

E.V.E. Paradox
Board

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Introduction

Thankyou for trying out Board, one of the games included with the E.V.E. Paradox game suite.

Board is a collection of turn-based adversarial games. The rules differ depending on the game, but the basic idea remains the same. Two players take turns to move individual pieces until one player wins the game. You can play against another person or against the AI. There is generally no time pressure and all of the information about how pieces move is available to you at the outset. Board games are games of skill; the better player will generally win the game.

Board includes the classic games Chess, Shogi (Japanese Chess), and Xiangqi (Chinese Chess). Board also includes Fantasy, a game exclusive to E.V.E. Paradox. Also included is a tutorial game to help you learn to play Board. Chess, Shogi, and Xiangqi are described in this guide, whilst Fantasy is described in detail in the separate “Fantasy.pdf” guide.

To learn to play Board, simply fire up the tutorial level included in E.V.E. Paradox and give it a shot. When you get the basic idea, try out the various games included in Board. You should begin playing against the basic AI (who just plays random moves), and slowly work your way up to the hardest opponents. Or alternatively, challenge a friend to a game.

Concepts

Check: A position in which the player whose turn it is to move has their royal piece (eg. King) under attack. The player must make a valid move that results in the royal no longer being in check. If there are no valid moves, the position is considered to be Checkmate.

Checkmate: When a player is in check is unable to make a valid move, the position is considered to be Checkmate. Checkmate generally results in a win for the player causing the checkmate.

Stalemate: When a player is unable to make a valid move but their royal piece (eg. King) is in check, the position is considered to be Stalemate. Stalemate generally ends the game, and the result differs depending on the game. For example: in Chess, Stalemate results in a draw; whilst in Shogi, Stalemate results in a win.

En Passant (“In Passing”): A special move available to pawns in Chess whereby they can capture an opposing pawn on the following move if the pawn makes its initial two-square move passing over a square in which the pawn could capture it.

Castle: A special move available in Chess where both the King and a Rook move together in the same move.

Promotion: In many games a piece gains additional abilities if it reaches the back ranks of the

opponents side of the board. The exact details differ depending upon the game. It may result in the piece being permanently replaced (eg. in Chess), the piece being flipped over to give additional abilities (eg. in Shogi), or simply gaining additional moves (eg. in Xiangqi). Promotion may be optional or mandatory, depending upon the game, move, or position.

Moves

There may be several types of moves available, depending on the particular piece and game. Each type of move is denoted by an icon that is shown when you select or hover the mouse over a piece. The available moves are:

Move: The selected piece moves from its current square to a unoccupied destination square. A valid move is denoted by a green triangle.

Capture: The selected piece moves from its current square to a destination square occupied by an enemy piece. The enemy piece is removed from the game. A valid capture is denoted by a pink circle.

Strike: The selected piece strikes a target square occupied by an enemy piece. The striking piece does not move. The enemy piece is removed from the game. A valid strike is denoted by a red cross.

Convert: The selected piece converts an enemy piece at a target square. The converting piece does not move. The target piece is converted to the same side as the converting piece. A valid conversion is denoted by a yellow crescent.

Shogi Capture: A special capture made by all pieces in Shogi. The selected piece moves from its current square to a destination square occupied by an enemy piece. The enemy piece is removed from the board, demoted, and placed in the reserve. A valid Shogi capture is denoted by a pink circle with a small yellow crescent.

Abilities

In some games, pieces will have abilities as well. Abilities act passively and need not be actively employed. They affect the moves available to other pieces.

Unblockable: Any move, capture, strike, or conversion may be listed as unblockable. In this case the Block abilities cannot be used to stop the move. Note that piece immunities can stop unblockable attacks.

Block Move: This ability blocks the moves of enemy pieces in the target squares. If a move is listed as unblockable, it cannot be blocked in this way.

Block Capture: This ability blocks the captures of enemy pieces in the target squares. If a capture is listed as unblockable, it cannot be blocked in this way.

Block Strike: This ability blocks the strikes of enemy pieces in the target squares. If a strike is listed as unblockable, it cannot be blocked in this way.

Block Conversion: This ability blocks the moves of enemy pieces in the target squares. If a conversion is listed as unblockable, it cannot be blocked in this way.

Immune to Strike: A piece with this immunity cannot be struck, even by a piece with an unblockable strike.

Immune to Conversion: A piece with this immunity cannot be converted, even by a piece with an unblockable conversion.

Unblock Move: This ability counters the effects of Block Move, allowing friendly pieces in the target squares to ignore its effects.

Unblock Capture: This ability counters the effects of Block Capture, allowing friendly pieces in the target squares to ignore its effects.

Unblock Strike: This ability counters the effects of Block Strike, allowing friendly pieces in the target squares to ignore its effects.

Unblock Convert: This ability counters the effects of Block Convert, allowing friendly pieces in the target squares to ignore its effects.

Mass Strike: This ability causes the piece to strike all surrounding enemies at once, potentially resulting in multiple enemy pieces being struck. Friendly pieces are not affected.

Charge: This ability causes the any enemy pieces in the square immediately following the last move to be struck. For example, if a piece moves North two squares, any enemy in the next square North beyond that will be struck.

Jump: Any piece that can jump can pass over pieces when making its move. The move may be over any piece, or just friendly pieces, or with other limits, as specified. Knight moves (ie. Chess Knight moves) are assumed to jump unless explicitly stated otherwise.

Icons

Board uses icons to indicate the available moves for a piece. As a general rule, coloured icons indicate valid moves, whilst gray icons indicate moves that are blocked or disallowed.

On Potential Target Squares and Pieces

Green Triangle: Can move to this square without capture. If the icon is rocking from side to side, the move cannot be blocked. If gray, the move is blocked or otherwise disallowed (eg. if a piece is in the way).

Pink Circle: Can capture the piece here. If the icon is rocking from side to side, the capture cannot be blocked. If gray, the capture is blocked or otherwise disallowed (eg. if no piece is here).

Red Cross: Can strike the piece here. If the icon is rocking from side to side, the strike cannot be blocked. If gray, the cross is blocked or otherwise disallowed (eg. if no piece is here).

Yellow Crescent: Can convert the piece here. If the icon is rocking from side to side, the conversion cannot be blocked. If gray, the conversion is blocked or otherwise disallowed (eg. if no piece is here).

Pink Circle with small Yellow Crescent: Can capture the piece here and add it to your reserves as a new piece of yours. If the icon is rocking from side to side, the capture cannot be blocked. If gray, the capture is blocked or otherwise disallowed.

Two orange teardrops (half a cross): Can somehow strike the piece here as a result of another move (eg. multistrike or charge).

Slow-spinning cyan cross: The piece here is being protected from strikes by the selected piece. If gray, the piece here cannot be protected from strikes.

Slow-spinning cyan crescent: The piece here is being protected from conversion by the selected piece. If gray, the piece here cannot be protected from conversion.

Small green triangle rocking from side to side: The selected piece is unblocking moves on the piece here, meaning that other pieces cannot block its moves.

Small green circle rocking from side to side: The selected piece is unblocking captures on the piece here, meaning that other pieces cannot block its captures.

Small green cross rocking from side to side: The selected piece is unblocking strikes on the piece here, meaning that other pieces cannot block its strikes.

Small green crescent rocking from side to side: The selected piece is unblocking conversion on

the piece here, meaning that other pieces cannot block its conversion moves.

Purple triangle spinning left-to-right around its axis: The selected piece is blocking moves for the piece here. Unless somehow protected, the piece here cannot move.

Purple circle spinning left-to-right around its axis: The selected piece is blocking captures for the piece here. Unless somehow protected, the piece here cannot capture.

Purple cross spinning left-to-right around its axis: The selected piece is blocking strikes for the piece here. Unless somehow protected, the piece here cannot strike.

Purple crescent spinning left-to-right around its axis: Another piece is blocking captures for the piece here. Unless somehow protected, the piece here cannot convert other pieces.

On the Selected or Highlighted Piece

Deep blue crescent spinning up-to-down around its axis: Piece is naturally immune to conversion.

Deep blue cross spinning up-to-down around its axis: Piece is naturally immune to strikes.

Slow-spinning cyan cross: Piece is being protected from strikes by another piece. If gray, the piece cannot be protected from strikes.

Slow-spinning cyan crescent: Piece is being protected from conversion by another piece. If gray, the piece cannot be protected from conversion.

Small green triangle rocking from side to side: Another piece is unblocking moves on this piece, meaning that other pieces cannot block its moves.

Small green circle rocking from side to side: Another piece is unblocking captures on this piece, meaning that other pieces cannot block its captures.

Small green cross rocking from side to side: Another piece is unblocking strikes on this piece, meaning that other pieces cannot block its strikes.

Small green crescent rocking from side to side: Another piece is unblocking conversion on this piece, meaning that other pieces cannot block its conversion moves.

Purple triangle spinning left-to-right around its axis: Another piece is blocking moves for this piece. Unless somehow protected, this piece cannot move.

Purple circle spinning left-to-right around its axis: Another piece is blocking captures for this piece. Unless somehow protected, this piece cannot capture.

Purple cross spinning left-to-right around its axis: Another piece is blocking strikes for this

piece. Unless somehow protected, this piece cannot strike.

Purple crescent spinning left-to-right around its axis: Another piece is blocking captures for this piece. Unless somehow protected, this piece cannot convert other pieces.

Chess

Chess is a game with its origins somewhere near the 6th century. Chess holds many similarities with the ancient Indian game Chaturanga, and was likely derived from this game. The piece moves are similar but with important changes: the pieces in Chaturanga have much more limited moves by comparison. Chess shares some ancestry with Xiangqi (Chinese Chess), and has a common parent with Shogi (Japanese Chess). Chess is widely played and a great deal of literature exists on the subject, and this guide provides only a brief overview of the game.

The objective in Chess is to checkmate the enemy King. Should Stalemate occur, the game is drawn.

Piece Moves

King: Move and capture one square in any direction. King must not remain in or move into check. The King may “castle” once per game (see below). Checkmate of the enemy King results in a win. Stalemate of the enemy King results in a draw.

Queen: Move and capture up to the full distance in any direction.

Rook: Moves and captures up to the full distance straight horizontally and vertically.

Bishop: Moves and captures up to the full distance diagonally.

Knight: Moves and captures two squares in any horizontal or vertical direction and one square in a perpendicular direction to the original move. Jumps over any intermediate pieces that may be present, friend or foe. The full set of moves are: NNW, NNE, SSW, SSE, NWW, NEE, SWW, SEE.

Pawn: Moves (but can not capture) one square forward towards the opposite end of the board. Captures one square diagonally forward, but can not move diagonally otherwise. May move two squares forward as its first move if the square immediately ahead of it is empty. May perform an “en passant” capture in response to an enemy pawn moving two squares (see below).

Special Moves

Castling

The King may castle once per game if certain criteria are met. This results in the simultaneous move of a Rook and the King in a single turn. The criteria are:

- (i) the King has not moved this game;
- (ii) the King is not in check;

- (iii) there is an unbroken line of empty squares between the King and a friendly rook;
- (iv) that Rook has not moved yet this game; and
- (v) neither the first or second empty square from the King towards the Rook is being attacked by an enemy piece.

If all of these criteria are met, castling may be performed as follows:

- (i) the King is moved across the unbroken line empty squares exactly two squares; and then
- (ii) the Rook is moved to the opposite side over the King and ends immediately adjacent to the King.

En Passant Capture

If an enemy pawn has been moved forward two squares as part of its initial move, and you would have been able to capture it diagonally forward with a pawn if it had only moved one square, then you may, on the turn immediately following the move of the enemy pawn, capture it as if it had only moved one square. Your pawn ends up in the square that the enemy pawn skipped over, and the captured pawn is removed from the board.

Promotion

When a pawn reaches the opposite side of the board, it is promoted to a Queen, Rook, Knight, or Bishop on the same side as the pawn. A Queen is usually chosen, being the most powerful piece on the board, although this is not required. Promotion occurs regardless of whether the move leading to the promotion was a move or capture. There are no limits on the number of pieces allowed on the board, so a player could have multiple Queens if they so desired, although it is rare to have more than two in a serious game.

Additional Rules

If fifty moves have been played, without a pawn move or capture, either player may claim a draw (some variants state this is automatic, some not).

If the same board position is repeated three times with equal status and same player to move, either player may claim a draw (some variants state this is automatic).

Differences from Other Implementations

For the purposes of determining if the position is the same three times, en passant vulnerability is

considered to differentiate the position. What is uncertain is whether or not a piece can take advantage of the en passant situation matters or not (ie. can the piece actually be taken en passant next turn). For E.V.E. Paradox, whether a piece can make the capture or not is irrelevant. The net effect of this difference is that positions reached through a pawn double-move may need to be repeated four times rather than three to reach a draw.

Offered draws and resigning have not been implemented. As such the AI will so neither.

The Fifty move rules and repetitive position rules result in an automatic draw. Some Chess rules state that the draw may be optionally claimed under certain circumstances, and the rights to claim a draw change depending on the circumstances.

Shogi

Shogi, also known as Japanese Chess, is a game with common ancestry to Chess. Shogi is played on a 9x9 board using pieces with Japanese markings that are flipped over when the piece is promoted. Shogi is interesting in that all captured enemy pieces are placed in a reserve for the capturing player, and a piece may be returned to the board as a turn.

Moves

King: Moves and captures one square vertically, horizontally, or diagonally. The checkmate or stalemate of the enemy King wins the game.

Gold General: Moves and captures one square diagonally forward or one square horizontally or vertically. Does not promote.

Pawn: Moves and captures one square forward. Upon promotion a Pawn subsequently uses the moves of a Gold General. A Pawn must be promoted if it reaches the last rank. The Pawn does not have a different move and capture as in Chess.

Lance: Moves and capture up to the full distance forward. Upon promotion a Lance subsequently uses the move of a Gold General. A Lance must be promoted if it reaches the last rank.

Knight (or Honorable Horse): The Knight may move two squares forward and one square to either side, jumping all pieces in the way. Upon promotion the Knight subsequently uses the move of a Gold General. A Knight must be promoted if it reaches one of the last two ranks of the board.

Silver General: Moves one square diagonally or one square forward. Upon promotion subsequently uses the moves of a Gold General.

Bishop: Moves and captures up to the full distance diagonally. Upon promotion retains these moves and gains the ability to move one square horizontally or vertically as well.

Rook: Moves and captures up to the full distance horizontally and vertically. Upon promotion retains these moves and gains the ability to move one square diagonally as well.

Special Moves

Promotion

Pieces may be promoted when they reach the back three ranks on the opponents side of the board (here termed the “Promotion Zone”). On a real Shogi set, the piece is flipped upside down to reveal its promoted status. If the piece would have no remaining moves otherwise, then it must be promoted.

Otherwise, promotion is entirely optional. Upon promotion, pieces gain a new set of moves, and lose their old moves.

An unpromoted piece may be optionally promoted when moved from the Promotion Zone to any other square, whether in the promotion zone or not.

Pieces are not promoted upon being dropped, even if they are dropped into the Promotion Zone. Note that the piece may be promoted on the next move if it moves from or to a square in the Promotion Zone.

Dropping

When pieces are captured in Shogi, they are sent to the reserve belonging to the player that captured them. Pieces lose their promotion status upon capture (ie. they are demoted). A captured piece may be dropped onto any vacant square on the board (with certain limits) as an ordinary move.

The restrictions are:

- Pawns cannot be dropped onto the same file as an unpromoted pawn from the same side.
- A pawn drop cannot be used to deliver checkmate. A pawn drop is acceptable if it causes check only. Other pieces may be safely dropped to cause checkmate, but a pawn may not be the attacking piece.
- A piece may not be dropped onto a square from which it will not have a valid move (ie. a Pawn or Lance may not be dropped in the last rank, and a Knight may not be dropped in the last two ranks).

Pieces are always dropped unpromoted, and are not promoted when dropped, even if dropped in the promotion zone.

Additional Rules

If a position (including reserve pieces) occurs four times with the same player to move (“Sennichite”), the result is a draw.

Perpetual check is forbidden, with the attacker being forced to break it off. Also stated as resulting in a loss if Sennichite occurs with the same player dealing check.

Both Checkmate and Stalemate result in a win.

Differences from Other Implementations

The rules regarding Entering Kings and the subsequent piece value counting rules are not implemented since the criteria for enacting this rule requires mutual consent anyway.

The rules state that making an illegal move (eg. not escaping check, bad pawn drops, etc) results in

an immediate loss of the game. Instead, such moves are simply disallowed in E.V.E. Paradox.

Offered draws and resigning have not been implemented. As such the AI will do neither. Note that draws may only be offered under certain circumstances in Shogi.

Xiangqi

Xiangqi, also known as Chinese Chess, is a game which shares common ancestry with Chess. Xiangqi is played on a 9x10 board and features a 3x3 palace, which holds the General, and a Cannon, a piece that captures over an intermediate piece. The game also features a river, which is a region that splits the board evenly between the two opponents.

Xiangqi is typically played on the points of a board rather than on the squares themselves.

Both Checkmate and Stalemate result in a win.

Piece Moves

General: Moves and captures one square horizontally or vertically, and may not leave the palace. Additionally, the two Kings cannot face each other on an open file. Any move that causes this to occur is an illegal move and not allowed.

Cannon: Moves up to the full distance horizontally and vertically. Captures up to the full distance horizontally and vertically but must jump exactly one piece.

Pawn: Moves and captures one square forward. Once it has crossed the river, it gains the ability to move sideways as well (promotion).

Chariot: Moves and captures up to the full distance horizontally and vertically.

Horse: Moves and captures as a chess knight but the square immediately in the first (long) direction moved must be empty or the move is not allowed.

Elephant: Moves and captures exactly two squares diagonally but cannot pass over other pieces. Must remain on their side of the river.

Guard: Moves and captures one square diagonally. May not leave the palace.

Additional Rules

Perpetual check is not allowed. The Attacker must break it off. There are also rules relating to repeated positions in the game, and these are particularly complicated and difficult to obtain authoritative information on.

Differences from Other Implementations

The rules against perpetual check with multiple pieces and perpetual chasing with one are poorly defined and vary significantly depending on the source (eg. some say it doesn't count with a king, some

say multiple pieces can perpetually check, etc). The implementation for perpetual check in E.V.E. Paradox works as follows: if the same position arises too many times with the same player causing the check, they will first be warned and then the game forfeited if it happens again.

The rules testing for perpetual chasing are not implemented.