Assignment 3 – Texture Mapping Detail Instruction

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Goal

◆ **Binding and passing the texture to shader.**

◆ **Modify the texture filtering & wrapping mode.**

◆ **Finish the code in main.cpp, vertex shader and fragment shader**

Assignment 3

- ◆ **Announce date: 2021/05/19**
- ◆ **Deadline: 2021/06/09 23:59 (UTC+8)**
- ◆ **Late work will be penalized by 20/week.**
- ◆ **Copy & paste others' code will get 0.**
- ◆ **Hand in your homework by FTP in the following format(-10 for penalty)**
  - ◆ **studentID_HW3.zip**
  - ◆ **studentID_HW3_Report.pdf**

In studentID_HW3.zip

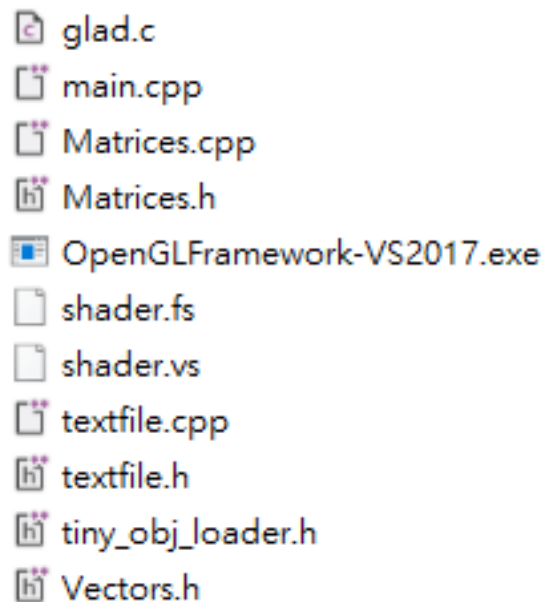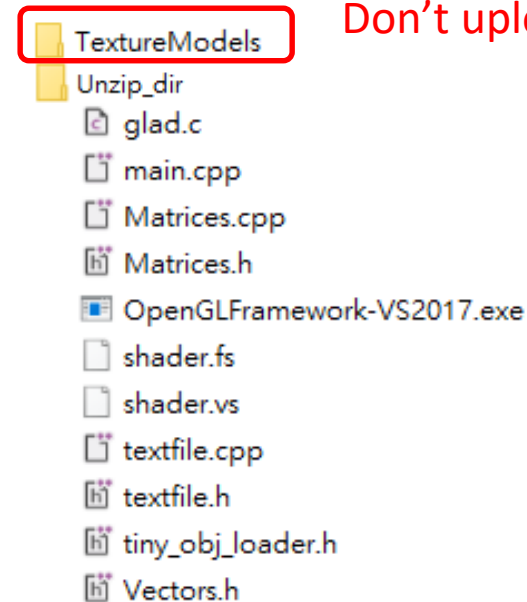◆ **Depend on your device**

◆ **-10 for those upload "TextureModels"**
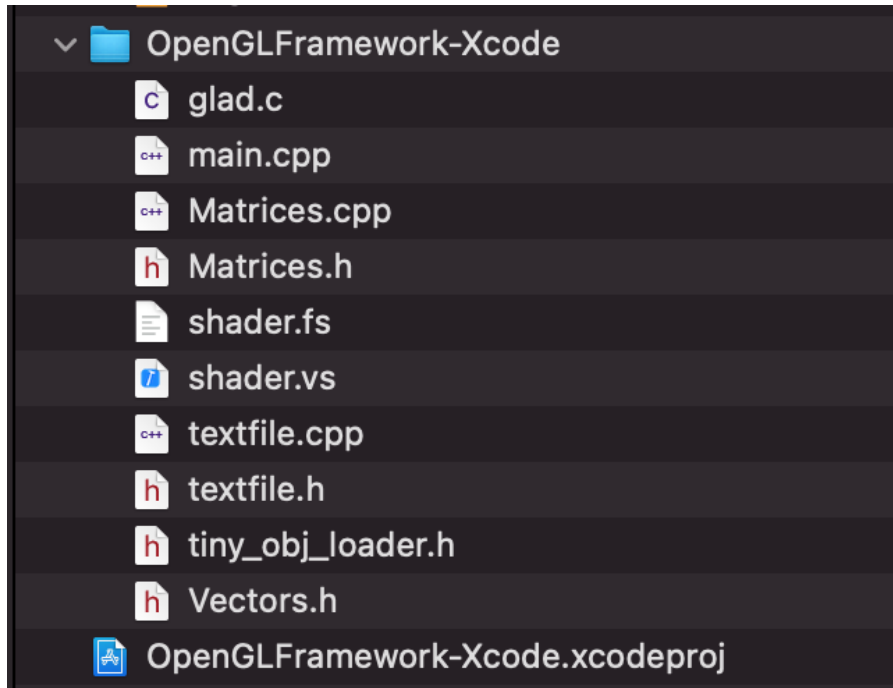
For Mac

In studentID_HW3.zip

◆ **Depend on your device**

◆ **-10 for those upload "x64" or "TextureModels"**

glad.c	TextureModels — Don't upload!!!
main.cpp	Unzip_dir
Matrices.cpp	glad.c
Matrices.h	main.cpp
OpenGLFramework-VS2017.exe	Matrices.cpp
shader.fs	Matrices.h
shader.vs	OpenGLFramework-VS2017.exe
textfile.cpp	shader.fs
textfile.h	shader.vs
tiny_obj_loader.h	textfile.cpp
Vectors.h	textfile.h
	tiny_obj_loader.h
	Vectors.h

For Windows   **Make Sure exe can run**

Key Mapping

◆ **Please follow the spec bellow, or you would not get the score of item.**

◆ **You must make sure your key mapping is exactly same to ours.**

◆ **Transformation and lighting are the same with previous assignments**

Key Mapping

◆ **G: switch the magnification texture filtering mode between nearest / linear sampling**

◆ **B: switch the minification texture filtering mode between nearest / linear_mipmap_linear sampling**

Key Mapping
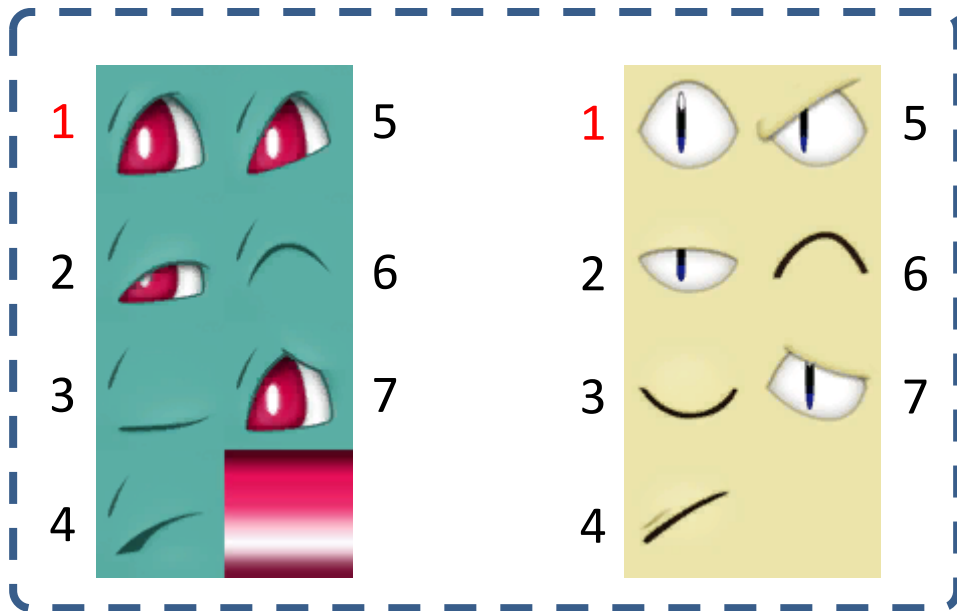
◆ **Texture transform on some Pokemon models' eyes**

◆ **Apply change on normal order (1-7) when press right arrow key.**

◆ **Apply change on reverse order (7-1) when press left arrow key.**

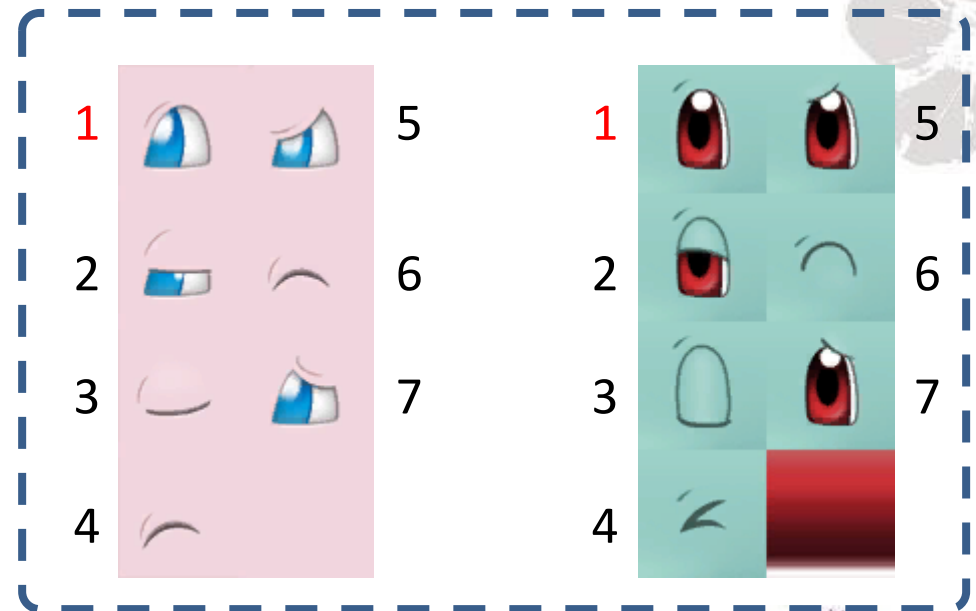◆ **Always use repeat mode for texture coordinate addressing.**

Texture Models

◆ **A: Normal texture coordinate ([0, 1])**

◆ **B: Need texture wrapping (texture coordinate > 1)**

A

B

Report

◆ **Some screen shot**

◆ **Description of your program control instructions**

◆ **Other special things you have done**

Grading Policy

Item	Score
Textured model rendered	35%
Magnification texture filtering mode switch	20%
Minification texture filtering mode switch	20%
Texture transform	20%
Report	5%
Total	100%