

**THE 14<sup>TH</sup> CSA WORLD COMPUTER-SHOGI CHAMPIONSHIP****Kazusa Academic Park, Kisarazu, Japan****May 2-4, 2004***Reijer Grimbergen<sup>1</sup>*

Yamagata, Japan

**Introduction**

The 14<sup>th</sup> CSA World Computer-Shogi Championship was held on May 2<sup>nd</sup> to 4<sup>th</sup> 2004 at the Kazusa Academic Park in Kisarazu, Japan. This year, the number of entries was a little disappointing. When the deadline for entries closed in December 2003, 62 programs had applied, but in the end only 43 made it to the tournament. Also, the number of programs designed by non-Japanese programmers did not increase. KCC from North Korea and my program SPEAR were the only foreign entries, just like last year. The tournament was built up like previous years. Hence, it consisted of a first preliminary stage, a second preliminary stage, and the finals. Below we give a blow-by-blow account of these stages.

**The First Preliminary Stage**

The first preliminary stage was won by GPS. This program is a team effort by students from the University of Tokyo, who hope to achieve once the same success as their seniors at the most prestigious university in Japan: IS SHOGI and GEKISASHI. On the second day it turned out that they need some more work on the program before they can compete with IS SHOGI and GEKISASHI.

My own program SPEAR also qualified for the second day by scoring 5 out of 7, but this was a much bumpier ride than I had hoped. Losses in the third and fourth round made qualification very doubtful; with a bit of luck on the pairing in the final round, SPEAR managed to recover from the two losses and qualified for the next stage.

Six other programs also qualified for the second preliminary stage. There were no real surprises among the other programs. K-SHOGI, AOI, YANO, and NAZOTEKI-DENKI had all dropped from the second qualification stage last year. OKI qualified for the first time, but this was no big surprise, as the program actually qualified last year as well, but had to withdraw for the second day because of a sudden hospitalization of the programmer after the first day was finished. In the end, of the eight qualifying programs, the only first timer was SHUTO. It just barely got in after losing its first two games and never facing any of the programs ranked higher in the final standings. The results of the first qualification round are given in Table 1.

**The Second Preliminary Stage**

Every year, the number of ex-finalists in the second preliminary stage is growing a little. It means that the number of favourites for qualification is growing. The usual suspects were KCC, EISEI MEIJIN, HYPER SHOGI, KFEND, KAKINOKI, and KANAZAWA. Furthermore, TACOS, the program from Iida Hiroyuki's research group in Shizuoka, had shown steady progress in the past couple of years, and might be ready to make the jump this year. Also, BINGO SHOGI could prove that last year's result was not a fluke. Already eight programs for five spots and there was always the chance that programs like RYU-NO-TAMAGO or ISOBE, which had been close to qualification in the past, could cause an upset.

In the first two rounds there were no big surprises, even though TACOS lost in the second round to ISOBE. KANAZAWA lost against EISEI MEIJIN, and BINGO lost against KAKINOKI, but these were games among qualification favourites.

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In round 3 the first big surprise took place: KCC lost to OOTSUKI, which was not considered a favourite, but now had started with three victories. For KCC this could have been a costly loss, but as it turned out, the program won all its remaining games and qualified as the top program for the finals.

No.	Program	1	2	3	4	5	6	7	Pt	SOS	SB	MD
*1	GPS	12+	16+	5+	2-	9+	19+	4+	6.0	29.0	23.0	16.0
*2	K-SHOGI	24+	14+	4-	1+	20+	11+	6+	6.0	25.0	20.0	14.0
*3	OKI	4-	13+	24+	20+	18+	10+	5+	6.0	21.0	16.0	11.0
*4	AOI	3+	21+	2+	9+	6+	5-	1-	5.0	34.0	23.0	15.0
*5	YANO7	23+	17+	1-	7+	19+	4+	3-	5.0	28.0	16.0	10.0
*6	NAZOTEKI-DENKI	11+	15+	13+	19+	4-	9+	2-	5.0	27.0	16.0	10.0
*7	SPEAR	16+	12+	9-	5-	15+	14+	17+	5.0	25.0	16.0	9.0
*8	SHUTO	9-	18-	16+	12+	14+	13+	10+	5.0	23.0	17.0	10.0
9	MATTARI YUCHAN	8+	10+	7+	4-	1-	6-	21+	4.0	32.0	16.0	9.0
10	MARUYAMA	18+	9-	14+	23+	11+	3-	8-	4.0	25.0	10.0	5.0
11	SHIJU-NO-TENARAI	6-	22+	21+	17+	10-	2-	16+	4.0	24.0	9.0	5.0
12	SUGI	1-	7-	23+	8-	13+	22+	15+	4.0	24.0	8.0	4.0
13	FUKU	21+	3-	6-	15+	12_	8-	18+	3.0	27.0	7.0	2.0
14	UIIE	20+	2-	10-	18+	8-	7-	19+	3.0	26.0	6.0	2.0
15	YAMADA	22+	6-	17+	13-	7-	18+	12-	3.0	23.0	6.0	2.0
16	DAEMON	7-	1-	8-	24+	22+	20+	11-	3.0	23.0	3.0	1.0
17	SEXY AICHAN	19+	5-	15-	11-	24+	23+	7-	3.0	20.0	3.0	1.0
18	HAYABUSA	10-	8+	20+	14-	3-	15-	13-	2.0	26.0	7.0	0.0
19	HIT ver.0.02	17-	23+	22+	6-	5-	1-	14-	2.0	24.0	2.0	0.0
20	TYOMA	14-	24+	18-	3-	2-	16-	22+	2.0	21.0	1.0	0.0
21	NARIKIN	13-	4-	11-	22-	23+	24+	9-	2.0	18.0	1.0	0.0
22	TSUBAKIHARA	15-	11-	19-	21+	16-	12-	20-	1.0	20.0	2.0	0.0
23	KUMA	5-	19-	12-	10-	21-	17-	24+	1.0	20.0	0.0	0.0
24	INAKA SHODAN	2-	20-	3-	16-	17-	21-	23-	0.0	23.0	0.0	0.0

**Table 1:** Results of the First Qualification Round.

\* GPS, K-SHOGI, OKI, AOI, YANO 7, NAZOTEKI-DENKI, SPEAR, and SHUTO qualify for the second qualification stage.

This is basically our report for the second day. It may be a surprise, but there were almost no other surprises than the one mentioned. Except for KCC and TACOS, the five programs that qualified all lost only to programs that were ranked higher. Actually, TACOS qualified second by winning five straight games after the loss to ISOBE, including wins against KAKINOKI, KANAZAWA, and EISEI MEIJIN. A great run that was only stopped by a final round loss to KCC.

Closest to qualification were BINGO and KINOA. BINGO played EISEI MEIJIN and KINOA played KAKINOKI in the final round. A victory by either program, BINGO or KINOA, would secure qualification. However, the programs could not pull it off, which meant that multiple tournament winner KANAZAWA sneaked in (at place 5) as the final program and the only program with three losses.

At the bottom of Table 2, the status quo was also maintained. Of the eight programs that qualified via the first preliminary stage, six programs went straight back down (unfortunately, my program SPEAR was one of them). Only AOI and NAZOTEKI-DENKI took the seeded positions from SEKITA and USAPYON, but only by their fingernails, as they qualified 15<sup>th</sup> and 16<sup>th</sup> (there are 16 seeds).

### The Finals

On the day of the finals, the tournament always steps up. The qualification tournaments are great for the programmers, but the finals are great for the spectators. The games are displayed on big screens and commented by professional players. Especially Kiyokazu Katsumata is a professional who has been

coming to the CSA tournaments for a long time (he was already there when I first came to the tournament nine years ago) and his comments are always very entertaining. This year there were also comments by Tadao Kitajima, Hiroyuki Iida and the Lady professionals Rieko Yauchi, Yamato Takahashi, and Fusako Ajiki.

No.	Program	1	2	3	4	5	6	7	8	9	Pt	SOS	SB	MD
*1	KCC	23+	8+	14-	10+	17+	4+	3+	5+	2+	8.0	45.5	41.5	33.5
*2	TACOS	19+	11-	4+	15+	10+	14+	5+	3+	1-	7.0	49.0	36.0	26.0
*3	EISEI-MEIJIN	22+	5+	8+	11+	14+	9+	1-	2-	6+	7.0	48.5	33.5	25.5
*4	KAKINOKI	18+	6+	2-	14+	12+	1-	13+	9+	8+	7.0	48.0	33.0	24.0
*5	KANAZAWA	12+	3-	11+	7+	18+	6+	2-	1-	13+	6.0	51.5	29.5	20.5
6	BINGO	15+	4-	13+	19+	11+	5-	9+	7+	3-	6.0	47.5	27.5	18.5
7	NARA	8-	23+	22+	5-	9+	10+	14+	6-	12+	6.0	39.5	22.0	16.0
8	KINOA	7+	1-	3-	17+	23+	13=	22+	19+	4-	5.5	41.5	15.0	8.0
9	HYPER 10	17+	13+	10+	12+	7-	3-	6-	4-	20+	5.0	46.5	20.5	12.5
10	KFEND	16+	21+	9-	1-	2-	7-	17+	20+	15+	5.0	43.0	17.0	10.0
11	ISOBE	24+	2+	5-	3-	6-	18+	19+	12-	16+	5.0	42.0	18.0	10.0
12	SHO-O	5-	22+	24+	9-	4-	17+	18+	11+	7-	5.0	38.0	14.0	8.0
13	RYU-NO-TAMAGO	20+	9-	6-	18+	21+	8=	4-	14+	5-	4.5	42.5	13.0	6.0
14	OOTSUKI	21+	16+	1+	4-	3-	2-	7-	13-	19+	4.0	49.5	18.0	7.0
15	AOI	6-	18-	20-	2-	16+	23+	24+	17+	10-	4.0	33.0	9.0	4.0
16	NAZOTEKI-DENKI	10-	14-	17-	20+	15-	24+	21+	22+	11-	4.0	30.0	9.0	5.0
17	SPEAR	9-	20+	16+	8-	1-	12-	10-	15-	24+	3.0	40.5	8.0	3.0
18	GPS	4-	15+	19+	13-	5-	11-	12-	23+	21-	3.0	38.5	8.0	3.0
19	K-SHOGI	2-	24+	18-	6-	20+	21+	11-	8-	14-	3.0	37.5	7.0	3.0
20	USAPYON	13-	17-	15+	16-	19-	22+	23+	10-	9-	3.0	31.5	7.0	2.0
21	SEKITA 9	14-	10-	23+	22-	13-	19-	16-	24+	18+	3.0	27.5	5.0	1.0
22	YANO 7	3-	12-	7-	21+	24+	20-	8-	16-	23-	2.0	35.5	4.0	0.0
23	SHUTO	1-	7-	21-	24-	8-	15-	20-	18-	22+	1.0	35.5	2.0	0.0
24	OKI	11-	19-	12-	23+	22-	16-	15-	21-	17-	1.0	30.0	1.0	0.0

**Table 2:** Results of the Second Qualification Round.

\* KCC, TACOS, EISEI MEIJIN, KAKINOKI SHOGI, and KANAZAWA qualify for the finals.

Probably due to the fact that the Kazusa Arc is quite hard to reach, the number of spectators seemed outnumbered by the large amount of press, programmers, and people from game companies. So, the 14<sup>th</sup> CSA tournament was a high profile event, where shogi journalists, reporters from national and local newspapers, and two camera crews (one was from the NHK, Japan's national broadcasting company) were present. This is probably the only warning that could go out to the otherwise perfect organization: a venue that is easier to reach might help to avoid that the tournament turns into a media-only event.

The tournament really started in the third round. In the first two rounds, the top four programs won all their games, while the bottom four programs lost all their games. The third round looked to be going the same way, but KAKINOKI managed to beat IS SHOGI, which was an important setback for Tanase and Kishimoto's bid for another CSA crown.

Round four saw another upset, as GEKISASHI lost against EISEI MEIJIN. However, more importantly were probably the events in the game between YSS and KCC. In an unclear middle game position, something happened that is not often seen these days and almost never occurs in the finals: KCC crashed. The reasons for the program failure were unclear (YSS's Yamashita thought it might have been a hardware problem), but the organization declared YSS the winner. An important loss for KCC, but it turned out to be an even more important win for YSS.

So after four rounds YSS was the only unbeaten program, followed by IS SHOGI, GEKISASHI, and KCC.

In round 5, the battle between former champions GEKISASHI (2002) and IS Shogi (2003) ended in GEKISASHI's favour, virtually ending IS SHOGI's reign as champion. KCC did not crash, but it did lose surprisingly against KAKINOKI, so this round also ended all hopes for the North Koreans.

With only GEKISASHI on one loss and the game YSS-GEKISASHI in round 6, the tournament could be heading for another early decision. GEKISASHI in 2002 and IS SHOGI in 2003 both started with six straight wins, securing the tournament victory with one game still in hand. YSS succeeded to repeat for the third year in a row its good performance of winning the game against GEKISASHI. This result ended the hopes of the spectators to see an exciting final round. Yamashita, of course, did not mind, although before the game he said that he did feel the "evil eye" of almost everybody present.

This was the second time Yamashita won the tournament, the first time was already seven years ago. After the final game of that tournament Yamashita broke down in tears, but no big emotions were shown at the end of this tournament. Yamashita is a great sportsman and the freely awarded win against KCC was bothering him.

So, in the last round there were only the three seeded positions to play for. IS SHOGI was in the biggest danger of falling back to the preliminary qualifications, because a loss to YSS would do it. However, they showed the heart of champions by winning, denying YSS a perfect score. This perfect score is becoming a jinx, as last year and the year before the same thing happened: the program already certain of the victory was losing in the final round.

GEKISASHI also defended its seeded position with a victory against KCC in the last round. This means that all five programs that came up from the qualifications have to try their luck in those qualification rounds again next year. The results are given in Table 3.

No.	Program	1	2	3	4	5	6	7	Pt	SB
1	YSS	8+	5+	6+	4+	7+	2+	3-	6.0	18.0
2	GEKISASHI	5+	7+	8+	6-	3+	1-	4+	5.0	14.0
3	IS	7+	6+	5-	8+	2-	4-	1+	4.0	12.0
4	KCC	6+	8+	7+	1-	5-	3+	2-	3.0	10.0
5	KAKINOKI	2-	1-	3+	7-	4+	6-	8+	3.0	9.0
6	EISEI MEIJIN	4-	3-	1-	2+	8+	5+	7-	3.0	9.0
7	TACOS	3-	2-	4-	5+	1-	8-	6+	2.0	6.0
8	KANAZAWA	1-	4-	2-	3-	6-	7+	5-	1.0	2.0

**Table 3:** Results of the Finals.

### Conclusions

Computer shogi seems to have reached a status quo that is hard to break: (1) it is difficult to take over one of the seeded positions on the second day (only two programs did so), (2) it is difficult to take one of the five qualification spots for the finals (only TACOS was a new entry) and (3) it is very difficult to beat the top programs in the finals (the top three programs were the same as last year).

Because of this status quo, my overall impression is that the level of play had not improved much. There is a number of reasons why this assessment might not be correct. First, last year's winner IS SHOGI only barely managed to keep its seeded position. Second, talking to the top programmers, they all had test results that showed a significant improvement compared to last year's programs. Third, YSS won a rook handicap game against Katsumata after the tournament. This is only one game, but it is the first time that a computer program beats a professional with such a small handicap.

So, instead of going with my initial impression, I believe it is better to say that many programs have improved considerably and that the fundamentals of the top programs are sound. Instead of new major breakthroughs, careful tuning and programming a bit more strategic understanding might be good enough to start a move towards beating professional players. Of course, new ideas are always welcome and in that

sense it is alarming that there were only two new entries this year (KUMA and INAKA SHODAN) and that the number of participants was the lowest in 6 years. I think the CSA has an important task here to try and attract more participants to the tournament. In that perspective, the tournament victory by YSS is important. In recent years, computer shogi became more and more a team effort, but the lone ranger Yamashita showed that it is still possible to compete at the highest level on your own.