```
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=15453
 2
 3
     import sys; print('Python %s on %s' % (sys.version, sys.platform))
     6
     PyDev console: starting.
 8 Python 3.9.7 (tags/v3.9.7:1016ef3, Aug 30 2021, 20:19:38) [MSC v.1929 64 bit (AMD64)] on win32
    main_ECCG_deterministic.py', wdir='E:/1 0000/3 00000/1 0000000/1 0000000/1 000000/1 LW_00001/4 0000/3 python_code/
10 Backend TkAgg is interactive backend. Turning interactive mode on.
11
     Waiting 5s.....
     Optimize the ./R 9 8.xlsx instance by ECCG for deterministic model
13
14
15
     Set parameter MIPGap to value 0.01
           Master protblem status = 2, is Optimal and MP obj = 471.0
16
     The initial lb = -inf
                                   ub = inf
17
18
19
     The current iteration cnt = 0
20
           The SP model was solved Optimal 2 and SPObj = 471.0
           Deterministic Sub problem Status= 2, is Optimal
21
22
           Master protblem status = 2, is Optimal
           1b = 848.0
                                          ub = 848.0
            MPObj = 848.0
                                   MP_delete_Hua_Obj = 471.0
24
                                                                               Hua = 377.0
                                                                                                     SPObi = 471.0
                                                                                                                           MP SP Obj = 377.0
                                                                                                                                                                Deter SP Obj = 377.0
25
26
    ub - 1b = 0.0
27
28 Iteration cycle stopped by termination criterion 1: Because ub - lb \le eps, the iteration stop, and cnt = 0
29
         i: 0.0 1_i: 4.0 p_i: 18.0 aI_i: 22.0
                                                                sol\_a\_i: 22.0 \quad sol\_g\_i: 0.0 \quad d\_i: 36.0 \quad sol\_taoi: 22.0 \quad sol\_deltai: 36.0 \quad sol\_deltai - sol\_taoi: 14.0 \quad sol\_taoP
       22.0 sol_deltaP: 25.0 sol_deltaP - sol_taoP: 3.0 cl_i: 3576403.0 sol_c_i: 3576403.0 sol_gp_i: 0.0 total work: 3691016.0 wasted work: 0.
     43472637344297616
       i: 1.0 1_i: 6.0 p_i: 28.0 aI_i: 44.0 sol_a_i: 44.0 sol_g_i: 0
44.0 sol_deltaP: 49.0 sol_deltaP - sol_taoP: 5.0 cI_i: 3758093.0
                                                              sol_a_i: 44.0 sol_g_i: 0.0 d_i: 59.0 sol_taoi: 44.0 sol_deltai: 59.0 sol_deltai - sol_taoi: 15.0 sol_taoP
30
                                                                                                 sol c i: 3758093.0 sol gp i: 0.0 total work: 4613770.0 wasted work: 3.
     2455773694830907
         i: 2.0 1_i: 5.0 p_i: 19.0 aI i: 60.0
                                                                sol_a_i: 60.0 sol_g_i: 0.0 d_i: 74.0 sol_taoi: 60.0 sol_deltai: 74.0 sol_deltai - sol_taoi: 14.0 sol_taoP
       60.0 sol_deltaP: 65.0 sol_deltaP - sol_taoP: 5.0 cl_i: 3485361.0 sol_c_i: 3485361.0 sol_gp_i: 0.0 total work: 3822838.0 wasted work: 1.
     280048095158623
32
        i: 3.0 1_i: 6.0 p_i: 13.0 aI_i: 62.0
                                                                sol a i: 62.0 sol g i: 0.0 d i: 76.0 sol taoi: 62.0 sol deltai: 76.0 sol deltai - sol taoi: 14.0 sol taoP
       62.0 sol_deltaP: 64.0 sol_deltaP - sol_taoP: 2.0 cI_i: 3674552.0 sol_c_i: 3674552.0 sol_gp_i: 0.0 total work: 3691016.0 wasted work: 0.
     062447846338244
       i: 4.0\ l_{\rm i}: 4.0\ p_{\rm i}: 24.0\ al_{\rm i}: 17.0\ sol_{\rm a}: 17.0\ sol_{\rm g}: 0.0\ d_{\rm i}: 0.0\ d_{\rm i}: 0.0\ sol_{\rm a}: 0.0\ sol_{\rm a
                                                                sol a i: 17.0 sol g i: 0.0 d i: 36.0 sol taoi: 17.0 sol deltai: 36.0 sol deltai - sol taoi: 19.0 sol taoP
     38562227852710473
         i: 5.0 1_i: 7.0 p_i: 6.0 aI_i: 51.0
                                                             sol_a_i: 51.0 sol_g_i: 0.0 d_i: 63.0 sol_taoi: 51.0 sol_deltai: 61.0 sol_deltai - sol_taoi: 10.0 sol_taoP:
              sol deltaP: 54.0 sol deltaP - sol taoP: 3.0 cI i: 2421688.0
                                                                                                  sol_c_i: 2421688.0 sol_gp_i: 0.0 total work: 3163728.0 wasted work: 2.
     8145529577763955
        i: 6.0 1_i: 7.0 p_i: 0.0 aI_i: 18.0
                                                             sol a i: 18.0 sol g i: 0.0
                                                                                                  d i: 31.0 sol taoi: 18.0 sol deltai: 28.0 sol deltai - sol taoi: 10.0 sol taoP:
     18.0 sol_deltaP: 21.0
                                      sol_deltaP - sol_taoP: 3.0 cI_i: 2631858.0
                                                                                                  sol_c_i: 2631858.0 sol_gp_i: 0.0 total work: 2636440.0 wasted work: 0.
     017379496593891763
        i: 7.0 1_i: 6.0 p_i: 0.0 aI_i: 44.0
                                                             sol_a_i: 44.0 sol_g_i: 0.0 d_i: 67.0 sol_taoi: 44.0 sol_deltai: 61.0 sol_deltai - sol_taoi: 17.0 sol_taoP:
36
               sol_deltaP: 49.0 sol_deltaP - sol_taoP: 5.0 cI_i: 4244036.0
                                                                                                  sol_c_i: 4244036.0 sol_gp_i: 0.0 total work: 5272880.0 wasted work: 3.
     902398689141418
         i: 8.0 1 i: 5.0 p i: 13.0 aI i: 23.0
                                                                sol a i: 23.0 sol g i: 0.0 d i: 44.0 sol taoi: 23.0 sol deltai: 40.0 sol deltai - sol taoi: 17.0 sol taoP
37
       23.0 sol_deltaP: 27.0 sol_deltaP - sol_taoP: 4.0 cl_i: 4380670.0 sol_c_i: 4380670.0 sol_gp_i: 0.0 total work: 4481948.0 wasted work: 0.
     38414680402360757
    Time: 82.000000
39
40
41
42
```