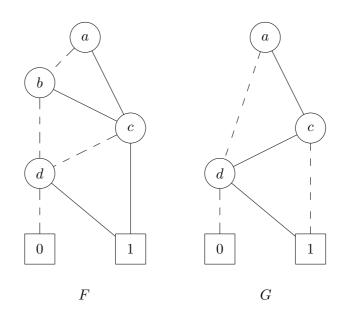
Prof. Bernd Finkbeiner, Ph.D. Martin Zimmermann, Ph.D. Leander Tentrup, B.Sc. Summer term 2013 Problem Set 3 September 11, 2013

Verification

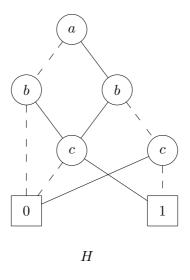
Problem 1: ROBDD operations [6 Points]

1. Compute $APPLY(\lor, F, G)$ for the following ROBDDs:



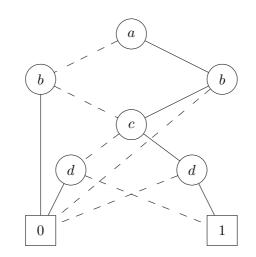
The result should be an ROBDD. [2 Points]

2. Compute RESTRICT(H, b, 1), given the ROBDD below:



The result should be an ROBDD. [2 Points]

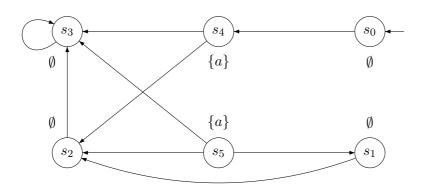
3. Compute ABSTRACT: $\exists a.(\exists d.f(a, b, c, d))$ in the form of ROBDD for the f function defined by the ROBDD below:



The result should be an ROBDD. [2 Points]

Problem 2: Transition System [4 Points]

Given a transition system TS as follows:



Encode TS using ROBDDs.