Lab 2 prelab

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What is Assembly Language?

Assembly Language is the human readable representation of machine instructions. Unlike high level programming languages, assembly language only includes three main functors: Instructions, Registers, and Constants.

In the assembly code sub a,b,c, which operand is the destination?

In MIPS assembly, the instruction `sub a,b,c` will place `b - c` into `a`. In every MIPS instruction, destination is first.

Why are operands stored in registers?

Operands are stored in registers to allow operations to be performed quickly on arbitrary data instead of having to always read from memory.

This lab creates 8 registers. How many registers does a MIPs have?

There are 32 registers in a MIPs processor.

How many operands can be read from a MIPs register at a time?

A maximum of 2 registers can be read at one time

How many operands can be written to a MIPs register at a time?

One register can be written to at one time

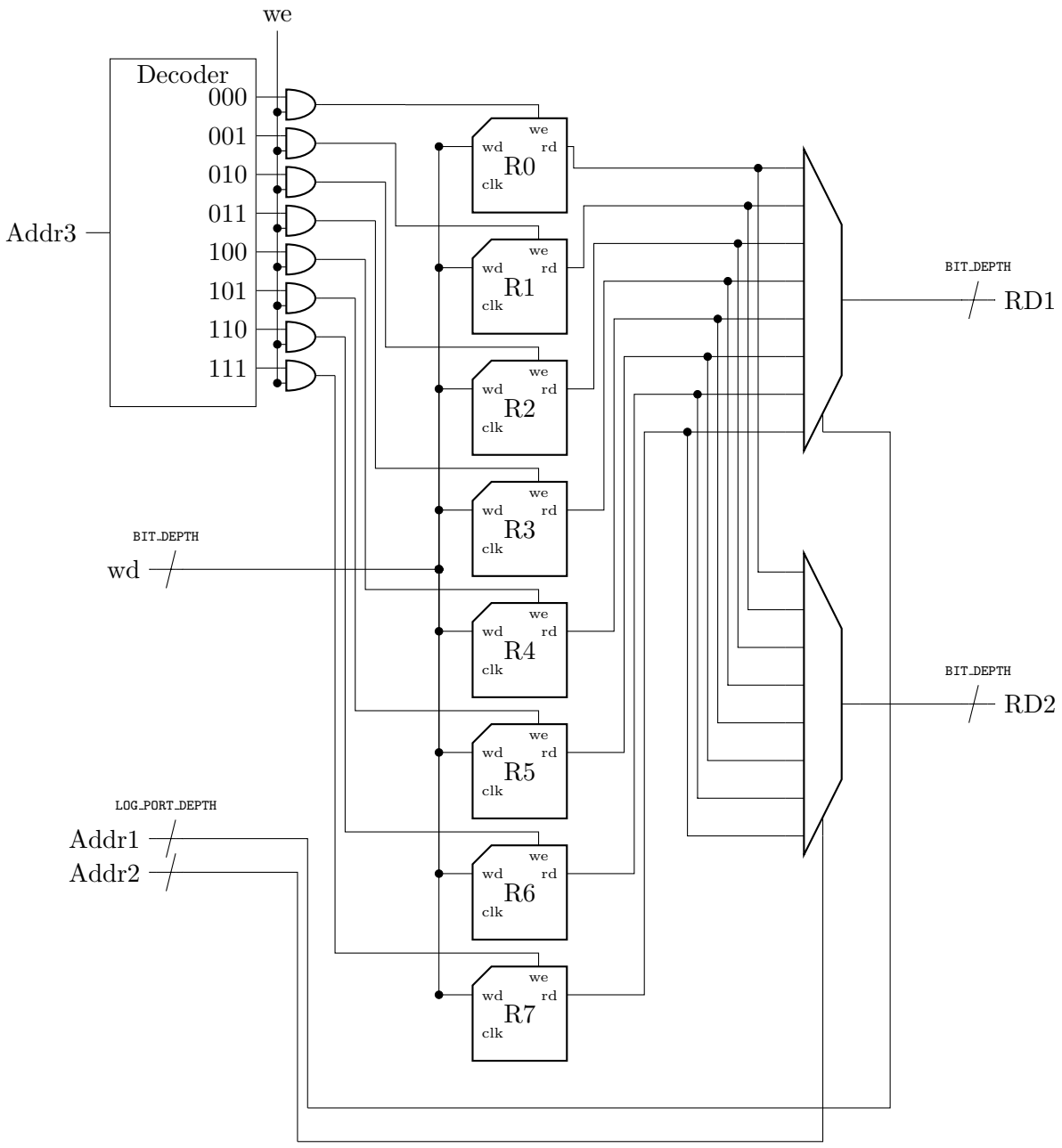

Figure 1: Register File block diagram