

Selective Search



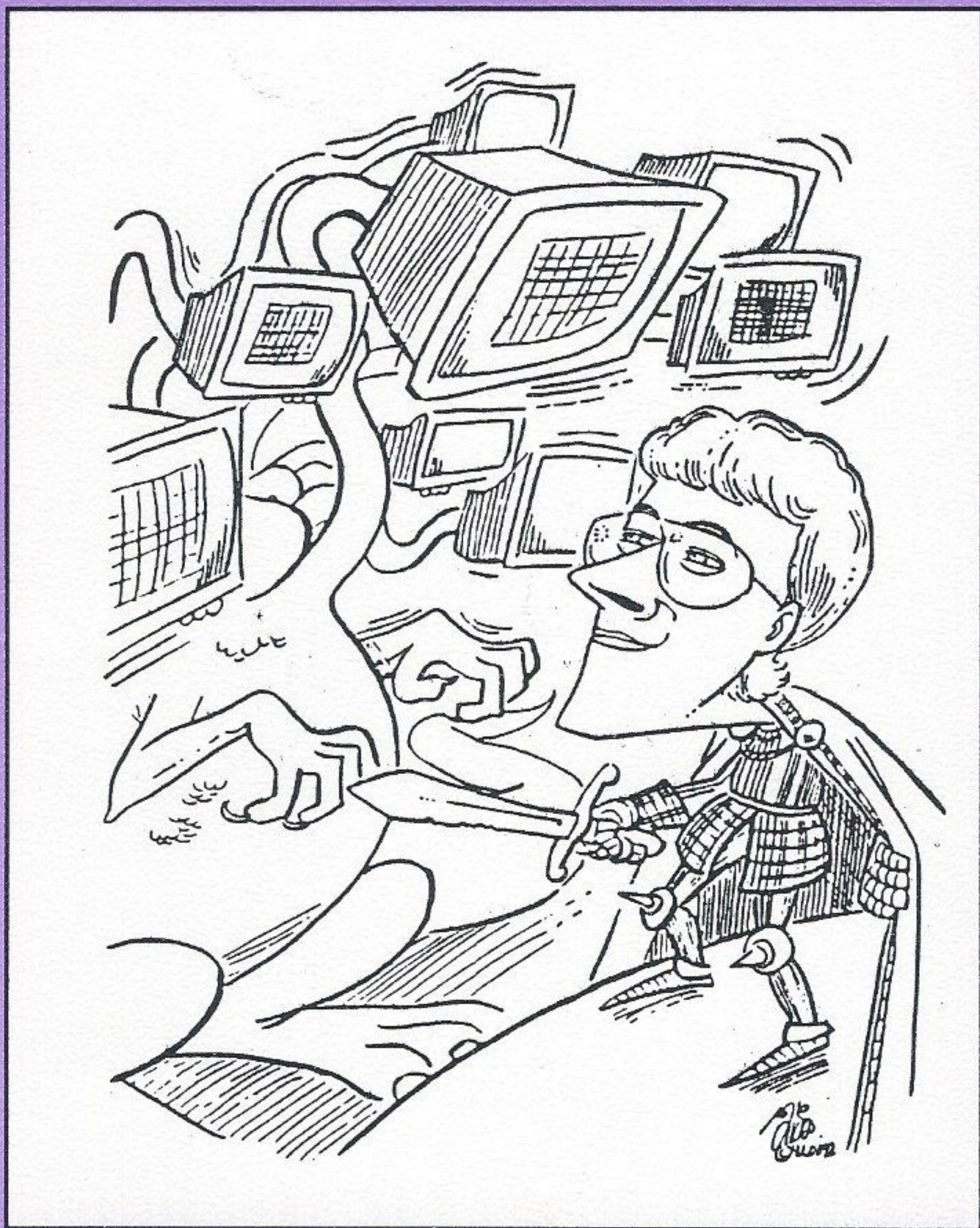
June / July 1993

T
H
E

C
O
M
P
U
T
E
R

C
H
E
S
S

M
A
G
A
Z
I
N
E



*For the first time, computers outpoint
the men at Aegon...*

£2.00

Issue 046

Subscribe to Selective Search!

Only £12 for a whole year's subscription
(overseas £18)

Call 0353 740323 with your credit card details,
or write to Countrywide at the address below

Selective Search is a review of the UK chess computer scene published six times a year by Countrywide Computers, who stock all the leading makes and have the widest range of new and secondhand machines in the UK. Countrywide are also sole distributors for Mephisto in Great Britain and the Republic of Ireland.

Orders and enquiries are welcome either by phone (0353 740323) or in writing; the address is Victoria House, 1 High Street, Wilburton, Cambs. CB6 3RB. Visitors are also welcome - hours are 9am - 5.30pm Mondays to Saturdays, although it is advisable to telephone first.



THE CHESS SHOP



69 Masbro Road, Kensington, London W14 OLS

Phone: 071 603 2877

• BOOKS • EQUIPMENT • COMPUTERS • SOFTWARE

OPEN MONDAY - SATURDAY 10.30AM - 7.00PM

CHESSBASE DIRECT



- ChessBase Basic Pack: ChessBase program with ECO utility. £199
- ChessBase Professional Pack: As above with 12,000 game database £285
- ChessBase Mega Pack: As above with 33,000 game database £399
- ChessMachine 512KB: The world's most powerful PC program £422

All prices include VAT, delivery and telephone support. Visa and Access accepted.

23 Ditchling Rise, Brighton, Sussex BN1 4QL
(Tel 0273 686507, Fax 0273 675486)

Contents

S/S Readers Survey Results: Page 4

Aegon Tourney: Page 9

Deep Thought Turns Blue: Page 10

Graham White's Tactical Tests: Page 12

Steve Maughan's PC Corner: Page 14

En Passant: Page 16

What's New?: Page 17

How Good Is Your Computer?: Page 18

Ruby and Emerald Review: Page 21

Frank Holt - Genius vs. 1Mb: Page 22

Rating Guide: Page 23

S/S Readers Survey Results

It's been a long job, but we have finally finished entering all the data from the survey sent out with issue 043. Whilst 76 replies from 300 despatched may not sound all that good to some, precious few questionnaires do as well - unless there is the chance of a trip down the Nile or some such, and the S/S marketing budget doesn't quite run to that yet (would a day trip to Wilburton be okay instead?).

The job may have taken some time, but it was also highly enjoyable. S/S readers seem to be a clued-up lot on the whole, generally giving precise answers, clear opinions, and some good ideas; ideas which hopefully, will be grist to the mill of those manufacturers with the good sense to design their products around their customers.

And so to the first question, what is the (best) machine you have at the moment? Being S/S readers, we expected the answer to be, in large part '...a Mephisto...', and in a full 55% of cases it was. Trailing in Mephisto's wake were Saitek with 25% and Fidelity with 15%. Only three members of the sample gave a Novag as their best (or only) CC, and a solitary Conchess brought up the rear.

If that result was no surprise, the next one most certainly was. On average, you have been buying chess computers for well over 10 years and have bought around seven each! (And this figure is *after* excluding one customer and collector who has bought 83, and never parted with one of them...). What's more, you only trade in a little more than one in two you buy (i.e. along with your 2.4 children, you now have 3.3 CC's) so the day of the Great SS Car Boot sale may be dawning.

CC'S - HOW MUCH DO THEY COST YOU?

If one hazarded a guess that the average CC cost was in the region of £250 each, it would indicate that having chess computers as a long-term hobby costs around £11.50 a month - not an insignificant amount it's true, but at least it's peanuts compared to golf, boating, fishing and the rest - hopefully a powerful argument when next you need to persuade someone near, dear, and utterly implacable that buying your 4.4th is in fact a shrewd use of household resources...

As to current model, there were dozens of cases where a CC was mentioned only once or twice (i.e. two Academies, 1 Corona etc.), so the 'CC Assessment' questions were analysed only for those machines owned by at least 3 responders.

This policy produced the following list: Vancouver, Risc 1Mb, and Saitek 2500, 8 each; 6 Lyon owners; Polgar, Berlin, Mach III and Roma/Dallas, 3 each. 16 and 32 bit Mephistos were grouped together, partly to make the figures more accurate statistically, and partly because some owners did not specify which they had.

The question we asked was 'How do you rate your CC out of ten in the following areas, with nil being terrible and ten being perfection? Please take into account the standards prevailing when you purchased, and what its price was'. This last point is important; all the results are relative to price, not absolute values.

The resulting table appears below, and works as follows (and as on page 5); first we took the average score given to each attribute from all responders. This found, for example, that chess computers overall score 8.1 out of ten for 'Design & Appearance', down to only 7.0 for their 'Training and Analysis' ability. 'Overall Satisfaction' worked out at 7.9.

	STRENGTH	PLAYING	EASE OF	ANALYSIS	TRAINING	FEATURES	DESIGN	QUALITY	VALUE	OVERALL	NETT
		STYLE	USE							SATISFACTION	SCORE
BERLIN	12	-3	-11	9	7	-1	-4	9	-3	1	16
RISC 2500	12	12	10	12	10	10	-2	0	20	12	96
LYON (16 & 32)	7	6	15	13	7	13	9	4	-11	3	66
POLGAR	-6	-6	-3	-2	0	-2	9	4	-4	-2	-12
RISC 1MB	10	8	10	5	11	4	2	7	2	4	63
VANC. (16 & 32)	1	-4	-1	8	8	5	2	2	-6	-1	14

Against these averages, the scores for the above models were plotted to see by what percentage they went below or above the mean. For instance, the Berlin does well as regards strength (plus 12%), and best of all as regards quality (+9%), but not so well as regards ease of use (minus 11%).

The Saitek 2500 seems to have pleased its owners the most, scoring top marks for value and playing style as well as overall satisfaction, but below all the Mephistos in terms of 'build quality and reliability', scoring precisely the average of all 76 computers in this respect.

The Mephisto Risc 1Mb is the only computer to show above-average values in every single category - a just result for a very impressive machine, and convincing evidence that the 1Mb is a module well worth the trade-up cost. The average grade of the computers mentioned above is around BCF 190, and that of all 76 computers is in the region of BCF 165/170. The average SS reader is about BCF 141 - pretty much an ideal differential for improving one's chess! BCF 141, at any rate, is the figure obtained from the twenty-odd people who actually gave their grade, and is probably biased on the high side. The survey only asked for a broad categorisation, to which the answers were: Beginner 4%, Intermediate 17%, Average Club 50%, Strong Club 24%, Expert 3%, and with one person considering himself a Master.

There was some correlation between the strength of the owner as against his computer but not as much as might have been expected, so it seems most people who want the pleasure of owning a top class computer, do so more or less regardless of their own playing ability.

The next question was a key one - 'has owning computers improved your chess?' Six out of seven said it had, with only 11% saying it had made no real difference. The two who thought their chess was actually worse as a result may not simply be contrary though; chess is a fighting game, and unless one disciplines oneself, it is possible to give up too easily when in difficulties and either turn it off or start a new game.

Likewise, it is possible to fall into the trap of adopting plans that avoid the computer's strengths or play to its weaknesses, even if that involves making moves that deep down, you don't really want to make, and/or that you know you wouldn't play against a human. However any such failings can hardly be blamed on the computer!

It was interesting to find that, when we split up the responses into those who said 'greatly improved..' versus everyone else, it was clear that the first group used CCs much more for match practice and theoretical study than the second, and also tended to be more active in clubs. Their computers also tended to be of a higher standard.

So ultimately, the conclusion is not very surprising - computers will greatly improve your chess if that is what you want them to do, and if you put the work in, but it doesn't happen automatically. That said, many players have no particular ambitions, and simply want to enjoy the game at whatever standard they happen to be.

In fact the breakdown of how responders play their chess turned out to be: 'Social' 6%, Club Competitions 16%, Correspondence 15%, Casual Club Play 7%, Tournaments 5%, and playing computers 51%.

Around one person in seven played all their chess on computers; however we didn't expect the correspondence figure to be so high, with almost a third of responders playing this kind of chess.

The next question was 'out of 100%, how would you divide up the use you make of your computer?' to which the averaged answers were: 'Casual games against it' 27%, 'Correspondence back-up analysis' 12%, 'Games versus other computers' 19%, 'Studying openings theory' 7%, 'Match Practice (within time controls, no take-backs etc.)' 14%, 'Post Mortems of your 'versus human' games 10%, Problems / published games 7%, and 'Studying endgame technique' (not exactly a favourite pastime with most chessplayers alas) a rather pitiful 3%.

Naturally it could be argued that this last figure has much to do with computers' abilities (or lack of it) in this area, but with the top modern-day CCs at least, this is becoming an increasingly feeble excuse! Post-mortems of one's own games lost against another human arguably represents the most productive use to which a CC can be put (again in terms of grading improvement rather than enjoyment), so the 10% figure here is pleasing. It is, after all, the nearest most of us can get to having our local club champion leaning over our shoulder and pointing out the 'should-have-beens'; it is the lessons most painfully learned that we remember the best!

With over two thirds of the sample having two or more machines, the next question was particularly relevant - 'How do you make use of having more than one?' - 75% of the time you play them each in turn, but your CCs spend twenty percent of their time playing another computer! Only a few people use one CC as a consultation partner against another. However for players weaker than their computers, alternating moves with their No. 1 whilst playing their No. 2 (which itself can beat them most of the time), can be very educational indeed - try it if you don't believe me!

The most popular time setting was game in 30, followed by five-minute games. However well over 30% said that one of their most frequent settings was the full forty in two - more than one might have expected perhaps.

As to the features that most interest you in S/S, New Product info comes first and reviews a close second. Some way behind comes ratings in third place, and then a big gap to PCs fourth, games fifth, and results sixth, with not much between these last three. However these are compound results based on a system where the most interesting scored 1 and the least interesting got six.

Taking this into account, results were very varied. For example nobody put that results were the least important thing, but almost everyone put it either fourth or fifth. On the other hand nearly a quarter put PCs at the very bottom of the list and only one person gave it No.1 spot. Even so, PCs come out higher overall because it was the second or third choice of more than half the group.

Only three people put that the thing they want most from the magazine is games, while one in five put it last - I hope you can now appreciate the juggling act required to keep most people satisfied most of the time! Even so, this doesn't mean that a whole swathe of the readership isn't interested in games - the question didn't ask that. The result simply means that games are relatively less interesting to them than the other items, which in fact comes as no surprise at this end.

At least there was a bit more consensus about what kind of games you prefer to see. Again, we asked for a ranking order from three possibilities; Computer v computer, C v GM/IM, and 'computer v players of your own standard'. GM games came out a clear No. 1, being the first choice of more than half of you, and the second choice of almost everyone else - mind you, seven people put computer v master games at the bottom of their list!

Second came CvC contests (25% 1st, 40% 2nd, 55% 3rd), and then computers versus the more ordinary player, with just under a quarter liking these the best, and one in four placing them second in importance.

As to the questions which relate to what makes you buy a chess computer from one place rather than another, the answers are probably of more interest at our end than to you. Briefly though, it seems that the predominant factors are dealing with a retailer from whom you have had good service previously, and whom you consider to be reliable. However price and part-exchange offers remain very important. The 'gestation period' between considering a purchase and actually making it is usually between three weeks and two months.

The final part of the survey dealt with a few ideas we wanted to sound out. The first being the possibility of an inter-S/S correspondence tournament. A full 33% said they would be interested in taking part, with a further 45% saying they would consider it. We hope you weren't just teasing, because on the basis of this, we are going live with the idea as of now! Details at the end of this article.

The next question asked how many of you would be interested in partnering your CC to play a correspondence game against a GM or IM. We made it clear that it would be expensive, but with correspondingly good prizes. Thirteen people said they were interested, and a further 26 said they would consider taking part. We are cautious souls, so shall keep this idea on ice until we see the response to the inter S/S competition.

Reaction to the 'premium service' idea of Selector was tremendous, with a full 45% of responders saying they would definitely or probably join. A further 34% said they might do so, and only 11% said they were unlikely or certain not to apply.

What do you want in a CC?

And so to the most important question asked in the survey - the way you see chess computers developing in the future. The way we phrased this was 'Imagine buying a top-class CC in the year 2000. What features would you like or expect it to have?' In retrospect. "like or expect.." was a bit woolly, since as we all know, one is seldom the same as the other, and while some of you emphasised the 'want' aspect - ("world championship strength with instant

response") - others leaned more toward 'expect - same as my Vancouver but stronger'. However the most common description of strength was 'Genuine IM standard'. This stress on the word *genuine* is interesting. The feeling seems to be that yes, computers can already get IM norms and grades and even GM ones at rapidplay, but at least 100 Elo of this is due to their virtues of consistency, having no nerves and no off-days, and not making any gross oversights or blunders. The implication was that genuine IM standard would involve an intangible sense that one was facing an opponent with the same formidable degree of pure chess knowledge and ability, in all aspects of the game, as an International Master has, and that this stage has yet to be reached.

Second only to strength came comments relating to analysis. Again and again, albeit in a variety of different ways, responders said that the computer of the future should be able to assess, and actively help to improve, its owner's game. *"Clear, simple assessment in English..." "Auto Post-Mortems with built in printer..." "Was my move 2nd best, 3rd best etc., and why...?" "Should be able to give its game plan on demand..." "Easy answer to why that was a silly move..."* As already mentioned, the 'marks out of ten' indicated that people reckon the 'analysis and education' aspect of CCs to be their weakest point. Some PC programs have made a tiny step in the right direction, but there is a long way to go.

Quite a few people mentioned move lists, which they feel should be available for scrutiny; firstly to show how far up (or down!) your move appears - together with an evaluation - and when playing a CC on a deliberately weaker level, what move or moves it spared you from.

Another raft of comments concerned style of play and generally making chess computers more enjoyable to use. This was expressed in various ways, i.e. *"Option to randomise styles within a game, to make things more unpredictable..." "Possibility of playing fallible moves occasionally, even on top levels, to make it more human..."*

As with the analysis possibilities, many of the other suggestions have already arrived, even if in a rather primitive form so far. The ability to learn from experience was mentioned only twice, but as this is almost a complete definition of intelligence in itself (artificial or human!) this was rather surprising. Novag's Scorpio/Diablo program at least begins to do this.

If it reaches a position where it previously experienced a drastic downturn in evaluation, it excludes the offending move from consideration. This does at least avoid the boredom of winning an identical game all over again, but is a bit like walking up to the very edge of a precipice before deciding to change direction. One of the buzzwords of the new computing is 'neural networking', which has at its heart the ability to build models which look at past events to evaluate probable outcomes, then compares its prediction to what actually happens, and finally uses any difference between the two to refine its model further - all of which is longhand for saying that neural networks *learn*!

Dedicated machines with PC interfaces were also mentioned several times. Here again, machines with this facility have been around for several years. However people wanted more than the ability to output and display data on PC (again a feature offered by some current dedicateds), but rather to allow the CC access to stored information - game collections, new theory, and so on.

The remaining comments were more piecemeal, covering a whole range of 'wants and expectations' and the following is only a sample selection: *"More knowledge of obscure openings" "More random openings - fed up with the Caro Kann" "Analogue clocks with ticking noise" (In fact the R30 will have the clocks, and the Milano already has the ticks!) "More aggressive and imaginative style" "Should give opening line assessments" "Should move its own pieces..." (in fact this last was mentioned several times. The Phantom is still available, which does indeed move its own pieces and is a joy to watch, but it is not exactly at the top of the tree as regards strength...). To throw some more into the pot: "Why do manufacturers always skimp on the quality of the pieces?" "Vastly improved endgame knowledge..." "Opening and endgame databases..." "Permanent Brain should start analysing second possibility once its finished the first, so that it never wastes time..." "Comments like Sargon used to have..." (The Sargon 2.5 used to come up with some rather droll comments during play, which certainly was a highly entertaining feature - yet another imaginative idea which has never been developed properly). Decent display - all present ones are poor" (several comments made this point). "Capable of beating Kasparov or losing to me...(i.e. more erratic).*

Then again: "Expect: as per Risc 1Mb but faster and stronger. Dream: modem to Chessbase..." "Opening line related to playing style selected..." (a very good idea, and surely no problem to do) "Grade my play according to how well I play, not just results..." "Helpmate and selfmate options for problem-solving..." "Ability to compare with similar games in its database..." "Able offer draws in a more human-like way..." (an intriguing one this - is the computer supposed to sigh and say that it just *can't* make any further progress?).

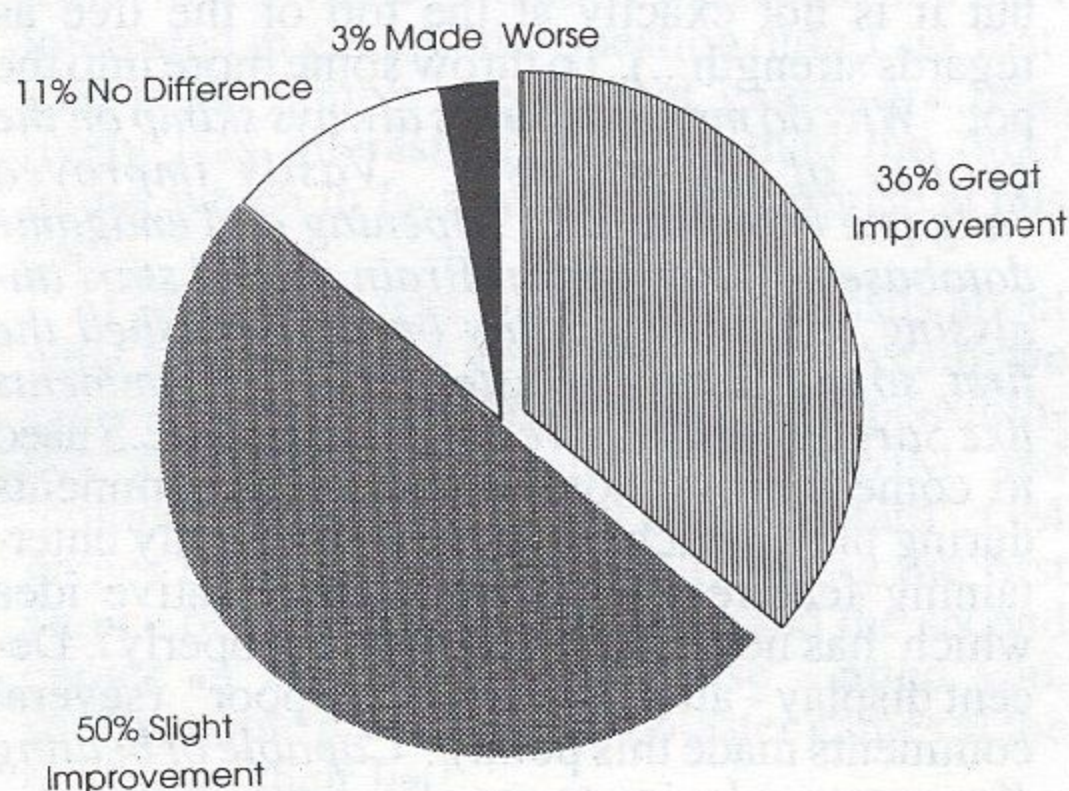
"A losing level, where it will do everything possible to avoid victory..." "Levels shown as grades..." "Full understanding of all theoretical endgames..." "Five or six programs in one computer..." ..and so on!

All in all...

In summary, what came through above all was the desire for flexibility, the ability to personalise the parameters of strength, style, and features as required. Additionally, readers saw scope to make the computers of tomorrow more ready to explain their own plans and decisions, and also to assess and criticise the chess played by their owners.

Few if any of the suggestions made seem unattainable, so let's hope the manufacturers take heed - there is certainly a big prize waiting for the first of them to get it absolutely right..!

"Have CCs improved your chess?"



The S/S Correspondence Tourney

Entry price is £6.50, play to commence 5th July. All entrants undertake to play six games

Players must send in the current status of their games to S/S to reach us by the 25th of the month preceding publication (i.e. 25th July for the August/September issue, and so on). Next to each of your moves you should put 'CC1' if it was your (main) computer's move, plus the approximate time you gave it to think, plus the style / contempt setting etc., where appropriate.

For those who wish to use more than one computer, put 'CC2' next to the move if it was chosen by your No. 2 computer according to your chosen denominations on the entry form. Remember that you are perfectly free to override your CCs at any time, and choose a move of your own instead, in which case simply put 'Me' next to it on the score sheet! Special score sheets will be sent to you for this purpose.

In each pairing, the player with the higher-rated (best) computer will have black, and if that computer (or PC program) is a full 25 BCF points higher or more according to the S/S list (or in the case of PC prog + specified hardware, is adjudged by us to be so), a draw will count as a loss.

Any games unfinished by 1st October next year will be adjudicated by GM Murray Chandler, editor of the British Chess Magazine. Murray will also award the Best Game prize, consisting of a presentation folder including MC's annotation to the game for both players, plus a £15 Chess Shop gift voucher to the winner.

The overall winner will be the player with the most points out of six. In the event of a tie, all candidates may choose from a range of prizes offered, but the winner will be the player who faced the highest aggregate computer rating. Prize will consist of an engraved trophy, plus a year's free subscription to both Selective Search and the British Chess Magazine, and a £15 Chess Shop voucher. All competitors who complete each of their games will receive a commemorative pack including a £5 Chess Shop gift voucher.

To apply, send your cheque for £6.50, payable to The Chess Shop, to 69 Masbro Road, London W14 0LS.

Aegon '93

The Aegon tournament held each year at the Hague is probably the most important battleground for chess computers there is.

The unique format of this event consists of equal numbers - 32 each this time - of computers (PCs and dedicateds, commercial and experimental) and humans who range from GMs down to around the Elo 2000 mark. The tournament just gone represents something of a watershed, as it was the first time that the computers have outscored the players, if only by a little. GMs Bronstein and Nunn finished top with 5.5 from the six rounds, with the former World Championship challenger and famed computer-basher taking first place on 'goal difference' (our cover, by the way, comes from the Aegon tournament bulletin and shows John Nunn taking on his inhuman opposition..). Third was an experimental version of the Chessmachine which scored an undefeated 5 points, including draws with both the GMs mentioned. The next CC along was the Saitek Sparc in seventh place with 4.5.

There followed a bevy of computers on 4/6, split only by the scores of their opponents (in a six-round tournament, it's not just *how* you play, but *who* you play that determines final placings). These were, in order: Chessmachine The King 2, Mephisto Risc 1Mb, MCP, Socrates X, Fritz 2, and Chess Genius.

The Saitek Brute Force finished with 3.5 and 22nd place, B*Hitech 25th, and the Saitek 2500 came in at 37th with 50%.

Mark Uniacke, creator of HIARCS, was understandably aggrieved that the operator of his program didn't seem to realise that competitive chess is played with

clocks, and contrived to lose two games that would have been won if Mark had been there. In future, he says, he'll either operate the PC himself or not enter at all! The next S/S will feature a good few of these Aegon games, as well as the recent Kings Head 'slowplay' where experimental versions of both CG and HIARCS both did very well. For the moment a couple of games in bulletin style will have to suffice, including one where HIARCS - perhaps realising that time was of the essence even more than is usually the case - forced resignation in only 21 moves!

Hiarcs - H Maliangkay (2038)

1 e4 c5 2 ♘f3 e6 3 d4 cxd4 4 ♘xd4 a6 5 ♘c3 ♖c7 6 ♙e2 ♘f6 7 0-0 ♙c5 8 ♙e3 d6 9 ♖d3 ♙d7 10 ♙ad1 ♘c6 11 ♘xc6 ♙xc6 12 e5 ♘d5 13 ♘xd5 exd5 14 c4 dxc4 15 ♖xc4 ♙b5 16 ♖e4 0-0 17 ♙xb5 axb5 18 ♖d5 ♙ad8 19 ♙c1 ♖a5 20 ♙g5 ♙de8 21 exd6 1-0

B*Hitech - GM David Bronstein

1 e4 e6 2 d4 d5 3 ♘c3 ♙b4 4 e5 c5 5 a3 ♙xc3+ 6 bxc3 ♘e7 7 ♖g4 ♘f5 8 ♙d3 h5 9 ♖h3 c4 10 ♙xf5 exf5 11 ♘e2 f4 12 ♖f3 g5 13 ♙xf4 ♙g4 14 ♙xg5 ♖xg5 15 ♖xd5 ♘c6 16 ♘g3 ♙e6 17 ♖f3 0-0-0 18 0-0 ♖g4 19 ♖f6 h4 20 f3 ♖g6 21 ♖xg6 fxg6 22 ♘e4 ♙c7 23 ♙ab1 b6 24 ♙fe1 ♘e7 25 ♙b4 ♙hf8 26 ♘g5 ♙d5 27 ♘h7 ♙f5 28 ♘f6 h3 29 ♘xd5+ ♘xd5 30 ♙xc4+ ♙d7 31 f4 ♙xf4 32 e6+ ♙d6 33 gxh3 a5 34 e7 ♘xe7 35 ♙g2 ♙df8 36 ♙b1 ♘d5 37 ♙e1 ♙f2+ 38 ♙g1 ♙2f3 39 h4 ♘e3 40 ♙xe3 ♙xe3 0-1

Deep Thought turns Blue

Notable by its absence from the Madrid World Championships was the Mother of All Chess Computers, the dreaded Deep Thought, which made its name by becoming the first computer chess system to beat a GM in real tournament play, taking points off both Tony Miles and Bent Larsen.

I remember hearing a rumour some time back that this monster had gone into retreat, only to emerge when it was ready to take on Kasparov. Either this was plain wrong, or the programmers have realised that life just isn't long enough. Either way, DT has died, and from the ashes has risen up Deep Blue - apparently a machine that makes its predecessor look like a toy from an Argos catalogue.

It runs on an IBM Risc 6000 and has 15 parallel processors, a system which is said to mimic the way a human brain works in some respects. This is not the version that will eventually challenge Gazza though; that misery lies in store for Deep Blue Two, and is planned for 1994. It will at least have the consolation of having 1024 parallel processors and the ability to evaluate 1,000,000,000 positions a second. If your machine has a node counter, watch it chug along at around a thousand a second or less... The name Deep Blue by the way, is taken from its sponsorship by IBM, who are known in the industry as 'Big Blue' (no, I didn't know that either...).

Maybe I'm being unreasonably pessimistic though. Larry Kaufman thinks that "Unless IBM's severe financial problems interfere with the continued development of DT, it seems that my longstanding prediction of 1995 as the year a computer becomes the world's best chess player may prove to be about right..". However the problem, it seems to me, is that it is not merely being asked to beat any old run-of-the-mill world champion, but the strongest player who has ever lived, and one who sees the retention of the title in human hands as one of his main aims in life!

At any rate, brimming with confidence after its annihilation of David Bronstein (now 68, but still capable of a joint first at the Aegon Tournament just gone) by 14/3, Deep Blue took on Bent Larsen in a 4-game match at 40 in 2, and subsequently all four of the Danish Olympiad team in a G60 exhibition. In the event, Larsen came out on top, by a win and three draws, but it was far from easy.

Some expert pundits thought that DB was sure to win game 2, with Larsen's defensive task being almost impossible, but in the end he found a way to force an ending a pawn down, and DB lacked the top-level technique required to convert the Rook and Opposite Bishops endgame. The DB team were said to be disappointed with the overall score, but said that Larsen was the strongest opponent faced to far.

GM Larsen - Deep Blue

1.e4 e5 2.♘f3 ♘c6 3.♘c3 ♘f6 4.♙b5
 ♙b4 5.0-0 0-0 6.♙xc6 dxc6 7.d3 ♖e7
 8.♘e2 ♙g4 9.♘g3 ♘h5 10.h3 ♘xg3
 11.fxg3 ♙c5+ 12.♙h2 ♙c8 13.g4 ♙e6
 14.♖e2 f6 15.♙e3 ♙xe3 16.♖xe3 h6
 17.a4 ♖b4 18.b3 b6 19.♖f2 c5 20.♙g3
 ♖a5 21.h4 ♖c3?! 22.♖af1 ♖ad8 23.g5
 ♙xb3 24.cxb3 ♖xd3 25.♖e2 hxg5
 26.hxg5 fxg5 27.♖d1 ♖e3 28.♖b2 ♖xb3
 29.♖xb3+ ♖xb3 30.♖d5 ♖a3 31.♖xe5 g4
 32.♙xg4 c4 33.♖d2 ♖xa4 34.♖d7 ♖c8
 35.♘g5 ♖a2 36.♖xc7 ♖a8 37.g3 ♖f2
 38.♖ee7 ♙h8 39.♖xg7 ♖h2 40.e5 ♖d8
 41.♖h7+ ♖xh7 42.♘xh7 ♖g8+ 43.♘g5
 1-0

Deep Blue - GM Larsen

1.e4 c5 2.♘f3 d6 3.d4 cxd4 4.♘xd4
 ♘f6 5.♘c3 a6 6.a4 g6 7.♙e2 ♙g7 8.0-0
 0-0 9.f4 ♘c6 10.♙e3 ♙d7 11.♘b3 ♙e6
 12.♖a3 ♖c8 13.♙h1 ♖e8 14.f5 ♙xb3
 15.♖xb3 ♖d7 16.fxg6 hxg6 17.♘d5
 ♘xd5 18.exd5 ♘e5 19.a5 ♙f6 20.c3 ♙g7
 21.♖b4 ♖h8 22.♖b3 ♖c7 23.♙b6 ♖cc8
 24.♙g1 ♖h4 25.♙d4 ♖c7 26.♙xe5 dxe5
 27.♖xh4 ♙xh4 28.♖xf7+ ♙xf7 29.d6+
 ♙g7 30.dxc7 ♖xc7 31.♖b4 ♙g5 32.♙f3
 b5 33.axb6 ♙e3+ 34.♙h1 ♙xb6 35.♖e4
 ♖c5 36.♖b1 a5 37.♙e4 g5 38.♙h7 ♙h8
 39.♙f5 ♖f2 40.♙g6 ♙g7 41.♙h7 ♙h8
 and a draw on move 52.

IM Danielson-Deep Blue

1.♘f3 ♘f6 2.b3 g6 3.g3 ♙g7 4.♙b2 0-0
 5.♙g2 d6 6.d4 c5 7.0-0 cxd4 8.♘xd4 d5
 9.♘a3 e5 10.♘f3 e4 11.♘d4 ♘c6 12.c4
 ♘xd4 13.♖xd4 ♙g4 14.♖e3 ♖e7
 15.♖ab1 ♙f5 16.h3 d4 17.♙xd4 ♖xa3
 18.♙c5 ♖a5 19.♙xf8 ♖xf8 20.g4 ♙d7

21.♖fd1 h6 22.a4 ♙c6 23.♖d6 h5 24.g5
 ♘e8 25.♖dd1 f5 26.b4 f4 27.bxa5 fxe3
 28.fxe3 ♙e5 29.c5 ♖f5 30.♖d8 ♖xg5
 31.a6 bxa6 32.h4 ♖g4 33.♖c8 ♙c7
 34.♖b7 ♙xb7 35.♖xe8+ ♙f7 36.♖h8
 ♙e5 0-1

Deep Blue - IM Kristensen

1.e4 e5 2.♘f3 ♘c6 3.d4 exd4 4.♘xd4
 ♙c5 5.♙e3 ♖f6 6.c3 ♘ge7 7.♙c4 0-0
 8.0-0 ♖g6 9.♘b5 ♙xe3 10.♘xc7 ♙f4
 11.♘xa8 ♘e5 12.♙e2 d5 13.♙h1 dxe4
 14.♘a3 ♘g4 15.h3 ♘f6 16.♖b3 ♖h6
 17.c4 ♘c6 18.♘b5 a6 19.♘ac7 axb5
 20.♘xb5 ♘e5 21.♘d6 ♙e6 22.♖fe1 ♘d3
 23.♘xe4 ♘xe4 24.♙xd3 ♙xh3 0-1

Deep Blue - GM Larsen

1.e4 c5 2.♘f3 g6 3.c4 ♙g7 4.d4 cxd4
 5.♘xd4 ♘c6 6.♙e3 ♘f6 7.♘c3 0-0
 8.♙e2 d6 9.0-0 ♙d7 10.♖d2 ♘xd4
 11.♙xd4 ♙c6 12.f3 a5 13.b3 ♘d7
 14.♙e3 ♘c5 15.♖ab1 ♖b6 16.♖fc1 ♖fc8
 17.♖c2 h5 18.♘d5 ♙xd5 19.cxd5 ♖b4
 20.♖xb4 axb4 21.♙d2 ♘a6 22.♖bc1
 ♙d4+ 23.♙f1 ♖xc2 24.♖xc2 ♙c5
 25.♙d3 ♙f8 26.♙b5 ♘c7 27.♙h6+ ♙g8
 28.♙d3 ♘e8 29.♙d2 ♘f6 30.♙e2 ♙g7
 31.♙b5 h4 32.h3 ♖d8 33.♙g5 ♖h8
 34.♙d3 ♖h5 35.♙f4 e5 36.dxe6 fxe6
 37.♙a4 b6 38.♙c6 ♙f7 39.♙d2 d5
 40.exd5 exd5 41.♙f4 ♖f5 42.♙c7 ♘h5
 43.♖e2 ♘f4+ 44.♙xf4 ♖xf4 45.♙xd5+
 ♙g7 46.♙e4 ♖f7 47.♙c4 ♖d7 48.♙d5
 ♖e7 49.♖c2 ♖e1 50.♙b7 ♙f6 51.♙e4
 ♖d1 52.♙b5 g5 53.♖e2 ♖a1 54.♙d3 ♖g1
 55.♙h7 ♖a1 56.♙c4 ♖g1 57.♙d5 ♖d1+
 58.♙c6 ♖f1 59.♙d3 ♖f2 =

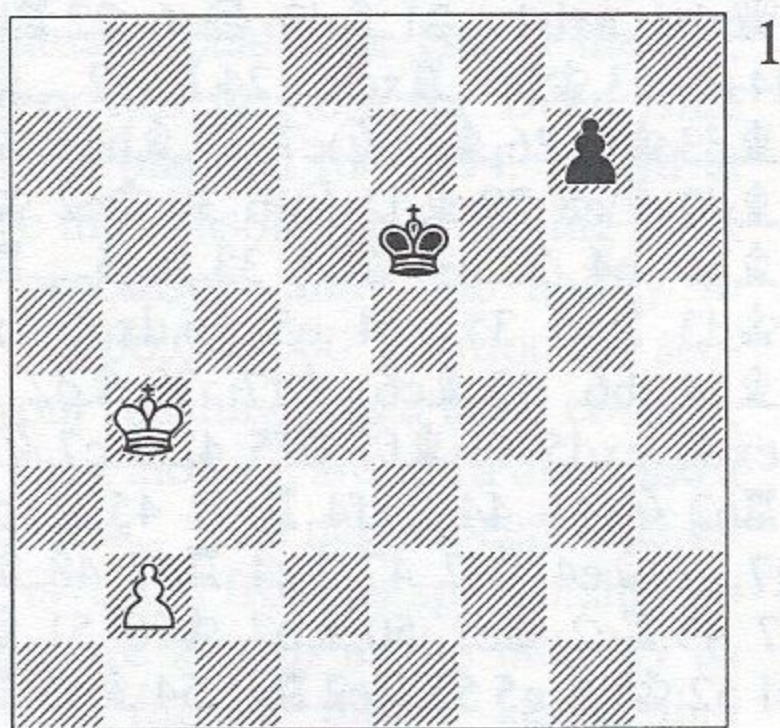
*With acknowledgements to IM Bjarke Kristensen
 and the USA Today Chess Information Centre.*

Graham White's Tactical Tests

After being supplied with a copy of M Chess Pro, I was able to test its tactical strength against my Chess Genius, both on a 486/66. From 38 positions tested, CG was appreciably superior at 32 of them, while MCP was better at another 7 of them. These figures make me surprised that Ply currently has MCP fractionally higher.

However tactical strength is only one element in the overall strength of a program, and I remember that Richard Lang introduced great tactical improvements in the Lyon over the Portorose, yet the two are still very close in their ratings.

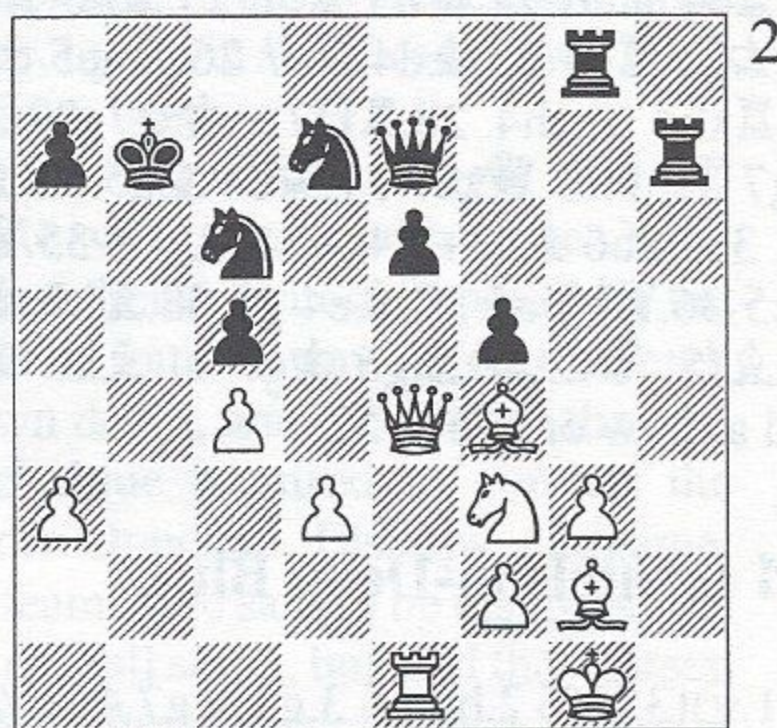
In any case you will see from the following positions that both programs are immensely impressive at tactics - (especially on my 486/66!) and several positions were solved instantly! Here are some of the more interesting ones that caused greater problems. (Chess Genius was set on 'Active' throughout).



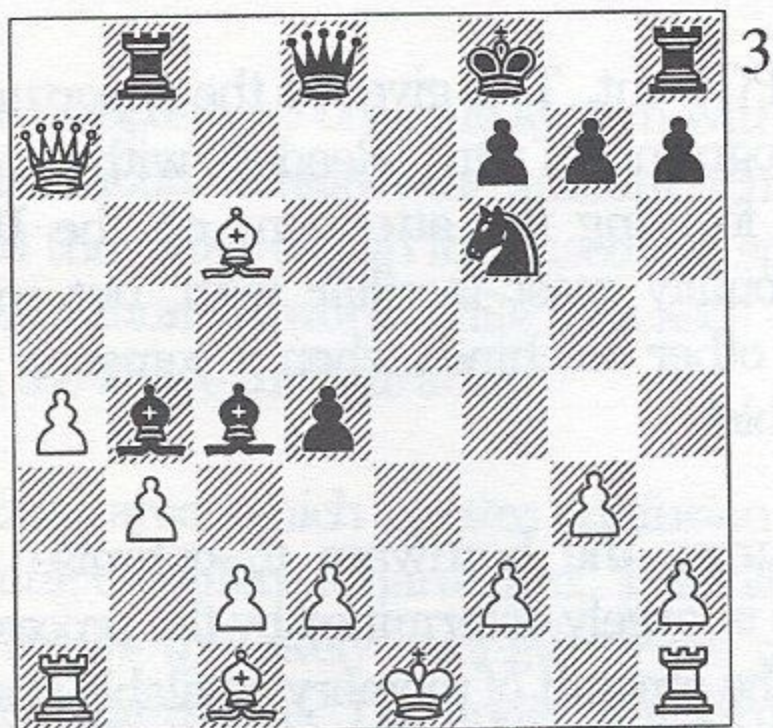
In this position CG finds 1. ♔c5! in 5 seconds. It takes MCP about 1m. 40 secs.

It would be hard to make a definite choice between these two programs. Chess Genius has a solid all-round game and no weaknesses. Its strengths are in its tactical ability and in its endgames. On the same positions for tactical tests as described in the previous issue it scored 973 out of 1130. In the match against my Risc 2500 (also on 'Active') CG won by the crushing margin of 33/15. The best feature it has which MCP lacks, is the ability to watch its analysis and evaluations while it is waiting for your move. This makes watching the game much more interesting.

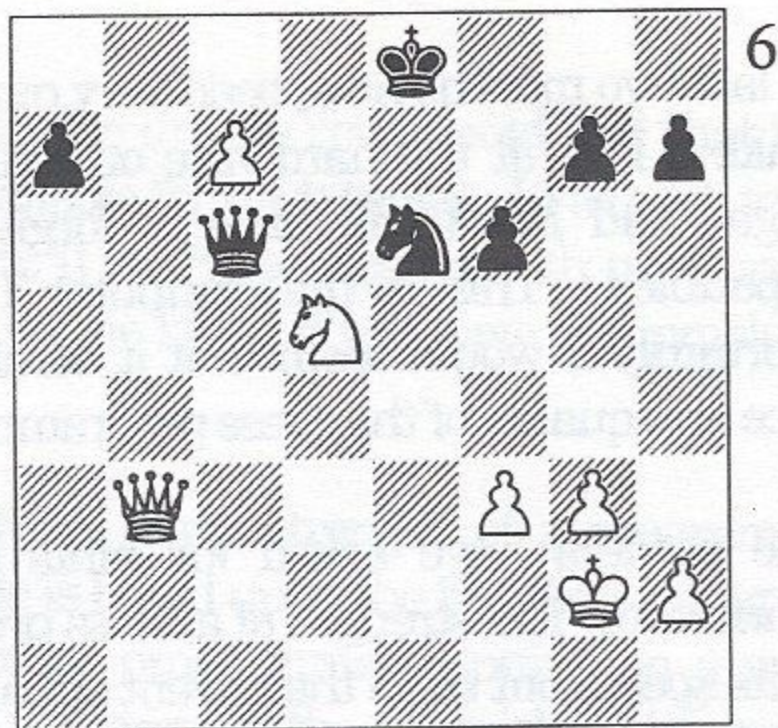
I have not had the chance to test MCP nearly as much but my early impressions are good. It plays solid chess but is also very strong tactically. However I doubt whether its endgame play matches up to CG. At the moment it is dead level against the 2500 at 3.5/3.5. Easily its best feature is its opening book, which is much larger than CG's. Also, the Openings Editor is excellent. So I would say buy them both, and avoid having to choose!



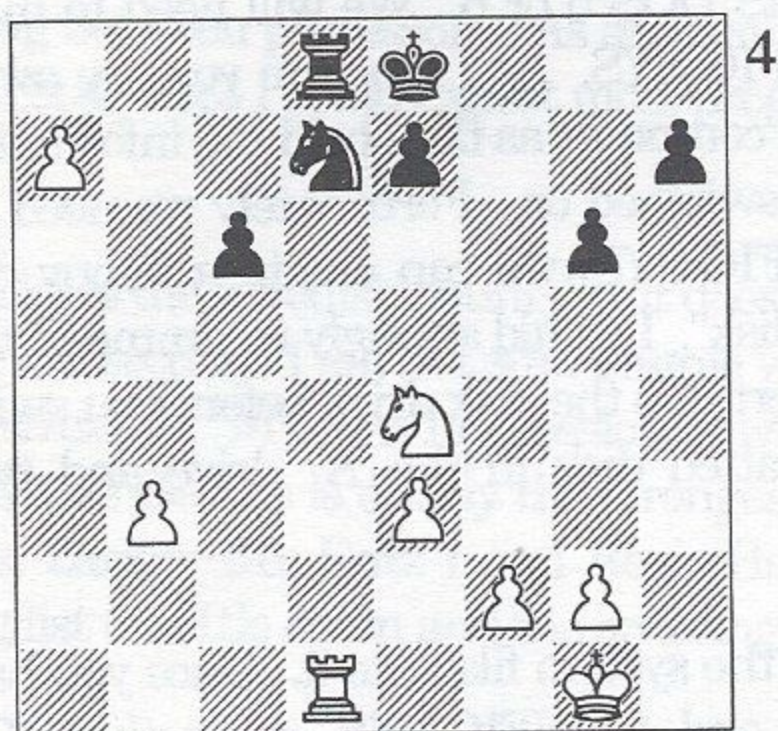
MCP finds 1. ♔xc6 and mate in 9 in 9m28secs. CG: No solution in 5 minutes.



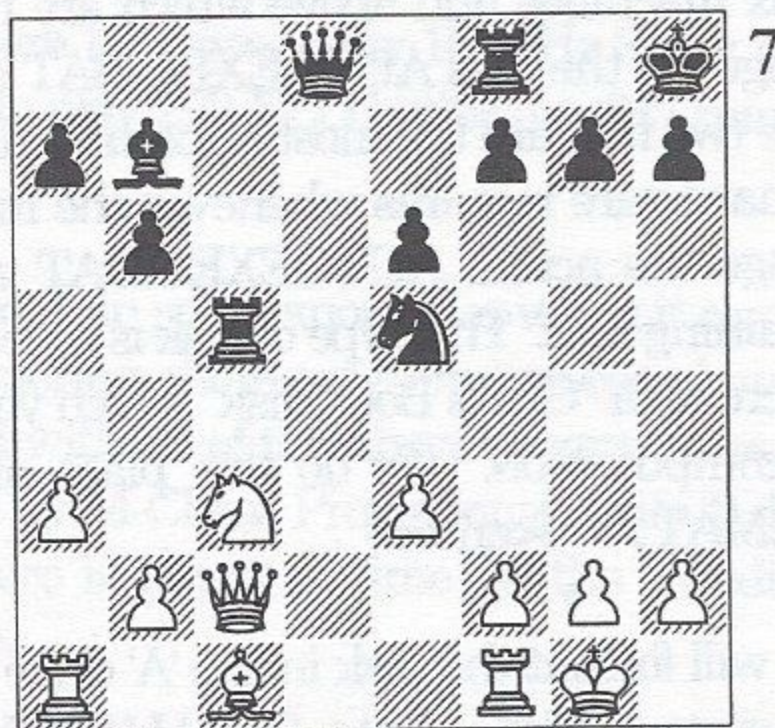
CG: ... Qe8+!! and mate in 7 in 1 sec. MCP: ditto in 40 seconds.



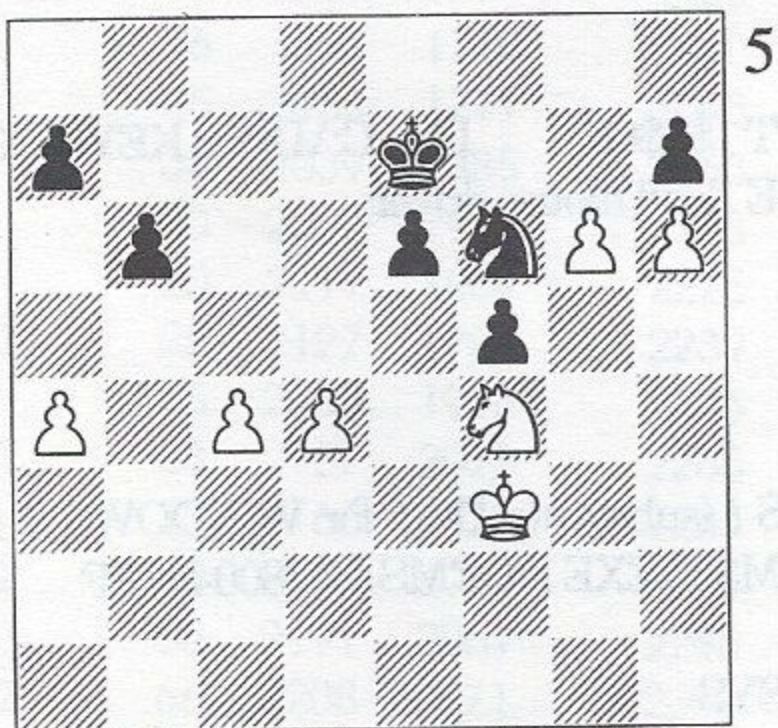
CG finds 1. Qxb5 Qb5 2. c8(Q)+ Qf7 3. Qe6+! in 2 seconds. MCP takes 17 seconds.



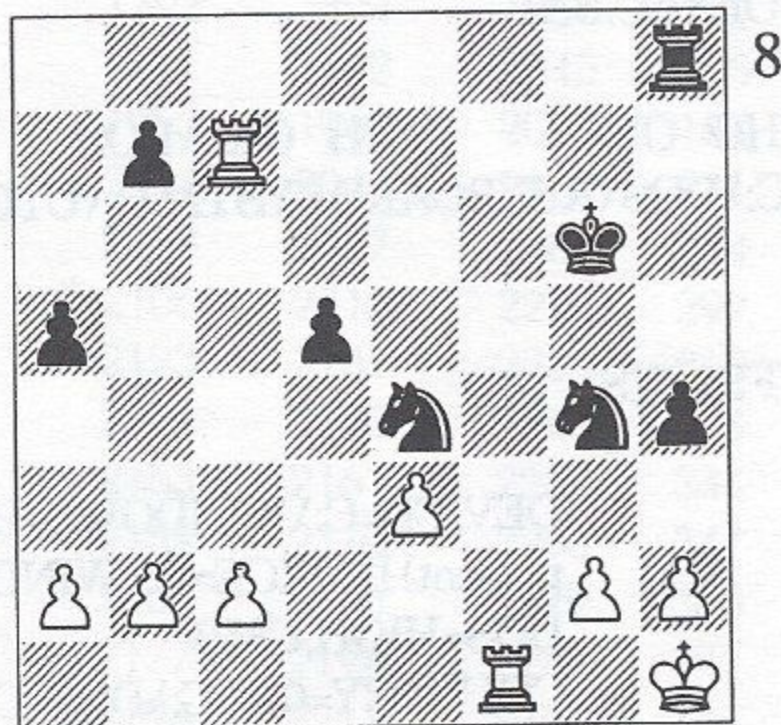
Rxd7!! CG 7 secs:
MCP 1m 10secs.



CG: 1... Qf3+! and M/6 in 4 secs!!
MCP takes 1m 45 secs.



W: 1. Qh5!! hg , 2. Qf6 Qf6 3. h7 Qg7 4. $\text{c5 ++ 1m 10secs. G 1}$
second!! MCP 40 secs.



1... Qg3+ 2. hg hg 3. Qg1 Qf2 Rxf2 Rh1++ . CG 36 secs., MCP 8 secs.

PC Corner by Steve Maughan

The last two months have been very quiet on the PC front. This gives us the opportunity to take a look at the hardware on which the programmes run. Readers with Ataris, Amigas and Macs will have to forgive me for focusing my attentions on the IBM compatibles. This is the computer I am personally most familiar with, but more importantly it would seem that it dominates the other machines when it comes to the choice and quality of the chess programmes available!

Some readers have asked for hints on configuring the hardware to optimise the performance. The strength of a chess programmes is largely determined by the processor and its speed, but since the advent of hash tables the amount of memory available is also critical. For example the strength of Oxford Softwork's Complete Chess System varies widely depending upon the hash table size. With this in mind we must try to configure the machine to maximise this available memory. This is only practically possible on 386sx machines and above which are running MS DOS 5 or 6. We will need to make changes to the files AUTOEXEC.BAT and CONFIG.SYS. As I am sure you are aware these two files are the most important files on any computer as they hold the information the hardware requires whenever the machine is switched on. Fortunately we need not change the actual AUTOEXEC.BAT and CONFIG.SYS, we can create a floppy disk containing files. This type of disk is called a "boot disk". I would strongly recommend that you create a "Chess Boot Disk" which you can insert into the disk drive before you switch the computer on. To do this place an unformatted disk in the 'A:' drive and type; `FORMAT A: /S<enter>`

This will format the disk in the 'A' drive and copy the system file onto it. Once you have this system disk create the AUTOEXEC.BAT and CONFIG.SYS using the EDIT command. I would recommend the following system set-up;

AUTOEXEC.BAT

```
@ECHO OFF      PATH C:;C:\DOS;      PROMPT $P$G      LH C:\DOS\KEYB.COM
UK,C:\DOS\KEYBOARD.SYS LH C:\UTILS\MOUSE /load mouse driver
```

CONFIG.SYS

```
DEVICE=C:\WINDOWS\HIMEM.SYS / (substitute DOS for WINDOWS if not
present) DEVICE=C:\WINDOWS\EMM386.EXE NOEMS /I=C800-EFFF
DOS=HIGH,UMB
COUNTRY=044,C:\DOS\COUNTRY.SYS
BUFFERS=40
FILES=30
```


Once complete, re-boot the system with the disk in the drive. You should find that this configuration increases the amount of memory available for hash tables. In a quick test I found the above set-up increased the speed of Fritz II by 7% compared with my normal configuration - a worthwhile increase!! Please do let me know if you have any problems with the above configuration.

Another area which creates confusion is that of the likely strength of a programme running on different hardware. The following table is based upon the Swedish rating list and shows the likely strength of the main computer programmes running on a wide range of hardware. The underlying formula takes into account the diminishing impact of speed as the strength of the machines increase. The 'Average' column shows the average strength increases when moving from a 286 running at 12 MHz to another processor. This can be used as a rough guide to the likely strength improvements gained when moving between processors. As an example, if I were to upgrade my 16 MHz 386sx to a 66 MHz 486dx2 I could expect most programmes to play 292 ELO better (i.e. 387 minus 95).

Looking at the Swedish rating list it does seem to contain some anomalies when it comes to the PC section. I am not sure I agree with the ordering of the programmes based upon their strength. My own impression, having played with all of the above programmes, is that Chess Genius is clearly the strongest followed by M-Chess Professional, Fritz II, M-Chess, Zarkov 2.6, Fritz I and Rex. However there is plenty of time for the Swedish rating list to settle down and the ordering to change.

Processor	Mhz	Fritz 2	Fritz 1	C/Genius	M-C Pro	Zarkov 2.5	Rex 2.3	M-chess	Avge.
286	12	1799	1604	1955	1976	1792	1804	1961	0
386SX	16	1897	1719	2040	2059	1891	1902	2045	95
386SX	25	1958	1791	2093	2111	1953	1963	2098	154
386DX	33	2039	1885	2163	2179	2034	2044	2167	231
386DX	40	2062	1912	2183	2199	2058	2067	2187	254
486SX	20	2111	1969	2225	2240	2106	2115	2219	299
486SLC	25	2127	1988	2239	2253	2123	2131	2234	315
486SX	25	2136	1998	2246	2261	2131	2140	2241	323
486DLC	33	2157	2023	2265	2279	2153	2161	2260	344
486DX	33	2166	2022	2264	2278	2152	2170	2268	347
486DX2	50	2180	2038	2276	2289	2165	2183	2279	360
486DX	50	2191	2051	2285	2299	2177	2194	2289	371
486DX2	66	2208	2071	2300	2314	2194	2211	2304	387
PENTIUM	60	2255	2128	2342	2355	2243	2259	2345	434
PENTIUM	66	2264	2138	2350	2362	2252	2268	2353	442

En Passant...

Subscriber Brian Martin sends us this interesting report on the Saitek 2500 and the Genius..

At the beginning of March I took delivery of the new Kasparov Risc 2500 ('KR' from now on), on trial from Countrywide Computers. I had been impressed by the price-performance ratio (£399 / 210/215 BCF). Also I bought a copy of Chess Genius (CG) to run on my Tandon DX386/40. I would be testing these new programs against my existing Mephisto Vancouver 68000 (MV).

I decided to run the tests over 12 games at 60 moves per hour using the random opening book setting. Also the machines were set on standard play modes; i.e. 'Active' for MV and CG, 'Normal' for KR).

First up was the MV-KR match. KR always had a slight edge in this one, but never delivered the wins sometimes expected. After ten games KR only led 5.5/4.5. Game 4 was an amazing one, with KR showing +9.99 at one stage, but went on to lose! Finally games 11 and 12 went KR's way to give a 7.5/4.5 win - about what one would expect if gradings are to be trusted. But this match had warned me that KR possibly didn't live up to its billing...

And so to the super match-up, KR vs. CG, which as everyone must know by now, is Richard Lang's improvement on his Vancouver program. Running on my 386/40 it has a small speed advantage over KR, about 7%. The result of this match may raise a few eyebrows as it was a win by 8.5/3.5 for the Genius (+6, =5, -1!!) - an amazing result.

Some may say this was a fluke, but I cannot ignore the fact that the CG mainly outplayed its opponent in the games I played. CG just seems a more rounded program, apparently showing no weaknesses. In fact the KR often over-estimates its chances, showing +100 and over far too often. The CG's evaluation of the game showed a far better understanding of what was going on.

In the final analysis I decided to return the KR and go for an upgrade of my MV to the Mephisto Risc 1Mb. But I must point out that the KR is a very strong opponent, and the games I had against it often produced lively play. But if you can survive the middle game then most 170+ players should be able to do well in the endgame.

Games - Please!?

Our request for readers' own games against their computers has so far fallen on deaf ears it seems. Perhaps we put you off by asking for the best you have, both on your side and your CC's. So plain ordinary, good games will do! We would also like human v. CC games for another reason - to run a little test seeing how often a GM can correctly guess which is which..!

Berlin HGYC

We promised last issue to repeat the same HGYC tests on the Berlin as we used on the Saitek 2500 at the same time setting of 2min. average per move. Results in BCF equivalents were:

Centre Control 205: Defence 211: Combinations 183: Endgame 166: Positional 169: Attacking 169: Average 184. I should repeat the same caveat as last time - the test is geared to 40 in 2 and not two minutes a move, so the results are only interesting in a relative sense (i.e. one type of game as opposed to another), and for comparing one CC against another.

Next Issue..

Keith Wheeler gives us his verdict on the 'Complete Chess System' (he also mentioned to us that 'Kasparov's Gambit, outlined in the last S/S, will not in fact be out until the end of October).

Also next time will be some GM-annotated games from Aegon, and - finally! - a review of the R30. Issue 047 will have an endgame-slant, with both Graham White's and Steve Maughan's sections concentrating on this aspect of the game. Any contributions along these lines - or any other - will be much appreciated!

What's New?

A Brute from Morsch

It's been a long time coming, but Franz Morsch's Brute Force module for the Renaissance board is now available for sale at £569, and marks another step in what really does seem to be a renaissance for Saitek.

The Renaissance board has been around for many years of course, and in the eyes of most, is a very handsome piece of kit. Although the actual playing surface is no bigger than rivals such as Novag's Diablo or Mephisto's Exclusive, it seems bigger because of the acres of wooden border (the whole thing is over 20" square).

However the Renaissance always suffered from two problems - a slight question mark over reliability, and more seriously, modules that weren't very competitive in strength terms. We have no reason to believe the first of these has not been sorted long ago, and the arrival of the Brute certainly seems to have quashed the second. Any machine reckoned to nudge the BCF 190 mark, which offers auto-sensory and wood, and costs only £569 can reasonably expect to do well. If in addition it can also meet one of the key demands to come from our Readers Survey, it should do even better, and this one does!

Quite simply, the Renaissance Brute can link up with Chessbase/Fritz, thereby opening up a whole new dimension in chess computer use; you can feed in games direct to Chessbase for classification and comparison with others (where your game diverged from theory etc.). It also enables you to get a 'second opinion' and/or in-depth (overnight or longer) post-mortem analyses from Fritz 2. Many people with Chessbase will want this computer for the pleasure of feeding in games on a real board, in addition to providing a strong opponent. Those without Chessbase will benefit especially from the Brute's ability to store up to 64 games! To add to all this, the basic playing module (BCF 140ish) is also contained within the board to keep beginners/weaker players happy. It would seem therefore, that the Renaissance Brute is a versatile computer, and excellent value at the asking price.

..R When?

The Tasc R30 seems to be in danger of becoming one of those semi-mythical chess beasts which is heard about, but never actually seen at large in daylight hours. Tasc say it will be venturing out any moment now (I write on May 20th), but we shall see. Apparently they hit snags with the piece recognition system, which, although something which has been around for years (in Mephisto's Bavaria board) nonetheless remains a technical feat of a high order. Still, one should not be too critical; better they sort things out before the launch than after. (*As we go to press: I hear Mike Healey of Countrywide is going to Holland to prise away our first consignment!*).

SPARC

Another CC (Cheshire Cat?) of the same ilk is Dan and Kathe Spracklen's SPARC module, also destined for the Renaissance board. Whilst it is exciting to think that such state-of-the-art electronics is to be used for commercial chess computers, one cannot help feeling that it's rather ironic that this particular programming team will have first bite of the cherry, as opposed to say, Richard Lang, De Konig, Schroeder, et al. True, the Spracklens were responsible for the first real CC (those prior to the Sargon 2.5 could hardly be said to play chess-as-we-know-it!) but it's been many a year since they were exactly leading names in the field. Still, good luck to them, and may they prove their doubters wrong...

2500 Upgrade

Tired of routinely beating your 212 BCF Saitek 2500? Bored with waiting for second after second while it struggles to find a mate in 8? Well you won't have to fret much longer before we can supply the cure; all you need to supply in return is £199 sterling. For that you get the upgrade to 512k (from the present 128k). Saitek think the upgrade will cause a real storm, and while this might be a case of 'they would, wouldn't they?' given the existing talent in both the programming and hardware departments, they may very well be right. It's due out late July.

How Good Is Your Chess Computer?

by Steve Maughan

This month we are testing out three very different machines; the Fidelity Par Excellence (1824 ELO), Mephisto Mondial XL (1990 ELO) and Saitek RISC 2500 Active (2246 ELO).

The Par Excellence was a very popular Fidelity model back in 1986. Written by the Spracklens, it uses a 5 MHz 6502 and is very much a brute force machine. The Mondial XL is the budget version of Richard Lang's Mephisto Dallas programme which was World Champion in 1987.

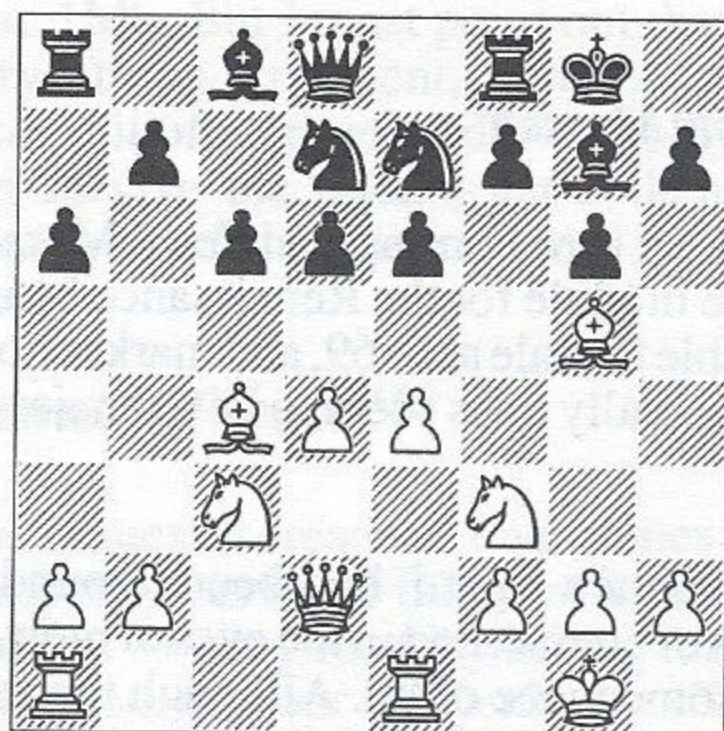
It has the advantage of running on a 12 MHz 68000 which is approximately double the speed of the Par Excellence. Like all of Richard Lang's programmes the Mondial XL has a large amount of positional understanding and uses a selective search algorithm. Finally, the Saitek RISC is the current flagship programme from Johan De Konig. Running on a very fast RISC processor the programme is one of the most proficient tactical masters around and has a formidable reputation as an aggressive opponent.

The game we are going to use is from the British Open (1961) in Eastbourne. As usual all machines were given 3 minutes per move.

White: O'Kelly

Black: Brogden

1.e4 g6 2.d4 ♖g7 3.♘c3 d6 4.♘f3
♜d7 5.c4 e6 6.O-O ♜e7 7.♙g5
O-O 8.♚d2 c6 9.♞fe1 a6



Black has opted for the 'hedgehog' variation of the Modern Defence. The computers start their analysis from here by predicting white's moves.

10.a4

3 points. Black is aiming to try to expand the queen side so it is essential to play this move and stop b5 by Black. Both the RISC and the Par Excellence found this move while the Mondial chose ♜ad1 (no points).

...♞e8

11.e5

3 points. This pawn move drives a wedge into Black's position. None of the computers played this move and all preferred ♙h6 (no points) which can be countered by 11...♙h8 relaxing the pressure on f6.

...d5

12.♙f1

3 points. All the computers chose a different move none of which score. The RISC opted for ♙a2 which leaves the bishop on a blocked diagonal; as does ♙b3 chosen by the Mondial.

The Par Excellence played ♙d3 which falls foul to 12...c5.

...c5

13.♘e2

3 points. Only the Mondial with its excellent positional knowledge found this

subtle knight move. The other two machines played dxc which can be met by 13...♔c7!

...♔c7

14.c3

2 points. The logical follow-up to 13. ♖e2 and chosen by the RISC and Mondial. The Par Excellence chose 14. ♕h6 (no points), a weak move which allows Black to equalise by 14...♗xh6 15. ♔xh6 ♖f5! With this move the Par Excellence shows its myopic positional vision.

...b6

15.h4

4 points. The start of an attack. The Mondial and RISC were again in agreement with ♖g3 (2 points), preferring to put the knight on a more active square before showing any aggression. The Par Excellence again chose ♕h6 (no points). 1 point for g4.

...a5

16.♖g3

2 points, 1 point for g4. Again both the RISC and Mondial chose ♖g3 while the Par Excellence still considered ♕h6 (no points) to be best.

...♗a6

17.♗xa6

2 points. Chosen by all the computers. With this move White exchanges the badly placed bishop and puts the Black rook on a weak square.

...♖xa6

18.h5

2 points. An aggressive move which surprisingly was only found by the Mondial and Par Excellence. The RISC chose ♕h6 (no points). 1 point for ♖h2.

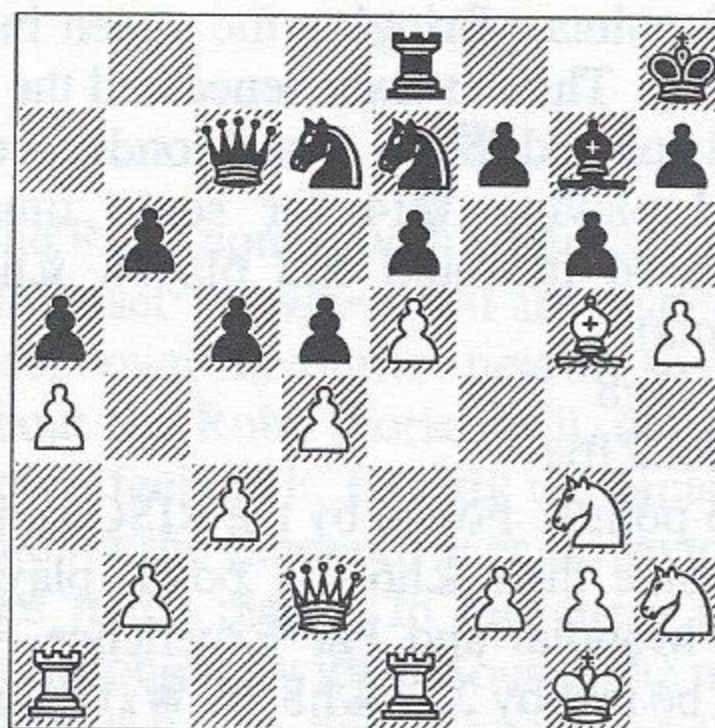
...♖aa8

19.♖h2

3 points. The idea of this move is to eventually position the knight on a better square. It is a very difficult move for computers to find as they seem to like the

pawn push h6, chosen by all the machines (no points). 1 point for ♔f4 or cxd5.

...♔h8



20.♖g4

2 points. The natural follow-up to 19. ♖h2 as it allows the knight to attack the weak squares f6 and h6. The Mondial played ♖f3 (no points) obviously disagreeing with the last move, while the RISC and Par Excellence both opted again for h6.

...♖f5

21.♖xf5

3 points. Eliminating a key defender and disturbing the king side pawns and correctly selected by the Mondial. The RISC chose h6 again (no points). The Par Excellence went for hxg6 (no points).

...gxf5

22.h6

4 points. The Black position is starting to crack open. At this stage the tactical ability of the RISC really does give it the edge. The RISC correctly selects 12 of the remaining 13 moves and is the only machine to see the virtue of h6. The Mondial played ♖h2 (no points) and the Par Excellence opted for ♖h6 (no points)

...fxg4

23.hxg7+

1 point. The only move, and found by all the programmes.

...♔xg7

24. ♖f4

3 points. Bringing the queen into the attack. The Par Excellence and the RISC both played ♖f4. The Mondial considered playing ♖f4 for some time but changed its mind and played ♔h6 (no points).

...♙g8

25. ♔f6+

3 points. Found by the RISC and more decisive than ♔h6+ (1 point) played by the Mondial and Par Excellence, which can be met by 25...♔h8 26. ♖xf7 ♙g6 and a solid position for Black. 1 point for ♖xg4.

...♔f8

26. ♖h6+

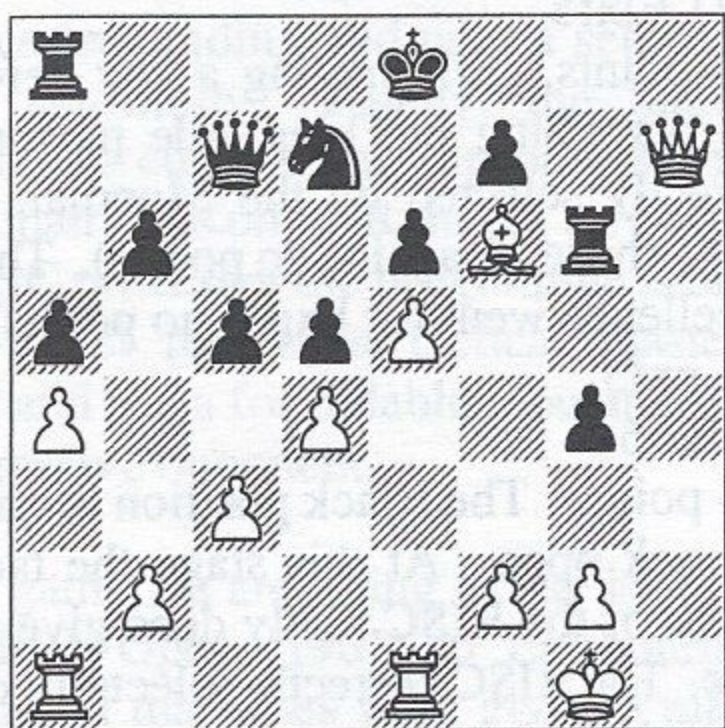
1 point. The only move played by all the machines.

...♔e8

27. ♖xh7

1 point. Again the only practical move.

...♙g6



Review: Novag's Emerald and Ruby

Readers of the last issue will remember that we were rather underwhelmed by the Jade/Zircon program we reviewed, and that we were hoping for better things from the higher-rated and more expensive Ruby and Emerald. These are also a matching pair in the sense that they share the same program, with the Ruby being the portable version and the Emerald being the tabletop. Both pairs of programs officially use the same hardware, although I am given to understand that the R/E couplet does in fact have some unspecified 'tweaks' over the J/Z pairing.

In the latest edition of his excellent Chess Computer Review, Larry Kaufman makes the point that Novag have a tradition of being a mite optimistic about the strength of some of their machines on occasion. Of course, there isn't any manufacturer who has never been guilty of this to some degree, but it is safe to say that the Scorpio/Diablo isn't "2300", the Jade Zircon some way short of "1950", and the Ruby/Emerald is unlikely ever to appear on anyone's list at "2110". The figures quoted are from Novag's literature *minus* 100 as they quote in USCF terms. All four computers share the same H8 processor. Novag claim a 20Mhz clock speed, but Mr Kaufman is of the opinion this figure should be halved 'for technical reasons'.

Taking the Ruby first, this uses the same smart housing as the Super VIP. It uses the key-in method (i.e you type in E2-E4 etc.), which is a slow but sure means of move entry. I personally prefer it to tiny peg pieces, but I suppose it entirely depends on how dextrous you are.

The Ruby comes with a very stylish travelling set for when you are unable to use your own favourite board. Everything about the Ruby works well, and it has a good 'feel' to it. Exactly the same can be said for the Emerald, even down to details like felted pieces. In fact there are only two problems with all four of the new Novags; they are not as strong as they are claimed to be, and the style of chess they play is not positive enough, and all too frequently lacks positional understanding.

In all probability, the Ruby *will* live up to its claim to be the strongest portable made, but whether this will be by a margin sufficient to justify the forty pound premium over rivals like the Travel Champion and Travelmaster remains to be seen, and we have our doubts. The Emerald on the other hand, is pitched squarely on the Modena's turf, and at 149 pounds, undercuts it by a tenner. We therefore decided to settle the issue with a ten-game match at slow time levels (ranging from 2m. average to 40 /2). The test was conducted by Chess Shop staff, who, it must be said, fully expected the Emerald to come out ahead. In the event though, the result was a 6/4 win to the Modena(+5,-3,=2), and if that isn't convincing enough in itself, the actual games showed the Mephisto to be, in our view at least, rather more dynamic and purposeful, and with a better all-round grasp of the game. However you can judge for yourself next issue, when we will be including some annotated games from the match. If any Ruby/Emerald owners have any games which counter our impressions, we'll gladly publish those as well!

Frank Holt sends us some detailed results from games between the Chess Genius and his Mephisto Risc 1Mb, and annotated several of them; two are given below. He played 48 games in all, over a variety of time settings ranging from All in 30 up to 40 in two hours. Overall, the Genius scored an impressive 66%, (+23, -8, =17), however it should be noted that the full power of CG's program was being used, as Frank has a state-of-the-art 486/66!

**W: Genius 486/66 active. B: Risc 1mb
30 in 30**

1.d4 ♘f6 2.c4 e5 3.dxe5 ♘g4 4.♘f3 ♕c5
5.e3 ♘c6 6.♕e2 ♘gxe5 7.0-0 0-0
8.♘xe5 ♘xe5 9.b3 ♖e8 10.♘c3 d6
11.♕b2 ♖e6 12.♘a4 ♕b6 (CG out of
book: The Risc came out the move pre-
viously) 13.c5 ♕a5 14.a3 b5 15.♕xb5
(CG = 1.12, Risc -0.55) ♖b8 16.♕e2 ♕d7
17.♕xe5 ♕xa4 18.cxd6 cxd6 19.♕d4
♕xb3 20.♖d3 ♕b6 21.♕g4 ♖e8 22.♖ab1
♕xd4 23.♖xb3 ♖xb3 24.♖xb3 ♕e5
25.♖a4 ♖a8

26. ♖f3 ♜b8 27. g3 ♞c8 28. ♙d5 ♞c7
29. ♜e4 ♜c8 30. ♜b4 ♞c5 31. ♜b3 ♞c7
32. ♞d1 ♙f8 33. ♜b4 ♞c2 34. ♜a5 ♜c7
35. ♜a4 ♞b2 36. ♙c6 ♙g8 37. ♜e4 g6
38. a4 ♜c8 39. ♜f3 ♙g7 40. ♞c1 f6 41. ♜e4
f5 42. ♜d3 ♜c7 43. ♜d5 h6 44. ♜c4 ♙f6
45. h4 ♜e7 46. ♙f3 a5

(At last, some action - CG+ 0.84, 1Mb - 0.27) 47.h5 ♖e5 48.♚c8 (This looks promising - CG goes to +2.48!) d5 49.♚c6 ♖d6 50.♚a6 (CG calls +7.42, but is it looking too far ahead?) ♖c7 51.♚xg6+ ♔f8 and resigns 52.♚c8+ and calls mate in 8 ♖d8 53.♖xd5 ♚b1+ 54.♔g2 ♚e4+ 55.♖xe4 ♚g1+ 56.♔xg1 fxe4 57.♚e6 ♖e7 58.♚g8+ 1-0

W: CG 486/66 risky B: Risc 1mb
Game in 2 hours each

1. ♖f3 d5 2. d4 ♖f6 3. c4 c6 4. ♖c3 e6 5. e3
 ♖bd7 6. ♕d3 dxc4 7. ♕xc4 b5 8. ♕d3 a6
 9. e4 c5 10. e5 cxd4 11. ♖xb5 ♖xe5
 12. ♖xe5 axb5 13. ♕xb5+ ♕d7 14. ♖xd7
 ♔a5+ 15. ♕d2 ♔xb5 16. ♖xf8 ♔xf8 17. b3
 ♔e7 18. a4 ♔e5+ 19. ♔f1

(Only here did CG come out of book; the 1Mb did so 2 moves earlier. CG -0.78; 1Mb +0.40) ♖hc8 20. ♚f3 ♚e4 21. ♚g3 ♘d5 22. ♙c1 ♖c2 23. ♙a3+ ♙e8 24. ♖e1 ♚f5 25. h3 ♖ac8 26. ♙g1 ♖a2 27. ♙d6 (Risc +1.14, CG -1.15 - a rare agreement on evaluation!)

..♔cc2 28.♚f1 g5 29.♙b4 e5 30.♙e1 ♘f4
31.♚g4 ♚f6 32.h4 ♘e2+ 33.♔h2 ♚f4+
34.♔h3 ♚a3 35.hxg5 ♚xb3+ 36.f3 ♚e3
(CG was expecting ♚a3, but why not ♚b6
to catch the g5 pawn?) 37.♙g3 ♚bb2
38.♙h2 ♘c1 39.♙xe5 ♘d3 40.♙g3 h5
41.♚xh5 ♚xg2 (40.h5 had been a surprise,
as the Risc was still in front. Now CG
+0.72, 1Mb -0.41) 42.♚h8+ ♔e7
43.♚f6+ ♔f8 44.♚b1 ♚ge2 45.♚xb2
♘xb2 46.a5 ♚e6+ 47.♚xe6 ♚xe6 48.♚a1
♚a6 49.♙e5

(CG +1.39, 1Mb -1.10) ♖c4 50. ♙xd4
 ♙xa5 51. ♙xa5 ♖xa5 52. ♙g4 ♖c6
 53. ♙c5+ ♙e8 54. ♙f5 ♖d8 55. ♙f6 ♖b7
 56. ♙b4 ♖d8 57. f4 (CG gave itself the
 first of several exclamation mark for this -
 the others are all shown in brackets - , and
 a plus of 1.87) ♖c6 58. ♙c5 (!) ♖b8
 59. ♙g7 ♖d7 60. ♙e3 ♖b8 61. ♙h8 ♖c6
 62. ♙c5 ♙d7 63. f5 ♖d8 64. ♙g7 ♙e8
 65. ♙f6 (!) ♖c6 66. g6 fxg6 67. fxg6 ♖b8
 (The 1Mb pleads to resign four moves be-
 fore CG announces a mate in 10!) 1-0

○ ○ ♘ ○ ○ ♙ ○ ○ ♚ ○ ○ ♛ ○ ○ ♜ ○ ○ ♞ ○ ○ ♟ ○ ○

The S/S Rating Guide

For the benefit of new readers, the hieroglyphics on the back cover are explained, whilst regulars may be interested in the news from Ply...

The internationally recognised standard for assessing the strength of chessplayers is called the Elo Rating System, after its inventor Professor Arpad Elo. For UK players, there is also the system operated by the British Chess Federation. Both systems express strength in the form of a score based on results. The Elo figure can be translated into BCF by the formula 'Elo minus 600, divided by 8'. Our back cover has two rating lists, both of which have been built up over many years. The Selective Search list (abbreviated to 'S/S') contains games played at 'Game in 60 minutes' or longer, whilst the Ply list only has games played at 40 moves in 2 hours, the most frequently used time setting in international tournaments. 'Ply' is the name of a Swedish magazine devoted to chess computers, and their rating list is run as part of an ongoing university project. It is therefore free of commercial considerations of any kind. They kindly allow Selective Search to make use of their data. Unfortunately Elo points are not identical from one country to the next, so one should add 100 points to the Ply figures to arrive at an 'English translation'; i.e. a Swedish player with an Elo of 2259 would be regarded as around 2359 over here. Beware of manufacturer's claims regarding 'USCF' grades. This is the American system, and runs at another 100 points higher than the UK, or 200 points more than Ply! All the computers are ranked in strength order according to the S/S list, which just shows 'name, rank and number' plus the quantity of games on which the grade is based. The Ply list shows the Elo rating (without the 'add 100' adjustment mentioned above), the BCF equivalent, the number of games taken into consideration, plus another column marked '+/- Elo'. This indicates the margin of error. For example, a computer graded at 2259 on the basis of 250 games has a margin of error of 59 Elo; i.e. the figure of 2259 might actually be as low as 2200, or as high as 2318; however

the median figure is more likely to be correct than those at the extremes. The higher the number of games played, the more reliable the grade, so this 'plus or minus' figure comes down progressively as more and more games are played. Fortunately, the ratings of humans are not subjected to such rigours - your grade is your grade, for a whole year at a time! To put the figures into context, 1000 Elo (BCF 50) is beginner standard. From here to 1400 (BCF 100) is good hobby player / weak club player territory. 1600 (125) would be regarded as a slightly better than average club player, and 2000 (175 BCF) as a very good one. Anyone over 2200 (BCF 200) is seriously strong by most standards, very likely playing for his county or in the top section of weekend congresses. A 2350 (219 BCF) player might well hold a title (perhaps FIDE Master, abbreviated to FM); a 2400 (BCF 225) player could be an International Master (IM), and 2500 (BCF 237) is Grandmaster (GM) standard. World Champion Garry Kasparov is Elo 2805 at the moment, or 257 BCF - the highest rating of all time.

Rating News From Ply

There is one newcomer on their latest list - the ChessMachine 30Mhz 3.1 Schroeder; the official Computer World Champion. It was supposed to be better than version 3.0, but after nearly 150 games for both versions, they still cannot confirm that. Fritz 2 has gone down 10 points to 2156 after 202 games. The difference between Fritz 2 and the top PC progs continues to be around 100 points. Brute Force and GK 2000 keep their ratings of 2011 and 1910 respectively. Brute Force could possibly change somewhat, since only 140 games have been played so far. Ply have not yet got their hands on any of the new Novags, but are hoping to do so soon. They also hope to start testing the Spracklen's SPARC shortly. A Schroeder PC program called Rebel is due in the autumn. It is written in 'C', which is slower than Assembler. Zarkov 3.0, with better graphics than 2.6, is also scheduled for later in the year. Johan de Koning is said to be working on a new PC program too, but no details are known yet.

S/S

Ply

S/S

Ply

Rank	Computer	BCF	Games	Elo	BCF	+/- equiv. Elo	Games
1	Meph Lyon 68030	218	374	2259	207	59	250
2	Meph Vanc. 68030	216	375	2239	205	39	410
3	Meph Risc 1MB	216	1046	2222	204	31	575
4	Meph Port 68030	214	460	-	-	-	-
5	Saitek Risc 2500	212	486	2221	202	37	404
6	Meph Vanc. 68020/12	205	1481	2155	194	28	685
7	Meph Lyon 68020/12	204	2492	2158	194	24	949
8	Meph Berlin	203	334	2135	192	35	444
9	Meph Port. 68020	200	1713	-	-	-	-
10	Fid Elite 68030 V9	200	599	2127	191	44	324
11	Meph Lyon 68000	197	1325	2107	188	25	807
12	Meph Almeria 68020	196	1003	-	-	-	-
13	Meph Port. 68000	193	1478	-	-	-	-
14	Fid Mach 4/Elite V7	193	1396	2079	185	25	778
15	Saitek Brute Force	189	140	2011	176	61	140
16	Fid El. 68000 x2 V5	188	258	-	-	-	-
17	Meph Roma 68020	186	1043	-	-	-	-
18	Meph Polgar 10	186	609	-	-	-	-
19	Novag Diablo/Scorpio	186	1202	2002	175	25	768
20	Meph Almeria 68000	184	1025	-	-	-	-
21	Meph Dallas 68020	184	996	-	-	-	-
22	Fid Mach 3 68000 v2	181	5009	1997	175	15	2080
23	Meph Milano	180	626	1963	170	29	579
24	Meph MM5	180	1319	1976	172	22	1002
25	Meph Polgar 5	179	2082	1970	171	18	1363
26	Meph Dall./Mon.Dall	178	2283	-	-	-	-
27	Nov S.Forte/Exp. 6C	178	2371	1956	169	19	1326
28	Meph Roma 68000	176	2267	-	-	-	-
29	Meph Academy	175	2000	-	-	-	-
30	Meph Modena	173	174	1883	160	35	399
31	Meph Amsterdam	173	2373	1924	160	22	1020
32	Nov S.Forte/Exp. 6B	173	1343	-	-	-	-
33	Meph Mega 4	172	2435	-	-	-	-
34	Fid Mach 2B/C 68000	172	2909	-	-	-	-
35	Saitek Gal-Ren D10	172	1209	-	-	-	-
36	Fid Travelmaster	170	505	1903	163	79	123
37	Meph S.Mond2/MC4	170	224	-	-	-	-
38	Novag Ruby/Emerald	170	26	-	-	-	-
39	Meph MM4	169	2866	-	-	-	-
40	Saitek Travel Champ	169	45	-	-	-	-
41	Nov S.Forte /Exp. 6A	168	1155	-	-	-	-
42	Saitek Turbo King II	166	834	1870	159	24	843
43	Meph MonteCarlo	166	262	-	-	-	-
44	Saitek Gal. / Ren. C8	166	313	-	-	-	-
45	CXG Sphinx Galaxy	165	2049	1877	160	19	1337
46	Conchess Ply.Vict.5.5	165	697	1866	158	26	701
47	Fid Mach 2A 68000	164	338	-	-	-	-
48	Saitek GK2000	163	112	1910	164	37	353
49	Novag Expert 5/6	161	532	-	-	-	-
50	Fid Club 68000	161	1459	-	-	-	-
51	Novag Jade / Zircon	161	18	-	-	-	-
52	Novag Forte B	159	1917	-	-	-	-
53	Meph Rebell	159	2121	-	-	-	-
54	Fid Avant Garde 5	159	1721	-	-	-	-
55	Fid Par E./Des. 2100	158	2538	--	--	--	--
56	Saitek Stratos /Corona	158	3053	-	-	-	-
57	Novag Forte A	157	2202	-	-	-	-
58	Meph S.Mondial 1	157	1420	-	-	-	-
59	Conchess Plymate 5.5	157	2169	-	-	-	-
60	Saitek Simultano	157	364	-	-	-	-
61	Saitek Gal./Ren. B6	157	976	-	-	-	-
62	Conchess 6	155	107	-	-	-	-
63	Fid Excellence 4	155	1740	-	-	-	-
64	Novag Expert 4	155	962	-	-	-	-
65	Conchess Plymate 4	153	372	-	-	-	-
66	Saitek Turbo Kasp 4	153	512	-	-	-	-
67	Fid Elite C	152	182	-	-	-	-

Rank	Computer	BCF	Games	Elo	BCF	+/- equiv. Elo	Games
68	Mephisto MM2	151	781	-	-	-	-
69	Saitek Gal. / Ren. B4	151	37	-	-	-	-
70	Fid Exc. / Des. 2000	150	1646	-	-	-	-
71	Saitek Prisma / Blitz	149	306	1736	141	50	202
72	Conchess 4	148	509	-	-	-	-
73	Novag Super Const.	147	3689	1729	141	18	1581
74	Novag Super Nova	147	411	1731	141	38	350
75	Novag Supremo	144	28	-	-	-	-
76	Meph Europa/M.Polo	143	240	1684	135	54	170
77	Novag Super VIP	143	335	-	-	-	-
78	Fid Prestige / Elite A	142	856	-	-	-	-
79	Fid Sensory 12	141	1340	-	-	-	-
80	Saitek Superstar 36K	139	997	-	-	-	-
81	Conchess 2	139	1096	-	-	-	-
82	Novag Const. 3.6	137	825	-	-	-	-
83	Novag Quattro	137	585	-	-	-	-
84	Novag Primo / VIP	137	354	-	-	-	-
85	Meph Mondial 2	136	31	-	-	-	-
86	Fid Elite B / Original	133	236	-	-	-	-
87	Meph Mondial 1	131	247	-	-	-	-
88	Novag Const. 2.0	130	1289	-	-	-	-
89	CXG S.Ent/Adv.Star	128	922	1559	120	39	386
90	CXG 3000	123	17	-	-	-	-
91	Fid Sensory 9	121	1114	-	-	-	-
92	Saitek Ast/Conq/Cavl	121	61	-	-	-	-
93	Nov Mentor16/Amigo	118	22	-	-	-	-
94	GGM + Steinitz	117	287	-	-	-	-
95	CXG 2001	116	84	-	-	-	-
96	Mephisto 3	115	633	-	-	-	-
97	Saitek T'bo/S.Star 24k	115	346	-	-	-	-

PC Programs

1	ChessMachine 30Mhz (King 2.0, aggressive)	-	-	2349	219	64	176
2	M-C Pro 486/50-66	-	-	2303	212	57	215
3	C. Genius 486/50-66	-	-	2298	212	62	157
4	ChessMachine 30Mhz (Schroeder 3.1)	-	-	2282	210	63	149
5	ChessMachine 16Mhz (Schr. 512k ARM2)	-	-	2217	202	33	528
6	ChessMachine 16Mhz (King 512k ARM2)	-	-	2206	201	42	312
7	M Chess 1.1-1.71 (on 486/33)	-	-	2197	200	43	326
8	Fritz 2 (486/33)	-	-	2156	194	52	202
9	M Chess 1.1 - 1.66 (on 386/25-33)	-	-	2129	191	37	396
10	Rex Chess 2.3 (on 386/25-33)	-	-	2030	179	64	126
11	Fritz 1.0 486/33	-	-	2022	178	63	128
12	Zarkov 2.5 386/25-33	-	-	2018	177	56	168
13	Rex Chess 2.3 (on 386/16-20)	-	-	1928	166	53	174
14	Psion Atari 68000/8	-	-	1880	160	18	1463
15	Chessplayer 2150 (Atari/Amiga)	-	-	1710	139	67	126
16	The Final Chesscard (6502 5Mhz.)	-	-	1696	137	65	149
17	Chessmaster 2100 (Amiga 68000)	-	-	1676	134	85	100
18	Chess Champion 2175 (Atari/Amiga)	-	-	1669	134	62	157