AMS-Projekt im WS 2012/13
MASDAR CITY - Personal Rapid Transit
Beispiele für Fahraufträge

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1 Fahrauftrag F1 - From task description - this should be easy!

Abbildung 1: Fahrauftrag F1 xxFxFxxx..x.xFx.x.xFx.x..xx.x.xxx..x.xx...x.xxx..xF..xF..xF..x..x

configuration usable, but some warnings because of different number of path alternatives

solution for passenger 1: path: [56, 57, 64], length: 3, rotations: 1, number of paths with length of 3 and perhaps more rotations: 1

solution for passenger 2: path: [14, 15, 22, 29, 36, 43, 44, 51, 58, 65, 64], length: 11, rotations: 5, number of paths with length of 11 and perhaps more rotations: 4

solution for passenger 3: path: [2, 9, 8, 15, 22, 29, 36, 43, 44, 51, 58, 65, 64], length: 13, rotations: 6, number of paths with length of 13 and perhaps more rotations: 4

solution for passenger 1: path: [62, 61, 68], length: 3, rotations: 1, number of paths with length of 3 and perhaps more rotations: 1

solution for passenger 2: path: [20, 19, 26, 25, 32, 39, 40, 47, 54, 61, 68], length: 11, rotations: 5, number of paths with length of 11 and perhaps more rotations: 1

solution for passenger 3: path: [4, 11, 12, 19, 26, 25, 32, 39, 40, 47, 54, 61, 68], length: 13, rotations: 6, number of paths with length of 13 and perhaps more rotations: 1
Abbildung 2: Fahrauftrag F2 xxFxFxxxx..x..xF.x.x.Fx.x...xxx..x..xx..x.xxx..x.Fx.x..x

configuration usable, but some warnings because of different number of path alternatives

solution for passenger 1: path: [56, 57, 64], length: 3, rotations: 1, number of paths with length of 3 and perhaps more rotations: 1
solution for passenger 2: path: [14, 15, 22, 29, 36, 43, 44, 51, 58, 65, 64], length: 11, rotations: 5, number of paths with length of 11 and perhaps more rotations: 4
solution for passenger 3: path: [2, 8, 15, 22, 29, 36, 43, 44, 51, 58, 65, 64], length: 13, rotations: 6, number of paths with length of 13 and perhaps more rotations: 4

solution for passenger 1: path: [62, 61, 68], length: 3, rotations: 1, number of paths with length of 3 and perhaps more rotations: 1
solution for passenger 2: path: [20, 19, 26, 25, 32, 39, 46, 47, 54, 61, 68], length: 11, rotations: 5, number of paths with length of 11 and perhaps more rotations: 2
solution for passenger 3: path: [4, 11, 12, 19, 26, 25, 32, 39, 46, 47, 54, 61, 68], length: 13, rotations: 6, number of paths with length of 13 and perhaps more rotations: 2
Abbildung 3: Fahrauftrag F3 xxFxFxxx..x.xF.x.xFx.x...xx.x.xxx.x.xx.x.xxx.x.xF.x..Fx.x..x

configuration usable, but some warnings because of different number of path alternatives

solution for passenger 1: path: [56, 57, 64], length: 3, rotations: 1, number of paths with length of 3 and perhaps more rotations: 1
solution for passenger 2: path: [14, 15, 22, 29, 36, 43, 44, 51, 58, 65, 64], length: 11, rotations: 5, number of paths with length of 11 and perhaps more rotations: 4
solution for passenger 3: path: [2, 9, 8, 15, 22, 29, 36, 43, 44, 51, 58, 65, 64], length: 13, rotations: 6, number of paths with length of 13 and perhaps more rotations: 4

solution for passenger 1: path: [62, 61, 68], length: 3, rotations: 1, number of paths with length of 3 and perhaps more rotations: 1
solution for passenger 2: path: [20, 19, 26, 25, 32, 39, 46, 53, 60, 67, 68], length: 11, rotations: 5, number of paths with length of 11 and perhaps more rotations: 5
solution for passenger 3: path: [4, 11, 12, 19, 26, 25, 32, 39, 46, 53, 60, 67, 68], length: 13, rotations: 6, number of paths with length of 13 and perhaps more rotations: 5
Abbildung 4: Fahrauftrag F4 xFxxxxF.x.xxF..xF..xx..xx.xxF..xF..xx..xx.x.x.x.x

configuration absolut ok

solution for passenger 1: path: [42, 43, 50, 57, 64], length: 5, rotations: 1, number of paths with length of 5 and perhaps more rotations: 1

solution for passenger 2: path: [14, 15, 22, 29, 36, 43, 50, 57, 64], length: 9, rotations: 1, number of paths with length of 9 and perhaps more rotations: 1

solution for passenger 3: path: [1, 8, 15, 22, 29, 36, 43, 50, 57, 64], length: 10, rotations: 0, number of paths with length of 10 and perhaps more rotations: 1

solution for passenger 1: path: [48, 47, 54, 61, 68], length: 5, rotations: 1, number of paths with length of 5 and perhaps more rotations: 1

solution for passenger 2: path: [20, 19, 26, 33, 40, 47, 54, 61, 68], length: 9, rotations: 1, number of paths with length of 9 and perhaps more rotations: 1

solution for passenger 3: path: [5, 12, 19, 26, 33, 40, 47, 54, 61, 68], length: 10, rotations: 0, number of paths with length of 10 and perhaps more rotations: 1
Abbildung 5: Fahrrauftrag F5 xFxxxFxx.x.xxFxF.xxFx...x.xxx.x.xxFxxx.x.xxx.x.xxFxx.x.x.x.xxxx

configuration absolut ok

solution for passenger 1: path: [42, 43, 44, 51, 58, 57, 64], length: 7, rotations: 3, number of paths with length of 7 and perhaps more rotations: 1

solution for passenger 2: path: [14, 15, 16, 23, 30, 29, 36, 43, 44, 51, 58, 57, 64], length: 13, rotations: 7, number of paths with length of 13 and perhaps more rotations: 1

solution for passenger 3: path: [1, 8, 15, 16, 23, 30, 29, 36, 43, 44, 51, 58, 57, 64], length: 14, rotations: 8, number of paths with length of 14 and perhaps more rotations: 1

solution for passenger 1: path: [48, 47, 46, 53, 60, 61, 68], length: 7, rotations: 3, number of paths with length of 7 and perhaps more rotations: 1

solution for passenger 2: path: [20, 19, 18, 25, 32, 33, 40, 47, 46, 53, 60, 61, 68], length: 13, rotations: 7, number of paths with length of 13 and perhaps more rotations: 1

solution for passenger 3: path: [5, 12, 19, 18, 25, 32, 33, 40, 47, 46, 53, 60, 61, 68], length: 14, rotations: 8, number of paths with length of 14 and perhaps more rotations: 1
6 Fahrauftrag F6 - Symmetry

Abbildung 6: Fahrauftrag F6 xxFxFxxF...xF.x.x.xx...xF..xF..x..x.x.xxx..x.xxx.x.xxx.x.xxx.x.xxx.x.x

configuration absolut ok

solution for passenger 1: path: [28, 29, 30, 37, 44, 51, 58, 65, 64], length: 9, rotations: 3, number of paths with length of 9 and perhaps more rotations: 2

solution for passenger 2: path: [7, 8, 15, 22, 29, 36, 37, 44, 51, 58, 65, 64], length: 12, rotations: 5, number of paths with length of 12 and perhaps more rotations: 3

solution for passenger 3: path: [2, 9, 8, 15, 22, 29, 36, 37, 44, 51, 58, 65, 64], length: 13, rotations: 6, number of paths with length of 13 and perhaps more rotations: 3

solution for passenger 1: path: [34, 33, 32, 39, 46, 53, 60, 67, 68], length: 9, rotations: 3, number of paths with length of 9 and perhaps more rotations: 2

solution for passenger 2: path: [13, 12, 19, 26, 33, 40, 39, 46, 53, 60, 67, 68], length: 12, rotations: 5, number of paths with length of 12 and perhaps more rotations: 3

solution for passenger 3: path: [4, 11, 12, 19, 26, 33, 40, 39, 46, 53, 60, 67, 68], length: 13, rotations: 6, number of paths with length of 13 and perhaps more rotations: 3
Abbildung 7: Fahrauftrag F7 xxxFxxxx....xx..xx..xx..xF..xF..xF..xx..xxx.x.xxx..x.xx..x.x

configuration absolut ok

solution for passenger 1: path: [28, 29, 30, 37, 44, 51, 58, 65, 64], length: 9, rotations: 3, number of paths with length of 9 and perhaps more rotations: 6
	solution for passenger 2: path: [3, 10, 9, 16, 23, 30, 37, 44, 51, 58, 65, 64], length: 12, rotations: 4, number of paths with length of 12 and perhaps more rotations: 2
	solution for passenger 3: path: [34, 33, 26, 19, 12, 11, 10, 9, 16, 23, 30, 37, 44, 51, 58, 65, 64], length: 17, rotations: 5, number of paths with length of 17 and perhaps more rotations: 8

solution for passenger 1: path: [34, 33, 32, 39, 46, 53, 60, 67, 68], length: 9, rotations: 3, number of paths with length of 9 and perhaps more rotations: 6
	solution for passenger 2: path: [3, 10, 11, 18, 25, 32, 39, 46, 53, 60, 67, 68], length: 12, rotations: 4, number of paths with length of 12 and perhaps more rotations: 2
	solution for passenger 3: path: [28, 29, 22, 15, 8, 9, 10, 11, 18, 25, 32, 39, 46, 53, 60, 67, 68], length: 17, rotations: 5, number of paths with length of 17 and perhaps more rotations: 8
solution for passenger 1: path: [28, 29, 36, 43, 50, 57, 64], length: 7, rotations: 1, number of paths with length of 7 and perhaps more rotations: 1

solution for passenger 2: path: [7, 8, 9, 16, 23, 30, 37, 44, 43, 50, 57, 64], length: 12, rotations: 3, number of paths with length of 12 and perhaps more rotations: 6

solution for passenger 1: path: [34, 33, 40, 47, 54, 61, 68], length: 7, rotations: 1, number of paths with length of 7 and perhaps more rotations: 1

solution for passenger 2: path: [13, 12, 11, 18, 25, 32, 33, 40, 47, 54, 61, 68], length: 12, rotations: 3, number of paths with length of 12 and perhaps more rotations: 2
Abbildung 9: Fahrauftrag F9 xFxxxFx...xF.x...xx.x...xx.xxx.xx...x.xx...x.xF...xF.x.x.x

configuration absolut ok

solution for passenger 1: path: [56, 57, 64], length: 3, rotations: 1, number of paths with length of 3 and perhaps more rotations: 1
solution for passenger 2: path: [1, 8, 15, 22, 29, 36, 43, 50, 57, 64], length: 10, rotations: 0, number of paths with length of 10 and perhaps more rotations: 1
solution for passenger 3: path: [7, 8, 15, 22, 29, 36, 43, 50, 57, 64], length: 10, rotations: 1, number of paths with length of 10 and perhaps more rotations: 1

solution for passenger 1: path: [62, 61, 68], length: 3, rotations: 1, number of paths with length of 3 and perhaps more rotations: 1
solution for passenger 2: path: [5, 12, 19, 26, 33, 40, 47, 54, 61, 68], length: 10, rotations: 0, number of paths with length of 10 and perhaps more rotations: 1
solution for passenger 3: path: [13, 12, 19, 26, 33, 40, 47, 54, 61, 68], length: 10, rotations: 1, number of paths with length of 10 and perhaps more rotations: 1
Abbildung 10: Fahrauftrag F10 xFxxxFx...Fx.x...xx.x.xxxx.x...xx.xxx.xx...x.xxxxx.x.xx...x.x.x.x

configuration absolut ok

solution for passenger 1: path: [1, 8, 15, 22, 29, 36, 43, 44, 45, 52, 59, 58, 57, 64], length: 14, rotations: 4, number of paths with length of 14 and perhaps more rotations: 2

solution for passenger 2: path: [7, 8, 15, 22, 29, 36, 43, 44, 45, 52, 59, 58, 57, 64], length: 14, rotations: 5, number of paths with length of 14 and perhaps more rotations: 2

solution for passenger 1: path: [5, 12, 19, 18, 17, 24, 31, 32, 33, 40, 47, 54, 61, 68], length: 14, rotations: 4, number of paths with length of 14 and perhaps more rotations: 2

solution for passenger 2: path: [13, 12, 19, 18, 17, 24, 31, 32, 33, 40, 47, 54, 61, 68], length: 14, rotations: 5, number of paths with length of 14 and perhaps more rotations: 2
Abbildung 11: Fahrauftrag F11 xxxFxxxx.....xx.x.xx.....xxx...xxx.....xx.....xx.....xx..x..x

configuration absolut ok

solution for passenger 1: path: [3, 10, 9, 16, 23, 30, 37, 44, 51, 58, 65, 64], length: 12, rotations: 4, number of paths with length of 12 and perhaps more rotations: 5

solution for passenger 1: path: [3, 10, 11, 18, 25, 32, 39, 46, 53, 60, 67, 68], length: 12, rotations: 4, number of paths with length of 12 and perhaps more rotations: 5
Abbildung 12: Fahrauftrag F12 xxxxxxxx..x..xx..x..xx..x..xx..x..xx..x..xF..x..FF..x..FF..x..Fx..x..x

configuration absolut ok

solution for passenger 1: path: [56, 57, 64], length: 3, rotations: 1, number of paths with length of 3 and perhaps more rotations: 1

solution for passenger 2: path: [49, 50, 57, 64], length: 4, rotations: 1, number of paths with length of 4 and perhaps more rotations: 1

solution for passenger 3: path: [42, 43, 50, 57, 64], length: 5, rotations: 1, number of paths with length of 5 and perhaps more rotations: 1

solution for passenger 1: path: [62, 61, 68], length: 3, rotations: 1, number of paths with length of 3 and perhaps more rotations: 1

solution for passenger 2: path: [55, 54, 61, 68], length: 4, rotations: 1, number of paths with length of 4 and perhaps more rotations: 1

solution for passenger 3: path: [48, 47, 54, 61, 68], length: 5, rotations: 1, number of paths with length of 5 and perhaps more rotations: 1