

RISCV single

Controller

Instr

Instruction Memory

A

RD

Instr

Regsrc

PCSrc

ResultSrc

ALUControl

ImmSrc

RegWrite

MemWrite

Zero

Datapath

PC

Instr

ALUResult

DataAddr

WriteData

WriteData

ReadData

ReadData

Data Memory

WE

A

WD

RD

clk

clk

rst

External Memories

Processor

Toplevel