

SELECTIVE SEARCH 112

THE COMPUTER CHESS MAGAZINE

Est. 1985

Editor: Eric Hallsworth

Jun-Jul 2004

£3.95



Regular contributor
Rob van Son
with his rather
gorgeous **Fidelity
Prestige** board at
9th. Gebruikers

IN THIS ISSUE !

- | | |
|----|--|
| 2 | Computer Chess: BEST BUYS |
| 3 | NEW PRODUCTS, NEWS and RESULTS including:
Swedish Ratings - FISCHER RANDOM chess - The 5 MOVES Tournament - Frank HOLT results - Palm HIARCS |
| 6 | The BRUTUS-HYDRA project
Carl Bicknell and Eric Hallsworth update the news on progress |
| 10 | HYDRA wins PADERBORN 2004!
Fritz and Shredder beaten (at last) - RESULTS and ANALYSED GAMES |
| 15 | The TURBO Chess Computers of Ruud MARTIN
FASCINATING article by Rob van Son, with photos of souped-up computers! |
| 22 | Game of the YEAR, part 2
Hiarcs and Shredder batter it out in Frank Holt's Sicilian Keres Attack!! |
| 24 | More STAR SAPPHIRE and DIAMOND NEWS, GAMES & RESULTS |
| 30 | LATE NEWS
9th. Gebruikers, won by the Kasparov RISC 2500, and 4th. CSVN, won by Shredder... revenge over Brutus! |
| 31 | Latest "Selective Search" PC and DEDICATED COMPUTER RATINGS |

- **SUBSCRIBE NOW** to get a REGULAR COPY of the LATEST ISSUE and RATING LIST mailed to you as soon as it comes out!
- **£22** per YEAR for 6 ISSUES by mail in UK. EUROPE addresses **£25**, elsewhere **£30**. For FOREIGN PAYMENTS CHEQUES must be in POUNDS STERLING, or (best for you) use a CREDIT CARD.
- **PUBLICATION DATES:** Early Feb, Apr, Jun, Aug, Oct, late Nov.
- **ARTICLES, REVIEWS, GAMES** sent in by Readers, Distributors, Programmers etc are more than **welcome**.

Visit the **SELECTIVE SEARCH & COUNTRYWIDE** web pages:
www.elhchess.demon.co.uk



Reviews, Photos, best possible U.K. prices for all computer chess products. Order Form, credit card facilities, etc.



■ **SELECTIVE SEARCH** is produced by **ERIC HALLSWORTH**.
CORRESPONDENCE and SUBSCRIPTIONS to: Eric Hallsworth, 45 Stretham Road,
Wilburton, Cambs CB6 3RX. 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 for INFO or to ORDER.
- **FREE CATALOGUE.** Readers can ring **ERIC** at **COUNTRYWIDE**, Mon-Fri, 10.15am-4.45pm

CHESS COMPUTERS AND PC PROGRAMS... THE BEST BUYS!

RATINGS for these computers and programs are on the back pages. This is not a complete product listing - they are what I consider to be current **BEST BUYS** bearing in mind price, playing strength, features + quality.

Further info/photos can be seen in **Countrywide's CATALOGUE**, available free if you ring or write to the address/phone no. on the front page.

Note the software prices! - some retailer prices seem cheaper, but there's a post & packing charge at the end!... **our insured delivery p&p is FREE to SS folk.** Adaptors are £9 extra. **Subscribers Offer:** buy from **Countrywide** and deduct **5% off dedicated computer prices** shown here.... **mention 'SS' when you order.**

■ PORTABLE COMPUTERS [por]

Kasparov

ADVANCED TRAVEL (was BRAVO) **£34.95** - plug-in set with Centurion program! 160 BCF. Scroll-in display. Amazing value!

TOUCH SCREEN travel - new version of the Cosmic, great product **£39.95**, or with soft leather case **£49.95**. Decent chess. est'd 125 BCF

new!! EXPERT £99 - replaces COSMOS - great value! 4½"x4½" plug-in board, strong Morsch program. Multiple levels. info display & coach system.

Novaa

STAR SAPPHIRE £179 - the long-awaited and very strong 200 BCF touch screen model. Fits just nicely in the pocket in its pouch carry case with pen

■ TABLE-TOP PRESS SENSORY [ps]

Kasparov - price for these 3 incl. adaptor!

CHALLENGER £69 - Cougar '2100' program in newly designed board, a v. good value-for-money buy

TALKING CHESS ACADEMY £99 - good 160 BCF program, and packed with features incl. display and voice option!

MASTER £139! - the Milano Pro program + features, in attractive 13"x10" board. Strong, with info display. No laptop lid, but has plastic carry case.

Novaa

OBSIDIAN reduced price! £120 - with nice carry case! Nice board, excellent features and chess

STAR DIAMOND £199 - long awaited, brilliant, strong new 200 BCF model. With nice carry case

Mephisto

ATLANTA reduced price! £325 - the fast hash-table version of Milano Pro/Master = even greater strength. Easier to use 64 led board. Laptop lid

■ AUTO SENSORY [as]

Excalibur

GRANDMASTER £199! - big 2" squares, green & white vinyl USA tournament style auto-sensory surface. Looks great! Plays to 150-160 BCF

Mephisto

EXCLUSIVE - reduced price! All wood board and nicely carved wood, felted pieces. Superb to play on, display for user-selectable info, and 190 BCF with **SENATOR** (Milano Pro/Master) program **£449**

■ PC PROGRAMS from CHESSBASE on CD

All run **INDEPENDENTLY** + will also analyse within ChessBase8. Great graphics, big databases + opening books, analysis, printing, max features. If a **NEW VERSION** should come out between **SelfSearch** arrival and your order, I'll always send you the very latest version!

FRITZ 8 £39.95 - by Franz Morsch. Extra chess knowledge for real **top strength** - a beautiful program! Superb Interface, 'net connection, terrific Graphics. Excellent in both analysis and play, game/diagram printing. Good hobby levels, set your own Elo, many helpful features.

DEEP FRITZ £75 - the **new** '7/8' program for single, dual & quad processors, giving GM strength on multi-processor machines. The same engine which drew 4-4 with **Kramnik!**

JUNIOR 8 £39.95 - an updated version of the engine which drew 3-3 with **Kasparov**. Is very potent and aggressive, also highly suited to computer v computer chess.

DEEP JUNIOR 8 £75 for dual & single PCs!

HIARCS 9 £39.95 - **new** version by Mark Uniacke. Simply outstanding: knowledge packed yet running faster+stronger than ever! All the latest superb Chess-Base features + Opening Book by Eric Hallsworth.

SHREDDER 8 £39.95 - Meyer-Kahlen's latest in the ChessBase Interface. Includes multi-processor switch! Feature-packed & knowledge-based playing stylish chess. **Multi version** won the World Championship.... again! and tops our Rating List

CHESS TIGER 15 £39.95 - the ChessBase version gives compatability with other ChessBase products, which the Lokasoft version doesn't. Same strong Tiger program, playing style settings include Gambit etc. Jeroen Noomens quality opening book, and CD also includes main 4 piece Tablebases

POWERBOOKS 2003 £39 - turn your ChessBase playing engine into an **openings expert!** 7.6 million opening positions + 750,000 games!!

ENDGAME TURBO CD's £39 - turn your Chess-Base playing engine into an **endgame expert** with this 4CD Nalimov tablebase set!

■ Other PC PROGRAMS on CD

CHESS TIGER 15 £46. The Lokasoft version of Christophe Theron's Tiger program and includes new Noomens opening book and main 4 piece Tablebases

■ PC DATABASES on CD

CHESSBASE 8.0 for Windows £99 !!
The most popular and complete Games Database system, with the very best features. 2.3 million games, players encyclopedia, multimedia presentations, search trees, opening reports and statistics, superb printing facilities and much more, incl. 3 recent Chess-Base magazines on CD!



NEWS & RESULTS - KEEPING YOU RIGHT UP-TO-DATE IN THE COMPUTER CHESS WORLD!

Welcome to another new issue of *Selective Search*... 112! If you're due for renewal at this time, can I encourage you to please do so! There will be at least 6 more issues of the magazine.

Occasionally readers ask me to let them know when their sub is due for renewal. The label on your envelope enclosing each issue always shows the number of the last issue covered by your current sub. so it's easy for you to keep a check on it, and make sure I've updated you correctly after a payment has been made.

Change of ADDRESS

Please note that I have moved! The new address is on both the front and back covers, as well as on renewal reminders I've sent out, so there's no need to repeat it here. The move was the main reason *SelSearch 111* reached you all a little late, and I'd guess at the moment that this and possibly the next issue may also be a few days late.

I can't recommend moving at all! It's 15 years since we last did it, but it has become much more complicated. It's not the sorting and preparing, nor getting of the furniture into the van, not even getting it out at the other end (only ½ a mile away) that's the problem. It's getting Banks (they're the worst), Powergen, BT, Councils and Water Boards, the Driver and Vehicle Licensing bodies etc etc to believe that you've moved, and even accept that you are who you say you are. That despite putting everything carefully in writing at least once, and some also phoned more than once when nothing has happened.

A few wanted photographs, two wanted birth certificates, others wanted new forms signing by both my wife and myself with documentation to prove we are who we say we are... it's been quite incredible. If we'd moved to Wilburton from somewhere in Europe or even the other side of the world it couldn't have been as difficult as it's been... but no, we're not even changing county or village, we're staying with the same Bank, the same

electricity and water boards, the same local Council and they just seem unable to cope. I guess I really need to have a prison record to easily prove who I am.

One bank was a wonderful example! My wife and I have a joint account but, on receiving our instructions to note our change of address and cancel the Standing Order for our rent at Te Red House, changed the records for me whilst leaving Chris at our old address, and refused to change the address for her unless she filled in forms and went in with proof of identity. The fact that we've been married for 37 years and banked (until now trouble-free) with them in Ely for 15 years counted for nothing and it took just over 5 weeks to sort out. The same bank also excelled when it came to dealing with our Standing Orders. The main reason for our move was financial - rising Council Tax is bad enough, but even it couldn't compete with our Rent rises over the past 3 years, and when we got another £50 a month added for this year it was just too much, especially with my income dropping slightly each year.

We instructed the bank in writing on 2/April to cancel our rent Standing Order for The Red House. On 7/May when I checked our Statement on the Internet the account was clearly some £400-500 light, and I quickly found they'd paid the May rent for The Red House despite our instructions. They'd also put our new Standing Order through for our new rent at 45 Stretham Road, so our current account was in a much worse state than if we'd not moved.

It's all been close to unbelievable, and receiving each morning's post so far just adds to the stress and hardly ever clears anything up. Even this very morning I've received my *Selective Search* bank statement... forwarded on from our old address! Perhaps I am not me after all.

Swedish RATINGS

The SSSDF ratings still list 4 programs not yet in *SelSearch*. I've done a quick adjustment from Swedish levels to ours, so the following

approximate ratings should apply to the 4 programs still awaiting inclusion here:

- 2660 Chessmaster 9000
- 2631 Rebel-12
- 2616 Deep Sjeng 1.5a
- 2560 Ruffian 2

I'll try to get results added as soon as I can - I am aware of the fact that the **SSDF** prefer ALL of their ratings to be included if ANY are, so I apologise to them for using a small selection of their results in this way.

Fischer Random Chess for Computers!

Armin Duerr on his 'beepworld' web site shows a chess computer tournament table for **Fischer Random Chess [FRC]**.

As most readers know the chess engines are not able to exactly fulfil the **Fischer Random** requirements, as they have problems with the full castling rules.

Therefore Armin uses the 15 FRC positions in which the king and rooks are placed on their usual squares - i.e. White Ra1, h1, Ke1, and Black Ra8, h8 and Ke8 - and only the queens, bishops and knights are 'shuffled'. But with this the engines can castle normally, so for the resulting 15 set-ups it is real FRC.

Armin's **Tournament Table** has 21 programs listed, each having played all of the others on both the black and white sides of every one of the 15 FRC positions!

Readers can imagine it is quite a task adding any new engine as it has to play no less than 600 games!! Even though the time control is a relaxed G/10mins + 5secs per move, that's still a long haul.

When a new engine comes out which Armin believes is worth testing, it is tried against every opponent on a selection of the FRC positions. If these initial results make it seem likely that it might take a 'top 21' place, the full set of games is completed.

If it then makes the top 21, then the program previously in 21st. position drops out!. This means that even the positions right at the top can change, as we shall see!

Fischer Random Test Table

Pos	Program	/600
1	Hiarcs 9	428
2	Fritz 8	413½
3	Shredder 7.04	412
4	The King 3.23 (sel=12)	387½
5	Chess Tiger 15 (style=normal)	359
6	Junior 8	350
7	Ruffian 2	331
8	SOS 4/V3	315
9	List 5.04	306
10	Rebel 12	302
11	Deep Sjeng 1.5	288
12	Fritz 5.32	287½
13	Delfi 4.1	252½
14=	Aristarch 4.6 Nimzo 8	244½
16	Little Goliath 2000 v3.9	235½
17=	Crafty 19.03 Pepito 1.59	233
19=	Anaconda 1.0 El Chinito 3.1c0	231
21	Yace Paderborn	215½

I'll continue to check the website from time-to-time, especially before each issue of *SelSearch* so that I can update the table when necessary.

The '5 Moves Tournament'

This Tournament comes from the **Utzinger-Buhler** site where they have been running this rather unusual but very interesting event. Their idea, which is to give all the programs the same Opening Book, but it isn't a 'normal' super-large Book as it comprises a range of carefully chosen varied openings by Michael Scheidl, which go only 5 moves deep! Thus variety is guaranteed but the engines are out of Book and on their own from move 6!

The **5Moves** tournament is being played engine-engine on an Athlon/1300 at G/90 mins +30 secs. Book learning switched off.

At the time of *SelS 110 5* all-play-all rounds had been played, and **Hiarcs9** held a small lead with 20½/35, ahead of **Junior8** with 18½. The King was 3rd., whilst Fritz8 and Shredder7.04 shared 4=.

But when Utzinger replaced Shredder7.04 with the new **Shredder8** things were very

different. Hiarcs9 in particular suffered being 6½-2½ down to the newcomer after 9 completed rounds, and now Shredder8 (45/65) went to the top. The King was 2nd. but a long way behind on 34½, with Hiarcs9 and Chess Tiger15 3= on 32.

Here now is the full **Final Table**:

5Moves 2004 Tournament

Pos	Program	/70
1	Shredder 8	49
2	The King 3.23	36½
3	Ruffian 2.0	34½
4=	Hiarcs 9 Chess Tiger 15 Fritz 8	33½
7	Junior 8	32½
8	Rebel 12	27

The testers, **Kurt Utzinger** and **Rolf Buhler** have indicated that they intend to study the games, to try and understand how Shredder8 can possibly win by so much.

Is it really that much better than everything else?! I'll let you know what they say as soon as they've said it!

Stefan Meyer-Kahlen has a new website, with info on **Shredder8** running under his own interface. A report by Stefan and myself with further details, next Issue!

■ www.shredderchess.com

Frank HOLT tests SELECTED OPENINGS!

Frank has been testing the top programs to see how they play some of his own favourite openings... it is these matches which have already produced a 'Game of the Year' for us, which we saw first in *SelSearch 111* and again in this issue (page 22).

The Openings Frank is using are...

- A61 - Modern Benoni. 1.d4 Nf6 2.c4 c5 3.d5 e6 4.Nc3 exd5 5.cxd5 d6 7.Nf3 g6
- B81 - Sicilain Scheveningen, Keres attack. 1.e4 c5 2.Nf3 d6 3.d4 cxd4 4.Nxd4 Nf6 5.Nc3 e6 6.g4
- C86 - Roy Lopez, Closed. 1.e4 e5 2.Nf3 Nc6 3.Bb5 a6 4.Ba4 Nf6 5.0-0 Be7
- D49 - Queens Gambit, Meran variation. 1.d4 d4 2.c4 c6 3.Nf3 Nf6 4.e3 e6 5.Nc3 Nbd7 6.Bd3 dxc4 7.Bxc4 b5 8.Bd3 a6 9.e4 c5
- E11 - Bogo Indian. 1.d4 Nf6 2.c4 e6 3.Nf3 Bb4+

Games are played on P4/2800 equipment, and use a range of time controls from G/30-G/120 and 40/30-40/120. Here is the results table:

Pos	Program	Score/70
1	Shredder 7.04	40½
2	Fritz 8	38½
3	Chess Tiger 15	37
4	Hiarcs 8- Bareev	35½
5	Shredder 8	35
6	Junior 8	34
7	Hiarcs 9	31
8	Fritz 7B	28½

Mark Uniacke's Palm HIARCS

There should have been further coverage on the development of **Palm Hiarcs** in this issue, but it's been crowded out. Sorry Mark!

However the **news is extremely good!** Mark has successfully completed the work I described in our last issue: reducing some parts of the code (e.g. a re-writing of the ♔+♜ endgame code saved loads of code without hurting the play at all), and then separating the program into two sections to get each part under a 96K ceiling to maximise the speed available with the Tungsten models.

The immediate effect was a 12x speed-up, and over the 10 days he found other ways to tweak both the code and the compilation procedure. Right now the new coding runs **18x** faster on my Zire21 126MHz, and about **30x** faster on Mark's 400MHz unit!

The difference this makes to the chess is quite staggering. Mark has a **Mephisto RISC1** by Ed Schroder (205 BCF) and at G/5 Palm 400MHz HIARCS beat it a straight **10-0!**?!

On my **Palm Zire21** it went 5½-½ at G/15 against a second-hand **London 68000** (193 BCF) I had at Countrywide, but I've now sold the London so that match has had to end.

I have to conclude it's definitely over 225 BCF (2400 Elo) on my 126MHz unit, and surely close to 2500 on Mark's 400MHz Palm. I'll squeeze in a game or two next time.

It should be available in 2-3 weeks, with the option of a small/30,000, medium/100,000, or total/550,000 position opening book by myself and Mark. For the latest news visit:

■ www.hiarcs.com/prod03.htm

THE BRUTUS-HYDRA PROJECT

BRUTUS got a few mentions in our last issue - firstly because I've been promising to include a couple of its 'surprise' defeats from the 2003 WORLD COMPUTER CHAMPIONSHIP, but also because of its unexpected name change from Brutus to **HYDRA**.

For whatever reason Brutus seems to have repeatedly 'flattered to deceive', its performances rarely if ever coming up to either the level that the massive power suggests it should (on its full power of 16 x P4/2800 cards it achieves 30 million nodes per second!), or the claims from the Brutus team that 'it scores 70-75% against all the top software programs'. In nearly every tournament it has lost some or all of its games to Shredder, Fritz or Junior, and traipsed in below the top in 2nd, 3rd, or 4th.

Here's 2 games as promised from the 2003 WCCC.

In our first game Brutus apparently errs in the opening. The interesting thing is that Shredder's 11.Kb1 is supposed to be an inferior line, but apparently it knows something about Brutus which others don't?! It also knows more positionally about creating and handling a dangerous passed pawn.

Shredder - Brutus

Round 5. Opening B97- Poisoned pawn variation of the Sicilian Najdorf

1.e4 c5 2.♘f3 d6 3.d4 cxd4 4.♘xd4 ♘f6
5.♘c3 a6 6.♙g5 e6 7.f4 ♖b6 8.♘b3 ♙e7
9.♗f3 ♘bd7 10.0-0-0 ♗c7 11.♖b1?! b5
12.♙d3 ♙b7 13.a3



13...0-0-0?! 14.♙e2

14.♙g3! is even better I reckon, but Shredder has this prepared line of its own ready for the occasion

14...♖b8 15.♗hf1 h6 16.♙h4 g5 17.♙e1 gxf4 18.♗xf4

The Shredder g+h pawns will create a distant passed pawn

18...♗dg8 19.♙h4 ♗g6 20.♗df1 e5 21.♗f5 ♗c8 22.g4! ♙d8 23.g5 hxg5 24.♙xg5 ♙e7 25.h4!



The key to the win!

25...♗d8 26.♙e1 ♗c7 27.h5

And now a series of exchanges will increase the potential of White's h-pawn

27...♗xg5 28.♗xg5 ♘xe4 29.♘xe4 ♙xe4 30.♙xe4 ♙xg5 31.♗xf7 ♗f8 32.♗xf8+ ♘xf8 33.♘a5 ♖c8 34.♗g1!



34...♗xa5?

Exchanging the a5-♘ and allowing White's queen onto g5 to support the h-pawn can only be good for Shredder. Therefore 34...♙h6 seems much better. Searching as deep as you want doesn't always do enough when the opponent knows more about the essentials of the position than you do.

35.♙f5+ ♖b7 36.♗xg5 ♗c7 37.♙e4+ ♖b6 38.h6 ♗b8 39.♗g1+ ♖c7 40.♗g7+ ♖b6 41.b4 a5 42.♗g1+ ♖a6 43.♗g8! ♖a7 44.♗d5 ♘g6 1-0

The second game is tactical and perhaps even more stunning. In complications Junior is the first to go wrong - against 30 million nodes per second in a complex position that's maybe not so unexpected.

But, when in an almost won position, Brutus starts to miss the best moves, Junior brilliantly claws its way back into the game before shocking its opponent at the end!

Brutus - Deep Junior

Round 6

We join the game after White's 34. ♖e1



So far, though the position is complicated, chances are about equal. But now Junior goes wrong
34... ♖f8?!

34... ♖c5 seems best, maintaining queen-side pressure. And if 35. ♘xb4 ♖f3! which is a clever move maintaining a tense equality by threatening either a queen or rook check on f2 which will win back the pawn
35. ♖d5! ♗g5 36. a5 ♖a7 37. ♘xb4 ♖c1
38. ♖d1 ♖c8 39. ♘c2 ♖c5 40. ♘a3 ♗e3 41. b4 ♗d4+ 42. ♖b3 ♖c7 43. ♖d3 ♖b8 44. b5 ♗c5



Clearly Brutus has a more than worthwhile advantage here, with the dangerous a and b pawns. But it begins to go wrong...
45. ♖c3

45. ♖d5 is favoured by Shredder (and Hiarc... so that proves it's best!). Now
45... ♗xa3 46. ♖xa3 ♖c2 47. ♖d2 ♖xd2

48. ♖xd2 ♖xb5 49. ♖a4 with a probably winning advantage after 49... ♖b1 50. ♖a2! ♖b8 51. a6

45... ♖c6 46. ♖b4

An amazing position, both queens are en pris!

46... ♖c7 47. ♖c3 ♖b7

The ensuing exchange changes the material balance and transfers all the initiative to Junior

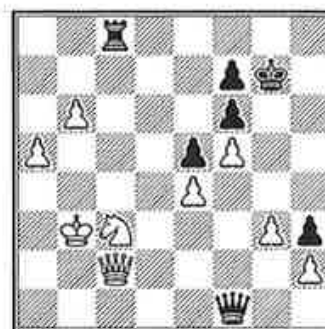
48. ♖xc5

If 48. ♖c4? ♖a6! 49. ♖d3 ♖xa5 and Black is already winning

48... ♗xc5 49. ♖xc5+ ♖g7 50. ♖d5 ♖e7 51. b6 ♖d8! 52. ♖b5 ♖d6 53. ♖e2 ♖c5 54. ♗b5 ♖c1 55. ♖c2 ♖f1

Junior isn't interested in a queen exchange with his ♖+♖ combining so well together

56. ♗c3 ♖c8



57. ♖b2 ♖g1 58. ♖b3 ♖c5

The a-pawn can't be saved which means the b-pawn will probably go as well!

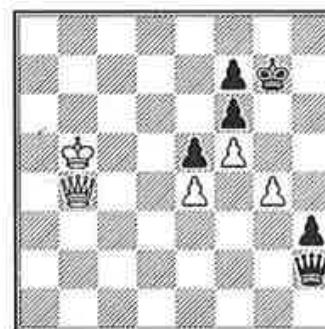
59. ♖d3 ♖xa5 60. ♖e3 ♖c6 61. ♗d5 ♖b5+ 62. ♗b4 ♖xb6 63. ♖d2 ♖f1 64. g4 ♖b1+ 65. ♖a3 ♖b5

Threatening ♖a5 mate

66. ♖a4

Black now produces a mean combination to win the game with his h-pawn

66... ♖xb4+! 67. ♖xb4 ♖a2+ 68. ♖b5 ♖xh2 0-1



You only have to mention the name **Brutus** to **Carl Bicknell** to get his immediate

attention! Indeed he has managed on more than one occasion to chat on the 'net to its operator there. A few weeks ago he sent me the following e-mail:

Dear Eric,

I've just got some interesting news for you! I was online today in the engine room in playchess.com and Brutus was online. However, it gets confusing from now on because they seem to have changed their name to **Hydra**.

I'm certain it's the same product because ChessBase said so.

Anyway the interesting thing was I managed to talk to the operator and he told me that at full power (that is with 16 cards!) Hydra searches at 30 - 35 million positions / sec!! That's 16 cards linked to 16 P4/2.8Ghz P.C's....

Assuming an identical quality of programming with the best P.C progs that would give Hydra approximately a 32 x speed increase over most chess programs, assuming they search at 1 million n/s on a fast single processor machine.

This is a 5 x speed doubling, which allowing for a conservative 25 Elo points per doubling of speed would mean it is 200 Elo points stronger than any P.C program! That would give it 75% in a match with the P.C progs.

Of course neither of us thinks that is the case.... Hiarcs runs at a fraction of the speed of Junior and is just good. However, the Hydra team would argue that that's because Hiarcs has more knowledge than Junior, but their prog would have even more knowledge than the most knowledge based P.C prog because of their special ability not to lose speed as knowledge increases, thus making

Hydra MUCH stronger in theory. Their operator says that Hydra on 16 x P4/2800 cards plays at 140 Elo points more than Shredder8 on a 8x multi-P4/2800 PC. This is incredible if true and must put its rating near to 3000 Elo.

The interesting thing is that Brutus/Hydra has played some 600 games and 'only' had a rating of 2626!! which placed it at about 84th in the world according to the ranking list. The operator said he was playing with only 4 cards but that still = 8 million n/s....more than even a quad processor machine.

This perplexes me a bit. The only conclusions I can come to is that either a) the Hydra prog isn't actually that good and is SAVED by it's high speed and/or b) once you get to a certain speed any further increase yields very little return.

This might shed new light on the theoretical P.C v Deep Blue match that never happened.

Carl

Carl and I have spoken since and, of course, we agreed that the figures wont add up, as they would indicate Hydra is not only much stronger than any PC program, but also way stronger than Kasparov (even at his best of a few years ago)! This seems very unlikely in truth, and the results just don't support it. As Carl also added after some reflection - "*speed seems to count for little against humans, we mustn't get ahead of ourselves!*".

Nevertheless the subsequent name change from Brutus to **Hydra** appeared (in its first tournament) to have done the trick, when it won at Paderborn as we reported in brief last issue.

Was the name change to wipe the slate clean, or was there some new chess programming that warranted a fresh start?!

Certainly the **Hydra** performance at

Paderborn gave hope that it might yet be the next 'Champion' from the PC world to challenge Kasparov, Kramnik, Anand - depending who of them and others comes out on top of the hoped-for World Championship cycles currently being planned.

Paderborn is discussed elsewhere in this issue, but basically....

- 6½/7 HYDRA
- 5½ Fritz
- 5 Shredder

The next Hydra event was to be in the **4th CSVN Tournament**, in Leiden, The Netherlands. Again there is coverage of this event elsewhere in *SelSearch*, but this time despite it's appearance again on the full 16 cards and with Xeon 3.06 processors (compared with Shredder on a single AMD/3400), Hydra returned to its Brutus-like underachieving self.

- 8/9 SHREDDER
- 6½ Hydra
- 6 Ruffian, Diep

Subsequently Carl and I had another discussion, and he e-mailed:

I don't have any new info that isn't on the website because the Hydra team have stopped playing on the ChessBase server! Maybe they've got a new version in the pipeline, or maybe they're embarrassed about claiming up to ~160 Elo stronger than Shredder8 and yet only managing a place 5 - 10 in the rankings despite now having 8 cards! Who knows?!

The Hydra team seems to blame their losses on 'bad luck' - what a shame since that's exactly what the Deep Blue team used to do when the power failed for the 4th time, or some doughnut had forgotten to switch the opening book on!

Carl

Readers may conclude from my coverage of the Brutus-Hydra project that, whilst Carl is

the optimist fully expecting and hoping that it will lead somewhere really worthwhile soon, I don't expect much of it and dislike the hype... or am frightened of it beating Hiarcs!

Not so at all. Actually we even have 'net games showing that Hiarcs on a single processor has a plus score against the 8-card Hydra! But a £1,000 Hydra component to install in your desktop PC, that really did 'eat' the single processor PC programs, would be a great boost to our business at Countrywide!

It would remind me of the days when we used to sell at least one Exclusive Vancouver, or Exclusive RISC or Tasc R30 every week, and would be much more profitable and easy (for me) than selling and parcelling, say, 30 x Fritz, 15 x Chess Challenger, 8 x Master, 5 x Star Diamond, or even 2 x Exclusive Senator.

Despite the ever-present need to earn money, the fact is I remain unconvinced.

Perhaps my doubts centre on main programmer Dr Chrilly Donninger, whose fast-searcher Nimzo never truthfully inspired me greatly? Okay, so they're adding loads of knowledge 'free' because it wont slow the program down. If it was chess knowledge added by a Meyer-Kahlen or a Uniacke, perhaps I'd be more excited.

Also I remember those cards for The King and Gideon we once plugged into the back of our 286 PC's - wow, that's a long time ago! At Countrywide as I recall we only sold maybe 2 or 3, but I had one for my Epson 286!

The playing program used to crash my computer with annoying frequency (it was my PC's fault according to the European distributor), and anyway within only a year or two we had progressed to 486 PC's and the cards lost their place near the top of the rating lists and thus their attractiveness. I'm not saying there would be operating problems this time, there probably wont... but I'd prefer to wait and see for a little while longer.

You can be sure that when there is a £1,000 set-up that really will yield repetitive, repeatable 55% and 60% scores against the Shredder-Hiarcs-Junior-Fritz programs of the day.... I will be among the first to let you know, and ask for your money!

HYDRA wins PADERBORN 2004

The incredible winning run of **Shredder**, in both its 7 and 8 versions, was finally broken at **Paderborn** where **Hydra** (previously known as Brutus) came 1st. Of course Hydra plays on 16 x P4/2800 processor cards, so a win was 'on the cards' (sorry!) sometime or other.

It's name comes from Greek mythology in which it is alluded to as a 9-headed monster that fought with Hercules. At the reality end it is programmed by Chrilly Donniger, Alex Kure and Ulf Lorenz, with an opening book by Erdogan Gunes. It runs on FPGA hardware, originally developed by *ChessBase* and further advanced by experts at the University of Paderborn. This project has been discussed in *SelfSearch* previously.

The full entry list was:

- **Ikarus** - Germany - Muntsin & Munjong Kolss
- **Comet** - Germany - Ulrich Turke
- **Diep** - Holland - Vincent Diepeveen
- **Fritz** - Germany - Franz Morsch, Mathias Feist
- **YACE** - Germany - Dieter Burssner, Carlos Pesce
- **Quark** - Germany - Thomas J Mayer
- **Patzer** - Germany - Roland Pfister
- **Hydra** - UAE - Doninger & co, as above
- **Shredder** - Germany - Stefan Meyer-Kahlen
- **Anaconda** - Germany - Frank Schneider, Kai Skibbe
- **Gandalf** - Denmark - Steen Suurballe, Dan Wulf
- **Matador** - Germany - Stefan Knappe
- **BlackBishop** - Germany - Andreas Herrmann
- **SOS** - Germany - Rudolf Huber
- **Isichess** - Germany - Gerd Isenberg
- **The Baron** - Holland - Richard Pijl

If you wonder where Paderborn is, then it is on the River Pader in the country which produced no less than 12 entrants for their 2004 event!

COMET has been developed from GNUchess 3.0. DIEP 'uses limited depth alpha beta with very few extensions apart from double nullmove R=3', whereas GANDALF uses 'lots of extensions'. ANACONDA aims to be intelligent rather than fast, uses Attack-tables and has nullmove set R=2. DIEP and SOS have joined SHREDDER and FRITZ in using multi-processor coding.

There were no early surprises, each of **Shredder**, **Fritz** and **Hydra** won both their opening games, as did **YACE**. The fun started in round 3, when



Shredder only managed a draw against **YACE**, and **Hydra** played **Fritz**!

Hydra 1.02 - Fritz Paderborn

Round 3, 2004 Paderborn. Opening A00

1.♘c3 *What an unusual first move!* 1...d5
 2.e4 d4 3.♘ce2 e5 4.d3 *This isn't in my Fritz8 book – it expects 4.f4 and has a couple of other moves... but not d3. A clever bit of opening preparation maybe* 4...♘c6
 5.f4 ♗b4+ 6.c3 dxc3 7.bxc3 ♗a5



These moves are not in F8, but are in Shredder's book. Here however it has 8.♞a4 and 8.fxe5, so this is definitely new territory for me. I'd have to favour Black's position, White's set-up looks quite strange 8.♞c2 exf4 9.♘f3!? g5 10.d4 g4 11.♘d2 ♞f6 12.d5 ♘e5 13.♘b3 Not 13.♘xf4? ♗xc3 14.♞xc3?? ♘f3+ winning the queen 13...♗b6 14.♘xf4 With the bishop off the

diagonal it's okay of course, and somehow White seems to have got itself a fairly promising position!? 14...♖h4+ 15.g3 ♗e7 16.c4 ♘f3+ 17.♔d1 c5 18.♙b2 ♘e5 19.♘d3 f6 20.♙xe5 20.a4 also looks strong to me, when the bishop moves ♘c3xb5, or if 20... ♘xd3 21.♙xd3 ♙c7 22.♗f2! is good for White 20...fxe5 21.♙g2 ♘f6 22.♗f1 0-0 23.♗d2 ♙c7 24.♘bxc5 b6 25.♘b3 ♙a6 26.♙c1 ♙d6 27.♗f5 ♔h8 28.c5



The pressure mounts 28...bxc5 No choice. If 28...♙b8 29.d6 ♗g7 30.♘xe5 and White has nearly won already 29.♘bxc5 ♙b5 30.♘e6 ♙a4+ 31.♔e2 ♙d7 32.♘xe5! Even better than ♘xf8! 32...♙xe6 33.♘c6 ♗e8 34.dxe6 ♗xe6 35.♘d4 ♗e7



Trying to maintain the pin ♗->♙->♔, but the pawn comes anyway! 36.e5! ♗ae8 36...♙xe5?! 37.♘c6! ♗b7 38.♗xe5 and White's a piece up 37.e6!? Surprise! ♔d1 breaking the pin looked best 37...♙c7 38.♙c6 ♗d8 39.♗e3 ♙b6?! I find it hard to believe that Fritz missed the Hydra reply to this. Surely then 39...♗b8 was better, then I'd expect 40.♗b5 ♗xb5 41.♘xb5 ♙b6 and just about hanging on though a pawn down and under pressure 40.♗xb6! axb6 41.♘c6 Fritz must have seen this deadly fork surely 41...♗d6 42.♘xd8 ♗xd8 43.♙d5 ♗e7 44.♙b3 ♗b8 45.♙c4 ♗e8 Black can't really move anything else. If 45...♘g8 46.♗f7! or if the queen moves then simply ♗xf6 46.♗xb6

♔g7 47.♗g5+ ♔h8 and 1-0 as 48.♗b2 pinning the knight 48...♙c8 49.♗xg4

Meanwhile Diep, which had lost to Shredder in round 2 beat SOS in round 3 so still had a good score.

With its win against YACE in round 4, Hydra moved on to 4/4, while Shredder played Fritz as they battled with Diep for 2nd spot.

Fritz Paderborn - Shredder

Round 4, 2004 Paderborn. Opening D41

1.♘f3 c5 2.c4 ♘f6 3.♘c3 e6 4.g3 d5 5.cxd5 ♘xd5 6.♙g2 ♘c6 7.0-0 ♙e7 8.d4 0-0 9.e4 ♘xc3?! 9...♘db4! has much the better reputation here 10.bxc3 cxd4 11.cxd4



11...f5 Shredder tries something new, and for a few moves it looks okay. 11...♙f6 12.♙b2 b6 is known, and possibly best despite the fact that 13.♗b1 has scored 2/2 from here. If 11...b6 is played a move earlier then 12.d5 exd5 13.exd5 ♘b4 14.♘e5 has a 3/3 record 12.♗e1 ♙b4 13.♗e2!? ♙c3 14.♙g5! ♗d7 15.♙c1



15...♙xd4? Everything seemed reasonably okay, but this is a fairly astonishing lapse by Shredder. With 15...♘xd4 16.♘xd4 ♗xd4 17.♗b3 ♙a5 Black is okay, though White can push him around a bit with 18.♙e7 ♗f7 19.♗d1 ♗e5, and now in fact 20.f4! ♗c7

21. ♖d8+ ♜xd8 22. ♔xd8 ♕xd8 23. exf5 gives White an imbalanced material advantage. Though the diagrammed position at move 15 looks equal enough, it seems all variations favour White in some way 16. exf5! e5 17. ♗xd4 exd4 18. ♖c5! d3 19. ♖c3 ♜d4 20. ♖d5!



20... ♜b2 21. f6! ♖h8 22. ♜h5 gxf6 23. ♕e4 And Shredder resigned – in truth it got a bit of a hammering which is a pretty rare event in the World Champion's life! 1-0

- 4 Hydra
- 3½
- 3 Fritz, Ikarus
- 2½ YACE, Shredder, Diep, Anaconda

Ikarus had made a good 3/4 start (and later was to also beat Gandalf) but found Hydra to be much too strong as the latter went to 5/5.

Hydra 1.02 - Ikarus 0.34

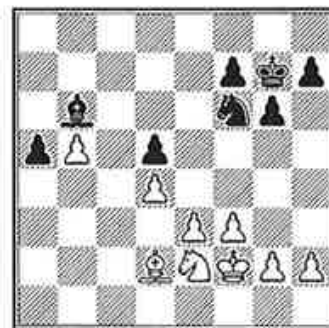
Round 5, 2004 Paderborn. Opening D45

We join the game after Hydra's 22. ♜c2



Ikarus has built up a strong attack on the queenside, but how best to pursue it!? 22... b5?! 22... ♜c7! looks best to me, increasing the pressure on the c-file and also threatening ♕xh2 23. ♖h1 (if 23. f4?! ♗e4! and I wouldn't want to be White!) 23... ♕xh2!? 24. f4 ♕g3 25. ♜f5 h5! and we

have a great position, goodness knows who has the better chances! 23. ♜d3 b4?! Probably going for too much too soon. Here I'd prefer to wait and see, and prepare a little more with 23... ♜b8 24. h3 ♗h5 24. ♗e2! The apparently promising 24. ♗xd5?! ♜xd5 25. e4 ♜b5 26. e5 ♕e7 27. exf6 ♕xf6 leaves White still under pressure 24... ♖4c7 24... ♖xc1?! 25. ♖xc1 ♖xc1+ 26. ♗xc1 simply dissipates his own attack 25. ♖xc7 ♕xc7 26. ♖c1! a5 27. a3 g6? A strange choice, allowing Hydra to take over the game 28. ♖c5! ♖b8 29. ♜c2 ♕b6 30. ♖c6 bxa3 31. bxa3 ♕d8 32. a4 ♖g7 33. ♖c5 ♜b1+ 34. ♜xb1 ♖xb1+ 35. ♖f2 ♕b6 36. ♖b5 ♖xb5 37. axb5



White is 'only' a pawn up, but it will not be easy for Black to save the game with same-coloured bishops, as we see 37... ♖f8 38. ♗c3 ♖e7 39. ♖e2 ♖d7 40. ♖d3 ♖c8?! 41. e4 dxe4+ 42. fxe4 ♕c7 43. e5 ♗d7 44. ♗e4 h5 45. ♖c4! ♗b6+ 46. ♖b3 ♗d5?! 47. ♖a4 ♕b6 48. ♗c5 f6 49. e6 ♖c7 50. ♕xa5 ♕xa5 51. ♖xa5 f5 52. ♖a6 ♗b4+ 53. ♖a7 ♗d5 54. ♗a6+ ♖d6 55. b6 Forcing 55... ♗xb6 56. ♖xb6, and if 56... ♖xe6 57. ♖c6 wins very quickly 1-0

So even when Shredder drew with Hydra in round 6 it was already too little too late Brutus/Hydra was guaranteed its first major tournament victory, as Paderborn was only a 7 round event.

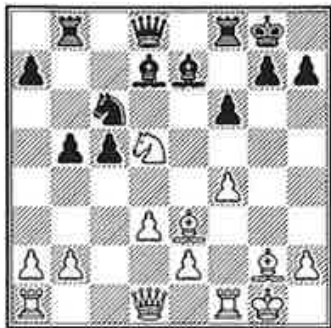
Meanwhile Fritz played Diep in round 6, and that pretty much settled 2nd place.

Fritz Paderborn - Diep

Round 6, 2004 Paderborn. Opening A34

1. ♗f3 c5 2. c4 ♗f6 3. ♗c3 d5 4. cxd5 ♗xd5 5. g3 ♗c7 6. ♕g2 ♗c6 7. d3 e5 8. ♗d2 ♕d7 9. 0-0 ♕e7 10. ♗c4 f6 11. f4 b5 12. ♗e3 exf4

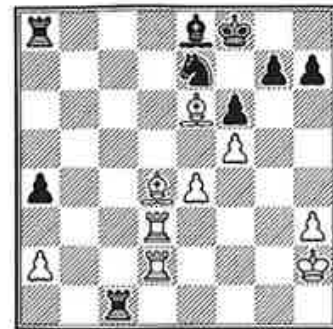
13.gxf4 0-0 14.♖cd5 ♜b8 15.♖xc7 ♜xc7
 16.♖d5 ♜d8 Whilst this is the most popular
 move here, it doesn't have the greatest of
 reputations based on results. Maybe
 16...♜c8 is a possible alternative? 17.♗e3



17...a5?! Diep leaves theory and makes his
 challenge on the queenside, but as we see it
 is easily dealt with. 17...♖d4 18.♜c1 ♗e6
 looks to leave Black with the slightly better
 pawn structure in a quite interesting and
 tricky position 18.♜e1 c4 19.dxc4 bxc4
 20.♜d1 ♖h8?! Played instead of 20...♜xb2
 Would this be too risky, is this pawn
 poisoned? After 21.♜c3 ♜b8 22.♖xe7+
 ♖xe7 23.♜xc4+ ♖h8, White can try to win
 the a-pawn with 24.♗a7 ♜c8 25.♜a6, but it
 seems that 25...♜e8 26.♜xa5 ♗c6! leaves
 Black with at least equalising counterplay
 21.♜d2 ♗g4 22.♖xe7 ♖xe7 23.h3 ♜xd2
 24.♜xd2 ♗e6 25.♗c5 ♜fe8 26.e4



It still looks like anybody's game 26...♖g8
 27.♖h2 ♜bc8 28.♗b6 c3?! 29.bxc3 ♜xc3
 30.♜f3 ♜c4 31.♜e3 a4 32.♗f1 ♜c1 33.♗b5
 ♜a8 34.f5 ♗c4 35.♗d7 ♗f7 36.♜ed3 ♖f8
 37.♗d4 ♗e8 38.♗e6



There is still no breakthrough, but it is clear
 that the two bishops are giving White an
 initiative, and this move severely restricts
 Black's king if it should get in trouble
 38...♜b8 39.♗e3 ♜e1 40.♖g2 ♜bb1 Going
 for too much, particularly as the e1-♜ may
 need escape squares, including b1, along the
 1st rank 41.a3 h5 42.♗f2! With this Fritz
 gives Black a big problem 42...♜ec1 If
 42...♜xe4 43.♜d8! and now there isn't much
 that Black can move safely, as White threat-
 ens ♖f3. So 43...♜e5 44.♗g3! ♜bb5 45.♗d7
 ♖xf5 46.♜xe8+ ♜xe8 47.♗xb5 and the 2x♗
 will be too much for the ♖♖♖ 43.♜d8 ♖c6
 44.♜c8 ♜b8 45.♜c7 ♜b3 46.♗g3 The threat
 of ♗d6+ and mate follows leaves Black with
 little choice 46...♜xg3+ 47.♖xg3 ♜c3+
 48.♖h2 ♜xa3 49.♜g2?!



Not best in my view, but it turns out lucky.
 49.♜c8 ♖e7 and now 50.♜g2 ♖f8 51.♗d7
 was much clearer 49...♖d4? As far as I can
 see 49...♖e7 would give Diep a much better
 chance of surviving: 50.♜b2 ♖c6. Now I
 found 51.♜c8! without which White may only
 have a draw, then 51...♜d3 52.♜b6 ♖d8
 53.♜bb8 ♖e7 and finally 54.♗d5! blocking
 the rook's protection for the knight which
 must finally fall 50.♜xg7! ♖xe6 51.fxe6
 ♜a2+ 52.♖h1 ♜c2 53.♜a7 ♜c1+ 54.♖g2 ♜c5
 55.♜h7 ♜g5+ 56.♖f3 ♖g8 57.h4 After
 57...♜g4 58.♜hc7 ♖f8 59.♜a8 ♜g7 (unfor-
 tunately anything else allows mate by ♜f7+

and ♖xe8) 60. ♖xg7 ♔xg7 61. ♖xe8 1-0

Poor Diep then faced Hydra in the final round (this is often the problem when you make a good start in a tournament), so its last 2 games rather spoiled what had otherwise been a good tournament for it.

Paderborn 2004, Final Table

Pos	Program	Score/7
1	Hydra 1.02	6½
2	Fritz Paderborn	5½
3	Shredder	5
4	Ikarus 0.34	4½
5	Gandalf 6.0	4
6=	Diep, Patzer, IsiChess Quark	3½
10=	Anaconda 1.6.2, ParSOS YACE 0.99.83, The Baron	3
14	Comet B69	2
15	Matador III	1½
16	BlackBishop	1



Well, we have some space, so let's finish with a game by the program with the best name - it seems ages since we last looked at Gandalf!

YACE 0.99.83 - Gandalf 6.0

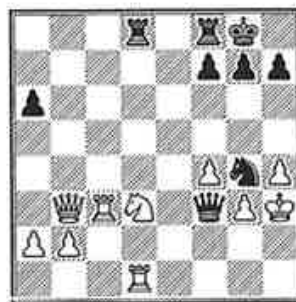
Round 7, 2004 Paderborn. Opening D20

1.d4 d5 2.c4 dxc4 I remember Richard Lang's series of programs for Mephisto always used to take the pawn. Most programs struggle to evaluate the early moves of the QGA correctly, they think the gambit pawn is a half-sacrifice for nothing. Consequently they find it difficult to know what to do when they come out of book. For example as White right now they'd play e3 (a '?' move) to try and get the pawn back; as Black they look at b5 and a6 as methods to try and hang on to the pawn. The Opening Books save them as these 'strategies' are both wrong 3.e4 3.♟f3 is the main move, and then usually 3...♟f6 4.e3 e6 5.♟xc4 c5 6.0-0, but I rather like 3.e4 myself 3...e5 4.♟f3 exd4 5.♟xc4 ♟c6 6.0-0 ♟e6 7.♟b5 ♟c5 8.♟bd2 ♟ge7 9.♟g5 ♟d7 10.♟xe6 ♟xe6 11.♟b3 ♟d6 12.♟f4 12.♟g4 is also theory and, if it wasn't for the Opening Books, it's what many programs would prefer to play. Then 12...0-0 and now 13.♟f4 ♟e5 14.♟xe5 ♟xe5, but it turns out a bit drawish 12...♟xf4 13.♟xc5 0-0 14.♟c1 a6 End of the Books 15.♟xc6 ♟xc6 16.♟xb7 ♟xe4 17.♟a4 17.♟e1 is

probably best 17...♟e5! 18.♟xc7 White wins his pawn back, but Black has an attack 18...♟f4 19.♟c2 ♟g4 20.g3 Clearing an exit for the king with 20.♟fc1?? leads to disaster: 20...♟xh2+ 21.♟f1 ♟fe8 22.♟xe8+ ♟xe8 and it's mate next move! 20...♟h6 21.h4 ♟e5 22.f4



22...d3 23.♟c3 ♟b6+ 24.♟c5 ♟g4 25.♟b3 ♟a7 26.♟d1 ♟e7! 27.♟xd3 ♟e3+ 28.♟g2 28.♟f1?? would be a big mistake due to 28...♟f3+ 29.♟e1 ♟ab8! and if the queen tries to escape with 30.♟a3 ♟e3+ 31.♟f1 ♟fe8 32.♟c2 ♟f3+ 33.♟f2 ♟e3 34.♟d6 ♟be8! 0-1 28...♟ad8 29.♟h3 ♟f3



30.♟g1 30.♟d2 was the only hope, even then 30...♟e3! 31.♟c1 ♟f1 32.♟xf1 ♟xf1+ 33.♟h2 ♟d6 34.♟c2 ♟fd8 The knight still isn't quite lost as, with 35.♟e2! White creates a back-rank mate threat, so 35...♟c6 36.♟d2 and now 36...♟e6 does the trick] 30...♟xd3 31.♟xd3 ♟f2+ 32.♟h2 ♟xd3 33.♟d1!? If YACE doesn't exchange queens Gandalf will bring the rook onto the e-file and finish the game 33...♟e3 Oh, so Gandalf likes the queens! 33...♟xd1 34.♟xd1 ♟xb2 wins easily 34.♟g2 ♟f2 35.♟f1 ♟g4+ 36.♟h3 h5! 37.♟e2 ♟d3 38.a4 ♟b8 39.♟e1 ♟b3! The rook has arrived anyway 40.♟e8+ ♟h7 41.♟e2 ♟f3 42.a5



42...♟xf4 A cute move to finish on! 0-1

THE TURBO CHESS COMPUTERS OF RUUD MARTIN!

ARTICLE AND INTERVIEW by Rob van Son

Foreward to
***The Turbo Chess Computers
 of Ruud Martin!***
 by Rob van Son

May I introduce the creator of the first and strongest dedicated chess computers of the 21st. Century: Ruud Martin.

Ruud told me with great enthusiasm about his hobby: "*The building of the Turbo chess computer*".

I hope you will all like it and, if *Selective Search* readers want to know more about the possibility of dedicated chess computers playing at 2400 Elo+, please do not hesitate to ask Ruud some questions by e-mail.

Ruud Martin ---->



Introduction

Hoeven, a small town in the province of Brabant in the South of Holland, is home to **Ruud Martin**, a very enthusiastic chess computer collector and someone who has carried out several widely different chess computer projects. Shortly after he was born in Amsterdam, the now 37 years old Ruud moved to Oudenbosch, a town situated at a stone's throw from his present residence.

I met Ruud for the first time at the 7th CSVN chess computer gebruikers (users) tournament in Leiden and he immediately roused my interest by telling me about his projects. Some of these projects were still in an experimental phase, he told me.

Anyway, it soon became clear that Ruud intended to participate in the 8th gebruikers tournament with a **special chess computer modified by himself**. In the end he said that, if I really wanted to know more, I was welcome to interview him. My thoughts were that I would like to see his special chess computer in action before doing an interview with him.

A long beautiful summer went by, and before I knew it, the 8th gebruikers tournament was about to happen. There, on Saturday the 18th of October 2003, I met Ruud again.

And he was participating with a so-called **Tasc Turbo** chess computer.

"So he did keep his word" I thought when I saw the machine. What struck me was the great enthusiasm with which he sat behind his board and his computer, and also the way in which he tried to answer questions of interested 'users'.

Ruud won the tournament overwhelmingly with an excellent score of 5½ out of 7 and as a result he received the Jan Louwman cup.

On the website of **Kurt Kispert** (interviewed by Rob in *Se/Search 109* and also to be found on the web at www.schachcomputer.at) Ruud is listed among the great collectors. A visit to the site shows that he possesses over 30 chess computers, and it is remarkable that two of his prototypes are also mentioned. Moreover, two of his computers are listed with the added comment '*modifizierte version*'.

Ruud is proud of his Amsterdam roots and now also has the 1985 world champion of computer chess, the "*Mephisto Amsterdam*", in his possession. But he is even more proud of his many chess computer projects, one of which won him the gebruikers tournament.

Time now for an interview with the project-man of excellence: "**Ruud Martin!**"

Rob

Ruud, at the 8th CSVN gebruikers tournament, which took place on October 18 and 19 of last year, you took part with the chess computer Tasc Turbo. I am familiar with the Tasc R30 and the Tasc R40, which were both put on the market in the first half of the nineties by the Tasc company from Rotterdam. Why do you call this computer the Tasc Turbo?

Ruud

The name Tasc Turbo actually came up by accident. Some time before the 8th gebruikers tournament the competition leader, Ries van Leeuwen, asked me which chess computer I was going to participate with. I let him know that I wanted to take part with a chess computer that I had modified somewhat, both hardware and software-wise.

These modifications involved an experiment with a Tasc chess computer. Ries didn't get all the details from me yet and since he wanted to give the thing a name, he introduced the name Tasc Turbo.

Rob

Both the Tasc R30 and the R40 use chess programs of Johan de Koning, respectively The King 2.2 and The King 2.5. Which version is inside the Tasc Turbo?

Ruud

I bought a Tasc R30 computer from a German chess computer collector. This chess computer is equipped with the The King 2.2 program and I knew that it used to be possible to have the R30 upgraded with the The King 2.5 program. But since the Tasc company has not been active for some time, this program could no longer be obtained from them. Fortunately, the person I bought the machine from was still able to send me the version 2.5.

After I had installed the program on the computer, I noticed something very peculiar. My Tasc R30 announced itself as a Tasc R40! Apparently this was the 2.5 program, designed for the R40 and not for the R30! It worked properly and so the result was a Tasc chess computer with the hardware of an R30 and software of an R40. In my opinion a unique combination!

Rob

How do you install such a program on a Tasc Turbo chess computer?

Ruud

The chess-program in a chess computer is stored in a so-called Eprom-chip. Eprom stands for [E]rasable [P]rogrammable [R]ead [O]nly [M]emory. This chip not only contains the program but also the fixed specifications of the chess computer.

In order to read and write the Eprom-chip you need a programming machine.

There are several models available, but I use a machine that I can connect to my PC. With the help of this Eprom-reader and my PC, I can analyse and modify the chess-programs and copy them to a new Eprom-chip.

When you turn on a chess computer, you almost always see a fixed opening text, for instance the name of the computer and the programmer.

With the Eprom-reader and my PC I can find this text and modify it if necessary. I can then copy the modified chess program to the new chip, which I put in the chess computer. Next, there's always an anxious moment to see whether it works or not.

The creation of the Tasc Turbo actually is not so difficult, although you do need to have experience with programming an Eprom-chip.

Personally I believe that the greatest risk is in screwing open the fine old chess computers. If you accidentally break one of the parts, it is an awful job to obtain a similar part. Tasc chess computers are very hard to repair.

Rob

With the Tasc Turbo you won the 8th gebruikers tournament with 5½ out of 7. Until the mid-nineties the Tasc R40 could keep up with the playing strength of the then existing chess programs for the PC. At the time it was the strongest available chess computer which had been especially designed for connection to the electronic chess board of Tasc, the SmartBoard. Do you believe that your Tasc Turbo can play stronger than the old Tasc R40 and if so, can you explain why?

Ruud

During a test that was attended by the CSVN chairman Cock de Gorter, the opening book of the The King 2.5 program turned out to be his. In addition, I made some changes to the hardware of the R30, thinking this might generate a few extra Elo-points.

The combination of the somewhat modified R30 hardware with the R40 software and an opening book of Cock de Gorter, produces a formidable chess computer.

The Tasc R40 has a 30% faster processor, twice as much memory and the same program. Unfortunately, this computer did not compete in the 8th gebruikers tournament, so we still don't know whether it plays stronger than the Tasc Turbo. Apart from that, I believe that the combination of chess computer and operator ultimately decides how strong the computer can play.

Rob

How do you mean that?

Ruud

The operator has the possibility to regularly adapt the time control of the chess computer and in that way influence the playing power of the computer.

Suppose the operator notices that the computer needs a great deal of time to calculate say eight ply deep because a difficult position has come up on the board, then he can decide to increase the response time per move. In that way the operator is in fact able to exert influence on the game.

Rob

You told me that you spend your spare time working on your chess computer projects. The Tasc Turbo was one of those projects. What about the 'other' chess compute projects, do they also involve the creation of new chess computers from existing models?

Ruud

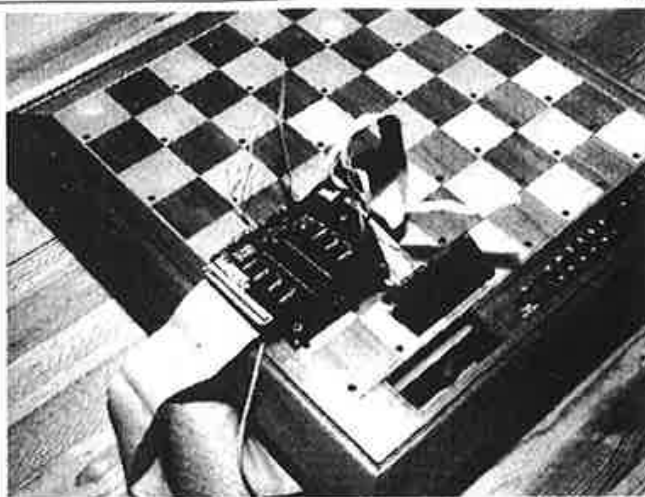
I have just started with the modification of programs for chess computers. But I am also a collector.

In the nineties I collected chess computers that were equipped with a 6502 processor. I used to do quite a bit of programming for this processor, so I can read these programs and understand them.

My first chess computer was the Mephisto Milano with a chess program by Ed Schröder.

When you turn on the machine you see the opening text: *"Mephisto Milano, by Ed Schröder"*. After I had loaded the chess program into my PC with the Eprom-reader, I changed the text *"by Ed Schröder"* to *"by Ruud Martin"*.

You are not supposed to do this of course, but it helps you to get familiar with the first principles of the technique behind the computing. I have since also applied these kind of changes to computers with a Motorola 68000 or a Risc processor.



Prototype for Fidelity AS - Martin

The procedure I use consists of three phases:

1. ANALYSIS
2. SIMULATION
3. BUILD-IT-YOURSELF

In the analysis phase I study the operation of the chess programs. For that purpose I make use of a dis-assembler language.

Rob

What is a dis-assembler language?

Ruud

A dis-assembler language is a program that translates the bytes in the program code from the Eprom back to the assembler language, the machine language which enables you to directly program the processor.

During the assembling process the code is being translated into a program code that can be executed by the processor. In the dis-assembly process the exact reverse takes place. Because I have connected the Eprom-reader to my PC, I can easily carry this out.

However, having the program in assembler language still does not provide much insight. For smaller programs you can so to speak emulate the processor yourself by re-playing and analysing the program.

Rob

Can you explain that?

Ruud

A program consists of program codes built-up from bytes. These codes consist of a large number of consecutive instructions.

On paper you can act as if you yourself are the processor by writing down the instructions you

come across. Subsequently can you walk them through step by step and in so doing analyse them.

However, chess programs consist of thousands of instructions and this makes it a hopeless task to look them all through. So it's time for a different approach and this takes us to the second phase, the simulation.

Rob

How does that work, simulation?

Ruud

All a processor does is read numbers from the memory, process them (add, subtract, divide) and put them back into other positions.

If you take a closer look at this process, you'll see that the processor collects a piece of program code, executes it, collects another piece of code and again executes this. A simulation program can emulate the operation of a processor exactly.

By running the chess program as a simulator it looks as if it is being executed by a virtual processor.

The processor in a chess computer also carries out instructions with the help of other elements, like the operating buttons, the presentation of information on the display and the read-contacts or sensor-fields of the chess board.

By simulating all these functions with a so-called virtual processor, you can emulate a fully functioning chess computer on the PC. You can compare it with a flight simulator. The cockpit of the aircraft can be seen on the screen of the PC by means of simulation, making it possible to make a virtual flight.

With a chess simulation-program you can play virtual chess.

I have written a simulator for chess computers with a 6502 processor.

In fact I can present a chess program to this simulator and let the program run on my PC. I can then see what the chess program reads and writes in the memory of the chess computer. By carefully studying this behaviour I can watch the program work and see things like the operating of the led-lamps on the chess board, reading the moving or taking of chess pieces, instructions by means of the operating buttons and presenting information of the display.

All this happens virtually on my PC without it being connected to a chess computer. This is how I managed to simulate the chess program of the Mephisto Polgar (module set) with the wooden 'Exclusive' board on my PC.

I have written a Windows simulation program which simulates the above mentioned Polgar-program of the Mephisto Polgar and works with the electronic chess board of Tasc, the SmartBoard. I call this program the Mephisto Polgar Simulator.

Rob

How can your simulator make the Polgar module and the Tasc SmartBoard work together?

Ruud

In the nineties the Tasc company made a program (SmartBoard driver development kit for Windows95/98) available that is able to show a chess board on the PC.

The moves you execute on the Tasc board are visible on the PC through this program. This is possible by connecting a special cable between the printer port of the PC and the SmartBoard.

This Tasc program contains a complete application for writing a chess program, including the control of the SmartBoard. By rewriting the source of this program and making it work together with my simulator, I can play chess with the Tasc board against the Polgar program on the PC. Using my experience with the Tasc program I wrote the Windows simulation program.

At the same time I made the large display and the operating buttons of the Mephisto Polgar module visible in my simulation program. The next step was to offer the simulator to the chess computer collectors known to me. Of course they do need to take care of the Polgar program themselves, because I am not allowed to distribute it. I have already had many interested reactions to this proposition.

Rob

Have you found any spectacular differences in playing strength?

Ruud

The simulator does execute exactly the same chess program as that in the chess computer or the chess module. So in principle it should not be stronger.

Yet there is a difference in playing strength in the processing speed of the virtual processor. The original Polgar module has a 6502 processor with a speed of 5 MHz. The simulator can make the virtual processor work at a speed of about 100 MHz.

Rob

Is this the speed of the processor in your PC?

Ruud

The speed of the processor in my PC is 1,7 GHz, but by using a simulator it has the possibility to simulate a 6502 processor that runs virtually at 100 MHz. The Polgar program runs 20 times faster on my PC than in the real Polgar module.

I believe that this way the playing strength of the Polgar can be increased by about 200 Elo-points. The rating of the original Mephisto Polgar is \pm 1870 Elo-points. With the simulator a level of 2050 points can be achieved.

Rob

Do you have any plans in the near future to build a whole new chess computer that will play stronger than the strongest models presently available, like the Mephisto Magellan?

Ruud

Indeed. Through this question we have now arrived at the third phase: *"Build-it-yourself"*.

At the moment I am working on two projects and a third project has been completed recently.

The first project consists of building a chess computer of the same design as the Tasc R30 and R40 computers.

I want to build a computer with an attractive wooden case, including hardware and software such as a large display and operating buttons with the same lay-out as on the Tasc computers. I also want this chess computer to be able to work with the Tasc SmartBoard. CSVN-member Louis van Bever has offered to build the wooden case and Bart Weststrate, programmer of the chess program Kallisto, has made his program available for this project.

I have already built a prototype of the hardware which, among other things, consists of a 300 MHz processor with 64 Mb RAM (Random Access Memory) memory. I'll also make sure that there is sufficient memory available for the hash-tables. A test has shown that this prototype can beat the Tasc R30 and my estimate is that it ultimately can achieve a rating of over 2400.

The second project is building a small processor module that easily fits into the existing Mephisto Exclusive boards.

In it I want to house a chess program like Phalanx or Sjeng. Tests with the Phalanx showed that this module is strong enough to beat the Tasc R30. However my preference lies with the programs The King, Ruffian or Sjeng. The Belgian programmer of (Deep) Sjeng, Gian-Carlo Pascutto, has already customized a version of his program to suit this module.

The only thing I ask of these programs is that they can run under the Linux operating system.

Rob

Why Linux? Isn't Windows the most customary operating system?

Ruud

Windows is a much too clumsy operating system for a chess program and uses about 25% of the calculating power for itself, so that only 75% remains for applications. In addition, Windows is unstable and therefore crashes regularly.

Linux on the other hand uses only 5% of the system capacity and is much more stable.

Rob

I guess you mean the unstable Windows 9x versions. Surely Windows XP is much more stable. Why don't you use that version?

Ruud

The hardware of my module doesn't function properly under Windows XP, because that operating system expects all kinds of external devices like a mouse, a keyboard and a screen.

Moreover Windows XP has a graphical orientation. I don't need this functionality for my projects. For me it would be enough if I could use the old DOS operating system with a chess program that can work with the chess board, a small display and some keys that can be connected to it. Perhaps there are programmers that are willing to support me when building this module?!

The specification of the hardware is a 200 MHz processor with 16 MB RAM memory. The result will be a chess module, designed for a Mephisto board that will play stronger than all existing models. The rating will be approximately between 2300 and 2400.

The third project has already been carried out and concerns a module containing my Mephisto Polgar simulation program designed for use in the Fidelity AS (Auto Sensory) board.

Because of the hardware the simulator can only emulate a virtual 6502 processor at 20 MHz. What mattered to me was to make a working prototype.

Rob

Your simulator only works on your PC, doesn't it?

Ruud

Inside the Fidelity AS board I built a mini PC housing the simulator of the Polgar module and offering the possibility to work with the Tasc board.

I have only had to adapt the simulator to make it

function with the operating buttons, the sensor board and the display of the Fidelity AS board. The reason to begin this project was that I had a defective Fidelity board in my possession. The electronics (processor, RAM and ROM) of this board no longer functioned, but the operating buttons, the display and the sensor part were still in working order.

Rob

Are you going to give a name to your new creations?

Ruud

The chess computer I want to build with the chess program of Bart Weststrate inside will probably be called Kallisto 300.

My preferred name for the module I am making for the Mephisto is Mephisto Martin. I think I have to contact Mephisto (the Saitek company) for this.

The name of the Fidelity AS remains unchanged. When the rating of this computer has been determined, I will add it on the board, just like the Fidelity company used to do.

Rob

You are not a chess programmer. This means you'll have to use an existing program for your new chess computer or module. Isn't that going to present you with legal problems? For instance the copyright on a chess program.

Ruud

All my activities are in the hobby sphere. Bart Weststrate offered me his chess program himself, and for the module I focus on the free available engines like the programs Sjeng and Phalanx.

For a new module I would really like to work with chess programmer Johan de Koning.

I am sure that a module with his program (The King) would make a fantastic combination. In the collectors' world the program The King is highly respected. I think the problem is that the top programmers probably already work with other companies and made agreements with respect to their intellectual properties.

Rob

Most chess computer lovers use the computer to play chess with. The strongest models with an Elo-rating of between 2100 and 2200 are for almost 99% of the players too strong. Were you able to beat your chess computers that easily that you decided to equip them with a stronger program?

Ruud

I personally have a rating of around 1800. For me the challenge is not in the chess game itself, but in the technique and the chess programs.

During the 8th gebruikers tournament I was not so much concerned with the fight on the board as with studying the chess computer and understanding what a chess program needs to win a match. In addition to a thorough knowledge of the chess computer, a portion of luck has helped me win the tournament.

Rob

You need quite a lot of technical knowledge to rebuild chess computers in such a way that they will play stronger than the original model. Where did you get that knowledge?

Ruud

Since my childhood I have been actively interested in the technique behind the computer.

My first build-it-yourself model was the Junior Computer of the Elektuur company. This minicomputer had a 1K RAM memory and a 6502 processor, running on only 1 MHz.

When I was 14, I wrote my first chess program for the Junior. Two years later I had improved this program in such a way that it could think ahead 3 ply and make a correct estimate materials-exchange. Still I think it did not play stronger than 1000 Elo-points.

At the age of 17, lack of time made me give up my chess computer hobby. I went to study Electrical Engineering and subsequently did a lot of other programming during the first five years of my career. Not until I was 34 did I take up my passion for programming and self-building of chess computers again.

I know for sure that if I had not given up programming chess programs, I could have become a very good chess programmer. Now I am happy to leave it to the real specialists! They have an enormous advantage as you know. Moreover, the projects I am working on now take up enough time as it is.

Rob

Do you have a job in automation?

Ruud

I work as a project manager at VX Project Partners in Laren.

This is a company that – on an interim basis – lends experienced project managers, interim managers and service managers to big companies

to carry out all kinds of projects and interim-assignments for their ICT (Information & Communication Technology).

Rob

In your spare time, as a hobbyist, you work on chess-computer projects. Suppose you succeed in making those new chess computers and modules. Do you have any (commercial) plans to propagate your creations to the outside world?

Ruud

My projects are actually a hobby that got out of hand!

At the moment I don't have any commercial plans. The chess module I am making for the Mephisto Exclusive board should be finished by the end of this year.

I threw out a feeler via the internet to see if there is any interest for it and there certainly is, particularly among the German collectors. I already know 20 chess computer collectors who want to order the module from me.

Rob

You say you are not engaged in any commercial activities. At the same time you are telling me that you already know 20 collectors who want to order a computer from you. Isn't that contradictory?

Ruud

I would want to sell the module or chess computer on the basis of covering expenses only. I don't think that is commercial, otherwise I would have calculated in a profit margin.

Rob

In the future, would you like to work with chess computer manufacturers, chess programmers or with the makers of the DGT-board?

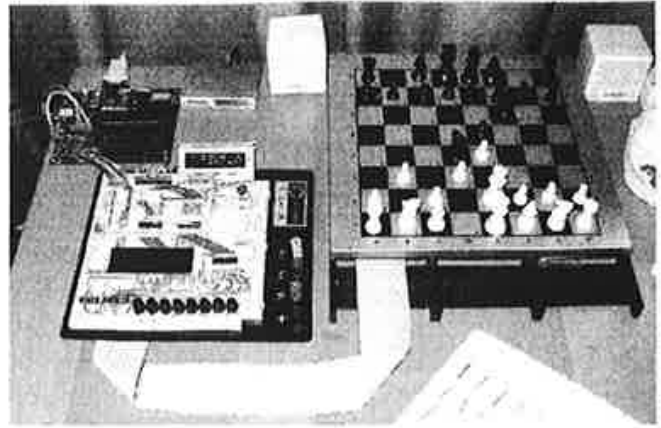
Ruud

Working with Mephisto (Saitek) is something I would like very much. In that case I would at the most opt for a small-scale production of my chess computers.

As far as chess programmers are concerned, Bart Weststrate has made his Kallisto available for one of my projects. If any other programmers are interested, I would very much like to hear from them.

It is now possible to put several chess programs into only one chess computer, or to have a match between those two programs played on the same chess computer.

The DGT-board is a terrific product, which fits in entirely with my current projects. Of course I would



Prototype for the Mephisto - Martin

like to contact the makers of this board to see what the possibilities are.

Rob

Do you have any new ideas for the 10th and 11th gebruikers tournament?

Ruud

I have visited the last three tournaments and participated in the last two. I find them very enjoyable!

I hope I can breathe new life into the chess computer with my projects and that this will generate interest to participate in the gebruikers tournament.

Maybe there are also people like me who would like to build or renovate their own chess computer. And perhaps this could be the basis for a new competition. The question is of course whether there is enough enthusiasm for this.

Rob

Ruud, thank you for this interview. Is there anything else you want to say to the readers, and can they contact you if they have any questions in connection with this interview?

Ruud

When my projects take more shape, I'll be happy to give anyone who is interested an update on the progress. I can be contacted by e-mail at the following address:

■ ruud.martin@wanadoo.nl

Finally, from my home in Brabant I would like to say a friendly hello to all *Selective Search* readers.

Special thanks to:
Houkje Ligthart, Amsterdam

Rob van Son, 11 April 2004

FRANK HOLT's GAME of THE YEAR already... PART 2!

In our last issue we announced that regular contributor **Frank Holt** had already found our GAME OF THE YEAR! It was **Fritz8 v Shredder7.04**.

But not all that long after he sent it to me he told me that **Hiarcs9** also seemed to understand something of the sacrifice which Shredder came up with, and so he wondered if Hiarcs might produce a better defence than Fritz had managed.

Then a few days later he sent me the game - Hiarcs had won, but had done so by avoiding the position where the sac' had been made. It's another great game...

Hiarcs 9 - Shredder 7.04

Blitz: G/60'. B81- Sicilian Keres Attack

1.e4 c5 2.♘f3 e6 3.d4 cxd4 4.♘xd4 ♘f6
5.♘c3 d6 6.g4 ♘c6 7.g5 ♘d7 8.♘db5 ♘b6
9.♙f4 ♘e5 10.♖h5 ♘g6 11.♙e3 a6 12.♘d4
d5 13.0-0-0 ♙b4

Both last book move

14.exd5

Winning a pawn but opening itself up to an unpleasant attack. However both F8 and H9 chose this!

We commented last time on a book line which some programs have here, namely

14.♘de2 ♘c4
14...e5 15.♘de2 ♘c4



So far both sides have played the same moves as in our game Fritz8-Shredder7.04 in SelS 111. But now Hiarcs finds something different
16.♙h3!

The eval. here was +0.28. 16.d6 0-0

17.♘e4 ♙e6 18.♘2g3 and now the amazing 18... ♘xb2! was played by S7 in our last issue. Play continued 19.♙xb2?! and I questioned this move, looking at

A) 19.♘f6+?! which seems still to leave Black on top after 19...gxf6 20.♖h6 (20.♙b6?! ♘xd1±) 20...♙h8±;

B) and then my preference 19.♙b6!? which may give White an equal position

(B1) 19...♖xb6 20.♘f6+! gxf6 21.♘e4∞

(B2) 19...♘f4 20.♙xd8 ♘xh5 21.♙xb2 ♘xg3 22.hxg3 ♖axd8 23.♙h3±

I did suggest readers - I know that quite a few of you out there are better chess players than I! - might like to contribute to these ideas, but so far no-one has ventured forth.

Back to the F8-S7 game, after 19.♙xb2?! it went 19...♖a5! 20.c4 b5 and ended in a win for Black, who is already ahead at this point.

Whatever, H9's new 16th. move means that none of this is relevant to the new game 16...♖a5

H9 thinks it is just winning, but S704 has itself at +0.38! Black's attack is certainly worth something, but a full pawn?

17.♙d3 ♙xh3 18.♖xh3 0-0 19.♙b1! ♖ac8

Is this the right rook for here? maybe ♖fc8 was better if the aim is attack or nothing 20.♙c1 ♖fd8 21.♖hd1! ♙xc3?!

Here H9 expected 21...♖c5 and would continue with 22.d6 showing itself around +0.70

22.♖xc3

The H9 eval has jumped to +0.96 22...b5!



S8 now thinks the advantage has swung slightly to Hiarcs, but with its next H9 has +1.07!

23.b3 ♖d6 24.♙xc8 ♜xc8 25.♚d7!

A great find – White is still his pawn up and is also threatening to gain some an initiative!

25...♗b4 26.♞d3 ♖f8 27.♗a7!

Strengthening the defence with 27. ♗h3 would also keep Hiarc on top, but the initiative might pass back to Black with 27...a5!? 27...a5!?



They're both going for a win it seems!
28.♗a6 a4 29.♞e3 ♞d8?!

There were two other tries here:

(A) 29...axb3 30.axb3 ♞d8 31.♙a3! ♗e1+ 32.♖c1 ♗xf2 and here 33.♞xe5 keeps White on top; and

(B) the more obvious 29...♞e8! after which probably 30.♗c6 axb3. Now whether H9 recaptures with the c/pawn or rook would depend on how long it decides to analyse the choice. Probably it would go 31.♞xb3 and Black will extricate his queen to either e1 or g4, either of which leaves Hiarc with some advantage

30.♗b6!

H9 goes to +2.06

30...♞d7 31.♞xe5 axb3

and S7 shows -1.72

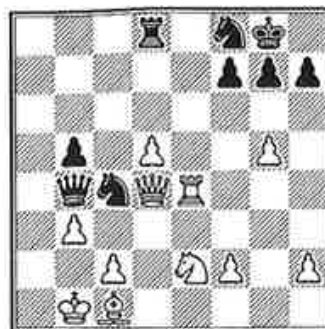
32.axb3 ♖c4!

Shredder is still managing to create some threats!

33.♗d4!

The only move to stay on top! If 33.♞e4? the pin isn't binding as the knight can give check: 33...♖d2+! 34.♙xd2 ♗xe4 35.♖c3 ♗h4 36.f4∞

33...♞d8 34.♞e4



The pressure on Black grows, but Shredder decides to come back fighting all the way!

34...♞a8! 35.♖f4!? ♗a5!

Threatening mate of course

36.♙b2

Protecting a1 and giving his king a runaway square on c1. Anything else loses

36...♖xb2 37.♗xb2

37.♙xb2?? ♗a1#

37...♗b6

It might have been worth trying 37...b4 to see if something could still be done down the a-file

38.♗d4 ♗a6 39.♖h5 ♗g6 40.♖g3! b4

40...♗xg5? 41.♞g4! winning because of the double attack on g7

41.h4 ♗a6

Trying to get the attack down the a-file going again, but it is too late and even Shredder now shows -4.11

42.♙c1! ♖d7 43.♞e7 ♗c8 44.♖e4 ♗c7

45.d6 ♗c6 46.h5



46...♞c8 47.c4 ♗b6 1-0

Do readers recall our diagram in the last issue at move 25, and then our comment after move 30 - "White, even with his threatening pawn still poised on d6, could easily resign now".

This game ended at move 47 and White (but this time Hiarc) also still had that pawn poised on d6!! It had arrived there a bit later in this game, and the result also was different!

MORE STAR SAPPHIRE/DIAMOND GAMES

In our last issue I yielded my **Novag Star Sapphire/Diamond** space to Alvaro Benlloch's thorough review and article, but I promised I would include some more of the games I have this time.

To start off with I've chosen one on the games from the SSDF's **Star Sapphire v Atlanta** match. The 2232 Elo rated Atlanta won the match narrowly by just 10½-9½.

Star Sapphire - Atlanta

40/2. Opening: C76, Ruy Lopez, deferred Steinitz

1.e4 e5 2.♘f3 ♘c6 3.♙b5 a6 4.♙a4 d6 5.c3
♙d7 6.d4 g6 7.0-0 ♙g7 8.d5

Puts the Atlanta out of book

8...♘ce7 9.♙xd7+ ♚xd7

The Star-S now also goes out of book, but finds the right move

10.c4! ♘f6 11.♘c3 0-0

We were still in theory up to here, but now 12.c5 is most common, or there is an alternative little seen idea, 12.♖b1!?

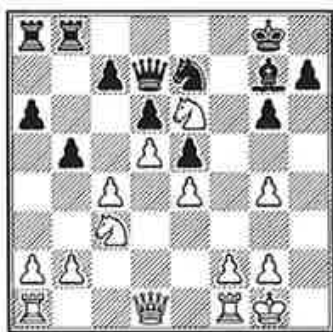
12.♙g5

I don't see anything wrong with this, so maybe we can call it a novelty!?

12...♘g4 13.h3 f6?!

Loses a pawn for little in the way of compensation. 13...♘f6 was better, then perhaps 14.♚b3 ♖fb8

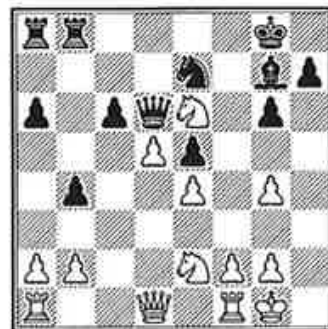
14.hxg4 fxg5 15.♘xg5 b5 16.♘e6 ♖fb8



17.c5!?

17.cxb5 was also possible, and after 17...axb5 18.♚b3 ♖b6 19.♖a1 there are plenty of tactics, though it favours White 17...dxc5 18.♘xc5 ♚d6 19.♘e6?!

Retaking its outpost, but I'd have preferred 19.b4 securing the knight as it cannot be challenged on c5 either, and threatens to jump into e6 or perhaps d7 at its leisure 19...b4 20.♘e2 c6



21.♘xg7

Winning ♙ for ♘ is not the best this piece might have achieved

21...♙xg7

21...cxd5 was also possible, as the knight has no escape square, but 22.♘f5 gxf5 23.gxf5 appears to leave White with a dangerous passed f-pawn. However as it is also a doubled pawn it wouldn't be so easy for White to support it with his rooks, so maybe this alternative would have been worth a try!?

22.dxc6 ♚xc6 23.♘g3 ♚e6 24.♚e2 a5
25.♖fc1 a4 26.♖c7 a3 27.b3 ♖c8

Generally speaking, when a pawn behind, it is better to keep the heavy artillery on the board

28.♖a1 ♖xc7 29.♖xc7 ♖d8 30.♚b5



Eyeing the b4-pawn

30...♖d1+ 31.♘f1!

If 31.♙h2?! ♚f6 threatening ♚h4 would certainly be a nuisance, and if 32.♙h3 then ♘f7! is a neat move, protecting the e7-knight so that now ♚xf2 is threatened, which White mustn't allow!

31...♚d6 32.♖a7 ♘f8 33.♖b7 ♖c1?!

Purposeless. The Star-S attack was threatening to stall but now gets going again 34.♖d7!

This is good, but 34.g5!! was possibly

even better: 34...♖c8 35.♔h2! ♖d4 36.f3 ♖c5 37.♖b8+ ♖c8 38.♖xc8+ ♔xc8 39.♖b8 ♖c5 40.♔d2, and Black is very much on the defensive, with ♔c4! threatened
34...♖c5 35.♖d8+?!

Again the Star-S misses the best move – this isn't over yet! 35.♖b8+! ♔f7 36.g5 ♖a1 37.♖d6 ♔g8 38.♖d5 has got to be good for White!

35...♔f7?

A big shame. 35...♔g7 works out much better, and the best I can find for White would probably be 36.♖d7 ♔f6 37.♖f8+ ♔g7 38.♖f3 (to stop Black playing ♖c3) 38...♖xf1+ 39.♔xf1 ♖c1+ 40.♔e2 ♖c2+ 41.♖d2 ♖xe4+ 42.♔f1, and as the checks don't seem able to achieve anything more, 42...♔d5 43.♖d3. It seems this should still win for White in the end, but Black has more chances than in the game

36.♖e8+ ♔f6 37.♖h8+ ♔g5 38.♖xh7

The Atlanta needs to be careful now, and suprisingly falls short by missing a major tactic



38...♖c7??

Highly suspect, allowing a great reply. 38...♖xf1+ was the best hope, looking for a chance of perpetual check. Even if White finds a way out, as in the line shone above at move 35, Black's chances are better than after the move played

39.g3!

Well found Star-S! Threatening ♖h4 mate and winning the game!

39...♔f6 40.g5+ ♔e6 41.♖h3+ ♔f7 42.♖h8

And now Black had little choice but to delay mate with

42...♖xd8 43.♖xd8

and it was all over a few moves later:

43...♖e1 44.♖d3 ♖c1 45.♖d2 ♖c3 46.♔e3 ♖c6 47.♔c4

The knight's re-entry into the game is decisive: either the b4 or e6 pawn must fall immediately, and the Atlanta resigned. 1-0

For our next game we turn to Austria where someone ran a **Novag Schach-computer Turnier**, with 4 Novag machines, new and old!

I was interested in the Ratings they give each machine, and so have show their Elo figure alongside ours, and finally the score for each machine!

Pos	Computer	Austria	Sel-S	/12
1	Star Diamond	2050	2188	9
2=	Sapphire 1 Super Forte C/6MHz	2000 1875	2097 1972	7
4	Super Constellation	1700	1738	1

Our respective ratings for the Super Conny are reasonably close, but the Sel/Search ratings since have gone up much quicker. Our gap Super Conny -> Super Forte is much bigger (234 cp. 175), as is our gap Sapphire1 -> Star Sapphire/Diamond (91 cp. 50). The 'Austrian gap' between Super Conny and Star-D expects the older Novag to score a point off Star-D every 8 games, whereas we would expect 8-0.

I did have a look at the total scores in my Rating List database between the Super Forte C/6 and the Super Conny, and found it to be 43-11! This is almost exactly 80% which equates to a 240 Elo gap... only 6 Elo different to the calculated figure in Sel/Search, which is a nice confirmation of our efforts.

Although the old 'Super Conny' may be struggling for points, it still puts up a decent fight in some of the games!

Super Constellation - Star Diamond

G/1hr. Alekhine's Defence, B04

1.e4 ♔f6 2.e5 ♔d5 3.d4 d6 4.♔f3 g6 5.c4 ♔b6 6.exd6 cxd6 7.♖e2 ♖g7 8.0-0 0-0 9.♖e3 ♔c6 10.♔c3 ♖g4 11.b3 d5 12.c5 ♔c8 13.b4

It's all been theory up to here and, indeed this also is a Book move – but marked '?!' 13.h3 ♖xf3 14.♖xf3 e6 15.♖d2 is considered the best line for White

13...a6 14.♖b1 e6 15.a4 ♖f5?!

The first non-Book move. 15...♖xf3 16.♖xf3 and now either ♖f6 or ♔8e7 is considered best

16.b5! axb5 17.axb5 ♔6e7 18.♖c1 ♖a3!?



19.h3 ♕e4 20.♕f4?!

The Super Conny missed a good chance here, as 20. ♖e5! ♗f5 and then 21. ♕f4 puts Black in a spot of bother – the b, c and d-pawns are looking quite threatening with growing support. If now 21... ♗f6 22. ♖g4 h5 23. ♗e3 ♗ce7 24. c6! looks good! 20... ♕xf3 21. ♕xf3 ♗f5!

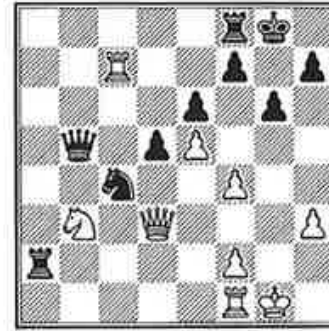


The advantage has swung in favour of the Star-D
22. ♕e5

Of course White doesn't want to play this, as it just results in damage to his 3 key pawns. But if instead 22. ♕e3?! ♖h4! 22... ♕xe5 23. dxe5 ♖a5 24. ♗b1 ♖a1 25. ♖d3 ♖b4 26. c6?!

It was better to maintain the pawns as they were, and see if a better chance to play c6 occurs. Played now it leaves the resulting isolated pawn very weak. 26. ♖fd1 was good enough to keep it quite close – 'uncertain' as they say!

26... bxc6 27. ♖xc6 ♗d4! 28. ♖c7 ♗xf3+ 29. gxf3 ♗b6 30. ♗d2 ♖a2 31. ♗b3 ♗c4 32. f4 ♖xb5



33. ♖c5?!

It looks like a good idea, but wont work tactically

33... ♖b4! 34. f5 ♖a3!

If the knight is lost so is the rook

35. ♖b1 ♖xb3 36. ♖xb3 ♖xc5

A knight+pawn up, White must win

37. fxc6 fxc6 38. ♖g3 ♗d2 39. ♖a1 ♖d4 40. ♖c1

Pinning the knight to the queen with 40. ♖d1 would have caused more hassle

40... ♗f3+ 41. ♗h1 ♗g7 42. ♖c7+ ♗h6 43. ♖c1 ♖f5 44. ♖g2 ♗h4 45. ♖g4 ♖xf2 46. ♖g1 ♗f3 47. ♖g2 ♖xg1+ 48. ♖xg1 ♗xg1 0-1

Next we turn our attention to a 10 game Match played by one of our American readers from California, Augusto Perez. This is between his Saitek-Mephisto Chess Challenger (new version of the 2000 Elo rated Cougar), and the Star Diamond (2191).

Augusto quite likes me to try and forecast the match results in advance, but my 'guess' for the next one (the maths suggest 7-3, but I went for 6½-3½) looked as if it was going to miss the mark by quite a bit in the early stages!

Augusto plays all his matches at G/1hr, and the Chess Challenger had White in games 1, 3, 5, 7 and 9.

Chess Challenger - Star Diamond

G/1hr match, game 1

D00: 1 d4 d5: Unusual lines

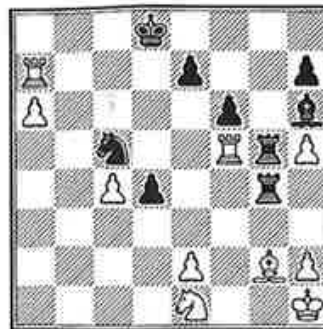
1. d4 d5 2. g3 ♗f6 3. ♕g2 c6 4. c3?! This has been seen once or twice at GM level, but it's pretty rare compared with 4. ♗f3 4... ♕f5 5. ♗f3 ♗bd7 Here 5... e6 6. 0-0 ♕e7 0-1, was seen in Hansen-Jensen, 1979 6. 0-0 ♖a5 7. b4 ♖a6 8. ♕g5 0-0-0 9. a4 ♖b6 10. ♗bd2 ♗e4 11. a5 This push gains space as well as aggravating the Black queen 11... ♖a6 Not a very good square for the queen, but note that 11... ♖c7? allows 12. ♗xe4 dxe4 13. ♕f4 and the threat to the queen forces the win of a pawn 12. ♗xe4 dxe4 13. ♗h4 ♕g4



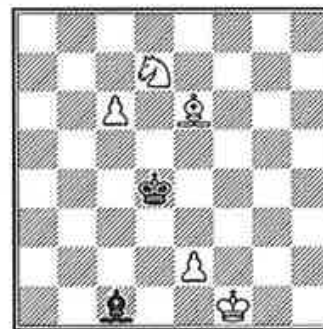
14.f3! A good find! At first I thought this was the only way to maintain an advantage, but later I discovered 14.♞e1 is also good: 14.♞e1 f6 15.♙e3 g5 16.♙xe4 gxh4 17.♙d3. Definitely not however 14.♙xe4? ♙xe2 15.♞c2 ♙xf1 16.♞xf1 ♞c4, when Black has won the exchange and has a small advantage even after 17.♙d3! ♞d5 18.♙e3 ♖f6 14...♙h5 15.g4 f6 16.♙xf6 gxf6 17.gxh5 exf3 18.♖xf3 ♞b5 19.a6 b6 Absolutely not 19...♞xh5?? The pawn is deadly bait and taking it would cause Black grave problems after 20.axb7+! ♙c7 21.♞xa7 ♞b8 22.♞a4 20.♞a4 ♞xa4 21.♞xa4 ♞g8 22.c4 ♙h6 23.♞a3 c5 24.bxc5 bxc5 25.♞b3 cxd4



26.♞b7! Another good find by the Challenger. It could have all been thrown away with 26.♖xd4? when 26...♖c5 27.♖f5 ♖xb3 28.♖xh6 ♞g5 is at least equal for Black 26...♞g4? 26...♞g7 was best, then 27.♞xa7 ♞dg8, though 28.♖h4 is still good for the Challenger 27.♞xa7!?! Strangely 27.♙h1! was even better, as it unpins the g2/♙ for action! 27...♙e3 28.♙h3 f5 29.♙xg4 fxg4+- 27...♞dg8 28.♖e1 ♙d8? 29.♙h1! ♖c5 30.♞f5 ♞g5



31.♞xg5 31.♞a8+! is an almost brilliant idea here, offering to sac' the rook after 31...♙c7 32.♞c8+ as 32...♙xc8 33.♞xg5 forces 33...♖xa6 to stop the pawn queening, and now 34.♞xg4 leaves White a clear rook ahead! 31...♞xg5 32.♖f3 ♞xh5 33.♖xd4 ♙f4 34.♖c6+ ♙c8 35.♖xe7+ ♙d8 36.h3 36.♖c6+ probably won even more quickly, but generally the programs have played this phase of the game well 36...♖e6 37.♖c6+ ♙c8 38.♞e7 ♖c7 39.a7 ♙b7 40.♖e5+ ♙xa7 41.♞xc7+ ♙b8 42.♞b7+ ♙c8 43.♖d7 ♞xh3+ 44.♙xh3 ♙xb7 45.♖xf6 ♙c6 46.♖xh7 ♙c5 47.♙e6 ♙d4 48.♙g2 ♙e3 49.♙f1 ♙d6 50.♖f6 ♙d4 51.♖d7 ♙a3 52.c5 ♙c1 53.c6



It will cost Black his bishop to stop the pawn, and even if the Challenger can't do the knight+bishop ending, he still has another pawn to queen! **1-0**

Star Diamond	0	1/2	0							1/2
Chess Challenger	1	1/2	1							2 1/2

The Challenger had won game 3 as well, and Augusto e-mailed me at this time wondering what was going on. I encouraged him to keep playing the games, especially as he'd intended a 10 game Match at the outset. We all know what the effects of small sample can be - do any readers remember our report of a Mephisto Amsterdam v Fidelity Par Excellence match starting out 1/2-4 1/2!?! It ended, if I remember correctly, 40 1/2-9 1/2!!

Augusto happily agreed... and fortunately for my

forecast the Star Diamond slowly but surely began to turn the match around!

Chess Challenger - Star Diamond

G/1hr match, game 5

B22: Sicilian: 2 c3

1.e4 c5 2.c3 ♟f6 3.e5 ♟d5 4.d4 cxd4
5.♟xd4 e6 6.♙c4 ♟c6 7.♟e4 ♟de7 8.♟f3
♟g6 9.0-0 ♟c7 *The e5/pawn continues to attract heavy fire!* 10.♟e1 b6 11.♙b5?! *Both computers have come out of book now, and here one would normally see ♙d3, ♙b3 or, the move I like, ♟bd2* 11...♙b7 12.♙g5??



White is trying to stop 0-0-0 but has missed two tactical points: the b7-g2 diagonal and a potential knight fork on c2. 12.♟e2 was probably best, then after 12...d6 13.exd6 ♙xd6 14.♙e3 and there's not much in it 12...h6! 13.♙f4 ♟b4! Clearing the b7-g2 diagonal 14.♟d4 Or 14.♟e2 ♟xf4 14...♟c2 15.♟a4 ♟xa1 16.♙e3 ♙xf3 Better than trying to win a pawn with 16...♟xe5?! 17.♟xe5 ♟xe5 as 18.♙xd7+ ♟d8 19.♙xb6+ axb6 20.♟xe5 ♟xa4 21.♙xa4 which actually leaves White only down by ♙ for ♟ and, with a Black knight stuck on a1, the outcome isn't as clear as it seems 17.gxf3 ♙c5 18.♙xc5 bxc5 19.♟d2 a6 20.♙f1 ♟xe5 21.♟xa1 ♟b8 22.b3 ♟d6 23.♟e4 ♟xd2 24.♟xe5 d6



25.♟xg7? 25.♟e3 ♟xe3 26.fxe3 was the only way for White to try and stay in the game, leaving himself with ♙ for ♟+♟ 25...♟e7 26.♙g2 ♟bg8! The queen has nowhere to run, the game was soon over 0-1

As the Star-D had also won game 4, this made it 2½-2½.

Another e-mail arrived: 'Mr. Hallsworth, up to this point, the Challenger is at 2.5 -2.5 vs. the Diamond... but even that will soon change. I can see even more clearly now why you say that more games are needed and that coming to conclusions after a few games can be a disaster when saying which computer is stronger.'

Star Diamond	0	½	0	1	1	1	1	½	½		5½
Chess Challenger	1	½	1	0	0	0	0	½	½		3½

And so to game 10...

Star Diamond - Chess Challenger

G/1hr match, game 10

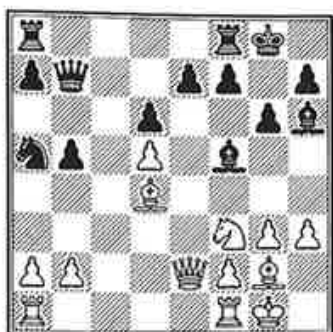
A38: Symmetrical English vs ...g6: 4 Bg2

Bg7 5 Nf3 Nf6

1.c4 c5 2.♟c3 ♟f6 3.g3 g6 4.♙g2 ♙g7 5.♟f3
0-0 6.0-0 d6 7.d3 ♟c6 8.♟a4 *There's nothing particularly wrong with this first move out of book, but ♟d2, ♟h4, a3, ♙d2, ♙e3 and ♟b1 have all been tried before* 8...♙g4 9.h3 ♙d7 10.♟b3 ♟a5 11.♟a3 b6



12.♟d5? A mistake which gives Challenger the chance to rather cleverly win a pawn. 12.♙f4 would have been fine, as would; 12.♙g5 12...♟xd5 13.cxd5 b5! Given the ! as this is the key that wins the pawn by threatening b5-b4. Here the White queen has nowhere to run, so Star-D must create an escape route 14.d4! Given a ! because, although this pawn is now lost, the alternative way of creating an escape route was much worse. 14.b4? stops the pawn advancing, but is no good due to 14...cxb4 15.♟xb4 ♙xa1. Big oops! 14...cxd4! Challenger would have messed up his chance with 14...♙xd4? 15.♟xd4 cxd4 16.♙h6! ♟e8 and now 17.♟d3 leaves White with an initiative 15.♟d3 ♟b6 16.e3 dxe3 17.♙xe3 ♟b7 18.♙d4 ♙f5 19.♟e2 ♙h6?



It is wrong for the fianchetto bishop to yield this diagonal. 19... Bae8 20. Bxg7 Qxg7 at least puts both Black-squared bishops back in the box 20. Bfe1 20.g4! (on this and the next move) was also a good way of taking advantage of Black's mistake: 20... Bc8 21.g5 Bg7 22. Bxg7 Qxg7 23. Bfe1, and White is at least level with better piece placement and pressure worth maybe more than the lost pawn] 20... Bfe8! The initially tempting 20... Bxd5? is a bit of a disaster after 21. Bxe7 Qc6 22. Bxh4 Bxh3 (not 22... Bg7?? 23. Qg5!) 23. Bxh3 Qxd4 24. Qxd4 Bxd4 25. Bxa8 Bg7 26. Bxh1 Bxb2 27. Qd5, and White now has a B for 3xP 21. Qh4 Qd7 22. Bxe4 Qc4 23. b3 Qb6 24. Bb2 Qg5 25. Qf3 Qf6 26. Bxf6 exf6 27. Bxf4

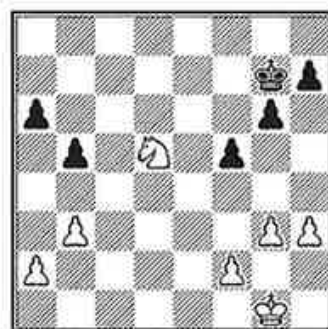


At this point Black is still his pawn up and White doesn't really have sufficient compensation despite all his efforts 27... Qxd5?! Premature. With 27... Qg7 first 28. Bxd6 Bxd8 29. Bxe7 and then 29... Qxd5, Black's plus pawn continues to keep him just ahead 28. Bxd6 Be6 29. Qd4 Bxd8 30. Bc5 What has happened here is that White, though still a pawn down, has been able to create first some initiative and now pressure. Black's position is still okay, but he must play carefully. Obviously I write this note here because things are about to go wrong for him! 30... a6? With 30... Bxd7! 31. Bxb5 Bxb5 32. Qxb5 Qb4 Black would obtain a quietened position at the cost of his extra pawn, and only White's distant pawn majority would give him the slightest of advantages

31. Qc6! Bxd7 32. Bxd1!



Excellent play by the Star-D - something's got to give! 32... Bxd8?? Leading to a quick end. 32... Bc8 was the best chance, though 33. Qxd5 Qxh3 34. Bxe7 Qg7 35. Bdel forces exchanges: 35... Bxe7 36. Bxe7 Bxe7 37. Bxe7 which leave White still on the attack 33. Qxd5 Bc7 34. Bxe6! Demolishes Black's pawn shield 34... fxe6 35. Qxe6+ Qg7 36. Bxd7+ Bxd7 37. Qxd7 Bxd7 38. Bxe7+! Bxe7 39. Qxe7 f5 40. Qd5



Obviously White's Q+5P must beat Black's 5P, but we'll watch a few more moves 40... a5 41. f4 h6 42. Qf2 Qf7 43. Qe3 b4 44. h4 Qe6 45. Qd4 Qd6 46. Qe3 Qc6 If 46... Qe6 47. Qc5! 47. h5 gxh5 48. Qxf5 Qb6 49. Qxh6 Qb5 50. f5! Qc6 51. f6 Qd6 52. f7 Qe7 53. Qe5 1-0

Star Diamond	0	1/2	0	1	1	1	1	1/2	1/2	1	6 1/2
Chess Challenger	1	1/2	1	0	0	0	0	1/2	1/2	0	3 1/2

We have never done much testing of the Saitek Chess Academy/Talking Chess Academy - goodness knows why not, as it's a got a genuinely decent playing program and is packed with both voice and display features.

I've played a handful of games against it myself at G/15 and concluded that it's around 160 BCF = 1880 Elo, which is what we've always advertised, but since the Challenger v Star-D match, Augusto has offered to play the 2000 Elo Chess Challenger against the Chess Academy. Of course he wanted my forecast, so I've gone for 6-4 to the Chess Challenger! More next issue!!

THE LATE, LATE NEWS

4TH CSVN AT LEIDEN - AND 9TH GEBRUIKERS

It is strange how I can start an issue of *SelSearch* thinking I'm a bit short of material, and find when I get to preparing articles for the last 2 tournaments which I've scheduled for it... that I've only got 1 page of space left!

So for now, here is a brief introduction to the events - in our next issue we'll have proper results lists, photos from Rob van Son, and some analysed games! Promise.

9TH. GEBRUIKERS 2004

Our regular contributor **Rob van Son** sent me a list of entrants before the event...

The first thing to note is that only computers manufactured before 1994, i.e. over 10 years old, were allowed to enter.

It is interesting to compare the Dutch computer chess ratings with ours, they are encouragingly much closer together than some we've seen!

Computer	Holland	SelS
Mephisto RISC 1MB	2200	2239
Kasparov RISC 2500	2191	2205
Mephisto Vancouver 68020	2161	2174
Mephisto Portorose 68020	2127	2149
Mephisto Polgar 5MHz	2042	1975
Fidelity Prestige Mach3	1993	1985
Mephisto Milano	1962	1965
Novag Super Expert C	1960	1972
Mephisto MM4	1904	1911
Saitek Turbo Advanced Trainer	1896	1852
CXG Dominator	1880	1877
Fidelity Chess Challenger 7	1250	1200

Though most of our ratings are very close, we have the Polgar lower than in Holland. At first I thought the Prestige had the Avant Garde (1830) program, but this board was given to Rob after Jan Louwman's death and had been upgraded by Jan to contain the Mach3 68000 program! A rather special and unique unit about which more next issue.

9th Gebruikers was won by the 2nd. rated entrant: Johan de Koning's program in the

RISC 2500. I always thought it and the top rated Mephisto RISC1 by Ed Schroder were very close in strength, but over a few thousand (!) games Ed's program has stayed ahead. However, on this occasion the RISC 2500 came out on top... and by no less than 1½ pts from the 7 games by scoring 6-0=1. It's only draw was against Rob's Prestige!

The Novag Super Expert did better than expected and came 3=, whilst the Polgar was a disappointment coming next to last.

I had wondered whether to offer prizes for readers who could guess how many the old Chess Challenger7 got, but decided you'd probably all get it right!

4TH. INTERNATIONAL CSVN TOURNAMENT, 2004

The entry list for this was anything but pre-1994 - it was pretty much as up-to-date as you can get with the exception of Fritz, Junior and HiarcS! Even the new 16 card Hydra was playing and, fresh from its success at Paderborn, was a hot favourite! However for **4th. CSVN** it reverted to form... as did **Shredder!**

Actually Shredder's programmer Stefan Meyer-Kahlen must have had a bit of a shock as, after beating Ant and Nexus in rounds 1 and 2, it then lost to Diep! After 3 rounds the leaders were:

- 3 Diep!
- 2½ Hydra, Chess Tiger
- 2 Ruffian, Shredder, The King, Nexus
- 1½ IsiChess, Deep Sjeng

But Diep then drew with Tiger and lost to Hydra so, with Hydra winning games 4 and 5, as did Ruffian & Shredder (including beating Tiger), the leaders after 5 rounds were:

- 4½ Hydra
- 4 Shredder, Ruffian
- 3½ Diep
- 3 Chess Tiger, The King

Then in rounds 6-8 Shredder did its number on Hydra, Ruffian, and The King, eventually finishing with 8/9... a full 1½ pts clear of 2nd placed Hydra, which had reverted to drawing mode after its loss to Shredder!

RATING LISTS AND NOTES

A brief guide to the meaning of the HEADINGS may help 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.

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. I believe this makes our *Sel/Search* Rating List the most accurate available for Computer Chess anywhere in the world.

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

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

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

A guide to PC Gradings:

386 & 486 based PC's have now disappeared from our **top 50** listing. The GUIDE below will help readers calculate approximately what rating their program should play at when used on alternative hardware.

Pent-PC represents a program on a Pent/Pent2/MMX/K6 at approx.

200MHz, with 16-32MB RAM.

P4-PC represents a program on a Pentium4/K7 at approx. **1000MHz**, with 256MB RAM.

Users will get slightly more (or less!) if their PC speed is significantly different. A doubling in **MHz speed** = approx. **40 Elo**; a doubling in **MB RAM** = approx. **3-4 Elo**.

RATING LIST (c) Eric Hallsworth. PC PROGS		SelSearch 112		Jun 2004	
	Elo	+/-	Games	Pos	Human/Games
BCF Computer	2757	20	504	1	
269 SHREDDER8 P4-PC	2732	12	1481	2	2703 20
266 SHREDDER7.04 P4-PC	2713	13	1151	3	
264 JUNIOR8 P4-PC	2702	15	879	4	
262 HIARCS9 P4-PC	2701	11	1554	5	2727 8
262 FRITZ8 P4-PC	2700	11	1559	6	
262 FRITZ7 P4-PC	2674	16	836	7	
259 CHESS TIGER15 P4-PC	2668	11	1712	8	2542 2
258 GAMBIT TIGER2 P4-PC	2666	12	1305	9	2705 13
258 CHESS TIGER14 P4-PC	2655	12	1316	10	2478 7
256 SHREDDER6 P4-PC	2652	11	1602	11	2651 14
256 HIARCS8 P4-PC	2644	10	2081	12	2616 53
255 FRITZ6 P4-PC	2644	12	1372	13	2701 12
255 JUNIOR7 P4-PC	2633	22	430	14	
254 GAMBIT TIGER1 P4-PC	2624	15	872	15	
253 REBEL TIGER12 P4-PC	2621	10	1891	16	2621 22
252 JUNIOR6 P4-PC	2621	21	480	17	2674 4
252 REBEL CENTURY4 P4-PC	2608	9	2347	18	2467 19
251 HIARCS732 P4-PC	2607	12	1397	19	
250 HIARCS7-DOS P4-PC	2596	14	1018	20	2642 15
249 SHREDDER5 P4-PC	2589	16	760	21	2600 15
248 SHREDDER4 P4-PC	2587	12	1375	22	2513 6
248 FRITZ516 P4-PC	2587	12	1480	23	
248 FRITZ532 P4-PC	2584	12	1326	24	
248 NIMZ08 P4-PC	2584	24	353	25	2594 22
248 CHESSMASTER 6/7000 P4-PC	2583	13	1208	26	
247 NIMZ07 P4-PC	2580	25	340	27	2655 6
247 REBEL CENTURY3 P4-PC	2577	12	1308	28	2475 10
247 NIMZ098 P4-PC	2571	20	503	29	
246 GANDALF5 P4-PC	2567	11	1537	30	
245 JUNIOR5 P4-PC	2566	13	1115	31	
245 GANDALF4 P4-PC	2560	13	1207	32	2592 24
245 HIARCS6 P4-PC	2551	14	974	33	
243 SOS P4-PC	2551	14	1051	34	
243 NIMZ099 P4-PC	2549	21	460	35	2592 43
243 REBEL CENTURY1.2 P4-PC	2548	25	333	36	2598 17
243 REBEL-10 P4-PC	2548	14	1063	37	2677 14
243 REBEL9 P4-PC	2547	15	846	38	
243 GOLIATH LIGHT P4-PC	2547	19	549	39	
243 REBEL8 P4-PC	2542	17	712	40	2504 12
242 MCHES PRO6 P4-PC	2535	14	1068	41	2600 2
241 MCHES PRO7 P4-PC	2534	13	1207	42	2459 6
241 CHESS GENIUS5 P4-PC	2528	33	193	43	2711 2
241 SHREDDER3 P4-PC	2524	14	1031	44	
240 MCHES PRO8 P4-PC	2523	15	878	45	2218 6
240 SHREDDER2 P4-PC	2500	27	282	46	
237 GANDALF3 P4-PC	2477	43	115	47	
234 JUNIOR4.6 P4-PC	2474	22	413	48	
234 KALLISTO2 P4-PC	2460	25	332	49	
232 FRITZ5 PENT-PC	2451	19	589	50	
231 HIARCS5 PENT-PC					

Comp-v-Comp GUIDE, if Pentium4/1000 = 0

Deep prog on 8xP4/1000	80	Deep prog on 4xP4/1000	60
P4-Athlon/2000	40	Deep prog on 2xP4/1000	30-
P4/1000	0	P3-K7/500	-40
PPro2-K6/300	-80	PPro2-K6/233	-100
Pent/200	-120	486DX4/100	-200
486/66	-240	386/33	-320

SELECTIVE SEARCH is

© Eric Hallsworth

No part of this publication may be reproduced in any way without the express written permission of **Eric Hallsworth, 45 Stretham Road, Wilburton, Cambs CB6 3RX.**

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

[web pages]: www.elhchess.demon.co.uk

Please send ARTICLES, RESULTS, GAMES and SUBSCRIPTIONS direct to Eric... thanks!

RATING LIST (c) Eric Hallsworth, selSearch		112	+/	-	Jun 2004	Games Pos	Human/Games	112	+/	-	Jun 2004	Games Pos
		Elo			Games						Games	
BCF Computer												
219 TASC R30-1995		2359	16		837	1	2276	18			2276	18
214 TASC R30-1993		2317	12		1357	2	2336	66			2336	66
214 HEPH LONDON 68030		2315	24		353	3	2272	6			2272	6
213 HEPH GENIUS2 68030		2308	18		660	4	2308	23			2308	23
210 HEPH LONDON PRO 68020/24		2286	61		57	5						
209 HEPH LYON 68030		2277	15		873	6	2392	51			2392	51
209 HEPH PORTOROSE 68030		2275	20		515	7	2340	82			2340	82
208 HEPH RISC2 1MB		2269	20		523	8	2316	9			2316	9
207 HEPH VANCOUVER 68030		2260	17		698	9	2347	54			2347	54
206 HEPH BERLIN PRO 68020/24		2254	12		1287	10	2217	29			2217	29
206 HEPH LYON-VANC 68020/20		2254	27		296	11	2327	10			2327	10
206 KASP RISC 2500-512K		2250	25		338	12	2330	17			2330	17
204 HEPH RISC1 1MB		2239	9		2549	13	2232	95			2232	95
203 HEPH ATLANTA-MAGELLAN		2230	14		975	14	2357	9			2357	9
203 KASPAROV SPARC/20		2226	13		1151	15	2251	24			2251	24
203 HEPH MONTREUX		2224	15		865	16	2288	54			2288	54
200 KASP RISC 2500-128K		2204	9		2632	17	2270	67			2270	67
200 HEPH LONDON 68020/12		2202	77		36	18	2040	4			2040	4
198 NOVAG STAR DIAMOND-SAPPHIRE		2188	26		307	19						
198 FID ELITE 68040-V10		2188	53		75	20	2215	21			2215	21
196 HEPH VANCOUVER 68020/12		2174	8		2270	21	2121	33			2121	33
196 HEPH LYON 68020/12		2169	8		3332	22	2246	92			2246	92
193 HEPH PORTOROSE 68020		2149	10		1846	23	2238	199			2238	199
193 HEPH LONDON 68000		2147	61		58	24						
192 NOV SAPPHIRE2-DIAMOND2		2138	18		609	25	1800	1			1800	1
191 HEPH BERLIN 68000		2134	12		1311	26	2221	25			2221	25
190 FID ELITE 68030-V9		2127	15		948	27	2169	13			2169	13
190 HEPH VANCOUVER 68000		2125	12		1359	28	2126	23			2126	23
190 HEPH LYON 68000		2122	11		1642	29	2083	33			2083	33
190 HEPH ALMERIA 68020		2120	14		1026	30	2152	243			2152	243
188 HEPH HILPRO-MASTER-SENATOR		2107	19		569	31	2169	10			2169	10
187 NOV SAPPHIRE1-DIAMOND1		2097	12		1483	32	2139	83			2139	83
186 HEPH PORTOROSE 68000		2094	11		1573	33	2111	25			2111	25
185 FID MACH4-DES2325 68020-V7		2083	9		2286	34	1888	2			1888	2
182 FID ELITE 2*68000-V5		2063	26		312	35	2080	54			2080	54
181 HEPH POLGAR/10		2050	18		632	36	2069	54			2069	54
180 HEPH DALLAS 68020		2046	14		973	37	2033	73			2033	73
180 HEPH ROMA 68020		2034	14		1070	38	2033	73			2033	73
179 KASPAROV BRUTE FORCE		2034	14		1060	39	2182	42			2182	42
178 HEPH ALMERIA 68000		2029	14		1037	40	2093	31			2093	31
177 NOVAG SCORPIO-DIABLO		2017	10		2015	41	2126	140			2126	140
174 KASP HNS-CHALLENGER-EXPERT		1999	25		868	42	2072	65			2072	65
174 HEPH NIGEL SHORT		1994	25		322	43	2136	5			2136	5
173 FID MACH3-DES2265 68000-V2		1991	6		5473	44	2107	245			2107	245
173 HEPH DALLAS 68000		1987	11		1526	45	1959	65			1959	65
171 HEPH POLGAR/5		1975	8		2799	46	2076	17			2076	17
171 HEPH HNS/5		1975	11		1750	47	1850	17			1850	17
171 NOV SUPER FORTE-EXP C/6		1971	8		2843	48	2000	24			2000	24
171 HEPH MONDIAL 68000XL		1971	15		852	49	2049	77			2049	77
170 HEPH MILANO												
170 NOVAG JADEZ-ZIRCON2		1965	13		1192	50						
170 HEPH MONTREAL-ROMA 68000		1963	39		138	51	2032	48			2032	48
169 HEPH AHSTERDAM		1960	9		2507	52	1968	56			1968	56
168 HEPH ACADEMY/5		1955	9		2259	53	2054	182			2054	182
168 NOV OBSIDIAN-EMCLASSIC-AMBER		1947	9		2384	54	2023	111			2023	111
167 FID MACH2B		1945	48		92	55						
166 NOV SUPER FORTE-EXP B/6		1937	26		298	56	1960	25			1960	25
166 HEPH NEGAA/5		1934	12		1437	57	2005	93			2005	93
165 KASPAROV MAESTRO D/10		1930	8		2697	58	2005	197			2005	197
165 FID MACH2C		1927	9		1323	59	1923	127			1923	127
164 KASP CENTURION-ADVTRAVEL-BRAVO		1924	12		2449	60	2059	127			2059	127
163 HEPH M4/5		1919	15		940	61	1830	30			1830	30
163 HEPH MODENA		1911	8		2701	62	2006	97			2006	97
162 KASPAROV MAESTRO C/8		1908	16		780	63						
162 NOVAG RUBY-EMERALD		1899	27		295	64	1999	98			1999	98
161 FID TRAVELMASTER		1898	17		697	65	1981	48			1981	48
161 HEPH SUPERMOND2-COLLEGE-MCARLO4		1895	12		1388	66	2021	176			2021	176
161 FID MACH2A		1894	19		548	67	1909	90			1909	90
160 KASP TRAVEL CHAMPION		1892	27		284	68	2074	8			2074	8
159 HEPH MONTE CARLO		1889	25		330	69	1912	35			1912	35
159 CONCH PLY-VICTORIA/5.5		1880	38		209	70	1862	22			1862	22
159 CXG SPHINX GALAXY/4		1879	28		260	71	2046	10			2046	10
158 KASP TURBOKING2		1877	16		771	72	1861	22			1861	22
158 NOV EXPERT/6		1877	9		2375	73	1947	157			1947	157
156 FID CLUB B		1866	14		975	74						
156 NOV EXPERT/5		1864	32		206	75	2026	22			2026	22
155 NOV SUPER FORTE-EXP A/5		1851	12		1309	76	1827	18			1827	18
154 FID PAR E-ELITE+DES2100		1842	11		305	77	2012	68			2012	68
154 NOV FORTE B		1839	9		1530	78	1800	38			1800	38
154 HEPH REBEL		1837	10		2462	79	1916	220			1916	220
153 HEPH REBEL A		1833	11		1836	80	1953	26			1953	26
152 KASPAROV MAESTRO A/6		1831	9		2188	82	1852	80			1852	80
152 KASP STRATOS-CORDONA		1825	9		2191	83	1940	69			1940	69
151 KASP TURBOKING1		1823	31		224	84	1767	6			1767	6
151 CONCHES/6		1818	15		927	85	1864	131			1864	131
151 HEPH SUPERMONDIAL1		1817	10		2086	86	1890	48			1890	48
150 CONCH PLYMATE/5.5		1812	24		352	87	1900	61			1900	61
149 NOV EXPERT/4		1811	46		102	88	2017	8			2017	8
149 SCI TURBO KASPAROV/4		1809	11		1533	89	1990	6			1990	6
149 KASP STILITANO		1805	9		2184	90	1923	55			1923	55
149 FID EXCELLENCE/4		1799	14		1020	91	1960	43			1960	43
148 CONCH PLYMATE/4		1799	21		470	92	1933	64			1933	64
148 FIDELITY ELITE C		1793	13		1118	93	1824	36			1824	36
146 FID ELEGANCE		1786	24		362	95						
145 HEPH H4/5		1784	35		174	96	2007	6			2007	6
145 SCI TURBOSTAR 432		1774	17		672	97	1869	11			1869	11
145 FID EXCELLENCE-DES2000		1766	17		748	98	1852	40			1852	40
145 FID EXCELLENCE-DES2000		1765	12		1344	99	1860	10			1860	10
145 FID EXCELLENCE-DES2000		1761	11		1607	100	1859	70			1859	70
145 FID EXCELLENCE-DES2000		1761	11		1607	100	1828	57			1828	57