Interactive Prototype #1 (Group)

Due: Thursday, February 26, 2009

Goals

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

Interface Redesign

Use the results of your online 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. You will probably use a tool based on the platform (e.g., for Windows Mobile use Microsoft Visual Studio, for Android use droiddraw, and for iPhone use Interface Builder).

Your prototype should implement the three scenarios that you developed for your tasks. In addition, the design of the prototype should properly 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 found in the online usability study, you must make sure your prototype will work for an in-lab usability test coming up next. 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.

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 around four pages of **text** in class (**images free and required**). You must also put a copy of the report online on your 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)**
   o 3 representative tasks to test your interface (easy, medium, hard)
3. **Revised interface design (1 page plus screenshots)**
   o Changes as a result of online testing and rationale behind the changes (refer to screenshots or scripts)
     ▪ Sketches or scripts for unimplemented portions of the interface
   o Scenarios for 3 tasks
     ▪ Storyboards of scenarios (annotated screenshots or scripts)
4. **Prototype overview (2 pages)**
   o Tools
     ▪ How the tools helped
     ▪ How the tools did not help
   o Overview of the implemented UI (reference figures or scripts from next section)
   o What was left out and why
   o 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 (100 pts total):

Design (40 Points)

- Tasks
    - o Do the tasks cover the interesting features of the project?
    - o Do the tasks have an appropriate difficulty/complexity specified?
    - o Do the tasks altogether form a compelling story for the project?
- Changes
    - o Were appropriate changes made to address the important problems discovered in the online evaluation?
    - o Are these changes well illustrated with screenshots or scripts?
- Transition from medium fidelity prototype to interactive prototype
    - o Were the limitations of the medium-fi prototype addressed?
    - o Were appropriate constraints from the final target platform considered?
    - o Does the design adequately represent the final target platform?
    - o 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
    - o Does the report cover all the topics in the outline?
    - o Does the organization follow the outline?
    - o Are sub-sections used for easy scanning of important parts?
- Screenshots and Storyboards or Scripts
    - o Are important figures referenced and placed inline with the text? [*]
    - o Is there a complete set of screenshots or scripts in the appendix?
    - o Are they clearly annotated?

[*] Use [Relevance-Enhanced Image Reduction](#) to create effective thumbnail images.