

Project: The students guide to the BusSystem!

Participants: Magnus Hall, c98mhl
Markus Jusslin, c98mjn

Background: This project is about finding the best bustrip, from one point to another.

Definitions of best bustrip:

- First goal:* From an given arbitrary busstop A and time T, find the way to busstop B, wich is on the same busline as A and reaches B on time T' closest to T. No buschanges are allowed.
- Second goal:* From an given arbitrary busstop A and time T, find the way to busstop B, wich reaches B on time T' closest to T. Buschanges are allowed.
- Third goal:* From an given arbitrary busstop A and a given arrivaltime T', find the way to busstop B and time T (departuretime), wich reaches B before time T' with T'-T as small as possible. Buschanges are allowed.
- Fourth goal:* From an given arbitrary position (x, y) and a given busstop destination B, find
- Closest departure busstop A, which can reach B.
 - Closest departure busstop A, which can reach B on smallest possible time.
 - Closest departure busstop A, which can reach B on smallest possible time before given arrival time T'.
- Fifth goal:* From an given arbitrary position (x, y) and a given destination position (z,w), find
- Closest departure busstop A, which can reach busstop B closest to position (z,w).
 - Closest departure busstop A, which can reach B on smallest possible time.
 - Closest departure busstop A, which can reach B on smallest possible time before given arrival time T'.

Possible solution to fourth and fifth goal is to approximate a walking velocity and calculate the distance between position (x,y) and the busstops to get a more userfriendly solution with better arrivaltimes.