

## Automated Verification

Assignment #5 (Due Thu, 13th April 2005).

This assignment is based on the SMV tool (Symbolic Model Verifier) which uses symbolic model checking and is designed for modeling and verifying boolean circuits. The tarfile containing the binaries and documentation is available on the course web page. Install it (it just requires un-taring the files), go through the documentation and then try the exercise below.

Design a 3-way arbiter that is free from starvation for all requesters. Use the arbiter example given in the SMV tutorial (this should be in ... doc/smv/tutorial/tutorial.html of your installation) as a starting point if you like.

The idea of the assignment is to use SMV to debug and refine your design iteratively. I expect to see a sequence of smv files arbiter-1.smv, arbiter-2.smv,... with the code and a comment saying what was the bug in the previous version and how you attempt to fix it in this version.

Make sure you design the arbiter yourself, otherwise the point of the exercise is lost.