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SonarGraph

SonarGraph is a c++/opengl program that takes in a text file of Sonar information and returns a colored graph that shows the latitude and longitude of a boat using sonar, and the depth that the sonar device reports back.

Instructions

Windows:

In order to use SonarGraph on Windows, have Visual Studio downloaded and open SonarImaging.sln, which you'll find in the SonarImaging folder.

This will only use the default text file: R48.txt

Linux:

Have glut dev downloaded on your linux machine, navigate to the folder titled "UbuntuBuild", open a terminal and type make.

In the terminal type ./SonarGraph in order to use SonarGraph with the default text file: R48.txt.

If you would like to use a different Sonar information text file, type ./SonarGraph [textfile].

As an example of a separate textfile, I've included R62.txt.
To use that file, type ./SonarGraph R62.txt

Contributions

In order to normalize the colors according to depth, I utilized code written by David H at Stackoverflow.
Link: <https://stackoverflow.com/questions/3018313/algorithm-to-convert-rgb-to-hsv-and-hsv-to-rgb-in-range-0-255-for-both>

Otherwise, I used the shell.c file provided by Dr. Bell in order to get opengl up and running.