

## **TC 6 and 7 (team) -- Final oral presentation and written report**

### **TC 6 (oral presentation)**

Assigned: 22 November 2010

Worth: 60 points

Due: 9 December 2010 or 10 December 2010

### **TC 7 (written report)**

Assigned: 22 November 2010

Worth: 80 points

Due: 13 December 2010

### **GizmoFlash Products**

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**To:** All Synthesizer Division engineers  
**From:** Nikola Tesla, Vice President for Innovation  
**Subject:** Synthesizer project reports (oral and written)  
**Date:** 22 November 2010

The date for presenting our synthesizer demonstrations for Pixilated Studios is fast approaching. We know that all engineering teams have been developing their concepts and preparing their prototypes, and we look forward to seeing the results on December 9 and 10. However, we would like to make sure that your design process and decisions, and your recommendations for the future of your projects, are clearly documented. We are therefore asking you to present your work orally on December 9 or 10 and in writing the following Monday, December 13. The purpose of this memo is to specify the goals and requirements for these two reports.

### **Background**

In any design project, two things of value may be created: first, the product design itself, and second, the enhanced experiences and skills of the team members, which will be valuable in future projects. We will ask you to report on both of these aspects.

### **Product design**

We have asked you to come up with a vision for your proposed product as it would be manufactured and marketed, but we have only required you to implement a limited functionality prototype. In this report, we would like to hear about both, but with a primary focus on the prototype. You must cover such subjects as:

- Motivation for this project and how it led to your final design vision;
- Original scope of the prototype;
- Development process, including notable successes, problems, and changes of scope;
- Final prototype result--what it is and isn't capable of, how well you succeeded in meeting your goals;
- Ideas for carrying out the remainder of the process and bringing this product to market.

### **Project issues**

- Along with purely product-related issues, we would like to hear about how the project went. What obstacles did you have to overcome? What are the key lessons learned?
- What technical or project skills, tools or techniques were important in the project? Of

particular interest are project management, communication or teamwork strategies that were important in the project.

- Explain any other insights into your process: successful strategies, things you wish you had done differently, advice to management, suggestions for next year's teams.

Note that these are content areas, not sections. The actual organization into sections is somewhat up to you, within the limits laid out below. All of these areas are important, and all of them need to have some attention paid to them. The ultimate "argument" of this report is that you did as well as you could, given the resources available to you and the obstacles you had to face. In some sense, the ultimate proof of this argument is that you have a working prototype, which you should be able to demo.

### **Deliverables**

As described above, there are two deliverables, the oral presentation and the written report. Both are in formats that should be familiar by now.

### **Oral presentation**

As before, this will be presented as a team oral presentation using PowerPoint or equivalent, and a brief of your product. A rough rule of thumb for timing is as follows:

- 11-12 minutes for presentation
- 3-4 minutes for a demo of your prototype
- 3-4 minutes for questions

This adds up to a maximum of 20 minutes per team, and we will need to enforce this limit fairly strictly. Every member of the team should help develop the presentation and present part of it. You must speak without written notes.

Your team should bring your `top.sof`, `music.mif`, and PowerPoint file on a USB drive. Bring an initialized SD card if you need it in the demo.

We will provide a complete DE2 setup and a laptop to run PowerPoint and Quartus. We will also provide a projector and a document camera. The document camera can project a live picture of the DE2 board during your demo. During your demo, you can switch between showing the VGA output from the DE2 and a live picture of your DE2 board.

GizmoFlash Products hopes this presentation will be a serious, in-depth look at your project, process and outcomes, not a quick and dirty demo.

### **Written report**

The written project report is a 10-15 page document (approximately). It should follow the structure below:

- Front matter
  - Cover sheet (the equivalent of a memo header)
  - Executive summary (about one page long)
  - Table of contents
- Report proper (main body). See the bullet points above; you may treat these as an outline, or you may use another structure, such as that in chapter six of your technical communications textbook, as long as all of the above points are addressed.
- Attachments and appendices (if any): code, schematics, test results, and any other kind of documentation that might be useful for your readers but that would be distracting in the main body of the report.

Remember the particulars of this format:

- A cover sheet with the team name, the team members' names, the recipients' names and the title of the project.
- Text is single-spaced, with an extra space between paragraphs and even more extra space between sections. Paragraphs are unindented.
- Sections and subsections should have titles and be numbered decimally.
- Section titles should be bold; subsection titles are italicized; all titles should be left-aligned.

Some more format specs:

- The report should begin with an executive summary of about one page.
- Any graphics (tables, graphs, diagrams, photographs) should have a figure or a table number and a caption. Each graphic or table should be introduced, then shown, then explained. The graphic and caption are a single block, centered on the page. Text should not "flow around" the graphic block.
- Any references to sources should be cited in the text like this: [1] (in the order in which they appear in the text). There should be a reference section at the end that collects these, numbered in order.
- Any material that you want to add that is not part of the main document should be titled and attached at the very end (after the references). These should all be listed as appendices in the table of contents.

Feel free to contact Dr. Hildinger with questions.

### **How to submit your work**

After your team presentation, one member of the team should submit your PowerPoint slides to CTools by 11:45 pm of the day of your presentation. One member from your team should submit the PDF file for your final report on CTools by 11:45 pm of the due date.

**Grading scheme for oral presentation**

**Introduction/Overview: 5%**

Team introduced; forecast of talk given; background of project summarized adequately and need for product clearly defined.

1            2            3            4            5

**Project Description: 20%**

Proposed product, objectives, approach and rationale clearly described. Scope of prototype described clearly, with reasons for design decisions given; clear description of prototype's capabilities and limitations.

4            8            12            16            20

**Development Process: 10%**

Schedule showing major tasks, products and responsibilities.

2            4            6            8            10

**Final Steps and Lessons Learned: 5%**

Clear statement of ideas for bringing the product to market; clear statement of lessons learned; mention of skills, tools and techniques that proved useful or not.

1            2            3            4            5

**Organization: 20%**

Presentation organized effectively to bring out and emphasize major points. Points delivered in appropriate order. Appropriate distribution of time to various topics.

4            8            12            16            20

**Delivery and Demonstration: 20%**

Speakers prepared and able to speak without notes in an orderly manner. Presentation well paced and within time constraints. Effective contact established with audience (audible, good eye contact and rapport). Good screen work (point specifically, stand by screen, don't block audience's view). Introductions and handoffs handled well.

4            8            12            16            20

**Visuals: 20%**

Slides well designed, legible, consistent and appropriate for the purpose. Slides cover all important points. Slides used effectively; good balance between talk, text on screen and visual information. Title slide (with title, team name, team member names, date). Overview-type slide (lays out problem statement/motivation for project and proposed solution). Agenda-type slide (lays out structure of talk or main content areas). Summary slide (reminds audience of main claims/"takeaway").

4            8            12            16            20

**Total out of 100%: \_\_\_\_\_**

**Grading scheme for final report**

**Executive Summary: 10%**

Concise but complete summary touching on all major aspects of the report; clear statement of problem, task, purpose, description of product and its functionality; brief assessment of project and ideas for marketing product.

4            6            8            10

**Introduction: 20%**

Background of project summarized adequately and need for product clearly defined; product briefly described.

4            8            12            16            20

**Main Sections: 40%**

Final prototype described adequately both with regard to its appearance and functionality; same for finished product; development process fully described; ideas for bringing the product to market given; discussion of obstacles overcome and lessons learned.

20            25            30            35            40

**Format and mechanics: 30%**

Cover sheet, executive summary, table of contents; single-spacing, block paragraphs, bold section headings, adequate subheadings, page numbers; legible printing in readable typeface. Good syntax and usage; clear expression; good organization of material at the level of the section and the paragraph.

10            15            20            25            30

**Total out of 100%: \_\_\_\_\_**