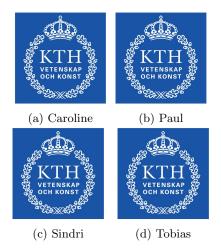
## ROYAL INSTITUTE OF TECHNOLOGY



ARTIFICIAL INTELLIGENCE, DD2380

# Final project: sokoban

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#### Abstract

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### 1 Introduction

Sokoban is an popular puzzel dating back to the eighties. The original setting of the puzzel is a warehouse and the problem is to push boxes around to predefined storage locations. But the underlying problem is of course much more abstract. The rules are simple [1]:

- I Only one box can be pushed at a time.
- II A box cannot be pulled.
- III The player cannot walk through boxes or walls.
- IV The puzzle is solved when all boxes are located at storage locations.

Though the rules are simple the problem is quite difficult and has been proven to be NP-hard. This is not only due to the brancing factor but also the enormous deepth of the search tree [1].

- 2 Design
- 2.1 States
- 2.2 Search

sdf[2]

- 2.3 Pruning
- 3 Results
- 4 Conclusions

### References

- [1] Unknown author. sokoban on wikipedia, Oktober 2012.
- [2] Timo Virkkala. Solving sokoban. Master's thesis, UNIVERSITY OF HELSINKI.