

unknown

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80 cord_individual_obj[indivial_i,:] = [ 16. 9. 108. 117.]
81 cord_individual_obj[indivial_i,:] = [ 17. 9. 180. 189.]
82 cord_individual_obj[indivial_i,:] = [ 18. 10. 137. 147.]
83 cord_individual_obj[indivial_i,:] = [ 19. 7. 137. 144.]
84 cord_individual_obj[indivial_i,:] = [ 20. 8. 144. 152.]
85 cord_individual_obj[indivial_i,:] = [ 21. 11. 97. 108.]
86 cord_individual_obj[indivial_i,:] = [ 22. 9. 166. 175.]
87 cord_individual_obj[indivial_i,:] = [ 23. 8. 131. 139.]
88 cord_individual_obj[indivial_i,:] = [ 24. 8. 67. 75.]
89
90 min(cord_individual_obj[:,3]) = 72.0
91 historl_G_best_iter[iter, 3] = 72.0
92 Begin iteration:
93
94 iter = 2
95 cord_individual_obj[indivial_i,:] = [ 0. 11. 170. 181.]
96 cord_individual_obj[indivial_i,:] = [ 1. 9. 116. 125.]
97 cord_individual_obj[indivial_i,:] = [ 2. 13. 201. 214.]
98 cord_individual_obj[indivial_i,:] = [ 3. 9. 167. 176.]
99 cord_individual_obj[indivial_i,:] = [ 4. 10. 80. 90.]
100 cord_individual_obj[indivial_i,:] = [ 5. 10. 89. 99.]
101 cord_individual_obj[indivial_i,:] = [ 6. 10. 102. 112.]
102 cord_individual_obj[indivial_i,:] = [ 7. 8. 64. 72.]
103 cord_individual_obj[indivial_i,:] = [ 8. 9. 114. 123.]
104 cord_individual_obj[indivial_i,:] = [ 9. 9. 195. 204.]
105 cord_individual_obj[indivial_i,:] = [ 10. 11. 107. 118.]
106 cord_individual_obj[indivial_i,:] = [ 11. 10. 143. 153.]
107 cord_individual_obj[indivial_i,:] = [ 12. 10. 105. 115.]
108 cord_individual_obj[indivial_i,:] = [ 13. 9. 112. 121.]
109 cord_individual_obj[indivial_i,:] = [ 14. 11. 228. 239.]
110 cord_individual_obj[indivial_i,:] = [ 15. 10. 167. 177.]
111 cord_individual_obj[indivial_i,:] = [ 16. 11. 124. 135.]
112 cord_individual_obj[indivial_i,:] = [ 17. 10. 122. 132.]
113 cord_individual_obj[indivial_i,:] = [ 18. 12. 122. 134.]
114 cord_individual_obj[indivial_i,:] = [ 19. 11. 149. 160.]
115 cord_individual_obj[indivial_i,:] = [ 20. 10. 125. 135.]
116 cord_individual_obj[indivial_i,:] = [ 21. 9. 126. 135.]
117 cord_individual_obj[indivial_i,:] = [ 22. 8. 249. 257.]
118 cord_individual_obj[indivial_i,:] = [ 23. 11. 106. 117.]
119 cord_individual_obj[indivial_i,:] = [ 24. 9. 131. 140.]
120
121 min(cord_individual_obj[:,3]) = 72.0
122 historl_G_best_iter[iter, 3] = 72.0
123 Begin iteration:
124
125 iter = 3
126 cord_individual_obj[indivial_i,:] = [ 0. 9. 116. 125.]
127 cord_individual_obj[indivial_i,:] = [ 1. 11. 98. 109.]
128 cord_individual_obj[indivial_i,:] = [ 2. 11. 118. 129.]
129 cord_individual_obj[indivial_i,:] = [ 3. 9. 128. 137.]
130 cord_individual_obj[indivial_i,:] = [ 4. 10. 103. 113.]
131 cord_individual_obj[indivial_i,:] = [ 5. 9. 146. 155.]
132 cord_individual_obj[indivial_i,:] = [ 6. 9. 159. 168.]
133 cord_individual_obj[indivial_i,:] = [ 7. 10. 151. 161.]
134 cord_individual_obj[indivial_i,:] = [ 8. 8. 95. 103.]
135 cord_individual_obj[indivial_i,:] = [ 9. 10. 124. 134.]
136 cord_individual_obj[indivial_i,:] = [ 10. 12. 80. 92.]
137 cord_individual_obj[indivial_i,:] = [ 11. 7. 166. 173.]
138 cord_individual_obj[indivial_i,:] = [ 12. 9. 95. 104.]
139 cord_individual_obj[indivial_i,:] = [ 13. 14. 129. 143.]
140 cord_individual_obj[indivial_i,:] = [ 14. 10. 142. 152.]
141 cord_individual_obj[indivial_i,:] = [ 15. 8. 136. 144.]
142 cord_individual_obj[indivial_i,:] = [ 16. 10. 164. 174.]
143 cord_individual_obj[indivial_i,:] = [ 17. 8. 88. 96.]
144 cord_individual_obj[indivial_i,:] = [ 18. 9. 128. 137.]
145 cord_individual_obj[indivial_i,:] = [ 19. 9. 172. 181.]
146 cord_individual_obj[indivial_i,:] = [ 20. 9. 122. 131.]
147 cord_individual_obj[indivial_i,:] = [ 21. 11. 91. 102.]
148 cord_individual_obj[indivial_i,:] = [ 22. 8. 64. 72.]
149 cord_individual_obj[indivial_i,:] = [ 23. 10. 108. 118.]
150 cord_individual_obj[indivial_i,:] = [ 24. 11. 121. 132.]
151
152 min(cord_individual_obj[:,3]) = 72.0
153 historl_G_best_iter[iter, 3] = 72.0
154 Begin iteration:
155
156 iter = 4
157 cord_individual_obj[indivial_i,:] = [ 0. 9. 114. 123.]
158 cord_individual_obj[indivial_i,:] = [ 1. 9. 151. 160.]
159 cord_individual_obj[indivial_i,:] = [ 2. 9. 157. 166.]
160 cord_individual_obj[indivial_i,:] = [ 3. 9. 131. 140.]
161 cord_individual_obj[indivial_i,:] = [ 4. 13. 117. 130.]
162 cord_individual_obj[indivial_i,:] = [ 5. 9. 92. 101.]
163 cord_individual_obj[indivial_i,:] = [ 6. 8. 92. 100.]

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164 cord_individual_obj[indivial_i,:] = [ 7. 9. 101. 110.]
165 cord_individual_obj[indivial_i,:] = [ 8. 7. 106. 113.]
166 cord_individual_obj[indivial_i,:] = [ 9. 10. 110. 120.]
167 cord_individual_obj[indivial_i,:] = [ 10. 8. 107. 115.]
168 cord_individual_obj[indivial_i,:] = [ 11. 9. 164. 173.]
169 cord_individual_obj[indivial_i,:] = [12. 10. 85. 95.]
170 cord_individual_obj[indivial_i,:] = [13. 9. 90. 99.]
171 cord_individual_obj[indivial_i,:] = [14. 10. 151. 161.]
172 cord_individual_obj[indivial_i,:] = [15. 9. 167. 176.]
173 cord_individual_obj[indivial_i,:] = [16. 10. 90. 100.]
174 cord_individual_obj[indivial_i,:] = [17. 7. 183. 190.]
175 cord_individual_obj[indivial_i,:] = [18. 10. 125. 135.]
176 cord_individual_obj[indivial_i,:] = [19. 8. 64. 72.]
177 cord_individual_obj[indivial_i,:] = [20. 10. 132. 142.]
178 cord_individual_obj[indivial_i,:] = [21. 9. 85. 94.]
179 cord_individual_obj[indivial_i,:] = [22. 9. 144. 153.]
180 cord_individual_obj[indivial_i,:] = [23. 9. 132. 141.]
181 cord_individual_obj[indivial_i,:] = [24. 9. 170. 179.]
182
183 min(cord_individual_obj[:,3]) = 72.0
184 historl_G_best_iter[iter,3] = 72.0
185 Begin iteration:
186
187 iter = 5
188 cord_individual_obj[indivial_i,:] = [ 0. 9. 256. 265.]
189 cord_individual_obj[indivial_i,:] = [ 1. 8. 67. 75.]
190 cord_individual_obj[indivial_i,:] = [ 2. 8. 142. 150.]
191 cord_individual_obj[indivial_i,:] = [ 3. 8. 148. 156.]
192 cord_individual_obj[indivial_i,:] = [ 4. 13. 135. 148.]
193 cord_individual_obj[indivial_i,:] = [ 5. 11. 102. 113.]
194 cord_individual_obj[indivial_i,:] = [ 6. 8. 128. 136.]
195 cord_individual_obj[indivial_i,:] = [ 7. 9. 84. 93.]
196 cord_individual_obj[indivial_i,:] = [ 8. 9. 143. 152.]
197 cord_individual_obj[indivial_i,:] = [ 9. 9. 145. 154.]
198 cord_individual_obj[indivial_i,:] = [10. 9. 64. 73.]
199 cord_individual_obj[indivial_i,:] = [11. 7. 107. 114.]
200 cord_individual_obj[indivial_i,:] = [12. 10. 159. 169.]
201 cord_individual_obj[indivial_i,:] = [13. 9. 94. 103.]
202 cord_individual_obj[indivial_i,:] = [14. 9. 107. 116.]
203 cord_individual_obj[indivial_i,:] = [15. 10. 216. 226.]
204 cord_individual_obj[indivial_i,:] = [16. 10. 114. 124.]
205 cord_individual_obj[indivial_i,:] = [17. 8. 64. 72.]
206 cord_individual_obj[indivial_i,:] = [18. 10. 124. 134.]
207 cord_individual_obj[indivial_i,:] = [19. 9. 128. 137.]
208 cord_individual_obj[indivial_i,:] = [20. 8. 153. 161.]
209 cord_individual_obj[indivial_i,:] = [21. 9. 157. 166.]
210 cord_individual_obj[indivial_i,:] = [22. 8. 103. 111.]
211 cord_individual_obj[indivial_i,:] = [23. 10. 165. 175.]
212 cord_individual_obj[indivial_i,:] = [24. 9. 124. 133.]
213
214 min(cord_individual_obj[:,3]) = 72.0
215 historl_G_best_iter[iter,3] = 72.0
216 Begin iteration:
217
218 iter = 6
219 cord_individual_obj[indivial_i,:] = [ 0. 8. 64. 72.]
220 cord_individual_obj[indivial_i,:] = [ 1. 9. 111. 120.]
221 cord_individual_obj[indivial_i,:] = [ 2. 11. 121. 132.]
222 cord_individual_obj[indivial_i,:] = [ 3. 10. 121. 131.]
223 cord_individual_obj[indivial_i,:] = [ 4. 10. 155. 165.]
224 cord_individual_obj[indivial_i,:] = [ 5. 9. 116. 125.]
225 cord_individual_obj[indivial_i,:] = [ 6. 9. 156. 165.]
226 cord_individual_obj[indivial_i,:] = [ 7. 9. 132. 141.]
227 cord_individual_obj[indivial_i,:] = [ 8. 8. 88. 96.]
228 cord_individual_obj[indivial_i,:] = [ 9. 9. 160. 169.]
229 cord_individual_obj[indivial_i,:] = [10. 8. 112. 120.]
230 cord_individual_obj[indivial_i,:] = [11. 9. 130. 139.]
231 cord_individual_obj[indivial_i,:] = [12. 9. 138. 147.]
232 cord_individual_obj[indivial_i,:] = [13. 11. 90. 101.]
233 cord_individual_obj[indivial_i,:] = [14. 11. 144. 155.]
234 cord_individual_obj[indivial_i,:] = [15. 8. 109. 117.]
235 cord_individual_obj[indivial_i,:] = [16. 11. 128. 139.]
236 cord_individual_obj[indivial_i,:] = [17. 11. 131. 142.]
237 cord_individual_obj[indivial_i,:] = [18. 11. 132. 143.]
238 cord_individual_obj[indivial_i,:] = [19. 9. 107. 116.]
239 cord_individual_obj[indivial_i,:] = [20. 8. 89. 97.]
240 cord_individual_obj[indivial_i,:] = [21. 10. 118. 128.]
241 cord_individual_obj[indivial_i,:] = [22. 11. 127. 138.]
242 cord_individual_obj[indivial_i,:] = [23. 9. 154. 163.]
243 cord_individual_obj[indivial_i,:] = [24. 11. 122. 133.]
244
245 min(cord_individual_obj[:,3]) = 72.0
246 historl_G_best_iter[iter,3] = 72.0
247 Begin iteration:

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248
249 iter = 7
250 cord_individual_obj[indivial_i, :] = [ 0. 9. 163. 172.]
251 cord_individual_obj[indivial_i, :] = [ 1. 8. 91. 99.]
252 cord_individual_obj[indivial_i, :] = [ 2. 8. 188. 196.]
253 cord_individual_obj[indivial_i, :] = [ 3. 10. 143. 153.]
254 cord_individual_obj[indivial_i, :] = [ 4. 10. 171. 181.]
255 cord_individual_obj[indivial_i, :] = [ 5. 10. 142. 152.]
256 cord_individual_obj[indivial_i, :] = [ 6. 7. 100. 107.]
257 cord_individual_obj[indivial_i, :] = [ 7. 11. 123. 134.]
258 cord_individual_obj[indivial_i, :] = [ 8. 11. 137. 148.]
259 cord_individual_obj[indivial_i, :] = [ 9. 8. 64. 72.]
260 cord_individual_obj[indivial_i, :] = [ 10. 9. 118. 127.]
261 cord_individual_obj[indivial_i, :] = [ 11. 9. 79. 88.]
262 cord_individual_obj[indivial_i, :] = [ 12. 11. 113. 124.]
263 cord_individual_obj[indivial_i, :] = [ 13. 9. 82. 91.]
264 cord_individual_obj[indivial_i, :] = [ 14. 12. 167. 179.]
265 cord_individual_obj[indivial_i, :] = [ 15. 9. 75. 84.]
266 cord_individual_obj[indivial_i, :] = [ 16. 9. 123. 132.]
267 cord_individual_obj[indivial_i, :] = [ 17. 10. 105. 115.]
268 cord_individual_obj[indivial_i, :] = [ 18. 9. 105. 114.]
269 cord_individual_obj[indivial_i, :] = [ 19. 10. 105. 115.]
270 cord_individual_obj[indivial_i, :] = [ 20. 9. 131. 140.]
271 cord_individual_obj[indivial_i, :] = [ 21. 11. 108. 119.]
272 cord_individual_obj[indivial_i, :] = [ 22. 11. 133. 144.]
273 cord_individual_obj[indivial_i, :] = [ 23. 10. 77. 87.]
274 cord_individual_obj[indivial_i, :] = [ 24. 8. 78. 86.]
275

276 min(cord_individual_obj[:, 3]) = 72.0
277 historl_G_best_iter[iter, 3] = 72.0
278 Begin iteration:
279
280 iter = 8
281 cord_individual_obj[indivial_i, :] = [ 0. 10. 193. 203.]
282 cord_individual_obj[indivial_i, :] = [ 1. 11. 135. 146.]
283 cord_individual_obj[indivial_i, :] = [ 2. 8. 64. 72.]
284 cord_individual_obj[indivial_i, :] = [ 3. 11. 106. 117.]
285 cord_individual_obj[indivial_i, :] = [ 4. 10. 94. 104.]
286 cord_individual_obj[indivial_i, :] = [ 5. 9. 101. 110.]
287 cord_individual_obj[indivial_i, :] = [ 6. 10. 163. 173.]
288 cord_individual_obj[indivial_i, :] = [ 7. 10. 153. 163.]
289 cord_individual_obj[indivial_i, :] = [ 8. 7. 136. 143.]
290 cord_individual_obj[indivial_i, :] = [ 9. 10. 101. 111.]
291 cord_individual_obj[indivial_i, :] = [ 10. 12. 157. 169.]
292 cord_individual_obj[indivial_i, :] = [ 11. 9. 158. 167.]
293 cord_individual_obj[indivial_i, :] = [ 12. 10. 110. 120.]
294 cord_individual_obj[indivial_i, :] = [ 13. 11. 132. 143.]
295 cord_individual_obj[indivial_i, :] = [ 14. 10. 216. 226.]
296 cord_individual_obj[indivial_i, :] = [ 15. 9. 122. 131.]
297 cord_individual_obj[indivial_i, :] = [ 16. 11. 89. 100.]
298 cord_individual_obj[indivial_i, :] = [ 17. 9. 143. 152.]
299 cord_individual_obj[indivial_i, :] = [ 18. 10. 165. 175.]
300 cord_individual_obj[indivial_i, :] = [ 19. 10. 170. 180.]
301 cord_individual_obj[indivial_i, :] = [ 20. 9. 97. 106.]
302 cord_individual_obj[indivial_i, :] = [ 21. 10. 93. 103.]
303 cord_individual_obj[indivial_i, :] = [ 22. 12. 132. 144.]
304 cord_individual_obj[indivial_i, :] = [ 23. 10. 132. 142.]
305 cord_individual_obj[indivial_i, :] = [ 24. 11. 137. 148.]
306

307 min(cord_individual_obj[:, 3]) = 72.0
308 historl_G_best_iter[iter, 3] = 72.0
309 Begin iteration:
310
311 iter = 9
312 cord_individual_obj[indivial_i, :] = [ 0. 10. 113. 123.]
313 cord_individual_obj[indivial_i, :] = [ 1. 9. 94. 103.]
314 cord_individual_obj[indivial_i, :] = [ 2. 8. 144. 152.]
315 cord_individual_obj[indivial_i, :] = [ 3. 8. 98. 106.]
316 cord_individual_obj[indivial_i, :] = [ 4. 10. 166. 176.]
317 cord_individual_obj[indivial_i, :] = [ 5. 10. 118. 128.]
318 cord_individual_obj[indivial_i, :] = [ 6. 8. 154. 162.]
319 cord_individual_obj[indivial_i, :] = [ 7. 12. 130. 142.]
320 cord_individual_obj[indivial_i, :] = [ 8. 8. 143. 151.]
321 cord_individual_obj[indivial_i, :] = [ 9. 8. 94. 102.]
322 cord_individual_obj[indivial_i, :] = [ 10. 10. 113. 123.]
323 cord_individual_obj[indivial_i, :] = [ 11. 10. 155. 165.]
324 cord_individual_obj[indivial_i, :] = [ 12. 8. 177. 185.]
325 cord_individual_obj[indivial_i, :] = [ 13. 9. 151. 160.]
326 cord_individual_obj[indivial_i, :] = [ 14. 8. 64. 72.]
327 cord_individual_obj[indivial_i, :] = [ 15. 9. 131. 140.]
328 cord_individual_obj[indivial_i, :] = [ 16. 9. 82. 91.]
329 cord_individual_obj[indivial_i, :] = [ 17. 8. 122. 130.]
330 cord_individual_obj[indivial_i, :] = [ 18. 11. 98. 109.]
331 cord_individual_obj[indivial_i, :] = [ 19. 12. 197. 209.]

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332 cord_individual_obj[indivial_i,:] = [ 20. 8. 119. 127.]
333 cord_individual_obj[indivial_i,:] = [ 21. 11. 132. 143.]
334 cord_individual_obj[indivial_i,:] = [ 22. 12. 144. 156.]
335 cord_individual_obj[indivial_i,:] = [ 23. 9. 111. 120.]
336 cord_individual_obj[indivial_i,:] = [ 24. 11. 134. 145.]
337
338 min(cord_individual_obj[:,3]) = 72.0
339 histol_G_best_iter[iter,3] = 72.0
340 Begin iteration:
341
342 iter = 10
343 cord_individual_obj[indivial_i,:] = [ 0. 9. 79. 88.]
344 cord_individual_obj[indivial_i,:] = [ 1. 9. 94. 103.]
345 cord_individual_obj[indivial_i,:] = [ 2. 10. 117. 127.]
346 cord_individual_obj[indivial_i,:] = [ 3. 9. 108. 117.]
347 cord_individual_obj[indivial_i,:] = [ 4. 13. 124. 137.]
348 cord_individual_obj[indivial_i,:] = [ 5. 9. 93. 102.]
349 cord_individual_obj[indivial_i,:] = [ 6. 8. 123. 131.]
350 cord_individual_obj[indivial_i,:] = [ 7. 11. 86. 97.]
351 cord_individual_obj[indivial_i,:] = [ 8. 9. 92. 101.]
352 cord_individual_obj[indivial_i,:] = [ 9. 9. 105. 114.]
353 cord_individual_obj[indivial_i,:] = [10. 8. 81. 89.]
354 cord_individual_obj[indivial_i,:] = [11. 8. 133. 141.]
355 cord_individual_obj[indivial_i,:] = [12. 11. 122. 133.]
356 cord_individual_obj[indivial_i,:] = [13. 8. 113. 121.]
357 cord_individual_obj[indivial_i,:] = [14. 15. 149. 164.]
358 cord_individual_obj[indivial_i,:] = [15. 8. 111. 119.]
359 cord_individual_obj[indivial_i,:] = [16. 11. 80. 91.]
360 cord_individual_obj[indivial_i,:] = [17. 10. 199. 209.]
361 cord_individual_obj[indivial_i,:] = [18. 9. 183. 192.]
362 cord_individual_obj[indivial_i,:] = [19. 8. 64. 72.]
363 cord_individual_obj[indivial_i,:] = [20. 9. 150. 159.]
364 cord_individual_obj[indivial_i,:] = [21. 11. 102. 113.]
365 cord_individual_obj[indivial_i,:] = [22. 9. 143. 152.]
366 cord_individual_obj[indivial_i,:] = [23. 9. 117. 126.]
367 cord_individual_obj[indivial_i,:] = [24. 8. 63. 71.]
368
369 min(cord_individual_obj[:,3]) = 71.0
370 histol_G_best_iter[iter,3] = 71.0
371 Begin iteration:
372
373 iter = 11
374 cord_individual_obj[indivial_i,:] = [ 0. 7. 180. 187.]
375 cord_individual_obj[indivial_i,:] = [ 1. 8. 131. 139.]
376 cord_individual_obj[indivial_i,:] = [ 2. 11. 161. 172.]
377 cord_individual_obj[indivial_i,:] = [ 3. 9. 118. 127.]
378 cord_individual_obj[indivial_i,:] = [ 4. 11. 119. 130.]
379 cord_individual_obj[indivial_i,:] = [ 5. 10. 123. 133.]
380 cord_individual_obj[indivial_i,:] = [ 6. 9. 120. 129.]
381 cord_individual_obj[indivial_i,:] = [ 7. 8. 121. 129.]
382 cord_individual_obj[indivial_i,:] = [ 8. 8. 117. 125.]
383 cord_individual_obj[indivial_i,:] = [ 9. 9. 168. 177.]
384 cord_individual_obj[indivial_i,:] = [10. 9. 162. 171.]
385 cord_individual_obj[indivial_i,:] = [11. 10. 130. 140.]
386 cord_individual_obj[indivial_i,:] = [12. 9. 83. 92.]
387 cord_individual_obj[indivial_i,:] = [13. 7. 184. 191.]
388 cord_individual_obj[indivial_i,:] = [14. 10. 148. 158.]
389 cord_individual_obj[indivial_i,:] = [15. 8. 101. 109.]
390 cord_individual_obj[indivial_i,:] = [16. 8. 106. 114.]
391 cord_individual_obj[indivial_i,:] = [17. 8. 63. 71.]
392 cord_individual_obj[indivial_i,:] = [18. 9. 140. 149.]
393 cord_individual_obj[indivial_i,:] = [19. 9. 135. 144.]
394 cord_individual_obj[indivial_i,:] = [20. 9. 84. 93.]
395 cord_individual_obj[indivial_i,:] = [21. 12. 150. 162.]
396 cord_individual_obj[indivial_i,:] = [22. 9. 122. 131.]
397 cord_individual_obj[indivial_i,:] = [23. 7. 113. 120.]
398 cord_individual_obj[indivial_i,:] = [24. 9. 71. 80.]
399
400 min(cord_individual_obj[:,3]) = 71.0
401 histol_G_best_iter[iter,3] = 71.0
402 Begin iteration:
403
404 iter = 12
405 cord_individual_obj[indivial_i,:] = [ 0. 7. 151. 158.]
406 cord_individual_obj[indivial_i,:] = [ 1. 8. 154. 162.]
407 cord_individual_obj[indivial_i,:] = [ 2. 10. 95. 105.]
408 cord_individual_obj[indivial_i,:] = [ 3. 10. 94. 104.]
409 cord_individual_obj[indivial_i,:] = [ 4. 9. 97. 106.]
410 cord_individual_obj[indivial_i,:] = [ 5. 9. 89. 98.]
411 cord_individual_obj[indivial_i,:] = [ 6. 10. 157. 167.]
412 cord_individual_obj[indivial_i,:] = [ 7. 9. 119. 128.]
413 cord_individual_obj[indivial_i,:] = [ 8. 10. 111. 121.]
414 cord_individual_obj[indivial_i,:] = [ 9. 8. 125. 133.]
415 cord_individual_obj[indivial_i,:] = [10. 8. 129. 137.]

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416 cord_individual_obj[indivial_i,:] = [ 11. 8. 126. 134.]
417 cord_individual_obj[indivial_i,:] = [ 12. 8. 163. 171.]
418 cord_individual_obj[indivial_i,:] = [13. 8. 63. 71.]
419 cord_individual_obj[indivial_i,:] = [14. 9. 76. 85.]
420 cord_individual_obj[indivial_i,:] = [ 15. 9. 126. 135.]
421 cord_individual_obj[indivial_i,:] = [ 16. 9. 178. 187.]
422 cord_individual_obj[indivial_i,:] = [17. 9. 87. 96.]
423 cord_individual_obj[indivial_i,:] = [ 18. 9. 162. 171.]
424 cord_individual_obj[indivial_i,:] = [ 19. 8. 100. 108.]
425 cord_individual_obj[indivial_i,:] = [ 20. 9. 142. 151.]
426 cord_individual_obj[indivial_i,:] = [ 21. 11. 145. 156.]
427 cord_individual_obj[indivial_i,:] = [ 22. 12. 118. 130.]
428 cord_individual_obj[indivial_i,:] = [ 23. 9. 131. 140.]
429 cord_individual_obj[indivial_i,:] = [ 24. 9. 151. 160.]
430
431 min(cord_individual_obj[:,3]) = 71.0
432 histol_G_best_iter[iter,3] = 71.0
433 Begin iteration:
434
435 iter = 13
436 cord_individual_obj[indivial_i,:] = [ 0. 8. 140. 148.]
437 cord_individual_obj[indivial_i,:] = [ 1. 10. 190. 200.]
438 cord_individual_obj[indivial_i,:] = [ 2. 9. 123. 132.]
439 cord_individual_obj[indivial_i,:] = [ 3. 12. 136. 148.]
440 cord_individual_obj[indivial_i,:] = [ 4. 12. 139. 151.]
441 cord_individual_obj[indivial_i,:] = [ 5. 8. 76. 84.]
442 cord_individual_obj[indivial_i,:] = [ 6. 9. 117. 126.]
443 cord_individual_obj[indivial_i,:] = [ 7. 11. 159. 170.]
444 cord_individual_obj[indivial_i,:] = [ 8. 10. 92. 102.]
445 cord_individual_obj[indivial_i,:] = [ 9. 8. 82. 90.]
446 cord_individual_obj[indivial_i,:] = [10. 11. 131. 142.]
447 cord_individual_obj[indivial_i,:] = [11. 10. 101. 111.]
448 cord_individual_obj[indivial_i,:] = [12. 11. 106. 117.]
449 cord_individual_obj[indivial_i,:] = [13. 10. 186. 196.]
450 cord_individual_obj[indivial_i,:] = [14. 10. 165. 175.]
451 cord_individual_obj[indivial_i,:] = [15. 10. 81. 91.]
452 cord_individual_obj[indivial_i,:] = [16. 8. 63. 71.]
453 cord_individual_obj[indivial_i,:] = [17. 7. 128. 135.]
454 cord_individual_obj[indivial_i,:] = [18. 10. 84. 94.]
455 cord_individual_obj[indivial_i,:] = [19. 14. 140. 154.]
456 cord_individual_obj[indivial_i,:] = [20. 9. 106. 115.]
457 cord_individual_obj[indivial_i,:] = [21. 11. 106. 117.]
458 cord_individual_obj[indivial_i,:] = [22. 12. 169. 181.]
459 cord_individual_obj[indivial_i,:] = [23. 9. 119. 128.]
460 cord_individual_obj[indivial_i,:] = [24. 10. 165. 175.]
461
462 min(cord_individual_obj[:,3]) = 71.0
463 histol_G_best_iter[iter,3] = 71.0
464 Begin iteration:
465
466 iter = 14
467 cord_individual_obj[indivial_i,:] = [ 0. 10. 150. 160.]
468 cord_individual_obj[indivial_i,:] = [ 1. 8. 63. 71.]
469 cord_individual_obj[indivial_i,:] = [ 2. 9. 71. 80.]
470 cord_individual_obj[indivial_i,:] = [ 3. 9. 104. 113.]
471 cord_individual_obj[indivial_i,:] = [ 4. 8. 104. 112.]
472 cord_individual_obj[indivial_i,:] = [ 5. 11. 161. 172.]
473 cord_individual_obj[indivial_i,:] = [ 6. 9. 135. 144.]
474 cord_individual_obj[indivial_i,:] = [ 7. 10. 139. 149.]
475 cord_individual_obj[indivial_i,:] = [ 8. 8. 121. 129.]
476 cord_individual_obj[indivial_i,:] = [ 9. 8. 210. 218.]
477 cord_individual_obj[indivial_i,:] = [10. 10. 87. 97.]
478 cord_individual_obj[indivial_i,:] = [11. 8. 123. 131.]
479 cord_individual_obj[indivial_i,:] = [12. 11. 157. 168.]
480 cord_individual_obj[indivial_i,:] = [13. 9. 111. 120.]
481 cord_individual_obj[indivial_i,:] = [14. 9. 162. 171.]
482 cord_individual_obj[indivial_i,:] = [15. 12. 90. 102.]
483 cord_individual_obj[indivial_i,:] = [16. 9. 125. 134.]
484 cord_individual_obj[indivial_i,:] = [17. 7. 115. 122.]
485 cord_individual_obj[indivial_i,:] = [18. 8. 133. 141.]
486 cord_individual_obj[indivial_i,:] = [19. 7. 103. 110.]
487 cord_individual_obj[indivial_i,:] = [20. 8. 99. 107.]
488 cord_individual_obj[indivial_i,:] = [21. 11. 156. 167.]
489 cord_individual_obj[indivial_i,:] = [22. 11. 135. 146.]
490 cord_individual_obj[indivial_i,:] = [23. 9. 102. 111.]
491 cord_individual_obj[indivial_i,:] = [24. 9. 130. 139.]
492
493 min(cord_individual_obj[:,3]) = 71.0
494 histol_G_best_iter[iter,3] = 71.0
495 Begin iteration:
496
497 iter = 15
498 cord_individual_obj[indivial_i,:] = [ 0. 10. 129. 139.]
499 cord_individual_obj[indivial_i,:] = [ 1. 8. 148. 156.]

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500 cord_individual_obj[indivial_i,:] = [ 2. 8. 82. 90.]
501 cord_individual_obj[indivial_i,:] = [ 3. 11. 120. 131.]
502 cord_individual_obj[indivial_i,:] = [ 4. 9. 88. 97.]
503 cord_individual_obj[indivial_i,:] = [ 5. 13. 114. 127.]
504 cord_individual_obj[indivial_i,:] = [ 6. 8. 161. 169.]
505 cord_individual_obj[indivial_i,:] = [ 7. 10. 133. 143.]
506 cord_individual_obj[indivial_i,:] = [ 8. 9. 98. 107.]
507 cord_individual_obj[indivial_i,:] = [ 9. 8. 63. 71.]
508 cord_individual_obj[indivial_i,:] = [ 10. 10. 140. 150.]
509 cord_individual_obj[indivial_i,:] = [ 11. 9. 104. 113.]
510 cord_individual_obj[indivial_i,:] = [ 12. 10. 116. 126.]
511 cord_individual_obj[indivial_i,:] = [ 13. 7. 110. 117.]
512 cord_individual_obj[indivial_i,:] = [ 14. 10. 128. 138.]
513 cord_individual_obj[indivial_i,:] = [ 15. 11. 132. 143.]
514 cord_individual_obj[indivial_i,:] = [ 16. 11. 127. 138.]
515 cord_individual_obj[indivial_i,:] = [ 17. 9. 165. 174.]
516 cord_individual_obj[indivial_i,:] = [ 18. 10. 143. 153.]
517 cord_individual_obj[indivial_i,:] = [ 19. 10. 134. 144.]
518 cord_individual_obj[indivial_i,:] = [ 20. 9. 155. 164.]
519 cord_individual_obj[indivial_i,:] = [ 21. 10. 107. 117.]
520 cord_individual_obj[indivial_i,:] = [ 22. 9. 159. 168.]
521 cord_individual_obj[indivial_i,:] = [ 23. 10. 130. 140.]
522 cord_individual_obj[indivial_i,:] = [ 24. 10. 125. 135.]
523
524 min(cord_individual_obj[:, 3]) = 71.0
525 histol_G_best_iter[iter, 3] = 71.0
526 Begin iteration:
527
528 iter = 16
529 cord_individual_obj[indivial_i,:] = [ 0. 9. 138. 147.]
530 cord_individual_obj[indivial_i,:] = [ 1. 10. 153. 163.]
531 cord_individual_obj[indivial_i,:] = [ 2. 10. 91. 101.]
532 cord_individual_obj[indivial_i,:] = [ 3. 9. 126. 135.]
533 cord_individual_obj[indivial_i,:] = [ 4. 7. 87. 94.]
534 cord_individual_obj[indivial_i,:] = [ 5. 10. 100. 110.]
535 cord_individual_obj[indivial_i,:] = [ 6. 8. 184. 192.]
536 cord_individual_obj[indivial_i,:] = [ 7. 9. 97. 106.]
537 cord_individual_obj[indivial_i,:] = [ 8. 9. 115. 124.]
538 cord_individual_obj[indivial_i,:] = [ 9. 8. 207. 215.]
539 cord_individual_obj[indivial_i,:] = [ 10. 10. 89. 99.]
540 cord_individual_obj[indivial_i,:] = [ 11. 8. 169. 177.]
541 cord_individual_obj[indivial_i,:] = [ 12. 10. 119. 129.]
542 cord_individual_obj[indivial_i,:] = [ 13. 6. 141. 147.]
543 cord_individual_obj[indivial_i,:] = [ 14. 11. 122. 133.]
544 cord_individual_obj[indivial_i,:] = [ 15. 9. 150. 159.]
545 cord_individual_obj[indivial_i,:] = [ 16. 8. 76. 84.]
546 cord_individual_obj[indivial_i,:] = [ 17. 8. 63. 71.]
547 cord_individual_obj[indivial_i,:] = [ 18. 8. 106. 114.]
548 cord_individual_obj[indivial_i,:] = [ 19. 9. 116. 125.]
549 cord_individual_obj[indivial_i,:] = [ 20. 10. 91. 101.]
550 cord_individual_obj[indivial_i,:] = [ 21. 10. 94. 104.]
551 cord_individual_obj[indivial_i,:] = [ 22. 9. 96. 105.]
552 cord_individual_obj[indivial_i,:] = [ 23. 9. 108. 117.]
553 cord_individual_obj[indivial_i,:] = [ 24. 7. 157. 164.]
554
555 min(cord_individual_obj[:, 3]) = 71.0
556 histol_G_best_iter[iter, 3] = 71.0
557 Begin iteration:
558
559 iter = 17
560 cord_individual_obj[indivial_i,:] = [ 0. 7. 115. 122.]
561 cord_individual_obj[indivial_i,:] = [ 1. 10. 94. 104.]
562 cord_individual_obj[indivial_i,:] = [ 2. 10. 73. 83.]
563 cord_individual_obj[indivial_i,:] = [ 3. 9. 93. 102.]
564 cord_individual_obj[indivial_i,:] = [ 4. 9. 127. 136.]
565 cord_individual_obj[indivial_i,:] = [ 5. 9. 148. 157.]
566 cord_individual_obj[indivial_i,:] = [ 6. 8. 171. 179.]
567 cord_individual_obj[indivial_i,:] = [ 7. 8. 151. 159.]
568 cord_individual_obj[indivial_i,:] = [ 8. 11. 164. 175.]
569 cord_individual_obj[indivial_i,:] = [ 9. 8. 63. 71.]
570 cord_individual_obj[indivial_i,:] = [ 10. 11. 124. 135.]
571 cord_individual_obj[indivial_i,:] = [ 11. 9. 135. 144.]
572 cord_individual_obj[indivial_i,:] = [ 12. 10. 91. 101.]
573 cord_individual_obj[indivial_i,:] = [ 13. 8. 171. 179.]
574 cord_individual_obj[indivial_i,:] = [ 14. 9. 139. 148.]
575 cord_individual_obj[indivial_i,:] = [ 15. 11. 107. 118.]
576 cord_individual_obj[indivial_i,:] = [ 16. 8. 114. 122.]
577 cord_individual_obj[indivial_i,:] = [ 17. 9. 86. 95.]
578 cord_individual_obj[indivial_i,:] = [ 18. 10. 145. 155.]
579 cord_individual_obj[indivial_i,:] = [ 19. 9. 116. 125.]
580 cord_individual_obj[indivial_i,:] = [ 20. 9. 143. 152.]
581 cord_individual_obj[indivial_i,:] = [ 21. 11. 96. 107.]
582 cord_individual_obj[indivial_i,:] = [ 22. 10. 150. 160.]
583 cord_individual_obj[indivial_i,:] = [ 23. 10. 147. 157.]

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584     cord_individual_obj[indivial_i, :] = [24. 9. 67. 76.]
585
586     min(cord_individual_obj[:, 3]) = 71.0
587     historl_G_best_iter[iter, 3] = 71.0
588 Begin iteration:
589
590 iter = 18
591     cord_individual_obj[indivial_i, :] = [ 0. 8. 127. 135.]
592     cord_individual_obj[indivial_i, :] = [ 1. 8. 133. 141.]
593     cord_individual_obj[indivial_i, :] = [ 2. 11. 139. 150.]
594     cord_individual_obj[indivial_i, :] = [ 3. 10. 98. 108.]
595     cord_individual_obj[indivial_i, :] = [ 4. 8. 77. 85.]
596     cord_individual_obj[indivial_i, :] = [ 5. 10. 130. 140.]
597     cord_individual_obj[indivial_i, :] = [ 6. 8. 63. 71.]
598     cord_individual_obj[indivial_i, :] = [ 7. 10. 128. 138.]
599     cord_individual_obj[indivial_i, :] = [ 8. 9. 123. 132.]
600     cord_individual_obj[indivial_i, :] = [ 9. 9. 137. 146.]
601     cord_individual_obj[indivial_i, :] = [10. 9. 124. 133.]
602     cord_individual_obj[indivial_i, :] = [11. 8. 152. 160.]
603     cord_individual_obj[indivial_i, :] = [12. 9. 141. 150.]
604     cord_individual_obj[indivial_i, :] = [13. 8. 130. 138.]
605     cord_individual_obj[indivial_i, :] = [14. 10. 91. 101.]
606     cord_individual_obj[indivial_i, :] = [15. 12. 126. 138.]
607     cord_individual_obj[indivial_i, :] = [16. 10. 74. 84.]
608     cord_individual_obj[indivial_i, :] = [17. 10. 70. 80.]
609     cord_individual_obj[indivial_i, :] = [18. 8. 118. 126.]
610     cord_individual_obj[indivial_i, :] = [19. 7. 98. 105.]
611     cord_individual_obj[indivial_i, :] = [20. 10. 87. 97.]
612     cord_individual_obj[indivial_i, :] = [21. 10. 116. 126.]
613     cord_individual_obj[indivial_i, :] = [22. 9. 65. 74.]
614     cord_individual_obj[indivial_i, :] = [23. 9. 119. 128.]
615     cord_individual_obj[indivial_i, :] = [24. 8. 152. 160.]
616
617     min(cord_individual_obj[:, 3]) = 71.0
618     historl_G_best_iter[iter, 3] = 71.0
619 Begin iteration:
620
621 iter = 19
622     cord_individual_obj[indivial_i, :] = [ 0. 10. 140. 150.]
623     cord_individual_obj[indivial_i, :] = [ 1. 9. 116. 125.]
624     cord_individual_obj[indivial_i, :] = [ 2. 10. 139. 149.]
625     cord_individual_obj[indivial_i, :] = [ 3. 8. 137. 145.]
626     cord_individual_obj[indivial_i, :] = [ 4. 9. 134. 143.]
627     cord_individual_obj[indivial_i, :] = [ 5. 10. 101. 111.]
628     cord_individual_obj[indivial_i, :] = [ 6. 8. 181. 189.]
629     cord_individual_obj[indivial_i, :] = [ 7. 11. 116. 127.]
630     cord_individual_obj[indivial_i, :] = [ 8. 8. 107. 115.]
631     cord_individual_obj[indivial_i, :] = [ 9. 11. 169. 180.]
632     cord_individual_obj[indivial_i, :] = [10. 8. 109. 117.]
633     cord_individual_obj[indivial_i, :] = [11. 8. 63. 71.]
634     cord_individual_obj[indivial_i, :] = [12. 10. 72. 82.]
635     cord_individual_obj[indivial_i, :] = [13. 8. 166. 174.]
636     cord_individual_obj[indivial_i, :] = [14. 11. 118. 129.]
637     cord_individual_obj[indivial_i, :] = [15. 10. 139. 149.]
638     cord_individual_obj[indivial_i, :] = [16. 9. 110. 119.]
639     cord_individual_obj[indivial_i, :] = [17. 8. 160. 168.]
640     cord_individual_obj[indivial_i, :] = [18. 9. 129. 138.]
641     cord_individual_obj[indivial_i, :] = [19. 9. 121. 130.]
642     cord_individual_obj[indivial_i, :] = [20. 11. 138. 149.]
643     cord_individual_obj[indivial_i, :] = [21. 10. 142. 152.]
644     cord_individual_obj[indivial_i, :] = [22. 11. 138. 149.]
645     cord_individual_obj[indivial_i, :] = [23. 8. 126. 134.]
646     cord_individual_obj[indivial_i, :] = [24. 8. 147. 155.]
647
648     min(cord_individual_obj[:, 3]) = 71.0
649     historl_G_best_iter[iter, 3] = 71.0
650 Begin iteration:
651
652 iter = 20
653     cord_individual_obj[indivial_i, :] = [ 0. 8. 162. 170.]
654     cord_individual_obj[indivial_i, :] = [ 1. 10. 118. 128.]
655     cord_individual_obj[indivial_i, :] = [ 2. 8. 80. 88.]
656     cord_individual_obj[indivial_i, :] = [ 3. 7. 82. 89.]
657     cord_individual_obj[indivial_i, :] = [ 4. 9. 150. 159.]
658     cord_individual_obj[indivial_i, :] = [ 5. 11. 117. 128.]
659     cord_individual_obj[indivial_i, :] = [ 6. 8. 63. 71.]
660     cord_individual_obj[indivial_i, :] = [ 7. 9. 71. 80.]
661     cord_individual_obj[indivial_i, :] = [ 8. 8. 68. 76.]
662     cord_individual_obj[indivial_i, :] = [ 9. 7. 175. 182.]
663     cord_individual_obj[indivial_i, :] = [10. 8. 129. 137.]
664     cord_individual_obj[indivial_i, :] = [11. 8. 103. 111.]
665     cord_individual_obj[indivial_i, :] = [12. 10. 99. 109.]
666     cord_individual_obj[indivial_i, :] = [13. 9. 160. 169.]
667     cord_individual_obj[indivial_i, :] = [14. 10. 158. 168.]

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668 cord_individual_obj[indivial_i,:] = [ 15. 10. 98. 108.]
669 cord_individual_obj[indivial_i,:] = [16. 10. 84. 94.]
670 cord_individual_obj[indivial_i,:] = [ 17. 9. 133. 142.]
671 cord_individual_obj[indivial_i,:] = [ 18. 11. 91. 102.]
672 cord_individual_obj[indivial_i,:] = [19. 10. 89. 99.]
673 cord_individual_obj[indivial_i,:] = [ 20. 8. 163. 171.]
674 cord_individual_obj[indivial_i,:] = [ 21. 10. 119. 129.]
675 cord_individual_obj[indivial_i,:] = [ 22. 11. 161. 172.]
676 cord_individual_obj[indivial_i,:] = [ 23. 12. 124. 136.]
677 cord_individual_obj[indivial_i,:] = [ 24. 8. 111. 119.]
678
679 min(cord_individual_obj[:, 3]) = 71.0
680 historl_G_best_iter[iter, 3] = 71.0
681 Iteration calculate over
682
683
684
685
686 All item are in Bin and:
687 Bin area = 1080
688 Real_area = 190.0
689 Proportion_of_area = 0.17592592592592593
690 BEST_CHROM =
691 berth: [ 1.5 2.5 4.5 11. 21.5 4.5 17.5 25.5 5. 7.5 24.5 25.5 12.5 3.5
692 11. 4.5 17. ]
693 time: [3. 1. 0. 7. 5. 7. 3. 5. 3. 4. 2. 0. 3. 2. 0. 4. 0.]
694 num_QC: [3. 3. 7. 4. 2. 4. 2. 2. 3. 3. 3. 2. 2. 3. 3. 3. 3.]
695 Objective function values and some other indicators:
696 Obj0 = 8.00          Obj1 = 63.00          Obj0 + Obj1 = 71.00
697 Total movement of crane: 14.00
698 Total waiting time in berth position: 49.00
699 Total index of q during berthing: 991.00
700 Specific arrangement for each vessel:
701 V_id: 0      li: 3.0      xi: 1.5      bow of i: 0.0      tail of i: 3.0      gama_i0: 3.0      gama_i1: 4.0
702 100.0      work load gap_i: 0      gama_i1 + 1: 5.0      gama_i1 - gama_i0: 1.0      duration_time_i: 2.0      demand_i: 100.0      work load_i:
703 V_id: 1      li: 5.0      xi: 2.5      bow of i: 0.0      tail of i: 5.0      gama_i0: 1.0      gama_i1: 1.0
704 60.0      work load gap_i: 0      gama_i1 + 1: 2.0      gama_i1 - gama_i0: 0.0      duration_time_i: 1.0      demand_i: 60.0      work load_i:
705 V_id: 2      li: 9.0      xi: 4.5      bow of i: 0.0      tail of i: 9.0      gama_i0: 0.0      gama_i1: 0.0
706 120.0      work load gap_i: 0      gama_i1 + 1: 1.0      gama_i1 - gama_i0: 0.0      duration_time_i: 1.0      demand_i: 120.0      work load_i:
707 V_id: 3      li: 4.0      xi: 11.0      bow of i: 9.0      tail of i: 13.0      gama_i0: 7.0      gama_i1: 8.0
708 .0      work load gap_i: 0      gama_i1 + 1: 9.0      gama_i1 - gama_i0: 1.0      duration_time_i: 2.0      demand_i: 120.0      work
709 V_id: 4      li: 5.0      xi: 21.5      bow of i: 19.0      tail of i: 24.0      gama_i0: 5.0      gama_i1: 6.0
710 .0      work load gap_i: 0      gama_i1 + 1: 7.0      gama_i1 - gama_i0: 1.0      duration_time_i: 2.0      demand_i: 80.0      work
711 V_id: 5      li: 9.0      xi: 4.5      bow of i: 0.0      tail of i: 9.0      gama_i0: 7.0      gama_i1: 8.0
712 160.0      work load gap_i: 0      gama_i1 + 1: 9.0      gama_i1 - gama_i0: 1.0      duration_time_i: 2.0      demand_i: 160.0      work load_i:
713 V_id: 6      li: 3.0      xi: 17.5      bow of i: 16.0      tail of i: 19.0      gama_i0: 3.0      gama_i1: 6.0
714 .0      work load gap_i: 0      gama_i1 + 1: 7.0      gama_i1 - gama_i0: 3.0      duration_time_i: 4.0      demand_i: 160.0      work
715 V_id: 7      li: 3.0      xi: 25.5      bow of i: 24.0      tail of i: 27.0      gama_i0: 5.0      gama_i1: 8.0
716 .0      work load gap_i: 0      gama_i1 + 1: 9.0      gama_i1 - gama_i0: 3.0      duration_time_i: 4.0      demand_i: 140.0      work
717 V_id: 8      li: 4.0      xi: 5.0      bow of i: 3.0      tail of i: 7.0      gama_i0: 3.0      gama_i1: 3.0
718 60.0      work load gap_i: 0      gama_i1 + 1: 4.0      gama_i1 - gama_i0: 0.0      duration_time_i: 1.0      demand_i: 60.0      work load_i:
719 V_id: 9      li: 3.0      xi: 7.5      bow of i: 6.0      tail of i: 9.0      gama_i0: 4.0      gama_i1: 6.0
720 140.0      work load gap_i: 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 V_id: 10     li: 7.0      xi: 24.5      bow of i: 21.0      tail of i: 28.0      gama_i0: 2.0      gama_i1: 1
722 : 4.0      work load gap_i: 0      gama_i1 + 1: 5.0      gama_i1 - gama_i0: 2.0      duration_time_i: 3.0      demand_i: 140.0      work
723 V_id: 11     li: 9.0      xi: 25.5      bow of i: 21.0      tail of i: 30.0      gama_i0: 0.0      gama_i1: 1
724 : 1.0      work load gap_i: 0      gama_i1 + 1: 2.0      gama_i1 - gama_i0: 1.0      duration_time_i: 2.0      demand_i: 60.0      work
725 V_id: 12     li: 7.0      xi: 12.5      bow of i: 9.0      tail of i: 16.0      gama_i0: 3.0      gama_i1: 1
726 : 6.0      work load gap_i: 0      gama_i1 + 1: 7.0      gama_i1 - gama_i0: 3.0      duration_time_i: 4.0      demand_i: 140.0      work
727 V_id: 13     li: 7.0      xi: 3.5      bow of i: 0.0      tail of i: 7.0      gama_i0: 2.0      gama_i1: 2.0
728 60.0      work load gap_i: 0      gama_i1 + 1: 3.0      gama_i1 - gama_i0: 0.0      duration_time_i: 1.0      demand_i: 60.0      work load_i:
729 V_id: 14     li: 4.0      xi: 11.0      bow of i: 9.0      tail of i: 13.0      gama_i0: 0.0      gama_i1: 1
730 : 1.0      work load gap_i: 0      gama_i1 + 1: 2.0      gama_i1 - gama_i0: 1.0      duration_time_i: 2.0      demand_i: 120.0      work
731 V_id: 15     li: 3.0      xi: 4.5      bow of i: 3.0      tail of i: 6.0      gama_i0: 4.0      gama_i1: 5.0
732 120.0      work load gap_i: 0      gama_i1 + 1: 6.0      gama_i1 - gama_i0: 1.0      duration_time_i: 2.0      demand_i: 120.0      work load_i:
733 V_id: 16     li: 8.0      xi: 17.0      bow of i: 13.0      tail of i: 21.0      gama_i0: 0.0      gama_i1: 1
734 : 2.0      work load gap_i: 0      gama_i1 + 1: 3.0      gama_i1 - gama_i0: 2.0      duration_time_i: 3.0      demand_i: 160.0      work

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unknown

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718  
719 Algorithm finished and the total CPU time: 437 s  
720 End  
721
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