

The Container Positioning Problem Revisited Yet Again!

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Abstract

In her DTU PhD Thesis in 2008, Louise Sibbesen proposed an optimization based model for solving a version of the container positioning problem as it occurs commonly in container ports. Sibbesen discarded the optimization model as being impractical from a computational point of view and focussed on the development of heuristic methods for the problem. During 2009 in an Honours project in Engineering Science at the University of Auckland, Antony Phillips demonstrated that it was possible to develop solution methods for the optimization model which were far more efficient than predicted by Sibbesen. However Phillips also identified some serious limitations to this approach. During 2010 two Danish Masters students, Jonas Skott Sigtenbjerggaard and Jonas Ahmt have worked with me in Auckland to address these limitations and they have made some important steps towards the development of optimization based methods which we hope one day might be able to solve realistic practical container positioning problems. In this talk we will discuss aspects of the problem and their progress and identify remaining challenges.
