Week 5 - Tuesday September 20 2016

Meeting with Dr. Kang - 4:00 p.m.

Blender part of the presentation should be ready for the thursday meeting with JPL

Running into problems with Anaconda
Solution- Blender supports OBJ file, By thursday our group should render an OBJ file to show

Discussed possible option with cessium.
        focus on position and camera information, time component will be added/considered
later.

Needs to be very user friendly
        Ideas for UI dropping pins for altitude in 3D space, Need to find way for user to specify
camera orientation
        Need to come up with a scaling method for Lat/Long(obj) -> input method

September 22 2016

Meeting with JPL

Students Present - Shawn Anderson, Angel Jimenez, Khang Lam, Christopher Omlor, Hieu
Phan, Fidel Izquierdo Jr.

JPL Present- Shan

Back-end
        Told Shan we are planing to use the generic blender for the project. Showing Shan the
scripts for the blender. Showing him that blender is running in the background. Show him the
output it is making(mp4 file). If we should but a time restriction.
                1.Shan input - didn't really say much for backend part of the project. For the most
part was satisfied with what we came up with.
                2.It would be nice if we can render using multiple cpus. They run
hadoop.(zookeeper) Nfs sharing to cut the traffic in the network. Google meshlab to reduce the
number of triangles but maintain a certain level of resolution. They have two obj mostly low res
but they have areas that have high res in certain areas. Random areas have high res but are
based on a number of factors(height, camera angle).
        Meshlab - suggested as helpful
                Can help reduce number of triangles for distance images to reduce render time.

Main OBJ is one OBJ at low resolution. Select areas have high resolutions.
When at orbit uses low   resolution and switches to high res at lower alt(not fixed altitude, depends on alt and camera angle).

Front-end
        Told Shan the ideas for how the user will see and use the site.
                1.Shan input- User can use the interface to fly to a point and hit the spacebar to tag the point they want to fly over in the movie. To get the x,y,z. Also would need 3 parameters (pitch,roll,yaw) values of current camera position.
                        a.planet centric coordinate--j2000 reference frame that would give you a standard coordinate system.
                2. Option for programmers to be able to write a script to get all the parameters.By pass the GUI.
                UI requires ability for user to upload a document of points(JSON) to use to make movie.
        -How to specify the time component.
                1.specify the initial time (time 0) and use that to calculate the geometry.
                2.Next thursday, JPL will show demo of comet cg modeling that should clear up some of our time and reference questions