```
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=8064

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_7_8.xlsx  instance by ECCG for deterministic model

Set parameter MIPGap to value 0.01
      Master protblem status =  2 , is Optimal and MP obj =  331.0
The initial lb =  -inf       ub =  inf

The current iteration cnt =  0
      The SP model was solved Optimal 2 and SPObj =  331.0
      Deterministic Sub problem Status=  2 , is Optimal
      Master protblem status =  2 , is Optimal
      lb =  574.0                  ub =  574.0
       MPObj =  574.0     MP_delete_Hua_Obj =  331.0       Hua =  243.0       SPObj =  331.0       MP_SP_Obj =  243.0         Deter_SP_Obj =  243.0

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:  6.0   p_i:  21.0    aI_i:  24.0      sol_a_i:  24.0  sol_g_i:  0.0    d_i:  33.0    sol_taoi:  24.0    sol_deltai:  33.0  sol_deltai - sol_taoi:  9.0    sol_taoP:  24.0  sol_deltaP:  26.0    sol_deltaP - sol_taoP:  2.0  cI_i:  2148120.0    sol_c_i:  2148120.0    sol_gp_i:  0.0  total work:  2240974.0    wasted work:  0.35219462608669266
    i:  1.0  l_i:  5.0   p_i:  16.0    aI_i:  28.0      sol_a_i:  28.0  sol_g_i:  0.0    d_i:  41.0    sol_taoi:  28.0    sol_deltai:  41.0  sol_deltai - sol_taoi:  13.0  sol_taoP:  28.0  sol_deltaP:  31.0    sol_deltaP - sol_taoP:  3.0  cI_i:  3207287.0    sol_c_i:  3207287.0    sol_gp_i:  0.0  total work:  3559194.0    wasted work:  1.3347809925505607
    i:  2.0  l_i:  4.0   p_i:  12.0    aI_i:  24.0      sol_a_i:  24.0  sol_g_i:  0.0    d_i:  44.0    sol_taoi:  24.0    sol_deltai:  44.0  sol_deltai - sol_taoi:  20.0  sol_taoP:  24.0  sol_deltaP:  28.0    sol_deltaP - sol_taoP:  4.0  cI_i:  5157909.0    sol_c_i:  5157909.0    sol_gp_i:  0.0  total work:  5272880.0    wasted work:  0.43608426514542337
    i:  3.0  l_i:  7.0   p_i:  0.0   aI_i:  48.0      sol_a_i:  48.0  sol_g_i:  0.0    d_i:  67.0    sol_taoi:  48.0    sol_deltai:  67.0  sol_deltai - sol_taoi:  19.0  sol_taoP:  48.0    sol_deltaP:  53.0    sol_deltaP - sol_taoP:  5.0  cI_i:  4844899.0    sol_c_i:  4844899.0    sol_gp_i:  0.0  total work:  5272880.0    wasted work:  1.6233291863270167
    i:  4.0  l_i:  7.0   p_i:  16.0    aI_i:  44.0      sol_a_i:  44.0  sol_g_i:  0.0    d_i:  56.0    sol_taoi:  44.0    sol_deltai:  54.0  sol_deltai - sol_taoi:  10.0  sol_taoP:  44.0  sol_deltaP:  46.0    sol_deltaP - sol_taoP:  2.0  cI_i:  2392061.0    sol_c_i:  2392061.0    sol_gp_i:  0.0  total work:  2636440.0    wasted work:  0.9269279786378601
    i:  5.0  l_i:  5.0   p_i:  7.0   aI_i:  28.0      sol_a_i:  28.0  sol_g_i:  0.0    d_i:  60.0    sol_taoi:  28.0    sol_deltai:  53.0  sol_deltai - sol_taoi:  25.0  sol_taoP:  28.0    sol_deltaP:  39.0    sol_deltaP - sol_taoP:  11.0    cI_i:  6496954.0    sol_c_i:  6496954.0    sol_gp_i:  0.0  total work:  6591100.0    wasted work:  0.3570951737949659
    i:  6.0  l_i:  5.0   p_i:  0.0   aI_i:  13.0      sol_a_i:  13.0  sol_g_i:  0.0    d_i:  47.0    sol_taoi:  13.0    sol_deltai:  39.0  sol_deltai - sol_taoi:  26.0  sol_taoP:  13.0    sol_deltaP:  20.0    sol_deltaP - sol_taoP:  7.0  cI_i:  6745562.0    sol_c_i:  6745562.0    sol_gp_i:  0.0  total work:  7382032.0    wasted work:  2.41412662529775
Time: 42.000000
```