

CS 425 Assignment 1

Fall 2016

Getting Started

Due Wednesday **September 7th** at 3pm

Goals of assignment:

- Get software for the semester set up and ensure your computer will adequately handle it.
- Refresh your memory about C++ and Visual Studio and become familiar with OGRE. (You do NOT need to understand any specifics of OGRE)
- Determine if you can follow directions when submitting your files.

Submission: The items specified below should be archived as a .zip or .rar file and submitted through Blackboard. Your submission must be named in the following way: **LastName_FirstName_HW1.zip**

Grading: This assignment is worth 100 points. I reserve the right to re-grade this assignment at any time throughout the semester (i.e. if it later becomes clear that you did not get the software loaded and running, I can take points off of this assignment.)

General Instructions: You may encounter errors that were not caught and outlined in the instructions below. PLEASE post any problems that you find on Blackboard or Piazza or email me. Google-ing for solutions is also encouraged as is helping your classmates fix problems.

Part I

1. Make sure that you have Microsoft Visual Studio 2012 Premium or Ultimate or Professional.
 - a. Note that it should be the 2012 Premium or Ultimate or Professional version!
 - b. It can be downloaded from Microsoft DreamSpark for free:
<http://labs.ite.gmu.edu/index.php/FAQ/MicrosoftDreamSpark-FormerlyKnownAsMSDNAA>
 - c. Follow the provided instructions for installation.
2. Download and install Ogre 1.9.0 for Visual C++ 2012: <http://www.ogre3d.org/download/sdk>
 - a. It is listed as: OGRE 1.9.0 SDK for Visual C++ 2012 (32-bit)
 - b. Run the executable to extract the program to C:\OgreSDK_vc11_v1-9-0\
 - c. So C:\OgreSDK_vc11_v1-9-0 should contain a folder called *Samples*. If your folder structure is different than this fix it so that it is.
3. Create environment variable:
 - a. Right click on *My Computer* and click *Properties* (or go into settings)
 - b. In the *Advanced* panel click the *Environment Variables* button
 - c. Create a variable *OGRE_HOME* and set it to: C:\OgreSDK_vc11_v1-9-0\
 - d. Note there might be slight variations in these instructions depending on your version of MS Windows. You can also use this page as a reference: <http://www.ogre3d.org/tikiwiki/tiki-index.php?page=Installing+the+Ogre+SDK>
4. You have now installed OGRE. You do NOT have to compile or run anything. You can load and compile OGRE.sln if you'd like to have a look at the OGRE samples. Note that this compilation can take a few minutes. You may also need to install DirectX 11.

Part II

5. Do the Basic Ogre Tutorial 1

- a. First set up the solution application:
 - i. <http://www.ogre3d.org/tikiwiki/Setting+Up+An+Application+-+Visual+Studio>
 - ii. Use Visual Studio 2012! Click on the *Visual Studio 2010 – VC10* tab.
 - iii. Read the instructions carefully!
 - iv. Do NOT use the Ogre AppWizard.
 - v. You do NOT need to install or build OGRE! You already did.
 - vi. Note that we have already created the OGRE_HOME variable
 - vii. When creating a new project, some of the instructions may be a little off. That's ok.
 - viii. You might consider choosing Win32 Console Application instead of Win32 Project.
 - ix. Do not set up precompiled headers just now.
 - x. You will see the Ogre logo and the fps at the bottom of a black screen.
 - xi. Zip up this project directory and save it. You can reuse it for future homework assignments!
- b. Step through the tutorial using the project that you just created:
- c. <http://www.ogre3d.org/tikiwiki/tiki-index.php?page=Basic+Tutorial+1&structure=Tutorials>
 - i. Cut and paste the code for *createScene* into the method.
 1. Now when you run it, you will see an ogre head!
 2. Take a screen shot that includes the ogre head and the number of frames per second (fps). Doing Shift-Prnt Scrn (or the equivalent for your computer) will place a screen shot in the clip board that can then be pasted in any number of applications.
- d. When you have completed the tutorial:
 - i. Zip the project directory and submit it with the image file.

Note:

You may have to add the following lines to the OGRE resources configuration files:

```
FileSystem=../../Media/materials/programs/Cg  
FileSystem=../../Media/materials/programs/GLSL  
FileSystem=../../Media/materials/programs/GLSL150
```

- Most homework assignments this semester will not be as easy as following an online tutorial.