the spring 2018 Femap Symposia, it captures a number of helpful tips and methods that were discussed. The slides cover the analysis process from start to finish, beginning with importing, idealizing, and midsurfacing geometry, and continuing on with meshing the new plates, improving mesh quality, and finally postprocessing the results. The tips focus on the capabilities added to the meshing and postprocessing toolboxes in recent years.

Recent News

Siemens Releases STAR-CCM+ 13.04

This version contains a range of new features with a focus on enhancements to engine simulation capabilities. It also enables faster and more comprehensive multiphase simulations, improves design exploration with the Design Manager, and introduces the ability to include comments in the simulation tree that can aid collaboration now and in the future. [View the 13.04 fact sheet](#) for these details and more!

Register for 2018 Simcenter Conference

To be held in Detroit on October 15–17, this new conference will feature exciting training and networking opportunities by bringing together users, experts, and thought leaders from across the simulation and test communities. ATA's Dr. Parthiv Shah is excited to present. You can find [additional information on our site](#).

Save the Date: RUGs

The 2018 Regional User Groups (RUGs) are here, bringing together Siemens PLM Software users in your area to learn about product updates and enhancements directly from Siemens experts. ATA is sponsoring events in Northern and Southern California, as well as attending the Rocky Mountain, Mid-Atlantic, and New England meetings. [Let us know you're coming](#) and [register today!](#)

ATA Releases Attune 2.3.0 and IMAT 7.2.0

Attune 2.3.0 incorporates notable improvements to model visualization and a reorganized configuration form based on user feedback. [Visit our site](#) for more information.

IMAT 7.2.0 offers enhanced performance, new statistical output for random analysis, the ability to create and plot spectrograms, and greater flexibility in importing superelement matrices from Nastran. [Visit our site](#) for more information.



Why choose **ATA**?

ATA Engineering, Inc., (ATA) 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 PLM Software-preferred training provider and official developer of courseware for all NX 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

Interested in trying out Siemens PLM software? Visit our website to access free trials/demos of [Femap and NX Nastran](#), [NX CAD, CAM,](#) and [Simcenter](#), [Teamcenter](#), and [Solid Edge](#).



Featured Instructor

Matthew Kaplan, Ph.D.



Matthew Kaplan is a senior technical advisor in ATA Engineering's San Diego office. He has expertise in structural analysis, dynamics, model correlation and updating, and software design and development. He has more than 25 years' experience with Nastran and more than 10 years' experience teaching Nastran short courses. Dr. Kaplan is not only an instructor, but is the manager of our Nastran training program and author of two of the classes. He is also the manager of the technical support hotline that serves our VAR customers.

Dr. Kaplan has worked on projects in many industries but has spent most of his time on a wide variety of aerospace applications, from aircraft to spacecraft and from launch vehicles to payloads. In addition to working in those areas, he has done quite a bit of software development to capture technologies as they are developed and make them available to others both inside and outside ATA.

He has a B.S. and Ph.D. in aerospace engineering from the University of Texas at Austin.

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