



PRESS RELEASE

AlphaSTAR Releases GENOA3DP, Test Validated Software for AM Metal Powder Fabrication

LONG BEACH, CALIFORNIA (1/22/2018) – AlphaSTAR Corporation starts off the New Year with the release of Additive Manufacturing capabilities for *Metals* as part of an update to GENOA 3DP. GENOA 3DP is an Additive Manufacturing Simulation tool that assists the 3D printing process to accurately predict deformation, residual stress, damage initiation and crack growth formation associated with as-built AM parts.

Utilizing multi-scale progressive failure analysis methods to replicate the entire AM process, from Material Characterization to Advanced Structural Analysis, GENOA 3DP is able to determine voids, cracks and other manufacturing anomalies. Additionally, the tool provides end users with the ability to import a G-Code file, generate a structural mesh, run test validated analysis and optimize the AM build.

Some of the key benefits of *GENOA 3DP Metals* include:

- **Process Simulations:** High Fidelity and Low Fidelity Solutions for Thermal and Thermal-Structural Analysis
- **Automatic Mesh Generator** from G-code
- **Automatic and External Mesh** AM model generation
- **Environmental Effects** (e.g. oxidation) on material properties
- **Scatter and Uncertainty** Prediction
- **Void and Damage Calculation** using Global/Local Material Modeling with Grain and Grain Boundary Approach
- **Post Build Simulation;** Bottom Plate Removal
- **Qualification and Certification:** As-built Part Performance Prediction

The AlphaSTAR team has been working over the years to match GENOA 3DP's metal capabilities to the already existing toolset used for polymeric materials. "We are very excited to introduce this product to the Metal Additive Manufacturing market and make it available for real industry use. The toolset has the potential to revolutionize the way engineers alike solve their AM challenges" says Ms. Kay Matin, President of ASC. With the cooperation of industry partners, GENOA 3DP has been tested and verified through real life tests from the beginning to the end of product life cycles.

About AlphaSTAR Corporation: AlphaSTAR Corporation is a leading engineering services and software company that provides innovative physics-based simulation technologies for structural modeling and analysis of advanced composite structures in the aerospace, automotive, defense, and energy industries worldwide. As a solution provider, AlphaSTAR partners with DS SIMULIA, LSTC, MSC SOFTWARE, ANSYS and SIEMENS. AlphaSTAR is headquartered in Long Beach, California and is the recipient of esteemed industry and technology awards for R&D and software development.

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