
Definition 0.1 (Process). A process can record its own state and the msg it sends and receives, it can record nothing else.

Processes do not share locks and memory.

Definition 0.2 (stable property). A predicate y is said to be a stable property of system D if $y(S)$ is true for some state S of system D and $y(S')$ is true for all $S - reachable$ states S' .

In plain words, if y is true at some point, it will stay being true.