Computer Graphics Project

This project is related to the data that you can find in the directory
    /home/CS476/OLD/data
(Thanks to professor Hue McCoy who taught Computer Graphics before me and kindly allowed us to use the data).

There are three files (**organs.dat**, **wsmr.dat**, **wsmrnew.dat**) with their corresponding documentation in a .**doc** file (**wsmr.dat** and **wsmrnew.dat** share the same doc file). The doc file describes the information in the data file. The files are the digitalized data for the Organ Mountain (**organs.dat**) and the White Sand Missile Range (**wsmr.dat** and **wsmrnew.dat**).

Your job in this project is to write an OpenGL program that renders the mentioned scenery. Please make sure that your rendering satisfies the following conditions:

1. The viewer is able to see the complete scene (nothing should be cut off!)
2. There are two light sources on the scene
    a. 1st light source: distant light source with the properties
        i. Ambient component: (0.2, 0.2, 0.2)
        ii. Diffuse component: (1.0, 0.0, 0.0)
        iii. Specular component: (1.0, 0.0, 0.0)
        iv. Direction: (-1.0, 1.0, 1.0)
    b. 2nd light source: distant light source with the properties
        i. Ambient component: (0.2, 0.2, 0.2)
        ii. Diffuse component: (0.0, 0.0, 1.0)
        iii. Specular component: (0.0, 0.0, 1.0)
        iv. Direction: (1.0, 1.0, 1.0)
3. The mountain has the following material properties
    a. Ambient component: (1.0, 0.0, 1.0)
    b. Diffuse component: (1.0, 0.8, 0.0)
    c. Specular component: (1.0, 0.0, 1.0)
    d. Shininess: 15.0

Your program should be able to display the scenes. The minimal requirement is the small version of the White Sand Missile Range (**wsmr.dat**). Your program should accept a file name for rendering as input parameter, preferable by the command line.

Grade: 100 points for 10% of total grade.

Extra credit: extra credit will be given to projects that give the mountain a texture that gives a feel of grass and looks as real as possible.

Submission: submit your code, shader files, readme, etc. **Do not include the data file.**