```
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=6802

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_5_10.xlsx  instance by ECCG for deterministic model

Set parameter MIPGap to value 0.01
      Master protblem status =  2 , is Optimal and MP obj =  263.0
The initial lb =  -inf       ub =  inf

The current iteration cnt =  0
      The SP model was solved Optimal 2 and SPObj =  263.0
      Deterministic Sub problem Status=  2 , is Optimal
      Master protblem status =  2 , is Optimal
      lb =  433.0                  ub =  433.0
       MPObj =  433.0     MP_delete_Hua_Obj =  263.0       Hua =  170.0       SPObj =  263.0       MP_SP_Obj =  170.0         Deter_SP_Obj =  170.0

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:  7.0   p_i:  27.0    al_i:  12.0      sol_a_i:  12.0  sol_g_i:  0.0    d_i:  37.0    sol_taoi:  12.0    sol_deltai:  35.0  sol_deltai - sol_taoi:  23.0  sol_taoP:  12.0  sol_deltaP:  17.0    sol_deltaP - sol_taoP:  5.0  cl_i:  6050849.0    sol_c_i:  6050849.0    sol_gp_i:  0.0  total work:  6591100.0    wasted work:  2.0491685758067697
    i:  1.0  l_i:  6.0   p_i:  21.0    al_i:  24.0      sol_a_i:  24.0  sol_g_i:  0.0    d_i:  51.0    sol_taoi:  24.0    sol_deltai:  49.0  sol_deltai - sol_taoi:  25.0  sol_taoP:  24.0  sol_deltaP:  29.0    sol_deltaP - sol_taoP:  5.0  cl_i:  6455019.0    sol_c_i:  6455019.0    sol_gp_i:  0.0  total work:  6591100.0    wasted work:  0.5161543596668234
    i:  2.0  l_i:  5.0   p_i:  16.0    al_i:  26.0      sol_a_i:  26.0  sol_g_i:  0.0    d_i:  55.0    sol_taoi:  26.0    sol_deltai:  53.0  sol_deltai - sol_taoi:  27.0  sol_taoP:  26.0  sol_deltaP:  31.0    sol_deltaP - sol_taoP:  5.0  cl_i:  7105369.0    sol_c_i:  7105369.0    sol_gp_i:  0.0  total work:  7118388.0    wasted work:  0.04938098344737601
    i:  3.0  l_i:  5.0   p_i:  5.0   al_i:  49.0      sol_a_i:  49.0  sol_g_i:  0.0    d_i:  75.0    sol_taoi:  49.0    sol_deltai:  72.0  sol_deltai - sol_taoi:  23.0  sol_taoP:  49.0    sol_deltaP:  55.0    sol_deltaP - sol_taoP:  6.0  cl_i:  5964543.0    sol_c_i:  5964543.0    sol_gp_i:  0.0  total work:  6327456.0    wasted work:  1.3765266799168576
    i:  4.0  l_i:  5.0   p_i:  0.0   al_i:  30.0      sol_a_i:  30.0  sol_g_i:  0.0    d_i:  62.0    sol_taoi:  30.0    sol_deltai:  54.0  sol_deltai - sol_taoi:  24.0  sol_taoP:  30.0    sol_deltaP:  38.0    sol_deltaP - sol_taoP:  8.0  cl_i:  6285418.0    sol_c_i:  6285418.0    sol_gp_i:  0.0  total work:  6327456.0    wasted work:  0.15944986421082977
Time: 22.000000
```