- 1 C:\Users\whitl\anaconda3\python.exe "C:\Users\whitl\OneDrive\Documenten\ MASTER\Year 2\THESIS\16.02.22.Multiobjective\Multiobjective-multi-reservoir-control-d50e4da0f6a9a9c852b4904e640299adc96714bb\ ZambeziSmashPython\notebooks\optimization.py"
- 2 after model definition
- 3 after model.levers
- 4 after model outcomes
- 5 within main statement
- 6 after ema logging
- 7 after model definition
- 8 after model.levers
- 9 after model outcomes
- 10 after model definition
- 11 after model.levers
- 12 after model outcomes
- 13 after model definition
- 14 after model.levers
- 15 after model outcomes
- 16 after model definition
- 17 after model.levers
- 18 after model outcomes
- 19 after model definition
- 20 after model.levers
- 21 after model outcomes
- 22 after model definition
- 23 after model.levers
- 24 after model outcomes
- 25 after model definition
- 26 after model.levers
- 27 after model outcomes
- 28 after model definition
- 29 after model.levers
- 30 after model outcomes
- 31 [MainProcess/INFO] pool started with 8 workers
- 32 100it [12:59, 7.80s/it]
- 33 [MainProcess/INFO] optimization completed, found 5 solutions
- 34 result type <class 'pandas.core.frame.DataFrame'>
- 35 result v0 v1 v2 ... Hydropower Environment Irrigation
- 36 0-0.038156-0.398025-0.940355 ... 19.500797 2.220325e+06 1.482056
- 37 1 0.402190 0.800785 0.433939 ... 19.385325 2.178132e+06 2.037419
- 38 2 -0.522793 -0.093875 0.751461 ... 16.562246 2.781547e+06 1.090555
- 39 3 -0.168150 -0.566124 0.538016 ... 18.296207 2.377334e+06 2.093824
- 40 4 0.022354 -0.071297 -0.363116 ... 17.712240 2.476120e+06 0.824197

41

```
42 [5 rows x 233 columns]
43 results type <class 'list'>
44 100it [12:41, 7.62s/it]
45 result type <class 'pandas.core.frame.DataFrame'>
46 result [MainProcess/INFO] optimization completed, found 7 solutions
47
                      v2 ... Hydropower Environment Irrigation
         v0
               v1
48 0 -0.035855 0.950722 0.168605 ... 17.766948 2.435437e+06
                                                                 1.021913
49 1 0.102450 -0.412699 0.411145 ... 18.851531 2.326108e+06
                                                                 1.488312
50 2 0.646489 0.457317 0.401987 ... 15.632618 2.796874e+06
                                                                 2.066027
51 3-0.056059 0.707004 0.115262 ... 18.958506 2.170564e+06
                                                                 1.675937
52 4 -0.973771 -0.829127 0.998432 ... 17.231575 2.498797e+06
                                                                 1.168271
53 5 -0.647208 0.972638 0.754441 ... 15.375142 3.373314e+06
                                                                 1.246324
54 6 -0.071457 -0.684961 0.584998 ... 19.236119 2.162037e+06
                                                                 1.321998
55
56 [7 rows x 233 columns]
57 results type <class 'list'>
58 results [
                v0
                              v2 ... Hydropower Environment Irrigation
                       v1
                                                                 1.482056
59 0 -0.038156 -0.398025 -0.940355 ... 19.500797 2.220325e+06
60 1 0.402190 0.800785 0.433939 ... 19.385325 2.178132e+06
                                                                 2.037419
61 2 -0.522793 -0.093875 0.751461 ... 16.562246 2.781547e+06
                                                                 1.090555
62 3 -0.168150 -0.566124 0.538016 ... 18.296207 2.377334e+06
                                                                 2.093824
63 4 0.022354 -0.071297 -0.363116 ... 17.712240 2.476120e+06
                                                                 0.824197
64
65 [5 rows x 233 columns],
                               v0
                                     v1
                                            v2 ... Hydropower
   Environment Irrigation
66 0-0.035855 0.950722 0.168605 ... 17.766948 2.435437e+06
                                                                 1.021913
67 1 0.102450 -0.412699 0.411145 ... 18.851531 2.326108e+06
                                                                 1.488312
68 2 0.646489 0.457317 0.401987 ... 15.632618 2.796874e+06
                                                                 2.066027
69 3-0.056059 0.707004 0.115262 ... 18.958506 2.170564e+06
                                                                 1.675937
70 4 -0.973771 -0.829127 0.998432 ... 17.231575 2.498797e+06
                                                                 1.168271
71 5-0.647208 0.972638 0.754441 ... 15.375142 3.373314e+06
                                                                 1.246324
72 6 -0.071457 -0.684961 0.584998 ... 19.236119 2.162037e+06
                                                                 1.321998
73
74 [7 rows x 233 columns]]
75 [MainProcess/INFO] terminating pool
76 after evaluator
77 problem.nvars 230
78 problem.nobjs 3
79 Index(['v0', 'v1', 'v2', 'v3', 'v4', 'v5', 'v6', 'v7', 'v8', 'v9',
80
81
       'v223', 'v224', 'v225', 'v226', 'v227', 'v228', 'v229', 'Hydropower',
82
       'Environment', 'Irrigation'],
83
       dtype='object', length=233)
84 problem.nvars 230
```

```
85 problem.nobjs 3
 86 Index(['v0', 'v1', 'v2', 'v3', 'v4', 'v5', 'v6', 'v7', 'v8', 'v9',
 87
 88
         'v223', 'v224', 'v225', 'v226', 'v227', 'v228', 'v229', 'Hydropower',
 89
         'Environment', 'Irrigation'],
90
         dtype='object', length=233)
 91 problem.nvars 230
92 problem.nobjs 3
93 Index(['Unnamed: 0', 'v0', 'v1', 'v2', 'v3', 'v4', 'v5', 'v6', 'v7', 'v8',
94
95
         'v223', 'v224', 'v225', 'v226', 'v227', 'v228', 'v229', 'Hydropower',
96
         'Environment', 'Irrigation'],
97
         dtype='object', length=234)
98 Traceback (most recent call last):
99
      File "C:\Users\whitl\OneDrive\Documenten\MASTER\Year 2\THESIS\16.02.
     22. Multiobjective\Multiobjective-multi-reservoir-control-
     d50e4da0f6a9a9c852b4904e640299adc96714bb\ZambeziSmashPython\
     notebooks\optimization.py", line 126, in <module>
100
       "hypervolume": hv.calculate(archive),
101
      File "C:\Users\whitl\anaconda3\lib\site-packages\ema workbench\
     em_framework\optimization.py", line 514, in calculate
102
       solutions = rebuild platypus population(archive, self.problem)
103
      File "C:\Users\whitl\anaconda3\lib\site-packages\ema_workbench\
     em framework\optimization.py", line 885, in rebuild platypus population
104
       raise EMAError(
105 ema workbench.util.ema exceptions.EMAError: The number of columns in
     the archive (234) does not match the expected number of decision variables
     and objectives (233).
106
107 Process finished with exit code 1
108
```