Heuristic Opt. Techniques - Assignment 1 Report

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Summary

Our group consisting of Blöschl Martin and Okulmus Cem was given the task of finding a heuristic for the K Page Book Embedding Problem. The problem description will not be repeated for sake of brevity. We chose a simple two-step algorithm that constructs a greedy heuristic with no further local search. As for the randomization, we found ways to extends these steps to allow for a parameterized uncertainty factor (similar to the α factor in GRASP). Our results showed that ...

Implementation

Solution representation

Internally, we represent a solution as the order of its vertices, an integer array, and the lists of edges assigned to pages. We decided that our construction heuristic should first fix the vertex order

Deterministic Construction

Randomized construction

Evaluation