The 1989 CSVN-Aegon Tournament

Dap Hartmann

Since 1984, the Dutch Computer Chess Association (CSVN) and the AEGON insurance company have organized a yearly dedicated man-machine tournament. The general formula of this event is that about a dozen invited human chess-players compete with an equal number of computers in a 6-round Swiss tournament. The rules of pairing are modified such that there will be man-computer confrontations only. The tournaments held from 1984 to 1987 were mere encounters between average-level human chess-players and commercial chess computers. A first step towards the participation of stronger chess programs was made last year when Jonathan Schaeffer’s PHOENIX was invited. Unfortunately, the program then ran only on a few computers as opposed to its 'standard' tournament hardware of at least 20 interconnected machines. The final score of 2 out of 6 was a bitter disappointment to those who had predicted that PHOENIX would finish in 3rd place or better. This made it even more difficult to persuade the public that chess programs were stronger than their performance. Disastrously, this fostered the notion that in order to persuade the sceptics, ever stronger computers had to be invited to future episodes of the tournament.

The 1989 edition of this man-computer tournament was organized by Cock de Gorter, Dap Hartmann and Bart Verbaan. The main goal was to get two of the strongest chess-playing computers to lead the machines’ team. Initial contacts with the two computer-chess teams at Carnegie-Mellon University showed that they were only luke-warm to join. In order to make the event worthwhile, at least two grandmasters should be invited, since programs of this caliber ‘eat masters for breakfast’ (quoting Hans Berliner). This condition put the pressure on the organizers for two reasons. Firstly, the number of grandmasters in The Netherlands is only about half a dozen. Since the tournament was spread out over a three-week period, inviting foreign grandmasters was infeasible. Besides these practical problems, there were serious financial issues. Up to that point, chess-players participating in the AEGON tournaments competed for the (limited) prize money only. Grandmasters demand a certified income apart from the prize money. Moreover, operating two chess machines via long-distance telephone lines is a costly affair. With considerable financial support of the CSVN and the importers of commercial chess computers, the 6th AEGON man-computer tournament was made possible in spite of these obstacles. The only concession made was that there were to be only 5 rounds of play this year, as opposed to the usual 6.

The 32 participants to the 1989 AEGON tournament were 16 human chess-players (Ree, Ligterink, Van der Vliet, Jongsm, Tudjian, Van der Berg, Bakker, Pam, Kieboom Loewenthal, Voorn, Wagenaar, Verbaan, Voortmeyer, Van der Laan and Rck), and 16 computers (ChipTest, Hitech, Mach IV+, Mach IV, Mach III, Almeria 32-bit, Almeria 16-bit, Quest, Novag-1, Novag-2, Sfinx, The King, Kallisto, Dappet, Complete Chess Machine and Phantom). The pre-tournament expectancy was that there would be a serious battle for first place between the best of the humans, IGM Hans Ree and IM Gert Ligterink, and the top-notch computers, ChipTest and Hitech.

Most believed that there would be some permutation of these four over the first four final places. So it was not to be. As the tournament progressed, it became clear that the human players had few problems defeating the best computers. How came? ChipTest and Hitech had defeated numerous masters and grandmasters in various open tournaments in the US. Why then should they lose to players like Ad van den Berg and Fred van der Vliet, whose ELO ratings are much lower? In my opinion two important factors make all the difference. First, the humans invited to play in this tournament enjoy playing computers. Voluntary participating in a 5-round man-computer tournament with very modest prize money is a different cup of tea from playing in an open tournament with high stakes and ‘running the risk’ of meeting a computer as an opponent. Essentially the human beings were eager volunteers willing to eat a computer for breakfast. Second, most of the players had been participating in previous AEGON tournaments or otherwise had wide experience in playing computers. Some had formulated special strategies to defeat computers. Lex Jongsm (last year’s winner) and Ad van den Berg (this year’s winner) handled the white pieces in a rather unorthodox but very efficient way. The main strategy behind their opening moves (1. Nc3 2. e4 3. Nce2) was to force the computer out of book as soon as possible, while still sticking to a plan of their own. Playing Black, Jongsm pursued similar tactics by playing an obscure line from the Sicilian defence: 1. e4 c5 2. Nf3 g6.
Most of the humans, however, chose to play sound orthodox openings in which hoary principles underlay the moves. Their experience in playing computers had taught them that in most games there is a point where the computer shows a definite lack of understanding of the positional aspects of a particular opening. That is what most players were tumbling to exploit. The obvious mistake, seen all too often in games where seasoned chessplayers lose against computers, is that humans conceive plans beyond hope of success. Most competitors in the AEGON tournament knew the temptation, therefore they chose to play soundly, quietly waiting for the machine to slip up.

The combination of positive motivation to play computers and the experience in doing so clearly gave these participants a definite edge over chess machines, even of this calibre. The games of ChipTest and Hitech in this tournament clearly show that they lack the ability to adapt their play to the sound strategies of the experienced computer fighters.

Here is where they finally stood:

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<tbody>
<tr>
<td>3</td>
<td>Ree</td>
<td>4.5 pnt</td>
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<tr>
<td>4 - 7</td>
<td>Ligterink, Verbaan, Loewenthal, Jongsma</td>
<td>4 pnt</td>
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<tr>
<td>8 - 12</td>
<td>Mach IV+, Pam, Kieboom, Wagenaar, Tudjman</td>
<td>3.5 pnt</td>
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<tr>
<td>13 - 15</td>
<td>Voorn, Bakker, v.d.Laan</td>
<td>3 pnt</td>
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<tr>
<td>16 - 18</td>
<td>Hitech, Mach IV, Almeria 32-bit</td>
<td>2.5 pnt</td>
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<tr>
<td>19 - 22</td>
<td>ChipTest, Mach III, Voortmeyer, Rek</td>
<td>2 pnt</td>
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<tr>
<td>23 - 24</td>
<td>Quest, Novag-1</td>
<td>1.5 pnt</td>
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<td>25 - 28</td>
<td>The King, Novag-2, Sphinx, CC Machine</td>
<td>1 pnt</td>
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<td>29 - 30</td>
<td>Almeria 16-bit, Dappet</td>
<td>0.5 pnt</td>
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<td>31 - 32</td>
<td>Kallisto, Phantom</td>
<td>0 pnt</td>
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In summary: Humans-Computers: 57.5 - 23

The final result may seem disappointing for the computers, since the human players got 71% of the points, and the highest-finishing computer held only 8th place. However, I feel that this tournament was an exceptionally good confrontation between human chess-players and chess-computer players.

The CSVN-AEGON tournament clearly leads the way for future man-machine encounters: well-motivated, well-prepared humans giving their best against computers whose programmers are equally eager for improvement of their programs.

I think that the resulting games are very worthwhile to study in detail, for both programmers and chess-players. To the former it will clearly show the weaknesses still present in even the best of today’s programs, whereas the latter can learn how to compete successfully against those emotionless creatures soon to be invincible.

A selection of the games of the tournament (all games of Ree, Ligterink, ChipTest and Hitech) follows.

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1) The seeming inconsistency in the final score is the result of a special decision made by the tournament direction. The game between Hitech and Kieboom could not take place because the communication equipment at the tournament site was malfunctioning. Therefore the game was regarded as a win for Kieboom. After protests of the Hitech team it was then decided to give Hitech the opportunity to earn its score in this game by playing an extra game against an equally strong player. A few days later that game was played between Hitech and Loewenthal. The result of this game was a draw. Loewenthal’s score was not affected by this, and the result of the game Hitech-Kieboom is therefore 0.5 - 1.
Ree - Quest


Mach IV - Ligterink


Tudjman - ChipTest


Hitech - Van den Berg


Almeria 16-bit - Ree


Ligterink - Sfinx

36. Ng5 Nf7 37. a4 Nd7 38. Rfc1 Rc6 39. Ng3 a5 40. b5 Rxc5 41. Bxa5 Rxc1 42. Rxc1 b6 43. Bd2 Ne5 44. Nhx5 Be7 45. Nf5 Bg5 46. Bxg5 Rxe5 47. Nff6 Nxd3 48. Re2 Ng5 49. Ndj Kc8 50. f4 d3 51. Nef7+ Kb8 52. Rd2 exf4 53. Nxf4 Ne5 54. Nedx5 Nxe4 55. Rd1 Ng4+ 56. Kg1 d2 57. Ra1 Re5 58. g3 Nef2 59. Rf1 Re6 60. Nc3 Ne4 61. Nfe2 Ne3 0-1.

ChipTest - Voorn


Van der Vliet - ChipTest


Mach III - Ligerink


Ree - Mach IV+


Hitech - Loewenthal


Ligerink - Hitech

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