

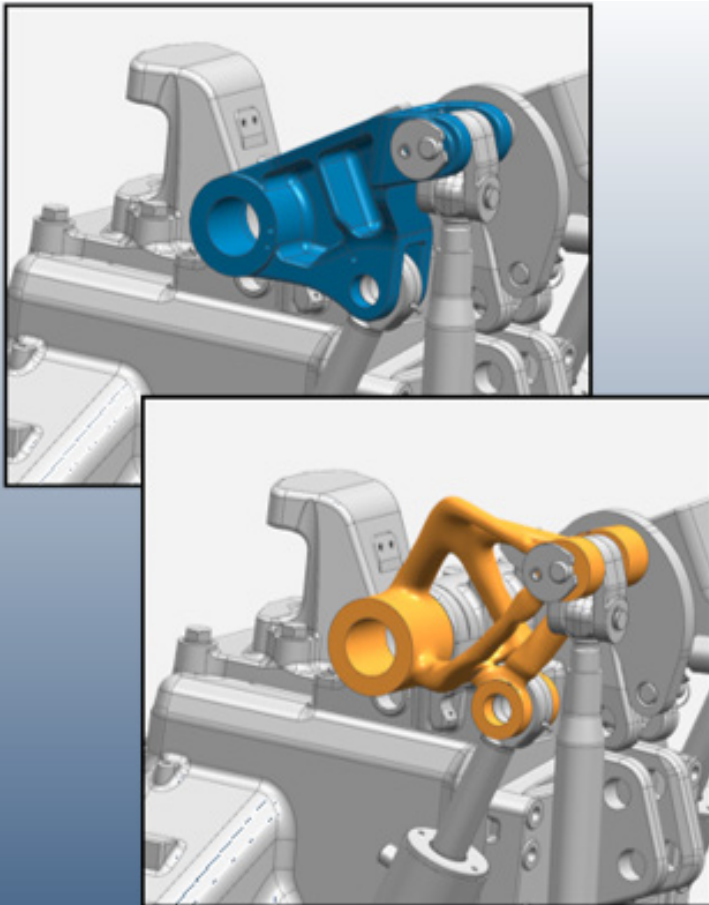
ATA news

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ISSUE TEN



FALL 2017



Siemens Releases NX and Simcenter 3D 12

[DETAILS INSIDE](#)

Siemens Releases Femap 11.4.2

Femap 11.4.2 is available for download now, featuring a number of customer-driven enhancements, especially with regard to the thermal and flow solvers. Here, the user interface has been improved, starting with a new dedicated Thermal/Flow Model Info pane similar to the traditional Model Info pane, including entity-specific right-click capabilities. In addition, a consistent analysis set manager simplifies the setup of thermal and flow solutions, and boundary condition display is improved.

The thermal and flow solvers benefit from parallel processing in addition to other new functionalities. These updates synchronize the solvers to the latest NX Thermal and Flow solvers, taking advantage of over five versions of solver development. Currently, there are no plans to change licensing or pricing, and the original TMG and Flow environments are still available.

The release of 11.4.2 also adds support for the newer geometry formats of Parasolid 30.0, Solid Edge 10, Creo 4, and NX 12.0. Analysis support has been extended to NX Nastran 12.0, and new and updated methods, variables, and events are available in the API.

Check out the [Femap 11.4.2 fact sheet](#) for additional details.

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Siemens Releases NX and Simcenter 3D I2

The newest versions of NX and Simcenter 3D add even more new features to the popular design and simulation programs. NX has long been considered a leader among CAD solutions, and Simcenter 3D (formerly NX CAE) brings together a suite of powerful simulation tools in a stand-alone environment or seamlessly integrated with NX.

On the modeling front, a new lattice tool aids design for additive manufacturing, and enhancements to convergent modeling make it even easier to work with combined solids, surfaces, and facet geometry, including scanned data and optimization study results. In addition, updates were made to the Face from Mesh and Variable Offset Face commands, and performance was improved for large assemblies.

For pre/post applications, new fields in the 2D and 3D meshing dialog boxes provide even greater user control of the resulting meshes. Additional 3D swept meshing capabilities and new nonlinear solutions were added, and multiple display parts, new zooming and deselecting features, and 3D box selection are now available.

Download NX and Simcenter 3D I2 from [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

FEB 12 [Introduction to Finite Element Analysis](#)

FEB 21 [Introduction to Dynamic Analysis](#)

MAR 19 [Design Sensitivity and Optimization](#)

MAY 21 [Introduction to Finite Element Analysis](#)

MAY 24 [Advanced Dynamic Analysis](#)

NX NASTRAN WITH SIMCENTER

FEB 12 [Introduction to Finite Element Analysis](#)

FEB 21 [Introduction to Dynamic Analysis](#)

MAR 19 [Design Sensitivity and Optimization](#)

MAY 21 [Introduction to Finite Element Analysis](#)

MAY 24 [Advanced Dynamic Analysis](#)

FEMAP

FEB 05 [Introduction to Femap](#)

MAY 08 [Introduction to Femap](#)

NEW ON-DEMAND WEBINAR



[What's New in NX and Simcenter 3D I2](#)

Did you miss our last webinar? This on-demand webinar, complete with demos, takes an in-depth look at the new features in NX and Simcenter 3D I2. It covers everything from modeling and meshing advancements to user interface improvements. Watch the recording today!

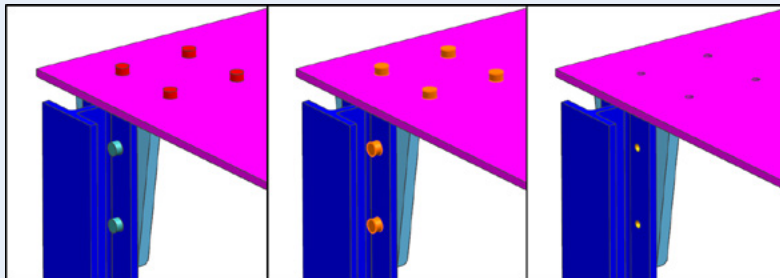
ATA also provides a host of [free training resources](#) including tutorials, videos, and whitepapers.

Tips and Tricks

NX: COLOR FILTER

Use Color Filter  to quickly select parts with matching colors from a large assembly. Multiple filter colors can be selected simultaneously if needed, and selectable entities include points, curves, faces, solid bodies, elements, and more. Within the command, use Inherit from Object  to easily add the color of a specific part. Afterward, use the Reset Filters command to quickly set all filter options back to their original state. These commands are on the top border bar by default or can be found using the command finder.

This example shows how simple it is to hide bolts from an assembly with Color Filter. First, both colors, red and dark dull cyan, are selected in Color Filter using the Inherit from Object tool. With the type filter set to polygon body, Ctrl+A is used to select all solid bodies; note that only the bolts are selected because of the color filter. Next, Ctrl+B hides the selected bodies. Reset Filters is used to undo the color filter for future tasks.



FEMAP: DRAW/ERASE TOOLBAR

Introduced in Femap II.3, the Draw/Erase toolbar gives rapid, on-the-fly control of displayed and hidden objects without saving groups or layers. With updates added in version II.4, a refined entity selection can be chosen from the previous selection without going back to the full model.



Toolbar buttons from left to right:

- On/Off: Toggle the Draw/Erase functionality on or off. A green light indicates that the tool is enabled. Note that if an entity is not visible before the toolbar is used (for instance, if it is part of a hidden group,) it will not appear in either draw or erase mode.
- Draw Mode: Only selected entities are displayed.
- Erase Mode: Visibility is turned off for the selected entities.
- Select Geometry: Select solids, surfaces, curves, and points to be displayed or hidden. Auto Select Mesh controls whether a mesh associated with the selected geometry is also drawn or erased.
- Select Mesh: Select elements, properties, materials, coordinate systems, regions, and connectors to be displayed or hidden.
- Select Area: Additional commands for area or selector picking. In addition, use Grow and Shrink to add or remove neighboring entities, Create Group to create a new group from the selection or execute Boolean group operations, and Load Group to use an existing group as the selection
- Clear: Remove all entities from the current draw/erase selection.

New Resources

NX Nastran: Sum Interface Forces Using MPCs, Update

This DMAP alter and accompanying tutorial creates MPC equations that can be used to sum interface forces. The program was recently updated to correctly transform results to the displacement coordinate system of the selected node.

Recent News

Multi-Year Renewal Discounts

Promotions are currently available for maintenance renewals longer than one year. [Ask us](#) about multi-year renewal discounts today!

Two New Monthly Subscription Options Available for Femap

Femap's online store has recently expanded to offer monthly subscription options that include the advanced bundle and desktop extension. These new bundles are in addition to the original selections of Femap, NX Nastran, and Dynamic Response. The advanced bundle combines functionality previously available in the Dynamic Response, Aeroelasticity, DMAP, Superelement, and DMP add-on modules, and Desktop Extension removes checksum control.

Monthly subscriptions offer an alternative to perpetual licenses, longer-term rentals, and annual subscription plans. They allow your team to quickly add licenses to meet immediate needs or scale back after tasks are completed, along with the financial flexibility to pay as you go. [Visit our site](#) for pricing and bundle descriptions.

ATA Releases IMAT 7.0.0, IMAT4XL 7.0.0, and Vibrata 2.0.0

These products are ready for download from www.ata-e.com. The following is a brief list of Improvements.

[IMAT 7.0.0](#): New functions were added, additional Nastran datablocks are supported, and all result data in an .OP2 file can be accessed in a native Nastran format.

[IMAT4XL 7.0.0](#): This release adds the ability to customize visible data attributes, compute statistics on selected functions, and overwrite old data.

[Vibrata 2.0.0](#): This release allows Vibrata to run without a MATLAB license and adds new GUIs for modal filtering and setting up Nastran decks for Vibrata in Femap.



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


Damien Vanderpool





Damien Vanderpool is an engineer in ATA's Los Angeles Regional Office who specializes in thermal and fluid dynamics, while also supporting structural and dynamics projects.

Mr. Vanderpool's experience ranges from detailed thermal analyses of electronic boards to system-level thermal analyses of spacecraft, from fluid dynamic simulations of external flow over aeronautic designs to non-Newtonian fluid flow through vibrating nozzles, and from structural analyses of heatshields to dynamic response of antennas. Moreover, Mr. Vanderpool has experience with design, analysis, and testing of thermal assemblies. His diverse engineering background has included projects utilizing a variety of Siemens software, including NX, Femap (NX Nastran, Maya Thermal/Flow), and Star-CCM+ (recently acquired by Siemens). This experience enables him to provide assistance to ATA's software customers on the software support hotline.


Mr. Vanderpool has a B.S. and M.S. in Mechanical Engineering from the University of California, Los Angeles.

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