2001, A CHESS ODYSSEY

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- **PUBLICATION DATES**: Early Feb, Apr, Jun, Aug, Oct and late Nov (incl. annual BEST BUY Guide).
- **ARTICLES, REVIEWS, GAMES** sent in by Readers, Distributors, Programmers etc are **welcome**.

Computer & PC BEST BUY Ideas!

The **RATINGS** for the computers and programs which follow can be found on our end pages. I have not tried to include all available machines - this is a 'short list' of what *I* consider to be current **BEST BUYS** at various price points + playing strengths, also bearing in mind features & quality etc.

Further info/photos can be found in **Countrywide's** FREE CATALOGUE - see their address/phone on the front page if you want one. Always ring to check if there's any extra cost for a mains transformer if applicable, but 48 hour insured post and packing are included free to *SS* readers.

■ PORTABLE COMPUTERS ■ [por]

Kasparov
TALKING COACH £49 - talks + travels!
TRAVEL CHAMPION £89! - with display
TRAVEL CHAMP 2100 - £99! - great value, 4½"x4½" plug-in board + display

Novag
AMBER £129 - excellent plug-in, strong as TC2100 and well-featured with display
SAPPHIRE2 £224 - strong calculator style, incl. magnetic disc set - excellent

■ TABLE-TOP PRESS SENSORY ■ [ps]

Fidelity
CHESSTER £169 - voice model, 160 BCF

Kasparov
EXECUTIVE £99 - GK-2000 Morsch prog. Display etc, plus lid cover. Terrific value!
GK-2100 now **£129!** - top quality Morsch program, clever display, recommended.

Novag
DIAMOND2 £249 - strong, very good features, big opening book and A1 for value!

Mephisto
DALLAS 68000XL £169 - on special offer
MILANO PRO £249 - Morsch at RISC speed, strong, good features and display
ATLANTA £379 - *NEW*, fast hash-table version of Milano Pro=even greater strength

■ WOOD AUTO SENSORY ■ [as]

Kasparov
PRESIDENT £299 - top value wood board... ever! - good display + features

Mephisto
EXCLUSIVE MM6 £449 - new Morsch module - high class, strong & quality board!

Tasc
R30-1995 £1245 - beautiful machine, piece recognition board, superb display & with very strong, dynamic chess!

■ PC PROGRAMS ■

HIARCS6 £89 - *CD* for PC and MAC! - excellent 'human-like' playing style, *very* strong, great analysis features; 2 books: 140,000 tourny, 300,000 practice!

GENIUS5 GOLD (*CD*) **£89** - excellent graphics/strength/quality; 220,000 main book + extra book, big database

FRITZ5 (*2 CD*s) **£89** - improved knowledge + strength, superb features & graphics
For FRITZ5:
PowerBook set £45
HIARCS6 or *NEW* **JUNIOR** engine **£45**.
REBEL9 £89 - another Schroder 'special'!
Also **NIMZO98** *CD* **£89**, **SHREDDER2** *CD* **£89**, **MChessPRO7** *CD* **£89**, **CS_Tal £39**
Please allow 7 days for delivery on these.

CLASSIC GAMES COLLECTION for PC!
SAGE 4000 DRAUGHTS (a very strong program!), some **DRAUGHTS** variations, **Flip It/OTHELLO** and other games! **£39!**

■ PC DATABASES ■

ChessBASE for Windows 6.0 (*CD*)
"The" games and work DATABASE, now **Multi-media** and with Player 'cyclopaedia.
'BASIC' package 260,000 games **£225**
'PROF' package 340,000 games+ **£325**
'MEGA' package 550,000 games+ **£449**
Analysis modules, to use within CBase (or Fritz5): HIARCS6 **£45** - indispensable! or JUNIOR (*NEW*, World Champ) **£45**
BOOKUP for Windows **£159** - useful openings study tool, incl. Zarkov analysis engine

■ PC TUTORIALS ■

Chess ACADEMY: 8 unit package **£179**
Chess MENTOR: full package **£199**

■ SECOND-HAND & EX-DEMO ■
all with 9 month guarantee and free adaptor

Kasparov SIMULTANO [ps] £89
Fidelity MACH2 68000 [ps] £95
Fidelity MACH3 68000 [ps] £119
Fidelity DESIGNER MACH3 [ps] £149
Mephisto MONTE CARLO [as] £169
Fidelity ELITE 2100 [as] £189
Mephisto ACADEMY [as] £245
Mephisto MONTREAL 68000 [as] £249
Fidelity PHANTOM (the 2100 program, moves its own pieces!) £335
Mephisto MUNCHEN POLGAR [as] £469
Fidelity ELITE MACH4 2325 [as] £569

NEWS & RESULTS, part 1

WELSER 1998

As mentioned in SS/74, this took place during Jan-Feb 1998. Uniquely all games started from one position (no.9 from the TEST SET by John Nunn in Fritz5).

Opening Books were switched off, so the idea was to have a test of sheer engine strength. In a Swiss event, each program took both the white and black sides of the position against 8 opponents for a total of **16 games**.

The **time control** was G/120, games being played on 2 machines using (where possible) the Auto232 link.

WELSER 1998: FINAL TABLE

Pos	Program	Result	Pts	SB count
1=	**Nimzo98**	9-1=6	**12**	94.5
	Hiarcs4	10-2=4	**12**	87.25
3	**Shredder2**	9-3=4	**11**	
4	**Genius3**	9-6=1	**9½**	
5=	**Rebel9**	7-5=4	**9**	63.25
	Hiarcs6	7-5=4	**9**	62.5
7=	**MChess Pro6**	6-5=5	**8½**	69.75
	Rebel8	7-6=3	**8½**	61.5
	Fritz5	7-6=3	**8½**	61.0
10	**MChess Pro7**	7 6-6=4	**8**	
11=	**Fritz3**	6-8=2	**7**	52.5
	Genius5	4-6=6	**7**	51.5
	Nimzo35	6-8=2	**7**	45.25
14	**Kallisto183**	4-8=4	**6**	
15=	**CometA81**	2-7=7	**5½**	47.5
	Kallisto2	4-9=3	**5½**	44.75
17=	**CometA74**	3-9=4	**5**	36.5
	CS_tal	3-9=4	**5**	34.25

Obviously (as always!) there are some surprises. The Hiarcs, Genius and MCPro programmers all saw earlier versions come out ahead of current ones! Mark Uniacke wont be too worried as both **Hiarcs**4 and 6 came

very high, scoring a combined 21½.

But the **Genius**5 and **MCP**7 results must have disappointed Lang and Hirsch, especially as G3+G5 combined scored just 16½/32, as did the MCP6+7 combination.

The **Fritz5** result of 8½/16 is an upset - especially bearing in mind its elevation to top place in the latest Ratings. The probability, I have to conclude, is that it's own massive opening book (disengaged here) will be over-boosting normal results. This may be affecting Swedish ratings particularly, as they are playing many matches allowing Fritz5 the use of PowerBooks, which have to be purchased separately and do not come as a normal part of the program.

Although the engine may be getting a slight over-rating, this does not alter my opinion that multi-featured Fritz5 is a top buy, offering quality chess, good openings study, database and printing facilities.

Do note **Nimzo98**'s result! Chrilly Donninger's latest effort looks to be a major improvement on his previous (Nimzo3/3.5) versions... as can also be seen by its very high position in the latest Rating List.

It's a pity new World Micro-Champion **Junior** didn't quite come out in time to be included, as it would have been likely to score pretty well I think.

Incidentally purchasers of this engine to run from within Fritz5 should note that the 'ply count' figure (which is always very high!) is *not* an actual ply count - so it isn't searching as deeply as it suggests. Programmer **Amir Ban** writes: *"The depth number for JUNIOR is not a ply count, and the Fritz5 display does not say that it is. Junior counts depth by half-plies, so the brute force depth is more or less half the displayed number".*

In answer to questions about whether JUNIOR is a knowledge or a speed program, Amir adds: *"I also have denied that Junior is a knowledge program. This means that doing a Ph.D thesis on every node at the expense of node/sec rate is not what it does. Some do this with varying degrees of success, but this is not my approach. This does not mean that Junior is therefore a brute force program - it has one of the most extended search engines in existence".*

HEAD TO HEAD *by Ross Withey*
Fidelity 68020 MACH4 v Kasparov Travel CHAMPION 2100

An OLD KID on the BLOCK

The old Mach4 had all but retired from active play. It spent most of its time laid up on a dusty shelf, resting its overheating regulator (a design fault), nursing its dodgy LEDs and propping up its creaky playing surface.

Then one night it was unceremoniously bundled up and posted off without its box.

When it arrived at its new destination, it was forced to share shelf-room with a young whippersnapper, which brashly introduced itself thus: *"Hi, old timer, made it here in one piece, did you? You know, I think I've heard of you. Is it true you once went for over £1000?"*
    The Mach4 cleared its old soundbox and croaked, *"£1250. And I was once top of Eric Hallsworth's rating list. So pipe down and let's have a bit of respect."*
    TC said, *"I'm sure I heard our owner mention that you were third hand and only cost £100. That's less than me. You must be nearly burnt out by now. That was on Star Trek 'Generations': ' Time is the fire in which we burn'. Did you see it?"*

Mach4 had heard the video several times, perched on the shelf at its previous home. *"'I prefer to see time as a companion which travels with us on our path through life,'"* it said, quoting the later rejoinder from Jean-Luc.
    "Ah, but it's me that travels well, hence my name, 'Travel Champion'. Fell into that one, didn't you?"

"Humph," huffed Mach4, after a few moments' evaluation of this unexpected thrust. *"You omitted to mention the other part of your name - the part with your grade in it!"* he countered.
    "'2100'? What's in a name? You can't travel at Mach4 - not any more, anyway, by the looks of you. I bet I could beat you easily."
    "Hardly," snapped the Mach4. *"Unless your opening book's been rigged."*
    TC beamed at this wasted slight: *"I can honestly say that your opening book was*

not consulted at all when mine was prepared. Sorry - it just wasn't remotely cool enough."

So Mach4 tried another approach: *"My endgame was always my strongpoint.... errr do you know what that is? Or is your program more an endgame-free zone?"*

It was blatant sarcasm, but TC's display dimmed a little, and it positively squeaked, *"I've got an H8 RISC processor. You won't have heard of that. They're good for calculation. I do about 3300 nodes per second in the middlegame. You've got one of those lumbering old 68020 jobs, haven't you?"*
    "Yes," Mach4 preened itself, *"and it averages about 4400 nodes per second - that's a third faster in case you can't calculate it for yourself."*

TC's dark squares paled a little more. *"Well, I suppose that's because I'm only running at 10mhz to your 20mhz. But I've got a superfast selective search. I'm a tactical wizard. You labour along at full width, don't you?"*
    "I have search extensions for tactical positions- they serve me well enough. Now, stop bragging. Either switch into sleep mode or challenge me to a proper match."
    "I'm game," said TC. What do you fancy: Blitz or Countdown?"*
    Mach4's response was definite: *"16 games at 40 moves in 2 hours would be a real test: if you have the stamina".*

So that was....

**The Challenge**: 16 matches at 40/2, umpired by Ross Withey, their owner.

As neither program has the grace to resign, I set the rule that if both consider the position 7 points apart, I could declare the game over unless I felt it worthwhile continuing, for example if resolution looked close. Draws might also be declared at the umpire's discretion.

Game 1 TC2100 v Mach4
Ruy Lopez, Exchange variation

In the first game, like any established master, Mach4 immediately seeks out its opponent's reputed weakness. Going for an early endgame, it forces a queen exchange at move 6. But things don't quite work out as expected...

1.e4 e5 2.♘f3 ♘c6 3.♗b5 a6 4.♗×c6 d×c6 5.d4 e×d4 6.♕×d4 ♕×d4 7.♘×d4 ♗d7 (puts TC out of book, expecting 8.Be3) **8.0-0 0-0-0 9.♗g5 ♗e7 10.♗×e7** (evaluating -0.4) **♘×e7** (-0.02) **11.♘c3 ♗g4 12.f3 ♖×d4 13.f×g4 ♖f8 14.♖ad1 ♖×d1 15.♖×d1 ♘g6 16.♔f2 ♖d8 17.♖×d8+ ♔×d8 18.♘e2** (a last second decision 8th position 8th ply from Kg3) **18...h6** (now reading +0.61) **19.h3** (-0.3) **♔e7 20.♘d4 ♔f6 21.♔e3 ♘e5 22.b3 c5**
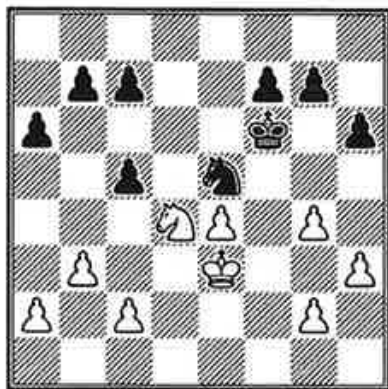
23.♘f5! **c6** (Fidelity's evaluation drops to +0.20; it had expected 23.Nf3) **24.♘d6 b6 25.♘e8+** (evaluating 0.0) **♔g6** (+0.24) **26.♔f4 f6 27.♘d6 b5 28.h4 ♔h7 29.♔f5 ♔g8 30.g5 h×g5 31.h×g5 ♘f7 32.♘×f7** (still 0.0) **♔×f7** (-0.17 is Mach4's first negative evaluation) **33.g×f6** (+0.3) **g×f6 34.e5** (+0.7) **f×e5** (-0.60) **35.♔×e5** (+0.9) **♔e7** (-0.88) **36.c4 ♔d7 37.a4 ♔e7** (-2.17) **38.g4** (+1.0) **b×c4** (-3.76. Mach4 now knows it

is in deep trouble) **39.b×c4 a5** (-8.16) **40.g5** (+1.9) **♔f7** (-9.46) **41.Kd6 Kg6 42.Kxc5** (+2.1 - TC is very modest in its evaluations) **42...♔×g5** (-9.99) **43.♔×c6** (+7.6) so 1-0 and a real shock for the Mach4.

| Mach4 | 0 |
| TC2100 | 1 |

Game 2 Mach4 v TC2100
Ruy Lopez, Morphy Defence.

After such fine start, TC becomes overconfident and tries to bamboozle its opponent in game 2 with some scary-looking tactics. But Mach4 keeps cool...

1.e4 e5 2.♘f3 ♘c6 3.♗b5 a6 4.♗a4 ♘f6 5.0-0 ♗e7 6.♖e1 b5 7.♗b3 0-0 8.c3 d6 9.h3 ♘a5 10.♗c2 c5 11.d4 c×d4 12.c×d4 ♗b7 13.♘c3 ♕c7 14.♕e2 (puts TC out) **♖ac8 15.♗d3 e×d4** (puts Mach4 out) **16.♘×d4 ♘c4** (expecting the sharp Nd5) **17.♗f4** (+0.38 expecting Ne5) **♕b6** (+0.4) **18.♘f5 ♖fe8** (+0.4) **19.♖ad1 d5 20.e×d5 ♗b4 21.♕c2 ♖×e1+ 22.♖×e1** (expecting Nxd5 and confident at +0.44)
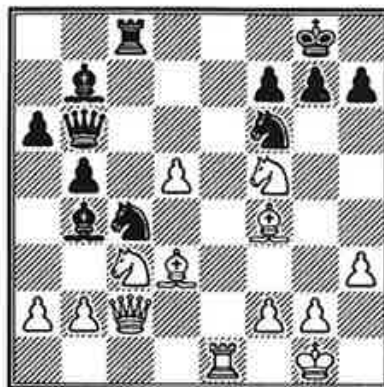
22...♘×b2?! (a rush of electrons to the H8 chip) **23.♘e7+ ♗×e7 24.♖×e7 ♘×d3 25.♕×d3 ♗a8 26.♗e5 b4** (-0.6) **27.♕f5** (+1.17) **♕d8 28.♗×f6 g×f6** (-1.5) **29.♕×f6** (now displaying +2.38) **29...♕f8** (-1.7) **30.♖e4** (+3.19) **♕g7 31.♖g4 ♕×g4 32.h×g4 b×c3 33.♕×a6 ♖e8 34.♕c4 ♗b7 35.♕×c3 ♗×d5 36.a4 ♗b7 37.g5** (changing in 7th ply, move 11 from Qb4, reading +3.47) **37...♖c8** (-2.4) **38.♕f6 ♖e8 39.♕d6** (+3.65 expecting Be4) **39...♔g7?** (expecting 40.Qb6, evaluating -2.8) **40.♕d7** (up to +4.93) **40...♖e1+** (-5.0, TC now sees the error of its ways) **41.♔h2 ♖b1 42.♕d3 ♖c1 43.♕b5 ♖c2 44.♕×b7 ♖×f2 45.a5 ♖f4 46.a6** (+9.06) **♖c4 47.a7 ♖a4 48.a8=♕** (+9.57) **♖×a8** (-9.6) **49.♕×a8 ♔g6 50.♕g8+** (+9.99) **♔f5 51.♔h3** and 1-0. An almost impeccable display by
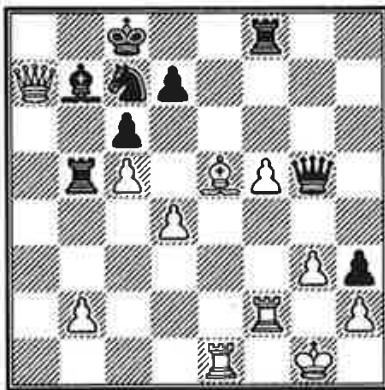
| Mach4 | 1 |
| TC2100 | 1 |

the old master.

Game 3 TC2100 v Mach4
Queens Indian Defence

TC refuses to learn its lesson from this, and after early King's side pressure from Mach4, commits another capricious error in Game 3. Aah. but this time TC fights back:

1.d4 ♘f6 2.c4 e6 3.♘c3 ♗b4 4.♘f3 b6 5.♗g5 (here both go out of book) **5...♗b7 6.♕b3 ♘a6 7.e3 ♕e7 8.♗d3 h6 9.♗h4 g5!? 10.♗g3 g4 11.♘h4 ♘h5 12.♘g6?** (evaluating at 0.0) **12...f×g6** (+1.08,thank you) **13.♗×g6+** (-1.2) **♔f8 14.♗×h5 ♕g5 15.♗×g4 ♕×g4 16.0-0 ♔e7 17.♘b5 c6 18.f3 ♕h5 19.♘c7 ♘×c7 20.♕×b4+ ♔d8 21.a4 ♖g8 22.a5** (-0.7) **♘a6** (+1.60) **23.♕b3 b5 24.♖c1 b4 25.c5 ♕g5 26.e4 h5 27.♖c2 ♔c8 28.♗e1** (-1.1) **Rb8** (+1.54) **29.♗g3 ♘c7 30.♖d1 h4 31.♗e5 ♗a6** (a last moment change from h3) **32.♖cd2 ♖b7** (+1.63, the last 2 moves have been freeing manoeuvres) **33.f4** (changing from Bd6 at 3rd position 8th ply) **33...♕g4** (+1.85) **34.♖e1 h3 35.♖e3 ♕h4 36.g3 ♖b5 37.f5!?** (TC fights back) **37...♖×a5** (+2.17) **38.♖e1 ♕g5 39.♖f2** (-0.9) **e×f5 40.♕×b4** (-0.7) **♖b5** (down to +1.44) **41.♕a3 ♗b7 42.e×f5 ♖f8** (expecting 43.f6) **43.♕×a7** (+0.2, TC now thinks it's got a good attack)

43...♕g8! (+0.23 and Mach4 chooses this key diagonal as it sees that white has serious counterplay, at one time showing -8.06! It now extricates itself from trouble with fine skill) **44.f6?!** (+0.4, but 44.Bd6 may have been stronger) **44...♕e6 45.♖ef1 ♖f7! 46.♖a1** (back to 0.0, and stays this way for the next 2 moves, unable to see a way forward. Better that TC give up the a-file attack and bring its queen back.) **46...♖b3** (+0.38) **47.♖e1?** (last chance to get the queen back with 47.Qa5) **47...♘a6!** (shutting the queen out) **48.♖fe2 ♕d5** (+0.52)

49.♖a1? (a mistake which almost seems born of a human sense of frustration) **49...d6!** (+1.83) **50.♖×a6** (TC changes to this at the last moment, seeing that its planned 50.cxd6 leads to ...c5 with the deadly threat of Re3; and 50.Bxd6 fails to Mach4's plan of 50...Qxd4+ 51.Kf1 Rf3+) **50...d×e5** (50...Qxc4 51.Rf2 Bxa6 was also good enough) **51.♖a1** (-3.0, TC understands that its a-file adventure has failed now, but it cannot quickly extricate its queen and rook for a last-ditch defence) **51...♕×d4+** (+8.84) **52.♔h1** (-7.7) **♖e3 53.♕a2 ♖×e2** (+9.99) **54.♕e6+** (-9.9) **54...♔d8** (announcing mate in 7) **55.♕d6+ ♕×d6 56.c×d6** (sees mate in 5) **56...c5+ 57.♔g1 ♖×f6** etc.   **0-1.**

Mach4	**2**
TC2100	**1**

In Game 4 TC works hard to win a pawn, and its evaluation briefly reaches +1.0 before it misses two chances to capitalise on the advantage. Finally Mach4 outwits it and achieves a drawn endgame. ½-½ at move 61.

Mach4	**2½**
TC2100	**1½**

Game 5 TC2100 v Mach4
Giuoco Pianissimo

In Game 5 TC makes some interesting choices just out of the opening. But as the position becomes increasingly blocked, it becomes increasingly obsessed with the dead-end semi-open a-file. Mach4 manoeuvres patiently rather than brilliantly for its opening and in the end registers a very satisfactory win. The game is best looked at from the black side of the board.

1.e4 e5 2.♘f3 ♘c6 3.♗c4 ♗c5 4.d3 ♘f6 5.♘c3 d6 6.♗g4 ♘a5 7.♗b3 ♘×b3 8.a×b3 ♗e6 9.♘a4 h6 (puts TC out of book) **10.♘×c5** (Mach4 out) **d×c5** (-0.47) **11.♗h4 ♕d6 12.0-0 ♘h5 13.♖a5?! g5!** (-0.09) **14.♘d2 b6 15.♕×h5 g×h4** (a peculiar decision considering its previous move. The more natural 15...bxa5 might proceed: 16.Bxg5 Bg4 [or 16...Bd7 17.Nc4] 17.Qxg4 Rg8 18.Nf3 hxg5 19.Ra1 [or 19.h4], though Mach4 evaluates this position at worse than the -0.79 for the move played). **16.♖a3 h3 17.♘f3 h×g2 18.♖fa1 a5 19.♔×g2** (+0.8) **0-0-0 20.♕×e5 ♖hg8+ 21.♔f1 ♕f8 22.♕f6** (White now finds his pieces uncoordinated for action) **22...♖g6 23.♕c3 ♗h3+ 24.♔e2** (+0.5) **♗g4** (-0.14) **25.♔e3** (TC is reduced to risky moves like this without rook support) **25...h5!? 26.♘e5** (+0.6) **♕h6+** (-0.01) **27.f4** (+0.7) **27...♖f6 28.♖f1** (+0.3 expecting Be6) **28...♗h3 29.♖f3 ♖e8 30.♖a4? ♗g2**

31.♖f2 ♗h5 32.♖a1 (at last) **♗e6 33.♖g1**
(+0.4. There now follows a period of manoeu-
vring with some high middle class waiting
moves) **33...♖f8** (-0.58) **34.♘c6 ♔d7
35.♘a7 ♖e8 36.♘b5 ♗g4 37.♘a3 ♖d6**
(-0.17) **38.♘c4 ♖d4 39.♖fg2** (+0.8 expecting
Rd5) **♔c8** (0.00) **40.♖g3 f5!** (now Black really
does mean business) **41.♘d2** (+0.2) **f×e4**
(+1.30) **42.d×e4** (+0.1) **♕e6**

43.♖a1? (-0.5 and clueless. Re1 was better)
43...♖ed8 (+1.46; this looks a restrained
choice, but perhaps shows sensible patience.
Two of the more forcing options are still un-
clear: [a] 43...Rxe4+ 44.Nxe4 Qxe4+ 45.Kf2 h4
46.Rg2 h3 [or 46...Qxf4+ 47.Kg1] 47.Rg3
Qxf4+ 48.Kg1 Re2 49.Rf1; or [b] 43...Qd5
44.e5 Rxe5+ 45.fxe5 Qxe5+ 46.Ne4 Qxe4+
47.Kf2 Qe2+ 48.Kg1 Rg2 49.Qe3 Qxh2+
50.Kf1 Rxc2) **44.♖g2 ♗f5 45.e5 ♕f7
46.♖f2 ♕g6 47.♖c1** (-2.4) **♖8d5** (+3.05)
48.h3? (but White is stymied) **♗×h3 49.♖d1**
(-3.0) **♕f5** (+4.94) **50.♖g1** (falls into a mate in
8, though not yet spotted by Mach4)
50...♖×e5+ (+6.2) **51.f×e5** (sees the mate in
7) **♕×e5+** (announces mate in 7) **52.♔f3
♖f4+ 53.♔g3 ♕g5+ 54.♔h2
♖×f2+ 55.♔×h3 ♕f5+ 56.♔h4
♖h2+ 57.♕h2 ♖×h3 #**. **0-1.**

Mach4	3½
TC2100	1½

Game 6 Mach4 v TC2100
King's Gambit

Full of arrogance, Mach4 now uses its
wider book to demonstrate masterfully,
err... how *not* to conduct a King's Gambit!

1.e4 e5 2.f4 e×f4 3.♘f3 d6 (puts Mach4 out
of book) **4.d3?** (now TC is out) **g5 5.h4!** (the-
matic) **g4 6.♘d4 ♗g7 7.c3 c5 8.♕a4+?!**
(-0.45) **♗d7 9.♘b5?** (apparently not wanting
to admit it is putting its pieces on the wrong
side) **9...♗c6 10.♕b3** (-1.48, Mach4 had
planned 10.Bxf4 a6 11.Nxd6+, but 11...Qd6
12.Bxd6 Bxa4 certainly favours black) **♕d7**

(+0.5) **11.c4 ♗e5 12.♘1c3 f5 13.♗e2 a6
14.♘a3 f×e4 15.d×e4** (-1.00) **♘f6 16.♘d5
♗a4 17.♕d3 ♘×d5 18.e×d5** (possibly the
wrong choice, at least when viewed from the
perspective of move 41!) **18...0-0! 19.♖b1
♕g7 20.h5** (alternatives are hard to find, e.g.
20.0-0 or 20.Rf1 do not prevent the dangerous
20...f3) **20... f3**
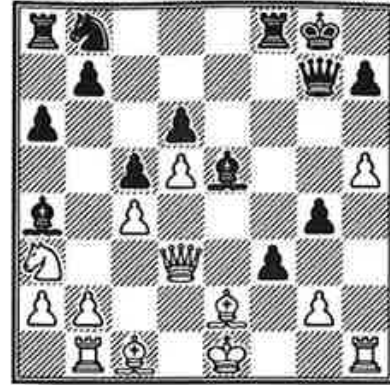
21.♗d1 (played after 25 minutes thought. The
main alternatives considered were: [a] 21.b3
Bg3+ 22.Kd2 Bf4+ 23.Ke1 [23.Kc2 Bxc1
24.bxa4 Bxa3 or 24.Rhxc1 Bd7!] Bxc1 24.Rxc1
Bd7 25.gxf3 Qb2 26.Qd2 Qxa3 is +2.2 per TC;
[b] 21.gxf3 gxf3 22.Be3 [22.Bxf3 Qg3+ 23.Ke2
Bd4 +3.7] Bg3+ 23.Kd2 fxe2 +3.3 per TC's
evaluation. **21...♗g3+ 22.♔f1 ♕e5** (+2.3)
23.♗d2 (-3.14, and no better is 23.Be3 fxg2+
24.Kxg2 Bxd1 25.Rbxd1 Rf3) **23...♗×d1
24.♖×d1 f×g2+ 25.♔×g2 ♖f3** (winning the
queen, as 26.Qc2 Qe2+ mates in 2) **26.♕×f3
g×f3+ 27.♔×f3 ♕×b2** (27...Nd7 is better,
since now Mach4 has hopes of counterplay
against TC's exposed king) **28.♔×g3 ♕×a3+
29.♔h4** (-7.43) **♘d7** (-5.0) **30.♖hg1+ ♔h8
31.♗h6** (as 31.Rg3 Qxa2 32.Bc3+ Ne5 holds)
31...♖g8 32.♖×g8+ ♔×g8 33.♖g1+
(Mach4's evaluation is down to -5.41 with the
counterplay) **33...♔f7** (+5.2, TC's confidence is
unshaken) **34.♖g7+ ♔e8 35.♗g5 ♘e5
36.♖e7+ ♔f8 37.♖×b7 ♕×a2 38.♗h6+
♔g8 39.♖b8+ ♔f7 40.♖b7+ ♔f6 41.♗g7+**
(-8.11. Interestingly, had Mach4 played 18.cxd5
instead of exd5, this would now be checkmate!)
41...♔f5 42.♔g3 ♕×c4 (-7.7)
43.♗×e5 (-8.44) **♔×e5** (-7.5) so
it's 0-1.

Mach4	3½
TC2100	2½

Mach4	0	1	1	½	1	0	*	*	*	*	*	*	*	*	*	*	= **3½**
TC2100	1	0	0	½	0	1	*	*	*	*	*	*	*	*	*	*	= **2½**

We'll leave it there for this Issue - the
Mach4 has a small lead, but there's 10
games, a Bird's Opening (!) and some
rather interesting chess still to come!

NEWS & RESULTS, part 2

Mike CUMMINGS sent me some interesting results, mostly involving his **Travel Champion2100**.

TC2100 6-4 Novag Diablo (G/60)
TC2100 5½-4½ Meph Nigel Short (G/60)
TC2100 1½-1½ Meph Nigel Short (40/90)
TC2100 1-3 Hiarcs2.1/486 (40/120)
TC2100 0-3 Hiarcs2.1/486 (G/30)
Meph MM5 1½-1½ Meph Nigel Short (G/60)
Meph MM5 0-2 Meph Nigel Short (40/120)

Mike had purchased a **Novag SAPPHIRE** for himself for Christmas, so I expect we can look forward to some scores from Sapphire matches soon. However he played a *'Christmas Night Friendly'* Speed game against it himself, which went like this (I've added some light notes):

Cummings,M – Novag Sapphire1
[A36]Speed, 25.12.1997

1.c4 c5 2.♘c3 ♘c6 3.g3 g6 4.♘f3 ♘f6 5.♗g2 d6 6.0–0 ♗g7 7.e3 ♘f5 8.d4 0–0 9.d5 ♘b4 10.♘e1 ♕a5 A commitment to the wrong side of the board, inviting trouble on both!

11.e4 ♗d7 12.♗d2! A pin that keeps causing trouble through to the end of the game **12...♗g4?! 13.f3 ♗d7 14.a3 ♘a6 14...♕b6!? 15.♘a4!** *(15.axb4?! cxb4+)* **15...♗xa4 16.♕xa4 ♘a6 17.♘d3± 15.♘d3**
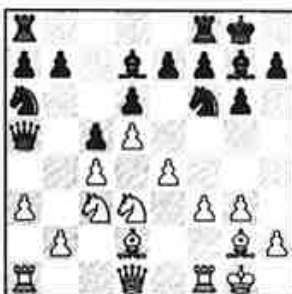
15...♘c7? Taking away two of his queen's

already limited escape squares. **15...♖fe8** looks better, leaving White with still only a smallish advantage. **16.b4 ♕a6** Or 16...♕b6 17.bxc5 dxc5 18.e5 ♘fxd5 *(if 18...♘fe8 19.♖b1 ♕a5 20.♘e4! ♕xa3 21.♘dxc5 followed by ♖b3 in all probability)* 19.cxd5+– **17.b5 ♕a5??** Clearly intending to lose the game without losing a piece! However the latter option offered somewhat more hope with 17...♘xb5 18.♘xb5 ♗xb5 19.cxb5 ♕xb5 and some chances if the queenside pawns can be encouraged to play a part **18.♘a4** and the Sapphire resigned playing 18...♕xd2 but with all material still intact! **1–0**

KASPAROV + PC
v
TOPALOV + PC

An unlikely sounding event, to be sure - but one that's taking place in **June 1998**.

The idea is that each player will have his own laptop, suitably loaded with a **games database** and **chosen PC program**, and they will be able to refer to these for ideas and analysis throughout the game!

FIDE (of which Kasparov is not a part, of course), have separated themselves from the idea altogether, and made it known that they will *"never"* allow any computer involvement in any FIDE event.

There was an initial rumour, probably from an over-enthusiastic remark on the Internet, that this was for the Kasparov-version World Championship. But if Kasparov were to endorse Computers for official World Championship matches, surely Topalov+PC would have to play Deep Blue2!?
  Unfortunately Deep Blue2 has done a Bobby Fischer and retired as 'Champion'.

Happily more recent news is of a 10 game Play-Off match between Anand (if possible, FIDE involved!) and Kramnik later this year, with the winner to play 18 games against Kasparov for his Championship. So hopefully the next World Champion will not after all be Kasparov+Hiarcs, or even Topalov+Fritz!
  Assuming this is all genuine stuff - and I believe it is - there will be more in SS/76!

7th. INTERNATIONAL PADERBORN Championship

The annual German Tournament took place during February 1998. There were only a few of the recognised leaders from our Rating List taking part, but some of the names will ring bells with SS readers, as they have appeared at Aegon.

Of course that remark does not apply to **Nimzo98** which is currently making a big name for itself, with a high grading in both the *PLY* and *SELECTIVE SEARCH* lists.

NIMZO98 had started with 3/3 but then began drawing games, allowing the field to catch up. Coming to the final round however, standing on 5/6, it still looked like a Nimzo98 win. Nearest were CLEVER& SMART (of which more in a moment) and CHESS TIGER, which both had 4½/6.

NIMZO was playing CONNERS (on 3½/6 and a parallel machine using 24xP2/300 processors!), and the latter's conspiracy search killed Nimzo. CLEVER&SMART only made a draw, so CHESS TIGER suddenly had the chance to win, as its Buchholz figure stood higher than Nimzo's, which meant it 'only' needed a draw against GANDALF. That program again, whose killer book line destroyed a Hiarcs version in a World Championship a few years back.

You've guessed it! Here's how it ended:

PADERBORN: FINAL TABLE (7 Rounds)

1=	**Nimzo98**	Donninger	5
	Clever&Smart	Meyer-Kahlen	5
3=	Chess Tiger	Theron	4½
	P.ConNerS	Lorenz	4½
	Gandalf	Suurballe, Wulf	4½
	Zugzwang	Feldmann & ors	4½
7=	Comet	Tuerke	4
	Diep	Diepeveen	4
9=	Ant	Vijlbrief	3½
	Amy3	Greiner	3½
11=	SOS	Huber	3
	XXX2	Zentner	3
13=	Patzer	Pfister	2
	Breakthrough	Koch	2
15=	Neurologic	Peussner	1½
	Diogenes	Burwitz	1½

Nevertheless the TIGER/Theron partnership is one to look out for if it becomes commercial, as it beat both of the parallel systems CONNERS and ZUGZWANG and drew with Nimzo98 after a long and tricky endgame.

The strange, new name which will have jumped out is CLEVER&SMART - especially where readers recognise the programmer's name, i.e **Stefan Meyer-Kahlen**.... author of Shredder1/2.

Clever&Smart was running on 2 PC's with 3 screens: one program used a fast-deep search and the other a slow-clever search, each being variants of Shredder itself. A third 'decision' program decided between the selected moves when they differed. Watchers were able to view on screen the selections of each of the chess programs, and then the decision between the two being made on the third display.

In other words it's just like **Ingo Althoeffer**'s 3-HIRN system, but with a PC program as the Controller (BOSS, to use Ingo's word) making the choice of move instead of a human. Indeed Programmer Meyer-Kahlen is a protege of the good Professor and made his University degree working on 3-brain concepts.

Stefan reckons that Clever&Smart is actually stronger than SHREDDER2 itself... but of course it needs the 2 PC's and a link program, so is an experiment. But a very interesting one!

LCT (Louguet) Test

We ran this back in **SS/65**, with results in **SS/66**.

Kai Luebke likes to keep up-to-date with results and has been running the latest PC versions through the test on his PPro/200. Here's his *'Top 10'*:

```
2535 Hiarcs6 (as F5 engine)
2530 Rebel9
2525 Rebel8
2480 MChess Pro7
2465 Fritz5
2440 Junior4.6 (as F5 engine)
2440 Genius5
2430 ChessMaster 5500
2410 MChess Pro5
2405 Crafty14.1
```

JUNIOR4.6 v Tom O'DONNELL

Fritz5, Hiarcs6 and MCPro7 (see SS/74) have all 'had a go' (and comprehensively beaten) Canadian I.M **Tom O'Donnell** at the Fischer Clock G/5 + 5secs per move.

Hard-working **Alan Tomalty** decided it was time that new World Micro Champ **Junior4.6** took its turn!

Although the anti-computer lobby still don't like to hear it, despite some pretty convincing results at Aegon etc over the past couple of years, it seems to me that 'a standard I.M' (O'Donnell's grade is 2450) is no longer a match for the top PC programs at Blitz or Speed chess.
    Having lost 2-8 to Hiarcs, 2½-7½ to Fritz5 and an astonishing ½-9½ to MCP7, one hardly expected him to far too well against Junior, despite the fact that he seems a glutton for the punishment (and the readies!?) and must surely be learning something about 'how to play computers'.

Junior4.6 was on a P/166 and impressed throughout the match with its good endgame technique. O'Donnell's chosen strategy, which also suits his style, was clearly to exchange queens off early and aim to grind out results in the endgame.
    However it was he who produced the endgame mistakes in the first 2 games.
    The 2nd and 5th, each of which lasted exactly 110 moves (and the latter he should have won), also seemed to tire him for the rest of the match.

Thus quite a few of the games were marred by one-move blunders, but the following is the most representative of the match for me, as I think one can actually sense O'Donnell's weariness in it!

Junior4.6 - O'Donnell,T
[D42] 5min +5 (game 9)

1.e4 c6 2.d4 d5 3.exd5 cxd5 4.c4 ♘f6 5.♘c3 e6 6.♘f3 ♗e7 7.cxd5 ♘xd5 8.♗d3 ♘c6 9.0-0 h6 9...0-0 is usual **10.♘xd5 exd5 11.♘e5 0-0 12.♘xc6 bxc6 13.♗f4 ♖e8 14.♖e1 ♗e6 15.♖c1 ♕d7 16.♕a4 ♗f6 17.♗e5 ♗xe5 18.♖xe5 ♖ec8 19.♗b1 ♕d6 20.♖e3 g6 21.♗d3 c5 22.♕a3 ♕f4 23.dxc5 d4 24.♖ee1 ♗d5 25.b4 ♖e8 26.♗f1**
    Treating the d–pawn as weak, so removing the blockade so as to attack it.

26...♕d2 27.♖ed1 ♕xa2 28.♕xa2 ♗xa2 29.♖xd4 ♖ab8? 29...♖e7 30.c6 ♖c7 31.♗a6! to deny Black the c8 square for the other rook. 31...♗e6! to deny White the d7 square for HIS other rook! Even so Junior's advanced extra pawn my/should tell. **30.♖a1 ♗e6 31.♖xa7 ♔g7 32.b5 ♖ed8? 33.♖xd8 ♖xd8 34.f4 ♖d1 35.♔f2 ♖d2+ 36.♔e3 1-0**

Junior4.6	1	1	½	1	½	1	½	1	1	= 8½
O'Donnell	0	0	½	0	½	0	½	0	0	= 1½

O'Donnell's after-match view was that he still thought MCPro7 and Hiarcs6 seemed the strongest against him, with Fritz5 and Junior4.6 about equal to each other.

Frank HOLT continues to send in his results - and pictures of his dog and chess art done on a superb Epson photo-printer that's making me quite jealous! All the results which follow were played with the programs on separate Pentium MMX/200's.

Fritz5	5-2=5	MCPro6 (normal)
Fritz5	4-3=5	MCPro6 (aggressive)
Fritz5	2-2=8	MCPro6 (central)
Hiarcs6 (normal)	2-2=8	Rebel9 (normal)
Hiarcs6 (aggress)	5-4=3	Rebel9 (aggress)
Hiarcs6 (solid)	3-4=5	Rebel9 (solid)
Hiarcs6 (normal)	4-3=5	Genius4 (active)
Hiarcs6 (aggress)	3-1=8	Genius4 (risky)
Hiarcs6 (solid)	4-0=8	Genius4 (solid)

Frank also said he'd seen that **Fritz5**, on a P/233, graded at 2700 in the Impuls Rapid Play in Germany. I've missed that result somehow, but will try to get more information. In the meantime here's a good comeback by Fritz5 in a game it was losing:

MCPro6 P200 (agr) − Fritz5 P200 (agr)
[B81]Frank Holt G/30, 1998

1.e4 c5 2.♘f3 d6 3.d4 cxd4 4.♘xd4 ♘f6 5.♘c3 e6 6.g4 h6 7.♖g1 ♘c6 8.♗e3 ♗e7 9.♕e2 ♘xd4 10.♗xd4 e5 11.♗e3 ♗e6

**12.0–0–0 ♘d7 13.♔b1 a6 14.f4 exf4
15.♗xf4 ♘f6** F5's first move out of Book in this Sicilian Keres Attack. It read −028 >♘d5 **16.♕e3 ♘e5 17.♘d5** MCP6 is now out of Book, reading +071 >♗g5 **17...♗xd5 18.exd5!?** 18.♖xd5 looks a little better, I think. The Junior4.6 engine, which I used whilst playing through this game, also thought so, reading +065 **18...0–0 19.g5 hxg5 20.♗xg5 ♗xg5 21.♖xg5 ♕c7?!**


21...♕f6 showing −023 was Junior's recommendation, trying to dampen White's kingside attack **22.♗h3** No doubt to stop one of the rooks from going to c8. F5 had expected 22.♕g3 f6 23.♖h5, showing White +073 **22...♖ae8 23.♖f1** These programs really are interesting! MCP6 read +−113 here, F5 +−091, but Junior puts White at a mere +013, believing that Black is perfectly o.k after g6 **23...g6! 24.♖gg1** Admits the attack has failed **24...♖e7 25.♕h6 ♖fe8 26.♕f4?!** 26.♗f5!? looks an MCP type move, as well as being an interesting one for analysis **26...♕c4!**
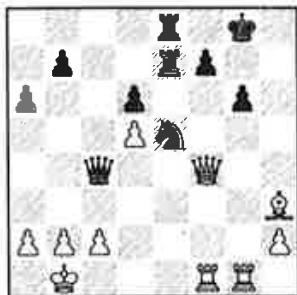
27.♕d2 27.♕xc4? ♘xc4 28.♖d1 ♖e2!∓ **27...♕h4 28.♗e6** If the obvious–looking 28.♖g3 then 28...♘f3 29.♕c1 ♖e1 also puts White in big trouble (−180 says Junior). Still, it was better than MCP's typical but over–combative choice **28...fxe6** They all manage to agree this is Black +250 or thereabouts! **29.dxe6 ♖xe6 30.b3 b6 31.♕d5 b5 32.♖g2 ♕e7 33.♖gf2 ♘d7 34.♖d1 ♘f6 35.♕d4 ♘e4 36.♖f3 ♕g7 37.♕b4 ♖c8** Frank says the evals here were MCP −490, F5 +447. Junior has Black +342, which

seems a little low **38.♖dd3 ♕e5**
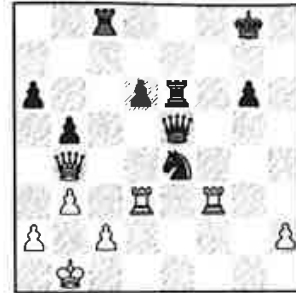
39.c4? If 39.h3 ♕h2 anyway! Then 40.c4 is still best *(not 40.♖d1?? here: 40...♕xc2+ m/2)* 40...♕g1+ 41.♔b2 ♕g2+ 42.♔b1 ♖ce8 winning **39...♕xh2 40.♖d1 ♕e2 41.♖ff1 bxc4 42.bxc4 ♖ee8 43.♖fe1 ♕h5** and MCP resigned playing **44.♖xd6** ...a move which makes the game more resignable than it was before! In truth 44.♕a3 ♘f2! wasn't going to be much fun for MCP anyway **0–1**

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Harvey WILLIAMSON sent me the result of a short Match between **Hiarcs6 P/300** and his **Mephisto London 68030**.

There is a big hardware difference here, and the *SS* Rating List suggests there is a 30 BCF gap between them, indicating Hiarcs6 should get an 80%. So it proved!

Hiarcs6 3-0=1 London 68030 (G/60)
Hiarcs6 1-0=0 London 68030 (40/2)

Hiarcs6 P300 − London 68030
[B22]H Williamson, G/60 (4), 1998
1.e4 c5 2.c3 d5 3.e5 ♘c6 4.d4 cxd4 5.cxd4 ♗f5
[Hiarcs goes out of book] **6.♘c3 e6 7.♗b5 a6 8.♗xc6+ bxc6 9.♘f3 ♗b4 10.♗d2 ♘e7 11.0–0 0–0 12.♘a4 ♕a5 13.♗xb4 ♕xb4 14.h3 ♗e4 15.♘g5 ♗g6 16.a3 ♕b5 17.b3 ♖fb8?! 18.♘c5 ♖e8 19.♕d2 h6 20.♘f3 ♖eb8 21.♘h4 ♗h5 22.♖ac1 a5 23.♘d7! ♖b7 24.♘f6+! gxf6 25.exf6 ♔h7** [25...♘f5?? 26.♘xf5 m/5; 25...♘g6?? 26.♕xh6 m/3] **26.fxe7 ♖xe7 27.♕c2+ ♔h8 28.♖fe1 ♖g8 29.♘f5 ♗f3 30.g3 ♖a7 31.♕d2 ♖g6?** [Better here was 31...♖g5] **32.♘h4 ♖f6 33.♘xf3 ♖xf3 34.♕xh6+ ♔g8 35.♖e5 ♖f5 36.♖xc6 ♖e7** [36...♕xc6 37.♖xf5!] **37.♖b6 ♕e8 38.♖xf5 exf5 39.♕g5+** announcing m/14! **1–0**

Eric enjoying a few moment's relaxation!!

FRANCESCA at the 1997 WMCC, and thoughts for the future, by programmer *Tom King*

This was going to be a small article about the WMCCC, held in Paris at the end of October 1997. I was intending to season the article with a sprinkling of sparkling wins, conjured up by my program, **Francesca**. A year ago at the WMCCC in Jakarta, it had done rather well, coming 9th=.

However, the championship in Paris turned out to be a disappointment for us, as she came 31st out of 34. There's a whole bundle of reasons why my program scored badly which, whilst I won't dwell on them, need to be mentioned:

- Software bugs. One particularly nasty bug caused Francesca to go for a draw in two (possibly) winning positions.
- Hardware disadvantage (see below).
- Poor positional evaluation by Francesca. Francesca has always been a "fast and stupid" program, getting most of her strength through tactics (see later).

The TOURNAMENT

The tournament itself was held in the old stock exchange, "la Bourse", not far from the Seine. The building is actually a minor tourist attraction, dating from Napoleonic times.

Saturday

Computer SetUp: the PCs provided by the tournament sponsors, AMD, used the fast 200MHz K6 processor, on a par - maybe slightly faster - than a 200Mhz pentium.

There was some disappointment amongst participants, because we had been promised 233Mhz machines. Although a 16% speed difference is not a lot, it turned out that about half the field had brought their own, faster hardware, e.g with the 300Mhz Pentium2 chips!

Of course it tended to be the stronger programs which were using this faster hardware, making the field seem even more intimidating.

Although AMD were one of the main sponsors of the tournament, Digital were there in force. They had sent an engineer from the USA to setup, configure and look after the DEC Alpha computers which were present at the tournament. Further, two of the Alphas had been overclocked to 767 Mhz. This necessitated refrigerating the CPUs to a temperature of -40 degrees!

Round 1

Francesca's opponent was **Chess Tiger**, a fairly new program which had come 2nd= in the recent French computer championships. Chess Tiger was running on a 300Mhz PentiumII PC, and was searching about 100,000 nodes per second.

The game started badly for Francesca, when she got her rook hemmed in on h1, by the king on g1. However, she eventually freed her game with h4, and launched an exciting attack on Chess Tiger's king. Chess Tiger dropped some material, and everything simplified to an endgame where Francesca had winning chances.

Nevertheless, due to poor handling of past pawns on Francesca's part, and excellent handling of past pawns on Tiger's part, the winning chances slipped away, and Chess Tiger got the point.

Francesca - Chess Tiger
[B45] WMCCC-ch Paris (1), 1997

31...♕g7 32.♕xg7+ ♚xg7 33.♖h7+ ♚xg6
34.♖a7 ♘b5 35.♖xa2 ♘c4 36.♖b2 e5 37.♖c3
♚f5 38.♖b6 ♖d8 39.♖f3+ ♚e6 40.♖h3 d4
41.g3
  41.f3 is needed, to delay Black's e4!
41...♚d5 42.♖h7 d3 43.♖b1 e4 44.f3?
  Too late.
44...e3! 45.♖h5+ ♚c6 46.♖h4 d5 47.♖h6+?
♚c5 48.♖h1? ♖e8 49.♖b2 d2 50.♚g2 ♚d4
51.g4 ♚c3 52.♖bb1 e2 53.♖bd1 exd1♕ 0-1
The other British entrants (John Hamlen's

amateur program, Woodpusher, and Chris Whittington's new Chess System_Tal) each started on a brighter note, with 2 wins. I'll mention more about these programs as we move through the rounds.

The 1996 world champion, Shredder, drew against Bob Hyatt's Crafty.

Other favourites started brightly, with MChessPro7 outplaying DarkThought, and Virtual Chess beating Comet.

Round 2

In round 2 **Francesca** had the black pieces against **Stobor**. Now Stobor is written by a friend of mine, Tom Kerrigan from the USA. His program is fast and dangerous, and proved to be more than a match for poor Francesca.

Stobor came out of book in a promising position, and Francesca had to ditch material to parry a mating attack. Down a couple of pawns, the game was essentially over, and Francesca was left on 0/2 points.

Stobor − Francesca
[D09]WMCCC−ch Paris (2), 1997

1.d4 d5 2.c4 e5 3.dxe5 d4 4.♘f3 ♘c6 5.g3 ♗g4 6.♗g2 ♕d7 7.♘bd2 0−0−0 8.h3 ♗f5 9.a3 f6 10.exf6 ♘xf6 11.b4 ♖e8 12.♗b2 ♗d3

13.0−0?!(or !?)
A surprise? 13.♘g1 is constricting, but seems better after an initial look at the apparently detrimental exchanges which result from the move played. However, after this book sac of the exchange Stobor powers its way to a terrific attack!
13...♗xe2 14.♕a4 ♗xf1 15.♖xf1 ♔b8 16.b5! ♘d8 17.♘xd4 ♗c5 18.♘2b3 ♗xd4
     18...♗d6 19.c5!
19.♗xd4 b6 20.c5 ♖e6 21.♗e3 ♘h5 22.cxb6 cxb6 23.g4 ♖xe3
The pressure tells, and Francesca sheds

material. If 23...♘f6 24.♗f4+ ♖d6 25.♖d1!
24.fxe3 ♘f6 25.♕f4+ ♔c7 26.♕f3 ♕b7 27.♕xb7+ ♘xb7 28.g5 ♘h5 29.♗xb7 ♔xb7 30.♖f7+ ♔c8 31.♖xa7 ♔b8 32.♖a6 ♔b7 33.a4 ♖e8 34.a5 ♖xe3 35.♖xb6+ ♔c7 36.♖c6+ ♔d8 37.♘c5 ♘f4 38.b6 ♖e1+ 39.♔f2 ♖b1 40.a6 ♘xh3+ 41.♔e3 ♔e7 1−0

Other interesting games included Gandalf vs Shredder, in which Gandalf sacrificed a bishop in style on move 18, gained good positional compensation, and crushed the reigning World Champion!

Gandalf − Shredder
[B99]WMCCC−ch Paris (2), 1997

After White's **17.♔b1**

17...b5 18.♗xb5+!
White's aggressive play over the next few moves is well worth enjoying.
18...axb5 19.♘dxb5 ♕c5 20.h3 ♘e3 21.♘xd6+ ♔f8 22.♕f2 ♖h7 23.♖he1! ♖b8 24.♘a4 ♕a3 25.♗xe5! ♘xd1
Definitely worth another diagram, as you'd have needed to calculate through your next move with some conviction, in view of the proximity to the White king of Black's queen and knight!

26.♕a7 ♖xb2+ 27.♗xb2 ♕xd6 28.♕d4! ♕xd4 29.♗xd4 f5 30.♖xd1 ♖b7+ 31.♘b2 fxe4 32.♖e1 ♖f7 33.c4 ♘b7 34.♖e2 ♗c6

35.a4 ♖f1+ 36.♔a2 ♗f4 37.a5

The a–pawn went on to queen, and White won in 61 moves **1–0**.

Round 3

Ananse was **Francesca**'s next opponent. Ananse has a poor computer tourny record - it has beaten humans, but has lost all games to other programs. Although I felt for programmer Walter Bannerman, I didn't really want the turning point for his program to be against Francesca. What a cruel sport this computer chess is!

Lucky for me, then, when Ananse quickly blundered, allowing Francesca to engineer a mating attack. *"You've played your trump card too early"* John Hamlen, Woodpusher's author told me - in the Swiss pairing system, it is generally good to play weaker opponents later in the tournament!

Fritz was paired with Chess Tiger, and the draw was a very good result for the amateur program. In fact, despite searching nearly 400,000 nps, Fritz generally struggled in this tournament, dropping several draws to amateur programs. I'll return to why I think this happened later in the article. Poor Woodpusher was drawn against the mighty Ferret, and lost, but not before an interesting looking middlegame had been played. Hydra (nice name, but not a newcomer, rather a pseudonym for the latest version of Nimzo), lost again to go to ½/3. It recovered well later after this disappointing start.

Round 4

This round saw **Francesca** play black against **Kallisto**, a commercial Dutch program - my first time ever playing a full commercial program. I was expecting to get munched quickly! As well as being a fast program, Kallisto was running on faster hardware than Francesca. However, Kallisto made a couple of slightly odd moves, and eventually a drawn endgame was the result. Naturally I was delighted.

An upset occurred when Fritz lost to Tom Kerrigan's program, Stobor. I glanced over at the game, and I believe Fritz had the option to draw by repetition, which it turned down. In playing for the win it lost. Junior beat Ferret, and Virtua crushed Diep to share first place.

A nasty bug (or operator error) struck poor Comet in this round. Having reached an excellent looking position against XXXX II at move 30, Comet started playing at blitz speed. Within 10 moves, a promising position turned into a lost game. This was a pity, because Comet played good chess throughout the tournament.

Round 5

The 1996 world micro champion, **Shredder**, was **Francesca**'s opponent now!

Despite an even opening, Shredder, running on a super fast Alpha machine soon won material, and then the game. Never mind! I know Steffen quite well, and it was great for my program to face the world champion, even if it lost.

Francesca – Shredder
[B85]WMCCC–ch Paris (5), 1997

1.e4 c5 2.♘f3 d6 3.d4 cxd4 4.♘xd4 ♘f6 5.♘c3 a6 6.♗e2 ♕c7 7.0–0 e6 8.f4 ♗e7 9.♗e3 0–0 10.♕e1 ♘c6 11.♖d1 ♘xd4 12.♗xd4 b5 13.e5 dxe5 14.♗xe5 ♕b6+ 15.♔h1 ♗b7 16.♕g3 ♖fd8 17.♗d3 ♖ac8 18.a3 ♘e8

19.♖fe1?!

19.f5 was probably needed here. The relevant tactical factor is the lack of escape squares available to White's e5–bishop. **19...f6! 20.♕h4**

The only chance! **20...h6 21.♗g6 ♕c5 22.♕h3**

22.♕h5 was no better. 22...fxe5 23.♖xd8 ♖xd8 24.♗xe8 ♕f2! 25.♖g1 ♗c5!–+ **22...fxe5 23.♕xe6+ ♔h8 24.♕xe5 ♕f2 25.♘e4 ♕h4 26.♘g3 ♖xd1 27.♖xd1 ♗d6 28.♕f5 ♕e7 29.♖f1 ♘f6 30.♕d3 ♕c7 31.♘e2 ♖d8 32.♕g3 ♘e4 33.♗xe4 ♗xe4 34.c3 ♗c5 35.b4**

35.f5 is slightly better, though still losing: 35...♕xg3 36.♘xg3 ♗c6 leaves

Shredder with just a little too much fire-power.

Francesca has done nothing seriously wrong – but Shredder has still overpowered the amateur program in relentless style. **35...Rd2! 36.bxc5 Rxe2 37.Rg1 Wxc5 38.a4 bxa4 39.f5 0–1**

Chess System Tal drew against MChess7, to move onto 3½ points. It was attracting lots of interest due to its attacking style, and I hoped that after years of effort, Chris Whittington and his team would get their reward for following a different approach to computer chess programming. As it turned out, it was a good tournament for CS_Tal.

A key game was Virtual Chess v Junior. The former won impressively, to lead the pack. It looked a distinct possibility that Virtual could win the tournament on home ground. Also in this round Woodpusher crushed SOS in style. John Hamlen's program had clearly improved since Jakarta.

SOS – Woodpusher
[C48]WMCCC–ch Paris (5), 1997

1.e4 e5 2.Nf3 Nc6 3.Nc3 Nf6 4.Bb5 Nd4 5.Ba4 Bc5 6.Nxe5 0–0 7.Nd3 Bb6 8.Nf4 c6 9.d3 d6 10.Be3 Ng4

There is nothing wrong with the SOS game coming out of the opening. But it now plays some casual moves and Wood-pusher jumps all over it!
11.a3?!
Allows Black to equalise with a show of aggression. 11.Rb1 would have kept a small advantage.
11...f5! 12.Wd2 fxe4 13.dxe4
  13.Nxe4?! Nxe3 14.fxe3 Nf5∓
13...Nxe3 14.fxe3 Wh4+ 15.g3?
  15.Kd1 Ne6 16.g3=
15...Nf3+ 16.Kd1 Nxd2 17.gxh4 Bxe3 18.Ng2 Bh6 19.h3 b5 20.Nxb5
  20.Bb3+ Nxb3 21.cxb3 Rf2!–+ **20...cxb5**

21.Bxb5 Nxe4 22.Re1 Nf2+ winning. 0–1

Round 6

Francesca was given the black pieces against **Anmon**... a French program and one which I knew nothing about. However, it had drawn with Fritz in the previous round, so I knew it couldn't be weak.

In the game, Francesca had a terrible opening, tying all her pieces in knots, and dropping a pawn. As things simplified to the endgame, Anmon used its past pawns to win efficiently. 1½ points in 6 rounds was not what I had hoped for.

AnMon – Francesca
[D00]WMCCC–ch Paris (6), 1997

1.d4 d5 2.e4 dxe4 3.Nc3 Nf6 4.f3 exf3 5.Nxf3 e6 6.Bg5 Bb4 7.Bd3 0–0 8.0–0 Nc6 9.Kh1 Be7 10.Wd2 Qd7 11.Rae1 Be8 12.a3
In fact Black is a pawn up, but White has plenty of compensation, with great freedom for his pieces. Black now drops his extra pawn in what is a salutary lesson in when NOT to advance the h– pawn!
12...h6?? 13.Bxh6!! Nd5
Of course Black has lost material and is well on the way to losing the game. At least Francesca didn't try 13...gxh6?? 14.Wxh6. Now there are mates all over the place. E.g: 14...Nxd4 *(14...Qd7? 15.Ng5 m/5)* 15.Nxd4 Wxd4 16.Wg5+ m/6]
14.Nxd5 Wxd5 15.Bf4
So material is equal, but just a look at White's rooks tells who is winning, and we'll embarrass our author for this article no further by leaving it right here apart from mentioning that AnMon won in 62!
1–0

Chess System Tal against Junior looked an interesting game. A kingside attack for CS_Tal looked like it might work, but Junior defended very well, and eventually won easily.
Virtual Chess outplayed Crafty to keep a comfortable lead.

Round 7

Francesca played white against yet another unknown French program, **Techno Chess**.
After an even opening, and quiet middle game, Techno Chess found a nice way to infiltrate White's queenside with a knight. A pawn dropped and, as things simplified,

Techno Chess pushed its pawns to get the win. I was upset that although Francesca was competing in the middle game, everything kept falling apart in the endgame. I'd always known that Francesca's endgame was weak, and I vowed to do something about this after the tournament.

Key games in this round included Virtual Chess vs. Ferret, which was drawn, and Junior vs. MChess7, where Junior got the win. When Junior beat MChess, one of the top programs, everyone realised that strength wise, it really is one of the best.

The other two British programs, Woodpusher and Chess System Tal were paired together. Chess System Tal played a strong game, overloading Woodpusher's pieces, and finally winning with ease.

CS_Tal – Woodpusher [C86]
WMCCC–ch Paris (7), 1997

We join the game after a period of sustained White pressure along the e–file and a rook exchange on a8. Black's position seems to have held, but CS_Tal now invades through a different route!

25.♕b5! ♗f8
   25...h6 to give the king an escape route is an alternative, but 26.♘c4 ♕f5 27.♖e5 puts that idea firmly in its place!
26.♕b7! ♖d8
   26...♖a2 27.♘c4 ♕d7 28.♕b8 ♔g8 29.♖e8! wins
27.♘c6!
   As Tom says in his report, Woodpusher's pieces are overloaded and just cannot both escape and cope at the same time!
27...♕c8 28.♘xd8 ♕xd8 29.♕b5 ♕d6 30.♖e8 ♔g8 31.♕b8
   With g3 and ♗f4 to follow, it is surprising that Woodpusher hung on till move 45.
31...♘c3 32.g3 h6 33.♗f4 ♕xd4 34.♖xf8+

♔h7 35.♕e8 etc. 1–0

Round 8

Francesca played **Isichess**, a German program.
   After an even opening, Francesca decided to exchange her rook for a bishop and a pawn. It was an interesting, if unsound decision. Francesca gained a couple of passed pawns, but failed to do anything constructive with them. Isichess used its material advantage to gradually pick off the pawns, and won well.

Isichess – Francesca
[C47]WMCCC–ch Paris (8), 1997

After **35.♘e2**. Actually I *(Eric)* think White hase a small edge here anyway, despite the passed pawns Tom mentions: B+N+3P (incl a potential p–p) v R+4P.

   Now Francesca chose:
35...♕d1+?!
   35...a5 probably needed to be played around here, to create some deserved pressure for itself from the said passed pawns.
36.♔f2 ♕d7 37.f6 gxf6 38.♗xf6 ♖b5 39.♘d4 ♖d5 40.♕f4 h5!?
   40...c5 41.♘f3 ♖f5 may seem a better idea, but Francesca's choice turns out quite well in a few moves. Not 40...a5?! as 41.♗e5 virtually forces Black's queen to cover f6: e.g 41...♕f7 then 42.♘f5 and White will win.
41.♕g3+ ♔f8 42.♕g6 ♕f7 43.♕h6+ ♔e8 44.♔g3 ♔d7
   Now was the time for 44...c5! 45.♘f3 ♖f5 and fighting chances!
45.♘f3 ♔c8?!
   45...♕e8 46.♕g7+ ♔c8 47.♘e5 ♖d7 was better.
46.♕h8+ ♔b7 47.♗e5 ♖d1 48.♘d4 ♕d7 49.♔h2 ♔a6 50.♘f3 ♕f7 51.♕c8+ ♔b5?
   51...♕b7 was correct.

52.♗c7! ♔c5 53.♕b7 ♕a2 54.♗b8 ♕d5
55.♗xa7+

One gone! The other followed a few
moves later and that was that. **55...♔d6
56.♕g7 c5 57.♕f8+ ♔c6 58.♕e8+ ♔c7
59.♘e5 ♖b1 60.♕e7+ ♔c8 61.♘f7 ♖d1
62.♗xc5 etc. 1-0**

At the top of the leader board, Virtual
Chess continued its winning ways by beat-
ing Eugen7.2.

Junior beat Chess Guru to stay within ½
point of Virtual Chess.

And after a slow start, Shredder had
been moving up the leader board, and by
beating Diep, it moved into 3rd place.

Round 9

Dragon was **Francesca**'s opponent. Al-
though there is a Russian chess program
called Dragon, but this was a new French
program.

Francesca won some material, and
looked to be cruising towards a win. Then
suddenly it appeared to be going for a draw.
After an uncertain endgame, where it
looked like Dragon might even be winning,
a draw was the result.

What had gone wrong? A bug? Or did
Dragon find a neat combination to stay in
the game? I thought the latter.

Franchesca – Dragon FRA
[C60]WMCCC-ch Paris (9), 1997

After Black's **18...♗g4** the position appears
almost equal but, after a series of ex-
changes on e6, White's pin with his 21st
will give him, sorry her... Tom's Francesca
is a 'Polgar'... a clear advantage!

**19.e6! ♗xe6 20.♘xe6 ♕xe6 21.♖e1! ♗e3
22.fxe3 fxe3 23.♕g5 ♘f5 24.g4 ♘d4
25.♖xe3 ♕d6 26.♘xd5**

It's all being done by pins, and Francesca

is well on top.
26...♘xb3 27.♘b6+

27.♘e7+ is the correct check: 27...♔b8
28.♖xb3! ♕d4+ 29.♖e3 ♖hf8 *(not
29...♕xb2? 30.♘xc6+!!)* 30.♖ce1 should be
winning.

After the move played White's advan-
tage disappears almost mystically.
**27...♔b8 28.axb3 ♕d4 29.♘c4 ♖d5 30.♕h4
b5 31.♕e7 ♖c5 32.♕e4 ♕xe4 33.♖xe4 bxc4
34.bxc4 a5**

The game is about as equal as it can be,
neither side should win barring accidents.
So, Francesca should have won, but a draw
was the correct result from here. ½-½

Junior beat Gandalf, recovering well from a
bad opening to move into the lead.

Virtual Chess finally stumbled, losing to
Shredder in a fine game. Just before Shred-
der's 18th move, I was watching this game.

Shredder – Virtual Chess
[A74]WMCCC-ch Paris (9), 1997

After Black's **17...h5**

I mentioned that f5 looked a nice move.
Steffen (Shredder's author) was sitting on
the edge of his seat, pale with nervous
exhaustion. He said, *"Yes, f5 was a good
move"*, but he was worried that Shredder
would take too long to find it. On cue, as
we were speaking, Shredder found f5.
18.f5! ♗h6!

18...gxf5? 19.♖xf5 ♖e5 20.♖cf1±
**19.fxg6 fxg6 20.♕c2! ♔g7 21.♖cd1 g5
22.♗f2 ♘e5 23.♗g3 g4 24.♖f5 ♖e7 25.♘c4
♘xc4 26.♗xc4 ♖ce8 27.♖df1 ♖f8 28.e5
dxe5 29.♘e4 ♘xe4 30.♖xf8 ♘xg3+ 31.hxg3
♕d6 32.♕f5 ♗f4 33.gxf4 1-0**

Round 10

Francesca was paired against **XXXX II.**
Playing black, a fairly even game ensued. It

ended abruptly with a draw by repetition, just as I thought she was gaining the upper hand. I didn't mind too much, because XXXX II was playing on much better hardware (300Mhz Pentium II).

However, there was now no escaping the inevitable - my program was going to be one of the last finishers in the competition.

The big game this round was Shredder - Junior. Could Shredder stop Junior's quest for the crown? I looked over at the game several times, and it seemed a finely balanced contest. Both sides played well, but Junior finally won.

Virtual Chess vs CS_Tal was the other big game. In a position where Black looked to be lost, Chess System Tal found an incredible drawing resource - and then changed its mind at the very last minute.

After this moment, it was downhill all the way for CS_Tal.

Virtual Chess − CS_Tal
[B92]WMCCC−ch Paris (10), 1997

After White's **46.♖xd5**

46...♛e1+

The first of a short series of checks which seems to be heading for a sneaky perpetual check draw.

47.♔f3 ♛h1+ 48.♔e3 ♖ce8

48...♛e1+ seemed the obvious move, continuing the threat of perpetual and forcing White to find an alternative to ♔f3.

However I believe White can in fact still win, but only by 49.♔d4 *(49.♛e2? ♖xe4+ 50.♔xe4 ♖xc4+ 51.♖xc4 ♛xe2+ and Black has the draw)* 49...♖ce8 *(49...♛g1+ is not quite as good after 50.♔c3 ♛e1+ 51.♛d2 when Black's best is 51...♛xe4 and now 52.♖d8+ ♖xd8 53.♛xd8++−)* 50.♔c5 ♖xe4 51.♖d4±

49.♖d4 ♛xh4 50.♘d5 ♖c7 51.♖dc4

...and the chance has gone

51...♖d7 52.a6 bxa6 53.♖xa6 ♛e1+ 54.♔f3 ♛h1+ 55.♔e2 ♔h7 56.b6 etc. **1−0**

Round 11

For the last round, **Francesca** was given the white pieces against **Nightmare**. Nightmare, by its author's own admission, uses a very simple evaluation function. But it is very fast, and was searching through the plies at a terrific speed.

However, Francesca seemed to be well in control of the game, and was up in material when she made an odd move. Suddenly, Nightmare saw a very simple way to force the draw by repetition. It was only now that I suddenly understood the bug which had cropped up earlier in the tournament.

Francesca − Nightmare GER
[B81]WMCCC−ch Paris (11), 1997

30.♖xb2?

30.♛b4 ♗e5 31.♛xb7 ♛f5 *(31...♖xc2?? 32.♖d8+ ♔g7 33.♛b4!+−)* 32.♛g2 ♖xc2 is a much better continuation, though the win is not likely to come so easily!

30...♛g4+ 31.♔h1 ♛f3+ ½−½

The bug, in the draw by repetition code, meant that Francesca would think a draw by repetition was as good as winning 4 pawns.

The result of this was that if Francesca was in a crushing position, (evaluating the position as, say, an advantage of 4 pawns), she would go for a win. If she was in an only slightly advantageous position (evaluating the position, say, as an advantage of 1 pawn), she'd go for the draw. Pity I only figured out this bug after the 11th round!

Meanwhile, could Junior hang on to its ½ point lead? After some quick calculations, it was clear: only if Virtual won <u>and</u> Junior lost, could Virtual emerge victorious.

In fact Virtual Chess got outcalculated by DarkThought, and Junior finished its tournament in style - a win against Fritz.

Congratulations to Amir Ban and S. Bushinsky. I think all participants were pleased to see an amateur program win... and with such a fantastic score. Junior is soon to be released commercially, and will certainly be one to watch.

The way forward for Francesca?

After a disappointing result like this, the temptation is to throw in the towel. If the draw by repetition bug really cost Francesca a point or two, a lowly position might have become more respectable. I don't think curing this bug would have helped a huge amount, though.

There were far too many times in the tournament when an even position was spoilt, not through tactical blunders, but by misunderstanding positional aspects.

Passed pawns are a splendid example. The Paris version of Francesca had a very vague understanding about these, and relied mainly on deep searching to deal with its opponent's passed pawns, or to discover when to push its own. This searching just wasn't enough, as the games against Chess Tiger and IsiChess proved.

It was frustrating to see times when there were opportunities to exploit a weakness in the opponents position, but Francesca would "sit there", doing very little.

At this stage, I need to explain a little about the **techniques used in Francesca**. In computer chess, there have always been two distinct "camps".

- The "fast and stupid" camp view searching deeply and getting as many nodes per second process as the number one aim for their program.
- The "slow but smart" camp view nodes per second as important, but not nearly as important as having a good evaluation function.

Traditionally, programs such as Fritz and Nimzo have been labelled *"fast and stupid"*, and programs such as Hiarcs, the King and MChess, as *"slow but smart"*. Other programs (e.g Genius) go for a compromise between the extremes. Francesca has always subscribed to the *fast and stupid* paradigm.

In Paris, *fast and stupid* wasn't good enough. Sure, when tactics abound, it's great to be fast and stupid - to see your program sacrifice a rook for a mate in 10. But how often does the ability to find this kind of tactic help in an average game of chess?

As hardware gets faster, the *slow and smart* camp is gaining an ever bigger following, and rightly so I believe.

Consider the following fictitious table, indicating depths searched by two fictitious programs, *"DumbLightning"*, and *"CleverSlug"*, and the suggested results of hypothetical 10 game matches.

Hardware	Depth reached by "DumbLightning"	Depth reached by "CleverSlug"	Result
386 PC	7	5	8-2
486 PC	8	6	7-3
Pentium	9	7	6-4
P/Pro	10	8	3-7
Alpha	11	9	2-8

The above is based on a gut feeling. As computer speeds increase however, the *slow and smart* programs will certainly catch the *fast and stupid* programs tactically, whilst still benefitting from their *smartness*. There are some indications that this is correct. For example:

- Repeated draws by Fritz at the Paris world championship, even when searching 20x faster than some opponent's (e.g. Fritz (400K nps), vs Anmon (20K nps)).
- Good result of Chess System Tal at Paris, when only searching 7K nps.
- Crafty losing game to Rebel, with Crafty being given 100x the thinking time of Rebel *(the NPS challenge, see SS70)*.
- Deep Blue being crushed by Kasparov in 1996, Deeper Blue (not much faster, but hugely improved evaluation function) "crushing" Kasparov in 1997
- Hiarcs (slow and smart) pushing its way to the top of the SSDF list.

What does all this mean?

I believe it shows that the key to computer chess is a good evaluation function. Search speed is important, but without a good evaluation function, it is not enough.

Since I returned from Paris, I have completely redesigned the evaluation function in Francesca. The current version is about 8 times slower than the Paris version, but it has far more knowledge. Already, it plays chess at a comparable level to the Paris version. Further self-tests, and tests against other opposition are needed to verify this.

Korrespondencce Kup2

Play commenced 1/Feb: one game is al-
ready over, a minor shock!

CM5500 – Hiarcs6MAC [C84]KK2, 1998
1.e4 e5 2.♘f3 ♘c6 3.♗b5 a6 4.♗a4 ♘f6 5.d4
exd4 6.0–0 ♗e7 7.♖e1 b5 8.♗b3 d6 9.♕d5
♗d7 10.♘xd4 ♘xd5 11.♘xc6 ♗xc6 12.exd5
♗b7 13.♗g5 f6 14.♗d2 ♗xd5 15.♗a5 ♗b7
16.♘c3 ♕d7 17.♘d5 ♗xd5 18.♕xd5 c6
19.♕b3 ♔f8 20.♖e6 ♖e8 21.♕h3 ♕c8
22.♖ae1 ♔f7 23.♗b4 a5? 24.♕b3! ♔g6
25.♖xe7 ♖xe7 26.♖xe7 ♔h6 [26...axb4?
27.♕f7+ ♔f5 28.♕h5+ g5 29.f3! and Black
will have to lose his queen to delay mate]
27.♗d2+ g5 28.♕f3 ♖g8? 29.♕xf6+ with
mate announcement **1–0**

Rebel9 – Fritz5 [B17]KKup2, 1998
1.e4 c6 2.d4 d5 3.♘c3 dxe4 4.♘xe4 ♘d7
5.♗d3 ♘gf6 6.♘g5 e6 7.♘1f3 ♗d6 8.♕e2 h6
9.♘e4 ♘xe4 10.♕xe4 ♘f6 11.♕e2 ♕c7
12.♗d2 b6 13.0–0–0 ♗b7 14.♔b1 0–0–0
15.c4 c5 16.♗c3 ♖hg8 17.♖he1 ♔b8 18.g3
♖c8 19.dxc5 ♕xc5

*F5 expects **20.♘e5** White +0.56 ±*

Hiarcs6 MAC – Rebel9 [D14]KK2, 1998
1.♘f3 d5 2.d4 ♘f6 3.c4 c6 4.cxd5 cxd5
5.♘c3 ♘c6 6.♗f4 ♗f5 7.e3 e6 8.♗b5 ♘d7
9.♕a4 ♖c8 10.♗xc6 ♖xc6 11.♕xa7 ♕c8
12.♕a5 ♖a6 13.♕c7 ♕xc7 14.♗xc7 ♗b4
15.♘h4 ♗e4 16.0–0 ♗xc3 17.bxc3 0–0
18.♖fc1 b5 19.f3 ♗d3 20.g4 ♖fa8

*F5 expects **21.♔f2** Black +0.42 ∓*

CM5000 – Crafty [D27]KKup2, 1998
1.d4 d5 2.c4 dxc4 3.♘f3 a6 4.e3 ♘f6
5.♗xc4 e6 6.0–0 c5 7.dxc5 ♕xd1 8.♖xd1
♗xc5 9.♘bd2 0–0 10.♗e2 ♖d8 11.b3 b6
12.♗b2 ♘bd7 13.♘e1 ♗b7 14.♖ac1 ♖ac8
15.♘f3 ♗xf3 16.♘exf3 ♘d5 17.♘f1 ♘7f6
18.a3 ♘e4 19.♘3d2 ♘ec3!? 20.♖xc3 ♘xc3
21.♗xc3 ♗xa3 22.♗d4 ♗c5 23.♖a1 ♗xd4
24.exd4

*F5 expects **24...a5** equal ∞*

Fritz5 – Hiarcs6 MAC [B65]K2, 1998
1.e4 c5 2.♘f3 d6 3.d4 cxd4 4.♘xd4 ♘f6
5.♘c3 ♘c6 6.♗g5 e6 7.♕d2 ♗e7 8.0–0–0
♘xd4 9.♕xd4 0–0 10.f4 h6 11.♗h4 ♕a5
12.e5 dxe5 13.♕xe5 ♕xe5 14.fxe5 ♘d5
15.♗xe7 ♘xe7 16.♗d3 ♘d7 17.♗h7+ ♔xh7
18.♖xd7 ♘c6 19.♖xb7 ♘xe5 20.♖e1 ♘c6
21.♘e4 ♖ab8 22.♖d7 ♖bd8 23.♖ed1 ♔g6
24.b3 a5 25.♔b2 h5 26.a3 ♖xd7 27.♖xd7
h4 28.♖c7 ♘d4 29.♘d6 h3 30.gxh3 f5
31.♔c3

*F5 expects **31...♘f3** White +0.78 ±*

Other games in progress:

Hiarcs6 MAC	**– Crafty**	–+
Crafty	**– Fritz5**	=
Crafty	**– Rebel9**	+=
Rebel9	**– CM5000**	=
Fritz5	**– CM5000**	=

Chess Academy: A Brief Review

Chess Academy98 software has been developed in co-operation with various well known GM's, including Ivanchuk, Dorfman, Romanishin, Mikhalchishin & Arshak Petrosian.

It is a **chess database and tutorial system** for Windows PC, aiming to suit the needs of all chess players from hobby to professional levels! Making full use of the PC's specific suitability for following games, it provides effective learning and training methods, and should enable a chess player to improve his/her chess skills in an efficient and effective manner.

Chess Academy, the DATABASE

There's a choice of three Databases on the CD: *"Profi"* (523,247 games), *"Super"* (367,523 games), and *"Select"* (78,657 games).

A user's own games can be added, and PGN or ChessBase files can be converted into Chess Academy format. Various game statistics can be calculated and viewed. User notes and variations can be added and saved to games, and complete games with notes etc sent to printer.

There are many other Databases around now, ChessBase6 immediately comes to mind. Also Fritz5, Hiarcs6, Genius5, Rebel9 etc etc include large games databases, offering similar features to Academy, plus the advantage that the PC playing program can be used to analyse games. Thus I would say to buy Academy for the Tutorial rather than the Database - but you get both!
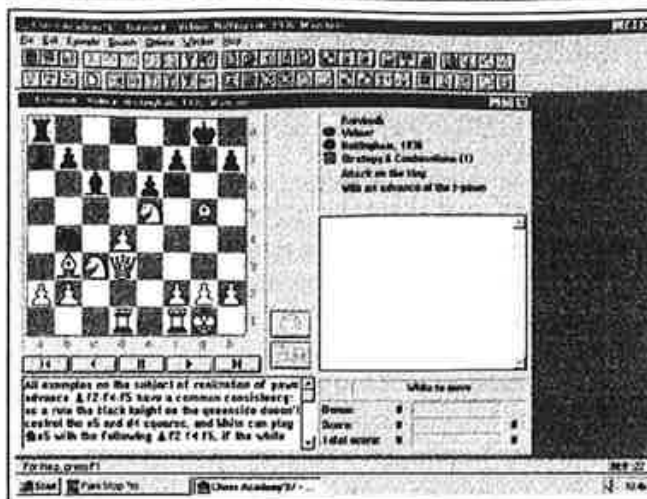
Chess Academy, the TUTORIAL

As a PC Tutorial Academy competes with **Chess Mentor**: it is superior in some areas (e.g it has printing facilities), but possibly inferior in others (e.g solving help). I use the word *'possibly'*, as who can judge for someone else which 'help' system actually aids progress the more?! MENTOR cleverly offers help at various levels, making it easier for, say, beginners to find answers. ACADEMY is more demanding, the user may fail more often... but will he learn less or more?!

Therefore *I* just find the 'lots-of-help' Mentor more pleasurable... but my use is for interest and fun rather than with a true aim of reaching IM standard, which isn't going to happen!

Two Tutorial Modules *(Combinations & Strategy I & II)* are included in the initial package.

These alone include some 350 of the most instructive positions from the games of top players, which are used to give in-depth teaching on

a wide range of relevant topics (see Screenshot).

Subjects, with big games selection studying aspects of each topic, include *Attack on the King, Counter-Attack, Exchange Sacs, Queen Sacs, Pawn Sacs, Isolated Pawns, Hanging Pawns, Rooks v Minor Pieces, Domination, Defence, Blockade, The Bishop Pair, Central Strategy, Endgame Strategy, Advantage in Space, Middlegame Combinations* etc.

Other Modules (no. of Modules in each set shown in brackets) include:
- Improvement, Middlegame Strategy (6)
- Encyclopaedia of Chess Endings (10!)
- Encyclopaedia of Chess Combinations (2)
- Encyclopaedia of Chess Studies (3).

All these can be used as Training Tests, with scoring of personal results and performance, or as quality reading and study material (the easy way out!)... or a mixture of both! All of the positions include extensive notes and teaching material, some being provided as hints, others as guidance after you've made your choice of move. All Examples can be printed out for users who wish to document specific games or teaching.

Probable prices in Britain will be:-
1. **Main Pack** (Database+Tutorial+2 Modules) **Chess Academy98 £109** ...or
2. **Main Pack** (as 1. above) **plus 6 extra Middlegame Modules** (worth £120) **£179.**
- **Additional Modules £20** each.

Report on a Very Experimental Match with 3-Hirn, part II *by Prof. Dr. Ingo Althofer*

Some ANECDOTES

During the match I faxed each newly played game on the very same day to my computer chess second Hans-Joachim Kraas, and also had regular phone contact with him. There were two amusing moments:

The worst opening handling of mine (and 3-Hirn's) was probably in game 5. This led to a short dialog between Hans-Joachim and his wife, Marlis Kraas-Yanovsky.

M: *"Hans-Joachim, why are you making such strange noises ?"*
H-J: *"It is unbelievable!"*
M: *"What?"*
H-J: *"I am just replaying the first moves of Ingo's fifth game."*

For the match I used self made notation sheets of size A4, where the left column contained the moves 1 to 50.
When the Fax of game 7 came out of his Fax machine, Hans-Joachim was just standing close by and saw that the upper part of the right column was free. Instinctively he was terrified, because he still had in mind the (very) short fourth game (also with a free right column) in which 3-Hirn had been beaten terribly. He thought it had happened again, but luckily this time it was the other way round!

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The match was very hard for me as the co-ordinator. I was so exhausted that during game 7 I must have fallen asleep for a short moment. Suddenly I realized that 3-Hirn was to move although it seemed only a moment before that the clock of the GM had still been running. I must have missed the execution of his move.

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Yusupov had arrived in Jena on the evening before the first game's day. We met and checked the localities. (The match was played in the living room of my small flat directly below the roof). I demonstrated the List-3-Hirn principle to Yusupov in practice and showed him also the chess programs in their k-best modes.

Finally we "shuffled" an example starting position and played a few moves.

Ingo Althofer (left) and Arthur Yusupov

The starting position was Bfg-Qa-Nbe-RKR/cdh. Within 5 minutes the following moves were played, Yusupov with Black, List-3-Hirn as White:

**1.e4 g6 2.f4 ♗g7 3.♘f3 b6 4.e5 f6
5.♗e3 c5 6.♘c3 f×e5 7.f×e5 ♘c6 8.♗a6
♘×e5 9.♗×c8 ♔×c8 10.♖f1 ♗e6 11.♔e1
♘d6 12.d3**

Here we stopped the sparring game. After his intuitive sacrifice of the exchange Yusupov is standing already on a win. I was a little bit in fear that the match games might evolve similarily and tried to explain (all of our discussions were in German): *"In the match I will play much more slowly"*. Yusupov shortly: *"Me, too!"*

MEDIA Interest Runs High!

The interest of the regional media in the match was immense. Originally we had planed to play completely without publicity.

However, on the day before the first game I informed the editor of the *"Alma Mater Jenensis"*, which is the house magazine of the Friedrich-Schiller University in Jena. My intention had been to pre-inform him so that he would write a report for the *"Alma Mater"* after the match. But Mr. Burchardt was smart, edited the information immediately and gave it to all regional media. Throughout the same day my telephone started ringing.

During the match I had to give several radio interviews, and the current match scores were announced and even discussed daily, both in radio

and in the newspapers.

The highlight of this media spectacle were the TV recordings for the MDR (*"Mittel- deutscher Rundfunk"*): 30 minutes before the start of game 3 a four man team entered the playing room: reporter, camera man, sound engineer, and boy. For the reporter and me the space was not too narrow. But cam man and sound man had to share only a few square feet below the oblique ceiling of the roof.

The cam man was the most interesting person of the team. He gave me lots of orders to rearrange the computer monitors on the table a *"little bit"*, a little bit more, a little bit more ..... Finally he was satisfied with the placement.

But I realized a problem: *"Now the camera will only get the first screen and not the one of the second monitor."*

His answer: *"That is exactly, what I was going for. The displays have different repetition frequencies and I am not able to adjust the camera in such a way that both screens are picture-steady"*. So, according to his solution (hiding the second display behind the first one) the TV spectators would get a steady picture, but not directly the impression that the 3-Hirn principle involved two computers. But I was not in a mood to start a dispute on this.

A little bit more funny was the next discussion with him a few minutes later. Yusupov was not there, yet. Suddenly the cam man pointed to Yusupov's chair and asked me: *"Do you have another chair?"*

I realized what he meant and asked back: *"You mean, do I have two identical chairs?"* (Yusupov's and my chair were more or less different).

"Exactly".

My response: *"The thing is that the Grandmaster has tried several chairs, and he has decided just for this one"*.

Little break: *"Then it is okay"*. Now to tell the truth, Yusupov had not tried several chairs, but I was not willing to search for a better pair of chairs 10 minutes before the game was going to start!

This episode showed me one thing: I had *"engaged"* a second for the chess stuff (Rick Burmeister) , and another one (Hans-Joachim Kraas) for the computer chess questions. But the general management of the match was in my own hands, and at several moments it would have been nice to have a special manager (or a boy like in the TV team) for non-chess things.

Finally Yusupov appeared on the scene in tie

and jacket (for the TV part only!), and the reporter made also an interview with him. This TV guy was surprisingly well informed about chess and the computer chess scene, and asked several competent questions.

For me it was most interesting to hear half of a sentence in one of Yusupov's answers: *"... I think, that there is also a lot of psychology involved in this match"*. This was also my view *(see SS74)*, and it was good to know that Arthur Yusupov had realized this as well.

I should say clearly that Yusupov and I had no fights at all. Everything was fair. Outside the games Yusupov and I had several interesting discussions and constructive analyses. But some of our decisions in the games were driven by psychological reasoning on both sides, and we were both trying to win.

Yes, GM Arthur Yusupov was a fair and cooperative match opponent and partner throughout, and I could only recommend him for other matches or events.

APPLICATIONS of the 3-Hirn-Principle outside of Chess

Being a mathematician at the boundary to computer science one of my research topics is the design of interactive (man-machine) systems. In courses and talks on this field I like to mention the 3-Hirn successes in chess to demonstrate how much potential   man-machine combinations have. Chess has the advantage that it allows to measure performance rather exactly, for instance in form of tournament results and Elo numbers. And in the western world almost everyone is at least somewhat familiar with the game of chess. Furthermore, the principle of choice (choice by the controller) is very easily realized in chess and its clearly   defined moving process.

With the match win against Yusupov it has been demonstrated once more that in chess an interactive man-machine system may perform much better than each of its components.

Below I describe three other decision systems (outside chess) where the proposals of one or more computer programs are given to human controllers who have to make the final choice.

- ■ The big German air company "Luthansa" has to design her flightplan every year anew. The underlying mathematical optimization problem is so complicated that even the fastest computers in the world would not be able to

solve it exactly. Lufthansa's solution is to use programs based on heuristics. These programs compute 5 to 10 "good" solutions, and then human experts make the final choice among these candidate solutions.

- In the optical industry (for instance in the Jena branch of the Carl Zeiss company) the optimization of complicated lens systems is done interactively nowadays. The hightech program package ZEMAX (current version 5.5) with tools from nonlinear optimization shows at every moment during its computing procedure the ten best solutions found so far. The engineer may use these candidate solutions as starting points for further runs or other approaches.
- Railway companies like the DB ("Deutsche Bahn", the public one in Germany) use interactive decision systems in planning and controlling tasks. The development of such systems where human experts are the final control and decision "instance" is much cheaper than the development of completely automatic systems, as not every very rare and strange exceptional situation has to be secured against. (A human expert realizes certain anomalies instantaneously by his common sense, whereas computer programs need complicated pattern recognition subroutines to detect them all). In the field of "Artificial Intelligence" such a pretension of fully automatic control of all imaginable cases has led to the non-realisation of many projects which originally had been looking rather promising.
- Another advantage of interactive systems with humans as the final controllers is that their realization is much better accepted by the human experts, because these people will typically not loose their jobs but become supervisors.
- In other areas of development and industry the computer parts of man-machine systems are known under the abbreviation EDSS: [E]lectronic [D]ecision [S]upport [S]ystems.

Concerning mathematics, which is my own discipline, I am dreaming of 3-Hirn systems for theorem proving.

Since the early days of AI: [A]rtificial [I]ntelligence, fully automatic theorem provers have been one of the big challenges and goals.

However, there have been many fiascos and wrecked attempts. Today, automatic theorem provers are there where computer chess programms have been in the middle of the 50's.

One central barrier against the development of

theorem provers is the "claim on perfection" of many colleagues in mathematics.

They do not or would not accept programs which presented incomplete solutions or only fragments or erroneous parts. This claim dampens of course also the courage of researchers who are trying to develop such theorem provers. So many of them prefer to design only programs for very limited purposes and to avoid the really difficult (and interesting) subdisciplines of mathematics.

I myself could live very well with imperfect theorem provers or with programs which presented only fragments or even only ideas in brain-storming sessions.

In chess the playing community has been much more tolerant with respect to suboptimally playing computers.

Most of my current work in mathematics is in the field of discrete optimization and deals also with the well known class of (thousands of mutually equivalent) NP-complete problems.

Example members of this class are the design of optimal flight plans, the setup of efficient nets for mobile phoning, and many recognition and construction tasks in the modern field of Computational Biology.

For all these difficult problems it makes in principle sense to design programs based on heuristics, and to let humans decide among the best proposals generated by these heuristics.

SHUFFLE Chess... with FISCHER Castling!

The games of the match were stamped as unique by the circumstance that castling in Fischer's spirit was not allowed. It is not easy to quantify exactly the influence of the castling prohibition, but probably the difference between Shuffle Chess with Fischer castling and Shuffle Chess without Fischer castling is larger than the one between normal chess and Shuffle Chess with Fischer castling!

From chess journals I know of only a few games in Shuffle Chess with Fischer castling. The course of these games (one of them was between David Bronstein and the Dutch IM Rudi Douven) is my main cause for this conjecture. Typically the positions after Fischer castling look rather normal!

Current chess programs do not know the Fischer castling rules. But it would be only a half days

work to implement the necessary changes in the move generation routine (disclaimer: this may not be true for programs like Deep Blue or Hi-tech, where the move generation is residnet in hardware. In these cases it might be necessary to design completely new chips!).

Of course, the necessary fine tuning of the evaluation function would take much longer than a few hours. Especially, it is currently not clear how vigorous a player should strive for castling to this or that side. Maybe human players will adapt much faster to this situation, and thus get a severe advantage over the machines for years or even for decades. Perhaps this was one of Bobby Fischer's reasons to include the new castling rules in his chess.

Variants of List-3-Hirn

Rick Burmeister (with a chess strength of about 2300) was my   chess second during the match. He is the strongest chess player of Jena and very helpfully prepared me for the match with some sparring sessions.

Between the games he gave me valuable chess hints and backed me psychologically. His understanding of chess is much better than mine, and concerning several key moments in the match he was partly shocked by my decisions and choices.

Such situations were **17.g×h5** in game 1, the weak opening in game 4, and the silly development of the bishops in game 5. Nevertheless he need not necessarily be a better 3-Hirn controller than me.

One general problem with chessically strong controllers might be that their chess EGO is rather high which might lead to psychological and motivational problems in situations where the programs propose only nonsense. But perhaps the appropriate handling of such situations can be learned in a few sparring sessions?!

In general there is the question how much special training an Elo 2300 player needs until he is a good controller, and how chess books for 3-Hirn controllers will have to look. At least they should be different from normal ones.

More generally, one might ask how Multiple-Hirns with several computers and also several humans should be designed. Would an appropriate incorporation of a second controller (besides me) with Elo 2000 lead to another jump in playing strength ? Is there some boundary for the maximum number of helpful humans, according to the German proverb *"Viele K"che verderben*

den Brei" (approximate translation into English: *"Too many cooks will spoil the porridge".*)

Below two less "speculative" variants of 3-Hirn are mentioned:

- Once I would like to control a 3-Hirn with Deep Blue being incorporated. An ideal constellation might look like the following: Deep Blue is running in normal or in 2-best mode, and simultaneously the controller uses some "normal" PC chess program (or maybe Deep Blue Junior) to test certain ideas by the generation of appropriate selective trees.
- Some time ago, IM Dirk Paulsen (Elo rating about 2400) from Berlin made some concrete plans for a special match against world class GM Vladimir Kramnik! Paulsen's special idea was that he wanted to be allowed to use a single PC with chess software during the games arbitrarily, therefore much more liberally than in a 3-Hirn setting. The match did not happen due to a lack of sponsors.

Some PLANS for the FUTURE

Further matches with 3-Hirns against even stronger players will be realisable only if sponsors enter the scene. An appropriate occasion for such a match might be in 1999, when Weimar (neighbouring city to Jena) is the cultural capital of Europe.

Another opportunity might be the international exhibition *"Expo 2000"* in Hannover.

Interesting 3-Hirn opponents would be top-GMs with Elo ratings above 2700, for instance someone like Vishi Anand with his open mind concerning chess computers as sparring partners.

Also a match against Deep Blue would be attractive for me. Currently I would believe in a 50 percent chance to win or draw such a match in traditional chess. In Shuffle Chess List-3-Hirn might even have better chances than IBM's sleeping giant.

The mega event for me would be a Shuffle Chess match against its brainfather Bobby Fischer. The publicity of his chess career in the early 70's is responsible for my unbroken enthusiasm in the royal game.

I would also be interested in seeing 3-Hirn experiments performed by other chess players and their computers. In this context   immediately Garry Kasparov's proposal comes into mind concerning experimental tournaments in which GMs are allowed to use laptops with data bases and chess programs during the games.

By the way, during the match in Jena Yusupov expressed the opinion that an "ordinary" GM with an Elo rating of about 2500 should have no problems to defeat a "naked" Kasparov or any other human player in a *"Double-Deep-Blue + GM"* setting.

The GAMES with Comments

Note from Eric: I have included just a games selection, for space reasons. Game 1 to see how the participants settled into the alien environment of their first *Shuffle chess* game, and then the decisive games.

Preliminary remark from Ingo: all comments are mine. Probably any chess expert will have no problems in finding errors and wrong judgements in them. However, my first intention with these comments was not to present chessically correct lines but to give an impression of the match situation as a whole, including psychological aspects.

In some positions I have reproduced opinions of Arthur Yusupov and Rick Burmeister, and these sentences are marked accordingly.

3-Hirn – Yusupov,A (2640)
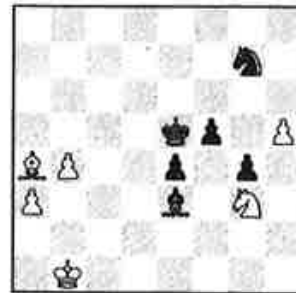Jena Shuffle Match (1), *[Althöfer,I]*
Starting Position: Bef-Qh-Nac-RKR/bdg

1.g4 g5 2.♗g2 c6 3.h4 h6 4.♘ab3 ♘c7 5.d4 d6 6.♘d3 ♗d7 7.♗f3 ♘b6 8.♕d2 ♘c4 9.hxg5 ♘xd2 10.♘xd2 hxg5 11.c3 ♕xh1 12.♖xh1 ♘e6 13.♔c2 ♗g7 14.♖h5 ♔c7 Both sides have completed their development. The position is about equal. 15.♖bh1 ♖h8 16.e3 ♖xh5

17.gxh5? A severe positional blunder. The white pawn on h5 will become weak. However, both programs gave much better evaluations for gxh5 than for Rxh5. After the rook hit Black would have had only a microscopic advantage due to his pair of bishops, according to Yusupov. **17...♗h6 18.d5 ♘g7 19.dxc6 bxc6 20.♘e4 f5 21.♘g3 e5 22.♗g2 e4 23.♘b4 ♖b6 24.a3 a5 25.♘a2 ♗e6 26.♘c1 a4 27.♗h3 d5 28.♘ce2 ♔d6 29.♘d4 g4 30.♗f1 c5 31.♘xe6 ♔xe6 32.♗e2 ♔e5 33.♗d1** In my eyes this was the only practical chance for White in a hopeless position: namely to start some threats against the "weak" pawn on a4. The whole trip Bh3-f1-e2-d1 was mainly proposed by Fritz 5. **33...♗e6 34.♔b1 ♖a6 35.♗e2 ♖d6 36.♗b5 d4 37.♖d1 ♖d8 38.cxd4+ cxd4 39.♘f1 dxe3 40.♖xd8 ♘xd8?!** The intermediate move e3-e2 would have won a helpful "tempo": After Bxe2 it takes White one more move to catch the pawn on a4. **41.fxe3 ♘e6 42.♗xa4 ♘g7 43.♘g3 ♗xe3 44.b4**

44...♘xh5?! Instead of this, f5-f4 or Ne6 would have won easily. **45.♘xh5 f4?** Here Bf2 would have kept the winning chances. **46.♗d7 g3 47.♘xg3!** Yusupov had overlooked this knight sacrifice. **47...fxg3 48.♗h3** Now the position is a draw. **48...♔d4 49.♔c2 ♗f4 50.♗f1 ♗d6 51.♔d2** Yusupov offered a draw. I accepted. ½-½
Engines: Moves 1-51 Hia5, Fri5.
Times: White 155 min. Black 147 min.

Game 2 was drawn after 64 moves. 3-Hirn offered a draw at move 30, but Yusupov declined, feeling he had slightly the better endgame chances at that point. However the win failed to materialise, despite his winning knight for 2 pawns.

3-Hirn – Yusupov,A (2640)
Jena Shuffle Match (3), *[Althöfer,I]*
Starting Position: Bbe-Qg-Naf-RKR/cdh

Note from Eric: I have printed the start position for most games. Readers unclear as to how it works, from the Starting Position noted above:

♗ on b1 and e1, ♕ on g1, ♘ on a1 and f1, ♖c1, ♔d1, ♖h1.

1.f3 f6 2.c4 ♗g6 3.♗xg6 hxg6 4.♘b3 b6 5.d4 c6 6.e4 g5 7.♖c2! This nice "prescription" came from Doctor. It opens the path d1–c1–b1 for the white king. After this move I started to dream of and play for a win.
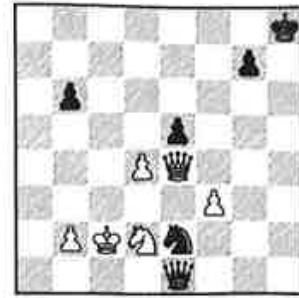

7...♘g6 8.♘e3 ♘c7 8...♔c7 9.c5 ♔b7 10.cxb6 axb6 11.♗f2 ♘f4 12.♕f1 ♕f7 would have been another possible continuation. **9.♔c1 d5 10.♔b1 ♕e6 11.♘d2 ♔e8 12.♗g3 ♘f4 13.♕d1 ♔f7** So, finally also the black king has found a niche. But his cave isn't as safe as the one of his opponent. **14.h4 ♘a6** Black is already swimming in problems. **15.cxd5 cxd5** 15...♘xd5? 16.exd5 ♕xe3 17.♘c4 and the black queen is captured. **16.♖xc8 ♕xc8 17.hxg5 ♘xg2 18.g6+ ♔xg6 19.♘xd5 ♔f7 20.♗xb8 ♕xb8 21.♖xh8 ♕xh8 22.♕f1 e6 23.♘xb6 ♘e3 24.♕g1 axb6 25.♕xe3 ♕h1+ 26.♔c2 ♘b4+**

27.♔c3! At first sight this move looks very strange. But, in contrast to the other candidate Kb3 it maintains the winning chances of White. Yusupov was rather enthusiastic about Kc3, which is proposed by almost every chess program after some thinking time. **27...♘xa2+ 28.♔b3 ♘c1+ 29.♔c2 ♘a2 30.♕b3 ♘c1 31.♕b5!** The exclamation mark is Yusupov's. 31.♕xb6? ♘e2 32.♕c7+ ♔g6 and White has lost his advantage. **31...♕e1 32.♕d7+ ♔g6 33.♕xe6 ♘e2 34.♕g4+ ♔h7 35.e5! fxe5 36.♕e4+ ♔h8**

[See diagram top of next]
37.♕xe5? My blunder. The computers were in discord how to beat on e5. 37.dxe5! and White has no problems to win because of his more

forward e–pawn. **37...♕f2 38.♘e4 ♘xd4+ 39.♔d3 ♕c2+ 40.♔xd4 ♕xb2+ 41.♔d5?!** 41.♘c3! ♕f2+ 42.♔e4 ♕e1+ 43.♔d5 ♕xe5+ 44.♔xe5 would have been a clear win for White. In contrast to the continuation of the game here White has the advantage that his knight is already on the "correct" square c3. The coordinator (=me!) did not understand too much of this knight ending. **41...♕xe5+ 42.♔xe5**

42...b5? This allows the computers to win like in a study. After Kh7 Yusupov did not find a clear win for White in the postmortem. **43.♔d4! ♔h7 44.♘c3!** This is what I meant in my comment at move 41. **44...b4 45.♘d5 b3 46.♔c3 ♔g6 47.♔xb3 ♔f5 48.♔c4 ♔e5 49.♔c5 g6 50.♔c4 g5 51.♔c5 ♔f5 52.♔d6! g4 53.♘e3+ ♔f4 54.fxg4** Yusupov resigned. According to him this was the best game of the match, which was a very generous comment. **1–0**
Engines: Moves 1–9 Hia5, Doc;
10–27 Hia5, Fri5; 28–54 Shr, Fri5.
Times: White 142 min   Black 150 min

Yusupov,A (2640) – 3–Hirn
Jena Shuffle Match (4), *[Althöfer,I]*
Starting Position: Bcd–Qa–Nbf–RKR/egh

1.e4 e5 2.d3 d6 3.♘g3 ♗e6 4.h4 ♘c6? After White's answer Black is already lost in a higher sense. He will never find the time to save his king and to march out with the squeezed rook from h8. **5.h5 ♘d7?** 5... h6 had to be tried, and this move was proposed! But me as the co-ordinator overlooked that it allowed for instance the stabilizing manouvre Nf8-h7-g5. **6.♘d2 ♗g5 7.♘f3 ♗xc1 8.♕xc1 f6** Here I dreamed of a marching king: g8-f8-e7-d8-c8. However, this would have been much too slow. **9.c3 d5?!** After this Black is pulped. **10.h6 g6 11.d4 exd4 12.cxd4 ♕d8 13.♘b3 ♘b6 14.♖h4 ♘b4 15.♕d2 a5** Played with the desperate hope that Yusupov might be dissuaded from the fgh-wing by a move like Qxa5. **16.exd5 ♗xd5**

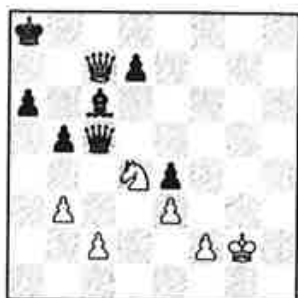**17.♖he4!** According to Yusupov this was the nicest move of the game. **17...♖xe4 18.♘xe4 ♗xb3 19.axb3 ♘4d5 20.♕e2! ♘f4 21.♘xf6+! ♕xf6 22.♕e8+ ♕f8 23.g3!** 23.♖e7! ♘h5 24.♘g5 ♘d5 25.♕d7! would also have resulted in a clear win. **23...♘c8 24.gxf4 ♘d6 25.♕d7 ♕xh6 26.♘g5** Here Fritz 5 announced that we would be mated in 7 moves. I was discouraged and resigned. Yusupov has played this game without any faults. **1-0**
Engines: Moves 1-3 Hia5, Doc;
4-26 Hia5, Fri5.
Times: White 104 min   Black 97 min.

Game 5 was drawn in 94 moves, and then in game 6 Ingo needed to use quite a few '2nd. best' moves at one stage, as the programs wanted the exchange of queens as their top move:

From **Yusupov,A (2640) – 3-Hirn** (6).

Ingo says: This is the position where I offered a draw, which was rejected by Yusupov.

The reason is in the forthcoming endgame I had a big problem: all programs involved (Fritz5, Hiarcs6, Shredder) wanted to exchange queens, thinking that they would have an advantage in the resulting endgame with ♗ versus ♘. But in this position the ♘ is superior because of all the blocked pawns: White would have had no problems to win. I anticipated this without fully understanding it. At least I avoided all exchanges of queens. Play went:-

40.♕c8+ ♔a7 41.♕c7+ ♔a8 42.b4?! This was Yusupov's unintended help for me! Now Black can no longer make the mistake b5-b4 which I would have probably played. The black pawn on b4 would have become weak. Better for White would have been ♔f1 with the idea to hide the king in the cave on b2. The game was finally drawn at move 75. **Match score 3-3, with 2 to play!**

3-Hirn – Yusupov,A (2640)
Jena Shuffle Match (7), *[Althöfer,I]*
Starting Position: Bbc-Qe-Nfg-RKR/adh

1.d4 d5 2.♘f3 ♘f6 3.c3 c6 4.♘g3 h5 4...♘g6 5.e4 ♗g4 6.e5 ♘h5 7.♘xh5 ♗xh5 8.♖g1 ♘h4 would also have been okay for Black. **5.♗d3 h4 6.♘f5 ♗xf5 7.♗xf5 e6 8.♗d3** An interesting alternative is, according to Yusupov, Bh3. **8...h3 9.♖g1 hxg2 10.♖xg2 ♘h5** 10...g6 11.♗g5 ♘8d7 was another plan with equal chances. **11.c4** White has to initiate something here, otherwise Black will overplay him on the fgh-wing. **11...♘d7 12.♕b4 ♔c8 13.cxd5 exd5 14.♗g5**

14...♗f4 14...♕e6 15.♖c1 ♗f4 would have been interesting, see for instance the following wild west variation which is of course not forced: 16.e3 a5 17.♕a4 ♕h3 18.♖xc6+ bxc6 19.♕xc6+ ♔b8 20.♗xf4+ ♘xf4 21.♖g3 ♕e6 22.♕b5+ ♔c7 23.exf4 ♖hb8 24.♘g5 **15.e3** 15.♗xf4 was what Yusupov had hoped for with the continuation 15...♘xf4 16.♖xg7 ♘xd3 17.exd3 ♕e6 18.♕d2 ♕f5 19.♕e3 ♔c7 20.♖g5 ♕f6 21.♖g3 ♖ae8 22.♕g5 ♕xg5 23.♖xg5 ♘f8 24.♔d2 ♘e6 25.♖f5 and the outcome is unclear. **15...♗xg5!?** 15...♗c7! 16.♘e7 would have been better with equal chances. **16.♖xg5 f6 17.♖g1 ♔c7 18.♕a5+ ♘b6 19.b4**

19...♕d7? After this error Black is pushed down the losing alley. 19...♖c8! would have kept the balance, for instance 20.♗f5 ♔b8! and White does not win the exchange because his queen would be captured, for instance 21.♗xc8 ♘c4 22.♕c5 b6 23.♕xc4 dxc4 24.♗f5 g5 with some advantage for Black. Yusupov showed this strong defense plan after the end of the match. Unfortunately (for him!) he had not realised he had this resource during the game. **20.b5 ♕h3 21.♗e2 g5 22.bxc6 bxc6 23.♕c5 ♖hd8** 23...♘d7!? 24.♕c2 ♖hb8 with more stubborn resistance. **24.♖b1!** This disturbs Black's defense much more than the straightforward Rc1. **24...♕d7 25.♖c1 ♕d6 26.♕c2 ♘g7 27.h4!**

After this lever Black's position breaks into pieces. White is dominating on both wings. **27...♘e6 28.hxg5 ♘xg5 29.♘xg5 fxg5 30.♖xg5 ♔b7 31.♖g7+ ♖d7 32.♖g6 ♕c7 33.♖xc6 ♕d8 34.♕g6 ♕e8 35.♕h6 ♖ad8 36.♗b5 ♕e4** A last desperate conter. **37.♖xb6+ axb6 38.♗xd7 ♕d3+**

39.♔e1 ♖g8 40.♕c6+ ♔a7 41.♕c7+ Yusupov resigned. Erroneously, Hiarcs 5 now announced a (phantom) mate in 9 which does not exist. However, this was no problem for me. The "mating announcement bug" of Hiarcs 5 is known for almost a year. It was one of the reasons for Hiarcs' author Mark Uniacke to release Hiarcs 6 so quickly. The principal lines and evaluations shown by Fritz looked okay, and so everything was under control. **1–0**
Engines: Moves 1–41 Hia5, Fri5.
Times: White 116 min   Black 118 min

Yusupov,A (2640) – 3–Hirn
Jena Shuffle Match (8), *[Althöfer,I]*
Starting Position: Baf–Qg–Nbd–RKR/ceh

The game started with the moves **1.b3 b6 2.f4 e6 3.e3 c5 4.♗e2**

At this point I did not believe my eyes:– in some of the principal lines of both computers the signature for castling (0-0) occured. But castling is forbidden in our version of Shuffle Chess!?

   Simple explanation: I had forgotten to click the castling rights off when I entered the position into the programs.

   Knowing nothing of this, Yusupov told me after the game that during the opening phase <u>he</u> had sometimes evaluated positions with the wrong understanding, also thinking that castling was allowed. Fortunately, for both sides these errors did not have visible consequences. **4...d5 5.d3 ♘dc6 6.♘d2 ♘d7 7.♕f2 ♗e7 8.e4 ♘b7 9.♖f1 h5?!!**

Fritz 5 did not like this move at all, and also Hiarcs 5 had it only on rank 3 of its hit list. I mainly played h7–h5 for reasons of nostalgia: namely in memory of Deep Blue's dynamic pawn pushing strategy against Kasparov. Only a few hours before this game IBM had announced that Deep Blue would never play again. **10.♕g3** 10.c3 dxe4 11.dxe4 g5 12.g3 h4 would have started an off road tour. **10...♘d4! 11.♘e3 ♕h7 12.exd5** 12.♔f2!? here is an idea of Rick Burmeister, having in mind a double pawn sacrifice. See for instance the continuation 12...h4 13.♕h3 dxe4 14.dxe4 ♗xe4 15.♘xe4 ♕xe4 16.♗d3 ♕xf4+ 17.♔g1 ♕g5 and White has *"interesting compensation"* according to Rick Burmeister. Black's king still has to find a safe home. **12...exd5 13.♗d1 ♔d8 14.♘f3 h4 15.♕f2** 15.♕g4 ♖e8 16.♘xd4!? and the board will start burning... *(16.♔d2 would have been normal)* 16...cxd4 17.♗xd4 ♗c5! 18.♗xc5 ♘xc5 19.♔d2 ♖xe3! 20.♔xe3 ♘xd3 21.cxd3 ♖xc1 22.♗e2 ♖c2 with an unclear situation. **15...♘e6 16.g3** Yusupov had a long thought on the alternative 16.f5. A reasonable continuation is 16...♘g5 17.f6!? ♘xf3+ *(17...♕xf6?! 18.♗xf6+ gxf6 19.♗xg5 fxg5 20.♗g4 and White is superior.)* 18.♗xf3 with good chances for Black after 18...♗xf6 19.♗xd5 ♗xd5 20.♘xd5 ♖e8+ 21.♔d1 ♗xa1 22.♖xa1 ♕h5+ 23.♕f3 ♕e5 24.♔d2 ♕xh2 **16...hxg3 17.hxg3 d4 18.♘c4 g5 19.f5**

Before answering with my 19th move I offered a draw, although both computers saw a big advantage for Black. Both had Qxf5 as their best candidate and with a clear endgame advantage for Black. Nc7 was also the joint runner up, with a complicated position and only rather small advantage. My fear with Qxf5 was to end up in an ending where Yusupov might find ways to create positional pressure and to play for a slow win, which is just what he needed to equalise the match! **19...♘c7!?** After my execution of this move Yusupov declined the drawing offer. If I'd played the top move 19...♕xf5 then 20.♘fe5 ♕xf2+ 21.♖xf2 ♖h1+ 22.♔d2 ♘xe5 23.♘xe5 f6 24.♗g4 and perhaps the chances are equal. White has some compensation on the light squares for the pawn. **20.g4?! ♘d5** This knight wants to dance into the dark–squared holes of White's position. **21.♔d2** 21.a4!? ♖c6 22.♔d2 ♖h6 23.♗e2 ♕g7 24.♖ce1 was more interesting, but with an unclear position. **21...b5 22.♘a5 ♗a8 23.c4 ♘e3 24.♖e1** 24.cxb5 would not have helped because of simply 24...♘d6 with the threat Bf4. **24...♗d6 25.♘xd4 cxd4 26.♗xd4 ♘g2!**

The computers are now stirring things up rather well! **27.♖e2 ♘f4 28.♖e1 ♘b4+ 29.♗c3 ♕h2**

An aside! Instead there is 29...♗xc3+. But this was not my choice, because I was a little bit in fear of the following variation: 30.♖xc3 ♕h2 31.♖f1 b4 32.♖c2 ♖c5 33.a3 ♖xa5 34.axb4 and the pawn roller b3–b4–c4–d3 may give White some swindle chances ═══════════⟹

Back to the game: **30.♖f1 ♘e5!** Nice and simple, increasing the pressure. **31.♗e2** 31.♗xb4 ♘exd3 32.♕xh2 ♖xh2+ 33.♔e3 ♘xc1 would also have been hopeless for White. **31...♘xe2 32.♕xe2 ♗f3 33.♕f2 ♘xg4** Yusupov resigned in this hopeless position. The programs displayed something like +10 pawn units in their evaluations. **0–1**

Engines: Moves 1–33 Hia5, Fri5.
Times: White 119 min   Black 114 min.

And so my **3-Hirn** had won the Match against Arthur Yusupov by a very satisfying **5-3** (3-1=4). I hope there will be more!

RATING LISTS and NOTES

A brief guide to the purpose of each of the HEADINGS should prove helpful for everybody.

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

Elo. This is the Rating figure which is in popular use Worldwide. The BCF and Elo figures shown in SELECTIVE SEARCH are calculated by combining each Computer's results v computers with its results v humans. This determines the ranking level and order and, I believe, makes this Rating List the most accurate available anywhere for computers and programs.

+/-. The maximum likely future rating movement, up or down, for that particular machine. The figure is determined from the number of games played and calculated on precise standard deviation principles.

Games. The total number of Games on which the computer's or program's rating is based.

Human/Games. The Rating obtained and the total no. of Games in Tournament play vs. rated humans.

A guide to PC Program Gradings:

386-PC represents a program running on an 80386 at approx. 33MHz with 4MB RAM.

486-PC represents a program running on an 80486 at between 50-66MHz with 4-8MB RAM.

Pent-PC represents a program on a Pentium at approx. 100-133MHz, with 8-16MB RAM.

PPro-PC represents a program on a Pentium Pro/200, or a Pentium/200 MMX.

Users will get slightly more (or less!) in each case, if the speed of their PC is significantly different. A doubling or halving in **MHz speed** = approx. **60** Elo; a doubling or halving in **MB RAM** = approx. **5-10** Elo.

Approx. guide if Pentium/100 = 0

Pentium Pro/200	+80	PentMMX/200	+80
Pentium/166	+40	Pentium/133	+20
Pentium/100	0	486DX4/100	-60
486DX2/66	-80	486DX/50	-100
486DX-SX/33	-140	386DX/33	-200

RATING LIST (c) Eric Hallsworth. PC PROGS — SS75 Apr 1998

BCF	Computer	Elo	+/-	Games	Pos	Human/Games
250	FRITZ5 PPRO-PC	2602	25	331	1	2503 18
248	HIARCS6 PPRO-PC	2586	20	527	2	2619 6
247	NIMZO98 PPRO-PC	2582	26	307	3	
247	REBEL9 PPRO-PC	2579	20	587	4	2474 12
246	M CHESS PRO7 PPRO-PC	2570	19	520	5	2389 6
246	M CHESS PRO6 PPRO-PC	2568	21	462	6	2148 6
245	REBEL8 PPRO-PC	2562	26	307	7	2540 2
244	SHREDDER2 PPRO-PC	2552	35	539	8	
241	CHESS GENIUS5 PPRO-PC	2532	12	175	9	
239	HIARCS6 PENT-PC	2513	41	1351	10	
238	FRITZ5 PENT-PC	2510	21	488	11	
238	REBEL9 PENT-PC	2504	10	126	12	
237	HIARCS5 PENT-PC	2498	19	545	13	
236	REBEL8 PENT-PC	2493	10	1831	14	
234	M CHESS PRO7 PENT-PC	2475	13	1159	15	
234	M CHESS PRO6 PENT-PC	2467	12	1335	16	
233	CHESS GENIUS3 PENT-PC	2461	14	967	17	
233	CHESS GENIUS4 PENT-PC	2458	14	1042	18	
232	HIARCS4 PENT-PC	2457	14	988	19	
232	REBEL7 PENT-PC	2450	14	1032	20	
232	REBEL6 PENT-PC	2449	19	574	22	
231	REBEL7 PENT-PC	2445	15	891	23	2372 6
231	NIMZO3.5 PENT-PC	2441	17	688	24	2426 6
230	JUNIOR4 PENT-PC	2437	18	647	25	2423 19
230	M CHESS PRO5 PENT-PC	2435	16	308	26	
230	NIMZO3.0 PENT-PC	2425	18	823	27	2631 6
229	CHESSMASTER 5000 PENT-PC	2425	37	151	28	2068 31
228	SHREDDER1 PENT-PC	2415	15	608	29	
228	HIARCS3 PENT-PC	2414	45	870	30	2391 21
226	CHESS GENIUS4 486-PC	2403	19	104	31	2382 30
226	CHESSMASTER 4000 PENT-PC	2403	18	577	32	2499 7
226	M CHESS PRO4 PENT-PC	2403	12	628	33	2497 25
225	FRITZ4 PENT-PC	2394	12	1362	34	2318 13
225	M CHESS PRO4 PENT-PC	2384	11	1114	35	2394 12
225	CHESS GENIUS3 486-PC	2378	16	1606	36	
224	FRITZ3 PENT-PC	2372	16	769	37	2242 11
223	MEPH GENIUS2 486-PC	2370	16	785	38	2348 6
222	REBEL7 486-PC	2368	16	766	39	2387 16
221	M CHESS PRO5 486-PC	2356	12	817	40	2658 10
221	KALLISTO1.98 PENT-PC	2352	12	1329	41	2316 4
219	HIARCS3 486-PC	2350	17	712	42	
219	CMACHINE GIDEON3.1/30-PC	2349	12	1438	43	2321 31
218	CMACHINE THE KING2/30-PC	2346	14	1033	44	2345 6
218	M CHESS PRO4 486-PC	2338	14	1103	45	2145 6
218	REBEL6 486-PC	2325	17	738	46	2277 7
217	M CHESS 486-PC	2320	10	1515	47	2309 23
215	CHESS GENIUS1 486-PC	2316	11	728	48	2193 13
215	FRITZ3 486-PC					
214	CHESSMASTER 4000 486-PC					2187 8

RATING LIST (c) Eric Hallsworth. SS75 Apr 1998

BCF	Computer	Elo	+/-	Games	Pos		Human	Games
224	TASC R30-1995	2399	18	638	1	—	2276	18
221	MEPH LONDON 68030	2369	38	145	2	—	2272	6
218	TASC R30-1993	2345	12	1346	3	—	2336	66
218	MEPH GENIUS2 68030	2345	4	624	4	—	2308	23
217	MEPH LONDON PRO 68030	2338	67	47	5	—	2237	6
214	MEPH RISC2 IMB	2317	25	327	6	—	2392	51
213	MEPH LYON 68030	2307	15	880	7	—	2340	6
211	MEPH PORTOROSE 68030	2292	17	525	8	—	2347	82
211	MEPH BERLIN PRO 68020/24	2290	27	328	9	—	2384	29
210	KASP RISC 2500-512K	2285	25	676	10	—	2327	10
210	MEPH LYON-VANC 68030	2282	13	286	11	—	2217	54
209	MEPH RISC1 IMB	2279	9	2507	12	—	2232	95
208	MEPH RISC1 68020/20	2269	27	1207	13	—	2251	13
208	KASPAROV SPARC/20	2265	14	1016	14	—	2288	24
206	MEPH ATLANTA	2248	61	58	15	—	2288	14
205	MEPH LONDON 68020/12	2247	77	36	16	—	2040	15
205	MEPH MONTREUX	2240	17	721	17	—	2288	16
204	KASP RISC 2500-128K	2238	9	2523	18	—	2250	17
202	FID ELITE 68040-V10	2216	80	75	19	—	2215	21
201	MEPH LONDON 68000	2211	53	33	20	—	2121	33
200	MEPH VANCOUVER 68020/12	2204	9	2344	21	—	2240	80
200	MEPH LYON 68020/12	2199	8	3343	22			
199	NOV SAPPHIRE2-DIAMOND2	2189	30	226	23			
198	MEPH PORTOROSE 68020	2174	10	1845	24			
196	MEPH BERLIN 68000	2168	12	1305	25			
196	FID ELITE 68030-V9	2167	15	898	26			
195	MEPH VANCOUVER 68000	2156	12	1702	27			
194	MEPH LYON 68000	2155	28	1358	28			
194	MEPH ALMERIA 68000	2149	14	1053	29			
193	MEPH MILANO PRO	2142	22	426	30			
192	NOV SAPPHIRE1-DIAMOND1	2137	12	1300	31			
192	MEPH PORTOROSE 68000	2122	11	1723	32			
190	MEPH MACH4-DES2325 68020-V7	2117	12	2199	33			
190	FID ELITE 2*68000-V5	2090	27	290	34			
189	FID POLGAR/10	2078	17	698	35			
185	MEPH ROMA 68020	2076	14	1083	36			
184	KASPAROV BRUTE FORCE	2076	14	1074	37			
184	MEPH DALLAS 68020	2067	14	996	38			
184	MEPH ALMERIA 68000	2062	14	1025	39			
183	FID MACH3-DES2265 68000	2055	10	2092	40			
182	MEPH NIGEL SHORT	2040	45	104	41			
181	KASP PRESIDENT-TC+GK2100	2036	16	765	42			
180	NOVAG JADE2-ZIRCON2	2034	10	323	43			
179	NOVAG SCORPIO-DIABLO	2025	25	5742	44			
179	MEPH POLGAR/5	2018	11	1573	45			
178	MEPH HHS/5	2015	11	1766	46			
177	MEPH DALLAS 68000	2013	8	2823	47			
176	MEPH MILANO	2011	13	1163	48			
176	NOV SUPER FORTE-EXP C/6	2009	8	2981	49			
175	MEPH MONDIAL 68000XL	2003	15	873	50	—	2049	77
174	MEPH MONTREAL-ROMA 68000	1996	9	2625	51	—	1968	56
173	MEPH ACADEMY/5	1987	9	2402	52	—	2023	111
172	MEPH AMSTERDAM	1983	9	2373	53	—	2054	182
171	NOV SUPER FORTE-EXP B/6	1971	12	1464	54	—	2017	84
171	MEPH MEGA4/5	1968	8	2701	55	—	2029	169
170	KASPAROV MAESTRO D/10	1966	26	302	56	—	1956	109
170	FID MACH2B	1963	8	2709	57	—	1960	25
170	FID MACH2C	1961	14	992	58	—	2059	127
169	KASP GK2000-EXECUTIVE	1952	16	773	59	—	1862	20
168	MEPH MODENA	1947	8	2917	60	—	2006	97
167	MEPH MM4/5	1946	18	648	61	—	1917	83
167	FID TRAVELMASTER	1938	17	743	62	—	1981	48
166	NOVAG RUBY-EMERALD	1935	27	288	63	—	2074	8
166	MEPH SUPERMOND2-COLLEGE-MCARLO4	1932	12	1473	64			
166	NOV SUPER FORTE-EXP A/6	1932	29	257	65	—	2021	176
165	KASP TRAVEL CHAMPION	1925	26	313	66	—	1862	22
165	KASPAROV MAESTRO C/8	1920	28	262	67	—	1999	98
165	MEPH MONTE CARLO	1915	9	2446	68	—	2046	10
164	MEPH MONTE CARLO	1915	16	814	69	—	1943	155
164	CXG SPHINX/4	1912	14	1055	70	—	1870	15
164	CONCH PLY-VICTORIA/5.5	1912	25	338	71			
164	KASP TURBOKING2	1896	31	222	72			
162	FID MACH2A	1885	11	1548	73			
162	NOV EXPERT/6	1883	12	1452	74			
159	NOV SUPER FORTE/6	1881	26	316	75			
160	FID CLUB B	1874	9	2645	76			
160	NOV EXPERT/5	1872	10	1901	77			
159	NOV FORTE B	1871	11	2341	78			
159	FID PAR E-ELITE+DES2100	1870	11	1738	79			
158	MEPH REBELL	1863	9	2251	80			
158	FID AVANT GARDE/5	1862	9	2186	81			
157	KASP STRATOS-CORONA	1857	11	1631	82			
157	NOV FORTE A	1854	29	242	83			
156	MEPH SUPERMONDIAL1	1853	14	1003	84			
156	FID CLUB A	1852	9	2337	85			
156	KASPAROV MAESTRO A/6	1849	13	1149	86			
156	CONCH PLYMATE/5.5	1845	24	364	87			
156	KASP SIMULTANO	1837	11	104	88			
155	KASP TURBOKING1	1836	14	1059	89			
154	CONCHESS/6	1828	24	372	90			
154	FID EXCELLENCE/4	1827	12	524	91			
153	NOV EXPERT/4	1821	34	181	92			
153	SCI TURBO KASP/4	1813	17	701	93			
152	FIDELITY ELITE C	1807	16	791	94			
151	FIDELITY ELEGANCE	1807	12	701	95			
150	MEPHISTO MM2	1802	11	1407	96			
150	SCI TURBOSTAR 432	1785	20	1666	97			
150	FID EXCELLENCE-DES2000	1785	11	515	98			
148	CONCHESS/4	1802	20	1875	99			
147	KASP PRISMA-BLITZ	1781	24	358	100			