Modeling and Verification Using UML Statecharts

Description: As systems being developed by industry and government grow larger and more complex, the need for superior specification and verification approaches and tools becomes increasingly vital. The developer and customer must have complete confidence that the design produced is correct, and that it meets formal development and verification standards. In this text, UML expert author Dr. Doron Drusinsky compiles all the latest information on the application of UML (Universal Modeling Language) statecharts, temporal logic, automata, and other advanced tools for run-time monitoring and verification. This is the first book that deals specifically with UML verification techniques. This important information is introduced within the context of real-life examples and solutions, particularly focusing on national defense applications. A practical text, as opposed to a high-level theoretical one, it emphasizes getting the system developer up-to-speed on using the tools necessary for daily practice.

A practical, tutorial-style text (other books on this topic discuss the tools and formalisms only theoretically) Includes an unclassified case study example from the U.S. Missile Defense project Accompanying Companion website includes source code and re-useable statechart templates

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