```
 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=40767
 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_9_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 = 453.0
17  The initial lb = -inf      ub = inf
18
19  The current iteration cnt = 0
20      The SP model was solved Optimal 2 and SPObj = 453.0
21      Deterministic Sub problem Status= 2 , is Optimal
22      Master protblem status = 2 , is Optimal
23      lb = 788.0             ub = 788.0
24       MPObj = 788.0     MP_delete_Hua_Obj = 453.0       Hua = 335.0      SPObj = 453.0      MP_SP_Obj = 335.0        Deter_SP_Obj = 335.0
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: 4.0   p_i: 21.0   al_i: 53.0      sol_a_i: 53.0 sol_g_i: 0.0   d_i: 68.0   sol_taoi: 53.0    sol_deltai: 68.0  sol_deltai - sol_taoi: 15.0  sol_taoP
    : 53.0  sol_deltaP: 56.0    sol_deltaP - sol_taoP: 3.0  cl_i: 3714886.0   sol_c_i: 3714886.0   sol_gp_i: 0.0  total work: 4745592.0   wasted work: 3.
    9094612431915765
30    i: 1.0  l_i: 4.0   p_i: 25.0   al_i: 39.0      sol_a_i: 39.0 sol_g_i: 0.0   d_i: 65.0   sol_taoi: 39.0    sol_deltai: 65.0  sol_deltai - sol_taoi: 26.0  sol_taoP
    : 39.0  sol_deltaP: 44.0    sol_deltaP - sol_taoP: 5.0  cl_i: 6679903.0   sol_c_i: 6679903.0   sol_gp_i: 0.0  total work: 6722922.0   wasted work: 0.
    16317079091502176
31    i: 2.0  l_i: 5.0   p_i: 29.0   al_i: 45.0      sol_a_i: 45.0 sol_g_i: 0.0   d_i: 67.0   sol_taoi: 45.0    sol_deltai: 67.0  sol_deltai - sol_taoi: 22.0  sol_taoP
    : 45.0  sol_deltaP: 50.0    sol_deltaP - sol_taoP: 5.0  cl_i: 5664094.0   sol_c_i: 5664094.0   sol_gp_i: 0.0  total work: 6591100.0   wasted work: 3.
    516127808711748
32    i: 3.0  l_i: 7.0   p_i: 4.0  al_i: 58.0      sol_a_i: 58.0 sol_g_i: 0.0   d_i: 77.0   sol_taoi: 58.0    sol_deltai: 77.0  sol_deltai - sol_taoi: 19.0  sol_taoP:
    58.0   sol_deltaP: 63.0    sol_deltaP - sol_taoP: 5.0  cl_i: 4750315.0   sol_c_i: 4750315.0   sol_gp_i: 0.0  total work: 5009236.0   wasted work: 0.
    9820856913110103
33    i: 4.0  l_i: 4.0   p_i: 19.0   al_i: 11.0      sol_a_i: 11.0 sol_g_i: 0.0   d_i: 28.0   sol_taoi: 11.0    sol_deltai: 28.0  sol_deltai - sol_taoi: 17.0  sol_taoP
    : 11.0  sol_deltaP: 16.0    sol_deltaP - sol_taoP: 5.0  cl_i: 4376832.0   sol_c_i: 4376832.0   sol_gp_i: 0.0  total work: 4481948.0   wasted work: 0.
    3987043133923017
34    i: 5.0  l_i: 6.0   p_i: 13.0   al_i: 7.0       sol_a_i: 7.0  sol_g_i: 0.0   d_i: 34.0   sol_taoi: 7.0    sol_deltai: 29.0  sol_deltai - sol_taoi: 22.0  sol_taoP: 7
    .0   sol_deltaP: 12.0    sol_deltaP - sol_taoP: 5.0  cl_i: 5609404.0   sol_c_i: 5609404.0   sol_gp_i: 0.0  total work: 6063812.0   wasted work: 1.
    723566627725266
35    i: 6.0  l_i: 7.0   p_i: 6.0  al_i: 17.0      sol_a_i: 17.0 sol_g_i: 0.0   d_i: 28.0   sol_taoi: 17.0    sol_deltai: 26.0  sol_deltai - sol_taoi: 9.0   sol_taoP:
    17.0   sol_deltaP: 20.0    sol_deltaP - sol_taoP: 3.0  cl_i: 2265480.0    sol_c_i: 2265480.0   sol_gp_i: 0.0  total work: 2372796.0   wasted work: 0.
    40704889927326243
36    i: 7.0  l_i: 6.0   p_i: 0.0  al_i: 1.0       sol_a_i: 1.0  sol_g_i: 0.0   d_i: 29.0   sol_taoi: 1.0    sol_deltai: 19.0  sol_deltai - sol_taoi: 18.0  sol_taoP: 1.0
    sol_deltaP: 6.0  sol_deltaP - sol_taoP: 5.0  cl_i: 4734427.0    sol_c_i: 4734427.0   sol_gp_i: 0.0  total work: 5272880.0   wasted work: 2.
    0423487733458754
37    i: 8.0  l_i: 4.0   p_i: 0.0  al_i: 65.0      sol_a_i: 65.0 sol_g_i: 0.0   d_i: 81.0   sol_taoi: 65.0    sol_deltai: 74.0  sol_deltai - sol_taoi: 9.0   sol_taoP:
    65.0   sol_deltaP: 68.0    sol_deltaP - sol_taoP: 3.0  cl_i: 2193671.0   sol_c_i: 2193671.0   sol_gp_i: 0.0  total work: 2372796.0   wasted work: 0.
    6794199754214015
38  Time: 87.000000
39
40
41
42
```