

J. Burgerhout *Simulatie van het lossen van één bay van een containerschip met behulp van een kat-trolley-hijsbok-kraan.*
Computer program, Report 2000.TT.5349, Transport Engineering and Logistics.

This report belongs to the computer simulation of the discharge of one bay of a container vessel using a three-trolley-crane. By using the computer program the capacity of the crane and the tuning of the mutual waiting times of the components are researched.

The crane consists of three components, the waterside-trolley, the landside-trolley and the transport-trolley. Each of these components performs its own task during discharge. The fourth component is the generator. This generator component generates the container positions according to a certain protocol. The simulation is controlled by a component MAIN.

From the research has appeared that, with the current design of the quay crane, the mean technical capacity of 60 containers per hour is not reached. The trolley is the restricting component. Because of the relatively low speed of the trolley, the distribution of the waiting times of the components is uneven. When the design of the crane is adapted to higher speeds and accelerations of the trolley, It is possible to gain a technical capacity of 60 containers per hour.

[Reports on Transport Engineering and Logistics \(in Dutch\)](#)

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