These are the results that go with Table IV in the CEC 2013 paper.

**Table IV: Best costs for passengers (***Cp***) and operators (***Co***) extracted from the 20 replicate runs for each problem instance. Lower bounds are included in brackets.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | | Mandl | Mumford0 | Mumford1 | Mumford2 | Mumford3 |
| Best | *Cp* | **10.33**(10.01) | **16.05**(13.01) | **24.79**(19.27) | **28.65**(22.17) | **31.44**(24.75 |
| for | *CO* | 224 | 759 | 2038 | 5632 | 6665 |
| passenger | *d*0 | 94.54 | 63.20 | 36.60 | 30.92 | 27.46 |
|  | *d*1 | 5.14 | 35.82 | 52.42 | 51.29 | 50.97 |
|  | *d*2 | 0.32 | 0.98 | 10.71 | 16.36 | 18.76 |
|  | *dun* | 0.00 | 0.00 | 0.26 | 1.44 | 2.81 |
| Best | *Cp* | 15.13 | 32.40 | 34.69 | 36.54 | 36.92 |
| for | *CO* | **63**(63) | **111**(94) | **568**(294) | **2244**(749) | **2830**(928) |
| operator | *d*0 | 59.34 | 18.42 | 16.35 | 13.76 | 16.71 |
|  | *d*1 | 30.57 | 23.40 | 29.06 | 27.69 | 33.69 |
|  | *d*2 | 9.06 | 20.78 | 29.93 | 29.53 | 29.18 |
|  | *dun* | 1.03 | 37.40 | 24.66 | 29.02 | 20.42 |

The non-dominated solutions from the 20 replicated runs for Mandl’s problem with 6 routes, Mumford0, Mumford1, Mumford2 and Mumford3 are available in folders labelled accordingly. The filenames are output1\_1, output1\_2,...,output1\_20 in each case.

The document Best Route Sets.docx gives the routesets from Table 3 in the format used to read into the Matlab software.