

|                         |   |
|-------------------------|---|
| 1. Record Nr.           | UNINA9910254810503321   |
| Autore                  | Topçu Okan  |
| Titolo                  | Guide to Distributed Simulation with HLA // by Okan Topçu, Halit Ouztüzün   |
| Pubbl/distr/stampa      | Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017   |
| ISBN                    | 3-319-61267-0   |
| Edizione                | [1st ed. 2017.]   |
| Descrizione fisica      | 1 online resource (XXV, 307 p. 203 illus., 183 illus. in color.)  |
| Collana                 | Simulation Foundations, Methods and Applications, , 2195-2817   |
| Disciplina              | 003.3   |
| Soggetti                | Computer simulation<br>Software engineering<br>Simulation and Modeling<br>Software Engineering  |
| Lingua di pubblicazione | Inglese   |
| Formato                 | Materiale a stampa  |
| Livello bibliografico   | Monografia  |
| Nota di contenuto       | Part I: Introduction -- Introduction -- High Level Architecture -- Federation Development At-A-Glance.- Part II: Object Model Development -- Introduction to Object Model Development -- Object Model Construction.- Part III: Federate Application Development -- Code Generation -- Federate Application Development Based on Layered Architecture -- Federate Implementation: Basics.- Part IV: Advanced Topics -- Federate Implementation: Advanced -- Integration of Agents into HLA -- A Complete Case Study.- Part V: Appendices -- Appendix A: Simge Installation and Remarks.  |
| Sommario/riassunto      | This invaluable textbook/reference provides a hands-on guide to the application of good software development practices to the construction of distributed simulation systems, with a particular focus on High Level Architecture (HLA). Emphasizing a learning-by-doing approach supported by examples, the text offers practical advice on real-world development issues for all engineers and programmers entering the field. Topics and features: Explains how to rapidly develop an HLA federation, offering an implemented sample for each service area of the HLA federate interface specification Describes this implementation using the freely available software tools SimGe and RACoN Provides numerous step-by-step examples, code snippets, and case studies, as |

well as links to downloadable sample source code Uses the Microsoft .NET platform and the C# programming language in all examples and case studies Includes review questions throughout the book for further study Examines not only federate application development, but also object model construction Discusses the employment of HLA in multi-agent simulations Providing an accessible introduction and all-in-one resource for HLA-based distributed simulation development, this book is an essential guide for students and practitioners training in distributed simulation and distributed interactive simulation. Dr. Okan Topçu is an Associate Professor in the Department of Computer Engineering at the Middle East Technical University (METU) Northern Cyprus Campus. Dr. Halit Ouztüzün is a Professor at METU, Ankara, Turkey. Other publications by Dr. Topçu and Dr. Ouztüzün include the Springer title Distributed Simulation: A Model Driven Engineering Approach.

---