## FEN for Xiangqi ( CHINESE CHESS )

FEN is "Forsyth-Edwards Notation"; it is a standard for describing chess (and Chinese chess) positions using the ASCII character set.

A single FEN record uses one text line of variable length composed of six data fields. Each field is composed only of non-blank printing ASCII characters. Adjacent fields are separated by a single ASCII space character.

- 1) Piece placement data

The first field represents the placement of the pieces on the board. The board contents are specified starting with the nineth rank and ending with the first rank. For each rank, the cross points are specified from file a to file i. White (red) pieces are identified by uppercase WXF piece letters ("KAERCHP") and black (blue) pieces are identified by lowercase WXF piece letters ("kaerchp"). Empty points are represented by the digits one through nine; the digit used represents the count of contiguous empty points along a rank. A solidus character "/" is used to separate data of adjacent ranks.

WXF notation:

- King: K
- Advisor: A
- Elephant: E
- Rook: R
- Cannon: C
- Horse: H
- PAWN: P
- 2) Active color

The second field represents the active color. A lower case "w" is used if White is to move; a lower case " $b$ " is used if Black is the active player.

- 3) No use (Castling availability)
- 4) No use (En passant target square)
- 5) Halfmove clock (need to adjust further by Chinese chess rules)

The fifth field is a nonnegative integer representing the halfmove clock. This number is the count of halfmoves (or ply) since the last pawn advance or capturing move. This value is used for the fifty move draw rule.

- 6) Fullmove number

The sixth and last field is a positive integer that gives the fullmove number. This will have the value " 1 " for the first move of a game for both White and Black. It is incremented by one immediately after each move by Black.

Example: The picture shows how to encode a Chinese chess position into a FEN 4kaR2/4a4/3hR4/7H1/9/9/9/9/4Ap1r1/3AK3c w---1


## 4kaR2/4a4/3hR4/7H1/9/9/9/9/4Ap1r1/3AK3c

