

Brief details about our project

Team 4 decided to create the basic image editor using C# as the primary programming language and Windows Forms in Visual Studio as the primary GUI creator. We decided to use C# and Windows Forms instead of C++ and FLTK because our team is familiar with C# and has some experience using Windows Forms. In using these two items in tandem, we feel that the creation of the GUI will not be the most time-consuming part of the project due to the power of Windows Forms. Instead, we can focus our time and efforts on creating quality image manipulation algorithms, enhancing the usability and feature-richness of the end product.

What we have set up so far

Our project currently has a Google Code page which can be found here:

<http://code.google.com/p/capstone2009/>

Here you can find the basic details of our project, a wiki, an issues page (similar to Trac, TargetProcess, etc.), and a subversion repository to check-out and view our current code base. To check out our code, you can do the following with subversion:

```
svn checkout http://capstone2009.googlecode.com/svn/trunk/
```

The trunk currently has two directories in it. The CapstoneF2009_Test directory contains our "spike" (proof-of-concept) for the project, in this case a very basic GUI that opens and saves an image. The shopped_iteration1 directory contains our current iteration (milestone) code base.

Current issues and blocks on project

Since the project is in its early stages, it is difficult for the team to work on it together, especially if we are working alone (i.e. at home). We are currently looking into creating tasks that we will distribute among our teams, which will hopefully give us better direction and eliminate repeated efforts.

Some research is required yet for using Windows Forms, in particular the PictureBox object. Our team is looking into adding basic functionality to the PictureBox in our GUI (it holds the image to edit), with features such as zooming in and out, resizing, etc.

Although some refactoring has already been done, there is still some thinking to do for the layout of our project. For example, it was recently decided to create two separate projects, a Core and UI. The Core contains the utility methods (right now it hosts the methods to open/save images) and UI contains the GUI methods. We need to determine if this setup is ideal.

Goals for this iteration

Our primary goal for this milestone/iteration is to add basic functionality to the GUI element (PictureBox) that contains the image to edit. Features such as zoom, resize and copy/paste will be looked into with this iteration.

Another goal of the iteration is to start working on basic image manipulations. A good start would be to include manipulations such as rotate, flip and image resize.

One of the overarching goals is to lay down the foundations for this project to go smoothly in following iterations. To accomplish this, we are working on coding standards for the team, as well as standards for code submission, documentation, etc.

Accomplishments in Lab 9-15-2009

- Initiated Basic GUI
- Added “About” box

Accomplishments in Lab 9-17-2009

- Added functionality to buttons
- Broke scaling functionality

Accomplishments in Lab 9-22-2009

- Added Scrollbars
- Added keyboard shortcuts

Accomplishments in Lab 9-23-2009

- Improved scrolling
- Added a basic zoom functionality
- Added basic information about picture (Height, Width, Picture Name)
- Debugged NULL commands (ex. Saving a picture before opening one)

Accomplishments in Lab 9-24-2009

- Added rough iteration of rotate
- Added first functional pop-up box that requires user input

Accomplishments in Lab 9-29-2009

- Improved rotate function (Use to keep old, un-rotated image in background)
- Improved rotate function (Use to cutoff edges outside of picture box)

-Known Bug: Rotate function keeps moving the picture in a circle after every rotate

Accomplishments in Lab 9-30-2009

-Refactored overall code

-Improved behavior of zooming while rotating or vice versa

-Killed bug logged in Accomplishments in Lab 9-29-2009

Accomplishments in Lab 10-1-2009

-Added Doxygen

-Improved zooming by asking user for percent of zoom as opposed to a fixed value

-Added resize