

Excellent Vulkan Examples

From Sascha Willems

Vulkan C++ Examples and Demos

Vulkan- The new generation graphics and compute API from Khronos

1. Contents

1. Shaders

2. Examples

1. Basics

2. glTF

3. Advanced

4. Performance

5. Physically Based Rendering

6. Deferred

7. Compute Shader

8. Geometry Shader

9. Tessellation Shader

10. Hardware accelerated ray tracing

11. Headless

12. User Interface

13. Effects

14. Extensions

15. Misc

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Shaders

1. How Vulkan use Shaders?

1. Vulkan consumes shaders in an intermediate representation called SPIR-V

1. What is intermediate representation?

1. Is a bytecode format as opposed to human-readable syntax like GLSL and HLSL.

2. The bytecode format is called SPIR-V

3. The bytecode format is a format that can used to write graphics and compute shaders

2. Why use the bytecode format called SPIR-V?

1. The compilers written by GPU vendors to turn shader code into native code are significantly less complex.

2. If you use human-readable syntax like GLSL, some GPU vendors may rejecting your code due to syntax errors, even may compiler bugs, use SPIR-V can avoided such errors.

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Shaders

1. How Vulkan use Shaders?
 3. How we write bytecode format shader?
 1. We don't need to write the bytecode format by hand, Khronos released a compiler can compiles GLSL to SPIR-V.
 2. You can include this compiler as a library to produce SPIR-V at runtime.
 3. We can use compiler like glslangValidator.exe
 4. We can use compiler like glslc.exe
 1. What is good for using glslc?
 1. Glslc uses the same parameter format as well-known compilers like GCC and Clang and includes some extra functionality like includes.
 5. glslangValidator.exe and glslc.exe are included in Vulkan SDK.