

SELECTIVE SEARCH

The COMPUTER CHESS Magazine

Est. 1985
Issue 65

Aug-Sep 1996

Editor: Eric Hallsworth
£3.50



SUBSCRIBE NOW to get REGULAR COPIES of the LATEST ISSUE and RATING LIST

Simply **WRITE** or **RING**: the address and phone no. details are shown below.

£18 per year for 6 Issues by mail. Foreign addresses **£24**. Re **FOREIGN PAYMENTS** please note that **CHEQUES** must be in **POUNDS STERLING**, or use **CREDIT CARD**

- **PUBLICATION DATES:** Early Feb, Apr, Jun, Aug, Oct and late Nov (incl. annual **BEST BUY** Guide).
- **A REMINDER INSERT** is included when you are sent the **LAST ISSUE** covered by your current sub.
- **NEW SUBSCRIBERS:** please state the number of the **FIRST ISSUE** that you wish your sub. to cover.
- **ARTICLES, REVIEWS, GAMES** sent in by Readers, Distributors, Programmers etc are welcome.

CONTENTS, Issue 65

2 **Advert:** RECOMMENDED products. 3 **NEWS & RESULTS:** GENIUS4 MasterBooks; HIARCS for MAC; REBEL7 v FRITZ4 & HIARCS4; Pentium Pro info, and much more.

8 **AEGON report:** Round by Round summary and many Games.

12 The **GREATEST** Computer v Computer game (yet)?! - **LONDON** v **TASC R30**.

16 The **LCT2 Test:** A new & valuable test suite. 23 **BOOKUP** review. 27 **RATING LISTS**.

• **SELECTIVE SEARCH** is produced by **ERIC HALLSWORTH**. All **CORRESPONDENCE** and **SUBSCRIPTIONS** to Eric please at **The Red House, 46 High Street, Wilburton, Cambs CB6 3RA**. Or e-mail: eric@elhchess.demon.co.uk

• All **COMPUTER CHESS PRODUCTS** are available from **COUNTRYWIDE COMPUTERS LTD**. Victoria House, 1 High Street, Wilburton, Cambs CB6 3RB.

☎ **01353 740323**. **FREE CATALOGUE** on request.

• **ERIC** is available at **COUNTRYWIDE** Mon-Fri, 1.00-5.00.
Readers are welcome to ring.



Computer BEST BUYS - Editor's Choice

The **RATINGS** for the computers and programs which follow can be found on pages 27 and 28. I have not tried to include all available machines - this is my 'short list' of those I consider to be the current '**BEST BUYS**' at various price points and playing strengths, also bearing in mind features and quality etc.

PORTABLE COMPUTERS

Kasparov

ADVANCED TRAINER £79 - nice plug-in
TRAVEL CHAMPION £99 - with display
TRAVEL CHAMP 2100 £139 £129 - great value, 4½"x4½" plug-in board + display

Novag

JADE2 £99 - tiny 3½"x3½" board portable
SAPPHIRE £199 - calculator style, strong

TABLE-TOP PRESS-SENSORIES

Fidelity

CHESSTER £159 - voice model, 160 BCF

Kasparov

EXECUTIVE £99 - GK-2000 Morsch prog. Display etc, plus lid cover. Terrific value!
GK-2100 £169 £159 - top quality Morsch program, clever display, recommended.

Novag

DIAMOND £249 - testing playing style.

Mephisto

DALLAS 68000XL £165 - on special offer
NIGEL SHORT £199 - laptop lid, Staunton + disc pieces, graphic display - great!
MONTREUX £449 - very strong, dynamic.
LONDON PRO 68020 £685 - *new!* Top strength, excellent features and analysis.

WOOD AUTO-SENSORIES

Kasparov

PRESIDENT £299 £289 - top value wood board... ever! - good display + features.

Mephisto

EXCLUSIVE RISC2 £945 - very strong!
EXCLUSIVE LONDON 68030 £1395 - *new!* The PC's Genius3 (which beat Kasparov) in 68030/33MHz! - tremendous!
■ 2nd. hand Modules sometimes available

Tasc

R30-1995 £1249 - beautiful, piece recognition board, very strong, dynamic play.

Further info. is given in **Catalogues** available from **COUNTRYWIDE** - see their address on the front page. It is always worth ringing to check any extra cost for a mains transformer where applicable, but 48 hour insured post and packing are included free. This list is brought up-to-date for each Issue of my Magazine.

PC PROGRAMS

HIARCS4 £89 - excellent playing style
GENIUS4 for Windows £89 - high quality
GENIUS3 £69 - MS-DOS version, strong!
MChess PRO5 £89 - big opening book.
REBEL7 £79 - Ed Schroder's best yet!
FRITZ3 £79 - by Morsch, strong at tactics
FRITZ4 (CD ROM) £89

Also for Apple MAC

HIARCS4 £89 - best by far for the MAC

OTHER GAMES for PC!

Draughts & Othello, on 1 (Win) disk! **£39**

PC DATABASES

ChessBASE for Windows (CD or Disk)
"The" games and work DATABASE.
'Basic' package 235,000 games £225
'Prof' package 300,000 games+ £325
'Mega' package 450,000 games+ £449
Analysis modules, to use within CBase:
FRITZ £45 (almost indispensable?!)

BOOKUP for Windows £159 - very useful tool, now incl. Zarkov analysis module.
BOOKUP for MS-DOS £119

PC WOOD AUTO BOARDS

A great idea! Plug one into your PC, and play against your favourite program on a proper wood, auto-sensory board!

Tasc SMARTBOARD £399 - the superb R30 board, 64 leds - piece recognition!
Mephisto/Kasparov AUTOBOARD £299 - real quality, lovely wood and pieces.
Chess 232 BOARD £229 - a cheaper board, but works well.

Auto 232 TESTER £89 complete - user can link PC's, and actually let 2 programs play against each other automatically!

CORRECTION

Not the best way to start, perhaps. But I made a mistake... might as well own up!

In the last Issue I referred to the program **Schach3** as being Ingo Althoefer's concept in which he used 2 programs (MChess Pro5 and Rebel7) simultaneously, playing their move when they agreed, or choosing his own preference (from their two selections) if they differed.

Roland Pfister reminds me that I have got my programs mixed up: "*a big error*", he says - quite right! In fact it is **Drei Hirn** which is represented by the above idea, and **Schach3** is a standard type of program by Matthias Engelbach and Thomas Kreimair. So that no injustice may seem to remain outstanding, their Aegon scores and gradings were:

Drei Hirn (the 2+1 concept) 3½, 2370 Elo
Schach3 also 3½/6 for 2280 Elo.

SAD NEWS

I am sorry to have to tell readers that my good friend, and our CORRESPONDENCE section author, **Phil GOSLING**, died at the end of June.

He had endured a short illness, struggling with his glaucoma problem. After a difficult time, and learning that he would not get his sight back, he then had a heart attack at home. His wife, Mary, was with him and tells me had remained cheerful throughout.

That is what I will remember about **Phil** - he was at all times cheerful and friendly, with time to talk. He loved his chess and the exploits with MEPH. Readers will miss his always interesting contributions, and I will miss his often amusing letters, as he shared some of the fun he had, as he watched and supported MEPH in its struggle with some pretty tough opposition.

He and Mary gave a new name to his wildest invention, which he thrust on poor MEPH against SS reader and 2400 player Denis Humphrys: the Becket Opening! 1.g3 and 2.Bh3, usually losing the King's Bishop very quickly - thus the name!

NEW PRODUCTS

The set of 'MasterBooks' for **GENIUS PC** programs, based on the ECO A00-E99 coding system and on 5 disks, has been updated now to a set of '**Grandmaster-Books**'.

These are available on either CD-ROM or a Disk set, and give a total integrated Opening Library of around 300,000 variations (millions of moves if you include transpositions, which are recognised automatically).

Genius4 is programmed to load the appropriate book, each of which is based entirely on Master games from the most important Tournaments, so users of this huge collection will have complete access to contemporary opening theory. Fully inclusive prices are as follows:-

CD-ROM £130.

Disk set £140.

Upgrade set (return of previous disks required) £60.

Previous (1994) set: We still have one set of the earlier 'MasterBooks' at the office, which is available for £89 complete.

HIARCS4 for the MAC has been out for some time now, but we are able to give some information at last on the sort of grading it will achieve on the MAC, compared to the PC.

As with pretty well all the other Macintosh chess programs HIARCS isn't accelerated for Power PC performance, so the Connectix utility "**SPEED DOUBLER**" is a 'must' to get the best performance.

Even then the program on a Pentium PC will run around twice as fast as it will on a MAC - with the Speed Doubler - at the same MHz clock rate.

Interpreting these facts the HIARCS MAC performance will be perhaps 80 Elo below a PC Pentium and, without the Speed Doubler, the gap may be as much as 180 or 200 Elo!

Richard Powell on the Internet kindly posted the following estimated ratings after putting four MAC programs through the CCR One-Hour test, with and without the Speed Doubler.

<i>Program</i>	<i>With SD</i>	<i>W/out SD</i>
HIARCS4	2330	2208
Sargon5	2220	2083
MacChess2	2130	2044
CMaster 3000	2060	2000

HIARCS comes out as the MAC's top program quite easily but, for the record, scored 2424 on a 486/PC in the same CCR test. Therefore the MAC estimated Elo figures seem just a bit low if the information given by our American friends (PC Pentium = 2 x MAC + Speed Doubler) is correct. Perhaps it would be wiser to consider the MAC+Speed Doubler version as 100 Elo below the PC HIARCS?!

RESULTS

Colin NEWBY has just sent me details of his recent results using 3 of the most popular dedicated machines:

Game in 60

RISC 2500 8-2 Diamond

TravelChamp 2100 2½-6½ Diamond
60 moves in 1 hour

RISC 2500 5½-4½ Diamond

The difference in the RISC 2500 v Diamond score at the two time controls is quite interesting. In the G/60 match it went 6-0=4, but the later series was very close at 4-3=3!

Frank HOLT would easily win the prize as our most frequent results contributor! He is still hard at it with his beloved Rebel7, and has now completed a series against Hiarcs4 and the CD-ROM Fritz4. Here is how these two matches finished up:

	R7	-F4	R7	-H4
Aggressive	6½	-5½	5½	-6½
Active	4½	-7½	6½	-5½
Normal	6½	-5½	4	-8
Solid	7	-5	6	-6
Defensive	7½	-4½	7½	-4½
Total	32	-28	29½	-30½

As always not all of the scores have

been counted for rating purposes, as Frank puts Rebel7 on to each of its style settings for a 12 game series.

When comparing the results for the Rebel7 styles, these show quite a turnaround compared with some earlier results. Active and Aggressive have led the way previously, with Defensive apparently just over 15 BCF worse than the top styles.

Now, however, the totals from all matches against Genius2/3/4, MChess Pro5, Fritz4 and Hiarcs4 are:

Aggressive	39½	-32½	55%
Active	41½	-30½	58%
Normal	37½	-34½	52%
Solid	40	-32	56%
Defensive	36	-36	50%

Defensive still holds the rest up, but not by as much... and there is very little to choose between the other styles at all.

And what of **FRITZ4**?! In fact this was the first substantial score we had in for F4, though I am expecting the next results listing from Sweden will enable us to assess the Fritz3->4 improvement.

Other results so far have been Aegon 2415 Elo, and Finland 2297 Elo, plus a few scattered scores of just one or two games which have implied the change is nominal (some have suggested, in fact, negative!?). It's all rather small sample so far, but Frank's score suggests that Fritz4 will show a higher grading than the 3's P/90 2446.

Frank made a few comments regarding Fritz4, which readers might like to take note of:-

- The most annoying thing is that it doesn't hold the Last Game in memory, so you have to remember to save it before switching off.
- One of the best things, which I love, is the range of sounds, comments, chatter and the occasional cough! The way it literally bangs some moves down and plays others quietly is neat - but sometimes the latter are so silent you don't even realise it's moved if you're not careful!
- Surprisingly Frank says there is no display of opening names or ECO codes - almost mandatory nowadays?!

■ The overall operation is very smooth, with qualities similar to ChessBase, a 30,000 game database, and plenty of extra functions for intelligent teaching, 3D graphics, game histograms and natural language analysis when annotating games.

It's on CD-ROM, and is Windows only of course, price £89.

For readers who can remember as far back as SS/63 and the 1995 HARVARD CUP, a follow-up play off was held in May between the top player, Joel Benjamin (4½/6) and the top computer, Virtual Chess (3½/6).

The 4 game mini-Match was a Blitz (G/10) affair, thus giving the computer the right time control conditions to try and exact some revenge - the G.M.'s having won the official Match rather comfortably by 23½-12½. Benjamin, however, continued this earlier trend by winning 2½-1½. If I can get copies of the games, or any info on the quality or nature of them, I'll come back to this in our next Issue.

Another recent mini-Match involving FERRET was played on June 8th. on the Internet Chess Club, this time with US Women's Champion Angelina Belakovskaia (a wonderful American name, that) as the opponent.

Ferret's previous G/30 exploits had been somewhat 'up and down', with a 2-0 win over G.M Boris Gulko, but a 0-2 defeat against G.M Alexei Shirov (see SS/64). Perhaps 2 draws against Belakovskaia were inevitable, to balance the books completely at 2-2=2.

In the games Angel, as she is popularly known, was never in any trouble, sticking totally to her pre-Match safety-first strategy of avoiding middle-game complications, however inviting a possibility might seem, and exchanging as early as possible into endgames. It is possible she might have had a win in the endgame of Game 2.

ICC Woman versus Machine Match

White ANGEL

Black FERRET

Game 1: ECO D85, Gruenfeld: exchange variation

1.d4 Nf6 2.c4 g6 3.Nc3 d5 4.cxd5 Nxd5 5.Bd2 Bg7 6.e4 Nxc3 7.Bxc3 Nd7 8.Bc4 O-O 9.Ne2 e5 10.O-O Nb6 11.Bb3 exd4 12.Bxd4 Bxd4 13.Qxd4 Qxd4 14.Nxd4 c6 15.Rac1 Re8 16.f3 Bd7 17.Rfd1 Rad8 18.Kf2 h6 19.h4 Re5 20.Ne2 a5 21.a3 Rb5 22.Nd4 Re5 23.Ne2 Rb5 24.Nd4 Rh5 25.Kg3 Re8 26.Rc3 Re7 27.Ne2 a4 28.Ba2 Ra5 29.Nf4 Kg7 30.Nd3 Bc8 31.Rc5 Ra8 32.Ne5 f6 33.Nc4 Nxc4 34.Bxc4 Bd7 35.Ba2 b6 36.Rc2 Be8 37.Rd6 Rb8 38.Rcd2 b5 39.Rd8 Rbb7 40.Ra8 Bf7 41.Bxf7 Kxf7 42.Rdd8 Ke6 43.Rh8 h5 44.Rhg8 Rg7 45.Rae8+ Kd6 46.Rgf8 Kd7 47.Rd8+ Ke6 48.Rc8 Rgc7 49.Rfe8+ Kf7 50.Rf8+ Kg7 51.Rg8+ Kf7 52.Rgf8+ Kg7 53.Rg8+ Kf7 54.Rgf8+
Game drawn by repetition 1/2-1/2

White FERRET

Black ANGEL

Game 2: ECO B14, Caro-Kann: Panov-Botvinnik, normal variation

1.e4 c6 2.d4 d5 3.exd5 cxd5 4.c4 Nf6 5.Nc3 Nc6 6.Bg5 e6 7.Nf3 Be7 8.a3 h6 9.cxd5 exd5 10.Be3 Ne4 11.Rc1 Nxc3 12.Rxc3 a6 13.Be2 O-O 14.O-O Bf5 15.Ne5 Rc8 16.Nxc6 Rxc6 17.Rxc6 bxc6 18.Qa4 Qb6 19.b4 Ra8 20.Rc1 Bd7 21.Bf3 Ra7 22.Ra1 a5 23.b5 Qxb5 24.Qxb5 cxb5 25.Bxd5 Rc7 26.Bd2 b4 27.axb4 Bxb4 28.Be3 a4 29.Rb1 Bf8 30.Rb8 Rc8 31.Rxc8 Bxc8 32.Bc4 Bf5 33.d5 Bb1 34.Bf4 a3 35.d6 a2 36.Be5 Bxd6 37.Bxa2 Bxe5

Game drawn by mutual agreement 1/2-1/2

Ross WITHEY (do folk remember his tactical test for computers which we ran some years ago?) wrote to compliment the Magazine on our article by Thorsten Czub (*"Thorsten's wonderfully naive command of the English language is most refreshing in these days of slick Americanisms and hackneyed cliches"*).

Ross concludes, somewhat ruefully, that he won't be able to buy the main subject of Thorsten's article, CS-Tal, as he doesn't have a PC - *"I don't quite understand why programs aren't always produced for PC's, dedicated boards and portables - if such a program came out on a portable, I would surely purchase it"*.

If there were enough of you, Ross, it

would certainly come out on a portable!

Ah, the good old pre-PC days, when we used to make a bit of a living!

Anyway, Ross concludes with a score from a 40/2 match he completed recently:

TC2100	1100010%00%0001% = 5%
Sapphire	0011101%11%1110% = 10%

The danger of small sample is shown even here if you consider that the score after 6 games stood at 3-3!

Ross comments that he found the games somewhat disappointing, in that each of them plays most enterprisingly against him! *"The problem,"* he concludes *"is that they see each other's tactics coming and freeze each other out most of the time"*.

NEWS

Ed Schroder produced some unexpected figures in an Internet report recently, in which he showed the speed gains of various programs when playing on a **PENTIUM PRO** in comparison to a Pentium.

The Pentium Pro could have been called a 686, just as the standard Pentium was due to be designated a 586 before Intel thought of a fancy name. For now we'll use P6 and P5 to identify them, and maybe change the Rating List to these names for clarification at the appropriate time. Anyway, the P6 is thought to especially favour 32 bit coded programs, and Ed's Rebel7 was expected to show up well.

Ed posted the results of testing 5 programs on various positions, using each program on a P5/100 and a P6/200.

Program	Factor	Equal/MHz
Hiarcs4	2.81	1.40
Rebel7	2.76	1.38
MChessPro5	2.42	1.21
Genius4	1.90	0.95
Fritz4	1.88	0.94

'Factor' refers to the speed improvement of the P6/200 result over that on the P5/100 which, if a program worked exactly the same on both the P6 and P5, would be $200/100 = 2$.

The Hiarcs4 result is something of a surprise as it isn't, by Mark Uniacke's own admission, tuned for 32 bit coding - not that Mark will mind! Perhaps the Hiarcs4 and Rebel7 gains are therefore due in part to the fact that both are compiled from the 'C' language which itself is then able to take some advantage of the 32 bit facilities?... or maybe it's something to do with program size - the 'bigger' programs will get more help from a P6?

If we work on the (approximate) basis that a speed doubling is worth 60 Elo at the level and speed of these programs, the gain each of these programs should make, going from a P5/100 to a P6/200 would be:

Hiarcs4	84 Elo
Rebel7	82 Elo
MChessPro5	72 Elo
Genius4	57 Elo
Fritz4	56 Elo

Regarding the '60 Elo' figure, this used to be considered as 80 Elo for each doubling. But it is obvious that it cannot possibly remain 80 for every single consecutive doubling for ever, otherwise Deep Blue would be over 3000 Elo and have crushed Kasparov. The figure, which was originally arrived at in the days of 6502 processors running at 3, 4 or 5MHz, must decline as each doubling takes the depth of search further away from the root position and the most critically necessary moves.

When time allows I will research this question and produce a graph to indicate the declining gains from speed doubling. For the present, however, there will certainly be some rejoicing in the Rebel and Hiarcs camps at the prospect of making a non-programmed 20-30 Elo gain over their rivals when the Pentium Pro comes into more popular use later this year.

The **1996 WORLD MICRO COMPUTER CHAMPIONSHIP** will take place in Jakarta, Indonesia (is it safe there, considering recent hostage events in the news?), the provisional dates being October 9-16. More info. as and when it becomes available

DEEP BLUE's future was questioned

recently in a rumour that the chess programming team had been fired because of "the bad result" against Kasparov. The indication was that the computer is destined to be used to predict the weather for the forthcoming Olympics in Atlanta!

Indeed the latter part of the statement is known to be true, but the fear that Deep Blue's chess days are over - first implied on a Dutch Internet page - is 'guaranteed' as fiction by **Bob Hyatt** who says that he has heard 'no rumbles about the Deep Blue team being dismantled'. Bob restates his view that the result was 'not that terrible... no other program around can do what DB does... it played some really marvellous chess and, at one point at least, gave Gary quite a scare'.

The other view regarding the Match, of course, is that Kasparov dismantled DB's chess himself in the last two games - once he had measured his opponent - and the overall result confirms that speed and brute force will never undo the very top players in a Match over enough games to give the player time to assess his opponent and apply his findings.

UPDATE: An Internet posting by DB programmer **Feng-Hsiung HSU** himself on 13th. June assured us it's an April Fool's Day job.

I also learn there's an article in the current Issue of the USA's 'GAMES' mag, titled 'The Last Human Champion', in which a **rematch** is already being planned for early-1997, and Kasparov has expressed 'willingness to participate'.

On a similar theme the question of **SHUFFLE CHESS** has re-surfaced. As I write these notes the story I have is that **Bobby Fischer** is to emerge in Argentina and announce his complete rules for Shuffle Chess.

Partly designed to dispose of all current opening theory, which would presumably suit the non-playing Fischer, one wonders what the effect will be on Chess Computer ratings?!

Issue 50 of our Mag. in early 1994 included 2 games by Britain's Jonathan **SPEELMAN** against **FRITZ2** (both won by Speelman quite easily), and there are those who believe that the advent of Shuffle Chess would effectively put back any

hopes of a Computer winning the World Championship by a fairly large number of years.

Following our 1994 article one or two players told me they had tried it out (easy to do via 'Set-Up' mode) and, at first, found it very disorienting. However once they had got something of a feel for it, they began to see their computer opponent's limitations. The computers tended to still aim for early central control with pawns, and were very slow to liberate their pieces with units on the a/b/g/h files often never seeing the light of day.

Indeed **Speelman's** own method had been to ensure immediate development of his queen and bishops from, in his two games, their corner squares, subsequently winning both games inside 40 moves.

What do readers think? How about Deep Blue or, say, **Hiarcs** or **Rebel** on a P6/200 against Kasparov at Shuffle Chess? Who do we think would win?

Is there even a need for Chess Variants?

Let's see what **Fischer's** rules are - and hope that there are no planned movement changes, in which case SetUp Mode on its own wont suffice, and the computers would need some re-programming - then maybe one or two bold readers will submit views plus games!?

Every now and then someone comes up with revised recommended settings for **CHESSMASTER 4000**, so here are the latest ones I've seen. Apparently they improve the results in various tactical tests by an average of 50 Elo points, but whether that improvement will be seen in complete games, who knows?

ChessMaster 5000 is still scheduled for sometime in Jul-Aug 1996, but Win95 only remember!

ChessMaster 4000 Top Settings?:

- attacker/defender -14
- selective search 10
- material position 4
- mobility 103
- king safety 170
- pawn weakness 125
- others unchanged

The AEGON Computer Chess Tournament has developed into the largest event of its kind in the world. Not only has it increased in size - this year the 6 round Event involved no less than 50 computer and 50 human entries! - but it regularly draws many GM's and IM's, some of whom have shown increasing computer awareness over the last 2 or 3 years!

For 1996 the Fischer Clock was in use, with each player having 1½ hours on their clock, with 20 secs added per move.

Prelim. Event!

Before the main Event the Tournament opened with three G/10 double-round matches, starring FIDE World Champion Anatoly Karpov, and Holland's top two GM's, Jan Timman and Jeroen Piket.

Karpov was matched with WCC champ Fritz P/166, and won 1½-½.

Timman, with little experience of playing computers, got clear advantages in his games v. joint WMCC champ MChessPro P/166, but had to settle for 2 draws. Jan blamed his then-current 'form crisis' and felt he would normally have won both.

Piket, who has some computer experience, played The King2.5, beating it in an endgame in the first, then calculating deeper in a tactical second (The King's forte?!), so winning both.

'Prelim' score: 4½-1½ for the G.M.'s!

The Main Event

Round 1

Whether by accident or design, there were no major match-ups in the first round. All the top GM's started off with wins, as did the top-rated programs with the exception of Genius4-PC, Hiarc and WChess, which were each held to draws.

Round 2

Seirawan destroyed Comet in just 19 moves after a piece sacrifice barely out of the opening.

Van der Wiel had to work harder for his win against the R30, which produced a lovely pawn sac'. The GM's plans were badly disturbed and he entered a Knight endgame clearly worse, until he found that the R30 didn't understand its fine points.

The GM's didn't have it all their own way though: Zarkov held Christiansen to a

draw, and Nimzo held Sofie Polgar. This was the round in which CS_Tal attracted attention with its queen sac on move 10.

Fritz disappointed, being easily held to a draw by Ludden (2195) and Genius4-PC went one worse, losing to Jongsma (1960).

Yasser Seirawan-COMET

1.d4 Nf6 2.c4 c5 3.d5 e6 4.Nc3 exd5 5.cxd5 d6 6.e4 g6 7.f4 Bg7 8.Bb5+ Nfd7 9.Nf3 O-O 10.O-O f5 11.exf5 Rxf5 12.Bd3 Rf8 13.Ng5 Nb6 14.Nxh7 Kxh7 15.Qh5+ Kg8 16.Bxg6 Bd4+ 17.Kh1 Qd7 18.f5 Na6 19.Bh6 1-0

TASC R30-John van der Wiel

1.e4 c6 2.c4 e5 3.Nc3 Bc5 4.Nf3 d6 5.Be2 Bg4 6.d4 exd4 7.Nxd4 Bxe2 8.Ndxe2 Nf6 9.Bf4 O-O 10.O-O Nh5 11.Bd2 Nd7 12.Na4 Re8 13.Qc2 Qe7 14.Nxc5 dxc5 15.f3 Rad8 16.Rad1 Nf8 17.Be3 f5 18.Rxd8 Rxd8 19.Nc3 f4 20.Bf2 Ng6 21.Rd1 b6 22.Rxd8+ Qxd8 23.b3 Ne5 24.Ne2 g5 25.Be1 Qd6 26.Bc3 Kf7 27.Qc1 Ke6 28.Bxe5 Qxe5 29.Kf2 Nf6 30.h4 h6 31.Qh1 g4 32.Qc1 g3+ 33.Ke1 Nh5 34.Qc3 Qxc3+ 35.Nxc3 Ke5 36.Ne2 Ng7 37.Nc1 Ne6 38.Kd2 Kd4 39.Ne2+ Ke5 40.Kc3 Kf6 41.Nc1 Kg6 42.Nd3 Kh5 43.Ne5 Kxh4 44.Nxc6 a5 45.Kd2 Kg5 46.Ne5 h5 47.Ke2 Nd4+ 48.Kf1 h4 49.Nd7 h3 50.Kg1 h2+ 51.Kh1 Nc2 52.Nf8 Ne3 53.Ne6+ Kh6 54.Nxf4 Nd1 55.Nd3 Nf2+ 56.Nxf2 gxf2 0-1

NIMZO-Sofia Polgar

1.d4 Nf6 2.c4 c5 3.d5 b5 4.cxb5 a6 5.bxa6 g6 6.Nc3 Bxa6 7.e4 Bxf1 8.Kxf1 d6 9.Nf3 Bg7 10.g3 Nbd7 11.h3 O-O 12.Kg2 Ra6 13.Re1 Qa8 14.Qc2 e6 15.dxe6 fxe6 16.Ng5 d5 17.exd5 exd5 18.f3 Re8 19.Rxe8+ Qxe8 20.Bd2 Nf8 21.Re1 Qd7 22.Qb3 c4 23.Qb4 Ra7 24.Bc1 h6 25.Ne6 Rb7 26.Nxf8 Bxf8 27.Qa5 Kh7 28.Rd1 Qe6 29.Qa8 Rf7 30.Qb8 Bc5 31.Qb5 Ba7 32.Bd2 Qf5 33.Qc6 g5 34.Re1 Ne4 35.Nxe4 Qxf3+ 36.Kh2 dxe4 37.Qxc4 Bb8 38.Rg1 Rd7 39.Be1 Rc7 40.Qa4 Qe2+ 41.Kh1 Qf3+ 42.Kh2 Qe2+ 43.Kh1 Qf3+ 44.Kh2 1/2-1/2

Round 3

Quest (FritzX P/200)-Bronstein was a fascinating affair. The program went immediately for the attack and won an

exchange. The old master, however, had 2 strong bishops, and stopped its progress for over 30 moves until exhaustion and time trouble set in! Quest 1-0.

Rebel Aegon (latest RebelX) got a fine draw with Vaganian after the GM sac'd 2 pawns for an apparently very dangerous attack. Rebel defended superbly, freed itself, and made the draw easily in the end!

Hartoch also sac'd 2 pawns against Rebel7 - 'suicide' said the IM, 'I've killed myself!'. However, with a little help from his opponent, he went on to win!

Speelman went to 3/3 after a hard-fought win over Virtua.

Seirawan, who lost to Hairs last year, didn't make the same mistake again and punished the program for a positional error just out of book.

Van der Wiel tried Kasparov's 1.e3 idea against Frenchess and got what he called a 'gentle massage' position, much hated by computers! Frenchess then over-reached with its queen and lost material.

Rafael Vaganian-REBEL AEGON

1.Nf3 d5 2.g3 c6 3.Bg2 Bg4 4.O-O Nf6 5.d3 Nbd7 6.Nbd2 e5 7.e4 Be7 8.Qe1 O-O 9.h3 Be6 10.Ng5 Rc8 11.Ndf3 Qc7 12.Bd2 Qd6 13.Bc3 dxe4 14.Nxe4 Nxe4 15.Qxe4 f6 16.d4 Bd5 17.dxe5 Nxe5 18.Qe3 Nc4 19.Qe2 Rfe8 20.Rfe1 Bf7 21.Nh4 Bf8 22.Qg4 Be6 23.Nf5 Qd7 24.Rad1 Nd6 25.Nh6+ Kh8 26.Qf4 Bxa2 27.b3 Rxe1+ 28.Rxe1 Nb5 29.Bb2 Re8 30.Ra1 Bxb3 31.cxb3 gxh6 32.Bf3 Bg7 33.Bh5 Rf8 34.Rd1 Qe7 35.Qf5 Rd8 36.Rxd8+ Qxd8 37.Be2 Nd6 38.Qe6 c5 39.Bf3 b6 40.Bc6 a6 41.Bc1 Nb5 42.Bxb5 axb5 43.Bf4 b4 44.Bc7 Qg8 45.Qxb6 Qxb3 46.Qxc5 Qf7 47.Ba5 Bf8 48.Qb6 Qe7 49.Bxb4 Qxb4 50.Qxf6+ Bg7 51.Qd8+ Qf8 52.Qxf8+ Bxf8 53.Kg2 1/2-1/2

QUEST-David Bronstein

1.e4 c6 2.Nc3 d5 3.d4 dxe4 4.Nxe4 Nf6 5.Nxf6+ gxf6 6.c3 Bf5 7.Nf3 Nd7 8.g3 Qb6 9.Bc4 e6 10.Qe2 Bg6 11.Bf4 Qa5 12.O-O-O O-O-O 13.Bb3 Nb6 14.Nh4 Nd5 15.Bd2 Nc7 16.h3 Be7 17.f4 f5 18.Nf3 Bh5 19.g4 fxg4 20.Ne5 f6 21.hxg4 Be8 22.Nd3 Bf8 23.Bxe6+ Nxe6 24.Qxe6+ Bd7 25.Qxf6 Rg8 26.f5 Qxa2 27.Bf4 Rxg4 28.Qe5 Rxf4 29.Qxf4 c5 30.Rxh7 c4 31.Ne1 Qa1+ 32.Kd2 Qxb2+ 33.Nc2 Qb6 34.Ra1 a6 35.f6 Bd6 36.Qf3 Qb5 37.Rh5 Qb6 38.Rhh1 Bc6 39.Qf5+ Kb8 40.Rh7

Rf8 41.f7 Qd8 42.Rb1 Ka7 43.Ne3 Bd7 44.Qe4 Bc6 45.d5 Bc5 46.Kc1 Ba3+ 47.Kc2 Ba4+ 48.Kd2 Bc5 49.Qe5 Bb5 50.Ra1 Qb6 51.Rg7 Bd7 52.Nxc4 Qh6+ 53.Kc2 Bb5 54.Na5 Qh4 55.d6 Ba4+ 56.Kd3 Bb6 57.Nxb7 Bc6 58.Nc5 Bb5+ 59.Kc2 Qf2+ 60.Kb3 Rxf7 61.Nxa6 Bxa6 62.Qb5 1-0

REBEL 7-Rob Hartoch

1.e4 d6 2.d4 Nf6 3.Nc3 e5 4.Nf3 Nbd7 5.Bc4 Be7 6.a4 O-O 7.O-O a6 8.Re1 b6 9.Bd2 c6 10.d5 c5 11.h3 h6 12.Be3 Nh7 13.Ne2 Ng5 14.Ng3 Nxf3+ 15.Qxf3 Bg5 16.Bxg5 hxg5 17.Qh5 Re8 18.Bb3 Nf8 19.Re3 Ra7 20.Rc3 g6 21.Qe2 f6 22.Nf1 f5 23.Nd2 Nh7 24.Rg3 f4 25.Rc3 g4 26.hxg4 Ng5 27.Bc4 Kg7 28.Kf1 Rh8 29.Ke1 Rh1+ 30.Nf1 f3 31.gxf3 Nh3 32.Qe3 Nf4 33.Kd1 Bd7 34.Rca3 Ra8 35.Kc1 Rb8 36.b3 b5 37.axb5 axb5 38.Be2 b4 39.Ra7 Kf6 40.Bc4 Rb6 41.Kd1 Kg5 42.Ra8 Rb8 43.R8a6 Rb6 44.Ra7 Qe8 45.R1a2 Bb5 46.Ke1 Bxc4 47.bxc4 Qh8 48.Kd2 Rxf1 49.Ra1 Qh1 50.Rxf1 Qxf1 51.Ra4 Qxc4 52.Kc1 Ra6 53.Rxa6 Qxa6 54.Kb1 c4 55.Kb2 Qa5 56.Kb1 c3 57.Qc1 Qa4 58.Qd1 Qa3 59.Qc1 Qxc1+ 60.Kxc1 Ne2+ 61.Kd1 Nd4 62.Kc1 Nxf3 63.Kb1 Kxg4 0-1

HIARCS-Yasser Seirawan

1.d4 Nf6 2.c4 c5 3.d5 e5 4.Nc3 d6 5.e4 Be7 6.Nf3 Nbd7 7.Be2 O-O 8.Bd2 Ne8 9.O-O g6 10.Bh6 Ng7 11.Qd2 Nf6 12.h3 Kh8 13.a3 Ng8 14.b4 Nxh6 15.Qxh6 b6 16.h4 f6 17.Bd1 a6 18.Ba4 Ra7 19.bxc5 bxc5 20.Rfe1 Nh5 21.Bc6 Rg8 22.Qd2 f5 23.Ng5 Bxg5 24.Qxg5 Qf8 25.exf5 h6 26.Qg4 Nf6 27.Qf3 gxf5 28.Ne2 Rag7 29.Kh1 f4 30.Rg1 Bg4 31.Qd3 Nh5 32.Nxf4 exf4 33.Qc3 Qe7 34.g3 Qe2 0-1

Sofia Polgar-ZARKOV

1.e4 c6 2.d4 d5 3.Nc3 dxe4 4.Nxe4 Nd7 5.Nf3 Ngf6 6.Ng3 e6 7.Bd3 Be7 8.O-O O-O 9.c4 c5 10.Bc2 cxd4 11.Qxd4 b6 12.b3 Bb7 13.Bb2 Bxf3 14.gxf3 Qc7 15.Kh1 Bd6 16.Ra1 Bf4 17.Rg1 Kh8 18.Nh5 Be5 19.Qh4 Bxb2 20.Rxg7 Rg8 21.Rxf7 Qc6 22.Be4 Nxe4 23.fxe4 Qd6 24.e5 Qd3 25.Qe7 Bc3 26.Rc1 Qg6 27.Ng3 Bb2 28.Re1 Nxe5 29.Rf6 Rae8 30.Rxg6 Rxe7 31.Rxg8+ Kxg8 32.Re2 Bc3 33.Kg2 Nd3 34.Re3 Nf4+ 35.Kf3 Rf7 36.Kg4 Bd4 37.Rf3 Be5 38.Re3 Ng6 39.f3 Bc7 40.Nh5 0-1

Round 4

The main game this round was Speelman (3/3)-Quest (3/3)... the only program on 100%. Jon got *'a nice, quiet position, where nothing awful can happen!'* Then he messed it up and had to settle for a draw.

The computers were already well ahead of their human opponents, but only due to good results against the weak players. At the top end the GM's were nearly all getting good results: Van der Wiel and Seirawan 4/4; Speelman, Vaganian 3½/4.

However Rebel Aegon won a terrific game against Christiansen, and Fritz drastically punished a disastrous opening idea by Jan de Boer (2421).

Rafael Vaganian-CHESSICA

1.Nf3 d5 2.g3 c5 3.Bg2 Nc6 4.d4 Nf6 5.O-O Bg4 6.dxc5 e5 7.c4 Bxc5 8.cxd5 Qxd5 9.Nc3 Qxd1 10.Rxd1 h6 11.h3 Bh5 12.Nh4 O-O 13.g4 Bg6 14.Nxg6 fxe6 15.Na4 Bd4 16.e3 Bb6 17.Bd2 Kf7 18.b4 Rfc8 19.Bc3 Kc6 20.Rd2 Rd8 21.b5 Rxd2 22.Bxd2 Nd8 23.Rc1 Nd5 24.Nc5+ Bxc5 25.Rxc5 Nf6 26.Bb4 a6 27.Rc7 Nd5 28.Bxd5+ Kxd5 29.Rxg7 axb5 30.Rg8 Rb8 31.e4+ Kxe4 32.Bd6 Rc8 33.Kg2 Ra8 34.Be7 Nc6 35.Rxa8 Nxe7 36.Rb8 Nd5 37.Rxb7 b4 38.Kg3 h5 39.gxh5 1-0

REBEL AEGON-Larry Christiansen

1.d4 Nf6 2.c4 c5 3.d5 e5 4.Nc3 d6 5.e4 Be7 6.g3 Nbd7 7.Be3 a6 8.f3 O-O 9.b3 Nh5 10.Qd2 Rb8 11.a4 g6 12.Bh3 f5 13.exf5 gxf5 14.Nge2 Kh8 15.Bh6 Rf7 16.O-O Qg8 17.Qc2 Qg6 18.Bd2 Ndf6 19.a5 Ng7 20.Na4 Qh5 21.Bg2 Bd7 22.Nb6 Be8 23.Rfe1 Nd7 24.b4 cxb4 25.Bxb4 Nxb6 26.axb6 Rc8 27.Qb3 Qg6 28.Kh1 Bd7 29.f4 e4 30.Rac1 h5 31.Qa3 Kh7 32.Bh3 Rg8 33.Nc3 Be8 34.Rg1 Rf6 35.Ne2 Qf7 36.Nd4 Rg6 37.Nb3 h4 38.gxh4 Nh5 39.Rxg6 Rxg6 40.Na5 Bxh4 41.Bxd6 Bf2 42.Nxb7 Ng3+ 43.hxg3 Rxg3 44.Qxg3 Bxg3 45.Rg1 Bh4 46.Nc5 Qh5 47.Rg2 e3 48.b7 e2 49.Nd3 1-0

Round 5

Van der Wiel found that Rebel Aegon's book and immediately subsequent ideas in a Petroff left him *'outplayed'*. Then it calculated a way to 'win' a pawn in which the horizon effect caused its search to stop just a bit too soon. Van der Wiel prepared *'something nasty'* and, by the time the program had seen it, it was too late.

Seirawan had an easy time v. Fritz. The program (which probably only won the WCC due to some better book preparation than Deep Thought) now blundered itself in the opening, on move 9. The GM immediately forced it into a won ending, and entertained the operator (Franz Morsch himself) by explaining the winning process as he went along.

Parada also seemed well on his way to an easy win against Quest. *'Suddenly I had 2 moves: the boring one which would win, and the beauty that goes for the gallery. I had a nice audience, so chose the latter!'* It was a mistake, and Quest knew enough to get the draw.

Ree beat HiTech in an astonishing finish, revealing a program bug when the computer, calculating around 100,000 positions a second, overlooked mate in 2!

Speelman, too, entered a Knight ending with slightly the worse position, but saw MChess Pro make a 1 move blunder to leave the GM with an easy win.

Seirawan and Van der Wiel thus went to the last round with both still on 100%!

FRITZ-Yasser Seirawan

1.e4 c5 2.c3 d5 3.exd5 Qxd5 4.d4 Nf6 5.Nf3 Bg4 6.Be2 e6 7.Na3 Nc6 8.Nb5 Qd8 9.Bg5 a6 10.Bxf6 gxf6 11.Na3 cxd4 12.Nxd4 Bxe2 13.Nxe2 Bxa3 14.bxa3 Qxd1+ 15.Rxd1 Rd8 16.Rxd8+ Kxd8 17.Nf4 Ke7 18.Ke2 Rc8 19.Rb1 Rc7 20.a4 Ne5 21.h3 f5 22.Nd3 Nc4 23.Nb2 Nd6 24.Nd1 f4 25.Rb3 e5 26.a3 f5 27.Nb2 e4 28.c4 Ke6 29.Rb6 Ke5 30.a5 Rc5 31.Kd2 Rxa5 32.a4 Rc5 33.Kc3 Rc6 34.Rxc6 bxc6 35.Nd1 c5 36.h4 a5 37.Kb3 Nc8 38.h5 Ne7 39.Nc3 Ng8 40.Nd5 Nf6 41.Ne7 Kd4 42.Nxf5+ Kd3 43.h6 e3 44.fxe3 fxe3 45.Ng3 e2 0-1

John van der Wiel-REBEL AEGON

1.e4 e5 2.Nf3 Nf6 3.Nxe5 d6 4.Nf3 Nxe4 5.Qe2 Qe7 6.d3 Nf6 7.Nc3 Nbd7 8.Be3 Nb6 9.O-O-O Ng4 10.Kb1 Nxe3 11.Qxe3 Qxe3 12.fxe3 Be7 13.Nb5 Bd8 14.e4 O-O 15.d4 f5 16.e5 dxe5 17.Nxe5 Be6 18.c4 a6 19.Nc3 Bf6 20.c5 Nd5 21.Bc4 Nxc3+ 22.bxc3 Rfe8 23.d5 Bc8 24.Nf3 f4 25.d6+ Be6 26.d7 Bxc4 27.dxe8=Q+ Rxe8 28.Rhe1 Rxe1 29.Nxe1 Bxc3 30.Rc1 Bxe1 31.Rxc4 g5 32.c6 b6 33.Rd4 Bc3 34.Rd8+ Kf7 35.Rd7+ Ke6 36.Rxc7 f3 37.gxf3 Kd6 38.Rxh7 Kxc6 39.Kc2 Be5 40.Rh6+ Kd5 41.Kd3 1-0

Jonathan Speelman-MCHESS PRO

1.d4 Nf6 2.Nf3 e6 3.g3 b5 4.Bg5 Bb7 5.c3 Be7 6.Bg2 O-O 7.O-O Na6 8.b4 Ng4 9.Bxe7 Qxe7 10.a4 c6 11.Ne1 bxa4 12.h3 Nf6 13.Nd3 Nc7 14.Nc5 Bc8 15.Qxa4 e5 16.e3 exd4 17.cxd4 d6 18.Nb3 Ba6 19.Rc1 Bb5 20.Qa3 Ncd5 21.Na5 Rac8 22.Qb3 Qe6 23.Na3 Nb6 24.Qxe6 fxe6 25.Bxc6 Ba4 26.Bxa4 Rxc1+ 27.Rxc1 Nxa4 28.Rc7 Ne4 29.f4 Rf7 30.Rc8+ Rf8 31.Rxf8+ Kxf8 32.b5 Nxc3 33.Nc6 Ne4 34.Nxa7 d5 35.Nc6 Ke8 36.Kg2 Nd6 37.Na5 Kd7 38.Nb3 Nc4 39.Nc2 Nc3 40.Nc5+ Kd6 41.Kf3 Nxb5 42.Ke2 Nc3+ 43.Kd3 Nd1 44.Ke2 Nc3+ 45.Kd3 Na2 46.Ke2 Ke7 47.e4 g6 48.Ne3 Nb4 49.Nxc4 dxc4 50.Kd2 Na2 51.Kc2 Kd6 52.Kb2 Nb4 53.Kc3 Nd3 54.Nxd3 cxd3 55.Kxd3 Kc6 56.Kc4 Kd6 57.d5 exd5+ 58.exd5 1-0

VIRTUAL CHESS-David Bronstein

1.e4 e5 2.Nf3 Nc6 3.c3 d5 4.Bb5 a6 5.Bxc6+ bxc6 6.Nxe5 Qg5 7.Nf3 Qxg2 8.Rg1 Qh3 9.Rg3 Qe6 10.Nd4 Qd7 11.e5 Ne7 12.Nf3 Nf5 13.Rg1 d4 14.d3 dxc3 15.Nxc3 c5 16.Bf4 Bb7 17.Qe2 Qc6 18.Ne4 O-O-O 19.b3 h6 20.O-O-O c4 21.bxc4 Ba3+ 22.Kc2 Qa4+ 23.Kb1 Bxe4 24.dxe4 Qb4+ 25.Ka1 Qc3+ 26.Kb1 Qb4+ 27.Ka1 Qc3+ 28.Kb1 Qb4+ 1/2-1/2

Round 6

Van der Wiel, against Quest, went wrong after the opening when he found himself forced to exchange the 'wrong' bishop. *'The only chance to play for the win looked suicidal, and I must admit I was feeling very tired'*. The GM proposed 1/2-1/2 on move 29, much to Morsch's delight - he's had a good year, and Quest finished top program (on tie-break) with 4 1/2/6.

Seirawan thus won with 6/6 by easily beating NightmareN. The program castled right into his attack. 1-0 in just 21 moves!

Tiredness was affecting most of the GM's - apart from Seirawan only Christiansen-Fritz (in 27 moves!) and Vaganian-Arthur went 1-0. Speelman-King and Bronstein-Kallisto went 1/2-1/2, while Ree-Zarkov, Parada-Now and Kosashvili-Nimzo were all 0-1. Sofie Polgar was also downed by Hiarcs.

So the computers came out on top overall with 162 1/2-137 1/2. But it was soon noted that the GM's scored 41 1/2-12 1/2 (77%), thus putting the computers in their place despite their 'tired' showing in the last round!

QUEST-John van der Wiel

1.d4 e6 2.e4 d5 3.Nc3 Bb4 4.e5 b6 5.Qg4 Bf8 6.Bg5 Qd7 7.h4 h6 8.Bf4 h5 9.Qf3 Ne7 10.g3 Nf5 11.O-O-O Nc6 12.Nge2 Ba6 13.Bh3 Nce7 14.Rhe1 g6 15.Bg5 Bh6 16.Bxh6 Rxh6 17.Kb1 O-O-O 18.Nf4 Kb8 19.Bg2 Rhh8 20.Nce2 Rc8 21.Nc1 Rhd8 22.Nfe2 c6 23.Nf4 Rc7 24.Nb3 Qc8 25.Nh3 Rf8 26.c3 Bb5 27.Rd2 Qa6 1/2-1/2

Yasser Seirawan-NIGHTMARE N

1.d4 Nf6 2.c4 e6 3.Nf3 b6 4.Nc3 Bb4 5.Qb3 c5 6.a3 Ba5 7.Bd2 cxd4 8.Nxd4 Nc6 9.Nxc6 dxc6 10.g3 Bb7 11.Bg2 Qd4 12.Rd1 O-O-O 13.O-O Qc5 14.Qa4 Bxc3 15.Bxc3 a5 16.Rc1 Rhg8 17.b4 axb4 18.axb4 Qd6 19.c5 bxc5 20.bxc5 Qd7 21.Ba5 1-0

Larry Christiansen-FRITZ

1.d4 d5 2.c4 c6 3.Nf3 Nf6 4.Qc2 e6 5.g3 Be7 6.Bg2 O-O 7.O-O b6 8.Bf4 dxc4 9.Qxc4 Ba6 10.Qc2 Nd5 11.Nc3 Nxf4 12.gxf4 Bd6 13.Qe4 Qe7 14.Rfd1 f5 15.Qe3 Bb7 16.Ne5 Rc8 17.Qh3 Rd8 18.e4 fxe4 19.Nxe4 h6 20.Rd3 Bc8 21.Rg3 Bxe5 22.dxe5 Kh8 23.Nf6 Qf7 24.Be4 a6 25.Rg6 Qf8 26.Kh1 Ra7 27.Rag1 Rf7 1-0

ZARKOV-Hans Ree

1.e4 c5 2.Nc3 Nc6 3.g3 g6 4.Bg2 Bg7 5.d3 d6 6.Nge2 e5 7.Nd5 Nce7 8.Nec3 Be6 9.O-O Nxd5 10.exd5 Bf5 11.f4 Qd7 12.fxe5 Bxe5 13.Bf4 Bd4+ 14.Kh1 O-O-O 15.a4 a6 16.Ne4 Bxe4 17.dxe4 Re8 18.c3 Bg7 19.Qc2 Nf6 20.b4 c4 21.b5 a5 22.Qe2 Kb8 23.Qxc4 Rc8 24.Qb3 Ng4 25.Rac1 h5 26.b6 h4 27.Qb5 Qxb5 28.Bxd6+ Ka8 29.axb5 Bxc3 30.Rxc3 Rxc3 31.Ra1 1-0

HIARCS-Sofia Polgar

1.e4 c5 2.Nf3 e6 3.d4 cxd4 4.Nxd4 Nc6 5.Nc3 Qc7 6.Be2 a6 7.O-O Nf6 8.Kh1 Be7 9.a3 O-O 10.f4 d6 11.Be3 Bd7 12.Nb3 b5 13.Qd3 Rad8 14.Kg1 Bc8 15.Bf3 Rfe8 16.Qd2 d5 17.exd5 exd5 18.Rae1 d4 19.Bxd4 Nxd4 20.Nxd4 Bc5 21.Rxe8+ Nxe8 22.Ne2 Nd6 23.Rd1 Nc4 24.Qc1 Bb7 25.Bxb7 Qxb7 26.c3 Qe4 27.Ng3 Qd5 28.Kh1 h5 29.b3 Na5 30.b4 Nb3 31.Qb1 Bxd4 32.cxd4 Re8 33.h3 h4 34.Qf5 Qc4 35.Nh5 Qe2 36.Qg4 Qxg4 37.hxg4 a5 38.d5 axb4 39.axb4 Re4 40.d6 Rd4 41.Rxd4 Nxd4 42.g3 Nc6 43.gxh4 Nxb4 44.Kg2 f5 45.gxf5 Kf7 46.Kf3 Nd5 47.Nxg7 b4 48.Ne6 Nb6 49.Nc5 1-0

The GREATEST Computer v Computer game?! London PRO v Tasc R30

It's an old saying – and quite wrong of course (!) – that watching paint dry is more interesting than watching a game of chess. Oh it's true, we've all seen some Computer games like that (yes, and one or two G.M v G.M as well, even in World Championships!), but most of the time it's sheer entertainment.

Beyond that, just occasionally, one has the pleasure of enjoying something quite out of the ordinary, a clash of complexity, ingenuity and uncertain outcome. After such a game you wonder, "Was it really as good as it seemed at the time?", so you play through it again, and... yes, it was!

Mike Healey and I monitored such a meeting at Countrywide as we started testing Richard Lang's new London program chip. The first upgrades we did were changing Berlin Pro 68020's to London Pro's, so the match we started gave the R30's 1995 upgrade a speed advantage. Thus we let the London Pro have White, and here is the first game! I've included plenty of diagrams and notes, and hope these will help readers get the most from it.

London Pro (2350) – Tasc R30 1995 (2430) [D32]
C/wide G/60, 1996[ELH]

1.d4 d5 2.c4 e6 3.♘c3 c5
4.cxd5 exd5 5.♙f3 ♘c6 6.♙g5

[Surprisingly this put the R30 out of Book]

6...f6

[6...♙e7 is also played here]

7.♙f4 g5

[7...c4 was the LPro Book move, so both computers are now on their own. At the cost of a possibly serious weakening of his ♖-side, Black has set his sights on winning the d4-♙]

8.♙g3 g4 9.♙d2 ♙xd4



[Well worth an early diagram: Black is his ♙ up, but has a wild pawn structure that already promises fireworks!]

10.e3 ♘c6 11.♙b5 a6
12.♙xc6+ bxc6 13.0-0



[White's development is almost complete – cp. the Black pieces! The choice for LPro now is between:–

1. Trying to pick off the selection of weak ♙'s on the a,c and f-files, or

2. Going for his opponent's exposed ♖. Both programs think themselves very

slightly ahead!]

13...♙e7 14.♙a4

[14.♙c1 also looks to be good]

14...h5!?

[Probably only a de Kon-ing program would try this! However, turning the 'weak' ♖-side pawns into an attacking force is by no means a bad idea. I think the sound-looking 14...♙d7 – a perfectly good move it should be said – would have been played by most programs]

15.e4!

[Putting one of the ♙'s on d1 was another possibility. There is a drawback with the move played in that, whilst it nicely increases the tactical complexities, Black will now be able to force a passed d-♙ for himself when he finds time]

15...♙f7!?

[The R30 rightly wants to remove the pin, but even so this is a remarkable choice, yet amazingly (to me, anyway) exactly what the LPro expected, showing itself +15 incidentally. 15...♙d7 still looks a good, sound move, whilst 15...h4 16.♙f4 ♙d7 also looks good for Black, but certainly not 15...dxe4? 16.♙ad1!]

16.♙fd1 h4 17.♙f4



[The position, in just a few moves, has changed quite dramatically as the programs' different styles create an interesting conflict of ideas.

Firstly the R30 has created ♖-side threats with his formerly errant pawns. But the LPro continues to seek a 'serious' attack rather than trying to pick off one of Black's weak ♖'s and equalise the material]

17...h3!?

[Is this good... or bad? I can't make up my mind!

The LPro expected it, but other programs prefer either 17...♙d7 > ♙d6 putting Black at around +30 on average, or 17...♙b6 also > ♙d6 and showing Black ahead.

The move played allows White to fix the pawns, but this leaves his ♖ somewhat 'caged in'. So, on balance, I think Black's choice a good one!]

18.g3

[18.♙c4 looks very dramatic! Perhaps 18...hxc2 19.♙xc2 ♙c6 would come next, but I think Black's position is holding: he remains a ♖ up, and White's ♖ is exposed as well]

18...♙d7!

[The programs were both in agreement with 18.g3 and ♙d7. The R30 read +30 > ♙c2, LPro is now -24]

19.♙b3!

[Rather than go 'material' and redirect forces towards the weak c-♖'s, LPro commendably continues to aim its attack at Black's ♖]

19...♙e6!?

[19...♙h6?! 20.♙xh6 ♙xh6 21.♙a4! favours White]

20.♙c4!

[It's time for another diagram - it's about to get critical and, watching this in the office, we found it rather complicated - especially

when a customer rang to place an order - interrupting our train of thought!]



20...d4!

[Take a note of this dangerous R30 ♖, as the next part of the game will centre around White's need to block and restrain it if he is to stay in the game]

21.♙a4 21...♙g6

[Though this allows an unpleasant check, the only obvious alternative I can see, 21...♙h5, runs straight into trouble in the form of 22.♙b7 ♙xc4 23.♙b6]

22.♙b7+ ♙e7 23.♙c7!

[Easy enough to find by now, but it's an excellent culmination to the combination which forces apparently equalising exchanges.

The R30 shows +4 > ♙c7, & LPro has +24 > ♙axc8]

23...♙c8 24.♙xc8 24...♙axc8 25.♙d6+ ♙xd6 26.♙xd6 ♙e5!

[A splendid rejoinder by the R30, creating some uncertainty about the right capture to make.

26...♙cd8 27.♙xc5 ♙e5 would not have been quite as good]

27.♙xc5?!

[Finally equalising the material, but maybe 27.♙xe5 was a better way to do so, leading to 27...fxe5 28.♙xc5 ♙b8 29.b3 =]

27...♙f3+! 28.♙h1

[28.♙f1?? ♙c4+ 29.♙d3 ♙ce8 and White is in trouble]

28...♙c4 29.♙dc1

[29.♙f4? ♙e2!+]

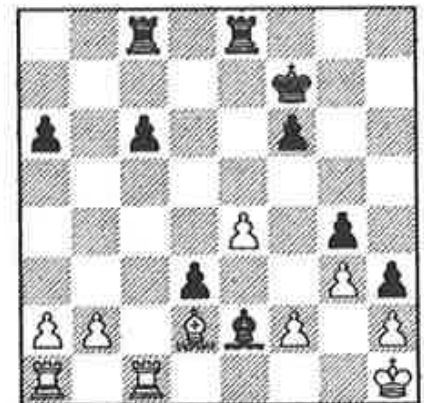
29...♙e2 30.♙f4 d3 31.♙b3

[A good choice by the LPro, preferring to block the ever more dangerous d-♖.

The alternative, which was 31.♙b7 d2 32.♙cb1, stops Black getting a ♙ behind the ♖, but leaves White's position looking quite dreadful]

31...♙he8 32.♙d2 ♙xd2 33.♙xd2

[So the LPro has managed to block the ♖ and, due to the presence of ♙'s of opposite colours, the R30 could actually now have trouble making his dangerous-looking passed pawn count, despite the much better scope of his ♙'s]



33...♙f3+

[It may have been better to bypass the check and capture on e4 immediately, with 33...♙xe4 34.♙c3 c5! 35.b3! f5]

34.♙g1 ♙xe4

[So the R30 goes a ♖ up again, and it maintains a good-looking attack. White's ♙'s will be constantly tied to watching for a possible back-rank mate, and Black has a real initiative!]

35.♙c3 ♙b8

[The R30 rightly had +161 here, > ♙xd3]

36.b3

[LPro showed -87 > ♙d4. The expected exchange

36. $\text{Exd3?!$ Exb2 37. Qe3 would get rid of 'that' d- Δ , but then there'd be one on the c-file which can start running soon. In fact it could even be more dangerous in view of the position of White's Φ !

The other exchange by 36. Exc6?? Exb2 37. Qc3 (not 37. Qe3?? Exe3 38. fxe3 Bg2+ 39. $\Phi f1$ d2 with mate to follow in 4 or 5 moves) 37... Ec2! would have been clearly winning for Black]

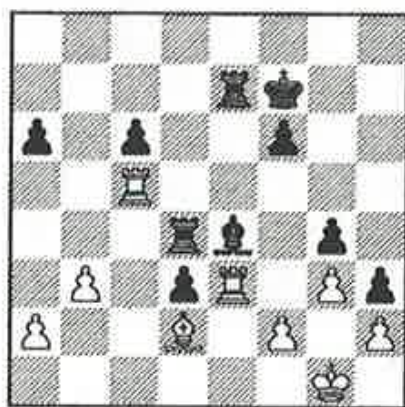
36... Ed4 37. Ee1 Eb7 38. Ee3 Qe4 39. Ec1 $\text{Ee7?!$

[I am not too sure about this, as Black certainly can't want to exchange the E 's.

Therefore I'd have preferred 39... f5]

40. Ec5

[The LPro is, slowly but surely, managing to get some scope for its pieces]



40... $\text{Ea7?!$

[The R30 evaluates the position here at +122 > Ea5 . But now that LPro has managed to activate one of his E 's the outcome seems much less certain]

41. Eh5!

[Preferring this to the expected 41. Ea5 is a clever idea – and would be even more so against a human at G/60 as the clocks are beginning to come into the game now! Both have adequate time left, but are noticeably beginning to move a

little faster.

The veiled threat in 41. Eh5 is 42. Exe4 Exe4 and then 43. Eh7+ winning Black's other E]

41... Ea8

[This looks a bit weedy, but the R30 probably chose the best move. If 41... $\text{Ed5?!$ 42. Eh4 Qf5 43. f3 gxf3 44. $\text{Ec4!}=]$

42. Ee1

[The freeing move 42. f3 here would lead to 42... gxf3 43. Eh4! Ee8 (43... $\text{f5?!$ 44. Exf3! Qxf3 45. Exd4 Qe4 46. $\Phi f2=$) 44. $\Phi f2$ (44. Exf3? might look clever, but only for a moment: 44... Qxf3! 45. Exd4 Ee2!-+) 44... Ee6 or, perhaps, =]

42... $\text{Ed5?!$

[The R30 doesn't want to exchange E 's, but he has got to do something to curtail his opponent's developing adventures.

If he tries keeping E 's on with 42... f5 then the LP E gains the 7th. rank with 43. Eh7+ $\Phi g8$ (43... $\Phi g6$ 44. Eh6+) 44. $\text{Ec7!}]$

43. Exd5

[A reward for the last few moves, and snapped up in no time at all!]

43... cxd5 44. Ec1 d4?!

[A strange choice by the R30, as it weakens the protection of both the Δ moved and his Q . 44... Ee8 looks better, or maybe even $\text{f5!}]$

45. Ec7+ $\Phi e6$ 46. $\Phi f1!$



[White's Φ , for so long trapped in its corner, now makes a bold and timely effort to cross the open e-file and join the game!]

46... Ee8 47. $\Phi e1$ $\Phi f3?!$

[47... $\Phi d5$ might have been better]

48. $\Phi b4$

[White must protect against 48... $\Phi d6+$ 49. $\Phi f1$ $\Phi xc7$, which would win]

48... a5 49. Qc5 $\Phi d5+$

[The check looks nasty but it is only a cheap one – as long as White, having for so long wanted to exchange all E 's, doesn't try to do so now!]

50. Qe7!

[Not 50. Ee7?? as Black plays Ec8! 51. Qa3 Ec2 , after which White won't last long]

50... a4?

[Gifting LPro his own passed pawn was unwise.

I prefer 50... f5 51. $\Phi d2$ $\Phi e4$, though the locked position would take on a very drawish look, and would have robbed us of some of the great excitement which is still to come!]

51. b4!

[With this the first Δ race gets under way!]

51... $\Phi e6$ 52. Qc5 $\Phi f5+$ 53. Qe7

[53. Ec7 would have been safe this time, as the Q is now protected on c5. However the move played is still the better one]

53... Qd5 54. a3! $\text{Qb3?!$

55. $\Phi d2$ Qc2? 56. Eb7

[The LPro now reads -18 > $\Phi e6$]

56... $\Phi e6$ 57. Qc5 $\Phi d5$ 58. Ee7 Ed8 59. Ec7 $\Phi e4?$ 60. b5!

[LPro seizes its chance, aware with +33 that the game might just be turning its way!]

60... Ed5

[However the R30 still blithely reads +96 > b6 here]

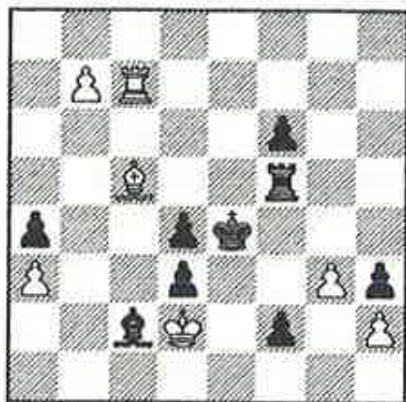
61. b6

[The LPro leaps to +300!]

61...♖f5

[Suddenly the R30 sees it, and shows -362. But don't switch off - it's far from over!]

62.f4 gxf3 63.b7 f2



64.b8♖ f1♖+!!

[Wonderful! A ♖ promotion! An incredible save, though both programs had already been analysing that this would be the correct, indeed, necessary promotion for a couple of moves!]

As a matter of fact it's the first non-queen computer promotion I've seen in an actual game. Obviously I've tested many programs with especially set-up positions where an under-promotion is required, to see if they did it - and of course they usually do nowadays - but this was my first 'live' one.

Incidentally, if 64...f1♖?? 65.♖b7+ is mate in 8, which goes 65...♞d5 66.♞e7+ ♔f5 67.♖xd5+ ♔g6 68.♖g8+ ♔f5 69.♖h7+ ♔g4 70.♖h4+ ♔f3 71.♖e4+ ♔f2 72.♖xd4#] 65.♖c1

[65.♖e1?? d2+ 66.♖e2 d3# is a lovely little mate]

65...d2+ 66.♖xc2 ♖e3+ 67.♖xd2 ♞f2+ 68.♖c1?!

[Very risky. The LPro is walking a tightrope with this, and suddenly looks as if it could even get mated!]

Better, in my view, was 68.♖e1! ♞f1+ 69.♖e2 (Not 69.♖d2?? ♞d1+, mate in 3)

69...d3+ 70.♖d2 and now whatever check comes next - ♞f2+ or ♖c4+ - the king appears to escape with ♖c3!]

68...♞f1+ 69.♖b2

[Here 69.♖d2?? ♞d1+ is mate in 3]

69...♖d1+ 70.♖b1 ♖c3+ 71.♖c2

[The perils of White's position, should LPro make the slightest mistake, are seen nearly every move.

Here 71.♖b2? is taboo due to 71...♖d3 72.♖b5+ (anything else allows ♞b1 mate!) 72...♖xb5 73.♞d7 ♞f2+ 74.♖a1 ♞xh2 and Black wins] 71...♞f2+ 72.♖c1 ♖d3



[White's position looks desperate, but now LPro is able to make a dramatic escape from the mating net... with a ♖-sac!! Phew - what a game!]

73.♖b1+! ♖xb1 74.♖xb1 ♞xh2 75.♞h7

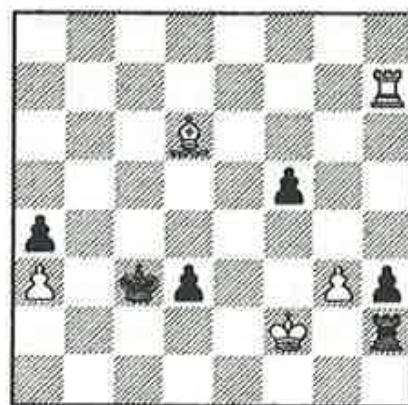
[Both programs show 0.00 now. I must say that I think that both have done extraordinarily well, and with their clocks running down below 10 mins, to find their way through the creating and avoiding of such a series of complications and mate threats.

And it isn't quite over yet!]

75...♖c4 76.♖d6 f5 77.♖c1 ♖c3

[Threatening ♞h1 mate, of course]

78.♖d1 ♞h1+ 79.♖e2 d3+ 80.♖f2 ♞h2+



81.♖e3?

[With the programs having to move very quickly, the LPro instinctively seems to take the ♖-opposition position in its initial search, fatally allowing a tempo-winning check. With a little more time and one more ply of search the correct 81.♖f3 would have been chosen, leading to an almost certain draw:-

A) 81...♖c2 82.♞c7+ (82.♖b4 d2 83.♞c7+ transposes to line B) 82...♖b3 83.♞b7+ ♖c2 84.♞c7+ heading for a draw by repetition;

B) 81...d2 82.♖b4+ ♖b3 83.♞d7 ♖c2 84.♞c7+=]

81...♞e2+

[The R30 instantly takes its chance. The point is that Black has been given a 'free' move because of the check which simultaneously releases the h-♖ for its touch-down run!]

82.♖f3 h2! 83.♖f4 ♖c2! 84.♞c7+ ♖b3 85.♞b7+ ♖a2

[85...♖xa3 86.♞b1! ♖a2! was also okay for Black]

86.♞h7 ♖xa3 87.♞e3 ♞c2 88.♖f4 d2! 89.♖xd2 ♞xd2 90.♖e3 ♞c2 91.g4?! ♖b2

[There is no trap that I can see, and 91...fxg4 would have been fine. It no longer makes a difference anyway]

92.gxf5 a3 93.f6 a2 0-1.

An AMAZING game!

The LCT2 TEST

by Frederic LOUGUET

The **LCT2 CHESS TEST** by **Frederic LOUGUET** consists of 35 positions separated into:-

- pos 1-14: **Positional**
- cmb 1-12: **Tactical**
- fin 1-9: **Endgame**

It is considered to give a good approximation of the international Elo ratings for Chess (PC) Programs and Dedicated Chess Computers.

Frederic LOUGUET, a Frenchman (rather obviously) is a freelance journalist, writing articles and books on various computer matters, including Computer Graphics and 3D Image Synthesis.

His original test and this latest version were published in the French Chess and Computer Chess Magazine "*La Puce Echiquienne*".

Frederic's great concern in preparing the test was to aim for a good balance between positional and tactical situations, plus endgames.

He comments: *"After all, the combinations only appear when there are positional weaknesses in a position, enabling tactical moves to be effective. If you look at the whole game, you can see that positional moves are much more frequent than tactical moves"*.

HOW TO RUN THE TEST

1. COMPUTER SET-UP.

- The program/computer must be set to **Infinite** level.

■ **Permanent Brain** must be disabled (some programs begin storing analysis in set-up mode).

■ Any special **Learning Tables** must be disabled.

2. KEEPING TRACK.

■ The program must run each test for 10 MINUTES.

■ The time to keep is the TIME at which the computer finds the correct move. Do NOT, however, switch off when this happens - some programs have been known to change their minds!

E.g. 'the move' is found at 32 secs. In the next ply at 1'56 it changes to something different. In the next ply it concludes the new move is not so good and, at 7'16 changes back to the correct move.

The operator will have noted '32. If the computer had stayed with the correct move, it would score on the basis of '32. However because it changed its mind, the score will be based only on the 7'16 time.

For the TACTICAL tests, where the computer shows a clearly positive evaluation and is therefore almost certain NOT to change, the staying with it for 10 minutes may not be quite so necessary. But it is certainly VITAL in the POSITIONAL section!

3. KEEPING RECORD.

I am very interested to see the scores of the various

POINTS SCORING

Secs	Min/Secs	Pts
'0-'9	0'0-0'9	30
'10-'29	0'10-0'29	25
'30-'89	0'30-1'29	20
'90-'179	1'30-2'59	15
'180-'389	3'00-6'29	10
'390-'600	6'30-10'0	5

Computers and Programs for each section. So, after scoring the points for each position, please keep separate totals for Positional, Tactical and Endgame (Fin) total

4. ESTIMATING THE GRADING.

Louguet has prepared his test and the calculations to relate to the Swedish PLY listing. His instructions are to ADD the 3 scores

Pos + Cmb + Fin

and then add this total to 1900 to establish an estimated Elo grade.

However we have found that calculations to adjust our British BCF figures to Elo equivalents result in slightly higher figures (Swedish +80, in fact), so (with apologies to our foreign readers) let's use +1980 for now, and see how it works out. Thus:

GRADING CALC

Positional	105
Tactical	200
Endgame	70
Basic	1980
Total	2355

The maximum possible is $1980 + (30 * 35 = 1050) = 3030$ Elo!... some chance!

5. SOME (est.) ELO'S AL- READY AVAILABLE.

2505 Genius3 P/90
2505 Hiarcs4 P/90
2495 Genius4 P/90
2480 Rebel7 P/90
2460 Fritz3 P/90
2435 Tasc R30
2410 MChessPro5 P/90
2320 RISC 2500
2095 Fidelity Mach3

I am particularly keen to get some figures for the **dedicated** machines (Vancouver, Berlin, London, RISC1+2, Sapphire/Diamond, Polgar, President/GK2100, Scorpio/Diamond, Montreux, Kasparov BruteForce etc etc).

I would also like to see how the **dedicated** computers compare with the fast-processor **PC programs** on the **positional** tests! In fact we should be able to produce a **Top 10** for each Section!

Do, please, send whatever results you can to me, for listing in a future Issue. Thanks!

(1) Tchernine – Miles Tunis 1985 [pos01] White



1.d6

White has a space advantage, and puts pressure on c5 by blocking the protection coming from ♕f8.

(2) Lilienthal – Botvinnik Moscow 1945 [pos02] Black



1...♙b4

The idea is that the ♘ will be very strong on e4 after the exchange on c3.

(3) Boissel – Boulard Corr 1994 [pos03] White



1.♘c5

It would be bad to exchange ♘'s. Now White can make good use of the weak black squares around the ♕e6. The ♖ at h2 is not important!

(4) Kaplan – Kopec USA 1975 [pos04] Black



1...e5

After 2.fxe5 ♕e6 Black is all right despite being two ♖'s down.

(5) Estrin – Pytel Albena 1973 [pos05] Black



1...♙b5

After 2.♙xb5 axb5 Black will be able to play ♜c4 and ♜fc8, dominating the c-file.

(6) Nimzovitch –
Capablanca New York
1927 [pos06] Black



1...e5

This positional sacrifice enables Black to gain control of the second rank after 2.♙xe5 ♜dd2.

(7) Tartakower –
Rubinstein Moscow 1925
[pos07] White



1.♘d1

Black needs to stop the attack on g7 by ♙c8–d7–e8. Now White can play ♘d1–e3–f5! A test position that could have also gone into the Tactical section, perhaps.

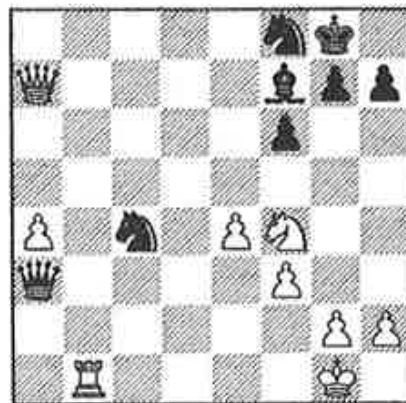
(8) Polugayevsky –
Unzicker Lissolovodsk 1972
[pos08] White



1.♙h3

Black was threatening to move ♙f8–e6–d4, where it would have a beautiful outpost (or obtain a dangerous passed ♗ for Black). Now, if 1...♙e6 White exchanges immediately with 2.♙xe6. Though this loses the ♙ pair, it is much better for him than the alternative!

(9) Boissel – Del Gobbo
Corr 1994 [pos09] White



1.♙d4

Increases White's advantage in the centre by sacrificing a ♗. Thus 1...♙xa4 2.♘d5! ♙e6 3.♙b8+ ♙e8 4.♙xe8+ ♙xe8 5.♙xc4.

(10) Cucka – Jansa
Brno 1968 [pos10] Black



1...♙f8

With the ♙'s off the board, it is a good idea to activate the ♙ pair and to free the e7 square for his ♙.

(11) Landau – Schmidt
Noordwijk 1938 [pos11]
White



1.h4

The only move to try for a win. If 1...gxf4 2.f4 opens the position for White.

(12) Korchnoi – Karpov
Merano 1981 [pos12] Black



1...♖b6

To maintain some pressure on the d–♖, Black must not exchange the ♖'s.

(14) Spassky – Aftonomov
Leningrad 1949 [pos14] White



1.d5

After 1...♗bxd5 2.♕g5 ♕e7 3.♕xf6 gxf6 4.♗xd5 ♕xd5 5.♕xd5 exd5 6.♗d4 the Black ♕ is stuck in the centre.

(16) Lasker Ed – Thomas
London 1911 [cmb02] White



1.♖xh7+

This is mate in 7! 1...♔xh7 2.♗xf6+ ♔h6 3.♗eg4+ ♔g5 4.h4+ [or f4+] 4...♔f4 5.g3+ ♔f3 6.0–0! followed by ♗h2 mate.

(13) Barbero – Kouatly
Budapest 1987 [pos13] Black



1...♗xa2

Two passed ♖'s on the third rank are well worth the material – i.e the loss of the b8–♖ after 2.♕xb8 ♖xb8.

(15) Romanichine –
Gdansk Polanica Zdroj
1992 [cmb01] White



1.♗xd6

This wins as 1...♕xd6 2.♖f6 ♖xd5+ 3.♔h2 and Black will have to sacrifice his ♖ on h5, on this or his next move, to stop mate.

(17) Andruet – Spassky
Bundesliga 1988 [cmb03] Black



1...♖f3

This leads to mate on g2:– 2.gxf3 ♗exf3+ 3.♔h1 ♕h3 and then mate after White plays his delaying checks, e.g ♖xg6+.

(18) Vanka – JansaPrague 1957 [cmb04] White**1.exf6**

The continuation would be 1...♙xf4 2.♗xe6 ♗xe6 3.♙xe6+ ♖b8 4.♗e2 ♙c7 (or 4...♙h6 5.♗d8+ ♖c7 6.♙c8+ ♖b6 7.♗d7+-) 5.♗d7 ♙c8 6.♙xf5 and a decisive advantage.

(20) Lilienthal –Capablanca Hastings 1934 [cmb06] White**1.exf6**

An unusual moment in which the famous Capablanca is undone. After 1...♙xc2 2.fxg7 ♗g8 3.♗d4 ♙e4 (or 3...♙d2 4.♗ae1+ ♗e5 5.♗xe5+ ♗d7 6.♗d5+ ♗e8 7.♗e1+ also forcing Black to surrender his ♙ to stave off mate) 4.♗ae1 ♗c5 5.♗xe4+ ♗xe4 6.♗e1 ♗xg7 7.♗xe4+ +-.

(22) Zarkov – MephistoAlbuquerque 1991 [cmb08] White**1.♗f6+**

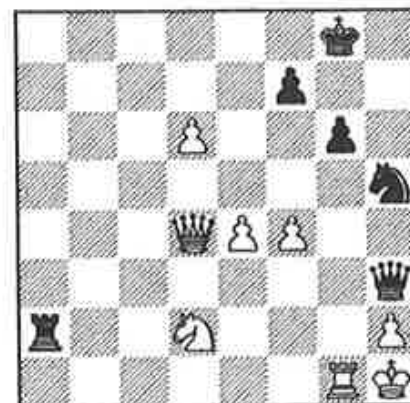
In this case the continuation is 1...gxf6 2.exf6 ♗f8 (2...♗xe4?? 3.♗d8+ ♗e8 4.♗exe8#; or 2...♗e6 3.♙g4+! ♗xg4 4.♗xe8#) 3.♙f4 ♖h8 4.♙g5 and mate follows after Black throws away his ♙ on g3 to make it last longer.

(19) Boros – SzaboBudapest 1937 [cmb05] White**1.♗xh7+**

Wins! 1...♖xh7 2.♗xf7+ ♗xf7 3.♙xg6+ ♖h8 4.♙xf7.

(21) Rotlewi – RubinsteinLodz 1907 [cmb07] Black**1...♗xc3**

If 2.gxh4 (2.♗xb7 ♗xg3! wins) 2...♗d2 3.♙xd2 ♗xe4+ White is soon mated after 4.♙g2 ♗h3.

(23) Portisch – KasparovMoscow 1981 [cmb09] Black**1...♗xd2**

2.♙xd2 might look to be winning, but 2...♙f3+ 3.♙g2 ♗g3+! 4.hxg3 ♙h5+ 5.♙h2 ♙f3+ 6.♗g2 ♙d1+ and Black gets his draw.

(24) Tchoudinovskikh –
Merchiev USSR 1987
[cmb10] White



1.♙xh6

1...gxh6 2.g7 ♖e7 3.♖xe5 – another move which isn't so easy for all programs to find – 3...d5 (if 3...♙g5+ 4.♖xg5 hxg5 5.♗xg5 with, say, ♖h1 or ♗h6 to follow; or 3...dxe5?? 4.♗b3+ is mate in 5) 4.♙h5 ♙g5+ 5.♖xg5 hxg5 6.♗xg5.

(25) Vaisser – Genius2
Aubervilliers 1994 [cmb11]
White



1.♙xh7

1...♙xh7 2.♗h4+ ♙g8 3.♙h6 ♙g4 4.♙g7 ♙h5 5.♗g5 ♙g4 6.h3! – I thought this an amusing little move! – 6...♙xf6 7.♖xf6 ♙xg7 8.♖xg6+ and, after the recapture on g6, White gets his reward in the win of Black's ♗ on d8!

(26) Spassky – Petrosian
WChamps Moscow 1969
[cmb12] White



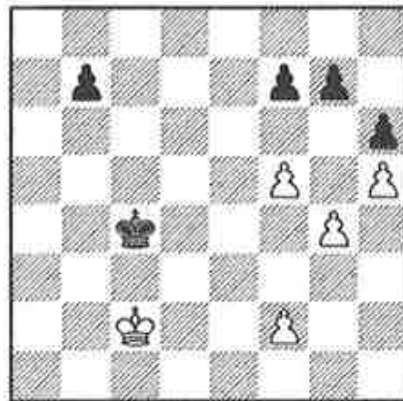
1.e5

Then 1...dxe5 2.♙e4 ♙h5.

Now Spassky played 3.♗g6 exd4?! (3...♙f4!? 4.♖xf4 exf4 5.♙f3 is more interesting) 4.♙g5 and won.

Clearer is 3.♗g4 3...♙f4 (3...exd4 4.♗xh5) 4.♙f3 ♗c7 5.♙h4 ♙c6 6.♖xf4 exf4 7.♙g6+ winning.

(27) Unknown – Lasker Ed
Simul Exhibition [fin01]
White

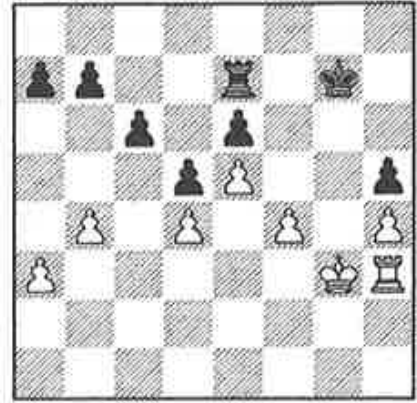


1.f6

1...gxf6 2.f4 ♙d5 3.g5 fxe5 4.fxe5 ♙e5 (4...hxe5 5.h6) 5.gxh6 ♙f6 6.♙b3!

1.f4? was mistakenly played by Lasker's opponent in the game, allowing the GM to go on and win.

(28) Capablanca –
Eliskases Moscow 1936
[fin02] White



1.f5

This position is about creating a protected passed-♙ with a temporary sacrifice. After 1...exf5 2.♙f4 the e5-pawn is massive.

(29) Endgame Study
[fin03] Black

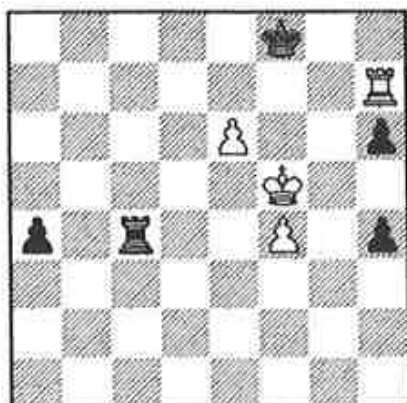


1...♙xe4

This surprising move will effectively kill the White ♙, though its actual loss is very much on the horizon!

2.fxe4 f3! 3.e5+ – White will lose this ♙ anyway, so tries to use it to get his ♙ to c5 – 3...♙d5 (3...♙xe5? 4.♙c5) 4.♙a3 ♙xe5 5.♙b4 d6 and wins.

(30) Karpov – Deep Thought New York 1990 [fin04] Black



1...b3

The only move which can draw:— 2. Exh6 a3 3. Exh3 Ea4 ! 4. Eh1 a2 5. Ea1 Ee7 .

1...h5 was DT's game move, and it soon lost to Karpov's renowned endgame skills after 2. Eg5 .

(31) Karpov – Kasparov Moscow 1984 [fin05] White

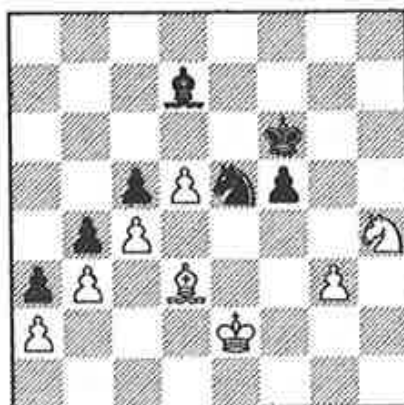


1.a6

1... Eb3 (1... Ea4 2. Exa4 Ea4 3. Eb1 followed by Eb6) 2. Exb3 Ea4 3. Ec5 Ea5 4. Ee4 Ef7 5. Ea4 Ea4 (5... Exc5 6. a7 Ec8 7. a8 Ea8 8. Ea8) 6. Exa4 Ed4 7. $\text{Ec3}+-$.

1. Exd1 was played by Karpov, and the game was drawn.

(32) Minev – Portisch Halle 1967 [fin06] Black



1...f4

A brilliant move! White resigned as 2. gxf4 $\text{Eg4}+$ 3. Ed2 Exd3 4. Exd3 Ed1 and 5... Exb3 ! wins.

(33) Lengyel – Kaufman Los Angeles 1974 [fin07] White



1. Eb4

Three lines need to be considered:—

A) 1... cxb4 2. a6 Ec3 3. a7 Ec8 4. $\text{Exb4}+-$;

B) 1... Exb4 2. Exb4 cxb4 3. a6 b3 4. a7 and White will promote with check;

C) 1... $\text{Eb1}+$ 2. Eg2 cxb4 3. a6 Ec1 4. a7 Ec8 5. Exb4 , very similar to line (A).

(34) Spassky – Byrne USA 1974 [fin08] White



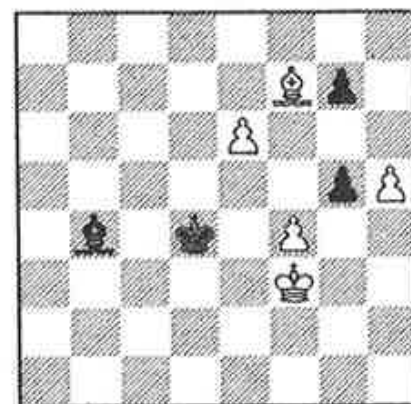
1.c5

A) 1... bxc5 2. Ee1 Eb8 3. Ec4 Ec8 4. Ea5 Ed4 5. Ed8 Ec3 (5... $\text{Exd8}??$ 6. b6) 6. Eg5 Eb8 7. Ed3 Ec1 8. Exh4 Exf4 9. Ee1 Ec7 10. $\text{Ea5}+$ Eb8 11. h4 Ec1 12. h5 Eg5 13. Ee2 c4 14. Ed2 Ef6 15. h6 wins;

B) 1... dxc5 2. d6 Ed7 3. Exc5 Ed8 4. Eb4 Ee6 5. Ec4 Ef6 6. Ec5 Ed8 7. Ed4 Exd6 8. $\text{Ee5}+$ Ee6 9. Eb8 wins.

There are various alternative tries for Black, especially in line A, but all lead to a White win.

(35) Klimenok – Kabanov USSR 1969 [fin09] White



1. Eg4

The only winning move as 1. $\text{fxg5}??$ merely draws.

Why? Because h8 is a black square, under Black's control.

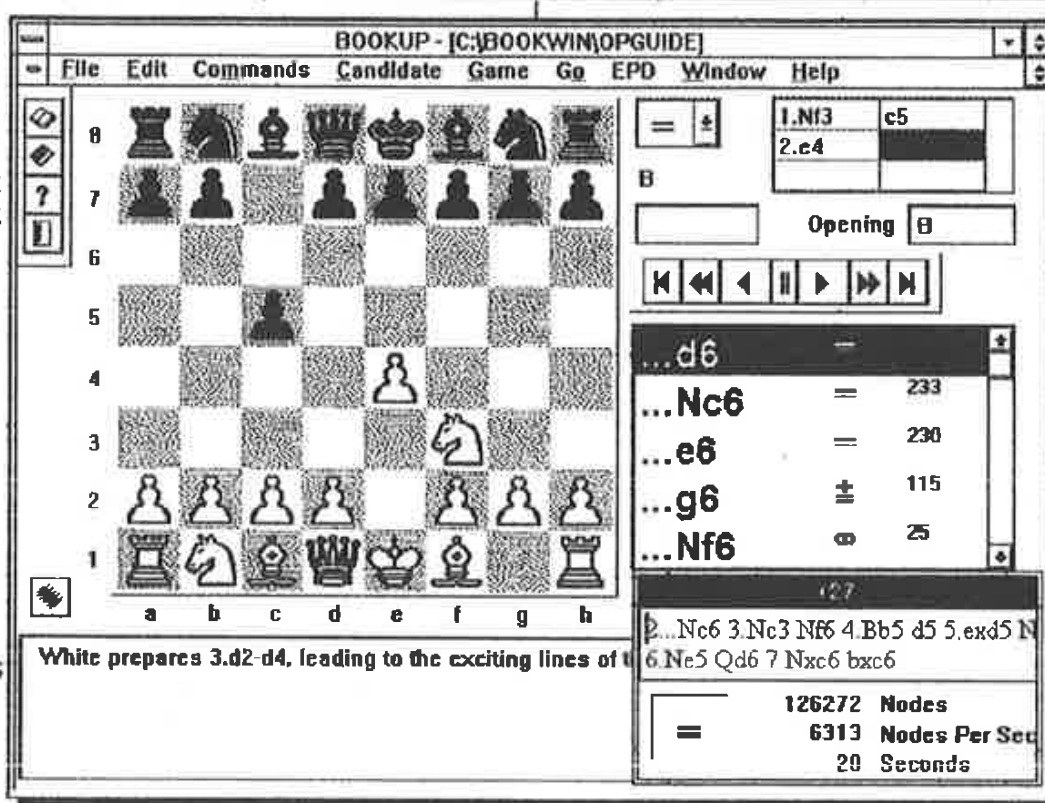
Menu options.

Speed buttons:

- Open Book
- Close Book
- Help
- Exit

Click-on/off icon for Zarkov analysis.

Comments Window for Opening Guide (in this case), all BookUp's 'books on disc' and personal comments.



Move list - the game started as a Reti.

ECO code - will be shown in full as the game develops.

Candidate moves list with evaluation and indication of popularity.

Zarkov evaluation, analysis and node-count

SCREENSHOT GUIDE

The **BOOKUP** screen-shot above was taken with the **OPENING GUIDE** loaded. I had opened with 1.Nf3 c5 and, as can be seen, after playing 2.e4 the Guide immediately recognised that we had transposed to a Sicilian.

The **CANDIDATE MOVES** list shows the moves known to this particular 'book' in this position, and the **COMMENTS** window refers now to the Sicilian, so we see that all the program's components are combining together. The **ZARKOV** analysis engine is working away on Black's next move, showing in fact its own early recommendation for 2...Nc6, which is ranked second in the BookUp listing.

BOOKUP comes with the very handy little **OPENING GUIDE** 'book', a **DEMOBOOK**, and a **TUTORIAL** book, each of which will help users get started and quickly learn to appreciate the clever learning method which BookUp uses to show the user how to 'Teach Himself' and learn to easily recognise and memorise positions, themes and strategies.

Each time I refer to a 'book', I am referring to a 'Book on disk' which the BOOKUP program 'reads' and interprets so that the user has a diagram, move list, analysis, notes/comments, ECO code, and variations list permanently available on screen.

STANDARD FEATURES

The reason I class certain features as 'standard' is mainly because just about all of the **DATABASE** programs (e.g Chess-Base and Chess Assistant, as well as BOOKUP) also have them - for example **ADD** own notes, **ECO** classification, **MARK** moves !, ?, !? etc, **MARK** positions +, = etc, **GAME** and **DIAGRAM** storage and printout.

The layout of these in BOOKUP's case can be seen in the **SCREENSHOT**, including the standard type Windows **OPTION MENU**, and the quick-click **BUTTONS** for moving through a game.

UNIQUE FEATURES

Personally I think that database programs such as ChessBase should be

classified as a separate type of program when being compared to BOOKUP.

CHESSBASE et al are absolutely ideal for storing multitudes of games and making them easy to study. The database contents can be re-grouped in many different ways, enabling them to be studied under, for example:

- their particular opening variations.
- the games of a particular player, as White or Black or both (find out what openings they major in).
- combine type of opening with a specific player - examine a player's main repertoire and favourite variations.
- themes, such as pawn structure, or material content (e.g queen v rook and knight, or particular endgame set-ups).

....yes, ChessBase, for example, is not really an openings database, but a complete chess games database.

BOOKUP's forte is that you use it as if you are playing in a game from the first move! It is intended as a real form of over-the-board type of training - granted you can 'jump' to specific positions etc., and very quickly, and you can store games and create databases - but it's the moving through a game or series of moves, and being able to see and play through all the variations and alternatives available at each point, which sets BOOKUP apart.

And it's not just what's 'available' that is shown! - BOOKUP will indicate what's:

- most popular
- got a good/bad record in practice

So you 'click' on the line you want to follow and immediately see what's available, popular and good/bad from both side's point of view!

This is exactly what we've already seen in the SCREENSHOT of the OPENING GUIDE, and the detailed notes and range of variations in a fully prepared BOOKUP disk are even more comprehensive.

And then there's a very important point:- **the user can create his own opening books**, or import them as a PGN file (the Internet norm), and have

BOOKUP produce exactly the same basic information to build on for himself 'from cold'.

BOOKUP IN USE at the Red House!

The 'secret' ingredient, which distinguishes BOOKUP is **BACKSOLVING**.

The first time I did this myself I was working on the HIARCS opening book, which is my spare time pleasure and responsibility. The file I downloaded from the Internet was COLLE.PGN - Hiarcs seemed a bit 'thin' in the Colle, and I wanted to see if I could add a few useful variations for White.

You can let BOOKUP import the whole of every game from a PGN file, but I felt that it would be sufficient to import just the first 16 moves of each game. This helps speed-up the Backsolving process - though it is actually very much faster in the Windows version than it was in the previous MS-DOS job, but I didn't know that at the time.

In any case, if it had been a Sicilian I'd have imported maybe the first 20 or even 24 moves each side, as it is easy to still be 'in book' in very sharp situations to a greater depth in the Sicilian.

Neither Mark nor I ever want Hiarcs to be 'in book' until a game is won, but we do want to make sure that it is both up-to-date in its opening theory knowledge, and that there is plenty of variety in Hiarcs as an aid to practice in all openings.

So I imported the first 32 ply of each game, and then asked BOOKUP to back-solve the resulting positions file for me.

Even though only part of each game is imported, the actual result of each game is kept at the end of the list, so BOOKUP can still evaluate the outcome of every opening variation.

The result of this is exactly as can be seen in the OPENING GUIDE SCREENSHOT - as I move now through my Colle book, at each position I can tell:

- how popular each variation has been in grandmaster play (of course here I am relying on an authentic top-level gathering

job having been done for the COLLE.PGN file I am using), and

■ whether each line, with best play for both sides, is theoretically +-, =, or -+.

In the case of the Colle, I was soon able to decide NOT to put too much effort in boosting the coverage for White - the opening favours Black or is drawn in almost all variations, unless Black blunders or over-reaches. So BOOKUP saved me hours of work in this case.

In others it has helped me complete many hours of comprehensive work, not only much quicker than I'd ever have managed without it, but with a much greater degree of accuracy towards making sure I get the Hiarcs book moves catalogued in the right order, so that the program should play the most successful moves more often.

THE CLUB/TOURNAMENT PLAYER

What works for Hiarcs would work for me, of course. Naturally I don't want to be 'booked up' on everything under the sun - this is an area where computer programs are very different from humans... the programmer's responsibility, in my view, is to provide moderate coverage of even the most unlikely lines so that ANY purchaser will find some help from the program **WHATEVER** his own favourite lines are, and however obscure!

For myself I would, say, 'only' want to have perhaps two main variations against 1.e4 and 1.d4, and perhaps just one for 1.c4, 1.Nf3, 1.b3 etc. For example against 1.e4 I might choose to study and play 1...e5, and 1...Nf6.

For Hiarcs I also need to cover 1...c5/c6/e6/d5/d6/b6/g6/g5/Nc6. Hiarcs will normally do pretty well with most of these, especially 1...c5, but I'm afraid I usually duck out of Sicilians as Black!

So for myself I might prepare a book starting from 1.e4 Nf6 and 1.e4 e5. Of course this won't have to include everything beginning with 1.e4 e5, but will be pruned as I go along. For example I might choose after 1.e4 e5 2.Nf3 only to play 2...Nc6, so I can exclude such things as the Petroff etc. Once created, my bookfile can

be added to with new variations and novelties I might spot in the chess magazines, extended to include longer variations at critical points, adjusted, updated, re-ordered, re-backsolved, and have notes or warnings etc appended to my heart's content for as long as I want to maintain it.

EVALUATING MY WORK

En route to the finished 'Hallsworth BookFile' I will almost certainly want to have it evaluated! By whom? BOOKUP!

This is done by creating an EPD file - don't worry about the name, that's BOOKUP's problem! It's just a name for the most widely used computer-method for storing positions. With any BookFile you can instruct the program to convert its positions to EPD format. You can convert all positions (which might be rather a lot, of course!), or just 'leaf nodes'... the positions at the end of each line of play.

Once an EPD file has been created it can be transferred to BOOKUP's own Zarkov program, or Genius, Hiarcs or MChess Pro!

From within your chosen playing program, set a suitable time control for the analysis of each move and let it get on with it (overnight, for example!).

When it's finished, transfer the finished file back to BOOKUP and the analysis and evaluation for each position (or each leaf position) will be shown as you go through moves. This might result in a decision to re-order the moves in some positions, or there might be a previously unconsidered move that is worth looking at, so you can prepare your own theoretical novelty for some unsuspecting opponent.

Finally you can now BACKSOLVE your book once more - this time you will be backsolving on the basis of your analysis program's evaluations, as BOOKUP replaces all the 1-0, 1/2-1/2 and 0-1 result scores with the leaf node evaluations of the analysis program. Thus I tend to create an EPD file of a complete book only when it is in its comparative infancy. Thereafter I

'EPD' leaf nodes only, but on a fairly regular basis.

After backsolving, instead of moves being marked =, +- and -+, they will be shown as +125, +30, -5, -70 etc etc. The accuracy of this will depend on the strength of the program and the time control you have used - don't make major decisions based on 5 secs a move on a 386 PC! Subject to that however, the operation enables a very precise move ordering to be done, and the possibilities for adjusting and extending the book, and the scope for trying out new ideas are obvious..

BUYING A BOOK ON DISK

A 'Book on Disk' is exactly what it is and, in a sense, all the work and more which I have just described has already been fully done for users who buy one of BOOKUP's own 'Book on Disk' files. And done by a G.M or I.M with some expertise in the particular opening of course!

You're 'reading' a book but all the applicable notes between moves, the current position and available variations are continually updated for you on screen, side-lines can be followed whenever you want, and a click on the appropriate button takes you straight back to the last point where there was a choice of moves, so the game can be carried on again from that (or any other chosen) position.

Also constantly in view are the details of the 'popularity' of each move and the expected result with best play. BOOKUP always provides a free BOOK on disk with every purchase, so that users can quickly evaluate its worth for them... and buy one or two of their own from the expanding Catalogue if they like them!

The ZARKOV ANALYSIS ENGINE

I've kept this, the latest improvement for BOOKUP, till last. But a very welcome one it is, in my view, as it fills the only real gap I could see in the available range of advice and help that the program did lack.

Now, with the ZARKOV engine,

back-up analysis and evaluations are also constantly available on screen, so those 'worth a try' lines suggested by your book - or your own or Zarkov's new ideas - can be thoroughly tested immediately.

Those ideas and novelties appearing to have some scope for use can be added as moves to the BookFile, plus all the variations you've seen or worked through, and symbols to encourage or discourage the move's use in play. Analysis from Zarkov can also be added directly to the notes if required, perhaps after you've played them through on screen up to where a point of conviction (won, lost, drawn, uncertain etc) is reached. Or just leave yourself a reminder note to 'check it out later!'.

If you now EPD and analyse the leaf positions, the analysis and evaluations from that will be ADDED to the notes you've already made. Maybe you'll need to change or even remove some of your comments after that but, whatever you decide to do, the next time you reach the position/s, all your analysis, notes, symbols, evaluations and comments will be waiting there for you, just as you left them!

CONCLUSION: All of this - and there's more you'll find as an owner, I've just tried to whet a few appetites - can be done with both your own and purchased books, so absolutely EVERYTHING can be personalised for later use or study.

And if this lot doesn't improve a player's grasp of their favourite openings, with its key strategies, correct pawn structure, proper move order and tactical finesse, I don't rightly know what will!

A short list of some of the BOOKUP disks currently available (£19.95 each):

- How to play against the Sicilian
- Black is Good! 1.d4 d5
- White is Better! 1.d4
- Black is Good! 1.e4 e5
- White is Better! 1.e4
- The Samisch Seminar
- The Classical Ruy
- The Closed Game
- The Smith-Morra
- The Scheveningen Sicilian
- The Rubinstein Collection

A brief guide to the purpose of each of the HEADINGS should prove helpful for everybody.

BCF. These are British Chess Federation ratings. They can be calculated from Elo figures by $(\text{Elo} - 600) / 8$, or from USCF figures by $(\text{USCF} - 720) / 8$.

Elo. This is the Rating figure which is in popular use Worldwide. The BCF and Elo figures shown in SELECTIVE SEARCH are calculated by combining each Computer's results v computers with its results v humans. This determines the ranking order and, we believe, makes our Rating List the most accurate available anywhere for computers and programs.

+/-. The maximum likely future rating movement, up or down, for that particular machine. The figure is determined from the number of games played and calculated on precise standard deviation principles.

Games. The total number of Games on which the computer or program's rating is based.

Human/Games. The Rating obtained and the total no. of Games played in Tournaments v rated humans.

A guide to PC Program Gradings:

386-PC represents the program running on an 80386 at approx. 33MHz with 4MB RAM.

486-PC represents the program running on an 80486

at between 50-66MHz with 4-8MB RAM.

Pent-PC (will be **P5-PC**) represents programs on a Pentium at approx. 90-100MHz, with 8-16MB RAM.

P6-PC will represent programs on Pentium Pro/200.

Users will get slightly more (or less!) in each case, if the speed of their PC is significantly different. A doubling or halving in MHz speed = approx. **60** Elo; a doubling or halving in MB RAM = approx. **10** Elo.

Approx. guide if 486/66 = 0

Pentium Pro/200	+150	Pentium/166	+120
Pentium/90	+75	486DX4/100	+20
486DX2/66	=0	486DX/50	-20
486DX-SX/33	-60	386DX/33	-120

SELECTIVE SEARCH

is © Eric Hallsworth

No part of this publication may be reproduced in any way without the express written permission of

Eric Hallsworth, The Red House, 46 High Street, Wilburton, Cambs CB6 3RA.

e-mail: eric@elhchess.demon.co.uk.

ARTICLES, RESULTS, GAMES etc are welcome and should be sent direct to Eric, please!

RATING LIST (c) Eric Hallsworth. PC PROGS									
BCF Computer	Elo	+/-	Games	Pos	Aug 1996	Human/Games	Pos	Aug 1996	Human/Games
237 CHESS GENIUS3 PENT-PC	2503	17	684	1	2662	6	2662	19	2662
237 M CHESS PRO5 PENT-PC	2502	17	700	2	2429	19	2429	19	2429
237 HIARCS4 PENT-PC	2499	17	681	3	2348	6	2348	6	2348
237 CHESS GENIUS4 PENT-PC	2496	16	805	4	2299	12	2299	12	2299
236 REBEL7 PENT-PC	2493	15	883	5	2242	11	2242	11	2242
235 REBEL6 PENT-PC	2487	20	534	6	2403	6	2403	6	2403
234 CHESS GENIUS4 486-PC	2476	22	426	7	2631	6	2631	6	2631
233 HIARCS3 PENT-PC	2465	20	539	8	2497	13	2497	13	2497
230 M CHESS PRO4 PENT-PC	2447	20	509	9	2499	7	2499	7	2499
230 CHESS GENIUS3 486-PC	2442	13	1206	10	2414	24	2414	24	2414
230 FRITZ3 PENT-PC	2440	18	629	11	2145	2	2145	2	2145
229 M CHESS PRO5 486-PC	2436	21	459	12	2359	25	2359	25	2359
228 REBEL7 486-PC	2431	20	522	13	2187	8	2187	8	2187
228 CHESSMASTER 4000 PENT-PC	2427	55	70	14	2391	12	2391	12	2391
226 MEPH GENIUS2 486-PC	2415	11	1522	15	2391	21	2391	21	2391
226 KALLISTO1.98 PENT-PC	2413	21	484	16	2345	6	2345	6	2345
224 M CHESS PENT-PC	2394	20	502	17	2376	7	2376	7	2376
223 HIARCS3 486-PC	2391	13	1129	18	2277	9	2277	9	2277
223 FRITZ4 PENT-PC	2389	35	175	19	2323	13	2323	13	2323
222 M CHESS PRO4 486-PC	2382	14	1002	20	2309	23	2309	23	2309
222 REBEL6 486-PC	2378	17	688	21	2432	3	2432	3	2432
222 MACHINE GIDEON3.1/30-PC	2378	17	688	22	2314	44	2314	44	2314
221 M CHESS 486-PC	2376	12	1367	23	2478	3	2478	3	2478
219 CHESS GENIUS1 486-PC	2369	17	718	24	2267	12	2267	12	2267
218 FRITZ3 486-PC	2352	10	2045	25	2199	20	2199	20	2199
217 M CHESS PRO3.5 486-PC	2349	13	1214	26	2215	6	2215	6	2215
217 CHESSMASTER 4000 486-PC	2341	14	1086	27	2184	18	2184	18	2184
216 MEPH GIDEON PRO 486-PC	2338	17	718	28	2267	21	2267	21	2267
216 MACHINE GIDEON3.0/30-PC	2332	20	537	29	2239	63	2239	63	2239
215 M CHESS PRO3.1 486-PC	2325	25	326	30	2276	28	2276	28	2276
215 M CHESS PRO3.1 486-PC	2323	12	1322	31	2226	17	2226	17	2226
213 HIARCS2.1 486-PC	2306	18	650	32	2118	16	2118	16	2118
211 CHESS GENIUS1 386-PC	2291	25	323	33	2138	153	2138	153	2138
210 KALLISTO1.8 486-PC	2281	14	976	34	1870	1	1870	1	1870
207 MACHINE GIDEON2/15-PC	2259	13	1217	35	2198	24	2198	24	2198
205 M CHESS 486-PC	2242	16	753	36	2213	6	2213	6	2213
204 HIARCS2.1 386-PC	2233	13	93	37					
204 FRITZ2 486-PC	2232	14	1228	38					
202 MACHINE THE KING1/15-PC	2223	13	1095	39					
197 ZARKOV2 486-PC	2183	20	523	40					
197 SOCRATES3 486-PC	2180	25	337	41					
195 SARGONS 486-PC	2165	58	64	42					
195 M CHESS 386-PC	2163	12	1312	43					
195 M CHESS PRO3.1 386-PC	2160	32	206	44					
194 PSION2 486-PC	2154	38	145	45					
192 REX 486-PC	2141	30	226	46					
191 HIARCS1 486-PC	2132	26	306	47					
190 FRITZ1 486-PC	2127	21	456	48					

RATING LIST (c) Eric Hallsworth. 5565									
BCF Computer	Elo	Aug 1996	Games	Pos	Human/Games				
228 TASC R30-1995	2427	20	510	1	2304	12			
228 MEPH LONDON 68030	2425	82	32	2					
221 MEPH GENIUS2 68030	2371	18	614	3	2308	23			
221 TASC R30-1993	2371	12	1346	4	2336	66			
221 MEPH LONDON PRO 68020/24	2371	68	46	5					
217 MEPH RISC2 1MB	2343	28	275	6	2237	6			
215 MEPH LYON 68030	2327	16	768	7	2392	51			
214 KASP RISC 2500-512K	2317	27	293	8	2384	10			
213 MEPH BERLIN PRO 68020/24	2310	14	1090	9	2224	23			
213 MEPH PORTOROSE 68030	2309	20	525	10	2340	82			
213 MEPH VANCOUVER 68030	2304	18	656	11	2347	54			
211 MEPH LYON-VANC 68020/20	2295	33	196	12	2327	10			
211 MEPH LONDON 68020/12	2291	82	32	13					
211 MEPH RISC1 1MB	2290	9	2431	14	2232	95			
209 KASPAROV SPARC/20	2279	15	873	15	2200	18			
207 MEPH MONTREUX	2262	20	536	16	2288	54			
207 KASP RISC 2500-128K	2257	9	2433	17	2270	67			
202 FID ELITE 68040-V10	2221	53	75	18	2215	21			
202 MEPH LONDON 68000	2220	84	30	19					
202 MEPH VANCOUVER 68020/12	2220	8	2316	20	2121	33			
201 MEPH LYON 68020/12	2213	9	3234	21	2250	80			
198 MEPH PORTOROSE 68020	2185	10	1865	22	2240	188			
197 MEPH BERLIN 68000	2181	13	1204	23	2221	25			
197 FID ELITE 68030-V9	2177	16	777	24	2169	13			
196 MEPH LYON 68000	2168	11	1682	25	2083	33			
195 MEPH VANCOUVER 68000	2167	12	1280	26	2126	23			
194 MEPH ALMERIA 68020	2158	14	1053	27	2172	215			
193 NOVAG SAPPHIRE-DIAMOND	2151	13	1121	28	2177	65			
191 MEPH PORTOROSE 68000	2132	11	1683	29	2111	25			
190 FID MACH4-DES2325 68020-V7	2127	10	2095	30	2179	130			
187 FID ELITE 2*68000-V5	2097	27	290	31	1888	2			
185 KASPAROV BRUTE FORCE	2085	14	1074	32	2182	42			
185 MEPH POLGAR/10	2084	17	698	33	2080	54			
185 MEPH ROMA 68020	2083	14	1083	34	2041	64			
184 MEPH DALLAS 68020	2072	14	996	35	2069	197			
183 MEPH ALMERIA 68000	2068	14	1025	36	2093	31			
182 NOVAG SCORPIO-DIABLO	2059	10	2037	37	2132	129			
180 NOVAG JADEZ-ZIRCON2	2042	45	104	38	2032	48			
179 MEPH NIGEL SHORT	2039	29	248	39	2136	5			
179 KASP PRESIDENT-TC+6K2100	2036	17	679	40	2072	65			
178 FID MACH3-DES2265 68000-V2	2028	6	5736	41	2105	230			
177 MEPH MMS/5	2021	11	1715	42	1902	11			
177 MEPH DALLAS 68000	2020	11	1593	43	1988	50			
176 MEPH POLGAR/5	2015	8	2743	44	2076	17			
176 MEPH MILANO	2015	13	1123	45	2063	13			
176 NOV SUPER FORTE-EXP C/6	2012	8	2967	46	2000	24			
175 MEPH MONDIAL 68000XL	2004	15	873	47	2049	77			
174 MEPH MONTREAL-ROMA 68000	1998	9	2625	48	1968	56			

173 MEPH ACADEMY/5	1986	9	2361	49			2024	109
172 MEPH AMSTERDAM	1983	9	2373	50			2054	182
171 NOV SUPER FORTE-EXP B/6	1970	12	1464	51			2017	84
171 MEPH MEGA/5	1968	8	2694	52			2029	169
170 KASPAROV MAESTRO D/10	1965	12	1319	53			1956	109
170 FID MACH2B	1963	26	302	54			1960	25
170 FID MACH2C	1962	8	2706	55			2059	127
170 KASP 6K2000-TURBO ADVNCD	1961	14	990	56			1862	20
169 MEPH MODENA	1952	16	756	57				
168 MEPH MMA/5	1946	8	2928	58			2006	97
168 FID TRAVELMASTER	1945	18	648	59			1917	83
167 NOVAG RUBY-EMERALD	1936	16	752	60			1981	48
166 KASP TRAVEL CHAMPION	1931	29	257	61			1862	22
166 MEPH SUPERMOND2-MCARLO4	1931	27	287	62			2074	8
166 NOV SUPER FORTE-EXP A/6	1929	12	1453	63			2021	176
165 KASPAROV MAESTRO C/8	1921	26	313	64			1999	98
164 MEPH MONTE CARLO	1917	28	262	65			2046	10
163 CXG SPHINX/4	1911	9	2426	66			1943	155
163 CONCH PLY-VICTORIA/5.5	1911	16	814	67			1870	15
163 FID MACH2A	1908	25	338	68			1912	35
163 KASP TURBOKING2	1908	14	1055	69				
161 NOV EXPERT/6	1891	31	222	70			2026	22
159 NOV SUPER FORTE-EXP A/5	1879	11	1548	71			1855	29
159 FID CLUB B	1878	12	1459	72			1827	18
159 NOV EXPERT/5	1875	26	316	73			2012	68
158 FID PAR E-ELITE+DES2100	1868	9	2645	74			1916	220
158 NOV FORTE B	1866	10	1917	75			1965	208
158 MEPH REBEL	1865	9	2333	76			1940	69
157 FID AVANT GARDE/5	1863	11	1738	77			1852	80
157 KASP STRATOS-CORONA	1856	9	2186	78			1890	48
157 NOV FORTE A	1856	9	2251	79			1921	134
156 MEPH SUPERMONDIAL1	1849	11	1611	80			1990	6
155 FID CLUB A	1847	29	242	81			1767	6
155 KASPAROV MAESTRO A/6	1846	14	990	82			1863	123
155 CONCH PLYMATE/5.5	1843	9	2353	83			1923	55
155 KASP TURBOKING1	1842	24	364	84			1900	61
155 KASP SIMULTANO	1841	13	1149	85			1824	36
154 CONCHESS/6	1839	45	106	86			2017	8
153 FID EXCELLENCE/4	1828	11	1756	87				
153 NOV EXPERT/4	1827	14	1059	88			1960	43
153 NOVAG JADE1-ZIRCON1	1825	106	19	89				
152 CONCH PLYMATE/4	1820	24	372	90			2007	6
152 SCI TURBO KASP/4	1817	20	524	91			1933	64
151 FID ELITE C	1814	34	182	92			1869	11
150 FID ELEGANCE	1804	17	702	93			1852	47
149 SCI TURBOSTAR 432	1797	12	1407	94			1872	67
149 MEPHISTO NM2	1797	16	791	95			1776	8
149 FID EXCELLENCE-DES2000	1792	11	1664	96			1852	52
148 KASPAROV MAESTRO A/4	1787	74	39	97			1884	8
146 CONCHESS/4	1775	20	515	98			1875	28