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=32848

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.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_11_3.xlsx instance by CCG

14

15   Master protblem status = 2 , is Optimal and MP obj = 346.0

16 The initial lb = -inf   ub = inf

17

18 The current iteration cnt = 0

19   The SP model was solved Optimal 2 and SPObj = 346.0

20   Master protblem status = 2 , is Optimal

21   Deterministic Sub problem Status= 2 , is Optimal

22   lb = 654.0   ub = 654.0

23   MPObj = 654.0   MP_delete_Hua_Obj = 368.0   Hua = 286.0   SPObj = 346.0   Deter_SP_Obj = 286.0

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: 5.0 p_i: 22.0 al_i: 3.0   sol_a_i: 3.0 sol_g_i: 0.0 d_i: 12.0 sol_taoi: 3.0 sol_deltai: 7.0 sol_deltai - sol_taoi: 4.0 sol_taoP: 3.0 sol_deltaP: 4.0 sol_deltaP - sol_taoP: 1.0 cl_i: 1004598.0   sol_c_i: 1004598.0 sol_gp_i: 0.0 total work: 1054576.0 wasted work: 0.18956623325393335

29   i: 1.0 l_i: 5.0 p_i: 8.0 al_i: 4.0   sol_a_i: 4.0 sol_g_i: 0.0 d_i: 25.0 sol_taoi: 4.0 sol_deltai: 18.0 sol_deltai - sol_taoi: 14.0 sol_taoP: 4.0 sol_deltaP: 7.0 sol_deltaP - sol_taoP: 3.0 cl_i: 3514722.0   sol_c_i: 3514722.0 sol_gp_i: 0.0 total work: 3691016.0 wasted work: 0.6686820105900381

30   i: 2.0 l_i: 5.0 p_i: 18.0 al_i: 9.0   sol_a_i: 9.0 sol_g_i: 0.0 d_i: 27.0 sol_taoi: 9.0 sol_deltai: 17.0 sol_deltai - sol_taoi: 8.0 sol_taoP: 9.0 sol_deltaP: 11.0 sol_deltaP - sol_taoP: 2.0 cl_i: 1965294.0   sol_c_i: 1965294.0 sol_gp_i: 0.0 total work: 1977330.0 wasted work: 0.045652470756019484

31   i: 3.0 l_i: 5.0 p_i: 23.0 al_i: 9.0   sol_a_i: 9.0 sol_g_i: 0.0 d_i: 30.0 sol_taoi: 9.0 sol_deltai: 17.0 sol_deltai - sol_taoi: 8.0 sol_taoP: 9.0 sol_deltaP: 11.0 sol_deltaP - sol_taoP: 2.0 cl_i: 1881520.0   sol_c_i: 1881520.0 sol_gp_i: 0.0 total work: 2240974.0 wasted work: 1.363406715115838

32   i: 4.0 l_i: 5.0 p_i: 13.0 al_i: 14.0   sol_a_i: 14.0 sol_g_i: 0.0 d_i: 29.0 sol_taoi: 14.0 sol_deltai: 18.0 sol_deltai - sol_taoi: 4.0 sol_taoP: 14.0 sol_deltaP: 15.0 sol_deltaP - sol_taoP: 1.0 cl_i: 1031972.0   sol_c_i: 1031972.0 sol_gp_i: 0.0 total work: 1054576.0 wasted work: 0.085738682693328882

33   i: 5.0 l_i: 6.0 p_i: 28.0 al_i: 16.0   sol_a_i: 16.0 sol_g_i: 0.0 d_i: 28.0 sol_taoi: 16.0 sol_deltai: 26.0 sol_deltai - sol_taoi: 10.0 sol_taoP: 16.0 sol_deltaP: 18.0 sol_deltaP - sol_taoP: 2.0 cl_i: 2408183.0   sol_c_i: 2408183.0 sol_gp_i: 0.0 total work: 2636440.0 wasted work: 0.8657773361047473

34   i: 6.0 l_i: 5.0 p_i: 9.0 al_i: 25.0   sol_a_i: 29.0 sol_g_i: 0.8 d_i: 55.0 sol_taoi: 29.0 sol_deltai: 40.0 sol_deltai - sol_taoi: 11.0 sol_taoP: 29.0 sol_deltaP: 32.0 sol_deltaP - sol_taoP: 3.0 cl_i: 2865744.0   sol_c_i: 3427372.0 sol_gp_i: 0.35504189993577195 total work: 3559194.0 wasted work: 0.5

35   i: 7.0 l_i: 6.0 p_i: 14.0 al_i: 32.0   sol_a_i: 35.2 sol_g_i: 0.4 d_i: 60.0 sol_taoi: 36.0 sol_deltai: 44.0 sol_deltai - sol_taoi: 8.0 sol_taoP: 36.0 sol_deltaP: 38.0 sol_deltaP - sol_taoP: 2.0 cl_i: 1874041.0   sol_c_i: 2363098.3333333335 sol_gp_i: 0.4637478316720022 total work: 2504618.0 wasted work: 0.5367831874295129

36   i: 8.0 l_i: 5.0 p_i: 25.0 al_i: 36.0   sol_a_i: 39.714285714285715 sol_g_i: 0.37142857142857144 d_i: 80.0 sol_taoi: 40.0 sol_deltai: 56.0 sol_deltai - sol_taoi: 16.0 sol_taoP: 40.0 sol_deltaP: 43.0 sol_deltaP - sol_taoP: 3.0 cl_i: 4027204.0   sol_c_i: 4218304.0 sol_gp_i: 0.18121026839222587 total work: 4350126.0 wasted work: 0.5

37   i: 9.0 l_i: 5.0 p_i: 20.0 al_i: 41.0   sol_a_i: 44.0 sol_g_i: 0.42857142857142855 d_i: 67.0 sol_taoi: 44.0 sol_deltai: 55.0 sol_deltai - sol_taoi: 11.0 sol_taoP: 44.0 sol_deltaP: 47.0 sol_deltaP - sol_taoP: 3.0 cl_i: 2691443.0   sol_c_i: 4536951.0 sol_gp_i: 1.0 total work: 4613770.0 wasted work: 0.291373973995236

38   i: 10.0 l_i: 5.0 p_i: 9.0 al_i: 50.0   sol_a_i: 57.0 sol_g_i: 1.0 d_i: 82.0 sol_taoi: 57.0 sol_deltai: 70.0 sol_deltai - sol_taoi: 13.0 sol_taoP: 57.0 sol_deltaP: 60.0 sol_deltaP - sol_taoP: 3.0 cl_i: 3188206.0   sol_c_i: 3715494.0 sol_gp_i: 1.0 total work: 3954660.0 wasted work: 0.9071551030935656

39 Time: 85.000000

40

41

42

43