```
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=21992

import sys; print('Python %s on %s' % (sys.version, sys.platform))
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'])

PyDev console: starting.

Python 3.9.7 (tags/v3.9.7:1016ef3, Aug 30 2021, 20:19:38) [MSC v.1929 64 bit (AMD64)] on win32
>>> 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')
Backend TkAgg is interactive backend. Turning interactive mode on.
Waiting 5s.....

Optimize the  ./R_10_6.xlsx  instance by ECCG for deterministic model

Set parameter MIPGap to value 0.01
      Master protblem status =  2 , is Optimal and MP obj =  321.0
The initial lb =  -inf       ub =  inf

The current iteration cnt =  0
      The SP model was solved Optimal 2 and SPObj =  321.0
      Deterministic Sub problem Status=  2 , is Optimal
      Master protblem status =  2 , is Optimal
      lb =  545.0                  ub =  545.0
       MPObj =  545.0     MP_delete_Hua_Obj =  321.0       Hua =  224.0       SPObj =  321.0       MP_SP_Obj =  224.0         Deter_SP_Obj =  224.0

ub - lb =  0.0

Iteration cycle stopped by termination criterion 1: Because ub - lb <= eps, the iteration stop, and cnt =  0
    i:  0.0  l_i:  7.0   p_i:  0.0  aI_i:  30.0       sol_a_i:  30.0  sol_g_i:  0.0    d_i:  53.0    sol_taoi:  30.0    sol_deltai:  53.0  sol_deltai - sol_taoi:  23.0   sol_taoP:  30.0    sol_deltaP:  42.0    sol_deltaP - sol_taoP:  12.0    cI_i:  5966545.0    sol_c_i:  5966545.0    sol_gp_i:  0.0  total work:  6063812.0    wasted work:  0.36893310676518337
    i:  1.0  l_i:  5.0   p_i:  17.0    aI_i:  32.0       sol_a_i:  32.0  sol_g_i:  0.0    d_i:  66.0    sol_taoi:  32.0    sol_deltai:  36.0  sol_deltai - sol_taoi:  4.0    sol_taoP:  32.0  sol_deltaP:  33.0    sol_deltaP - sol_taoP:  1.0   cI_i:  1000124.0    sol_c_i:  1000124.0    sol_gp_i:  0.0  total work:  1318220.0    wasted work:  1.2065360865409416
    i:  2.0  l_i:  5.0   p_i:  7.0   aI_i:  41.0       sol_a_i:  41.0  sol_g_i:  0.0    d_i:  75.0    sol_taoi:  41.0    sol_deltai:  46.0  sol_deltai - sol_taoi:  5.0    sol_taoP:  41.0    sol_deltaP:  42.0    sol_deltaP - sol_taoP:  1.0   cI_i:  1063680.0    sol_c_i:  1063680.0    sol_gp_i:  0.0  total work:  1186398.0    wasted work:  0.4654685864271518
    i:  3.0  l_i:  5.0   p_i:  17.0    aI_i:  11.0       sol_a_i:  11.0  sol_g_i:  0.0    d_i:  44.0    sol_taoi:  11.0    sol_deltai:  25.0  sol_deltai - sol_taoi:  14.0   sol_taoP:  11.0   sol_deltaP:  14.0    sol_deltaP - sol_taoP:  3.0   cI_i:  3494800.0    sol_c_i:  3494800.0    sol_gp_i:  0.0  total work:  3559194.0    wasted work:  0.24424602873571938
    i:  4.0  l_i:  5.0   p_i:  12.0    aI_i:  22.0       sol_a_i:  22.0  sol_g_i:  0.0    d_i:  59.0    sol_taoi:  22.0    sol_deltai:  39.0  sol_deltai - sol_taoi:  17.0   sol_taoP:  22.0   sol_deltaP:  25.0    sol_deltaP - sol_taoP:  3.0   cI_i:  4279927.0    sol_c_i:  4279927.0    sol_gp_i:  0.0  total work:  4745592.0    wasted work:  1.7662643564807088
    i:  5.0  l_i:  6.0   p_i:  28.0    aI_i:  8.0        sol_a_i:  8.0   sol_g_i:  0.0    d_i:  44.0    sol_taoi:  8.0   sol_deltai:  23.0   sol_deltai - sol_taoi:  15.0   sol_taoP:  8.0    sol_deltaP:  11.0    sol_deltaP - sol_taoP:  3.0   cI_i:  3934082.0    sol_c_i:  3934082.0    sol_gp_i:  0.0  total work:  3954660.0    wasted work:  0.07805222193564049
    i:  6.0  l_i:  5.0   p_i:  7.0   aI_i:  13.0       sol_a_i:  13.0  sol_g_i:  0.0    d_i:  62.0    sol_taoi:  13.0    sol_deltai:  38.0  sol_deltai - sol_taoi:  25.0   sol_taoP:  13.0    sol_deltaP:  19.0    sol_deltaP - sol_taoP:  6.0   cI_i:  6531560.0    sol_c_i:  6531560.0    sol_gp_i:  0.0  total work:  6722922.0    wasted work:  0.7258348378874543
    i:  7.0  l_i:  6.0   p_i:  22.0    aI_i:  15.0       sol_a_i:  15.0  sol_g_i:  0.0    d_i:  56.0    sol_taoi:  15.0    sol_deltai:  33.0  sol_deltai - sol_taoi:  18.0   sol_taoP:  15.0   sol_deltaP:  19.0    sol_deltaP - sol_taoP:  4.0   cI_i:  4668515.0    sol_c_i:  4668515.0    sol_gp_i:  0.0  total work:  4877414.0    wasted work:  0.7923525663394577
    i:  8.0  l_i:  5.0   p_i:  5.0   aI_i:  6.0        sol_a_i:  6.0   sol_g_i:  0.0    d_i:  32.0    sol_taoi:  6.0   sol_deltai:  11.0   sol_deltai - sol_taoi:  5.0    sol_taoP:  6.0    sol_deltaP:  8.0   sol_deltaP - sol_taoP:  2.0   cI_i:  1186011.0    sol_c_i:  1186011.0    sol_gp_i:  0.0  total work:  2109152.0    wasted work:  3.501467888516333
    i:  9.0  l_i:  5.0   p_i:  0.0   aI_i:  8.0        sol_a_i:  8.0   sol_g_i:  0.0    d_i:  29.0    sol_taoi:  8.0   sol_deltai:  17.0   sol_deltai - sol_taoi:  9.0    sol_taoP:  8.0    sol_deltaP:  11.0    sol_deltaP - sol_taoP:  3.0   cI_i:  2282475.0    sol_c_i:  2282475.0    sol_gp_i:  0.0  total work:  3163728.0    wasted work:  3.3425869733428413
Time: 62.000000
```