



# ISO 26262 TOOL CLASSIFICATION AND QUALIFICATION

November 23, 2018

## ISO 26262 TOOL CLASSIFICATION AND QUALIFICATION

### Highlights

- Gaining confidence in the correct functioning of software tools
- ISO 26262 tool classification and qualification approach
- Best practices and trends
- Importance of templates
- Make or buy? – Costs incurred by the activities to gain confidence in the use of software tools
- Tool classification and qualification kits – Streamlining the classification/qualification of COTS tools
- ISO classification kit hands-on

### Background

As part of the release of ISO 26262 in 2011, requirements to establish confidence in the correct functioning of software tools used to develop safety-related automotive E/E systems came into effect. Six years later, there are plenty of experiences and lessons learned from applying these requirements in the day-to-day engineering practice. However, implementing the ISO 26262 tool classification and qualification remains a challenge for many automotive organizations and consumes significant resources. Starting with a systematic introduction to the tool classification and qualification requirements of ISO 26262-8, this 1-day workshop also reviews current industrial best practices and discusses trends and lessons learned. In the hands-on session, you will familiarize yourself with the structure and content of an exemplary ISO 26262 classification kit for a model-based development tool and gain hands-on experience with customizing such a kit to your organization specific needs.

### Target audience

Automotive professionals (software project leads, software engineers, engineering, quality, and project managers) involved with the development of safety-related automotive E/E systems, functional safety engineers and managers.

## Agenda: Day 1

9 a.m.	<b>Welcome and introduction round</b>
9:30 a.m.	<b>Motivation</b> <ul style="list-style-type: none"> <li>▪ Why tool classification and qualification (practice-based examples)</li> <li>▪ Pros and cons of tool usage</li> <li>▪ Gaining confidence in the use of software tools</li> </ul>
10:30 a.m.	<b>ISO 26262 tool classification and qualification approach</b> <ul style="list-style-type: none"> <li>▪ Foundations</li> <li>▪ Tool classification planning</li> <li>▪ The 2-step approach               <ol style="list-style-type: none"> <li>1. Tool classification</li> <li>2. Tool qualification</li> </ol> </li> <li>▪ Review activities</li> </ul>
12 p.m.	<b>Lunch break and open dialog</b>
1 p.m.	<b>Implementing the ISO 26262 tool classification and qualification approach</b> <ul style="list-style-type: none"> <li>▪ Classifying individual tools vs. tool chains</li> <li>▪ What about all my scripts?</li> <li>▪ Workshare between tool vendors and tool users</li> <li>▪ Tool classification and qualification kits</li> <li>▪ Certified tools</li> <li>▪ Templates and tool support</li> </ul>
2 p.m.	<b>Tool classification and qualification effort</b> <ul style="list-style-type: none"> <li>▪ Effort estimation</li> <li>▪ Tool classification/qualification kits and services – Make or buy?</li> </ul>
3 p.m.	<b>Tool classification kit hands-on session</b> <ul style="list-style-type: none"> <li>▪ Content and structure of an ISO 26262</li> <li>▪ Tool classification kit</li> <li>▪ Activities to be done when using the kit in an automotive software development project</li> </ul>
5 p.m.	<b>End of training workshop</b>

## About samoconsult GMBH

### SAFETY | MODELING | CONSULTING

Founded in 2007, samoconsult is a consulting and engineering firm recognized across industries for their comprehensive services in the areas of functional safety and model-based system/software engineering. Automotive, railway, aerospace, and automation companies as well as software tool vendors turn to samoconsult for services and guidance related to functional safety. samoconsult is the choice of leading automotive OEMs and their suppliers when it comes to implementing and achieving compliance with ISO 26262. Our experienced team of consultants and engineers provides a wide range of services, from gap analysis, training, consulting, and coaching to engineering and operational project support. samoconsult experts have 10+ years of experience in tool classification and qualification gained from active engagement in standardization efforts (e.g. ISO 26262-8, DO-178/DO-330) as well as from the facilitation of tool qualifications and certifications across the world. This unique combination of technical knowledge and hands-on experience allows our tool qualification team to turn your tool qualification challenges into practical solutions.

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## Speaker



### Dr. Mirko Conrad

Mirko Conrad serves as Managing Director of samoconsult GmbH, an engineering and consulting firm recognized across industries for their comprehensive services in the area of functional safety. He lectures in functional safety at the Technical Universities in Munich and Dresden and actively participated in the standardization of ISO 26262, DO-178C and various MISRA guidelines. Mirko Conrad also has 10+ years of tool classification/qualification experience across industries and standards.

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## Date & location

Date: November 23, 2018

Location: Waldenserstraße 2-4, 10551 Berlin, Germany

Please check our website on: <https://www.model-engineers.com/training/location.html>

## Cost of training workshop

€ 950.00 plus VAT per participant. The price for the training workshop includes training materials, refreshments, and lunch. We offer an early bird discount of 10% for registrations received 35 days prior to the event. An additional 25% discount on the booking is available for companies registering more than one participant or more than one training workshop at the same time.

## How to register

Please note that advance registration is mandatory.

### Online registration:

[www.model-engineers.com/en/training-workshop-online-registration.html](http://www.model-engineers.com/en/training-workshop-online-registration.html)

### Registration via fax or email:

E: [julia.goslar@model-engineers.com](mailto:julia.goslar@model-engineers.com)

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[info@model-engineers.com](mailto:info@model-engineers.com)

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## TRAINING WORKSHOP REGISTRATION

Topic	LA	Dates	Location
<input type="checkbox"/> Concepts and Methods for Implementing ISO 250XX for Software Product Quality	DE	Feb 2, 2018	Berlin
<input type="checkbox"/> Model-based Development of Embedded Software in Compliance with ISO 26262	DE	Feb 21-22, 2018	Berlin
<input type="checkbox"/> Testing Models the Right Way	DE	Mar 1-2, 2018	Berlin
Model-based Development of Embedded Software in Compliance with ISO 26262 <i>* by LHPU.</i>	EN	Mar 13-14, 2018	Pontiac
<input type="checkbox"/> Model-based Development of Embedded Software in Compliance with ISO 26262	EN	Mar 15-16, 2018	Stuttgart
<input type="checkbox"/> ISO 26262 Tool Classification and Qualification	EN	Apr 13, 2018	Berlin
Model-based Development of Embedded Software in Compliance with ISO 26262 <i>** by dSPACE Inc.</i>	EN	Apr 16-17, 2018	Detroit
<input type="checkbox"/> High Quality through Static Model Analysis	DE	Apr 23-24, 2018	Berlin
<input type="checkbox"/> Model-based Software Development in Mechanical and Plant Engineering in Compliance with IEC 61508	DE	May 3-4, 2018	Berlin
Model-based Development of Embedded Software in Compliance with ISO 26262 <i>* by LHPU</i>	EN	May 14-15, 2018	Pontiac
<input type="checkbox"/> MES Summer School on Introduction to Model-based Software Development of Embedded Systems	EN	Jun 11-15, 2018	Berlin
Model-based Development of Embedded Software in Compliance with ISO 26262 <i>** by dSPACE Inc.</i>	EN	Jun 26-27, 2018	Detroit
<input type="checkbox"/> Concepts and Methods for Implementing ISO 250XX for Software Product Quality	EN	Sep 24, 2018	Berlin
Model-based Development of Embedded Software in Compliance with ISO 26262 <i>** by dSPACE Inc.</i>	EN	Sep 27-28, 2018	Chicago
Model-based Development of Embedded Software in Compliance with ISO 26262 <i>* by LHPU</i>	EN	Oct 23-24, 2018	Columbus
<input type="checkbox"/> Testing Models the Right Way	EN	Oct 18-19, 2018	Berlin
<input type="checkbox"/> Model-based Development of Embedded Software in Compliance with ISO 26262	DE	Nov 8-9, 2018	Stuttgart
<input type="checkbox"/> Functional Safety for Automotive Professionals	EN	Nov 15-16, 2018	Berlin
<input type="checkbox"/> ISO 26262 Tool Classification and Qualification	EN	Nov 23, 2018	Berlin
<input type="checkbox"/> High Quality through Static Model Analysis	EN	Nov 29-30, 2018	Berlin
<input type="checkbox"/> Model-based Development of Embedded Software in Compliance with ISO 26262	EN	Dec 6-7, 2018	Berlin

Please choose your training workshop(s) above by marking a cross in the box next to the relevant topic(s)

### YOUR DATES:

Participant name, surname	
Company name	Position in the company, department
Email address	Telephone no.
Postal address	City, ZIP
Date & signature	

Billing address (if different):

Please return this registration form by fax to +49 30 2091 6463 33 or Email: Julia.Goslar@model-engineers.com.

Or use the online registration form by following this link <https://www.model-engineers.com/en/training-workshop-online-registration.html>

\*Registration for a workshop organized by LHPU must be done online via the following link:

<http://lhpu.com/model-based-development-of-embedded-software-in-compliance-with-iso-26262/>

\*\* Registration for a workshop organized in cooperation with dSPACE Inc. must be done online via the following link:  
<https://www.dspace.com/en/inc/home/support/suptrain/iso26262/modelbaseddev.cfm>

## **MES TRAINING WORKSHOPS**

### **COST AND CONDITIONS OF PARTICIPATION**

The number of training workshop participants is limited to a maximum of 15 for better individual supervision. Registrations will be processed on a first-come, first-serve basis. Written confirmation will be sent to participants. The pricing for a 1-day training workshop is € 950 plus VAT. The 2-day training workshops cost € 1,350 plus VAT per workshop. If you wish to complete the SAE Certificate of Competency, an extra charge of € 400 will be applied. We offer an early bird discount of 10% for registrations received 35 days prior to the event. An additional 25% discount on the booking is available for companies registering more than one participant or more than one training workshop at the same time. The workshop fee is payable upon receipt of invoice. The price for the training workshop includes training materials, refreshments, and lunch.

### **CANCELLATION POLICY**

Participation may be cancelled free of charge up to 21 days prior to the training event. For cancellations up to 7 days prior to the according training event, the cancellation fee comprises 50% of the training fee plus VAT. 100% of the participation fee will be charged for all cancellations after this date or non-appearance on the day. You may find a replacement participant if desired. This change is free of charge. If a training workshop cannot take place as scheduled due to circumstances beyond our control, you will receive a full refund of all fees that have already been paid.

The agendas described in this brochure may vary and may be adapted in the training workshop.

Please note that the above-stated costs and conditions of participation, as well as the cancellation policy, are not valid for training workshops arranged by LHPU and dSPACE Inc.

## **MES SUMMER SCHOOL**

### **COSTS AND CONDITIONS OF PARTICIPATION**

The costs for the MES Summer School comprise € 2,950 plus VAT. An academic discount for university personnel is available. The pricing for university personnel amounts to € 980 plus VAT for the whole event. If you wish to complete the SAE Certificate of Competency, an extra charge of € 400 will be applied. We offer an early bird discount of 10% for registrations received before March 31, 2018. An additional 25% discount is available for companies registering more than one participant for the same or for a second training event in 2018.

### **CANCELLATION POLICY**

Participation may be cancelled free of charge before April 27, 2018. A cancellation fee of 50% of the training fee plus VAT will be charged for cancellations before May 25, 2018. 100% of the participation fee will be charged for all cancellations after this date or non-appearance on the day. You may find a replacement participant if desired. If the MES Summer School cannot take place as scheduled due to circumstances beyond our control, you will receive a full refund of all fees that have already been paid.

## **TRAINING WORKSHOPS BY LHPU**

Registration for a training workshop organized by LHPU must be done online via the following link:  
<http://lhpu.com/model-based-development-of-embedded-software-in-compliance-with-iso-26262/>  
Fees, terms and conditions of LHPU apply.

## **TRAINING WORKSHOPS BY DSPACE INC.**

Registration for a training workshop organized by dSPACE Inc. must be done online via the following link:  
<https://www.dspace.com/en/inc/home/support/suptrain/iso26262/modelbaseddev.cfm>  
Fees, terms and conditions of dSPACE Inc. apply.