Toolchains

To be able to do any meaningful work on OS X with either Objective-C, C or C++ you must first install the Apple Development toolchain. To do so, log in to the Apple App Store and install Xcode. You will be guided through the rest of the setup (incl. the command line).

Further, you need to install CMake. Download it from here: https://cmake.org/download/ and install it accordingly. Then follow the instructions given in class.

OpenGL

Either Core OpenGL up to 4.1 or Legacy OpenGL 2.1 is supported! Eliminate everything in the code which uses features > 4.1.

GLEW

Not needed on OS X. To be consistent with the other platforms, the library is there anyway. Therefore checks are made easier and no preprocessor hacks are needed.

The header file `<GL/glew.h>` needs to be included before any OpenGL/GLUT specific headers. Furthermore `glewExperimental = GL_TRUE;` needs to be set before `glewInit();`.

There might be some `OpenGL Get Error Code: 1280 (invalid enumerant)` error messages during rendering. This is due to GLEW according to: https://www.opengl.org/wiki/OpenGL_Loading_Library (GLEW section).

FLTK for OS X

FLTK (our patched OS X version) uses either the Core Profile (default) or the Legacy Profile. To enable the Legacy Profile, set `_fl_mac_CGLContext = _FL_CGLCONTEXT_LEGACY;`, surrounded by an `#ifdef __APPLE__` … , before calling `glutCreateWindow(…);`.

GLUT

Replace all include directives with `<FL/glut.H>`.

Freeglut

Not needed on OS X. Replaced with FLTK's GLUT implementation.