Ledio Sinjari

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PROJECT PROPOSAL

We intend to create a free and easy to use photo editing and painting program for windows desktops. It will be added to the windows app store.

Upon startup, the program will ask the user to open an existing JPG (with possible expansion to multiple formats such bmp, png, tiff, etc time permitting) or begin a new blank white file.

Possible raw support will be added for generic ADOBE DNG

The user will find at his disposal a tool box with common editing tools like the eraser, the paint brush, a soft brush, an ellipse tool, an arrow tool, zoom, crop, etc.

The user will also have access to a second tool box to stylize their image consisting of pre-designed filters such as sharpen, boost, blur, lomo, dragan, HDR, etc. A third tool box will allow image adjustments and color corrections such as white balance, curves, hue, saturation, brightness, contrast, etc.

The program will allow the user to save out to a desired directory as well as transcoding to another format of varying quality.

The program will also include a dedicated social media button to instantly upload a photograph to the internet.

The back end of the program will be written in C++ while the front end will be designed and coded with QT.

Most of the programming will involve breaking an image down to its individual pixels and manipulating them one by one.

An image will be loaded as an object with dimensions by pixel.

A stack based data structure will be implemented with push and pop functions to allow the user to undo several steps of a manipulation and restore an image to its previous state without needing to reopen the file.

We will be using:

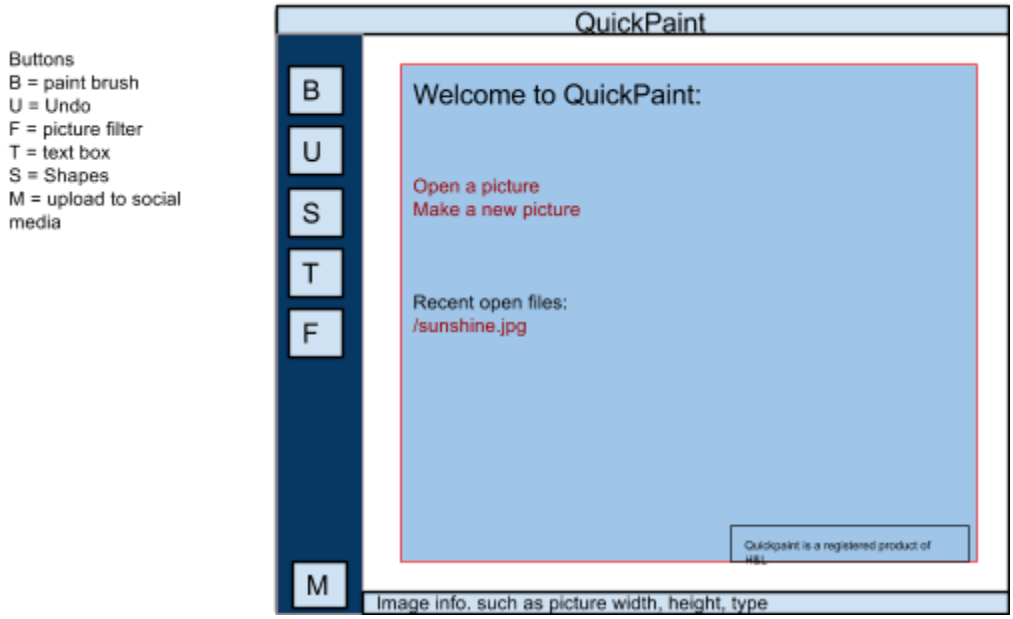
QT GUI library.

QT 2D graphics library.

QT networking library.

QT image processing library.

As a group of two we will be splitting the workload between front end development and back end development. One of us will design and create the gui in QT while the other programs the backend in C++. Once both parts are done, we will be working jointly in order to finalize the product.



Buttons
B = paint brush
U = Undo
F = picture filter
T = text box
S = Shapes