

unknown

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80 cord_individual_obj[indivial_i,:] = [ 16. 12. 170. 182.]
81 cord_individual_obj[indivial_i,:] = [ 17. 11. 175. 186.]
82 cord_individual_obj[indivial_i,:] = [ 18. 12. 170. 182.]
83 cord_individual_obj[indivial_i,:] = [ 19. 12. 120. 132.]
84 cord_individual_obj[indivial_i,:] = [ 20. 10. 143. 153.]
85 cord_individual_obj[indivial_i,:] = [ 21. 11. 188. 199.]
86 cord_individual_obj[indivial_i,:] = [ 22. 10. 122. 132.]
87 cord_individual_obj[indivial_i,:] = [ 23. 13. 170. 183.]
88 cord_individual_obj[indivial_i,:] = [ 24. 12. 157. 169.]
89
90 min(cord_individual_obj[:,3]) = 109.0
91 historl_G_best_iter[iter, 3] = 109.0
92 Begin iteration:
93
94 iter = 2
95 cord_individual_obj[indivial_i,:] = [ 0. 10. 146. 156.]
96 cord_individual_obj[indivial_i,:] = [ 1. 11. 172. 183.]
97 cord_individual_obj[indivial_i,:] = [ 2. 10. 141. 151.]
98 cord_individual_obj[indivial_i,:] = [ 3. 10. 92. 102.]
99 cord_individual_obj[indivial_i,:] = [ 4. 9. 100. 109.]
100 cord_individual_obj[indivial_i,:] = [ 5. 11. 110. 121.]
101 cord_individual_obj[indivial_i,:] = [ 6. 10. 109. 119.]
102 cord_individual_obj[indivial_i,:] = [ 7. 12. 165. 177.]
103 cord_individual_obj[indivial_i,:] = [ 8. 11. 135. 146.]
104 cord_individual_obj[indivial_i,:] = [ 9. 13. 236. 249.]
105 cord_individual_obj[indivial_i,:] = [ 10. 10. 136. 146.]
106 cord_individual_obj[indivial_i,:] = [ 11. 10. 129. 139.]
107 cord_individual_obj[indivial_i,:] = [ 12. 12. 149. 161.]
108 cord_individual_obj[indivial_i,:] = [ 13. 12. 187. 199.]
109 cord_individual_obj[indivial_i,:] = [ 14. 12. 161. 173.]
110 cord_individual_obj[indivial_i,:] = [ 15. 11. 188. 199.]
111 cord_individual_obj[indivial_i,:] = [ 16. 12. 156. 168.]
112 cord_individual_obj[indivial_i,:] = [ 17. 10. 228. 238.]
113 cord_individual_obj[indivial_i,:] = [ 18. 9. 203. 212.]
114 cord_individual_obj[indivial_i,:] = [ 19. 9. 134. 143.]
115 cord_individual_obj[indivial_i,:] = [ 20. 10. 161. 171.]
116 cord_individual_obj[indivial_i,:] = [ 21. 11. 164. 175.]
117 cord_individual_obj[indivial_i,:] = [ 22. 11. 107. 118.]
118 cord_individual_obj[indivial_i,:] = [ 23. 10. 140. 150.]
119 cord_individual_obj[indivial_i,:] = [ 24. 12. 119. 131.]
120
121 min(cord_individual_obj[:,3]) = 102.0
122 historl_G_best_iter[iter, 3] = 102.0
123 Begin iteration:
124
125 iter = 3
126 cord_individual_obj[indivial_i,:] = [ 0. 11. 94. 105.]
127 cord_individual_obj[indivial_i,:] = [ 1. 11. 132. 143.]
128 cord_individual_obj[indivial_i,:] = [ 2. 12. 216. 228.]
129 cord_individual_obj[indivial_i,:] = [ 3. 10. 161. 171.]
130 cord_individual_obj[indivial_i,:] = [ 4. 11. 178. 189.]
131 cord_individual_obj[indivial_i,:] = [ 5. 9. 117. 126.]
132 cord_individual_obj[indivial_i,:] = [ 6. 10. 87. 97.]
133 cord_individual_obj[indivial_i,:] = [ 7. 11. 150. 161.]
134 cord_individual_obj[indivial_i,:] = [ 8. 8. 141. 149.]
135 cord_individual_obj[indivial_i,:] = [ 9. 10. 92. 102.]
136 cord_individual_obj[indivial_i,:] = [ 10. 12. 151. 163.]
137 cord_individual_obj[indivial_i,:] = [ 11. 10. 132. 142.]
138 cord_individual_obj[indivial_i,:] = [ 12. 10. 138. 148.]
139 cord_individual_obj[indivial_i,:] = [ 13. 13. 173. 186.]
140 cord_individual_obj[indivial_i,:] = [ 14. 10. 202. 212.]
141 cord_individual_obj[indivial_i,:] = [ 15. 10. 122. 132.]
142 cord_individual_obj[indivial_i,:] = [ 16. 12. 128. 140.]
143 cord_individual_obj[indivial_i,:] = [ 17. 11. 147. 158.]
144 cord_individual_obj[indivial_i,:] = [ 18. 11. 202. 213.]
145 cord_individual_obj[indivial_i,:] = [ 19. 9. 153. 162.]
146 cord_individual_obj[indivial_i,:] = [ 20. 12. 171. 183.]
147 cord_individual_obj[indivial_i,:] = [ 21. 9. 157. 166.]
148 cord_individual_obj[indivial_i,:] = [ 22. 11. 87. 98.]
149 cord_individual_obj[indivial_i,:] = [ 23. 11. 176. 187.]
150 cord_individual_obj[indivial_i,:] = [ 24. 12. 215. 227.]
151
152 min(cord_individual_obj[:,3]) = 97.0
153 historl_G_best_iter[iter, 3] = 97.0
154 Begin iteration:
155
156 iter = 4
157 cord_individual_obj[indivial_i,:] = [ 0. 12. 109. 121.]
158 cord_individual_obj[indivial_i,:] = [ 1. 10. 100. 110.]
159 cord_individual_obj[indivial_i,:] = [ 2. 10. 87. 97.]
160 cord_individual_obj[indivial_i,:] = [ 3. 10. 156. 166.]
161 cord_individual_obj[indivial_i,:] = [ 4. 10. 122. 132.]
162 cord_individual_obj[indivial_i,:] = [ 5. 9. 118. 127.]
163 cord_individual_obj[indivial_i,:] = [ 6. 11. 216. 227.]

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164 cord_individual_obj[indivial_i, :] = [ 7. 12. 112. 124.]
165 cord_individual_obj[indivial_i, :] = [ 8. 10. 110. 120.]
166 cord_individual_obj[indivial_i, :] = [ 9. 12. 107. 119.]
167 cord_individual_obj[indivial_i, :] = [ 10. 12. 150. 162.]
168 cord_individual_obj[indivial_i, :] = [ 11. 11. 134. 145.]
169 cord_individual_obj[indivial_i, :] = [ 12. 11. 122. 133.]
170 cord_individual_obj[indivial_i, :] = [ 13. 10. 100. 110.]
171 cord_individual_obj[indivial_i, :] = [ 14. 10. 145. 155.]
172 cord_individual_obj[indivial_i, :] = [ 15. 10. 218. 228.]
173 cord_individual_obj[indivial_i, :] = [ 16. 9. 131. 140.]
174 cord_individual_obj[indivial_i, :] = [ 17. 10. 155. 165.]
175 cord_individual_obj[indivial_i, :] = [ 18. 10. 110. 120.]
176 cord_individual_obj[indivial_i, :] = [ 19. 9. 143. 152.]
177 cord_individual_obj[indivial_i, :] = [ 20. 10. 168. 178.]
178 cord_individual_obj[indivial_i, :] = [ 21. 8. 171. 179.]
179 cord_individual_obj[indivial_i, :] = [ 22. 10. 155. 165.]
180 cord_individual_obj[indivial_i, :] = [ 23. 10. 131. 141.]
181 cord_individual_obj[indivial_i, :] = [ 24. 10. 101. 111.]
182
183 min(cord_individual_obj[:, 3]) = 97.0
184 historl_G_best_iter[iter, 3] = 97.0
185 Begin iteration:
186
187 iter = 5
188 cord_individual_obj[indivial_i, :] = [ 0. 12. 109. 121.]
189 cord_individual_obj[indivial_i, :] = [ 1. 9. 127. 136.]
190 cord_individual_obj[indivial_i, :] = [ 2. 11. 119. 130.]
191 cord_individual_obj[indivial_i, :] = [ 3. 11. 144. 155.]
192 cord_individual_obj[indivial_i, :] = [ 4. 12. 109. 121.]
193 cord_individual_obj[indivial_i, :] = [ 5. 10. 120. 130.]
194 cord_individual_obj[indivial_i, :] = [ 6. 12. 129. 141.]
195 cord_individual_obj[indivial_i, :] = [ 7. 11. 158. 169.]
196 cord_individual_obj[indivial_i, :] = [ 8. 10. 181. 191.]
197 cord_individual_obj[indivial_i, :] = [ 9. 10. 112. 122.]
198 cord_individual_obj[indivial_i, :] = [ 10. 10. 119. 129.]
199 cord_individual_obj[indivial_i, :] = [ 11. 10. 149. 159.]
200 cord_individual_obj[indivial_i, :] = [ 12. 12. 133. 145.]
201 cord_individual_obj[indivial_i, :] = [ 13. 10. 171. 181.]
202 cord_individual_obj[indivial_i, :] = [ 14. 11. 142. 153.]
203 cord_individual_obj[indivial_i, :] = [ 15. 10. 87. 97.]
204 cord_individual_obj[indivial_i, :] = [ 16. 10. 120. 130.]
205 cord_individual_obj[indivial_i, :] = [ 17. 9. 127. 136.]
206 cord_individual_obj[indivial_i, :] = [ 18. 10. 125. 135.]
207 cord_individual_obj[indivial_i, :] = [ 19. 11. 109. 120.]
208 cord_individual_obj[indivial_i, :] = [ 20. 10. 145. 155.]
209 cord_individual_obj[indivial_i, :] = [ 21. 9. 115. 124.]
210 cord_individual_obj[indivial_i, :] = [ 22. 12. 113. 125.]
211 cord_individual_obj[indivial_i, :] = [ 23. 10. 129. 139.]
212 cord_individual_obj[indivial_i, :] = [ 24. 10. 107. 117.]
213
214 min(cord_individual_obj[:, 3]) = 97.0
215 historl_G_best_iter[iter, 3] = 97.0
216 Begin iteration:
217
218 iter = 6
219 cord_individual_obj[indivial_i, :] = [ 0. 11. 149. 160.]
220 cord_individual_obj[indivial_i, :] = [ 1. 10. 177. 187.]
221 cord_individual_obj[indivial_i, :] = [ 2. 11. 137. 148.]
222 cord_individual_obj[indivial_i, :] = [ 3. 13. 153. 166.]
223 cord_individual_obj[indivial_i, :] = [ 4. 11. 216. 227.]
224 cord_individual_obj[indivial_i, :] = [ 5. 10. 146. 156.]
225 cord_individual_obj[indivial_i, :] = [ 6. 12. 175. 187.]
226 cord_individual_obj[indivial_i, :] = [ 7. 10. 158. 168.]
227 cord_individual_obj[indivial_i, :] = [ 8. 10. 87. 97.]
228 cord_individual_obj[indivial_i, :] = [ 9. 12. 166. 178.]
229 cord_individual_obj[indivial_i, :] = [ 10. 9. 126. 135.]
230 cord_individual_obj[indivial_i, :] = [ 11. 10. 158. 168.]
231 cord_individual_obj[indivial_i, :] = [ 12. 11. 183. 194.]
232 cord_individual_obj[indivial_i, :] = [ 13. 11. 132. 143.]
233 cord_individual_obj[indivial_i, :] = [ 14. 12. 211. 223.]
234 cord_individual_obj[indivial_i, :] = [ 15. 10. 132. 142.]
235 cord_individual_obj[indivial_i, :] = [ 16. 11. 203. 214.]
236 cord_individual_obj[indivial_i, :] = [ 17. 11. 241. 252.]
237 cord_individual_obj[indivial_i, :] = [ 18. 11. 127. 138.]
238 cord_individual_obj[indivial_i, :] = [ 19. 9. 189. 198.]
239 cord_individual_obj[indivial_i, :] = [ 20. 11. 168. 179.]
240 cord_individual_obj[indivial_i, :] = [ 21. 11. 115. 126.]
241 cord_individual_obj[indivial_i, :] = [ 22. 13. 185. 198.]
242 cord_individual_obj[indivial_i, :] = [ 23. 13. 217. 230.]
243 cord_individual_obj[indivial_i, :] = [ 24. 10. 181. 191.]
244
245 min(cord_individual_obj[:, 3]) = 97.0
246 historl_G_best_iter[iter, 3] = 97.0
247 Begin iteration:

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248
249 iter = 7
250 cord_individual_obj[indivial_i, :] = [ 0. 10. 143. 153.]
251 cord_individual_obj[indivial_i, :] = [ 1. 12. 176. 188.]
252 cord_individual_obj[indivial_i, :] = [ 2. 12. 87. 99.]
253 cord_individual_obj[indivial_i, :] = [ 3. 10. 151. 161.]
254 cord_individual_obj[indivial_i, :] = [ 4. 10. 135. 145.]
255 cord_individual_obj[indivial_i, :] = [ 5. 9. 177. 186.]
256 cord_individual_obj[indivial_i, :] = [ 6. 12. 171. 183.]
257 cord_individual_obj[indivial_i, :] = [ 7. 12. 171. 183.]
258 cord_individual_obj[indivial_i, :] = [ 8. 10. 106. 116.]
259 cord_individual_obj[indivial_i, :] = [ 9. 12. 164. 176.]
260 cord_individual_obj[indivial_i, :] = [ 10. 9. 120. 129.]
261 cord_individual_obj[indivial_i, :] = [ 11. 11. 138. 149.]
262 cord_individual_obj[indivial_i, :] = [ 12. 9. 121. 130.]
263 cord_individual_obj[indivial_i, :] = [ 13. 11. 160. 171.]
264 cord_individual_obj[indivial_i, :] = [ 14. 10. 166. 176.]
265 cord_individual_obj[indivial_i, :] = [ 15. 12. 206. 218.]
266 cord_individual_obj[indivial_i, :] = [ 16. 11. 174. 185.]
267 cord_individual_obj[indivial_i, :] = [ 17. 10. 87. 97.]
268 cord_individual_obj[indivial_i, :] = [ 18. 12. 103. 115.]
269 cord_individual_obj[indivial_i, :] = [ 19. 9. 138. 147.]
270 cord_individual_obj[indivial_i, :] = [ 20. 9. 175. 184.]
271 cord_individual_obj[indivial_i, :] = [ 21. 10. 148. 158.]
272 cord_individual_obj[indivial_i, :] = [ 22. 12. 155. 167.]
273 cord_individual_obj[indivial_i, :] = [ 23. 11. 153. 164.]
274 cord_individual_obj[indivial_i, :] = [ 24. 10. 125. 135.]
275

276 min(cord_individual_obj[:, 3]) = 97.0
277 historl_G_best_iter[iter, 3] = 97.0
278 Begin iteration:
279
280 iter = 8
281 cord_individual_obj[indivial_i, :] = [ 0. 11. 147. 158.]
282 cord_individual_obj[indivial_i, :] = [ 1. 11. 154. 165.]
283 cord_individual_obj[indivial_i, :] = [ 2. 12. 157. 169.]
284 cord_individual_obj[indivial_i, :] = [ 3. 10. 157. 167.]
285 cord_individual_obj[indivial_i, :] = [ 4. 11. 153. 164.]
286 cord_individual_obj[indivial_i, :] = [ 5. 11. 140. 151.]
287 cord_individual_obj[indivial_i, :] = [ 6. 11. 206. 217.]
288 cord_individual_obj[indivial_i, :] = [ 7. 12. 181. 193.]
289 cord_individual_obj[indivial_i, :] = [ 8. 12. 194. 206.]
290 cord_individual_obj[indivial_i, :] = [ 9. 12. 131. 143.]
291 cord_individual_obj[indivial_i, :] = [ 10. 11. 163. 174.]
292 cord_individual_obj[indivial_i, :] = [ 11. 10. 120. 130.]
293 cord_individual_obj[indivial_i, :] = [ 12. 12. 128. 140.]
294 cord_individual_obj[indivial_i, :] = [ 13. 9. 160. 169.]
295 cord_individual_obj[indivial_i, :] = [ 14. 11. 127. 138.]
296 cord_individual_obj[indivial_i, :] = [ 15. 10. 87. 97.]
297 cord_individual_obj[indivial_i, :] = [ 16. 13. 142. 155.]
298 cord_individual_obj[indivial_i, :] = [ 17. 10. 169. 179.]
299 cord_individual_obj[indivial_i, :] = [ 18. 12. 194. 206.]
300 cord_individual_obj[indivial_i, :] = [ 19. 13. 112. 125.]
301 cord_individual_obj[indivial_i, :] = [ 20. 10. 162. 172.]
302 cord_individual_obj[indivial_i, :] = [ 21. 11. 115. 126.]
303 cord_individual_obj[indivial_i, :] = [ 22. 12. 156. 168.]
304 cord_individual_obj[indivial_i, :] = [ 23. 12. 155. 167.]
305 cord_individual_obj[indivial_i, :] = [ 24. 14. 129. 143.]
306

307 min(cord_individual_obj[:, 3]) = 97.0
308 historl_G_best_iter[iter, 3] = 97.0
309 Begin iteration:
310
311 iter = 9
312 cord_individual_obj[indivial_i, :] = [ 0. 9. 163. 172.]
313 cord_individual_obj[indivial_i, :] = [ 1. 10. 143. 153.]
314 cord_individual_obj[indivial_i, :] = [ 2. 11. 153. 164.]
315 cord_individual_obj[indivial_i, :] = [ 3. 14. 140. 154.]
316 cord_individual_obj[indivial_i, :] = [ 4. 12. 135. 147.]
317 cord_individual_obj[indivial_i, :] = [ 5. 11. 132. 143.]
318 cord_individual_obj[indivial_i, :] = [ 6. 10. 87. 97.]
319 cord_individual_obj[indivial_i, :] = [ 7. 11. 165. 176.]
320 cord_individual_obj[indivial_i, :] = [ 8. 10. 169. 179.]
321 cord_individual_obj[indivial_i, :] = [ 9. 9. 177. 186.]
322 cord_individual_obj[indivial_i, :] = [ 10. 9. 100. 109.]
323 cord_individual_obj[indivial_i, :] = [ 11. 12. 178. 190.]
324 cord_individual_obj[indivial_i, :] = [ 12. 10. 114. 124.]
325 cord_individual_obj[indivial_i, :] = [ 13. 12. 166. 178.]
326 cord_individual_obj[indivial_i, :] = [ 14. 11. 126. 137.]
327 cord_individual_obj[indivial_i, :] = [ 15. 10. 128. 138.]
328 cord_individual_obj[indivial_i, :] = [ 16. 12. 133. 145.]
329 cord_individual_obj[indivial_i, :] = [ 17. 11. 195. 206.]
330 cord_individual_obj[indivial_i, :] = [ 18. 10. 137. 147.]
331 cord_individual_obj[indivial_i, :] = [ 19. 11. 134. 145.]

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332 cord_individual_obj[indivial_i, :] = [ 20. 11. 137. 148.]
333 cord_individual_obj[indivial_i, :] = [ 21. 10. 147. 157.]
334 cord_individual_obj[indivial_i, :] = [ 22. 11. 126. 137.]
335 cord_individual_obj[indivial_i, :] = [ 23. 11. 96. 107.]
336 cord_individual_obj[indivial_i, :] = [ 24. 11. 124. 135.]
337
338 min(cord_individual_obj[:, 3]) = 97.0
339 histol_G_best_iter[iter, 3] = 97.0
340 Begin iteration:
341
342 iter = 10
343 cord_individual_obj[indivial_i, :] = [ 0. 10. 195. 205.]
344 cord_individual_obj[indivial_i, :] = [ 1. 11. 137. 148.]
345 cord_individual_obj[indivial_i, :] = [ 2. 13. 131. 144.]
346 cord_individual_obj[indivial_i, :] = [ 3. 9. 171. 180.]
347 cord_individual_obj[indivial_i, :] = [ 4. 10. 124. 134.]
348 cord_individual_obj[indivial_i, :] = [ 5. 10. 135. 145.]
349 cord_individual_obj[indivial_i, :] = [ 6. 10. 183. 193.]
350 cord_individual_obj[indivial_i, :] = [ 7. 12. 153. 165.]
351 cord_individual_obj[indivial_i, :] = [ 8. 10. 121. 131.]
352 cord_individual_obj[indivial_i, :] = [ 9. 10. 117. 127.]
353 cord_individual_obj[indivial_i, :] = [ 10. 9. 194. 203.]
354 cord_individual_obj[indivial_i, :] = [ 11. 9. 193. 202.]
355 cord_individual_obj[indivial_i, :] = [ 12. 12. 161. 173.]
356 cord_individual_obj[indivial_i, :] = [ 13. 11. 207. 218.]
357 cord_individual_obj[indivial_i, :] = [ 14. 10. 158. 168.]
358 cord_individual_obj[indivial_i, :] = [ 15. 10. 123. 133.]
359 cord_individual_obj[indivial_i, :] = [ 16. 12. 208. 220.]
360 cord_individual_obj[indivial_i, :] = [ 17. 10. 87. 97.]
361 cord_individual_obj[indivial_i, :] = [ 18. 10. 158. 168.]
362 cord_individual_obj[indivial_i, :] = [ 19. 10. 142. 152.]
363 cord_individual_obj[indivial_i, :] = [ 20. 12. 193. 205.]
364 cord_individual_obj[indivial_i, :] = [ 21. 10. 157. 167.]
365 cord_individual_obj[indivial_i, :] = [ 22. 10. 208. 218.]
366 cord_individual_obj[indivial_i, :] = [ 23. 12. 123. 135.]
367 cord_individual_obj[indivial_i, :] = [ 24. 11. 100. 111.]
368
369 min(cord_individual_obj[:, 3]) = 97.0
370 histol_G_best_iter[iter, 3] = 97.0
371 Begin iteration:
372
373 iter = 11
374 cord_individual_obj[indivial_i, :] = [ 0. 10. 119. 129.]
375 cord_individual_obj[indivial_i, :] = [ 1. 12. 145. 157.]
376 cord_individual_obj[indivial_i, :] = [ 2. 11. 184. 195.]
377 cord_individual_obj[indivial_i, :] = [ 3. 12. 161. 173.]
378 cord_individual_obj[indivial_i, :] = [ 4. 12. 130. 142.]
379 cord_individual_obj[indivial_i, :] = [ 5. 11. 144. 155.]
380 cord_individual_obj[indivial_i, :] = [ 6. 9. 145. 154.]
381 cord_individual_obj[indivial_i, :] = [ 7. 13. 133. 146.]
382 cord_individual_obj[indivial_i, :] = [ 8. 10. 135. 145.]
383 cord_individual_obj[indivial_i, :] = [ 9. 9. 142. 151.]
384 cord_individual_obj[indivial_i, :] = [ 10. 9. 114. 123.]
385 cord_individual_obj[indivial_i, :] = [ 11. 10. 118. 128.]
386 cord_individual_obj[indivial_i, :] = [ 12. 10. 114. 124.]
387 cord_individual_obj[indivial_i, :] = [ 13. 10. 175. 185.]
388 cord_individual_obj[indivial_i, :] = [ 14. 10. 144. 154.]
389 cord_individual_obj[indivial_i, :] = [ 15. 9. 142. 151.]
390 cord_individual_obj[indivial_i, :] = [ 16. 10. 87. 97.]
391 cord_individual_obj[indivial_i, :] = [ 17. 10. 152. 162.]
392 cord_individual_obj[indivial_i, :] = [ 18. 11. 124. 135.]
393 cord_individual_obj[indivial_i, :] = [ 19. 10. 77. 87.]
394 cord_individual_obj[indivial_i, :] = [ 20. 11. 151. 162.]
395 cord_individual_obj[indivial_i, :] = [ 21. 9. 153. 162.]
396 cord_individual_obj[indivial_i, :] = [ 22. 12. 157. 169.]
397 cord_individual_obj[indivial_i, :] = [ 23. 10. 158. 168.]
398 cord_individual_obj[indivial_i, :] = [ 24. 12. 112. 124.]
399
400 min(cord_individual_obj[:, 3]) = 87.0
401 histol_G_best_iter[iter, 3] = 87.0
402 Begin iteration:
403
404 iter = 12
405 cord_individual_obj[indivial_i, :] = [ 0. 10. 128. 138.]
406 cord_individual_obj[indivial_i, :] = [ 1. 11. 132. 143.]
407 cord_individual_obj[indivial_i, :] = [ 2. 10. 77. 87.]
408 cord_individual_obj[indivial_i, :] = [ 3. 11. 177. 188.]
409 cord_individual_obj[indivial_i, :] = [ 4. 11. 150. 161.]
410 cord_individual_obj[indivial_i, :] = [ 5. 10. 154. 164.]
411 cord_individual_obj[indivial_i, :] = [ 6. 10. 198. 208.]
412 cord_individual_obj[indivial_i, :] = [ 7. 12. 158. 170.]
413 cord_individual_obj[indivial_i, :] = [ 8. 9. 131. 140.]
414 cord_individual_obj[indivial_i, :] = [ 9. 10. 114. 124.]
415 cord_individual_obj[indivial_i, :] = [ 10. 12. 160. 172.]

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416 cord_individual_obj[indivial_i,:] = [ 11. 9. 212. 221.]
417 cord_individual_obj[indivial_i,:] = [ 12. 11. 146. 157.]
418 cord_individual_obj[indivial_i,:] = [ 13. 10. 148. 158.]
419 cord_individual_obj[indivial_i,:] = [ 14. 12. 151. 163.]
420 cord_individual_obj[indivial_i,:] = [ 15. 9. 170. 179.]
421 cord_individual_obj[indivial_i,:] = [ 16. 10. 148. 158.]
422 cord_individual_obj[indivial_i,:] = [ 17. 10. 133. 143.]
423 cord_individual_obj[indivial_i,:] = [ 18. 12. 146. 158.]
424 cord_individual_obj[indivial_i,:] = [ 19. 10. 177. 187.]
425 cord_individual_obj[indivial_i,:] = [ 20. 10. 189. 199.]
426 cord_individual_obj[indivial_i,:] = [ 21. 11. 170. 181.]
427 cord_individual_obj[indivial_i,:] = [ 22. 8. 150. 158.]
428 cord_individual_obj[indivial_i,:] = [ 23. 12. 131. 143.]
429 cord_individual_obj[indivial_i,:] = [ 24. 9. 124. 133.]
430
431 min(cord_individual_obj[:,3]) = 87.0
432 histol_G_best_iter[iter,3] = 87.0
433 Begin iteration:
434
435 iter = 13
436 cord_individual_obj[indivial_i,:] = [ 0. 11. 144. 155.]
437 cord_individual_obj[indivial_i,:] = [ 1. 12. 144. 156.]
438 cord_individual_obj[indivial_i,:] = [ 2. 9. 140. 149.]
439 cord_individual_obj[indivial_i,:] = [ 3. 10. 167. 177.]
440 cord_individual_obj[indivial_i,:] = [ 4. 12. 147. 159.]
441 cord_individual_obj[indivial_i,:] = [ 5. 9. 107. 116.]
442 cord_individual_obj[indivial_i,:] = [ 6. 10. 115. 125.]
443 cord_individual_obj[indivial_i,:] = [ 7. 11. 182. 193.]
444 cord_individual_obj[indivial_i,:] = [ 8. 8. 190. 198.]
445 cord_individual_obj[indivial_i,:] = [ 9. 11. 141. 152.]
446 cord_individual_obj[indivial_i,:] = [ 10. 10. 170. 180.]
447 cord_individual_obj[indivial_i,:] = [ 11. 10. 77. 87.]
448 cord_individual_obj[indivial_i,:] = [ 12. 11. 125. 136.]
449 cord_individual_obj[indivial_i,:] = [ 13. 11. 211. 222.]
450 cord_individual_obj[indivial_i,:] = [ 14. 10. 226. 236.]
451 cord_individual_obj[indivial_i,:] = [ 15. 13. 128. 141.]
452 cord_individual_obj[indivial_i,:] = [ 16. 12. 117. 129.]
453 cord_individual_obj[indivial_i,:] = [ 17. 12. 86. 98.]
454 cord_individual_obj[indivial_i,:] = [ 18. 10. 100. 110.]
455 cord_individual_obj[indivial_i,:] = [ 19. 10. 124. 134.]
456 cord_individual_obj[indivial_i,:] = [ 20. 9. 169. 178.]
457 cord_individual_obj[indivial_i,:] = [ 21. 9. 174. 183.]
458 cord_individual_obj[indivial_i,:] = [ 22. 9. 162. 171.]
459 cord_individual_obj[indivial_i,:] = [ 23. 10. 166. 176.]
460 cord_individual_obj[indivial_i,:] = [ 24. 10. 143. 153.]
461
462 min(cord_individual_obj[:,3]) = 87.0
463 histol_G_best_iter[iter,3] = 87.0
464 Begin iteration:
465
466 iter = 14
467 cord_individual_obj[indivial_i,:] = [ 0. 10. 185. 195.]
468 cord_individual_obj[indivial_i,:] = [ 1. 11. 98. 109.]
469 cord_individual_obj[indivial_i,:] = [ 2. 10. 143. 153.]
470 cord_individual_obj[indivial_i,:] = [ 3. 12. 272. 284.]
471 cord_individual_obj[indivial_i,:] = [ 4. 13. 163. 176.]
472 cord_individual_obj[indivial_i,:] = [ 5. 10. 191. 201.]
473 cord_individual_obj[indivial_i,:] = [ 6. 12. 169. 181.]
474 cord_individual_obj[indivial_i,:] = [ 7. 10. 149. 159.]
475 cord_individual_obj[indivial_i,:] = [ 8. 9. 157. 166.]
476 cord_individual_obj[indivial_i,:] = [ 9. 11. 103. 114.]
477 cord_individual_obj[indivial_i,:] = [ 10. 8. 166. 174.]
478 cord_individual_obj[indivial_i,:] = [ 11. 11. 189. 200.]
479 cord_individual_obj[indivial_i,:] = [ 12. 10. 137. 147.]
480 cord_individual_obj[indivial_i,:] = [ 13. 9. 156. 165.]
481 cord_individual_obj[indivial_i,:] = [ 14. 10. 77. 87.]
482 cord_individual_obj[indivial_i,:] = [ 15. 11. 146. 157.]
483 cord_individual_obj[indivial_i,:] = [ 16. 12. 156. 168.]
484 cord_individual_obj[indivial_i,:] = [ 17. 13. 197. 210.]
485 cord_individual_obj[indivial_i,:] = [ 18. 10. 169. 179.]
486 cord_individual_obj[indivial_i,:] = [ 19. 10. 122. 132.]
487 cord_individual_obj[indivial_i,:] = [ 20. 11. 150. 161.]
488 cord_individual_obj[indivial_i,:] = [ 21. 9. 119. 128.]
489 cord_individual_obj[indivial_i,:] = [ 22. 9. 91. 100.]
490 cord_individual_obj[indivial_i,:] = [ 23. 14. 147. 161.]
491 cord_individual_obj[indivial_i,:] = [ 24. 10. 186. 196.]
492
493 min(cord_individual_obj[:,3]) = 87.0
494 histol_G_best_iter[iter,3] = 87.0
495 Begin iteration:
496
497 iter = 15
498 cord_individual_obj[indivial_i,:] = [ 0. 10. 131. 141.]
499 cord_individual_obj[indivial_i,:] = [ 1. 11. 148. 159.]

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500 cord_individual_obj[indivial_i, :] = [ 2. 10. 138. 148.]
501 cord_individual_obj[indivial_i, :] = [ 3. 10. 77. 87.]
502 cord_individual_obj[indivial_i, :] = [ 4. 12. 139. 151.]
503 cord_individual_obj[indivial_i, :] = [ 5. 10. 180. 190.]
504 cord_individual_obj[indivial_i, :] = [ 6. 8. 126. 134.]
505 cord_individual_obj[indivial_i, :] = [ 7. 10. 139. 149.]
506 cord_individual_obj[indivial_i, :] = [ 8. 9. 198. 207.]
507 cord_individual_obj[indivial_i, :] = [ 9. 11. 146. 157.]
508 cord_individual_obj[indivial_i, :] = [ 10. 11. 186. 197.]
509 cord_individual_obj[indivial_i, :] = [ 11. 11. 179. 190.]
510 cord_individual_obj[indivial_i, :] = [ 12. 10. 231. 241.]
511 cord_individual_obj[indivial_i, :] = [ 13. 11. 111. 122.]
512 cord_individual_obj[indivial_i, :] = [ 14. 9. 136. 145.]
513 cord_individual_obj[indivial_i, :] = [ 15. 11. 177. 188.]
514 cord_individual_obj[indivial_i, :] = [ 16. 11. 149. 160.]
515 cord_individual_obj[indivial_i, :] = [ 17. 11. 160. 171.]
516 cord_individual_obj[indivial_i, :] = [ 18. 11. 141. 152.]
517 cord_individual_obj[indivial_i, :] = [ 19. 10. 152. 162.]
518 cord_individual_obj[indivial_i, :] = [ 20. 9. 209. 218.]
519 cord_individual_obj[indivial_i, :] = [ 21. 9. 131. 140.]
520 cord_individual_obj[indivial_i, :] = [ 22. 9. 145. 154.]
521 cord_individual_obj[indivial_i, :] = [ 23. 12. 150. 162.]
522 cord_individual_obj[indivial_i, :] = [ 24. 10. 197. 207.]
523
524 min(cord_individual_obj[:, 3]) = 87.0
525 histol_G_best_iter[iter, 3] = 87.0
526 Begin iteration:
527
528 iter = 16
529 cord_individual_obj[indivial_i, :] = [ 0. 9. 114. 123.]
530 cord_individual_obj[indivial_i, :] = [ 1. 10. 192. 202.]
531 cord_individual_obj[indivial_i, :] = [ 2. 8. 131. 139.]
532 cord_individual_obj[indivial_i, :] = [ 3. 11. 181. 192.]
533 cord_individual_obj[indivial_i, :] = [ 4. 11. 129. 140.]
534 cord_individual_obj[indivial_i, :] = [ 5. 9. 159. 168.]
535 cord_individual_obj[indivial_i, :] = [ 6. 10. 139. 149.]
536 cord_individual_obj[indivial_i, :] = [ 7. 11. 177. 188.]
537 cord_individual_obj[indivial_i, :] = [ 8. 9. 184. 193.]
538 cord_individual_obj[indivial_i, :] = [ 9. 11. 160. 171.]
539 cord_individual_obj[indivial_i, :] = [ 10. 11. 154. 165.]
540 cord_individual_obj[indivial_i, :] = [ 11. 11. 128. 139.]
541 cord_individual_obj[indivial_i, :] = [ 12. 10. 77. 87.]
542 cord_individual_obj[indivial_i, :] = [ 13. 9. 163. 172.]
543 cord_individual_obj[indivial_i, :] = [ 14. 10. 154. 164.]
544 cord_individual_obj[indivial_i, :] = [ 15. 10. 183. 193.]
545 cord_individual_obj[indivial_i, :] = [ 16. 9. 149. 158.]
546 cord_individual_obj[indivial_i, :] = [ 17. 10. 148. 158.]
547 cord_individual_obj[indivial_i, :] = [ 18. 10. 179. 189.]
548 cord_individual_obj[indivial_i, :] = [ 19. 9. 184. 193.]
549 cord_individual_obj[indivial_i, :] = [ 20. 9. 164. 173.]
550 cord_individual_obj[indivial_i, :] = [ 21. 9. 188. 197.]
551 cord_individual_obj[indivial_i, :] = [ 22. 9. 193. 202.]
552 cord_individual_obj[indivial_i, :] = [ 23. 10. 144. 154.]
553 cord_individual_obj[indivial_i, :] = [ 24. 10. 149. 159.]
554
555 min(cord_individual_obj[:, 3]) = 87.0
556 histol_G_best_iter[iter, 3] = 87.0
557 Begin iteration:
558
559 iter = 17
560 cord_individual_obj[indivial_i, :] = [ 0. 9. 144. 153.]
561 cord_individual_obj[indivial_i, :] = [ 1. 10. 77. 87.]
562 cord_individual_obj[indivial_i, :] = [ 2. 9. 161. 170.]
563 cord_individual_obj[indivial_i, :] = [ 3. 10. 136. 146.]
564 cord_individual_obj[indivial_i, :] = [ 4. 9. 176. 185.]
565 cord_individual_obj[indivial_i, :] = [ 5. 10. 126. 136.]
566 cord_individual_obj[indivial_i, :] = [ 6. 9. 157. 166.]
567 cord_individual_obj[indivial_i, :] = [ 7. 12. 197. 209.]
568 cord_individual_obj[indivial_i, :] = [ 8. 9. 172. 181.]
569 cord_individual_obj[indivial_i, :] = [ 9. 9. 181. 190.]
570 cord_individual_obj[indivial_i, :] = [ 10. 11. 166. 177.]
571 cord_individual_obj[indivial_i, :] = [ 11. 10. 120. 130.]
572 cord_individual_obj[indivial_i, :] = [ 12. 11. 158. 169.]
573 cord_individual_obj[indivial_i, :] = [ 13. 11. 177. 188.]
574 cord_individual_obj[indivial_i, :] = [ 14. 9. 141. 150.]
575 cord_individual_obj[indivial_i, :] = [ 15. 11. 162. 173.]
576 cord_individual_obj[indivial_i, :] = [ 16. 10. 102. 112.]
577 cord_individual_obj[indivial_i, :] = [ 17. 12. 188. 200.]
578 cord_individual_obj[indivial_i, :] = [ 18. 9. 102. 111.]
579 cord_individual_obj[indivial_i, :] = [ 19. 10. 196. 206.]
580 cord_individual_obj[indivial_i, :] = [ 20. 10. 127. 137.]
581 cord_individual_obj[indivial_i, :] = [ 21. 10. 132. 142.]
582 cord_individual_obj[indivial_i, :] = [ 22. 8. 81. 89.]
583 cord_individual_obj[indivial_i, :] = [ 23. 10. 134. 144.]

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584     cord_individual_obj[indivial_i, :] = [ 24.  9. 162. 171.]
585
586     min(cord_individual_obj[:, 3]) = 87.0
587     historl_G_best_iter[iter, 3] = 87.0
588 Begin iteration:
589
590 iter = 18
591     cord_individual_obj[indivial_i, :] = [ 0.  9. 132. 141.]
592     cord_individual_obj[indivial_i, :] = [ 1. 11. 171. 182.]
593     cord_individual_obj[indivial_i, :] = [ 2. 10. 134. 144.]
594     cord_individual_obj[indivial_i, :] = [ 3. 11. 158. 169.]
595     cord_individual_obj[indivial_i, :] = [ 4. 14. 144. 158.]
596     cord_individual_obj[indivial_i, :] = [ 5. 10. 216. 226.]
597     cord_individual_obj[indivial_i, :] = [ 6. 11. 143. 154.]
598     cord_individual_obj[indivial_i, :] = [ 7. 10. 77. 87.]
599     cord_individual_obj[indivial_i, :] = [ 8. 10. 159. 169.]
600     cord_individual_obj[indivial_i, :] = [ 9. 13. 150. 163.]
601     cord_individual_obj[indivial_i, :] = [ 10. 10. 102. 112.]
602     cord_individual_obj[indivial_i, :] = [ 11. 10. 147. 157.]
603     cord_individual_obj[indivial_i, :] = [ 12. 12. 129. 141.]
604     cord_individual_obj[indivial_i, :] = [ 13. 11. 142. 153.]
605     cord_individual_obj[indivial_i, :] = [ 14. 8. 145. 153.]
606     cord_individual_obj[indivial_i, :] = [ 15. 12. 197. 209.]
607     cord_individual_obj[indivial_i, :] = [ 16. 10. 160. 170.]
608     cord_individual_obj[indivial_i, :] = [ 17. 13. 184. 197.]
609     cord_individual_obj[indivial_i, :] = [ 18. 11. 121. 132.]
610     cord_individual_obj[indivial_i, :] = [ 19. 10. 145. 155.]
611     cord_individual_obj[indivial_i, :] = [ 20. 10. 160. 170.]
612     cord_individual_obj[indivial_i, :] = [ 21. 10. 147. 157.]
613     cord_individual_obj[indivial_i, :] = [ 22. 10. 108. 118.]
614     cord_individual_obj[indivial_i, :] = [ 23. 12. 142. 154.]
615     cord_individual_obj[indivial_i, :] = [ 24. 11. 130. 141.]
616
617     min(cord_individual_obj[:, 3]) = 87.0
618     historl_G_best_iter[iter, 3] = 87.0
619 Begin iteration:
620
621 iter = 19
622     cord_individual_obj[indivial_i, :] = [ 0. 10. 147. 157.]
623     cord_individual_obj[indivial_i, :] = [ 1. 10. 185. 195.]
624     cord_individual_obj[indivial_i, :] = [ 2. 10. 164. 174.]
625     cord_individual_obj[indivial_i, :] = [ 3. 12. 111. 123.]
626     cord_individual_obj[indivial_i, :] = [ 4. 11. 138. 149.]
627     cord_individual_obj[indivial_i, :] = [ 5. 10. 77. 87.]
628     cord_individual_obj[indivial_i, :] = [ 6. 12. 174. 186.]
629     cord_individual_obj[indivial_i, :] = [ 7. 13. 150. 163.]
630     cord_individual_obj[indivial_i, :] = [ 8. 9. 184. 193.]
631     cord_individual_obj[indivial_i, :] = [ 9. 10. 150. 160.]
632     cord_individual_obj[indivial_i, :] = [ 10. 9. 180. 189.]
633     cord_individual_obj[indivial_i, :] = [ 11. 9. 191. 200.]
634     cord_individual_obj[indivial_i, :] = [ 12. 11. 196. 207.]
635     cord_individual_obj[indivial_i, :] = [ 13. 10. 197. 207.]
636     cord_individual_obj[indivial_i, :] = [ 14. 10. 144. 154.]
637     cord_individual_obj[indivial_i, :] = [ 15. 10. 189. 199.]
638     cord_individual_obj[indivial_i, :] = [ 16. 14. 152. 166.]
639     cord_individual_obj[indivial_i, :] = [ 17. 11. 220. 231.]
640     cord_individual_obj[indivial_i, :] = [ 18. 10. 146. 156.]
641     cord_individual_obj[indivial_i, :] = [ 19. 10. 186. 196.]
642     cord_individual_obj[indivial_i, :] = [ 20. 11. 142. 153.]
643     cord_individual_obj[indivial_i, :] = [ 21. 9. 159. 168.]
644     cord_individual_obj[indivial_i, :] = [ 22. 9. 145. 154.]
645     cord_individual_obj[indivial_i, :] = [ 23. 10. 149. 159.]
646     cord_individual_obj[indivial_i, :] = [ 24. 10. 107. 117.]
647
648     min(cord_individual_obj[:, 3]) = 87.0
649     historl_G_best_iter[iter, 3] = 87.0
650 Begin iteration:
651
652 iter = 20
653     cord_individual_obj[indivial_i, :] = [ 0. 11. 134. 145.]
654     cord_individual_obj[indivial_i, :] = [ 1. 12. 106. 118.]
655     cord_individual_obj[indivial_i, :] = [ 2. 10. 141. 151.]
656     cord_individual_obj[indivial_i, :] = [ 3. 11. 125. 136.]
657     cord_individual_obj[indivial_i, :] = [ 4. 11. 216. 227.]
658     cord_individual_obj[indivial_i, :] = [ 5. 10. 165. 175.]
659     cord_individual_obj[indivial_i, :] = [ 6. 9. 129. 138.]
660     cord_individual_obj[indivial_i, :] = [ 7. 12. 109. 121.]
661     cord_individual_obj[indivial_i, :] = [ 8. 9. 112. 121.]
662     cord_individual_obj[indivial_i, :] = [ 9. 11. 203. 214.]
663     cord_individual_obj[indivial_i, :] = [ 10. 8. 163. 171.]
664     cord_individual_obj[indivial_i, :] = [ 11. 12. 153. 165.]
665     cord_individual_obj[indivial_i, :] = [ 12. 11. 113. 124.]
666     cord_individual_obj[indivial_i, :] = [ 13. 10. 136. 146.]
667     cord_individual_obj[indivial_i, :] = [ 14. 9. 219. 228.]

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668 cord_individual_obj[indivial_i,:] = [ 15. 13. 145. 158.]
669 cord_individual_obj[indivial_i,:] = [ 16. 12. 145. 157.]
670 cord_individual_obj[indivial_i,:] = [17. 10. 77. 87.]
671 cord_individual_obj[indivial_i,:] = [ 18. 9. 163. 172.]
672 cord_individual_obj[indivial_i,:] = [ 19. 10. 130. 140.]
673 cord_individual_obj[indivial_i,:] = [ 20. 11. 173. 184.]
674 cord_individual_obj[indivial_i,:] = [ 21. 9. 208. 217.]
675 cord_individual_obj[indivial_i,:] = [ 22. 9. 142. 151.]
676 cord_individual_obj[indivial_i,:] = [ 23. 11. 169. 180.]
677 cord_individual_obj[indivial_i,:] = [ 24. 10. 123. 133.]
678
679 min(cord_individual_obj[:, 3]) = 87.0
680 historl_G_best_iter[iter, 3] = 87.0
681 Iteration calculate over
682
683
684
685
686 All item are in Bin and:
687 Bin area = 1080
688 Real_area = 266.0
689 Proportion_of_area = 0.2462962962962963
690 BEST_CHROM =
691 berth: [ 5.5 11.5 23. 17.5 4. 24.5 11. 8.5 3.5 21.5 26.5 4.5 15. 6.
692 1.5 21.5 17. 2. 11. ]
693 time: [3. 4. 5. 4. 2. 2. 6. 8. 8. 6. 6. 6. 0. 0. 0. 2. 3. 0.]
694 num_QC: [2. 6. 4. 2. 5. 2. 4. 3. 3. 2. 2. 4. 3. 4. 3. 4. 5. 3. 3.]
695 Objective function values and some other indicators:
696 Obj0 = 10.00      Obj1 = 77.00      Obj0 + Obj1 = 87.00
697 Total movement of crane: 12.00
698 Total waiting time in berth position: 65.00
699 Total index of q during berthing: 1100.00
700 Specific arrangement for each vessel:
701 V_id: 0           li: 3.0          xi: 5.5          bow of i: 4.0          tail of i: 7.0          gama_i0: 3.0          gama_i1: 5.0
702 .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 load_i:
703 V_id: 1           li: 9.0          xi: 11.5         bow of i: 7.0          tail of i: 16.0        gama_i0: 4.0          gama_i1: 5
704 .0               work load gap_i: 0   gama_i1 + 1: 6.0    gama_i1 - gama_i0: 1.0    duration_time_i: 2.0    demand_i: 160.0    work
705 V_id: 2           li: 8.0          xi: 23.0          bow of i: 19.0         tail of i: 27.0        gama_i0: 5.0          gama_i1: 5
706 .0               work load gap_i: 0   gama_i1 + 1: 6.0    gama_i1 - gama_i0: 0.0    duration_time_i: 1.0    demand_i: 80.0     work
707 V_id: 3           li: 3.0          xi: 17.5          bow of i: 16.0         tail of i: 19.0        gama_i0: 4.0          gama_i1: 6
708 .0               work load gap_i: 0   gama_i1 + 1: 7.0    gama_i1 - gama_i0: 2.0    duration_time_i: 3.0    demand_i: 120.0    work
709 V_id: 4           li: 8.0          xi: 4.0           bow of i: 0.0          tail of i: 8.0         gama_i0: 2.0          gama_i1: 2.0
710 .0               work load gap_i: 0   gama_i1 + 1: 3.0    gama_i1 - gama_i0: 0.0    duration_time_i: 1.0    demand_i: 80.0     work load_i:
711 V_id: 5           li: 7.0          xi: 24.5          bow of i: 21.0         tail of i: 28.0        gama_i0: 2.0          gama_i1: 4
712 .0               work load gap_i: 0   gama_i1 + 1: 5.0    gama_i1 - gama_i0: 2.0    duration_time_i: 3.0    demand_i: 120.0    work
713 V_id: 6           li: 4.0          xi: 11.0          bow of i: 9.0          tail of i: 13.0        gama_i0: 6.0          gama_i1: 7
714 .0               work load gap_i: 0   gama_i1 + 1: 8.0    gama_i1 - gama_i0: 1.0    duration_time_i: 2.0    demand_i: 140.0    work
715 V_id: 7           li: 3.0          xi: 8.5           bow of i: 7.0          tail of i: 10.0        gama_i0: 8.0          gama_i1: 10.
716 .0               work load gap_i: 0   gama_i1 + 1: 11.0   gama_i1 - gama_i0: 2.0    duration_time_i: 3.0    demand_i: 140.0    work
717 V_id: 8           li: 7.0          xi: 3.5           bow of i: 0.0          tail of i: 7.0         gama_i0: 8.0          gama_i1: 10.0
718 .0               work load gap_i: 0   gama_i1 + 1: 11.0   gama_i1 - gama_i0: 2.0    duration_time_i: 3.0    demand_i: 160.0    work
719 V_id: 9           li: 5.0          xi: 21.5          bow of i: 19.0         tail of i: 24.0        gama_i0: 6.0          gama_i1: 7
720 .0               work load gap_i: 0   gama_i1 + 1: 8.0    gama_i1 - gama_i0: 1.0    duration_time_i: 2.0    demand_i: 60.0     work
721 V_id: 10          li: 5.0          xi: 26.5          bow of i: 24.0         tail of i: 29.0        gama_i0: 6.0          gama_i1: 1
722 .0               work load gap_i: 0   gama_i1 + 1: 9.0    gama_i1 - gama_i0: 2.0    duration_time_i: 3.0    demand_i: 120.0    work
723 V_id: 11          li: 9.0          xi: 4.5           bow of i: 0.0          tail of i: 9.0         gama_i0: 6.0          gama_i1: 7.0
724 .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:
725 V_id: 12          li: 4.0          xi: 15.0          bow of i: 13.0         tail of i: 17.0        gama_i0: 0.0          gama_i1: 1
726 .0               work load gap_i: 0   gama_i1 + 1: 1.0    gama_i1 - gama_i0: 0.0    duration_time_i: 1.0    demand_i: 60.0     work
727 V_id: 13          li: 6.0          xi: 6.0           bow of i: 3.0          tail of i: 9.0         gama_i0: 0.0          gama_i1: 1.0
728 .0               work load gap_i: 0   gama_i1 + 1: 2.0    gama_i1 - gama_i0: 1.0    duration_time_i: 2.0    demand_i: 160.0    work load_i:
729 V_id: 14          li: 3.0          xi: 1.5           bow of i: 0.0          tail of i: 3.0         gama_i0: 0.0          gama_i1: 1.0
730 .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 load_i:
731 V_id: 15          li: 9.0          xi: 21.5          bow of i: 17.0         tail of i: 26.0        gama_i0: 0.0          gama_i1: 1
732 .0               work load gap_i: 0   gama_i1 + 1: 2.0    gama_i1 - gama_i0: 1.0    duration_time_i: 2.0    demand_i: 140.0    work
733 V_id: 16          li: 8.0          xi: 17.0          bow of i: 13.0         tail of i: 21.0        gama_i0: 2.0          gama_i1: 1
734 .0               work load gap_i: 0   gama_i1 + 1: 4.0    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: 2.0          bow of i: 0.0          tail of i: 4.0          gama_i0: 3.0          gama_i1: 4.0
           gama_i1 + 1: 5.0      gama_i1 - gama_i0: 1.0
    100.0          work load gap_i: 0
719      V_id: 18          li: 4.0          xi: 11.0         bow of i: 9.0          tail of i: 13.0         gama_i0: 0.0
   : 1.0          gama_i1 + 1: 2.0      gama_i1 - gama_i0: 1.0
  load_i: 80.0          work load gap_i: 0          duration_time_i: 2.0         demand_i: 80.0          gama_i1
720
721 Algorithm finished and the total CPU time: 519 s
722 End
723
```