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Round 1
In the first round of the 19th World Computer Chess Championship four games were played. Pandix had a bye. There are three programs which are clear candidates for the title namely Junior, Shredder and Hiarc with three programs fulfilling the role of an outsider. They are Pandix, The Baron and Jonny. The other three programs have to struggle for their points.

In the first round junior played Woodpusher. It was a sharp Sicilian defence in which Woodpusher defended in Sveshnikov-like way. However Junior had good feeling for the tactical possibilities in the position and outplayed Woodpusher convincingly. The penetration of queen and rook into the black kingside was devastating. As a real professional player Junior aimed at mating the black king instead of winning a piece. Junior succeeded. A good start by Amir Ban and Shay Businsky.

In the game Jonny-Hiarc we saw the well-known queens gambit in which black has to fight for an equal position. White played very solidly and aimed at a small advantage when the middle game started. By giving up castling to the king side white managed to have some spatial advantage. After the exchange of queens black still had difficulties with developing his bishop on c8. Nevertheless, white had no opportunity to substantial advantage of the position. Black regrouped its pieces and almost received an equal position. At that point in the contest white decided to sacrifice a pawn.

Owing to the difficult position of the black rook in the middle of the board white had a slight initiative. Moreover the white pieces penetrated the black position, but black could hold is own without returning the plus pawn. Still white was able to maintain the
spatial advantage and it was by no means clear how black realise his material advantage. Both players did some weak trials but finally agreed in a draw.

The game Rookie-Shredder was a remarkable game. Black played an unknown variation of the Sicilian defence to which white reacted adequately. The black position was for a long time difficult to evaluate because white seems to have more opportunities although it was hard to find concrete variations for maintaining the optical advantage. White played very inventively but black time and again found sufficient counter play. After the scrimmage in the middle game black seemed to build up a better pawn position for the end game. However white was able to develop sufficient counter play in the centre and on the queenside. The end game was exciting for the human eye but is sure that computer programs saw no danger because all variations were easily calculated. In the end we may state that the draw never had been out of sight for any player.

The game The Baron-Booot was the most impressive game of the first round. Since we do not know what will follow in this tournament we can not predict its position on the list of remarkable games but the story on this 64 squares was breathtaking. It started by a quiet Taimanov variation of the Sicilian defence. Black defended well but white gained some advantage in the centre and tried to concentrate its pieces on places fit for a king attack. The black reply was adequate and whites chances seemed to disappear. However white played a deeply calculated queen sacrifice on move 15.

The material position was very unbalanced. Black had queen and two pawns for which white had three pieces and the initiative. In its attempt to have more space black sacrificed two pawns in order to gain the exchange. This transaction made the position even more unbalanced. However computers nowadays can search forward very deeply implying that after many captures and recaptures white was facing a black skewer on d8. It had to lose one of his knights. The first development led to an endgame of two pieces against a rook with each side having three passed pawns on different sides of the board. Both sides started to place the kings well and then to run with the pawns. There were many subtleties on which both sides had to react accurately. It was for the spectators fascinating to see that the evaluations of the programs did not agree. Whereas Baron thought it had an advantage Booot was sure of making a draw. As
matters went. The Baron moved its pawn quiet effectively to rank 7 but unable to win. The resulting endgame position after black had sacrificed it rook for the pawn. The three passed pawns were sufficient compensation for the two white pieces that had to block the pawns. Draw was deserved for both sides.

So, after one round Junior is in the lead. In our standings we do not provide points for a bye.

**Round 2**
The game Woodpusher-Jonny had a remarkable start (1. Nf3, g5). From the beginning white was on an unknown path, which confused him quiet considerably. He did not manage to put its pieces on the right place and so black obtained a very comfortable position with many chances. In a complicated situation white threatened to lose a piece and decided to sacrifice its queen instead. Although the material balance was almost even, black had more chances and locking in the white bishop. Castling to the queenside did not help much for white and a huge wave of aggressive black moves he succumbed.

In Hiarcs-Rookie the Ruy Lopez took care of a solid position of both sides. In the middle game white increased the pressure on the square e5. Black did not reply adequately which resulted in a position with a pawn up for white. At that point in time black created counter play and managed to find threats one after another. However they were small threats and after annihilation of all of them white had a technical won position. It took white some time but the end was unavoidable for black.

The game Shredder-The Baron started as a queen’s gambit. It followed the trodden paths in which black tried to challenge the white pieces. Obviously Shredder replied to the challenges by positional solidly play. White tried to collect the series of small advantages in order to wait for the result of the combination of these small advantages. Black understood very well what was going on and decided to complicate matters in a for human beings acceptable way. However computers are deep calculators and Shredder showed that the ideas followed by black were not productive. The result was a piece down without counter play. Shredder deservedly won the game.

The game Pandix-Junior had also an original start although we agree for Pandix it’s followed a well-known concept of his own. Pandix played very solidly and left taking the initiative to black. Junior understood what to do and placed its pieces on the best squares it could find. But it was very difficult to find a plan in which possibilities to win to game were still present. At some times black had to be careful otherwise it would take to many risks for the chances it had hoped for. As the game proceeded there were small ups and downs for both sides but the game never crossed a border. The perseverance of both sides was not only to please the public but also to try really hard to get the opponent in the wrong position. Since both sides were very alert and not allow the opponent any chance and the result was a draw.

**Round 3**
The program Pandix pleasantly surprised by a convincing victory against Jonny. The start was a quiet queens gambit, but when white decided to castle to the queenside black
obtained chances for a king attack together with acquiring positional advantage on the queenside. As a consequence white had to search for chances on the kingside. He did so by changing his two bishops for two knights. On longer run these exchanges are questionable. As the game went Jonny decided to sacrifice a knight for two pawns. However the attack envised did not work well and black was able to exchange queens. Although white had some play with the two pawns, all in all it was not sufficient compensation for the two bishops. Black correctly handled the threats and won the game.

Woodpusher played a remarkable game. It focussed on taking pawns where it was possible. Starting from the Scottish gambit the program was soon two pawns up. However the development of its pieces was under mediocre level. White took the spatial advantage to start a king's attack. Woodpusher defended cleverly and time and again it had a surprising riposte. Yet the white attacking machine was filled with a range of ideas that worked out well. It was not a kings attack that decided the game but the plain exchange of pieces and pawns that resulted in won endgame for white.

The Baron-Hiarcs was a Sicilian defence following the lines of Najdorf with a slight deviation at move six. Black played it in a modern way with h5 in an early stage. The exchange of pieces made position dynamic but the balance was still there. White tried to make some progress on the queenside but black was alert and sacrificed the exchange for a pawn. It looked that in the long run white could develop a play for winning the game. However blacks counter play was surprisingly well estimated by the program and white had to concede that direct winning the game was impossible. So the Baron decided to design a very slow strategy in the hope to achieve step by step its goal. Indeed many steps were played but no pawn was move and no piece was captured. At the end of the series of 49 moves black allowed himself a small joke by playing 88. ..., Nb4 and claiming a draw. The move in it self gives away the knight but that is not an issue since before being able to take the knight white had to concede into a draw.

The game Booot-Shredder was a long, very long game. It had exiting moments but most of them were strategic forward and backward play. The game started promising but soon the pawn structures were interwoven in such a way that only delicate play could afford penetration into the opponent’s position. Both sides were looking for their chances. With the idea that sacrificing a pawn would help white to reach its goal a new phase was started. The white initiative was stopped by black and a consolidation phase at the white side started successfully. Black could not achieve many things and therefore attempted to play so long forwards and backwards that all of a sudden white decided to become active and push passed h-pawn. Indeed it reached h7 but there it captured. Thereafter black prepared for the next phase. As similar description holds for the f-pawn. However after the capture of the f-pawn, white’s position was lost. Well played by Shredder.

After three rounds Shredder is in the lead with 2.5 points.

**Round 4**

In the Slav opening phase black played rather active in the game Hiarcs-Booot but Hiarcs placed its pieces on the right places and achieved spatial advantage. The indirect
exchange of knights ended with a queenside initiative for white, which resulted a pawn up. Black fought for its life but it was in vain.

Woodpusher-The Baron was an exiting game. Woodpusher player rather active and The Baron had to look for counter play. It developed a counter active quiet adequately. In emerging struggle it was not clear to what extend the programs the consequences of their decisions. For human spectators it was can full of large and small surprises. Both programs excelled in finding trouvailles. Black turned out to have the better calculation for this particular position. It sacrificed its rook for an unstoppable advancement of its b-pawn. Queening that pawn result immediately in a won position for black.

Pandix-Rookie was an English opening in the style of Pandix. Rookie obtained many possibilities. That looks a comfortable position but it also forces you take time and again the right decision. Pandix style is to challenge the opponent in this respect. Rookie made for a long time the right decisions but we saw that Pandix strategy started to work well. White obtained advantage and combined this with tactical manoeuvres, for instance if black had played 32. ... Qxe4 33. dxe4, Rxf3 34. Rxf3, Rxf3 then white had answered Bb4 and black’s position was definitely worse. As the game proceeded white was able to place its pieces on the essential squares. However black defended ingeniously and so white had to find more tactical lines to reach the goal. White did well, found the right moves and win the game.

Junior and Jonny played old Winawer variation of the French defence. They followed theory to a large extend and in the phase were they went out of book they were still in a double-edged position. Both player relied on the capabilities of their program and hoped for the best. Jonny was supported 800 active processors. One can imagine how many variation and particular how deep the variations were computed. The power of Junior was in its audacity. The value of a pawn was unimportant. Then the position intended to end in a draw by the fact that the dynamics could be considered equal. However that was not what programs wished for them selves. So they decided to go to the extreme. Black played for the attack and white for queening its h-pawn. Both succeeded in their aim. So in the final position white was a queen up but had to allow that black was giving perpetual check. It was not a repetition of moves but it was impossible for white to escape the black queen giving check.

The standings are 1. Hiarcs 3 (out of 4) 2. And 3. Pandix and Shredder 2.5 (out of 3).

**Round 5**

In the game Hiarcs-Woodpusher the opening was double fianchetto. After a slow start in which phase both side put its pieces on the right place, black decided to make an attempt in protecting a temporarily pawn on c4. It even decided to give the exchange for it. That was a strategic mistake since from that point onwards Hiarcs was able to show its professionalism and won the game easily.

Shredder played a queens gambit with Pandix. The black advancement of pawns on the queenside was neutralized by white by keeping the position closed. Thereafter white opened the centre but black reacted aggressively with 25. ..., g5. White may have hoped to start a king’s attack but black had calculated well and gave white no opportunity to
penetrate. Pressure along the c-file and the e-file was developed by Shredder but did not lead to success. After the exchange of the four rooks the resulting endgame looked equal but some excitement arose when white sacrificed a piece for two pawns but it was all done with perpetual check in its game tree. That was indeed how the game ended.

The Baron played a strong game against Jonny. After the French opening white had a small but clear advantage. Twenty moves long it tries to substantiate this advantage. Black played adequate defensive manoeuvres and even allowed a weakening of his kings pawn structure. White continued to give pressure in a queen ending but at one moment (44. ... Qc8) black saw the opportunity to remove the advanced white a-pawn in exchange for his e-pawn. From that moment the game was a clear draw.

In het Booot-Junior the white player started with enthusiasm. Boot attempted to keep the advantage of the white player, was active on the queenside subsequently in the centre and thereafter on the kingside. Junior might have been surprised as a through professional did not come into troubles. But for a long time there was no perspective of winning the game. However on move 28 white was probably too enthusiastic and this might have been the moment for which Junior was waiting. Black obtained some crucial positions on the board at the cost of only one and later two pawns. By sharp calculation Junior composed a counterattack, which was decisive.

After five rounds, Hiarcs is leading with 4 (out 5) followed by Pandix, Shredder and Junior with 3 (out 4).

**Round 6**

In the game Woodpusher-Shredder the white player dealt quiet well with the opening. In an equal position it faces the well-known best move problem. For one or another reason it decided to play 19. Rc1-b1. On the next move the rook returned to its original place 20. Rb1-c1. Black could only have a small advantage from the two tempi lost by white by turning the middle game into a advantageous endgame. However in the endgame there turned out to be a complex capture problem. It started by 29. Nf4. The program with the deepest calculation could take the better decisions. Obviously this was Shredder, which ended up with two pawns. Woodpusher resigned.

In Jonny-Rookie black weakened its position already on the 7th move playing 7. ..., c4. Seven moves later it lost its first pawn. Yet this loss this seems to encourage black to play as good as possible. Another 20 moves it gave good fight but the loss of the game was unavoidable. In the last 20 moves Jonny showed its power and its computer chess techniques. A well deserved win for white.

The game Junior-The Baron started by a quiet Pirc defence. Black was aggressive on the queen side and white annihilated the power of the bishop on g7. After the exchange of the white squared bishops the difficult work was taken over by the knights. They manoeuvred forwards and backwards with the idea to seduce its opponent to weaken the pawn formation. Junior did quiet well and The Baron saw its king protecting pawns move forward. With a nice sacrifice of the knight (see the diagram after move 27: 28. Nh5+*) the black position was blown up. However the attack was not sufficient for mate. The final blow came from the advancement of the h-pawn. On move 41 black resigned.
In the game Pandix-Boot white would like to have a fight from the beginning and therefore the program went out of the opening book itself by 1. c2 and 2. h3. Never the less the game developed as a queens gambit in which both side placed their pieces on well-known squares. After the exchange of minor pieces black took the initiative. Since white had a solid position there was single thread. At one point in time the players surprised each other by offering an indirect exchange of pieces. After a delay from both sides the exchange was finally done. However the bishops were on opposing colours and pawn structures were completely in balance. In particular because white had a double g-pawn. The game in this configuration lasted for another 20 boring moves before a draw was agreed.

After round 6 the ranking is that Junior, Shredder and Hiarcs have 4 (out of 5) and Pandix and Jonny are following with 3.5.

**Round 7**

The game The Baron-Pandix was decided by the user interface that was connected to the Pandix program. The precise error is a topic of research for Gyula Horvath but what happened in the is not worth an extensive discussion since on move 10 it placed its knight en prise and the Baron replied with thank you: 11. Bxa5.

In the game Rookie-Junior it looked like a rook as the value of a minor piece. Three times we saw a rook being exchanged for a minor piece. Junior started it all after the opening the position was more or less equal. Then white played some calm moves, which gave Junior to take the initiative. As usual Junior did it forcefully and improved its influence in the centre by giving up the exchange. Soon white felt the pressure of the black pieces. It was looking for opportunities to lower the pressure by returning the exchange but it did not find appropriate opportunities for it. In the end it could only stop the attack by giving up the rooks for well place pieces. The technique of winning a won game was in good hands with Junior.

The game Booot-Woodpusher was played according to the French book which available to both programs. They followed the standard theory as well as some games that have
been played with this variation. Once out of book the situation full of tactical opportunities, which the computers had to calculate by their own CPUs. That was a difficult task especially since the horizon effect played a role. End positions in the game tree that looked to be stable were in fact dangerous and full of intricacies. In the beginning black’s audacious and aggressive manoeuvres looked promising but the right counter attack was more contempt full then expected by black. At the time that black realised itself that his position was weak it was to late and sacrificing a rook for a hand full of pawns was not sufficient. White won the end game quiet easily.

The exiting game of the round was between Shredder and Hiarcs. They started by a Slav opening and tried at both sides to attain the initiative by small moves. Since the playing strength is almost equal the programs understood that they had to find subtleties in order to reach their aim. For this task black decide to sacrifice a pawn for some aggressive opportunities. It took some time before black could create the first real threat. However as soon as they were visible white was alert and gave two pawns for reaching an end game in which Shredder had the initiative. A pawn down in an end game is substantial but the initiative was sufficient compensation and in the end both players agreed to a draw by seeing perpetual checks.

After seven rounds Junior leads with 5 (out of 6), Shredder 4.5 (out of 6) and Hiarcs 4.5 (out of 6).

**Round 8**
After a Ruy Lopez opening both players in the game Rookie-The Baron were developing their own plans on the long term. They played forward and backward in order to find the optimal positions for their pieces. Black believed to gain some space by playing 29. ..., h7-h5. Richard Pijl must be surprised after Rookie’s answer that was no less then sacrificing a piece for two pawns and a handful of checks. There was no real danger for the black king but the position had some kind of dynamic balance and the only way for black to substantiate its material advantage was by sacrificing the exchange. So play continued with unequal material forces at both sides. Black slowly made progress but white ingeniously countered. The best black could achieve was a queen ending with a pawn up. To achieve some progress black gave up the pawn for strong advance of its b-pawn. However both kings were not really protected so the programs had to calculate large trees full of checks. In this phase The Baron announced a win in some thirty moves. Rookie was convinced that it should be through however they tournament director Jan Krabbenbos would like to see this claim in reality and commanded that the game should continue. That was a good decision since a few moves later the claim by The Baron was no longer visible on its screen. We don’t know what happened and don’t know what has happened. The play continued and meanwhile advice was requested to the Stefan Meyer Kahlen’s databases on the Internet. The verdict was that the position was a win for black in 43 moves. With this knowledge the tournament director and both participants continued play to see what the programs would make out of it (of course without having the knowledge the tournament director and the readers have). Replaying the moves you can see what happened. Suboptimal moves where made on both sides but in the end black won the game.
The game Jonny-Boot looked like a test: to what extend can you play passively without losing the game. Black made a fair attempt to show that this could be done for the whole game. Jonny had a difficult task to prove that it was not true. It took white a long time before he could substantiate its small advantage and confront black with difficult problems. By subtle manoeuvres white was able to achieve a passed pawn on the kingside. This passed pawn was continuous threat for black and finally it decided the game. A well deserved victory for Jonny.

In the game Junior-Shredder a modern variation of the Sicilian defence was played. Black efficiently exchanged some pieces and developed the black squared bishop before making its centre position clear. White continued the exchanges of pieces in order to have a small but definitive advantage in space. Black refrained from castling and looked for active play with its knight on g4 and bishop on g6. It was sufficient counter play. White had to annihilate the threats, which lead to a further simplification of the position. In a queen and two rooks ending white still had the initiative and black had to play very cautiously. This task was in good hands of Shredder. Nevertheless Junior increased the pressure on black's position, which resulted in winning the h-pawn. After regrouping its pieces and penetrating the black queenside, it looked that a victory was near. A further simplification to a rook ending with two pawns up gave the spectators the impression that white was winning. However the logical move xx. Ra6 gave black some counter chances. From that moment on and again there was “something”, white had to prevent that white regained a pawned. The black passed e-pawn was running forward and that blacks rook penetrated in whites position. These three elements turned out to be ample compensation for the material advantage. The end game is worth to be analyzed in more depth. As the game went on, Shredder could hold on and achieved half a point in the end game where it still was two pawns down. However the position was an elementary well-known draw position.

The game Pandix-Hiarcs started as a Ruy Lopez. It was a tough game in which both players tried to place their pieces well before they went over to the real contest. Black concentrated his played its play on capturing pawn e5. White countered with tactical manoeuvres. One of these manoeuvres came into being after black finally had captured the pawn on e5. White replied with a capture on f7 reclaiming the piece on c5. The intricacies where more complex then only this combination, but both sides had many tactics at their disposal. So an end game arose which was exiting, but with chances for both sides. White tried to outplay black with many manoeuvres that deserved a better outcome then happened today. Black defended very well and after many trials white had to admit that the game was a draw.

The standings are: Junior with 5.5 followed by Shredder and Hiarcs with 5 out of 7.

**Round 9**

In the last round, Junior was a half point ahead, but had a tough opponent in Hiarcs. After a Grunfeld opening the position was difficult. Hiarcs was fighting for its own chances and would like to win. It posted many problems to Junior which program decided to sacrifice the exchange for a pawn. With two bishops and a rook it certainly had a dynamic balance against the material advantage of two rooks and a bishop for white. Both program search very deep in the game tree because evaluation of positions
on static features is difficult. The dynamics of the position lead Hiarcs to give black in many variations the opportunity to regain the exchange. However black refused and looked for even more prosperous continuations. Black succeeded very well in continuing the fight. Yet Hiarcs was alert and finally managed to give back the exchange for an equal ending. However black managed to maintain complex positions but for a chess program of the calibre of Hiarcs it was easy to avoid the traps posted by black. After some more exchanges the game finished in an ending of differently coloured bishops. This was a clear draw. So, Junior had to wait for the outcome of the game Shredder-Jonny.

Meanwhile the game Shredder-Jonny had progressed to an interesting midgame. From a normal quiet queens gambit both programs had managed to achieve some interesting midgame complications. Black believed to win a pawn in a complex situation but white had looked very far in advance and was sure was to regain the pawn. However the situation after the material balance has established as equal was important for a correct judgement on the position. Here it looked that black had some initiative but the counter play by white turned out more than sufficient for the small threats posed by black. In the following phase both programs showed both games that their game trees were full of answers. So they managed to compute the chances at both sides very well that resulted in a spectacle that might be exiting for the public but programs knew better. The draw went never out their perspective. At the end both players agreed to a draw, which meant that the 19th world title was for Junior.

In the game Booot-Rookie black played the opening phase to optimistically. It accepted an isolated double f-pawn. Originally there was some counter play but for chess players it was clear that blacks position was not connected. White cautiously used the initiative to find combinatorial ways of winning material. White succeeded in exchanging its rook for two pieces and must have thought that winning the game was easy. That turned out to be not the case since black found many methods to prolong the game. However the outcome was never disputed seriously. White won as expected.

The game Woodpusher-Pandix was expected to be easy for Pandix. However Woodpusher showed its playing strength to a large extend. It played well and obtained many chances for a better outcome. Pandix sacrificed two pawns for attacking chances, deeper analysis should proof the truth of the concept. As the game was played many tactics obscured a direct evaluation but in the end the stronger program succeeded in offering the white side so many choices that Woodpusher took the wrong direction and lost the game. ‘This was probably my best game in the whole tournament’ according to John Hamlen.

Final standing: First and the 19th World Champion Junior with 6 out of 8. Shredder and Hiarcs share second and third place with 5.5 out of 8.