

CS/EE 3710 Computer Design Lab

Final Report

Due Wednesday, December 17th, 5:00pm
(poster due on December 12th during demo day
1:00-3:00pm in the DSL)

Goal: To document your group's project

Overview

Your final report should contain three parts:

The first part is a conference-style paper of no more than 8 pages that describes your project. The target audience for this paper is someone who is knowledgeable about computers and digital design, but would like to know the details behind your project. That means that you don't have to explain how NAND gates work, but you should describe what your project is, what it's useful for, why it's interesting, what features you added, and what your approach was to building the project.

The body of the paper should document the work you did on your project. What does the project do specifically? What is the target application? What are the interesting parts of your project? How did you do those interesting parts? What special features did your project include? Why? What is the overall block diagram of your project (i.e. processor, IO subsystems, memory map, external hardware, etc.)? What is the programmer's model of your processor? How does your assembler work and what features does it support? What types of IO do you support and how? What is the testing environment? How did you test the project? What were the results? How would you run your demo software?

Evaluation of the results of your project is an important part of the paper. Include figures and tables as they make sense. Finally, include a conclusions section where you recap the main features of your project, and give some opinions on what you did well and what you could have done better. Include references at the end if they are appropriate.

The paper should be no more than 8 pages and formatted in "camera ready" double-column "ACM SIG proceedings" form. I'll put a link to a web site that has paper formatting information in both LaTeX and Word. I prefer LaTeX, but you can use whatever you're comfortable with. Include a title and author list, then an abstract, an introduction, a paper body with technical details, a conclusion, and references if appropriate. The web site is:
<http://www.acm.org/sigs/publications/proceedings-templates>

The second part of the final documentation is a set of detailed design documents that cover the actual processor design documents, assembler code, application code, IO system design, and other parts of your project. This is the actual project itself, not a paper describing the project (i.e. part1). It should include schematics, Verilog code (commented!), code for your application (commented!), testing examples, code for your assembler, users guides for your application (demo) program, users guide for your assembler, specs on external HW that you used. Pretty much anything that is involved with the design and implementation of your project. You can turn this in as hard copy, or as a zip archive, but either way please make a top-level README that is a guide to all the documents.

The third part is a poster that describes your project, your final demo application, and anything else that someone looking at your project would find interesting. We'll have open demos of all

projects in the DSL (instead of in-class presentations) on Friday Dec 12 from 1:00-3:00pm. You should have your project up and running along with your poster at this time. We'll invite other students and professors to come by and see what you accomplished. Feel free to invite your friends and family too.