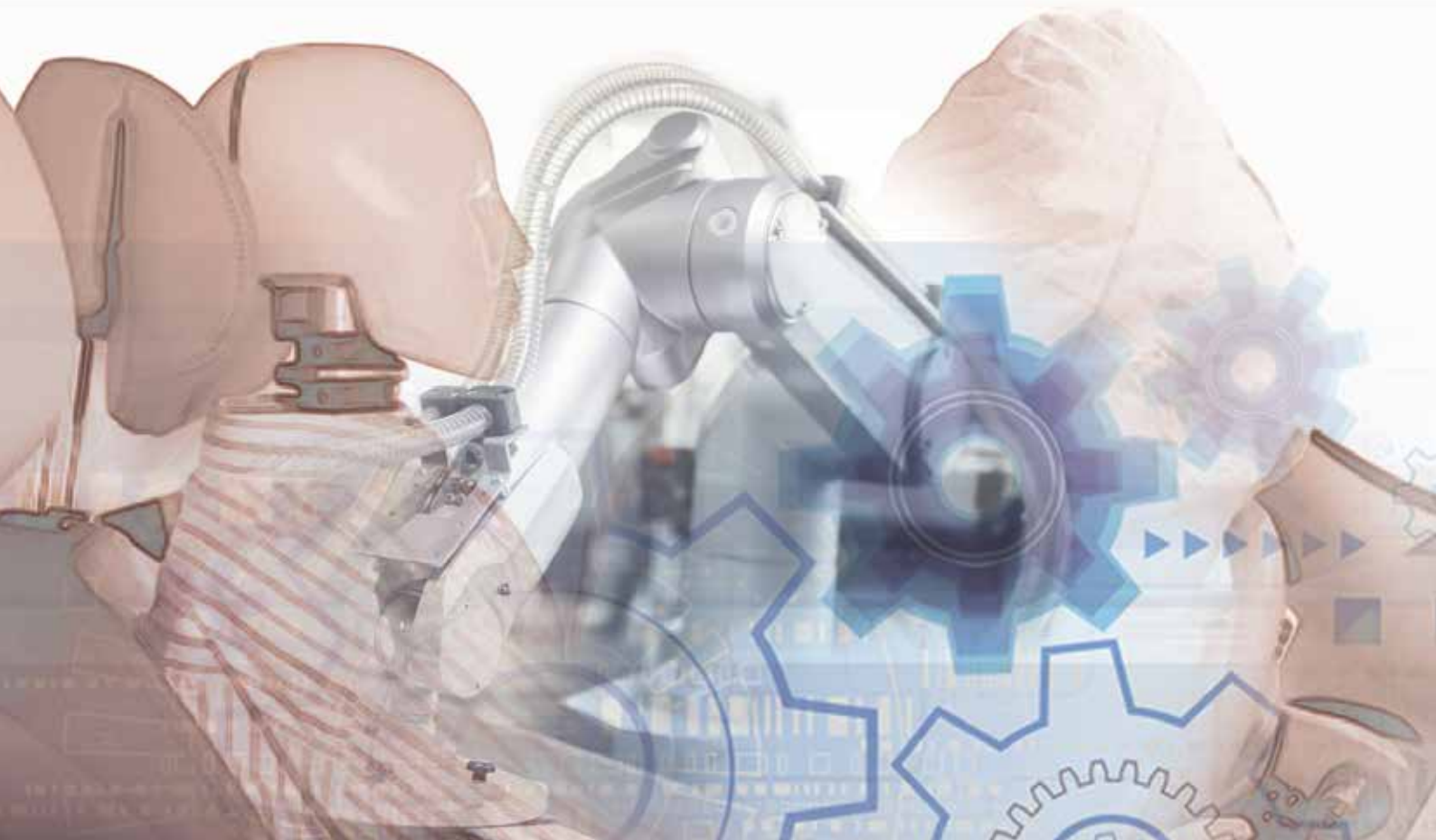


Functional Safety

Services
Components
Tools



Safety services – smoothing the way to your certification

EU directives and statutory provisions are putting extreme pressure on companies to develop systems that are compliant to standards such as IEC 61508, ISO 13849 and ISO 26262. This is often considered a Herculean task. For this reason, a large number of customers rely on the Hitex Safety Services – from project start to final certification.

Process Consulting

Standards can impact the operating principles of organizational units involved in the development of safety-related systems. Together with you we find out if your in-house processes are already “safety-ready” and what might need to be adapted to reach standard compliance.

System Design

Starting from the system design requirements specification we support you in the design of your safety-related system. With the right safety concepts and measures, all requirements for safety functions and safety integrity are fulfilled.



Hardware and Software Development

When your safety project reaches the actual implementation stage, you can count on our broad standards-compliant hardware and software development experience.

Quality Assurance

Quality matters, especially in safety projects. We are glad to help you ensure quality by conducting design, code, hardware and documentation reviews as well as quantitative and qualitative analyses.

Software Testing

Unit testing is an important step during the development cycle which is mandatory for certification. If you choose the Hitex test service you have one thing less to worry about.

Training

Tailor-made training courses equip your team members with all the safety knowledge they need. “Easy to test software” or “Reaching standard compliance with minimum overhead” are examples of potential training for your safety schedule.

Certification Support

Certification can be challenging. We accompany you through the entire process so that an appropriate safety case is available for the assessor on time.

Safety components – why start from scratch?

Microcontroller Self-Test

Microcontrollers constitute the heart of many embedded designs. When used as part of a safety-critical system, one question arises: How can the safety of the microcontroller itself be guaranteed?

PRO-SIL™ SafeTcore for Infineon TriCore and XC2000 Families

The PRO-SIL™ SafeTcore library with extensive silicon self-tests is designed to meet the needs of IEC 61508 and ISO 26262. It eliminates man-years of development and requirements work and greatly simplifies the certification process.

Hitex SafeTI™-HSK for TI Hercules Safety Platform Evaluation

Designed specifically for IEC 61508 and ISO 26262 safety critical applications, the Hercules platform provides advanced integrated safety features.

With the Hitex SafeTI™-HSK you can experience the opportunities of the Hercules safety platform and the corresponding library first-hand.



Class B Solutions for White Goods

Home appliances sold in Europe often have to comply with the IEC 60335/60730 standards. Hitex has developed several Class B self-test libraries for different microcontroller architectures.



Real Time Operating System

SAFERTOS is a unique real time operating system specially designed for 32-bit microcontrollers; it has been developed in accordance with the requirements of IEC 61508-3 SIL3 and is available pre-certified by TÜV SÜD.

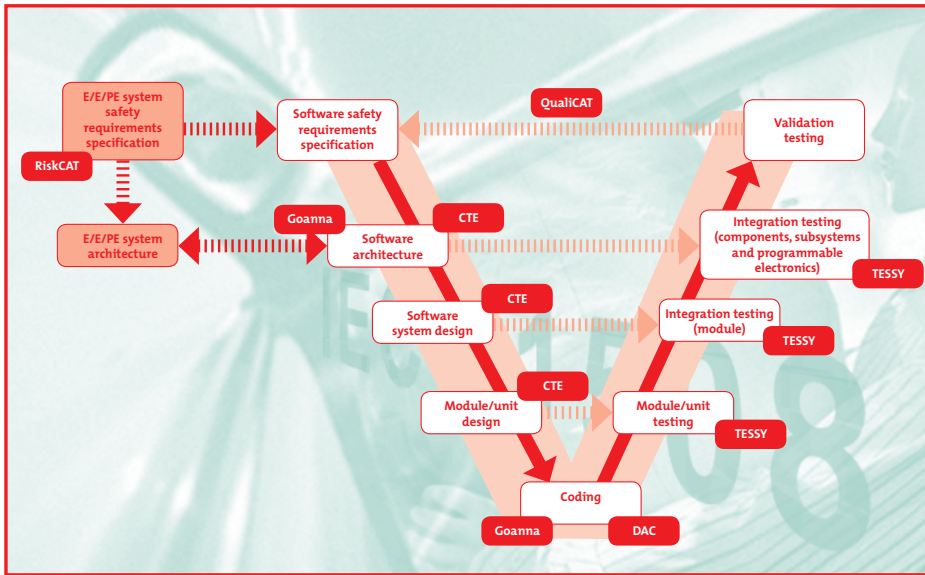
File System

SafeFLASH is a file system designed for high performance and safety. It can be used with all NOR and NAND flash as well as any media that can simulate a block-structured array. SafeFLASH supports dynamic and static wear-leveling and provides a highly efficient solution in which data integrity is critical.

MISRA-compliant TCP/IP Stack

The TCP/IP stack from HCC makes no compromises regarding quality. It is MISRA-compliant and validated using advanced verification tools. Therefore it is ideally suited to your safety system.

Safety tools – who wants to begin a project without the right tools?



Static software analysis

Static software analysis investigates the source code of a program to identify questionable constructs or to calculate metrics. Advanced

techniques point to actual errors that will occur during runtime if not fixed.

Hitex can offer different tools for static software analysis, from simple MISRA checker to advanced data flow analysis tools – everything that helps to deliver faster secure, reliable, and conformant code

Dynamic software analysis

TESSY provides automated unit/integration testing of embedded software directly on the actual target hardware. It determines code coverage and generates test documentation.

In order to specify and conduct unit and integration tests, leading companies rely on TESSY and the Classification Tree Editor for test case derivation. TESSY itself is qualified for the development of safety-critical software according to IEC 61508 and ISO 26262 (including ASIL D).

Coping with standards

The work with standards consumes time and therefore money – especially when you are applying the standard for the first time. Tools can reduce the effort.

RiskCAT – the easy way to deal with standards

Standards like IEC 61508 or ISO 26262 comprise several hundred requirements. RiskCAT, available for many standards, helps you to select just the requirements you really need.

QualiCAT – don't you wanna know?

Is my system standards-compliant? If you want to answer this question before your certification meetings, you should use QualiCAT. Based on the requirements that have to be fulfilled, QualiCAT calculates an overall standard compliance for your system using an evaluation for every requirement as well as the safety integrity level that must be reached.



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