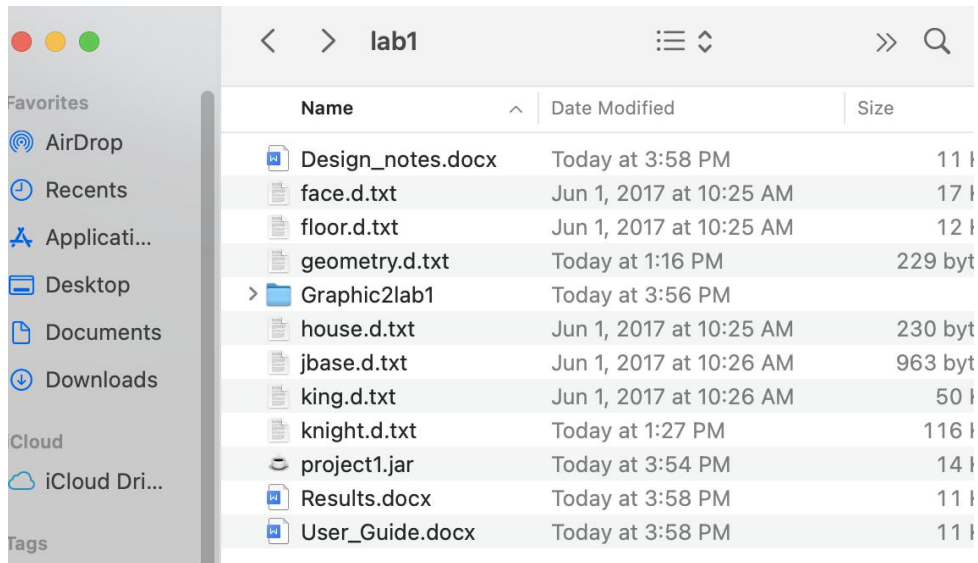
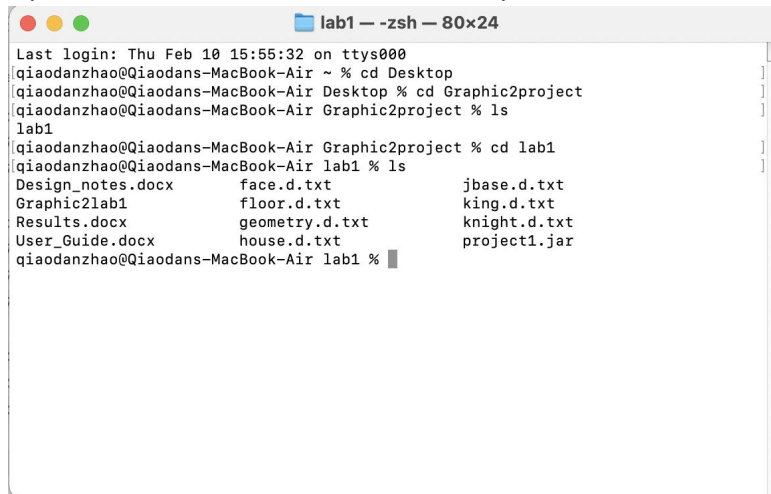


# User Guide

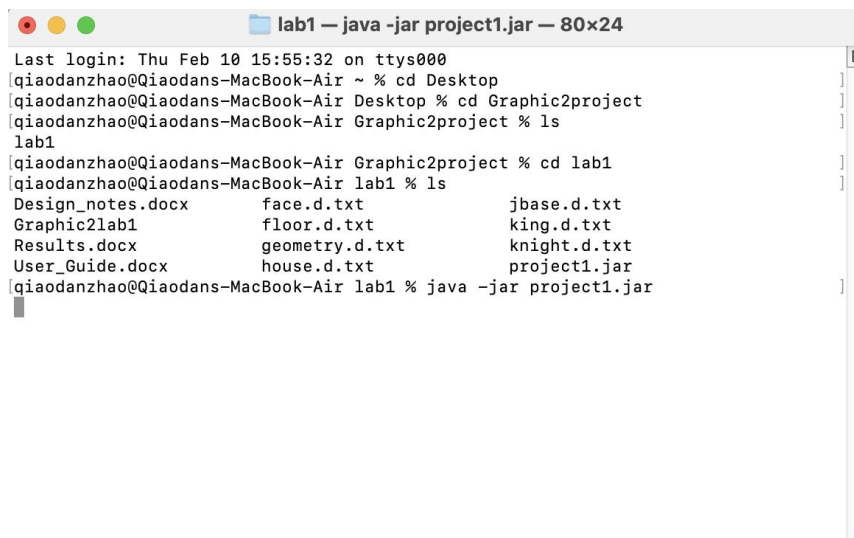
1. First of all, put the file “project1.jar” and “.d.txt” in the same folder.



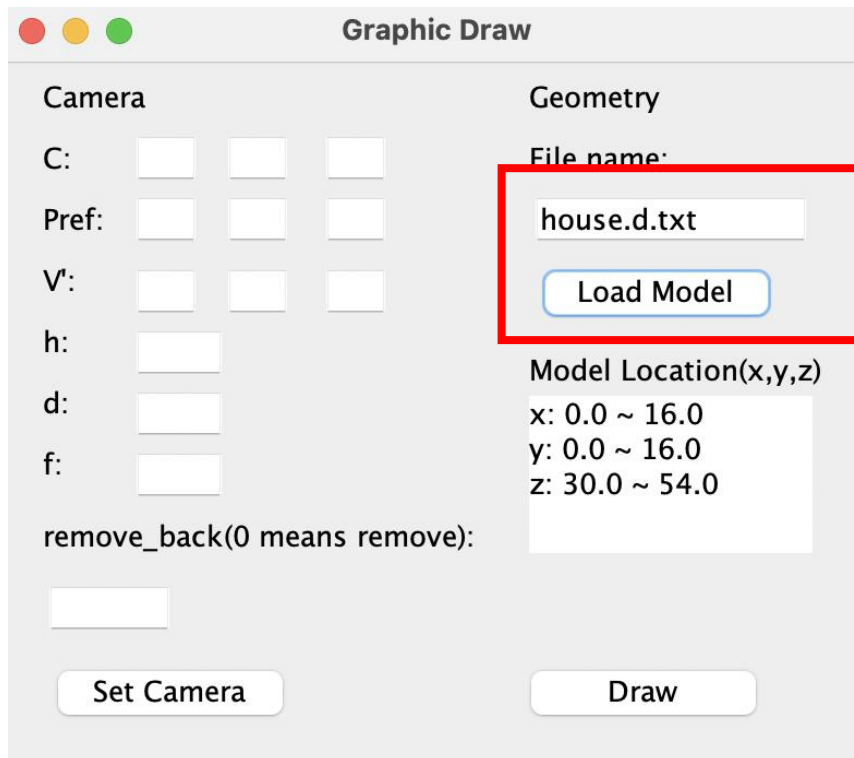
Open the Terminal and cd to the folder path.



Use “java -jar project1.jar” to open the panel. (Double click the jar file will not work)

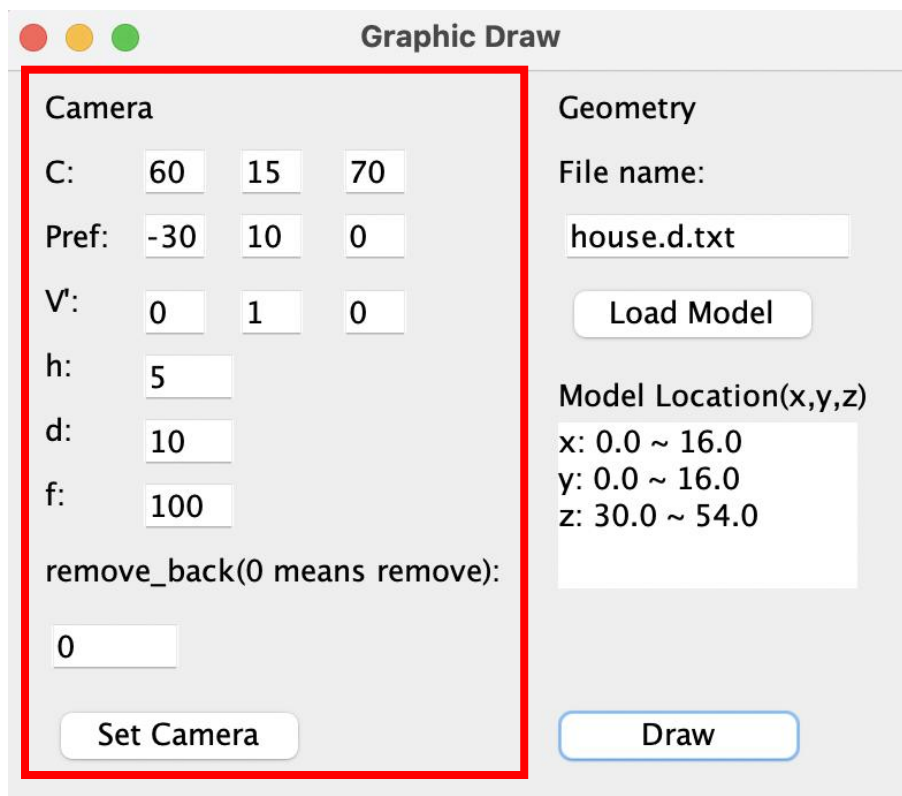


2. Type the file name “.d.txt” and click the button “Load Model”, then the model location will show below.



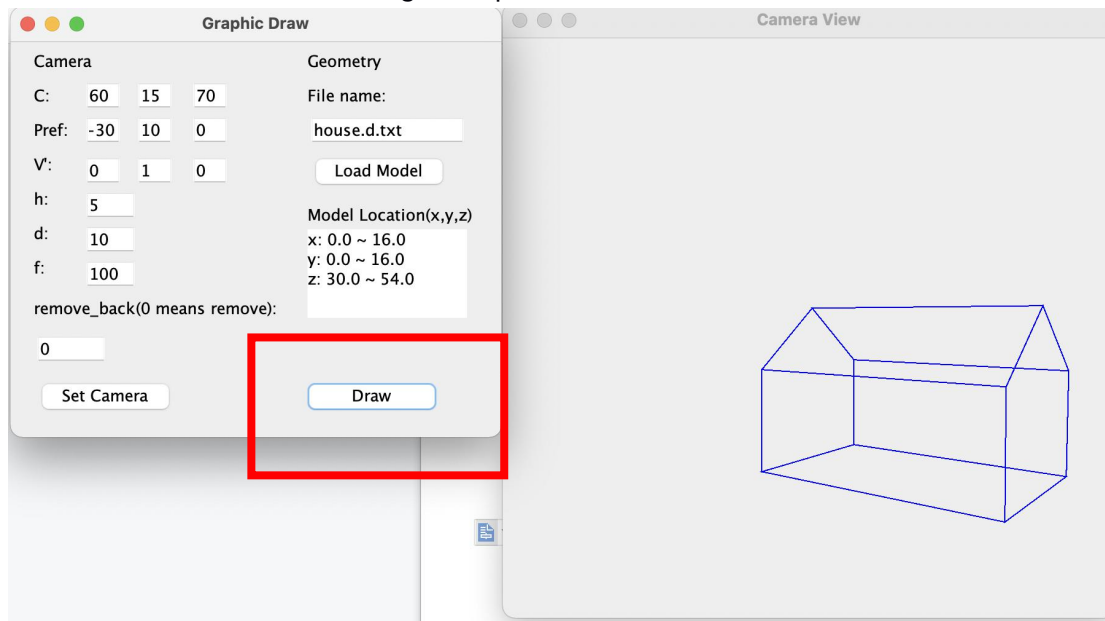
The 'Graphic Draw' window has a title bar with three colored buttons (red, yellow, green). It is divided into two main sections: 'Camera' on the left and 'Geometry' on the right. The 'Camera' section contains input fields for 'C:', 'Pref:', 'V:', 'h:', 'd:', and 'f:', each followed by three small input boxes. Below these is a label 'remove\_back(0 means remove):' followed by a single input box. At the bottom of the 'Camera' section is a 'Set Camera' button. The 'Geometry' section contains a 'File name:' label followed by a text input field containing 'house.d.txt'. Below this is a 'Load Model' button, which is highlighted with a red rectangular box. Further down is a 'Model Location(x,y,z)' label followed by three lines of text: 'x: 0.0 ~ 16.0', 'y: 0.0 ~ 16.0', and 'z: 30.0 ~ 54.0'. At the bottom of the 'Geometry' section is a 'Draw' button.

3. According to the Model Location, type the camera parameter on the left and click button “Set Camera”.

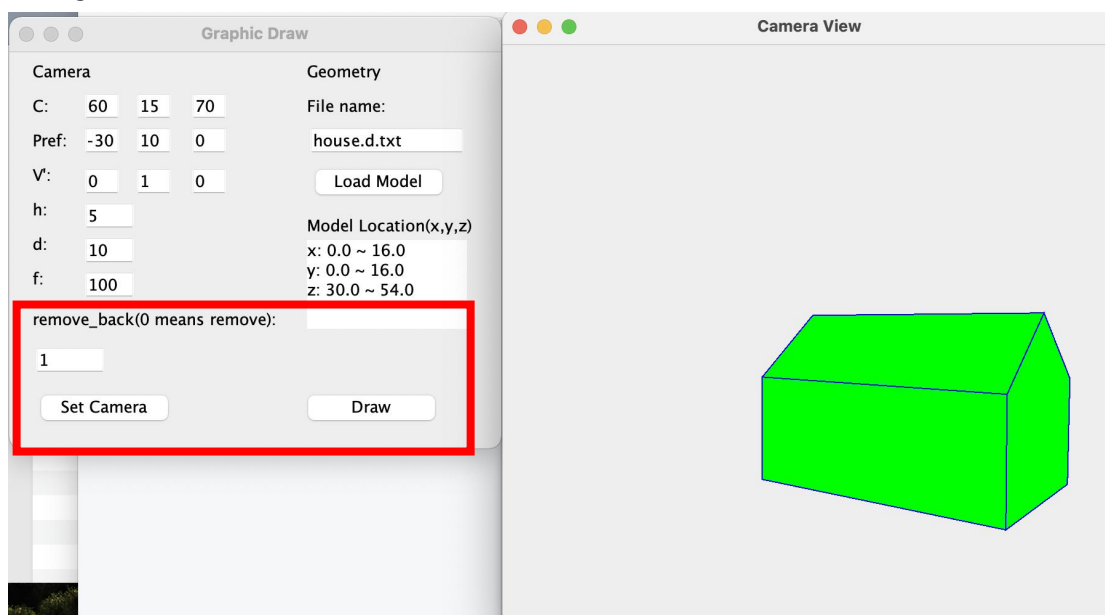


The 'Graphic Draw' window is shown with the same layout as the previous screenshot. The 'Camera' section now has the following values entered: 'C:' has 60, 15, and 70; 'Pref:' has -30, 10, and 0; 'V:' has 0, 1, and 0; 'h:' has 5; 'd:' has 10; and 'f:' has 100. The 'remove\_back(0 means remove):' label is followed by an input box containing the value 0. The 'Set Camera' button at the bottom of the 'Camera' section is highlighted with a red rectangular box. The 'Geometry' section remains unchanged, with 'File name:' set to 'house.d.txt', the 'Load Model' button, and the 'Model Location(x,y,z)' text showing the same ranges: 'x: 0.0 ~ 16.0', 'y: 0.0 ~ 16.0', and 'z: 30.0 ~ 54.0'. The 'Draw' button is still at the bottom right.

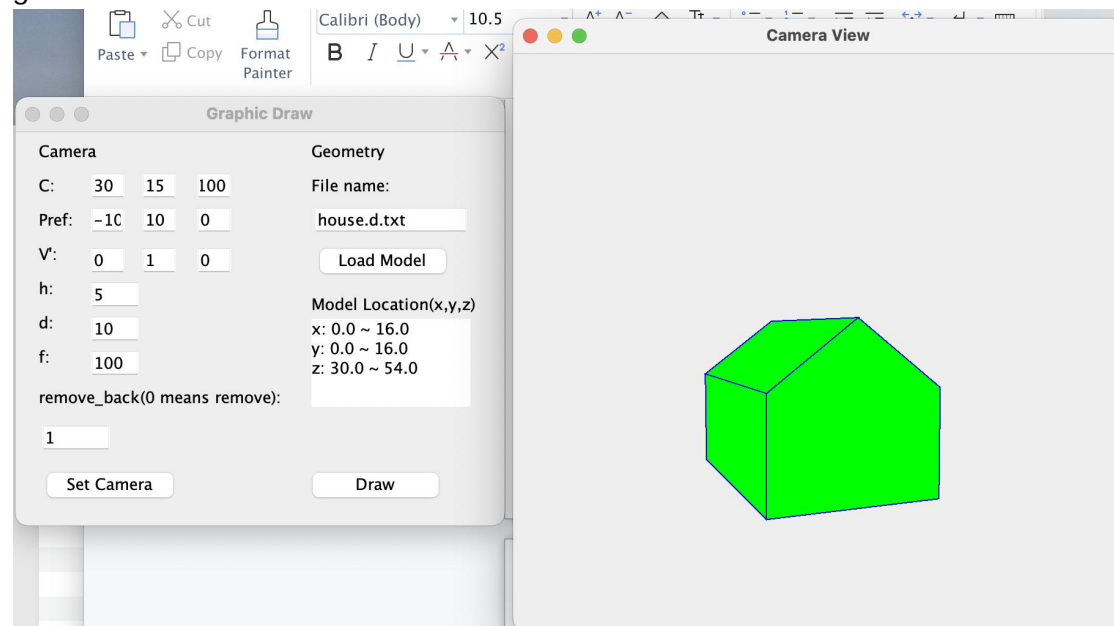
4. Click the Button “Draw” and get the picture.



5. Change the remove\_back from 0 to 1 then click “Set Camera” and draw to back culling.



6. Change the camera parameters and click “Set Camera” every time and then draw to get different camera view.



7. Change the file name and load model and reset camera parameter again to show different model.

