```
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=38326

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_6_2.xlsx  instance by ECCG for deterministic model

Set parameter MIPGap to value 0.01
        Master protblem status =  2 , is Optimal and MP obj =  357.0
The initial lb =  -inf        ub =  inf

The current iteration cnt =  0
        The SP model was solved Optimal 2 and SPObj =  357.0
        Deterministic Sub problem Status=  2 , is Optimal
        Master protblem status =  2 , is Optimal
        lb =  641.0                   ub =  641.0
         MPObj =  641.0      MP_delete_Hua_Obj =  357.0        Hua =  284.0       SPObj =  357.0       MP_SP_Obj =  284.0          Deter_SP_Obj =  284.0

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:  6.0   p_i:  28.0    aI_i:  58.0       sol_a_i:  58.0  sol_g_i:  0.0    d_i:  81.0    sol_taoi:  58.0    sol_deltai:  79.0  sol_deltai - sol_taoi:  21.0  sol_taoP:  58.0  sol_deltaP:  63.0     sol_deltaP - sol_taoP:  5.0  cI_i:  5386717.0     sol_c_i:  5386717.0    sol_gp_i:  0.0  total work:  6195634.0    wasted work:  3.068216989576854
     i:  1.0  l_i:  4.0   p_i:  17.0    aI_i:  41.0       sol_a_i:  41.0  sol_g_i:  0.0    d_i:  64.0    sol_taoi:  41.0    sol_deltai:  62.0  sol_deltai - sol_taoi:  21.0  sol_taoP:  41.0  sol_deltaP:  45.0     sol_deltaP - sol_taoP:  4.0  cI_i:  5418241.0     sol_c_i:  5418241.0    sol_gp_i:  0.0  total work:  5800168.0    wasted work:  1.4486466598898515
     i:  2.0  l_i:  4.0   p_i:  13.0    aI_i:  55.0       sol_a_i:  55.0  sol_g_i:  0.0    d_i:  67.0    sol_taoi:  55.0    sol_deltai:  65.0  sol_deltai - sol_taoi:  10.0  sol_taoP:  55.0  sol_deltaP:  58.0     sol_deltaP - sol_taoP:  3.0  cI_i:  2627146.0     sol_c_i:  2627146.0    sol_gp_i:  0.0  total work:  2768262.0    wasted work:  0.5352520823534767
     i:  3.0  l_i:  6.0   p_i:  7.0   aI_i:  52.0       sol_a_i:  52.0  sol_g_i:  0.0    d_i:  72.0    sol_taoi:  52.0    sol_deltai:  70.0  sol_deltai - sol_taoi:  18.0  sol_taoP:  52.0     sol_deltaP:  57.0     sol_deltaP - sol_taoP:  5.0  cI_i:  4502100.0     sol_c_i:  4502100.0    sol_gp_i:  0.0  total work:  4745592.0    wasted work:  0.9235635933304001
     i:  4.0  l_i:  7.0   p_i:  0.0   aI_i:  40.0       sol_a_i:  40.0  sol_g_i:  0.0    d_i:  60.0    sol_taoi:  40.0    sol_deltai:  54.0  sol_deltai - sol_taoi:  14.0  sol_taoP:  40.0     sol_deltaP:  44.0     sol_deltaP - sol_taoP:  4.0  cI_i:  3668136.0     sol_c_i:  3668136.0    sol_gp_i:  0.0  total work:  3691016.0    wasted work:  0.08678369316199117
     i:  5.0  l_i:  6.0   p_i:  0.0   aI_i:  13.0       sol_a_i:  13.0  sol_g_i:  0.0    d_i:  29.0    sol_taoi:  13.0    sol_deltai:  27.0  sol_deltai - sol_taoi:  14.0  sol_taoP:  13.0     sol_deltaP:  17.0     sol_deltaP - sol_taoP:  4.0  cI_i:  3627798.0     sol_c_i:  3627798.0    sol_gp_i:  0.0  total work:  3691016.0    wasted work:  0.23978546828298766
Time: 24.000000
```