1.	Record Nr.	UNINA9910973076003321
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	Titolo	Accelerated testing and validation : testing, engineering, and management tools for lean development / / by Alex Porter
	Pubbl/distr/stampa	Amsterdam ; ; London, : Newnes, 2004
	ISBN	0-08-048807-2 1-281-02015-X 9786611020156
	Edizione	[1st ed.]
	Descrizione fisica	xii, 242 p. : ill
	Disciplina	620.00452
	Soggetti	Accelerated life testing Reliability (Engineering) Failure time data analysis
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Front Cover -- Accelerated Testing and Validation -- Copyright Page -- Contents -- Preface -- What's on the CD-ROM? -- CHAPTER 1. The Time Value of Information -- Historical Business Models and the Information Needed -- Working Group Structure (Entrepreneur) -- Modern Business Models and the Information Needed -- CHAPTER 2. Precise But Useless Data -- Accurate But Not Beneficial -- Precise Test -- CHAPTER 3. What Not To Know -- Scenario One: A Key Physical property is wrong -- Scenario Two: A primary failure mode of a product -- Scenario Three: The Mean Time to Failure (MTTF) -- CHAPTER 4. Accelerated Testing Catalog -- TOOL NAME: Design Failure Modes and Effects Analysis (DFMEA) -- TOOL NAME: Fault Tree Analysis (FTA) -- TOOL NAME: Fully Censored Testing -- TOOL NAME: Step Stress Testing -- TOOL NAME: Accelerated Reliability -- TOOL NAME: Highly Accelerated Life Testing (HALT) -- TOOL NAME: Failure Mode Varification Test (FMVT ®) -- TOOL NAME: Computer Modeling -- CHAPTER 5. Design Failure Mode Effects Analysis (DFMEA) -- Basic DFMEA -- Hypothesis and the DFMEA -- CHAPTER 6. Fully Censored Testing -- Representative -- Homogeneous -- When to Use it? -- CHAPTER 7. Step Stress Testing -- Life Test Stresses and Levels --

Sommario/riassunto	Accelerated Testing and Validation Methods is a cross-disciplinary guide that describes testing and validation tools and techniques throughout the product development process. Alex Porter not only focuses on what information is needed but also on what tools can produce the information in a timely manner. From the information provided, engineers and managers can determine what data is needed from a test and validation program and then how to select the best, most effective methods for obtaining the data. This book integrates testing and validation methods with a business perspective so readers can understand when, where, and how such methods can be economically justified. Testing and validation is about generating key information at the correct time so that sound business and engineering decisions can be made. Rather than simply describing various testing and validation techniques, the author offers readers guidance on how to select the best tools for a particular need, explains the appropriateness of different techniques to various situations and shows how to deploy them to ensure the desired information is accurately gathered. * Emphasizes developing a strategy for testing and validation * Companion website includes example spreadsheets, program source code, case studies, video clips and much more * Teaches how to design a testing and validation program that deliver information in a timely and cost-effective manner