



Connecting to Current Software - BBB (Borrow)

Software for Automation: Architecture, Integration, and Security by Jonas Berge

Reviewed by Nick Sands

OPC has revolutionized the automation and control industry. Finally there is a book to help guide users through the DCOM traps and security pitfalls. Jonas Berge, author of *Fieldbuses for Process Control: Engineering, Operation and Maintenance*, has followed up with the logical next step, *Software for Automation: Architecture, Integration, and Security*. Swedish educated Berge is a senior member of ISA, has a very respectable 17 years of experience and is a manager at Smar's Asia Pacific office in Singapore. He has been deeply involved in the development of Fieldbus.

Berge starts with a chapter that more than introduces the topics covered in his book. The focus of the book is OPC, how it is used in modern automation systems, and the benefits of an open technology vs the proprietary systems of the past. In fact, Berge makes this point so often a user of a proprietary system might feel obsolete. Of course there are many benefits to open systems, as Berge points out. The next chapters on setup and configuration are about a third of the book and cover many tips for installing and setting up generic OPC tools.

Migration, integration, and trouble shooting are covered next. This is the core of the book, sharing many tips on the implementation of OPC connections across local or enterprise networks. Berge explains the difference between the many OPC specifications, like DA for data acquisition, HDA for historical data acquisition, and A&E for alarm and events. He also discusses the newer OPC-XML-DA, based on XML (eXtensible markup language) vs DCOM (Distributed Component Object Model) and the future OPC-UA, a united architecture that will use the most appropriate protocol for each connection.

The book continues with guidance on OPC applications and the use of OPC to migrate existing systems to more modern control systems. Several considerations, such as network architecture, protocol security, application documentation and management of accounts. The final chapter covers OPC in safety applications and more details of security with firewalls

Berge should be commended for addressing the gapping hole in the collective body of knowledge around OPC. But he is only partially successful. His writing style rambles more than necessary, making this reference less useful than a crisper version. For that reason, and the still changing technology of OPC, this book rates a borrow (BBB). You can find it at ISA for \$88, member price.