Safety Concept Description Language (SCDL)

ISO 26262 Safety Concept, Design & Verification

About ASAM

ASAM e.V. (Association for Standardization of Automotive and Measuring Systems) is an association that actively promotes standardization within the Automotive Industry. Together with its more than 200 members companies worldwide, the association develops standards that define interfaces and data models for tools used for the development and testing of electronic control units (ECUs) and for the validation of the entire vehicle.



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Association for Standardization of Automation and Measuring Systems

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About SCDL

- SCDL is a language with a UML metamodel based syntax to provide semantics for effective and efficient implementation of ISO 26262
- SCDL fulfils requirements on semi-formal notation for all ASIL levels
- SCDL provides graphical Function Block / Data Flow Diagram representations for tool-based Functional Safety development

Use Cases

- SCDL is utilized as a standardized representation to support development and verification of Functional / Technical Safety concepts and requirements
- SCDL and its graphical representation are intuitive and easy to understand and are used as a basis to commonly discuss and further develop ISO 26262 related aspects
- SCDL is not limited to ISO 26262 applications but can be used for other safety designing outside the automotive domain (see picture below)

Benefits

- SCDL is a vendor-independent language to apply ISO 26262 requirements and design safety architectures
- SCDL supports tool-based development of safety concepts and software interfaces to link all ISO 26262 artefacts
- SCDL provides graphical representation for most ISO 26262 artefacts and activities, including analysis, review, test or assessment.
- SCDL diagrams support all ISO 26262 activities: analysis, review, test or assessment.



What is SCDL?

SCDL (Safety Concept Description Language) is a semi-formal notation to describe ISO 26262 safety architectures, namely safety concepts. This includes safety requirement specifications, element architectures, requirements allocation on elements, ASIL assignments, decompositions for safety mechanisms and others.

SCDL as a vendor-independent language targets modeling methods for ISO 26262 by providing intuitive graphical representations and straightforward processes. Tools based on SCDL support the development, design, analysis, and verification of ISO 26262 artefacts. Interoperability and exchangeability of methods and artefacts are provided.

SCDL is designed by a Japanese Industry collaboration. ASAM e.V. supports the activity and is planning to host and further develop SCDL as a world-wide standard and establish a community with tool support.

To introduce the standard and to begin international collaboration, ASAM is holding a

SCDL-Workshop on Sept. 05, 2018 at the Munich Airport

We invite all ISO 26262 and Functional Safety experts from automotive OEMs and suppliers to participate in the workshop.

For more details, go to our website: www.asam.net/conferences-events