Solar Sky VR

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Overview

Solar Sky VR is the evolution of Solar Sky AR, an application that gathers live data about planets through API requests and displays them alongside planet models in an augmented (and now virtual) 3D space.

A second API request is made in order to gather fun facts about each planet, and that is also displayed in an information panel. Multiple facts are gathered, and one is selected at random, so you get a new fun fact each time you select a planet.

Purpose

Solar Sky VR is designed to educate students about the Solar System and the bodies within it while providing a semi interactive experience to visualize it through a computer or VR headset.

GitHub Repository

github.com/BenBerryman/Solar-Sky-VR

Usage

Unity

Open the Unity project, and press Play! You should see the planets of our solar system orbiting the vicious fiery ball that is our Sun against the glittering backdrop of space.

This is the Solar System View.
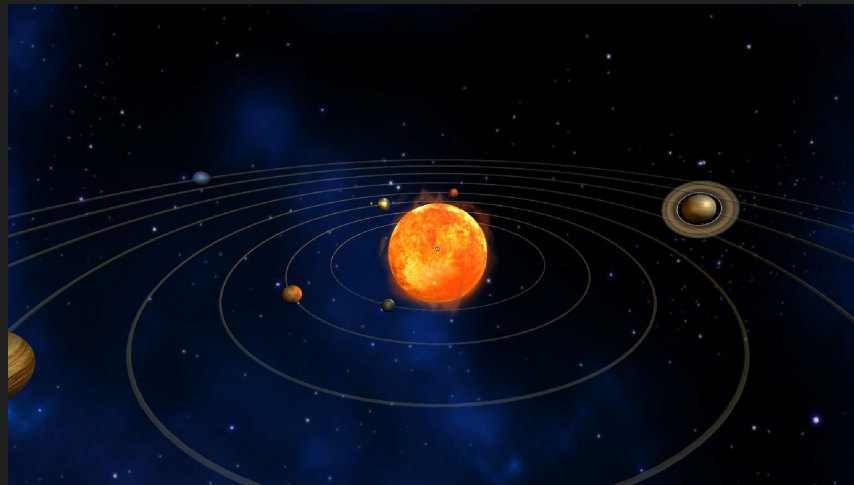
Usage cont.

Solar Sky VR also features Planet Views where for each planet you will find out:

- Mass
- Radius
- Number of hours in a day
- Number of days in a year
- Composition
- A random fun fact!

To display Planet Views:

If you are on a system that supports hand tracking, simply raise your left or right palm towards you to bring up the selector. Then tap the button for the planet you wish to view.

If you are using the application in Unity, you can use MRTK's built-in hands by pressing either T (left hand) or Y (right hand). To rotate the hand towards you, hold Ctrl-LShift for the left hand, or Ctrl-Space for the right hand. Then use your mouse to maneuver the hand.
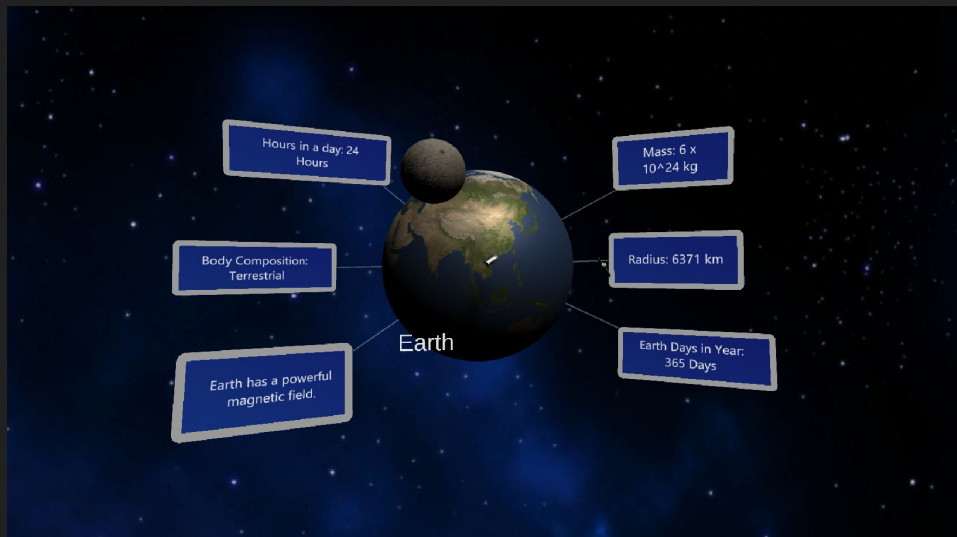
Code

The code was written in C# using the Unity Engine. The API requests are made through the API call of "le-system-solaire" (api.le-systeme-solaire.net/rest/bodies/).

The facts for the planets are provided by the API endpoint tarunapp.github.io/api/planets.json and for the planet compositions we used the API endpoint tarunapp.github.io/api/planets.json.

SimpleJSON library was used to gather the JSON data:

github.com/Bunny83/SimpleJSON