

```

1 "E:\1 \ \ \ \ \3 \ \ \ \ \ \1 \ \ \ \ \ \ \ \ \ \ \ \1 \ \ \ \ \ \ \ \ \ \ \ \1_LW_ \ \ \ \ \2\6 \ \ \ \ \2 python code\01_My_Python_Code\Scripts\python.
   exe" "D:\Python\Pycharm\setroute\PyCharm Community Edition 2021.2.3\plugins\python-ce\helpers\pydev\pydevconsole.py" --mode=client --port=5655
2
3 import sys; print('Python %s on %s' % (sys.version, sys.platform))
4 sys.path.extend(['E:\1 \ \ \ \ \3 \ \ \ \ \ \1 \ \ \ \ \ \ \ \ \ \ \ \1 \ \ \ \ \ \ \ \ \ \ \ \1_LW_ \ \ \ \ \2\6 \ \ \ \ \2 python code\
   01_My_Python_Code', 'E:/1 \ \ \ \ \3 \ \ \ \ \ \1 \ \ \ \ \ \ \ \ \ \ \ \1 \ \ \ \ \ \ \ \ \ \ \ \1_LW_ \ \ \ \ \2\6 \ \ \ \ \2 python code/
   01_My_Python_Code'])
5
6 PyDev console: starting.
7
8 Python 3.9.7 (tags/v3.9.7:1016ef3, Aug 30 2021, 20:19:38) [MSC v.1929 64 bit (AMD64)] on win32
9 >>> runfile('E:/1 \ \ \ \ \3 \ \ \ \ \ \1 \ \ \ \ \ \ \ \ \ \ \ \1 \ \ \ \ \ \ \ \ \ \ \ \1_LW_ \ \ \ \ \2\6 \ \ \ \ \2 python code\01_My_Python_Code/
   main_BACASP_official_gurobi.py', wdir='E:/1 \ \ \ \ \3 \ \ \ \ \ \1 \ \ \ \ \ \ \ \ \ \ \ \1 \ \ \ \ \ \ \ \ \ \ \ \1_LW_ \ \ \ \ \2\6 \ \ \ \ \2 python
   code\01_My_Python_Code')
10 Backend TkAgg is interactive backend. Turning interactive mode on.
11 Start.....
12
13 This is the R_5_1_standerd_test.xlsx optimization results solved by Gurobi
14
15 Set parameter TimeLimit to value 1200
16 Set parameter MIPGap to value 0.005
17
18
19
20 Problem status = 2 , is Optimal
21
22 Problem has 2 objectives
23 Gurobi found 10 solutions
24 Solution 0 :
25 Obj 0 = 3.0
26 Obj 1 = 1.0
27 Solution 1 :
28 Obj 0 = 3.0
29 Obj 1 = 2.0
30 Solution 2 :
31 Obj 0 = 3.0
32 Obj 1 = 3.0
33 Solution 3 :
34 Obj 0 = 4.0
35 Obj 1 = 3.0
36 Solution 4 :
37 Obj 0 = 6.0
38 Obj 1 = 3.0
39 Solution 5 :
40 Obj 0 = 7.0
41 Obj 1 = 8.0
42 Solution 6 :
43 Obj 0 = 8.0
44 Obj 1 = 8.0
45 Solution 7 :
46 Obj 0 = 9.0
47 Obj 1 = 9.0
48 Solution 8 :
49 Obj 0 = 35.0
50 Obj 1 = 13.0
51 Solution 9 :
52 Obj 0 = 36.0
53 Obj 1 = 13.0
54
55
56
57 Final solution:
58 Obj0 = 2.0
59 Obj1 = 1.0
60 Total movement of crane: 0.0
61 Total duration time in berth position: 10.0
62 Total index of q during berthing: 287.0
63
64 Specific arrangement:
65 V_id: 0 li: 5.0 xi: 10.5 bow of i: 8.0 tail of i: 13.0 gama_i0: -0.0 gama_i1: 3.0 duration_time_i: 3.0 demand_i: 100 work load_i: 100.0
66 V_id: 1 li: 8.0 xi: 19.7 bow of i: 15.7 tail of i: 23.7 gama_i0: -0.0 gama_i1: 1.0 duration_time_i: 1.0 demand_i: 80 work load_i: 80.0
67 V_id: 2 li: 8.0 xi: 18.0 bow of i: 14.0 tail of i: 22.0 gama_i0: 1.0 gama_i1: 3.0 duration_time_i: 2.0 demand_i: 120 work load_i: 120.0
68 V_id: 3 li: 4.0 xi: 2.0 bow of i: 0.0 tail of i: 4.0 gama_i0: -0.0 gama_i1: 2.0 duration_time_i: 2.0 demand_i: 160 work load_i: 160.0
69 V_id: 4 li: 4.0 xi: 6.0 bow of i: 4.0 tail of i: 8.0 gama_i0: -0.0 gama_i1: 2.0 duration_time_i: 2.0 demand_i: 80 work load_i: 80.0
70
71
72 Finished and CPU Time: 190.000000
73
74
75
76

```