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810 305 585

Pixelator User Manual

***File Menu* (ctrl + f)**:

Quit Button (ctrl + q): quits program (System.exit()).

***Help Menu* (ctrl + h)**:

Get Started Button (ctrl + g): prompts a dialog box to appear containing a few steps to get started (stored in "GetStarted.txt" and read into String).

About Button (ctrl + a): prompts a dialog box to appear containing information about the program (stored in "About.txt" and read into String).

Main Frame:

Choose Image Button: prompts a file chooser window to appear. This window allows you to browse for the desired image file and only allows the user to open files of ".jpg" type. Once the file is successfully opened, it is displayed in the center of the frame and all of the radio buttons are no longer grayed out (they are now selectable).

Choose your pixelation level:

Small Radio Button: takes in every pixel's color, determines a color for every five pixels squared and increases the pixel size to 5, filling in each pixel with the determined color (Uses raster to take in color data and replaces pixel colors with nested for loops; saves a copy of the image file with the name [original file name]_5_pixelated.jpg).

Medium Radio Button: takes in every pixel's color, determines a color for every fifteen pixels squared and increases the pixel size to 15, filling in each pixel with the determined color

(Uses raster to take in color data and replaces pixel colors with nested for loops; saves a copy of the image file with the name [original file name]_15_pixelated.jpg).

Large Radio Button: takes in every pixel's color, determines a color for every thirty pixels squared and increases the pixel size to 30, filling in each pixel with the determined color (Uses raster to take in color data and replaces pixel colors with nested for loops; saves a copy of the image file with the name [original file name]_30_pixelated.jpg).

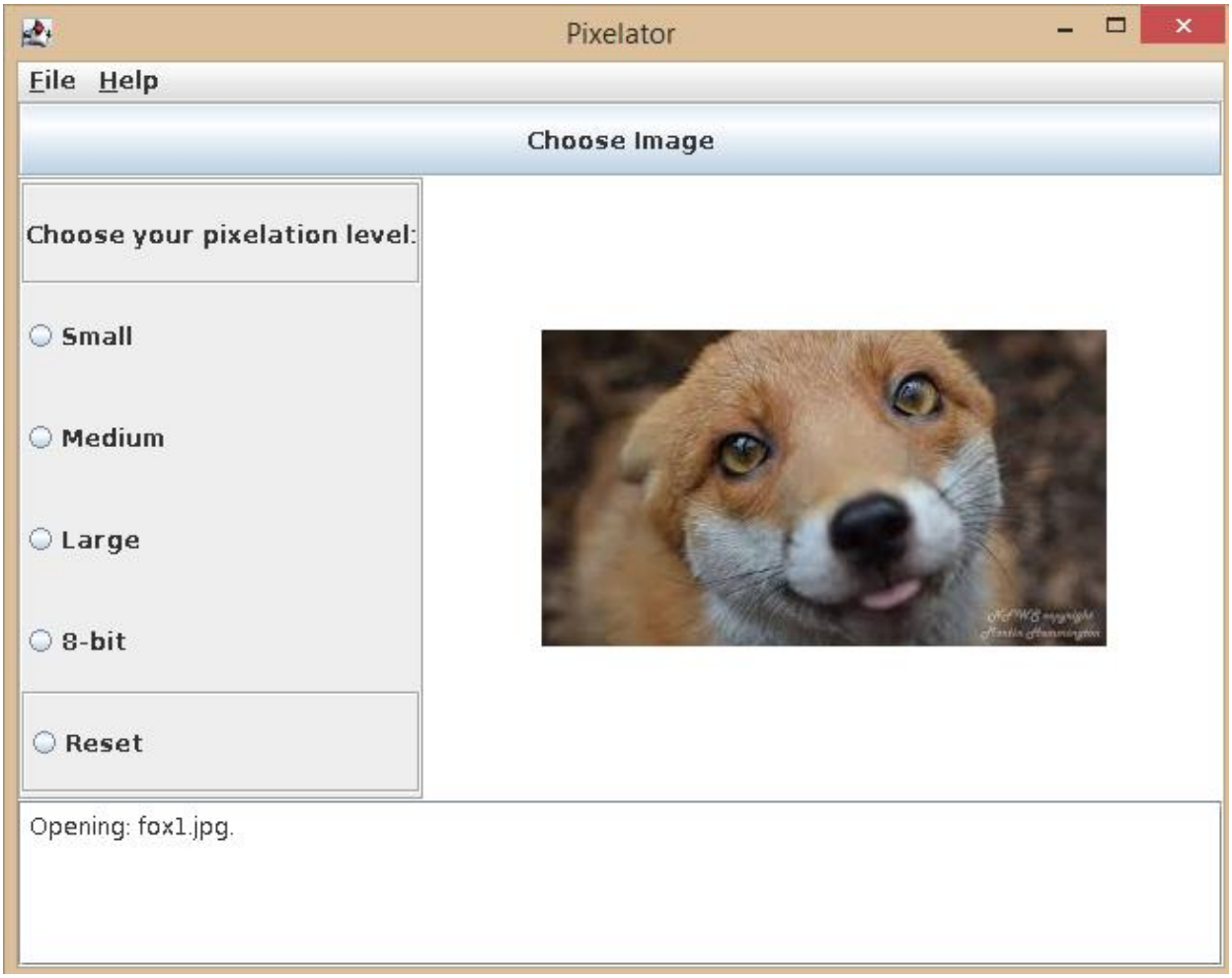
8-bit Button: converts every pixel in the image to 8-bit color (creates new buffered image of type indexed and paints original picture in 8-bit form; saves a copy of the image file with the name [original file name]_eightBit.jpg).

Reset Button: resets image in the viewing area to original image (using a FileReader reading to a BufferedImage and displayed using a new ImageIcon in the JPanel).

Log: logs all of the actions the user makes and displays them to the user (appending to a String as things happen and displaying in a JScrollPane).

A few images of foxes are included in the package as test objects.

Appendix:



I chose a plain white background with different areas of importance separated with etched borders. I chose to place the different areas of the frame into a border layout with north, south, west, and center components because it makes the program appear self-explanatory. I stretched the main button ("Choose Image") across the top. All other buttons are disabled until an image is chosen to avoid the user pressing one of the radio buttons before there is an image and attempting to manipulate an image that is void, returning errors and exceptions. Once an image is chosen, the radio buttons to the left are no longer grayed out. The heading above the buttons reads, "Choose your pixelation level:" and the buttons below offer options to the user on "how pixelated" they want their image to be, "small" being the least pixelated and "large" being the

most pixelated. There is also an 8-bit radio button for an option to convert the image to 8-bit color. The reset button at the bottom left clears all of the buttons and resets the image back to how it was when first opened. At any given time, the user is able to press the Choose Image button again to choose a different image. There is a log display at the bottom that reads to the user exactly what is happening to the picture in real time. The menu bar at the top is provided in case the user would like to quit the program or needs help getting started.