CSC361

Othello Playing Agent

Contents

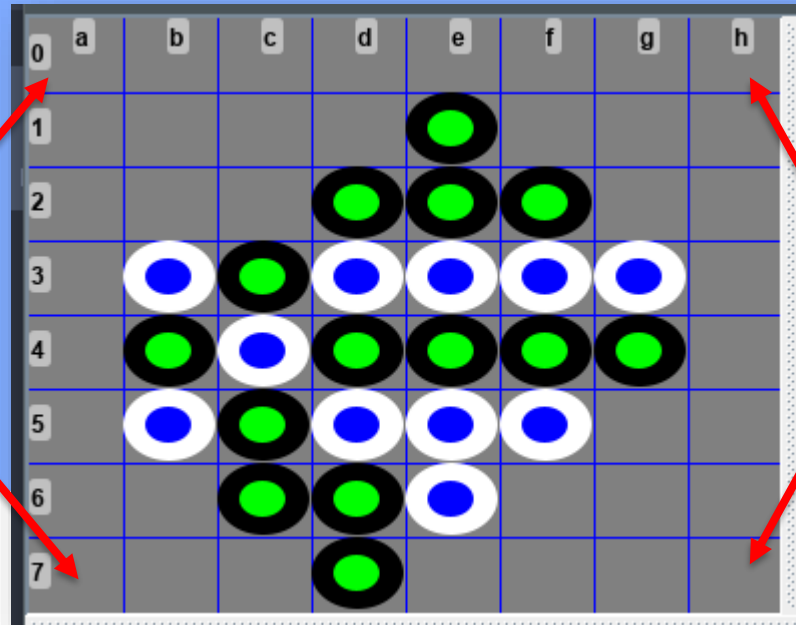# Evaluation function: Corners

Evaluation function: Score

White
Score = 11
Black
Score = 14

Evaluation function: Winner
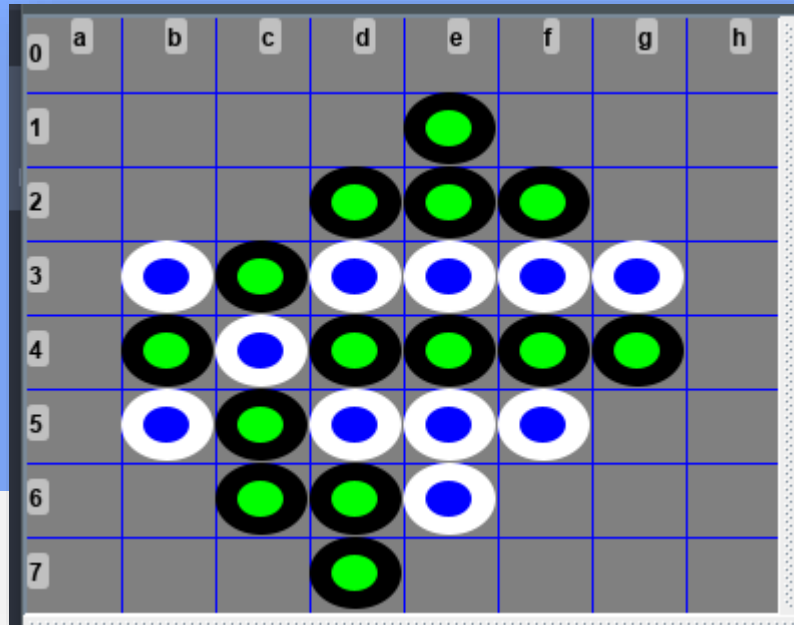
Winner is black
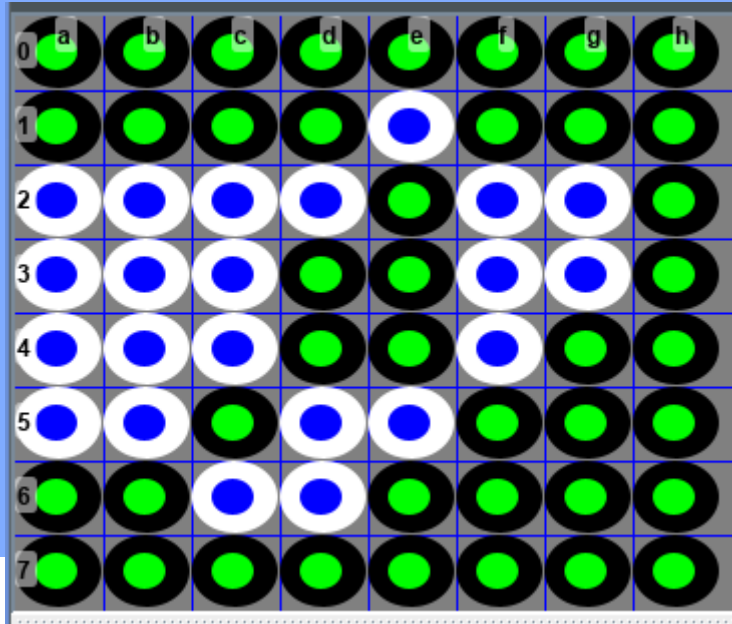
Weighted sum

$$Score * scoreWeight$$
$$+ Corner * cornerWeight$$
$$+ Winner * winnerWeight$$
$$+ Metric * metricWeight$$

Results (α, β = False)

α, β = False	MinMaxer			MinMaxer_2		
Winner	Depth	Time	Score	Depth	Time	Score
MinMaxer	1	0.033	37	1	0.049	27
MinMaxer	2	0.29	51	2	0.23	13
MinMaxer_2	3	2.45	25	3	1.92	39
MinMaxer_2	4	10.45	13	4	18.63	51
MinMaxer_2	1	0.025	26	4	27.5	38

α, β = False	MinMaxer			RandomAgent	
Winner	Depth	Time	Score	Score	Time
MinMaxer	1	0.045	37	27	0.036
MinMaxer	4	30.4	58	6	0.012
MinMaxer	2	0.2	44	20	0.02
RandomAgent	3	1.4	25	39	0.01
MinMaxer	2	0.49	36	28	0.033

Results (α, β = True)

α, β = True	MinMaxer			MinMaxer_2		
Winner	Depth	Time	Score	Depth	Time	Score
MinMaxer_2	1	0.03	25	6	7.8	39
MinMaxer	4	1.39	34	1	0.033	30
MinMaxer_2	2	0.083	23	2	0.089	41
MinMaxer	5	5.26	38	3	0.33	26
MinMaxer_2	6	14.355	28	6	14.26	36

α, β = True	MinMaxer			RandomAgent	
Winner	Depth	Time	Score	Score	Time
RandomAgent	1	0.057	27	37	0.03
MinMaxer	4	1.3	38	26	0.011
MinMaxer	2	0.83	38	26	0.025
MinMaxer	3	0.579	49	15	0.019
MinMaxer	2	0.097	44	20	0.027

Thank you

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