

1. Record Nr.	UNISA990003252820203316
Autore	JACOPINI, Giuseppe
Titolo	A natural equivalence on Milner's synchronization trees : Hypotheses and related tests / G. Jacopini, G. Sontacchi
Pubbl/distr/stampa	Roma : Istituto per le applicazioni del calcolo "Mauro Picone", 1981
Descrizione fisica	15 p. ; 24 cm
Collana	IAC. Istituto per le applicazioni del calcolo "Mauro Picone" ; 213 , Pubblicazioni. Serie III
Altri autori (Persone)	SONTACCHI, G.
Disciplina	519
Soggetti	Probabilità
Collocazione	519 IAC (213)
Lingua di pubblicazione	Italiano
Formato	Materiale a stampa
Livello bibliografico	Periodico

2. Record Nr.	UNINA9910483374903321
Autore	Taylor John T.
Titolo	Patterns in the machine : a software engineering guide to embedded development / / John T. Taylor, Wayne T. Taylor
Pubbl/distr/stampa	Berkeley, CA : , : Apress, , [2021] Â©2021
ISBN	1-4842-6440-1
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XIX, 293 p. 59 illus.)
Disciplina	004.16
Soggetti	Embedded computer systems - Programming
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1: Introduction -- 2: Core Concepts -- 3: Design Theory For Embedded Programming -- 4: Persistent Storage Example -- 5: Software Architecture -- 6: Automated Unit Testing -- 7: Functional Simulator -- 8: Continuous Integration -- 9: Data Model -- 10: Finite State Machines -- 11: Documentation -- 12: File Organization and Naming -- 13: More About Late Bindings -- 14: Initialization and Main -- 15: More Best Practices -- 16: PIM Thermostat Example -- 17: The Tao of Development -- Appendix A: Terminology -- Appendix B: UML Notation for State Machines -- Appendix C: UML Cheat Sheet -- Appendix D: Why C++ -- Appendix E: Package Management and Outcast -- Appendix F: Requirements vs. Design Statements.
Sommario/riassunto	Discover how to apply software engineering patterns to develop more robust firmware faster than traditional embedded development approaches. In the authors' experience, traditional embedded software projects tend towards monolithic applications that are optimized for their target hardware platforms. This leads to software that is fragile in terms of extensibility and difficult to test without fully integrated software and hardware. Patterns in the Machine focuses on creating loosely coupled implementations that embrace both change and testability. This book illustrates how implementing continuous integration, automated unit testing, platform-independent code, and other best practices that are not typically implemented in the embedded systems world is not just feasible but also practical for

today's embedded projects. After reading this book, you will have a better idea of how to structure your embedded software projects. You will recognize that while writing unit tests, creating simulators, and implementing continuous integration requires time and effort up front, you will be amply rewarded at the end of the project in terms of quality, adaptability, and maintainability of your code. You will:

- Incorporate automated unit testing into an embedded project
- Design and build functional simulators for an embedded project
- Write production-quality software when hardware is not available
- Use the Data Model architectural pattern to create a highly decoupled design and implementation
- Understand the importance of defining the software architecture before implementation starts and how to do it
- Discover why documentation is essential for an embedded project
- Use finite state machines in embedded projects.
