Safety Engineering Services

www.exida.com

exida®

Safety Engineering Services

We provide the users of automation systems with the ability to cost-effectively implement safety and high availability automation systems. We do this by creating engineering tools that ease the implementation of systems, by coaching and training in implementation of the safety life cycle, and by providing a full range of safety lifecycle services for those who want independent verification or just extra help.

Engineering Tools and Templates

exida has made the process of designing, installing and maintaining your safety and high availability automation system easier. Years of experience in the industry have allowed us to crystallize our knowledge and convert that knowledge into standard products. These products include procedures for implementing safety life cycle tasks, safety software tools including SIL selection and SIL verification, our industry standard data handbook and "cook book" templates for all phases of design.

Consulting and Training

Although our products will help you minimize the costs of safety and high availability automation, we realize there are situations where you will require an in depth analysis, or intensive training. We have the ability to solve the complex issues and stand ready to assist when needed – Hazard and Risk Analysis, SIL selection, conceptual SIF design, SIL verification calculations, Maintenance and Test procedures or any other safety lifecycle activity. We are most willing to train you as well, either as part of a project or by standard courses. By using exida you have access to training from the professionals who are training industry's leading experts. Our training is available on-demand, on-line or in person via customized on-site courses.

Independent Verification

After the system has been designed, built, or installed, users benefit from independent third party review, especially in situations where the risk, complexity, or cost of the SIS are high. From factory acceptance testing, to bid review, to pre-startup acceptance testing exida will fulfill your verification and validation needs.

Engineering Process Assistance, Review and Assessment

exida can provide a full set of "sample" engineering procedures compliant with IEC 61511/ISA 84.01-2004. These are used by many companies to compare against their existing safety system design procedures. We can help with that comparison. We can help write updated procedures. exida can also provide an independent assessment against the requirements of IEC 61511 and provide a full safety case demonstrating compliant processes.

Safety Engineering Services

Safety Engineering Services for Automation Users

Engineers who are responsible for implementing automation solutions are often placed in a difficult position. There are an ever increasing number of demands placed on staff that is continually shrinking. New and complex standards are continually developed, placing unfamiliar requirements on the task of automation engineering. This environment requires the effective outsourcing of non-core activities and effective use of standardized solutions to facilitate the project implementation. For safety and high availability systems, this task is particularly difficult. Because safety systems are so critical, recognized and accepted standards should be applied to their design to ensure the safety of your staff and your profits. This requires a specialized skill set that is not available in all organizations.

exida makes implementation of safety and high availability automation products easier and more cost effective than ever. Users now have the ability to use procedures and tools that were written by industry authorities for a fraction of the cost of having them internally developed, and without having to go through the effort of having core staff trained to become safety and reliability experts. This lets you and your staff focus on your core tasks.

exida's tools and services cover every critical phase of the safety life cycle. Using exida to streamline your implementation process will insure that all of the appropriate standards are being implemented, the latest techniques and tools are used where appropriate, the systems are designed to the appropriate level of safety and are cost-effective. In addition, you get the comfort of having world class experts validate not only the logic solver, but the entire system

Hazard / Risk Analysis

The selection and design of appropriate safety instrumented systems hinges on an analysis of the risk due to the hazards at your plant. We can help you to identify and assess the risks posed by your plant. We have a range of products and services that help you through your Process Hazards Analysis for hazard identification, and then provide quantitative tools and expert coaching and consulting to help you analyze the likelihood and consequences ofthose risks.

Safety Integrity Level Selection

The amount of risk reduction that the SIS is required to provide is specified by the Safety Integrity Level (SIL). exida is familiar with, and in a lot of cases has helped develop the procedures that industry uses to select SILs. We provide procedures and tools to help you select and document your SIL selection process, and offer expert review for selection of SIL for difficult to analyze loops, where the risk or cost of SIS is high.

Safety Requirements Specification

The Safety Requirements Specification (SRS) is the key SIS design document. The SRS specifies not only what actions the SIS should take, but how effective it is required to be in performing these actions. exida offers template SRS documents, and coaching on the preparation of SRS.

Conceptual / Detailed Design

exida assists you in the design process by providing template specifications and design documentation. In addition, we provide the counseling that allows you to customize the templates to your particular application. We also provide an independent review of the full range of documents that are created for SIS design, from safety requirements specifications to vendor bids.

Safety Integrity Level Verification

After the SIS has been designed you are required to verify that the SIL of the installed equipment meets the requirements of the SRS. Probabilistic reliability analysis can be performed with exida tools and coaching, or performed as an independent verification by exida staff.

Operation and Maintenance / Function Testing

The deployment of a SIS does not end when the equipment is installed. exida helps your technicians and engineers develop the procedures that are required to operate, maintain and periodically test your SIS. exida can provide guidance on the test interval required to meet SIL requirements, and help you to develop and execute the procedures required for an effective test.

Pre-Startup Safety Review / Validation

After design and installation but before startup, a review of the SIS to insure that it meets the requirements laid out in the SRS is required. exida helps its clients by performing an Independent third party review.

HEADQUARTERS

USA

exida.com LLC
64 North Main Street
Sellersville, PA 18960
USA

+1-215-453-1720

Germany

exida.com GmbH
Birkensteinstr. 53
83730 Fischbachau
Germany

+49-89-49000547

South Africa

exida South Africa PTY LTD
Suite 1003, 34 Essex Terrace
Westville, 3629, KZN
South Africa

+27 31 2671564

Canada

exida Canada Ltd.
220 - 1829 Ranchlands Blvd. NW
Calgary, Alberta
T3G 2A7 Canada

+1-403-475-1943

Switzerland

exida Certification SA
Chemin de Champ-Poury 2
1272 Genolier
Switzerland

+41 22 364 14 34