```
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=51213

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_10.xlsx  instance by ECCG for deterministic model

Set parameter MIPGap to value 0.01
      Master protblem status =  2 , is Optimal and MP obj =  467.0
The initial lb =  -inf       ub =  inf

The current iteration cnt =  0
      The SP model was solved Optimal 2 and SPObj =  466.0
      Deterministic Sub problem Status=  2 , is Optimal
      Master protblem status =  2 , is Optimal
      lb =  825.0                  ub =  825.0
       MPObj =  825.0     MP_delete_Hua_Obj =  467.0       Hua =  358.0       SPObj =  466.0       MP_SP_Obj =  358.0         Deter_SP_Obj =  358.0

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:  4.0   p_i:  5.0  aI_i:  17.0       sol_a_i:  17.0  sol_g_i:  0.0   d_i:  35.0    sol_taoi:  17.0    sol_deltai:  35.0  sol_deltai - sol_taoi:  18.0  sol_taoP:  17.0    sol_deltaP:  23.0    sol_deltaP - sol_taoP:  6.0  cI_i:  4586869.0    sol_c_i:  4586869.0    sol_gp_i:  0.0  total work:  4745592.0    wasted work:  0.602035320356238
    i:  1.0  l_i:  5.0   p_i:  0.0  aI_i:  24.0       sol_a_i:  24.0  sol_g_i:  0.0   d_i:  38.0    sol_taoi:  24.0    sol_deltai:  38.0  sol_deltai - sol_taoi:  14.0  sol_taoP:  24.0    sol_deltaP:  29.0    sol_deltaP - sol_taoP:  5.0  cI_i:  3561568.0    sol_c_i:  3561568.0    sol_gp_i:  0.0  total work:  3954660.0    wasted work:  1.490995433235727
    i:  2.0  l_i:  7.0   p_i:  19.0    aI_i:  34.0       sol_a_i:  34.0  sol_g_i:  0.0   d_i:  59.0    sol_taoi:  34.0    sol_deltai:  59.0  sol_deltai - sol_taoi:  25.0  sol_taoP:  34.0  sol_deltaP:  41.0    sol_deltaP - sol_taoP:  7.0  cI_i:  6445186.0    sol_c_i:  6445186.0    sol_gp_i:  0.0  total work:  6459278.0    wasted work:  0.05345086556113547
    i:  3.0  l_i:  7.0   p_i:  0.0  aI_i:  47.0       sol_a_i:  47.0  sol_g_i:  0.0   d_i:  69.0    sol_taoi:  47.0    sol_deltai:  69.0  sol_deltai - sol_taoi:  22.0  sol_taoP:  47.0    sol_deltaP:  54.0    sol_deltaP - sol_taoP:  7.0  cI_i:  5640981.0    sol_c_i:  5640981.0    sol_gp_i:  0.0  total work:  5800168.0    wasted work:  0.6037952693784042
    i:  4.0  l_i:  5.0   p_i:  7.0  aI_i:  46.0       sol_a_i:  46.0  sol_g_i:  0.0   d_i:  60.0    sol_taoi:  46.0    sol_deltai:  60.0  sol_deltai - sol_taoi:  14.0  sol_taoP:  46.0    sol_deltaP:  50.0    sol_deltaP - sol_taoP:  4.0  cI_i:  3510268.0    sol_c_i:  3510268.0    sol_gp_i:  0.0  total work:  3691016.0    wasted work:  0.6855760040054012
    i:  5.0  l_i:  7.0   p_i:  12.0    aI_i:  29.0       sol_a_i:  29.0  sol_g_i:  0.0   d_i:  49.0    sol_taoi:  29.0    sol_deltai:  49.0  sol_deltai - sol_taoi:  20.0  sol_taoP:  29.0  sol_deltaP:  33.0    sol_deltaP - sol_taoP:  4.0  cI_i:  5106601.0    sol_c_i:  5106601.0    sol_gp_i:  0.0  total work:  5272880.0    wasted work:  0.6306951798637557
    i:  6.0  l_i:  7.0   p_i:  14.0    aI_i:  60.0       sol_a_i:  60.0  sol_g_i:  0.0   d_i:  83.0    sol_taoi:  60.0    sol_deltai:  85.0  sol_deltai - sol_taoi:  25.0  sol_taoP:  60.0  sol_deltaP:  63.0    sol_deltaP - sol_taoP:  3.0  cI_i:  6519152.0    sol_c_i:  6519152.0    sol_gp_i:  0.0  total work:  7118388.0    wasted work:  2.2728983022560727
    i:  7.0  l_i:  7.0   p_i:  7.0  aI_i:  63.0       sol_a_i:  63.0  sol_g_i:  0.0   d_i:  82.0    sol_taoi:  63.0    sol_deltai:  72.0  sol_deltai - sol_taoi:  9.0    sol_taoP:  63.0    sol_deltaP:  65.0    sol_deltaP - sol_taoP:  2.0  cI_i:  2223406.0    sol_c_i:  2223406.0    sol_gp_i:  0.0  total work:  3163728.0    wasted work:  3.5666353112530533
Time: 50.000000
```