1.0   Team Members

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2.0   Running the program

1. Navigate to the "bin" folder.

2. Type "./SolarSystem"

3.0   Controls

3.1 Keyboard

Key	Description
w	Move Forward
a	Move Left
s	Move Backward
d	Move Right
q	Move Down
e	Move Up
i	Look Up
j	Roll Left
k	Look Down
l	Roll Right
u	Look Left
o	Look Right
+	Speed Up Movement
-	Slow Down Movement
ESC	Exit the Program

Press keys 1-9 to follow a specific planet. Pressing a movement key will return the free-moving camera.

Key	Description
1	Mercury
2	Venus
3	Earth
4	Mars
5	Jupiter
6	Saturn
7	Uranus
8	Neptune
9	Pluto

3.2 Menu

To open the menu, press the mouse right-click button.

Menu Option	Description
Start Orbit	Resume all planets' orbit
Stop Orbit	Pause all planets' orbit
Change Scale	Switch between realistic and scaled views
Toggle Orbit Paths	Turn drawing orbit paths on or off
Quit	Exit the program

4.0 Extra Credit

4.1 Orbit paths

An arbitrary radius is used to create 360 points along the circumference of a circle. The points are stored in a vertex buffer object and drawn using GL_DRAW_LINES. The same circle model is rendered for each planet, but it is scaled according to each planet's distance from the sun.

4.2 Change scale

Two data files are used to store different planet data; one set representing a realistic view, and the other representing a scaled view. Depending on the file being read, different operations are performed to store the data and update the movement of the planets.

4.3 Uranus rings

In addition to the rings on Saturn's model, rings were also added to the Uranus model.