

## Designing Interactive Systems II - Summer Semester 2010

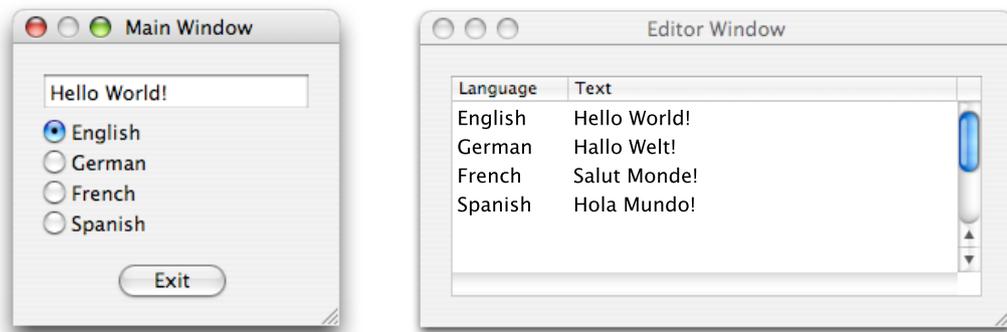
### Assignment 7: X-Squared

*Due:* Monday, June 7, 2010 @11:00 AM

In this assignment, we will be looking at the other X – Mac OS X. This assignment should be completed in groups of two.

#### ***Task***

Now that you know different procedural window systems, you will work with Cocoa, the Mac OS X window system API.



Again, when the user selects a language in the main window (left), the text field should change the text to the new language. In the editor window (right) is an *editable* table view widget (NSTableView), which contains the full list of translations. Whenever this table is edited, the changes should be reflected in the main window.

Also, be sure your UI resizes properly when the window resizes.

## *Additional Credit*

Credit above 2.0 will be given for one or more of the following:

- Use Cocoa bindings to do the linking between the Model and the View.
- Allow the user to read/save the language names and their corresponding texts from a file by selecting Open and Save items in the menu. Extra points for using an XML file (hint: use CoreData).
- Anything that makes your application more of a well-polished Mac app – e.g., an icon, application window behavior, etc...; anything that uses Cocoa/Obj-C language features.

To get a 1.0, it is not necessary to implement all of the above features. In general, fewer features implemented well is better than lots of features implemented not-so-well. Be sure to document which features you implemented in your README.

- Documentation for all Cocoa APIs are available via the help system in Xcode. Use them well. :)
- Objective-C is a superset of C. Thus, you can freely mix C code with Objective-C code. An introduction to Objective-C can be found here: <http://developer.apple.com/documentation/Cocoa/Conceptual/ObjectiveC/index.html>.
- An introduction to Cocoa, Interface Builder and Xcode is available here: <http://developer.apple.com/documentation/Cocoa/Conceptual/ObjCTutorial/index.html>
- The sample code from the lectures has been uploaded on the web. You may find them useful as an example for working with NSTableViews.
- If you choose to try out Cocoa bindings for extra credit, we recommend you get a version that works with code first, then incrementally replace that code with bindings.
- An introduction to Cocoa bindings is available here: <http://www.cocoadevcentral.com/articles/000080.php>
- **Please be sure to use relative paths when adding class files to your project.** One way to test this is to move your project into a different directory and then open it up again in Xcode. If it builds fine in this new location, then everything is ok.
- If you have any questions on Objective-C, Cocoa, Interface Builder, Xcode or anything else, please post to the forum!

## ***Submission***

Email a ZIP archive of your assignment to `dis2_submissions@cs.rwth-aachen.de` before the due date. The ZIP-file should be named `<lastnamegroupmember1_lastnamegroupmember2>.zip` where `<last name x>` stands for the names of your group members. The subject of your email should be “DIS2 Assignment 5”; be sure to use this *exact* subject line as it will be used to filter assignment submissions for grading.

Your assignment archive should include your source code and everything necessary to compile and run your program. Be sure to document your source code. Include a **PDF document** with the name `README.pdf` that contains:

- names and email addresses of all group members
- instructions on how to compile and run your source code
- non-obvious things you did in your code (if any)
- anything that you think makes your design particularly optimized and/or elegant

Please note that assignments that do not meet the above submission criteria will not be graded. Be prepared to discuss your solution in the next lab.

## ***Grading***

The assignment will be graded on the following rough scale:

- 1.0 - exceptional work that clearly went above and beyond what was given on the exercise
- 2.0 - exercise was completed satisfactorily as per the assignment specification
- 3.0 - exercise was completed, but has some problems
- 4.0 - incomplete exercise
- 5.0 - little or no effort was put into the exercise

Late assignments will be graded with a penalty of one grading step per 24 hour period after the due date.