

unknown

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80 cord_individual_obj[indivial_i,:] = [ 16. 9. 164. 173.]
81 cord_individual_obj[indivial_i,:] = [ 17. 7. 148. 155.]
82 cord_individual_obj[indivial_i,:] = [ 18. 10. 108. 118.]
83 cord_individual_obj[indivial_i,:] = [ 19. 7. 112. 119.]
84 cord_individual_obj[indivial_i,:] = [20. 9. 84. 93.]
85 cord_individual_obj[indivial_i,:] = [ 21. 9. 152. 161.]
86 cord_individual_obj[indivial_i,:] = [ 22. 11. 125. 136.]
87 cord_individual_obj[indivial_i,:] = [ 23. 8. 135. 143.]
88 cord_individual_obj[indivial_i,:] = [ 24. 6. 152. 158.]
89
90 min(cord_individual_obj[:,3]) = 68.0
91 historl_G_best_iter[iter, 3] = 68.0
92 Begin iteration:
93
94 iter = 2
95 cord_individual_obj[indivial_i,:] = [ 0. 7. 151. 158.]
96 cord_individual_obj[indivial_i,:] = [ 1. 7. 108. 115.]
97 cord_individual_obj[indivial_i,:] = [ 2. 8. 113. 121.]
98 cord_individual_obj[indivial_i,:] = [ 3. 5. 184. 189.]
99 cord_individual_obj[indivial_i,:] = [ 4. 8. 105. 113.]
100 cord_individual_obj[indivial_i,:] = [ 5. 11. 177. 188.]
101 cord_individual_obj[indivial_i,:] = [ 6. 6. 102. 108.]
102 cord_individual_obj[indivial_i,:] = [ 7. 7. 74. 81.]
103 cord_individual_obj[indivial_i,:] = [ 8. 7. 135. 142.]
104 cord_individual_obj[indivial_i,:] = [ 9. 6. 116. 122.]
105 cord_individual_obj[indivial_i,:] = [10. 10. 134. 144.]
106 cord_individual_obj[indivial_i,:] = [11. 8. 171. 179.]
107 cord_individual_obj[indivial_i,:] = [12. 7. 130. 137.]
108 cord_individual_obj[indivial_i,:] = [13. 7. 61. 68.]
109 cord_individual_obj[indivial_i,:] = [14. 8. 118. 126.]
110 cord_individual_obj[indivial_i,:] = [15. 7. 118. 125.]
111 cord_individual_obj[indivial_i,:] = [16. 7. 102. 109.]
112 cord_individual_obj[indivial_i,:] = [17. 9. 130. 139.]
113 cord_individual_obj[indivial_i,:] = [18. 7. 101. 108.]
114 cord_individual_obj[indivial_i,:] = [19. 8. 170. 178.]
115 cord_individual_obj[indivial_i,:] = [20. 6. 92. 98.]
116 cord_individual_obj[indivial_i,:] = [21. 13. 161. 174.]
117 cord_individual_obj[indivial_i,:] = [22. 8. 116. 124.]
118 cord_individual_obj[indivial_i,:] = [23. 7. 163. 170.]
119 cord_individual_obj[indivial_i,:] = [24. 8. 213. 221.]
120
121 min(cord_individual_obj[:,3]) = 68.0
122 historl_G_best_iter[iter, 3] = 68.0
123 Begin iteration:
124
125 iter = 3
126 cord_individual_obj[indivial_i,:] = [ 0. 8. 176. 184.]
127 cord_individual_obj[indivial_i,:] = [ 1. 7. 157. 164.]
128 cord_individual_obj[indivial_i,:] = [ 2. 7. 154. 161.]
129 cord_individual_obj[indivial_i,:] = [ 3. 8. 127. 135.]
130 cord_individual_obj[indivial_i,:] = [ 4. 7. 171. 178.]
131 cord_individual_obj[indivial_i,:] = [ 5. 8. 102. 110.]
132 cord_individual_obj[indivial_i,:] = [ 6. 7. 144. 151.]
133 cord_individual_obj[indivial_i,:] = [ 7. 7. 175. 182.]
134 cord_individual_obj[indivial_i,:] = [ 8. 7. 175. 182.]
135 cord_individual_obj[indivial_i,:] = [ 9. 9. 132. 141.]
136 cord_individual_obj[indivial_i,:] = [10. 5. 166. 171.]
137 cord_individual_obj[indivial_i,:] = [11. 9. 218. 227.]
138 cord_individual_obj[indivial_i,:] = [12. 7. 162. 169.]
139 cord_individual_obj[indivial_i,:] = [13. 6. 116. 122.]
140 cord_individual_obj[indivial_i,:] = [14. 6. 140. 146.]
141 cord_individual_obj[indivial_i,:] = [15. 7. 144. 151.]
142 cord_individual_obj[indivial_i,:] = [16. 10. 159. 169.]
143 cord_individual_obj[indivial_i,:] = [17. 8. 128. 136.]
144 cord_individual_obj[indivial_i,:] = [18. 8. 148. 156.]
145 cord_individual_obj[indivial_i,:] = [19. 8. 138. 146.]
146 cord_individual_obj[indivial_i,:] = [20. 7. 84. 91.]
147 cord_individual_obj[indivial_i,:] = [21. 8. 155. 163.]
148 cord_individual_obj[indivial_i,:] = [22. 9. 126. 135.]
149 cord_individual_obj[indivial_i,:] = [23. 8. 136. 144.]
150 cord_individual_obj[indivial_i,:] = [24. 7. 61. 68.]
151
152 min(cord_individual_obj[:,3]) = 68.0
153 historl_G_best_iter[iter, 3] = 68.0
154 Begin iteration:
155
156 iter = 4
157 cord_individual_obj[indivial_i,:] = [ 0. 9. 111. 120.]
158 cord_individual_obj[indivial_i,:] = [ 1. 6. 130. 136.]
159 cord_individual_obj[indivial_i,:] = [ 2. 9. 174. 183.]
160 cord_individual_obj[indivial_i,:] = [ 3. 5. 173. 178.]
161 cord_individual_obj[indivial_i,:] = [ 4. 8. 124. 132.]
162 cord_individual_obj[indivial_i,:] = [ 5. 8. 131. 139.]
163 cord_individual_obj[indivial_i,:] = [ 6. 6. 172. 178.]

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164 cord_individual_obj[indivial_i,:] = [ 7. 8. 115. 123.]
165 cord_individual_obj[indivial_i,:] = [ 8. 6. 128. 134.]
166 cord_individual_obj[indivial_i,:] = [ 9. 7. 124. 131.]
167 cord_individual_obj[indivial_i,:] = [10. 8. 127. 135.]
168 cord_individual_obj[indivial_i,:] = [11. 7. 61. 68.]
169 cord_individual_obj[indivial_i,:] = [12. 7. 110. 117.]
170 cord_individual_obj[indivial_i,:] = [13. 6. 76. 82.]
171 cord_individual_obj[indivial_i,:] = [14. 5. 95. 100.]
172 cord_individual_obj[indivial_i,:] = [15. 8. 139. 147.]
173 cord_individual_obj[indivial_i,:] = [16. 8. 162. 170.]
174 cord_individual_obj[indivial_i,:] = [17. 10. 115. 125.]
175 cord_individual_obj[indivial_i,:] = [18. 7. 140. 147.]
176 cord_individual_obj[indivial_i,:] = [19. 8. 156. 164.]
177 cord_individual_obj[indivial_i,:] = [20. 10. 140. 150.]
178 cord_individual_obj[indivial_i,:] = [21. 8. 108. 116.]
179 cord_individual_obj[indivial_i,:] = [22. 8. 95. 103.]
180 cord_individual_obj[indivial_i,:] = [23. 8. 133. 141.]
181 cord_individual_obj[indivial_i,:] = [24. 13. 202. 215.]
182
183 min(cord_individual_obj[:,3]) = 68.0
184 historl_G_best_iter[iter,3] = 68.0
185 Begin iteration:
186
187 iter = 5
188 cord_individual_obj[indivial_i,:] = [ 0. 9. 149. 158.]
189 cord_individual_obj[indivial_i,:] = [ 1. 5. 109. 114.]
190 cord_individual_obj[indivial_i,:] = [ 2. 7. 125. 132.]
191 cord_individual_obj[indivial_i,:] = [ 3. 7. 139. 146.]
192 cord_individual_obj[indivial_i,:] = [ 4. 7. 88. 95.]
193 cord_individual_obj[indivial_i,:] = [ 5. 9. 177. 186.]
194 cord_individual_obj[indivial_i,:] = [ 6. 7. 95. 102.]
195 cord_individual_obj[indivial_i,:] = [ 7. 7. 148. 155.]
196 cord_individual_obj[indivial_i,:] = [ 8. 9. 120. 129.]
197 cord_individual_obj[indivial_i,:] = [ 9. 9. 151. 160.]
198 cord_individual_obj[indivial_i,:] = [10. 6. 115. 121.]
199 cord_individual_obj[indivial_i,:] = [11. 8. 108. 116.]
200 cord_individual_obj[indivial_i,:] = [12. 8. 110. 118.]
201 cord_individual_obj[indivial_i,:] = [13. 7. 81. 88.]
202 cord_individual_obj[indivial_i,:] = [14. 8. 121. 129.]
203 cord_individual_obj[indivial_i,:] = [15. 7. 171. 178.]
204 cord_individual_obj[indivial_i,:] = [16. 8. 219. 227.]
205 cord_individual_obj[indivial_i,:] = [17. 8. 115. 123.]
206 cord_individual_obj[indivial_i,:] = [18. 6. 101. 107.]
207 cord_individual_obj[indivial_i,:] = [19. 7. 176. 183.]
208 cord_individual_obj[indivial_i,:] = [20. 9. 83. 92.]
209 cord_individual_obj[indivial_i,:] = [21. 7. 134. 141.]
210 cord_individual_obj[indivial_i,:] = [22. 7. 129. 136.]
211 cord_individual_obj[indivial_i,:] = [23. 6. 98. 104.]
212 cord_individual_obj[indivial_i,:] = [24. 7. 61. 68.]
213
214 min(cord_individual_obj[:,3]) = 68.0
215 historl_G_best_iter[iter,3] = 68.0
216 Begin iteration:
217
218 iter = 6
219 cord_individual_obj[indivial_i,:] = [ 0. 7. 101. 108.]
220 cord_individual_obj[indivial_i,:] = [ 1. 8. 142. 150.]
221 cord_individual_obj[indivial_i,:] = [ 2. 10. 132. 142.]
222 cord_individual_obj[indivial_i,:] = [ 3. 5. 137. 142.]
223 cord_individual_obj[indivial_i,:] = [ 4. 7. 126. 133.]
224 cord_individual_obj[indivial_i,:] = [ 5. 7. 117. 124.]
225 cord_individual_obj[indivial_i,:] = [ 6. 6. 98. 104.]
226 cord_individual_obj[indivial_i,:] = [ 7. 9. 74. 83.]
227 cord_individual_obj[indivial_i,:] = [ 8. 8. 85. 93.]
228 cord_individual_obj[indivial_i,:] = [ 9. 10. 125. 135.]
229 cord_individual_obj[indivial_i,:] = [10. 6. 145. 151.]
230 cord_individual_obj[indivial_i,:] = [11. 7. 132. 139.]
231 cord_individual_obj[indivial_i,:] = [12. 6. 117. 123.]
232 cord_individual_obj[indivial_i,:] = [13. 10. 168. 178.]
233 cord_individual_obj[indivial_i,:] = [14. 6. 134. 140.]
234 cord_individual_obj[indivial_i,:] = [15. 6. 97. 103.]
235 cord_individual_obj[indivial_i,:] = [16. 7. 61. 68.]
236 cord_individual_obj[indivial_i,:] = [17. 7. 100. 107.]
237 cord_individual_obj[indivial_i,:] = [18. 6. 155. 161.]
238 cord_individual_obj[indivial_i,:] = [19. 7. 87. 94.]
239 cord_individual_obj[indivial_i,:] = [20. 7. 139. 146.]
240 cord_individual_obj[indivial_i,:] = [21. 11. 175. 186.]
241 cord_individual_obj[indivial_i,:] = [22. 8. 111. 119.]
242 cord_individual_obj[indivial_i,:] = [23. 7. 121. 128.]
243 cord_individual_obj[indivial_i,:] = [24. 10. 196. 206.]
244
245 min(cord_individual_obj[:,3]) = 68.0
246 historl_G_best_iter[iter,3] = 68.0
247 Begin iteration:

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248
249 iter = 7
250 cord_individual_obj[indivial_i, :] = [ 0. 8. 182. 190.]
251 cord_individual_obj[indivial_i, :] = [ 1. 7. 102. 109.]
252 cord_individual_obj[indivial_i, :] = [ 2. 6. 106. 112.]
253 cord_individual_obj[indivial_i, :] = [ 3. 6. 174. 180.]
254 cord_individual_obj[indivial_i, :] = [ 4. 7. 81. 88.]
255 cord_individual_obj[indivial_i, :] = [ 5. 7. 182. 189.]
256 cord_individual_obj[indivial_i, :] = [ 6. 6. 112. 118.]
257 cord_individual_obj[indivial_i, :] = [ 7. 6. 90. 96.]
258 cord_individual_obj[indivial_i, :] = [ 8. 6. 107. 113.]
259 cord_individual_obj[indivial_i, :] = [ 9. 6. 121. 127.]
260 cord_individual_obj[indivial_i, :] = [ 10. 7. 134. 141.]
261 cord_individual_obj[indivial_i, :] = [ 11. 7. 97. 104.]
262 cord_individual_obj[indivial_i, :] = [ 12. 6. 178. 184.]
263 cord_individual_obj[indivial_i, :] = [ 13. 6. 77. 83.]
264 cord_individual_obj[indivial_i, :] = [ 14. 7. 119. 126.]
265 cord_individual_obj[indivial_i, :] = [ 15. 8. 184. 192.]
266 cord_individual_obj[indivial_i, :] = [ 16. 8. 121. 129.]
267 cord_individual_obj[indivial_i, :] = [ 17. 8. 176. 184.]
268 cord_individual_obj[indivial_i, :] = [ 18. 8. 128. 136.]
269 cord_individual_obj[indivial_i, :] = [ 19. 7. 191. 198.]
270 cord_individual_obj[indivial_i, :] = [ 20. 9. 79. 88.]
271 cord_individual_obj[indivial_i, :] = [ 21. 6. 94. 100.]
272 cord_individual_obj[indivial_i, :] = [ 22. 8. 83. 91.]
273 cord_individual_obj[indivial_i, :] = [ 23. 8. 123. 131.]
274 cord_individual_obj[indivial_i, :] = [ 24. 7. 61. 68.]
275

276 min(cord_individual_obj[:, 3]) = 68.0
277 historl_G_best_iter[iter, 3] = 68.0
278 Begin iteration:
279
280 iter = 8
281 cord_individual_obj[indivial_i, :] = [ 0. 6. 107. 113.]
282 cord_individual_obj[indivial_i, :] = [ 1. 5. 116. 121.]
283 cord_individual_obj[indivial_i, :] = [ 2. 9. 223. 232.]
284 cord_individual_obj[indivial_i, :] = [ 3. 5. 188. 193.]
285 cord_individual_obj[indivial_i, :] = [ 4. 6. 85. 91.]
286 cord_individual_obj[indivial_i, :] = [ 5. 8. 118. 126.]
287 cord_individual_obj[indivial_i, :] = [ 6. 7. 144. 151.]
288 cord_individual_obj[indivial_i, :] = [ 7. 8. 129. 137.]
289 cord_individual_obj[indivial_i, :] = [ 8. 6. 128. 134.]
290 cord_individual_obj[indivial_i, :] = [ 9. 8. 178. 186.]
291 cord_individual_obj[indivial_i, :] = [ 10. 7. 140. 147.]
292 cord_individual_obj[indivial_i, :] = [ 11. 6. 134. 140.]
293 cord_individual_obj[indivial_i, :] = [ 12. 8. 155. 163.]
294 cord_individual_obj[indivial_i, :] = [ 13. 8. 131. 139.]
295 cord_individual_obj[indivial_i, :] = [ 14. 9. 123. 132.]
296 cord_individual_obj[indivial_i, :] = [ 15. 8. 228. 236.]
297 cord_individual_obj[indivial_i, :] = [ 16. 8. 135. 143.]
298 cord_individual_obj[indivial_i, :] = [ 17. 8. 121. 129.]
299 cord_individual_obj[indivial_i, :] = [ 18. 6. 111. 117.]
300 cord_individual_obj[indivial_i, :] = [ 19. 7. 61. 68.]
301 cord_individual_obj[indivial_i, :] = [ 20. 10. 181. 191.]
302 cord_individual_obj[indivial_i, :] = [ 21. 7. 151. 158.]
303 cord_individual_obj[indivial_i, :] = [ 22. 12. 101. 113.]
304 cord_individual_obj[indivial_i, :] = [ 23. 9. 191. 200.]
305 cord_individual_obj[indivial_i, :] = [ 24. 11. 183. 194.]
306

307 min(cord_individual_obj[:, 3]) = 68.0
308 historl_G_best_iter[iter, 3] = 68.0
309 Begin iteration:
310
311 iter = 9
312 cord_individual_obj[indivial_i, :] = [ 0. 7. 220. 227.]
313 cord_individual_obj[indivial_i, :] = [ 1. 6. 151. 157.]
314 cord_individual_obj[indivial_i, :] = [ 2. 11. 157. 168.]
315 cord_individual_obj[indivial_i, :] = [ 3. 5. 139. 144.]
316 cord_individual_obj[indivial_i, :] = [ 4. 9. 130. 139.]
317 cord_individual_obj[indivial_i, :] = [ 5. 8. 78. 86.]
318 cord_individual_obj[indivial_i, :] = [ 6. 7. 171. 178.]
319 cord_individual_obj[indivial_i, :] = [ 7. 7. 82. 89.]
320 cord_individual_obj[indivial_i, :] = [ 8. 5. 147. 152.]
321 cord_individual_obj[indivial_i, :] = [ 9. 9. 122. 131.]
322 cord_individual_obj[indivial_i, :] = [ 10. 6. 96. 102.]
323 cord_individual_obj[indivial_i, :] = [ 11. 8. 175. 183.]
324 cord_individual_obj[indivial_i, :] = [ 12. 8. 134. 142.]
325 cord_individual_obj[indivial_i, :] = [ 13. 6. 110. 116.]
326 cord_individual_obj[indivial_i, :] = [ 14. 5. 170. 175.]
327 cord_individual_obj[indivial_i, :] = [ 15. 7. 61. 68.]
328 cord_individual_obj[indivial_i, :] = [ 16. 10. 111. 121.]
329 cord_individual_obj[indivial_i, :] = [ 17. 7. 202. 209.]
330 cord_individual_obj[indivial_i, :] = [ 18. 8. 134. 142.]
331 cord_individual_obj[indivial_i, :] = [ 19. 8. 170. 178.]

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332 cord_individual_obj[indivial_i, :] = [ 20. 7. 94. 101.]
333 cord_individual_obj[indivial_i, :] = [ 21. 7. 146. 153.]
334 cord_individual_obj[indivial_i, :] = [ 22. 9. 106. 115.]
335 cord_individual_obj[indivial_i, :] = [ 23. 9. 134. 143.]
336 cord_individual_obj[indivial_i, :] = [ 24. 8. 124. 132.]
337
338 min(cord_individual_obj[:, 3]) = 68.0
339 histol_G_best_iter[iter, 3] = 68.0
340 Begin iteration:
341
342 iter = 10
343 cord_individual_obj[indivial_i, :] = [ 0. 7. 61. 68.]
344 cord_individual_obj[indivial_i, :] = [ 1. 7. 131. 138.]
345 cord_individual_obj[indivial_i, :] = [ 2. 9. 183. 192.]
346 cord_individual_obj[indivial_i, :] = [ 3. 5. 162. 167.]
347 cord_individual_obj[indivial_i, :] = [ 4. 6. 108. 114.]
348 cord_individual_obj[indivial_i, :] = [ 5. 7. 128. 135.]
349 cord_individual_obj[indivial_i, :] = [ 6. 7. 78. 85.]
350 cord_individual_obj[indivial_i, :] = [ 7. 7. 113. 120.]
351 cord_individual_obj[indivial_i, :] = [ 8. 6. 123. 129.]
352 cord_individual_obj[indivial_i, :] = [ 9. 9. 106. 115.]
353 cord_individual_obj[indivial_i, :] = [ 10. 7. 134. 141.]
354 cord_individual_obj[indivial_i, :] = [ 11. 7. 100. 107.]
355 cord_individual_obj[indivial_i, :] = [ 12. 7. 118. 125.]
356 cord_individual_obj[indivial_i, :] = [ 13. 7. 88. 95.]
357 cord_individual_obj[indivial_i, :] = [ 14. 5. 105. 110.]
358 cord_individual_obj[indivial_i, :] = [ 15. 7. 109. 116.]
359 cord_individual_obj[indivial_i, :] = [ 16. 10. 137. 147.]
360 cord_individual_obj[indivial_i, :] = [ 17. 8. 133. 141.]
361 cord_individual_obj[indivial_i, :] = [ 18. 7. 96. 103.]
362 cord_individual_obj[indivial_i, :] = [ 19. 7. 105. 112.]
363 cord_individual_obj[indivial_i, :] = [ 20. 8. 124. 132.]
364 cord_individual_obj[indivial_i, :] = [ 21. 7. 98. 105.]
365 cord_individual_obj[indivial_i, :] = [ 22. 11. 181. 192.]
366 cord_individual_obj[indivial_i, :] = [ 23. 8. 109. 117.]
367 cord_individual_obj[indivial_i, :] = [ 24. 7. 138. 145.]
368
369 min(cord_individual_obj[:, 3]) = 68.0
370 histol_G_best_iter[iter, 3] = 68.0
371 Begin iteration:
372
373 iter = 11
374 cord_individual_obj[indivial_i, :] = [ 0. 7. 121. 128.]
375 cord_individual_obj[indivial_i, :] = [ 1. 6. 189. 195.]
376 cord_individual_obj[indivial_i, :] = [ 2. 7. 61. 68.]
377 cord_individual_obj[indivial_i, :] = [ 3. 7. 123. 130.]
378 cord_individual_obj[indivial_i, :] = [ 4. 7. 152. 159.]
379 cord_individual_obj[indivial_i, :] = [ 5. 8. 133. 141.]
380 cord_individual_obj[indivial_i, :] = [ 6. 6. 203. 209.]
381 cord_individual_obj[indivial_i, :] = [ 7. 7. 99. 106.]
382 cord_individual_obj[indivial_i, :] = [ 8. 7. 126. 133.]
383 cord_individual_obj[indivial_i, :] = [ 9. 10. 159. 169.]
384 cord_individual_obj[indivial_i, :] = [ 10. 6. 118. 124.]
385 cord_individual_obj[indivial_i, :] = [ 11. 9. 153. 162.]
386 cord_individual_obj[indivial_i, :] = [ 12. 5. 200. 205.]
387 cord_individual_obj[indivial_i, :] = [ 13. 7. 83. 90.]
388 cord_individual_obj[indivial_i, :] = [ 14. 7. 168. 175.]
389 cord_individual_obj[indivial_i, :] = [ 15. 8. 103. 111.]
390 cord_individual_obj[indivial_i, :] = [ 16. 8. 89. 97.]
391 cord_individual_obj[indivial_i, :] = [ 17. 8. 95. 103.]
392 cord_individual_obj[indivial_i, :] = [ 18. 8. 125. 133.]
393 cord_individual_obj[indivial_i, :] = [ 19. 7. 139. 146.]
394 cord_individual_obj[indivial_i, :] = [ 20. 7. 138. 145.]
395 cord_individual_obj[indivial_i, :] = [ 21. 7. 157. 164.]
396 cord_individual_obj[indivial_i, :] = [ 22. 9. 102. 111.]
397 cord_individual_obj[indivial_i, :] = [ 23. 8. 88. 96.]
398 cord_individual_obj[indivial_i, :] = [ 24. 7. 100. 107.]
399
400 min(cord_individual_obj[:, 3]) = 68.0
401 histol_G_best_iter[iter, 3] = 68.0
402 Begin iteration:
403
404 iter = 12
405 cord_individual_obj[indivial_i, :] = [ 0. 7. 154. 161.]
406 cord_individual_obj[indivial_i, :] = [ 1. 6. 113. 119.]
407 cord_individual_obj[indivial_i, :] = [ 2. 11. 157. 168.]
408 cord_individual_obj[indivial_i, :] = [ 3. 7. 160. 167.]
409 cord_individual_obj[indivial_i, :] = [ 4. 8. 176. 184.]
410 cord_individual_obj[indivial_i, :] = [ 5. 9. 97. 106.]
411 cord_individual_obj[indivial_i, :] = [ 6. 7. 61. 68.]
412 cord_individual_obj[indivial_i, :] = [ 7. 10. 114. 124.]
413 cord_individual_obj[indivial_i, :] = [ 8. 6. 111. 117.]
414 cord_individual_obj[indivial_i, :] = [ 9. 10. 146. 156.]
415 cord_individual_obj[indivial_i, :] = [ 10. 5. 143. 148.]

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416 cord_individual_obj[indivial_i,:] = [ 11. 7. 116. 123.]
417 cord_individual_obj[indivial_i,:] = [ 12. 6. 151. 157.]
418 cord_individual_obj[indivial_i,:] = [ 13. 5. 145. 150.]
419 cord_individual_obj[indivial_i,:] = [ 14. 7. 140. 147.]
420 cord_individual_obj[indivial_i,:] = [ 15. 8. 206. 214.]
421 cord_individual_obj[indivial_i,:] = [ 16. 9. 133. 142.]
422 cord_individual_obj[indivial_i,:] = [ 17. 8. 140. 148.]
423 cord_individual_obj[indivial_i,:] = [ 18. 7. 125. 132.]
424 cord_individual_obj[indivial_i,:] = [ 19. 7. 156. 163.]
425 cord_individual_obj[indivial_i,:] = [ 20. 8. 147. 155.]
426 cord_individual_obj[indivial_i,:] = [ 21. 9. 134. 143.]
427 cord_individual_obj[indivial_i,:] = [ 22. 7. 135. 142.]
428 cord_individual_obj[indivial_i,:] = [ 23. 7. 83. 90.]
429 cord_individual_obj[indivial_i,:] = [ 24. 10. 155. 165.]
430
431 min(cord_individual_obj[:,3]) = 68.0
432 histol_G_best_iter[iter,3] = 68.0
433 Begin iteration:
434
435 iter = 13
436 cord_individual_obj[indivial_i,:] = [ 0. 7. 116. 123.]
437 cord_individual_obj[indivial_i,:] = [ 1. 6. 102. 108.]
438 cord_individual_obj[indivial_i,:] = [ 2. 7. 156. 163.]
439 cord_individual_obj[indivial_i,:] = [ 3. 8. 161. 169.]
440 cord_individual_obj[indivial_i,:] = [ 4. 7. 76. 83.]
441 cord_individual_obj[indivial_i,:] = [ 5. 9. 128. 137.]
442 cord_individual_obj[indivial_i,:] = [ 6. 6. 76. 82.]
443 cord_individual_obj[indivial_i,:] = [ 7. 7. 123. 130.]
444 cord_individual_obj[indivial_i,:] = [ 8. 6. 126. 132.]
445 cord_individual_obj[indivial_i,:] = [ 9. 8. 121. 129.]
446 cord_individual_obj[indivial_i,:] = [ 10. 6. 137. 143.]
447 cord_individual_obj[indivial_i,:] = [ 11. 8. 85. 93.]
448 cord_individual_obj[indivial_i,:] = [ 12. 8. 134. 142.]
449 cord_individual_obj[indivial_i,:] = [ 13. 7. 80. 87.]
450 cord_individual_obj[indivial_i,:] = [ 14. 6. 152. 158.]
451 cord_individual_obj[indivial_i,:] = [ 15. 7. 61. 68.]
452 cord_individual_obj[indivial_i,:] = [ 16. 9. 88. 97.]
453 cord_individual_obj[indivial_i,:] = [ 17. 8. 116. 124.]
454 cord_individual_obj[indivial_i,:] = [ 18. 6. 76. 82.]
455 cord_individual_obj[indivial_i,:] = [ 19. 8. 171. 179.]
456 cord_individual_obj[indivial_i,:] = [ 20. 7. 132. 139.]
457 cord_individual_obj[indivial_i,:] = [ 21. 6. 127. 133.]
458 cord_individual_obj[indivial_i,:] = [ 22. 8. 114. 122.]
459 cord_individual_obj[indivial_i,:] = [ 23. 8. 87. 95.]
460 cord_individual_obj[indivial_i,:] = [ 24. 8. 112. 120.]
461
462 min(cord_individual_obj[:,3]) = 68.0
463 histol_G_best_iter[iter,3] = 68.0
464 Begin iteration:
465
466 iter = 14
467 cord_individual_obj[indivial_i,:] = [ 0. 7. 106. 113.]
468 cord_individual_obj[indivial_i,:] = [ 1. 6. 150. 156.]
469 cord_individual_obj[indivial_i,:] = [ 2. 7. 92. 99.]
470 cord_individual_obj[indivial_i,:] = [ 3. 5. 118. 123.]
471 cord_individual_obj[indivial_i,:] = [ 4. 8. 138. 146.]
472 cord_individual_obj[indivial_i,:] = [ 5. 8. 103. 111.]
473 cord_individual_obj[indivial_i,:] = [ 6. 6. 73. 79.]
474 cord_individual_obj[indivial_i,:] = [ 7. 7. 110. 117.]
475 cord_individual_obj[indivial_i,:] = [ 8. 6. 79. 85.]
476 cord_individual_obj[indivial_i,:] = [ 9. 7. 101. 108.]
477 cord_individual_obj[indivial_i,:] = [ 10. 5. 127. 132.]
478 cord_individual_obj[indivial_i,:] = [ 11. 7. 108. 115.]
479 cord_individual_obj[indivial_i,:] = [ 12. 7. 115. 122.]
480 cord_individual_obj[indivial_i,:] = [ 13. 6. 117. 123.]
481 cord_individual_obj[indivial_i,:] = [ 14. 6. 134. 140.]
482 cord_individual_obj[indivial_i,:] = [ 15. 6. 102. 108.]
483 cord_individual_obj[indivial_i,:] = [ 16. 9. 124. 133.]
484 cord_individual_obj[indivial_i,:] = [ 17. 9. 141. 150.]
485 cord_individual_obj[indivial_i,:] = [ 18. 7. 120. 127.]
486 cord_individual_obj[indivial_i,:] = [ 19. 7. 61. 68.]
487 cord_individual_obj[indivial_i,:] = [ 20. 10. 150. 160.]
488 cord_individual_obj[indivial_i,:] = [ 21. 8. 114. 122.]
489 cord_individual_obj[indivial_i,:] = [ 22. 9. 193. 202.]
490 cord_individual_obj[indivial_i,:] = [ 23. 7. 122. 129.]
491 cord_individual_obj[indivial_i,:] = [ 24. 8. 110. 118.]
492
493 min(cord_individual_obj[:,3]) = 68.0
494 histol_G_best_iter[iter,3] = 68.0
495 Begin iteration:
496
497 iter = 15
498 cord_individual_obj[indivial_i,:] = [ 0. 7. 107. 114.]
499 cord_individual_obj[indivial_i,:] = [ 1. 7. 163. 170.]

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500 cord_individual_obj[indivial_i,:] = [ 2. 7. 195. 202.]
501 cord_individual_obj[indivial_i,:] = [ 3. 6. 233. 239.]
502 cord_individual_obj[indivial_i,:] = [ 4. 8. 113. 121.]
503 cord_individual_obj[indivial_i,:] = [ 5. 9. 114. 123.]
504 cord_individual_obj[indivial_i,:] = [ 6. 7. 78. 85.]
505 cord_individual_obj[indivial_i,:] = [ 7. 9. 139. 148.]
506 cord_individual_obj[indivial_i,:] = [ 8. 5. 109. 114.]
507 cord_individual_obj[indivial_i,:] = [ 9. 7. 101. 108.]
508 cord_individual_obj[indivial_i,:] = [ 10. 7. 144. 151.]
509 cord_individual_obj[indivial_i,:] = [ 11. 9. 103. 112.]
510 cord_individual_obj[indivial_i,:] = [ 12. 8. 91. 99.]
511 cord_individual_obj[indivial_i,:] = [ 13. 7. 99. 106.]
512 cord_individual_obj[indivial_i,:] = [ 14. 6. 99. 105.]
513 cord_individual_obj[indivial_i,:] = [ 15. 6. 121. 127.]
514 cord_individual_obj[indivial_i,:] = [ 16. 7. 73. 80.]
515 cord_individual_obj[indivial_i,:] = [ 17. 10. 85. 95.]
516 cord_individual_obj[indivial_i,:] = [ 18. 7. 166. 173.]
517 cord_individual_obj[indivial_i,:] = [ 19. 8. 160. 168.]
518 cord_individual_obj[indivial_i,:] = [ 20. 8. 87. 95.]
519 cord_individual_obj[indivial_i,:] = [ 21. 6. 149. 155.]
520 cord_individual_obj[indivial_i,:] = [ 22. 7. 61. 68.]
521 cord_individual_obj[indivial_i,:] = [ 23. 7. 115. 122.]
522 cord_individual_obj[indivial_i,:] = [ 24. 8. 109. 117.]
523
524 min(cord_individual_obj[:, 3]) = 68.0
525 histort_G_best_iter[iter, 3] = 68.0
526 Begin iteration:
527
528 iter = 16
529 cord_individual_obj[indivial_i,:] = [ 0. 7. 96. 103.]
530 cord_individual_obj[indivial_i,:] = [ 1. 6. 231. 237.]
531 cord_individual_obj[indivial_i,:] = [ 2. 7. 204. 211.]
532 cord_individual_obj[indivial_i,:] = [ 3. 7. 61. 68.]
533 cord_individual_obj[indivial_i,:] = [ 4. 7. 111. 118.]
534 cord_individual_obj[indivial_i,:] = [ 5. 8. 106. 114.]
535 cord_individual_obj[indivial_i,:] = [ 6. 6. 82. 88.]
536 cord_individual_obj[indivial_i,:] = [ 7. 7. 113. 120.]
537 cord_individual_obj[indivial_i,:] = [ 8. 8. 137. 145.]
538 cord_individual_obj[indivial_i,:] = [ 9. 9. 130. 139.]
539 cord_individual_obj[indivial_i,:] = [ 10. 5. 116. 121.]
540 cord_individual_obj[indivial_i,:] = [ 11. 8. 153. 161.]
541 cord_individual_obj[indivial_i,:] = [ 12. 7. 107. 114.]
542 cord_individual_obj[indivial_i,:] = [ 13. 7. 101. 108.]
543 cord_individual_obj[indivial_i,:] = [ 14. 6. 159. 165.]
544 cord_individual_obj[indivial_i,:] = [ 15. 6. 88. 94.]
545 cord_individual_obj[indivial_i,:] = [ 16. 8. 154. 162.]
546 cord_individual_obj[indivial_i,:] = [ 17. 9. 195. 204.]
547 cord_individual_obj[indivial_i,:] = [ 18. 8. 100. 108.]
548 cord_individual_obj[indivial_i,:] = [ 19. 7. 105. 112.]
549 cord_individual_obj[indivial_i,:] = [ 20. 8. 114. 122.]
550 cord_individual_obj[indivial_i,:] = [ 21. 9. 141. 150.]
551 cord_individual_obj[indivial_i,:] = [ 22. 10. 133. 143.]
552 cord_individual_obj[indivial_i,:] = [ 23. 7. 112. 119.]
553 cord_individual_obj[indivial_i,:] = [ 24. 10. 159. 169.]
554
555 min(cord_individual_obj[:, 3]) = 68.0
556 histort_G_best_iter[iter, 3] = 68.0
557 Begin iteration:
558
559 iter = 17
560 cord_individual_obj[indivial_i,:] = [ 0. 8. 133. 141.]
561 cord_individual_obj[indivial_i,:] = [ 1. 7. 61. 68.]
562 cord_individual_obj[indivial_i,:] = [ 2. 8. 191. 199.]
563 cord_individual_obj[indivial_i,:] = [ 3. 5. 135. 140.]
564 cord_individual_obj[indivial_i,:] = [ 4. 7. 152. 159.]
565 cord_individual_obj[indivial_i,:] = [ 5. 9. 92. 101.]
566 cord_individual_obj[indivial_i,:] = [ 6. 6. 87. 93.]
567 cord_individual_obj[indivial_i,:] = [ 7. 7. 113. 120.]
568 cord_individual_obj[indivial_i,:] = [ 8. 5. 131. 136.]
569 cord_individual_obj[indivial_i,:] = [ 9. 8. 123. 131.]
570 cord_individual_obj[indivial_i,:] = [ 10. 7. 156. 163.]
571 cord_individual_obj[indivial_i,:] = [ 11. 9. 109. 118.]
572 cord_individual_obj[indivial_i,:] = [ 12. 7. 173. 180.]
573 cord_individual_obj[indivial_i,:] = [ 13. 7. 87. 94.]
574 cord_individual_obj[indivial_i,:] = [ 14. 5. 119. 124.]
575 cord_individual_obj[indivial_i,:] = [ 15. 10. 148. 158.]
576 cord_individual_obj[indivial_i,:] = [ 16. 8. 156. 164.]
577 cord_individual_obj[indivial_i,:] = [ 17. 12. 132. 144.]
578 cord_individual_obj[indivial_i,:] = [ 18. 8. 111. 119.]
579 cord_individual_obj[indivial_i,:] = [ 19. 8. 161. 169.]
580 cord_individual_obj[indivial_i,:] = [ 20. 7. 200. 207.]
581 cord_individual_obj[indivial_i,:] = [ 21. 7. 146. 153.]
582 cord_individual_obj[indivial_i,:] = [ 22. 11. 181. 192.]
583 cord_individual_obj[indivial_i,:] = [ 23. 8. 161. 169.]

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584     cord_individual_obj[indivial_i, :] = [ 24. 10. 162. 172.]
585
586     min(cord_individual_obj[:, 3]) = 68.0
587     historl_G_best_iter[iter, 3] = 68.0
588 Begin iteration:
589
590 iter = 18
591     cord_individual_obj[indivial_i, :] = [ 0. 9. 141. 150.]
592     cord_individual_obj[indivial_i, :] = [ 1. 7. 91. 98.]
593     cord_individual_obj[indivial_i, :] = [ 2. 8. 180. 188.]
594     cord_individual_obj[indivial_i, :] = [ 3. 9. 152. 161.]
595     cord_individual_obj[indivial_i, :] = [ 4. 8. 130. 138.]
596     cord_individual_obj[indivial_i, :] = [ 5. 9. 81. 90.]
597     cord_individual_obj[indivial_i, :] = [ 6. 7. 84. 91.]
598     cord_individual_obj[indivial_i, :] = [ 7. 8. 106. 114.]
599     cord_individual_obj[indivial_i, :] = [ 8. 7. 119. 126.]
600     cord_individual_obj[indivial_i, :] = [ 9. 8. 118. 126.]
601     cord_individual_obj[indivial_i, :] = [ 10. 6. 234. 240.]
602     cord_individual_obj[indivial_i, :] = [ 11. 9. 132. 141.]
603     cord_individual_obj[indivial_i, :] = [ 12. 7. 126. 133.]
604     cord_individual_obj[indivial_i, :] = [ 13. 6. 151. 157.]
605     cord_individual_obj[indivial_i, :] = [ 14. 6. 180. 186.]
606     cord_individual_obj[indivial_i, :] = [ 15. 7. 95. 102.]
607     cord_individual_obj[indivial_i, :] = [ 16. 11. 140. 151.]
608     cord_individual_obj[indivial_i, :] = [ 17. 9. 114. 123.]
609     cord_individual_obj[indivial_i, :] = [ 18. 7. 105. 112.]
610     cord_individual_obj[indivial_i, :] = [ 19. 7. 136. 143.]
611     cord_individual_obj[indivial_i, :] = [ 20. 7. 61. 68.]
612     cord_individual_obj[indivial_i, :] = [ 21. 5. 110. 115.]
613     cord_individual_obj[indivial_i, :] = [ 22. 8. 113. 121.]
614     cord_individual_obj[indivial_i, :] = [ 23. 7. 135. 142.]
615     cord_individual_obj[indivial_i, :] = [ 24. 7. 125. 132.]
616
617     min(cord_individual_obj[:, 3]) = 68.0
618     historl_G_best_iter[iter, 3] = 68.0
619 Begin iteration:
620
621 iter = 19
622     cord_individual_obj[indivial_i, :] = [ 0. 8. 151. 159.]
623     cord_individual_obj[indivial_i, :] = [ 1. 5. 144. 149.]
624     cord_individual_obj[indivial_i, :] = [ 2. 7. 100. 107.]
625     cord_individual_obj[indivial_i, :] = [ 3. 9. 205. 214.]
626     cord_individual_obj[indivial_i, :] = [ 4. 8. 110. 118.]
627     cord_individual_obj[indivial_i, :] = [ 5. 7. 134. 141.]
628     cord_individual_obj[indivial_i, :] = [ 6. 6. 107. 113.]
629     cord_individual_obj[indivial_i, :] = [ 7. 7. 127. 134.]
630     cord_individual_obj[indivial_i, :] = [ 8. 9. 180. 189.]
631     cord_individual_obj[indivial_i, :] = [ 9. 6. 156. 162.]
632     cord_individual_obj[indivial_i, :] = [ 10. 7. 61. 68.]
633     cord_individual_obj[indivial_i, :] = [ 11. 9. 109. 118.]
634     cord_individual_obj[indivial_i, :] = [ 12. 7. 101. 108.]
635     cord_individual_obj[indivial_i, :] = [ 13. 7. 106. 113.]
636     cord_individual_obj[indivial_i, :] = [ 14. 7. 141. 148.]
637     cord_individual_obj[indivial_i, :] = [ 15. 7. 97. 104.]
638     cord_individual_obj[indivial_i, :] = [ 16. 7. 173. 180.]
639     cord_individual_obj[indivial_i, :] = [ 17. 6. 141. 147.]
640     cord_individual_obj[indivial_i, :] = [ 18. 8. 102. 110.]
641     cord_individual_obj[indivial_i, :] = [ 19. 8. 135. 143.]
642     cord_individual_obj[indivial_i, :] = [ 20. 8. 144. 152.]
643     cord_individual_obj[indivial_i, :] = [ 21. 8. 133. 141.]
644     cord_individual_obj[indivial_i, :] = [ 22. 7. 139. 146.]
645     cord_individual_obj[indivial_i, :] = [ 23. 9. 150. 159.]
646     cord_individual_obj[indivial_i, :] = [ 24. 8. 124. 132.]
647
648     min(cord_individual_obj[:, 3]) = 68.0
649     historl_G_best_iter[iter, 3] = 68.0
650 Begin iteration:
651
652 iter = 20
653     cord_individual_obj[indivial_i, :] = [ 0. 9. 131. 140.]
654     cord_individual_obj[indivial_i, :] = [ 1. 7. 167. 174.]
655     cord_individual_obj[indivial_i, :] = [ 2. 7. 152. 159.]
656     cord_individual_obj[indivial_i, :] = [ 3. 7. 61. 68.]
657     cord_individual_obj[indivial_i, :] = [ 4. 7. 98. 105.]
658     cord_individual_obj[indivial_i, :] = [ 5. 7. 116. 123.]
659     cord_individual_obj[indivial_i, :] = [ 6. 8. 147. 155.]
660     cord_individual_obj[indivial_i, :] = [ 7. 9. 91. 100.]
661     cord_individual_obj[indivial_i, :] = [ 8. 7. 110. 117.]
662     cord_individual_obj[indivial_i, :] = [ 9. 8. 133. 141.]
663     cord_individual_obj[indivial_i, :] = [ 10. 7. 161. 168.]
664     cord_individual_obj[indivial_i, :] = [ 11. 10. 145. 155.]
665     cord_individual_obj[indivial_i, :] = [ 12. 6. 138. 144.]
666     cord_individual_obj[indivial_i, :] = [ 13. 7. 189. 196.]
667     cord_individual_obj[indivial_i, :] = [ 14. 8. 186. 194.]

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668 cord_individual_obj[indivial_i,:] = [15. 7. 89. 96.]
669 cord_individual_obj[indivial_i,:] = [16. 9. 199. 208.]
670 cord_individual_obj[indivial_i,:] = [17. 8. 122. 130.]
671 cord_individual_obj[indivial_i,:] = [18. 8. 106. 114.]
672 cord_individual_obj[indivial_i,:] = [19. 8. 152. 160.]
673 cord_individual_obj[indivial_i,:] = [20. 7. 138. 145.]
674 cord_individual_obj[indivial_i,:] = [21. 7. 156. 163.]
675 cord_individual_obj[indivial_i,:] = [22. 12. 166. 178.]
676 cord_individual_obj[indivial_i,:] = [23. 7. 95. 102.]
677 cord_individual_obj[indivial_i,:] = [24. 7. 133. 140.]
678
679 min(cord_individual_obj[:, 3]) = 68.0
680 historl_G_best_iter[iter, 3] = 68.0
681 Iteration calculate over
682
683
684
685
686 All item are in Bin and:
687 Bin area = 1080
688 Real_area = 184.0
689 Proportion_of_area = 0.17037037037037037
690 BEST_CHROM =
691 berth: [12.5 4.5 24. 22. 6. 16.5 2. 12.5 18.5 2. 21. 7. 26. 11.5
692 21.5]
693 time: [4. 3. 4. 3. 0. 4. 0. 0. 0. 4. 5. 4. 0. 1. 0.]
694 num_QC: [4. 4. 4. 3. 3. 1. 2. 4. 2. 3. 5. 3. 2. 2. 2.]
695 Objective function values and some other indicators:
696 Obj0 = 7.00          Obj1 = 61.00        Obj0 + Obj1 = 68.00
697 Total movement of crane: 12.00
698 Total waiting time in berth position: 32.00
699 Total index of q during berthing: 876.00
700 Specific arrangement for each vessel:
701 V_id: 0      li: 5.0           xi: 12.5           bow of i: 10.0           tail of i: 15.0           gama_i0: 4.0           gama_i1: 5
702 .0          gama_i1 + 1: 6.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 100.0         work
703 load_i: 100.0           work load gap_i: 0
704 V_id: 1      li: 9.0           xi: 4.5            bow of i: 0.0           tail of i: 9.0           gama_i0: 3.0           gama_i1: 3.0
705 .0          gama_i1 + 1: 4.0   gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 80.0         work load_i:
706 load_i: 80.0           work load gap_i: 0
707 V_id: 2      li: 8.0           xi: 24.0           bow of i: 20.0           tail of i: 28.0           gama_i0: 4.0           gama_i1: 4
708 .0          gama_i1 + 1: 5.0   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: 4.0           xi: 22.0           bow of i: 20.0           tail of i: 24.0           gama_i0: 3.0           gama_i1: 3
711 .0          gama_i1 + 1: 4.0   gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 60.0         work
712 load_i: 60.0           work load gap_i: 0
713 V_id: 4      li: 4.0           xi: 6.0            bow of i: 4.0           tail of i: 8.0           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: 80.0         work load_i:
715 load_i: 80.0           work load gap_i: 0
716 V_id: 5      li: 3.0           xi: 16.5           bow of i: 15.0           tail of i: 18.0           gama_i0: 4.0           gama_i1: 7
717 .0          gama_i1 + 1: 8.0   gama_i1 - gama_i0: 3.0           duration_time_i: 4.0           demand_i: 80.0         work
718 load_i: 80.0           work load gap_i: 0
719 V_id: 6      li: 4.0           xi: 2.0            bow of i: 0.0           tail of i: 4.0           gama_i0: 0.0           gama_i1: 2.0
720 .0          gama_i1 + 1: 3.0   gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 100.0        work load_i:
721 load_i: 100.0           work load gap_i: 0
722 V_id: 7      li: 9.0           xi: 12.5           bow of i: 8.0           tail of i: 17.0           gama_i0: 0.0           gama_i1: 0
723 .0          gama_i1 + 1: 1.0   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: 3.0           xi: 18.5           bow of i: 17.0           tail of i: 20.0           gama_i0: 0.0           gama_i1: 3
726 .0          gama_i1 + 1: 4.0   gama_i1 - gama_i0: 3.0           duration_time_i: 4.0           demand_i: 140.0        work
727 load_i: 140.0           work load gap_i: 0
728 V_id: 9      li: 4.0           xi: 2.0            bow of i: 0.0           tail of i: 4.0           gama_i0: 4.0           gama_i1: 6.0
729 .0          gama_i1 + 1: 7.0   gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 160.0        work load_i:
730 load_i: 160.0           work load gap_i: 0
731 V_id: 10     li: 6.0           xi: 21.0           bow of i: 18.0           tail of i: 24.0           gama_i0: 5.0           gama_i1
732 : 6.0        gama_i1 + 1: 7.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 160.0        work
733 load_i: 160.0           work load gap_i: 0
734 V_id: 11     li: 6.0           xi: 7.0            bow of i: 4.0           tail of i: 10.0           gama_i0: 4.0           gama_i1: 5
735 : 6.0        gama_i1 + 1: 6.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 120.0        work
736 load_i: 120.0           work load gap_i: 0
737 V_id: 12     li: 6.0           xi: 26.0           bow of i: 23.0           tail of i: 29.0           gama_i0: 0.0           gama_i1
738 : 2.0        gama_i1 + 1: 3.0   gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 120.0        work
739 load_i: 120.0           work load gap_i: 0
740 V_id: 13     li: 5.0           xi: 11.5           bow of i: 9.0           tail of i: 14.0           gama_i0: 1.0           gama_i1
741 : 3.0        gama_i1 + 1: 4.0   gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 120.0        work
742 load_i: 120.0           work load gap_i: 0
743 V_id: 14     li: 3.0           xi: 21.5           bow of i: 20.0           tail of i: 23.0           gama_i0: 0.0           gama_i1
744 : 1.0        gama_i1 + 1: 2.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 60.0         work
745 load_i: 60.0           work load gap_i: 0
746
747 Algorithm finished and the total CPU time: 435 s
748 End
749

```