Selective Search 115
THE COMPUTER CHESS MAGAZINE

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ex World Champ, GM Ruslan Ponomariov (2710) in play aginst Hydra, operated by programmer Chirly Donnenger at Bilbao recently in the latest all GM Man v Machine match.

[Smaller text]

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Welcome to another new issue of Selective Search... 115! If you're due for renewal at this time, can I encourage you to please do so! There will still be at least 6 more issues of the magazine.

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

CONTENTS for this Issue!

First a major apology that this Issue is so late. The decision to produce a 16 page A4 colour Christmas Catalogue for Countrywide meant massive extra hours of work and pressure for me, and at times I thought SetSearch 115 might not even come out until January!

But I'm just going to make it for mid or late December so I have the chance to wish all of my readers a very happy CHRISTmas and send you my best wishes for a good New Year in 2005.

Once again we have a packed issue - there doesn't seem to be a quiet season for computer chess at present!

- For 115 we have the Challenger v Obsidian match to finish off - we left it with the Challenger holding a narrow 4½-3½ lead with 4 games to play.
- We also have the Shredder v Hydra match, for which I only had space to show you the first, won by Hydra, of 8 the games they played.
- The 24th Dutch Open has been played since our last issue, with Chess Tiger, Pro Deo, The King, Diep and Deep Sjeng amongst the participants. A Dutch Open always means a Gebruikers dedicated computer event, number 10 in fact, and this year it was preceded by a Simultaneous in which Wim Luberti (2254 Elo) took on a range of older dedicated machines such as the Portorose, Centurion, Super Expert, Milano Pro, Avant Garde, Sapphire1, Mach3, and Super Enterprise. He played 11 games altogether and it took 5 hours. You've seen his rating - before you turn to our coverage think about what you reckon he scored!
- Palm Hiarc 52 MHz was about to play the Tasc R30 at the end of our last issue as the latter's match against Palm Genius was drawing to an end (with the R30 leading by 5-2).
- A major MAN v MACHINE event took place in Bilbao in October, with 16-processor Hydra, 4-processor Junior, and Centrino laptop Fritz playing a round robin against Topalov (2757), Ponomariov (2710), and Karjakin (2576).

I won't fit it all in... but I'll do my best!

Pete BLANDFORD's latest results

Pete continues to add new engines into both his 40/2 and G/60 Tournaments. The 40/2 tends to move along quite slowly, but he manages to keep the G/60 pretty much up-to-date!

In the 40/2 Tournament some of the programs have played only 8 games whilst others have played 9 or 10. Thus the table gives a slightly false impression though, strangely, the top 2 are amongst the few which have only played 8 games so far.

<table>
<thead>
<tr>
<th>Pos</th>
<th>Program</th>
<th>Score</th>
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<tbody>
<tr>
<td>1=</td>
<td>Hiarc 9</td>
<td>6/8</td>
</tr>
<tr>
<td>2=</td>
<td>Shredder 8</td>
<td></td>
</tr>
<tr>
<td>3=</td>
<td>Chess Tiger 15</td>
<td>5½/8</td>
</tr>
<tr>
<td></td>
<td>Shredder 8- active</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Junior 8</td>
<td>5½/9</td>
</tr>
<tr>
<td>6</td>
<td>Hiarc 8</td>
<td>5½/10</td>
</tr>
<tr>
<td>7</td>
<td>Fritz 7</td>
<td>5/8</td>
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<td>8=</td>
<td>Fritz 6</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Junior 7</td>
<td></td>
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<td>10</td>
<td>Shredder 7</td>
<td>4½/8</td>
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<tr>
<td>11</td>
<td>Deep Fritz 8</td>
<td>4½/9</td>
</tr>
<tr>
<td>12</td>
<td>Shredder 7.04</td>
<td>4½/10</td>
</tr>
<tr>
<td>13=</td>
<td>Hiarc 8 Bareev</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fritz 8</td>
<td></td>
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<tr>
<td>15</td>
<td>Hiarc 732</td>
<td>3½/10</td>
</tr>
<tr>
<td>16</td>
<td>Gambit Tiger 2</td>
<td>3/10</td>
</tr>
<tr>
<td>17</td>
<td>Chess Tiger 14</td>
<td>2/10</td>
</tr>
<tr>
<td>18</td>
<td>Fritz 5.32</td>
<td>1½/10</td>
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In the G/60 the engines play 4 games against each other engine.
Pete Blandford - G/60 Tourney

<table>
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<td>46</td>
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<td>Shredder 7.04- active</td>
<td>44</td>
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<tr>
<td>3</td>
<td>Fritz 8</td>
<td>41</td>
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<tr>
<td>4</td>
<td>Hiarc 8 Bareev</td>
<td>40</td>
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<td>5</td>
<td>Hiarc 9</td>
<td>39½</td>
</tr>
<tr>
<td>6</td>
<td>Shredder 8- active</td>
<td>38½</td>
</tr>
<tr>
<td>7-9</td>
<td>Fritz 7, Deep Fritz 8</td>
<td>38</td>
</tr>
<tr>
<td>9</td>
<td>Junior 7</td>
<td>37½</td>
</tr>
<tr>
<td>10</td>
<td>Chess Tiger 14</td>
<td>36</td>
</tr>
<tr>
<td>11-</td>
<td>Shredder 8</td>
<td>34½</td>
</tr>
<tr>
<td></td>
<td>Chess Tiger 15- normal</td>
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<tr>
<td>13</td>
<td>Gambit Tiger 2</td>
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<td>33</td>
</tr>
<tr>
<td>15</td>
<td>Shredder 7</td>
<td>32½</td>
</tr>
<tr>
<td>16</td>
<td>Chess Tiger 15</td>
<td>31</td>
</tr>
<tr>
<td>17</td>
<td>Hiarc 8</td>
<td>30</td>
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<tr>
<td>18</td>
<td>Fritz 6</td>
<td>29</td>
</tr>
<tr>
<td>19</td>
<td>Fritz 532</td>
<td>27</td>
</tr>
</tbody>
</table>

**Palm results!**

It is really satisfying to be involved in something which has received almost rave reviews from everyone who's got it! So I make no apology, as a co-tester and the opening book programmer, for boasting about the continuing stream of great results we keep getting for Palm Hiarc.

In our last issue I told you about the series of G/60 matches which Clive Munro had started, using his 126MHz Palm Zire 21 unit, and his final scores are now in...

- Palm TIGER - Genius 68030  3½-6½
- Palm TIGER - Tasc R30/1995  1½-8½
- Palm GENIUS - Genius 68030  7½-2½
- Palm GENIUS - Tasc R30/1995  3½-6½
- Palm HIARCS - Tasc R30/1995  6½-3½
- Palm HIARCS - Genius 68030  9-1!

Don't forget that the Genius68030 is rated at 2303 Elo, and the Tasc R30/1995 at 2354!

It seems, because of the large dose of extra RAM on the 400MHz Tungsten T3 units, that Hiarc runs 4x faster on them than on the 126MHz Palms which Clive and I have. Mark Uniacke visited me recently (mainly to talk about work-in-progress on Hiarc 10!) and showed me his T3 colour unit and, as well as the serious extra speed, I have to say that the board and pieces were superb. But as readers know, I'm very happy with my b&w long battery life (plus adaptor plug-in while in use) Zire21 unit, which is, with Hiarc running, clearly playing at IM strength.

Space permitting I'll include elsewhere one or two of the games which Clive has sent me!

**Frank Holt** has Tungsten T3 Palm units, and his scores are perhaps even more impressive for Hiarc!

- Palm HIARCS - Palm TIGER  10½-1½
- Palm HIARCS - Palm GENIUS  11-1!!

Despite this pair of scores I do still firmly believe that, on any of the Tungsten Palm units, Genius is quite a bit stronger than Tiger, mainly because Tiger has not been re-programmed to take advantage of the ARM processor. My current ratings are:

<table>
<thead>
<tr>
<th>Unit</th>
<th>126MHz</th>
<th>400MHz</th>
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</thead>
<tbody>
<tr>
<td>Palm Hiarc</td>
<td>2500</td>
<td>2600</td>
</tr>
<tr>
<td>Palm Genius</td>
<td>2280</td>
<td>2400</td>
</tr>
<tr>
<td>Palm Tiger</td>
<td>2200</td>
<td>2250</td>
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<tr>
<td>Pocket Fritz</td>
<td></td>
<td>2500</td>
</tr>
</tbody>
</table>

**Don LANGFORD and the Star Sapphire**

Don sent me his scores using the Novag Star Sapphire quite some time ago, so that I could update the Rating List, and I really should have included them here for readers to see!

- Star Sapphire - Novag Scorpio  6-0
- Star Sapphire - Travel Champ 2100  5½-½
- Star Sapphire - Fidelity Travelmaster  6-0
- Star Sapphire - Kasparov Stratos  5-1

These are very good wins for Novag's latest pair, the Star Sapphire/Diamond, which one their own would put the computer at >2200. All the matches were played at G/60.

**Frank HOLT's latest tests**

You can imagine that Frank was quick to notice the arrival of Pro Deo in our last issue and, encouraged by the reasonable scores it
was getting in Chris Goulden’s tests, was soon putting it to the test.

- Pro Deo v Shredder 8 2½-9½
- Pro Deo v Fritz 8 2 -10
- Pro Deo v Chess Tiger 15 3½-8½
- Pro Deo v Junior 8 2½-9½
- Pro Deo v Hiarcs 9 3-9

I listed some early Pro Deo scores in our last issue, but accidentally left blank the place where I had intended to show its estimated Elo. The figure which should have been inserted was 2641, which would put Pro Deo in 12= position on our Rating List. But now Frank calculates that his quite poor results would put Pro Deo at only around 2580?!

Chris GOULDEN

Chris continues to do his Winboard testing for us, and in SelSearch 114 he had a small tournament which showed the new Pro Deo right at the top....

PRO DEO: Test -1

<table>
<thead>
<tr>
<th>Pos</th>
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<th>Score/14</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pro Deo 1.0</td>
<td>10½</td>
</tr>
<tr>
<td>2</td>
<td>Ktulu 4.2</td>
<td>9½</td>
</tr>
<tr>
<td>3</td>
<td>Aristarch 4½</td>
<td>8½</td>
</tr>
<tr>
<td>4</td>
<td>Ruffian 1.0.1</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>The King 3.23</td>
<td>7½</td>
</tr>
<tr>
<td>6</td>
<td>El Chinito 3.25</td>
<td>5½</td>
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<td>7</td>
<td>Green Light Chess 3.00</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>Little Goliath 3.8 uci</td>
<td>2½</td>
</tr>
</tbody>
</table>

Chris has run a couple of new tournaments since then, again with Pro Deo taking part.

His first result above would indicate something close to a 2700 rating for it, and as you will see Chris’s next results will also put it quite high, though this time nearer to my 2641 than Franks 2580... maybe even a bit above 2641.

Perhaps it scores particularly well against weaker, less knowledgeable programs?

PRO DEO: Test -2 with The King

<table>
<thead>
<tr>
<th>Pos</th>
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</thead>
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<tr>
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</tr>
<tr>
<td>2</td>
<td>King 3.23</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Smartthink 17a</td>
<td>7½</td>
</tr>
<tr>
<td>4</td>
<td>Face Paderborn</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Aristarch 4.5</td>
<td>6½</td>
</tr>
<tr>
<td>6</td>
<td>GLC 3.0</td>
<td>5½</td>
</tr>
<tr>
<td>7</td>
<td>Little Goliath UCI Revival</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>Crafty 19.17</td>
<td>4</td>
</tr>
</tbody>
</table>

At about this time the Open Dutch Championship was taking place. Played over 2 weekends after the first week-end, Pro Deo held a small lead over a field which included The King, Tiger, Diep and Deep Sjeng. It was getting harder to work which of the 2700, the 2641, or the 2580 was nearest the truth, but it was beginning to look less and less like the latter! If I haven’t got space to cover the tournament properly later in the magazine, I’ll try to include the final scores are given, so you’ll know how it ended up!

PRO DEO: Test -3 with Shredder7

<table>
<thead>
<tr>
<th>Pos</th>
<th>Program</th>
<th>Score/14</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shredder 7.04</td>
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<tr>
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<td>4</td>
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<td>5</td>
<td>SOS 4 Arena</td>
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<tr>
<td>6</td>
<td>Ktulu 4.2</td>
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<td>7</td>
<td>Green Light Chess 3.0</td>
<td>4½</td>
</tr>
<tr>
<td>8</td>
<td>Little Goliath UCI Revival</td>
<td>4</td>
</tr>
</tbody>
</table>

Paul WALSH

Paul is a great fan of Shredder so it is right to re-dress a balance which has tended to be slightly on the critical side of our no.1 rated program!

Paul has been playing engine-engine G/60 matches, here’s his results:

- Shredder8 - Hiarcs9 66-34
- Shredder8 - Hiarcs8 Bareev 64-36

Paul says: “Although Hiarcs8 Bareev doesn’t get mentioned much I like its style of play. It
reminds me of Chess Tiger but is slightly stronger in my opinion.”

This is interesting, especially as I have been getting e-mails from Peter Grayson telling me how well Hiarcs8 Bareev does on his machine. He also uses it on the Internet where it regularly gets a very high grading even though on his ‘quite ordinary’ hardware. Peter is convinced the Bareev program is better than Hiarcs9!

Back to Paul whose other score of a match in progress is...

- Shredder8 - Junior8 35-17

Paul adds: “You can see why I’m a little surprised at some of your other readers’ results. Even though I like Junior’s aggressive play it has never really troubled Shredder on my machine. Just goes to show”

New SOFTWARE

Two new programs are coming out for Christmas 2004.

The first, which has just arrived, is Fritz8 Championship edition.

The engine is the latest Man-Machine Bilbao engine, the Interface is the ChessBase latest with new improved 3D boards, and the CD includes excerpts from 3 of the new Fritz Media Training programs, including some by Kasparov.

If you have Fritz8 already it’s probably not worth upgrading, especially as by logging on via Fritz8 to the Playchess site you can get your original engine updated. If the Bilbao engine was that much better I think they’d have called it Fritz9, wouldn’t they? But we’ll know more after some testing has been done.

If you don’t have Fritz8, then this would be £39.95 well spent in my view.

The second, due ‘any day’, is Junior9. I have no idea why there has been such a delay since it won the World Computer Championship, but clearly if Amir Ban and Shay Bushinsky have been making further engine improvements, then that’s for our benefit! Obviously it will have the latest ChessBase interface and 3D boards, and again the price is £39.95.

Bill REID rides again!

I’m sure, like me, lots of you have greatly missed Bill’s regular articles. He’s not back ‘for good’ as you might say, but he has sent us this very interesting little teaser - Time for Adjudication! - and promised to let us have another for SelSearch 116.

Bill: These days, team games get finished in one session. Modern electronic clocks lend themselves to all kinds of tricks for making sure of that. But things used to be very different. Clocks would be set for, say, 36 moves in an hour and a half and, at the end of that time, games would be adjudicated.

Often captains could agree on a result, especially if it didn’t affect the outcome of a match. We sometimes used to get away with ‘draws’ that we probably wouldn’t have achieved over the board. But a lot might hang on a particular game and, if captains couldn’t agree, the position would be sent off to a strong player ‘for adjudication’. I think it cost 5 shillings plus postage to do that. And then it would take at least a week to get the answer.

If only we had had computer programs to do the job for us! Put the position into Fritz or Hiarcs and the answer would come in a couple of minutes. Or would it?

How do the programs get on with the following position, White to play?

Is it a draw, or can White win? White is claiming a win - ‘Look at the cramped position of Black’s king, and my control of the King’s rook’s file!’ (In those days no-one would have said ‘h-file’).

But Black says it’s a draw - ‘All that can be done is shuffle the queen back and forth, up and down! If it does anything else I’m winning on material!’

“Who was right?” asks Bill!
Eric: So then, what did your favourite program say? Well, I’ve had some responses and nearly all of them say it’s a draw, even left for around 10 minutes!

I should mention that I took my own advice from the last issue and upgraded from a P4/1800 laptop to a Centrino/1800 laptop, and indeed it’s over 80% faster, getting a PowerRating of 8.060 cp with 4.414!

So, on my Centrino 1800 Shredder8 eventually gave White the win after over 6mins. apparently finding new ideas for the 3rd. and 8th. moves. It was also found that Fritz8 produced the same idea for the 3rd. move and with a small plus evaluation after 6 minutes, but the evaluation was still only the same small 0.28 plus 10 mins later! I understand Junior7 did similarly, though again a +0.22 eval only equates to a draw, but on my machine Junior8 and everything else marked the position firmly as 0.00.

So the computer adjudication is a draw.

Key move number one, so that the ♘ can lead the ♘ as they combine on the ♟ file.
But 3. ♘h6+? to get the draw is a popular choice amongst the computers!
3... ♘g7 4. ♘h6+ ♘f6

Well that wasn’t too hard, and it’s all forced. Now what? 5. ♘h7 is a possibility, but what happens after 5... ♘f8. Mmmmm. 6. ♘f5 d5 7. ♘xg6! ♘xe7 8. ♘xf7 ♘xf7 9. ♗g5+ ♘d7 10. ♘xf7+ ♘c8. White’s definitely got an edge, but nothing conclusive. I’d rather not spend a lot of time going into that if I can help it! So let’s go back to the forced sequence with another ♘ check!
5. ♘h4+! 5... ♘g7 6. ♘h7+ ♘g8

No choice! If 6... ♘f8 7. ♘f4 and ♘h6+ next threatens m/1. In fact it’s mate in 2 or 3 whatever Black does!
7. ♘h6

Again threatens m/1 as per our last note
7... ♘f6

Many programs can find White’s next move by now, but earlier in the search it was very difficult simply because it’s a ‘quiet’ move. This means programs tend to end the forward pruning search as there’s no threat, so no need to pursue it as it doesn’t go anywhere and, as we’re material down so losing, we’ll have to settle for the perpetual check draw!
8. g4 ♘xe7 9. ♘d3 ♘f5 10. ♘xf5 gxf5 11. ♘xf6 ♘h7 12. ♘xf7+ ♘h8

This has to be won for White, but better
check a bit further
13.g5!
Looks like the right idea, though gxf probably gets the win easily enough as well. Now the rook must go to f8 or g8.

[i] 13...hxh5+
14.\textcolor{red}{\text{xf}}5 would be good enough
14...g7 15.\textcolor{red}{\text{h}}6+ a7 16.g6+ Even better... so 13...\textcolor{red}{\text{g}}8 has to be tried.

[ii] 13...\textcolor{red}{\text{g}}8
Aand now, aah!
14.c4!
Very neat because after
14...d5
Black is wiped out with
15.\textcolor{red}{\text{h}}5+ g7 16.\textcolor{red}{\text{h}}6+ f7 17.\textcolor{red}{\text{f}}6+ \textcolor{red}{\text{e}}8
18.\textcolor{red}{\text{a}}3
and mate cannot be avoided.

A couple more Positions from Eric
I included a couple of extra positions, the first being from Kramnik-Krasenkow, Corus 2003. With White to play what would your computer choose?

As I suggested pretty well everything chose 1.h7, all with a big plus evaluation. I did mention that Juniors 7+8 incredibly and falsely announced mate with this move, and a few disbelieving folk checked and e-mailed in horror to confirm it was true!

But Black just gives perpetual check with his rook - sometimes the rook can only give check by putting itself en pris, but it can't be taken or it's stalemate, eg. 1.h7 \textcolor{red}{\text{e}}7+ 2.\textcolor{red}{\text{d}}6 \textcolor{red}{\text{e}}6+ etc.

The programs (except Rubian, Pro Deo, Chessmaster & Shredder) think that eventually, one day in the future, this will not be true, so they stick with the big material advantage expecting the impossible!

Anyway 1.h7 is actually a draw, and

Kramnik obviously saw it and played 1.Ne3, and probably 1.Nb4 or 1.Nf4 are just as good, all with decent winning chances.

The final one also has a stalemate theme and appeared in David Norwood's column in Saturday's Daily Telegraph. It's White to play and win!

I suggested that if/when you or your program had worked it out, to check Black's responses as he has quite a few possibilities, which should all be taken into account. A couple of programs (Htares, Fritz) get it within 10 mins but most need much longer.

1.e8\textcolor{red}{\text{c}}1!
No other promotion will do the job.
[ii] 1.e8? \textcolor{red}{\text{e}}xh1 2.\textcolor{red}{\text{e}}5 \textcolor{red}{\text{g}}1. The Black rook only has to stroll along the 1st rank to stop White's queen going there to play Qa1 mate. 3.\textcolor{red}{\text{x}}h2 \textcolor{red}{\text{f}}1. At no time can White take the rook as that would be immediate stalemate!

[iii] 1.e8? \textcolor{red}{\text{e}}xh1? work because 1...\textcolor{red}{\text{h}}1? 2.\textcolor{red}{\text{e}}xh1 is already stalemate

1...\textcolor{red}{\text{g}}1!
The Black \textcolor{red}{\text{g}} can never leave the 1st rank because of \textcolor{red}{\text{a}}1 mate.
If 1...\textcolor{red}{\text{e}}xh1? 2.\textcolor{red}{\text{d}}6 3.e1. Finally if 1...\textcolor{red}{\text{e}}xh1?
2.\textcolor{red}{\text{g}}5!
While the \textcolor{red}{\text{g}} is now free to aim for the mate \textcolor{red}{\text{e}}8–d6–b7, it can't do so when Black's \textcolor{red}{\text{g}} is on g1 because of 2.\textcolor{red}{\text{e}}d6? \textcolor{red}{\text{e}}xg4+! Note again that the Black \textcolor{red}{\text{g}} cannot be taken as it's an immediate stalemate!

2.\textcolor{red}{\text{e}}1
2...\textcolor{red}{\text{e}}xh1? 3.\textcolor{red}{\text{d}}6 m/2, or 2...\textcolor{red}{\text{e}}xg4 3.\textcolor{red}{\text{a}}1#.

3.\textcolor{red}{\text{g}}5!
3.\textcolor{red}{\text{d}}6? \textcolor{red}{\text{e}}5+ 4.\textcolor{red}{\text{h}}4 \textcolor{red}{\text{h}}5+. Remember again, the rook can't be taken
3...\textcolor{red}{\text{g}}1 4.\textcolor{red}{\text{h}}6 \textcolor{red}{\text{d}}1 5.g6 etc 1-0

Mind boggling stuff - until next time, when we'll aim to include anything missed out this time!
The FINAL GAMES!
We left the G/60 match, being run by Augusto Perez, tantalisingly poised at 4½-3½ for the Chess Challenger with 4 games to play.

The Challenger has a 1993 Elo grade, based on many games, but the Obsidian is newer to our rating list and after 106 games could move up or down a little from its 1938 figure. So far the match has gone as the ratings would tend to forecast!

Here’s game 9.

**Obsidian 3½ - Challenger 4½**
A29: English Opening: Four Knights Variation with 4 g3

1.c4 e5! In my view the best response when a computer plays 1.c4 2.Bc3 Bb6 3.Bf3 Bc6 4.g3?! Computer programs really need to play 4.e3 here. Very few handle fianchetto positions well 4.e3 4...d5 5.exd5 Qxd5 6.Qg2 The computers drop out of their books 6...Qe6 7.Qxd5 Qxd5 8.0-0 Qd6 9.d4 Qxd4?! 9...e4 would have maintained a small advantage after 10.Qg5 We7 10.Qxd4 &xg2 11.&xg2

40.gxh4 Not 40.Qxh6? h3! 41.Bf4 Bbh8 42...Qg6 41.Ed7 f8 42.Bc2? Missing Black’s response. To save the h-8 pawn Ed1 was needed, then probably 42...Wh5 43.Ed2= 42...Wf6 43.Wg3 Wf5 44.Bcd2 &xh4+ 45.Bf3 Wg5 46.Qxg5 hxg5 47.e3 a4? 47...f4! 48.Bxf4 Bf8 is much sharper 48.Bd5 Bf5 49.Bd6 Bg6 50.Bh7+ Bg6 51.Edd7 g4+ 52.Bg3 Be4 53.Edg7+ Bf6 54.Bf7+ Bg5 55.Bg7+ Bg6 56.Ed7?! 56.a3 offered a better chance, by stopping Black from moving to the square 56...a3 57.Bxa3 Baa4 58.Bad3 Baa5 59.Bf3 gx3 60.Bc7 Baa8 61.Bxh3 Bh8 62.a4 Bh3+ 63.Bg2 Bgh6 64.Qg7+ &fd6 65.Bb7 Bh2+ 66.Qg1

66...Bb2?! 66...Bh1+ 67.Bf2 Bhh2+ 68.Qg3 Bhh4 was better, but there is still no clear win though Black would certainly have the better chances 67.a5?! Black’s last gave the Obsidian a chance to clinch the draw with 67.Ed6+! Bh5 68.Exh6 Qxh6 69.a3!

67...b5? Lots of little endgame mistakes! 67...Be5 was better, though there’s still no clear win 68.Bc3?!
Here 68.Bd6+ Bh5 69.Bxh6 Bh6 70.a4 draws 68...Bh3!
69.Bxc5? 69.Bb6+ Bh5 70.a3 probably still draws 69...Bxe3 70.Bb6+ Bh5

Now the Obsidian will not be able to defend against the mate threats from the Black rooks as well as keep his 71.Bf1 Bf3+ 72.Qg1 Bg3 73.Bc1 Bh3 74.Qa6 Bxa2 75.Bf1 d5 76.Bc5+ Bh4 The Black Q always has somewhere to hide! 77.Be5? Allows a mate. Even so, if 77.Qg6+ Bf3 78.Bc3+ Bh4 79.Bh6+ Bf5 and Black will win 77...Bh5! Sacrifices will delay mate for only 4 or 5 moves 0-1

A slightly scrappy affair in places, but nicely finished by the Challenger after White’s mistake at move 69

**Challenger 5½ - Obsidian 3½**
4.e3 dxc3+ 5.bxc3 d6. The computers drop out of their books here. 6.Qf3 0-0 7.Qd3 Qd7 8.0-0 Qc6 9.a3 Qbd7 10.e4= 11.Qc2 f5 12.Qd3 Qb6 13.c5 Qd7

Now, instead of the preferred 14.Qf1 or Qb2, White enters a series of exchanges which favour its opponent.

14.cxd6?! Qa4 15.e5 Qxe2
16.Qxd6 Qxb1 17.Qxf6+ Qxf6 18.Qxb1 Qxd6
19.Qxd6 Qxd6 Qxb7

So the Obsidian ends up with Q for just 20...Qe7 21.Qb3 Qc8 22.e4 f4 23.e4 f3 24.gxf3 24.g3! might be better, though the restriction against his Q from the enemy pawn rooted on f3 doesn't look very healthy it must be said!

24...Qxf3 25.Qe5 Qf4 26.Qd6 Qxd4 27.Qc5 27.f4 also loses a pawn to 27...Qxd6 of course 27...Qe5 28.Qb8+ Qf7 29.Qhx7 Qd6 30.Qe4 Qd4 31.Qh7 Qg5+ 32.Qf1 Qh5 33.Qg8+ Qf6 34.Qe8 g5

35.Qg2? 35.Qxe6+ Qg7 36.Qe8 Qh2 37.Qf3 was probably the only chance, though now with Q for just

the Q the Obsidian is still the likely winner 35...Qh8
36.Qg3 Qh4 37.Qxe6+ Qg7 38.Qf6 Qh3+ 39.Qg4 Qh4+ 40.Qg3 Qxg8 41.Qxa7 Qh5 42.a4 Qxh2 And we can leave it there as, now with Q for just a Q the Obsidian was able to win comfortably 0-1.

A decent win from the Obsidian in that game meant the Challenger was back to 1 ahead with 2 to play!

**Obsdian 4½- Challenger 5½**

D63: Queen's Gambit Declined:
Classical: 7 Re1

1.d4 d5 2.c4 e6 3.Qc3 Qf6
4.Qg5 Qbd7 5.e3 Qe7 6.Qf3 h6 7.Qh4 0-0 8.Qc1 The end of the computers' books -
White's position is freer 8...Qb6 9.e5! Gaining space but releasing some of the tension by blockading pawns 9...Qbd7 10.Qd3 c6 11.0-0 Qe5 12.Qxe5 Qg4 13.Qxe7 Qxe7 14.e4! dxe4 15.Qxe4 Qxe5 16.Qd6

23.Qe4 or Qh2 was best here 23...Qg5!

24.f3 It's too late for 24.Qe4 now, as 24...Qxe3+ 25.Qh2 Qxf2 wins easily
24...Qxe3+ 25.Qh1?!
25.Qf1 trying to escape from the corner looks better
25...Qf4 26.Qxb7?

Madness! It wasn't too late to try and rush the Q back to the defence with 26.Qe4. The Obsidian's position has collapsed in a few short moments 26...Qh4+ 27.Qg1 Qf5 28.Qf2 Qh3+ 29.Qxh3 Qh2? allows a mate with 29...Qxf2+ 30.Qg1 Qh3+
31.Qh2 Qxf3 32.Qxh3 Qf2+ etc 29...Qg5+ 30.Qf1 Qh3+
31.Qe2 Qg2 32.Qf1 Qf8
33.Qxg2 Qxg2+ 34.Qf2 Qg3
35.\textbf{Ed}6 \textbf{Ed}c5+ 36.\textbf{Eh}1 \textbf{Ee}3 37.\textbf{Eg}2 \textbf{Eg}5 38.\textbf{Ed}d2 \textbf{Ed}5 38...\textbf{Eh}3!! was a quicker win, but White's position is hopeless anyway. 39.\textbf{Ex}d5 \textbf{Ex}d5 40.\textbf{Ex}c2 \textbf{Ed}3 41.\textbf{Ed}f2 \textbf{Ed}b5 42.\textbf{Ed}d6 \textbf{Ex}c5 43.\textbf{Eh}b7 \textbf{Ed}b4 44.\textbf{Ed}d8 \textbf{Ee}7 45.\textbf{Eh}c6 \textbf{Eg}5+ 46.\textbf{Eh}3 \textbf{Eh}5+ 47.\textbf{Eg}2 \textbf{Eg}6+ 

The knight falls next move and it's all over \textbf{0–1}

The match is won, but we'll check out the moves to game 12 to complete everything properly. The Obsidian goes a pawn up and seems as if it might win, but the Challenger defends well, even when a pawn down and under some endgame pressure.

**Challenger 6½-Obsidian 4½**

1.e4 \textbf{c}5 2.\textbf{f}3 \textbf{d}6 3.\textbf{c}c3 \textbf{e}6 4.d4 \textbf{Ex}d4 5.\textbf{Ex}d4 \textbf{Ed}f6 6.\textbf{c}c2 \textbf{Ee}7 7.0-0 \textbf{Ec}6 8.\textbf{Ec}3 \textbf{Ex}d4 9.\textbf{Ed}x4 0-0 10.\textbf{Ed}f3 \textbf{Ec}7 11.\textbf{Ed}d3 \textbf{Ed}d7 12.\textbf{Ed}d3 \textbf{Ed}b8 13.\textbf{Ec}c1 \textbf{Ed}e8 14.\textbf{Ec}e5 \textbf{Ed}e8 15.\textbf{Ed}x6 \textbf{Ed}x6 16.\textbf{d}3 \textbf{Ec}6 17.\textbf{Eh}c6 \textbf{Ed}x6 18.\textbf{Ed}d3 a6 19.\textbf{Ed}e4 \textbf{Ed}e7 20.c3 \textbf{Ee}7 21.f4 \textbf{f}6 22.\textbf{Ed}d3 \textbf{Ea}5 23.a3 \textbf{e}5 24.\textbf{f}xe5 \textbf{f}xe5 25.\textbf{Ec}x5 \textbf{Ee}5 26.\textbf{Ed}f2 \textbf{Ex}e3 27.\textbf{Ed}xe3 \textbf{Ed}x3 28.\textbf{Ex}xa3 \textbf{Ed}f5 29.\textbf{Ed}d3 \textbf{Ed}c8 30.\textbf{Ex}e7 \textbf{b}5 31.\textbf{Ed}d1 \textbf{Ed}f8 32.\textbf{Ed}h7 \textbf{Ed}c7 33.\textbf{Eh}d+ \textbf{Ed}f7 34.\textbf{Ex}c7+ \textbf{Ee}7 35.\textbf{Ex}g2 \textbf{Ed}e4 36.\textbf{Eh}d3 \textbf{Ed}e6 37.\textbf{Ed}f3 \textbf{Ed}e5 38.\textbf{Ed}e3 \textbf{Eh}7+ 39.\textbf{Ed}e2 \textbf{Ed}d5 40.\textbf{Ed}d3+ \textbf{Ed}e6 41.\textbf{Ed}d8 \textbf{Ed}e7 42.\textbf{Ed}d4 \textbf{Ed}d6 43.a4 \textbf{Ed}f5 44.\textbf{Ex}c4+ \textbf{Ed}d7 45.axb5 axb5 46.\textbf{Ed}c3 \textbf{Ed}d6 47.\textbf{Ed}b5 \textbf{Ed}b8 48.\textbf{Ed}d3 \textbf{Ed}f2 49.\textbf{Ed}d4 \textbf{Ed}a2 50.\textbf{Ed}c5 \textbf{Ed}c6 51.\textbf{Ed}b3 \textbf{Ed}g2 52.\textbf{Ed}e5+ \textbf{Ed}f7 53.\textbf{Ed}h5 \textbf{Ed}xg3+ 54.\textbf{Ed}d4 \textbf{h}6 55.\textbf{Ed}d5

The evaluations for Black reached their maximum here, but there still, probably, isn't a win for the Obsidian unless the Challenger makes a mistake, which so far it has largely refused to do 55...\textbf{Ed}h3??! The only chance for the full point seems to be with 55...\textbf{Ed}d6 56.\textbf{Ed}e5+ \textbf{Ed}d7 57.\textbf{Ed}h5 \textbf{Ed}c6 58.\textbf{Ed}c3+ \textbf{Ed}b6 59.\textbf{Ed}c5 \textbf{Ed}b7 60.\textbf{Ed}e3 \textbf{Ed}xh3, but even here there's no certain win after 61.\textbf{Ed}d6+ \textbf{Ed}e6 62.\textbf{Ed}e3 \textbf{Ed}d5 63.\textbf{Ed}c3 \textbf{Ed}b4 64.\textbf{Ed}d6 \textbf{Ed}d4 65.\textbf{Ed}x6 \textbf{Ed}d5 66.\textbf{Ed}x7 \textbf{Ed}d6 67.\textbf{Ed}d7+ \textbf{Ed}e6 68.\textbf{Ed}d8+ \textbf{Ed}e6 69.\textbf{Ed}h7 \textbf{Ed}d6 70.\textbf{Ed}h6+ \textbf{Ed}c7 71.\textbf{Ed}h7+ \textbf{Ed}d6 ½–½

So the match result was:

**Saiitek Chess Challenger 7**

**Novag Obsidian 5**

Pleasingly for all the work that goes into maintaining our **Rating List**, inputting latest dedicated and PC results week in week out, this score almost exactly reflects the pairs' existing ratings.

Our thanks also are due to

Augusto for playing these games for us and carefully keeping game records to send to me.

Augusto also purchased a **Radio Schach Chess Champion 2150**. These used to be available in Tandy stores in the UK, and one or two people tried to persuade me that these machines were ‘basically’ Saiitek models cheaper and re-badged, so that the Radio Schach 2150 was really a GK-2100 (2000 Elo, 175 BCF) in disguise.

I did actually get a chance to try one out for a couple of days, and found it was no such thing, so was able to warn folk not to expect quite so much!

Augusto only bought his because he managed to get it at a very low price, but offered to test my view of its more lowly likely rating by playing a 10 game G/60 match v the **Novag Obsidian**.

I'm glad to say my forecast was right and the **Obsidian** won very (very) easily. We'll perhaps put a couple of games in our next issue as it is interesting to see how a "proper" chess computer like the Obsidian (1930 Elo) deals with a weaker opponent on these occasions.

Augusto's next match, also 10 games @ G/60, though he has said he will always play 2 more if they tie at 5-5, will be between the **Novag Obsidian** and the **Saiitek** (Talking) **Chess Academy**. The latter, with voice, display, leads on every square retail at £99.95 incl. the adaptor, and only lost 6-4 to the Challenger, so it might be a close one again!
HYDRA v SHREDDER
The DEEP BLUE of today takes on the currently top-rated PC PROGRAM!

We started coverage of this match in our last issue, but only had space for the first game. It was won by Hydra, quite convincingly.

It is very rare that Shredder loses games to other computer programs - it even has a plus score in serious competition against the earlier Brutus, now Hydra, despite the latter's 4/8/16 processors! In April of this year at the 4th, CSVN Shredder won with 8/9 whilst Hydra was a somewhat distant 2= on 6½.

An interesting issue, which I promised to come back to, was the opening book. Hydra came out of book at move 10, while Shredder stayed in book to move 16 but, when it then came out of book, it had an already inferior position!

After the match main programmer Chrilly Donninger revealed a few secrets regarding the Hydra opening book preparation.

"Our openings specialist GM Christopher Lutz was given instructions to release Hydra after move 10! He managed that perfectly and Hydra could in many cases go straight onto the attack. Normally openings book authors play private matches against each other trying to outbook each other. But Ulf Lorenz (Hydra's no.2 programmer) and I were convinced that Hydra is better than these openings modules. And we were right. Only in the eighth game were we in a spot of bother after the opening."
opposite of what happened to Shredder in game 1 here!

So then we should swiftly move into game 2 and see what happens this time! Incidentally the time control is Game in 90 minutes.

**Shredder [0] Hydra [1]**

Round 2. Opening B97

1.e4 c5 2.d3 f6 3.d4 cxd4 4.exd4 g6 5.dc3 a6 6.ag5 e6 7.f4 wb6 8.b3 e7

9.Wf3 bd7 10.0-0-0 wc7

Last book move by Hydra! This is a sharp opening and in a few moves Shredder will force Black's king to spend the game in the centre of the board – dangerous.

11.b1 b5 12.d3 Reaching the same position as in Shredder-Brutus, WCCC 2003 when Shredder won 12...b4! Varying from 12...b7 1-0 Shredder-Brutus, Graz 2003 which was played in the game just mentioned. In fact the same line to move 12...b4 was played in Shredder-Fritz at the same event, when the game ended a draw, and this is the better move now chosen by the out-of-book Hydra! 13.e2 b7 14.Wb3 Axe4 15.Axe7 Axe7 16.Wh4+

19...g5! Hydra doesn't fall for 19...e4 20.e4 Axe4 21.Wxe4+ followed by Wxb4, and White is ahead.

20.h5?! A new Shredder, sacrificing another pawn to pursue its attack. 20.hxg5 21.xh5 xg2 Winning a second pawn and also now threatening f3, forking W and B 22.Bd2 a5?! 22...b7! seems better, and if 23.h4 then h3 threatening to go to f2 or f4 23.h4! Wh7 23...Wh3? 24.Bg4=

24.We2?! Suddenly Shredder can't decide whether to attack or defend – but going on to the defensive when you're 2 pawns down offers little hope and indeed Hydra soon takes over the initiative. 24.c4 was a better try.


32...d5! There's a juicy pawn hanging on f5, but Hydra has other things on its mind.

32...xf5 33.Bb7+ Wh8 34.Bc6 Wh6 35.Bgf1 would be more complicated than the nearer route taken by Hydra.

33.Bd1 d4 The pawns are marching on 34.Bb3 Be6 35.Be2 Wh8 An interesting king safety choice – the king looks better but it's locked in the h8/B 36.Ba4 Bb6 37.Wf1 Bd8 38.Wa6 Wc7 Once again Hydra is not interested in the f-pawn, suggesting that materialism in computer chess is finally becoming a thing of the past, in some engines. 38.Bxf5 39.Bb6 Wb5 40.Wc6 Wd6 41.Bxa5 would in fact present Black with some needless problems.

39.Bb5 Bb8 40.Bf1 Wh7 41.Bb3 h5 42.Ba4 e3 43.Bb5 Wh6!

The Hydra method to bring its rook into play is slightly weird, but Shredder has done absolutely nothing to create any threats in the meantime, so Black has easily got away with it. 44.Bg2 Bb5 45.Wf1
A disappointing game by Shredder. It came out of the j position (the Shredder's fault, but the book programmer's) and then after a daring second pawn sac it's active intentions slowly evaporated and it didn't put up much of a fight in my view. Equally one must say that Hydra's play throughout was virtually faultless, a view offered by many of the Gms watching 0-1

Not a very good start for Shredder at all. Even with a deserved reputation of being tough to beat, it clearly needs to come out of book equal against a program like Hydra.

**Hydra (2) - Shredder (0)**

Round 3. Opening B90: Sicilian Najdorf: Unusual White 6th moves, 6 Be3 Ng4 and 6 Be3 e5

1.e4 c5 2.d3 d6 3.d4 cxd4 4.exd4 Qf6 5.Qc3 a6 6.Qe3 b5 7.Qb3 Qe6 8.f3 Qbd7 9.Qg4 b5 10.g5 b4 11.Qe2 Qh5 12.Qd2 Hydra's last book move 12...h6 Other 108 variations here are 12...Qe7 13.Qg3 Qf4 ; 12...a5 13.Qg3 Qxg3 But 12...h6 has a good reputation as well 13.Qxh6 16.Qe1-0-0 15.Qb1 Qf6

extra pawn is part of a doubled pair on the h-file and they are probably more of a handicap than a help! It's almost impossible to maintain the frontrunner even though the temptation is to try, especially when it is so advanced 16.h4? 16.Qd4 exd4 17.Qxd4 is theory here, but doesn't look anything special 16...a4 17.Qb1 d5 18.Qg5 Qxe4 19.Qg3 Qb6 19...exf3? wins a pawn but allows White to go on the attack with 20.Qb5! Qe7 21.Qxf6 Qxf6 22.Qe4, and the pin on the Qd7 would give Hydra a clear advantage 20.Qxe4 Qxe4 21.Qxe4 f6! 22.Qb2 Qc5 23.Qxc5 Qxc5 24.Qg2 It's hard to find anything better than this. 24.h5? g5 25.Qe3 Qb7 or 24.Qf2 Qb7 24...a3 25.b3 Qg4 26.Qd1 26.Qd1?! might have been a better way of trying to find some advantage for the Qh-pawn pair 26...Qd8 27.Qd3

I think Black has a small advantage at this point thanks to the small build-up against the White Q and his a3-pawn reducing its escape squares. Also White Qg2-Q is currently worth little more than a pawn. But how to proceed?

27...Qd6 I like the look of 27...Qd4. Then if 28.Qf2 Qxd3 29.Qxd3 Qa6 It may not come to anything, but I think Black still has some winning chances 28.Qxb4 Qxd3 29.Qxd6 Qxd6 30.Qxd3 Qe2 31.Qc1 Qxd3+ 32.Qa1 Qxh6 33.Qc8+ Qe7 34.Qa8 g5 /

don't like disagreeing with Shredder in the approach to the endgame, as I think it is very strong in this area. However 34...Qxd4? 35.Qxa3! Qxe4 might be a better try, though 36.Qa7+ must be met with 36...Qd8 and then (36...Qe6? 37.Qa6+ Qd5 38.Qxe4 Qxe4 39.Qxf6 Qxh4 40.Qxh4 Qxh4 41.Qxg6 draw) 37.Qxe4 Qxe4 38.Qf7 is probably a draw 35.Qxa3 Although computer evaluations still favour Black slightly the game now shifts into a simple draw 35.Qxh4 36.Qa7+ Qe8 37.Qc1 Qxe4 38.Qxe4 Qxe4 39.Qc8+ Qd8 40.Qc7 Qd2 41.Qc8+ Qd8 42.Qc7 Qd2 43.Qc8+ ½-½

Game 4 was very quiet, a Nimzo-Indian, Rubinstein variation, drawn in 38 moves with neither side ever getting even a small advantage. So the half-way stage was reached with Hydra leading by 3-1.

Shredder programmer Stefan Meyer-Kahlen commented that, even harder than getting his book sorted for the second half of the tournament, was the problem of coping with the weather. In Abu Dhabi the day temperatures were getting up to 43 degrees Centigrade (110 Fahrenheit for those of us who still find it easier to work out what's hot and what's cold under the old

Stefan and Chrilly overcome the heat and find time to play each other over-the-board. Result not known!
system). Stefan was trying to cool down by going for a
swim at 6am each morning, but even then the sea tem-
perture was 90 Fahrenheit! “Thanks goodness for the
incredible air conditioning
everywhere you go” he said.

As for games 5-8, his view
was that he and his team
needed to make sure that the
opening book at least gave
their engine a chance to get a
win and try to change the
match.

**Half-time BREAK!**

When Deep Blue was a con-
tender many people used to
contact me about the possi-
bilities of buying it! Of course
there was a rumour that a cut-
down piece of hardware might ‘some day’ be made
available, but the only real
answer was always that you
needed a few million dollars
and would have to persuade
Carnegie University to stop
using the mainframe com-
puter as the principal centre for
the USA’s weather forecast-
ing system, and organise a
freight train to deliver it to
your warehouse!

The same questions are now
being raised about Hydra of
course, and when ChessBase
were supporting the original
development of the project, it
was assumed there had to be
commercial possibilities.

Now, however, the project
is financed by the Pal Group
who have their offices in Abu
Dhabi, but Frederic Friedel of
ChessBase was able to meet
and interview one of their
main folk, Ali Nasir Moham-
med, buring the Hydra-
Shredder match, and obtain a
few photos of the hardware!

myn91's chess scores were
immediately started to
experiment with chess! They
hope is to have the strongest
with
chess playing entity on the
planet, but the machines are
also used for fingerprint and
DNA matching. Apparently
the technology for that
requires considerable comput-
ing power and is quite similar
to what is being done with
Hydra.

At this juncture, and as we
embark on games 5-8, it
should be mentioned that
Shredder was playing on a
very fast Quad-Opteron
server, which enabled it to
run at a speed about 4x what
it would achieve on a
P4/3000.

Game 5 was a Sicilian
Scheveningen and, in
Chrlly’s view ‘Hydra played
extremely well up to move 42,
outplaying Shredder com-
pletely. But then we played a
terrible move and a terrible
endgame, due to a special
evaluation feature for bishops
of opposite colours. There
was no notice on the outside
We join it, then, at move 42.

**Hydra [3] Shredder [1]**

*Game 5*

We’ll leave it there, they played on to move 96 no less, but it was always a draw from this point!

“Game 6 was wild”, said Chirilly Donninger afterwards. So here it is....

**Shredder [1½] - Hydra [3½]**

*Game 6, B42: Sicilian: Kan Variation: 5 Bd3*

1.e4 c5 2.d4 f3 e6 3.d4 cxd4
4.xd4 a6 5.d3 c6 6.e3 c6
9.e3 b5 10.xa7!? It isn’t so often that you find a moment where castling on either side works well, but here it does, and theory recommends either 10.0-0-0
g7 11.f4; or 10.0-0 f6
11.f4. However the Shredder team is out for a win and with the move played they are aiming to trap the Hydra king in the centre again, and see if Shredder can make better use of the chance this time
10.xa7 11.xg4? 11.f4
g6 12.0-0-0 has been played, ending in a draw
11.xf6 12.xg7 xg8
13.xh6 14.xh3 xg8
15.0-0-0

15..b4 16.e2 e5 17.xe3
e6 18.h3 e7 19.xe3 xg7
20.xb1!? I can imagine Stefan’s sigh of disappointment with this, as his program has to find something more active. xg3 was one idea, or move one of rooks to the g-file and try to get control of that, or maybe even f4?!

20..b6 21.xh6 xg6
22.xf1?! a5! 23.xd2 xh4
24.xc1?! I much prefer 24.xf4! xg6 25.h4 xe2
26.xe2 though Hydra could complicate it nicely with
26..xe3! which is double-edged enough to get a result for one or the other 24..a4!

25.f4

25..c5?! Missing the decent-looking 25..xg6!
26.h4 b3 27.xb3 axb3
28.a3 x4 which should lead to interesting play. Probably Shredder now has slightly the better chances 26.xe5 xe5
27.xc4 xg5 Not 27..xc4?
as 28.xe4 xe7 29.xf6 xg6
30.xf6+ xxf6 31.xd4
leaves White with x+ for and a good chance of the win
28.xg5 xg5 29.xd6
into an Anand–Gelfand game, and it looks fine. 13...f4 was played in Ganguly–Sasikiran, 2002 13...c8 14.a4 b4 but by risking 15...d5?! (15...a2 should be okay) 15...exd5 16.exd5 White went down in 38 moves 13...c7 14.f4

The game is now effectively drawn, but I leave the moves in for those who wish to play it through 32.h6 e5
33.exf7 g4 34.d2 a3
35.c3 bxc3 36.bxc3 e6
37.f3 h5+ 40.d2 e3
41.f4 42.g5 xd3
43.exd3 e4 44.g3+ e2
45.f3 f5 46.g3 d7
47.g2+ e3 48.g3+ e4
49.d2 d5 50.e2 d8
51.g7 f8 52.g5 e4
53.g3 h8 54.g2 a3
55.f2 h4 56.d2 e6
57.a5+ dxe5 58.a6 e5
59.d3 f5 60.e4 e5
61.e2+ d6 62.e3 f4
63.e4 h3+ 64.e4 f3
65.e8 h1 66.f8 b1+
67.xa3 e1 68.b2 f2
69.a4 c5 ½-½

If Shredder’s going to come up with a win, it has to be now!


Round 7. B92: Sicilian Najdorf: 6 Be2

1.e4 c5 2.e3 d6 3.d4 cxd4
4.exd4 f6 5.c3 a6 6.e2
e5 7.b3 d7 8.0-0 0-0
9.h1 b6 10.g3 b7 11.f3
b5 12.b2 d2 13.b7

Hydra goes out of book now and, by making a non-book move this time, puts Shredder out straight away! 13.a3 A new move at this point in the game, though it will transpose

Hydra homes in on the backward pawn on d6 14...f8
Gelfand put the f–8 on d8 in Anand–Gelfand, 1999. It continued 14...f8 15.e1 c8 16.d2 b8 17.c1 c6
18.a2 a5 19.b4 and White won in 38 15.e1 c5
16.xc5 dx5 17.b3 c6
18.a4 b4 19.a2 a5 20.c3
h5 21.a1

21...xa4?! This apparent sac’ – it’s a pawn that seems to be lost, not the whole bishop (in the end it loses nothing, but it does leave Black with isolated pawns) came as a surprise to everybody – the spectators in Abu Dhabi, those on the Playchess.com Internet server, Chiril Donninger, Hydra (from its evaluation which jumped somewhat), and probably Stefan

25...g5 Black doesn’t want to have further damage done to his pawn structure, but I can’t find anything else which doesn’t end up with the a5 and c5 pawns coming under serious pressure. If one of them goes Hydra will be left with a very dangerous passed pawn. For example 25...xd1+?! 26.xd1 f6
27.xb1 d7 28.xb5 b6
29.xf1. The pawns are still on the board, but the pressure against Black’s position is getting out of control
26.xg5 hxg5 27.h3 e7
28.f1 g4 29.h2 h5
29...xd1 30.xd1 b8 might have been a better try
30.xb1 f6 31.b3 h5
32.xb6 e6 33.xd1 g4
34.fxg4! Not 34.hxg4? f4+ 35.a1 f4 and almost equal again. And definitely not 34.xa5?? gxf3!
35.xd3 (35.gxh2?? g5 f5 1-0)
35...fxg2 and Black has every chance of winning 34...f6?! In theory keeping as much heavy material on the board as possible, now he’s a pawn down, is the correct way to play. But even 34...f6 isn’t going to work. Black’s pieces
are strangled and, after 35.\(\square\)c6 \(\square\)h7 36.\(\square\)f1! \(\square\)h8 37.\(\square\)b6 Black's a-\(\square\) will drop and White's will soon be ready to run 35.\(\square\)xf6 \(\square\)xf6 36.g5! \(\square\)xe4 37.g6

Having space left does however enable me to include some coverage of the Hydra v Evgeny Vladimirov 4 game mini-match, played at G/90+30secs.

Vladimirov is a GM from Kazakhstan and is rated 2628 Elo. In the mid-1980's he was one of Kasparov's seconds. I've shown the position where theory ends - it's interesting to see how long Hydra played 'in theory' moves though out of book! After that there's just a few light notes pointing to the critical moments.

**Hydra - Vladimirov, E**

Game 1. C86 Closed Ruy Lopez, Worrall Attack

1.e4 e5 2.\(\square\)f3 \(\square\)c6 3.\(\square\)b5 a6 4.\(\square\)a4 \(\square\)f6 5.\(\square\)e2 \(\square\)e7 6.c3 b5 7.\(\square\)b3 d6 8.0-0 0-0 9.d4 \(\square\)g4 10.\(\square\)d1 exd4 11.exd4 d5 12.e5 \(\square\)e4 13.\(\square\)c3 \(\square\)xc3 14.\(\square\)xc3 \(\square\)d7 15.h3 \(\square\)f5 16.\(\square\)g5 \(\square\)xg5 17.\(\square\)xg5 h6 18.\(\square\)f3 \(\square\)a5 19.\(\square\)h4

The game's critical moment 31...\(\square\)c6?! 31...\(\square\)d6 seems best, then perhaps Hydra would go with 32.\(\square\)f4. White's central pawns might give him a small advantage, but not more 32.\(\square\)b1 \(\square\)b7 33.\(\square\)h4 \(\square\)a5? Throwing everything into supporting his queen's pawns, but it allows Hydra to effectively switch everything to the kingside. Better would be 33...\(\square\)b6 trying to make sure one of the Hydra pieces is tied to the defence of the \(\square\)d4 34.\(\square\)f1! \(\square\)d7 34...\(\square\)b3 35.axb3 axb3 won't work because of 36.e6! 35.\(\square\)f3! \(\square\)c6 36.\(\square\)f5 \(\square\)xd4 37.\(\square\)xd4 \(\square\)xf3+ 38.\(\square\)xf3

19...\(\square\)h7!? 19...\(\square\)xb3 20.\(\square\)xf5 \(\square\)xf5 21.axb3 and here both \(\square\)f8 and \(\square\)f6 have been played 20.\(\square\)c2 \(\square\)xc2 21.\(\square\)xc2 \(\square\)c4 22.\(\square\)d3 \(\square\)f6 23.f4 \(\square\)xe5 24.fxe5 c5 25.\(\square\)e1 \(\square\)ae8 26.\(\square\)f3 \(\square\)xf3 27.\(\square\)xf3 \(\square\)xd4 28.\(\square\)xd4 \(\square\)d4 29.\(\square\)h4 a5 30.\(\square\)d3 a4 31.\(\square\)g6

What a shock! Shredder 5-2 down. Very unexpected.

I've not included game 8, which they did play and in which Shredder got a small opening advantage. But it came to nothing although they played on for 72 moves.

I believe that they played 'to the end' in some of these drawn games for the benefit of the spectators - a nice change from some the quick draw agreements, even in interesting positions sometimes, that certain GMs such as Kramnik & Leko have been heavily criticised for recently.

So, final score: Brutus 5½ Shredder 2½
Black's very best move to me, but it brings a mistake from the GM. I think 17...\textit{$\text{g}$c5} seems better 18.\textit{Wxb4}?

Shouln't White play 18.g4! first, then after 18...\textit{$\text{g}$6} 19.\textit{Wxb4}! \textit{$\text{g}$b8} 20.\textit{Wxe1}. Okay, Hydra will certainly be ahead after 20...\textit{Wxe4}, but the game wouldn't be over 18...\textit{Wab8}! 19.\textit{Wxe1} \textit{Wxf3} See note above - if g4 \textit{g6} had been played, this wouldn't have been possible 20.\textit{Wxf3} \textit{Wxa5} 21.\textit{Wxa5} Even here 21.\textit{Wxa5} would have been better, but the Computer should win after 21...\textit{Wxa5} 22.\textit{Wxa5} \textit{Wxb3} with both White bishops en prise 21...\textit{Wxe1} 22.\textit{Wb5} \textit{Wxf3} 23.\textit{Wxe2} 6.0-1

**Hydra - Vladimir, E**

Game 3. C73 Ruy Lopez, Defeated Steinitz

1.e4 e5 2.\textit{d}f3 \textit{d}c6 3.\textit{b}b5 a6
4.\textit{d}a4 d6 5.\textit{d}xe6+ \textit{x}xe6 6.d4
f6 7.\textit{e}e3 \textit{d}e7 8.\textit{d}c3 \textit{g}g6
9.\textit{W}e2 \textit{W}e7 10.0-0-0 \textit{d}d7

The exchanges will win White a pawn 25...\textit{b}b5 26.\textit{d}e4 \textit{W}xf4 27.\textit{W}xf4 \textit{x}d3 28.\textit{W}xf8+ \textit{x}g8 29.\textit{W}xd3 \textit{d}c6 30.\textit{d}c3
\textit{b}b5 31.\textit{W}c1 \textit{e}7 32.\textit{W}f4!

Threatening to pile up on the f-file 32...\textit{W}e6 33.g6! d4
33...\textit{b}b4 trying to thwart White's f-file plans was worth a try, though after 34.\textit{W}e3! d4 35.\textit{W}g5+ \textit{f}d7 36.\textit{x}c5 and the loss of a second pawn would most likely be too much 34.\textit{W}c3 \textit{x}g6 35.\textit{W}f8+ \textit{x}e6 36.\textit{W}c8+ \textit{xe}5
37.\textit{x}c7+ 38...\textit{d}d5 38.\textit{W}d7+ \textit{e}5 39.g4! threatening \textit{f}5+ forcing the loss of the queen to delay mate 1-0

So 3-0 to Hydra in a 4 game match ends it, though they played the fourth game which ended in a draw - no doubt a big relief for the GM. The final official score was 3½-½ giving Hydra a 4 game performance rating of over 2900 Elo! Not much more to say!
Wim Luberti CSVN Simultaneous!
The 2254 Elo graded Dutch player takes on some older Dedicated machines

On Saturday, 16th October, at the CSVN 10th Gebruikers, Rob van Son’s 2254 Elo rated friend Wim Luberti took on 11 dedicated chess computers in a Simultaneous Exhibition.

Earlier this year Wim had done a Simul against the Amsterdam Tal/DCG Chess Club where both he and Rob are members, and won most games. He was immediately pleased to say ‘yes’ to Rob’s invitation to the new challenge and, as they both live in Amsterdam Rob drove him, with two of his opponents the Chess Academy and the Super Enterprise, to the event.

The Simul took a total of 5 hours. The computers were set to Infinite mode and each Operator had to press the ‘Move/Go’ button as soon as Wim arrived at the board. I have calculated that 478 moves were played altogether, so Wim made a move every 37secs. It means on average that the computers had 6 or 7 minutes to analyse before Wim’s return to each board, though this was probably less whilst everyone was ‘in theory’, and also less towards the end when some games had finished, but perhaps a little more in the middle game.

One game ended at move 25, and another at 31, but most were hard fought with no less than 3 of them finishing exactly on move 53!

Our coverage this time is a little different! Space wont allow me to get all 11 games in, so I’m showing all of them up to move 20 - you’ll see exactly where they were up to after 2 or 2½ hours!

The first 3 readers who can guess which game ended after the 25 moves, and forecast correctly the final score, I’ll add 2 to their Subscription expiry date for SelSearch.

1. Luberti, Wim - Mephisto Portorose 68020
B19: Classical Caro-Kann:
4...Bf5 main line
1.e4 c6 2.d4 d5 3...c3 dxe4
4...dxe4 f5 5...g3 g6
6...f3 g7 7.h4 h6 8.h5 h7
9...d3 xdx3 10...xd3 e6
11...d2 xg6 12.0-0 0 14...xf6 xg6
15...b3 All theory to here, but now Black usually plays
8b8 or c5 15...e4 16...e3
d6 17...h4 xh4 18.c4 xh6
19.c5 xh8 20...f4 xf4+

Wim will retake on f4 and the game is very even. Forecast so far, Wim ½ - ½

2. Luberti, Wim - Saitek Kasparov Centurion
C11: French: Classical System: 4 e5 and 4 Bg5 dxe4
1.e4 e6 2.d4 d5 3...c3 xf6
4.e5 xf7 5.f4 c5 6...f3 x6

Wim has a big advantage this game as he has the tact 7...h1-g3 which should be enough to win the game.

Forecast so far, Wim 1½ - ½

3. Luberti, Wim - Novag Super Expert C
D75: Fiancheto Grünfeld:
Main Line with 7...c5
1.d4 d5 2...f3 xf6 3.g3 g6
4.xg2 g7 5.0-0 0 6.c4 c5
7.xc5 xd4 8.xd4 xd5 9.xc3 xc3 10.bxc3 e5
11.xb3 w7 12...d2?! A new idea, usually White chooses from 12...e3, 2.g5 and 3.a3
12...d8 13.b1 c6
14.xa3 xg4 15.b1 x6d6
16.e3 f5 Doubling rooks with 16...xf8 was worth playing
17.h3 xh5 18.a4
xh8? Wasting a move —
some Novag's have a tendency to play $h8/h1 recklessly. 18...e4 19.g4 $g4= 19...$c5?? Wim offers the chance to punish lack for wasting time. Look this: 19.g4 $b5 20.$cxb5 $g4 21.$xg5 $xh4 3 pieces tack the c6 which is named to the a8, so something must fail 19...$f6 $h4 $b6

allowing mistakes by both les the game is pretty even, in must decide whether to 2 $e3 or $e3. Forecast so 2 Wim 2–1

4. Luberti, Wim - Mephisto Milano Pro
9: Vienna Game: 2...$f6 3 $f4

4 $e5 2.$c3 $f6 3.$f4 $d5 $x e5 $x e4 5.$f3 $g4 $e2 $g5 7.$d4 $xf3+$xf3 $w h4+ 9.$w f2 $xf2+$xf2 $a e6 11.$g1 $d7! ok slightly strange...

... $d7 has been played before, in order to castle kingside, but not very successfully 12.$f4 $c6 $e3 $e7 14.$d3 $c6 $e2 $f5 16.$x f5+$x f5 $g3 $x g3 18.$g x g3 $e6 $g4 $h5 20.$f5+$ I note that we issues through advanced pawn groups mostly by Wim!) is a common theme in quite a few hese games 20...$d7

Material is equal, but Wim has a growing pawn storm up the centre and kingside, and with $h1 should have some advantage and may win. Forecast so far, Wim 3–1

5. Luberti, Wim - Mephisto Schach-Akademie
B24: Closed Sicilian: 3 $g3 sidelines

1.$e4 $c5 2.$c3 $c6 3.$g3 $g6 4.$g2 $g7 5.$ge2 $f6 6.0–0 0–0 7.$a3 $b6 Wim's les played 7.$a3 (7.$f4 is quite well known, as is $d3) has put the Academy out of book. 7...$d6 is theory but, once more, the chosen move is perfectly okay in my view 8.$b1 $c7 9.$b4 $x b4 10.$a x b4 $a b7 11.$d4 $d6 12.$g5 $b8 13.$d2 $c8 14.$f e 1 $b d 7 15.$h 3 $a 5 16.$b x a 5 $x a 5 $a 5 You wouldn't expect the Academy to fall for 16...$b x a 5 ?! 17.$x b7 $x b 7

and now 18.e5! revealing an attack+pin on the queen and rook from the $g2! 17.$f4 $x e 8 18.$g 4 $b 8 19.$b 3 $x d 8 20.$e b 1 $x d 8

Another very equal game, but both sides have chances here. Wim has more space to manœuvre and the next few moves will be vital. Forecast so far, Wim 3½ – 1½

6. Luberti, Wim - Saltek Turbo Adv Trainer
D35: Queen's Gambit
Declined: Exchange Variation

1.$d 4 $f 6 2.$c 4 $e 6 3.$c 3 $d 5 4.$e 3 $b 4 5.$b 3 Rarely played, $b 3 is the main line 5...$c 5 6.$a 3 6.$x c 5 $x c 5 7.$c x d 5 $x d 5 8.$b 5+$ is usual 6...$a 5 I prefer 6...$x c 3 + ? aiming to take some advantage of White's small mistake in his last move. Then 7.$x c 3 $e 4
usually starts to complete development with b6 and a6 11.\(\text{d}3\) 12.\(\text{d}5\)?? This will land Wim with an isolated d-pawn. 12.dxc5 would have been fine 12...\(\text{xe}5\) 13.\(\text{xf}6+\) \(\text{xf}6\)
14.\(\text{dxe}5\) \(\text{wa}5\) 15.\(\text{b}2\)?
Allows an easy tactic with a queen check that no computer is likely to miss. 15.\(\text{e}1\) to protect the \(\text{a}8\) was necessary 15...\(\text{c}4\) 16.\(\text{e}2\) \(\text{b}6+\)
17.\(\text{h}1\) \(\text{xa}2\) 18.\(\text{b}1\) \(\text{xa}2\)
19.\(\text{xd}5+\) \(\text{e}6\) 20.\(\text{x}b7\) \(\text{d}8\)

8. Luberti, Wim - Fidelity Ellie Avant Garde 2
E58: Nimzo-Indian: Rubinstein: Main Line: 7...\(\text{Nc}6\) 8.a3 \(\text{Bxc}3\)
1.\(\text{d}4\) \(\text{h}6\) 2.\(\text{c}4\) \(\text{e}6\) 3.\(\text{a}3\) \(\text{b}4\)
4.e3 0-0 5.\(\text{d}3\) c5 6.a3 \(\text{xc}3+\) 7.\(\text{bxc}3\) \(\text{c}6\) 8.\(\text{f}3\) d5
9.0-0 \(\text{a}5\) Still in theory to here, but now Wim varies from the usual 10.\(\text{b}3\)
10.\(\text{b}2!\)?? \(\text{d}7\) 11.\(\text{e}5?!\)
\(\text{xe}5\) 12.\(\text{dxe}5\) Wim has landed himself with a weak pawn structure again! 12...\(\text{a}4\) 13.\(\text{f}3\) \(\text{xc}4\)
14.\(\text{xf}6\) \(\text{xd}3\) 15.\(\text{c}4\)

Wim is a piece down and the Saitek machine should get the computers' first win. Forecast now, Wim 3½ - 2½

9. Luberti, Wim - Novag Sapphire I
B23: Closed Sicilian: Lines without \(g3\)
1.e4 \(\text{c}5\) 2.\(\text{d}3\) \(\text{e}6\) 3.\(g3?!\)
Rare! 3...\(\text{d}5\) 4.\(\text{g}2\) \(\text{d}4\)
5.\(\text{c}e2\) \(\text{c}6\) 6.d3 The computer is now out of book 6...\(\text{xf}6\) 7.\(\text{f}3\) \(\text{e}5\) Both \(\text{e}7\) and \(b5\) have been played here, but the Sapphire move looks decent enough as well
8.0-0 \(\text{e}6\) 9.\(\text{g}5\) \(\text{d}7\)
10.\(\text{x}e6\) \(\text{xe}6\) 11.\(\text{h}1\) 11.\(\text{f}4\)
looked good! 11...0-0-0
A fairly astonishing position, pawns all over the place (Wim has an extra one!) and Black's king is still in the centre so you'd have to fancy White here. Forecast update is Wim 4½ - 4½

10. Luberti, Wim - Fidelity Mach III
B24: Closed Sicilian: 3.g3 sidelines

1.e4 c5 2.\(\text{\&}c3\) \(\text{\&}c6\) 3.g3 \(e6\) 4.\(\text{\&}g2\) \(\text{\&}g7\) 5.\(\text{\&}ge2\) \(\text{\&}f6\) 6.0-0 7.a3 7.d3 is usual and this puts the computer out of book 7...\(d6\) 8.\(\text{\&}b1\) \(\text{\&}b6\) I found 8...\(e6\) in a database, which is probably better 9.b4 \(\text{\&}xb4\) 10.\(\text{\&}xb4\) \(\text{\&}g4\) 11.h3 \(\text{\&}d7\) 12.d3 \(\text{\&}d4\) 12...\(\text{\&}xd4\)?! doesn't work because of 13.\(\text{\&}d5\) \(\text{\&}xd3\) 14.\(\text{\&}xe6\) \(\text{\&}xe6\) 15.\(\text{\&}xe3\) with a good advantage to White. There are quite a few lines in which Black 'loses' his queen for a variety of different piece collections - some are good for White and some for Black! 13.\(\text{\&}e3\) \(e5\) 14.\(\text{\&}h1\) \(\text{\&}e8\) 15.f4?! Taking a chance, \(b5\) was sounder

The material is clearly favouring the Fidelity here though while Wim has Q+P he may have some chances of an attack against Black's king. Still it should be a win for Black, so the forecast update is Wim 4½ - 5½

11. Luberti, Wim - CXG Super Enterprise
B24: Closed Sicilian as game 10

1.e4 c5 2.\(\text{\&}c3\) \(\text{\&}c6\) 3.g3 \(e6\) 4.\(\text{\&}g2\) \(d6\) 5.\(\text{\&}ge2\) \(\text{\&}d4\)?! \(g6\) and \(e6\) are usual here, but the out-of-book Super Enterprise move has been played before as well! 6.0-0 \(\text{\&}b6\) 7.\(\text{\&}xd4\) \(\text{\&}xd4\) 8.\(\text{\&}e2\) \(e5\) 9.d3 \(\text{\&}d4\) 10.h3 \(\text{\&}d6\) 11.\(\text{\&}f4\) \(\text{\&}e7\) 12.f5 \(\text{\&}e8\) 13.g4 Wim is really going on the attack - perhaps he knew that the CXG machine was an opponent he'd expected to beat with some ease 13...0-0 14.\(\text{\&}g3\) 14.g5 immediately was better 14...\(\text{\&}e8\)?! Giving White a second chance to play \(g5\), which is not missed this time. 14...\(h6\)!

was better and White's attack begins to stall 15.g5! \(\text{\&}d7\) 16.\(\text{\&}h5\) \(\text{\&}d8\)? 17.h4?!
Probably the immediate 17.f6! was better, then 17...\(\text{\&}xf6\) 18.\(\text{\&}xf6\) \(\text{\&}xf6\) 19.\(\text{\&}h6\)!! 17...\(\text{\&}e8\) 18.\(\text{\&}f2\) \(\text{\&}a4\)

The early diagram tells you something's about to happen! 19.b3? With the win in sight as 19.\(\text{\&}f6\)! probably wins already: 19...\(\text{\&}xf6\) 20.\(\text{\&}xf6\) \(\text{\&}xf6\) 21.\(\text{\&}xf6\) \(\text{\&}xf6\) 22.\(\text{\&}f3\) threatening \(\text{\&}g3\) and White must win. But now the Super E could get back in the game 19...\(\text{\&}b5\)? Not really. 19...\(\text{\&}d7\) was best 20.a4 At the moment, despite mistakes from both sides, it's pretty equal. But the Super Enterprise is about to make a big mistake. Incidentally again 20.f6! was very strong for White. It is suprising that Wim missed this two moves on the trot: 20...\(\text{\&}xf6\) 21.\(\text{\&}xf6\) \(\text{\&}xf6\) 22.\(\text{\&}xf6\) \(\text{\&}xf6\) +

20...\(\text{\&}a6\)? 20...\(\text{\&}d7\) helps with defence against the kingside pawn advance and keeps the game tense but evenly balanced.

After the move played Wim still has 21.f6! which will at least open the g-file and could also be winning material. Surely he wont miss it again!

Assuming he doesn't, and based on my evaluation of the moves as they stand at move 20, we leave it looking like 5½ - 5½.
HIARCS: Origins by Mark UNIACKE
Today: Palm HIARCS by Eric HALLSWORTH

Mark Uniacke, author of HIARCS explains the largely untold history and origins of his chess program, its influences and even some of the algorithms. So where and when did it all start?

As a child I was a strong junior chess player and won a number of titles including the Hertfordshire County under 13 and under 14 chess championships.

For Christmas 1978 my father brought me a Chess Challenger 10. This was the 'A' version which did not castle under almost any circumstances. From the advertising we were told this was going play like an expert or a GM! I set to playing it and won game after game. Was I disappointed? Yes, but I was hooked on computer chess!

I was very interested to know how a computer could play chess. Fortunately we came across possibly the best book ever written on computer chess in the Foyles book store in Charring Cross Road. The book "Chess Skill in Man and Machine" was to have a great influence on my future. I consumed the contents of this book as if my life depended on it. I had lots of ideas and was sure I could write a chess program stronger than Chess Challenger 10, but being only 14 and knowing almost nothing about computers, this was not going to be as easy as I thought at the time!?

Fortunately, in September 1979 I started my computer studies class. I was very lucky as my school was one of the first comprehensive schools in the County to offer this subject. We had use of a "Research Machines 380Z" microcomputer and limited access to a PDP11 via teletype. Not like the IT lessons in schools today, we learnt the "real" stuff like ferrite core storage, assembly language, Basic programming etc - all great stuff to a kid fascinated by computers!

My first project after doing all the coursework normally set, was to produce a chess program which could play and win the ending of King and Rook against King. I called this program UCT (Uniacke's Chess Technique). It could occasionally deliver the mate, but also had a habit of moving the Rook off the chess board!?

I had decided on my project in 1980 almost a year before the actual project was due - I was going to write a full working chess program!

As part of the 'O' level Computer Studies we had to produce a relatively large working project. I had decided on my project in 1980 almost a year before the actual project was due - I was going to write a full working chess program!

I needed a name for this new chess program (most important when you are 15 years old). At this stage there were a number of commercial chess computers, with names such as Auto Response Board, Chess System III, Intelligent Chess, Sargon 2.5 etc. I was sitting in a computer studies lesson with my friends Robert Golden, Timothy Johnson and Winston Menzies thinking about these chess computers names (instead of paying attention to the teacher Mr Owen who was, by the way, very good) and suddenly it hit me: Higher Intelligence Auto Response Chess System - HIARCS for short! Perfect I thought. Now all I had to do was actually write the program!?

The design for this very first HIARCS in 1980 was to write a program which could search one move ahead but actually understand the tactical exchanges without searching them. At this time I was influenced by the classic book "Sargon: A computer Chess program" which a friend Winston had at the time. I remember the first objective was to get HIARCS playing legal chess. I programmed this in the Basic programming language and rapidly had a working structure. I was surprised that this was actually easier than the original UCT KRvK program I had written some months earlier - mainly because
I was learning fast how to write software.

The overall design was as follows:

- **Pseudo Legal Move Generation**
- **Mobility Calculation for both sides** - this enabled HIARCS to check for move legality, compute basic tactical exchange swap offs and include a mobility evaluation term
- **Evaluation function** which was as follows:
  N5(N6) = T2 - T3 + C4 - X7 + E6 - B3 + B4
  The above terms were: T2 - Development bonus, T3 - Penalties e.g. pawn promotion threat, C4 - mobility for both sides, X7 - tactical exchange swap offs threatened, E6 - Material count pawn=100, knight=335, bishop=350, rook=500, queen=900, B3 - misc. penalties, B4 - misc. bonuses.
- **Make Move**
- **4 levels of play mainly based on mobility values**

The program consisted of 550 lines of Basic and was finally named HIARCS 3 (let's call it **0.3** to avoid confusion with commercial versions over a decade later) and was finished by 20th March 1981. It ran on a PDP 11/70 based at Hatfield Polytechnic (now Hertfordshire University) and took anywhere between 5 and 30 seconds to make each move!

It is interesting to consider that at about this time Richard Lang was beginning development of his Cyrus program a forerunner of the famous Mephisto dedicated chess computers.

I am sure you are all wanting to know how strongly did the first ever HIARCS play! On its top level 4 running on a PDP 11/70 it was about as strong as Chess Challenger 10 on level 2 or 3 so roughly 1150 Elo.

Games from this era are in (very) short supply, but I have managed to unearth two games from the project documentation, and a game against the commercial Voice Chess Challenger. These follow opposite.

By now I had new ideas on how HIARCS could be improved and soon begun designing HIARCS 0.4 but that is the subject of our next article...

The games - especially the 2 against the School Team Player - are littered with all sorts of tactical mistakes and oversights, overuse of the queen too early and other things, as you will quickly see if you play through them with any 2000+ rated dedicated or PC program. It seemed pointless to detail all of the mistakes, so I've just highlighted one or two of the most serious and will leave my readers to look for the others - which is good practice for us all from time to time.

**HIARCS 0.3 - School Chess Team Player**

1. d4 ♜f6 2. ♜f3 e6 3. ♜f4 b6 4. ♜c3 ♜b7 5. ♜d3 ♜b4 6.0-0-0 ♜xc3 7. ♜xc3 ♜c6 8. ♜e5 ♜e4 9. ♜f3 ♜xe5 10. dxe5 ♜c5 11. ♜h3 0-0 12. b4 ♜a4 13. b5 c6 14. bxc6 ♜xc6 15. ♜b3 b5 16. ♜h3 ♜h4 17. ♜g3 ♜e7 18. ♜d6 ♜fb8 19. ♜b3 b4 20. ♜h4 a5

21. h5 ♜f8 22. h6 gxh6 23. ♜xh6+ ♜e8 24. a3?

24. ♜g3! wins outright

24. .. ♜c5 25. ♜h3 ♜a4 26. ♜b2 ♜d4 27. ♜xh6 ♜xf2 28. ♜f3 ♜xa5 29. ♜xa3 ♜xa3+ 30. ♜xa3 ♜b5 31. g4 ♜c6 32. ♜b3 ♜xb3 33. cxb3 ♜b8 34. ♜c2 ♜d8 35. ♜g5+ ♜c7 36. ♜h6 ♜d5 37. e4 ♜xe4 38. ♜e4 ♜c6 39. ♜xd5+ ♜xd5
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How Times Change!

Twenty-and-a-bit years on we have the remarkable stick-in-your-pocket, board and pieces-on-a-screen Palm HIARCS which, on my little black & white Zire 21 126MHz is getting close to 2500 Elo, and on a £250 Tungsten T3 400MHz colour unit seems to be edging just over 2600 Elo.

Don’t believe it??!

Regular reader Clive Munro has just finished a 10 game G/60 match between Palm HIARCS 9.046 using his same-as-mine 126MHz Zire 21 against the Tasc R30-1995, rated 2335. If we’re right that the Zire 21 PalmH is 2500 Elo then the score should be around 6½-3½... exactly what it was! Let’s have a look at one of the games!

**HIARCS 9.46 - TASC R30**

B15: Caro-Kann: 3 Ne3: 3...g6 and 3...dxe4 4 Nxe4 Nf6 5 Nxf6+ exf6

1.e4 c6 2.d4 d5 3.Øc3 dxe4 4.f3 exf3 5.Øxf3 Øf6 6.Øc4 e6 7.0-0 Ød6 8.Øe1

New! But this is definitely a better move than some made by the early Hiarc 0.3!! I believe 8.Øg5 Øbd7 9.Øe2 has been played and is okay for White

8...Øbd7 9.Ød2 Øb6 10.Øxe6!

PalmH sets up a neat and well-spoiled little trap

10...0-0!

The Tasc sees it - if 10...fxe6? 11.Øxe6+ Øe7 12.Øae1±

11.Øa4 Øa6 12.Øb3 Øe8 13.Øh4 Øe4 14.Øg5

become very interesting

15.Øe3 b5 16.Øc5 Øxc5 17.dxc5 Øe4

18.Øf7+! Øf8?

Going to the corner with 18...Øh8! 19.Øb3 Øxc5+ 20.Øh1 Øe7! would give the R30 its best chance

19.Øc3! b4

Not 19...Øxf7? as 20.Øg5+ wins the Ø

20.Øb3 Øxc5+ 21.Øh1 Øb7 22.Øg5! Øe5

23.Øe6 Øc8

The Ø has had an unhappy game

24.Øxe8 Øxe8 25.Øae1!

That does it! Material is still equal but PalmH knows it has won

25.Øe7 26.Øe6 Ød7 27.Øxc5 Ød5

28.Øxb4 Øxe1 29.Øxe1+ Øf7 30.Øb7+ Øg6

31.Ød3

Threatening Øf4+ so Black must decide what material to throw

31...Øb8

If 31...Ød4? 32.Øe5+ Øf5 33.Øxc8+ is m/5

32.Øxb8 Ød4 33.Øe5+

A PC program would be able to announce m/8 with this, and indeed PalmH won a few moves later 1-0
While Kramnik and Leko were coming under considerable mid-match criticism in Brissago, with many games being agreed as draws barely out of the opening, Hydra, Junior and Fritz were continuing to provide high drama to the very end of their 4 round, 12 game match against Topalov (2757), ex World Champ Ponnamariov (2710) and the youngest ever superstar GM Sergey Karjakin (2576).

As the final day’s play began the Computer team led by 6-3, and no-one expected the humans to have a chance. No-one but the GMs it seemed!

After around an hour of play Karjakin (White, to play) was playing Fritz, and demonstrating superior human knowledge in a very sharp line of the Najdorf. Black hasn’t finished developing yet and White’s b-c pawns are threatening to run up the board.

And Topalov (White, to play) - the only ‘star’ so far for the humans - was outplaying Deep Junior. He’s about to win the b4-pawn, and Black hasn’t even castled yet!

A 3-0 whitewash was on the cards for the GMs, a potential match 6-6 draw!

We’ve shown the GM rating - what about the Computers?

Hydra was on its latest 16-processor array, as discussed elsewhere in the Shredder-Hydra match. We’d have to say, I think, that this newest combination of program and hardware must rate at over 2800 Elo. It’s also won its first 3 games!

Deep Junior was playing on 4x2.8GHz Zeon processors. Despite this (we’d rate it at over 2750 Elo) it was the Computer team’s only disappointment before the latest game, and had just 1/3.

Fritz was on ‘a mere Centrino

1.7GHz laptop’ PC. So again, though in theory it would be the ‘weak link’ in the Computer team because of its ‘off the shop shelf’ hardware, we’d still estimate it to rate at over 2700 Elo. It had 2/3 before the last round.

In the view of David Levy, President of the ICGA (International Computer Games Association), these games were ‘far more interesting for the chess public’ than those being played in the Kramnik-Leko match!

Quite a few people agreed, though a few wished that a more Computer-literate human team had been chosen. Here’s a few quotes:

‘If the computer gets a winning advantage it’s all over, for the human a winning advantage is the start of a long process... computers are just playing better chess, it’s that simple... the matches are certainly exciting, but becoming one-sided, it would be better if only players from the world’s top 5 were chosen to play, as the computers and top humans are now reaching the same level of performance... what we want to see is Anand (who knows about computers and is playing better than anyone else at the moment) vs. Hydra! that would be something’.

The Match time control was 40/2 with G/60 finish.

**Day 1**

Ponnamariov - Hydra

E15: Queen’s Indian: 4 g3 sidelines, 4 g3 Ba6 & 4 g3 Bb7

1. d4 f6 2.c4 b6 3.d4 e6 4.g3 a6 5.b3 b4+ 6.d2 c5 e7 7.c2 c6 8.e3 d5

9.e5 dxe5 10.dxe5 d5 11.d2 0-0 12.0-0 b5 13.c5 c5 13...e5 14.b4 e4 15.e3 c7

16.e1 g5 17.a4 bxa4 18.bxa4 b5 19.a3 f6
20.\hfill\textbf{xf1}?! With 20.f4 White could have blocked the position which would have certainly kept Hydra quiet and suited him better than the events of the game 20...a6
21.\textbf{xa1} \textbf{axb5} 22.\textbf{xb5}?! axb5 22...\textbf{xb5}? just loses a pawn to 23.\textbf{xa6} and lets White back into the game 23.\textbf{xa7} \textbf{ec8} 24.\textbf{wa6} \textbf{we6} 25.\textbf{al}?! A bold attempt by the GM, but if he doesn’t get something from it his pieces are going to be stretched to defend the kingside! 25...\textbf{h5}! 26.\textbf{ec7}

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\end{center}

A critical moment 26...\textbf{h4}!
26...\textbf{fc8} 27.\textbf{xc8}+ \textbf{xc8} 28.\textbf{h4}! \textbf{h6} would quieten White’s attack, but Hydra is in an aggressive mood. At this time Chirilly Donninger reported that Ponomariov was coming round to his side of the board and apparently trying to catch a glimpse of Hydra’s evaluation and analysis! 27.\textbf{xc6}? This seems best, as it leaves the queen on the a-file with a quick route back to help defend. The alternative was

27.\textbf{xc6} and maybe he is still in the game with some drawing chances after 27...\textbf{fs1} with 28.\textbf{e1} \textbf{g4} 29.\textbf{e2} but 29...\textbf{fd8}!
(winning a pawn with 29...\textbf{hxg3}?! 30.\textbf{hxg3} \textbf{xf2}
 isn’t as good because of 31.\textbf{wd7}!) 30.\textbf{a6} and now 30...\textbf{hxg3} 31.\textbf{hxg3} \textbf{xf2} after which White’s only hope seems to be to get the queen back into the defence with 32.\textbf{a1}. Even so Black probably wins after 32...\textbf{g4}! followed by 33.\textbf{a8}!
27...\textbf{f5}! 28.\textbf{wa2}?! Sacrificing the exchange with 28.\textbf{xf6} \textbf{xf6} was probably best as the queen can then be centralised with 29.\textbf{fd6}! 28...\textbf{g4}! 29.\textbf{f1} \textbf{f3}

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30.\textbf{h3} It would take a lot of nerve, surrounded by so many enemy pieces, to open the g-file with 30.\textbf{gh4}? and indeed after 30...\textbf{eh4} 31.\textbf{gg3} \textbf{gxh3} 32.\textbf{hxg3} \textbf{a8}! would be deadly — after the queen moves and Black’s 33...\textbf{xa1} she cannot recapture on a1 because of \textbf{xf2}, so the rook is plain lost!
30...\textbf{xe3}! Destroys the Queen’s protection 31.\textbf{xe3} \textbf{xe3}+ 32.\textbf{h2} \textbf{f2}! The only winning move as 32...\textbf{hxg3}+?
33.\textbf{xf3} \textbf{f2} 34.\textbf{h1} only draws? 33.\textbf{gh4} e3! 0-1

Deep Junior had White against Topalov, but the game was always pretty even. So to Karjakin v Fritz...

\begin{center}
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31...\textbf{g6}? Missing a simple
tactic. Best was something quiet like 31... $c7 challenging Fritz to find a way to win 32. $e6+! Karjakin probably expected 32. $h6 but even that is going to be difficult for him after 32... $g6
33. $e6+ $e6 34. $c5+ $d7 35. $h1! 32... $e6
33. $c5+ $d7 34. $a1 $g6
Better seems 34... $e8 giving the $ a
an escape square, then 35. $a7+$ $e6, but 36.$b5! $xb5
37. $a6+ and White should win the $d5/$c
37... $e5
38. $d6+ $e6 39. $hxg6 $xg6 40. $f4+$ $e7 41. $xd5+$
35. $a7+$ $e8 Blocking the check with 35... $c7 just results in 36. $xe6+ $xe6
37. $b6 36. $b5 $hxg4 37. $xb6
37... $xc6 38. $b5 winning the $ and the game. Great play by Fritz, running right over Karjakin after two or three small mistakes 1-0

Day 2

Ponomariov got a substantial edge against Fritz, but on its little laptop kept calm and held the ex-World Champion to a draw.

Topalov also got a big advantage against Hydra after the latter advanced a pawn unwisely. Indeed, Topalov appeared to be totally winning but made some small errors in the G/60 final session and Hydra also got away with it for a draw.

Thus this was the only decisive game of the round...

Karjakin - Deep Junior

B90: Sicilian Najdorf: Unusual White 6th moves, 6 $b3 $n94 and 6 $b3 e5

1.e4 $c5 2. $f3 $d6 3.d4 $xd4
4.$xd4 $f6 5. $c3 $a6 6.$f3 $e5 7.$b3 $e6 8.$e3 $e7
9. $d2 $h5 10.$d5 $xh5
11.$xh5 $d8 12.$h2 $e8
This seems to be new, previously both g6 and a5 have been seen here 13.$c4 $h4
14.0-0 $h3 15.$g3 0-0 16.$a5 $c7 17.$b4 $e8 18.$fd1

18...$b8 DJ wants its $ on $d7, but is in danger of getting a very passive position
19.$c1 $e4 20.$f4 $d7 21.$c5
Black's $/b7 can become a target after this 21...$xc5
22.$xc5 $f8 23.$d6 $c6
24.$c4 $h8 25.$b1!

25...$e6 26.$b3 $g6?!
26...$ed8 27.$b2 $b5 28.$cb6 ($28...$e5?!)
28...$xd6 would have been better, though Karjakin's big initiative would still put him comfortably on top 27.$b6
$g7 28.$d5 $d7 29.$xf6+
$xf6 30.$c4 $a5 31.$a3 $a8
32.$b5 $a4 33.$e2 $g7
34.$d5 $a7 35.$f2 $g6
36.$b6 $f8 37.$db1

37...$g7 38.$g4 $h8 39.$g3!
$5 40.$g5 40.$b5?! 40...$h7
41.$xc6 $xc6 42.$xc6
42...$g7 43.$eb6 $c3 44.$c6
1-0.

Well done young Sergey. Match score at the end of the 2nd. round has closed to:

Computers 3½ - GMs 2½

Day 3

Hydra - Karjakin

C65: Ruy Lopez: Berlin Defence (3...$n6), unusual lines and 4 0-0 $b5

1.e4 $c5 2.$f3 $d6 3.$b5
$c6 4.$d3 $c5 5.0-0 $d6 6.$c3
0-0 7.$b3 $a6 8.$a4 $a7
9.$h3 $b7 10.$e1?! Apparenty new. 10.$d4 was played in Fedoruchk-Osejevitsch, 2001
1-0 (42) 10...$g6
11.$g5 $f7 12.$xd7 $xd7
13.$g3 $b8 14.$h4 $e8
15.$xg6 $hxg6 16.$h2 $d7
17.$b3 $b5 18.$c2 $h7
19.$f3 $xg5 20.$xg5 $ad8
21.$ad1 $d5 22.$f3

22...$e6?! A strange choice - thinking of $f6 maybe?
22...$c6 quietly reinforcing the centre is slightly better
23.$c4 $xc4 24.$xc4 $e8
25.$c5 $e7?! So it isn't headed for f6 - it seems the GM is waiting for Hydra... that can be dangerous!
26.$xd8 $xd8 27.$dx1 $c8
28.$ed3 $e6 29.$d1
Threatening $d8 winning the $ for $ 29...$f8 30.$b4 $b8
Ponomariov had drawn a game in which neither side ever had any worthwhile advantage. So it’s 5-3 for the Computers as we go into the final game of the day!

**Fritz - Topalov**

C03: French Tarrasch: Unusual
Black 3rd moves

1.e4 e6 2.d4 d5 3.\(\overline{\text{d}}\)2 a6
4.\(\overline{\text{d}}\)gf3 \(\overline{\text{d}}\)f6 5.e5 \(\overline{\text{d}}\)fd7 6.\(\overline{\text{d}}\)d3 c5 7.c3 \(\overline{\text{d}}\)c6 8.0-0 g5
9.\(\overline{\text{d}}\)b1?! An interesting choice. \(\overline{\text{c}}\)4 and dxc5 are in my Fritz8 book, but not this!
9...g4 10.\(\overline{\text{c}}\)e1 h5 10...\(\overline{\text{d}}\)h4?!
11.\(\overline{\text{d}}\)h3 a5?! 11...\(\overline{\text{c}}\)4 12.\(\overline{\text{d}}\)d2 b5 blocking the centre and gaining space would be suitable anti-computer strategy 12.\(\overline{\text{d}}\)x5 \(\overline{\text{d}}\)x5 13.dxe5 \(\overline{\text{c}}\)c5 14.\(\overline{\text{d}}\)d3 \(\overline{\text{d}}\)a7
15.\(\overline{\text{d}}\)a4 \(\overline{\text{d}}\)d7 16.\(\overline{\text{c}}\)f4! \(\overline{\text{d}}\)h8
17.\(\overline{\text{d}}\)d1 f5 18.c4 d4 19.\(\overline{\text{d}}\)e1 \(\overline{\text{d}}\)e7 20.\(\overline{\text{d}}\)c2 h4!

Fritz seems to be winning the manoeuvring phase!

33.\(\overline{\text{h}}\)h6 34.\(\overline{\text{f}}\)f4! \(\overline{\text{d}}\)8
35.\(\overline{\text{x}}\)a4 d3 36.\(\overline{\text{x}}\)b3 \(\overline{\text{x}}\)f7
37.\(\overline{\text{w}}\)e3 \(\overline{\text{g}}\)5 38.\(\overline{\text{d}}\)d1 \(\overline{\text{h}}\)7
39.\(\overline{\text{d}}\)d2 \(\overline{\text{h}}\)6 40.\(\overline{\text{g}}\)1 \(\overline{\text{g}}\)5
41.\(\overline{\text{c}}\)c4

Pawns and pieces all over the place make it hard to see exactly what's going on... but Topalov, a pawn down with others in danger, could try \(\overline{\text{d}}\)d4 or \(\overline{\text{d}}\)d6 and still have some opportunities 41...\(\overline{\text{e}}\)e8? 42.\(\overline{\text{d}}\)xe6!
42.\(\overline{\text{x}}\)d3? is nothing like as good: 42...\(\overline{\text{x}}\)d3 43.\(\overline{\text{x}}\)d3 \(\overline{\text{d}}\)xe5 and now the \(\overline{\text{d}}\)a4 is en prise so 44.\(\overline{\text{d}}\)d4 \(\overline{\text{c}}\)c6 and White is barely ahead at all 42...\(\overline{\text{e}}\)e7 43.\(\overline{\text{x}}\)d3 \(\overline{\text{x}}\)d3
44.\(\overline{\text{x}}\)d3 \(\overline{\text{x}}\)e5 45.\(\overline{\text{x}}\)f5+ \(\overline{\text{xf}}\)5 46.\(\overline{\text{xf}}\)5+ \(\overline{\text{h}}\)h6 47.\(\overline{\text{d}}\)d5
After 47...\(\overline{\text{x}}\)a4 48.\(\overline{\text{x}}\)xe7 Fritz is 3 pawns to the good for an easy endgame win 1-0

By this time Deep Junior and

53...\(\overline{\text{e}}\)e4?! 53...\(\overline{\text{d}}\)d4 was still a fighting chance for the draw
54.\(\overline{\text{w}}\)d6+! \(\overline{\text{w}}\)f6 55.\(\overline{\text{d}}\)d8+\(\overline{\text{d}}\)6
56.\(\overline{\text{w}}\)g8+ \(\overline{\text{h}}\)f8+\(\overline{\text{d}}\)6
58.\(\overline{\text{w}}\)e7 \(\overline{\text{c}}\)c4 59.\(\overline{\text{h}}\)h4!
59...\(\overline{\text{g}}\)xh4 60.\(\overline{\text{x}}\)h4 \(\overline{\text{b}}\)3
61.\(\overline{\text{w}}\)g5+ \(\overline{\text{f}}\)f7 62.\(\overline{\text{x}}\)f4+ \(\overline{\text{e}}\)7
63.\(\overline{\text{w}}\)xe4 etc 1-0

So the Computers lead 6-3, but you’ve already seen the early mid-game positions from the final day, and we’ll see exactly how those games turned out in IJY next issue, and include some event photos!
RATING LISTS and NOTES

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

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

Elo. This is the Rating figure which is in popular use Worldwide. The BCF and Elo figures shown in SELECTIVE SEARCH are calculated by combining each Computer's results with computers with its results on 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 Grading: 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

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