

ATA news

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ISSUE EIGHT



SPRING 2017



Sign Up for Siemens Software Field Bulletins

One of the best ways for you to stay informed of new software version releases, known issues and workarounds, and other updates is to register for software field bulletins (SFBs). We highly recommend that you filter these for just the product lines you own (e.g., Femap) immediately upon signing up, as Siemens releases updates across their entire product line very frequently.

To subscribe to the SFBMAIL mailing list, send a blank message to sfbmail-subscribe.plm@siemens.com. To filter the SFBs, [click here](#) and select the SFB topics you wish to receive.

Please ensure that your email is configured to accept emails from "@siemens.com" addresses, as several users have identified that these updates were being blocked in the past.

Inside Look: ATA's Software Hotline

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Inside Look:ATA's Software Hotline

As a value-added reseller for Siemens PLM Software, ATA is proud to be the first line of support for our customers' questions and problems. For that effort, ATA hosts a technical support hotline, which is staffed Monday through Friday from 5:00 AM to 5:00 PM Pacific. This service is staffed by experienced engineers at ATA who use Siemens CAD and CAE tools every day, giving our hotline unmatched expertise.

In 2016, ATA's hotline was rated as "excellent" by our customers, and over 80% of issues were resolved the same day they were reported. When you contact our hotline, you can expect to be quickly connected to our support staff. We can also help elevate issues to Siemens GTAC support when necessary, typically in matters having to do with licensing.

We encourage you to contact ATA's Hotline as your first line of support. You can reach the hotline at 877-ATA-4CAE (877-282-4223) or through our [web interface](#). If you need support outside our regular hours, please contact us through the web interface or leave a voicemail and we will get back to you quickly.

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.

NX NASTRAN WITH FEMAP

- MAY 08** [Advanced Dynamic Analysis](#)
- MAY 10** [Introduction to DMAP](#)
- JUN 06** [Introduction to Finite Element Analysis](#)
- JUN 13** [Introduction to Dynamics Analysis](#)
- JUL 10** [Aeroelastic Analysis](#)
- JUL 11** [Coupled Structure/Acoustic Analysis](#)
- JUL 12** [Rotor Dynamics](#)
- JUL 31** [Introduction to Finite Element Analysis](#)

NX NASTRAN WITH SIMCENTER

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- JUL 31** [Introduction to Finite Element Analysis](#)

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

Tips and Tricks

SIMCENTER: MODIFY TYPE VS. MODIFY ORDER

- Modify Type can quickly change a mesh from one kind of element to another within the same element topology faster than directly editing an existing mesh. Common ID examples include changing RBE3s to RBE2s, Springs to Gaps, or Beams to Bars. Element-associated data is transferred to the new element type where it is supported. The command can be especially useful if a mesh does not directly map to a supported element type after a change in the solver environment.
- Modify Order allows a mesh to easily be switched from parabolic elements to linear elements and vice versa faster than directly editing an existing mesh. The location and label of corner nodes does not change, and if a mesh is associated to geometry, any generated midnodes will be associated to the corresponding edge or face. In addition, the Modify Order command can be used to change the specified midnode method for parabolic element meshes between curved, linear, and mixed.

FEMAP: MACRO IN A MACRO

Use the Visual Basic statement MacroRun to call an existing API inside a new API. This command can be used to run multiple macros consecutively or to otherwise combine macros into a more complex tool. You can even pass arguments to MacroRun to further customize your new API. Check out [this page](#) from the Siemens PLM Community site to see an example of how to use this method.

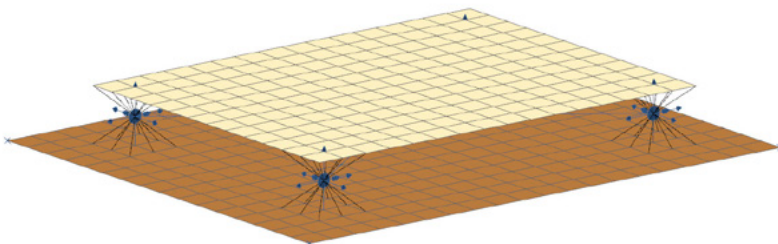
New Resources

Femap: Set Common View Settings on Import

Many Femap users have view preferences that differ from the default view settings. This API provides an alternative way to apply common changes to the view settings compared to saving and loading view templates. It imports a Nastran model, runs the View Color Swap API that comes with Femap, randomizes property colors, displays by property color, turns off the display of nodes and coordinate systems, and sets the color of filled edges to black. You can also use this API in Femap models that are already open by canceling out of the "Import NX Nastran File" box. Use this API as is or update it to match your own view preferences.

NX Nastran: DMAP Alter to Sum Interface Forces Using MPCs with Tutorial

- **DMAP Alter:** This tool creates MPC equations that can be used to sum interface forces, such as for use in some types of bolted joint analysis. This process can even be used for dynamics since it maintains phase information. The DMAP alter creates DMIG cards which define six columns of a matrix corresponding to the resultant forces and moments about a node. The DMIG cards can be reformatted as MPC cards to recover resultant loads from the model. Tip: Calculations should always be checked by applying unit loads to the model and reporting the displacements of the resultant nodes. These should be the resultant forces and moments through each cut.
- **Tutorial:** This tutorial demonstrates how to use the DMAP alter to create MPC equations that sum interface forces. It uses a simple model of two plates connected at four locations. The tutorial uses Femap to help generate inputs for the alter and MATLAB with IMAT to convert the DMIG results into MPC cards. Finally, the tutorial shows how to use unit loads to check the MPC equations.



Recent News

ATA Awarded SEAM Contract for NASA Support

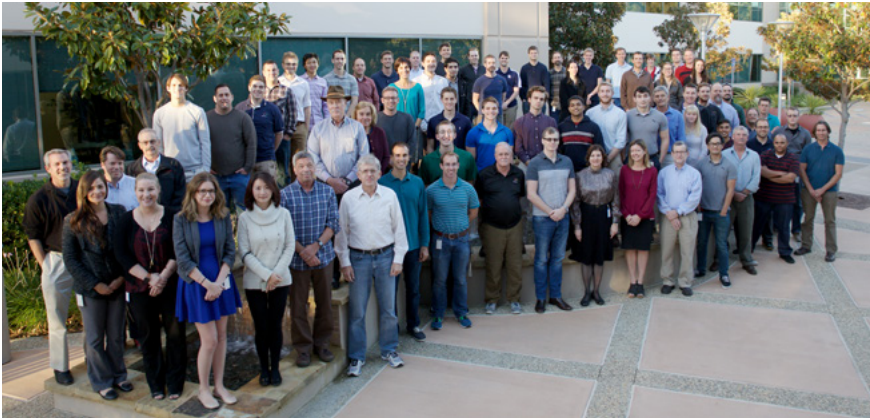
ATA has recently been selected by NASA Johnson Space Center for a five-year specialized engineering, aeronautic, and manufacturing (SEAM) contract. The contract covers a wide range of services offered by ATA, from dynamics, damage tolerance, and computational fluid dynamics to ground vibration, stress/strain, and flight testing. [Read more here.](#)

Register for Siemens PLM Connection 2017

This year's conference is being held May 8–11 in Indianapolis, Indiana. Attendees can customize their experience with a one- to four-day track in one of seven new Connections groups, which cover a variety of interest areas from Simcenter and NX Product Engineering Users to Business Process and Deployment Excellence. The conference affords great networking opportunities with other Siemens PLM users, partners and Siemens representatives in addition to the technical sessions and hands-on product training available. Visit the [PLM Connection 2017 site](#) to learn more about the new Connections areas and for additional information on scheduling and registration. Although regular registration has ended, late/walk-in registration is still available.

ATA Releases Vibrata 1.6.4

This release adds support for bending, membrane, and plane strain shell elements, which can be useful for surface-coated meshes. In addition, the Input Shaping force-limited input GUI has been enhanced to give the user more control over rolloff and notch limiting, and breakpoint frequencies are now included in Frequency and Random solves. [Learn more about Vibrata.](#)



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 three 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.

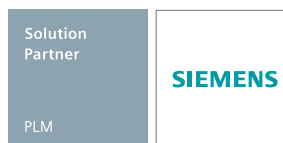
The hotline is staffed by experienced engineers, all of whom use these applications on a regular basis. ATA is also the Siemens PLM Software-preferred training provider and official developer of courseware for all NX Nastran training.

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

Christopher Ignatius





Christopher Ignatius works in the Eastern Regional Office at ATA Engineering, Inc. primarily performing analysis for ATA's customers but also contributing to the software services business through hotline support and coursework updates.

Mr. Ignatius is experienced in performing static, dynamic, and detailed stress analysis on products ranging from hand-held circuit boards to liquid rocket engines. Most of his projects utilize Siemens NX Nastran, Simcenter, and Simcenter Response Simulation, which enables him to provide assistance to ATA's software customers on the software support hotline.

He has a B.S. and M.S. in Aerospace Engineering from the Georgia Institute of Technology.

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