```
1  D:\Python\Python\setroute\python.exe "D:\Python\Pycharm\setroute\PyCharm Community Edition 2021.2.3\plugins\python-ce\helpers\pydev\pydevconsole.py" --
   mode=client --port=6123
2
3  import sys; print('Python %s on %s' % (sys.version, sys.platform))
4  sys.path.extend(['E:\\1 □□□□\\3 □□□□□\\1 □□□□□□\\1 □□□□□□□□\\1_□□□□□□_□□□□\\1_LW _□□□□1\\4 □□□□\\3 python_code\\9 Code for this
   paper', 'E:/1 □□□□/3 □□□□□/1 □□□□□□/1 □□□□□□□□/1_□□□□□□_□□□□/1_LW _□□□□1/4 □□□□/3 python_code/9 Code for this paper'])
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_□□□□□□_□□□□/1_LW _□□□□1/4 □□□□/3 python_code/9 Code for this paper/
   main_ECCG_deterministic.py', wdir='E:/1 □□□□/3 □□□□□/1 □□□□□□/1 □□□□□□□□/1_□□□□□□_□□□□/1_LW _□□□□1/4 □□□□/3 python_code/
   9 Code for this paper')
10 Backend TkAgg is interactive backend. Turning interactive mode on.
11 Waiting 5s......
12
13 Optimize the  ./R_6_10.xlsx  instance by ECCG for deterministic model
14
15 Set parameter MIPGap to value 0.01
16      Master protblem status = 2 , is Optimal and MP obj = 239.0
17 The initial lb = -inf      ub = inf
18
19 The current iteration cnt = 0
20      The SP model was solved Optimal 2 and SPObj = 239.0
21      Deterministic Sub problem Status= 2 , is Optimal
22      Master protblem status = 2 , is Optimal
23      lb = 412.0            ub = 412.0
24       MPObj = 412.0    MP_delete_Hua_Obj = 239.0      Hua = 173.0      SPObj = 239.0      MP_SP_Obj = 173.0      Deter_SP_Obj = 173.0
25
26 ub - lb = 0.0
27
28 Iteration cycle stopped by termination criterion 1: Because ub - lb <= eps, the iteration stop, and cnt = 0
29    i: 0.0  l_i: 6.0  p_i: 23.0  al_i: 34.0     sol_a_i: 34.0  sol_g_i: 0.0   d_i: 49.0   sol_taoi: 34.0   sol_deltai: 47.0  sol_deltai - sol_taoi: 13.0  sol_taoP
   : 34.0  sol_deltaP: 36.0    sol_deltaP - sol_taoP: 2.0  cI_i: 3303083.0   sol_c_i: 3303083.0  sol_gp_i: 0.0  total work: 3427372.0   wasted work: 0.
   47142737934487416
30    i: 1.0  l_i: 7.0  p_i: 16.0   al_i: 42.0     sol_a_i: 42.0  sol_g_i: 0.0   d_i: 60.0   sol_taoi: 42.0    sol_deltai: 58.0  sol_deltai - sol_taoi: 16.0  sol_taoP
   : 42.0  sol_deltaP: 45.0    sol_deltaP - sol_taoP: 3.0  cI_i: 4011907.0    sol_c_i: 4011907.0  sol_gp_i: 0.0  total work: 4218304.0   wasted work: 0.
   7828624963966561
31    i: 2.0  l_i: 5.0  p_i: 11.0   al_i: 26.0     sol_a_i: 26.0  sol_g_i: 0.0   d_i: 40.0   sol_taoi: 26.0    sol_deltai: 38.0  sol_deltai - sol_taoi: 12.0  sol_taoP
   : 26.0  sol_deltaP: 28.0    sol_deltaP - sol_taoP: 2.0  cI_i: 3110426.0    sol_c_i: 3110426.0  sol_gp_i: 0.0  total work: 3163728.0   wasted work: 0.
   2021741439213485
32    i: 3.0  l_i: 5.0  p_i: 6.0  al_i: 7.0      sol_a_i: 7.0  sol_g_i: 0.0   d_i: 24.0   sol_taoi: 7.0  sol_deltai: 22.0  sol_deltai - sol_taoi: 15.0  sol_taoP: 7.0
   sol_deltaP: 12.0    sol_deltaP - sol_taoP: 5.0  cI_i: 3807596.0    sol_c_i: 3807596.0  sol_gp_i: 0.0  total work: 3954660.0   wasted work: 0.
   5578128081807285
33    i: 4.0  l_i: 5.0  p_i: 6.0  al_i: 41.0     sol_a_i: 41.0  sol_g_i: 0.0   d_i: 57.0   sol_taoi: 41.0    sol_deltai: 52.0  sol_deltai - sol_taoi: 11.0  sol_taoP:
   41.0     sol_deltaP: 45.0    sol_deltaP - sol_taoP: 4.0  cI_i: 2751222.0    sol_c_i: 2751222.0  sol_gp_i: 0.0  total work: 2900084.0   wasted work: 0.
   5646326106416228
34    i: 5.0  l_i: 6.0  p_i: 0.0  al_i: 2.0      sol_a_i: 2.0  sol_g_i: 0.0   d_i: 27.0   sol_taoi: 2.0  sol_deltai: 22.0  sol_deltai - sol_taoi: 20.0  sol_taoP: 2.0
   sol_deltaP: 7.0  sol_deltaP - sol_taoP: 5.0  cI_i: 5054287.0    sol_c_i: 5054287.0  sol_gp_i: 0.0  total work: 5272880.0   wasted work: 0.
   8291218461258364
35 Time: 28.000000
36
37
38
39
```