



Exploring the Next Generation of Mechanical Solvers

David Massaro – Autodesk Inc.

SM5395-R In this class we will discuss attendees' current workflows and how they could be improved. Group discussion about current integration and workflows will be encouraged to help shape the direction for future releases. We will also focus on how CAD and simulation should interact.

Learning Objectives

This round table will provide the opportunity to:

- Discuss CAD/simulation integration
- Share views of “proper” simulation workflow
- Provide insight to the design team for future work performed
- Discover new offerings related to Autodesk Nastran

About the Speaker

David Massaro received his bachelor's degree in mechanical engineering from Virginia Polytechnic Institute and State University. After working for Siemens and ALGOR, Inc., he has been with Autodesk, Inc., for almost 6 years. He is responsible for the user experience in several simulation products, and he's constantly working to add functionality to the products and make them easier to use. For this reason he finds customer engagement one of the most important aspects of his job.

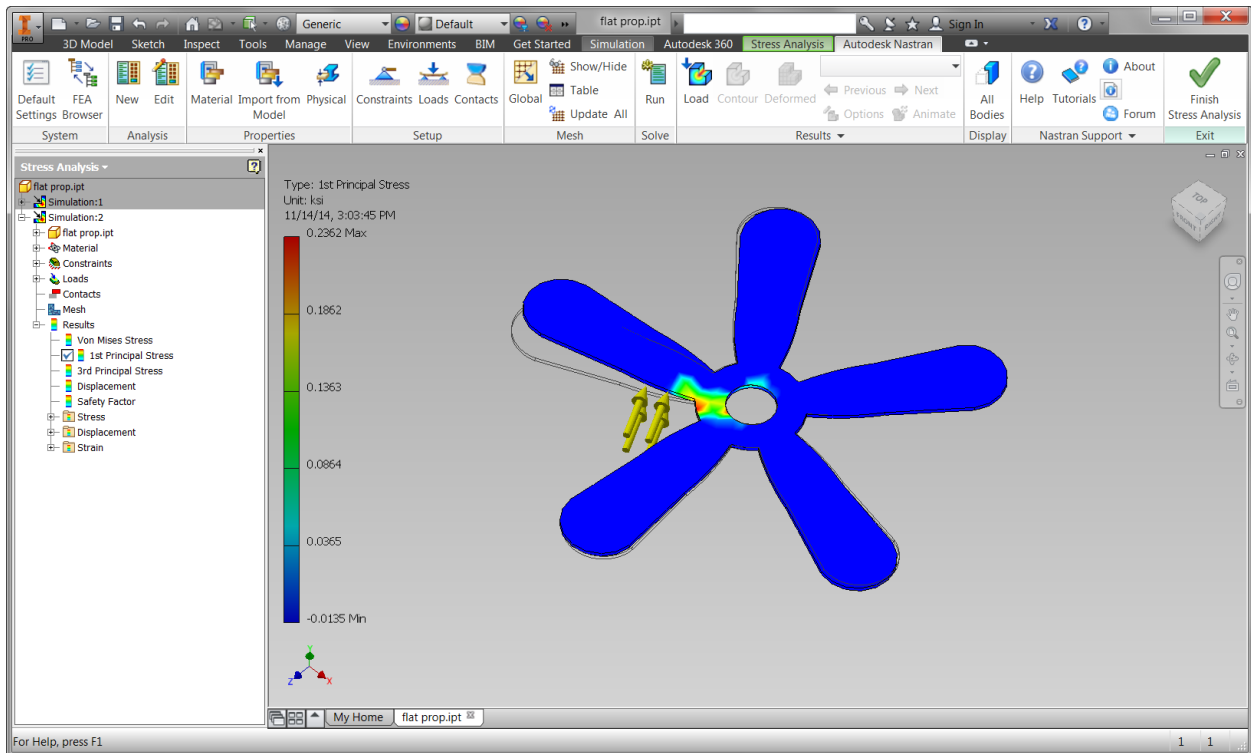
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Discuss CAD/simulation integration

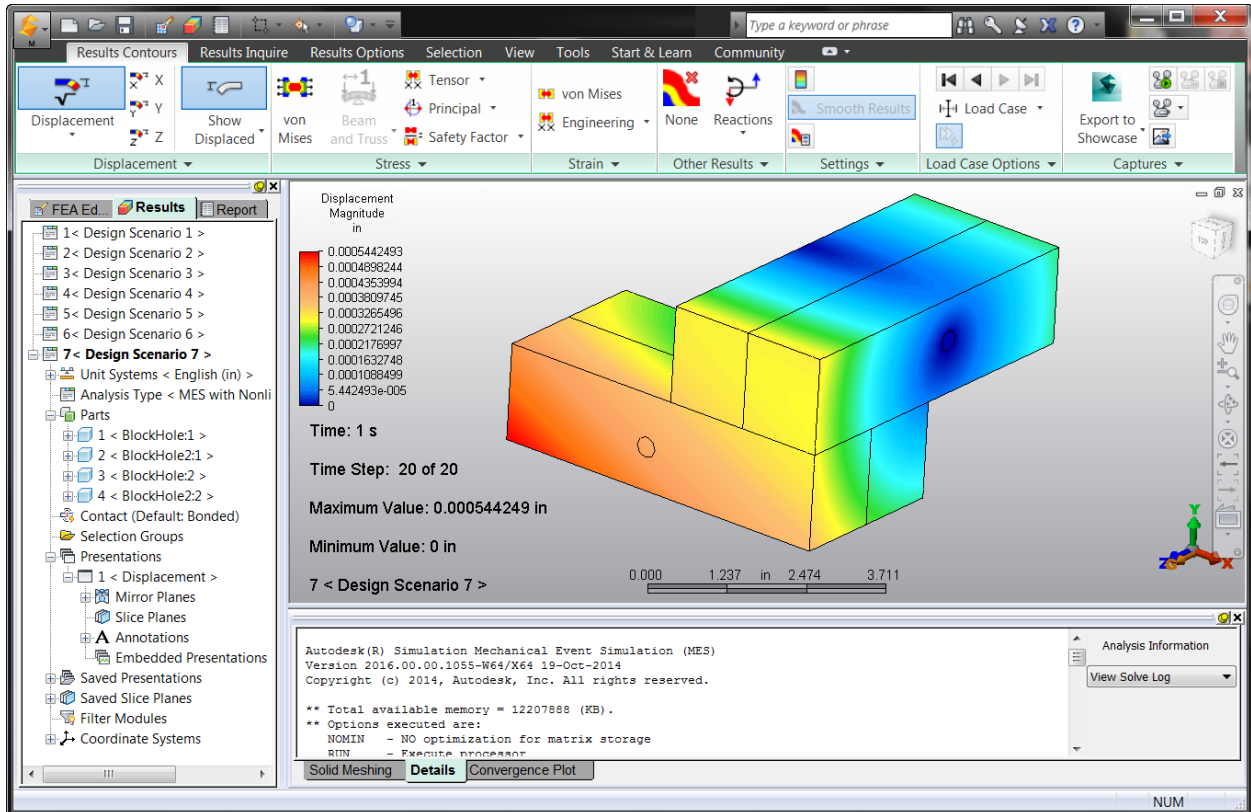
What is the ideal relationship between your CAD/creation environment and your simulation environment? Do you prefer one tightly integrated package or two separate independent programs?

Example: combined environment

Autodesk Inventor Professional (AIP) Stress Analysis,
Autodesk Nastran In-CAD

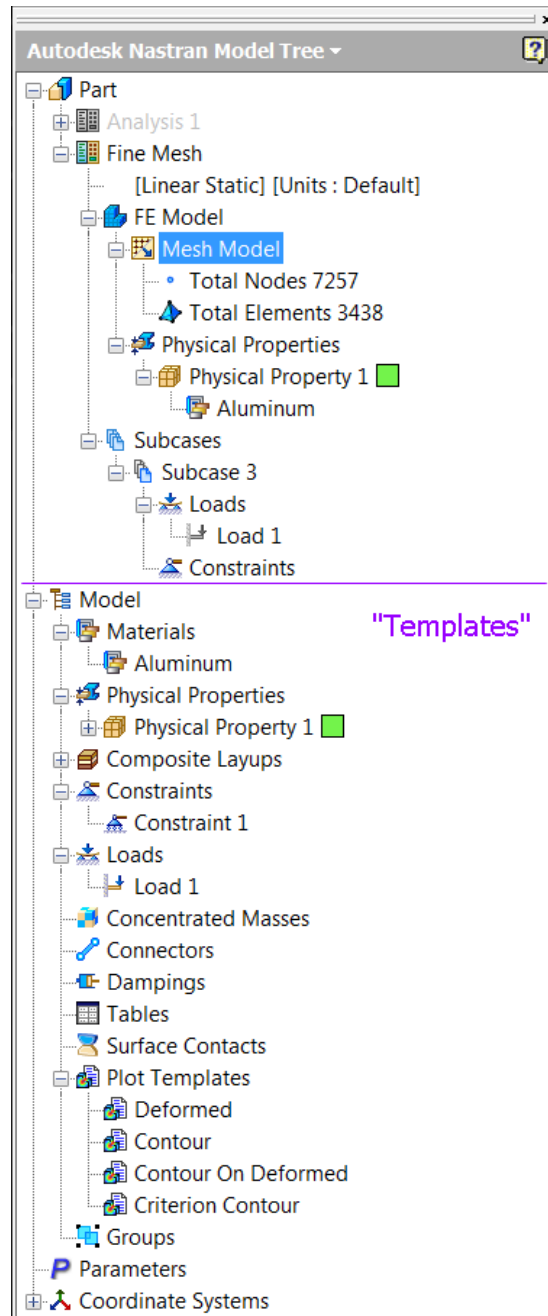


Example: separate CAD and simulation environments Autodesk Simulation Mechanical



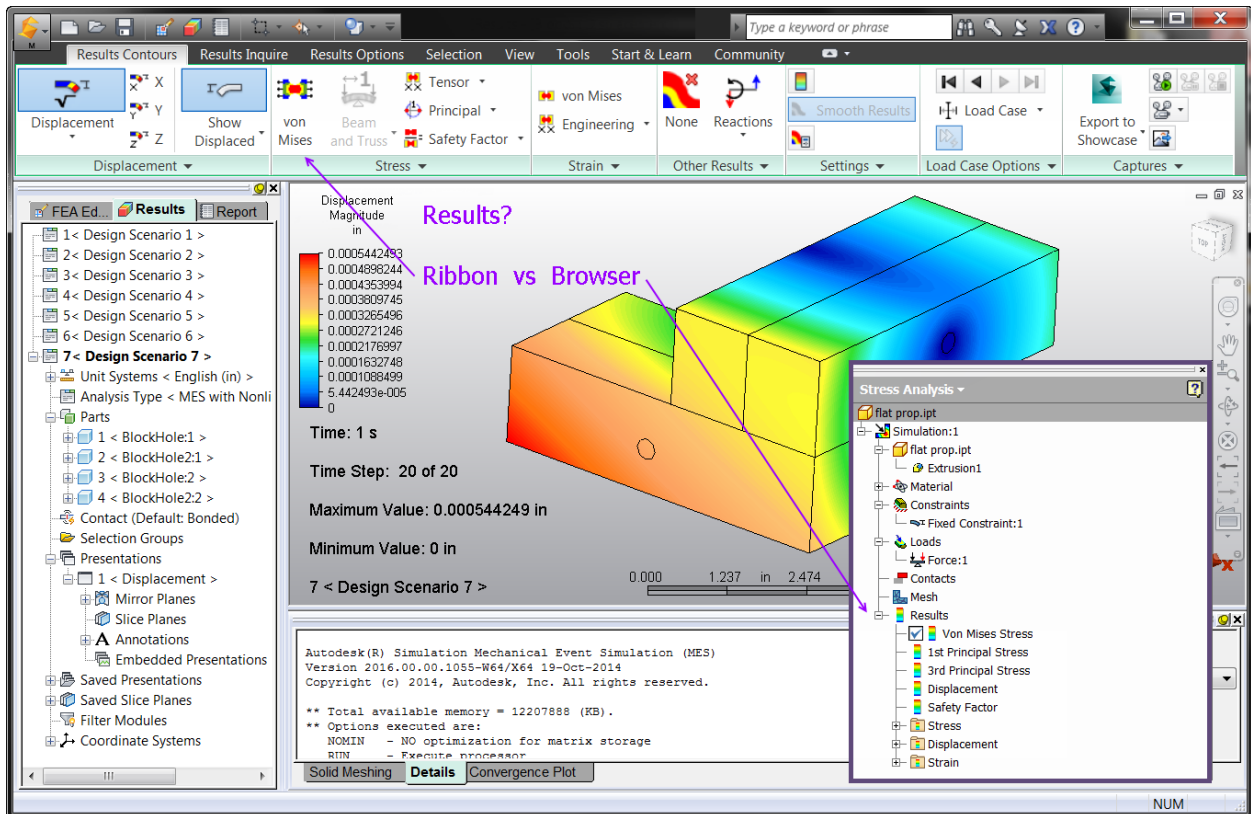
Share views of “proper” simulation workflow

- What is the first thing you do when setting up a simulation?
- Should simulation materials always match the CAD part?
- How do you iterate model changes?
- Do you often use the same loads/constraints/materials over and over?



Provide insight to the design team for future work performed

- What functionality is missing?
- What is your favorite feature?
- Where do you expect to change simulation result type:



Discover the new offerings related to Autodesk Nastran

Autodesk Simulation Mechanical

www.autodesk.com/products/simulation-mechanical/overview

Simulation Mechanical software, featuring integrated Autodesk Nastran FEA solver software, provides fast, accurate, and flexible tools for finite element analysis and modeling. Whether you're a designer, engineer, or analyst, Simulation Mechanical helps you predict product performance, optimize designs, and validate product behavior before manufacturing. It's part of the Digital Prototyping solution.

Autodesk Nastran In-CAD

www.autodesk.com/products/nastran-in-cad/overview

Autodesk® Nastran® In-CAD™ software, a CAD-embedded general purpose finite element analysis (FEA) tool powered by the Autodesk® Nastran® solver, offers a wide range of simulation for multiple analysis types. As part of the Autodesk Digital Prototyping solution, it delivers high-end simulations to help engineers and analysts make great products.

Autodesk Nastran

www.autodesk.com/products/nastran/overview

Autodesk® Nastran® FEA solver software analyzes linear and nonlinear stress, dynamics, and heat transfer characteristics of structures and mechanical components—see real-time results and changes in solution parameters while solving. This technology helps engineers and analysts to gain accurate results to complex simulations and is a part of Autodesk's Digital Prototyping solutions.