```
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=7672

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_6.xlsx  instance by ECCG for deterministic model

Set parameter MIPGap to value 0.01
      Master protblem status =  2 , is Optimal and MP obj =  359.0
The initial lb =  -inf       ub =  inf

The current iteration cnt =  0
      The SP model was solved Optimal 2 and SPObj =  359.0
      Deterministic Sub problem Status=  2 , is Optimal
      Master protblem status =  2 , is Optimal
      lb =  617.0                  ub =  617.0
       MPObj =  617.0     MP_delete_Hua_Obj =  359.0       Hua =  258.0       SPObj =  359.0       MP_SP_Obj =  258.0         Deter_SP_Obj =  258.0

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:  24.0    aI_i:  8.0       sol_a_i:  8.0   sol_g_i:  0.0   d_i:  30.0    sol_taoi:  8.0   sol_deltai:  30.0  sol_deltai - sol_taoi:  22.0  sol_taoP:  8.0    sol_deltaP:  15.0    sol_deltaP - sol_taoP:  7.0   cI_i:  5762289.0    sol_c_i:  5762289.0    sol_gp_i:  0.0  total work:  6063812.0    wasted work:  1.1436748039022318
    i:  1.0  l_i:  4.0   p_i:  24.0    aI_i:  62.0      sol_a_i:  62.0  sol_g_i:  0.0   d_i:  74.0    sol_taoi:  62.0    sol_deltai:  74.0  sol_deltai - sol_taoi:  12.0  sol_taoP:  62.0  sol_deltaP:  64.0    sol_deltaP - sol_taoP:  2.0   cI_i:  3026175.0    sol_c_i:  3026175.0    sol_gp_i:  0.0  total work:  3163728.0    wasted work:  0.5217376462199026
    i:  2.0  l_i:  6.0   p_i:  28.0    aI_i:  59.0      sol_a_i:  59.0  sol_g_i:  0.0   d_i:  74.0    sol_taoi:  59.0    sol_deltai:  74.0  sol_deltai - sol_taoi:  15.0  sol_taoP:  59.0  sol_deltaP:  62.0    sol_deltaP - sol_taoP:  3.0   cI_i:  3941791.0    sol_c_i:  3941791.0    sol_gp_i:  0.0  total work:  3954660.0    wasted work:  0.04881203441003778
    i:  3.0  l_i:  5.0   p_i:  19.0    aI_i:  13.0      sol_a_i:  13.0  sol_g_i:  0.0   d_i:  38.0    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:  6526466.0    sol_c_i:  6526466.0    sol_gp_i:  0.0  total work:  6854744.0    wasted work:  1.2451563471954605
    i:  4.0  l_i:  6.0   p_i:  13.0    aI_i:  11.0      sol_a_i:  11.0  sol_g_i:  0.0   d_i:  35.0    sol_taoi:  11.0    sol_deltai:  34.0  sol_deltai - sol_taoi:  23.0  sol_taoP:  11.0  sol_deltaP:  16.0    sol_deltaP - sol_taoP:  5.0   cI_i:  5908202.0    sol_c_i:  5908202.0    sol_gp_i:  0.0  total work:  5931990.0    wasted work:  0.09022773133467858
    i:  5.0  l_i:  4.0   p_i:  4.0   aI_i:  35.0      sol_a_i:  35.0  sol_g_i:  0.0   d_i:  59.0    sol_taoi:  35.0    sol_deltai:  57.0  sol_deltai - sol_taoi:  22.0  sol_taoP:  35.0    sol_deltaP:  43.0    sol_deltaP - sol_taoP:  8.0   cI_i:  5649360.0    sol_c_i:  5649360.0    sol_gp_i:  0.0  total work:  5800168.0    wasted work:  0.5720137761526908
    i:  6.0  l_i:  4.0   p_i:  0.0   aI_i:  25.0      sol_a_i:  25.0  sol_g_i:  0.0   d_i:  60.0    sol_taoi:  25.0    sol_deltai:  52.0  sol_deltai - sol_taoi:  27.0  sol_taoP:  25.0    sol_deltaP:  39.0    sol_deltaP - sol_taoP:  14.0    cI_i:  6896096.0    sol_c_i:  6896096.0    sol_gp_i:  0.0  total work:  7118388.0    wasted work:  0.8431521293865971
Time: 45.000000
```