

Scrum in the Agile Development of Embedded Systems - Live Online Training

Scrum is the most widely used agile software development methodology. Introducing an agile development process for embedded systems poses particular challenges. It is more than just applying Scrum methodology from the IT world to embedded software. The entire development process, including integration test, has to be transformed to agile methodology and tightly coupled to hardware development in order to succeed. Besides Scrum principles, this training highlights the specifics of the complex interaction of hardware and software and the transformation of the entire development process, including integration/system test and higher-level system process, to agile methods. The different roles and meetings as defined in Scrum are practiced extensively so that attendees get proficient in applying these unusual methods.

Objectives

You know the key terminology, coherences and methods and can thus make a significant contribution to the conception, implementation and optimization of Scrum your company's embedded systems development process (system, hardware and software development).

Participants

Development engineers, test engineers, software and system architects, project managers, team leaders, technical managers, managers in the industry

Requirements

Project and process experience in the development of technical systems is an advantage.

Live-Online-Training

* Price per attendee, in Euro plus VAT

Training code: LE-SCRUM

Face-To-Face - English

Duration

3 days

Live Online - German

Duration

3 days

Face-To-Face - German

Duration

3 days

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Content

Introduction in Agile/Scrum

- Agile values
- Agile principles
- Roles
- Meetings
- Artifacts

Backlog Planning

- Backlog items
- User/system stories
- Effort estimate
- Splitting up large user stories
- Acceptance criteria
- Definition of "done"
- Product backlog prioritization
- Role of the product owner

Sprint Planning

- Product vs. sprint backlog
- Splitting up backlog items into sprint tasks
- Timeboxing
- Potentially shippable product increment
- Sprint test planning
- Work in progress

Daily Scrum Meeting

- Task board
- Self-organization of the team
- Different skills in the team
- Scrum master role in sprints
- Product owner role in sprints
- Methods for shortening daily meetings

Sprint Review / Demo

- Live demo
- Acceptance criteria
- Definition of "done"
- Involving external parties
- Handling new requirements
- Velocity

Continuous Improvement, Sprint Retrospective

- Safety check
- Retrospective
- Self-criticism
- Targeted communication and feedback
- Feasible improvements
- Facilitation

Tools for Agile Product Creation and Maintenance

- MS-Office with templates for agile development
- Pivotal Tracker
- Other tools, outlook

Practical Exercise

- Exercises based on consistent examples from the embedded systems environment covering the main roles and meetings