ALU_16bit

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ALU_16bit.jls
Build an ALU using JLS
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Use MSB of Op for add, subtract, slt

Op

1-0
2

InputA

InputB

InputA
CarryOut
InputB
Output
Op
Overflow

AddSubtract

Use lower two bits of Op for mux selectors

Difference
SLT
InputA
SLTU
InputB
Overflow

SLT

0
1
2
3

Output

0
1
2
3

Overflow

0B

InputA
High
InputB
Low
Overflow

Multiplier

0B

0
1
2
3

High

#Use high only when multiplier is selected