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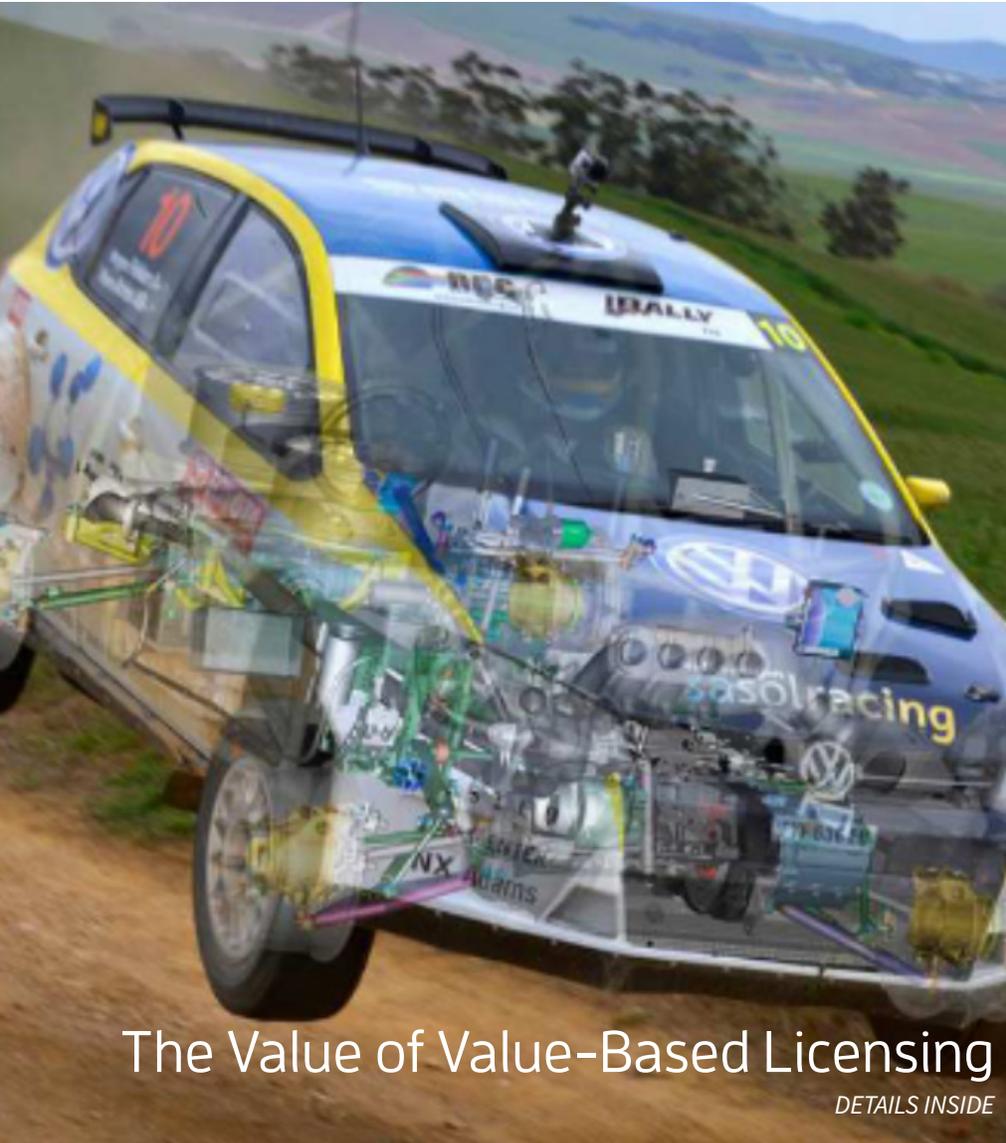
The Value of Value-Based Licensing

DETAILS INSIDE

Siemens Releases STAR-CCM+ 2021.1

Siemens Digital Industries Software introduces a wide variety of new features with Simcenter STAR-CCM+ 2021.1, which enables users to design better products faster and with greater confidence. The following are a few of the new capabilities:

- Increased insight into turbomachine performance with Average Solution Visualization and Section Flattening

- A faster approach to characterizing compressor performance with the Corrected Mass Flow Outlet Boundary Condition

- A read-only mode that allows engineers to open simulation files without consuming a license

- Surrogate Models in the Design Manager, allowing quick performance predictions to be made for thousands of design variants

- An Electric Circuit Editor that reduces setup time for electromagnetic simulations

- Improved usability of the Excitation Coil Model for designing electric machines

Learn more about these exciting new capabilities on the Simcenter Blog, which includes a number of impressive videos showcasing these features.

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The Value of Value-Based Licensing

NX is the most powerful, flexible, and innovative product development solution available in the market. Similarly, Simcenter 3D offers comprehensive, fully integrated CAE capabilities for a wide variety of engineering simulations. Numerous add-on modules targeting specialized needs are available for both products, but for many companies, cost has remained a barrier to widely adopting these solutions.

The good news is that this is changing with the availability of Value-Based Licensing for NX and Simcenter 3D. Otherwise known as "tokens," this flexible licensing model offers a real ability for small, medium, and large engineering teams to reduce costs while also expanding the engineering tools at their disposal. Tokens, which are pooled among users, provide access to a wide array of add-on modules that are very powerful but might not be needed every day by every user.

ATA invites you to check out these on-demand webinars for more information on the mechanics of Value-Based Licensing and details on the capabilities available through the token system:

- Value-Based Licensing for NX
- Value-Based Licensing for Simcenter 3D

Contact ATA to continue the conversation about how Value-Based Licensing can move your designs forward more quickly, with lower risk, and at an affordable cost.

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

JUL 19 **Introduction to Femap**

SIMCENTER NASTRAN WITH FEMAP

MAY 10 **Introduction to Finite Element Analysis**

MAY 17 **Multi-Step Nonlinear with Solutions 401 and 402**

MAY 24 **Introduction to Dynamic Analysis**

JUN 07 **Advanced Dynamic Analysis**

SIMCENTER NASTRAN WITH SIMCENTER 3D

APR 05 **Response Dynamics**

MAY 10 **Introduction to Finite Element Analysis**

MAY 17 **Multi-Step Nonlinear with Solutions 401 and 402**

MAY 24 **Introduction to Dynamic Analysis**

JUN 07 **Advanced Dynamic Analysis**

UPCOMING SEMINARS AND WEBINARS

MAR 30 **Improving Operations: Coupling DEM and CFD to Optimize Particulate Flows**

Discover a hidden gem of STAR-CCM+: its ability to combine a Discrete Element Method (DEM) solver for modeling particles with the CFD fluid solver to simulate the interaction of fluid and granular phases.

MAR 31 **Modeling Bolted Joints in Femap**

Modeling discrete fasteners with solid elements, contact, and bolt preload can add significant complexity to otherwise linear models and quickly becomes computationally prohibitive. This webinar will consider the best practices associated with simplified fastener representations, with a focus on approximations using rigid and beam or spring elements.

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

Tips and Tricks

STAR-CCM+: SAVE LICENSES WITH READ-ONLY MODE

The large number of models and capabilities in Simcenter STAR-CCM+ can yield incredibly powerful combinations of simulation configurations. An analyst may want to duplicate a successful configuration to be applied to similar problems, or may want to be able to understand input differences between two iterations in a trade study. For years, STAR-CCM+ has provided a means to compare simulation configurations between two open .sim files. Previously, however, the analyst was required to either have access to at least two STAR-CCM+ single session or power session licenses or use valuable power-on-demand hours to make the comparison between the two models.

In Simcenter STAR-CCM+ 2021.1, a read-only mode has been introduced to provide greater flexibility by allowing the user to consult simulation setups without consuming an additional license. The compare tool can be used to compare a full access simulation and a simulation opened in read-only mode, and settings can even be copied from a read-only simulation to a full-access simulation.

Learn more about what's now possible in STAR-CCM+ without a license on the Simcenter blog.

FEMAP: STAY PRODUCTIVE OFFLINE WITH LICENSE BORROWING

Femap's license borrow capability allows users with floating network licenses to stay connected and productive while on the go without requiring access to the FLEXlm license server. Users must be connected to the network and able to communicate with the license server to check out licenses, but once a license is borrowed, it can be held for up to 30 days.

Licenses are borrowed using the Borrow.exe program located in the main Femap directory (e.g., C:\Siemens\Femap 2021.1). Within the program, users can specify the number of days to borrow and select the features of interest, which can include Femap, Simcenter Nastran, and any associated add-on modules. Checked out licenses will be unavailable to others on the network until they are returned or the borrow period expires, at which time they will no longer be available on the borrowing machine. Users can return licenses before the borrow expiration date by reconnecting to the license server and using the same Borrow.exe program.

New Resources

Femap API: Remove File Paths from Group Names

This API removes file paths from group names in Femap, which is particularly useful for groups read in using "Create Groups from INCLUDE." The program loops through all group titles and assumes anything preceding a backslash (\) is part of a file name. The new group name will be the substring following the final backslash.

Simcenter 3D On-Demand Webinar: What's New in 2021.1

In this on-demand webinar, Pat Farrell, Senior Marketing Manager for Simcenter 3D at Siemens Digital Industries Software, provides a tour of key improvements in the newest release.

Highlights include:

- Improved user interface, now with Predict Next Command
- Advanced meshing for additive manufacturing
- Superelement support for rotor dynamics
- Enhancements to fluid-structure interaction
- Reduced runtimes for Nastran Multistep Nonlinear Solutions (SOL 401/402)
- The ability to predict fatigue and failure of hoses and cables
- Greatly enhanced turbine engine system model for Whole Engine Modeling

Recent News

ATA Engineering Wins Top Government Research Award

Earlier this year, ATA was named a recipient of the Small Business Administration's 2020 Tibbetts Award. ATA was selected based on our history of leveraging the government's SBIR/STTR investments into technological innovation, generating economic impact, and producing research advancements that address national priorities. Learn more about this achievement.

Siemens Releases Simcenter 3D 2021.1

The latest release of Simcenter 3D continues to improve its unique strengths, including faster CAE processes and multidiscipline integration. Learn more on the Simcenter blog or watch the on-demand webinar by Pat Farrell.

ATA Engineering Launches Instagram Page

ATA Engineering is now on Instagram! Follow us to stay up to date on the latest news, upcoming events, and career opportunities from ATA.

ATA Engineering Releases Vibrata 3.2.1

This release offers a significant performance improvement for creating the VRA5 file from an OP2 with a large number of modes, along with a few other enhancements and bugfixes.

Realize Live

Save the date! Realize LIVE is coming on May 26, with registration available beginning March 31. This virtual conference from Siemens Digital Industries Software offers training to optimize daily performance and opportunities for users to network and connect with thought leaders.
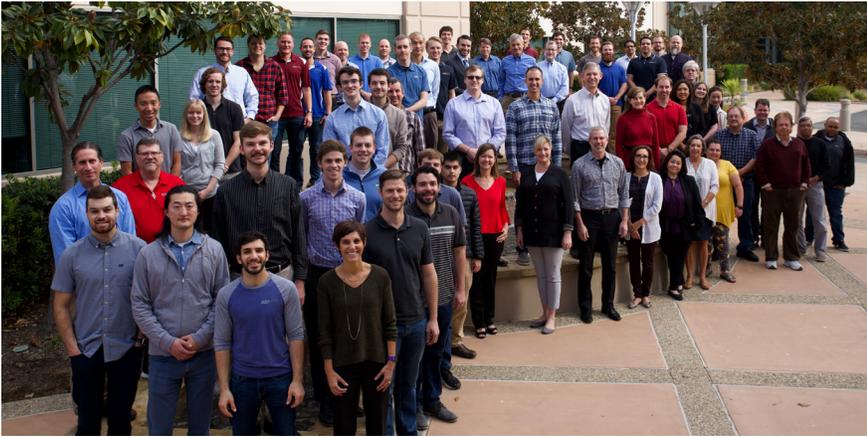
Why choose **ATA?**

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 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.

Featured Instructor

Greg Mathy

Mr. Mathy is a senior project engineer in ATA's San Francisco Bay Area office. During his 13 years at ATA, Mr. Mathy has worked on a large variety of structural analysis projects. He has supported customers in many industries, including aerospace, themed entertainment, military, green energy, and consumer products. His expertise is in using advanced simulation software to assess structures for both static and dynamic loads. This includes bolted joints, welds, fatigue of metallic structures, nonlinear (large displacements and plasticity), buckling, and contact. His primary software tools of choice are Simcenter 3D, Femap, and Nastran.

Mr. Mathy has served on the CAE hotline for almost 10 years and has received excellent ratings from customers. During that time he has logged hundreds of calls covering a huge range of questions regarding Femap, Simcenter 3D, and Nastran.

Mr. Mathy received both his bachelor's and master's degrees in mechanical and aerospace engineering from the University of California San Diego (UCSD).

Solution Partner
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SIEMENS

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

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