

# CHESS TOURNAMENT

*Tony Harrington presents an analysis of play at the PCW 4th European Microcomputer Chess Tournament.*

No writs were issued. There were no acrimonious exchanges and a good time was had by all. The 1983 PCW 4th European Chess Tournament proved once more that computer chess tournaments, even with commercial suppliers involved, can be great. The Tournament was a nine round Swiss event, held as part of the PCW Show from 28 September to 2 October at the Barbican, London. For those of you who don't know what a Swiss tournament entails, it is a clever arrangement which ensures that if you keep winning, the going gets harder round by round. If you lose, and keep losing, it gets easier and easier to win a game. Play was at the rate of three minutes a move, and unfinished games were adjudicated after five hours play.

If ever there was a tournament that asked a lot of its participants, this was it. The Barbican Exhibition Halls have their power shut off at 7pm, so to complete two rounds a day play had to start at 8.30am every morning. A very long day for all concerned.

Fortunately, five hours play turned out to be quite sufficient and very few games had to be adjudicated. Dr John Nunn, Britain's leading grandmaster, took charge of this department, so there were no disputes about the adjudicator's verdict!

There is always something fascinating about the first round of a Swiss tournament. Nobody, or in this case, no machine, has yet disgraced itself, no blunders have been committed, no brilliancies executed. That relentless separation of the best from the worst still lies ahead.

The rough plan for the first round pairings adopted by Peter Morrish, who controlled the pairings for each round, was to divide the field into groups of four, based largely on guesswork as to the likely playing strengths of the various programs. Machines in the top group were then drawn randomly against machines in the lowest group and the middle groups were paired off against each other.

We started the first round with twelve programs present out of an expected fourteen. SciSys had hoped to have a working prototype of its Superchess from Hong Kong in time for the Tournament, but various things intervened and a phone call half way through the first round made it clear that it would not be entering.

This should have left an odd number for the first round draw, but Artic Computing had got itself into a muddle and thought that the Tournament began on Thursday instead of Wednesday. Since play started at 8.30am, when Artic's stand at the show,

in common with nearly all the exhibitors stands, was bare of a living soul, the problem of odd numbers didn't make itself felt till the second round. Fortunately, since the second round started at 2pm when all the exhibitors were at their stands, we were able to tell Artic that it had missed the first round and had better look sharpish if it didn't intend to miss the next.

The presence of Artic, however, made the odd number of entrants a problem. Rather than give one of the programs a bye each round, we looked for a 'default' machine. The distributors of both Novag and Conchess had display stands in the Tournament area so there was no shortage of an extra machine to be coaxed in with the promise of a free entry.

Novag was already in the Tournament with Constellation, and Conchess had decided not to enter because its latest openings book cartridge was not yet available. But Intelligent Software had a very interesting new auto-response board on display on the Novag stand, called Chess 2001.

A modified version of this program was already in the Tournament, running on a Sirius computer in the 'home computer' category. How would the unmodified program, running on the machine it was designed to serve, perform? David Levy leapt at the chance of having yet another of his 'offspring' in the Tournament and Chess 2001 accordingly came in to even up the numbers.

The line up of programs at the start of the Tournament (or at least, by the start of the second round) was as follows:

Advance 3-0, by David Wilson and Mike Johnson (amateur), running on a bit-slice machine; Colossus, by Martin Bryant (amateur), running on an Apple; Caesar, by John Lowe (amateur), running on a Tandy Radioshack; Chessnut 2, by Geoff Bulmer (amateur), running on a modified Acorn; Merlin X, by Jeff Rollason (amateur), running on a Nascom 2; Albatross, by Mike Parker (amateur), running on a Nascom 1; Mephisto Experimental (commercial); Constellation, by Novag (commercial); Chess 2001 (commercial); Spectrum Chess II, by Artic Computing (home computer), Spectrum; Cyrus I.S. Chess, by Sinclair Research/Intelligent Software (home computer), Spectrum; Cyrus Dragon, by Dragon Data/Intelligent Software (home computer), Dragon; White Knight 11, by BBC Publications/Martin Bryant, BBC; Cyrus 2-5, by Intelligent Software, Sirius with Z80 card.

The draw for the first round looked unlikely to produce anything dramatic. Many of the machines present were unknown quantities, and the clashes everyone wanted to see were scheduled for later rounds. The pairings were as follows:

## Draw and results for Round One

(1) Advance 3-0	vs
(1) Colossus	vs
(0) Caesar	vs
(1) Cyrus 2-5	vs
(1) Albatross	
(1) White Knight 11	

Cyrus I.S. Chess	(0)
Mephisto Experimental	(0)
Constellation	(1)
Merlin X	(0)
Cyrus Dragon	(0)
Chessnut 2	(0)
(½) bye awarded to Spectrum Chess and Chess 2001.	

The game that, on paper, looked as if it would be the most interesting was that played by the Mephisto Experimental. This machine has had a great deal of work put into it in an attempt to move away from brute force analysis into more selective, 'intuitive' evaluations. Unfortunately, as this first round and the rest of the Tournament showed, there are still a few bugs to be ironed out.

Martin Bryant's Colossus is a successor to his White Knight Mk.10 program which won the prize for the second best amateur program in last year's Tournament. So it could be expected to put up a good struggle. On the day, though, it began with what can only be described as extreme caution. The opening moves were:

- 1 Nc3 d5
- 2 e3 Nf6
- 3 d4 Bg4
- 4 Be2 Bxb
- 5 KNxB Nc6
- 6 O-O e6

As these first few moves made plain, this was not going to be a memorable game. White began with all the aggressive enthusiasm of a dumpling, and Black's reaction was somewhat mindless. The full game score will appear in the games section at a later date. Suffice it to say here that although the position livened up a little, Mephisto lost its way in a relatively simple position and threw away the game.

The game between Novag and John Lowe's program, Caesar, was a Guicco Piano in which Caesar, as White, gave up the customary pawn for superior piece play that never happened. An ill-advised romp after pawns by the White King in the end

game turned out to be suicidal and the Constellation found itself with an easy win. Advance 3.0 was always going to be too strong for the Spectrum version of Cyrus.

#### Draw and results for Round Two

(1) (0) White Knight	vs
(1) (1) Constellation	vs
(1) (0) Albatross	vs
(1/2) (1) Chess 2001	vs
(0) (1) Mephisto	vs
(0) (1) Merlin	vs
(0) (1) Cyrus I.S. Chess	vs

Advance 3.0	(1) (1)
Colossus	(1) (0)
Cyrus 2.5	(1) (1)
Spectrum Chess	(1/2) (0)
Caesar	(0) (0)
Cyrus Dragon	(0) (0)
Chessnut	(0) (0)

(The cumulative score achieved so far is the first bracketed number. The second is the result of that match.)

Mephisto and Constellation found themselves playing the other's opponent of the morning. Both won reasonably convincingly. Advance 3.0, pitted once again against a home computer program, found the going pleasant enough.

This round saw the first game by Chess 2001, drawn against Artie's Spectrum Chess II. You can see the full game, with annotations by John Nunn in the games section next month. The Spectrum program seemed to take the maxim that the king is a fighting piece a little too much to heart in this game. The thing that amused the spectators though, in Nunn's standing-room only demonstration of the game during the Show, was the way Chess 2001 appeared to realise that Black had gone into self destruct.

It had been trying to win through on the queenside when the Black monarch began its lone advance. It promptly stopped all operations and shuffled its king and rook about while it awaited developments. 'At this point white seems to have decided that I need do absolutely nothing since black is doing it all for him,' Nunn remarked.

#### Draw and results for Round Three

(2) (0) Advance 3.0	vs
(2) (1/2) Cyrus 2.5	vs
(1) (0) Merlin X	vs
(1) (1/2) Colossus	vs
(1) (1) Cyrus I.S.	vs
(0) (0) Chessnut	vs
(0) (0) Cyrus Dragon	vs

Constellation	(2) (1)
Chess 2001	(1/2) (1/2)
Mephisto	(1) (1)
White Knight	(1) (1/2)
Albatross	(1) (0)
Caesar	(0) (1)
Spectrum Chess	(1/2) (1)

Mike Parker's program, Albatross, which finished the Tournament with one and a half points — much to its author's delight — turned out to be vulnerable to spectators. Someone took a flashlight photo rather too close to it and the Nascom 1, on which the Albatross was running, promptly had a seizure. This prompted cries of 'Don't shoot the Albatross' for the next seven rounds whenever anyone with a

camera appeared on the scene.

The real shock of this round, however, was the loss — the only one it suffered during the Tournament — of Advance 3.0 to the Constellation. Again, this will appear in a later games section.

#### Draw and results for Round Four

(3) (0) Constellation	vs
(2) (0) Chess 2001	vs
(2) (1/2) Mephisto	vs
(1/2) (1/2) Spectrum Chess	vs
(1) (1/2) Caesar	vs
(1) (0) Albatross	vs
(0) (0) Chessnut	vs

Cyrus 2.5	(2 1/2) (1)
Advance 3.0	(2) (1)
Cyrus I.S.	(2) (1/2)
White Knight	(1 1/2) (1/2)
Colossus	(1 1/2) (0)
Merlin X	(1) (1)
Cyrus Dragon	(0) (1)

A glance at the progressive scores will show that Cyrus Dragon is falling behind its stable-mates. The reason is that in the 8k allocated to the program, there was no space to build a proper time control function, so it either played too quickly or lost on time. The program itself, for those of you with Dragons, plays a reasonable game when it doesn't have to worry about time.

#### Draw and results for the Fifth Round

(3) (1) Advance 3.0	vs
(2 1/2) (1) Cyrus I.S.	vs
(2) (1) White Knight	vs
(2) (0) Spectrum Chess	vs
(2) (0) Merlin	vs
(1) (0) Cyrus Dragon	vs
(0) (1/2) Chessnut	vs

Cyrus 2.5	(3 1/2) (0)
Constellation	(3) (0)
Mephisto	(2 1/2) (0)
Caesar	(2) (1)
Chess 2001	(2) (1)
Colossus	(1 1/2) (1)
Albatross	(1) (1/2)

One of the best games of the Tournament occurred in this round, between Advance and Cyrus 2.5. It is given in full with annotations by John Nunn in the games section.

The home computer programs had a surprisingly successful run against the dedicated chess machines this time, with both the Cyrus Spectrum and the BBC Micro programs beating Constellation and Mephisto. By the end of the Tournament Constellation and Chess 2001 emerged as significantly stronger than the home computer programs. For the Mephisto, we will have to wait and see. The word from Germany was that the bugs would be sorted out before the Budapest World Championships in mid-October. (By the time this goes to print, of course, this event will already have been played.) We intend to have a full report on the Budapest Tournament in a later column.

#### Draw and results for Round Six

(3) (0) Caesar	vs
(3 1/2) (1/2) Cyrus 2.5	vs
(3) (1) Constellation	vs
(2 1/2) (0) Colossus	vs
(2) (1) Spectrum Chess	vs

(2 1/2) (1) Mephisto	vs
(2) (1) Merlin	vs

Advance	(4) (1)
Cyrus I.S.	(3 1/2) (1/2)
White Knight	(3) (0)
Chess 2001	(3) (1)
Albatross	(1 1/2) (0)
Cyrus Dragon	(1) (0)
Chessnut	(1/2) (0)

Between players, one might suspect a 'fix' in the smooth, grandmasterly repetition of position draw that Cyrus 2.5 and Cyrus I.S. Chess seemed to agree between themselves. But machines are not supposed to behave like that. White Knight had managed to beat Mephisto in the previous round, but having lost to one home computer already, Constellation knuckled down and outplayed the Beeb completely, mating it in 26 moves (again, this game will be in a later games section).

#### Draw and results for Round Seven

(5) (1/2) Advance 3.0	vs
(4) (1) Chess 2001	vs
(4) (1/2) Cyrus 2.5	vs
(4) (0) Cyrus I.S.	vs
(1) (1/2) Cyrus Dragon	vs
(1/2) (0) Chessnut	vs
(1 1/2) (0) Albatross	vs

Mephisto	(3 1/2) (1/2)
Constellation	(4) (0)
Spectrum Chess	(3) (1/2)
Merlin	(3) (1)
White Knight	(3) (1/2)
Colossus	(2 1/2) (1)
Caesar	(3) (1)

Despite an indifferent overall result, Mephisto did very well in this game to hold onto Advance and get the half point. (It did well the following round as well to get a half point against Chess 2001, which was rapidly emerging as the commercial machine to beat.)

The clash between the Novag Constellation and Chess 2001 proved very interesting. One game doesn't settle anything, and there was only half a point between the two machines at the end of the Tournament, but on this game at least, Chess 2001 seems to have the edge. It won a pawn in a complex version of the Closed Sicilian (where White plays 2 Nb1-c3 and omits P-q4) and never let go after that. This was another good game and will be given in full at a later stage.

#### Draw and Results for Round Eight

(4) (0) Merlin	vs
(4) (1/2) Mephisto	vs
(4) (1) Caesar	vs
(3 1/2) (1/2) Colossus	vs
(4) (1) Constellation	vs
(3 1/2) (1) Spectrum Chess	vs
(3 1/2) (1) White Knight	vs

Advance 3.0	(5 1/2) (1)
Chess 2001	(5) (1/2)
Cyrus 2.5	(4 1/2) (0)
Cyrus I.S.	(4) (1/2)
Cyrus Dragon	(1 1/2) (0)
Chessnut 2	(1/2) (0)
Albatross	(1/2) (0)

Most of the wins in this round were fairly predictable. Advance ensured that it would at least share first prize by seeing off



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Jeff Rollason's Merlin. The Mephisto achieved yet another creditable draw and should be worth watching once Hegner and Glazer sort it out. And so we go to the last round.

## Draw and Results for Round Nine

(6½) (1) Advance 3	vs
(5½) (1) Chess 2001	vs
(4½) (0) Mephisto	vs
(4½) (1) White Knight	vs
(1½) (½) Cyrus Dragon	vs
(1½) (0) Albatross	vs
(½) (0) Chessnut	vs

Spectrum Chess	(4½) (0)
Caesar	(5) (0)
Constellation	(5) (1)
Merlin	(4) (0)
Cyrus I.S.	(4½) (½)
Colossus	(4) (1)
Cyrus 2.5	(4½) (1)

And so it was settled. The draw some of us had been waiting for, Novag against Mephisto, finally happened, to the discomfort of Mephisto. And the draw that

Chess.

We would like to thank Gould Electronics, of Wrexham, for supplying the power smoothing equipment. Without these the computers would have had a very hard time getting through even one round. I tried to play a friendly game against the Sargon 3.5 program without using one of these devices and the machine fell over three times in the space of one short game. Once we plugged it into the power smoothing box there was no further trouble. I shudder to think what the Tournament would have been like without Gould's little gadgets. (Let me hasten to add that the Sargon 3.5 program was 'visiting' the Tournament and was not a participant.)

We also owe a vote of thanks to the London firm Count Down Clocks, whose computer chess clocks counted out a couple of machines during the event, and kept perfect time for everyone.

As all who heard will testify, the game demonstrations given by Dr John Nunn at 3pm every day were hugely successful. There was never a spare seat in the lecture area as Dr Nunn, with wit and precision, distributed praise and blame. The chess programmers learned perhaps even more

kingside castling and it would have been better to play 8... Qd8-a5 or 8... Nb8-c6.)

9 Ke1-d1  
(White meets the threat of 9... c5xd4, but at the high cost of depriving himself of the right to castle. White should have ignored the threat by 9 Bf1-d3 when 9... c5xd4 10 c3xd4 Qc7-c3+ 11 Ke1-e2 Qc3a1 loses the queen to 12 Bc1-h6 and the alternative 9... c5-c4 provokes White to sacrifice by 10 Bd3xh7+! Kg8xh7 11 Qg4-h5+ Kh7-g8 12 Nf3-g5 (threat Qh5-h7 mate) Rf8-d8 13 Qh5xf7+ Kg8-h8 14 h2-h4! and the advance of the h-pawn leads to a decisive attack.)

9 ... c5xd4  
10 c3xd4 Bc8-d7  
11 Bf1-d3  
(White threatens to sacrifice on h7 much as in the previous note.)

11 ... Bd7-a4  
(The counter attack on c2 prevents the sacrifice.)

12 Ra1-b1 Rf8-c8  
13 Nf3-e1

(White's error at move 9 has given Black strong pressure down the c-file, so that for the moment White is on the defensive.)

13 ... g7-g6  
(It is inadvisable to advance voluntarily the pawns in front of one's own king since this creates weaknesses in the pawn shield. Here, for example, the squares f6 and h6 become accessible to White's pieces, so Black should have simply continued developing by 13... Nb8-d7.)

14 Rb1-b4 Qc7-c6  
15 Qg4-g5  
(Computers like one-move threats, but in many situations this proves a handicap. Black is forced to play... Rc8-c7, but this move actually proves useful to Black since it frees c8 for the other rook to step up the c-file attack.)

15 ... Rc8-c  
16 Qg5-f4 Nb8-d7  
17 Bc1-d2 Ra8-c8  
18 Rb4-b2 Nd7-b6  
19 Bd2-a5!

(A good move in a difficult situation. Black's knight was threatening to move to c4, but now this would lose material to Bd3xc4 followed by Ba5xc7.)

19 ... Ne7-f5  
(Up to this point Black has conducted the attack accurately, but now begins to lose the thread of the game. The knight move to f5 is a complete waste of time because White can drive it back whenever he chooses by g2-g4. 19... Rc7-d7 unpinning the knight, followed by... Nb6-c4, would have given White serious problems.)

20 Kd1-c1 Kg8-h8?  
(This is a real horror. Despite the advances which have been made in computer chess, time-wasting to-and-fro moves are all too common, especially with the king.)

21 h2-h4 Kh8-g8  
22 h4-h5  
(Thanks to the two free tempi White has developed a dangerous kingside attack.)

... Rc8-f8  
23 Ba5xb6 a7xb6  
24 g2-g4 Nf5-e7

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Program Name	1	2	3	4	5	6	7	8	9	Place
Advance 3.0	1	2	2	3	4	5	5½	6½	7½	1st
Chess 2001	½	1½	2	2	3	4	5	5½	6½	2nd
Constellation	1	2	3	3	3	4	4	5	6	3rd
Cyrus 2.5	1	2	2½	3½	3½	4	4½	4½	5½	4th
White Knight	1	1	1½	2	3	3	3½	4½	5½	4th
Cyrus I.S.	0	1	2	2½	3½	4	4	4½	5	6th
Colossus	1	1	1½	1½	2½	2½	3½	4	5	6th
Caesar	0	0	1	2	3	3	4	5	5	6th
Mephisto Exp.	0	1	2	2½	2½	3½	4	4½	4½	9th
Spectrum Chess	½	½	1½	2	2	3	3½	4½	4½	9th
Merlin X	0	1	1	2	2	3	4	4	4	11th
Cyrus Dragon	0	0	0	1	1	1	1½	1½	2	12th
Albatross	1	1	1	1	1½	1½	1½	1½	1½	13th
Chessnut	0	0	0	0	½	½	½	½	½	14th

Fig 1

Richard Turner of Artic had wanted, against the rival Spectrum program Cyrus I.S. Chess, didn't.

The final overall placings table and score is shown in Fig 1.

There were three categories in the Tournament, and prizes were given for each. Dave Wilson and Mike Johnson's Advance 3.0 won the best amateur trophy plus a cash prize of £150. Best commercial entry was Chess 2001 and the trophy for best home computer program was shared by the BBC's White Knight II and Intelligent Software's Cyrus 2.5. The cash prize of £50 for the second highest placed amateur was shared by John Lowe's Caesar and Martin Bryant for Colossus.

And that, as they say, is that. The winning game is given here, annotated by Dr John Nunn. There will, eventually, be a full Tournament booklet on sale, and several of the games will appear in the games section in future columns. Our thanks once again to all who helped make the Tournament possible, and to the many PCW readers who came along as spectators. If you have any queries or comments, don't hesitate to write to me at Micro

than the audience from his talks — though he brought the colour to their cheeks on more than one occasion while demonstrating some crushing error or another made by their brainchildren.

Finally, our Tournament director and assistant director Stewart Reuben and Peter Morrish made sure that everything ran sweetly from start to finish. To them, too, our thanks.

## Games section

White: Advance 3.0. Black: Cyrus 2.5. French Defence: Notes by John Nunn.

The Tournament winner was particularly effective in complex tactical positions and unlike many of the other programs it was ready to sacrifice when necessary.

1	e2-e4	e7-e6
2	d2-d4	d7-d5
3	Nb1-c3	Bf8-b4
4	c4-e5	c7-c5
5	a2-a3	Bb4xc3+
6	b2xc3	Ng8-e7
7	Qd1-g4	0-0
8	Ng1-f3	Qd8-c7

(This doesn't fit in with Black's early

