ASAM OTX Extensions V3.2.0
Release Presentation

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Agenda

1	Introduction
2	Motivation for new release
3	New features
4	Other changes
5	Backward-compatibility
6	Relation to other standards
7	Deliverables

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Introduction

- OTX = Open Test sequence Exchange, published by ISO 13209
- OTX is a domain specific programming language (DSL) for process reliable description of exchangeable and executable test logic inside automotive industry
- Simplified example:

```
namespace HelloWorldPackage1
{
    public procedure main()
    {
        HMI.ConfirmDialog("Hello World");
    }
}
```

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

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Motivation

- OTX is already mature enough to replace existing solutions in development, production and after-sales!

- Practical use of the new extensions in productive systems at OEMs has revealed some gaps which should be closed

- Additionally, the users have identified the needs for some more extensions which shall be added

- Additional maintenance for parts 2, 3, and 4 was expected

Main goal:

Ensure exchangeability, improvement of OTX quality and standard acceptance

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New Features

New EcuStateChart extension

- Allows OTX to access `STATE-CHARTS` information
- `STATE-CHARTS` are part of the `DIAG-LAYER` container in ODX
- Cover the concept of diagnostic sessions and map it to a state machine

New Range extension

- Extend OTX by new data types, which can transport additional information about the range of a declaration
- In-range or out-of-range values can be described
- A ranged object is a value together with one or more intervals

FlashPlus extension

- New action `TransferSegment` for performance-optimized transmission of an entire segment

Util extension

- New term `EscapeToRegularExpression`

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Other Changes

StateVariable extension

- Extension was marked as DEPRECATED
  OTX Core 2nd. Edition supports state variables → StateVariable extension became a duplicate

General Maintenance

- Correction and clarification of the specification in all extensions

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Backward Compatibility

This edition is backward compatible with the previous version 3.1.0

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Relation to Other Standards

ISO 13209-1:2011 – OTX Part 1

- General information and use cases

ISO 13209-2:2022 – OTX Part 2

- Core data model specification and requirements

ISO 13209-3:2022 – OTX Part 3

- Standard extensions and requirements

ISO 13209-4:2021 – OTX Part 4

- Expanded extensions interface definition

ISO 22901-1:2008 - ODX Part 1

- ODX Data model specification

ISO 22900-2:2022 - MVCI Part 2

- Diagnostic protocol data unit application programming interface (D-PDU API)

ISO 22900-3:2012 - MVCI Part 3

- Diagnostic server application programming interface (D-Server API)

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Deliverables

Content

- ASAM OTX expanded extensions interface definition (specification)
- UML model
- OTX Schema files

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