

7th World Chess Software Championship

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The 7th World Chess Software Championship started on July 1, 2017. Seven programs participated in a round robin tournament of seven rounds. The tournament took place at the Leiden University and is organized by the ICGA, LIACS and LCDS. The sponsors are Oracle, the municipality of Leiden, Leiden University, Faculty of Science, ICGA, iSSC, SurfSara and Digital Game Technology. It is held in conjunction with the 23rd World Computer Chess Championship, 20th Computer Olympiad and the 10th Computers and Games conference.

Round 1

Chiron – Komodo ½-½

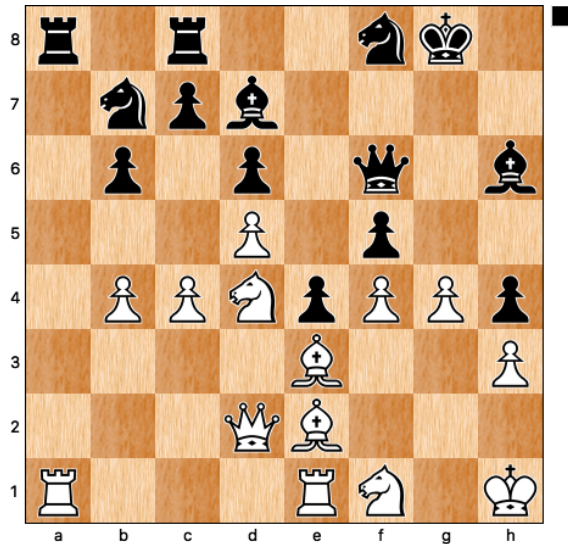
Jonny – The Baron 1-0

Ziggurat – Shredder 0-1

Chess Ebbiz 9 - bye

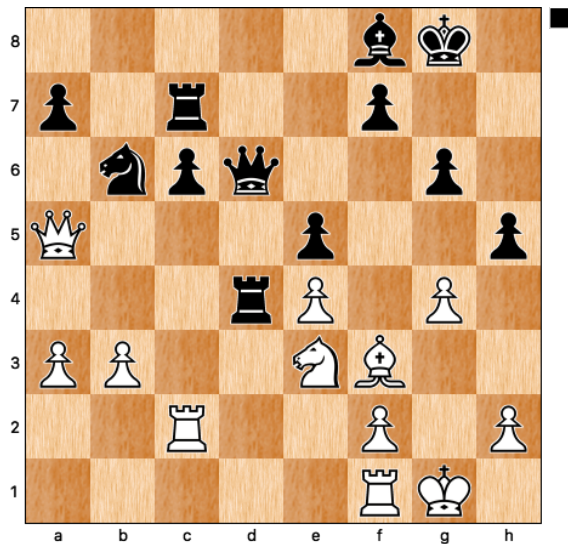
World Computer Software Champion Komodo started the tournament against Chiron which is considered an outsider. From a quiet Guicco Pianissimo it was clear that white tried to keep its small advantage as long as possible. Komodo showed tough counter play but could not turn the tables. The balance was not disturbed although Komodo attempted strongly. The audience was surprised on the resistance Chiron offered. Still Chiron managed to keep it this way and the game ended in a draw.

Jonny usually plays on 2400 cores. In the WCSC it has to obey the platform rules which constitute playing with one processor containing 4 cores and having the possibility to use 8 threads. The speed of the Intel I7 processor is 3.4 GHz. This hardware was sufficient to show its superiority to the Baron. They played a Kings Indian game that followed the books up to 19. ... b6. At least this move was not in the book, but maybe played in other human games. Slowly Jonny saw opportunities to take initiatives on the king side. Its move 30. g4 made his plans clear: opening the g-file and penetrating along that line into the black fortress. It was a long run strategy but it worked out well. The worse point for the Baron was that it could not find a weak spot in white's position. Finally the black position collapsed completely and soon thereafter the games was over.



r1r2nk1/1npb4/1p1p1q1b/3P1p2/1PPNpPPp/4B2P/3QB3/R3RN1K b - g3 0
30

Shredder played a semi-Slav against Ziggurat. They followed a known book line up to move 17. The autonomous thinking process thereafter was in favour of Shredder. Since Ziggurat felt the same it looked for unexpected moves and landed at the same idea as played by Jonny. Here the move g2-g4 had however more drawbacks. Black was alert and reacted accordingly which implied that white was facing a multitude of black pieces entering its position. The defence was very difficult and the progression of the black pieces was unstoppable. The complications on the board were all in favour of black who ended the game with a nice combination (34. ... Bxb4). Soon thereafter white resigned.



5bk1/p1r2p2/1npq2p1/Q3p2p/3rP1P1/PP2NB2/2R2P1P/5RK1 b - - 0 25

So after one round we have two leaders: 1-2 Shredder, Jonny (1 out of 1).

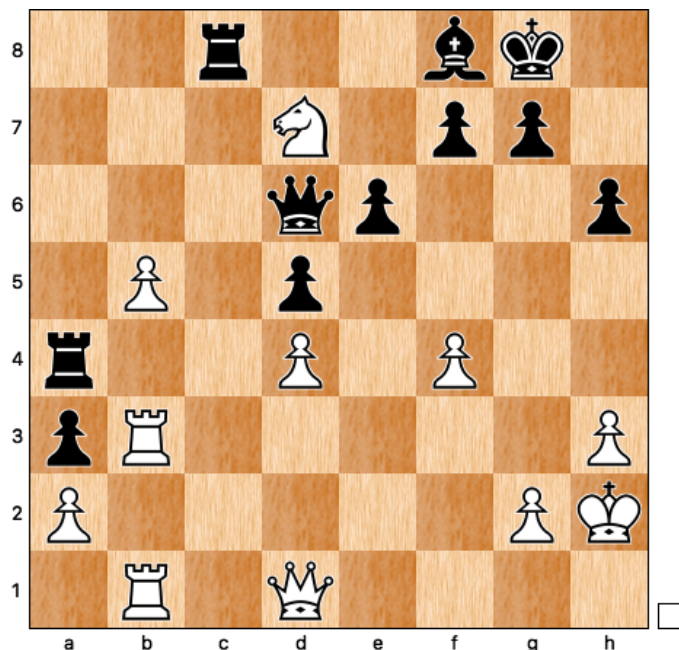
Round 2

The Baron – Ziggurat 1-0

Komodo – Jonny ½-½
Chess Ebbiz 9 – Chiron 0-1
Shredder - bye

The Baron showed good understanding of the Sicilian variation that occurred on the board in its contest with Ziggurat. On move 12 they left the opening book. In the next five moves The Baron managed to manoeuvre its pieces to excellent places. From that move onwards black has to solve one problem after the other. Most dangerous for the black king were the two bishops on the diagonals b3-g8 and c3-h8. Although black was inventive in finding many escapes, in the end it could not prevent that the powers of the bishops were stronger than its defense. White gained a full point by a nice concluding combination.

Komodo – Jonny was a meeting between the two top programs of this moment. Both were eager to win. Komodo, playing white, was eager to use that initiative for an attempt to improve his score against Jonny. Since both programs play above human world championship level it is difficult to criticize them. We can only follow the wise comments by the programs themselves or by other programs. There were chances for both sides and it must be said that they post difficult challenges to each other. One example can be seen in the diagram position where white played 41. Rg3. Here black considered three possible moves: 41. ... R8c4, 41. ... Rac4 and played finally 41. ... Ra7. The game is a joy to replay and analyse. We are sure that many interesting variations will arise from accurate analysis. However for the spectator it looked that every trial to obtain advantage could be refuted by an adequate move that showed almost the reverse. Both sides enjoyed playing so the game ended finally in a totally dead-end position. For sure the hardware used at both sides was exhausted.



2r2bk1/3N1pp1/3qp2p/1P1p4/r2P1P2/pR5P/P5PK/1R1Q4 w - - 5 40

The match Chess Ebbiz 9 versus Chiron brought us back to the old times. Then surprising moves were possible since programs had sometimes excentrique

ideas on the value of the pieces and the queen. In the current game we believe a mistake decided the game. In a Scottish game a pinned pawn was still moved, sacrificing the queen and thus losing the game.

After two rounds the lead is by Jonny and Chiron with 1.5 out of 2.

Round 3

Jonny – Chess Ebbiz 9 1-0

Ziggurat – Komodo 0-1

Shredder – The Baron 1-0

Chiron - bye

In the third round Jonny established its leading position by easy win against Chess Ebbiz 9. Apparently the latter program has not recovered from its generosity in game two and sacrificed again a piece without any compensation. Not surprisingly the game was over rather fast. A win for Jonny.

The game between Ziggurat and Komodo started with promises but in the transition from opening to midgame Ziggurat clearly did not follow a well chosen strategy. The tactical line it chose after 21. ... c5 did not bring him any chance for an equal game. The white queen was chased over the board and did find a safety place. For securing its queen white had to accept a bad position for its pieces. That was the start of a deterioration of its position. Black soon resigned.

Shredder - The Baron showed characteristics of a game between an underdog and a superior program. The underdog shows the Blumenfeld gambit. The stronger program was tricked into difficult choices. However, it found its way rather easily and avoided the pitfalls which were given to him. White sacrificed the exchange for an overwhelming position and black had to concede that his strategy had failed. There was no time for repacking and thus the Baron rather soon threw the towel in the ring.

After three rounds the leader is 1. Jonny 2.5 out of 3. 2-3 Komodo and Shredder 2 out of 3.

Round 4

Komodo – Shredder ½-½

Chess Ebbiz 9 – Ziggurat 0-1

Chiron – Jonny ½-½

The Baron - bye

In the game Komodo – Shredder the white player sacrificed a pawn for initiative against the black king and along the center lines. Clearly white had some pressure, some play and some chances. However black defended securely and accurately. The best white could achieve is regaining its pawn. Thereafter a position occurred with weak spots at both sides. White tried to exploit the black weak spot but black replied in the right way. The idea of exploiting weak spots led to a repetition of moves. So, draw was agreed.

The Chess Ebbiz program was facing the same bug as in two earlier games. Before the tournament it possessed good credentials and the author thought that he had improved its playing strength by some last mini changes. The reverse action had taken place. The program had worsened and the depreciation for the own queen was leading in the decisions. A clear loss after a completely wrong queen capture.

Chiron is showing its capabilities in this tournament. In its game against Jonny it played the Guicco Pianissimo opening which can be translated as quiet, quiet, quiet. This was exactly the course of the game. Pieces went to squares to be exchanged and other pieces were called upon central actions but the main goal was the exchange of these pieces. In a very short period seven pieces were exchanged and pawns suffered from the same faith. A draw was inevitable.

After four rounds Jonny leads by 3 (out of 4) followed by Shredder 2.5 (out of 3) and Komodo 2.5 (out of 4).

Round 5

Ziggurat – Chiron 0-1
Shredder – Chess Ebbiz 9 1-0
The Baron – Komodo 0-1
Jonny - bye

Ziggurat and Chiron tested a theoretical variation which was in their database. Ziggurat followed for 15 moves its opening library. After Ziggurat had left the book Chiron continued for another ten moves. So one can argue that the game really started on move 26. The game can be characterized as white playing carefully and cautious whereas black played actively and even aggressively. The difference in playing style resulted in a quite active position for the black queen. After 34. ... Qc2 white was in danger. Black won a pawn and soon the game. This implied that Chiron secured the place among the best four.

Shredder had a walk over since Bruno Bras had been unable to repair the illness of his program. On move 12 Shredder thanked for the piece offer by black and soon won the game.

The Baron had seriously prepared for its contest with Komodo. The Benoni Defence was played with remarkable energy by white. On move 7 Komodo was out of book. However, it played the new position so well that The Baron could not take advantage of its preparations. Komodo tricked The Baron into a turmoil of combinations that started with 10. ... b5 and 11. Nxb5. See the diagram. The battle of captures, threats and recaptures finally resulted in a kind of material balance. However, the balance of two pieces against rook and pawn turned out to be clearly in favour of Komodo. Although The Baron was alert on many tricks, it could not prevent that Komodo made progress and finally transferred the game into a won endgame.



r1bq1rk1/p4pbp/n2p1np1/1ppP4/5B2/1QN1PN2/PP2BPPP/R3K2R w KQ - 0
11

After five rounds, it is clear that the champion will come from one of the following four programs: 1. Shredder 3.5 (out of 4) 2. Komodo 3.5 (out of 5) 3-4. Chiron and Jonny 3 (out of 4).

Round 6

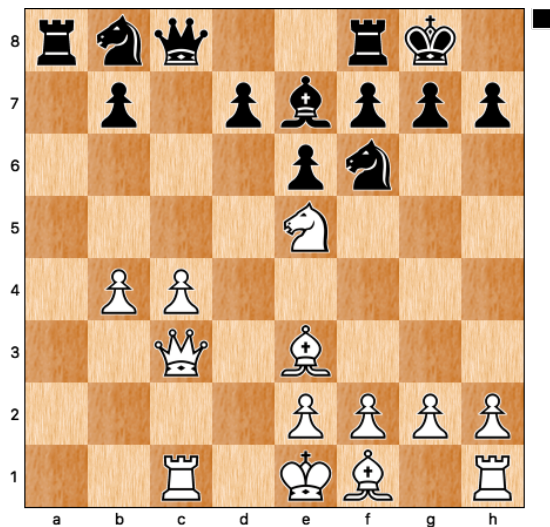
Chess Ebbiz 9 – The Baron 0-1

Chiron – Shredder 0-1

Jonny – Ziggurat 1-0

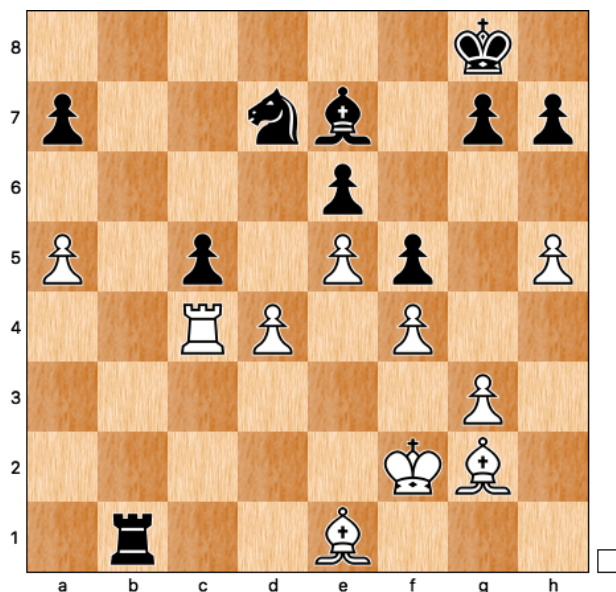
Komodo – bye

The game Chess Ebbiz 9 – The Baron had an original start. This time Chess Ebbiz 9 seemed to be able to build up a nice position with much influence in the center (see diagram). However black had a powerful reply at its disposal which immediately ends the game. The move 16. ... Nd5. After 17. exd5 follows 17. ... Bxb4. There was no escape. Hence The Baron won a few moves later the game.

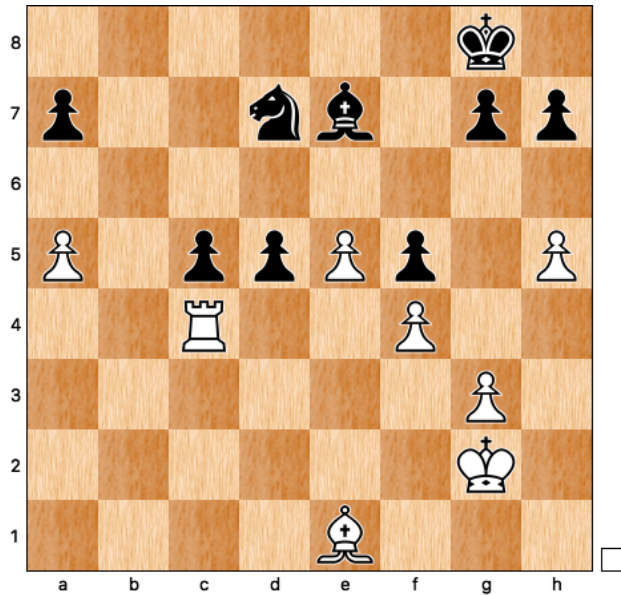


rnq2rk1/1p1pbppp/4pn2/4N3/1PP5/2Q1B3/4PPPP/2R1KB1R b K - 0 16

Jonny continued his aim to achieve the first place. It played very well against Ziggurat that was out of book after 11. Nd2. Jonny had two more book moves, namely up to 13. ... b5. Then the players started their own game. Jonny decided to sacrifice temporarily a pawn on c4 with as compensation, mobility, initiative and pressure. It led to a dynamic game with optically chances at both sides. Still Jonny turned out to be the more deeply looking program. In the diagram position it played 37. d5. Simple capture would give Jonny a superior position with two bishops and a passed pawn. However black believed it had a counter trick by sacrificing the exchange and obtaining two passed pawns in the center. See diagram.



6k1/p2nb1pp/4p3/P1p1Pp1P/2RP1P2/6P1/5KB1/1r2B3 w - - 0 37



6k1/p2nb1pp/8/P1ppPp1P/2R2P2/6P1/6K1/4B3 w - - 0 40

Obviously black had high expectations of the power its pawns. Still Jonny's evaluation must have been better because black has no chance at all in the current position. Jonny handled it professionally and achieved a full point with convincing play. The strategic line was bringing the white rook to the seventh rank, bringing death and destruction. A clear win for white.

Chiron – Shredder was a Sicilian game with white fianchetto. Both programs played along well-known paths originating directly from their opening book. A far reaching strategic decision was made by Shredder by playing 25. ... f4 weakening in essence the white king's position. See diagram 1 below.

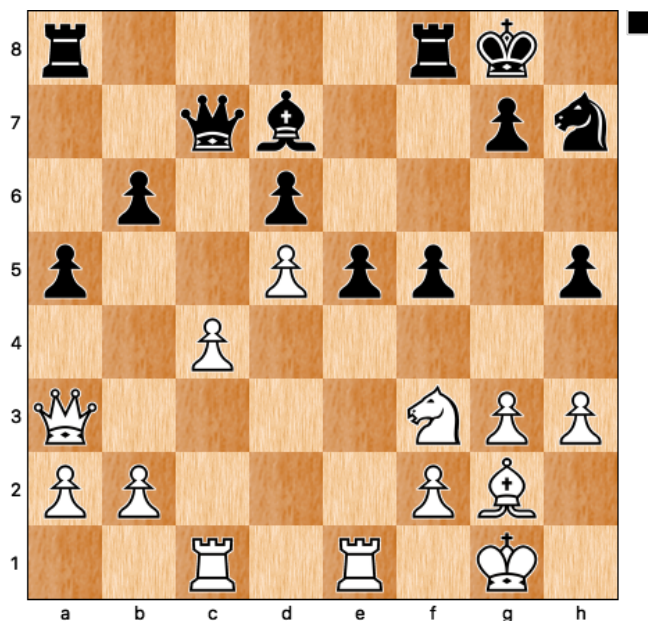


Diagram 1

r4rk1/2qb2pn/1p1p4/p2Ppp1p/2P5/Q4NPP/PP3PB1/2R1R1K1 b - - 3 25

However white was not awaiting the strategic pressure as black might foresee and decided to take the initiative by playing 26. gxf4, Rxf4 27. Nxe5. It brought to light possibilities like d6 and opening the long diagonal up to a8. Meanwhile white enriched the possibilities by inserting the advance of the c-pawn. After the captures black's pawn position was completely shattered (see diagram 2). White may have evaluated this position as better since it is able to collect three weak pawns: 32. Rxe5, Rh4 33. Qxc5, Nf6 34. Qxa5.

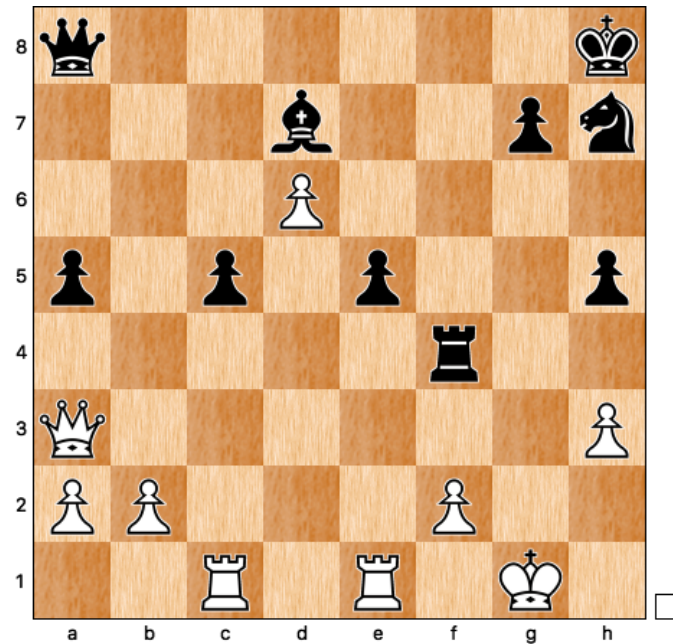


Diagram 2

q6k/3b2pn/3P4/p1p1p2p/5r2/Q6P/PP3P2/2R1R1K1 w - - 0 32

Yet it was difficult to gain advantage from materially favourable position, since the dynamic of the two black light pieces and the weakening of the white king fortress showed to be sufficient compensation for black. What follows is an exciting battle under speed chess conditions since both players were in the last quarter of the time allotted. Finally, they arrived in the position of diagram 3.

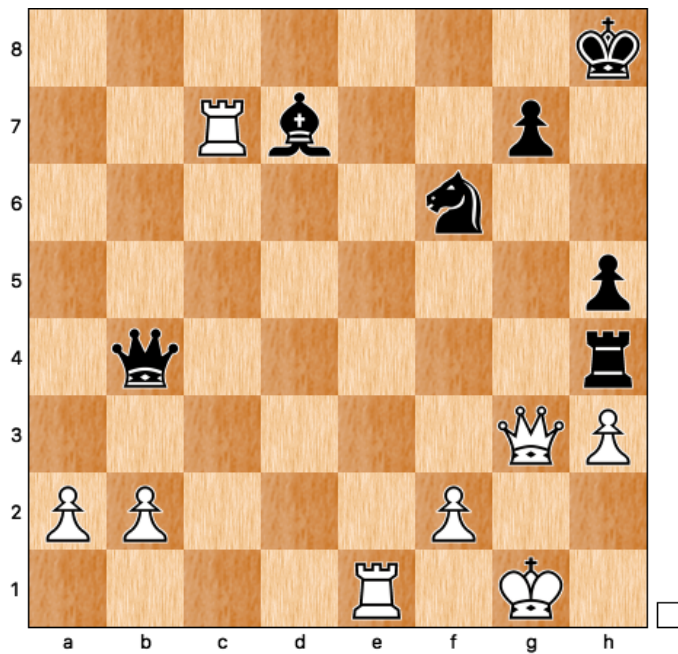


Diagram 3

7k/2Rb2p1/5n2/7p/1q5r/6QP/PP3P2/4R1K1 w - - 6 41

There white decided to exchange the rooks via an indirect method by playing 41. Re7, Qxe7 42. Qxh4. The resulting position was the start of a fascinating endgame in which subtle maneuvers finally decided the winner.

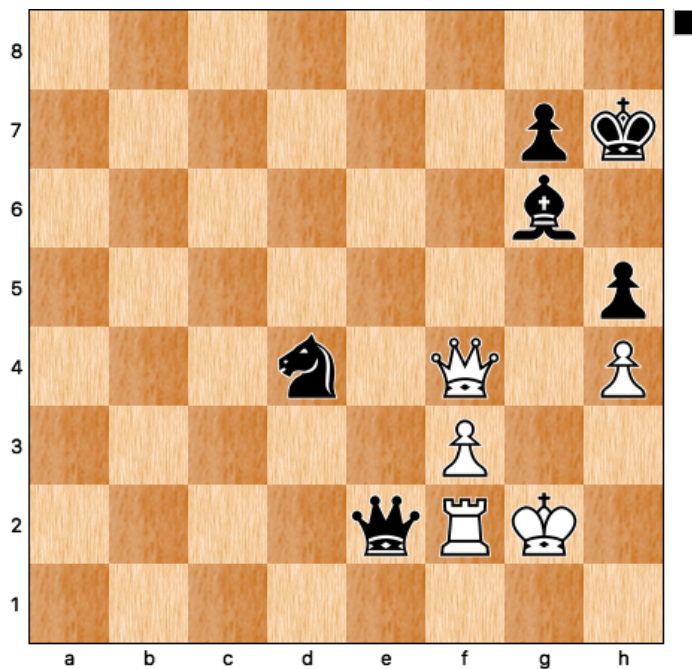


Diagram 4

8/6pk/6b1/7p/3n1Q1P/5P2/4qRK1/8 b - - 27 79

Diagram 4 shows one of the subtleties played since black kept the initiative by playing 79. ... Ne6. Subsequently black continued to gain spatial advantage and with simple but nice combination it transformed the game into a win.

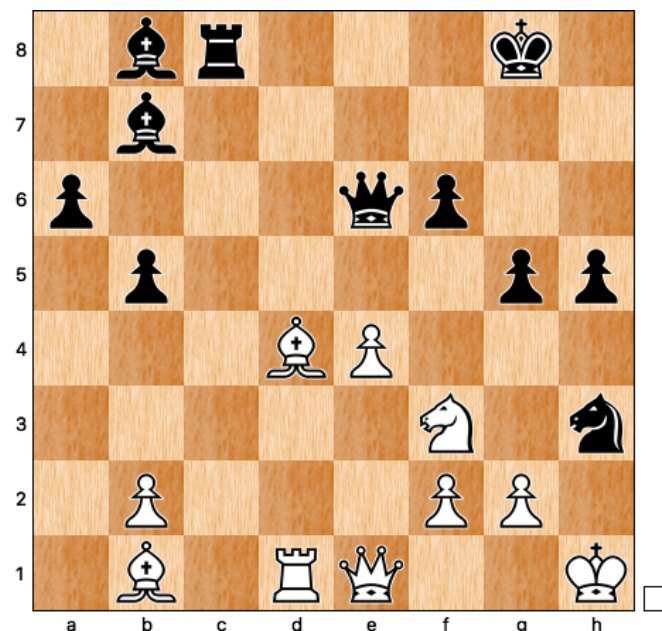
After 6 rounds Shredder deservedly leads the pack by 4.5 out of 5. Followed by Jonny 4 out of 5 and Komodo 3.5 out of 5. The last round will bring the decision since Shredder (white) is paired to Jonny.

Round 7

Shredder – Jonny ½-½
 The Baron – Chiron ½-½
 Komodo – Chess Ebbiz 9 1-0
 Ziggurat - bye

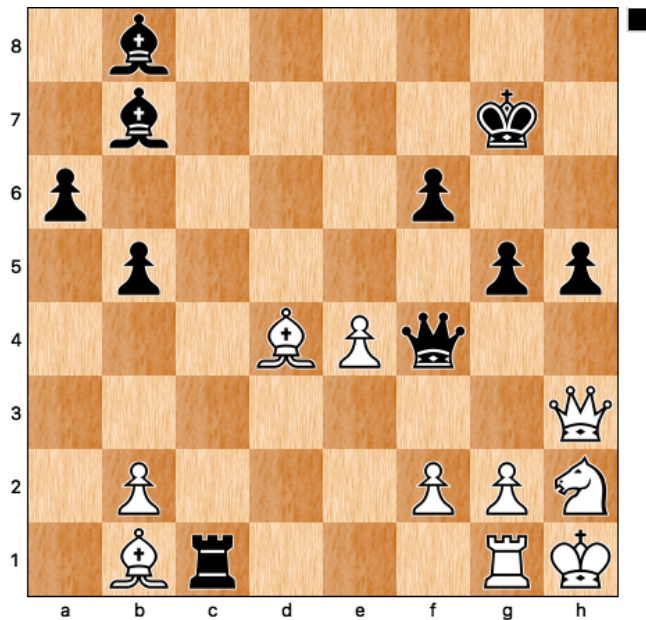
The World Computer Software Championship had to be decided in the last round in the game Shredder – Jonny. Both programmers know each other very well but a friendly draw was not to be expected since that would mean that Shredder gained the title. Their fight was of the highest caliber, exciting with sacrifices from both sides and with subtle maneuvers. Below we provide four high points of the contest which finally ended in a draw. Our congratulations are therefore for Stefan Meyer-Kahlen for Shredders performance of winning the tournament with 5 points out of 6 games. A fantastic result.

After a quiet Semi-Slav opening in which both sides followed the book lines up to far in the middle game, the real struggle showed many subtleties. In the diagram below we see that white is confronted with a black knight capturing pawn h3. The reaction is denying the knight and looking for own opportunities by 42. Qa5.



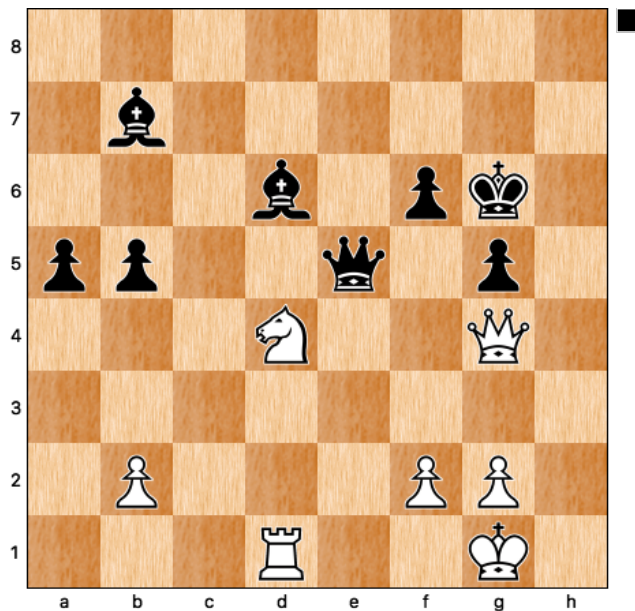
1br3k1/1b6/p3qp2/1p4pp/3BP3/5N1n/1P3PP1/1B1RQ2K w - - 0 42

After white has captured the knight on h3, black has maneuvered its pieces on such positions that he could immediately regain the piece by a nice combination, namely 47. ... Rxb1 48. Rxb1 Qxe4 49. Rf1 (49. Rd1 is answered by 49. ... g4) Qxd4 50. Qxh5, Qe4.



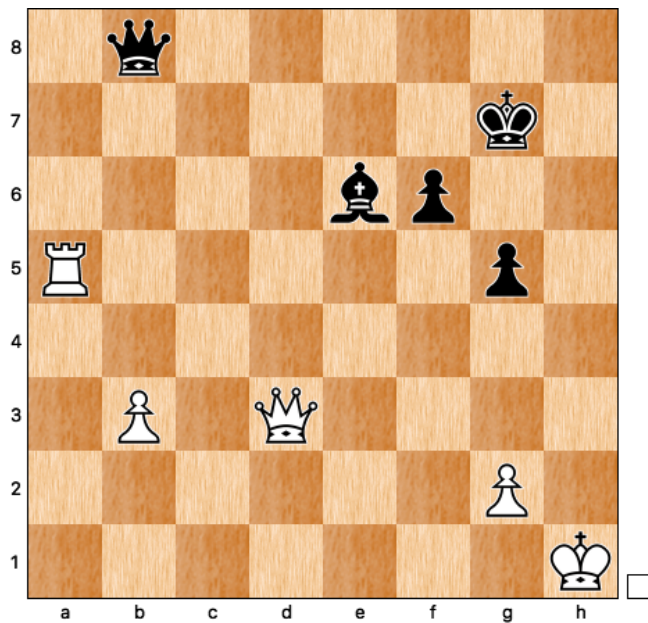
1b6/1b4k1/p4p2/1p4pp/3BPq2/7Q/1P3PPN/1Br3RK b - - 2 47

With two bishops and four pawns against rook and knight with three pawns there is a kind of material balance, but positional the situation is rather dynamic. An example is seen in the diagram 4 where black played 58. ... Bc5. The game continued by 59. Nxb5, Bxf2 60. Kxf2, Qxb5 61. Qd4. In the following it turned out that both sides had sufficient resources to keep the delicate balance as it is.



8/1b6/3b1pk1/pp2q1p1/3N2Q1/8/1P3PP1/3R2K1 b - - 7 58

A second example of delicate balance is given in diagram 5 where the game continued by 84. Qd4, Qxb3 85. Rxc5+, Kf7 86. Qa7+, Ke8.



1q6/6k1/4bp2/R5p1/8/1P1Q4/6P1/7K w - - 3 84

After exchanging the queens, the final result was a draw according to the 6-men endgame database table KRPKBP. Once more congratulations to Shredder.

In the game The Baron versus Chiron, The Baron showed its power as being a dangerous program for strong contenders. It left the opening phase with a small advantage, a pawn up with some obstacles to overcome. However black showed that the obstacles were able to help him to regain the pawn. Thereafter it was a draw.

A remarkable game was played by Komodo and Chess Ebbiz 9. Komodo won by time forfeit at the side of Chess Ebbiz 9. In the final position Komodo was winning. It brought Komodo on the shared second place together with Jonny.

Play-off

For the second and third place a play-off was necessary between Jonny and Komodo. Two games with the time control of 20 minutes and 15 seconds per move will be played.

The first game was a Queens Pawn opening. Both players followed trodden paths and arrived in an equal middle game. Many pieces were exchanged and only a few remained on the board. However all pawns remained on the board and soon they were positioned in such a way that there were two walls which were intermingled although in the meantime white had sacrificed a pawn. Both players continued to move the pieces forwards and backwards, leftwards and rightwards. After 170 moves they stopped playing and agreed on a draw.

The second game was won by Komodo. An attack on the black king side was not stoppable by Jonny. After 39. g5 he gave up.

The final standing

1. Shredder
2. Komodo
3. Jonny
4. Chiron
5. The Baron
6. Ziggurat
7. Chess Ebbiz 9