

unknown

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80 cord_individual_obj[indivial_i,:] = [ 16. 11. 106. 117.]
81 cord_individual_obj[indivial_i,:] = [ 17. 8. 119. 127.]
82 cord_individual_obj[indivial_i,:] = [ 18. 10. 172. 182.]
83 cord_individual_obj[indivial_i,:] = [ 19. 11. 117. 128.]
84 cord_individual_obj[indivial_i,:] = [ 20. 9. 135. 144.]
85 cord_individual_obj[indivial_i,:] = [ 21. 8. 123. 131.]
86 cord_individual_obj[indivial_i,:] = [ 22. 9. 165. 174.]
87 cord_individual_obj[indivial_i,:] = [ 23. 11. 133. 144.]
88 cord_individual_obj[indivial_i,:] = [ 24. 8. 104. 112.]
89
90 min(cord_individual_obj[:,3]) = 88.0
91 historl_G_best_iter[iter,3] = 88.0
92 Begin iteration:
93
94 iter = 2
95 cord_individual_obj[indivial_i,:] = [ 0. 9. 97. 106.]
96 cord_individual_obj[indivial_i,:] = [ 1. 10. 146. 156.]
97 cord_individual_obj[indivial_i,:] = [ 2. 10. 153. 163.]
98 cord_individual_obj[indivial_i,:] = [ 3. 8. 107. 115.]
99 cord_individual_obj[indivial_i,:] = [ 4. 11. 122. 133.]
100 cord_individual_obj[indivial_i,:] = [ 5. 8. 109. 117.]
101 cord_individual_obj[indivial_i,:] = [ 6. 9. 111. 120.]
102 cord_individual_obj[indivial_i,:] = [ 7. 11. 102. 113.]
103 cord_individual_obj[indivial_i,:] = [ 8. 10. 105. 115.]
104 cord_individual_obj[indivial_i,:] = [ 9. 10. 93. 103.]
105 cord_individual_obj[indivial_i,:] = [ 10. 11. 119. 130.]
106 cord_individual_obj[indivial_i,:] = [ 11. 9. 98. 107.]
107 cord_individual_obj[indivial_i,:] = [ 12. 10. 78. 88.]
108 cord_individual_obj[indivial_i,:] = [ 13. 10. 138. 148.]
109 cord_individual_obj[indivial_i,:] = [ 14. 10. 111. 121.]
110 cord_individual_obj[indivial_i,:] = [ 15. 10. 124. 134.]
111 cord_individual_obj[indivial_i,:] = [ 16. 9. 108. 117.]
112 cord_individual_obj[indivial_i,:] = [ 17. 9. 95. 104.]
113 cord_individual_obj[indivial_i,:] = [ 18. 11. 147. 158.]
114 cord_individual_obj[indivial_i,:] = [ 19. 10. 146. 156.]
115 cord_individual_obj[indivial_i,:] = [ 20. 10. 149. 159.]
116 cord_individual_obj[indivial_i,:] = [ 21. 10. 92. 102.]
117 cord_individual_obj[indivial_i,:] = [ 22. 11. 105. 116.]
118 cord_individual_obj[indivial_i,:] = [ 23. 9. 156. 165.]
119 cord_individual_obj[indivial_i,:] = [ 24. 10. 117. 127.]
120
121 min(cord_individual_obj[:,3]) = 88.0
122 historl_G_best_iter[iter,3] = 88.0
123 Begin iteration:
124
125 iter = 3
126 cord_individual_obj[indivial_i,:] = [ 0. 9. 103. 112.]
127 cord_individual_obj[indivial_i,:] = [ 1. 10. 120. 130.]
128 cord_individual_obj[indivial_i,:] = [ 2. 9. 131. 140.]
129 cord_individual_obj[indivial_i,:] = [ 3. 11. 144. 155.]
130 cord_individual_obj[indivial_i,:] = [ 4. 13. 129. 142.]
131 cord_individual_obj[indivial_i,:] = [ 5. 9. 108. 117.]
132 cord_individual_obj[indivial_i,:] = [ 6. 10. 121. 131.]
133 cord_individual_obj[indivial_i,:] = [ 7. 11. 100. 111.]
134 cord_individual_obj[indivial_i,:] = [ 8. 8. 100. 108.]
135 cord_individual_obj[indivial_i,:] = [ 9. 11. 125. 136.]
136 cord_individual_obj[indivial_i,:] = [ 10. 11. 135. 146.]
137 cord_individual_obj[indivial_i,:] = [ 11. 9. 111. 120.]
138 cord_individual_obj[indivial_i,:] = [ 12. 10. 99. 109.]
139 cord_individual_obj[indivial_i,:] = [ 13. 8. 161. 169.]
140 cord_individual_obj[indivial_i,:] = [ 14. 10. 109. 119.]
141 cord_individual_obj[indivial_i,:] = [ 15. 11. 112. 123.]
142 cord_individual_obj[indivial_i,:] = [ 16. 10. 114. 124.]
143 cord_individual_obj[indivial_i,:] = [ 17. 9. 157. 166.]
144 cord_individual_obj[indivial_i,:] = [ 18. 11. 116. 127.]
145 cord_individual_obj[indivial_i,:] = [ 19. 10. 194. 204.]
146 cord_individual_obj[indivial_i,:] = [ 20. 11. 93. 104.]
147 cord_individual_obj[indivial_i,:] = [ 21. 11. 139. 150.]
148 cord_individual_obj[indivial_i,:] = [ 22. 10. 81. 91.]
149 cord_individual_obj[indivial_i,:] = [ 23. 10. 78. 88.]
150 cord_individual_obj[indivial_i,:] = [ 24. 8. 87. 95.]
151
152 min(cord_individual_obj[:,3]) = 88.0
153 historl_G_best_iter[iter,3] = 88.0
154 Begin iteration:
155
156 iter = 4
157 cord_individual_obj[indivial_i,:] = [ 0. 9. 118. 127.]
158 cord_individual_obj[indivial_i,:] = [ 1. 12. 95. 107.]
159 cord_individual_obj[indivial_i,:] = [ 2. 10. 126. 136.]
160 cord_individual_obj[indivial_i,:] = [ 3. 12. 96. 108.]
161 cord_individual_obj[indivial_i,:] = [ 4. 10. 109. 119.]
162 cord_individual_obj[indivial_i,:] = [ 5. 9. 129. 138.]
163 cord_individual_obj[indivial_i,:] = [ 6. 9. 83. 92.]

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164 cord_individual_obj[indivial_i,:] = [ 7. 10. 130. 140.]
165 cord_individual_obj[indivial_i,:] = [ 8. 10. 123. 133.]
166 cord_individual_obj[indivial_i,:] = [ 9. 11. 126. 137.]
167 cord_individual_obj[indivial_i,:] = [ 10. 8. 107. 115.]
168 cord_individual_obj[indivial_i,:] = [ 11. 10. 105. 115.]
169 cord_individual_obj[indivial_i,:] = [ 12. 10. 134. 144.]
170 cord_individual_obj[indivial_i,:] = [ 13. 10. 142. 152.]
171 cord_individual_obj[indivial_i,:] = [ 14. 11. 149. 160.]
172 cord_individual_obj[indivial_i,:] = [ 15. 10. 94. 104.]
173 cord_individual_obj[indivial_i,:] = [ 16. 8. 108. 116.]
174 cord_individual_obj[indivial_i,:] = [ 17. 9. 99. 108.]
175 cord_individual_obj[indivial_i,:] = [ 18. 10. 127. 137.]
176 cord_individual_obj[indivial_i,:] = [ 19. 10. 78. 88.]
177 cord_individual_obj[indivial_i,:] = [ 20. 10. 89. 99.]
178 cord_individual_obj[indivial_i,:] = [ 21. 9. 68. 77.]
179 cord_individual_obj[indivial_i,:] = [ 22. 11. 135. 146.]
180 cord_individual_obj[indivial_i,:] = [ 23. 13. 155. 168.]
181 cord_individual_obj[indivial_i,:] = [ 24. 11. 186. 197.]
182
183 min(cord_individual_obj[:,3]) = 77.0
184 historl_G_best_iter[iter,3] = 77.0
185 Begin iteration:
186
187 iter = 5
188 cord_individual_obj[indivial_i,:] = [ 0. 10. 160. 170.]
189 cord_individual_obj[indivial_i,:] = [ 1. 9. 132. 141.]
190 cord_individual_obj[indivial_i,:] = [ 2. 9. 124. 133.]
191 cord_individual_obj[indivial_i,:] = [ 3. 12. 93. 105.]
192 cord_individual_obj[indivial_i,:] = [ 4. 10. 93. 103.]
193 cord_individual_obj[indivial_i,:] = [ 5. 10. 157. 167.]
194 cord_individual_obj[indivial_i,:] = [ 6. 9. 111. 120.]
195 cord_individual_obj[indivial_i,:] = [ 7. 11. 117. 128.]
196 cord_individual_obj[indivial_i,:] = [ 8. 7. 142. 149.]
197 cord_individual_obj[indivial_i,:] = [ 9. 12. 96. 108.]
198 cord_individual_obj[indivial_i,:] = [ 10. 9. 156. 165.]
199 cord_individual_obj[indivial_i,:] = [ 11. 11. 147. 158.]
200 cord_individual_obj[indivial_i,:] = [ 12. 9. 135. 144.]
201 cord_individual_obj[indivial_i,:] = [ 13. 8. 141. 149.]
202 cord_individual_obj[indivial_i,:] = [ 14. 9. 131. 140.]
203 cord_individual_obj[indivial_i,:] = [ 15. 10. 98. 108.]
204 cord_individual_obj[indivial_i,:] = [ 16. 9. 100. 109.]
205 cord_individual_obj[indivial_i,:] = [ 17. 10. 110. 120.]
206 cord_individual_obj[indivial_i,:] = [ 18. 11. 138. 149.]
207 cord_individual_obj[indivial_i,:] = [ 19. 12. 107. 119.]
208 cord_individual_obj[indivial_i,:] = [ 20. 11. 79. 90.]
209 cord_individual_obj[indivial_i,:] = [ 21. 10. 128. 138.]
210 cord_individual_obj[indivial_i,:] = [ 22. 11. 79. 90.]
211 cord_individual_obj[indivial_i,:] = [ 23. 8. 101. 109.]
212 cord_individual_obj[indivial_i,:] = [ 24. 9. 68. 77.]
213
214 min(cord_individual_obj[:,3]) = 77.0
215 historl_G_best_iter[iter,3] = 77.0
216 Begin iteration:
217
218 iter = 6
219 cord_individual_obj[indivial_i,:] = [ 0. 9. 68. 77.]
220 cord_individual_obj[indivial_i,:] = [ 1. 11. 142. 153.]
221 cord_individual_obj[indivial_i,:] = [ 2. 10. 126. 136.]
222 cord_individual_obj[indivial_i,:] = [ 3. 11. 91. 102.]
223 cord_individual_obj[indivial_i,:] = [ 4. 11. 97. 108.]
224 cord_individual_obj[indivial_i,:] = [ 5. 12. 136. 148.]
225 cord_individual_obj[indivial_i,:] = [ 6. 8. 128. 136.]
226 cord_individual_obj[indivial_i,:] = [ 7. 11. 182. 193.]
227 cord_individual_obj[indivial_i,:] = [ 8. 10. 147. 157.]
228 cord_individual_obj[indivial_i,:] = [ 9. 11. 92. 103.]
229 cord_individual_obj[indivial_i,:] = [ 10. 9. 125. 134.]
230 cord_individual_obj[indivial_i,:] = [ 11. 8. 138. 146.]
231 cord_individual_obj[indivial_i,:] = [ 12. 10. 140. 150.]
232 cord_individual_obj[indivial_i,:] = [ 13. 8. 120. 128.]
233 cord_individual_obj[indivial_i,:] = [ 14. 10. 133. 143.]
234 cord_individual_obj[indivial_i,:] = [ 15. 10. 107. 117.]
235 cord_individual_obj[indivial_i,:] = [ 16. 10. 142. 152.]
236 cord_individual_obj[indivial_i,:] = [ 17. 11. 82. 93.]
237 cord_individual_obj[indivial_i,:] = [ 18. 11. 138. 149.]
238 cord_individual_obj[indivial_i,:] = [ 19. 11. 92. 103.]
239 cord_individual_obj[indivial_i,:] = [ 20. 12. 108. 120.]
240 cord_individual_obj[indivial_i,:] = [ 21. 10. 151. 161.]
241 cord_individual_obj[indivial_i,:] = [ 22. 10. 97. 107.]
242 cord_individual_obj[indivial_i,:] = [ 23. 11. 177. 188.]
243 cord_individual_obj[indivial_i,:] = [ 24. 10. 211. 221.]
244
245 min(cord_individual_obj[:,3]) = 77.0
246 historl_G_best_iter[iter,3] = 77.0
247 Begin iteration:

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248
249 iter = 7
250 cord_individual_obj[indivial_i, :] = [ 0. 9. 123. 132.]
251 cord_individual_obj[indivial_i, :] = [ 1. 8. 96. 104.]
252 cord_individual_obj[indivial_i, :] = [ 2. 11. 84. 95.]
253 cord_individual_obj[indivial_i, :] = [ 3. 11. 126. 137.]
254 cord_individual_obj[indivial_i, :] = [ 4. 11. 102. 113.]
255 cord_individual_obj[indivial_i, :] = [ 5. 10. 186. 196.]
256 cord_individual_obj[indivial_i, :] = [ 6. 9. 126. 135.]
257 cord_individual_obj[indivial_i, :] = [ 7. 9. 75. 84.]
258 cord_individual_obj[indivial_i, :] = [ 8. 11. 120. 131.]
259 cord_individual_obj[indivial_i, :] = [ 9. 11. 128. 139.]
260 cord_individual_obj[indivial_i, :] = [ 10. 10. 125. 135.]
261 cord_individual_obj[indivial_i, :] = [ 11. 9. 154. 163.]
262 cord_individual_obj[indivial_i, :] = [ 12. 9. 145. 154.]
263 cord_individual_obj[indivial_i, :] = [ 13. 10. 118. 128.]
264 cord_individual_obj[indivial_i, :] = [ 14. 9. 122. 131.]
265 cord_individual_obj[indivial_i, :] = [ 15. 9. 113. 122.]
266 cord_individual_obj[indivial_i, :] = [ 16. 9. 147. 156.]
267 cord_individual_obj[indivial_i, :] = [ 17. 10. 93. 103.]
268 cord_individual_obj[indivial_i, :] = [ 18. 10. 94. 104.]
269 cord_individual_obj[indivial_i, :] = [ 19. 10. 131. 141.]
270 cord_individual_obj[indivial_i, :] = [ 20. 10. 102. 112.]
271 cord_individual_obj[indivial_i, :] = [ 21. 10. 109. 119.]
272 cord_individual_obj[indivial_i, :] = [ 22. 8. 126. 134.]
273 cord_individual_obj[indivial_i, :] = [ 23. 10. 129. 139.]
274 cord_individual_obj[indivial_i, :] = [ 24. 9. 68. 77.]
275

276 min(cord_individual_obj[:, 3]) = 77.0
277 historl_G_best_iter[iter, 3] = 77.0
278 Begin iteration:
279
280 iter = 8
281 cord_individual_obj[indivial_i, :] = [ 0. 9. 108. 117.]
282 cord_individual_obj[indivial_i, :] = [ 1. 9. 89. 98.]
283 cord_individual_obj[indivial_i, :] = [ 2. 10. 115. 125.]
284 cord_individual_obj[indivial_i, :] = [ 3. 11. 137. 148.]
285 cord_individual_obj[indivial_i, :] = [ 4. 10. 96. 106.]
286 cord_individual_obj[indivial_i, :] = [ 5. 9. 68. 77.]
287 cord_individual_obj[indivial_i, :] = [ 6. 9. 68. 77.]
288 cord_individual_obj[indivial_i, :] = [ 7. 11. 164. 175.]
289 cord_individual_obj[indivial_i, :] = [ 8. 10. 153. 163.]
290 cord_individual_obj[indivial_i, :] = [ 9. 11. 106. 117.]
291 cord_individual_obj[indivial_i, :] = [ 10. 8. 110. 118.]
292 cord_individual_obj[indivial_i, :] = [ 11. 8. 159. 167.]
293 cord_individual_obj[indivial_i, :] = [ 12. 9. 105. 114.]
294 cord_individual_obj[indivial_i, :] = [ 13. 9. 98. 107.]
295 cord_individual_obj[indivial_i, :] = [ 14. 10. 126. 136.]
296 cord_individual_obj[indivial_i, :] = [ 15. 12. 96. 108.]
297 cord_individual_obj[indivial_i, :] = [ 16. 7. 109. 116.]
298 cord_individual_obj[indivial_i, :] = [ 17. 10. 165. 175.]
299 cord_individual_obj[indivial_i, :] = [ 18. 10. 81. 91.]
300 cord_individual_obj[indivial_i, :] = [ 19. 10. 144. 154.]
301 cord_individual_obj[indivial_i, :] = [ 20. 11. 107. 118.]
302 cord_individual_obj[indivial_i, :] = [ 21. 10. 173. 183.]
303 cord_individual_obj[indivial_i, :] = [ 22. 11. 120. 131.]
304 cord_individual_obj[indivial_i, :] = [ 23. 9. 145. 154.]
305 cord_individual_obj[indivial_i, :] = [ 24. 9. 142. 151.]
306

307 min(cord_individual_obj[:, 3]) = 77.0
308 historl_G_best_iter[iter, 3] = 77.0
309 Begin iteration:
310
311 iter = 9
312 cord_individual_obj[indivial_i, :] = [ 0. 10. 127. 137.]
313 cord_individual_obj[indivial_i, :] = [ 1. 8. 116. 124.]
314 cord_individual_obj[indivial_i, :] = [ 2. 11. 138. 149.]
315 cord_individual_obj[indivial_i, :] = [ 3. 10. 131. 141.]
316 cord_individual_obj[indivial_i, :] = [ 4. 12. 110. 122.]
317 cord_individual_obj[indivial_i, :] = [ 5. 10. 156. 166.]
318 cord_individual_obj[indivial_i, :] = [ 6. 10. 130. 140.]
319 cord_individual_obj[indivial_i, :] = [ 7. 8. 82. 90.]
320 cord_individual_obj[indivial_i, :] = [ 8. 10. 135. 145.]
321 cord_individual_obj[indivial_i, :] = [ 9. 12. 118. 130.]
322 cord_individual_obj[indivial_i, :] = [ 10. 8. 120. 128.]
323 cord_individual_obj[indivial_i, :] = [ 11. 10. 100. 110.]
324 cord_individual_obj[indivial_i, :] = [ 12. 10. 117. 127.]
325 cord_individual_obj[indivial_i, :] = [ 13. 9. 186. 195.]
326 cord_individual_obj[indivial_i, :] = [ 14. 8. 119. 127.]
327 cord_individual_obj[indivial_i, :] = [ 15. 10. 150. 160.]
328 cord_individual_obj[indivial_i, :] = [ 16. 8. 125. 133.]
329 cord_individual_obj[indivial_i, :] = [ 17. 10. 107. 117.]
330 cord_individual_obj[indivial_i, :] = [ 18. 9. 98. 107.]
331 cord_individual_obj[indivial_i, :] = [ 19. 9. 147. 156.]

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332 cord_individual_obj[indivial_i, :] = [ 20. 11. 148. 159.]
333 cord_individual_obj[indivial_i, :] = [21. 9. 68. 77.]
334 cord_individual_obj[indivial_i, :] = [ 22. 9. 115. 124.]
335 cord_individual_obj[indivial_i, :] = [ 23. 11. 150. 161.]
336 cord_individual_obj[indivial_i, :] = [ 24. 8. 134. 142.]
337
338 min(cord_individual_obj[:, 3]) = 77.0
339 histol_G_best_iter[iter, 3] = 77.0
340 Begin iteration:
341
342 iter = 10
343 cord_individual_obj[indivial_i, :] = [ 0. 9. 123. 132.]
344 cord_individual_obj[indivial_i, :] = [ 1. 9. 139. 148.]
345 cord_individual_obj[indivial_i, :] = [ 2. 10. 115. 125.]
346 cord_individual_obj[indivial_i, :] = [ 3. 12. 121. 133.]
347 cord_individual_obj[indivial_i, :] = [ 4. 12. 107. 119.]
348 cord_individual_obj[indivial_i, :] = [ 5. 9. 137. 146.]
349 cord_individual_obj[indivial_i, :] = [ 6. 8. 104. 112.]
350 cord_individual_obj[indivial_i, :] = [ 7. 9. 91. 100.]
351 cord_individual_obj[indivial_i, :] = [ 8. 9. 195. 204.]
352 cord_individual_obj[indivial_i, :] = [ 9. 9. 115. 124.]
353 cord_individual_obj[indivial_i, :] = [ 10. 9. 128. 137.]
354 cord_individual_obj[indivial_i, :] = [ 11. 9. 153. 162.]
355 cord_individual_obj[indivial_i, :] = [ 12. 10. 167. 177.]
356 cord_individual_obj[indivial_i, :] = [13. 9. 68. 77.]
357 cord_individual_obj[indivial_i, :] = [ 14. 8. 121. 129.]
358 cord_individual_obj[indivial_i, :] = [ 15. 10. 137. 147.]
359 cord_individual_obj[indivial_i, :] = [ 16. 9. 147. 156.]
360 cord_individual_obj[indivial_i, :] = [ 17. 10. 120. 130.]
361 cord_individual_obj[indivial_i, :] = [18. 10. 87. 97.]
362 cord_individual_obj[indivial_i, :] = [ 19. 12. 142. 154.]
363 cord_individual_obj[indivial_i, :] = [ 20. 11. 133. 144.]
364 cord_individual_obj[indivial_i, :] = [ 21. 10. 128. 138.]
365 cord_individual_obj[indivial_i, :] = [ 22. 10. 100. 110.]
366 cord_individual_obj[indivial_i, :] = [ 23. 9. 137. 146.]
367 cord_individual_obj[indivial_i, :] = [ 24. 10. 141. 151.]
368
369 min(cord_individual_obj[:, 3]) = 77.0
370 histol_G_best_iter[iter, 3] = 77.0
371 Begin iteration:
372
373 iter = 11
374 cord_individual_obj[indivial_i, :] = [ 0. 9. 169. 178.]
375 cord_individual_obj[indivial_i, :] = [ 1. 9. 140. 149.]
376 cord_individual_obj[indivial_i, :] = [ 2. 12. 142. 154.]
377 cord_individual_obj[indivial_i, :] = [ 3. 11. 113. 124.]
378 cord_individual_obj[indivial_i, :] = [ 4. 12. 176. 188.]
379 cord_individual_obj[indivial_i, :] = [ 5. 9. 144. 153.]
380 cord_individual_obj[indivial_i, :] = [ 6. 9. 106. 115.]
381 cord_individual_obj[indivial_i, :] = [ 7. 10. 104. 114.]
382 cord_individual_obj[indivial_i, :] = [ 8. 9. 68. 77.]
383 cord_individual_obj[indivial_i, :] = [ 9. 12. 145. 157.]
384 cord_individual_obj[indivial_i, :] = [ 10. 10. 118. 128.]
385 cord_individual_obj[indivial_i, :] = [ 11. 8. 179. 187.]
386 cord_individual_obj[indivial_i, :] = [ 12. 8. 141. 149.]
387 cord_individual_obj[indivial_i, :] = [ 13. 10. 116. 126.]
388 cord_individual_obj[indivial_i, :] = [ 14. 11. 104. 115.]
389 cord_individual_obj[indivial_i, :] = [15. 9. 72. 81.]
390 cord_individual_obj[indivial_i, :] = [ 16. 9. 134. 143.]
391 cord_individual_obj[indivial_i, :] = [ 17. 9. 158. 167.]
392 cord_individual_obj[indivial_i, :] = [18. 10. 87. 97.]
393 cord_individual_obj[indivial_i, :] = [ 19. 11. 130. 141.]
394 cord_individual_obj[indivial_i, :] = [ 20. 10. 108. 118.]
395 cord_individual_obj[indivial_i, :] = [ 21. 9. 71. 80.]
396 cord_individual_obj[indivial_i, :] = [ 22. 9. 108. 117.]
397 cord_individual_obj[indivial_i, :] = [ 23. 9. 121. 130.]
398 cord_individual_obj[indivial_i, :] = [ 24. 9. 192. 201.]
399
400 min(cord_individual_obj[:, 3]) = 77.0
401 histol_G_best_iter[iter, 3] = 77.0
402 Begin iteration:
403
404 iter = 12
405 cord_individual_obj[indivial_i, :] = [ 0. 9. 168. 177.]
406 cord_individual_obj[indivial_i, :] = [ 1. 8. 179. 187.]
407 cord_individual_obj[indivial_i, :] = [ 2. 9. 98. 107.]
408 cord_individual_obj[indivial_i, :] = [ 3. 9. 115. 124.]
409 cord_individual_obj[indivial_i, :] = [ 4. 11. 128. 139.]
410 cord_individual_obj[indivial_i, :] = [ 5. 10. 154. 164.]
411 cord_individual_obj[indivial_i, :] = [ 6. 9. 80. 89.]
412 cord_individual_obj[indivial_i, :] = [ 7. 10. 90. 100.]
413 cord_individual_obj[indivial_i, :] = [ 8. 10. 161. 171.]
414 cord_individual_obj[indivial_i, :] = [ 9. 11. 89. 100.]
415 cord_individual_obj[indivial_i, :] = [ 10. 9. 112. 121.]

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```

416 cord_individual_obj[indivial_i,:] = [ 11. 10. 129. 139.]
417 cord_individual_obj[indivial_i,:] = [ 12. 8. 126. 134.]
418 cord_individual_obj[indivial_i,:] = [ 13. 9. 139. 148.]
419 cord_individual_obj[indivial_i,:] = [ 14. 10. 116. 126.]
420 cord_individual_obj[indivial_i,:] = [15. 10. 83. 93.]
421 cord_individual_obj[indivial_i,:] = [ 16. 10. 115. 125.]
422 cord_individual_obj[indivial_i,:] = [ 17. 9. 135. 144.]
423 cord_individual_obj[indivial_i,:] = [ 18. 12. 172. 184.]
424 cord_individual_obj[indivial_i,:] = [ 19. 8. 138. 146.]
425 cord_individual_obj[indivial_i,:] = [ 20. 11. 194. 205.]
426 cord_individual_obj[indivial_i,:] = [ 21. 10. 108. 118.]
427 cord_individual_obj[indivial_i,:] = [ 22. 10. 98. 108.]
428 cord_individual_obj[indivial_i,:] = [ 23. 10. 180. 190.]
429 cord_individual_obj[indivial_i,:] = [24. 9. 68. 77.]
430
431 min(cord_individual_obj[:,3]) = 77.0
432 histol_G_best_iter[iter,3] = 77.0
433 Begin iteration:
434
435 iter = 13
436 cord_individual_obj[indivial_i,:] = [ 0. 12. 154. 166.]
437 cord_individual_obj[indivial_i,:] = [ 1. 10. 129. 139.]
438 cord_individual_obj[indivial_i,:] = [ 2. 11. 120. 131.]
439 cord_individual_obj[indivial_i,:] = [ 3. 10. 155. 165.]
440 cord_individual_obj[indivial_i,:] = [ 4. 10. 138. 148.]
441 cord_individual_obj[indivial_i,:] = [ 5. 9. 137. 146.]
442 cord_individual_obj[indivial_i,:] = [ 6. 9. 121. 130.]
443 cord_individual_obj[indivial_i,:] = [ 7. 10. 80. 90.]
444 cord_individual_obj[indivial_i,:] = [ 8. 11. 169. 180.]
445 cord_individual_obj[indivial_i,:] = [ 9. 8. 122. 130.]
446 cord_individual_obj[indivial_i,:] = [10. 11. 125. 136.]
447 cord_individual_obj[indivial_i,:] = [11. 10. 148. 158.]
448 cord_individual_obj[indivial_i,:] = [12. 10. 114. 124.]
449 cord_individual_obj[indivial_i,:] = [13. 9. 131. 140.]
450 cord_individual_obj[indivial_i,:] = [14. 10. 148. 158.]
451 cord_individual_obj[indivial_i,:] = [15. 10. 73. 83.]
452 cord_individual_obj[indivial_i,:] = [16. 10. 152. 162.]
453 cord_individual_obj[indivial_i,:] = [17. 9. 114. 123.]
454 cord_individual_obj[indivial_i,:] = [18. 9. 95. 104.]
455 cord_individual_obj[indivial_i,:] = [19. 11. 135. 146.]
456 cord_individual_obj[indivial_i,:] = [20. 9. 68. 77.]
457 cord_individual_obj[indivial_i,:] = [21. 9. 67. 76.]
458 cord_individual_obj[indivial_i,:] = [22. 9. 97. 106.]
459 cord_individual_obj[indivial_i,:] = [23. 10. 126. 136.]
460 cord_individual_obj[indivial_i,:] = [24. 11. 134. 145.]
461
462 min(cord_individual_obj[:,3]) = 76.0
463 histol_G_best_iter[iter,3] = 76.0
464 Begin iteration:
465
466 iter = 14
467 cord_individual_obj[indivial_i,:] = [ 0. 9. 108. 117.]
468 cord_individual_obj[indivial_i,:] = [ 1. 10. 110. 120.]
469 cord_individual_obj[indivial_i,:] = [ 2. 10. 171. 181.]
470 cord_individual_obj[indivial_i,:] = [ 3. 10. 104. 114.]
471 cord_individual_obj[indivial_i,:] = [ 4. 12. 141. 153.]
472 cord_individual_obj[indivial_i,:] = [ 5. 10. 137. 147.]
473 cord_individual_obj[indivial_i,:] = [ 6. 8. 122. 130.]
474 cord_individual_obj[indivial_i,:] = [ 7. 8. 122. 130.]
475 cord_individual_obj[indivial_i,:] = [ 8. 9. 67. 76.]
476 cord_individual_obj[indivial_i,:] = [ 9. 12. 109. 121.]
477 cord_individual_obj[indivial_i,:] = [10. 9. 148. 157.]
478 cord_individual_obj[indivial_i,:] = [11. 11. 155. 166.]
479 cord_individual_obj[indivial_i,:] = [12. 10. 93. 103.]
480 cord_individual_obj[indivial_i,:] = [13. 9. 127. 136.]
481 cord_individual_obj[indivial_i,:] = [14. 11. 73. 84.]
482 cord_individual_obj[indivial_i,:] = [15. 10. 102. 112.]
483 cord_individual_obj[indivial_i,:] = [16. 10. 151. 161.]
484 cord_individual_obj[indivial_i,:] = [17. 9. 105. 114.]
485 cord_individual_obj[indivial_i,:] = [18. 10. 100. 110.]
486 cord_individual_obj[indivial_i,:] = [19. 11. 103. 114.]
487 cord_individual_obj[indivial_i,:] = [20. 10. 98. 108.]
488 cord_individual_obj[indivial_i,:] = [21. 10. 66. 76.]
489 cord_individual_obj[indivial_i,:] = [22. 10. 141. 151.]
490 cord_individual_obj[indivial_i,:] = [23. 10. 158. 168.]
491 cord_individual_obj[indivial_i,:] = [24. 10. 137. 147.]
492
493 min(cord_individual_obj[:,3]) = 76.0
494 histol_G_best_iter[iter,3] = 76.0
495 Begin iteration:
496
497 iter = 15
498 cord_individual_obj[indivial_i,:] = [ 0. 9. 130. 139.]
499 cord_individual_obj[indivial_i,:] = [ 1. 8. 107. 115.]

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500 cord_individual_obj[indivial_i, :] = [ 2.  9. 67. 76.]
501 cord_individual_obj[indivial_i, :] = [ 3.  9. 147. 156.]
502 cord_individual_obj[indivial_i, :] = [ 4. 11. 113. 124.]
503 cord_individual_obj[indivial_i, :] = [ 5.  9. 113. 122.]
504 cord_individual_obj[indivial_i, :] = [ 6.  8. 128. 136.]
505 cord_individual_obj[indivial_i, :] = [ 7.  8. 110. 118.]
506 cord_individual_obj[indivial_i, :] = [ 8. 11. 156. 167.]
507 cord_individual_obj[indivial_i, :] = [ 9. 10. 145. 155.]
508 cord_individual_obj[indivial_i, :] = [10. 10. 81. 91.]
509 cord_individual_obj[indivial_i, :] = [11. 10. 136. 146.]
510 cord_individual_obj[indivial_i, :] = [12. 10. 151. 161.]
511 cord_individual_obj[indivial_i, :] = [13.  8. 141. 149.]
512 cord_individual_obj[indivial_i, :] = [14. 12. 135. 147.]
513 cord_individual_obj[indivial_i, :] = [15. 11. 96. 107.]
514 cord_individual_obj[indivial_i, :] = [16. 10. 93. 103.]
515 cord_individual_obj[indivial_i, :] = [17.  8. 97. 105.]
516 cord_individual_obj[indivial_i, :] = [18.  8. 147. 155.]
517 cord_individual_obj[indivial_i, :] = [19. 11. 103. 114.]
518 cord_individual_obj[indivial_i, :] = [20. 10. 86. 96.]
519 cord_individual_obj[indivial_i, :] = [21. 11. 142. 153.]
520 cord_individual_obj[indivial_i, :] = [22. 10. 196. 206.]
521 cord_individual_obj[indivial_i, :] = [23. 10. 141. 151.]
522 cord_individual_obj[indivial_i, :] = [24. 11. 106. 117.]
523
524 min(cord_individual_obj[:, 3]) = 76.0
525 histol_G_best_iter[iter, 3] = 76.0
526 Begin iteration:
527
528 iter = 16
529 cord_individual_obj[indivial_i, :] = [ 0. 10. 88. 98.]
530 cord_individual_obj[indivial_i, :] = [ 1.  8. 59. 67.]
531 cord_individual_obj[indivial_i, :] = [ 2. 10. 169. 179.]
532 cord_individual_obj[indivial_i, :] = [ 3.  8. 116. 124.]
533 cord_individual_obj[indivial_i, :] = [ 4.  9. 121. 130.]
534 cord_individual_obj[indivial_i, :] = [ 5. 10. 118. 128.]
535 cord_individual_obj[indivial_i, :] = [ 6.  8. 131. 139.]
536 cord_individual_obj[indivial_i, :] = [ 7.  8. 104. 112.]
537 cord_individual_obj[indivial_i, :] = [ 8. 11. 185. 196.]
538 cord_individual_obj[indivial_i, :] = [ 9. 11. 108. 119.]
539 cord_individual_obj[indivial_i, :] = [10.  9. 111. 120.]
540 cord_individual_obj[indivial_i, :] = [11. 10. 123. 133.]
541 cord_individual_obj[indivial_i, :] = [12.  9. 137. 146.]
542 cord_individual_obj[indivial_i, :] = [13.  8. 125. 133.]
543 cord_individual_obj[indivial_i, :] = [14.  9. 94. 103.]
544 cord_individual_obj[indivial_i, :] = [15.  9. 125. 134.]
545 cord_individual_obj[indivial_i, :] = [16.  9. 211. 220.]
546 cord_individual_obj[indivial_i, :] = [17. 10. 96. 106.]
547 cord_individual_obj[indivial_i, :] = [18.  9. 124. 133.]
548 cord_individual_obj[indivial_i, :] = [19. 10. 123. 133.]
549 cord_individual_obj[indivial_i, :] = [20.  9. 94. 103.]
550 cord_individual_obj[indivial_i, :] = [21.  9. 98. 107.]
551 cord_individual_obj[indivial_i, :] = [22.  9. 67. 76.]
552 cord_individual_obj[indivial_i, :] = [23.  9. 155. 164.]
553 cord_individual_obj[indivial_i, :] = [24. 10. 176. 186.]
554
555 min(cord_individual_obj[:, 3]) = 67.0
556 histol_G_best_iter[iter, 3] = 67.0
557 Begin iteration:
558
559 iter = 17
560 cord_individual_obj[indivial_i, :] = [ 0.  9. 99. 108.]
561 cord_individual_obj[indivial_i, :] = [ 1. 11. 130. 141.]
562 cord_individual_obj[indivial_i, :] = [ 2.  9. 84. 93.]
563 cord_individual_obj[indivial_i, :] = [ 3. 10. 96. 106.]
564 cord_individual_obj[indivial_i, :] = [ 4. 10. 120. 130.]
565 cord_individual_obj[indivial_i, :] = [ 5. 11. 147. 158.]
566 cord_individual_obj[indivial_i, :] = [ 6.  8. 147. 155.]
567 cord_individual_obj[indivial_i, :] = [ 7.  8. 71. 79.]
568 cord_individual_obj[indivial_i, :] = [ 8. 11. 142. 153.]
569 cord_individual_obj[indivial_i, :] = [ 9. 10. 139. 149.]
570 cord_individual_obj[indivial_i, :] = [10. 10. 93. 103.]
571 cord_individual_obj[indivial_i, :] = [11. 11. 126. 137.]
572 cord_individual_obj[indivial_i, :] = [12.  9. 129. 138.]
573 cord_individual_obj[indivial_i, :] = [13.  9. 142. 151.]
574 cord_individual_obj[indivial_i, :] = [14. 10. 108. 118.]
575 cord_individual_obj[indivial_i, :] = [15.  9. 96. 105.]
576 cord_individual_obj[indivial_i, :] = [16.  8. 59. 67.]
577 cord_individual_obj[indivial_i, :] = [17.  9. 105. 114.]
578 cord_individual_obj[indivial_i, :] = [18.  9. 102. 111.]
579 cord_individual_obj[indivial_i, :] = [19. 11. 105. 116.]
580 cord_individual_obj[indivial_i, :] = [20. 10. 102. 112.]
581 cord_individual_obj[indivial_i, :] = [21. 10. 154. 164.]
582 cord_individual_obj[indivial_i, :] = [22. 11. 119. 130.]
583 cord_individual_obj[indivial_i, :] = [23. 10. 103. 113.]

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584     cord_individual_obj[indivial_i, :] = [ 24. 10. 141. 151.]
585
586     min(cord_individual_obj[:, 3]) = 67.0
587     historl_G_best_iter[iter, 3] = 67.0
588 Begin iteration:
589
590 iter = 18
591     cord_individual_obj[indivial_i, :] = [ 0. 8. 89. 97.]
592     cord_individual_obj[indivial_i, :] = [ 1. 10. 120. 130.]
593     cord_individual_obj[indivial_i, :] = [ 2. 10. 114. 124.]
594     cord_individual_obj[indivial_i, :] = [ 3. 8. 94. 102.]
595     cord_individual_obj[indivial_i, :] = [ 4. 13. 97. 110.]
596     cord_individual_obj[indivial_i, :] = [ 5. 10. 123. 133.]
597     cord_individual_obj[indivial_i, :] = [ 6. 9. 107. 116.]
598     cord_individual_obj[indivial_i, :] = [ 7. 10. 95. 105.]
599     cord_individual_obj[indivial_i, :] = [ 8. 9. 139. 148.]
600     cord_individual_obj[indivial_i, :] = [ 9. 10. 153. 163.]
601     cord_individual_obj[indivial_i, :] = [ 10. 9. 150. 159.]
602     cord_individual_obj[indivial_i, :] = [ 11. 11. 128. 139.]
603     cord_individual_obj[indivial_i, :] = [ 12. 9. 139. 148.]
604     cord_individual_obj[indivial_i, :] = [ 13. 10. 117. 127.]
605     cord_individual_obj[indivial_i, :] = [ 14. 10. 122. 132.]
606     cord_individual_obj[indivial_i, :] = [ 15. 9. 96. 105.]
607     cord_individual_obj[indivial_i, :] = [ 16. 11. 121. 132.]
608     cord_individual_obj[indivial_i, :] = [ 17. 10. 136. 146.]
609     cord_individual_obj[indivial_i, :] = [ 18. 9. 115. 124.]
610     cord_individual_obj[indivial_i, :] = [ 19. 11. 93. 104.]
611     cord_individual_obj[indivial_i, :] = [ 20. 10. 114. 124.]
612     cord_individual_obj[indivial_i, :] = [ 21. 8. 59. 67.]
613     cord_individual_obj[indivial_i, :] = [ 22. 12. 100. 112.]
614     cord_individual_obj[indivial_i, :] = [ 23. 10. 110. 120.]
615     cord_individual_obj[indivial_i, :] = [ 24. 11. 121. 132.]
616
617     min(cord_individual_obj[:, 3]) = 67.0
618     historl_G_best_iter[iter, 3] = 67.0
619 Begin iteration:
620
621 iter = 19
622     cord_individual_obj[indivial_i, :] = [ 0. 10. 103. 113.]
623     cord_individual_obj[indivial_i, :] = [ 1. 12. 133. 145.]
624     cord_individual_obj[indivial_i, :] = [ 2. 10. 124. 134.]
625     cord_individual_obj[indivial_i, :] = [ 3. 8. 177. 185.]
626     cord_individual_obj[indivial_i, :] = [ 4. 10. 109. 119.]
627     cord_individual_obj[indivial_i, :] = [ 5. 10. 176. 186.]
628     cord_individual_obj[indivial_i, :] = [ 6. 8. 139. 147.]
629     cord_individual_obj[indivial_i, :] = [ 7. 9. 137. 146.]
630     cord_individual_obj[indivial_i, :] = [ 8. 10. 173. 183.]
631     cord_individual_obj[indivial_i, :] = [ 9. 8. 59. 67.]
632     cord_individual_obj[indivial_i, :] = [ 10. 10. 121. 131.]
633     cord_individual_obj[indivial_i, :] = [ 11. 10. 180. 190.]
634     cord_individual_obj[indivial_i, :] = [ 12. 12. 106. 118.]
635     cord_individual_obj[indivial_i, :] = [ 13. 9. 143. 152.]
636     cord_individual_obj[indivial_i, :] = [ 14. 11. 140. 151.]
637     cord_individual_obj[indivial_i, :] = [ 15. 9. 126. 135.]
638     cord_individual_obj[indivial_i, :] = [ 16. 9. 102. 111.]
639     cord_individual_obj[indivial_i, :] = [ 17. 10. 178. 188.]
640     cord_individual_obj[indivial_i, :] = [ 18. 10. 100. 110.]
641     cord_individual_obj[indivial_i, :] = [ 19. 11. 127. 138.]
642     cord_individual_obj[indivial_i, :] = [ 20. 11. 177. 188.]
643     cord_individual_obj[indivial_i, :] = [ 21. 10. 126. 136.]
644     cord_individual_obj[indivial_i, :] = [ 22. 10. 108. 118.]
645     cord_individual_obj[indivial_i, :] = [ 23. 10. 149. 159.]
646     cord_individual_obj[indivial_i, :] = [ 24. 12. 157. 169.]
647
648     min(cord_individual_obj[:, 3]) = 67.0
649     historl_G_best_iter[iter, 3] = 67.0
650 Begin iteration:
651
652 iter = 20
653     cord_individual_obj[indivial_i, :] = [ 0. 10. 133. 143.]
654     cord_individual_obj[indivial_i, :] = [ 1. 10. 117. 127.]
655     cord_individual_obj[indivial_i, :] = [ 2. 11. 132. 143.]
656     cord_individual_obj[indivial_i, :] = [ 3. 10. 120. 130.]
657     cord_individual_obj[indivial_i, :] = [ 4. 10. 84. 94.]
658     cord_individual_obj[indivial_i, :] = [ 5. 9. 103. 112.]
659     cord_individual_obj[indivial_i, :] = [ 6. 9. 98. 107.]
660     cord_individual_obj[indivial_i, :] = [ 7. 9. 141. 150.]
661     cord_individual_obj[indivial_i, :] = [ 8. 9. 137. 146.]
662     cord_individual_obj[indivial_i, :] = [ 9. 10. 87. 97.]
663     cord_individual_obj[indivial_i, :] = [ 10. 11. 144. 155.]
664     cord_individual_obj[indivial_i, :] = [ 11. 8. 59. 67.]
665     cord_individual_obj[indivial_i, :] = [ 12. 10. 75. 85.]
666     cord_individual_obj[indivial_i, :] = [ 13. 9. 146. 155.]
667     cord_individual_obj[indivial_i, :] = [ 14. 9. 135. 144.]

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668 cord_individual_obj[indivial_i,:] = [ 15. 12. 105. 117.]
669 cord_individual_obj[indivial_i,:] = [ 16. 9. 108. 117.]
670 cord_individual_obj[indivial_i,:] = [ 17. 10. 190. 200.]
671 cord_individual_obj[indivial_i,:] = [ 18. 9. 173. 182.]
672 cord_individual_obj[indivial_i,:] = [ 19. 9. 138. 147.]
673 cord_individual_obj[indivial_i,:] = [ 20. 9. 112. 121.]
674 cord_individual_obj[indivial_i,:] = [ 21. 11. 96. 107.]
675 cord_individual_obj[indivial_i,:] = [ 22. 10. 78. 88.]
676 cord_individual_obj[indivial_i,:] = [ 23. 10. 116. 126.]
677 cord_individual_obj[indivial_i,:] = [ 24. 10. 152. 162.]
678
679 min(cord_individual_obj[:,3]) = 67.0
680 historl_G_best_iter[iter,3] = 67.0
681 Iteration calculate over
682
683
684
685
686 All item are in Bin and:
687 Bin area = 1080
688 Real_area = 211.0
689 Proportion_of_area = 0.19537037037037036
690 BEST_CHROM =
691 berth: [ 4. 22.5 11.5 18. 25.5 7. 11.5 2.5 2. 7.5 17. 17. 24.5 2.
692 6. 12. 8.5 18. ]
693 time: [0. 0. 0. 0. 2. 3. 2. 1. 3. 2. 3. 2. 4. 6. 7. 7. 5. 6.]
694 num_QC: [6. 3. 4. 2. 3. 3. 3. 4. 1. 3. 2. 6. 2. 3. 4. 4. 4. 2.]
695 Objective function values and some other indicators:
696 Obj0 = 8.00          Obj1 = 59.00          Obj0 + Obj1 = 67.00
697 Total movement of crane: 6.00
698 Total waiting time in berth position: 53.00
699 Total index of q during berthing: 922.00
700 Specific arrangement for each vessel:
701 V_id: 0           li: 8.0           xi: 4.0           bow of i: 0.0           tail of i: 8.0           gama_i0: 0.0           gama_i1: 0.0
702 .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:
703 V_id: 1           li: 3.0           xi: 22.5          bow of i: 21.0          tail of i: 24.0          gama_i0: 0.0           gama_i1: 1
704 .0               work load gap_i: 0   gama_i1 + 1: 2.0   gama_i1 - gama_i0: 1.0   duration_time_i: 2.0   demand_i: 80.0    work
705 V_id: 2           li: 7.0           xi: 11.5          bow of i: 8.0           tail of i: 15.0          gama_i0: 0.0           gama_i1: 1
706 .0               work load gap_i: 0   gama_i1 + 1: 2.0   gama_i1 - gama_i0: 1.0   duration_time_i: 2.0   demand_i: 100.0   work
707 V_id: 3           li: 6.0           xi: 18.0          bow of i: 15.0          tail of i: 21.0          gama_i0: 0.0           gama_i1: 1
708 .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
709 V_id: 4           li: 9.0           xi: 25.5          bow of i: 21.0          tail of i: 30.0          gama_i0: 2.0           gama_i1: 3
710 .0               work load gap_i: 0   gama_i1 + 1: 4.0   gama_i1 - gama_i0: 1.0   duration_time_i: 2.0   demand_i: 80.0    work
711 V_id: 5           li: 6.0           xi: 7.0            bow of i: 4.0           tail of i: 10.0          gama_i0: 3.0           gama_i1: 4
712 .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:
713 V_id: 6           li: 3.0           xi: 11.5          bow of i: 10.0          tail of i: 13.0          gama_i0: 2.0           gama_i1: 3
714 .0               work load gap_i: 0   gama_i1 + 1: 4.0   gama_i1 - gama_i0: 1.0   duration_time_i: 2.0   demand_i: 120.0   work
715 V_id: 7           li: 5.0           xi: 2.5            bow of i: 0.0           tail of i: 5.0           gama_i0: 1.0           gama_i1: 2.0
716 .0               work load gap_i: 0   gama_i1 + 1: 3.0   gama_i1 - gama_i0: 1.0   duration_time_i: 2.0   demand_i: 160.0   work load_i:
717 V_id: 8           li: 4.0           xi: 2.0            bow of i: 0.0           tail of i: 4.0           gama_i0: 3.0           gama_i1: 5
718 .0               work load gap_i: 0   gama_i1 + 1: 6.0   gama_i1 - gama_i0: 2.0   duration_time_i: 3.0   demand_i: 60.0    work load_i:
719 V_id: 9           li: 5.0           xi: 7.5            bow of i: 5.0           tail of i: 10.0          gama_i0: 2.0           gama_i1: 2.0
720 .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:
721 V_id: 10          li: 8.0           xi: 17.0          bow of i: 13.0          tail of i: 21.0          gama_i0: 3.0           gama_i1: 1
722 .0               work load gap_i: 0   gama_i1 + 1: 6.0   gama_i1 - gama_i0: 2.0   duration_time_i: 3.0   demand_i: 120.0   work
723 V_id: 11          li: 8.0           xi: 17.0          bow of i: 13.0          tail of i: 21.0          gama_i0: 2.0           gama_i1: 1
724 .0               work load gap_i: 0   gama_i1 + 1: 3.0   gama_i1 - gama_i0: 0.0   duration_time_i: 1.0   demand_i: 100.0   work
725 V_id: 12          li: 7.0           xi: 24.5          bow of i: 21.0          tail of i: 28.0          gama_i0: 4.0           gama_i1: 1
726 .0               work load gap_i: 0   gama_i1 + 1: 8.0   gama_i1 - gama_i0: 3.0   duration_time_i: 4.0   demand_i: 140.0   work
727 V_id: 13          li: 4.0           xi: 2.0            bow of i: 0.0           tail of i: 4.0           gama_i0: 6.0           gama_i1: 7
728 .0               work load gap_i: 0   gama_i1 + 1: 8.0   gama_i1 - gama_i0: 1.0   duration_time_i: 2.0   demand_i: 120.0   work load_i:
729 V_id: 14          li: 4.0           xi: 6.0            bow of i: 4.0           tail of i: 8.0           gama_i0: 7.0           gama_i1: 8
730 .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 load_i:
731 V_id: 15          li: 8.0           xi: 12.0          bow of i: 8.0           tail of i: 16.0          gama_i0: 7.0           gama_i1: 6
732 .0               work load gap_i: 0   gama_i1 + 1: 9.0   gama_i1 - gama_i0: 1.0   duration_time_i: 2.0   demand_i: 140.0   work
733 V_id: 16          li: 9.0           xi: 8.5            bow of i: 4.0           tail of i: 13.0          gama_i0: 5.0           gama_i1: 6
734 .0               work load gap_i: 0   gama_i1 + 1: 7.0   gama_i1 - gama_i0: 1.0   duration_time_i: 2.0   demand_i: 140.0   work

```

unknown

718	V_id: 17	li: 4.0	xi: 18.0	bow of i: 16.0	tail of i: 20.0	gama_i0: 6.0	gama_i1
: 8.0	gama_i1 + 1: 9.0		gama_i1 - gama_i0: 2.0		duration_time_i: 3.0	demand_i: 100.0	work
load_i: 100.0		work load gap_i: 0					

719

720 Algorithm finished and the total CPU time: 496 s

721 End

722