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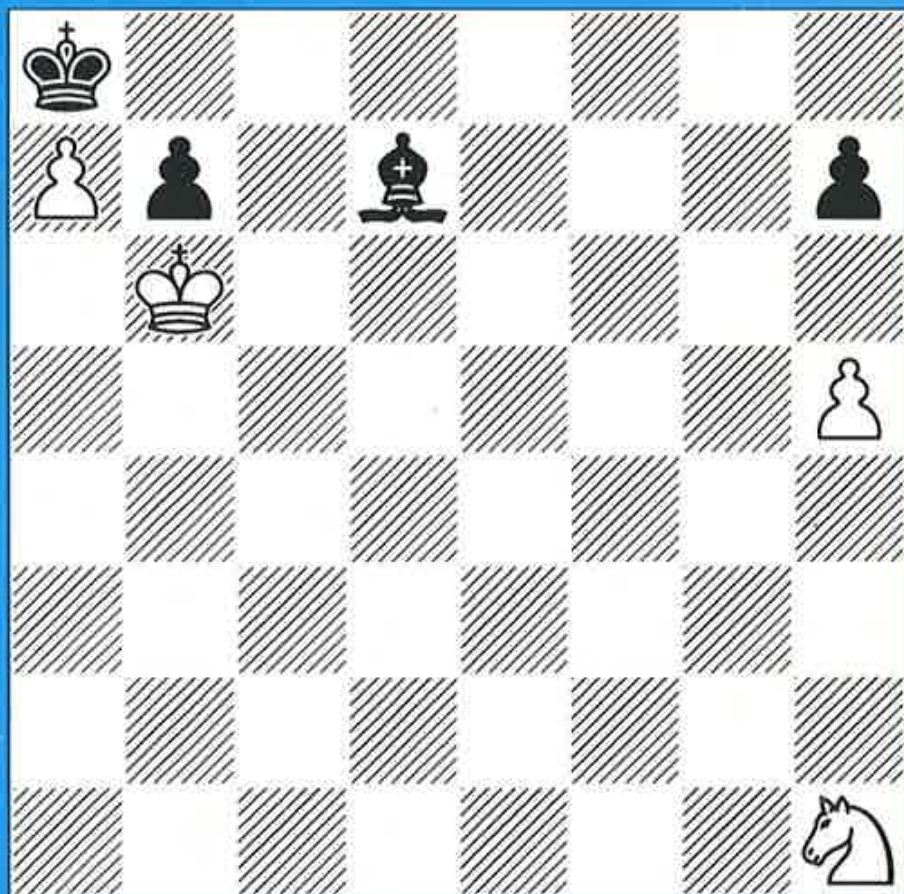
June / July 1994

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Issue 052

Selective Search

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Intel World Chess Express Challenge

By Frederic Friedel

A remarkable tournament, the Intel World Chess Express Challenge, ended on May 20th with a first-class sensation. The program Fritz3, running on a 90 MHz Intel Pentium processor, shared first place with World Champion Garry Kasparov, beating most of the world's top players in the process.

The tournament was one of the strongest speed chess events of all time and nobody had given the computer any chance of ending in the top group. In the playoff Kasparov, determined and concentrated, was able to defeat the computer and take the first prize of \$20,000.

The second prize, won by Fritz3 (the prototype of which went by the name of *Quest*), was donated to the youth fund of the German Chess Federation. One day after the tournament Kasparov appeared on live German national television and played an informal game against the same program. To his chagrin he lost this game in front of millions of viewers. He has sworn revenge and demanded a TV rematch over ten games, "to teach the machine who is the real master of the game."

The Intel World Chess Express Challenge was held in the German Technical Museum in Munich, organized and hosted by the Professional Chess Association (PCA). The event started on Thursday, May 19, with a qualifier in which a total of 64 participants played in two separate double-round nine-game Swiss tournaments. A total of eight players qualified for the finals on Friday.

They were joined by top seeds Kasparov, Anand, Kramnik, Short, Gelfand, Hübner, Lobron, Hertnek, Leko and a computer program, Fritz3, running on

Intel's latest and most powerful chip, the Pentium Plus.

We entered Fritz3, playing on a 90 MHz Olivetti Pentium Plus computer, which is an awesome machine, but I must say that I was quite nervous about the strength of the field. We had only had about two months of development and testing time for the new program, which was optimized for speed and attacking play.

We didn't try to implement a sound strategic style, at which the top players are superior anyway. Fritz3 was tuned to strive for unbalanced positions and seek tension. Attack a piece and it should counterattack rather than exchange, try to block the position and it should unblock it with aggressive thrusts. We were relying heavily on the speed of the Pentium Plus which allows the program to examine over 100,000 positions per second. At this speed even the smallest of errors could prove devastating for the human opponent.

However, the tournament had become unexpectedly strong. Instead of just local players, as originally expected, over 35 international grandmasters had registered for the qualifier. In the finals all the players were grandmasters, most in fact in the 2600+ super-grandmaster category. It was one of the strongest speed chess tournaments of all times, certainly the strongest on German soil. Would Fritz be mangled by this kind of cerebral power?

As the tournament progressed my own doubts about the performance of Fritz were slowly dissipated. In the first round it drew against Leko, the world's youngest GM and the nominally weakest player in

the tournament. But then it went on to win three games, including one against Vishy Anand, who has played literally hundreds of games against its predecessor Fritz2. Soon the program was in the lead and we realized that a super-sensation was in the making.

In the following rounds Fritz scored remarkable victories against the other top seeds: Kramnik, Short, Gelfand, Chernin, all succumbed to the ruthless attacking style of the program. Obviously they were playing better chess, but they were also making errors, and Fritz was not letting any opportunities go by. Gelfand, for instance, could have easily forced a draw. But he pressed for more and paid dearly for that.

The high point was, of course, the game against Kasparov. After five minutes of flashlights and television glare, Garry started the game with a specially prepared trick opening for the computer (1 e3). Fritz couldn't profit from its enormous openings knowledge and soon found itself confronted with a blistering attack by one of the greatest attacking players of all time.

But computers have nerves of steel and Fritz played on without the slightest qualms. While Garry tore open its king-side the program coldbloodedly counter-attacked, retaining two connected passed pawns to decide the encounter. Kasparov, who had won his last six games in the tournament, was so shattered by this defeat that he played his next game in a daze and lost that as well. "The computer almost ruined the entire tournament for me", he said later.

Fritz marched on, winning many, losing two and ending with a score of 12½ points out of 17 games. It shared first prize with Kasparov.

The average rating was 2625. By scoring 12½ out of 17 Fritz3 achieved a performance of 2803 points, slightly higher

than Kasparov's, who had the same score but weaker opposition. He played against the unrated Fritz3 and not the strongest player (Kasparov). In the computer games Fritz was given five minutes, the human opponents six minutes.

After a short pause there was a play-off

EXPRESS CHALLENGE 5- Minute Tournament Munich

1	G. KASPAROV	12½
2	FRITZ 3	12½
3	V. ANAND	12
4	N. SHORT	11
5	B. GELFAND	11
6	A. DREYEV	11
7	Ki. GEORGIEV	10½
8	V. KRAMNIK	10
9	O. CVITAN	8½
10	P. NIKOLIC	8
11	G. HERTNECK	8
12	R. HUBNER	7
13	A. W'KIEWICZ	6
14	A. CHERNIN	6
15	E. LOBRON	5
16	J. HJARTARSON	5
17	M. PETURSSON	4½
18	P. LEKO	4½

between man and machine, between the World Champion and the presumptuous Fritz. Garry spent the half-hour break pondering his strategy and appeared at the board in high spirits. "I'm going to teach it a lesson," he said, "and I know exactly how I'm going to do it."

In the first game he reached a promising position but dropped the win in the endgame. Was the unthinkable going to happen? No way! In the following game Fritz met its master and was stuffed away with three convincing victories and a draw. The Grandmasters following the games on a monitor outside the playing

hall burst into enthusiastic catcalls as the computer was ground down to mate in the final game.

As the winner of the tournament Kasparov received the first prize of \$20,000. The second prize of \$10,000 went to Fritz, but not into the pockets of its programmers or back to the sponsor Intel. It was donated to the German Chess Federation for their youth program.

The tournament was a great success for all involved. The players had a great time, competing for the largest prize fund ever handed out at a blitz tournament. There were no incidents or serious complaints - except perhaps that the hall was far too small.

A number of visitors had to be denied entrance because there were already hundreds crammed around the players. Intel got the chess show of the year and was able to impressively demonstrate the power of their new Pentium chip. And, very importantly, in the end the human mind had triumphed over the machine, even if it was by the smallest possible margin.

Quotes from players

Nigel Short to Garry Kasparov on the way to the tournament:

"So Garry, in this tournament, who do you think will be in the playoff against Fritz?" (Uproarious laughter at the sheer absurdity of the idea).

Vishy Anand after the tournament: "Having seen Terminator 1 and 2 I was naturally on the side of the machines. But not any more!"

Boris Gelfand: "Six minutes is unfair.

With seven minutes I could CRUSH it!" (and accepted a bet with me for \$1000 that he will win a match of ten games).

Vladimir Kramnik: "In games against humans you often win because the opponent blunders a piece, and you can often survive when you do it yourself. Against the computer you only make one mistake - the last one."

Garry Kasparov: "When you try to strangle it, there is a lot of kicking. And if you release your grip for an instance you immediately find it strangling you."

Nigel Short, when asked why he had lost to the computer: "Because the damn thing is better than me at blitz. What else can I say?"

Garry Kasparov: "When I am well rested I can get 80% against any grandmaster or Fritz. When I am exhausted or unconcentrated my result will sink to 50% against grandmasters and 0% against Fritz." (Garry had just lost four practice games in the TV studio).

John Nunn, who tested the program for us: "It will probably win the tournament." (I bet an exquisite dinner that Fritz would get less than 50%. John is currently searching for the most expensive restaurant in Hamburg).

Kasparov on German TV

On the day after the tournament I took an ebullient Kasparov to our biggest television sports shows. He was interviewed and came across extremely well. Then they asked him to play an informal game against Fritz live in the studio. Garry's always a great sport and agreed. He got four

minutes, the computer two.

There was some bantering during the game and Garry was practically doing a running commentary. Of course he promptly lost. The audience loved it, Garry most certainly didn't. Off camera he showed me three points at which he could have won, and was genuinely upset, until the next morning when I offered him revenge. We have agreed to play ten dead serious blitz games in front of a TV audience, possibly in the USA, later this year.

Fritz3 - the program

Fritz3 was developed by ChessBase in Hamburg. The chess engine was written by Frans Morsch and represents a general rewrite of the Fritz2 program. Using improved search techniques a considerable increase in the speed and depth was achieved, making the program tactically more dangerous.

In addition Frans has implemented considerable positional knowledge, without, however, slowing the program down any more than necessary (Fritz3 is faster with the positional knowledge implemented than Fritz2 without it).

Fritz3 also used a special openings book, written by C. de Gorter and optimized for play against humans. It is very broad and includes openings which are normally excluded from tournament books because they are considered "too dangerous".

In general the Fritz3 book strives for open, unclear and exciting positions, rather than blocked, strategic ones in which the program would have to develop long-term plans.

The program also has a new learning feature that prevents it from repeating obvious mistakes it makes during a game. It also has a "serious mode" in which strict tournament conditions are implemented

(no takeback, no information or hints, time controls) so the user can practise under proper tournament conditions.

Finally, the experience we have gained in the Express tournament in Munich will improve the program on two fronts. On the one hand we discovered a number of weaknesses that can and will be removed before the program is released.

On the other there was an obvious disadvantage to some of the players who were inexperienced operators. In order to make fast games against the computer fairer to the humans we have built in an incremental "Blitz clock" that adds a certain amount of time every time a move is made.

Fritz on the Pentium

In spite of all the improvements to the program it must be said that the single most dramatic advantage was the use of a Pentium Plus processor in the Munich tournament.

The speed of the program on this machine was breath-taking: Fritz3 was looking at well over 100,000 positions per second, finding tactics and ideas it would never have come up with on a slower machine. It is very likely that the Pentium contributed as much to the spectacular success in Munich as the improvements in the program described above.

New features of Fritz3

Deeper searches, more positional understanding, better endgame; Openings book optimized for humans; learning function - the program actually becomes better the more it plays; improved graphics and screen animation; new incremental blitz clocks; other improvements which will be announced at release.

Comment: Our thanks to Frederic Friedel of ChessBase for this highly readable report. It is refreshing to see that Mr Friedel, whose firm produces Fritz after all, is sufficiently fair-minded to give much of the credit for this result to the extraordinary hardware used - not just a Pentium, but a Pentium *Plus*!

Additionally, it should be borne in mind that the top programs can already beat the average grandmaster at blitz more often than not, and this result is a first only as regards the strength of the field, including as it does many of the world's elite.

Fritz 2, after all, despite being acknowledged as considerably weaker than the top-of-the-tree Genius 2 (and also weaker than its price-rival Hiarc 2.1) also took several games off Kasparov at blitz. It is reasonable to speculate that either of the two programs mentioned above (and perhaps a couple of others too), would

have achieved a similar result.

All humans play weaker when using a computer screen instead of a board, even if the degree varies from one player to another, and GM Murray Chandler, writing in the BCM, gave this caveat about Fritz 3's performance: - " ...it must also be noted that Fritz 3 did have two significant factors in its favour in Munich. First of all the players had to play it on the screen (transmitting the moves with a mouse), rather than using a normal board and set. Most grandmasters agree it is far more difficult to concentrate - and calculate - on a screen.

Secondly, the extra minute given to the humans, to compensate for transmission time, must be insufficient for long games. The BCM would like to see standard conditions drawn up that will govern such battles between man and machine, making comparative performances between tournaments accurate."

Letter to the Editor

Your interesting article in S/S 51 on the Alekhine's defence reminded me of some analysis I did recently on a related variation of the Four Pawns Attack that may interest you and Graham Burgess.

I was looking at the line 1 e4 d6 2 e5 d5 3 d4 d6 4 c4 b6 5 f4 de 6 fe c5 (Burgess calls this the Argunov variation) 7 d5 e6 8 d3 ed (I have played Wh4+?! here, which is not very good) 9 cd c4 10 f3 g4 11 d4!? (those of you with a nervous disposition are advised to play 11 e2! which Burgess considers best, and he's probably right.) 11... f3 12 gf b4 13 c4 0-0 14 g1 g6 15 g5.

I was first alerted to this variation on reading Jon Speelman's annotations to the game Bronstein v Ljubojevic in his excellent book *Best Chess Games 1970 - 1980*. Timman analysed 15... c8 16 b3 c5 17 Wh4 g1 18 Wh6! as winning for White, e.g. 18 f5 19 d6+ d4 20 f6 f7 21 d5 with an overwhelming attack. However, I believe 17... f5! is strong. Speelman analyses 18 e4 d8d7 19 f6 d5 20 Wh6 d3+ 21 d2 as a win for White, but when you next get this position, play 20... b4+! as this wins for Black!

On the subject of E.C.O. busts, there is a game in D44: 1 d4 d5 2 c4 e6 3 d3 f6 4 f3 c6 5 g5 dc 6 e4 b5 7 e5 h6 8 h4 g5 9 d5 hg 10 g5 bd7 11 e2 b7 12 0-0?? We are in note 83, Kostic v Karaklajic. You will probably be as amazed as I am that Black played ... a5 and not ... c7!

There is also some amusing analysis in *Informator* 49 on the line 9 ef gh 10 e5 g8 11 e2 d7 12 c6 b6 13 e5 e5 14 de g2 15 f3 b7 16 g2 g2 17 g1 h3 "Unclear". Hopefully, this will not also find its way into ECO as Black has a slight improvement to make instead of 15... b7!

Yours sincerely, Graham White

Games Department

Frank Eastwood sends us this report on his R30

The Tasc R30 is one of the strongest dedicated chess computers available and has held its own in grandmaster v computer tournaments. Its tactical strength is greater than that of most humans, and though it is listed as master strength why is it not of grandmaster calibre? The following game gives a clue.

Modern

□ Frank Eastwood

■ Tasc R30 (Active, 40 in 2)

1 e4 d6 2 d4 ♘f6 3 ♘c3 g6 4 ♙e2

A flexible move which can be followed by 5 h4, 5 g4, or if you must, by ♘f3.

4...♙g7 5 ♙g5

This is a novelty first played by Hugh Myers, mentioned in his book *Exploring The Chess Openings*.

5...c6 6 f4 ♖a5 7 ♖d2 b5 8 ♙d3

Although this may seem to be a loss of time, White must regroup to maintain hold of the centre.

8...b4 9 ♘ce2 d5 10 ♙xf6?! exf6

This surprised me.

11 exd5 cxd5 12 ♖e3+ ♙d8 13 ♘f3 ♖e8

14 ♖d2 ♘c6 15 0-0



At this point I considered White to be the equivalent of 1½ pawns up. Black cannot utilise his pawn mass on the kingside,

his king is misplaced, and his pawns are weak. Also, White is ready to mobilise his queenside pawns. In analysis mode after the game, the R30 gave -0.37 after 15...♙g4 and -0.50 after 10 ♙xf6. Although the Tasc usually gives a proper positional assessment, it seems to over-evaluate four pawns to three in this type of position.

15...♙g4 16 a3 ♖b6 17 c3 bxc3 18 bxc3 ♖a5 19 f5 ♙d7 20 h3 ♙xf3 21 ♖xf3 g5 22 ♖a2 ♖ac8 23 ♖b1 ♖b8 24 ♖xb8 ♖xb8 25 a4 ♙c7 26 ♖f1 h5 27 ♖c1 ♙h6 28 g4 hxg4 29 hxg4 ♙d7 30 ♖b1 ♖xb1+ 31 ♖xb1 ♙g7 32 ♙b5 ♖b6 33 ♖b3 ♙d6 34 c4 dxc4 35 ♖xc4 a6 36 ♙xc6 ♖xc6 37 ♖xf7 ♖d7 38 ♖xd7+ ♙xd7 39 ♙f2 ♙f8 40 ♘c3 ♙c6 41 ♙e3 ♙e7 42 ♙d3 ♙d6 43 ♙c4 ♙d7 44 ♘d5 ♙d8 45 ♙c5 a5 46 ♘b6+ ♙c7 47 ♙b5 ♙d6 48 ♘c4+ ♙d7 49 ♘xa5 ♙c8 50 ♘c6 ♙c7 51 ♘b4 ♙b8 52 ♘d5

...and White won.

1-0.

The next three games were played at 10 seconds a move. The Tasc's score against me at this speed is 9½ out of 10 - here is how you gain the half point!

Vienna

□ Frank Eastwood

■ Tasc R30 (Active, 10 secs. avge.)

1 e4 e5 2 ♘c3 ♘f6 3 f4 d5 4 fxe5 ♘xe4 5 d3 ♙b4 6 dxe4 ♖h4+ 7 ♙e2 ♙xc3 8 bxc3 ♙g4+ 9 ♘f3 dxe4 10 ♖d4 ♙h5 11 ♙e3 ♙xf3 12 gxf3 ♖e1+ 13 ♙f4 ♖h4+ 14 ♙e3 ♖e1+ 15 ♙f4 ♖h4+ 16 ♙e3 ½-½.

This variation was repeated in the other four styles of play. Usually the Tasc plays different variations of an opening when the style is changed (really? I'm not convinced about this! Ed.) but not so with this variation of the Vienna.

Sometimes, however, I am able to compete at the rate of of 30 moves in 20 minutes. If you play solidly, the machine picks up the slightest mistake instantly, as here.

Dutch

Tasc R30 (Normal, 10 secs. avge.)

■ Frank Eastwood

1 c4 e6 2 d4 f5 3 ♘f3 ♘f6 4 g3 d5 5 ♙g2 c6 6 0-0 ♙d6 7 b3 ♚e7 8 ♙b2 b6 9 ♘e5 ♙b7 10 ♘d2 0-0 11 ♚c2 ♘a6 12 a3 ♚ac8 13 ♚fd1 c5 14 dxc5 ♘xc5 15 b4 ♘cd7 16 ♘xd7 ♘xd7 17 ♚b3 ♘f6 18 cxd5 ♙xd5 19 ♙xf6 ♚xf6 20 ♙xd5 exd5 21 ♚xd5+ ♙h8 22 ♘c4 ♚d8 23 e3 ♙c7 24 ♚b7 a5 25 bxa5 ♚b8 26 ♚a7 bxa5 27 ♘xa5 ♚g6 28 ♘b7 ♚e8 29 ♘d8 ♚e7 30 ♚ac1 ♚xd8 31 ♚xd8+ ♚xd8 32 ♚xc7 ♚xc7 33 ♚xc7 1-0.

The Tasc is well booked in the openings and can come up with improvements over established lines. Sometimes its human assistants provide it with lines that are not of the best, and these can be exploited. However, the best approach is to prepare your own analysis, get it out of its book and into yours, and then attack it, as in this game.

Nimzovich

□ Tasc R30 (Active, 10 secs. avge.)

■ Frank Eastwood

1 e4 ♘c6 2 ♘f3 f5 3 exf5 d5 4 ♘h4 e5 5 ♚h5+ g6 6 fxg6 ♘f6 7 g7+ ♘xh5 8 gxh8Q ♚xh4 9 ♚xh7 ♘d4

With the idea of ...♙f5. Hugh Myers, in his excellent book *Nimzovich Defence to 1 e4*, 3rd edition, quotes the game 10 ♚xc7?

♙d6! 11 ♚h7 ♙f5 12 ♙b5+ ♙f8 13 ♚h8+ ♙f7 14 ♚xa8 ♚e4+ 15 ♙f1 ♘xc2 16 ♚xb7+ ♙f6 17 ♙e2 ♘f4 and Black wins with threats on e2 and g2 - Mephisto III v J. Martin, 1984.

10 ♘c3 c6 11 ♚g6+ ♙d8 12 g3 ♚f6 13 ♙d3 e4 14 ♚xh5 exd3 15 0-0 ♙f5 16 f4 dxc2 17 ♚g5 ♙e7 18 ♚xf6 ♙xf6 19 ♙f2 ♙d7 20 h4 ♙d3 21 ♚h1 ♚e8 22 g4 ♘e6 23 f5 ♘c5 24 ♚h3 ♙d4+ 25 ♙g2 ♙a6 26 ♚h1 ♘d3 27 h5 ♘f2 28 ♚h4 ♙f6 29 g5 ♙xg5 30 ♚a4 ♘d3 31 ♚g4 ♙h6 32 b4 ♚e1 33 b5 ♙xb5 34 ♘xb5 cxb5 35 ♚g6 ♚xc1 36 ♚xc1 ♘xc1 37 ♚xh6 ♘xa2 38 ♚h7+ ♙d6 39 ♚h6+ ♙c5 40 ♚h7 ♘b4 41 ♚xb7 c1 ♚ 0-1.

The Tasc never gets into the mess that it did here from its book lines (*tournament* book lines? Ed.), but Black was playing four times slower! A TN (theoretical novelty - Ed.) is no guarantee of success and in my final example the R30 plays much better without the use of its book.

Scotch

□ Frank Eastwood

■ Tasc R30 (Offensive, 10 secs. avge.)

1 e4 e5 2 ♘f3 ♘c6 3 d4 exd4 4 ♙b5 a6 5 ♙a4 b5 6 ♙b3 ♙b7 7 0-0 ♙d6 8 e5 ♙c5 9 c3 dxc3 10 ♘xc3 ♘ge7 11 ♙e3 d6 12 e6 f6 13 ♚d2 ♘a5 14 ♙xc5 ♘xb3 15 axb3 dxc5 16 ♚e3 ♚d6 17 ♚fd1 ♚c6 18 ♚ac1 0-0 19 ♚d7 ♚fe8 20 b4 ♙c8 21 ♚d2 ♙xe6 22 bxc5 ♙c4 23 b3 ♙f7 24 ♘e2 a5 25 ♘fd4 ♚d7 26 c6 ♘xc6 27 ♘xc6 ♚xe3 28 ♚xd7 ♚xe2 29 ♙f1 ♚ae8 30 ♘xa5 ♚a2 31 b4 c5 0-1.

In summary, I would say that the R30 has master-strength-plus tactics and good positional judgement, but sometimes not of the best in certain situations.

□ Tasc R30

■ Hiarc Master 2.0/486/33

1 ♖f3 d5 2 d4 ♖f6 3 c4 e6 4 ♙g5 ♙e7 5
♜c3 0-0 6 e3 h6 7 ♙h4 b6 8 ♙e2 c5 9
♞c2 ♜c6 10 0-0 cxd4 11 ♜xd4 ♜xd4 12
exd4 dxc4 13 ♙f3 ♚b8 14 ♙g3 ♙d6 15
♙e5 ♙b7 16 ♙xb7 ♚xb7 17 ♚ad1 b5 18
♜e4 ♜xe4 19 ♞xe4 ♚d7 20 ♙xd6 ♚xd6
21 b3 ♞a8 22 ♞e3 ♚c8 23 ♚fe1 ♞d5 24
♚e2 ♚dd8 25 f3 c3 26 ♞c1 b4 27 ♞c2 a6
28 ♞d3 e5 29 ♞f5 ♚c5 30 f4 exf4 31
♞xf4 ♞f5 32 ♞h4 ♚cd5 33 ♚de1 ♚xd4
34 ♞e7 ♞c8 35 ♚f2 ♚d7 36 ♞e2 ♚d2 37
♞c4 ♞xc4 38 bxc4 c2 39 ♚ef1 ♚xf2 40
♜xf2 ♚d1 41 ♚xd1 cxd1 ♞ 0-1.

Next three games: Frank Holt

□ Tasc R30

■ Chess Genius 1/486/66

1 e4 c5 2 ♜f3 e6 3 d4 cxd4 4 ♜xd4 a6 5
c4 ♜f6 6 ♜c3 ♙b4 7 ♙d2 0-0 8 e5 ♙xc3
9 ♙xc3 ♜e4 10 ♞c2 d5 11 exd6 ♜xc3 12
♞xc3 ♞xd6 13 0-0-0 ♚d8 14 ♙e2 ♞c7
15 ♞g3 ♞e7 16 ♚he1 ♜c6 17 ♜xc6 bxc6
18 ♚xd8+ ♞xd8 19 ♚d1 ♞e7 20 ♞d6
♞xd6 21 ♚xd6 ♜f8 22 ♙f3 a5 23 ♚d8+
♜e7 24 ♚g8 g6 25 ♙xc6 ♚b8 26 c5 g5 27
♚e8+ ♜f6 28 b3 ♜e5 29 ♙d7 ♚xb3 30
♙xc8 ♚c3+ 31 ♜b2 ♚d3 32 ♙c6 1-0.

□ Tasc R30

■ Chess Genius 1/486/66

1 e4 e5 2 ♜f3 ♜c6 3 ♙c4 ♙c5 4 d3 ♜f6 5
♜c3 d6 6 ♜a4 ♙b6 7 ♜xb6 axb6 8 ♙g5
h6 9 ♙h4 ♞e7 10 0-0 0-0 11 c3 ♙e6 12
♙b5 g5 13 ♙g3 ♜h5 14 ♜d2 ♜xg3 15
fxg3 d5 16 exd5 ♙xd5 17 ♙xc6 ♙xc6 18
♞e2 ♞c5+ 19 ♜h1 ♞d5 20 ♜c4 f6 21
♜e3 ♞f7 22 b3 ♜h7 23 ♚ad1 ♞e7 24
♞c2 ♞f7 25 d4+ ♞g6 26 ♞e2 ♞e4 27 d5
♙d7 28 d6! c6 29 ♚f2 b5 30 g4 b4 31 c4
c5 32 ♚d5 ♙c6 33 ♚d2 ♚f7 34 ♜g1 b6 35
♚f3 ♞g6 36 ♚f1 ♞e4 37 ♚f2 ♚a3 38 h3

♚a8 39 ♚f3 ♞g6 40 ♚f1 ♞e4 41 ♞f2 ♚d8
42 ♜f5 ♞f4 43 ♞e1 ♞e4 44 ♚e2 ♞d3 45
♚e3 ♚xd6 1-0.

□ Tasc R30

■ Chess Genius 1/486/66

1 e4 c5 2 ♜f3 ♜c6 3 d4 cxd4 4 ♜xd4 ♜f6
5 ♜c3 d6 6 ♙g5 e6 7 ♞d2 a6 8 0-0-0 h6 9
♙f4 ♙d7 10 ♜xc6 ♙xc6 11 f3 d5 12 ♞e1
♙b4 13 a3 ♙a5 14 ♙d2 ♞e7 15 e5 ♜d7
16 ♜b1 ♙b6 17 f4 f6 18 exf6 ♞xf6 19 g3
0-0 20 ♙h3 ♚ae8 21 ♙e3 d4 22 ♙xd4
♙xd4 23 ♜e4 ♙xe4 24 ♞xe4 ♙xb2 25
♚xd7 ♙xa3 26 ♚xb7 ♚b8 27 ♙xe6+
♜h8 28 ♚e1 ♞c3 29 ♚d1 ♙e7 30 ♚dd7
♙f6 31 ♜c1 ♚xb7 32 ♚xb7 ♚d8 33 ♙d7
♞c5 34 c4 ♞g1+ 35 ♜d2 ♞xh2+ 36 ♜d1
♞xg3 37 ♜e2 ♞h2+ 38 ♜e3 g5 39 fxg5
♙xg5+ 40 ♜d4 ♞d2+ 41 ♜c5 ♙f6 42
♜c6 ♙g7 43 c5 ♞c3 44 ♙e6 ♚f8 45 ♞g6
♞d4 46 ♚b6 ♞a1 47 ♞e4 ♞a3 48 ♚b3
♞a5 49 ♚b4 ♞d8 50 ♚b7 ♞e8+ 51 ♜d5
♚f2 52 c6 ♚d2+ 53 ♜c5 1-0 (66).

Next game: Mark Pierce

□ Saitek 2500

Mephisto Genius 2/486/33

1 e4 e5 2 ♜f3 ♜f6 3 d4 exd4 4 e5 ♜e4 5
♞xd4 d5 6 exd6 ♜xd6 7 ♙d3 ♜c6 8 ♞f4
g6 9 0-0 ♙g7 10 ♚e1+ ♙e6 11 ♜g5 0-0
12 ♜xe6 fxe6 13 ♞g4 ♙d4 14 ♞xe6+
♜h8 15 ♚d1 ♞h4 16 g3 ♙xf2+ 17 ♜g2
♞h5 18 ♙e2 ♞c5 19 ♙f4 ♚ae8 20 ♞g4
♞xc2 21 ♚d2 ♞c1 22 ♙d1 ♙d4 23 ♚c2
♞xb2! 24 ♚xb2 ♙xb2 25 ♙xd6 cxd6 26
♞d7 ♚e7 27 ♞xd6 ♚ef7 28 ♞d2 ♙xa1
29 h4 ♙d4 30 ♞d3 ♚f2+ 31 ♜h3 ♚xa2
32 ♙b3 ♚b2 33 ♙d5 ♚d8 34 ♜c3 ♚b6 35
g4 ♙e5 36 ♞f3 ♚b2 37 g5 ♚d2 38 ♙e4
♜b4 39 ♜g4 ♜d3 40 ♜e2 ♜c5 41 ♜c3
♚d4 42 h5 ♜xe4 43 ♜xe4 ♚xe4+ 44
♞xe4 ♚d4 45 ♞xd4 ♙xd4 0-1.

SOLUTIONS

1: Tal - Chandler (Liverpool 1974, simul); 1 ♖xf7!! ♖xf7 2 fxe6+ ♖g8 3 e7 ♖e6 4 dxc5 ♖xc5+ 5 ♖h1 ♖xc3 6 ♖d8!! ♖d7 7 ♖e5!! ♖xe5 (or 7...♖xc4 8 ♖xe6+! ♖xe6 9 ♖f8+) 8 ♖f8+ 1-0. (15m.). All computers went in and out of winning move, so these times are unreliable! (The same thing applies to No. 5).

Risc 2500 - 5s. Berlin Pro - 3s. R30 - 13s. Risc 1Mb - 3s. V2 - 1s.

2: Fischer - Cardoso (New York, 1957); ♖xg7+!! ♖xg7 2 ♖h6+ ♖h8 3 g6! ♖c5+ ♖f2 fxg6 5 fxg6 ♖g5+ 6 ♖xg5 ♖xg5 7 ♖xf8+ ♖xf8 8 ♖xf8+ ♖g7 9 gxf7 1-0. (15m).

Risc 2500 - 6s. Berlin Pro - 1s. R30 - 64s. 1Mb. - 4s. V2 - 3s.

3: Shiyanovsky - Lipnitsky (Kiev, 1952); 1 ♖f5! ♖g6 (1...exf5 2 ♖xf6 and 3 ♖c6, or 1...♖g8 2 ♖c6) 2 ♖xg7+ ♖f8 3 ♖xf6 ♖xf6 ♖xe6+! 1-0. (8m).

Risc 2500 - 1m 47s. Berlin Pro - 58s. R30 - 21s. 1Mb. - 27s. V2 - 23s.

4: Sliwa - Stolz (Bucharest, 1953); 1 ♖xc6!! bxc6 2 b7 ♖d8 3 b8Q ♖d1+ ♖xd1 4 ♖xd1 ♖xb8 5 ♖b7!! 1-0. (9m.).

Risc 2500 - 5m 24s. Berlin Pro - not found. R30 - 27s.

5: Kashits - Polyakov (USSR, 1950); 1 e5!! (threatening 2 ♖xg5+) 1...♖e8 2 exf6+ ♖xf6 3 ♖xg5+ hxg5 4 ♖h7+ ♖f8 5 ♖xg5 ♖f7 6 ♖h8+ ♖e7 7 ♖xf6+ ♖xf6 8 ♖e1+ etc. 1-0. (20m.). Risc 2500 - 5s. Berlin Pro - 11s. R30 - 19s. 1Mb. - 7s. V2 - 7s.

6: Nersisyan - Kremensky (Moscow, 1968); 1 ♖g7+!! ♖xg7 2 ♖b7!! ♖h6 ♖xc8+ ♖f7 ♖d7+ ♖f6 5 ♖xh7 ♖e5 6 ♖c7 ♖b1+ 7 ♖g2 ♖e4 8 g4 1-0. (15m).

Risc 2500 - 5m 10s. Berlin Pro - 2m 40s. R30 - 2m 35s.

7: Saprokhin - Arabkertsev (Volgograd, 1967); 1 ♖c2! ♖xc4 (1...♖xc2 2 ♖xh6 gxf6 3 ♖h3) 2 ♖xh6 gxf6 3 ♖h3 f6 4 ♖xh6+ ♖g8 5 ♖g3+ ♖f7 6 ♖g7+ 1-0. (12m).

Risc 2500 - not found. Berlin Pro - not found. R30 - 8m 23s. 1Mb. and V2 - not found.

8: Petri - Both (West Germany, 1966); 1 ♖xd6!! ♖xd6 2 ♖ce4 ♖xe4 3 ♖xe4 ♖g6 4 ♖xf7! ♖xf7 (4...♖e7 5 ♖e5+!) 5 ♖e8+ ♖f8 6 ♖xf7+ ♖h8 7 ♖xg6 1-0. (15m.).

Risc 2500 - 12m 01s. Berlin Pro - 8m 24s. R30 - 1m 51s.

9: Scheinke - Bogkof (Correspondence, 1963); 1 ♖h6+!! ♖xh6 2 ♖xe6+ g5 (2...♖h5 3 ♖e2+ ♖h4 4 ♖g5++) 3 ♖xg5+ ♖h5 4 g4+! ♖xg4 5 ♖g1+ ♖h3 6 ♖f4+ ♖xh2 7 ♖g2+ ♖h1 8 ♖d2 mate. (15m).

Risc 2500 - 23s. Berlin Pro - 45s. R30 - 3s. 1Mb. - 35s. V2 - 27s.

Using the scale in the book, it is no surprise to learn that all the computers are comfortably in the grandmaster class so far as pure tactical ability is concerned. The R30 was by no means the fastest every time, but when it was good (i.e. Nos. 7, 8, and 9), it was very, very good! Generally, the V2 showed the sort of improvement over its predecessor that one would hope for, but we will try to arrange for a more comprehensive test between them.

TIMING TESTS

A medley of positions taken from *Test Your Chess IQ - Grandmaster Challenge*, a fairly recent Cadogan publication written by Livshitz. The third and most difficult book in this popular series, IQ3 is "aimed primarily at players of master strength, or those approaching it." Livshitz defines this as Candidate Master strength in Russia, or 200+ on the BCF scale. A scoring system converts your result into an estimated Elo grade, one of the factors being the time taken on each diagram.

The 'par' solving time is shown in brackets after the solution on the facing page, and for the purposes of this test we deemed a computer to have failed if it took any longer than this. Competitors in the test were: The Berlin Pro, the Saitek 2500 (128k) and the Tasc R30. The original Mephisto Risc 1Mb, and its brand new update (called V2 for short), put in guest appearances but did not do all the tests due to logistical problems. White is to play in all cases. (Solutions: see opposite).



1



2



3



4



5



6



7



8



9

9th AEGON TOURNAMENT

The computer side suffered a setback at this year's 'Man v Machine' event in The Hague.

Last year was the first time that the computers actually outscored their opposition overall, and many thought that their score would rise inexorably year on year.

Indeed, computer expert Professor van den Herik, speaking at the opening ceremony made a prediction that the machines would win by 60% to 40%.

In fact, the final result of the contest was a effectively a draw, with both sides scoring 50% from the total of 228 games played. Apologists for computer chess may put this down as a quirk, but GM John Nunn, writing in the BCM, had a more convincing explanation:—"Given that the hardware has improved over the last year, and the software presumably hasn't deteriorated, how is it that the humans performed better?

The answer is clear; the humans are learning how to play against the machines. A number of relatively weak [i.e. 2000 Elo] players had great success at Aegon because they had studied the weaknesses of the machines..."

Dr. Nunn went on to make some fairly scathing comments about that old chestnut, the date when a CC will be world champion;—"This date is usually five years in the future, but like a mirage it miraculously stays the same distance in front of you..."

Later on the writer says:—"the commercial programmers tend to be much more conservative in their assessments of future strength, perhaps because they have to wrestle with the difficulties of actually writing the code, rather than simply commentate from on high... exaggerated claims are likely to be demolished in the

harsh reality of the tournament hall..."

After going through the tournament undefeated, to share first place with US grandmaster Larry Christiansen, Dr. Nunn has apparently downgraded his estimation of the strength of the top machines from circa 2400 to 2350.

All this said, five PC programs (Fritz 2 and 3, Zarkov 3.0, Hiarcs 2.1 and The King), and two dedicated machines (Berlin Pro and Tasc R30) scored four points, level with two GMs, and since Aegon has 'slow' time controls of 40 moves in 1.45 minutes, these results are very creditable.

No games have come our way from Aegon directly (whether because they were demoralised by the result I cannot say, but here at least is a win by the R30 over the notorious computer-crusher, grandmaster and former World Championship finalist David Bronstein.

Dutch

□ Tasc R30

■ David Bronstein

Aegon 1994

1 c4 e6 2 d4 f5 3 ♘c3 ♘f6 4 e3 ♙b4 5 ♘f3 0-0 6 ♙d2 b6 7 ♙d3 ♙b7 8 0-0 a5 9 a3 ♙xc3 10 ♙xc3 ♘e4 11 ♙c1 d6 12 ♙e2 ♘d7 13 b3 ♙e7 14 ♙b2 c5 15 ♙fe1 ♙ae8 16 ♙c2 ♘df6 17 ♙f1 ♙f7 18 ♘d2 ♙h5 19 f3 ♘g5 20 b4 axb4 21 axb4 cxb4 22 ♙a4 e5 23 ♙xb4 e4 24 ♙e2 exf3 25 ♘xf3 ♘g4 26 ♙xd6 f4 27 h4 ♘e4? 28 ♙xb6 ♘g3 29 ♙ce1 ♘xe3 30 ♙xb7 ♙b8 31 ♙d7 ♙xb2 32 ♙f2 ♙h8 33 ♙d3 ♙bb8 34 ♙a2 ♙bd8 35 ♙c7 ♙g4 36 ♙b7 ♙b8 37 ♙a7 ♙be8 38 ♙c5 ♙c8 39 ♙g5 ♙d7 40 ♙xe3 fxe3 41 ♙xg3 ♙fe8 42 ♙g5 ♙c6 43 ♘e5 ♙xd4 44 ♘xc6 ♙xd3 45 ♙a7 ♙d1+ 46 ♙h2 ♙d6+ 47 ♘e5 g6 48 ♙h6 ♙xe5+ 49 g3 ♙b2+ 50 ♙h3 1-0.

A good scalp for the R30, but Bronstein missed a win with 27...♖xf3+ 28 ♔xf3 ♕xf3 29 ♖xf3 ♖xh4, when White cannot avoid losing a terminal amount of material.

Modern B06

□ Brute Force

■ B. Kieboom

Aegon 1994

1 e4 g6 2 d4 ♘g7 3 c3 d5 4 exd5 ♖xd5 5 ♕e2 ♖f6 6 ♕f3 ♖d8 7 ♖e2 c6 8 0-0 0-0 9 ♕g5 ♕e6 10 ♖f4 ♕f5 11 ♖e1 h6 12 ♕xf6 ♕xf6 13 ♖d2 ♖c7 14 ♖e2 e5 15 ♖e4 ♕xe4 16 ♕xe4 ♖d7 17 ♖c2 ♖g7 18 ♖ad1 ♖ad8 19 d5 ♖c5 20 ♕f3 ♖fe8 21 b4 e4 22 d6 ♖d7 23 bxc5 exf3 24 ♖g3 fxg2 25 ♖xg2 h5 26 h3 h4 27 ♖e4 ♖f5 28 ♖b1 ♕e5 29 ♖xb7 ♖f4 30 ♖f1 ♖f3 31 ♖g1 ♖xh3 32 ♖xf7+ ♖xf7 33 ♖g5+ ♖f6 34 ♖xh3 ♕xc3 35 ♖xe8 ♖xe8 36 ♖f4 ♖f5?

36...♖d8 was necessary, when White's win is none too clear. Now the Brute ends the game prettily.

37 d7 ♖d8



38 ♖d5!! cxd5 39 c6 ♕e5 40 ♖xd5 ♖e6 41 ♖xe5+! ♖d6 42 ♖e8 ♖c7 43 f4 1-0.

Sicilian

□ John Nunn

■ Saitek 2500

Aegon 1994

1 e4 c5 2 ♖f3 ♖c6 3 d4 cxd4 4 ♖xd4 ♖f6 5 ♖c3 g6?! 6 ♖xc6 bxc6 7 e5 ♖g8 8 ♕c4

♕g7 9 ♖f3 f5 10 ♕f4 ♖b6 11 0-0 ♖xb2 12 ♖b5! ♖b4

The queen needs to get out quickly. On 12...♖d8, 13 ♕b3 wins material.

13 ♖c7+ ♖f8

Forced. If 13...♖d8?, 14 ♖e6+! de6 15 ♖c6 wins.

14 ♕xg8 ♖b8 15 ♕b3 ♖b7 16 ♖d5 cxd5 17 ♕xd5 ♖c7 18 ♖fe1 e6 19 ♕b3 g5?

Better would have been 19...h6 20 h4 g5!?

20 ♕xg5 ♕xe5 21 ♕h6+ ♖e7 22 ♕g5+ ♖f8 23 ♖ad1 ♕xh2+ 24 ♖h1 ♖g7 25 ♕c1 ♖g8 26 ♕b2+ ♖g6 27 ♖d4! ♖xb3 28 cxb3 ♕d6 29 ♖h4 e5 30 ♖g3+ ♖f7 31 ♖xh7+ 1-0.

Pirc

□ Quest

■ R. Cifuentes

Aegon 1994

1 d4 d6 2 e4 ♖f6 3 ♖c3 e5 4 dxe5 dxe5 5 ♖xd8+ ♖xd8 6 ♕c4 ♕e6 7 ♕xe6 fxe6 8 ♕e3 ♖c6 9 0-0-0+ ♕d6 10 f3 a6 11 ♖ge2 ♖e7 12 ♖d3 h6 13 ♖hd1 ♖hf8 14 h3?! ♖ad8? 15 ♖a4! ♖h5 16 ♖c5 ♖b8 17 ♖b3! ♖a5 18 ♖c3 ♖f4 19 ♕xf4 exf4 20 ♖d4 ♖f6 21 ♖b1 ♖g6 22 b4 ♖c6 23 ♖xa6 ♖xd4 24 ♖xb8 e5 25 ♖d2 c5? 26 ♖xc5! ♕xb8 27 c3 ♖c6 28 ♖b5 ♖d8 29 ♖bd5 ♕d6 30 c4! ♕xb4 31 ♖d7+ ♖f6 32 ♖xd8 ♕xd2 33 ♖xd2 ♖g5 34 ♖c2 ♖h4 35 ♖c3 ♖g3 36 c5 ♖h2 37 ♖c4??

The prototype of Fritz 3 goes badly wrong, wasting a crucial tempo and allowing Black to take on g2. The move was 37 a4!, when 37 ♖xg2 fails to 38 a5.

37... ♖xg2 38 ♖d7 ♖g3 39 ♖xb7 ♖xf3 40 ♖d5 ♖xa2 41 ♖xe5 g5 42 c6 ♖c2 43 c7 h5 44 ♖b3+ ♖g2 45 ♖b2 ♖xb2 46 c8Q f3 47 ♖c1 ♖b5+ 48 ♖e6 f2 49 ♖d2 ♖g1 50 ♖e3 ♖g2 51 ♖e2 ♖b3 52 ♖d2 ♖f3! 53 ♖e2 g4 54 hxg4 hxg4 55 ♖b2 ♖g1 56 ♖d4 ♖g2 57 ♖b2 ♖h1 58 ♖h8+ ♖g2 59 ♖b2 ♖g1 60 ♖d4 1/2-1/2.

En Passant

Those of you who take the *Saturday Telegraph* might have had a certain sense of déjà vu when reading David Norwood's column a couple of months back. The reason - David used some positions from the inside back cover of S/S 050. There they were given rather baldly, merely to show the solving times of the R30 versus the Genius 68030, but the merchant banker - columnist - TV personality cum grandmaster livens them up with explanatory comments, and I hope he will forgive me borrowing back just one of the positions he looked at.

His introduction to the piece was quite good too:-

"I've spent many a sleepless night wondering how to crush the new computer program Genius 2 at speed chess. Now my worst nightmare has come true; there's an even nastier machine lurking out there... the Tasc R30 preying on hapless grandmasters.

One night, several members of the England team, fortified with Dutch courage after a visit to the tavern, went in search of it. They were bested: one draw, four losses, and no wins. In a slower game, humanoid strategy is still superior to anything artificial. But with little time on the clock, the ability to calculate quickly and accurately is all-important...."



"This position is very amusing" says Norwood. "I'm sure most players would

just defend the bishop with 1 ♖f3 and after 1...♙xa2 2 ♖xf5, we have reached the endgame king, rook, and bishop versus king and rook. This endgame is theoretically drawn, although you could grind as-long for hours against a human. But if the computer were White, you would not have to wait long."

1 a3!

"Logical, but brilliant. Both computers found this in under 30 seconds."

1...♖xf1+ 2 ♙e2

"Now the rook is in a quandary. If it remains on the first rank, then White plays 3 ♖d1. This will force an exchange of rooks after which Black's king will be unable to stop the a-pawn from queening."

2...♖f4 3 ♖b3+ ♙a2 4 ♖b4

"This is the finesse; Black cannot avoid an exchange of rooks. This will again give White an unstoppable pawn."

Norwood calls the R30's solving speed of just 47 seconds "a remarkable time by any standards (for man or machine)."

Selective Search also figured in another recent publication, in an article equally entertaining in its own way. The gist of it was that chess computers make Paul Buswell sad. Before you ask, let me tell you that Mr. Buswell is none other than the editor of *Chess Moves*, the illustrious organ of the British Chess Federation.

Mr. Buswell takes the opportunity of his editorial column to launch a heart-felt lament against chess computers in general, and their participation in tournaments in particular.

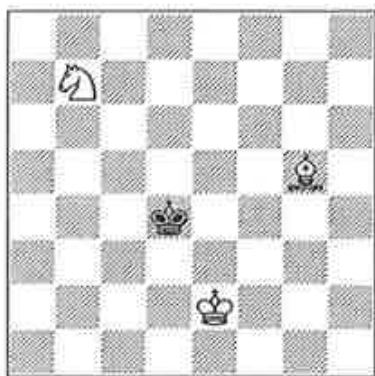
"We can't, Canute-like, turn back the tide on chess computers, but do we have to welcome them so keenly?" asks the writer plaintively, in one of the piece's milder moments. Warming to his theme, he later describes S/S as a "hagiography".

Before you scuttle off for your dictionary, we hereby promise to exclude the life stories of saints from *all* future issues.

Bob Jones, of The King's Gambit Chess Club, points out a strange aberration in the R30. He writes as follows: "Here at the Brandon HQ we spend quite a lot of time researching opening lines and endgames, using computers to help in this. The R30, as you are aware, is our latest acquisition, and is giving us some very exciting games to study. We are finding it particularly interesting to compare its performance with Fritz 2, running on our 486.

Surprise, surprise, with both machines set at 15 seconds a move, the R30, playing White and having reduced Fritz down to a bare king, was unable to deliver mate with knight and bishop within the regulation 50 moves.

When we set up Fritz 2 with White in the same position, the correct mating line was found without difficulty. The question I have for you and the R30 programmers is - how come? I enclose the game scores from the relevant position."



□ **Tasc R30** (15 s. p/m)

■ **Bob Jones**

1 ♖d6 ♗d5 2 ♙e7 ♙e6 3 ♙f8 ♗d5 4 ♙e3 ♙e5 5 ♙e7 ♙e6 6 ♙f8 ♙e5 7 ♖e4 ♗d5 8 ♙f4 ♗d4 9 ♙d6 ♗d5 10 ♙a3 ♗d4 11 ♙c5+ ♗c4 12 ♙e5 ♗d3 13 ♗d5 ♙e2 14 ♙e5 ♗d3 15 ♙f4 ♙e2 16 ♙e5 ♙f1

Black is trying to move toward the white corner. R30 must force White's king into a black corner (as he has a dark-squared bishop) but seems to have no concept of how this should be done.

♙g3 ♙e1 24 ♙h2 ♙f1 25 ♙h1 ♙e1 26 ♙g1 ♙d1 27 ♙g2 ♙e1 28 ♙f4 ♙d1 29 ♙f3 ♙e1 30 ♙e3 ♙f1 31 ♖c5 ♙e1 32 ♖b3 ♙f1 33 ♙d4 ♙e1 34 ♙f4 ♙f1 35 ♙g3 ♙e1 36 ♙f3 ♙f1 37 ♙e3 ♙e1 38 ♖d4 ♙f1 39 ♙g3 ♙e1 40 ♙g2 ♙d1 41 ♙g1 ♙e1 42 ♙f4 ♙d1 43 ♙g2 ♙e1 44 ♙g5 ♙d1 45 ♙f3 ♙e1 46 ♙f4 ♙f1 47 ♙e3 ♙e1 48 ♙g5 ♙f1 49 ♖e2 ♙e1 50 ♖c3 ♙f1 1/2-1/2 (50-move rule).

□ **Fritz2** (15 s. p/m)

■ **Bob Jones**

1 ♙e3+ ♙e5 2 ♙f3 ♗d5 3 ♖d8 ♙e5 4 ♙b6 ♗d5 5 ♙f4 ♗d6 6 ♙e4

My idea was to keep my king toward a white-cornered square. In order to mate, Fritz needs to trap my king in a dark-squared corner. Let us proceed!

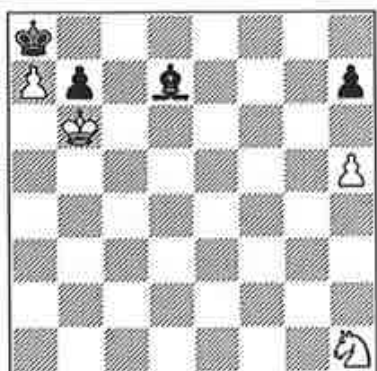
6...♗d7 7 ♗d5 ♙c8 8 ♙c6 ♙b8 9 ♖e6 ♙c8 10 ♙c5 ♙b8 11 ♙d6+ ♙a8 12 ♖f8 ♙a7 13 ♖d7 ♙a8 14 ♖b6+ ♙a7 15 ♙e5 ♙a6 16 ♙b8 ♙a5 17 ♖d5 ♙a6 18 ♖b4+ ♙a5 19 ♙c5 ♙a4 20 ♙c4 ♙a5 21 ♙c7+ ♙a4 22 ♖d3 ♙a3 23 ♙d6+ ♙a4 24 ♖c5+ ♙a3 25 ♙c3 ♙a2 26 ♖d3 ♙b1 27 ♙b3 ♙a1 28 ♙c2 ♙a2 29 ♖c1+ ♙a1 30 ♙e5 mate.

I recall someone from Tasc telling me months ago that the R30 couldn't do this mate - so they do know! Will they do anything about it when they bring out an upgrade? We shall have to wait to see, but personally I doubt it.

On the one hand, it's not something you need to do too often (which I believe was Tasc's excuse), on the other, the R30 must be the only 2400+ Elo player around that can't do it... Ed.



Always look for the sign '!' Frank Holt sends in this candidate for the record books...



A mate in 17 moves! Mephisto Genius 2 running on my 486/66/15Mb RAM, set to Infinite level.

1 h6!

After 1 hour 25 minutes, ply 21/32. It had to be h6 to protect it from the black bishop. I knew it had found something because it put up the exclamation mark...

1...♙g4

2 ♘f2 ♙f5

3 ♘d1

Although this is going backwards, it again flashed up the exclamation mark.

3...♙e4

4 ♘c3 ♙c6

5 ♘e2 ♙e8

6 ♘d4 ♙d7

7 ♘b3 ♙e6

8 ♘c5 ♙f5

9 ♘xb7 ♙e6

10 ♘c5

Here MG2 calls mate in 9.

10...♙c8

11 ♘e4 ♙b7

12 ♘f6 ♙c6

13 ♘xh7 ♙b5

14 ♘f6 ♙c6

15 h7 ♙b7

16 h8♙+ ♙c8

17 ♙xc8 mate.

MG2 finds mate in 17 in 3 hours. So, whenever it gives you a '!' you know you're onto a winner - eventually!

Too late for this issue, Frank also sends in an excellent batch of MG2 v R30 games - a selection of them next time.

We can, though, give his summary of results between the best PC program and the best dedicated chess computer. This was a match on an impressive scale, (60 games in all - longest 101 moves; shortest 34 moves!) from which it is safe to conclude that, on a 486/66 at least, Mephisto Genius 2 is the fairest of them all, especially on the longer time time settings.

The results below are all from the R30's point of view, and its style settings are shown in the first column:

STYLE	TIME	+	=	-	Pts.
Normal	40 in 2	0	0	2	0
Normal	40 in 1	0	2	0	1
Normal	60 in 1	0	1	1	1/2
Active	40 in 2	0	2	0	1
Active	40 in 1	0	0	2	0
Active	60 in 1	1	1	0	1 1/2
Defensive	40 in 2	0	1	1	1/2
Defensive	40 in 1	0	1	1	1/2
Defensive	60 in 1	0	0	2	0
Solid	40 in 2	0	1	1	1/2
Solid	40 in 1	2	0	0	2
Solid	60 in 1	0	1	1	1/2
Offensive	40 in 2	0	0	2	0
Offensive	40 in 1	0	0	2	0
Offensive	60 in 1	0	1	1	1/2
SUB. TOT.		3	11	16	8 1/2

Normal	All in 90	1	1	0	1 1/2
Normal	All in 60	1	1	0	1 1/2
Normal	All in 30	0	1	1	1/2
Active	All in 90	1	0	1	1
Active	All in 60	0	0	2	0
Active	All in 30	1	0	1	1
Defensive	All in 90	0	2	0	1
Defensive	All in 60	1	0	1	1
Defensive	All in 30	0	0	2	0
Solid	All in 90	1	0	1	1
Solid	All in 60	0	2	0	1
Solid	All in 30	1	0	1	1
Offensive	All in 90	0	0	2	0
Offensive	All in 60	1	0	1	1
Offensive	All in 30	0	0	2	0
SUB. TOT		8	7	15	11 1/2

G. TOTAL		11	18	31	20
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How Good Is Your Chess Computer?

This month's test is a family affair, with all the machines being Novags. The aim was to see whether their points scored corresponded neatly with their price.

The cheapest computer was the Beluga, which nowadays sells for £79.95. Next was the program found in both the portable Jade and the table-top Zircon (£99.95 and £124.95 respectively).

One step up is the Emerald at £149.95, which has the same brain as the portable Ruby at £10 less. At the top of the Novag tree as we write is the Scorpio, retailing at £269.95.

To get the most from the exercise, test yourself prior to trying out your own computer on the game. Once you reach the start position at the first diagram, stop, and try to guess White's best move. Then slide a card down the page a move at a time, trying hard not to glimpse White's next! Imagine you are in a tournament game yourself, since testing yourself first gives a much better understanding of the strengths and weaknesses of your machine. Unless otherwise stated, only the move played scores.

Humans may have a better chance than average chance of outscoring their computers on this one, since the game theme is a long-term attack on the black king, rather than a sequence of opportunist tactical skirmishes.

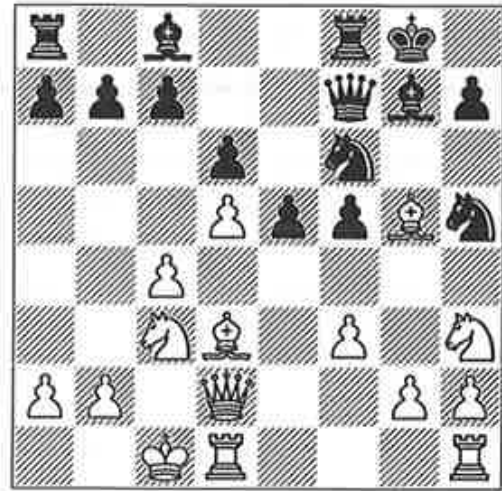
King's Indian

□ Rejfir

■ Lokvenc

Austria, 1956

1 c4 ♘f6 2 ♘c3 g6 3 e4 d6 4 d4 ♙g7 5 f3 0-0 6 ♙e3 e5 7 d5 ♘h5 8 ♚d2 f5 9 exf5 gxf5 10 0-0-0 ♘d7 11 ♘h3 ♘df6 12 ♙g5 ♚e8 13 ♙d3 ♚f7



14 ♙hg1

2 points. A thematic move that no chess computer is ever likely to play, yet with opposite castling, White's natural plan is first to bolster his king-side pawns and then throw them forward. No other move scores, especially not the Beluga's 14 ♙h4, although the choice of the other three - ♚c2 - is the sort of move one would expect a computer to play.

14...c6

15 ♙df1

3 points. Nothing else scores. Deduct 1 point for dxc, which gives Black good prospects down the b-file. Again, the Beluga insisted on the weird ♙h4. The Scorpio had ♙c2 and the others ♘f2.

15...f4

16 ♘f2

1 point. This opened the scoring for the Beluga and the Scorpio, while the other two chose the rather wimpish ♙xf6.

16...cxd5

17 cxd5

1 point apiece.

17...♚c7

18 g4

2 points. The Beluga still had its ♙h4 fixation, but the others scored.

18...fxg3

19 hxg3

1 point apiece.

19...♙d7

20 ♖b1

3 points. The Beluga and the Zircon scored a bogey with g4?, which loses a point due to 20...♘f4 21 ♙xf4 exf4 22 ♙xf4? ♘xd5 with an overwhelming attack for Black. The Scorpio gets it right, while the Emerald at least breaks the pin, but goes in the wrong direction with the unnatural ♖d1.

20...b5

21 ♖c1

1 point. The original makes no mention of why, specifically, White should leave the offered pawn, but it looks a natural-enough sacrifice to open lines against White's king. If any computer out there plays 21 ♙h6, give it 3 points on the spot - "a more consistent way of making progress". A medley of non-scoring choices by our team here; ♙xb5 by the Beluga, g4 from the Scorpio, while the Emerald and the Zircon went for ♘xb5.

21...♙b6

22 ♙e3

2 points. The Beluga went its own way again with g4, but the others scored.

22...♙b7

23 ♙h6

1 point. The Beluga opted for ♘e4, while the others at least aimed in the general direction of the enemy king; the Scorpio with f4, and the other two with g4.

23...♖f7

24 ♖g2

3 points. Aiming to trap the knight. ♙xg7, as per the Beluga and Zircon, is worth 1. The other two had g4.

24...♘e8

25 ♖h2

3 points. Sneakier than ♖h1 (2 pts.) because if 25...♘xg3? 26 ♙xh7+! ♖xh7 27 ♙xg7 dis. ch. ♖xg7 28 ♙g5+ and 29 ♖h8 mate! 2 points the Emerald; others: ♙xg7.

25...♘hf6



26 g4

2 points. Getting on with the attack. 1 for ♙xg7 as per the Beluga, which had the pessimistic assessment of -0.05 down at this stage. The Emerald picked up one point also, with a more sensible 0.45 lead. The Scorpio picked ♘e4 with a 0.38 plus, while the Zircon had a positively gung-ho +0.95 after its choice of ♙e3.

26...♘c7

27 g5

3 points. White need not worry about 27...♘xd5; 28 ♘xd5 ♘xd5 29 ♙e4 ♙e6 30 ♖d1. 2 points for 27 ♖g1. No machine scored: ♘fe4 (Beluga and Zircon), ♙xg7 (Scorpio and Emerald).

27...♘fe8

28 g6

4 points. However, all the machines quickly saw a similar theme to that mentioned on move 25, and played 28 ♙xh7+! Any CC is confident of victory from here, so surely it's worth 4 points as well.

28...hxg6

29 ♙xg6

1 point each.

29...♙f5+

30 ♙xf5

1 point each.

30...♖xf5

31 ♖g1

2 points. None chose this. How often do we see computers spurn natural-looking

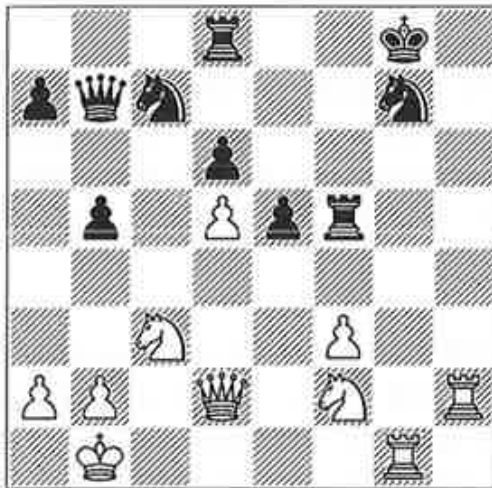
pins that cry out to be played? The Beluga and Scorpio decided on ♖d3, while the other two had ♙xg7.

31...♖d8

32 ♙xg7

2 points each.

32...♗xg7



33 ♖xg7+

4 points. 7 points, though, for the forced mate beginning with ♖h8+, which all the Novags saw without any trouble.

33...♗xg7

34 ♖h6+

1 point each.

34...♗f7

Just when is Black going to resign?

35 ♖h7+

1 point each.

35...♗e8

36 ♖xf5

1 point.

1-0.

All the computers were set to make 40 moves in 2 hours.

Totting up the points, it turns out that they did score in 'price order' - just! The Beluga scored 22, the Zircon 24, the Emerald made 27, while the Scorpio only managed to head the group by a single point on 28.

The scale to grade yourself or your own machine is as follows:

45 - 50 points

= 225 BCF+ (International Master)

40 - 44 points

= 212 - 224 BCF

FM (Fide Master) strength

35 - 39 points

= 200 - 211 BCF

Top weekend congress or county player

30 - 34 points

187 - 199 BCF

Top club / average county player

25 - 29 points

= 175 - 186 BCF

Very strong club player

15 - 24 points

= 150 - 174 BCF

Better-than-average club standard

8 - 14 points

100 - 149 BCF

Social player up to reasonable club standard.

0 - 7 points

0 - 100 BCF

Beginner to weak club strength

The BBC's *Crimewatch* always ends with "Don't have nightmares" and HGYC always says "Don't put too much emphasis on a single result". That over and done with, we can say that this was an excellent result for the Beluga (despite the idiosyncratic nature of some of its choices) and a good one for the Emerald, being well into the 180's. The Zircon's score is par or better, while the Scorpio, although turning in a reasonable result, would usually hope to do a little better than circa BCF 184.

The Mephisto Upgradeable Series

The arrival of the two most recent additions to Mephisto's upgradeable series (the Genius 68030 and now the V2 update of the Risc IMb) is good news for everyone with a modular system - even those who can't yet aspire to these top-end programs.

All those customers who have traded up to one of these new and highly desirable items have released their former module onto the market, and this 'trickle-down' effect means that there has never been a better time than now to make an upgrade yourself. For that reason the page opposite is a comprehensive crosstable of what it will cost to move up the Mephisto ladder.

Find the module you have now on the horizontal line of computers at the top, then run down the price column to see the cost of the various options available. If, for example, you currently own a Polgar, you will see that it now costs just £235 to move up to a Lyon or Vancouver 16 - a jump in strength from 179 BCF to 203! If you are already pretty high up the tree - say a Vancouver 32 - you can save a big chunk of what it would have cost to buy a super-program such as the Genius or V2 from scratch. Take the trade-in from the Van 32 to the V2 - just £375 will put you up around 15 BCF points to a probable 220+ BCF! The straight upgrade from the IMb to the V2 is also very reasonable at £255.

Remember, much of your initial investment when buying your Exclusive or Munchen system went into the upgradeable aspect, so it is rather a shame to stay with the same module permanently. A new program always provides a new stimulus - different opening lines, a different style of play, and going up usually means more features as well as a stronger game.

So, for a new lease of chess life, Call Countrywide Computers on 0353 740323.

	MM2	Rebell	MM4	MM5	Polgar	R/D 16*	R/D 32*	Lyon 16	Van 16	Lyon 32	Van 32	Risc 1Mb
Rebell	55	N/A	0	0	0	0	0	0	0	0	0	0
MM4	75	65	N/A	0	0	0	0	0	0	0	0	0
MM5	135	125	75	N/A	35	0	0	0	0	0	0	0
Polgar	195	185	135	95	N/A	95	65	0	0	0	0	0
R/D 16*	245	235	185	145	85	N/A	0	0	0	0	0	0
R/D 32*	295	285	235	195	135	125	N/A	0	0	0	0	0
Lyon / Van 16	395	365	335	295	235	225	195	125	N/A	0	0	35
Lyon 32	495	465	435	395	335	325	295	225	125	N/A	0	85
Van 32	595	565	535	495	435	425	395	325	225	195	N/A	135
Risc 1Mb	595	565	535	495	435	425	395	425	325	295	195	N/A
Risc V2	725	715	655	625	555	545	525	505	455	425	375	255
Genius	965	955	895	865	795	785	765	745	695	665	615	495

Prices are for NEW module sets in the case of Genius and Risc V2 - otherwise SECOND HAND, but in perfect working order and fully guaranteed.

S/S				Ply				S/S				Ply			
Rank	Computer	BCF	Games	Elo	BCF	+/-	Games	Rank	Computer	BCF	Games	Elo	BCF	+/-	Games
				equiv. Elo									equiv. Elo		
1	Tasc R30	229	49	-	-	-	-	68	Conchess 6	155	107	-	-	-	-
2	Meph Genius 68030	229	8	-	-	-	-	69	Fid Excellence 4	155	1740	-	-	-	-
3	Meph Berlin Pro	224	24	-	-	-	-	70	Novag Expert 4	155	962	-	-	-	-
4	Meph Lyon 68030	218	374	2258	207	59	250	71	Conchess Plymate 4	153	372	-	-	-	-
5	Meph Vanc. 68030	216	375	2235	205	37	451	72	Saitek Turbo-Kasp 4	153	512	-	-	-	-
6	Meph Rise 1MB	216	1046	2218	204	31	593	73	Fid Elite C	152	182	-	-	-	-
7	Meph Port 68030	214	460	-	-	-	-	74	Mephisto MM2	151	781	-	-	-	-
8	Saitek Rise 2500	212	494	2221	203	30	628	75	Saitek Gal. / Ren. B4	151	37	-	-	-	-
9	Saitek Ren.Spart 20	212	234	2194	202	47	234	76	Fid Exc. / Des. 2000	150	1646	-	-	-	-
10	Meph Vanc. 68020/12	205	1481	2164	194	27	778	77	Saitek Prisma / Blitz	149	306	1736	141	49	202
11	Meph Lyon 68020/12	204	2492	2152	194	23	1029	78	Conchess 4	148	509	-	-	-	-
12	Meph Vanc. 68000	203	334	2108	189	27	721	79	Novag Super Const.	147	3689	1730	141	18	1582
13	Meph Berlin	201	653	2122	190	32	538	80	Novag Super Nova	147	411	1732	141	37	350
14	Meph Port. 68020	200	1713	-	-	-	-	81	Novag Supremo	144	28	-	-	-	-
15	Fid Elite 68030 V9	200	599	2128	191	45	324	82	Meph Europa/M.Polo	143	240	-	-	-	-
16	Meph Lyon 68000	197	1325	2105	188	25	857	83	Novag Super VIP	143	335	-	-	-	-
17	Meph Almeria 68020	196	1003	-	-	-	-	84	Fid Prestige / Elite A	142	856	-	-	-	-
18	Meph Port. 68000	193	1478	-	-	-	-	85	Fid Sensory 12	141	1340	-	-	-	-
19	Fid Mach 4/Elite V7	193	1396	2081	185	24	843	86	Saitek Superstar 36K	139	997	-	-	-	-
20	Mephisto Nigel Short	192	5	-	-	-	-	87	Conchess 2	139	1096	-	-	-	-
21	Saitek Brute Force	188	223	2029	179	34	437	88	Novag Const. 3.6	137	825	-	-	-	-
22	Fid El. 68000 x2 V5	188	258	-	-	-	-	89	Novag Quattro	137	585	-	-	-	-
23	Meph Roma 68020	186	1043	-	-	-	-	90	Novag Primo / VIP	137	354	-	-	-	-
24	Meph Polgar 10	186	609	-	-	-	-	91	Meph Mondial 2	136	31	-	-	-	-
25	Novag Diablo/Scorpio	186	1202	2000	175	25	805	92	Fid Elite B / Original	133	236	-	-	-	-
26	Meph Almeria 68000	184	1025	-	-	-	-	93	Meph Mondial 1	131	247	-	-	-	-
27	Meph Dallas 68020	184	996	-	-	-	-	94	Novag Const. 2.0	130	1289	-	-	-	-
28	Fid Mach 3 68000 v2	181	5009	1997	175	15	2218	95	CXG S.Ent/Adv.Star	128	922	1559	120	39	386
29	Meph Milano	180	626	1960	170	27	659	96	CXG 3000	123	17	-	-	-	-
30	Meph MM5	180	1319	1976	172	22	1002	97	Fid Sensory 9	121	1114	-	-	-	-
31	Meph Polgar 5	179	2082	1970	171	18	1363	98	Saitek Ast/Comp/Cavi	121	61	-	-	-	-
32	Meph Dall./Mon.Dall	178	2283	-	-	-	-	99	Nov Mentor16/Amigo	118	22	-	-	-	-
33	Nov S.Forte/Exp. 6C	178	2371	1956	169	19	1391	100	GGM + Steinitz	117	287	-	-	-	-
34	Meph Roma/Montreal	176	2267	-	-	-	-	PC Programs							
35	Meph Academy	175	2000	-	-	-	-	1	Chess Genius 2	-	-	2164	220	57	197
36	Meph Modena	173	174	1887	161	31	505	2	(486/50-66)	-	-	2326	216	36	480
37	Meph Amsterdam	173	2373	1924	160	22	1020	3	ChessMachine 30Mhz	-	-	-	-	-	-
38	Nov S.Forte/Exp. 6B	173	1343	-	-	-	-	4	(King 2.0, aggressive)	-	-	-	-	-	-
39	Meph Mega 4	172	2435	-	-	-	-	5	Mephisto Gideon Pro.	-	-	2319	215	59	176
40	Fid Mach 2B/C 68000	172	2909	-	-	-	-	6	(486/60-66)	-	-	-	-	-	-
41	Saitek Gal./Ren D10	172	1209	-	-	-	-	7	Chess Genius 1	-	-	2286	211	43	323
42	Fid Travelmaster	170	505	1905	163	65	123	8	(486/50-66)	-	-	-	-	-	-
43	Meph S.Mond2/MC4	170	224	-	-	-	-	9	M-C Pro 486/50-66	-	-	2283	210	38	407
44	Novag Ruby/Emerald	170	26	-	-	-	-	10	ChessMachine 30Mhz	-	-	2280	210	62	168
45	Meph MM4	169	2866	-	-	-	-	11	(Schroeder 3.1)	-	-	-	-	-	-
46	Saitek Travel Champ	169	45	-	-	-	-	12	ChessMachine 16Mhz	-	-	2211	201	32	567
47	Nov S.Forte /Exp. 6A	168	1155	-	-	-	-	13	(Sclair 512k ARM2)	-	-	-	-	-	-
48	Saitek Turbo King II	166	834	1867	159	24	877	14	ChessMachine 16Mhz	-	-	2199	200	38	367
49	Meph Mon Carlo	166	262	-	-	-	-	15	(King 512k ARM2)	-	-	-	-	-	-
50	Saitek Gal. / Ren. C8	166	313	-	-	-	-	16	M Chess 1.1-1.71	-	-	2196	199	44	326
51	CXG Sphinx Galaxy	165	2049	1876	160	19	1412	17	(on 486/33)	-	-	-	-	-	-
52	Conchess Ply/Vict.5.5	165	697	1865	158	26	701	18	Socrates 3.0 (486/33)	-	-	2163	195	68	104
53	Fid Mach 2A 68000	164	338	-	-	-	-	19	Fritz 2 (486/33)	-	-	2153	194	44	263
54	Saitek GK2000	163	112	1903	164	30	550	20	M Chess 1.1-1.71	-	-	2128	191	36	408
55	Novag Expert 5/6	161	532	-	-	-	-	1	(on 386/25-33)	-	-	-	-	-	-
56	Fid Club 68000	161	1459	-	-	-	-	2	Hierax Master 1.0	-	-	2086	186	53	174
57	Novag Jade / Zircon	161	18	-	-	-	-	3	(486/33)	-	-	-	-	-	-
58	Novag Forte B	159	1917	-	-	-	-	4	Rex Chess 2.3	-	-	2029	179	65	126
59	Meph Rebell	159	2121	-	-	-	-	5	(on 386/25-33)	-	-	-	-	-	-
60	Fid Avani Garde 5	159	1721	-	-	-	-	6	Fritz 1.0 486/33	-	-	2022	178	63	128
61	Fid Par E./Des. 2100	158	2538	-	-	-	-	7	Zarkov 2.5 386/25-33	-	-	2018	177	56	168
62	Saitek Stratos /Corona	158	3053	-	-	-	-	8	Fritz 1.0 (386/25-33)	-	-	2008	176	66	113
63	Novag Forte A	157	2202	-	-	-	-	9	Complete Chess	-	-	2003	175	62	133
64	Meph S.Mondial 1	157	1420	-	-	-	-	10	System (486/33)	-	-	-	-	-	-
65	Conchess Plymate 5.5	157	2169	-	-	-	-	11	Rex Chess 2.3	-	-	1928	166	53	174
66	Saitek Simultano	157	364	-	-	-	-								
67	Saitek Gal./Ren. B6	157	976	-	-	-	-								