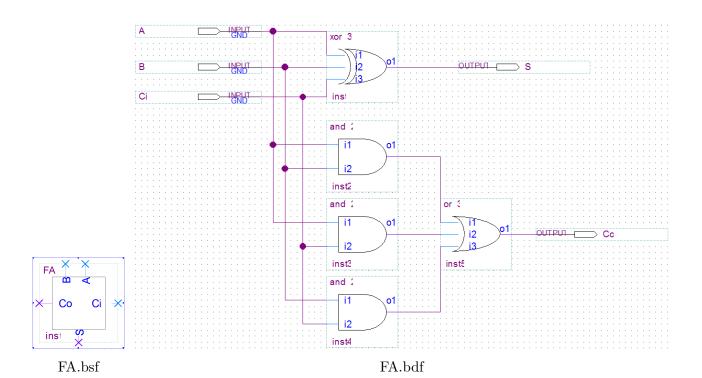
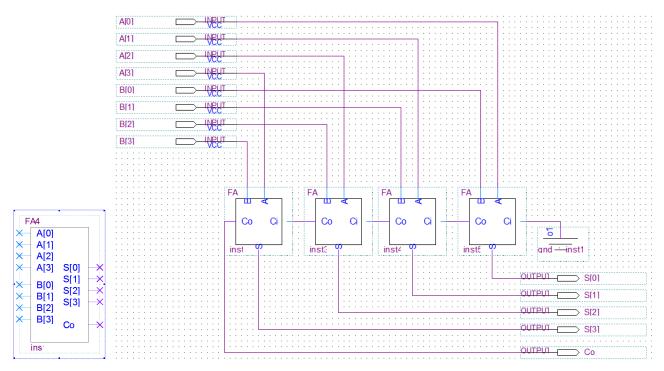
# Quartus II Lab1 — Combinational Circuits NTU Switching Circuit and Logic Design 2023

### B12902110 呂承諺

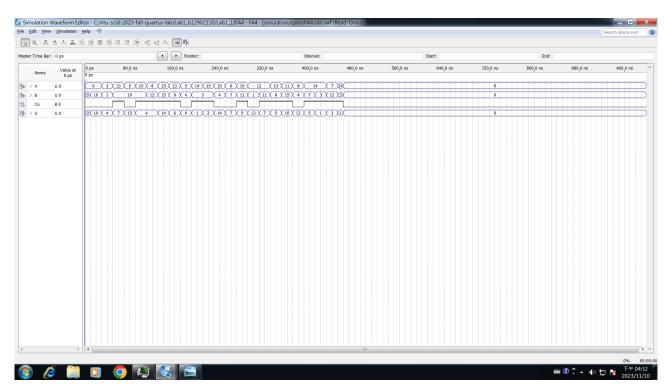
### 1 FA: 1-bit Full Adder



#### 2 FA4: 4-bit Adder

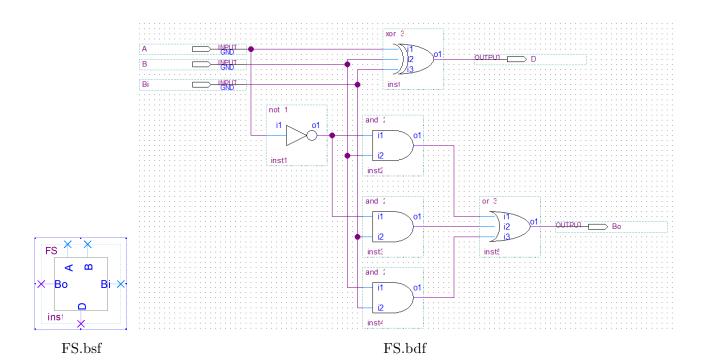


FA4.bsf FA4.bdf

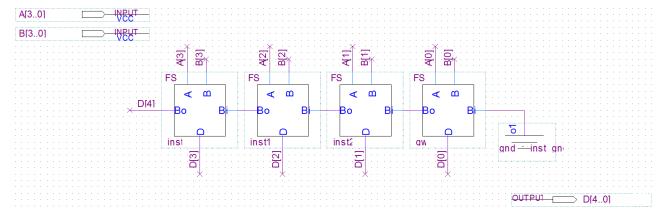


FA4 simulation

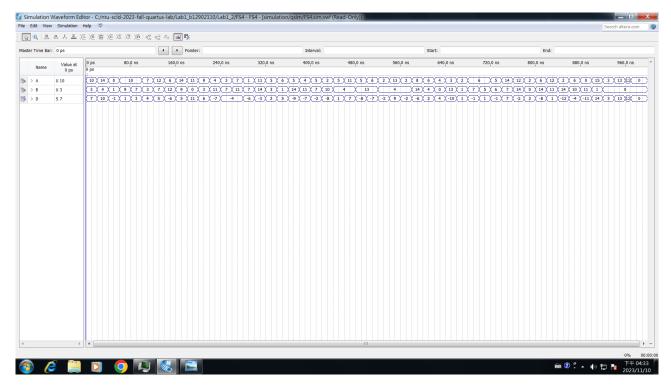
### 3 FS: 1-bit Full Subtrator



#### 4 FS4: 4-bit Subtractor



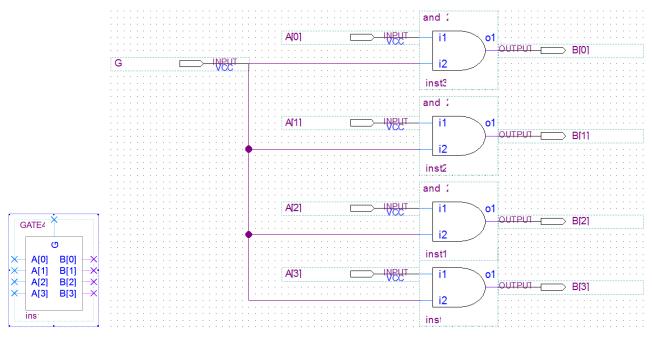
FS4.bdf



FS4 simulation

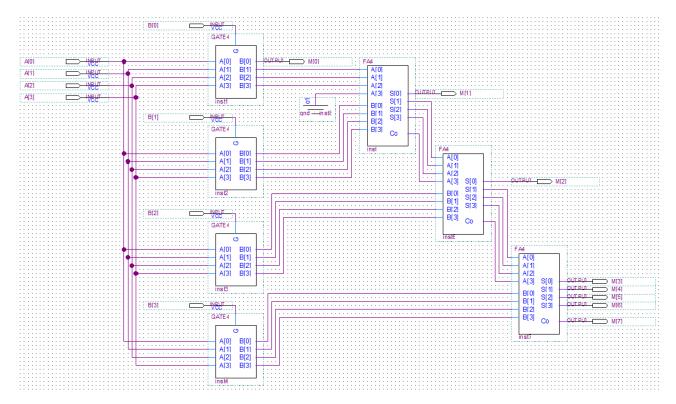
#### 5 GATE4: 4-bit Gate

if 
$$(G == 1)$$
 then  $B = A$  else  $B = 0$ 

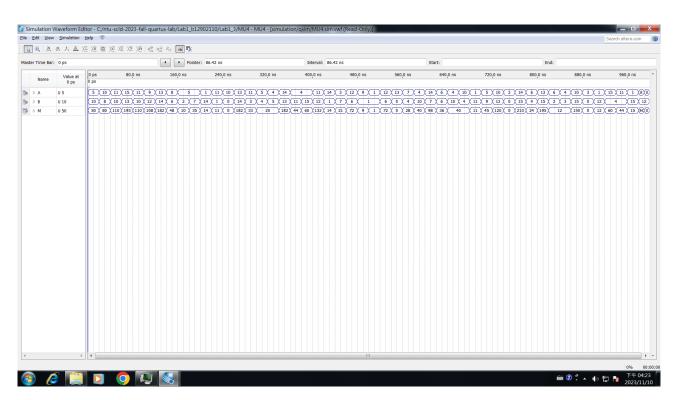


GATE4.bsf GATE4.bdf

## 6 MU4: 4-bit Multiplier



MU4.bdf



MU4 simulation