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Presentation Title: Pervasive CFD Simulation

Abstract:

For the products of tomorrow to become a reality, engineering simulation must change. It will evolve to be the tool for every engineer, for every product, across the entire lifecycle. Without this evolution, we will not be able to fully capitalize on the opportunities created by Industry 4.0. Those who do less will be out-innovated. For nearly half a century, ANSYS has been instrumental in helping customers drive innovation with engineering simulation, while also reducing costs and product development time. From cars, planes and trains to consumer electronics, industrial machinery and healthcare solutions, ANSYS software has helped create products that have transformed their respective industries. While we are amazed by our customers' achievements, and we believe they represent only the beginning of the incredible value that simulation can generate. Today, simulation is entering a new era, characterized by three fundamental changes: - Simulation used to be a scarce resource applied in the design of only the most complex industrial products, but now it is becoming integral to the design of every product. - Product simulation examined single attributes: one physics, one component, one design. Now we explore a plethora of designs at the system level with interactions across multiple physical and digital domains. - Perhaps most exciting, simulation is being leveraged not just for design validation, but from early ideation through manufacturing, operations and maintenance. In short, engineering simulation is becoming more pervasive in its ability to positively impact product innovation and performance, drive top-line growth and deliver end-user benefits.