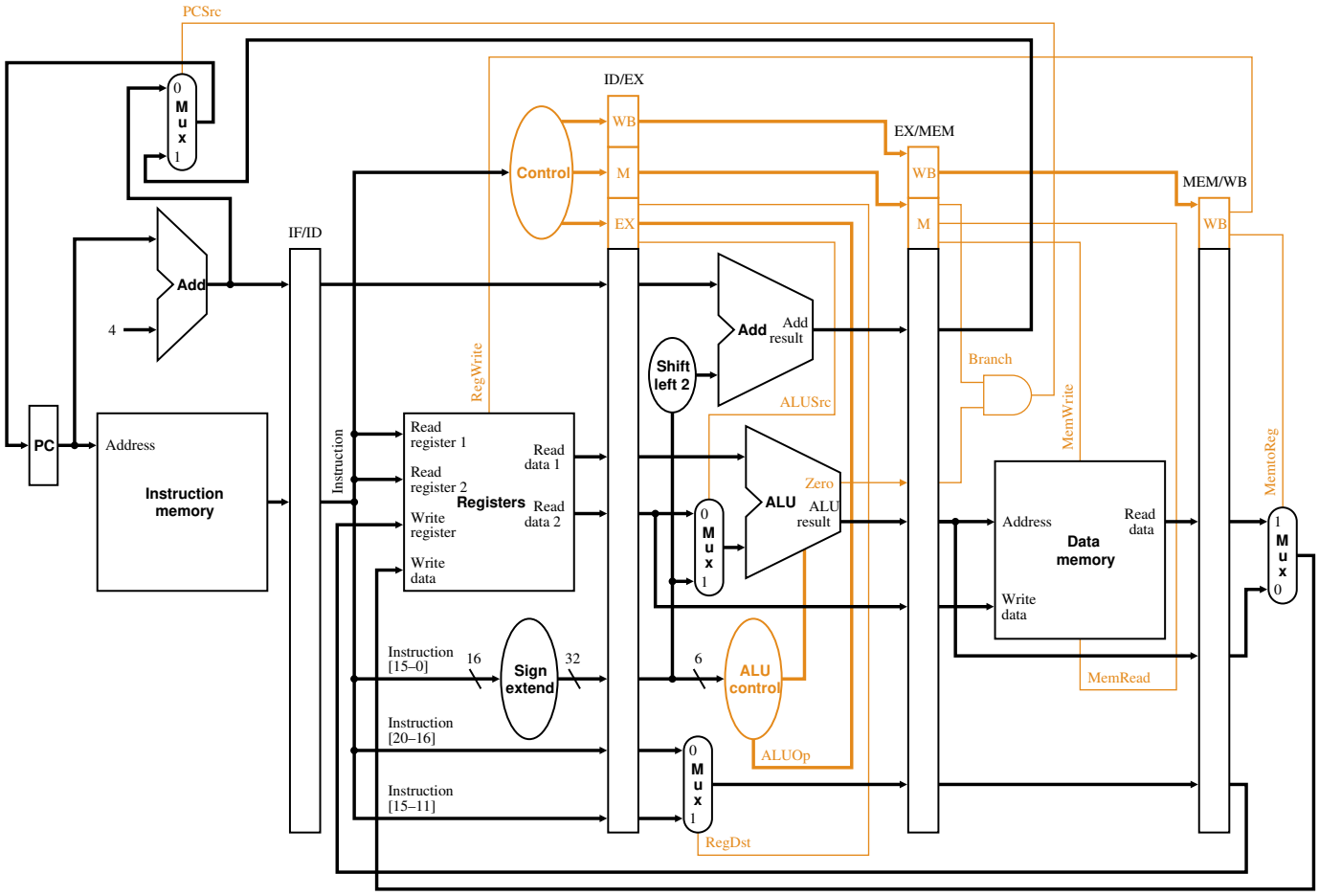
PCSrc
0
M
u
x
1
ID/EX
EX/MEM
MEM/WB
WB
M
EX
Control
Add
4
IF/ID
PC
Address
Instruction memory
Instruction
RegWrite
Read register 1
Read register 2
Registers
Write register
Write data
Read data 1
Read data 2
Shift left 2
Add
Add result
ALUSrc
ALU
ALU result
Zero
Branch
MemWrite
MemtoReg
Address
Data memory
Read data
Write data
MemRead
Instruction [15–0]
16
Sign extend
32
6
ALU control
ALUOp
Instruction [20–16]
Instruction [15–11]
RegDst