SENTINEL

MANUAL

Table of Contents

[Naming Conventions 3](#_Toc367009805)

[Wrappers 3](#_Toc367009806)

[References 3](#_Toc367009807)

[Inspectors 3](#_Toc367009808)

[Assets 3](#_Toc367009809)

[Model Exporter 4](#_Toc367009810)

[Level Editor Controls 5](#_Toc367009811)

[Sentinel Test Program Controls 5](#_Toc367009812)

[Create Custom Program 5](#_Toc367009813)

# Naming Conventions

All member class variables start with m, e.g. ColorRGBA\* mRef;

All properties start with capital letters, e.g. Inspector.TreeStyle;

All defines, macros, and static variables are in all capitals, e.g. double DESIRED\_FRAME\_RATE;

All member functions start with capital letters, e.g. GameWorld::Inst()->Startup();

All local variables start with lowercase letters, e.g. MeshBuilder meshBuilder;

## Wrappers

Classes named with W represent managed Wrapper classes created within the CLR. They each possess an instantiation of a variable, and free automatically through the Finalizer. Call Dispose to remove the internal variable from memory before C# does its garbage collection.

Components are the exception to the Wrapper classes in that they create a new GameComponent, but they do not free the memory automatically, except through their associated GameObject. Delete must be called to free the memory if Remove is called on a GameComponent from the GameObject. This behavior also occurs with GameWorld and their GameObject(s).

## References

Classes named with R represent Reference classes. These classes reference a variable. Calling Dispose has no effect on the variable as it is located elsewhere in memory.

## Inspectors

Classes named with I represent Inspector classes. Each Inspector class creates a WPF Object for placement within the Inspector interface within the Editor.

## Assets

Classes named with A represent Asset classes. They are broken down into groups called Texture, Shader, Mesh, and Model.

# Model Exporter

The custom 3ds Max exporter resides within the Sentinel\_Exporter folder. The resulting Sentinel\_Exporter.dle is automatically placed within the local 3ds Max 2012 folder. This is done through an environment variable called “ADSK\_3DSMAX\_x64\_2012”. An additional environment variable was created to reference the SDK titled “MAX2012SDK”. Generally, the file folder for 3ds Max resides within a protected folder, therefore, to compile the program, Visual Studio should be opened in Administrator mode.

The exporter only exports the model within the scene. Save the file as a .MAX or any other native file format to 3ds Max 2012 in order to export the model if any changes are made, i.e. no importer exists for the M3D file format.

# Level Editor Controls

The scene viewing area can rotate its view by holding the middle mouse button / wheel.

Move forward and backward by scrolling the middle mouse wheel.

# Sentinel Test Program Controls

WASD – Move

Space / C – Up / Down

ESC – Exit

# Create Custom Program

Open “Sentinel\_Test.sln”

Use “Sentinel\_Test.cpp” as a reference.

Each header file contains instructions on its usage.