```
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=50366

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_8_8.xlsx  instance by ECCG for deterministic model

Set parameter MIPGap to value 0.01
      Master protblem status =  2 , is Optimal and MP obj =  490.0
The initial lb =  -inf       ub =  inf

The current iteration cnt =  0
      The SP model was solved Optimal 2 and SPObj =  485.0
      Deterministic Sub problem Status=  2 , is Optimal
      Master protblem status =  2 , is Optimal
      lb =  876.0                  ub =  876.0
       MPObj =  876.0     MP_delete_Hua_Obj =  490.0       Hua =  386.0       SPObj =  485.0       MP_SP_Obj =  386.0         Deter_SP_Obj =  386.0

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:  5.0   p_i:  0.0  aI_i:  14.0       sol_a_i:  14.0  sol_g_i:  0.0    d_i:  34.0    sol_taoi:  14.0    sol_deltai:  34.0  sol_deltai - sol_taoi:  20.0  sol_taoP:  14.0    sol_deltaP:  19.0    sol_deltaP - sol_taoP:  5.0  cI_i:  5152510.0    sol_c_i:  5152510.0    sol_gp_i:  0.0  total work:  5272880.0    wasted work:  0.45656263749601733
    i:  1.0  l_i:  7.0   p_i:  27.0    aI_i:  46.0       sol_a_i:  46.0  sol_g_i:  0.0    d_i:  67.0    sol_taoi:  46.0    sol_deltai:  67.0  sol_deltai - sol_taoi:  21.0  sol_taoP:  46.0  sol_deltaP:  51.0    sol_deltaP - sol_taoP:  5.0  cI_i:  5370529.0    sol_c_i:  5370529.0    sol_gp_i:  0.0  total work:  5404702.0    wasted work:  0.1296179696863953
    i:  2.0  l_i:  6.0   p_i:  12.0    aI_i:  44.0       sol_a_i:  44.0  sol_g_i:  0.0    d_i:  60.0    sol_taoi:  44.0    sol_deltai:  60.0  sol_deltai - sol_taoi:  16.0  sol_taoP:  44.0  sol_deltaP:  47.0    sol_deltaP - sol_taoP:  3.0  cI_i:  4131348.0    sol_c_i:  4131348.0    sol_gp_i:  0.0  total work:  4350126.0    wasted work:  0.8298235499385535
    i:  3.0  l_i:  7.0   p_i:  5.0   aI_i:  10.0       sol_a_i:  10.0  sol_g_i:  0.0    d_i:  21.0    sol_taoi:  10.0    sol_deltai:  21.0  sol_deltai - sol_taoi:  11.0  sol_taoP:  10.0    sol_deltaP:  13.0    sol_deltaP - sol_taoP:  3.0  cI_i:  2656889.0    sol_c_i:  2656889.0    sol_gp_i:  0.0  total work:  2768262.0    wasted work:  0.42243707423647037
    i:  4.0  l_i:  4.0   p_i:  17.0    aI_i:  63.0       sol_a_i:  63.0  sol_g_i:  0.0    d_i:  76.0    sol_taoi:  63.0    sol_deltai:  76.0  sol_deltai - sol_taoi:  13.0  sol_taoP:  63.0  sol_deltaP:  67.0    sol_deltaP - sol_taoP:  4.0  cI_i:  3320921.0    sol_c_i:  3320921.0    sol_gp_i:  0.0  total work:  3691016.0    wasted work:  1.403767959824612
    i:  5.0  l_i:  5.0   p_i:  12.0    aI_i:  65.0       sol_a_i:  65.0  sol_g_i:  0.0    d_i:  83.0    sol_taoi:  65.0    sol_deltai:  89.0  sol_deltai - sol_taoi:  24.0  sol_taoP:  65.0  sol_deltaP:  70.0    sol_deltaP - sol_taoP:  5.0  cI_i:  6243810.0    sol_c_i:  6243810.0    sol_gp_i:  0.0  total work:  6854744.0    wasted work:  2.31726874118129
    i:  6.0  l_i:  6.0   p_i:  6.0   aI_i:  45.0       sol_a_i:  45.0  sol_g_i:  0.0    d_i:  76.0    sol_taoi:  45.0    sol_deltai:  72.0  sol_deltai - sol_taoi:  27.0  sol_taoP:  45.0    sol_deltaP:  54.0    sol_deltaP - sol_taoP:  9.0  cI_i:  6915563.0    sol_c_i:  6915563.0    sol_gp_i:  0.0  total work:  7118388.0    wasted work:  0.7693139233208417
    i:  7.0  l_i:  6.0   p_i:  0.0   aI_i:  62.0       sol_a_i:  62.0  sol_g_i:  0.0    d_i:  75.0    sol_taoi:  62.0    sol_deltai:  71.0  sol_deltai - sol_taoi:  9.0    sol_taoP:  62.0    sol_deltaP:  65.0    sol_deltaP - sol_taoP:  3.0  cI_i:  2218324.0    sol_c_i:  2218324.0    sol_gp_i:  0.0  total work:  2372796.0    wasted work:  0.5859113046380725
Time: 42.000000
```