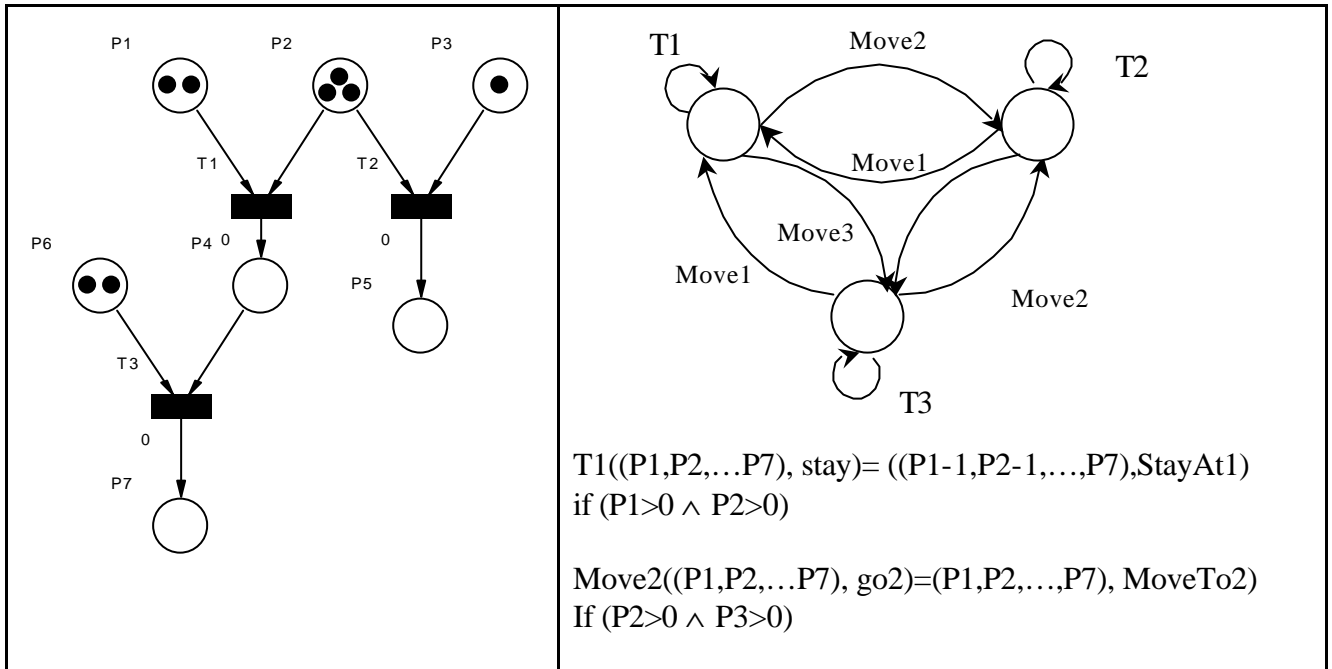


## Transforming Petri-Nets (PN) to X-machines (X-mc)

- a) The transformation
  - a. PN transition  $\rightarrow$  X-mc function
  - b. PN transition  $\rightarrow$  X-mc state – models the fact that we may attempt to execute a PN transition
  - c. The  $n$ -th PN place  $\rightarrow$  the  $n$ -th element of the memory tuple
  - d. The input set of the X-machine is:  $\Sigma = \{\text{stay}, \text{go1}, \dots, \text{goN}\}$
  - e. The output set of the x-machine is:  $\tilde{A} = \{\text{StayAt1}, \dots, \text{MoveTo1} \dots\}$

### b) An example



### c) The rationale:

Question : How can we test the software before installing it into the hardware?

