T-79.179 **Spring 2005**
Parallel and Distributed Digital Systems
Exercise 3
21-27.2.2005

4.1.2 Show that the recursive specifications

- $\{X = aX, Y = bX\}$
- $\{X = Y, Y = aX\}$
- $\{X = (a + b) \between X\}$

in Example 4.1.2 are guarded.

4.2.1 Derive the transition $\langle Y|E\rangle \xrightarrow{b} \langle X|E\rangle$ from the transition rules, for the guarded recursive specification

$$E = \{X = aY, Y = bX\}$$

in Example 4.2.1.

4.4.1 Give a linear recursive specification E such that the regular process graph

$$\{s_0 \xrightarrow{a} s_0, s_0 \xrightarrow{b} s_1, s_1 \xrightarrow{c} s_0, s_1 \xrightarrow{a} s_1\},$$

with root state s_0, is bisimilar to $\langle X|E\rangle$ for some recursion variable X in E.