Heuristic Approaches for Solving Container Loading Problem

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ABSTRACT

Container loading problems are frequently encountered in industries such as manufacturing, food and logistics. A good utilization of containers can always result in cost savings. This problem hence attracts attention from practitioners and researchers. Container loading problems are of the NP-Complete type, and hence can hardly be solved within an acceptable amount of time, especially for problems with larger sizes. The primary purpose of this research is to proposed heuristic methods to solve the problems in an efficient manner. A ” bottom-back-left ” packing approach is firstly presented, and later embedded in a simulated annealing and genetic algorithm, respectively. Computational results obtained from the comparison with those from the literature show the efficiency and efficacy of the proposed algorithms. Keywords：container, loading, simulated annealing, genetic algorithms.

Keywords : container ; loading ; simulated annealing ; genetic algorithms

Table of Contents

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