# SELECTIVE SEARCH The COMPUTER CHESS Magazine

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### CONTENTS, Issue 64

3 NEWS & RESULTS: REBEL7; HIARCS4; new LANG UPGRADE for Mephistos! 8 Alexei SHIROV v FERRET: the Match & 2 destructive Games. 10 AEGON: Full RESULTS/RATINGS info. 12 Thorsten CZUB on CS TAL at Aegon! 16 Nigel SHORT v MChess PRO5: Report & Games. 19 The Elo RATING SYSTEM. 24 CORRESPONDENCE Chess with 'MEPH'. 27 Computer RATING LISTS.

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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 what I consider to be the current 'BEST BUYS' at various price points and playing strengths, also bearing in mind features and quality etc. Further info. is given in

Catalogues available from Countrywide (see address on the front page), or from my annual 'Best Buy Guide', issued every December. It is always worth ringing to check the extra cost for a mains transformer where applicable, but post and packing are normally included free. The list is updated in each Issue of my Magazine.

### PORTABLE COMPUTERS

Kasparov

ADVANCED TRAINER £79
TRAVEL CHAMPION £99

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. Has lid, display etc. Terrific value!

GK-2100 £160 £159 - top quality Morsch program, good display, recommended. *Novag* 

DIAMOND £249 - testing playing style. Mephisto

DALLAS 68000XL £165 - 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 £200 £289 - top value wood board... ever! - display, good features.

Mephisto

**EXCLUSIVE RISC2 £945** - very strong! **EXCLUSIVE LONDON 68030 £1395** - **new!** The PC's Genius3 (which beat Kasparov) in 68030/33! - tremendous!

■ 2nd. hand Modules sometimes available

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

### PC PROGRAMS

HIARCS4.0 £89 - super playing style
GENIUS4 for Windows £89 - Lang's best
GENIUS3 £69 - MS-DOS version, strong!
MChess PRO5 £89 - big opening book.
REBEL7 £79 - Ed Schroder's best yet!
FRITZ3 £79
FRITZ4 (CD ROM) £89

Also for Apple MAC
HIARCS4 £89 - best by far for the MAC

### IPC 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 - now incl. Zarkov analysis module - *very* useful tool. BOOKUP for MS-DOS £119

### PC WOOD AUTO BOARDS

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 (for linking PC's and playing two programs against each other automatically!)

## NEWS and RESULTS

Frank HOLT has sent me the latest scores in his REBEL7 v GENIUS2-4 versions tests, all done using the Auto232 tester.

I have listed the new Genius4 results along with the previous ones, so that readers can compare the totals.

1. Results: all **time controls** (G/30-40/2), and all (5) Rebel7 playing styles:

Rebel7 P/100 32 -28 Genius4 P/100 Rebel7 P/100 33 -27 Genius3 P/100 Rebel7 P/100 32½-27½ Genius2 P/100

There is little difference between the Genius versions based on these scores, which show Genius4 as a small improvement. Overall Genius3 remains Lang's no.1!

2. In our previous listing of the scores obtained by each of the Rebel7 playing styles, Active and Aggressive came out a little ahead of Normal, with Solid and Defensive lagging behind. The gaps have closed a little now:

	R7 Gen vers
Active	211/2-141/2
Aggressive	211/2-141/2
Normal	19 -17
Solid	20 -16
Defensive	151/2-201/2

These are very interesting and valuable results, though of course only Rebel7's 'standard setting' results go into the Rating List, and I exclude the G/30 scores.

Frank always sends me some of the best games with a few notes of evaluations at 'critical' moments, and it is time we had a look at some! Many of his GENIUS4 v REBEL7 games are long and fascinating struggles, and wins in under 60 moves are the exception! Nevertheless, I did manage to find one or two amongst them.

## **Rebel7 P/100 (agg) - Genius4 P/100** 60/60. Catalan Opening (E04)

1.d4 Nf6 2.c4 e6 3.g3 d5 4.Bg2 dxc4

5.Nf3 c5 6.0-0 Nc6 7.Qa4 cxd4 8.Nxd4 Qxd4 9.Bxc6+ Bd7 10.Rd1 Qxd1+ 11.Qxd1 Bxc6 12.Qc2 b5

G4 exits book here, eval 0.

### 13.a4 a6

R7 also out of book, eval +12, CG -18. Watch how R7 now gains an early advantage.

14.axb5 axb5 15.Rxa8+ Bxa8 16.b3 Be4 17.Qb2 cxb3 18.Qxb3 b4 19.Qa4+ Kd8 R7 +130, CG -106 ->Be3?!

### 20.Nd2! Bd5 21.Qa7 Nd7 22.e4 Bc6 23.Nf3 Bxe4

R7 had +145 at 23.Nf3, apparently ->Be7?! G4 is -112 ->Ng5 as now played.

24.Ng5 Bg6

Frank queries the G4 ->Nxf7 here with a couple of ??

### 25.Qa8+ Kc7 26.Qa5+ Kc8 27.Nf3 e5 28.Nxe5 Nxe5

R7, showing +268, really likes this position with the Black h8/R penned up. G4 shows -193, with worse to come.

## 29.Qxe5 f6 30.Qe6+ Kc7 31.Bf4+ Kd8 32.Be3! Kc7 33.Bb6+ Kb8

It's effectively over. R7 has +555, G4 -566 -> the excellent Qd7, which R7 can afford to miss.

## 34.Qc6 Bd6 35.Qxd6+ Kb7 36.Be3 Re8 37.Qd7+

R7 announces m/9!

### 37...Kb8 38.Ba7+ Ka8

G4 shows -m/8 and resigns, 1-0. The end would be 39.Bb6 Re1+ 40.Kg2 Be4+ 41.f3 Bxf3+ 42.Kxf3 Rf1+ 43.Ke2 Rf2+ 44.Kxf2 Kb8 45.Qc7+ Ka8 46.Qc8+. "A wonderful game by R7", says Frank. "G4 didn't seem to know what was going to happen at the critical moments".

The next is an interesting one - it looks sure to go ½-½ around moves 35 to 40, but one of the programs overreaches!

## Rebel7 P/100 (def) - Genius4 P/100 G/60. Ruy Lopez Marshall (C89).

1.e4 e5 2.Nf3 Nc6 3.Bb5 a6 4.Ba4 Nf6 5.0-0 Be7 6.Re1 b5 7.Bb3 0-0 8.c3 d5 9.exd5 Nxd5 10.Nxe5 Nxe5 11.Rxe5 c6 12.d4 Bd6 13.Re1 Qh4 14.g3 Qh3 15.Be3 Bg4 16.Qd3 Rae8 17.Nd2 Re6 18.a4 f5 19.Qf1 Qh5 20.f4 bxa4 21.Rxa4 Rfe8 22.Qf2 g5 23.Rxa6 gxf4 24.gxf4 Kh8 25.Bxd5 cxd5 26.Nf1 Bf3

Well known theory to here, with the Computer books making sure their programs make the right moves in case they face the Marshall at Blitz. G4 is now out, however, reading -87.

27.Ng3

R7 also goes out, with an optimistic +152 ->Rg8. Of course, in the Marshall, all is often not what it seems!

### 27...Rg8 28.Ra8 Reg6 29.Rxg8+ Rxg8

R7 went back into book again to make move 28!

## 30.Bd2 Be4 31.Ra1 Qg4 32.Kf1 Bd3+ 33.Kg2 Be4+ 34.Kf1 Bd3+

At this point it seems we are headed for a 3-fold repetition, but R7 still eyes the win and tries Kg1 instead of g2.

## 35.Kg1 Be4 36.Be3 Be7 37.Kf1 Bh4 38.Ke1 Qh3 39.Kd1 Bxg3 40.hxg3 Qh1+ 41.Qe1 Qf3+ 42.Kc1 Rxg3

Both programs still show 0.

### 43.Bd2 Qd3 44.Qd1 Rg2

Aah! G4 shifts up to +118 -> c4.

### 45,b4 Rf2

Hello, hello! R7 still shows 0, but G4 has +312!

### 46.b5 Oxb5 47.Oe1 Rf1

R7 now -594, G4 +719. We'll just watch a few more moves.

48.Kd1 Kg7 49.Ra7+ Kg6, and R7 resigned here, 0-1. G4 outmanouvred its opponent very nicely when a ½-½ seemed inevitable. I'd be interested to know if R7

might have played the key moments differently on, say, Normal or Active.

Here's one that gets pretty exciting, and deserves more time spending on the analysis at the critical moments.

## **Rebel7 P/100 (sol) - Genius4 P/100** 60/60. Ponziani Opening (C42)

1.e4 e5 2.Nf3 Nc6 3.c3 Nf6 4.d4 Nxe4 5.d5 Ne7 6.Nxe5 Ng6 7.Qd4 Qf6 8.Qxe4 Qxe5 9.Qxe5+ Nxe5 10.Bf4 d6 11.Na3 Be7

The books end in an almost completely equal position.

12.Bb5+ Kf8 13.Be2 Bf5 14.0-0 a6 15.Nc4 Nd3 16.Bg3 Bg5 17.f4 Bf6 18.Rad1 Nc5 19.Ne3 Re8 20.Nxf5 Rxe2 21.Rf2 Re4 22.Rc2 g6 23.Nd4 Kg7 24.Kf1 Rhe8 25.Re2 Rxe2 26.Nxe2 Na4 27.Bf2 h6 28.Rd2 h5 29.g3 Kf8 30.Nc1 Ke7 31.Re2+ Kd7 32.Rxe8 Kxe8 33.Nd3 Bxc3 34.bxc3 Nxc3

Frank writes: "I wondered if it was worth the bishop sac. if only to get a clear path forBlack's a-b-c pawns to push forward". R7 +30, G4 +45, so both are optimistic about their own chances!

### 35.Nb4 a5 36.Nc2 Nxa2 37.Be1 a4 38.Ke2 Kd739.Kd3 c6

A particularly interesting moment. G4 has +48 ->Ba5. Frank prefers 40.Kd4 and is convinced R7's next is a mistake.

### 40.dxc6+?! Kxc6 41.Kd4 b6

"I thought G4 was playing very well" says Frank. But something isn't quite right and readers should look for an improvement for Black around here.

#### 42.Bd2 b5 43.h3

Suddenly R7 has +136 -> f6.

### 43...f6

G4 shows only -66 ->h4, but Frank comments: "Nb4+ looks very tempting".

### 44.h4 f5 45.Nb4+! Nxb4 46.Bxb4 Kd7

The evals. suggest the game is almost

over. R7 has +245, and G4 -245.

### 47, Kd5 Kc7 48, Bxd6+ Kb7

The next few moves make for very exciting chess, and the crucial moment has now come for White. G4 was hinting 49.Kc5? However R7 takes 3½mins and goes with...

### 49.Ke6!! Kb6

What evaluation would readers give at this point, if they didn't know what the Computers said? With the Genius4 a, b and g-pawns all excitedly closing in on their respective queening squares over the next few moves, R7's eval. is even now +429! which is good programming.

## 50.Kf6 Ka5 51.Kxg6 b4 52.Kxf5 a3 53.Ke4!

It's easier for computers than humans to return to the side of the board they've left, but the sight of those Black a and b-pawns means it's absolutely <u>vital</u> in this case. G4 had hinted (hoped for!) Kg5??

## 53...Ka4 54.Kd3 b3 55.Kc3 a2 56.Kb2 Kb5 57.g4 hxg4 58.h5 Kc6 59.Bb8 g3 60.h6 Kb6

G4 resigned here, 1-0. We can give the end, as Frank played on for a few more moves: 61.f5 g2 62.Bh2 Kc5 63.h7 Kc6 64.h8=Q etc.

Just before I completed this section I received Frank's results for REBEL7.0 against MChessPRO5. A beauty of Desktop Publishers is that these can be immediately inserted here, rather than 'tagged' onto another page! Here they are:-

	R7 MCP5
Active	9 - 3
Aggressive	6 - 6
Normal	8 - 4
Solid	7 - 5
Defensive	5½ - 6½
Total	35½ -24½
WILLIAM TO THE	

Keith KITSON is well and truly back into

the swing of things again, and is currently concentrating his efforts on HIARCS4.0.

For some reason or other the overall British results continue to be better than those seen in the Swedish Rating List, though v4.0 has now moved clear of v3.0 on their ratings as well as ours. Of course for the PLY listing all games are played at 40/2, whereas ours include 60/2, 40/1 and G/60 scores. Strangely we would have expected Sweden's time control to suit Hiarcs better (it appeared to with earlier versions), but maybe the Hiarcs 4 changes help more in faster games, improving that balance?!

Anyway, Keith's G/60 scores currently stand at:

### HIARCS4 P/133 6 -2 Meph RISC2 HIARCS4 P/133 5½-2½ Tasc R30-1995 HIARCS4 P/133 7½-2½ Genius 68030

Keith has sent me all of the games and, as you'd expect, many of them are very evenly contested. A couple of examples are in order; here are a two.

### HIARCS4 P/133 - Meph Genius2 68030.

1.d4 d5 2.c4 dxc4 3.Nf3 Nf6 4.e3 e6 5.Bxc4 c5 6.0-0 a6 7.Qe2 b5 8.Bd3 Bb7 9.a4 b4 10.dxc5 Bxc5 11.Rd1 Qb6 12.Nbd2 0-0 13.b3 Qc7 14.Bb2 [H4's first out of Book, showing a small +461 ...Nbd7 16.Ng5 15.Rac1 Rfd8 17.Nge4 e5 18.Qf3 Rac8 19.Qg3! [H4 is reading +144 with this!] ... Nxe4 20.Bxe4 f6 [Perhaps 20...g6 was better?] 21.Qg4 Qb8 22.Bf5 Rc7 23.Ne4 Bxe4 24.Qxe4 Nf8 25.Qc4+ Kh8 26.Qxa6 Be7 27.h3 Rxc1 28.Rxc1 Rd2 29.Rc8 Rd1+ 30.Kh2 **Qd6 31.Qxd6 Bxd6 32.Bc2** [The H4 eval - already hovering in the high 280's, goes to +321 -> Rd5 following the exchanges, and the chance to advance the a-pawn makes sure the finish is fairly straightforwardl ...Rd2?! 33.a5 Rd5 34.a6 Ra5 35.Rc6 Bc5 36.Kg3 Be7 37.Bd3 Ra2 38.Bc1 g5?! 39.e4! h5 40.Be3 h4+ 41.Kg4 Ng6 42.a7 1-0.

## HIARCS4 P/133 - Tasc R30.

1.d4 Nf6 2.c4 e6 3.Nc3 Bb4 4.e3 c5 5.Nge2 d5 6.a3 cxd4 [6...Bxc3 was expected by H4 here, so it drops out of Book] 7.axb4 dxc3 8.bxc3 Nc6 9.cxd5 exd5 [Showing +46 ->Ne7] ...Ne5?! 10.b5 [+100] ...Qd6 12.Ba3 Qc7 11.Qd4 13.Nf4 Bf5?! [13...Be6 was preferred. H4's eval. now jumps to +186, a high figure so early in the game from a standard Nimzo Indian defence] 14.Bb4 b6 15.c4! 0-0-0 16.cxd5 Rhe8 17.d6 Qc2 18.Be2 [Here H4 is showing a massive +330, and seems to have the game already won] ...Kb8 19.0-0 g5 20.Nh5 Qxe2? [The knight had to be taken, I think: 20...Nxh5 21.d7 Rxd7 22.Bd6+ Rc7 23.Bxc7+ Oxc7 24.Bxh5 is around +400] 21.d7! Rxd7 **22.Bd6+** [Played with a +743 eval] ...Kc8 23.Nxf6 Qxb5 24.Nxe8 Nc6 25.Qf6 Be6 26.Rfb1 1-0.

Mike CUMMINGS has played a lengthy Match between his Novag DIABLO and Mephisto MM5. The DIABLO is rated 5 BCF higher in our SS Rating List, so should score 55%, as per our Article in this Issue. The Match was played at G/60 and the final score was:

### **DIABLO 18½-14½ MM5** (16-12=5).

This is a 56% result, so almost exactly what we would expect. Mike is now playing his DIABLO against the Mephisto NI-GEL SHORT. Here the gap favouring DIABLO is only 2 BCF, so it should be very close. Mike tells me that the Novag machine has an early 1 game lead.

**Reg COX** has sent in an interesting scoreline, also testing at G/60.

Kasparov PRESIDENT 4½ Meph VANCOUVER 68000 4½

In fact 3 wins each, with 3 draws. The VANCOUVER would have been expected

to win this Match, so it's another good little result for the very popular £299 PRESI-DENT and its Franz Morsch program.

I quoted some scores in SS/63 from an 'un-known' source. It was, in fact, **Marcus DOXEY**, who has now sent me an update! Many thanks, Marcus.

### Berlin Pro 12½-17½ Tasc R30-1993 Genius4 P/60 13-7 Tasc R30-1993

The later version (and faster processor!) make quite a difference.

### **Novag SAPPHIRE/DIAMOND** tests:

The article by **Carl SAMPSON** in SS/62, which was quite critical of the Sapphire, encouraged some British testing.

Firstly we ran a G/60 match at Countrywide, using my Diamond and an ex-demo office Berlin Pro, the result for which was:

### **DIAMOND 3-7 Berlin PRO**

Another test was done by **Philip WHIT-TINGHAM**, his being at 40/2, and he rang me with the result yesterday:

### DIAMOND 2-8 BERLIN 68000

'Our' score ties in almost exactly with the grading difference as in SS/63 (BPro-Diamond = 19 BCF = 69%), but Philip's is a surprise as a 3 BCF gap 'should' have resulted in only  $5\frac{1}{2}-4\frac{1}{2}$ .

When testing either of these Novag computers, readers are reminded that they must make the time control setting either G/X (60, 90, 120) or 40/X (say 60/90/120).

When set to a 'casual' time control, such as 1/2/3 mins per move, the Novags do not always use their time either wisely or in full, and results obtained may not do them full justice.

### **NEW PRODUCTS**

### 'Lang' UPGRADE for MEPHISTO's

Since Saitek's takeover of Mephisto, there has been little encouragement for owners of the latter's 'upgradeable' auto-sensory boards. So the news that Richard Lang has produced his own range of UP-GRADE chips for folk owning one of his programs in a Mephisto upgradeable board (Modular, Exclusive, Munchen), or a Berlin or Berlin PRO, is very welcome indeed!

The new release is based on the **Genius3** program and will be called the **LONDON**. Chip upgrade will almost certainly be possible for owners with any of the following:

Current version	Est'd	Elo+
Almeria 68000/6802	0	180
Portorose 68000/68	020	135
Lyon 68000/68020		105
Vancouver 68000/68	3020	95
Genius 68030		35
Berlin 68000		85
Berlin Pro 68020		35

I have estimated the prospective Elo improvement in each case in the right-hand column. This is based on the fact that the Vancouver and Berlin were, basically, based on Genius 1 versions, whilst the Berlin Pro and Genius 68030 were close to Genius 2.

Features for <u>all</u> will now include the following:-

- 3 adjustable playing styles: Risky, Active and Solid
- Genius4's improved opening book, worth 10-15 Elo (but not in the Berlin 68000 with its smaller ROM chip)
- Adjustable pawn and piece values
- Hash on/off
- Pawn structure on/off
- Selective depth 00-12

Upgrade costs will be from £129-£149 depending on your current version and



whether you want us to do the work or you'd like to do it yourself (at your risk!).

### **NEW 'LONDON' machines**

These, I'm sorry to say, will be in short supply, due to the fact that the Vancouver, Genius 68030, Berlin and Berlin Pro are not on the latest Saitek/Mephisto lists. However we have managed to get a few in stock for upgrading and re-selling.

There may be a small number of Exclusive London 68030's around for £1,399'ish, there will be a few press-sensory London Pro's at £685, and maybe one or two s/h modules upgraded to London 68000/020 in new Exclusive boards. It will be first come, first served... the new chip is mainly for the benefit of existing owners.

### **BOOKUP for Windows + Zarkov**

A new version (1.5) is now available, the main change being that it includes **Zarkov4** as an integral analysis module (as per ChessBase + Fritz3, or as when using standard programs on monitor mode). Zarkov will also analyse and import the results of EPD files into BookUp, making it an even more valuable opening book tool.

At present I understand the new program will cost £159. Those with BookUp for Windows can **upgrade**, probably for around £39. Please ring for final details. There will be a report in SS/65, when I've tested mine, but I'm sure it will be good!

## SHIROV destroys FERRET!

### Who's FERRET?!

Although not commercially available, FERRET, programmed by America's Bruce MORELAND, is considered by some to be nevertheless one of the world's top 10 chess programs. It plays in a big Internet league, where it grades well, and is highly spoken of by Bob HYATT (of Cray Blitz fame).

As reported in SS63, following its major success in the 1995 World Micro Computer Championship, where it became World Amateur Champion after coming 3= only a ½ point behind winners MchessPRO5 and GENIUS, FERRET subsequently defeated G.M Boris GULKO by 2-0 in a G/30 mini-Match on the Internet channel.

SuperGM Alexei SHIROV was bound to present opposition of a higher order, but one could still hardly be prepared for the total ease with which he was about to despatch his computer opponent.

### The Games - a Common Theme

Both games feature the Ruy Lopez opening, and are surprisingly similar despite the change of colours between them.

Each is an almost perfect example of the most popular current 'classic' anticomputer strategy of the locked centre, followed by the organising of pieces for a mating attack against the computer's king. The program plays as if it is quite oblivious to the coming storm.

Even after a knight sacrifice and the opening of the g-file (which Shirov engineers in both games!) the program initially seemed quite content as far as its evaluation was concerned. Before smiling too broadly, however, the 'professional' programmers should check their own products immediately prior to and after these sac's... they, too, might find some cause for alarm!

Shirov A (2700) - Ferret P/133 [C98]ICC Man versus Machine Match, Internet Chess Cl, 1996, Game 1, G/30

1.e4 e5 2.ਐf3 එc6 3.�b5 a6 4.�a4 එf6 5.0-0 �e7 6.æe1 b5 7.�b3 d6 8.c3 0-0 9.h3 �a5 10.�c2 c5 11.d4 �e7 12.�bd2 �c6 13.d5 �d8 14.a4 \Bb8 15.axb5 axb5 16.c4

[Ferret may well have been in book to here, if my Hiarcs o/b is anything to go by. It's a Ruy Lopez, closed, Chigorin for the records. Here I have 16.2f1, so Shirov's move may have forced Ferret to have its first 'think']

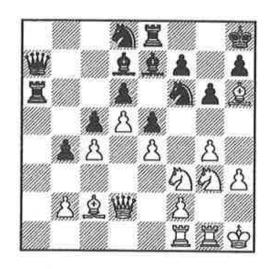
16...b4?

[16...bxc4 17.2xc4 \mathbb{L}b7 is the Fritz choice, -38.; 16...\mathbb{L}d7 is the Hiarcs choice showing -4 ->\mathbb{L}e2?! But Fritz would play 17.cxb5 \mathbb{L}xb5 18.\mathbb{L}e3 against this, showing White at +50!? Whatever, either move was preferable to blocking the centre, as done by Ferret]

17. Des 18. Des g6 19.g4

[With the centre blocked, and his D's ready for \$\Phi\$—side action (cp. Black's!), Shirov starts the advance]

19...එf6 20.Фh1 Eb6 21.Eg1 Qd7 22.එf1 \begin{align\*}
\text{\$\exitit{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\e



[The sac' which follows would be spotted by most players I'm sure – the position is ripe for it. But the initial reaction (i.e evaluation) of most programs is that it is a mistake, and they take at least a couple of moves to get back from great

optimism to even an equal eval] 27.2f5! gxf5 28.gxf5 2h5

[Put this position now to your Computer, and see if it finds White's vital 29th. move! Most (maybe all?) fail in a 3 minute time allowance. Incidentally if Black had tried 28... \( \mathbb{E}g8 \) 29. \( \mathbb{E}xg8 + \( \mathbb{E}xg8 \) 30. \( \mathbb{E}g1 \) m/5 30... \( \mathbb{E}f6 \) 31. \( \mathbb{E}g7 + \( \mathbb{E}xg7 \) 32. \( \mathbb{E}g5 \) etc] \( 29. \mathbb{E}g7 + \frac{1}{2}! \)

[Another good tactical test position. Your Computer will almost certainly find the right move (the one alternative allows m/5) — but how long does it take to see that Black is losing (lost, actually!) here? A long time, I expect!]

29...2xg7 30.\h6 \g8

[Hands up those Computers who still think Black is okay!... even though they no doubt see White's next!]

31.f6! @xf6 32.\\xf6 \&e8

[...and the Computer operator resigned without waiting for 33.\mathbb{I}xg7 \mathbb{I}xg7 34.\mathbb{I}g1 \text{2}e6 35.dxe6 fxe6 36.\mathbb{I}f8+ \mathbb{I}g8 37.\mathbb{I}xg8#. A wonderful demonstration by Shirov. Note that; 32...\text{2}de6 transposes to almost the same finish: 33.dxe6 \text{2}xe6 34.\mathbb{I}xg7 etc] 1-0

Ferret/P133 - Shirov A (2700) [C78]ICC Man versus Machine Match,

Internet Chess Cl, 1996. Game2, G/30.

1.e4 e5 2.Ŷf3 Ŷc6 3.Ŷb5 a6 4.Ŷa4 Ŷf6 5.0-0 b5 6.Ŷb3 Ŷc5 7.d3 d6 8.c3 0-0 9.d4 Ŷb6 10.d5?!

[Another Ruy Lopez, and once again Ferret blocks the centre. As a result Shirov, though now with the Black pieces, again launches a  $\Phi$ -side attack which is very similar to the one he played as White in the previous game. 10.2g5 would have been better]

10...ഉe7 11.ഉbd2?!

[I find this very strange. The c1 wont be fianchettoed with the other ② on b3, and this ② has nowhere immediately it can go, so mainly serves to block—in the c1 piece. Surely better was either 11. □ or c2, so that ② could be played before ②bd2]

11...g6 12.a4 @g4 13.a5 @a7 14.@c2 @h4 15.h3 @h5 16.@d3?! @g6 17.\e1 @f4 18.⊈f1?!

[A very unhappy end to a strange career:-f1-b5-a4-b3-c2-d3-f1?!]

18...皆d7 19.到b3 g5!

[Here we go]

20.@xf4 gxf4 21. led3 dh8!

[The possibilities are now so obvious that quite a few Computers would play Black's next moves]

22.鼍e2 鼍g8 23.萤h2 鼍g6 24.එbd2 鼍ag8 25.b3



25...2g4+!

[Again it's easy to find, but this time not by the Computers I'm afraid which once again evaluate that 'they' now have the advantage]

26.hxg4 **Q**xg4 27.**₽**h1

[27.全g1?! 国h6+ 28.全h3 appeared to me, at first, to create more of a problem for Black. But then I found 28...全xh3! 29.gxh3 (29.世xh3 国xh3+ 30.gxh3 f5-+ of course) 29...世g4 30.全f3 全xf2 31.日xf2世g3+ 32.全h1 世xf2 winning comfortably] 27...日h6+ 28.全h2 国g5 29.全df3 国gh5 30.g3 全xf3+ 31.世xf3 国xh2+ 32.全g1 fxg3 33.全g2 国xg2+ 34.世xg2 gxf2+ 35.日xf2 国g6 0-1

[The computer must lose its queen tostop mate].

I think that this and the Short-MCP5 match, also reported in this Issue, combine to show that some G.M's, having decided there was a need to take Computers seriously, have worked out how to win against them. I will be interesting to see if this feeling is confirmed at Aegon 1996!

## 10 AEGON - Final Results, full listing

The 1996 (11th) Aegon Computer Chess Tournament

### FINAL STANDINGS

Name	Tot	Elo TPR	SB
Yasser Seirawan	6	2630	21
John van der Wiel	$5\frac{1}{2}$	2535	201/4
Rafael Vaganian	$5\frac{1}{2}$	2615	19
4			
Jonathan Speelman	5	2625	181/4
5			
QUEST	$4\frac{1}{2}$		
NIMZO	$4\frac{1}{2}$		
NOW	41/2		$12\frac{1}{2}$
CAPTURE	$4\frac{1}{2}$		
REBEL 7	$4\frac{1}{2}$	2263	
Erik Hoeksema		2410	16½
Rob Hartoch		2295	$15\frac{1}{2}$
Gert Ligterink		2450	$15\frac{1}{2}$
Roberto Cifuentes Par			$14\frac{3}{4}$
Larry Christiansen	$4\frac{1}{2}$	2580	14
15			
REBEL AEGON	4	2525	
ZARKOV4	4	2408	93/4
MCHESS PRO	4	2393	9
THE KING	4	2379	
TASC R30	4	2359	
HIARCS	4	2348	- , ,
KALLISTO	4	2345	
DIEP	4	2300	
WCHESS	4	2294	
MEPH GENIUS	4	2213	•
GENIUS	4	2147	71/4
Yona Kosashvili	4	2580	14
David Bronstein	4	2455	$12^{3/4}$
Nico Kuyf	4	2261	12
29			
FRITZ	31/2	2415	$11\frac{1}{4}$
CHESSICA	$3\frac{1}{2}$	2410	$10\frac{1}{4}$
DREI HIRN	31/2	2370	9
VIRTUAL CHESS	$3\frac{1}{2}$	2348	8
NIGHTMARE N	31/2	2341	7
ARTHUR	31/2	2302	$6^{3}/_{4}$
FRENCHESS	31/2		
SCHACH 3	$3\frac{1}{2}$	2280	111/2
DARK THOUGHT	$3\frac{1}{2}$	2212	71/2
SAITEK BRUTE FOR	CE	3½ 2199	71/2
DOCTOR X	31/2	2169	7

CHESS SYSTEM TA			2158	61/2
NIGHTMARE D	31/2		2109	6
Gert Jan de Boer		242		111/4
Gert Jan Ludden		219		$10^{3}/_{4}$
Wim Wolthuis	31/2	213	U	$7\frac{3}{4}$
45 CONTET	2		22/0	7
COMET	3		2368	7
TURNING POINT	3		2291	$6\frac{1}{2}$
ISICHESS	3		2265	7
CENTAUR	3		2261	4
MEPH BERLIN PRO	3		2222	5
CHEIRON	3 3 3 3		2105	41/2
SHREDDER	3		2086	63/4
Gert Legemaat	3	218		91/4
Dieter Steinwender		185		81/2
Paul Bierenbroodspot	3	223		81/4
Gunther Loewenthal	3	198		$7\frac{1}{2}$
Ad van den Berg 57	3	223	3	$7\frac{1}{2}$
HITECH	2½		2171	5
MIRAGE	$\frac{21/2}{21/2}$		2156	$5\frac{1}{2}$
ANT	$\frac{21/2}{21/2}$		2138	$6\frac{1}{4}$
DIOGENES	$\frac{21}{2}$		2097	$6\frac{1}{4}$
NOVAG DIAMOND	$\frac{21}{2}$		2087	21/4
BREAK THROUGH		_	2007	$\frac{21}{2}$
HECTOR	$\frac{1}{2^{1/2}}$	2	2007	$\frac{2}{1^{3/4}}$
Sofia Polgar	$\frac{21/2}{21/2}$	249		9
Jan Joost Lindner	$\frac{21/2}{21/2}$	218		73/4
Hebert Perez Garcia	$\frac{272}{2\frac{1}{2}}$			73/4
Jeroen Blokhuis	$\frac{272}{2\frac{1}{2}}$	193	-	7
Matthias Feist		211	-	7
Paul Boersma		235		
		215		$\frac{6\frac{1}{2}}{6\frac{1}{2}}$
Jannes van der Wal		213		$\frac{6\frac{1}{2}}{6}$
Hans Ree Jos de Waard		202	_	6
	272	202	3	$5^{3}/_{4}$
73 SCHAAKMEESTER	v ı		2009	11/2
PANDIX			2009	
IMPAKT	2		1954	
BIONIC	2 2			
		100	1873	
Peter van Wermeskerl				71/4
Henk Arnoldus	2	201		71/4
Michael Hoving	2	204		6
Henny Maliangkay	2 2 2 2 2 2	202		51/2
Peng Zhaoqin	2	241		$5\frac{1}{2}$
Lex Jongsma	2	196		$5\frac{1}{2}$
Piet Bakker	2	222		51/4
Stefan Loeffler		241		5
Alexander Munningho	υ <u>μ</u> Ζ	192	<b>y</b>	4
Willem Hajenius	2	197		$3\frac{1}{2}$
Martin Voorn	2	211	O	$3\frac{1}{2}$

88			
GOLDBAR	11/2	1869	1
DRAGON	11/2	1830	21/4
Piet Geertsema	11/2	1936	4
Fre Hoogendoorn	$1\frac{1}{2}$	1919	4
Bert Kieboom	11/2	2020	$3\frac{1}{2}$
Corry V Bouwman	11/2	2130	23/4
94			
ANANSE	1	1811	3/4
ANANSE Richard Oranje	1 1	1811 2007	3/4 23/4
	_		
Richard Oranje Rien Goudart Henk de Kleynen	1	2007	23/4
Richard Oranje Rien Goudart	1	2007 2000	2 <sup>3</sup> / <sub>4</sub> 2 <sup>1</sup> / <sub>4</sub>
Richard Oranje Rien Goudart Henk de Kleynen	1 1 1	2007 2000 1797	2 <sup>3</sup> / <sub>4</sub> 2 <sup>1</sup> / <sub>4</sub> 2
Richard Oranje Rien Goudart Henk de Kleynen Nico Vromans	1 1 1	2007 2000 1797	2 <sup>3</sup> / <sub>4</sub> 2 <sup>1</sup> / <sub>4</sub> 2

### UNDERSTANDING the FIGURES

- 1► Position, Name and Points scored are, I trust, self-explanatory.
- 2► The **Elo** column shows each human player's official pre-Tourny Elo grade.
- 3► The **TPR** column is set slightly to the right of the Elo column, and represents each computer's grading performance from its 6 games at Aegon.
- 4► The **SB** figure is for tie-break purposes. SB stands for Sonneborn-Berger, and is a point count method, used in Round Robin and Swiss tournaments. It compares strength of the opposition played to decide tie-breaks between players scoring equal points.

#### 5► Tie-break order:

- ► In each points group, the COM-PUTERS are listed first, and in CAPI-TAL letters to help distinguish them.
- ► Computers are placed in order according to the grading performance achieved by each in the tournament. This seems to me the most useful figure to come out of these events (for SS readers, anyway!), for assessing individual and overall computer performance.
- ► Players are placed in order according to their SB point count.

## LISTING of main PROGRAMS and their PROGRAMMERS

The PC programs were on Pentium/166 machines, except where stated otherwise.

FRITZ, QUEST and BRUTE FORCE are Franz Morsch programs. QUEST, the name Morsch uses to represent his current 'upgrade in progress' version, was on a Pentium Pro/200. Saitek's KASPAROV BRUTE FORCE is the popular dedicated machine in the Renaissance Board. MCHESS PRO is by Marty Hirsch. GENIUS and BERLIN PRO are by Richard Lang. Mephisto GENIUS is the dedicated Genius2 version 68030 board. GENIUS is GENIUS4 on PC Pent/166. TASC R30 and THE KING are by Johan de Koning. The King is a PC version of Johan de Koning's current work. REBEL7 and REBEL AEGON are by Ed Schroder. Rebel Aegon represents his latest work and was on a Pentium Pro/200.

FRENCHESS and VIRTUAL Chess are by the French duo, Marc Baudot and Jean Christoph Weill. Virtua ran on the P/166, but Frenchess, which represents their latest work, was on a Cray T3.

NIMZO is by Christian Donninger. A new commercial version for this is expected out fairly soon.

W CHESS is by Dave Kittinger, as is the dedicated computer NOVAG DIAMOND. KALLISTO is by Bert Westrate. This new v1.98 has just come out commercially. CHESS SYSTEM-TAL is by Chris Whittington and is hopefully intended for CD-ROM release quite soon.

ZARKOV 4 is by John Stanback. This is the new analyst module used in the latest version of BookUp for WIndows.

**HITECH** is by Professor Hans Berliner, on special chess hardware.

SCHACH3 is also known as DREI HIRN and is 2 programs and 1 human... Ingo Althofer, a 1950 graded player. He ran MChessPRO5 and REBEL7 simultaneously on two 486/100 machines, and chooses the move from their efforts. If they agree that's the move. If they disagree he chooses the one he prefers!

## CS Tal at AEGON by THORSTEN CZUB

Like every year, the Aegon-tounament is HIGHLIGHT for testing computerprograms. Brilliantly organized by Cock de Gorter, it is a pleasure for all participants and visitors.

One can see and speak with all the programmers, comment on the games and discuss all matter of things. The programmers let their programs play against each other, before each of the rounds, just for fun. There is an exchange of ideas between most of the amateur programmers, and sometimes a professional gives a hint: how to do this and that.

This year every program got a fast Hewlett Packard Pentium 166Mhz with 16MB Ram. So - everybody has this minimum hardware. Because programs are not playing against each other, everyone is allowed to use a faster, or his own machine, instead the given one. Of course the professionals did this. Nimzo ran on a 180MHz Pentium, Rebel maybe on a Pentium-Pro. Quest used a faster machine, and so on.

For a long time now, I follow and comment on the work of Chris Whittington. It was in the great ATARI days, when I found out that the program Chess Player 2150 for ATARI ST had something special that I wanted to take note of. I bought every following program and then, one day, contacted Chris.

From that time, we worked together. Kilometres of fax-paper, telephone costs I could buy cars from, and some Elo-points and bug-fixing is maybe the result! And... (I hope) a working friendship: if you talk with somebody from England more often than you see your girlfriend, he will automatically be a good friend in a few years!

For three years Chris Whittington starts with his latest efforts at the Aegon tounament. Three years ago we numbered the versions with Aegon 1994, and we found out that the Aegonversion 1 was not good, but the version number 2 after the tounament.

In 1995 we entered with version 74. And also this version was buggy. You always find the faults in a tournament! If there is a bug, I guarantee the program will play it out in an important tournament!

For a few years now we are working on a

version to follow the Complete Chess System. I was very dissatisfied with the evaluation function of the Complete Chess System. And so was Chris. In many many games I played with 'CCS' I came to the conclusion that its evaluation function is more than strange. A program can only plan for positions, when it evaluates them accurately. Or almost! So we tried to change it, which has taken now many years. But Chris is a strong chess-player and invents many ideas. Also he visualises many new screens and graphs for me, so I see what the program does without needing a debugger.

By reading and studying the book from Mikhail Tal and Iakov Damsky: "Attack with Mikhail Tal" many new ideas for knowledge implementation were born. This book is published by Cadogan Chess, and I can advise anybody to read it. It is full of interesting test-positions for chess programs. Chris was inspired by the book, and he invented the Tal-Function so we got a program that played really unbelievable games. The book is our Talisman, and we use Tal's hypnotic-picture to freeze the opponent!

For each evaluation-function he made me a slider in the program, and for each extension a switch that I can adjust to try out any function I want. This way we made good progress. When I have seen a pattern, why CSTal is doing this or that, Chris can soon follow, and implement a new algorithm so the bad play wont repeat.

But this has also the problem that it needs much fine-tuning. The strength of CSTal is not the search but the evaluation in the tree. So the changes can put the program out of balance after implementing new evaluation-functions.

This year we started with version 165. So in 3 years from Aegon94 to Aegon96 he made (and I had to test) 165 'big' versions (we don't count the little changes in between!). You can imagine the amount of work from this creative man the Austrians wrote about in the PC-SCHACH 3/94 page 49, associating him with Asterix and the Romans:

"Is all hope gone, is the chess-playing part of the earth in the hand of the Roman-empire? No - not the whole one - somewhere in Britannia there is this small village Oxonia, whose inhabitants still fight bitter resistance. Their

chieftain Chris Whittingtonix did produce programs with the Chess Champion 2175 and the Complete Chess System, that were different because of their "human" playing-style. Different from the general-way of the A/B-strategists, but tactically too harmless to breakthrough in a significant way. But now we have heard through the Oxonic bard Thorsten Czubix that the breakthrough has been reached and further that Complete Chess System 2 is on the best way to develop as a top-program. I listen carefully to this message, but shall I believe it?"

This was 2 years ago, before we changed the name of the program into Chess System Tal because Chris devoloped the Tal-Function in addition to the difficult work on the evaluation function.

Last year Chess System Tal had to play against Sofia Polgar. It was a pleasure for me, because I was operating Tal, and I have always followed Sofia Polgar's way. I was very nervous and concentrated so much on not making faults that after a while she asks me if it is boring for me, to operate. Ha! It was not boring, but I was so much trying not to show my nervousness, she thought I am bored by everything. We came into a little talk, I explained to her the reason why this program is called Chess System Tal. I told her about the two different kinds of programs, and that this is like in life: we have the materialists and the idealists. She said: "Oh this opening cannot be called a Tal-opening". But this was wrong. Within a few moves CSTal was able to develop a Tal-Position.

The game went up and down, and in the end she won - of course. But for me it was a pleasure. I hoped to continue the little conversation, but luck was not on my side!

This year CSTal had to play against the nice female GM Peng Zhaoqin (ELO 2355), who was playing for the first time in Aegon, and has not so much computer-experience.

One thing happened before the game, Karpov (who was there the 1st round) and many other players stood around the CS\_tal board as he showed his opening structure against the computers. So I recognised this later when many players tried it in their games, following all the same ideas, with different openings, but the same structure types. Also Peng Zhaoqin

tried these ideas.

The Pentium/166 was 3 times faster than my 486-DX100 I use for testing. It was twice as fast as a Pentium/90, and CS\_tal computed around 3900-4600 nodes per second on this machine. Not much compared to the figures of other programs but I think this, and the games, show that CSTal evaluates not the real position, but more the chance to win. It plays speculatively, not always searching for the best move in a position, but often playing the right moves for its plan. The plans are found by evaluating things that exist only in the fantasy world of CSTal. The program is dreaming!!

Peng Zhaoqin shows that she plays accurate chess, good in tactics, without blundering. (All games were played 1h30m for all moves, plus 20 seconds Fischer-bonus).

### Round 1. White <u>CHESS SYSTEM TAL</u> Black <u>Peng ZHAOQIN</u>

1.e4 e6 2.d4 d5 3.Nc3 dxe4 4.Nxe4 Bd7 5.Nf3 Bc6 6.Bd3 Nd7 7.O-O Ngf6 8.Ng3 Be7 9.c4 b6 10.Bg5

[She expected Bf4]

### 10...O-O 11.Re1

[CSTal's evaluation function liked this position much and scored +2,09 pawns]

#### 11...Bb7 12.Bc2

[CSTal + 1.73]

### 12...h6 13.Bf4 c5

[Now the bishop stands where she wanted it to stand, but therefore she has that weakness on h6. A pretty pawn to sacrifice is on for CSTal.] 14.d5!

[Very late, and only in permanent brain, CSTal found d5. Before it would have played dxc with +1,58 pawns. Because Peng thought that long about c5, CSTal found d5. Thanks!]

#### 14...exd5?! 15.Nf5

[This is a nice place for a knight. Of course CSTal expected Nxc5]

#### 15...Re8 16.cxd5 Bxd5

[She never considered Nxd5. Of course our program would have played Bxh6 almost instantly with +1,96 pawns. Bxh6! Bf6 Rxe8+Qxe8 Nd6 Qb8 Qd3 Qxd6 Qh7+ Kf8 Ng5 says the main-line! If gxh instead of Bf6 CSTal says +2,43 and would play Qd3 feeling good. Peng Zhaoqin has seen that, was afraid of it and chose the safer Bxd5.]

### 17.Bc7

[Very late, in the last second, CSTal saw this move.]

### 17...Bxf3 18.Qxf3 Qxc7 19.Rxe7 Rad8 20.Rae1

[Still one pawn down, CSTal has pressure enough for the pawn and scores still +1,45.]

### 20...Rxe7 21.Rxe7 Re8 22.Rxe8+ Nxe8

[As I said before, a program will find its bug, when there is one. Later on we found a bug in the draw-repetition code. I will explain later, in the game of the second round. But of course this bug occurs also here.]

## 23.Ne7+ Kf8 24.Ng6+ Kg8 25.Ne7+ Kf8 26.Ng6+ Kg8 27.Ne7+ ½-½

Later on we discussed several different moves she suggested as alternatives. She said: "I have one pawn more, but your pieces are so active, what else can I do?" and tried out some things. But always CSTal found a way to make it hopeless. So - in the end she felt lucky about the computer "offer" of draw.

She said: "Against a human, she would also have made this game into a draw very likely".

I told her that it is very complicated to find out with our program, in later analysis, "What would have been the best/most accurate move in this position". Still she looked surprised: "But it is a computer! It should find the accurate move!" Again I tried to persuade her, that this program is different. It plays chess like you have to play poker, I mean, it plays not like Tarrasch, it plays like Tal.

If you want to know what is accurate in a position, ask the fast programs. But is the best move in a position the best move in a game?

The best move within a range of 10 plies from a certain position is not the same best move using a range of knowledge for the whole game. So if you want to know the exact move in a position, as if the rest of the game never happens, you must use another program, not ours. Our program is bluffing, like a human.

## Round 2. White **Richard ORANJE** Black **CHESS SYSTEM TAL**

#### 1.Nc3 d5 2.e4 d4 3.Nce2 Nf6 4.e5

[Maybe Ng3 would have been better?!]

4...Ng4

[CSTal feels +1,67 and has Ng4 f4 d3 exd

Qxd3 Qb3 Qxb3 axb in the main-line]

5.f4 d3 6.cxd3 Nc6 7.Nf3 e6 8.a3?

[8.h3 would have been better]

### 8...Be7 9.Qc2?

[Again h3 or d4 or b4, and giving back the pawn, would have been better.]

### 9...Qd5!!

[Most programs want to play O-O, but this is too passive. On O-O white could play d4 Nh6 b4 Nf5 Bb2 Bd7 Rc1 Rc8 and white comes free. Qd5 with the idea to control c5-f2 important-diagonal is much more interesting and earns +1,67. Maybe O-O is the best move for the position. But Qd5 is the best move, if you have a plan.]

### 10.h3 Oxf3!

[For machines this Q-sac move is nothing special! In the later bulletin it was written about the game: "Chess System Tal attracted a lot of attention when it sacrificed its Queen on move 10. A rarity even in human chess"... One has to be fair: almost every computer will find Qxf3. CSTal says 2,92 expected the better hxg Oxg4 g3 Bd7 Bg2 O-O-O d4 h6. But the bug came again: When the opponent is NOT defending with the best move, but is better in material - because we sacrificed - it thinks the opponent will force a repetition draw, and instead of sensible lines in the tree it sees only rubbish repetition lines. Although alpha-beta can handle this misbehaviour, it wastes computing time and together with some other strangenesses of the Tal-Function, it results here again in one problem: Although we stand better - as in round 1 - it plays the draw-line!]

### 11.gxf3 Bh4+

[Evaluation increases to +10,97 pawns! Many people circled around the board. A very strange position. Tal would have liked it.]

## 12.Kd1 Nf2+ 13.Ke1 Nxd3+ 14.Kd1 Nf2+ 15.Ke1 Nxh1+ 16.Kd1 Nf2+ 17.Ke1 Nxh3+ 18.Kd1

[After eating all the material, the bug came again! Try it out with, say, Genius or MChess. Also our fixed version without the bug would have played better, black can easily continue by playing Bd7 and developing. He should win then.]

## 18..Nf2+ 19.Ke1 Nd3+ 20.Kd1 Ncb4 21.axb4 Nf2+ 22.Ke1 Nd3+ 23.Kd1 Nf2+ ½-½

So again we missed the point from our better play and position, because of the same bug.

In the games which followed we unbelievably played 3 more draws. Rumours circled. Jokes were made, calling us Chess System\_draw. I was very disappointed, and thought it might even be better to lose the last round, than have again a draw.

Meanwhile I had CSTal playing against all the competing programs, those programmers or operators having their "Chess System\_draw" joke. And there were some fantastic games, which I will show you in the next SS! After these games, the other programmers didn't joke anymore. They were, like me, impressed by the sacrificing play of Chess System\_tal, and stopped the rumour we can only play draws!

Our opponent in that last round, Henk Arnoldus, must have a friendship to David Bronstein. Whenever he had some time, he walked around to Bronstein's board, and vice versa as Bronstein came and took a look at our game. It is a strange feeling when such a player as Bronstein watches over the game you operate!

## Round 6. White <u>Henk ARNOLDUS</u> Black <u>CHESS SYSTEM TAL</u>

## 1.Nf3 Nf6 2.d4 g6 3.g3 Bg7 4.Bg2 O-O 5.O-O d6 6.c3 Nbd7 7.Nbd2 Nb6 8.Re1 Bg4 9.h3 Bd7 10.e4 Qc8 11.Kh2 c5

[Puh! I thought we could never open the game. The Aegon-players are all really old foxes. They try to hold everything closed and overprotected, they design their own anticomputer-strategies and are maybe 200 points stronger than their ELO shows it.]

### 12.e5 Nfd5 13.dxc5 dxc5 14.Qe2 Rd8 15.Nb3 c4 16.Nbd4 Be8 17.e6

[White plays very fine. Chris and I grew smaller and smaller. I didn't like the position. Normally computers don't understand these and go step by step into death.]

### 17...f6 18.Nh4 Qc7 19.f4 Rac8

[White's plan is obvious for humans. CSTal evaluated self-confidently +1,32!]

#### 20.Kh1?! Nb4!

[Some easy tactics, and ...]

#### 21.Rf1 Nd3

[Black gets a lever into white's position and evaluates +1,92.]

### 22. Kh2 f5 23. Nhxf5

[Uff! I thought this would happen.]

### 23...gxf5

[CSTAL says: keep cool. Yes! We have one advantage: every attack we <u>play</u> active, we <u>see</u> passive! So why fear because of some attacking humans?? Tal is the master of attack!! +1,71] **24.Nxf5 Nd5** 

[Now black attacks white from the baseline] 25.Nxg7 Kxg7 26.Qg4+ Kh8 27. f5 Nxc1 28.Raxc1 Ne3 29.Qh4 Nxg2 30.Kxg2 Bc6+

31.Kg1 Rd3 0-1

When Henk Arnoldus resigned the game, Bronstein came and asks: "Why did you resign?" I was frightened we might analyse now against Bronstein/Arnoldus, but it did not happen as there were more important things to do, it being the last round.

We are confident now: we did not keep losing because of a bug, as in Paderborn, and only had 5 games drawn because of a nuisance bug. There is progress! Maybe next tournament we have fixed all bugs, as I know the program already plays really good and refreshing chess. It is impossible to fall in sleep while watching a game of CSTal! It is also a total waste to let auto-players run CSTal. They can never enjoy Tal-games, the way Chris has designed it: The times of boring computer-chess are over!

After the last round each player was honoured and Yasser did a nice small speech to thank the organizers who made this fine event possible. The public applauded enthusiastically, Seirawan is a popular Grandmaster. A prize for all the programmers was a Bronstein! David Bronstein and Tom Furstenberg's book: "The Sorcerer's Apprentice" from Cadogan. Of course each was signed by David Bronstein. What can you more expect? What is a Picasso against a real Bronstein on my bookshelf?

I hope to see you all next year in Den Haag, so that we can spend time each night, drinking, eating, and having more of the best computer chess days so far.

Our thanks to Thorsten Czub, operator and co-worker on Chess System tal, for his most interesting Aegon article.

his most interesting Aegon article. In SS65, further CS tai games, plus Eric's round-by-round Aegon coverage including the best games by humans and computers.

## 16 Nigel SHORT whups MChessPRO5

The next 3 pages should, perhaps, be marked with an 'X' certificate!

Not just because the (joint) World Micro-Computer Champion is defeated 2-0 by an admittedly resurgent G.M Nigel SHORT, but particularly because of the very manner and ease of the victories.

Short had also found himself playing these games without proper prior warning, but of necessity to satisfy PC manufacturers Compaq, who had become his last minute sponsor for a trip to Ecuador.

Without having seen MCP5 in action, or even any of its games, he writes in Chess Monthly: "I resolved, in the face of such adversity, to adhere to a few basic principles: keep everything defended, avoid all unnecessary tactics, depart from theory at a reasonably early stage. This primitive approach proved to be more than sufficient for my hapless opponent".

## N Short (2680) - MChess Pro5 P/133 [A45] Guayaquil, game1 @ G/60, 1996

### 1.d4 2f6 2.c3!?

[Intended by Short to get MCP out of Book. In fact it failed and the reply came instantly]

### 2...e6 3.\( \hat{2}\)g5 c5 4.e3 b6 5.\( \hat{2}\)d2 d5

[The computer's first move out of its Book. 5...\parable b7 was also a good choice]

### 6.\( \partial d3 \\ \partial e7 7.f4

[White's Colle-type setup is compared by Short, after this move, as a sort of "turbo-charged Stonewall", due to the @being on g5]

### 7...0—0 8.**£**2gf3 **£**a6!

[It is correct to remove one of White's main attacking pieces, and many programs in fact recognise this, either now or after 8...exd 9.exd]

### 9. £xa6 £xa6 10.0-0 £c7

[10...2b8 is better, so as to be able to

play 2d7 and challenge a 2 if placed on e5, as in the game]

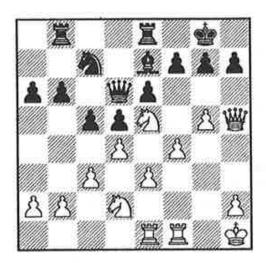
### 11.2e5! 11...\d6

[If 11...\mathbb{I}c8 Short says he was not interested in 12.\mathbb{2}c6 \mathbb{U}d7 and implies that \mathbb{U}d6 was therefore unnecessary]

## 12.\(\psi\)f3 \(\beta\)fe8 13.\(\beta\)ae1 \(\beta\)ac8 14.\(\delta\)h1 a6 15.g4 \(\beta\)b8

[While White steadily prepares an attack, Black is clearly drifting aimlessly along. 15...2d7 was Short's recommendation if MCP was to minimise the forthcoming troubles ]

### 16.\( \partial xf6 \) \( \parti



18...g6?

[This is very weakening, and provides meat and fodder for a G.M. However Genius4 would have played the same, whilst Hiarcs4 and Fritz both prefer 18... 置f8 and 'our' analysis goes 19. 置f3 f6 20. 置h3 fxe5 21. 豐xh7+ (21. fxe5 豐c6 22. 豐xh7+ 每f7 transposes) 21... 每f7 22. fxe5 豐c6 23. 豐h5+ g6 24. 置f1+ 每e8 25. 豐xg6+ 每d7 This looks to be the end of the attack with Black ahead, but maybe there is an improvement for White?

Interestingly MCP5 threatens a similar g and h-file attack in game2, so Short also plays g6. However he plays it to stop White getting Qh5 in, not after it's been played. A big difference!]

### 19. gh6 全f8 20. gh4 罩e7?!

[Apparently MCP thought it was 'just ahead' here, which greatly amused Short when he was told so by its operator. The Hiarcs4 idea of a rather late fianchetto with 20... £g7 followed by 21. £f3 £xe5 22.fxe5 £f8 seems to give better chances of surviving. Genius4 (showing Black at +36?) also chose this, and after 21. £d3 cxd4]

### 21.\(\mathbb{I}\)f3 cxd4 22.exd4 \(\mathbb{I}\)c8 23.\(\mathbb{I}\)h3 \(\mathbb{Q}\)g7

[23...h5? 24.gxh6 2e8 25.2df3 wins easily]

### 24. ll xh7+ of 8 25. odf 3 ob 5?

[25...2e8 would surely have had more relevance!?]

### 26.2h4

[26.2g4 is also very strong]

## 26... Eec7 27. 2hxg6+! fxg6 28. 2xg6+ 4f7 29.f5 exf5 30. 2e5+ 4e8 31. 2c4+ 1-0

A pretty comprehensive performance, especially as Nigel reckons his host had been busily plying him with huge and delicious steaks (pre-beef scare!?) and vast quantities of red wine at his home prior to the game.

## MChess Pro5 P/133 - N Short (2680) [C05]Guayaquil, game2 @ G/60, 1996

#### 1.e4 e6

[Carefully chosen by Short as an opening which generally avoids tactics. It also usually results in an early blocking of the centre, making correct piece placement of particular importance]

## 2.d4 d5 3.\( \text{2}\)d2 \( \text{2}\)f6 4.e5 \( \text{2}\)fd7 5.f4 c5 6.c3 \( \text{2}\)c6 7.\( \text{2}\)df3 f5 8.\( \text{2}\)d3 cxd4 9.cxd4 \( \text{2}\)b6 10.\( \text{2}\)e2 \( \text{2}\)e7 11.a3 a5 12.0-0

[The popular move at this point, amongst the computer programs. However Short indicates that the main need in this position is that White should be aiming to play g4, and should therefore here play, for example, 12. Eg1 This would be one of the last moves in most program's candidate lists, however... which is what Black

had anticipated!]

### 12...0-0 13.\( \partial e 3?!

[13.b3 was an improvement, which is the choice of some programs; others prefer 13.Bd2. The MCP move allows Black to establish a firm grip on the game]

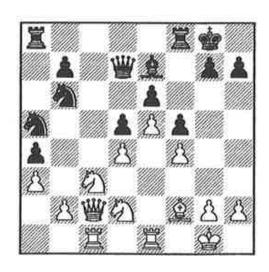
### 13...a4! 14.\(\mathbb{Z}\)c1

[14.2c3 looks attractive, but 14...\(\mathbb{Q}\)d7 15.\(\mathbb{Q}\)c2 does not 'win' the \(\text{\Delta}\). After 15...\(\mathbb{Q}\)a5 16.\(\mathbb{Q}\)xa4? \(\mathbb{Q}\)xa4 17.\(\mathbb{Q}\)xa4 \(\mathbb{Q}\)ac4! we find that, instead, Black has won a piece!\(\mathbb{Q}\)

### 14...食d7 15.食f2 **全a5** 16.**全d2 全c6** 17.**半c2 半d7** 18.質fe1

[18.2c3 was better here, simply to stop Short's reply which forces an exchange favourable only to Black. Genius4 showed +18 with Nc3 ->Nbc4. After the move played it has Black at +12. Hiarcs4 is similar, though it had White on -24 already with Nc3, and shows Black at +63 after Rfe1]

### 18...**全b5!** 19.**全xb5 世xb5 20.全c3 世d7**



[The current anti-computer 'in-words' are 'blocked centre'. Computers are often found with one or more pieces on the wrong side of the board in such positions, leaving them short of power when the attack comes, and unable to easily transfer misplaced units. Short also has the better  $\mathfrak{D}$ , another frequently seen factor in the blocked position. He wrote in 'Chess Monthly': "Black has obtained a superior position, but it is difficult to make rapid

progress. However that did not concern me too much as MCP did not appear to be in danger of generating any activity". Deflating words for the World Micro-Computer Champion and its programmer to digest!

### 21. \( \frac{1}{2} \) \( \frac{1} \) \( \frac{1} \) \( \frac{1}{2} \) \( \frac{1}{2}

[MCP appears to consider that it has 'gained' the blocked centre, and a position ripe for attacks up the g and h-files. Short shows how to nip these in the bud before they even get started]

### 23...b5 24.\(\mathbb{e}\)2 g6! 25.\(\Delta\)a2?! \(\mathbb{f}\)c8 26.\(\mathbb{G}\)cc3

[Note that White has no entry points on the h-file, other than the one at h3 already occupied by his \mathbb{I}]

### 26... ②a5 27. 豐e1 罩xc3 28. 罩xc3 ②c4! 29. 罩c2 ②d8 30. ②b4 ②a5 31. ②h4 罩c8 32. ⑤h1

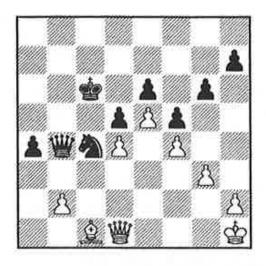
[Being, as always, on the Computer's side, perhaps I should avoid drawing attention to White's pathetic pottering with his  $\Phi$  on h1 and g1, over the course of the next few moves. However I found it rather discouraging, I must say]

## 32... \$\psi\_a7 33.\$\psi\_f2 \$\mathbb{Z}\_c7 34.\$\psi\_g1 \$\mathbb{Q}\_b6 35.\$\psi\_d1 \$\mathred{Q}\_a5 36.\$\mathred{Z}\_xc7 \$\psi\_xc7 37.g3 \$\psi\_c4 38.\$\mathred{Q}\_h1 \$\mathred{Q}\_f7 39.\$\mathred{Q}\_g1 \$\mathred{Q}\_g2\$

[Short comments here: "The program could still have played 40.g4 (see note at move 12!) with the idea of not losing so pitifully. But I doubt if it understood the gravity of the situation, hence the totally aimless moves".]

### 40...\$d7 41.\$g1 \$\text{\text{\text{\$\geq}\$}}\$ 42.\$\text{\text{\$\text{\$\geq}\$}}\$ 2.\$\text{\text{\$\geq}\$}\$

[Not 43.\(\Pext{\Pert}xc4\)? commented Short, as 43...\(\Delta xc4\) 44.\(\Delta d3\) b4!? However here he shows only 45.axb4 whereas we suggest 45.\(\Delta xb4\)! (45.axb4? 45...\(\Delta xb2\)! wins easily as White cannot play 46.\(\Delta xb2\)? a3-+) 45...\(\Delta xb2\) 46.h3 \(\Delta d1\) and Black's advantage is certainly less than in the 45.axb4? analysis]



[The &'s infiltration on the \(\begin{align\*}{l}\)—side will decide the game, though MCP (and F3 in use as I enter the game through Chess—Base) were not yet aware of it. Hiarcs4 did have Black at +95 here, however, while Genius4 showed Black at +40]

### 

[Where does he think he's off to? 54.\(\mathbb{H}\)d2 \(\mathbb{H}\)xd2+ 55.\(\mathbb{L}\)xd2 is better, though 55...\(\mathbb{L}\)b5 56.\(\mathbb{L}\)f3 \(\mathbb{L}\)c4 still wins. Hiarcs4 showed -133 with this, Genius4 a rather optimistic -40. Both drop their evals. by over 100 after the poor move chosen]

## 54...2c4 55.\u00ede 1 \u20arb b5 56.\u00adf 1 \u20arb b4 57.\u00adf e1+\u00adf b3 58.\u00adf 1 \u00adf a2 59.\u00adf e1 \u20arb 2 60.\u00adf d2 \u20arb d3 61.\u00adf e2 a3 62.\u00adf h4 0-1

In his after-Match comments Short spoke of the inevitable eventuality of a Computer and Program being able to defeat the human World Champion – i.e over, say, a 16 game Match at 40/2 or very similar.

But he firmly believes that this event is several years away yet; and that, if the G.M's prepare adequately for their clashes with Computers, such supremacy can be delayed even further. Computer programs may have come out of their infancy in the last few years, but serious consideration of the problems of playing a machine are very much still in their infancy. Recent efforts by Short/Shirov/Kasparov are the beginnings of a considerable fight-back!

## The ELO Rating System

Frank HOLT is such a prolific supplier of results, games and valuable comment that, when he requests a particular article...!

Well, and why not?! The calculation methods for the Elo and BCF rating systems, as used for players worldwide as well as for our own Chess Computer **Rating List**, is of some importance, to say the least.

The basic formulae were originally developed by by Professor Arpad Elo, who died quite recently, and are used for rating players not only in chess, but also in table tennis!

### The OFFICIAL LAWS of CHESS

The actual Elo formulae are found in this valuable little 'Official Laws' Handbook, wherein it is stated, under Section 1.0 General Principles:

1.1 The FIDE Rating System is a numerical system in which percentage scores are convertible to rating differences and conversely, rating differences are convertible to scoring probabilities.

and further on...

1.3 The basis of the system is the normal probability function of statistical probability theory. This is put into tabular form for the conversions indicated in 1.1.

1.4 Table [1] conversion is from percentage score (P) into rating difference (Dp).

P%	[D]iff	P%	[D]iff	P%	[D]iff	P%	[D]iff
100	-	86	309	72	166	58	57
99	677	85	296	71	158	57	50
98	589	84	284	70	149	56	43
97	538	83	273	69	141	55	36
96	501	82	262	68	133	54	29
95	470	81	251	67	125	53	21
94	444	80	240	66	117	52	14
93	422	79	230	65	110	51	7
92	401	78	220	64	102	50	0
91	383	77	211	63	95	49	-7
90	366	76	202	62	87	48	-14
89	351	75	193	61	80	47	-21
88	336	74	184	60	72	46	-29
87	322	73	175	59	65	45	-36

As is already apparent from the figures 49% - 45%, the second half of our Table from 50% to 0% will be an exact mirror of the figures from 50% to 100%, but with a negative rating difference representing the player who lost!

What the Elo formula of Table [1] is saying is that, if Player A beats Player B by 8-2 in a match, the rating difference in that match between the 2 players is 240 Elo (from 8-2 being 80%).

Our next question might be: "If Player A's grading was 2600, and Player B's 2500, what should the score have been?"

### Back to General Principles:

1.5 Table [2] conversion is from difference in rating (D) into scoring probability (P), again expressed in % terms.

[D]	DO( 101	IDUE	D0( (0)	IDNE	D01 101
[D]iff	P%/%	1 4	P%/%	1	P%/%
0-3	50/50	122-129	67/33	279-290	84/16
4-10	51/49	130-137	68/32	291-302	85/15
11-17	52/48	138-145	69/31	303-315	86/14
18-25	53/47	146-153	70/30	316-328	87/13
26-32	54/46	154-162	71/29	329-344	88/12
33-39	55/45	163-170	72/28	345-357	89/11
40-46	56/44	171-179	73/27	358-374	90/10
47-53	57/43	180-188	74/26	375-391	91/9
54-61	58/42	189-197	75/25	392-411	92/8
62-68	59/41	198-206	76/24	412-432	93/7
69-76	60/40	207-215	77/23	433-456	94/6
77-83	61/39	216-225	78/22	457-484	95/5
84-91	62/38	226-235	79/21	485-517	96/4
92-98	63/37	236-245	80/20	518-559	97/3
99-106	64/36	246-256	81/19	560-619	98/2
107-113	65/35	257-267	82/18	620-735	99/1
114-121	66/34	268-278	83/17	736+	100/0

The FIDE Official Laws Book states that the formula for producing this Table is:

$$P = \frac{1}{1 + 10^{-D/400}}$$

Readers are probably content that it's all been worked out for them, in my Table [2] above!

What we can now see is that, where the Elo gap between 2 players stands at 100 Elo, the score %'age should be 64/36. In a 10 game match this would translate quite nicely into  $6\frac{1}{2}-3\frac{1}{2}$ .

Therefore Player A, by winning 8-2, has done rather better than expected: he has performed 240 Elo above B instead of 100, therefore 140 'above himself', and his rating will go up. Equally Player B's rating will have to go down.

### **Tournaments**

Before we consider how the rating change is to be applied, we should quickly look at the situation with Tournament results, as these are far more prevalent than Match results.

In fact it is almost exactly the same as above, except that the calculation is performed, not against the one rating of a single opponent, but against the average rating of a group of opponents.

Let's imagine Player A (2600 Elo) played in a 6 Round Swiss and obtained the following results:-

Round	Opponent	Result
1	2500	1
2	2650	1/2
3	2650	1
4	2750	0
5	2550	1
6	2700	1/2

His score is 4/6 which equals 67%.

The average rating of his six opponents is 2633, a difference of 33 Elo from his own grade, so he would have been expected to score 45% (either 2½ or 3 out of 6 in this case). It is immediately clear that he has done rather well! In fact 67% in *Table [1]* shows +125 Elo, and against an average opposition of 2633 gives a 2758 performance. This is 158 above Player A's current grading and obviously his grade will go up

when the next FIDE list is published.

By how much? Well, I'm going to duck that question at this point, mainly because this part of the calculation does <u>not</u> affect our Computer Rating List calculations.

But before we look at why that is, let's have a look at the British rating system!

### The simple(!) BCF method

Considering we English are probably best known for our normally confusing and unusual forms of measurement - I think of £sd, lbs and ozs, yards feet and inches etcit is amazingly true that our BCF method of calculation is probably the easiest of all!

The following, slightly simplified, method should enable readers to very quickly calculate result expectations from known BCF grading differences.

I am sure most folk know that 1 BCF point = 8 Elo points, but it is always best to restate necessary factors, just in case.

Therefore 50 BCF points = 400 Elo, which figure represents (apart from extremes) the rating difference in the 90%+ area of

P%

100/0

95/5

90/10

85/15

80/20

75/25

70/30

65/35

60/40

55/45

[D]iff

50

45

40

35

30

25

20

15

10

5

Table [1]. A maximum 100%-0% score is therefore counted as a 50 BCF gap, and a 50%-50% score is 0 BCF. Everything else is in the straight line between these two points! Thus ▶▶

A quick glance also shows that, if we establish the BCF rating gap between two opponents in the right-hand Column, by adding the fig-

Column, by adding the figure to 50 we immediately get the forecast %'age score, as per Column 1, P%!

We could even take an Elo gap, divide by 8, and use the same rule. E.g Elo gap 2600-2500 (our Players A and B again) is  $100 / 8 = 12\frac{1}{2}$ . Therefore the forecast score

in a 10 game Match is 6-4 or  $6\frac{1}{2}$ - $3\frac{1}{2}$ . The carefully calculated Elo *Table [2]* indicated 64%-36%, my simplified BCF method shows  $62\frac{1}{2}\%$ - $37\frac{1}{2}\%$ . So I think we can say it works very well for all general purposes!

Equally we can apply the method when a new Computer enters the arena, and I will show this shortly. But now we should return to our main discussion on applying the rating <u>performances</u> to the actual gradings.

## Rating Humans and Computers <u>is</u> Different!

The reason for this is that, once a Match or Tournament performance rating has been established, the next part of the calculation for human players is designed to weight the new grading slightly towards the latest results obtained. Thus a player's grading should tend to indicate his current form, and show whether he is improving (or vice-versa!).

Certainly there are various stabilising factors included, so that the experienced and regular player, or fully-fledged G.M, wont have a grading that keeps jumping about all over the place. Nevertheless it will be encouraged to reflect current form from the most recent achievements and performances. Where the person concerned has only recently obtained a rating (or is a Junior, when massive swings often do occur, especially sudden surges upwards) the rating 'stabilisers' are more relaxed, and can allow sudden changes to reflect big improvements (or, again, otherwise!).

But a Computer does <u>not</u> improve, or go worse. It is what it is, and <u>our</u> rating calculations and efforts are <u>for the purpose of establishing</u> what each computer's static figure actually is. Thus it gets good results and bad ones, but the order in which it gets them does <u>not</u> matter - if it beats, say, a 2000 Elo program 8-2 (indicating a 2240 grading), but then 'only' draws 5-5 with another program graded 2100 (which is a

2100 performance), the computer has not 'gone worse'. The second, and each subsequent, score effectively 'corrects' earlier results until we reach a reliable average based on many results.

In this case, from these two results, the average comes out at 2170. It doesn't matter in which order the matches were played, or in which order I receive the results - the computer hasn't improved, worsened, or changed in any way, and the 2170 is the correct figure indicated by these two results.

Let's just 'BCF' that calculation, to ensure my simplified method really works!

8-2 (=80%/20%, therefore an 80 - 50 = 30 BCF improvement) over a 2000 Elo/175 BCF player = 205 rating performance.

5-5 (=50%/50%, therefore 50 - 50 = 0 BCF improvement) over a 2100 Elo/187 BCF player = 187 rating performance.

(205 + 187) / 2 = 196 BCF = 2168 Elo.

The figure was 2170 when done the exact Elo way, so again we see that the simplified method is a close guide which we can safely use.

Don't let the examination of figures deflect you from the main point of this paragraph:

- Human players vary from Tournament to Tournament; they improve or go worse, have good days and bad days. Their gradings aim to reflect their current playing form.
- Computers and Programs have an unchanging playing standard. In the gradings we aim to establish what that figure is. But a recent good (or bad) result does not mean that the Computer has changed in some way.

### Humans do change: another factor!

Here is the one thing affecting Computers

which does change: the ability of humans playing against computers! This has long been a theme of mine, a few others have agreed in the past, and more are 'joining' all the time.

There is very clear evidence that Computer Ratings <u>have changed</u> (declined!) over the years. Whilst today's best, a Tasc R30, shows (and plays) some 400 Elo better than a hero of the late 1980's, the Fidelity Mach3, or a staggering 650 over the early 80's benchmark Novag Super Constellation, the results against <u>humans</u> have certainly not risen in such leaps and bounds!

Remember the Super 'Conny' got a 2018 USCF figure! The Mach3 was sold as the Fidelity 2265 because of its CRA Test grading! The Tasc R30 should be 2665 on that evidence (or 2565 if we deduct 100 from USCF performances), but it certainly isn't!

Results included even in this Issue (and a study of some of the chess played by and against them!) add yet more weight to this opinion. See Nigel Short's demolition job on MChess Pro5, or Shirov's easy destruction of Ferret... and Kasparov's recent strategic triumph over Deep Blue, of course.

## What would the top models of the 1980's get today?!

If we are realistic, we need to admit that ratings obtained by Computers and Programs even some 3, 4 or 5 years ago - absolutely legitimate ones at the time, let me hasten to add - are much better than anything they might get if they were entered in, for example, the 1996 British Championship Major Open!

We have plenty of figures which demonstrate a 'decline'! One very clear example is seen from comparisons at the said British Championships of a couple of Ed Schroders programs.

In 1988 a Mephisto Academy graded at 184 BCF (2075 Elo) in the British Major

Open! This was over 33 games and the first time we had entered one of Ed's programs. The player's were clearly surprised by its dynamic style and quite a few confessed when we went over the games afterwards that they had found it 'quite a handful'. As it was 'only' on a 6502 processor at 5MHz (which was perfectly acceptable in those days!) we were pretty pleased with ourselves at Countrywide.

### Four years and 300 or so Elo on!?

In 1992 we decided to enter Ed Schroder's then new Mephisto RISC 1MB. Apart from many added improvements to the program, it was now running on a 14MHz RISC processor, and with hash tables! The speed difference between it and the earlier Acadamy was no less than x 6!

However the players at the 1992 British were opting for quiet openings, positional struggles, good and bad bishops, distant pawn majorities, aiming for endgames etc. Whereas the Academy had only played 4 or 5 endgames (and 2 of those were a pawn up in opposite coloured bishop situations), the RISC was constantly struggling to defend poor endings. The result was a 2038 Elo/180 BCF grading... yes! worse than the Academy!

Is the RISC worse than the Academy?! By no means. The total score in my Rating program, sent in by owners playing these two Computers 'head-on', is 29-4 for the RISC1, a figure (88%) which I believe closely represents the true playing standard gap between them (213 BCF cp 174 BCF = 89%, SS63).

What I also think is that the RISC1 grading performance is a more accurate reflection of its 'v Human' ability, than the figure obtained by the Academy 4 years before. One almost dreads to think what the 6 times slower Academy might have got if we had entered it in 1992!!

In fact the RISC1 was later to get a superb result at King's Head (we hadn't entered an

Ed Schroder program there before), and its current 'v Human' grade is now a much healthier looking 2264 Elo/207 BCF.

The Academy, however, has never managed such rarified heights again. It's current v Human grade is 2024 Elo from 109 games, and the Rating List places it on 1999 Elo/174 BCF overall. Not that it has gone worse, but later results against more aware opposition have established that the Academy is not quite as good as its 1988 'super' achievement indicated!

### The reason/s for the decline

Yes, it is a decline, even though I have said that the computers don't change?! The performance decline against humans is a result of (big?!) improvements in most players' abilities when now faced by a Computer in a Tournament, brought about quite simply by their superior and still-growing Computer awareness.

Most players now own a Computer or Program, which is used for preparation and practice to some degree. They are well aware of where a computer's strengths and weaknesses lie, and know the sort of opening lines most programs prefer to play.

Additionally many Human v Computer games have been published in Chess and specialist Computer Chess magazines, and the successful methods used by the I.M's and G.M's are pretty well known.

About 4 years ago I redesigned the SS Rating List so that it would constantly realign itself (which is almost always downwards!) to take account of, on a purely mathematical basis, the latest results v Humans in official Tournaments.

Thus whilst Computer v Computer results are treated as constants, an automatic comparison is made of each Computer's 'v Human' and 'v Computer' performances every time the Rating List is re-calculated.

Also a weighting is applied according to

the dates of the 'v Human' results, so that the latest ones have a greater effect on the overall level. Because this weighting is only applied to the one section of the total results available, and the current form of the individual Computer is not in question, but rather the current standing of Computers in general, the adjustment cannot be made in the same way as is done by FIDE, the PCA and BCF etc. But it is being done!

Thus my aim is that each grading shown relates as closely as possible to what we'd expect if that Computer was entered into a Major Tournament today.

Well, what started out as a brief Article to answer Frank Holt's enquiry about the working of the Elo system, has ended up a major effort looking at many implications. I am closing with a final **Table of the Top Computers** from years past! Shown alongside each is the grading attributed to it at the time it topped our Rating List, and its current (SS/63) figure.

Some could use this presentation to criticise my Rating endeavours over past years - it shows that they were too optimistic. I print the Table knowing this risk. I have always tried hard to get the figures right, and I believe most were fairly close to the truth at the time. The List is here to help present the picture as I see it today. Maybe from these figures someone can calculate or guesstimate what the grading of the current top program, on its Pentium/90, might have fallen to by the year 2000!? Mmm!

Year Program	<u>Then</u>	SS63
1986 Meph Amsterdam	2203	1990
1987 Meph Dallas 68020	2265	2078
1988 Meph Roma 68020	2204	2091
1989 Meph Almeria 68020	2256	2167
1990 Meph Portorose 6802	20 2375	2319
1991 Meph Lyon 68030	2403	2340
1992 Meph Lyon 68030	2378	2340
1993 Gideon3.0 RISC-PC	2410	2338
1994 Genius2 486-PC	2454	2424
1995 Genius3 486-PC	2463	2451
1996 MChess Pro5 Pent-P	C 2534	2527

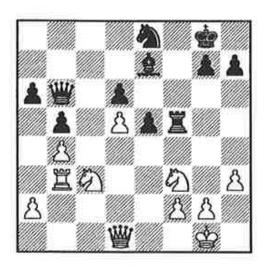
### Correspondence Chess no. 26 MEPH(isto) VANCOUVER 68020

For new readers: 'MEPH', under the everwatchful eye of Phil Gosling, continues its successful BCCS campaign. All its opponents know that they are playing against a computer, so its current position at 9th. in their rating list, with a BCCS Elo of 2461, is very good indeed.

Three games are completed in this Issue, a win, a draw... and a defeat!

<u>BCCS 2494 (2490) - Vancouver 020</u> (2275) [B00]Corr.20, 1994

31.全f3 學b6



[SS63 eval +6 >Qd3. We had expected a \( \text{\text{P}} \) exchange, but MEPH 'ducked out'. The forward analysis here went 32.\( \text{\text{\text{P}}}\) d3.\( \text{\text{\text{P}}}\) 2 \( \text{\text{\text{P}}}\) 4.\( \text{\text{\text{P}}}\) d2 \( \text{\text{\text{P}}}\) C7 What's the idea?! Incidentally MEPH is on Solid for this game — on its Active—style setting, it would have gone for the \( \text{\text{P}} \) swap... then reckons a draw by repetition was likely to follow only a few moves later!]

### 32. Wc2 宣f8 33. 包d1 Wb7

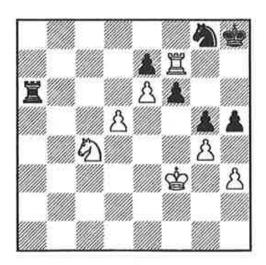
[SS64 eval -12 >Ne3. There should yet be some interesting chess to come in this one, we think!] =

Our next 2 games are 'revenge' issues against long—time SS reader Roy Thomas, who is seeking to equalise a minus score from previous games against MEPH. As

we rejoin, he's threatening to do it as well!

Roy THOMAS, BCCS 2448 (2445) – Vancouver 020 (2275) [B09]Corr 29, 1995

51.2c4 h5



[SS63 eval -130 >d6]

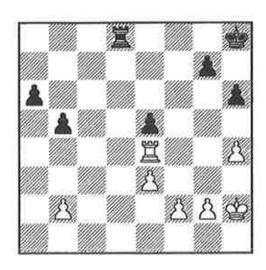
52.中e4! hxg4 53.hxg4 日a8 54.中f5 [Roy sent the next three moves provisionally. MEPH checked them through and could find nothing better, even though it evaluated at -636 by move 56!] 54... 12h6+55.中g6 2xf7 56.中xf7 f5 [56... 日c8 57.中xe7 日xc4 58.d6+] 57.中xe7 fxg4 58.d6 1-0

Roy's technique, as he advanced the d and e-pawns with his king, has been quite unstoppable. A fine game, Roy, and our congratulations. Here is the second one, in which we need to hold on, to stay all square in our games with him.

### <u>Vancouver 020–Roy Thomas (2275)</u> [D03]Corr 30, 1995

47.\de4

[SS63 eval -6 > \beta d2. As we rejoin, we thought that the unbalanced \( \Delta \) structure might lead to some interesting endgame play! But an exchange of pawns will suddenly make it clear that both sides have to be satisfied with the draw! Diag. next]

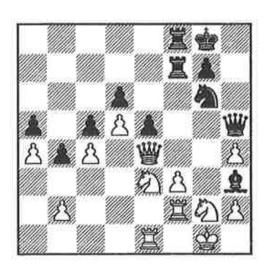


## 47... Ed2 48.b4 Exf2 49. Exe5 Ec2 50. Ee4 Ec4

[And a draw was agreed here. The most likely continuation would be 51.\(\text{\textsf{51}}\)\(\text{\textsf{44}}\) (If White exchanges \(\text{\textsf{5}}\)'s he loses of course: \(51.\text{\textsf{31}}\)\(\text{\textsf{22}}\)? \(bxc4\) wins very easily) \(\frac{51}{\text{...}\text{\textsf{2}}}\) (Here if Black exchanges \(\text{\textsf{5}}\)'s \(\text{he}\) loses! \(51.\text{...\text{\textsf{23}}}\) \(\text{\text{47}}\)? \(52.\text{\text{exd4}}\) \(\text{\text{498}}\) \(53.\text{\text{\text{493}}}\) \(\text{\text{47}}\) \(52.\text{\text{46}}\) \(57.\text{\text{45}}\) \(\text{47}\) \(58.\text{\text{46}}\) \(57.\text{\text{4}}\) \(56.\text{\text{45}}\) \(57.\text{\text{46}}\) \(57.\text{46}\) \(57.\t

### <u>BCCS 2352 (2350) - Vancouver 020</u> (2275) [A44]Corr 31, 1995

### 28.gxh4 🖐h5



[SS63 eval +166 > Eef1, after which MEPH intends 2f4. I had thought a couple of Issues ago that MEPH's 100+ eval was

being a little optimistic, despite weak squares around White's king. However the mail reached Phil as he was posting the games to me, and the move played was 29.2fl accompanied by the comment, "the end is in sight". Here is how MEPH 'polished' his opponent off...

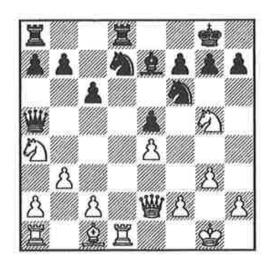
## 29.2f1? @xg2 30.2g3 \\diph6 31.\dipxg2 2\xh4+32.\diphh1 2xf3 33.\dipee2 \dipf6f4

[White resigned here. MEPH showed +378 and a likely end to the game might have been: 34.世d3 公d4 35.置xf4 exf4 36.置e1 (36.分f1 公xe2 37.世xe2 f3 38.世e6+世xe6 39.dxe6 置f4—+) 36...fxg3 37.世xg3 世f4 38.世xf4 置xf4—+] 0—1

MEPH started two new games against another intrepid SS reader in the last Issue. Phil, bless him, took the opportunity to force MEPH to play 1.g3 d5 2.Bh3 (named the Becket Opening, as the king's bishop doesn't last long!). "I am always pleased to play unusual openings", said our opponent, "and like to try and get out of the book as soon as possible". You don't have to try when you're playing MEPH and Phil, Denis – we do it for you!

## Vancouver 020-Denis Humphrys (2275) [A00]Corr 33, 1996

### 13.2g5



[SS63 eval. -21 >h6.]

[Posted with conditional moves 19-21 inclusive - often ominous, but accepted by MEPH]

19.2d3 2xd3 20.cxd3 a4 21.2f3

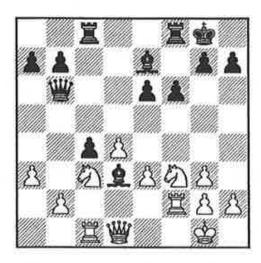
[21.bxa4 \(\frac{1}{2}\)xa4 \(22.\frac{1}{2}\)f3 \(\frac{1}{2}\)da8 should suit Black]

21...b4 22.\(\partial b\)2 a3 23.\(\partial c\)1 \(\partial c\)5 24.\(\partial c\)3 [SS64 eval +15 >\(\partial c\)xe3] =

## <u>Denis Humphrys (BCCS 2400) (2400) – Vancouver 020 (2275)</u> [D10]Corr 34, 1996

Game 2 against Denis, a Slav, made a quiet start. Here is the current position and evaluation, as the game starts to 'warm up' with MEPH showing a small plus, no doubt due to White's set of pawn islands.

### 20.罩f2 全d3

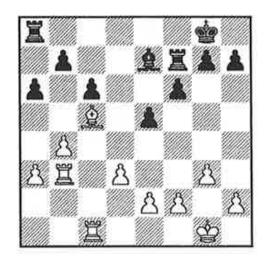


[SS64 eval +42 > 20 el] =

### <u>BCCS 2459 (2460) - Vancouver 020</u> (2275) [A29]Corr 35, 1996

This new game started in SS63 has, from an English Four Knights, Carls Bremen, rushed straight to the endgame. Though the position is equal at this moment (see Diag. opposite), we anticipate/fear a demonstration of human endgame expertise, which may give MEPH some difficulties. Maybe an upgrade to the LONDON program would be timely right now, Phil?!

19.**£c5 Ēf7**[SS64 eval −3 >**Ĕ**c4] =



Finally yet another promising new game just started. Queen's Pawn, Torre Attack?

<u>BCCS 2368 (2365) - Vancouver 020</u> (2275) [A46]Corr 36, 1996

1.d4 e6 2.ûf3 ûf6 3.ûg5 c5 =

2459 Current GAME 35

[We are hoping for the usual 4.e3 as MEPH has book on that... but nothing on 4.e4!]

BCCS TOP TEN (out of 483 players!)
2582 A.N.OTHER
2536 Completed GAMES 24, 25
2504 Completed GAMES 26, 27
2495 Completed GAME 28
2483 A.N.OTHER
2478 A.N.OTHER
2474 A.N.OTHER
2464 A.N.OTHER
2461 MEPH

### RATING LIST COMMENTS

Recent results v. humans, and the AEGON Tournament in particular, have resulted in an overall drop in the Rating List level (some 15 Elo at the time of writing, 7/May 1996). GENIUS3 may even be top partly because it wasn't at Aegon '96!?

Cp. '95		and '96!	
GENIUS3	2662	GENIUS4	2147
HIARCS3	2631	HIARCS4	2348
MChess PRO4	2652	MChess PRO5	2393
REBEL6	2403	REBEL7	2263

A brief gulde 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 (Elo - 600) /8, or from USCF figures by (USCF - 720) /8.

**£'00**. The cost in Britain. [1] = £100; [10] = £1,000.

a '+' after the price means it can cost more, usually as there is a choice of boards for the program.

a '-' after the price Indicates that it is probably an out-of-date model or version. The price is its original cost - you may be able to buy it second-hand and cheaper now, depending if you can find one! If '-' is shown for an upgradeable program (e.g Mephisto Rebell, Portorose, Lyon, or Kasparov Maestro, Analyst), owners may well be able to buy an upgrade module.

Elo. This is the Rating figure which is in popular use Worldwide. The BCF and Elo figures shown in SELEC-TIVE 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 <u>movement</u>, 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 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** represents the program running on a Pentlum at approx. 90-100MHz, with 8-16MB RAM.

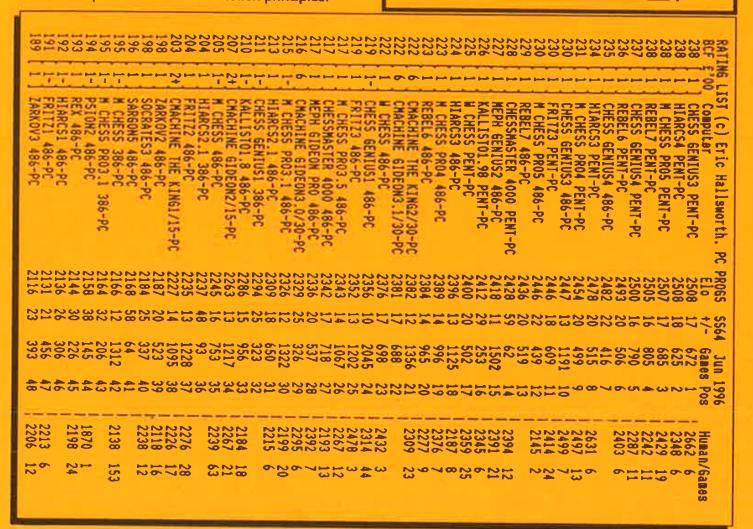
Users will get slightly more (or less!) in each case, if the speed of their PC is significantly different. A <u>dou-</u> <u>bling or halving</u> in **MHz speed** = approx. **60** Elo; a <u>doubling or halving</u> in **MB RAM** = approx. **10** Elo.

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ARTICLES, RESULTS, GAMES etc are welcome and should always be sent <u>direct to Eric</u>, pleasel



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KASPAROV MAESTRO D/10  KASP GK2000/TURB ADV TR  FID MACH2B  MEPH MACH2C  MEPH MACH2C  FID MACH2B  FID TRAVEL CHANFION  KASP ROBY ENERT CARLO  MEPH SUPERHOUDZ/MCARLO4  FID CARD PLY-VICTORIA/5.5  KASPAROV MAESTRO C/8  MEPH MONTE CARLO  CONCH PLY-VICTORIA/5.5  FID CLUB B  FID CLUB CLUB CLUB CLUB CLUB CLUB CLUB CLUB
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