```
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=12637

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_10.xlsx  instance by ECCG for deterministic model

Set parameter MIPGap to value 0.01
      Master protblem status =  2 , is Optimal and MP obj =  377.0
The initial lb =  -inf       ub =  inf

The current iteration cnt =  0
      The SP model was solved Optimal 2 and SPObj =  372.0
      Deterministic Sub problem Status=  2 , is Optimal
      Master protblem status =  2 , is Optimal
      lb =  662.0                  ub =  662.0
       MPObj =  662.0     MP_delete_Hua_Obj =  377.0       Hua =  285.0       SPObj =  372.0       MP_SP_Obj =  285.0         Deter_SP_Obj =  285.0

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:  14.0      sol_a_i:  14.0  sol_g_i:  0.0    d_i:  28.0    sol_taoi:  14.0    sol_deltai:  28.0  sol_deltai - sol_taoi:  14.0  sol_taoP:  14.0  sol_deltaP:  17.0    sol_deltaP - sol_taoP:  3.0  cl_i:  3678527.0    sol_c_i:  3678527.0    sol_gp_i:  0.0  total work:  3954660.0    wasted work:  1.047370696848781
    i:  1.0  l_i:  7.0   p_i:  23.0    al_i:  34.0      sol_a_i:  34.0  sol_g_i:  0.0    d_i:  60.0    sol_taoi:  34.0    sol_deltai:  60.0  sol_deltai - sol_taoi:  26.0  sol_taoP:  34.0  sol_deltaP:  38.0    sol_deltaP - sol_taoP:  4.0  cl_i:  6717945.0    sol_c_i:  6717945.0    sol_gp_i:  0.0  total work:  8436608.0    wasted work:  6.518877729058882
    i:  2.0  l_i:  6.0   p_i:  17.0    al_i:  43.0      sol_a_i:  43.0  sol_g_i:  0.0    d_i:  66.0    sol_taoi:  43.0    sol_deltai:  66.0  sol_deltai - sol_taoi:  23.0  sol_taoP:  43.0  sol_deltaP:  50.0    sol_deltaP - sol_taoP:  7.0  cl_i:  6055023.0    sol_c_i:  6055023.0    sol_gp_i:  0.0  total work:  6327456.0    wasted work:  1.0333366205944379
    i:  3.0  l_i:  5.0   p_i:  12.0    al_i:  64.0      sol_a_i:  64.0  sol_g_i:  0.0    d_i:  89.0    sol_taoi:  64.0    sol_deltai:  89.0  sol_deltai - sol_taoi:  25.0  sol_taoP:  64.0  sol_deltaP:  71.0    sol_deltaP - sol_taoP:  7.0  cl_i:  6450546.0    sol_c_i:  6450546.0    sol_gp_i:  0.0  total work:  6459278.0    wasted work:  0.03312041996024943
    i:  4.0  l_i:  4.0   p_i:  6.0   al_i:  49.0      sol_a_i:  49.0  sol_g_i:  0.0    d_i:  74.0    sol_taoi:  49.0    sol_deltai:  74.0  sol_deltai - sol_taoi:  25.0  sol_taoP:  49.0    sol_deltaP:  62.0    sol_deltaP - sol_taoP:  13.0    cl_i:  6519362.0    sol_c_i:  6519362.0    sol_gp_i:  0.0  total work:  6591100.0    wasted work:  0.27210177360379906
    i:  5.0  l_i:  6.0   p_i:  0.0   al_i:  28.0      sol_a_i:  28.0  sol_g_i:  0.0    d_i:  45.0    sol_taoi:  28.0    sol_deltai:  38.0  sol_deltai - sol_taoi:  10.0  sol_taoP:  28.0    sol_deltaP:  31.0    sol_deltaP - sol_taoP:  3.0  cl_i:  2530377.0    sol_c_i:  2530377.0    sol_gp_i:  0.0  total work:  3163728.0    wasted work:  2.4022962783146973
    i:  6.0  l_i:  5.0   p_i:  6.0   al_i:  13.0      sol_a_i:  13.0  sol_g_i:  0.0    d_i:  30.0    sol_taoi:  13.0    sol_deltai:  22.0  sol_deltai - sol_taoi:  9.0    sol_taoP:  13.0    sol_deltaP:  16.0    sol_deltaP - sol_taoP:  3.0  cl_i:  2300727.0    sol_c_i:  2300727.0    sol_gp_i:  0.0  total work:  2372796.0    wasted work:  0.2733572544795254
Time: 31.000000
```