

unknown

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80 cord_individual_obj[indivial_i,:] = [ 16. 9. 129. 138.]
81 cord_individual_obj[indivial_i,:] = [17. 9. 82. 91.]
82 cord_individual_obj[indivial_i,:] = [ 18. 9. 125. 134.]
83 cord_individual_obj[indivial_i,:] = [ 19. 9. 127. 136.]
84 cord_individual_obj[indivial_i,:] = [ 20. 8. 122. 130.]
85 cord_individual_obj[indivial_i,:] = [ 21. 8. 123. 131.]
86 cord_individual_obj[indivial_i,:] = [ 22. 9. 116. 125.]
87 cord_individual_obj[indivial_i,:] = [ 23. 8. 160. 168.]
88 cord_individual_obj[indivial_i,:] = [ 24. 7. 174. 181.]
89
90 min(cord_individual_obj[:,3]) = 70.0
91 historl_G_best_iter[iter, 3] = 70.0
92 Begin iteration:
93
94 iter = 2
95 cord_individual_obj[indivial_i,:] = [ 0. 7. 106. 113.]
96 cord_individual_obj[indivial_i,:] = [ 1. 7. 105. 112.]
97 cord_individual_obj[indivial_i,:] = [ 2. 9. 150. 159.]
98 cord_individual_obj[indivial_i,:] = [ 3. 9. 117. 126.]
99 cord_individual_obj[indivial_i,:] = [ 4. 9. 168. 177.]
100 cord_individual_obj[indivial_i,:] = [ 5. 7. 118. 125.]
101 cord_individual_obj[indivial_i,:] = [ 6. 7. 120. 127.]
102 cord_individual_obj[indivial_i,:] = [ 7. 10. 133. 143.]
103 cord_individual_obj[indivial_i,:] = [ 8. 9. 136. 145.]
104 cord_individual_obj[indivial_i,:] = [ 9. 9. 80. 89.]
105 cord_individual_obj[indivial_i,:] = [10. 9. 82. 91.]
106 cord_individual_obj[indivial_i,:] = [11. 7. 108. 115.]
107 cord_individual_obj[indivial_i,:] = [12. 9. 116. 125.]
108 cord_individual_obj[indivial_i,:] = [13. 9. 115. 124.]
109 cord_individual_obj[indivial_i,:] = [14. 8. 116. 124.]
110 cord_individual_obj[indivial_i,:] = [15. 8. 157. 165.]
111 cord_individual_obj[indivial_i,:] = [16. 10. 109. 119.]
112 cord_individual_obj[indivial_i,:] = [17. 9. 95. 104.]
113 cord_individual_obj[indivial_i,:] = [18. 7. 148. 155.]
114 cord_individual_obj[indivial_i,:] = [19. 7. 118. 125.]
115 cord_individual_obj[indivial_i,:] = [20. 8. 90. 98.]
116 cord_individual_obj[indivial_i,:] = [21. 9. 120. 129.]
117 cord_individual_obj[indivial_i,:] = [22. 10. 65. 75.]
118 cord_individual_obj[indivial_i,:] = [23. 7. 95. 102.]
119 cord_individual_obj[indivial_i,:] = [24. 6. 64. 70.]
120
121 min(cord_individual_obj[:,3]) = 70.0
122 historl_G_best_iter[iter, 3] = 70.0
123 Begin iteration:
124
125 iter = 3
126 cord_individual_obj[indivial_i,:] = [ 0. 8. 145. 153.]
127 cord_individual_obj[indivial_i,:] = [ 1. 10. 139. 149.]
128 cord_individual_obj[indivial_i,:] = [ 2. 9. 78. 87.]
129 cord_individual_obj[indivial_i,:] = [ 3. 7. 71. 78.]
130 cord_individual_obj[indivial_i,:] = [ 4. 6. 64. 70.]
131 cord_individual_obj[indivial_i,:] = [ 5. 10. 102. 112.]
132 cord_individual_obj[indivial_i,:] = [ 6. 7. 106. 113.]
133 cord_individual_obj[indivial_i,:] = [ 7. 7. 98. 105.]
134 cord_individual_obj[indivial_i,:] = [ 8. 9. 120. 129.]
135 cord_individual_obj[indivial_i,:] = [ 9. 8. 76. 84.]
136 cord_individual_obj[indivial_i,:] = [10. 8. 134. 142.]
137 cord_individual_obj[indivial_i,:] = [11. 7. 105. 112.]
138 cord_individual_obj[indivial_i,:] = [12. 8. 89. 97.]
139 cord_individual_obj[indivial_i,:] = [13. 8. 99. 107.]
140 cord_individual_obj[indivial_i,:] = [14. 8. 157. 165.]
141 cord_individual_obj[indivial_i,:] = [15. 8. 88. 96.]
142 cord_individual_obj[indivial_i,:] = [16. 8. 153. 161.]
143 cord_individual_obj[indivial_i,:] = [17. 9. 147. 156.]
144 cord_individual_obj[indivial_i,:] = [18. 7. 136. 143.]
145 cord_individual_obj[indivial_i,:] = [19. 8. 84. 92.]
146 cord_individual_obj[indivial_i,:] = [20. 9. 114. 123.]
147 cord_individual_obj[indivial_i,:] = [21. 10. 82. 92.]
148 cord_individual_obj[indivial_i,:] = [22. 12. 82. 94.]
149 cord_individual_obj[indivial_i,:] = [23. 7. 110. 117.]
150 cord_individual_obj[indivial_i,:] = [24. 7. 98. 105.]
151
152 min(cord_individual_obj[:,3]) = 70.0
153 historl_G_best_iter[iter, 3] = 70.0
154 Begin iteration:
155
156 iter = 4
157 cord_individual_obj[indivial_i,:] = [ 0. 8. 116. 124.]
158 cord_individual_obj[indivial_i,:] = [ 1. 9. 114. 123.]
159 cord_individual_obj[indivial_i,:] = [ 2. 7. 125. 132.]
160 cord_individual_obj[indivial_i,:] = [ 3. 8. 106. 114.]
161 cord_individual_obj[indivial_i,:] = [ 4. 8. 97. 105.]
162 cord_individual_obj[indivial_i,:] = [ 5. 7. 138. 145.]
163 cord_individual_obj[indivial_i,:] = [ 6. 7. 146. 153.]

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164 cord_individual_obj[indivial_i,:] = [ 7. 7. 112. 119.]
165 cord_individual_obj[indivial_i,:] = [ 8. 7. 118. 125.]
166 cord_individual_obj[indivial_i,:] = [ 9. 9. 122. 131.]
167 cord_individual_obj[indivial_i,:] = [10. 8. 101. 109.]
168 cord_individual_obj[indivial_i,:] = [11. 7. 108. 115.]
169 cord_individual_obj[indivial_i,:] = [12. 8. 82. 90.]
170 cord_individual_obj[indivial_i,:] = [13. 7. 82. 89.]
171 cord_individual_obj[indivial_i,:] = [14. 6. 64. 70.]
172 cord_individual_obj[indivial_i,:] = [15. 7. 86. 93.]
173 cord_individual_obj[indivial_i,:] = [16. 8. 73. 81.]
174 cord_individual_obj[indivial_i,:] = [17. 8. 121. 129.]
175 cord_individual_obj[indivial_i,:] = [18. 7. 102. 109.]
176 cord_individual_obj[indivial_i,:] = [19. 7. 120. 127.]
177 cord_individual_obj[indivial_i,:] = [20. 7. 103. 110.]
178 cord_individual_obj[indivial_i,:] = [21. 7. 79. 86.]
179 cord_individual_obj[indivial_i,:] = [22. 7. 88. 95.]
180 cord_individual_obj[indivial_i,:] = [23. 7. 99. 106.]
181 cord_individual_obj[indivial_i,:] = [24. 8. 137. 145.]
182
183 min(cord_individual_obj[:,3]) = 70.0
184 historl_G_best_iter[iter,3] = 70.0
185 Begin iteration:
186
187 iter = 5
188 cord_individual_obj[indivial_i,:] = [ 0. 8. 105. 113.]
189 cord_individual_obj[indivial_i,:] = [ 1. 8. 84. 92.]
190 cord_individual_obj[indivial_i,:] = [ 2. 7. 97. 104.]
191 cord_individual_obj[indivial_i,:] = [ 3. 7. 105. 112.]
192 cord_individual_obj[indivial_i,:] = [ 4. 9. 69. 78.]
193 cord_individual_obj[indivial_i,:] = [ 5. 7. 78. 85.]
194 cord_individual_obj[indivial_i,:] = [ 6. 6. 64. 70.]
195 cord_individual_obj[indivial_i,:] = [ 7. 7. 111. 118.]
196 cord_individual_obj[indivial_i,:] = [ 8. 8. 119. 127.]
197 cord_individual_obj[indivial_i,:] = [ 9. 8. 94. 102.]
198 cord_individual_obj[indivial_i,:] = [10. 7. 100. 107.]
199 cord_individual_obj[indivial_i,:] = [11. 8. 91. 99.]
200 cord_individual_obj[indivial_i,:] = [12. 8. 114. 122.]
201 cord_individual_obj[indivial_i,:] = [13. 8. 116. 124.]
202 cord_individual_obj[indivial_i,:] = [14. 7. 119. 126.]
203 cord_individual_obj[indivial_i,:] = [15. 8. 115. 123.]
204 cord_individual_obj[indivial_i,:] = [16. 8. 105. 113.]
205 cord_individual_obj[indivial_i,:] = [17. 8. 167. 175.]
206 cord_individual_obj[indivial_i,:] = [18. 7. 143. 150.]
207 cord_individual_obj[indivial_i,:] = [19. 7. 79. 86.]
208 cord_individual_obj[indivial_i,:] = [20. 7. 106. 113.]
209 cord_individual_obj[indivial_i,:] = [21. 9. 92. 101.]
210 cord_individual_obj[indivial_i,:] = [22. 8. 94. 102.]
211 cord_individual_obj[indivial_i,:] = [23. 6. 102. 108.]
212 cord_individual_obj[indivial_i,:] = [24. 8. 93. 101.]
213
214 min(cord_individual_obj[:,3]) = 70.0
215 historl_G_best_iter[iter,3] = 70.0
216 Begin iteration:
217
218 iter = 6
219 cord_individual_obj[indivial_i,:] = [ 0. 8. 115. 123.]
220 cord_individual_obj[indivial_i,:] = [ 1. 8. 102. 110.]
221 cord_individual_obj[indivial_i,:] = [ 2. 10. 108. 118.]
222 cord_individual_obj[indivial_i,:] = [ 3. 6. 126. 132.]
223 cord_individual_obj[indivial_i,:] = [ 4. 7. 94. 101.]
224 cord_individual_obj[indivial_i,:] = [ 5. 9. 100. 109.]
225 cord_individual_obj[indivial_i,:] = [ 6. 9. 171. 180.]
226 cord_individual_obj[indivial_i,:] = [ 7. 7. 101. 108.]
227 cord_individual_obj[indivial_i,:] = [ 8. 7. 72. 79.]
228 cord_individual_obj[indivial_i,:] = [ 9. 9. 97. 106.]
229 cord_individual_obj[indivial_i,:] = [10. 8. 101. 109.]
230 cord_individual_obj[indivial_i,:] = [11. 7. 113. 120.]
231 cord_individual_obj[indivial_i,:] = [12. 9. 56. 65.]
232 cord_individual_obj[indivial_i,:] = [13. 9. 83. 92.]
233 cord_individual_obj[indivial_i,:] = [14. 10. 51. 61.]
234 cord_individual_obj[indivial_i,:] = [15. 9. 111. 120.]
235 cord_individual_obj[indivial_i,:] = [16. 8. 137. 145.]
236 cord_individual_obj[indivial_i,:] = [17. 6. 64. 70.]
237 cord_individual_obj[indivial_i,:] = [18. 8. 118. 126.]
238 cord_individual_obj[indivial_i,:] = [19. 7. 125. 132.]
239 cord_individual_obj[indivial_i,:] = [20. 7. 100. 107.]
240 cord_individual_obj[indivial_i,:] = [21. 11. 87. 98.]
241 cord_individual_obj[indivial_i,:] = [22. 8. 91. 99.]
242 cord_individual_obj[indivial_i,:] = [23. 7. 77. 84.]
243 cord_individual_obj[indivial_i,:] = [24. 8. 115. 123.]
244
245 min(cord_individual_obj[:,3]) = 61.0
246 historl_G_best_iter[iter,3] = 61.0
247 Begin iteration:

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248
249 iter = 7
250 cord_individual_obj[indivial_i, :] = [ 0. 8. 128. 136.]
251 cord_individual_obj[indivial_i, :] = [ 1. 8. 76. 84.]
252 cord_individual_obj[indivial_i, :] = [ 2. 8. 83. 91.]
253 cord_individual_obj[indivial_i, :] = [ 3. 8. 117. 125.]
254 cord_individual_obj[indivial_i, :] = [ 4. 9. 136. 145.]
255 cord_individual_obj[indivial_i, :] = [ 5. 9. 74. 83.]
256 cord_individual_obj[indivial_i, :] = [ 6. 10. 51. 61.]
257 cord_individual_obj[indivial_i, :] = [ 7. 8. 129. 137.]
258 cord_individual_obj[indivial_i, :] = [ 8. 8. 93. 101.]
259 cord_individual_obj[indivial_i, :] = [ 9. 10. 97. 107.]
260 cord_individual_obj[indivial_i, :] = [10. 7. 82. 89.]
261 cord_individual_obj[indivial_i, :] = [11. 7. 128. 135.]
262 cord_individual_obj[indivial_i, :] = [12. 7. 73. 80.]
263 cord_individual_obj[indivial_i, :] = [13. 8. 91. 99.]
264 cord_individual_obj[indivial_i, :] = [14. 9. 105. 114.]
265 cord_individual_obj[indivial_i, :] = [15. 8. 110. 118.]
266 cord_individual_obj[indivial_i, :] = [16. 6. 144. 150.]
267 cord_individual_obj[indivial_i, :] = [17. 9. 95. 104.]
268 cord_individual_obj[indivial_i, :] = [18. 7. 84. 91.]
269 cord_individual_obj[indivial_i, :] = [19. 7. 71. 78.]
270 cord_individual_obj[indivial_i, :] = [20. 9. 136. 145.]
271 cord_individual_obj[indivial_i, :] = [21. 8. 107. 115.]
272 cord_individual_obj[indivial_i, :] = [22. 12. 82. 94.]
273 cord_individual_obj[indivial_i, :] = [23. 7. 87. 94.]
274 cord_individual_obj[indivial_i, :] = [24. 8. 96. 104.]
275

276 min(cord_individual_obj[:, 3]) = 61.0
277 historl_G_best_iter[iter, 3] = 61.0
278 Begin iteration:
279
280 iter = 8
281 cord_individual_obj[indivial_i, :] = [ 0. 10. 131. 141.]
282 cord_individual_obj[indivial_i, :] = [ 1. 9. 103. 112.]
283 cord_individual_obj[indivial_i, :] = [ 2. 10. 128. 138.]
284 cord_individual_obj[indivial_i, :] = [ 3. 7. 92. 99.]
285 cord_individual_obj[indivial_i, :] = [ 4. 10. 67. 77.]
286 cord_individual_obj[indivial_i, :] = [ 5. 8. 136. 144.]
287 cord_individual_obj[indivial_i, :] = [ 6. 8. 132. 140.]
288 cord_individual_obj[indivial_i, :] = [ 7. 8. 106. 114.]
289 cord_individual_obj[indivial_i, :] = [ 8. 9. 109. 118.]
290 cord_individual_obj[indivial_i, :] = [ 9. 10. 91. 101.]
291 cord_individual_obj[indivial_i, :] = [10. 10. 107. 117.]
292 cord_individual_obj[indivial_i, :] = [11. 8. 67. 75.]
293 cord_individual_obj[indivial_i, :] = [12. 10. 189. 199.]
294 cord_individual_obj[indivial_i, :] = [13. 9. 127. 136.]
295 cord_individual_obj[indivial_i, :] = [14. 10. 130. 140.]
296 cord_individual_obj[indivial_i, :] = [15. 8. 107. 115.]
297 cord_individual_obj[indivial_i, :] = [16. 10. 51. 61.]
298 cord_individual_obj[indivial_i, :] = [17. 9. 108. 117.]
299 cord_individual_obj[indivial_i, :] = [18. 9. 69. 78.]
300 cord_individual_obj[indivial_i, :] = [19. 8. 113. 121.]
301 cord_individual_obj[indivial_i, :] = [20. 9. 71. 80.]
302 cord_individual_obj[indivial_i, :] = [21. 9. 102. 111.]
303 cord_individual_obj[indivial_i, :] = [22. 10. 78. 88.]
304 cord_individual_obj[indivial_i, :] = [23. 8. 139. 147.]
305 cord_individual_obj[indivial_i, :] = [24. 8. 85. 93.]
306

307 min(cord_individual_obj[:, 3]) = 61.0
308 historl_G_best_iter[iter, 3] = 61.0
309 Begin iteration:
310
311 iter = 9
312 cord_individual_obj[indivial_i, :] = [ 0. 9. 143. 152.]
313 cord_individual_obj[indivial_i, :] = [ 1. 8. 120. 128.]
314 cord_individual_obj[indivial_i, :] = [ 2. 9. 132. 141.]
315 cord_individual_obj[indivial_i, :] = [ 3. 9. 103. 112.]
316 cord_individual_obj[indivial_i, :] = [ 4. 9. 81. 90.]
317 cord_individual_obj[indivial_i, :] = [ 5. 10. 105. 115.]
318 cord_individual_obj[indivial_i, :] = [ 6. 9. 104. 113.]
319 cord_individual_obj[indivial_i, :] = [ 7. 7. 97. 104.]
320 cord_individual_obj[indivial_i, :] = [ 8. 8. 118. 126.]
321 cord_individual_obj[indivial_i, :] = [ 9. 9. 85. 94.]
322 cord_individual_obj[indivial_i, :] = [10. 10. 83. 93.]
323 cord_individual_obj[indivial_i, :] = [11. 8. 62. 70.]
324 cord_individual_obj[indivial_i, :] = [12. 10. 51. 61.]
325 cord_individual_obj[indivial_i, :] = [13. 8. 129. 137.]
326 cord_individual_obj[indivial_i, :] = [14. 9. 106. 115.]
327 cord_individual_obj[indivial_i, :] = [15. 10. 170. 180.]
328 cord_individual_obj[indivial_i, :] = [16. 9. 80. 89.]
329 cord_individual_obj[indivial_i, :] = [17. 7. 135. 142.]
330 cord_individual_obj[indivial_i, :] = [18. 11. 98. 109.]
331 cord_individual_obj[indivial_i, :] = [19. 8. 90. 98.]

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332     cord_individual_obj[indivial_i, :] = [ 20.  9. 94. 103.]
333     cord_individual_obj[indivial_i, :] = [ 21.  9. 162. 171.]
334     cord_individual_obj[indivial_i, :] = [ 22.  8. 117. 125.]
335     cord_individual_obj[indivial_i, :] = [ 23.  8. 160. 168.]
336     cord_individual_obj[indivial_i, :] = [ 24. 10. 125. 135.]
337
338 min(cord_individual_obj[:, 3]) = 61.0
339 histol_G_best_iter[iter, 3] = 61.0
340 Begin iteration:
341
342 iter = 10
343     cord_individual_obj[indivial_i, :] = [ 0.  8. 121. 129.]
344     cord_individual_obj[indivial_i, :] = [ 1. 11. 84. 95.]
345     cord_individual_obj[indivial_i, :] = [ 2.  9. 135. 144.]
346     cord_individual_obj[indivial_i, :] = [ 3.  8. 101. 109.]
347     cord_individual_obj[indivial_i, :] = [ 4. 10. 124. 134.]
348     cord_individual_obj[indivial_i, :] = [ 5. 11. 151. 162.]
349     cord_individual_obj[indivial_i, :] = [ 6.  9. 74. 83.]
350     cord_individual_obj[indivial_i, :] = [ 7.  9. 105. 114.]
351     cord_individual_obj[indivial_i, :] = [ 8.  9. 162. 171.]
352     cord_individual_obj[indivial_i, :] = [ 9. 11. 102. 113.]
353     cord_individual_obj[indivial_i, :] = [10.  9. 105. 114.]
354     cord_individual_obj[indivial_i, :] = [11.  7. 123. 130.]
355     cord_individual_obj[indivial_i, :] = [12. 10. 214. 224.]
356     cord_individual_obj[indivial_i, :] = [13. 11. 75. 86.]
357     cord_individual_obj[indivial_i, :] = [14.  8. 98. 106.]
358     cord_individual_obj[indivial_i, :] = [15. 10. 51. 61.]
359     cord_individual_obj[indivial_i, :] = [16.  7. 128. 135.]
360     cord_individual_obj[indivial_i, :] = [17.  8. 104. 112.]
361     cord_individual_obj[indivial_i, :] = [18.  9. 75. 84.]
362     cord_individual_obj[indivial_i, :] = [19.  7. 48. 55.]
363     cord_individual_obj[indivial_i, :] = [20.  8. 132. 140.]
364     cord_individual_obj[indivial_i, :] = [21.  9. 126. 135.]
365     cord_individual_obj[indivial_i, :] = [22. 10. 117. 127.]
366     cord_individual_obj[indivial_i, :] = [23.  8. 129. 137.]
367     cord_individual_obj[indivial_i, :] = [24.  9. 126. 135.]
368
369 min(cord_individual_obj[:, 3]) = 55.0
370 histol_G_best_iter[iter, 3] = 55.0
371 Begin iteration:
372
373 iter = 11
374     cord_individual_obj[indivial_i, :] = [ 0.  8. 97. 105.]
375     cord_individual_obj[indivial_i, :] = [ 1.  8. 161. 169.]
376     cord_individual_obj[indivial_i, :] = [ 2. 10. 136. 146.]
377     cord_individual_obj[indivial_i, :] = [ 3.  9. 114. 123.]
378     cord_individual_obj[indivial_i, :] = [ 4. 8. 150. 158.]
379     cord_individual_obj[indivial_i, :] = [ 5.  6. 85. 91.]
380     cord_individual_obj[indivial_i, :] = [ 6.  7. 53. 60.]
381     cord_individual_obj[indivial_i, :] = [ 7.  7. 155. 162.]
382     cord_individual_obj[indivial_i, :] = [ 8.  8. 157. 165.]
383     cord_individual_obj[indivial_i, :] = [ 9.  8. 129. 137.]
384     cord_individual_obj[indivial_i, :] = [10. 10. 100. 110.]
385     cord_individual_obj[indivial_i, :] = [11.  9. 85. 94.]
386     cord_individual_obj[indivial_i, :] = [12.  7. 48. 55.]
387     cord_individual_obj[indivial_i, :] = [13. 10. 90. 100.]
388     cord_individual_obj[indivial_i, :] = [14.  8. 132. 140.]
389     cord_individual_obj[indivial_i, :] = [15.  9. 100. 109.]
390     cord_individual_obj[indivial_i, :] = [16.  8. 75. 83.]
391     cord_individual_obj[indivial_i, :] = [17.  9. 109. 118.]
392     cord_individual_obj[indivial_i, :] = [18.  8. 92. 100.]
393     cord_individual_obj[indivial_i, :] = [19.  7. 101. 108.]
394     cord_individual_obj[indivial_i, :] = [20.  7. 149. 156.]
395     cord_individual_obj[indivial_i, :] = [21.  9. 127. 136.]
396     cord_individual_obj[indivial_i, :] = [22.  9. 83. 92.]
397     cord_individual_obj[indivial_i, :] = [23.  9. 112. 121.]
398     cord_individual_obj[indivial_i, :] = [24.  9. 89. 98.]
399
400 min(cord_individual_obj[:, 3]) = 55.0
401 histol_G_best_iter[iter, 3] = 55.0
402 Begin iteration:
403
404 iter = 12
405     cord_individual_obj[indivial_i, :] = [ 0.  8. 91. 99.]
406     cord_individual_obj[indivial_i, :] = [ 1.  7. 48. 55.]
407     cord_individual_obj[indivial_i, :] = [ 2.  9. 121. 130.]
408     cord_individual_obj[indivial_i, :] = [ 3.  7. 138. 145.]
409     cord_individual_obj[indivial_i, :] = [ 4. 10. 80. 90.]
410     cord_individual_obj[indivial_i, :] = [ 5.  8. 58. 66.]
411     cord_individual_obj[indivial_i, :] = [ 6.  8. 64. 72.]
412     cord_individual_obj[indivial_i, :] = [ 7. 10. 105. 115.]
413     cord_individual_obj[indivial_i, :] = [ 8.  9. 123. 132.]
414     cord_individual_obj[indivial_i, :] = [ 9.  7. 83. 90.]
415     cord_individual_obj[indivial_i, :] = [10.  9. 144. 153.]

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416 cord_individual_obj[indivial_i,:] = [ 11. 8. 141. 149.]
417 cord_individual_obj[indivial_i,:] = [12. 7. 69. 76.]
418 cord_individual_obj[indivial_i,:] = [ 13. 10. 117. 127.]
419 cord_individual_obj[indivial_i,:] = [ 14. 7. 108. 115.]
420 cord_individual_obj[indivial_i,:] = [ 15. 8. 119. 127.]
421 cord_individual_obj[indivial_i,:] = [16. 9. 87. 96.]
422 cord_individual_obj[indivial_i,:] = [ 17. 11. 128. 139.]
423 cord_individual_obj[indivial_i,:] = [ 18. 8. 101. 109.]
424 cord_individual_obj[indivial_i,:] = [ 19. 7. 110. 117.]
425 cord_individual_obj[indivial_i,:] = [20. 9. 70. 79.]
426 cord_individual_obj[indivial_i,:] = [ 21. 8. 127. 135.]
427 cord_individual_obj[indivial_i,:] = [ 22. 11. 108. 119.]
428 cord_individual_obj[indivial_i,:] = [ 23. 8. 127. 135.]
429 cord_individual_obj[indivial_i,:] = [ 24. 9. 96. 105.]
430
431 min(cord_individual_obj[:,3]) = 55.0
432 histol_G_best_iter[iter,3] = 55.0
433 Begin iteration:
434
435 iter = 13
436 cord_individual_obj[indivial_i,:] = [ 0. 8. 131. 139.]
437 cord_individual_obj[indivial_i,:] = [ 1. 8. 110. 118.]
438 cord_individual_obj[indivial_i,:] = [ 2. 8. 132. 140.]
439 cord_individual_obj[indivial_i,:] = [ 3. 9. 94. 103.]
440 cord_individual_obj[indivial_i,:] = [ 4. 10. 74. 84.]
441 cord_individual_obj[indivial_i,:] = [ 5. 8. 77. 85.]
442 cord_individual_obj[indivial_i,:] = [ 6. 8. 99. 107.]
443 cord_individual_obj[indivial_i,:] = [ 7. 9. 103. 112.]
444 cord_individual_obj[indivial_i,:] = [ 8. 8. 126. 134.]
445 cord_individual_obj[indivial_i,:] = [ 9. 11. 84. 95.]
446 cord_individual_obj[indivial_i,:] = [10. 7. 48. 55.]
447 cord_individual_obj[indivial_i,:] = [11. 7. 119. 126.]
448 cord_individual_obj[indivial_i,:] = [12. 8. 83. 91.]
449 cord_individual_obj[indivial_i,:] = [13. 10. 127. 137.]
450 cord_individual_obj[indivial_i,:] = [14. 9. 78. 87.]
451 cord_individual_obj[indivial_i,:] = [15. 8. 126. 134.]
452 cord_individual_obj[indivial_i,:] = [16. 8. 161. 169.]
453 cord_individual_obj[indivial_i,:] = [17. 9. 178. 187.]
454 cord_individual_obj[indivial_i,:] = [18. 9. 120. 129.]
455 cord_individual_obj[indivial_i,:] = [19. 6. 157. 163.]
456 cord_individual_obj[indivial_i,:] = [20. 7. 143. 150.]
457 cord_individual_obj[indivial_i,:] = [21. 9. 129. 138.]
458 cord_individual_obj[indivial_i,:] = [22. 11. 68. 79.]
459 cord_individual_obj[indivial_i,:] = [23. 7. 91. 98.]
460 cord_individual_obj[indivial_i,:] = [ 24. 8. 204. 212.]
461
462 min(cord_individual_obj[:,3]) = 55.0
463 histol_G_best_iter[iter,3] = 55.0
464 Begin iteration:
465
466 iter = 14
467 cord_individual_obj[indivial_i,:] = [ 0. 8. 60. 68.]
468 cord_individual_obj[indivial_i,:] = [ 1. 7. 113. 120.]
469 cord_individual_obj[indivial_i,:] = [ 2. 8. 173. 181.]
470 cord_individual_obj[indivial_i,:] = [ 3. 10. 117. 127.]
471 cord_individual_obj[indivial_i,:] = [ 4. 9. 102. 111.]
472 cord_individual_obj[indivial_i,:] = [ 5. 9. 135. 144.]
473 cord_individual_obj[indivial_i,:] = [ 6. 8. 114. 122.]
474 cord_individual_obj[indivial_i,:] = [ 7. 8. 153. 161.]
475 cord_individual_obj[indivial_i,:] = [ 8. 8. 96. 104.]
476 cord_individual_obj[indivial_i,:] = [ 9. 8. 67. 75.]
477 cord_individual_obj[indivial_i,:] = [10. 9. 146. 155.]
478 cord_individual_obj[indivial_i,:] = [11. 8. 135. 143.]
479 cord_individual_obj[indivial_i,:] = [12. 8. 73. 81.]
480 cord_individual_obj[indivial_i,:] = [13. 9. 105. 114.]
481 cord_individual_obj[indivial_i,:] = [14. 10. 105. 115.]
482 cord_individual_obj[indivial_i,:] = [15. 10. 112. 122.]
483 cord_individual_obj[indivial_i,:] = [16. 8. 115. 123.]
484 cord_individual_obj[indivial_i,:] = [17. 9. 107. 116.]
485 cord_individual_obj[indivial_i,:] = [18. 9. 182. 191.]
486 cord_individual_obj[indivial_i,:] = [19. 7. 97. 104.]
487 cord_individual_obj[indivial_i,:] = [20. 9. 78. 87.]
488 cord_individual_obj[indivial_i,:] = [21. 11. 113. 124.]
489 cord_individual_obj[indivial_i,:] = [22. 10. 85. 95.]
490 cord_individual_obj[indivial_i,:] = [23. 9. 79. 88.]
491 cord_individual_obj[indivial_i,:] = [24. 7. 48. 55.]
492
493 min(cord_individual_obj[:,3]) = 55.0
494 histol_G_best_iter[iter,3] = 55.0
495 Begin iteration:
496
497 iter = 15
498 cord_individual_obj[indivial_i,:] = [ 0. 8. 81. 89.]
499 cord_individual_obj[indivial_i,:] = [ 1. 8. 76. 84.]

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500 cord_individual_obj[indivial_i, :] = [ 2. 8. 132. 140.]
501 cord_individual_obj[indivial_i, :] = [ 3. 9. 119. 128.]
502 cord_individual_obj[indivial_i, :] = [ 4. 10. 93. 103.]
503 cord_individual_obj[indivial_i, :] = [ 5. 8. 135. 143.]
504 cord_individual_obj[indivial_i, :] = [ 6. 8. 79. 87.]
505 cord_individual_obj[indivial_i, :] = [ 7. 8. 113. 121.]
506 cord_individual_obj[indivial_i, :] = [ 8. 8. 91. 99.]
507 cord_individual_obj[indivial_i, :] = [ 9. 9. 91. 100.]
508 cord_individual_obj[indivial_i, :] = [ 10. 10. 103. 113.]
509 cord_individual_obj[indivial_i, :] = [ 11. 6. 111. 117.]
510 cord_individual_obj[indivial_i, :] = [ 12. 8. 106. 114.]
511 cord_individual_obj[indivial_i, :] = [ 13. 10. 142. 152.]
512 cord_individual_obj[indivial_i, :] = [ 14. 10. 112. 122.]
513 cord_individual_obj[indivial_i, :] = [ 15. 8. 116. 124.]
514 cord_individual_obj[indivial_i, :] = [ 16. 8. 143. 151.]
515 cord_individual_obj[indivial_i, :] = [ 17. 8. 156. 164.]
516 cord_individual_obj[indivial_i, :] = [ 18. 7. 48. 55.]
517 cord_individual_obj[indivial_i, :] = [ 19. 8. 78. 86.]
518 cord_individual_obj[indivial_i, :] = [ 20. 8. 73. 81.]
519 cord_individual_obj[indivial_i, :] = [ 21. 8. 49. 57.]
520 cord_individual_obj[indivial_i, :] = [ 22. 10. 50. 60.]
521 cord_individual_obj[indivial_i, :] = [ 23. 8. 138. 146.]
522 cord_individual_obj[indivial_i, :] = [ 24. 8. 204. 212.]
523
524 min(cord_individual_obj[:, 3]) = 55.0
525 histol_G_best_iter[iter, 3] = 55.0
526 Begin iteration:
527
528 iter = 16
529 cord_individual_obj[indivial_i, :] = [ 0. 7. 88. 95.]
530 cord_individual_obj[indivial_i, :] = [ 1. 10. 73. 83.]
531 cord_individual_obj[indivial_i, :] = [ 2. 9. 83. 92.]
532 cord_individual_obj[indivial_i, :] = [ 3. 8. 83. 91.]
533 cord_individual_obj[indivial_i, :] = [ 4. 9. 98. 107.]
534 cord_individual_obj[indivial_i, :] = [ 5. 9. 85. 94.]
535 cord_individual_obj[indivial_i, :] = [ 6. 8. 102. 110.]
536 cord_individual_obj[indivial_i, :] = [ 7. 9. 79. 88.]
537 cord_individual_obj[indivial_i, :] = [ 8. 9. 102. 111.]
538 cord_individual_obj[indivial_i, :] = [ 9. 7. 118. 125.]
539 cord_individual_obj[indivial_i, :] = [ 10. 9. 96. 105.]
540 cord_individual_obj[indivial_i, :] = [ 11. 8. 92. 100.]
541 cord_individual_obj[indivial_i, :] = [ 12. 7. 150. 157.]
542 cord_individual_obj[indivial_i, :] = [ 13. 10. 113. 123.]
543 cord_individual_obj[indivial_i, :] = [ 14. 9. 125. 134.]
544 cord_individual_obj[indivial_i, :] = [ 15. 8. 62. 70.]
545 cord_individual_obj[indivial_i, :] = [ 16. 9. 89. 98.]
546 cord_individual_obj[indivial_i, :] = [ 17. 9. 73. 82.]
547 cord_individual_obj[indivial_i, :] = [ 18. 7. 132. 139.]
548 cord_individual_obj[indivial_i, :] = [ 19. 10. 76. 86.]
549 cord_individual_obj[indivial_i, :] = [ 20. 10. 109. 119.]
550 cord_individual_obj[indivial_i, :] = [ 21. 11. 104. 115.]
551 cord_individual_obj[indivial_i, :] = [ 22. 8. 52. 60.]
552 cord_individual_obj[indivial_i, :] = [ 23. 7. 112. 119.]
553 cord_individual_obj[indivial_i, :] = [ 24. 7. 48. 55.]
554
555 min(cord_individual_obj[:, 3]) = 55.0
556 histol_G_best_iter[iter, 3] = 55.0
557 Begin iteration:
558
559 iter = 17
560 cord_individual_obj[indivial_i, :] = [ 0. 9. 98. 107.]
561 cord_individual_obj[indivial_i, :] = [ 1. 9. 95. 104.]
562 cord_individual_obj[indivial_i, :] = [ 2. 8. 63. 71.]
563 cord_individual_obj[indivial_i, :] = [ 3. 7. 92. 99.]
564 cord_individual_obj[indivial_i, :] = [ 4. 9. 117. 126.]
565 cord_individual_obj[indivial_i, :] = [ 5. 7. 64. 71.]
566 cord_individual_obj[indivial_i, :] = [ 6. 9. 80. 89.]
567 cord_individual_obj[indivial_i, :] = [ 7. 9. 94. 103.]
568 cord_individual_obj[indivial_i, :] = [ 8. 8. 124. 132.]
569 cord_individual_obj[indivial_i, :] = [ 9. 8. 103. 111.]
570 cord_individual_obj[indivial_i, :] = [ 10. 12. 112. 124.]
571 cord_individual_obj[indivial_i, :] = [ 11. 7. 85. 92.]
572 cord_individual_obj[indivial_i, :] = [ 12. 7. 48. 55.]
573 cord_individual_obj[indivial_i, :] = [ 13. 10. 111. 121.]
574 cord_individual_obj[indivial_i, :] = [ 14. 10. 116. 126.]
575 cord_individual_obj[indivial_i, :] = [ 15. 9. 123. 132.]
576 cord_individual_obj[indivial_i, :] = [ 16. 9. 115. 124.]
577 cord_individual_obj[indivial_i, :] = [ 17. 9. 83. 92.]
578 cord_individual_obj[indivial_i, :] = [ 18. 7. 102. 109.]
579 cord_individual_obj[indivial_i, :] = [ 19. 10. 103. 113.]
580 cord_individual_obj[indivial_i, :] = [ 20. 8. 130. 138.]
581 cord_individual_obj[indivial_i, :] = [ 21. 8. 97. 105.]
582 cord_individual_obj[indivial_i, :] = [ 22. 9. 79. 88.]
583 cord_individual_obj[indivial_i, :] = [ 23. 7. 91. 98.]

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584     cord_individual_obj[indivial_i, :] = [ 24.  9. 106. 115.]
585
586     min(cord_individual_obj[:, 3]) = 55.0
587     historl_G_best_iter[iter, 3] = 55.0
588 Begin iteration:
589
590 iter = 18
591     cord_individual_obj[indivial_i, :] = [ 0.  8. 95. 103.]
592     cord_individual_obj[indivial_i, :] = [ 1.  7. 128. 135.]
593     cord_individual_obj[indivial_i, :] = [ 2.  7. 42. 49.]
594     cord_individual_obj[indivial_i, :] = [ 3.  6. 77. 83.]
595     cord_individual_obj[indivial_i, :] = [ 4.  10. 93. 103.]
596     cord_individual_obj[indivial_i, :] = [ 5.  9. 61. 70.]
597     cord_individual_obj[indivial_i, :] = [ 6.  8. 87. 95.]
598     cord_individual_obj[indivial_i, :] = [ 7.  7. 88. 95.]
599     cord_individual_obj[indivial_i, :] = [ 8.  7. 103. 110.]
600     cord_individual_obj[indivial_i, :] = [ 9.  8. 85. 93.]
601     cord_individual_obj[indivial_i, :] = [ 10. 10. 121. 131.]
602     cord_individual_obj[indivial_i, :] = [ 11. 8. 119. 127.]
603     cord_individual_obj[indivial_i, :] = [ 12. 9. 71. 80.]
604     cord_individual_obj[indivial_i, :] = [ 13. 11. 148. 159.]
605     cord_individual_obj[indivial_i, :] = [ 14. 8. 110. 118.]
606     cord_individual_obj[indivial_i, :] = [ 15. 8. 107. 115.]
607     cord_individual_obj[indivial_i, :] = [ 16. 7. 51. 58.]
608     cord_individual_obj[indivial_i, :] = [ 17. 12. 64. 76.]
609     cord_individual_obj[indivial_i, :] = [ 18. 6. 92. 98.]
610     cord_individual_obj[indivial_i, :] = [ 19. 7. 78. 85.]
611     cord_individual_obj[indivial_i, :] = [ 20. 7. 48. 55.]
612     cord_individual_obj[indivial_i, :] = [ 21. 9. 71. 80.]
613     cord_individual_obj[indivial_i, :] = [ 22. 7. 81. 88.]
614     cord_individual_obj[indivial_i, :] = [ 23. 6. 82. 88.]
615     cord_individual_obj[indivial_i, :] = [ 24. 9. 82. 91.]
616
617     min(cord_individual_obj[:, 3]) = 49.0
618     historl_G_best_iter[iter, 3] = 49.0
619 Begin iteration:
620
621 iter = 19
622     cord_individual_obj[indivial_i, :] = [ 0.  8. 137. 145.]
623     cord_individual_obj[indivial_i, :] = [ 1. 11. 66. 77.]
624     cord_individual_obj[indivial_i, :] = [ 2.  8. 92. 100.]
625     cord_individual_obj[indivial_i, :] = [ 3.  8. 110. 118.]
626     cord_individual_obj[indivial_i, :] = [ 4. 10. 109. 119.]
627     cord_individual_obj[indivial_i, :] = [ 5.  7. 68. 75.]
628     cord_individual_obj[indivial_i, :] = [ 6.  9. 100. 109.]
629     cord_individual_obj[indivial_i, :] = [ 7.  8. 76. 84.]
630     cord_individual_obj[indivial_i, :] = [ 8.  9. 76. 85.]
631     cord_individual_obj[indivial_i, :] = [ 9. 10. 68. 78.]
632     cord_individual_obj[indivial_i, :] = [ 10. 10. 100. 110.]
633     cord_individual_obj[indivial_i, :] = [ 11. 8. 114. 122.]
634     cord_individual_obj[indivial_i, :] = [ 12. 7. 110. 117.]
635     cord_individual_obj[indivial_i, :] = [ 13. 7. 42. 49.]
636     cord_individual_obj[indivial_i, :] = [ 14. 10. 82. 92.]
637     cord_individual_obj[indivial_i, :] = [ 15. 9. 124. 133.]
638     cord_individual_obj[indivial_i, :] = [ 16. 9. 106. 115.]
639     cord_individual_obj[indivial_i, :] = [ 17. 8. 106. 114.]
640     cord_individual_obj[indivial_i, :] = [ 18. 7. 147. 154.]
641     cord_individual_obj[indivial_i, :] = [ 19. 7. 133. 140.]
642     cord_individual_obj[indivial_i, :] = [ 20. 8. 66. 74.]
643     cord_individual_obj[indivial_i, :] = [ 21. 9. 80. 89.]
644     cord_individual_obj[indivial_i, :] = [ 22. 9. 100. 109.]
645     cord_individual_obj[indivial_i, :] = [ 23. 8. 134. 142.]
646     cord_individual_obj[indivial_i, :] = [ 24. 9. 98. 107.]
647
648     min(cord_individual_obj[:, 3]) = 49.0
649     historl_G_best_iter[iter, 3] = 49.0
650 Begin iteration:
651
652 iter = 20
653     cord_individual_obj[indivial_i, :] = [ 0.  9. 77. 86.]
654     cord_individual_obj[indivial_i, :] = [ 1.  9. 59. 68.]
655     cord_individual_obj[indivial_i, :] = [ 2.  9. 102. 111.]
656     cord_individual_obj[indivial_i, :] = [ 3.  7. 130. 137.]
657     cord_individual_obj[indivial_i, :] = [ 4.  8. 129. 137.]
658     cord_individual_obj[indivial_i, :] = [ 5.  8. 98. 106.]
659     cord_individual_obj[indivial_i, :] = [ 6. 10. 94. 104.]
660     cord_individual_obj[indivial_i, :] = [ 7.  8. 106. 114.]
661     cord_individual_obj[indivial_i, :] = [ 8.  7. 116. 123.]
662     cord_individual_obj[indivial_i, :] = [ 9.  9. 86. 95.]
663     cord_individual_obj[indivial_i, :] = [ 10. 11. 70. 81.]
664     cord_individual_obj[indivial_i, :] = [ 11. 6. 102. 108.]
665     cord_individual_obj[indivial_i, :] = [ 12. 8. 108. 116.]
666     cord_individual_obj[indivial_i, :] = [ 13. 9. 90. 99.]
667     cord_individual_obj[indivial_i, :] = [ 14. 9. 105. 114.]

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668 cord_individual_obj[indivial_i,:] = [ 15. 8. 107. 115.]
669 cord_individual_obj[indivial_i,:] = [16. 8. 56. 64.]
670 cord_individual_obj[indivial_i,:] = [17. 7. 71. 78.]
671 cord_individual_obj[indivial_i,:] = [18. 7. 42. 49.]
672 cord_individual_obj[indivial_i,:] = [19. 8. 90. 98.]
673 cord_individual_obj[indivial_i,:] = [20. 8. 82. 90.]
674 cord_individual_obj[indivial_i,:] = [21. 9. 188. 197.]
675 cord_individual_obj[indivial_i,:] = [22. 7. 84. 91.]
676 cord_individual_obj[indivial_i,:] = [23. 8. 82. 90.]
677 cord_individual_obj[indivial_i,:] = [24. 9. 98. 107.]
678
679 min(cord_individual_obj[:, 3]) = 49.0
680 historl_G_best_iter[iter, 3] = 49.0
681 Iteration calculate over
682
683
684
685
686 All item are in Bin and:
687 Bin area = 1080
688 Real_area = 178.0
689 Proportion_of_area = 0.1648148148148148
690 BEST_CHROM =
691 berth: [12.5 17.5 21. 13. 23.5 17. 4.5 13. 4.5 21.5 20.5 4.5 13. 4.
692 9.5]
693 time: [3. 3. 7. 6. 2. 0. 4. 2. 1. 5. 0. 3. 0. 0. 0.]
694 num_QC: [2. 3. 4. 6. 3. 4. 3. 3. 4. 2. 2. 3. 3. 4. 3.]
695 Objective function values and some other indicators:
696 Obj0 = 7.00          Obj1 = 42.00          Obj0 + Obj1 = 49.00
697 Total movement of crane: 0.00
698 Total waiting time in berth position: 36.00
699 Total index of q during berthing: 863.00
700 Specific arrangement for each vessel:
701 V_id: 0      li: 7.0           xi: 12.5           bow of i: 9.0           tail of i: 16.0           gama_i0: 3.0           gama_i1: 4
702 .0          gama_i1 + 1: 5.0   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: 3.0           xi: 17.5           bow of i: 16.0           tail of i: 19.0           gama_i0: 3.0           gama_i1: 5
705 .0          gama_i1 + 1: 6.0   gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 140.0           work
706 load_i: 140.0          work load gap_i: 0
707 V_id: 2      li: 8.0           xi: 21.0           bow of i: 17.0           tail of i: 25.0           gama_i0: 7.0           gama_i1: 7
708 .0          gama_i1 + 1: 8.0   gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 80.0           work
709 load_i: 80.0          work load gap_i: 0
710 V_id: 3      li: 8.0           xi: 13.0           bow of i: 9.0           tail of i: 17.0           gama_i0: 6.0           gama_i1: 6
711 .0          gama_i1 + 1: 7.0   gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 120.0           work
712 load_i: 120.0          work load gap_i: 0
713 V_id: 4      li: 9.0           xi: 23.5           bow of i: 19.0           tail of i: 28.0           gama_i0: 2.0           gama_i1: 4
714 .0          gama_i1 + 1: 5.0   gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 140.0           work
715 load_i: 140.0          work load gap_i: 0
716 V_id: 5      li: 4.0           xi: 17.0           bow of i: 15.0           tail of i: 19.0           gama_i0: 0.0           gama_i1: 1
717 .0          gama_i1 + 1: 2.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 160.0           work
718 load_i: 160.0          work load gap_i: 0
719 V_id: 6      li: 9.0           xi: 4.5            bow of i: 0.0           tail of i: 9.0           gama_i0: 4.0           gama_i1: 6.0
720 .0          gama_i1 + 1: 7.0   gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 140.0           work load_i:
721 load_i: 140.0          work load gap_i: 0
722 V_id: 7      li: 8.0           xi: 13.0           bow of i: 9.0           tail of i: 17.0           gama_i0: 2.0           gama_i1: 2
723 .0          gama_i1 + 1: 3.0   gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 60.0           work
724 load_i: 60.0          work load gap_i: 0
725 V_id: 8      li: 9.0           xi: 4.5            bow of i: 0.0           tail of i: 9.0           gama_i0: 1.0           gama_i1: 2.0
726 .0          gama_i1 + 1: 3.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 100.0           work load_i:
727 load_i: 100.0          work load gap_i: 0
728 V_id: 9      li: 5.0           xi: 21.5           bow of i: 19.0           tail of i: 24.0           gama_i0: 5.0           gama_i1: 6
729 .0          gama_i1 + 1: 7.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 80.0           work
730 load_i: 80.0          work load gap_i: 0
731 V_id: 10     li: 3.0           xi: 20.5           bow of i: 19.0           tail of i: 22.0           gama_i0: 0.0           gama_i1: 1
732 .0          gama_i1 + 1: 2.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 80.0           work
733 load_i: 80.0          work load gap_i: 0
734 V_id: 11     li: 9.0           xi: 4.5            bow of i: 0.0           tail of i: 9.0           gama_i0: 3.0           gama_i1: 3.0
735 .0          gama_i1 + 1: 4.0   gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 60.0           work load_i:
736 load_i: 60.0          work load gap_i: 0
737 V_id: 12     li: 4.0           xi: 13.0           bow of i: 11.0           tail of i: 15.0           gama_i0: 0.0           gama_i1: 1
738 .0          gama_i1 + 1: 2.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 100.0           work
739 load_i: 100.0          work load gap_i: 0
740 V_id: 13     li: 8.0           xi: 4.0            bow of i: 0.0           tail of i: 8.0           gama_i0: 0.0           gama_i1: 0.0
741 .0          gama_i1 + 1: 1.0   gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 80.0           work load_i:
742 load_i: 80.0          work load gap_i: 0
743 V_id: 14     li: 3.0           xi: 9.5            bow of i: 8.0           tail of i: 11.0           gama_i0: 0.0           gama_i1: 0
744 .0          gama_i1 + 1: 1.0   gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 60.0           work
745 load_i: 60.0          work load gap_i: 0
746
747 Algorithm finished and the total CPU time: 437 s
748 End
749

```