

Forwarding Logic

Forward A

if ((ID/EXE.MemWrite or ID/EXE.MemRead) and EXE/MEM.#rd = BA)

ForwardA = 10

else if ((ID/EXE.MemWrite or ID/EXE.MemRead) and MEM/WB.#rd = BA)

ForwardA = 01

else if (EXE/MEM.RegWrite and ID/EXE.#rd = EXE.MEM.#rd)

ForwardA = 10

else if (MEM/WB.RegWrite and ID/EXE.#rd = MEM/WB.#rd)

ForwardA = 01

Forward B

if (EXE/MEM.RegWrite and ID/EXE.#rs = EXE.MEM.#rd)

ForwardB = 10

else if (MEM/WB.RegWrite and ID/EXE.#rs = MEM/WB.#rd)

ForwardB = 01

Forward C

if (ID/EXE.MemWrite or ID/EXE.MemRead and (ID/EXE.#rd = EXE.MEM.#rd))

ForwardC = 10

else if (ID/EXE.MemWrite or ID/EXE.MemRead and (ID/EXE.#rd = MEM/WB.#rd))

ForwardC = 01