```
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=28838
 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 10 4.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 = 412.0
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 = 412.0
           Deterministic Sub problem Status= 2, is Optimal
21
22
           Master protblem status = 2, is Optimal
                                           ub = 703.0
            MPObj = 703.0 MP_delete_Hua_Obj = 412.0
24
                                                                                 Hua = 291.0
                                                                                                       SPObi = 412.0
                                                                                                                              MP SP Obj = 291.0
                                                                                                                                                                   Deter SP Obj = 291.0
25
26
    ub - 1b = 0.0
27
28 Iteration cycle stopped by termination criterion 1: Because ub - 1b \le eps, the iteration stop, and ext{cnt} = 0
29
         i: 0.0 \ l\_i: 6.0 \ p\_i: 24.0 \ aI\_i: 21.0 \ 
                                                                 sol_a_i: 21.0 sol_g_i: 0.0 d_i: 36.0 sol_taoi: 21.0 sol_deltai: 36.0 sol_deltai - sol_taoi: 15.0 sol_taoP
       21.0 sol_deltaP: 24.0 sol_deltaP - sol_taoP: 3.0 cl_i: 3826582.0 sol_c_i: 3826582.0 sol_gp_i: 0.0 total work: 4745592.0 wasted work: 3.
     4857990320280376
         i: 1.0 1_i: 7.0 p_i: 17.0 aI_i: 39.0
                                                               sol_a_i: 39.0 sol_g_i: 0.0 d_i: 49.0 sol_taoi: 39.0 sol_deltai: 49.0 sol_deltai - sol_taoi: 10.0 sol_taoP
30
                                                                                                   sol c i: 2443825.0 sol gp i: 0.0 total work: 3031906.0 wasted work: 2.
       39.0 sol deltaP: 41.0 sol deltaP - sol taoP: 2.0 cI i: 2443825.0
     2305874588460197
     i: 2.0 l_ i: 4.0 p_ i: 0.0 al_ i: 10.0 sol_a_ i: 10.0 sol_g_ i: 0.0 d_ i: 19.0 sol_taoi: 10.0 sol_deltai: 19.0 sol_deltai: 19
                                                              sol_a_i: 10.0 sol_g_i: 0.0 d_i: 19.0 sol_taoi: 10.0 sol_deltai: 19.0 sol deltai - sol taoi: 9.0 sol taoP:
     45127899743593636
       i: 3.0 l_i: 6.0 p_i: 18.0 al_i: 10.0 sol_a_i: 10.0 sol_g_i: 0.0 d_i: 36.0 sol_taoi: 10.0 sol_deltai: 36.0 sol_deltai - sol_taoi: 26.0 sol_taoi: 10.0 sol_deltaP: 15.0 sol_deltaP - sol_taoP: 5.0 cl_i: 6632614.0 sol_c_i: 6632614.0 sol_gp_i: 0.0 total work: 6722922.0 wasted work: 0.
32
                                                               sol a i: 10.0 sol g i: 0.0 d i: 36.0 sol taoi: 10.0 sol deltai: 36.0 sol deltai - sol taoi: 26.0 sol taoP
     3425376644262718
                                                              sol a i: 8.0 sol g i: 0.0 d i: 18.0 sol taoi: 8.0 sol deltai: 18.0 sol deltai - sol taoi: 10.0 sol taoP: 8.0
         i: 4.0 1_i: 7.0 p_i: 4.0 aI_i: 8.0
         sol_deltaP: 12.0 sol_deltaP - sol_taoP: 4.0 cl_i: 2539421.0 sol_c_i: 2539421.0 sol_gp_i: 0.0 total work: 2636440.0 wasted work: 0.
     36799244435678413
        i: 5.0 1_i: 7.0 p_i: 11.0 aI_i: 4.0
                                                                 sol_a_i: 4.0 sol_g_i: 0.0 d_i: 23.0 sol_taoi: 4.0 sol_deltai: 18.0 sol_deltai - sol_taoi: 14.0 sol_taoP: 4
           sol deltaP: 6.0 sol_deltaP - sol_taoP: 2.0 el_i: 3672683.0 sol_e_i: 3672683.0 sol_gp_i: 0.0 total work: 3954660.0 wasted work: 1.
     0695369513434783
                                                                  sol_a_i: 27.0 sol_g_i: 0.0 d_i: 51.0 sol_taoi: 27.0 sol_deltai: 49.0 sol_deltai - sol_taoi: 22.0 sol_taoP
         i: 6.0 1_i: 7.0 p_i: 10.0 aI_i: 27.0
     : 27.0 sol_deltaP: 31.0 sol_deltaP - sol_taoP: 4.0 cl_i: 5785684.0 sol_c_i: 5785684.0 sol_gp_i: 0.0 total work: 7382032.0 wasted work: 6.
     0549377190453795
         i: 7.0 1_i: 6.0 p_i: 4.0 aI_i: 23.0
                                                               sol_a_i: 23.0 sol_g_i: 0.0 d_i: 48.0 sol_taoi: 23.0 sol_deltai: 47.0 sol_deltai - sol_taoi: 24.0 sol_taoP:
36
               sol_deltaP: 29.0 sol_deltaP - sol_taoP: 6.0 cI_i: 6213808.0
                                                                                                    sol_c_i: 6213808.0 sol_gp_i: 0.0 total work: 6327456.0 wasted work: 0.
     4310661346361002
                                                               sol a i: 58.0 sol g i: 0.0 d i: 73.0 sol taoi: 58.0 sol deltai: 69.0 sol deltai - sol taoi: 11.0 sol taoP:
37
        i: 8.0 1 i: 6.0 p i: 4.0 aI i: 58.0
              sol_deltaP: 61.0 sol_deltaP - sol_taoP: 3.0 cI_i: 2682121.0
     58.0
                                                                                                    sol_c_i: 2682121.0 sol_gp_i: 0.0 total work: 2900084.0 wasted work: 0.
     8267322601690158
         i: 9.0 1_i: 4.0 p_i: 0.0 aI_i: 46.0
                                                              sol_a_i: 46.0 sol_g_i: 0.0 d_i: 77.0 sol_taoi: 46.0 sol_deltai: 71.0 sol_deltai - sol_taoi: 25.0 sol_taoP:
               sol_deltaP: 59.0 sol_deltaP - sol_taoP: 13.0 cl_i: 6550770.0 sol_c_i: 6550770.0 sol_gp_i: 0.0 total work: 6591100.0 wasted work: 0.
     15297143117233847
    Time: 73.000000
40
41
42
43
```