ARCHLAB-PARTB 报告

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1. 指令的实现步骤

iaddl 指令

Fetch	icode:ifun← M1[PC] rA:rB← M1[PC+1] ValC← M4[PC+2] ValP← PC+6
Decode	ValB← R[rB]
Execute	ValE← ValC+ValB
Memory	
Write back	R[rB]← ValE
PC update	PC← ValP

ileave 指令

Fetch	icode:ifun← M1[PC] rA:rB← M1[PC+1] ValC← M4[PC+2] ValP← PC+1
Decode	ValA← R[%ebp]
Execute	ValE← ValA+4
Memory	ValM← M[ValA]
Write back	R[%esp]← ValE R[%ebp]← ValM
PC update	PC← ValP

2.SEQ 处理器 HCL 文件的修改

Fetch	icode:ifun← M1[PC] rA:rB← M1[PC+1] ValC← M4[PC+2] ValP← PC+6
Decode	ValA← R[rA] ValB← R[rB]
Execute	ValE← ValC+ValB
Memory	ValM← M[ValE] M[ValE]← ValA
Write back	R[rA]← ValM
PC update	PC← ValP

Fetch	icode:ifun← M1[PC] rA:rB← M1[PC+1] ValP← PC+2
Decode	ValA← R[rA] ValB← R[rB]
Execute	
Memory	
Write back	R[rA]← ValB R[rB]← ValA
PC update	PC← ValP

Fetch	icode:ifun← M1[PC] rA:rB← M1[PC+1] ValC← M4[PC+2] ValP← PC+6
Decode	ValA← R[rA]
Execute	ValE← ValC OP ValA
Memory	
Write back	R[rA]← ValE
PC update	PC← ValP

Fetch	icode:ifun← M1[PC] rA:rB← M1[PC+1] ValP← PC+2
Decode	ValA← R[rA] ValB← R[rB]
Execute	ValE← ValA OP ValB
Memory	
Write back	
PC update	PC← ValP