case study of an embedded computer system. They give examples of concepts and features of Ada rather than making rigorous or even vigorous syntactical or semantical analyses. The paperback book consists of 16 well-written introductory level chapters: (1) The genesis of Ada; (2) The engineering of large-scale software; (3) Embedded computer systems; (4) Problem specifications; (5) Program construction; (6) Modelling the problem domain; (7) Expressions and statements; (8) Subprograms and blocks; (9) Parallelism; (10) Packages; (11) Generics; (12) Building data structures; (13) Real time features; (14) Visibility and program structure; (15) Case study; (16) Case study (Ada program). Almost every chapter has exercises to test the student's comprehension of Ada programming. Further, summary solutions are provided for most of the exercises.

Ada is a modern high-order computer programming language developed under the sponsorship of the US Government (Ada Joint Program Office, DoD) and intended to be the standard language for writing software for major automated systems. Recall that an "automated system" is any computer-controlled system whose primary functions are distinct from the computational or communications capabilities of its embedded computer resources, for example, any complex weapon system controlled in real time. Automated systems require improved programming techniques to allow non-standard I/O, to increase fault tolerance, and to meet demanding concurrency and real-time constraints. By using Ada and an appropriate programming support environment, management is expected to be able to reduce the costs and to improve the quality of software. In late 1983, validated Ada compilers with a programming support environment began to be delivered to the computer science community. Only now is Ada programming moving into a full-production status.

Since the book was written before the appearance of validated Ada compilers, it was not possible to fully test the Ada code for the patient monitoring system (developed in Chapters 15 and 16) in its target environment. Although the code for the case study was executed on an Ada/Ed "training" compiler developed at the Courant Institute for Vax/VMS, this monograph will be best utilized as supplementary reading on Ada programming for advanced undergraduates in computer science and for project engineers with a need to write or analyze Ada code for embedded systems.

Albert A. Mullin
USA BMD Systems Command
Huntsville, Alabama

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