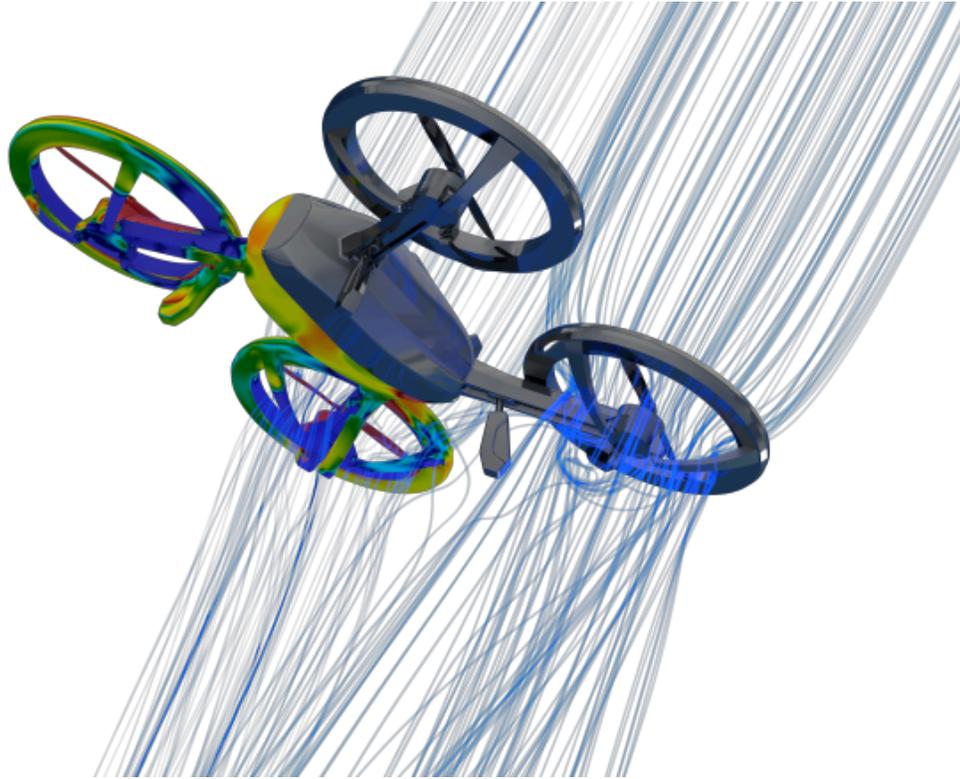**TSUS e-Brief November 2024 | Issue 11**

Ray Talks Advancements in Digital Twins and Autonomous Systems in Uncrewed Systems Technology

TotalSim co-founder and President, Ray Leto, was featured as an expert source in the October/November issue of Uncrewed Systems Technology magazine for their article, "Sense and Simulation." The piece delves into the latest advancements in simulation technologies for autonomous vehicles (AVs) and uncrewed systems, with a particular focus on digital twins and high-fidelity simulations. It explores the challenges of creating accurate, repeatable virtual environments for testing AV sensors, using cutting-edge tools like ray-tracing GPUs, generative AI, and computational fluid dynamics (CFD).

Nvidia's Omniverse digital-twin software has been rewritten to support autonomous driving simulations (Image courtesty of Nvidia)

The article also discusses how quantum computing is accelerating simulations and enhancing sensor data accuracy, driving major breakthroughs in the development, testing, and validation of autonomous technologies. These innovations are shortening development cycles and improving the precision of results, paving the way for safer and more efficient autonomous systems.

To learn more, or read the full article, click here.

Unlock the Secrets of Racecar Aerodynamics with Naethan at PRI 2024

Join us this December at the PRI Show for an in-depth seminar on *Racecar Aerodynamics* with TotalSim co-founder and Technical Director, Naethan Eagles. With years of experience in motorsports aerodynamics, Naethan will share valuable insights and answer your questions, offering a deeper understanding of how aerodynamics impact performance. Whether you're looking to refine your setup or expand your knowledge, this is a great opportunity to learn from one of the industry's leading experts.

Visit us at booth number 133, or let us know if you'll be there, and we can schedule a time to chat!

Race Car Aerodynamics Presentation Applicable to different race series that use aerodynamics, from grassroots to dirt series to NASCAR, Indy & Formula 1

Naethan Eagles
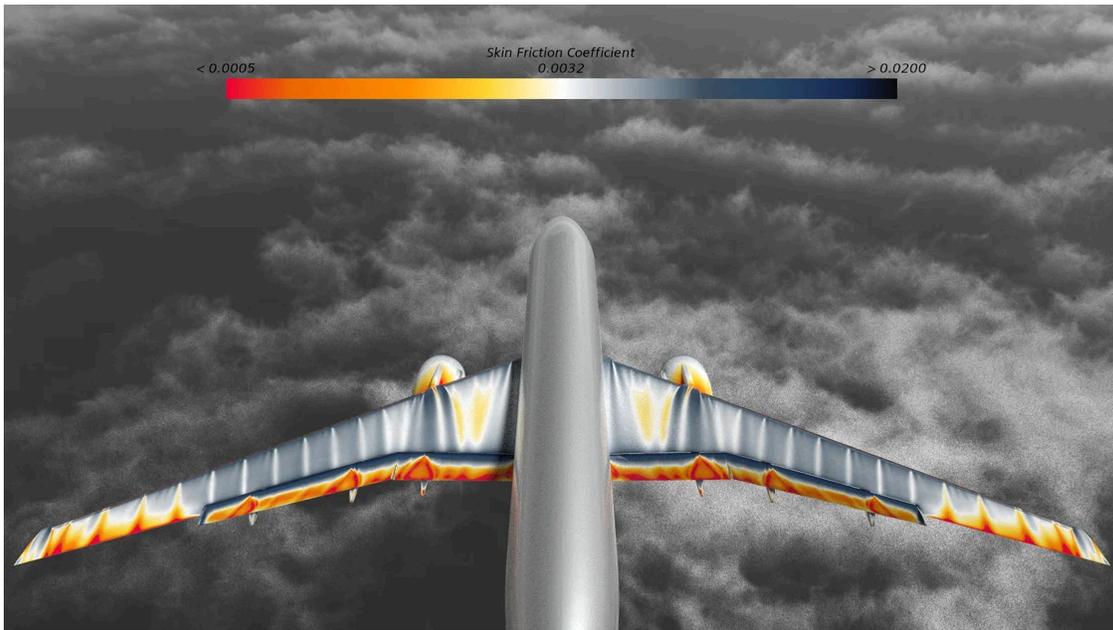
TotalSim's Technical Director & Co-Founder

Friday, December 13, 2024
1:00 PM - 2:00 PM

STAR-CCM+ 2410 Update: Boosting Efficiency and Innovation for Users

The latest update to STAR-CCM+ (version 2410) brings a host of powerful new features designed to streamline workflows and enhance simulation accuracy. With improved meshing capabilities, faster solvers, and expanded multi-physics support, users can expect more efficient simulations and greater flexibility in handling complex designs. This update also introduces advanced automation tools, making it easier to optimize workflows and reduce simulation time, allowing engineers to focus on design innovation. STAR-CCM+ 2410 is a game-changer for users looking to push the boundaries of simulation technology.

If you're interested in learning more about the latest update or how STAR-CCM+ can help with your next project - reach out to schedule a time to talk!

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Upcoming Events

PRI // December 12 - 14 // Indianapolis, IN

Industries Where We Excel