CONVERGENT SCIENCE CREATES NEW EXTENSION TO THE CGNS FORMAT TO ALLOW FOR THE EXPORT OF PARTICLE DATA

MADISON, WI, UNITED STATES, February 12, 2025 /EINPresswire.com/ -- The CFD General Notation System (CGNS) is a standardized file format system for the storage and retrieval of CFD output files. CFD engineers can store their files in CGNS format, allowing their data to be read and interpreted by many post-processing tools, which enables the visualization of raw data.

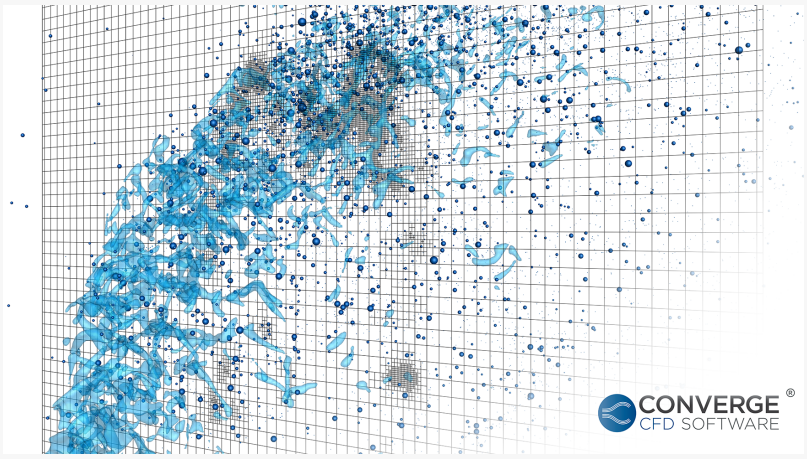

Image courtesy of Convergent Science

Until recently, the CGNS platform lacked documentation on particle data. As such, if CFD results included particle-laden flows or data created using a Lagrangian modeling approach, a different file format was required for exporting the data for post-processing. As a result, some CFD solvers could not use CGNS and instead exported their files in a proprietary format.

In May 2024, Convergent Science proposed an extension to the CGNS format to remediate this limitation by enabling the export of particle data. The company compiled the appropriate modifications to the three components of the CGNS: the SIDS (Standard Interface Data Structures), the MLL (Mid-Level Library), and the FMM (File Mapping Manual). The proposal was accepted, and the new CGNS platform now includes nodes with precise definitions for information related to particle data.

“We first realized a need for this extension when our users wanted to export CONVERGE results in the CGNS format,” said Alexandre Minot, Principal Engineer at Convergent Science, who spearheaded the proposal. “However, before we could extend that option to our users, we needed CGNS to have the ability to export Lagrangian data, since many CONVERGE simulations include sprays. By fixing this problem and creating this extension, we are underscoring our commitment to leading the CFD industry forward.”

For more details about the new CGNS extension, read this blog post on the Convergent Science

website.

###

About Convergent Science
Headquartered in Madison, Wisconsin, Convergent Science is a global leader in computational fluid dynamics (CFD) software. Our mission is to enable our customers to perform revolutionary CFD simulations by creating accurate, versatile, user-friendly software and providing unparalleled support.

Our flagship product, CONVERGE, is an innovative CFD software that eliminates the grid generation bottleneck through autonomous meshing and features a suite of advanced physical models, fully coupled detailed chemistry, and the ability to easily accommodate moving geometries. CONVERGE is revolutionizing the CFD industry and shifting the paradigm toward predictive CFD.

Tiffany Cook, Partnerships + Public Relations Manager
Convergent Science
email us here
Visit us on social media:
Facebook
X
LinkedIn
YouTube
