

Problem Set 6

Due: 11AM, Friday October 28, 2005

TIVO 4 – GUI for Recordings [100 points]

Introduction

In problem set 5, you built a graphical interface to handle the selection of television programs. You also wrote the code that will be used to implement the actions on the interface. In problem set 6, you will implement the ActionListener Interface so that you have a functioning GUI.

We have included the recommended GUI from last week:

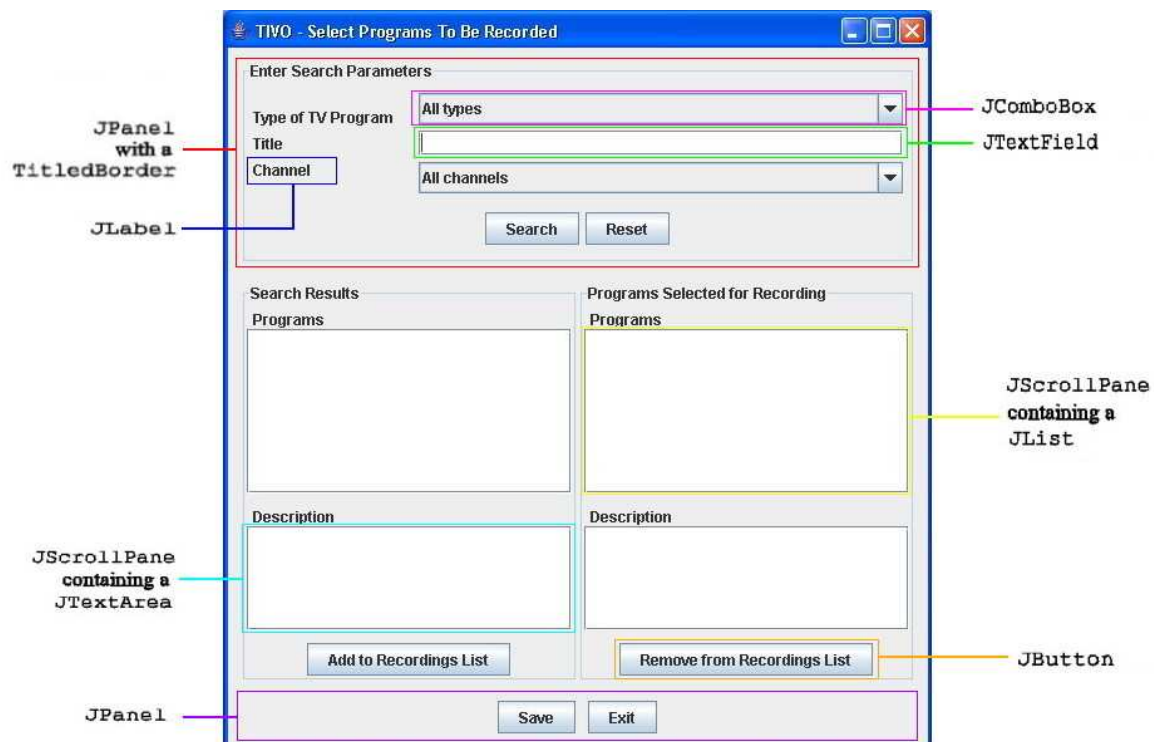


Figure 1: An example of the GUI for television program recording. Key features are highlighted and the classes used to create them are noted.

Assignment

Add the following functionality to your GUI:

HINT/suggested solution: You can have one of your pset 5 classes implement ActionListener, and therefore act as the “controller” as well as its previous function. This will be easier than creating a new class to be the controller.

1. exit
If you created an exit button, make sure the program closes when you click it.
2. search
When you click the search button (or whatever you used to implement the search feature), the program searches all the DailySchedule objects and displays the results (TVPrograms) in the “Programs” list (JList) within the “Search Results” panel (JPanel). You need to think about how to obtain the search parameters from the interface. You may find the `find()` method that you wrote in the TIVO class for the last pset useful for the search.
3. reset
When you click the reset button, the text field should become blank and each combo-box should return to its default value (“All types”/“All channels”).
4. search results
Once the “Search Results” list is populated (this is the area in the search results panel above that is called Programs), if the user selects an item in the list, detailed information on the selected program is displayed in the “Description” area (JTextArea).
5. Add to Recordings List
When you click the “Add to Recordings List” button while a program (in the “Search Results” list) is selected, that program gets added to the “Programs Selected for Recording” list and is also scheduled to record.
6. Programs Selected for Recording
When you select an item in the “Programs Selected for Recording” list, the program’s information will be displayed in the “Description” area below the list.
7. Remove from Recordings List
When you click the “Remove from Recordings List” button while a program (in the “Programs Selected for Recording” list) is selected, that program gets removed from the “Programs Selected for Recording” list and is also removed from the record schedule.

Turn In

- Turn in **electronic** copies of **all source code** (`.java` files). No printed copies are required.
- Place a **comment** with your full name, MIT server username, tutorial section, TA's name, and assignment number at the beginning of all `.java` files in your solution.
- Remember to **comment your code**. Points will be taken off for insufficient comments.
- Place all of the files in your solution into a **single zip file**. Submit this single zip file under the appropriate section and problem set number.
- Your solution is **due at 11AM**. Your uploaded files should have a time stamp of no later than 11AM on the due date.
- **Do not** turn in compiled byte code (`.class` files) or backup source code (`.java~` files).

Penalties

- **30% off** If you turn in your problem set **after 11AM on Friday** but **before 11AM on the following Monday**.
- **No Credit** If you turn in your problem set **after 11AM on the following Monday**.