

Assignment 7 Writeup

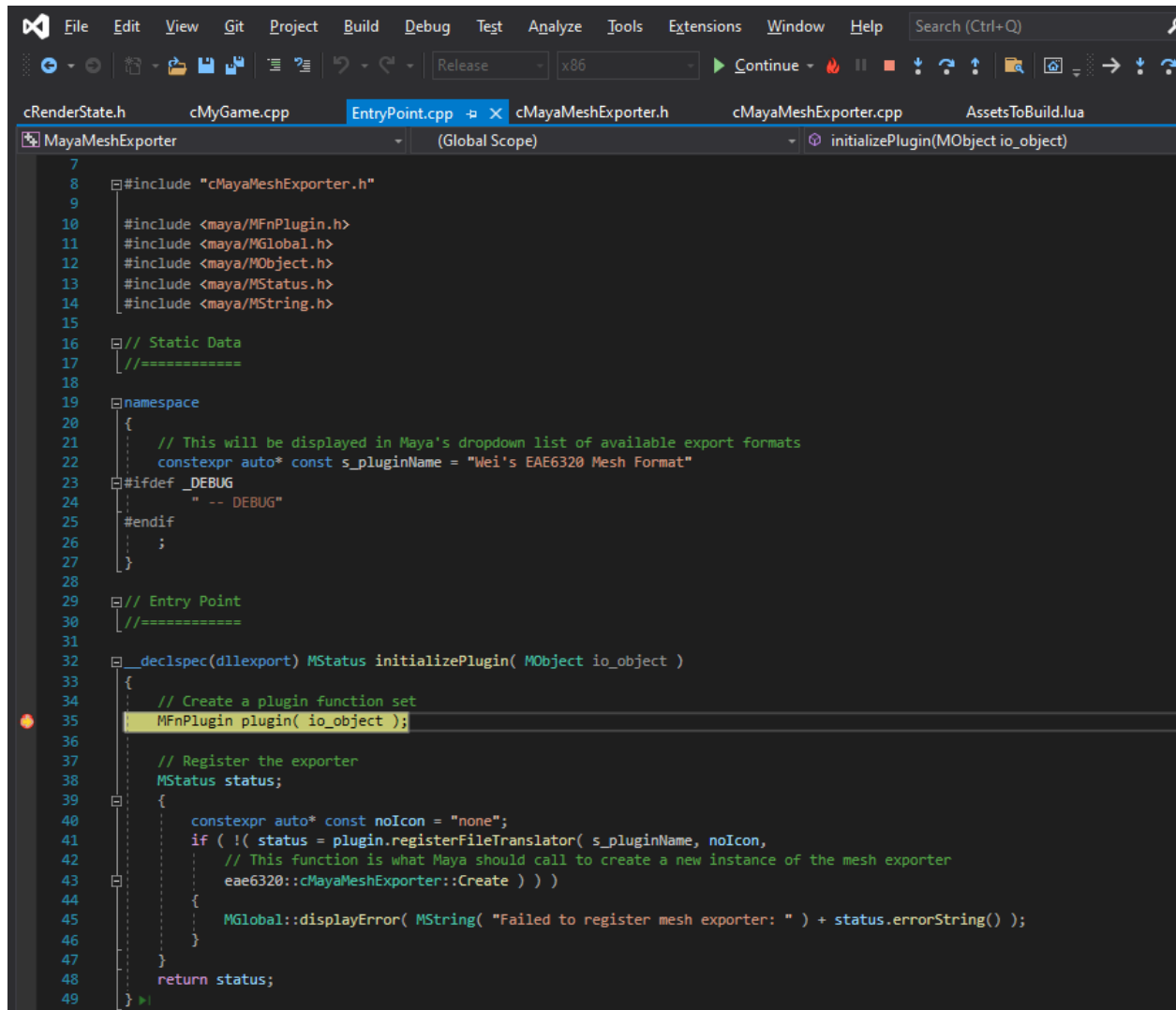
Game Executable:

https://github.com/WayGold/EAE6320_Assignments/blob/Assignment07/MyGame_.zip

Game running:



(Game Running)



```
7
8 #include "cMayaMeshExporter.h"
9
10 #include <maya/MFnPlugin.h>
11 #include <maya/MGlobal.h>
12 #include <maya/MObject.h>
13 #include <maya/MStatus.h>
14 #include <maya/MString.h>
15
16 // Static Data
17 //=====
18
19 namespace
20 {
21     // This will be displayed in Maya's dropdown list of available export formats
22     constexpr auto* const s_pluginName = "Wei's EAE6320 Mesh Format"
23 #ifdef _DEBUG
24     " -- DEBUG"
25 #endif
26 ;
27 }
28
29 // Entry Point
30 //=====
31
32 _declspec(dllexport) MStatus initializePlugin( MObject io_object )
33 {
34     // Create a plugin function set
35     MFnPlugin plugin( io_object );
36
37     // Register the exporter
38     MStatus status;
39     {
40         constexpr auto* const noIcon = "none";
41         if ( !( status = plugin.registerFileTranslator( s_pluginName, noIcon,
42             // This function is what Maya should call to create a new instance of the mesh exporter
43             eae6320::cMayaMeshExporter::Create ) ) )
44         {
45             MGlobal::displayError( MString( "Failed to register mesh exporter: " ) + status.errorString() );
46         }
47     }
48     return status;
49 }
```

(Debug plugin)

I didn't add any reference to MayaMeshExporter as it has nothing to do with graphics or any other projects in the solution. Nor did I add it as dependencies for others since it builds a tool for an external software so it's a different workflow from building our engine. I only exported vertices and indices as that's all I need at this point. Since we are storing vertex count using a uint16_t, we could at max store 65535 as the value. For overflow conditions, I swap the mesh using a block to represent an error when loading the input mesh.