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@ataengineering sales@ata-e.com



858.480.2000

ATA Suite

ATA Engineering has been providing aerospace, mechanical and structural engineering services to thousands of customers in the aerospace, automotive, electronics, manufacturing, and consumer product industries over the past 40 years. To overcome some of the limitations experienced with existing commercial CAE software and give our engineers greater capability and flexibility to analyze and understand structures and to automate engineering processes, ATA has developed a powerful suite of software known as ATA|Suite. ATA|Suite includes IMAT, Attune, Hydro, PressMap, TempMap, and Vibrata—tools that enable extensive test and analysis data processing and improved simulation capability across various disciplines, from structural to thermal to computational fluid dynamics.



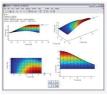


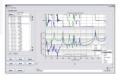




IMAT (Interface between MATLAB®, Analysis, and Test) is a suite of utilities that facilitates data sharing between MATLAB, analysis tools, and test software. The IMAT Toolbox provides a framework for easily importing FEA simulation data and measured test data into the MATLAB environment to access its versatile programming and mathematical strengths.

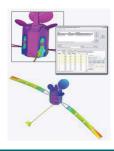
IMAT, a staple at ATA Engineering, was written to allow our advanced engineering services team to leverage the flexibility of MATLAB for each unique project without reinventing solutions to common project challenges, like importing raw .OP2 results, performing FFTs, and plotting engineering data such as frequency response functions.





Vibrata is a comprehensive, easy-to-use, advanced dynamics toolkit for predicting stress, deflection, and other responses to transient, harmonic, random, and response spectrum excitation. The software makes it easy to define, solve, and display results for both simple and advanced dynamic problems. You can even create your own solvers by customizing the standard solvers delivered with the software.

Vibrata uses the results of a finite element (FE) normal modes analysis to compute dynamic responses in the modal domain. It can use results from any FEA solver supported by Siemens/Femap®, although it is particularly suited to use with NX Nastran®. It uses Femap to store, view, and interact with the FE model definition and results data.



Attune is a highly automated stand-alone test-analysis correlation and model updating software tool that combines nearly 40 years of experience in this field into a user-friendly, flexible, MATLAB®-based toolkit. By automating the correlation process and providing a suite of leading-edge optimization tools, Attune provides the user with a powerful, efficient method of generating accurate, test-verified FE models.



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San Diego Corporate Headquarters

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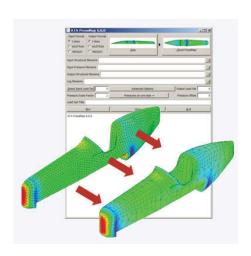
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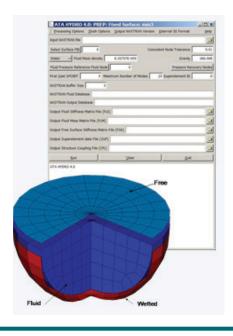




PressMap is a pressure data interpolator from a CFD model to an I-deas®, Nastran, or Abaqus® FE model. PressMap takes data on discrete points over the surface of a structure and maps this data onto a structural model. The geometry of the structural model is used to determine how the data interpolation is to be performed.

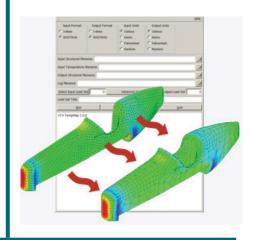


Hydro automates the creation of a superelement representation of sloshing fluid in Nastran, greatly simplifying your model while capturing the fluid's dynamics. It supports different fluid representations, including options that explicitly represent the slosh modes for response analysis.



TempMap is a temperature data interpolator that maps temperatures from a "cloud" of points to an I-deas or Nastran FE model. TempMap takes data on discrete points over the surface of a structure and maps this data onto an I-deas or Nastran structural model. The geometry of the structural model is used to determine how the data interpolation is to be performed.

TempMap uses the same interpolation technology that has been successfully used in ATA's PressMap for many years.



ATA Software can be purchased as perpetual licenses for individual software components or as annual ATA|Suite token licenses. The token-based licensing system allows the user to run any of the software products listed in this brochure, depending on the number of tokens purchased. Each software package requires a different number of tokens. For more information, please visit

http://www.ata-e.com/software/ata-software/atasuite/

Request your free trial of the ATA|Suite software and take your engineering to new heights in efficiency and advanced capability! If you would like to receive a a free 30-day trial version of any ATA|Suite software, please visit

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