```
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=31613

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_8_6.xlsx  instance by ECCG for deterministic model

Set parameter MIPGap to value 0.01
      Master protblem status =  2 , is Optimal and MP obj =  365.0
The initial lb =  -inf       ub =  inf

The current iteration cnt =  0
      The SP model was solved Optimal 2 and SPObj =  365.0
      Deterministic Sub problem Status=  2 , is Optimal
      Master protblem status =  2 , is Optimal
      lb =  663.0                  ub =  663.0
       MPObj =  663.0     MP_delete_Hua_Obj =  365.0       Hua =  298.0       SPObj =  365.0       MP_SP_Obj =  298.0         Deter_SP_Obj =  298.0

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:  30.0    al_i:  24.0      sol_a_i:  24.0  sol_g_i:  0.0    d_i:  32.0    sol_taoi:  24.0    sol_deltai:  32.0  sol_deltai - sol_taoi:  8.0    sol_taoP: 24.0  sol_deltaP:  27.0    sol_deltaP - sol_taoP:  3.0  cl_i:  1949984.0    sol_c_i:  1949984.0    sol_gp_i:  0.0  total work:  1977330.0    wasted work:  0.10372320250034137
    i:  1.0  l_i:  6.0   p_i:  24.0    al_i:  31.0      sol_a_i:  31.0  sol_g_i:  0.0    d_i:  39.0    sol_taoi:  31.0    sol_deltai:  39.0  sol_deltai - sol_taoi:  8.0    sol_taoP: 31.0  sol_deltaP:  33.0    sol_deltaP - sol_taoP:  2.0  cl_i:  1960425.0    sol_c_i:  1960425.0    sol_gp_i:  0.0  total work:  2240974.0    wasted work:  1.0641205565080183
    i:  2.0  l_i:  7.0   p_i:  17.0    al_i:  17.0      sol_a_i:  17.0  sol_g_i:  0.0    d_i:  29.0    sol_taoi:  17.0    sol_deltai:  29.0  sol_deltai - sol_taoi:  12.0  sol_taoP: 17.0  sol_deltaP:  20.0    sol_deltaP - sol_taoP:  3.0  cl_i:  3158776.0    sol_c_i:  3158776.0    sol_gp_i:  0.0  total work:  3954660.0    wasted work:  3.018782904219326
    i:  3.0  l_i:  5.0   p_i:  11.0    al_i:  29.0      sol_a_i:  29.0  sol_g_i:  0.0    d_i:  42.0    sol_taoi:  29.0    sol_deltai:  42.0  sol_deltai - sol_taoi:  13.0  sol_taoP: 29.0  sol_deltaP:  31.0    sol_deltaP - sol_taoP:  2.0  cl_i:  3342215.0    sol_c_i:  3342215.0    sol_gp_i:  0.0  total work:  3427372.0    wasted work:  0.32299995448407703
    i:  4.0  l_i:  4.0   p_i:  0.0    al_i:  6.0       sol_a_i:  6.0    sol_g_i:  0.0    d_i:  23.0    sol_taoi:  6.0   sol_deltai:  23.0  sol_deltai - sol_taoi:  17.0  sol_taoP:  6.0    sol_deltaP:  15.0    sol_deltaP - sol_taoP:  9.0  cl_i:  4374536.0    sol_c_i:  4374536.0    sol_gp_i:  0.0  total work:  4481948.0    wasted work:  0.4074130266571589
    i:  5.0  l_i:  6.0   p_i:  5.0   al_i:  51.0      sol_a_i:  51.0  sol_g_i:  0.0    d_i:  72.0    sol_taoi:  51.0    sol_deltai:  68.0  sol_deltai - sol_taoi:  17.0  sol_taoP: 51.0    sol_deltaP:  56.0    sol_deltaP - sol_taoP:  5.0  cl_i:  4257088.0    sol_c_i:  4257088.0    sol_gp_i:  0.0  total work:  4481948.0    wasted work:  0.8528925369058276
    i:  6.0  l_i:  5.0   p_i:  0.0   al_i:  54.0      sol_a_i:  54.0  sol_g_i:  0.0    d_i:  70.0    sol_taoi:  54.0    sol_deltai:  66.0  sol_deltai - sol_taoi:  12.0  sol_taoP: 54.0    sol_deltaP:  59.0    sol_deltaP - sol_taoP:  5.0  cl_i:  3058819.0    sol_c_i:  3058819.0    sol_gp_i:  0.0  total work:  3163728.0    wasted work:  0.39791916372077496
    i:  7.0  l_i:  7.0   p_i:  27.0    al_i:  54.0      sol_a_i:  54.0  sol_g_i:  0.0    d_i:  69.0    sol_taoi:  54.0    sol_deltai:  66.0  sol_deltai - sol_taoi:  12.0  sol_taoP: 54.0  sol_deltaP:  57.0    sol_deltaP - sol_taoP:  3.0  cl_i:  2972779.0    sol_c_i:  2972779.0    sol_gp_i:  0.0  total work:  3031906.0    wasted work:  0.22426833153798303
Time: 33.000000
```