

Assignment 0: set up your Vulkan development environment

Following the tutorial on:

https://vulkan-tutorial.com/Development_environment

Install your own Vulkan development environment. Use it then to create your own project, and compile the file **A00.cpp**

Running the code, should show you the following application:

User can move in the 3D world using the following keys:

| | | | | | | |
|----------------------------|---------------------|-----------------------|-----------------|--------------|--------------|---------------|
| ESC – quit the application | | | | | | |
| Q : roll left | W : forward | E : roll right | R : up | | ↑: look up | |
| A : left | S : backward | D : right | F : down | ←: look left | ↓: look down | →: look right |

You can also drag the mouse (move while pressing the left button) to rotate the view.



Beside the Vulkan library and GLFW (as specified in the tutorial):

<https://vulkan.lunarg.com/sdk/home>

<https://www.glfw.org>

Assignment 00 uses also the following libraries:

GLM – math functions - <https://github.com/g-truc/glm>

STB – load texture images - <https://github.com/nothings/stb>

TINYOBJ – load .obj 3D models - <https://github.com/tinyobjloader/tinyobjloader>

Since these 3 libraries are all header-only (i.e. they are included in the main code during compilation, and they do not other special install procedure), have been included for convenience in the `headers` folder of the assignment. When setting up the project for this assignment, you can simply add the `headers` folder to its “Additional Include Directories”, to shorten its setup time.

The other three folders, namely `models`, `textures` and `shaders`, contain the assets that are used to compose the scene: their content is loaded at run time by the application.