Transition Diagrams: Two Process Mutual Exclusion

Consider the definition of a process `proc` defined here. A `proc` is parameterized by an `id`, the other process `other`, and the `id` of the process whose turn it is initially, `turn`, which is a shared variable. The relevant lines of code are labelled `n` (non-critical), `w` (waiting), and `c` (critical). Initially, `b` is FALSE.

A state of the whole system, which describes the composed states of both processes is given by the tuple 
\((pc_0, pc_1, turn, b_0, b_1)\), where \(pc_i \in \{n_i, w_i, c_i\}\) is the program counter of \(P_i\), \(turn \in \{0, 1\}\) is the value of the shared variable `turn`, and \(b_i \in \{\text{TRUE}, \text{FALSE}\}\) is the value of local variable `b` of \(P_i\).