



REYNEP's Vulkan "Adventure Guide"

Where, you adventure on your own 😊, I only 'guide', showing you the roadmap

Chapter 0: Prerequisites

1. What is Vulkan ? Why Vulkan ?

1. Read the **1 - Introduction** part from here only 😊
 - i. <https://paminerva.github.io/docs/LearnVulkan/01.A-Hello-Window>
 - 😊 [00-Introduction-and-prerequisites.pdf](#)
 - 📄 [01.A-Hello-Window.pdf](#)
 - ii. Alternatively:- you can give this page a try too:-
 - <https://vkdoc.net/chapters/fundamentals>
 - that is, if you are okay with "official formal-documentation"
2. Why should 'you' learn/use **Vulkan** ?
 - i. *Faster*
 - ii. *More Control*
 - iii. *Lower Level API*
3. Why is this Important?
 - Well if you are planning on becoming a game dev, then yeah, this kinda is important!
 - otherwise, if you are just here for **Creating Shaders**:- **OpenGL** is fine enough
 - a. **Shader Enthusiast**:- <https://www.shadertoy.com/>
 - a. <https://www.youtube.com/playlist?list=PL9Zb80ovNLWGRFZVL4LcckTWnEGN73dFS>
 - b. https://www.youtube.com/playlist?list=PLGmrMu-lwbguU_nY2egTFmlg691DN7uE5
 - c. <https://www.youtube.com/playlist?list=PLCAfZV4XjzP-jGbTke6Bd3PNDpP1AbIKo>
 - d. <https://www.youtube.com/playlist?list=PLGmrMu-lwbgtMxMiV3x4lrHPLPmg7FD-P>
 - e. https://www.youtube.com/watch?v=5J-0sy2pu_8&t=357s&pp=ygUVc2hhZGVyVG95IHJheW1hcmNoaW5n
 - f. <https://www.youtube.com/watch?v=kHbIXafu7iA&pp=ygUJc2hhZGVyVG95>
 - b. **Making an App/UI** :- doing everything with **OpenGL** -> would be just fine
 - a. [TheCherno OpenGL Playlist \[YT\]](#)
 - b. [TheCherno Game Engine Playlist \[YT\]](#)

4. When will I ****_need**** ``vulkan``?

kinda never -> **unless** you have grown tired of OpenGL

kinda yes -> **when** you wanna understand "How the heck does the GPU Work?"

but yes, Big **AAA** games would need ``vulkan`` for even that last **5-10%** performance

5. How does ``vulkan`` work?

- Rest of this entire guide is dedicated to answer this question 😊

2. grab **vulkan-sdk**, **cmake**, **amGHOST**

1. <https://vulkan.lunarg.com/sdk/home>
 - make sure **VULKAN_SDK** & **VK_SDK_PATH** environment variables are set

- restart vscode after installing
2. <https://cmake.org/download/>
 - [optional] <https://enccs.github.io/intro-cmake/hello-cmake/>
 - [optional] OR: Watch 6/7 videos from this playlist:- <https://www.youtube.com/playlist?list=PLK6MXr8gasrGmliSuVQXpfFuE1uPT615s>
 - restart vscode after installing
 3. if you don't have `vscode` & `C++ Compiler` --> see [4.guide.CH0.vscode.md](#)
 4. `git clone -b win32-intro https://github.com/REYNEP/amGHOST`
 - Open it with VSCode
 - `F1 --> CMake: Configure`
 - `F1 --> CMake: Build`
 - `F1 --> CMake: Install --> .install dir`
 - check's `amGHOST's Usage Example` inside `amGHOST/README.md`
 - `Option 1` :- use `cmake` for your project too.... using `add_subdirectory(amGHOST)`
 - `Option 2` :- use `libamGHOST.lib` after installing & `#include amGHOST/<header>`
 - just copy paste `amGHOST's Usage Example` into a `main.cpp` for your program
 - now you shall have a OS-Window 😊

