

ISO 26262 Tool Certification for CarMaker

TÜV Nord confirms trustworthiness of simulation solution

Karlsruhe, August 14, 2024 – To further increase trust in simulation, IPG Automotive has had the simulation solution CarMaker certified by TÜV Nord. With the certification, the institution confirms the highest quality standards for the product and facilitates the application in safety-relevant projects for users.

Ever shorter development cycles and high cost pressure result in increasing requirements for vehicle development. Therefore, the need for tools to meet these requirements is growing as well. Simulation solutions such as the CarMaker product family support OEMs and suppliers in testing functions and parts of new vehicles and, as a final step, in validating them according to specific standards. TÜV Nord confirmed the quality of CarMaker for all these requirements in July with the ISO 26262-8 certification for all Automotive Safety Integrity Levels (ASIL-A to ASIL-D).

To ensure functional safety (FuSa), the ISO standard 26262 defines processes, activities and methods for the development of electrical and electronic systems in vehicles. New safety-critical driving functions and components have to be validated according to this standard to minimize risks and prevent accidents. The quality requirements also apply to the tools used during development. To avoid having to prove the Tool Confidence Level (TCL) in every single validation process, tools themselves can be certified to save users costs and time.

The simulation solution CarMaker successfully obtained this tool certification in July. The experts closely analyze the quality assurance processes and therefore guarantee the correctness of the software's calculations. With the certification, CarMaker becomes a verified component in the vehicle development process and hence facilitates the release, homologation and validation of driving functions as well as the full vehicle. Users now only have to prove the deltas specific to the individual use cases.

With CarMaker, IPG Automotive offers a solution for the diverse simulation needs, which can now be integrated even more easily into existing processes thanks to the ISO 26262 certification. Chief Technology Officer Dr. Andreas Höfer is convinced: "Simulation is an inherent part of future vehicle development. The ISO 26262 certification demonstrates that our solutions can be trusted. We are pleased that CarMaker will now be even easier to integrate into processes, enabling us to reduce efforts on customer side."

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Images



With the ISO 26262 certification, the simulation solution CarMaker will be even easier to integrate into processes.

Image: IPG Automotive

About IPG Automotive GmbH

As a global leader in virtual test driving technology, IPG Automotive develops innovative simulation solutions for vehicle development. Designed for seamless use, the software and hardware products can be applied throughout the entire development process, from proof-of-concept to validation and release. The company's virtual prototyping technology facilitates the automotive systems engineering approach, allowing users to develop, test and validate new systems in a virtual whole vehicle.

IPG Automotive is an expert in the field of virtual development methods for the application areas of Autonomous Vehicles, ADAS, Powertrain and Vehicle Dynamics, committed to providing support to master the growing complexity in these domains. Together with its international clients and partners, the company is pioneering simulation technology that is increasing the efficiency of development processes.

By taking real test driving into the virtual world as a complement to on-road testing, IPG Automotive contributes significantly to technical progress and shares in shaping the mobility of tomorrow with regard to comfort, safety, economic efficiency and environmental friendliness.

In addition to the company headquarters in Karlsruhe, Germany, IPG Automotive provides innovative development services to its customers and partners at the Germany-based offices in Braunschweig, Frankfurt, Ingolstadt, Munich and Stuttgart as well as in China, France, India, Japan, Korea, Sweden, the UK and the USA.

Further information at www.ipg-automotive.com/en/press