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Autore	Covic Filip
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Soggetti	Production management Operations research Management science Computer simulation Engineering economy Operations Management Operations Research, Management Science Simulation and Modeling Engineering Economics, Organization, Logistics, Marketing
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction to Container Handling Research -- Container Terminal Environment -- Container Handling in the Yard Area -- Literature Review on Container Handling in the Yard Area -- Integrated Container Handling -- Algorithmic Analysis Based on the Problem Decomposability -- Re-marshalling Problem -- Terminal Appointment System -- Interaction Effects of Yard Block Properties, Re-marshalling and TAS -- Conclusion and Recommendations for Efficient Container Handling. .
Sommario/riassunto	The yard block of a container terminal is the central point of synchronisation for asynchronous container flows between deep-sea vessels and transport to the hinterland. The structure of the block stipulates that containers are stacked on top of each other with only the topmost container directly accessible by a yard crane. This book

describes a holistic and integrative approach to container handling in yard blocks to optimise productivity by minimising re-handling operations. The results provide insights for academic scholars as well as for experts from practical terminal planning and operations. The approach presented is two-fold: first, a theoretical foundation of the interdependencies in decision-making is established using mathematical programming. Secondly, operations involving uncertain container arrival information are examined on the basis of a simulation with a rigorous experimental design and statistical evaluation. In this context, the book develops container-handling strategies and analyses the impact of a system for vehicle arrival management – the "Terminal Appointment System". The findings presented in this book are the result of a close cooperation with experts at the port of Hamburg and build on previous research. .

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