

Phase 6: Code Simulation

Simulation of safety functions

AUTOMATION

Product information

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The proportion of dangerous systematic errors relating to safety functions is well above 60% of all possible errors.

This is important if you are responsible either for the functional safety of machines or the documentation, or if you are a project manager, planner, designer or tester of safety functions.

Measures aimed at preventing this type of error are described in the standards for functional safety. This includes code simulation, among other things.

In the case of systems which enable simulation, you can therefore prevent systematic errors and check your essential safety-related functions prior to startup.

User benefits

Your safe programming is simulated and documented in standardized log books based on proven and established procedures.

This means:

- The avoidance of systematic errors
- Documentation specifications or standardized documentation templates
- Shorter startup and release times
- Fewer resources used

Requirement

The system has a software simulation function.

The individual safety functions are described in the software technical specification in accordance with the software architecture model of DIN EN ISO 13849-1 for the creation of the test specification for the simulation.

The approved test specification for the simulation is required in order for the structured simulation to be performed.

Description of performance

Depending on your requirements, we can provide support for the simulation of your safety-related software.

We offer competent and comprehensive advice in relation to the planning and procedure for the simulation of your safety functions.

You will receive information on how you can perform the simulation, how to handle any deviations you may find, and how to document modifications.

If you do not yet have a test specification for the simulation, we can work with your safety experts to plan the structured procedure for its creation.

We will be happy to perform the simulation on your behalf in accordance with the specification and document the results in test log books. You can then refer to these test log books when revising the safety functions and for the subsequent release of the software.

Duration

The duration of our services depends on your requirements. We discuss your machine experts' previous experiences to agree on the time required for your individual case. This may be a general consultation lasting half a day or may involve intensive consultation or process support over a number of days.

For large-scale projects we are also happy to provide support for a longer period.

Costs

We will be happy to prepare a non-binding quote for you.

To request this, speak to your personal sales partner directly or contact our headquarters in Blomberg.

Do you want to expand your in-house expertise?

The following training will help you with code simulation:

Safety Lifecycle P5-P7	Order No. 2700791
INTERBUS Safety System Course	Order No. 2884651
PROFIsafe System Course	Order No. 2692335

By offering you custom-made training tailored precisely to your needs, we can impart the specific knowledge you need for your safety environment.

The following may also be of interest to you when it comes to the lifecycle of your application:



Do you want to find out quickly whether you are on the right track to achieving functional safety? Then simply use our functional safety app check! By using a checklist, you can find out interactively whether you meet the essential requirements of the Machinery Directive. Simply search for the term *Safety* in the App Store.