CS 460/594 — Project Assignment 2
Project Sketches
Due: February 12 in class

Before implementing a graphical interface, it is always a good idea to 1) perform an analysis of the set of tasks that the interface is expected to perform, 2) develop some type of specification document that details the tasks and how the interface will implement them, and 3) draw sketches of the proposed interface and show them to a number of potential users to get their feedback. Usually the process of drawing the sketches is an interative process that is repeated a number of times before a prototype is implemented. The advantage of drawing sketches before implementing the interface is that it is much quicker to draw the sketches than to implement the interface. The most obvious problems with the interface can generally be caught with the sketches and only a minimal investment of time is required to catch them.

In this assignment you are going to perform a simplified version of this design phase. You will write a preliminary version of your user manual, draw sketches of your proposed interface, and provide a timeline for your proposed implementation. Your user manual will represent your task description document and your sketches will allow the TAs and myself to evaluate your proposed implementation and suggest changes before you actually start the implementation.

1 User Manual

The user manual should be written for a potential user and describe how to use the interface. Basically it should provide a concise description of the behaviors supported by the interface and how you propose to implement them. It should be an 8 page or less document, single-spaced, and use at least a 10 point font. It should be well-written, well-organized, grammatically correct, and spell checked. Points will be deducted if your manual does not meet these standards. Your manual may refer to the sketches and the sketches will not count toward your page count. If the manual refers to the sketches, please number the sketches to make it easy for us to refer to them.

2 Sketches

For this assignment you should draw a number of sketches of your proposed graphical interface. I recommend hand drawing the sketches because it will be much quicker and is the medium most designers use. However, you can use a drawing editor if that's what makes you feel the most comfortable. I will hand out sketches in class on Tuesday as a guide in drawing your sketches. Some of the possible sketches that you might draw include:

- A sketch of the initial scene. In other words, a sketch of what the graphical interface looks like when the application is first started.
- A sketch of a typical scene, or, if there is more than one typical scene, then a sketch of all the typical scenes. A typical scene is what the graphical interface might look like after a number of operations have been performed.

- Sketches of hidden objects such as menus, dialog boxes, and error boxes.
- Sketches of how properties of graphical objects are linked to application data. For example, suppose that the color of a film object in a movie browser depends on the movie category it represents (e.g., western, comedy, romance, drama). Then one might sketch what the color of the film object will look like for each movie category.
- Sketches of feedback objects or sketches of how application objects will change their properties to show interim feedback during an operation. Examples of feedback objects might include a dashed line box moving across the display to represent a move operation or selection handles appearing over an object to denote a selection operation. Examples of properties changing to show interim feedback might include an object changing color, changing font, going to inverse video, or changing line style.

The sketch of the initial scene should include the entire interface. The sketches of typical scenes should include the main display areas but might omit menus and pallettes if they are the same as in the initial scene. The sketches of hidden objects, properties of graphical objects, and feedback objects should only include the objects in question rather than the entire scene.

Each sketch should include prose that describes the important aspects of that sketch.

The issue of how many sketches to prepare is part of this assignment. The sketches should adequately cover all the visual aspects of the interface, but should not contain a great deal of redundancy. Your sketches should also not attempt to illustrate the dynamic dialog that occurs between a user and the interface. This dynamicism is better captured either via a prototype or by actively sketching the dialog with someone present and watching.

3 Error Messages

For this assignment you should also determine what errors your interface will detect, what error messages it will present to the user, and how these error messages will be presented (your sketches should include examples of how error messages will be presented).

4 Timeline

There will be three "mileposts" for this project, one in early March, one in early April, and one in late April when you hand in your final project. For each milepost you will perform a brief demo of the interface for the TA, and, if there are any interactive behaviors implemented, the TA will experiment with the interface with you or your team present. You need to prepare a document that presents a list of features that you plan to have implemented for each of the three mileposts. You should only list the new features that will be implemented for that milepost. As a rough guide, the initial scene should probably be ready by the first milepost, about half of the interactive behaviors should be implemented for the second milepost, and the remaining interactive behaviors should be implemented for the final milepost. You need to be specific about which interactive behaviors will be implemented for each milepost. The error boxes associated with the interactive behaviors should also be implemented for the mileposts. You might very well have no interactive behaviors implemented for the first milepost, although if you have a game, I would like to see the initial scene for the game, such as the gameboard, and the game pieces arranged in their initial locations on the gameboard.

5 What to Hand In

You should hand in the following four items:

1. Your user manual,
2. Your sketches,
3. A list of errors you will detect and the error messages you will display in response to these errors, and
4. Your timeline.