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1 /Library/Frameworks/Python.framework/Versions/2.7/bin/
python2.7 /Users/jianili/Documents/github/Advanced_AI/
Homework2_HexGame/main.py
2 player1 move = (4, 3)
3 time used for this move:0.030275
4 ■■■■■■■■
5 □ . . . . . □
6 □ . . . . . □
7 □ . . . . . □
8 □ . . . . . □
9 □ . . . ● . . . □
10 □ . . . . . □
11 □ . . . . . □
12 □ . . . . . □
13 ■■■■■■■■
14
15 -1's turn to place a ○ piece
16 the number of simulations performed: 2642
17 the max size of the search tree for all moves 2642
18 Best Child Value: 23
19 Best Child Visits: 119
20 player2 move = (2, 2)
21 time used for this move:60.058464
22 ■■■■■■■■
23 □ . . . . . □
24 □ . . . . . □
25 □ . . ○ . . . . □
26 □ . . . . . □
27 □ . . . ● . . . □
28 □ . . . . . □
29 □ . . . . . □
30 □ . . . . . □
31 ■■■■■■■■
32
33 1's turn to place a ● piece
34 player1 move = (3, 4)
35 time used for this move:0.192781
36 ■■■■■■■■
37 □ . . . . . □
38 □ . . . . . □
39 □ . . ○ . . . . □
40 □ . . . . ● . . . □
41 □ . . . ● . . . □
42 □ . . . . . □
43 □ . . . . . □
44 □ . . . . . □
45 ■■■■■■■■
46
47 -1's turn to place a ○ piece
48 the number of simulations performed: 2690

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49 the max size of the search tree for all moves 2690
50 Best Child Value: 13
51 Best Child Visits: 103
52 player2 move = (3, 2)
53 time used for this move:60.027464
54 ■■■■■■■■
55 □ . . . . . □
56 □ . . . . . □
57 □ . . ○ . . . . □
58 □ . . ○ . ● . . . □
59 □ . . . ● . . . . □
60 □ . . . . . . . □
61 □ . . . . . . . □
62 □ . . . . . . . □
63 ■■■■■■■■
64
65 1's turn to place a ● piece
66 player1 move = (2, 5)
67 time used for this move:0.123618
68 ■■■■■■■■
69 □ . . . . . □
70 □ . . . . . □
71 □ . . ○ . . ● . . □
72 □ . . ○ . ● . . . □
73 □ . . . ● . . . . □
74 □ . . . . . . . □
75 □ . . . . . . . □
76 □ . . . . . . . □
77 ■■■■■■■■
78
79 -1's turn to place a ○ piece
80 2017-03-06 20:26:41.329 Python[21102:2071700] IMKClient
    Stall detected, *please Report* your user scenario
    attaching a spindump (or sysdiagnose) that captures the
    problem - (imkxpc_attributesForCharacterIndex:reply:) block
    performed very slowly (60.01 secs).
81 2017-03-06 20:26:41.329 Python[21102:2071700] IMKClient
    Stall detected, *please Report* your user scenario
    attaching a spindump (or sysdiagnose) that captures the
    problem - (imkxpc_windowLevelWithReply:) block performed
    very slowly (58.01 secs).
82 the number of simulations performed: 2670
83 the max size of the search tree for all moves 2670
84 Best Child Value: -5
85 Best Child Visits: 85
86 player2 move = (5, 1)
87 time used for this move:60.031944
88 ■■■■■■■■
89 □ . . . . . □
90 □ . . . . . □

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91  □ . . ○ . . ● . . □
92  □ . . ○ . . ● . . □
93  □ . . . . ● . . . . □
94  □ . . ○ . . . . . □
95  □ . . . . . . . . □
96  □ . . . . . . . . □
97  ▣ ■ ■ ■ ■ ■ ■ ■ ■
98
99  1's turn to place a ● piece
100 player1 move = (5, 3)
101 time used for this move:0.28462
102  ■ ■ ■ ■ ■ ■ ■ ■ ▣
103  □ . . . . . . . . □
104  □ . . . . . . . . □
105  □ . . ○ . . ● . . □
106  □ . . ○ . . ● . . □
107  □ . . . . ● . . . . □
108  □ . . ○ . . ● . . □
109  □ . . . . . . . . □
110  □ . . . . . . . . □
111  ▣ ■ ■ ■ ■ ■ ■ ■ ■
112
113 -1's turn to place a ○ piece
114 the number of simulations performed: 2867
115 the max size of the search tree for all moves 2867
116 Best Child Value: -10
117 Best Child Visits: 164
118 player2 move = (0, 7)
119 time used for this move:60.024541
120  ■ ■ ■ ■ ■ ■ ■ ■ ▣
121  □ . . . . . . . ○ □
122  □ . . . . . . . . □
123  □ . . ○ . . ● . . □
124  □ . . ○ . . ● . . □
125  □ . . . . ● . . . . □
126  □ . . ○ . . ● . . □
127  □ . . . . . . . . □
128  □ . . . . . . . . □
129  ▣ ■ ■ ■ ■ ■ ■ ■ ■
130
131 1's turn to place a ● piece
132 player1 move = (1, 6)
133 time used for this move:0.136229
134  ■ ■ ■ ■ ■ ■ ■ ■ ▣
135  □ . . . . . . . ○ □
136  □ . . . . . . . ● □
137  □ . . ○ . . ● . . □
138  □ . . ○ . . ● . . □
139  □ . . . . ● . . . . □
140  □ . . ○ . . ● . . □

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141      □ . . . . . □
142      □ . . . . . □
143      ▣ ■ ■ ■ ■ ■ ■ ■ ■
144
145 -1's turn to place a ○ piece
146 2017-03-06 20:29:09.727 Python[21102:2071700] IMKClient
    Stall detected, *please Report* your user scenario
    attaching a spindump (or sysdiagnose) that captures the
    problem - (imkxpc_attributesForCharacterIndex:reply:)
    block performed very slowly (60.13 secs).
147 2017-03-06 20:29:09.727 Python[21102:2071700] IMKClient
    Stall detected, *please Report* your user scenario
    attaching a spindump (or sysdiagnose) that captures the
    problem - (imkxpc_windowLevelWithReply:) block performed
    very slowly (58.13 secs).
148 the number of simulations performed: 2780
149 the max size of the search tree for all moves 2780
150 Best Child Value: 14
151 Best Child Visits: 334
152 player2 move = (0, 6)
153 time used for this move:60.029931
154 ■ ■ ■ ■ ■ ■ ■ ■ ▣
155 □ . . . . . ○ ○ □
156 □ . . . . . ● . □
157 □ . . ○ . . ● . □
158 □ . . ○ . ● . . □
159 □ . . . ● . . . □
160 □ . ○ . ● . . . □
161 □ . . . . . □
162 □ . . . . . □
163 ▣ ■ ■ ■ ■ ■ ■ ■ ■
164
165 1's turn to place a ● piece
166 player1 move = (1, 5)
167 time used for this move:0.121061
168 ■ ■ ■ ■ ■ ■ ■ ■ ▣
169 □ . . . . . ○ ○ □
170 □ . . . . . ● ● □
171 □ . . ○ . . ● . □
172 □ . . ○ . ● . . □
173 □ . . . ● . . . □
174 □ . ○ . ● . . . □
175 □ . . . . . □
176 □ . . . . . □
177 ▣ ■ ■ ■ ■ ■ ■ ■ ■
178
179 -1's turn to place a ○ piece
180 2017-03-06 20:30:17.384 Python[21102:2071700] IMKClient
    Stall detected, *please Report* your user scenario
    attaching a spindump (or sysdiagnose) that captures the

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180 problem - (imkxpc_attributesForCharacterIndex:reply:)
    block performed very slowly (59.93 secs).
181 2017-03-06 20:30:17.385 Python[21102:2071700] IMKClient
    Stall detected, *please Report* your user scenario
    attaching a spindump (or sysdiagnose) that captures the
    problem - (imkxpc_windowLevelWithReply:) block performed
    very slowly (57.93 secs).
182 the number of simulations performed: 2861
183 the max size of the search tree for all moves 2861
184 Best Child Value: 24
185 Best Child Visits: 258
186 player2 move = (0, 5)
187 time used for this move:60.028787
188 ■■■■■■■■■■
189 □ . . . . . ○ ○ ○ □
190 □ . . . . . ● ● . □
191 □ . . ○ . . ● . . □
192 □ . . ○ . ● . . . □
193 □ . . . ● . . . . □
194 □ . ○ . ● . . . . □
195 □ . . . . . . . . □
196 □ . . . . . . . . □
197 ■■■■■■■■■■
198
199 1's turn to place a ● piece
200 player1 move = (1, 4)
201 time used for this move:0.093246
202 ■■■■■■■■■■
203 □ . . . . . ○ ○ ○ □
204 □ . . . . . ● ● ● . □
205 □ . . ○ . . ● . . □
206 □ . . ○ . ● . . . □
207 □ . . . ● . . . . □
208 □ . ○ . ● . . . . □
209 □ . . . . . . . . □
210 □ . . . . . . . . □
211 ■■■■■■■■■■
212
213 -1's turn to place a ○ piece
214 2017-03-06 20:31:23.051 Python[21102:2071700] IMKClient
    Stall detected, *please Report* your user scenario
    attaching a spindump (or sysdiagnose) that captures the
    problem - (imkxpc_attributesForCharacterIndex:reply:)
    block performed very slowly (59.99 secs).
215 the number of simulations performed: 2865
216 2017-03-06 20:31:23.051 Python[21102:2071700] IMKClient
    Stall detected, *please Report* your user scenario
    attaching a spindump (or sysdiagnose) that captures the
    problem - (imkxpc_windowLevelWithReply:) block performed
    very slowly (57.99 secs).

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217 the max size of the search tree for all moves 2865
218 Best Child Value: 236
219 Best Child Visits: 698
220 player2 move = (0, 4)
221 time used for this move:60.027087
222 ■■■■■■■■
223 □ . . . . ○ ○ ○ ○ □
224 □ . . . . ● ● ● . □
225 □ . . ○ . . ● . . □
226 □ . . ○ . ● . . . □
227 □ . . . ● . . . . □
228 □ . ○ . ● . . . . □
229 □ . . . . . . . □
230 □ . . . . . . . □
231 ■■■■■■■■
232
233 1's turn to place a ● piece
234 player1 move = (1, 3)
235 time used for this move:0.132867
236 ■■■■■■■■
237 □ . . . . ○ ○ ○ ○ □
238 □ . . . ● ● ● ● . □
239 □ . . ○ . . ● . . □
240 □ . . ○ . ● . . . □
241 □ . . . ● . . . . □
242 □ . ○ . ● . . . . □
243 □ . . . . . . . □
244 □ . . . . . . . □
245 ■■■■■■■■
246
247 -1's turn to place a ○ piece
248 the number of simulations performed: 2919
249 the max size of the search tree for all moves 2862
250 Best Child Value: 360
251 Best Child Visits: 1028
252 player2 move = (0, 3)
253 time used for this move:60.019353
254 ■■■■■■■■
255 □ . . . . ○ ○ ○ ○ □
256 □ . . . ● ● ● ● . □
257 □ . . ○ . . ● . . □
258 □ . . ○ . ● . . . □
259 □ . . . ● . . . . □
260 □ . ○ . ● . . . . □
261 □ . . . . . . . □
262 □ . . . . . . . □
263 ■■■■■■■■
264
265 1's turn to place a ● piece
266 2017-03-06 20:32:32.051 Python[21102:2071700] IMKClient

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266 Stall detected, *please Report* your user scenario
    attaching a spindump (or sysdiagnose) that captures the
    problem - (imkxpc_attributesForCharacterIndex:reply:)
    block performed very slowly (59.95 secs).
267 2017-03-06 20:32:32.052 Python[21102:2071700] IMKClient
    Stall detected, *please Report* your user scenario
    attaching a spindump (or sysdiagnose) that captures the
    problem - (imkxpc_windowLevelWithReply:) block performed
    very slowly (57.94 secs).
268 player1 move = (1, 2)
269 time used for this move:0.864316
270 ■■■■■■■■■■
271 □ . . . ○ ○ ○ ○ ○ □
272 □ . . ● ● ● ● . □
273 □ . . ○ . . ● . . □
274 □ . . ○ . ● . . . □
275 □ . . . ● . . . . □
276 □ . ○ . ● . . . . □
277 □ . . . . . . . . □
278 □ . . . . . . . . □
279   ■■■■■■■■■■
280
281 -1's turn to place a ○ piece
282 2017-03-06 20:34:41.123 Python[21102:2071700] IMKClient
    Stall detected, *please Report* your user scenario
    attaching a spindump (or sysdiagnose) that captures the
    problem - (imkxpc_attributesForCharacterIndex:reply:)
    block performed very slowly (60.03 secs).
283 2017-03-06 20:34:41.124 Python[21102:2071700] IMKClient
    Stall detected, *please Report* your user scenario
    attaching a spindump (or sysdiagnose) that captures the
    problem - (imkxpc_windowLevelWithReply:) block performed
    very slowly (58.03 secs).
284 the number of simulations performed: 2872
285 the max size of the search tree for all moves 2783
286 Best Child Value: 505
287 Best Child Visits: 1255
288 player2 move = (0, 2)
289 time used for this move:60.03264
290 ■■■■■■■■■■
291 □ . . ○ ○ ○ ○ ○ □
292 □ . . ● ● ● ● . □
293 □ . . ○ . . ● . . □
294 □ . . ○ . ● . . . □
295 □ . . . ● . . . . □
296 □ . ○ . ● . . . . □
297 □ . . . . . . . . □
298 □ . . . . . . . . □
299   ■■■■■■■■■■
300

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301 1's turn to place a ● piece
302 player1 move = (1, 1)
303 time used for this move:0.494011
304 ■■■■■■■■
305 □ · · ○ ○ ○ ○ ○ □
306 □ · ● ● ● ● ● · □
307 □ · · ○ · · ● · · □
308 □ · · ○ · ● · · · □
309 □ · · · ● · · · · □
310 □ · ○ · ● · · · · □
311 □ · · · · · · · · □
312 □ · · · · · · · · □
313 ■■■■■■■■
314
315 -1's turn to place a ○ piece
316 the number of simulations performed: 2870
317 the max size of the search tree for all moves 2768
318 Best Child Value: 671
319 Best Child Visits: 1211
320 player2 move = (0, 1)
321 time used for this move:60.040456
322 ■■■■■■■■
323 □ · ○ ○ ○ ○ ○ ○ ○ □
324 □ · ● ● ● ● ● ● · □
325 □ · · ○ · · ● · · □
326 □ · · ○ · ● · · · □
327 □ · · · ● · · · · □
328 □ · ○ · ● · · · · □
329 □ · · · · · · · · □
330 □ · · · · · · · · □
331 ■■■■■■■■
332
333 1's turn to place a ● piece
334 2017-03-06 20:36:19.708 Python[21102:2071700] IMKClient
Stall detected, *please Report* your user scenario
attaching a spindump (or sysdiagnose) that captures the
problem - (imkxpc_attributesForCharacterIndex:reply:)
block performed very slowly (59.97 secs).
335 2017-03-06 20:36:19.709 Python[21102:2071700] IMKClient
Stall detected, *please Report* your user scenario
attaching a spindump (or sysdiagnose) that captures the
problem - (imkxpc_windowLevelWithReply:) block performed
very slowly (57.97 secs).
336 player1 move = (1, 0)
337 time used for this move:0.194709
338 ■■■■■■■■
339 □ · ○ ○ ○ ○ ○ ○ ○ □
340 □ ● ● ● ● ● ● ● · □
341 □ · · ○ · · ● · · □
342 □ · · ○ · ● · · · □

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343      □ . . . ● . . . . □
344      □ . ○ . ● . . . . □
345      □ . . . . . . . . □
346      □ . . . . . . . . □
347      ▣ ■ ■ ■ ■ ■ ■ ■ ■
348
349 -1's turn to place a ○ piece
350 player2 move = (0, 0)
351 time used for this move:0.023717
352      ■ ■ ■ ■ ■ ■ ■ ■ ▣
353      □ ○ ○ ○ ○ ○ ○ ○ ○ □
354      □ ● ● ● ● ● ● ● . □
355      □ . . ○ . . ● . . □
356      □ . . ○ . ● . . . □
357      □ . . . ● . . . . □
358      □ . ○ . ● . . . . □
359      □ . . . . . . . . □
360      □ . . . . . . . . □
361      ▣ ■ ■ ■ ■ ■ ■ ■ ■
362
363 -1's turn to place a ○ piece
364 -1 wins
365

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