```
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=39022

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_3.xlsx  instance by ECCG for deterministic model

Set parameter MIPGap to value 0.01
      Master protblem status =  2 , is Optimal and MP obj =  303.0
The initial lb =  -inf       ub =  inf

The current iteration cnt =  0
      The SP model was solved Optimal 2 and SPObj =  302.0
      Deterministic Sub problem Status=  2 , is Optimal
      Master protblem status =  2 , is Optimal
      lb =  520.0                  ub =  520.0
       MPObj =  520.0     MP_delete_Hua_Obj =  303.0       Hua =  217.0       SPObj =  302.0       MP_SP_Obj =  217.0         Deter_SP_Obj =  217.0

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:  28.0    aI_i:  12.0      sol_a_i:  12.0  sol_g_i:  0.0    d_i:  30.0    sol_taoi:  12.0    sol_deltai:  30.0  sol_deltai - sol_taoi:  18.0  sol_taoP:  12.0  sol_deltaP:  18.0    sol_deltaP - sol_taoP:  6.0  cI_i:  4679150.0    sol_c_i:  4679150.0    sol_gp_i:  0.0  total work:  4745592.0    wasted work:  0.2520140795921773
    i:  1.0  l_i:  6.0   p_i:  22.0    aI_i:  33.0      sol_a_i:  33.0  sol_g_i:  0.0    d_i:  47.0    sol_taoi:  33.0    sol_deltai:  47.0  sol_deltai - sol_taoi:  14.0  sol_taoP:  33.0  sol_deltaP:  37.0    sol_deltaP - sol_taoP:  4.0  cI_i:  3566952.0    sol_c_i:  3566952.0    sol_gp_i:  0.0  total work:  3691016.0    wasted work:  0.4705739557888668
    i:  2.0  l_i:  4.0   p_i:  18.0    aI_i:  61.0      sol_a_i:  61.0  sol_g_i:  0.0    d_i:  85.0    sol_taoi:  61.0    sol_deltai:  85.0  sol_deltai - sol_taoi:  24.0  sol_taoP:  61.0  sol_deltaP:  68.0    sol_deltaP - sol_taoP:  7.0  cI_i:  6317195.0    sol_c_i:  6317195.0    sol_gp_i:  0.0  total work:  6327456.0    wasted work:  0.038919907147517106
    i:  3.0  l_i:  4.0   p_i:  12.0    aI_i:  3.0       sol_a_i:  3.0   sol_g_i:  0.0    d_i:  25.0    sol_taoi:  3.0   sol_deltai:  25.0  sol_deltai - sol_taoi:  22.0  sol_taoP:  3.0    sol_deltaP:  15.0    sol_deltaP - sol_taoP:  12.0    cI_i:  5673972.0    sol_c_i:  5673972.0    sol_gp_i:  0.0  total work:  5800168.0    wasted work:  0.47866061810623417
    i:  4.0  l_i:  4.0   p_i:  12.0    aI_i:  37.0      sol_a_i:  37.0  sol_g_i:  0.0    d_i:  53.0    sol_taoi:  37.0    sol_deltai:  52.0  sol_deltai - sol_taoi:  15.0  sol_taoP:  37.0  sol_deltaP:  45.0    sol_deltaP - sol_taoP:  8.0  cI_i:  3787927.0    sol_c_i:  3787927.0    sol_gp_i:  0.0  total work:  3822838.0    wasted work:  0.13241719895009937
    i:  5.0  l_i:  5.0   p_i:  7.0   aI_i:  14.0      sol_a_i:  14.0  sol_g_i:  0.0    d_i:  41.0    sol_taoi:  14.0    sol_deltai:  38.0  sol_deltai - sol_taoi:  24.0  sol_taoP:  14.0    sol_deltaP:  24.0    sol_deltaP - sol_taoP:  10.0    cI_i:  6283001.0    sol_c_i:  6283001.0    sol_gp_i:  0.0  total work:  6459278.0    wasted work:  0.6686175296991398
    i:  6.0  l_i:  7.0   p_i:  0.0   aI_i:  4.0       sol_a_i:  4.0   sol_g_i:  0.0    d_i:  36.0    sol_taoi:  4.0   sol_deltai:  26.0  sol_deltai - sol_taoi:  22.0  sol_taoP:  4.0    sol_deltaP:  10.0    sol_deltaP - sol_taoP:  6.0  cI_i:  5794701.0    sol_c_i:  5794701.0    sol_gp_i:  0.0  total work:  6327456.0    wasted work:  2.0207362959141872
Time: 34.000000
```