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 brilliances executed. That relentless separation of the best from the worst still lies ahead.

The rough plan for the first round pairings adopted by Peter Mottorh, who controlled the pairings for each round, was to divide the field into groups of four, based largely on guesstronomy 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 halfway 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 Chess had display stands in the Tournament area so there was no shortage of an extra machine to be cued in with the promise of a free entry.

Novag was already in the Tournament with Chess, and Chess had decided not to enter because its latest offerings 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 Radershack; 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); 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 classes 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 Colossus
2. Caesar vs Cyrus 2.5
3. Albatross vs White Knight 11

Cyrus I.S. Chess
Mephisto Experimental
Constellation
Merlin X
Cyrus Dragon
Chessnut 2
(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, 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 Nf6
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 dummpling, 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 in a highly relative position and threw away the game.

The game between Novag and John Lowe’s program, Caesar, was a Guinco Plano 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
(½) (1) Chess 2001 vs
(0) (1) Mephisto vs
(0) (1) Merlin vs
(1) (1) Cyrus I.S. Chess vs
Advance 3.0
Colossus (1) (0)
Cyrus 2.5 (½) (0)
Spectrum Chess (½) (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 opponent
of the morning. Both won reasonably convin-
cingly. Advance 3.0, pitted once again
together, a home computer program, found
the going pleasant enough.

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

It had been trying to win through on
the queenside when the Black monarch
came 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
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) (½) Cyrus 2.5 vs
(1) (0) Merlin X vs
(1) (½) Colossus vs
(1) (1) Cyrus I.S. vs
(0) (0) Chessnut vs
(0) (0) Cyrus Dragon vs
Constellation
Chess 2001 (1½) (½)
Mephisto (1) (1)
White Knight (1½) (½)
Albatross (1) (0)
Caesar (0) (1)
Spectrum Chess (½) (1)

Mike Parkers program, Albatross, who
will have to wait the Tournament with one
and a half points — much to its author's
delight — turned out to be vulnerable to
spectators. Someone took a flash-light
photo rather too close to it and the Nasmoc
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
(2) (1) Mephisto vs
(2) (1) Merlin vs
(3) (0) Constellation vs
(2) (½) Spectrum Chess vs
(1) (½) Caesar vs
(1) (0) Albatross vs
(0) (0) Chessnut vs
(½) (½) Spectrum Chess vs
(1) (½) Caesar vs
(½) (½) Mephisto vs
(0) (0) Chessnut vs

Between players, one might suspect a
fix in the show, grandmasterly repeti-
tion of position draw that Cyrus 2.5 and
Cyrus I.S. Chess seemed to agree between
themselves. But machines are not sup-
posed 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, making it in 26 moves (again,
this game will be in a later games section).

Draw and results for Round Seven
(5) (½) Advance 3.0 vs
(4) (1) Chess 2001 vs
(4) (½) Cyrus 2.5 vs
(4) (1) Mephisto vs
(3) (0) Chessnut vs
(1) (1) Caesar vs
(1) (1) Colossus vs
(0) (½) Albatross vs
(3) (½) Spectrum Chess vs
(3) (½) Caesar vs
(3) (½) Colossus vs
(0) (½) Albatross vs
(1) (0) Chessnut vs
(1) (1) Mephisto vs
(0) (0) Albatross vs
(1) (0) Chessnut vs
(1) (0) Albatross vs
(0) (0) Chessnut vs

Cyrus 2.5
Advance 3.0
Cyrus I.S.
White Knight
Chess 2001
Albatross
Cyrus Dragon
Chessnut

A glance at the progressive scores will
show that Cyrus Dragon is falling behind
its stable-mates. The reason is that 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
(2½) (1) Spectrum Chess vs
(2½) (1) Mephisto vs
(2) (1) White Knight vs
(2) (0) Spectrum Chess vs
(2) (0) Merlin vs
(1) (0) Cyrus Dragon vs
(0) (½) Chessnut vs
Cyrus 2.5
Constellation
Mephisto
Cyrus I.S.
White Knight
Colossus
Cyrus Dragon
Chessnut

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 com-
puter 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 press, 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 Eight
(4) (0) Merlin vs
(4) (½) Mephisto vs
(4) (1) Caesar vs
(3½) (½) Colossus vs
(4) (1) Constellation vs
(3½) (1) Spectrum Chess vs
(3½) (1) White Knight vs
Advance 3.0
Chess 2001
Cyrus 2.5
Cyrus I.S.
Cyrus Dragon
Chessnut 2
Albatross

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 Glazier 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
(4½) (0) Mephisto vs (4½) (1) White Knight
(1½) (½) Cyrus Dragon vs (1½) (0) Albatross
(½) (0) Chessnut vs Spectre Chess (4½) (0)

Scoreboard:

<table>
<thead>
<tr>
<th>Program Name</th>
<th>Round</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advance 3.0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Chess 2001</td>
<td>1½</td>
<td>2</td>
</tr>
<tr>
<td>Constellation</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Merlin</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Cybros I.S.</td>
<td>1½</td>
<td>4</td>
</tr>
<tr>
<td>Colossus</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Cybros 2.5</td>
<td>1½</td>
<td>6</td>
</tr>
<tr>
<td>Mephisto Exp.</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Spectrum Chess</td>
<td>½</td>
<td>8</td>
</tr>
<tr>
<td>Merlin X</td>
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<td>9</td>
</tr>
<tr>
<td>Cyrus Dragon</td>
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<td>10</td>
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<tr>
<td>Albatross</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Chessnut</td>
<td>0</td>
<td>12</td>
</tr>
</tbody>
</table>

Richard Turner of Artic had wanted, against the rival Spectrum program Cybros 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 £50. Best commercial entry was Chess 2001 and the trophy for best home computer program was shared by the BBC's White Knight 11 and Intelligent Software's Cybros 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 PCC readers who came along as spectators. If you have any queries or comments, don't hesitate to write to me at MicroChess.

We would like to thank Gould Electronics for keeping the power socketed up. 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 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**


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  
2. d2-d4  
3. Nb1-c3  
4. e4-e5  
5. a2-a3  
6. b2xc3  
7. Qd1-g4  
8. Ng1-f3  

This doesn't fit in with Black's early kingside castling and it would have been better to play 8... Qd8-a5 or 8... Nb8-c6.

(White meets the threat of 9... c5x4, 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... c5x4 10 c3x4 Qc7-c5 + 11 Ke1-e2 Qe3a1 loses the queen to 12 Bc1-h6 and the alternative 9... c5-c6 provokes White to sacrifice by 10 Bf3xh7 + Kg8xh7 11 Qg4-h5+ Kh7-g8 12 Ne3-g5 (threat Qh5xh7 mate) Rf8-d8 13 Qh5xf7 + Kg8-b8 14 h2-b4! and the advance of the h-pawn leads to a decisive attack.)

9. c5x4  
10. c3x4  
11. Bf1-d3 

(White threatens to sacrifice on h7 much as in the previous note.)

12. Ral1-b1  
13. Rf3-e1 

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

14. Rbl-h4  
15. Qg4-e2 

(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 e-file attack.)

16. Qg5-f4  
17. Bcl-d2  
18. Rhb-b2  

(No move is a good situation. Black's knights threaten to move to c4, but now this would lose material to B3xc4 followed by 5axc4.)

19. Nd7-b6 

(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 . . . Nh6-c4, would have given White serious problems.)

20. Kd1-c1  

(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  
22. h4-h5 

(Thanks to the two free tempi White has developed a dangerous kingside attack.)

23. Ba5xb6  
24. g2-g4  

NF5-e7

GOTO page 175
making a computer capable of running IBM-PC software is finding itself under pressure.
Several companies claim IBM-PC compatibility because they use the same microprocessors (the 8088). However, users and dealers have discovered that these systems differ in various ways (eg. disk formats, display differences, different ROM calls, etc.) which result in the inability to run much IBM-PC software. The market has learned that a manufacturer using the MS-DOS operating system does not mean compatibility. Systems such as the Apple or the Chameleon computers which have a high degree of compatibility are being sold, while systems such as the Victor 5000 and TI Professional, which have much lower levels of compatibility, are doing poorly.

Robot standards for languages and safety being developed
The Industrial Automation Planning Panel of the American National Standards Institute (ANSI) is pursuing the development of standards for robot programming languages and safety. The lack of language standards is currently making it difficult, if not impossible, to transport software and interface different robots in automated factories.

The National Bureau of Standards (NBS), which previously had developed a programming standard for CAD/CAM (Computer Assisted Design/Computer Assisted Manufacturing) is also working on a language standard for robotics.

In the area of robotic safety, the Robotics Institute of America (RIA) and Underwriters Laboratories (UL) are both working on standards. Areas of concern include installation, programming, teaching and maintenance.

NBS, RIA and UL are all members of ANSI's panel.

DEC announces a micro-based VAX
Ken Olsen, president of DEC, recently disclosed that DEC will ship three new VAX machines in 1984 all using microprocessors. Formal introduction is scheduled for June with shipments to customers by the end of the year. The VAX-1, scheduled for shipment first, will be implemented on four chips and have the performance of the current VAX-11/730. This will be followed by a VAX based on a single chip and another version which includes a floating point processor.

Random news bits
Hewlett-Packard has introduced a new personal computer with a touch screen instead of a mouse. H-P also expects to triple the number of dealers carrying H-P machines and has launched a $10 million TV ad campaign to push its new HP-110... Binary Star Inc., Bellevue, WA, claims to have developed a high brightness flat color display panel with almost unlimited area and pixel density using straightforward digital raster-scanning. Initial use is expected in a three-dimensional display for the military and CAD applications with possible later use in TV. IBM has also begun to promote aggressively its monochrome flat panel display to OEM's...

Quotation of the month
"In this business products don't just die gracefully, they die overnight."
Enzo Torresi, Vice President of Marketing, Businessland