Gam 475 / SE 485
Spring 2023

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Submission Report
Keenan

PA0 – Environment

Student Information

Integrity Policy: All university integrity and class syllabus policies have been followed. I have neither given, nor received, nor have I tolerated others' use of unauthorized aid.

I understand and followed these policies: Yes   No

Name:

Date:

Submission Details

Final *Changelist* number:

Verified build: Yes   No

Number Tests Passed:

Required Configurations:

Discussion (What did you learn):

Gam 475 / SE 485
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Verify Builds

- Follow the Piazza procedure on submission
  - Verify your submission compiles and works at the changelist number.
- Verify that only MINIMUM files are submitted
  - No – Generated files
    - *.pdb, *.suo, *.sdf, *.user, *.obj, *.exe, *.log, *.pdb, *.db, *.user
    - Anything that is generated by the compiler should not be included
  - No – Generated directories
    - /Debug, /Release, /Log, /ipch, /.vs
- Typical files project files that are required
  - *.sln, *.cpp, *.h
  - *.vcxproj, *.vcxproj.filters, CleanMe.bat

Standard Rules

Submit multiple times to Perforce
- Submit your work as you go to perforce several times (at least 5)
  - As soon as you get something working, submit to perforce
  - Have reasonable check-in comments
    - Points will be deducted if minimum is not reached

Write all programs in cross-platform C++
- Optimize for execution speed and robustness
- Working code doesn't mean full credit

Submission Report
- Fill out the submission Report
  - No report, no grade

Code and project needs to compile and run
- Make sure that your program compiles and runs
  - Warning level ALL …
  - NO Warnings or ERRORS
    - Your code should be squeaky clean.
  - Code needs to work "as-is".
    - No modifications to files or deleting files necessary to compile or run.
  - All your code must compile from perforce with no modifications.
    - Otherwise it's a 0, no exceptions

Project needs to run to completion
- If it crashes for any reason…
  - It will not be graded and you get a 0

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No Containers

- NO STL allowed {Vector, Lists, Sets, etc...}
  - No automatic containers or arrays
  - You need to do this the old fashion way - *YOU EARNED IT*

Leave Project Settings

- Do NOT change the project or warning level
  - Any changing of level or suppression of warnings is an integrity issue

Simple C++

- No modern C++
  - No Lambdas, Autos, templates, etc…
  - No Boost
- NO Streams
  - Used fopen, fread, fwrite…
- No code in MACROS
  - Code needs to be in cpp files to see and debug it easy
- *Exception:*
  - implicit problem needs templates

Leaking Memory

- If the program leaks memory
  - There is a deduction of 20% of grade
- If a class creates an object using new/malloc
  - It is responsible for its deletion
- Any *MEMORY* dynamically allocated that isn't freed up is *LEAKING*
  - Leaking is *HORRIBLE*, so you lose points

No Debug code or files disabled

- Make sure the program is returned to the original state
  - If you added debug code, please return to original state
- If you disabled file, you need to re-enable the files
  - All files must be active to get credit.
  - Better to lose points for unit tests than to disable and lose all points

No Adding files to this project

- This project will work "as-is" do not add files…
- Grading system will overwrite project settings and will ignore any student's added files and will returned program to the original state

UnitTestConfiguration file (if provided) needs to be set by user

- Grading will be on the UnitTestConfiguration settings
  - Please explicitly set which tests you want graded… no regrading if set incorrectly

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Due Dates

- See Piazza for due date and time
- Submit program perforce in your student directory assignment supplied.
- Fill out your this ***Submission Report*** and commit to perforce
  - ***ONLY*** use Adobe Reader to fill out form, all others will be rejected.
  - Fill out the form and discussion for full credit.

Goals

- Ensure that the programming environment is correctly set-up
  - Compiler install
  - OpenGL and DirectX compatibility
  - Graphics Test

Assignments

1. ***Create Environment document***
   a. Environment.docx that will be converted to PDF
   b. Add your Name to document
   c. Follow the instructions and add to this document
2. ***Compile and run the VerifyInstall_Compiler***
   a. Verify that Visual Studio Enterprise 2022 is install correctly
      - Follow the instructions on Piazza
   b. Compile and run in Debug mode
   c. Compile and run in Release mode
      - Cut and Paste the output window for each mode into Environment.docx

   Output should look like this: (your numbers may be different)

   ```
   ****************************************
   **      Framework: 3.80              **
   **   C++ Compiler: 193431937         **
   **  Tools Version: 14.34.31933       **
   **    Windows SDK: 10.0.20348.0      **
   **   Mem Tracking: enabled           **
   **           Mode: x86 Debug         **
   ****************************************

   -------------------------------
   Memory Tracking: start()
   -------------------------------

   ------ Testing DEBUG ----------

   PASSED: CompilerVersion_Check_Test

   --- Tests Results ---

   [x86 Debug] Ignored: 0
   [x86 Debug]  Passed: 1
   [x86 Debug]  Failed: 0

   Test Count: 1
   ```

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```
Indiv Checks: 5
Mode: x86 Debug

----------------

--------------------------------
Memory Tracking: passed
--------------------------------
Memory Tracking: end()
--------------------------------

****************************************
**       Framework: 3.80            **
**     C++ Compiler: 193431937      **
**   Tools Version: 14.34.31933     **
**     Windows SDK: 10.0.20348.0    **
**    Mem Tracking: --> DISABLED <--  **
**            Mode: x86 Release     **
****************************************

------------------ Testing RELEASE --------------------

PASSED: CompilerVersion_Check_Test

--- Tests Results ---

[x86 Release] Ignored: 0
[x86 Release]  Passed: 1
[x86 Release]  Failed: 0

Test Count: 1
Indiv Checks: 5
Mode: x86 Release

----------------
```
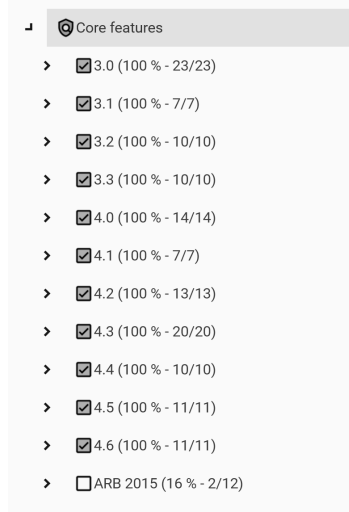
3. ***VerifyOpenGL_DirectX_Compatibilty***

   a. Install and run the tool inside directory

      - glview638-setup

   b. Using a screen snipping tool

      - Capture the screen and add to Environment.docx
      - List the maximum compatible version

Sample:

OpenGL Max version: 4.6

	Core features
›	☑ 3.0 (100 % - 23/23)
›	☑ 3.1 (100 % - 7/7)
›	☑ 3.2 (100 % - 10/10)
›	☑ 3.3 (100 % - 10/10)
›	☑ 4.0 (100 % - 14/14)
›	☑ 4.1 (100 % - 7/7)
›	☑ 4.2 (100 % - 13/13)
›	☑ 4.3 (100 % - 20/20)
›	☑ 4.4 (100 % - 10/10)
›	☑ 4.5 (100 % - 11/11)
›	☑ 4.6 (100 % - 11/11)
›	☐ ARB 2015 (16 % - 2/12)

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DirectX 11.4, 12.1

DirectX		2-18-2022
	Supported profiles:	**11.4, 12.1**
	Shader model:	5.0, 5.1, 6.7

4. ***Compile and run the VerifyGraphics_Test***

A quick smoke test that your graphics is working.

Cut and paste the window with the snipping tool into Environment.docx

Sample:
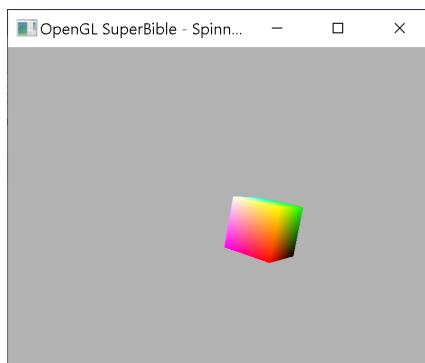
5. ***Convert Environment.docx into a pdf***
   a. ***Submit Environment.pdf with PA0.pdf in the same directory***

Validation

Simple checklist to make sure that everything is submitted correctly

- Build both Debug and Release in VerifyInstall_Compiler?
- Ran the OpenGL compatibility?
- Ran Graphics Test?
- Submitted this form and Environment.pdf

Hints

Most assignments will have hints in a section like this.

- Piazza if lost