

Results of Probabilistic Track in the 5th International Planning Competition

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Abstract

We report the results for the probabilistic track in the 5th International Planning Competition held in conjunction with the 16th International Conference on Automated Planning and Scheduling.

Competitors

There were 4 teams in the final competition:

- (a) **FOALP** by Scott Scanner and Craig Boutilier from University of Toronto, Canada.
- (b) **sfDP** by Florent Teichteil-Königsbuch and Patrick Fabiani from ONERA-DCSD, France.
- (c) **FPG** by Olivier Buffet and Douglas Aberdeen from the National ICT and Australian National University, Australia.
- (d) **Paragraph** by Iain Little from the National ICT and Australian National University, Australia.

Results and Ranks

The competition consisted of 9 domains each with 15 problem instances. The planners were evaluated in 30 rounds per instance for total of 4,050 rounds. Table 1 shows the total number of successful rounds completed by each planners as well as the average time and average number of turns (steps) in each rounds. As shown, FPG completed 2,199 rounds, FOALP 1,376, Paragraph 644, and sfDP 302 rounds that represents 54.29%, 33.97%, 15.90% and 7.45% of the 4,050 rounds.

Figure 1 shows data for each instance in each domain. The figures contain the percentage of successful rounds in each instance (coverage), and average time and average turns per round. We can see, that over the competition benchmark, sfDP is dominated by the other planners except in instance p04 of exploding blocksworld where sfDP dominates FOALP and Paragraph.

From this data, we rank the planners as follows: FPG, FOALP, Paragraph and sfDP.

Planner	total successful rounds	% of total rounds	average time per round
FOALP	1,376	33.97%	13,735.70
sfDP	302	7.45%	13,719.50
FPG	2,199	54.29%	4,232.89
Paragraph	644	15.90%	363.12

Table 1: Overall coverage, average time and turns in the competition benchmark by planner.

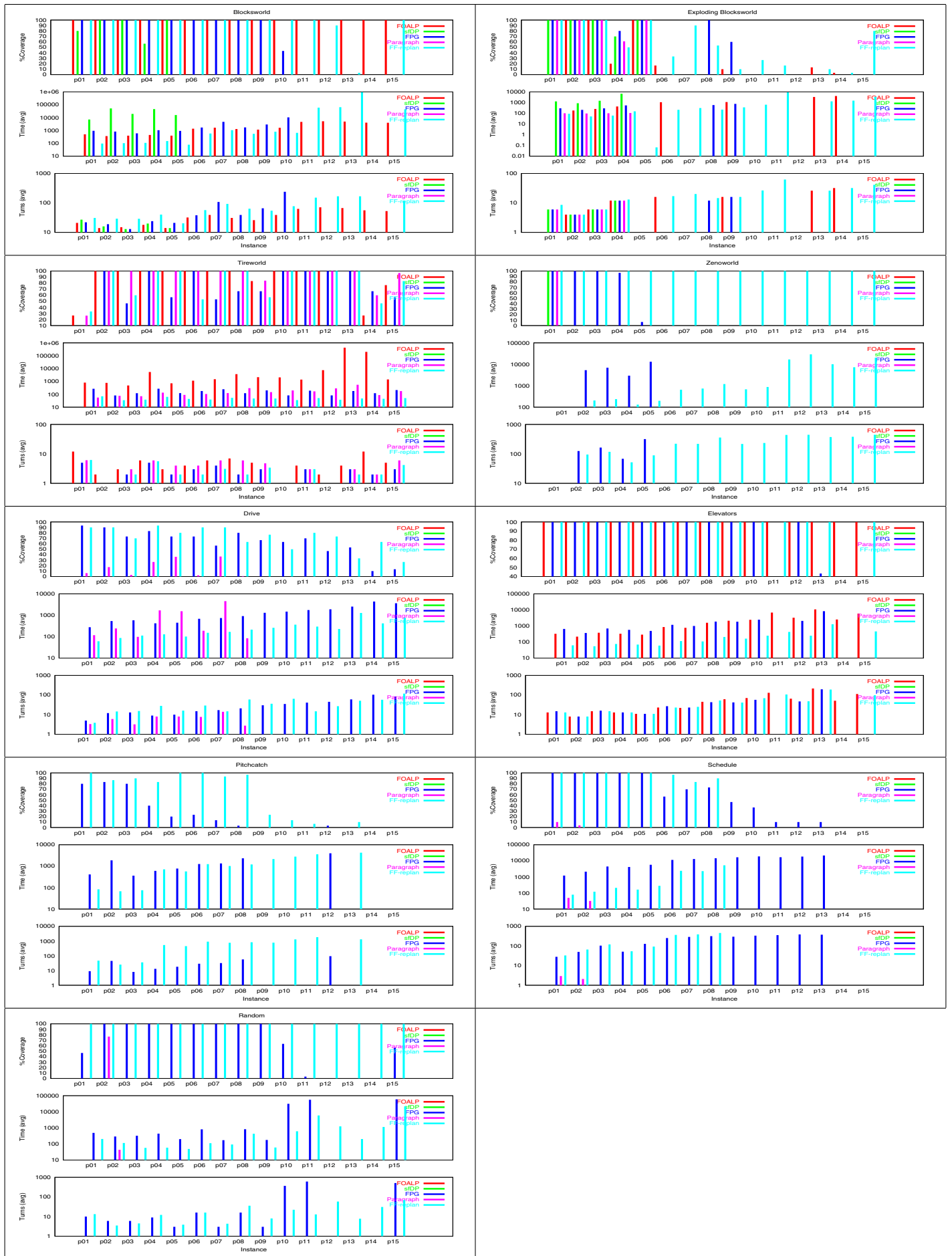


Figure 1: Charts for %coverage, average time and average turns per instance for each planner.