

# EGR 2700 Project: 8-Bit Signed Calculator

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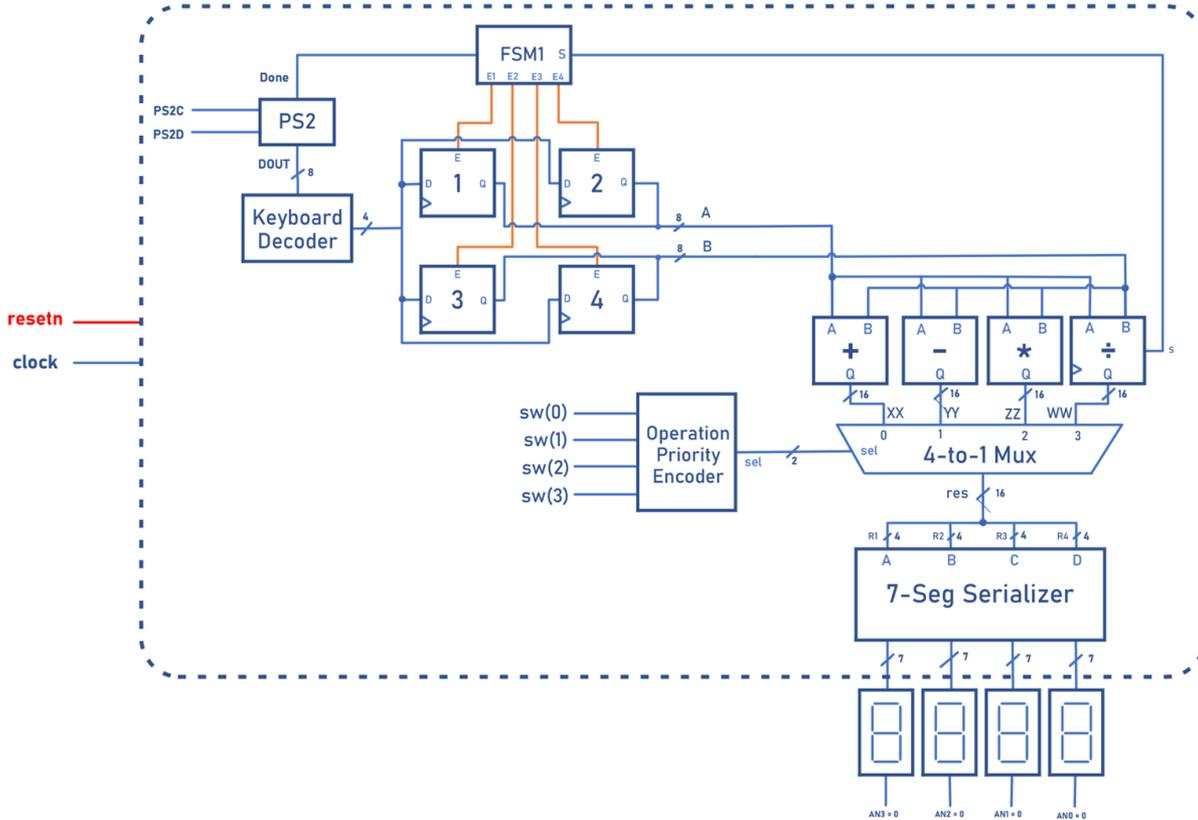
# Functionality

The functionality of our calculator includes:

- Entering a two-digit hex number
- Selecting an operator with a switch
- Entering another two-digit hex number
- Outputting the answer with respect to the selected operator



# Block Diagram



## Reading Keyboard Input:

- FSM
- Four Registers
- Keyboard Decoder
- PS2

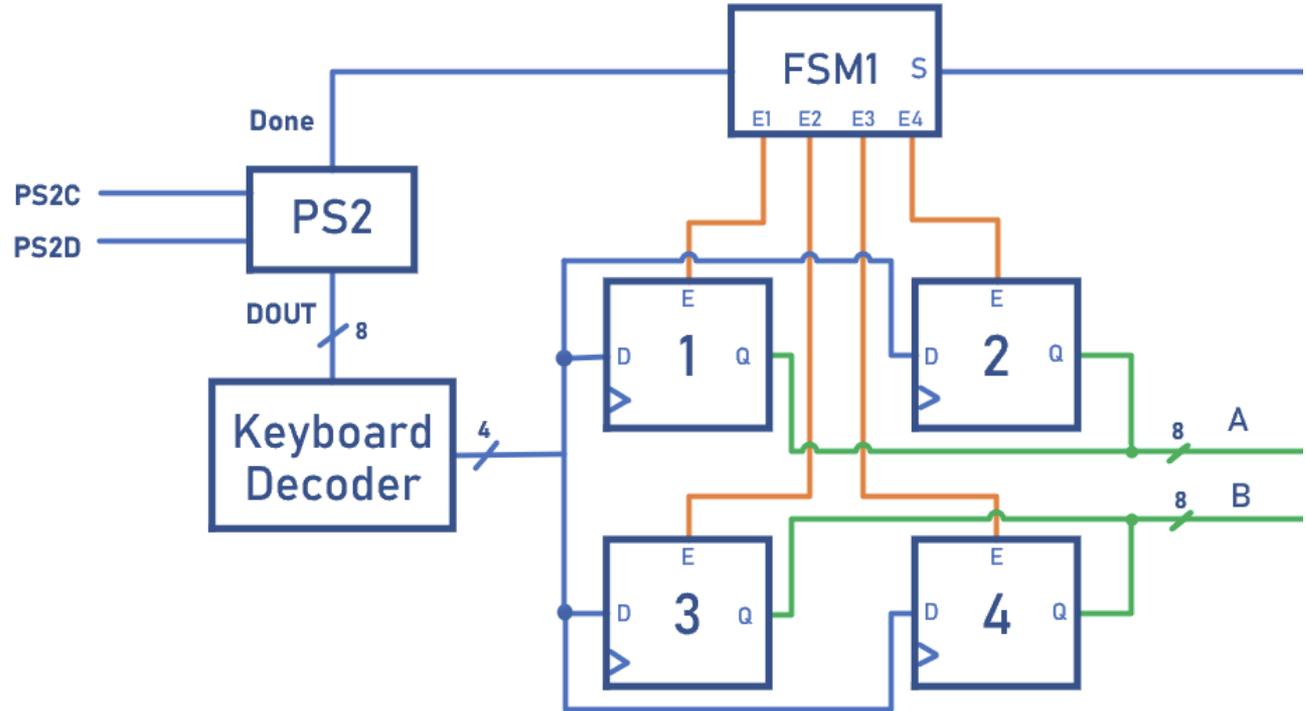
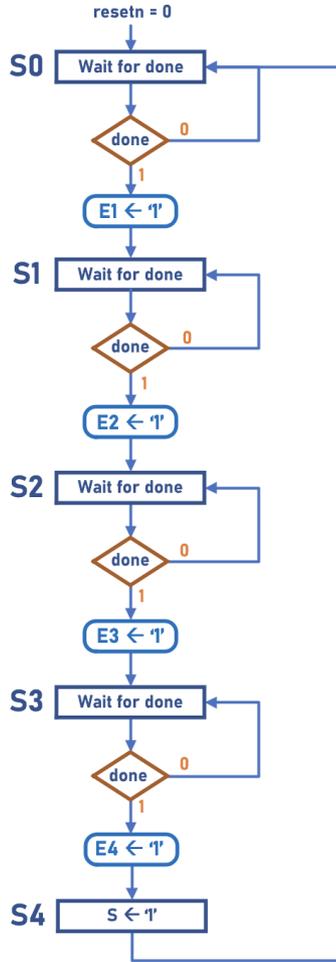
## Arithmetic/Switches

- Adder, Subtractor, Multiplier, Divider
- 4-to-1 Mux
- Operation Priority Encoder

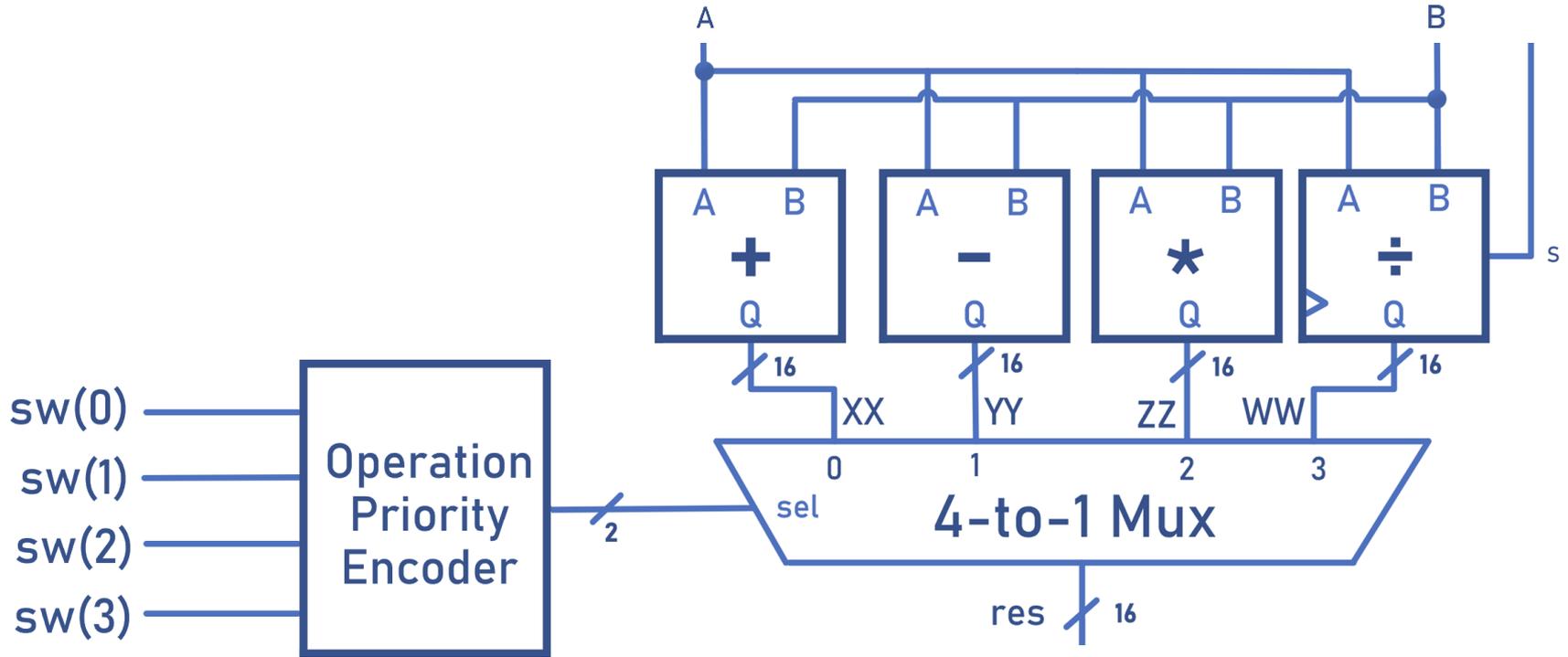
## Display:

- 7-Segment Serializer

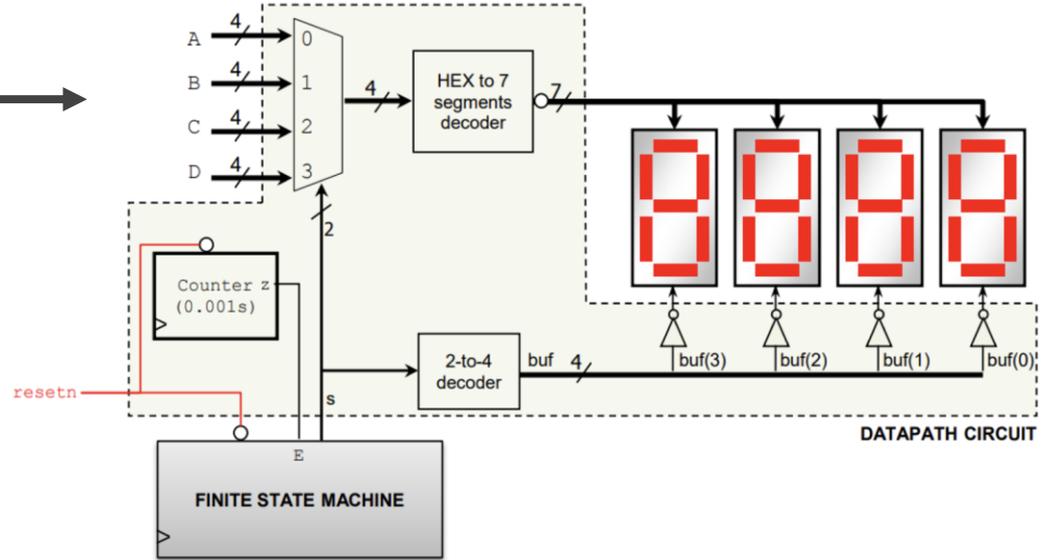
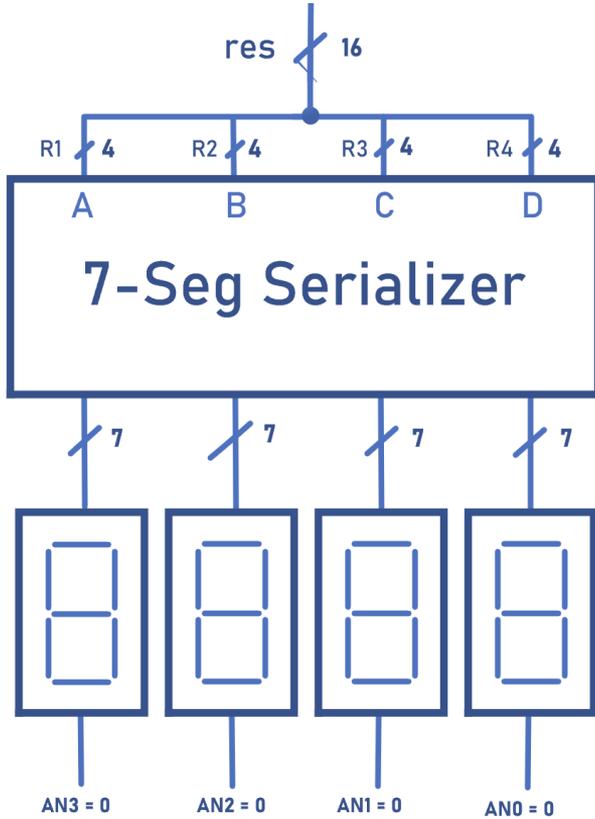
# Reading Keyboard Input



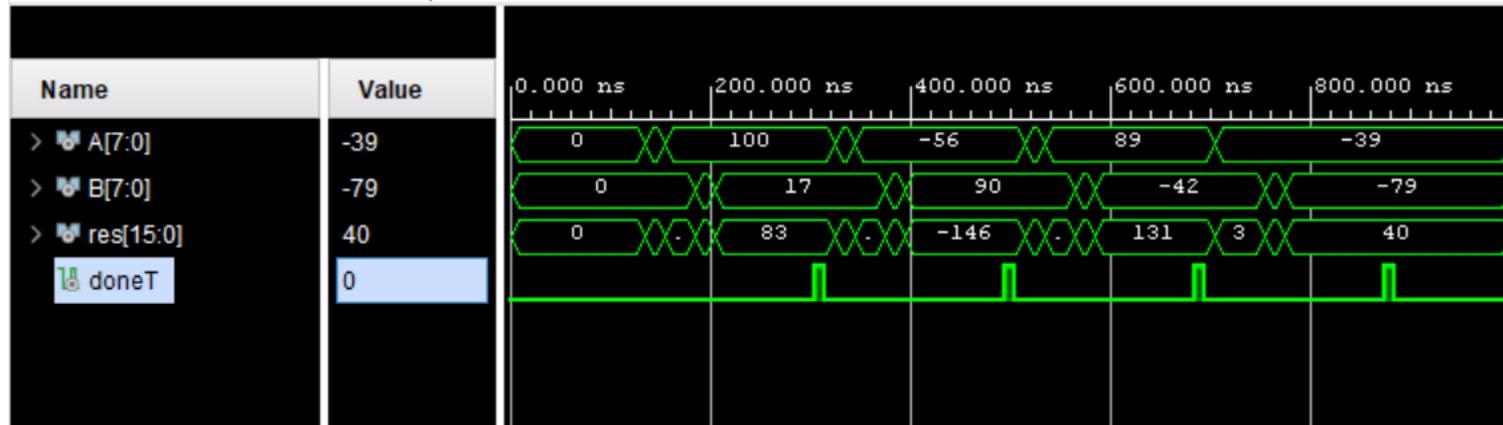
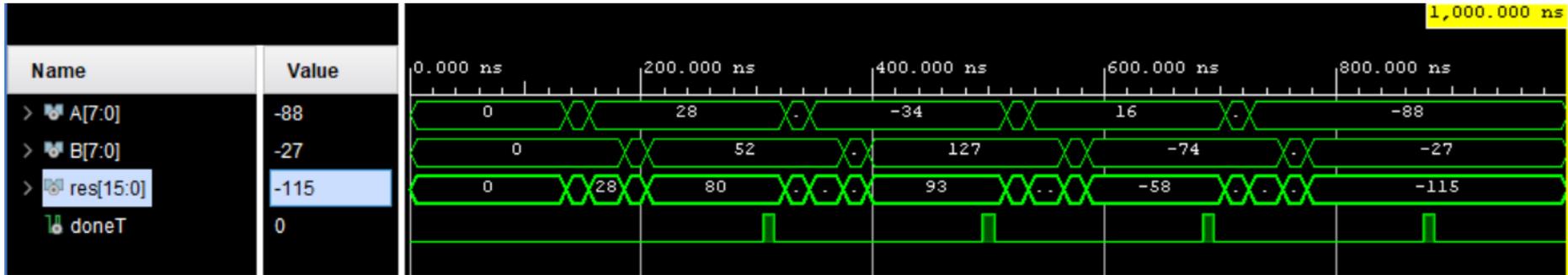
# Arithmetic/Switches



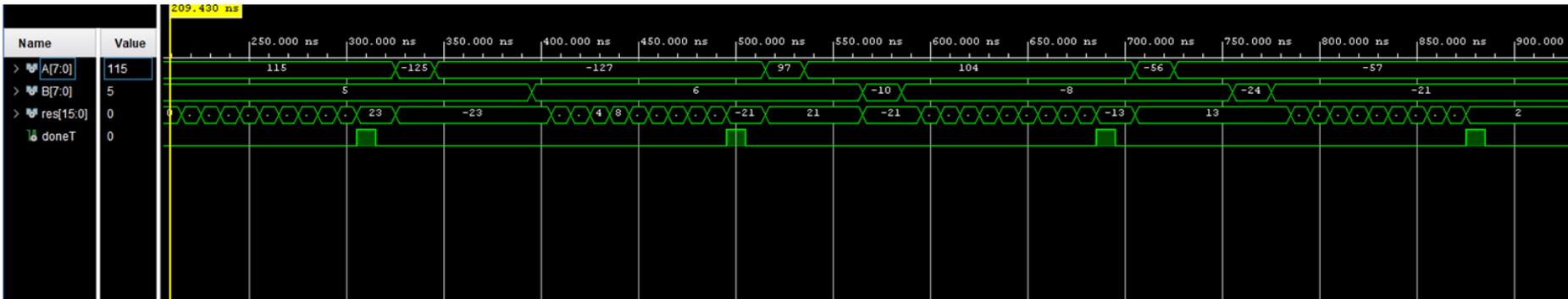
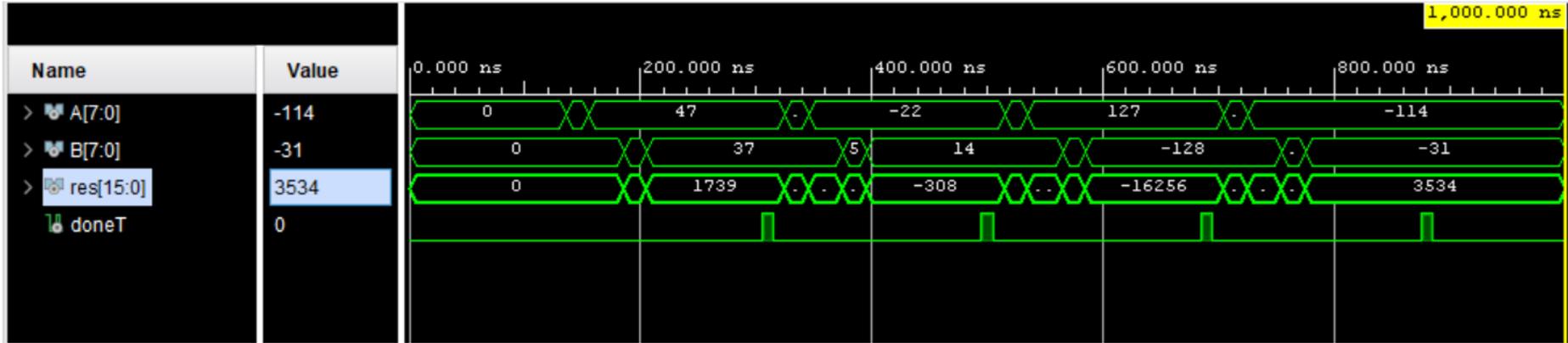
# Display



# Simulations (Add/Subtract)



# Simulations (Multiply/Divide)



# Video

<https://www.youtube.com/watch?v=lcjVxKpi5EU>