Computer Chess Reports

Volume 5 Number 1 $ 10.00

The Best Of Both Worlds!

Chess 232

The Innovative New Chess 232

An Autosensory Board Which Hooks Up To A PC And Plays With Just About Every Professional Chess Program On The Market!!

This Issue

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Mid-94 Review

by Larry Kaufman

Since our last review, there have been three dramatic results for commercial chess computers in competition with human grandmasters, each more impressive than any previous one. First Fritz3 shared top place in a super-strong blitz tournament with the PCA World Champion, Gary Kasparov. Then Genius 3.0 won a two game match at game/25 from Kasparov and finished the event with a score of 3 1/2 out of 6 against three of the world's leading grandmasters. Finally WChess scored 5 out of 6 (without a loss!) at this same time limit against six of the top American grandmasters, which worked out to be a substantially higher performance rating than the superb achievement of Genius. Each of these results was achieved with a PC using the Pentium 90 MHz processor. In the annual ACM Computer tourney, Deep Thought II emerged victorious, with Zarkov second and Star-Socrates third. In the annual Uniform Platform event, WChess was first, followed by MChess Pro and Hiarcs. We include a story on each event.

As for the commercial market, upgrades are out for Gideon Pro (the upgrade is called Rebel 6.0), Fritz, Genius, MChess Pro, Hiarcs and others. The most significant new program is Dave Kittinger's WChess. Also of interest is a new board called the Chess232 which connects with a PC and allows the user to operate various top programs (Genius3, Hiarcs3, MChessPro, and Rebel6, with WChess and others to be added shortly) on the board.

In the dedicated market, the most exciting new models are the Novag Sapphire and Diamond, which bring mid-master strength down to very modest price levels. Their program did surprisingly well in a C.R.A. Action test, nearly equalling the best such results previously achieved (on models costing several times as much). In the autosensory category, the Saitek President is a good value. No new models in the Senior Master range have surfaced since our last review, with Mephisto Berlin Pro and a retooled Saitek RISC 2500 being the best buys in this category (if they can be obtained).

CCR welcomes USCF Master Nick Schoonmaker to its pages. Nick is writing the PC reviews and the Games commentary. Since I am the co-author (with Don Dailey) of the Rex and Socrates PC programs, I have not been at ease writing reviews of competing programs, and so I welcome Nick's taking over this role. I will add an article on WChess, since it seems to be the most exciting new commercial program to come out in a while.

1994 International Computer Chess Championship

by Larry Kaufman

The 24th annual ACM tournament was held in Cape May, NJ from June 25-27, 1994. Ten programs played a five round Swiss at the traditional 40/2 time limit. As expected, IBM's Deep Thought II won, despite having to forfeit its game to M-Chess Pro without play due to an extended power outage at IBM. Deep Thought, with 12 custom-made chess processors, won all four of its other games. Its victory over Star-Socrates *(See Games Section)* was called "one of the greatest games in computer-chess history" by Monty Newborn, a noted author on computer chess. Its other victims were Zarkov, WChess, and MChess Pro.

Second place with 3 1/2 went to Zarkov, by John Stanback, running on an HP735, a machine roughly twice as fast as Pentium based PCs. It defeated Star-Socrates in a marathon rook and pawn ending that earlier looked to be drawn. It lost only to DT. It defeated Cray Blitz and Now, and drew MChess Pro.

Third place on tie-break at 3 points was Star-Socrates. It was a stripped cousin of Socrates (last year's winner) written specially to run on multi-processors. For this event it ran on a 512 processor CM-5 Connection Machine. The program itself was by Don Dailey and myself, while the parallel algorithm and much of the work connected with adapting the program to run on this machine were by a team from M.I.T. Although the 512 processors produced a speedup of somewhere in the neighborhood of a hundred to one over one processor, each individual processor was only a fifth or so of the speed of Pentium chips, and the program was much slower, dumber and cruder than the PC Socrates program, so it is not clear that Star-Socrates was necessarily stronger than Socrates on a fast Pentium. It did however search about a million nodes per second and searched deeper (nominally) than all other participants, even Deep Thought, though without any extensions other than check extension. It was completed in the month prior to the event, and still had major bugs right up to the day before the event. Its loss to Zarkov was in large part due to an evaluation bug that made it willing to forfeit castling without good cause. It defeated Spector, WChess, and MChess Pro. With a refined program, perhaps it could give Deep Thought a run for its money.

Fourth place at 3 was "Now", an amateur program in Pascal by Mark Lefler running on a Pentium 90 MHz. This program seems to be establishing itself as the top program with no announced plans to become commercial.

Although its wins and a draw were from the tail-enders, it did manage a draw with supercomputer Cray Blitz. Congratulations, Mark!

Next at 2 1/2 were MChess Pro on a Pentium 90 MHz, by Marty Hirsch, and Cray Blitz on a 4 processor Cray C90. This machine is said to do *one billion instructions per second* (!), and the program looked at about 750,000 nodes per second. It lost to Zarkov and to WChess, and beat only the two tailenders. As for MChess Pro, it lost to Deep Thought in the final round (despite having "beaten" it in Round 2 by forfeit) and to Star-Socrates, beat Evaluator, and drew Zarkov.

At 2 points, in tie-break order, were WChess, Evaluator, and Innovation II. A later version of WChess (by Dave Kittinger, running on a Pentium 90) was very successful in two other events this year, and it did defeat Cray Blitz here, but it was upset by Evaluator in the final round (its other losses were to Star-Socrates and DT). Evaluator, by Bill MacLaughlin, ran on a 100 MHz 486 and scored well for an amateur effort, though it played none of the top three finishers. Innovation II, by Jeff Mallett, was the only entry to run on a Mac Power PC, and showed much improvement over the previous year. Last place went to Spector, by Steven Edwards and running on a 66 MHz 486, which drew with "Now" but lost all its other games.

The reduced number of entries may be attributed to the fact that the event was organized on short notice with a much reduced budget. Hopefully future events will be better funded.

IBM plans to build Deep Thought III by producing and connecting hundreds of chips each of which is essentially the equivalent of Deep Thought II, the winner here. If this really comes to pass, I would think that its chances against Kasparov, even at 40/2, would be excellent, considering how strongly Deep Thought II seems to play (strong Grandmaster level, I believe).

Genius Beats The Champ In London

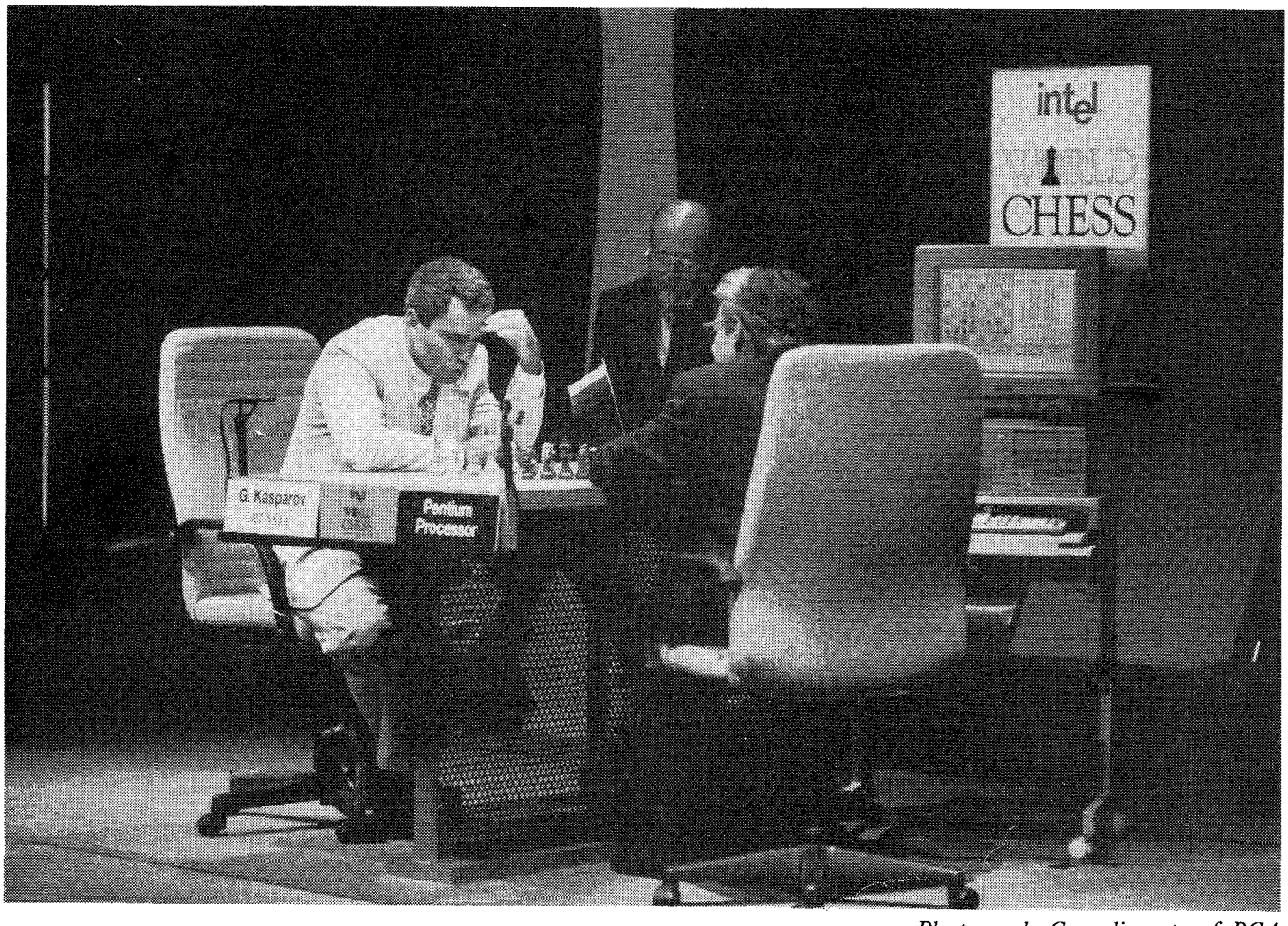
by Larry Kaufman

A sixteen player elimination tournament including four of the world's top ranked superstars was held in London from August 31 to September 3. Each round consisted of a two game match at 25 minutes per side, with a blitz playoff in case of a tie. The event was part of the PCA Intel Grand Prix. Since Intel was the sponsor, it prevailed on the PCA to award one of the sixteen spots to a computer using the Intel Pentium processor, and the program selected for the event was the soon to be released Chess Genius 3. Based on some test games by other programs at this speed against various grandmasters, Intel thought that Genius might have reasonable chances of winning a match or even two as long as it was not paired with the 2700 + stars.

As luck would have it, the computer was paired in the very first round with the PCA World Champion, Gary Kasparov, the highest rated player of all time! *(See Games Section)* Gary tried too hard to avoid a draw, and found himself in the type of open position at which computers excel. Pentium Genius played crisply and beat the champ. In the second game, Kasparov did win a pawn, but with time running short he overlooked a trick that let the program regain the pawn and force a draw. Thus, the computer won the match 1 1/2 - 1/2, eliminated Kasparov from the tourney, and secured its place in history by being the first computer to win a match from a reigning World Champion! Of course, no one believes that Genius 3 is really of World Champion calibre, even at 25' chess, but certainly it must be considered to be of Grandmaster strength at this time limit (on a Pentium 90).

Genius thus went on to the second round, where it won 2-0 from the Bosnian Grandmaster Nicolic. *(See Games Section)* Normally that would be a sensation in itself, but it hardly seemed newsworthy after the first round upset. In the third round, Genius finally was eliminated 2-0 by the Indian superstar Anand, *(See Games Section)* who is among the world's five best players and is especially good at fast chess. He won rather easily, and left observers wondering how the same program could upset the champ and yet fail to put up any real fight against Anand. Part of the answer is that Anand has a great deal of practice playing quick games against strong computers. In the final round, Anand was defeated by another top ranked player, Ivanchuk, who had stated that he was not willing to play the computer on principle (I don't know what principle). So if the program had beaten Anand, it might have won the event by forfeit, which would have been a real shame. I can understand why players feel that they should not play computers in an event that they have paid money to attend, and why computers should not win prizes, but when a computer company sponsors a professional event, it seems to me only reasonable that they should be allowed to enter their own computer.

Congratulations to Richard Lang, the author of Genius, and those who helped him, as well as to Intel. A performance rating of nearly 2800 PCA (equal to nearly 2900 USCF) for the six games is a remarkable feat, even allowing for the fast time limit, which probably added about a hundred points to the program's relative strength. It will probably still be a few years before a PC program can defeat the champ in a match at standard time limits,



Photograph Compliments of PCA

Kasparov vs. Genius 3.0
Intel Grand Prix, London

but the handwriting is on the wall. I have been saying for many years that a computer would beat the champ around 1995, and while I was not referring to fast chess, my prediction is not looking too bad now.

1994 Harvard Cup

by Larry Kaufman

The Fifth Harvard Cup Human versus Computer Chess Challenge took place on the first two days of October at the Computer Museum in Boston. It was sponsored by Intel Corporation and the Software Toolworks, with computers supplied by Digital Equipment. The principal organizers were Chris Chabris and Dan Edelman. The number of computer entrants increased to eight this year, all running on identical Pentium-based 90 MHz PCs, although the number of human players, all strong Grandmasters, remained at six. Each human played each computer one game, at a time limit of game in 25 minutes per side.

The total score this year was Grandmasters 29 1/2, computers 18 1/2, giving the computers a winning percentage of 38.54. In previous years the computers scored 9% in 1989, 25% in 1991, 28% in 1992, and 25% in 1993, so this year's result was a marked improvement by the computers. Considering that all the human players were rated around 2600 PCA and that the human team included the two U.S. co-champions, the previous year's champion, a recent World championship candidate, and the past two Harvard Cup champions, this was a very good showing by the machines.

The winning program this year was David Kittinger's "WChess", which achieved the phenomenal score of 5-1 (four wins, two draws, **no** losses)! *(See Games Section)* In view of WChess's win in the Uniform Platform tournament in London, it was known to be among the strongest programs, but no one could have imagined this result, a performance rating of 2895 PCA! This surpassed by about a hundred points the extraordinary result of Chess Genius 3.0 in London at a similar time limit which included its win over PCA champ Gary Kasparov. WChess was not yet available commercial-

ly at the time of this event, but may be by the time you read this. Of course anything can happen in a short event like this, and no program could make such a fabulous result without some luck, but Dave Kittinger (author of the Novag programs including the new Sapphire) is certainly to be congratulated on creating such a strong program in a relatively short time, about two years.

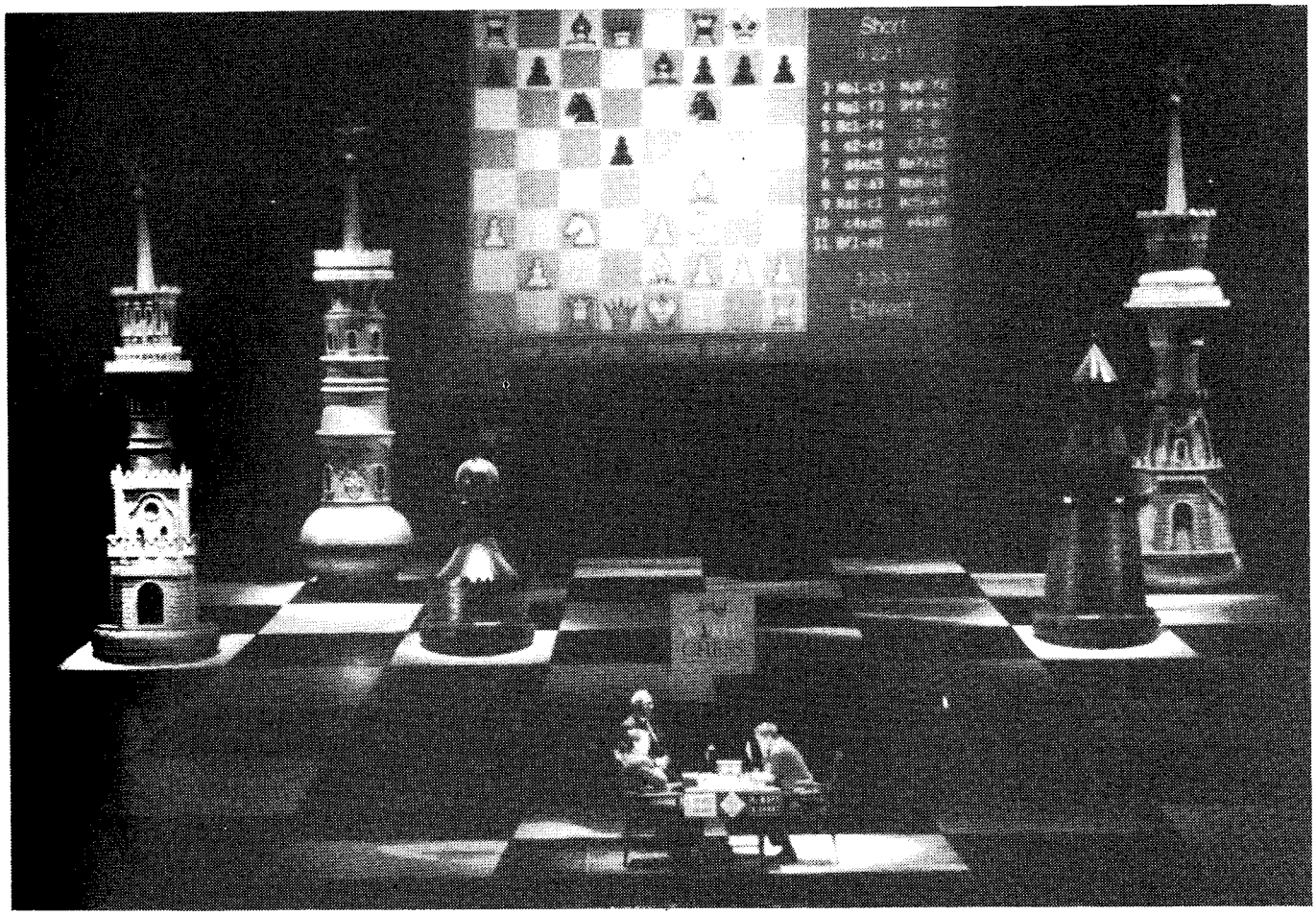
Second place with 2 1/2 out of six went to Socrates 4.0 with a 2527 PCA performance rating and Chessmaster 4000 at the same score with a 2516 performance. Socrates and its predecessors have won the Harvard Cup each of the last three times, and this result puts its total score for the four years of participation at exactly 50% after 21 games (10 1/2 - 10 1/2). Chessmaster 4000's good result confirms its high placement on the Swedish list and reflects the strength of the de Koning program, similar to the one in the TASC R30.

Fourth thru sixth places with 2 points each were Hiarcs 3.0 (2436), MChess Pro (2410), and Now (2403). Hiarcs and MChess are both among the top ranked commercial program, while Now is an amateur program (author Mark Leffler) which did well in the ACM tourney this year. A disappointing seventh place (1 1/2 points, 2357 performance rating) was Rebel 6.0, the upgrade by Schroder of Gideon Pro. Rebel 6.0 was the top performing program at Aegon this year, and was thought to be among the favorites at the Harvard Cup. Last place was Zarkov X (1 point, 2224). Zarkov was second at the ACM tourney this year, surpassed only by Deep Thought, but at the ACM it ran on a powerful HP computer, while at the Harvard Cup it ran on a "mere" Pentium 90 PC.

As for the human players, last year's winner Joel Benjamin repeated his victory this year with a score of 6 1/2 - 1 1/2 and a performance rating of 2822. Second place went to Boris Gulko, the top rated American after Gata Kamsky and a recent World title contender, with a 6-2 score. Then came current U.S. co-champion Alex Yermolinsky at 5 1/2 - 2 1/2, followed by his predecessor Patrick Wolff at 5-3. Michael Rohde, the only GM in the field with a non-chess career, made an even 4-4 score, while the other U.S. co-champion Alex Shabalov made only 2 1/2 points in his eight games. Shabalov had little

Photo by Nelly Clarke

Alexander Yermolinsky*(left)* **vs Zarkov X - Harvard Cup, 1994**



Compliments of PCA

Intel Grand Prix, Moscow 4/94

experience playing computers, and seemed to have more trouble than the other players coping with the fast time limit, often building up powerful attacks only to spoil the games in time pressure.

Based on the rate of progress over the five events, the computers will probably not win the Harvard Cup next year, but should be favored to do so the following year, assuming no major changes in the format. This seems about right, since by then the successor chip to the Pentium should be available for the event. In any case, it seems correct to say that the top commercial chess programs are now of about the same strength at Action chess (25 or 30 minutes per side) as the lower tier of Grandmasters, and will soon be in the upper tier. However, it may still be a little while before commercial software reaches Grandmaster level at traditional time limits like 40/2.

Munich Blitz Tournament

by Larry Kaufman

One of the strongest blitz (5 minutes total per side) chess tournaments of all time was held this May in Munich Germany with the sponsorship of Intel Corp. Seventeen grandmasters, including the World Champ and several title contenders, plus one PC program (Fritz3) played a round robin for very substantial cash prizes. The result was a surprise to most observers - Fritz3 shared first place with the champ, Gary Kasparov, each scoring 12 1/2 out of 17! Anand was third at 12, followed by Short, Gelfand, and Dreev at11, Georgiev at 10 1/2, Kramnik at 10, Cvitan at 8 1/2, Hertneck and Nikolic at 8, Huebner at 7, Chernin and Wojtkiewitz at 6, Lobron and Hjartarsson at 5, Petersson at 4 1/2, and the world's youngest GM, Peter

Leko, at 4. Fritz3 defeated all five of the players who have been recent title contenders, namely Kasparov, Anand, Short, Gelfand, and Kramnik. However in a playoff match for first place, Kasparov defeated Fritz3 handily, by 4-1 *(See Games Section)*. As white the champ kept opening 1 e3 to take Fritz out of book right away. Even with this match included, Fritz3 obtained a performance rating for its 22 games of about 2725 on the PCA scale, which would equate to perhaps 2825 USCF.

Several factors need to be considered to put this splendid result for Fritz into perspective. First of all, Fritz3 ran on the fastest available PC, a 90 MHz Pentium. Another major factor was that the players were required to operate the PC themselves, for which they received an extra minute as compensation. Most observers feel that 2 or even 3 minutes would have been more fair, especially since many of the players were not familiar with playing chess on computers. Furthermore the players had to play on the screens, not on real chess sets, which undoubtedly hurt their play somewhat. Also the computer obtained a free point when GM Huebner refused to play it under these conditions. Most important of all, past results of computers indicate that they usually perform more than 200 points better at blitz chess than at 40/2 tournament chess. Considering all of the above, perhaps the result is not really so surprising, and I think it likely that several of the other top programs would have done just as well or better under the circumstances if they had been given the chance. Still, Fritz3 and its programmer Frans Morsch deserve congratulations on a headline-grabbing result!

1994 Uniform Platform Tournament

by Larry Kaufman

This annual British event is of special interest because all of the participating programs are required to play on identical hardware, in this case 80486 dx 40 Mhz PCs. This year there were sixteen entrants from seven countries, of which three were strong commercial or soon to be commercial programs. Each program played one white and one black against each other program, so it was a thirty round event! This was possible because the play was automated, so human operators were not required. If more of the strong programs would enter this event, it would soon become the premiere test of PC chess programs.

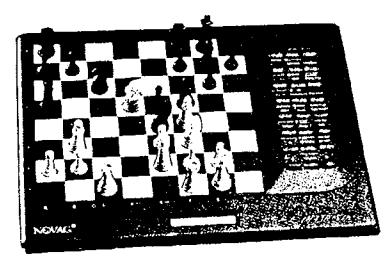
The winner, with an impressive 27 1/2 out of 30, was Dave Kittinger's WChess. *(See Games Section)* It scored 4-0 against its two principal rivals, and gave up three draws and a loss in its other 26 games. Hiarcs, last year's winner, took second place two points behind the winner with 25 1/2. Third place at 25 was last year's runner up MChess (presumably the "Pro" version), which curiously had no draws, splitting with WChess but losing two to the amateurs. The top amateur effort was Now, which did well in the ACM and scored respectibly at the Harvard Cup, with 20 1/2. The remaining programs, in order, were Ferret with 19, Phoenix and SOS with 18 1/2, Gnuchess with 17 1/2, Mirage at 16, LChess and Centaur at 13, Matheus at 11 1/2, Pawnder with 5 1/2, Notchess at 4 1/2, Francesca with 3 1/2, and Psycho with just 1. Centaur and Mirage are from Russia, Ferret, MChess, Now, Pawnder, and WChess are from the U.S.A., Francesca, Hiarcs, NotChess, and Psycho are British, LChess is Dutch, Matheus is from Brazil, Phoenix is Canadian, and SOS is German. GnuChess is by many people from all over the world.

Congratulations to Dave Kittinger, whose program proved itself again at the Harvard Cup to be very formidable.

Novag Review

by Larry Kaufman

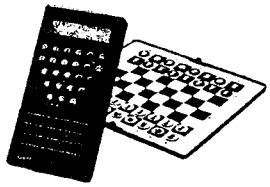
In recent years Novag models have generally not been leaders in terms of price versus performance, but that has changed this year with the introduction of two new models with identical programs, processors, and memory, the table top Diamond *(right)* and the hand-held Sapphire. They were expected to be stronger than their predecessors, the Ruby and Emerald, because the new models have added RAM for hash tables. However the improvement far exceeded my expectations; the Swedish list puts the gain at 217 points, while the C.R.A. Action testing showed 202 points. Considering all of the evidence, the new Novags appear to be close to USCF 2300 at 40/2. In the past, models of this strength have never sold for less than about $400. With the Diamond now priced below $300 and the Sapphire below $200, they represent a real breakthrough in terms of value for money spent. The Sapphire is not only a bargain, it is the first hand-held chess computer for any price to reach US Master strength. Both computers offer not only high playing strength, but the usual lively Novag style and ease of use, as well as an ample number of features and levels.



Features List:
NOVAG DIAMOND / SAPPHIRE

Both the Diamond and Sapphire have the identical programs running at the identical speeds. The ONLY differences are that the Sapphire *(top next column)* is a hand-held calculator into which the moves must be keyed (ie. e2-e4), whereas the Diamond has a sensory surface so that pieces may be pressed down as they are moved. The Sapphire runs on 4 AAA batteries or an optional adapter. The Diamond only runs on AC .

- Sapphire = 6"x3"x3/4"
- Diamond = 12"x14"x3/4" (1 1/4" squares and 2" king.)
- Microprocessor = H8
- Program Size = 64K Byte ROM, 129K Byte RAM
- System Clock Speed = 20MHz (as per manual)
- LCD Display showing: moves as played, total time for each side, time for each move for each side, score of the position, number of half moves searched by computer, how many variations still to be searched, resignations, announcement of draws, stalemates, 3 time repetitions, total number of moves made so far, 50 move rule, draws due to insufficient material, announcement of mate, line of recommended play.
- 56 Levels plus programmable levels including Tournament, Average Time, Sudden Death, Fixed Depth, Analysis, Novice, Find Mate in.., Independent Level Settings for Black and White
- 36,000+ position Opening Book
- Maximum Opening Book Depth = 60 ply
- 3,000 ply Programmable Opening Moves
- Game and Opening Memory
- 64 Games can be saved
- Takes back up to 400 ply (200 moves)
- Set Up and Verify Positions
- Solves Most Mates in 8
- Announces Up to Mate in 14
- Maximum Depth of Search is 28 ply
- Hash Tables On/Off (for Improved Endgame)
- Special Learning Feature Learns Up To 140 Positions
- Randomizes Moves
- Total Game Replay
- Autoplay
- Referees a game between two humans (which can be stored in memory)
- Sound on/off
- Easy mode
- Gives hints
- Traces forward
- Black from bottom of board
- Switch sides during game
- Underpromotes
- Force Move
- Next Best
- Opening Book Selection - Passive/Active, Programmable or Off
- Can Analyze Game in Memory
- Extension Search On/Off



Novag is still not in the race for the strongest computer at any price, and no longer offers a competitive autosensory board, but perhaps its success with Diamond/Sapphire will lead to models in either or both of these categories. The Novag models are programmed by Dave Kittinger, whose PC program W-Chess is also doing very well in competition this year. His programs were tops a decade ago (Super Constellation getting the first certified Expert rating), and now he has reclaimed his status as one of the premier chess programmers of the world.

Saitek Review

by Larry Kaufman

Saitek has now come out with an upgrade of the popular GK-2000, namely the GK-2100. The new model has twice the ROM, allowing for more program sophistication and a larger opening book. The Swedish list puts the improvement at 38 points, which could still change considerably with more data. I would expect the gain to be a bit more than this. The GK-2100 should be considered a strong Expert. Unfortunately at this writing it is priced nearly a hundred dollars over the GK-2000, which is a bit much for a modest strength gain, so unless the price drops most buyers will opt for the older model.

The new program is also available in an attractive autosensory board, the "President". It is currently the least expensive such board at about $350 with a strong Expert program.

No new master level models have come out since our last review. The two 2400 level models, "Kasparov SPARC" and "RISC 2500" both seem to be in a state of limbo at this writing. The former was just too expensive, while the latter ran into production difficulties.

The Travel Champion remains a good value in the hand-held category at under $100. The Novag Sapphire is far stronger (about a full Class) but costs $60 more and requires keypad entry.

We have learned at press time that a retooled RISC 2500 may be reintroduced into America by the time you read this. If it proves to be once again reliable as it was for the first 6 months of production, I can recommend this product for those of you who wish to spend $600-$700 for a stand alone. Here is my original review of the RISC 2500 from volume 3 number 2 of the CCR:

"Most interesting is the "RISC 2500", a plastic, pressure sensitive board with a very powerful "brain" inside.

The processor is the "ARM2" at 14 MHz, just like in the Mephisto RISC except for RAM size (1 Meg in Mephisto, 128k in the Saitek model with future expansion to 2 Meg provided for an unknown cost). ROM is also 128k, indicating a large program and book. While Mephisto RISC uses Schroeder's program, Saitek's uses "The King" by Johan de Koning. These are each upgrades of the two programs originally offered for the "ChessMachines". Since the latest "Ply" list shows Schroeder's ChessMachine program to be 12 points better, and since the RAM difference should be worth about 24 points, the Saitek RISC would rate about 36 points below Mephisto RISC if both programmers had made equal progress between versions. Results to date suggest that the Saitek RISC is stronger than that, very close to Mephisto RISC. The latest "Ply" rating is 10 points above the Mephisto model, at (USCF equiv.) 2446, while the CCNS lists it 22 below at 2432. Our CCR average puts it at 2439, 5 below the Mephisto model. This is probably because de Koning had more time to improve his program as the Saitek model is about 8 months newer. My comparison of the RISC 2500 with the original King ChessMachine program confirms that the Saitek program is indeed substantially more advanced in its tactical abilities.

Since the Saitek unit is priced at $600-$700 at discount, well below half the cost of the Mephisto Exclusive RISC, it should sell very well and can be recommended to all strength-oriented purchasers who do not require either a wood or an autosensory board. The strength comes especially from the program's tactical power, but it is by no means weak positionally, and it rates at 2480 on my new problem test which includes both tactical and positional problems, well above the Mephisto RISC. The RISC 2500 is operated by a menu system rather like Mephisto Vancouver, using very few keys."

Features List:
Saitek President

- 14"x14" Wood Autosensory Board
- 2 3/4" King
- Operates on Batteries (6 "C") or AC
- Lights on Every Square
- 64 Levels of Play including: Normal; Tournament; Speed Chess; Fun Levels (makes errors); Infinite; Problem Solving; Training
- Full Function Display Showing: First through Sixth Move of Principal Variation; Current Position Evaluation; Current Search Depth; Number of Moves Computer has examined; Current Move Being Evaluated; Number of Nodes Per Second
- Chess Clocks: Elapsed Time Since Last Move; Elapsed Time For White; Elapsed Time For Black; Remaining Time For White; Remaining Time For Black
- Move Count
- Number of White Moves Played
- Moves of Current Game
- Suggested Moves
- Verifies Position
- Problem Set/Up
- Monitor Mode
- Sound on/off
- Coach Mode
- Ticking Clock on/off
- Countdown Clock
- Auto Power Down
- Selective/Brute Force Choice
- Easy Mode
- Random Mode
- Book on/off
- Full Book Openings on/off
- Passive/Active Opening Book
- Rotating Display Option

Features List:
Saitek RISC 2500

- 16"x11" Pressure Sensory Board
- 2 1/4" King
- Operates on AC Only
- Lights on Coordinates
- Infinite Number of Levels including: Normal, Tournament, Sudden Death, Training, Problem Solving, and Analysis
- Full Function Display Showing: Chess Clocks, Position Evaluation, Search Depth, Predicted Line of Play, Etc.
- Chess Clocks: Elapsed Time Since Last Move, Elapsed Time For White, Elapsed Time For Black, Time Remaining For White, Time Remaining For Black
- Full Game Take Back and Replay
- Force Move
- Black From Bottom
- Names the Opening Book
- Thinks on Opponent's Time on/off
- Saves Game
- Autoplay
- Multiple Playing Styles Selectable
- Hash Tables on/off
- Random/Tournament/Off Opening Book
- Problem Set-Up
- Normal/Short Notation
- Language Selection
- Position Verification
- Suggests Moves
- Sound on/off
- Chess Piece Storage Compartment

PC Software

by Nick Schoonmaker

Significant developments in PC chess software have occurred since the last issue of CCR. Mostly, there have been updates to existing programs: ChessGenius 3.0, Fritz3, M-Chess Professional 4.0, and REBEL 6.0 (update to Mephisto Gideon Pro). Also, HIARCS 3.0, an update to HIARCS 2.1, has been developed, but was not made available to CCR for this review. In addition, two new exciting products are available: WChess by Dave Kittinger, a powerful new program which won the Fifth Harvard Cup tournament, with four wins and two draws against International GMs; and TascBase, a full-featured chess database package which also contains a powerful chess program - The King, by Johan de Konig.

Unfortunately, most of these programs became available to CCR for review only shortly before this issue of CCR needed to go to print. As a result, the in-depth reviews which were intended will have to wait for future issues of CCR. Instead, this issue will provide an overview of the latest developments in the above mentioned programs.

The updates to existing programs and features contained within the new programs paint a picture of the current trend of chess software. Historically (since the late 1980's), chess software has fallen into two basic categories: 1) chess playing programs, and 2) database programs. A merging of these two categories has been seen in recent years and this process seems to be accelerating with the latest generation of chess software. Programs which are primarily dedicated to playing chess typically have limited database capabilities; and database programs may now include limited chess playing programs (limited in features but not necessarily in strength) which are integrated with the database functions.

The limitations seem to be diminishing as more and more features are added. In particular, chess playing programs contain an ever growing list of database capabilities and some chess playing programs can be used in conjunction with separate, powerful database programs (e.g., Fritz and ChessBase). But the trend seems to be a development of completely integrated packages, containing powerful full-featured chess playing and chess database programs. In most of the reviews which follow, this trend will be seen in the new features available with today's chess software.

WChess

WChess is the powerful new entrant into chess playing programs for the PC. As detailed elsewhere in this issue of CCR, WChess has performed spectacularly in its debut events, both against other computer programs and against human grandmasters. In the Uniform Platform tournament (all computer double round robin, with all programs running on a 40 MHz 486), WChess took first place with 27.5 out of a possible 30 points. It scored 2-0 against both of its two nearest rivals, HIARCS 3.0 and M-Chess Pro 3.85. Even more impressively, it won the Fifth Harvard Cup tournament, defeating four international grandmasters and drawing two others. In this latter event, its Intel performance rating was a whopping 2895.

Surely, WChess is not quite this strong. If it were, we humans would be in more trouble than we realize. Six games is statistically insufficient to accurately predict playing strength. Also, computers, in general, perform better at faster time controls against humans (such as Game in 25 minutes in the Harvard Cup). But this performance certainly is some indication of its playing strength, and the quality of the games themselves speaks quite a bit for this program. All games from the Harvard Cup, a few of which are annotated, are included in the 'Games' section of this issue of CCR.

In the One-Hour CCR Test, WChess scored 51 points. However, because there is no earlier version of WChess with an estimated rating, the results of this test are not being used to calculate a new rating. Rather, this score is provided for information only. The best indication of this program's strength is a quantitative and qualitative analysis of its tournament results to date. Some late news just before going to print with this issue of CCR is data provided by CCR tester, Max Harrell. He reports that WChess scored 9-5 versus ChessGenius 3.0 in game in 30 minutes, 7-7 versus ChessGenius 3.0 at game in 5 minutes, 6.5-3.5 versus Fritz3 at game in 15 minutes, and 7.5-2.5 versus Chessmaster 4000 at game in 15 minutes.

Aside from its strength, WChess is a full-featured program. It runs in 32 bit real mode, which requires at least a 386 processor. WChess has most of the standard features found in other programs, including mouse control, a wide range of level adjustments, an opening book (approximately 100,000 ply), and hash tables. The program recognizes transpositions within the opening and also recognizes transpositions which are off by one tempo. For example, WChess recognizes 1.e3 e5 2.e4 as a double King pawn opening but with colors reversed. The size of the hash table is user selectable, with the default being 512 kB. A smaller size is recommended at

fast time controls though. The program's author informed me that for 5 minute blitz games, a hash table of 100 kB is probably about optimum.

The program also performs database functions for games and specific positions, both of which can be saved and later loaded. The program is compatible with both EPD and POS files, specific types of ASCII files which are used for storing chess positions. WChess can also be used for analyzing these stored games or positions.

A few features which will be in the released version of WChess were not available with the copy used for this review. Most notably, the released version will have a 'print moves' feature: upon completing each move, the program can send the move to the printer. This feature is being added in order to have the capability of interfacing with a separate electronic chessboard connected to the PC (e.g. Chess 232).

Being a newly developed program, in some ways WChess is not as mature as its competitors, even though it is feature rich. Most noticeable is its lack of pull-down menus; functions must be accessed via specific key combinations. For example, to select the program's infinite playing level, one has to type "LI" and then hit the <enter> key. But the lack of pull-down menus should not deter the interested player. The controls are all very logical and a complete help system is instantly available by hitting the key. Another minor shortcoming is the lack of color control for changing the appearance of the display (chessboard, pieces, background, etc.). However, the display seems attractive enough already. Also, some of the minor 'bells and whistles' available with other programs are not available with WChess. For instance, WChess does not let the user change the values of the pieces from the default values used by program. But why would anybody want to tweak these values anyway? More likely than not, playing with the 'chess engine' of a program in this manner only weakens, not strengthens it.

It should also be pointed out that a conscious decision was made to market essentially the same version of this program that won the Uniform Platform and Harvard Cup tournaments. It was decided to not hastily add features which could possibly slow down the program and thus weaken its play. As been the case with some other programs.

So, if you are looking for a battle proven silicon opponent (albeit an insufficient number of games to establish a "true" rating estimate) and you don't mind the lack of pull-down menus and a few other minor options, WChess seems to be an excellent, and perhaps, the best choice. And it is almost certain that a future upgrade should be available at a reasonable cost, which will have currently missing features integrated into the program.

Chess Genius 3.0

Richard Lang maintains his tradition of excellence with this latest upgrade to a top quality program. Running on a 90 MHz Pentium computer, a pre-production version of ChessGenius 3.0 (version 2.9) toppled both PCA World Champion Gary Kasparov by a score of 1.5-0.5 and GM Predrag Nikolic by a score of 2-0 late this summer at the London Intel Speed Chess Grand Prix tournament (game in 25 minutes). It then went on to lose (0-2) to GM Viswanathan Anand. But the program had made its mark. These games are all included in the 'Games' section of this issue of CCR.

ChessGenius 3.0 has a number of enhancements over Genius 2.0. However, they deal mainly with features rather than with strength of the program. ChessGenius 3.0 scored 66 points in the One-Hour CCR Test, compared to 65 points for Genius 2.0, for a predicted rating increase of only 8 points.

Genius 2.0 is an elegant, easy-to-use, feature-rich program. ChessGenius 3.0 takes all the positive features of its predecessor and adds a few more. Probably most significant are new database capabilities. ChessBase compatible databases can now be loaded into ChessGenius. Also, EPD files can be saved and loaded. The program can process these files, adding evaluations and analysis to each position in an EPD file.

There are also enhancements regarding opening books. ChessGenius 3.0 has a new autoload book option which causes the program to automatically load different opening books, depending on the opening that has been played. For example, if you have a large opening book on the Ruy Lopez, it will only be loaded when the Ruy Lopez has been played. Another new option allows two user books to be merged into one; however, for large books this can take a very long time.

One additional new feature with ChessGenius 3.0 is interface capability with the Kasparov Autoboard. In the manual, this is advertised to be a wooden sensory chess board with 64 LEDs that connects to a parallel port, enabling the game to be played on a real chess board. The manual also states that the Kasparov Autoboard is likely to be on sale at the end of 1994. This is very similar in concept to Chess 232, which is discussed elsewhere in this issue of CCR and which is already not only integrated with Genius 1.0 and Genius 2.0. But also works with a slew of the other top-rated programs.

Overall, one cannot go wrong purchasing ChessGenius 3.0. It will likely be the standard by which other programs are judged if WChess doesn't nudge it out of the way. If you are choosing between WChess and Genius

3.0, I give edge right now (based upon latest head to head testing) to WCHess in strength and to Genius in features. If you already own Genius and were considering an upgrade to Genius 3.0, WChess might be the better choice because it will offer you an opponent with a fresh perspective.

REBEL 6.0

Despite its name, REBEL 6.0 is actually an upgraded version of Mephisto Gideon Pro. It is now developed by Schroder BV rather than by Mephisto, and there are significant improvements over an already very good program.

One important enhancement over Gideon Pro is that the 'chess engine' has been converted to fast 32 bit machine language code. The program's documentation states that depending on the computer, this can cause the program to run 30% to 100% faster. In addition, a new hash table algorithm has been developed which should double the hash table capacity from 8 MB to 16 MB. The README file on the program disk states that with these improvements and more chess knowledge, REBEL 6.0 should play at least 50 points stronger than Gideon Pro. This is consistent with both the latest Swedish Ply ratings (REBEL 6.0 = 2521 versus Gideon Pro = 2469, for an improvement of 52 points) and my testing. On the One-Hour CCR Test, REBEL 6.0 scored 51 points compared to 45 points scored by Gideon Pro, for a predicted rating increase of 48 points.

There are other important enhancements as well. In particular, REBEL 6.0 has greatly expanded database capabilities compared with Gideon Pro. Gideon Pro has very limited database functions which allow games to be saved and loaded; and with games loaded, the user can go to specific moves or search for specific moves. But REBEL 6.0 adds much more: databases can be reorganized and expanded search criteria are available based on names, text, moves, or positions. The program provides overviews of players, tournaments, matches, and book openings for any given database. Also, there are utility programs to convert games of Gideon Standard/Pro format and databases of both NicBase and ChessBase formats to the REBEL 6.0 database format.

Another enhancement with REBEL 6.0 is its multiple opening books. Gideon Pro has one opening book of about 100,000 moves; REBEL 6.0 has three opening books. The primary book has approximately 400,000 moves. The other two books, one of which was compiled from more than 1000 games played by Kasparov, each have about 100,000 moves.

REBEL 6.0 also has some relatively minor enhancements over Gideon Pro, such as easier to use pull-down menus (which contain a few insignificant typographical errors).

Overall, among the current upgrades to older programs, REBEL 6.0 seems to be the most improved over its predecessor.

Fritz3

The Fritz programs are recognized as being exceptionally strong at blitz chess. The latest version, Fritz3, set a new standard at the Intel World Chess Express Challenge (G/5), held in Munich, Germany in May. In an all GM field, Fritz3 (running on a 90 MHz Pentium computer) scored 12.5/15 along with PCA World Champion Gary Kasparov to tie for first place; however, Kasparov subsequently won the playoff with a score of 4-1. Two games against the world champion, including one win, are listed in the 'Games' section of this issue of CCR.

Numerous enhancements have been implemented since Fritz2, which performed below other top programs in slow games. To strengthen the program, changes have been made in its opening book and algorithms for both the middlegame and endgame. The opening book is designed to better match Fritz's playing style, avoiding closed positions and striving for semi-open games. Its positional knowledge has been enhanced to better account for pawn structure, King safety, and themes such as good versus bad Bishops. A small endgame database (all legal positions in King + pawn versus King endgames) has been added, which is used in the search tree. Also, Fritz3's hash table algorithm is much improved over Fritz2. Running on a computer that has 16 MB of RAM, Fritz2 would allow 8 MB for its hash table; but with the same computer, Fritz3 would allow 15 MB for its hash table.

It is not yet clear how these improvements add up. Fritz3 scored 50 points in the One-Hour CCR Test compared to 48 points scored by Fritz2, for a predicted rating increase of 16 points. However, this test would not account for the program's improved opening book and new endgame database. With these enhancements, it is likely that the program has improved more than this test indicates.

There are also new functions and enhancements with some of the program's features. Fritz3's new blitz clock makes sense considering its prowess at blitz chess. Not only can the number of minutes/game be set independently for both sides, but a unique feature is that the clock can be set so that whenever either side makes a

move, a specified number of seconds is added to that side's remaining time.

A European distributor has indicated that earlier versions of Fritz3 contained bugs. I have not been able to verify this by press time. Stay Tuned. Fritz3 is a solid package with much to offer, particularly for those interested in blitz chess. And for regular users of ChessBase, its integration capability with that program makes it even more worthwhile.

M-Chess Professional 4.0

M-Chess Pro 4.0 is the latest in a line of powerful, full-featured chess programs, which have always been among the best. Unfortunately, the review copy of this program was received at practically the last minute, when material for this issue of CCR was being put together; so there was only time to run the program with the One-Hour CCR Test, scan through the manual, and have a short discussion with the program's author, Marty Hirsch, to learn what enhancements there are over M-Chess Pro 3.5.

To begin with, M-Chess 4.0 scored 47 points in the one-hour test, compared to 44 points scored by M-Chess 3.5, for a predicted rating increase of 24 points. A slightly earlier version of this program, M-Chess Pro 3.85, scored a respectable 2 points at the Fifth Harvard Cup tournament, defeating GMs Michael Rohde and Alexander Shabalov. These games are included in the 'Games' section of this issue of CCR. The program's author informed me that M-Chess Pro 4.0 has an improved algorithm, which allows deeper searches for given levels and better evaluations of the resultant positions. He also claims that the program's endgame play is improved.

The program has new features and enhancements to previously existing features. To begin with, its database capabilities are improved. M-Chess Pro 4.0 supports PGN files for game databases (up to 250,000 games/file) and EPD files for positions (up to 150,000 positions/file). The program has a more powerful analysis mode than does version 3.5, which can be used in conjunction with the PGN and EPD files. Also, the opening book has been enlarged from approximately 250,000 moves to more than 350,000 moves and the program finds transpositions. M-Chess Pro 4.0 has an improved interface for use with Chess 232, which should fix the German language problem (with M-Chess Pro 3.5) and which allows the program's analysis mode to be used (Note: New software will still be required from the makers of Chess 232 to operate this device with M-Chess Pro 4.0.). The menu system also seems improved, consisting of a bar at top of the display with pull-down menus. This seems easier to use than the old menu system, which consists of one window on the right side of the display.

The numerous improvements that come with M-Chess Pro 4.0 seem to make it a very worthwhile upgrade over previous versions.

TascBase 1.0

An exciting software product to come out recently is TascBase 1.0. Unlike the other programs reviewed in this issue of CCR, this is a full-featured database package; and its capabilities are much more extensive than the database features contained in these other programs, even though their features are improving significantly over older programs. And in addition to its database capabilities, TascBase offers as an option a powerful chess playing program, The King, by Johan de Konig (Different versions of The King have run in the Chess-Machine, but the documentation does not state which version is integrated within TascBase.).

To begin with, TascBase seems quite user friendly. A nice feature for those new to the program is a status line at the bottom of the display. As the pointer is moved around with the mouse, this line provides information about actions that can be performed with the mouse, based on where its pointer is located. The pull-down menus are very logical and easy to use. There is also a row of buttons, providing instant access to a number of frequently used functions. The program features superb graphics.

Basic tasks, such as entering and playing through games, could not be easier to perform. While entering moves in a game, you can have the program set to always guess how a move is to be completed: either 1) the destination square, if you have clicked the mouse on a piece, or 2) the piece to be moved, if you have clicked on the destination square. If the program guesses correctly, you have saved time by not having to move the mouse pointer to a second square. This feature is not unique to this program; it has been in ChessBase for years. But there are some clever new ideas incorporated with TascBase. If you accidentally make a 'wrong' move suggested by the program, you do not have to take it back. Clicking the right mouse button causes the program to replace that move with another one, and so on with each click of this button, until the correct move has been played. The strength of the program which guesses the move can also be increased, at the expense of taking a little more time, so that it will more likely select the best

move. Although these features may seem trivial, they can save you a lot of time if you are entering a large number of games into a database.

Annotating games is very easy with TascBase. Lines and sub-lines can be entered effortlessly. Text comments can be made at any point in a game. And a wide range of symbols (identical to or similar to those used in Informants) is available.

At the heart of any database program are its search capabilities. These come aplenty with TascBase. A search mask is available (similar to that in ChessBase 4.0, but with more options) which allows the user to search for games meeting specific criteria (such as players, ratings, date of game, place, length of game, result, etc.). One especially nice feature with TascBase that is not in ChessBase 4.0 is that it can search a database for all games which contain specific positions, the move order being irrelevant. One other well planned option is that if following a search you discover that you have found many games that are not of interest, you can have TascBase perform another search within this list to further narrow down the selection of games. Once all the games of interest have been found, a sort option allows the list of games to be arranged in any order.

Many other powerful features are available. A variation tree can be accessed, which shows every branch of moves contained in the games of a database; all relevant statistics (e.g., number of games, results, ELO averages) are displayed for the branch which is selected. You can navigate through this tree either manually by moving pieces on a small chess board, or by clicking with the mouse on any branch of the tree. Also nice is the database key, which uses ECO codes. This key displays much of the same information as the variation tree, but it is presented differently. It allows quick access to all games played with any specific opening variation, and displays the relevant statistics for these games.

This list of features could go on and on; there is not room to list them all here. A few worth mentioning are some of the program's import and export capabilities. Utilities are available for converting games in ChessMachine, Nicbase, ChessBase, and text (ASCII) formats to TascBase format. TascBase games can be converted to ChessBase or text formats. If converted to text, there are many options for arranging the appearance of the games. Another nice utility included with TascBase allows doubles (2nd identical games) to be removed from a database. This is similar to the John Nunn utility, a program which can be used with ChessBase (but not included with ChessBase 4.0).

As mentioned earlier in this article, TascBase includes the King chess program as an option. This is not as feature-rich as the other dedicated chess playing programs, but it seems quite strong. In the One Hour CCR Test, The King scored 53 points. Considering that the 'chess engine' of Chessmaster 4000 is also by Johan de Konig and also scored 53 points on this test, it is likely that The King plays at about the same strength. Further tests are required to confirm this though. The King can be used for analysis while entering or playing over games. And of course it is an always willing opponent.

TascBase is a great new product which seems sure to take over a big share of the chess database market.

WChess Review

by Larry Kaufman

While I had intended to avoid commenting on PC software due to possible conflict of interest with my own PC programs, I agreed to make an exception for WChess because it seems to be the most powerful all-new program to hit the market in a long time. Since Nick has also reviewed WChess, I'll keep it brief, just to give readers a second slant on this new program.

First of all, here's a little background on the author, Dave Kittinger. Dave has been Novag's primary programmer for well over a decade. His 6502 based programs "Constellation" and "Superconstellation" were each among the world's best three at the time of release, possibly the very best. The latter was the first C.R.A. certified Expert. His subsequent programs were each better than their predecessors, first "Expert", then "Super Expert" (which was the top C.R.A. rated mode on the market for a while), "Super Expert B", and "Super Expert C". He then switched to the 68000 chip with the "Diablo" and "Scorpio", which were stronger than the 6502 models but not as strong as the competing Mephisto models. Then for a while Novag put Dave to work on the low-priced machines, so he ceased to compete in top-level competitions. He wrote several programs for the h-8, the latest of which ("Diamond"/"Sapphire") has proved to be clearly the strongest in both its price and hardware categories.

Despite this Dave felt left out in the race for the best program, since he was not permitted to develop a RISC or 32 bit program for Novag, so he decided to write a PC program, which would allow him to enter competitions on an equal footing with others. Actually he had already written the PC programs Chessmaster 2000-3000, but they were never intended to be of the highest possible strength. Dave's new program, at first called "KChess", was not particularly successful in 1993, but with a lot more work it has emerged in 1994 under the name "WChess" as a real tiger. Its spectacular showings in the Uniform

Platform Tourney (27 1/2 out of 30) and the Harvard Cup (5-1 against Grandmasters without a loss) suggest that it has fair claim, along with Richard Lang's Genius 3 (which was not in those two competitions), to being the world's best PC chess program. At last word automated testing by Max Harrell at game/30 had WChess slightly ahead, but many more games will be needed to determine which is really stronger. In any case, they are probably close enough in strength so that the choice between the two should be based on other factors.

Kittinger's programs have always been known primarily for tactical strength and lively play, and I think WChess is no exception. Perhaps one might think of WChess as more like Kasparov and Chess Genius as more like Karpov, emphasizing precise technical play. Both programs have most of the features one expects in good chess software these days, though Genius III has more optional features. On the other hand, I understand that WChess is currently available to CCR readers (ICD Preferred Buyers) at a significant reduction, while Genius 3 is priced near $150. The programs play so differently that I would not hesitate to suggest that someone purchase both programs if the cost is not a problem. As for graphics, the board size is larger on WChess, while the piece design is a bit unusual on WChess (the knights in particular need to go on a diet!) but still very clear and unmistakable, while Genius sticks to more traditional figures. If one must choose between Genius and W-Chess, consider which style of play appeals more to you, and ask yourself whether the extra features in Genius are worth the extra cost (for the population-at-large the price is the same for both). I can say that whichever you choose, you should be pleased.

As for the opening book of WChess, it has plenty of variety when the "variety" option is set to maximum, and plays only the theoretical lines when the option is set to 0, just as it should.

Positional evaluations, especially in the opening, are very large, which means that the program will sacrifice a pawn for development and space more readily than most programs. Whether this is good or bad, it is at least interesting!

The search is quite fast, which means that the program will see deep tactics in reasonable short time. This is crucial against high level competition, such as was faced at the Harvard Cup. The program is also good at spotting combinations ending with checking sequences. For example, in one game at the Cup it announced mate in 11 moves.

In conclusion, WChess is a fine new entrant, and arguably the best, in the fray and deserves serious consideration by those a very strong, tactical computer opponent.

M-Chess Pro 4.0 Features

Tech Info:

- IBM or Compatible
- 386 or faster processor
- Dos 5.0 or higher
- 640 Kbytes RAM
- VGA video
- 3 Megabytes of hard drive space
- 3 1/2" floppy drive (required for installation)
- Microsoft compatible mouse recommended
- 3 Installations

New Since M Chess Professional 3.5:

- Greater playing strength
- More opening moves
- Menu bar with pulldowns and dialog boxes
- Easy to use database
- Instant access to games from bulletin boards and on-line services
- Automatic learning feature improves 4.0 play
- Continual analysis mode

Features:

- Over 350,000 opening book moves
- Select from Tournament, Standard or Variety Openings
- Finds all transpositions
- Shows book moves for both sides
- Names the Opening
- Unlimited user programmable opening books
- User books can be printed
- Pulldown menus
- Animated VGA graphics with dialog boxes
- Choice of board/pieces colors
- Screen may show: your name, choice of notation, search progress, positions, evaluations, coordinates, chess clocks, move time, decision time, current and previous analysis
- Choice of English, Spanish, Italian, French, German, and Dutch
- Unlimited levels - time controls, mate-solving, sudden death, etc.
- Full-replay and auto-play
- Auto-analyze
- Log analysis and log time usage
- Find next best move
- Prints diagrams and games, set margins, ending move and notation, print to file
- Database with read/write support for Game Archives in Portable Game Notation (.PGN-files) plus Position Archives in Extended Position Description (.EPD-files)
- Hash tables to 10 Mbytes in Extended Memory with standard or linear access (to harness the full power of your computer).
- Three different selectable Styles of Play
- Intuitive Position Set-Up Mode
- Learning Mode allows program to learn from its experience
- Built-in Interface for external Auto-Sensory ChessBoard (Chess 232)

WChess Features

Tech Info:

- IBM or Compatible
- MS-Dos 3.1 or higher
- VGA graphics or higher
- Minimum of 2 MB ram (can use up to 32 MB)
- Takes up 600k of disk space
- Needs 386 or faster processor (32 bit)
- If you have 8mb or more memory, no problem with RAM DRIVES or DISK CACHES
- On 4 mb or less it is best to remove RAM DRIVES and limit DISK CACHE to 512k or so
- At least one 3 1/2" high density floppy drive
- Needs hard drive
- Will run in MS-DOS window, however will play better from DOS prompt.
- 3 Installations

Features:

- It is copy protected and has two installs available.
- You can access the exact opening book used at the Harvard Cup
- Includes a file with 300 positions collected in the book Win at Chess
- Has a game file of the Harvard Cup games
- Has an output log of the games from the Harvard Cup
- Has a file with the early games of Bobby Fischer
- Has a file with the later games of Bobby Fischer
- Has a file with positions from the Bratko-Kopec Computer Test
- Has a file with some positions that demonstrate how WChess can learn from its games
- Has a file with mate positions
- Has a file with a collection of test positions by Larry Kaufman
- Will run in the MS-DOS window
- Operates with mouse, or keyboard, or cursor keys
- Turn sound on/off
- Can write results to an output file
- Hash Table on/off control
- Output file control
- Principal Variation Information Display control (allows you to choose from among four information levels that are visible on the screen: opening book choices, predicted moves, best move, score of the game, recommended line of play)
- Four different levels of randomness
- Underpromotion when desired
- Move forward or backward through game in progress
- Scroll through all games in game history
- Shows help screen when requested
- Auto Play Features operates without human interface
- Change color to move
- Demo Mode - a new game will automatically begin 5 seconds after end of last game (when in auto-play)]
- Easy Mode (WChess does not think on your time)
- Invert Board (for black on bottom)
- Next Best Move (WChess will take back its move and show second best, then if asked, third, fourth, fifth, etc.)
- Before erasing game just completed, WChess will automatically send it to a file
- Referee Toggle allows human to scroll through moves with WChess thinking until the program is asked to
- Position and Problem Set-up
- White and Black clocks may be set seapately for handicap purposes.
- WChess will analyse an entire game without human interface and export results to a file
- Tournament Levels (40 moves in your specified time)
- Sudden Death Levels (All moves in specified time)
- Average Time Levels (Will average the displayed time for each move)
- Fixed Time Levels (Will use displayed time for each move)
- Fixed Depth Levels (Will look requested depth and give response)
- Novice Levels (Purposely Plays Weaker)
- User Time Levels (You may set average time per move from 1 - 999999 seconds)
- Solve Mate Levels (You specify the depth; WChess will find the shortest mate possible)
- Import/Export Games
- Import/Export Positions
- Learns from its mistakes
- WChess makes allowance for direct output to a printer
- WChess will operate in conjunction with Chess 232.

REBEL 6.0 Features

Tech Info:

- 80386 processor or higher
- VGA card and monitor
- 2 MB RAM
- Hard drive with at least 1.5 MB free disk space
- Dos
- Can run under Windows
- 3 installations

New Since Gideon:

- Chess engine translated to fast 32 bit machine language code
- New hashtable algorithm

Features:

- Choose 3 book openings libraries: Rebel - 400,000 moves, Small - 100,000 moves, Kasparov - 100,000 moves (taken from more than a thousand of kasparovs games)
- Program knows about 300 openings by name.
- Time-program will play on the selected average time
- Blitz-play the game within a fixed amount of time

- Handicap-same as blitz, but you reserve more time for yourself and less for the computer
- Tournament-play the game in the desired tournament level
- Ply-let the program play on a fixed depthM
- Mate-special level for solving difficult mate problems
- user-same as time, but you define your own favorite level of play
- Infinite-the program will continue evaluating until you stop it or a mate is found
- Analysis-combine infinite level with player player option
- Change the chess engine
- Program thinks on opponents time
- Optional brute force algorithm
- Optional combination mode. allowing quicker solution to tactical positions
- Choice of five different playing styles ranging from defensive to aggressive
- 3 levels of playing strength including novice
- Hashtables- maximum of 16 mb
- Database: create new databases; load,save,and delete games; reorganize database; search on names, text moves or positions; 6 different overviews available; convert games from gideon; convert databases from Nicbase and Chessbase
- Change screen settings
- Change names
- Show material
- Show hint
- Teacher-program judges current position
- Show variation
- Turn board
- Change colors
- Change pieces sets (3 different sets available)
- The program can be operated in English, German, and Dutch languages
- Set up positions
- Player-player mode
- Automatic play-the program will play against itself
- Analyze game or an entire (position based) database
- Goto move number-jump to any move you wish in the game
- Search for move-allows you to go to a move you still remember
- Go to end of game-Go to last move played in a game
- Replay game at one of 3 different speeds, allowing user interruption
- Write move comments
- Game to text file-Write the current game to an ASCII file
- Moves to printer-if activated, every move played in a game is output to a printer

Genius 3.0 Features

Tech Info:

- 386 or faster
- VGA graphics
- 420k of free ram
- 3 1/2" floppy drive
- Can be played from Hard drive or floppy
- Has 3 installs
- Genius 3.0 can read all game files and user book files produced by previous versions of Genius.
- Operates with mouse or keystroke
- 3 Installations

New features on 3.0 that did not exist on 2.0

- Can read Chessbase data
- Can handle EPD files
- Displays opening names
- Can display moves in short figurine notation
- Can Autoload user opening books

Features:

- Plays white from bottom or top
- Position set-up
- Gives hints
- Restores previously saved game
- User book edit
- Next best
- Takes back all moves and traces forward
- Go to specific move in game
- Infinite level
- Easy levels
- Mate in... levels
- Fixed depth levels
- User programmable levels
- Sound on/off
- Resigns in hopeless positions
- Randomizer
- Random opening book choice
- Thinks on opponent's time on/off
- Hash tables on/off
- Pawn structure on/off
- Time adjust request
- Main book on/off
- User book on/off
- Autoload book - will load different opening books depending upon the opening that has been played
- Compatible with Chess 232 autosensory chessboard
- Choose from among 6 opening book styles: normal, human, gambit, classic, modern, blitz
- Three selectable playing styles
- Programmable selective search depth
- Adjustable piece value
- Adjustable contempt factor
- White and black clocks adjustable separately
- Analyses entire game placed in memory
- Computer can play itself

- Automatic restart of computer vs. computer
- Will process an EPD file and will add evaluations and analysis line to each position in the EPD file
- Search information on/off
- Lists all book moves that can be played from current position (on/off)
- Names openings (when played from hard drive)
- 64 switchable colors
- Chess piece high speed slide (for blitz chess) (on/off)
- Display moves in long or short notation
- Display piece types or text characters
- Dialog box with a file selection box is used to request a file name for all disk operations
- Prints moves and current position in text form
- Prints moves and analysis
- Database menus allows games from databases to be loaded into Genius
- Position set-up
- Extended hash tables - up to 32 MB
- Three language selectable (English/German/French)

Fritz3 Features

Tech Info:

- IBM or Compatible 386 or higher
- VGA or SVGA graphics adapter
- Hard Drive (must reside on hard drive)
- 3 1/2" Floppy (for installation purposes)
- 640K RAM
- Dos 5.0 or higher
- 3 Installations

Features:

- May be played off the hard disk or floppy
- Mouse or keyboard entry
- Takeback move
- Replay moves
- Dropdown menus
- Force moves
- Play with black
- Hints
- Automatic replay
- Goto specific move
- Digital clocks
- Normal levels
- Infinite level
- Tournament levels
- User defined playing levels
- Handicap
- New book
- Setup positions
- Info boards, shows: main variation,current move, every legal move considered
- Save settings
- View evaluation of current move
- View search depth
- View moves left in current moves
- View opening books
- View main line
- Autoplay
- Computer vs. computer
- List games in database
- Load game from list
- Search for game in list
- Search for substrings
- Create your own databases
- Save games
- Replace games
- Delete games
- Transfer games
- List openings and their contents
- Overview all openings
- View number of games each opening was played in
- Remembers last opening
- Identifies opening
- Create new index
- Annotate games
- Enter variations
- Replaying variations
- Delete lines
- Analyze games
- Add notations
- Print games
- Print positions
- Print board
- Select language
- Animated pieces
- Change colors
- Message delay
- Change character height
- Sound on/off
- Show/hide coordinates
- Compatible with ChessBase
- Threatened pieces
- Postgame analysis
- ECO codes
- Hypertext
- Load next/previous games

Features of Fritz 3 not found on Fritz 2:

- Blitz Clock (allows for separate parameters)
- Tournament Mode (rates your play in ELO points)
- Automatic Analysis
- Analyse Next Best Move
- Book Options (Tournament, General, Gambit)
- Show Opening Book
- Contempt Value
- Variable Selectivity
- Mate in X
- Create Your Own Piece Square Tables
- A Learning Function
- Better Use of Hash Tables

Hiarcs 3.0 Features

Tech Info:

- 386 IBM or Compatible or faster
- EGA/VGA/XGA video adapter
- 3 1/2" Floppy drive
- Dos 3.1 or higher
- 640K RAM
- Operates from Hard Drive or Floppy
- Has three installs
- Can use mouse or keyboard stroke

Features:

- Preset levels from Blitz to Tournament
- Infinite user settable time controls
- User settable incremental clock (as used in Fischer/Spassky match 1992
- Numerous game scan options to go instantly to chosen position
- Save and restore games in Hiarcs format
- Import/Export/Process EPD/FEN files
- Import/Export/Delete games in Portable Game Notation (PGN)
- Analyse game, detailing best lines, evaluations
- Find key point and show possible improvements
- User editable opening books
- Names openings
- Position set-up and editing
- Rates your chess ability in ELO points
- Special strength enhancement or reduction options
- User selectable search techniques: Selective, Very Selection, or Brute Force
- User selectable play style: Solid, Aggressive, Normal
- User extended memory for transposition tables
- Two player monitor with analysis, and next best move
- Choice of English/German/Spanish and French
- Transfer positions from Chess Assistant to Hiarcs
- Print move options
- Compatibility with Chess 232 board
- Large endgame knowledge including but not limited to:
- mate with bishop and knight
- exact king and pawn knowledge
- precisely who promotes pawn first
- king and queen vs. king and pawn on 7th rank
- active rook play in rook and pawn endgames
- wrong color square bishop and rook pawn endings
- opposite color bishop endings
- specialized endgame liquidation knowledge

TASCBASE 1.0 Features

Tech Info:

- IBM PC or Compatible 286-based or higher (specify 16 bit program if you own a 286 and 32 bit program if you own 386 or higher)
- MS-DOS 3.3 or higher
- 7 Mb of hard drive space (10 Mb recommended)
- 640K RAM (520K free)
- VGA Video
- Microsoft Compatible Mouse
- 3 1/2" Floppy Drive

The thorough 160 page instruction manual is divided as such:

- Introduction: Hardware requirements, installation procedure, and conventions in the documentation.
- Getting Started: Help menus, how to load a game, how to replay a game, how to open a gamefile, how to search games.
- Terms and Techniques: For the inexperienced computer user a step-by-step overview of techniques needed to use TascBase.
- Replaying A Game: Manual or automatic replay (user selectable time-between-moves), adjustable jump-forward, jump-back.
- The File Selector: Extremely easy mouse operated file selection in file selector window.
- Entering Games: New games may be entered with mouse and/or by "PAM" (Predict A Move) in which you may set a strength level and have the database program predict a move based upon the strength you have set.
- The Search Environment: Games in a database or gamefile can be made visible as long list. The selection is easily reduced by means of the Search Mask. 8. The Search Mask: The most important and powerful tools of a database are the possibility of searching for games that satisfy any particular criteria. TascBase allows for search by: Player, Length of Game, Country, Particular Game, Title of Players, Elo, Nationality, Time Used, Special Games, Rapid Games, Fragment of Game, Analyzed Game, Number of Game, Date of Game, Result of Game, Number of Moves in Game, Round of Game, Annotator and Remarks.
- The Chess Program (The King) (Optional): The King program by Johann de Koning can be employed to analyze a position or a game in the database or may become a full featured computer opponent against you.
- Other chapters in the informative manual include: Viewing Database, Database Keys, The Gamefile, Customizing TascBase to Your Own Taste, Annotating Games, Viewing Games, Printing Games with and without Diagrams, Setting Up Positions, Copying Games, Optimizing the Database, Game Converters (from ChessBase, Nicbase, and ChessMachine), and Super User.

David Kittinger

Professional Biography

David Kittinger is the program designer of WChess, the only computer chess program to outscore human chess grandmaster in the prestigious Fifth Annual Harvard Cup Human vs. Computer Intel Chess Challenge, held in Boston October 1-2, 1994

David Kittinger has spent the last 16 years pursuing two of his passions-computers and chess. An avid chess player since high school, David had a natural curiosity about computers. Designing computer chess programs, he found a way to combine his interests and create games for people who shared this curiosity.

While working for Novag Industries, a Hong Kong manufacturer of electronic games, Kittinger has continued to re-write and refine his chess programs while providing Novag with programs for various models of chess computers. Kittinger's success with WChess, his most recent chess program, is not a new phenomenon. He has enjoyed award-winning status for his computer programs since 1986. In 1986, an earlier version of WChess won third place in the 17th ACM North American Championship, a tournament pitting computers of any size against each other, held in Dallas. In 1987, another of Kittinger's programs won its class at the United States Open Computer Chess Championship.

WChess represents Kittinger's second chess program which is written in language for personal computers. W-Chess is responsible for the historic defeat of humans at the Fifth Annual Harvard Cup Human versus Computer Chess Challenge held in Boston, where the program scored the highest score to date for computers. The program has also made international gains. WChess finished first at the Uniform Platform Computer Tournament held at Queen Mary and William College in London where 15 computers were pitted against each other in automated play.

WChess was Kittinger's response to rapidly developing computer programming environment where chess programs have become increasingly competitive. Since 1990, as competitive chess program performance heightened, Kittinger made the decision to write a new program. While Kittinger's earlier programs enjoyed one of the highest CRA ratings - a rating established by the U.S. Chess Federation, the official governing body for chess in the U.S., to measure a program's performance against humans - Kittinger took on the challenge of writing WChess in August 1993. Within six weeks, he had the program running and successfully defeating local human players. Just missing the deadline for the 4th Annual Harvard Cup Human vs. Computer Chess Challenge, Kittinger was able to test his program against top human chess players (grandmaster and international masters) in a warm-up event for the Harvard Cup, where it beat the humans in three games and scored two draws.

Kittinger's first program for personal computers was incorporated into the popular program "Chess Master 2000" developed by Software Toolworks. Kittinger's program was then modified and used in some of the versions of "Chess Master 2100" and Chess Master 3000."

David Kittinger lives in Mobile, AL with his family. Besides writing chess programs, he spends his time coaching youth baseball and youth soccer teams. Plus he enjoys playing golf and skiing.

The Harvard Cup Human vs. Computer Chess Challenge is an annual competition between America's top chess grandmaster and the leading software chess products. It is the ultimate showdown of the human mind against machine.

Rating the Commercial Chess Computers

by Larry Kaufman

We have made a few changes since our last issue. The effect of these changes is to lower the level of the list by about 15 points or so. In view of the fact that the gap between USCF and European ratings narrows at higher levels, I feel that this is appropriate with computers reaching ever higher ratings.

The CCR30' column is unchanged, and is based on 30' games between computers by CCR testers (48 game minimum). The CRA* ratings are the actual CRA ratings if tested at 40/2 (adjusted for MHz or for excluded preliminary games when necessary) or the CRA ratings minus 80 points when the test was run at Action chess (game/30). Last issue I subtracted 70 points, but recent suberb results by computers in 25' events convinced me to go to 80. I feel that this is a fair estimate of the rating difference between 40/2 and Action computer ratings. Those ratings adjusted from Action tests are enclosed in []. All ratings adjusted for processor speed are enclosed in ().

The CCNS column is still the "Computer Chess News Sheet" (Eric Hallsworth in England) with 100 points added for USCF equivalence. The "Ply" list is published by the Swedish Computer Chess Association, but I am now adding 180 points instead of 200, in part to be consistent with Eric Hallsworth's decision to add only 80 points when converting Swedish ratings to British. Ply ratings are based on no less than one hundred games per computer at 40/2 while CCNS ratings include games at 1 minute per move average or slower.

The first column, "Mean", is simply the average of the other four columns. This is what we term the CCR rating.

Adjustments for processor speed are based on the formula: log base 10 of the speed ratio, times 200.

CCR Ratings List

Dedicated Models

Computer	MHz	Mean	CCR30'	CRA*	CCNS	Ply
TASC R30 King 2.2	30	2498	****	****	2497	2498
Meph Genius 68030	33	2476	****	****	2476	****
Meph RISC2 1 MB	14	2471	****	****	2471	****
Meph Vanc 68030	36	2453	2486	([2491])	2420	2416
Meph Lyon 68030	36	2453	(2482)	****	2440	2438
M. Berlin Pro 68020	25	2443	****	****	2457	2429
Saitek Sparc	20	2416	2455	****	2397	2397
Meph Port 68030	36	2407	2410	2376	2424	2419
Mephisto RISC 1 MB	14	2394	2453	[2308]	2417	2397
Fid Elite V10 68040	25	2384	(2425)	(2430)	2329	(2353)
Sait RISC 2500 128k	14	2381	****	****	2384	2378
Mephisto Vanc 68020	12	2362	2377	([2382])	2342	2345
Mephisto Lyon 68020	12	2344	2373	****	2330	2329
Fid Elite V.9 68030	32	2336	(2372)	(2372)	2300	2301
Fid Premier Vanc	16	2312	2300	[2345]	(2303)	(2299)
Meph Berlin 68000	12	2311	2304	([2333])	2300	2305
Nov Sapphire/Diamond	13	2302	****	[2303]	2328	2274
Mephisto Vanc 68000	12	2302	2304	([2333])	2288	2284
Mephisto Lyon 68000	12	2295	2317	****	2283	2284
Meph Port 68020	12	2292	2293	(2267)	2299	2308
Fid Mach IV 68020	20	2285	2312	2325	2243	2258
Meph Almeria 68020	12	2279	2295	****	2273	2268
Fid Elite v.5 dual	16	2244	****	(2306)	2211	2215
Mephisto Port 68000	12	2233	2239	(2218)	2248	2227
Sait Brute Force h8	10	2213	2233	****	2206	2199
Meph Ni. Short 6502	5	2207	****	****	2207	****
Meph Dallas 68020	14	2206	2233	(2208)	2200	2181
Novag Diablo 68000	16	2204	2220	[2229]	2178	2188
Meph Roma 68020	14	2200	2212	****	2196	2209
Meph Almeria 68000	12	2200	2220	****	2180	2199
Fid Mach III 68000	16	2197	2203	2265	2145	2175

Computer	MHz	Mean	CCR30'	CRA*	CCNS	Ply
Meph Mondial 68000xl	12	2159	2194	2154	2120	2167
Meph Polgar 6502	5	2159	2191	****	2134	2153
Meph MM5 6502	5	2149	2146	****	2140	2161
Nov Sup Forte/Exp C	6	2148	2182	****	2128	2135
Meph Montreal/Roma	12	2140	2158	****	2116	2146
Meph Milano 6502	5	2131	2122	****	2128	2143
Sait Presid./GK2100	10	2129	****	****	2136	2121
Meph Amsterdam68000	12	2125	****	{2176}	2093	2105
Nov Sup Forte/Exp B	6	2125	2201	****	2086	2087
Fid Mach II C 68000	12	2105	2155	(2093)	2078	2093
Meph Mega 4	5	2100	(2113)	(2106)	2084	2096
Sait Maestro D 6502	10	2097	2108	(2105)	2079	2094
Mov Sup Forte/Exp A	6	2094	2140	2164	2046	(2027)
Sait GK 2000 h8	10	2087	****	****	2091	2083
CXG Sphinx Gal. 6502	4	2076	2139	****	2028	2061
Meph Modena 6502	4	2069	****	****	2063	2074
Novag Ruby/Emerald	10	2067	****	[2101]	2044	2057
Fid TravelMaster h8	10	2059	2103	[1982]	2067	2083
Sait TravelChamp h8	7	2054	****	****	2057	(2050)
Sait Turboking II	5	2028	1995	2045	2022	2048
Fid Par Ex/Des 2100	5	2022	****	{2076}	1980	2010
Sait Simul/Corona	5	2005	2073	****	1958	1984
Excal Legend/Accol	10	1985	****	(1985)	****	****
Novag Forte B 6502	5	1988	****	****	1982	1994
Novag Super Const	4	1938	****	2018	1887	1910
Fid Excel/Des 2000	3	1921	****	****	1908	1934
Sait Blitz/Prisma	10	1921	1906	1965	1894	1918
Radio Shack 2150L h8	8	1902	(1887)	(1946)	(1875)	(1899)
Radio Shack Talking	2	1886	****	****	(1873)	(1899)
Novag Super VIP	10	1874	1912	****	1847	1864
Meph Europa/Marco Polo/USCF Academy	8	1860	****	****	****	1860
Excal Adv. Star Ch.		1732	****	****	1724	1739

PC Program Ratings

by Nick Schoonmaker

As in previous issues, PC programs are rated here on 486 66 MHz dx2 or 50 MHz dx computers. These processors are nearly equal in speed for chess programs, because the dx2 runs internally at 66 MHz and externally at 33, while the dx always runs at 50, so they average out the same. The dx3 75 MHz processor should also be about the same, because it runs only 25 externally and so should average around 50.

There are a few changes regarding this rating list since the last issue of CCR. First of all, only Ply ratings are given now. This is because the CCNS ratings lump results from all types of 486 processors into the same category, without calculations for the necessary adjustments. Another change is that Ply ratings are now boosted by 180 points (rather than 200) for USCF equivalence. Only those programs with adjusted ratings over 2200 are included in this list.

Program	Ply
Mephisto Genius 2.0	2526
REBEL 6.0	2521
Chessmaster 4000	2492
M-Chess Pro 3.5	2483
Chess Genius 1.0	2472
Mephisto Gideon Pro	2469
M-Chess Pro 3.12	2457
HIARCS 2.0	2429
Kallisto 1.82	2428
M-Chess 1.1 - 1.71	2411
Socrates 3	2370
Fritz2	2367
Rexchess 2.3	2318
Nimzo 2.2.1	2258
Zarkov 3.0	2253
Fritz1	2235
Chessmaster 3000 (for DOS)	2223
Complete Chess System	2213

PC Speed Adjustment Chart

by Larry Kaufman

For computers other than 486/66 or dx 50, as shown on software ratings chart on left, I recommend making the following adjustments. It is assumed that 486 machines have 256k cache, 386 machines have 64k cache, and 386 sx machines have no cache. "Fast" and "Slow" refer to the absence or presence of one "wait state". For programs that use more than 640k RAM, it is assumed that 4 Meg RAM is available. Note that most of the new, strong programs require at least a 386 processor to run:

Processor	Adjustment
Pentium 90 MHz	add 65
Pentium 66 MHz	add 50
Pentium 60 MHz	add 40
486 dx4 100 MHz	add 20
486 dx2 50 MHz	subtract 25
486 dx or sx 33 MHz	subtract 35
486 dx or sx 25 MHz	subtract 60
486 sx 20 MHz	subtract 80
386 dx 40 MHz	subtract 80
386 dx 33 MHz	subtract 95
386 dx 25 MHz	subtract 120
386 sx 25 MHz	subtract 140
386 sx 20 MHz	subtract 160
386 sx 16 MHz	subtract 180
286 fast 16 MHz	subtract 180
286 fast 12 MHz	subtract 205
286 slow 12 MHz	subtract 230
286 slow 10 MHz	subtract 245
286 slow 8 MHz	subtract 265
8088 10 MHz	subtract 320
8088 8 MHz	subtract 340
8088 4.77 MHz	subtract 385

Please keep in mind that the ratings system is not an exact science, so please allow some room for error.

The One-Hour CCR Test

by Larry Kaufman
(Reprinted from Computer Chess Reports Vol. 4 No. 1)

In previous issues we have presented test sets of problems designed to rate chess programs. The last set of 25 problems compiled for CCR was primarily composed of tactical problems, and so it tended to overrate "stupid, fast" programs relative to "smart, slow" ones. In this issue I am at last unveiling my first serious attempt to rate both the positional and tactical play of chess computers in one set.

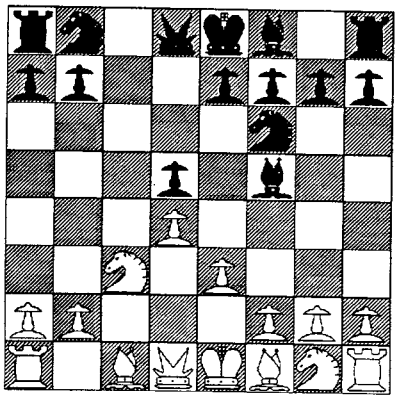
The challenge I faced was to find positional problems that were sufficiently difficult to challenge strong programs but yet clear enough so that few masters would dispute the solution. I decided that such problems are best found in the opening books, since it is usually safe to say that if only one move is played in a given position by the masters, it is probably the right move. This test is composed of 25 positions taken from opening theory, from which only one move is generally played or recommended. Some tactical problems are included, but the majority of the problems are primarily of a positional nature. To test a program, set the level to infinite, turn off the opening book (there is always some way to do this, even if it involves using setup mode or renaming an opening book), turn off thinking on the opponent's time if possible, use player-player or analysis mode to play out the moves leading to the problem position, turn on the display or hint feature, and begin the search. Note the move choice after 15", 30", 1', and 2'. The entire test should not take much more than an hour, even allowing for the time to enter the moves.

Each problem has either one correct move, or one move to avoid. Score one point for each correct move found or each bad move avoided at each of the four time intervals. If a good move is displayed at 15", not at 30" or 1', and is found again at 2', the program would thus get 2 points for that problem. The total score on the test can range from 0 to 100. To get an estimated USCF rating, multiply the test score by 8 and add it to 2000 (for British ratings, add 1900, for Swedish, add 1800). This formula may be revised after more programs have been tested.

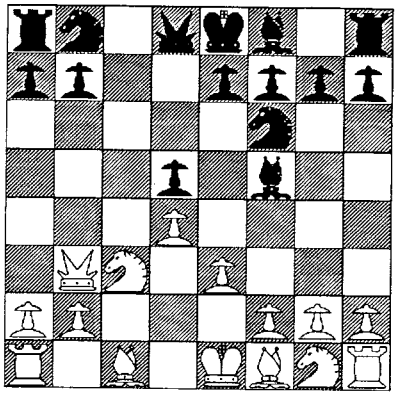
One weakness of this test is that it ignores the endgame. Perhaps in a future issue we will offer an endgame test, with the rating to be averaged in with this test. One strength of the test is that the openings from which it is drawn cover a wide range, fairly representative of actual play.

So far I have been quite impressed with the correlation between this test and Swedish or British rating lists, but more programs need to be tested to confirm its accuracy.

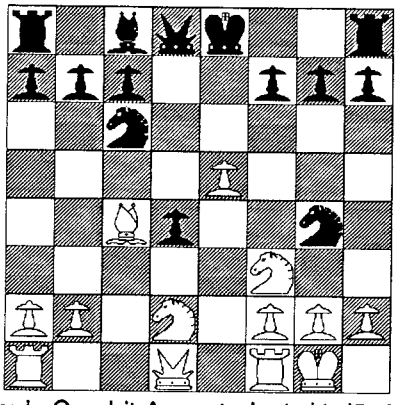
Now for the problems.



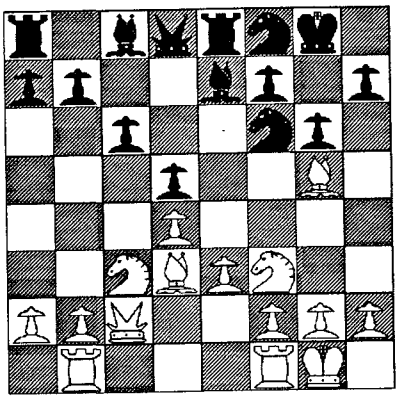
1. Slav Defense. 1 d4 d5 2 c4 c6 3 Nc3 Nf6 4 e3 Bf5 5 cxd5 cxd5. White to play. Solution 6 Qb3!. See next problem.



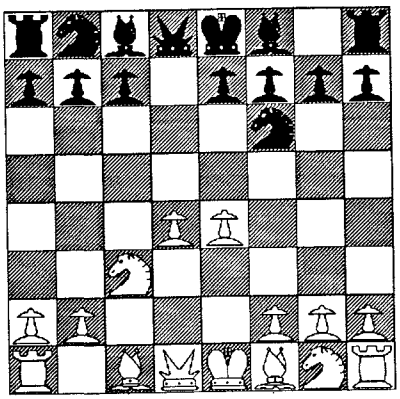
2. Slav Defense. Black to play after 6 Qb3 in problem 1. Solution 6...Bc8!. While this leaves white with a clear lead in development, other moves lead to worse trouble. One example is 6...Qd7 7 Nf3 Nc6 8 Ne5 Nxe5? 9 dxe5 N-any? 10 Bb5 wins.



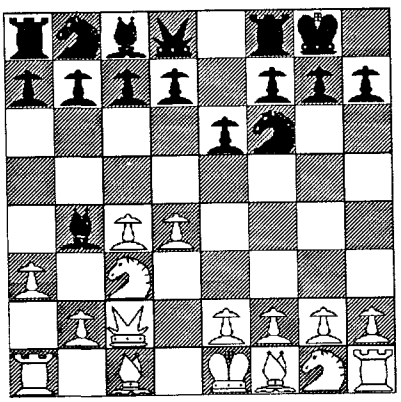
3. Queen's Gambit Accepted. 1 d4 d5 2 c4 dxc4 3 e4 e5 4 Nf3 exd4 5 Bc4 Bb4+ 6 Bd2 Bxd2+ 7 Nbd2 Nc6 8 o-o Nf6 9 e5 Ng4 10 h3. Black to play. Solution 10...Nh6!. The point is that if instead 10...Ngxe5? 10 Nxe5 Nxe5 11 Re1 f6 12 f4 or 11...Qf6 12 Nf3, and black cannot retain enough compensation for the knight.



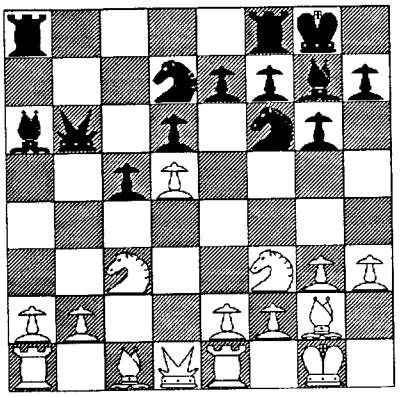
4. Queen's Gambit Declined. 1 d4 d5 2 c4 e6 3 Nc3 Nf6 4 cxd5 exd5 5 Bg5 c6 6 Qc2 Be7 7 e3 Nbd7 8 Bd3 o-o 9 Nf3 Re8 10 o- o Nf8 11 Rab1 g6. White to move. Solution 12 b4!, the minority attack and the point of the previous move.



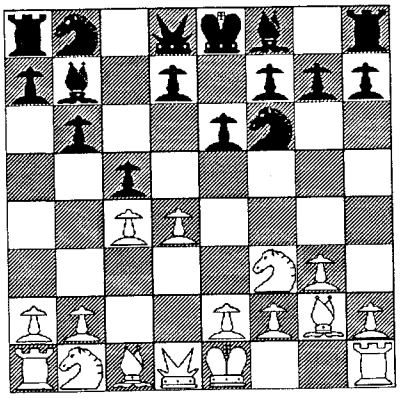
5. Marshall's defense to Queen's Gambit. 1 d4 d5 2 c4 Nf6 3 cxd5 Nxd5 4 e4 Nf6 5 Nc3. Black to move. Solution 5...e5!. If 6 dxe5 Qxd1 + 7 Kxd1 Ng4, and black recovers the pawn favorably.



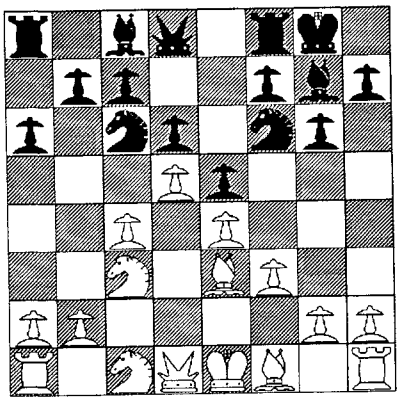
6. Nimzoindian Defense. 1 d4 Nf6 2 c4 e6 3 Nc3 Bb4 4 Qc2 o-o 5 a3. Black to move. Solution 5...Bxc3 + !, "sacrificing" the bishop pair for no tangible compensation, since retreating the bishop to e7 allows white too dominating a center.



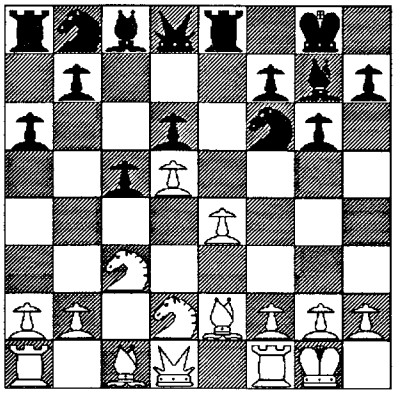
7. Benko Gambit. 1 d4 Nf6 2 c4 c5 3 d5 b5 4 cxb5 a6 5 bxa6 Bxa6 6 Nc3 d6 7 Nf3 g6 8 g3 Bg7 9 Bg2 o-o 10 o-o Nbd7 11 Re1 Qb6 12 h3. Black to move. Solution 12 ...Rfb8!, so that one rook will be posted on each semi-open file.



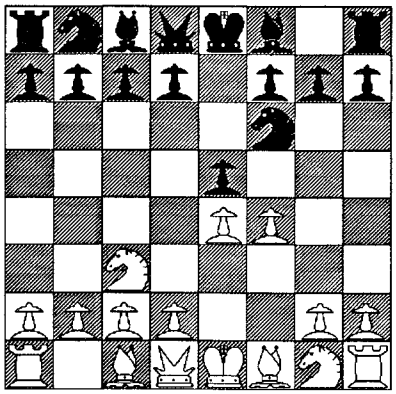
8. Queen's Indian Defense. 1 d4 Nf6 2 c4 e6 3 Nf3 b6 4 g3 Bb7 5 Bg2 c5. White to move. Solution 6 d5!, after which if 6...exd5, 7 Nh4! will recover the pawn thanks to the pin. If 6 d5 didn't work here, everyone would play 5...c5, but as it is, the move is rarely seen in master play.



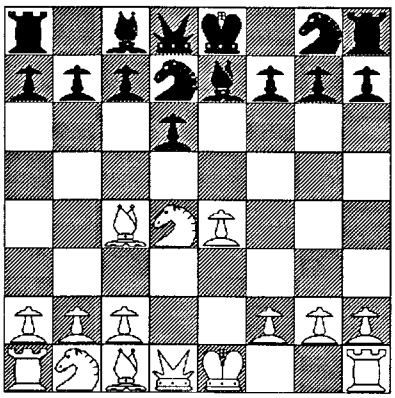
9. King's Indian Defense. 1 d4 Nf6 2 c4 g6 3 Nc3 Bg7 4 e4 d6 5 f3 o-o 6 Be3 Nc6 7 Nge2 a6 8 Nc1 e5 9 d5. Black to move. Solution 9...Nd4!, which does not lose a pawn because if 10 Bxd4 exd4 11 Qxd4 Nxe4! 12 Qxe4 Re8. White should instead play 10 Nb3 or 10 Nc1-e2, but black is better off here than he would be after a passive knight retreat on move 9.



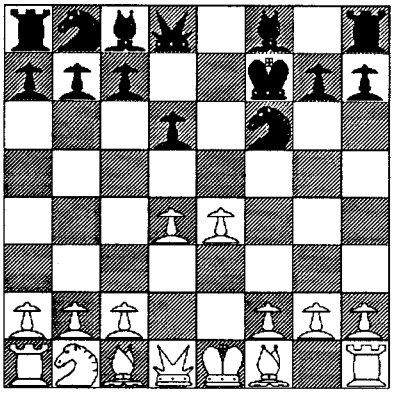
10. Benoni. 1 d4 Nf6 2 c4 c5 3 d5 e6 4 Nc3 exd5 5 cxd5 d6 6 e4 g6 7 Nf3 Bg7 8 Be2 o-o 9 o-o Re8 10 Nd2 a6. White to move. Solution 11 a4!, restraining black from counterplay by ...b5.



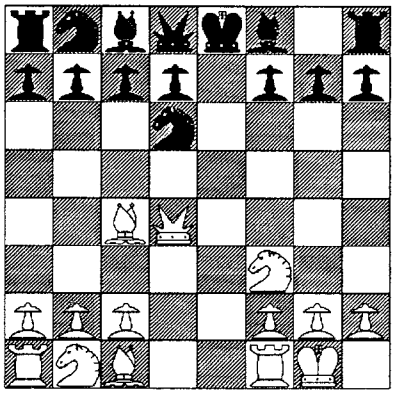
11. Vienna Game. 1 e4 e5 2 Nc3 Nf6 3 f4. Black to move, solution 3...d5!, answering a wing attack by a central thrust. Taking the f pawn is not so good here as in the king's gambit.



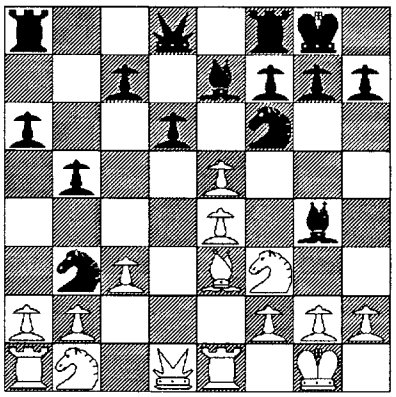
12. Philidor's Defense. 1 e4 e5 2 Nf3 d6 3 Bc4 Be7 4 d4 exd4 5 Nxd4 Nd7?. White to move. Solution 6 Bxf7+!, intending after 6...Kxf7 7 Ne6! and if 7...Kxe6 8 Qd5+ Kf6 9 Qf5 mate.



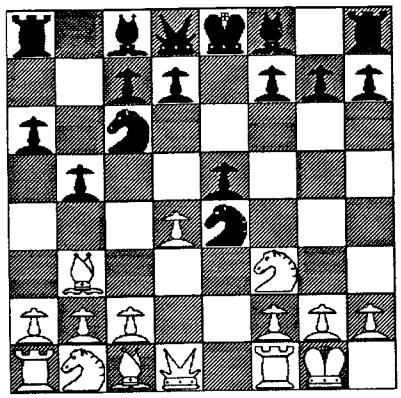
13. Petrov's Defense. 1 e4 e5 2 Nf3 Nf6 3 Nxe5 d6 4 Nxf7?! (the Cochrane Gambit) Kxf7 5 d4. Black to move. Solution: avoid 5...Nxe4?, because of 6 Qh5+ Ke7 7 Qe2 d5 8 Bg5+ wins.



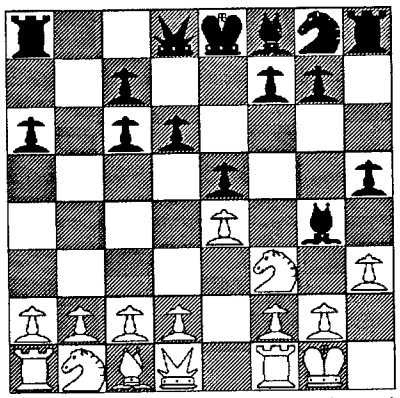
14. Bishop's Opening. 1 e4 e5 2 Bc4 Nf6 3 d4 exd4 4 Nf3 Nxe4 5 Qxd4 Nd6 6 o-o. Black to play. Solution: avoid the natural 6...Nxc4?, then 7 Re1+ Be7 because of 8 Qxg7 Rf8 9 Bh6 and the threat of 10 Qxf8 cannot be parried without decisive material loss.



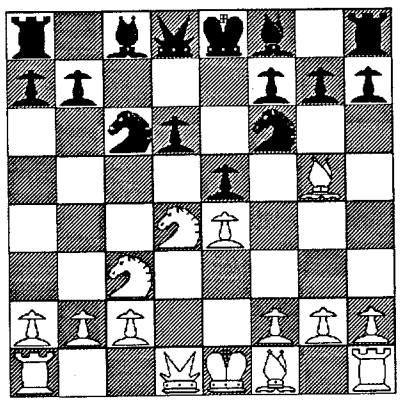
15. Ruy Lopez. 1 e4 e5 2 Nf3 Nc6 3 Bb5 a6 4 Ba4 Nf6 5 o-o Be7 6 Re1 b5 7 Bb3 d6 8 c3 o-o 9 d4 Bg4 10 Be3 Na5?! 11 dxe5! Nxb3?. White to move. Solution 12 exf6!, because after 12...Nxa1 13 fxe7 Qxe7 14 Nbd2, and the black knight in the corner is lost. Although black gets rook plus pawn for two minor pieces (equal according to the beginner's 1-3-3-5-9 count), good players know that two pieces are nearly always stronger than rook and pawn, except in very simplified endings.



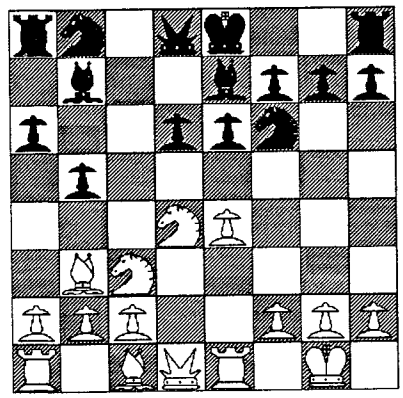
16. Ruy Lopez Open Defense. 1 e4 e5 2 Nf3 Nc6 3 Bb5 a6 4 Ba4 Nf6 5 o-o Nxe4 6 d4 b5 7 Bb3. Black to move. Solution 7...d5!, returning the pawn in the best way, since 7...exd4 will only keep black a pawn up for a few moves.



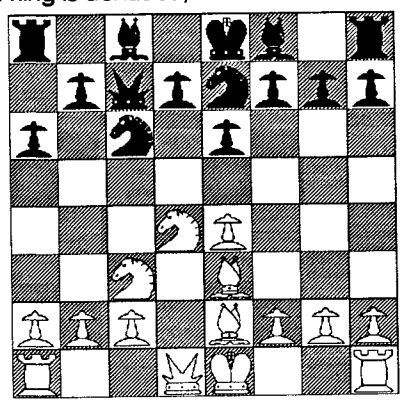
17. Ruy Lopez Steinitz Defense Deferred. 1 e4 e5 2 Nf3 Nc6 3 Bb5 a6 4 Ba4 d6 5 o-o Bg4 6 h3 h5 7 Bxc6+ bxc6. Solution: avoid 8 hxg4? since after 8...hxg4 9 Ne1? Qh4 10 f3 g3 with mate next. White can avoid the mate by 9 g3, returning the knight, but black should still stand better with his rook on an open file near the white king.



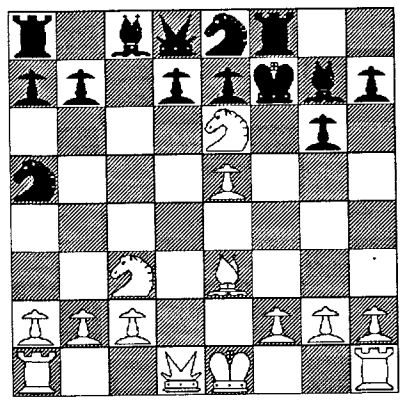
18. Sicilian defense, Richter-Rauser Attack. 1 e4 c5 2 Nf3 Nc6 3 d4 cxd4 4 Nxd4 Nf6 5 Nc3 d6 6 Bg5 e5?. White to move: Solution: 7 Bxf6!, "sacrificing" the bishop pair. If 7...Qxf6? 8 Nd5 Qd8 9 Nb5 and black is in big trouble. Instead 7...gxf6 8 Nf5 Bxf5 9 exf5 leaves white with the better position.



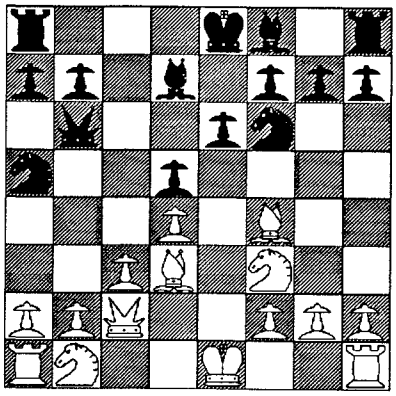
19. Sicilian Najdorf, Sozin variation. 1 e4 c5 2 Nf3 d6 3 d4 cxd4 4 Nxd4 Nf6 5 Nc3 a6 6 Bc4 e6 7 o-o b5 8 Bb3 Bb7 9 Re1 Be7?!. White to move. Solution: 10 Bxe6!, sacrificing the bishop for three pawns. This is not quite enough material compensation for a bishop in the early part of the game, but here black's king is denuded, so the sacrifice is fully justified.



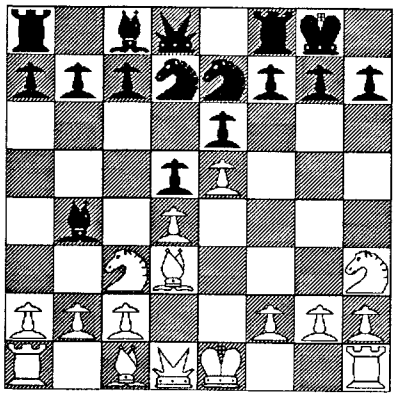
20. Sicilian, Taimanov variation. 1 e4 c5 2 Nf3 Nc6 3 d4 cxd4 4 Nxd4 e6 5 Nc3 Qc7 6 Be2 a6 7 Be3 Nge7?. Solution 8 Nd4-b5!, so that after 8...axb5 9 Nxb5 Qa5+ 10 Bd2 Qb6 11 Nd6+ Kd8 12 Nxf7+, winning material.



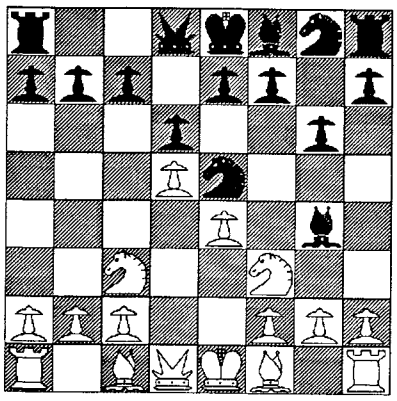
21. Sicilian, Accelerated Dragon. 1 e4 c5 2 Nf3 Nc6 3 d4 cxd4 4 Nxd4 g6 5 Nc3 Bg7 6 Be3 Nf6 7 Bc4 o-o 8 Bb3 Na5? 9 e5 Ne8 10 Bxf7+! Kxf7 11 Ne6! (Fischer vs. Reshevsky). Black to move. Solution: avoid 11...Kxe6?, which allows a forced mate. Black must therefore lose his queen for two minor pieces, which is at least better than getting mated. Note that the sacrifice on move 11 is not a suitable test for a computer, because it will be chosen quickly since it immediately allows perpetual check if accepted, and since white has already sacrificed he will not mind forcing a draw.



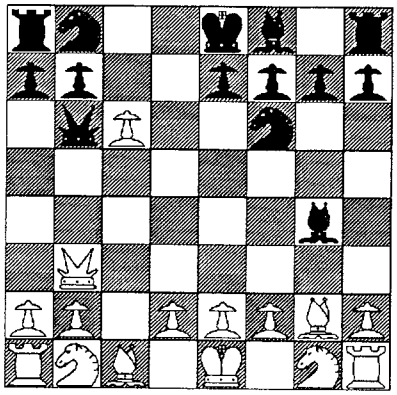
22. Caro-Kann defense. 1 e4 c6 2 d4 d5 3 exd5 cxd5 4 Bd3 Nc6 5 c3 Nf6 6 Bf4 Bg4 7 Qb3 Na5 8 Qa4+ Bd7 9 Qc2 e6 10 Nf3 Qb6. White to move. Solution 11 a4! (from Fischer vs. Petrosian). This prevents black from exchanging off his bad bishop by ..Bb5. This problem is very hard for computers, not surprising considering that the move was unknown by grandmasters until Fischer played it.



23. French Defense (Winawer variation). 1 e4 e6 2 d4 d5 3 Nc3 Bb4 4 e5 Ne7 5 Bd3 o-o 6 Nh3 Nd7?. White to move. Solution 7 Bxh7+! (if 7...Kxh7 8 Qh5+ Kg8 9 Ng5 Re8 10 Qxf7+ Kh8 11 Nxe6 wins).



24. Nimzovitch defense. 1 e4 Nc6 2 d4 d6 3 Nc3 g6 4 Nf3 Bg4 5 d5 Ne5?. White to move. Solution 6 Nxe5! (if 6...Bxd1 7 Bb5+ c6 8 dxc6 and black must lose material).



25. Grob's Opening. 1 g4 d5 2 Bg2 Bxg4 3 c4 c6 4 cxd5 Nf6 5 Qb3 Qb6 6 dxc6. Black to move. Solution: avoid 6...Qxb3? since 7 cxb7! Qc4 8 Na3 wins for white.

The following programs have been tested so far, with these results. Dedicated machines: TASC R30 - 65 points, predicted rating USCF 2520. Mephisto Nigel Short - 30 points = 2240. PC software running on ALR Pentium 66 MHz with 8 Mb RAM: Mephisto Genius 2 - 78 points = 2624, Fritz 2 - 55 points = 2440. Hopefully many more programs will be tested by next issue. Readers are invited to submit results.

[This One Hour CCR Reprint has been corrected for the errors that were found in Volume 4 Number 2.]

ICD's $6.00 GET AWAY!

Reprint of a Review From America's Chess Club Newsletter, November 1994

The Institutional Computer Development Corporation has produced a video catalog for 1995. Now, for the first time ever, you can view the country's most complete selection of chess computers, chess software, equipment, supplies, boards, pieces and sets in the comfort of your own home. It's a no-risk offer. Send them $6.00 plus $2.00 s+h, and you get the video catalog. The video cost is refundable with your next purchase or return the tape for a refund.

I love everything about chess (except losing) so I had ICD mail me their new tape. Getting things in the mail like this really make my day. Lights, Action, Camera... In movie review lingo, the ICD tape would rate two thumbs up, five stars, etc. This most be one of the most innovative chess ideas this year! Of course, not counting America's Chess Club. A very well produced video catalog that even has some humor. SPEND the six bucks!

I'm not going to tell you everything about the tape, just enough to tease you. we start with a look at the

biggest chess store I've ever seen! I was drooling after 5 minutes. Then we dive right into the equipment. ICD offers some extremely attractive and unusual boards. Check the Italian ones! For the different, there's the GeoBoard. The utmost in a lavish board is the Briarwood; in gold and silver trim! Super sexy!

The English rosewood set caught my eye. I also liked the Philippine and Hungarian sets. The alabaster sets were a real feast! You can't play blitz with them, but that's not what they're made for, anyway. Truly some gorgeous items. I also want to mention the Torre, "Chess in a Cupboard" ensemble. Standing ovation!

We next see why ICD is second to none in the dedicated chess computer business. They have a small army of tech people and a take no prisoners attitude. These folks know their stuff. I would have liked to have seen more film here. This my own personal preference. Couldn't get enough. A very interesting peek behind the scenes. Some cool machines shown were: Saitek's Shadow, Novag's Emerald and Diamond (check-out this month's bargain), and the beautiful Saitek Corona. Plus more, more, more!

The software portion was quite informative as well. If you ever wonder what all of the leading PC programs look like when working, this is your chance to find out. ICD shows the big names in todays market up close. The TASC Chess Tutor software is worthy of a closer look. Demo disk available, anyone?

If you are only interested in chess, then I suggest you don't watch the last few minutes. ICD does carry other non-chess related game and puzzle items. I admit that I did indeed watch all of the tape. You really need this "cool down" period. You may find a brain-teaser or some other game to try in this section. Of course there is checkers; then cards, Othello, Go, dominoes, cribbage, gambling equipment and even more types of game computers. What a variety!

With each tape, ICD sends you a price list and a book list. Some good titles to choose from. Prices are always, very reasonable. Some even better than very reasonable! Quite a presentation! I'm waiting for the sequel. I'd call it: "Son of ICD's Video Catalog!"

(For information on Americas Chess Club, please contact: James DuBois at America's Chess Club, P.O. Box 200, Peru, ME 04290- 0200).

A 232 Overview

By Paul DeStefano

Once upon a time, a company came out with a chess board that attached to a PC and allowed you to enter moves by moving pieces on the board rather than typing or mousing in the moves. That was about 9-10 years ago, when PC programs played about 1600 on the state of the art hardware. It was a great idea, way ahead of its time.

It's time has come.

PC technology has risen to a point where the software has exceeded anyone's expectations and the state of the art changes faster than you can buy it. The software is at the level chess players had dreamed about.

Well, this isn't about software. Its not really about PC hardware, either. This is about a fabulous PC accessory. Anyone who walks into a software store sees dozens of bizarre joysticks bristling with buttons. Now comes something for chess. Be aware that this board does not, can not, will not and probably never will play chess!!! It is just an input device, like a mouse, and requires a program to use it with, such as M-Chess, Chess Genius, Kallisto, etc.

The Chess 232 (14"x14" with 1 1/2" squares and 3" wood king) is a pleasant looking board which appears to be a wooden tournament board at first glance. In truth, the board is plastic, but looks wonderful, complete with texture, not like the old Novag Forte series where the wood grain was literally drawn on. The pieces are wood of a nice quality. On one side of the board is a small jack which will connect to a little interface/control unit. There is an LED on each square, but that's all. The interface unit, which ends up between your PC and the board, is a small device with a few 'shortcut' buttons on it like NEW GAME. Finally, the board then connects via a cable (and if needed, an included adapter piece) into the COM2 port on your computer.

O.K., O.K., I just heard hundreds of readers shout "What the Fischer is a COM2 port". (Pretty impressive that not only did I hear this through paper, but also months before you read it, isn't it?) If you know what COM2 is, go to the next paragraph. Otherwise... A COM2 port is a communications device port on a PC. COM ports can be used by mouses (Mice? Meece?) and external modems as well as various other wonderful and sundry items. It is also sometimes, when the conditions are just right, called and RS232 port (I know I'm going to get letters on that one, but for the sake of argument, let's just let it go by) - hence the name CHESS 232. Anyway almost all (99.9+%) desktop PCs have a COM2 port. You probably have a mouse living out of COM1. COM2 is most probably

(99.8 + %) a large port on the back of your PC which, if not labeled by some kind manufacturer, is about 1 1/4" wide and a bunch of pins. It may also be tiny with about 9 pins. Either type will work. Look in your manual or call your PC manufacturer if you can't locate it. As a kind of general (98.726 + %) rule, notebooks don't have a COM2 that's usable, some laptops do, and pretty darn near every desk top does.

Once the connection to the computer is made, you must plug an adapter into the interface unit. This will supply power to the board to light the lights and read the sensors.

Then the part that most people dread - the software. Dread no more. Just pop in the disk and run the install program. It will ask what program you want to install the CHESS232 for. It is not good for every program on the market. Yet. It does work for most major professional software on the market now including: Genius 1, 2, and 3, M-Pro 3.5 and 4.0, Hiarcs 3.0, Rebel 6.0, Kallisto, Fritz 2 and 3, and I hear that they are working currently to put the new WChess by David Kittinger on line as well as promises that all high-end software will be made to run; I hope so. The company also is planning an autoplayer which will allow those of you who have access to 2 computers to automatically play one program against another without human interfacing, kind of like the people at Computer Chess Reports use to determine relative strengths of the various programs. For the purposes of this review, I used Mephisto's Chess Genius. I chose Genius from an on-screen menu, answered a few questions (what directory is Genius in, etc.) and it did its stuff.

Now I must mention a strange procedure as well as some fluke thing that occurred. The strange procedure is the next time you start up the program, it is just like always. **HOWEVER,** after that, if you want to use the RS232, you must go into the directory of the program you want to run and run CHESS232, which will load up the board drivers and the game. The fluke was that after installation, it said it would run Genius with the board ready to roll. Imagine my surprise when M-Chess came up! I simply exited and ran Genius and everything was fine.

It was actually pretty neat. I moved a piece, and the piece on the screen moved. When the computer made its move, the lights on the board lit, just like a stand alone system. It worked just like you would expect. It felt like any other autosensory board, looked good, and was a huge improvement over the video display.

Features of genius were still usable as always, but you could not enter any moves. All moves had to come from the CHESS232. It also would not allow you to make your move after seeing the move on the screen if you had not moved the corresponding physical piece for it, ensuring that the position on the board and the monitor are always the same position.

I must point this out - it functioned flawlessly. Many of you who are new to the world of computers and/or computer chess might assume this was the case, but for a new product like this, I really didn't think it was going to work, or that it would be quirky or take a half-dozen re-installations and twice that many phone calls. This really worked, and it worked well.

As products go, I was pleased. Is it perfect? For some people, yes. Some people may wait for real wood, but I don't think the price increase would justify it. They do promise drivers for other software as it develops as well as completing the driver's collection they have now. Is there a reason not to buy it? Well, if you love your software, if you have the table space, if you have the COM2 port and you have the means, there is not one good reason *not* to buy the CHESS232.

The Current Crop

A very popular feature in the last issue of CCR was the "Current Crop" article. The purpose of the article is to inform the consumer of the great variety of stand-alone chess computers that are available on the market, at least as of the publication date of this issue. Please note that the Excalibur Accolade, Fidelity Phantom and Chesster Phantom, Novag Scorpio, and Mephisto Berlin 68000 (among others) are either discontinued, no longer available, or not recommended because of lack of service/parts.

Portable Chess Computers

Excalibur Portachess - under $40 - 16 levels - peg sensory - saves games - 4"x7" - good for beginners only - takes back 2 ply - one 9V battery - largest peg pieces but flop around - perhaps 1000 at 40/2 - 1 year warranty.

Excalibur Chess Wizard - under $50 - 64 levels - pressure sensory w/ 3-D and disk pieces - saves game - 8"x5" - good for beginners only - takes back 8 ply - 4 AAA batteries - no cover - perhaps 1100 at 40/2 - 1 year warranty.

Saitek Travel Companion - under $40 - 64 levels - peg sensory - saves games - 6 1/2"x 3 1/2" - good for beginners only - takes back 2 ply - 2 AAA batteries - nicely designed - perhaps 1200 at 40/2 - 1 year warranty.

Saitek Pocket Plus Trainer - under $50 - 16 levels - peg sensory - saves game - evaluates position - 6"x4"x1" - good for beginners only - takes back 2 ply - nicely compact - no display - small peg pieces - 3 AAA batteries - perhaps 1200 at 40/2 - 1 year warranty.

Excalibur Meteor - under $50 - 72 levels - peg sensory - saves game - 7"x5" - good for beginners only - takes back 2 ply - 4 AAA batteries - perhaps 1200 at 40/2 - 1 year warranty.

Novag Topaz - under $50 - 16 levels - keypad entry - saves games - 8"x6" (when open) - disk pieces - good for beginners only - takes back 9 ply - 4 AAA batteries - very compact when folded - perhaps 1200 at 40/2 - 90 day warranty.

Novag Onyx - under $70 - 16 levels - keypad entry - saves game - calculator 4"x2" and board (into which it fits) 6"x7" - flat surface with 3-D pieces - good for beginners only - takes back 9 ply - 4 AAA batteries - possibly the world's smallest chess computer - perhaps 1100 at 40/2 - 90 day warranty.

Saitek Traveller - under $70 - 16 levels - peg sensory - fun levels with human errors - piece storage compartment - 7"x4"x1" - well designed - takes back 6 ply - small peg pieces - no display - solves mate in 4 - 3 AAA batteries - perhaps 1400 at 40/2 - 1 year warranty.

Novag Opal - under $80 - 16 levels - pressure sensory - saves game - 5"x7" - flat surface with 3-D pieces - good for beginners only - takes back 9 ply - 4 AAA batteries - 1/2 way between portable and table-top sizewise - perhaps 1200 at 40/2 - 90 day warranty.

Saitek Champion Advanced Trainer - under $100 - 64 levels - peg sensory - saves game - evaluates position - 6"x5"x1" - will challenge advanced players - clam shell design - peg holes on side of board for storage - 16K program - takes back 34 ply - small peg pieces - solves mate in 8 - no display - 3 AA batteries - perhaps 2000 at 40/2 - 1 year warranty.

Excalibur Comet - under $100 - 100 levels - peg sensory - has display - chess clocks - takes back 16 ply - removable cover - problem set-up - has chess piece storage - solves mate in 8 - will challenge advanced intermediate players - 4 AAA batteries - 8 styles of play - 7"x5"x1" - perhaps 1950 at 40/2 - 1 year warranty.

Saitek Travel Champion - under $130 - 64 levels - peg sensory - saves game - evaluates position - has display - chess clocks - recommended line of play - takes back 34 ply - clear plastic cover - problem set-up - drawer for piece storage - will challenge advanced players - 8 styles of play - solves mate in 8 - 3 AA batteries - 16K program - 7"x5"x1" - perhaps 2100 at 40/2 - 1 year warranty.

Novag Jade - under $150 - 48 levels - peg sensory - saves games - 4"x6" - good for intermediate to advanced players - has two displays - evaluates position - chess clocks - takes back 148 ply - solves mate-in-8 - announces mate-in-8 - 4 AAA batteries - well designed and compact - perhaps 2000 at 40/2 - 90 day warranty.

Saitek Shadow - under $150 - 16 levels - all LCD chessboard - no pieces to lose - saves game - 8"x4"x1" - will challenge average players - 8K program - takes back 6 ply - 4 AAA batteries - perhaps 1700 at 40/2 - 1 year warranty.

Novag Ruby - under $175 - 48 levels - keypad entry - saves games - evaluates positions - has display - chess clocks - recommended line of play - takes back 140 ply - carry case and chess board with disk pieces included - solves mate in 8 - will challenge advanced players - 4 AAA batteries or AC - 6"x3"x1" - for those who do not mind translating alphanumerics - perhaps 2100 at 40/2 - 90 day warranty.

Novag Sapphire - under $200 - 56 levels - keypad entry - saves game - evaluates position - has display - chess clocks - recommended line of play - takes back 400 ply - carry case (soft vinyl) and chess board with disk pieces included - solves mate- in-8 - announces mate-in-14 - hash tables - styles of play - will challenge mid-masters - a hand-held version of the Diamond - 4 AAA batteries or AC - 6"x4" - the best keypad entry chess computer ever - perhaps 2300 at 40/2 - 90 day warranty.

Table-Top Chess Computers

Excalibur Sabre - under $60 - 30 levels - pressure sensory board - display reads out only move in alphanumerics - solves mate in 2 - 9"x8"x1" - will challenge only beginners - 3 AAA batteries - saves game - perhaps 1100 at 40/2 - 1 year warranty.

Saitek Chess Companion - under $60 - 64 levels - pressure sensory - display only reads out alphanumeric moves - saves game - 2 AA batteries - 10"x9"x1" - perhaps 1100 at 40/2 - 1 year warranty.

Excalibur Sabre II - under $70 - 72 levels - pressure sensory board - display reads out only move in alphanumerics - solves mate in 2 - 9"x8"x1" - will challenge

only beginners - 3 AAA batteries - saves game - perhaps 1200 at 40/2 - 1 year warranty.

Excalibur Stiletto - under $70 - 64 levels - pressure sensory - no display - solves mate in 2 - takes back 2 ply - will challenge beginners - problem set up - 12"x10"x1" - 4 AA batteries or AC - saves game - perhaps 1200 at 40/2 - 1 year warranty.

Fidelity Marauder - under $70 - 32 levels - pressure sensory - no display - takes back 2 ply - will challenge intermediate players - problem set-up - saves game - 11"x9"x1" - 4 AA batteries or AC - perhaps 1500 at 40/2 - 90 day warranty.

Fidelity Chess Coach - under $70 - 16 levels - pressure sensory - actually a Designer 1500 with Teaching Videotape included - no display - takes back 8 ply - will challenge intermediate players - problem set-up - does not save game - 12"x12"x1" - 4 AA batteries or AC - perhaps 1400 at 40/2 - 90 day warranty.

Excalibur Stiletto II - under $80 - 72 levels - pressure sensory - no display - solves mate in 2 - takes back 2 ply - will challenge beginners - problem set up - 12"x10"x1" - 4 AA batteries or AC - saves game - perhaps 1300 at 40/2 - 1 year warranty.

Excalibur Legend - under $95 - 100 levels - pressure sensory - has display - chess clocks - position evaluation - takes back 16 ply - solves mate in 8 - problem set-up - saves game - will challenge intermediate players - 12"x10"x1" - 4 AA batteries or AC - perhaps 1900 at 40/2 - 1 year warranty.

Novag Coral - under $100 - 16 levels - pressure sensory - no display - takes back 9 ply - will challenge intermediate players - problem set-up - saves game - 11"x11"x1" - 6 AA batteries or AC - perhaps 1300 at 40/2 - 90 day warranty.

Excalibur Stiletto II Deluxe - under $100 - as Stiletto II but with handsome wood-look housing -72 levels - pressure sensory - no display - solves mate in 2 - takes back 2 ply - will challenge beginners - problem set up - 12"x10"x1" - 4 AA batteries or AC - saves game - perhaps 1400 at 40/2 - 1 year warranty.

USCF Academy - under $100 - 50 levels - pressure sensory - no display - takes back 10 ply - will challenge advanced beginners - comes with teaching book - saves game - 4 AA batteries or AC - perhaps 1400 at 40/2 - 90 day warranty.

Novag Pearl - under $100 - 16 levels - pressure sensory - no display - takes back 9 ply - will challenge advanced beginners - problem set-up - saves game - 11"x11"x1" - 6 AA batteries or AC - perhaps 1300 at 40/2 - 90 day warranty.

Excalibur Legend II - under $100 - 100 levels - pressure sensory - has display - chess clocks - position evaluation - takes back 16 ply - solves mate in 8 - problem set-up - saves game - will challenge intermediate players - 12"x10"x1" - 4 AA batteries or AC - perhaps 2000 at 40/2 - 1 year warranty.

Saitek Olympiad - under $100 - 16 levels - pressure sensory - display shows position evaluation - takes back 6 ply - saves game - solves mate in 4 - 4 AA batteries - 12"x9"x1" - perhaps 1500 at 40/2 - 1 year warranty.

Saitek Turbo Advanced Trainer - under $150 - 64 levels - similar to GK 2000 but without display - takes back 34 ply - recommended line of play - 8 different playing styles - challenges advanced players - comes with training guide - 14"x11"x1" - 4 C batteries or AC - perhaps 2100 at 40/2 - 1 year warranty.

Novag Zircon - under $150 - 48 levels - pressure sensory - has dual display - chess clocks - position evaluation - takes back 148 ply - solves mate in 8 - problem set up - saves game - will challenge intermediate players - 11"x11"x1" - 6 AA batteries or AC - perhaps 1900 at 40/2 - 90 day warranty.

Fidelity Little Chesster (also called the Talking Chess Companion) - under $150 - 25 levels - pressure sensory - actually speaks - warns of errors - wisecracks - voice can be turned off - takes back 30 ply - no display - great for children - has beginner levels - gives hints - tells how pieces can legally be moved - saves game - solves mate in 6 - 4 AA batteries or AC - 90 day warranty.

Saitek Virtuoso - under $175 - similar to GK 2000 but with wood border and pieces but no display - 64 levels - pressure sensory - has display - chess clocks - position evaluation - takes back 34 ply - recommended line of play - 8 different playing styles - challenges advanced players - storage compartment for pieces - 16"x11"x1" - 4 C batteries or AC - perhaps 2000 at 40/2 - 1 year warranty.

Novag Emerald - under $175 - 48 levels - pressure sensory - takes back 70 ply - saves game - has display - chess clocks - position evaluation - recommended line of play - 6 AA batteries or AC - 11"x10"x1" - perhaps 2050 at

40/2 - 90 day warranty.

Excalibur Krypton Challenge - under $150 - Excalibur's European Professional model and their strongest - 100 levels - pressure sensory - has display - chess clocks - position evaluation - takes back 16 ply - solves mate in 8 - problem set-up - saves game - will challenge intermediate players - 12"x10"x1" - 4 AA batteries or AC - perhaps 2100 at 40/2 - 1 year warranty.

Saitek GK2000 - under $200- 64 levels - pressure sensory - has display - chess clocks - position evaluation - takes back 34 ply - recommended line of play - 8 different playing styles - challenges advanced players - storage compartment for pieces - 16"x11"x1" - 4 C batteries or AC - perhaps 2100 at 40/2 - 1 year warranty.

Saitek GK 2100 - Under $250 - 64 levels - pressure sensory - has display - chess clocks - position evaluation - takes back 34 ply - recommended line of play - 8 different playing styles - challenges advanced players - storage compartment for pieces - hash tables - 16"x11"x1" - 4 C batteries or AC - perhaps 2200 at 40/2 - 1 year warranty.

Novag Diamond - Under $300 - 56 levels - pressure sensory - has display - chess clocks - position evaluation - takes back 400 ply - recommended line of play - saves 64 games - programmable opening book - styles of play - solves mate in 8 - announces mate in 14 - challenges mid masters - hash tables - 12"x14"x1" - AC only - a table-top sensory version of the Sapphire - perhaps 2300 at 40/2 - 90 day warranty.

Saitek President - Under $400 - 64 levels - wood autosensory - has display - chess clocks - position evaluation - recommended line of play - takes back 64 ply - light on every square - saves game - solves mate in 8 - challenges advanced players - 14"x14"x2" - 6 C batteries or AC - wood autosensory version of GK 2100 - perhaps 2200 at 40/2 - 1 year warranty.

Saitek Corona - Under $500 - 64 levels - autosensory with wood border and pieces - light on every square - take back and replay full game - has display - chess clocks - position evaluation - recommended line of play - solves mate in 10 - saves game - challenges advanced players - 6 C batteries or AC - 15"x15"x2" - perhaps 2100 at 40/2 - 1 year warranty.

Saitek RISC 2500 - Under $700 - unlimited user programmable levels - pressure sensory - RISC microprocessor - has display - chess clocks - position evaluation - recommended line of play - autoplay - hash tables - user selectable playing styles - take back and replay entire game - solves mates in 15 - being reintroduced to American market with production problems solved - AC only - 16"x11"x1" - perhaps 2425 at 40/2 - 1 year warranty.

Saitek Renaissance - Under $700 with standard program - 32 levels - large wood autosensory - 2" squares - 3 3/4" king - lights on all four corners of every square - unique LCD pull-out chessboard - has display - chess clocks - recommended line of play - position evaluation - 50 game memory - take back and replay full game - 4 C batteries or AC - 20"x20"x2" - perhaps 1900 at 40/2 - upgradeable - 1 year warranty.

Mephisto Berlin 68020 - Under $800 - pressure sensory - programmable levels - light on every square - has display - chess clocks - position evaluation - recommended line of play - take back and replay entire game - 50 game memory - solves up to mate in 16 - some questions at this time about availability of service - AC only - 13"x10"x1" - perhaps 2440 at 40/2 - 90 day warranty.

Saitek Renaissance Brute Force - Under $1000 - same physical unit as Renaissance but with upgraded program - 64 levels - solves up mate in 20 - otherwise includes all features of above - perhaps 2250 at 40/2 - 1 year warranty.

Mephisto Genius 68030 Exclusive - Under $2000 - programmable levels - wood autosensory unit with light on each square - has display - chess clocks - position evaluation - recommended line of play - take back and replay current game - 50 game memory - upgradeable - modules may be purchased separately for older boards for under $1300 (some older boards may need to be upgraded) - some questions at this time about availability of service - AC only - 17"x17"x2" - perhaps 2460 at 40/2 - 90 day warranty.

TASC R-30 Version 2.2 - Under $2200 - programmable levels - wood autosensory unit with lights on 4 corners of each square - piece recognition - has large display (5"x 1 1/2") - chess clocks (choice of analog or digital) - recommended line of play - position evaluation - take back and replay entire game - RISC processor - 24 MIPS speed - control module can be placed anywhere - upgradeable - solves mate in 18 - AC only - 17"x17"x2" - perhaps 2500 at 40/2 - 1 year warranty

Bits & Pieces

(letters from readers)

Art Pierce, Watsonville, Ca

I like CCR a lot. I got it yesterday & finished it off in 1 day flat. I found a bunch of typos which I assume are due to being up against deadline day [correct]. They are listed below:

p. 7, game, note to move six, should read 7 Kf1.

p. 14, game 2, should read 23...Bc8.

p. 26, dia. 3, move numbers in comment are off by one.

p. 27, dia. 10, N on g3 should be on c3.

p. 27, diagrams 11 and 12 are switched.

p. 28, dia. 14, solution, the moves 7 Re1 + Be7 were omitted, and the move numbers of the remaining moves were off by one.

p. 29, dia. 20, the black knight on f6 should be on e7.

p. 29, dia. 24, the diagram should show the black knight on e5 instead of on c6.

[Frank Collins in Louisiana caught two other errors, in addition to some of these. In dia. 24, the black knight shown on f6 should still be on g8. In dia. 2 on p. 26, the diagram shows the solution move already played; the bishop should still be on f5.]

When you are programming do you weight space & mobility, i.e. rook covers 14 spaces from anywhere (minus any it's blocked from), N covers 2,3,4,6,8 depending on location, etc? How do you factor this in when playing & how does this affect relative value ratings?

Reply: Thanks for the corrections. Unfortunately since I am in Florida and the printer is on Long Island in NY I don't oversee the final preparation of the material personally. In the case of the problem set, I submitted the moves but not the diagrams, and the printer did not have any strong players on hand who would recognize the errors in the diagrams. We'll try to work something out for the future to avoid so many incorrect diagrams.

Most programs rely on simple tables to reward the programs for centralizing (and also advancing) knights, pawns, and in the endgame kings. There is much more variation in how to handle the long distance pieces. Some programs count mobility for them, some merely try to predict which squares they should end up on, and some merely reward moves to open lines. Ideally one would want to consider the value of every square attacked by one of these "sliding" pieces, as well as the likelihood that intervening units might get out of the way, but this would slow the program down too much, weakening it tactically. The tradeoff between accurate evaluation and speed is one of the interesting issues in computer chess. Using my 3-10-10/11-15-29 point scale for the pieces, it takes a major improvement in the position of a piece (or a small improvement in the position of several) to compensate for even a single material point (1/3 pawn). That is why in most cases exchange decisions are only affected by positional considerations when the point count shows the trade to be even. It is precisely this fact that allows computers to play so well even though their understanding of chess is not really of Master level. In games where one factor (like material) is not so dominant (i.e. Go, Shogi), computers haven't fared so well.

Thomas Mally, Editor of PC Schach, Vienna, Austria

Enclosed you will find the results for your "one-hour-test" [reprinted in "PC Schach"] submitted by our readers. Please note the result for Genius2 on 486/66, which is just 2 points (i.e. 16 rating points) below the one you gave for your 66 MHz Pentium. Only problems 9 and 18 show any influence of the time factor. Besides, Peter Bernecker (Austria) has reported 78 points for Genius2 on his 90 MHz Pentium, which is exactly equal to your result and confirms my reservations about the test, which seems to give quite reasonable results in the middle category but fails for weaker programs (see Advanced Star Chess!) and seems to get "stuck" when it is called upon to evaluate the ones at the top.

Results: W. Messner of Germany reports 56 points (2448 USCF) for Genius 2 on 386 20 MHz (4 MB). Using a 486 dx2/66, F. Wiesenecker got 76 points (2608 USCF) for Genius2 using 15 MB Hash, 55 points (2440 USCF) for Gideon Pro 1.0 (8 MB Hash), and 54 points (2432) for both MChess Pro 3.5 and Kallisto 1.82 with 16 MB Hash. Mr. Steinmann, also using a dx2/66, reports 47 points (2376) for Fritz 1 and 46 points (2368) for Nimzo. As for dedicated models, he reports 22 points (2176) for Elite Avantgarde V. 5, 20 points (2160) for Mephisto Academy, and 9 points (2072) for Advanced Star Chess. Leo Ljubicic from Croatia tested Mephisto Berlin 68000 and got 44 points (2352). R. Stinner reports these scores: Mephisto Lyon 68000 45 points (2360), Mephisto Portorose 68000 42 points (2336), and Mephisto Almeria 30 points (2240). Uwe Immel from Germany got 22 points (2176) for Mephisto MM5, 21 points (2168) for MM4, 21 points (2168) for Mephisto Polgar with selectivity set to 5 ply, and 17 points (2136) for Polgar with selectivity at 4 ply and at 3 ply.

Reply: Thanks for the data. Other results reported on the test include Chessmaster 4000 for Windows on 486/66 with 256k cache scoring 65 points (2520), the same as TASC R30, the dedicated machine on roughly comparable hardware by the same author, and Chess-Machine (v.?) scoring 46 points (2368), these by Frank Collins. Richard Harrison reports that Genius 2 on a Pentium 90 with 16 Mb RAM scored 79 points (2632), one point more than Mr. Bernecker reported on similar hardware (not all 90 MHz Pentium machines run equally fast, due to differences in Cache and other factors). Michael Fay of New Jersey (not the one who was caned in Singapore!) reports 52 points (2416) for RISC 2500 on Normal setting, 24 points (2192) for Mephisto Amsterdam, 19 points (2152) for Fidelity Mach III, and 13 points (2104) for Saitek Travel Champion. J.D. Llave, also of New Jersey, reports that ChessMachine 512k, 15 MHz, Schroeder software, scored 56 points (2448) on version 2.1 and 64 points (2512) on v. 3.0.

In general I am pleased with the accuracy of the test, given that it only has 25 problems and that all are from the opening. Of course the test cannot rate weak computers accurately, since the lowest possible rating it gives is 2000 (I may revise the rating formula to make it possible to rate programs below this level, but the test is just too hard for weak models). I agree that it does not fully reflect the value of increased processor speed at the top levels. The test also seems to overrate all of the Richard Lang programs relative to virtually everyone else. Perhaps the Lang programs really are the best, but certainly not by as much as this test implies. His programs come out on top of most test sets, often by wide margins; I suspect the weaknesses of his programs are too subtle for most tests. I hope to improve the test in the future.

Jeffery A. Smith, Angola, Indiana

...I was persuaded to accept as an upgrade [from the Excalibur Accolade the Comet...I can say that it definitely performs better in some areas than the Accolade. On faster levels (a few seconds per move) my Radio Shack C.C. 2150L is noticeably better. However, I find it easy to muscle it around on game/45. Comet's opening book is really great, possibly wider than Accolade, and it does play well at tournament levels...

J.D. Llave, Bayonne, NJ

I'm wondering which one of these games (chess, shogi, Chinese chess, and Go) is most subtle and complex, and which is the most difficult for a computer to excel at?

Reply: In my opinion, Go is the most subtle and difficult for a computer, shogi is second, Chinese chess third, and chess only fourth. In chess terms, I would judge the best Go program today to be in Class E, the best Shogi program in Class B, the best Chinese chess program Expert, and the best chess program Senior Master. The key factor is the difficulty of evaluating a position. Although it is very difficult to evaluate a chess position accurately, material is so important that programs can play very well with a crude evaluation so long as they search deeply enough. Until recently, Deep Thought did not even consider positional factors when one side could win a pawn or more. In Chinese chess, pawns are sacrificed much more freely, so judging compensation for a pawn is much more crucial than in chess. In Shogi (Japanese chess), even major pieces are freely sacrificed for attack, and a very sophisticated evaluation is necessary to play well. In Go, attempts to evaluate the position by adding up points as chess programs do fail so badly that Go programmers have adopted totally different strategies. Despite a prize of nearly $2 million for a Go program that can defeat a grandmaster in this century, the best programs still take enormous handicaps from any good player.

Sandro Sironi T., Barquisemeto, Venezuela

I am an old client of I.C.D. and assiduous reader of your interesting review C.C.R. I follow with more attention the section of problems for determine ELO strength in chess computers...After deep analysis I have arrived at the lamentable conclusion that all methods utilized for determining ELO strength thru solved problem sets are incongruent and are not acceptable. My affirmation is supported by the following evidence:

1) The problems utilized are published and grant the manufacturer the possibility of programming their new machines to solve the problems rapidly, demonstrating to the public a strength that really is not there. Only thus is it explicable that the Novag Emerald can do the CCR problems in a time almost equal to Berlin 68000 and faster than Mach IV, Novag Scorpio, etc. which without doubt are stronger.

2) The result changes according to the problems utilized. For proof I submit another set of problems and the result is completely different and contrasting. [He tested ten models with his own set of 25 problems and then ran the CCR test, both with a slightly modified scoring system. His scoring of the CCR test put Berlin 68020 first, then Berlin 68000, Emerald, Scorpio, Mach IV, Mach III, Elite V. 2, Travel Champion, GK 2000, and MM5. His own test put Mach IV first, then Berlin 68020, Scorpio,

Mach III, Elite v.2, Berlin 68000, Saitek GK 2000, Emerald, Travel Champion, and MM5.

With this I do not claim that one set is better than the other, but claim that this shows that the method is not valid, and only games played can determine strength.

Reply: Your points are valid, and indeed have been made in past issues of CCR. However if the selection of problems is wide enough and covers situations typically found in actual games, the second objection can be minimized. The only cure for the first objection is to revise the test annually so rigging won't work. Your test has many sacrificial mate problems, and so may not be representative of actual play. Of course CCR tests also have biases and flaws.

Gary Crum, Louisville, Ohio

Reader's Digest, August '94 says "Prices are falling. Today, $buys an IBM-compatible PCCwith a huge amount of data storage and a fast processor chip...An equivalent pc would have cost at least $3500 in 1991."

Why hasn't his happened to standalone chess computers? I can't help thinking that some breakthru is just over the horizon. After all the Pentium chip has been out for two years.

I won't even mention how badly computers play chess, even tactics. If I could make zillions of calculations per second, I'm sure I'd be the greatest player of all time.

Why do computers have so much trouble recognizing the difference between a move that stops, for example, a mate-in-one threat, and a meaningless move, for example a spite check, that only delays it?

Reply: The cost of a machine of any specified rating has in fact dropped dramatically. In 1991 the cheapest dedicated model of USCF 2300 level was the Fidelity Mach IV, priced at around $1200 or so. Today 2300 strength can be obtained in a fairly comparable board with similar features for under $300 (Novag Diamond) or in a hand-held for under $200 (Novag Sapphire). Models of 2400 level have dropped from nearly ten grand to less than $800.

Although today's chess computers regularly defeat Grandmasters in competition, they do still have certain weaknesses, both positional and tactical. You are certainly correct that any human chessplayer of modest skill would be by far the greatest player of all time if he could calculate at computer-like speed. The human brain and the computer "brain" are quite different, and the computer must compensate by speed for what it lacks in understanding. If a computer could ever be taught all of the factors that a human master considers in choosing his move, it might be slowed down so much that it would actually play worse! Probably, though, someday computers will be able to have the best of both worlds (speed and understanding), and then no human will have any chance against a computer.

So-called "horizon moves" such as meaningless checks are a difficult problem in computer chess. How do you explain to a machine which checks are meaningless, and which might be salvation? I may have a seemingly unstoppable mate-in-1 with queen and pawn threatening g7, for example, but if you have a sequence of checks that ultimately picks off the pawn then the checks were far from meaningless. Most programs don't consider a mate to be forced unless all checking sequences by the other side have been tried. Assuming that random checks are meaningless may help in many positions, but sometimes it is just wrong. Computers lack the pattern recognition ability of humans that may allow us to say with confidence that no sequence of checks could possibly foil a certain mate threat.

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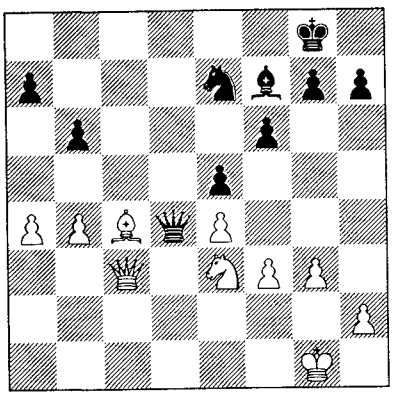
GAMES

Kasparov,G - Genius2.9 [D23] (Game in 25)
Intel Grand Prix London (1-1) , 1994

1.c4 c6 2.d4 d5 3.Nf3 Nf6 4.Qc2 dxc4 5.Qxc4 Bf5 6.Nc3 Nbd7 7.g3 e6 8.Bg2 Be7 9.0-0 0-0 10.e3 Ne4 11.Qe2 Qb6 12.Rd1 Rad8 13.Ne1 Ndf6 14.Nxe4 Nxe4 15.f3 Nd6 16.a4 Qb3 17.e4 Bg6 18.Rd3 Qb4 19.b3 Nc8 20.Nc2 Qb6 21.Bf4 c5 22.Be3 cxd4 23.Nxd4 Bc5 24.Rad1 e5 25.Nc2 Rxd3 26.Qxd3 Ne7 27.b4 Bxe3+ 28.Qxe3 Rd8 29.Rxd8+ Qxd8 30.Bf1 b6 31.Qc3 f6 32.Bc4+ Bf7 33.Ne3 Qd4 *(Diagram)*



34.Bxf7+ Kxf7 35.Qb3+ Kf8 36.Kg2 Qd2+ 37.Kh3 Qe2 38.Ng2 h5 39.Qe3 Qc4 40.Qd2 Qe6+ 41.g4 hxg4+ 42.fxg4 Qc4 43.Qe1 Qb3+ 44.Ne3 Qd3 45.Kg3 Qxe4 46.Qd2 Qf4+ 47.Kg2 Qd4 48.Qxd4 exd4 49.Nc4 Nc6 50.b5 Ne5 51.Nd6 d3 52.Kf2 Nxg4+ 53.Ke1 Nxh2 54.Kd2 Nf3+ 55.Kxd3 Ke7 56.Nf5+ Kf7 57.Ke4 Nd2+ 58.Kd5 g5 59.Nd6+ Kg6 60.Kd4 Nb3+ 0-1

Genius2.9 - Kasparov,G [E12] (Game in 25)
Intel Grand Prix London (1-2), 1994

1.d4 Nf6 2.c4 e6 3.Nf3 b6 4.a3 Bb7 5.Nc3 d5 6.Bg5 Be7 7.e3 0-0 8.Bd3 Nbd7 9.cxd5 exd5 10.0-0 c5 11.Rc1 Ne4 12.Bf4 a6 13.Qc2 Ndf6 14.dxc5 Bxc5 15.Rfd1 Qe8 16.b4 Be7 17.Be2 Rc8 18.Qb2 b5 19.Nd4 Nd6 20.Bd3 Nc4 21.Qb3 Nh5 22.Bf5 Ra8 23.Nde2 Nf6 24.Bg5 Rd8 25.Nf4 d4 26.exd4 h6 27.Bxf6 Bxf6 28.Nce2 Be4 29.Bxe4 Qxe4 30.Qg3 Rfe8 31.Qc3 Rd6 32.Re1 Red8 33.Rcd1 Bxd4 34.Nxd4 Qxf4 35.Ne2 Qe5 36.Rxd6 Rxd6 37.a4 Re6 38.Qc1 Qd6 39.axb5 axb5 40.Ng3 Qxb4 41.Rxe6 fxe6 42.h3 Qc5 43.Nf1 Qd5 44.Qa1 Qe5 45.Qa7 Kh7 46.Qd7 Qd5 47.Qe7 Qd6 48.Qb7 Qd5 49.Qe7 Qe5 50.Qd7 Nd6 51.Ne3 Nf5 52.Qd3 Kg8 53.Qd8+ Kf7 54.Qd7+ Kg6 55.Qd3 Qd4 56.Qb1 +-+

Genius2.9 - Nikolic,P [E11] (Game in 25)
Intel Grand Prix London (2-1) 1994, 1994

1.d4 Nf6 2.Nf3 e6 3.c4 Bb4+ 4.Bd2 c5 5.Bxb4 cxb4 6.Nbd2 0-0 7.g3 b6 8.Bg2 Bb7 9.0-0 d6 10.Qc2 Qc7 11.e3 Nbd7 12.a3 bxa3 13.Rxa3 a5 14.Rfa1 e5 15.Qc3 Rfe8 16.b4 axb4 17.Qxb4 h6 18.Rxa8 Rxa8 19.Rxa8+ Bxa8 20.Nxe5 dxe5 21.Bxa8 exd4 22.exd4 Qa7 23.Bc6 Qa1+ 24.Kg2 Qxd4 25.Nf3 Qc5 26.Qb5 Qd6 27.Bxd7 Nxd7 28.Qd5? Qxd5 29.cxd5 Kf8 30.Nd4 Ke7 31.Nf5+ Kf6 32.g4 b5 33.Nd4 b4 34.d6 Nc5 35.f4 Ne6 36.Nb3 Nxf4+ 37.Kf3 g5 38.Nc5 Ne6 39.Nd7+ Kg7 40.Ke3 f6 41.Kd3 Kf7 42.Kc4 Nd8 43.Nc5 Nc6 44.h3 f5 45.gxf5 Kf6 46.Kb5 Nd8 47.Kb6 Kxf5 48.Kc7 Nf7 49.d7 Kf6 50.Ne4+ Ke7 51.Nd6 b3 52.Nxf7 1-0

Nikolic,P - Genius2.9 [D12] (Game in 25)
Intel Grand Prix London (2-2), 1994

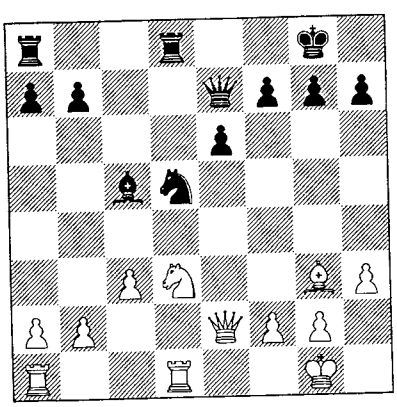
1.d4 d5 2.Nf3 Nf6 3.c4 c6 4.e3 Bf5 5.cxd5 cxd5 6.Qb3 Qc7 7.Bd2 Nc6 8.Bb5 e6 9.0-0 Bd6 10.Bb4 0-0 11.Bxd6 Qxd6 12.Bxc6 bxc6 13.Nbd2 Rab8 14.Qc3 Nd7 15.Rfc1 Rfc8 16.Nb3 f6 17.Qa5 Rc7 18.Nh4 Bd3 19.Nf3 Bf5 20.h3 Bd3 21.Ne1 Bg6 22.Qc3 e5 23.Nf3 exd4 24.exd4 Qf4 25.Re1 Bh5 26.Nfd2 Qd6 27.Rac1 Bg6 28.Nf1 Nf8 29.Nc5 Re7 30.Rxe7 Qxe7 31.b3 Qe2 32.a4 Qe7 33.Ne3 h6 34.Qa5 Rb6 35.Re1 Qc7 36.Nf1 Bf7 37.Ng3 Bg6 38.Re3 Kh8 39.Qe1 Qf4 40.Ne2 Qd6 41.Qa5 Qc7 42.Ng3 Kg8 43.h4? f5 44.Re5 f4 45.Ne2 f3 46.gxf3 Qf7 47.Re3 Bh5 48.Ng3 Bxf3 49.Qc3 Bg4 50.Nd3 Nd7 51.a5 Rb5 52.Ne5 Nxe5 53.Rxe5 Bd7 54.Ne2 Qf8 55.h5 Qa3 56.Qg3 Rxb3 57.Qg6 Rf3 58.Ng3 Qa1+ 59.Kg2 Qxd4 60.Re2 Rf6 61.Qb1 Bg4 62.Re8+ Kf7 63.Re3 Qf4 64.Qb7+ Kg8 65.Re8+ Kh7 66.Qb1+ Bf5 67.Qb2 Bd3 68.Re7 a6 69.Ra7 c5 70.Rd7 c4 71.Qb6 Be4+ 0-1

Genius2.9 - Anand,V [E11] (Game in 25)
Intel Grand Prix London (3-1), 1994

1.d4 Nf6 2.Nf3 e6 3.c4 Bb4+ 4.Bd2 Qe7 5.g3 Nc6 6.Nc3 0-0 7.Bg2 d5 8.a3 Bxc3 9.Bxc3 dxc4 10.Ne5 Nd5 11.Nxc6 bxc6 12.Qa4 Nxc3 13.bxc3 e5 14.Qxc6 Rb8 15.Qxc4 Rb6 16.e3 Ba6 17.Qa4 Rfb8 18.Rd1 exd4 19.Qxd4 Rd6 20.Qa4 Qf6 21.Rxd6 Qxc3+ 22.Rd2 Rb1+ 23.Qd1 Rxd1+ 24.Kxd1 Bd3 25.Ke1 Qxa3 26.Bf3 g6 27.Be2 Bf5 28.h4 Qc3 29.h5 g5 30.h6 Kf8 31.Bf3 c5 32.Rh5 f6 33.Rh2 c4 34.g4 Bd3 35.Be2 Bb1 36.Bf3 a5 37.Bd1 Qb4 38.f3 a4 39.Rhf2 a3 40.Kf1 c3 41.Rd8+ Ke7 42.Ra8 c2 43.Ra7+ Ke6 44.Ra6+ Kf7 45.Ra7+ Ke6 46.Ra6+ Kd5 47.Bxc2 Bxc2 48.Kg2 Bb1 49.Rxf6 Qa5 50.e4+ Kd4 51.Rf5 Qa6 52.Rxg5 a2 53.Rxa2 Qxa2+ 54.Kg3 Ke3 0-1

Anand,V - Genius2.9 [B17] (Game in 25)
Intel Grand Prix London (3-2), 1994

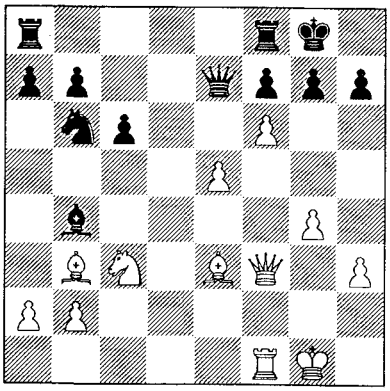
1.e4 c6 2.d4 d5 3.Nc3 dxe4 4.Nxe4 Nd7 5.Nf3 Ngf6 6.Nxf6+ Nxf6 7.c3 Bg4 8.h3 Bh5 9.Be2 e6 10.Bf4 Be7 11.0-0 0-0 12.Ne5 Bxe2 13.Qxe2 Nd5 14.Bg3 c5 15.Rfd1 cxd4 16.Rxd4 Bc5 17.Rdd1 Qe7 18.Nd3 Rfd8 *(Diagram)*



19.c4 Nb4 20.Nxb4 Bxb4 21.Rxd8+ Rxd8 22.Rd1 Rxd1+ 23.Qxd1 Bc5 24.Bf4 g6 25.Qd2 Qf6 26.Be3

Bxe3 27.fxe3 Kg7? 28.Qd4 Qxd4 29.exd4 f5 30.b4 Kf6 31.c5 a6 32.a4 Ke7 33.b5 axb5 34.axb5 g5 35.Kf2 h5 36.h4 gxh4 37.Kf3 Ke8 38.Kf4 Kd7 39.Kg5 Kd8 40.Kxh4 Kd7 41.Kxh5 1-0

Kasparov,G - Fritz3 [C01] (Game in 5)
Munich, Intel World Express Challenge, 1994
1.e3 d5 2.c4 dxc4 3.Bxc4 e5 4.d4 exd4 5.exd4 Bb4+ 6.Nc3 Nf6 7.Nf3 0-0 8.0-0 Bg4 9.h3 Bh5 10.g4 Bg6 11.Ne5 Nc6 12.Be3 Nxe5 13.dxe5 Nd7 14.f4 Nb6 15.Bb3 Bd3 16.Qf3 Bxf1 17.Rxf1 c6 18.f5 Qe7 19.f6 *(Diagram)*



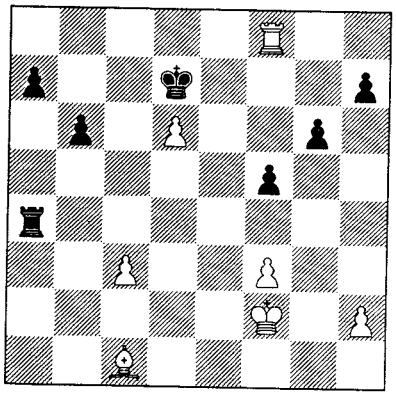
Qxe5 20.fxg7 Kxg7 21.Ne4 Nd5 22.Bxd5 cxd5 23.Ng3 Kg8 24.Nf5 Rac8 25.Qf2 Rc4 26.Nh6+ Kh8 27.Bxa7 f6 28.Nf5 Re8 29.a3 Be1 30.Qg2 Re4 31.Nh6 Re7 32.Rf5 Re2 33.Rxe5 Rxg2+ 34.Kxg2 fxe5 35.Bb8 e4 36.Be5+ Rxe5 37.Nf7+ Kg7 38.Nxe5 Bd2 39.Kf1 Bc1 40.b3 Bxa3 41.g5 d4 42.Ke2 d3+ 43.Kd2 Bd6 44.Nc4 Bf4+ 45.Kc3 b5 0-1

Kasparov,G - Fritz3 [A00] (Game in 5)
Munich, Intel World Chess Express Challenge, 1994
1.e3 d5 2.c4 dxc4 3.Bxc4 e5 4.Nc3 Nc6 5.Nf3 f5 6.Qb3 Nh6 7.d4 exd4 8.exd4 Nxd4 9.Nxd4 Qxd4 10.0-0 Be7 11.Bxh6 gxh6 12.Rfe1 c6 13.Ne2 Qh4 14.Rad1 Rf8 15.Nd4 Rh8 16.Be6 Bxe6 17.Qxe6 Rf8 18.Nxf5 Rxf5 19.Qxf5 Rd8 20.Rxd8+ Kxd8 21.g3 Qf6 22.Qxh7 Bc5 23.Qd3+ Kc7 24.Re2 Bd4 25.b3 Kd6 26.Kg2 c5 27.Qe4 Qf7 28.Qf4+ Qxf4 29.gxf4 b5 30.f5 Be5 31.Kf3 c4 32.bxc4 bxc4 33.Ke4 Bf6 34.Rd2+ Kc6 35.Rd4 Bxd4 36.Kxd4 Kd6 37.Kxc4 Ke5 38.Kb5 Kxf5 39.Ka6 Kg4 40.Kxa7 h5 41.Kb6 h4 42.a4 Kf3 43.a5 Kxf2 44.a6 Kg2 45.a7 Kxh2 46.a8Q Kg3 47.Qg8+ 1-0

Gulko,B - HIARCS Master 3.0 [A07] (Game in 25)
Fifth Harvard Cup (1), 1994
1.Nf3 d5 2.g3 Nf6 3.Bg2 c6 4.d3 Bg4 5.0-0 Nbd7 6.Nc3 e5 7.e4 Bb4 8.exd5 cxd5 9.h3 Bxf3 10.Qxf3 Bxc3 11.bxc3 Rc8 12.c4 0-0 13.cxd5 Rxc2 14.Qd1 Qc7 15.d6 Qc3 16.Rb1 b6 17.Rb3 Qc8 18.Bb2 Rc5 19.d4 exd4 20.Bxd4 Ra5 21.Rc3 Qd8 22.Qd2 Nd5 23.Rd3 N5f6 24.Bc3 Rf5 25.g4 Rc5 26.Re1 h5 27.g5 Nh7 28.h4 Rc4 29.Rd4 Rc5 30.Rde4 Qc8 31.Ba1 Rd8 32.Qd4 f6 33.Re7 Kh8 34.Qe4 Rc1 35.Qg6 Rxe1+ 36.Rxe1 Ndf8 37.Qxh5 Rxd6 38.g6 Re6 39.Rd1 Qe8 40.Bd5 Re1+ 41.Rxe1 Qxe1+ 42.Kg2 Qxa1 43.gxh7 Qb1 44.Kh3 g6 45.Qf3 Nxh7 46.Bb3 Qf1+ 47.Kh2 Kg7 48.Qe3 Qa1 49.Qe7+ Kh6 50.Qe3+ g5 51.hxg5+ Nxg5 52.f4 Qb2+ 53.Kg1 Qb1+ 54.Kh2 Ne4 55.Qh3+ Kg6 56.Qg4+ Kh6 57.Qh4+ Kg7 58.Qg4+ Kh6 59.Qh4+ Kg7 60.Qg4+ +-+

Benjamin,J - Chessmaster 4000 Turbo [D00] (Game in 25)
Fifth Harvard Cup (1), 1994
1.d4 d5 2.Bg5 f6 3.Bh4 Nc6 4.e3 e5 5.Bb5 exd4 6.exd4 Nge7 7.Nf3 a6 8.Ba4 b5 9.Bb3 Bg4 10.c3 Nf5 11.Bg3 Nxg3 12.hxg3 Qd7 13.Nbd2 Be7 14.Nf1 0-0 15.Ne3 Be6 16.Qd3 g6 17.0-0-0 Rfe8 18.Rh2 Na5 19.Bc2 Bf8 20.Rdh1 Re7 21.Nh4 Rg7 22.f4 Nc4 23.f5 Nxe3 24.Qxe3 gxf5 25.Re1 Re7 26.Qf4 Bf7 27.Reh1 Qe8 28.Nf3 Bg6 29.Bxf5 Rd8 30.Qg4 Bg7 31.Rxh7 Bxh7 32.Bxh7+ Kf8 33.Bg6 Qc6 34.Nh4 Qe6 35.Bf5 Qe3+ 36.Kb1 Ree8 37.Ng6+ Kg8 38.Nf4 Rd6 39.Qh5 Kf8 40.Ng6+ Kg8 41.Nf4 Kf8 42.Ng6+ Kg8 43.Qh7+ Kf7 44.Nf4 Kf8 45.Ng6+ Kf7 46.Nf4 Kf8 47.Ng6+ +-+

M-Chess Professional 3.85X - Shabalov,A [B03] (Game in 25)
Fifth Harvard Cup (1), 1994
1.e4 Nf6 2.e5 Nd5 3.d4 d6 4.c4 Nb6 5.f4 dxe5 6.fxe5 c5 7.d5 e6 8.Nc3 exd5 9.cxd5 c4 10.Nf3 Bb4 11.Bxc4 Bxc3+ 12.bxc3 Nxc4 13.Qa4+ Nd7 14.Qxc4 Nb6 15.Qb5+ Qd7 16.Qxd7+ Bxd7 17.d6 Rc8 18.Bd2 Bb5 19.Nd4 Bd3 20.Kf2 Kd7 21.Rhe1 Rhe8 22.a4 Bg6 23.Ra2 Rc5 24.Nf3 Nc4 25.Bf4 Bh5 26.Rae2 Bxf3 27.gxf3 Ra5 28.Rg1 g6 29.Rb1 b6 30.Rb4 Nxe5 31.Rd4 f6 32.Bc1 Rc5 33.Re3 Rc4 34.Rxe5 Rxd4 35.Rxe8 Rxa4 36.Rf8 f5 *(Diagram)*



37.Rf6 Rc4 38.Ba3 Rxc3 39.Rf7+ Kd8 40.Rxa7 f4 41.h4 h5 42.Ra6 Rb3 43.Ra8+ Kd7 44.Ra7+ Kd8 45.Bc1 Rb4 46.Rf7 Ke8 47.d7+ 1-0

Wolff,P - Socrates 4.0 [C42] (Game in 25)
Fifth Harvard Cup (1), 1994
1.e4 e5 2.Nf3 Nf6 3.Nxe5 d6 4.Nf3 Nxe4 5.d4 d5 6.Bd3 Be7 7.0-0 Nc6 8.Re1 Bg4 9.c4 Nf6 10.Nc3 Bxf3 11.Qxf3 Nxd4 12.Qd1 Ne6 13.Qb3 Nc5 14.Qb5+ Kf8 15.cxd5 c6 16.Qc4 Nxd3 17.Qxd3 Nxd5 18.Qe4 Qd6 19.Bd2 Rd8 20.Rad1 Nf6 21.Qe2 Re8 22.Be3 Qc7 23.Qc4 Bd6 24.h3 a6 25.Bd4 b5 26.Qd3 Rxe1+ 27.Rxe1 Be7 28.Be5 Qd8 29.Qg3 Rg8 30.Rd1 Qb6 31.Bd6 c5 32.Bxe7+ Kxe7 33.Qe5+ Kf8 34.a4 Rh8 35.axb5 axb5 36.Rd6 Qc7 37.Nxb5 Qc8 38.Rb6 Nd7 39.Qd6+ Ke8 40.Rc6 Qb8 41.Qxb8+ Nxb8 42.Rc8+ 1-0

HIARCS Master 3.0 - Rohde,M [E55] (Game in 25)
Fifth Harvard Cup (2), 1994
1.d4 Nf6 2.c4 e6 3.Nc3 Bb4 4.e3 0-0 5.Nf3 d5 6.Bd3 c5 7.0-0 dxc4 8.Bxc4 Nbd7 9.a3 cxd4 10.exd4 Bxc3 11.bxc3 Qc7 12.Qe2 b6 13.Bd2 Bb7 14.Bd3 Rfe8 15.Rfe1 Rad8 16.Bb5 Ne4 17.Ng5 Nxd2 18.Qxd2 h6 19.Ne4 a6 20.Bxd7 Qxd7 21.f4 Qc7 22.a4 Rc8 23.Ra3 Red8 24.Qe3 Qc6 25.Qg3 Kf8 26.a5 b5 27.Nc5 Ba8 28.Ra2 Kg8 29.Rb2 Qc7 30.Rbb1 Qxa5 31.Ra1 Qc7 32.Rxa6 b4 33.Rf1 Bd5 34.Raa1 Bc4 35.Rfb1 bxc3 36.Qxc3 Qxf4 37.Rd1 Be2 38.Re1 Qxd4+ 39.Qxd4 Rxd4 40.Nxe6 Rd2 41.Nd4 Bg4 42.Nb3 Rb2 43.Nd4 Rc4 44.Ra8+ Kh7 45.Rd8 Bc8 46.h3 Bb7 47.Re2 Rxe2 48.Nxe2 Rc2 49.Re8 f5 50.Nf4 Be4 51.Re7 Kg8 52.g4 g5 53.gxf5 Bxf5 54.Re5 Bd7 55.Ne6 Kf7 56.Nxg5+ hxg5 57.Rxg5 Bxh3 58.Rh5 +-+

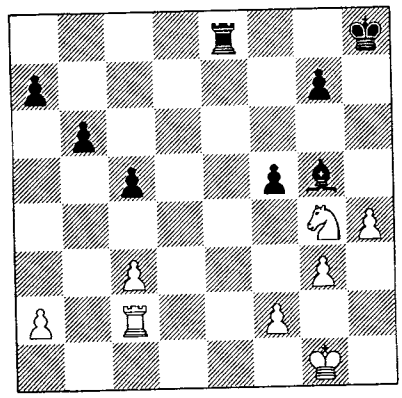
Socrates 4.0 - Benjamin,J [E11] (Game in 25)
Fifth Harvard Cup (2), 1994
1.d4 Nf6 2.c4 e6 3.Nf3 Bb4+ 4.Bd2 Qe7 5.g3 Nc6 6.Bg2 Bxd2+ 7.Nbxd2 d6 8.0-0 0-0 9.e4 e5 10.d5 Nb8 11.Ne1 a5 12.Nd3 Na6 13.f4 c6 14.Qb3 Bd7 15.fxe5 dxe5 16.Qc3 cxd5 17.Qxe5 Rfe8 18.Qxe7 Rxe7 19.exd5 Re3 20.Rf3 Re2 21.Nb3 a4 22.Nbc1 Rc2 23.Rf2 Rxc4 24.Ne5 Rd4 25.Rxf6 gxf6 26.Nxd7 Rd1+ 27.Kf2 Rc8 28.Nb3 Rc2+ 29.Kf3 Rxa1 30.Nxf6+ Kf8 31.Nxa1 Rxb2 32.d6 Rxa2 33.Nxh7+ Ke8 34.Nf6+ Kd8 35.Ne4 Rxa1 36.Ng5 f6 37.Nf7+ Ke8 38.Nh6 a3 39.d7+ Kxd7 40.Bh3+ Kd6 41.Nf7+ Ke7 42.Nh6 a2 43.Nf5+ Kf8 44.Ne3 Rc1 0-1

M-Chess Professional 3.85X - Yermolinsky,A [B67] (Game in 25)
Fifth Harvard Cup (2), 1994
1.e4 c5 2.Nf3 d6 3.d4 cxd4 4.Nxd4 Nf6 5.Nc3 Nc6 6.Bg5 e6 7.Qd2 a6 8.0-0-0 Bd7 9.f4 b5 10.Bxf6 gxf6 11.Nxc6 Bxc6 12.Qe1 b4 13.Nd5 a5 14.Bd3 Bg7 15.Ne3 f5 16.exf5 Qf6 17.c3 bxc3 18.Bc2 cxb2+ 19.Kb1 0-0 20.Rxd6 Rac8 21.Qxa5 Ra8 22.Qd2 Rxa2 23.Kxa2 Ra8+ 24.Kb3 Ba4+ 25.Kb4 Bxc2 26.Nd5 Qd4+ 27.Qxd4 Bxd4 28.fxe6 fxe6 29.Nc3 Bf6 30.Rxe6 Rb8+ 31.Nb5 Kf7 32.Re3 b1Q+ 33.Rxb1 Bxb1 34.Kc5 Be7+ 35.Nd6+ Bxd6+ 36.Kxd6 Rb2 37.Re1 Bf5 38.Ke5 Kg6 39.h4 h5 40.g3 Rb3 41.Rg1 Ra3 42.Rg2 Bg4 43.Rg1 Re3+ 44.Kd4 Rb3 45.Ke5 Rb5+ 46.Kd4 Kf5 47.Ra1 Rb4+ 48.Kc3 Re4 49.Ra5+ Kf6 50.Kd3 Bf5 51.Kd2 Rd4+ 52.Ke3 Rd3+ 53.Kf2 Bg4 54.Ra2 Ke6 55.Ra8 Kd5 56.Ra4 Rf3+ 57.Kg2 Re3 58.Ra5+ Ke4 59.Ra4+ Kd3 60.Ra3+ Kd4 61.Ra4+ Kc5 62.Ra2 Re2+ 63.Rxe2 Bxe2 64.Kf2 Bg4 65.Ke3 Kd5 66.Kd3 Be6 67.Ke3 Bf5 68.Kf3 Kd4 69.Kf2 Bg4 70.Kf1 Ke3 71.Kg2 Ke2 72.f5 Bxf5 73.g4 Bxg4 74.Kg3 Ke3 75.Kg2 Kf4 76.Kf2 Bf3 77.Kf1 Kg3 78.Ke1 Kxh4 79.Kf2 Kg4 80.Ke3 Kg3 81.Kd4 h4 0-1

Yermolinsky,A - Chessmaster 4000 Turbo [D55] (Game in 25)
Fifth Harvard Cup (3), 1994
1.d4 d5 2.c4 e6 3.Nc3 Nf6 4.Bg5 Be7 5.e3 0-0 6.Nf3 b6 7.Rc1 Ba6 8.Qb3 Nc6 9.cxd5 Bxf1 10.Kxf1 Na5 11.Qb5 a6 12.Qd3 exd5 13.Bxf6 Bxf6 14.g3 Re8 15.Kg2 Nc6 16.Rhd1 Qd6 17.Rd2 Qd7 18.a3 Na5 19.Rdc2 Nb3 20.Rd1 Na5 21.b4 Nc6 22.Rdc1 Nd8 23.e4 c6 24.e5 Be7 25.Na4 Qc7 26.h4 f6 27.Qb3 Qb7 28.Nb2 fxe5 29.Nxe5 c5 30.bxc5 bxc5 31.Qxb7 Nxb7 32.Nbd3 cxd4 33.a4 Na5 34.f4 Bd6 35.g4 Bxe5 36.Nxe5 Nc4 37.Nxc4 dxc4 38.Rxc4 Rad8 39.Rd1 d3 40.f5 Re5 41.Kf3 Red5 42.Rd2 h5 43.Ke3 Re8+ 44.Re4 Rxe4+ 45.Kxe4 Ra5 46.g5 Rxa4+ 47.Ke5 Rxh4 48.Rxd3 Rh1 49.g6 Re1+ 50.Kf4 Kf8 51.Ra3 h4 52.Rxa6 h3 53.Ra8+ Ke7 54.Ra7+ Kf8 55.Kg3 Re3+ 56.Kh2 Rf3 57.Rf7+ Kg8 58.Kg1 Rf4 59.Kh2 Rf3 60.Kg1 Re3 61.Kh2 +-+

Shabalov,A - HIARCS Master 3.0 [B82] (Game in 25)
Fifth Harvard Cup (3), 1994
1.e4 c5 2.Nf3 d6 3.d4 cxd4 4.Nxd4 Nf6 5.Nc3 e6 6.f4 Nc6 7.Nf3 Be7 8.Bd3 0-0 9.a3 d5 10.e5 Ng4 11.Qe2 f5 12.Bd2 Bc5 13.Rf1 Nd4 14.Nxd4 Bxd4 15.g3 Bd7 16.h3 Nh6 17.Be3 Bxc3+ 18.bxc3 Qa5 19.Bd4 Rac8 20.Kd2 Rc7 21.Rfb1 Rfc8 22.Rb4 b6 23.a4 Bc6 24.Rg1 Be8 25.Qe3 Kh8 26.Ke2 Ng8 27.Kf2 Ne7 28.Ra1 Kg8 29.Kg2 Ng6 30.Kh2 h5 31.Rg1 Ne7 32.Rg2 Nc6 33.g4 hxg4 34.hxg4 Nxb4 35.cxb4 Qxb4 36.gxf5 Bxa4 37.c3 Qa5 38.fxe6 Bb5 39.Bg6 Be8 40.Bxe8 Rxe8 41.f5 Qb5 42.Qh3 Qc6 43.Rg6 Ree7 44.Qg2 Qb7 45.Qg4 Rc6 46.Qh4 Rcc7 47.Qh5 Qc8 48.Rg3 Qe8 49.Qg4 b5 50.Qh4 Rxe6 51.fxe6 Qe7 52.Qg4 Rc6 53.Be3 Rxc3 54.Rf3 Rc2+ 55.Kh3 Rc4 56.Bd4 Rc7 57.Rf7 Qa3+ 58.Kh4 Rxf7 59.exf7+ Kxf7 60.e6+ Ke7 61.Bxg7 Qe3 62.Bf8+ Kxf8 63.Qf5+ Ke7 64.Qf7+ Kd6 65.Qd7+ Ke5 66.e7 Qf2+ 67.Kg4 Qf4+ 68.Kh3 Qf3+ 69.Kh2 Qe2+ 70.Kg1 Qe1+ 71.Kg2 Qd2+ 72.Kg1 Qe3+ 73.Kg2 Qe4+ 74.Kg1 Qd4+ 75.Kg2 Qb2+ 76.Kg1 Qc1+ 77.Kg2 Qc2+ 78.Kg1 Qg6+ 79.Kf2 Qc2+ 80.Kg1 Qb1+ 81.Kf2 Qa2+ 82.Kg1 Qa1+ 83.Kf2 Qa2+ 84.Kg1 Qa1+ 85.Kf2 Qb2+ 86.Kg1 Qd4+ 87.Kg2 Qb2+ 88.Kg1 +-+

Rohde,M - Socrates 4.0 [A15] (Game in 25)
Fifth Harvard Cup (3), 1994
1.Nf3 Nf6 2.c4 b6 3.Nc3 Bb7 4.d4 d5 5.cxd5 Nxd5 6.Qc2 e6 7.e4 Nxc3 8.bxc3 Be7 9.Bb5+ c6 10.Bd3 0-0 11.0-0 c5 12.d5 exd5 13.exd5 Qxd5 14.Bxh7+ Kh8 15.Re1 Nc6 16.Be4 Qd6 17.g3 Rae8 18.Bf4 Qe6 19.Rad1 Qc8 20.Bg5 Qg4 21.Bxc6 Bxc6 22.Ne5 Ba4 23.Nxg4 Bxc2 24.Rc1 Bxg5 25.Rxe8 Rxe8 26.Rxc2 f5 27.h4 *(Diagram)*



Bxh4 28.Ne3 Bxg3 29.Nxf5 Bf4 30.c4 Kh7 31.Kg2 g5 32.Kf3 Kg6 33.Ng3 Rf8 34.Ne4 Be5+ 35.Kg2 Rf4

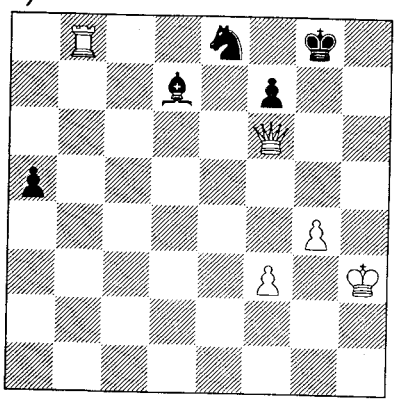
36.Re2 Kf5 37.Ng3+ Ke6 38.Ne4 g4 39.Re1 Rf8 40.Nc3 Rh8 41.Nd5 Rh2+ 42.Kg1Rh7 43.Kg2 Rh6 44.Re2 Rh2+ 45.Kg1 Rh7 46.Kg2 Rg7 47.Re1 b5 48.Nf4+ Kd6 49.Nd3 Bc3 50.Re4 a6 51.Kg3 Bd452.cxb5 axb5 53.Rxg4 Rxg4+ 54.Kxg4 c4 55.Nc1 Bxf2 56.Kf3 Bd4 57.Ke4 Bf6 58.Ne2 b4 59.Ke3 Kd5 60.Kd2 Bg7 61.Kc2 Be5 62.Ng1 Ke4 63.Nh3 Bd4 64.Ng5+ Kd5 65.Nf3 Be3 66.Nh4 Ke4 67.Ng6 Bc5 68.Nh8 Kd4 69.Nf7 Kd5 70.Ng5 Bb6 71.Nf3Bd4 72.Nd2 Be5 73.Nf3 Bf4 74.Ne1 Ke4 75.Kb2 Bd2 76.Nc2 Kd3 77.Kb1 Kc3 78.Na1 Be3 79.Nc2 Bg5 80.Na1 Kd2 81.Nc2 Be7 82.Nd4 c3 83.Nc2 Bc5 84.Na1 Bf8 85.Nc2 Bd6 86.Na1 Bc5 87.Nc2 Bf8 88.Na1 Bd6 89.Nc2 Be7 90.Nd4 Bc5 91.Nc2 Kd1 92.Na1 Be7 +-+

Wolff,P - M-Chess Professional 3.85X [B33] (Game in 25)
Fifth Harvard Cup (3), 1994

1.e4 c5 2.Nf3 e6 3.d4 cxd4 4.Nxd4 Nf6 5.Nc3 Nc6 6.Ndb5 d6 7.Bf4 e5 8.Bg5 a6 9.Na3 b5 10.Nd5 Be7 11.Bxf6 Bxf6 12.c3 Bb7 13.Nc2 Nb8 14.a4 bxa4 15.Rxa4 Nd7 16.Rb4 Bxd5 17.Qxd5 0-0 18.Bc4 Nb6 19.Qd3 a5 20.Rb5 Nxc4 21.Qxc4 Rb8 22.0-0 Rxb5 23.Qxb5 Qb8 24.Na3 Qxb5 25.Nxb5 Rb8 26.c4 g6 27.Rd1 Be7 28.Kf1 f5 29.f3 fxe4 30.fxe4 Rc8 31.Rc1 a4 32.Ke2 Bg5 33.Rc2 Rc6 34.Kd3 Kg7 35.Rf2 Bc1 36.Rc2 Bg5 37.Rc3 Kf6 38.Ra3 Bc1 39.Ra2 Ra6 40.Kc2 Bg5 41.Nc3 Ke7 42.Rxa4 Rxa4 43.Nxa4 Bf4 44.h3 Kd7 45.b4 Be3 46.Nc3 Kc6 47.Nd5 Bf2 48.Nf6 h5 49.Nd5 g5 50.Nf6 h4 51.Nd5 Bd4 52.Kd3 Kb7 53.Ke2 Kc6 54.Kf3 Bb2 55.Kg4 Bc1 56.Kf5 Kd7 57.Nf6+ Kc6 58.Ke6 Be3 59.Nd5 Bd4 60.Kf5 Bg1 61.Kxg5 Bf2 62.Kf5 Bd4 63.Ke6 Bf2 64.Ne7+ Kc7 65.Nf5 Be1 66.b5 Bb4 67.Nxh4 Be1 68.Nf5 1-0

Rohde,M - Chessmaster 4000 Turbo [D34] (Game in 25)
Fifth Harvard Cup (4), 1994

1.Nf3 Nf6 2.c4 c5 3.Nc3 e6 4.g3 Nc6 5.Bg2 d5 6.cxd5 exd5 7.d4 Be7 8.0-0 0-0 9.Bg5 cxd4 10.Nxd4 Re8 11.Rc1 h6 12.Be3 Bg4 13.h3 Be6 14.Na4 Nxd4 15.Qxd4 Qd7 16.Kh2 Ne4 17.b3 Bf6 18.Qd1 b6 19.Bd4 Bxd4 20.Qxd4 Bf5 21.Nb2 Rac8 22.Nd3 Nf6 23.Nf4 Be4 24.f3 Bh7 25.h4 Rc5 26.Rxc5 bxc5 27.Qxc5 g5 28.hxg5 hxg5 29.Nh3 Rxe2 30.Qd4 Qe7 31.Nxg5 Rxa2 32.Nh3 Bc2 33.Rc1 Bxb3 34.Rc8+ Ne8 35.Nf4 Qd7 36.Rb8 Qa4 37.Qe5 Rxg2+ 38.Kxg2 Qa2+ 39.Kh3 Ba4 40.Nxd5 Bd7+ 41.g4 Qa6 42.Nf6+ Qxf6 43.Qxf6 a5 *(Diagram)*



44.Qe7 Bc6 45.Rxe8+ Bxe8 46.Qxe8+ Kg7 47.g5 a4 48.Qxa4 Kg6 49.Kg4 Kg7 50.Kf5 Kg8 51.Kf6 Kh7 52.Kxf7 Kh8 53.Qh4+ 1-0

HIARCS Master 3.0 - Wolff,P [B96] (Game in 25)
Fifth Harvard Cup (4), 1994

1.e4 c5 2.Nf3 d6 3.d4 cxd4 4.Nxd4 Nf6 5.Nc3 a6 6.Bg5 e6 7.f4 Nbd7 8.Qe2 Qc7 9.0-0-0 b5 10.f5 e5 11.Nd5 Nxd5 12.exd5 Nb6 13.Qh5 Be7 14.Bxe7 Qxe7 15.Nc6 Qf6 16.g4 h6 17.Kb1 Bd7 18.Bg2 Qg5 19.Qxg5 hxg5 20.h3 Bxc6 21.dxc6 Ke7 22.Rd3 Ra7 23.Rhd1 Rd8 24.Kc1 Rc7 25.Ra3 Ra8 26.Bf3 f6 27.Kb1 Raa7 28.Rc3 Ra8 29.Rcd3 Rd8 30.Ra3 Ra8 31.Kc1 Nc4 32.Rad3 Rd8 33.a4 bxa4 34.Rc3 Nb6 35.Rcd3 Nc4 36.Bd5 Na5 37.Rc3 Rb8 38.Rdd3 Rb5 39.Be4 Rb4 40.Bd5 Rb6 41.Kb1 Rb5 42.Bg2 Rc5 43.Rxc5 dxc5 44.Rc3 c4 45.Ra3 Nxc6 46.Rxa4 Nd4 47.Rxa6 c3 48.b4 Kd7 49.Bd5 Rc8 50.Rb6 Kc7 51.Rb7+ Kd6 52.Bg2 Rc7 53.Rb6+ Kd7 54.Ra6 Rc4 55.Ra7+ Kd6 56.Ra6+ Kc7 57.Ra7+ Kd6 58.Ra6+ Kc7 59.Ra7+ Kd6 +-+

Socrates 4.0 - Yermolinsky,A [B05] (Game in 25)
Fifth Harvard Cup (4), 1994

1.e4 Nf6 2.e5 Nd5 3.d4 d6 4.Nf3 Bg4 5.Be2 e6 6.0-0 Be7 7.c4 Nb6 8.h3 Bh5 9.Nc3 0-0 10.exd6 cxd6 11.d5 e5 12.b3 N8d7 13.a4 a5 14.Ne4 Bxf3 15.Bxf3 f5 16.Nc3 Nc5 17.Nb5 Nbd7 18.Bd2 b6 19.Qc2 e4 20.Be2 Bf6 21.Rad1 Be5 22.f4 exf3 23.Bxf3 Qh4 24.Nc7 Qg3 25.Rfe1 Ne4 26.Be3 Ndc5 27.Bxc5 bxc5 28.Nxa8 Bd4+ 29.Kf1 Rxa8 30.Rxd4 cxd4 31.Bxe4 fxe4 32.Rxe4 Qh2 33.Re2 Rf8+ 34.Rf2 Re8 35.Re2 Rf8+ 36.Rf2 Qh1+ 37.Ke2 Re8+ 38.Kd3 Qe1 39.Rf3 Re3+ 40.Kxd4 Re2 41.Qd3 Rd2 42.Qxd2 Qxd2+ 43.Ke4 Qxg2 44.Ke3 g5 45.Ke4 Kg7 46.Ke3 h5 47.h4 gxh4 48.Rf2 Qg1 49.Ke2 h3 50.Kf3 h4 51.Rd2 Qg3+ 52.Ke2 h2 0-1

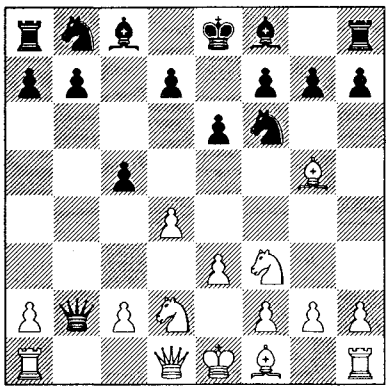
Benjamin,J - M-Chess Professional 3.85X [C02]
Fifth Harvard Cup (4), 1994 (Game in 25)

1.e4 e6 2.d4 d5 3.e5 c5 4.c3 Nc6 5.Nf3 Bd7 6.Be2 Nge7 7.Na3 cxd4 8.cxd4 Nf5 9.Nc2 Rc8 10.0-0 Qb6 11.Bd3 Be7 12.b3 0-0 13.Bf4 Qa5 14.g4 Nh4 15.Nxh4 Bxh4 16.g5 Qc3 17.Re1 g6 18.Re3 Nxd4 19.Bxg6 Qb2 20.Bxh7+ Kg7 21.Qh5 Bxf2+ 22.Kxf2 Rxc2+ 23.Bxc2 Rh8 24.Qd1 Nxc2 25.Re2 Qxa1 26.Qxc2 Bb5 27.Re1 Qd4+ 28.Kg3 Rh5 29.Qd2 Qxd2 30.Bxd2 Kg6 31.h4 a6 32.Rc1 d4 33.a4 Bd3 34.Rc8 Kf5 35.Bf4 Rxh4 36.Kxh4 Kxf4 37.Rc7 Bg6 38.Rxb7 d3 39.Rd7 Ke3 40.b4 d2 41.Rxd2 Kxd2 42.b5 Be4 43.g6 fxg6 44.Kg5 a5 45.Kf6 Kc3 46.Kxe6 Kb4 47.Kd6 Kxa4 48.b6 Kb5 49.Kc7 Bd5 50.e6 Bxe6 51.b7 Ka4 52.b8Q Bc4 53.Kd6 Bb3 54.Kc5 Ka3 55.Kd4 Kb2 56.Kd3 g5 57.Qe5+ Ka3 58.Qxa5+ Kb2 59.Qxg5 Bc2+ 60.Kd2 Bb3 61.Qa5 Kb1 62.Kc3 Bc2 63.Qa3 1-0

Chessmaster 4000 Turbo - Shabalov,A [D47] (Game in 25)
Fifth Harvard Cup (5), 1994

1.d4 d5 2.c4 c6 3.e3 Nf6 4.Nc3 e6 5.Nf3 Nbd7 6.Bd3 dxc4 7.Bxc4 b5 8.Bb3 Bb7 9.a3 a6 10.0-0 c5 11.Bc2 Qb8 12.dxc5 Bxc5 13.b4 Bd6 14.Bb2 Bxf3 15.gxf3 Bxh2+ 16.Kg2 Be5 17.Bd3 Nd5 18.Qb3 Qd8 19.f4 Bxc3 20.Bxc3 Nxc3 21.Qxc3 Rc8 22.Qxg7 Nf8 23.Rfd1 Qd5+ 24.f3 Ke7 25.Qxh8 Ng6 26.Qxc8 Nh4+ 27.Kg3 Qxf3+ 28.Kxh4 Qf2+ 29.Kg5 h6+ 30.Kxh6 Qh4+ 31.Kg7 Qg4+ 32.Kh8 Qh4+ 33.Bh7 Qxh7+ 34.Kxh7 Kf6 35.Qc5 1-0

Yermolinsky,A - HIARCS Master 3.0 [A46] (Game in 25) Fifth Harvard Cup (5), 1994
1.d4 Nf6 2.Nf3 e6 3.Bg5 c5 4.e3 Qb6 5.Nbd2 Qxb2 *(Diagram)*



6.Bd3 d5 7.Bxf6 gxf6 8.c4 cxd4 9.exd4 dxc4 10.Bxc4 Bh6 11.0-0 0-0 12.Ne4 Nd7 13.Rb1 Qa3 14.d5 e5 15.Nh4 Nb6 16.Qh5 Bg7 17.Rb3 Qa4 18.Rg3 Kh8 19.Bd3 f5 20.Ng5 Qxh4 21.Qxh4 h6 22.Qh5 Kg8 23.Ne6 fxe6 24.Qxh6 Rf7 25.dxe6 Bxe6 26.Qxe6 e4 27.Bc2 Raf8 28.Bb3 Nc4 29.Bxc4 b5 30.Bb3 e3 31.Qg6 1-0

Socrates 4.0 - Gulko,B [B08] (Game in 25) Fifth Harvard Cup (5), 1994
1.e4 d6 2.d4 Nf6 3.Nc3 g6 4.Be2 Bg7 5.Nf3 0-0 6.0-0 Nc6 7.Bf4 Nh5 8.Bg5 h6 9.Be3 e5 10.dxe5 dxe5 11.Qxd8 Nxd8 12.Nb5 Ne6 13.Nxa7 Bd7 14.Rfd1 Rfd8 15.Nb5 Bc6 16.Nd2 Nhf4 17.Bf1 Bxb5 18.Bxb5 Nd4 19.Bxd4 Rxd4 20.c3 Rd6 21.Nf1 Rxd1 22.Rxd1 Rxa2 23.Rd2 Bf8 24.Bc4 Ra4 25.b3 Ra3 26.Rd7 Ne6 27.g3 Bd6 28.Bxe6 fxe6 29.Nd2 b5 30.Kf1 Ra2 31.Ke2 b4 32.c4 Rc2 33.h4 Kf8 34.Kd1 Rc3 35.f3 Re3 36.h5 gxh5 37.Rh7 Bc5 38.Rxh6 Bd4 39.Rh8+ Ke7 40.Rxh5 Bc3 41.Rh7+ Kf6 42.Nb1 Bd4 43.Rxc7 Rxb3 44.Nd2 Rd3 45.Rd7 b3 46.c5 b2 47.Rb7 Ra3 48.c6 Ra1+ 49.Ke2 Rc1 50.c7 Rc2 51.f4 Kg6 52.g4 Rc1 53.f5+ Kf6 54.g5+ Kxg5 55.fxe6 Kf6 56.e7 Kf7 57.Rb8 Kxe7 58.c8Q Rxc8 59.Rxc8 Kd7 60.Rb8 Kc7 61.Rb3 Kc6 62.Nf3 Kc5 63.Kd3 1-0

M-Chess Professional 3.85X - Rohde,M [B32] (Game in 25) Fifth Harvard Cup (5), 1994
1.e4 c5 2.Nf3 Nc6 3.d4 cxd4 4.Nxd4 Qc7 5.Nb5 Qb8 6.c4 Nf6 7.N5c3 e6 8.f4 d6 9.Be2 a6 10.Be3 Be7 11.0-0 0-0 12.Na3 Re8 13.Qd2 b6 14.Rad1 Ra7 15.Bf3 Rc7 16.Qf2 Nd7 17.b3 Bf8 18.Kh1 Nb4 19.Nc2 Nxc2 20.Qxc2 b5 21.cxb5 axb5 22.Qd3 b4 23.Na4 Bb7 24.Rc1 Rec8 25.Rxc7 Rxc7 26.Re1 h6 27.Bd2 Nf6 28.Nb2 d5 29.exd5 exd5 30.Be3 Ne4 31.Na4 Qc8 32.Rd1 Qe6 33.Kg1 Nc3 34.f5 Qe8 35.Re1 Nxa4 36.bxa4 Rc3 37.Qd2 Qxa4 38.Bd1 Qb5 39.f6 Qd3 40.fxg7 Bxg7 41.Bxh6 Qxd2 42.Re8+ Kh7 43.Bxd2 Rc7 44.Bxb4 Rc1 45.Re1 Bd4+ 46.Kf1 Kg7 47.Be2 Rc2 48.a4 Ba6 49.a5 Be3 50.Bxa6 Rf2+ 51.Kg1 Re2+ 52.Kh1 Rb2 53.Bc3+ 1-0

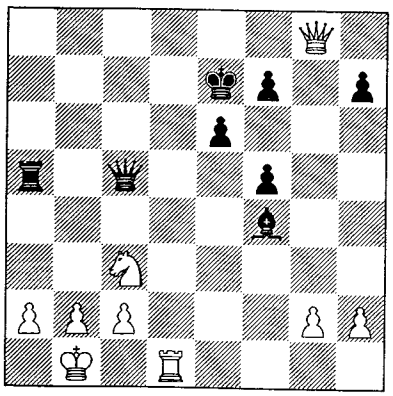
Shabalov,A - Socrates 4.0 [C22] (Game in 25) Fifth Harvard Cup (6), 1994
1.e4 e5 2.d4 exd4 3.Qxd4 Nc6 4.Qe3 Nf6 5.Nc3 Bb4 6.Bd2 0-0 7.0-0-0 Re8 8.Qg3 Rxe4 9.a3 Rg4 10.Qe3 Ba5 11.f3 Rg6 12.h4 Bb6 13.Qe1 d6 14.h5 Nxh5 15.Rxh5 Bxg1 16.Bd3 Bc5 17.Qh1 h6 18.Ne4 Bb6 19.Kb1 Ne5 20.Bxh6 gxh6 21.Rxh6 Rxh6 22.Qxh6 Ng6 23.Bc4 Bf5 24.Rh1 Qe7 25.g4 Be6 26.Bd3 Bd4 27.Ng5 Bg7 28.Qh7+ Kf8 29.Rh5 Bd7 30.Bxg6 Qf6 0-1

Gulko,B - M-Chess Professional 3.85X [A45] (Game in 25) Fifth Harvard Cup (6), 1994
1.d4 Nf6 2.Bf4 e6 3.e3 b6 4.Nd2 d5 5.Ngf3 Bd6 6.Ne5 0-0 7.Bd3 Ba6 8.c4 dxc4 9.Ndxc4 Bb4+ 10.Kf1 Nd5 11.Bg3 b5 12.Nd2 c5 13.dxc5 f6 14.Qh5 Nxe3+ 15.fxe3 fxe5+ 16.Ke2 g6 17.Qxe5 Qc8 18.Ne4 Nc6 19.Qg5 Kg7 20.Rhf1 Rf5 21.Rxf5 exf5 22.Qf6+ Kg8 23.Bc2 1-0

Chessmaster 4000 Turbo - Wolff,P [B88] (Game in 25) Fifth Harvard Cup (6), 1994
1.e4 c5 2.Nf3 d6 3.d4 cxd4 4.Nxd4 Nf6 5.Nc3 a6 6.Bc4 e6 7.Bb3 Nc6 8.Be3 Qc7 9.0-0 Na5 10.Qd3 b5 11.f3 Be7 12.a3 0-0 13.Ba2 Bd7 14.Nde2 Rac8 15.Qd2 Rfd8 16.Rfd1 Nc4 17.Bxc4 Qxc4 18.Bb6 Re8 19.Ng3 Qc6 20.Bf2 Qc7 21.Re1 Red8 22.Rac1 Bc6 23.Rcd1 Nd7 24.Nd5 Bxd5 25.exd5 e5 26.Nf5 Bf6 27.f4 Re8 28.Qb4 Nc5 29.fxe5 Bxe5 30.Qg4 g6 31.Bd4 Bxd4+ 32.Nxd4 Qd7 33.Qh4 Rxe1+ 34.Rxe1 Re8 35.b4 Rxe1+ 36.Qxe1 Qg4 37.Nf3 Ne4 38.Qe3 Qf5 39.Qd4 Nf6 40.h4 Nxd5 41.c4 Nf4 42.Qxd6 Qg4 43.Qb8+ Kg7 44.Qe5+ f6 45.Qe7+ Kh6 46.Ne1 Qxh4 47.c5 Qg3 48.c6 Nh3+ 49.Kh1 Nf2+ 50.Kg1 Nh3+ 51.Kh1 +-+

HIARCS Master 3.0 - Benjamin,J [E35] (Game in 25) Fifth Harvard Cup (6), 1994
1.d4 Nf6 2.c4 e6 3.Nc3 Bb4 4.Qc2 d5 5.cxd5 exd5 6.Bg5 h6 7.Bxf6 Qxf6 8.a3 Bxc3+ 9.Qxc3 c6 10.e3 0-0 11.Nf3 Nd7 12.Bd3 Nb6 13.Qc2 Be6 14.0-0 Nc8 15.Qc5 Bf5 16.Bxf5 Qxf5 17.a4 Qe6 18.b4 Nd6 19.Nd2 f5 20.Rac1 a6 21.Rce1 Rae8 22.f3 Qd7 23.Re2 Re7 24.Rc1 Rfe8 25.Rce1 Kh8 26.Qc3 Qd8 27.Nf1 f4 28.Kf2 fxe3+ 29.Nxe3 Re6 30.Ng4 Rxe2+ 31.Rxe2 Rxe2+ 32.Kxe2 Nf5 33.Ne5 Kg8 34.g4 Nd6 35.Kd3 Qf6 36.Qc2 Nf7 37.Qe2 Nxe5+ 38.dxe5 Qf4 39.Kc3 Kf7 40.e6+ Ke7 41.h4 b5 42.axb5 axb5 43.Kc2 Qc4+ 44.Kd1 Qxe2+ 45.Kxe2 Kxe6 46.f4 Kd6 47.h5 c5 48.bxc5+ Kxc5 49.Kd3 b4 50.g5 Kd6 51.Kc2 d4 52.f5 Ke7 53.f6+ gxf6 54.gxh6 Kf7 55.Kd3 b3 56.Kd2 Kg8 57.Kd3 f5 58.Kd2 f4 59.Kd3 f3 60.Kd2 b2 61.Kc2 f2 62.Kxb2 f1Q 63.Kb3 Qb5+ 64.Kc2 d3+ 65.Kc1 Qb4 66.h7+ Kh8 67.h6 Qc3+ 68.Kb1 d2 69.Ka2 Qb4 70.Ka1 d1Q+ 71.Ka2 Qdb1+ 0-1

WChess - Wolff,P [B96] (Game in 25) Fifth Harvard Cup (7), 1994
1.e4 c5 2.Nf3 d6 3.d4 cxd4 4.Nxd4 Nf6 5.Nc3 a6 6.Bg5 e6 7.f4 Nbd7 8.Qf3 Qc7 9.0-0-0 b5 10.Bxb5 axb5 11.Ndxb5 Qb8 12.e5 Ra5 13.exf6 gxf6 14.Bh6 Bxh6 15.Nxd6+ Ke7 16.Kb1 Rd8 17.Qe4 f5 18.Qd4 Rg8 19.Nxc8+ Qxc8 20.Qb4+ Qc5 21.Rxd7+ Kxd7 22.Qb7+ Ke8 23.Qb8+ Ke7 24.Qxg8 Bxf4 25.Rd1 *(Diagram on top of next page)*



Qc7 26.h3 Be5 27.Ne2 Bf6 28.c3 Rb5 29.Nd4 Rb6 30.g4 fxg4 31.hxg4 h6 32.Qa8 Be5 33.Ka1 Qb7 34.Nc6+ 1-0

Shabalov,A - REBEL6.0 [B12]
(Game in 25)
Fifth Harvard Cup (7), 1994

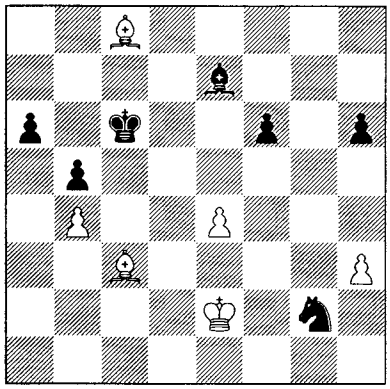
1.e4 c6 2.d4 d5 3.e5 Bf5 4.Nc3 e6 5.g4 Bg6 6.Nge2 c5 7.Be3 Nc6 8.dxc5 Nxe5 9.Nf4 a6 10.Qe2 Nf6 11.0-0-0 Nfxg4 12.Nfxd5 exd5 13.Rxd5 Qe7 14.Bf4 Rd8 15.f3 Nxf3 16.Qxf3 Rxd5 17.Qxd5 Ne3 18.Qd2 Nxc2 19.Bc4 Qd7 20.Qe2+ Be7 21.Rd1 Qf5 22.Nd5 Qe4 23.Nc7+ Kf8 24.Qxe4 Bxe4 25.Bd5 Bf5 26.a3 Bxc5 27.Bxb7 Nd4 28.b4 Ne2+ 29.Kb2 Bd4+ 30.Kb3 Nxf4 31.Rxd4 Ne6 32.Nxe6+ Bxe6+ 33.Ka4 Ke7 34.Bxa6 Ra8 35.Kb5 g5 36.Kb6 f5 37.Kb7 Rd8 38.Rxd8 Kxd8 39.b5 f4 40.b6 Bd5+ 41.Ka7 Ke7 42.a4 g4 43.b7 Bxb7 44.Kxb7 g3 45.hxg3 fxg3
46.Bf1 Ke6 47.a5 Kf5 48.a6 Kg4 49.a7 h5 50.a8Q 1-0

REBEL 6.0 - Yermolinsky,A [E11] (Game in 25)
Fifth Harvard Cup (8), 1994

1.d4 Nf6 2.Nf3 e6 3.c4 Bb4+ 4.Bd2 Qe7 5.g3 Nc6 6.Bg2 Bxd2+ 7.Nbxd2 d6 8.0-0 a5 9.e4 e5 10.d5 Nb8 11.c5 0-0 12.cxd6 cxd6 13.Rc1 Na6 14.Nc4 Qd8 15.Qe2 b5 16.Na3 b4 17.Nb5 Nc5 18.Nxe5 Ba6 19.Rxc5 dxc5 20.Rc1 Qb8 21.f4 Bxb5 22.Qf2 c4 23.Nxc4 Bxc4 24.Rxc4 Rc8 25.Qd4 Rxc4 26.Qxc4 Qb6+ 27.Kh1 Ng4 28.Bf3 Ne3 29.Qc1 Rd8 30.g4 h6 31.h3 f6 32.b3 g5 33.f5 Kf7 34.Be2 Ke7 35.Bf3 Kd7 36.Qa1 Rc8 37.Qe1 Rc2 38.e5 fxe5 39.Be2 Qc5 40.Kh2 Qb5 41.Kg1 0-1

WChess - Benjamin,J [B49] (Game in 25)
Fifth Harvard Cup (8), 1994

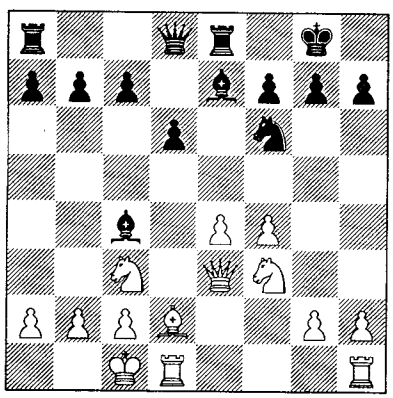
1.e4 c5 2.Nf3 e6 3.d4 cxd4 4.Nxd4 Nc6 5.Nc3 a6 6.Be3 Qc7 7.Be2 b5 8.Nxc6 Qxc6 9.f4 Bb7 10.Bf3 Qc4 11.Qd3 Qxd3 12.cxd3 Nf6 13.0-0 d6 14.Rac1 Nd7 15.Ne2 Nc5 16.Rfd1 Kd7 17.b4 Na4 18.Rd2 Be7 19.Bd4 f6 20.Rdc2 Rhc8 21.Kh1 Rxc2 22.Rxc2 Rc8 23.Rxc8 Bxc8 24.h3 Kc7 25.Kg1 e5 26.Ba1 Be6 27.a3 Kd7 28.d4 Nb6 29.fxe5 dxe5 30.dxe5 Nc4 31.exf6 gxf6 32.Nd4 Nxa3 33.Bc3 Nc4 34.Nxe6 Kxe6 35.Bg4+ Kd6 36.Bf5 h6 37.Kf1 Ne3+ 38.Ke2 Nxg2 39.Bc8 Kc6
(Diagram on top of next column)



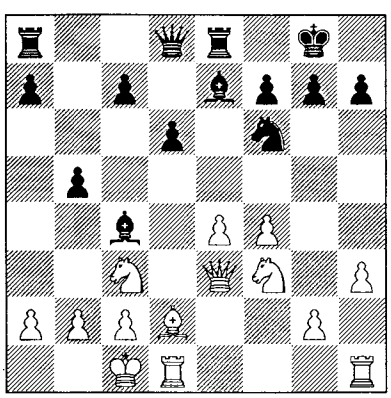
40.Kf3 Nh4+ 41.Kg4 Ng6 42.Kf5 Ne5 43.Ke6 Bd8 44.Bxa6 Kb6 45.Bc8 Kc7 46.Bxe5+ fxe5 47.Bd7 Bg5 48.Bxb5 Bd2 49.Kxe5 Bxb4 50.Kf6 Kd8 51.e5 Be7+ 52.Kf7 h5 53.Be2 h4 54.Bc4 +-+

Shabalov,A - WChess [C22] (Game in 25)
Fifth Harvard Cup (9), 1994

1.e4 e5 2.d4 exd4 3.Qxd4 Nc6 4.Qe3 Nf6 5.Nc3 Be7 6.Bc4 0-0 7.Bd2 d6 8.0-0-0 Ne5 9.Bb3 Be6 10.f4 Nc4 11.Bxc4 Bxc4 12.Nf3 Re8 With the two bishops in a semi-open position, Black has a fine game. *(Diagram)*



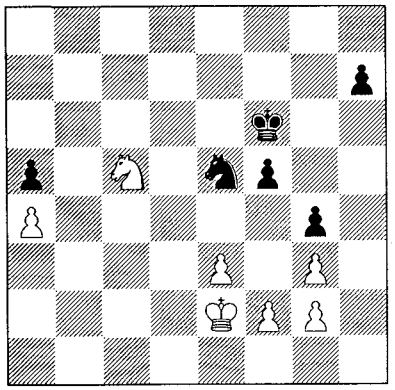
13.h3 b5 Very energetic but it allows White to eliminat one of Black's bishops. *(Diagram)*



13...c6 seems like a strong and solid alternative, which

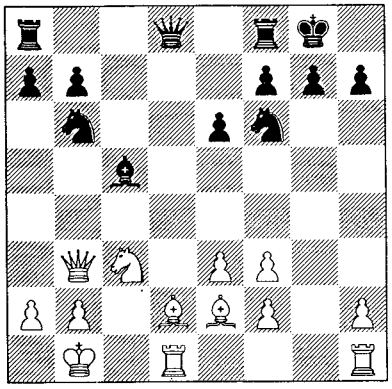
prepares the advance of the b-pawn and the entry of Black's Queen into the game. 14.b3 b4 15.bxc4 bxc3 16.Bxc3 Bf8 17.e5 Rb8 18.c5 Qc8 19.Qd3 dxe5 20.fxe5 Nh5 21.Ng5 g6 22.Qf3 Re7 23.g4 Ng7 24.Rhf1 Qa6 25.Nxf7 Ne6 26.Qf6 Qa3+ 27.Kd2 Rd7+ 28.Nd6 Nxc5 29.Qf3 Qxa2 30.Ke1 cxd6 31.Rf2 dxe5 32.Rxd7 Nxd7 33.Qc6 Nc5 34.Bxe5 Rb1+ 35.Kd2 Bh6+ 36.Ke2 Qxc2+ 37.Kf3 Qd1+ 38.Kg3 Qg1+ 39.Rg2 Rb3+ 40.Kh4 g5+ 0-1

Gulko,B - REBEL 6.0 [D00] (Game in 25)
Fifth Harvard Cup (9), 1994
1.d4 d5 2.Bf4 Nf6 3.e3 Bf5 4.c4 a5 5.Nc3 e6 6.Nf3 Bb4 7.a3 Bxc3+ 8.bxc3 0-0 9.Be2 Ne4 10.Qb3 b6 11.Qb2 Re8 12.0-0 c6 13.cxd5 exd5 14.c4 dxc4 15.Bxc4 Nd7 16.Rac1 Be6 17.Rfd1 Bxc4 18.Rxc4 g5 19.Bg3 g4 20.Nd2 Nxg3 21.hxg3 Qf6 22.Qc2 Rac8 23.Rc1 c5 24.dxc5 Ne5 25.Rf4 Qh6 26.Qf5 Qe6 27.Ne4 Qxf5 28.Rxf5 Re6 29.Rd1 bxc5 30.Rd5 Nc4 31.Rxc5 Rxc5 32.Nxc5 Re5 33.Rxe5 Nxe5 34.a4 Kg7 35.Kf1 f5 36.Ke2 Kf6 *(Diagram)*

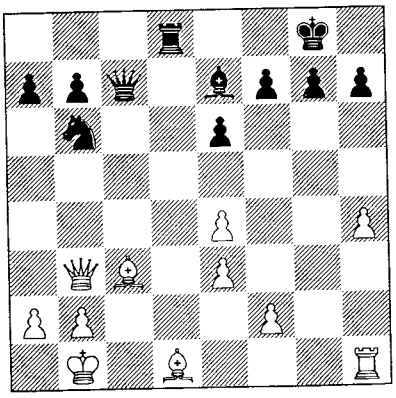


37.Kd2 h6 38.Kc3 h5 39.Nb3 Nc6 40.Kc4 Ne5+ 41.Kd4 Nd7 42.Kc4 Ne5+ 43.Kb5 Nd3 44.Nxa5 Nxf2 45.Nc4 Ke6 46.a5 Kd7 47.a6 Kc7 48.Nd6 Ne4 49.Nxe4 fxe4 50.Kc5 Kc8 1-0

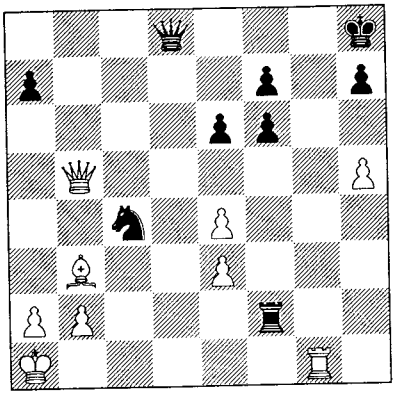
Yermolinsky,A - WChess [D25] (Game in 25)
Fifth Harvard Cup (10), 1994
1.d4 d5 2.c4 dxc4 3.Nf3 Nf6 4.e3 Bg4 5.Bxc4 e6 6.Qb3 Bxf3 7.gxf3 Nbd7 8.Nc3 Nb6 9.Be2 Be7 10.Bd2 0-0 11.0-0-0 c5 12.dxc5 Bxc5 13.Kb1 The game has been book theory up to this point. *(Diagram)*



ECO gives 13.Rhg1 here. 13...Qc7 14.Ne4 Nxe4 15.fxe4 Rfd8 16.Bc3 Rxd1+ 17.Bxd1 Rd8 18.h4 Be7! A strong multipurpose move. It is both defensive in that it prepares for the exchange of White's powerful black squared bishop via ...Bf6 and offensive in that it fights for control of the c4 square. *(Diagram)*



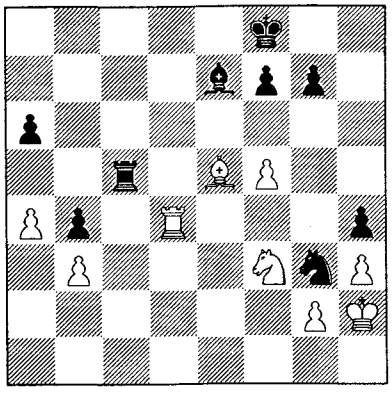
19.h5 Nc4 Threatening 20...Nd2+ 20.Qc2 Bf6 21.Bxf6 gxf6 With the more active pieces, Black now has the advantage. 22.Ka1 Rd2 23.Qc3 Rxf2 24.Bb3 [24.b3? Qe5] 24...b5 25.Rg1+ Kh8 26.Qb4 Qd8 27.Qxb5 This is very risky because the Knight can generate more threats than the bishop from this position. Trading minor pieces was safest although Black would still obtain a good position. *(Diagram)*



[27.Bxc4 bxc4 (27...Rg2! 28.Rf1 bxc4 29.Qxc4 Black seems to have an edge due to his more active rook.) 28.Qxc4 Rg2 29.Qf1 Rxg1 30.Qxg1 h6 A complex but probably drawn ending] 27...Nxb2 28.h6 Although this ties down Black's King, this pawn can later become a weakness in White's position. 28...Qc8 29.Kb1 a6 30.Qb6 Nd3 31.Qd4 Ne5 32.Rd1 Rg2 33.Qb6 Rg8 34.Qd6 Qa8 35.Qd4 Qf8 36.Rh1 Rg6 37.Qb6 Nf3! A beautiful conception. This is more powerful than the obvious 37...Rxh6, which would also likely win. [37...Rxh6 38.Rd1 Qa3 39.Qd6 Qxd6 40.Rxd6 Rh4 41.Rxa6 Rxe4 Black's extra pawns should win.] 38.Qxa6? Nd2+ 39.Ka1? [39.Kb2 Nxe4 (39...Qc5 40.Qd3 Nxb3 41.Qd8+ Followed by mate.)] 39...Qc5! Ignoring the h-pawn and playing for mate (40...Qe5 is threatened). 40.Qd3 Nxb3+ 41.axb3 Qa5+ 42.Kb1 Rg2 0-1

REBEL 6.0 - Benjamin,J [B44] (Game in 25)
Fifth Harvard Cup (10), 1994
1.e4 c5 2.Nf3 e6 3.d4 cxd4 4.Nxd4 Nc6 5.Nb5 d6 6.c4 Nf6 7.N1c3 a6 8.Na3 Be7 9.Be2 b6 10.0-0 Bb7 11.Be3 Nb8 12.f3 Nbd7 13.Qd2 0-0 14.Rfd1 Qc7 15.Rac1 Rac8 16.b4 Qb8 17.Na4 Ba8 18.Bf4 Ne5 19.Qe3 Nfd7 20.Bxe5 Nxe5 21.Qxb6 Bc6 22.Qxb8 Rxb8 23.b5 Bd7 24.Rc3 Rfc8 25.f4 Ng6 26.g3 d5 27.exd5 exd5 28.Rxd5 Be6 29.Rh5 axb5 30.Nxb5 Bf6 31.f5 Bxc3 32.Naxc3 Bxc4 33.Bxc4 Rxc4 34.fxg6 hxg6 35.Rd5 Rbc8 36.Rd3 f6 37.h4 Kh7 38.Kf2 Kh6 39.Ke3 Kh5 40.Kd2 Ra8 41.a4 g5 42.Rd5 Rg4 43.hxg5 Rxg5 44.Rxg5+ Kxg5 45.Ke3 Kg4 46.Kf2 f5 47.Nc7 Ra5 48.N7d5 Rc5 49.Kg2 Ra5 50.Ne3+ Kg5 51.Kf3 g6 52.Ned5 Rc5 53.Ke3 Kg4 54.Kf2 Kg5 55.Kf3 Ra5 56.Nb6 Rc5 57.Nd1 Rc1 58.Ne3 Ra1 59.Nec4 Rb1 60.a5 Ra1 61.Nd5 Ra4 62.Ne5 Kh6 63.Nc6 g5 64.Ndb4 Ra3+ 65.Kf2 Kh5 66.a6 f4 67.gxf4 gxf4 68.Ne5 Ra4 69.Ned3 f3 70.Nf4+ Kg4 71.Nfd5 Kg5 72.Nc3 Ra5 73.Nca2 Kf5 74.Nc1 Ke6 75.Nb3 Ra3 76.Nd4+ Kd7 77.Nb5 Ra5 78.Nc3 Kc8 79.Ncd5 Ra1 80.Ne3 Kb8 81.Nec2 Ra4 82.Nd4 Ka8 83.Ndc6 Ra1 84.Ne7 Ka7 85.Nc8+ Kb8 86.Nb6 +-+

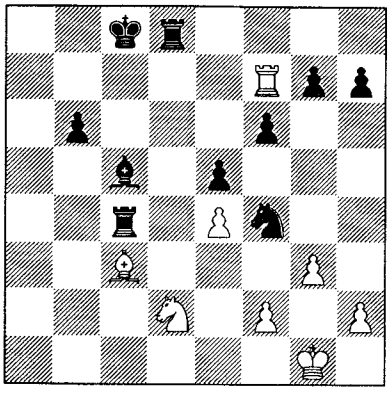
WChess - Gulko,B [B33] (Game in 25)
Fifth Harvard Cup (11), 1994
1.e4 c5 2.Nf3 Nc6 3.d4 cxd4 4.Nxd4 Nf6 5.Nc3 d6 6.Bg5 Qb6 7.Nb3 e6 8.Bf4 Ne5 9.Be3 Qc7 10.f4 Nc6 11.Be2 Be7 12.Qd2 a6 13.Bf3 b5 14.0-0 Bb7 15.Rad1 0-0 16.Qf2 Rac8 17.Bb6 Qb8 18.Kh1 Rfe8 19.a4 b4 20.Ne2 e5 21.f5 Qa8 22.Ng3 Nb8 23.Qe2 Bc6 24.Ra1 d5 25.exd5 Bxd5 26.Bxd5 Qxd5 27.Bg1 Nbd7 28.Rfd1 Qc4 29.Qxc4 Rxc4 30.Rd2 h5 31.Rad1 h4 32.Nf1 Rc7 33.h3 Rec8 34.Ne3 Nb6 35.Bh2 Nc4 36.Nxc4 Rxc4 37.Bxe5 Rxc2 38.Rxc2 Rxc2 39.Nd4 Rc5 40.Nf3 Kf8 41.b3 Ne4 42.Rd4 Ng3+ 43.Kh2 *(Diagram)*



Nxf5 44.Rxb4 f6 45.Bb8 g5 46.Rb6 Rc2 47.Rxa6 Ne3 48.Kh1 Nxg2 49.Nd4 Rb2 50.a5 Ne3 51.Re6 Rb1+ 52.Kh2 Rb2+ 53.Kg1 Bc5 54.Bd6+ Bxd6 55.Rxf6+ Ke7 56.Re6+ Kd7 57.Rxe3 Bc5 58.Rd3 Kc7 59.Kf1 Bxd4 60.Rxd4 Rxb3 61.Rc4+ Kb7 62.Rc5 Rg3 63.Kf2 Ka6 64.Rd5 Rxh3 65.Rxg5 Ra3 66.Kg2 +-+

REBEL 6.0 - Rohde,M [B33] (Game in 25)
Fifth Harvard Cup (11), 1994
1.e4 c5 2.Nf3 Nc6 3.d4 cxd4 4.Nxd4 Qb6 5.Nb3 Nf6 6.Nc3 e6 7.a3 Be7 8.Bf4 0-0 9.e5 Ne8 10.Bd3 f6 11.Be3 Qc7 12.exf6 Nxf6 13.0-0 d5 14.Nb5 Qd8 15.f4 e5 16.fxe5 Nxe5 17.Nxa7 Bg4 18.Qd2 Nc4 19.Bxc4 dxc4 20.Qxd8 Rfxd8 21.Nc1 Nd5 22.Bf2 Bg5 23.Re1 Re8 24.Rxe8+ Rxe8 25.Nb5 Ne3 26.c3 Nd1 27.h3 Bh5 28.g4 Bg6 29.Nd6 Rf8 30.Bd4 Nxb2 31.Nxb7 Rf3 32.Kg2 Be4 33.Nc5 Bd5 34.Ne2 Rxc3+ 35.Kf1 Rf3+ 36.Ke1 Nd3+ 37.Nxd3 cxd3 38.Nc3 Rxh3 39.Nxd5 Rh2 40.Kf1 Rc2 41.Rd1 1-0

Rohde,M - WChess [A34] (Game in 25)
Fifth Harvard Cup (12), 1994
1.Nf3 Nf6 2.c4 c5 3.Nc3 d5 4.cxd5 Nxd5 5.e4 Nb4 6.Bb5+ N8c6 7.d4 cxd4 8.a3 dxc3 9.Qxd8+ Kxd8 10.axb4 cxb2 11.Bxb2 Bd7 12.0-0 Ke8 13.Rfd1 f6 14.Ba4 e5 15.b5 Nd8 16.Rac1 Ne6 17.Rd5 Nf4 18.Rxd7 Kxd7 19.b6+ Ke6 20.Bb3+ Ke7 21.Rc7+ Kd8 22.Rxb7 axb6 23.Bc4 Ra4 24.Nd2 Kc8 25.Rf7 Bc5 26.g3 Rd8 27.Bc3 Rxc4 0-1 *(Diagram)*



Wolff,P - REBEL 6.0 [B30] (Game in 25)
Fifth Harvard Cup (12), 1994
1.e4 c5 2.Nf3 Nc6 3.Bb5 e6 4.0-0 Nge7 5.c3 a6 6.Ba4 b5 7.Bc2 Bb7 8.d4 cxd4 9.Nxd4 Ng6 10.Be3 Nxd4 11.cxd4 Rc8 12.Nd2 d5 13.e5 Be7 14.Bd3 0-0 15.f4 f5 16.exf6 Rxf6 17.g3 Qe8 18.Nf3 Bd6 19.Ne5 Ne7 20.g4 Rf8 21.Qe2 Nc6 22.Rad1 Nb4 23.Bb1 g6 24.Rf2 Nc6 25.h4 Be7 26.Rh2 Nxe5 27.fxe5 Qd7 28.g5 Qd8 29.Qg4 Rc6 30.h5 Rf5 31.Bxf5 gxf5 32.Qf3 Kh8 33.Rg2 Qa5 34.g6 Qxa2 35.gxh7 Qb3 36.Re1 Bg5 37.Rxg5 Qb4 38.Qg3 1-0

STAR-SOCRATES - DEEP THOUGHT 2 B66 (40/2)
ACM Tournament, 1994

1. e4 c5 2. Nc3 Nc6 3. Nge2 Nf6 4. d4 cxd4 5. Nxd4 d6 6. Bg5 e6 7. Qd2 a6 8. 0-0-0 h6 9. Bf4 Bd7 10. Nxc6 Bxc6 11. f3 d5 12. Qe1 Bb4 13. a3 Ba5 14. Bd2 0-0 15. exd5 exd5 16. Bd3 Re8 17. Qh4 d4 18. Na2 Bxd2+ 19. Rxd2 a5 20. Bc4 b5 21. Rxd4 Qe7 22. Bf1 Qe3+ 23. Rd2 b4 24. Qd4 bxa3 25. Qxe3 axb2+ 26. Kxb2 Rxe3 27. Rd6 Rb8+ 28. Kc1 Ra3 29. Rxc6 Rxa2 30. g3 Ra1+ 31. Kd2 a4 32. Bg2 Rd8+ 33. Ke2 Rxh1 34. Bxh1 Ra8 35. Rb6 Nd5 36. Rd6 Nc3+ 37. Kd3 a3 38. Kxc3 a2 39. Rd1 a1Q+ 40. Rxa1 Rxa1 41. Bg2 Rg1 42. Bh3 Rh1 43. Bc8 Rxh2 44. g4 Rf2 45. Bb7 g6 46. Kd3 h5 47. gxh5 gxh5 48. Be4 h4 49. Ke3 Rg2 50. Bf5 Rg5 51. Bh3 Rg3 52. Bf1 h3 53. Kf2 h2 54. Bg2 Rg7 55. f4 f5 56. Kf3 Kf7 57. Kf2 Rg4 58. Kf3 Ke7 59. Kf2 Rg8 60. Kf1 Kd6 61. Kf2 0-1

So, What's New, You Ask.

by Steven Schwartz

As indicated in the last issue of *Computer Chess Reports*, Saitek purchased Mephisto which had previously purchased Fidelity. The Fidelity purchase by Mephisto in 1988 was actually the beginning of the end of business as we knew it in the computer chess business.

Fidelity was always the center of the computer chess universe. They sold, by far, more chess computers in the United States than the others, and since they were capable of reacting to the American market so quickly, they could counter other manufacturer's moves with better, less expensive models practically on a moment's notice.

There were countless occasions in the early 1980's when one manufacturer or another would win a major tournament with a new chess computer, but by the time they could get it to the marketplace, Fidelity was there first with something even better. That speed often resulted in a quality control that was less than admirable. Those of you who have followed this magazine all these years are well aware of some of the problems that have plagued our industry.

So Mephisto, a very successful German manufacturer of chess computers, licked its chops at the thought of owning Fidelity and having the best of both worlds: the high end, quality machines made in Germany - the ones with Richard Lang's world champion programs and the mass market computers that had decent programs at very reasonable prices. How could they lose? Now they could fend off the expanding Saitek and the niche market Novag and perhaps put them out of business, leaving the whole shebang to themselves. Ahhh, capitalism at its best!

Well, not every fairy tale has a happy ending. Mephisto made some pretty serious tactical errors. First, they really had no sense of what the American market was all about, but much more importantly, they thought the folks running Fidelity (the people so expert at pushing huge numbers of low end product) would be capable of promoting Mephisto's high end line in the U.S.. What a mistake! Fidelity just was not equipped to handle the professional chess customer who needed to know how to set up a mate in 12 or wanted to know why the computer moved its knight instead of its white bishop to c7. Fidelity was a mass marketing genius but a support moron.

In order to stem the bleeding, Fidelity, under the auspices of Mephisto, hired our own Larry Kaufman to support these customers, but one man (even Larry!!!) answering the phone one day a week was not going to turn this situation around. It is said that Fidelity lost Mephisto 10 million dollars in the first four years of ownership. Great investment! Even the successful Mephisto could not survive the beating. After all, they were a chess computer company, not AT&T.

Bankruptcy was the only logical answer. And so it was. For one year Mephisto reorganized their business and finally emerged as a smaller and weaker participant in the computer chess field.

During this period, Saitek strengthened its position because someone ALWAYS fills the vacuum in this industry and became the dominant force. Saitek was so daring that they forayed into the high end - something they had not attempted for some time. The result of this movement upward was the production of the RISC 2500 - a better, stronger chess computer at a lower price than anything previous to it. If this would not kill off Mephisto completely, nothing would!

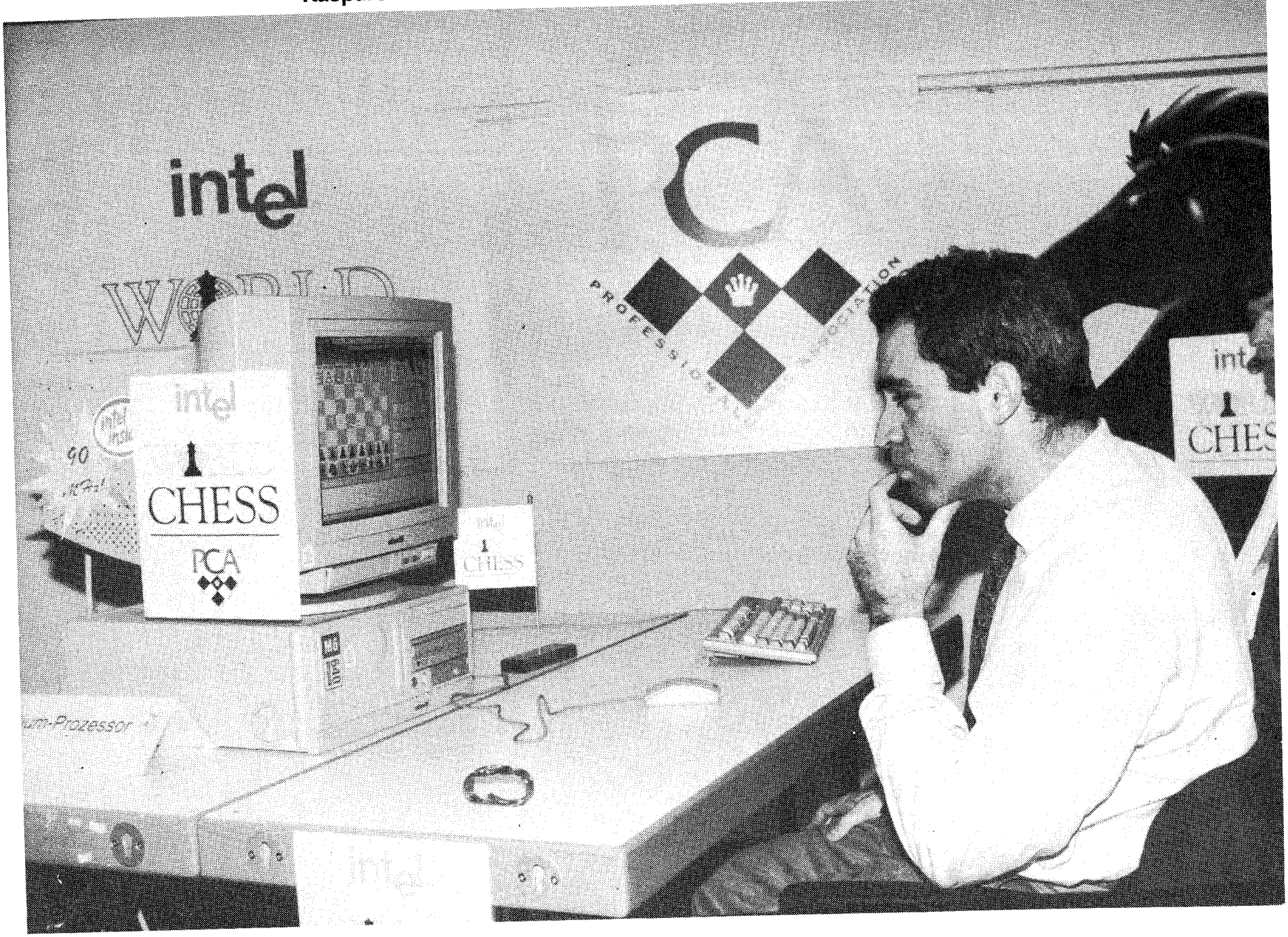
The computer chess gods determined that it was not to be. They commanded that the RISC 2500s that were flawless in their first production run would not survive the second run. Every last unit produced from that point onward would break, either immediately or a short time thereafter. So, just like automobiles, there was a RISC 2500 recall. Not the ones in the first production because those are still working fine, but every one after that.

That opened the door for the Berlin 68020 which was $100 more but also somewhat stronger than the RISC 2500. Zap, another bolt of lightening. Mephisto, in its weakened state, could not afford to supply the demand, and that is when Saitek pounced. The largest fish (Saitek) swallowed the smaller fish (Mephisto) which had swallowed the smaller fish (Fidelity) and practically choked to death.

So, where does that leave us now? Mephisto, as this is written, appears to have shrivelled up into nothingness at least as far as the U.S. is concerned. The U.S. repair facility for Mephisto/Fidelity that existed when Mephisto ran the show here is gone. So, any Mephisto machines that become defective must be returned to Germany, and defective Fidelity machines can go into the garbage. The U.S. arm of Saitek claims no responsibility for Mephisto/Fidelity product and, at this time at least, apparently has no interest in importing any new Mephisto product.

But remember the vacuum filling discussed earlier? With the help of a European manufacturer, RISC 2500s may be making a reliable comeback. By the time you read this, a few remanufactured units may arrive here for reliability testing at Saitek's request. If they survive the heavy abuse that we are planning to throw at them, you may just be able to buy one at your local computer chess store for $600 - $700. Still an excellent buy for a stand-alone computer chess machine!

Forrest Gump said, "Life is like a box of chocolates." I say that the computer chess field is like an amoebae. Whatever it is today, it is likely to be completely different tomorrow. Put THAT in your candy dish!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