

by **LESLIE BODNAR**
Executive Editor



simulating
REALITY

Reaching the Apex

Is modeling and simulation finally reaching higher levels of usability, accuracy, and efficiency?

Engineers are telling us, yes. In fact, it is.

In this issue, we introduce new technology that is already pushing the envelope by creating dramatic time savings for engineers involved in the initial stages of the analysis process - specifically geometry repair, modeling, and meshing. These mundane and repetitive tasks are where our customers tell us they simply need a new approach, a better one.

Our answer – **MSC Apex**.

And, this is just the beginning of what's to come.

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Reaching the top and pursuing greatness in the application of engineering simulation throughout the stages of new product development and into design validation is what we will always strive to help engineers do.

Already in its fourth release, MSC Apex is producing real time savings for companies like TLG Aerospace, DEMA, and Dynetics Technical Services.

On **page 24**, TLG Aerospace engineers describe how they were able to reduce geometry cleanup and meshing time by 75%. While DEMA engineers were able to reduce the time required to analyze their design by 60%. See **page 26**.

Also included in this issue is a dedicated **Co-Simulation Spotlight**.

Beginning on **page 8**, we introduce **five stories** each describing different methods for applying co-simulation such that engineers are now able to test more scenarios with higher fidelity and better accuracy than ever before through virtual testing.

Integration of simulation technologies also cuts development time and drives rapid innovation in products. For example, Volvo Car is coupling multibody dynamics and nonlinear FEA to design lighter suspension systems and look at more design alternatives. See their story on **page 10**. Litens Automotive is able to achieve a 90% reduction in computation time using the same approach. See **page 12**.

The automotive and machinery industries aren't the only ones benefiting from advancements in co-simulation technology. On **page 16**, see how it's revealing hidden insights into bedsores for hospital equipment manufacturers.

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Thank you to everyone who shared their story with us.

Sincerely,

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