CH11_008

EXERCISE

MYSECONDSCENEOBJECT

Exercise Files

Starter – Please use the code you wrote in chapter 11, implementing the classes "myFirstSceneObject", "myGameBase", and "myGameBaseData" as a starting point for this exercise.
Alternately, if you haven't done the coding for chapter 11, or if you would prefer to use my finished examples, please look in the directory "C++Samples(Finished)/" on the cd for the finished code.

Answers

"gpgt/engine/answers/chapter11/mySecondSceneObject.h"
"gpgt/engine/answers/chapter11/mySecondSceneObject.cc"

Exercise Mission

Chapter 11: "008 GameClasses: My second SceneObject"

Synopsis

In this exercise, we will test your ability to create a new class using a variety of engine features in tandem.

Prerequisites

1. *ch1_001.pdf "Using The Kit"*
2. *ch10_001.pdf "Compiling Torque in Windows" and/or ch10_002.pdf "Compiling Torque in OSX"*

Exercises

1. *mySecondSceneObject (pg 2)*

MYSECONDSCENEOBJECT

1 mySecondSceneObject

Goal: Create a new SceneObject class, using code from myFirstSceneObject, myGameBase, myGameBaseData, and incorporating new features.

Your new class (mySecondSceneObject) should incorporate all of these features:

- Renders a cube and a pyramid, like the GameBase/GameBaseData classes did, but without the use of a datablock to hold the data.
- Uses a single variable to determine whether the Pryamid or Cube or Both will render.
- Encodes and exposes the single variable as an enumerated bit mask with these values and meanings:
  - Bit value: 0x1 Name: "PyramidOnly" Action: Only render pyramid.
  - Bit value: 0x2 Name: "CubeOnly" Action: Only render cube.
  - Bit value: 0x3 Name: "PyramidAndCube" Action: Render both pyramid and cube.
- Send the control value using the pack and unpack features of SceneObject, but only send the bits necessary to encode the data. i.e. Use an optimized bitstream method from appendix B.7.10 "Stream References".

This is all the help you get at this point. When you feel you have accomplished this goal, please take a look at the answer to this exercise for an explanation of how these features can be accomplished.

Note: Your answer may not be exactly the same as the one I present. There is more than one right way to solve this exercise.

