SodiusWillert Offerings for Safety-Critical Systems

Jump-start the development and certification of safety-critical systems. Reduce the extra work required to achieve and demonstrate compliance with IEC 61508, ISO 26262, DO 178B, DoDAF, and other standards.

Save time and resources with safety-critical engineering projects

Developing safety-critical products can involve a considerable amount of additional work, as compliance with the legal requirements demanded by the target market must be demonstrated in an approval process before the product can be launched to that market. To successfully pass this certification, a whole series of additional, safety-related requirements must be met.

These requirements usually relate to the features or capabilities of the product and also include prescriptions for the design, development and testing process. Compliance with all requirements must be seamlessly demonstrated during the certification process.

USE CASES

- Design and development of safety-critical systems and software
- Apply proven processes along the lifecycle to accelerate your projects
- Automated generation of up-to-date documentation

SAFETY-CRITICAL FEATURES & CONSTRAINTS

Requirements related to features and constraints are aimed at preventing damage caused by the product. The number and scope of these features increase with the potential risks associated with the operation of the product and with the complexity of the product.

Our solutions for development of safety-critical systems help you to keep track of all requirements and constraints along with their implementation.

DEVELOPING A SAFETY-CRITICAL PRODUCT

Instructions for the creation of the product, i.e. in terms of processes, workflows or management of engineering data, may also be present. For example, ISO 26262 requires the existence of key processes, such as requirements management or configuration management.

We're happy to support you in defining and implementing those processes to help you achieve full compliance.

BEST PRACTICES AND COMPLETE DOCUMENTS FOR SUCCESSFUL CERTIFICATION

Demonstrating compliance requires the use of data from the entire project, stored in tools used throughout the lifecycle. Our offerings include guidance for best practices in safety-critical software development and certification.

These proven materials help you build and adapt your certification-related processes much faster, including automated generation of certification-ready documents.

OUR OFFERINGS

SodiusWillert Requirements Studio

Requirements Studio bundles IBM DOORS products (Classic or Next) with SodiusWillert ReqXChanger and Requirements Management widgets. Requirements Studio simplifies adherence to requirements of all types (functional, quality, constraints). Engineers across the lifecycle rely on requirements as documented in IBM DOORS (included) as their single source of truth. Comprehensive traceability functions simplify the proof of compliance with regulatory and other requirements, e.g. IEC61508, ASPICE, or ISO26262.

IBM Engineering Requirements Management DOORS and DOORS Next

The IBM DOORS family represents market leading requirements management technology and provides indispensable capabilities for creating safety-critical systems. With its comprehensive tracking, reporting and documentation features IBM DOORS family is providing highly valuable support for complex projects in regulated industries.

SodiusWillert Embedded UML Studio

Embedded UML Studio unlocks the benefits of UML modeling for embedded systems and software development, supporting a broad range of target systems of any size. Thanks to transparency and clarity gained from the model, time-to-market is reduced and product quality increased. The solution helps you establish full end-to-end transparency for your safety-critical systems projects.

SodiusWillert Embedded UML RXF-Cert

RXF-Cert is your framework for safety-critical software. It enables you to seamlessly demonstrate coverage of safety-relevant terms from requirements to architecture, implementation, and quality assurance. The automated generation of documentation based on up-to-date artifacts throughout the entire project expedites the creation of certification documents and reduces the associated workload for your experts.

BENEFITS

Get your safety-critical products to market faster
Accelerate the development and certification process. With our integrated environment time-consuming rework because mandatory capabilities have slipped out of sight is a thing of the past. Cumbersome manual exploration and collection of up-to-date engineering data for certification relevant documents becomes obsolete.

True real-time end-to-end traceability
SodiusWillert tools help you ensure seamless traceability throughout the entire engineering lifecycle, from design, to development, and to testing. Cross-tool links between corresponding artefacts along the lifecycle facilitate an always up-to-date, real-time view: every change will be visible immediately after being saved.

Automated creation of up-to-date certification documents
You no longer have to spend endless hours searching for up-to-date information on certification-relevant details. With SodiusWillert solutions for safety-critical development, most of the documentation needed for certification is available at the click of a button. And our pre-built templates can easily be adapted to any specifics of your project.

Full control over change impacts
Take the guesswork out of analyzing the impact of changes. Our integrated lifecycle tools provide you with full control over all effects resulting from a change, both downwards and upwards the lifecycle. You'll see precisely which artifacts are impacted by a particular change and can take appropriate action.

Proven practices for developing safety-critical systems
We eat our own dog food. We have successfully deployed our solutions for safety-critical systems development, and we have successfully passed all required certifications. We're happy to share with you our expertise and help you get your safety-critical products to market faster, without expensive and time-consuming detours.

About SodiusWillert

SodiusWillert helps organizations manage the challenges of developing complex products and systems by providing powerful add-ons for engineering lifecycle tools, advanced solutions for embedded systems, and expert advice for developing complex systems and software. We support organizations in Aerospace, Automotive, Transportation, Defense and Medical industries. For more information, visit sodiuswillert.com.