```
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=37484

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_RO_CCG_ExtendedByMe.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_3.xlsx  instance by ECCG

      Master protblem status =  2 , is Optimal and MP obj =  583.0
The initial lb =  -inf       ub =  inf

The current iteration cnt =  0
      The SP model was solved Optimal 2 and SPObj =  580.0
      Deterministic Sub problem Status=  2 , is Optimal
      Master protblem status =  2 , is Optimal
      lb =  1071.0                  ub =  1071.0
       MPObj =  1071.0       MP_delete_Hua_Obj =  605.0       Hua =  466.0       SPObj =  580.0       Deter_SP_Obj =  466.0

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:  9.0  al_i:  48.0       sol_a_i:  48.0  sol_g_i:  0.0  d_i:  67.0  sol_taoi:  48.0  sol_deltai:  67.0  sol_deltai - sol_taoi:  19.0  sol_taoP:  48.0  sol_deltaP:  54.0  sol_deltaP - sol_taoP:  6.0  cl_i:  4999375.0  sol_c_i:  4999375.0  sol_gp_i:  0.0  total work:  5009236.0  wasted work:  0.037402709714615165
    i:  1.0  l_i:  4.0  p_i:  -0.0  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:  18.0  sol_deltaP:  21.0  sol_deltaP - sol_taoP:  3.0  cl_i:  2974108.0  sol_c_i:  2974108.0  sol_gp_i:  0.0  total work:  3163728.0  wasted work:  0.7192274430671663
    i:  2.0  l_i:  7.0  p_i:  14.0  al_i:  43.0  sol_a_i:  43.0  sol_g_i:  0.0  d_i:  62.0  sol_taoi:  43.0  sol_deltai:  62.0  sol_deltai - sol_taoi:  19.0  sol_taoP:  43.0  sol_deltaP:  46.0  sol_deltaP - sol_taoP:  3.0  cl_i:  4775116.0  sol_c_i:  4775116.0  sol_gp_i:  0.0  total work:  7118388.0  wasted work:  8.888015657477508
    i:  3.0  l_i:  5.0  p_i:  4.0  al_i:  5.0  sol_a_i:  5.0  sol_g_i:  0.0  d_i:  31.0  sol_taoi:  5.0  sol_deltai:  31.0  sol_deltai - sol_taoi:  26.0  sol_taoP:  5.0  sol_deltaP:  18.0  sol_deltaP - sol_taoP:  13.0  cl_i:  6615975.0  sol_c_i:  6615975.0  sol_gp_i:  0.0  total work:  6854744.0  wasted work:  0.9056492846414104
    i:  4.0  l_i:  7.0  p_i:  22.0  al_i:  29.0  sol_a_i:  29.0  sol_g_i:  0.0  d_i:  47.0  sol_taoi:  29.0  sol_deltai:  47.0  sol_deltai - sol_taoi:  18.0  sol_taoP:  29.0  sol_deltaP:  34.0  sol_deltaP - sol_taoP:  5.0  cl_i:  4538343.0  sol_c_i:  4538343.0  sol_gp_i:  0.0  total work:  4613770.0  wasted work:  0.28609412692873726
    i:  5.0  l_i:  7.0  p_i:  21.0  al_i:  61.0  sol_a_i:  61.92857142857143  sol_g_i:  0.18571428571428572  d_i:  83.0  sol_taoi:  62.0  sol_deltai:  83.0  sol_deltai - sol_taoi:  21.0  sol_taoP:  62.0  sol_deltaP:  69.0  sol_deltaP - sol_taoP:  7.0  cl_i:  5372244.0  sol_c_i:  5688616.8  sol_gp_i:  0.2  total work:  5800168.0  wasted work:  0.4231129856928289
    i:  6.0  l_i:  5.0  p_i:  29.0  al_i:  5.0  sol_a_i:  13.0  sol_g_i:  1.0  d_i:  31.0  sol_taoi:  13.0  sol_deltai:  35.0  sol_deltai - sol_taoi:  22.0  sol_taoP:  13.0  sol_deltaP:  19.0  sol_deltaP - sol_taoP:  6.0  cl_i:  5722539.0  sol_c_i:  6777115.0  sol_gp_i:  1.0  total work:  7118388.0  wasted work:  1.2944462987968623
    i:  7.0  l_i:  6.0  p_i:  28.0  al_i:  61.0  sol_a_i:  62.0  sol_g_i:  0.1  d_i:  83.0  sol_taoi:  62.0  sol_deltai:  88.0  sol_deltai - sol_taoi:  26.0  sol_taoP:  62.0  sol_deltaP:  68.0  sol_deltaP - sol_taoP:  6.0  cl_i:  6601917.0  sol_c_i:  7234662.6  sol_gp_i:  0.6  total work:  7909320.0  wasted work:  2.5589711884207507
    i:  8.0  l_i:  7.0  p_i:  7.0  al_i:  65.0  sol_a_i:  70.0  sol_g_i:  0.7142857142857143  d_i:  83.0  sol_taoi:  70.0  sol_deltai:  82.0  sol_deltai - sol_taoi:  12.0  sol_taoP:  70.0  sol_deltaP:  73.0  sol_deltaP - sol_taoP:  3.0  cl_i:  2902377.0  sol_c_i:  4009681.8  sol_gp_i:  0.6  total work:  4745592.0  wasted work:  2.7913026657158904
    i:  9.0  l_i:  4.0  p_i:  -0.0  al_i:  47.0  sol_a_i:  54.0  sol_g_i:  1.0  d_i:  79.0  sol_taoi:  54.0  sol_deltai:  81.0  sol_deltai - sol_taoi:  27.0  sol_taoP:  54.0  sol_deltaP:  64.0  sol_deltaP - sol_taoP:  10.0  cl_i:  6926380.0  sol_c_i:  7242752.8  sol_gp_i:  0.6  total work:  7382032.0  wasted work:  0.5282851117415917
Time: 74.000000
```