



To check the adequacy of the mathematical model and the genetic algorithm for optimising the operational planning of loading and unloading mechanisms, a program in the Java language was developed. Numerical experiments showed an average increase in the efficiency of handling containers and specialised rolling stock by 9,95 %. The greatest reduction in duration of loading and unloading operations can be achieved in the case of handling a public container train.

Taking into account the number of PRM owned by the Central Directorate for Management of the Terminal and Warehouse Complex, a branch of JSC Russian Railways, designed to work with large-capacity containers, the estimated annual economic effect from reducing PRM electricity consumption can amount to 65,2 million rubles/year.

Using the example of the direction of circulation of the container train St. Petersburg – Novorossiysk, economically feasible organisational and technological requirements for the purpose of container trains were determined. When sending a train with a length determined in accordance with the methodology, the train accumulation period is reduced by 2,8 days, demand increases by 8,26 %, and the economic effect will be 2,4 million rubles/year.

The proposed measures ensure a reduction in the working fleet of fitting platforms by 306 units and containers by 20563 units.

#### 2.9.4 – Transportation processes management.

The work was performed and defended at Samara State Transport University.

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