ASAM OTX Extensions

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Association for Standardization of Automation and Measuring Systems

What is OTX?

Background







Background

OTX is a domain specific programming language (DSL) for process reliable description of exchangeable and executable test logic inside automotive industry.



OTX Life Cycle Example – 1st Creation



Creation

- Manual programming e.g. inside
 - Code editor or
 - Graphical designer
- Automatic generation from data bases
- Result is a standard compliant and optional signed PTX file



PT

OTX Life Cycle Example – 2nd Configuration





OTX Life Cycle Example – 3rd Execution













Execution on Arbitrary Target Systems



Standard Compliant Exchangeability

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Development

After Sales

Production

Inside the Vehicle

Standard Compliant Exchangeability

OTX can ensure that the same unchanged test logic can be executed in any target system at any time and comes to the same results.



OTX Application Areas





OTX Application Areas

OTX can be extended easily and in compliance with the standard for applications inside new areas outside of vehicle diagnostics.



Example: Scenario-Based Testing (SBT) with OTX



Example: Scenario-Based Testing with OTX

For scenario-based testing inside OpenX standards OTX can be extended by new OpenX related OTX Extensions.



OTX Extensions

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New Potential OTX Extensions and Improvements





Further Development

ASAM Working Group "OTX Extensions"

- 23 new OTX extensions between 2015 and 2020
 - Published in ISO 13209-4
- Since 2020 new project "Next Generation of OTX Extensions"
 - Compatible improvements of core data
 model are allowed
- Current Members
 - AVL DITEST
 - BOSCH
 - DSA
 - EMOTIVE

- KPIT
- PORSCHE
- Siemens
- Softing
- Sontheim
- Volkswagen
- 1st contact for OTX improvements





ASAM OTX Extensions

Summary

OTX is an **open** domain specific **programming language** (DSL) for **process reliable** description of **exchangeable** and **executable** test logic inside automotive industry.

OTX can **ensure**, that the same unchanged test logic can be executed on **any system** at **any time** and comes to the **same results**.

Questions?



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