NATIONAL AUTONOMOUS UNIVERSITY OF MEXICO

FACULTY OF ENGINEERING

ELECTRICAL ENGINEERING DIVISION

COMPUTER ENGINEERING

COMPUTER GRAPHICS and HUMAN-COMPUTER INTERACTION

User Manual

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THEORY GROUP: 04

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QUALIFICATION:_____

Introduction

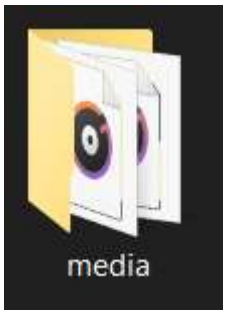
Thedevelopment of this project has the purpose of capturing and applying the concepts of computer graphics, the management of models, textures, animations, lights and others within the OpenGL library. For this, a program has been created in which a scenario is represented (in our case two scenarios), in it you can interact with the different elements of your own, we can observe the animations from interactions and different lighting concepts. This document will tour thespace of our project, explain how to interact with the scenario and how to make use of this software.

Login to the application

To enter the application, we need to go to the folder where our executable is located. In this case, the folder is named "Project Executable"

Inside the folder, we will find the different files necessary to be able to execute the project. The need for each file or folder is explained below:

The "media" folder contains the audio files necessary for the musicof our project



In "Models" you will find the . OBJ necessary, from here the models are imported and placed on the stage

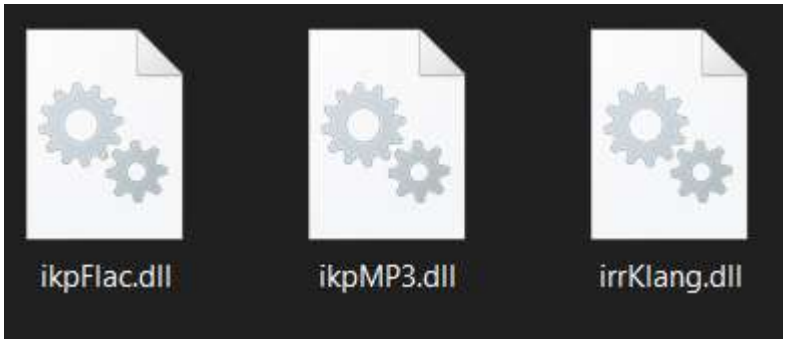
In "Shaders" is the code for, go redundancy, make use of shaders for shadows and light annexin the project.

The folder "SkyBox" is necessary to draw the background of our scenario, they are . .tga

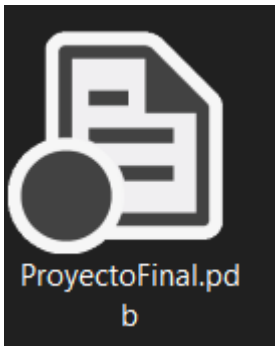
"assimp-vc140-mt.dll" is a library file to import the models to our program

"glew32" refers to essential Windows operating system system files. It usually contains a set of procedures and driver functions, which can be applied by Windows

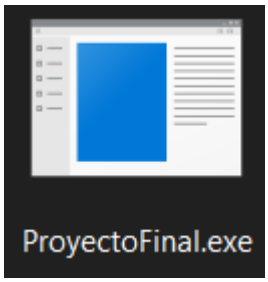
irrKlang, ikpMP3 and ikpFac files are required to work with audio



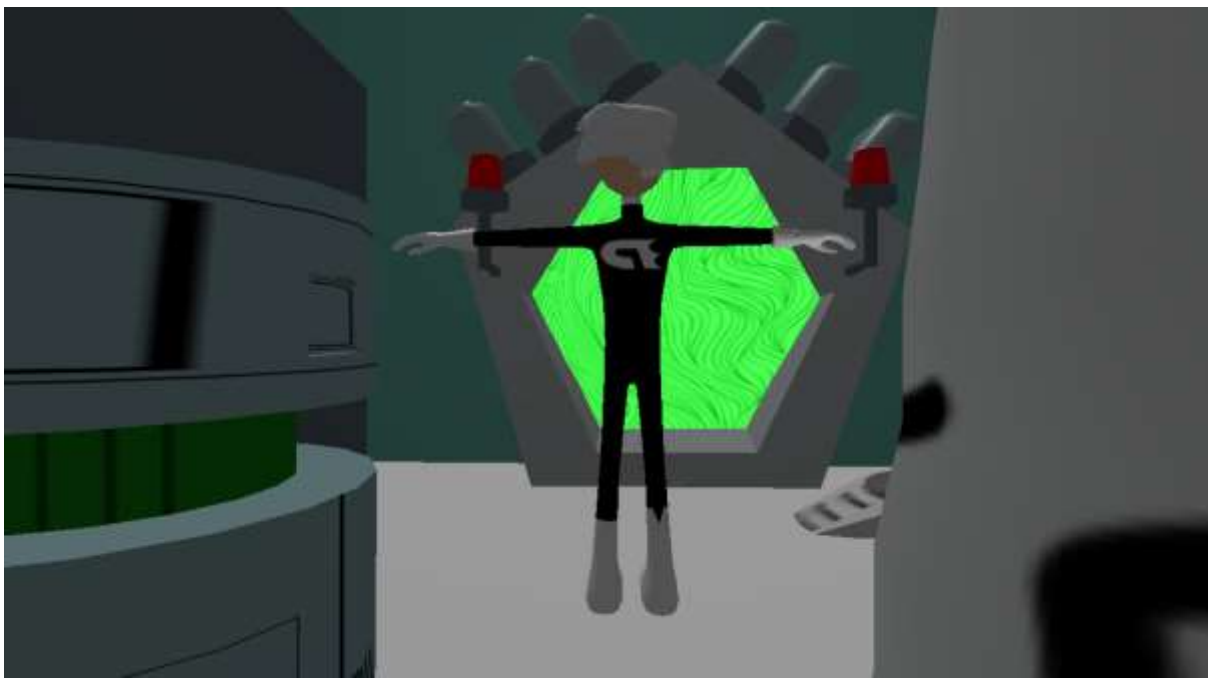
The . PDB serves for the 3D of the project



Finally we have the executable of the project



Once we initialize the program we appear with Danny Phantom inside the laboratory.

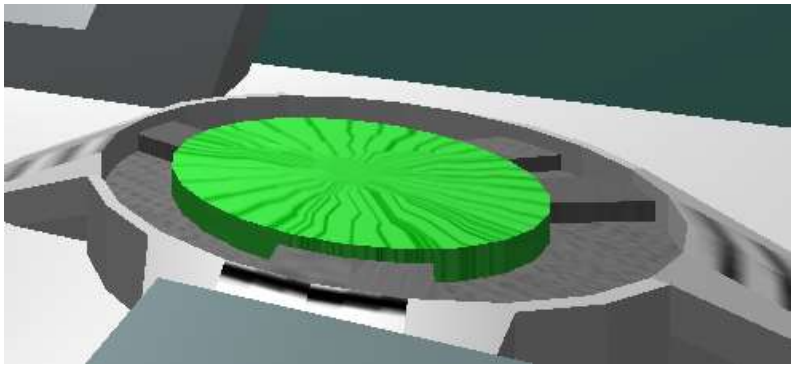


We can observe the scenario, the animation of the portal

If we want to turn on the lights wecan press the SPACE key, so we will turn on the lights of both the laboratory and the station.

Also offstage

The M key, activates the animation of the platform and the antenna

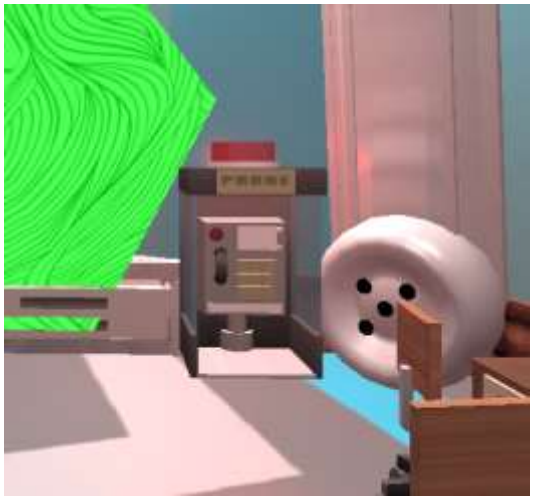


Once we pass through the portal, we arrive at the station. With the 9 key, we open the drawer

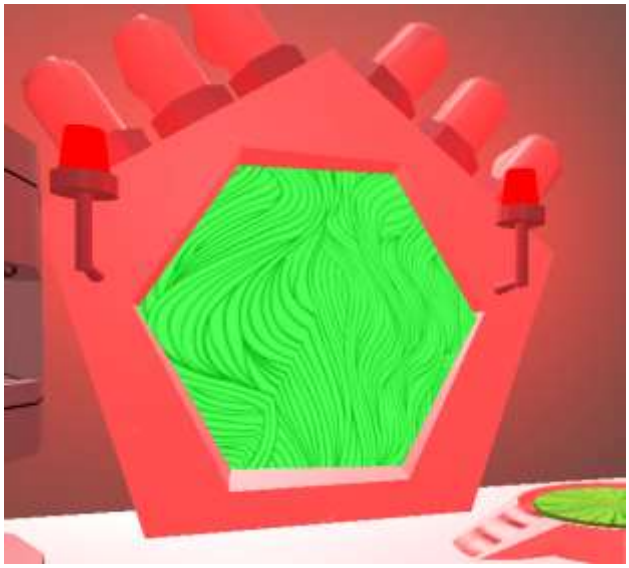
With 8 the coffee maker is activated

And with the 7, the animation of the cabin

To turn on the emergency lightsof the cabin we use the L key



And those of the laboratory use the N



Finally, to interact with the doors we need the P key for the station and the U for the laboratory.

Season:

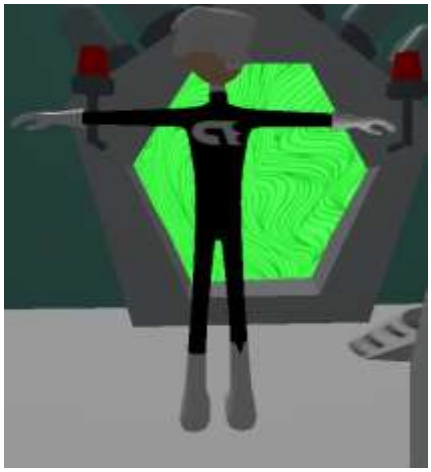
Laboratory:

Elements

Characters

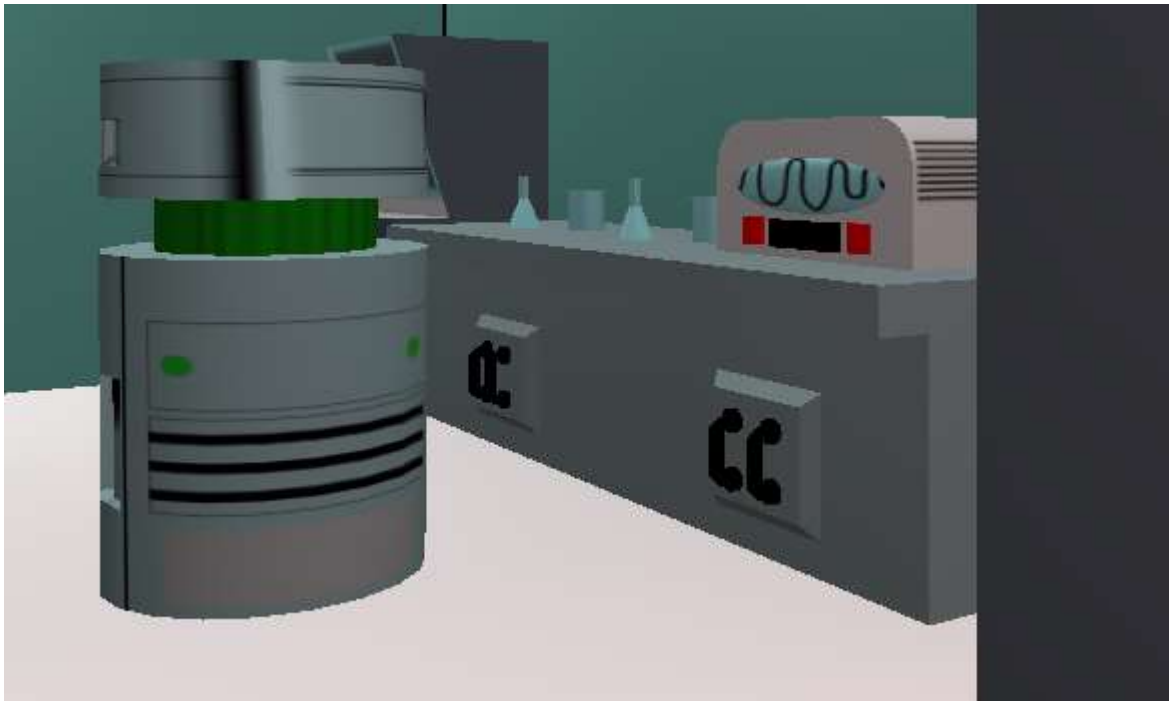
Within the project, we can find the two characters of the scenarios.

Danny Phantom

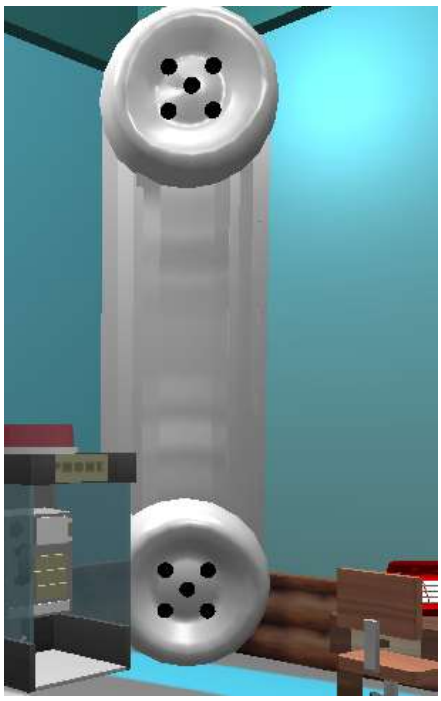


Penguin Club Penguin Penguin

Inside the laboratory we can find non-interacting elements. Like sidebars, locker, a barrel, and the computer.



And inside the station we can see desks, telephones and computers.



Finally, for the background of the SkyBox, we have a snowy background.

To exit and close the program, simply press the ESCAPE key to close everything.