Phase 1- CG Class

In phase 1, the main objective was to be able to draw four graphical primitives, a cone, a plane, a sphere and a box. The order of each component of this phase follow.

1) Find a suitable XML parser.
2) Create each graphical primitives.
3) Implement a generator of files.
4) Use the generated files to draw the scene.

1)

Looking for a XML parser, the choice taken was to use the “tinyXML” since it was the one in the project assignment and because of all it was the easiest to understand and execute.

2)

After knowing which parser to use it was time to create the graphical primitives. Using what was learnt in class and some geometry it was possible to create and test all of the objects.

The objects were implemented each with it’s own function. After the vertices were created, the graphical primitives could drawn.

3)

Having both the XML parser and the functions to create the graphical primitives it was fairly easy to mix both and create a generator that would, (with the correct specifications), create a file with the number of vertices in the first line and with all of the vertices organized in points in the next.

Example:
1
0.0 2.0 0.0
etc...

4)

At this point the graphic primitives files were created and their names correctly stored in the XML file, and the only thing left was to use the XML parser again to pick up the name of the files created with the generator.

With all of the names stored it was only needed to open each file and parse drawing the object in the process.

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