

Model Checking Homework 7

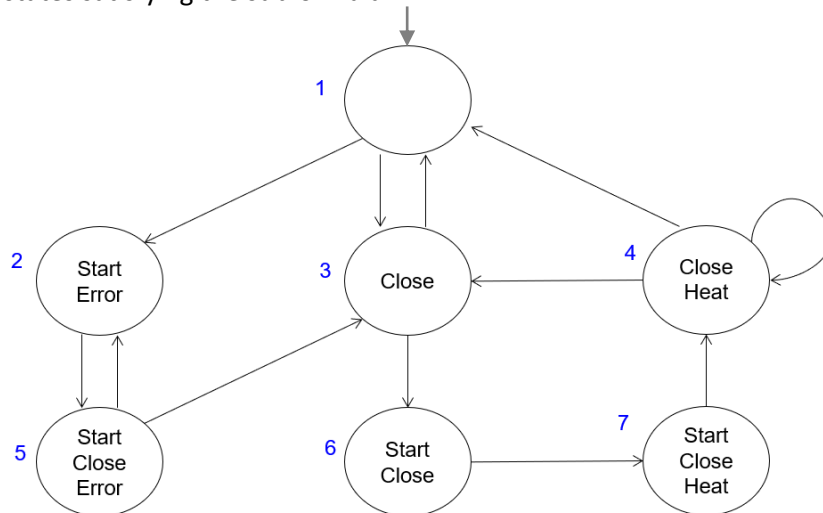
Deadline: 20th Mai 4:00pm

Send solution to: modelchecking@iaik.tugraz.at

Explicit State Model Checking of CTL

Use the algorithm for explicit state model checking of CTL discussed in the lecture to decide whether the given Kripke structure M satisfies the two given CTL formulas f_1 and f_2 , i.e., check for $M \models f_1$ and $M \models f_2$.

Illustrate the execution of the individual steps of the algorithm by giving for all subformulas the set of states satisfying the subformula.



[5 Points] $f_1 = AG(start \rightarrow EF heat)$

[5 Points] $f_2 = EF(close \rightarrow (EF heat \rightarrow EF \neg close))$