AVSimulation and ANSYS Speed Development of Safe Autonomous Driving for Automakers

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PITTSBURGH, June 25, 2019 /PRNewswire/ -- The next generation of autonomous vehicles (AV) will be designed faster, safer and more affordably thanks to a strategic partnership between AVSimulation and ANSYS (NASDAQ: ANSS). The collaboration integrates revolutionary simulation technology from AVSimulation with ANSYS' immersive autonomous driving simulation solutions, greatly accelerating AV's path to market for automobile manufacturers.

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Meeting the stringent safety standards for autonomous driving requires proof that all complex interactions between an autonomous vehicle and its surrounding environment, traffic and weather can be tested across millions of scenarios. This testing requires billions of miles of exhaustive physical road tests of the prototype car, consuming decades of development time and cost.

To drastically reduce physical prototype testing and save time, OEMs are turning to ANSYS® VRXPERIENCE®, one of ANSYS' immersive, cutting-edge solutions, to combine virtual reality capabilities with physics-based simulation. It enables engineers to test, validate and experience AV systems and vehicle performance in everyday driving conditions, spanning millions of virtual miles in a single day. VRXPERIENCE includes HMI testing, physical sensor simulation (including radars, LIDARs, cameras and ultrasonic), embedded software controls integration, headlamp simulation and links to simulation data management and systems safety analysis.

Embedded within VRXPERIENCE, as its driving simulator module, AVSimulation's proven SCANeR™ Studio product is an open and scalable modular simulation solution that creates an ultra-realistic virtual world, enabling users to simulate thousands of driving scenarios with numerous variabilities on high performance clusters or on public cloud, such as Microsoft Azure. SCANeR™ incorporates roads generated from high definition maps and asset libraries, traffic situations, weather conditions, vehicle dynamics and more.

"Virtual prototyping and massive simulation are key to ensuring safe autonomous vehicles," said Olivier Colmard, vice president, engineering – integrated CAE & PLM at RENAULT. "Thanks to AVSimulation and its SCANeR Studio technology, RENAULT teams can design, simulate and test autonomous driving systems and validate automotive safety with millions of driving scenarios while leveraging the same platform across the development cycle. This agreement will accelerate the worldwide adoption of SCANeR through the new ANSYS VRXPERIENCE solution to reduce physical testing, shorten time-to-market and ensure safety."

"The advent of autonomous driving has ushered in the most transformative moment in automotive history since Henry Ford revolutionized industrial manufacturing and this partnership is a major step forward in accelerating AV innovation," said Emmanuel Chevrier, CEO, AVSimulation. "Together, VRXPERIENCE and SCANeR have raised the bar for designing groundbreaking, highly reliable and highly efficient AV systems throughout the automotive industry."

"The limitless possibilities of VRXPERIENCE combined with the SCANeR™ Driving Simulator will empower our OEMs, tier one and tier two customers to fast-track the creation, integration and certification of level three to level five AVs," said Eric Bantegnie, vice president and general manager, systems business unit at ANSYS. "With this partnership, AVSimulation and ANSYS deliver a phenomenal breadth and a depth of technologies empowering automakers to dramatically reduce development costs and expedite AV delivery to their customers."

About ANSYS, Inc.

If you've ever seen a rocket launch, flown on an airplane, driven a car, used a computer, touched a mobile device, crossed a bridge or put on wearable technology, chances are you've used a product where ANSYS software played a critical role in its creation. ANSYS is the global leader in engineering simulation. Through our strategy of Pervasive Engineering Simulation, we help the world's most innovative companies deliver radically better products to their customers. By offering the best and broadest portfolio of engineering simulation software, we help them solve the most complex design challenges and create products limited only by imagination. Founded in 1970, ANSYS is headquartered south of Pittsburgh, Pennsylvania, U.S.A., Visit www.ansys.com for more information.

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About AVSimulation

Founded in 2017 AVSimulation is a joint venture between Oktal and Renault leveraging 25 years' experience in simulation and deep automotive domain knowledge. AVSimulation is a leading provider of end-to-end simulation solutions - from software such as SCANeR™ to ground breaking simulators - for advanced and autonomous vehicles prototyping, development, validation and AI training.

SCANeR™ is a complete, open and modular platform including advanced models for Vehicle Dynamics, Driver, Sensors and Environment (Roads, Traffic, Weather) from functional to full physical modelling used by more than a hundred customers across the globe.

To further reduce time-to-market AVSimulation provides expertise and accelerators to help its customers win the race to build safer and better autonomous vehicles. Headquartered in Blagnac in France and with offices in Rochester Hills, Michigan, USA and Boulogne near Paris, AVSimulation is the ultimate partner to win the race to build safer and better autonomous vehicles.

Visit www.avsimulation.fr for more information.

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