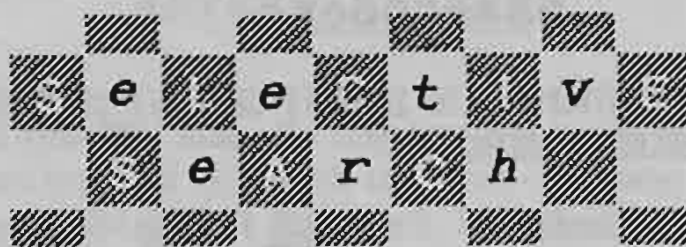


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Computer Chess News Sheet 32

"SELECTIVE SEARCH"

Feb-Mar 1991

The purpose in publishing SELECTIVE SEARCH (previously known as the NEWS SHEET) has always been to provide a survey of the CHES 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. We handle there a very wide range of Computers and I enjoy freedom to maintain personal opinions and preferences, which I seek 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.

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A REINDER 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.
- * **Nephiste PORTROSE** gets I.N. MORN! - MOVING success at Pfaffikon.
- * **INTERVIEW** with Ply's Goran Grottling.
- * Two **NEW BOOKS** reviewed: NEWS from Oxford Softworks: Results: Adverts
- * **Nephiste 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:- Moving SUPER VIP at Horne Bay Club Champs (game); Tests and Comparisons: Sargon 3, Chessmaster 2000, Chess Champion 2175, Fidelity Elite 2265, Nephiste MMS & Polgar (by Jeremy Deane); Chessmaster 2100 (on a 386 at 200Hz) v. LYON 60020 - 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 WGM 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. Saitek TURBOSTAR 432 and LEONARDO+TURBO, Anatoly KARPOV also v. LEONARDO+TURBO, Bent LARSEN, Lajos PORTISCH and Jan TIMMAN. John NUNN 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 Manse Field Road, Kingsley, Warrington, Cheshire WA6 8BZ.

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 DESIGNER, £250. The computer is 9 months old and in excellent condition, and well worth the price - but owner would consider offers. Contact **Mark Falleylove, 28 Hasdens Way, Milford, Surrey GU8 5JP.** Tel: (home) 0483 414392; (work) 071 271 8711

Fidelity KICKL Mach IV 68020, £700 o.n.o. Rating 200 BCF; Computer is almost new. Tel: 0753 887083, **Imelda Hearn, Tree Tops, Main Drive, Bulstrode Park, Gerrards Cross, Bucks SL9 7PR**

NEWS

CHESS CHAMPION 2175/SIMULATOR.

Chris Whittington and the OXFORD SOFTWARES 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 MODEM - 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 MODEM 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

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

Nephisto LYON 68030	6 out of 9	225 BCF
Nephisto POLGAR Risc chip	5 out of 9	214 BCF
Nephisto POLGAR/10MHz	5 out of 9	211 BCF
Nephisto MM5/10MHz	4 out of 9	200 BCF

Computer Tournament, Hurup

	NSP	PSN	MM5	DES	
Evay SUPER PORTE C/6MHz	x	2	2	3½	7½
PSION 2.1/33MHz	2	x	2	2	6
Mephisto MM5	2	2	x	1½	5½
Fidelity 2265/16MHz	½	2	2½	x	5

Computer Tournament, Nels

	POL	MM5	MAC	ANL	
Mephisto POLGAR/10MHz	x	4½	4	6½	15
Mephisto MM5/16MHz	3½	x	6	5½	15
Fidelity MACN 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

	ML	EC	GD	KN	CC	PT	CS	BB	NT	CM	NS	DL	
1 Mephisto LYON 68030, Lang	x	½	1	1	1	1	1			1			6½
2= ECHEC 1.9, Baudot	½	x	½	1	1		1	1	½				5½
GIDEON/POLGAR, Schroeder	0	½	x	1	1	1				1		1	5½
4 The KING, de Konig	0	0	0	x		1	1		1		1		4
5 CHECK CHECK, Delmare	0	0	0		x	½			1		1	1	3½
6= FATEKA, Koch & Schafer	0		0	0	½	x	1	½			1		3
CHES SIMULATOR X, Whittington	0	0		0		0	x	1		1		1	3
BB, Joli		0				½	0	x	0	1	½	1	3
9= NIGHTMARE, Gellner		½		0	0			1	x	½	½	0	2½
CONFLUS, Wiell		0	0				0	0	½	x	1	1	2½
11= NEST, Bras				0	0	0		½	½	0	x	½	1½
DELTA, Felkers			0	0	0	0	0	1	0	½	x	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 Mally 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 repetition) 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 Nephisto LYON

1 d4 d5 2 Ng5 c6 3 Nf3 Qb6 4 b3 Bf5 5 c4 e6 6 c5 Qa5+ 7 Nd2 Qc7 8 Qc1 Nd7 9 Bf4 Qa5+ 10 Qd2 Qxd2+ 11 Nbx2 b6 12 b4 Ne7 13 e3 bxc5 14 bxc5 Ng6 15 Nd6?! Bxd6 16 cxd6 Rd8 17 Rcl Nb8 18 Ne5 Nxe5 19 dxe5 f6 20 f4 0-0 21 Bf3 fxe5! (eval. +048) 22 fxe5 Rc8 23 Be2 Nd7 24 0-0 c5 25 Bb5 Rfd8 26 h3 c4 27 g4? Bd3 28 Rf2 Nc5 29 Nd4 Rf8 30 Rf4 Nb8 31 h4 a6 32 Rxf8+ Rxf8 33 Bc6 Kf7 34 g5 h6 35 gxh6 gxh6 36 Kh2? (36 Rdl, or 36 a3! look better) Rb2+ 37 Kg3 Rxa2 38 Kg4 Rg2+ 39 Kh3 Rg8 40 Ral c3 41 Kh2 c2 (eval. +172) 42 Kh3 Rb8 43 Rcl Rbl 44 Rxc2 Bxc2 45 Nxc2 Nb3 and 0-1.

WORLD MICRO-COMPUTER BLITZ CHAMPIONSHIP, Lyon

	ML	CS	KN	GD	PT	CC	CM	EC	BB	NS
1 Nephisto LYON	x	1	$\frac{1}{2}$	1	1	1	$\frac{1}{2}$	1	1	8
2= CHESS 2175/SIMULATOR X	0	x	1	$\frac{1}{2}$	1	1	1	$\frac{1}{2}$	1	7
The KING	$\frac{1}{2}$	0	x	1	1	1	$\frac{1}{2}$	1	1	7
4 GIDEON	0	$\frac{1}{2}$	0	x	$\frac{1}{2}$	$\frac{1}{2}$	1	1	1	5 $\frac{1}{2}$
5 PATZER	0	0	0	$\frac{1}{2}$	x	$\frac{1}{2}$	1	1	1	5
6= CHECK CHECK	0	0	0	$\frac{1}{2}$	$\frac{1}{2}$	x	0	1	1	4
CUMULUS	$\frac{1}{2}$	0	$\frac{1}{2}$	0	0	1	x	0	1	4
8 ECHEC	0	$\frac{1}{2}$	0	0	0	0	1	x	1	3 $\frac{1}{2}$
9 BH	0	0	0	0	0	0	0	0	x	1
10 NEST	0	0	0	0	0	0	0	0	0	x

The Speed Limit in operation was 10 mins per game - something which doesn't look to have suited BB and NEST 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 organisers may have taken all of the latter so we may have to wait a while.

I.M NORM for PORTOROSE 68030

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 - **NEU ISENBURGER 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 Mephisto, with a defeat against *Schneider, IM 2460 Elo*, in the 1st. round. This resulted in 2 games against *1560* and *1590* 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 *Hresc, IM 2335* who was also beaten. A draw in round 5 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.

Round 1 Black v IM	2460	Schneider	0-1	Total	0
2 White v	1560	Radlich	1-0		1
3 Black v	1590	Norenberg	1-0		2
4 White v IM	2335	Hresc	1-0		3
5 Black v IM	2470	Konljenovic	.5		3.5
6 Black v IM	2405	Kraut	1-0		4.5
7 White	2190	Schmidt-Schafer	1-0		5.5
8 Black v GM	2470	Lalic	0-1		5.5
9 White v FM	2340	Nikolaev	1-0		6.5
10 White v GM	2470	Lau	1-0		7.5
11 Black v GM	2525	Smejkal	.5		<u>8 out of 11</u>
<u>Grading Performance</u>					<u>2437.7</u>

FINAL PLACINGS:

- 1 **Smejkal** (GM) 9
- 2= **Blatny** (IM), **Lalic** (GM), **Hainka** (IM) 8.5
- 5= **MEPHISTO PORTOROSE 68030**, **Tischbierke** (IM), **Jeske** (IM), **Hresc** (IM) 8
- 9= **Ostojic** (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/IN. Black **Nephisto PORTOROSE 68030**

1 c4 Nf6 2 Nc3 e5 3 Nf3 Nc6 4 a3 d5 5 cxd5 Nxd5 6 e4 Nxc3 7 bxc3 Bg4 8
Rb1 Nb8 9 h3 Bh5 10 Qa4 Bxf3 11 Rxb7!? Id7 12 Bb5 Rxb7 13 Bxc6+ Ke7 14
Rxb7 Bxg2 15 Rg1 Bxb3 16 d4 Qb8 17 Qb5 exd4 18 cxd4 Bd7 19 Qe5+ Be6 20 Bd5
Qb6 21 Bxe6 f6 22 Qd5 Qxe6 23 Qb7 Qb6 24 Qc8 c6 25 Rg3 a5 26 Rc3 If7 27
Bxc6?? Bb4+ 28 axb4 Qxb4+ 29 Bd2 Qb1+ and 0-1.

White **Nephisto PORTOROSE 68030**, Black **LAV**, 2460/GH

1 e4 g6 2 d4 Bg7 3 c3 d6 4 Nf3 Nf6 5 Nbd2 0-0 6 Bc4 c6 7 0-0 Nxe4 8 Nxe4
d5 9 Bb3 dxe4 10 Ng5 Na6 11 Nxe4 Nc7 12 Re1 Nd5 13 Qf3 Bf5 14 Ng3 Be6 15
Bd2 a5 16 Bg5 Re8 17 Rac1 a4 18 Bc4 Nc7 19 Qe2 Bxc4 20 Qxc4 Qd5 21 Qxd5
Nxd5 22 Ne4 h6 23 Bd2 Nb6 24 Nc5 Nc4 25 Rc2 b6 26 Nd3 Rad8 27 f4 c5 28
Ne5 Bxe5 29 fxe5 Kg7 30 Re4 cxd4 31 cxd4 Nxd2 32 Nxd2 Nd5 33 Kf2 Rc8 34
Ke3 Kc1 35 Rf2 Re1+ 36 Id3 Bxe4 37 Kxe4 e6 38 h4 h5 39 g3 Bb5 40 Id3 Rd5
41 Rf4 If8 42 Kc3 Bb5 43 b3 axb3 44 axb3 Nd5 45 Rf6 Ke7 46 Rf2 Bd7 47 Kc4
Kd8 48 Rf6 Kc7 49 b4 Kb7 50 Rf2 Rc7+ 51 Kb5 Rd7 52 Rf4 Kc7?! 53 Ka6
(+0.57) Re7 54 b5 (+0.90) Rd7 55 Rf2 f5 56 exf6 e.p Rf7 57 Rf3 Id6 58 Kxb6
Id5 59 Ka6 Kxd4 60 b6 Rf8 61 b7 e5 62 f7 e4 63 Rb3 Rb8 64 Ka7 and 1-0.

NOVAG SUPER FORTE B/6 plays at PFAFFIKON

The **PFAFFIKON 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 **PFAFFIKON**, in 1986, the **Nephisto 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 1988 a **Saitek MAESTRO C+TURBO/16MHz** 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 **Kindler**, 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, 2110**

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

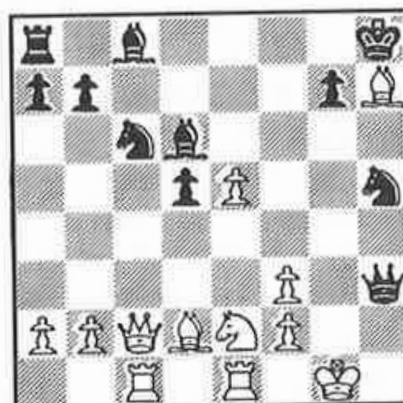
1 e4 e6 2 d4 d5 3 Nd2 Nf6 4 e5 Nfd7 5 Bd3 c5 6 c3 Nc6 7 Ne2 cxd4 8 cxd4 f6! 9 exf6 Nxf6 10 0-0 Bd6 11 Nf3 Qc7 12 Bd2?! 0-0 13 Rc1 Nh5 14 h3?

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

14 - Qd7?! 15 Qc2 Rxf3!?

15 - Nf6 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 Bxh7+ Kh8 18 Rfel
18 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, Ng6! looks very promising for Black.

20 exd6 Bh3

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

21 Qg6 Rf8 22 Be3!

Best! If 22 Rc3 Qxf2+ 23 Kh1 Qh4! is winning.

22 - Rf6 23 Qg5 Ixh7

Threatening the decisive 24 - Rg6!

24 Kh2 Rg6?

The turning point. 24 - Ne5 25 Ng1 (25 Rg1 Bd7!) Ng4+! 26 Qxg4 Qxg4 27 Nxh3 d4, 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 Nf3 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

Eric's Note: My thanks to colleagues, GORAN GROTTLING of the Swedish FLY Magazine, and THOMAS MALLY 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 PLOT" in MODUL, and "better than a Robert Ludlum thriller" says Thomas!

My great regret with both FLY and MODUL is that I can read neither Swedish nor German and so cannot enjoy either of them to the fullest extent. However Thomas Mally 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 FLY 2/90 and MODUL 2/90.

INTRODUCTION: The name of Goran Grotting 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 FLY 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 Lindome, a small town on the west coast of Sweden, about 10 miles south of Gothenburg, with his wife Gunnari 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 FLY, 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 PLX.

From that time on, it has been featured regularly in PLX 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 PLYMATE programmer Lars Hjorth for the Atari ST now crunches out the entire list in a matter of seconds.

MODUL: *The Swedish testers 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 group 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 Hultqvist (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!

MODUL: *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?

GORAN: 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.

GORAN: 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 thier 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?

GORAN: 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 N. 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?

GORAN: 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:-

	<u>Rating Games</u>	
1 Mephisto Portorose 68020	2272	4
2 Fidelity Mach 4 68020-v6	2177	19
3 Mephisto MM4+Turbo/16MHz	2122	9
4 Mephisto ACADEMY	2120	10
5 Fidelity Mach 3 68000-v2	2067	25
6 Mephisto Almeria 68020	2030	26
7 Mephisto ROMA 68020	1979	9
8 Psion 2 Atari/PC	1947	5
9 CXG Sphinx Galaxy	1943	23
10 Kasparov Maestro A/6MHz	1896	9
11 Novag Super Expert B/6	1892	9
12 Mephisto Mega 4	1873	23
13 Mephisto Dallas 68000	1866	15
14 Novag Forte B	1861	28
15 Fidelity Excel Club	1774	6
16 Kasparov Maestro D/10	1722	18
17 Novag Super Forte A	1718	9
18 Fidelity Excellence/3	1578	5
19 Novag Super Constellation	1555	9

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 4MHz 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 "Iraxoqui effect", or the "Novag effect", and "booking" computers?

GORAN: Let's start with Mr. Iraxoqui, 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 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?

GORAN: 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.

MODUL: 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!

MODUL: 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 PORTOROSE 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 POLGAR 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 PORTOROSE versions, after some early inconsistencies, began to fit better and better into the pattern expected by theory. The PORTOROSE 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?*

GORAN: 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!

Country	Variation Games	
Sweden (base)	0	
USA	+201	454
England	+124	44
Austria	+ 76	105
France	+ 29	279
Holland	+ 25	454
Germany	- 60	257

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 Healey has just returned from Hastings, and tells me that the 68020 version has been scoring over 50% 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 SS31 list) had found a mate in 6 in 5½ mins. 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 SS31. I do note that it uses a **singular extension** technique, previously the property only of main-frames DEEP THOUGHT and HITECH, and this is the reason for much of its spectacular tactical speed-up. Also owners can disengage some of its algorithms to test the difference 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.

Mephisto LYON 68020	1 1 1 0 ½ 1 1 1 1 1 1 1 = 10½
CIG SPHINX/4	0 0 0 1 ½ 0 0 0 0 0 0 0 = 1½

+2 min replay of draw: win for LYON
68000 v. SPHINX: from Sweden, 5½-1½

White CIG SPHINX, Black Mephisto LYON 68020 (replayed game at 2m. per move)

1 e4 c6 2 d4 d5 3 exd cxd 4 c4 Nf6 5 Nc3 e6 6 Nf3 Ne7 7 cxd Nxd5 8 Bd3
0-0 9 Nxd5 Qxd5 10 Qc2 g6 11 Bc4 Nb4+ 12 Bd2? (Mephisto had expected Kf1)
Nxd2+ 13 Kxd2 Qd6 14 Kc1 Nc6 15 Rd1! (Sphinx tries to fight back, and the
position does not look so clear) b6 16 Qc3 Nb7 17 d5! (looks very good, but
Mephisto 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 Kbl) 18 Rd2 Na5 19 Ne5? (b3 was best. The Sphinx has

no chance now!) Nxc4 (showing +433) 20 Nxc4 Rfc4 21 b3 exd 22 g3 Qe4 23 f3 Qe6 24 Rb2 dxc4 25 b4 Rd8 26 Nc2 Rac8 27 f4 Rd3 28 Qe5 Qd7! 29 Kbl c3! (announcing N/7) 30 Qe2 Rdl+ 31 Rcl Re4+ etc. 0-1

Mephisto LYON 68020	1 1 ½ 0 0 1 1 1 1 ½ 1 1 = 9
Fidelity MACH 2C	0 0 ½ 1 1 0 0 0 0 ½ 0 0 = 3

+2 min replay of draws: both wins for LYON

Games played since: Meph LYON 68020 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

68000 v. MACH 3: from Sweden, 16-4 (!)

White Fidelity MACH 2C, Black Mephisto LYON 68020

1 d4 Nf6 2 c4 c5 3 d5 e6 4 Nc3 exd 5 cxd d6 6 e4 g6 7 Nf3 Bg7 8 Ne2 0-0
9 0-0 a6 10 a4 Ng4 11 Nf4 Qe7 12 Qc2 Ne8 13 Bg5 h6 14 Rxf6 Qxf6 15 Qb3
Nd7! 16 Qxb7? Nxb8 17 Qc7 Rxb2 18 Rfc1 Rabb 19 Bxa6 Bxf3 20 Qxd7 Rng2 21
Ndl (If 21 Kxg2 Qxf2 is N/3) Bxe4 22 Nxb2 Qf3 (announcing N/7) 23 Qc8+ Kh7 24
Qg8+ Kxg8 25 Kf1 Rxb2 etc. 0-1

White Fidelity MACH 2C, Black Mephisto LYON 68020

1 e4 c6 2 d4 d5 3 Nc3 dxe 4 Nxe4 Bf5 5 Ng3 Ng7 6 b4 b6 7 Nf3 Nd7 8 b5 Bh7
9 Bd3 Bxd3 10 Qxd3 e6 11 Nf4 Qa5 12 c3 Nf6 13 a4 c5 14 0-0 Ne7 15 Nfel 0-0
16 Ne5 Nxe5 17 dxe5 Rad8 18 Qb5 Qxb5 19 axb5 Nd5 20 Nd2 Ne7? 21 Ned1! Nd7?
22 Nf3 Rxd1 23 Rxd1 Rd8 24 Rxd8 Bxd8 25 Nxc5 Nxb5 26 Kf1 b6 (It looks very
much like a draw, but White will get its King moving whilst Black seems slow to
do this) 27 Ne3 Nc7 28 c4 Na6 29 f4 g6 30 hxxg fxg 31 Ne4 Nb4 32 Ne2 Nc6
33 b3 Na5 34 Nd2 Be7 35 Kd3 g5 36 Kc3 gxf 37 Bxf4 Kg7 38 b4 Nc6 39 b5 Nd8
40 Ne4 Nf7 41 Nd4 Kg6 42 Nd6! Nxd6? (b5 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 Nd5 e4 46 Nf2 Ng5 47 c5 bxc 48 Nxc5 Nf7 49 Bxa7
Nd8 50 Nb6 Ne6 51 Kxe4 Nf8 52 Kd5 Ne6 53 Nc7 Nf8 54 b6 Nd7 55 b7 Kf7 and
resigns. 1-0

White Mephisto LYON 68020, Black Fidelity MACH 2C

1 c4 Nf6 2 Nf3 g6 3 d4 Bg7 4 Nc3 d6 5 Bg5 0-0 6 e3 Nbd7 7 Ne2 c6 8 Qc2 h6
9 Bh4 Qc7 10 0-0 b6 11 Rad1 Bb7 12 Qd3 e6 13 b3 a6 14 b4 a5 15 b5 cxb 16

Nxb5 Qc6 17 Qa3 d5? 18 exd Qc8 (If 18 - exd 19 Rcl Qe6 20 Nc7 wins too much material) 19 Rcl Qd8 20 dxe fxe 21 Nc7 Nd5 22 Nxa8 Qxa8 23 Rc7 Kh7 24 Bxf6 Nxf6 25 Qe7! Nh5 26 Ng5!! hxg5 27 Nxb5 Rg8 28 Qxg5 Qe8 29 Re7 Nc6 30 Rxe8 Rxe8 31 Ng4 Nd7 32 Bxe6 and Black resigns. After 32 - Bxe6 33 Qh4+ Bh6 34 Qe7+ Bg7 35 Qxe6 wins overwhelmingly.

Mephisto LYON 68020	1 1 ½ 1 ½ 1 1 1 1 ½ 1 1 = 10½
Mephisto MEGA 4	0 0 ½ 0 ½ 0 0 0 0 ½ 0 0 = 1½

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

Mephisto LYON 68020	½ ½ 1 1 1 1 ½ 1 1 1 1 1 = 10½
Mephisto POLGAR/10	½ ½ 0 0 0 0 ½ 0 0 0 0 0 = 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 PORTOROSE - 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. MM5: from Bob Clarke, 7½-1½
 from Austria, 8-2
 Scores v. MONTE CARLO: from Darryl Golder, 3-0
 68000 v. POLGAR/5: from Sweden 4-0
 68000 v. MM5: from Austria, 5½-4½
 68000 v. MONTE CARLO: from Darryl Golder, 16½-3½

White Mephisto POLGAR/10. Black Mephisto LYON 68020

1 d4 c6 2 e4 d5 3 Nf3 Nf6 4 Nc3 dxc 5 a4 Ng4 6 Ne5 Nh5 7 f3 Nfd7 8 Nxc4 e5 9 Ne4 Nb4+ 10 Nd2 Qe7 11 Nxb4 Qxb4+ 12 Qd2 Qxd2+ 13 Nxd2 exd 14 Nd6+ Ke7 15 Nxb7 Na6 16 e3 Ndc5 17 N7a5 dxc+ 18 Nxe3 Nb4 19 Nc4 Ng6 20 Kc3 Nxb8! (the Pawn on b2 will be won) 21 Rhel Nd7 22 Nb3 Ncd3 23 Ncd1 Rhe8 24 Nc5 Kc7 25 Nxd3 Rxe3 26 Nd2 Nxd3 27 Nxd3 Bxd3 28 Nxd3 Rxd3 29 Nxd3 Rxb2 30 Rel Rd6 31 Re2? Rxe2 (Lyon knows that it now has a won game) 32 Kxe2 Kc5 33 Kd3 Kb4 34 a5 a6 35 f4 c5 36 g4 e4+ 37 Kd2 Kxa5 38 Kc3 Kb5 39 f5 Kc5 40 g5 a5 41 h3 a4 42 Kb2 Kd4 43 Kc2 a3 44 f6 gxf 45 gxf and White resigns, 0-1

White Mephisto LYON 68020, Black Mephisto POLGAR/10

1 Nf3 d5 2 d4 Nf6 3 e4 e6 4 exd cxd 5 Nc3 Nc6 6 Bf4 Bf5 7 a3 e6 8 Ne5
 Nxe5 9 Bxe5 Nd7 10 Qb3 Qc8 11 Bg3 a6 12 Rcl b5 13 Ne2 Qd8 14 Nc7 Qe7 15
 Ba5 Qd6 16 Ng3 Ng6 17 Ne2 Nb6 18 a3 Nc4? 19 Nb4 Qd7 20 Bxf8 Rxf8 21 Qc3
 Rc8 22 0-0! Ke7 23 b3!?! Nxa3?! 24 Qb2 Nc2 25 e4! Nb4 26 Qa3 a5 27 Qxa5 Nc6
 28 Qb6 Na7 29 e5 Nb8 30 Qc5+ Ke8 31 Na1 Nc6 32 Bxb5 Rxb5 33 Qxb5 Nd8 34
 Qxd7+ Kxd7 35 Na7+ Kc6 36 Rcl+ Kb6 37 Na8 b5 38 Nlc8 and wins, 1-0

Mephisto LYON 68020	0 1 1 ½ 1 1 1 1 1 ½ 1 1 = 10
Kasparov RENAISSANCE D/10	1 0 0 ½ 0 0 0 0 0 ½ 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 Nc3 dxe 4 Nxe4 Nf5 5 Nd3 Qxd4 6 Nf3 Qb6 (the LYON goes out of its Hook already, as did Portorose - so the problems experienced by Mephisto in this variation have not been dealt with by "correcting" the Opening Hook) 7 Be3 Qxb2 8 Rb1 Qxa2 9 Rxb7 Rc8! 10 Rb3! Ng4 11 Rc4 Qa5+ 12 e3 Nf6 13 Qb1 (only now does RENAISSANCE leave its Hook - it has been well-prepared for this game) Nbd7 14 Ng5 Nd5 15 Nb5! Qa4 16 Rxd5 exd5 17 b3 Nb5 18 Rxd5 Nb8 19 Qcl Qc4 20 Rd2 h6! (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 a6 23 Qdl Qb5 24 Rd4 e5 25 Nd6+ Rxd6 26 Rxd6 Nf6 27 Ba7 Rc8 28 Be3 Nd5 29 Bcl Rxc3 30 Bd2 Rd3 31 Qal Nb4 32 Qb2 Rxd6 33 Bxb4 Nb6 34 Kf2 Qxb4 35 Qxe5+ Ne6 36 Qf5 Qh4+ 37 Kgl Qg3, and White resigned after this. 0-1

Mephisto LYON 68020	1 1 1 1 1 1 ½ ½ ½ 1 1 ½ = 10
Novag SUPER EXPERT C/6	0 0 0 0 0 0 ½ ½ ½ 0 0 ½ = 2

60000 v. Novag SUPER FORTE/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 e6 4 f4 Qa5 5 Nd3 a5 6 dxe dxe 7 fxe Ng4 8 Nf3 Nc5
 9 Qc2 Ne6 10 Bd2 Nd7 11 Nd5 Qd8 12 Nf4 Qb6 13 Nc3 Nf2+ 14 Kd1 Nc5 15 b3
 Be3 16 hng4 Bxf4 17 Rd4 0-0-0 18 Qf2 Rxd4! (and suddenly a +327 evaluation)
 19 Rxd4 Qxb2 20 Ke2 Bng4+ 21 Nf3 Rxd3 22 Qxa7 (of course White is totally
 lost, but 22 Qh4 may have been best. Not 22 Kxd3 when Rd8+ wins easily) Qxc2+
 23 Kfl Bcl! 24 Kgl Qd1+ (announcing M/6) 25 Kh2 Bf4+ 26 g3 Qc2+ 27 Kgl Be3+

28 Qxe3 Qxe3+ 29 Kh2 Qf2 and Mate, 0-1

Mephisto LYON 68020	1 1 1 1 1 1 1 1 0 1 1 1 = 10
Mephisto MONDIAL 68000 XL	0 0 0 0 0 1 1 0 1 0 0 0 = 2

White Mephisto MONDIAL 68000XL, Black Mephisto LYON 68020

1 e4 e6 2 Nc3 d5 3 d4 Nf6 4 e5 Nfd7 5 f4 c5 6 Nf3 Nc6 7 Be3 cxd 8 Nxd4 Nc5 9 Qd2 Nxd4 10 Nxd4 Nxd4 11 Qxd4 Qb6 12 Qxb6 Nxb6 13 Nb5 Ke7 14 Nd6!! f6 15 0-0-0 Nd7? (what about the Bishop; and that poor a8/Rook?) 16 Re1 b6 17 Nd3 Nc5 18 Rhf1 Nxd3 19 cxd3 Nc6? (this will not be a happy square!) 20 Kd2 Rhf8 21 Ke3 fxe 22 fxe Rxf1 23 Rxf1 Nf8 24 Rxf8 Kxf8 (White's imposing N on d6, and much better K-centrality give him a clear plus) 25 b4 b5? (this seems very unfair on the poor Bishop - but it was already in a wilderness) 26 g4 Ke7 27 Nd4 Nd7 28 Kc5 g5 29 d4 b6 30 a3 Kc7 (a sort of zugzwang! 30 - Kc7 is pretty horrible, but worse is 30 - Ke7 31 Nxb5 winning on the Q-side instead... or 31 Kc6! - completely crushing) 31 Nf7 Nd7 32 Nxb6 Ke7 33 Ng8+ Kf8 34 Nf6 Nb7 35 Nh7+ Ke7 36 Nhg5 Nc8 37 h3 Nd7 (22 moves too late!) 38 h4 Be8, and I resigned for the LYON. 1-0

White Mephisto MONDIAL 68000 XL, Black Mephisto LYON 68020

1 e4 e6 2 Nf3 d5 3 Nc3 Ng4 4 h3 Bxf3 5 Qxf3 Nf6 6 d3 e6 7 g3 Nb4 8 Nd2 d4 9 Nb1 Qb6 10 h3 0-0 11 Ng2 Qc5 12 Qd1 Nbd7 13 0-0 e5 14 f4 Rfe8 15 fxe Nxe5 16 Nxb4 Qxb4 17 Qd2 Qd6 18 Qf4 Qc5 19 Nf2 Ng6 20 Qf3 Re5 21 a3 Ng5 22 Kh2 Rd8 23 b4 Qc5 24 Nd2 Nd7?! (waiting?!) 25 Nf1 Nb5 26 Rd2 Rd6! (the right plan, which proves overwhelming, is now adopted) 27 Qf2 Nf6! 28 Qel Rxf1! 29 Rxf1 Nng3 30 Ng2 Nf1+ 31 Kgl Nxd2 32 Khl Nf4 33 Bf1 Nxf1 34 Qxf1 Rh5 35 Qf3 Nxb3 36 Qxb3 Nxb3, and White resigns. 0-1

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

The LYON 68030 has also hit the headlines after its 4-2 win over MIKHAIL TAL, the WORLD BLITZ 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 5-5 draw, which is a 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 LYON versions over the PORTOROSE: the SS Rating List shows +65 Elo; in SWEDEN it is +91 Elo; Larry Kaufman has +84.

Readers who have upgraded from the Mephisto 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 Mephisto 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.



1



2



3

RATING LIST (c) SEL. SEARCH 32									
BCF	Computer	Elo	+/	Games	Pos	Human/Games			
225	MEPH LYON 68030	2403	79	34	1	2400	9		
220	MEPH PORTOROSE 68030	2362	21	460	2	2354	82		
215	MEPH LYON 68020/12	2320	25	327	3				
207	MEPH LYON 68000	2258	52	78	4				
206	MEPH PORTOROSE 68020	2251	12	1369	5	2258	182		
206	FID ELITE 68030-V9	2250	23	404	6	2283	7		
204	FID ELITE 68040-V10	2234	134	12	7				
202	MEPH ALMERIA 68020	2216	14	983	8	2188	215		
199	FID MAC4+ELITE 68020-V7	2198	14	1027	9	2201	124		
199	MEPH PORTOROSE 68000	2194	12	1298	10	2127	25		
194	FID ELITE 2+68000-V5	2157	29	248	11	1888	2		
193	MEPH POLSAR/10	2147	24	366	12	2085	54		
192	MEPH ROMA 68020	2139	14	992	13	2052	64		
190	MEPH ALMERIA 68000	2125	14	1025	14	2104	31		
189	MEPH DALLAS 68020	2116	14	993	15	2080	197		
187	MEPH NMS/5	2100	37	156	16				
187	FID MACH3+2265 68000-V2	2098	7	3447	17	2116	223		
186	MEPH POLSAR/5	2094	13	1217	18	2142	11		
184	MEPH DALLAS 68000	2077	12	1457	19	2000	50		
184	REX 386820/PC	2075	33	190	20	2155	10		
183	NOV SUPER FORTE-EXP C/6	2067	17	723	21	2033	6		
182	MEPH MONDIAL 68000 XL	2061	17	670	22	2060	77		
182	MEPH ROMA 68000	2058	10	1903	23	1975	54		
181	C MASTER 2100 386820/PC	2055	82	32	24				
181	MEPH ACADEMY/5	2053	12	1416	25	2036	97		
179	MEPH AMSTERDAM	2033	9	2320	26	2068	182		
178	MEPH MEGA 4/5	2029	10	1960	27	2011	169		
178	FID MAC2 2C 68000	2027	9	2338	28	2046	127		
178	NOV SUPER FORTE-EXP B/6	2027	14	1045	29	1995	97		
177	KASP GAL-REN D/10	2021	13	1139	30	2004	76		
177	MEPH SUPMOND 2-MCARLO 4	2017	33	197	31	2074	8		
176	FID MACH 28 68000	2011	26	302	32	1968	25		
175	MEPH NMA/5	2004	9	2329	33	2013	89		
174	NOV SUPER FORTE-EXP A/6	1998	14	998	34	2040	176		
172	CONCH PLY-VICTORIA/8	1981	51	80	35	1848	8		
172	MEPH MONTE CARLO	1979	32	206	36	2046	10		
171	PSION 2 ATARI/PC	1971	11	1736	37	2033	25		
171	KASP GAL-REN C/8	1970	26	313	38	2016	98		
170	CXG SPHINX/4	1965	12	1415	39	1996	155		
169	FID MACH 2A 68000	1957	25	330	40	1918	35		
168	CONCH PLYNATE/8	1944	103	20	41				
167	NOV EXPERT/6	1941	31	222	42	2036	22		
167	NOV SUPER FORTE-EXP A/5	1940	12	1430	43	1836	29		
167	FID CLUB 8 68000	1938	12	1382	44	1827	18		
167	NOV EXPERT/5	1936	29	247	45	2052	62		
166	KASP CORONA D/5	1929	67	48	46	1930	48		
164	NOV FORTE B	1919	10	1888	47	1975	208		
164	FID AVANT GARDE/5	1918	11	1697	48	1862	80		
164	MEPH REBEL	1917	10	1832	49	1948	69		
164	FID PAC E-ELITE-DES2100	1915	9	2271	50	1927	220		

RATING LIST (c) SEL. SEARCH 32									
BCF	Computer	Elo	+/	Games	Pos	Human/Games			
163	KASP STRATOS-CORONA	1910	11	1769	51				
163	NOV FORTE A	1909	10	2088	52	1930	134		
162	MEPH SUPERMONDIAL 1	1903	13	1171	53	1990	6		
162	CONCH PLYNATE/5.5	1900	10	1171	54	1939	55		
162	KASP GAL-REN B/6	1898	15	961	55	1873	123		
161	KASP TURBO KING	1894	34	187	56	1910	61		
161	FID CLUB A 68000	1892	10	228	57	1767	6		
161	KASP SIMULTANO	1887	44	107	58	1761	28		
160	CONCH/5/6	1885	15	935	59	2037	8		
160	NOV EXPERT/4	1885	11	1543	61	1775	43		
160	FID EXCELLENCE/4	1873	24	372	62				
159	CHESSMASTER 2100/PC	1873	24	512	64	2027	6		
159	CONCH PLYNATE/4	1870	20	512	64	1959	52		
158	SCI TURBO KASP/4	1860	34	182	65	1869	11		
157	FID ELITE C	1855	17	725	66				
156	MEPHISTO NM2	1854	17	685	67	1776	8		
156	FID ELEGANCE	1854	12	1298	68	1872	40		
156	SCI TURBOSTAR 432	1849	62	56	69	1896	61		
156	KASP PRISMA-BLITZ	1848	11	1611	70	1853	48		
156	FID EXCELLENCE-DES2000	1848	76	37	71	1982	6		
154	PSION 1/PC	1835	39	137	72	1802	4		
153	CONCH/5/4	1827	20	509	73	1937	23		
153	NOV SUPER CONST	1824	8	3299	74	1858	264		
151	MEPH BLITZ	1811	27	277	75	1962	6		
151	NOV SUPER NOVA	1808	36	165	76				
150	CHESSPLAYER 2150/PC	1806	47	95	77				
149	FINAL CHESSCARD/PC	1797	44	111	78				
149	SARGON 3/PC	1793	50	86	79				
148	NOV SUPREMO	1791	29	254	81	1864	8		
148	NOV SUPER VIP	1786	34	182	82				
147	FID ELITE A	1777	39	141	83	1779	20		
146	FID SENSORY 12	1772	13	1335	84	1805	7		
146	MEPH EXL 5/12	1769	31	213	85	1941	27		
145	FID PRESTIGE	1767	17	635	86	1758	131		
144	SCI SUPERSTAR 36X	1759	15	977	87				
144	MEPH EUROPA-MARCO POLO	1754	35	1050	88				
144	CONCH/5/2	1745	14	585	89	1766	11		
143	NOV QUATTRO	1743	19	825	91				
142	NOV CONST/3.6	1741	25	320	92	1861	17		
142	NOV PRIMO-VIP	1736	55	70	93				
142	PSION OL/PC	1734	46	98	94				
141	SARGON 4/PC	1727	83	31	95				
140	MEPH MONDIAL 2	1723	25	324	96				
140	CHESSMASTER 2000/PC	1718	47	97	97	1656	31		
139	FID ELITE B	1694	29	247	98				
136	MEPH MONDIAL 1	1692	39	139	99	1840	5		
136	FID ELITE ORIG	1679	30	240	100	1610	2		
134	COLOSSUS 4/PC								