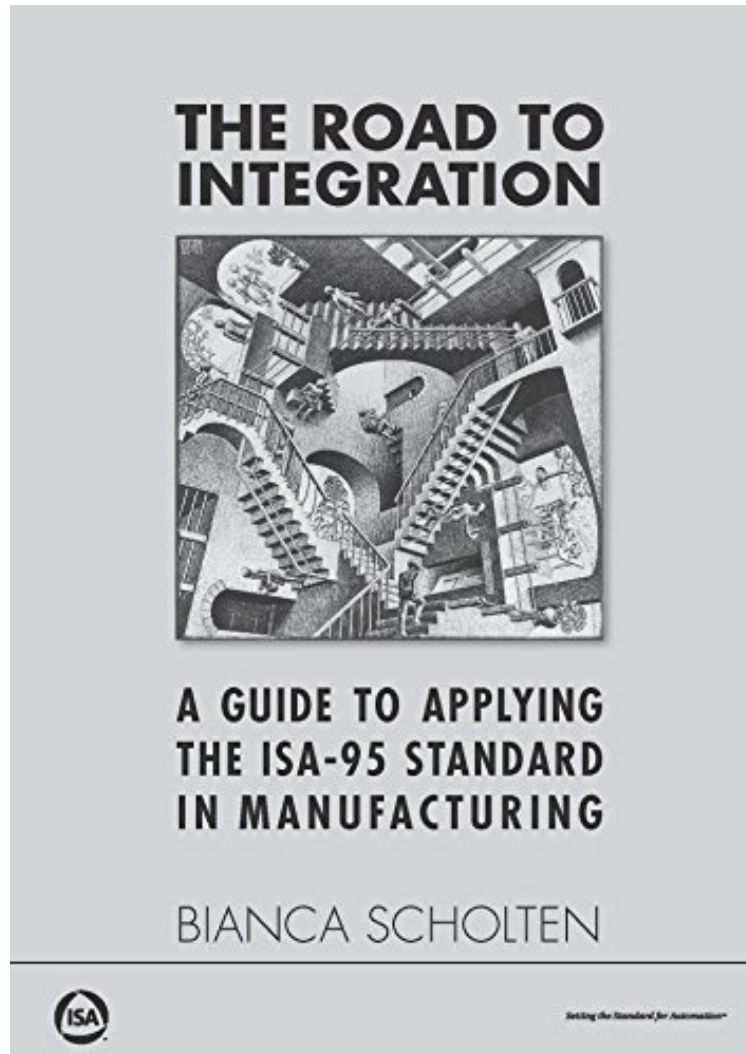


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The Road to Integration: A Guide to Applying the ISA-95 Standard in Manufacturing

Bianca Scholten

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Bianca Scholten : The Road to Integration: A Guide to Applying the ISA-95 Standard in Manufacturing before purchasing it in order to gage whether or not it would be worth my time, and all praised The Road to Integration: A Guide to Applying the ISA-95 Standard in Manufacturing:

0 of 0 people found the following review helpful. A practical method from a stuffy standardBy Don McintoshThis is not a regurgitation of the S95 standard, a very dry and difficult set of documents to engage. The author is very thoughtful and considerate to hand over a practical methodology based on the S95. She is specific about the approach beginning with understanding business drivers, capturing user requirements, how to apply the S95 models and use the terminology properly, etc. The detailed movement of data between various system layers is addressed adequately so

that you will understand the context if it is your first project, or a confirmation if you have been doing this type of work for almost two decades as I have. If you've never integrated a business planning system there is some missing context that is really outside of the scope of this book. Also, it is helpful if you have at least some experience with object-oriented analysis and a simple understanding of UML. The writing style is fluid, well organized and easy to read.

0 of 0 people found the following review helpful. A Great Guide for ISA-95 By N. Trokanas This book was really helpful. It helped me understand what ISA-95 is about and in addition with the standard itself it gives you all you need in order to apply the ISA-95.

1 of 1 people found the following review helpful. From Chaos to Integration By Nicholas P. Sands From Chaos to Integration - BBBB (Buy) The Road to Integration A Guide to Applying the ISA-95 Standard in Manufacturing By Bianca Scholten Reviewed by Nick Sands Some of the most important standards developed by ISA in the last decade are the ISA-95 standards on integration between control systems and enterprise systems. ISA-95 part 1 was published in 2000. It took many years before the any books on implementing the standard appeared. One of the first is Bianca Scholten's The Road to Integration: A Guide to Applying the ISA-95 Standard in Manufacturing. Scholten is a partner at Ordina, an information and communication technology consulting firm in the Netherlands and Belgium. She received her Master's degree from the University of Utrecht and is an active member of the ISA-95 committee. Scholten first provides some background on ISA-95, which may be somewhat of a mystery to many readers. ISA-95, Enterprise-Control System Integration is divided into several parts. Part 1, Models and Terminology provides the common language for integration and the very important functional hierarchy model, which shows level 0, 1, and 2 functions, including the process and control systems as described in ISA-88, the level 3 functions of manufacturing operations and control, and the level 4 functions of business planning and logistics. The focus of ISA-95 is the exchange of data between levels 3 and 4. The functional enterprise control model other models are also very important. Part 2, Object Model Attributes defines more details of the information flows shown in part 1. Part 3, Activity Models of Manufacturing Operations Management describes the activities at level 3. Part 4, Object Models and Attributes on Manufacturing Operations Management is in development and defines the information exchange between level 3 systems. Part 5, Business to Manufacturing Transactions, describes the data messages exchanged in transactions between levels 3 and 4. After the orientation to the ISA-95 standards, Scholten illustrates how to use the ISA-95 standards as a methodology to analyze existing system interfaces. The process includes a tour, a review of business drivers, and then an examination of the functional and activity models, during which the specific needs are defined. A summary with concerns and recommendations complete the analysis. Scholten provides comments from users that have been through the analysis. Another chapter explains how to apply the models described in the ISA-95 standards from a practical point of view. A detailed example includes the resources of personnel, equipment, material, and process segment and illustrates many points. The final chapter reveals the structure of B2MML (Business to Manufacturing Markup Language) and its implementation, including adaptors and middleware. There is also a plan for implementing a project to implement ISA-95. There are some critical questions to answer, like ownership of the master data and the interface systems. Scholten provides an experienced view of the benefits of following the ISA-95 standards and, importantly, an international view. She draws upon many interviews with users to keep the book grounded in reality. Scholten also adds her own style as an art historian. The ISA-95 standards will have a very significant impact on the control system environment so this practical explanation is worth buying (BBBB).

In recent decades, industrial companies have invested much time and money in enterprise resource planning (ERP) systems and in automation of the process control layer. In our quest to reap the rewards of all these investments, the gap between business automation and process automation is becoming painfully obvious. ERP systems are only valuable if you supply them with current data, and these data originate largely from the process control layer. When integrating these systems, both IT departments and engineering departments must confront the high degree of heterogeneity found in technology, metadata, programming languages, user interfaces, and more. Good communication with the system's end user is essential as several departments are usually involved, such as production, maintenance, the lab, and the office. Try speaking the same language then! Against this backdrop, ISA decided in the 1990s to develop the ISA-95 standard for integrating enterprise and control systems in order to reduce the risks, costs, and errors that go hand in hand with implementing manufacturing control systems and integrating them with ERP systems. This handy resource explains how to apply ISA-95 in manufacturing enterprise systems (MES) and vertical integration projects, as well as reveals the most important ISA-95 models and terminology. It is ideal for those just starting out who need to get up to speed on ISA-95's background information but also for those who have some practical experience with ISA-95 and require additional support in carrying out analyses to determine a specific company's MES strategy and to define user requirements. If you develop MES functionality or realize interfaces based on ISA-95, then this guide will help you understand and apply the ISA-95 object models. Most important, the guide explains how to integrate ERP and MES systems using ISA-95. It places ISA-95 in the broader context of modern information exchange technologies and thus offers a complete picture for project managers, consultants, programmers, and information architects who want to integrate ERP and MES systems based on the international standard. - See more at: <https://www.isa.org/store/products/product->

detail/?productId=116016#sthash.aJ7ITTFn.dpuf

About the Author Bianca Scholten is a partner at Ordina, one of the largest publicly traded consultancy service providers in the Netherlands and Belgium in the areas of information and communication technology and management. She was the driving force behind the inception of the Ordina ISA-95 MES Competence Center. Ms. Scholten advises national and international industrial companies on how to determine their manufacturing automation strategies. She has trained hundreds of professionals in applying ISA-95, mostly in Europe. Ms. Scholten is an active member of the SP95 committee. She publishes regularly in trade journals and frequently speaks at conferences on subjects related to vertical integration and technical automation. In addition to these areas of expertise, Ms. Scholten is also an art historian. She received her Masters degree from the University of Utrecht, the Netherlands, in 1993.