1.	Record Nr.	UNINA9910585771303321
	Autore	Zaeske Wanja
	Titolo	DevOps for Airborne Software : Exploring Modern Approaches / / by Wanja Zaeske, Umut Durak
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
	ISBN	3-030-97579-7
	Edizione	[1st ed. 2022.]
	Descrizione fisica	1 online resource (67 pages)
	Collana	SpringerBriefs in Computer Science, , 2191-5776
	Disciplina	629.10113 629.1300285
	Soggetti	Software engineering Computers, Special purpose Software Engineering Special Purpose and Application-Based Systems
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di bibliografia	Includes bibliographical references.
	Nota di contenuto	1. Introduction -- 2. Background -- 3. Approach -- 4. Demonstrator & Evaluation -- 5. Outlook and Conclusion.
	Sommario/riassunto	This Springer Brief presents a selection of tools and techniques which either enable or improve the use of DevOps for airborne software engineering. They are evaluated against the unique challenges of the aviation industry such as safety and airworthiness, and exercised using a demonstrator in order to gather first experience. The book is structured as follows: after a short introduction to the main topics of the work in chapter 1, chapter 2 provides more information on the tools, techniques, software and standards required to implement the subsequently presented ideas. In particular, the development practice BDD, the relation between DevOps, CI & CD and both the Rust & the Nix programming language are introduced. In chapter 3 the authors explain and justify their ideas towards advancing the state of the art, mapping the aforementioned tools and techniques to the DevOps Cycle while considering aspects of Do-178C. Next, in chapter 4 the experiences gathered while implementinga demonstrator using the tools and techniques are described. Eventually, chapter 5 briefly

summarizes the findings and presents a compilation of open points and missing pieces which are yet to be resolved. The book targets three different reader groups. The first one are development managers from the aerospace industry who need to see examples and experience reports for the application of DevOps for airborne software. The second group are investigators in the safety-critical embedded systems domain who look for benchmarks at various application domains. And the third group are lecturers who offer graduate level software engineering courses for safety-critical software engineering.