

unknown

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80 cord_individual_obj[indivial_i,:] = [ 16. 10. 110. 120.]
81 cord_individual_obj[indivial_i,:] = [17. 7. 53. 60.]
82 cord_individual_obj[indivial_i,:] = [18. 8. 80. 88.]
83 cord_individual_obj[indivial_i,:] = [19. 10. 61. 71.]
84 cord_individual_obj[indivial_i,:] = [20. 6. 139. 145.]
85 cord_individual_obj[indivial_i,:] = [21. 6. 50. 56.]
86 cord_individual_obj[indivial_i,:] = [22. 9. 127. 136.]
87 cord_individual_obj[indivial_i,:] = [23. 7. 60. 67.]
88 cord_individual_obj[indivial_i,:] = [24. 9. 126. 135.]
89
90 min(cord_individual_obj[:,3]) = 51.0
91 historl_G_best_iter[iter, 3] = 51.0
92 Begin iteration:
93
94 iter = 2
95 cord_individual_obj[indivial_i,:] = [ 0. 7. 175. 182.]
96 cord_individual_obj[indivial_i,:] = [ 1. 10. 111. 121.]
97 cord_individual_obj[indivial_i,:] = [ 2. 9. 71. 80.]
98 cord_individual_obj[indivial_i,:] = [ 3. 7. 94. 101.]
99 cord_individual_obj[indivial_i,:] = [ 4. 9. 121. 130.]
100 cord_individual_obj[indivial_i,:] = [ 5. 8. 106. 114.]
101 cord_individual_obj[indivial_i,:] = [ 6. 8. 66. 74.]
102 cord_individual_obj[indivial_i,:] = [ 7. 9. 104. 113.]
103 cord_individual_obj[indivial_i,:] = [ 8. 9. 149. 158.]
104 cord_individual_obj[indivial_i,:] = [ 9. 7. 86. 93.]
105 cord_individual_obj[indivial_i,:] = [10. 6. 117. 123.]
106 cord_individual_obj[indivial_i,:] = [11. 7. 169. 176.]
107 cord_individual_obj[indivial_i,:] = [12. 10. 84. 94.]
108 cord_individual_obj[indivial_i,:] = [13. 9. 168. 177.]
109 cord_individual_obj[indivial_i,:] = [14. 11. 80. 91.]
110 cord_individual_obj[indivial_i,:] = [15. 8. 43. 51.]
111 cord_individual_obj[indivial_i,:] = [16. 9. 95. 104.]
112 cord_individual_obj[indivial_i,:] = [17. 7. 111. 118.]
113 cord_individual_obj[indivial_i,:] = [18. 7. 134. 141.]
114 cord_individual_obj[indivial_i,:] = [19. 8. 128. 136.]
115 cord_individual_obj[indivial_i,:] = [20. 8. 124. 132.]
116 cord_individual_obj[indivial_i,:] = [21. 7. 116. 123.]
117 cord_individual_obj[indivial_i,:] = [22. 9. 125. 134.]
118 cord_individual_obj[indivial_i,:] = [23. 9. 118. 127.]
119 cord_individual_obj[indivial_i,:] = [24. 7. 101. 108.]
120
121 min(cord_individual_obj[:,3]) = 51.0
122 historl_G_best_iter[iter, 3] = 51.0
123 Begin iteration:
124
125 iter = 3
126 cord_individual_obj[indivial_i,:] = [ 0. 8. 43. 51.]
127 cord_individual_obj[indivial_i,:] = [ 1. 7. 89. 96.]
128 cord_individual_obj[indivial_i,:] = [ 2. 8. 107. 115.]
129 cord_individual_obj[indivial_i,:] = [ 3. 7. 117. 124.]
130 cord_individual_obj[indivial_i,:] = [ 4. 7. 142. 149.]
131 cord_individual_obj[indivial_i,:] = [ 5. 10. 117. 127.]
132 cord_individual_obj[indivial_i,:] = [ 6. 8. 70. 78.]
133 cord_individual_obj[indivial_i,:] = [ 7. 9. 80. 89.]
134 cord_individual_obj[indivial_i,:] = [ 8. 10. 62. 72.]
135 cord_individual_obj[indivial_i,:] = [ 9. 8. 82. 90.]
136 cord_individual_obj[indivial_i,:] = [10. 8. 113. 121.]
137 cord_individual_obj[indivial_i,:] = [11. 7. 104. 111.]
138 cord_individual_obj[indivial_i,:] = [12. 7. 119. 126.]
139 cord_individual_obj[indivial_i,:] = [13. 8. 76. 84.]
140 cord_individual_obj[indivial_i,:] = [14. 9. 95. 104.]
141 cord_individual_obj[indivial_i,:] = [15. 7. 94. 101.]
142 cord_individual_obj[indivial_i,:] = [16. 8. 116. 124.]
143 cord_individual_obj[indivial_i,:] = [17. 10. 73. 83.]
144 cord_individual_obj[indivial_i,:] = [18. 7. 57. 64.]
145 cord_individual_obj[indivial_i,:] = [19. 8. 113. 121.]
146 cord_individual_obj[indivial_i,:] = [20. 9. 84. 93.]
147 cord_individual_obj[indivial_i,:] = [21. 10. 78. 88.]
148 cord_individual_obj[indivial_i,:] = [22. 7. 55. 62.]
149 cord_individual_obj[indivial_i,:] = [23. 9. 119. 128.]
150 cord_individual_obj[indivial_i,:] = [24. 9. 89. 98.]
151
152 min(cord_individual_obj[:,3]) = 51.0
153 historl_G_best_iter[iter, 3] = 51.0
154 Begin iteration:
155
156 iter = 4
157 cord_individual_obj[indivial_i,:] = [ 0. 8. 133. 141.]
158 cord_individual_obj[indivial_i,:] = [ 1. 7. 69. 76.]
159 cord_individual_obj[indivial_i,:] = [ 2. 9. 115. 124.]
160 cord_individual_obj[indivial_i,:] = [ 3. 7. 85. 92.]
161 cord_individual_obj[indivial_i,:] = [ 4. 8. 43. 51.]
162 cord_individual_obj[indivial_i,:] = [ 5. 7. 69. 76.]
163 cord_individual_obj[indivial_i,:] = [ 6. 11. 117. 128.]

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164 cord_individual_obj[indivial_i,:] = [ 7. 8. 96. 104.]
165 cord_individual_obj[indivial_i,:] = [ 8. 7. 69. 76.]
166 cord_individual_obj[indivial_i,:] = [ 9. 11. 78. 89.]
167 cord_individual_obj[indivial_i,:] = [ 10. 7. 162. 169.]
168 cord_individual_obj[indivial_i,:] = [ 11. 8. 134. 142.]
169 cord_individual_obj[indivial_i,:] = [ 12. 8. 118. 126.]
170 cord_individual_obj[indivial_i,:] = [ 13. 7. 63. 70.]
171 cord_individual_obj[indivial_i,:] = [ 14. 8. 144. 152.]
172 cord_individual_obj[indivial_i,:] = [ 15. 8. 166. 174.]
173 cord_individual_obj[indivial_i,:] = [ 16. 9. 76. 85.]
174 cord_individual_obj[indivial_i,:] = [ 17. 9. 76. 85.]
175 cord_individual_obj[indivial_i,:] = [ 18. 9. 118. 127.]
176 cord_individual_obj[indivial_i,:] = [ 19. 7. 64. 71.]
177 cord_individual_obj[indivial_i,:] = [ 20. 8. 60. 68.]
178 cord_individual_obj[indivial_i,:] = [ 21. 9. 83. 92.]
179 cord_individual_obj[indivial_i,:] = [ 22. 10. 112. 122.]
180 cord_individual_obj[indivial_i,:] = [ 23. 8. 126. 134.]
181 cord_individual_obj[indivial_i,:] = [ 24. 7. 124. 131.]
182
183 min(cord_individual_obj[:,3]) = 51.0
184 historl_G_best_iter[iter,3] = 51.0
185 Begin iteration:
186
187 iter = 5
188 cord_individual_obj[indivial_i,:] = [ 0. 8. 97. 105.]
189 cord_individual_obj[indivial_i,:] = [ 1. 10. 88. 98.]
190 cord_individual_obj[indivial_i,:] = [ 2. 9. 96. 105.]
191 cord_individual_obj[indivial_i,:] = [ 3. 9. 81. 90.]
192 cord_individual_obj[indivial_i,:] = [ 4. 9. 84. 93.]
193 cord_individual_obj[indivial_i,:] = [ 5. 8. 87. 95.]
194 cord_individual_obj[indivial_i,:] = [ 6. 10. 70. 80.]
195 cord_individual_obj[indivial_i,:] = [ 7. 10. 74. 84.]
196 cord_individual_obj[indivial_i,:] = [ 8. 9. 94. 103.]
197 cord_individual_obj[indivial_i,:] = [ 9. 8. 88. 96.]
198 cord_individual_obj[indivial_i,:] = [ 10. 8. 111. 119.]
199 cord_individual_obj[indivial_i,:] = [ 11. 9. 156. 165.]
200 cord_individual_obj[indivial_i,:] = [ 12. 9. 84. 93.]
201 cord_individual_obj[indivial_i,:] = [ 13. 9. 100. 109.]
202 cord_individual_obj[indivial_i,:] = [ 14. 8. 102. 110.]
203 cord_individual_obj[indivial_i,:] = [ 15. 8. 43. 51.]
204 cord_individual_obj[indivial_i,:] = [ 16. 8. 76. 84.]
205 cord_individual_obj[indivial_i,:] = [ 17. 9. 71. 80.]
206 cord_individual_obj[indivial_i,:] = [ 18. 9. 102. 111.]
207 cord_individual_obj[indivial_i,:] = [ 19. 8. 111. 119.]
208 cord_individual_obj[indivial_i,:] = [ 20. 10. 110. 120.]
209 cord_individual_obj[indivial_i,:] = [ 21. 9. 100. 109.]
210 cord_individual_obj[indivial_i,:] = [ 22. 7. 89. 96.]
211 cord_individual_obj[indivial_i,:] = [ 23. 7. 104. 111.]
212 cord_individual_obj[indivial_i,:] = [ 24. 8. 114. 122.]
213
214 min(cord_individual_obj[:,3]) = 51.0
215 historl_G_best_iter[iter,3] = 51.0
216 Begin iteration:
217
218 iter = 6
219 cord_individual_obj[indivial_i,:] = [ 0. 8. 112. 120.]
220 cord_individual_obj[indivial_i,:] = [ 1. 7. 123. 130.]
221 cord_individual_obj[indivial_i,:] = [ 2. 7. 110. 117.]
222 cord_individual_obj[indivial_i,:] = [ 3. 7. 114. 121.]
223 cord_individual_obj[indivial_i,:] = [ 4. 8. 85. 93.]
224 cord_individual_obj[indivial_i,:] = [ 5. 8. 85. 93.]
225 cord_individual_obj[indivial_i,:] = [ 6. 8. 95. 103.]
226 cord_individual_obj[indivial_i,:] = [ 7. 7. 83. 90.]
227 cord_individual_obj[indivial_i,:] = [ 8. 11. 119. 130.]
228 cord_individual_obj[indivial_i,:] = [ 9. 8. 115. 123.]
229 cord_individual_obj[indivial_i,:] = [ 10. 7. 174. 181.]
230 cord_individual_obj[indivial_i,:] = [ 11. 8. 43. 51.]
231 cord_individual_obj[indivial_i,:] = [ 12. 8. 95. 103.]
232 cord_individual_obj[indivial_i,:] = [ 13. 9. 143. 152.]
233 cord_individual_obj[indivial_i,:] = [ 14. 9. 69. 78.]
234 cord_individual_obj[indivial_i,:] = [ 15. 7. 84. 91.]
235 cord_individual_obj[indivial_i,:] = [ 16. 10. 112. 122.]
236 cord_individual_obj[indivial_i,:] = [ 17. 6. 124. 130.]
237 cord_individual_obj[indivial_i,:] = [ 18. 7. 134. 141.]
238 cord_individual_obj[indivial_i,:] = [ 19. 7. 111. 118.]
239 cord_individual_obj[indivial_i,:] = [ 20. 7. 112. 119.]
240 cord_individual_obj[indivial_i,:] = [ 21. 8. 116. 124.]
241 cord_individual_obj[indivial_i,:] = [ 22. 6. 174. 180.]
242 cord_individual_obj[indivial_i,:] = [ 23. 9. 121. 130.]
243 cord_individual_obj[indivial_i,:] = [ 24. 9. 84. 93.]
244
245 min(cord_individual_obj[:,3]) = 51.0
246 historl_G_best_iter[iter,3] = 51.0
247 Begin iteration:

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248
249 iter = 7
250 cord_individual_obj[indivial_i, :] = [ 0.  9. 83. 92.]
251 cord_individual_obj[indivial_i, :] = [ 1.  7. 136. 143.]
252 cord_individual_obj[indivial_i, :] = [ 2. 12. 126. 138.]
253 cord_individual_obj[indivial_i, :] = [ 3.  7. 144. 151.]
254 cord_individual_obj[indivial_i, :] = [ 4.  9. 110. 119.]
255 cord_individual_obj[indivial_i, :] = [ 5.  7. 96. 103.]
256 cord_individual_obj[indivial_i, :] = [ 6.  8. 83. 91.]
257 cord_individual_obj[indivial_i, :] = [ 7.  9. 111. 120.]
258 cord_individual_obj[indivial_i, :] = [ 8.  7. 112. 119.]
259 cord_individual_obj[indivial_i, :] = [ 9.  9. 74. 83.]
260 cord_individual_obj[indivial_i, :] = [10.  8. 43. 51.]
261 cord_individual_obj[indivial_i, :] = [11.  8. 160. 168.]
262 cord_individual_obj[indivial_i, :] = [12.  8. 180. 188.]
263 cord_individual_obj[indivial_i, :] = [13. 10. 83. 93.]
264 cord_individual_obj[indivial_i, :] = [14.  8. 72. 80.]
265 cord_individual_obj[indivial_i, :] = [15.  7. 84. 91.]
266 cord_individual_obj[indivial_i, :] = [16.  8. 109. 117.]
267 cord_individual_obj[indivial_i, :] = [17.  7. 107. 114.]
268 cord_individual_obj[indivial_i, :] = [18.  8. 128. 136.]
269 cord_individual_obj[indivial_i, :] = [19.  7. 89. 96.]
270 cord_individual_obj[indivial_i, :] = [20.  8. 97. 105.]
271 cord_individual_obj[indivial_i, :] = [21.  8. 139. 147.]
272 cord_individual_obj[indivial_i, :] = [22.  6. 121. 127.]
273 cord_individual_obj[indivial_i, :] = [23. 10. 80. 90.]
274 cord_individual_obj[indivial_i, :] = [24.  8. 108. 116.]
275

276 min(cord_individual_obj[:, 3]) = 51.0
277 historl_G_best_iter[iter, 3] = 51.0
278 Begin iteration:
279
280 iter = 8
281 cord_individual_obj[indivial_i, :] = [ 0.  8. 145. 153.]
282 cord_individual_obj[indivial_i, :] = [ 1.  7. 98. 105.]
283 cord_individual_obj[indivial_i, :] = [ 2.  9. 125. 134.]
284 cord_individual_obj[indivial_i, :] = [ 3.  9. 151. 160.]
285 cord_individual_obj[indivial_i, :] = [ 4.  8. 78. 86.]
286 cord_individual_obj[indivial_i, :] = [ 5.  9. 86. 95.]
287 cord_individual_obj[indivial_i, :] = [ 6.  8. 87. 95.]
288 cord_individual_obj[indivial_i, :] = [ 7.  8. 120. 128.]
289 cord_individual_obj[indivial_i, :] = [ 8.  9. 136. 145.]
290 cord_individual_obj[indivial_i, :] = [ 9.  8. 102. 110.]
291 cord_individual_obj[indivial_i, :] = [10.  7. 115. 122.]
292 cord_individual_obj[indivial_i, :] = [11.  7. 158. 165.]
293 cord_individual_obj[indivial_i, :] = [12.  8. 43. 51.]
294 cord_individual_obj[indivial_i, :] = [13.  9. 85. 94.]
295 cord_individual_obj[indivial_i, :] = [14.  7. 60. 67.]
296 cord_individual_obj[indivial_i, :] = [15. 11. 91. 102.]
297 cord_individual_obj[indivial_i, :] = [16.  9. 87. 96.]
298 cord_individual_obj[indivial_i, :] = [17.  7. 133. 140.]
299 cord_individual_obj[indivial_i, :] = [18.  7. 90. 97.]
300 cord_individual_obj[indivial_i, :] = [19.  8. 81. 89.]
301 cord_individual_obj[indivial_i, :] = [20. 10. 121. 131.]
302 cord_individual_obj[indivial_i, :] = [21.  8. 88. 96.]
303 cord_individual_obj[indivial_i, :] = [22.  7. 113. 120.]
304 cord_individual_obj[indivial_i, :] = [23.  9. 105. 114.]
305 cord_individual_obj[indivial_i, :] = [24.  9. 89. 98.]
306

307 min(cord_individual_obj[:, 3]) = 51.0
308 historl_G_best_iter[iter, 3] = 51.0
309 Begin iteration:
310
311 iter = 9
312 cord_individual_obj[indivial_i, :] = [ 0.  8. 93. 101.]
313 cord_individual_obj[indivial_i, :] = [ 1.  7. 156. 163.]
314 cord_individual_obj[indivial_i, :] = [ 2. 10. 135. 145.]
315 cord_individual_obj[indivial_i, :] = [ 3.  9. 91. 100.]
316 cord_individual_obj[indivial_i, :] = [ 4.  8. 94. 102.]
317 cord_individual_obj[indivial_i, :] = [ 5.  8. 108. 116.]
318 cord_individual_obj[indivial_i, :] = [ 6.  8. 83. 91.]
319 cord_individual_obj[indivial_i, :] = [ 7.  8. 140. 148.]
320 cord_individual_obj[indivial_i, :] = [ 8.  7. 163. 170.]
321 cord_individual_obj[indivial_i, :] = [ 9.  7. 98. 105.]
322 cord_individual_obj[indivial_i, :] = [10.  9. 104. 113.]
323 cord_individual_obj[indivial_i, :] = [11.  8. 43. 51.]
324 cord_individual_obj[indivial_i, :] = [12.  8. 97. 105.]
325 cord_individual_obj[indivial_i, :] = [13.  7. 117. 124.]
326 cord_individual_obj[indivial_i, :] = [14. 11. 84. 95.]
327 cord_individual_obj[indivial_i, :] = [15.  7. 111. 118.]
328 cord_individual_obj[indivial_i, :] = [16.  7. 126. 133.]
329 cord_individual_obj[indivial_i, :] = [17.  8. 212. 220.]
330 cord_individual_obj[indivial_i, :] = [18.  8. 138. 146.]
331 cord_individual_obj[indivial_i, :] = [19.  9. 102. 111.]

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332     cord_individual_obj[indivial_i,:] = [20. 8. 89. 97.]
333     cord_individual_obj[indivial_i,:] = [21. 8. 116. 124.]
334     cord_individual_obj[indivial_i,:] = [22. 9. 174. 183.]
335     cord_individual_obj[indivial_i,:] = [23. 9. 106. 115.]
336     cord_individual_obj[indivial_i,:] = [24. 7. 120. 127.]
337
338 min(cord_individual_obj[:,3]) = 51.0
339 histol_G_best_iter[iter,3] = 51.0
340 Begin iteration:
341
342 iter = 10
343     cord_individual_obj[indivial_i,:] = [ 0. 8. 102. 110.]
344     cord_individual_obj[indivial_i,:] = [ 1. 8. 96. 104.]
345     cord_individual_obj[indivial_i,:] = [ 2. 9. 101. 110.]
346     cord_individual_obj[indivial_i,:] = [ 3. 9. 98. 107.]
347     cord_individual_obj[indivial_i,:] = [ 4. 10. 115. 125.]
348     cord_individual_obj[indivial_i,:] = [ 5. 7. 56. 63.]
349     cord_individual_obj[indivial_i,:] = [ 6. 8. 89. 97.]
350     cord_individual_obj[indivial_i,:] = [ 7. 8. 85. 93.]
351     cord_individual_obj[indivial_i,:] = [ 8. 9. 145. 154.]
352     cord_individual_obj[indivial_i,:] = [ 9. 8. 61. 69.]
353     cord_individual_obj[indivial_i,:] = [10. 10. 132. 142.]
354     cord_individual_obj[indivial_i,:] = [11. 8. 149. 157.]
355     cord_individual_obj[indivial_i,:] = [12. 9. 118. 127.]
356     cord_individual_obj[indivial_i,:] = [13. 9. 86. 95.]
357     cord_individual_obj[indivial_i,:] = [14. 8. 99. 107.]
358     cord_individual_obj[indivial_i,:] = [15. 8. 64. 72.]
359     cord_individual_obj[indivial_i,:] = [16. 9. 95. 104.]
360     cord_individual_obj[indivial_i,:] = [17. 8. 43. 51.]
361     cord_individual_obj[indivial_i,:] = [18. 8. 117. 125.]
362     cord_individual_obj[indivial_i,:] = [19. 9. 121. 130.]
363     cord_individual_obj[indivial_i,:] = [20. 9. 63. 72.]
364     cord_individual_obj[indivial_i,:] = [21. 8. 113. 121.]
365     cord_individual_obj[indivial_i,:] = [22. 6. 102. 108.]
366     cord_individual_obj[indivial_i,:] = [23. 9. 67. 76.]
367     cord_individual_obj[indivial_i,:] = [24. 9. 77. 86.]
368
369 min(cord_individual_obj[:,3]) = 51.0
370 histol_G_best_iter[iter,3] = 51.0
371 Begin iteration:
372
373 iter = 11
374     cord_individual_obj[indivial_i,:] = [ 0. 8. 130. 138.]
375     cord_individual_obj[indivial_i,:] = [ 1. 9. 65. 74.]
376     cord_individual_obj[indivial_i,:] = [ 2. 8. 129. 137.]
377     cord_individual_obj[indivial_i,:] = [ 3. 8. 123. 131.]
378     cord_individual_obj[indivial_i,:] = [ 4. 8. 226. 234.]
379     cord_individual_obj[indivial_i,:] = [ 5. 8. 119. 127.]
380     cord_individual_obj[indivial_i,:] = [ 6. 7. 92. 99.]
381     cord_individual_obj[indivial_i,:] = [ 7. 9. 161. 170.]
382     cord_individual_obj[indivial_i,:] = [ 8. 8. 132. 140.]
383     cord_individual_obj[indivial_i,:] = [ 9. 10. 85. 95.]
384     cord_individual_obj[indivial_i,:] = [10. 8. 95. 103.]
385     cord_individual_obj[indivial_i,:] = [11. 8. 43. 51.]
386     cord_individual_obj[indivial_i,:] = [12. 8. 87. 95.]
387     cord_individual_obj[indivial_i,:] = [13. 7. 97. 104.]
388     cord_individual_obj[indivial_i,:] = [14. 7. 106. 113.]
389     cord_individual_obj[indivial_i,:] = [15. 8. 94. 102.]
390     cord_individual_obj[indivial_i,:] = [16. 10. 109. 119.]
391     cord_individual_obj[indivial_i,:] = [17. 8. 139. 147.]
392     cord_individual_obj[indivial_i,:] = [18. 8. 121. 129.]
393     cord_individual_obj[indivial_i,:] = [19. 8. 76. 84.]
394     cord_individual_obj[indivial_i,:] = [20. 9. 156. 165.]
395     cord_individual_obj[indivial_i,:] = [21. 8. 67. 75.]
396     cord_individual_obj[indivial_i,:] = [22. 8. 73. 81.]
397     cord_individual_obj[indivial_i,:] = [23. 8. 114. 122.]
398     cord_individual_obj[indivial_i,:] = [24. 9. 109. 118.]
399
400 min(cord_individual_obj[:,3]) = 51.0
401 histol_G_best_iter[iter,3] = 51.0
402 Begin iteration:
403
404 iter = 12
405     cord_individual_obj[indivial_i,:] = [ 0. 9. 111. 120.]
406     cord_individual_obj[indivial_i,:] = [ 1. 8. 121. 129.]
407     cord_individual_obj[indivial_i,:] = [ 2. 11. 119. 130.]
408     cord_individual_obj[indivial_i,:] = [ 3. 7. 127. 134.]
409     cord_individual_obj[indivial_i,:] = [ 4. 8. 43. 51.]
410     cord_individual_obj[indivial_i,:] = [ 5. 8. 117. 125.]
411     cord_individual_obj[indivial_i,:] = [ 6. 8. 112. 120.]
412     cord_individual_obj[indivial_i,:] = [ 7. 8. 89. 97.]
413     cord_individual_obj[indivial_i,:] = [ 8. 7. 69. 76.]
414     cord_individual_obj[indivial_i,:] = [ 9. 7. 71. 78.]
415     cord_individual_obj[indivial_i,:] = [10. 8. 131. 139.]

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416 cord_individual_obj[indivial_i,:] = [ 11. 10. 149. 159.]
417 cord_individual_obj[indivial_i,:] = [ 12. 8. 106. 114.]
418 cord_individual_obj[indivial_i,:] = [ 13. 10. 93. 103.]
419 cord_individual_obj[indivial_i,:] = [14. 9. 82. 91.]
420 cord_individual_obj[indivial_i,:] = [15. 8. 67. 75.]
421 cord_individual_obj[indivial_i,:] = [16. 9. 77. 86.]
422 cord_individual_obj[indivial_i,:] = [17. 8. 78. 86.]
423 cord_individual_obj[indivial_i,:] = [ 18. 7. 111. 118.]
424 cord_individual_obj[indivial_i,:] = [ 19. 6. 135. 141.]
425 cord_individual_obj[indivial_i,:] = [ 20. 9. 119. 128.]
426 cord_individual_obj[indivial_i,:] = [ 21. 8. 98. 106.]
427 cord_individual_obj[indivial_i,:] = [ 22. 7. 99. 106.]
428 cord_individual_obj[indivial_i,:] = [23. 7. 77. 84.]
429 cord_individual_obj[indivial_i,:] = [ 24. 7. 94. 101.]
430
431 min(cord_individual_obj[:,3]) = 51.0
432 histol_G_best_iter[iter,3] = 51.0
433 Begin iteration:
434
435 iter = 13
436 cord_individual_obj[indivial_i,:] = [ 0. 8. 56. 64.]
437 cord_individual_obj[indivial_i,:] = [ 1. 10. 84. 94.]
438 cord_individual_obj[indivial_i,:] = [ 2. 9. 117. 126.]
439 cord_individual_obj[indivial_i,:] = [ 3. 8. 133. 141.]
440 cord_individual_obj[indivial_i,:] = [ 4. 9. 84. 93.]
441 cord_individual_obj[indivial_i,:] = [ 5. 8. 95. 103.]
442 cord_individual_obj[indivial_i,:] = [ 6. 11. 70. 81.]
443 cord_individual_obj[indivial_i,:] = [ 7. 8. 112. 120.]
444 cord_individual_obj[indivial_i,:] = [ 8. 10. 118. 128.]
445 cord_individual_obj[indivial_i,:] = [ 9. 8. 72. 80.]
446 cord_individual_obj[indivial_i,:] = [10. 9. 111. 120.]
447 cord_individual_obj[indivial_i,:] = [11. 8. 43. 51.]
448 cord_individual_obj[indivial_i,:] = [12. 8. 112. 120.]
449 cord_individual_obj[indivial_i,:] = [13. 8. 128. 136.]
450 cord_individual_obj[indivial_i,:] = [14. 8. 109. 117.]
451 cord_individual_obj[indivial_i,:] = [15. 9. 144. 153.]
452 cord_individual_obj[indivial_i,:] = [16. 8. 164. 172.]
453 cord_individual_obj[indivial_i,:] = [17. 9. 55. 64.]
454 cord_individual_obj[indivial_i,:] = [18. 8. 114. 122.]
455 cord_individual_obj[indivial_i,:] = [19. 8. 115. 123.]
456 cord_individual_obj[indivial_i,:] = [20. 9. 136. 145.]
457 cord_individual_obj[indivial_i,:] = [21. 8. 80. 88.]
458 cord_individual_obj[indivial_i,:] = [22. 6. 107. 113.]
459 cord_individual_obj[indivial_i,:] = [23. 8. 96. 104.]
460 cord_individual_obj[indivial_i,:] = [24. 10. 102. 112.]
461
462 min(cord_individual_obj[:,3]) = 51.0
463 histol_G_best_iter[iter,3] = 51.0
464 Begin iteration:
465
466 iter = 14
467 cord_individual_obj[indivial_i,:] = [ 0. 9. 72. 81.]
468 cord_individual_obj[indivial_i,:] = [ 1. 9. 115. 124.]
469 cord_individual_obj[indivial_i,:] = [ 2. 9. 101. 110.]
470 cord_individual_obj[indivial_i,:] = [ 3. 8. 129. 137.]
471 cord_individual_obj[indivial_i,:] = [ 4. 10. 106. 116.]
472 cord_individual_obj[indivial_i,:] = [ 5. 10. 63. 73.]
473 cord_individual_obj[indivial_i,:] = [ 6. 8. 71. 79.]
474 cord_individual_obj[indivial_i,:] = [ 7. 8. 155. 163.]
475 cord_individual_obj[indivial_i,:] = [ 8. 8. 179. 187.]
476 cord_individual_obj[indivial_i,:] = [ 9. 9. 116. 125.]
477 cord_individual_obj[indivial_i,:] = [10. 8. 110. 118.]
478 cord_individual_obj[indivial_i,:] = [11. 10. 149. 159.]
479 cord_individual_obj[indivial_i,:] = [12. 10. 107. 117.]
480 cord_individual_obj[indivial_i,:] = [13. 9. 149. 158.]
481 cord_individual_obj[indivial_i,:] = [14. 8. 68. 76.]
482 cord_individual_obj[indivial_i,:] = [15. 8. 91. 99.]
483 cord_individual_obj[indivial_i,:] = [16. 8. 43. 51.]
484 cord_individual_obj[indivial_i,:] = [17. 10. 153. 163.]
485 cord_individual_obj[indivial_i,:] = [18. 7. 95. 102.]
486 cord_individual_obj[indivial_i,:] = [19. 6. 116. 122.]
487 cord_individual_obj[indivial_i,:] = [20. 10. 101. 111.]
488 cord_individual_obj[indivial_i,:] = [21. 9. 127. 136.]
489 cord_individual_obj[indivial_i,:] = [22. 8. 126. 134.]
490 cord_individual_obj[indivial_i,:] = [23. 8. 103. 111.]
491 cord_individual_obj[indivial_i,:] = [24. 7. 140. 147.]
492
493 min(cord_individual_obj[:,3]) = 51.0
494 histol_G_best_iter[iter,3] = 51.0
495 Begin iteration:
496
497 iter = 15
498 cord_individual_obj[indivial_i,:] = [ 0. 7. 80. 87.]
499 cord_individual_obj[indivial_i,:] = [ 1. 8. 77. 85.]

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500 cord_individual_obj[indivial_i,:] = [ 2. 8. 105. 113.]
501 cord_individual_obj[indivial_i,:] = [ 3. 9. 114. 123.]
502 cord_individual_obj[indivial_i,:] = [ 4. 10. 111. 121.]
503 cord_individual_obj[indivial_i,:] = [ 5. 7. 95. 102.]
504 cord_individual_obj[indivial_i,:] = [ 6. 8. 68. 76.]
505 cord_individual_obj[indivial_i,:] = [ 7. 11. 93. 104.]
506 cord_individual_obj[indivial_i,:] = [ 8. 8. 43. 51.]
507 cord_individual_obj[indivial_i,:] = [ 9. 9. 73. 82.]
508 cord_individual_obj[indivial_i,:] = [ 10. 8. 118. 126.]
509 cord_individual_obj[indivial_i,:] = [ 11. 7. 149. 156.]
510 cord_individual_obj[indivial_i,:] = [ 12. 9. 91. 100.]
511 cord_individual_obj[indivial_i,:] = [ 13. 10. 108. 118.]
512 cord_individual_obj[indivial_i,:] = [ 14. 9. 82. 91.]
513 cord_individual_obj[indivial_i,:] = [ 15. 9. 107. 116.]
514 cord_individual_obj[indivial_i,:] = [ 16. 8. 109. 117.]
515 cord_individual_obj[indivial_i,:] = [ 17. 8. 119. 127.]
516 cord_individual_obj[indivial_i,:] = [ 18. 7. 78. 85.]
517 cord_individual_obj[indivial_i,:] = [ 19. 7. 104. 111.]
518 cord_individual_obj[indivial_i,:] = [ 20. 8. 106. 114.]
519 cord_individual_obj[indivial_i,:] = [ 21. 9. 113. 122.]
520 cord_individual_obj[indivial_i,:] = [ 22. 6. 113. 119.]
521 cord_individual_obj[indivial_i,:] = [ 23. 8. 116. 124.]
522 cord_individual_obj[indivial_i,:] = [ 24. 8. 102. 110.]
523
524 min(cord_individual_obj[:, 3]) = 51.0
525 histol_G_best_iter[iter, 3] = 51.0
526 Begin iteration:
527
528 iter = 16
529 cord_individual_obj[indivial_i,:] = [ 0. 9. 95. 104.]
530 cord_individual_obj[indivial_i,:] = [ 1. 8. 170. 178.]
531 cord_individual_obj[indivial_i,:] = [ 2. 9. 93. 102.]
532 cord_individual_obj[indivial_i,:] = [ 3. 8. 95. 103.]
533 cord_individual_obj[indivial_i,:] = [ 4. 8. 86. 94.]
534 cord_individual_obj[indivial_i,:] = [ 5. 8. 71. 79.]
535 cord_individual_obj[indivial_i,:] = [ 6. 7. 97. 104.]
536 cord_individual_obj[indivial_i,:] = [ 7. 7. 140. 147.]
537 cord_individual_obj[indivial_i,:] = [ 8. 8. 150. 158.]
538 cord_individual_obj[indivial_i,:] = [ 9. 7. 110. 117.]
539 cord_individual_obj[indivial_i,:] = [ 10. 8. 95. 103.]
540 cord_individual_obj[indivial_i,:] = [ 11. 8. 43. 51.]
541 cord_individual_obj[indivial_i,:] = [ 12. 8. 103. 111.]
542 cord_individual_obj[indivial_i,:] = [ 13. 8. 94. 102.]
543 cord_individual_obj[indivial_i,:] = [ 14. 8. 103. 111.]
544 cord_individual_obj[indivial_i,:] = [ 15. 8. 73. 81.]
545 cord_individual_obj[indivial_i,:] = [ 16. 8. 87. 95.]
546 cord_individual_obj[indivial_i,:] = [ 17. 7. 130. 137.]
547 cord_individual_obj[indivial_i,:] = [ 18. 8. 87. 95.]
548 cord_individual_obj[indivial_i,:] = [ 19. 7. 64. 71.]
549 cord_individual_obj[indivial_i,:] = [ 20. 9. 88. 97.]
550 cord_individual_obj[indivial_i,:] = [ 21. 9. 108. 117.]
551 cord_individual_obj[indivial_i,:] = [ 22. 7. 129. 136.]
552 cord_individual_obj[indivial_i,:] = [ 23. 9. 162. 171.]
553 cord_individual_obj[indivial_i,:] = [ 24. 8. 83. 91.]
554
555 min(cord_individual_obj[:, 3]) = 51.0
556 histol_G_best_iter[iter, 3] = 51.0
557 Begin iteration:
558
559 iter = 17
560 cord_individual_obj[indivial_i,:] = [ 0. 9. 140. 149.]
561 cord_individual_obj[indivial_i,:] = [ 1. 8. 43. 51.]
562 cord_individual_obj[indivial_i,:] = [ 2. 10. 84. 94.]
563 cord_individual_obj[indivial_i,:] = [ 3. 9. 93. 102.]
564 cord_individual_obj[indivial_i,:] = [ 4. 10. 147. 157.]
565 cord_individual_obj[indivial_i,:] = [ 5. 9. 71. 80.]
566 cord_individual_obj[indivial_i,:] = [ 6. 9. 89. 98.]
567 cord_individual_obj[indivial_i,:] = [ 7. 8. 63. 71.]
568 cord_individual_obj[indivial_i,:] = [ 8. 10. 62. 72.]
569 cord_individual_obj[indivial_i,:] = [ 9. 9. 101. 110.]
570 cord_individual_obj[indivial_i,:] = [ 10. 7. 108. 115.]
571 cord_individual_obj[indivial_i,:] = [ 11. 8. 160. 168.]
572 cord_individual_obj[indivial_i,:] = [ 12. 9. 160. 169.]
573 cord_individual_obj[indivial_i,:] = [ 13. 7. 150. 157.]
574 cord_individual_obj[indivial_i,:] = [ 14. 11. 163. 174.]
575 cord_individual_obj[indivial_i,:] = [ 15. 8. 89. 97.]
576 cord_individual_obj[indivial_i,:] = [ 16. 8. 131. 139.]
577 cord_individual_obj[indivial_i,:] = [ 17. 11. 121. 132.]
578 cord_individual_obj[indivial_i,:] = [ 18. 7. 114. 121.]
579 cord_individual_obj[indivial_i,:] = [ 19. 8. 69. 77.]
580 cord_individual_obj[indivial_i,:] = [ 20. 7. 63. 70.]
581 cord_individual_obj[indivial_i,:] = [ 21. 9. 104. 113.]
582 cord_individual_obj[indivial_i,:] = [ 22. 11. 132. 143.]
583 cord_individual_obj[indivial_i,:] = [ 23. 8. 127. 135.]

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584     cord_individual_obj[indivial_i, :] = [24. 10. 61. 71.]
585
586     min(cord_individual_obj[:, 3]) = 51.0
587     historl_G_best_iter[iter, 3] = 51.0
588 Begin iteration:
589
590 iter = 18
591     cord_individual_obj[indivial_i, :] = [ 0.  9. 69. 78.]
592     cord_individual_obj[indivial_i, :] = [ 1.  7. 122. 129.]
593     cord_individual_obj[indivial_i, :] = [ 2. 10. 122. 132.]
594     cord_individual_obj[indivial_i, :] = [ 3.  8. 75. 83.]
595     cord_individual_obj[indivial_i, :] = [ 4.  9. 92. 101.]
596     cord_individual_obj[indivial_i, :] = [ 5.  9. 97. 106.]
597     cord_individual_obj[indivial_i, :] = [ 6.  8. 76. 84.]
598     cord_individual_obj[indivial_i, :] = [ 7.  7. 130. 137.]
599     cord_individual_obj[indivial_i, :] = [ 8.  9. 132. 141.]
600     cord_individual_obj[indivial_i, :] = [ 9.  8. 110. 118.]
601     cord_individual_obj[indivial_i, :] = [10.  8. 111. 119.]
602     cord_individual_obj[indivial_i, :] = [11.  8. 77. 85.]
603     cord_individual_obj[indivial_i, :] = [12.  8. 96. 104.]
604     cord_individual_obj[indivial_i, :] = [13.  7. 102. 109.]
605     cord_individual_obj[indivial_i, :] = [14.  8. 43. 51.]
606     cord_individual_obj[indivial_i, :] = [15.  7. 87. 94.]
607     cord_individual_obj[indivial_i, :] = [16.  7. 123. 130.]
608     cord_individual_obj[indivial_i, :] = [17.  8. 89. 97.]
609     cord_individual_obj[indivial_i, :] = [18.  6. 182. 188.]
610     cord_individual_obj[indivial_i, :] = [19.  9. 153. 162.]
611     cord_individual_obj[indivial_i, :] = [20.  7. 108. 115.]
612     cord_individual_obj[indivial_i, :] = [21.  8. 193. 201.]
613     cord_individual_obj[indivial_i, :] = [22.  6. 138. 144.]
614     cord_individual_obj[indivial_i, :] = [23. 11. 79. 90.]
615     cord_individual_obj[indivial_i, :] = [24.  7. 130. 137.]
616
617     min(cord_individual_obj[:, 3]) = 51.0
618     historl_G_best_iter[iter, 3] = 51.0
619 Begin iteration:
620
621 iter = 19
622     cord_individual_obj[indivial_i, :] = [ 0.  9. 108. 117.]
623     cord_individual_obj[indivial_i, :] = [ 1.  7. 76. 83.]
624     cord_individual_obj[indivial_i, :] = [ 2.  8. 127. 135.]
625     cord_individual_obj[indivial_i, :] = [ 3.  9. 118. 127.]
626     cord_individual_obj[indivial_i, :] = [ 4.  8. 78. 86.]
627     cord_individual_obj[indivial_i, :] = [ 5.  9. 87. 96.]
628     cord_individual_obj[indivial_i, :] = [ 6. 10. 136. 146.]
629     cord_individual_obj[indivial_i, :] = [ 7.  7. 129. 136.]
630     cord_individual_obj[indivial_i, :] = [ 8.  9. 116. 125.]
631     cord_individual_obj[indivial_i, :] = [ 9.  9. 131. 140.]
632     cord_individual_obj[indivial_i, :] = [10.  7. 117. 124.]
633     cord_individual_obj[indivial_i, :] = [11.  7. 157. 164.]
634     cord_individual_obj[indivial_i, :] = [12.  8. 141. 149.]
635     cord_individual_obj[indivial_i, :] = [13. 10. 98. 108.]
636     cord_individual_obj[indivial_i, :] = [14.  7. 81. 88.]
637     cord_individual_obj[indivial_i, :] = [15.  7. 106. 113.]
638     cord_individual_obj[indivial_i, :] = [16. 12. 111. 123.]
639     cord_individual_obj[indivial_i, :] = [17.  8. 181. 189.]
640     cord_individual_obj[indivial_i, :] = [18.  7. 134. 141.]
641     cord_individual_obj[indivial_i, :] = [19.  9. 100. 109.]
642     cord_individual_obj[indivial_i, :] = [20.  9. 90. 99.]
643     cord_individual_obj[indivial_i, :] = [21.  8. 43. 51.]
644     cord_individual_obj[indivial_i, :] = [22.  7. 105. 112.]
645     cord_individual_obj[indivial_i, :] = [23.  8. 83. 91.]
646     cord_individual_obj[indivial_i, :] = [24.  9. 115. 124.]
647
648     min(cord_individual_obj[:, 3]) = 51.0
649     historl_G_best_iter[iter, 3] = 51.0
650 Begin iteration:
651
652 iter = 20
653     cord_individual_obj[indivial_i, :] = [ 0.  7. 83. 90.]
654     cord_individual_obj[indivial_i, :] = [ 1.  7. 199. 206.]
655     cord_individual_obj[indivial_i, :] = [ 2.  8. 135. 143.]
656     cord_individual_obj[indivial_i, :] = [ 3.  6. 77. 83.]
657     cord_individual_obj[indivial_i, :] = [ 4.  7. 95. 102.]
658     cord_individual_obj[indivial_i, :] = [ 5.  8. 115. 123.]
659     cord_individual_obj[indivial_i, :] = [ 6.  8. 70. 78.]
660     cord_individual_obj[indivial_i, :] = [ 7.  7. 96. 103.]
661     cord_individual_obj[indivial_i, :] = [ 8.  7. 130. 137.]
662     cord_individual_obj[indivial_i, :] = [ 9.  9. 78. 87.]
663     cord_individual_obj[indivial_i, :] = [10.  9. 103. 112.]
664     cord_individual_obj[indivial_i, :] = [11. 10. 131. 141.]
665     cord_individual_obj[indivial_i, :] = [12.  7. 106. 113.]
666     cord_individual_obj[indivial_i, :] = [13.  8. 84. 92.]
667     cord_individual_obj[indivial_i, :] = [14.  8. 111. 119.]

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668 cord_individual_obj[indivial_i,:] = [ 15. 7. 97. 104.]
669 cord_individual_obj[indivial_i,:] = [ 16. 7. 111. 118.]
670 cord_individual_obj[indivial_i,:] = [17. 8. 43. 51.]
671 cord_individual_obj[indivial_i,:] = [18. 8. 90. 98.]
672 cord_individual_obj[indivial_i,:] = [ 19. 11. 112. 123.]
673 cord_individual_obj[indivial_i,:] = [ 20. 6. 105. 111.]
674 cord_individual_obj[indivial_i,:] = [ 21. 9. 103. 112.]
675 cord_individual_obj[indivial_i,:] = [ 22. 6. 124. 130.]
676 cord_individual_obj[indivial_i,:] = [23. 8. 90. 98.]
677 cord_individual_obj[indivial_i,:] = [ 24. 6. 112. 118.]
678
679 min(cord_individual_obj[:, 3]) = 51.0
680 historl_G_best_iter[iter, 3] = 51.0
681 Iteration calculate over
682
683
684
685
686 All item are in Bin and:
687 Bin area = 1080
688 Real_area = 166.0
689 Proportion_of_area = 0.1537037037037037
690 BEST_CHROM =
691 berth: [11. 5. 4. 17. 1.5 3.5 4.5 10.5 1.5 22. 13.5 19.5 23.5 24.5
692 17.5 9. ]
693 time: [2. 5. 2. 0. 0. 4. 0. 0. 5. 0. 5. 6. 2. 4. 4. 4.]
694 num_QC: [2. 2. 2. 3. 3. 5. 3. 6. 1. 2. 2. 4. 4. 2. 4. 3.]
695 Objective function values and some other indicators:
696 Obj0 = 8.00          Obj1 = 43.00          Obj0 + Obj1 = 51.00
697 Total movement of crane: 0.00
698 Total waiting time in berth position: 43.00
699 Total index of q during berthing: 811.00
700 Specific arrangement for each vessel:
701 V_id: 0      li: 6.0           xi: 11.0       bow of i: 8.0           tail of i: 14.0           gama_i0: 2.0           gama_i1: 3
702 .0          gama_i1 + 1: 4.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 80.0           work
703 load_i: 80.0          work load gap_i: 0
704 V_id: 1      li: 4.0           xi: 5.0        bow of i: 3.0           tail of i: 7.0           gama_i0: 5.0           gama_i1: 8.0
705 .0          gama_i1 + 1: 9.0   gama_i1 - gama_i0: 3.0           duration_time_i: 4.0           demand_i: 160.0          work load_i:
706 160.0          work load gap_i: 0
707 V_id: 2      li: 8.0           xi: 4.0        bow of i: 0.0           tail of i: 8.0           gama_i0: 2.0           gama_i1: 3.0
708 .0          gama_i1 + 1: 4.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 60.0           work load_i:
709 60.0          work load gap_i: 0
710 V_id: 3      li: 4.0           xi: 17.0       bow of i: 15.0          tail of i: 19.0           gama_i0: 0.0           gama_i1: 2
711 .0          gama_i1 + 1: 3.0   gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 160.0           work
712 load_i: 160.0          work load gap_i: 0
713 V_id: 4      li: 3.0           xi: 1.5        bow of i: 0.0           tail of i: 3.0           gama_i0: 0.0           gama_i1: 1.0
714 .0          gama_i1 + 1: 2.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 100.0          work load_i:
715 100.0          work load gap_i: 0
716 V_id: 5      li: 7.0           xi: 3.5        bow of i: 0.0           tail of i: 7.0           gama_i0: 4.0           gama_i1: 4.0
717 .0          gama_i1 + 1: 5.0   gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 80.0           work load_i:
718 80.0          work load gap_i: 0
719 V_id: 6      li: 3.0           xi: 4.5        bow of i: 3.0           tail of i: 6.0           gama_i0: 0.0           gama_i1: 0.0
720 .0          gama_i1 + 1: 1.0   gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 60.0           work load_i:
721 60.0          work load gap_i: 0
722 V_id: 7      li: 9.0           xi: 10.5       bow of i: 6.0           tail of i: 15.0           gama_i0: 0.0           gama_i1: 1
723 .0          gama_i1 + 1: 2.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 140.0           work
724 load_i: 140.0          work load gap_i: 0
725 V_id: 8      li: 3.0           xi: 1.5        bow of i: 0.0           tail of i: 3.0           gama_i0: 5.0           gama_i1: 8.0
726 .0          gama_i1 + 1: 9.0   gama_i1 - gama_i0: 3.0           duration_time_i: 4.0           demand_i: 80.0           work load_i:
727 80.0          work load gap_i: 0
728 V_id: 9      li: 6.0           xi: 22.0       bow of i: 19.0          tail of i: 25.0           gama_i0: 0.0           gama_i1: 1
729 .0          gama_i1 + 1: 2.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 60.0           work
730 load_i: 60.0          work load gap_i: 0
731 V_id: 10     li: 5.0           xi: 13.5       bow of i: 11.0          tail of i: 16.0           gama_i0: 5.0           gama_i1: 1
732 .0          gama_i1 + 1: 8.0   gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 120.0          work
733 load_i: 120.0          work load gap_i: 0
734 V_id: 11     li: 7.0           xi: 19.5       bow of i: 16.0          tail of i: 23.0           gama_i0: 6.0           gama_i1: 1
735 .0          gama_i1 + 1: 7.0   gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 80.0           work
736 load_i: 80.0          work load gap_i: 0
737 V_id: 12     li: 9.0           xi: 23.5       bow of i: 19.0          tail of i: 28.0           gama_i0: 2.0           gama_i1: 1
738 .0          gama_i1 + 1: 4.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 140.0          work
739 load_i: 140.0          work load gap_i: 0
740 V_id: 13     li: 7.0           xi: 24.5       bow of i: 21.0          tail of i: 28.0           gama_i0: 4.0           gama_i1: 1
741 .0          gama_i1 + 1: 6.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 80.0           work
742 load_i: 80.0          work load gap_i: 0
743 V_id: 14     li: 7.0           xi: 17.5       bow of i: 14.0          tail of i: 21.0           gama_i0: 4.0           gama_i1: 1
744 .0          gama_i1 + 1: 5.0   gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 80.0           work
745 load_i: 80.0          work load gap_i: 0
746 V_id: 15     li: 4.0           xi: 9.0        bow of i: 7.0           tail of i: 11.0           gama_i0: 4.0           gama_i1: 6
747 .0          gama_i1 + 1: 7.0   gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 140.0           work
748 load_i: 140.0          work load gap_i: 0
749
750 Algorithm finished and the total CPU time: 478 s
751 End

```