

Principles of AI Planning

R. Mattmüller, Prof. Dr. B. Nebel
T. Keller
Winter Term 2011/2012

University of Freiburg
Department of Computer Science

Exercise Sheet 8

Due: January 10th, 2012

Exercise 8.1 (Syntactic projections vs. projections, 3 + 2 points)

Let Π be a planning task in finite-domain representation and let P be a pattern for Π . Show that:

- (a) If Π is a SAS⁺ planning task that is not trivially unsolvable and that has no trivially inapplicable operators, then $\mathcal{T}(\Pi|_P) \stackrel{G}{\sim} \mathcal{T}(\Pi)^{\pi_P}$.
- (b) If there are conditional effects in Π , it is not true in general that $\mathcal{T}(\Pi|_P) \stackrel{G}{\sim} \mathcal{T}(\Pi)^{\pi_P}$.

Exercise 8.2

You are looking for another exercise? Not on this exercise sheet.

Merry Christmas and a Happy New Year!

Bonus (no grades): Enjoy your holidays.

Note: The exercise sheets may and should be worked on in groups of two students. As an one-time exception, you are allowed to work on the bonus-problem of exercise 8.2 with whomever you want and in groups of any size. For exercise 8.1, please state both names on your solution.