

Expert vs33
COWESS45 X

344
168

Elite C
2150

V54
68

TEST YOUR COMPUTER'S CHESS! by Ross Withey

The following 28 positions should enable us to compare our Chess Computers for skill (can it find the right move?) and speed (how fast?). This provides an easy 'set' alternative to playing games between machines, and a good indication of their strengths and weaknesses. It is also very useful for judging how far 'upgrades' really are upgrades!

Each position has an identifiable 'Best Move' to eliminate problems caused by difference in style: i.e. there is no real 'Next Best' move. As far as possible I've chosen or devised positions which will not be found instantly by even the fastest machine, but can often be found within half-an-hour. This was not easy but, I think, necessary - otherwise the tests would be either irrelevant (if all succeed in under 3 mins) or boring (23 hours, still glued to the display..)

Not all the right moves will be found by any individual Computer due to programming differences, but it should still be possible for you to test your machine in 2 or 3 evenings. Eric has kindly agreed to print both the set of Tests now and, later, the results in the News Sheet and we ask you, a fellow Computer enthusiasts, to send in your figures to enable as full a comparison as possible to be made (please).

The Tests are divided into 4 Sections as follows:-

Positions 1-8 Middlegame (including combinations where the 1st move is not a check or a capture). **Positions 9-16 Combinations** (1st move is a check or capture). **Positions 17-24 Endgames**. **Positions 25-28 Positional**.

The positions in each Section are arranged approximately in increasing order of difficulty (although your Computer may disagree!); and White plays up the Board from the Diagram as is standard.

To test your Computer in Positions 1-24 set it on Infinite level. When/if the correct move appears in its Display or via Hint, note the time taken in minutes and seconds. Leave it on for a further 2 mins to ensure that it stays with its choice - if it does change its mind within the 2 mins then it has failed, though this is unlikely in all but a couple of Tests. Now go on to the next Position, each time giving the Computer no more than 30 mins to see if it finds the key (underlined) move.

To test your Computer in Positions 25-28 set it on its Tournament level of 40/2hrs (3 mins per move). Any tactics are too deep to be solved even in half-an-hour (except, perhaps, Position 26) and the point of these 4 Positions is to test the sophistication of the programme rather than the machine's computational speed.

Scoring. To enable a quick comparison between Computers, points are awarded as follows:-

Positions 1-24 10 points for finding the move within half-an-hour.

Plus Bonus points for speed:-

- 10 pts for under 1 min. (It might foresee the move in advance!)
- 8 pts for 1-4 mins. (Will get it in Tournament play).
- 6 pts for 4-8 mins. (Might get it in Tournament play).
- 4 pts for 8-12 mins. (Just possible using opponent's thinking time as well!)
- 2 pts for 12-16 mins. (Right idea, but a bit slow).

Positions 25-28 20 points for finding the move on 3 min Tournament level (except in Position 26 where only 10 pts if the 2nd move is missed!).

2

Elite 16m 53s 10pts
 CX 7m 30s 16pts
 POSITION 1 Black to move



V553 Expert 1m 20pts
 2150 0

1...Rc2! 2 Rxf6ch (2 Qxc2 Qe1ch
 3 Nf1 Be3ch wins) 2....Kxf6
 3 Ng4ch Ke7 4 d6ch Ke6 5 Qd1 Rxb2
 6 d7 and resigns since 6....Qd8
 wins.

Gehring - Nikolac, Bundesliga
 1987/8.

Elite — 0 0 0
 CX — 1hr 4min 0 0 0

POSITION 3 White to move



Expert 2m 45sec 14pts
 2150 0

1 Rf6! (1 e5? f5! & black will
 escape) 1...Kg8 (1...Bxf6 2 e5;
 1...dxc3 2 e5 h6 3 Rxf6ch Kg8
 4 Rh8ch Bxh8 5 Qh7 mate) 2 e5 h6
 3 Ne2 resigns as if 3...N moves,
 4 Qf5 mates.

Pisgier - Benko U.S. Champ'ship
 1963/4.

⑩ ELITE — 1 0 0
 CX — 1 0 0
 ⑫ CX 4m 25 16pts

POSITION 2 White to move



④ Expert 56sec 20pts
 2150 0

1 Ne8! Ne6 (1...Rxc8 2 Qf5;
 1...Rc7 2 Rxb8 Bf8 3 Nxd6 Rxb8
 4 Ne4) 2 Nxa7 Nxa7 3 Bd5 resigns
 due to the threat 4 Rb7.
 Kasparov - Ligterink, Malta
 Olympiad 1980.

⑫ Elite - 23min 10pts 0 0
 ⑬ CX - 16min 10sec 10pts

POSITION 4 White to move



⑬ Expert 10m 30sec 14pts
 2150 0

1 Be1! Be8 2 Rd2 Bxa4 3 Bc1 and
 black's queen must go (Failure to
 play 1 Be1 allows 1...Be8 and
 the queen's escape.) A closed posi-
 tion easy for humans, hard for
 computers!
 Composition.

Elite - 12 mins 30 secs. 12 pts (32)
 CX - 24 mins 10 pts (32)

Elite - over 1 hour 3
 CX - 50 mins 0 pts (32)

POSITION 5 White to move



POSITION 6 Black to move



(8) Expert 2150 2 min 50 sec 16 pts

(14) Expert - 9 mins 14 pts

1 Nd5! exd5 (other moves allow
 2 Nxe7 or Nxf6) 2 Rd5 Qxd5 3 Bxd5
 with a big advantage.
 Composition.

1...Be3! 2 Re1 (2 Bxf8 Bxc1 and
 threatens 3...Rd1ch) Bxf4
 3 Bxf8 fxe4 4 Bb4 Bb6 and if
 5 Rd1! Be7 6 Rxd8ch Bxd8 with a
 better ending for black.
 Zapata - Torre, 1989 Olympiad.

Elite - 0 Expert - 0
 CX - 0 2150 - 0

Elite - 0 Expert - 0
 CX - 0 2150 - 0

POSITION 7 White to move



POSITION 8 White to move

1 Qd5! Bxd5 (1...Ke7 2 Nf5ch
 wins) 2 exd5 Be7 (2...Qd7 3 Bxd7
 wins) 3 Ne6ch Qxc6 (3...Ke8
 4 Nxe7ch wins a piece) 4 dxc6
 wins material (threat 5 c7ch).
 Goldin - Ambaryan, Armenia 1955.

1 h3! Qh5 (1...Qxh3 2 Qf3 f5
 3 Rxa8 Rxa8 4 Nf2) 2 g4 Qa5 3 Qf3
 f5 4 Rxa8 Rxa8 5 gf ef (5...Rf8
 6 f6; 5...gf 6 Kh1!) 6 Nf6ch
 Bxf6 7 Qxa8ch winning the exchange.
 Thomas - Penrose Corres. 1985.

(44) Elite 4mins 12pts.
 (62)+ C X 29mins 10pts

POSITION 9 White to move



Expert 1-0
 2:50 - 0

1 Qxd7! Qxd7 2 Rxf6 Kg7 3 Rd6ch
 Kf7 4 Rxd7 with the better ending
 e.g. 4...Rad8 5 Rxb7 Rd1ch
 6 Nf1 Rxf1 ch 7 Kh2.
 Composition.

(64) Elite 22mins 10pts
 (92) C X 2mins 10sec 18pts

POSITION 11 Black to move



(124) Expert 17sec 20pts
 2:50 - 0

1...Rxb3! 2 gch3 Rxb3 3 Qe2 Rh1ch
 4 Kf2 Ra2ch draws by perpetual
 check (4...Qh2 ch 5 Ng2 Qxg2ch
 6 Ke3 plays for a win!)
 Composition.

(53) Elite 23mins 10pts.
 (14) C X 14min 50sec 12pts

POSITION 10 White to move

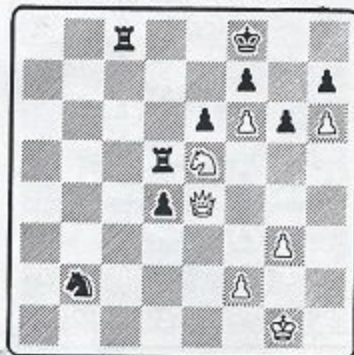


(104) Expert 1min 13sec 18pts
 (92) 2:50 10min 40sec 14pts

1 Rxd4! exd4 2 e5 Qg7 3 e6 Qf6
 4 e7 (or exf7ch or Rd1) winning.
 This is the famous position which
 the late B H Wood suggested would
 be beyond chess computers!
 Casan - Yusupov, Lucerne Olym. 1982.

(78) Elite 10min 30sec 14pts
 (92) C X 0

POSITION 12 White to move



(142) Expert 1min 40sec 18pts
 2:50 - 0

1 Nxc6ch! hxg6 (1...fxg6 2 Qe6
 wins; 1...Ke8 2 Nf4 with advan.)
 2 h7 Rh5 3 Qb7 resigns (3...Re8
 4 Qb4 forces mate).
 Gasic - Davison Hastings(?) 1967.

(18) Elite
 (108) C X Swiss 30sec. 10pts

POSITION 13 White to move



(152) Expert 7min 30sec 10pts
 250 0

1 Rxb6! Bxb6 (1...Qc5ch 2 Kh1 Bxb6 only delays by a move)
 2 Be6ch Kh8 3 Qf6ch resigns
 (3...Bg7 4 Qh4ch; 3...Kh7 4 Qf7ch Bg7 5 Bf5ch Kh8 6 Qh5ch Kg8 7 Be6ch etc)
 Kasparov - Smirin, Moscow 1988.

(18) Elite
 (108) C X

(18) Elite
 (108) C X

POSITION 14 White to move



Expert - 0
 2450 - 0

1 Rxf7! Kxf7 2 Rg1ch Kh7 3 Qd1 (threat 4 Qh5ch) black resigns.
 Cvitan - Ristic, Mendrisio 1987.

(18) Elite
 (108) C X

POSITION 15 White to move



Expert 0
 2450 0

1 Kxh6! Nxb6 (1...Qc5ch 2 Kh2; 1...Qxh6 2 Rh5) 2 Qe4 Nf5 (2...f5 3 ef Qf7 4 Rg7) 3 Rf3 capturing the black queen.
 Regan - Shankovich, Pasadena 1978.

POSITION 16 White to move



(176) Expert 3min 55sec 10pts
 2450 0

1 Bxf6! Nf6 (1...hg 2 Qe4 Bf8 3 Qxg6ch Ng7 4 Ng4 wins) 2 Bxh7ch (2 Qb1 also wins) black resigns (2...Nxb7 3 Qe4; 2...Kxh7 3 Qb1ch wins).
 Kasparov - Begun, USSR 1978.

118 Elite 0
 118 CX 17 mins 10pts

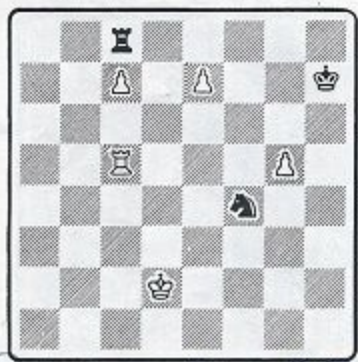
POSITION 17* White to move



126 Expert 1 sec 20pts
 2150

1 Kb3! and 2 Kxb4 gives White a fighting chance. 1 Bxb7? loses to 1...g6 as black will queen his g or f pawn after taking the bishop with his king. This is a common problem for computers, especially in the middlegame. Composition. Elite 14mins 12pts

POSITION 19 White to move



212 Expert 4min 45sec 10pts
 2150

1 Rb2! Ng6 2 e8-Q Rxe8 3 Rb8 wins. Demonstrates pawn promotion in this type of rook ending. Analysis: Edmar Mednis.

134 Elite 4mins 40secs 16pts
 134 CX 6mins 15secs 16pts

POSITION 18 White to move



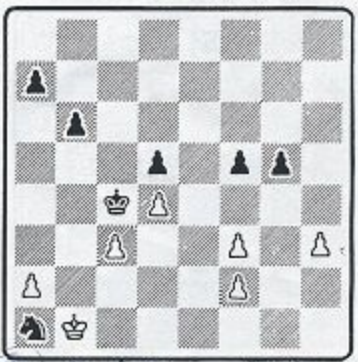
Expert 0
 2150

1 Ke7! (Zugzwang: 1 Kb7 Re2 draws) 1...Re7ch 2 Kb8 Re2 (2...Re8ch 3 Rc8 Rxc8ch 4 Kxc8 wins) 3 Rxe2 fxe2 4 a8-Q & wins.

Alatortsev - Chelkover, Tiflis 1932

118 Elite 15mins 12pts
 134 CX 0

POSITION 20 White to move



232 Expert 48sec 20pts
 480 2150 2 sec 20pts

1 f4! and White will queen his f or h pawn. If 1 Kxa1 (1 Kb2 f5!) Kxc3 2 f4 gxf4! and black's king can stop white's pawns. The knight is poisoned! Composition.

(128) Elite 26 mins 10pts
 (146) CX 15 mins 12pts

POSITION 21 White to move



(250) Expert 3 mins 20 secs 18pts
 2150

1 Rd6! Qxd6 (1...Bf5 or 1...Bc4
 2 Qf2ch wins) 2 Qd3ch Ke5 (if
 2...Ke5 3 Qg3ch is similar)
 3 Qa3ch Kd5 4 e4ch Ke5 5 Qg3ch
 Kxe4 6 Qxd6 wins.
 From an exercise by Eduard Gufeld.

(144) Elite 0

(168) CX 27 mins 10pts

POSITION 23 Black to move

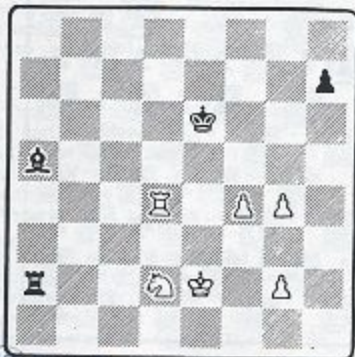


(256) Expert 1 min 40 secs 18pts
 2150

1...Be8! is the only move to win.
 The game continued: 2 b5 h3 3 b6
 h2 4 b7 h1-Q 5 b8-Q Qh8chl 6 Ke6
 Bf7ch 7 Kxf7 Qxb8 & black won.
 Large - Hebben, Bridlington 1982.

(144) Elite 6 mins 16pts
 (158) CX 4 mins 12pts

POSITION 22 *White to move



(260) Expert 1 min 6 sec 18pts
 (68) 2150 22 sec 20pts

1 Rd3! and 2 Ke3 (1 Ke3? Bb6)
 demonstrates correct technique.
 1 f5? (played by Par Excellence)
 and 1 g5 allow black's king to
 blockade e.g. 1 g5 Kf5 2 g3 Kg4
 3 Rd3 Bb4 4 Ke3 Kxg3.
 Par Excellence - Newton, Major
 Open Southampton 1986.

(158) Elite 7 mins 10pts
 (168) CX

POSITION 24 White to move



(306) Expert 3 mins 45 secs 18pts
 2150

1 Bg4! wins (1...hxg4 allows the
 h pawn to queen; otherwise 2 Bbh5)
 Easy for humans, hard for
 computers!
 Composition.

154 Elite 0 All Books Expts. 2150 0
 168 Cx Expert 2150 0
 POSITION 25 White to move



1 Ex181 "Undoubtedly the correct recapture" (Levy). The semi-open g file more than compensates for the doubled & isolated pawns. Hitech - Schach 2.7, Cologne 1986.

152 Elite 0 2150 0
 168 Cx Expert 20pts
 POSITION 26 Black to move



1...Rxc3! 2 Qxc3 Qxa2ch (2... Kxa2ch - 10 points only! - 3 Ka1! Qa4 4 Qa3 Qxc2? 5 Kxa2 Qxd1 6 Bb5ch) 3 Ke1 d5 (3... Bxc4!?) 4 Qxe4 0-0 & black won in 34 moves. 20 points only for both underlined moves (tourn't time). A fine positional exchange sac. Kudryn - Roshevsky, Lugano 1985.

154 Elite 0 2150 0
 168 Cx Expert 20pts

POSITION 27 Black to move



1...0-0-0! (1...0-0? 2 g5 fg and White can stroll over Bxh7ch and Bxg7) 2 Bf5 (for example) Kb8 3 h6 g6 4 Bxd7 Rxd7 5 Bxf6 Rf6 is defensible. Computers often castle into a K-side attack! Composition.

154 Elite 0 2150 0
 168 Cx Expert 20pts

POSITION 28 Black to move



1...Bx4! Can your computer put development before the 'b' pawn? After 1...Qxb2 2 0-0 e6 3 Re1 Be7 (3...Nbd7? 4d5) 4 Ne5 or 2 Ne2 (threat Bb4) most humans would prefer to play White! Analysis from Centre Counter 07/08/1985

REPORT on Results of ROSS WITNEY'S TEST IN NS/23

Notes:-

[1] 25. Should read gxf3, not gxf6. Quite a few readers disagree with David Levy's remark that gxf3 is "undoubtedly the correct recapture". I am not really sure that it is correct to reward gxf3 with 10 points, and Bxf3 with 0.

[2] 17. It is thought that 1 Bf5 also draws, with Kb3 to follow at move 2 or 3. Do others agree?

[3] 22. 1 g3 definitely works okay as long as the 2 Rd3 is played next move. If the Computer shows 2 Rd3 when playing 1 g3, then points should be awarded as for Rd3 at move 1.

As far as possible, scores have been adjusted/corrected to take the above notes into account.

[4] Other positions also have caused "disagreement". In fact I have received not inconsiderable correspondence, plus quite a few complaints, that the Test is biased in favour of Full-Width programmes. Indeed it is clear that Selective programmes have not done at all as well in most cases as otherwise closely rated Full Width systems. This is obvious from a quick check through the figures, but made particularly clear by the massive difference between the Novag Super "A" progs. at both 5 and 6MHz where the normal and vss figures vary to an amount far beyond any actual difference between them in playing full games. To correct this we probably need to add a further 10 positions where defensive-type moves need to be found, or where there are mistakes to avoid, to give the selective systems a chance to come properly into their own. It is often true that the selective programmes often find better quiet or developing moves where tactical opportunities are at a premium - it is such moves which often set up the combinational chances anyway.

Having said that, the Test does have some genuine values - particularly for judging the amount of progress between programmes from the same programmer, viz. the Mach 2C and Mach 3, or the Novag Super "A" and "B". However there may well be a better and more accurate way of doing even this work... and one which would enable us to compare the machines and their relationships and abilities at different speeds! For this discussion you will need to wait for a future NS, but there are some comments in the report on the new Novag Super "B" programme which may give readers an idea of the possibilities.

Finally, we must remember that Chess is a not a one move game. Testing for finding any single move does not mean that machine X is necessarily better than machine Y, and never will. Results in play are what count and, for this reason, the actual RATING LIST and the HUMAN LIST are, in my view, clearly a more accurate guide to the overall abilities of the Computers in practice.

Note re the RATINGS

Where I have 2 or more figures for the same machine:- If [i] there is an "agreement" amongst 2 or more of the submitted results, whilst another shows a different figure, those which "match" are taken as being correct. If [ii] there is variation amongst the results for a particular machine and no consistent figure (an alarmingly frequent occurrence!), the average has been taken.

	Score	Latest Grade	Elo
Fidelity 68020 MACH 4	424	203	2223
Fidelity 68000 MACH 3	374	191	2126
Mephisto ROMA 32	368	195	2157
Mephisto ALMERIA 32	356	205	2241
Novag SUPER EXPERT B/6.s3	346	185	2079
Novag SUPER EXPERT B/6.s2	344	185	2079
Mephisto ALMERIA 16	342	195	2157
Novag SUPER EXPERT B/6.s4	341	185	2079
Novag SUPER EXPERT/6norm	320	177	2016
Conchess PLYMATE/5.5	318	163	1905
Novag SUPER EXPERT B/6.s0	308	185	2079
Meph MUNDIAL 68000 XL	304	185	2080
Novag SUPER EXPERT/5norm	294	170	1957
Mephisto DALLAS 16	288	187	2093
Fidelity MACH 20	286	182	2052
Mephisto ACADEMY	276	184	2070
Novag SUPER CONSTELLATION	274	153	1827
Mephisto MK2	274	158	1866
Novag EXPERT/5	262	168	1944
Mephisto SUPER MONDIAL I	254	163	1901
Novag FORTE A	254	165	1917
Mephisto MYA	252	177	2017
Conchess/2	242	144	1749
Conchess/6	240	160	1883
Fidelity PAR EXCELLENCE	240	166	1928
SciSys TURBU KASPAROV	238	160	1878
SciSys TURBOSTAR 432	228	158	1860
Kasp STRATOS	222	166	1930
Mephisto MEGA 4	218	181	2048
Mephisto REBELL	210	166	1925
Novag SUPER EXPERT/6vss	208	177	2016
Novag SUPER EXPERT/5vss	188	170	1957
CXB ADVANCED STAR Chess	184	134	1668
Fidelity SENSORY 12	160	145	1760
Novag VIP	156	143	1745
Fidelity EXCELLENCE/3	144	157	1859
PSION 1	106	155	1841
Fidelity ELITE A	68	148	1781
Fidelity SENSORY 9	48	125	1596



MEPHISTO MONTE CARLO

Yet another Computer, ignored in that dreadful "I stand by everything I said" Survey, which has done well in recent competition.

See p.12 (Mondial 68000 XL) and p.13 for Monte Carlo's win.

Advert !

FOR SALE: Mephisto 68000 Mondial Dallas XL. Absolutely Brand New Condition. £220 or very near offer. ANTHONY BROWN, Flat 3, Richard Burton Court, 30 Palmerston Rd., Buckhurst Hill, Essex IG9 5LW. Tel. (B/Hill) 505-7379.