CARMAKER/TESTBED

Test-drive your rig-mounted powertrains in the virtual world.

Integration of virtual and physical testing on test beds with CarMaker, TruckMaker or MotorcycleMaker.
CarMaker/TestBed: Real driving simulation on the test bed

With CarMaker/TestBed, we are introducing a scalable and customizable integration solution for any type of powertrain test bed. Real-time simulation of both vehicle and environment combines with powertrain rigs to form one flexible and integrated mechatronic environment. The result is an unmatched ability to perform real-world driving scenarios with remarkable ease of use. Available for the entire CarMaker product family, our TestBed product line empowers companies worldwide to make virtual vehicle integration and system-driven powertrain testing an integral business practice. Rely on the support of our application engineers and establish simulation as a fundamental part of your process.

Overview

- Comprehensive, modular and open virtual vehicle and virtual test driving environment
- Vehicle, driver, traffic, road and environment models for real driving simulation
- Closed-loop integration of real systems into the virtual environment
- Graphical and user-friendly interface tailor-made for test bed operation
- Productized interfaces for engine/electric motor, powerpack (engine+transmission), powertrain (FWD, RWD, AWD), chassis dyno test beds and many other types and topologies

Evaluation of:

- Real Driving Emissions (RDE)
- Real-world fuel consumption & driving range
- Drivability & driving performance
- Exhaust gas aftertreatment optimization
- On-board diagnostics (OBD)
- Acoustics and drive comfort (NVH)
- Thermal management/HVAC system

The principle: Closed-loop upgrade for system level testing
Test bed integration features

- Synchronized data handling of simulation and measurement data
- Fully integrated test automation and batch mode operation
- Integrated safety concept with watchdog monitoring and error handling
- Integrated support for standard bus systems such as EtherCAT, CAN or UDP
- Easy to use GUI control for test bed operation

Integration on existing and new test beds of various manufacturers:
A&D, AIP, AVL, FEV/D2T, Horiba, Kratzer Automation, KS Engineers, OPVengineering, ONO SOKKI, and many more...

The added value – digital transformation of the test process

CarMaker/TestBed is a key enabler for the digital transformation of your test process. Take advantage of our expertise and our wide variety of virtual test driving solutions to meet the challenges of your field, and benefit from reduced testing time as well as increased flexibility.
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 and test new systems in a virtual whole vehicle.

IPG Automotive is an expert in the field of virtual development methods for the application areas of ADAS & Automated Driving, 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.