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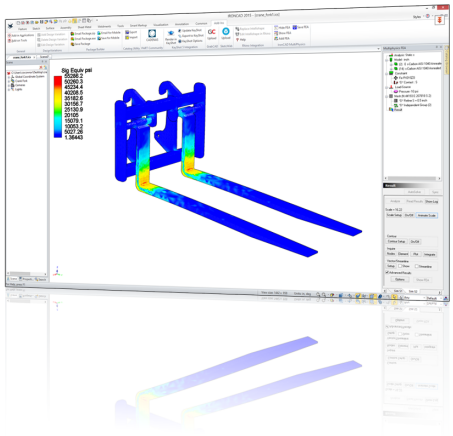
intrinSIM News - IronCAD Releases Updated Integrated Analysis

IronCAD integrated analysis now provides fluid analysis and reporting



IronCAD announces a major update to their integrated analysis solution MPIC (Multi-Physics for IronCAD). MPIC provides advanced FEA (Finite Element Analysis) focusing on ease of use for fully coupled multi-physics stress, thermal, electrostatic, and fluid analysis.

In the latest release, fluids has been enabled and is fully coupled with stress, thermal, and electrical physics for true multi-physics capabilities. The new CFD (Computational Fluid Dynamics) module is based on the newest advanced Optimal Least-Square formulation with a velocity-vorticity-pressure equal order/convergence formulation.

Other improvements include a new unit system for more flexible metric or US unit system engineering applications. The simulation analysis is computed based on the actual user geometry/material unit to better preserve numerical accuracy. A new energy-based MLS (moving-least-squares) "FE tying" fills the intended/unintended small gaps/overlapping of parts for general assembly analysis without laborious geometry fixing. In addition, customers now have new reporting options to create meaningful reports of

your analysis to easily share among your team.

IronCAD customers can benefit from a more convenient analysis interface which employs a contour display slide bar to dynamically vary the contour display to search for peak results, and a new streamline slide bar easily controls the streamline density interactively to trace heat flow, flow line, or any user specified components to easily visualize the physics.

MPIC is included with full product capabilities including fluids with the standard IronCAD solution for 30-days then extends as a node-limited version allowing you the ability to experiment validation of your designs. Even though the extended version is node-limited, MPIC's technology using SefeaTM (Strain-Enriched Finite Element Analysis) gives you extended capabilities to test you products at a lower mesh level. SefeaTM is the newest enriched finite element formulation developed specifically for low-order 4-node tetrahedron elements commonly used in CAD simulation. It achieves the same accuracy as 2nd-order elements, but is more robust, without mid-side-node noise, and requires much less computing cost.

Multi-Physics for IronCAD is available immediately from http://www.ironcad.com/MPICDownload.

To learn more, click here.

Until next time,

Joe Walsh
CEO
intrinSIM

intrinSIM LLC | 1482 The Orchard Road | Clarkesville | Ga | 30523