Programming Assignment 4
COMP150CBD
Fall 2004
Due before class on 10/14/2004

Creating an Eclipse Plug-in

In assignment 4, you will take your ChatRoomClient from assignment 2 and turn it into an Eclipse plug-in. This assignment is worth 75 project points. It will be graded on completeness, readability of code (use capitalization, indentation, and commenting conventions), correctness, and robustness.

Plug-in Tutorial

First, work through the "Creating a plug-in" tutorial in Eclipse. To do this, start Eclipse and go to the Welcome screen (Help → Welcome). Click Tutorials, then "Create a 'Hello, World' plug-in." Follow the directions in the tutorial.

Creating Your Chat Client Plug-in

Your first task is to create a new plug-in that is very similar to the one you created in the tutorial. In the tutorial, your plug-in added a new menu "Sample Menu" to the Eclipse menubar with a new menu item "Sample Action." Your plug-in will add a new menu "Chat Client" to the Eclipse menubar with a new menu item "Launch Chat Client." When you click on "Launch Chat Client," you can probably guess what should happen: it should launch your Chat Client.

SWT

Your next task is to convert all GUI components in your ChatClient to their SWT equivalents. **Your final submission should not contain any import statements containing swing or awt.**

Note: To make your life easier, you are welcome to use the provided ChatRoomClient.java file from the last assignment instead of your modified ChatRoomClient. You do not need to add the menubar and combobox as in the last assignment; just get the program running with the basic widgets: input and output text areas, and send and quit buttons.

API documentation for SWT is available in the built-in Eclipse help, under Platform Plug-in Developers Guide → Reference → API Reference.
You will find org.eclipse.swt.widgets useful for replacing buttons and such, and org.eclipse.swt.events will allow you to get rid of the ActionListeners.

It will be helpful to look at some SWT example code in Eclipse. Go to the Welcome screen, click Samples, then click just under SWT. Click Finish, then browse through the code. This should give you an idea of how to manage Displays and Shells under SWT. There are more SWT examples that you can install; search the Eclipse help for "SWT standalone examples setup" for details.

Finally, you should take a look at GridLayout and GridData to see how to manage the position of controls in your shell.

Submission

Please submit your plug-in. You can do this by submitting the plug-in directory in your Eclipse workspace. For example, if your plug-in project is called ChatClient and Eclipse is installed at C:\Program Files\eclipse, then you should submit the directory C:\Program Files\eclipse\workspace\ChatClient. Please note that we want the whole directory, not just the src portion.

As usual, you should submit your assignment using provide. Use the following command on one of the Sun machines:

- provide comp150cbd a4 [files]