

# SELECTIVE SEARCH 111

## THE COMPUTER CHESS MAGAZINE

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Editor: Eric Hallsworth

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Above: An EXCELLENT set of STAMPS from the JERSEY FESTIVAL OF CHESS.

Right: 3D boards keep improving - this is Shredder 8



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- **SUBSCRIBE NOW** to get a REGULAR COPY of the LATEST ISSUE and RATING LIST mailed to you as soon as it comes out!
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- 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-5pm

## 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. Scrolling 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 + terrific graphics.

**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 Blitz Champs, and came 1= with Deep Junior for main title.

**JUNIOR 7 £25** - **1 left!** - top features in its Chess-Base Interface etc. Strong: decent positional chess and aggressive with fast tactics!

**DEEP JUNIOR 7 £40** - **1 left!** - the multi-processor World Champion version of Junior 7!

**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.

ChessBase version also available **£39.95**. Both CDs also include 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*.

As you know I promised some time ago to keep you informed on subscription numbers each issue, so that readers can anticipate the dreaded day when the number drops below 200 and *Selective Search* nears its final 6 issues:

- Issue 100 270 sent out
- Issue 105 221 sent out
- Issue 106 212 sent out
- Issue 107 203 sent out
- Issue 108 201 sent out
- Issue 109 195 sent out
- Issue 110 188 sent out

The decline continues I'm afraid but, as I said last time, I have decided I would like to get the magazine published through to 2005 so that it completes a full 20 years. Therefore although the subscription numbers have fallen below the 200 figure, which means the net earnings I get considering the number of hours I work on each Issue is no longer even remotely worthwhile, I'm not announcing 'the last 6 issues' just yet.

So if you're due for renewal at this time, can I encourage you to please do so! When I decide it really is time to call it a day then, as I have promised, I will complete 6 more issues so that there is no danger of renewing and not getting your full quota!!

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.

## A Change to the RATING LIST

The program (on a grand old Atari ST!) which runs the *Selective Search* Rating List has built-in features aimed at continually adjusting rating levels when necessary to equalise everything to BCF (British Chess

Federation) levels. The idea is that, if any **dedicated** computer or **PC engine** were entered in, say, the British Major Open, I believe it would gain a performance grading very close to the figure shown in *SelSearch*. We have done this in the past and normally been within 5 BCF of our calculated rating - where there's been a bigger difference (and even then it's been within 10 BCF), the computer has usually tended to be slightly higher than our rating!

We have also entered PC programs in other events, as well as used the results when others have done similarly, and again have found that most results are close to expectation, up a little or down a little, but the rating program ensures that all the ups and downs are carefully averaged out, whilst at the same time applying an emphasis on most recent results.

After the BCF figure is established a conversion ( $BCF * 8 + 600$ ) is applied to obtain an equivalent Elo figure for each computer or program.

However these built-in adjustment factors don't quite work when, every year or so, I conclude that the PC programs need to have their ratings adjusted closer to the latest PC hardware available.

That time arrived some months ago, so early in February, as soon as *SelSearch 110* had gone out, I set about the massive task of recalibrating everything. Ideally I would have liked to adjust everything shown as P3-PC (which represented a P3/500MHz) to the P4/2000MHz level, but I have found in the past that making too big a leap forward at one go can result in weird things happening to the figures for older PC hardware and, especially, the dedicated computers. However if I stick to a doubling it usually behaves itself, so that's what I've done, and the PC figures this time are shown as P4-PC and represent a Pentium4 or similar at 1000MHz.

Now I know some of you may feel I could then 'simply' have gone straight into another doubling and got myself to the P4/2000 mark, and maybe a better programmer and

mathematician than I could do that! But it's taken me 3 weeks of hard work to effect this change, and I haven't nearly got the energy to start all over again just yet!

Also I'd like to run the adjusted program for a little while and make sure it's behaving properly before I go for the next step! Of course I still have the previous figures carefully saved onto floppy disk in case something goes wrong even now!

Hopefully readers will find the new P4-PC ratings more realistic, and therefore more useful for relating to current PC hardware.

### More on RATINGS

Whilst we're on the subject of ratings, the latest SSDF rating list has figures for no less than 4 programs which are not on my List, and we have a rating for a program not on theirs!

Hopefully I'll be able to include **Chessmaster 9000**, **Rebel-12**, **Deep Sjeng1.5** and **Ruffian2.0.0** very soon.

The one I have included for which tests are still to start in Sweden is **Shredder8!** As I write I have 250 results in for this program and was determined to get it included as, [1] it's the current World Champion, and [2] Shredder7.04 is already at the top! If you flip to the inside back cover, unless something very startling has happened between writing these notes and sending the finished magazine to the printers, you'll see that Shredder8 has replaced its predecessor at the top by around 20 Elo points.

Before I can add the other new programs I have to decide which old programs to delete from my rating program database! There is unfortunately an upper limit for the number of entries allowed in Atari databases... and I've reached it!

I've done a quick adjustment from Swedish levels to ours, and reckon the following approximate ratings would apply if these 4 programs were in this Issue of *Selective Search*.

- 2665 Chessmaster 9000
- 2640 Rebel-12
- 2610 Deep Sjeng 1.5a
- 2550 Ruffian 2

Goodness knows what's happened to the new **Ruffian2**, as it's around 50 Elo below the rating we'd estimated for Ruffian1.0.1/1.0.5. According to the SSDF notes, 2 new 'upgrades' appeared (on the Lokasoft website) on 24/Feb., and they are hoping one of these (which one? and why two new versions?) will have sorted out whatever the problem is.

The **Rebel-12** (Windoze) rating is a little higher than that for Rebel Century-4, and is almost certain to be a reliable figure.

**Chessmaster's** ratings are always hard to obtain as they don't work correctly under AutoTest conditions, so anyone playing games with them has to enter moves by hand instead of leaving them to play overnight. I gather there is also a way to play 1 game at a time automatically, but it's still slow going! Anyway the determined SSDF folk have managed to play 376 games with **Chessmaster 9000** even under these conditions, and the rating is very good - as you'd expect with any de Koning/King program - though not quite up with Shredder, Junior, Hiars and Fritz.

**Deep Sjeng** hasn't done all that well in one or two major tournaments, but has a reasonable enough rating after 430 SSDF games, so may be better than I had anticipated.

### RESULTS from all over the Place!

#### *Deep Fritz 8*

The new **Deep Fritz 8** is of course the program which recently drew 2-2 in its 3D match with Gary Kasparov. We showed some early results from the '*Blackbeard's Ghost*' website on the Internet in our last issue, and the updated scores are now:

■ DFritz 8 - Shredder 704	28-22
■ DFritz 8 - Ruffian 2	28½-21½
■ DFritz 8 - Junior 8	23-27 !
■ DFritz 8 - Chessmaster 9000	31-19

The games are played on two P3/1200 machines with 512MB RAM, and the time control is 60/90 then 60/75 and G/30 finish.

Although 'Deep' programs are aimed first and foremost for **multiprocessor** use, DF8 also works fine on a standard PC, though you have to pay £75 I'm afraid! I guess a £39.95 single processor version will appear eventually, though there's no news of that as yet.

### **Fischer Random Chess for Computers!**

**Armin Duerr** on his 'beepworld' web site has been showing a chess computer tournament table for **Fischer Random Chess** [FRC] for some time, but I only came across them recently so the Tournament Table appeared for only the first time in *SelS 110*.

At that time **Hiarcs 9** and **Rebel 12** had just been added.

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!

In *SelS 110* **Fritz8** and **Hiarcs9** shared top spot with 422½/600 points each, with **Shredder7.04** 3rd. on 418½.

But since then **Armin** has been able to test 3 new versions. **Ruffian2** (which therefore automatically replaces **Ruffian1.0.1**, though strangely 1.0.1 scored 341½, 10½ more than its upgrade!).

**El Chinito** has a high placing in the **Ridderkerk** list, so deserved a try and indeed

scored enough to squeeze into 19= place, which means that previous 21st. **Tao5.4** now drops out!

Finally a new version of **SOS** has improved on the **SOS3** score of 296½ with a score of 315, moving it 1 place up the Table!

All of this means there's some shuffling at the top as **Hiarcs9** has scored slightly better against the new entrants than it did against their predecessors, whilst **Fritz8** has done worse!

**Fischer Random Test Table**

Pos	Program	/600
1	<b>Hiarcs 9</b>	428
2	<b>Fritz 8</b>	413½
3	<b>Shredder 7.04</b>	412
4	<b>The King 3.23 (sel=12)</b>	387½
5	<b>Chess Tiger 15 (style=normal)</b>	359
6	<b>Junior 8</b>	350
7	<b>Ruffian 2</b>	331
8	<b>SOS 4/V3</b>	315
9	<b>List 5.04</b>	306
10	<b>Rebel 12</b>	302
11	<b>Deep Sjeng 1.5</b>	288
12	<b>Fritz 5.32</b>	287½
13	<b>Delfi 4.1</b>	252½
14=	<b>Aristarch 4.6</b> <b>Nimzo 8</b>	244½
16	<b>Little Goliath 2000 v3.9</b>	235½
17=	<b>Crafty 19.03</b> <b>Pepito 1.59</b>	233
19=	<b>Anaconda 1.0</b> <b>El Chinito 3.1c0</b>	231
21	<b>Yace Paderborn</b>	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 is another Tournament which I introduced in the last Issue, and comes from the **Uttinger-Buhler** site where they have been running this rather unusual but very interesting event.

I hope regulars won't mind my occasionally repeating background details from time to time as, although generally I am losing rather

than gaining readers, I also often get one or two new subscribers added between issues.

Something such as the unusual '**5Moves 2004 Tournament**' would be a great mystery to them if we didn't explain a little about Utzinger's idea, which is to give all the programs the same Opening Book!

But it isn't a 'normal' super-large Book as what it comprises is a range of carefully chosen varied openings by Michael Scheidl, and these opening only and always go just 5 moves deep! Thus variety is guaranteed yet it leaves the engines themselves always playing 'out of Book' at move 6.

The idea is that it is the engines which are getting tested and not the opening books! Of course it's no good for official rating lists when one must use each engine with its own book, as the book is rightly an important and integral part of the finished program's performance ability.

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

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 Utzinger has now replaced Shredder7.04 with the new **Shredder8** and things are completely different. Hiarcs9 in particular has suffered being 6½-2½ down to the newcomer after 9 completed rounds. Here is the full Table as it stands at present.

**5Moves 2004 Tournament**

Pos	Program	/65
1	<b>Shredder 8</b>	45
2	<b>The King 3.23</b>	34½
3=	<b>Hiarcs 9</b> <b>Chess Tiger 15</b>	32
5	<b>Ruffian 2.0</b>	31
6=	<b>Fritz 8</b> <b>Junior 8</b>	30½
8	<b>Rebel 12</b>	24½

As is immediately obvious, Shredder8 has a massive lead with only 1 round to go. I'll update this after the final round for our next Issue.

**Chris GOULDEN updates us on the LATEST UCI & WinBoard engines**

I've been relying on **Chris** for a while now to keep me in touch with the latest UCI and WinBoard developments. Before we check out his news, here's the latest **Ridderkerk Top 20**. I have deducted 70 Elo from each Ridderkerk rating so that the finished list equates better with the P4/1000MHz ratings in this issue of *Selective Search*. With one or two exceptions no commercial programs are tested.

**Ridderkerk Feb 2004**

Pos	Engine	Rating	Comment
1	<b>Deep Sjeng 1.5</b>	2664	Higher than SSDF equiv
2	<b>The King 3.23</b>	2626	
3	<b>Ruffian 2.0</b>	2621	
4	<b>Gandalf 4.32h</b>	2580	
5	<b>Aristarch 4.21</b>	2572	Gone up well since 4.04
6=	<b>Little Goliath 3.9</b> <b>Rebel 12</b>	2657	Lower than SSDF equiv
8	<b>SmartThink 0.17a</b>	2553	
9	<b>WARP 0.58</b>	2545	
10	<b>Green Light Chess 3.00</b>	2544	
11	<b>Crafty 19.06</b>	2526	Gone up well since 18.15
12	<b>Yace Paderborn</b>	2512	
13	<b>Zarkov 4.5e</b>	2508	New, not available yet
14	<b>Quark 2.05b</b>	2477	Gone up a bit since 1.76
15	<b>Dragon 4.5</b>	2475	
16	<b>Nejmet 3.07</b>	2465	
17	<b>Ktulu 4.1</b>	2461	Now 4.2 see Chris' report
18	<b>Tao 5.4</b>	2460	
19	<b>Patzer 3.61</b>	2455	
20	<b>King of Kings 2.52</b>	2449	
21	<b>Pharaon 2.62</b>	2442	
22	<b>Amyan 1.592</b>	2441	
23	<b>Comet B.60</b>	2436	Not improved for a while
24	<b>Delfi 4.3</b>	2433	
25	<b>Gromit 3.8.2</b>	2428	

Now Chris Goulden's e-mail report...

Please find enclosed my latest **5 Division Tournaments**. As you know I do not test the commercial engines unless I am using one as a benchmark. Most of the engines used were as on the Ridderkerk list Dec. 2003, the only exceptions being:

- El Chinito 3.25 (not on his list)
- Ktulu 4.2 (a new version)

The rest you know about. Little Goliath was not included because 3.9 is unstable under WinXP.

The good news is that there appears to be life after Ruffian's departure into the commercial world! The new **Ktulu 4.2** is 30 Elo ahead of Ruffian 1.05 at

- <http://www.uciengines.de>

This is also a Game in 5 list, the same as my own Tournaments, and **Ktulu** narrowly won in my 1st. Division. I hope it is not a program copy like List at the World Championship!

Incidentally the disgraced List 5.12 is currently available for download on at least one Internet site where it gives itself accolades for its fast and sudden progress and makes no reference to the accusations, upheld by the ICCCA, that it is in reality a Crafty clone!?

### Division 1

Pos	Engine	/14
1	<b>Ktulu 4.2</b>	10
2	<b>Ruffian 1.0.1</b>	9½
3	<b>Green Light Chess 3.0</b>	8½
4	<b>Aristarch 4.21</b>	7
5	<b>Smarthink 17a</b>	6½
6	<b>Yace Paderborn</b>	5½
7	<b>El Chinito 3.5</b>	5
8	<b>Crafty 19.10</b>	4

**Quark 2.5** won the 2nd. Division, and I was surprised to see Gromit quite a way down! Even more surprisingly in view of its bottom placing was that it won both its games against easy winner Gromit!

### Division 2

Pos	Engine	/14
1	<b>Quark 2.05</b>	10
2	<b>Tao 5.4</b>	9
3	<b>Pharaon</b>	8½
4	<b>Dragon 4.5</b>	8
5=	<b>Nejmet 3.07</b> <b>Comet B62.2</b>	6½
7	<b>Gromit 3.8.2</b>	4½
8	<b>Patzer 3.61</b>	3

The new **Anmon** won the 3rd. Division by a mile - perhaps not surprising as it is also doing well in the current UCI Blitz tourney.

### Division 3

Pos	Engine	/14
1	<b>Anmon 5.30</b>	11½
2	<b>Delfi 4.4</b>	8½
3	<b>Wildcat 3</b>	8
4=	<b>Pepito 1.59</b> <b>Leila 0.53h</b> <b>PostModernist 1007</b>	7
7	<b>Amyan 1.59.2</b>	5
8	<b>Kaissa 2.0</b>	2

The 4th. Division was a good contest with **Abrok** only beating **The Baron** because of their head-to-head result, which was 2-0. *Selective Search* subscriber Tom King came in 3rd. place with his program Francesca! It won both its games against Abrok, but only scored ½-1½ against The Baron.

### Division 4

Pos	Engine	/14
1=	<b>Abrok 5.0</b> <b>The Baron 1.0.6</b>	9½
3	<b>Francesca 0.09</b>	8½
4	<b>Phaloux 22</b>	7½
5	<b>Arasan 7.3</b>	6½
6	<b>Thinker 4.5</b>	6
7	<b>Betsy 6.51</b>	4½
8	<b>SOS 99.11.03</b>	3½

**Amy** won Division 5, though its head-to-head with King Of Kings was a draw, so top place was earned only through winning more

games. Eric had wondered whether List might be in a higher division last time, but this 4.61 version is only rated 2380 (=SelSearch 2310) in Ridderkerk, and both it and The Crazy Bishop were happier in this division. It seems that the now tournament-banned program copy of List 5.x which entered the World Championship was much stronger (thanks to Crafty?) than versions 'pre-5'?!

**Division 5**

Pos	Engine	/14
1=	Amy 0.85 King Of Kings 2.50	9
3	KnighDreamer 3.2	8½
4=	The Crazy Bishop 0.045 List 4.61	8
6=	Queen 2.42 Chezzz 1.0.3	5
8	Movie 0.0.7.099	3½

**Pete BLANDFORD's massive G/60 Tourny!**

Pete has been adding to his massive All-Play-All, 4 games each match, Tournament for some 2 or 3 years now. Each time he buys a new program it gets added to the list - a beauty of the ChessBase interface is that you can play both All-Play-All and Run The Gauntlet tournys, so Pete does a Run The Gauntlet for each new program so that it alone plays against all the others, which is obviously much faster than having to play the whole All-Play-All every time.

I was interested to note that Pete had played Tiger15 using both 'normal' and 'gambit' settings. It reminded me of something which Mark Uniacke and I noticed a couple of months or so ago!

We'd been testing a Hiarcs9 'upgrade' and when comparing our scores next day found that whilst on my machine the Hiarcs9X had beaten Tiger15 easily, on Mark's it had been much closer. This seemed very strange at first, but as we investigated we found that Mark's Tiger was set to 'normal' and that was its default setting, whereas Tiger on my machine had played under the 'Gambit' setting, and that is what its default is here?!

It seems that they've changed the Tiger defaults when a second lot of CD's has been

pressed. From Mark's and my results we concluded that 'normal' was the better setting, and that's what shows up in Pete's results.

**Pete Blandford  
G/60 All-Play-All 4 games each match**

Pos	Program	Score/60
1	Junior 8	38
2	Hiarcs 8 Bareev	36
3	Fritz 7	33
4	Fritz 8	32
5=	Hiarcs 9 Chess Tiger 15- normal	31
7	Chess Tiger 14	30½
8=	Shredder 8 Junior 7 Hiarcs 8	30
11	Gambit Tiger 2	29½
12	Shredder 7	27½
13=	Chess Tiger 15- gambit Hiarcs 8	26
15	Fritz 6	25½
16	Fritz 532	24

Continuing the Tiger discussion, I note that Tiger15-normal did better than gambit, and also Tiger 14 (the normal version) did better than Gambit Tiger 2, which was the Tiger14 in gambit style.

Whilst Frank Holt always feels that Junior versions are over-rated in SelSearch, as he rarely gets good results with them, Pete Blandford has had Junior8 at the top of his list ever since it came out!

On the other hand Frank gets top results with Shredder whereas neither S7 nor S8 has done too well at Pete's!? Funny old business, isn't it?!

And I know Mark will be confused to see H8-Bareev ahead of H9, as we obviously tested these very thoroughly and firmly believe H9 is at least 20 or 30 Elo better?!

That's what testing is all about, and one hopes that, as I regularly input all the results I possibly can, especially those sent in by SelSearch readers, we will end up with a Rating List we can trust when, before each magazine issue, it's all been compiled and computer-calculated!



# WORLD COMPUTER CHESS CHAMPIONSHIP, 2003

In our last Issue I promised more games from the WORLD CHAMPIONSHIP, but space has overtaken me with other articles. So this time we have 2 wins from **Fritz8**, and maybe next time there will be room to have a look at a couple of the 'mighty' **Brutus** losses!

If any readers would rather have just bare game scores, then it would be easy to print more in less space, but I think generally folk prefer it if a few notes are added, even if it's only at key moments of the game.

## Fritz - Diep

Opening E04. Round 6

1. d3 c5 2. g3 d6 3. g2 d5 4. 0-0 c6 5. d4 e6 6. c4 dxc4 7. e5 d7 8. a3 cxd4 9. axc4 c5 10. b3 0-0 11. xb7 xe5 12. xe5 b8 13. f3 d5 14. xd7 xd7 15. d1 fc8 16. h3 a5 17. d3 b4 18. d1 e5 19. d2 e8 20. h5 g6 21. h4 f5 22. e4 e7 23. g5 xg5 24. xg5 f8 25. d2 g7 26. exf5 xf5 27. g4 d6 28. e2 bf8 29. b5 c7 30. e4 b8 31. a4 f6 32. a3 a6 33. c2 b6 34. ac1 bf8



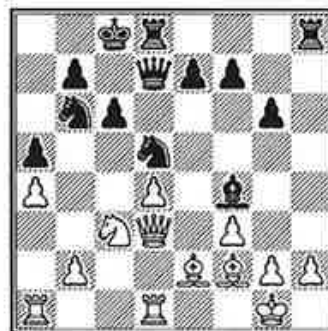
35. d7+ c6 36. g4 f4? 36... f7 37. d5 d3! 38. g5+! c5 39. xd3 and White retains a nominal advantage because his bishop is better than Black's knight 37. g5+! While commentator GM Peter Wells is wondering if Fritz can convert its advantage to the full point - "could be tough" - the evaluation jumps to >200! 37... c5 38. c6! Incidentally 38. xh7 is also winning after 38... f6 39. c6 xb2 40. h1 xf2 41. c2 which has transposed to the game 38... xb2 39. xh7 Threatening xg6 mate 39... f6 40. h1 xf2 41. c2! g3 42. g1 f1 Pins, crosspins and other threats abound, but Fritz was showing >+600 and knows exactly how to clinch the win 43. cg2! The pinner pinned! 43... xg1+ 44. c1 xg2+ 45. xg2 f5

46. d7+ c6 47. g7 f5 48. h2 c5 49. c3 *The Fritz king joins the attack!* 49... f6 50. h4+ c5 51. h3+ e4 52. xf6 1-0

## Green Light - Fritz

Opening D17. Round 7

1. f3 d5 2. d4 f6 3. c4 c6 4. c3 dxc4 5. a4 f5 6. e5 bd7 7. xc4 b6 8. e5 fd7 9. f3 a5 10. e4 xe5 11. exf5 ed7 12. e2 g6 13. d3 g7 14. e3 f6 15. 0-0 fd5 16. f2 d7 17. fxg6 hxg6 18. fd1 0-0-0 19. c2 h6 20. d3 f4



In the diagram position GreenLight is already in trouble on the h-file with various problems to solve! 21. h4?! 21. g3 was probably the best try 21... g5! 22. e4 If 22. hxg5 Black plays h2! threatening dh8! 22... gxh4 23. c5 c7 24. f1 dg8 25. h1 g3 26. e3 xe3 27. xe3 d5 28. e4



Fritz is standing much better, but enjoy the fine finish it now produces 28... h3! 29. gxh3 f4 30. d5 xh3 31. f5+ e6 32. xe6 f2+! 33. g1 h1+ 34. g2 e5! 35. d3 If 35. xe5 h2+ is m/6 35... xd3 Announcing mate anyway, and the Green Light programmer allows Fritz to carry on and finish in style 36. d4+ xf5 37. xf5 f4+ 38. g3 xg3+ 39. xh1 f2+ 40. h2 g5# 0-1

## FRANK HOLT PRESENTS TO US... THE GAME OF THE YEAR ALREADY!

Frank e-mailed me a couple of weeks ago to announce that he already had THE GAME OF THE YEAR on his computer!

'I was testing the Sicilian Keres Attack (B81) starting at move 14, as I have myself previously played this special opening. I was watching the game especially at move 18 because Shredder7.04 (Black) appeared to be taking quite a long time to move.



I felt there was an opportunity to get at White's king - if only it would take the pawn 18...Nxb2!! which would open up the way to the White king. Also the rook was stuck on h1 because the bishop on f1 was blocking it, so White was behind on tempo. With Black's bishops on the diagonals queen to a5 would settle it!

But no way would a chess computer make this knight sacrifice move. Fritz8 expected Nxe3, a straight swap of knight for bishop, and this is what it would play itself as Black.

You can imagine my surprise when 'the Great' Shredder actually did make the move after 3mins 34secs. It was G/60!

Not only that but it went on

to make further sacs, including a queen to get a pawn promotion.... and all the while Fritz had a pawn hovering on d6, waiting itself to promote!

I have checked since to confirm that Shredder7.04 always plays this move, and none of the others play it within 3mins34.'

### Fritz 8 - Shredder 7.04

Frank Holt, Blitz:60'

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 14.exd5

14.♘de2 ♘c4 is a book line, but doesn't look any better to me after 15.exd5, as now Black has 15...♚a5!

14...e5 15.♘de2 ♘c4 16.d6 0-0 17.♘e4

Probably 17.♘d5 was best, attacking the ♙b4

17...♙e6 18.♘2g3



Without the sac' who would be winning here? The F8 supported pawn on d6 looks very threatening

18...♘xb2!!

A fantastic find by S7.04, in depth12 at 3m34 with a +94 evaluation.

I (Eric) have to tell readers that S8, with its quicker searching, has reached depth 15

by this time, but shows 18... ♖xe3 which is, well, okay (same as F8)... but not the same as the stunning move, urged by Frank and found by its older brother 'Shredder7.04 The Great!'

**19. ♖xb2?!**

Played by F8 after 3m49 showing itself +31.

But S8 has 19. ♖b6 at around = for a while before it finds 19. ♖f6+?! in 2mins with a small plus evaluation. Huh! I think 19... gxf6! and now what has White got? Nothing!? 20. ♖b6 is met by 20... ♖xd1 21. ♖xd8 ♖fxd8 22. ♖xd1 ♖xd6! 0-1.

Or perhaps 20. ♖h6!? threatening ♖h5! so 20... ♖h8 and if 21. ♖h5 ♖g8! keeps Black – now a knight up remember – on top. So far the sac' by Black seems more than fine.

Let's go back to S8's original idea, the bishop counter-sac', 19. ♖b6! This has the best chance it seems to me:

[a] 19... ♖xb6 and now 20. ♖f6+! gxf6 seems to work, as after 21. ♖e4 it's what I think you'd call 'uncertain!' thanks to F8's big White hope – the d6 pawn – still a potentially massive threat.

[b] Maybe 19... ♖f4 – you attack my queen, I'll attack yours! – 20. ♖xd8 ♖xh5 21. ♖xb2 ♖xg3 22. hxc3 ♖axd8, and material is equal, also White still has the potentially very dangerous pawn on d6

Come on SelSearch readers, this position and the 2 or 3 moves after White's 18th. are worth some serious analysis! Is 18... ♖xb2 winning, or can White save the game? Can someone find a win for Black if 19. ♖b6!

Even if lengthy analysis finds improvements, it must be said that 18... ♖xb2 over the board at G/60 is great play!

**19... ♖a5! 20. c4 b5 21. ♖b1**

Other choices seem no better: 21. ♖d2 bxc4! 22. ♖xb4 ♖xb4+ 23. ♖a1 ♖ab8-+

Or 21. ♖f6+ gxf6 22. ♖e4 ♖a3+ 23. ♖b1 ♖f5-+

I think if the game was to be saved by White it had to be at move 19.

**21... bxc4 22. ♖e2 ♖a3+**

F8 still had 0.00 here, but S7 was showing itself +167 already, an impressive understanding of the dynamics in the position.

**23. ♖a1 ♖fb8! 24. ♖d2 ♖xb1+ 25. ♖xb1**

Now F8 has -125, but with its next S7 has +334!!

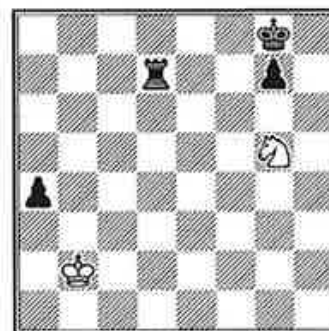
**25...c3**



**26. ♖xc3 ♖a4 27. ♖h3 ♖xa2+ 28. ♖xa2 ♖b4+ 29. ♖b2 ♖xc3+ 30. ♖xc3**

White, even with his 'threatening pawn' still poised on d6, could easily resign now

**30... ♖f4 31. ♖xf4 ♖d4+ 32. ♖c2 exf4 33. ♖e1 ♖b8 34. d7 fxg3 35. ♖c3 ♖xf2+ 36. ♖e2 gxf2 37. ♖xf2 h1♖ 38. ♖g2 ♖h5 39. ♖d5 ♖d8 40. ♖xf7 ♖xf7 41. g6 hxg6 42. ♖xf7+ ♖xf7 43. ♖e4 ♖xd7 44. ♖c3 a5 45. ♖b3 g5 46. ♖xg5+ ♖g8 47. ♖b2 a4**



With massive tablebase hits, S7 and S8 as well as other programs are both announcing distant mates here!

**0-1**

Frank has e-mailed since having found that Hiarcs9, on his PC and given only a little longer than 3mins34 also came up with the 18... ♖xb2 sac'....

'Consequently I was greatly looking forward to the meeting of Hiarcs9 v Shredder7.04 in the B81 line'.

The Hiarcs-Shredder game in this same line will be analysed in our next issue!

## NOVAG STAR SAPPHIRE/DIAMOND LATEST!

Results continue to pour in for the **Star Sapphire** and **Diamond**, and the Swedish SSDF are also busily testing them now, with 103 games played so far.

Pleasingly their rating, which is showing the **Star-S/D** at 21 Elo above the **Sapphire2**, is reasonably close to the *SelSearch* conclusion which, as I write, has the gap at 56. Probably somewhere in-between is correct!?

It is a strange and, I have to say, confusing fact that, whilst the SSDF ratings for **dedicated** computers still fall around 100 Elo below those in this magazine - which has always been the case due to our different rating levels in the UK and Sweden, ours are tuned specifically at British BCF levels from computer results in tournament in the UK - their ratings for **PC programs** are actually now quite a bit higher than ours!

For example on the dedicated front they have the **Tasc R30-1995** at 2275 Elo compared with our 2363, whilst on the PC front they show **Shredder7.04** on a P/1200 at 2808 Elo, whereas we now have it at 2726 for P/1000 level! Only Kasparov is higher than the Swedish figure and I wonder what rating **Shredder8** is likely to get (here it is another 20 above **Shredder7.04**), and what the figures would indicate if they ever tested **Shredder7/8** on dual or quad hardware!?!?

Anyway, that's another issue - back to the new **Novag Stars**!

Scores from matches completed in Sweden are:

- |                      |         |
|----------------------|---------|
| ■ Star-S v RISC 2500 | 6-14 ?! |
| ■ Star-S v Atlanta   | 9½-10½  |
| ■ Star-S v Sapphire2 | 10½-9½  |
| ■ Star-S v Sapphire1 | 12-8    |

In a nearly completed match...

- |                       |     |
|-----------------------|-----|
| ■ Star-S v Milano Pro | 8-4 |
|-----------------------|-----|

We showed the Star-S v Atlanta score in our last issue at 8-5, so clearly there was a major fight-back by the Atlanta at the end!

The result v Sapphire1 is of interest because

*SelSearch* subscriber **Don Langford** recently wrote me with his score from a match between the very same opponents. The only difference is that Don played at G/60 knowing that this is allowed for our rating list.

Dear Eric

.... I thought you would be interested in the results of a 12 game match I have just played:

Star Sapphire 9, Sapphire1 3  
(+7=4-1)

I think you will agree this is an excellent result for the new machine, and should help to keep its rating up around the 200 BCF mark. I would just add that the games were played under strict conditions, and the settings for both computers checked regularly.

I feel however that the results somewhat flatter the new machine. Quite a few of the games it won were lengthy and evenly fought, and the final outcome in some could have swung the other way.

For the record I must say that I am only fairly satisfied with the **Star Sapphire**. There can be no grumbles with its playing strength which appears very good and up to expectations. That, after all, is the main consideration for most enthusiasts. It is of course the hardware that lets the side down. But I wont bore you with a list of the alterations I would like made, from your comments in the magazine you are obviously already aware of the shortcomings!

Yours sincerely

*Don Langford*

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As mentioned on page 14, I have yielded the rest of my **Star Sapphire/Diamond** article in favour of Alvaro Benlloch's - more from me (Eric) next time with games!

# NOVAG STAR DIAMOND

## REVIEWED BY ALVARO BENLLOCH

After a long wait, finally Novag has released the **Star Diamond**.

It has the same design as Diamond and Diamond 2. Novag's goal was to make a cheap but strong computer. The 32 bit SH7000 series processor was used in the first project, later it was substituted by a cheaper 16 bit H8S. Star Diamond runs on an H8S 2312. This processor performs 10 MIPS at 25 MHz and 3.3 Volts. SH7000 series are able to reach 20 MIPS at 20 MHz and 5 Volts, but then battery life is shorter for portable models (Star Sapphire), apart from the extra cost for Novag. Anyway, an H8S/2312 equals a Motorola 68020 at 33 MHz, a 68030 at 28 MHz or an ARM2 at 20 MHz. So, Star Diamond processor speed is 37% faster than a Mephisto London Pro (68020/24) and 42% faster than a Mephisto Risc (ARM2/14). The 68030/33 (Fidelity Elite 68030/32 or Mephisto London 68030/33) is only about 15% faster, not very much really, so I will also use them for comparisons. Modern processors give us this processing power at very low prices! Remember some years ago...



The Star Diamond has a 123.000 positions opening library, same length as used in Diamond and Diamond 2. In my opinion it is a good opening book with many variations and up-to-date. It is possible to choose between passive, normal and active books in a non exclusive way, I mean, some or all of them at the same time. In general Star Diamond uses aggressive lines. For example, Panov against the Caro-Kann and Four Pawns against the King's Indian.

At a first glance, the Star Diamond seems to be a very powerful tactician. After doing many test positions and games, I think it is an irregular program. Some positions are solved in incredible fast times and some in incredible slow times. The cause of this behaviour is the selective algorithm. Test times are clearly better if brute force is used. The point is whether those tactical mistakes will be transformed into game losses. In my opinion, Star Diamond would rate about 100-150 Elo points up just solving the selective search problems. For

example, here is a position is taken from the Frontera test



■ [http://www.anacadigital.com/tests/test\\_de\\_frontera.htm](http://www.anacadigital.com/tests/test_de_frontera.htm)

It studies king attack extensions and efficiency in the search tree.

Here the Star Diamond doesn't find the right move in 5 hours and 10 plies. However if using brute force the Star Diamond plays Nf6+! in 27 seconds and 5 plies.

It is obvious that something happens within the selective algorithm.

Selective Search 111

Other results:

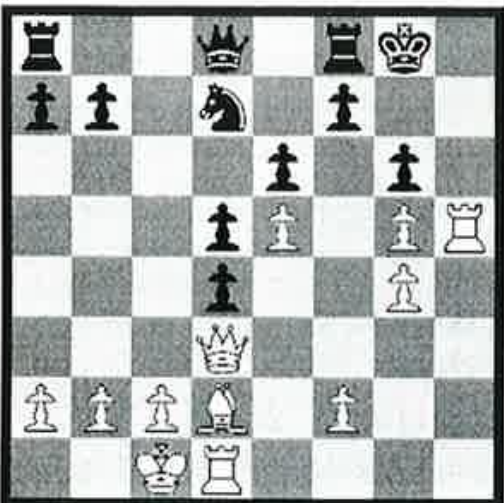
Palm Roma	1min 38sec
Magellan/Atlanta	34 seconds
Portorose 32 bit	46 seconds
Scorpio 68000 Sel.5	3 minutes
Roma 16 bit	5 minutes
Super Forte B	20 minutes
<i>PALM GRANUS</i>	<i>26 sec</i>

**Note by Eric:** I had also prepared some more material on Star Diamond and Star Sapphire results and games, much based on details sent to me by **Don Langford** and **Augusto Perez** amongst others. But I have yielded that space to Alvaro's interesting article - with apologies to Don and Augusto, whose labours, match scores and games will be properly covered in our next Issue.



This position is C15 from the Frontera test, with Black to find Nxf2. It is a position to study the delaying effect of many possible moves. Also captures are very important and Star Diamond seems to be really good in capture extensions.

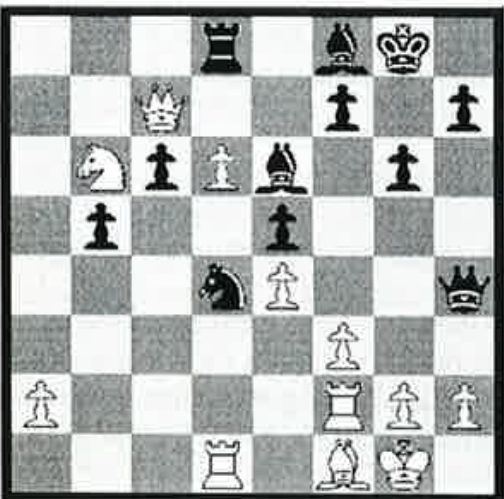
<i>PALM GRANUS</i>	<i>1min 10sec</i>
Star Diamond	12 minutes
Magellan/Atlanta	1 minute 50 seconds
Super Forte B 7,5 MHz	32 minutes
Portorose 32 bit	1hour 16 minutes
Scorpio 68000 Sel.5	5 hours
<i>LONDON PRO</i>	<i>13min 28sec</i>
<i>LONDON 68030</i>	<i>9min 38sec</i>



This is a position is from a game I played against Maestro B 6 MHz. It is White to play and find Rh8+ with mate in 6 moves. It is easy for a human player, but not for a dedicated computer. This is the solution: 1.Rh8+ Kg7 2.Rh7+ Kg8 3.Rdh1 f5 4.gxf6 Qxf6 5.exf6 Rxf6 6.Rh8+ Kf7 7.R1h7++.

The times are taken when the computer shows mate evaluation.

<i>PALM GRANUS</i>	<i>1 52c</i>
Star Diamond	5 mins 56 secs, ply 10
Vancouver 68020 12 MHz	54 seconds
Milano 5 MHz	5 minutes
Portorose 68020 12 MHz	16 minutes
MM-V 5 MHz	2 hours



This position is from a game I played against Excel 68000 Mach II C+. It is White to move and win with 1.Rxd4, exd4 2.e5! Re8 3.g3 Qd8 4.Qxc6...

Computers must show 2.e5! in the main line.

Star Diamond	1 minute 18 secs
Super Forte B 7,5 MHz	2 minutes 30 secs
Vancouver 68020 12 MHz	5 minutes 25 secs
Mach III 68000 16 MHz	23 minutes 21 secs
MM-V 5 MHz	56 minutes
<i>LONDON PRO</i>	<i>5. 145cc</i>
<i>LONDON 68030</i>	<i>3min 34sbc</i>

So the Star Diamond is a good tactician and has more positional knowledge than previous Kittinger programs. Star Diamond has a tendency to choose castling on opposite sides and this habit could be dangerous depending on the position, but makes Star Diamond a very enjoyable and aggressive player. Good capture, check and king attack extensions makes Star Diamond a strong opponent. The irregularity in tactics made possible some short games solved by a "tactical deep search", sometimes for Star Diamond and sometimes for its opponents! Positional is more important for long games (game/60 or 40/2h) while tactics makes the difference at speed chess.

Usually, people play at fast response levels. It is very common to set up the computer at 10 seconds per move and just play a game to enjoy a good game, though Novag's don't play optimally on x secs per move Settings, as that is considered as a Practice level. It is better to set 60 moves in 10 mins or G/10 mins which it treats optimally as a Tournament setting. This is why I tested Star Diamond at 10 minutes per game. Even if these results are not valid for standard Elo lists, it is valuable information for end users. Many users play blitz games with their computers because it is not easy to have four hours to play a long game, so blitz results are also very interesting.

#### Results so far:

Game speed	Computer	Computer	CPU Relation	Result
40/2	Star Diamond	Vancouver 68020 12MHz	1 to 0,65	2 - 3
40/2	Star Diamond	Almeria 68020 12MHz	1 to 0,65	3 - 1
40/2	Star Diamond	Magellan SH7000 20MHz	1 to 2	4 - 4
G/10	Star Diamond	Magellan SH7000 20MHz	1 to 2	3 - 5
G/10	Star Diamond	Vancouver 68020 12MHz	1 to 0,65	5 - 3
G/10	Star Diamond	Risc II ARM2 14MHz	1 to 0,7	2 - 6
G/60	Star Diamond	Portorose 68020 12MHz	1 to 0,65	2 - 2
G/60	Star Diamond	London Pro 68020 24MHz	1 to 0,73	4 - 5
G/60	Star Diamond	Elite V9 68030 32MHz	1 to 1,15	4,5 - 3,5
G/60	Star Diamond	London 68030 33MHz	1 to 1,16	Not yet
G/60	Star Diamond	The King 2.54 ARM2 30MHz	1 to 1,5	0,5 - 1,5
G/60	Star Diamond	Gideon 3.0 ARM2 30MHz	1 to 1,5	0 - 6

At 40/2 the Magellan v Star Diamond was level, but Magellan had no problems to beat Star Diamond at 10 minutes per game. Magellan showed tactical superiority and won the match by 5-3. Let's see some games.

#### **Star Diamond H8/25 118Kb - Magellan SH7000/20 512Kb [A38]**

G/10 StarDiamond-Magellan

**1.c4 c5 2.Nc3 Nf6 3.g3 Nc6 4.Bg2 g6 5.Nf3 Bg7 6.d3 d6 7.Qa4 0-0 8.Nd5 Nxd5 9.cxd5 Nb4 10.Qb3 e6 11.Nd2 Re8 12.h3? A nonsense move. 12...exd5 13.Bxd5 Nxd5 14.Qxd5 Re5 15.Qf3 Be6 16.Kf1 Qd7 Magellan has big advantage. 17.Qg2 Re8 18.e4 Qb5 Magellan presses the white weak points. Star Diamond played in an absurd way. 19.Ke2? Another tactical mistake. 19...c4 After this the game is over. 20.Qf3 cxd3+ 21.Kf1 d5 22.a4 Qa6 23.Kg1 dxe4 24.Qe3 f5 25.f3 exf3 26.Qf2 0-1**

#### **Star Diamond H8/25 118Kb - Magellan SH7000/20 512Kb [C78]**

G/10 StarDiamond-Magellan

**1.e4 e5 2.Nf3 Nc6 3.Bb5 a6 4.Ba4 Nf6 5.0-0 b5 6.Bb3 Bb7 7.d4 Na5 8.Nxe5 Nxb3 9.axb3**

**d6 10.Nd3 Nxe4 11.Re1 Be7 12.Nc3 Nxc3 13.bxc3 0-0 14.Qg4=** Game is balanced.  
**14...Re8 15.Bh6 Bf6 16.b4 Rxe1+ 17.Rxe1 c6?** 17...Qc8↑ 18.Qg3 Qf5 19.Bd2 Kf8! 20.Qe3  
 Bc6̄ 18.Bf4 a5 19.bxa5 g6 20.Qe2 g5? Seems risky and weakens the castle. ≤20...Rxa5  
 21.Qe8+ Qxe8 22.Rxe8+ Kg7 23.Bxd6±; 20...c5 21.dxc5 dxc5 22.Nxc5 Bc6 23.c4 bxc4  
 24.Qxc4 Qxa5± 21.Bg3± Kg7 22.h4 Rxa5 23.hxg5 Bxg5 24.Qg4 ⊃24.Qh5!+- h6 25.Qh2  
 Bd2 26.Rd1 Qg5 27.Bxd6 24...Bc8 25.Qh5 Bd2? ⊃25...h6± 26.Bh4+- Qd7 27.Re2 Ra1+  
 28.Kh2 b4 29.cxb4 Qf5 30.Qxf5 Bxf5 31.Rxd2 d5 32.Ne5 Ra6 33.g4 Bc8 34.Re2 1-0

### **Magellan SH7000/20 512Kb – Star Diamond H8/25 118Kb [E41]**

G/10 Magellan–Star Diamond

**1.d4 Nf6 2.c4 e6 3.Nc3 Bb4 4.Nf3 c5 5.e3 b6 6.Bd2 d6 7.a3 Bxc3 8.Bxc3 Bb7 9.Bd3 cxd4**  
**10.exd4 0-0 11.0-0 Ne4 12.Rc1 Nxc3 13.Rxc3 Qf6 14.Bc2 Nd7 15.Qd3 Qh6** Why not Qg6?  
**16.b4 a5 17.b5 Rfc8 18.Qe3 Qh5 19.Ng5 Nf6 20.Re1 h6 21.Nh3=** The game continues  
 balanced. **21...Qg4?** ⊃21...e5 22.dxe5 Qxe5 23.Qxe5 dxe5 24.c5 Rxc5 25.Rxc5 bxc5  
 26.Rxe5 c4 27.Rc5 Rc8 28.Rxc8+ Bxc8∞ **22.f3± Qh4 23.Nf2 Rab8 24.Rd1 Ra8** Star  
 Diamond doesn't know what to do **25.d5± Rxc4 =25...exd5 26.Qxb6 Rcb8 27.Qxd6 dxc4**  
 28.Re3 **26.dxe6 Rxc3 27.exf7+ Kxf7 28.Qxc3 Rc8 29.Bb3+ d5?** 29...Kf8± **30.Qe5?**  
 ⊃30.Qe3+- Nd7 ( ≤30...Rc5 31.Nd3!) 31.Bxd5+ Bxd5 32.Rxd5 **30...Qg5?** After this tactical  
 mistake Magellan has enough advantage to win. 30...a4 31.Rd4 Rc1+ 32.Nd1 Qg5 33.Qxg5  
 hxg5 34.Rxa4 Nd7∞ **31.Qd4 Ba8 32.Qxb6 Qe5 33.Qxa5 Qe3 34.Rd3 Rc1+ 35.Bd1 Qe7**  
**36.g3 Bb7 37.Qd2 Qc5 38.a4 Kg8 39.Rb3 Qc4 40.Kg2 Bc8 41.a5 Bf5 42.a6 Nd7 43.a7 Nb6**  
**44.Ra3 Na8 45.Ra4 Qc8 46.Bb3 Kh8 47.Ra5 d4 48.b6 Rc3 49.Rb5 Bh3+ 50.Nxh3 Rxb3 1-0**

### **Risc 2 ARM2/14 1024Kb – Star Diamond H8/25 118Kb [A43]**

G/10 Risc2–StarDiamond

**1.d4 c5 2.d5 d6 3.e4 Nf6 4.Nc3 g6 5.f4** More common is Nf3 **5...Bg7 6.Nf3 0-0 7.Bd3 e6**  
**8.0-0 exd5 9.Nxd5 Nxd5 10.exd5 Qb6N 11.Kh1?!** In my opinion c4 is necessary now or in a  
 few moves to maintain d5 and control b5 square. 11.c4 Bg4 ( 11...Bxb2? 12.Rb1 Bxc1  
 13.Rxb6 Be3+ 14.Kh1 axb6 15.Qe1+-) 12.h3 Bxf3 13.Qxf3 Nd7 14.Kh1 Rfe8 15.Rb1±  
**11...Bg4 12.c3 Re8 13.Qa4?** I think this is a positional mistake. The queen has nothing to do  
 in a4. It is more important to complete development and try to control "e" file. **13...Nd7 14.f5∞**  
 White seems to have small advantage, but d5 could be a problem later and black position is  
 solid. **14...Bxf3 15.Rxf3 Nf6?** 15...Re1+ 16.Rf1 Rxf1+ 17.Bxf1 Nf6 18.fxg6 hxg6̄ **16.fxg6?**  
 16.Bg5!± c4 17.Bxf6 Bxf6 18.fxg6 fxg6 19.Bxg6 hxg6 20.Rxf6 Qxb2 21.Raf1 Rf8 22.Qxc4  
 Rxf6 23.Rxf6 Rf8 24.Rxf8+ Kxf8 25.h4 and white have a difficult endgame to win **16...Re1+**  
**17.Bf1?** [ 17.Rf1 Rxf1+ 18.Bxf1 hxg6 19.Qd1 Re8∞] **17...hxg6̄ 18.Qh4** Better is Qf4, but  
 game goes for black. **18...Rae8-+ 19.c4** It is very difficult to do anything playing with one less  
 rook... 19.Rxf6 Bxf6 20.Qxf6 Qd8! 21.Qf2 Qh4 22.Kg1 Qg4-+ **19...R8e2 19...R8e4!** This  
 decides immediately, the threat Qa6! is too strong **20.b4?? 20.Bh6! =** and Risc2 liberates  
 the closed pieces, may be with small advantage. 20...Rxa1 21.Bxg7 Nh5 22.Bc3 Big twist!  
**20...Re4** Now Star Diamond doesn't miss the shot. **21.Qh3 Ng4 22.Bf4 Rxa1 23.Qxg4 Ree1**  
**24.Qc8+ Bf8 25.g3 Rxf1+ 26.Kg2 Rxf3 27.Kxf3 Qxb4 28.Bh6 Qc3+ 29.Kg2 Qc2+ 30.Kh3**  
**Qf5+ 0-1**

Caro–Kann, Panov line: 1.e4 c6 2.d4 d5 3.exd cxd 4.c4!

King's Indian, Four Pawns: 1.d4 Nf6 2.c4 g6 3.Nc3 Bg7 4.e4 d6 5.f4!



# SHREDDER 8 REVIEWED

*Mostly by CARL BICKNELL, A BIT by ERIC HALLSWORTH*

I was leaving a couple of pages free to do a REVIEW of the new **Shredder8** when I received an e-mail from **Carl Bicknell**.

Dear Eric

I was wondering if I could submit an article for the magazine, it is a comparison of chess engines and a match between Shredder8 and Fritz7.

For a long time I've been hoping to see a table or essay on the differences between the engines (especially their playing styles), so here is my attempt!

Hopefully you can use the results for *SelfSearch* ratings - they are played on 2 separate PC's - but I realise they are probably not what you are hoping for! So please feel free to heavily edit, contradict or not even print my article.

The match was a totally genuine one, a surprising one and, I suppose in many ways, a disappointing one!

Best wishes.... Carl

In my own review I had intended to draw attention to the mainly impressive scores we have in for Shredder8 - as I write it tops my Rating List by 20 points, but I have one or two more scores to add, including Carl's, so that may change.

The other main thing to note is that programmer Stefan Meyer-Kahlen seems to have made a major change to the way Shredder does its search. The nodes per second count is much the same as before, so he hasn't taken knowledge out, but it is getting to much greater depths of search - often after 1 minute it can be 2 ply deeper than S7 would have been.

Somewhere he has made it much more selective, maybe changed the null move method, or reduced the number of extensions it does, or just generally pruned the search

tree - or a bit of all of them!?! Only he could tell us!

It means that whilst it finds and/or settles on some things faster in quieter positions (because it gets deeper quicker), it occasionally misses tactical matters because of whatever pruning is being applied. I've also found some tactics it finds quicker, so the likely impact is hard to assess.

One imagines Stefan has tested various 'search speed-up' ideas with thoroughness and has found a balance which he believes is both faster and stronger. Certainly the historically 'passive' style of Shredder feels as if it must be more dynamic, just because of the big search depths being reached so quickly - but has this actually changed Shredder's style of play or not? Time will tell!

Okay, over to Carl - oh. yes, and it's the unadulterated version, exactly as he wrote it!

## ***A comparison of chess engines by Carl Bicknell***

I started getting into computer chess in the late 1980's. I was barely a teenager when my father bought me a Saitek Conquistador (120BCF) which used to beat me fairly easily but within a few years I could beat it.

After that I became very interested in computer chess and got as many programs as I could afford including: *for the Atari ST* 8Mhz Battle Chess (hopeless, 40 BCF max), Chessmaster 2000 (a step in the right direction again, 130 BCF), Techmate Chess (110 BCF, oh...) Chessplayer 2150 (135 BCF, very strong & human in some areas, weak in others). Then I finally got about 3 Christmas presents rolled into one and got a Vancouver 68000 (190 BCF it thrashed me for ages). I was really impressed with the way the program could beat all the others and computer v computer games seemed very interesting. Other items were: Rebel module (150 BCF, basic) RISC 1Mb ver 2 (210 BCF, whoa! Still better than anything today), then for the PC: MChess 1.7 (loved this one, positive play), Hiarcs 3 (really aggressive,

fell in love with Hiarcs), Genius 3 (this became my favourite prog for ages, very classy play), Hiarcs 4, 5, 6, Rebel 8 (solid), Fritz 5.32 (wasn't overly impressed with this, but fast tactics), Fritz 6 (a bit better – challenged Chris Beaumont to a match with this one and won 9 -1), Fritz 7 (massive step up, wished I had waited to challenge Chris with this one! Direct aggressive chess, Fischer – like. My favourite program.), Hiarcs 8 (nice play, Nimzowitch – like), Junior 8 (fascinating, Alekhine / Kasparov – like but was never sure how accurate the eval. was) and Shredder 8 (Petrosian / Karpov in a box).

For the last few years my policy has been to upgrade every other version to keep costs down and to keep being pleasantly surprised by improvements.

Recently I decided to do some testing with my new Shredder 8, the Rating List leader. I was immediately impressed, it topped the lists both on tactical and positional tests. It was also the best engine I've ever used for analysis, going through master games it seldom needs more than a few seconds to find just about every brilliant move, that's both the tactical *and* the positional ones! On the chessbase interface it beat every other engine easily when they were both playing on the same machine, this program is something special, I thought.

Then recently I decided to take advantage of my friend's spare PC and do some 'old fashioned' chess combat with one PC against the other. I have a P4 2800, his is an Athlon 1400. Basically the P4 is 1.5 x the speed. Since the machine I used to beat Beaumont was a P3 933 (about 2/3 the speed of the Athlon) I decided it would be fun to play a match with Fritz 6 running on the Athlon, with a 'boost' so to speak over the 'Beaumont' version, and Shredder 8 on the P4 – just to see how far things had come.

However, first of all I wanted to see my favourite in action so it was Fritz 7 v Shredder 8. Shredder was on the P4 and I decided to make it a match in the style of the old Capablanca V Alekhine 1927 affair where

the winner was the first to score 6 wins. It was at a time control of G/15 each – fast – but not that fast considering the hardware. I hope it counts for SS ratings. Both progs were optimised, playing with their Tournament books and Shredder 8 had another advantage – the 6 man tablebases I had installed on it, Fritz 7 didn't have any.

Shredder is the ratings leader at 40 in 2, and the world blitz champion... it'll win whatever the time control! Recently I read a comment by a SS reader where he said Shredder "*runs circles around Fritz*" and he was talking about Fritz 8 so version 7 ought to be no problem! Remember, then, that Shredder is on hardware that is 50% faster and has tablebases.

The first game started well, Shredder won a pawn and kept it to the endgame where the tablebases "carried it home to victory". Despite having a lower node count than Fritz, Shredder always searched a few plies deeper, must be better pruning or something.

Then Fritz found it's form and blasted Shredder win after win after win. The match was over in 9 games the final score being

+6 =2 -1

in Fritz's favour! 78%! Amazing! Alekhine needed 34 games to defeat Capablanca but Shredder is toppled in only 9 games!

Why? I have retested this trying various things like turning off the tablebases, putting Fritz on the P4 etc etc but the result always seems to be victory for Fritz. As I looked at the games it became clear to even a 170 player like me what the problem was...

Shredder is too passive. Fritz was always the one with the initiative, trying to do stuff.

How does Shredder do so well against Fritz8? Maybe because it's not quite so active as version 7 was but really I have no idea. But I'll leave you to make your own minds up, here are a few 'typical' games from the match...

### **Shredder 8 - Fritz 7**

Opening: E05. Blitz:15'

1.d4 ♘f6 2.♘f3 e6 3.g3 d5 4.♙g2 ♙e7 5.c4  
0-0 6.0-0 dxc4 7.♚c2 a6 8.♚xc4 b5 9.♚c2

8.b7 10.gd2 e4 11.c1 dbd7 12.a5 c8  
13.dbd2 a8 14.c2 e8



15.b4?!

Both sides are competing for c5, but this leaves the Ba5 stranded

15...d5 16.a3 f5 17.e3 h5 18.b3 g5!

Fritz's first out of book move. A very positive thrust

19.e4 fxe4 20.dxe4 g4 21.f2 d2 b8  
22.c5 f6 23.f1 e1 xc5 24.e5 f7



Danger threatens on the f-file!

25.dxc5 f2 26.d4 xg2+!!

Shredder missed this. The pressure on the a8 - h1 diagonal is intense

27.xg2 h6!

A touch of prophylaxis!

28.f1 g6 29.g1 d7 30.b2 g7  
31.f6+ d7xf6 32.xe6 h7 33.e2 g5  
34.h4

An alternative was 34. xg4 h5 35. f5 d7 e7 36. xe7 d4+ 37. f2 f3+. Now if 38. g2 then d4+ wins the queen, as does 38. Kh1? d4 as it's discovered check from the a8. So 38. xf3 xf3 is the best White can do, and Black will still win!

34...d3 35.e8+ h7 36.d3+ e4  
37.xe4 dxe4 0-1

### Shredder 8 - Fritz 7

Opening: C69. Blitz:15'

1.e4 e5 2.d3 c6 3.b5 a6 4.xc6 dxc6

5.0-0 f6 6.d4 g4 7.dxe5 xd1 8.xd1 fxe5  
9.dbd2 0-0-0 10.e1 d6 11.h3 h5 12.g4  
g7 13.f1 f6

Appears to be a new move, but it looks good! 13...f8 14. g3 e6 is the usual line  
14. g3 d7 15. f5 f8 16. b3 e8 17. d1  
g6 18. g5 g8 19. d4 c5 20. c4



20...b5!

The game has started evenly but now Fritz starts to roll and finds one active move after another

21.cxb5 axb5 22.e3 e7 23.d1 c7  
24.f3 c4 25.ab1 cb3 26.axb3 a8!  
27.d1 c8 28.h6 e6 29.g5 c5 30.b4  
d6 31.b2 a4!

Better than Shredder's proposal of a2 which releases the pressure

32.d2 b6 33.c3 c4 34.bb1 f8  
35.d1?!

Everything seems to retreat! - maybe d5 was better

35...f4! 36.f3 f7 37.dg2 a3 38.d3 h5!

Note how passive White is

39.d4 g7



40.c1 a2 41.dg2 g8 42.h1 e7  
43.g1 c2 44.a1 b7 45.g1 c5!

Superb. Now the end comes suddenly  
46.bxc5 xc5 47.b1 c6 48.b1 b4!

49.xb4

If 49. a1 g5 50. d5 xf5 51.exf5 a8!  
and wins

49...♗xb4 0-1

I know that Eric will enjoy the next game! Why? Because it seems that Shredder8 has a (very) poor line in its book, and he will know as well as anyone, from his work on the Hiarcs book, how much effort is needed to eradicate these as far as possible, then to find winning responses and have them ready for such occasional lapses by the opponent!

It was tempting to leave the game without notes, and let *SelSearch* readers find the dubious move, but I've decided to show what I believe it is. Maybe a reader can produce an improvement for Black after 5...c5?

**Fritz 7 - Shredder 8**

Opening: D92. Blitz:15'

1.d4 ♘f6 2.c4 g6 3.♗c3 ♗g7 4.♗f3 d5 5.♗f4 c5?!

*Entering a sharp and dangerous line!  
5...0-0 is advised!*

6.dxc5 ♖a5 7.cxd5 ♗xd5 8.♖xd5 ♗xc3+  
9.♗d2 ♗e6 10.♖xb7 ♗xd2+ 11.♗xd2 0-0  
12.b4



12...♖a3?

*Might not be Black's best, but whatever he tries he's in big trouble it seems!*

12...♖a4 13.e3 ♗d7 14.a3 ♗fd8 15.♖a6 ♖c2 16.♖d3 ♖a4 17.♖c3 and White still wins

13.♖xa8!!

*Black's busted!*

13...♗d8 14.e4 ♖xb4 15.♗d1

*The books only end now, but Black's in a total mess*

15...♖xc5 16.♖b7 ♗c6 17.♖b2 ♗d4 18.♗c1 ♖g5 19.a3 ♖f4 20.♗c3 ♖f6 21.♖b4 ♗d7 22.♖a5 e5 23.♖xa7 ♗b5 24.♖c7 ♗a4 25.♗d3 ♗e6 26.♖b6 ♖e7 27.g3 ♖g5 28.♖a5 ♗c6 29.f4 1-0

**Paderborn 2004**  
*Hydra rears its head[s]!*

I know - who is Hydra?? Well, it's simply the new name for the Chrilly Donninger/ChessBase project which was previously called **Brutus**.



Whether [1] they've tired of the reputation Brutus has been getting for demolishing its opponents in the early rounds of its tournaments, then suffering a mid-tourney crisis before limping over the line somewhere around 2nd. 3rd (or 4th. in the recent World Championship) or [2] they've actually made a progress step that earns the program a new name, and they didn't fancy 'Brutus-2', only the programmers can tell us. Whatever, they've decided to give it a brand new name and leave the past behind.

The ploy certainly seemed to work at Paderborn! Not only did it win, but the chess columnists in a couple of newspapers said that the program had "come from nowhere", or "just burst onto the scene".

Indeed **Hydra** won with a bit to spare - only **Shredder** was able to take a 1/2 point off it as it cruised to 6 1/2/7. Unfortunately Shredder in its turn lost to **Fritz** as well as drawing with **Yace**, leaving Fritz to grab 2nd. place with 5 1/2, with Shredder coming in 3rd. with 5/7.

So there we have the new threat to the PC programs, and maybe the human race, the 'nine headed monster' **Hydra**.

**Carl Bicknell** has even spoken on-line with its Internet operator and learned that, with its 16 'Paderborn' cards (i.e. 16 cards linked to 16 P4/2800 PCs!), it searches 30,000,000 nodes per second! But on the 'net with 4 cards it only rates at 2626 currently. He's also got other information which we'll look at next issue, along with more details and games from **Paderborn!**

## ***MICHAEL WATSON* TRIES TO FIND A QUICK WAY FOR US TO RATE COMPUTERS!**

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**Mike Watson** contacted me some while ago to discuss the possibility of establishing a 'temporary' rating for new computers/programs by submitting them to a suitable TEST SUITE and comparing their results with other already Elo-rated computers. If this worked it would mean a few hours work with a Test Suite could give a 'probable' or estimated Rating, pending the arrival of match results from other readers/purchasers and the always busy SSDF.

It's something we did quite often 'in the old days', and *SelSearch* ran quite a few of these many years ago. It always seemed to be something that 'ought to work', so I encouraged Michael to pursue it further!

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From: "michael.watson1" <michael.watson1@ntlworld.com>  
To: <eric@elhchess.demon.co.uk>  
Subject: WM test update.  
Date: Sat, 7 Feb 2004 18:04:12 -0000

Dear Eric,

Further to my previous e-mail on this topic, I can report my findings on evaluating different test suites.

Just to recap, my original proposition was to make use of test suite results to predict the strength of a new program, using linear regression analysis. This mathematical technique finds the best-fit straight-line relationship between two variables. In this case the variables would be test score results plotted against actual ELO rating (from the Selective Search rating list).

If enough test results are plotted (minimum of 6) for programs and/or dedicated machines with well established ELO ratings, the best-fit straight-line relationship equation for this set of results can be calculated. This information can be processed using Microsoft Excel, which calculates the linear regression equation from the data. This equation can be used to accurately predict the ELO rating for any program using its score result obtained from a suitable test suite, including an ELO confidence range limit (i.e. ELO rating + x ELO, similar to that given in the Selective Search rating list). One advantage to Countrywide Computers is that testing a new program or dedicated machine using a test suite (e.g. Louguet or WM test) enables an estimate of playing strength to be calculated much sooner than using computer versus computer match results.

However, the results I obtained unfortunately turned out to be rather disappointing in practice.

As you can see from the attached Excel file (hopefully you have Excel on your PC!), Louguet test scores (obtained from my Nov 1996 copy of Selective Search) do not give a very good estimate of playing strength. However, in the selected list of dedicated machines where the predicted ELO ratings were quite close to Selective Search ratings, the calculated ratings gave good results. A standard deviation of 18 was obtained, which translates to 99% of tested programs actual ELO ratings being within + 54 of the calculated ELO value. The trouble is, there is no way of knowing beforehand if a programs test performance is a good indication of its playing strength. I obtained similar results with data from Manfred Meiller's WM test suite for different programs. I even tried looking at the test scores by time taken to find the correct move, but no amount of data manipulation gave improved and consistent results (i.e. ranking programs in the correct order of playing strength using SS rating results as a comparison).

I believe the reason test suites do not give a good correlation between test gradings and actual playing strength in practice, is down to the fact that test position scores are based on a single correct move. To give an analogy, it's like comparing a multiple-choice test to a written exam test paper. In my opinion, a better test of a programs chess playing strength, would be test positions which awarded a score based on a program finding the correct variation of moves from a given position. This would demonstrate that a program "understood" the position, rather than coming up with the right initial move for the wrong reasons! You have shown numerous examples of this in Selective Search, with different programs finding the correct initial move when analysing key positions from games, but calculating inferior variations thereafter from the moves considered best play.

When searching the internet for test suite information, I found a quote from Crafty's programmer Bob Hyatt saying "the only thing a test suite shows is how good a program performed in that test suite, nothing more and nothing less" In other words, test ratings from the current crop of test suites are not a good comparison for differences in playing strength between chess programs.

In summary, I think that better test suites need to be devised from carefully selected games, which base their scoring method on how well programs calculate variations rather than single move correct answers. I would also recommend that anyone performing the Herculean task of testing different programs using test suites give up, as based on my findings so far, there is no real point in doing them!

I would welcome your response to some of the perhaps controversial points raised above.

Best regards,

Mike Watson

*Eric: Before we look at these results, a word about **the LOUGUET TEST!***

- LCT II test (c) Frederic Louguet & La Puce Echiquenne v 1.21 - 04/02, 1996
- The positions all appeared (with their solutions!) in **SelSearch 69**
- Website download: [http://perso.wanadoo.fr/lefouduroi/test\\_lct\\_native.htm](http://perso.wanadoo.fr/lefouduroi/test_lct_native.htm)
- If you haven't got SelSearch 69, or Internet access, then you can send £5 to me if you wish! If I had any of SS69 left I could send that - but I haven't! But if you have ChessBase or one of their engines such as Fritz, Hiarc, Shredder, Junior, then I can copy the LCT II test (and one or two others I have on my database) onto a disk for you in .cbv format. ChessBase and their engine programs can open .cbv files quickly and easily. If you don't have these, then your £5 will get a printed copy of all the LCT II positions with notes relating to the solutions as given in SS69. Just tell me which you want!

### **How to use the 35 LCT II test positions:**

- There are 35 positions in the test: 14 are POSITIONAL, 12 are COMBINATIONS/TACTICAL, and 9 are ENDGAMES.
- Each program tested must be configured to level : Infinite.
- Permanent brain must be disabled. Some programs begin their analysis in setup mode, so it is very important to disable this option.
- Learning tables must be disabled (or moved elsewhere on the disk during the tests).
- The program must run each test during 10 minutes (600 seconds). At 10:01 (601th second), you must stop the analysis.
- The time to keep is the time when the program finds the best move and does not change his mind until the ten minutes are over.
  - For example : the best move (A) is found in 32 seconds, but the program change his mind at 1'56 and now prefers (B). Later, he again considers (A) as the best move after 7'16, and does not change anymore until 10'. So 7'16 is the time to put in the results.
- It is very important to let the program "think" 10 minutes, and particularly for positional tests, since some programs change their mind frequently. For tactical tests, it is of course not necessary.
- Points :
  - 30 points if move found between 0 and 9 seconds
  - 25 points if move found between 10 and 29 seconds
  - 20 points if move found between 30 and 89 seconds (30" - 1'29)
  - 15 points if move found between 90 and 179 seconds (1'30 - 2'59)
  - 10 points if move found between 180 and 389 seconds (3' - 6'29)
  - 5 points if move found between 390 and 600 seconds (6'30 - 10')
  - 0 points if move not found in 10 minutes
- The lower limit is 1900 Elo points, so the test can only work for Computers or Programs rated at 1900 Elo or higher.
  - For example, if a program gets 105 points (positional), 200 (tactical) and 70 (endgame), its rating will be  $1900 + 105 + 200 + 70 = 2275$ . The maximum possible is  $1900 + (30 \text{ points} * 35 \text{ tests}) = 2950$  points. That is 40% for positional moves, 34% for combinations and 26% for endgame.

Eric again: Note that, in 1996, LOUGUET recommended adding 1900 to the scores obtained in his test to arrive at an estimated rating. He believed this equated the resulting figures to the (1996) SWEDISH (Ply-SSDF) rating list.

Now, by doing this with Michael's figures, the resulting LOUGUET 'ratings' in column C come out on average 58 higher than current Selective Search ratings, so in order to balance the results correctly for today's ratings we need to deduct 58 from each figure. The reason for this is that ratings from 1996 have been downgraded over the years - i.e. in 1996 we thought that a Fidelity Mach3 was graded at around 2034 Elo from results at that time. But as humans have become more and more used to playing computers the ratings computers are able to get in serious tournament play have dropped - by on average 58 Elo!

Here are the RESULTS from Michael's 1st. SET OF TESTS.

Program	[B] SelSearch	[C] Louquet	[D] Louquet -58	Difference, Louquet adjust cp S/Search
Tasc R30	2364	2435	2377	13
Genius2 68030	2312	2285	2227	-85
Mephisto Berlin Pro 68020	2259	2245	2187	-72
Mephisto Montreux	2227	2315	2257	30
Kasparov RISC 2500	2209	2320	2262	53
Mephisto Vancouver 68020	2178	2205	2147	-31
Mephisto London 68000	2152	2150	2092	-60
Mephisto Lyon 68000	2126	2125	2067	-59
Novag Sapphire/Diamond	2103	2230	2172	69
Fidelity Mach4	2087	2155	2097	10
Mephisto Almeria 68000	2029	2090	2032	3
Novag Scorpio/Diablo	2021	2075	2017	-4
Travel Champion 2100	2003	2085	2027	24
Fidelity Mach3	1994	2095	2037	43
Mephisto MMS	1978	2105	2047	69

At their worst two programs (Diamond1 and MM5) score 69 more in the Louquet test than its SelS rating, whilst we can also find programs scoring 72 and even 85 less in Louquet than SelS.

Equally some programs have Louquet/SelSearch figures pretty close to each other so, as Michael points out - sometimes it works well, and sometimes it doesn't! If only we could know which was which without having to play 50 or more games with each to find out!

But seeing programs at distances of +/-70 Elo from a correct rating emphasises the difficulty of using these tests to forecast ratings.

I sent an encouraging e-mail back to Michael as, though his findings here did not turn out so helpful in the search for a 'quick solution' as he (and I) might have hoped, the results are nevertheless interesting.

From: Eric Hallsworth [mailto:eric@elhchess.demon.co.uk]  
 Sent: 09 February 2004 07:56  
 To: michael.watson1@ntlworld.com  
 Subject: Re: WM test update.

Hi Michael

A great e-mail! Though your findings are not what you hoped for, they are in fact very interesting BECAUSE they haven't produced what was hoped. I would like to print your remarks in full in the next Sel/Search - if you want to make any amendments or changes that would be fine, now you know it's going in print! but it's fine left as it is as far

as I'm concerned.

Mark Uniacke and I test new creations of Hiarcs on various test suites before we play them in matches. This is useful in that, if there is an unpleasant drop-off in solution success, it often means that there's a fault in the coding, so Mark can check it before we bother with match testing. This has often saved us wasting time. But we have also learned that a small drop-off or gain often does not translate into Elo points when matches are played. Of course when we get a TEST improvement and then MATCH result improvements, we can be pretty certain we've made an improvement, even if only small.

Your findings and conclusions thus make much sense to us, but it is good to have the idea tested properly with results and an explanation as you've presented.

Cheers for now... Eric

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A week later Michael had been busy again!

From: "michael.watson1" <michael.watson1@ntlworld.com>  
To: "Eric Hallsworth" <eric@elhchess.demon.co.uk>  
Subject: RE: WM test update.  
Date: Sat, 14 Feb 2004 15:44:09 -0000

Hi Eric,

Dear Eric,

Thanks for your encouraging reply to my e-mail below, which is much appreciated.

There is some supplementary information you may wish to consider for inclusion in the next issue of Selective Search, which I would be delighted for you to edit the whole article as you see fit. Please find attached a Word document tabulating Louguet results - found on a web search at  
■ [www.fortunecity.de/wolkenkratzer/apple/28/LCT.html](http://www.fortunecity.de/wolkenkratzer/apple/28/LCT.html)

which I presume if published, should be credited as the source, for Fritz 5.32, Fritz 5.16, Junior 4.6, Junior 5.0, Nimzo 99b and last but not least Hiarcs 6.0.

A number of interesting points can be gleaned from the results table. Hiarcs 6.0 scores 27 out of 35 test positions correctly, the highest score for all of the above programs. Hiarcs 6.0 scores 11 out of 14 positional tests correctly, only equalled by Fritz 5.16. On the other hand, Fritz 5.32 scores a very poor 8 out of 14 positional tests correctly and only 23 out of 35 test positions correctly overall!

I think credit must be given to Mark Uniacke's programming of Hiarcs in producing such a well balanced result for both positional and tactical problem solving ability. Whichever way you view these results, it is a tremendous performance by Hiarcs against supposedly higher rated opposition. I do find it baffling that Hiarcs 6.0 does not rate above Fritz 5.32 in the Selective Search ratings, when the Louguet test (and others) suggest that the program is technically superior to Fritz. To personify the difference in match play, it seems that Hiarcs 6.0 is like the skilful boxer who wins his matches on a points decision (positional and tactical ability) whereas Fritz 5.32 is more like a brawler with a dangerous knockout punch (tactical ability), flooring more of its opponents. I note that in the latest issue of Selective Search (110), Hiarcs9 is above Fritz7 and Fritz8 in the rating list, which is good to see.

On reviewing the solving times in the attached table, with most of the values being far less than one minute, you have to question if such a short time interval can resolve playing strength differences between the programs. In particular, the programs have not had to work very hard to earn points on test positions 2, 6, 9, 27, 28 and 15 to 23 inclusive. I think this highlights a flaw in the Louguet test suite and that more difficult test positions should be found to replace the above. This is why I suggested programs should correctly calculate a winning variation, rather than a single move to earn the points.

I would like to test this theory out by using well-annotated games from my extensive collection of chess literature.



Two books in particular would provide good sample games for testing programs, namely "The art of chess analysis" by Jan Timman and "Best chess games 1970 – 1980" by Jon Speelman, in which they give in-depth analysis of games by leading grandmasters. I can try this out on Chessmaster 7000, CS Tal 2, Hiarcs 6.0, Hiarcs 7.0, Kasparov Turbo Advanced Trainer, Mephisto Mega 4 and Novag Sapphire 1, which are the only programs/dedicated machines I own, but it would also be useful to test the Fritz, Junior and Nimzo programs as well, to compare with the Hiarcs 6.0 program result.

I will keep you informed if I make any progress worth reporting with the above testing. I still believe that a carefully selected set of test positions could be used to predict chess strength based on test suite performance. The challenge is to find such a set of positions giving the correct ranking of playing strength versus test results. The quest continues!

Mike Watson

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*Eric again: I don't know the exact processor in use in this test, other than that it was an AMD K6-2, but the Louguet ratings for Fritz516/532 here are between 30 and 40 lower than in the next result Chart, which follows a little later and which used a P/800. So I'd guess it was something like a 400-500MHz, and therefore I've added 30 to all scores.*

<i>Program</i>	<i>SelSearch</i>	<i>Louguet</i>	<i>Difference, Louguet adjust cp S/Search</i>
<i>Fritz 532</i>	<i>2585</i>	<i>2540</i>	<i>-45</i>
<i>Fritz 516</i>	<i>2583</i>	<i>2525</i>	<i>-58</i>
<i>Junior 5</i>	<i>2564</i>	<i>2550</i>	<i>-14</i>
<i>Hiarcs 6</i>	<i>2558</i>	<i>2615</i>	<i>57</i>
<i>Nimzo 99b</i>	<i>2547</i>	<i>2605</i>	<i>58</i>
<i>Junior 4.6</i>	<i>2475</i>	<i>2505</i>	<i>30</i>

*The Averages work out at: SelS 2552, Louguet 2556... almost exactly equal, so I've not bothered to add an adjustment column this time! Yet for individual programs the differences between the SelS ratings and Louguet figures vary from -58 (Fritz5) to +58 (Nimzo) and +57 (Hiarcs6), and only Junior5 comes within a reasonable variance.*

*Finally, after browsing the web I found some more Louguet results for current PC Software on a P/800, and I sent all those details to Mike to see what he made of them, together with a copy of this Article in its earlier stages. Mike busily entered these results into his Excel program and was able to calculate that, in this case, an addition of just 18 to the Louguet figures would balance their differences!*

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Here is his reply on 23/Feb and his views on the newest figures:

Dear Eric

Thanks for sending draft copies of your proposed article on this topic for *Selective Search*.

I have had a good look through them and you have done a very good job of summarising a lot of information.

I have analysed the new table of Louguet test results you provided in Excel and attach my results for your perusal.

As you rightly point out in the draft article, the average difference between the *Selective Search* rating and the Louguet rating is -18. This is in fact an average offset bias figure and if you deduct 18 from each Louguet result, you balance out the number of Louguet results reading above and below the *Selective Search* rating. Hence, as shown in column H of my Excel table, the average difference between the *Selective Search* Rating and the Louguet rating sums to zero.

The important value as you mention in the article is the variance or standard deviation of the mean, which calculates to 72. This means 66% of Louguet ratings will be within  $\pm 72$  Elo of the *Selective Search* rating figure, and 95% of Louguet ratings will be within  $\pm 144$  Elo of the *Selective Search* rating figure. Not too bad for a rating estimate but I would like to achieve much better than this!

I hope all this statistical information makes sense. Please do not hesitate to contact me if you require clarification on any points relating to the article.

Best wishes.... Mike Watson

Eric again: So to conclude, here is a simplified version of the spreadsheet and calculations which Mike sent me with the above e-mail.

Unfortunately between my last e-mail to Mike and his 23/Feb response, I had been very busy putting a new adjustment calculation into the **Rating List** program, so that I'd be able to print slightly more up-to-date Ratings at the P4/1000 level. This meant that Mike's Louguet -18 solution was no longer correct, and it now needed to have +9 added instead.

I've made all of the necessary adjustments, with the SelSearch rating figures as they were showing here on 25/Feb 2004, and hope I've got my part of the maths right!

Program	SelSearch	Louguet	Louguet +9	Difference, Louguet adjust cp S/Search
Shredder 8		2785	2794	
Shredder 7.04	2728	2770	2779	51
Junior 8	2710	2600	2609	-101
Hiarcs 9	2699	2770	2779	80
Fritz 8	2693	2690	2699	6
Fritz 7	2692	2715	2724	32
Chess Tiger 15	2674	2665	2674	=
Gambit Tiger 2	2662	2660	2669	7
Chess Tiger 14	2661	2485	2494	-167
Shredder 6	2650	2725	2734	84
Hiarcs 8	2647	2660	2669	22
Junior 7	2640	2560	2569	-71
Fritz 6	2639	2670	2679	40
Shredder 5	2591	2675	2684	93
Fritz 532	2585	2540	2549	-36
Fritz 516	2583	2535	2544	-39

The Averages from the new figures are: SelS 2657, Louguet 2648. After the adjustment +9 to Louguet we see that some of the individual figures are quite close to each other. However one Louguet result is 93 too high, and another 84, whilst at the other extreme Tiger14 is an astonishing 167 lower in Louguet than its established match rating, and Junior8 also is -101.

Other reader's thoughts on all of this are obviously very welcome. Maybe, amongst the current test suites, the LCT II isn't the best one for this job?!

Others I have, besides the LCT II are: BS-2830 Suite (27), Difficult Positions, Endgame Suite, Graham White's Test Set, Mats Test, Quick Test, Rebel Positions, WM-Test (100).

Some of these only cover specific issues: Endgames or Tactics, whilst others such as the WM-Test are like the LCT II suite and cover various parts of the game and different chess issues.

# LATEST NEWS ON PALM PROGRAMS

## *Hiarcs 9 and Palm-HIARCS!*

First a recap from our last issue, interspersed with vital bits of new information.... my good friend **Mark Uniacke** is working hard converting **Hiarcs9** to run on the **Palm handheld** units... as his initial advertising idea says: '*A chess champion in the palm of your hand!*' Like it!

The conversion work is proving very interesting! One of the reasons for this is that, on the Palm units, the program runs massively slower than it does on our PC's. That's not a fault, nor problem for the future, but **Palm** handheld units can be purchased with a wide and wild range of different processing powers! E.g:

- Old 16MHz and 20MHz black and white display Units, costing around £50.
- The popular **Palm Tungsten E** which runs at 126MHz and has a colour display, all at a cost of just £149
- The **Palm Tungsten T3** which has a 400MHz ARM processor, colour screen, various bells and whistles and costs just over £300

Since writing the above another **new Palm** unit has emerged, and this is the one I'd recommend....

- **Palm Zire 21** with OS 5.2.1. Okay, it's only black & white, and the screen is smaller than with the others, so you need to have reasonable eyesight or specs.... BUT it is a Tungsten 126MHz processor, and it can run either, [1] off the rechargeable batteries, or [2] off your PC when it is connected via the supplied UCB cable, and BEST of all, [3] direct from its supplied mains transformer. Using either [2] or [3] over-rides battery use altogether, so you can have ALL the features you want on and the batteries wont even know! Being black & white instead of colour (which doesn't matter that much if your main interest is the Chess) also means that, if you do play Chess under battery power, you will get at least twice as much time out of a charged-up set of batteries. And the price for the Zire21 is around £79!!

### **Maximising the STRENGTH through speed-up**

The matter of the Tungsten processors, and the Operating System [OS] being after 5.01 is



The Palm Zire 21,  
a 126MHz  
hand-held computer

important, as careful programming to get the program size below 96K then enables the Tungsten ARM processor to make proper use of its full potential speed! Until that is done the chess programs will run VERY much slower... in Hiarcs' case that means at around 200 nodes per second! Also, as far as we can see when comparing Hiarcs on Mark's very slow old 20MHz Palm to my Zire21 126MHz, and then to Mark's new TungstenT3 400MHz, the unit makes hardly any speed difference at all. The program *as it is* runs at almost the same speed on all of them, the faster machines making only a small difference.

Only when the re-coding down to 96K has been achieved will the Tungsten ARM processors achieve what you would expect, which I assumed could be calculated by simple division:  $126/20 = 6$ ,  $400/20 = 20$ . I say 'assumed' because I've found that **Genius** on my Palm actually runs very nearly 10x faster in ARM mode than in non-ARM mode.

Probably the code before ARM-suitability runs at around the 16MHz of the earliest Palm hand-held units, whatever new Palm it is in! That's my guess anyway.

Of course Mark may appear at first to have a big problem! Hiarcs has always been very much a knowledge program, and its program size at present is well over 200K, as anyone with the PC version will know.

That might make it seem impossible to meet the 96K demand, and clearly PalmHiarcs at 200 nps is not going to be anything like as powerful as it would be at 2,000 on my Zire21, or perhaps 4,000 nps on a 400MHz Tungsten, which is the sort of figure

which we hope will be achieved.

### ***A Discovery = Progress!***

However in fact Mark's work is going well, since he discovered that it is possible to 'split the program in two' on the Palm, and have one half running the screen layout and feature selections etc., and the other half running the chess playing engine and game memory.

Thus getting the code which runs the chess engine itself down to 96K is not the daunting task it first seemed, and it has encouraged Mark to seek new ways of writing some of the code to simplify it, as well as do a 'search and destroy' job looking for pieces of code which are doing little or nothing in practice, or which seem irrelevant.

As I acknowledged in our last issue some questionable code routines have already been discovered whilst watching the program chug along at 200nps. Even with all of the extensive knowledge searching which Hiarcs does, on a modern PC it usually reaches 6 or 7 ply inside 1 second, and at search depths like this can be actually hiding mistakes being made at the very low search depths.

And that's what was happening as Mark and I occasionally saw it make some unexpected and doubtful moves that are normally quickly being hidden by the corrections applied on a PC at its much higher depths of search! Some exchange and check routines for example have thrown up their share of surprises watching PalmHiarcs search at depths 1 or 2!

I suppose it should be pretty obvious that code which works fine at 100,000nps or more may not work so well at 200nps!

In fact at a very early stage, when Mark was only just getting the code to run and Hiarcs was often only getting to depths 1 and 2 in the first 5-10 secs., we saw a few peculiar decisions! It seemed that code which was in the program (and has been for years in some cases!), and which should have stopped it falling into some types of mistake wasn't proving effective enough early in the search.

As well as sorting these out Mark has also found other ways to improve some routines which has already ensured that even the 'slow-coach' Palm Hiarcs is now usually

getting to depths 3 and 4 in the first few seconds. And when correcting the code also results in a saving in the program size, the benefit is just what is needed for the Palm version!

Pleasingly, considering no new programming specifically for the PC version has been done since Hiarcs9, our latest tests are indicating that the PC version is also already benefitting slightly from these changes!

As you know from the last Issue, Mark's early December Palm Hiarcs score against the Novag Sapphire2 (2142 Elo) was 7½-2½ to PalmHiarcs, 5 wins, 5 draws!

I've been playing my new Zire21 Palm Hiarcs against the Cosmos (2009 Elo) at G/15.

I got a bit of a shock at first as the Cosmos went 2-1 up, but one of these games revealed a fault in our king value (!) as well as in certain exchange calculations. Mark had already suspected that the latter needed reviewing and, since these have all been checked, with one or two (and the king value!) subsequently corrected, Hiarcs has won 3 on the trot so now leads Cosmos 4-2.

### ***When is a King worth a Queen?!***

You might well wonder how we could have survived all this time with an incorrect value for the king!!

However between Mark's win over the Sapphire2 in December with Hiarcs9083, and the Palm version he sent me in mid-February (Hiarcs9129), he has done much re-coding and pruning, and during this had somehow managed to alter the value of the king so that it had become the same as that for the queen!

Not surprisingly our overnight PC test results dropped off at the same time, so we both knew something had gone wrong! We saw a couple of games where PC Hiarcs allowed a piece to be pinned against its king which surprised us, but Mark checked the code relating to pins and it was all okay.

A couple of recent changes between H9123 and H9129 were put back to their previous status, but the poor results continued. He only realised where the fault must be, and what must have happened, when Palm Hiarcs dropped a piece 'for no reason' in a game of mine v the Cosmos! But I can tell

you it came as quite a shock to him to suddenly find that, in play, the king was showing itself valued at only 9 pawns!

Mark has no recollection of how he had managed to do this, but was possibly moving code relevant to the queen at the time, and accidentally attached it to the king?! We just don't know, but I guess these things can happen easily enough when you're looking at lines of computer code on a PC screen for hours on end.

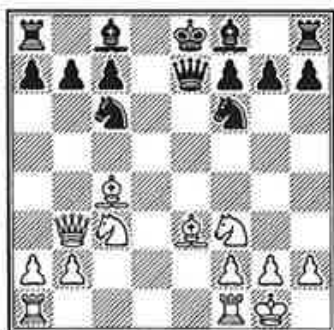
That doesn't mean he'll ever live it down as far as I'm concerned :-)) but all's well that ends well, and the newest version Hiarcs9165 in my Palm is very good!

The following game shows that, even with the kings wrongly valued, the program was still playing some good chess! This was game 2 against the Cosmos, with Palm Hiarcs9129, still at 200nps mode, as White. One move early in the game, not long after the Books had ended, was particularly startling. I'm finding it hard to wait patiently for the 10x speed-up!

### Hiarcs 9.1 - Cosmos

G/15. D20. Queens Gambit Accepted

- 1.d4 d5 2.c4 dxc4 3.e3 ♘f6 4.♗xc4 e5  
 4...e6 is usually played - the computers go out of Book  
 5.♘f3 exd4?!  
 5...♗b4+ 6.♘bd2 and now 6...exd4 is probably better  
 6.♖b3 ♖e7 7.0-0 dxe3 8.♗xe3 ♘c6 9.♘c3



- 9...g6?  
 The Cosmos already had to find 9...♘d8! so that, after 10.♗fe1 lining up Black's king and queen on the e-file, 10...♘e6 just about saves the day!  
 10.♗xa7!?

Highly dramatic and very impressive for 200nps at G/15. A purist for accuracy will point out that 10.♗fe1! is even better, and after 10...♗e6 11.♖xb7 ♖b8 12.♖xc6+ White is both a piece up and has an attack, but I thought that to see that the 'sac' works was even better in its way!

- 10...♘d8 11.♗ae1 ♗e6 12.♗d4 c6?  
 12...♘d7 13.♘d5 ♘xd5 14.♗xh8 c6  
 15.♗xd5 ♗xd5 16.♗xe7+ ♗xe7 would have tested PH for longer, but of course White wins easily after 17.♘e5+ ♗e8 18.♖h3!  
 13.♘g5 ♘d7 14.♘a4?!  
 14.♘xf7 ♖xf7 15.♗xe6 wins even more decisively  
 14...♗e8?

Because of the Palm's slightly inferior previous move, the Cosmos had a chance to play 14...♗xa4! 15.♖xa4 ♗g7, and hang on a bit longer. Palm Hiarcs wins easily now 15.♘b6! ♗a5 16.♘c8 ♗xg5 17.♘xe7 ♗xe7 18.f4 ♗f5 19.g4 ♖b5 20.♖c3 ♗xc4 21.♗xf6 ♘e6 22.♗xe7 ♗xf1 23.♖xh8+ ♗xe7 24.♗xf1  
 A queen for knight ahead, the rest was easy  
 1-0

### Palm Genius

Richard Lang's PalmGenius has been around for a while, and even in its original pre-ARM coding appeared to be grading at a respectable 2100 Elo or so.

But recently he completed adapting his admittedly much smaller Genius program to the 96K requirement, and achieved a 20x speed-up which he believes is worth up to 400 Elo.

If each speed doubling is worth between 60 and 80 Elo, the more likely full improvement might be 300 Elo, but that would still make Palm Genius a 2300 Elo program on my little £79 Palm Zire21, where it now runs 10x faster!

For the record it is searching at 20,000nps much of the time, but Genius always was a particularly fast searcher on the dedicated machines and the PC of course, being a much smaller program with less chess knowledge.

As with Palm Hiarcs it looks fine on screen, and both are easy to view and use, though a little small on my Palm Zire21.

Also like Hiarcs, Genius uses hash tables

(!) on the Tungsten Palms, and can be switched to think in opponent's time. I've already mentioned battery life, and you're definitely better off in my view with the Zire21 for this, as thinking in opponent's time is very heavy on the batteries.

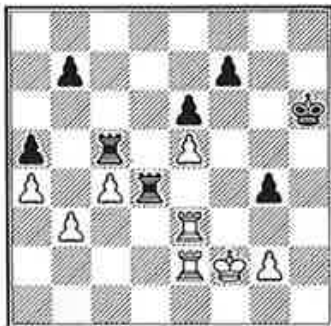
With the b&w Zire21 you can get a few games in on batteries, and if you plug the Zire21 into your PC or the supplied adaptor, then it doesn't matter at all of course. But using a colour Palm, especially with thinking in opponent's time set to 'on', can be pretty draining on the batteries!

I played 2 games at G/15 with Palm Genius against a London 68000 (2153 Elo). The games are very similar. Although the Palm version is searching somewhat deeper (apparently by 2 or 3 plies) it seems to benefit very little in the middle game. However as the endgame approaches this outsearching over the London 68000 becomes more effective, and Palm Genius wins a pawn in both games. But in rook and pawn endgames such gains are not always enough to win!

### London 68000 - Palm Genius

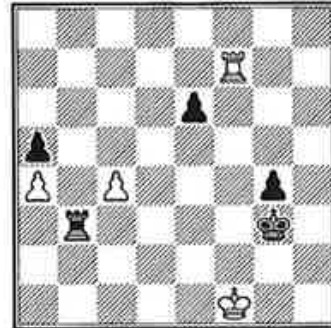
Game in 15. Sicilian. B36

1.e4 c5 2.♘f3 ♘c6 3.d4 cxd4 4.♘xd4 g6  
5.c4 ♘f6 6.♘c3 ♘xd4 7.♖xd4 d6 8.♙e3 ♙g7  
9.f3 0-0 10.♗d2 ♗a5 11.♙e2 ♙e6 12.0-0  
♞fc8 13.♞ac1 *Books end* 13...♙f8 14.b3  
♘d7 15.♙d4 a6 16.♞cd1 ♙xd4+ 17.♗xd4  
♘f6 18.f4 ♙g8 19.♞d2 ♗c5 20.e5 dxe5  
21.fxe5 ♘d7 22.♙f3 ♞ab8 23.♗xc5 ♞xc5  
24.♙d5 ♙xd5 25.♘xd5 ♞e8 26.♞e2 e6  
27.♘f6+ ♘xf6 28.♞xf6 ♙g7 29.♞f3 ♞d8  
30.♙f2 h5 31.♙g3 g5 32.h3 ♞d4 33.a4 a5  
34.♙f2 g4 35.♞fe3 ♙h6 36.hxg4 hxg4



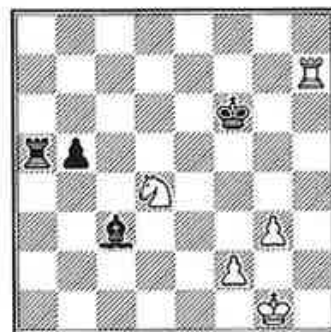
37.♙g3?! *With 37.♞e4 ♞xe4 38.♞xe4 ♙g5 the game would remain level 37...♙g5 38.♞f2 ♞c7 39.♞f6 ♞cd7 40.♙f2?! Yielding vital 'king' territory again. Better was 40.♞f1*

♞d3 41.♙f2 ♞d1 42.♞xd1 ♞xd1 43.♙g3! *though Black would still have an advantage 40...♞f4+ 41.♞xf4 ♙xf4 42.g3+ ♙f5 43.♙e1 ♞d4 44.♙f1 ♞e4 45.♞d3 ♙xe5 46.♞d7 ♞e3 47.♞xb7 ♞xg3 48.♞xf7 ♞xb3 49.♞g7 ♙f4 50.♞f7+ ♙g3*



51.c5 *Can this pawn save the day? 51...♞c3 52.♞c7 The rook should be behind the pawn of course, but Black's is! 52...♞c4 53.c6!? ♞xa4 54.♞e7 ♞c4! 55.♞xe6 ♙f4 56.♙e2 ♞c5 57.♞f6+? 57.♙d3! still gave chances for the draw: 57...g3 58.♞e4+ ♙f3 59.♞e3+ ♙g4 60.♞e4+ ♙h3 61.♞e6 though 61...a4! now would be strong 57...♙g3 58.♙e3 ♙g2?? Lets White in with a chance. 58...a4! was the winning line 59.♙d4? ♞c1 60.♙e3?? 60.♙d5! might still draw after 60...g3 61.♞f4 ♙h3 62.♞c4! 60...g3 61.♙d2 ♞c5 62.♙e3 a4 63.♙d4 ♞c1 64.♙e3 a3 65.c7 ♙g1 66.♙e2 g2 67.♞a6 ♞xc7 68.♞xa3 ♙h2 69.♞a1 g1 ♗ 70.♞xg1 ♙xg1 0-1*

### Palm Genius - London 68000



*PalmGenius, a pawn down in the middle game, is now a pawn up. But this ending can't be won despite the poor position of Black's rook 53.♘e2 b4 54.♘xc3 bxc3 55.♞c7 ♞a3 56.♞c5 ♙e6 57.♙f1 ♙d6 58.♞c8 ♙e5 59.♙e2 ♙d4 60.♞d8+ ♙c4 61.g4 ♞a1 62.♞d1 ♞a8 Not 62...♞xd1?? 63.♙xd1 ♙d3 64.g5 1-0 63.♞d7 ♞e8+ 64.♙d1 ♞f8 65.♞c7+ ♙d3 66.g5 ♞xf2 67.♞d7+ ♙c4 68.♞c7+ ♙d3 69.♞d7+ ♙c4 70.♞c7+ 1/2-1/2*

# RATING LISTS AND NOTES

A brief guide to the purpose 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**.

**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

RATING LIST (c) Eric Hallsworth, PC PROGS		Elo	+/-	Games	Pos	Apr 2004	Human/Games
BCF Computer							
267 SHREDDER0 P4-PC		2743	27	284	1		
266 SHREDDER7.04 P4-PC		2730	12	1403	2	2703	20
263 JUNIOR8 P4-PC		2711	14	1093	3		
262 HIARCS9 P4-PC		2701	16	815	4		
262 FRITZ7 P4-PC		2698	12	1479	5		
261 FRITZ8 P4-PC		2695	12	1305	6	2727	8
259 CHESS TIGER15 P4-PC		2676	16	821	7		
258 GAMBIT TIGER2 P4-PC		2667	11	1712	8	2542	2
258 CHESS TIGER14 P4-PC		2665	12	1305	9	2705	13
256 SHREDDER6 P4-PC		2654	12	1316	10	2478	7
256 HIARCS8 P4-PC		2651	11	1602	11	2651	14
255 JUNIOR7 P4-PC		2644	12	1332	12	2701	12
255 FRITZ6 P4-PC		2643	10	2081	13	2616	53
254 GAMBIT TIGER1 P4-PC		2632	22	430	14		
252 REBEL TIGER12 P4-PC		2623	15	872	15		
252 JUNIOR6 P4-PC		2620	10	1891	16	2621	22
252 REBEL CENTURY4 P4-PC		2620	21	480	17	2674	4
250 HIARCS732 P4-PC		2607	9	2347	18	2467	19
250 HIARCS7-00S P4-PC		2606	12	1397	19		
249 SHREDDER5 P4-PC		2595	14	1018	20	2642	15
248 SHREDDER4 P4-PC		2588	16	760	21	2600	15
248 FRITZ516 P4-PC		2586	12	1375	22	2513	6
248 FRITZ532 P4-PC		2586	12	1480	23		
248 CHESSMASTER 6/7000 P4-PC		2584	24	353	24	2594	22
247 NIMZ08 P4-PC		2583	12	1326	25		
247 NIMZ07 P4-PC		2582	13	1208	26		
247 REBEL CENTURY3 P4-PC		2579	25	340	27	2655	6
247 NIMZ098 P4-PC		2577	12	1308	28	2475	10
246 GANDALF5 P4-PC		2572	20	495	29		
245 JUNIOR5 P4-PC		2566	11	1537	30		
245 GANDALF4 P4-PC		2565	13	1115	31		
245 HIARCS6 P4-PC		2560	13	1207	32	2592	24
243 SOS P4-PC		2550	14	974	33		
243 NIMZ099 P4-PC		2549	14	1051	34		
243 REBEL CENTURY1.2 P4-PC		2548	21	460	35	2592	43
243 REBEL-10 P4-PC		2548	25	333	36	2598	17
243 REBEL9 P4-PC		2547	14	1063	37	2677	14
243 REBEL8 P4-PC		2547	19	549	38		
243 GOLIATH LIGHT P4-PC		2546	15	846	39		
242 MCHES PRO6 P4-PC		2541	17	712	40	2504	12
241 MCHES PRO7 P4-PC		2534	14	1068	41	2600	2
241 CHESS GENIUS5 P4-PC		2534	13	1207	42	2459	6
240 SHREDDER2 P4-PC		2522	15	876	43	2218	6
240 MCHES PRO8 P4-PC		2522	14	1027	44		
240 SHREDDER3 P4-PC		2521	34	177	45	2711	2
237 GANDALF3 P4-PC		2499	27	282	46		
234 JUNIOR4.6 P4-PC		2477	43	115	47		
234 KALLISTO2 P4-PC		2473	22	413	48		
233 FRITZ516 PENT-PC		2466	28	266	49		
231 HIARCS5 PENT-PC		2450	19	587	50		

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