

CS360 Windows Programming

Assignment 3: Center point

Date Assigned: Tuesday, October 18, 2005

Date Due: Thursday, October 27, 2005

Points: 25 pts

Problem Description

This program will test the hand/eye coordination of the user. When the program is started it will display a circle in a random position on the screen. The user must click the mouse as close to the center as possible. The program will then move the circle to another randomly chosen place and the user will again click the mouse on the center. The program will measure the accuracy of the clicks measured as the distance from the click to the center of the circle. It will display the average distance from the center as the game progresses.

Requirements

1. You can determine the width and location of the circle however you like. The only requirement is that the full circle is displayed.
2. The diameter of the circle will change as the window is resized.
3. After the user has clicked the mouse, you will display the true center of the circle as a black dot and the position of the mouse click as a blue dot. You will also display the distance of the click from the center. If the distance is greater than the current average, it will be displayed in RED letters; otherwise it will be displayed in GREEN letters.
4. After a short period of time, your program will erase the screen and move the circle to another, randomly chosen, position on the screen. When choosing a random position, reject those locations where the center of the circle would not appear in the window. Thus you must generate random positions until one is generated whose center is in the window.
5. You must display the current average distance of the user's mouse click from the center of the circle.

What to Submit

You must submit a hard copy of the code to me by the start of class on the day that it is due. Print your code in portrait, not landscape, and if possible, print it back to back.

Place the complete project folder in the CS360 drop folder by 9.25am on the day that it is due.

Grading

You will be graded on how well your program meets all of the above requirements, as well as the look and feel of your program.