

**REPORT ON THE 15TH CSA WORLD COMPUTER-SHOGI CHAMPIONSHIP**  
**Kazusa Academic Park, Kisarazu, Japan**  
**May 3-5, 2005**

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## **1. INTRODUCTION**

This year the CSA World Computer Championships were held for the 15th time and even though there were no special celebrations, the programmers who had entered 10 or more times were given a special certificate. This year there were 39 programs participating, which was again down from last year when 43 programs entered. Most computer games tournaments would be more than happy with so many programs participating, but this was the fifth consecutive year the number of programs went down and the first time since 1998 that there were less than 40 participants.

On the positive side, the number of foreign entries grew, as Jeff Rollason's program SHOTEST, which had taken third place in 1999, was able to enter for the first time since 2002. Unfortunately, a clash of commitments right before the tournament meant that Jeff was unable to attend in person, but with the support of the board of the CSA, was permitted to participate anyway, with myself operating the program. The other non-Japanese entries were (as usual) the North Korean program KCC and my program SPEAR.

## **2. THE FIRST PRELIMINARY STAGE**

Because of the small number of participants, the first preliminary round was going to be much easier to survive than in recent years. Also, two seeded teams had to cancel at the final moment, so there were 10 instead of 8 places to play for. SHOTEST was expected to go through easily, but an unexpected problem with running the program on different hardware meant that it was unable to play the first two rounds. With the help of another participant the problem was fixed and SHOTEST played normally from round three, but losing the first two games meant that in order to secure qualification all the remaining games had to be won.

SHOTEST won four games in a row to get back in a qualification spot, but in the final game it had to face K-SHOGI, which is one of the up-and-coming programs. SHOTEST looked to be in trouble for a long time, but in the end was able to turn the tables and qualify for the second day. Among the qualifying programs there were no real surprises. USAPYON and GPS SHOGI are strong programs that were expected to make waves on the second day as well. The other programs that qualified also have been playing in the tournament for years.

## **3. THE SECOND PRELIMINARY STAGE**

On the second day, there was the problem of operating both my program SPEAR and SHOTEST. HIT SHOGI's Ito had been so kind to give us his spare PC for the day, but there was still the problem that only I knew how to set up SHOTEST. In the end it was decided that I would operate both programs. Not a big problem in computer shogi tournaments, because once the game is started, everything continues automatically by serial cable without any intervention of the programmers. The organizers made sure that SPEAR and SHOTEST played close to each other, so it was easy to keep an eye on both programs, but this turned out to be unnecessary. After the problems on the first day, the two programs ran very smoothly on day 2.

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No.	Program Name	1	2	3	4	5	6	7	Pt	SOS	SB	MD
*1	USAPYON	12+	9+	16+	7+	3+	6+	2-	6.0	30.0	24.0	16.0
*2	GPS SHOGI	18+	13+	6+	3-	15+	4+	1+	6.0	28.0	23.0	15.0
*3	K-SHOGI	13+	4+	18+	2+	1-	8+	5-	5.0	31.0	20.0	12.0
*4	YAMADA SHOGI	22+	3-	10+	18+	7+	2-	6+	5.0	25.0	14.0	10.0
*5	SHOTEST v8.0	7-	19-	21+	13+	8+	9+	3+	5.0	23.0	17.0	11.0
*6	MATTARI-YUCHAN	17+	10+	2-	16+	9+	1-	4-	4.0	31.0	14.0	7.0
*7	YANO SHOGI 8	5+	14+	11-	1-	4-	15+	10+	4.0	30.0	15.0	7.0
*8	WILDCAT	16-	11+	12+	15+	5-	3-	17+	4.0	27.0	14.0	7.0
*9	AUAU SHOGI	20+	1-	14+	11+	6-	5-	18+	4.0	26.0	11.0	5.0
*10	MARUYAMA SHOGI	15+	6-	4-	19+	20+	11+	7-	4.0	24.0	11.0	5.0
11	OKI	21+	8-	7+	9-	16+	10-	14+	4.0	23.0	11.0	6.0
12	DEEP PURPLE	1-	20+	8-	14-	19+	21+	13+	4.0	21.0	8.0	4.0
13	MY MOVE	3-	2-	17+	5-	14+	22+	12-	3.0	26.0	6.0	3.0
14	SUGI SHOGI	19+	7-	9-	12+	13-	16+	11-	3.0	24.0	9.0	3.0
15	NARIKIN SHOGI	10-	17+	22+	8-	2-	7-	20+	3.0	23.0	5.0	2.0
16	RYUMA SHOGI	8+	21+	1-	6-	11-	14-	22+	3.0	22.0	5.0	1.0
17	TSUBAKIHARA	6-	15-	13-	20+	22+	19+	8-	3.0	18.0	4.0	2.0
18	CHIPS	2-	22+	3-	4-	21+	20-	9-	2.0	23.0	1.0	0.0
19	HIT SHOGI 0.1	14-	5+	20-	10-	12-	17-	21+	2.0	22.0	6.0	0.0
20	HAYABUSA	9-	12-	19+	17-	10-	18+	15-	2.0	22.0	4.0	0.0
21	INAKASHODAN	11-	16-	5-	22+	18-	12-	19-	1.0	20.0	0.0	0.0
22	DEMON SHOGI	4-	18-	15-	21-	17-	13-	16-	0.0	20.0	0.0	0.0

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

\* USAPYON, GPS SHOGI, K-SHOGI, YAMADA SHOGI, SHOTEST v8.0, MATTARI-YUCHAN, YANO SHOGI 8, WILDCAT, AUAU SHOGI and MARUYAMA SHOGI qualify for the second qualification round.

The battle for the five places in the final promised to be very tough this year. Of the 24 programs in the second qualification round, 8 had recent experience with playing in the final. Furthermore, programs like DRAGON'S EGG, OTSUKI SHOGI, ISOBE SHOGI and KINO A SHOGI had been very close to the final before and might make it this time. The only dark horse from the programs of the first day seemed GPS SHOGI, another program from the prestigious Tokyo University, which had a large team of (mainly student) programmers.

GPS SHOGI showed that it was more than a dark horse by winning its first six games, beating former finalists KFEND and KAKINOKI SHOGI. GPS SHOGI ended in second place, a very impressive performance. The second preliminary round was won by TACOS, the program from Iida Hiroyuki's lab, also with two losses. Third place was for KCC SHOGI, who looked to be in danger after losing in round 2 to OTSUKI SHOGI and in round 6 to BINGO SHOGI, but a strong finish secured a place in the final.

Fourth place was for DRAGON'S EGG, which was a little surprising. After an early loss to KAKINOKI SHOGI prospects seemed bleak, but with a little bit of luck with the draw (deservedly, as DRAGON'S EGG had been one of major victims of the pairing system in the past) the program crawled back in contention. In the end it qualified for the finals without playing two of the other finalists and without beating any of the former finalists it was paired against.

BINGO SHOGI was the final program to reach the final and this was almost the opposite story of DRAGON'S EGG. BINGO SHOGI scored very impressive wins against TACOS, KANAZAWA SHOGI, KCC and KAKINOKI SHOGI, but also had some inexplicable losses against HYPER SHOGI and KINO A SHOGI that made qualification uncertain until the final round.

As for SPEAR and SHOTEST, both programs had quite a bad start. SPEAR started 1-3 and SHOTEST started with two losses. However, both programs recovered from this, SHOTEST winning four games in a row from round 3 and SPEAR doing the same from round 4. This gave both programs a theoretical chance to qualify for the final before the last game. However, both SPEAR and SHOTEST lost, so no final, but at least both programs managed to take one of the seeded positions, so no need to start from the bottom next year.

No.	Program Name	1	2	3	4	5	6	7	8	9	Pt	SOS	SB	MD
*1	TACOS	19+	11+	5-	7+	8+	15+	6+	2+	3-	7.0	48.0	35.0	25.0
*2	GPS SHOGI	6+	21+	7+	9+	16+	4+	3-	1-	13+	7.0	48.0	34.0	25.0
*3	KCC SHOGI	22+	9-	17+	14+	15+	5-	2+	4+	1+	7.0	46.0	35.0	25.5
*4	DRAGON'S EGG	13+	7-	11+	19+	17+	2-	10+	3-	9+	6.0	46.0	27.0	19.0
*5	BINGO SHOGI	23+	15-	1+	8+	6-	3+	16-	7+	10+	6.0	45.0	31.0	22.0
6	KFEND	2-	8+	24+	20+	5+	16+	1-	10-	7+	6.0	42.0	23.0	17.0
7	KAKINOKI SHOGI	24+	4+	2-	1-	19+	12+	15+	5-	6-	5.0	44.0	18.0	12.0
8	KANAZAWA SHOGI	21+	6-	12+	5-	1-	19+	11-	17+	16+	5.0	43.0	19.0	11.0
9	OTSUKI SHOGI	14+	3+	16-	2-	10-	18+	23+	21+	4-	5.0	42.5	20.5	11.5
10	SHOTEST V8.0	12-	20-	21+	22+	9+	17+	4-	6+	5-	5.0	40.5	20.5	12.0
11	ISOBE SHOGI	18+	1-	4-	12-	20+	22-	8+	19+	15+	5.0	39.5	19.0	11.0
12	NARA SHOGI	10+	16-	8-	11+	13-	7-	18+	24+	17+	5.0	37.0	18.0	13.0
13	SPEAR	4-	24+	18-	15-	12+	20+	19+	14+	2-	5.0	36.5	15.5	10.5
14	NAZOTEKI DENKI	9-	22=	20+	3-	18+	23+	17-	13-	21+	4.5	35.5	12.0	6.0
15	HYPER SHOGI 11	17-	5+	22+	13+	3-	1-	7-	16+	11-	4.0	45.5	17.5	9.0
16	KINOA SHOGI	20+	12+	9+	17-	2-	6-	5+	15-	8-	4.0	45.0	19.0	10.0
17	K-SHOGI	15+	23+	3-	16+	4-	10-	14+	8-	12-	4.0	42.5	14.5	8.0
18	USAPYON	11-	19-	13+	24+	14-	9-	12-	22+	23+	4.0	32.0	9.5	4.5
19	WILDCAT	1-	18+	23+	4-	7-	8-	13-	11-	24+	3.0	39.0	6.0	2.0
20	YAMADA SHOGI	16-	10+	14-	6-	11-	13-	21-	23+	22+	3.0	37.0	9.5	2.5
21	YANO SHOGI 8	8-	2-	10-	23-	22+	24+	20+	9-	14-	3.0	34.0	5.5	2.5
22	MARUYAMA SHOGI	3-	14=	15-	10-	21-	11+	24+	18-	20-	2.5	35.5	5.0	0.0
23	MATTARI-YUCHAN	5-	17-	19-	21+	24+	14-	9-	20-	18-	2.0	32.5	3.0	0.0
24	AUAU SHOGI	7-	13-	6-	18-	23-	21-	22-	12-	19-	0.0	35.5	0.0	0.0

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

\* TACOS, GPS SHOGI, KCC SHOGI, DRAGON'S EGG, and BINGO SHOGI qualify for the finals.

#### 4. THE FINALS

When I entered the tournament hall on the final day, the first thing I saw was a GPS team smiling from ear to ear. They had scored the upset of the round (and as it turned out, of the day) by beating champion YSS while I was having a late breakfast. GPS lost its way in the opening, but in spite of that (or probably because of that) it beat YSS even though YSS was running on some impressive parallel hardware.

There were no further upsets the rest of the day. The final standings were all decided by the results between YSS, IS SHOGI, KCC SHOGI and GEKISASHI, the four programs who have been in the top four spots in the past years. This year it was GEKISASHI who played a very impressive tournament, winning not only all of its games, but most of them in impressive fashion. Only the final game against YSS was a little bit of a struggle, but even in that game GEKISASHI needed only one defensive mistake to blow YSS away.

Second place was for KCC SHOGI, who had their best result yet. The North Koreans said that they were confident to win it all before the tournament, but admitted after the tournament that this year's GEKISASHI was too strong. KCC won all the other games, except for the game against DRAGON'S EGG, which was declared a draw by sennichite (four times the same position). Third place was for IS SHOGI. The balance in this year's IS SHOGI was a little off, which showed in most games, even the ones that IS SHOGI won.

Last year's champion YSS ended in 4th place, losing its seeded position. BINGO SHOGI ended 5th, winning all the games against the programs that finished lower. BINGO SHOGI is an impressive program, but will need a little extra push to become a real contender. I expected a little bit more from TACOS after winning the second preliminary round, but the program was unable to make an impact in the finals, beating only DRAGON'S EGG and GPS SHOGI, and finishing in 6th place.

DRAGON'S EGG finished 7th, with the draw against KCC SHOGI lifting it over GPS SHOGI. GPS SHOGI will be very satisfied with their result, though, qualifying for the final for the first time and beating the reigning champion. It will be interesting to see how they can build on that next year.

No	Program Name	1	2	3	4	5	6	7	Pt	SB
1	GEKISASHI	5+	7+	2+	6+	8+	3+	4+	7.0	21.0
2	KCC SHOGI	6+	4+	1-	3+	5+	7=	8+	5.5	14.0
3	IS SHOGI	7+	8+	5+	2-	4+	1-	6+	5.0	10.5
4	YSS	8-	2-	7+	5+	3-	6+	1-	3.0	6.5
5	BINGO SHOGI	1-	6+	3-	4-	2-	8+	7+	3.0	4.5
6	TACOS	2-	5-	8+	1-	7+	4-	3-	2.0	2.5
7	DRAGON'S EGG	3-	1-	4-	8+	6-	2=	5-	1.5	1.0
8	GPS SHOGI	4+	3-	6-	7-	1-	5-	2-	1.0	3.0

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

## 5. CONCLUSIONS

After the tournament was over, an exhibition game was played between professional shogi player Katsumata and the winning program GEKISASHI. The handicap was bishop and the playing times the same as in the tournament (25 minutes per side, no byoyomi). These conditions favor the computer, but still Katsumata was expected to win. Last year he lost a rook handicap game against YSS, but that was in part because of a lack of concentration, commenting on the game while it was going on. This time he was dead serious and looked to destroy GEKISASHI. However, in the endgame Katsumata got in time trouble and overlooked a very strong attack that he could have prevented. This being said, it was an attack that not many human players would have found and the spectators could only watch in awe how fast the human position collapsed. A great win for GEKISASHI and another step forward for shogi computers in their bid to challenge the top players in even games.

How far shogi programs have advanced was shown a month later by GEKISASHI. As winner of the CSA tournament, it was invited to play in the Amateur Ryu-O tournament, the most prestigious (human) amateur tournament in Japan. GEKISASHI beat three top amateur players in this tournament, reaching the final 16. Based on the game against Katsumata and the results in the Ryu-O tournament, it seems likely that the top shogi programs will challenge professional players on even terms within two or three years.