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Press release

IPG Automotive Drives the Democratization of Simulation

The VIRTO app suite opens up virtual test driving and makes vehicle development simpler

Karlsruhe, March 21, 2023: At this year's Open House Germany, IPG Automotive presented CarMaker 12, and also the VIRTO app suite, which offers intuitive access to virtual vehicle development. Seven apps enable seamless data and workflow management for traceable simulation. This allows users from different areas to collaborate effortlessly within a common development environment and opens up simulation for vehicle development to a wide range of users.

The new VIRTO app suite by IPG Automotive is a cloud-based, modular set of web applications that democratizes and scales simulation for vehicle development. The software infrastructure consists of seven apps, reducing the complexity of simulation applications and simplifying the management of parameter data, vehicle software, test results and vehicle models, amongst other things.

VIRTO.DATA manages all the parameter data required for constructing a virtual vehicle. It also ensures robust engineering at an early point within the development cycle with simple, accessible and traceable data management across all levels. Furthermore, the app allows the quality- and maturity-assessed, as well as version-controlled management of technological data.

VIRTO.MODEL manages ECU software and simulation models that are intended for integration into virtual vehicles. The application software ensures that vehicle software is straight-forward, open and easily integrated, and that



the right software is used at the right time. It also allows the central management of software and simulation models.

VIRTO.BUILD makes the fully-automated setup of virtual vehicles easier, reducing the time spent on the necessary, time-consuming creation of traceable vehicle models. Vehicles can be created through automation, while quality assessment and release can be done with traceable data and software.

VIRTO.FLEET has been devised for managing all configurations of virtual vehicle derivatives. The app includes a virtual fleet, which makes simulation models accessible to anyone, as well as a comprehensive virtual fleet database.

VIRTO.SCENE is a searchable, traceable and version-controlled scenario database for storing and managing test scenarios and their components. The app reduces redundant work and ensures that virtual detection events are robust, accessible and easy to create.

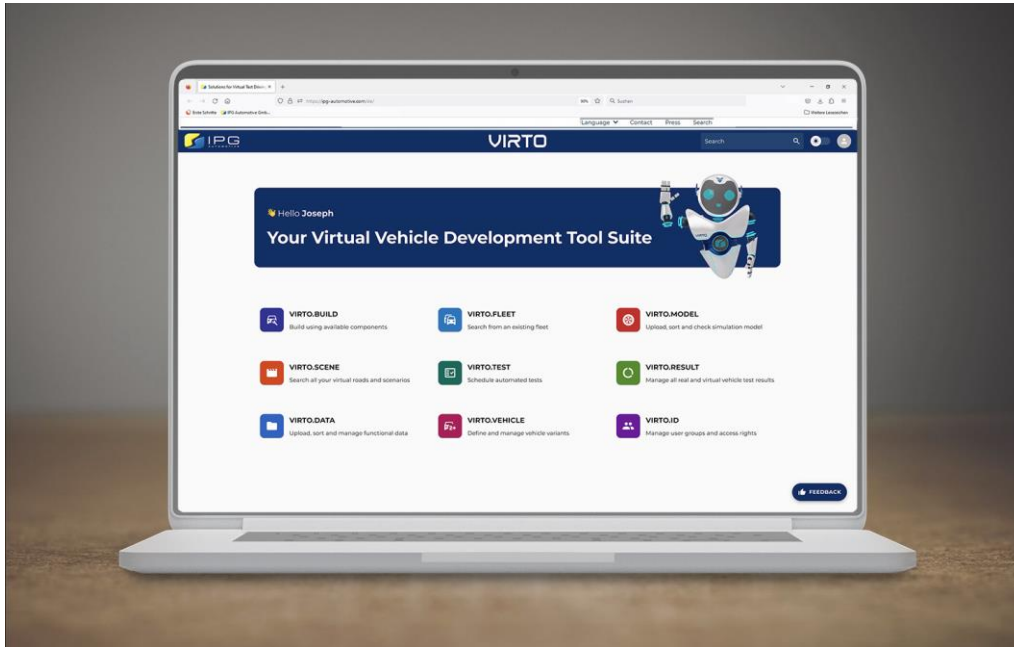
VIRTO.TEST enables the management and realization of virtual test campaigns. The app accelerates CI/CD and the automation of virtual vehicle development, reducing time, effort and costs while delivering robust and reliable simulation results. It uses intelligent scheduling to combine scenarios and models and to distribute them across the simulation toolchain and the required resources via an automated process.

VIRTO.RESULT stores and manages test results and the way they were created. Giving everyone involved an insight into the results again reduces redundant work and costs. The app analyses the results and enables a key performance indicator assessment on dashboards that can be configured by the user.

VIRTO is devised as a “virtual helper” for vehicle developers, so that they can ensure the continuity of the virtual vehicle development process, and scale the virtual vehicle development according to state-of-the-art software workflows. This provides simulation options for day-to-day testing for less experienced users.

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Image [IPG_VIRTO]



The VIRTO app suite by IPG Automotive enables even non-experts intuitive access to virtual vehicle development.

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, Stuttgart and Munich as well as in China, France, Japan, Korea, Sweden, the UK and the USA.

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

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