SENTINEL

MANUAL

Table of Contents

[Naming Conventions 3](#_Toc365829092)

[C++ / CLR Wrappers and References 3](#_Toc365829093)

[Model Exporter 3](#_Toc365829094)

[Level Editor Controls 4](#_Toc365829095)

[Sentinel Test Program Controls 4](#_Toc365829096)

[Create Custom Program 4](#_Toc365829097)

[Class Reference 5](#_Toc365829098)

[Macros 5](#_Toc365829099)

[Global Functions 5](#_Toc365829100)

# Naming Conventions

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

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;

# C++ / CLR Wrappers and References

Classes named with W represent Wrapper classes. 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 Removing a GameComponent from the GameObject. This behavior also occurs with GameWorld and their GameObject(s).

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.

# Model Exporter

The custom 3ds Max exporter resides within the Sentinel\_Exporter folder. The resulting Sentinel\_Exporter.dle created is 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.

# Class Reference

## Macros

#define TRACE( text )

Outputs text to console.

Example:

TRACE( "Output to Console Successful!" );

## Global Functions

void SetDirectory( const char\* dest );

Sets the directory in relation to the current directory.

Example:

SetDirectory( "Shaders" );

// Load Shaders.

SetDirectory( ".." );