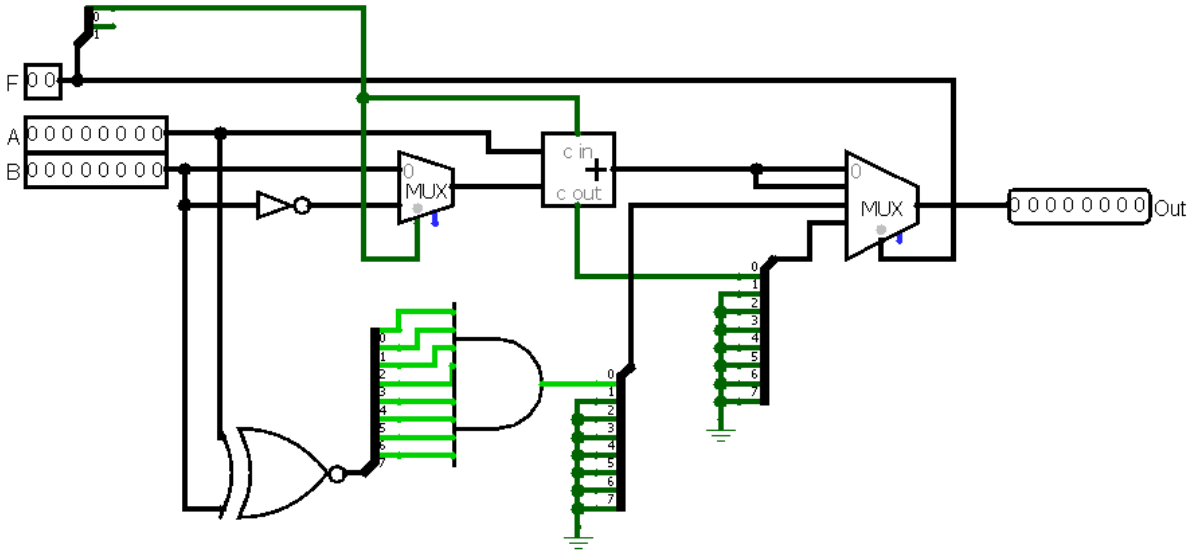
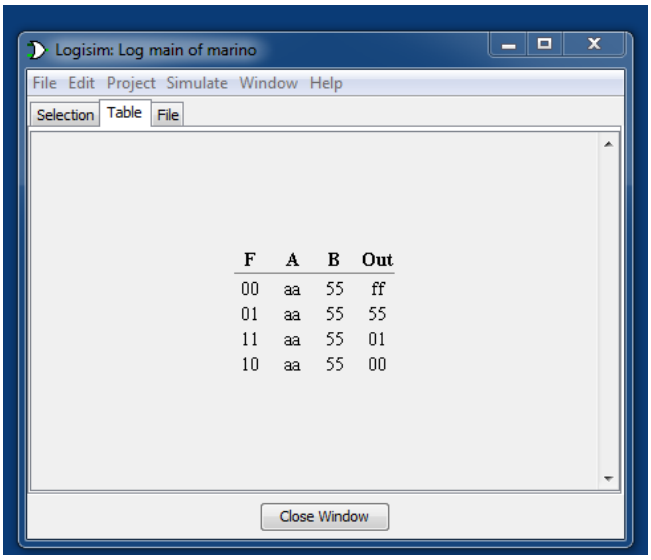
ELEC 385: Computer System Design
Homework #5 Solutions

Here is my beautiful circuit diagram:

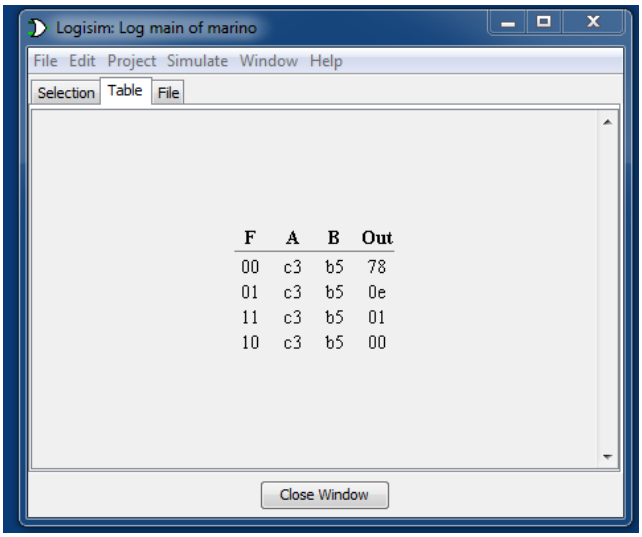


And here are the results of my testing. For each test I set A and B, then cycled through the different functions in the order ADD → SUB → SGE → SEQ

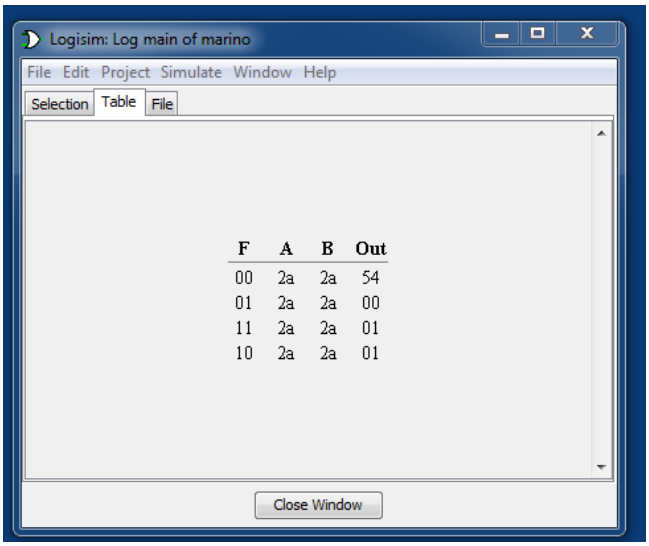
Test 1: A=10101010, B=01010101, A>B and the sum is in range



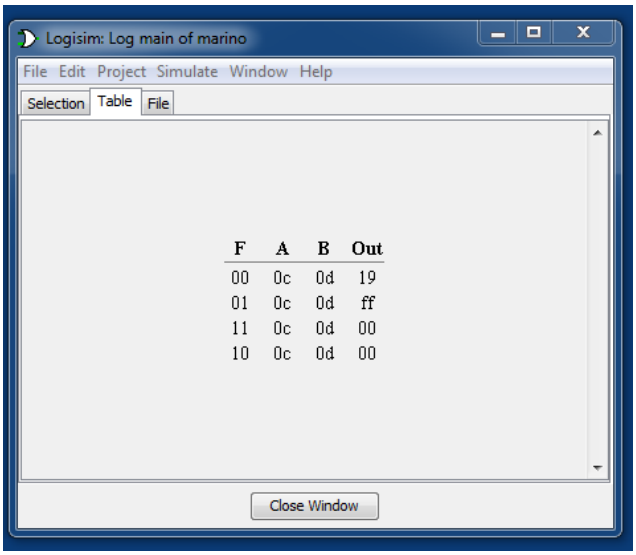
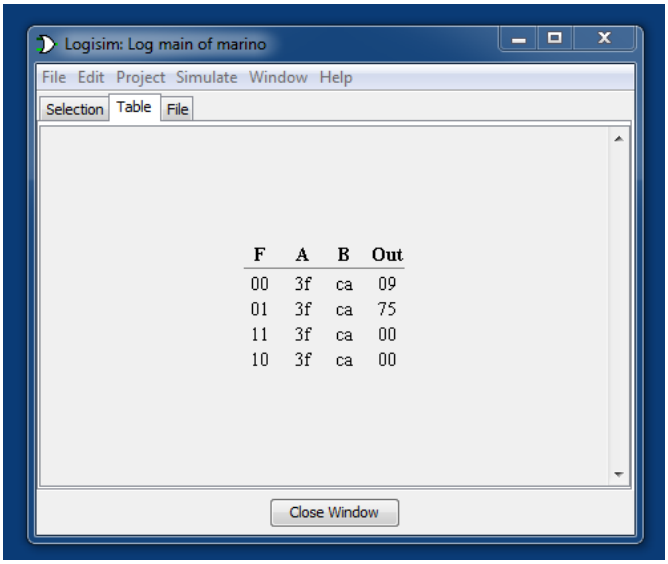
Test 2: A=11000011, B=10110101, A>B and the sum exceeds 8-bits



Test 3: A=B=00101010



Test 4: A=00001100, B=00001110, B>A and the sum is in range



Test 5: A=00111111, B=11001010, B>A and the sum exceeds 8-bits