

EMBEDDED SYSTEMS QUALITY

Quality assurance and testing in the development of embedded systems

What is special about embedded systems?

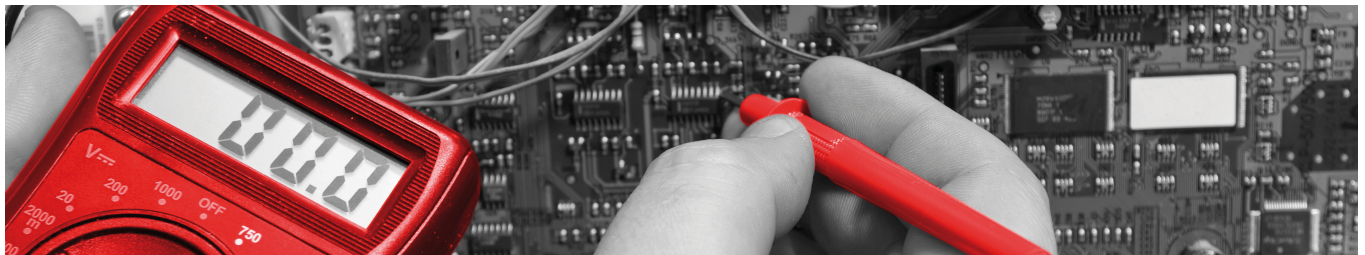
Embedded systems are technical, sometimes mechatronic systems with an "integrated" central processing unit (CPU). Unlike traditional IT products such as workstations, personal computers and servers, the hardware of embedded systems is often specially adapted to a task and must suit the specific requirements of a product (e.g. real-time capability, reliability, interoperability, energy demand, etc.). This results in special challenges for the test framework.

In addition to the logical test drivers and stubs the physical test drivers and stubs must also be provided. Specific environmental conditions (temperature, pollution, humidity, etc.) also play an important role in testing of embedded systems.

These particular aspects have to be considered in the context of quality assurance and software testing of embedded systems in order to obtain information about the functionality and reliability.

Our Topics

- ✚ Requirements Engineering
- ✚ Verification and validation
- ✚ Test Management
- ✚ Test Automation (HIL, SIL, etc.)
- ✚ Quality Management



Your Benefits

✚ Sustainable improvement of processes

Your processes will be efficiently analyzed based on reference models and best practices to identify optimization potential in your organisation. An experienced coach assures the sustainable implementation of the measures in your company.

✚ Product and project quality

Project related quality management and tests performed by quality managers, testers, test automation specialists, project controllers, requirements engineers, change and configuration managers, etc. and the analysis of documents and source code in terms of compliance and quality.

✚ Know-how transfer

Utilizing Software Quality Lab's comprehensive seminar and certification program, workshops, consulting as well as coaching and on-the-job training will support you in professionally qualifying your staff.

✚ Out-tasking

Software Quality Lab supports you in short, medium or longterm demands. The services range from the creation of specifications and all other test activities for your ongoing product development to the independent execution of entire test projects.

✚ Frameworks and tools

Design and development of frameworks (incl. test drivers and simulators) for the test execution and test automation (HIL, SIL, etc.). Software Quality Lab's Tool Evaluation Center provides a vendor-independent evaluation of essential tools for requirements management, test management, test automation and more.