```
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=22948

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_10_10.xlsx  instance by ECCG for deterministic model

Set parameter MIPGap to value 0.01
      Master protblem status =  2 , is Optimal and MP obj =  255.0
The initial lb =  -inf       ub =  inf

The current iteration cnt =  0
      The SP model was solved Optimal 2 and SPObj =  255.0
      Deterministic Sub problem Status=  2 , is Optimal
      Master protblem status =  2 , is Optimal
      lb =  428.0                  ub =  428.0
       MPObj =  428.0     MP_delete_Hua_Obj =  255.0       Hua =  173.0       SPObj =  255.0       MP_SP_Obj =  173.0         Deter_SP_Obj =  173.0

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: 15.0    al_i: 10.0      sol_a_i: 10.0  sol_g_i: 0.0    d_i: 34.0    sol_taoi: 10.0    sol_deltai: 34.0  sol_deltai - sol_taoi: 24.0  sol_taoP: 10.0  sol_deltaP: 18.0    sol_deltaP - sol_taoP: 8.0  cl_i: 6248261.0    sol_c_i: 6248261.0    sol_gp_i: 0.0  total work: 6327456.0    wasted work: 0.30038612674667353
    i: 1.0  l_i: 5.0   p_i: 24.0    al_i: 18.0      sol_a_i: 18.0  sol_g_i: 0.0    d_i: 39.0    sol_taoi: 18.0    sol_deltai: 25.0  sol_deltai - sol_taoi: 7.0    sol_taoP: 18.0  sol_deltaP: 20.0    sol_deltaP - sol_taoP: 2.0  cl_i: 1704076.0    sol_c_i: 1704076.0    sol_gp_i: 0.0  total work: 1845508.0    wasted work: 0.5364506683254692
    i: 2.0  l_i: 5.0   p_i: 29.0    al_i: 23.0      sol_a_i: 23.0  sol_g_i: 0.0    d_i: 44.0    sol_taoi: 25.0    sol_deltai: 39.0  sol_deltai - sol_taoi: 14.0  sol_taoP: 25.0  sol_deltaP: 28.0    sol_deltaP - sol_taoP: 3.0  cl_i: 3666311.0    sol_c_i: 3666311.0    sol_gp_i: 0.0  total work: 3954660.0    wasted work: 1.0937059064496062
    i: 3.0  l_i: 5.0   p_i: 29.0    al_i: 9.0       sol_a_i: 9.0   sol_g_i: 0.0    d_i: 33.0    sol_taoi: 9.0    sol_deltai: 24.0  sol_deltai - sol_taoi: 15.0  sol_taoP: 10.0    sol_deltaP: 13.0    sol_deltaP - sol_taoP: 3.0  cl_i: 3824308.0    sol_c_i: 3824308.0    sol_gp_i: 0.0  total work: 3954660.0    wasted work: 0.49442429943408533
    i: 4.0  l_i: 5.0   p_i: 0.0   al_i: 19.0      sol_a_i: 19.0  sol_g_i: 0.0    d_i: 43.0    sol_taoi: 19.0    sol_deltai: 27.0  sol_deltai - sol_taoi: 8.0    sol_taoP: 19.0    sol_deltaP: 21.0    sol_deltaP - sol_taoP: 2.0  cl_i: 1967956.0    sol_c_i: 1967956.0    sol_gp_i: 0.0  total work: 2109152.0    wasted work: 0.5355555218400571
    i: 5.0  l_i: 5.0   p_i: 19.0    al_i: 15.0      sol_a_i: 15.0  sol_g_i: 0.0    d_i: 39.0    sol_taoi: 15.0    sol_deltai: 23.0  sol_deltai - sol_taoi: 8.0    sol_taoP: 15.0  sol_deltaP: 17.0    sol_deltaP - sol_taoP: 2.0  cl_i: 1964240.0    sol_c_i: 1964240.0    sol_gp_i: 0.0  total work: 2109152.0    wasted work: 0.5496502859917161
    i: 6.0  l_i: 5.0   p_i: 5.0   al_i: 17.0      sol_a_i: 17.0  sol_g_i: 0.0    d_i: 38.0    sol_taoi: 17.0    sol_deltai: 24.0  sol_deltai - sol_taoi: 7.0    sol_taoP: 17.0    sol_deltaP: 19.0    sol_deltaP - sol_taoP: 2.0  cl_i: 1761269.0    sol_c_i: 1761269.0    sol_gp_i: 0.0  total work: 1845508.0    wasted work: 0.31951798637556705
    i: 7.0  l_i: 5.0   p_i: 10.0    al_i: 9.0       sol_a_i: 9.0   sol_g_i: 0.0    d_i: 63.0    sol_taoi: 9.0    sol_deltai: 27.0  sol_deltai - sol_taoi: 18.0  sol_taoP: 11.0    sol_deltaP: 16.0    sol_deltaP - sol_taoP: 5.0  cl_i: 4521820.0    sol_c_i: 4521820.0    sol_gp_i: 0.0  total work: 4745592.0    wasted work: 0.8487657598883342
    i: 8.0  l_i: 5.0   p_i: 5.0   al_i: 8.0       sol_a_i: 8.0   sol_g_i: 0.0    d_i: 50.0    sol_taoi: 8.0    sol_deltai: 15.0  sol_deltai - sol_taoi: 7.0    sol_taoP: 8.0    sol_deltaP: 10.0    sol_deltaP - sol_taoP: 2.0  cl_i: 1643192.0    sol_c_i: 1643192.0    sol_gp_i: 0.0  total work: 1845508.0    wasted work: 0.767383289587474
    i: 9.0  l_i: 5.0   p_i: 24.0    al_i: 9.0       sol_a_i: 9.0   sol_g_i: 0.0    d_i: 54.0    sol_taoi: 9.0    sol_deltai: 17.0  sol_deltai - sol_taoi: 8.0    sol_taoP: 9.0    sol_deltaP: 11.0    sol_deltaP - sol_taoP: 2.0  cl_i: 2063170.0    sol_c_i: 2063170.0    sol_gp_i: 0.0  total work: 2109152.0    wasted work: 0.1744094308992429
Time: 62.000000
```