

April 18, 2002

Assignment #3a

Due: Friday April 26, 2002 by class time

In this assignment you will implement a windowmanager for your window system. Windowmanagers are best known as the piece of a window system that allows the user to directly manipulate windows. In commonly used windowmanagers, this typically means a titlebar above each window, and draggable areas that allow a user to resize a window. For the purposes of this assignment, your windowmanager should give the user the ability to do the following actions to windows:

- Moving
- Closing

In thinking about how to implement your windowmanager, you will once again be faced with design decisions. One of the key decisions is whether the “window dressings” (i.e. the titlebar and any other space-taking interface elements) should be within the bounds of the window, or outside the bounds. Putting these controls outside the window will require the controls to consist of their own separate windows, and you’ll need to get them to move together with the window when dragged. Putting the controls inside the window will take up screen real-estate that you’ll have to claim from the application and manage, but it could make moving the window simpler.

There are some empty functions within GraphicsEventSystem (allowing it to conform to the MouseListener, MouseMotionListener interfaces) that you may want to override in implementing this assignment:

- `public void handleMouseClicked(int x, int y){}`
- `public void handleMousePressed(int x, int y){}`
- `public void handleMouseReleased(int x, int y){}`
- `public void handleMouseMoved(int x, int y){}`
- `public void handleMouseDragged(int x, int y){}`

This is the first part of a two-part assignment. You should get started early, as the second part will be fairly involved as well.

Submission: As you did last time, make a directory in the class submission directory with your username (or your usernames, hyphenated together if you are working in a group). The submission directory for this assignment is at:

`/afs/ir/class/cs377a/submit/assn3/`

You can then FTP your files into that directory. Please archive your CodeWarrior project directory (use the DropStuff application on any public cluster macintosh) and submit the archive to us.