

## 7 Steps to Industrial Control System Cyber Security

exida Can Show you the Way



### *Training Course: 7 Steps to Industrial Control System Cyber Security*

This course provides an introduction to industrial control system (ICS) cyber security and a practical 7 step process for managers and engineers involved in operating, maintaining, and integrating ICS/SCADA systems.

We have simplified the material from numerous standards and best practice documents, such as ANSI/ISA 99 and NERC CIP, and coupled it with our experience in assessing the security of dozens of industrial control systems to bring you this easy to follow process.

This course was designed to get you up to speed quickly on control system security best practices by presenting the material in an organized, straightforward and easy to understand manner. Attending this course will get you started and on the right path in far less time than it would if you were to start diving in on your own.

#### *Skills You Will Learn:*

- How to perform a control system security risk assessment
- Knowledge of relevant ICS security standards
- Best practices for developing security policy, procedures, and standards
- How to apply ISA 99 zone and conduit modeling
- Best practices for providing access control
- How to "harden" your control systems
- Best practices for monitoring your control systems

#### *Course Topics:*

- Step 1 – Assess Existing Systems
- Step 2 – Document Policies & Procedures
- Step 3 – Train Personnel & Contractors
- Step 4 – Segment the Control System Network
- Step 5 – Control Access to the System
- Step 6 – Harden the Components of the System
- Step 7 – Monitor & Maintain System Security

*Additional information on these 7 steps can be found in the whitepaper, "The 7 Steps to ICS Security" which is available for download from [www.exida.com](http://www.exida.com) under Resources and Features.*

#### *Who Should Attend:*

- Control systems engineers and managers
- IT engineers and managers industrial facilities
- Plant managers
- Plant Safety and Risk Management
- Maintenance technicians & engineers

**Course Length:** 1 Day

**COURSE MATERIALS PROVIDED**

*The past two years have been a real wakeup call for the industrial automation industry. For the first time ever it has been the target of sophisticated cyber-attacks like Stuxnet, Night Dragon, and Duqu.*

*Additionally, an unprecedented number of security vulnerabilities have been exposed in industrial control products and regulatory agencies are demanding compliance to complex and confusing regulations. Cyber security has quickly become a serious issue for professionals in the process and critical infrastructure industries.*

*This course will provide you with the information and basic skills to help your organization implement and maintain secure control systems.*

## 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.