

Concurrent Systems II

Practical 5 SPIN — Promela

March 12, 2014

This practical is worth 2% of your year-end result. Have your program ready next week. Have a printout also.

Write Promela programs investigate the proposed solutions to the critical section problem we have been looking at. For example, one solution appears to have mutual exclusion and appears to be deadlock-free, but if a process crashes in a non-critical section, the other process can starve.

So, how do you use Promela and SPIN to *prove* these three properties? (One hint is that you may have to add code to simulate a non-critical section that might not progress.)

You will have to do some independent study of SPIN and of the critical section solutions proposed in order to do this practical well.

(<http://www.scss.tcd.ie/CourseModules/CS3015/Assets/Practicals/p5/practical.pdf>)