CMBR Docs

datawizard

Specification Version 0.0.1

DISCLAIMER: The documentation is still very much so in the making, it is nothing more than a WIP

1 Definitions

u24 - 24 bit unsigned integer
u8 - 8 bit unsigned integer
NAG - Numerical annotation glyph. See Wikipedia for more information.
Variation table - A table that denotes

2 Move notation

The move is represented with an u24.

2.1 First part

$$0\text{b}\ \underbrace{000000}_{\text{To square}}\ \underbrace{000000}_{\text{From square}}\ \underbrace{0000}_{\text{Piece}}\underbrace{00000000}_{\text{Flags}} \tag{1}$$

To and from squares are defined as an index of a chessboard square. The values are between 0-63. Where 0 is 'a1' and 63 is 'h8'.

Pieces value represent some piece. See the table for more info

The flags are defined as individual values. They're bit-wise ored (|) together to get the final value.

CMBR Flag enumeration		
Flag name	Binary value	Note
FlagNone	0b00000000	Empty flag
FlagCheck	0b00000001	Move is a check
FlagMate	0b00000010	Move is a checkmate
FlagCapture	0b00000100	Move is a capture
FlagNag	0b00001000	If this flag is set The first 8 bits are replaced with a NAG index
FlagPromotesBishop	0b01000000	Move promotes to bishop
FlagPromotesKnight	0b01010000	Move promotes to knight
FlagPromotesRook	0b01100000	Move promotes to rook
FlagPromotesQueen	0b01110000	Move promotes to queen
FlagIsVariationPointer	0b10000000	If this flag is set The first 16 bits are replaced with an index to the variations table

Pieces to binary value table	
Piece	Binary value
White pawn	0b0000
White knight	0b0001
White bishop	0b0010
White rook	0b0011
White queen	0b0100
White king	0b0101
White castles short	0b0110
White castles long	0b0111
Black pawn	0b1000
Black knight	0b1001
Black bishop	0b1010
Black rook	0b1011
Black queen	0b1100
Black king	0b1101
Black castles short	0b1110
Black castles long	0b1111