

unknown

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80 cord_individual_obj[indivial_i,:] = [ 16. 7. 143. 150.]
81 cord_individual_obj[indivial_i,:] = [ 17. 8. 111. 119.]
82 cord_individual_obj[indivial_i,:] = [ 18. 6. 124. 130.]
83 cord_individual_obj[indivial_i,:] = [ 19. 7. 119. 126.]
84 cord_individual_obj[indivial_i,:] = [ 20. 7. 108. 115.]
85 cord_individual_obj[indivial_i,:] = [ 21. 9. 181. 190.]
86 cord_individual_obj[indivial_i,:] = [ 22. 8. 95. 103.]
87 cord_individual_obj[indivial_i,:] = [ 23. 8. 141. 149.]
88 cord_individual_obj[indivial_i,:] = [ 24. 9. 119. 128.]
89
90 min(cord_individual_obj[:,3]) = 86.0
91 historl_G_best_iter[iter, 3] = 86.0
92 Begin iteration:
93
94 iter = 2
95 cord_individual_obj[indivial_i,:] = [ 0. 10. 132. 142.]
96 cord_individual_obj[indivial_i,:] = [ 1. 7. 209. 216.]
97 cord_individual_obj[indivial_i,:] = [ 2. 9. 136. 145.]
98 cord_individual_obj[indivial_i,:] = [ 3. 9. 129. 138.]
99 cord_individual_obj[indivial_i,:] = [ 4. 8. 128. 136.]
100 cord_individual_obj[indivial_i,:] = [ 5. 9. 100. 109.]
101 cord_individual_obj[indivial_i,:] = [ 6. 10. 101. 111.]
102 cord_individual_obj[indivial_i,:] = [ 7. 9. 75. 84.]
103 cord_individual_obj[indivial_i,:] = [ 8. 7. 171. 178.]
104 cord_individual_obj[indivial_i,:] = [ 9. 9. 133. 142.]
105 cord_individual_obj[indivial_i,:] = [ 10. 8. 166. 174.]
106 cord_individual_obj[indivial_i,:] = [ 11. 9. 107. 116.]
107 cord_individual_obj[indivial_i,:] = [ 12. 10. 143. 153.]
108 cord_individual_obj[indivial_i,:] = [ 13. 8. 134. 142.]
109 cord_individual_obj[indivial_i,:] = [ 14. 8. 105. 113.]
110 cord_individual_obj[indivial_i,:] = [ 15. 8. 158. 166.]
111 cord_individual_obj[indivial_i,:] = [ 16. 8. 131. 139.]
112 cord_individual_obj[indivial_i,:] = [ 17. 10. 129. 139.]
113 cord_individual_obj[indivial_i,:] = [ 18. 7. 105. 112.]
114 cord_individual_obj[indivial_i,:] = [ 19. 7. 140. 147.]
115 cord_individual_obj[indivial_i,:] = [ 20. 7. 119. 126.]
116 cord_individual_obj[indivial_i,:] = [ 21. 8. 78. 86.]
117 cord_individual_obj[indivial_i,:] = [ 22. 10. 129. 139.]
118 cord_individual_obj[indivial_i,:] = [ 23. 9. 114. 123.]
119 cord_individual_obj[indivial_i,:] = [ 24. 8. 140. 148.]
120
121 min(cord_individual_obj[:,3]) = 84.0
122 historl_G_best_iter[iter, 3] = 84.0
123 Begin iteration:
124
125 iter = 3
126 cord_individual_obj[indivial_i,:] = [ 0. 6. 143. 149.]
127 cord_individual_obj[indivial_i,:] = [ 1. 9. 75. 84.]
128 cord_individual_obj[indivial_i,:] = [ 2. 10. 103. 113.]
129 cord_individual_obj[indivial_i,:] = [ 3. 7. 170. 177.]
130 cord_individual_obj[indivial_i,:] = [ 4. 7. 142. 149.]
131 cord_individual_obj[indivial_i,:] = [ 5. 7. 116. 123.]
132 cord_individual_obj[indivial_i,:] = [ 6. 9. 157. 166.]
133 cord_individual_obj[indivial_i,:] = [ 7. 8. 128. 136.]
134 cord_individual_obj[indivial_i,:] = [ 8. 9. 90. 99.]
135 cord_individual_obj[indivial_i,:] = [ 9. 9. 131. 140.]
136 cord_individual_obj[indivial_i,:] = [ 10. 10. 85. 95.]
137 cord_individual_obj[indivial_i,:] = [ 11. 8. 87. 95.]
138 cord_individual_obj[indivial_i,:] = [ 12. 8. 133. 141.]
139 cord_individual_obj[indivial_i,:] = [ 13. 9. 100. 109.]
140 cord_individual_obj[indivial_i,:] = [ 14. 7. 172. 179.]
141 cord_individual_obj[indivial_i,:] = [ 15. 9. 108. 117.]
142 cord_individual_obj[indivial_i,:] = [ 16. 7. 118. 125.]
143 cord_individual_obj[indivial_i,:] = [ 17. 8. 144. 152.]
144 cord_individual_obj[indivial_i,:] = [ 18. 8. 144. 152.]
145 cord_individual_obj[indivial_i,:] = [ 19. 9. 157. 166.]
146 cord_individual_obj[indivial_i,:] = [ 20. 8. 96. 104.]
147 cord_individual_obj[indivial_i,:] = [ 21. 8. 121. 129.]
148 cord_individual_obj[indivial_i,:] = [ 22. 7. 76. 83.]
149 cord_individual_obj[indivial_i,:] = [ 23. 9. 129. 138.]
150 cord_individual_obj[indivial_i,:] = [ 24. 9. 156. 165.]
151
152 min(cord_individual_obj[:,3]) = 83.0
153 historl_G_best_iter[iter, 3] = 83.0
154 Begin iteration:
155
156 iter = 4
157 cord_individual_obj[indivial_i,:] = [ 0. 9. 172. 181.]
158 cord_individual_obj[indivial_i,:] = [ 1. 10. 204. 214.]
159 cord_individual_obj[indivial_i,:] = [ 2. 11. 135. 146.]
160 cord_individual_obj[indivial_i,:] = [ 3. 9. 144. 153.]
161 cord_individual_obj[indivial_i,:] = [ 4. 6. 114. 120.]
162 cord_individual_obj[indivial_i,:] = [ 5. 9. 112. 121.]
163 cord_individual_obj[indivial_i,:] = [ 6. 9. 102. 111.]

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164 cord_individual_obj[indivial_i, :] = [ 7. 7. 142. 149.]
165 cord_individual_obj[indivial_i, :] = [ 8. 8. 119. 127.]
166 cord_individual_obj[indivial_i, :] = [ 9. 7. 108. 115.]
167 cord_individual_obj[indivial_i, :] = [10. 9. 152. 161.]
168 cord_individual_obj[indivial_i, :] = [11. 6. 134. 140.]
169 cord_individual_obj[indivial_i, :] = [12. 9. 136. 145.]
170 cord_individual_obj[indivial_i, :] = [13. 10. 130. 140.]
171 cord_individual_obj[indivial_i, :] = [14. 7. 76. 83.]
172 cord_individual_obj[indivial_i, :] = [15. 11. 147. 158.]
173 cord_individual_obj[indivial_i, :] = [16. 7. 186. 193.]
174 cord_individual_obj[indivial_i, :] = [17. 11. 193. 204.]
175 cord_individual_obj[indivial_i, :] = [18. 10. 116. 126.]
176 cord_individual_obj[indivial_i, :] = [19. 8. 107. 115.]
177 cord_individual_obj[indivial_i, :] = [20. 9. 130. 139.]
178 cord_individual_obj[indivial_i, :] = [21. 7. 139. 146.]
179 cord_individual_obj[indivial_i, :] = [22. 10. 133. 143.]
180 cord_individual_obj[indivial_i, :] = [23. 9. 92. 101.]
181 cord_individual_obj[indivial_i, :] = [24. 8. 86. 94.]
182
183 min(cord_individual_obj[:, 3]) = 83.0
184 historl_G_best_iter[iter, 3] = 83.0
185 Begin iteration:
186
187 iter = 5
188 cord_individual_obj[indivial_i, :] = [ 0. 9. 161. 170.]
189 cord_individual_obj[indivial_i, :] = [ 1. 7. 76. 83.]
190 cord_individual_obj[indivial_i, :] = [ 2. 10. 121. 131.]
191 cord_individual_obj[indivial_i, :] = [ 3. 9. 155. 164.]
192 cord_individual_obj[indivial_i, :] = [ 4. 7. 115. 122.]
193 cord_individual_obj[indivial_i, :] = [ 5. 9. 124. 133.]
194 cord_individual_obj[indivial_i, :] = [ 6. 8. 132. 140.]
195 cord_individual_obj[indivial_i, :] = [ 7. 8. 137. 145.]
196 cord_individual_obj[indivial_i, :] = [ 8. 10. 127. 137.]
197 cord_individual_obj[indivial_i, :] = [ 9. 9. 95. 104.]
198 cord_individual_obj[indivial_i, :] = [10. 8. 149. 157.]
199 cord_individual_obj[indivial_i, :] = [11. 8. 140. 148.]
200 cord_individual_obj[indivial_i, :] = [12. 8. 117. 125.]
201 cord_individual_obj[indivial_i, :] = [13. 8. 119. 127.]
202 cord_individual_obj[indivial_i, :] = [14. 8. 188. 196.]
203 cord_individual_obj[indivial_i, :] = [15. 8. 106. 114.]
204 cord_individual_obj[indivial_i, :] = [16. 7. 149. 156.]
205 cord_individual_obj[indivial_i, :] = [17. 8. 199. 207.]
206 cord_individual_obj[indivial_i, :] = [18. 10. 151. 161.]
207 cord_individual_obj[indivial_i, :] = [19. 8. 99. 107.]
208 cord_individual_obj[indivial_i, :] = [20. 9. 163. 172.]
209 cord_individual_obj[indivial_i, :] = [21. 7. 142. 149.]
210 cord_individual_obj[indivial_i, :] = [22. 9. 111. 120.]
211 cord_individual_obj[indivial_i, :] = [23. 9. 94. 103.]
212 cord_individual_obj[indivial_i, :] = [24. 7. 102. 109.]
213
214 min(cord_individual_obj[:, 3]) = 83.0
215 historl_G_best_iter[iter, 3] = 83.0
216 Begin iteration:
217
218 iter = 6
219 cord_individual_obj[indivial_i, :] = [ 0. 9. 134. 143.]
220 cord_individual_obj[indivial_i, :] = [ 1. 8. 123. 131.]
221 cord_individual_obj[indivial_i, :] = [ 2. 8. 128. 136.]
222 cord_individual_obj[indivial_i, :] = [ 3. 9. 124. 133.]
223 cord_individual_obj[indivial_i, :] = [ 4. 9. 151. 160.]
224 cord_individual_obj[indivial_i, :] = [ 5. 7. 148. 155.]
225 cord_individual_obj[indivial_i, :] = [ 6. 7. 164. 171.]
226 cord_individual_obj[indivial_i, :] = [ 7. 8. 146. 154.]
227 cord_individual_obj[indivial_i, :] = [ 8. 7. 157. 164.]
228 cord_individual_obj[indivial_i, :] = [ 9. 9. 165. 174.]
229 cord_individual_obj[indivial_i, :] = [10. 8. 130. 138.]
230 cord_individual_obj[indivial_i, :] = [11. 9. 146. 155.]
231 cord_individual_obj[indivial_i, :] = [12. 7. 143. 150.]
232 cord_individual_obj[indivial_i, :] = [13. 8. 57. 65.]
233 cord_individual_obj[indivial_i, :] = [14. 8. 123. 131.]
234 cord_individual_obj[indivial_i, :] = [15. 9. 136. 145.]
235 cord_individual_obj[indivial_i, :] = [16. 8. 136. 144.]
236 cord_individual_obj[indivial_i, :] = [17. 7. 76. 83.]
237 cord_individual_obj[indivial_i, :] = [18. 7. 66. 73.]
238 cord_individual_obj[indivial_i, :] = [19. 8. 99. 107.]
239 cord_individual_obj[indivial_i, :] = [20. 9. 121. 130.]
240 cord_individual_obj[indivial_i, :] = [21. 8. 95. 103.]
241 cord_individual_obj[indivial_i, :] = [22. 8. 139. 147.]
242 cord_individual_obj[indivial_i, :] = [23. 9. 110. 119.]
243 cord_individual_obj[indivial_i, :] = [24. 7. 102. 109.]
244
245 min(cord_individual_obj[:, 3]) = 65.0
246 historl_G_best_iter[iter, 3] = 65.0
247 Begin iteration:

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248
249 iter = 7
250 cord_individual_obj[indivial_i, :] = [ 0. 9. 183. 192.]
251 cord_individual_obj[indivial_i, :] = [ 1. 7. 125. 132.]
252 cord_individual_obj[indivial_i, :] = [ 2. 8. 154. 162.]
253 cord_individual_obj[indivial_i, :] = [ 3. 12. 161. 173.]
254 cord_individual_obj[indivial_i, :] = [ 4. 8. 147. 155.]
255 cord_individual_obj[indivial_i, :] = [ 5. 10. 133. 143.]
256 cord_individual_obj[indivial_i, :] = [ 6. 9. 127. 136.]
257 cord_individual_obj[indivial_i, :] = [ 7. 7. 203. 210.]
258 cord_individual_obj[indivial_i, :] = [ 8. 6. 139. 145.]
259 cord_individual_obj[indivial_i, :] = [ 9. 8. 57. 65.]
260 cord_individual_obj[indivial_i, :] = [ 10. 9. 178. 187.]
261 cord_individual_obj[indivial_i, :] = [ 11. 10. 130. 140.]
262 cord_individual_obj[indivial_i, :] = [ 12. 6. 158. 164.]
263 cord_individual_obj[indivial_i, :] = [ 13. 10. 103. 113.]
264 cord_individual_obj[indivial_i, :] = [ 14. 10. 162. 172.]
265 cord_individual_obj[indivial_i, :] = [ 15. 9. 151. 160.]
266 cord_individual_obj[indivial_i, :] = [ 16. 8. 158. 166.]
267 cord_individual_obj[indivial_i, :] = [ 17. 8. 124. 132.]
268 cord_individual_obj[indivial_i, :] = [ 18. 8. 126. 134.]
269 cord_individual_obj[indivial_i, :] = [ 19. 10. 162. 172.]
270 cord_individual_obj[indivial_i, :] = [ 20. 10. 125. 135.]
271 cord_individual_obj[indivial_i, :] = [ 21. 8. 166. 174.]
272 cord_individual_obj[indivial_i, :] = [ 22. 9. 142. 151.]
273 cord_individual_obj[indivial_i, :] = [ 23. 8. 89. 97.]
274 cord_individual_obj[indivial_i, :] = [ 24. 8. 166. 174.]
275

276 min(cord_individual_obj[:, 3]) = 65.0
277 historl_G_best_iter[iter, 3] = 65.0
278 Begin iteration:
279
280 iter = 8
281 cord_individual_obj[indivial_i, :] = [ 0. 10. 199. 209.]
282 cord_individual_obj[indivial_i, :] = [ 1. 7. 115. 122.]
283 cord_individual_obj[indivial_i, :] = [ 2. 7. 103. 110.]
284 cord_individual_obj[indivial_i, :] = [ 3. 8. 131. 139.]
285 cord_individual_obj[indivial_i, :] = [ 4. 7. 128. 135.]
286 cord_individual_obj[indivial_i, :] = [ 5. 8. 104. 112.]
287 cord_individual_obj[indivial_i, :] = [ 6. 11. 132. 143.]
288 cord_individual_obj[indivial_i, :] = [ 7. 8. 57. 65.]
289 cord_individual_obj[indivial_i, :] = [ 8. 6. 163. 169.]
290 cord_individual_obj[indivial_i, :] = [ 9. 9. 85. 94.]
291 cord_individual_obj[indivial_i, :] = [ 10. 8. 140. 148.]
292 cord_individual_obj[indivial_i, :] = [ 11. 9. 136. 145.]
293 cord_individual_obj[indivial_i, :] = [ 12. 10. 128. 138.]
294 cord_individual_obj[indivial_i, :] = [ 13. 8. 100. 108.]
295 cord_individual_obj[indivial_i, :] = [ 14. 8. 129. 137.]
296 cord_individual_obj[indivial_i, :] = [ 15. 11. 121. 132.]
297 cord_individual_obj[indivial_i, :] = [ 16. 8. 145. 153.]
298 cord_individual_obj[indivial_i, :] = [ 17. 9. 126. 135.]
299 cord_individual_obj[indivial_i, :] = [ 18. 7. 121. 128.]
300 cord_individual_obj[indivial_i, :] = [ 19. 10. 142. 152.]
301 cord_individual_obj[indivial_i, :] = [ 20. 10. 156. 166.]
302 cord_individual_obj[indivial_i, :] = [ 21. 8. 143. 151.]
303 cord_individual_obj[indivial_i, :] = [ 22. 8. 120. 128.]
304 cord_individual_obj[indivial_i, :] = [ 23. 8. 138. 146.]
305 cord_individual_obj[indivial_i, :] = [ 24. 8. 137. 145.]
306

307 min(cord_individual_obj[:, 3]) = 65.0
308 historl_G_best_iter[iter, 3] = 65.0
309 Begin iteration:
310
311 iter = 9
312 cord_individual_obj[indivial_i, :] = [ 0. 8. 57. 65.]
313 cord_individual_obj[indivial_i, :] = [ 1. 9. 145. 154.]
314 cord_individual_obj[indivial_i, :] = [ 2. 8. 131. 139.]
315 cord_individual_obj[indivial_i, :] = [ 3. 12. 140. 152.]
316 cord_individual_obj[indivial_i, :] = [ 4. 7. 167. 174.]
317 cord_individual_obj[indivial_i, :] = [ 5. 9. 83. 92.]
318 cord_individual_obj[indivial_i, :] = [ 6. 10. 99. 109.]
319 cord_individual_obj[indivial_i, :] = [ 7. 7. 142. 149.]
320 cord_individual_obj[indivial_i, :] = [ 8. 6. 128. 134.]
321 cord_individual_obj[indivial_i, :] = [ 9. 8. 114. 122.]
322 cord_individual_obj[indivial_i, :] = [ 10. 8. 122. 130.]
323 cord_individual_obj[indivial_i, :] = [ 11. 11. 152. 163.]
324 cord_individual_obj[indivial_i, :] = [ 12. 7. 134. 141.]
325 cord_individual_obj[indivial_i, :] = [ 13. 10. 96. 106.]
326 cord_individual_obj[indivial_i, :] = [ 14. 9. 129. 138.]
327 cord_individual_obj[indivial_i, :] = [ 15. 8. 115. 123.]
328 cord_individual_obj[indivial_i, :] = [ 16. 7. 152. 159.]
329 cord_individual_obj[indivial_i, :] = [ 17. 9. 96. 105.]
330 cord_individual_obj[indivial_i, :] = [ 18. 7. 124. 131.]
331 cord_individual_obj[indivial_i, :] = [ 19. 7. 82. 89.]

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unknown

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332     cord_individual_obj[indivial_i, :] = [ 20.  9. 114. 123.]
333     cord_individual_obj[indivial_i, :] = [ 21. 10. 153. 163.]
334     cord_individual_obj[indivial_i, :] = [ 22.  8. 106. 114.]
335     cord_individual_obj[indivial_i, :] = [ 23.  9. 108. 117.]
336     cord_individual_obj[indivial_i, :] = [ 24.  7. 127. 134.]
337
338 min(cord_individual_obj[:, 3]) = 65.0
339 historl_G_best_iter[iter, 3] = 65.0
340 Begin iteration:
341
342 iter = 10
343     cord_individual_obj[indivial_i, :] = [ 0. 11. 142. 153.]
344     cord_individual_obj[indivial_i, :] = [ 1. 8. 123. 131.]
345     cord_individual_obj[indivial_i, :] = [ 2. 8. 159. 167.]
346     cord_individual_obj[indivial_i, :] = [ 3. 9. 112. 121.]
347     cord_individual_obj[indivial_i, :] = [ 4. 8. 57. 65.]
348     cord_individual_obj[indivial_i, :] = [ 5. 9. 145. 154.]
349     cord_individual_obj[indivial_i, :] = [ 6. 9. 111. 120.]
350     cord_individual_obj[indivial_i, :] = [ 7. 8. 174. 182.]
351     cord_individual_obj[indivial_i, :] = [ 8. 7. 144. 151.]
352     cord_individual_obj[indivial_i, :] = [ 9. 10. 108. 118.]
353     cord_individual_obj[indivial_i, :] = [ 10. 9. 179. 188.]
354     cord_individual_obj[indivial_i, :] = [ 11. 11. 132. 143.]
355     cord_individual_obj[indivial_i, :] = [ 12. 7. 171. 178.]
356     cord_individual_obj[indivial_i, :] = [ 13. 9. 111. 120.]
357     cord_individual_obj[indivial_i, :] = [ 14. 9. 174. 183.]
358     cord_individual_obj[indivial_i, :] = [ 15. 7. 102. 109.]
359     cord_individual_obj[indivial_i, :] = [ 16. 7. 138. 145.]
360     cord_individual_obj[indivial_i, :] = [ 17. 7. 106. 113.]
361     cord_individual_obj[indivial_i, :] = [ 18. 8. 129. 137.]
362     cord_individual_obj[indivial_i, :] = [ 19. 9. 137. 146.]
363     cord_individual_obj[indivial_i, :] = [ 20. 8. 143. 151.]
364     cord_individual_obj[indivial_i, :] = [ 21. 9. 163. 172.]
365     cord_individual_obj[indivial_i, :] = [ 22. 9. 129. 138.]
366     cord_individual_obj[indivial_i, :] = [ 23. 8. 103. 111.]
367     cord_individual_obj[indivial_i, :] = [ 24. 8. 138. 146.]
368
369 min(cord_individual_obj[:, 3]) = 65.0
370 historl_G_best_iter[iter, 3] = 65.0
371 Begin iteration:
372
373 iter = 11
374     cord_individual_obj[indivial_i, :] = [ 0. 8. 198. 206.]
375     cord_individual_obj[indivial_i, :] = [ 1. 8. 98. 106.]
376     cord_individual_obj[indivial_i, :] = [ 2. 10. 137. 147.]
377     cord_individual_obj[indivial_i, :] = [ 3. 8. 125. 133.]
378     cord_individual_obj[indivial_i, :] = [ 4. 9. 160. 169.]
379     cord_individual_obj[indivial_i, :] = [ 5. 8. 122. 130.]
380     cord_individual_obj[indivial_i, :] = [ 6. 8. 125. 133.]
381     cord_individual_obj[indivial_i, :] = [ 7. 7. 153. 160.]
382     cord_individual_obj[indivial_i, :] = [ 8. 7. 139. 146.]
383     cord_individual_obj[indivial_i, :] = [ 9. 7. 100. 107.]
384     cord_individual_obj[indivial_i, :] = [ 10. 8. 57. 65.]
385     cord_individual_obj[indivial_i, :] = [ 11. 9. 130. 139.]
386     cord_individual_obj[indivial_i, :] = [ 12. 9. 100. 109.]
387     cord_individual_obj[indivial_i, :] = [ 13. 9. 102. 111.]
388     cord_individual_obj[indivial_i, :] = [ 14. 8. 114. 122.]
389     cord_individual_obj[indivial_i, :] = [ 15. 8. 79. 87.]
390     cord_individual_obj[indivial_i, :] = [ 16. 8. 167. 175.]
391     cord_individual_obj[indivial_i, :] = [ 17. 9. 117. 126.]
392     cord_individual_obj[indivial_i, :] = [ 18. 7. 190. 197.]
393     cord_individual_obj[indivial_i, :] = [ 19. 7. 95. 102.]
394     cord_individual_obj[indivial_i, :] = [ 20. 9. 107. 116.]
395     cord_individual_obj[indivial_i, :] = [ 21. 11. 130. 141.]
396     cord_individual_obj[indivial_i, :] = [ 22. 8. 150. 158.]
397     cord_individual_obj[indivial_i, :] = [ 23. 9. 129. 138.]
398     cord_individual_obj[indivial_i, :] = [ 24. 8. 139. 147.]
399
400 min(cord_individual_obj[:, 3]) = 65.0
401 historl_G_best_iter[iter, 3] = 65.0
402 Begin iteration:
403
404 iter = 12
405     cord_individual_obj[indivial_i, :] = [ 0. 8. 57. 65.]
406     cord_individual_obj[indivial_i, :] = [ 1. 9. 122. 131.]
407     cord_individual_obj[indivial_i, :] = [ 2. 8. 120. 128.]
408     cord_individual_obj[indivial_i, :] = [ 3. 9. 127. 136.]
409     cord_individual_obj[indivial_i, :] = [ 4. 8. 152. 160.]
410     cord_individual_obj[indivial_i, :] = [ 5. 9. 135. 144.]
411     cord_individual_obj[indivial_i, :] = [ 6. 9. 143. 152.]
412     cord_individual_obj[indivial_i, :] = [ 7. 8. 153. 161.]
413     cord_individual_obj[indivial_i, :] = [ 8. 6. 131. 137.]
414     cord_individual_obj[indivial_i, :] = [ 9. 10. 137. 147.]
415     cord_individual_obj[indivial_i, :] = [ 10. 9. 134. 143.]
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416 cord_individual_obj[indivial_i,:] = [ 11. 9. 103. 112.]
417 cord_individual_obj[indivial_i,:] = [ 12. 8. 133. 141.]
418 cord_individual_obj[indivial_i,:] = [ 13. 7. 100. 107.]
419 cord_individual_obj[indivial_i,:] = [ 14. 8. 148. 156.]
420 cord_individual_obj[indivial_i,:] = [ 15. 9. 144. 153.]
421 cord_individual_obj[indivial_i,:] = [ 16. 8. 126. 134.]
422 cord_individual_obj[indivial_i,:] = [ 17. 6. 139. 145.]
423 cord_individual_obj[indivial_i,:] = [ 18. 7. 103. 110.]
424 cord_individual_obj[indivial_i,:] = [ 19. 9. 191. 200.]
425 cord_individual_obj[indivial_i,:] = [ 20. 9. 100. 109.]
426 cord_individual_obj[indivial_i,:] = [ 21. 8. 168. 176.]
427 cord_individual_obj[indivial_i,:] = [ 22. 8. 110. 118.]
428 cord_individual_obj[indivial_i,:] = [ 23. 9. 112. 121.]
429 cord_individual_obj[indivial_i,:] = [ 24. 9. 185. 194.]
430
431 min(cord_individual_obj[:,3]) = 65.0
432 histol_G_best_iter[iter,3] = 65.0
433 Begin iteration:
434
435 iter = 13
436 cord_individual_obj[indivial_i,:] = [ 0. 8. 117. 125.]
437 cord_individual_obj[indivial_i,:] = [ 1. 8. 127. 135.]
438 cord_individual_obj[indivial_i,:] = [ 2. 7. 164. 171.]
439 cord_individual_obj[indivial_i,:] = [ 3. 9. 148. 157.]
440 cord_individual_obj[indivial_i,:] = [ 4. 7. 126. 133.]
441 cord_individual_obj[indivial_i,:] = [ 5. 7. 121. 128.]
442 cord_individual_obj[indivial_i,:] = [ 6. 9. 97. 106.]
443 cord_individual_obj[indivial_i,:] = [ 7. 9. 118. 127.]
444 cord_individual_obj[indivial_i,:] = [ 8. 8. 103. 111.]
445 cord_individual_obj[indivial_i,:] = [ 9. 9. 132. 141.]
446 cord_individual_obj[indivial_i,:] = [ 10. 8. 144. 152.]
447 cord_individual_obj[indivial_i,:] = [ 11. 9. 147. 156.]
448 cord_individual_obj[indivial_i,:] = [ 12. 8. 122. 130.]
449 cord_individual_obj[indivial_i,:] = [ 13. 8. 158. 166.]
450 cord_individual_obj[indivial_i,:] = [ 14. 8. 100. 108.]
451 cord_individual_obj[indivial_i,:] = [ 15. 8. 113. 121.]
452 cord_individual_obj[indivial_i,:] = [ 16. 7. 151. 158.]
453 cord_individual_obj[indivial_i,:] = [ 17. 8. 131. 139.]
454 cord_individual_obj[indivial_i,:] = [ 18. 8. 119. 127.]
455 cord_individual_obj[indivial_i,:] = [ 19. 8. 57. 65.]
456 cord_individual_obj[indivial_i,:] = [ 20. 9. 143. 152.]
457 cord_individual_obj[indivial_i,:] = [ 21. 10. 175. 185.]
458 cord_individual_obj[indivial_i,:] = [ 22. 7. 150. 157.]
459 cord_individual_obj[indivial_i,:] = [ 23. 7. 125. 132.]
460 cord_individual_obj[indivial_i,:] = [ 24. 8. 143. 151.]
461
462 min(cord_individual_obj[:,3]) = 65.0
463 histol_G_best_iter[iter,3] = 65.0
464 Begin iteration:
465
466 iter = 14
467 cord_individual_obj[indivial_i,:] = [ 0. 7. 121. 128.]
468 cord_individual_obj[indivial_i,:] = [ 1. 8. 111. 119.]
469 cord_individual_obj[indivial_i,:] = [ 2. 8. 114. 122.]
470 cord_individual_obj[indivial_i,:] = [ 3. 10. 121. 131.]
471 cord_individual_obj[indivial_i,:] = [ 4. 7. 102. 109.]
472 cord_individual_obj[indivial_i,:] = [ 5. 10. 117. 127.]
473 cord_individual_obj[indivial_i,:] = [ 6. 10. 132. 142.]
474 cord_individual_obj[indivial_i,:] = [ 7. 7. 152. 159.]
475 cord_individual_obj[indivial_i,:] = [ 8. 7. 127. 134.]
476 cord_individual_obj[indivial_i,:] = [ 9. 8. 158. 166.]
477 cord_individual_obj[indivial_i,:] = [ 10. 9. 113. 122.]
478 cord_individual_obj[indivial_i,:] = [ 11. 9. 190. 199.]
479 cord_individual_obj[indivial_i,:] = [ 12. 9. 157. 166.]
480 cord_individual_obj[indivial_i,:] = [ 13. 6. 122. 128.]
481 cord_individual_obj[indivial_i,:] = [ 14. 8. 119. 127.]
482 cord_individual_obj[indivial_i,:] = [ 15. 8. 150. 158.]
483 cord_individual_obj[indivial_i,:] = [ 16. 8. 147. 155.]
484 cord_individual_obj[indivial_i,:] = [ 17. 8. 133. 141.]
485 cord_individual_obj[indivial_i,:] = [ 18. 7. 170. 177.]
486 cord_individual_obj[indivial_i,:] = [ 19. 10. 151. 161.]
487 cord_individual_obj[indivial_i,:] = [ 20. 10. 133. 143.]
488 cord_individual_obj[indivial_i,:] = [ 21. 8. 57. 65.]
489 cord_individual_obj[indivial_i,:] = [ 22. 9. 106. 115.]
490 cord_individual_obj[indivial_i,:] = [ 23. 8. 71. 79.]
491 cord_individual_obj[indivial_i,:] = [ 24. 9. 150. 159.]
492
493 min(cord_individual_obj[:,3]) = 65.0
494 histol_G_best_iter[iter,3] = 65.0
495 Begin iteration:
496
497 iter = 15
498 cord_individual_obj[indivial_i,:] = [ 0. 8. 116. 124.]
499 cord_individual_obj[indivial_i,:] = [ 1. 8. 120. 128.]

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500 cord_individual_obj[indivial_i,:] = [ 2. 7. 109. 116.]
501 cord_individual_obj[indivial_i,:] = [ 3. 9. 149. 158.]
502 cord_individual_obj[indivial_i,:] = [ 4. 8. 174. 182.]
503 cord_individual_obj[indivial_i,:] = [ 5. 9. 141. 150.]
504 cord_individual_obj[indivial_i,:] = [ 6. 9. 122. 131.]
505 cord_individual_obj[indivial_i,:] = [ 7. 9. 138. 147.]
506 cord_individual_obj[indivial_i,:] = [ 8. 7. 135. 142.]
507 cord_individual_obj[indivial_i,:] = [ 9. 10. 130. 140.]
508 cord_individual_obj[indivial_i,:] = [10. 10. 108. 118.]
509 cord_individual_obj[indivial_i,:] = [11. 8. 57. 65.]
510 cord_individual_obj[indivial_i,:] = [12. 8. 147. 155.]
511 cord_individual_obj[indivial_i,:] = [13. 8. 128. 136.]
512 cord_individual_obj[indivial_i,:] = [14. 8. 147. 155.]
513 cord_individual_obj[indivial_i,:] = [15. 8. 104. 112.]
514 cord_individual_obj[indivial_i,:] = [16. 7. 107. 114.]
515 cord_individual_obj[indivial_i,:] = [17. 9. 144. 153.]
516 cord_individual_obj[indivial_i,:] = [18. 7. 185. 192.]
517 cord_individual_obj[indivial_i,:] = [19. 7. 149. 156.]
518 cord_individual_obj[indivial_i,:] = [20. 9. 165. 174.]
519 cord_individual_obj[indivial_i,:] = [21. 8. 172. 180.]
520 cord_individual_obj[indivial_i,:] = [22. 7. 178. 185.]
521 cord_individual_obj[indivial_i,:] = [23. 9. 117. 126.]
522 cord_individual_obj[indivial_i,:] = [24. 7. 110. 117.]
523
524 min(cord_individual_obj[:, 3]) = 65.0
525 histol_G_best_iter[iter, 3] = 65.0
526 Begin iteration:
527
528 iter = 16
529 cord_individual_obj[indivial_i,:] = [ 0. 8. 137. 145.]
530 cord_individual_obj[indivial_i,:] = [ 1. 9. 114. 123.]
531 cord_individual_obj[indivial_i,:] = [ 2. 9. 85. 94.]
532 cord_individual_obj[indivial_i,:] = [ 3. 9. 105. 114.]
533 cord_individual_obj[indivial_i,:] = [ 4. 8. 124. 132.]
534 cord_individual_obj[indivial_i,:] = [ 5. 10. 132. 142.]
535 cord_individual_obj[indivial_i,:] = [ 6. 9. 88. 97.]
536 cord_individual_obj[indivial_i,:] = [ 7. 7. 131. 138.]
537 cord_individual_obj[indivial_i,:] = [ 8. 7. 96. 103.]
538 cord_individual_obj[indivial_i,:] = [ 9. 8. 102. 110.]
539 cord_individual_obj[indivial_i,:] = [10. 7. 131. 138.]
540 cord_individual_obj[indivial_i,:] = [11. 9. 133. 142.]
541 cord_individual_obj[indivial_i,:] = [12. 8. 78. 86.]
542 cord_individual_obj[indivial_i,:] = [13. 6. 109. 115.]
543 cord_individual_obj[indivial_i,:] = [14. 7. 106. 113.]
544 cord_individual_obj[indivial_i,:] = [15. 10. 102. 112.]
545 cord_individual_obj[indivial_i,:] = [16. 8. 136. 144.]
546 cord_individual_obj[indivial_i,:] = [17. 8. 152. 160.]
547 cord_individual_obj[indivial_i,:] = [18. 8. 57. 65.]
548 cord_individual_obj[indivial_i,:] = [19. 8. 145. 153.]
549 cord_individual_obj[indivial_i,:] = [20. 9. 144. 153.]
550 cord_individual_obj[indivial_i,:] = [21. 9. 137. 146.]
551 cord_individual_obj[indivial_i,:] = [22. 9. 171. 180.]
552 cord_individual_obj[indivial_i,:] = [23. 7. 144. 151.]
553 cord_individual_obj[indivial_i,:] = [24. 8. 117. 125.]
554
555 min(cord_individual_obj[:, 3]) = 65.0
556 histol_G_best_iter[iter, 3] = 65.0
557 Begin iteration:
558
559 iter = 17
560 cord_individual_obj[indivial_i,:] = [ 0. 7. 144. 151.]
561 cord_individual_obj[indivial_i,:] = [ 1. 9. 144. 153.]
562 cord_individual_obj[indivial_i,:] = [ 2. 9. 101. 110.]
563 cord_individual_obj[indivial_i,:] = [ 3. 8. 143. 151.]
564 cord_individual_obj[indivial_i,:] = [ 4. 8. 131. 139.]
565 cord_individual_obj[indivial_i,:] = [ 5. 9. 128. 137.]
566 cord_individual_obj[indivial_i,:] = [ 6. 11. 107. 118.]
567 cord_individual_obj[indivial_i,:] = [ 7. 9. 150. 159.]
568 cord_individual_obj[indivial_i,:] = [ 8. 7. 167. 174.]
569 cord_individual_obj[indivial_i,:] = [ 9. 8. 136. 144.]
570 cord_individual_obj[indivial_i,:] = [10. 9. 99. 108.]
571 cord_individual_obj[indivial_i,:] = [11. 8. 120. 128.]
572 cord_individual_obj[indivial_i,:] = [12. 10. 143. 153.]
573 cord_individual_obj[indivial_i,:] = [13. 8. 129. 137.]
574 cord_individual_obj[indivial_i,:] = [14. 7. 125. 132.]
575 cord_individual_obj[indivial_i,:] = [15. 7. 123. 130.]
576 cord_individual_obj[indivial_i,:] = [16. 9. 168. 177.]
577 cord_individual_obj[indivial_i,:] = [17. 9. 143. 152.]
578 cord_individual_obj[indivial_i,:] = [18. 7. 146. 153.]
579 cord_individual_obj[indivial_i,:] = [19. 6. 120. 126.]
580 cord_individual_obj[indivial_i,:] = [20. 9. 143. 152.]
581 cord_individual_obj[indivial_i,:] = [21. 7. 111. 118.]
582 cord_individual_obj[indivial_i,:] = [22. 8. 57. 65.]
583 cord_individual_obj[indivial_i,:] = [23. 9. 104. 113.]

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584     cord_individual_obj[indivial_i, :] = [ 24.  8. 158. 166.]
585
586     min(cord_individual_obj[:, 3]) = 65.0
587     historl_G_best_iter[iter, 3] = 65.0
588 Begin iteration:
589
590 iter = 18
591     cord_individual_obj[indivial_i, :] = [ 0.  9. 139. 148.]
592     cord_individual_obj[indivial_i, :] = [ 1.  8. 136. 144.]
593     cord_individual_obj[indivial_i, :] = [ 2.  8. 113. 121.]
594     cord_individual_obj[indivial_i, :] = [ 3. 11. 150. 161.]
595     cord_individual_obj[indivial_i, :] = [ 4.  7. 147. 154.]
596     cord_individual_obj[indivial_i, :] = [ 5.  9. 154. 163.]
597     cord_individual_obj[indivial_i, :] = [ 6. 10. 113. 123.]
598     cord_individual_obj[indivial_i, :] = [ 7.  7. 142. 149.]
599     cord_individual_obj[indivial_i, :] = [ 8.  7. 140. 147.]
600     cord_individual_obj[indivial_i, :] = [ 9.  9. 97. 106.]
601     cord_individual_obj[indivial_i, :] = [10. 10. 135. 145.]
602     cord_individual_obj[indivial_i, :] = [11. 10. 125. 135.]
603     cord_individual_obj[indivial_i, :] = [12. 10. 124. 134.]
604     cord_individual_obj[indivial_i, :] = [13.  9. 129. 138.]
605     cord_individual_obj[indivial_i, :] = [14.  8. 104. 112.]
606     cord_individual_obj[indivial_i, :] = [15. 10. 115. 125.]
607     cord_individual_obj[indivial_i, :] = [16.  8. 57. 65.]
608     cord_individual_obj[indivial_i, :] = [17.  9. 120. 129.]
609     cord_individual_obj[indivial_i, :] = [18.  8. 118. 126.]
610     cord_individual_obj[indivial_i, :] = [19.  7. 136. 143.]
611     cord_individual_obj[indivial_i, :] = [20.  8. 98. 106.]
612     cord_individual_obj[indivial_i, :] = [21.  7. 180. 187.]
613     cord_individual_obj[indivial_i, :] = [22.  8. 154. 162.]
614     cord_individual_obj[indivial_i, :] = [23.  8. 140. 148.]
615     cord_individual_obj[indivial_i, :] = [24.  8. 124. 132.]
616
617     min(cord_individual_obj[:, 3]) = 65.0
618     historl_G_best_iter[iter, 3] = 65.0
619 Begin iteration:
620
621 iter = 19
622     cord_individual_obj[indivial_i, :] = [ 0.  8. 177. 185.]
623     cord_individual_obj[indivial_i, :] = [ 1.  7. 178. 185.]
624     cord_individual_obj[indivial_i, :] = [ 2.  9. 104. 113.]
625     cord_individual_obj[indivial_i, :] = [ 3. 10. 135. 145.]
626     cord_individual_obj[indivial_i, :] = [ 4.  7. 132. 139.]
627     cord_individual_obj[indivial_i, :] = [ 5. 11. 141. 152.]
628     cord_individual_obj[indivial_i, :] = [ 6. 11. 109. 120.]
629     cord_individual_obj[indivial_i, :] = [ 7.  8. 160. 168.]
630     cord_individual_obj[indivial_i, :] = [ 8.  7. 136. 143.]
631     cord_individual_obj[indivial_i, :] = [ 9.  8. 107. 115.]
632     cord_individual_obj[indivial_i, :] = [10.  9. 136. 145.]
633     cord_individual_obj[indivial_i, :] = [11. 11. 117. 128.]
634     cord_individual_obj[indivial_i, :] = [12.  9. 139. 148.]
635     cord_individual_obj[indivial_i, :] = [13. 10. 89. 99.]
636     cord_individual_obj[indivial_i, :] = [14.  8. 107. 115.]
637     cord_individual_obj[indivial_i, :] = [15. 10. 108. 118.]
638     cord_individual_obj[indivial_i, :] = [16.  9. 164. 173.]
639     cord_individual_obj[indivial_i, :] = [17.  9. 136. 145.]
640     cord_individual_obj[indivial_i, :] = [18.  7. 119. 126.]
641     cord_individual_obj[indivial_i, :] = [19.  9. 112. 121.]
642     cord_individual_obj[indivial_i, :] = [20.  8. 144. 152.]
643     cord_individual_obj[indivial_i, :] = [21.  8. 57. 65.]
644     cord_individual_obj[indivial_i, :] = [22.  8. 121. 129.]
645     cord_individual_obj[indivial_i, :] = [23.  9. 131. 140.]
646     cord_individual_obj[indivial_i, :] = [24.  9. 180. 189.]
647
648     min(cord_individual_obj[:, 3]) = 65.0
649     historl_G_best_iter[iter, 3] = 65.0
650 Begin iteration:
651
652 iter = 20
653     cord_individual_obj[indivial_i, :] = [ 0. 11. 160. 171.]
654     cord_individual_obj[indivial_i, :] = [ 1.  9. 138. 147.]
655     cord_individual_obj[indivial_i, :] = [ 2.  8. 111. 119.]
656     cord_individual_obj[indivial_i, :] = [ 3. 11. 153. 164.]
657     cord_individual_obj[indivial_i, :] = [ 4.  8. 140. 148.]
658     cord_individual_obj[indivial_i, :] = [ 5.  9. 108. 117.]
659     cord_individual_obj[indivial_i, :] = [ 6. 11. 125. 136.]
660     cord_individual_obj[indivial_i, :] = [ 7.  7. 161. 168.]
661     cord_individual_obj[indivial_i, :] = [ 8.  7. 143. 150.]
662     cord_individual_obj[indivial_i, :] = [ 9.  9. 95. 104.]
663     cord_individual_obj[indivial_i, :] = [10.  8. 129. 137.]
664     cord_individual_obj[indivial_i, :] = [11. 11. 159. 170.]
665     cord_individual_obj[indivial_i, :] = [12.  8. 122. 130.]
666     cord_individual_obj[indivial_i, :] = [13. 10. 129. 139.]
667     cord_individual_obj[indivial_i, :] = [14.  7. 110. 117.]

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668 cord_individual_obj[indivial_i,:] = [ 15. 8. 102. 110.]
669 cord_individual_obj[indivial_i,:] = [ 16. 7. 136. 143.]
670 cord_individual_obj[indivial_i,:] = [ 17. 8. 119. 127.]
671 cord_individual_obj[indivial_i,:] = [ 18. 8. 183. 191.]
672 cord_individual_obj[indivial_i,:] = [ 19. 8. 111. 119.]
673 cord_individual_obj[indivial_i,:] = [ 20. 9. 143. 152.]
674 cord_individual_obj[indivial_i,:] = [ 21. 8. 172. 180.]
675 cord_individual_obj[indivial_i,:] = [ 22. 8. 146. 154.]
676 cord_individual_obj[indivial_i,:] = [ 23. 9. 151. 160.]
677 cord_individual_obj[indivial_i,:] = [ 24. 8. 57. 65.]
678
679 min(cord_individual_obj[:, 3]) = 65.0
680 historl_G_best_iter[iter, 3] = 65.0
681 Iteration calculate over
682
683
684
685
686 All item are in Bin and:
687 Bin area = 1080
688 Real_area = 183.0
689 Proportion_of_area = 0.16944444444444445
690 BEST_CHROM =
691 berth: [22.5 3. 7. 2.5 18.5 17. 23. 3.5 11. 4.5 9.5 14. 12.5 25.
692 7.5]
693 time: [0. 6. 1. 0. 2. 4. 5. 4. 5. 6. 0. 1. 2. 0.]
694 num_QC: [2. 4. 3. 3. 4. 3. 2. 5. 3. 3. 2. 5. 4. 2. 5.]
695 Objective function values and some other indicators:
696 Obj0 = 8.00          Obj1 = 57.00          Obj0 + Obj1 = 65.00
697 Total movement of crane: 0.00
698 Total waiting time in berth position: 40.00
699 Total index of q during berthing: 683.00
700 Specific arrangement for each vessel:
701 V_id: 0      li: 9.0           xi: 22.5           bow of i: 18.0           tail of i: 27.0           gama_i0: 0.0           gama_i1: 1
702 .0          gama_i1 + 1: 2.0   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: 6.0           xi: 3.0            bow of i: 0.0           tail of i: 6.0           gama_i0: 6.0           gama_i1: 7.0
705 .0          gama_i1 + 1: 8.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 140.0           work load_i:
706 140.0        work load gap_i: 0
707 V_id: 2      li: 4.0           xi: 7.0            bow of i: 5.0           tail of i: 9.0           gama_i0: 1.0           gama_i1: 3.0
708 .0          gama_i1 + 1: 4.0   gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 140.0           work load_i:
709 140.0        work load gap_i: 0
710 V_id: 3      li: 5.0           xi: 2.5            bow of i: 0.0           tail of i: 5.0           gama_i0: 0.0           gama_i1: 2.0
711 .0          gama_i1 + 1: 3.0   gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 160.0           work load_i:
712 160.0        work load gap_i: 0
713 V_id: 4      li: 5.0           xi: 18.5           bow of i: 16.0           tail of i: 21.0           gama_i0: 2.0           gama_i1: 3
714 .0          gama_i1 + 1: 4.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 100.0           work
715 100.0        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: 4.0           gama_i1: 4
717 .0          gama_i1 + 1: 5.0   gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 60.0           work
718 100.0        work load gap_i: 0
719 V_id: 6      li: 8.0           xi: 23.0           bow of i: 19.0           tail of i: 27.0           gama_i0: 5.0           gama_i1: 6
720 .0          gama_i1 + 1: 7.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 60.0           work
721 60.0         work load gap_i: 0
722 V_id: 7      li: 7.0           xi: 3.5            bow of i: 0.0           tail of i: 7.0           gama_i0: 4.0           gama_i1: 4
723 .0          gama_i1 + 1: 5.0   gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 100.0           work load_i:
724 100.0        work load gap_i: 0
725 V_id: 8      li: 8.0           xi: 11.0           bow of i: 7.0           tail of i: 15.0           gama_i0: 4.0           gama_i1: 4
726 .0          gama_i1 + 1: 5.0   gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 60.0           work
727 60.0         work load gap_i: 0
728 V_id: 9      li: 9.0           xi: 4.5            bow of i: 0.0           tail of i: 9.0           gama_i0: 5.0           gama_i1: 5.0
729 .0          gama_i1 + 1: 6.0   gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 60.0           work load_i:
730 60.0         work load gap_i: 0
731 V_id: 10     li: 7.0           xi: 9.5            bow of i: 6.0           tail of i: 13.0           gama_i0: 6.0           gama_i1: 8
732 .0          gama_i1 + 1: 9.0   gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 100.0           work
733 100.0        work load gap_i: 0
734 V_id: 11     li: 8.0           xi: 14.0           bow of i: 10.0           tail of i: 18.0           gama_i0: 0.0           gama_i1
735 : 0.0        gama_i1 + 1: 1.0   gama_i1 - gama_i0: 0.0           duration_time_i: 1.0           demand_i: 100.0           work
736 100.0        work load gap_i: 0
737 V_id: 12     li: 7.0           xi: 12.5           bow of i: 9.0           tail of i: 16.0           gama_i0: 1.0           gama_i1
738 : 2.0        gama_i1 + 1: 3.0   gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 160.0           work
739 160.0        work load gap_i: 0
740 V_id: 13     li: 8.0           xi: 25.0           bow of i: 21.0           tail of i: 29.0           gama_i0: 2.0           gama_i1
741 : 4.0        gama_i1 + 1: 5.0   gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 120.0           work
742 120.0        work load gap_i: 0
743 V_id: 14     li: 5.0           xi: 7.5            bow of i: 5.0           tail of i: 10.0           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 60.0         work load gap_i: 0
746
747 Algorithm finished and the total CPU time: 446 s
748 End
749

```