

add
<pre> newPC = PC+4 PC = newPC inst = Mem[PC] a = Reg[inst[25-21]] b = Reg[inst[20-16]] result = a + b Reg[inst[15-11]] = result </pre>

beq
<pre> newPC = PC+4 PC = newPC inst = Mem[PC] a = Reg[inst[25-21]] b = Reg[inst[20-16]] result = newPC + SE(inst[15-0])<<2 if(a == b) PC = result </pre>

lw
<pre> newPC = PC+4 PC = newPC inst = Mem[PC] a = Reg[inst[25-21]] result = a + SE(inst[15-0]) memOut = Mem[result] Reg[inst[20-16]] = memOut </pre>

sw
<pre> newPC = PC+4 PC = newPC inst = Mem[PC] a = Reg[inst[25-21]] result = a + SE(inst[15-0]) Mem[result] = Reg[inst[20-16]] </pre>