EURO SPI² Academy

Intacs® ASPICE for Cybersecurity Assessor Course

Goal

In this 3 days training course the attendees get introduced to the norms such as UNECE 155, 156, ISO 21434, and the ASPICE for cybersecurity PAM (Process Assessment Model) and learn (by examples) how to interpret the base practices and what outcomes are expected. The course also contains a practical TARA exercise and a practical exercise using the MITRE attack navigator. The TARA in the course is based on the guideline in ISO 21434.

Content

The content is in line with the syllabus published by Intacs® and will be conducted using the accredited Intacs® training materials.

The table of contents is shown below:

Table of Content

1. **Introduction**
   - Welcome
   - The exam procedure
   - Glossary
2. **Scope and Motivation**
   - Scope: Safety vs. Security
   - Motivation – Examples for poor Cybersecurity
   - Some basic knowhow
3. **Cybersecurity Standards**
   - Overview of the UN regulations on cybersecurity
   - Overview of ISO/SAE 21434:2021
   - Overview of Automotive SPICE® for Cybersecurity
   - Overview of VDAAutomotive SPICE® for Cybersecurity Guidelines
4. **TARA – Threat Analysis and Risk Assessment**
   1. Asset Identification
   2. Threat Scenario Identification
   3. Impact Rating
   4. Attack Path Analysis
   5. Attack Feasibility Rating
   6. Risk Value Determination
   7. Risk Treatment Decision
5. **MAN.7 Cybersecurity Risk Management**
6. **SEC.1 & SEC.2**
   - SEC.1 Cybersecurity Requirement Elicitation
   - SEC.2 Cybersecurity Implementation

   TARA Exercise and Solution
7. **SEC.3 & SEC.4**
   - Cybersecurity Test Strategies
   - SEC.3
   - SEC.4
   - MITRE Attack Navigator
8. **The Acquisition Processes**
9. **Impacts on the other Automotive SPICE processes**
   - ACQ.3 Contract Agreement
   - ACQ.4 Supplier Monitoring
   - ACQ.14 Request for proposals
   - ACQ.15 Supplier Qualification
   - SYS.1 Requirement Elicitation
   - SYS.2 System Requirements Analysis
   - SYS.3 System Architectural Design
   - SWE.1 Software Requirement Analysis
   - SWE.2 Software Architectural Design
   - SWE.3 SW Detail Design and unit construction
   - SYS.4 System Integration and integration Test
   - SYS.5 System qualification test
   - SWE.4 – SWE.6 SW verification, integration, qualification
   - SUP.1 Quality Assurance
   - SUP.8 Configuration Management
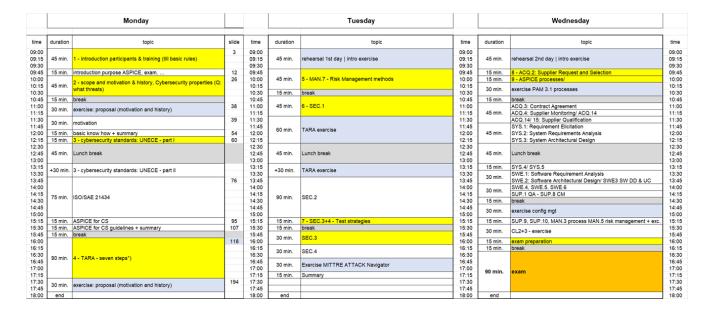   - MAN.3 Project management
   - MAN.5 Risk Management
   - CL 2 & CL3

The course has been developed by the iNTACS working group for cybersecurity.

in cooperation with
ISCN

Schedule

The current version of the course plan is outlined below.

Monday

time	duration	topic	slide
09:00	45 min.	1 - introduction participants & training (till basic rules)	3
09:15			
09:30			
09:45	15 min.	introduction purpose ASPICE, exam, …	12
10:00	45 min.	2 - scope and motivation & history, Cybersecurity properties (Q: what threats)	26
10:15			
10:30			
10:45	15 min.	break	
11:00	30 min.	exercise: proposal (motivation and history)	38
11:15			
11:30	30 min.	motivation	39
11:45			
12:00	15 min.	basic know how + summary	54
12:15	15 min.	3 - cybersecurity standards: UNECE - part I	60
12:30			
12:45	45 min.	Lunch break	
13:00			
13:15	+30 min.	3 - cybersecurity standards: UNECE - part II	
13:30			
13:45			76
14:00			
14:15	75 min.	ISO/SAE 21434	
14:30			
14:45			
15:00			
15:15	15 min.	ASPICE for CS	95
15:30	15 min.	ASPICE for CS guidelines + summary	107
15:45	15 min.	break	
16:00			118
16:15			
16:30	90 min.	4 - TARA - seven steps")	
16:45			
17:00			
17:15			
17:30	30 min.	exercise: proposal (motivation and history)	194
17:45			
18:00	end		

Tuesday

time	duration	topic
09:00	45 min.	rehearsal 1st day | intro exercise
09:15		
09:30		
09:45	45 min.	5 - MAN.7 - Risk Management methods
10:00		
10:15		
10:30	15 min.	break
10:45		
11:00	45 min.	6 - SEC.1
11:15		
11:30		
11:45	60 min.	TARA exercise
12:00		
12:15		
12:30		
12:45	45 min.	Lunch break
13:00		
13:15	+30 min.	TARA exercise
13:30		
13:45		
14:00		
14:15	90 min.	SEC.2
14:30		
14:45		
15:00		
15:15	15 min.	7 - SEC.3+4 - Test strategies
15:30	15 min.	break
15:45	30 min.	SEC.3
16:00		
16:15	30 min.	SEC.4
16:30		
16:45	30 min.	Exercise MITTRE ATTACK Navigator
17:00		
17:15	15 min.	Summary
17:30		
17:45		
18:00	end	

Wednesday

time	duration	topic	time
09:00	45 min.	rehearsal 2nd day | intro exercise	09:00
09:15			09:15
09:30			09:30
09:45	15 min.	8 - ACQ.2: Supplier Request and Selection	09:45
10:00	15 min.	9 - ASPICE processes/	10:00
10:15	30 min.	exercise PAM 3.1 processes	10:15
10:30			10:30
10:45	15 min.	break	10:45
11:00		ACQ.3: Contract Agreement	11:00
11:15	45 min.	ACQ.4: Supplier Monitoring/ ACQ.14	11:15
11:30		ACQ.14/ 15: Supplier Qualification	11:30
11:45		SYS.1: Requirement Elicitation	11:45
12:00	45 min.	SYS.2: System Requirements Analysis	12:00
12:15		SYS.3: System Architectural Design	12:15
12:30			12:30
12:45	45 min.	Lunch break	12:45
13:00			13:00
13:15	15 min.	SYS.4/ SYS.5	13:15
13:30	30 min.	SWE.1: Software Requirement Analysis	13:30
13:45		SWE.2: Software Architectural Design/ SWE3 SW DD & UC	13:45
14:00		SWE.4, SWE.5, SWE.6	14:00
14:15	30 min.	SUP.1 QA - SUP.8 CM	14:15
14:30	15 min.	break	14:30
14:45	30 min.	exercise config mgt	14:45
15:00			15:00
15:15	15 min.	SUP.9, SUP.10, MAN.3 process MAN.5 risk management + exc.	15:15
15:30	30 min.	CL2+3 - exercise	15:30
15:45			15:45
16:00	15 min.	exam preparation	16:00
16:15	15 min.	break	16:15
16:30			16:30
16:45	90 min.	exam	16:45
17:00			17:00
17:15			17:15
17:30			17:30
17:45			17:45
18:00	end		18:00

Training Materials

The training materials include slides, templates for a TARA, example threat models, and links to the guidelines and norms referenced. It also includes a link and guidance for the MITRE attack navigator. The accredited Intacs® training materials for the Automotive SPICE Cybersecurity Assessor will be used.

Target Group and Prerequisites

ASPICE Provisional Assessors, ASPICE Competent Assessors who need a training for ASPICE for Cybersecurity. You should already be an ASPICE Provisional or Competent Assessor.

Cancellation

Cancellation is not possible. You may determine a substitute or attend the course at a later date.

Examination and Certification

Exams are organised by VDA and performed in the afternoon of the last training day. The exam is single choice (true or false) and open book
- Each statement can be checked true or false.
- Each correct answer (true or false) is worth one point.
- There are no negative points for wrong answers. Therefore, try to answer all statements!
- You need to gain more than 75% of the points to pass (i.e., 34 correct out of 45 questions)
- The certification body VDA representative will inform about all details during exam setup.

The exam by VDA is in a SOCRATIVE.

What is a Socrative test?

Socrative is a cloud-based student response system developed in 2010 by Boston-based graduate school students. It allows teachers to create simple quizzes that students can take quickly on laptops – or, more often, via classroom tablet computers or their own smartphones.
VDA will send you an email with a link and explanation how the exam is performed. At exam time you receive a login key, then you enter and the exam appears. In SOCRATIVE every question is on one page and you can scroll through from question to question.

The EuroSPI Academy

The training is held in the EuroSPI academy in cooperation with ISCN. The company ISCN is a certified training partner of VDA-QMC and Intacs® for Automotive SPICE (https://www.iscn.com/ressources/PDFs/ISO330xx-intacs-cert-iscn.pdf, https://www.intacs.info/training-center)).
The EuroSPI Academy (https://academy.eurospi.net) was founded in 2021 in cooperation with the ASA (Automotive Skills Alliance) and offers an advanced online training environment with materials, templates and exercises. EuroSPI and ISCN are full partners of the ASA (https://automotive-skills-alliance.eu/#partners). In cooperation with ASA WG 3.6 (IT in Automotive) and the EU project FLAMENCO this training platform will be further developed in the next years.

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