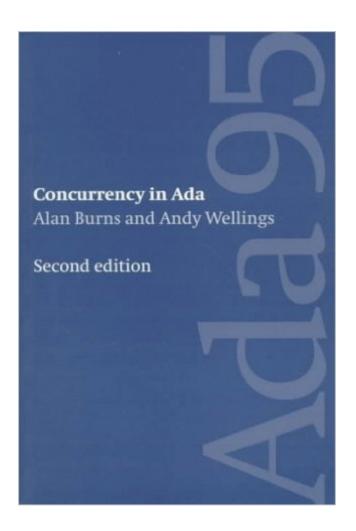
The book was found

Concurrency In Ada





Synopsis

A major feature of the Ada programming language is the facilities it provides for concurrent programming. In this book, Alan Burns and Andy Wellings provide a thorough and self-contained account of concurrent programming in Ada, and show users how to harness the full power of the language. Starting with an overview of the nonconcurrent features of Ada, the authors examine in detail the uses of concurrent programming and the inherent difficulties in providing interprocess communication. They introduce the Ada tasking model, and explain system programming, real-time issues, distribution, object-oriented programming, and reuse. This is the first book to deal with concurrent features in the new Ada standard, and it offers practical advice to both programmers working with embedded systems and those interested more broadly in the development of programming languages. Many otherwise inaccessible issues are probed in depth, making this book invaluable to professional software engineers and advanced students of programming alike. Every Ada programmer will find it essential reading and a primary reference work.

Book Information

Paperback: 442 pages Publisher: Cambridge University Press; 2 edition (March 13, 1998) Language: English ISBN-10: 052162911X ISBN-13: 978-0521629119 Product Dimensions: 6 x 1.1 x 9 inches Shipping Weight: 1.4 pounds Average Customer Review: 4.8 out of 5 stars Â See all reviews (6 customer reviews) Best Sellers Rank: #2,926,483 in Books (See Top 100 in Books) #38 in Books > Computers & Technology > Programming > Languages & Tools > Ada #3033 in Books > Textbooks > Computer Science > Networking #3406 in Books > Textbooks > Computer Science > Software Design & Engineering

Customer Reviews

Fully harnessing multi-core processors requires concurrent programming, yet most mainstream languages have little support or do so with poor portability. Well-written concurrent Ada programs can be extremely portable and support multi-core and multiple processors automatically. This book explores, in-depth, the concurrent programming ("tasking") part of the Ada language. The authors then show how the concurrent programming facilities of Ada are augmented by the language to

support real-time programming. These standard real-time facilities are state-of-the-art, extending, for example, beyond the POSIX real-time facilities in their expressive power. The book first establishes the necessary foundation for understanding concurrent programming by explaining the possible problems (e.g., deadlocks and race conditions) and highlighting some of the mechanisms traditionally used in concurrent programming, such as semaphores and message-passing. The tasking part of Ada is then covered in full detail, necessarily including interactions with some other parts of the language, such as exceptions, but also including interactions with the Ada object-oriented language facilities. The implementations of a number of reusable concurrency abstractions serve to illustrate the use of the tasking features. The authors next lay another foundation, this time for scheduling in real-time systems, and show how Ada directly supports the common approaches. Both fixed-priority and dynamic-priority dispatching are supported by Ada and these are covered in detail. Ada 2005 also defines a number of time-related abstractions, such as a monotonic clock and timing events, and these are also covered completely.

Download to continue reading...

DOS: Programming Success in a Day: Beginners guide to fast, easy and efficient learning of DOS programming (DOS, ADA, Programming, DOS Programming, ADA ... LINUX, RPG, ADA Programming, Android, JAVA) Concurrency in Ada VBScript: Programming Success in a Day: Beginner's Guide to Fast, Easy and Efficient Learning of VBScript Programming (VBScript, ADA, ASP.NET, C#, ADA ... ASP.NET Programming, Programming, C++, C) ADA: Programming Success in a Day: Beginners Guide to Fast, Easy, and Efficient Learning of ADA Programming Rationale for the Design of the Ada Programming Language (The Ada Companion Series) The ADA Practical Guide to Associateships: Success Strategies for Dentist-owners and Prospective Associates (The ADA Practical Guide Series) Transactional Information Systems: Theory, Algorithms, and the Practice of Concurrency Control and Recovery (The Morgan Kaufmann Series in Data Management Systems) Concurrency Control and Recovery in Database Systems Ada 2012 Reference Manual. Language and Standard Libraries: International Standard ISO/IEC 8652/2012 (E) (Lecture Notes in Computer Science) ASP.NET: Programming success in a day: Beginners guide to fast, easy and efficient learning of ASP.NET programming (ASP.NET, ASP.NET Programming, ASP.NET ... ADA, Web Programming, Programming) Ada, the Enchantress of Numbers: Poetical Science Programming in Ada 2005 with CD Programming in Ada 2012 Real Time Systems and Programming Languages: Ada 95, Real-Time Java and Real-Time C/POSIX (3rd Edition) Concurrent and Real-Time Programming in Ada Ada for Experienced Programmers (Addison-Wesley series in computer science) Ada for Software Engineers Ada 95: The Craft of

Object-Oriented Programming Ada 95: The Lovelace Tutorial Ada 2012 Rationale: The Language --The Standard Libraries (Lecture Notes in Computer Science)

<u>Dmca</u>