

unknown

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80 cord_individual_obj[indivial_i,:] = [ 16. 9. 105. 114.]
81 cord_individual_obj[indivial_i,:] = [ 17. 10. 91. 101.]
82 cord_individual_obj[indivial_i,:] = [ 18. 9. 147. 156.]
83 cord_individual_obj[indivial_i,:] = [ 19. 8. 107. 115.]
84 cord_individual_obj[indivial_i,:] = [ 20. 9. 136. 145.]
85 cord_individual_obj[indivial_i,:] = [ 21. 9. 173. 182.]
86 cord_individual_obj[indivial_i,:] = [ 22. 10. 177. 187.]
87 cord_individual_obj[indivial_i,:] = [ 23. 8. 87. 95.]
88 cord_individual_obj[indivial_i,:] = [ 24. 9. 113. 122.]
89
90 min(cord_individual_obj[:,3]) = 77.0
91 historl_G_best_iter[iter, 3] = 77.0
92 Begin iteration:
93
94 iter = 2
95 cord_individual_obj[indivial_i,:] = [ 0. 9. 119. 128.]
96 cord_individual_obj[indivial_i,:] = [ 1. 9. 158. 167.]
97 cord_individual_obj[indivial_i,:] = [ 2. 10. 94. 104.]
98 cord_individual_obj[indivial_i,:] = [ 3. 11. 116. 127.]
99 cord_individual_obj[indivial_i,:] = [ 4. 8. 141. 149.]
100 cord_individual_obj[indivial_i,:] = [ 5. 10. 77. 87.]
101 cord_individual_obj[indivial_i,:] = [ 6. 11. 114. 125.]
102 cord_individual_obj[indivial_i,:] = [ 7. 9. 130. 139.]
103 cord_individual_obj[indivial_i,:] = [ 8. 9. 182. 191.]
104 cord_individual_obj[indivial_i,:] = [ 9. 8. 129. 137.]
105 cord_individual_obj[indivial_i,:] = [ 10. 9. 125. 134.]
106 cord_individual_obj[indivial_i,:] = [ 11. 10. 90. 100.]
107 cord_individual_obj[indivial_i,:] = [ 12. 11. 132. 143.]
108 cord_individual_obj[indivial_i,:] = [ 13. 10. 67. 77.]
109 cord_individual_obj[indivial_i,:] = [ 14. 8. 151. 159.]
110 cord_individual_obj[indivial_i,:] = [ 15. 10. 110. 120.]
111 cord_individual_obj[indivial_i,:] = [ 16. 9. 106. 115.]
112 cord_individual_obj[indivial_i,:] = [ 17. 11. 166. 177.]
113 cord_individual_obj[indivial_i,:] = [ 18. 8. 139. 147.]
114 cord_individual_obj[indivial_i,:] = [ 19. 8. 129. 137.]
115 cord_individual_obj[indivial_i,:] = [ 20. 10. 101. 111.]
116 cord_individual_obj[indivial_i,:] = [ 21. 8. 153. 161.]
117 cord_individual_obj[indivial_i,:] = [ 22. 9. 107. 116.]
118 cord_individual_obj[indivial_i,:] = [ 23. 12. 162. 174.]
119 cord_individual_obj[indivial_i,:] = [ 24. 10. 131. 141.]
120
121 min(cord_individual_obj[:,3]) = 77.0
122 historl_G_best_iter[iter, 3] = 77.0
123 Begin iteration:
124
125 iter = 3
126 cord_individual_obj[indivial_i,:] = [ 0. 10. 98. 108.]
127 cord_individual_obj[indivial_i,:] = [ 1. 9. 195. 204.]
128 cord_individual_obj[indivial_i,:] = [ 2. 10. 147. 157.]
129 cord_individual_obj[indivial_i,:] = [ 3. 9. 108. 117.]
130 cord_individual_obj[indivial_i,:] = [ 4. 10. 141. 151.]
131 cord_individual_obj[indivial_i,:] = [ 5. 8. 143. 151.]
132 cord_individual_obj[indivial_i,:] = [ 6. 10. 168. 178.]
133 cord_individual_obj[indivial_i,:] = [ 7. 10. 165. 175.]
134 cord_individual_obj[indivial_i,:] = [ 8. 10. 67. 77.]
135 cord_individual_obj[indivial_i,:] = [ 9. 9. 135. 144.]
136 cord_individual_obj[indivial_i,:] = [ 10. 10. 120. 130.]
137 cord_individual_obj[indivial_i,:] = [ 11. 10. 115. 125.]
138 cord_individual_obj[indivial_i,:] = [ 12. 8. 100. 108.]
139 cord_individual_obj[indivial_i,:] = [ 13. 12. 199. 211.]
140 cord_individual_obj[indivial_i,:] = [ 14. 10. 114. 124.]
141 cord_individual_obj[indivial_i,:] = [ 15. 10. 88. 98.]
142 cord_individual_obj[indivial_i,:] = [ 16. 9. 122. 131.]
143 cord_individual_obj[indivial_i,:] = [ 17. 11. 108. 119.]
144 cord_individual_obj[indivial_i,:] = [ 18. 8. 156. 164.]
145 cord_individual_obj[indivial_i,:] = [ 19. 9. 111. 120.]
146 cord_individual_obj[indivial_i,:] = [ 20. 9. 217. 226.]
147 cord_individual_obj[indivial_i,:] = [ 21. 9. 100. 109.]
148 cord_individual_obj[indivial_i,:] = [ 22. 9. 115. 124.]
149 cord_individual_obj[indivial_i,:] = [ 23. 9. 164. 173.]
150 cord_individual_obj[indivial_i,:] = [ 24. 10. 134. 144.]
151
152 min(cord_individual_obj[:,3]) = 77.0
153 historl_G_best_iter[iter, 3] = 77.0
154 Begin iteration:
155
156 iter = 4
157 cord_individual_obj[indivial_i,:] = [ 0. 11. 209. 220.]
158 cord_individual_obj[indivial_i,:] = [ 1. 9. 103. 112.]
159 cord_individual_obj[indivial_i,:] = [ 2. 9. 157. 166.]
160 cord_individual_obj[indivial_i,:] = [ 3. 8. 156. 164.]
161 cord_individual_obj[indivial_i,:] = [ 4. 8. 104. 112.]
162 cord_individual_obj[indivial_i,:] = [ 5. 11. 100. 111.]
163 cord_individual_obj[indivial_i,:] = [ 6. 9. 128. 137.]

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164 cord_individual_obj[indivial_i, :] = [ 7. 9. 146. 155.]
165 cord_individual_obj[indivial_i, :] = [ 8. 9. 129. 138.]
166 cord_individual_obj[indivial_i, :] = [ 9. 10. 94. 104.]
167 cord_individual_obj[indivial_i, :] = [ 10. 9. 116. 125.]
168 cord_individual_obj[indivial_i, :] = [ 11. 8. 92. 100.]
169 cord_individual_obj[indivial_i, :] = [ 12. 9. 94. 103.]
170 cord_individual_obj[indivial_i, :] = [ 13. 12. 130. 142.]
171 cord_individual_obj[indivial_i, :] = [ 14. 9. 125. 134.]
172 cord_individual_obj[indivial_i, :] = [ 15. 9. 155. 164.]
173 cord_individual_obj[indivial_i, :] = [ 16. 7. 105. 112.]
174 cord_individual_obj[indivial_i, :] = [ 17. 10. 185. 195.]
175 cord_individual_obj[indivial_i, :] = [ 18. 10. 137. 147.]
176 cord_individual_obj[indivial_i, :] = [ 19. 10. 132. 142.]
177 cord_individual_obj[indivial_i, :] = [ 20. 10. 67. 77.]
178 cord_individual_obj[indivial_i, :] = [ 21. 8. 105. 113.]
179 cord_individual_obj[indivial_i, :] = [ 22. 11. 101. 112.]
180 cord_individual_obj[indivial_i, :] = [ 23. 10. 124. 134.]
181 cord_individual_obj[indivial_i, :] = [ 24. 10. 117. 127.]
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. 67. 77.]
189 cord_individual_obj[indivial_i, :] = [ 1. 13. 97. 110.]
190 cord_individual_obj[indivial_i, :] = [ 2. 8. 153. 161.]
191 cord_individual_obj[indivial_i, :] = [ 3. 10. 199. 209.]
192 cord_individual_obj[indivial_i, :] = [ 4. 11. 127. 138.]
193 cord_individual_obj[indivial_i, :] = [ 5. 10. 144. 154.]
194 cord_individual_obj[indivial_i, :] = [ 6. 10. 140. 150.]
195 cord_individual_obj[indivial_i, :] = [ 7. 10. 128. 138.]
196 cord_individual_obj[indivial_i, :] = [ 8. 10. 166. 176.]
197 cord_individual_obj[indivial_i, :] = [ 9. 10. 94. 104.]
198 cord_individual_obj[indivial_i, :] = [ 10. 9. 96. 105.]
199 cord_individual_obj[indivial_i, :] = [ 11. 9. 71. 80.]
200 cord_individual_obj[indivial_i, :] = [ 12. 11. 98. 109.]
201 cord_individual_obj[indivial_i, :] = [ 13. 11. 132. 143.]
202 cord_individual_obj[indivial_i, :] = [ 14. 9. 91. 100.]
203 cord_individual_obj[indivial_i, :] = [ 15. 9. 124. 133.]
204 cord_individual_obj[indivial_i, :] = [ 16. 8. 148. 156.]
205 cord_individual_obj[indivial_i, :] = [ 17. 10. 119. 129.]
206 cord_individual_obj[indivial_i, :] = [ 18. 9. 115. 124.]
207 cord_individual_obj[indivial_i, :] = [ 19. 10. 156. 166.]
208 cord_individual_obj[indivial_i, :] = [ 20. 10. 134. 144.]
209 cord_individual_obj[indivial_i, :] = [ 21. 10. 99. 109.]
210 cord_individual_obj[indivial_i, :] = [ 22. 8. 102. 110.]
211 cord_individual_obj[indivial_i, :] = [ 23. 14. 120. 134.]
212 cord_individual_obj[indivial_i, :] = [ 24. 10. 119. 129.]
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. 12. 143. 155.]
220 cord_individual_obj[indivial_i, :] = [ 1. 9. 161. 170.]
221 cord_individual_obj[indivial_i, :] = [ 2. 7. 112. 119.]
222 cord_individual_obj[indivial_i, :] = [ 3. 10. 67. 77.]
223 cord_individual_obj[indivial_i, :] = [ 4. 8. 153. 161.]
224 cord_individual_obj[indivial_i, :] = [ 5. 8. 102. 110.]
225 cord_individual_obj[indivial_i, :] = [ 6. 8. 71. 79.]
226 cord_individual_obj[indivial_i, :] = [ 7. 9. 98. 107.]
227 cord_individual_obj[indivial_i, :] = [ 8. 9. 87. 96.]
228 cord_individual_obj[indivial_i, :] = [ 9. 11. 136. 147.]
229 cord_individual_obj[indivial_i, :] = [ 10. 10. 108. 118.]
230 cord_individual_obj[indivial_i, :] = [ 11. 9. 91. 100.]
231 cord_individual_obj[indivial_i, :] = [ 12. 12. 108. 120.]
232 cord_individual_obj[indivial_i, :] = [ 13. 12. 132. 144.]
233 cord_individual_obj[indivial_i, :] = [ 14. 9. 130. 139.]
234 cord_individual_obj[indivial_i, :] = [ 15. 8. 181. 189.]
235 cord_individual_obj[indivial_i, :] = [ 16. 10. 66. 76.]
236 cord_individual_obj[indivial_i, :] = [ 17. 10. 101. 111.]
237 cord_individual_obj[indivial_i, :] = [ 18. 8. 143. 151.]
238 cord_individual_obj[indivial_i, :] = [ 19. 9. 194. 203.]
239 cord_individual_obj[indivial_i, :] = [ 20. 9. 140. 149.]
240 cord_individual_obj[indivial_i, :] = [ 21. 8. 109. 117.]
241 cord_individual_obj[indivial_i, :] = [ 22. 12. 128. 140.]
242 cord_individual_obj[indivial_i, :] = [ 23. 10. 153. 163.]
243 cord_individual_obj[indivial_i, :] = [ 24. 9. 114. 123.]
244
245 min(cord_individual_obj[:, 3]) = 76.0
246 historl_G_best_iter[iter, 3] = 76.0
247 Begin iteration:

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248
249 iter = 7
250 cord_individual_obj[indivial_i, :] = [ 0. 10. 125. 135.]
251 cord_individual_obj[indivial_i, :] = [ 1. 10. 174. 184.]
252 cord_individual_obj[indivial_i, :] = [ 2. 10. 80. 90.]
253 cord_individual_obj[indivial_i, :] = [ 3. 11. 123. 134.]
254 cord_individual_obj[indivial_i, :] = [ 4. 10. 174. 184.]
255 cord_individual_obj[indivial_i, :] = [ 5. 10. 123. 133.]
256 cord_individual_obj[indivial_i, :] = [ 6. 9. 157. 166.]
257 cord_individual_obj[indivial_i, :] = [ 7. 9. 138. 147.]
258 cord_individual_obj[indivial_i, :] = [ 8. 11. 140. 151.]
259 cord_individual_obj[indivial_i, :] = [ 9. 11. 120. 131.]
260 cord_individual_obj[indivial_i, :] = [ 10. 10. 142. 152.]
261 cord_individual_obj[indivial_i, :] = [ 11. 9. 152. 161.]
262 cord_individual_obj[indivial_i, :] = [ 12. 10. 149. 159.]
263 cord_individual_obj[indivial_i, :] = [ 13. 9. 150. 159.]
264 cord_individual_obj[indivial_i, :] = [ 14. 11. 118. 129.]
265 cord_individual_obj[indivial_i, :] = [ 15. 11. 148. 159.]
266 cord_individual_obj[indivial_i, :] = [ 16. 9. 98. 107.]
267 cord_individual_obj[indivial_i, :] = [ 17. 12. 173. 185.]
268 cord_individual_obj[indivial_i, :] = [ 18. 10. 101. 111.]
269 cord_individual_obj[indivial_i, :] = [ 19. 10. 66. 76.]
270 cord_individual_obj[indivial_i, :] = [ 20. 11. 131. 142.]
271 cord_individual_obj[indivial_i, :] = [ 21. 9. 83. 92.]
272 cord_individual_obj[indivial_i, :] = [ 22. 8. 138. 146.]
273 cord_individual_obj[indivial_i, :] = [ 23. 10. 118. 128.]
274 cord_individual_obj[indivial_i, :] = [ 24. 12. 137. 149.]
275
276 min(cord_individual_obj[:, 3]) = 76.0
277 historl_G_best_iter[iter, 3] = 76.0
278 Begin iteration:
279
280 iter = 8
281 cord_individual_obj[indivial_i, :] = [ 0. 11. 186. 197.]
282 cord_individual_obj[indivial_i, :] = [ 1. 10. 113. 123.]
283 cord_individual_obj[indivial_i, :] = [ 2. 8. 143. 151.]
284 cord_individual_obj[indivial_i, :] = [ 3. 10. 85. 95.]
285 cord_individual_obj[indivial_i, :] = [ 4. 11. 75. 86.]
286 cord_individual_obj[indivial_i, :] = [ 5. 11. 90. 101.]
287 cord_individual_obj[indivial_i, :] = [ 6. 10. 136. 146.]
288 cord_individual_obj[indivial_i, :] = [ 7. 11. 107. 118.]
289 cord_individual_obj[indivial_i, :] = [ 8. 9. 107. 116.]
290 cord_individual_obj[indivial_i, :] = [ 9. 10. 76. 86.]
291 cord_individual_obj[indivial_i, :] = [ 10. 11. 90. 101.]
292 cord_individual_obj[indivial_i, :] = [ 11. 9. 128. 137.]
293 cord_individual_obj[indivial_i, :] = [ 12. 9. 123. 132.]
294 cord_individual_obj[indivial_i, :] = [ 13. 11. 133. 144.]
295 cord_individual_obj[indivial_i, :] = [ 14. 9. 90. 99.]
296 cord_individual_obj[indivial_i, :] = [ 15. 9. 145. 154.]
297 cord_individual_obj[indivial_i, :] = [ 16. 9. 120. 129.]
298 cord_individual_obj[indivial_i, :] = [ 17. 10. 66. 76.]
299 cord_individual_obj[indivial_i, :] = [ 18. 8. 101. 109.]
300 cord_individual_obj[indivial_i, :] = [ 19. 9. 69. 78.]
301 cord_individual_obj[indivial_i, :] = [ 20. 9. 76. 85.]
302 cord_individual_obj[indivial_i, :] = [ 21. 8. 111. 119.]
303 cord_individual_obj[indivial_i, :] = [ 22. 9. 95. 104.]
304 cord_individual_obj[indivial_i, :] = [ 23. 11. 109. 120.]
305 cord_individual_obj[indivial_i, :] = [ 24. 11. 145. 156.]
306
307 min(cord_individual_obj[:, 3]) = 76.0
308 historl_G_best_iter[iter, 3] = 76.0
309 Begin iteration:
310
311 iter = 9
312 cord_individual_obj[indivial_i, :] = [ 0. 10. 66. 76.]
313 cord_individual_obj[indivial_i, :] = [ 1. 11. 100. 111.]
314 cord_individual_obj[indivial_i, :] = [ 2. 9. 151. 160.]
315 cord_individual_obj[indivial_i, :] = [ 3. 9. 146. 155.]
316 cord_individual_obj[indivial_i, :] = [ 4. 10. 113. 123.]
317 cord_individual_obj[indivial_i, :] = [ 5. 10. 122. 132.]
318 cord_individual_obj[indivial_i, :] = [ 6. 10. 109. 119.]
319 cord_individual_obj[indivial_i, :] = [ 7. 10. 81. 91.]
320 cord_individual_obj[indivial_i, :] = [ 8. 12. 112. 124.]
321 cord_individual_obj[indivial_i, :] = [ 9. 11. 135. 146.]
322 cord_individual_obj[indivial_i, :] = [ 10. 10. 119. 129.]
323 cord_individual_obj[indivial_i, :] = [ 11. 9. 106. 115.]
324 cord_individual_obj[indivial_i, :] = [ 12. 10. 116. 126.]
325 cord_individual_obj[indivial_i, :] = [ 13. 10. 65. 75.]
326 cord_individual_obj[indivial_i, :] = [ 14. 10. 102. 112.]
327 cord_individual_obj[indivial_i, :] = [ 15. 10. 111. 121.]
328 cord_individual_obj[indivial_i, :] = [ 16. 9. 102. 111.]
329 cord_individual_obj[indivial_i, :] = [ 17. 9. 169. 178.]
330 cord_individual_obj[indivial_i, :] = [ 18. 9. 95. 104.]
331 cord_individual_obj[indivial_i, :] = [ 19. 12. 86. 98.]

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332 cord_individual_obj[indivial_i,:] = [ 20. 11. 131. 142.]
333 cord_individual_obj[indivial_i,:] = [ 21. 8. 124. 132.]
334 cord_individual_obj[indivial_i,:] = [ 22. 7. 119. 126.]
335 cord_individual_obj[indivial_i,:] = [ 23. 9. 124. 133.]
336 cord_individual_obj[indivial_i,:] = [ 24. 11. 126. 137.]
337
338 min(cord_individual_obj[:,3]) = 75.0
339 histol_G_best_iter[iter,3] = 75.0
340 Begin iteration:
341
342 iter = 10
343 cord_individual_obj[indivial_i,:] = [ 0. 9. 87. 96.]
344 cord_individual_obj[indivial_i,:] = [ 1. 9. 128. 137.]
345 cord_individual_obj[indivial_i,:] = [ 2. 11. 129. 140.]
346 cord_individual_obj[indivial_i,:] = [ 3. 11. 116. 127.]
347 cord_individual_obj[indivial_i,:] = [ 4. 9. 101. 110.]
348 cord_individual_obj[indivial_i,:] = [ 5. 10. 102. 112.]
349 cord_individual_obj[indivial_i,:] = [ 6. 10. 146. 156.]
350 cord_individual_obj[indivial_i,:] = [ 7. 11. 74. 85.]
351 cord_individual_obj[indivial_i,:] = [ 8. 13. 89. 102.]
352 cord_individual_obj[indivial_i,:] = [ 9. 10. 142. 152.]
353 cord_individual_obj[indivial_i,:] = [ 10. 9. 137. 146.]
354 cord_individual_obj[indivial_i,:] = [ 11. 10. 121. 131.]
355 cord_individual_obj[indivial_i,:] = [ 12. 10. 120. 130.]
356 cord_individual_obj[indivial_i,:] = [ 13. 10. 136. 146.]
357 cord_individual_obj[indivial_i,:] = [ 14. 9. 82. 91.]
358 cord_individual_obj[indivial_i,:] = [ 15. 9. 125. 134.]
359 cord_individual_obj[indivial_i,:] = [ 16. 11. 105. 116.]
360 cord_individual_obj[indivial_i,:] = [ 17. 10. 65. 75.]
361 cord_individual_obj[indivial_i,:] = [ 18. 11. 88. 99.]
362 cord_individual_obj[indivial_i,:] = [ 19. 11. 92. 103.]
363 cord_individual_obj[indivial_i,:] = [ 20. 9. 121. 130.]
364 cord_individual_obj[indivial_i,:] = [ 21. 9. 97. 106.]
365 cord_individual_obj[indivial_i,:] = [ 22. 10. 85. 95.]
366 cord_individual_obj[indivial_i,:] = [ 23. 10. 155. 165.]
367 cord_individual_obj[indivial_i,:] = [ 24. 10. 73. 83.]
368
369 min(cord_individual_obj[:,3]) = 75.0
370 histol_G_best_iter[iter,3] = 75.0
371 Begin iteration:
372
373 iter = 11
374 cord_individual_obj[indivial_i,:] = [ 0. 10. 186. 196.]
375 cord_individual_obj[indivial_i,:] = [ 1. 10. 85. 95.]
376 cord_individual_obj[indivial_i,:] = [ 2. 11. 123. 134.]
377 cord_individual_obj[indivial_i,:] = [ 3. 9. 90. 99.]
378 cord_individual_obj[indivial_i,:] = [ 4. 8. 108. 116.]
379 cord_individual_obj[indivial_i,:] = [ 5. 9. 160. 169.]
380 cord_individual_obj[indivial_i,:] = [ 6. 8. 214. 222.]
381 cord_individual_obj[indivial_i,:] = [ 7. 11. 214. 225.]
382 cord_individual_obj[indivial_i,:] = [ 8. 10. 161. 171.]
383 cord_individual_obj[indivial_i,:] = [ 9. 9. 96. 105.]
384 cord_individual_obj[indivial_i,:] = [ 10. 10. 95. 105.]
385 cord_individual_obj[indivial_i,:] = [ 11. 8. 195. 203.]
386 cord_individual_obj[indivial_i,:] = [ 12. 10. 103. 113.]
387 cord_individual_obj[indivial_i,:] = [ 13. 9. 93. 102.]
388 cord_individual_obj[indivial_i,:] = [ 14. 7. 110. 117.]
389 cord_individual_obj[indivial_i,:] = [ 15. 10. 111. 121.]
390 cord_individual_obj[indivial_i,:] = [ 16. 9. 94. 103.]
391 cord_individual_obj[indivial_i,:] = [ 17. 10. 105. 115.]
392 cord_individual_obj[indivial_i,:] = [ 18. 9. 204. 213.]
393 cord_individual_obj[indivial_i,:] = [ 19. 10. 156. 166.]
394 cord_individual_obj[indivial_i,:] = [ 20. 8. 105. 113.]
395 cord_individual_obj[indivial_i,:] = [ 21. 8. 191. 199.]
396 cord_individual_obj[indivial_i,:] = [ 22. 10. 111. 121.]
397 cord_individual_obj[indivial_i,:] = [ 23. 10. 65. 75.]
398 cord_individual_obj[indivial_i,:] = [ 24. 10. 154. 164.]
399
400 min(cord_individual_obj[:,3]) = 75.0
401 histol_G_best_iter[iter,3] = 75.0
402 Begin iteration:
403
404 iter = 12
405 cord_individual_obj[indivial_i,:] = [ 0. 11. 163. 174.]
406 cord_individual_obj[indivial_i,:] = [ 1. 11. 93. 104.]
407 cord_individual_obj[indivial_i,:] = [ 2. 9. 78. 87.]
408 cord_individual_obj[indivial_i,:] = [ 3. 11. 107. 118.]
409 cord_individual_obj[indivial_i,:] = [ 4. 10. 130. 140.]
410 cord_individual_obj[indivial_i,:] = [ 5. 9. 165. 174.]
411 cord_individual_obj[indivial_i,:] = [ 6. 9. 119. 128.]
412 cord_individual_obj[indivial_i,:] = [ 7. 10. 65. 75.]
413 cord_individual_obj[indivial_i,:] = [ 8. 11. 97. 108.]
414 cord_individual_obj[indivial_i,:] = [ 9. 10. 133. 143.]
415 cord_individual_obj[indivial_i,:] = [ 10. 12. 108. 120.]

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416 cord_individual_obj[indivial_i,:] = [11, 10, 82, 92.]
417 cord_individual_obj[indivial_i,:] = [12, 10, 112, 122.]
418 cord_individual_obj[indivial_i,:] = [13, 9, 81, 90.]
419 cord_individual_obj[indivial_i,:] = [14, 11, 113, 124.]
420 cord_individual_obj[indivial_i,:] = [15, 8, 116, 124.]
421 cord_individual_obj[indivial_i,:] = [16, 10, 156, 166.]
422 cord_individual_obj[indivial_i,:] = [17, 12, 97, 109.]
423 cord_individual_obj[indivial_i,:] = [18, 10, 175, 185.]
424 cord_individual_obj[indivial_i,:] = [19, 11, 115, 126.]
425 cord_individual_obj[indivial_i,:] = [20, 9, 137, 146.]
426 cord_individual_obj[indivial_i,:] = [21, 8, 97, 105.]
427 cord_individual_obj[indivial_i,:] = [22, 9, 61, 70.]
428 cord_individual_obj[indivial_i,:] = [23, 9, 87, 96.]
429 cord_individual_obj[indivial_i,:] = [24, 10, 101, 111.]
430
431 min(cord_individual_obj[:,3]) = 70.0
432 histol_G_best_iter[iter,3] = 70.0
433 Begin iteration:
434
435 iter = 13
436 cord_individual_obj[indivial_i,:] = [0, 10, 114, 124.]
437 cord_individual_obj[indivial_i,:] = [1, 12, 130, 142.]
438 cord_individual_obj[indivial_i,:] = [2, 10, 99, 109.]
439 cord_individual_obj[indivial_i,:] = [3, 9, 91, 100.]
440 cord_individual_obj[indivial_i,:] = [4, 11, 129, 140.]
441 cord_individual_obj[indivial_i,:] = [5, 8, 150, 158.]
442 cord_individual_obj[indivial_i,:] = [6, 9, 170, 179.]
443 cord_individual_obj[indivial_i,:] = [7, 11, 136, 147.]
444 cord_individual_obj[indivial_i,:] = [8, 10, 117, 127.]
445 cord_individual_obj[indivial_i,:] = [9, 9, 81, 90.]
446 cord_individual_obj[indivial_i,:] = [10, 9, 106, 115.]
447 cord_individual_obj[indivial_i,:] = [11, 10, 101, 111.]
448 cord_individual_obj[indivial_i,:] = [12, 10, 95, 105.]
449 cord_individual_obj[indivial_i,:] = [13, 11, 183, 194.]
450 cord_individual_obj[indivial_i,:] = [14, 9, 140, 149.]
451 cord_individual_obj[indivial_i,:] = [15, 8, 170, 178.]
452 cord_individual_obj[indivial_i,:] = [16, 11, 127, 138.]
453 cord_individual_obj[indivial_i,:] = [17, 9, 161, 170.]
454 cord_individual_obj[indivial_i,:] = [18, 9, 61, 70.]
455 cord_individual_obj[indivial_i,:] = [19, 11, 147, 158.]
456 cord_individual_obj[indivial_i,:] = [20, 9, 113, 122.]
457 cord_individual_obj[indivial_i,:] = [21, 11, 125, 136.]
458 cord_individual_obj[indivial_i,:] = [22, 9, 98, 107.]
459 cord_individual_obj[indivial_i,:] = [23, 10, 89, 99.]
460 cord_individual_obj[indivial_i,:] = [24, 10, 154, 164.]
461
462 min(cord_individual_obj[:,3]) = 70.0
463 histol_G_best_iter[iter,3] = 70.0
464 Begin iteration:
465
466 iter = 14
467 cord_individual_obj[indivial_i,:] = [0, 10, 111, 121.]
468 cord_individual_obj[indivial_i,:] = [1, 9, 177, 186.]
469 cord_individual_obj[indivial_i,:] = [2, 8, 79, 87.]
470 cord_individual_obj[indivial_i,:] = [3, 9, 140, 149.]
471 cord_individual_obj[indivial_i,:] = [4, 9, 100, 109.]
472 cord_individual_obj[indivial_i,:] = [5, 8, 152, 160.]
473 cord_individual_obj[indivial_i,:] = [6, 11, 123, 134.]
474 cord_individual_obj[indivial_i,:] = [7, 10, 186, 196.]
475 cord_individual_obj[indivial_i,:] = [8, 10, 137, 147.]
476 cord_individual_obj[indivial_i,:] = [9, 10, 149, 159.]
477 cord_individual_obj[indivial_i,:] = [10, 10, 130, 140.]
478 cord_individual_obj[indivial_i,:] = [11, 11, 118, 129.]
479 cord_individual_obj[indivial_i,:] = [12, 10, 108, 118.]
480 cord_individual_obj[indivial_i,:] = [13, 9, 61, 70.]
481 cord_individual_obj[indivial_i,:] = [14, 9, 126, 135.]
482 cord_individual_obj[indivial_i,:] = [15, 10, 156, 166.]
483 cord_individual_obj[indivial_i,:] = [16, 9, 79, 88.]
484 cord_individual_obj[indivial_i,:] = [17, 11, 132, 143.]
485 cord_individual_obj[indivial_i,:] = [18, 9, 113, 122.]
486 cord_individual_obj[indivial_i,:] = [19, 10, 213, 223.]
487 cord_individual_obj[indivial_i,:] = [20, 9, 101, 110.]
488 cord_individual_obj[indivial_i,:] = [21, 8, 86, 94.]
489 cord_individual_obj[indivial_i,:] = [22, 9, 163, 172.]
490 cord_individual_obj[indivial_i,:] = [23, 10, 111, 121.]
491 cord_individual_obj[indivial_i,:] = [24, 10, 150, 160.]
492
493 min(cord_individual_obj[:,3]) = 70.0
494 histol_G_best_iter[iter,3] = 70.0
495 Begin iteration:
496
497 iter = 15
498 cord_individual_obj[indivial_i,:] = [0, 9, 126, 135.]
499 cord_individual_obj[indivial_i,:] = [1, 11, 135, 146.]

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500 cord_individual_obj[indivial_i, :] = [ 2. 9. 134. 143.]
501 cord_individual_obj[indivial_i, :] = [ 3. 10. 114. 124.]
502 cord_individual_obj[indivial_i, :] = [ 4. 11. 95. 106.]
503 cord_individual_obj[indivial_i, :] = [ 5. 11. 123. 134.]
504 cord_individual_obj[indivial_i, :] = [ 6. 10. 97. 107.]
505 cord_individual_obj[indivial_i, :] = [ 7. 9. 74. 83.]
506 cord_individual_obj[indivial_i, :] = [ 8. 9. 134. 143.]
507 cord_individual_obj[indivial_i, :] = [ 9. 11. 140. 151.]
508 cord_individual_obj[indivial_i, :] = [ 10. 9. 128. 137.]
509 cord_individual_obj[indivial_i, :] = [ 11. 10. 114. 124.]
510 cord_individual_obj[indivial_i, :] = [ 12. 10. 126. 136.]
511 cord_individual_obj[indivial_i, :] = [ 13. 10. 117. 127.]
512 cord_individual_obj[indivial_i, :] = [ 14. 10. 120. 130.]
513 cord_individual_obj[indivial_i, :] = [ 15. 8. 162. 170.]
514 cord_individual_obj[indivial_i, :] = [ 16. 9. 106. 115.]
515 cord_individual_obj[indivial_i, :] = [ 17. 10. 117. 127.]
516 cord_individual_obj[indivial_i, :] = [ 18. 10. 114. 124.]
517 cord_individual_obj[indivial_i, :] = [ 19. 9. 61. 70.]
518 cord_individual_obj[indivial_i, :] = [ 20. 8. 101. 109.]
519 cord_individual_obj[indivial_i, :] = [ 21. 10. 103. 113.]
520 cord_individual_obj[indivial_i, :] = [ 22. 10. 147. 157.]
521 cord_individual_obj[indivial_i, :] = [ 23. 11. 115. 126.]
522 cord_individual_obj[indivial_i, :] = [ 24. 10. 261. 271.]
523
524 min(cord_individual_obj[:, 3]) = 70.0
525 histol_G_best_iter[iter, 3] = 70.0
526 Begin iteration:
527
528 iter = 16
529 cord_individual_obj[indivial_i, :] = [ 0. 9. 136. 145.]
530 cord_individual_obj[indivial_i, :] = [ 1. 10. 91. 101.]
531 cord_individual_obj[indivial_i, :] = [ 2. 10. 106. 116.]
532 cord_individual_obj[indivial_i, :] = [ 3. 7. 107. 114.]
533 cord_individual_obj[indivial_i, :] = [ 4. 10. 101. 111.]
534 cord_individual_obj[indivial_i, :] = [ 5. 10. 149. 159.]
535 cord_individual_obj[indivial_i, :] = [ 6. 9. 123. 132.]
536 cord_individual_obj[indivial_i, :] = [ 7. 10. 148. 158.]
537 cord_individual_obj[indivial_i, :] = [ 8. 10. 119. 129.]
538 cord_individual_obj[indivial_i, :] = [ 9. 9. 105. 114.]
539 cord_individual_obj[indivial_i, :] = [ 10. 10. 83. 93.]
540 cord_individual_obj[indivial_i, :] = [ 11. 10. 100. 110.]
541 cord_individual_obj[indivial_i, :] = [ 12. 10. 113. 123.]
542 cord_individual_obj[indivial_i, :] = [ 13. 11. 133. 144.]
543 cord_individual_obj[indivial_i, :] = [ 14. 10. 84. 94.]
544 cord_individual_obj[indivial_i, :] = [ 15. 10. 93. 103.]
545 cord_individual_obj[indivial_i, :] = [ 16. 8. 84. 92.]
546 cord_individual_obj[indivial_i, :] = [ 17. 11. 109. 120.]
547 cord_individual_obj[indivial_i, :] = [ 18. 9. 112. 121.]
548 cord_individual_obj[indivial_i, :] = [ 19. 8. 98. 106.]
549 cord_individual_obj[indivial_i, :] = [ 20. 9. 83. 92.]
550 cord_individual_obj[indivial_i, :] = [ 21. 9. 136. 145.]
551 cord_individual_obj[indivial_i, :] = [ 22. 9. 173. 182.]
552 cord_individual_obj[indivial_i, :] = [ 23. 9. 96. 105.]
553 cord_individual_obj[indivial_i, :] = [ 24. 9. 61. 70.]
554
555 min(cord_individual_obj[:, 3]) = 70.0
556 histol_G_best_iter[iter, 3] = 70.0
557 Begin iteration:
558
559 iter = 17
560 cord_individual_obj[indivial_i, :] = [ 0. 11. 139. 150.]
561 cord_individual_obj[indivial_i, :] = [ 1. 9. 87. 96.]
562 cord_individual_obj[indivial_i, :] = [ 2. 11. 130. 141.]
563 cord_individual_obj[indivial_i, :] = [ 3. 9. 152. 161.]
564 cord_individual_obj[indivial_i, :] = [ 4. 10. 145. 155.]
565 cord_individual_obj[indivial_i, :] = [ 5. 10. 189. 199.]
566 cord_individual_obj[indivial_i, :] = [ 6. 10. 101. 111.]
567 cord_individual_obj[indivial_i, :] = [ 7. 9. 89. 98.]
568 cord_individual_obj[indivial_i, :] = [ 8. 10. 101. 111.]
569 cord_individual_obj[indivial_i, :] = [ 9. 10. 140. 150.]
570 cord_individual_obj[indivial_i, :] = [ 10. 9. 160. 169.]
571 cord_individual_obj[indivial_i, :] = [ 11. 10. 120. 130.]
572 cord_individual_obj[indivial_i, :] = [ 12. 9. 142. 151.]
573 cord_individual_obj[indivial_i, :] = [ 13. 8. 87. 95.]
574 cord_individual_obj[indivial_i, :] = [ 14. 12. 126. 138.]
575 cord_individual_obj[indivial_i, :] = [ 15. 8. 131. 139.]
576 cord_individual_obj[indivial_i, :] = [ 16. 8. 68. 76.]
577 cord_individual_obj[indivial_i, :] = [ 17. 10. 120. 130.]
578 cord_individual_obj[indivial_i, :] = [ 18. 9. 80. 89.]
579 cord_individual_obj[indivial_i, :] = [ 19. 10. 119. 129.]
580 cord_individual_obj[indivial_i, :] = [ 20. 8. 139. 147.]
581 cord_individual_obj[indivial_i, :] = [ 21. 8. 96. 104.]
582 cord_individual_obj[indivial_i, :] = [ 22. 9. 61. 70.]
583 cord_individual_obj[indivial_i, :] = [ 23. 12. 94. 106.]

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584     cord_individual_obj[indivial_i, :] = [ 24. 11. 100. 111.]
585
586     min(cord_individual_obj[:, 3]) = 70.0
587     historl_G_best_iter[iter, 3] = 70.0
588 Begin iteration:
589
590 iter = 18
591     cord_individual_obj[indivial_i, :] = [ 0. 10. 114. 124.]
592     cord_individual_obj[indivial_i, :] = [ 1. 11. 107. 118.]
593     cord_individual_obj[indivial_i, :] = [ 2. 11. 150. 161.]
594     cord_individual_obj[indivial_i, :] = [ 3. 8. 161. 169.]
595     cord_individual_obj[indivial_i, :] = [ 4. 11. 114. 125.]
596     cord_individual_obj[indivial_i, :] = [ 5. 9. 61. 70.]
597     cord_individual_obj[indivial_i, :] = [ 6. 7. 178. 185.]
598     cord_individual_obj[indivial_i, :] = [ 7. 8. 152. 160.]
599     cord_individual_obj[indivial_i, :] = [ 8. 11. 98. 109.]
600     cord_individual_obj[indivial_i, :] = [ 9. 12. 176. 188.]
601     cord_individual_obj[indivial_i, :] = [ 10. 10. 153. 163.]
602     cord_individual_obj[indivial_i, :] = [ 11. 12. 136. 148.]
603     cord_individual_obj[indivial_i, :] = [ 12. 10. 98. 108.]
604     cord_individual_obj[indivial_i, :] = [ 13. 11. 143. 154.]
605     cord_individual_obj[indivial_i, :] = [ 14. 11. 182. 193.]
606     cord_individual_obj[indivial_i, :] = [ 15. 8. 80. 88.]
607     cord_individual_obj[indivial_i, :] = [ 16. 10. 108. 118.]
608     cord_individual_obj[indivial_i, :] = [ 17. 10. 184. 194.]
609     cord_individual_obj[indivial_i, :] = [ 18. 10. 142. 152.]
610     cord_individual_obj[indivial_i, :] = [ 19. 9. 178. 187.]
611     cord_individual_obj[indivial_i, :] = [ 20. 9. 150. 159.]
612     cord_individual_obj[indivial_i, :] = [ 21. 9. 139. 148.]
613     cord_individual_obj[indivial_i, :] = [ 22. 10. 108. 118.]
614     cord_individual_obj[indivial_i, :] = [ 23. 11. 130. 141.]
615     cord_individual_obj[indivial_i, :] = [ 24. 11. 139. 150.]
616
617     min(cord_individual_obj[:, 3]) = 70.0
618     historl_G_best_iter[iter, 3] = 70.0
619 Begin iteration:
620
621 iter = 19
622     cord_individual_obj[indivial_i, :] = [ 0. 9. 179. 188.]
623     cord_individual_obj[indivial_i, :] = [ 1. 10. 99. 109.]
624     cord_individual_obj[indivial_i, :] = [ 2. 10. 108. 118.]
625     cord_individual_obj[indivial_i, :] = [ 3. 8. 116. 124.]
626     cord_individual_obj[indivial_i, :] = [ 4. 10. 130. 140.]
627     cord_individual_obj[indivial_i, :] = [ 5. 10. 84. 94.]
628     cord_individual_obj[indivial_i, :] = [ 6. 8. 101. 109.]
629     cord_individual_obj[indivial_i, :] = [ 7. 9. 123. 132.]
630     cord_individual_obj[indivial_i, :] = [ 8. 9. 85. 94.]
631     cord_individual_obj[indivial_i, :] = [ 9. 8. 88. 96.]
632     cord_individual_obj[indivial_i, :] = [ 10. 8. 74. 82.]
633     cord_individual_obj[indivial_i, :] = [ 11. 9. 117. 126.]
634     cord_individual_obj[indivial_i, :] = [ 12. 9. 125. 134.]
635     cord_individual_obj[indivial_i, :] = [ 13. 11. 123. 134.]
636     cord_individual_obj[indivial_i, :] = [ 14. 9. 86. 95.]
637     cord_individual_obj[indivial_i, :] = [ 15. 9. 131. 140.]
638     cord_individual_obj[indivial_i, :] = [ 16. 9. 110. 119.]
639     cord_individual_obj[indivial_i, :] = [ 17. 9. 61. 70.]
640     cord_individual_obj[indivial_i, :] = [ 18. 10. 171. 181.]
641     cord_individual_obj[indivial_i, :] = [ 19. 8. 104. 112.]
642     cord_individual_obj[indivial_i, :] = [ 20. 10. 73. 83.]
643     cord_individual_obj[indivial_i, :] = [ 21. 11. 105. 116.]
644     cord_individual_obj[indivial_i, :] = [ 22. 9. 163. 172.]
645     cord_individual_obj[indivial_i, :] = [ 23. 8. 154. 162.]
646     cord_individual_obj[indivial_i, :] = [ 24. 12. 134. 146.]
647
648     min(cord_individual_obj[:, 3]) = 70.0
649     historl_G_best_iter[iter, 3] = 70.0
650 Begin iteration:
651
652 iter = 20
653     cord_individual_obj[indivial_i, :] = [ 0. 9. 61. 70.]
654     cord_individual_obj[indivial_i, :] = [ 1. 9. 92. 101.]
655     cord_individual_obj[indivial_i, :] = [ 2. 9. 92. 101.]
656     cord_individual_obj[indivial_i, :] = [ 3. 9. 131. 140.]
657     cord_individual_obj[indivial_i, :] = [ 4. 10. 79. 89.]
658     cord_individual_obj[indivial_i, :] = [ 5. 9. 89. 98.]
659     cord_individual_obj[indivial_i, :] = [ 6. 8. 153. 161.]
660     cord_individual_obj[indivial_i, :] = [ 7. 9. 164. 173.]
661     cord_individual_obj[indivial_i, :] = [ 8. 12. 106. 118.]
662     cord_individual_obj[indivial_i, :] = [ 9. 10. 89. 99.]
663     cord_individual_obj[indivial_i, :] = [ 10. 10. 127. 137.]
664     cord_individual_obj[indivial_i, :] = [ 11. 10. 169. 179.]
665     cord_individual_obj[indivial_i, :] = [ 12. 10. 100. 110.]
666     cord_individual_obj[indivial_i, :] = [ 13. 10. 110. 120.]
667     cord_individual_obj[indivial_i, :] = [ 14. 8. 91. 99.]

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668 cord_individual_obj[indivial_i,:] = [ 15. 8. 129. 137.]
669 cord_individual_obj[indivial_i,:] = [ 16. 9. 143. 152.]
670 cord_individual_obj[indivial_i,:] = [ 17. 11. 106. 117.]
671 cord_individual_obj[indivial_i,:] = [ 18. 9. 156. 165.]
672 cord_individual_obj[indivial_i,:] = [ 19. 9. 113. 122.]
673 cord_individual_obj[indivial_i,:] = [ 20. 8. 148. 156.]
674 cord_individual_obj[indivial_i,:] = [ 21. 9. 81. 90.]
675 cord_individual_obj[indivial_i,:] = [ 22. 9. 169. 178.]
676 cord_individual_obj[indivial_i,:] = [ 23. 11. 121. 132.]
677 cord_individual_obj[indivial_i,:] = [ 24. 11. 141. 152.]
678
679 min(cord_individual_obj[:,3]) = 70.0
680 historl_G_best_iter[iter,3] = 70.0
681 Iteration calculate over
682
683
684
685
686 All item are in Bin and:
687 Bin area = 1080
688 Real_area = 271.0
689 Proportion_of_area = 0.25092592592592594
690 BEST_CHROM =
691 berth: [11.5 5. 3.5 15. 24.5 26. 15.5 19.5 2.5 1.5 10.5 10.5 4. 24.
692 18. 21. 11.5 20.5]
693 time: [0. 2. 0. 6. 0. 3. 2. 3. 4. 2. 6. 2. 5. 1. 0. 7. 5. 9.]
694 num_QC: [4. 3. 2. 2. 3. 2. 1. 3. 4. 2. 4. 5. 2. 3. 2. 5. 3. 6.]
695 Objective function values and some other indicators:
696 Obj0 = 9.00 Obj1 = 61.00 Obj0 + Obj1 = 70.00
697 Total movement of crane: 4.00
698 Total waiting time in berth position: 57.00
699 Total index of q during berthing: 1136.00
700 Specific arrangement for each vessel:
701 V_id: 0 li: 9.0 xi: 11.5 bow of i: 7.0 tail of i: 16.0 gama_i0: 0.0 gama_i1: 1
702 .0 gama_i1 + 1: 2.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 120.0 work
703 load_i: 120.0 work load gap_i: 0
704 V_id: 1 li: 4.0 xi: 5.0 bow of i: 3.0 tail of i: 7.0 gama_i0: 2.0 gama_i1: 3.0
705 .0 gama_i1 + 1: 4.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 100.0 work load_i:
706 100.0 work load gap_i: 0
707 V_id: 2 li: 7.0 xi: 3.5 bow of i: 0.0 tail of i: 7.0 gama_i0: 0.0 gama_i1: 1.0
708 .0 gama_i1 + 1: 2.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 80.0 work load_i:
709 80.0 work load gap_i: 0
710 V_id: 3 li: 4.0 xi: 15.0 bow of i: 13.0 tail of i: 17.0 gama_i0: 6.0 gama_i1: 9
711 .0 gama_i1 + 1: 10.0 gama_i1 - gama_i0: 3.0 duration_time_i: 4.0 demand_i: 140.0 work
712 load_i: 140.0 work load gap_i: 0
713 V_id: 4 li: 9.0 xi: 24.5 bow of i: 20.0 tail of i: 29.0 gama_i0: 0.0 gama_i1: 0
714 .0 gama_i1 + 1: 1.0 gama_i1 - gama_i0: 0.0 duration_time_i: 1.0 demand_i: 60.0 work
715 load_i: 60.0 work load gap_i: 0
716 V_id: 5 li: 8.0 xi: 26.0 bow of i: 22.0 tail of i: 30.0 gama_i0: 3.0 gama_i1: 6
717 .0 gama_i1 + 1: 7.0 gama_i1 - gama_i0: 3.0 duration_time_i: 4.0 demand_i: 140.0 work
718 load_i: 140.0 work load gap_i: 0
719 V_id: 6 li: 3.0 xi: 15.5 bow of i: 14.0 tail of i: 17.0 gama_i0: 2.0 gama_i1: 4
720 .0 gama_i1 + 1: 5.0 gama_i1 - gama_i0: 2.0 duration_time_i: 3.0 demand_i: 60.0 work
721 load_i: 60.0 work load gap_i: 0
722 V_id: 7 li: 5.0 xi: 19.5 bow of i: 17.0 tail of i: 22.0 gama_i0: 3.0 gama_i1: 5
723 .0 gama_i1 + 1: 6.0 gama_i1 - gama_i0: 2.0 duration_time_i: 3.0 demand_i: 160.0 work
724 load_i: 160.0 work load gap_i: 0
725 V_id: 8 li: 5.0 xi: 2.5 bow of i: 0.0 tail of i: 5.0 gama_i0: 4.0 gama_i1: 4.0
726 .0 gama_i1 + 1: 5.0 gama_i1 - gama_i0: 0.0 duration_time_i: 1.0 demand_i: 60.0 work load_i:
727 60.0 work load gap_i: 0
728 V_id: 9 li: 3.0 xi: 1.5 bow of i: 0.0 tail of i: 3.0 gama_i0: 2.0 gama_i1: 3.0
729 .0 gama_i1 + 1: 4.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 60.0 work load_i:
730 60.0 work load gap_i: 0
731 V_id: 10 li: 5.0 xi: 10.5 bow of i: 8.0 tail of i: 13.0 gama_i0: 6.0 gama_i1: 1
732 .0 gama_i1 + 1: 8.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 160.0 work
733 load_i: 160.0 work load gap_i: 0
734 V_id: 11 li: 7.0 xi: 10.5 bow of i: 7.0 tail of i: 14.0 gama_i0: 2.0 gama_i1: 1
735 .0 gama_i1 + 1: 4.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 160.0 work
736 load_i: 160.0 work load gap_i: 0
737 V_id: 12 li: 8.0 xi: 4.0 bow of i: 0.0 tail of i: 8.0 gama_i0: 5.0 gama_i1: 6.0
738 .0 gama_i1 + 1: 7.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 60.0 work load_i:
739 60.0 work load gap_i: 0
740 V_id: 13 li: 8.0 xi: 24.0 bow of i: 20.0 tail of i: 28.0 gama_i0: 1.0 gama_i1: 1
741 .0 gama_i1 + 1: 3.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 80.0 work
742 load_i: 80.0 work load gap_i: 0
743 V_id: 14 li: 4.0 xi: 18.0 bow of i: 16.0 tail of i: 20.0 gama_i0: 0.0 gama_i1: 1
744 .0 gama_i1 + 1: 2.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 80.0 work
745 load_i: 80.0 work load gap_i: 0
746 V_id: 15 li: 8.0 xi: 21.0 bow of i: 17.0 tail of i: 25.0 gama_i0: 7.0 gama_i1: 1
747 .0 gama_i1 + 1: 9.0 gama_i1 - gama_i0: 1.0 duration_time_i: 2.0 demand_i: 140.0 work
748 load_i: 140.0 work load gap_i: 0
749 V_id: 16 li: 7.0 xi: 11.5 bow of i: 8.0 tail of i: 15.0 gama_i0: 5.0 gama_i1: 1
750 .0 gama_i1 + 1: 6.0 gama_i1 - gama_i0: 0.0 duration_time_i: 1.0 demand_i: 60.0 work
751 load_i: 60.0 work load gap_i: 0

```

unknown

718	V_id: 17 : 9.0 load_i: 120.0	li: 7.0 gama_i1 + 1: 10.0 work load gap_i: 0	xi: 20.5 gama_i1 - gama_i0: 0.0	bow of i: 17.0 tail of i: 24.0 duration_time_i: 1.0	gama_i0: 9.0 demand_i: 120.0	gama_i1 work
719	Algorithm finished and the total CPU time: 493 s					
720	End					
721						
722						