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Exercises to the lecture Concurrency Theory Sheet 13

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Delivery until 22.07.2014 at 12h

## Exercise 13.1

Define the (labelled) transition relation for programs under PSO.

## Exercise 13.2

Show that control-state reachability is decidable for programs under PSO.

## Exercise 13.3

Define traces for PSO in a declarative way.

## Exercise 13.4

Given two multi-headed automata  $A_1$  and  $A_2$ , show that it is not possible to compute an automaton A with  $\mathcal{L}(A) = \mathcal{L}(A_1) \cap \mathcal{L}(A_2)$ .

*Hint:* reduce PCP to emptiness of the intersection of two multiheaded automata.

Delivery until 22.07.2014 at 12h into the box next to 34-401.4