

# Chess Notation

By Bill Wall

Chess notation is how a chess player writes down his chess games. So why is writing down chess games important? Well, we don't want to forget our game of chess that we played. We need to know chess notation so that we can read chess articles and books. Also, it is required in tournament play for slow time controls.

Forms of coordinate notation in chess were used in Arab countries since the 9th century and in Europe since the 13th century. Source: Hooper and Whyld, *Oxford Companion to Chess*, 2nd edition, p. 275

An early French manuscript date 1173 names the files "a through h," but the ranks were lettered from the 8th rank to the 1st rank "1 through 8," which is the reverse order used now. Murray, *A History of Chess*, p. 469 In the 16th century, Italian players began to use a numerical notation, numbering the squares 1,2,3,4, to 64, starting from h1 to a1, then h2 to a2, then h3 to a3, all the way to h8 to a8. Source: Murray, *A History of Chess*, p. 470 In 1536, a French manuscript bordered the top of a chess diagram "a through h," but used "l through p" down the right-hand side of the diagram.

The earliest Spanish manuscripts of the 15th century used a descriptive notation, learnt from Muslim players, that is practically identical with the notation used by all English writers of the early 19th century. Thus P-K4 for White was written "la quarta casa del Rey blanco." P-K4 for Black was written "la quarta del Rey prieto." Source: Murray, *A History of Chess*, p. 469

In 1497, Lucena's chess book, *Repeticion de Amores y Arte de Ajedrez con 101 Juegos de Partido* ("Repetition of Love and the Art of Playing Chess"), wrote down "Jugar del peon del rey a III casa, que se enteinede contando de dondeesta el rey" for P-K4 or 1.e4.

In 1614, the first original English chess book was Arthur Saul's *The Famous Game Of Chesse-play*. A king knight move was written out: "The white king commands his owne knight into the third house before his owne bishop," or "playeth forth his Qeeens Knight into the third House of his Queenes Bishops file."

In the 18th century, castling was K. G. 1 for castling kingside and K. C. 1 for castling queenside.

In 1737, algebraic chess notation was first used by Philip Stamma (1705-1755) in his book of chess problems "Essai sur le jeu des eschecs." It was not in a recognizable form as today. He used "p" for pawn moves and the original file of the piece ("a" through "h") instead of the original letter of the piece. He tried to make the notation international by using standard piece names as well as standard letters and numbers for the squares. For example, the king's rook was written as "H" instead of "R" and the queen's rook was written "A" instead of "R" which added to the confusion of the notation. The queen was "D" and the king was "E." The queen's knight was "B" and the king's knight was "G."

In 1745, Stamma issued an expanded edition of his chess book in English (*The Noble Game of Chess*) that used algebraic notation. He used "a through h" for the files and "1 through 8" for the ranks.

In 1747, Philidor defeated Stamma in a match in London. Philidor's chess books in French were translated into English and Philidor used the descriptive system for writing chess moves. Philidor was more influential than Stamma, so his adoption of the chess notation became more popular.

In 1750, the king knight move was written K. knight to His Bishop's 3rd.

In 1784, Moses Hirschel, in his Leipzig edition of Greco and Stamma, used the modern form of chess notation, using the initial of the pieces and the square of departure was given as well as the square of arrival. Thus, he wrote Kt g1-f3.

In 1811, the symbols for castling, O-O, were first used in *Neue theoretisch-praktische Anweisung* by Allgaier. Allgaier used the digit-0, but modern book used the character, uppercase O. Allgaier differentiated castling on the king-side as O-Or (r=right) and O-Ol (l=left) for castling queenside.

In 1817, an edition of Philidor's works introduced a system of abbreviations for the chess pieces and the chess moves.

In 1837, Aaron Alexandred introduced the symbol O-O-O for castling queenside in his book *Encyclopedie des echecs* (Encyclopedia of Chess, Paris, 1837). He also published this queenside castling sybol in his *Handbuch des Schachspiels* in 1843.

In 1837, the king knight move was written K Kt. To B's third sq.

By 1840, the castling symbols were accepted and check was implied with a + symbol. A capture was described by a small o (now we use "x"), so that b1c3o would mean that the Queen's Knight captured a Pawn or Piece occupying the Queen's Bishop 3rd square. When a Pawn is "Queened" the piece, into which it was converted was expressed by one of the capital letters A, B, C, or D. A meant a Rook; B meant a Knight, C meant a Bishop, and D meant a Queen.

In 1843, the long form of algebraic notation was used in the German book *Handbuch des Schachspiels*. The moves 1. P-K4 P-K4 2. N-KB3 N-QB3 were written 1. e2-e4 e7-e5 2. Sg1-f3 Sb6-c6. From this standard chess book, algebraic notation became popular in Europe.

In 1848, the king knight move was written K.Kt to B's 3rd.

In 1849, the French magazine *La Regence* numbered the files (or columns) "1 through 8" and the ranks "10, 20, 30,...80." Each square had its own number. So, the square A1 was 10\_1 or 11. A2 was 20+1 or 21, etc.

By 1850, the symbol for check was + (otherwise written as ch) and the symbol for checkmate was ++ or # (or checkmate).

In 1855, Miron Hazeltine introduced the dash P-K4 instead of P to K4 in his chess column in the *New York Clipper*.

In 1859, the king knight move was written K. Kt to B. 3rd.

In 1874, the king knight move was written K Kt to B3.

In 1889, the king knight move was written Kkt-B3.

In 1904, the king knight move was written Kt-KB3.

In 1946, the king knight move was written N-KB3.

The modern move is now Nf3 in algebraic.

By the mid 1970s, algebraic notation became popular in the English-speaking countries.

Since 1981, the World Chess Federation (FIDE) has recognized only algebraic notation for all of their tournaments.

## DESCRIPTIVE NOTATION

QR1	QN1	QB1	Q1	K1	KB1	KN1	KR1
QR8	QN8	QB8	Q8	K8	KB8	KN8	KR8
QR2	QN2	QB2	Q2	K2	KB2	KN2	KR2
QR7	QN7	QB7	Q7	K7	KB7	KN7	KR7
QR3	QN3	QB3	Q3	K3	KB3	KN3	KR3
QR6	QN6	QB6	Q6	K6	KB6	KN6	KR6
QR4	QN4	QB4	Q4	K4	KB4	KN4	KR4
QR5	QN5	QB5	Q5	K5	KB5	KN5	KR5
QR5	QN5	QB5	Q5	K5	KB5	KN5	KR5
QR4	QN4	QB4	Q4	K4	KB4	KN4	KR4
QR6	QN6	QB6	Q6	K6	KB6	KN6	KR6
QR3	QN3	QB3	Q3	K3	KB3	KN3	KR3
QR7	QN7	QB7	Q7	K7	KB7	KN7	KR7
QR2	QN2	QB2	Q2	K2	KB2	KN2	KR2
QR8	QN8	QB8	Q8	K8	KB8	KN8	KR8
QR1	QN1	QB1	Q1	K1	KB1	KN1	KR1

The descriptive, or English, notation has been around the longest and is the method found in older chess books and magazines. It was mostly used in the United States. Up until the 1970s, chess games were recorded and published using this notation in mostly English-speaking countries.

The descriptive method names the files according to the piece in the initial position. So, reading from left to right, the first file is the Queen Rook (QR) file, the next file is the Queen Knight (QN) file, then the Queen Bishop (QB) file, then the Queen (Q) file, then the King (K) file, then the King Bishop (KB) file, then the King Knight (KN) file, then the King Rook (KR) file.

The pawn is represented by a P. The knight is represented by a N (or Kt, but not K because that is the king). The bishop is represented by a B. The rook is represented by an R. The queen is represented by a Q. The king is represented by a K.

From bottom rank to the top rank, each rank counts up from 1 to 2 to 3 to 4 to 5 to 6 to 7 to the 8th rank.

The chess squares have different notations, depending upon the White point of view or the Black point of view.

The square in the lower left is QR1 (Queen Rook 1) for White or QR8 (Queen Rook 8) for Black. The square in the upper right is KR8 for White and KR1 for Black.

The chess board is always set up for the light colored square (usually White) to the right and the placement of the Queen on its own color. So the White Queen is on the White square (Q1 for White or Q8 for Black) and the Black Queen is on the Black square (Q8 for White or Q1 for Black).

Castling on the King side is noted O-O. Castling on the Queen side in O-O-O.

Promoting a pawn to a queen would be something like P-QR8=Q.

When there are two possible moves, you distinguish the right move by indicating if it is on the kingside or queenside. So the Knight to Bishop 3 could be two choices. It could be N-QB3 or N-KB3 depending if it is on the queen side or king side.

A capture is indicated by an x. So, if Bishop takes Knight, it is BxN.

A check is optional in notation, but it could be indicated with a plus symbol (+) or by the check symbol (ch). Checkmate may use the '++' (some books use this symbol for double check) symbol or the '#' symbol.

Taking a pawn en passant is usually written PxP e.p.

A bad move has a question mark (?). A very bad move has two question marks (??). A good move may be marked with a ! after it. A very good move may be marked with two !! after it.

If White won, then it will end with 1-0. If Black won, it will end with 0-1. If it is a draw, it may end with a 1/2-1/2 symbol.

The best way to learn is by example. Here is a short game in descriptive notation. The opening is the King's Gambit Accepted.

1.P-K4 P-K4 2.P-KB4 PxP 3.N-KB3 B-K2 4.B-B4 B-R5+ 5.NxB QxN+ 6.P-KN3 PxP 7.O-O QxP mate 0-1  
Carta-Cassano, Italy 1980

The same game in algebraic notation (explained in the next section) is:

1.e4 e5 2.f4 exf4 3.Nf3 Be7 4.Bc4 Bh4+ 5.Nxh4 Qxh4+ 6.g3 fxg3 7.O-O Qxh2 mate 0-1 Carta-Cassano, Italy 1980.

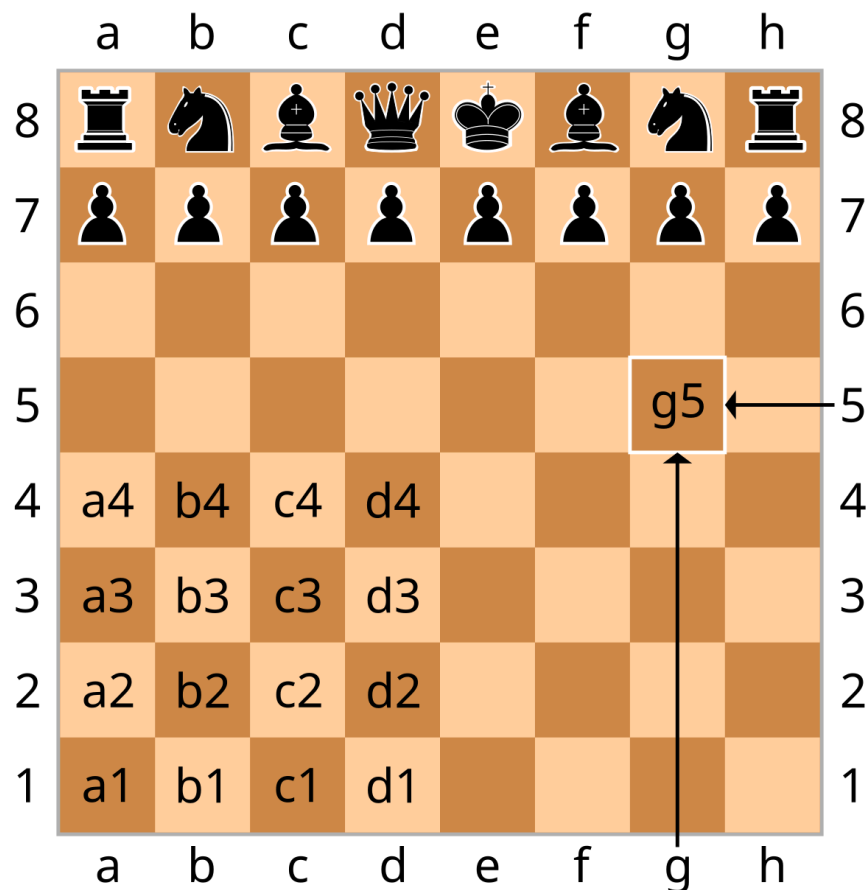
Here is another example.

1.P-K4 P-K4 2.P-KB4 PxP 3.N-KB3 Q-K2 4.P-Q4 QxPch 5.B-K2 B-N5ch 6.P-B3 B-R4 7.O-O P-Q3 8.B-N5ch K-B1 9.R-K1 Q-Q4 10.R-K8 mate 1-0 Wall-Atnas, Internet 2003

In algebraic, it is:

1.e4 e5 2.f4 exf4 3.Nf3 Qe7 4.d4 Qxe4+ 5.Be2 Bb4+ 6.c3 Ba5 7.O-O d6 8.Bb5+ Kf8 9.Re1 Qd5 10.Re8 mate 1-0 Wall Atnas, Internet 2003

#### ALGEBRAIC NOTATION



The algebraic notation is now the most common notation and a standard in all major chess tournaments. It is called algebraic because of the unique way it identifies each chess square on an 8 by 8 matrix chess board. Each column (file) is labeled with a letter. Each row (rank) is labeled with a number. Some chess boards have these letters and numbers written on the sides (letters) and top and bottom (numbers).

In algebraic notation, the columns, from left to right, are: a, b, c, d, e, f, g, h starting from the White side. The rows are numbered 1, 2, 3, 4, 5, 6, 7, 8 from the White point of view. So, from left to right, we have a1, b1, c1, d1, e1, f1, g1, h1. The square in the lower left is a1 and the square in the upper right is h8. The board is usually displayed with the White at the bottom and the Black at the top.

The main thing to remember when looking at a chess diagram, is that the board is always "right side up" for White, meaning White is always shown as playing from the "bottom" of the board. The board is always "upside down" for Black. And in algebraic notation, Black must think in reverse. From Black's point of view, the letters from left to right are h, g, f, e, d, c, b, a and the rows start at 8 and go from bottom to top as 8, 7, 6, 5, 4, 3, 2, 1.

The pieces are identified as follows: N for Knight, B for Bishop, R for Rook, Q for Queen, and K for King. The pawn may be given a P, but it is understood that it is a pawn if there is no letter in front of it. The pieces are capitalized and the squares it moves to are in lower case (Bb5 is Bishop to the b5 square).

A move is a combination of the moving piece plus the square to which it is moving. The move Nf3 means the Knight moved to the f3 square. A move e4 means the Pawn moved to the e4 square.

Castling on the kingside is O-O. Castling on the queenside is O-O-O.

Promoting a pawn to a queen would be something like a8=Q, meaning a White Queen Rook Pawn made it to the 8th rank and is being promoted to a Queen. It could have been promoted to a Knight, Bishop, or Rook, but you generally want the most powerful piece.

An ambiguous move is made clearer by inserting the file of the moving piece immediately after the letter denoting the piece. For example, if I had the original White Knight on g1 (Ng1) and my other White Knight was on d4 (Nd4), instead of writing Nf3 (either knight could do that), I would write Ngf3 if it were the Knight on g1 or Ndf3 if it were the Knight on d4.

A capture is sometimes denoted with an 'x'. PxP could be exf4. NxB could be Nxb4 (or just Nb4).

A check is indicated optionally by a '+'.

Sometimes moves have a space after the period (1. e4), and sometimes there is no space after the period (1.e4).

Here is the same game from the descriptive notation section in algebraic method again:

1.e4 e5 2.f4 exf4 3.Nf3 Be7 4.Bc4 Bb4+ 5.Nxb4 Qxb4+ 6.g3 fxe3 7.O-O Qh2 mate 0-1 Carta-Cassano, Italy 1980.

Or, a shortened version - 1.e4 e5 2.f4 ef 3.Nf3 Be7 4.Bc4 Bb4 5.Nb4 Qb4 6.g3 fe 7.O-O Qh2# 0-1 Carta-Cassano, Italy 1980.

PGN

Databases may be in Portable Game Notation (PGN), which was devised around 1993 by Steven Edwards. It is a standard header for text files. It uses algebraic with headers. It may look like this.

[Event "World Ch Match"]  
[Site "Reykjavik, Iceland"]  
[Date "1972.07.21"]  
[Round "5"]

[White "Spassky, Boris"]  
[Black "Fischer, Robert"]  
[Result "0-1"]

1.d4 Nf6 2.c4 e6 3.Nc3 Bb4 4.Nf3 c5 5.e3 Nc6 6.Bd3 Bxc3 7.bxc3 d6 8.e4 e5 9.d5 Ne7 10.Nh4 h6 11.f4 Ng6 12.Nxg6 fxe6 13.fxe5 dxe5 14.Be3 b6 15.O-O O-O 16.a4 a5 17.Rb1 Bd7 18.Rb2 Rb8 19.Rbf2 Qe7 20.Bc2 g5 21.Bd2 Qe8 22.Be1 Qg6 23.Qd3 Nh5 24.Rxf8 Rxf8 25.Rxf8 Kxf8 26.Bd1 Nf4 27.Qc2 Bxa4 0-1

### Forsyth Notation

Forsyth notation is used to record where the chess pieces are on the board in a quick and easy way. The pieces are represented by their symbols (Q=Queen, K=King, R=Rook, B=Bishop, N=Knight, P=Pawn). The letter symbols for Black are written in lower case. For White, the letter symbols are written in upper case. Empty squares are represented by a number. For example, 1 means there is one empty square, 2 means there are two empty squares and so on.

The position is recorded rank by rank (horizontal squares), starting with the eighth rank (the a8 square or QR1 square for Black). The ranks are separated by a "/" symbol.

Thus, r1b11rk1/ means on a8 there is a Black Rook, then an empty square (the b8 square), then a Black Bishop (on the c8 square), a Black Queen (on the d8 square), an empty square (on the e8 square), a Black Rook (on the f8 square), a Black King (on the g8 square), and an empty square (on the h8 square).

If a whole row contains empty squares, then it is written as 8/ in this notation.

Short-hand notations like the following are sometimes used to comment single chess moves:

! A good move  
!! An excellent move  
? A mistake  
?? A blunder  
!? An interesting move that may not be best  
?! A dubious move, but not easily refuted  
TN or N A theoretical novelty

Symbols for regarding specific positions are also used:

infinity sign — An unclear position as to who has an advantage

= — Even position. This symbol indicates that the annotator believes that White and Black have equal chances.

+/= — Slight advantage. This symbol indicates that White has slightly better chances. In a similar way, if Black has the slightly better position it is reversed: =/+

+/- — Advantage. This symbol indicates that White has much better chances. If instead this is the case for Black, it is reversed: -/+

+ - — Decisive advantage. This symbol indicates that White has a winning advantage. It is reversed if Black has the winning position: - +