

CSE490ra Assignment 1: Getting to Know the Basics of the Tablet PC SDK

SDK DRAFT

Assigned: Tuesday, 4/1/03
Due: Tuesday, 4/8/03

Overview: This first homework assigned is designed to familiarize the student with the tools of the Tablet PC SDK as well as getting use to programming in the Visual Studio.NET environment. You will be building a simple inepad that will allow the user to manipulate ink in a variety of ways. You will also create and implement a control panel that can have some interesting effects on the ink.

Part I:

In the first part of this assignment, you need to build only a simple windows form with two main areas: an area for ink to be written, and an area that houses simple ink manipulator controls. You will need three controls (it is advisable to just use buttons), each of which are labeled correctly and when pressed will change the color of the ink to different colors. When you are finished, your application when run should look something similar to the following:



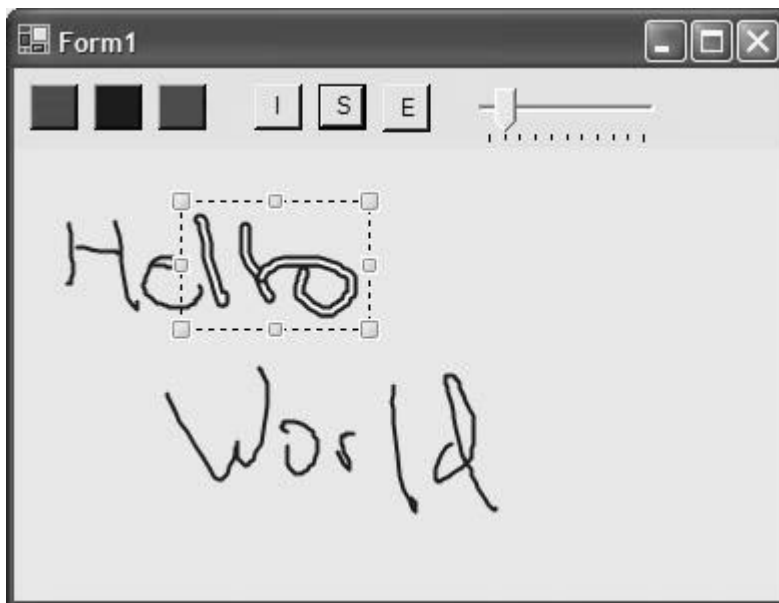
Be sure that you have at least three buttons that change the color of your text. You can initialize your text color to whatever you want.

Part II:

Now that you have finished Part I (hopefully relatively painless), you will be building a similar application that will feature some more advanced features. It is advisable that you

create a new form rather than build off of the Part I form. You will see later why this is the case.

For the second application, you must build an advanced ink pad that features the following functionality: color change controls, cursor type controls, and size change features. The color change controls will be the same as the ones in Part I; namely, you'll have one button for each color that you want your ink to be. Next, you must implement controls to switch between the type of tool that you want to use on your ink pad. In addition to being able to use normal ink, you must also include controls that allow a select cursor to be enabled, as well as an eraser to erase your ink. You must also implement functions that allow selected ink to be manipulated. For example, if you select part of the ink, and then click on the "red color" button, the selected ink must turn red, but the unselected ink must remain its original color. Lastly, you must implement a control to change the width of all the ink in the ink pad. One simple way to do this is with the "track bar" control in the form designer. Make sure that the changing of the track bar affects ALL the ink strokes. Here are a few screenshots of a sample solution:





Hints and Suggestions: The best way to familiarize yourself with the Tablet PC SDK is to do some reading in your textbook. Specifically, pgs. 109-139 in Chapter 4 offer some good programming details as well as class details about the SDK. If you are unfamiliar with the Visual Studio development environment, attend the Programming Tutorial, or e-mail the TA. Also, some notes about the C# programming language. First of all, the syntax is almost identical to Java. If you have extensive Java experience, C# shouldn't be a problem. If you would like any clarifications, e-mail the professors or the TA's, or e-mail the class list. Good luck!

Turnin: Instructions will be given soon for turnin. You will be required to turn in screenshots of your application. When you create the screen shots, save them as JPGs, not as Bit Maps. (To get a screen shot – do Alt-printscreens then open paint, copy into paint, and save as a JPG).

