HAPPYNOGO WINS NOGO TOURNAMENT

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The ICGA computer NoGo tournament was held as part of the ICGA 2013 computer game tournaments event, which took place at Keio University, Yokohama, Japan, from August 14th to 15th, 2013. Seven teams participated in the NoGo tournament. Table 1 lists the participants and the final standings. The seven teams were HAPPYNOGO, POHSUANNOGO, BOBNOGO, NDHUNOGO, WTSHADOWS, NOGODAIGAKU, and SUNSAU. The listing order is also the ranking order.

Table 1: The participants and final standings.

Ranking	Program	Author(s)	Operator	Score
1	HAPPYNOGO	Po-Hsuan She, Ting-Fu Liao, Yi-Chang Shan, I-Chen Wu	Tinghan Wei	12
2	POHSUANNOGO	Po-Hsuan She, Yi-Chang Shan, Ting-Fu Liao, I-Chen Wu	Wen-Jie Tseng	9
3	BOBNOGO	Martin Müller and Bob Hearn	Shi-Jie Huang	8
4	NDHUNOGO	Cheng-Wei Chou and Shi-Jim Yen	Cheng-Wei Chou	7
5	WTSHADOWS	Yueqiu Wu	Yueqiu Wu	3
6	NOGODAIGAKU	Yoshiyuki Kotani	Yoshiyuki Kotani	2
7	SUNSAU	Guojun Rao	Guojun Rao	1

Table 2: The result of the NoGo tournament.

#	Program	1	2	3	4	5	6	7	Score
1	HAPPYNOGO	-	2	2	2	2	2	2	12
2	POHSUANNOGO	0	-	1	2	2	2	2	9
3	BOBNOGO	0	1	-	1	2	2	2	8
4	NDHUNOGO	0	0	1	-	2	2	2	7
5	WTSHADOWS	0	0	0	0-	-	2	1	3
6	NOGODAIGAKU	0	0	0	0	0	-	2	2
7	SUNSAU	0	0	0	0-	1	0	-	1

NoGo is another variant of Go of which the rules are the same as for Go except for the following. Both players can neither suicide nor kill a group, and the first player who cannot make any move loses. The thinking time was 20 minutes. The platform for all NoGo competitions was KGS. The platform greatly facilitates operators to save operation times and prevent from operation errors. However, since the platform was not enforced and some programs could not run on the platform, some of the competitions were still operated manually.

In the tournament, HAPPYNOGO won the gold medal of the Computer Olympiad 2013 by winning all games with 12 points. Table 2 shows the result of the tournament. POHSUANNOGO won 9 points and the silver, while BOBNOGO won 8 points and the bronze. HAPPYNOGO used 8 threads in a framework developed by Ting-Fu Liao at NCTU. The framework was developed to facilitate the development of the MCTS algorithms. It was originally used to develop a Go program, named AMIGO, that landed at the fourth place in the 9x9x Go tournament of this Computer Olympiad (2013). POHSUANNOGO, developed without exploiting the framework, used one thread only. In the past, BOBNOGO won, without any losses, the tournaments: BIRS 2011, TAAI 2011 (see Lin *et al.*, 2011), the Computer Olympiad 2011, and TCGA 2012 (see Müller, 2013).

Selected games

**Game 1:** HAPPYNOGO (Black) –BOBNOGO (White), B+R.

The whole game is shown in Figure 1. According to HAPPYNOGO, Black was in an advantageous position with a win rate of 57% at move 7, since J8 can only be played by Black. This means that Black can potentially play one more location than White. Furthermore, White 26 should have played at D8. After Black 27 played at D8, the win rate of Black grew up to 60%. Then, the win rate increased gradually in the subsequent moves. At move 55, HAPPYNOGO found a winning way by brute-force search.

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Game 2: HAPPYNOGO (White) –BOBNOGO (Black), W+R.

The whole game is shown in Figure 2. According to HAPPYNOGO, White's win rate became 52% at move 8, since H9 can only be played by White. Black 17 should have played at E8 to prevent White from playing at the position. After White 18, Black's win rate became 60%. Then, the win rate increased gradually in subsequent moves. At move 54, HAPPYNOGO found a winning way by brute-force search.
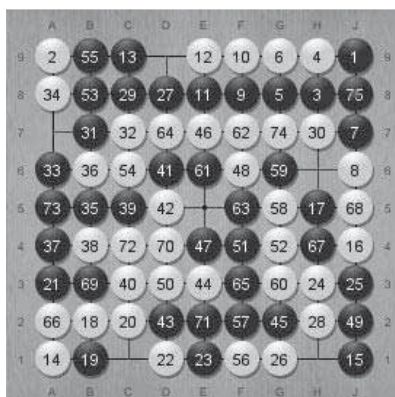
Figure 1: HAPPYNOGO(B) vs BOBNOGO(W), B+R.
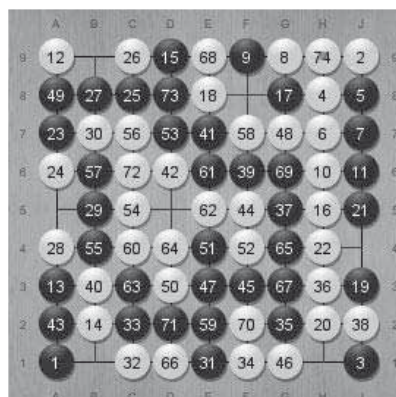
Figure 2: BOBNOGO(B) vs HAPPYNOGO(W), W+R.

F.l.t.r. Wen-Jie Tseng (POHSUANNOGO), Tinghan Wei (HAPPYNOGO), and Jaap van den Herik.

References

Lin, Y.-S., Wu, I-C. and Yen, S.-J. (2011). TAAI 2011 Computer-Game Tournaments. ICGA Journal, Vol. 34, No. 4, pp. 248-250.

Müller, M. (2013). The BobNoGo Program. Available at http://webdocs.cs.ualberta.ca/~mmueller/nogo/BobNoGo.html.

CALENDAR OF COMPUTER-GAMES 2014

The end of June 2014
Computer Game Workshop and Tournaments organized by the Taiwan Computer Game Association (TCGA 2014). More information: Prof. I-Chen Wu, email: icwu@cs.nctu.edu.tw.

November, December 2014
Computer Game Tournaments at the Technologies and Applications of Artificial Intelligence Conference (TAAI2014), Taiwan. More information: Prof. I-Chen Wu, email: icwu@cs.nctu.edu.tw.