

# Run. Test. Drive. TPT

TPT

The best way to test embedded software

# **Testing ASCET models**

TPT supports **fully automated** ASCET model testing for both, **physical models and implementation models.** Automatic test harness generation for module and integration testing with many features allows very efficient tests, even for large-scale control software.

# **Testing C code**

C/C++ code can be tested using TPT on every Windows PC. TPT can handle many C/C++ modules in parallel. It automatically analyses your C/C++ code interfaces, creates function & variable stubs, generates a test harness and much more.

### PiL testing

TPT has a close integration with TRACE32 (Lauterbach) and UDE (PLS). Automated fine grained control of the underlying debugger allows access to all software variables and functions as well as control flow manipulation.

### **Vehicle testing**

During vehicle test drives, TPT assists the driver with automated driving instructions, permanent monitoring of test goals, parameter application, and data recording. With TPT, vehicle testing becomes easy, effective and reproducible.

## **Testing Simulink models**

Testing Simulink or TargetLink models with TPT is very easy and powerful. No matter if MiL or SiL. No matter if 2 or 2000 signals. No matter if unit or integration model. No matter if busses, triggered subsystems, model referencing, AUTOSAR, ... TPT masters them all.

# Assessment of tests and reporting

TPT supports **fully automated assessment** & documentation of test results. It is a really powerful feature of TPT that supports all kinds of assessments, from very simple to highly complex ones.

# TPT test design and test generation

TPT was made for testing signal-oriented systems. Test case design with TPT is powerful, easy to handle and **easy to maintain**. Additionally, TPT comes with smart automatic test generation tools.

### Requirements based testing

In TPT, requirements can be linked to test cases and reported along with the tests, including coverage analysis. Seamless traceability and impact analysis assist the tester during the whole development life cycle.

### **HiL testing**

Use TPT for HiL test automation independently of your HiL vendor. TPT supports many HiL systems off-the-shelf, including dSPACE HiL, Concurrent iHawk, Vector CANoe, NI Veristand, and all ASAM XiL HiL systems.

### **Dashboard**

Complex test cases are often hard to understand if you only look at the signals. The TPT dashboard allows intuitive visualization of complex states and data. The tester can also interactively change, validate, and record tests. Its usage is extremely simple.

### Testing safety systems

Safety standard directives can be satisfied while testing with TPT up to the highest safety level. Relevant standards, such as ISO26262, are supported. The TPT tool qualification is certified by TÜV.

### **Testing AUTOSAR**

TPT simplifies AUTOSAR application software component testing. Test setup is lean and easy with automatic test RTE generation. All common kinds of AUTOSAR interfaces, ports, data types, scheduling can be tested with TPT on every PC.

