Modelling Of Rule-Based Discrete Event Simulation For Setting Up Container In The Container Yard By Utilizing The Information Of RFID System (Case Study : PT. Terminal Petikemas Surabaya)

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ABSTRACT

Containers are usually stored in container terminal before being sent to abroad. Marshalling the container needs to consider some aspects such as destination, type, weight, dimension of container, and the schedule of ship departure. If there is unmatched in marshalling, it may cause unnecessary shifting. That case is not expected and affecting the container terminal owner significantly. Problems in setting up containers are commonly called pre-marshalling problem (PMP). To solve these problems, the discrete simulation model is being expanded. This modeling is used to illustrate the operation system in container terminal by utilizing any information of RFID system, expanding algorithm of marshalling in that discrete simulation model, and evaluating the result of simulation scenarios for marshalling containers. Simulation model is expanding by using software Arena 5.0 and being combined with software Visual Basic Application.

Keywords : container yard, pre-marshalling problem (PMP), discrete simulation.