

$$\begin{array}{ll} \operatorname{Config1} = & \forall S. \, semaphore(S) \\ & \forall S, \forall C. \, \neg link(C,S) \\ \\ \operatorname{Config2} = & \exists S. \, \neg semaphore(S) \\ & \exists S. \, semaphore(S) \\ & \forall S, \forall C. \, semaphore(S) \rightarrow \neg link(C,S) \\ & \forall S, \forall C. \, semaphore(S) \rightarrow \neg link(C_2,S) \rightarrow C_1 = C_2 \\ \\ \operatorname{Config3} = & \forall S, \exists C. \, link(C,S) \\ & \forall S, \forall C_1, C_2. \, link(C_1,S) \wedge link(C_2,S) \rightarrow C_1 = C_2 \\ & \forall S. \, \neg Semaphore(S) \\ \end{array}$$