

Books

Open Systems Handbook, Tom Wheeler, Bantam Professional Books, New York, 1992. 316 pp. (ISBN 0-553-08954-4).

Computer technology has made it possible for individuals to use computing capability directly and to connect with other users throughout the world, resulting in changes in the way we do business and solve problems. As the cost of microprocessors has decreased dramatically, there has been a movement toward using—or wanting to use—hardware and software supplied by a variety of vendors, as well as a desire to combine or use new applications with existing ones. The author defines “open systems” as “those hardware and software implementations that conform to the body of standards that permit free and easy access to multiple vendor solutions” (p. 3). This book describes the goals, considerations, advantages, and problems associated with moving to the open systems approach.

This is a handbook and as such packs an enormous amount of material into its pages. Because it is thorough and compact, it will be useful for computer professionals as well as others who want an overview of this approach. Because the book moves rapidly and statements are not developed, I at times found myself disagreeing with some of the technical points. However, these disagreements resulted from the author’s need to condense so much material into a digestible, concise book. The author has chaired seminars and given talks on various aspects of open computing. Apparently, the interest generated by these activities led him to write about good experiences and pitfalls of open computing. My main criticism of the book is that it is easy to read but not interestingly presented. The figures look like those used at presentations and are less effective as part of a book than when used in a talk. The timeliness

and usefulness of the material makes up for this criticism.

There are two major sections: the first chapters present the technical information needed to understand and discuss the implications of the open systems approach; the last chapters present details of using the approach, including advantages, possible limitations, and potential problems. There are many useful lists of questions to ask, issues to consider, and steps to follow.

In the first chapters open systems computing is defined and put in a business context, and its desirable characteristics are presented. The next chapters describe relevant aspects of hardware, software, and standards; then clients, servers, and networks; and finally applications. The terminology used is usually defined and is full of the currently popular “buzzwords,” so the reader will be able to communicate with anyone using these terms. The reader is also well prepared to read the second section of the book.

In the later chapters the author clearly presents the competitive advantages to be attained by adopting an open computing approach and gives steps to accomplish it. He also indicates alternative ways to accomplish open computing and indicates when it may be only partially possible because of a lack of available tools in some areas and the need to maintain current applications or implementations. It is in these chapters that his experiences provide the basis for his extensive sharing of information. Here he gives the reader a good picture of the realities as well as the dreams of interoperability, the open systems life cycle, and what to expect as organizations face

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first the need for transformation, and then the actual transition to open computing, including integrating it into the organization, making it work, and continually improving it.

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Designing Quality Databases with IDEF1X Information Models, Thomas A. Bruce, Dorset House Publishing, New York, 1992. 547 pp. (ISBN 0-932633-18-8).

Let me begin my review of this book by unequivocally stating that "I loved it." Although its title may appear as technically cumbersome and having limited scope, this book has something for everyone and is especially valuable and timely irrespective of the fact that it has been available now for a while. The book covers information and data modeling from almost every perspective and "is the first commercially available book on IDEF1X, which potentially could become the world standard language for data structure." Newcomers to the world of information models and database design, together with seasoned practitioners of these methodologies, will find much of value in this book.

The subject materials that I found to be of significance in this book include: the historical perspective of information models (helpful for an "old timer" like me who grew up in the age of process modeling), the real-life case study that brings to life information modeling and data modeling definitions, the clear expositions of definitions regarding IDEF1X data modeling, and the extent of other items defined and discussed in the book. Some of these other items include reverse engineering, object-oriented modeling, full and complete information for the case study, guidelines for actual modeling sessions when getting started, the raw data used to construct an information model, the example of reverse engineering from an actual COBOL listing to an entity-relationship information model with primary keys, and the material on John Zachman's framework and examples of where the information modeling maps to cells in Zachman's framework matrix.

This book can and should be viewed as a reference for the IDEF1X information modeling language and usage and should also be viewed as a primer for anyone interested in learning about information or data modeling. Someone with no experience at all in information and data modeling can start with this book, go through each chapter, do the exercises at the end of selected chapters, review the detailed appendices, and become totally conversant with the world of information and data modeling. In addition, experienced data modelers can go to this book to determine precise definitions for the IDEF1X modeling approach.

What helps the beginning modeler in the real-life case study are the actual dialogs between the modeler and the business experts. It is an invaluable aid for anyone doing information or data modeling for the first time. The appendices contain a wealth of information over the whole spectrum of information modeling.

This book is one of the best-written technical books that I have come across. It succeeds in bringing potentially abstruse things to life and clearly explains some of the more technically complex aspects of the subject. It should be part of every computer person's library.

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Note—The books reviewed are those the Editor thinks might be of interest to our readers. The reviews express the opinions of the reviewers.