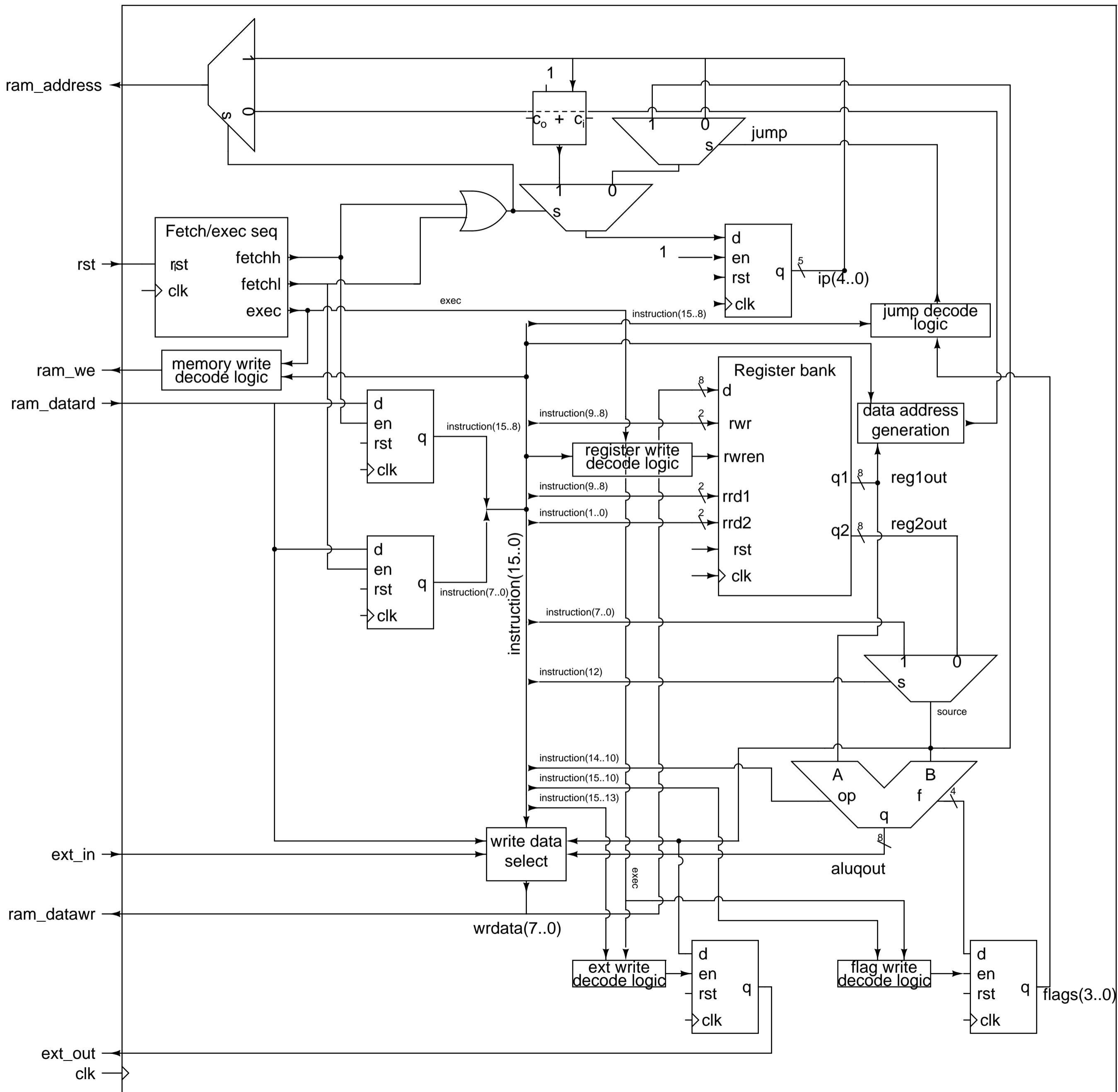


CPU



Jump decode logic

instr(15..13)=101 and
 instr(11..8)=0000 or
 (instr(11..8)=0001 and zf=1) or
 (instr(11..8)=1001 and zf=0)
)

Register write decode logic

execute=1 and (
 (instr(15..13)=000 and instr(11)=0) or
 instr(15..13)=001 or
 (instr(15..13)=010 and instr(11..10) /= 01)
 instr(15..13)=011
)

Memory write decode logic

execute=1 and instr(15..10)=000X10

External write decode logic

execute=1 and instr(15..13)=110

Flag write decode logic

execute=1 and instr(15..10)=010X01

Write data select

wrdata =
 source when instr(15..10)=000X00
 ram_datard when instr(15..10)=000X01
 aluout when instr(15..13)=001
 aluout when instr(15..13)=010
 aluout when instr(15..13)=011
 ext_in when instr(15..10)=110X01

Data address generation

address =
 reg1out when instr(15..10)=000001
 instr(7..0) when instr(15..10)=000101
 reg1out when instr(15..10)=000010
 reg1out when instr(15..10)=000110