Specifications Document: Photo Wiz

by: Thomas Yoon (tyoon)

Project Description

Overview

- The world of digital media is growing immensely, and these signs can be seen almost every day. There are many types of bundled Photo Album programs on the market; however, many have awkward interfaces and/or try to cram too many features into one program such that things start to become un-intuitive.

- The main purpose of this project would be to provide a program which is foremost easy to use with additional features that would come in handy for frequent use. Users would be able to organize pictures into albums, browse them, and execute certain editing commands to simply change it or improve quality. It would be a convenience to do this all in one program without having to wait for a separate image-editing program to load. Some extra features would be a slide show and a rating system for all pictures.

Target Users

- This project is meant to be a commonly used PC application. Its targeted users would be the general public, aimed primarily at those with digital cameras, photo libraries, websites, or other interests in digital media.

Features

- Easy to navigate and use interface
    - Optional expandable tree view of albums to one side
    - Keyboard shortcuts
    - Functions in the right-click menu (as if right-clicked on a picture)

- Organize pictures into albums
    - Create new albums with the ability to name it anything
    - Browse through any created albums
    - Sort pictures within an album (folder) by name/size/date/rating

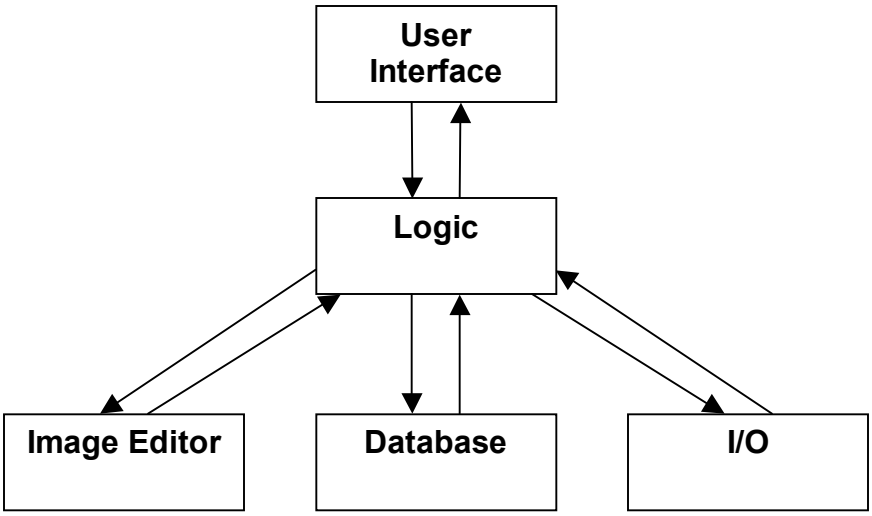
- Edit any picture in any album
    - Change orientation, contrast, brightness, colors, size

- Slide show
    - View all pictures within an album by presenting a slide show

- Implement a rating system
    - Rate the value of each picture, based on a set scale
    - Sort pictures based on these ratings (stated above)

System Model

Diagram



Annotations

- **User Interface**

  This is the graphical user interface. It is the gateway between what the user wishes to do with the program. It also shows the results of the executed commands by the logic. The GUI will mimic the look and feel of Microsoft Windows Explorer mainly due to its simplicity and easy navigation. It consists of menus, toolbar, directory tree, and a panel to view items within the current directory.

- **Logic**

  The logic is essentially the brain of the program. It receives the information from the GUI and prepares it to be sent to other divisions. Once this occurs, it accordingly sends updated information to the GUI to let the user know what has happened. It would also handle the slide show and rating system.

- **Image Editor**

  The image editor implements the most common changes a user might want to use to change the appearance of a certain image. These features would include the ability to change orientation, contrast, brightness, colors, size, resolution, and quality. These changes would be shown in the GUI in the editor window.

- **Database**

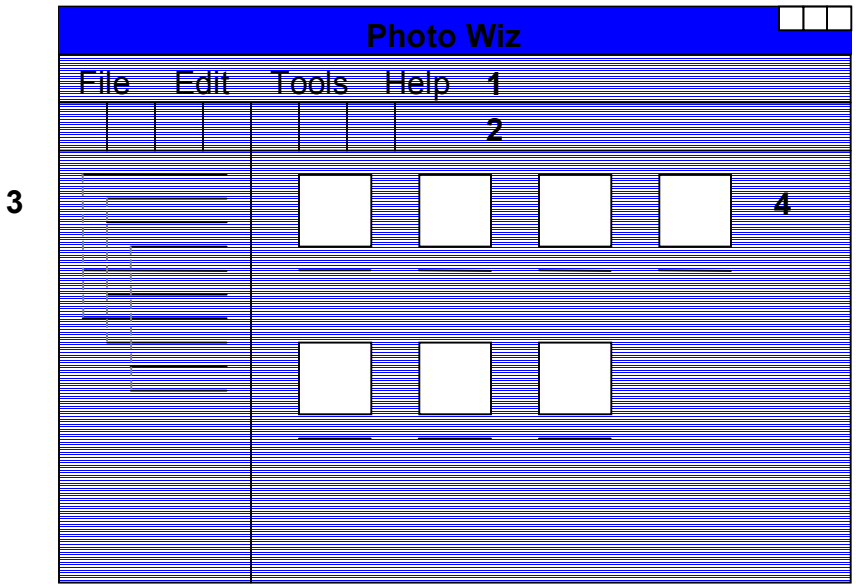
  The database's purpose is to control the placement of albums as well as the images within them. It has the ability to create, delete, and rename directories. It also contains information on each image such that they may be sorted in a certain way, such as by name, size, and date.

- **I/O**

  The Input/Output's purpose is to manage the types of files that are worked upon. The user may choose to save an edited image as a different file type as the original.

User Interface Diagrams

Main View:



1) This toolbar consists simply of drop-down menus to help the user navigate within the program and execute commands.

2) This is the toolbar which would hold the most commonly used commands (these would also be bound as keyboard shortcuts.

3) This is the directory tree of all the albums.

4) This panel shows the list of images in the current album in (default) thumbnail view.

Image Editor Window:

5) Within the image editor window, this is where the display of the currently edited image would appear.

6) This is a panel of available editing commands to apply to an image.

Non-functional Requirements

Performance
The program should run almost instantaneously after the user gives a certain input within the GUI. There are no features in the program that should be memory-intensive.

Testing
Since the target users is such a broad group of people, random people could be selected. They would see if everything was easy to navigate and intuitive as well as see if the functionality of all features were correct.

Reliability
This program must be crash-proof. It would ill-suit users if they were not able to save changes they were working on.

Ease of use
This is one of the main priorities. The main part of the GUI mimics another program that virtually anyone on a PC has already used. It would be set up in a way such that even novices would not have problems in doing what he/she desires.

Portability
The program would be very portable to other systems, particularly to Windows machines. It is a program that anybody has the ability to use.

Documentation
Documentation will most likely not be overly-extensive. However, all features would be described as well as how to execute them.

Dependencies on other systems
There are no dependencies on other systems.

Risky Parts

- The simplicity of the GUI may be compromised as features are being added to functionality. Buttons and panels could become cluttered if not managed correctly.