

# PGNdraw program

## Introduction

The PGNdraw program can be used to visualize in PGN (Portable Game Notation) files at which moves in the chess game a draw could be claimed, and by whom. You use the program selecting a specific PGN file you want analyzed, and then the program produces a new PGN file with only those games in which a draw could be claimed and opens it in Wordpad. This file can then be saved as a new PGN file. If you open it in a suitable program to show the games and the new comments inserted, you can click on each new comment inserted, which will usually show you the position in a board window. This is what happens when using the Tarrasch program.

## The PGN standard

PGN files can contain as many chess games as desired, as long as disk availability permits. This is a typical game:

```
[Event "35th olm final"]
[Site "Bled SLO"]
[Date "2002.10.26"]
[Round "1"]
[White "Ramirez Alvarez, Alejandro CRC"]
[Black "Morozevich, Alexander RUS"]
[Result "1/2-1/2"]
[WhiteElo "2421"]
[BlackElo "2707"]
[ECO "C01"]
[EventDate "2002.10.26"]
[PlyCount "118"]
```

```
1.e4 e6 2.d4 d5 3.exd5 exd5 4.Nf3 Bd6 5.c4 dxc4 6.Bxc4 Nf6 7.O-O O-O 8.h3
h6 9.Qc2 Nc6 10.Nc3 Nb4 11.Qb1 Be6 12.Bxe6 fxe6 13.Re1 Qe8 14.Ne4 Nbd5 15.
Nc5 Bxc5 16.dxc5 Nd7 17.Qc2 c6 18.Be3 Rxf3 19.gxf3 Qh5 20.Qe4 Ne5 21.Kg2
Nf6 22.Qf4 Ng6 23.Qg3 Nh4+ 24.Kh1 Kh7 25.Bf4 Nxf3 26.Re3 Nd4 27.Re5 Nf5
28.Qg2 Rd8 29.f3 Rd4 30.Bh2 Rh4 31.Rg1 Qf7 32.Rge1 Nd7 33.Rxe6 Nxc5 34.
R6e2 Qh5 35.Rg1 Rxh3 36.Re5 Nd3 37.Rxf5 Rxh2+ 38.Qxh2 Qxf5 39.Rg3 Nf4 40.
Rg4 g5 41.Qd2 h5 42.Rg3 Kh6 43.Kh2 Qe5 44.Kh1 Ne2 45.Rg2 Ng3+ 46.Kg1 h4
47.Rh2 Nf5 48.Re2 Qf6 49.Re4 c5 50.Kg2 Kh5 51.Qd7 Qxb2+ 52.Kh3 Ng7 53.Qg4+
Kh6 54.f4 Qc3+ 55.Kh2 Qd2+ 56.Kg1 Qc1+ 57.Kh2 Qd2+ 58.Kg1 Qc1+ 59.Kh2 Qd2+
1/2-1/2
```

The headers have brackets, there is a keyword and usually a value in quotes "". An example from above is [Date "2002.10.26"] which means the game was played on the 26.th. of October 2002. There are details for Event, Site, Date, Round, White player, Black player, Result, White Elo, Black Elo, ECO code for the opening, Event Date, and PlyCount which is the number of half moves or ply.

Then below the headers, are the moves of the game itself, and the result. The result can be "1-0" for White winning, "0-1" for Black winning, or "1/2-1/2" for a draw, in other words ½ point for each player.

In the game section, there are move numbers with a period after, and then two half moves, one for White and one for Black. The first moves were 1.e4 e6, White moves his pawn from e2 to e4, and Black moves his pawn from e7 to e6. The second moves were 2.d4 d5, White move his pawn from d2 to d4, and Black moves his pawn from d7 to d5.

Each move has either a Caps letter representing the piece, for instance (K means king or ♔), (Q means queen or ♕), (R means rook or ♖), (B means bishop or ♗), (N means knight or ♘).

After each piece designation follows the coordinate of the square on the board. Each square has a letter from a-h representing the columns, and a number from 1-8 representing the rank. If the piece moved is a pawn, the piece letter is omitted. For instance Nf3 means the knight goes to f3, and e4 means the pawn goes to e4.

When a piece is captured, there is an "x" between the piece and the square, for instance 3.exd5 means pawn on e4 captures the black piece on d5, which in this game happened to be a black pawn. There are more details about the notation and the PGN standard, but this introduction should suffice.

## 9 types of draw and 2 types of semi-draw

The program PGNdraw detects 9 types of draw and 2 types of semi-draw:

1. Dead position: king vs. king
2. Dead position: only one bishop or knight on the board
3. Dead position: each player has a bishop of the same color squares
4. Dead position: blocked pawns in a pawn endgame, where neither king can make progress
5. Dead position: stalemate. This is not usually considered a dead position, but it is since no more moves can be played after stalemate occurs.
6. 3 times occurrence of the same position. In OTB games, the player on the move must claim it, or else the chance to claim the draw vanishes. Can be claimed writing a specific move on the score sheet, to be counted as the third occurrence
7. 5 times occurrence of the same position: it is a draw 100%, can be claimed after the game, for instance after checkmate, all moves after that fifth occurrence are not part of the game
8. 50 moves with no pawn move and no capture of a piece. Must be claimed at the moment, or the chance to claim may vanish. Can be claimed writing a specific move on the score sheet, to complete the 50 moves.
9. 75 moves with no pawn move and no capture of a piece: it is a draw 100%, and can be claimed after the game even if the game ended with another result.
10. Each player has a bishop or a knight: FIDE does not consider this a draw, although USCF does, and chess.com does. Several other online chess servers comply with FIDE, and let the game

continue. In practical play, unless one player plays for helpmate, this never leads to checkmate in normal games. A semi-draw.

11. One player has two knights, against lone king. It is impossible to force mate, but possible to blunder into mate, so a draw claim is usually rejected. A semi-draw.

If a player has a pawn, or a queen, or a rook, or two bishops of different color squares, or a bishop and a knight, it is always possible for him/her to checkmate, and therefore whether the opponent has a lone king, or many pieces and/or pawns, the first player can win on time, as indeed checkmate is always possible. There is a single type of exception to this overview, if the pieces are constricted in such a manner that they cannot reach the rest of the board, a dead draw may still be possible, even though the material to win is supposedly there. This is why FIDE does not recognize insufficient material as such, only if that in effect has become a dead position, for instance cases 1 to 4 above.

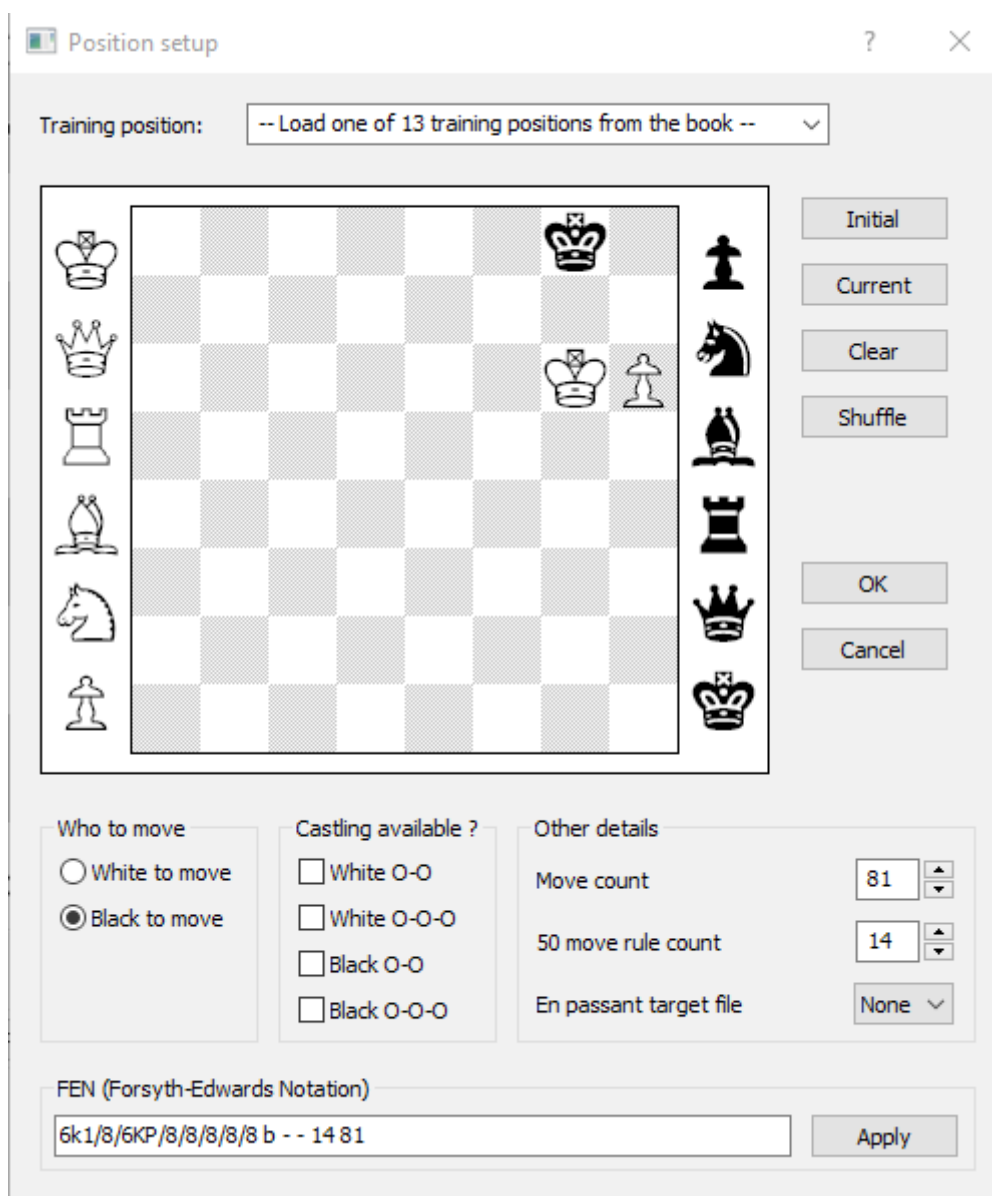
I agree with chess.com's approach to deem case 9 above a draw, because when no checkmates occur with this material, it doesn't seem fair to let a player win on time forfeit with this material.

## FEN strings in the comments

FEN strings are used to document a position with text only. FEN stands for Forsyth-Edwards notation. Here is an example of a FEN string in a comment

```
{Black can claim a draw by 3-rep from the positions after 75.Kg5g6, 78.Kg5g6 and 81.Kh5g6 FEN=6k1/8/6KP/8/8/8/8/8 b - - 14 81}
```

To see the position corresponding to the FEN string, copy the FEN string after the "FEN=" string and before the "}" character: "6k1/8/6KP/8/8/8/8/8 b - - 14 81" and then paste it into the Tarrasch program when specifying a new position, and then click "Apply" so that the pieces will show:



This may be useful for big PGN files when you are only interested in a single position from that file.

## The purpose of PGNDraw

Many tournaments have a number of boards displaying the games to a web page, which can be exciting to watch on the internet or on a monitor in the playing hall. The physical boards used by the players will be DGT boards (or similar product), which will capture the games to a single PGN file. Suppose that a player claims a draw from a DGT board. The arbiter can now process the file with the PGNDraw program, and after saving the output file and opening it in the Tarrasch program (or similar), it is possible for the arbiter to show the position where the draw could be claimed, with the matching comment about who can claim it, and why. This could make it very simple to convince both players when the draw claim is correct.

Another purpose of PGNdraw is to be an educational tool, both players and arbiters can use it to become familiar with the draw claims, because it is easy with a large PGN file to extract suitable examples that can be viewed in the Tarrasch program. Many players are not very familiar with all the nuances in draw claims. PGNdraw will often find many draw examples, which may have been overlooked by the players. Arbiters should know all the laws of FIDE that apply, but may not have seen a lot of examples.

## Examples of dead positions

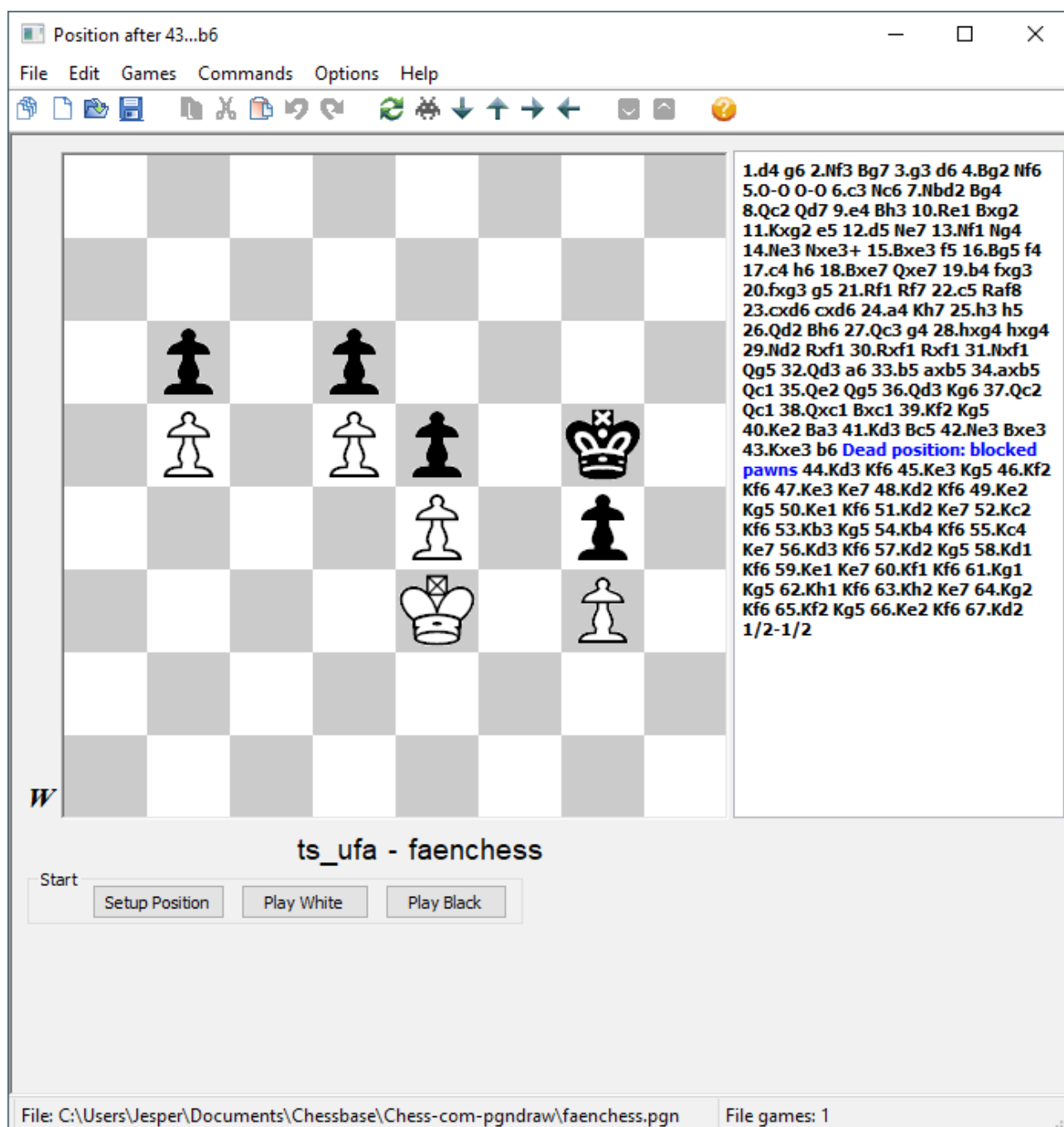
Here is a typical example program for a dead position. I use the program Tarrasch to show the position from the PGN file with the game that leads to a dead position.

Here is the game:

```
[Event "Rated Bullet game"]
[Site "https://lichess.org/I5EMfF3B"]
[Date "2021.02.01"]
[Round "-"]
[White "ts_ufa"]
[Black "faenchess"]
[Result "1/2-1/2"]
[UTCDate "2021.02.01"]
[UTCTime "00:00:17"]
[WhiteElo "2079"]
[BlackElo "2048"]
[WhiteRatingDiff "+0"]
[BlackRatingDiff "+1"]
[ECO "A40"]
[Opening "Modern Defense"]
[TimeControl "60+0"]
[Termination "Normal"]
```

```
1.d4 g6 2.Nf3 Bg7 3.g3 d6 4.Bg2 Nf6 5.O-O O-O 6.c3 Nc6 7.Nbd2 Bg4 8.Qc2 Qd7
9.e4 Bh3 10.Re1 Bxg2 11.Kxg2 e5 12.d5 Ne7 13.Nf1 Ng4 14.Ne3 Nxe3+ 15.Bxe3 f5
16.Bg5 f4 17.c4 h6 18.Bxe7 Qxe7 19.b4 fxg3 20.fxg3 g5 21.Rf1 Rf7 22.c5 Raf8
23.cxd6 cxd6 24.a4 Kh7 25.h3 h5 26.Qd2 Bh6 27.Qc3 g4 28.hxg4 hxg4 29.Nd2 Rxf1
30.Rxf1 Rxf1 31.Nxf1 Qg5 32.Qd3 a6 33.b5 axb5 34.axb5 Qc1 35.Qe2 Qg5 36.Qd3 Kg6
37.Qc2 Qc1 38.Qxc1 Bxc1 39.Kf2 Kg5 40.Ke2 Ba3 41.Kd3 Bc5 42.Ne3 Bxe3 43.Kxe3 b6
{Dead position: blocked pawns} 44.Kd3 Kf6 45.Ke3 Kg5 46.Kf2 Kf6 47.Ke3 Ke7
48.Kd2 Kf6 49.Ke2 Kg5 50.Ke1 Kf6 51.Kd2 Ke7 52.Kc2 Kf6 53.Kb3 Kg5 54.Kb4 Kf6
55.Kc4 Ke7 56.Kd3 Kf6 57.Kd2 Kg5 58.Kd1 Kf6 59.Ke1 Ke7 60.Kf1 Kf6 61.Kg1 Kg5
62.Kh1 Kf6 63.Kh2 Ke7 64.Kg2 Kf6 65.Kf2 Kg5 66.Ke2 Kf6 67.Kd2 1/2-1/2
```

This is the Tarrasch program when loading this game, and clicking on the move where the dead position occurred:



I clicked on the comment in blue text which says "Dead position: blocked pawns". In this position the white king can access the squares a4,b4,c4,d3,e3,f2,g2,h2 and the squares south of those, but not any squares north of them. The black king can access the squares a7,b7,c7,d7,e7,f6,g5,h5 and the squares north of them, but not any squares south of them. So both players can only shuffle their kings around in their own territory, and it is not possible to capture any pawns.

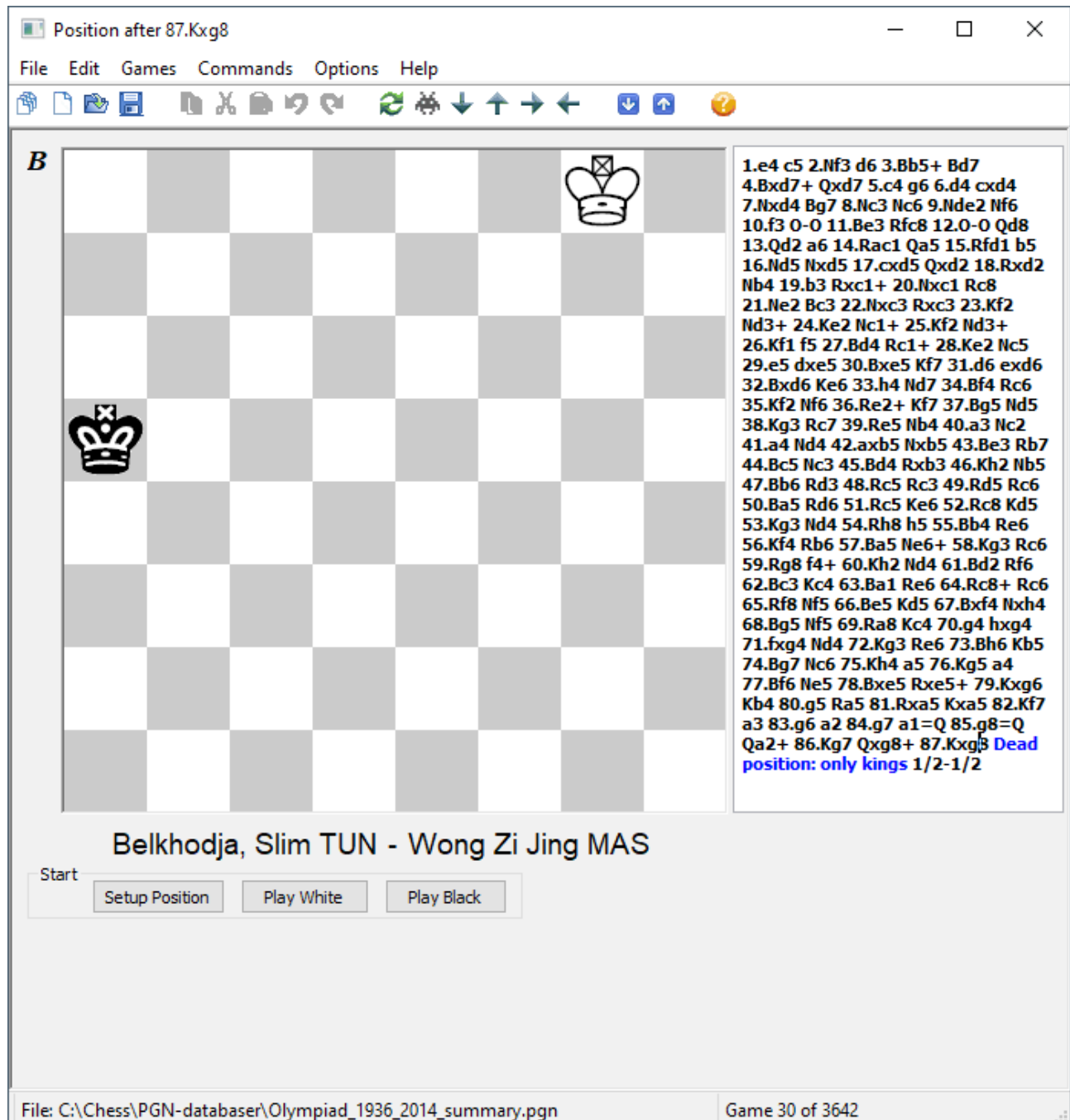
The barrier is easy to understand intuitively, and in fact it doesn't matter if some pawns may still move, and even some pawns may be captured, if this happens behind the barrier that the king can't pass. For instance if there were a white pawn on b2, and a black pawn on b4, it is still possible for the black pawn to advance to b3, or for the white pawn to move to b3, or to advance the white king to capture the black pawn on b4, and then advance the pawn from b2 to b3 or b4, it wouldn't change the outcome of a draw.

# PGNdraw in action

Let's see the program in action.

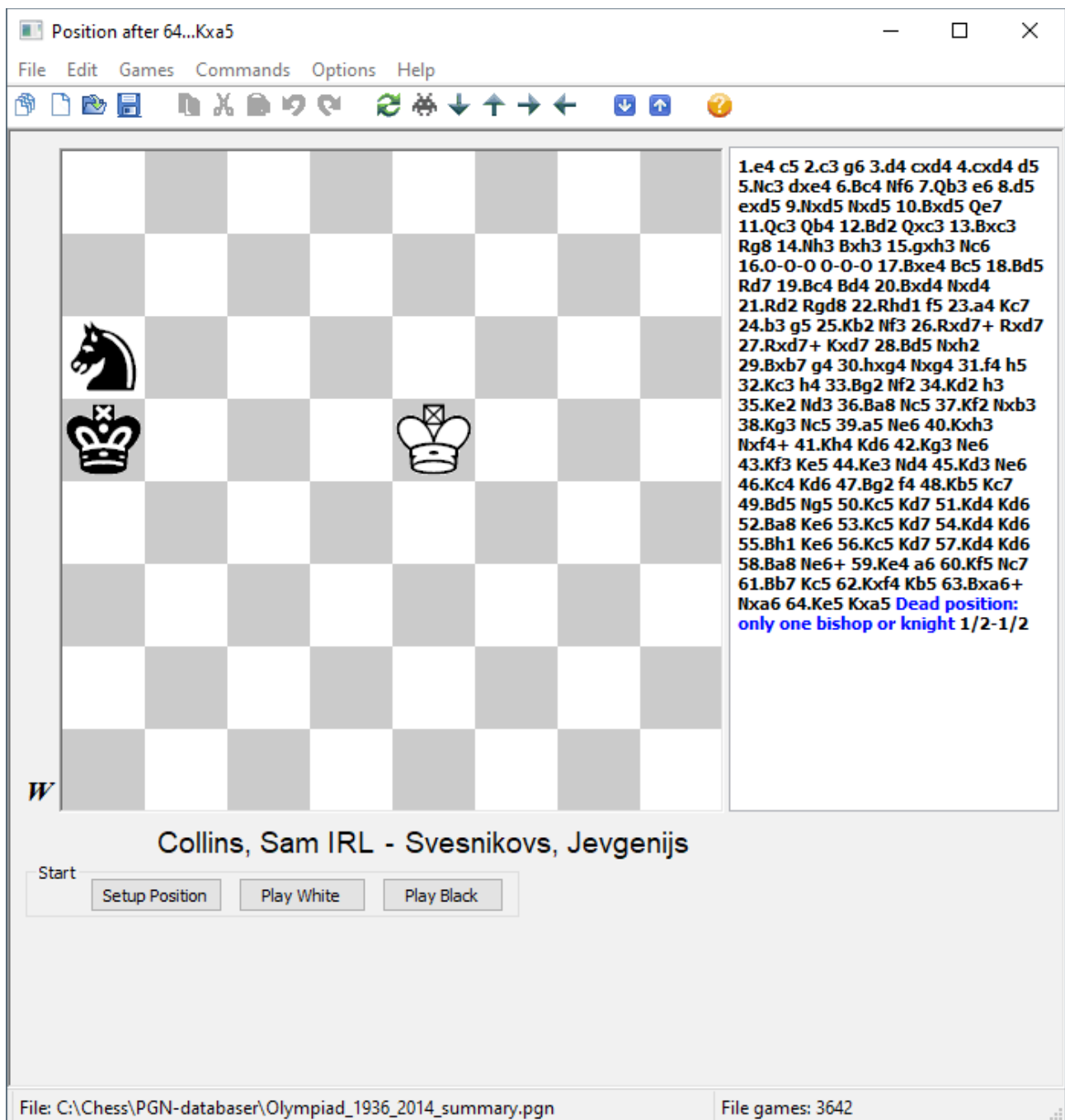
## 1. Dead draw with king vs. king

Here is an example of this from the Olympiad in 2002.



I clicked on the comment "Dead position: only kings" and this is of course a draw.

## 2. Dead position: only one bishop or knight on the board



Position after 64...Kxa5

File Edit Games Commands Options Help

1.e4 c5 2.c3 g6 3.d4 cxd4 4.cxd4 d5  
5.Nc3 dxe4 6.Bc4 Nf6 7.Qb3 e6 8.d5  
exd5 9.Nxd5 Nxd5 10.Bxd5 Qe7  
11.Qc3 Qb4 12.Bd2 Qxc3 13.Bxc3  
Rg8 14.Nh3 Bxh3 15.gxh3 Nc6  
16.O-O-O O-O-O 17.Bxe4 Bc5 18.Bd5  
Rd7 19.Bc4 Bd4 20.Bxd4 Nxd4  
21.Rd2 Rgd8 22.Rhd1 f5 23.a4 Kc7  
24.b3 g5 25.Kb2 Nf3 26.Rxd7+ Rxd7  
27.Rxd7+ Kxd7 28.Bd5 Nxb2  
29.Bxb7 g4 30.hxg4 Nxg4 31.f4 h5  
32.Kc3 h4 33.Bg2 Nf2 34.Kd2 h3  
35.Ke2 Nd3 36.Ba8 Nc5 37.Kf2 Nxb3  
38.Kg3 Nc5 39.a5 Ne6 40.Kxh3  
Nxf4+ 41.Kh4 Kd6 42.Kg3 Ne6  
43.Kf3 Ke5 44.Ke3 Nd4 45.Kd3 Ne6  
46.Kc4 Kd6 47.Bg2 f4 48.Kb5 Kc7  
49.Bd5 Ng5 50.Kc5 Kd7 51.Kd4 Kd6  
52.Ba8 Ke6 53.Kc5 Kd7 54.Kd4 Kd6  
55.Bh1 Ke6 56.Kc5 Kd7 57.Kd4 Kd6  
58.Ba8 Ne6+ 59.Ke4 a6 60.Kf5 Nc7  
61.Bb7 Kc5 62.Kxf4 Kb5 63.Bxa6+  
Nxa6 64.Ke5 Kxa5 **Dead position:  
only one bishop or knight** 1/2-1/2

Collins, Sam IRL - Svesnikovs, Jevgenijs

Start Setup Position Play White Play Black

File: C:\Chess\PGN-databaser\Olympiad\_1936\_2014\_summary.pgn File games: 3642

In this game Black has a single knight left, but no checkmate is possible. The same result would be if he had a single bishop left.



### 3. Dead position: each player has a bishop of the same color squares

Position after 60.Kxh5

File Edit Games Commands Options Help

1.c4 Nf6 2.Nf3 g6 3.g3 Bg7 4.Bg2 c5 5.Nc3 O-O 6.d4 d5 7.cxd5 Nxd5 8.Nxd5 Qxd5 9.dxc5 Qxd1+ 10.Kxd1 Rd8+ 11.Ke1 Na6 12.Nd2 Nxc5 13.f4 Bf5 14.Nc4 Rac8 15.Ne5 Nd7 16.Bxb7 Rc7 17.Bf3 Nxe5 18.fxe5 Bxe5 19.Kf2 Rc2 20.Be3 Rxb2 21.Bxa7 Rc2 22.Rad1 Rxd1 23.Rxd1 Rxa2 24.Bc5 Bf6 25.Rd8+ Kg7 26.Re8 Bd7 27.Rd8 Bb5 28.Rb8 Bc4 29.Rb7 e6 30.Rb4 Rc2 31.Rb8 Be5 32.Rc8 Bb3 33.Bf8+ Kf6 34.Rxc2 Bxc2 35.h4 h5 36.g4 hxg4 37.Bxg4 Bf5 38.Bf3 Bh3 39.Be4 Bc7 40.Bc6 Bg4 41.Be8 Bh5 42.e3 Bd1 43.Bc6 Bh5 44.Be8 e5 45.Bd7 e4 46.Be8 Bf3 47.Bd7 Ke5 48.Be8 Ke6 49.Bb4 Bh5 50.Bf8 f5 51.Bc6 f4 52.Bh6 fxe3+ 53.Kxe3 Bg3 54.Bg5 Bf3 55.Bxe4 Bxe4 56.Kxe4 Be1 57.Kf4 Bd2+ 58.Kg4 Bc3 59.h5 gxh5+ 60.Kxh5

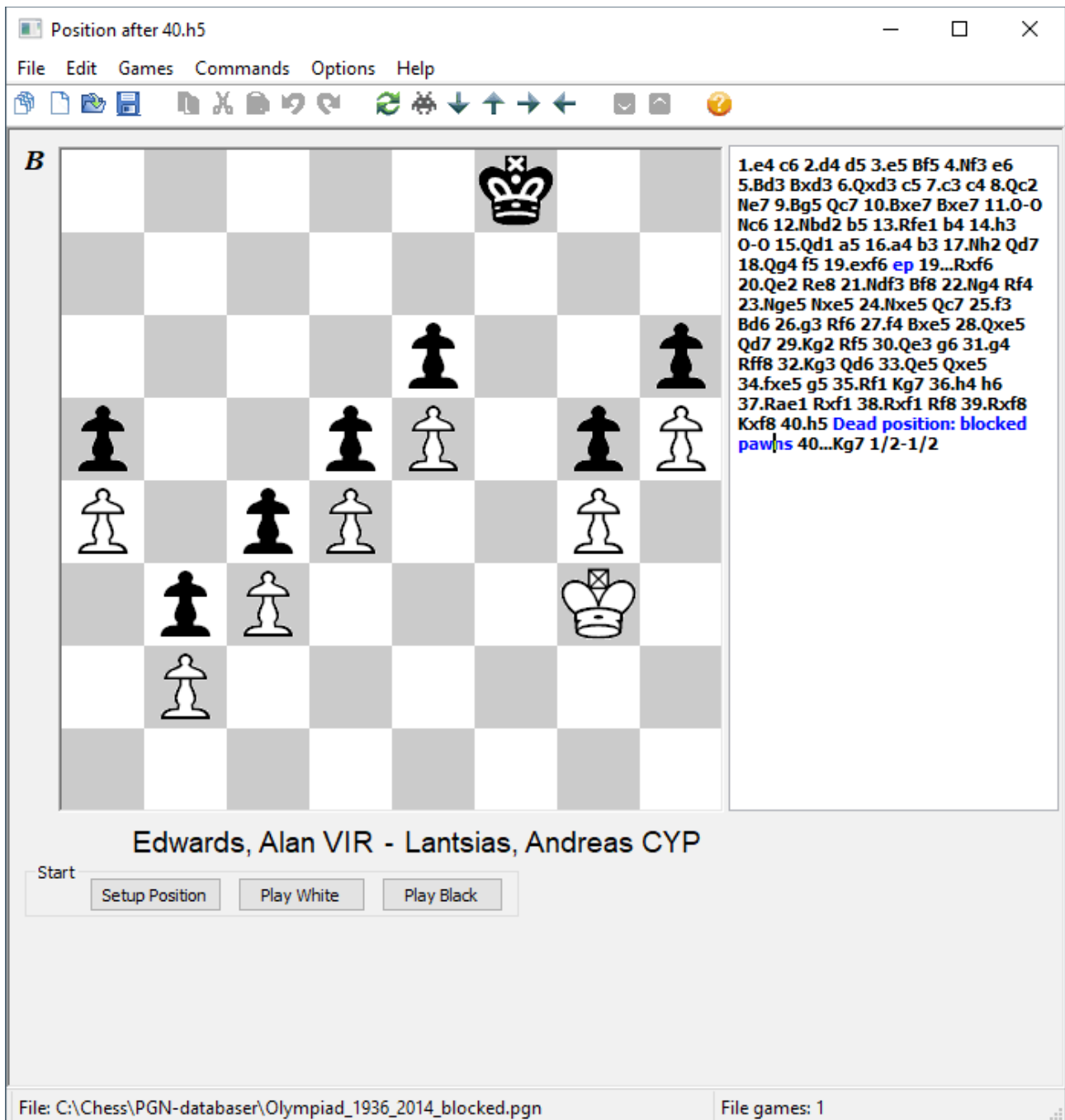
**Dead position: one bishop for each player of the same colour squares**  
1/2-1/2

Valdes Romero, - Nilssen, John Arni FAI

Start Setup Position Play White Play Black

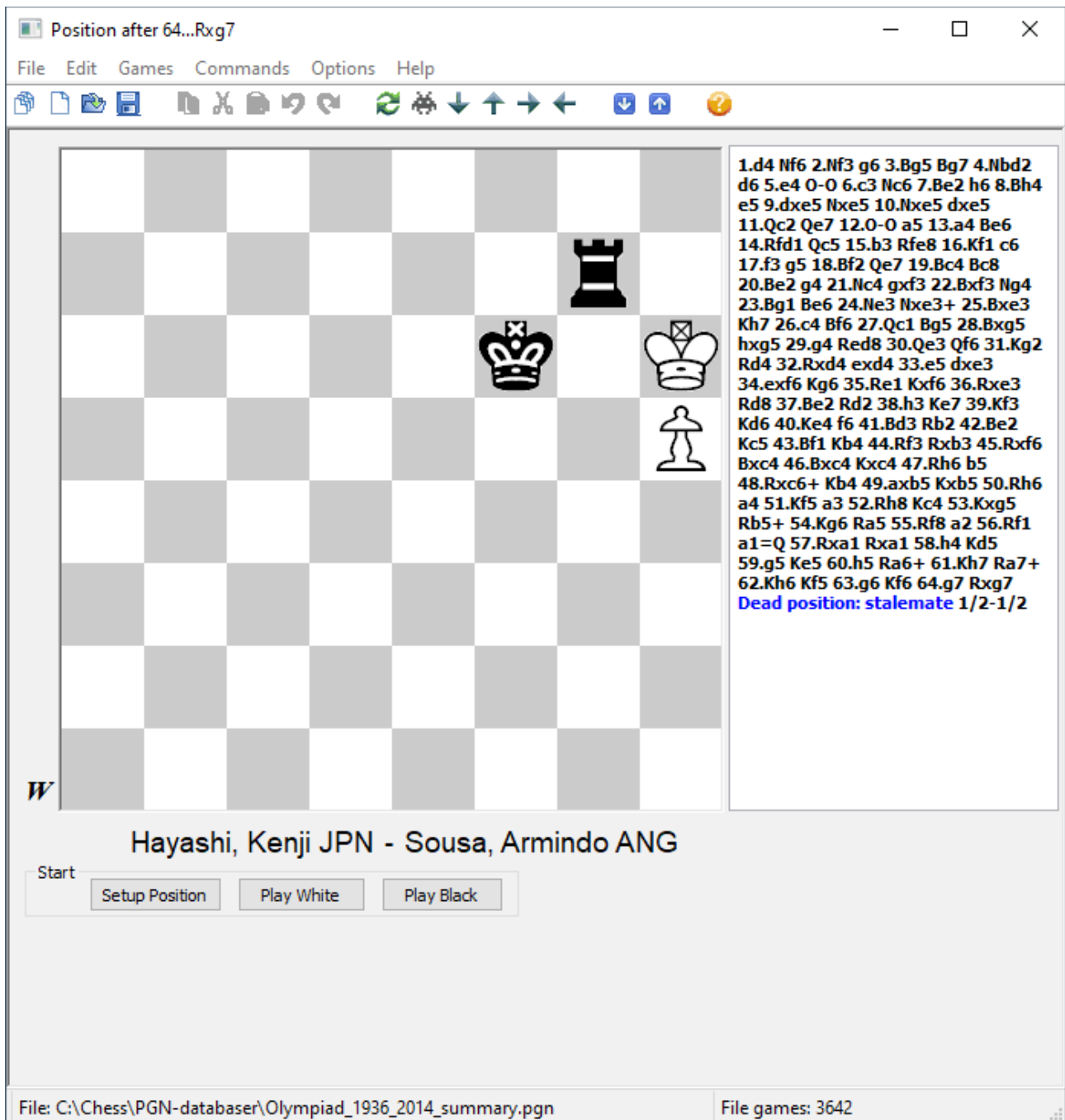
File: C:\Chess\PGN-databaser\Olympiad\_1936\_2014\_summary.pgn Game 62 of 3642

## 4. Dead position: blocked pawns



The above situation is a dead draw because neither king can pass to the opponent's territory and capture pawns. Checkmate is impossible.

## 5. Dead position: stalemate



This is stalemate since White has no legal move to play.

## 6a. 3 times occurrence of the same position, writing the move

There is the option to claim a draw before the position has occurred 3 times, if the move is written on the score sheet and it will be the third occurrence. This is only ever checked by the program at the last move before the result or the next game. In the following example, after 29...♖f6 the PGN file states a draw with "1/2-1/2" and this is where White has the opportunity to write the move 30.♔g2 on the score sheet and claim a draw. Most likely this is exactly what happened, so the king move was not actually played on the board, and a DGT board would not have detected it and put it in the notation.

If instead 30.♔g2 had in fact been played, the program would have reported that Black could claim a draw for 3 times occurrence of position, without writing a new move.

Position after 29...Qf6

File Edit Games Commands Options Help

1.d4 Nf6 2.c4 e6 3.Nc3 Bb4 4.e3 O-O 5.Bd3 d5 6.a3 Bxc3+ 7.bxc3 dxc4 8.Bxc4 c5 9.Nf3 Qc7 10.Ba2 Nc6 11.O-O b6 12.Re1 e5 13.e4 cxd4 14.cxd4 Bg4 15.d5 Nd4 16.Bb2 Nxf3+ 17.gxf3 Bh5 18.Rc1 Qd6 19.Rc6 Qe7 20.Qd3 Nd7 21.Qe3 Qh4 22.Rc7 h6 23.Kg2 Rad8 24.d6 Qf6 25.Rd1 Kh8 26.Rxa7 Qg6+ 27.Kh1 Qf6 28.Kg2 Qg6+ 29.Kh1 Qf6 White can write the move 30. Kh1g2 on the score sheet and claim a draw, with the moves 26.Rc7xa7 and 28.Kh1g2 the position occurs 3 times

FEN=3r1r1k/R2n1pp1/1p1P1q1p/4p2b/4P3/P3QP2/BB3PKP/3R4 b - - 8 30 1/2-1/2

W

Gulko, Boris USA - Antonio, Rogelio jr PHI

Start

Setup Position

Play White

Play Black

File: C:\Chess\PGN-databaser\Olympiad\_1936\_2014\_summary.pgn

File games: 3642

## 6b. 3 times occurrence of position, player on the move

Position after 59...Qd2+

File Edit Games Commands Options Help

1.e4 e6 2.d4 d5 3.exd5 exd5 4.Nf3 Bd6 5.c4 dxc4 6.Bxc4 Nf6 7.O-O O-O 8.h3 h6 9.Qc2 Nc6 10.Nc3 Nb4 11.Qb1 Be6 12.Bxe6 fxe6 13.Re1 Qe8 14.Ne4 Nbd5 15.Nc5 Bxc5 16.dxc5 Nd7 17.Qc2 c6 18.Be3 Rxf3 19.gxf3 Qh5 20.Qe4 Ne5 21.Kg2 Nf6 22.Qf4 Ng6 23.Qg3 Nh4+ 24.Kh1 Kh7 25.Bf4 Nxf3 26.Re3 Nd4 27.Re5 Nf5 28.Qg2 Rd8 29.f3 Rd4 30.Bh2 Rh4 31.Rg1 Qf7 32.Rge1 Nd7 33.Rxe6 Nxc5 34.R6e2 Qh5 35.Rg1 Rxb3 36.Re5 Nd3 37.Rxf5 Rxb2+ 38.Qxb2 Qxf5 39.Rg3 Nf4 40.Rg4 g5 41.Qd2 h5 42.Rg3 Kh6 43.Kh2 Qe5 44.Kh1 Ne2 45.Rg2 Ng3+ 46.Kg1 h4 47.Rh2 Nf5 48.Re2 Qf6 49.Re4 c5 50.Kg2 Kh5 51.Qd7 Qxb2+ 52.Kh3 Ng7 53.Qg4+ Kh6 54.f4 Qc3+ 55.Kh2 Qd2+ 56.Kg1 Qc1+ 57.Kh2 Qd2+ 58.Kg1 Qc1+ 59.Kh2 Qd2+ **White can claim a draw by 3-rep from the positions after 55...Qc3d2+, 57...Qc1d2+ and 59...Qc1d2+**  
FEN=8/pp4n1/7k/2p3p1/4RPQp/8/P2q3K/8 w - - 11 60 1/2-1/2

**Ramirez Alvarez, - Morozevich, Alexander**

Start Setup Position Play White Play Black

File: C:\Chess\PGN-database\Olympiad\_1936\_2014\_summary.pgn File games: 3642

White claims a draw after the third occurrence of this position, after 59...♔d2+

## 7. Five times occurrence of the same positions

Position after 30.Qb3

File Edit Games Commands Options Help

1.d4 d5 2.Nf3 Nf6 3.Bg5 Nbd7 4.e3 g6 5.Be2 Bg7 6.c3 O-O 7.O-O Re8 8.Nbd2 Nb6 9.Ne5 Nfd7 10.Nxd7 Qxd7 11.a4 a5 12.Qb3 e5 13.dxe5 Bxe5 14.Nf3 Bg7 15.Rfd1 Qe6 16.Bf4 Qe7 17.Nd4 Be5 18.Bxe5 Qxe5 19.Nf3 Qe7 20.Nd4 Bd7 21.Nb5 Be6 22.Nd4 Qc5 23.Qb5 Qe7 24.Qb3 Qc5 25.Qb5 Qe7 26.Qb3 Black can claim a draw by 3-rep from the positions after 22.Nb5d4, 24.Qb5b3 and 26.Qb5b3  
FEN=r3r1k1/1pp1qp1p/1n2b1p1/p2p4/P2N4/1QP1P3/1P2BPPP/R2R2K1b - - 15 26 26...Qc5 27.Qb5 Qe7 28.Qb3 Qc5 29.Qb5 Qe7 30.Qb3 It is a draw by 5-rep based on the positions after 22.Nb5d4, 24.Qb5b3, 26.Qb5b3, 28.Qb5b3 and 30.Qb5b3  
FEN=r3r1k1/1pp1qp1p/1n2b1p1/p2p4/P2N4/1QP1P3/1P2BPPP/R2R2K1b - - 23 30 30...Qc5 1/2-1/2

**B**

Jacobusse, Willem ARU - Sackey, Robert Alex

Start Setup Position Play White Play Black

File: C:\Chess\PGN-databaser\Olympiad\_1936\_2014\_summary.pgn File games: 3642

The 5 positions after 22.♖b5d4, 24.♙b5b3, 26.♙b5b3, 28.♙b5b3 and 30.♙b5b3 are all the same, so it is a draw.

## 8a. 50 moves with no pawn move or capture, writing a move

Position after 122.Rc7

File Edit Games Commands Options Help

64.Kxf7 Re3+ 65.Kf2 Rh3 66.Kg2 Rh4 67.Kf2 Kxg4 68.h7 Nxf5 69.Ra7 Kg5 70.Kf3 Kg6 71.Rb7 Ng7 72.Kg3 Rxh7 73.Kg4 Rh1 74.Rb6+ Kf7 75.Rb3 Ne6 76.Rf3+ Kg6 77.Ra3 Rg1+ 78.Kf3 Ng5+ 79.Kf4 Re1 80.Ra6+ Ne6+ 81.Kf3 Kf6 82.Ra2 Nd4+ 83.Kf2 Re5 84.Ra4 Re2+ 85.Kg3 Ke5 86.Ra8 Re3+ 87.Kg4 Re1 88.Re8+ Ne6 89.Kf3 Kf5 90.Ra8 Nd4+ 91.Kg3 Re3+ 92.Kf2 Re7 93.Ra5+ Kf4 94.Ra2 Ke4 95.Ra4 Rg7 96.Ra8 Rf7+ 97.Kg2 Rb7 98.Re8+ Kf4 99.Rf8+ Nf5 100.Kf2 Rb2+ 101.Ke1 Ra2 102.Kd1 Ke4 103.Re8+ Kd3 104.Rd8+ Nd4 105.Ke1 Rb2 106.Kf1 Rd2 107.Ke1 Re2+ 108.Kf1 Re7 109.Kf2 Ke4 110.Ra8 Kf4 111.Rf8+ Ke4 112.Ra8 Rf7+ 113.Kg2 Rf6 114.Ra4 Rb6 115.Ra8 Rb2+ 116.Kf1 Rc2 117.Re8+ Kd3 118.Rd8 Ra2 119.Rd7 Ra8 120.Rf7 Nc6 121.Rd7+ Ke4 122.Rc7 Black can write a neutral move and claim a draw since that move will mean 50 moves have passed since the last pawn move or capture with 72...Rh4xh7 FEN=8/1R4nr/6k1/8/8/6K1/8/8 w - - 0 73 1/2-1/2

Warner, Delisle BAR - Haddouche, Mohamed

Start Setup Position Play White Play Black

File: C:\Chess\PGN-database\Olympiad\_1936\_2014\_summary.pgn File games: 3642

Black would of course be playing for the win here, but if not Black would be in time to write a neutral move on the score sheet and claim a draw. The concept of a neutral move here means a move that doesn't move a pawn or capture a piece, which really means any legal move from Black will be neutral.



## 8b. 50 moves without moving a pawn or capturing a piece

Position after 106.Rc4+

File Edit

42.b5 Rc4 43.c3 Rxc3 44.Rxa7 Bc8 45.Rxa4 g4 46.Kf4 gxf3 47.Nxf3 Bb7 48.Nd4 Rc1 49.Ra7 Rf1+ 50.Ke3 Bd5 51.Rh7 Ke5 52.Rh5+ Kd6 53.Kd2 Rh1 54.Rg5 Kc5 55.Nc2 Kxb5 56.Rxd5+ Kc6 57.Nb4+ Kc7 58.Kc3 Rh4 59.Kb3 Kb6 60.Kc3 Kc7 61.Rd3 Kb6 62.Rd6+ Kc5 63.Rd5+ Kb6 64.Rg5 Rh3+ 65.Nd3 Kc6 66.Kd4 Rh4+ 67.Ke5 Rh3 68.Nf2 Rh8 69.Ne4 Rd8 70.Rg6+ Kb5 71.Nd6+ Kb4 72.Rg1 Rh8 73.Rc1 Rh4 74.Kd5 Rh8 75.Kd4 Kb3 76.Nf5 Rd8+ 77.Ke4 Kb4 78.Nd4 Rh8 79.Nc6+ Kb3 80.Nd4+ Kb4 81.Nf5 Rd8 82.Ne3 Kb5 83.Ke5 Rh8 84.Nc4 Kb4 85.Nd6 Kb3 86.Kd4 Rd8 87.Rc6 Rh8 88.Rb6+ Kc2 89.Ne4 Rd8+ 90.Ke3 Rd3+ 91.Ke2 Rd8 92.Rb7 Rh8 93.Ke3 Rd8 94.Rc7+ Kb3 95.Nc5+ Kb4 96.Nd7 Rh8 97.Ne5 Rh3+ 98.Kd4 Rh4+ 99.Kd5 Rh8 100.Rc4+ Kb3 101.Rc5 Rd8+ 102.Ke4 Rh8 103.Nf3 Kb4 104.Rc1 Re8+ 105.Kd3 Rh8 106.Rc4+ Black can claim a draw since 50 moves have passed since the last pawn move or capture with 56.Rg5xd5+ FEN=8/8/8/1k1R4/8/8/2NK4/7r b - - 0 56 106...Kb5 1/2-1/2

Graf, Alexander GER - De la Riva Aguado,

Start Setup Position Play White Play Black

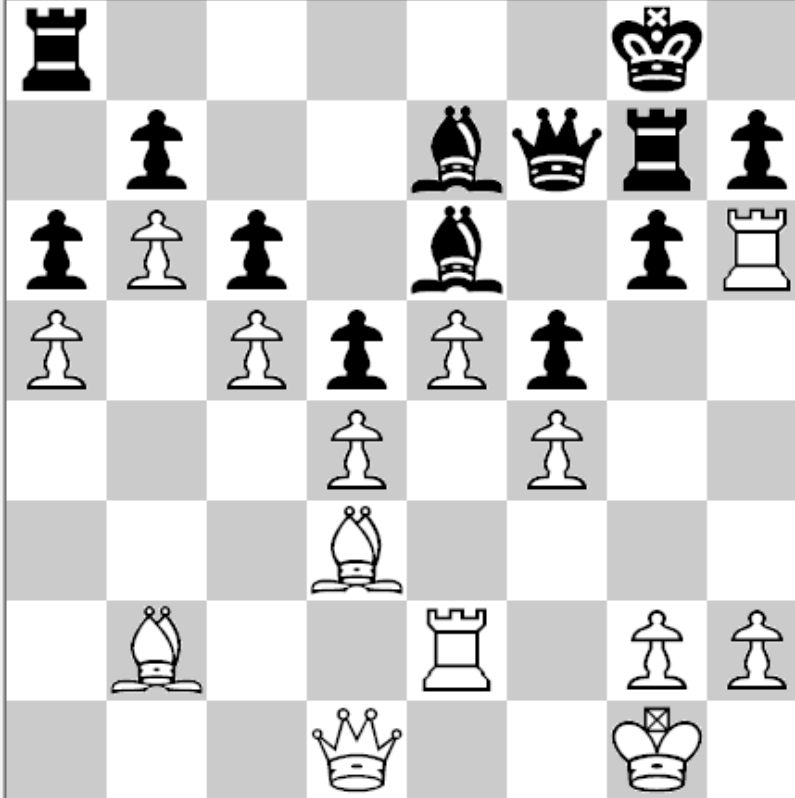
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Black can claim it after 106.♖c4+, but will be able to do so also after 106...♔b5 and another white move, the right to claim this draw does not vanish the same way as the 3 times occurrence of position, which cannot be claimed later in the game if the opportunity is not seized in the moment.

## 9. 75 moves without moving a pawn or capturing a piece

Position after 96.Rh6

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72.Rg3 Bd8 73.Re3 Be7  
74.Rg3 Bd8 75.Rf3 Be7 76.Rf2  
Bd8 77.Rh6 Be7 78.Rh3 Bd8  
79.Rh6 Be7 80.Qd1 Bd8 81.Rh3  
Be7 82.Qd2 Bd8 83.Rh6 Be7  
84.Rh3 Bd8 85.Rh6 Be7 86.Qd1  
Bd8 87.Rh3 Be7 88.Re3 Bd8  
89.Rfe2 Be7 90.Rf2 Bd8 91.Rfe2  
Be7 92.Rf3 Bd8 93.Rh3 Be7  
94.Rg3 Bd8 95.Rh3 Be7 96.Rh6  
The game is a draw since 75  
moves have passed since the  
last pawn move or capture with  
21.a4a5  
FEN=r3r1k1/1p1q2bp/pPp1b1p1  
/P1PpPp2/3P1P2/3B4/1B4PP/R2  
Q1RK1 b - - 0 21 96...Bd8 97.Rc2  
Be7 98.Rh3 Bd8 99.Rh6 Be7  
100.Re2 Bd8 101.h4 Be7 102.Re3  
Bd8 103.Qd2 Be7 104.Qe2 Bd8  
105.Qd2 Be7 106.Qe2 Bd8  
107.Qd1 Be7 108.Re2 Bd8  
109.Qd2 Kf8 110.Re3 Ke8  
111.Qe2 Kd7 112.Rh3 Be7  
113.Qd2 Rag8 114.Qe2 Ra8  
115.Qd2 Bd8 116.Qe2 Be7  
117.Rh2 Bd8 118.g3 Be7 119.Rf2  
Bd8 120.Rf3 Be7 121.Kf2 Rgg8  
122.g4 Bf8 123.g5 Bxh6  
124.gxh6 Qe7 125.Kg3 Qf7  
126.Rf2 Qe7 127.Rh2 Qe8  
128.Rg2 Qe7 129.Qd2 Qe8  
130.Qe2 Qe7 0-1

forlat - Geforce

Start  
Setup Position Play White Play Black

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Even though the result is given as 0-1, the proper decision is to change it to a draw and the last move would be 96.♖h6.

## 10. Each player has a bishop or a knight

Position after 63.Nxh7

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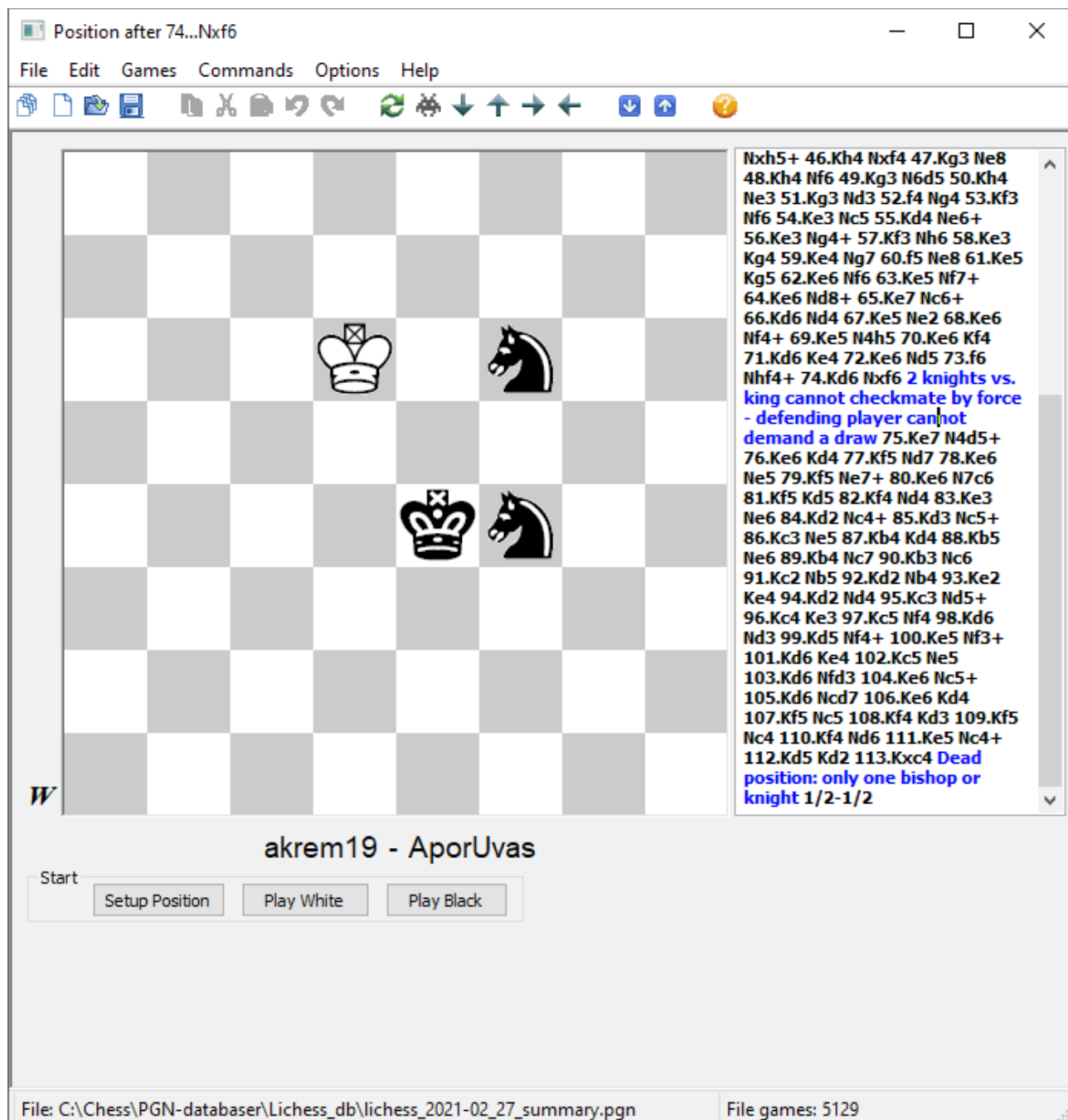
1.e4 e5 2.Nf3 Nc6 3.d4 exd4 4.Nxd4 Bc5 5.Nb3 Bb6 6.Nc3 a6 7.Qe2 Nf6 8.f3 O-O 9.Be3 Bxe3 10.Qxe3 d5 11.O-O d4 12.Nxd4 Nxd4 13.Qxd4 Qxd4 14.Rxd4 Be6 15.Bc4 c5 16.Rd6 Bxc4 17.b3 Bb5 18.a4 Bc6 19.e5 Ne8 20.Rd2 Nc7 21.Rhd1 Ne6 22.Kb2 Rad8 23.Rxd8 Rxd8 24.Rxd8+ Nxd8 25.Ne2 Ne6 26.c3 f6 27.exf6 gxf6 28.Ka3 Kf7 29.b4 cxb4+ 30.cxb4 Ke7 31.Kb3 Bd5+ 32.Kc3 Kd6 33.b5 axb5 34.axb5 Kc5 35.Ng3 Ng7 36.b6 Kxb6 37.Kd4 Bc6 38.Ne2 Kc7 39.Kc5 b6+ 40.Kb4 Kd6 41.Nd4 Bd7 42.Kc4 Ne6 43.Ne2 Kc6 44.Kb4 Be8 45.Kc4 Bf7 46.Kb4 b5 47.Kc3 Kc5 48.Ng3 b4+ 49.Kc2 Bg6+ 50.Kb3 Nd4+ 51.Kb2 Kc4 52.Nf1 Kd3 53.Ng3 b3 54.Nf1 Bf7 55.Ng3 Ke3 56.Ne4 Kd3 57.Nxf6 h5 58.g4 Nxf3 59.gxh5 Nxh2 60.h6 Bg6 61.Kxb3 Nf3 62.h7 Bxh7 63.Nxh7 **B/N vs. B/N cannot checkmate by force - play on** 63...Nd4+ 64.Kb4 Ke4 65.Nf6+ Ke5 66.Nd7+ Kd5 67.Nb6+ Ke4 68.Kc5 Ne2 69.Nc4 1/2-1/2

phenixa - pawn-strom

Start Setup Position Play White Play Black

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## 11. One player has 2 knights against lone king



Position after 74...Nxf6

File Edit Games Commands Options Help

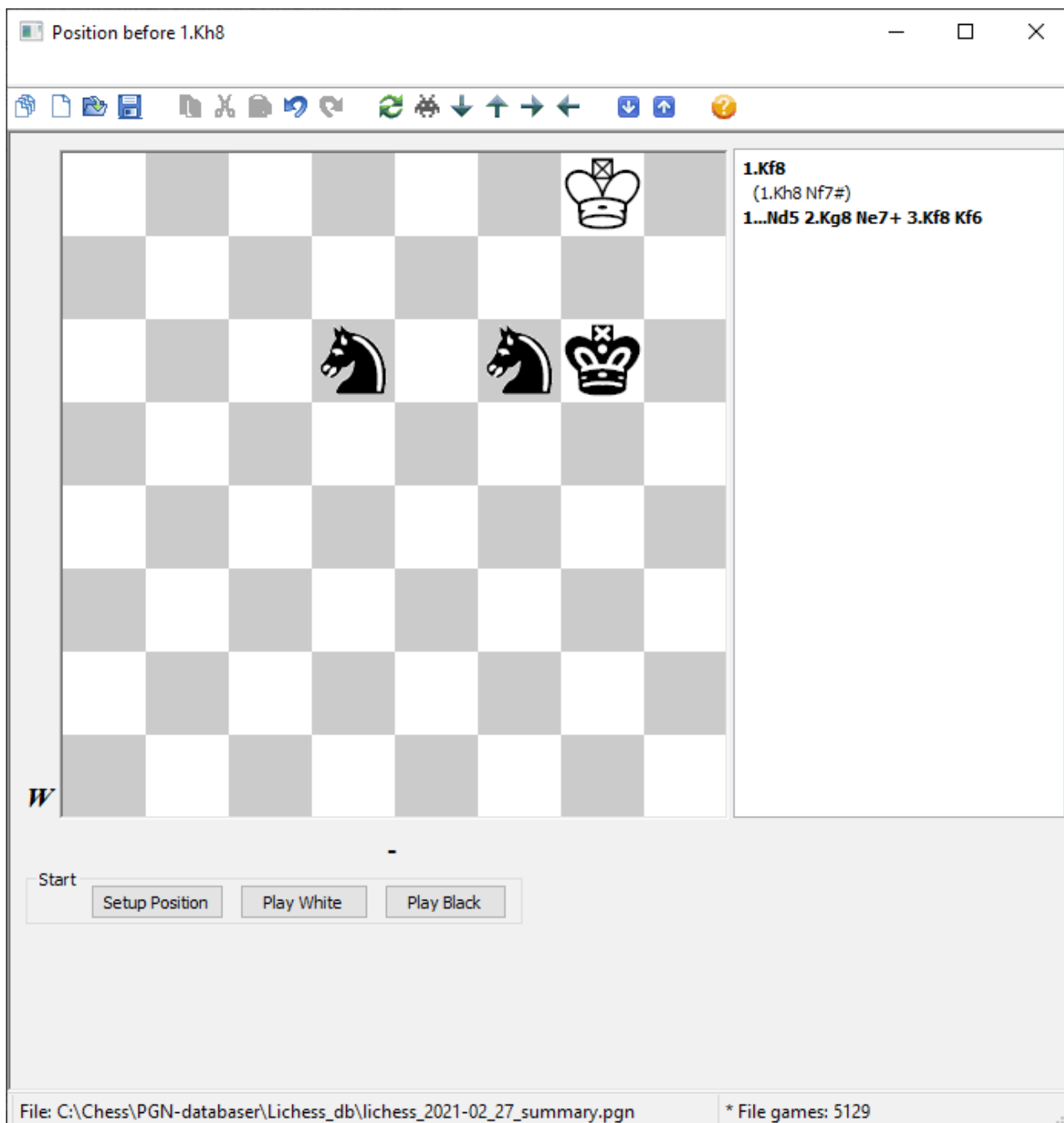
Nxh5+ 46.Kh4 Nxf4 47.Kg3 Ne8 48.Kh4 Nf6 49.Kg3 N6d5 50.Kh4 Ne3 51.Kg3 Nd3 52.f4 Ng4 53.Kf3 Nf6 54.Ke3 Nc5 55.Kd4 Ne6+ 56.Ke3 Ng4+ 57.Kf3 Nh6 58.Ke3 Kg4 59.Ke4 Ng7 60.f5 Ne8 61.Ke5 Kg5 62.Ke6 Nf6 63.Ke5 Nf7+ 64.Ke6 Nd8+ 65.Ke7 Nc6+ 66.Kd6 Nd4 67.Ke5 Ne2 68.Ke6 Nf4+ 69.Ke5 N4h5 70.Ke6 Kf4 71.Kd6 Ke4 72.Ke6 Nd5 73.f6 Nh4+ 74.Kd6 Nxf6 2 knights vs. king cannot checkmate by force - defending player can not demand a draw 75.Ke7 N4d5+ 76.Ke6 Kd4 77.Kf5 Nd7 78.Ke6 Ne5 79.Kf5 Ne7+ 80.Ke6 N7c6 81.Kf5 Kd5 82.Kf4 Nd4 83.Ke3 Ne6 84.Kd2 Nc4+ 85.Kd3 Nc5+ 86.Kc3 Ne5 87.Kb4 Kd4 88.Kb5 Ne6 89.Kb4 Nc7 90.Kb3 Nc6 91.Kc2 Nb5 92.Kd2 Nb4 93.Ke2 Ke4 94.Kd2 Nd4 95.Kc3 Nd5+ 96.Kc4 Ke3 97.Kc5 Nf4 98.Kd6 Nd3 99.Kd5 Nf4+ 100.Ke5 Nf3+ 101.Kd6 Ke4 102.Kc5 Ne5 103.Kd6 Nfd3 104.Ke6 Nc5+ 105.Kd6 Ncd7 106.Ke6 Kd4 107.Kf5 Nc5 108.Kf4 Kd3 109.Kf5 Nc4 110.Kf4 Nd6 111.Ke5 Nc4+ 112.Kd5 Kd2 113.Kxc4 Dead position: only one bishop or knight 1/2-1/2

akrem19 - AporUvas

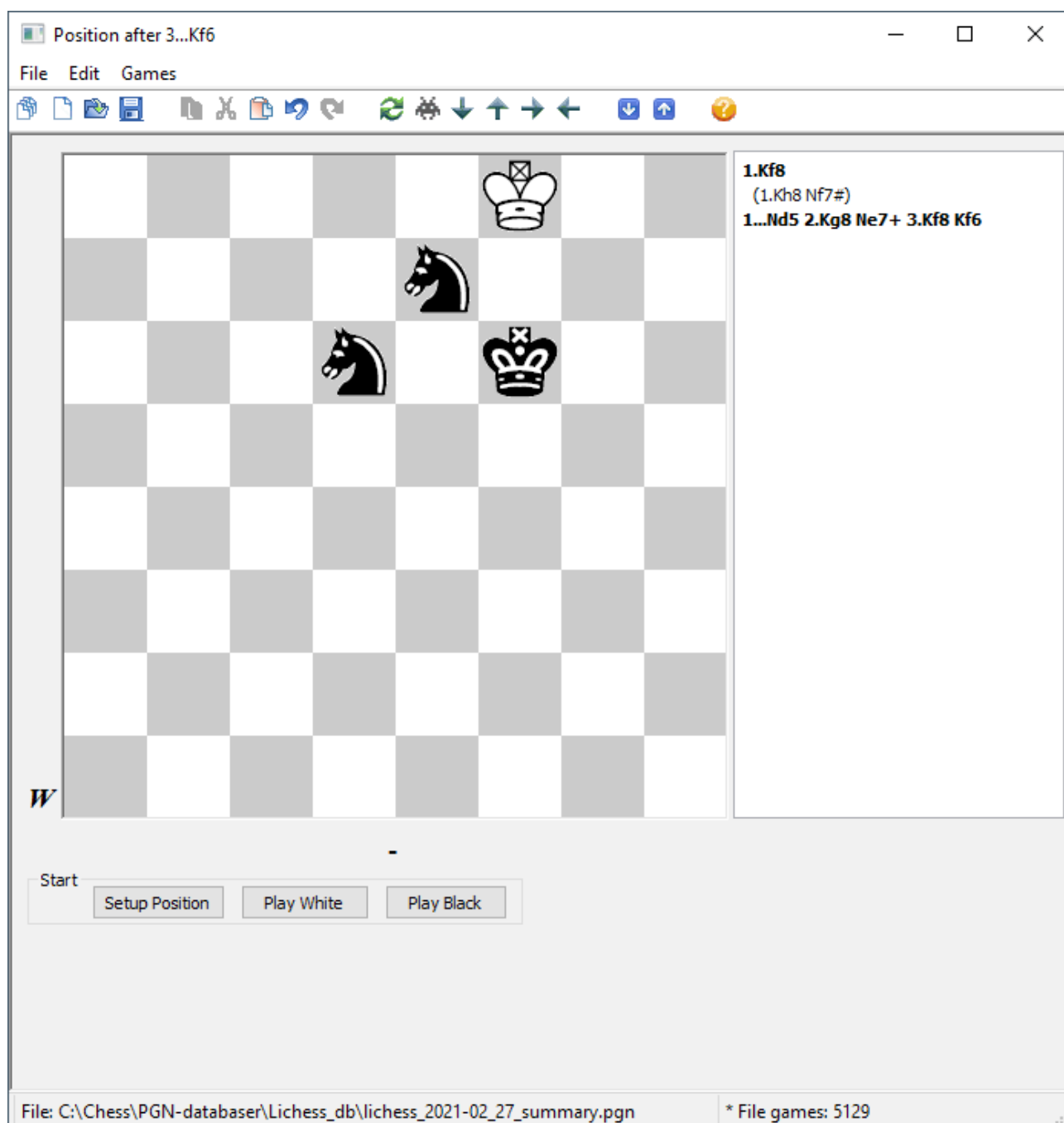
Start Setup Position Play White Play Black

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In this case the 2 knights cannot checkmate by force, but White may be put in a situation with a check, and if he goes into the corner, the other knight will give checkmate. It cannot be forced, but a defender cannot claim a draw, he/she will just have to endure 50 moves or perhaps 3-rep before claiming a draw.



In the position, if White plays 1...♔h8 he is mated with 2.♞f7#. It is not difficult to see that after the correct move 1...♔f8 there is no way to force checkmate. After 2.♞d5 ♔g8 3.♞e7+ again if 3...♔h8 4.♞f7# follows and Black is mated. We could get a funny stalemate with 3...♔f8 4.♔f6.



An unusual stalemate away from the corner.