

Preface to the Second Edition

The book has been extended in a meaningful way. Five chapters have been added. In the deterministic section it is the treatment of the single machine, the job shop, and the open shop that have been expanded considerably. In the stochastic section a completely new chapter focuses on single machine scheduling with release dates. This chapter has been included because of multiple requests from instructors who wanted to see a connection between stochastic scheduling and priority queues. This chapter establishes such a link. Part III, the applications section, has been expanded the most. Instead of a single chapter on general-purpose procedures, there are now two chapters. The second chapter covers various techniques that are relatively new and that have started to receive a fair amount of attention over the last couple of years. There is also an additional chapter on the design and development of scheduling systems. This chapter focuses on rescheduling, learning mechanisms, and so on. The chapter with the examples of systems implementations is completely new. All systems described are of recent vintage. The last chapter contains a discussion on research topics that could become of interest in the next couple of years.

There is a companion website for this book:

<http://www.stern.nyu.edu>

The intention is to keep the site as up-to-date as possible, including links to other sites that are potentially useful to instructors as well as students.

Many instructors who have used the book over the last couple of years have sent very useful comments and suggestions. Almost all of these comments have led to improvements in the manuscript.

Reha Uzsoy, as usual, went through the manuscript with a fine-tooth comb. Salah Elmaghraby, John Fowler, Celia Glass, Chung-Yee Lee, Sigrid Knust, Joseph Leung, Chris Potts, Levent Tuncel, Amy Ward, Guochuan Zhang, Subhash Sarin, and Wilbert E. Wilhelm all made comments that led to substantial improvements.

A number of students, including Gabriel Adei, Yo Huh, Maher Lahmar, Sonia Leach, Michele Pfund, Edgar Possani, and Aysegul Toptal, have pointed out various errors in the original manuscript.

Without the help of a number of people from industry, it would not have been possible to produce a meaningful chapter on industrial implementations. Thanks are due to Heinrich Braun and Stephan Kreipl of SAP, Rama Akkiraju of IBM, Margie Bell of i2, Emanuela Rusconi and Fabio Tiozzo of Cybertec, and Paul Bender of SynQuest.

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