1. 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=26869

2.

3. import sys; print('Python %s on %s' % (sys.version, sys.platform))

4. 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'])

5.

6. PyDev console: starting.

7.

8. Python 3.9.7 (tags/v3.9.7:1016ef3, Aug 30 2021, 20:19:38) [MSC v.1929 64 bit (AMD64)] on win32

9. >>> 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')

10. Backend TkAgg is interactive backend. Turning interactive mode on.

11. Waiting 5s......

12.

13. Optimize the ./R_13_4.xlsx instance by ECCG

14.

15.   Master protblem status = 2 , is Optimal and MP obj = 726.0

16. The initial lb = -inf   ub = inf

17.

18. The current iteration cnt = 0

19.   The SP model was solved Optimal 2 and SPObj = 726.0

20.   Deterministic Sub problem Status= 2 , is Optimal

21.   Master protblem status = 2 , is Optimal

22.   lb = 1351.0   ub = 1351.0

23.   MPObj = 1351.0   MP_delete_Hua_Obj = 749.0   Hua = 602.0   SPObj = 726.0   Deter_SP_Obj = 602.0

24.

25. ub - lb = 0.0

26.

27. Iteration cycle stopped by termination criterion 1: Because ub - lb <= eps, the iteration stop, and cnt = 0

28.   i: 0.0 l_i: 6.0   p_i: 1.0 al_i: 16.0   sol_a_i: 16.0 sol_g_i: 0.0   d_i: 26.0 sol_taoi: 16.0   sol_deltai: 26.0 sol_deltai - sol_taoi: 10.0 sol_taoP: 16.0   sol_deltaP: 21.0   sol_deltaP - sol_taoP: 5.0 cl_i: 2434965.0   sol_c_i: 2434965.0   sol_gp_i: 0.0 total work: 2636440.0   wasted work: 0.7641933819847977

29.   i: 1.0 l_i: 6.0   p_i: 8.0 al_i: 11.0   sol_a_i: 11.0 sol_g_i: 0.0   d_i: 32.0 sol_taoi: 11.0   sol_deltai: 32.0 sol_deltai - sol_taoi: 21.0 sol_taoP: 11.0   sol_deltaP: 14.0   sol_deltaP - sol_taoP: 3.0 cl_i: 5411594.0   sol_c_i: 5411594.0   sol_gp_i: 0.0 total work: 6327456.0   wasted work: 3.4738586882310996

30.   i: 2.0 l_i: 6.0   p_i: 7.0 al_i: 57.0   sol_a_i: 57.0 sol_g_i: 0.0   d_i: 68.0 sol_taoi: 57.0   sol_deltai: 68.0 sol_deltai - sol_taoi: 11.0 sol_taoP: 58.0   sol_deltaP: 60.0   sol_deltaP - sol_taoP: 2.0 cl_i: 2791768.0   sol_c_i: 2791768.0   sol_gp_i: 0.0 total work: 2900084.0   wasted work: 0.4108418928555173

31.   i: 3.0 l_i: 4.0   p_i: 14.0 al_i: 26.0   sol_a_i: 26.0 sol_g_i: 0.0   d_i: 43.0 sol_taoi: 26.0   sol_deltai: 43.0 sol_deltai - sol_taoi: 17.0 sol_taoP: 26.0 sol_deltaP: 33.0   sol_deltaP - sol_taoP: 7.0 cl_i: 4453356.0   sol_c_i: 4453356.0   sol_gp_i: 0.0 total work: 4613770.0   wasted work: 0.608449272503831

32.   i: 4.0 l_i: 7.0   p_i: 23.0 al_i: 18.0   sol_a_i: 18.0 sol_g_i: 0.0   d_i: 41.0 sol_taoi: 18.0   sol_deltai: 41.0 sol_deltai - sol_taoi: 23.0 sol_taoP: 18.0 sol_deltaP: 23.0   sol_deltaP - sol_taoP: 5.0 cl_i: 6025886.0   sol_c_i: 6025886.0   sol_gp_i: 0.0 total work: 6591100.0   wasted work: 2.1438530746005977

33.   i: 5.0 l_i: 5.0   p_i: 18.0 al_i: 30.0   sol_a_i: 30.0 sol_g_i: 0.0   d_i: 51.0 sol_taoi: 30.0   sol_deltai: 51.0 sol_deltai - sol_taoi: 21.0 sol_taoP: 30.0 sol_deltaP: 33.0   sol_deltaP - sol_taoP: 3.0 cl_i: 5468313.0   sol_c_i: 5468313.0   sol_gp_i: 0.0 total work: 5536524.0   wasted work: 0.25872388523918616

34.   i: 6.0 l_i: 4.0   p_i: 23.0 al_i: 48.0   sol_a_i: 48.0 sol_g_i: 0.0   d_i: 60.0 sol_taoi: 48.0   sol_deltai: 60.0 sol_deltai - sol_taoi: 12.0 sol_taoP: 48.0 sol_deltaP: 51.0   sol_deltaP - sol_taoP: 3.0 cl_i: 2954712.0   sol_c_i: 2954712.0   sol_gp_i: 0.0 total work: 3954660.0   wasted work: 3.7927963465885814

35.   i: 7.0 l_i: 5.0   p_i: 22.0 al_i: 63.0   sol_a_i: 67.0 sol_g_i: 0.8   d_i: 83.0 sol_taoi: 67.0   sol_deltai: 85.0 sol_deltai - sol_taoi: 18.0 sol_taoP: 67.0 sol_deltaP: 71.0   sol_deltaP - sol_taoP: 4.0 cl_i: 4587844.0   sol_c_i: 5853335.2   sol_gp_i: 0.8 total work: 6195634.0   wasted work: 1.2983371516135387

36.   i: 8.0 l_i: 4.0   p_i: 13.0 al_i: 56.0   sol_a_i: 58.0 sol_g_i: 0.25 d_i: 67.0 sol_taoi: 58.0   sol_deltai: 66.0 sol_deltai - sol_taoi: 8.0 sol_taoP: 58.0 sol_deltaP: 61.0   sol_deltaP - sol_taoP: 3.0 cl_i: 1993440.0   sol_c_i: 2323295.9142857143 sol_gp_i: 0.3127853414886306   total work: 2768262.0   wasted work: 1.6877535074353511

37.   i: 9.0 l_i: 6.0   p_i: 8.0 al_i: 38.0   sol_a_i: 43.0 sol_g_i: 0.5   d_i: 55.0 sol_taoi: 43.0   sol_deltai: 54.0 sol_deltai - sol_taoi: 11.0 sol_taoP: 43.0   sol_deltaP: 47.0   sol_deltaP - sol_taoP: 4.0 cl_i: 2713249.0   sol_c_i: 3295550.0   sol_gp_i: 0.5216659889851467   total work: 3559194.0 wasted work: 1.0

38.   i: 10.0   l_i: 7.0   p_i: -0.0   al_i: 50.0   sol_a_i: 53.0 sol_g_i: 0.42857142857142855   d_i: 74.0 sol_taoi: 53.0   sol_deltai: 71.0 sol_deltai - sol_taoi: 18.0 sol_taoP: 53.0   sol_deltaP: 58.0   sol_deltaP - sol_taoP: 5.0 cl_i: 4684317.0   sol_c_i: 4745592.0   sol_gp_i: 0.033202240250380925   total work: 5272880.0   wasted work: 2.0

39.   i: 11.0   l_i: 7.0   p_i: 27.0   al_i: 47.0   sol_a_i: 54.0 sol_g_i: 1.0   d_i: 69.0 sol_taoi: 54.0   sol_deltai: 72.0 sol_deltai - sol_taoi: 18.0 sol_taoP: 54.0   sol_deltaP: 58.0   sol_deltaP - sol_taoP: 4.0 cl_i: 4573652.0   sol_c_i: 5100940.0   sol_gp_i: 1.0 total work: 5272880.0   wasted work: 0.6521673165329004

40.   i: 12.0   l_i: 6.0   p_i: 16.0   al_i: 63.0   sol_a_i: 66.72857142857143   sol_g_i: 0.6214285714285714 d_i: 79.0 sol_taoi: 67.0   sol_deltai: 80.0 sol_deltai - sol_taoi: 13.0 sol_taoP: 67.0 sol_deltaP: 72.0   sol_deltaP - sol_taoP: 5.0 cl_i: 3424938.0   sol_c_i: 4613770.0   sol_gp_i: 0.9018464292758417   total work: 4613770.0   wasted work: 0.0

41. Time: 79.000000

42.

43.

44.

45.