

Press Release

For immediate distribution

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Hexagon and VI-grade accelerate zero-prototype automotive engineering with high-fidelity vehicle simulators

Hexagon's Manufacturing Intelligence division today announced that its Adams Real Time multibody dynamics simulation software has been validated for operation on [VI-grade Driving Simulators](#), enabling carmakers and tier one automotive suppliers to develop safe and desirable driver experiences efficiently, and without physical prototyping.

The automotive industry is under constant pressure to address rapidly evolving market demands with resource-constrained engineering environments. Rapid product development timelines are compounded by shrinking physical prototype budgets that necessitate greater use of simulation. Automotive engineers rely on Adams to build their virtual vehicle prototypes and its Adams Real Time Hardware-in-the-Loop (HIL) capabilities to bridge the gap with physical tests. The high-fidelity simulations they develop are used to evaluate their engineering decisions against ride, handling and durability targets to produce safe and comfortable cars.

A leading provider of driving simulator technology, VI-grade helps engineers accelerate automotive innovation by enabling physical testing of Computer Aided Engineering (CAE) models, without the need to manufacture prototypes of systems or vehicles. Adams Real Time is now recognised by its VI-Certified program, that includes only those third-party solutions that pass stringent tests for real-time reliability and safety. Hexagon has drawn on its many years of collaboration with VI-grade to bring high-fidelity physics to VI-grade's experiential driving platforms, making it easier to reproduce on-road experiences in the manufacturer's test facilities where engineers and focus groups improve future vehicles.

There are significant returns on investment for companies using Adams. The simulation models routinely created for vehicle dynamics and handling can now be used for the real-time testing and validation tasks performed on VI-grade simulators simply by applying Adams Real Time settings. Utilising a consistent, high-fidelity Adams vehicle model throughout the product development cycle delivers significant productivity gains, driving down costs and enabling engineering teams to improve the quality and performance of the end product.

Using Adams Real Time, users can now extend the use of their existing models directly into HIL or the Driver-in-the-Loop (DIL) testing and validation phases. Unlike other approaches, the topology and parametrics of the vehicle model are preserved when Adams Real Time is used in real-time applications, allowing engineers to explore different vehicle configurations and tune them seamlessly, and enabling stakeholders in adjacent departments to collaborate more effectively. Standardising on a single model throughout the product lifecycle also helps to eliminate unproductive and error-prone translations between different simulation software.

“The combination of VI-grade’s simulator platform and high-fidelity Adams vehicle physics empowers our customers to leverage a common vehicle model for both their offline development and connected real-time applications. This single-model development paradigm multiplies the productivity, cost reduction, and product performance value that Adams provides today to enable more reliable end-to-end processes and improve collaboration.” said Chris Baker, Head of System Dynamics software at Hexagon. “The VI-Certified program is a stamp of approval for the robustness, reliability, and accuracy of Adams Real Time, and Hexagon is proud to work with VI-grade to enable a future of zero prototypes.”

“We are excited to have Hexagon as part of the VI-Certified partner program,” said Tony Spagnuolo, VP of Business Development at VI-grade. “The program will reduce the integration burden on our customers by ensuring that the best of our third-party partner software tools work seamlessly on our simulators. Customers can be confident that we have validated the software they are looking to use on our simulators. They also have the assurance of regular product updates and dedicated customer support. Through our partnership, Hexagon and VI-grade are providing a valuable, time-saving solution that makes it easier for our customers to use virtual prototyping with confidence to save cost and get safe, compelling products to market on time.”

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About Hexagon

Hexagon is a global leader in digital reality solutions, combining sensor, software and autonomous technologies. We are putting data to work to boost efficiency, productivity, quality and safety across industrial, manufacturing, infrastructure, public sector, and mobility applications.

Our technologies are shaping production and people related ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future. Hexagon’s Manufacturing Intelligence division provides solutions that use data from design and engineering, production and metrology to make manufacturing smarter. For more information, visit hexagonmi.com.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 23,000 employees in 50 countries and net sales of approximately 4.3bn EUR. Learn more at hexagon.com and follow us [@HexagonAB](https://twitter.com/HexagonAB).