

Final Design Document

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Image Processing Project

Data

Image Data - 2D arrays of int

File Pointers - i/o operations

User Menu Selections - variables, char

Program Description

User views menu. User provides choice on the menu. Menu is updated. Menu switches to whichever function was called on. Picture is returned cropped by specific coordinates, darker (dimmed), or brighter. User is able to save edited image to the file. Program offers the menu again until the user chooses to quit.

Functions

main()

Data: includes all variables for image options

Functionality: displays the options to the user, executes action based on the user's pick, goes again and again until user stops playing and exits.

loadPicture()

Input Parameters: File pointer, int image 2D array

Returned Output: none

Functionality: shows the image on the screen, locating it from the file it was put into

editPicture(picture)

Input Parameters: int image 2D array

Returned Output: image data modified

Functionality: displays the editing menu for user to choose from

dimPicture()

Input Parameters: int image 2D array

Returned Output: darkened image

Functionality: darkness of each pixel is decreased one step at a time

brightPicture()

Input Parameters: int image 2D array, specific coordinates to change picture

Returned Output: shortened image

Functionality: darkness of each pixel is increased one step at a time

sizePicture()

Input Parameters: int image 2D array

Returned Output: darkened image

Functionality: specific portion of the picture cropped out

savePicture()

Input Parameters: int image 2D array, filename

Returned Output: image put in file

Functionality: image data is added to the file connected to the program