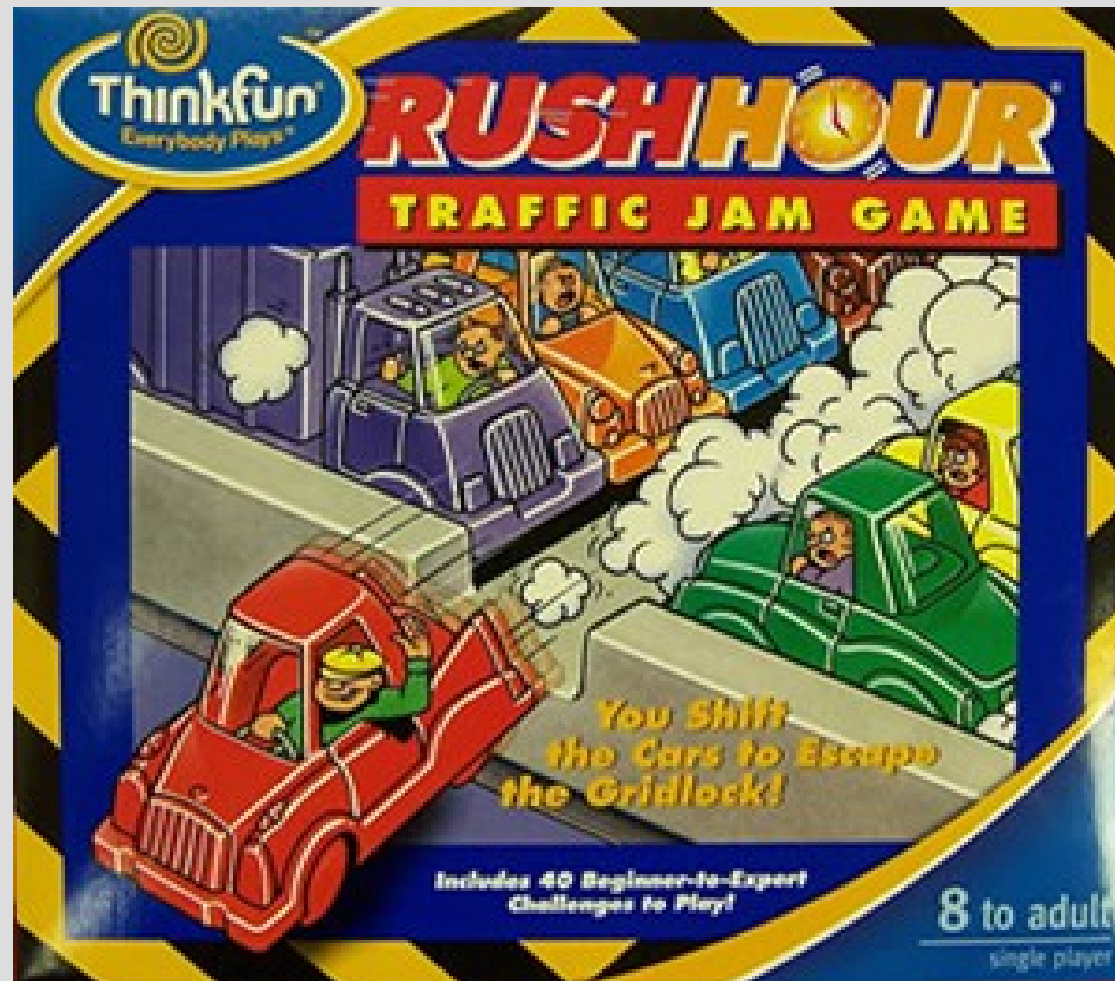


# Team Spitsuur:

Vasco Meermans

Chris Ras

Jasper Lelijveld



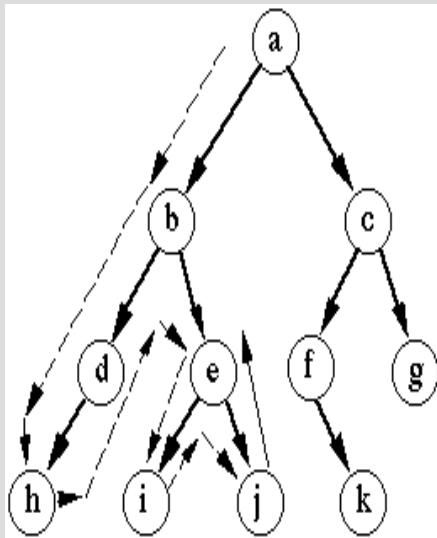
# Inleiding

- Rush Hour
- Eigenschappen probleem
  - Upperbound:  $9,67e8$
  - Lowerbound: 1
- Onderzoeksdoelstelling

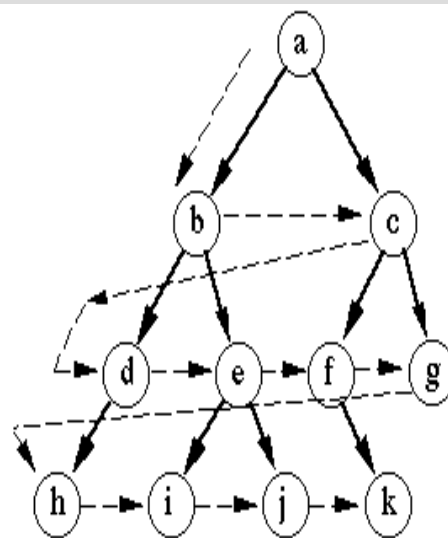


# Methode

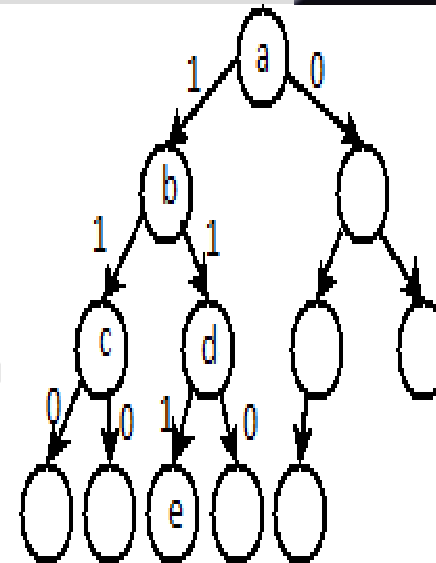
- Depth-first
- Breadth-first
- A\*
- Bi-directional



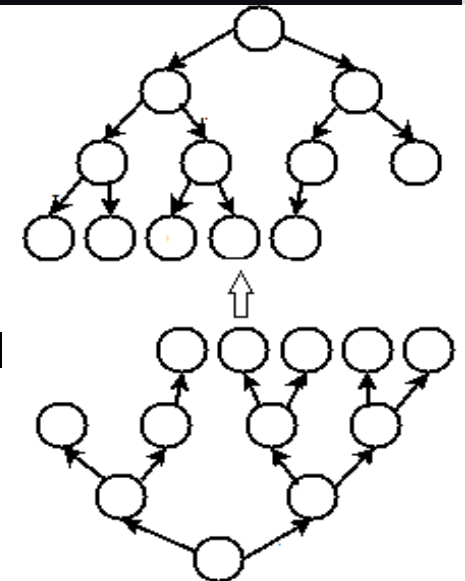
Depth-first search



Breadth-first search

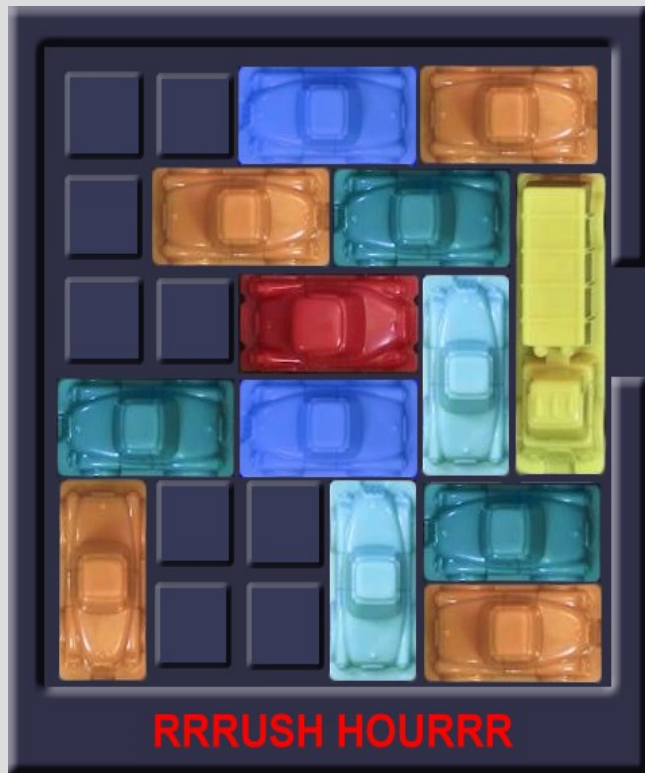


A\*



Bi-directional

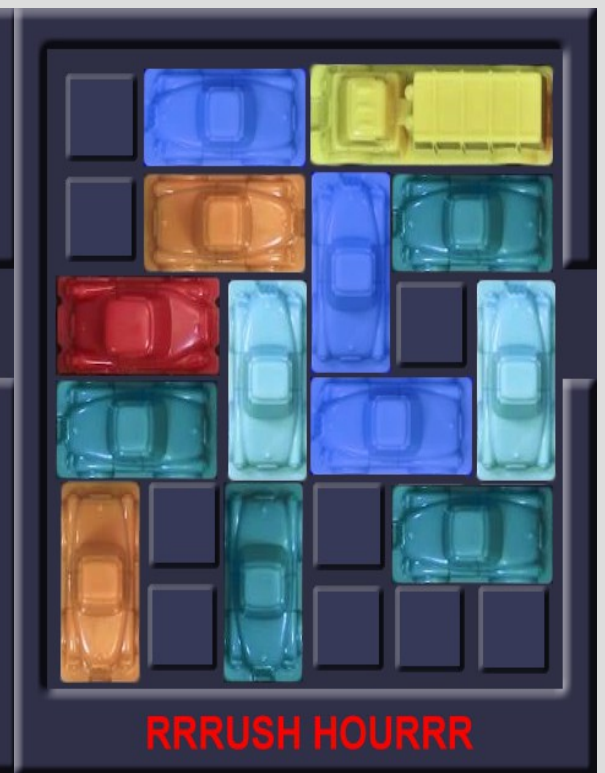
# Borden



A1



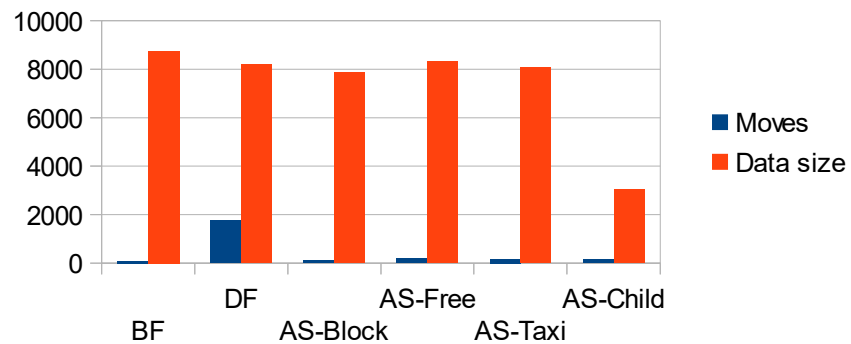
A2



A3

# Resultaten: Breadth-first Depth-first A\*

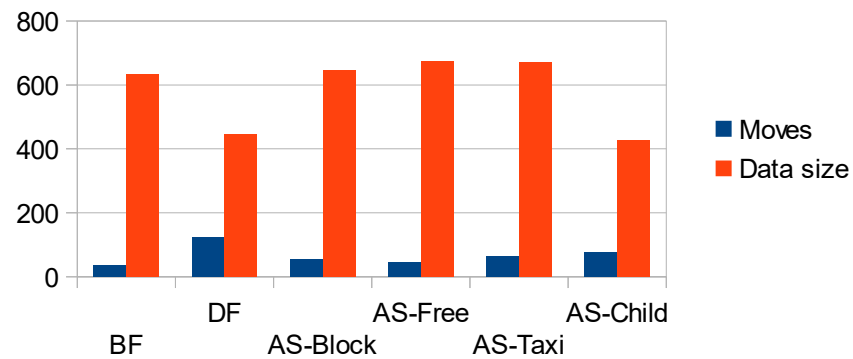
Bord a1



a2 bord

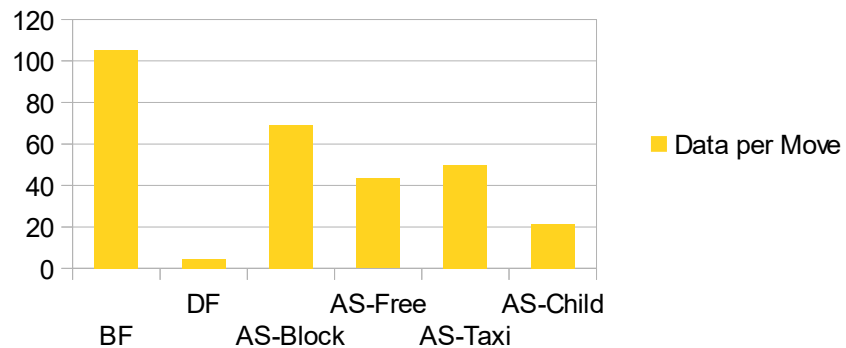


a3 bord

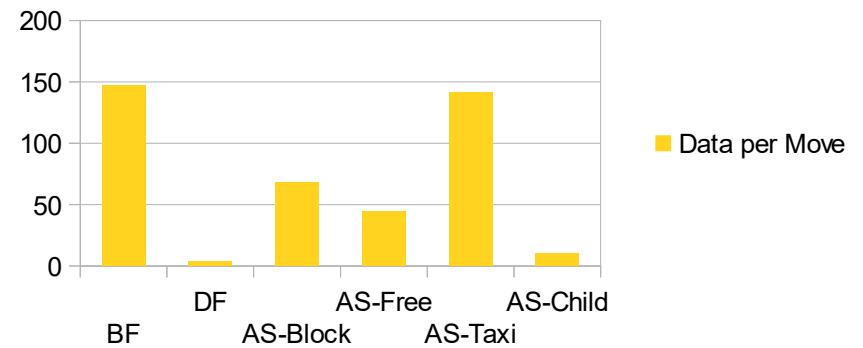


# Resultaten: Breadth-first Depth-first A\*

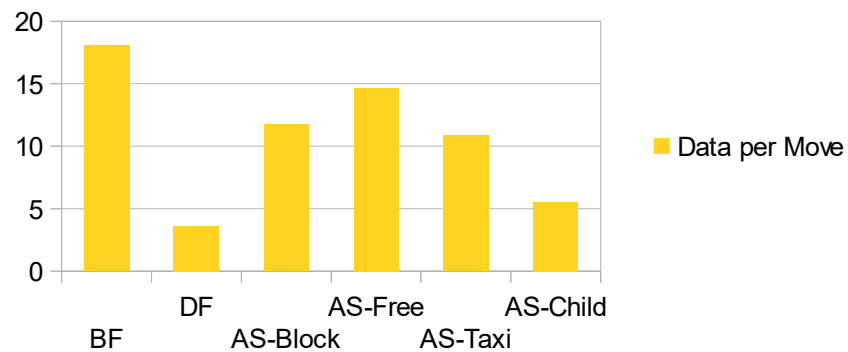
a1 Data per Move



a2 Data per move

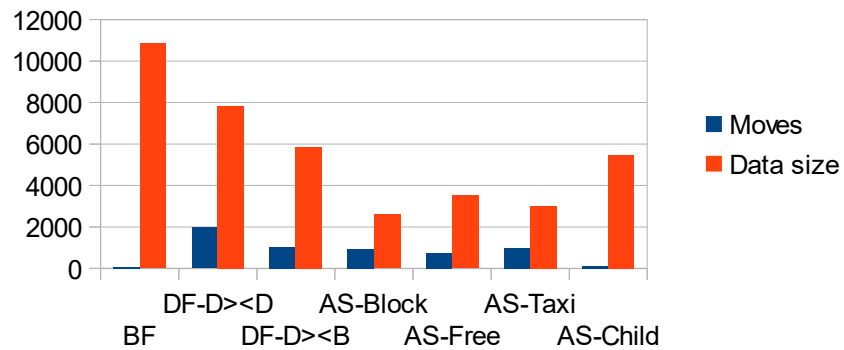


a2 Data per Move

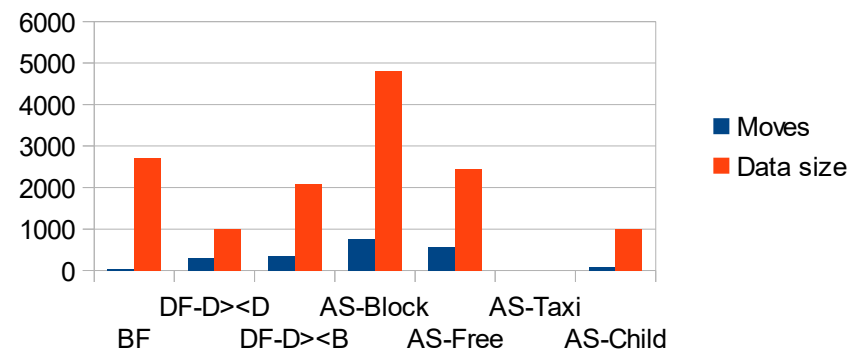


# Resultaten: Bi-directional

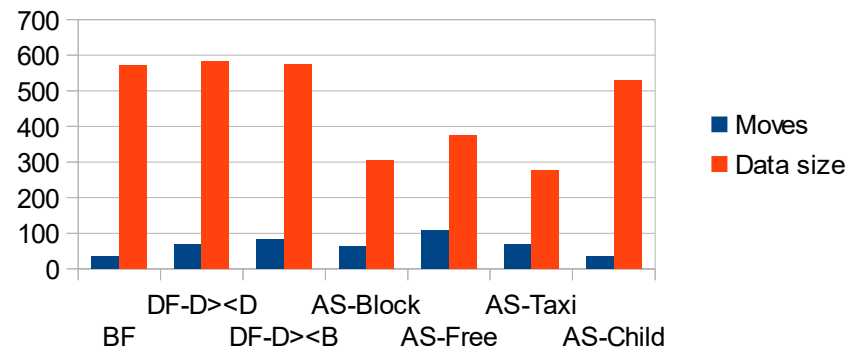
a1 Bi-directional



a2 Bi-directional

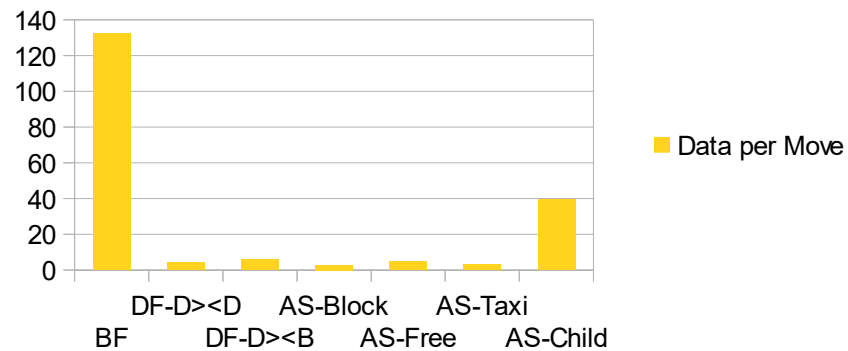


a3 Bi-directional

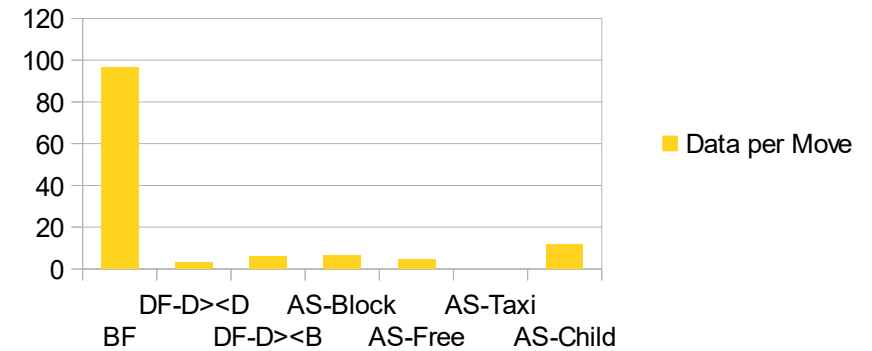


# Resultaten: Bi-directional

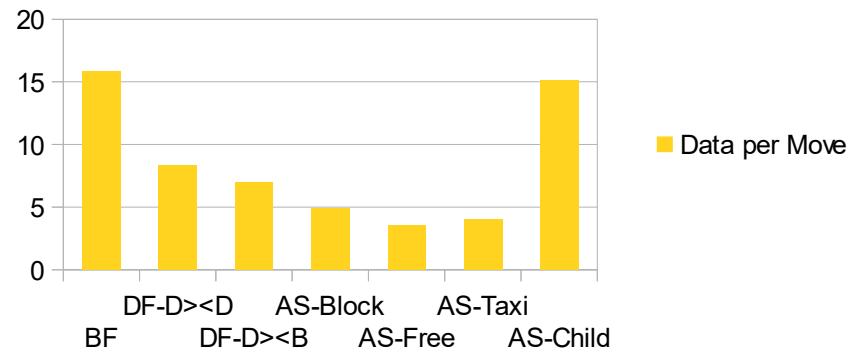
a1 Bi-directional Data per Move



a2 Bi-directional Data per Move



a3 Bi-directional Data per Move





# Conclusie

- Korste pad: Breadth-first
- Kortste tijd tot een pad: Depth-first
- Best of both worlds: Bi-directional Depth-Breadth
- A\* sterk afhankelijk van het bord

# Discussie

- Wat maakt een bord moeilijk?

**Vragen?**