

# **Model and Simulation Design of Stacking Rules in Container Terminal with Discrete Event Simulation Approach**

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## **Abstract**

The enhancement of traffic flow of international container is increasing every year along with the economic growth that continues to grow as the same way. Therefore, the increase on the productivity of container terminals in serving the flow of container traffic is needed. This study will design models and simulate containers stacking in stacking yard as an attempt to increase container terminals productivity. A good container stacking rules will reduce the reshuffling, which is a waste in container operational. The result of this study based on discrete event simulation model as an evaluation tool of container stacking method based on the productivity of container terminals. Thus, this study is expected to provide a comprehension of the relationship between productivity and methods of stacking containers in stacking yard.

## **Keywords**

Discrete event simulation, efficiency, reshuffling, stacking rules, container terminal