2015 ISA Water/Wastewater and Automatic Controls Symposium

August 4 to 6, 2015 ● Wyndham Lake Buena Vista Resort ● Orlando, Florida, USA
Presented by the ISA Water/Wastewater Industries Division – *www.isawwsymposium.com*
Technical co-sponsors: Florida AWWA Section, the WEF Automation and Info Tech Committee ,
Florida Water Environment Association, Instrumentation Testing Association, and ISA Tampa Bay Section

August 3-4, 2015 – Optional Short Course

Asset Management and Enterprise Integration Using the ANSI/ISA95 Standard

ISA Course IC55

Course Description

Length: 2 days
Date: Mon-Tues, August 3-4, 2015
CEU Credits: 1.4
Course Hours: 8:00 a.m. – 4:00 p.m., includes lunch both days
Price: $1,265 for ISA Members, $1,585 List

Description:

Many manufacturing firms have made significant investments in flexible shop-floor execution systems and in sophisticated enterprise planning (ERP) systems. Those investments, however, cannot yield their full potential until each has access to the information and capabilities of the other. The ANSI/ISA95 standard addresses that coordination problem by providing a sound, robust definition of business activities and of the information that must flow between those two realms. This course also teaches the terminology used in Information Technology (IT) departments so that manufacturing and IT personnel can effectively work together on integration projects.

You will be able to:
* Specify the requirements for an enterprise/control integration solution
* Identify the issues involved in the integration of logistics to manufacturing control
* Identify the business processes that need information from manufacturing systems
* Identify the manufacturing control processes that need information from business systems
* Explain the business drivers involved in integration
* Identify the detailed information associated with enterprise/control integration
* Discuss the roles of UML, XML, and B2MML in vertical integration
* Apply the ISA95 object models

You will cover:
* **Standards and Models:** ANSI/ISA95 Standards | MESA International Model | WBF B2MML XML Schemas
* **Business Processes:** Procurement | Product Cost Accounting | Product Inventory Control | Maintenance | Production Planning and Scheduling
* **Production Processes:** Detailed Production Scheduling | Production Tracking | Production Resource Management | Product Definition Management
* **Information Model:** Production Resources | Process Segments | Product Definition and Capability | Production Schedules | Production Performance

2015 ISA Water/Wastewater and Automatic Controls Symposium
\Optional Short Course: Asset Management and Enterprise Integration Using the ANSI/ISA95 Standard

Course Description
Page 2 of 3

Classroom/Laboratory Exercises:
- Identify key business drivers for integration
- Identify key business processes and objects
- Identify process segment definitions
- Develop shared product definition information

Includes ISA Standards:
- ANSI/ISA95.00.01-2000 - Enterprise-Control System Integration, Part 1: Models and Terminology
- ANSI/ISA95.00.02-2001 - Enterprise-Control System Integration, Part 2: Object Model Attributes
- ANSI/ISA95.00.03-2005 - Enterprise-Control System Integration, Part 3: Models of Manufacturing Operations Management
- World Batch Forum B2MML Schema Documentation (www.wbf.org)

About the Instructor

Paul Nowicki is the Global Information Design Engineer for Heat and Control Inc. With over 30 years of experience in manufacturing information, process automation, and control systems, Paul has applied his problem solving capabilities to a wide variety of industrial challenges. Paul has worked in specialty chemical, pharmaceutical, food/beverage, paper, and consumer products facilities. He is an original architect of the ISA S88 Batch Control standards and recently chaired the update committee for Part 1. He has authored numerous papers with a wide range of topics from expert systems and enthalpy control strategies, to project management and team building. Paul often puts his process skills to work with home brewing.

Course Schedule

DAY	Topics, Exercises, Etc.	Time
Day 1 A.M.	Course Introductions	
	Pre Instructional Survey	0.25 hour
	Section 1: Overview of ISA95	0.50 hour
	Section 2: Business Drivers	0.50 hour
	Section 3: Domain Model	0.50 hour
	Application Exercise 1	0.50 hour
	Section 4: Functional Model	0.75 hour
Day 1 P.M.	Section 5: Object Model	1.00 hour
	Exercise 2	1.00 hour
	Object model (continued)	1.00 hour
	Exercise 3	1.00 hour
Day 2 A.M.	Review/questions from daily progress report	0.25 hours
	Section 6: Overview and Review	0.50 hour
	Section 7: XML and UML	1.00 hour
	Exercise 4	0.50 hour
	Section 8: Resource Models	1.00 hour
Day 2 P.M.	Exercise 5	1.00 hour
	Section 9: Product, Capability, Production	1.00 hour
	Section 10: Implementing ISA95	1.50 hour
	Post Instructional Survey	0.25 hour
	Final Course Evaluations	
		14 hours = 1.4 CEUs