

RISCV single

Controller

Instr

Instruction Memory

A

RD

Regsrc

PCSrc

ResultSrc

ALUControl

ImmSrc

RegWrite

MemWrite

Instr

clk

Zero

rst

Datapath

PC

Instr

ALUResult

DataAddr

WriteData

ReadData

Data Memory

WE

A

WD

RD

External Memories

Processor

Toplevel