automotive design and testing

Advanced software solutions and V&V services
for manufacturers and first-tier suppliers

TXT

software solutions
for automotive

Leveraging 30 years of expertise in software development and validation, we offer a full spectrum of software solutions and professional consulting services covering the whole project cycle from concept and specification phases to implementation, training and maintenance.

The automotive industry operates in a fiercely competitive, fast-paced marketplace. The increasing complexity of electrical and hybrid propulsion architectures calls for constant methodological and technological innovation. Company experts in product development and configuration design are continuously challenged to reduce response times and control costs without compromising on product quality and safety. In this environment, early, accurate predictions of product performance are critical factors for success.

As leading providers of advanced software solutions and services, we partner with automotive companies to streamline their software engineering capabilities. Our multidisciplinary expertise ensures that the targets and challenges in your engineering environment are fully understood and met. A qualified team of IT experts, mathematicians and engineers collaborates by your side to develop and implement the optimum solution for you.

Conceptual and preliminary design

Building on our preliminary design platform Pacelab Suite, we develop tailored software solutions that support manufacturers and first-tier suppliers in full-vehicle design and component optimization tasks.

Providing a single, consistent framework for modeling, analyzing and optimizing technical and non-technical vehicle properties, Pacelab Suite allows the assessment of the impact of technological changes across models and platforms and the evaluation of alternative concepts or design variants in terms of feasibility, performance and cost.

Pacelab Suite-based solutions can offer reliable decision-making support in key areas such as systems architecture design, which significantly contributes to the overall technical and economic success of the product.

Pacelab Suite can be customized to your needs with the most efficient combination of building blocks and offers excellent connectivity to CAD systems and domain-specific analysis tools.

IoT and embedded software

The increased usage and relevance of embedded systems and IoT means they also become more and more mission and safety critical. This scenario calls for a rigorous approach to developing embedded software, since essential functionalities are increasingly becoming software-dependent.

We cooperate with OEMs and first-tier suppliers in the development of embedded software for electronic control units (ECU). Our solutions span from chassis and body & comfort to active & passive safety and telematics & infotainment software. TXT also acts as an independent validation and verification (IV&V) testing partner, tailoring V&V services according to your specific requirements.

We couple in-depth domain expertise with state-of-the-art technology to develop and test in-vehicle networks in full compliance with international standards such as AUTOSAR, ISO 26262 and ASPICE.

Automated integration testing

To ensure strict compliance with such standards, different types of testing procedures in multiple testing environments are required. Integration testing is a core element of any testing procedure, but is usually carried out manually. Introducing automation in this phase as well is the most efficient methodology to reduce costs and time-to-market while guaranteeing software quality.

Our compact and modular testing tool XHIL supports the automation of the procedures associated with the integration testing of ECU hardware/software components.

XHIL streamlines the definition and validation of embedded software and reduces time, costs and uncertainty in the critical implementation phases.

TXT e-solutions is an international, specialized provider of engineering software solutions supporting customers in high-tech markets in their mission- and business-critical core processes and throughout their product lifecycles.

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