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A Graphical, Orbital Gravity Simulator for Planetarium

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A Graphical, Orbital Gravity Simulator for Planetariums

Angela Kozma and Todd Lichtenberg

A game-like, graphical gravity simulation present on a planetarium dome. Users control the projected program through hand-held Android tablets.
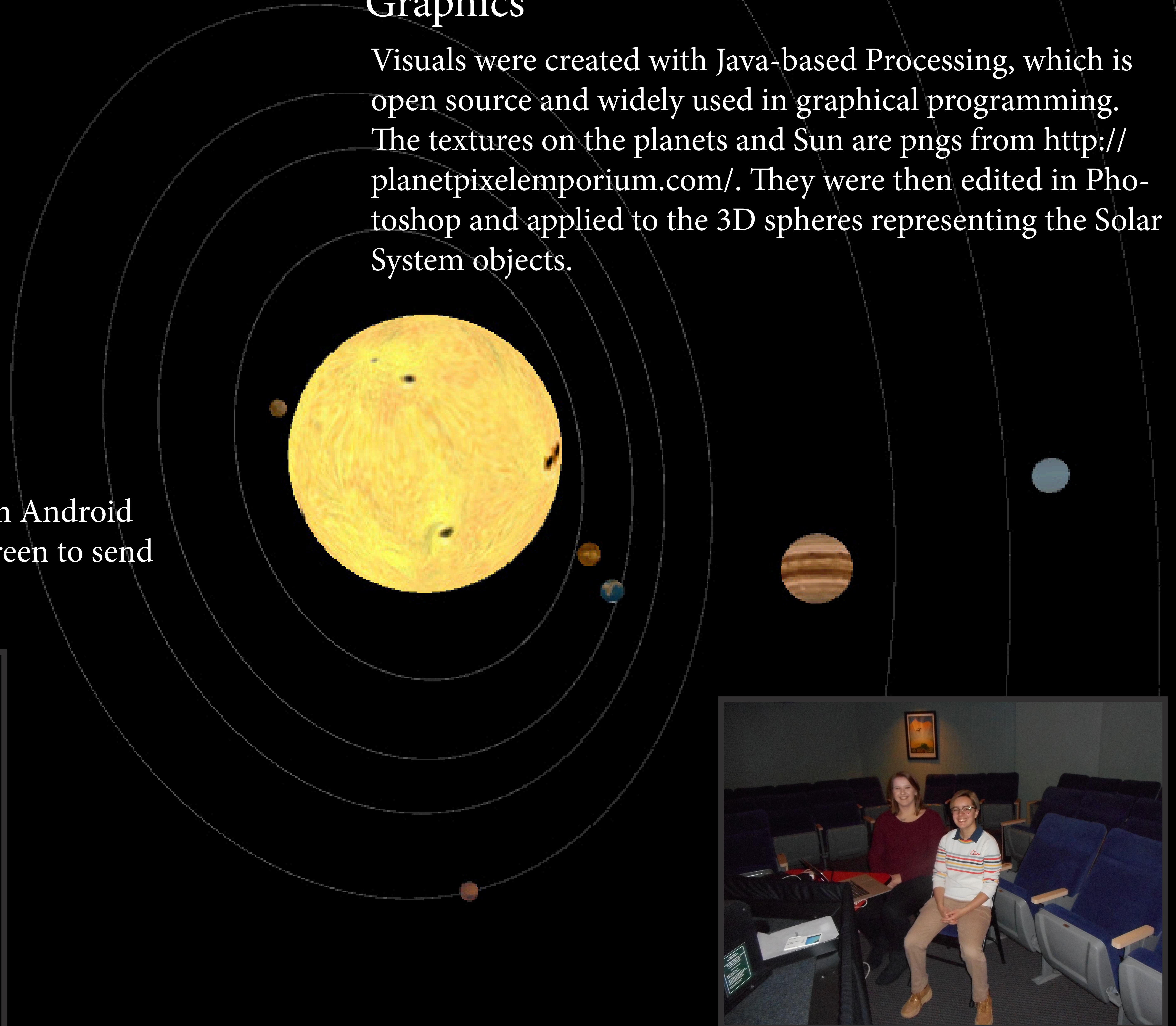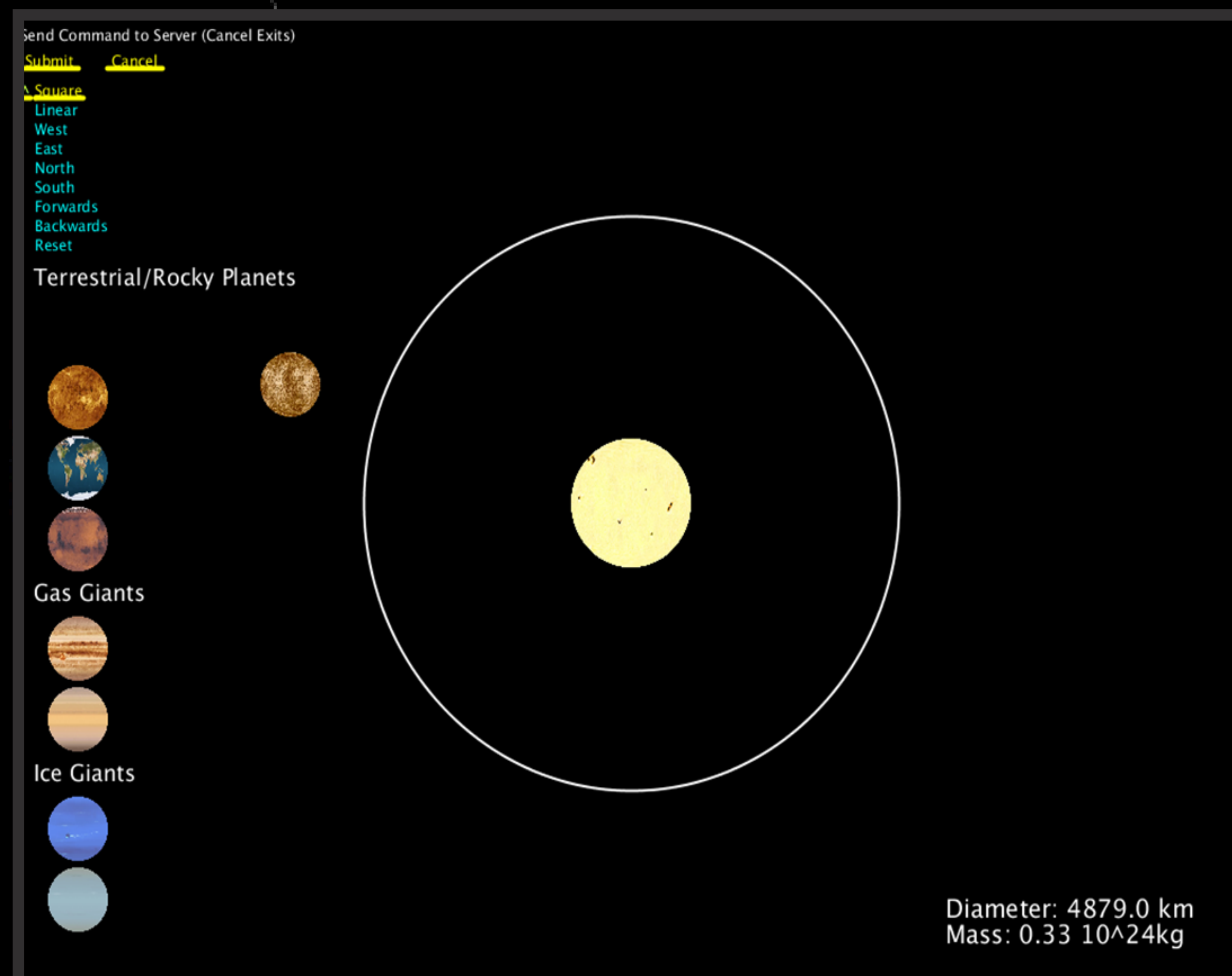
Graphics

Visuals were created with Java-based Processing, which is open source and widely used in graphical programming. The textures on the planets and Sun are pngs from http://planetpixelemporium.com/. They were then edited in Photoshop and applied to the 3D spheres representing the Solar System objects.

User Interface

The program is controlled through a touch screen Android device. Users can slide their fingers across the screen to send objects into orbit around the Solar System.

Send Command to Server (Cancel Exits)
Submit   Cancel

X Square
Linear
West
East
North
South
Forwards
Backwards
Reset

Terrestrial/Rocky Planets

Gas Giants

Ice Giants

Diameter: 4879.0 km
Mass: 0.33 10^24kg