The purpose in publishing **SELECTIVE SEARCH** (previously known as the NEWS SHEET) has always been to provide a survey of the CHESS COMPUTER scene, with a special emphasis on realistic assessments of the PLAYING ABILITIES of the many machines now available. My work at COUNTRYWIDE COMPUTERS is of special help in this as they provide financial backing and also allow me some time during office hours in which to prepare part of the material. No handle there a very wide range of Computers and I enjoy freedom to maintain personal opinions and preferences, which I need to share with readers. Final games and articles selection for each Issue is done independently and solely by myself.

**SUBSCRIPTIONS:** £10 a year, for 6 Issues. Foreign Readers £12.

**PUBLICATION DATES:** early Feb, Apr, Jun, Aug, Oct and Dec.

A REMINDER LABEL is placed on the Envelope of each Reader where the Issue enclosed is the LAST covered by their current sub. If there is such a Label on YOUR envelope, you will need to send your payment, payable either to "Selective Search" or myself, to obtain the next Issue.

**NEW SUBSCRIBERS:** always please state the number of the first Issue you wish your sub. to cover - otherwise you will always be sent a copy of the current Issue.

**ARTICLES:** Articles or Games sent in by Readers, Distributors or Programmers are always welcome and will receive fair consideration for publication.

---

**Contents**

- WORLD MICRO CHAMPS - Main TOURNAMENT and BLITZ: full results tables.
- Mephisto PORTUGAL gets I.M. NORM! - Mephisto success at Pfaffitron.
- INTERVIEW with Ply's Goran Grottling.
- Two NEW BOOKS reviewed: Mephisto from Oxford Softworks: Results: Advertise
- Mephisto LYON - early review, and results with games: FULL RATING LIST.
- TEST YOUR TACTICS with Graham White.

---

Welcome to a VERY FULL, 24 page Issue! The following Articles have had to be held over until next time, sorry:- Newly SUPER VIP at Hemsby Bay Club Champs (game); Toutes and Comparisons: Sargon 3, Chessmaster 2000, Chess Champion 2175, Fidelity Elite 2265, Mephisto MVS & Polgar (by Jeremy Deane); Chessmaster 2100 (on a 386 at 288MHz) v. LYON 68820 - a 'close call', or "one-sided"? Find out next time from Dave Overton; More Test Your Tactics by Graham White, and some interesting positions sent by Gary Preston. PLEASE KEEP IT COMING FOLKS, this makes SS much more interesting and well-balanced.... even I enjoy it!!
New BOOKS!

It is a rarity, and a pleasure, to actually have two COMPUTER CHESS related books to review for SELECTIVE SEARCH.

**50 GRANDMASTER COMPUTER GAMES**
by Bryan Whitby, Editor of Chess Computer World. £2.50.

The first of two intended volumes, this is an interesting compilation of meetings between Grandmasters and Chess Computers, going all the way back to PACHMAN v. Fidelity CHALLENGER 10, and Bobby FISHER v. MAC HACK! Pachman, whose 2 games start the book, won them both in a combined total of just 39 moves. At the end of the book is a simultaneous meeting between WCM Judit POLGAR and Mephisto's POLGAR Computer which has been named after the 3 sisters. This is a win for the Computer and the increasing appearance of draws and wins for the machines towards the end of the book reminds us of how much things have been changing more recently, even though most wins are Simuls, or Blitz perhaps.

Other well-known players making appearances are Viktor KORCHNOI v. CHESS 4.8, Garry KASPAROV v. Saitoh TURBOSTAR 432 and LEONARDO+TURBO, Anatoly KARPOV also v. LEONARDO+TURBO. Bent LARSEN, Lajos PORTISCH and Jan TIMMAN. John NUNA makes an appearance with a 14 move win (!) against Mephisto ROMA, and the KASPAROV v. DEEP THOUGHT games are both included.

There are no notes or diagrams, just the game-scores; and a small pity the dates the games were played aren't shown. Other than that, it's an interesting and sometimes amusing selection. Bryan will be doing another 50 if VOLUME 1 sells well enough, so send your £2.50 to him (cheques payable to "BCCAS") at 16 Hanse Field Road, Kingsley, Warrington, Cheshire WA6 8EZ.

**HOW COMPUTERS PLAY CHESS**
by David Levy and Monty Newborn.

A 246 page book of excellent quality, though some of the subject matter is pretty deep! I got my copy for £8.95 direct from the publishers at launch - but it is now available from all the usual sources for Chess Books etc.

Starting with a chapter titled, "The Challenge is World Champion Kasparov", the book takes readers through a brief history from the earliest days; a discussion of Shannon's programming ideas; the first documented account of a running program (LOS ALAMOS in 1956, playing on a 6x6 board!). There are PLENTY of games, with good notes relating to Chess Computer matters; chapters on Search Techniques (some heavy stuff!); Endgame Databases; the David Levy Bet. Much of the work centres on Main-Frame machines, but there is a smaller section on the Commercial models. The book is up-to-date - the PORTOROSE win v. KARPOV squeezes in as a Stop Press. Recommended.
ADVERTISEMENTS

Fidelity 2265 DMSIGNER, £250. The computer is 9 months old and in excellent condition, and well worth the price - but owner would consider offers. Contact Mark Fullerlove, 28 Resden Way, Milford, Surrey GU3 5JP. Tel: (home) 0483 414392; (work) 071 271 8711

Fidelity RACK Mach IV 68020, £790 o.n.o. Rating 200 BCF; Computer is almost new. Tel: 0753 887083, Imelda Hearns, Tree Tops, Main Drive, Bulstrode Park, Gerrards Cross, Bucks SL9 7FR

NEWS

CHESS CHAMPION 2175/SIMULATOR.

Chris Whittington and the OXFORD SOFTWORKS team are now working on the next improvement for this program. It retails in Britain under the CHESS CHAMPION 2175 name, but was entered in the World Micro Champs - where it did extremely well in the Blitz Section - as CHESS SIMULATOR which is the name used by French distributors.

The next version, for Atari, Amiga and Macintosh, will enable users to print-out analysis from the program's search-work, including evaluations and timings as changes occur or ply-ends are reached from the program's search. Also the program will be suitable for use with a MODERN - this means that two Computers can be connected over a telephone link-up and their respective programs can be left to play against each other without human presence or involvement! This works provided both Computers are using the same MODERN PROTOCOL. Oxford Softworks has a working subset and would be happy to hear from other bona-fide developers. Ring Chris Whittington on 0993 823463.

RESULTS

From a TOURNAMENT at Novi Sad, Yugoslavia

POOR COMPUTERS played amongst the field of 218, which included GMs and IMs. Their results, with estimated BCF-equivalent Gradings, were:-

<table>
<thead>
<tr>
<th>Computer</th>
<th>Wins</th>
<th>Losses</th>
<th>Draws</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nephisto LYON 68030</td>
<td>5 out of 9</td>
<td>4 out of 9</td>
<td>225 BCF</td>
<td></td>
</tr>
<tr>
<td>Nephisto POLGAR/8 chip</td>
<td>5 out of 9</td>
<td>4 out of 9</td>
<td>214 BCF</td>
<td></td>
</tr>
<tr>
<td>Nephisto POLGAR/16Mx</td>
<td>5 out of 9</td>
<td>4 out of 9</td>
<td>211 BCF</td>
<td></td>
</tr>
<tr>
<td>Nephisto DSM/16Mx</td>
<td>4 out of 9</td>
<td>5 out of 9</td>
<td>200 BCF</td>
<td></td>
</tr>
</tbody>
</table>
Computer Tournament, Nuxup

**Evany SUPER FORTZ C/6Mhz**  
MSP PSN MKS DES  
x 2 2 3½ 7½  
**PSION 7.1/33Mhz**  
2 x 2 2 6  
**Mephisto MM5**  
2 2 x 2 ½ 5 ½  
**Fidelity 2245/16Mhz**  
½ 2 2 ½ x 5

---

Computer Tournament, Wells

**Mephisto POLGAR/16Mhz**  
POL MM5 MAC AXL  
x 4½ 4 6½ 15  
**Mephisto W8S/16Mhz**  
3½ x 6 5½ 15  
**Fidelity AN4N 3-v2**  
4 2 x 5 11  
**Kasparov ANALYST/12Mhz**  
1½ 2½ 3 x 7

Britain's RICHARD LANG, programmer  
of Mephisto Lyon

And now the two I know you're waiting for! The final scores were included as a "post-script" at the back of SS31, but here is the full cross-table.

**WORLD MICRO-COMPUTER CHAMPIONSHIP, Lyon**

1. **Mephisto LYON 68330, Lang**  
   ML EC GD KN CC PT CS BB NT CM KS DL  
   x ½ 1 1 1 1 1 1 6½  
2. **ECHEC 1.9, Baudot**  
   GIDEON/POLGAR, Schroeder  
   ½ x ½ 1 1 1 ½ 1 5½  
4. **Mephisto MM5/16Mhz**  
   0 0 0 x 1 1 1 1 1 4  
5. **Mephisto W8S/16Mhz**  
   0 0 0 x ½ 1 1 1 3½  
6. **Mephisto POLGAR/16Mhz**  
   0 0 0 ½ x 1 ½ 1 3  
**CHESS SIMULATOR V, Whittington**  
   0 0 0 0 1 1 1 3  
11. **CHESS 2.8, Joli**  
   ½ 0 0 1 ½ 0 0 2½  
12. **CHESS 2.6, Wiell**  
   0 0 0 0 ½ 1 1 2½  
**CHESS 2.3, Bras**  
   0 0 0 ½ 0 ½ x ½ 1½  
**CHESS 2.2, Felker**  
   0 0 0 0 0 ½ x ½ 1½

The Table suggests that the LYON won easily, and in a sense it did as it was clearly just too strong for everything else. Even the meeting with the GIDEON/POLGAR, which was expected to be the "decider" - as when LYON (then V.202) won the World OLYMPIAD - was gained more easily this time, as the game shows. However the LYON had a moment of definite good fortune in its game v. ECHEC. One might point out that ECHEC was running on nothing less than a Compaq 486 at 33MHz - making it somewhat faster than the LYON (!!!) - and when the LYON took a poisoned Pawn, it got into all sorts of trouble. In fact, for a while, the Mephisto operators were "resigned" to a possible defeat, and Ossi Weiner even struck up a £50 bet with my Austrian editorial "colleague" Thomas Hally that the LYON would not be able to save itself.
However the ECHEC team had built-in a strong negative contempt factor for this particular game, having assumed they would be struggling, and therefore in the hope that their program could somehow snatch a draw. In the event ECHEC did spot a way to go for the draw (by repitition) and, naturally, the LYON program was only too glad to comply. Thus Thomas Mally won his bet, and the result was immediately dubbed a draw by reputation!

Here is the winner's powerful performance against Ed Schroeder's GIDEON. The game looks as if it will be resolved on the question of whether GIDEON's advanced central Pawns are good or bad, but they never really seem to even threaten in the end.

White GIDEON, Black Nephioty LYON

1 d4 d5 2 Ng5 c6 3 Nf3 Qb6 4 b3 Nf6 5 c4 =e6 6 c5 Qa5+ 7 Bd2 Qc7 8 Qc1 Nd7 9 e4 Qa5+ 10 Qd2 Qxd2+ 11 Nxd2 b6 12 b4 Ne7 13 e3 bxc5 14 bxc5 Ng6 15 Bd6?! Bxd6 16 exd6 Rd8 17 Re1 Nb8 18 Ne5 Bxe5 19 dxe5 Rf6 20 f4 0-0 22 
Nh3 fxe5! (eval. -048) 22 fxe5 Rc8 23 Be2 Nd7 24 0-0 c5 25 Bb5 Rfd8 26 h3 
c4 27 g4? Rd3 28 Bxe2 Nc5 29 Nf4 d6 30 f4 Nb6 31 h4 a6 32 Rxf8+ Rxf8 33 
Bc6 Kf7 34 g5 h6 35 gxh5 gxh5 36 Kh2? (36 Rd1, or 36 a3! look better) Rb2+ 
37 Kg3 Rxa2 38 Kg4 Kg2+ 39 Kh3 Rh5 40 Ra1 c3 41 Kh2 c2 (eval. +172) 42 Kh3 
Rb8 43 Bc1 Rb1 44 Rxc2 Bxc2 45 Nxc2 Nb3 and 0-1.

World Micro-Computer Blitz Championship, Lyon

<table>
<thead>
<tr>
<th></th>
<th>ML</th>
<th>CS</th>
<th>KN</th>
<th>GD</th>
<th>PT</th>
<th>CC</th>
<th>CM</th>
<th>EC</th>
<th>BB</th>
<th>NS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 NPH</td>
<td>x 1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2 CHESS 2175 / SIMULATOR</td>
<td>x 0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3 KING</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>4 GIDEON</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5 PAYKER</td>
<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>6 CHESS CHECK</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7 CONVULS</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>8 CHEC</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9 ECEC</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10 WEST</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The Speed Limit in operation was 10 mins per game - something which doesn't look to have suited RR and WEST too well, but a feather-in-the-cap for Chris Whittington's CHESS CHAMPION 2175 and de Konig's KING. And whatever happened to ECHEC, which had done so well in the main Event?

I will try to get some games from both the Tournament and Blitz Championships if I can, but I believe the ICCA organizers may have taken all of the latter so we may have to wait a while.
Though readers would, I hope, agree that SELECTIVE SEARCH has been really packed to the limit in the last two issues, the fact is that the above rather notable achievement has been completely missed. It is - as far as I know - the first I.M norm ever achieved by a commercially available Chess Computer, and would have been front-page news were it not for OLYMPIADS and WORLD CHAMPIONSHIPS taking place!

The Tournament - NEW ISERNBURGEN CHESS TOURNAMENT, 1990 - was packed at the top end with both GM's and IM's. Indeed the Computer actually played 3 GM's and 4 IM's in its total of 11 games, so really earned its 'norm'. In fact the Event did not start out too well for HEPHISTO, with a defeat against Schneider, IM 2460 Elo, in the 1st round. This resulted in 2 games against 1560 and 1520 players - not the most useful opposition when seeking grading points or IM norms!

However both games were won, so the PORTOROSE 68030 next found itself opposing Hrusc, IM 2335 who was also beaten. A draw in round 3 and then 2 further wins in 6 and 7 put the PORTOROSE in amongst the leaders with 5.5 out of 7 and, inevitably, GM opposition now had to be faced. As the following round-by-round summary shows, the Computer performed very creditably in such company.

<table>
<thead>
<tr>
<th>Round</th>
<th>Black v IM</th>
<th>Score</th>
<th>Schneider</th>
<th>0-0 Total</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2460</td>
<td>Radlisch</td>
<td>1-0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1580</td>
<td>Borelberg</td>
<td>1-0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1590</td>
<td>Hrusc</td>
<td>1-0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2335</td>
<td>Ionjencovic</td>
<td>1-0</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2470</td>
<td>Kuznetsov</td>
<td>0-1</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>2405</td>
<td>Krust</td>
<td>1-0</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>2190</td>
<td>Schmidt-Schaefer</td>
<td>1-0</td>
<td>5.5</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>2470</td>
<td>Lalic</td>
<td>0-1</td>
<td>5.5</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>2340</td>
<td>Nikolaev</td>
<td>1-0</td>
<td>5.5</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>2470</td>
<td>Lau</td>
<td>1-0</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>2525</td>
<td>Smajkal</td>
<td>0.5</td>
<td>8 out of 11</td>
<td></td>
</tr>
</tbody>
</table>

Grading Performance | 2437.7

FINAL PLACINGS:
1. Smajkal (GM) .... 9
2= Blatay (IM), Lalic (GM), Mainka (IM) .... 8.5
3= HEPHISTO PORTOROSE 68030, Tischbierer (IM), Teske (IM), Hrusc (IM) .... 8
9= Ostofic (GM), Schneider (IM), Lau (GM), Kraut (IM) .... 7.5

The win against GM Lau in round 10, at which time Lau had clear hopes of winning the Tournament, was clearly critical - and we give that game in full. But first a quick win in round 6 against Kraut.
White KRAUT, 2405/IM. Black Nephist0 PORTOROSE 68030

1 c4 Nf6 2 Nc3 e5 3 Nf3 Nc6 4 c3 d5 5 exd5 Nxd5 6 e4 Nxe3 7 Nxe3 Bg4 8
Rb1 Bb8 9 h3 Bh5 10 Qa4 Bxf3 11 Bxb7?? Kd7 12 Bb5 Rxb7 13 Bxe6+ Ke7 14
Bxb7 Bxp2 15 Rg1 Bxh3 16 d4 Qb8 17 Qb5 exd4 18 cxd4 Rd7 19 Qe5+ Be6 20 Rd5
Qb6 21 Bxe6 f6 22 Qd5 Qxe6 23 Qb7 Qb6 24 Qc6 c6 25 Bg3 a5 26 Rxc7 Kh7 27
Nxc6?? Bb4+ 28 axb4 Qxb4+ 29 Rd2 Qb1+ and 0-1.

White Nephist0 PORTOROSE 68030, Black LAU, 2450/GM

1 e4 g6 2 d4 Bg7 3 c3 d6 4 Nf3 Nf6 5 Bd2 0-0 6 Be4 c6 7 0-0 Nxe4 8 Nxe4
d5 9 Be3 e4 10 Nxe4 Na6 11 Nxe4 Nc7 12 Be1 Bd5 13 Qf3 Nf5 14 Ng3 Be6 15
Nd2 a5 16 Bg5 Be8 17 Rac1 a4 18 Be4 Nc7 19 Qa3 Bxc4 20 Qxc4 Qd5 21 Qxd5
Nxd5 22 Be4 h6 23 Qd2 Bd6 24 Rad1 Nc4 25 Re2 Bc6 26 Rad8 Rhd8 27 f4 c5 28
Nd5 Bxe5 29 fxe5 Kg7 30 Re4 cxd4 31 Bxd4 Nxd2 32 Rxd2 Bxd5 33 Rfd1 Be8 34
Kc3 Kc1 35 Kf2 Kc+ 36 Rd3 Bxe4 37 Re4 e6 38 h4 g5 39 g3 Kb5 40 Kd3 Rd5
41 Bf4 Kf6 42 Ke3 Kd5 43 Bb3 axb3 44 axb3 Rd5 45 Rf6 Kxe7 46 Kf2 Rd7 47 Kh4
Kd8 48 Rf6 Kc7 49 h4 Lb7 50 Kf2 Rcl+ 51 Kd5 Rd7 52 Rf4 Ke7?? 53 Ka6
(+0.57) Ke7 54 h5 (+0.90) Rd7 55 Kf2 f5 56 exf6 e.p Kf7 57 Kf3 Kd6 58 Kxb6
Kd5 59 Ka6 Lxd4 60 b6 Rf8 61 B7 e5 62 f7 e4 63 Kbb3 Rb8 64 Ka7 and 1-0.

---------------------------------------------------------------

NOVAG SUPER FORTE B/6 plays at PFAffikon

The PF Affikon Chess Club has been very helpful in recent years, allowing Chess
Computers to enter their annual Tournaments, and the latest saw Novag's SUPER
FORTE B/6 participating. It is good there are Club's with this type of attitude.
In a very competitive and, sometimes, sharp market it is surely in the PLAYERS
and PURCHASERS best interests to have properly obtained Gradings available for
the leading Computers. There is little to be gained when those who like to
murmur about supposed (!?) exaggerations made by Manufacturers then refuse
Computer entries in Tournaments where claims can be verified and/or disproved.

At PF Affikon, in 1986, the Nephist0 AMSTERDAM scored 3/7 for a 1940 grade; a
year later the DALLAS 16 bit got 6/8 but with only a small grading improvement,
to 1958. In 1986 a Saitek MAESTRO C+TURBO/18MHz got 2/7 and I think a SUPER
FORTE A or B played in 1989, but I don't have a record of its result.

In the latest Tournament, the SUPER FORTE B/6 made a fantastic start with 2.5
from its first 3 games. These included a hard-earned win v. a 1665 graded
player, and a long game for the full point against GOSCH, 2138. However the next
4 games were against players ranging from 1965 to 2160, and the Computer
unfortunately lost all 4 before finishing off with a nice win in the final round
against HINDLER, 2110. This is the game shown below. For the record, the Novag's
final score was 3.5/8 against average grade 2029 = 1979 Elo performance, the
best achieved at Pfaffikon so far.
White Novag SUPER FORTE B/6. Black KINDLER. 2112

A game with some sharp and quite tricky moments, which require correct calculation. The game swings on a single moment's lack of precision.

1 e4 e6 2 d4 d5 3 Nf3 Bf5 4 c4 Nc6 5 Nc3 e5 6 c3 Nh5 7 Bd3 0-0 8 e4 cxd4 9 cxd4 Ne5 10 exf5 Nxf5 11 Qe2 Qc7 12 Bd2? c6 0-0 15 Re1 Kh5 14 Nh3?

Good is 14 Qc2! when Black must play Nf6 as 14 - g6? meets 15 Bxg6! winning.

14 - Qd7? 15 Qc2 Nxf3??
15 - Nh5 is "soundest", but leaves Black losing. The move played is the natural one to conform to the plan initiated at move 8.

16 gxf3 e5! 17 Bxe7+ Kh8 18 Re1
dxe5 Nxe5 19 Nd4 may possibly be slightly better.

18 - Qxh3 19 dxe5 (see diagram) Qxf3??
An interesting moment. The notes to the game originally add the "!!", but I have included my own "?". It seems to me that 19 - Nxe5 is a more straightforward way of winning from here as, after 20 Nd4, Ng5! looks very promising for Black.

20 exd6 Bxh3

The developing threats look ominous, but Novag meets them all very accurately.

21 Qg6 Rf8 22 Bg3!
Best! If 22 Rxe3 Qxf2+ 23 Kxh4 Qh4! is winning.

22 - Rf6 23 Qg5 Kxh7

Threatening the decisive 24 - Rg6!

24 Kh2 Rg6!
The turning point. 24 - Ne5 25 Qg1 (25 Rg1 Bd7?) Ng4!! 26 Qxg4 Qxg4 27 Nxe7 dxe7, and now Black does have an advantage. The computer recovers immediately, finding the perfect move to bring Black's attack to an end.

25 Ng1! Qg2+??
I have said it so often, and I know you are bored with it! But is it not amazing how often we "double-up" on our errors? When you realise you've made a mistake, always spend a little extra time on the next move. If that had been done here, Kindler would have quickly seen that the exchange should have been forced onto f5 by playing 25 - Qf5 26 Qxf5 Bxf5 27 Nh3 Rxd6, and some drawing chances.

26 Qxg2 Bxg2 27 d7!

Probably overlooked by Black, but White now wins the Bishop. 1-0.
**An Interview with Goran Grottling**

**Erik's Note:** My thanks to colleagues, **GORAN GROTTLING** of the Swedish **PLY** Magazine, and **THOMAS HALLY** of Austria's **MODUL** Magazine for not only offering this Article for **SELECTIVE SEARCH**... but also for translating it into **ENGLISH** for me! There is a happy relationship between the Chess Computer fans in the different countries. **MODUL** has just printed the full Selective Search article and games which discussed the "goings-on" at the British Championships - entitled, "**THE EASTBOURNE FLOP**" in MODUL, and "better than a Robert Ludlum thriller" says Thomas!

My great regret with both PLY and MODUL is that I can read neither Swedish nor German and so cannot enjoy either of them to the fullest extent. However Thomas Hally always sends me a personal letter outlining the background and themes of the different articles in MODUL, and this kindness also is very much appreciated. And so to the Article, which was originally published in PLY 2/90 and MODUL 2/90.

**INTRODUCTION:** The name of Goran Grottling is inseparably linked with the Swedish Rating List which over the years has acquired an ever-increasing influence on the world of commercial chess micros. The List is published regularly in the Swedish Chess Computer Association's magazine **PLY** as well as in the ICCA Journal and several other specialised publications all over the world. It is widely appreciated for its objectivity and reliability, although recently some criticism has been levelled at the Swedish method, which is based mainly on computer vs. computer games.

Goran is 42 years old and works as a journalist for the Gothenburg daily "Goteborgs-Posten". He lives at Lindane, a small town on the west coast of Sweden, about 10 miles south of Gothenburg, with his wife Gunmarie and their three sons, aged 9, 10 and 11. Besides computer chess his interests include long distance running, genealogy, stamp-collecting and reading science fiction (favourite author: Isaac Asimov). He drives a SAAB Turbo and can often be heard to grumble about Swedish speed limits (60mph on the motorways for environmental reasons).

The MODUL delegation met Goran and his family in the small town of Werfen in the Salzburg region of Austria. After we had all scrambled up to Castle Hohenwerfen together, and while the youngsters were devoutly inspecting the spots from where, twenty-odd years ago, Clint Eastwood had raked the castle's courtyard with machine-gun fire during the shooting of the film, "Where Eagles Dare", Goran unfolded to us the background story of the Swedish Rating List.

**MODUL:** Please tell us how the Swedish Rating List came into existence!

**GORAN:** Some time during the year 1984 I got the idea that it would be a fine thing to turn all the computers' results collected so far into a list that every chess player could understand.

In PLY, the Magazine of the Swedish Chess Computer Association, we had for many years
published the results of computer games, and we were curious to know what might be the real
difference in playing strength between, say, the PRESTIGE and the MARK V. As you know,
Professor Elo (I believe he has Austrian ancestors!) has developed a method to translate a
certain percentage of wins into a rating difference. It was his rating table that I used as
the basis for my first efforts.

I spent several evenings working out the first rating list with the help of paper and
pencil, and a pocket calculator! The list which emerged was topped by the PRESTIGE and seemed
to agree quite well with my personal impressions of the various computers' playing strength. I
rang our president, Thoralf Karlsson, and told him about my calculations. He was enthusiastic,
and the list was published in the following issue of FLY.

From that time on, it has been featured regularly in FLY as well as - in recent years -
other publications all over the world. In the beginning, I was a little vexed by the scarcity of
interest shown by people outside Sweden in the great quantity of computer results available
from our country, but today I am instead embarrassed at how seriously our list is being
taken by people everywhere.

I can add that the calculations for the list were soon entrusted to a computer! A program
written by PfMaT programmer Lars Åjorth for the Atari ST now crunches out the entire list in
a matter of seconds.

**NORD: The Swedish testes play 300 to 400 computer games per month. What kind of people are
they?**

**GORAN: All the results come from our members, who work either with their own computers, or
with machines on loan from the Association. Ninety percent of all results come from a small
of about ten dedicated people who sit and run their computers day after day, week after
week, and month after month.

The most active testers are bachelors and pensioners, but there are also a few handicapped
people who, in this way, have found a new purpose in life. For example, our "super tester"
Hans Multqvist (who has supervised more than 2,000 games so far!) is confined to a wheelchair
as a result of a traffic accident. Often our testers run two games simultaneously, sometimes
even three!

**NORD: How do you know you can rely on their reports?**

**GORAN: Our entire testing activity is based on trust. None of our testers has any commercial
interests. They - as well as I - are simply looking for "the truth" - i.e. they want to find
out how the different computers' playing strengths really relate to one another. We are in
close contact with our testers over the telephone and we can often feel how enthusiastic or
disappointed they are about their own results, or somebody else's. We soon come to know them
very well, and find out how serious their dedication is.

Beyond that, it would be quite meaningless to spend hundreds of hours testing only to come
up with falsified reports! If any person constantly changed the test results in favour of one particular computer, we would soon find out when comparing the results from other sources.

**MODUL:** Did you ever have any reason to doubt the veracity of one of your testers?

**OCRAN:** Well, actually there was one such case. It had to do with a person who owned the only chess computer of a certain type in all of Sweden, so we had no way of comparing results. The results he reported for that specific computer were consistently favourable, and its rating rose higher and higher.

Still, we couldn't be sure whether the tester was telling the truth or not. After all, we know that there can always be "freak" results. Finally, we felt we could not go on that way any longer, and decided not to accept any further results from that particular tester.

The computer in question is no longer represented on our list, but to this day I don't know for sure whether those results were genuine or not. It is a real shame that we should have had to break off contact with a dedicated computer fan in that way. One thing is certain: if he did lie, then it was not for any commercial reasons - he had simply grown so fond of his machine that he could not bear to see it lose.

**MODUL:** Tell us a little about the principles that guide your test work.

**OCRAN:** When a new computer becomes available, we try to arrange for it to play matches of twenty games each against as many other computers as possible. Obviously the games are played alternately with White and Black. The computer must be set to its defaults and use its tournament book, if there is any. The time control we use is always 40 moves in two hours, simply because that is also the basis for human players' ratings.

Games need not be played to mate, but they should never be broken off until the end result is no longer in doubt. First and foremost, we try to pair a new computer with others that are close to its expected playing strength. The computers choose their openings themselves. If a game repeats an earlier one, partly or in full, it still counts towards the total.

**MODUL:** Can you rely on your tester's judgment?

**OCRAN:** I'm sure you could criticise some decisions if you took a close look at the scoresheets. It is quite possible that a tester misjudges a position or breaks off a game prematurely. But the point is that such irregularities cancel each other out in the long run, provided the tester has no intentional bias. Sometimes a decision will favour Computer A, the next time it will be Model B. But a Computer's rating is based on hundreds of games, sometimes over a thousand!

**MODUL:** Well, the honesty of your test work is hardly ever called into question, and your results also agree quite well with those obtained in other countries. But how can you be certain that the results of Computer vs. Computer games are a true reflection of the rating differences that a human chess player would experience playing them?
CORAM: Ah! I'm glad that you asked me this question! The day I come to the conclusion that Computer vs. Computer games have no relevance to the performance of computers against humans, will be the day I would lose all interest in our Rating List, which I have loyally supported from the day of its inception. Games among computers are not the end in themselves; they serve as a substitute for games against humans, which unfortunately it is not easy to arrange in sufficient numbers.

Besides its test work, the Swedish Chess Computer Association also tries to carry out as many games against humans as possible. However, there is a growing resistance among chess players to the participation of computers in regular tournaments. For example, we were denied participation in this year's Swedish National Championship.

The list of all results of computer vs. human games played in Sweden since July 1987 is shown here:-

<table>
<thead>
<tr>
<th>Rating Games</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mephisto Portorose 68020</td>
</tr>
<tr>
<td>2 Fidelity Mach 4 68020-v5</td>
</tr>
<tr>
<td>3 Mephisto MM+Turbo/16MHz</td>
</tr>
<tr>
<td>4 Mephisto ACADEMY</td>
</tr>
<tr>
<td>5 Fidelity Mach 3 68000-v2</td>
</tr>
<tr>
<td>6 Mephisto Almeria 68020</td>
</tr>
<tr>
<td>7 Mephisto ROMA 68020</td>
</tr>
<tr>
<td>8 Psion 2 Atari/PC</td>
</tr>
<tr>
<td>9 CMU Sphinx Galaxy</td>
</tr>
<tr>
<td>10 Kasparov Maestro A/4MHz</td>
</tr>
<tr>
<td>11 Novag Super Expert B/5</td>
</tr>
<tr>
<td>12 Mephisto Mega 4</td>
</tr>
<tr>
<td>13 Mephisto Dallas 68000</td>
</tr>
<tr>
<td>14 Novag Forte a</td>
</tr>
<tr>
<td>15 Fidelity Excel Club</td>
</tr>
<tr>
<td>16 Kasparov Maestro 9/10</td>
</tr>
<tr>
<td>17 Novag Super Forte A</td>
</tr>
<tr>
<td>18 Fidelity Excellence/3</td>
</tr>
<tr>
<td>19 Novag Super Constellation</td>
</tr>
</tbody>
</table>

We use the results as a basis for the calculation of the general level of our list. In my opinion the list is not incompatible with our list for Computer vs. Computer games; of course you have to reckon with the enormous error margins which can occur when a rating is based on only, say, 9 or 15 games. With that in mind, I don't think you could claim a glaring discrepancy between the two lists. Of course, everybody is free to put their own interpretation on these figures.

As far as different processor speeds are concerned, there too you find more or less the expected rating differences between identical programs running at different speeds. For example, if the 3MHz EXCELLENCE were placed below the 3MHz model, we would have reason to doubt our methods - but it isn't so.
**MODUL:** But what about other complications such as the "Iroquois effect", or the "Novag effect", and "booking" computers?

**CORAN:** Let's start with Mr. Iroquois, a former editor of Computer Chess Reports. He thinks that constantly playing computers among themselves will increase the actual rating difference by a factor of 1:2! So far, we have not found any confirmation for this among our results. Larry Kaufman, the current editor of CCR, puts the effect at a ratio of 1:1.25. I would not dare to assert that he is totally wrong; there may be such an effect, but with an even lower factor than Larry thinks.

The so-called "Novag effect" assumes that Novag computers obtain better results against humans than against other computers. I believe that this theory stems more or less directly from Novag's public relations department, since I cannot find any support for it at all in our figures.

I do accept the view that the SUPER CONSTELLATION of 1984 played better against humans than against later computer models, which seemed to have been thoroughly pre-tested against this successful machine. But I cannot find any indication that later generations of Novag computers such as the FORTE or SUPER FORTE has performed differently against humans than against computers.

Lately we have pondered a lot on the effect of "booking" on a computer's rating. My general impression is that a machine's opening library has only a little influence on its overall playing strength, even though this may sound strange to a dedicated follower of theory. It is true that there have been examples of a new computer's opening library being tailored to score well against a particular commercial rival! But our statistical experience teaches us that what is a good opening against Computer A can be be quite bad against B, and vice-versa. The effect is lost among the great quantity of games played. There simply isn't enough time for programmers to pre-test his computer's book against 40-odd other machines, thank goodness!

**MODUL:** Many of our readers show great interest in various Test Series; i.e. collections of test positions that are given to a computer to solve. Some people even hope that a Test Series could be constructed that would accurately predict the rating of a new computer, thus making the hundreds of test games unnecessary. What is your opinion on this matter?

**CORAN:** Personally, I am quite fond of sets of Test Positions. I can learn a lot about chess from them, and it is interesting to see if my computer can handle a certain position well or not. Still, I have yet to see a collection of such positions that can tell me more about the actual playing strength of a computer than our Rating List.

I don't actually think it would be possible to construct a test suite that would give a better result than, say, a hundred test games (often played by our testers within a only a few months). Let's not forget that practically every move in a normal game can be regarded as some sort of test, which means that a hundred games give about the same amount of information as 6,000 test positions!
I do believe that test suites can be used to establish a performance profile for a chess computer. You can find out whether a specific computer is going to be strong tactically, or good at endgames etc. But the question is how to weight those individual factors so as to obtain the overall playing strength.

MORUL: Some people claim that the Swedish Rating List will become meaningless because computer manufacturers are acutely aware of its potential as a sales argument, and are therefore increasingly preparing their machines for games against other computers rather than against humans.

GORAN: Those people seem to forget how easy it would be for a chess programmer to fine-tune his program in such a way that it would get a perfect score on some test that was known beforehand. After all, the programmers do read the specialised publications too, and there is no way to hide a popular test from them! They might even get the idea of simply storing the critical positions in their opening libraries or transposition tables.

Besides, a test that claims to measure a computer’s playing strength would have to be very exact – otherwise there is little sense in carrying it out. It is easy to give a rough estimate of a new computer’s rating – let’s just say that it will be 25 or 50 points stronger than its predecessor. You don’t need a test for that!

MORUL: Talking about exactness – what about the initial rating for the Mephisto POLGAR? Wasn’t that a real flop?

GORAN: Yes, it may appear that way to an outsider. It is true that we have here a splendid example of a computer that turned out to have a rating well outside the 95% confidence level with a big drop from its initial rating. There have been other such cases: for example the PORTOROZE 68030.

As far as the POLGAR is concerned, in my comments accompanying the Swedish Rating List I did warn readers that its results were simply too good to be true, and that its initial rating was probably inflated. It is all a question of how one interprets the figures in the Rating List.

Many people take these figures too literally. A difference of only 10 to 20 points between two computers will cause some people to draw far-reaching conclusions! Many people also believe that the confidence margin that is given with each rating is an absolute limit, which of course it isn’t. We can claim with some confidence that 19 out of 20 computers do lie within these margins. On the other hand that means that, on our whole list, there are perhaps 2 or 3 computers whose actual ratings are outside the confidence margin – but neither I nor anybody else can say which computers these are! And we cannot know how far outside the error margin they might lie!

If you study a computer’s results after about 500 games have been played, you will always find individual 20-game matches that have produced surprising results, deviating from the overall picture in a positive or negative way. These deviations have become insignificant only
because they are a small part of the great number of games now played. I have long since stopped wondering about such "freak" results: I simply know that they will happen, and there is no reason to suspect foul play when they occur.

If we are unlucky and such deviations were to appear in clusters during our early test work, then a computer’s initial rating will be distorted, perhaps considerably. Obviously something of the sort happened in the early POLCAR games. However, a study of the Swedish Rating List as it has developed over the years, will show that normally a computer does have an initial rating that starts quite close to its “true” level and that often varies very little from one list to the next.

It is fascinating to watch the way that computers “take aim” at their “true” ratings and show decreasing oscillations as time goes by. During the early part of 1990, for example, we were able to observe how the three FORTROS versions, after some early inconsistencies, began to fit better and better into the pattern expected by theory. The FORTROS 68030 is about 3.6 times faster than the 68020, which is about twice as fast as the 68000. The theoretical difference between the first two would be 144 points, and between the latter two about 80 points. A look at the current Rating List will tell you that reality is not far removed from theory!

After this little lecture I hope people will understand the meaning of the confidence margin a little better, and refrain from drawing too far-reaching conclusions from a rating difference of just 20 to 30 points. Of course this applies especially in cases where the number of games played is still below 100.

In this context I would like to thank MODUL for the way in which it presents our List. I believe it is important to reproduce not only the ratings, but the confidence margins and the number of games played. Unfortunately not all the magazines and users of our list do this. It is also very important that, from time to time, people should get a chance to examine all the scores that the list is based on, a service which the Journal provides at the beginning of each year.

MODUL: in some countries your list is usually referred to as an "ElO" list. Is that correct?

O’ORAH: Yes... and no. Properly speaking only strong players who also perform in international Tournaments have an official Elo rating, approved by FIDE. Most countries have their own national rating systems, which are also usually based on Professor Elo’s mathematical methods. But the levels of those national systems differ considerably, and this may lead to much confusion. E.g. when you read about computer ratings from the USA, where their national level is about 200 points above the Swedish level! Why this is so, I don’t know.

We have tried to find out just how the different national rating systems relate to one another. This is made rather difficult by several factors - for one thing we do not have the same control over the computer vs. human games that we have in Sweden!

Also we don’t always get all the results that should be available from other countries -
especially those that are bad for the computers have a way of being suppressed, or simply forgotten. Sometimes we don't know whether the results were obtained by standard models or by boosted machines.

Anyway, here are the results of our calculations - but don't take them as the absolute truth!

<table>
<thead>
<tr>
<th>Country</th>
<th>Variation Games</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden (base)</td>
<td>0</td>
</tr>
<tr>
<td>USA</td>
<td>+201</td>
</tr>
<tr>
<td>England</td>
<td>+124</td>
</tr>
<tr>
<td>Austria</td>
<td>+ 76</td>
</tr>
<tr>
<td>France</td>
<td>+ 29</td>
</tr>
<tr>
<td>Holland</td>
<td>+ 25</td>
</tr>
<tr>
<td>Germany</td>
<td>- 60</td>
</tr>
</tbody>
</table>

The above Table is to be interpreted in such a way that a computer that gets a grading of 2000 in Sweden should have 2201 in USA, 2124 in England, 1940 in Germany etc.

**MODUL:** On the basis of the results obtained against human players, the level of the Swedish Rating List has been lowered on several occasions over the years. Why is that?

**GORAN:** Well, one obvious reason may be that we started with too high a level back in 1984. Another possible cause is what I call the "time effect". I simply believe that more and more players are becoming accustomed to the idea of playing against a computer, and that it is more difficult today for a computer to achieve a high rating against humans than it was, say, for the SUPER CONSTELLATION in 1984.

The present level of the Swedish Rating List seems very realistic to me - at least for us in Sweden and, of course, for games at tournament level. Computers have a much higher relative playing strength at blitz and quickplay chess, whereas it is the other way round using them for correspondence chess.

Once a year - in autumn, to be exact - we decide on any necessity for updating the level of the Rating List. As it looks at the moment, this year may be the first time since the list was begun that its level may actually be increased a little - by 10 points or so. We shall see!

**MODUL:** Is there anything else you wish to mention?

**GORAN:** Well, we could certainly fill as many pages again if we were to discuss all the finer points. But I believe we should wrap it up here and now! If your readers have any questions or comments regarding this interview, I would be glad to reply to them through a future Issue.

**MODUL:** Then our thanks for this interview on behalf both of our readers and in our own name.

**GORAN:** And my thanks to you for a pleasant chat!
The NEW Mephisto LYON

The new World Champion program is the subject of much coverage in this Issue - as befits a World Champion, of course. Because of my personal and commercial interest in the LYON there will, I know, be those who feel there is too much. However, I am impressed!... and I cannot help that.

Actually my original purchase of the ALMERIA program was when Mephisto computers were, if anything, competitors to the firm I then worked for. And I remember giving it plenty of good coverage then... but no-one accused me of bias of course as my enthusiasm, if anything, was commercially "unhelpful" to myself.

Michael Nealey has just returned from Hastings, and tells me that the 68020 version has been scoring over 500 against various British, Soviet and other GMs and IMs in Blitz games. But we have chosen not to refer to them by name (except in one case!). We are happy, of course, that such a large number of GMs and IMs should feel it worth their time to spend so many hours challenging a chess computer, and we would not want to discourage any of them from doing so again in the future. If we start spouting about who lost - and how often! - well, friends can soon become otherwise when perhaps unfairly taken advantage of, and the happy and slightly amused atmosphere day-after-day was something to be enjoyed!

One of the reasons that the top players dislike meeting Chess Computers, even in Simuls., is that Manufacturers and Distributors (understandably!) are quick to quote names when the mighty are fallen! It's free publicity for a Computer Company at the expense of a person for whom the game is his/her livelihood.

However British Champion, Jim Plaskett, did say, "At Blitz, it's a G.M. - and you can quote me" - and that seems to leave me free to mention him. I don’t know what his total score from the fortnight he was there added up to, but he certainly came and played from 2 to 8 games against the LYON 68020 every day! Alan Cooper (a neutral SELECTIVE SEARCH reader) told me that he saw Plaskett lose 5-3 on the middle Saturday, and immediately put in an order for the 68030 version!

Alan now has this and I know that he is more than happy with it. He rang me yesterday to say that a complicated position in which his previous Computer (a top-ten machine in the SS 31 list) had found a mate in 6 in 5½ moves, had been done by the LYON 68030 in 0 secs! (the beep came virtually exactly as Alan pressed his [ENT] button). Nor will others now with 68000 and 68020 versions feel at all that my enthusiasm is overstepping the mark. Incidentally, at the end of the first 2 weeks, the Blitz Grade of the 68020 from ALL games against GMs and IMs was calculated as 242 BCF!
I have not had much opportunity to examine the new features as yet, but have mainly concentrated on testing it against other Computers, to compare its results with those of the PORTOROSE and the V.202 mentioned in BS1. I do note that it uses a singular extension technique, previously the property only of main-frames DEEP THOUGHT and EITECH, and this is the reason for much of its spectacular tactical speed-up. Also owners can disengage some of its algorithms to test the differences they make when working! E.g. hash tables, pawn structure, the normal material balance between pawns and pieces.

In addition owners can "play around" with the opening book much more fully, not only adding new lines, but removing variations and even determining their order of preference for selection! I will try and look at these things more fully in a future issue, but for now I want to show the results which I and others have been getting, and print some of the games it has played, which many of you will want to see.

The results shown in the boxes are from my own matches: all were to be of 12 games and played at 1 min. per move. Below each box I have shown the results of any later games which I may have played since the original series finished. Also I often like to replay those games which were DRAWN at 2 mins. per move, by copying exactly the moves which were played till one of the participants left its opening book. I have noted these extra results separately, and then listed scores as I have them (as at 18/Jan 1991) from other readers, and from Sweden and the USA.

Finally there is a selection of games - but, as the LYON 68020 which I have has something like an 85-90% score against all opposition, most of these are obviously from its wins... though I have included one or two defeats as well.

```
Nephi LONY 68020
CXG SPINX/4
1 1 1 0 ½ 1 1 1 1 1 1 = 10½
0 0 0 1 ½ 0 0 0 0 0 0 = 1½
```

42 min replay of draw: win for LYON
68000 v. SPINX: from Sweden, 5½-4½

White CXG SPINX, Black Nephi LONY 68020 (replayed game at 2m. per move)

1 e4 c5 2 d4 d5 3 exd5 cxd4 4 c4 h6 5 Bc3 e6 6 Nf3 Bc7 7 cxd5 Nxe5 8 Bb3
0-0 9 Nxd5 Qxd5 10 g3 g6 11 Bc4 Nbd4+ 12 Bd2? (Nephi had expected Kh1)
Bxh2+ 13 Kxh2 Bb6 14 Nc3 Bc5 15 Nfl (Sphinx tries to fight back, and the position does not look so clear) b6 16 c3 Nb7 17 d5! (looks very good, but Nephi finds an excellent reply) Qf4+? (Sphinx had expected Nd8, and the LYON had been choosing between this and then Na5, with a +100 evaluation, until this fine reply, expecting 18 Kb1) 18 Rd2 Na5 19 Re5? (h3 was best. The Sphinx has
no chance now!) Nxc4 (showing +4½) 20 Rxc4 Bf6 21 b3 exd 22 g3 Qe4 23 f3 Qe6 24 Rb2 dxc4 25 b4 Rdb 26 Nc2 Rac8 27 f4 Rd3 28 Qe5 Qd7! 29 Kd1 c3! (announcing N/7) 30 Qe2 Rdl+ 31 Rel Red+ etc. 0-1

<table>
<thead>
<tr>
<th>Nephisto LYON 69020</th>
<th>1 1 ½ 0 0 0 1 1 1 ½ 1 1 = 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fidelity MACH 2C</td>
<td>0 0 ½ 1 1 0 0 0 0 ½ 0 0 = 3</td>
</tr>
</tbody>
</table>

+2 min replay of draws: both wins for LYON
Games played since: Neph LYON 69020 v. MACH 2C, 12-2
Scores v. MACH 4: from Sweden, 6-5
from Larry Kaufman, 5-3
Scores v. MACH 3: from Gerald Murphy, 5½-1½
from Bob Clarke, 1½-½
from Graham White, 52-16 (random openings)
from Gordon Rae, 33-7

69020 v. MACH 3: from Sweden, 16-4 (!)

White Fidelity MACH 2C, Black Nephisto LYON 69020

1 d4 Nf6 2 c4 c5 3 d5 cxd 4 Nc3 exd 5 cxd 6 e4 g6 7 Nf3 Bg7 8 Nc3 d5
9 Nc3 Be6 10 a4 Nf6 11 Nf4 Qe7 12 Nc2 Ne8 13 Bg5 h6 14 Bxf6 Qxf6 15 Qb3
Nd7! 16 Bg7? Nxb2 17 Qc7 Rxb2 18 Nf1 Rb8 19 Nxe6 Rxf3 20 Qxd7 Rxf2 21
Nd1 (If 21 Rxf2 Qxf2 is N/3) Nxe4 22 Nxb2 Qf3 (announcing N/7) 23 Qe2+ Kh7 24
Qg4+ Nxf2 25 Kxf2 Rfb2 etc. 0-1

White Fidelity MACH 2C, Black Nephisto LYON 69020

1 e4 c5 2 d4 d5 3 Nc3 dxe 4 Nxe4 Re5 5 Ng3 Bg7 6 h4 h6 7 Nf3 Nd7 8 h5 Bb7
9 Bd3 Bxd3 10 Qxd3 e6 11 Nf4 Qa5 12 e3 Nf6 13 a4 c5 14 0-0 Be7 15 Nf1 0-0
16 Ne5 Nxe5 17 dxe5 Rd8 18 Qh5 Qxb5 19 axb5 Nxd5 20 Bd2 Ne7? 21 Nxd1! Bd7?
22 Ne3 Nxd1 23 Rxd1 Rd8 24 Rxd8 Nxd8 25 Nxc5 Nxb5 26 Rf1 h6 (It looks very
much like a draw, but White will get its King moving whilst Black seems slow to
do this) 27 Ke3 Rc7 28 c4 Na5 29 f4 g6 30 hgx g6 31 Ne4 Nxb4 32 Ke2 Ne6
33 b3 Na5 34 Nxd2 Be7 35 Kd3 g5 36 Nc3 gxf 37 Nxf4 Kg7 38 b4 Nc6 39 b5 Ne5
40 Ne4 Ne7 41 Rd4 Kg6 42 Nxe4 Nxe4? (hs is better, or Nxd6. Now Black's Knight
will find itself less able to meet all threats than the Bishop would have been)
43 exd6 Kf6 44 Bg3 e5+ 45 Kd5 e4 46 Kd2 Ng5 47 c5 hxc 48 Nxc5 Nf7 49 Bxa7
Nd8 50 Nh6 Ne6 51 Kxe4 Kf8 52 Kd5 Ne6 53 Nc7 Nf8 54 b6 Kd7 55 b7 Kf7 and
resigns. 1-0

White Nephisto LYON 69020, Black Fidelity MACH 2C

1 e4 Nf6 2 f3 g6 3 d4 Bg7 4 Nc3 d5 5 Ng5 0-0 6 e3 Nbd7 7 Ne2 c6 8 Qe2 h5
9 Nh4 Qe7 10 0-0 b6 11 Rfd1 Kb7 12 Qd3 e5 13 b3 a6 14 h4 a5 15 b5 cxd 16
Nh5 Qc6 17 Qa3 d5? 18 exd Qc8 (If 18 - exd 19 Rc1 Qe6 20 Nc7 wins too much material) 19 Rc1 Qd8 20 dx e4 e6 21 Re7 Nh5 22 Nxe8 Qxe8 23 Re7 Kh7 24 Bxf6 Nxf6 25 Qe7+ Kh8 26 Ng5+!! hxg5 27 Nxe6 Rg8 28 Qxg5 Qf6 29 Re7 Ne6 30 Bxe8 Nxe8 31 Bg4 Bd7 32 Nxe6 and Black resigns. After 32 - Bxe6 33 gh4+ Bh6 34 Qe7+ Bh7 35 Qxe6 wins overwhelmingly.

Games played since: Mephisto LYON 68020 v. MEGA 4, 3½-½
Swedish score: Mephisto LYON 68020 v. MEGA 4, 15-2
Score v. MEGA 4+TURBO/18Mhz: from Larry Kaufman, 6½-1½

This is the result which shocked me most of all! I have always had a very high regard for the POLGAR/10 - and it has a good record everywhere, including against the PORTOROSCH - so I could hardly believe the way in which the LYON 68020 mistreated it in my Match! I haven't replayed the draws yet, but certainly want to as soon as possible to see if the same one-sided result occurs.

Score v. POLGAR/10: from Larry Kaufman, 5-3
Scores v. POLGAR/5: from Glen Nichols, 3-1
from myself, 4-0
Scores v. NM5: from Bob Clarke, 7½-½
from Austria, 3-2
Scores v. MONTE CARLO: from Darryl Golder, 3-0
68000 v. POLGAR/5: from Sweden 4-0
68000 v. NM5: from Austria, 5½-4½
68000 v. MONTE CARLO: from Darryl Golder, 16½-3½

White Mephisto POLGAR/10; Black Mephisto LYON 68020

1 d4 c5 2 e4 d5 3 Ne3 Nf6 4 Ne5 c5 5 d3 exd 5 cxd 6 Ne5 Rh5 7 f3 Nf4 8 xf4 c6 9 Be4 Nce 10 Re2 g6 11 Rd2 Qf6 12 Qd2 Qd6 13 Rxd5 exd 14 Ne6+ Re7 15 Bxe7 NNe 16 a3 Nce 17 Nf5 dxs 18 Nxe3 Nxe 19 Nc4 Bg6 20 Nc3
Nh8 (the Pawn on b2 will be won) 21 Nxe 22 Bb6 Re5 23 Rd3 Re5 24 Ne5 Rxe 25 Rxe Kd2 26 Rd2 Bxh3 27 Rxe3 Bxd3 28 Rd1 Rf3 29 Bxd3 Kd3 30 Rf1 Kc5 31 Bb7 Nxe 32 Rxd7 (Lyon knows that it now has a won game) 32 Nxe2 Kc5 33 Rd3 Bb4 34 a5 a5 35 f4 c5 36 g4 e4 37 Kd2 Ra5 38 Ke3 Bb5 39 f5 Ke5 40 g5 a5 41 h3 a4 42 Kd2 Rh4 43 Ke2 a3 44 f6 gxf 45 gxf and White resigns, 0-1
White Mephisto LYON 68020, Black Mephisto POLCAR/10

1 d4 d5 2 d4 Nf6 3 e4 c6 4 exd5 exd5 5 Ne3 Nc6 6 Nf4 Bf5 7 e3 e6 8 Ne5
Nxe5 9 Nxe5 Nd7 10 Qb3 Qc8 11 Bg3 a6 12 Rc1 b5 13 Ne2 Qd8 14 Nc7 Qe7 15
Bb5 Qd6 16 Ng3 Qg6 17 Ne2 Nb6 18 a3 Nc4? 19 Nd4 Qd7 20 Bxf8 Rxf8 21 Qe3
Rc8 22 0-0? Ke7 23 h3?! Nxa3?? 24 Qb2 Ne2 25 e4! Nbd4 26 Qa3 a5 27 Qxa5 Ne6
28 Qb6 Na7 29 e5 Nd8 30 Qc5+ Kd8 31 Ra1 Nc6 32 Bxb5 Rxb5 33 Qxb5 Nd8 34
Qxd5+ Kxd5 35 Nf7+ Kc6 36 Rcl+ Kb6 37 Rxa8 b5 38 Rlc8 and wins, 1-0

Mephisto LYON 68020

Kasparov RENAISSANCE D/10

1 0 0 0 0 0 0 0 0 0 0 0 = 2

White Kasparov RENAISSANCE D/10, Black Mephisto LYON 68020

I was glad to see this opening occur naturally in the match, as this exact line
brought the PORTOROSE down when they played it in my test 9 months ago. 1 e4 e6
2 d4 d5 3 Ne5 dxe 4 Nxe4 Nf6 5 Bd3 Qxd4 6 Nf3 Qb6 (the LYON goes out of its
book already, as did Portorose - so the problems experienced by Mephisto in this
variation have not been dealt with by "correcting" the Opening Book) 7 Bd3 Qxb2
0 Rh1 Qxa2 9 Rb7 Re8! 10 Rb3! Ng4 11 Ne4 Qa5+ 12 e3 Nf6 13 Qb1 (only now
does RENAISSANCE leave its book - it has been well-prepared for this game) Nb7
14 Nf5 Nf5 15 Rb3! Qa4 16 Rd5 exd5 17 h3 Nh5 18 Rxd5 Nh8 19 Qe1 Qc4 20
Nd2 Rc8! (The LYON's Queen and Rook play has already left its position better
than Portorose could achieve. After this, the RENAISSANCE will pay heavily for
its Gambit) 21 Rxf7 (what else?) Rxf7 22 f3 a5 23 Qd1 Qb5 24 Rd4 e5 25 Rd6+
Rxd6 26 Rxd6 Nf6 27 Ra7 Re8 28 Ra5 Nd5 29 Be1 Nxe3 30 Rd2 Nd3 31 Qa1 Nf4
32 Qb2 Nxd6 33 Nxd4 Rd7 34 Kf2 Qxb4 35 Qxe5+ Re6 36 Qf5 Qxb4 37 Kg1 Qg3,
and white resigned after this. Q-1

Mephisto LYON 68020

Novag SUPER EXPERT C/6

1 1 1 1 1 1 1 1 1 1 1 1 = 10

Novag SUPER EXPERT C/6

1 0 0 0 0 0 0 0 0 0 0 1 = 2

68000 v. Novag SUPER FORTES/EXPERT C/6: from Sweden, 3½-1½

White Novag SUPER EXPERT C/6, Black Mephisto LYON 68020

1 e4 d6 2 d4 Nf6 3 Nc3 c6 4 f4 Qa5 5 Bd3 e5 6 dxe5 dxe5 7 fxe5 Ng4 8 Qf3 Be5
9 Qe2 Re8 10 Nd2 Rd7 11 Nd5 Qd8 12 Ne4 Qb6 13 Ne3 Nf5+ 14 Nd1 Nc5 15 h3
Bc3 16 h4 Bxf4 17 Nxe4 Bxe4 18 Rd4 0-0-0 19 Qf2 Rxd4! (and suddenly a #27 evaluation)
19 Rxd4 Qxb2 20 Ka2 Qxe4+ 21 Ne3 Rxd3 22 Qxe7 (of course white is totally
tied, but 22 Qh4 may have been best. Not 22 Rxd3 when Rd8+ wins easily) Qxe2+
23 Kf1 Rd1! 24 Kgl Qd1+ (announcing H/6) 25 Kh2 Ne4+ 26 g3 Qe2+ 27 Kg1 Ne3+
20 Qxa3 Qxe3+ 29 Kh2 Qf2 and Mate, 0-1

White Nephiesto MONDIAL 68000 XL, Black Nefhiesto LUXON 68020

1 e4 c6 2 Nf3 d5 3 d4 Nf6 4 e5 Nfd7 5 f4 c5 6 Nf3 Ne6 7 Be3 cxd4 8 Nxd4 Nc5 9 Qh4 Bxf4 10 Bxf4 Nxd4 11 Qh5 Nxe4 12 Qxe4 Bf5 13 Kb5 Ke7 14 Nf6!!

fxe5 15 0-0-0 Nd7?? (what about the Bishop; and that poor a8/Rook?) 16 Ne1 h6 17 Bd4 Ne5 18 Nxf1 Nxd3 19 cxd3 Nf7?? (this will not be a happy square!) 20 Nh2 Bh8 21 Ke3 fxe4 22 fxe4 Bxf1 23 Rh1 Rh8 24 Nh6+ Kf8 24 Nh6+ Kf8 (White's imposing F on d6, and much better K-centrality give him a clear plus) 25 Bxh4 Bxh4 26 g4 Ne7 27 Kh4 Ke7 28 h5 g5 29 d4 h6 30 a3 Kf7 (a sort of rugswany! 30 - Kc7 is pretty horrible, but worse is 30 - Ke7 31 Bxh5 winning on the Q-side instead... or 31 Kc6! - completely crushing) 31 Bxe7 Kd7 32 Nh6 Ke7 33 Ng8+ Kf7 34 Nh6 Nh7 35 Nh7+ Kx7 36 Bxg5 Bc8 37 h3 Bf4 22 moves too late!) 38 b4 Nxc8, and I resigned for the LUXON, 1-0

White Nefhiesto MONDIAL 68000 XL, Black Nefhiesto LUXON 68020

1 e4 c5 2 Nf3 d5 3 Ne3 Bb4 4 h3 Nxf3 5 gxf3 Nc6 6 d3 c6 7 g3 Nf6 8 Bg2 d4 9 Nh1 Qb6 10 b3 0-0 11 Bg2 Qe5 12 Qd1 Nbd7 13 0-0 e5 14 f4 Bxf4 15 exf4 Nxe3 16 Bxe4 Bxb4 17 Qd2 Qf6 18 Qe4 Qe5 19 Nh2 Nf6 20 Qf3 Ne4 21 a3 Ng5 22 Nh2 Bb6 23 b4 Qg5 24 Bc4 Bxg4?! (waiting?) 25 Nh1 Nh5 26 Bxe7 (the right plan, which proves overwhelming, is now adopted) 27 Qf6 Bxh4 28 Qxh4 Bxh4 29 Bxf1 Nax3 30 Ng2 Nf1+ 31 Kh1 Nxe3 32 Kh1 Nh4 33 Nh3 Nh3 34 Qxh3 Nh3, and White resigns, 0-1

STOP PRESS ENDPIECE: From Larry Kaufman, I hear that an ACTIVE Chess Match between the Nefhiesto LUXON 68030 and the Fidelity ELITE 68040 has started out with Nefhiesto winning all of the first 5 games.

The LUXON 68030 has also hit the headlines after its 4-2 win over MIKHAIL TAL, the WORLD ELITE CHAMPION, during the OLYMPIAD Championships at Novi Sad. TAL - feeling more fully prepared after his first experience - challenged the computer to a re-match whilst he was at Lyon for the Kasparov-Karpov Match. But the 2nd. Blitz Match ended with honours even, a 3-3 draw, which is pretty astonishing achievement by any standards! Tal's Blitz Grading is, I believe, still over 2700!

At 10 Jan: The AVERAGE increase for the 3 LUXON versions over the PORTERROSS: the SS Rating List shows +65 Elo; in SWEDEN it is +91 Elo; Larry Kaufman has +84.
Readers who have upgraded from the Neopilo Portorose to the Lyon will notice that the display shows that it is looking much further selectively at each step of brute force search. For instance 01/09 (brute force/selective) now reads 01/13. This is because of the introduction of singular extensions enabling the program to look at tactical sequences in much greater detail and depth. Also the program has been further refined to pay greater attention to types of moves which generally comprise forcing tactical lines; such as checks and captures and, to a lesser extent, advancing passed pawns and moves to threaten a higher value piece etc. These changes enable the Lyon to solve most tactical positions significantly faster than its predecessor.

The series of positions we will look at (the first 3 only this time ¬ Eric ran out of space!) are some of those used to test the progress and improvement of the new program during development. They were all tested on Neopilo and, for comparison, one of the strongest of the other Computers - the Fidelity Mach 3 68000. In fact, generally, the Mach 3 performed very well in the tests and was often able to keep up with the Portorose. However, after the improvements as explained, the Lyon proceeded to out-perform the Portorose in the test positions by an average of 45% using a Table based on a traditional formula: points according to complexity of problem, plus time bonuses to reward speedy solutions.

I think you will agree that the Lyon displays amazing power in these positions. How do other programs get on with them? Or maybe you could try them yourself?!

In future, SOLUTIONS will be given on this page (the inside back cover) but, this time, we are keeping them until the next issue! The Solutions will also show full analysis and comments - so that the series will make up into a fascinating look at a variety of often ingenious tactical ideas - and I will include timings from the Portorose, Lyon, Mach 3 and any other available figures, which will make for some interesting comparisons.

This time: ALL ARE MATES, with White to move! But we don’t give the number of moves, so Computers should not be set on Problem mode, but for NORMAL play on INFINITE mode, as in a proper game.

![Chess Diagram 1](image1)

![Chess Diagram 2](image2)

![Chess Diagram 3](image3)