DigSim Assignment 3: Finite State Machine Simplifications

Due: Tuesday, December 14, 2004

Objective

The objective is to design and simplify a moderately complex a finite state machine.

Assignment

You have already completed the design and simplification steps in Homework 5. Your assignment here is to implement the finite state machine you designed in Question #5 of Homework 5. You should use the state assignment and flip-flop selection that uses the smallest total number of gates. Note that the gates used for the output z might be different for different state assignments.

What to submit

1) If the finite state machine you implemented differs significantly from the one you turned in for Homework 5, then submit the transition diagram, truth tables and formulas you used to implement this finite state machine in class on Tuesday, December 14.

2) Save your circuit as you did in DigSim Assignment 1. Submit the circuit file using the Unix submit command as in previous assignments. The submission name for this assignment is: digsim3. The UNIX command to do this should look something like:

    submit cs313_0101 digsim3 d3.sim