

# Digital Design LU

## Protocol

### Lab Exercise III

Group ?

Vorname Nachname, Matr. Nr. 0123456

e0123456@student.tuwien.ac.at

Vorname Nachname, Matr. Nr. 0123456

e0123456@student.tuwien.ac.at

Vorname Nachname, Matr. Nr. 0123456

e0123456@student.tuwien.ac.at

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# Pipeline Simulation

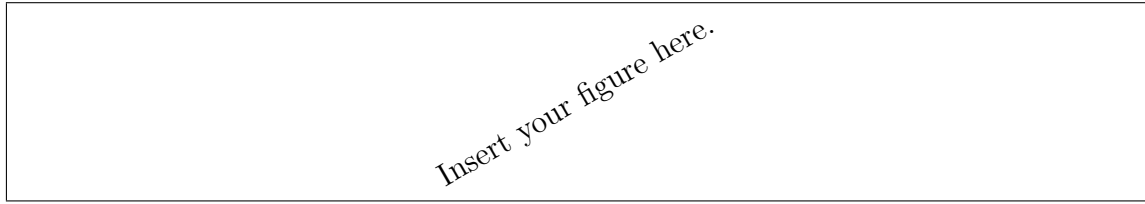


Figure 1: Simulation screenshot for Listing 1.

Make sure the following signals are visible in Figure 1: the program counter in the fetch stage, the instruction being fetched, and the fields **address**, **rd**, **wr**, **byteena**, and **wrdata** in the **mem\_out** signal coming out of the pipeline.

Listing 1: Assembler example without forwarding

```
    addi $1, $0, 0
    nop
    nop
loop:
    addi $1, $1, 1
    nop
    nop
    sw $1, 16($0)
    j loop
    nop
    nop
    nop
```

## Feedback & Comments

By answering the optional questions below you can give us feedback and help us to further improve this lab course. Your answers will not influence your grading!

**Question:** How many hours did you need to solve this lab exercise? Please give us a rough estimate.

**Answer:**

**Question:** Were there any annoying problems you encountered (e.g. bugs in tools, flaws in the task description or documentation, etc.)?

**Answer:**

**Question:** Other remarks?

**Answer:**