



## Book Review

# Simulation: the practice of model development and use

Stewart Robinson

1st edn; Wiley; 2005;

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This book is aimed at both practitioners and academics. It is comprehensive, covering various issues surrounding discrete-event simulation. The book is written in a manner that is easy to read which is helped by its logical structure. It has a good blend of common sense approach to simulation and academic rigour. It is split up into 13 chapters each covering a different aspect of simulation.

The book starts by explaining why simulation is useful in helping us understand and solve problems. It then explains how simulation software works. I found this particularly interesting and helpful; the author makes this technical issue easy to understand. It has helped my understanding as to why certain activities happen in certain sequences in my own simulation models. It then describes what software is available to carry out simulation projects; there is a useful table to help users to evaluate the different simulation software available.

The author describes why it is important to and how to create a conceptual model of the system being modelled. When covering model coding, the book provides a handy guide to what should be included in the documentation of the model. The book covers how to obtain accurate results and how to experiment so as to gain understanding of what is going on in the system being modelled.

The book finished with a chapter looking at the practice of simulation. This considers the issues of what type of model is required for different situations.

The book is enhanced by having exercises at the end of each chapter to help the reader consolidate their understanding.

I also believe that several of the chapters are also applicable when using with other Operations Research techniques (eg chapters on developing conceptual models and testing them, verification and validation of models).

It would have been interesting for the author to have included a section in the book on what the future of simulation might be. However this has since been covered by Taylor and Robinson (2006).

As someone who has been using simulation for many years and on an extensive number of projects, I found this a very interesting and useful book to read.

### Reference

Taylor SJE and Robinson S (2006). So where to next? A survey of the future for discrete-event simulation. *Journal of simulation* 1(1): 1–11.