

TESSY is a smart tool designed to make the testing of safety-related software easier

**Maurice Gall, Test Manager
Intenta GmbH, Chemnitz, Germany**

INTENTA
ADVANCED RECOGNITION COMPONENTS

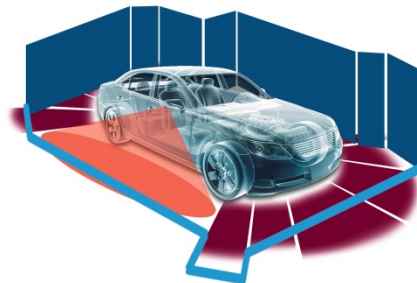
About Intenta GmbH

Intenta GmbH in Chemnitz (Germany) develops innovative software solutions and algorithms for driver assistance systems and navigation components. Intenta offers a wide range of services from concept work, checking of algorithms in the test vehicles, and systematic testing up to production-ready implementation.

The Project

Intenta is presently developing software components and algorithms as part of a driver assistance function for autonomous driving for one of their major customers.

The challenges are to use software components on different target hardware, while also achieving appropriate safety standards for ISO26262 conformity.



The Requirements

The components and the associated development processes must meet ASIL D, the highest safety integrity level specified by ISO 26262:2011. Software quality is the main priority of the project, which is partly reflected in the level of effort required to complete testing. The main tasks include error identification and the prevention of further software errors arising in the future.

The Application

During test case creation, white- and black- box testing methods are used. The test cases are then reviewed using the “4-eyes” principle. The subsequent aim is that all the tests will eventually run automatically on the target hardware. It is not a problem to configure different target environments; TESSY is able to seamlessly automate the tests and to put the test data under version control. Therefore, the software architecture is able to meet the requirements of the highest safety level of ISO 26262.

TESSY not only comes with a certificate for use in the development of safety-related software, but supports testers with a large catalogue of functionalities for testing software units and software modules.

The Result

Ultimately, TESSY is a smart solution that combines numerous verification steps of the V model into one tool. This eases the task of testing of safety-relevant software. Furthermore, milestones can be met more reliably by outsourcing the unit testing as part of the risk minimization. Hitex continues to support Intenta in using TESSY through training and support.