

Part V

Perspective

We have provided a general overview of computer system analysis using queueing network models (Part I), a discussion of the algorithms used for evaluating separable networks (Part II), a look at specialized techniques for the detailed modelling of particular subsystems (Part III), and a guide to parameterizing queueing network models (Part IV). Here, in Part V, we attempt to “fit the pieces together”.

Chapter 15 shows, through example, how the techniques that we have presented can be used in non-traditional contexts: modelling computer communication networks, local area networks, software resources, database concurrency control, and operating system algorithms. As computer systems continue to evolve, it is important to recognize that the applicability of queueing network technology extends well beyond the confines of centralized systems with simple characteristics.

Chapter 16 discusses the structure and use of queueing network modelling software. This is a fitting conclusion to the book, for such software can embody many of the techniques covered in Parts I - IV.

Two natural additional components of Part V would be a review of the important differences between queueing network modelling and other approaches to computer system analysis, and a discussion of various considerations that arise in the course of conducting a modelling study. These topics were addressed, by way of introduction, in Chapters 1 and 2. We suggest reviewing those chapters at the conclusion of Part V, since you then will be in a position to appreciate them fully.