

Realistic Simulation for Efficient Vehicle Development

IPG Automotive publishes release 14.0 of the CarMaker product family

Karlsruhe, November 27, 2024 – With the release 14.0 of the CarMaker family, IPG Automotive presents the latest version of the simulation software used around the world. The new features are centered around versatile sensor models, even more realistic simulation environments and new applications for heavy-duty vehicles.

The CarMaker product family enables extensive testing, which is essential for modern vehicle development, to be conducted mostly virtually, saving both time and costs. The development of advanced driver assistance and automation systems (ADAS & AV) in particular presents challenges for automotive manufacturers and suppliers, which the release 14.0 addresses with many innovative features.

The development of ADAS requires testing of a wide range of realistic scenarios. Whereas on highways, different traffic densities and a variety of driving maneuvers need to be simulated, in urban traffic, the interaction with pedestrians must also be taken into account. The CarMaker product family release 14.0 enables flexible control of autonomous vehicle traffic as well as pedestrians.

Furthermore, the role of all kinds of sensors which recognize the environment and traffic is crucial in this field of application. A plethora of flexibly parameterizable sensor models can be used in CarMaker. The current release now includes a 4D radar model among many other novelties.

IPG Automotive's simulation expertise is not limited to developing passenger cars. The TruckMaker software is adapted to the specific requirements of heavy-duty vehicle development. Thanks to flexible coupling and decoupling, the new release allows to model road trains with multiple trailers. Therefore, even more vehicle variations and their respective force distributions can be represented virtually.

“With CarMaker 14.0, we want to integrate simulation even better into the development process for all types of vehicles to make the process as efficient, cost-effective and safe as possible. The reliability of our software has recently been certified by ISO 26262. We are looking forward to presenting the latest features as well as their applications at our Open House Germany on March 25, 2025”, says Alexander Frings, Director Product Management at IPG Automotive.

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Images



IPG Automotive just released a new version of the CarMaker product family, providing even more realistic simulations for vehicle development with a variety of features, including enhanced weather effects.

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

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