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Autore	Anderson David M.
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Descrizione fisica	1 online resource (xlviii, 542 pages) : illustrations
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Sommario/riassunto	"This book shows how to use concurrent engineering teams to design products for all aspects of manufacturing with the lowest cost, the highest quality, and the quickest time to stable production. Extending the concepts of design for manufacturability to an advanced product development model, the book explains how to simultaneously make major improvements in all these product development goals, while enabling effective implementation of Lean Production and quality programs. Illustrating how to make the most of lessons learned from previous projects, the book proposes numerous improvements to current product development practices, education, and management. It outlines effective procedures to standardize parts and materials, save time and money with off-the-shelf parts, and implement a standardization program. It also spells out how to work with the purchasing department early on to select parts and materials that maximize quality and availability while minimizing part lead-times and ensuring desired functionality. This updated second edition includes completely new sections on: Scalability -- shows how to design products to easily scale up production to any need expansion quickly. This is essential for hot products to capture their full market potential

(e.g., for instance for solar power to be able to rapidly replace greenhouse-gas generating power sources world-wide when the need is realized. Manufacturable Research -- a unique section that, for the first time, shows research labs many "low-hanging-fruit" techniques that can easily be done in research efforts to ensure research results will be result in manufacturable and scalable products. Commercialization -- another unique methodology to show how to preserve the "crown jewels" of un-manufacturable research or patents and redesign the rest for manufacturability. How to design half-cost products"--
