

unknown

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80 cord_individual_obj[indivial_i,:] = [ 16. 11. 148. 159.]
81 cord_individual_obj[indivial_i,:] = [ 17. 11. 161. 172.]
82 cord_individual_obj[indivial_i,:] = [ 18. 10. 178. 188.]
83 cord_individual_obj[indivial_i,:] = [ 19. 12. 144. 156.]
84 cord_individual_obj[indivial_i,:] = [ 20. 10. 194. 204.]
85 cord_individual_obj[indivial_i,:] = [ 21. 9. 201. 210.]
86 cord_individual_obj[indivial_i,:] = [ 22. 12. 163. 175.]
87 cord_individual_obj[indivial_i,:] = [ 23. 11. 100. 111.]
88 cord_individual_obj[indivial_i,:] = [ 24. 12. 181. 193.]
89
90 min(cord_individual_obj[:,3]) = 97.0
91 historl_G_best_iter[iter,3] = 97.0
92 Begin iteration:
93
94 iter = 2
95 cord_individual_obj[indivial_i,:] = [ 0. 11. 131. 142.]
96 cord_individual_obj[indivial_i,:] = [ 1. 10. 193. 203.]
97 cord_individual_obj[indivial_i,:] = [ 2. 10. 153. 163.]
98 cord_individual_obj[indivial_i,:] = [ 3. 10. 150. 160.]
99 cord_individual_obj[indivial_i,:] = [ 4. 11. 127. 138.]
100 cord_individual_obj[indivial_i,:] = [ 5. 10. 146. 156.]
101 cord_individual_obj[indivial_i,:] = [ 6. 12. 218. 230.]
102 cord_individual_obj[indivial_i,:] = [ 7. 12. 157. 169.]
103 cord_individual_obj[indivial_i,:] = [ 8. 11. 220. 231.]
104 cord_individual_obj[indivial_i,:] = [ 9. 13. 133. 146.]
105 cord_individual_obj[indivial_i,:] = [ 10. 10. 115. 125.]
106 cord_individual_obj[indivial_i,:] = [ 11. 13. 169. 182.]
107 cord_individual_obj[indivial_i,:] = [ 12. 13. 136. 149.]
108 cord_individual_obj[indivial_i,:] = [ 13. 9. 88. 97.]
109 cord_individual_obj[indivial_i,:] = [ 14. 9. 158. 167.]
110 cord_individual_obj[indivial_i,:] = [ 15. 11. 202. 213.]
111 cord_individual_obj[indivial_i,:] = [ 16. 9. 187. 196.]
112 cord_individual_obj[indivial_i,:] = [ 17. 11. 214. 225.]
113 cord_individual_obj[indivial_i,:] = [ 18. 12. 184. 196.]
114 cord_individual_obj[indivial_i,:] = [ 19. 12. 141. 153.]
115 cord_individual_obj[indivial_i,:] = [ 20. 10. 177. 187.]
116 cord_individual_obj[indivial_i,:] = [ 21. 9. 239. 248.]
117 cord_individual_obj[indivial_i,:] = [ 22. 12. 118. 130.]
118 cord_individual_obj[indivial_i,:] = [ 23. 10. 151. 161.]
119 cord_individual_obj[indivial_i,:] = [ 24. 10. 203. 213.]
120
121 min(cord_individual_obj[:,3]) = 97.0
122 historl_G_best_iter[iter,3] = 97.0
123 Begin iteration:
124
125 iter = 3
126 cord_individual_obj[indivial_i,:] = [ 0. 13. 192. 205.]
127 cord_individual_obj[indivial_i,:] = [ 1. 9. 219. 228.]
128 cord_individual_obj[indivial_i,:] = [ 2. 11. 165. 176.]
129 cord_individual_obj[indivial_i,:] = [ 3. 12. 149. 161.]
130 cord_individual_obj[indivial_i,:] = [ 4. 11. 99. 110.]
131 cord_individual_obj[indivial_i,:] = [ 5. 13. 158. 171.]
132 cord_individual_obj[indivial_i,:] = [ 6. 10. 177. 187.]
133 cord_individual_obj[indivial_i,:] = [ 7. 10. 153. 163.]
134 cord_individual_obj[indivial_i,:] = [ 8. 11. 114. 125.]
135 cord_individual_obj[indivial_i,:] = [ 9. 10. 130. 140.]
136 cord_individual_obj[indivial_i,:] = [ 10. 12. 197. 209.]
137 cord_individual_obj[indivial_i,:] = [ 11. 11. 113. 124.]
138 cord_individual_obj[indivial_i,:] = [ 12. 11. 128. 139.]
139 cord_individual_obj[indivial_i,:] = [ 13. 10. 192. 202.]
140 cord_individual_obj[indivial_i,:] = [ 14. 11. 148. 159.]
141 cord_individual_obj[indivial_i,:] = [ 15. 10. 143. 153.]
142 cord_individual_obj[indivial_i,:] = [ 16. 9. 125. 134.]
143 cord_individual_obj[indivial_i,:] = [ 17. 10. 149. 159.]
144 cord_individual_obj[indivial_i,:] = [ 18. 13. 137. 150.]
145 cord_individual_obj[indivial_i,:] = [ 19. 11. 195. 206.]
146 cord_individual_obj[indivial_i,:] = [ 20. 10. 126. 136.]
147 cord_individual_obj[indivial_i,:] = [ 21. 9. 88. 97.]
148 cord_individual_obj[indivial_i,:] = [ 22. 11. 125. 136.]
149 cord_individual_obj[indivial_i,:] = [ 23. 9. 159. 168.]
150 cord_individual_obj[indivial_i,:] = [ 24. 11. 166. 177.]
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. 205. 217.]
158 cord_individual_obj[indivial_i,:] = [ 1. 9. 88. 97.]
159 cord_individual_obj[indivial_i,:] = [ 2. 10. 154. 164.]
160 cord_individual_obj[indivial_i,:] = [ 3. 10. 241. 251.]
161 cord_individual_obj[indivial_i,:] = [ 4. 11. 193. 204.]
162 cord_individual_obj[indivial_i,:] = [ 5. 11. 234. 245.]
163 cord_individual_obj[indivial_i,:] = [ 6. 10. 223. 233.]

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164 cord_individual_obj[indivial_i,:] = [ 7. 13. 147. 160.]
165 cord_individual_obj[indivial_i,:] = [ 8. 10. 175. 185.]
166 cord_individual_obj[indivial_i,:] = [ 9. 10. 114. 124.]
167 cord_individual_obj[indivial_i,:] = [ 10. 10. 132. 142.]
168 cord_individual_obj[indivial_i,:] = [ 11. 13. 147. 160.]
169 cord_individual_obj[indivial_i,:] = [ 12. 14. 187. 201.]
170 cord_individual_obj[indivial_i,:] = [ 13. 11. 175. 186.]
171 cord_individual_obj[indivial_i,:] = [ 14. 10. 177. 187.]
172 cord_individual_obj[indivial_i,:] = [ 15. 11. 122. 133.]
173 cord_individual_obj[indivial_i,:] = [ 16. 10. 127. 137.]
174 cord_individual_obj[indivial_i,:] = [ 17. 11. 153. 164.]
175 cord_individual_obj[indivial_i,:] = [ 18. 10. 113. 123.]
176 cord_individual_obj[indivial_i,:] = [ 19. 13. 163. 176.]
177 cord_individual_obj[indivial_i,:] = [ 20. 9. 194. 203.]
178 cord_individual_obj[indivial_i,:] = [ 21. 11. 168. 179.]
179 cord_individual_obj[indivial_i,:] = [ 22. 10. 144. 154.]
180 cord_individual_obj[indivial_i,:] = [ 23. 11. 150. 161.]
181 cord_individual_obj[indivial_i,:] = [ 24. 9. 102. 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. 9. 178. 187.]
189 cord_individual_obj[indivial_i,:] = [ 1. 9. 208. 217.]
190 cord_individual_obj[indivial_i,:] = [ 2. 9. 146. 155.]
191 cord_individual_obj[indivial_i,:] = [ 3. 9. 88. 97.]
192 cord_individual_obj[indivial_i,:] = [ 4. 11. 174. 185.]
193 cord_individual_obj[indivial_i,:] = [ 5. 10. 163. 173.]
194 cord_individual_obj[indivial_i,:] = [ 6. 12. 219. 231.]
195 cord_individual_obj[indivial_i,:] = [ 7. 12. 128. 140.]
196 cord_individual_obj[indivial_i,:] = [ 8. 9. 212. 221.]
197 cord_individual_obj[indivial_i,:] = [ 9. 10. 177. 187.]
198 cord_individual_obj[indivial_i,:] = [ 10. 10. 140. 150.]
199 cord_individual_obj[indivial_i,:] = [ 11. 13. 138. 151.]
200 cord_individual_obj[indivial_i,:] = [ 12. 10. 108. 118.]
201 cord_individual_obj[indivial_i,:] = [ 13. 12. 174. 186.]
202 cord_individual_obj[indivial_i,:] = [ 14. 10. 139. 149.]
203 cord_individual_obj[indivial_i,:] = [ 15. 9. 225. 234.]
204 cord_individual_obj[indivial_i,:] = [ 16. 12. 114. 126.]
205 cord_individual_obj[indivial_i,:] = [ 17. 12. 197. 209.]
206 cord_individual_obj[indivial_i,:] = [ 18. 11. 118. 129.]
207 cord_individual_obj[indivial_i,:] = [ 19. 13. 133. 146.]
208 cord_individual_obj[indivial_i,:] = [ 20. 10. 142. 152.]
209 cord_individual_obj[indivial_i,:] = [ 21. 11. 150. 161.]
210 cord_individual_obj[indivial_i,:] = [ 22. 14. 134. 148.]
211 cord_individual_obj[indivial_i,:] = [ 23. 10. 111. 121.]
212 cord_individual_obj[indivial_i,:] = [ 24. 10. 175. 185.]
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. 10. 195. 205.]
220 cord_individual_obj[indivial_i,:] = [ 1. 12. 248. 260.]
221 cord_individual_obj[indivial_i,:] = [ 2. 10. 104. 114.]
222 cord_individual_obj[indivial_i,:] = [ 3. 9. 221. 230.]
223 cord_individual_obj[indivial_i,:] = [ 4. 10. 118. 128.]
224 cord_individual_obj[indivial_i,:] = [ 5. 10. 124. 134.]
225 cord_individual_obj[indivial_i,:] = [ 6. 9. 202. 211.]
226 cord_individual_obj[indivial_i,:] = [ 7. 10. 114. 124.]
227 cord_individual_obj[indivial_i,:] = [ 8. 10. 227. 237.]
228 cord_individual_obj[indivial_i,:] = [ 9. 10. 187. 197.]
229 cord_individual_obj[indivial_i,:] = [ 10. 10. 140. 150.]
230 cord_individual_obj[indivial_i,:] = [ 11. 12. 227. 239.]
231 cord_individual_obj[indivial_i,:] = [ 12. 11. 189. 200.]
232 cord_individual_obj[indivial_i,:] = [ 13. 11. 206. 217.]
233 cord_individual_obj[indivial_i,:] = [ 14. 13. 174. 187.]
234 cord_individual_obj[indivial_i,:] = [ 15. 9. 88. 97.]
235 cord_individual_obj[indivial_i,:] = [ 16. 11. 161. 172.]
236 cord_individual_obj[indivial_i,:] = [ 17. 10. 158. 168.]
237 cord_individual_obj[indivial_i,:] = [ 18. 9. 162. 171.]
238 cord_individual_obj[indivial_i,:] = [ 19. 10. 146. 156.]
239 cord_individual_obj[indivial_i,:] = [ 20. 10. 96. 106.]
240 cord_individual_obj[indivial_i,:] = [ 21. 11. 145. 156.]
241 cord_individual_obj[indivial_i,:] = [ 22. 11. 131. 142.]
242 cord_individual_obj[indivial_i,:] = [ 23. 11. 91. 102.]
243 cord_individual_obj[indivial_i,:] = [ 24. 12. 196. 208.]
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. 11. 125. 136.]
251 cord_individual_obj[indivial_i, :] = [ 1. 9. 88. 97.]
252 cord_individual_obj[indivial_i, :] = [ 2. 10. 129. 139.]
253 cord_individual_obj[indivial_i, :] = [ 3. 10. 133. 143.]
254 cord_individual_obj[indivial_i, :] = [ 4. 10. 128. 138.]
255 cord_individual_obj[indivial_i, :] = [ 5. 10. 169. 179.]
256 cord_individual_obj[indivial_i, :] = [ 6. 9. 139. 148.]
257 cord_individual_obj[indivial_i, :] = [ 7. 10. 136. 146.]
258 cord_individual_obj[indivial_i, :] = [ 8. 11. 142. 153.]
259 cord_individual_obj[indivial_i, :] = [ 9. 10. 171. 181.]
260 cord_individual_obj[indivial_i, :] = [ 10. 10. 134. 144.]
261 cord_individual_obj[indivial_i, :] = [ 11. 9. 152. 161.]
262 cord_individual_obj[indivial_i, :] = [ 12. 10. 127. 137.]
263 cord_individual_obj[indivial_i, :] = [ 13. 9. 187. 196.]
264 cord_individual_obj[indivial_i, :] = [ 14. 12. 239. 251.]
265 cord_individual_obj[indivial_i, :] = [ 15. 10. 198. 208.]
266 cord_individual_obj[indivial_i, :] = [ 16. 12. 204. 216.]
267 cord_individual_obj[indivial_i, :] = [ 17. 11. 110. 121.]
268 cord_individual_obj[indivial_i, :] = [ 18. 9. 132. 141.]
269 cord_individual_obj[indivial_i, :] = [ 19. 12. 152. 164.]
270 cord_individual_obj[indivial_i, :] = [ 20. 8. 154. 162.]
271 cord_individual_obj[indivial_i, :] = [ 21. 12. 213. 225.]
272 cord_individual_obj[indivial_i, :] = [ 22. 13. 149. 162.]
273 cord_individual_obj[indivial_i, :] = [ 23. 10. 122. 132.]
274 cord_individual_obj[indivial_i, :] = [ 24. 11. 214. 225.]
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. 12. 140. 152.]
282 cord_individual_obj[indivial_i, :] = [ 1. 12. 163. 175.]
283 cord_individual_obj[indivial_i, :] = [ 2. 11. 136. 147.]
284 cord_individual_obj[indivial_i, :] = [ 3. 12. 216. 228.]
285 cord_individual_obj[indivial_i, :] = [ 4. 10. 248. 258.]
286 cord_individual_obj[indivial_i, :] = [ 5. 10. 182. 192.]
287 cord_individual_obj[indivial_i, :] = [ 6. 11. 218. 229.]
288 cord_individual_obj[indivial_i, :] = [ 7. 12. 155. 167.]
289 cord_individual_obj[indivial_i, :] = [ 8. 11. 118. 129.]
290 cord_individual_obj[indivial_i, :] = [ 9. 10. 152. 162.]
291 cord_individual_obj[indivial_i, :] = [ 10. 10. 155. 165.]
292 cord_individual_obj[indivial_i, :] = [ 11. 12. 161. 173.]
293 cord_individual_obj[indivial_i, :] = [ 12. 12. 152. 164.]
294 cord_individual_obj[indivial_i, :] = [ 13. 9. 147. 156.]
295 cord_individual_obj[indivial_i, :] = [ 14. 9. 88. 97.]
296 cord_individual_obj[indivial_i, :] = [ 15. 9. 175. 184.]
297 cord_individual_obj[indivial_i, :] = [ 16. 8. 175. 183.]
298 cord_individual_obj[indivial_i, :] = [ 17. 11. 107. 118.]
299 cord_individual_obj[indivial_i, :] = [ 18. 10. 113. 123.]
300 cord_individual_obj[indivial_i, :] = [ 19. 14. 154. 168.]
301 cord_individual_obj[indivial_i, :] = [ 20. 11. 123. 134.]
302 cord_individual_obj[indivial_i, :] = [ 21. 11. 182. 193.]
303 cord_individual_obj[indivial_i, :] = [ 22. 10. 191. 201.]
304 cord_individual_obj[indivial_i, :] = [ 23. 11. 90. 101.]
305 cord_individual_obj[indivial_i, :] = [ 24. 11. 133. 144.]
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. 179. 188.]
313 cord_individual_obj[indivial_i, :] = [ 1. 9. 219. 228.]
314 cord_individual_obj[indivial_i, :] = [ 2. 10. 218. 228.]
315 cord_individual_obj[indivial_i, :] = [ 3. 10. 132. 142.]
316 cord_individual_obj[indivial_i, :] = [ 4. 9. 88. 97.]
317 cord_individual_obj[indivial_i, :] = [ 5. 8. 144. 152.]
318 cord_individual_obj[indivial_i, :] = [ 6. 13. 123. 136.]
319 cord_individual_obj[indivial_i, :] = [ 7. 11. 157. 168.]
320 cord_individual_obj[indivial_i, :] = [ 8. 10. 168. 178.]
321 cord_individual_obj[indivial_i, :] = [ 9. 12. 130. 142.]
322 cord_individual_obj[indivial_i, :] = [ 10. 11. 118. 129.]
323 cord_individual_obj[indivial_i, :] = [ 11. 13. 132. 145.]
324 cord_individual_obj[indivial_i, :] = [ 12. 9. 201. 210.]
325 cord_individual_obj[indivial_i, :] = [ 13. 9. 88. 97.]
326 cord_individual_obj[indivial_i, :] = [ 14. 11. 154. 165.]
327 cord_individual_obj[indivial_i, :] = [ 15. 11. 218. 229.]
328 cord_individual_obj[indivial_i, :] = [ 16. 10. 188. 198.]
329 cord_individual_obj[indivial_i, :] = [ 17. 10. 130. 140.]
330 cord_individual_obj[indivial_i, :] = [ 18. 11. 160. 171.]
331 cord_individual_obj[indivial_i, :] = [ 19. 9. 179. 188.]

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332 cord_individual_obj[indivial_i,:] = [ 20. 11. 122. 133.]
333 cord_individual_obj[indivial_i,:] = [ 21. 9. 184. 193.]
334 cord_individual_obj[indivial_i,:] = [ 22. 12. 106. 118.]
335 cord_individual_obj[indivial_i,:] = [ 23. 11. 110. 121.]
336 cord_individual_obj[indivial_i,:] = [ 24. 9. 104. 113.]
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. 11. 197. 208.]
344 cord_individual_obj[indivial_i,:] = [ 1. 9. 172. 181.]
345 cord_individual_obj[indivial_i,:] = [ 2. 10. 186. 196.]
346 cord_individual_obj[indivial_i,:] = [ 3. 9. 106. 115.]
347 cord_individual_obj[indivial_i,:] = [ 4. 10. 136. 146.]
348 cord_individual_obj[indivial_i,:] = [ 5. 13. 139. 152.]
349 cord_individual_obj[indivial_i,:] = [ 6. 11. 145. 156.]
350 cord_individual_obj[indivial_i,:] = [ 7. 9. 131. 140.]
351 cord_individual_obj[indivial_i,:] = [ 8. 9. 151. 160.]
352 cord_individual_obj[indivial_i,:] = [ 9. 10. 174. 184.]
353 cord_individual_obj[indivial_i,:] = [ 10. 12. 223. 235.]
354 cord_individual_obj[indivial_i,:] = [ 11. 11. 117. 128.]
355 cord_individual_obj[indivial_i,:] = [ 12. 13. 166. 179.]
356 cord_individual_obj[indivial_i,:] = [ 13. 9. 196. 205.]
357 cord_individual_obj[indivial_i,:] = [ 14. 9. 129. 138.]
358 cord_individual_obj[indivial_i,:] = [ 15. 9. 88. 97.]
359 cord_individual_obj[indivial_i,:] = [ 16. 13. 122. 135.]
360 cord_individual_obj[indivial_i,:] = [ 17. 12. 117. 129.]
361 cord_individual_obj[indivial_i,:] = [ 18. 9. 138. 147.]
362 cord_individual_obj[indivial_i,:] = [ 19. 11. 90. 101.]
363 cord_individual_obj[indivial_i,:] = [ 20. 10. 127. 137.]
364 cord_individual_obj[indivial_i,:] = [ 21. 10. 144. 154.]
365 cord_individual_obj[indivial_i,:] = [ 22. 12. 141. 153.]
366 cord_individual_obj[indivial_i,:] = [ 23. 10. 170. 180.]
367 cord_individual_obj[indivial_i,:] = [ 24. 12. 159. 171.]
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. 150. 160.]
375 cord_individual_obj[indivial_i,:] = [ 1. 10. 252. 262.]
376 cord_individual_obj[indivial_i,:] = [ 2. 9. 159. 168.]
377 cord_individual_obj[indivial_i,:] = [ 3. 11. 217. 228.]
378 cord_individual_obj[indivial_i,:] = [ 4. 9. 115. 124.]
379 cord_individual_obj[indivial_i,:] = [ 5. 12. 215. 227.]
380 cord_individual_obj[indivial_i,:] = [ 6. 11. 243. 254.]
381 cord_individual_obj[indivial_i,:] = [ 7. 12. 145. 157.]
382 cord_individual_obj[indivial_i,:] = [ 8. 11. 152. 163.]
383 cord_individual_obj[indivial_i,:] = [ 9. 11. 192. 203.]
384 cord_individual_obj[indivial_i,:] = [ 10. 9. 88. 97.]
385 cord_individual_obj[indivial_i,:] = [ 11. 11. 132. 143.]
386 cord_individual_obj[indivial_i,:] = [ 12. 11. 119. 130.]
387 cord_individual_obj[indivial_i,:] = [ 13. 10. 145. 155.]
388 cord_individual_obj[indivial_i,:] = [ 14. 10. 139. 149.]
389 cord_individual_obj[indivial_i,:] = [ 15. 9. 129. 138.]
390 cord_individual_obj[indivial_i,:] = [ 16. 11. 117. 128.]
391 cord_individual_obj[indivial_i,:] = [ 17. 11. 111. 122.]
392 cord_individual_obj[indivial_i,:] = [ 18. 9. 167. 176.]
393 cord_individual_obj[indivial_i,:] = [ 19. 14. 218. 232.]
394 cord_individual_obj[indivial_i,:] = [ 20. 9. 171. 180.]
395 cord_individual_obj[indivial_i,:] = [ 21. 12. 152. 164.]
396 cord_individual_obj[indivial_i,:] = [ 22. 11. 112. 123.]
397 cord_individual_obj[indivial_i,:] = [ 23. 11. 169. 180.]
398 cord_individual_obj[indivial_i,:] = [ 24. 11. 168. 179.]
399
400 min(cord_individual_obj[:,3]) = 97.0
401 histol_G_best_iter[iter,3] = 97.0
402 Begin iteration:
403
404 iter = 12
405 cord_individual_obj[indivial_i,:] = [ 0. 10. 166. 176.]
406 cord_individual_obj[indivial_i,:] = [ 1. 9. 88. 97.]
407 cord_individual_obj[indivial_i,:] = [ 2. 10. 97. 107.]
408 cord_individual_obj[indivial_i,:] = [ 3. 13. 177. 190.]
409 cord_individual_obj[indivial_i,:] = [ 4. 10. 146. 156.]
410 cord_individual_obj[indivial_i,:] = [ 5. 13. 98. 111.]
411 cord_individual_obj[indivial_i,:] = [ 6. 11. 185. 196.]
412 cord_individual_obj[indivial_i,:] = [ 7. 13. 127. 140.]
413 cord_individual_obj[indivial_i,:] = [ 8. 11. 120. 131.]
414 cord_individual_obj[indivial_i,:] = [ 9. 10. 177. 187.]
415 cord_individual_obj[indivial_i,:] = [ 10. 10. 131. 141.]

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416 cord_individual_obj[indivial_i,:] = [ 11. 11. 146. 157.]
417 cord_individual_obj[indivial_i,:] = [ 12. 12. 177. 189.]
418 cord_individual_obj[indivial_i,:] = [ 13. 9. 185. 194.]
419 cord_individual_obj[indivial_i,:] = [ 14. 9. 152. 161.]
420 cord_individual_obj[indivial_i,:] = [ 15. 11. 191. 202.]
421 cord_individual_obj[indivial_i,:] = [ 16. 9. 201. 210.]
422 cord_individual_obj[indivial_i,:] = [ 17. 11. 128. 139.]
423 cord_individual_obj[indivial_i,:] = [ 18. 11. 182. 193.]
424 cord_individual_obj[indivial_i,:] = [ 19. 11. 107. 118.]
425 cord_individual_obj[indivial_i,:] = [ 20. 9. 173. 182.]
426 cord_individual_obj[indivial_i,:] = [ 21. 11. 141. 152.]
427 cord_individual_obj[indivial_i,:] = [ 22. 12. 180. 192.]
428 cord_individual_obj[indivial_i,:] = [ 23. 12. 164. 176.]
429 cord_individual_obj[indivial_i,:] = [ 24. 11. 170. 181.]
430
431 min(cord_individual_obj[:,3]) = 97.0
432 histol_G_best_iter[iter,3] = 97.0
433 Begin iteration:
434
435 iter = 13
436 cord_individual_obj[indivial_i,:] = [ 0. 11. 127. 138.]
437 cord_individual_obj[indivial_i,:] = [ 1. 8. 177. 185.]
438 cord_individual_obj[indivial_i,:] = [ 2. 11. 202. 213.]
439 cord_individual_obj[indivial_i,:] = [ 3. 10. 115. 125.]
440 cord_individual_obj[indivial_i,:] = [ 4. 10. 147. 157.]
441 cord_individual_obj[indivial_i,:] = [ 5. 11. 192. 203.]
442 cord_individual_obj[indivial_i,:] = [ 6. 10. 144. 154.]
443 cord_individual_obj[indivial_i,:] = [ 7. 11. 129. 140.]
444 cord_individual_obj[indivial_i,:] = [ 8. 10. 115. 125.]
445 cord_individual_obj[indivial_i,:] = [ 9. 10. 185. 195.]
446 cord_individual_obj[indivial_i,:] = [ 10. 10. 142. 152.]
447 cord_individual_obj[indivial_i,:] = [ 11. 13. 139. 152.]
448 cord_individual_obj[indivial_i,:] = [ 12. 10. 171. 181.]
449 cord_individual_obj[indivial_i,:] = [ 13. 11. 140. 151.]
450 cord_individual_obj[indivial_i,:] = [ 14. 12. 130. 142.]
451 cord_individual_obj[indivial_i,:] = [ 15. 12. 169. 181.]
452 cord_individual_obj[indivial_i,:] = [ 16. 9. 88. 97.]
453 cord_individual_obj[indivial_i,:] = [ 17. 12. 113. 125.]
454 cord_individual_obj[indivial_i,:] = [ 18. 11. 125. 136.]
455 cord_individual_obj[indivial_i,:] = [ 19. 10. 151. 161.]
456 cord_individual_obj[indivial_i,:] = [ 20. 9. 149. 158.]
457 cord_individual_obj[indivial_i,:] = [ 21. 11. 214. 225.]
458 cord_individual_obj[indivial_i,:] = [ 22. 10. 128. 138.]
459 cord_individual_obj[indivial_i,:] = [ 23. 11. 91. 102.]
460 cord_individual_obj[indivial_i,:] = [ 24. 13. 206. 219.]
461
462 min(cord_individual_obj[:,3]) = 97.0
463 histol_G_best_iter[iter,3] = 97.0
464 Begin iteration:
465
466 iter = 14
467 cord_individual_obj[indivial_i,:] = [ 0. 14. 134. 148.]
468 cord_individual_obj[indivial_i,:] = [ 1. 10. 178. 188.]
469 cord_individual_obj[indivial_i,:] = [ 2. 10. 121. 131.]
470 cord_individual_obj[indivial_i,:] = [ 3. 10. 136. 146.]
471 cord_individual_obj[indivial_i,:] = [ 4. 9. 144. 153.]
472 cord_individual_obj[indivial_i,:] = [ 5. 11. 166. 177.]
473 cord_individual_obj[indivial_i,:] = [ 6. 10. 206. 216.]
474 cord_individual_obj[indivial_i,:] = [ 7. 12. 146. 158.]
475 cord_individual_obj[indivial_i,:] = [ 8. 10. 103. 113.]
476 cord_individual_obj[indivial_i,:] = [ 9. 12. 154. 166.]
477 cord_individual_obj[indivial_i,:] = [ 10. 11. 136. 147.]
478 cord_individual_obj[indivial_i,:] = [ 11. 13. 161. 174.]
479 cord_individual_obj[indivial_i,:] = [ 12. 10. 157. 167.]
480 cord_individual_obj[indivial_i,:] = [ 13. 10. 218. 228.]
481 cord_individual_obj[indivial_i,:] = [ 14. 9. 144. 153.]
482 cord_individual_obj[indivial_i,:] = [ 15. 9. 178. 187.]
483 cord_individual_obj[indivial_i,:] = [ 16. 10. 134. 144.]
484 cord_individual_obj[indivial_i,:] = [ 17. 11. 169. 180.]
485 cord_individual_obj[indivial_i,:] = [ 18. 11. 155. 166.]
486 cord_individual_obj[indivial_i,:] = [ 19. 12. 143. 155.]
487 cord_individual_obj[indivial_i,:] = [ 20. 10. 170. 180.]
488 cord_individual_obj[indivial_i,:] = [ 21. 9. 88. 97.]
489 cord_individual_obj[indivial_i,:] = [ 22. 12. 135. 147.]
490 cord_individual_obj[indivial_i,:] = [ 23. 10. 153. 163.]
491 cord_individual_obj[indivial_i,:] = [ 24. 9. 113. 122.]
492
493 min(cord_individual_obj[:,3]) = 97.0
494 histol_G_best_iter[iter,3] = 97.0
495 Begin iteration:
496
497 iter = 15
498 cord_individual_obj[indivial_i,:] = [ 0. 11. 129. 140.]
499 cord_individual_obj[indivial_i,:] = [ 1. 10. 216. 226.]

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500 cord_individual_obj[indivial_i,:] = [ 2. 9. 256. 265.]
501 cord_individual_obj[indivial_i,:] = [ 3. 10. 176. 186.]
502 cord_individual_obj[indivial_i,:] = [ 4. 10. 139. 149.]
503 cord_individual_obj[indivial_i,:] = [ 5. 9. 199. 208.]
504 cord_individual_obj[indivial_i,:] = [ 6. 10. 203. 213.]
505 cord_individual_obj[indivial_i,:] = [ 7. 11. 126. 137.]
506 cord_individual_obj[indivial_i,:] = [ 8. 11. 115. 126.]
507 cord_individual_obj[indivial_i,:] = [ 9. 9. 193. 202.]
508 cord_individual_obj[indivial_i,:] = [ 10. 10. 153. 163.]
509 cord_individual_obj[indivial_i,:] = [ 11. 10. 137. 147.]
510 cord_individual_obj[indivial_i,:] = [ 12. 9. 161. 170.]
511 cord_individual_obj[indivial_i,:] = [ 13. 9. 88. 97.]
512 cord_individual_obj[indivial_i,:] = [ 14. 11. 180. 191.]
513 cord_individual_obj[indivial_i,:] = [ 15. 11. 202. 213.]
514 cord_individual_obj[indivial_i,:] = [ 16. 8. 120. 128.]
515 cord_individual_obj[indivial_i,:] = [ 17. 9. 190. 199.]
516 cord_individual_obj[indivial_i,:] = [ 18. 11. 115. 126.]
517 cord_individual_obj[indivial_i,:] = [ 19. 12. 173. 185.]
518 cord_individual_obj[indivial_i,:] = [ 20. 10. 145. 155.]
519 cord_individual_obj[indivial_i,:] = [ 21. 9. 250. 259.]
520 cord_individual_obj[indivial_i,:] = [ 22. 12. 125. 137.]
521 cord_individual_obj[indivial_i,:] = [ 23. 12. 122. 134.]
522 cord_individual_obj[indivial_i,:] = [ 24. 11. 156. 167.]
523
524 min(cord_individual_obj[:, 3]) = 97.0
525 histol_G_best_iter[iter, 3] = 97.0
526 Begin iteration:
527
528 iter = 16
529 cord_individual_obj[indivial_i,:] = [ 0. 10. 165. 175.]
530 cord_individual_obj[indivial_i,:] = [ 1. 11. 150. 161.]
531 cord_individual_obj[indivial_i,:] = [ 2. 9. 88. 97.]
532 cord_individual_obj[indivial_i,:] = [ 3. 9. 145. 154.]
533 cord_individual_obj[indivial_i,:] = [ 4. 10. 174. 184.]
534 cord_individual_obj[indivial_i,:] = [ 5. 11. 163. 174.]
535 cord_individual_obj[indivial_i,:] = [ 6. 11. 189. 200.]
536 cord_individual_obj[indivial_i,:] = [ 7. 12. 101. 113.]
537 cord_individual_obj[indivial_i,:] = [ 8. 10. 149. 159.]
538 cord_individual_obj[indivial_i,:] = [ 9. 11. 186. 197.]
539 cord_individual_obj[indivial_i,:] = [ 10. 10. 160. 170.]
540 cord_individual_obj[indivial_i,:] = [ 11. 13. 164. 177.]
541 cord_individual_obj[indivial_i,:] = [ 12. 9. 119. 128.]
542 cord_individual_obj[indivial_i,:] = [ 13. 10. 186. 196.]
543 cord_individual_obj[indivial_i,:] = [ 14. 11. 150. 161.]
544 cord_individual_obj[indivial_i,:] = [ 15. 10. 230. 240.]
545 cord_individual_obj[indivial_i,:] = [ 16. 9. 193. 202.]
546 cord_individual_obj[indivial_i,:] = [ 17. 10. 108. 118.]
547 cord_individual_obj[indivial_i,:] = [ 18. 10. 135. 145.]
548 cord_individual_obj[indivial_i,:] = [ 19. 10. 142. 152.]
549 cord_individual_obj[indivial_i,:] = [ 20. 11. 136. 147.]
550 cord_individual_obj[indivial_i,:] = [ 21. 12. 109. 121.]
551 cord_individual_obj[indivial_i,:] = [ 22. 9. 146. 155.]
552 cord_individual_obj[indivial_i,:] = [ 23. 11. 182. 193.]
553 cord_individual_obj[indivial_i,:] = [ 24. 11. 196. 207.]
554
555 min(cord_individual_obj[:, 3]) = 97.0
556 histol_G_best_iter[iter, 3] = 97.0
557 Begin iteration:
558
559 iter = 17
560 cord_individual_obj[indivial_i,:] = [ 0. 9. 163. 172.]
561 cord_individual_obj[indivial_i,:] = [ 1. 11. 98. 109.]
562 cord_individual_obj[indivial_i,:] = [ 2. 11. 126. 137.]
563 cord_individual_obj[indivial_i,:] = [ 3. 10. 153. 163.]
564 cord_individual_obj[indivial_i,:] = [ 4. 11. 103. 114.]
565 cord_individual_obj[indivial_i,:] = [ 5. 13. 141. 154.]
566 cord_individual_obj[indivial_i,:] = [ 6. 11. 169. 180.]
567 cord_individual_obj[indivial_i,:] = [ 7. 11. 173. 184.]
568 cord_individual_obj[indivial_i,:] = [ 8. 8. 201. 209.]
569 cord_individual_obj[indivial_i,:] = [ 9. 11. 169. 180.]
570 cord_individual_obj[indivial_i,:] = [ 10. 10. 191. 201.]
571 cord_individual_obj[indivial_i,:] = [ 11. 13. 132. 145.]
572 cord_individual_obj[indivial_i,:] = [ 12. 11. 121. 132.]
573 cord_individual_obj[indivial_i,:] = [ 13. 10. 197. 207.]
574 cord_individual_obj[indivial_i,:] = [ 14. 10. 163. 173.]
575 cord_individual_obj[indivial_i,:] = [ 15. 9. 88. 97.]
576 cord_individual_obj[indivial_i,:] = [ 16. 9. 207. 216.]
577 cord_individual_obj[indivial_i,:] = [ 17. 10. 113. 123.]
578 cord_individual_obj[indivial_i,:] = [ 18. 13. 92. 105.]
579 cord_individual_obj[indivial_i,:] = [ 19. 9. 218. 227.]
580 cord_individual_obj[indivial_i,:] = [ 20. 10. 201. 211.]
581 cord_individual_obj[indivial_i,:] = [ 21. 12. 129. 141.]
582 cord_individual_obj[indivial_i,:] = [ 22. 11. 135. 146.]
583 cord_individual_obj[indivial_i,:] = [ 23. 12. 152. 164.]

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584     cord_individual_obj[indivial_i, :] = [ 24. 10. 223. 233.]
585
586     min(cord_individual_obj[:, 3]) = 97.0
587     historl_G_best_iter[iter, 3] = 97.0
588 Begin iteration:
589
590 iter = 18
591     cord_individual_obj[indivial_i, :] = [ 0. 9. 135. 144.]
592     cord_individual_obj[indivial_i, :] = [ 1. 9. 224. 233.]
593     cord_individual_obj[indivial_i, :] = [ 2. 10. 122. 132.]
594     cord_individual_obj[indivial_i, :] = [ 3. 10. 91. 101.]
595     cord_individual_obj[indivial_i, :] = [ 4. 11. 167. 178.]
596     cord_individual_obj[indivial_i, :] = [ 5. 9. 135. 144.]
597     cord_individual_obj[indivial_i, :] = [ 6. 11. 80. 91.]
598     cord_individual_obj[indivial_i, :] = [ 7. 10. 193. 203.]
599     cord_individual_obj[indivial_i, :] = [ 8. 9. 125. 134.]
600     cord_individual_obj[indivial_i, :] = [ 9. 10. 128. 138.]
601     cord_individual_obj[indivial_i, :] = [ 10. 10. 191. 201.]
602     cord_individual_obj[indivial_i, :] = [ 11. 10. 178. 188.]
603     cord_individual_obj[indivial_i, :] = [ 12. 11. 200. 211.]
604     cord_individual_obj[indivial_i, :] = [ 13. 10. 104. 114.]
605     cord_individual_obj[indivial_i, :] = [ 14. 11. 165. 176.]
606     cord_individual_obj[indivial_i, :] = [ 15. 11. 161. 172.]
607     cord_individual_obj[indivial_i, :] = [ 16. 8. 213. 221.]
608     cord_individual_obj[indivial_i, :] = [ 17. 12. 202. 214.]
609     cord_individual_obj[indivial_i, :] = [ 18. 10. 141. 151.]
610     cord_individual_obj[indivial_i, :] = [ 19. 10. 222. 232.]
611     cord_individual_obj[indivial_i, :] = [ 20. 12. 140. 152.]
612     cord_individual_obj[indivial_i, :] = [ 21. 9. 165. 174.]
613     cord_individual_obj[indivial_i, :] = [ 22. 10. 121. 131.]
614     cord_individual_obj[indivial_i, :] = [ 23. 11. 150. 161.]
615     cord_individual_obj[indivial_i, :] = [ 24. 9. 88. 97.]
616
617     min(cord_individual_obj[:, 3]) = 91.0
618     historl_G_best_iter[iter, 3] = 91.0
619 Begin iteration:
620
621 iter = 19
622     cord_individual_obj[indivial_i, :] = [ 0. 12. 223. 235.]
623     cord_individual_obj[indivial_i, :] = [ 1. 11. 80. 91.]
624     cord_individual_obj[indivial_i, :] = [ 2. 8. 227. 235.]
625     cord_individual_obj[indivial_i, :] = [ 3. 11. 155. 166.]
626     cord_individual_obj[indivial_i, :] = [ 4. 10. 117. 127.]
627     cord_individual_obj[indivial_i, :] = [ 5. 9. 211. 220.]
628     cord_individual_obj[indivial_i, :] = [ 6. 11. 133. 144.]
629     cord_individual_obj[indivial_i, :] = [ 7. 12. 171. 183.]
630     cord_individual_obj[indivial_i, :] = [ 8. 9. 200. 209.]
631     cord_individual_obj[indivial_i, :] = [ 9. 10. 272. 282.]
632     cord_individual_obj[indivial_i, :] = [ 10. 10. 119. 129.]
633     cord_individual_obj[indivial_i, :] = [ 11. 11. 171. 182.]
634     cord_individual_obj[indivial_i, :] = [ 12. 10. 138. 148.]
635     cord_individual_obj[indivial_i, :] = [ 13. 9. 150. 159.]
636     cord_individual_obj[indivial_i, :] = [ 14. 11. 158. 169.]
637     cord_individual_obj[indivial_i, :] = [ 15. 10. 229. 239.]
638     cord_individual_obj[indivial_i, :] = [ 16. 10. 125. 135.]
639     cord_individual_obj[indivial_i, :] = [ 17. 9. 163. 172.]
640     cord_individual_obj[indivial_i, :] = [ 18. 10. 105. 115.]
641     cord_individual_obj[indivial_i, :] = [ 19. 13. 134. 147.]
642     cord_individual_obj[indivial_i, :] = [ 20. 11. 169. 180.]
643     cord_individual_obj[indivial_i, :] = [ 21. 11. 144. 155.]
644     cord_individual_obj[indivial_i, :] = [ 22. 12. 143. 155.]
645     cord_individual_obj[indivial_i, :] = [ 23. 10. 166. 176.]
646     cord_individual_obj[indivial_i, :] = [ 24. 9. 85. 94.]
647
648     min(cord_individual_obj[:, 3]) = 91.0
649     historl_G_best_iter[iter, 3] = 91.0
650 Begin iteration:
651
652 iter = 20
653     cord_individual_obj[indivial_i, :] = [ 0. 10. 121. 131.]
654     cord_individual_obj[indivial_i, :] = [ 1. 10. 196. 206.]
655     cord_individual_obj[indivial_i, :] = [ 2. 10. 144. 154.]
656     cord_individual_obj[indivial_i, :] = [ 3. 12. 108. 120.]
657     cord_individual_obj[indivial_i, :] = [ 4. 11. 104. 115.]
658     cord_individual_obj[indivial_i, :] = [ 5. 10. 150. 160.]
659     cord_individual_obj[indivial_i, :] = [ 6. 12. 214. 226.]
660     cord_individual_obj[indivial_i, :] = [ 7. 13. 177. 190.]
661     cord_individual_obj[indivial_i, :] = [ 8. 9. 180. 189.]
662     cord_individual_obj[indivial_i, :] = [ 9. 11. 80. 91.]
663     cord_individual_obj[indivial_i, :] = [ 10. 13. 196. 209.]
664     cord_individual_obj[indivial_i, :] = [ 11. 12. 135. 147.]
665     cord_individual_obj[indivial_i, :] = [ 12. 13. 128. 141.]
666     cord_individual_obj[indivial_i, :] = [ 13. 10. 154. 164.]
667     cord_individual_obj[indivial_i, :] = [ 14. 11. 219. 230.]

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668 cord_individual_obj[indivial_i,:] = [ 15. 11. 165. 176.]
669 cord_individual_obj[indivial_i,:] = [ 16. 9. 106. 115.]
670 cord_individual_obj[indivial_i,:] = [ 17. 10. 167. 177.]
671 cord_individual_obj[indivial_i,:] = [ 18. 10. 162. 172.]
672 cord_individual_obj[indivial_i,:] = [ 19. 10. 133. 143.]
673 cord_individual_obj[indivial_i,:] = [ 20. 9. 171. 180.]
674 cord_individual_obj[indivial_i,:] = [ 21. 11. 187. 198.]
675 cord_individual_obj[indivial_i,:] = [ 22. 11. 210. 221.]
676 cord_individual_obj[indivial_i,:] = [ 23. 11. 144. 155.]
677 cord_individual_obj[indivial_i,:] = [ 24. 11. 82. 93.]
678
679 min(cord_individual_obj[:, 3]) = 91.0
680 historl_G_best_iter[iter, 3] = 91.0
681 Iteration calculate over
682
683
684
685
686 All item are in Bin and:
687 Bin area = 1080
688 Real_area = 246.0
689 Proportion_of_area = 0.227777777777777777
690 BEST_CHROM =
691 berth: [ 2.5 7. 25. 7. 12.5 25. 2. 3.5 20. 5.5 19.5 24. 16. 1.5
692 11. 12. 18. 17.5 19. ]
693 time: [ 6. 4. 3. 0. 0. 2. 8. 0. 2. 2. 7. 0. 0. 8. 4. 6. 7. 9. ]
694 num_QC: [ 4. 3. 2. 4. 3. 2. 2. 5. 4. 3. 2. 3. 2. 3. 2. 3. 5. 2. ]
695 Objective function values and some other indicators:
696 Obj0 = 11.00      Obj1 = 80.00      Obj0 + Obj1 = 91.00
697 Total movement of crane: 12.00
698 Total waiting time in berth position: 68.00
699 Total index of q during berthing: 1242.00
700 Specific arrangement for each vessel:
701 V_id: 0          li: 5.0           xi: 2.5           bow of i: 0.0           tail of i: 5.0           gama_i0: 6.0           gama_i1: 7.0
702 120.0           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:
703 V_id: 1          li: 4.0           xi: 7.0           bow of i: 5.0           tail of i: 9.0           gama_i0: 4.0           gama_i1: 6.0
704 160.0           work load gap_i: 0   gama_i1 + 1: 7.0     gama_i1 - gama_i0: 2.0   duration_time_i: 3.0   demand_i: 160.0       work load_i:
705 V_id: 2          li: 8.0           xi: 25.0          bow of i: 21.0          tail of i: 29.0          gama_i0: 3.0           gama_i1: 6
706 .0             gama_i1 + 1: 7.0     gama_i1 - gama_i0: 3.0   duration_time_i: 4.0   demand_i: 140.0       work
707 load_i: 140.0    work load gap_i: 0
708 V_id: 3          li: 8.0           xi: 7.0           bow of i: 3.0           tail of i: 11.0          gama_i0: 0.0           gama_i1: 1.0
709 120.0           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:
710 V_id: 4          li: 3.0           xi: 12.5          bow of i: 11.0          tail of i: 14.0          gama_i0: 0.0           gama_i1: 2
711 .0             gama_i1 + 1: 3.0     gama_i1 - gama_i0: 2.0   duration_time_i: 3.0   demand_i: 160.0       work
712 load_i: 160.0    work load gap_i: 0
713 V_id: 5          li: 6.0           xi: 25.0          bow of i: 22.0          tail of i: 28.0          gama_i0: 0.0           gama_i1: 2
714 .0             gama_i1 + 1: 3.0     gama_i1 - gama_i0: 2.0   duration_time_i: 3.0   demand_i: 120.0       work
715 load_i: 120.0    work load gap_i: 0
716 V_id: 6          li: 4.0           xi: 2.0            bow of i: 0.0           tail of i: 4.0           gama_i0: 2.0           gama_i1: 5.0
717 160.0           work load gap_i: 0   gama_i1 + 1: 6.0     gama_i1 - gama_i0: 3.0   duration_time_i: 4.0   demand_i: 160.0       work load_i:
718 V_id: 7          li: 7.0           xi: 3.5            bow of i: 0.0           tail of i: 7.0           gama_i0: 8.0           gama_i1: 9.0
719 .0             gama_i1 + 1: 10.0    gama_i1 - gama_i0: 1.0  duration_time_i: 2.0   demand_i: 120.0       work
720 load_i: 120.0    work load gap_i: 0
721 V_id: 8          li: 4.0           xi: 20.0          bow of i: 18.0          tail of i: 22.0          gama_i0: 0.0           gama_i1: 1
722 .0             gama_i1 + 1: 2.0     gama_i1 - gama_i0: 1.0  duration_time_i: 2.0   demand_i: 120.0       work
723 load_i: 120.0    work load gap_i: 0
724 V_id: 9          li: 3.0           xi: 5.5            bow of i: 4.0           tail of i: 7.0           gama_i0: 2.0           gama_i1: 3.0
725 .0             gama_i1 + 1: 4.0     gama_i1 - gama_i0: 1.0  duration_time_i: 2.0   demand_i: 80.0        work load_i:
726 80.0           work load gap_i: 0
727 V_id: 10         li: 3.0           xi: 19.5          bow of i: 18.0          tail of i: 21.0          gama_i0: 2.0           gama_i1: 1
728 : 5.0           gama_i1 + 1: 6.0     gama_i1 - gama_i0: 3.0  duration_time_i: 4.0   demand_i: 140.0       work
729 load_i: 140.0    work load gap_i: 0
730 V_id: 11         li: 6.0           xi: 24.0            bow of i: 21.0           tail of i: 27.0          gama_i0: 7.0           gama_i1: 1
731 : 8.0           gama_i1 + 1: 9.0     gama_i1 - gama_i0: 1.0  duration_time_i: 2.0   demand_i: 100.0       work
732 load_i: 100.0    work load gap_i: 0
733 V_id: 12         li: 4.0           xi: 16.0            bow of i: 14.0           tail of i: 18.0          gama_i0: 0.0           gama_i1: 1
734 : 3.0           gama_i1 + 1: 4.0     gama_i1 - gama_i0: 3.0  duration_time_i: 4.0   demand_i: 140.0       work
735 load_i: 140.0    work load gap_i: 0
736 V_id: 13         li: 3.0           xi: 1.5            bow of i: 0.0           tail of i: 3.0           gama_i0: 0.0           gama_i1: 1
737 100.0           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 load_i:
738 V_id: 14         li: 8.0           xi: 11.0            bow of i: 7.0           tail of i: 15.0          gama_i0: 8.0           gama_i1: 1
739 : 11.0           gama_i1 + 1: 12.0    gama_i1 - gama_i0: 3.0  duration_time_i: 4.0   demand_i: 160.0       work
740 load_i: 160.0    work load gap_i: 0
741 V_id: 15         li: 6.0           xi: 12.0            bow of i: 9.0           tail of i: 15.0          gama_i0: 4.0           gama_i1: 1
742 : 7.0           gama_i1 + 1: 8.0     gama_i1 - gama_i0: 3.0  duration_time_i: 4.0   demand_i: 140.0       work
743 load_i: 140.0    work load gap_i: 0
744 V_id: 16         li: 6.0           xi: 18.0            bow of i: 15.0           tail of i: 21.0          gama_i0: 6.0           gama_i1: 1
745 : 6.0           gama_i1 + 1: 7.0     gama_i1 - gama_i0: 0.0  duration_time_i: 1.0   demand_i: 60.0        work
746 load_i: 60.0    work load gap_i: 0

```

unknown

718	V_id: 17 : 7.0 load_i: 100.0	li: 5.0 gama_i1 + 1: 8.0 work load gap_i: 0	xi: 17.5 gama_i1 - gama_i0: 0.0	bow of i: 15.0 gama_i1 - gama_i0: 1.0	tail of i: 20.0 duration_time_i: 1.0	gama_i0: 7.0 demand_i: 100.0	gama_i1 work
719	V_id: 18 : 10.0 load_i: 60.0	li: 8.0 gama_i1 + 1: 11.0 work load gap_i: 0	xi: 19.0 gama_i1 - gama_i0: 1.0	bow of i: 15.0 gama_i1 - gama_i0: 1.0	tail of i: 23.0 duration_time_i: 2.0	gama_i0: 9.0 demand_i: 60.0	gama_i1 work
720	Algorithm finished and the total CPU time: 517 s						
721	End						
722							
723							