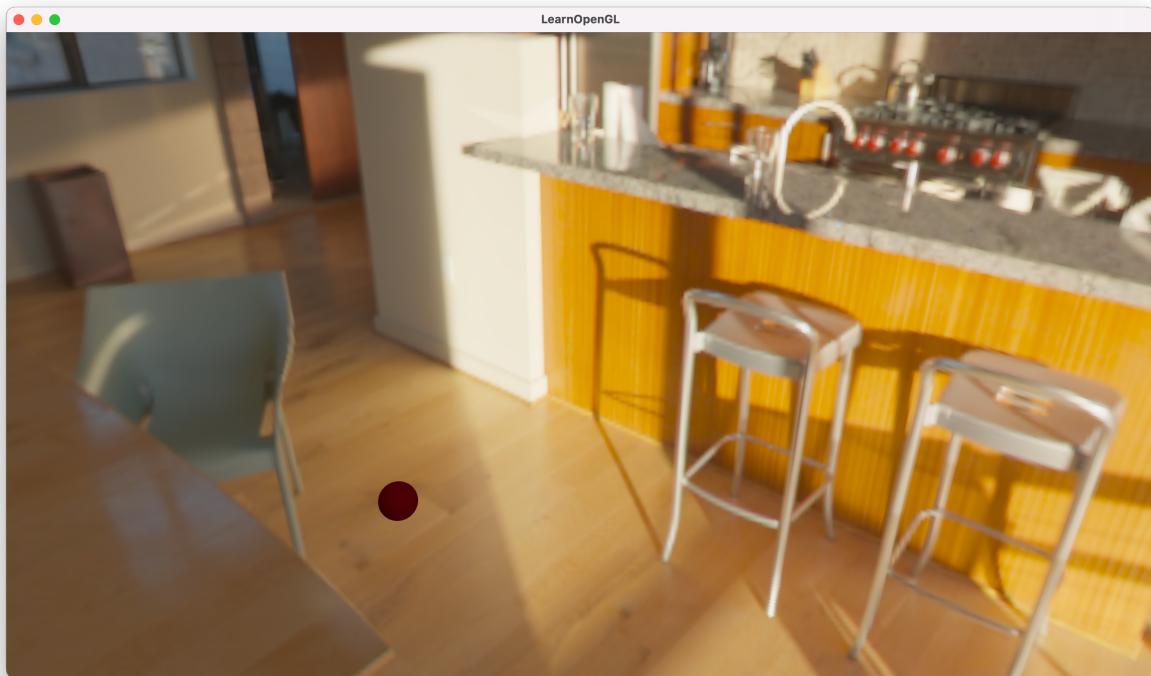


Setup OpenGL environment on Mac

Author: zhaoxifengjeff@qq.com

Contents

The document records the steps to setup OpenGL environment on Mac, it involves Xcode configuration, and third party library installations like libSOIL, GLFW, GLEW, GLM and so on.



Xcode

<https://developer.apple.com/library/archive/featuredarticles/XcodeConcepts/Concept-Projects.html>

Preparations

- 1 Git clone [git@github.com:mycmessia/LearnOpenGL.git](https://github.com/mycmessia/LearnOpenGL.git)
- 2 Brew install glfw
- 3 Brew install glew
- 4 Brew install glm
- 5 Build and install libSOIL
 - 5.1 git clone source from [git@github.com:childhood/libSOIL.git](https://github.com/childhood/libSOIL.git)
 - 5.2 open a terminal

- 5.3 change director to the libSOIL
- 5.4 make
- 5.5 make install

Configure, build and run LearnOpenGL

change directory to the LearnOpenGL

XCode .

Project

Build settings

Update library search path

\$(inherited)

/opt/local/lib

/usr/local/Cellar/glfw/3.3.7/lib

/usr/local/Cellar/glew/2.2.0_1/lib

paste all libs once instead of one by one:

\$(inherited) /opt/local/lib /usr/local/Cellar/glfw/3.3.7/lib /usr/local/Cellar/glew/2.2.0_1/lib /usr/local/Cellar/assimp/5.2.4/lib

Update header search paths:

/opt/local/include/SOIL

/usr/local/Cellar/glfw/3.3.7/include

/usr/local/Cellar/glew/2.2.0_1/include

/usr/local/Cellar/glm/0.9.9.8/include

paste all includes once instead of one by one:

/opt/local/include/SOIL /usr/local/Cellar/glfw/3.3.7/include /usr/local/Cellar/glew/2.2.0_1/include /usr/local/Cellar/glm/0.9.9.8/include /usr/local/Cellar/assimp/5.2.4/include

Build phases

Link with libraries

Delete obsoleted one by one

Add new installed one by one

Build a specific project

Switch schema

Select one of the projects

Command + B

Run a project

After build the project successfully

Command + R

References

<git@github.com:pulapulapin/LearnOpenGLCode.git>
<https://developer.apple.com/library/archive/documentation/MacOSX/Conceptual/BPFrameworks/Tasks/IncludingFrameworks.html>
<https://developer.apple.com/library/archive/featuredarticles/XcodeConcepts/Concept-Projects.html>
<https://web.eecs.umich.edu/~sugih/courses/eecs487/glfw-howto/>
<git@github.com:vinayakvivek/Xcode-OpenGL-template.git>
<git@github.com:mycmessia/LearnOpenGL.git>
<git@github.com:pulapulapin/LearnOpenGLCode.git>
<git@github.com:JoeyDeVries/LearnOpenGL.git>
<git@github.com:wojnosystems/opengl-xcode.git>
<git@github.com:tbielawa/opengl-in-xcode.git>
<git@github.com:guohai163/xcode-opengl.git>
<git@github.com:JoeyDeVries/LearnOpenGL.git>

Appendix

. Navigate to the `usr` directory through the Finder

1. Open **Finder**.
2. Press **Command-Shift-G** to open the dialogue box.
3. Enter what you want to search for, e.g., `/usr` or `/usr/discreet`.
4. Add the path to favorite so that you can choose it in the XCode pop-up dialog.

Build <git@github.com:JoeyDeVries/LearnOpenGL.git>

1. clone code from <git@github.com:JoeyDeVries/LearnOpenGL.git>
2. open a terminal and switch to the code directory
3. `mkdir build`
4. `cd build`
5. `cmake ..`
6. `make all`
7. `cd ..`
8. `cd bin`
9. explore all the executables