```
"E:\1 □□□□\3 □□□□□\1 □□□□□□\1 □□□□□□□\1_□□□□□□_□□□□\1_LW _□□□□\4 □□□□\3 python_code\1 exzample\2 □□□□□□\9 Code for this paper\Scripts\python.exe" "D:\Python\Pycharm\setroute\PyCharm Community Edition 2021.2.3\plugins\python-ce\helpers\pydev\pydevconsole.py" --mode=client --port=53120

import sys; print('Python %s on %s' % (sys.version, sys.platform))
sys.path.extend(['E:\\1 □□□□\\3 □□□□□□\\1 □□□□□□□\\1 □□□□□□□□□\\1_□□□□□□_□□□□\\1_LW _□□□□\\4 □□□□\\3 python_code\\9 Code for this paper', 'E:/1 □□□□/3 □□□□□/1 □□□□□□/1 □□□□□□□□/1_□□□□□□_□□□□/1_LW _□□□□/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 _□□□□/4 □□□□/3 python_code/9 Code for this paper/main_ECCG_deterministic.py', wdir='E:/1 □□□□/3 □□□□□/1 □□□□□□/1 □□□□□□□□□/1_□□□□□□_□□□□/1_LW _□□□□/4 □□□□/3 python_code/9 Code for this paper')
Backend TkAgg is interactive backend. Turning interactive mode on.
Waiting 5s.....

Optimize the  ./R_6_1.xlsx  instance by ECCG for deterministic model

Set parameter MIPGap to value 0.01
      Master protblem status =  2 , is Optimal and MP obj =  203.0
The initial lb =  -inf       ub =  inf

The current iteration cnt =  0
      The SP model was solved Optimal 2 and SPObj =  203.0
      Deterministic Sub problem Status=  2 , is Optimal
      Master protblem status =  2 , is Optimal
      lb =  317.0                  ub =  317.0
       MPObj =  317.0     MP_delete_Hua_Obj =  203.0       Hua =  114.0       SPObj =  203.0       Deter_SP_Obj =  114.0

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:  5.0   p_i:  28.0    al_i:  2.0       sol_a_i:  2.0   sol_g_i:  0.0   d_i:  11.0    sol_taoi:  2.0   sol_deltai:  11.0  sol_deltai - sol_taoi:  9.0    sol_taoP:  2.0    sol_deltaP:  4.0   sol_deltaP - sol_taoP:  2.0   cl_i:  2292581.0    sol_c_i:  2292581.0    sol_gp_i:  0.0  total work:  2636440.0    wasted work:  1.3042549802005734
    i:  1.0  l_i:  6.0   p_i:  22.0    al_i:  7.0       sol_a_i:  7.0   sol_g_i:  0.0   d_i:  27.0    sol_taoi:  7.0   sol_deltai:  27.0  sol_deltai - sol_taoi:  20.0  sol_taoP:  7.0    sol_deltaP:  11.0    sol_deltaP - sol_taoP:  4.0   cl_i:  5270879.0    sol_c_i:  5270879.0    sol_gp_i:  0.0  total work:  6327456.0    wasted work:  4.007589780158092
    i:  2.0  l_i:  7.0   p_i:  15.0    al_i:  2.0       sol_a_i:  2.0   sol_g_i:  0.0   d_i:  15.0    sol_taoi:  2.0   sol_deltai:  15.0  sol_deltai - sol_taoi:  13.0  sol_taoP:  2.0    sol_deltaP:  6.0   sol_deltaP - sol_taoP:  4.0   cl_i:  3408100.0    sol_c_i:  3408100.0    sol_gp_i:  0.0  total work:  3822838.0    wasted work:  1.5730985723172157
    i:  3.0  l_i:  4.0   p_i:  11.0    al_i:  22.0      sol_a_i:  22.0  sol_g_i:  0.0   d_i:  50.0    sol_taoi:  22.0    sol_deltai:  50.0  sol_deltai - sol_taoi:  28.0  sol_taoP:  22.0  sol_deltaP:  28.0    sol_deltaP - sol_taoP:  6.0   cl_i:  7366651.0    sol_c_i:  7366651.0    sol_gp_i:  0.0  total work:  7382032.0    wasted work:  0.05834003428866198
    i:  4.0  l_i:  5.0   p_i:  6.0   al_i:  23.0      sol_a_i:  23.0  sol_g_i:  0.0   d_i:  62.0    sol_taoi:  23.0    sol_deltai:  42.0  sol_deltai - sol_taoi:  19.0  sol_taoP:  23.0    sol_deltaP:  28.0    sol_deltaP - sol_taoP:  5.0   cl_i:  4857867.0    sol_c_i:  4857867.0    sol_gp_i:  0.0  total work:  5009236.0    wasted work:  0.5741416455523357
    i:  5.0  l_i:  6.0   p_i:  0.0   al_i:  30.0      sol_a_i:  30.0  sol_g_i:  0.0   d_i:  70.0    sol_taoi:  30.0    sol_deltai:  58.0  sol_deltai - sol_taoi:  28.0  sol_taoP:  30.0    sol_deltaP:  37.0    sol_deltaP - sol_taoP:  7.0   cl_i:  7318466.0    sol_c_i:  7318466.0    sol_gp_i:  0.0  total work:  7382032.0    wasted work:  0.24110543004961235
Time: 29.000000
```