Ansys Launches AVxcelerate Autonomy, Streamlining Development and Validation of ADAS/AV Systems for L2+, L3, and Beyond

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The cloud-native, end-to-end solution is capable of reducing development cost and validation timelines by 100,000X

/ **Key Highlights**

- [Ansys AVxcelerate Autonomy](#) simulates the majority of the required test driving for Level 2+ (L2+), Level 3 (L3), and above advanced driver assistance systems (ADAS) and autonomous vehicle (AV) compliance
- Co-developed with the [BMW Group](#), the product's expansive scenario variation management capabilities create a flexible, high-performance virtual environment
- The safety-driven, first-of-its-kind solution designed with a model-based systems engineering (MBSE) framework features open architecture for easy integration into any AV development and validation process

PITTSBURGH, Dec. 19, 2023 /PRNewswire/ -- [Ansys](#) (NASDAQ: ANSS) launches AVxcelerate Autonomy, a first-of-its-kind, end-to-end solution capable of reducing cost and time-to-compliance for L2+, L3, and above ADAS/AV systems by 100,000X. Co-developed with the [BMW Group](#), Ansys AVxcelerate Autonomy empowers companies to further digital transformation efforts and achieve the majority of test driving required for compliance virtually.

The race to develop safe, reliable autonomous vehicles is unfolding in a virtual environment. Increasingly powerful digital engineering technology enables users to validate safety by virtually evaluating millions of known and unknown situations that mimic real-world driving scenarios.

The latest evolution in AV simulation technology, Ansys AVxcelerate Autonomy is cloud-native, modular, and designed around an MBSE framework. Its flexible, open architecture follows the Association for Standardization of Automation and Measuring Systems (ASAM) openX standards. This industry benchmark facilitates seamless data transfer from the toolchain and supports integration into any enterprise-level solution via fixed APIs. The solution is in the process of becoming ISO 26262 certified, allowing companies to develop their workflows for L3 and above certification.

AVxcelerate Autonomy utilizes expansive scenario variation management capabilities to perform sensitivity and reliability analyses that help users determine the probability of ADAS/AV system failure and validate systems at-scale to establish a case for safety justification. Designed for continuous safety validation, AVxcelerate Autonomy can accommodate over-the-air updates for the lifecycle of the product.

Leveraging the power of a robust, adaptive exploration algorithm optimized in the cloud, users will be able to accelerate sensitivity analyses by 1,000X compared to traditional algorithms. By replacing most of the physical tests with virtual driving, users can further accelerate development by 100X to realize a potential 100,000X reduction in cost and time-to-compliance.

"Navigating the complex rules around regulatory compliance by providing safety justification is one of the biggest challenges for automotive manufacturers," said Walt Hearn, senior vice president of worldwide sales and customer excellence at Ansys. "Moving from one level of autonomy to the next requires extreme technological advances that are accessible, scalable, and easily implemented. The predictive accuracy and framework of Ansys AVxcelerate Autonomy can speed autonomous technology development to support the industry in realizing a future where traffic collisions are extinct."

Visit [Ansys at CES](#) in Las Vegas from Jan. 9-12, 2024, at booth #6500 to learn more.

/ About Ansys

Our Mission: Powering Innovation that Drives Human Advancement™

When visionary companies need to know how their world-changing ideas will perform, they close the gap between design and reality with Ansys simulation. For more than 50 years, Ansys software has enabled innovators across industries to push boundaries by using the predictive power of simulation. From sustainable transportation to advanced semiconductors, from satellite systems to life-saving medical devices, the next great leaps in human advancement will be powered by Ansys.

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