

Assignment 5

October 16, 2023

Problem 1 : Learn to Create code coverage report in ModelSim

Follow the Instruction : Youtube Tutorial or Text tutorial

Problem 2 :

For Each of the following circuits :

- Design a verilog module using Dataflow model.
- Write testbench for it, using Use \$monitor or \$display syntax.
- Create code coverage report.

1. n-bit Full Adder
2. n-bit Ripple Carry Counter
3. n-bit Gray Counter
4. 4-bit Magnitude Comparator

FYI : A magnitude comparator checks if one number is greater than, equal to, or less than another number. Design a 4-bit magnitude comparator that has the following specifications:

- Inputs A and B are 4-bit inputs. No x or z values will appear on A and B inputs
- Output A_gt_B is true if A is greater than B
- Output A_lt_B is true if A is less than B
- Output A_eq_B is true if A is equal to B