

ELC 2137 Lab 01: Git and LaTeX Intro

Yiting Wang

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Summary

In this lab, it talk about two tools that are es-pecially suited for programming. Git is a version con-trol software that helps you keep track of modifica-tions you make to a code project and collaboratewith others on that project. LaTeX is a typesettinglanguage that can produce professional-looking doc-uments and makes including code very easy.

Q&A

1. What is your GitHub user name?

yiting-wang1

2. What LaTeX environment produces a bulleted(non-numbered) list?

The bulleted lists are produced by the itemize environment. Each entry must be preceded by the control sequence `\item`.

3. Write the equation $y(t) = 1/2 e^t$ using Latex equation formatting.

$$y(t) = 1/2e^t$$

4. What is the shortcut key for compiling your Latex document?

- F5 – compile to PDF
- Starting typing a command, then use arrows to choose the desired auto-complete command, and press Enter. For example, type `\V` and the first item in the pop-up list should be the `\Verilog` command.
- In tables, TeXstudio will highlight things in red when the number of columns specified doesn't match the number of columns you have in a particular row. Summary: When nothing is red, you have the right number everywhere!
- Text formatting, similar to MS Word:
 - Ctrl+b = **bold**
 - Ctrl+i = *italic*
 - Ctrl+Shift+t = `typewriter` (monospaced)

- Ctrl+Shift+i = insert “\item ”
- Standard Windows shortcuts:
 - Ctrl+z = undo
 - Ctrl+y = redo
 - Ctrl+c = copy
 - Ctrl+x = cut
 - Ctrl+v = paste

Results

Figure 1 is the replication of the table and figure shown in Figure 1.1 in Lab 1 Git and LaTeX Intro. It uses a single figure environment to ensure that the table and andimage do not get separated.

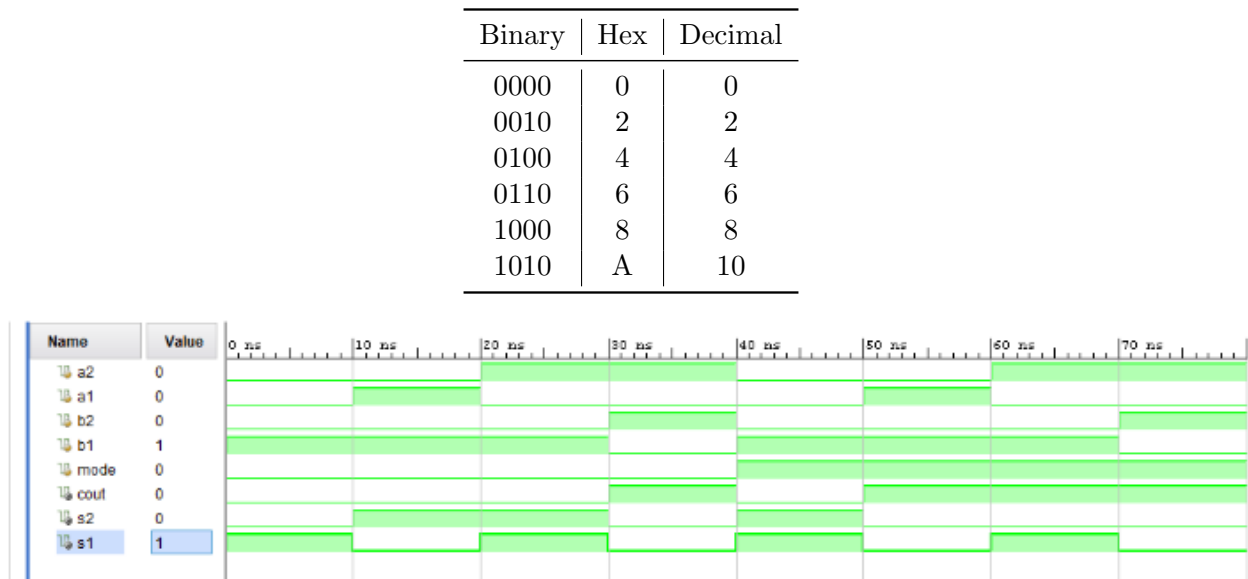


Figure 1: Table and simulation waveform to reproduce

This part is using the trim and crop options for the `\includegraphics` command to just get the part of the image people want. Figure 2 is the original one, and Figure 3 is the logo cropping the top and bottom.

Figure 3 is the picture after I commit these changes to my repo and push them to GitHub. In GHD, the the History tab to show me all of my commits thus far.

Code

File Inclusion

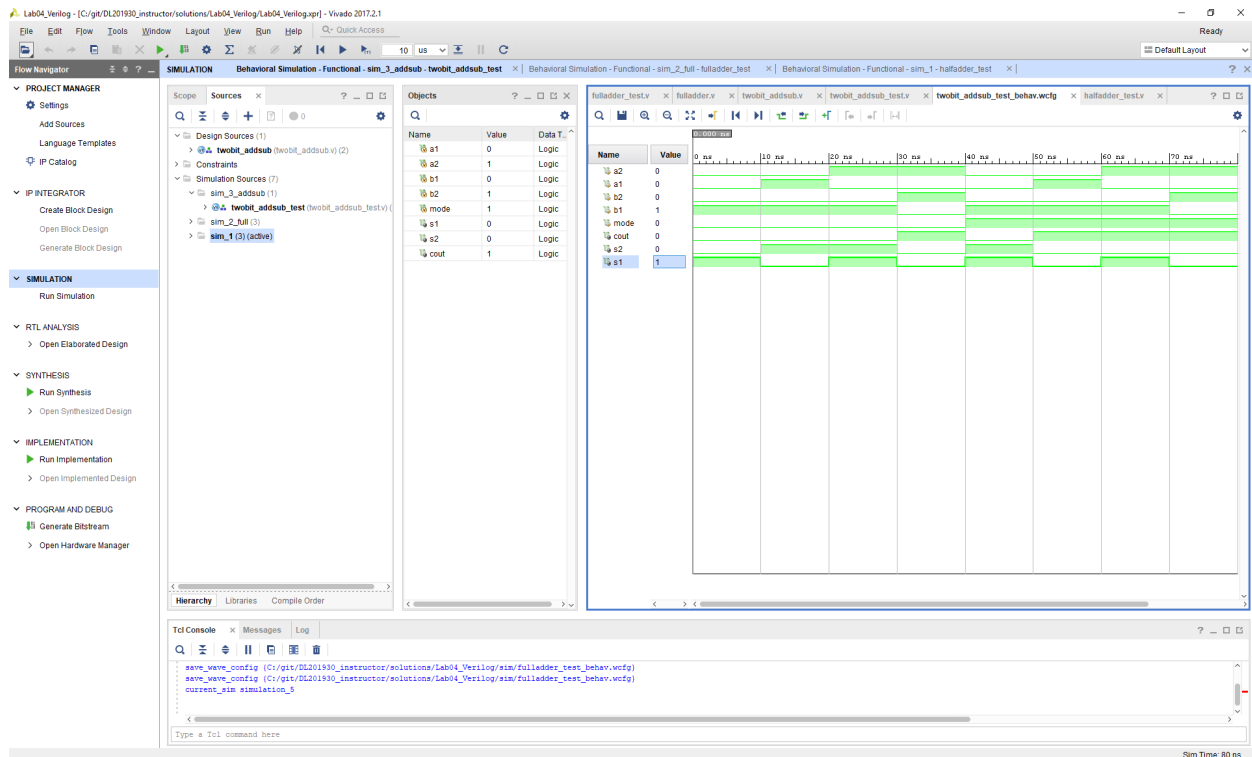


Figure 2: This is the original logo.

Listing 1: lab1 example Verilog code

```

module example
  #(parameter BITS=4)
  (
    input [BITS-1:0] in0, in1,
    input sel,
    output [BITS-1:0] out
  );

  // Choose in1 or in0
  out = sel ? in1: in0;
endmodule

```

