Assignment 3: Contraction Hierarchies

Andreas Riget Bagge & Marcus Skjold Pedersen 2024-11-13

1 Introduction, Work So Far, And Questions

Hello. We have been a tremendous amount of work in this project, but we are not quite there yet. We have provided the code so far for this Hand In.

A lot of the essential contraction happens in the ContractedGraph class.

In short, we use a local Dijkstra search, limiting the number of settled nodes to 50, in order to do both ranking and contraction.

It seems that this has actually made us able to preprocess the graph in under a minute. We are not yet sure, whether our resulting graph is correct. And when we have tried to process it with an initial implementation of the Query-algorithm, the performance haven't been very impressive.

We have written tests for a lot of our classes, but not all of them. The initial Dijkstra-implementations seem to be working weel.

If you can give feedback on anything or otherwise help us, it would be greatly appreciated.

Best regards