Interactive Prototype #1 (Group)

Due: Monday, February 12, 2007

Goals

The goal of this assignment is to learn how to build prototypes of user interface ideas using an interactive user interface builder. You will revise your user interface ideas and then use interactive tools to build a prototype of the design.

Interface Redesign

Use the results of your online DENIM prototype tests to design a revised user interface. Develop new and/or revised scenarios for your tasks by storyboarding your ideas. The tasks that most of you used in the previous assignment should be sufficient for this. If you are changing your tasks, make an appointment with us to present your new tasks, design ideas, and storyboards for discussion.

Prototyping

You will use a prototyping tool to create an interactive prototype of your application. For all the applications this term we would like you to use Microsoft Visual Studio.

Your prototype should implement the three scenarios that you developed for your tasks. In addition, the design of the prototype should now start to account for the size, resolution, colors, and other attributes of your target platform. It is time to apply good visual design principles to your designs.

The underlying functionality does not have to be fully implemented. For example, applications requiring large databases of information can instead have a sufficient number of hard-coded data points for supporting the three tasks.

You have a very short period of time to complete this prototype, so you should focus on showing only what is essential and try to avoid writing code where it is not necessary. You will likely have to make some difficult choices!

Preview of Usability Test

In addition to fixing major usability and design problems, you must make sure your prototype will work for a usability test. You will be performing this test for the next assignment using the prototype you produce from this assignment. (Note: if you change your prototype after turning it in, do not put it up on the web site. We need to grade something dated before the due date for this assignment. You can use the modified version for your usability test.) This means that a participant (who is not in your group) should be able to use your interface to perform the three tasks.

CSE490f Winter 2007 Web site
http://www.cs.washington.edu/cse490f
Deliverables

1. **Prototype**
   Your prototype must be accessible and/or executable by everyone in the class from your web site. It must be accompanied by a README file that describes any installation requirements and operating instructions, including any limitations in the implementation. The prototype should ideally be executable without installing any additional software.

2. **Report**
   You will submit two copies of a printed report of no more than four pages of text in class (**images free and required**). You must also put a copy of the report online on your web site.

3. **Presentation**
   One member of your team will present your project in class, including a demo of your prototype. You will have twenty minutes for your presentation and two additional minute for questions. Practice in advance! You must use PowerPoint slides and make them available for download on your team web site.

Report

The report should follow this outline with separate sections for the top-level items.

1. **Problem and solution overview (1 paragraph)**
2. **Tasks (1/4 page)***
   - 3 representative tasks to test your interface (easy, medium, hard)
3. **Revised interface design (1 page plus screenshots)**
   - Changes as a result of DENIM online testing and rationale behind the changes (refer to screenshots or scripts)
     - Sketches or scripts for unimplemented portions of the interface
   - Scenarios for 3 tasks
     - Storyboards of scenarios (annotated screenshots or scripts)
4. **Prototype overview (2 pages)**
   - Tools
     - How the tools helped
     - How the tools did not help
   - Overview of the implemented UI (reference figures or scripts from next section)
   - What was left out and why
   - Any wizard of oz techniques required to make it work
5. **Prototype screenshots or scripts (as many as needed)**
Grading

The report and prototype will be graded together, and the presentation will be graded separately. Here is the grading for the report and prototype (100 pts total):

Design (40 Points)

- Tasks
  - Do the tasks cover the interesting features of the project?
  - Do the tasks have an appropriate difficulty/complexity specified?
  - Do the tasks altogether form a compelling story for the project?
- Changes
  - Were appropriate changes made to address the important problems discovered?
  - Are these changes well illustrated with screenshots or scripts?
- Transition from low-fi to interactive prototype
  - Were the limitations of the low-fi addressed?
  - Were appropriate constraints from the final target platform considered?
  - Does the design adequately represent the final target platform?
  - Were any non-standard interactions described and justified?

Prototype (30 pts)

- Is the prototype accessible and working?
- Can users complete the three tasks with the prototype?
- Were appropriate tradeoffs made between functionality and completeness?
- Are the limitations and tradeoffs described and justified in the report?
- Does the README file summarize these limitations and any other details needed?

Report (30 pts)

- Writing
  - Does the report cover all the topics in the outline?
  - Does the organization follow the outline?
    - Are sub-sections used for easy scanning of important parts?
- Screenshots and Storyboards or Scripts
  - Are important figures referenced and placed inline with the text? *
  - Is there a complete set of screenshots or scripts in the appendix?
  - Are they clearly annotated?

* Use Relevance-Enhanced Image Reduction to create effective thumbnail images.
Presentation

The presentation grading will be broken into two components: the individual grade of the presenters and a group grade for the presentation of the prototype. The grades for each of these components are explained in more detail below.

Presenters grades

- Suggested Organization
  - Overview
  - Overall problem
  - Representative tasks
  - Overall UI idea including design changes from the previous iteration, rationale behind changes (tie to data from user test)
  - Demonstration of prototype (show doing all 3 tasks)
  - Summary

- Presentation
  - Use slides. Ensure that the presentation shows appropriate preparation, and that visual aids are effective, properly prepared, and properly employed. Make sure that people at the back of the room can see your slides.
  - Cover the required scope within the 20+2 minute time period. Practice and time your presentation.
  - Ensure the presenter makes eye contact and projects well.

Group grade

- Representative Tasks
  - Did they provide coverage of the functionality?
  - Where the tasks too easy or too hard?

- User Interface
  - Was the interface novel and creative?
  - Was it appropriate for the supported tasks?
  - Does it follow from the low-fi prototype user test, and other sound reasoning?

- Presentation of Functionality
  - Was enough presented to allow user testing of the representative tasks?
  - Was enough presented to give a flavor of the interface?
  - Was there an appropriate amount given the difficulty of interface ideas?