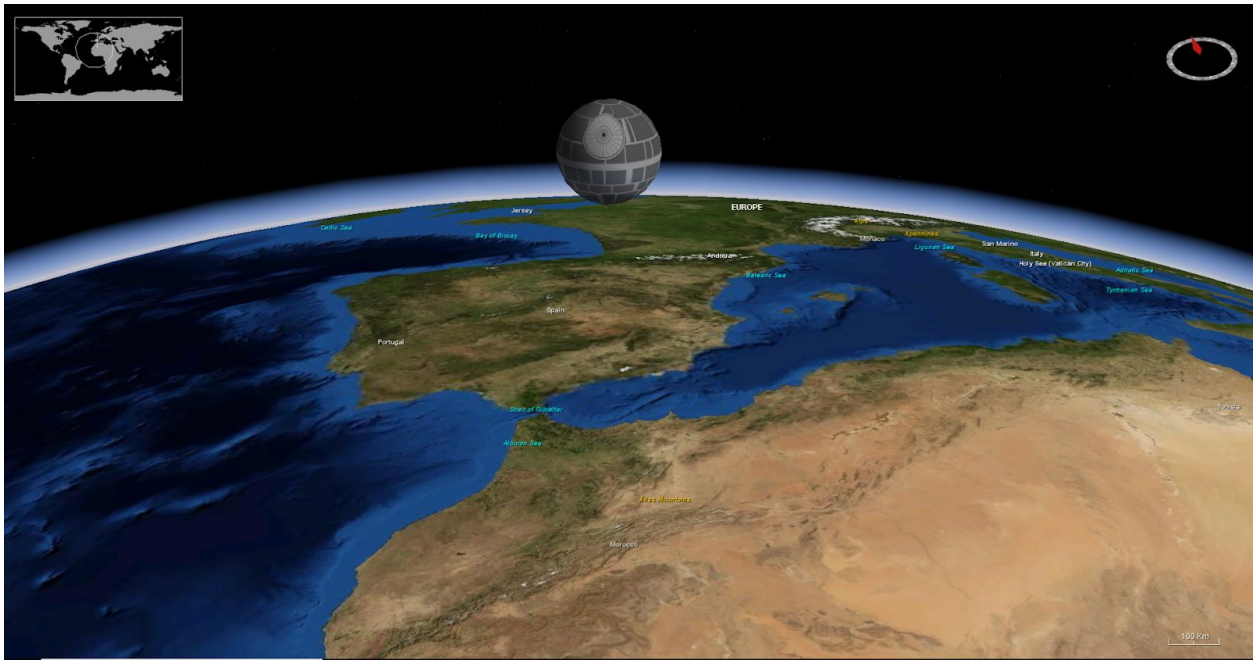
Dear Reviewer,

This product demonstrates a virtual satellite being propagated through 3D space and visualized.

Screenshot



Date Created: 01/19/2019 - 01/20/2019

Basic Controls

- Panning can be performed via a (left click + drag).
- Rotation can be performed via a (right click + drag)
- Zooming can be performed via (scroll)

Orbit

The orbit data is extracted from the following two-line orbital elements,

1 25544U 98067A 19021.08834435 .00016717 00000-0 10270-3 0 9038
2 25544 51.6398 12.8462 0004560 288.3162 71.7494 15.53175508 32391

Epoch (UTC):	21 January 2019 02:07:12
Eccentricity:	0.0004560
inclination:	51.6398°
perigee height:	404 km

apogee height:	410 km
right ascension of ascending node:	12.8462°
argument of perigee:	288.3162°
revolutions per day:	15.53175508
mean anomaly at epoch:	71.7494°
orbit number at epoch:	3239

This Delivery Includes

1. ReadMe
2. Source Code
3. Runnable Demo
    a. All Dependencies Included

Dependencies

1. Java 8
2. NASA WorldWind Java API
3. OreKit Java API
4. Hipparchus Java API
5. Swing Java API

References

NetBeans + Swing was used during the development of this demo. Auto generated code is inserted in the following Java Source Code:

1. src/org/jml/satellite/viewer/SatelliteViewer.java
2. src/org/jml/satellite/viewer/SatelliteViewer.form

Usage Agreement

No alteration, distribution, or use other than for the purpose of code review may be made to this product without the express written consent of John M. Lien.