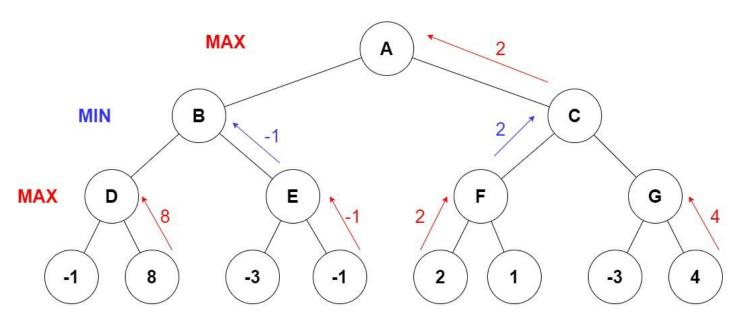Giuseppe Boezio, Giuseppe Murro, Salvatore Pisciotta

Searching algorithm

○

MinMax with Iterative deepening has been implemented using AIMA library

○

Depth is increased until time out occurs (60 seconds)

MINMAX ALGORITHM

Black Heuristics

BLACK ALIVE (30 % Influence)

Number of black pawns

WHITE EATEN (40 % Influence)

Number of white pawns eaten by our player

NEXT WHITE WINS (18 % Influence)

It provides information about free rows or columns which allow king to escape

NEAR KING (10 % Influence)

Number of black pawns which surround the king

RHOMBUS (3 % Influence)

Rhombus-shape configuration used to block escaping tiles

The returned values of these characteristics have been normalized between 0 and 1 to have the most accurate and the clearest evaluation of states

The returned values of these characteristics have been normalized between 0 and 1 to have the most accurate and the clearest evaluation of states

White Heuristics

BEST POSITION
(2 % INFLUENCE)

Preferable white positions in the first stages of the game

BLACK EATEN
(20 % INFLUENCE)

Number of black pawns eaten by our player

BLACK SURROUND KING
(7 % INFLUENCE)

Number of black pawns which surround the king

WHITE ALIVE
(35 % INFLUENCE)

Number of white pawns

NUM ESCAPES KING
(18 % INFLUENCE)

Number of escape tiles accessible to the king

PROTECTION KING
(18 % INFLUENCE)

If king could be easily eaten (2 pawns), it considers white pawn protecting the opposite side and its neighbours

THANKS FOR YOUR ATTENTION

BrAInmates