

exida Can Show you the Way

*Training Course: SIL Selection and SIL Verification with exSILentia®*

The exSILentia® integrated Safety Lifecycle Engineering Tool is a powerful aid for any engineer involved in safety lifecycle tasks such as SIL selection, Safety Requirements Specification, and SIL verification. Users who are new to functional safety engineering or would like “hands-on” training for a quick start up, exida has developed a two-day course. This course will familiarize users with all facets of the exSILentia tool to ensure efficient implementation of the Safety Lifecycle tasks.

Skills You Will Learn:

- How to perform Safety Integrity Level (SIL) Selection and Verification using the advanced capabilities of exSILentia
- Determine the required risk reduction for each hazard scenario and the achieved risk reduction for each identified Safety Instrumented Function (SIF)
- Understand interfacing with Process Hazard Analysis results
- Understand the documentation of the Safety Requirements Specification (SRS)
- Understand operational aspects such as proof testing

*Course Topics:***Advanced features of exSILentia**

- Documenting IEC 61511 compliance
- exSILentia structure (Projects, Safety Instrumented Functions)
- Audit trail
- SIL selection (SILect) (Specifying tolerable risk, Determining target SIL level)
- SIF Safety Requirements Specification (SIF SRS)
- SIL verification (SILver) (Determine Achieved SIL, SIL verification Details, SIF Parts/Group Options, selecting equipment from the SERH database, SIL verification support utilities)
- Generating reports (Report option, Languages)
- Software updates (Functionality Updates, Safety Equipment Reliability Handbook Updates)
- SERH Viewer
- PHA documentation (PHAX, PHA Import, Linking PHA items to SIFs and Alarms)
- Alarm rationalization (SIL Alarm, Linking Alarms to IPLs)
- Process and design safety requirements specification (Process SRS, Design SRS, Cause and Effect Matrix)
- Proof test generator
- Lifecycle cost estimator
- Complete exSILentia SLC example
- Complex (?) SIL verifications
- Conceptual Design – SIL verification exercise

Who Should Attend:

Individuals responsible for using exSILentia to perform Safety Lifecycle tasks. These individuals may include:

- Safety lead
- Conceptual design engineer
- Requirements reviewer
- Others involved in completing the respective Safety Lifecycle tasks

Length: 2 Days

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Learning from the Experts

Experience has shown that most companies benefit from training as the first step in implementing a safety, security, or alarm management program. Having a solid understanding of the relevant industry standards, requirements for compliance, and best practices (tools and techniques) ensures a focused and cost-effective initiative. Led by industry experts, exida offers a number of training options that can be modified to help meet the specific needs of your company. Whether your interests lie with Functional Safety, Control System Cyber Security, or Alarm Management, exida has the experience and expertise to ensure an informative and rewarding training program.

About exida Training:

Functional Safety

exida offers overview courses on both the IEC 61508 and IEC 61511 standards focused on understanding what they mean and how to comply with them. Along with overview courses, exida also offers more in-depth training options that provide hands-on access to exSILentia, exida's own SIL Selection and SIL Verification tool. With various options available, exida can offer modifications to the training options that will be suit your company's needs at the present time.

Control System Cyber Security

Cyber security has quickly become a serious issue for professionals in the process and critical infrastructure industries. An unprecedented number of security vulnerabilities have been exposed in industrial control products and regulatory agencies are demanding compliance to complex and confusing regulations. There are well established strategies and techniques that automation professionals can employ to discover and mitigate security vulnerabilities and improve the inherent security of their products and systems. Learning and adopting these strategies will help companies stay ahead of potential vulnerabilities. exida offers both basic and in-depth training options that will provide you with the information and skills necessary to help your organization implement and maintain secure control systems.

Alarm Management

exida's Alarm Management practices and principles training discusses industry best practices for alarm management including and educates key personnel about how their roles & responsibilities could be affected by complying with the ISA-18.2 standard. Creating an effective, sustainable alarm management program that delivers quantifiable benefits and complies with industry standards and guidelines is a key aspect of our training. Participants are prepared to support a facility alarm management program including the creation of an alarm philosophy document, alarm rationalization, analyzing alarm system performance, alarm system maintenance, and resolution of alarm management issues. Also available is an in-depth training on SILAlarm, exida's own alarm rationalization tool, which is used to guide the participants through the rationalization process and capture the results.

These various exida training programs have been designed to help accommodate your time and budget. Options include training courses delivered in various cities around the globe, your office location, an exida office, or through computer-based training modules.

exida also regularly publishes white papers and textbooks to facilitate learning on key topics, such as the best-selling book [Safety Instrumented System Verification](#). Stay tuned for new exida authored books to be released in 2012.

