

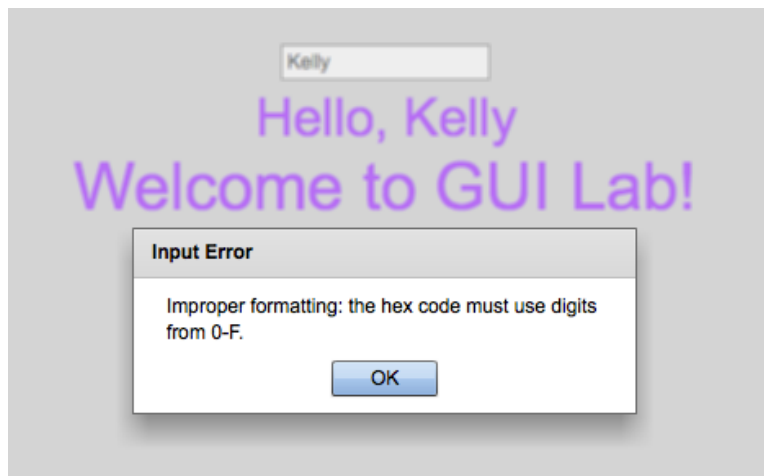
Project 1B: Color Cycle

due 9:00am Wednesday, October 2, 2013.

Note: Please include your name in a comment.

Goal

The goal of part B is for you to start getting familiar with ActionScript syntax. We are going to extend the application that you made in Project 1A by giving it the ability to cycle through all of the colors that the user inputs, rather than sticking to one. We will also make the program more robust by adding error messages for improperly formatted entries.



To see the full application that you need to implement, please refer to the video on the course website. In your implementation, you will need to use a **Timer** to keep track of when to change the text's color, an **Array** to hold all of the colors that the user has added (in addition to the starting black), and **Alerts** to give the user Input Errors whenever they enter an invalid hex code.

The **Timer** should start as soon as the application is opened, and should fire a timerEvent every two seconds. With each timerEvent the color of the labels should change to be the next color in the **Array**. When the end of the Array is reached, it should loop around and start showing the colors at the beginning of the Array again. New colors should always be added to the end of the Array IF they are not already in the list of colors.

When checking for input errors, you should look for cases where the hex code:

- Is not eight characters long ("Improper formatting: the color string should be 8 characters long.")
- Does not start with '0x' ("Improper formatting: the first two characters should be '0x'.")

- Uses letters outside of 0-F ("Improper formatting: the hex code must use digits from 0-F.")

After the Alert message has been displayed, the text in the color's textInput should be cleared so that the user can try again.

Hints

- Documentation for general ActionScript classes can be found at http://help.adobe.com/en_US/FlashPlatform/reference/actionscript/3/index.html
- The Wikipedia article for ActionScript has a few great examples of AS syntax: <http://en.wikipedia.org/wiki/ActionScript>
- When dealing with input errors, you may want to utilize some methods from the String class: http://help.adobe.com/en_US/FlashPlatform/reference/actionscript/3/String.html

Rubric

Turned in & compiles:	5 points
Commenting & code clarity:	5 points
Color of text updates every 2 seconds	5 points
Correctly formatted hex codes are added to list	5 points
Color list cycles linearly and loops around	5 points
Improper formatting catch: length	5 points
Improper formatting catch: 0x	5 points
Improper formatting catch: letters	10 points

Critical Thinking

You are not required to turn in answers to any of the questions in this section, but we recommend that you explore and think about some of the questions.

1. We've started using more *events* in our code, in order to catch user actions and manage timer cycles. What other kinds of events do you think might exist?
2. The current app is a black box for the user; they are not able to edit the color cycle apart from adding new colors to the end. How would you modify the UI to give the user more control over the colors?
3. Right now, the system deals with incorrect input by erasing it. What other approaches could be used to parse the incorrect input?

Turning it in

Project 1b is due by 9:00am October 2, 2013 as an FXP file. Email your file to Kelly at krivers@andrew.cmu.edu. Late entries will be penalized -5% for every late day.