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NASA Tech Briefs Names ALGOR V20 as Product of the Month

NASA Tech Briefs (NTB), an official publication of the U.S. National Aeronautics & Space Administration (NASA) that features exclusive reports of innovations developed by NASA and its industry partners/contractors, announced that ALGOR V20 finite element analysis (FEA) software was selected as the Product of the Month for June 2007. ALGOR V20 is the latest product release from ALGOR, Inc., a leading provider of design, analysis and simulation software located in Pittsburgh, Pennsylvania.

"The *NASA Tech Briefs* Product of the Month represents the one product received by our editors each month that exhibits exceptional technical merit and practical value for our 190,000 design engineering readers," said Linda L. Bell, *NASA Tech Briefs*' Editorial Director. NTB editors choose the Product of the Month from all new product releases received during the prior month (usually well into the hundreds) based on the product's uniqueness and importance to design engineers. At the end of the year, the 12 Products of the Month are placed on a ballot on the NTB web site, and NTB readers choose the Product of the Year from those 12 nominees.

"This recognition by a leading engineering trade publication attests to ALGOR V20's responsiveness to market needs for faster, easier-to-use analysis tools," said ALGOR Product Manager Bob Williams. "V20's new, faster, completely integrated CAD/FEA modeling environment is one example of how our product development process continues to be driven by customer requests."

Some of the highlights of ALGOR V20 include:

- support for design scenarios (perform multiple analyses using different analysis types, load sets and constraint sets for the same model)
- a wizard for applying bolt loads
- support for design studies and size optimization
- improved meshing tools including isoparametric second-order brick elements (midside nodes follow curvature)
- enhanced capabilities for fluid flow analysis:
    - support for multiple rotating frames of reference for 3-D modeling of complex fans and similar systems
    - k-epsilon turbulence model for 3-D transient mixed Galerkin/Least-Squares (GLS) formulation with surface roughness effects
    - buoyancy effects for transient analyses
    - total pressure boundary for 3-D
    - static pressure boundary with backflow for 3-D
    - inlet and outlet vent for 3-D
- faster, best-in-class sparse solver for fluid flow, heat transfer and linear dynamic analyses
- updated Material Library Manager with new directory structure organization and tree view
- reinforced (rebar) concrete element and material model for Mechanical Event Simulation
- capability to define results-based load curves for Mechanical Event Simulation
- enhanced multiphysics analysis including coupled unsteady fluid flow and transient heat with buoyancy effects
- capability to use element length as a result type and in custom calculations

ALGOR's wide range of simulation capabilities includes static stress and

Mechanical Event Simulation (MES) with linear and nonlinear material models, linear dynamics, fatigue, steady-state and transient heat transfer, steady and unsteady fluid flow, electrostatics, full multiphysics and piping.

To learn more about the *NASA Tech Briefs* Product of the Month, visit www.techbriefs.com. For more information about ALGOR software, contact an ALGOR account manager or visit our web site – www.ALGOR.com.

For pricing, to learn more about our products or to make suggestions regarding future software enhancements, click here. Also, read about recent product developments in the News section of our web site.