FuriousBird MileStone I : Readme

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Building Instruction

Buliding Dependencies

The dependencies are only libigl, with its native GUI.
If libigl is not shown in the current project root folder, then it shall be cloned via command:

git clone https://github.com/libigl/libigl.git [current folder path]

Compile and run the code

Compile this project using the standard cmake routine:

```
mkdir build
cd build
cmake ..
make
```

This should find and build the dependencies and create a *example_bin* binary.
From within the *build* directory just issue:

```
./birds_bin
```

This will show you the GUI and the action. We do not change the configuration of cmake so it should be able to run on GDC machine.

Justification of the program

We did not implement anything fun this time, but we do add some scenes and meshes for testing. *unitsphere.scn* is used to test volume computation and *interia.scn* is used to test the inertia tensor computation (actually it is a rotating tetrahedral). *bunny.scn* is nothing but two bunnies attracting each other.
We also found that in *solar.scn*, since the density will be 10^{-5}. If we naively set *NewtonTolerance* to be 10^{-8}, the simulation will be different compared to the reference bin. Either we need to divide the density when we solve our Newton's method or we need to lower the tolerance. **In order to see a correct simulation, we found *NewtonTolerance* shall be 10^{-20} for solar case.** (In other words, we do not divide any const part and just leave the function as it should be.)